SUPPLEMENTAL RESTRAINT SYSTEM (SRS) (If electrical maintenance is required)

The Acura TL SRS includes a driver's airbag in the steering wheel hub, a passenger's airbag in the dashboard above the glove box, seat belt tensioners in the front seat belt retractors, side curtain airbags in the sides of the roof, and side airbags in the front seat-backs. Information necessary to safely service the SRS is included in this Service Manual. Items marked with an asterisk (*) on the contents page include or are located near SRS components. Servicing, disassembling, or replacing these items requires special precautions and tools, and should be done by an authorized Acura dealer.

- To avoid rendering the SRS inoperative, which could lead to personal injury or death in the event of a severe frontal or side collision, all SRS service work should be done by an authorized Acura dealer.
- Improper service procedures, including incorrect removal and installation of the SRS, could lead to personal injury caused by unintentional deployment of the airbags, side airbags, and/or side curtain airbags.
- Do not bump or impact the SRS unit, front impact sensors, side impact sensors, or rear safing sensor, especially when the ignition switch is in ON (II)/the ON mode, for at least 3 minutes after the ignition switch is turned to LOCK (0), or after the engine start/stop button is pressed to select the OFF mode; otherwise, the system may fail in a collision, or the airbags may deploy.
- SRS electrical connectors are identified by yellow color coding. Related components are located in the steering column, center console, dashboard, dashboard undercover, in the dashboard above the glove box, in the front seats, in the roof side, and around the floor. Do not use electrical test equipment on these circuits.

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Body Electrical

Body Electrical
Special Tools 22–2
General Troubleshooting Information . 22–3

Relay and Control Unit Locations
Engine Compartment 22–7
Dashboard 22–8
Door 22–13
Roof and Trunk 22–14
Seat 22–15

Connectors and Harnesses
Connector Index 22–16
Connector to Harness Index 22–18

Fuse/Relay Boxes
Connector to Fuse/Relay Box Index 22–68

Power Distribution
Fuse to Components Index 22–71

Ground Distribution
Ground to Components Index 22–78

Under-hood Fuse/Relay Box
Removal and Installation 22–80

Under-dash Fuse/Relay Box
* Driver's Under-dash Fuse/Relay Box (MICU) Removal and Installation 22–81
* Passenger's Under-dash Fuse/Relay Box (MICU) Removal and Installation 22–83

Battery
Battery Test 22–84
Battery Terminal Disconnection and Reconnection 22–86
Battery Removal and Installation 22–87

Relays
Power Relay Test 22–88

Ignition Switch
Component Location Index 22–91
Circuit Diagram 22–92
* Key Interlock System Circuit Troubleshooting 22–93
* Key Interlock Solenoid Test 22–95
Park Pin Switch Test 22–96
* Ignition Switch Test 22–96
* Ignition Switch Replacement 22–97

Multiplex Integrated Control System
Component Location Index 22–98
General Troubleshooting Information . 22–101
DTC Troubleshooting Index 22–104
System Description 22–112
Troubleshooting
B-CAN System Diagnosis Test Mode A 22–135
B-CAN System Diagnosis Test Mode B 22–137
B-CAN System Diagnosis Test Mode C 22–138
B-CAN System Diagnosis Test Mode D 22–139
B-CAN System Diagnosis Test Mode 1 and Test Mode 2 (without the HDS) 22–140
Sleep and Wake-up Mode Test 22–142
Circuit Diagram 22–144
DTC Troubleshooting 22–147
MICU Input Test 22–156

Keyless/Power Door Locks/Security System
Component Location Index 22–163
System Description 22–166
Circuit Diagram 22–168
DTC Troubleshooting 22–172
Symptom Troubleshooting 22–176
Control Unit Input Test 22–179
Door Lock Actuator Test 22–190
Door Lock Knob Switch Test 22–191
Door Key Cylinder Switch Test 22–192
Security Hood Switch Test 22–192
Trunk Lid Release Actuator Test 22–193
Keyless Buzzer Replacement 22–193
Transmitter Test 22–194
Tripped Sensor History 22–196

Horns
Component Location Index 22–197
Circuit Diagram 22–198
Horn Test/Replacement 22–199
* Horn Switch Test 22–199

Exterior Lights
Component Location Index 22–201
System Description 22–204
Circuit Diagram -
Headlights/Parking/Side Marker Lights/Taillights/License Plate Lights . 22–205
Back-up Lights 22–207
Brake Lights 22–208
Fog Lights 22–209
DTC Troubleshooting 22–211
HID Lamp System Troubleshooting ... 22–222
MICU Input Test 22–224
Combination Light Switch Test/Replacement 22–232
Headlight Adjustment 22–233
Headlight Replacement 22–234
HID Unit Replacement 22–235
HID Bulb Replacement 22–235

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Bulb Replacement 22–236
Fog Light Replacement 22–238
Fog Light Adjustment 22–238
Taillight Replacement 22–239
License Plate Light Replacement 22–239
High Mount Brake Light Replacement . 22–240
Brake Pedal Position Switch Test 22–240
Automatic Lighting Sensor Test/Replacement 22–241

Turn Signal/Hazard Warning Lights

Component Location Index 22–242
Circuit Diagram 22–244
DTC Troubleshooting 22–246
MICU Input Test 22–248
Hazard Warning Switch Test/Replacement 22–251
Front Turn Signal/Parking Light Replacement 22–251
Side Turn Signal Light Replacement ... 22–252

Interior Lights

Component Location Index 22–253
Circuit Diagram 22–256
Roof Console Input Test/Replacement . 22–260
Rear Individual Map Light Input Test/Replacement 22–262
Trunk Light Test/Replacement 22–264
Courtesy Light Replacement 22–264
Glove Box Light Replacement 22–265
Console Box Light Replacement 22–265
Vanity Mirror Light Test/Replacement . 22–266
Footwell Light Replacement 22–266
Trunk Lid Latch Switch Test 22–267

Dashlights Brightness Controller

Circuit Diagram 22–268
Dashlights Brightness Controller Test/Replacement 22–269

Entry Lights Control System

Component Location Index 22–270
Circuit Diagram 22–272
Control Unit Input Test 22–274
Ignition Key Switch Test 22–280
Ignition Key Light Test 22–280

Power Windows

Component Location Index 22–281
System Description 22–283
Resetting the Power Window Control Unit 22–284
Circuit Diagram 22–286
DTC Troubleshooting 22–289
Power Window Master Switch Input Test 22–298
Front Passenger's Power Window Switch Input Test 22–302
Driver's Power Window Motor Test 22–305
Front Passenger's Power Window Motor Test 22–306
Rear Power Window Motor Test 22–308
Rear Power Window Switch Test 22–309
Power Window Master Switch Replacement 22–309
Front Passenger's Power Window Switch Replacement 22–310
Rear Power Window Switch Replacement 22–310

Wipers/Washers

Component Location Index 22–311
Circuit Diagram 22–314
Headlight Washer 22–316
DTC Troubleshooting 22–317
MICU Input Test 22–323
Wiper/Washer Switch Test/Replacement 22–330
Wiper Motor Test 22–330
Washer Motor Test 22–331
Washer Fluid Level Switch Test 22–332
Wiper Motor Replacement 22–332
Washer Reservoir Replacement 22–334
Headlight Washer Switch Test/Replacement 22–335
Headlight Washer Nozzle Replacement 22–335
Wiper Blade Replacement 22–336
Wiper Arm/Nozzle Adjustment 22–337
Washer Tube Replacement 22–338

Gauges

Component Location Index 22–340
Self-diagnostic Function 22–342
Circuit Diagram 22–345
DTC Troubleshooting 22–349
Gauge Control Module Input Test 22–363
Rewriting the ODO Data and Transferring the Maintenance Minder Data to a New Gauge Control Module 22–366
Gauge Control Module Replacement .. 22–367
Outside Air Temperature Indicator Calibration 22–368
Select/Reset/Information Switch Test/Replacement 22–369

Reminder Systems

Component Location Index 22–370
Circuit Diagram 22–372
Control Unit Input Test 22–374

Moonroof

Component Location Index 22–381
Symptom Troubleshooting Index 22–382
Resetting the Moonroof Control Unit .. 22–383
Circuit Diagram 22–384
Moonroof Control Unit Input Test 22–385

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Moonroof Switch Test/Replacement ... 22–388

Accessory Power Sockets
Component Location Index 22–389
Circuit Diagram 22–390
Front Accessory Power Socket Test/Replacement 22–392
Console Accessory Power Socket Test/Replacement 22–394

Power Mirrors
Component Location Index 22–396
Power Mirror Actuator Test 22–397
Power Mirror Switch Test/Replacement 22–397
Power Mirror Actuator Replacement ... 22–398

HomeLink Remote Control System
Circuit Diagram 22–400
Test 22–401

Automatic Dimming Inside Mirror
Circuit Diagram 22–402
System Description 22–404
Test/Replacement 22–404

Trunk Lid Opener
Component Location Index 22–405
Circuit Diagram 22–406
Trunk Lid Opener Main Switch Test/Replacement 22–407
Trunk Lid Opener Switch Test/Replacement 22–407
Trunk Lid Spoiler Switch Test/Replacement 22–408

Fuel Fill Door Opener
Component Location Index 22–409
Circuit Diagram 22–410
Fuel Fill Door Opener Solenoid Test ... 22–411
Fuel Fill Door Opener Switch Test/Replacement 22–411

Power Seats
Component Location Index 22–412
Circuit Diagram - Front Passenger's Power Seat 22–413
Power Seat Adjustment Switch Test/Replacement 22–414
Front Passenger's Power Seat Motor Test 22–415

Power Lumbar Support
Component Location Index 22–416
Circuit Diagram 22–417
Switch Test/Replacement 22–418
Motor Test 22–418

Seat Heaters
Component Location Index 22–419
Circuit Diagram 22–422
Seat Heater Test 22–424
Switch Test/Replacement 22–425

Rear Window Defogger
Component Location Index 22–426
Circuit Diagram 22–427
Function Test 22–428
Defogger Wire Repair 22–429
Window Antenna Coil Replacement ... 22–429

Immobilizer System
Component Location Index 22–430
System Description 22–431
Circuit Diagram 22–432
DTC Troubleshooting 22–433
Symptom Troubleshooting Information 22–435
Symptom Troubleshooting 22–438
System Check 22–441
Status Log 22–443
Immobilizer-Keyless Control Unit Input Test 22–444
Immobilizer Key Registration 22–447
Immobilizer-Keyless Control Unit Replacement 22–448

Driving Position Memory System (DPMS)
Component Location Index 22–449
System Description 22–452
Circuit Diagram 22–454
Power Mirror 22–458
DTC Troubleshooting 22–461
Power Seat Control Unit Input Test/Replacement 22–492
Power Mirror Control Unit Input Test/Replacement 22–497
Door Multiplex Control Unit Input Test . 22–500
Driving Position Memory Switch Test/Replacement 22–503
Power Seat Adjustment Switch Test/Replacement 22–504
Driver's Power Seat Motor Test 22–505

Keyless Access System
Component Location Index 22–506
System Description 22–510
Circuit Diagram 22–514
General Troubleshooting Information . 22–521
DTC Troubleshooting 22–522
Symptom Troubleshooting Information 22–555
Symptom Troubleshooting Index 22–558
Symptom Troubleshooting 22–561
Keyless Buzzer Circuit Troubleshooting 22–599

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Touch Sensor Circuit Troubleshooting . 22–600
Door and Trunk LF Antenna Test 22–603
Interior LF Antenna Test 22–604
Control Unit Input Test 22–605
RF Unit 1 Replacement 22–616
RF Unit 2 Replacement 22–616
Front Interior LF Antenna
Replacement 22–617
Rear Interior LF Antenna Replacement . 22–617
Rear Shelf LF Antenna Replacement ... 22–618
Rear Bumper LF Antenna
Replacement 22–618
Engine Start/Stop Switch
Test/Replacement 22–619
Remote Slot Test/Replacement 22–619
Keyless Access System Mode Switch
Test/Replacement 22–620
Remote Test 22–621
Keyless Access System Registration ... 22–623

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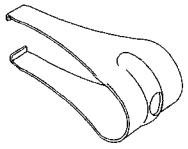
Special Tools

Ref.No.	Tool Number	Description	Qty
①	07AAC-000A1A0	Relay Puller	1
②	07AAJ-S3MA100	HID Bulb Test Light	1
③	07TAZ-001020A	Back Probe Adapter, 17 mm	2
④	07WAZ-001010A	MPCS (MCIC) Service Connector	1



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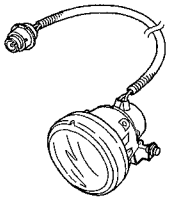

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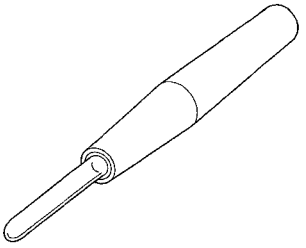

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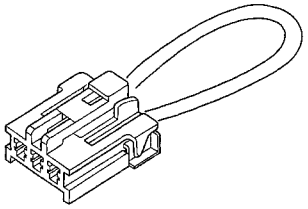

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General Troubleshooting Information

Tips and Precautions

Special Tools Required

Back Probe Adapter, 17 mm 07TAZ-001020A

Before Troubleshooting

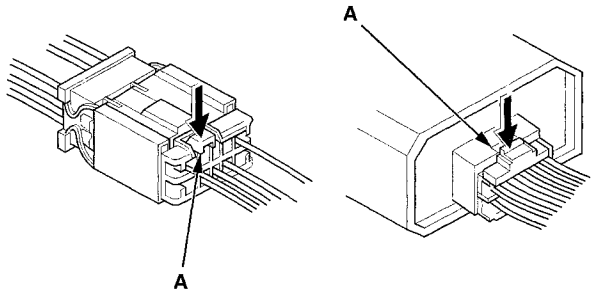
1. Check applicable fuses in the appropriate fuse/relay box.
2. Check the battery for damage, state of charge, and clean and tight connections.

NOTICE

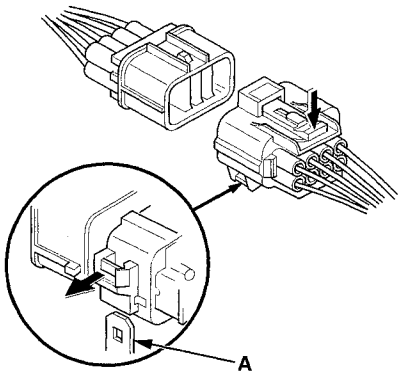
- Do not quick-charge a battery unless the battery ground cable has been disconnected, otherwise you will damage the alternator diodes.
- Do not attempt to crank the engine with the battery ground cable loosely connected or you will severely damage the wiring.

Handling Connectors

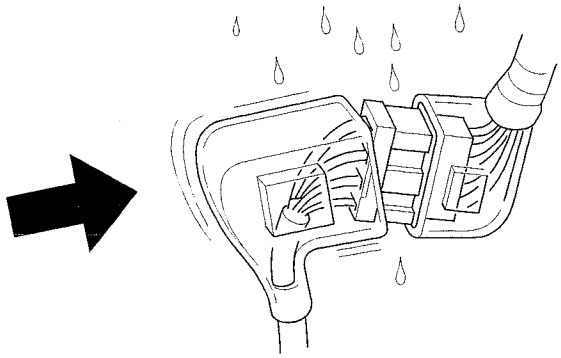
- Make sure the connectors are clean and have no loose wire terminals.
- Make sure multiple cavity connectors are packed with dielectric grease (except watertight connectors).
- All connectors have push-down release type locks (A).



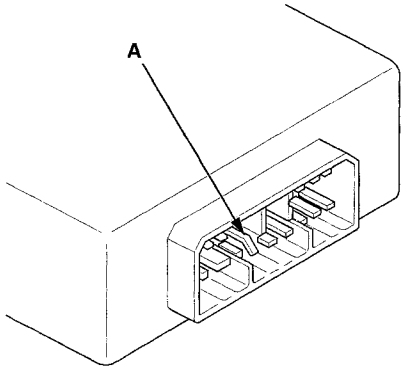
- Some connectors have a clip on their side used to attach them to a mount bracket on the body or on another component. This clip has a pull type lock.
- Some mounted connectors cannot be disconnected unless you first release the lock and remove the connector from its mount bracket (A).



- Never try to disconnect connectors by pulling on their wires; pull on the connector halves instead.
- Always reinstall plastic covers.



- Before connecting connectors, make sure the terminals (A) are in place and not bent.



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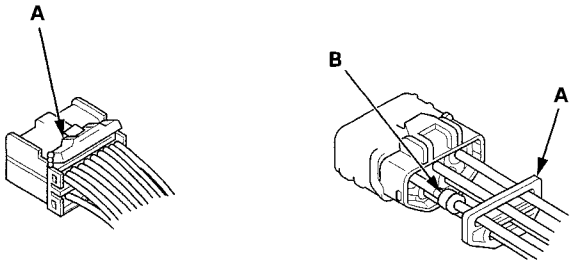
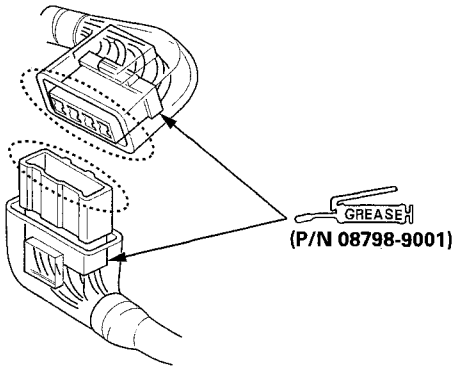
General Troubleshooting Information (cont'd)

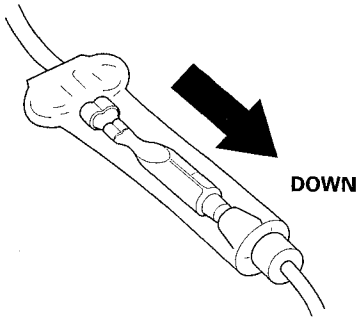
- Check for loose retainers (A) and rubber seals (B).



- The backs of some connectors are packed with dielectric grease. Add grease if necessary. If the grease is contaminated, replace it.

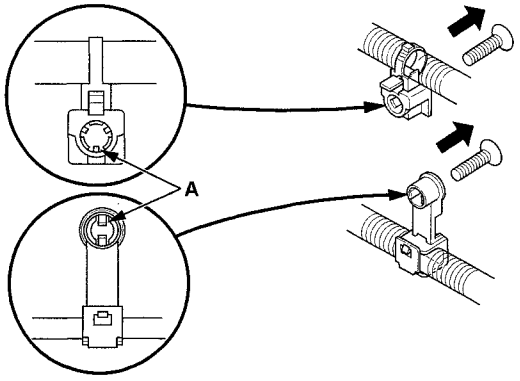


- Insert the connector all the way and make sure it is securely locked.
- Position wires so that the open end of the cover faces down.

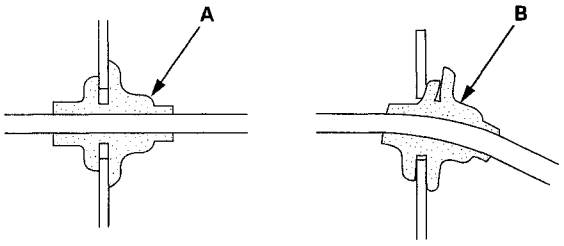


Handling Wires and Harnesses

- Secure wires and wire harnesses to the frame with their respective wire ties at the designated locations.
- Remove clips carefully; don't damage their locks (A).



- After installing harness clips, make sure the harness doesn't interfere with any moving parts.
- Keep wire harnesses away from exhaust components and other hot parts, from sharp edges of brackets and holes, and from exposed screws and bolts.
- Seat grommets in their grooves properly (A). Do not leave grommets distorted (B).



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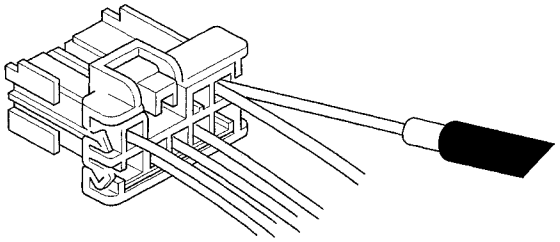
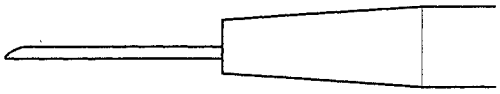
Testing and Repairs

- Do not use wires or harnesses with broken insulation. Replace them or repair them by wrapping the break with electrical tape or shrink tubing.
- Never attempt to modify, splice, or repair SRS wiring. If there is an open or damage in SRS wiring or terminals, replace the harness.
- After installing parts, make sure that no wires are pinched under them.
- When using electrical test equipment, follow the manufacturer's instructions and those described in this manual.
- If possible, insert the probe of the tester from the wire side (except waterproof connector).



- Use back probe adapter, 17 mm 07TAZ-001020A.



- Refer to the instructions in the Honda Terminal Kit for identification and replacement of connector terminals.

Five-step Troubleshooting

1. Verify The Complaint:

   Turn on all the components in the problem circuit to verify the client complaint. Note the symptoms. Do not begin disassembly or testing until you have narrowed down the problem area.

2. Analyze The Schematic:

   Look up the schematic for the problem circuit. Determine how the circuit is supposed to work by tracing the current paths from the power feed through the circuit components to ground. If several circuits fail at the same time, the fuse or a ground is a likely cause.

   Based on the symptoms and your understanding of the circuit operation, identify one or more possible causes of the problem.

3. Isolate The Problem By Testing The Circuit:

   Make circuit tests to check the diagnosis you made in step 2. Keep in mind that a logical, simple procedure is the key to efficient troubleshooting. Test for the most likely cause of failure first. Try to make tests at points that are easily accessible.

4. Fix The Problem:

   Once the specific problem is identified, make the repair. Be sure to use proper tools and safe procedures.

5. Make Sure The Circuit Works:

   Turn on all components in the repaired circuit in all modes to make sure you've fixed the entire problem. If the problem was a blown fuse, be sure to test all of the circuits on the fuse. Make sure no new problems turn up and the original problem does not recur.

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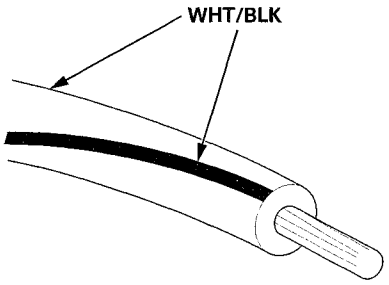
General Troubleshooting Information (cont'd)

Wire Color Codes

The following abbreviations are used to identify wire colors in the circuit schematics:

WHT	White
YEL	Yellow
BLK	Black
BLU	Blue
GRN	Green
RED	Red
ORN	Orange
PNK	Pink
BRN	Brown
GRY	Gray
PUR	Purple
TAN	Tan
LT BLU	Light Blue
LT GRN	Light Green

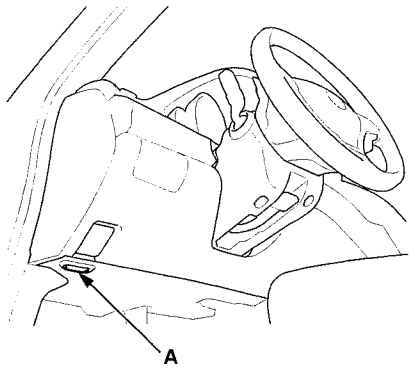
The wire insulation has one color or one color with another color stripe. The second color is the stripe.



How to Check for DTCs with the Honda Diagnostic System (HDS)

NOTE: For specific operations, refer to the user's manual that came with the Honda Diagnostic System (HDS). Make sure the HDS is loaded with the latest software.

1. Connect the HDS to the data link connector (DLC) (A) located under the driver's side of the dashboard.



2. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
3. Make sure the HDS communicates with the vehicle, if it doesn't, troubleshoot the DLC circuit (see page 11-258).
4. Enter the BODY ELECTRICAL then select the desired MODE menu.
5. Check for DTCs with the HDS.

   NOTE: If the DTCs do not pertain to the selected menu, select the All DTC Check icon to view all Body DTCs.

6. If any DTCs are indicated, note them, and go to the indicated DTC troubleshooting.

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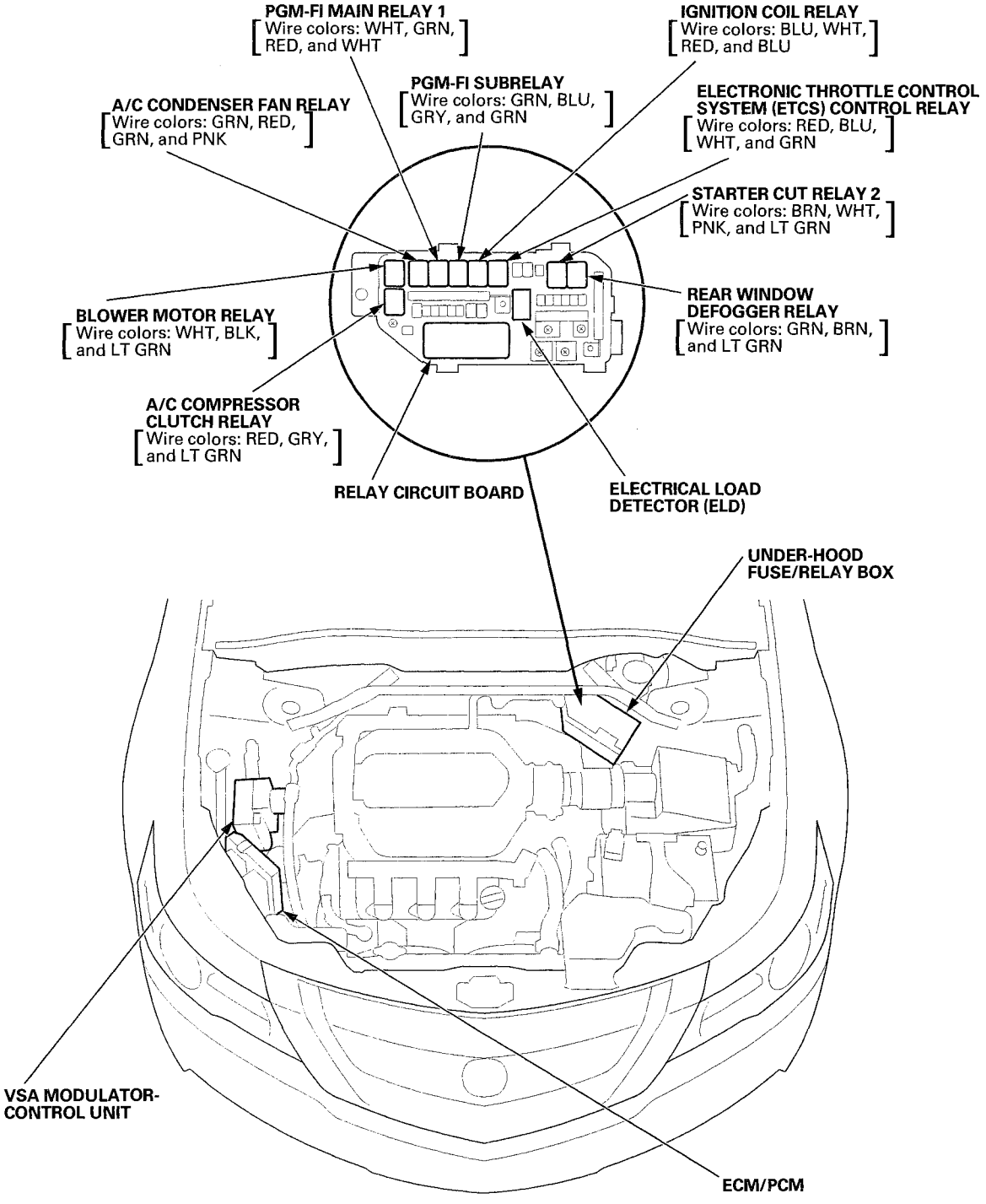
Relay and Control Unit Locations

Engine Compartment



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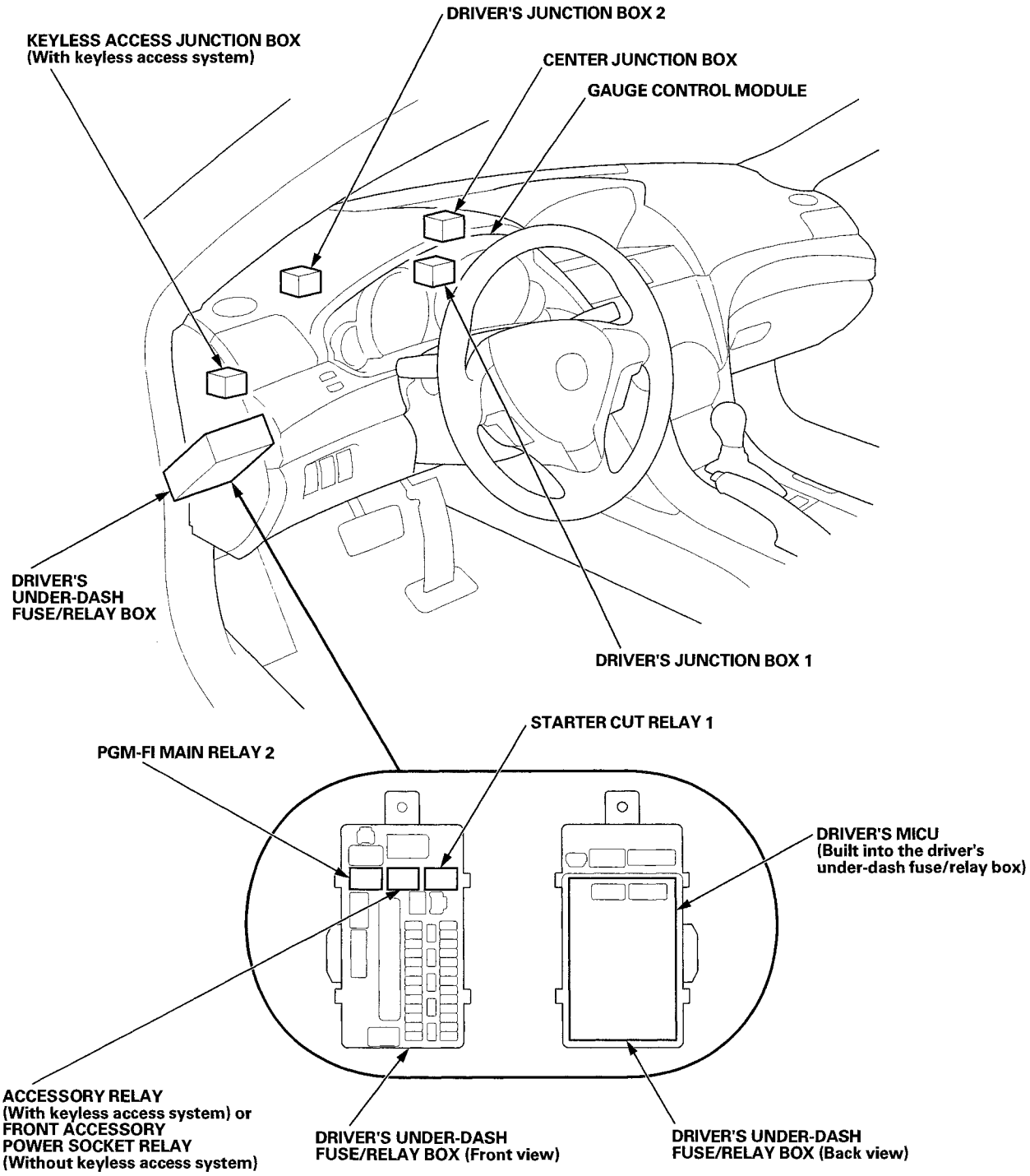
Relay and Control Unit Locations

Dashboard



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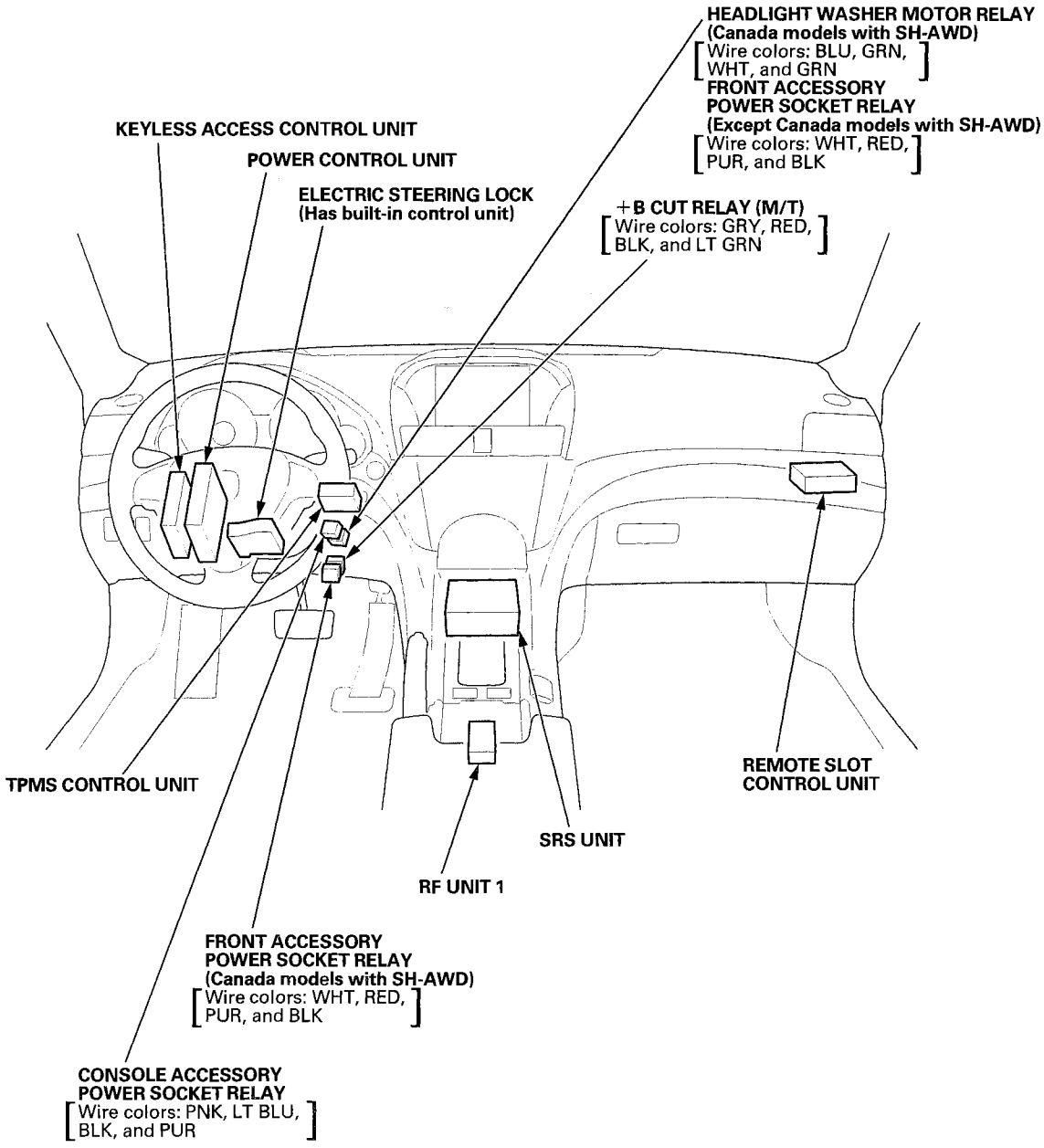
With Keyless Access System



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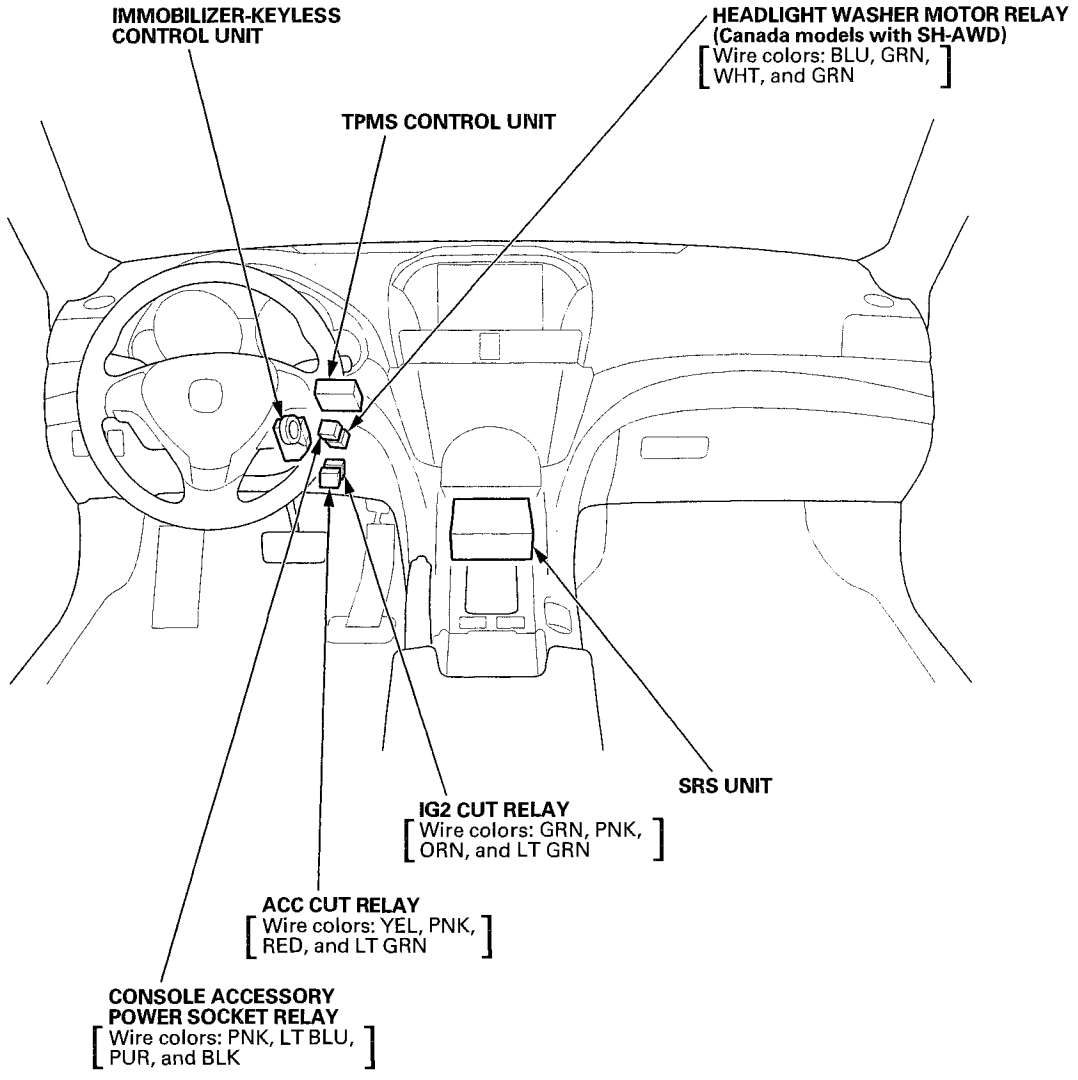
Relay and Control Unit Locations

Dashboard (cont'd)

Without Keyless Access System



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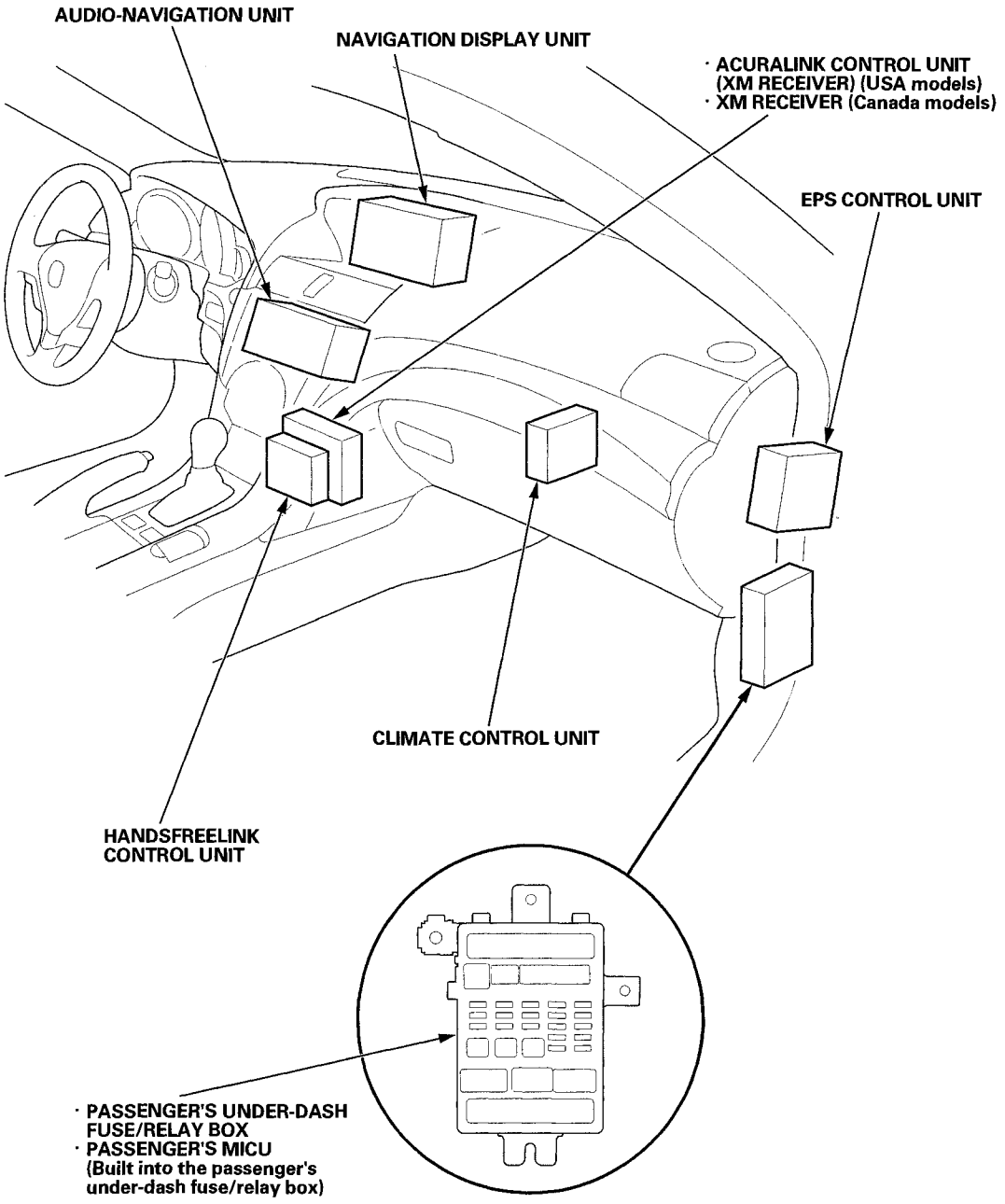
With Navigation System



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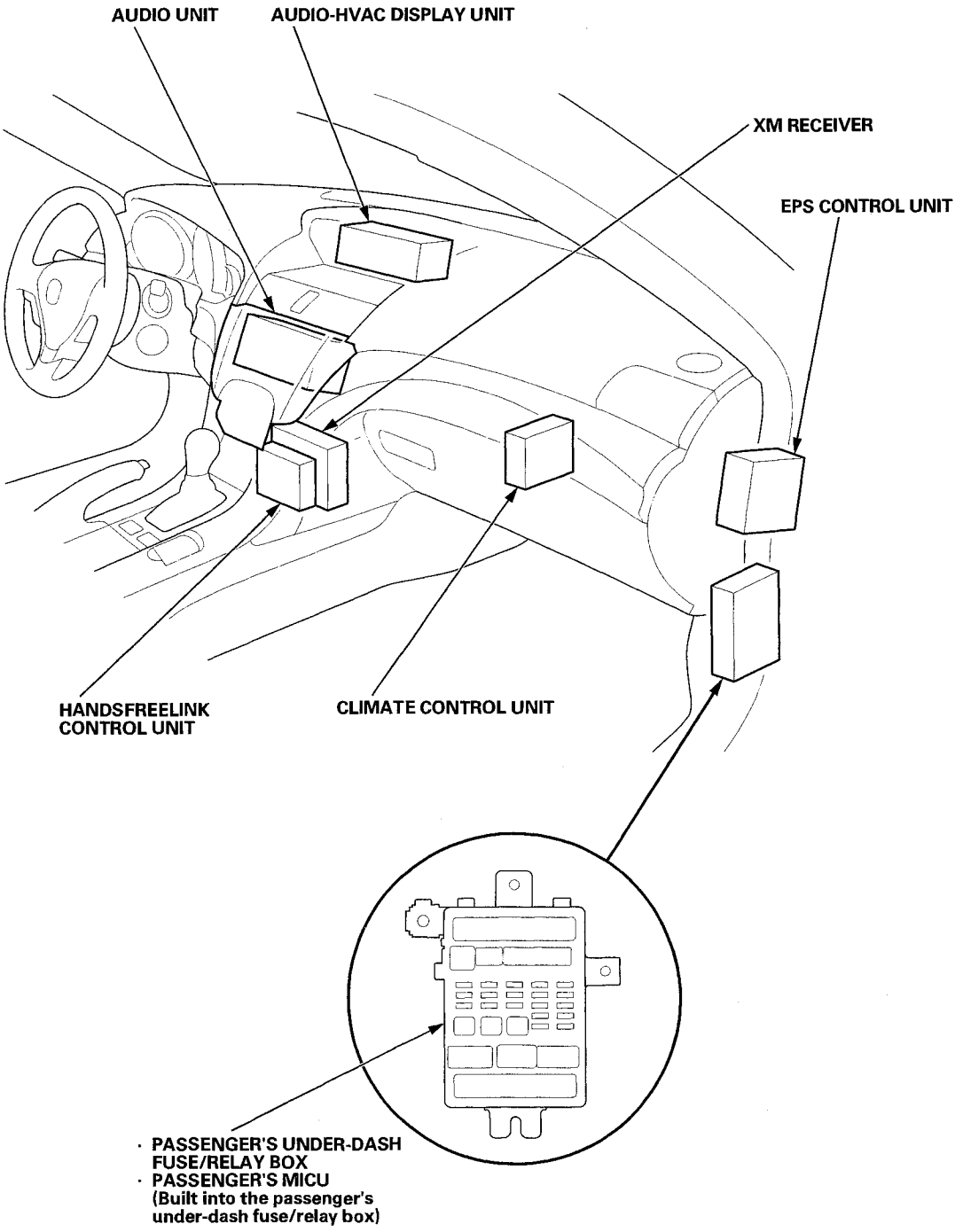
Relay and Control Unit Locations

Dashboard (cont'd)

Without Navigation System



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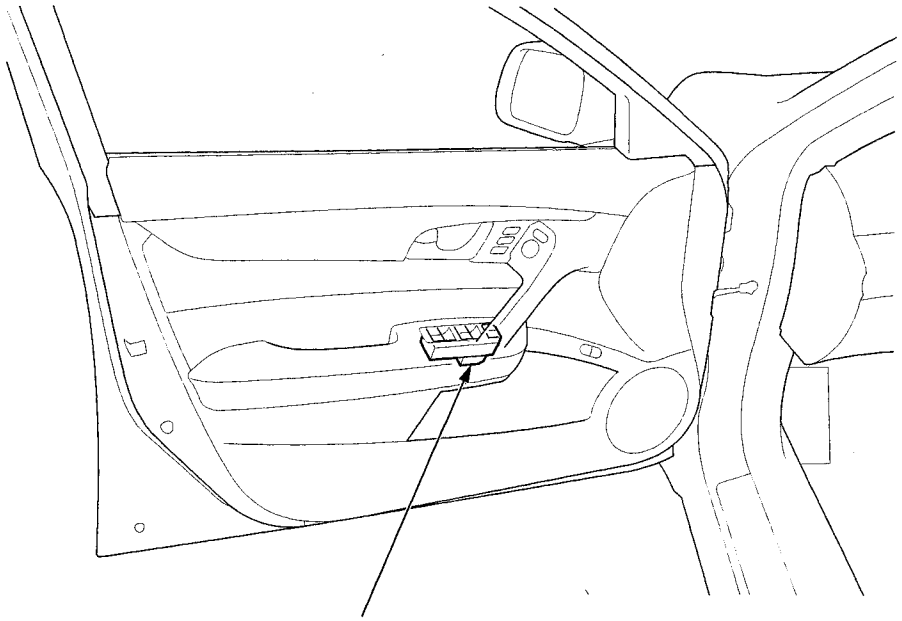
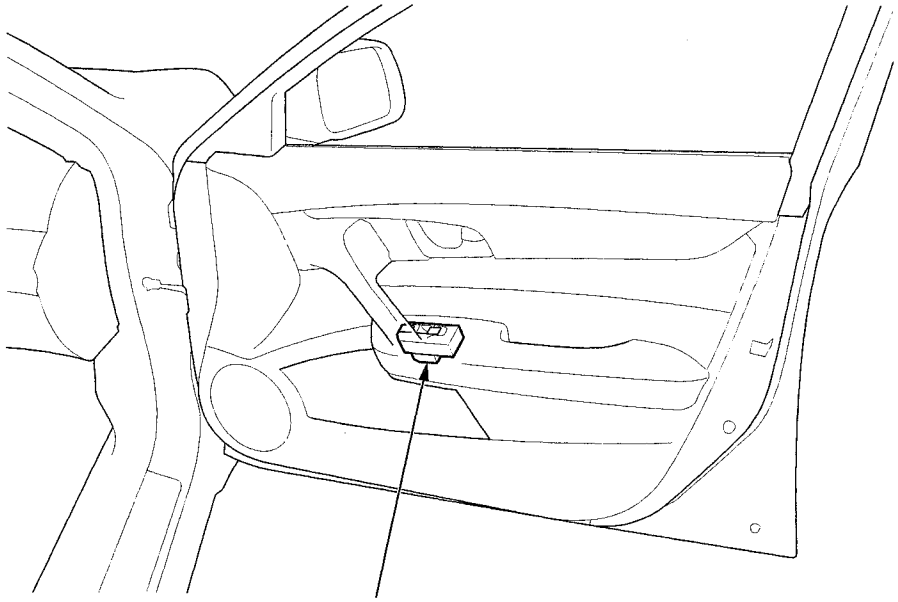
Door

Driver's Door



DOOR MULTIPLEX CONTROL UNIT
(Built into the power window master switch)

Front Passenger's Door



FRONT PASSENGER'S
POWER WINDOW SWITCH
(Has built-in control unit)

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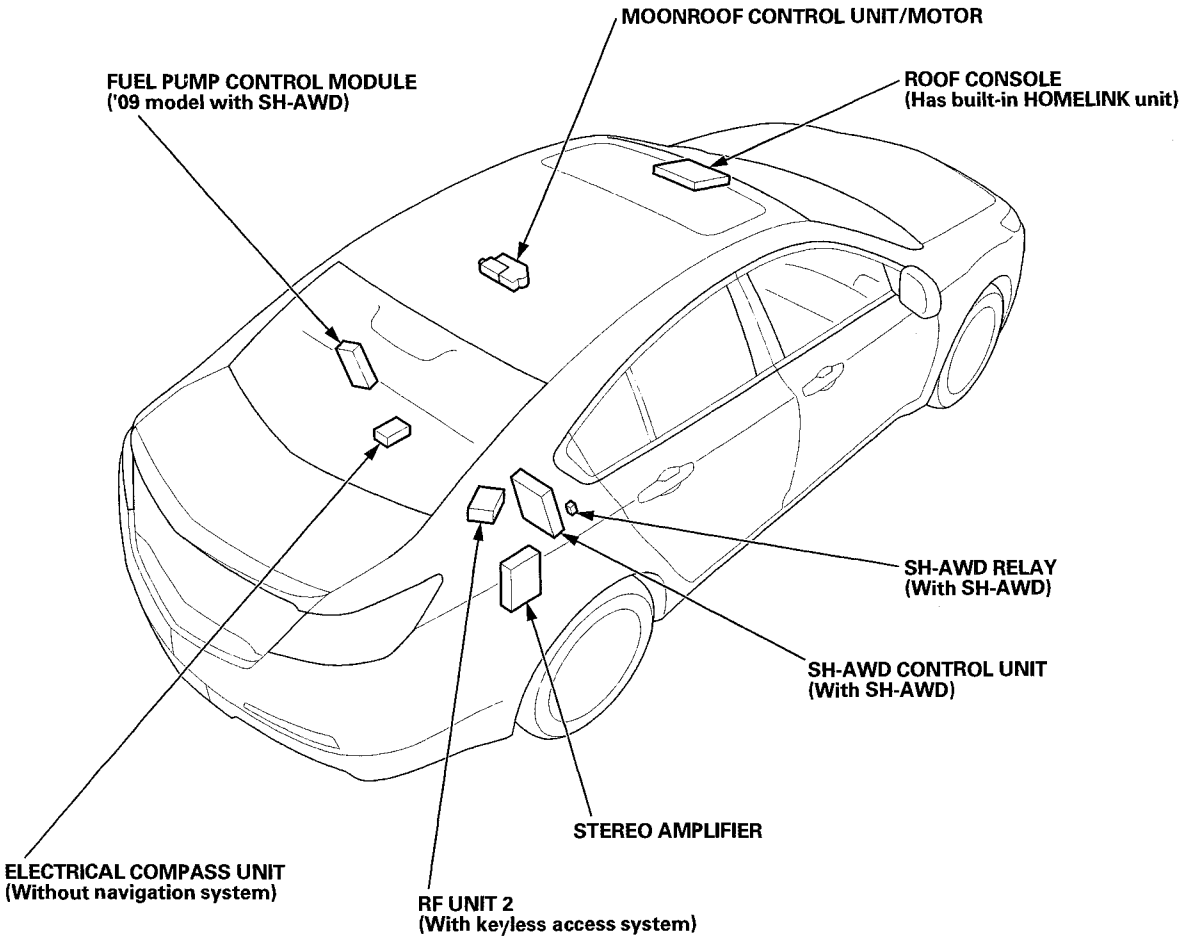
Relay and Control Unit Locations

Roof and Trunk



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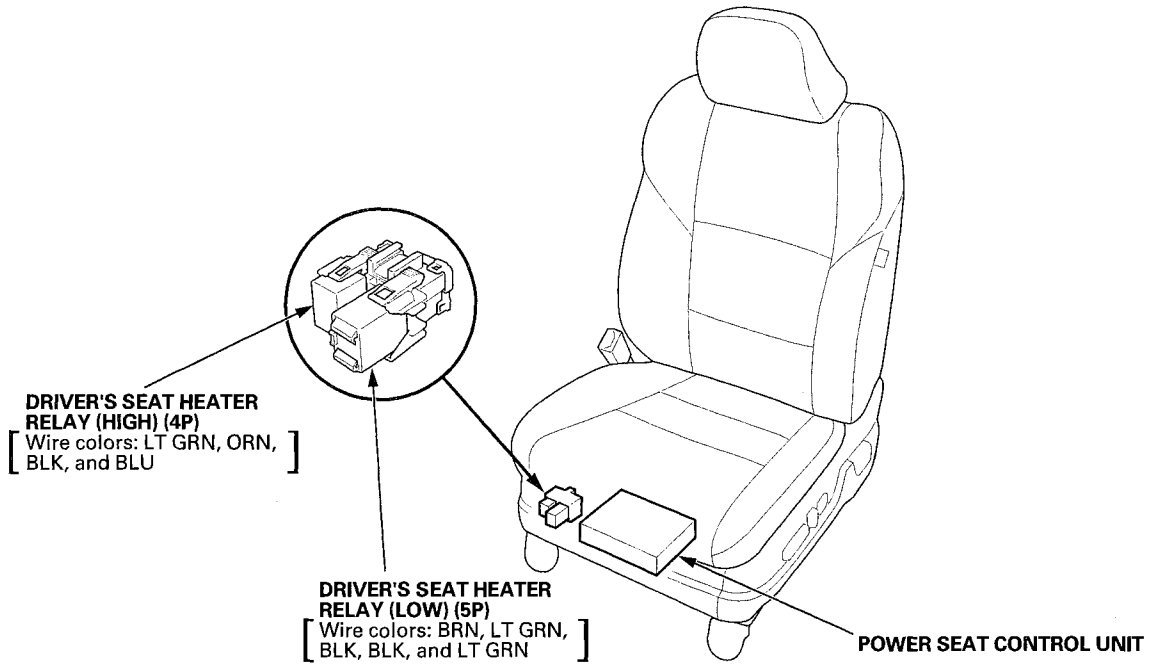
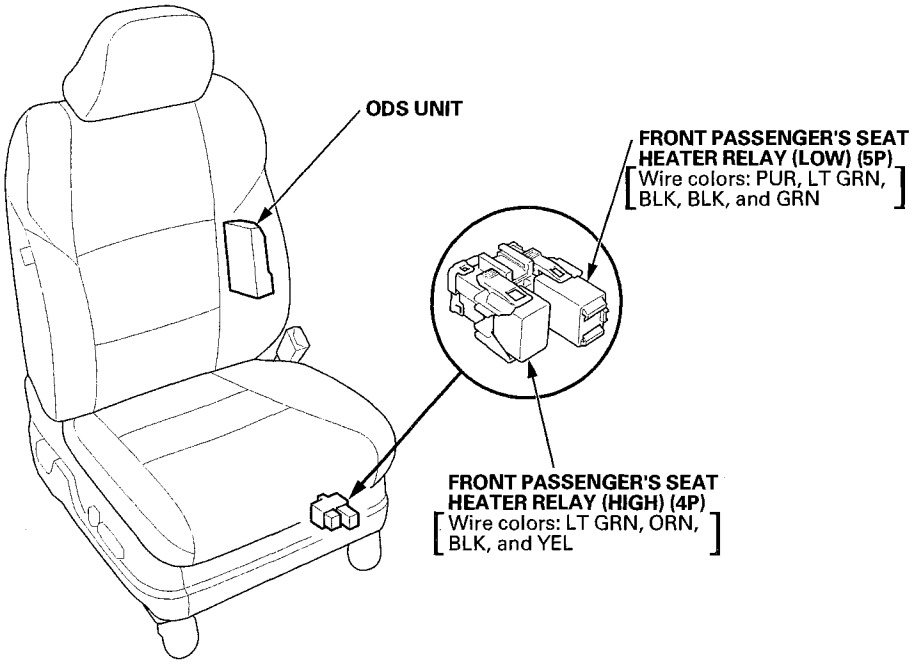
Seat

Driver's Seat



Front Passenger's Seat



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Connector Index

Identification numbers have been assigned to in-line connectors, junction connectors, and terminals. The number is preceded by the letter "C" for connectors, "G" for ground terminals, or "T" for non-ground terminals.

Harness	Location			
	Engine Compartment	Dashboard	Others (Floor, Door, Trunk, and Roof)	Notes
A/C wire harness		C205, C301, C302, C403, C501		Connector to Harness (see page 22-65)
Audio wire harness		C406, C407, C501 through C510 G501, G502		Connector to Harness (see page 22-44)
Battery ground cable	(−), G1			• M/T: (see page 22-18) • A/T: (see page 22-19)
Cable reel subharness			T9	Connector to Harness (see page 22-64)
Console subharness			C405	Connector to Harness (see page 22-42)
Dashboard wire harness (View of driver's side)		C304, C305, C306, C401, C402, C751, C752 G401, G402		Connector to Harness (see page 22-36)
Dashboard wire harness (View of middle to passenger's side)		C206, C207, C208, C403, C406 through C411, C761 G403, G405	C404, C405 G404	Connector to Harness (see page 22-40)
Driver's door subharness			C753, C754, C756	Connector to Harness (see page 22-57)
Driver's door wire harness		C751, C752	C753, C754, C755	Connector to Harness (see page 22-57)
Driver's seat wire harness			C701	Connector to Harness (see page 22-62)
Engine ground cable	T1, G2			• M/T: (see page 22-18) • A/T: (see page 22-19)
Engine wire harness (Transmission section)	C108 (A/T)			• M/T: (see page 22-28) • A/T: (see page 22-29)
Engine wire harness (Engine section)	C101 through C107 T4, T102 G101			• M/T: (see page 22-20) • A/T: (see page 22-24)
EPS subharness	C202, C203 T6, T7, T8			Connector to Harness (see page 22-66)
Front passenger's door wire harness		C761	C762	Connector to Harness (see page 22-59)
Front passenger's seat wire harness			C702	Connector to Harness (see page 22-63)
Knock sensor subharness	C104			• M/T: (see page 22-22) • A/T: (see page 22-26)
Left engine compartment wire harness (Dashboard branch)		C301 through C307 G302		Connector to Harness (see page 22-32)
Left engine compartment wire harness (Engine compartment branch)	C101, C102, C201 G301			Connector to Harness (see page 22-30)
Left rear door wire harness			C771	Connector to Harness (see page 22-60)
Left side wire harness (Without SH-AWD)		C303, C401	C601, C771 G601, G602, G603	Connector to Harness (see page 22-46)

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Harness	Location			
	Engine Compartment	Dashboard	Others (Floor, Door, Trunk, and Roof)	Notes
Left side wire harness (With SH-AWD)		C303, C401	C601, C602, C771 G601, G602, G603	Connector to Harness (see page 22-48)
Moonroof subharness			C451	Connector to Harness (see page 22-56)
Rear differential subharness (With SH-AWD)			C652, C653 T10	Connector to Harness (see page 22-67)
Rear window defogger ground wire			G801	Without SH-AWD: (see page 22-52) With SH-AWD: (see page 22-54)
Right engine compartment wire harness	C201, C202, C203 G201, G202	C204 through C208 G203, G204		Connector to Harness (see page 22-34)
Right rear door wire harness			C781	Connector to Harness (see page 22-61)
Right side wire harness (Without SH-AWD)		C410, C411, C509, C510	C601, C781, G651, G653	Connector to Harness (see page 22-52)
Right side wire harness (With SH-AWD)		C410, C411, C509, C510	C601, C602, C651, C652, C653, C781 G651, G652, G653	Connector to Harness (see page 22-54)
Roof wire harness			C402, C451	Connector to Harness (see page 22-56)
Shift solenoid wire harness (A/T)	C108			Connector to Harness (see page 22-29)
SRS floor wire harness			C404, C701, C702 G701, G702	Connector to Harness (see page 22-50)
Starter cable	(+), T3, T101			• M/T: (see page 22-18) • A/T: (see page 22-19)
Transmission ground cable	T2, G3			• M/T: (see page 22-18) • A/T: (see page 22-19)

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Connector to Harness Index

Battery Ground Cable (M/T)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
(−)	3		Left side of engine compartment	Battery negative terminal	
G1	4		Left side of engine compartment	Body ground, via battery ground cable	

Engine Ground Cable (M/T)

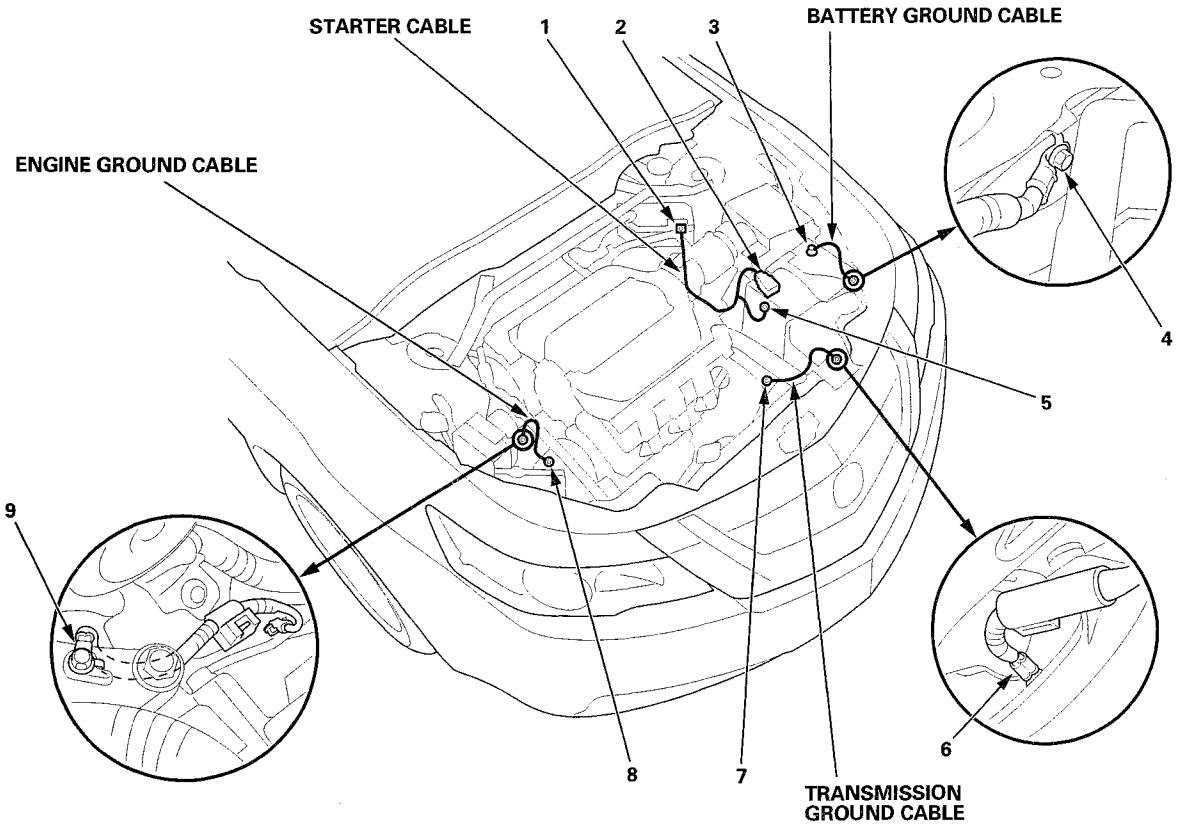
Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
T1	8		Right side of engine compartment	Engine	
G2	9		Right side of engine compartment	Body ground, via engine ground cable	

Transmission Ground Cable (M/T)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
T2	7		Left side of engine compartment	Transmission housing	
G3	6		Left side of engine compartment	Body ground, via transmission ground cable	

Starter Cable (M/T)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
T3	5		Left side of engine compartment	Starter motor	
T101	1		Left side of engine compartment	Under-hood fuse/relay box	
(+)	2		Left side of engine compartment	Battery positive terminal	



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Battery Ground Cable (A/T)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
(−)	4		Left side of engine compartment	Battery negative terminal	
G1	5		Left side of engine compartment	Body ground, via battery ground cable	

Engine Ground Cable (A/T)

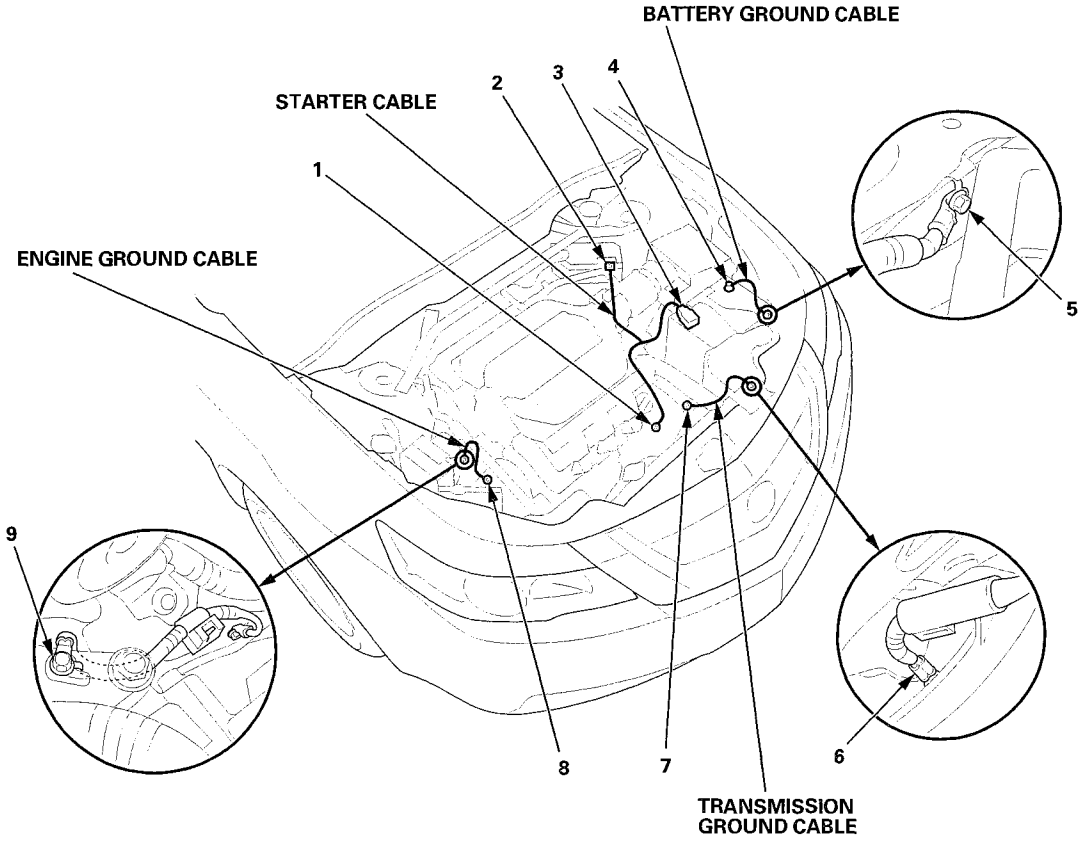
Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
T1	8		Right side of engine compartment	Engine	
G2	9		Right side of engine compartment	Body ground, via engine ground cable	

Transmission Ground Cable (A/T)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
T2	7		Left side of engine compartment	Transmission housing	
G3	6		Left side of engine compartment	Body ground, via transmission ground cable	

Starter Cable (A/T)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
T3	1		Left side of engine compartment	Starter motor	
T101	2		Left side of engine compartment	Under-hood fuse/relay box	
(+)	3		Left side of engine compartment	Battery positive terminal	



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Connector to Harness Index (cont'd)

Engine Wire Harness (Engine section) (M/T)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
A/C compressor clutch	30	1	Right side of engine compartment		
Alternator	31	4	Middle of engine compartment		
CKP sensor	13	3	Left side of engine		
CMP sensor	36	3	Right side of engine		
ECM connector B	37	49	Right side of engine compartment		
ECM connector C	38	49	Right side of engine compartment		
Engine coolant temperature (ECT) sensor 1	23	2	Left side of engine		
Engine mount control solenoid	11	2	Left side of engine compartment		
Engine oil pressure switch	41	1	Right side of engine compartment		
EVAP canister purge valve	10	2	Left side of engine compartment		
Exhaust gas recirculation (EGR) valve and position sensor	24	5	Left side of engine compartment		
Front A/F sensor (Bank 2, Sensor 1)	28	6	Exhaust manifold (front bank)		
Ignition coil No. 1	3	3	Middle of engine		
Ignition coil No. 2	5	3	Middle of engine		
Ignition coil No. 3	8	3	Middle of engine		
Ignition coil No. 4	34	3	Middle of engine		
Ignition coil No. 5	29	3	Middle of engine		
Ignition coil No. 6	27	3	Middle of engine		
Injector No. 1	2	2	Middle of engine		
Injector No. 2	4	2	Middle of engine		
Injector No. 3	7	2	Middle of engine		
Injector No. 4	35	2	Middle of engine		
Injector No. 5	32	2	Middle of engine		
Injector No. 6	25	2	Middle of engine		
Intake manifold tuning (IMT) actuator	1	5	Middle of engine		
Manifold absolute pressure (MAP) sensor	14	3	Left side of engine compartment		
Mass air flow (MAF) sensor/Intake air temperature (IAT) sensor	17	5	Left side of engine compartment		
Rear A/F sensor (Bank 1, Sensor 1)	9	6	Exhaust manifold (rear bank)		
Rear secondary heated oxygen sensor (secondary HO2S) (Bank 1, Sensor 2)	12	4	Exhaust manifold (rear bank)		
Reverse lockout solenoid	22	2	Left side of engine compartment		
Rocker arm oil control solenoid	40	1	Right side of engine		
Rocker arm oil pressure switch	42	2	Right side of engine		
Throttle position sensor/Throttle actuator	15	6	Left side of engine compartment		

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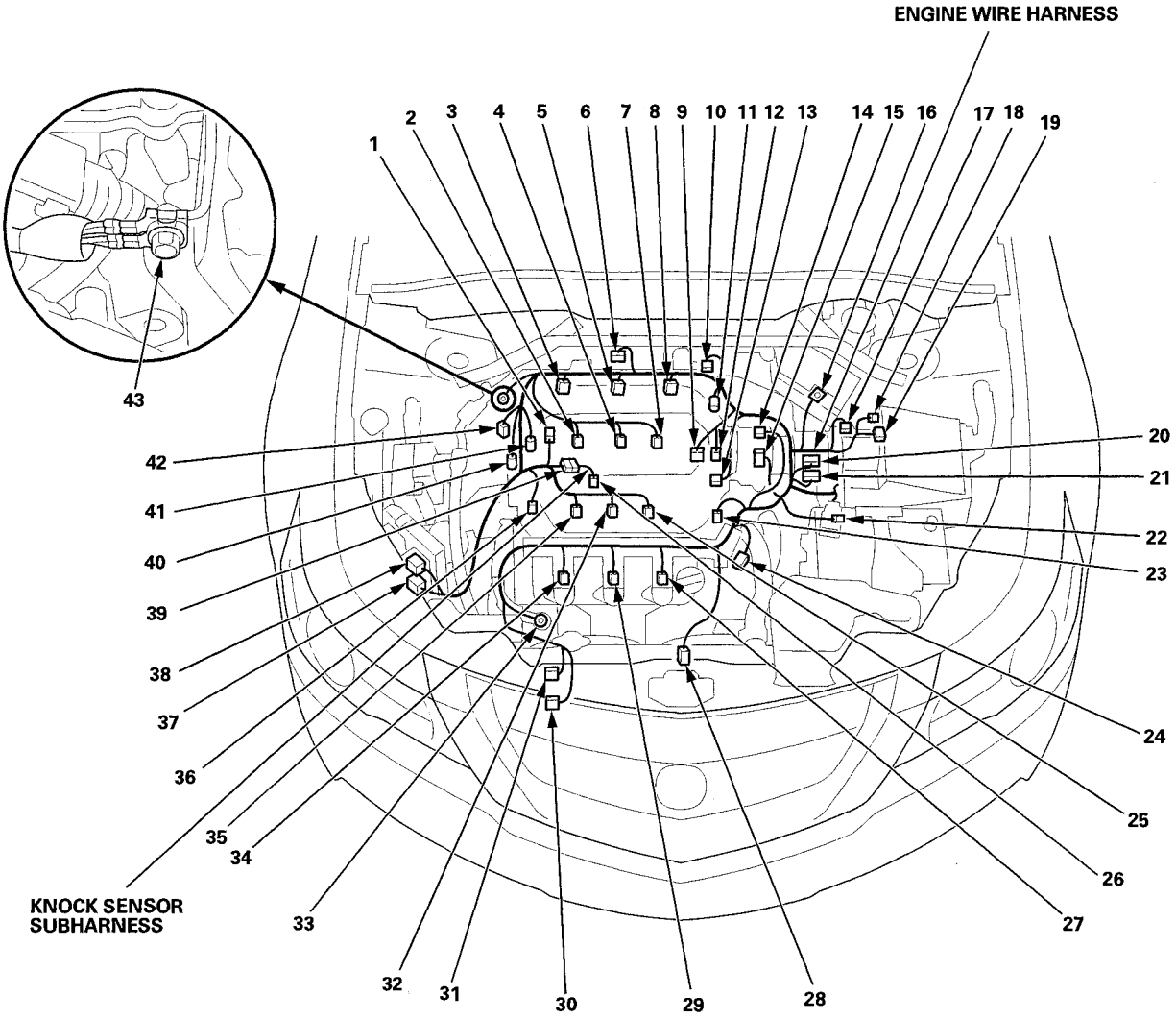

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Connector to Harness Index (cont'd)

Engine Wire Harness (Engine section) (M/T)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
C101	19	13	Left side of engine compartment	Left engine compartment wire harness (Engine compartment branch)	
C102	18	1	Left side of engine compartment	Left engine compartment wire harness (Engine compartment branch)	
C103 (junction connector)	6	24	Middle of engine compartment		
C104	39	1	Middle of engine	Knock sensor subharness	
C106 (junction connector)	20	24	Left side of engine compartment		
C107 (junction connector)	21	24	Left side of engine compartment		
T4	33		Right side of engine compartment	Alternator +B terminal	
T102	16		Left side of engine compartment	Under-hood fuse/relay box	
G101	43		Middle of engine compartment	Body ground, via engine wire harness	

Knock Sensor Subharness (M/T)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Knock sensor	26	1	Middle of engine		
C104	39	1	Middle of engine	Engine wire harness (Engine section)	

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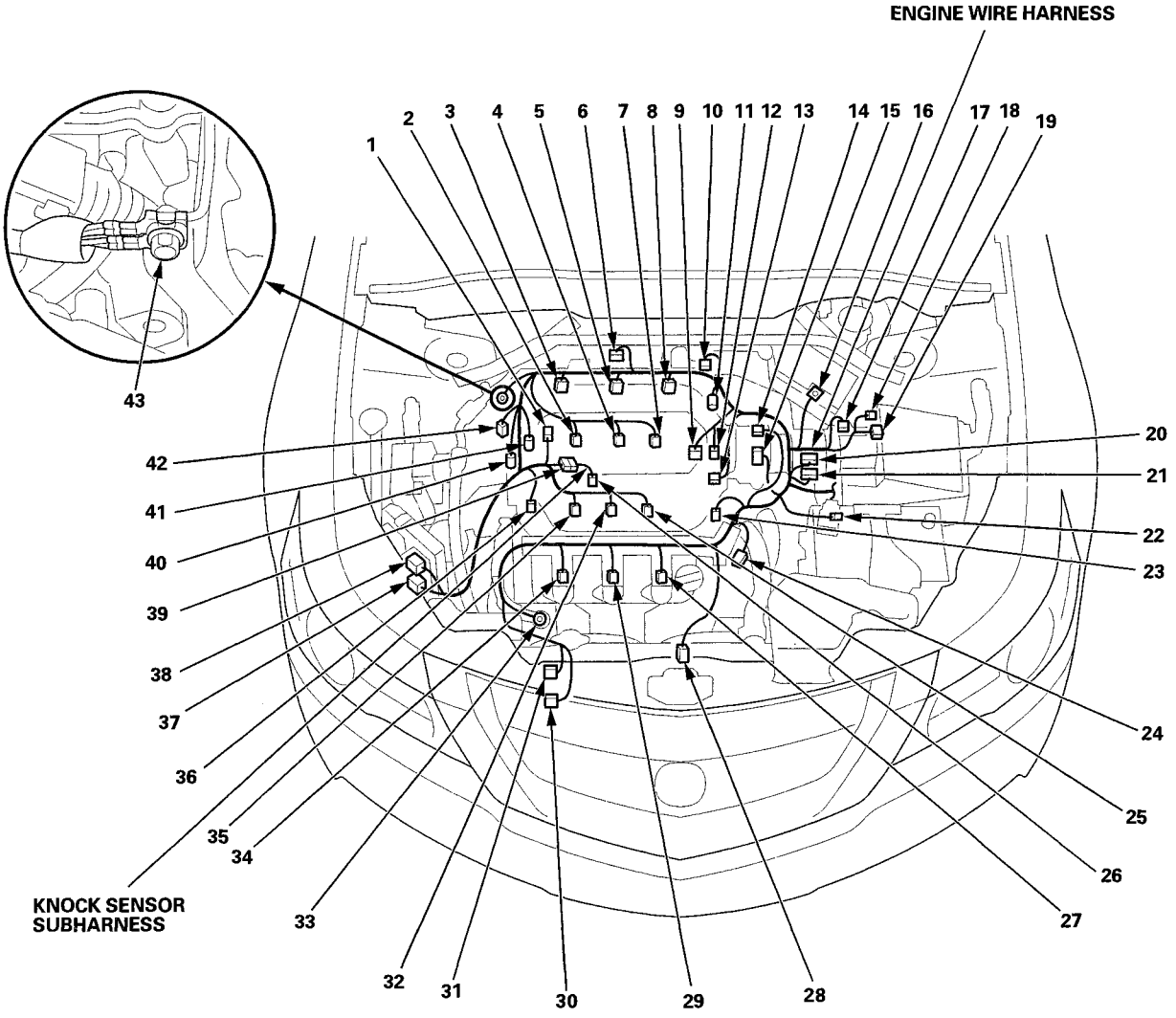

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Connector to Harness Index (cont'd)

Engine Wire Harness (Engine section) (A/T)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
A/C compressor clutch	33	1	Right side of engine compartment		
A/T clutch pressure control solenoid valve C	24	2	Transmission housing		
Alternator	34	4	Middle of engine compartment		
CKP sensor	13	3	Left side of engine		
CMP sensor	39	3	Right side of engine		
Engine coolant temperature (ECT) sensor 1	25	2	Left side of engine		
Engine mount control solenoid	11	2	Left side of engine compartment		
Engine oil pressure switch	44	1	Right side of engine compartment		
EVAP canister purge valve	10	2	Left side of engine compartment		
Exhaust gas recirculation (EGR) valve and position sensor	26	5	Left side of engine compartment		
Front A/F sensor (Bank 2, Sensor 1)	31	6	Exhaust manifold (front bank)		
Front secondary heated oxygen sensor (secondary HO2S) (Bank 2, Sensor 2)	30	4	Exhaust manifold (front bank)		
Ignition coil No. 1	3	3	Middle of engine		
Ignition coil No. 2	5	3	Middle of engine		
Ignition coil No. 3	8	3	Middle of engine		
Ignition coil No. 4	37	3	Middle of engine		
Ignition coil No. 5	32	3	Middle of engine		
Ignition coil No. 6	29	3	Middle of engine		
Injector No. 1	2	2	Middle of engine		
Injector No. 2	4	2	Middle of engine		
Injector No. 3	7	2	Middle of engine		
Injector No. 4	38	2	Middle of engine		
Injector No. 5	35	2	Middle of engine		
Injector No. 6	27	2	Middle of engine		
Intake manifold tuning (IMT) actuator	1	5	Middle of engine		
Manifold absolute pressure (MAP) sensor	15	3	Left side of engine compartment		
Mass air flow (MAF) sensor/Intake air temperature (IAT) sensor	18	5	Left side of engine compartment		
PCM connector B	40	49	Right side of engine compartment		
PCM connector C	41	49	Right side of engine compartment		
Rear A/F sensor (Bank 1, Sensor 1)	9	6	Exhaust manifold (rear bank)		
Rear secondary heated oxygen sensor (secondary HO2S) (Bank 1, Sensor 2)	12	4	Exhaust manifold (rear bank)		
Rocker arm oil control solenoid	43	1	Right side of engine		
Rocker arm oil pressure switch	45	2	Right side of engine		
Throttle position sensor/Throttle actuator	16	6	Left side of engine compartment		
Transmission fluid pressure switch A (2nd clutch)	14	1	Transmission housing		

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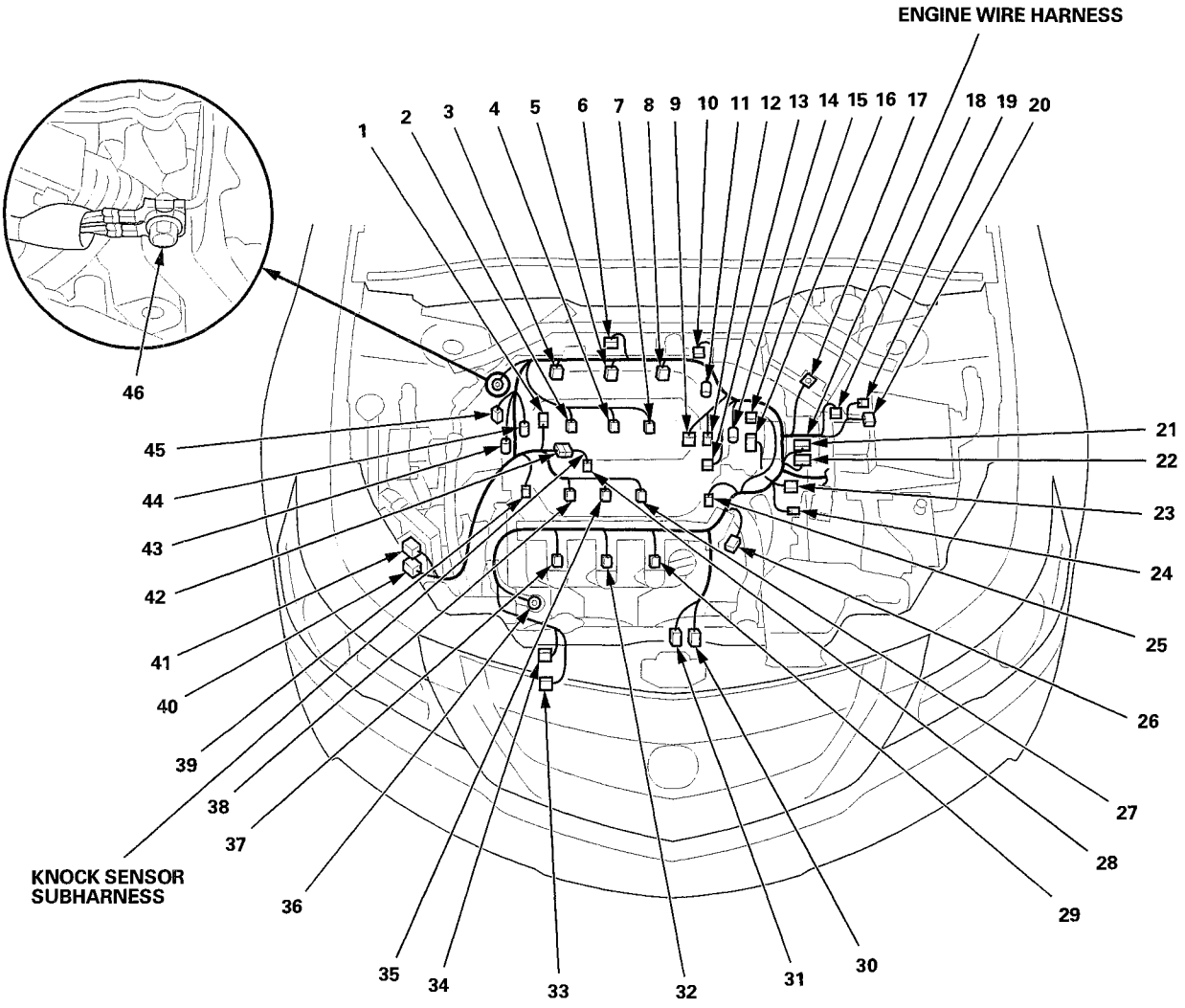

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Connector to Harness Index (cont'd)

Engine Wire Harness (Engine section) (A/T)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
C101	20	13	Left side of engine compartment	Left engine compartment wire harness (Engine compartment branch)	
C102	19	1	Left side of engine compartment	Left engine compartment wire harness (Engine compartment branch)	
C103 (junction connector)	6	24	Middle of engine compartment		
C104	42	1	Middle of engine	Knock sensor subharness	
C105 (junction connector)	23	12	Left side of engine compartment		
C106 (junction connector)	21	24	Left side of engine compartment		
C107 (junction connector)	22	24	Left side of engine compartment		
T4	36		Right side of engine compartment	Alternator +B terminal	
T102	17		Left side of engine compartment	Under-hood fuse/relay box	
G101	46		Middle of engine compartment	Body ground, via engine wire harness	

Knock Sensor Subharness (A/T)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Knock sensor	28	1	Middle of engine		
C104	42	1	Middle of engine	Engine wire harness (Engine section)	

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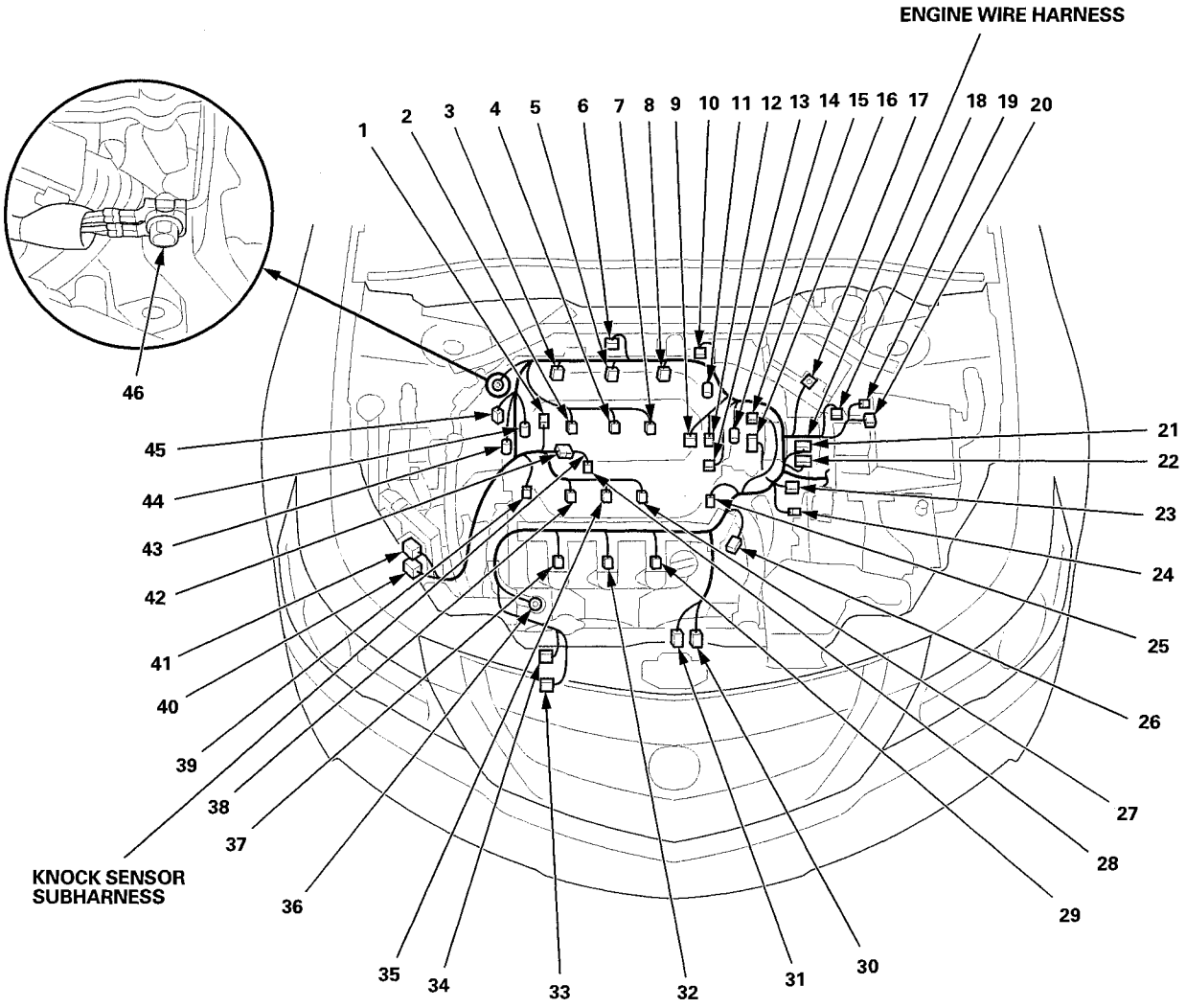

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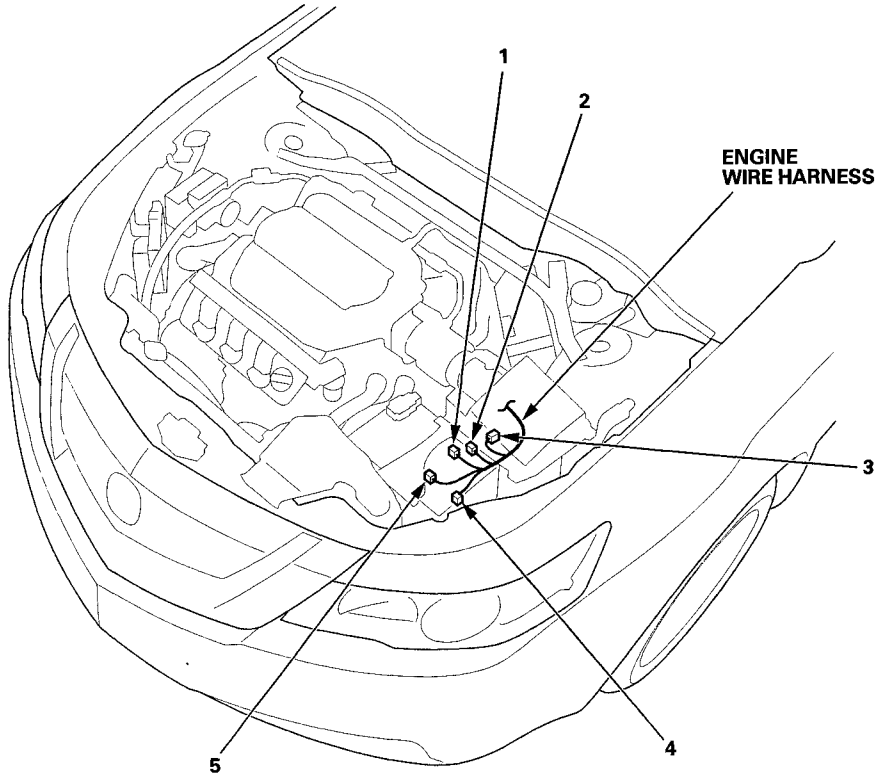
Connector to Harness Index (cont'd)

Engine Wire Harness (Transmission section) (M/T)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Back-up lights switch	3	2	Transmission housing		
Front secondary heated oxygen sensor (secondary HO2S) (Bank 2, Sensor 2)	5	4	Transmission housing		
Input shaft (mainshaft) speed sensor	4	3	Transmission housing		
Output shaft (countershaft) speed sensor	1	3	Transmission housing		
Starter solenoid	2	1	Left side of engine compartment		



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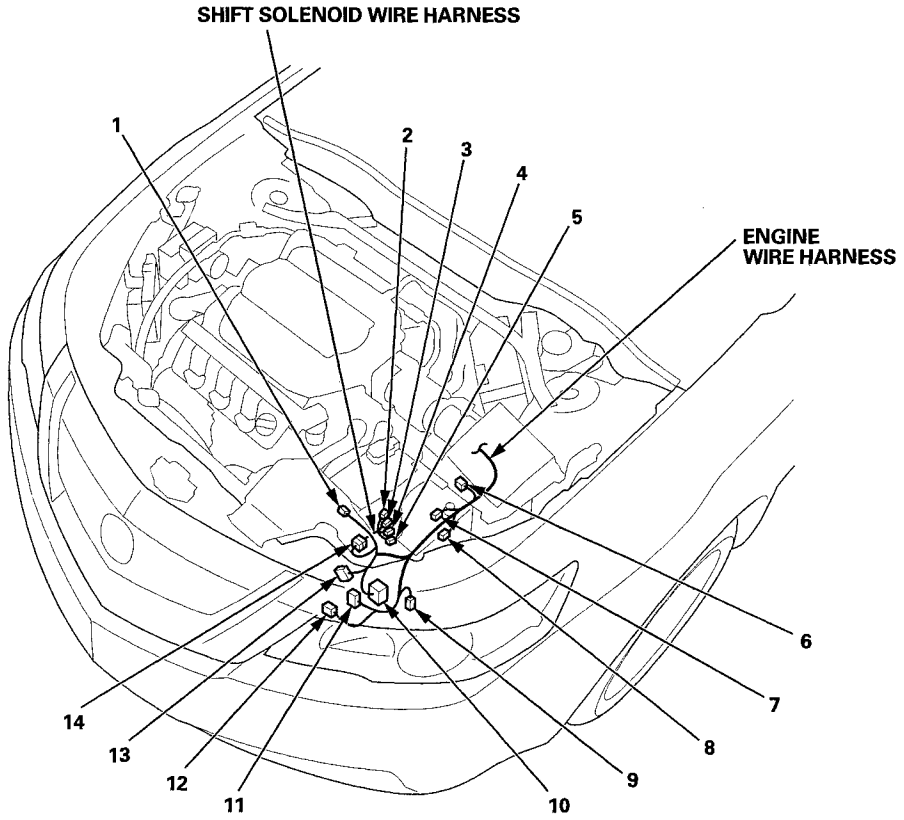
Engine Wire Harness (Transmission section) (A/T)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
A/T clutch pressure control solenoid valve A	7	2	Transmission housing		
A/T clutch pressure control solenoid valve B	8	2	Transmission housing		
ATF temperature sensor	9	2	Transmission housing		
Input shaft (mainshaft) speed sensor	13	3	Transmission housing		
Output shaft (countershaft) speed sensor	11	3	Transmission housing		
Starter solenoid	1	1	Left side of engine compartment		
Transmission fluid pressure switch B (3rd clutch)	12	1	Transmission housing		
Transmission range switch	10	10	Transmission housing		
4th clutch transmission fluid pressure switch	6	1	Transmission housing		
C108	14	5	Transmission housing	Shift solenoid wire harness	

Shift Solenoid Wire Harness (A/T)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Shift solenoid valve A	2	1	In the transmission		
Shift solenoid valve B	5	1	In the transmission		
Shift solenoid valve C	3	1	In the transmission		
Shift solenoid valve D	4	1	In the transmission		
C108	14	5	Transmission housing	Engine wire harness (Transmission section)	



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Connector to Harness Index (cont'd)

Left Engine Compartment Wire Harness (Engine compartment branch)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
A/C condenser fan motor	22	2	Front of engine compartment		
Brake fluid level switch	10	2	Left side of engine compartment		
ECM/PCM connector A	1	49	Right side of engine compartment		
Engine coolant temperature (ECT) sensor 2	19	2	Front engine compartment		
Horn (high)	18	1	Behind left side of front bumper		
Horn (low)	24	1	Behind right side of front bumper		
Left fog light	16	2	Behind left side of front bumper		
Left front impact sensor	15	2	Behind left side of front bumper		
Left front parking/turn signal light	17	3	Behind left side of front bumper		
Left front side marker light	13	2	Behind left headlight		
Left front wheel speed sensor	12	2	Left side of engine compartment		
Left headlight (high)	4	2	Behind left headlight		
Left headlight (low)	3	2	Behind left headlight		
Outside air temperature sensor	21	2	Front of engine compartment		
Radiator fan motor	20	2	Front of engine compartment		
Security hood switch	2	2	Front of engine compartment		
Under-hood fuse/relay box connector A (electrical load detector) (see page 22-68)	9	3	Left side of engine compartment		
Under-hood fuse/relay box connector B (see page 22-68)	8	14	Left side of engine compartment		
Under-hood fuse/relay box connector C (see page 22-68)	7	5	Left side of engine compartment		
Windshield Wiper motor	11	4	Left side of engine compartment		
C101	5	13	Left side of engine compartment	Engine wire harness (Transmission section)	
C102	6	1	Left side of engine compartment	Engine wire harness (Transmission section)	
C201	23	2	Right front of engine compartment	Right engine compartment wire harness	
G301	14		Behind left side of front bumper	Body ground, via left engine compartment wire harness	

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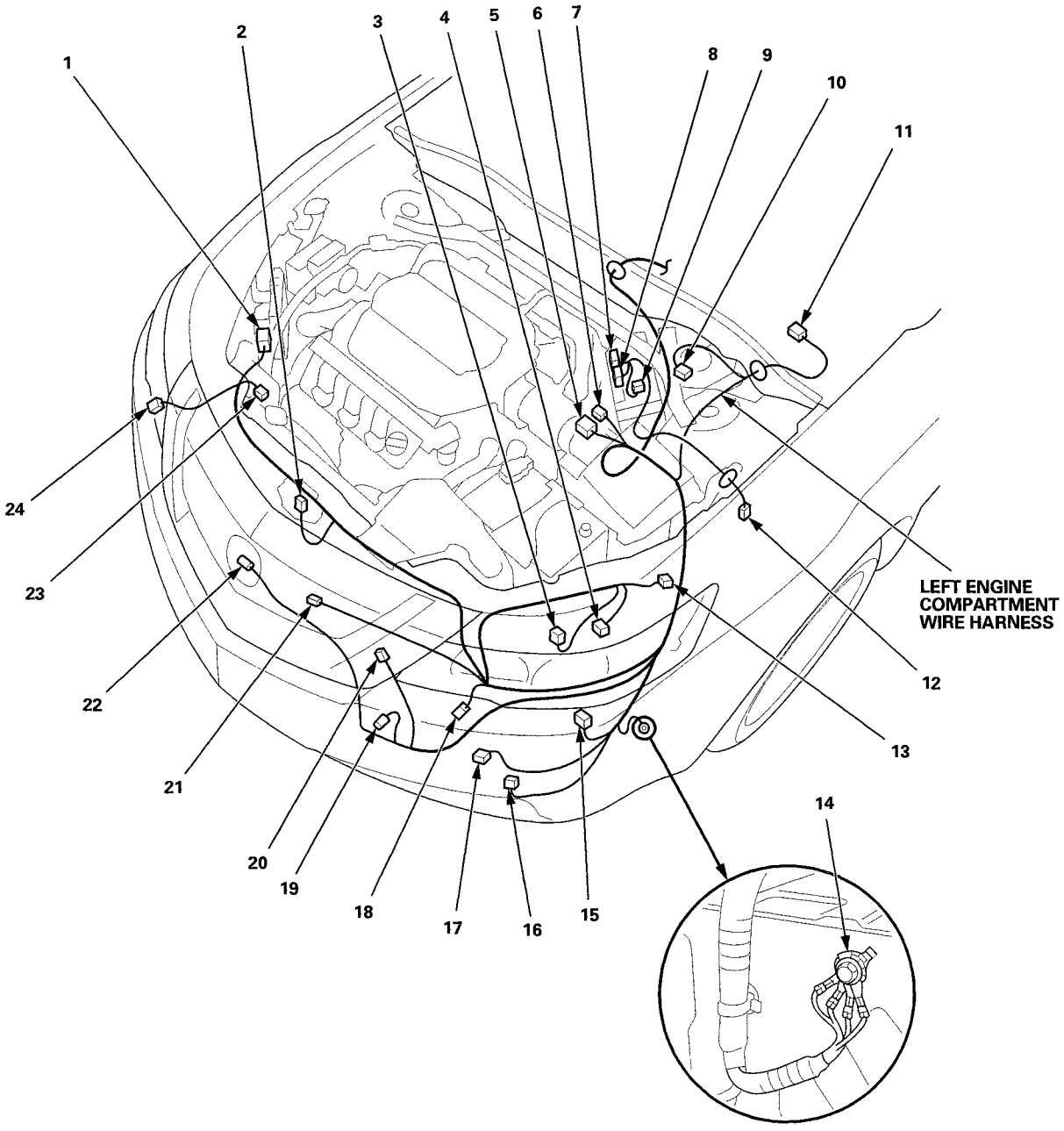

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Connector to Harness Index (cont'd)

Left Engine Compartment Wire Harness (Dashboard branch)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Accelerator pedal position sensor	8	6	Under left side of dash		
Brake pedal position switch	9	4	Under left side of dash		
Clutch pedal position switch A (for starter cut)	4	2	Under left side of dash		M/T
Clutch pedal position switch B (for cruise control)	10	3	Under left side of dash		M/T
Driver's under-dash fuse/relay box connector F (see page 22-69)	3	33	Under left side of dash		
Driver's under-dash fuse/relay box connector G (see page 22-69)	2	13	Under left side of dash		
Left front TPMS initiator	15	3	Left front of fenderwell		
C301	6	2	Under middle of dash	A/C wire harness	
C302	7	2	Under middle of dash	A/C wire harness	
C303	14	12	Under left side of dash	Left side wire harness: • Without SH-AWD • With SH-AWD	
C304	13	2	Under left side of dash	Dashboard wire harness (View of driver's side)	
C305	11	4	Under left side of dash	Dashboard wire harness (View of driver's side)	
C306	12	24	Under left side of dash	Dashboard wire harness (View of driver's side)	
C307 (junction connector)	5	12	Under left side of dash		
G302	1		Under left side of dash	Body ground, via left engine compartment wire harness	

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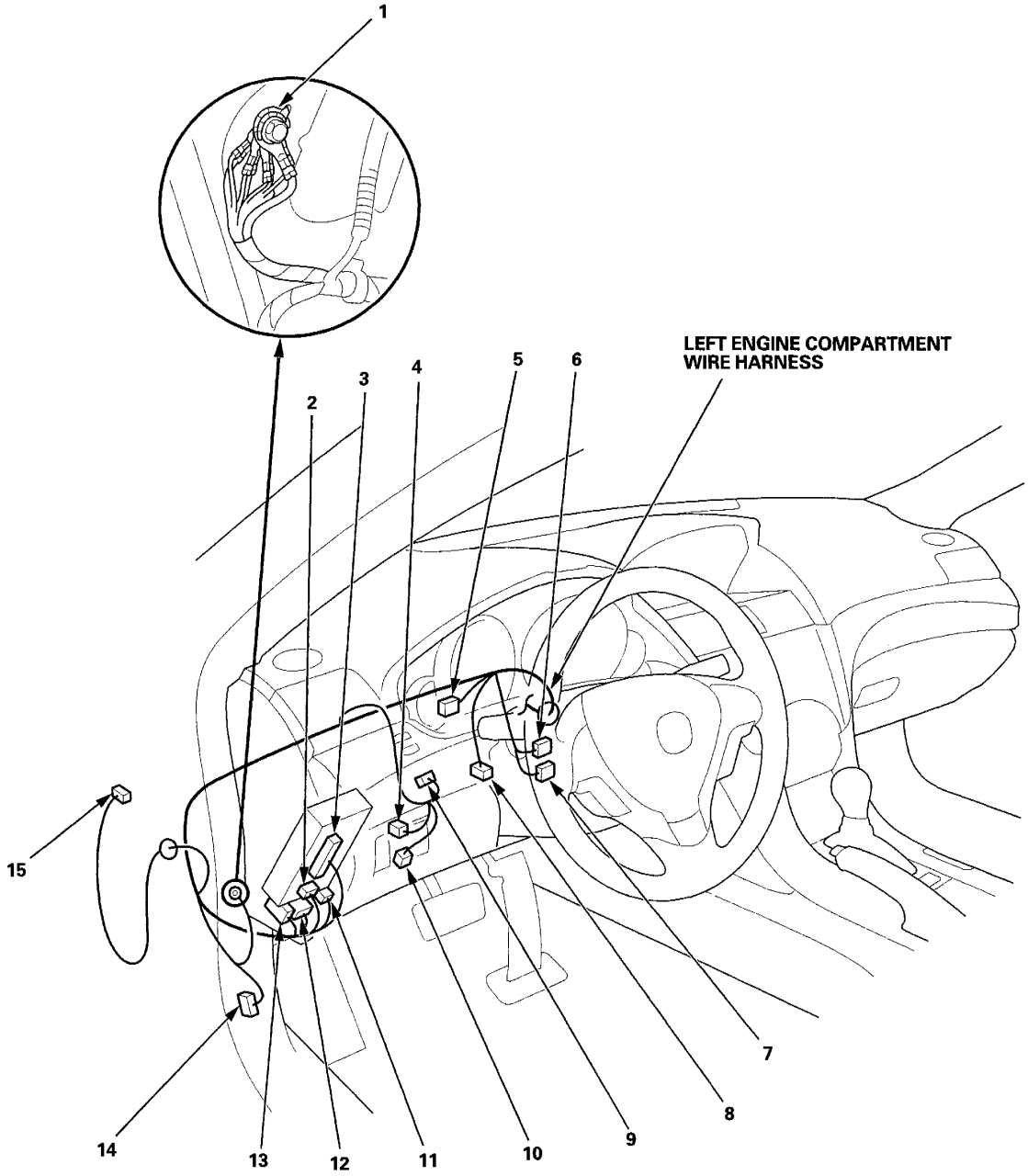

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Connector to Harness Index (cont'd)

Right Engine Compartment Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
A/C pressure sensor	11	3	Right front of engine compartment		
EPS control unit connector A	6	2	Under right side of dash		
EPS control unit connector B	4	2	Under right side of dash		
EPS control unit connector C	3	2	Under right side of dash		
EPS control unit connector D	5	28	Under right side of dash		
Headlight washer motor	22	2	Behind right side of front bumper		*1
Passenger's under-dash fuse/relay box connector B (see page 22-70)	30	1	Under right side of dash		
Passenger's under-dash fuse/relay box connector E (see page 22-70)	29	18	Under right side of dash		
Right fog light	19	2	Behind right side of front bumper		
Right front impact sensor	20	2	Behind right side of front bumper		
Right front parking/turn signal light	18	3	Behind right side of front bumper		
Right front side marker light	24	2	Behind right headlight		
Right front TPMS initiator	26	3	Right front of fenderwell		
Right front wheel speed sensor	25	2	Right side of engine compartment		
Right headlight (high)	15	2	Behind right headlight		
Right headlight (low)	14	2	Behind right headlight		
VSA modulator-control unit	12	47	Right side of engine compartment		
Washer fluid level switch	21	2	Behind right side of front bumper		*2
Windshield washer motor	23	2	Behind right side of front bumper		
C201	13	2	Right side of engine compartment	Left engine compartment wire harness (Engine compartment branch)	
C202	10	3	Right side of engine compartment	EPS subharness	
C203	9	12	Right side of engine compartment	EPS subharness	
C204 (junction connector)	8	12	Under right side of dash		
C205	27	2	Under right side of dash	A/C wire harness	
C206	31	20	Under right side of dash	Dash board wire harness (View of middle to passenger's side)	
C207	7	2	Under right side of dash	Dash board wire harness (View of middle to passenger's side)	
C208	28	4	Under right side of dash	Dash board wire harness (View of middle to passenger's side)	
G201	16		Behind right side of front bumper	Body ground, via right engine compartment wire harness	
G202	17		Behind right side of front bumper	Body ground, via right engine compartment wire harness	
G203	1		Under right side of dash	Body ground, via right engine compartment wire harness	
G204	2		Under right side of dash	Body ground, via right engine compartment wire harness	

*1: Canada models with SH-AWD

*2: Canada models

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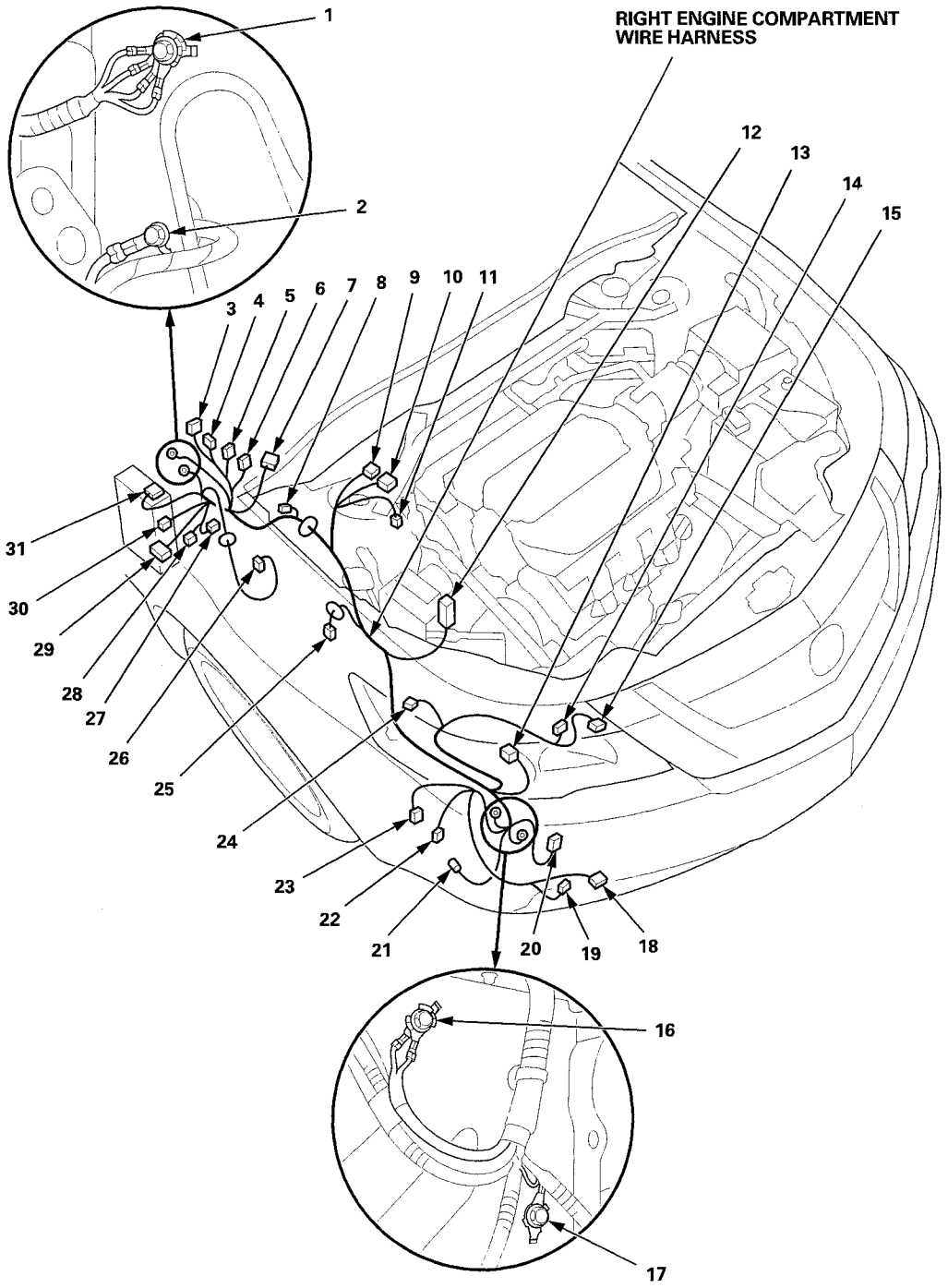

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Connector to Harness Index (cont'd)

Dashboard Wire Harness (View of driver's side)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
ACC cut relay	44	5	Under left side of dash		*1
Auxiliary under-dash fuse holder	68	2	Under left side of dash		*1
Center junction box connector A	37	4	Behind gauge		
Center junction box connector B	38	4	Behind gauge		
Center junction box connector C	39	4	Behind gauge		
Center junction box connector D	40	6	Behind gauge		
Center junction box connector E	36	6	Behind gauge		
Center junction box connector F	31	6	Behind gauge		
Center junction box connector G	32	6	Behind gauge		
Center junction box connector H	35	4	Behind gauge		
Center junction box connector J	34	8	Behind gauge		
Center junction box connector K	33	10	Behind gauge		
Console accessory power socket relay	41	4	Under left side of dash		
Dashlight brightness controller	53	6	Left side of dashboard		
Data link connector (DLC)	63	16	Under left side of dash		
Driver's footwell light	58	2	Under left side of dash		
Driver's junction box 1 connector A	29	6	Behind gauge		
Driver's junction box 1 connector B	30	6	Behind gauge		
Driver's junction box 1 connector C	23	8	Behind gauge		
Driver's junction box 1 connector D	28	4	Behind gauge		
Driver's junction box 1 connector E	24	10	Behind gauge		
Driver's junction box 1 connector F	25	8	Behind gauge		
Driver's junction box 1 connector G	27	10	Behind gauge		
Driver's junction box 1 connector H	26	10	Behind gauge		
Driver's junction box 2 connector A	21	6	Behind gauge		
Driver's junction box 2 connector B	14	6	Behind gauge		
Driver's junction box 2 connector C	15	8	Behind gauge		
Driver's junction box 2 connector D	20	4	Behind gauge		
Driver's junction box 2 connector E	16	10	Behind gauge		
Driver's junction box 2 connector F	17	8	Behind gauge		
Driver's junction box 2 connector G	19	10	Behind gauge		
Driver's junction box 2 connector H	18	10	Behind gauge		
Driver's under-dash fuse/relay box connector B (see page 22-69)	52	2	Under left side of dash		
Driver's under-dash fuse/relay box connector C (see page 22-69)	51	5	Under left side of dash		
Driver's under-dash fuse/relay box connector M (see page 22-69)	48	4	Under left side of dash		
Driver's under-dash fuse/relay box connector N (see page 22-69)	49	16	Under left side of dash		
Driver's under-dash fuse/relay box connector P (see page 22-69)	50	20	Under left side of dash		
Driver's under-dash fuse/relay box connector Q (see page 22-69)	46	20	Under left side of dash		
Driver's under-dash fuse/relay box connector R (see page 22-69)	47	24	Under left side of dash		
Front accessory power socket relay	42	4	Under left side of dash		*2
Front accessory power socket relay	44	4	Under left side of dash		*3
Gauge control module	22	32	Behind gauge		
Headlight washer motor relay	42	4	Under left side of dash		*4
Headlight washer switch	56	6	Left side of dashboard		*4
IG2 cut relay	45	5	Under left side of dash		*1

*1: Without keyless access system
*2: With keyless access system except Canada models with SH-AWD
*3: With keyless access system Canada models with SH-AWD
*4: Canada models with SH-AWD

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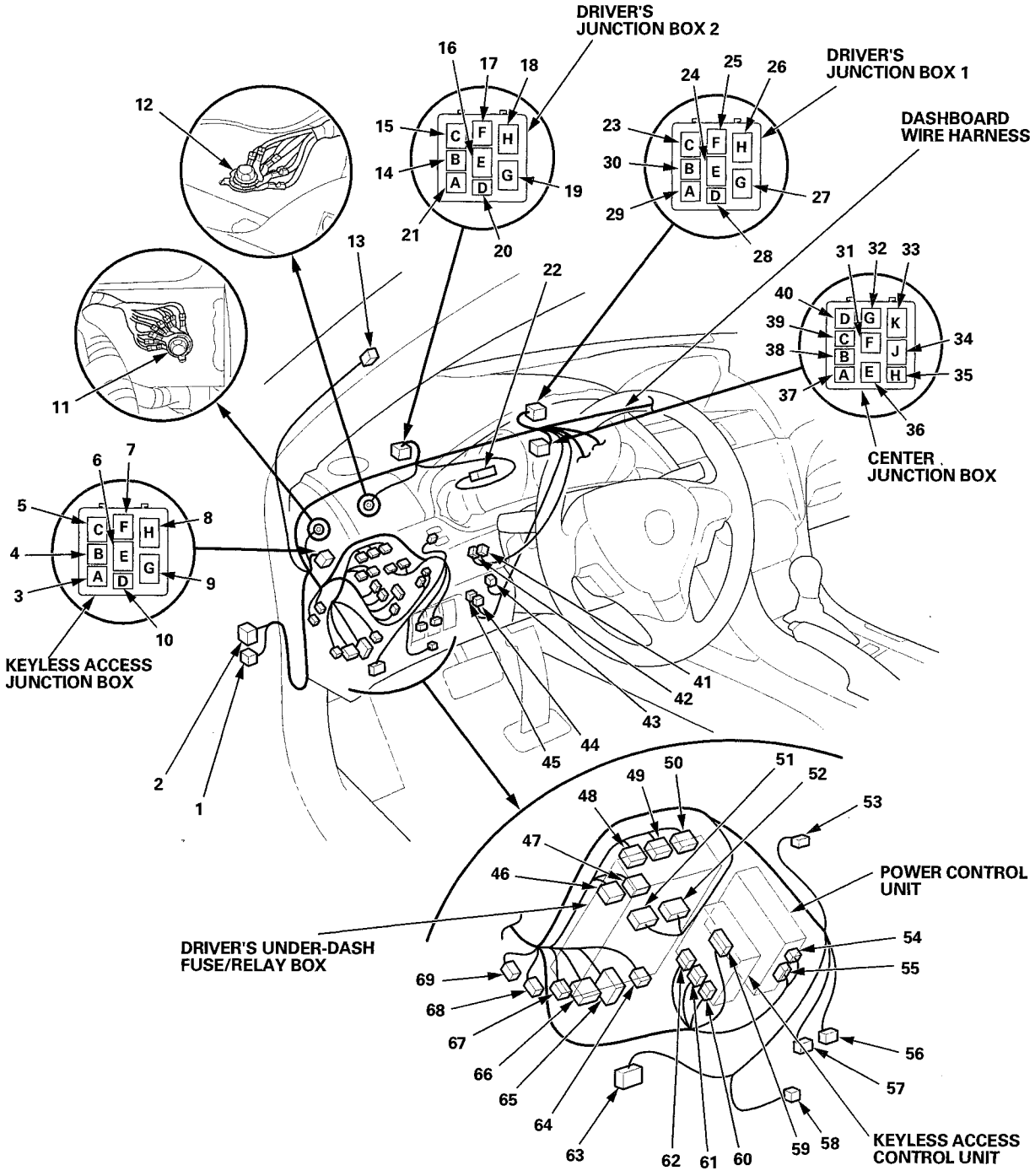

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Connector to Harness Index (cont'd)

Dashboard Wire Harness (View of driver's side)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Keyless access control unit connector A	62	36	Under left side of dash		
Keyless access control unit connector B	61	32	Under left side of dash		
Keyless access control unit connector C	60	5	Under left side of dash		
Keyless access junction box connector A	3	6	Under left side of dash		*1
Keyless access junction box connector B	4	6	Under left side of dash		*1
Keyless access junction box connector C	5	8	Under left side of dash		*1
Keyless access junction box connector D	10	4	Under left side of dash		*1
Keyless access junction box connector E	6	10	Under left side of dash		*1
Keyless access junction box connector F	7	8	Under left side of dash		*1
Keyless access junction box connector G	9	10	Under left side of dash		*1
Keyless access junction box connector H	8	10	Under left side of dash		*1
Optional connector (for remote engine start)	69	2	Under left side of dash		
Power control unit connector A	55	1	Under left side of dash		
Power control unit connector B	54	4	Under left side of dash		
Power control unit connector C	59	36	Under left side of dash		
TPMS control unit	43	20	Under left side of dash		
VSA OFF switch	57	5	Left side of dashboard		
+B cut relay	45	4	Under left side of dash		M/T
C304	67	2	Under left side of dash	Left engine compartment wire harness (Dashboard branch)	*2
C305	64	4	Under left side of dash	Left engine compartment wire harness (Dashboard branch)	
C306	65	24	Under left side of dash	Left engine compartment wire harness (Dashboard branch)	
C401	66	18	Under left side of dash	Left side wire harness: • Without SH-AWD • With SH-AWD	
C402	13	23	Under left side of dash	Roof wire harness	
C751	2	23	Under left side of dash	Driver's door wire harness	
C752	1	12	Under left side of dash	Driver's door wire harness	
G401	12		Under left side of dash	Body ground, via dashboard wire harness	
G402	11		Under left side of dash	Body ground, via dashboard wire harness	

*1: With keyless access system
*2: With headlight washer

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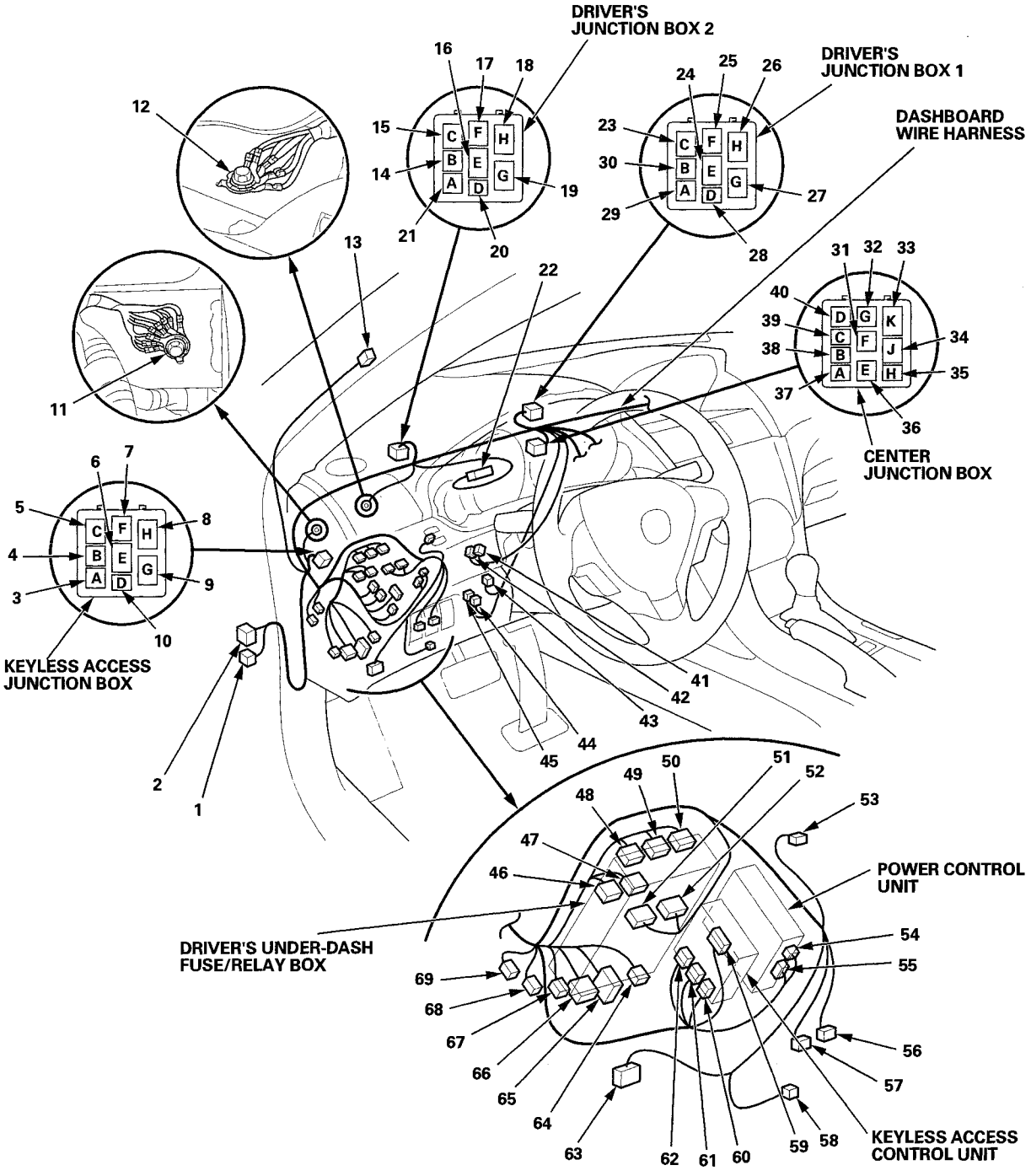

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Connector to Harness Index (cont'd)

Dashboard Wire Harness (View of middle to passenger's side)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
A/T gear position indicator panel light	45	2	Under center console		A/T
A/T shift lock solenoid/park pin switch	43	4	Under center console		A/T
Automatic lighting sensor	14	5	Middle of dash		
Cable reel	4	20	In steering column		
Center speaker	11	2	Middle of dash		
Combination light switch	2	12	In steering column		
Driver's airbag inflator	5	4	In steering column		
Driver's climate control switch	12	16	Middle of dash		
Driver's seat heater switch	44	6	Under center console		
Electric steering lock	3	12	In steering column		*1
Engine start/stop switch	10	10	Middle of dash		*1
Remote slot	9	16	Middle of dash		*1
Remote slot control unit	23	40	Under right side of dash		
Front accessory power socket	34	2	Under center console		
Front passenger's airbag inflator	19	4	Under right side of dash		
Front passenger's seat heater switch	35	7	Under center console		
Hazard warning switch/Passenger's airbag cutoff indicator	15	6	Middle of dash		
Ignition key switch	48	6	In steering column		*2
Ignition switch	49	5	In steering column		*2
Immobilizer-keyless control unit	7	7	In steering column		*2
In-car temperature sensor	8	4	Middle of dash		
Passenger's under-dash fuse/relay box connector A (see page 22-70)	27	38	Under right side of dash		
RF unit 1	41	3	Under center console		*1
Right tweeter	20	2	Under right side of dash		
SRS unit connector A	32	39	Middle of dash		
Steering angle sensor	1	5	In steering column		
Sunlight sensor	13	2	Middle of dash		
USB adapter unit	46	14	Under center console		*3
Wiper/washer switch	6	8	In steering column		
Yaw rate-lateral acceleration sensor	33	4	Under center console		*4
Yaw rate-lateral/longitudinal acceleration sensor	33	4	Under center console		*5

*1: With keyless access system
*2: Without keyless access system
*3: Without navigation system
*4: Without SH-AWD
*5: With SH-AWD

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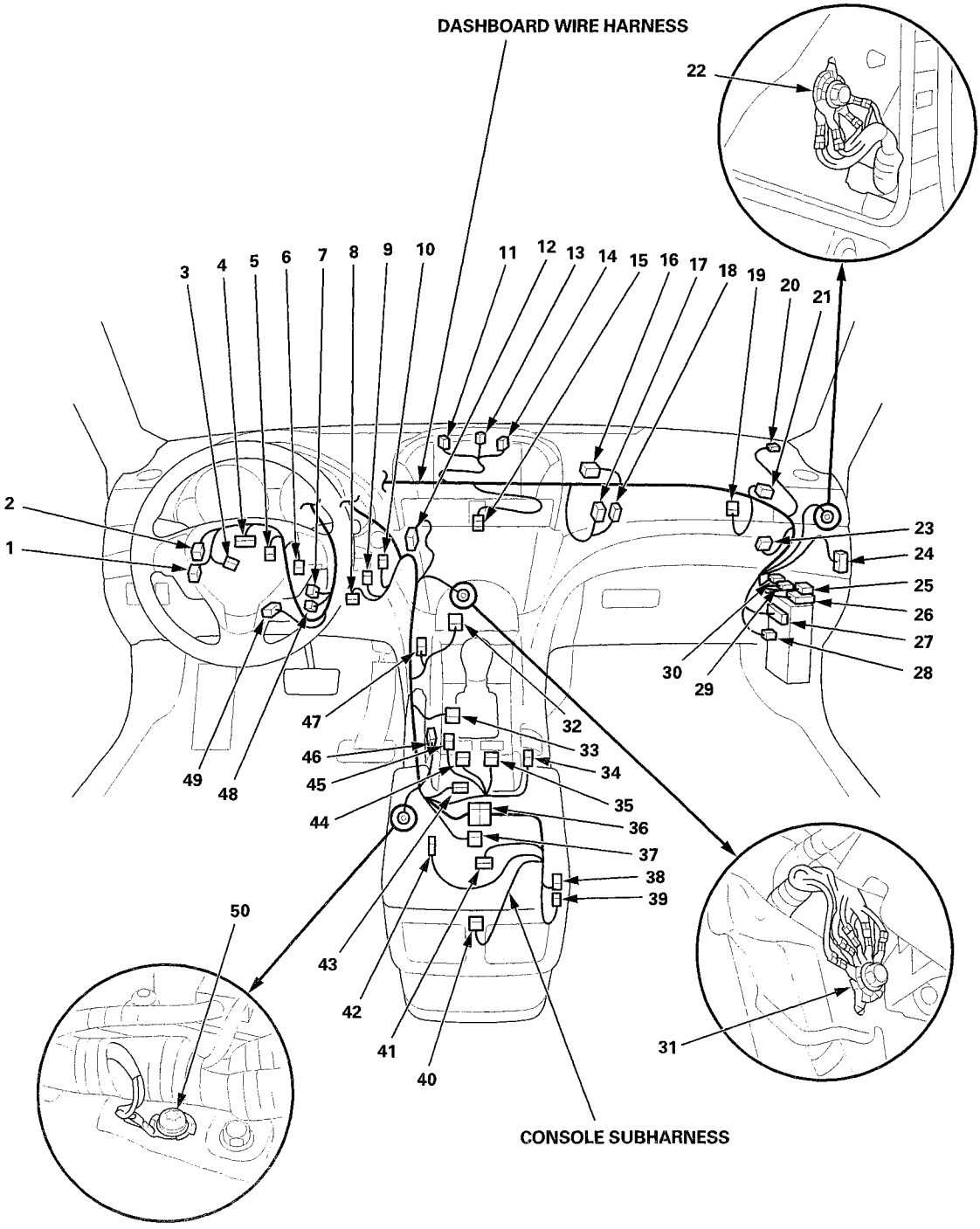

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Connector to Harness Index (cont'd)

Dashboard Wire Harness (View of middle to passenger's side)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
C206	30	20	Under right side of dash	Right engine compartment wire harness	
C207	29	2	Under right side of dash	Right engine compartment wire harness	
C208	28	4	Under right side of dash	Right engine compartment wire harness	
C403	47	20	Middle of dash	A/C wire harness	
C404	37	18	Under center console	SRS floor wire harness	
C405	36	20	Under center console	Console subharness	
C406	17	34	Under right side of dash	Audio wire harness	
C407	18	12	Under right side of dash	Audio wire harness	
C408 (junction connector)	16	12	Under right side of dash		
C409 (junction connector)	21	20	Under right side of dash		
C410	25	12	Under right side of dash	Right side wire harness: • Without SH-AWD • With SH-AWD	
C411	26	8	Under right side of dash	Right side wire harness: • Without SH-AWD • With SH-AWD	
C761	24	28	Under right side of dash	Front passenger's door wire harness	
G403	31		Middle of dash	Body ground, via dashboard wire harness	
G404	50		Under center console	Body ground, via dashboard wire harness	
G405	22		Under right side of dash	Body ground, via dashboard wire harness	

Console Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Auxiliary jack	38	5	Rear of center console		
Console accessory power socket	39	2	Rear of center console		
Console box light	40	2	Rear of center console		
Parking brake switch	42	1	Under center console		
C405	36	20	Under center console	Dashboard Wire Harness	

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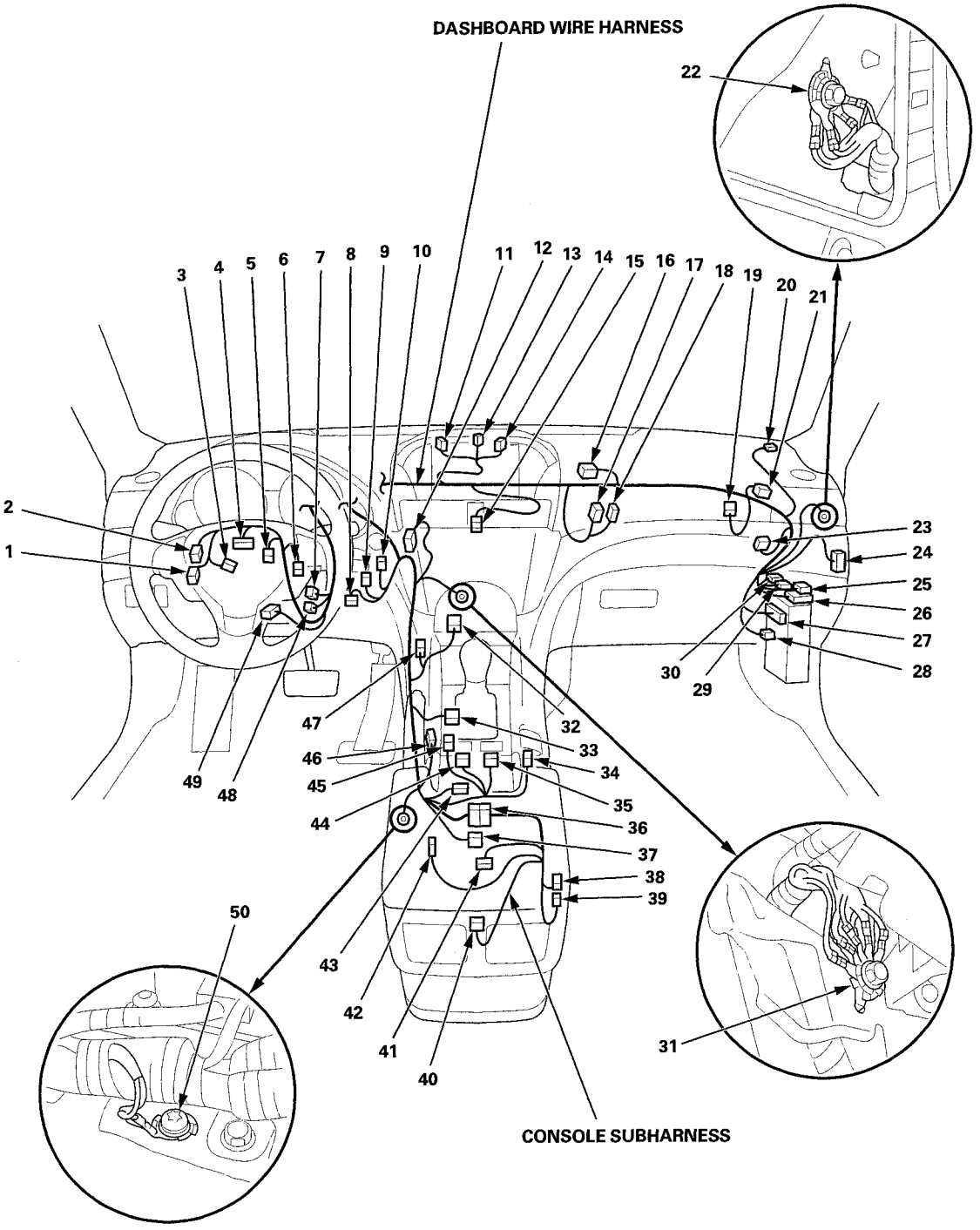

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Connector to Harness Index (cont'd)

Audio Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
AcuraLink connector (Female connector)	11	5	Under right side of dash		*1
AcuraLink connector (Male connector)	7	5	Under right side of dash		*1
AcuraLink control unit A (XM receiver)	28	32	Under middle of dash		*1
Audio unit connector A	32	24	Under middle of dash		*2
Audio unit connector B	31	14	Under middle of dash		*2
Audio unit connector C	29	14	Under middle of dash		*2
Audio unit connector D	22	20	Under middle of dash		*2
Audio-navigation unit connector A	32	24	Under middle of dash		*3
Audio-navigation unit connector B	31	24	Under middle of dash		*3
Audio-navigation unit connector C	29	14	Under middle of dash		*3
Audio-navigation unit connector D	22	20	Under middle of dash		*3
Audio-navigation unit connector F	33	12	Under middle of dash		*3
Audio-navigation unit connector G	34	16	Under middle of dash		*3
Audio-navigation unit connector H	35	28	Under middle of dash		*3
Audio-navigation switch panel	30	24	Under middle of dash		*3
Audio-HVAC display unit	2	12	Under middle of dash		*2
Front interior LF antenna	27	2	Under middle of dash		*4
Glove box light	12	2	Glove box		
HandsFreeLink control unit	25	28	Under middle of dash		
Interface dial	26	5	Under middle of dash		*3
Keyless access system mode switch	14	2	Under right side of dash		*4
Navigation display unit	2	32	Under middle of dash		*3
Navigation service check connector	17	2	Under right side of dash		*3
Passenger's climate control switch	13	16	Under middle of dash		
Passenger's under-dash fuse/relay box connector D (see page 22-70)	15	28	Under right side of dash		
Trunk lid opener main switch	16	2	Under right side of dash		
XM receiver	28	14	Under middle of dash		*5
C406	5	34	Under right side of dash	Dashboard wire harness (View of middle to passenger's side)	
C407	6	12	Under right side of dash	Dashboard wire harness (View of middle to passenger's side)	
C501	21	20	Under middle of dash	A/C wire harness	
C502 (junction connector)	23	12	Under middle of dash		
C503 (junction connector)	24	12	Under middle of dash		
C504 (junction connector)	4	12	Under right side of dash		
C505 (junction connector)	3	12	Under right side of dash		
C506 (junction connector)	8	12	Under right side of dash		
C507 (junction connector)	9	12	Under right side of dash		
C508 (junction connector)	10	12	Under right side of dash		
C509	18	28	Under right side of dash	Right side wire harness: • Without SH-AWD • With SH-AWD	
C510	19	12	Under right side of dash	Right side wire harness: • Without SH-AWD • With SH-AWD	
G501	1		Under middle of dash	Body ground, via audio wire harness	
G502	20		Under middle of dash	Body ground, via audio wire harness	

*1: USA models with navigation system
*2: Without navigation system
*3: With navigation system
*4: With keyless access system
*5: Except USA models with navigation system

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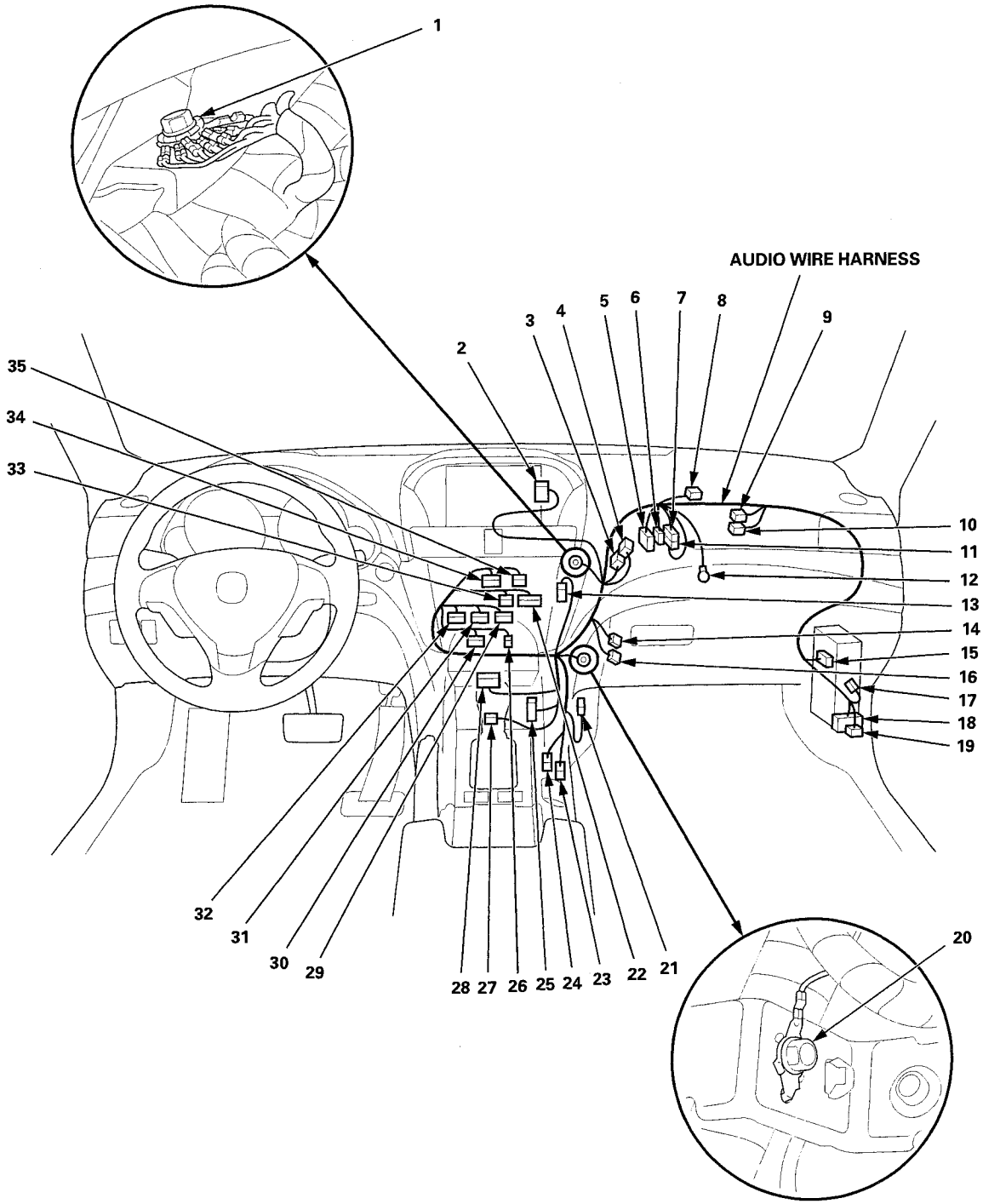

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Connector to Harness Index (cont'd)

Left Side Wire Harness (Without SH-AWD)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Condenser (for rear window defogger)	7	2	Left C-pillar		
Driver's door switch	4	1	Left B-pillar		
Driver's under-dash fuse/relay box connector D (see page 22-69)	3	16	Under left side of dash		
Driver's under-dash fuse/relay box connector E (see page 22-69)	2	20	Under left side of dash		
EVAP canister vent shut valve	30	2	Under floor		
Fuel fill door opener solenoid	29	2	Left side of trunk		
Fuel tank pressure (FTP) sensor	31	3	Under floor		
Fuel tank unit	10	4	Under left side of floor		
Glass antenna coil connector A	8	1	Left C-pillar		
Glass antenna coil connector B	9	1	Left C-pillar		
Keyless buzzer	22	2	Behind rear bumper		
Left back-up light	25	2	Left side of trunk		
Left license plate light	24	2	Behind rear bumper		
Left rear door switch	6	1	Left C-pillar		
Left rear side marker light	28	2	Left side of trunk		
Left rear speaker	13	2	Middle of rear shelf		
Left rear TPMS initiator	33	3	Under floor		
Left rear turn signal light	26	2	Left side of trunk		
Left rear wheel speed sensor	32	2	Under floor		
Left taillight/brake light	14	3	Left side of trunk		
Rear bumper LF antenna	21	2	Behind rear bumper		*1
Rear interior LF antenna	5	2	Under rear seat		*1
Rear window defogger connector A (+)	11	1	Left side of rear shelf		
Rearview camera	15	12	Middle of trunk		*2
Right back-up light	19	2	Right side of trunk		
Right license plate light	23	2	Behind rear bumper		
Right rear side marker light	17	2	Right side of trunk		
Right rear turn signal light	18	2	Right side of trunk		
Right taillight/brake light	16	3	Right side of trunk		
Trunk lid release actuator/trunk lid latch switch	20	3	Middle of trunk		
C303	1	12	Under left side of dash	Left engine compartment wire harness (Dashboard branch)	
C401	37	18	Under left side of dash	Dashboard wire harness (View of driver's side)	
C601	12	20	Under rear seat	Right side wire harness (Without SH-AWD)	*2
C601	12	13	Under rear seat	Right side wire harness (Without SH-AWD)	*3
C771	35	13	Left B-pillar	Left rear door wire harness	
G601	36		Under driver's seat	Body ground, via left side wire harness	
G602	34		Under rear seat	Body ground, via left side wire harness	
G603	27		Left side of rear	Body ground, via left side wire harness	

*1: With keyless access system

*2: With navigation system

*3: Without navigation system

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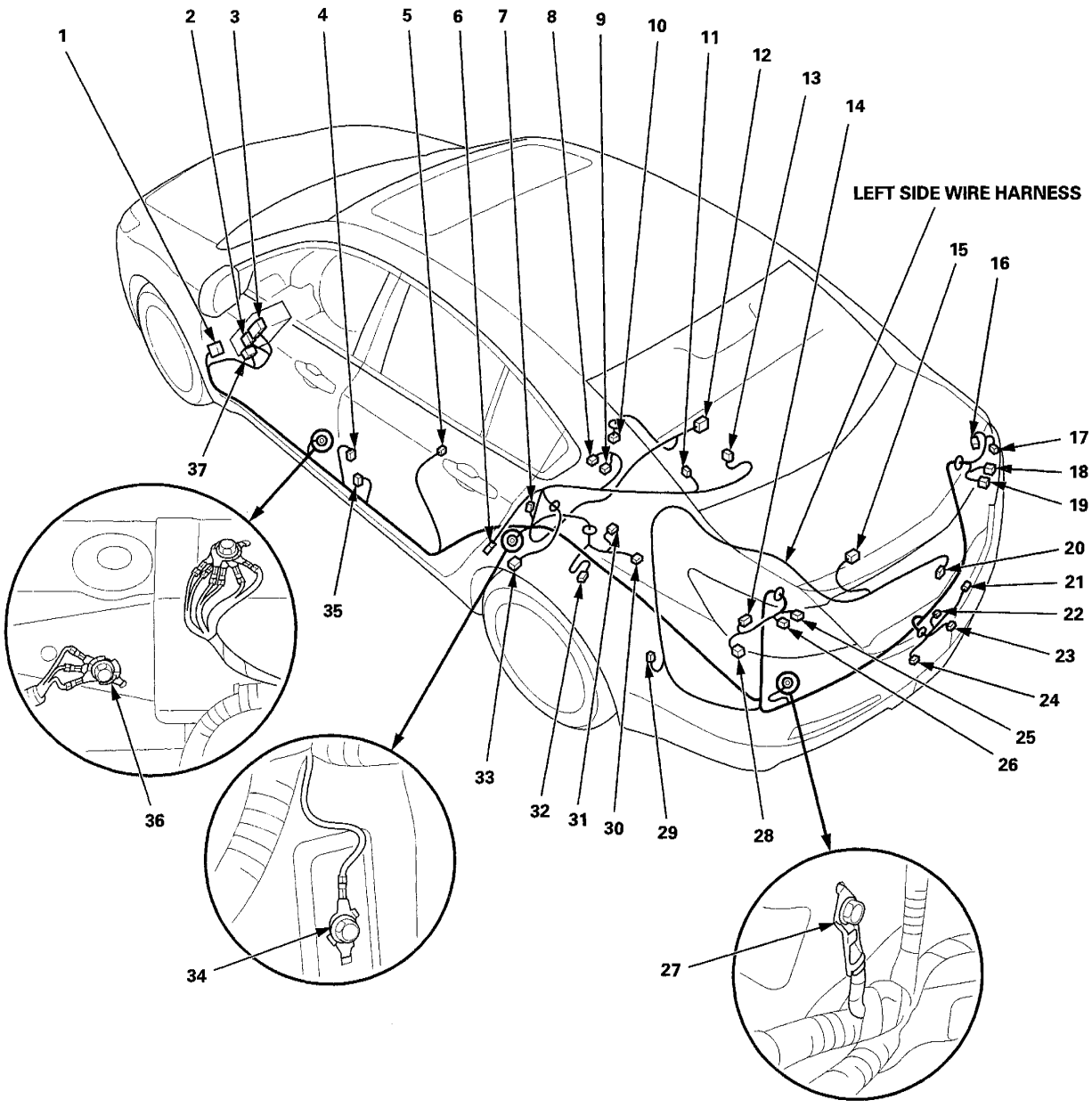

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Connector to Harness Index (cont'd)

Left Side Wire Harness (With SH-AWD)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Condenser (for rear window defogger)	31	2	Left side of trunk		
Driver's door switch	4	1	Left B-pillar		
Driver's under-dash fuse/relay box connector D (see page 22-69)	3	16	Under left side of dash		
Driver's under-dash fuse/relay box connector E (see page 22-69)	2	20	Under left side of dash		
Fuel fill door opener solenoid	32	2	Left side of trunk		
Fuel pump control module	7	10	Under left side of floor		'09 model
Fuel pump/fuel gauge sending unit	6	4	Under left side of floor		
Glass antenna coil connector A	9	1	Left C-pillar		
Glass antenna coil connector B	10	1	Left C-pillar		
Keyless buzzer	24	2	Behind rear bumper		
Left back-up light	27	2	Left side of trunk		
Left license plate light	26	2	Behind rear bumper		
Left rear door switch	5	1	Left C-pillar		
Left rear side marker light	30	2	Left side of trunk		
Left rear speaker	15	2	Middle of rear shelf		
Left rear TPMS initiator	34	3	Under floor		
Left rear turn signal light	28	2	Left side of trunk		
Left rear wheel speed sensor	33	2	Under floor		
Left taillight/brake light	16	3	Left side of trunk		
Rear bumper LF antenna	23	2	Behind rear bumper		*1
Rear interior LF antenna	8	2	Under rear seat		*1
Rear window defogger connector A (+)	14	1	Left side of rear shelf		
Rearview camera	17	12	Middle of trunk		*2
Right back-up light	21	2	Right side of trunk		
Right license plate light	25	2	Behind rear bumper		
Right rear side marker light	19	2	Right side of trunk		
Right rear turn signal light	20	2	Right side of trunk		
Right taillight/brake light	18	3	Right side of trunk		
Secondary fuel gauge sending unit	11	4	Under right side of floor		
Trunk lid release actuator/trunk lid latch switch	22	3	Middle of trunk		
C303	1	12	Under left side of dash	Left engine compartment wire harness (Dashboard branch)	
C401	38	18	Under left side of dash	Dashboard wire harness (View of driver's side)	
C601	13	20	Under rear seat	Right side wire harness (With SH-AWD)	
C602	12	2	Under rear seat	Right side wire harness (With SH-AWD)	
C771	36	13	Left B-pillar	Left rear door wire harness	
G601	37		Under driver's seat	Body ground, via left side wire harness	
G602	35		Under rear seat	Body ground, via left side wire harness	
G603	29		Left side of rear	Body ground, via left side wire harness	

*1: With keyless access system

*2: With navigation system

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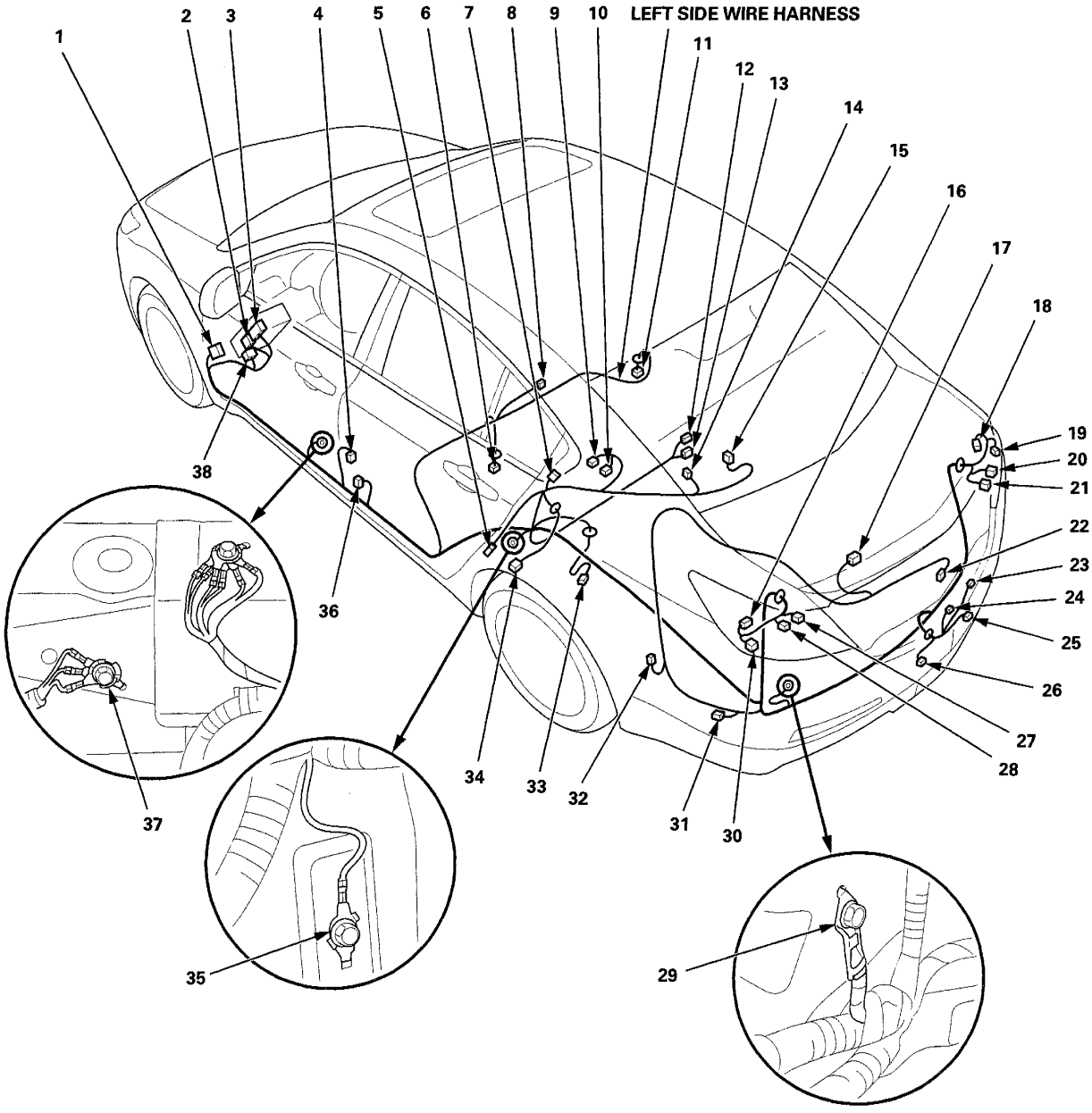

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Connector to Harness Index (cont'd)

SRS Floor Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Driver's seat belt tensioner	10	4	Left B-pillar		
Driver's side airbag inflator	13	2	Under driver's seat		
Front passenger's seat belt tensioner	3	4	Right B-pillar		
Front passenger's side airbag inflator	17	2	Under front passenger's seat		
Left side curtain airbag inflator	8	2	Left C-pillar		
Left side impact sensor (first)	11	4	Left B-pillar		
Left side impact sensor (second)	9	2	Left C-pillar		
Rear safing sensor	7	4	Under rear seat cushion		
Right side curtain airbag inflator	6	2	Right C-pillar		
Right side impact sensor (first)	2	4	Right B-pillar		
Right side impact sensor (second)	5	2	Right C-pillar		
SRS unit	15	39	Under middle of dash		
C404	4	18	Under center console	Dashboard wire harness (View of middle to passenger's side)	
C701	14	23	Under driver's seat	Driver's seat wire harness	
C702	16	18	Under front passenger's seat	Front passenger's seat wire harness	
G701	12		Under driver's seat	Body ground, via SRS floor wire harness	
G702	1		Under front passenger's seat	Body ground, via SRS floor wire harness	

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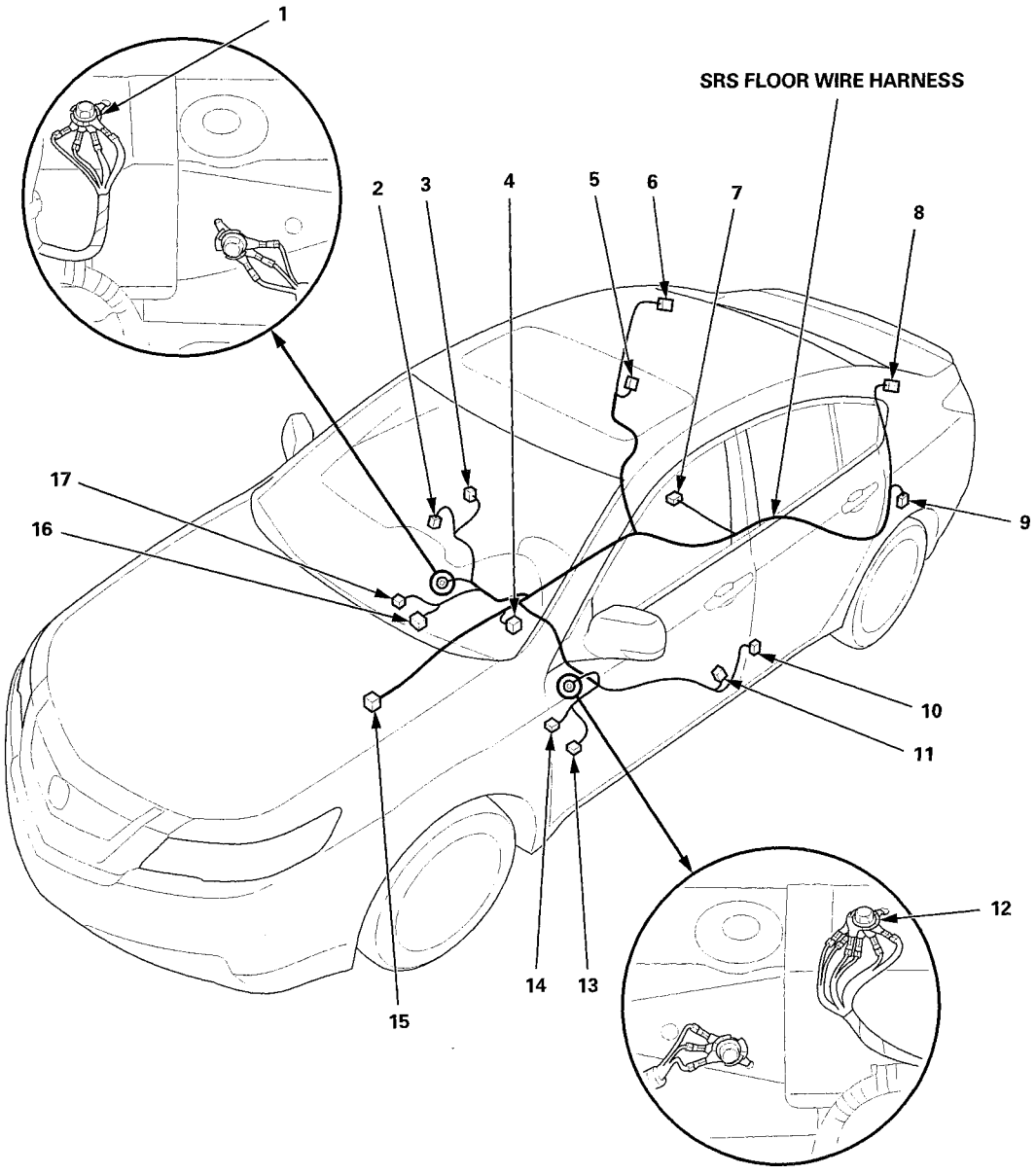

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Connector to Harness Index (cont'd)

Right Side Wire Harness (Without SH-AWD)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Electrical compass unit	3	6	Under rear shelf		*1
Front passenger's door switch	10	1	Right B-pillar		
Passenger's under-dash fuse/relay box connector G (see page 22-70)	15	16	Under right side of dash		
Rear shelf LF antenna	1	2	Under rear shelf		*2
RF unit 2	23	3	Right C-pillar		*2
Right rear door switch	8	1	Right C-pillar		
Right rear speaker	5	2	Under rear shelf		
Right rear TPMS initiator	17	3	Under right side of floor		
Right rear wheel speed sensor	18	2	Under right side of floor		
Stereo amplifier A	19	28	Right side of trunk		*3
Stereo amplifier A	19	20	Right side of trunk		*1
Stereo amplifier B	20	18	Right side of trunk		
Subwoofer	4	2	Under rear shelf		
Trunk light	2	2	Under rear shelf		
C410	11	8	Under right side of dash	Dashboard wire harness (View of middle to passenger's side)	
C411	12	12	Under right side of dash	Dashboard wire harness (View of middle to passenger's side)	
C509	13	28	Under right side of dash	Audio wire harness	
C510	14	12	Under right side of dash	Audio wire harness	
C601	7	20	Under rear seat	Left side wire harness (Without SH-AWD)	*3
C601	7	13	Under rear seat	Left side wire harness (Without SH-AWD)	*4
C781	9	13	Right B-pillar	Right rear door wire harness	
G651	16		Under front passenger's seat	Body ground, via right side wire harness	
G653	21		Right side of rear	Body ground, via right side wire harness	

*1: Without navigation system
*2: With keyless access system
*3: With navigation system
*4: Without navigation system

Rear Window Defogger Ground Wire (Without SH-AWD)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Rear window defogger connector B (−)	6	1	Right C-pillar		
G801	22		Right C-pillar	Body ground, via rear window defogger ground	

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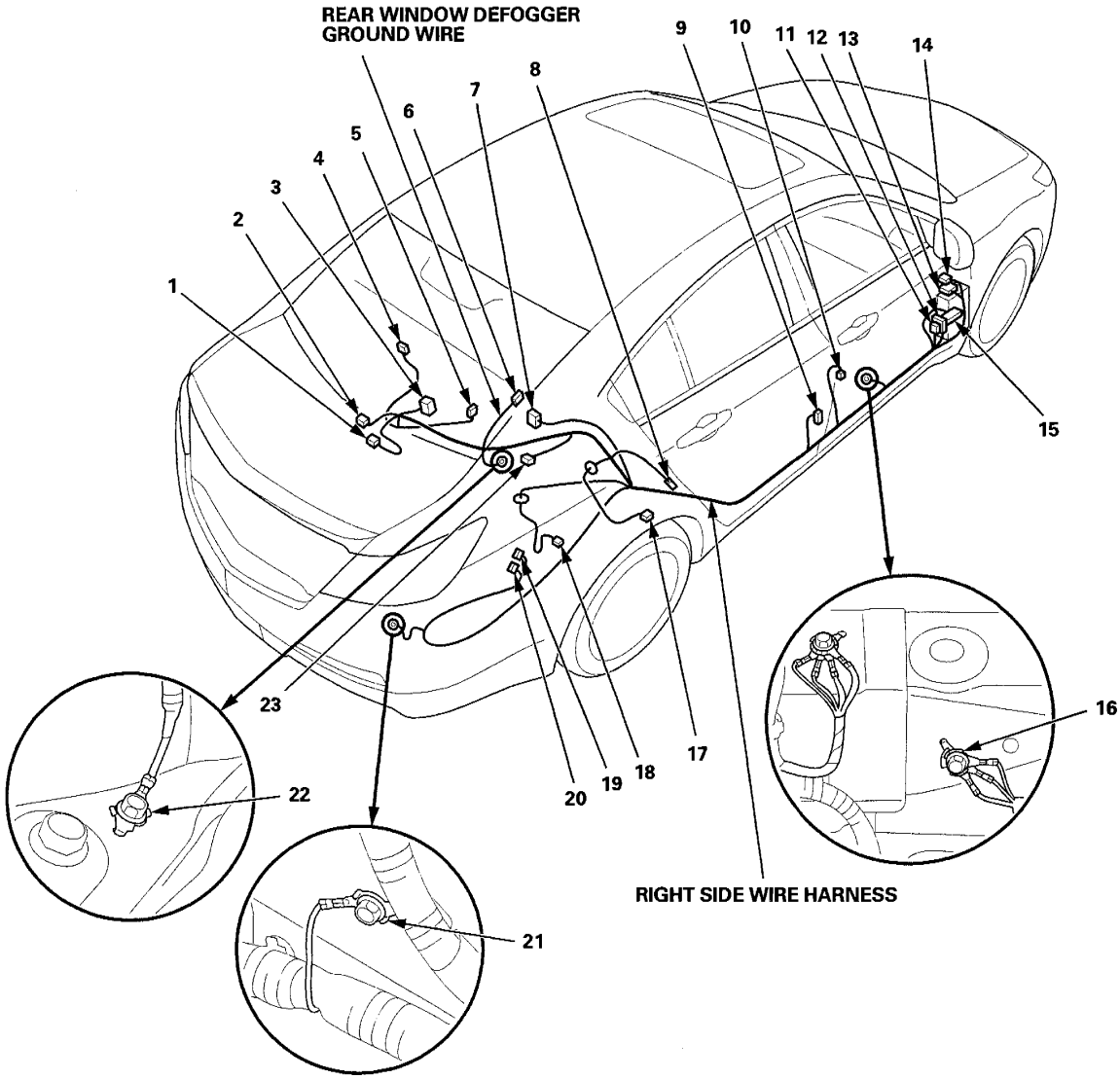

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Connector to Harness Index (cont'd)

Right Side Wire Harness (With SH-AWD)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Electrical compass unit	33	6	Under rear shelf		*1
EVAP canister vent shut valve	31	2	Under right side of floor		
Front passenger's door switch	15	1	Right B-pillar		
Fuel tank pressure (FTP) sensor	24	3	Under right side of floor		
Passenger's under-dash fuse/relay box connector H (see page 22-70)	19	38	Under right side of dash		
Rear shelf LF antenna	1	2	Under rear shelf		*2
RF unit 2	8	3	Right C-pillar		*2
Right rear door switch	13	1	Right C-pillar		
Right rear speaker	4	2	Under rear shelf		
Right rear TPMS initiator	23	3	Under right side of floor		
Right rear wheel speed sensor	25	2	Under right side of floor		
SH-AWD control unit connector A	10	8	Under rear seat		
SH-AWD control unit connector B	9	20	Under rear seat		
SH-AWD relay	11	4	Under rear seat		
Stereo amplifier connector A	26	28	Right side of trunk		*3
Stereo amplifier connector A	26	20	Right side of trunk		*1
Stereo amplifier connector B	27	18	Right side of trunk		
Subwoofer	3	2	Under rear shelf		
Trunk light	2	2	Under rear shelf		
C410	16	8	Under right side of dash	Dashboard wire harness (View of middle to passenger's side)	
C411	20	12	Under right side of dash	Dashboard wire harness (View of middle to passenger's side)	
C509	17	28	Under right side of dash	Audio wire harness	
C510	18	12	Under right side of dash	Audio wire harness	
C601	5	20	Under rear seat	Left side wire harness (With SH-AWD)	
C602	6	2	Under rear seat	Left side wire harness (With SH-AWD)	
C651 (junction connector)	12	12	Right C-pillar		
C652	28	6	Under right side of floor	Rear differential subharness	
C653	29	6	Under right side of floor	Rear differential subharness	
C781	14	13	Right B-pillar	Right rear door wire harness	
G651	21		Under front passenger's seat	Body ground, via right side wire harness	
G652	22		Right C-pillar	Body ground, via right side wire harness	
G653	30		Right side of rear	Body ground, via right side wire harness	

*1: Without navigation system
*2: With keyless access system
*3: With navigation system

Rear Window Defogger Ground Wire (With SH-AWD)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Rear window defogger connector B (−)	7	1	Right C-pillar		
G801	32		Right C-pillar	Body ground, via rear window defogger ground	

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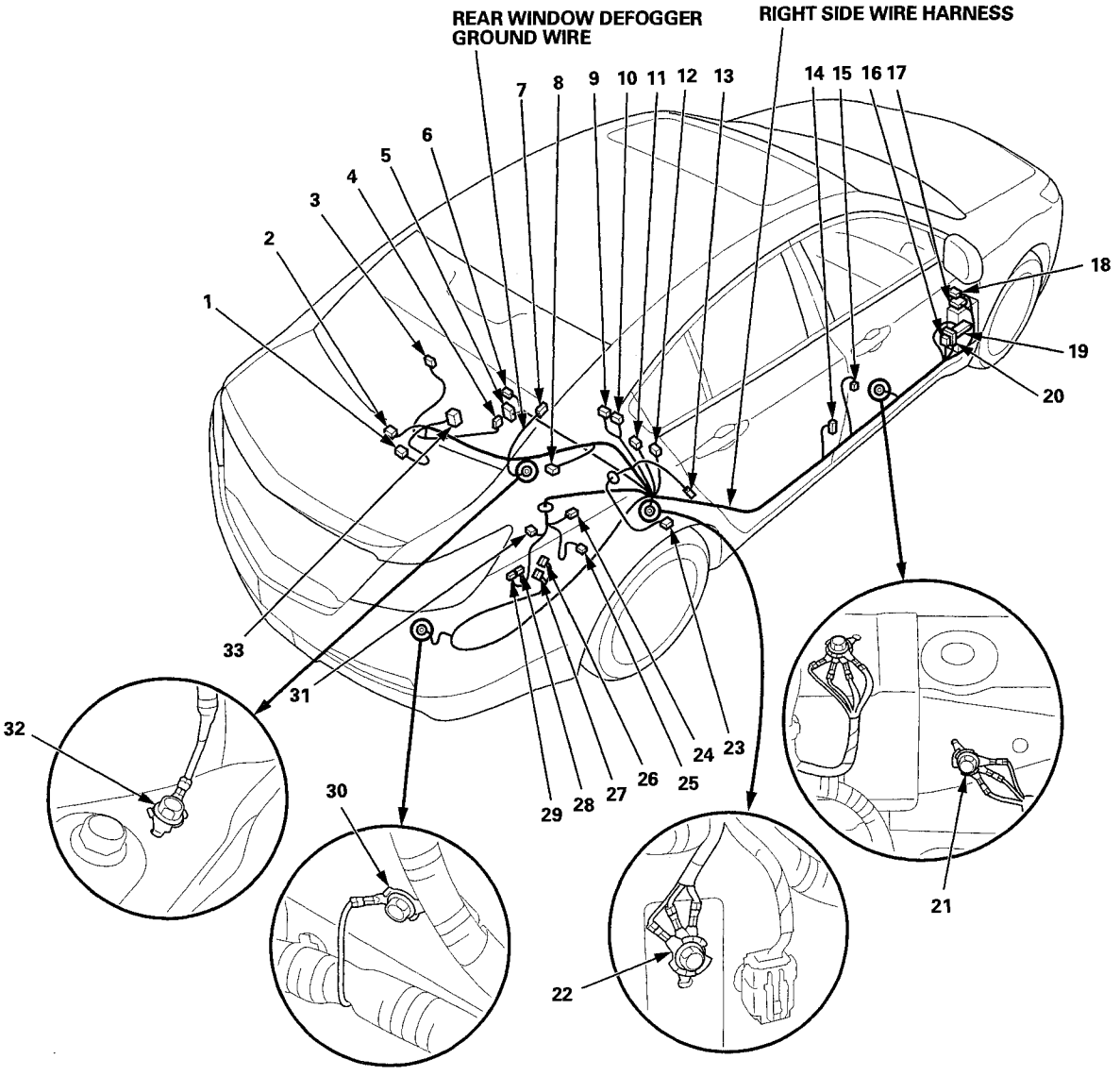

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Connector to Harness Index (cont'd)

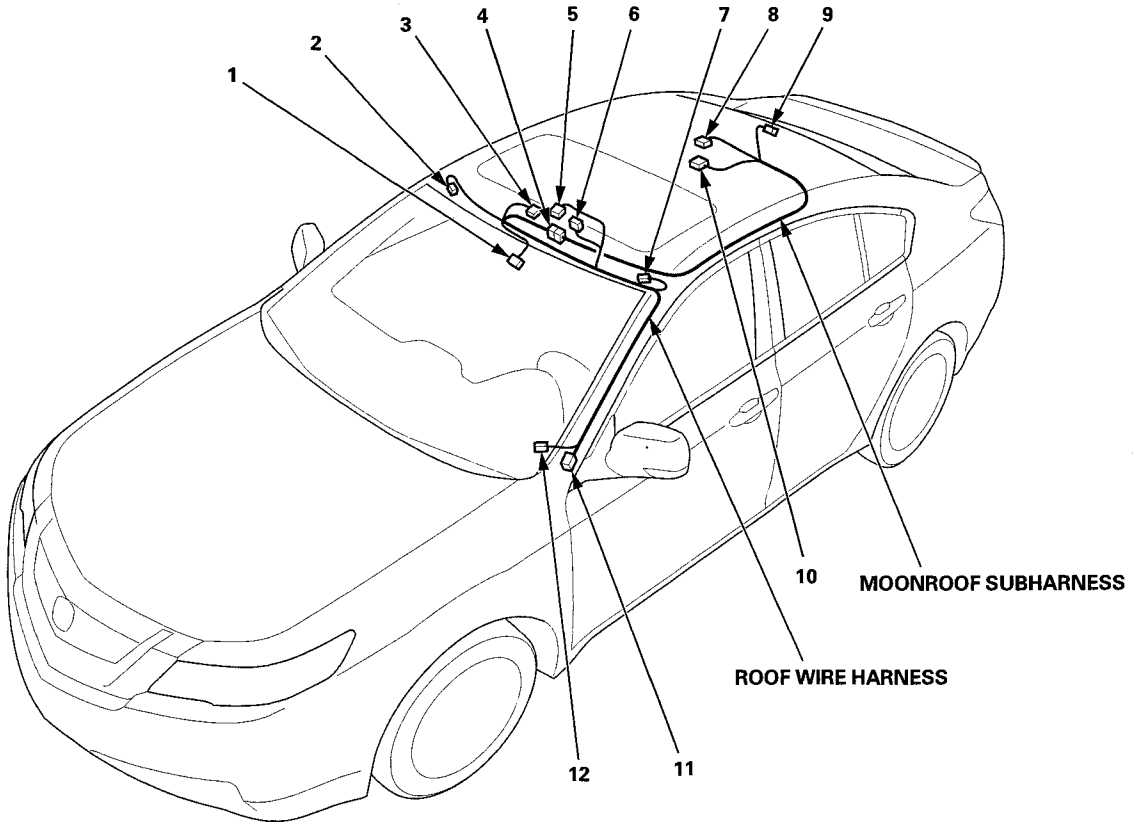
Roof Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Automatic dimming inside mirror	1	7	Front of roof		
Driver's vanity mirror light	7	2	Left front of roof		
Front passenger's vanity mirror light	2	2	Right front of roof		
HFL-navigation microphone	6	7	Front of roof		*
Left tweeter	12	2	Front of roof		
Moonroof switch	5	7	Front of roof		
Roof console	3	20	Front of roof		
C402	11	23	Under left side of dash	Dashboard wire harness (View of driver's side)	
C451	4	23	Middle of roof	Moonroof subharness	

*: With navigation system

Moonroof Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
High mount brake light	9	2	Rear of roof		
Moonroof control unit/motor	10	14	Rear of roof		
Rear individual map light	8	10	Rear of roof		
C451	4	23	Middle of roof	Roof wire harness	



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Driver's Door Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Driver's door lock actuator/knob switch/key cylinder switch	17	10	Driver's door		
Driver's door outer handle/lock switch/touch sensor/LF antenna	1	8	Driver's door		*
Driver's power window motor	15	6	Driver's door		
Left front speaker	14	2	Driver's door		
Left power mirror	9	16	Driver's door		
C751	11	23	Under left side of dash	Dashboard wire harness (View of driver's side)	
C752	12	12	Under left side of dash	Dashboard wire harness (View of driver's side)	
C753	6	28	Driver's door	Driver's door subharness	
C754	7	16	Driver's door	Driver's door subharness	
C755 (junction connector)	8	12	Driver's door		

*: With keyless access system

Driver's Door Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Driver's door courtesy light	16	2	Driver's door		
Driving position memory switch	3	7	Driver's door		
Power mirror control unit	10	24	Driver's door		
Power mirror switch	5	13	Driver's door		
Power window master switch (door multiplex control unit)	2	37	Driver's door		
Trunk lid opener/fuel fill door opener switch	13	6	Driver's door		
C753	6	28	Driver's door	Driver's door wire harness	
C754	7	16	Driver's door	Driver's door wire harness	
C756 (junction connector)	4	12	Driver's door		

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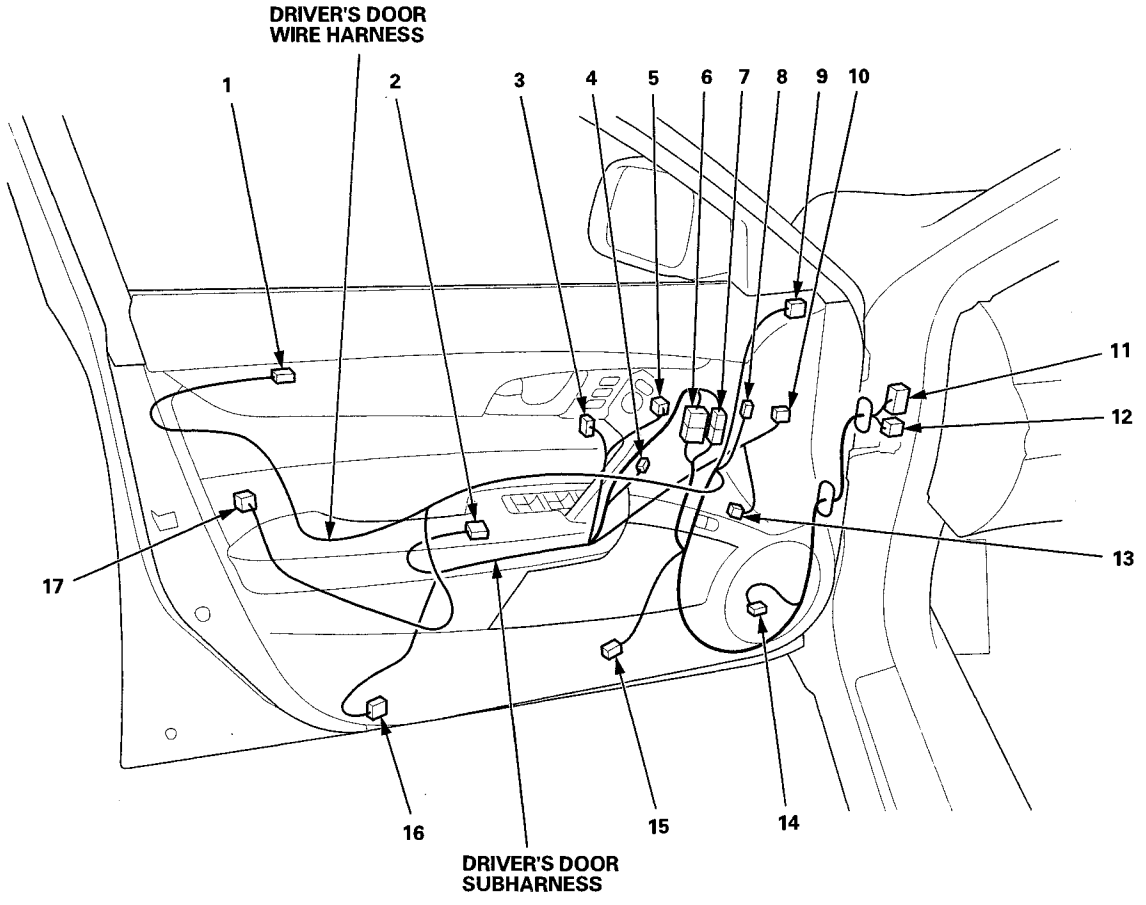
Connector to Harness Index (cont'd)



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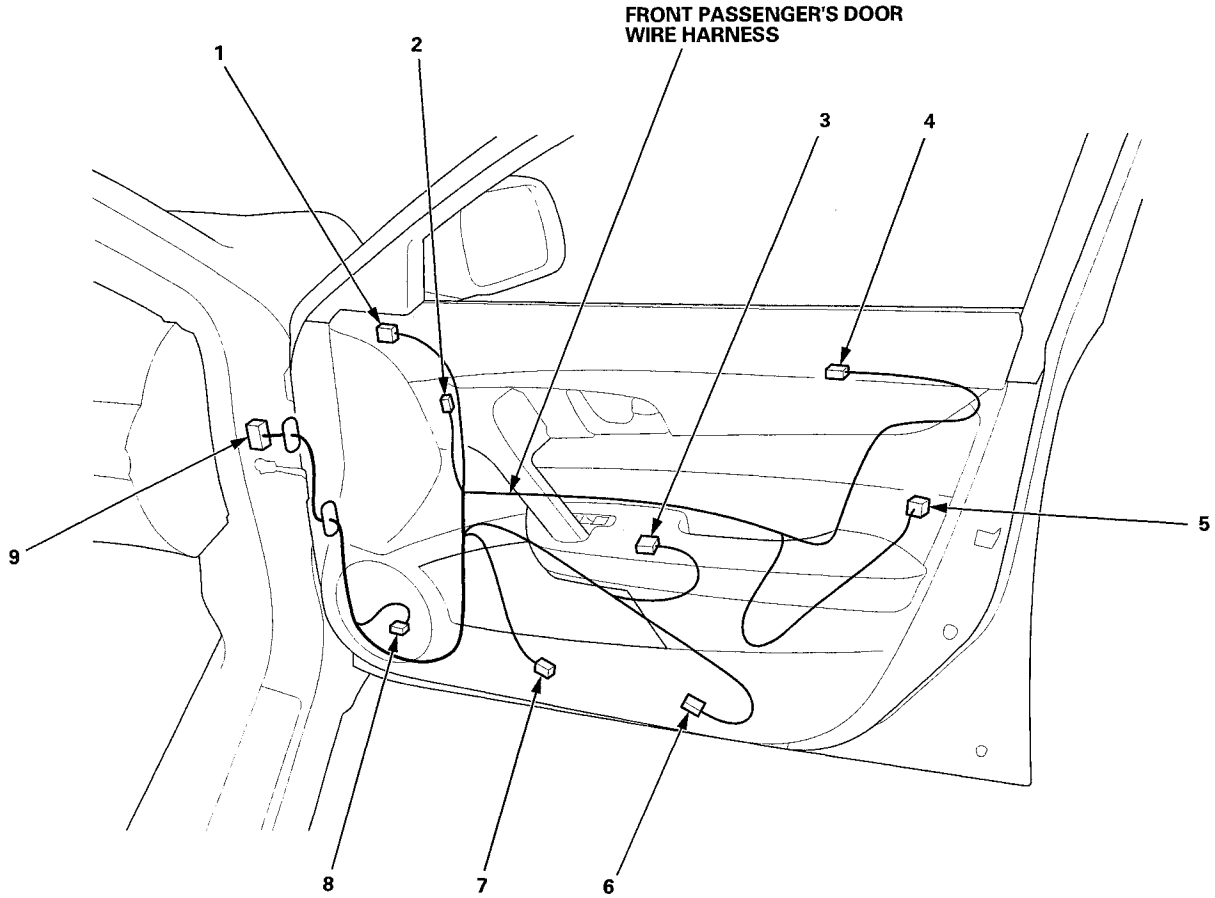
Front Passenger's Door Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Front passenger's door courtesy light	6	2	Front passenger's door		
Front passenger's door lock actuator/knob switch	5	10	Front passenger's door		
Front passenger's door outer handle/lock switch/touch sensor/LF antenna	4	8	Front passenger's door		*
Front passenger's power window motor	7	6	Front passenger's door		
Front passenger's power window switch	3	37	Front passenger's door		
Right front speaker	8	2	Front passenger's door		
Right power mirror	1	16	Front passenger's door		
C761	9	28	Under right side of dash	Dashboard wire harness (View of middle to passenger's side)	
C762 (junction connector)	2	12	Front passenger's door		

*: With keyless access system



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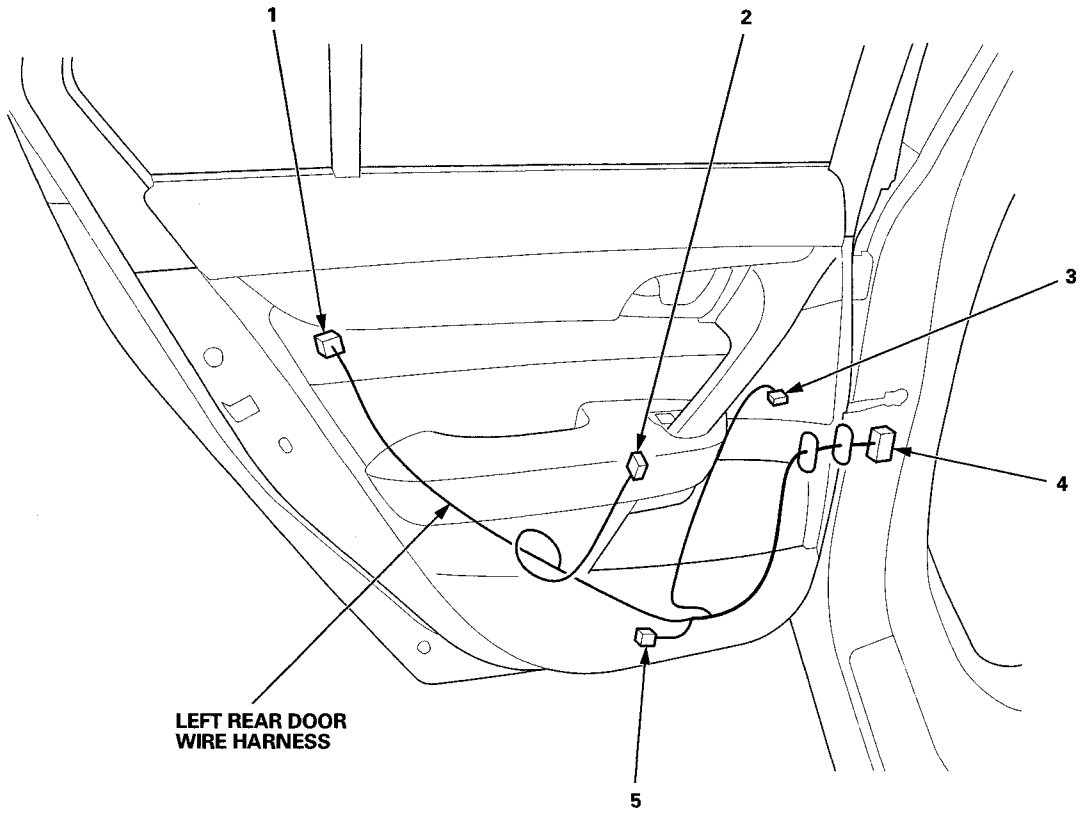
Connector to Harness Index (cont'd)

Left Rear Door Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Left rear door lock actuator/knob switch	1	10	Left rear door		
Left rear power window motor	5	2	Left rear door		
Left rear power window switch	2	14	Left rear door		
Left rear speaker	3	2	Left rear door		
C771	4	13	Left B-pillar	Left side wire harness: • Without SH-AWD • With SH-AWD	



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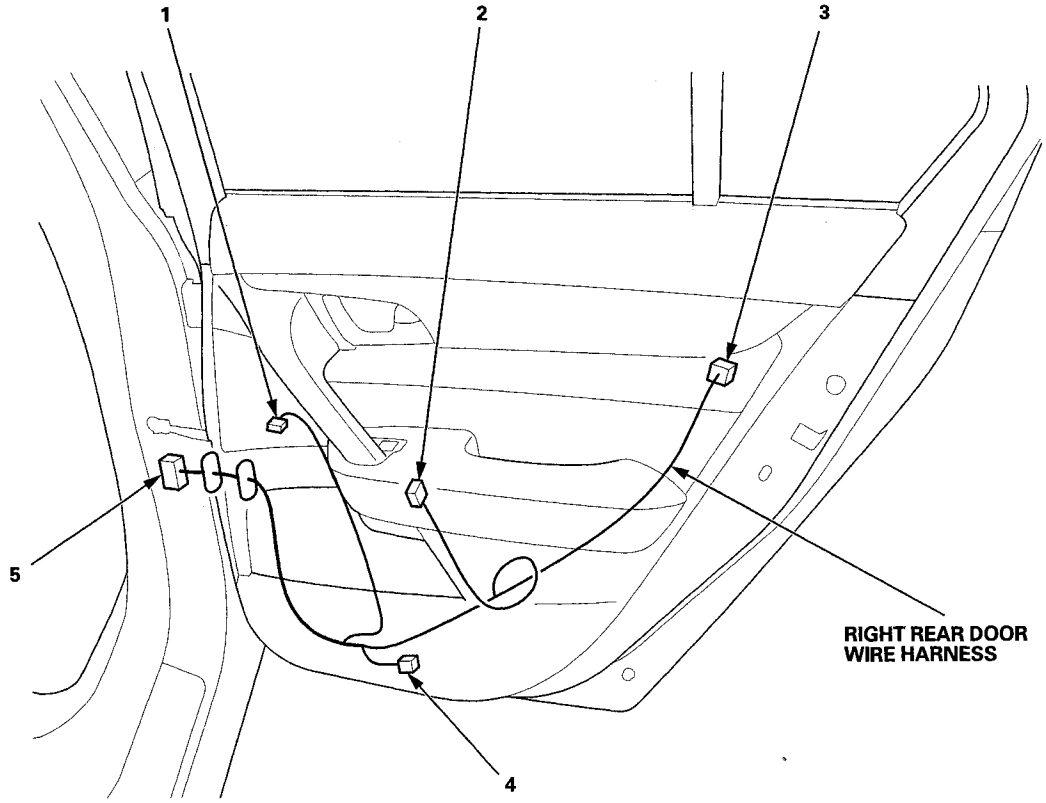
Right Rear Door Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Right rear door lock actuator/knob switch	3	10	Right rear door		
Right rear power window motor	4	2	Right rear door		
Right rear power window switch	2	14	Right rear door		
Right rear speaker	1	2	Right rear door		
C781	5	13	Right B-pillar	Right side wire harness: • Without SH-AWD • With SH-AWD	



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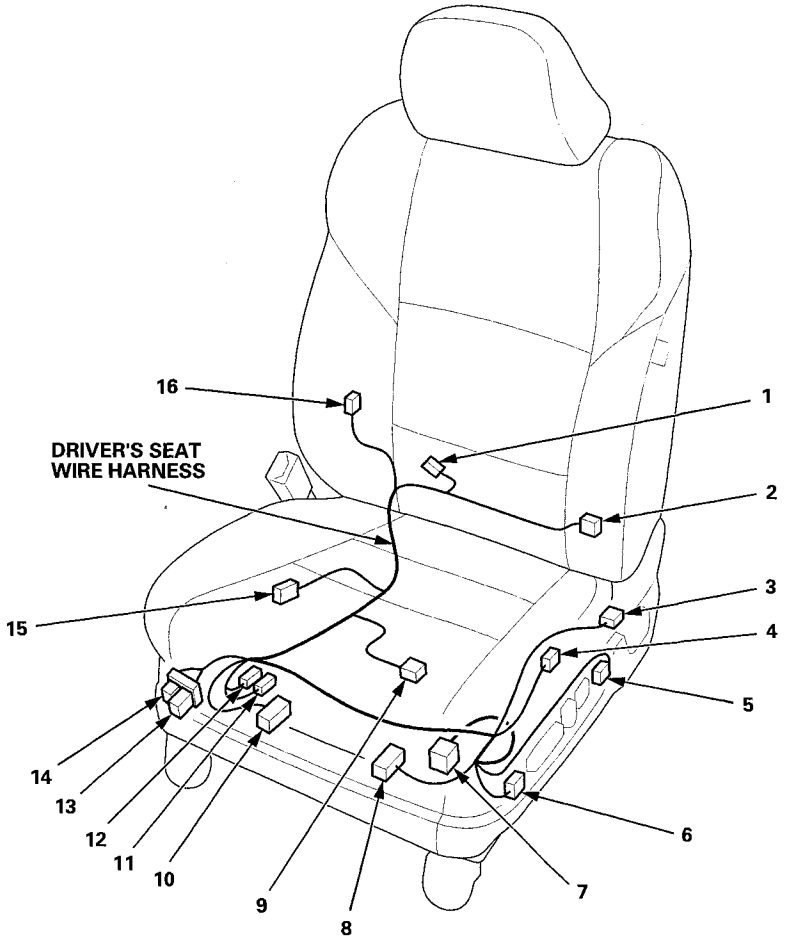
Connector to Harness Index (cont'd)

Driver's Seat Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Driver's seat rear up-down motor/position sensor	3	5	Driver's seat		
Driver's power lumbar support motor	16	2	Right side of seat-back		
Driver's power lumbar support switch	5	5	Left side of driver's seat		
Driver's power seat adjustment switch	6	12	Left side of driver's seat		
Driver's seat back heater	1	2	Driver's seat		
Driver's seat belt buckle switch	12	2	Driver's seat		
Driver's seat cushion heater	11	3	Driver's seat		
Driver's seat front up-down motor/position sensor	15	5	Driver's seat		
Driver's seat heater relay (high)	14	4	Driver's seat		
Driver's seat heater relay (low)	13	5	Driver's seat		
Driver's seat position sensor	4	2	Driver's seat		
Driver's seat recline motor/position sensor	2	5	Bottom of seat back		
Driver's seat slide motor/position sensor	9	5	Driver's seat		
Power seat control unit connector A	8	18	Under driver's seat		
Power seat control unit connector B	10	40	Under driver's seat		
C701	7	23	Under driver's seat	SRS floor wire harness	



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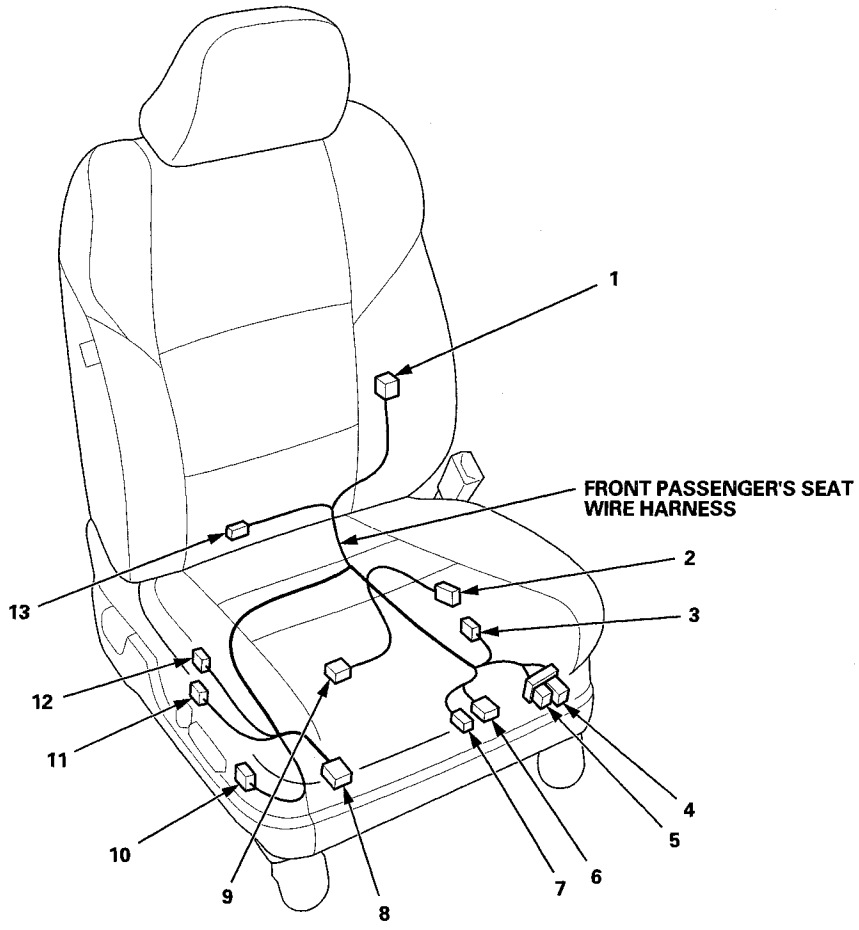
Front Passenger's Seat Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Front passenger's seat adjustment switch	10	12	Right side of front passenger's seat		
Front passenger's seat belt buckle switch	7	2	Front passenger's seat		
Front passenger's seat cushion heater	6	4	Front passenger's seat		
Front passenger's seat front up-down motor	2	2	Front passenger's seat		
Front passenger's seat heater relay (high)	5	4	Front passenger's seat		
Front passenger's seat heater relay (low)	4	5	Front passenger's seat		
Front passenger's seat rear up-down motor	11	2	Front passenger's seat		
Front passenger's seat recline motor	13	2	Bottom of seat back		
Front passenger's seat slide motor	9	5	Front passenger's seat		
Front passenger's seat weight sensor (inner side)	3	2	Front passenger's seat		
Front passenger's seat weight sensor (outer side)	12	3	Front passenger's seat		
ODS unit	1	18	Left side of seat-back		
C702	8	18	Under front passenger's seat	SRS floor wire harness	



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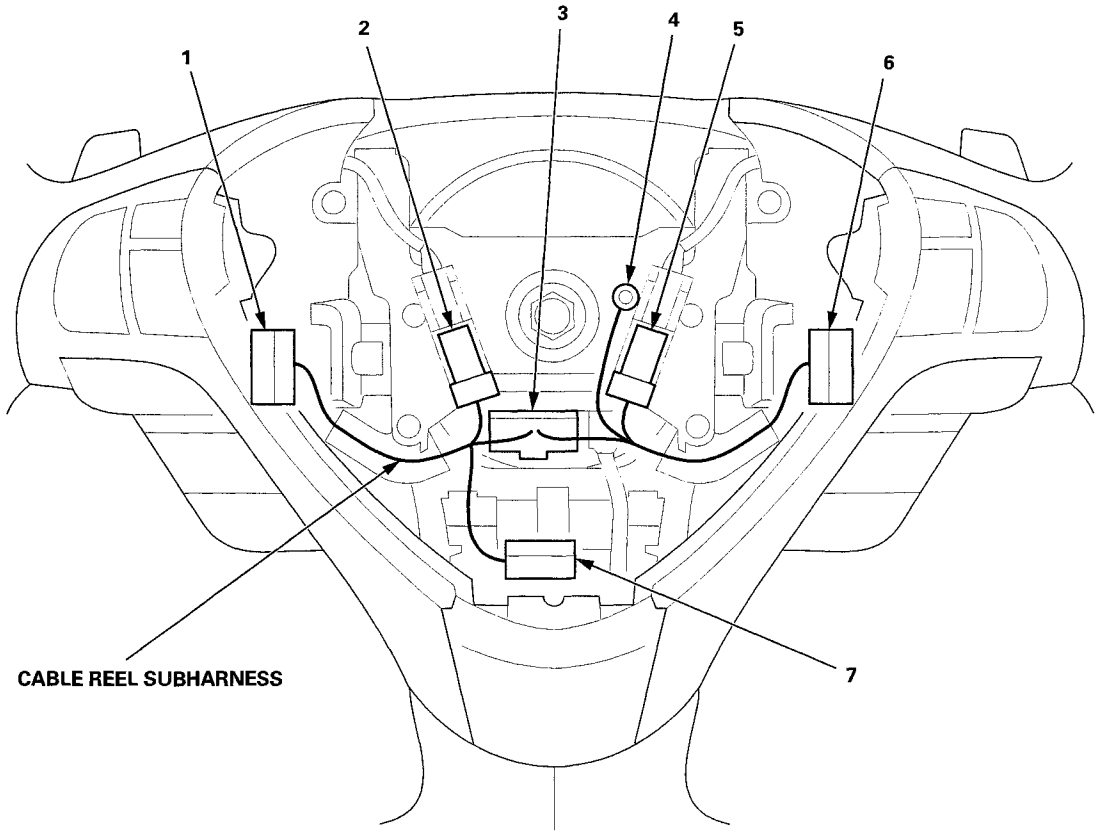
Connector to Harness Index (cont'd)

Cable Reel Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Audio remote switch, HFL-navigation voice control switch	1	12	Steering wheel		
Cable reel connector C	3	20	Steering wheel		
Cruise control combination/select/reset/information switch	6	12	Steering wheel		
Paddle shifter + (Upshift switch)	5	4	Steering wheel		A/T
Paddle shifter − (Downshift switch)	2	4	Steering wheel		A/T
Horn switch	7	1	Steering wheel		
T9	4		Steering wheel	Steering wheel	



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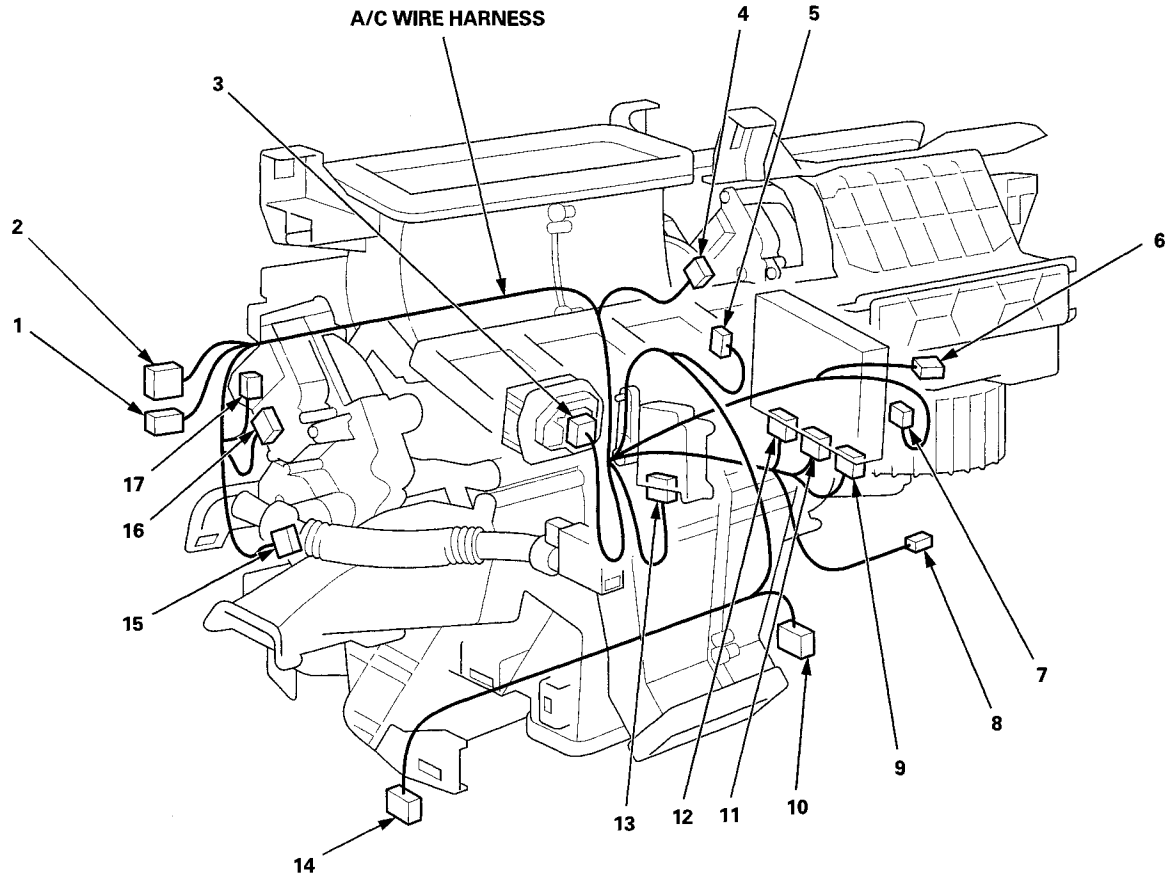
A/C Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Blower motor	7	2	Under right side of dash		
Climate control unit connector A	12	32	Under right side of dash		
Climate control unit connector B	11	24	Under right side of dash		
Climate control unit connector C	9	20	Under right side of dash		
Driver's air mix control motor	15	7	Under middle of dash		
Driver's mode control motor	16	7	Under middle of dash		
Evaporator temperature sensor	17	2	Under middle of dash		
Front passenger's footwell light	8	2	Under right side of dash		
Passenger's air mix control motor	13	7	Under middle of dash		
Passenger's mode control motor	5	7	Under middle of dash		
Power transistor	3	5	Under middle of dash		
Recirculation control motor	4	7	Under middle of dash		
C205	6	2	Under right side of dash	Right engine compartment wire harness	
C301	1	2	Under middle of dash	Left engine compartment wire harness (Dashboard branch)	
C302	2	2	Under middle of dash	Left engine compartment wire harness (Dashboard branch)	
C403	14	20	Under middle of dash	Dashboard wire harness (View of middle to passenger's side)	
C501	10	20	Under middle of dash	Audio wire harness	



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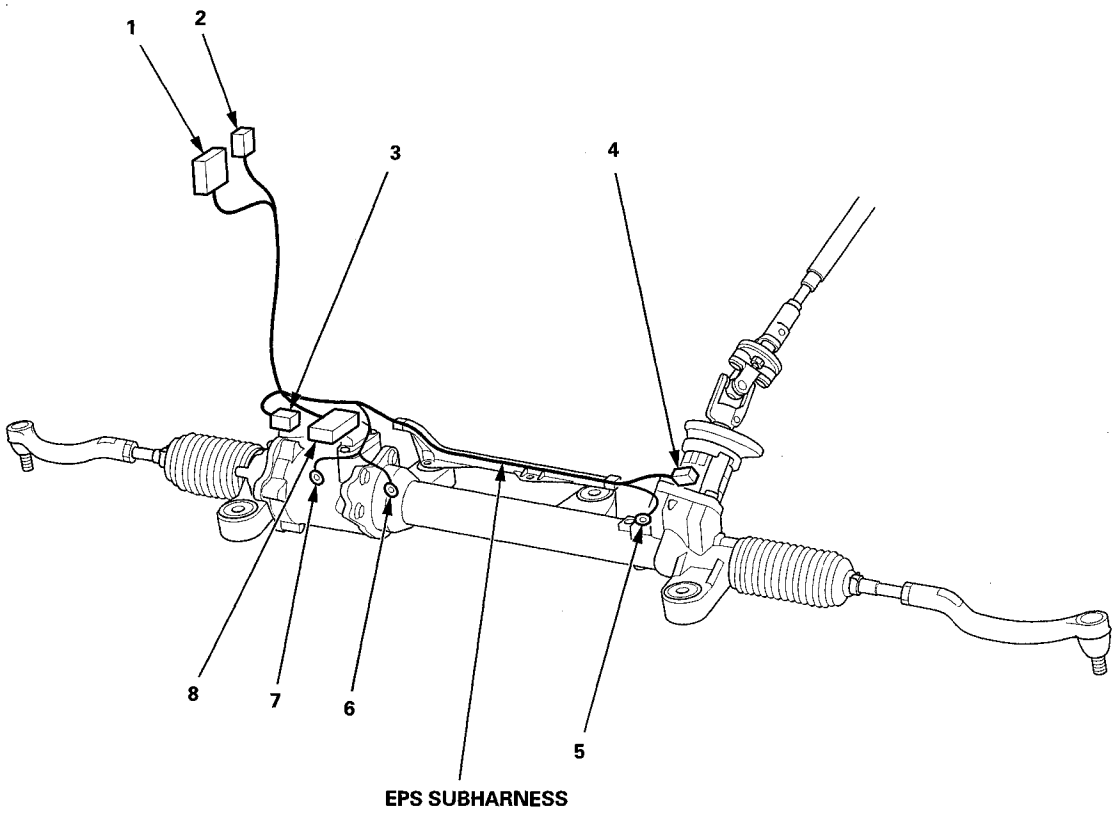
Connector to Harness Index (cont'd)

EPS Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
EPS motor	3	3	Middle of engine compartment		
EPS motor angle sensor	8	6	Middle of engine compartment		
Torque sensor	4	3	Middle of engine compartment		
C202	2	3	Right of engine compartment	Right engine compartment wire harness	
C203	1	12	Right of engine compartment	Right engine compartment wire harness	
T6	5		Middle of engine compartment	Steering gearbox	
T7	6		Middle of engine compartment	Steering gearbox	
T8	7		Middle of engine compartment	Steering gearbox	



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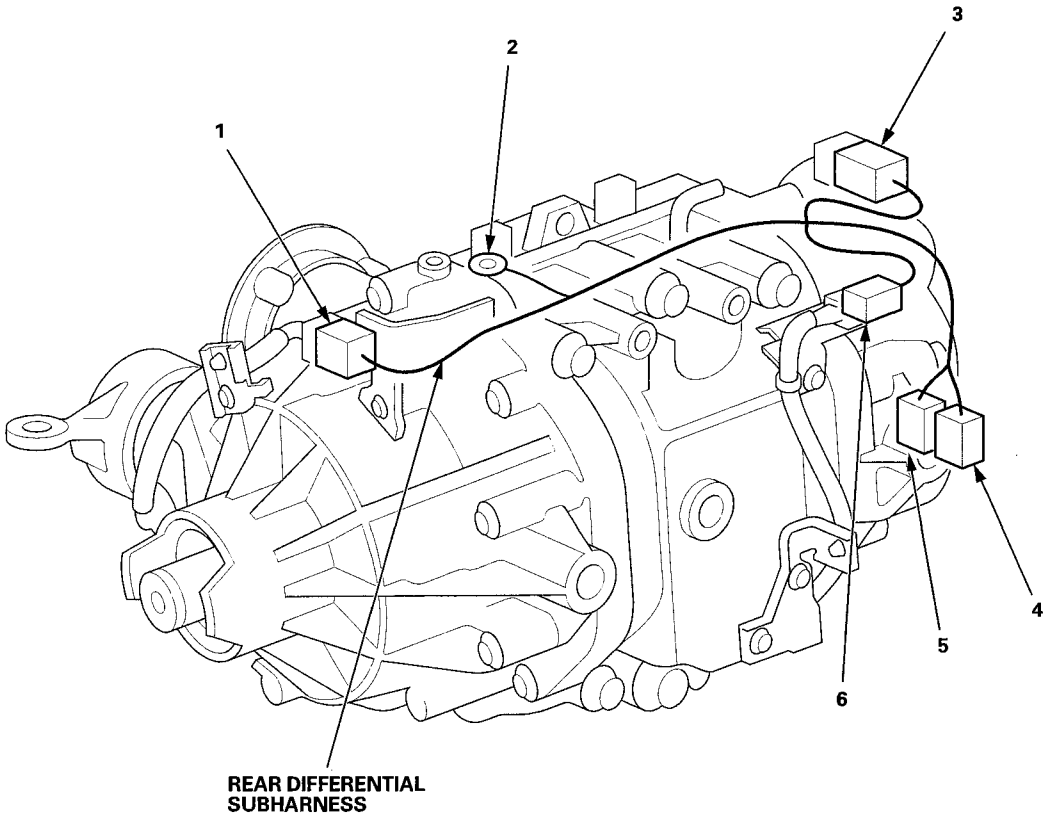
Rear Differential Subharness (With SH-AWD)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Differential fluid temperature sensor	6	2	Rear differential		
Left clutch electromagnetic coil/search coil	1	4	Rear differential		
Right clutch electromagnetic coil/search coil	3	4	Rear differential		
C652	5	6	Rear differential	Right side wire harness (With SH-AWD)	
C653	4	6	Rear differential	Right side wire harness (With SH-AWD)	
T10	2		Rear differential		



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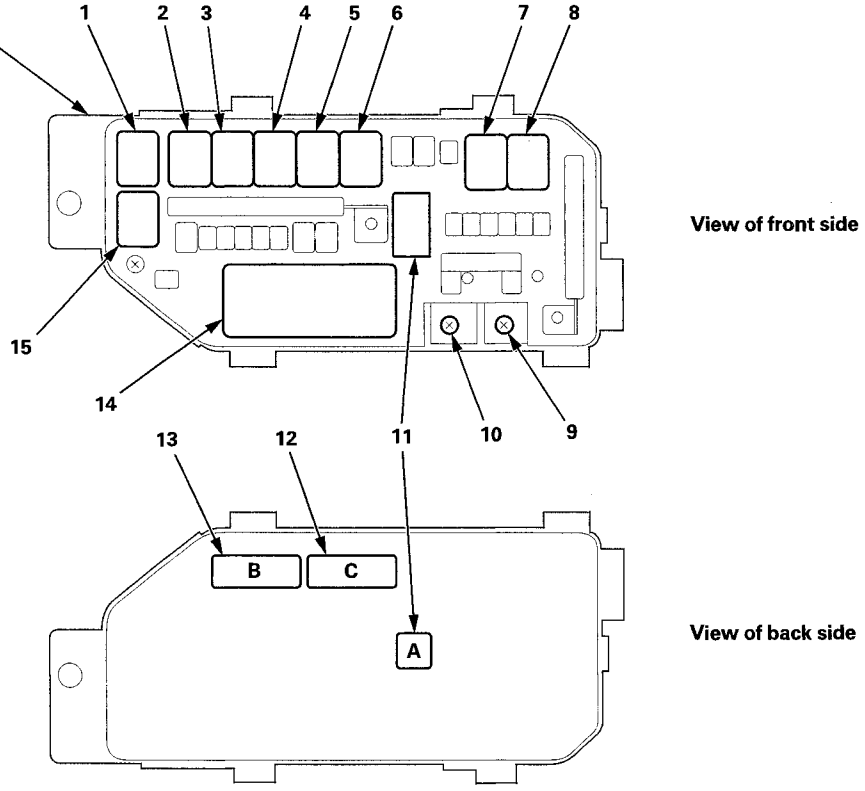
Fuse/Relay Boxes

Connector to Fuse/Relay Box Index

Under-hood Fuse/Relay Box

Socket	Ref	Terminal	Connects to	Notes
A (electrical load detector (ELD))	11	3	Left engine compartment wire harness (Engine compartment branch) (see page 22-30)	
A/C compressor clutch relay	15	4		
A/C condenser fan relay	2	4		
B	13	14	Left engine compartment wire harness (Engine compartment branch) (see page 22-30)	
Blower motor relay	1	4		
C	12	5	Left engine compartment wire harness (Engine compartment branch) (see page 22-30)	
Electronic throttle control system (ETCS) control relay	6	4		
Ignition coil relay	5	4		
PGM-FI main relay 1	3	4		
PGM-FI subrelay	4	4		
Rear window defogger relay	8	4		
Relay circuit board	14		Connector B (14P) and connector C (5P)	
Starter cut relay 2	7	4		
T101	9	——	Starter cable, M/T (see page 22-18), A/T (see page 22-19)	
T102	10	——	Engine wire harness (Engine section) (see page 22-22)	

UNDER-HOOD FUSE/RELAY BOX



View of front side

View of back side

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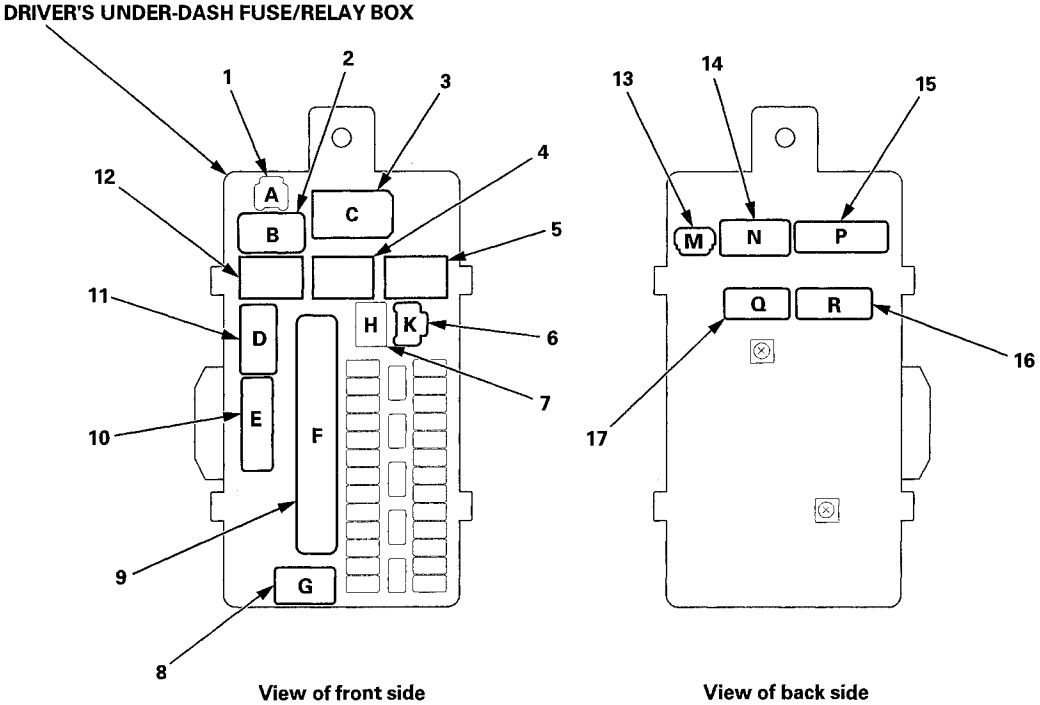
Driver's Under-dash Fuse/Relay Box

Socket	Ref	Terminal	Connects to	Notes
A	1	———	Not used	
Accessory relay	4	4		*1
B	2	2	Dashboard wire harness (View of driver's side) (see page 22-36)	
C	3	5	Dashboard wire harness (View of driver's side) (see page 22-36)	
D	11	16	Left side wire harness: • Without SH-AWD (see page 22-46) • With SH-AWD (see page 22-48)	
E	10	20	Left side wire harness: • Without SH-AWD (see page 22-46) • With SH-AWD (see page 22-48)	
F	9	33	Left engine compartment wire harness (Dashboard branch) (see page 22-32)	
Front accessory power socket relay	4	4		*2
G	8	13	Left engine compartment wire harness (Dashboard branch) (see page 22-32)	
H (optional connector)	7	12		
K (MICU service check connector)	6	3		
M	13	4	Dashboard wire harness (View of driver's side) (see page 22-36)	
N	14	16	Dashboard wire harness (View of driver's side) (see page 22-36)	
P	15	20	Dashboard wire harness (View of driver's side) (see page 22-36)	
PGM-FI main relay 2	12	4		
Q	17	20	Dashboard wire harness (View of driver's side) (see page 22-36)	
R	16	24	Dashboard wire harness (View of driver's side) (see page 22-36)	
Starter cut relay 1	5	4		

*1: With keyless access system
*2: Without keyless access system

DRIVER'S UNDER-DASH FUSE/RELAY BOX



View of front side

View of back side

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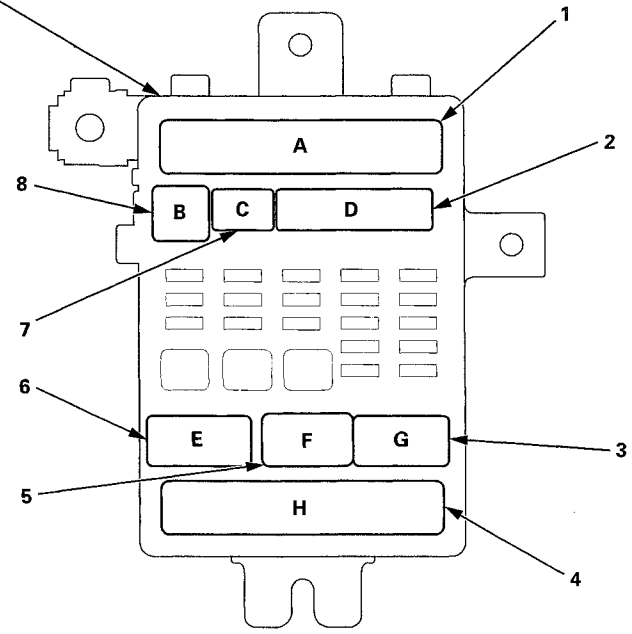
Connector to Fuse/Relay Box Index (cont'd)

Passenger's Under-dash Fuse/Relay Box

Socket	Ref	Terminal	Connects to	Notes
A	1	38	Dashboard wire harness (View of middle to passenger's side) (see page 22-40)	
B	8	1	Right engine compartment wire harness (see page 22-34)	
C	7	12	Not used	
D	2	28	Audio wire harness (see page 22-44)	
E	6	18	Right engine compartment wire harness (see page 22-34)	
F	5	2	Not used	
G	3	16	Right side wire harness (see page 22-52)	*1
H	4	38	Right side wire harness (see page 22-54)	*2

*1: Without SH-AWD
*2: With SH-AWD

PASSENGER'S UNDER-DASH FUSE/RELAY BOX



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Fuse to Components Index

Under-hood Fuse/Relay Box

Fuse Number			Amps	Component(s) or Circuit(s) Protected
1	1-1	MAIN	120 A	Battery, Power supply
	1-2	AS F/B STD	40 A	No. 8, No. 9, No. 10, No. 11, No. 12, and No. 13 fuses in the passenger's under-dash fuse/relay box
2	2-1	EPS	70 A	EPS control unit
	2-2	VSA MTR	40 A	VSA modulator-control unit (MTR)
	2-3	VSA FSR	30 A	VSA modulator-control unit (FSR)
	2-4	AS F/B OP	40 A	No. 15, No. 16, No. 17, No. 18, and No. 19 fuses in the passenger's under-dash fuse/relay box
	2-5	H/L WASHER	30 A	Headlight washer motor relay*1, Headlight washer motor (via headlight washer motor relay)*1
	2-6	SH-AWD	30 A	SH-AWD control unit (via SH-AWD relay)*2
3	3-1	IG MAIN	50 A	Ignition switch*3, No. 8 fuse in the driver's under-dash fuse/relay box (via starter cut relay 1), Power control unit*4
	3-2	SUB FAN	40 A	A/C condenser fan motor (via A/C condenser fan relay circuit in the relay circuit board)*10
	3-3	SUB FAN	30 A	A/C condenser fan motor (via A/C condenser fan relay circuit in the relay circuit board)*11
	3-4	DR F/B STD	60 A	No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, and No. 25 fuses in the driver's under-dash fuse/relay box
	3-5	MAIN FAN	30 A*11/ 40 A*10	Radiator fan motor (via radiator fan relay circuit in the relay circuit board)
	3-6	DR LT MAIN	30 A	No. 26, No. 27, No. 28, No. 29, and No. 30 fuses in the driver's under-dash fuse/relay box
	3-7	WIP MTR	30 A	Windshield wiper motor intermittent relay circuit and Windshield wiper motor HI/LOW relay circuit in the relay circuit board (via windshield wiper motor relay circuit in the relay circuit board), Windshield wiper motor
	3-8	AS LT MAIN	30 A	No. 1, No. 2, No. 3, and No. 4 fuses in the passenger's under-dash fuse/relay box
	4		40 A	Condenser (for rear window defogger), Rear window defogger (via rear window defogger relay)
	5		———	Not used
	6		———	Not used
	7		———	Not used
	8		40 A	Blower motor (via blower motor relay)
	9		15 A	Driver's MICU, Hazard warning switch
	10		20 A	Brake pedal position switch, Horn relay circuit in the relay circuit board, Horns (via horn relay circuit in the relay circuit board)
	11		7.5 A	No. 18 fuse in the driver's under-dash fuse/relay box (via accessory relay)
	12		———	Not used
	13		15 A	Ignition coil relay, Ignition coils (via ignition coil relay circuit)
	14		15 A	Front A/F sensor (Bank 2, Sensor 1), Front secondary HO2S (Bank 2, Sensor 2), No. 21 fuse in the under-hood fuse/relay box (via PGM-FI subrelay), PGM-FI subrelay, Rear A/F sensor (Bank 1, Sensor 1), Rear secondary HO2S (Bank 1, Sensor 2)
	15		10 A	AcuraLink control unit (XM receiver)*6, Audio/Navigation switch panel*7, Audio unit*8, Audio-HVAC display unit*8, Data link connector (DLC), Driver's door courtesy light, Driver's MICU, Front passenger's door courtesy light, Gauge control module, HandsFreeLink control unit, HFL-navigation microphone*7, Immobilizer-keyless control unit*3, Navigation display unit*7, Navigation unit*7, Passenger's MICU, Power window master switch, Power seat control unit, XM receiver*9
	16		7.5 A	Front individual map lights (in the roof console), Ignition key light, Rear individual map lights, Trunk light, Vanity mirror lights
	17		15 A	CKP sensor (via PGM-FI main relay 1), CMP sensor (via PGM-FI main relay 1), Electronic throttle control system (ETCS) control relay, ECM/PCM (IGP) (via PGM-FI main relay 1), MAF sensor (via PGM-FI main relay 1), Injectors (via PGM-FI main relay 1), PGM-FI main relay 1, PGM-FI main relay 2 (via PGM-FI main relay 1)
	18		15 A	ECM/PCM (IG1) (via electronic throttle control system (ETCS) control relay)
	19		7.5 A	ECM/PCM (VBUM)
	20		7.5 A	A/C compressor clutch (via A/C compressor clutch relay)
	21		7.5 A	Radiator fan relay circuit

*1: Canada models with SH-AWD
*2: With SH-AWD
*3: Without keyless access system
*4: With keyless access system
*5: Without SH-AWD
*6: USA models with navigation system
*7: With navigation system
*8: Without navigation system
*9: Except USA models with navigation system
*10: A/T with SH-AWD
*11: Without SH-AWD and M/T with SH-AWD

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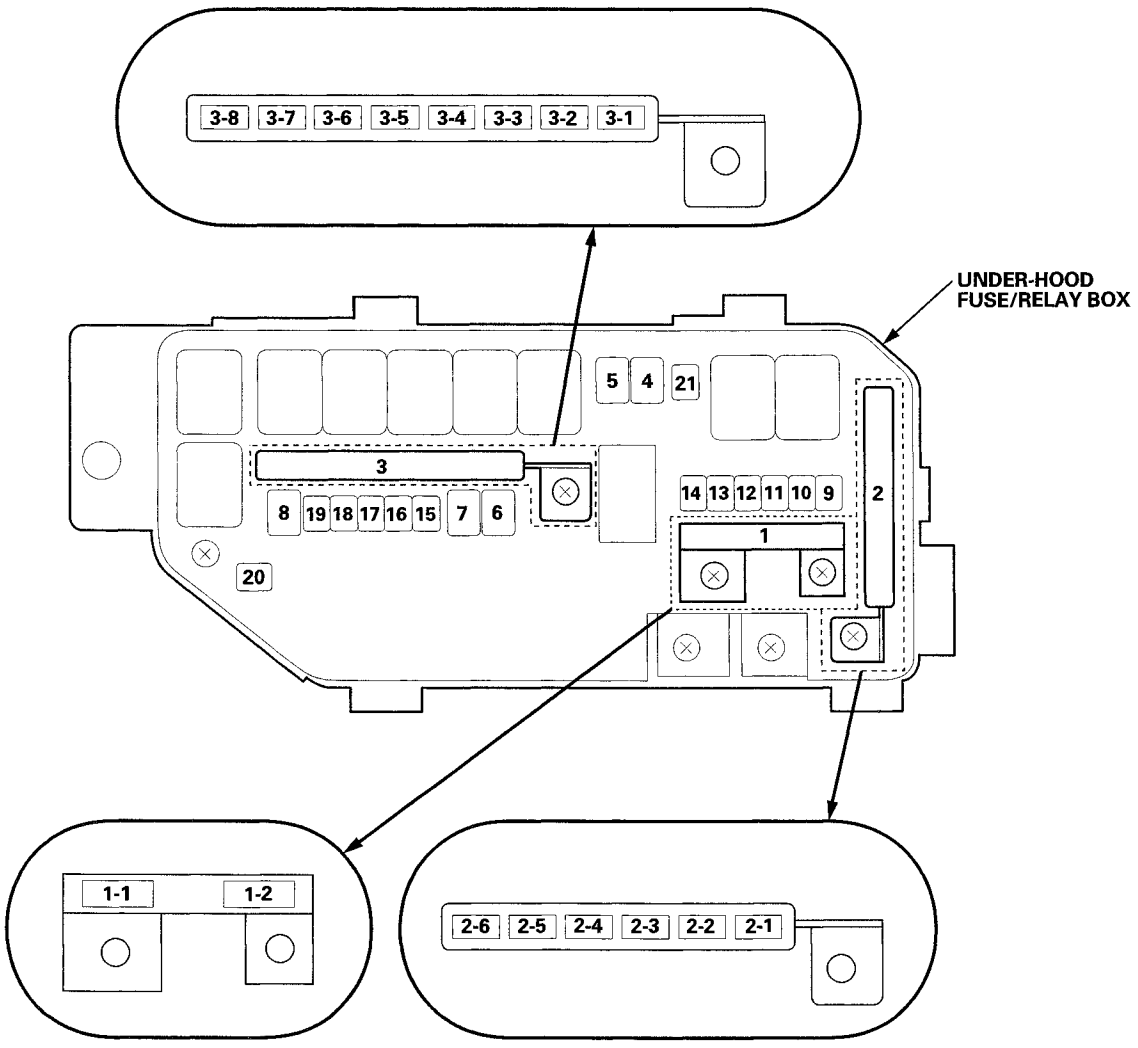
Fuse to Components Index (cont'd)



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Driver's Under-dash Fuse/Relay Box

Fuse Number	Amps	Component(s) or Circuit(s) Protected
1	———	Not used
2	7.5 A	SH-AWD control unit*1
3	20 A	Windshield washer motor, Windshield washer relay circuit (in the passenger's under-dash fuse/relay box)
4	7.5 A	Windshield wiper motor relay circuit in the relay circuit board (in the under-hood fuse/relay box)
5	7.5 A	ODS unit, Passenger's airbag cutoff indicator, SRS unit
6	7.5 A	EPS control unit, Steering angle sensor*1, VSA modulator-control unit, Yaw rate-lateral acceleration sensor*2, Yaw rate-lateral/Longitudinal acceleration sensor*1
7	———	Not used
8	7.5 A	ECM/PCM (STRLD)
9	20 A	ECM/PCM (IG1), Electric steering lock*3, Fuel pump (via PGM-FI main relay 2)*4, Fuel pump unit (via PGM-FI main relay 2)*1, Immobilizer-keyless control unit *4, Keyless access control unit*3, PCM (IG1), Remote slot control unit*3
10	10 A	PCM (VBSOL2) (A/T)
11	10 A	SRS unit
12	7.5 A	AcuraLink control unit (XM receiver)*5, Automatic dimming inside mirror (IG1), Automatic dimming inside mirror (via back-up light switch*8/reverse relay circuit*9), Back-up lights (via back-up light switch*8/reverse relay circuit*9), Driver's MICU (BACK LT—) (via back-up light switch*8/reverse relay circuit*9), Driver's MICU (IG1), Electrical compass unit*6, Gauge control module, Navigation display unit*7 (via back-up light switch*8/reverse relay circuit*9), Navigation unit*7 (via back-up light switch*8/reverse relay circuit*9), Passenger's MICU (IG1 METER), Power mirror control unit, Power seat control unit, Reverse relay circuit, Shift lock solenoid, TPMS control unit
13	15 A	Alternator, Brake pedal position switch, ECM/PCM (IGP), Electrical load detector (ELD), Engine mount control solenoid valve, EVAP canister purge valve
14	———	Not used
15	7.5 A	Driver's MICU (IG2 DAY LT)
16	7.5 A	Audio-HVAC subdisplay unit*6, Audio-Navigation switch panel*7, Climate control unit, Door multiplex control unit (Power window master switch), Driver's climate control switch, Driver's seat heater switch, Front passenger's seat heater switch, Passenger's climate control switch, Power mirror switch
17	7.5 A	Driver's MICU (ACC KEY LOCK)*4
18	7.5 A	AcuraLink control unit (XM receiver)*5, Audio/navigation unit*7, Audio unit*6, Console accessory power socket relay, Front accessory power socket relay*3, HandsFreeLink control unit, HandsFreeLink microphone*6, HandsFreeLink-Navigation microphone*7, Interface dial*7, Key interlock solenoid*4, Keyless access control unit*3, Navigation display unit*7, Remote slot control unit*3
19	20 A	Power seat control unit
20	20 A	Moonroof control unit/motor
21	20 A	Power seat control unit
22	20 A	Left rear power window relay circuit, Left rear power window switch (via left power window relay circuit)
23	15 A	Front accessory power socket (via front accessory power socket relay)
24	20 A	Power window master switch (Door multiplex control unit)
25	15 A	Driver's door lock actuator (via power door lock relay circuit (LOCK) in the driver's under-dash fuse/relay box), Driver's door lock actuator (via power door lock relay circuit (DR UNLOCK) in the driver's under-dash fuse/relay box), Fuel fill door open relay circuit, Fuel fill door opener solenoid, Left rear door lock actuator, Power door lock relay circuit (DR UNLOCK), Power door lock relay circuit (LOCK), Power door lock relay circuit (UNLOCK), Trunk lid release actuator, Trunk lid release actuator relay circuit
26	10 A	Driver's MICU (+B FR FOG L)
27	10 A	Driver's MICU (+B PARKING LIGHT DR)
28	10 A	Driver's MICU (+B H/L HI L)
29	7.5 A	TPMS control unit
30	15 A	Driver's MICU (+B H/L LO L)
31	———	Not used

*1: With SH-AWD
*2: Without SH-AWD
*3: With keyless access system
*4: Without keyless access system
*5: USA models with navigation system
*6: Without navigation system
*7: With navigation system
*8: M/T
*9: A/T

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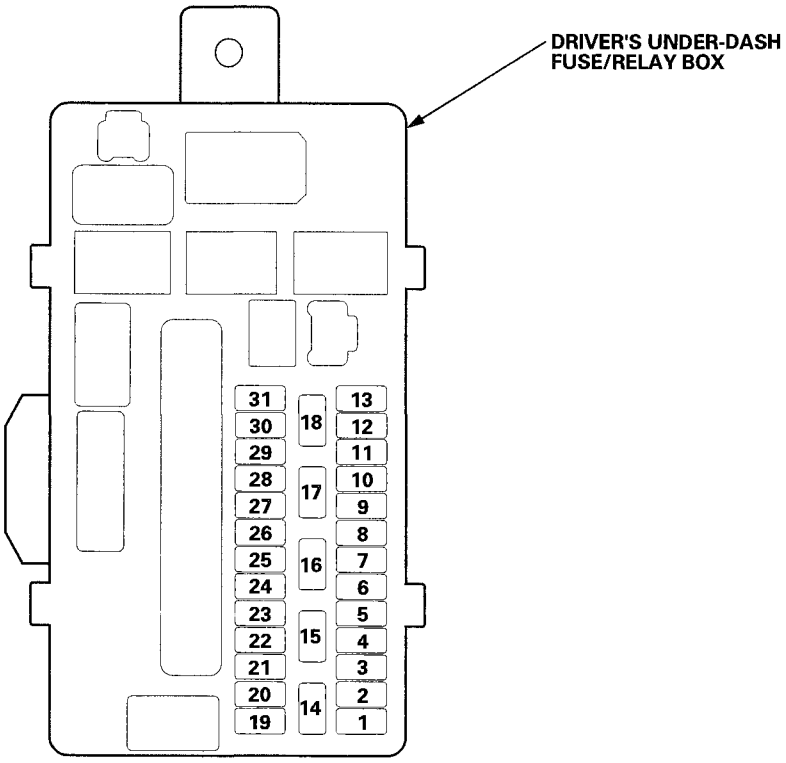
Fuse to Components Index (cont'd)



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Passenger's Under-dash Fuse/Relay Box

Fuse Number	Amps	Component(s) or Circuit(s) Protected
1	10 A	Passenger's MICU (+B H/L HI R)
2	10 A	Passenger's MICU (+B AS PARKING LIGHT)
3	10 A	Passenger's MICU (+B FR FOG R)
4	15 A	Passenger's MICU (+B H/L LO R)
5	———	Not used
6	7.5 A	A/T gear position indicator panel light (A/T), Audio unit*1, Audio-HVAC display unit*1, Climate control unit light, Console box light, Dashlights brightness controller light, Driver's climate control switch, Driver's footwell light, Driver's seat heater switch light, Front passenger's airbag cutoff switch light, Front passenger's footwell light, Front passenger's seat heater switch light, Glove box light, Hazard warning switch light, Headlight washer switch light*3, Moonroof switch light, Navigation display unit*2, Passenger's climate control switch, Rear individual map lights, Roof console, Steering wheel switch lights, VSA OFF switch light
7	———	Not used
8	20 A	Front passenger's power seat recline motor (via front passenger's power seat adjustment switch), Front passenger's power seat rear up-down motor (via front passenger's power seat adjustment switch)
9	20 A	Front passenger's power seat front up-down motor (via front passenger's power seat adjustment switch), Front passenger's power seat slide motor (via front passenger's power seat adjustment switch)
10	10 A	Front passenger's door lock actuator, Power door lock relay circuit (LOCK) (in the passenger's under-dash fuse/relay box), Power door lock relay circuit (UNLOCK) (in the passenger's under-dash fuse/relay box), Right rear door lock actuator
11	20 A	Right rear power window relay circuit (in the passenger's under-dash fuse/relay box), Right rear power window motor
12	10 A	Electric steering lock*4, Engine start/stop switch*4, Power control unit*4, Remote slot*4, Remote slot control unit*4, Starter cut relay 2 (via +B cut relay) (M/T)
13	20 A	Front passenger's power window switch
14	———	Not used
15	20 A	Stereo amplifier
16	15 A	Console accessory power socket (via console accessory power socket relay)
17	———	Not used
18	7.5 A	Driver's lumbar support motor (via driver's lumbar support switch)
19	20 A	Driver's seat heater, Front passenger's seat heater
20	———	Not used
21	———	Not used
22	———	Not used

*1: Without navigation system
*2: With navigation system
*3: Canada models with SH-AWD
*4: With keyless access system

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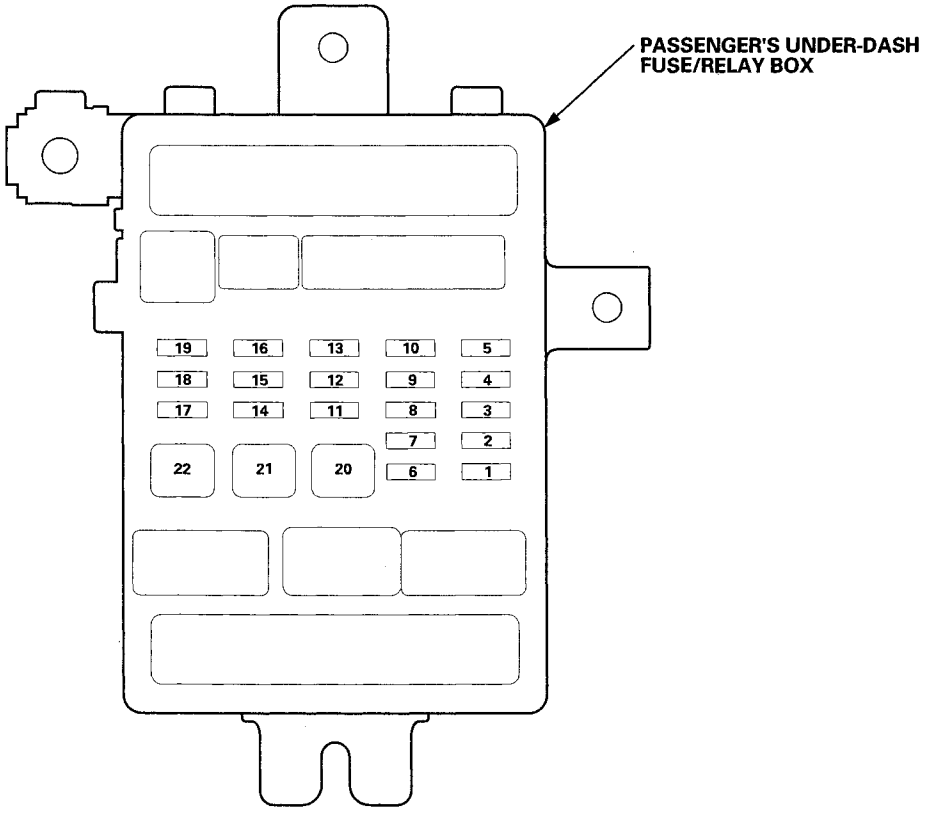
Fuse to Components Index (cont'd)



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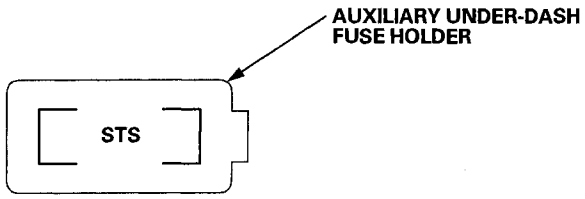
Auxiliary Under-dash Fuse Holder

Fuse Number	Amps	Wire Color	Component(s) or Circuit(s) Protected
STS	7.5 A	YEL	Ignition switch (ST)
		LT GRN	ECM/PCM (STS), Remote engine starter connector (optional)



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Ground Distribution

Ground to Components Index

Ground	Component or circuit grounded
G1	Battery
G2	Engine
G3	Transmission housing
G101	A/T clutch pressure control solenoid valve A, B, C, CKP sensor, CMP sensor, ECM/PCM (PGMETCS), ECM/PCM (LG1), ECM/PCM (LG2), ECM/PCM (PG1), ECM/PCM (PG2), EGR valve, Ignition coils, Rocker arm oil pressure switch, Transmission range switch, Shielding between the ECM/PCM and the front A/F sensor (Bank 2, Sensor 1), Shielding between the ECM/PCM and the front secondary HO2S (Bank 2, Sensor 2), Shielding between the ECM/PCM and the knock sensor, Shielding between the ECM/PCM and the rear A/F sensor (Bank 1, Sensor 1), Shielding between the ECM/PCM and the rear secondary HO2S (Bank 1, Sensor 2)
G201	Passenger's MICU (SG)
G202	VSA modulator-control unit
G203	Headlight washer motor*1, Passenger's MICU (PG), Right fog light, Right front side marker light, Right front turn signal light, Right front parking light, Right headlight (High), Right headlight (Low), Steering gear box (3 wires), Washer fluid level switch*2, Windshield washer motor
G204	EPS control unit (2 wires)
G301	Clutch pedal position switch A*9, Clutch pedal position switch B*9, Driver's under-dash fuse/relay box (starter cut relay 1 circuit)*9, Electrical load detector (ELD), Fan control relay circuit, Under-hood fuse/relay box (wiper relay circuit), Windshield wiper motor
G302	Blower motor relay, Brake fluid level switch, Left fog light, Left front parking light, Left front turn signal light, Left front side marker light, Left headlight (High), Left headlight (Low), Power transistor, Radiator fan motor, Security hood switch
G401	Automatic dimming inside mirror, Cable reel, Data link connector (DLC), Driver's MICU (SG) (2 wires), Driver's door lock knob switch/key cylinder switch, Driver's door outer handle touch sensor*3, Driver's power window motor, Driver's vanity mirror light, Driving position memory switch, Front passenger's power window motor, Front passenger's power window switch, Gauge control module, Headlight washer switch*1, Left power mirror (2 wires), Moonroof switch, HFL-Navigation microphone*4, Paddle shifter— (Downshift switch), Passenger's MICU (SG), Passenger's vanity mirror light, Power mirror control unit, Power mirror switch (2 wires), Power window master switch, Rear individual map lights, Roof console, Steering angle sensor*5, Trunk lid opener/Fuel fill door opener switch, VSA OFF switch, Shielding between the driver's under-dash fuse/relay box and the moonroof control unit/motor
G402	Dashlights brightness controller, Gauge control module, High mount brake light, Keyless access control unit (2 wires)*3, Power window master switch, Driver's MICU (PG) (2 wires), Data link connector (DLC), MICU service check connector, Power control unit (2 wires)*3
G403	Climate control unit, Console box light, Driver's climate control switch, Remote slot (2 wires)*3, Front accessory power socket, Front accessory power socket relay, Ignition key switch, Moonroof control unit/ motor, Park pin switch, Rear accessory power socket, Rear accessory power socket relay, TPMS control unit, Yaw rate-lateral acceleration sensor*6, Yaw rate-lateral/longitudinal acceleration sensor*5, +B cut relay*9
G404	SRS unit (2 wires)

*1: With headlight washer
*2: Canada models
*3: With keyless access system
*4: With navigation system
*5: With SH-AWD
*6: Without SH-AWD
*7: Without navigation system
*8: Without keyless access system
*9: M/T
*10: '09 model with SH-AWD
*11: '10model with SH-AWD and with out SH-AWD

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Ground	Component or circuit grounded
G405	Cruise control combination/select/reset/information switch, Driver's seat heater switch, Electric steering lock*3, Engine start/stop switch*3, Remote slot control unit (2 wires)*3, Front passenger's door lock knob switch, Front passenger's door outer handle touch sensor*3, Front passenger's power window switch, Front passenger's seat heater switch, Horn switch, Paddle shifter+ (Upshift switch), Passenger's climate control switch, Passenger's MICU (PG), Right power mirror (2 wires)
G501	AcuraLink connector, AcuraLink control unit (XM receiver), Audio-HVAC display unit*7, Audio-navigation switch panel*4, Glove box light, HandsFreeLink control unit, Interface dial*4, Keyless access system mode switch*3, Navigation display unit*4, Trunk lid opener main switch
G502	Audio-navigation unit*4, Audio unit*7
G601	Accessory relay*3, Driver's under-dash fuse/relay box (door lock relay circuit), Front accessory power socket relay*8, Left rear door lock knob switch, Left rear power window switch
G602	Fuel pump*11, Fuel pump control module*10
G603	Condenser (for left rear power window)*9, Condenser (for rear window defogger), Fuel fill door opener solenoid, Keyless buzzer, Left back-up light, Left brake light/taillight, Left rear power window switch, Left rear side marker light, Left rear turn signal light, License plate lights, Right back-up light, Right brake light/taillight, Right rear side marker light, Right rear turn signal light, Trunk lid latch switch/trunk lid release actuator, Trunk lid spoiler switch*3
G651	Electrical compass unit*7, Passenger's under-dash fuse/relay box (door lock relay circuit), Rear differential*5, Right rear door lock knob switch, Right rear power window switch
G652	SH-AWD control unit (3 wires)*5, SH-AWD relay*5
G653	Stereo amplifier
G701	Driver's lumbar support switch (2 wires), Driver's seat belt buckle switch, Driver's seat heater relays, Driver's seat position sensor, Driver's seat-back heater, Power seat control unit (3 wires)
G702	Front passenger's power seat adjustment switch (2 wires), Front passenger's seat belt buckle switch, Front passenger's seat cushion heater, Front passenger's seat heater relays, ODS unit
G801	Rear window defogger

*1: With headlight washer
*2: Canada models
*3: With keyless access system
*4: With navigation system
*5: With SH-AWD
*6: Without SH-AWD
*7: Without navigation system
*8: Without keyless access system
*9: M/T
*10: '09 model with SH-AWD
*11: '10model with SH-AWD and with out SH-AWD

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Under-hood Fuse/Relay Box

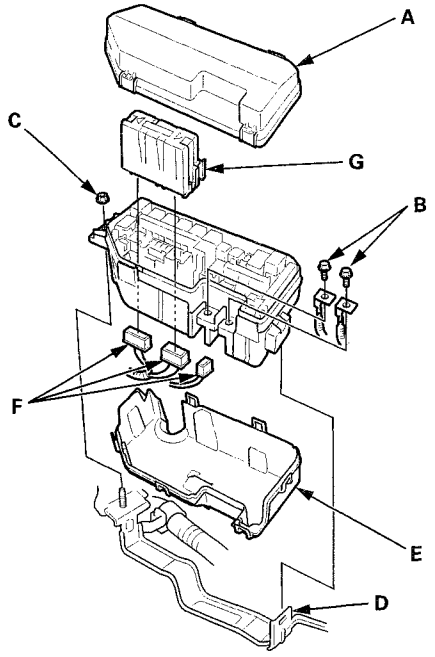
Removal and Installation

Special Tools Required
Relay Puller 07AAC-000A1A0

NOTE: The under-hood fuse/relay box is a part of the left engine compartment wire harness, and it cannot be replaced by itself.

Removal

1. Do the battery terminal disconnection procedure (see page 22-86).
2. Open the cover (A), then remove the screws (B) for the alternator and battery cable terminals.



3. Remove the nut (C) and release the tab (D), then remove the bottom cover (E) from the under-hood fuse/relay box.
4. Disconnect the connectors (F) from the under-hood fuse/relay box.
5. Remove the relay circuit board (G) from the under-hood fuse/relay box.
6. Carefully remove the relays using the relay puller (see page 22-88).

   NOTE: Do not use pliers. Pliers will damage the relays, which could cause the engine to stall or not start or cause other functions to fail.

Installation

1. Install the relays and connect the connectors to the under-hood fuse/relay box, then install the under-hood fuse/relay box in the reverse order of removal.
2. Install the removed parts in the reverse order of removal.
3. Do the battery terminal reconnection procedure (see page 22-86).
4. Confirm that all systems work properly.

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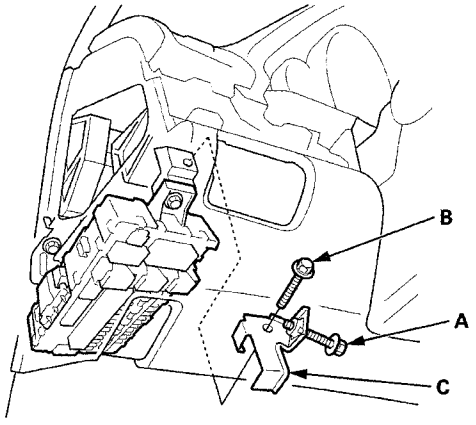
Driver's Under-dash Fuse/Relay Box (MICU) Removal and Installation

Special Tools Required
Relay Puller 07AAC-000A1A0

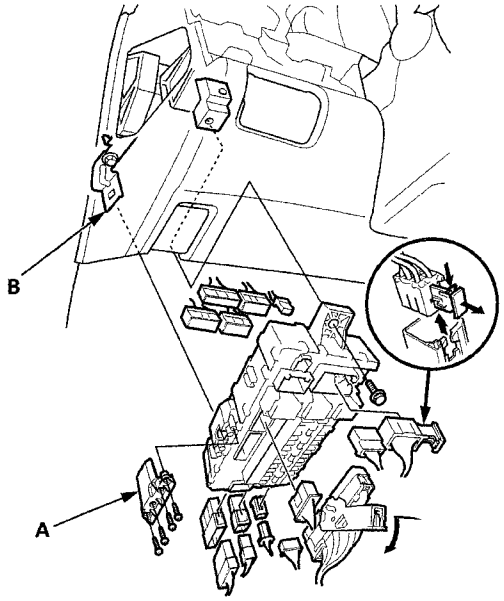
NOTE: SRS components are located in this area. Review the SRS component locations (see page 24-11), precautions and procedures (see page 24-13) before doing repairs or servicing.

Removal

1. Do the battery terminal disconnection procedure (see page 22-86).
2. Remove these items:
   - Driver's dashboard trim (see page 20-116)
   - Driver's switch panel (see page 20-117)
   - Driver's dashboard undercover (see page 20-118)
   - Driver's kick panel (see page 20-81)
3. Loosen the bolt (A), then remove the bolt (B) and the bracket (C) from dashboard/steering hanger beam.



4. USA models with keyless access system and Canada models without keyless access system: Remove the screws and cover (A) from the driver's under-dash fuse/relay box.



5. Remove the mounting bolt, release the tab (B), and pull the driver's under-dash fuse/relay box away from the body.
6. Disconnect the connectors from the fuse side of the driver's under-dash fuse/relay box.
7. Disconnect the connectors from the back side of the driver's under-dash fuse/relay box, then remove the driver's under-dash fuse/relay box.
8. Carefully remove the relays by prying under the base of the relay using the relay puller (see page 22-88).

   NOTE: Do not use pliers. Pliers will damage the relays, which could cause the engine to stall or not start or cause other functions to fail.

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Driver's Under-dash Fuse/Relay Box (MICU) Removal and Installation (cont'd)

Installation

NOTE: The imoes unit is built into the driver's MICU which is part of the driver's under-dash fuse/relay box. Further more, vehicles with the keyless access do the imoes certification by communicating with the remote slot control unit. Because of this construction, the imoes must be registered, or the vehicle will not start.

1. Install the relays and connect the connectors to the driver's under-dash fuse/relay box, then install the driver's under-dash fuse/relay box in the reverse order of removal.
2. Install the removed parts in the reverse order of removal.
3. Do the battery terminal reconnection procedure steps 1 to 4 (see page 22-86).
4. Register the immobilizer system with the HDS:
   - With keyless access system (see page 22-623)
   - Without keyless access system (see page 22-447)
5. Do the remaining steps of battery terminal reconnection procedure (see page 22-86).
6. Confirm that all systems work properly.

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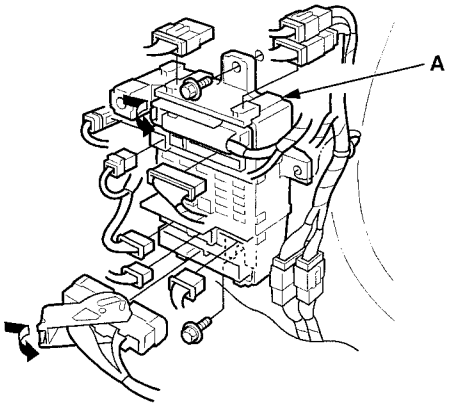
Passenger's Under-dash Fuse/Relay Box (MICU) Removal and Installation

NOTE: SRS components are located in this area. Review the SRS component locations (see page 24-11), precautions and procedures (see page 24-13) before doing repairs or servicing.

Removal

1. Do the battery terminal disconnection procedure (see page 22-86).
2. Remove the passenger's kick panel (see page 20-81).
3. Disconnect the connectors from the passenger's under-dash fuse/relay box (A).



4. Loosen the mounting bolt from the lower side of passenger's under-dash fuse/relay box.
5. Remove the mounting bolt from the upper side of passenger's under-dash fuse/relay box, and remove the passenger's under-dash fuse/relay box.

Installation

1. Install the relays and connect the connectors to the passenger's under-dash fuse/relay box, then install the passenger's under-dash fuse/relay box in the reverse order of removal.
2. Install the removed parts in the reverse order of removal.
3. Do the battery terminal reconnection procedure (see page 22-86).
4. Confirm that all systems work properly.

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Battery Test

⚠ WARNING

A battery can explode if you do not follow the proper procedure, causing serious injury to anyone nearby.

Follow all procedures carefully and keep sparks and open flames away from the battery.

Special Tools Required

Acura Electrical System Analyzer (ED-18 Battery tester): Model Number INB17191845*

Acura Battery Diagnostic Station (GR8): Model Number MTRGR81100PA*

*To order, go to the Acura Tool and Equipment catalog on the iN, or call 888-424-6857

Software Version

Make sure you have the latest software for the ED-18 and GR8.

To check the software version on the ED-18, do this:

- Press the POWER button.
- Read the version number on the screen. It should appear for about 3 seconds.
- Or you can select: Language> Options> Info> Version. The version number will appear near the top of the screen.

Write down the version number, then call Midtronics at 800-776-1995 to verify you have the latest software version.

To check the software version on the GR8, do this:

- Press the POWER button.
- Read the version number on the screen. It should appear for about 5 seconds.
- Or from the Main Menu, select: Options> Info> I Version. The version number will appear on the screen.

Write down the version number, then call Midtronics at 800-776-1995 to verify you have the latest software version.

Using the ED-18 Battery Tester

NOTE: For set up, customization, and other available features, refer to the ED-18 user's manual.

1. Connect the leads to the positive and negative terminal of the battery.
2. Use the arrow keys to select the Battery test, then press ENTER, then follow the prompts.

   NOTE:

   - Make sure to enter the correct cold cranking ampere (CCA) rating of the battery. You can find the CCA printed on the label on the top of the battery. If the CCA rating is not entered correctly, the test result will not be accurate.
   - Make sure you select FLOODED for the battery type.
3. Here are the four possible battery conditions:
   - GOOD BATTERY: The battery has at least 60 percent of its charge and good state of health. No action is required.
   - GR8 DIAGNOSTIC TEST NEEDED: The battery voltage is low. Connect the GR8 and use the diagnostic test to determine if the battery is GOOD or needs to be REPLACED.
   - REPLACE BATTERY: The battery condition is poor. Replace it.
   - BAD CELL: There is a problem with the battery. Replace it.

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Using the GR8 Battery Diagnostic Station

NOTE:

- For set up, customization, and other available features, refer to the GR8 user's manual.
- On the GR-8, you can select two modes: CUSTOMER VEHICLE or DEALER INVENTORY.
  - DEALER INVENTORY: Use this mode for vehicles in dealer inventory. The GR8 charges the battery to 80% of its state-of-charge. If the battery condition is OK, the GR8 states the battery is GOOD. If you leave the GR8 attached to the battery, it changes to Top Off mode, and continues to charge the battery until it is at 100% of its state-of-charge.
  - CUSTOMER VEHICLE: In order to give a waiting customer quicker service, the GR8 charges the battery to 60% of its state-of-charge. If the battery condition is OK, the GR8 states the battery is GOOD. If you leave the GR8 attached to the battery, it changes to Top Off mode, and continues to charge the battery until it is at 100% of its state-of-charge.

1. Connect the leads to the positive and negative terminal of the battery.
2. Use the arrow keys to select Diagnostic, and follow the prompts.

   NOTE:

   - Make sure to enter the correct cold cranking ampere (CCA) rating of the battery. You can find the CCA printed on the label on the top of the battery. If the CCA rating is not entered correctly, the test result will not be accurate.
   - Make sure you select FLOODED for the battery type.
3. Here are the three possible battery conditions:
   - GOOD BATTERY: The battery state of health is good and state of charge is at least 60%.
   - REPLACE BATTERY: The battery condition is poor. Replace it.
   - BAD CELL: There is a problem with the battery. Replace it.

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Battery Terminal Disconnection and Reconnection

Disconnection

NOTE: Some systems store data in memory (including seat position, mirror position, etc) that is lost when the battery is disconnected. Do the following procedures before disconnecting the battery.

1. Make sure you have the anti-theft code(s) for the audio system and/or the audio-navigation system (if equipped).
2. If you are replacing the audio unit and/or the audio-navigation unit, write down the audio presets (AM and FM), and the XM audio presets (if equipped).
3. Make sure the ignition switch is in LOCK (0), or the vehicle ignition in the OFF mode.
4. Remove the bulkhead cover (see page 20-186).
5. Disconnect and isolate the negative cable from the battery.

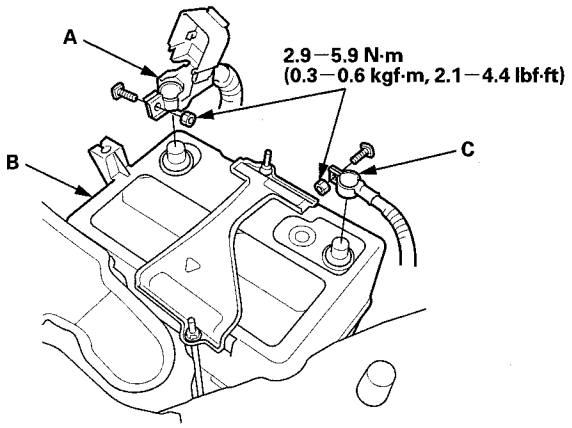
   NOTE: Always disconnect the negative cable from the battery first.
6. Disconnect the positive cable from the battery.

Reconnection

NOTE: Some systems store data in memory (including seat position, mirror position, etc) that is lost when the battery is disconnected. Do the following procedures to restore the systems back to normal operation.

1. Clean the battery terminals.
2. Test the battery (see page 22-84).
3. Reconnect the positive cable (A) to the battery (B) first, then reconnect the negative cable (C) to the battery.

   NOTE: Always connect the positive cable to the battery first.



4. Apply multipurpose grease to the terminals to prevent corrosion.
5. Install the bulkhead cover (see page 20-186).
6. Enter the anti-theft code(s) for the audio system and/or the audio-navigation system (if equipped).
7. Enter the audio presets (if applicable), and enter the XM audio presets (if equipped).
8. Set the clock (for vehicles without navigation).

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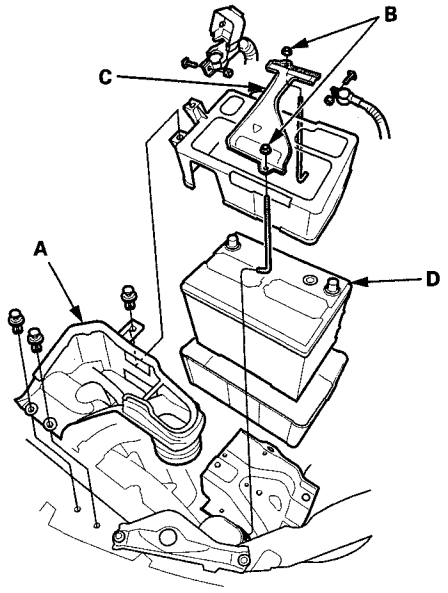
Battery Removal and Installation

NOTE: The battery terminal disconnection and reconnection procedure (see page 22-86) must be done before and after doing this procedure. Some systems store data in the memory that is lost when the battery is disconnected.

Removal

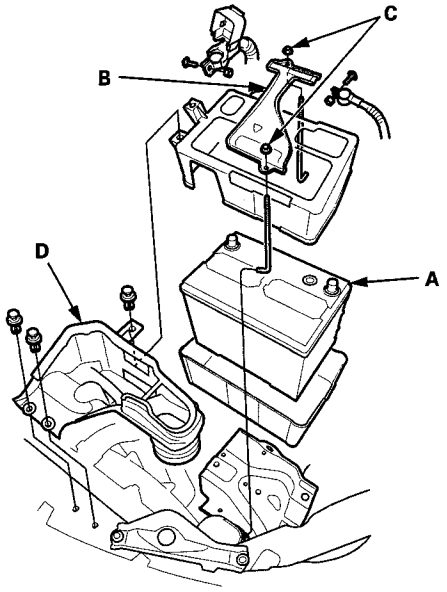
1. Do the battery terminal disconnection procedure (see page 22-86).
2. Remove the three clips and air intake duct splash separator (A).



3. Remove the two nuts (B) securing the battery setting plate (C), then remove the battery setting plate and the battery (D).

Installation

1. Install the battery (A), then install the battery setting plate (B).



2. Tighten the two nuts (C) equally until the battery is stable.

   NOTE: Do not deform the battery setting plate by over-tightening the nuts.

3. Install the air intake duct splash separator (D) and three clips.
4. Do the battery terminal reconnection procedure (see page 22-86).

   NOTE: Make sure the battery is correctly installed, and that the positive terminal and the negative terminal are not connected in reverse.

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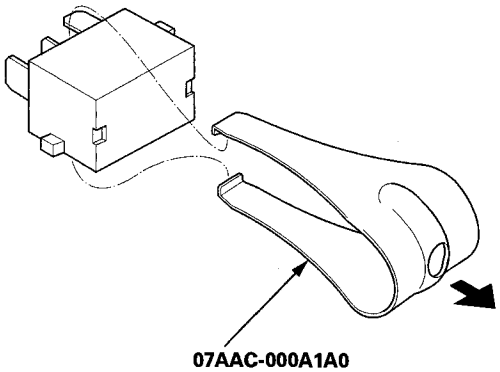
Power Relay Test

Special Tools Required
Relay Puller 07AAC-000A1A0

Use this chart to identify the type of relay, then do the test listed for it.

Relay	Test
Accessory relay (with keyless access system)	Normally-open four-terminal type
A/C condenser fan relay*	
A/C compressor clutch relay*	
Blower motor relay*	
Console accessory power socket	
Driver's seat heater relay (high)*	
ETCS relay*	
Front accessory power socket relay* (with keyless access system)	
Front accessory power socket relay (without keyless access system)	
Headlight washer motor relay* (Canada models with SH-AWD)	
Ignition coil relay*	
Passenger's seat heater relay (high)*	
PGM-FI main relay 1*	
PGM-FI main relay 2*	
PGM-FI subrelay*	
Rear window defogger relay*	
Starter cut relay 1	
Starter cut relay 2*	
SH-AWD relay* (with SH-AWD)	
+B cut relay (M/T)	
ACC cut relay* (without keyless access system)	Five-terminal type
IG2 cut relay* (without keyless access system)	
Driver's seat heater relay (low)*	
Passenger's seat heater relay (low)*	

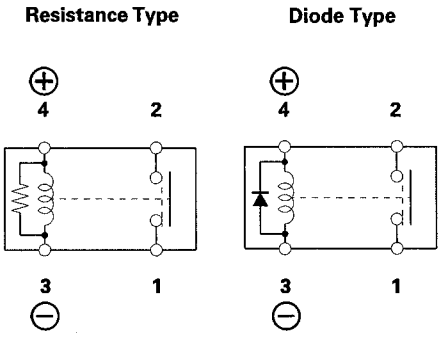
*: Carefully remove the relay from fuse/relay box using the relay puller. Do not use pliers. Pliers will damage the relay.

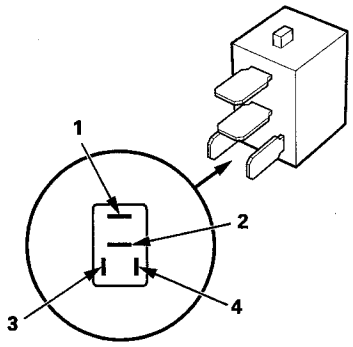


Normally-open Four-terminal Type

Check for continuity between the terminals:

- There should be continuity between terminals No. 1 and No. 2 when battery power is connected to terminal No. 4, and body ground is connected to terminal No. 3.
- There should be no continuity between terminals No. 1 and No. 2 when power is disconnected.





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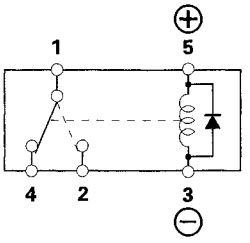
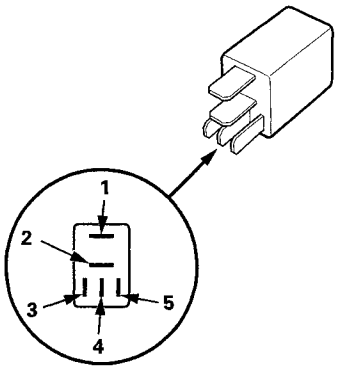
Five-terminal Type

Check for continuity between the terminals:

- There should be continuity between terminals No. 1 and No. 2 when battery power is connected to terminal No. 5, and body ground is connected to terminal No. 3.
- There should be continuity between terminals No. 1 and No. 4 when power is disconnected.

Diode Type





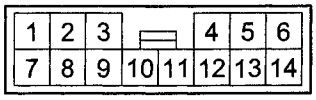
Relay Circuit Board Test

The relay circuit board is part of the under-hood fuse/relay box, and it contains these relays:

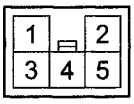
- Radiator fan relay
- Fan control relay
- Horn relay
- Windshield wiper motor relay
- Windshield wiper intermittent relay
- Windshield wiper high/low relay

1. Do the battery terminal disconnection procedure (see page 22-86).
2. Disconnect under-hood fuse/relay box connectors B (14P) and C (5P).

CONNECTOR B (14P)



CONNECTOR C (5P)



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Power Relay Test (cont'd)

3. Test each relay circuit as shown:

   Radiator fan relay:

   There should be continuity between terminals C1 and C3 when battery power is connected to terminal B9, and body ground is connected to terminal B10. There should be no continuity between terminals C1 and C3 when power is disconnected.

   Fan control relay:

   There should be continuity between terminals C2 and C5 when battery power is connected to terminal B1 (or B8), and body ground is connected to terminal B10. There should be no continuity between terminals C2 and C5 when power is disconnected.

   Horn relay:

   There should be battery voltage at terminal B11 when battery power is connected to terminal B3, and body ground is connected to terminal B7. There should be no continuity between terminals B3 and B11 when power is disconnected.

   Windshield wiper motor relay:

   There should be continuity between terminals C4 and B13, and terminals C4 and B14 when battery power is connected to terminal B12, and body ground is connected to terminal B4. There should be no continuity between terminals C4 and B13, and terminals C4 and B14 when power is disconnected.

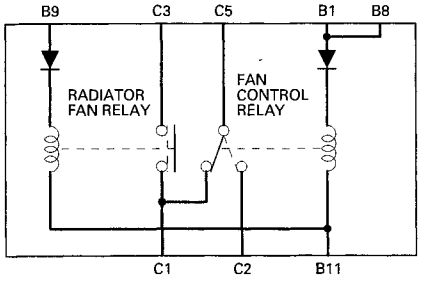
   Windshield wiper intermittent relay:

   There should be battery voltage at terminal B6 when battery power is connected to terminals C4 and B12, and body ground is connected to terminals B4 and B13. There should be no voltage at terminal B6 when terminal B13 is disconnected.

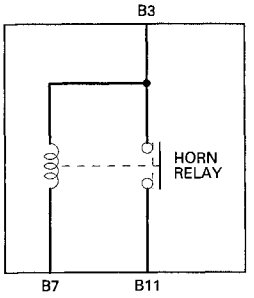
   Windshield wiper high/low relay:

   There should be battery voltage at terminal B5 when battery power is connected to terminals C4 and B12, and body ground is connected to terminals B4 and B14. There should be no voltage at terminal B5 when terminal B14 is disconnected.

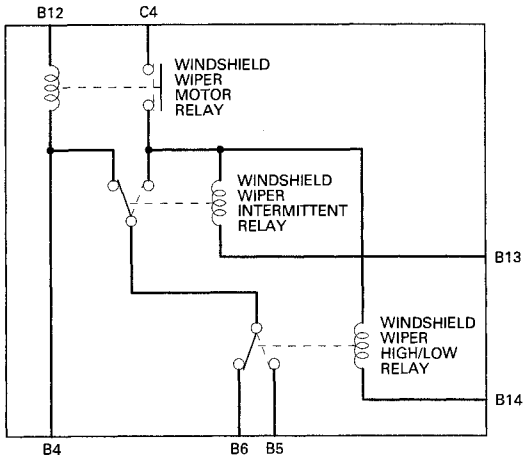
Radiator fan relay, Fan control relay



Horn relay



Windshield wiper motor relay, Windshield wiper intermittent relay, Windshield wiper high/low relay



4. If any of these relay circuit fails the test, replace the relay circuit board.
5. Reinstall all removed parts.
6. Do the battery terminal reconnection procedure (see page 22-86).

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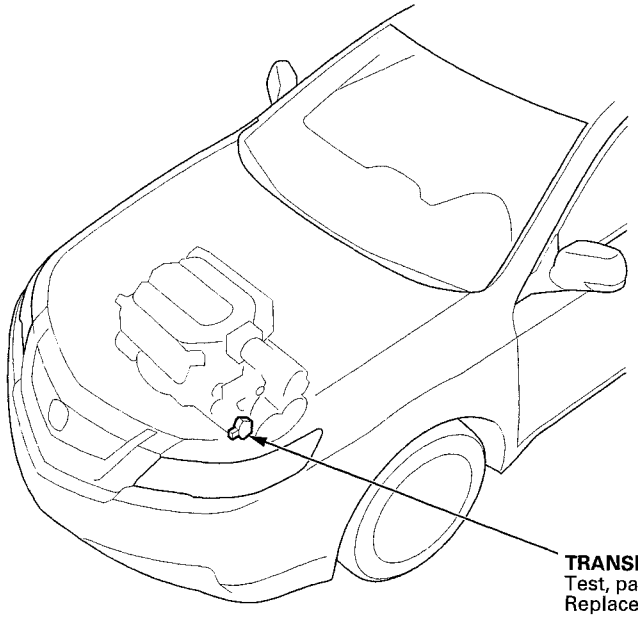
Ignition Switch

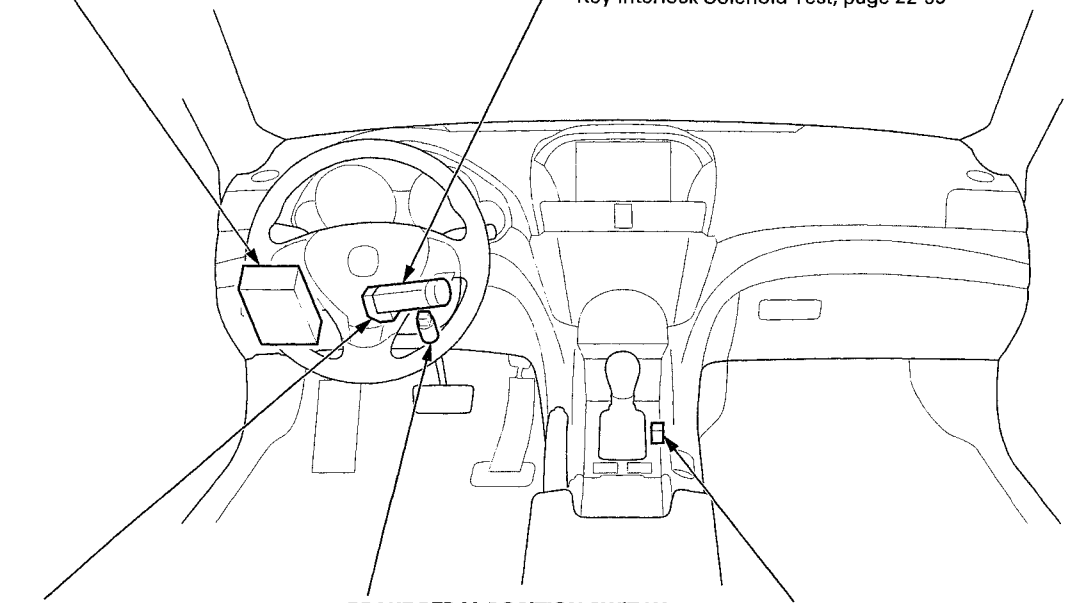
Component Location Index



TRANSMISSION RANGE SWITCH
Test, page 14-259
Replacement, page 14-260

DRIVER'S UNDER-DASH FUSE/RELAY BOX

STEERING LOCK ASSEMBLY
Key Interlock System Circuit Troubleshooting, page 22-93
Key Interlock Solenoid Test, page 22-95



IGNITION SWITCH
Test, page 22-96
Replacement, page 22-97

BRAKE PEDAL POSITION SWITCH
Test, page 22-240

PARK PIN SWITCH
Key Interlock System Circuit Troubleshooting, page 22-93
Test, page 22-96
Replacement, page 14-282

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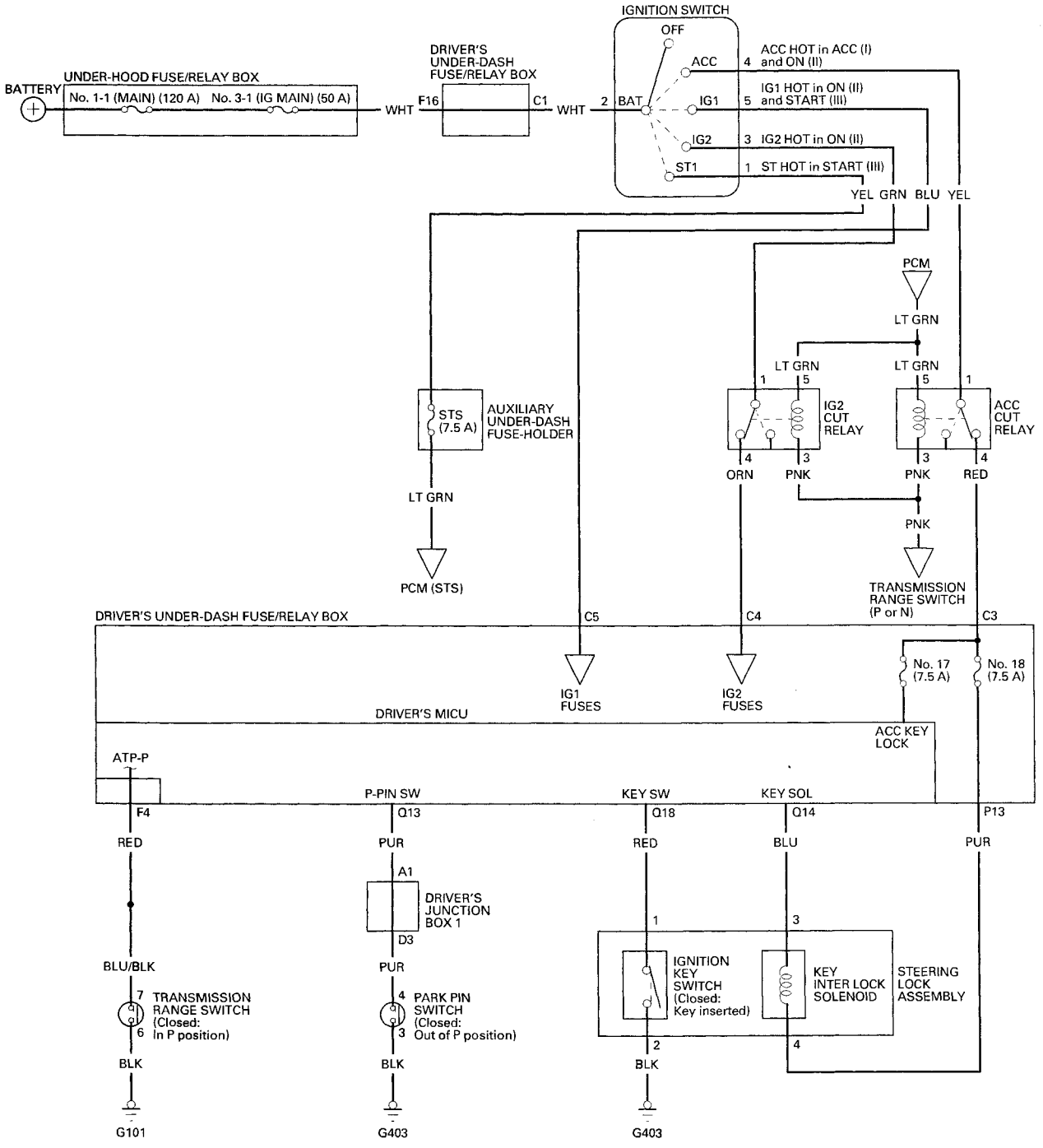
Ignition Switch

Circuit Diagram

Without Keyless Access System



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Key Interlock System Circuit Troubleshooting

NOTE: SRS components are located in this area. Review the SRS component locations (see page 24-11), precautions and procedures (see page 24-13) before doing repairs or servicing.

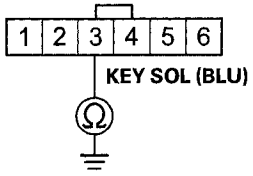
1. Move the shift lever to P and set the parking brake.
2. Turn the ignition switch to ACCESSORY (I).
3. Disconnect the steering lock assembly connector.
4. Check if the ignition switch can be turned to LOCK (0).

   Can the ignition switch be turned to LOCK (0)?

   YES–Go to step 5.

   NO–Replace the steering lock assembly (see page 17-16).■
5. Make sure the ignition switch is turned to LOCK (0).
6. Move the shift lever out of P.
7. Check for continuity between steering lock assembly connector terminal No. 3 and body ground.

STEERING LOCK ASSEMBLY CONNECTOR



Wire side of female terminals

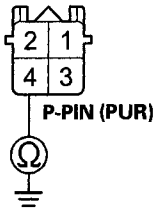
Is there continuity?

YES–Repair a short to body ground in the wire between the key interlock solenoid and the driver's MICU.■

NO–Go to step 8.

8. Remove the center console panel (see page 20-108).
9. Disconnect the A/T shift lock solenoid/park pin switch 4P connector.
10. Check for continuity between A/T shift lock solenoid/park pin switch 4P connector terminal No. 4 and body ground.

A/T SHIFT LOCK SOLENOID/ PARK PIN SWITCH 4P CONNECTOR



Terminal side of female terminals

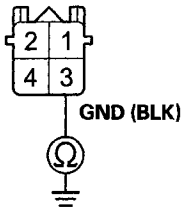
Is there continuity?

YES–Repair a short to body ground in the wire between A/T shift lock solenoid/park pin switch 4P connector terminal No. 4 and the driver's MICU.■

NO–Go to step 11.

11. Check for continuity between A/T shift lock solenoid/park pin switch 4P connector terminal No. 3 and body ground.

A/T SHIFT LOCK SOLENOID/ PARK PIN SWITCH 4P CONNECTOR



Terminal side of female terminals

Is there continuity?

YES–Go to step 12.

NO–Repair an open in the between AT shift lock solenoid/park pin switch and G403.■

12. Shift the shift lever to P.

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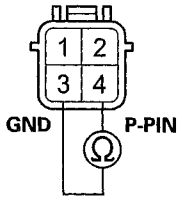
Key Interlock System Circuit Troubleshooting (cont'd)

13. Check for continuity between A/T shift lock solenoid/park pin switch 4P connector terminals No. 3 and No. 4. Do not push the shift lever button.

A/T SHIFT LOCK SOLENOID/ PARK PIN SWITCH 4P CONNECTOR



Terminal side of male terminals

Is there continuity?

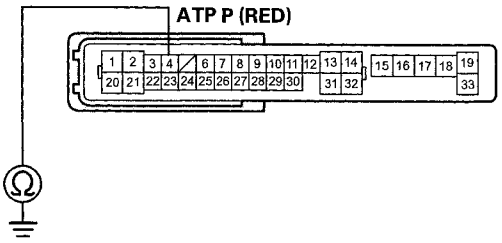
YES–Go to step 14.

NO–Replace the park pin switch (see page 14-282).■

14. Disconnect driver's under-dash fuse/relay box connector F (33P).

15. Check for continuity between driver's under-dash fuse/relay box connector F (33P) terminal No. 4 and body ground.

DRIVER'S UNDER-DASH FUSE/ RELAY BOX CONNECTOR F (33P)



Wire side of female terminals

Is there continuity?

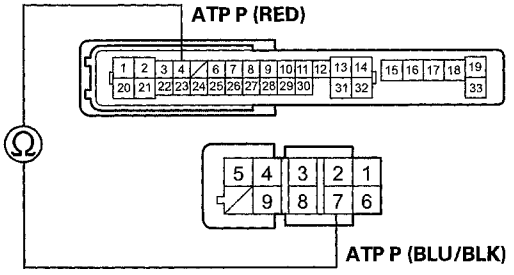
YES–Repair a short to ground in the wire.■

NO–Go to step 16.

16. Disconnect the transmission range switch connector.

17. Check for continuity between driver's under-dash fuse/relay box connector F (33P) terminal No. 4 and transmission range switch connector terminal No. 7.

DRIVER'S UNDER-DASH FUSE/ RELAY BOX CONNECTOR F (33P)
Wire side of female terminals



TRANSMISSION RANGE SWITCH CONNECTOR
Terminal side of female terminals

Is there continuity?

YES–Go to step 18.

NO–Repair an open in the wire between the driver's under-dash fuse/relay box and the transmission range switch.■

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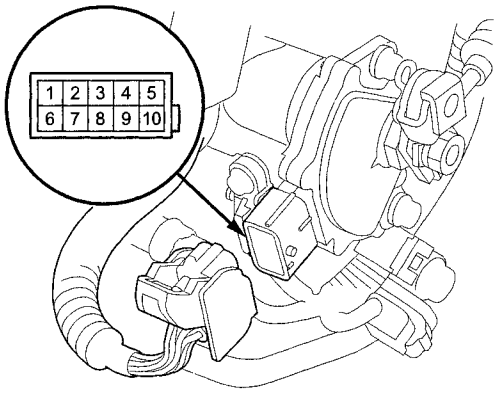
18. At the transmission range switch, check for continuity between the terminals No. 6 and No. 7.



Is there continuity?

YES–Go to step 19.

NO–Check the transmission range switch adjustment (see page 14-260) and retest. If the still no continuity, replace the transmission range switch.■

19. Check for continuity between transmission range switch harness terminal No. 5 and body ground.

Is there continuity?

YES–Substitute a known-good driver's under-dash fuse/relay box and retest.■

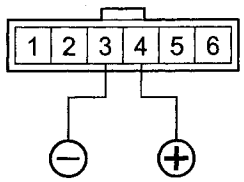
NO–Repair an open in the wire between the transmission range switch and G101.■

Key Interlock Solenoid Test

NOTE: SRS components are located in this area. Review the SRS component locations (see page 24-11), precautions and procedures (see page 24-13) before doing repairs or servicing.

1. Remove the steering column cover (see page 20-126).
2. Disconnect the steering lock assembly connector.
3. Turn the ignition switch to ACCESSORY (I).
4. Connect power to steering lock assembly connector terminal No. 4, and ground to steering lock assembly connector terminal No. 3. Check that the ignition key cannot be turned to LOCK (0). Disconnect power, and check that the key can be turned to the LOCK (0) position and removed from the cylinder.

STEERING LOCK ASSEMBLY CONNECTOR



Terminal side of male terminals

5. If the key interlock solenoid works improperly, replace the steering lock assembly (see page 17-16).

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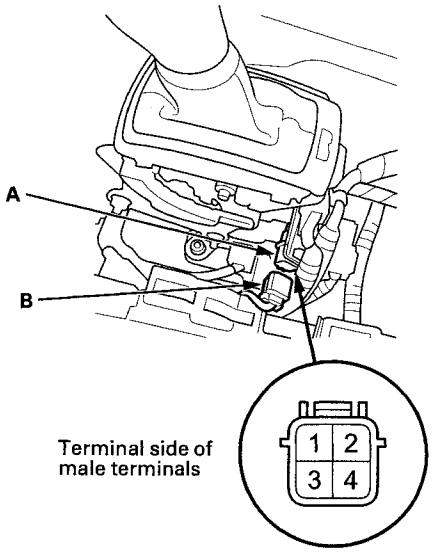
Ignition Switch

Park Pin Switch Test

1. Remove the center console panel (see page 20-108).
2. Disconnect the A/T shift lock solenoid/park pin switch 4P connector (A) from the park pin switch (B).

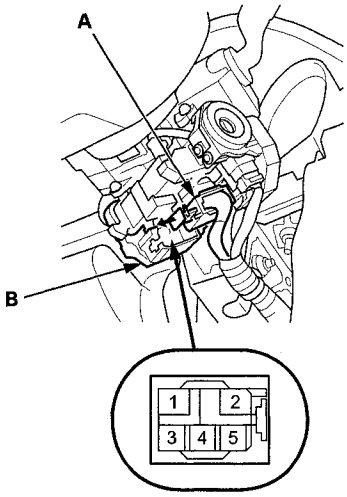


3. Check for continuity between terminals No. 3 and No. 4.
   - There should be continuity when the shift the shift out of P.
   - There should be no continuity when the shift the shift lever to P.
4. If the continuity is not as specified, replace the park pin switch (see page 14-282).

Ignition Switch Test

NOTE: SRS components are located in this area. Review the SRS component locations (see page 24-11), precautions and procedures (see page 24-13) before doing repairs or servicing.

1. Do the battery terminal disconnection procedure (see page 22-86).
2. Remove the steering column covers (see page 20-126).
3. Disconnect the 5P connector (A) from the ignition switch (B).



4. Check for continuity between the terminals in each switch position according to the table.

Position \ Terminal	4 (ACC)	2 (BAT)	5 (IG1)	3 (IG2)	1 (ST)
0 (LOCK)					
I (ACC)	○	○			
II (ON)	○	○	○	○	
III (START)		○	○		○

5. If the continuity is not as specified, replace the ignition switch (see page 22-97).
6. Do the battery terminal reconnection procedure (see page 22-86).

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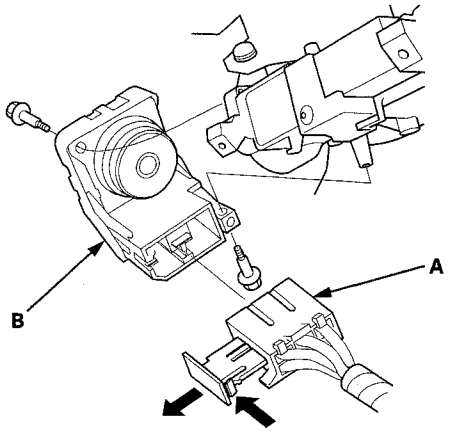
Ignition Switch Replacement

NOTE: SRS components are located in this area. Review the SRS component locations (see page 24-11), precautions and procedures (see page 24-13) before doing repairs or servicing.

1. Do the battery terminal disconnection procedure (see page 22-86).
2. Remove the steering column covers (see page 20-126).
3. Disconnect the 5P connector (A) from the ignition switch (B).



4. Remove the two screws and the ignition switch.
5. Install the parts in the reverse order of removal.
6. Do the battery terminal reconnection procedure (see page 22-86).

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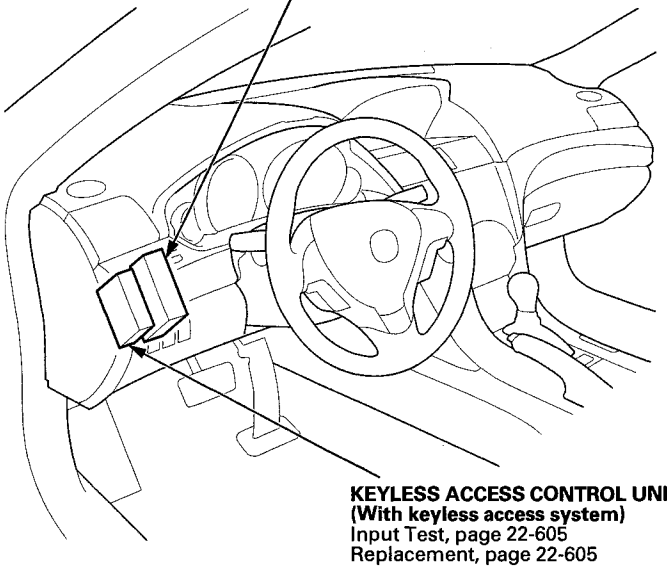
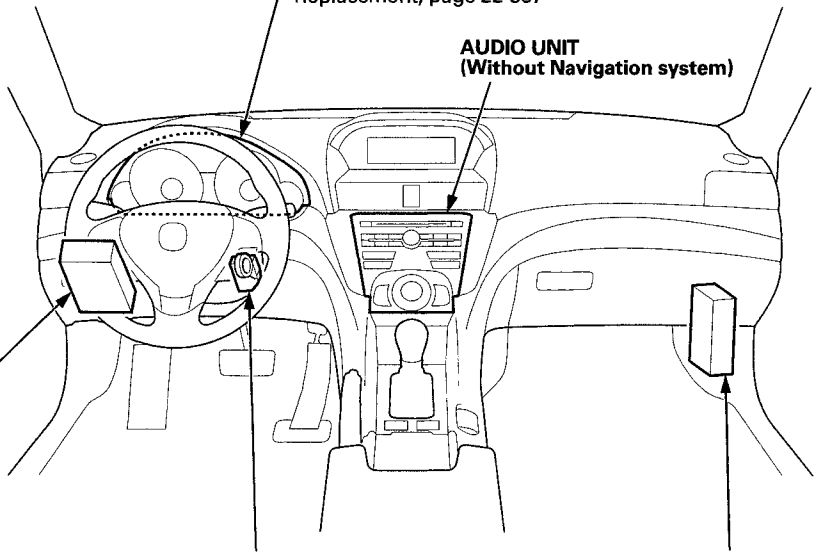
Component Location Index



POWER CONTROL UNIT
(With keyless access system)
Input Test, page 22-609
Replacement, page 22-609

KEYLESS ACCESS CONTROL UNIT
(With keyless access system)
Input Test, page 22-605
Replacement, page 22-605



GAUGE CONTROL MODULE
Input Test, page 22-363
Replacement, page 22-367

AUDIO UNIT
(Without Navigation system)

DRIVER'S MICU
(Has built-in driver's under-dash fuse/relay box)
Input Test, page 22-156
Replacement, page 22-81

IMMOBILIZER-KEYLESS CONTROL UNIT
(Has built-in receiver)
Symptom Troubleshooting, page 22-438
Registration, page 22-447
Input Test, page 22-444
Replacement, page 22-448

PASSENGER'S MICU
(Has built-in passenger's under-dash fuse/relay box)
Input Test, page 22-156
Replacement, page 22-83

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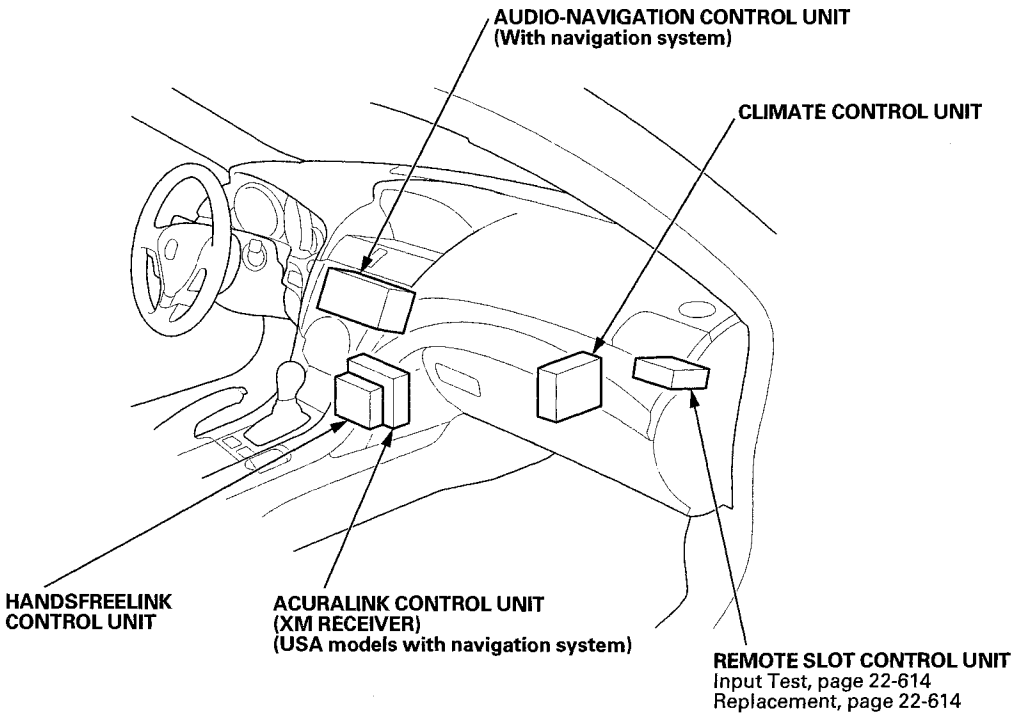

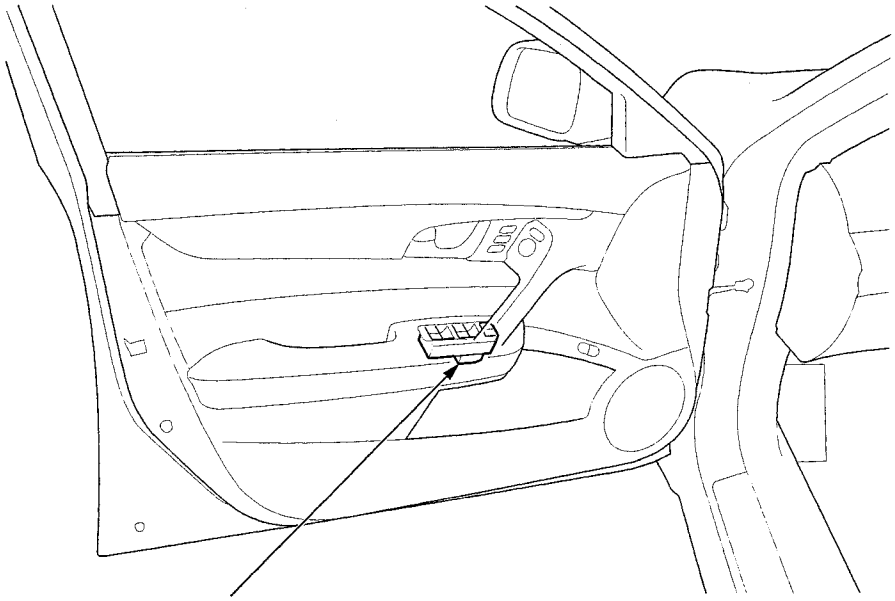

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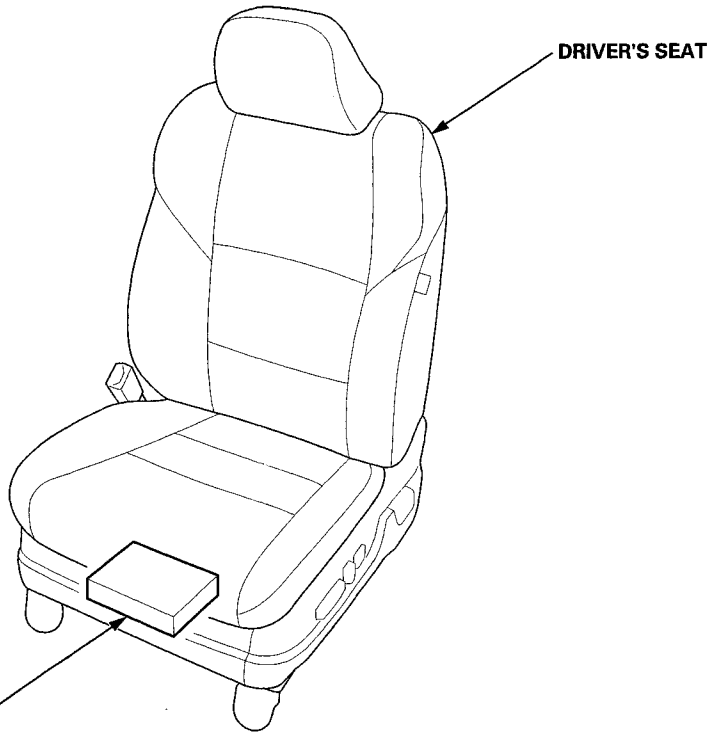
Component Location Index (cont'd)



POWER SEAT CONTROL UNIT
Input Test/Replacement, page 22-492

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General Troubleshooting Information

Troubleshooting CAN Circuit Related Problems

NOTE: Check the ECM/PCM for DTCs and troubleshoot ECM/PCM (see page 11-3) or F-CAN loss of communication errors first.

Using the HDS (Preferred method)

Connect the HDS to the Data Link Connector (DLC).

NOTE: There are two ways to read B-CAN code with the HDS.

First method; On the HDS, first select BODY ELECTRICAL, then select the subsystem that relates to the problem (for example: door locks, keyless, security, etc.), and then last, select the DTCs..

Second method; Ground the SCS circuit with the HDS, then read the DTCs displayed in the multi-information display (MID) in the gauge assembly, then go to B-CAN System Diagnosis Test Mode A (see page 22-135).

Using the B-CAN System Diagnosis Test Mode 1 (Use only if the HDS is unavailable)

1. Check for communication circuit problems using B-CAN System Diagnostic Test Mode 1 (see page 22-140).
2. Check for DTCs.
3. If multiple DTCs are stored, sort them, and then troubleshoot the DTCs in this order:
   -1. Battery voltage DTCs
   -2. Internal error DTCs
   -3. Loss of communication DTCs
   NOTE: If DTC U1280 is stored, troubleshoot DTC U1280 first (see page 22-151).
   -4. Signal error DTCs
4. If no DTCs are retrieved, use B-CAN System Diagnostic Test Mode 2 to check all inputs related to the failure (see page 22-140).

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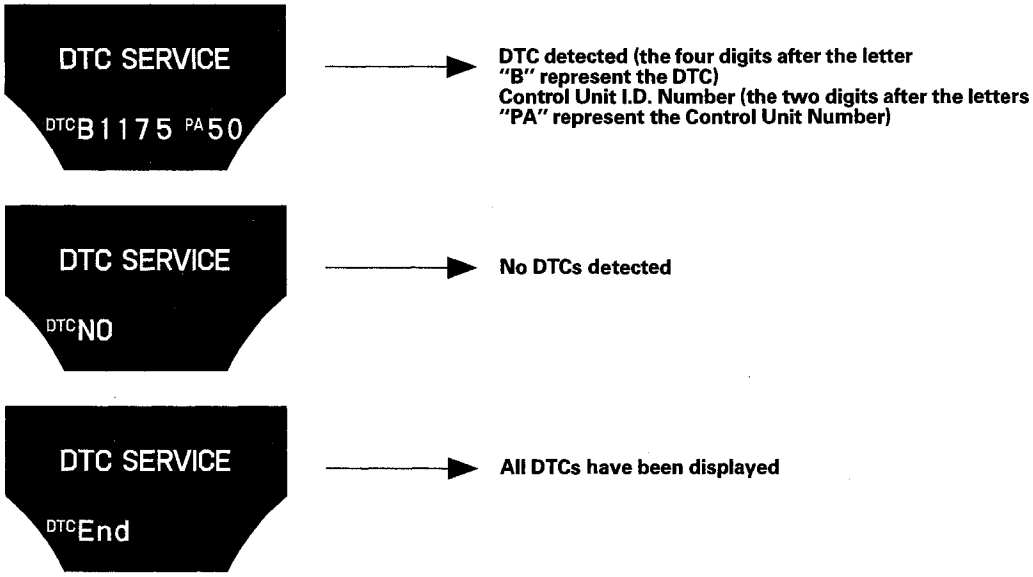
General Troubleshooting Information (cont'd)

How to display DTCs on the MID of the gauge control module

Enter the B-CAN System Diagnosis Test Mode 1 (see page 22-140). While in Test Mode 1, with normal communication between the MICU and gauge control module, the DTCs which have been detected and stored individually by various B-CAN (Body-controller Area Network) units will be shown one by one on the multi-information display. To scroll through the DTCs, press the SEL/RESET button



The control unit that has stored the code can be identified by the number shown on the multi-information display (MID).

Control Unit	Control Unit I.D. Number
Driver's MICU	13
Passenger's MICU	14
Power control unit (With keyless access system)	15
Door multiplex control unit	30
Gauge control module	50
Climate control unit	51
Keyless access control unit (With keyless access system)	90
HandsFreeLink control unit	94
Power seat control unit	95
Immobilizer-keyless control unit (Without keyless access system)	96
Remote slot control unit (With keyless access system)	96
AcuraLink control unit (XM receiver)	97

How to clear DTCs

1. Enter the B-CAN System Diagnosis Test Mode 1 (see page 22-140).
2. While in Test Mode 1, press and hold down the SEL/RESET button for at least 10 seconds to clear the DTCs.

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Loss of Communication DTC Cross-reference Chart

When an ECU on the CAN circuit is unable to communicate with the other ECUs on the B-CAN and F-CAN circuits, the other control units will set loss of communication DTCs. Use this chart to find the control unit that is not communicating with the other control units on the CAN circuits.

1. Find the Transmitting Control Unit that is in the same row as all of the loss of communication DTCs retrieved.
2. Do the input test for the transmitting control unit.

BUS OFF and Internal Error Codes

DTC type	Related Unit											
	Driver's MICU	Passenger's MICU	Gauge Control Module	Door Multiplex Control Unit	Immobilizer-Keyless Control Unit	Power Control Unit	Keyless Access Control Unit	Remote Slot Control Unit	Climate Control Unit	Hands FreeLink Control Unit	AcuraLink Control Unit	Power Seat Control Unit
BUS OFF	U1280	U1280	U1280	U1280	U1280	U1280	U1280	U1280	U1280	U1280	U1280	U1280
ECU (EEPROM) Error	B10A2	B11A2	B1152		B1902		B1602	B1902				B1802

Loss of Communication

Transmitting Control Unit	Receiving Unit/Loss of Communication DTC											
	Driver's MICU	Passenger's MICU	Gauge Control Module	Door Multiplex Control Unit	Immobilizer-Keyless Control Unit	Power Control Unit	Keyless Access Control Unit	Remote Slot Control Unit	Climate Control Unit	Hands FreeLink Control Unit	AcuraLink Control Unit	Power Seat Control Unit
Driver's MICU	TX	U1282	U1282	U1282	U1282		U1282			U1282	U1282	U1282
Passenger's MICU	U1283	TX	U1283	U1283			U1283					
Gauge Control Module	U0155	U0155	TX	U0155	U0155	U0155	U0155	U0155	U0155		U0155 U128D	U0155
Door Multiplex Control Unit	U0199		U0199	TX	U0199	U0199	U0199	U0199				U0199
Power Control Unit			U128B			TX						
Keyless Access Control Unit			U1286				TX					
Remote Slot Control Unit			U1289					TX				
Climate Control Unit			U0164	U0164					TX			
ECM/PCM			U0100								U0100	
SRS Unit			U0151									
VSA Modulator-Control Unit			U0122									
TPMS Control Unit			U0127									
EPS Control Unit			U0131									

TX: Transmitting unit does not set a loss of communication DTC.

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DTC Troubleshooting Index

NOTE: Record all DTCs, and sort them by DTC type using the following DTC troubleshooting indexes, then troubleshoot the DTC(s) in this order:

- Battery voltage DTCs
- Internal error DTCs
- Loss of communication DTCs
- Signal error DTCs

Driver's MICU

DTC	Description	DTC Type	Page
B10A2	Driver's MICU internal (EEPROM) error	Internal error	DTC Troubleshooting (see page 22-147)
B10CF	Left daytime running lights circuit malfunction	Signal error	DTC Troubleshooting (see page 22-211)
B1036	Driver's MICU IG1 line input error	Signal error	DTC Troubleshooting (see page 22-148)
B1077	Wiper (As) signal error	Signal error	DTC Troubleshooting (see page 22-317)
B1275	Headlight OFF position circuit malfunction	Signal error	DTC Troubleshooting (see page 22-215)
B1276	Combination light switch parking (PARKING LIGHT) position circuit malfunction	Signal error	DTC Troubleshooting (see page 22-215)
B1277	Headlight AUTO position circuit malfunction	Signal error	DTC Troubleshooting (see page 22-215)
B1278	Headlight ON position circuit malfunction	Signal error	DTC Troubleshooting (see page 22-215)
B1279	Dimmer switch circuit malfunction	Signal error	DTC Troubleshooting (see page 22-218)
B1280	Turn switch circuit malfunction	Signal error	DTC Troubleshooting (see page 22-246)
B1281	Front wiper MIST position circuit malfunction	Signal error	DTC Troubleshooting (see page 22-321)
B1282	Front wiper INT (AUTO) position circuit malfunction	Signal error	DTC Troubleshooting (see page 22-321)
B1283	Front wiper LOW position circuit malfunction	Signal error	DTC Troubleshooting (see page 22-321)
B1284	Front wiper HIGH position circuit malfunction	Signal error	DTC Troubleshooting (see page 22-321)
U0155	Driver's MICU lost communication with gauge control module	Loss of communication	DTC Troubleshooting (see page 22-150)
U0199	Driver's MICU lost communication with door multiplex control unit	Loss of communication	DTC Troubleshooting (see page 22-151)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	DTC Troubleshooting (see page 22-151)
U1283	Driver's MICU lost communication with passenger's MICU	Loss of communication	DTC Troubleshooting (see page 22-155)

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Passenger's MICU

DTC	Description	DTC Type	Page
B11A2	Passenger's MICU internal (EEPROM) error	Internal error	DTC Troubleshooting (see page 22-147)
B11C7	Passenger's MICU IG1 line input error	Signal error	DTC Troubleshooting (see page 22-149)
B11CF	Right daytime running lights circuit malfunction	Signal error	DTC Troubleshooting (see page 22-213)
B1575	Auto lighting sensor malfunction	Signal error	DTC Troubleshooting (see page 22-221)
U0155	Passenger's MICU lost communication with gauge control module	Loss of communication	DTC Troubleshooting (see page 22-150)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	DTC Troubleshooting (see page 22-151)
U1282	Passenger's MICU lost communication with driver's MICU	Loss of communication	DTC Troubleshooting (see page 22-154)

Door Multiplex Control Unit

DTC	Description	DTC Type	Page
B1125	Driver's power window motor A pulse malfunction	Signal error	DTC Troubleshooting (see page 22-289)
B1126	Driver's power window motor B pulse malfunction	Signal error	DTC Troubleshooting (see page 22-289)
B1127	Driver's door key cylinder switch malfunction	Signal error	DTC Troubleshooting (see page 22-172)
B1128	Driver's door lock switch malfunction	Signal error	DTC Troubleshooting (see page 22-173)
B1129	Driver's door lock knob switch malfunction	Signal error	DTC Troubleshooting (see page 22-174)
B1130	Front passenger's power window motor A pulse malfunction	Signal error	DTC Troubleshooting (see page 22-291)
B1131	Front passenger's power window motor B pulse malfunction	Signal error	DTC Troubleshooting (see page 22-291)
B1140	Driver's power window position detect circuit malfunction	Signal error	DTC Troubleshooting (see page 22-293)
B1142	Door multiplex control unit lost communication with front passenger's power window switch (UART line open)	Signal error	DTC Troubleshooting (see page 22-293)
B1145	Front passenger's power window position detect circuit malfunction	Loss of communication	DTC Troubleshooting (see page 22-295)
U0155	Door multiplex control unit lost communication with gauge control module	Loss of communication	DTC Troubleshooting (see page 22-296)
U0164	Door multiplex control unit lost communication with climate control unit	Loss of communication	DTC Troubleshooting (see page 22-296)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	DTC Troubleshooting (see page 22-151)
U1282	Door multiplex control unit lost communication with driver's MICU	Loss of communication	DTC Troubleshooting (see page 22-297)
U1283	Door multiplex control unit lost communication with passenger's MICU	Loss of communication	DTC Troubleshooting (see page 22-297)

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DTC Troubleshooting Index (cont'd)

Immobilizer-Keyless Control Unit

DTC	Description	DTC Type	Page
U0155	Immobilizer-keyless control unit lost communication with gauge control module	Loss of communication	DTC Troubleshooting (see page 22-433)
U0199	Immobilizer-keyless control unit lost communication with door multiplex control unit	Loss of communication	DTC Troubleshooting (see page 22-433)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	DTC Troubleshooting (see page 22-151)
U1282	Immobilizer-keyless control unit lost communication with driver's MICU	Loss of communication	DTC Troubleshooting (see page 22-434)

Gauge Control Module

DTC	Description	DTC Type	Page
B1152	Gauge control module (EEPROM) error	Internal error	DTC Troubleshooting (see page 22-349)
B1175	Fuel level sensor (Fuel gauge sending unit) circuit malfunction	Signal error	DTC Troubleshooting (see page 22-349)
B1176	Fuel level sensor (Fuel gauge sending unit) circuit short	Signal error	DTC Troubleshooting (see page 22-352)
U0029	F-CAN communication line error	Loss of communication	DTC Troubleshooting (see page 22-353)
U0100	Gauge control module lost communication with ECM/PCM	Loss of communication	DTC Troubleshooting (see page 22-355)
U0122	Gauge control module lost communication with VSA modulator-control unit (VSA message)	Loss of communication	DTC Troubleshooting (see page 22-356)
U0127	Gauge control module lost communication with the TPMS control unit (TPMS message)	Loss of communication	DTC Troubleshooting (see page 22-357)
U0131	Gauge control module lost communication with EPS control unit (EPS message)	Loss of communication	DTC Troubleshooting (see page 22-358)
U0151	Gauge control module lost communication with SRS unit	Loss of communication	DTC Troubleshooting (see page 22-359)
U128B	Gauge control module lost communication with power control unit	Loss of communication	DTC Troubleshooting (see page 22-360)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	DTC Troubleshooting (see page 22-151)
U1282	Gauge control module lost communication with driver's MICU	Loss of communication	DTC Troubleshooting (see page 22-360)
U1283	Gauge control module lost communication with passenger's MICU	Loss of communication	DTC Troubleshooting (see page 22-361)
U1286	Gauge control module lost communication with keyless access control unit	Loss of communication	DTC Troubleshooting (see page 22-361)
U1289	Gauge control module lost communication with remote slot control unit	Loss of communication	DTC Troubleshooting (see page 22-362)

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HandsFreeLink Control Unit

DTC	Description	DTC Type	Page
B1775	Microphone input/output short to power/open (with navigation system)	Signal error	DTC Troubleshooting (see page 23-372)
	Microphone input/output short to power/open (without navigation system)	Signal error	DTC Troubleshooting (see page 23-373)
B1776	Microphone input/output short to ground (with navigation system)	Signal error	DTC Troubleshooting (see page 23-374)
	Microphone input/output short to ground (without navigation system)	Signal error	DTC Troubleshooting (see page 23-376)
B1779	HFL switch or voice control switch (Pick-UP/Hang-UP buttons) circuit open/short (with navigation system)	Signal error	DTC Troubleshooting (see page 23-377)
	HFL switch or voice control switch (Pick-UP/Hang-UP buttons) circuit open/short (without navigation system)	Signal error	DTC Troubleshooting (see page 23-379)
B1780	HFL switch (Pick-UP/Hang-UP buttons) circuit short to power	Signal error	DTC Troubleshooting (see page 23-381)
B1792	HandsFreeLink control unit internal error	Signal error	DTC Troubleshooting (see page 23-382)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	DTC Troubleshooting (see page 22-151)

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DTC Troubleshooting Index (cont'd)

Climate Control Unit

DTC	Description	DTC Type	Page
U1280	Communication bus line error (BUS-OFF)	Loss of communication	DTC Troubleshooting (see page 22-151)
U0155	Climate control unit lost communication with gauge control module	Loss of communication	DTC Troubleshooting (see page 21-37)
B1215	An open or short in the recirculation control motor circuit	Signal error	DTC Troubleshooting (see page 21-38)
B1225	An open in the in-car temperature circuit	Signal error	DTC Troubleshooting (see page 21-40)
B1226	A short in the in-car temperature sensor circuit	Signal error	DTC Troubleshooting (see page 21-41)
B1227	An open in the outside air temperature sensor circuit	Signal error	DTC Troubleshooting (see page 21-42)
B1228	A short in the outside air temperature sensor circuit	Signal error	DTC Troubleshooting (see page 21-44)
B1229	An open in the sunlight sensor circuit	Signal error	DTC Troubleshooting (see page 21-45)
B1230	A short in the sunlight sensor circuit	Signal error	DTC Troubleshooting (see page 21-46)
B1231	An open in the evaporator temperature sensor circuit	Signal error	DTC Troubleshooting (see page 21-47)
B1232	A short in the evaporator temperature sensor circuit	Signal error	DTC Troubleshooting (see page 21-48)
B1233	An open in the driver's air mix control motor circuit	Signal error	DTC Troubleshooting (see page 21-49)
B1234	A short in the driver's air mix control motor circuit	Signal error	DTC Troubleshooting (see page 21-50)
B1235	A problem in the driver's air mix control linkage, door, or motor circuit	Signal error	DTC Troubleshooting (see page 21-53)
B1236	An open in the passenger's air mix control motor circuit	Signal error	DTC Troubleshooting (see page 21-54)
B1237	A short in the passenger's air mix control motor circuit	Signal error	DTC Troubleshooting (see page 21-55)
B1238	A problem in the passenger's air mix control linkage, door, or motor circuit	Signal error	DTC Troubleshooting (see page 21-58)
B1239	An open or short in the driver's mode control motor circuit	Signal error	DTC Troubleshooting (see page 21-60)
B1240	A problem in the driver's mode control linkage, doors, or motor	Signal error	DTC Troubleshooting (see page 21-62)
B1241	A problem in the blower motor circuit	Signal error	DTC Troubleshooting (see page 21-63)
B1242	An open or short in the passenger's mode control motor circuit	Signal error	DTC Troubleshooting (see page 21-67)
B1243	A problem in the passenger's mode control linkage, doors, or motor	Signal error	DTC Troubleshooting (see page 21-69)
B2967	An open in the humidity sensor circuit	Signal error	DTC Troubleshooting (see page 21-70)
B2968	A short in the humidity sensor circuit	Signal error	DTC Troubleshooting (see page 21-71)
B2969	Climate control unit lost communication with driver's MICU (WIPSW message)	Signal error	DTC Troubleshooting (see page 21-74)
B2979	An open in the A/C pressure sensor circuit	Signal error	DTC Troubleshooting (see page 21-75)
B2980	A short in the A/C pressure sensor circuit	Signal error	DTC Troubleshooting (see page 21-76)
B2983	A problem in the recirculation control linkage, doors, or motor circuit	Signal error	DTC Troubleshooting (see page 21-80)

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AcuraLink Control Unit

DTC	Description	DTC Type	Page
B2240	XM antenna error	Internal error	DTC Troubleshooting (see page 23-323)
B2248	HIP power supply abnormal (more than 16 V)	Battery voltage	DTC Troubleshooting (see page 23-323)
B2249	HIP power supply abnormal (less than 9 V)	Battery voltage	DTC Troubleshooting (see page 23-324)
U0100	F-CAN lost communication with ECM/PCM	Loss of communication	DTC Troubleshooting (see page 22-355)
U0155	F-CAN lost communication with gauge control module	Loss of communication	DTC Troubleshooting (see page 23-325)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	DTC Troubleshooting (see page 22-151)
U128D	AcuraLink control unit (XM receiver) lost B-CAN communication with gauge control module	Loss of communication	DTC Troubleshooting (see page 23-325)

Power Seat Control Unit

DTC	Description	DTC Type	Page
B1802	Power seat control unit failure	Internal error	DTC Troubleshooting (see page 22-461)
B1825	Power seat slide motor pulse error	Signal error	DTC Troubleshooting (see page 22-461)
B1826	Power seat front up-down motor pulse error	Signal error	DTC Troubleshooting (see page 22-465)
B1827	Power seat rear up-down motor pulse error	Signal error	DTC Troubleshooting (see page 22-468)
B1828	Power seat recline motor pulse error	Signal error	DTC Troubleshooting (see page 22-472)
B1829	A/T P signal and VSP signal have an illegal combination	Signal error	DTC Troubleshooting (see page 22-475)
B1830	Left mirror position sensor open	Signal error	DTC Troubleshooting (see page 22-476)
B1832	Right mirror position sensor open	Signal error	DTC Troubleshooting (see page 22-479)
B1836	Power seat position sensor circuit short	Signal error	DTC Troubleshooting (see page 22-482)
B1837	Memory position delay	Signal error	DTC Troubleshooting (see page 22-483)
B1843	UART communication error	Signal error	DTC Troubleshooting (see page 22-483)
B1844	Power seat slide switch circuit malfunction	Signal error	DTC Troubleshooting (see page 22-485)
B1845	Power seat recline switch circuit malfunction	Signal error	DTC Troubleshooting (see page 22-486)
B1846	Power seat front up-down switch circuit malfunction	Signal error	DTC Troubleshooting (see page 22-487)
B1847	Power seat rear up-down switch circuit malfunction	Signal error	DTC Troubleshooting (see page 22-488)
U0155	Lost communication with gauge control module (VSP/NE frame)	Loss of communication	DTC Troubleshooting (see page 22-489)
U0199	Lost communication with P/W (DRLockSW frame)	Loss of communication	DTC Troubleshooting (see page 22-490)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	DTC Troubleshooting (see page 22-151)
U1282	Lost communication with driver's MICU	Loss of communication	DTC Troubleshooting (see page 22-491)

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DTC Troubleshooting Index (cont'd)

Power Control Unit

DTC	Description	DTC Type	Page
B12A1	Power control unit internal (CPU) error	Internal error	DTC Troubleshooting (see page 22-522)
B12C5	Engine start/stop switch failure	Internal error	DTC Troubleshooting (see page 22-522)
B12C6	Electric steering lock switch C/D monitor circuit failure	Internal error	DTC Troubleshooting (see page 22-523)
B12C7	Electric steering lock motor driven circuit failure	Internal error	DTC Troubleshooting (see page 22-525)
B12D0	Power control unit IG1A circuit error	Internal error	DTC Troubleshooting (see page 22-526)
B12D1	Power control unit IG1B circuit error	Internal error	DTC Troubleshooting (see page 22-526)
B12D2	Power control unit IG2 circuit error	Internal error	DTC Troubleshooting (see page 22-526)
B12D3	Power control unit IG latch circuit error	Internal error	DTC Troubleshooting (see page 22-526)
B12E0	Electric steering lock switch internal error	Internal error	DTC Troubleshooting (see page 22-526)
B12E1	Electric steering lock motor internal error	Internal error	DTC Troubleshooting (see page 22-527)
B12E2	Electric steering lock low level failure of MTRCUT1	Signal error	DTC Troubleshooting (see page 22-527)
B12E3	Electric steering lock high level failure of MTRCUT1	Signal error	DTC Troubleshooting (see page 22-527)
B12E4	Electric steering lock high level failure of MTRCUT2	Signal error	DTC Troubleshooting (see page 22-527)
B12F0	Power control unit lost communication with electric steering lock	Loss of communication	DTC Troubleshooting (see page 22-529)
B12F1	Power control unit lost communication with remote slot control unit	Loss of communication	DTC Troubleshooting (see page 22-531)
B12F2	Power control unit lost communication with keyless access control unit	Loss of communication	DTC Troubleshooting (see page 22-533)
U0155	Power control unit lost communication with gauge control module	Loss of communication	DTC Troubleshooting (see page 22-535)
U0199	Power control unit lost communication with door multiplex control unit	Loss of communication	DTC Troubleshooting (see page 22-535)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	DTC Troubleshooting (see page 22-151)

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Remote Slot Control Unit

DTC	Description	DTC Type	Page
B1901	Remote slot control unit internal error (CPU error)	Internal error	DTC Troubleshooting (see page 22-551)
B1902	Remote slot control unit internal error (EEPROM error)	Internal error	DTC Troubleshooting (see page 22-551)
B1926	Remote slot control unit antenna open or short	Internal error	DTC Troubleshooting (see page 22-551)
B1927	MTRCONT signal error	Signal error	DTC Troubleshooting (see page 22-536)
B1930	Remote slot control unit LOCK/UNLOCK error	Signal error	DTC Troubleshooting (see page 22-552)
B1931	Remote slot control unit no response	Signal error	DTC Troubleshooting (see page 22-553)
U0155	Remote slot control unit lost communication with gauge control module	Loss of communication	DTC Troubleshooting (see page 22-554)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	DTC Troubleshooting (see page 22-151)

Keyless Access Control Unit

DTC	Description	DTC Type	Page
B1601	Keyless access control unit internal (CPU) error	Internal error	DTC Troubleshooting (see page 22-536)
B1602	Keyless access control unit internal (EEPROM) error	Internal error	DTC Troubleshooting (see page 22-536)
B1632	MTR CONT signal error	Signal error	DTC Troubleshooting (see page 22-536)
B1640	RF unit 1 not connected	Signal error	DTC Troubleshooting (see page 22-538)
B1641	RF unit 2 not connected	Signal error	DTC Troubleshooting (see page 22-539)
B1646	Driver's door LF antenna circuit open or short	Signal error	DTC Troubleshooting (see page 22-540)
B1648	Passenger's door LF antenna circuit open or short	Signal error	DTC Troubleshooting (see page 22-541)
B1658	Rear bumper LF antenna circuit open or short	Signal error	DTC Troubleshooting (see page 22-543)
B1660	Front interior LF antenna circuit open or short	Signal error	DTC Troubleshooting (see page 22-544)
B1664	Rear interior LF antenna circuit open or short	Signal error	DTC Troubleshooting (see page 22-546)
B1668	Rear shelf LF antenna circuit open or short	Signal error	DTC Troubleshooting (see page 22-547)
U0155	Keyless access control unit lost communication with gauge control module	Loss of communication	DTC Troubleshooting (see page 22-549)
U0199	Keyless access control unit lost communication with door multiplex control unit	Loss of communication	DTC Troubleshooting (see page 22-549)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	DTC Troubleshooting (see page 22-151)
U1282	Keyless access control unit lost communication with driver's MICU	Loss of communication	DTC Troubleshooting (see page 22-550)
U1283	Keyless access control unit lost communication with passenger's MICU	Loss of communication	DTC Troubleshooting (see page 22-550)

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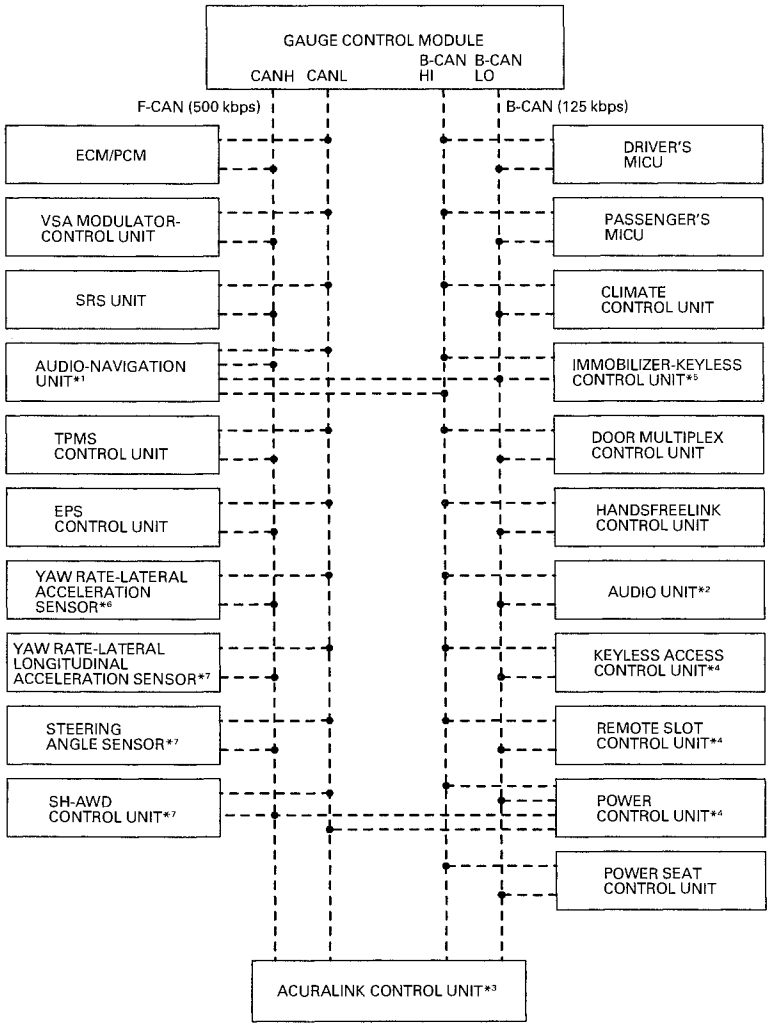
System Description

Body Controller Area Network (B-CAN) and Fast Controller Area Network (F-CAN)

The body controller area network (B-CAN) and the fast controller area network (F-CAN) share information between multiple electronic control units (ECUs). B-CAN communication moves at a slower speed (125 kbps) for convenience related items and for other functions. F-CAN information moves at a faster speed (500 kbps) for "real time" functions such as fuel and emissions data. To allow both systems to share information, the gauge control module translates and relays the information from B-CAN to F-CAN and from F-CAN to B-CAN. This is called the Gateway Function.



*1: With navigation system
*2: Without navigation system
*3: USA models with navigation system
*4: With keyless access system
*5: Without keyless access system
*6: Without SH-AWD
*7: With SH-AWD

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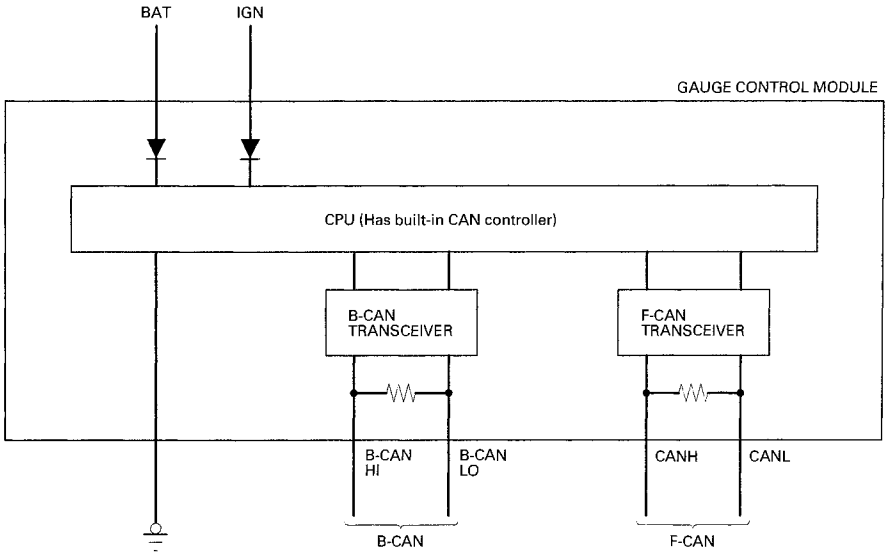
Gateway Function

The gauge control module acts as a gateway to allow both systems to share information. The gauge control module translates and relays the information from B-CAN to F-CAN and from F-CAN to B-CAN.



Network "Loss of Communication" Error Checking Function

The ECUs on the CAN circuit send messages to each other. If there are any communication malfunctions on the network, the multi information display (MID) on the gauge control module can indicate the error messages by entering the gauge control module self-diagnostic function (see page 22-342).

(cont'd)

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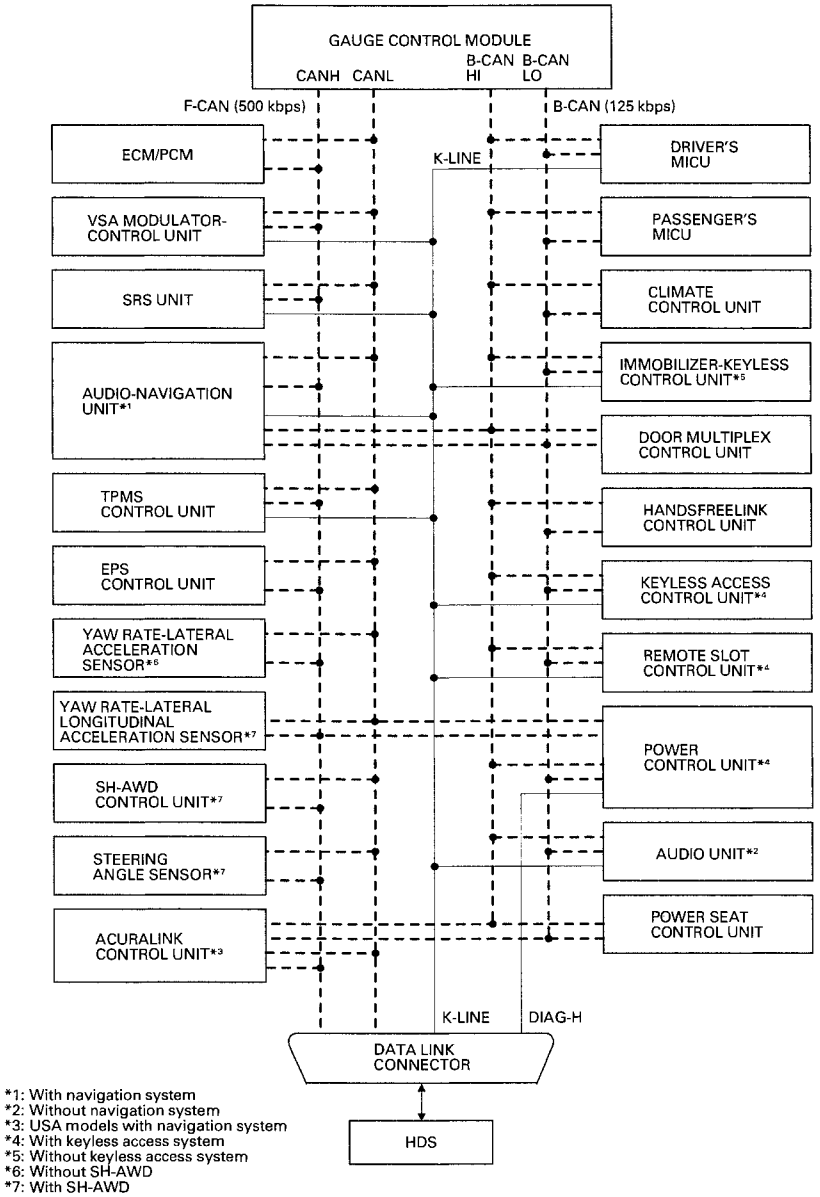
System Description (cont'd)

Self-diagnostic Function (On-board diagnosis)

By connecting the HDS to the data link connector (DLC), the HDS can retrieve the diagnostic information from the driver's MICU via a diagnostic line called the K-LINE. The K-LINE is a separate communication line from the CAN lines, but it is connected to most of the CAN related ECUs. The driver's MICU is a gateway between the HDS and B-CAN related ECUs, and sends B-CAN diagnostic information to the HDS. When doing a function test with the HDS, the HDS sends an output signal through the K-LINE to the driver's MICU. The driver's MICU either relays the request to another ECU, or commands the function itself.



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Wake-up and Sleep Function

The multiplex integrated control system has wake-up and sleep functions to decrease parasitic draw on the battery when the ignition switch is to LOCK (0), or the vehicle ignition in the OFF mode.

- In the sleep mode, the multiplex integrated control system stops functioning (communication and CPU control) when it is not necessary for the system to operate.
- As soon as any operation is requested (for example, a door is unlocked), the related control units in the sleep mode immediately wake up and begin to function.
- When the ignition switch is turned to LOCK (0), or the engine start/stop button is pressed to select the OFF mode, and the driver's door is opened, then closed, there is a delay about 40 seconds before the control unit goes from the wake-up mode to the sleep mode.
- The sleep mode will not function if any door is open or if a key is in the ignition switch.
- The draw is reduced from 200 mA to less than 35 mA when in the sleep mode.

NOTE: Sleep and Wake-up Mode Test (see page 22-142).

Fail-safe Function

To prevent improper operation, the MICUs have a fail-safe function. In the fail-safe mode, the output signal is fixed when any part of the system malfunctions (for example, a faulty control unit or communication line).

Each control unit has a hardware fail-safe function that fixes the output signal when there is a CPU malfunction, and a software fail-safe function that ignores the signal from a malfunctioning control unit, which allows the system to operate normally.

Hardware Fail-safe Control

Fail-safe function

When a CPU problem or an abnormal power supply voltage is detected, the MICUs move to the hardware fail-safe mode, and each system output load is set to the pre-programmed fail-safe value.

Software Fail-safe Control

When any of the data from the B-CAN circuit cannot be received within a specified time, or an unusual combination of data is recognized, the MICUs move to the software fail-safe mode. The data that was not received is forced to a pre-programmed value.

(cont'd)

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System Description (cont'd)

Driver's MICU

Power Supply Voltage Monitoring Function

The driver's MICU monitors the power supply voltage (back-up voltage). If the voltage goes below 10 V, the driver's MICU will not store a DTC.

	Input	Output
Driver's MICU	Battery voltage (VBU)	
B-CAN		MICU (Under 10 V) message

Entry Lights Control System (Ceiling Lights, Map Lights, Ignition Key Light)*

The driver's MICU control of the interior light ON/OFF is based on input signals from each switch.

	Input	Output
Driver's MICU	IG1 power supply Ignition key switch Driver's door switch Left rear door switch	Interior lights Ignition key light
B-CAN	Keyless LOCK/UNLOCK signal Keyless access signal Right rear door switch Driver's door lock knob switch (LOCK/UNLOCK) Front passenger's door switch	

*: The security system can be customized in the multi-information display (MID) to suit the customer's needs. For more information about keyless/security system options, refer to the Owner's Manual.

Collision Detection Signal (CDS)

The driver's MICU control of the door lock actuators is based on IG1 and SRS (CDS) inputs.

	Input	Output
Driver's MICU	Ignition switch (IG1)	Door lock actuators (UNLOCK)
B-CAN	CDS signal	Door lock actuators (UNLOCK)

Key Interlock (A/T)

The driver's MICU control of the key interlock solenoid is based on ignition switch ACCESSORY (I) position, the transmission range switch P position, and the park pin switch inputs.

	Input	Output
Driver's MICU	Ignition switch (ACC) Transmission range switch (P) position Park pin switch	Key interlock solenoid

Rear Window Defogger Timer Operation

The driver's MICU control of the rear window defogger timer is based on ignition switch and rear window defogger switch inputs.

	Input	Output
Driver's MICU	Ignition switch (IG1)	Rear window defogger relay
B-CAN	Rear window defogger switch	

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Combination Light Switch

The driver's MICU control of the lighting system is based on inputs from the combination light switch.

	Input	Output
Driver's MICU	Combination light switch (OFF) Combination light switch (ON) Combination light switch (AUTO) Combination light switch (PARKING) Combination light switch (PASSING) Combination light switch (DIMMER)	Parking light Headlight (high beam, low beam, passing) Taillights Headlight (AUTO)
B-CAN		Parking light Headlight (high beam, low beam, passing) Taillights Headlight (AUTO)

Daytime Running Lights

The driver's MICU control of the headlights as daytime running lights is based on inputs from each switch.

	Input	Output
Driver's MICU	IG2 power supply	Left headlight (high beam)
B-CAN	Parking brake signal Auto headlight LO off signal IG1 meter signal	Headlight (high beam) DRL messages

Fog Lights

The driver's MICU control of fog lights is based on inputs from the fog light switch.

	Input	Output
Driver's MICU	Fog light switch Combination light switch	Left fog light
B-CAN		Fog light signal

Headlight Auto-OFF Function*

The driver's MICU control of the lighting system is based on inputs from each switch.

	Input	Output
Driver's MICU	IG1 power supply Ignition key switch Driver's door switch	Left headlight (high beam, low beam) Taillights
B-CAN	Driver's door lock knob switch Keyless access signal Auto light off signals	Headlight off signal

*: The security system can be customized in the multi-information display (MID) to suit the customer's needs. For more information about keyless/security system options, refer to the Owner's Manual.

(cont'd)

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System Description (cont'd)

Turn Signal/Hazard Warning Lights

The driver's MICU control of the turn signal/hazard warning lights is based on inputs from the turn signal switch and the hazard warning switch.

	Input	Output
Driver's MICU	IG1 power supply Turn signal switch (left) Turn signal switch (right) Hazard warning switch	Turn signal lights (left) Turn signal lights (right)
B-CAN		HAZARDSW message TURNLRLY message TURNRRLY message TURNRSW message TURNLSW message

Courtesy Light (Driver's side)

The driver's MICU control of the driver's and left rear door courtesy lights is based on inputs from the driver's and left rear door switches.

	Input	Output
Driver's MICU	Driver's door switch Left rear door switch	Driver's door courtesy light Left rear door courtesy light

Wiper

The driver's MICU control of the wiper is based on inputs from each switch.

	Input	Output
Driver's MICU	IG1 power supply Brake pedal position switch Transmission range switch P position (A/T) Wiper switch (INT & LO) Wiper switch (HI & LO) Wiper switch (MIST) Wiper switch (AS) Wiper switch intermittent dwell time controller	Windshield wiper intermittent relay Windshield wiper motor high/low relay
B-CAN	Parking brake signal (A/T) IG1 meter signal (A/T) Washer signal Keyless access signal Vehicle speed pulse signal	WIPSW messages

Driver's Power Window Relay

The driver's MICU control of the power windows is based on inputs from each switch.

	Input	Output
Driver's MICU	IG1 power supply	Power window relay (left rear)
B-CAN	Power window relay signal (left rear) Power window timer signal	

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Keyless Answer Back*

The driver's MICU control of the lighting system and horns is based on keyless signals sent by B-CAN.

	Input	Output
Driver's MICU		Parking light Taillights Horns
B-CAN	KEYLESS DOOR LOCK signal	

*: The security system can be customized in the multi-information display (MID) to suit the customer's needs. For more information about keyless/security system options, refer to the Owner's Manual.

Security Answer Back*

The driver's MICU control of the lighting system and horns is based on keyless signals sent by B-CAN.

	Input	Output
Driver's MICU		Parking light Taillights Horns
B-CAN	KEYLESS DOOR LOCK signal	Answer back buzzer message

*: The security system can be customized in the multi-information display (MID) to suit the customer's needs. For more information about keyless/security system options, refer to the Owner's Manual.

Answer Back Response Operation

The driver's MICU control of the lighting system and horns is based on keyless signals sent by B-CAN.

	Input	Output
Driver's MICU		Parking light Taillights Horns
B-CAN	ANSWER BACK signal (HORN) ANSWER BACK signal (PARKING LIGHT) ANSWER BACK signal (H/L LO)	Taillight relay Horn relay

Power Door Locks*

The driver's MICU control of the door lock actuators is based on the inputs from each switch.

	Input	Output
Driver's MICU	IG1 power supply Ignition key switch Driver's door switch Left rear door switch Trunk lid latch switch	Driver's door lock actuator (UNLOCK) Door lock actuators (LOCK) Door lock actuators (UNLOCK) Trunk lid release actuator Fuel lid actuator
B-CAN	Driver's door lock switch (LOCK/UNLOCK) Driver's door key cylinder switch (LOCK/UNLOCK) Driver's door lock knob switch (LOCK/UNLOCK) Front passenger's door lock switch (LOCK/UNLOCK) Front passenger's door switch Right rear door switch Keyless access signal	Door lock signal (LOCK) Door lock signal (UNLOCK)

*: The security system can be customized in the multi-information display (MID) to suit the customer's needs. For more information about keyless/security system options, refer to the Owner's Manual.

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System Description (cont'd)

Door Lock Response Operation

The driver's MICU control of the door lock actuators LOCK, UNLOCK, DRIVER'S UNLOCK, TRUNK UNLOCK is based on B-CAN door lock switch signals.

	Input	Output
Driver's MICU		Driver's door lock actuator (UNLOCK) Door lock actuators (LOCK) Door lock actuators (UNLOCK) Trunk lid release actuator
B-CAN	Door lock switch signals	

Keyless Entry System*

The driver's MICU control of the door lock actuators is based on the input signals from each switch.

	Input	Output
Driver's MICU	IG1 power supply Ignition key switch Driver's door switch Left rear door switch Trunk lid opener main switch	Driver's door lock actuator (UNLOCK) Door lock actuators (LOCK) Door lock actuators (UNLOCK) Trunk lid release actuator
B-CAN	Front passenger's door switch Right rear door switch Driver's door lock knob switch (LOCK) Driver's door lock switch (LOCK/UNLOCK) Driver's door key cylinder switch (LOCK/UNLOCK) Front passenger's door lock switch (LOCK/UNLOCK) Keyless access signal Keyless LOCK/UNLOCK signal	Door lock signal (LOCK) Door lock signal (UNLOCK) Relock signal

*: The security system can be customized in the multi-information display (MID) to suit the customer's needs. For more information about keyless/security system options, refer to the Owner's Manual.

Keyless PANIC Operation

The driver's MICU control of the keyless PANIC operation is based on keyless signals sent by B-CAN data.

	Input	Output
Driver's MICU		Headlight (low beam) Parking light Taillights Horns
B-CAN	PANIC signals	Headlight (low beam) signal Parking light signal Taillights signal

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Auto Power Door Locks (LOCK operation)*

The driver's MICU control of the door lock actuators is based on inputs from each switch.

	Input	Output
Driver's MICU	IG1 power supply Transmission range switch (P position) Driver's door switch Left rear door switch Trunk lid latch switch Left rear door lock knob switch (LOCK) Brake pedal position switch	Door lock actuators (LOCK)
B-CAN	Front passenger's door switch Right rear door switch Driver's door lock knob switch (LOCK) Front passenger's door lock knob switch (LOCK) Right rear door lock knob switch (LOCK) Vehicle speed signal Engine speed signal	Door lock signal (LOCK)

*: The security system can be customized in the multi-information display (MID) to suit the customer's needs. For more information about keyless/security system options, refer to the Owner's Manual.

Auto Power Door Locks (UNLOCK operation)*

The driver's MICU control of the door lock actuators is based on inputs from each switch.

	Input	Output
Driver's MICU	IG1 power supply Transmission range switch (P position) Driver's door switch Left rear door switch Trunk lid latch switch Brake pedal position switch Left rear door lock knob switch (UNLOCK)	Driver's door lock actuators (UNLOCK) Door lock actuators (UNLOCK)
B-CAN	Front passenger's door switch Right rear door switch Driver's door lock knob switch (UNLOCK) Front passenger's door lock knob switch (UNLOCK) Right rear door lock knob switch (UNLOCK)	Door lock signal (UNLOCK) Door lock signal (LOCK)

*: The security system can be customized in the multi-information display (MID) to suit the customer's needs. For more information about keyless/security system options, refer to the Owner's Manual.

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System Description (cont'd)

Security Alarm System

The driver's MICU control of the lighting system and horns is based on inputs from each switch and B-CAN data.

	Input	Output
Driver's MICU	IG1 power supply Ignition key switch Driver's door switch Left rear door switch Trunk lid latch switch Left rear door lock knob switch (UNLOCK) Security hood switch	Headlights (low beam) Parking light Taillights Horns
B-CAN	Audio switch Front passenger's door switch Right rear door switch Driver's door key cylinder switch (LOCK/UNLOCK) Driver's door lock knob switch (UNLOCK) Front passenger's door lock knob switch (UNLOCK) Right rear door lock knob switch (UNLOCK) Keyless LOCK/UNLOCK signal DOOR LOCK signal	Driver's MICU (SET 1) message Driver's MICU (SET 2) message ALARM (ACTION) message Headlight (low beam) signal Parking light signal Taillights signal

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Passenger's MICU

Power Supply Voltage Monitoring Function

The passenger's MICU monitors the power supply voltage (back-up voltage). If the voltage goes below 10 V, the passenger's MICU will not store DTCs.

	Input	Output
Passenger's MICU	Battery voltage (VBU)	

Courtesy Light (Passenger's side)

The passenger's MICU control of the front passenger and right rear door courtesy lights is based on inputs from the front passenger and right rear door switch.

	Input	Output
Passenger's MICU	Front passenger's door switch Right rear door switch	Front passenger's door courtesy light Right rear door courtesy light

Power Door Locks (LOCK)*

The passenger's MICU control of the front passenger's side door lock actuators is based on inputs from the driver's MICU.

	Input	Output
Passenger's MICU		Door lock actuators (LOCK)
B-CAN	Door lock (LOCK) signal	

*: The security system can be customized in the multi-information display (MID) to suit the customer's needs. For more information about keyless/security system options, refer to the Owner's Manual.

Power Door Locks (UNLOCK)*

The passenger's MICU control of the front passenger's side door lock actuators is based on inputs from the driver's MICU.

	Input	Output
Passenger's MICU		Door lock actuators (UNLOCK)
B-CAN	Door lock (UNLOCK) signal	

*: The security system can be customized in the multi-information display (MID) to suit the customer's needs. For more information about keyless/security system options, refer to the Owner's Manual.

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System Description (cont'd)

Exterior Lights

The passenger's MICU control of the front passenger's side headlight, and parking lights is based on inputs from the driver's MICU.

	Input	Output
Passenger's MICU		Parking light Headlight (high beam, low beam) Passenger's DRL (low beam) Passenger's fog light
B-CAN	Parking light signal Headlight (high beam, low beam passing) signal DRL signal Fog light signal	Passenger's DRL signal

Automatic Lighting*

The passenger's MICU control of the headlights and the parking lights is based on inputs from the automatic lighting sensor.

	Input	Output
Passenger's MICU	IG1 power supply Automatic lighting sensor (SIO) signal	Headlight back-up signal
B-CAN	IG1 power supply signal Lighting switch signal Vehicle speed signal	AUTOLT signals

*: The security system can be customized in the multi-information display (MID) to suit the customer's needs. For more information about keyless/security system options, refer to the Owner's Manual.

Fog Lights

The passenger's MICU control of fog lights is based on inputs from the fog light switch.

	Input	Output
Passenger's MICU		Right fog light
B-CAN	Fog light signal	

Washer Operation

The passenger's MICU control of the washer motor is based on inputs from the wiper switch.

	Input	Output
Passenger's MICU	IG1 power supply Headlight washer switch (Canada)	Windshield washer motor Headlight washer motor (Canada)
B-CAN	Wiper switch signals	

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Keyless Buzzer Operation

The passenger's MICU control of the keyless buzzer is based on inputs from the answer back signals.

	Input	Output
Passenger's MICU		Keyless buzzer
B-CAN	Answer back signals	

Passenger's Power Window Relay Circuit

The passenger's MICU control of the power window relay circuit in the passenger's under-dash fuse/relay box is based on inputs from the power window signals.

	Input	Output
Passenger's MICU	IG1 power supply	Right power window relay circuit
B-CAN	Power window signals	

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System Description (cont'd)

HDS Inputs, Outputs, and Commands

Certain inputs happen so quickly that the Data List on the HDS cannot update fast enough. Hold the switch that is being tested while monitoring the Data List. This should give the HDS time to update the signal on the Data List.

Because the HDS software is updated to support the release of newer vehicles, it is not uncommon to see system function tests that are not supported.

Make sure that the most current software is loaded.

System Menu	Data List	Data List Indication
Lighting	Autolight Sensor Input Voltage	V
	Autolight Sensor Malfunction Detection voltage Max	V
	Autolight Sensor Malfunction Detection voltage Min	V
	Autolight Small Command	OFF/ON
	Autolight Headlight Command	OFF/ON
	Autolight Warning Command	OFF/ON
	Autolight Headlight Backup line Command	OFF/ON
	Headlight Command	OFF/ON
	Headlight High Beam Command	OFF/ON
	Parking Light Command	OFF/ON
	Fog Light Command	OFF/ON
	DRL Command	OFF/ON
	Passenger's Courtesy light Command	OFF/ON
	Driver's Door Switch	OFF/ON
	Hazard Switch	OFF/ON
	Headlight Switch (OFF)	OFF/ON
	Headlight Switch (PARKING)	OFF/ON
	Headlight Switch (HEADLIGHT)	OFF/ON
	Headlight Switch (AUTO)	OFF/ON
	Headlight Switch (High Beam)	OFF/ON
	Headlight Switch (PASSING)	OFF/ON
	Turn Signal Switch (LEFT)	OFF/ON
	Turn Signal Switch (RIGHT)	OFF/ON
	Fog Light Switch	OFF/ON
	Ignition Key Cylinder Light Command	OFF/ON
	Interior Light Command	OFF/ON
	Left Turn Signal Command	OFF/ON
	Right Turn Signal Command	OFF/ON
	Cargo Light Command	OFF/ON
	Map Light OFF Command	OFF/ON
	Headlight Command	OFF/ON
	Headlight High Beam Command	OFF/ON
	Parking Light Command	OFF/ON
	Fog Light Command	OFF/ON
	DRL Command	OFF/ON
	Driver's Courtesy Light Command	OFF/ON
	Brake Pedal Position Switch	OFF/ON
Wiper	Windshield Washer Motor Command	OFF/ON
	Windshield Wiper Switch (LOW)	OFF/ON
	Windshield Wiper Switch (HIGH)	OFF/ON
	Windshield Wiper Switch (MIST)	OFF/ON
	Windshield Wiper Switch (INT)	OFF/ON
	Windshield Wiper	OFF/ON
	Switch (INT)	OFF/ON
	Windshield Washer Switch	OFF/ON
	Windshield Wiper Motor PARK Switch	OFF/ON
	Windshield Wiper Motor HI Command	OFF/ON
	Windshield Wiper Motor Lo Command	OFF/ON
	Windshield Washer Motor Command	OFF/ON

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System Menu	Data List	Data List Indication
Keyless Transmitter	Front Passenger's Door Switch	OFF/ON
	Passenger's Rear Door Switch	OFF/ON
	Passenger's Rear Door Lock Knob Sw. (UNLOCK)	OFF/ON
	Door Lock Command	OFF/ON
	Door UNLOCK Command	OFF/ON
	Keyless Buzzer Command	OFF/ON
	Driver's Door Switch	OFF/ON
	Driver's Rear Door Switch	OFF/ON
	Trunk Lid/Tailgate Switch	OFF/ON
	Driver's Rear Door Lock Knob Switch (UNLOCK)	OFF/ON
	Trunk Key Cylinder (UNLOCK)	OFF/ON
	Trunk Handle Sw.	OFF/ON
	Trunk main Switch	OFF/ON
	Door Lock Command	OFF/ON
	Driver's Door UNLOCK Command	OFF/ON
	Trunk Lid Release Command	OFF/ON
	Driver's Door Key Cylinder Switch (LOCK)	OFF/ON
	Driver's Door Key Cylinder Switch (UNLOCK)	OFF/ON
	Driver's Door Lock Switch (LOCK)	OFF/ON
	Driver's Door Lock Switch (UNLOCK)	OFF/ON
	Driver's Door Lock Knob Switch (LOCK)	OFF/ON
	Driver's Door Lock Knob Switch (UNLOCK)	OFF/ON
Door Locks	Front Passenger's Door Switch	OFF/ON
	Passenger's Rear Door Switch	OFF/ON
	Passenger's Rear Door Lock Knob Sw. (UNLOCK)	OFF/ON
	Door LOCK Command	OFF/ON
	Door UNLOCK Command	OFF/ON
	Driver's Door Switch	OFF/ON
	Driver's Door UNLOCK Command	OFF/ON
	Driver's Door Key Cylinder Switch (LOCK)	OFF/ON
	Driver's Door Key Cylinder Switch (UNLOCK)	OFF/ON
	Driver's Door Lock Switch (LOCK)	OFF/ON
	Driver's Door Lock Switch (UNLOCK)	OFF/ON
	Driver's Door Lock Knob Switch (LOCK)	OFF/ON
	Driver's Door Lock Knob Switch (UNLOCK)	OFF/ON

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System Description (cont'd)

System Menu	Data List	Data List Indication
Gauges	Cruise Control Main Switch (ACC switch)	OFF/ON
	Cruise Control Set Sw.	OFF/ON
	Cruise Control Resume Sw.	OFF/ON
	Washer Fluid level Switch	OFF/ON
	VSA/TCS Off Switch	OFF/ON
	Parking Brake Switch	OFF/ON
	Brake Fluid level Switch	OFF/ON
	Illumination Plus Switch	OFF/ON
	Illumination Minus Switch	OFF/ON
	INFO Previous Switch	OFF/ON
	INFO Next Switch	OFF/ON
	Fuel Sending Unit Input 1	V
	Fuel Sending Unit Input 2	V
	VSA/TCS Active Indicator	OFF/ON
	VSA/TCS Indicator (Warning)	OFF/ON
	ABS Indicator	OFF/ON
	EBD Indicator (Electronic Brake Distribution)	OFF/ON
	Cruise Control Main Switch Indicator	OFF/ON
	MIL Indicator	OFF/ON
	Washer Fluid Level Indicator (Canada)	OFF/ON
	DRL Indicator	OFF/ON
	Low Oil Pressure Indicator	OFF/ON
	Charging System Indicator	OFF/ON
	Cruise Main Switch ON Indicator	OFF/ON
	Maintenance Required Indicator	OFF/ON
	Maintenance Minder Indicator	OFF/ON
	High Beam Indicator	OFF/ON
	Parking Light ON Indicator	OFF/ON
	Low Fuel Warning Indicator	OFF/ON
	Security Indicator	OFF/ON
	Fog light Indicator	OFF/ON
	Master Warning Indicator	OFF/ON
	Seat Belt Indicator	OFF/ON
	Tire Pressure Warning Indicator	OFF/ON
	SH-AWD Indicator	OFF/ON
	Keyless Access "No Keyless Remote" Warning	OFF/ON
	Keyless Remote Battery Charge Warning	OFF/ON
	Keyless Remote Battery Level	OFF/ON
	Open Door Indicator	OFF/ON
	Differential Oil Temp Indicator	OFF/ON
	Maintenance Minder Change Oil Indicator	OFF/ON
	Fuel Fill Cap Caution	OFF/ON
	A/T Indicator	OFF/ON
	SRS Indicator	OFF/ON
	Side Airbag Cutoff Indicator	OFF/ON
	Keyless Access Indicator	OFF/ON
	EPS/ECPS Indicator	OFF/ON
	Starter Relay Indicator	OFF/ON
	Trunk Open Indicator	OFF/ON
	Speed Indicator (km/h) Command	0 km/h
	Speed Indicator (mph) Command	0 mph
	Driver's Seat Belt Buckle Switch	OFF/ON
	A/T Gear Position Switch (R)	OFF/ON
	A/T Gear Position Switch (P)	OFF/ON

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System Menu	Data List	Data List Indication
Security	Front Passenger's Door Switch	OFF/ON
	Passenger's Rear Door Switch	OFF/ON
	Passenger's Rear Door Lock Knob Sw. (UNLOCK)	OFF/ON
	Door Lock Command	OFF/ON
	Door UNLOCK Command	OFF/ON
	Headlight Command	OFF/ON
	Headlight High Beam Command	OFF/ON
	Parking Light Command	OFF/ON
	Ignition Key Cylinder Switch	OFF/ON
	Driver's Door Switch	OFF/ON
	Driver's Rear Door Switch	OFF/ON
	Trunk Lid/Tailgate Switch	OFF/ON
	Driver's Rear Door Lock Knob Switch (UNLOCK)	OFF/ON
	Trunk Key Cylinder (UNLOCK)	OFF/ON
	Trunk Handle Sw.	OFF/ON
	Hazard Switch	OFF/ON
	Security Hood Switch	OFF/ON
	Door Lock Command	OFF/ON
	Door Unlock Command	OFF/ON
	Driver's Door UNLOCK Command	OFF/ON
	Trunk Lid Release Command	OFF/ON
	Headlight Command	OFF/ON
	Headlight High Beam Command	OFF/ON
	Parking Light Command	OFF/ON
	Horn Command	OFF/ON
	Driver's Door Key Cylinder Switch (LOCK)	OFF/ON
	Driver's Door Key Cylinder Switch (UNLOCK)	OFF/ON
	Driver's Door Lock Switch (LOCK)	OFF/ON
	Driver's Door Lock Switch (UNLOCK)	OFF/ON
	Driver's Door Lock Knob Switch (LOCK)	OFF/ON
	Driver's Door Lock Knob Switch (UNLOCK)	OFF/ON
Power Seat/Power Mirror	Slide Switch (Forward)	OFF/ON
	Slide Switch (Backward)	OFF/ON
	Recline Switch (Forward)	OFF/ON
	Recline Switch (Backward)	OFF/ON
	Rear Up-Down Switch (Down)	OFF/ON
	Front Up-Down Switch (Up)	OFF/ON
	Rear Up-Down Switch (Up)	OFF/ON
	Ignition Switch for Power Seat Control	OFF/ON
	Slide Switch	OFF/ON
	Front UP-DOWN Sensor	OFF/ON
	Recline Sensor	OFF/ON
	Rear UP-DOWN Sensor	OFF/ON
	Slide Motor Command	OFF/ON
	Recline Motor Command	OFF/ON
	Front Height Motor Command	OFF/ON
	Rear Height Motor Command	OFF/ON
	Power Seat Buzzer Command	OFF/ON
	ATP Switch	OFF/ON
	Seat MEMO Switch	OFF/ON
	Driver 1 Position Switch	OFF/ON
	Driver 2 Position Switch	OFF/ON

(cont'd)

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System Description (cont'd)

System Menu	Data List	Data List Indication
Power Windows	Front Passenger's Door Switch	OFF/ON
	Power Window Timer Command	OFF/ON
	Driver Door Switch	OFF/ON
	P/W Main Switch	OFF/ON
	P/W Master Switch (Driver's Window AUTO)	OFF/ON
	P/W Master Switch (Driver's Window UP)	OFF/ON
	P/W Master Switch (Driver's Window DOWN)	OFF/ON
	P/W Master Sw. (Front Passenger's Window UP)	OFF/ON
	P/W Master Sw. (Front Passenger's Window DOWN)	OFF/ON
	P/W Master Sw. (Left Rear Window UP)	OFF/ON
	P/W Master Sw. (Left Rear Window DOWN)	OFF/ON
	P/W Master Sw. (Right Rear Window UP)	OFF/ON
	P/W Master Sw. (Right Rear Window Down)	OFF/ON
	P/W Master Sw. (Passenger's Window AUTO)	OFF/ON
	Driver's P/W Motor Pulse A	OFF/ON
	Driver's P/W Motor Pulse B	OFF/ON
	Driver's P/W Motor Command	OFF/ON

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System Menu	Data List	Data List Indication (Value)
PCU	CONTROLLED POWER STATUS	ON (STOP)
	+B BACK UP	V
	+B SMART	V
	IG1a	V
	IG1b	V
	IG2	V
	STRQ	V
	ESL POWER	V
	MTR CUT 1	V
	MTR CUT 2	V
	START STOP SWITCH HIGH SIDE	OFF/ON
	START STOP SWITCH LOW SIDE	OFF/ON
	FOOT BRAKE	OFF/ON
	PARKING BRAKE	OFF/ON
	SLOT SWITCH HALF INSERT	OFF/ON
	SLOT SWITCH FULL INSERT	OFF/ON
	KEYLESS ACCESS SYSTEM MODE SWITCH	OFF/ON
	SCS	OPEN/SHORT
	ESL SWITCH C	OFF/ON
	ESL SWITCH D	OFF/ON
	AT SHIFT POSITION P	OFF/ON
	AT SHIFT POSITION P-PIN	OFF/ON
	CLUTCH SWITCH	OFF/ON
	DRIVER DOOR KEY CYLINDER UNLOCK SWITCH	OFF/ON
	DRIVER DOOR KEY CYLINDER LOCK SWITCH	OFF/ON
	DRIVER DOOR SILICON LOCK SWITCH	OFF/ON
	LEFT FRONT WHEEL SPEED (B-CAN)	VALUE
	RIGHT FRONT WHEEL SPEED (B-CAN)	VALUE
	LEFT REAR WHEEL SPEED (B-CAN)	VALUE
	RIGHT REAR WHEEL SPEED (B-CAN)	VALUE
	WHEEL SPEED ALIVE COUNTER (B-CAN)	VALUE
	WHEEL SPEED CHECK SUM (B-CAN)	VALUE
	METER DECREASE IN LIGHT CANCELLATION	NORMAL/CANCEL
	ILLUMINATION STATUS	OFF/ON
	ILLUMINATION BRIGHTNESS STEP	VALUE
	METER WELCOME ILLUMINATION STATUS	VALUE
	ILLUMINATION BRIGHTNESS STEP MAX VALUE	VALUE
	VEHICLE SPEED (F-CAN)	VALUE
	EAT CAN ALIVE COUNTER	NORMAL/FAILED
	EAT CAN CHECK SUM	NORMAL/FAILED
	LEFT FRONT WHEEL SPEED (F-CAN)	VALUE
	RIGHT FRONT WHEEL SPEED (F-CAN)	VALUE
	LEFT REAR WHEEL SPEED (F-CAN)	VALUE
	RIGHT REAR WHEEL SPEED (F-CAN)	VALUE
	ABS/VSA CAN ALIVE COUNTER	NORMAL/FAILED
	ABS/VSA CAN CHECK SUM	NORMAL/FAILED
	ENGINE RUN STATUS	RUN/NOT START
	STARTER RELAY DRIVE STATUS	OFF/ON
	ECM CAN ALIVE COUNTER	NORMAL/FAILED
	ECM CAN CHECK SUM	NORMAL/FAILED

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System Description (cont'd)

System Menu	Data List	Data List Indication (Value)
KEY SLOT UNIT	START STOP SWITCH 2–	OFF/ON
	PARKING BRAKE	OFF/ON
	SLOT Switch FULL	OFF/ON
	SLOT Switch HALF	OFF/ON
	SLOT Switch LOCK	OFF/ON
	SLOT Switch FULL 2	OFF/ON
	START STOP SWITCH 1+	OFF/ON
	ESL SWITCH B	OFF/ON
	ACC	OFF/ON
	IG1	OFF/ON
	+B SMART	OFF/ON
	+B BACKUP	OFF/ON
KEYLESS ACCESS CONTROL UNIT	IGNITION 1 POSITION SWITCH	OFF/ON
	ACC POSITION SWITCH	OFF/ON
	PARKING BRAKE SWITCH	OFF/ON
	SCS	OPEN/SHORT
	IGNITION CONTROL SIGNAL	OFF/ON
	KNOB BLOCK SOLENOID	LOCK/UNLOCK
	START/STOP SWITCH 2–	OFF/ON
	START/STOP SWITCH 1+	OFF/ON
	ESL SWITCH B	OFF/ON

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Function Test:

System Menu	HDS Description	Note
HVAC/Climate Control	Climate Control Unit Self Test	Outputs for 60 Seconds
	Rear Defogger	Operates a relay of Rear defroster for 60 seconds
Power Seat/Power Mirror	Slide Motor	Drive to Full Forward Position
		Drive to Full Backward Position
	Front Up-Down Motor	Drive to Full Up Position
		Drive to Full Down Position
	Rear Up-Down Motor	Drive to Full Up Position
		Drive to Full Down Position
	Recline Motor	Drive to Full Forward Position
		Drive to Full Backward Position
	Memory Buzzer	Operate Buzzer for 5 Seconds
Keyless Transmitter	Trunk Lid/Tailgate Release Command	Unlock trunk
Lighting	Interior Light Command	Illuminate interior lights for 30 seconds
	Hazard Flasher	Hazard Flasher for 5 Seconds
	Left Turn Signal Command	Blinks Left Turn Signal for 5 Seconds
		Blinks Left Turn Signal for 15 Seconds
	Right Turn Signal Command	Blinks Right Turn Signal for 5 Seconds
		Blinks Right Turn Signal for 15 Seconds
	Headlight Command	Operates Head Light (Low) for 15 Seconds
		ON
		OFF
	Headlight High Beam Command	Operates Head Light (High) for 15 Seconds
		ON
		ON for Daytime Running Light (KA/KC)
		OFF
	Front Fog Light	Operates a Relay of Front Fog Light for 15 Seconds
	Courtesy Light (DR)	Illuminates for 30 Seconds
	Parking Lights Command	Operates Small Light for 15 Seconds
	Courtesy LT RD	Out puts for 30 Seconds
	Courtesy LT RA	Out puts for 30 seconds
Doors Locks	Locks All Doors	Outputs LOCK signal 1 time (0.6 sec.) to all door
	UNLOCK Driver's Side Door	Outputs UNLOCK signal 1 time (0.6 sec.) to driver side door
	UNLOCK All Doors	Outputs UNLOCK signal 1 time (0.6 sec.) to all door
Power Windows	Driver's Window Up	Drive for 3 Seconds
	Driver's Window Down	Drive for 3 Seconds
	Passenger's Window Up	Drive for 3 Seconds
	Passenger's Window Down	Drive for 3 Seconds
	Left Rear window Up	Drive for 3 Seconds
	Left Rear window Down	Drive for 3 Seconds
	Right Rear Window Up	Drive for 3 Seconds
	Right Rear Window Down	Drive for 3 Seconds
	Power Window Relay Command	Drive for 5 Seconds
Security	Horn Command	Operates Horn for 1 Seconds
Wiper	Windshield Washer Command	Operates Front Washer for 5 Seconds
	Windshield Wiper Motor (Low)	Operates Front Wiper for 5 Seconds (Low Speed)
	Windshield Wiper Motor (High)	Operates Front Wiper for 5 Seconds (High Speed)

(cont'd)

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System Description (cont'd)

Function Test:

System Menu	HDS Description	Note
Keyless Access Control Unit	Immobilizer Indicator Driving	
	Keyless access indicator driving	
	Keyless access remote Indication	
	KEYLESS ACCESS REMOTE BATT Indication	
	Interior Buzzer Driving	
	Exterior Buzzer Driving	
	(IGNITION) Key Switch Driving	
	IMOCONT Driving	
	IGNCONT Driving	
	S-net line (IMOCD Terminal) Driving	
	IGNTRX Line Driving	
	RF1 RXVCC Driving	
	RF2 RXVCC Driving	
	RF1 TXVCC Driving	
	RF2 TXVCC Driving	
	Driver (Door) Antenna Driving	
	Front Passenger (Door) Antenna Driving	
	Driver Side Rear (Door) Antenna Driving	
	Passenger Side Rear (Door) Antenna Driving	
	Driver Side Glass Antenna Driving	
	Passenger Side Glass Antenna Driving	
	Trunk/Tailgate/Rear Bumper Antenna Driving	
	Front Interior Antenna Driving	
	Middle Interior Antenna Driving	
	Rear Interior Antenna Driving	
	Rear Interior Tray Antenna Driving	
	Trunk/Rear Shelf Antenna Driving	
	Driver (Door) Antenna L DC Output	
	Front Passenger (Door) Antenna L DC Output	
	Driver Side Rear (Door) Antenna L DC Output	
	Passenger Side Rear (Door) Antenna L DC Output	
	Driver Side Glass Antenna L DC Output	
	Passenger Side Glass Antenna L DC Output	
	Trunk/Tailgate/Rear Bumper Antenna L DC Output	
	Front Interior Antenna L DC Output	
	Middle Interior Antenna L DC Output	
	Rear Interior Antenna L DC Output	
	Rear Interior Tray Antenna L DC Output	
	Trunk/Rear Shelf Antenna L DC Output	
	RF1 TXD DC Output	
	RF2 TXD DC Output	
	[DO NOT HAVE KEYLESS REMOTE] Indication	
	Exterior Buzzer Driving (Short Time)	
	Door Lock Driving	
	Door Unlock Driving	
	Auto lock Cancel Switch Indicator Driving	
	Keyless Remote-Customize Link To Driver 1 Driving	
	Keyless Remote-Customize Link To Driver 2 Driving	
	Keyless Remote Slot Antenna Driving	
	Keyless Remote Slot Antenna DC Output	

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Troubleshooting - B-CAN System Diagnosis Test Mode A

Check the ECM/PCM for DTCs and troubleshoot ECM/PCM (see page 11-3) or F-CAN loss of communication errors first, then do this diagnosis if the symptom is related to the B-CAN system.

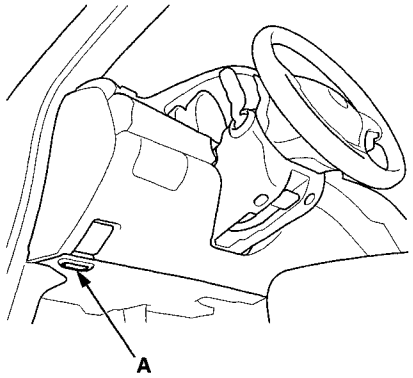
1. Compare the symptom with this list of B-CAN related systems:
   - Gauge control module
   - Exterior lights
   - Turn signals
   - Entry light control
   - Interior lights
   - Safety indicators
   - Horns (security and panic)
   - Chimes (key-in, seat belt, lights-on, and parking brake)
   - Power window/moonroof timer
   - Wiper/washer
   - Security
   - Keyless entry
   - Power door locks
   - Key interlock
   - Dashlights brightness
   - Immobilizer
   - Daytime running lights
   - Driving position memory system
   - XM radio
   - AcuraLink
   - HandsFreeLink
   - Climate control
   - Keyless access control

   Is the symptom related to the B-CAN system?

   YES–Go to step 2.

   NO–Go to the system troubleshooting for the system with the symptom.■

2. Connect the HDS to the data link connector (DLC) (A), then turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.



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Troubleshooting - B-CAN System Diagnosis Test Mode A (cont'd)

3. From the BODY ELECTRICAL menu, select UNIT INFORMATION, and then select CONNECTED UNITS listed to see if the following control units are communicating with the HDS.
   - Driver's MICU
   - Passenger's MICU
   - Door multiplex control unit (HDS name: Power Window Unit)
   - Gauge control module
   - Immobilizer-keyless control unit
   - Climate control unit
   - HandsFreeLink control unit
   - Audio unit
   - Power seat control unit
   - AcuraLink control unit (XM receiver) (HDS name: HIP (Honda Information Platform) Unit)
   - Keyless access control unit (HDS name: Keyless access ECM)

   NOTE:
   - If a unit is communicating with the HDS, DETECT will be displayed.
   - If a unit is not communicating or the vehicle is not equipped, "Not Available" will be displayed.
   - The HDS only checks the status one time when BODY ELECTRICAL is selected. To recheck the status after repair, reboot the HDS.

   Are all control units communicating with the HDS?

   YES–Go to step 4.

   NO–If any of the control units are not communicating, go to B-CAN System Diagnosis Test Mode B (see page 22-137). If all units are not communicating or only the driver's MICU is communicating, go to DTC U1280 troubleshooting (see page 22-151).■

4. Select the system that has the problem from the BODY ELECTRICAL menu, then select DTCs.

   Are any DTCs indicated?

   YES–Go to step 5.

   NO–If the problem is related to one of the following items and the system that is malfunctioning does not stop or turn off, go to B-CAN System Diagnosis Test Mode C (see page 22-138). If the problem is related to one of the following items and the system that is malfunctioning does not run or turn on, go to B-CAN System Diagnosis Test Mode D (see page 22-139).
   - Exterior lights
   - Turn signals
   - Entry light control
   - Interior lights
   - Horns (security and panic)
   - Wiper/washer
   - Power window
   - Power door locks

   If the problem is related to one of the following items, go to the troubleshooting for that individual system.■
   - Gauge control module
   - Safety indicators
   - Chimes (key-in, seat belt, lights-on, and parking brake)
   - Security
   - Keyless entry
   - Key interlock
   - Dashlights brightness
   - Audio system
   - Navigation system (if equipped)
   - HandsFreeLink
   - Immobilizer
   - Driving position memory system
   - Rear window defogger (climate control)
   - Climate control
   - Keyless access control

5. Record all DTCs, and sort them by DTC type.
6. Troubleshoot the DTC(s) in this order:
   - Battery voltage DTCs.
   - Internal error DTCs.
   - Loss of communication DTCs.
   - Signal error DTCs.

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Troubleshooting - B-CAN System Diagnosis Test Mode B

Do this diagnosis if any of the control units are not communicating (Not Available is displayed in the HDS) as found by the B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Using the HDS, select the system that has the symptom from the BODY ELECTRICAL menu.
2. Select DTCs, and then check for loss of communication DTCs.

   Are any loss of communication DTCs indicated?

   YES–Go to step 3.

   NO–Replace the driver's MICU.■
3. Do the power, ground, and communication part of the input test for the unit(s) not communicating with the HDS.

Unit not communicating
Driver's MICU (see page 22-156)
Gauge control module (see page 22-363)
Power control unit (see page 22-609)
Keyless access control unit (see page 22-605)
Remote slot control unit (see page 22-614)
Immobilizer-keyless control unit (see page 22-444)
Passenger's MICU (see page 22-161)
Door multiplex control unit (see page 22-298)
Climate control unit (see page 21-81)
Audio-navigation unit (see page 23-195)
Audio unit (see page 23-21)
Power seat control unit (see page 22-492)
AcuraLink control unit (see page 23-300)
HandsFreeLink control unit (see page 23-414)

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Troubleshooting - B-CAN System Diagnosis Test Mode C

Do this diagnosis if a component that is controlled by the B-CAN system does not stop or turn off.

NOTE:
- If the component does not turn on, go to B-CAN System Diagnosis Test Mode D (see page 22-139).
- See the B-CAN system unit input/output index for a list of input and output devices and the control units that monitor the input and control the output devices (see page 22-126).

1. Check for DTCs by selecting the MODE menu from the HDS.

   Are any DTCs indicated?

   YES–Go to B-CAN System Diagnosis Test Mode A (see page 22-135).■

   NO–Go to step 2.

2. Turn off the switch that controls the malfunctioning component.

3. Select DATA LIST from the MODE menu, and check the input of the switch that controls the component.

   Does the HDS indicate the switch is OFF?

   YES–Go to step 4.

   NO–Go to step 6.

4. In the DATA LIST, check the output signal of the malfunctioning component.

   Is the output signal OFF?

   YES–Go to step 5.

   NO–Replace the control unit that controls the device that will not turn OFF.■

5. Check the relay that does not stop or turn off, if applicable, then check for a short in the wire between the relay and the component, the relay and control unit, or the component and control unit.

   Are the relay and the wire harness OK?

   YES–Replace the control unit that controls the component that will not stop or turn OFF.■

   NO–Replace the relay or repair/replace the wire harness.■

6. Check the switch, then check for a short in the wire between the switch and the control unit that monitors the switch.

   Are the switch and wire harness OK?

   YES–Replace the control unit that monitors the switch.■

   NO–Replace the switch or repair/replace the wire harness.■

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Troubleshooting - B-CAN System Diagnosis Test Mode D

Do this diagnosis if a component that is controlled by the B-CAN system does not run or come on.

NOTE:

- If the component does not turn off or stop, go to B-CAN System Diagnosis Test Mode C (see page 22-138).
- See the B-CAN system unit input/output index for a list of input and output devices and the control units that monitor the input and control the output devices (see page 22-126).

1. Check the fuse of the malfunctioning output device.

   Is the fuse OK?

   YES–Go to step 2.

   NO–Replace the fuse and recheck.■

2. Check for DTCs by selecting the MODE menu from the HDS.

   Are any DTCs indicated ?

   YES–Go to B-CAN System Diagnosis Test Mode A (see page 22-135).■

   NO–Go to step 3.

3. Turn ON the switch that controls the malfunctioning component.

4. Select DATA LIST from the MODE menu, and check output signal for the malfunctioning component.

   Is there an output signal?

   YES–Go to step 5.

   NO–Go to step 9.

5. Check the relay and ground, then check for an open or a short in the circuit for the malfunctioning component.

   Is the relay and the circuit OK?

   YES–Go to step 6.

   NO–Replace the relay or repair the wire circuit.■

6. Do the function test for the malfunctioning component.

   Does the output device pass the function test?

   YES–Go to step 7.

   NO–Replace the component.■

7. With the malfunctioning output device connected, connect a voltmeter between the malfunctioning output device and body ground on the wire that the control unit uses to control the output device circuit.

8. Select MISC. TEST from the MODE menu, and do the forced operation test of the malfunctioning component.

   Is there a change in voltage (12 V to 0 V or 0 V to 12 V)?

   YES–Inspect the ground for the component. If OK, replace the component.■

   NO–Replace the control unit that controls the malfunctioning component.■

9. Select DATA LIST from the MODE menu, and make sure the switch signal input for the malfunctioning system indicates a change when operated.

   Does the switch input indicate ON when the switch is ON?

   YES–Replace the control unit that controls the malfunctioning component.■

   NO–Go to step 10.

10. Check the switch and its ground (if applicable), then check for an open or a short in the wire between the switch and the control unit that monitors it.

    Is the switch and the wire harness OK?

    YES–Replace the control unit that monitors the switch.■

    NO–Replace the switch, or repair/replace the wire harness.■

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Troubleshooting - B-CAN System Diagnosis Test Mode 1 and Test Mode 2 (without the HDS)

Special Tools Required

MPCS (MCIC) Service Connector 07WAZ-001010A

Test Mode 1

Check the ECM/PCM for DTCs and troubleshoot ECM/PCM (see page 11-3) or F-CAN loss of communication errors first, then do this diagnosis if the HDS is not available.

1. Check the No. 15 (10 A) fuse in the under-hood fuse/relay box and No. 12 (7.5 A) fuse in the driver's under-dash fuse/relay box.

   Are the fuses OK?

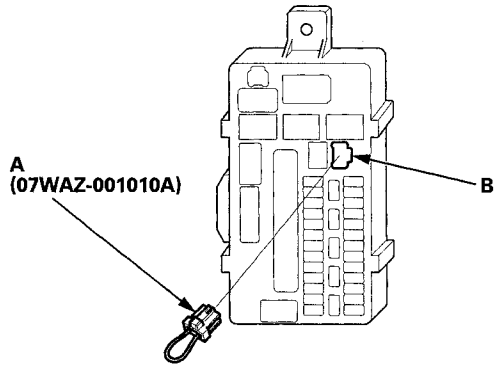
   YES–Go to step 2.

   NO–Find and repair the cause of the blown fuse.■

2. Remove the driver's dashboard undercover (see page 20-118).

3. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode, and move the ceiling light switch to the middle (door) position.

4. Connect the MPCS service connector (A) to the MICU service check connector socket (B) in the driver's under-dash fuse/relay box.



5. Wait 5 seconds, and watch the ceiling light. When the ceiling light flashes quickly once and then goes off, the system is in Test Mode 1.

6. Check for B-CAN DTCs indicated by the multi-information display (MID) on the gauge control module while still in Test Mode 1. Press the SEL/RESET button to display the next code. After you get to the last code, the display shows END. If no DTCs are stored, the display will read NO (see page 22-101).

   NOTE: If the test times out, remove the MPCS service connector, turn the ignition switch to LOCK (0), and repeat steps 3 and 4.

   Are any DTCs indicated?

   YES–Go to step 7.

   NO–Go to step 9.

7. Record all DTCs and troubleshoot them in this order:
   - Battery voltage DTCs
   - Internal error DTCs
   - Loss of communication DTCs
   - Signal error DTCs

8. Clear the DTCs by pressing and holding the SEL/RESET button for about 10 seconds.

9. You will hear a beep to confirm the codes have been cleared. Operate the devices that failed, and recheck for codes.

Test Mode 2

10. Remove the MPCS service connector from the driver's under-dash fuse/relay box MICU service check connector socket for 5—10 seconds, then re-insert it to enter Mode 2. When the system enters Mode 2, the ceiling light flashes two times quickly and then goes off.

    NOTE: If the MPCS service connector is disconnected for too short or too long of a time, or if the ignition switch is turned to LOCK (0), or if the vehicle is in OFF mode, the systems returns to Test Mode 1.

11. The following tables list the circuits that can be checked in Test Mode 2. Operate the switch that is most closely related to the problem. If the circuit is OK, the ceiling light will blink once. If the circuit is faulty, there will be no indication.

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Driver's MICU

Item
Brake pedal position switch (ON)
Driver's door switch
Left rear door switch
Trunk lid latch switch
Fog light switch
Left rear door lock knob switch (UNLOCK)
Wiper switch (HI/LO)
Wiper switch (INT/LO)
Wiper switch (MIST)
Washer switch
Wiper intermittent dwell time controller
Turn signal switch (LEFT)
Turn signal switch (RIGHT)
Hazard warning switch (ON)
Headlight switch (AUTO)
Headlight switch (ON)
Headlight switch (OFF)
Lighting switch (ON)
Dimmer switch (ON)
Passing switch (ON)
Trunk lid opener main switch
Trunk lid outer handle switch
Transmission range switch (P) (A/T)
Ignition key switch
Security hood switch
Windshield wiper motor park position (Auto stop)
Driver's seat heater switch (LO)
Driver's seat heater switch (HI)
Rear defogger switch

Passenger's MICU

Item
Front passenger's door switch
Right rear door switch
Right rear door lock knob switch (UNLOCK)
Audio unit
Front passenger's seat heater switch (LO)
Front passenger's seat heater switch (HI)

Door Multiplex Control Unit

Item
Driver's door lock switch (UNLOCK)
Driver's door lock switch (LOCK)
Driver's door lock knob switch (UNLOCK)
Driver's door lock knob switch (LOCK)
Driver's door lock key cylinder switch (UNLOCK)*
Driver's door lock key cylinder switch (LOCK)*

* A second key is necessary to check the key cylinder inputs. Be sure to rotate the key cylinder switch two times to each position (lock and lock, unlock and unlock) to ensure the door lock knob switch is in the appropriate position.

Front Passenger's Power Window Switch

Item
Front passenger's door lock switch (UNLOCK)
Front passenger's door lock switch (LOCK)
Front passenger's door lock knob switch (UNLOCK)

Power Seat Control Unit

Item
Transmission range switch (P) (A/T)
Parking brake switch (M/T)
Slide switch (Forward)
Slide switch (Backward)
Recline switch (Forward)
Recline switch (Backward)
Front UP-DOWN switch (Up)
Front UP-DOWN switch (Down)
Rear UP-DOWN switch (Up)
Rear UP-DOWN switch (Down)

Does the ceiling light work properly in all switch positions?

YES–Go to function and input test for the system related to the failure.■

NO–Repair the open, short, or replace the faulty switch.■

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Sleep and Wake-up Mode Test

1. Shift to the sleep mode:

   Close all doors. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode, remove the key without keyless access system, then open and close the driver's door. If the MICU receives no signals from the inputs listed below, it will go into sleep mode in less than 50 seconds.

Trunk lid latch switch (Trunk lid closed) (OFF)
Hazard warning switch (OFF)

2. Confirm the sleep mode:

   NOTE: Check the official Honda service website for more service information about parasitic draw at the battery.

   Check the parasitic draw at the battery while shifting into the sleep mode; amperage should change from about 200 mA to less than 35 mA in less than 50 seconds.

3. Shift to the wake-up mode:

   When the ignition switch is turned to ON (II), or the vehicle is in ON mode. The driver's MICU, passenger's MICU, gauge control module, immobilizer-keyless control unit, and ECM/PCM will wake-up at the same time without "talking" to each other through the communication lines. When any switch in the multiplex integrated control system is turned on, it wakes up its related control unit which, in turn, wakes up the other units. After confirming the sleep mode, look in the following table for the switch most related to the problem. Operate that switch and see if its control unit wakes up.

   NOTE: If any control unit is faulty and will not wake up, several circuits in the system will malfunction at the same time. In the table below is a list of the switches and input signals that wake them up.

Driver's door switch (door open)
Left rear door switch (door open)
Trunk lid latch switch (Trunk lid open)
Left rear door lock knob switch
Security hood switch (hood open)
Hazard warning switch (ON)
Combination light switch (Parking, Headlight, Dimmer, Passing ON)
Ignition key switch (key inserted)
Trunk lid opener main switch (ON)
Driver's door key cylinder switch (LOCK/UNLOCK)
Passenger's rear door lock knob (UNLOCK)
Front passenger's door lock knob (UNLOCK)
Driver's door lock switch (LOCK/UNLOCK)
Front passenger's door lock switch (LOCK/UNLOCK)
Front passenger's door switch (door open)
Passenger's rear door switch (door open)
Trunk release switch (ON)

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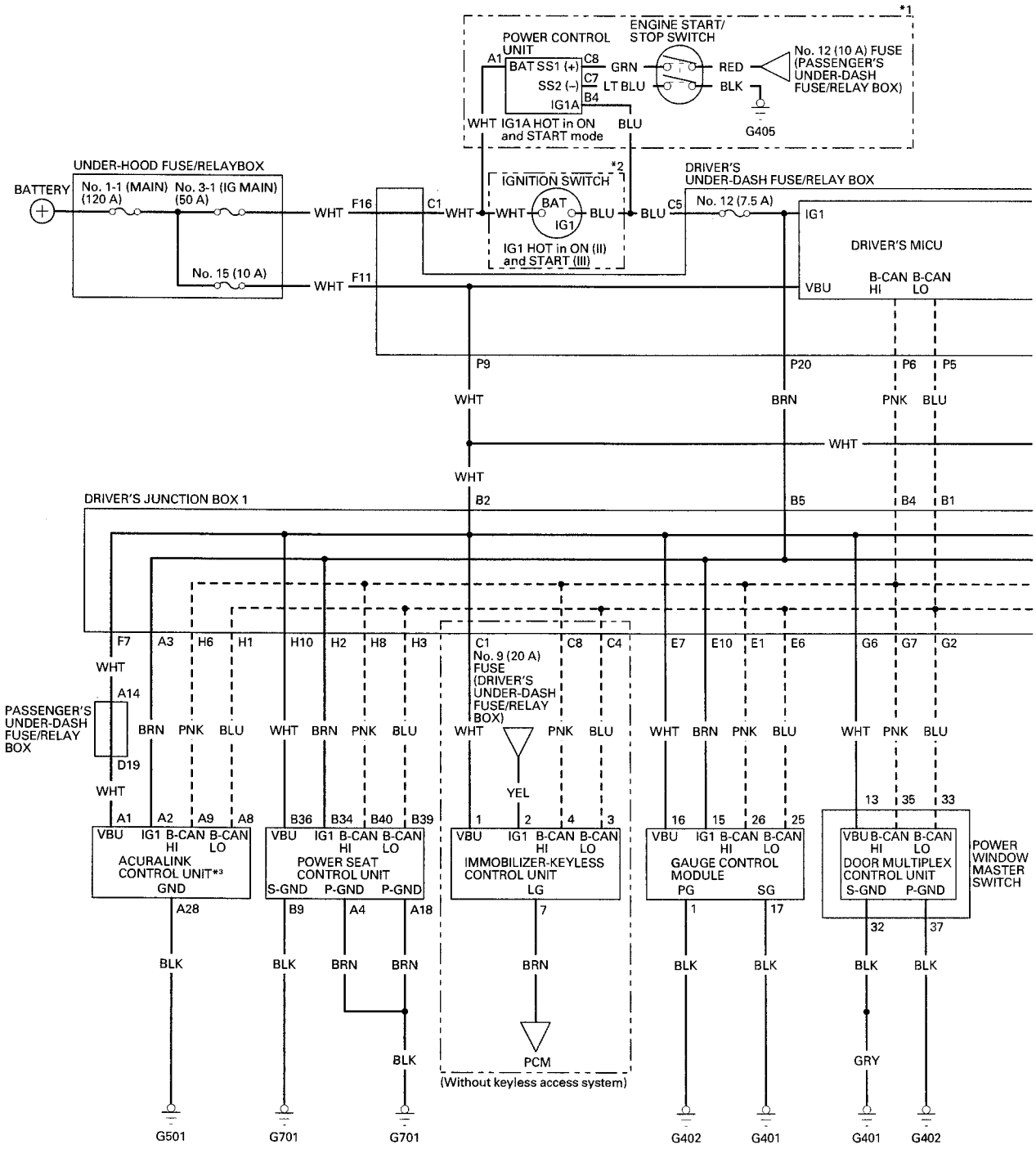
Circuit Diagram



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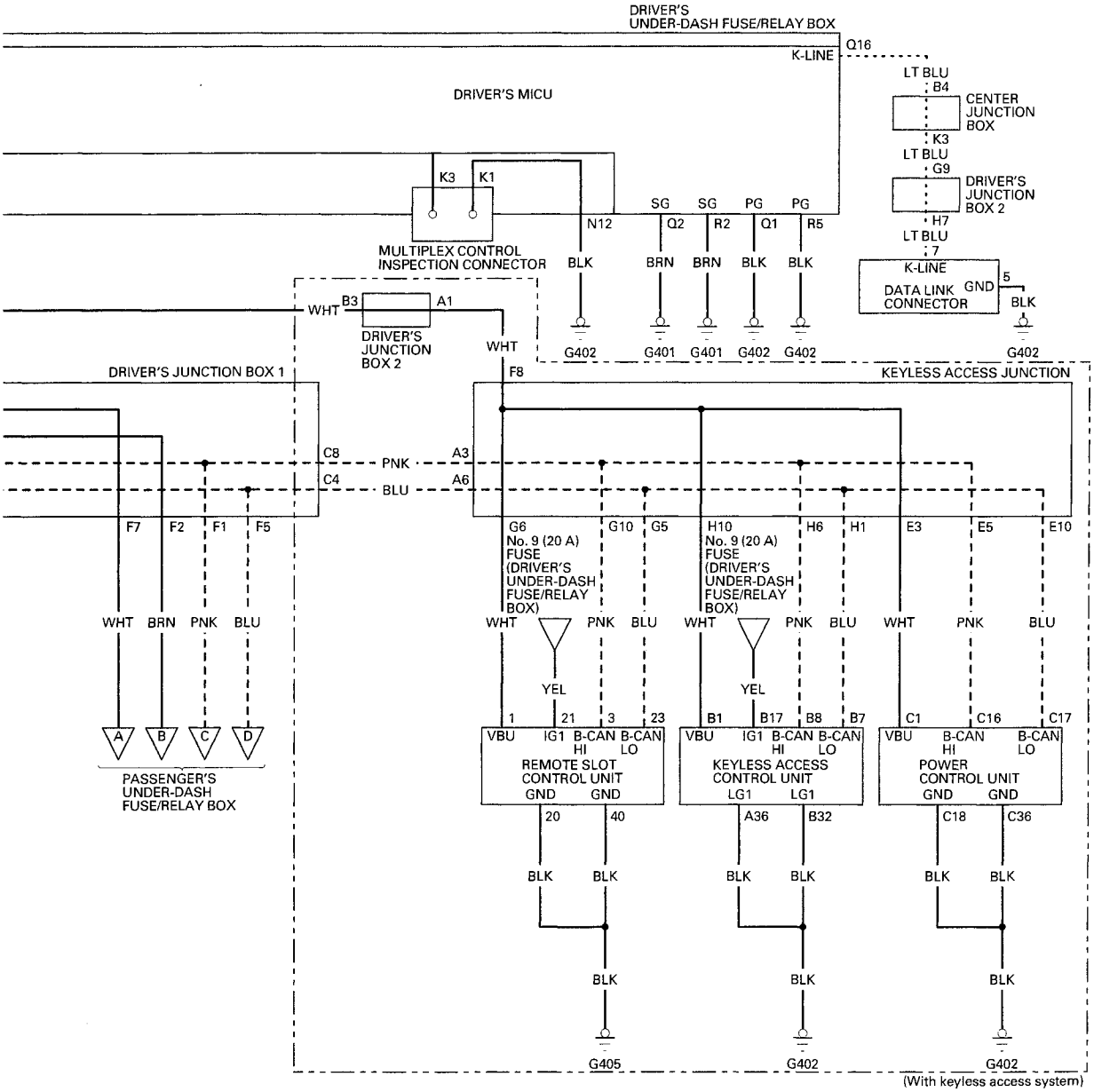
*1: With keyless access system
*2: Without keyless access system
*3: USA models with navigation
– – – – – – – : B-CAN line
– – – – – – – – – – : Other communication line



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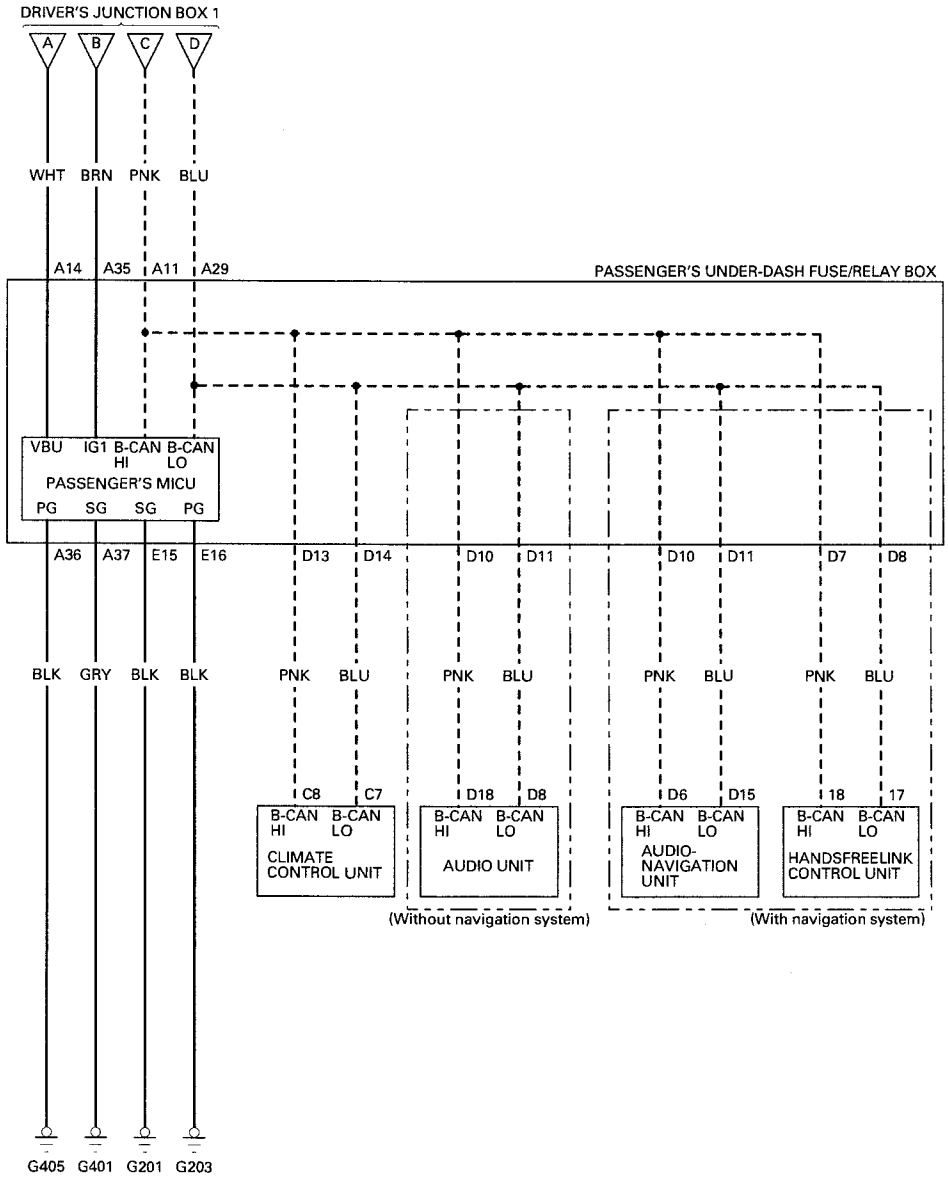
Circuit Diagram (cont'd)

- - - - - - - : B-CAN line



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DTC Troubleshooting

DTC B10A2: Driver's MICU Internal (EEPROM) Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC B10A2 indicated?

   YES–Faulty driver's MICU; replace the driver's under-dash fuse/relay box (see page 22-81).■

   NO–Intermittent failure, the system is OK at this time.■

DTC B11A2: Passenger's MICU Internal (EEPROM) Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC B11A2 indicated?

   YES–Faulty passenger's MICU; replace the passenger's under-dash fuse/relay box (see page 22-83).■

   NO–Intermittent failure, the system is OK at this time.■

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DTC Troubleshooting (cont'd)

DTC B1036: Driver's MICU IG1 Line Input Error

NOTE:

- If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).
- Before troubleshooting, check the No. 12 (7.5 A) fuse in the driver's under-dash fuse/relay box is OK.

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

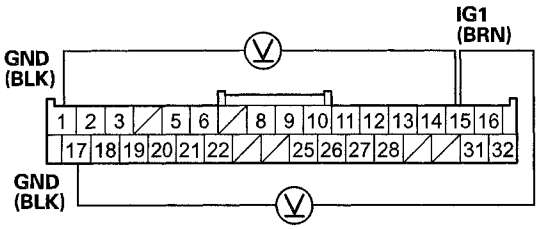
   Is DTC B1036 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at the driver's under-dash fuse/relay box connector C (5P). If the connections are good, check the battery condition (see page 22-84) and the charging system.■

5. Measure the voltage between gauge control module 32P connector terminals No. 15 and No. 17 and terminals No. 1 and No. 15 respectively.

GAUGE CONTROL MODULE 32P CONNECTOR



Wire side of female terminals

Is there battery voltage?

YES–Faulty driver's MICU; substitute a known-good driver's under-dash fuse/relay box and recheck.■

NO–Check for an open in the BRN wire between the driver's under-dash fuse/relay box and the gauge control module, or check for a poor connection between terminal No. 17 and body ground (G401) and/or terminal No. 1 and body ground (G402). If the fuse blown, repair a short in the wire between the driver's under-dash fuse/relay box and the gauge control module.■

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DTC B11C7: Passenger's MICU IG1 Line Input Error

NOTE:

- If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).
- Before troubleshooting, check the No. 12 (7.5 A) fuse in the driver's under-dash fuse/relay box is OK.

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC B11C7 indicated?

   YES–Go to step 5.

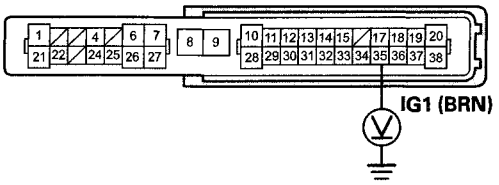
   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections. If the connections are good, check the battery condition (see page 22-84) and the charging system.■
5. Check the DTCs with the HDS.

   Is DTC B11C7 indicated with DTC U1282?

   YES–Go to DTC U1282 troubleshooting.■

   NO–Go to step 6.
6. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
7. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
8. Measure the voltage between the passenger's under-dash fuse/relay box connector A (38P) terminal No. 35 and body ground.

PASSENGER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR A (38P)



Wire side of female terminals

Is there battery voltage?

YES–Faulty passenger's MICU; substitute a known-good passenger's under-dash fuse/relay box and recheck.■

NO–Check for an open in the BRN wire between the driver's under-dash fuse/relay box and the passenger's under-dash fuse/relay box.■

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DTC Troubleshooting (cont'd)

DTC U0155: Driver's MICU Lost Communication With Gauge Control Module

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U0155 indicated?

   YES–Do the gauge control module input test, and do all power, ground, and communication input tests (see page 22-363). If the tests prove OK, replace the gauge control module (see page 22-367).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at the gauge control module 32P connector and the related units.■

DTC U0155: Passenger's MICU Lost Communication With Gauge Control Module

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U0155 indicated?

   YES–Do the gauge control module input test, and do all power, ground, and communication input tests (see page 22-363). If the tests prove OK, replace the gauge control module (see page 22-367).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at the gauge control module 32P connector and the related units.■

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DTC U0199: Driver's MICU Lost Communication With Door Multiplex Control Unit

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U0199 indicated?

   YES–Do the door multiplex control unit input test, and do all power, ground, and communication input tests (see page 22-298). If the tests prove OK, replace the power window master switch (see page 22-309).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at the door multiplex control unit 37P connector and the related units.■

DTC U1280: Communication bus Line Error (BUS-OFF)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U1280 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections, or worn/shorted wires. If the connections are good, check the battery condition (see page 22-84) and the charging system.■

5. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.

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DTC Troubleshooting (cont'd)

6. Disconnect the appropriate connector at each control unit in the table one at a time. Clear the DTC, then recheck for DTCs after each unit is disconnected.

Control Unit	Connector
Passenger's MICU	Passenger's under-dash fuse/relay box connector A (38P)
Door multiplex control unit	37P connector
Gauge control module	32P connector
Immobilizer-keyless control unit*1	7P connector
Power control unit*2	Connector C (36P)
Keyless access control unit*2	Connector B (32P)
Remote slot control unit*2	40P connector
Audio-navigation control unit*4	Connector D (20P)
Audio unit*3	Connector D (20P)
Climate control unit	Connector C (20P)
Power seat control unit	Connector B (40P)
HandsFreeLink control unit	28P connector
AcuraLink control unit*5	Connector A (32P)

*1: Without keyless access system
*2: With keyless access system
*3: Without navigation system
*4: With navigation system
*5: With AcuraLink

Is DTC U1280 indicated with each individual unit disconnected?

YES–Leave the connectors disconnected, and go to step 7.

NO–Do the input test (or circuit troubleshooting) for the control unit that was disconnected when DTC U1280 did not reset and perform all power and ground input tests. If the tests prove OK, replace that unit.■

- Passenger's MICU input test (see page 22-161)
- Door multiplex control unit input test (see page 22-298)
- Gauge control unit input test (see page 22-363)
- Power control unit input test (see page 22-609)
- Keyless access control unit input test (see page 22-605)
- Remote slot control unit input test (see page 22-614)
- Immobilizer-keyless control unit input test (see page 22-444)
- Climate control unit power and ground circuit troubleshooting (see page 21-81)
- Power seat control unit input test (see page 22-492)
- HandsFreeLink control unit input test (see page 23-414)
- AcuraLink control unit input test (see page 23-300)
- Audio unit input test (see page 23-21)
- Audio-navigation unit input test (see page 23-195)

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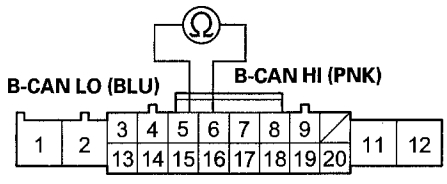
7. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
8. Disconnect driver's under-dash fuse/relay box connector P (20P).
9. Check for continuity between driver's under-dash fuse/relay box connector P (20P) terminals No. 5 and No. 6.

DRIVER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR P (20P)



Wire side of female terminals

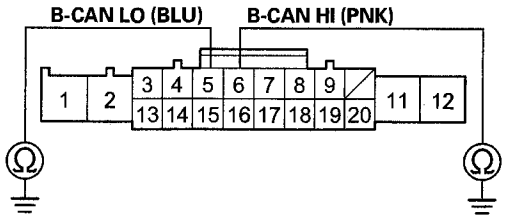
Is there continuity?

YES–Repair a short in the B-CAN wires.■

NO–Go to step 10.

10. Check for continuity between body ground and driver's under-dash fuse/relay box connector P (20P) terminals No. 5 and No. 6 individually.

DRIVER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR P (20P)



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire(s).■

NO–Go to step 11.

11. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.

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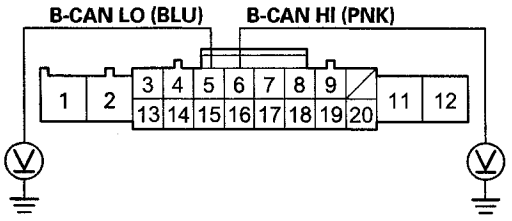
DTC Troubleshooting (cont'd)

12. Measure the voltage between body ground and driver's under-dash fuse/relay box connector P (20P) terminals No. 5 and No. 6 individually.

DRIVER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR P (20P)



Wire side of female terminals

Is there voltage?

YES–Repair a short to power in the wire(s).■

NO–Faulty driver's MICU, replace the driver's under-dash fuse/relay box (see page 22-81).■

DTC U1282: Passenger's MICU Lost Communication With Driver's MICU

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

Is DTC U1282 indicated?

YES–Do the driver's MICU input test, and do all power, ground, and communication input tests (see page 22-156). If the tests prove OK, replace the driver's under-dash fuse/relay box (see page 22-81).■

NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at driver's under-dash fuse/relay box connector P (20P) and the related units.■

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DTC U1283: Driver's MICU Lost Communication With Passenger's MICU

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U1283 indicated?

   YES–Do the passenger's MICU input test, and do all power, ground, and communication input tests (see page 22-161). If the tests prove OK, replace the driver's under-dash fuse/relay box (see page 22-81).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at driver's under-dash fuse/relay box connector P (20P) and the related units.■

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MICU Input Test

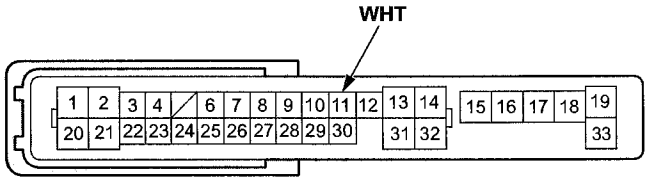
NOTE: Before testing, troubleshoot the multiplex integrated control system first, using B-CAN System Diagnosis Test Mode A (see page 22-135).

Driver's MICU

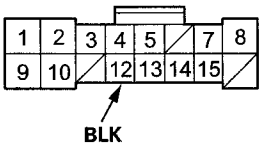
1. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
2. Remove the driver's dashboard undercover (see page 20-118).
3. Disconnect driver's under-dash fuse/relay box connectors F, N, P, Q, and R.

   NOTE: All connector views are wire side of female terminals.

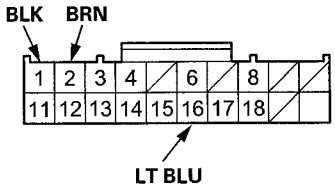
CONNECTOR F (33P)



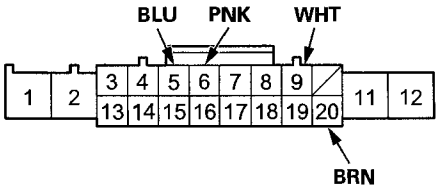
CONNECTOR N (16P)



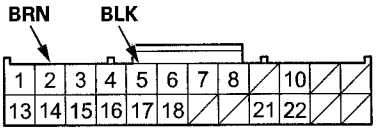
CONNECTOR Q (20P)



CONNECTOR P (20P)



CONNECTOR R (24P)



4. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary and recheck the system.
   - If the terminals look OK, go to step 5.

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5. With the connectors still disconnected, do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 6.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
P5*1	BLU	Power control unit A (36P) connector disconnected	Check for continuity between terminal P5 and power control unit connector A (36P) terminal No. 17: There should be continuity.	An open in the B-CAN wire
P6*1	PNK		Check for continuity between terminal P6 and power control unit connector A (36P) terminal No. 16: There should be continuity.	An open in the B-CAN wire
P5*1	BLU	Keyless access control unit B (32P) connector disconnected	Check for continuity between terminal P5 and keyless access control unit connector B (32P) terminal No. 7: There should be continuity.	An open in the B-CAN wire
P6*1	PNK		Check for continuity between terminal P6 and keyless access control unit connector B (32P) terminal No. 8: There should be continuity.	An open in the B-CAN wire
P5*1	BLU	Remote slot control unit 40P connector disconnected	Check for continuity between terminal P5 and remote slot control unit 40P connector terminal No. 23: There should be continuity.	An open in the B-CAN wire
P6*1	PNK		Check for continuity between terminal P6 and remote slot control unit 40P connector terminal No. 3: There should be continuity.	An open in the B-CAN wire
P5*2	BLU	Immobilizer-keyless control unit 7P connector disconnected	Check for continuity between terminal P5 and immobilizer-keyless control unit 7P connector terminal No. 3: There should be continuity.	An open in the B-CAN wire
P6*2	PNK		Check for continuity between terminal P6 and immobilizer-keyless control unit 7P connector terminal No. 4: There should be continuity.	An open in the B-CAN wire
P5	BLU	Gauge control module 32P connector disconnected	Check for continuity between terminal P5 and gauge control module 32P connector terminal No. 25: There should be continuity.	An open in the B-CAN wire
P6	PNK		Check for continuity between terminal P6 and gauge control module 32P connector terminal No. 26: There should be continuity.	An open in the B-CAN wire
P5	BLU	Door multiplex control unit 37P connector disconnected	Check for continuity between terminal P5 and door multiplex control unit 37P connector terminal No. 33: There should be continuity.	An open in the B-CAN wire
P6	PNK		Check for continuity between terminal P6 and door multiplex control unit 37P connector terminal No. 35: There should be continuity.	An open in the B-CAN wire

*1: With keyless access system
*2: Without keyless access system
*3: With navigation system
*4: Without navigation system
*5: With AcuraLink

(cont'd)

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MICU Input Test (cont'd)

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
P5	BLU	Passenger's under-dash fuse/relay box connector A (38P) disconnected	Check for continuity between terminal P5 and passenger's under-dash fuse/relay box connector A (38P) terminal No. 29: There should be continuity.	An open in the B-CAN wire
P6	PNK		Check for continuity between terminal P6 and passenger's under-dash fuse/relay box connector A (38P) terminal No. 11: There should be continuity.	An open in the B-CAN wire
P5	BLU	Climate control unit connector C (20P) disconnected	Check for continuity between terminal P5 and climate control unit connector B (12P) terminal No. 2: There should be continuity.	An open in the B-CAN wire
P6	PNK		Check for continuity between terminal P6 and climate control unit connector B (12P) terminal No. 1: There should be continuity.	An open in the B-CAN wire
P5*3	BLU	Audio-navigation unit connector D (20P) disconnected	Check for continuity between terminal P5 and audio-navigation unit connector D (20P) terminal No. 15: There should be continuity.	An open in the B-CAN wire
P6*3	PNK		Check for continuity between terminal P6 and audio-navigation unit connector D (20P) terminal No. 6: There should be continuity.	An open in the B-CAN wire
P5*4	BLU	Audio unit connector D (20P) disconnected	Check for continuity between terminal P5 and audio unit connector D (20P) terminal No. 8: There should be continuity.	An open in the B-CAN wire
P6*4	PNK		Check for continuity between terminal P6 and audio unit connector D (20P) terminal No. 18: There should be continuity.	An open in the B-CAN wire
P5	BLU	Power seat control unit connector A (40P) disconnected	Check for continuity between terminal P5 and power seat control unit connector A (40P) terminal No. 39: There should be continuity.	An open in the B-CAN wire
P6	PNK		Check for continuity between terminal P6 and power seat control unit connector A (40P) terminal No. 40: There should be continuity.	An open in the B-CAN wire
P5	BLU	HandsFreeLink control unit 28P connector disconnected	Check for continuity between terminal P5 and HandsFreeLink control unit 28P connector terminal No. 17: There should be continuity.	An open in the B-CAN wire
P6	PNK		Check for continuity between terminal P6 and HandsFreeLink control unit 28P connector terminal No. 18: There should be continuity.	An open in the B-CAN wire

*1: With keyless access system
*2: Without keyless access system
*3: With navigation system
*4: Without navigation system
*5: With AcuraLink

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Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
P5*5	BLU	AcuraLink control unit connector A (32P) disconnected	Check for continuity between terminal P5 and AcuraLink control unit connector A (32P) terminal No. 8: There should be continuity.	An open in the B-CAN wire
P6*5	PNK		Check for continuity between terminal P6 and AcuraLink control unit connector A (32P) terminal No. 9: There should be continuity.	An open in the B-CAN wire
Q16	LT BLU	Under all conditions	Check for continuity between terminal Q16 and data link connector 16P connector terminal No. 7: There should be continuity.	An open in the B-CAN wire

*1: With keyless access system
*2: Without keyless access system
*3: With navigation system
*4: Without navigation system
*5: With AcuraLink

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(cont'd)

MICU Input Test (cont'd)

6. Reconnect the connectors to the driver's under-dash fuse/relay box, and do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 7.

   NOTE: These are power and ground tests for the driver's MICU.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
F11	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
P9	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
P20	BRN	Ignition switch ON (II), or power mode ON	Measure the voltage to ground: There should be battery voltage.	• Blown No. 12 (7.5 A) fuse in the driver's under- dash fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
N12	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
Q1	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
Q2	BRN	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
R2	BRN	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
R5	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire

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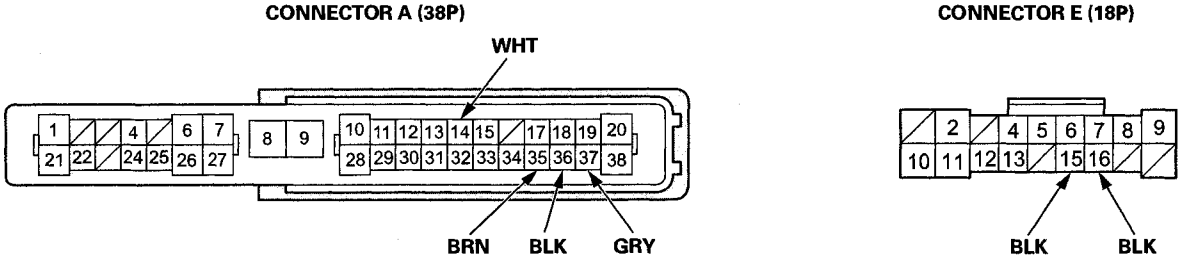
Passenger's MICU

7. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode, and remove the passenger's kick panel (see page 20-81).
8. Disconnect passenger's under-dash fuse/relay box connectors A and E.

   NOTE: All connector views are wire side of female terminals.



9. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary and recheck the system.
   - If the terminals look OK, go to step 10.

(cont'd)

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MICU Input Test (cont'd)

10. Reconnect the connectors to the passenger's under-dash fuse/relay box, turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode, and do the following input tests:
    - If any test indicates a problem, find and correct the cause, then recheck the system.
    - If all the input tests prove OK, go to step 11.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
A14	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • Faulty driver's under-dash fuse/relay box • An open in the wire between terminals A14 and P9 in the driver's under-hood fuse/relay box.
A35	BRN	Ignition switch ON (II), or power mode ON	Measure the voltage to ground: There should be battery voltage.	• Blown No. 12 (7.5 A) fuse in the driver's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box • An open in the wire between terminals A14 and P20 in the driver's under-hood fuse/relay box.
A36	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G405) or an open in the ground wire • An open or high resistance in the wire.
A37	GRY	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire.
E15	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G201) or an open in the ground wire • An open or high resistance in the wire.
E16	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G203) or an open in the ground wire • An open or high resistance in the wire.

11. If multiple failures are found on more than one control unit, replace the driver's under-dash fuse/relay box (includes the driver's MICU) (see page 22-81). If input failures are related to a particular control unit, replace the control unit.

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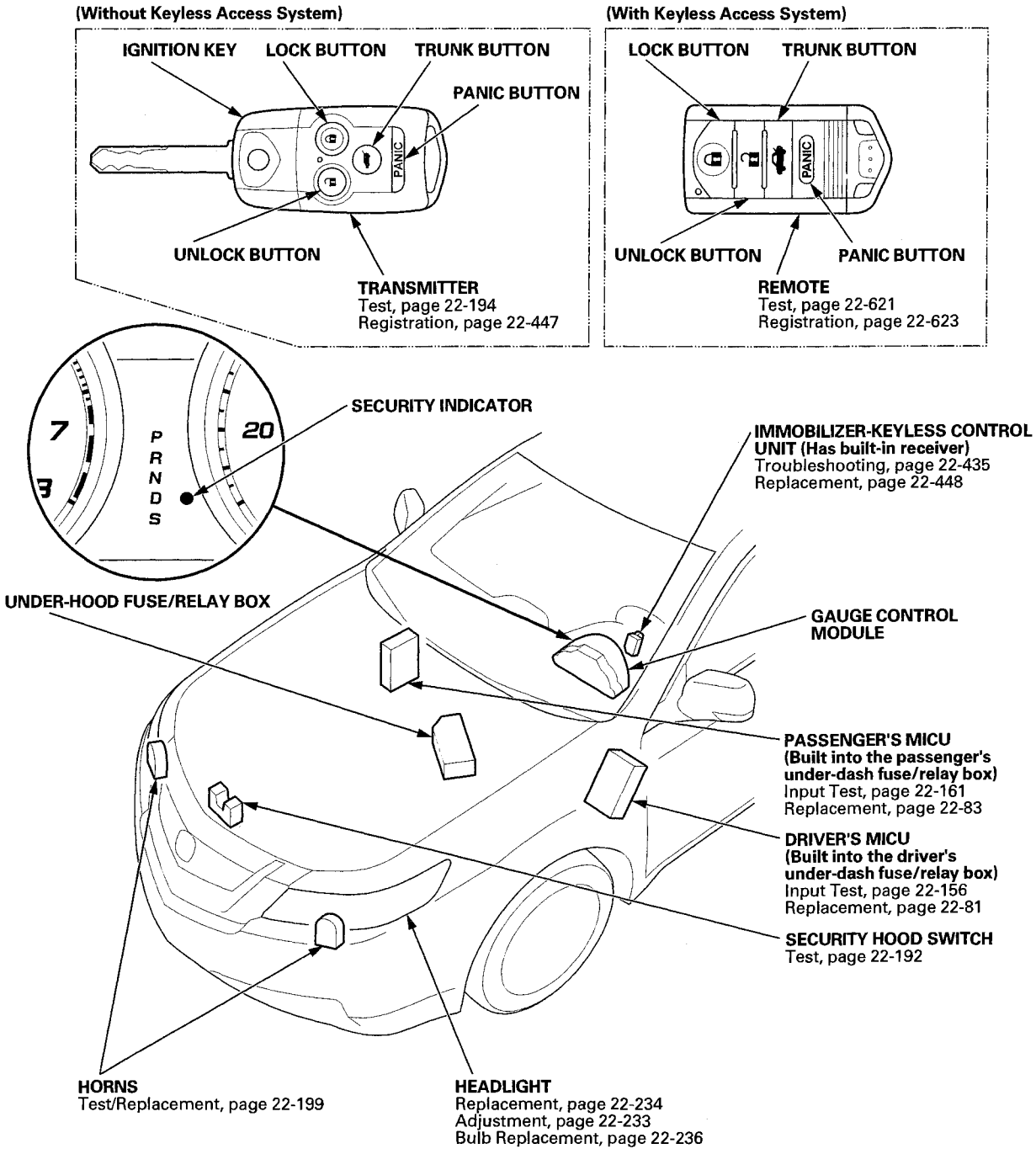
Component Location Index



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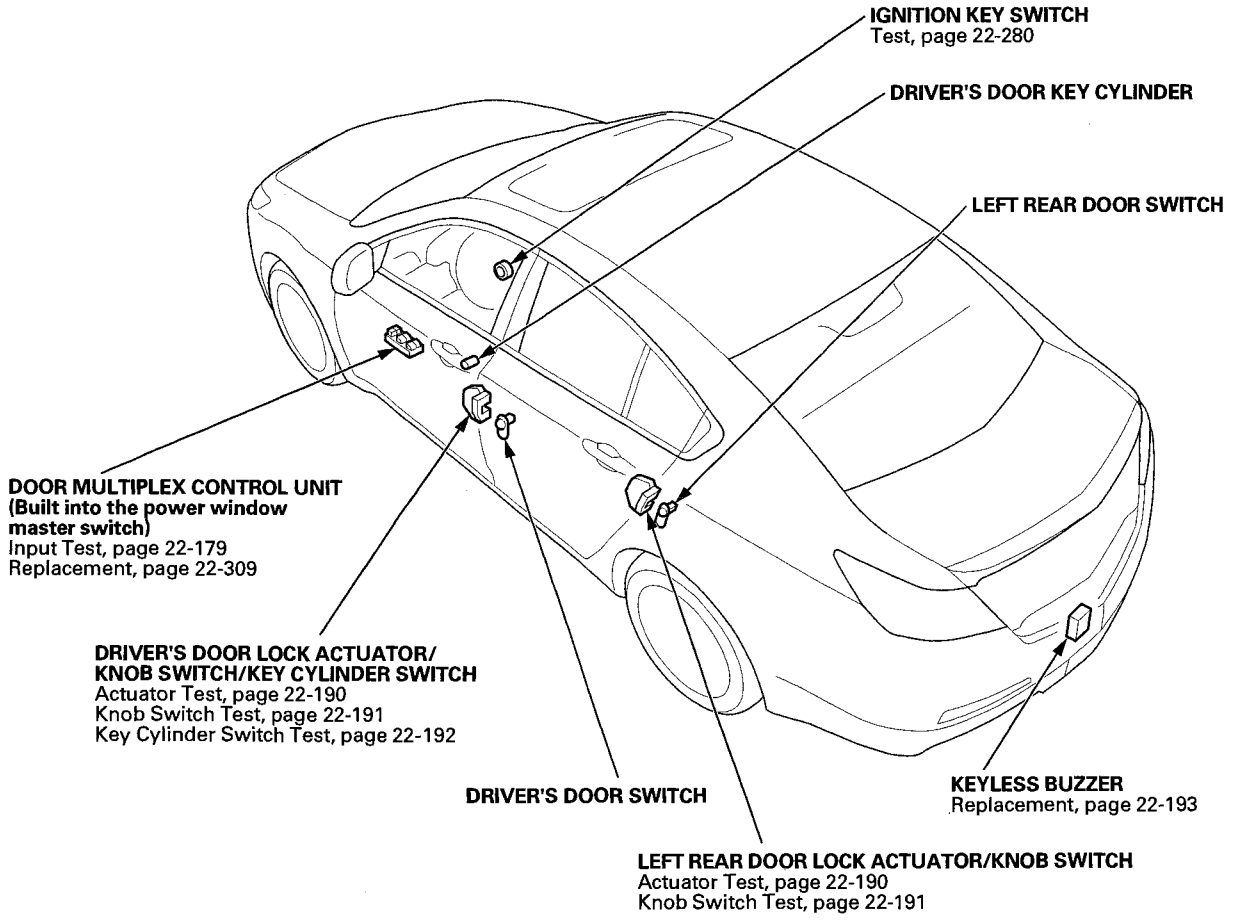
Component Location Index (cont'd)



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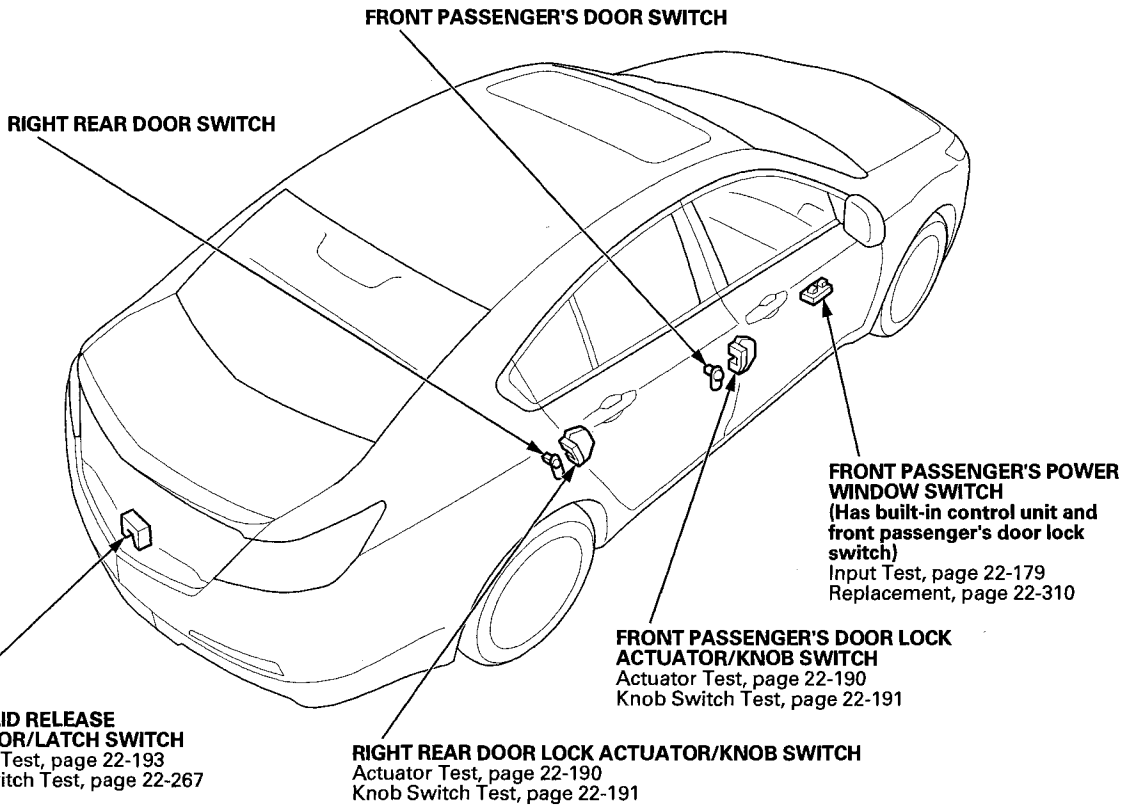

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System Description

Security Alarm

The security alarm system is armed automatically after the doors, hood, and trunk lid are closed and locked. For the system to arm, the ignition switch must be in the LOCK (0) position, or the vehicle ignition in the OFF mode, with the key removed from the ignition switch, or the remote removed from the remote slot, and the driver's and passenger's MICUs must receive signals that the doors, hood, and trunk lid are closed and locked. The alarm can be disarmed at any time by unlocking the driver door with the key or pressing the UNLOCK button on the transmitter, or by grabbing either the driver's or front passenger's door handle with the keyless access remote in range.

When everything is closed and locked, the only inputs that are grounded, and have 0 V, are the driver's door lock knob switch (LOCK position) and the audio unit or audio-navigation unit (if equipped). In other words, all of the other switches are open, and have about 10 to 12 V, including the key cylinder switches. A beep sounds and the parking lights flash to confirm the security alarm system is armed if the LOCK button is pressed a second time within 5 seconds. The security indicator in the gauge control module begins to flash immediately after the vehicle is completely closed and locked, and 15 seconds later, the security system arms. If the security indicator does not flash, the system is not arming.

If one of the switches is misadjusted or shorted internally, or there is a short in one of the keyless/power door lock/security circuits, the security system will not arm. As long as the control unit continues to receive a ground signal (0 V) except for the driver's door lock/unlock knob switch input, it senses that the vehicle is not closed and locked, and the system will not arm. A switch that is slightly misadjusted can cause the alarm to sound for no apparent reason. In this case, a significant change in outside air temperature, the vibration of a passing truck, or someone bumping into the vehicle could cause the alarm to sound.

NOTE: There is no glass breakage or motion detection feature.

If anything is opened or improperly unlocked after the system is armed, the control unit receives a ground signal from that switch, and the 10 to 12 V reference drops to 0 V. If the audio unit or audio-navigation unit (if equipped) is disconnected, the input loses its ground, and the input voltage goes from 0 V to 10 to 12 V. The system sounds the alarm when any of these occur:

- A door or the trunk lid is forced open.
- A door is unlocked without using the key or the transmitter.
- The hood is opened.
- The audio unit or audio-navigation unit (if equipped) is disconnected.
- The transmitter PANIC button is pressed.

When the system sounds the alarm, the horn sounds and the exterior lights flash for 2 minutes. The alarm can be stopped at any time by unlocking the driver's door by pressing any button on the transmitter.

NOTE: The security system can be customized in the multi-information display (MID) to suit the client needs. For more information about keyless/security system options, refer to the Owner's manual.

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Keyless Entry System

The keyless entry system is integrated with the multiplex integrated control system. The multiplex integrated control unit (MICU) receives LOCK, UNLOCK, and PANIC signals from the immobilizer-keyless control unit (keyless receiver).

The keyless entry system allows you to lock and unlock the vehicle with the transmitter. When you press the LOCK button, all doors lock. When you press the UNLOCK button once, only the driver's door unlocks. The other doors will unlock when you press the button a second time. The doors will not lock with the transmitter if a door is not fully closed, or if the key is in the ignition switch.

When the switch for the ceiling light is in the middle (DOOR) position, it will come on when the UNLOCK button is pressed. If a door is not opened, the light will go off and the doors will relock in about 30 seconds. If the doors are locked with the transmitter within 30 seconds, the light will go off immediately.

NOTE: The keyless entry system can be customized in the multi-information display (MID) to suit the client's needs. For more information about keyless/security system options, refer to the Owner's manual.

Panic Mode

The panic mode sounds the alarm in order to attract attention. When the PANIC button on the transmitter is pressed and held for 2 seconds, the horns sound and the exterior lights flash for about 20 seconds.

The panic mode can be cancelled at anytime by pressing any button on the transmitter or by turning the ignition switch to ON (II), or press the engine start/stop button to select the ON mode. The panic mode will not function if the ignition switch is in ON (II), or the vehicle ignition in the ON mode.

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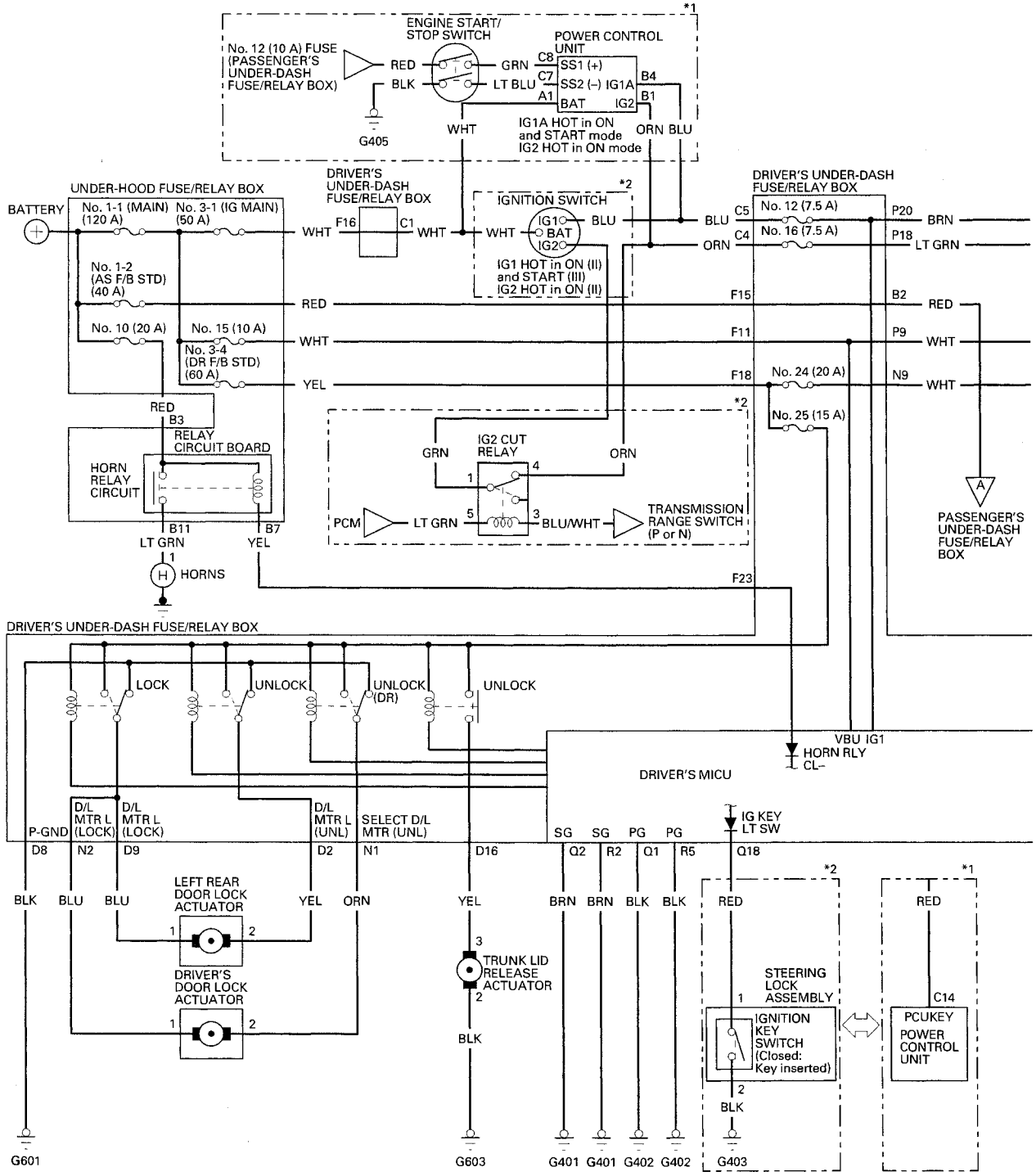
Circuit Diagram



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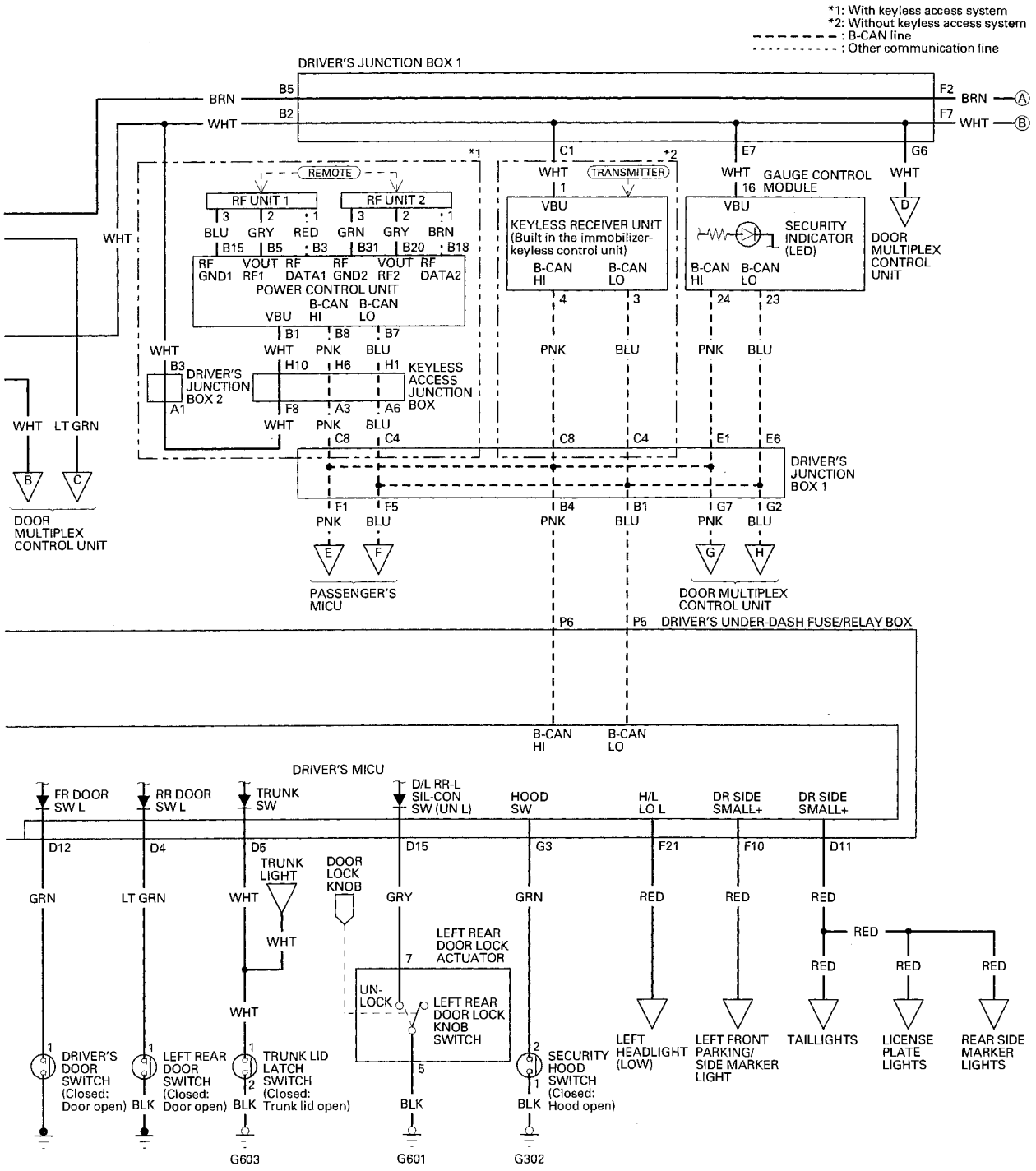

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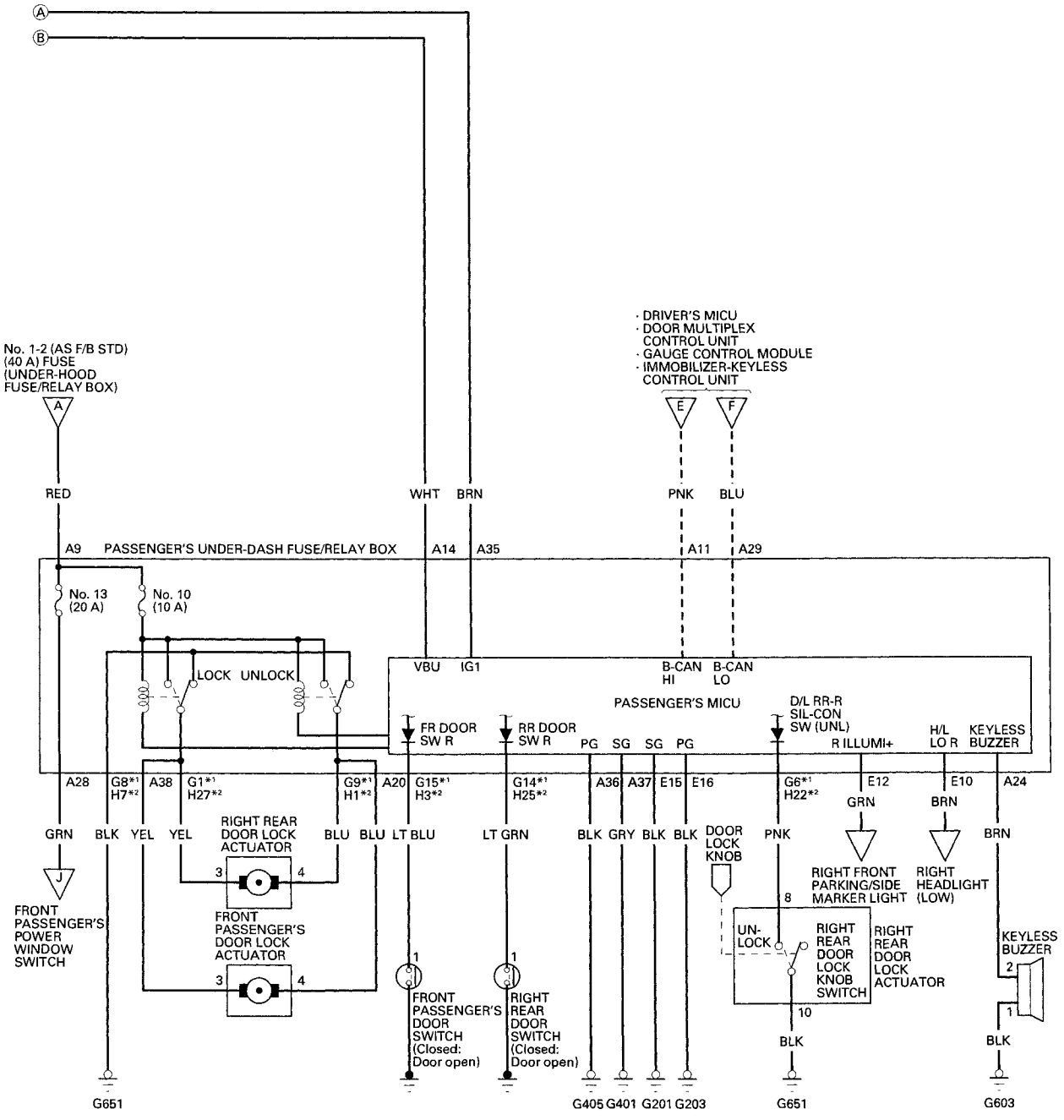
Circuit Diagram (cont'd)



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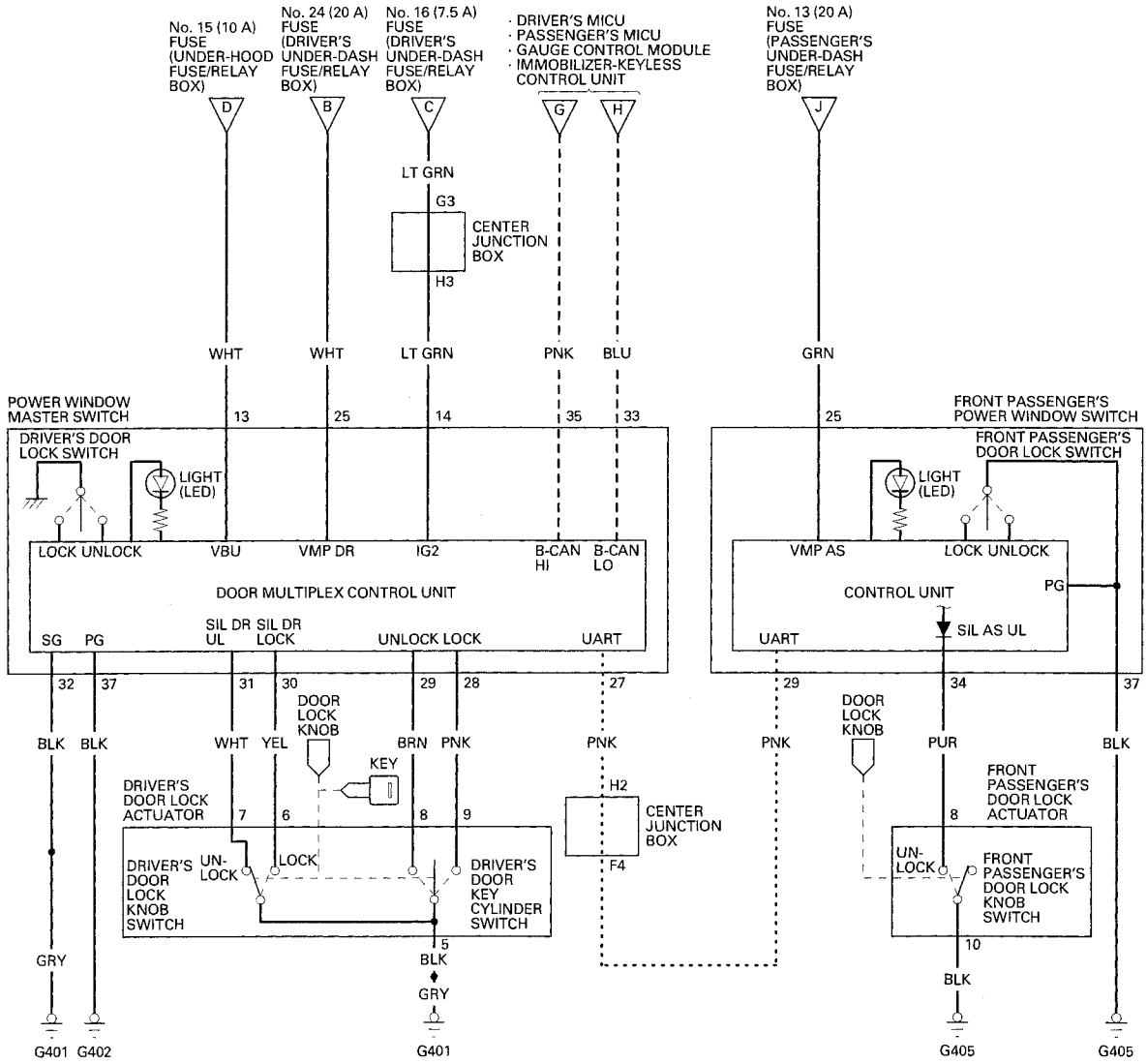
*1: Without SH-AWD
*2: With SH-AWD
– – – – – – – – : B-CAN line
. . . . . : Other communication line



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DTC Troubleshooting

DTC B1127: Driver's Door Key Cylinder Switch Malfunction

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Insert the ignition key into the driver's door key cylinder switch, and turn the key to the LOCK and UNLOCK positions 10 times.
4. Check for DTCs with the HDS.

   Is DTC B1127 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the driver's door key cylinder switch system is OK at this time.■
5. With the driver's door key cylinder in the neutral position, select KEYLESS TRANSMITTER with the HDS, and enter DATA LIST.
6. Check the ON/OFF information of the DRIVER'S DOOR KEY CYLINDER SWITCH (LOCK) and DRIVER'S DOOR KEY CYLINDER SWITCH (UNLOCK) in the DATA LIST.

   Are both information indicators OFF?

   YES–Go to step 12.

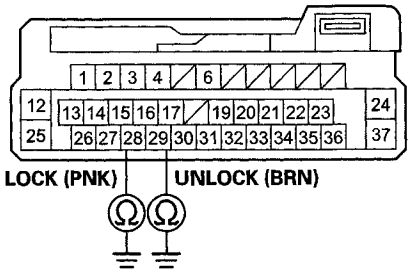
   NO–Go to step 7.
7. Disconnect the driver's door lock actuator 10P connector.
8. Check the ON/OFF information of the DRIVER'S DOOR KEY CYLINDER SWITCH (LOCK) and DRIVER'S DOOR KEY CYLINDER SWITCH (UNLOCK) in the DATA LIST.

   Are both information indicators OFF?

   YES–Faulty driver's door key cylinder switch; replace the driver's door lock actuator.■

   NO–Go to step 9.
9. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
10. Disconnect the door multiplex control unit 37P connector.
11. Check for continuity between body ground and door multiplex control unit 37P connector terminals No. 28 and No. 29 individually.

DOOR MULTIPLEX CONTROL UNIT 37P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the LOCK or UNLOCK wire.■

NO–Replace the power window master switch (see page 22-309).■
12. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
13. Disconnect the driver's door lock actuator 10P connector.
14. Disconnect the door multiplex control unit 37P connector.

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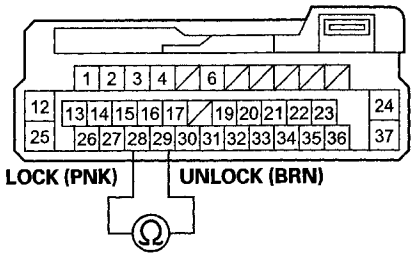
15. Check for continuity between door multiplex control unit 37P connector terminals No. 28 and No. 29.

DOOR MULTIPLEX CONTROL UNIT 37P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair a short between the LOCK and UNLOCK wires.■

NO–Substitute a known-good power window master switch. If the symptom goes away, replace the original power window master switch (see page 22-309). If not, replace the driver's door lock actuator (see page 20-19).■

DTC B1128: Driver's Door Lock Switch Signal Malfunction

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Lock and unlock the driver's door with the driver's door lock switch.
3. Check for DTCs with the HDS.

Is DTC B1128 indicated?

YES–Replace the power window master switch (see page 22-309).■

NO–Intermittent failure, the system is OK at this time. Check for a loose or poor connection.■

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DTC Troubleshooting (cont'd)

DTC B1129: Driver's Door Lock Knob Malfunction

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Operate the driver's door lock knob switch several times.
4. Check for DTCs with the HDS.

   Is DTC B1129 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the driver's door lock knob switch system is OK at this time. Check for loose or poor connections.■
5. Select KEYLESS TRANSMITTER from the BODY ELECTRICAL menu, and enter DATA LIST.
6. Check the ON/OFF information of the DRIVER'S DOOR LOCK KNOB SWITCH (LOCK) and the DRIVER'S DOOR LOCK KNOB SWITCH (UNLOCK).

   Is the DRIVER'S DOOR LOCK KNOB SWITCH (LOCK) information indicator ON and the DRIVER'S DOOR LOCK KNOB SWITCH (UNLOCK) information indicator OFF with the driver's door lock knob switch in LOCK position, and is the DRIVER'S DOOR LOCK KNOB SWITCH (LOCK) information indicator OFF and the DRIVER'S DOOR LOCK KNOB SWITCH (UNLOCK) information indicator ON with the driver's door lock knob switch in UNLOCK position?

   YES–Replace the power window master switch (see page 22-309).■

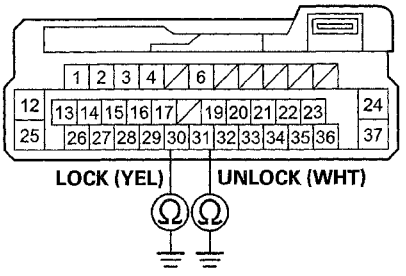
   NO–Go to step 7.
7. Disconnect the driver's door lock actuator 10P connector.
8. Check the ON/OFF information of the DRIVER'S DOOR LOCK KNOB SWITCH (LOCK) and DRIVER'S DOOR LOCK KNOB SWITCH (UNLOCK) in the DATA LIST.

   Are both information indicators OFF?

   YES–Go to step 12.

   NO–Go to step 9.
9. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
10. Disconnect the door multiplex control unit 37P connector.
11. Check for continuity between body ground and door multiplex control unit 37P connector terminals No. 30 and No. 31 individually.

DOOR MULTIPLEX CONTROL UNIT 37P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the LOCK or UNLOCK wire.■

NO–Replace the power window master switch (see page 22-309).■

12. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
13. Disconnect the door multiplex control unit 37P connector.

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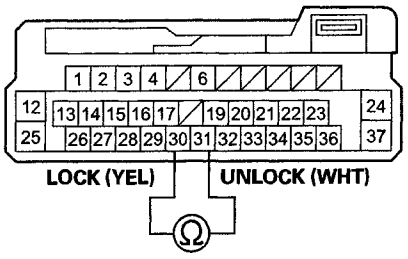
14. Check for continuity between door multiplex control unit 37P connector terminals No. 30 and No. 31.

DOOR MULTIPLEX CONTROL UNIT 37P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair a short between the LOCK and UNLOCK wires.■

NO–Check for an open in the driver's door lock switch (LOCK) wire or the driver's door lock knob switch (UNLOCK) wire between the door multiplex control unit and the driver's door lock knob switch. If OK, replace the driver's door lock actuator (see page 20-19).■

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Symptom Troubleshooting

Power Door Locks/Keyless

1. Check for B-CAN DTCs. If any B-CAN DTCs are indicated, refer to the B-CAN System Diagnosis Test Mode A (see page 22-135) and resolve them first.
2. If the door lock system and the keyless operation do not work, troubleshoot the door locks first.

   NOTE: The system does not function when the ignition switch is ON (II), or the vehicle ignition in the ON mode.

Symptom	Check Items	Also check for
All the doors will not lock or unlock with driver's door key cylinder or door lock switch or keyless transmitter.*	• Poor ground (G401, G402, G405, G601, G651) • Driver's door key cylinder switch test (see page 22-192). • Door switch test (check the door switch ON/OFF information with the HDS) • Door lock switch test (check the door switch ON/OFF information with the HDS) • Check for UART line between door multiplex control unit 37P connector terminal No. 27 and front passenger's power window switch 37P connector terminal No. 29. – An open in the wire – A short to ground wire – A short to power wire	
Driver's and left rear doors will not lock or unlock with driver's door key cylinder or door lock switch or keyless transmitter.	• Poor ground (G401, G402, G601) • Blown No. 24 (20 A) fuse in the driver's under-dash fuse/relay box • Blown No. 25 (15 A) fuse in the driver's under-dash fuse/relay box • Driver's MICU input test (see page 22-179). • Door multiplex control unit input test (see page 22-186).	
Front passenger's and right rear doors will not lock or unlock with driver's door key cylinder or door lock switch or keyless transmitter.	• Poor ground (G201, G203, G401, G405) • Blown No. 1-2 (AS F/B STD) (40 A) fuse in the under-hood fuse/relay box • Blown No. 10 (10 A) fuse in the passenger's under-dash fuse/relay box • Blown No. 13 (20 A) fuse in the passenger's under-dash fuse/relay box • Passenger's MICU input test (see page 22-183). • Door multiplex control unit input test (see page 22-186).	
Keyless operation does not work (LOCK, UNLOCK, PANIC).	Symptom troubleshooting (see page 22-178).	Customized settings in the multi-information display (MID), see Owner's manual for details.
Doors will not unlock with the transmitter, but will unlock with the door lock switch and the door key cylinder switch.	• Symptom troubleshooting (see page 22-178). • Door lock switch test (check the door switch ON/OFF information with the HDS)	
Doors will not lock with the transmitter, but will lock with the door lock switch and the door key cylinder switch.	• Symptom troubleshooting (see page 22-178). • Door lock switch test (check the door switch ON/OFF information with the HDS)	
Doors automatically relock 30 seconds after being unlocked with the transmitter even though a door has been opened.	• Symptom troubleshooting (see page 22-177). • Door switch test (check the door switch ON/OFF information with the HDS)	
Only driver's door will unlock or door locks relock immediately after unlocking with the remote.	Driver's door lock knob switch test (see page 22-190).	
Trunk lid release actuator will not work when the trunk lid outer handle switch is pressed.	• Lock knob switch is faulty • Open lock knob switch unlock input wire • Door lock actuator is faulty	
The horn does not sound and/or the headlights do not flash when the PANIC button on the transmitter is pressed.	Symptom troubleshooting (see page 22-177).	Customized settings in the multi-information display (MID), see Owner's manual for details.
Keyless operation will work even though the ignition key is in the ignition switch.	Ignition key switch test (see page 22-280).	

*: If only one door is not working properly, check that door's lock actuator first, then check the other items listed in this table.

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The horn does not sound and/or the headlights do not flash when the PANIC button on the transmitter is pressed

NOTE: Before troubleshooting, check the B-CAN DTCs. If any DTC is indicated troubleshoot the indicated DTC(s) first.

1. Press the PANIC button.

   Do the horns sound?

   YES–Go to step 3.

   NO–Go to step 2.

2. Press the horn button.

   Do the horns sound?

   YES–Go to step 3.

   NO–Check the horn relay circuit.■

3. Turn the headlight switch ON.

   Do the headlights come on?

   YES–Go to step 4.

   NO–Check the lighting circuit.■

4. Do the transmitter test (see page 22-194).

   Is the transmitter OK?

   YES–Substitute a known-good immobilizer-keyless control unit and recheck. If there is still a problem, substitute a known-good driver's MICU and recheck. If the problem goes away, replace the original immobilizer-keyless control unit (see page 22-448) or MICU (see page 22-81).■

   NO–Replace the transmitter.■

Doors automatically relock 30 seconds after being unlocked with the transmitter even though a door has been opened

NOTE:

- Opening the trunk does not cancel this function, only a open door signal cancels the automatic relock.
- Before troubleshooting, check the B-CAN DTCs. If any DTC is indicated troubleshoot the indicated DTC(s) first.
- The driver's door switch and the left rear door switch are connected to the driver's MICU, and the front passenger's door switch and the right rear door switch are connected to the passenger's MICU.

1. Move the interior light switch to the DOOR position.
2. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
3. Watch the front individual map light and the multi-information display on the gauge control module.

   Does the front individual map light and multi-information display come on when each door is opened, and go off when each door is closed?

   YES–Substitute a known-good driver's (or passenger's) MICU and recheck. If the symptom goes away, replace the original MICU.■

   NO–Repair an open in the wire between the driver's (or passenger's) MICU (see page 22-81) and each door switch, or a bad door switch.■

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Symptom Troubleshooting (cont'd)

Keyless operation does not work (LOCK, UNLOCK, PANIC)

NOTE: Before troubleshooting, check the B-CAN DTCs. If any DTC is indicated troubleshoot the indicated DTC(s) first

1. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
2. Try to start the engine.

   Does the engine start?

   YES–Go to step 3.

   NO–Go to the immobilizer symptom troubleshooting (see page 22-438).■
3. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
4. Do the transmitter test (see page 22-194).

   Is the transmitter OK?

   YES–Replace the immobilizer-keyless control unit.■

   NO–Replace the transmitter.■

Doors will not unlock (or lock) with the transmitter, but will unlock (or lock) with the door switch and the door key cylinder switch

NOTE: Before troubleshooting, check the B-CAN DTCs. If any DTC is indicated troubleshoot the indicated DTC(s) first.

1. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
2. Remove the ignition key from the ignition switch.
3. Close and lock the doors.
4. Try to lock/unlock the doors with the keyless transmitter.

   Do the door lock actuators work normally?

   YES–Intermittent failure, the system is OK at this time.■

   NO–Go to step 5.
5. Open the driver's door.

   Does the key-in reminder chime sound?

   YES–Faulty ignition key switch, or short to ground on the ignition switch wire. Repair as necessary.■

   NO–Go to step 6.
6. Do the transmitter test (see page 22-194).

   Is the transmitter OK?

   YES–Substitute a known-good driver's under-dash fuse/relay box and recheck. If there is still a problem, substitute a known-good immobilizer-keyless control unit and recheck. If the problem goes away, replace the original immobilizer-keyless control unit (see page 22-448).■

   NO–Replace the transmitter.■

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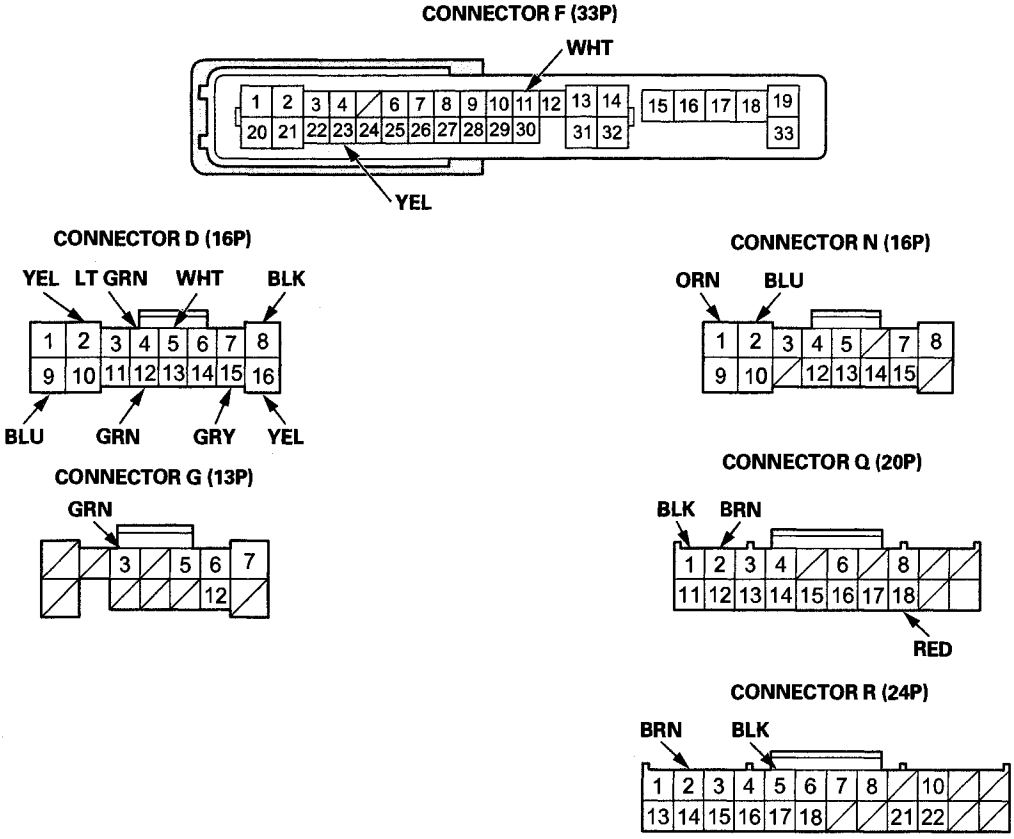
Control Unit Input Test

NOTE: Before testing, troubleshoot the multiplex integrated control system first, using B-CAN System Diagnosis Test Mode A (see page 22-135), and make sure the lighting system works properly.

Driver's MICU

1. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
2. Remove the driver's dashboard undercover (see page 20-118).
3. Disconnect driver's under-dash fuse/relay box connectors D, F, G, N, Q, and R.

   NOTE: All connector views are wire side of female terminals.



4. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary and recheck the system.
   - If the terminals look OK, go to step 5.

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Control Unit Input Test (cont'd)

5. With the connectors still disconnected, do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 6.

   NOTE: Before testing, make sure the No. 15 (10 A) fuse in the under-hood fuse/relay box is OK.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
D2 D9	YEL BLU	Connect terminal F11 to terminal D2 (or D9), and terminal D9 (or D2) to body ground.	Check actuator operation: The left rear door lock actuator should UNLOCK (or LOCK).	• Faulty left rear door lock actuator • An open or high resistance in the wire
D16	YEL	Connect terminal F11 to terminal D16 momentarily	Check actuator operation: The trunk lid release actuator should work.	• Poor ground (G603) or an open in the ground wire • Faulty trunk lid release actuator • An open or high resistance in the wire
F11	WHT	Under all conditions	Measure the voltage to ground: The should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
F23	YEL	Under all conditions	Connect to ground with a jumper wire: The horns should sound.	• Blown No. 10 (20 A) fuse in the under-hood fuse/relay box • Faulty horn relay circuit • Faulty horn • An open or high resistance in the wire
N1 N2	ORN BLU	Connect terminal F11 to terminal N1 (or N2), and terminal N2 (or N1) to body ground.	Check actuator operation: The driver's door lock actuator should UNLOCK (or LOCK).	• Faulty driver's door lock actuator • An open or high resistance in the wire

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6. Reconnect the connectors to the driver's under-dash fuse/relay box, and do the following input tests:
7. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 8.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
D8	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G601) or an open in the ground wire • An open or high resistance in the wire
Q1	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
Q2	BRN	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
R2	BRN	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
R5	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
D4	LT GRN	Left rear door open	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty left rear door switch • Faulty left rear door switch ground • An open or high resistance in the wire
		Left rear door closed	Measure the voltage to ground: There should be about 5 V.	• Faulty left rear door switch • A short to ground in the wire
D5	WHT	Trunk lid open	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty trunk lid latch switch • Poor ground (G603) or an open in the ground wire • An open or high resistance in the wire
		Trunk lid closed	Measure the voltage to ground: There should be about 5 V.	• Faulty trunk lid latch switch • A short to ground in the wire
D12	GRN	Driver's door open	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty driver's door switch • Faulty driver's door switch ground • An open or high resistance in the wire
		Driver's door closed	Measure the voltage to ground: There should be about 5 V.	• Faulty driver's door switch • A short to ground in the wire
D15	GRY	Left rear door lock knob switch in UNLOCK	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G601) or an open in the ground wire • Faulty left rear door lock knob switch • An open or high resistance in the wire
		Left rear door lock knob switch in LOCK	Measure the voltage to ground: There should be about 5 V.	• Faulty left rear door lock knob switch • A short to ground in the wire

*1: Without keyless access system
*2: With keyless access system

(cont'd)

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Control Unit Input Test (cont'd)

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
G3	GRN	Hood open	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty hood switch • Poor ground (G302) or an open in the ground wire • An open or high resistance in the wire
		Hood closed	Measure the voltage to ground: There should be about 5 V.	• Faulty security hood switch • A short to ground in the wire
Q18*1	RED	Ignition key inserted into the ignition switch	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty ignition key switch • Poor ground (G403) or an open in the ground wire • An open or high resistance in the wire
		Ignition switch LOCK (0), and the ignition key removed from the ignition switch	Measure the voltage to ground: There should be about 5 V.	• Faulty ignition key switch • A short to ground in the wire
Q18*2	RED	Keyless access remote inserted into the remote slot	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty power control unit • An open or high resistance in the wire
		Keyless access remote removed from the remote slot	Measure the voltage to ground: There should be about 5 V.	• Faulty power control unit • A short to ground in the wire

*1: Without keyless access system
*2: With keyless access system

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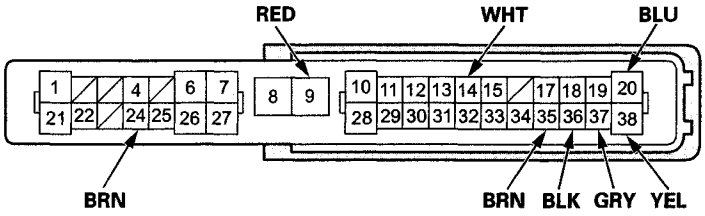
Passenger's MICU

8. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode, and remove the passenger's kick panel (see page 20-81).
9. Disconnect passenger's under-dash fuse/relay box connectors A, E, G*1, (or H*2).

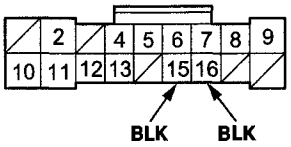
*1: Without SH-AWD
*2: With SH-AWD

NOTE: All connector views are wire side of female terminals.

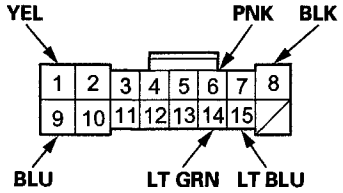
CONNECTOR A (38P)



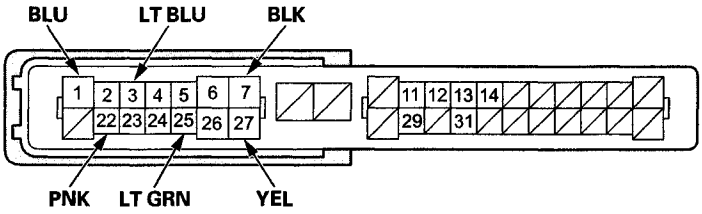
CONNECTOR E (18P)



CONNECTOR G (16P) (without SH-AWD)



CONNECTOR H (38P) (with SH-AWD)



10. Inspect the connector and socket terminals to be sure they are all making good contact.
    - If the terminals are bent, loose or corroded, repair them as necessary and recheck the system.
    - If the terminals look OK, go to step 11.

(cont'd)

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Control Unit Input Test (cont'd)

11. With the connectors still disconnected, do the following input tests:
    - If any test indicates a problem, find and correct the cause, then recheck the system.
    - If all the input tests prove OK, go to step 12.

    NOTE: Before testing, make sure the No. 15 (10 A) fuse in the under-hood fuse/relay box is OK.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
A14	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
A20 A38	BLU YEL	Connect terminal A14 to terminal A20 (or A38), and terminal A38 (or A20) to body ground.	Check actuator operation: The front passenger's door lock actuator should UNLOCK (or LOCK).	• Faulty front passenger's door lock actuator • An open or high resistance in the wire
G1*1 G9*1	YEL BLU	Connect terminal A14 to terminal G1 (or G9), and terminal G9 (or G1) to body ground.	Check actuator operation: The right rear door lock actuator should LOCK (or UNLOCK).	• Faulty right rear door lock actuator • An open or high resistance in the wire
H27*2 H1*2	YEL BLU	Connect terminal A14 to terminal H27 (or H1), and terminal H1 (or H27) to body ground.	Check actuator operation: The right rear door lock actuator should LOCK (or UNLOCK).	• Faulty right rear door lock actuator • An open or high resistance in the wire

*1: Without SH-AWD
*2: With SH-AWD

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12. Reconnect the connectors to the passenger's under-dash fuse/relay box, and do the following input tests:
    - If any test indicates a problem, find and correct the cause, then recheck the system.
    - If all the input tests prove OK, go to step 13.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
A9	RED	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 1-2 (AS F/B STD) (40 A) fuse in the under-hood fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
A14	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
A35	BRN	Ignition switch ON (II), or power mode ON	Measure the voltage to ground: There should be battery voltage.	• Blown No. 12 (7.5 A) fuse in the driver's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
A36	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G405) or an open in the ground wire • An open or high resistance in the wire
A37	GRY	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
E15	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G201) or an open in the ground wire • An open or high resistance in the wire
E16	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G203) or an open in the ground wire • An open or high resistance in the wire
G8*1 or H7*2	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G651) or an open in the ground wire • An open or high resistance in the wire
G14*1 or H25*2	LT GRN	Right rear door open	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty right rear door switch • Faulty right rear door switch ground • An open or high resistance in the wire
		Right rear door closed	Measure the voltage to ground: There should be about 5 V.	• Faulty right rear door switch • A short to ground in the wire
G15*1 or H3*2	LT BLU	Front passenger's door open	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty front passenger's door switch • Faulty front passenger's door switch ground • An open or high resistance in the wire
		Front passenger's door closed	Measure the voltage to ground: There should be about 5 V.	• Faulty front passenger's door switch • A short to ground in the wire
G6*1 or H22*3	PNK	Right rear door lock knob switch in UNLOCK	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G651) or an open in the ground wire • Faulty right rear door lock knob switch • An open or high resistance in the wire
		Right rear door lock knob switch in LOCK	Measure the voltage to ground: There should be about 5 V.	• Faulty right rear door lock knob switch • A short to ground in the wire

*1: Without SH-AWD
*2: With SH-AWD

(cont'd)

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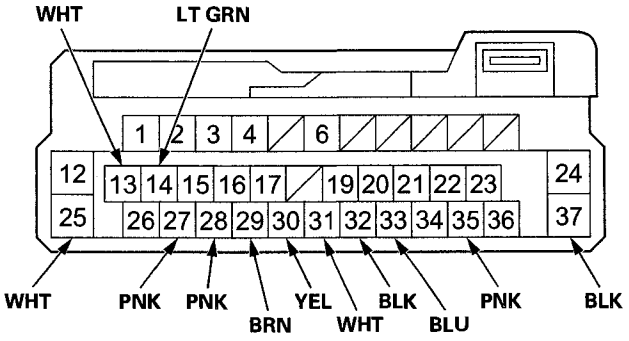
Control Unit Input Test (cont'd)

Door Multiplex Control Unit

13. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode, and remove the driver's door panel (see page 20-9).
14. Disconnect the 37P connector from the door multiplex control unit.

DOOR MULTIPLEX CONTROL UNIT 37P CONNECTOR



Wire side of female terminals

15. Inspect the connector and socket terminals to be sure they are all making good contact.
    - If the terminals are bent, loose or corroded, repair them as necessary and recheck the system.
    - If all the terminals look OK, go to step 16.
16. Reconnect the driver's door harness to driver's door subharness.

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17. With the connector still disconnected, do the following input tests:
    - If any test indicates a problem, find and correct the cause, then recheck the system.
    - If all the input test proves OK, go to step 18.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
27	PNK	Disconnect the front passenger's power window switch 37P connector	Check for continuity between door multiplex control unit 37P connector terminal No. 27 and front passenger's power window switch 37P connector terminal No. 29: There should be continuity.	An open in the UART wire
			Check for continuity to ground: There should be no continuity.	A short to ground in the wire
33	BLU	Disconnect driver's under-dash fuse/relay box connector P (20P)	Check for continuity between door multiplex control unit 37P connector terminal No. 33 and driver's under-dash fuse/relay box connector P (20P) terminal No. 5: There should be continuity.	An open in the B-CAN wire
			Check for continuity to ground: There should be no continuity.	A short to ground in the wire
35	PNK	Disconnect driver's under-dash fuse/relay box connector P (20P)	Check for continuity between door multiplex control unit 37P connector terminal No. 35 and driver's under-dash fuse/relay box connector P (20P) terminal No. 6: There should be continuity.	An open in the B-CAN wire
			Check for continuity to ground: There should be no continuity.	A short to ground in the wire

(cont'd)

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Control Unit Input Test (cont'd)

18. Reconnect the 37P connector to the door multiplex control unit, and do the following input tests:
    - If any test indicates a problem, find and correct the cause, then recheck the system.
    - If all the input tests prove OK, go to step 19.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
13	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
14	LT GRN	Ignition switch ON (II), or power mode ON	Measure the voltage to ground: There should be battery voltage.	• Blown No. 16 (7.5 A) fuse in the driver's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
25	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 24 (20 A) fuse in the driver's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
32	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
37	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
28	PNK	Driver's door key cylinder switch in LOCK	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • Faulty driver's door key cylinder switch • An open or high resistance in the wire
		Driver's door key cylinder switch in neutral or UNLOCK	Measure the voltage to ground: There should be about 5 V.	• Faulty driver's door key cylinder switch • A short to ground in the wire
29	BRN	Driver's door key cylinder switch in UNLOCK	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • Faulty driver's door key cylinder switch • An open or high resistance in the wire
		Driver's door key cylinder switch in neutral or LOCK	Measure the voltage to ground: There should be about 5 V.	• Faulty driver's door key cylinder switch • A short to ground in the wire
30	YEL	Driver's door lock knob switch in LOCK	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • Faulty driver's door lock knob switch • An open or high resistance in the wire
		Driver's door lock knob switch in neutral or UNLOCK	Measure the voltage to ground: There should be about 5 V.	• Faulty driver's door lock knob switch • A short to ground in the wire
31	WHT	Driver's door lock knob switch in UNLOCK	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • Faulty driver's door lock knob switch • An open or high resistance in the wire
		Driver's door lock knob switch in neutral or LOCK	Measure the voltage to ground: There should be about 5 V.	• Faulty driver's door lock knob switch • A short to ground in the wire

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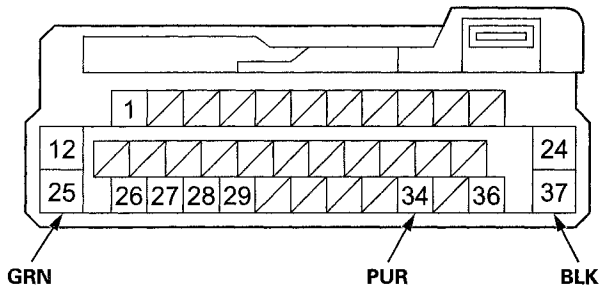
Front Passenger's Power Window Switch

19. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode, and remove the front passenger's door panel (see page 20-9).
20. Disconnect the 37P connector from the front passenger's power window switch.

FRONT PASSENGER'S POWER WINDOW SWITCH 37P CONNECTOR



Wire side of female terminals

21. Inspect the connector and socket terminals to be sure they are all making good contact.
    - If the terminals are bent, loose or corroded, repair them as necessary and recheck the system.
    - If the terminals look OK, go to step 22.
22. Reconnect the 37P connector to the front passenger's power window switch, and do the following input tests:
    - If any test indicates a problem, find and correct the cause, then recheck the system.
    - If all the input tests prove OK, go to step 23.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
25	GRN	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 13 (20 A) fuse in the passenger's under-dash fuse/relay box • An open or high resistance in the wire
37	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G405) or an open in the ground wire • An open or high resistance in the wire
34	PUR	Front passenger's door lock knob switch in UNLOCK	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G405) or an open in the ground wire • Faulty front passenger's door lock knob switch • An open or high resistance in the wire
		Front passenger's door lock knob switch in LOCK	Measure the voltage to ground: There should be about 5 V.	• Faulty front passenger's door lock knob switch • A short to ground in the wire

23. If multiple failures are found on more than one control unit, replace the driver's under-dash fuse/relay box (includes the driver's MICU) (see page 22-81). If input failures are related to a particular control unit, replace the control unit.

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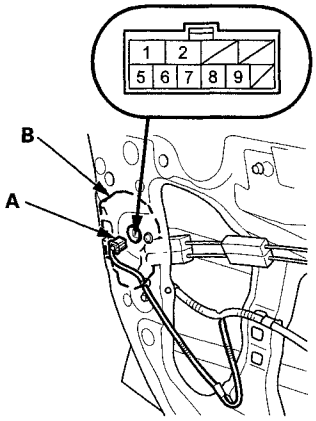
Door Lock Actuator Test

Driver's Door and Left Rear Door

1. Remove the door panel.
   - Front (see page 20-9)
   - Rear (see page 20-27)
2. Disconnect the 10P connector (A) from the actuator (B).

   NOTE: The illustration shows the driver's door.



3. Check the actuator operation by connecting power and ground according to the table. To prevent damage to the actuator, apply battery voltage only momentarily.

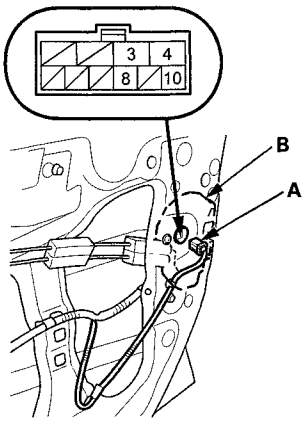
Position \ Terminal	1	2
LOCK	⊕	⊖
UNLOCK	⊖	⊕

4. If the actuator does not operate as specified, the actuator is faulty; replace the door latch (see page 20-19).

Front Passenger's Door and Right Rear Door

1. Remove the door panel.
   - Front (see page 20-9)
   - Rear (see page 20-27)
2. Disconnect the 10P connector (A) from the actuator (B).

   NOTE: The illustration shows the front passenger's door.



3. Check the actuator operation by connecting power and ground according to the table. To prevent damage to the actuator, apply battery voltage only momentarily.

Position \ Terminal	3	4
LOCK	⊕	⊖
UNLOCK	⊖	⊕

4. If the actuator does not operate as specified, the actuator is faulty; replace the door latch (see page 20-19).

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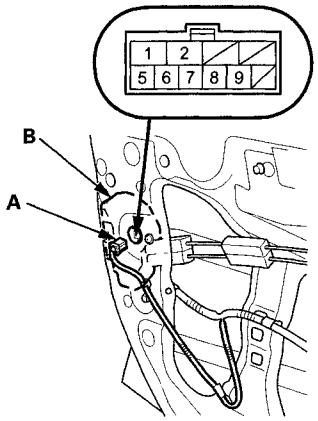
Door Lock Knob Switch Test

Driver's Door

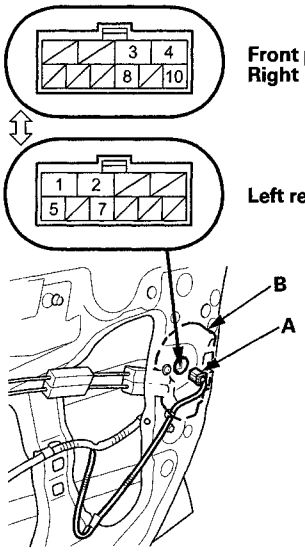
1. Remove the driver's door panel (see page 20-9).
2. Disconnect the 10P connector (A) from the door lock actuator (B).



3. Check for continuity between the terminals.
   - There should be continuity between terminals No. 6 and No. 5 when the door lock knob switch is in the LOCK position and no continuity when the switch is in the UNLOCK position.
   - There should be continuity between terminals No. 7 and No. 5 when the door lock knob switch is in the UNLOCK position and no continuity when the switch is in the LOCK position.
   - Check for continuity between terminals No. 6 and No. 7 of door lock knob switch. There should be no continuity in either LOCK or UNLOCK positions.
4. If the continuity is not as specified, the switch is faulty; replace the door latch (see page 20-19).

Passenger's Doors

1. Remove the passenger's door panel.
   - Front (see page 20-9)
   - Rear (see page 20-27)
2. Disconnect the 10P connector (A) from the door lock actuator (B).



3. Check for continuity between the terminals.

   There should be continuity between terminals No. 8 [No. 7] and No. 10 [No. 5] when the door lock knob switch in the UNLOCK position and no continuity when the switch is in the LOCK position.

   [ ] : Left rear door
4. If the continuity is not as specified, the switch is faulty; replace the door latch (see page 20-19).

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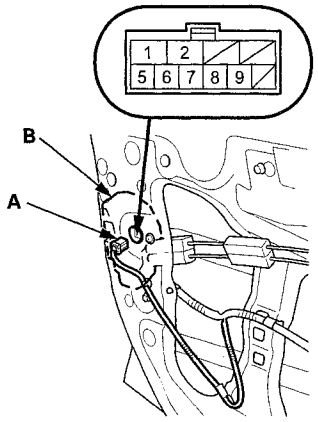
Door Key Cylinder Switch Test

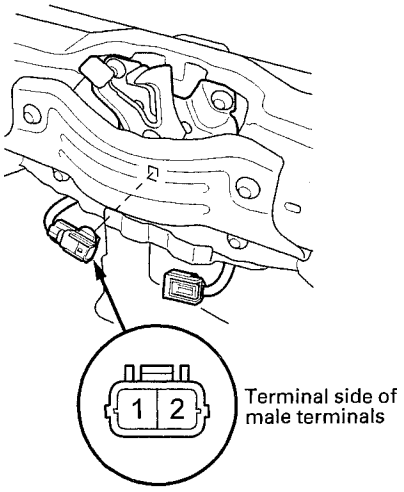
1. Remove the driver's door panel (see page 20-9).
2. Disconnect the 10P connector (A) from the door lock actuator (key cylinder switch) (B).



3. Check for continuity between the terminals.
   - There should be continuity between terminals No. 9 and No. 5 when the door key cylinder switch is in LOCK position.
   - There should be no continuity between terminals No. 9 and No. 5 when the door key cylinder switch is in the neutral or UNLOCK position.
   - There should be continuity between terminals No. 8 and No. 5 when the door key cylinder switch is in UNLOCK position.
   - There should be no continuity between terminals No. 8 and No. 5 when the door key cylinder switch is in the neutral or LOCK position.
   - There should be no continuity between terminals No. 8 and No. 9 when the key is in the neutral position.
4. If the continuity is not as specified, the switch is faulty; replace the door latch (see page 20-19).

Security Hood Switch Test

1. Open the hood then remove the bulkhead cover (see page 20-186).
2. Disconnect the 2P connector from the security hood switch.



3. Check for continuity between the terminals.
   - There should be continuity between terminals No. 1 and No. 2 when the hood is opened (latch released).
   - There should be no continuity between terminals No. 1 and No. 2 when the hood is closed (latch pushed down).
4. If the continuity is not as specified, the switch is faulty; replace the hood latch assembly (see page 20-174).

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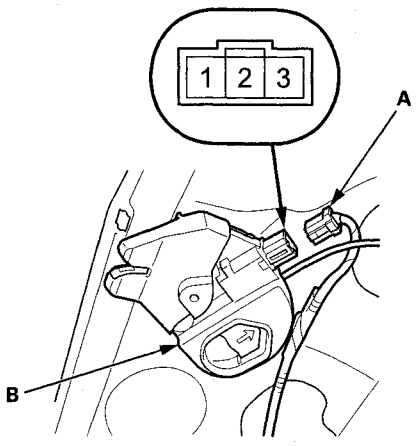
Trunk Lid Release Actuator Test

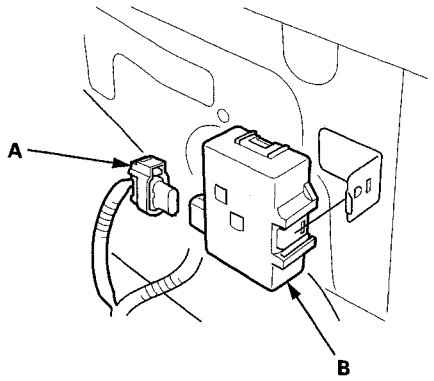
1. Open the trunk lid, and remove the trunk lid trim (see page 20-95).
2. Disconnect the 3P connector (A) from the trunk lid latch switch/trunk release actuator (B).



3. Check actuator operation by connecting power to the terminal No. 3 and ground to terminal No. 2 momentarily to prevent damage to the actuator. The actuator should work.
4. If the actuator does not work, replace the trunk lid latch switch/release actuator assembly (see page 20-181).

Keyless Buzzer Replacement

1. Remove the rear bumper (see page 20-166).
2. Disconnect the 2P connector (A) from the keyless buzzer (B).



3. Remove the buzzer from the bracket.
4. Install the buzzer in the reverse order of removal.

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Transmitter Test

Without keyless access system

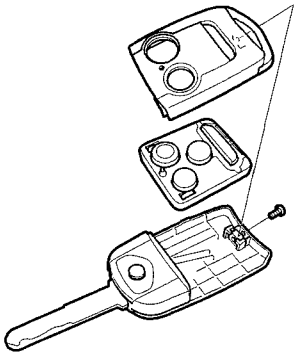
NOTE:

- If the doors unlock or lock with the transmitter, but the LED on the transmitter does not come on, the LED is faulty; replace the transmitter.
- If any door is open, you cannot lock the doors with the transmitter.
- If you unlocked the doors with the transmitter, but do not open any of the doors within 30 seconds, the doors relock automatically. Opening the trunk does not cancel this function; only an open door signal cancels the automatic relock.
- The doors do not lock or unlock with the transmitter if the ignition key is inserted in the ignition switch.

With HDS

1. Press the transmitter lock or unlock button at least 10 times to reset the transmitter.
   - If the locks work, the transmitter is OK.
   - If any of the transmitter buttons do not work, replace the transmitter, then register the new transmitter (see page 22-447).
   - If the locks don't work, go to step 2.
2. Connect the HDS to the data link connector.
3. Select KEYLESS TRANSMITTER from the BODY ELECTRICAL menu, next select inspection then select INSPECTION, then KEYLESS CHECK.
4. Follow the screen prompts to change to check each button operation.

   NOTE: The door lock actuators may or may not cycle when receiving input from the transmitter.
   - If KEYLESS ENTRY TRANSMITTER CODE RECEIVED is indicated, the transmitter is OK.
   - If DIFFERENT KEYLESS ENTRY TRANSMITTER CODE RECEIVED is indicated, the transmitter is not registered to the vehicle. If necessary, register the transmitter (see page 22-447).
   - If KEYLESS ENTRY TRANSMITTER CODE NOT RECEIVED is indicated, go to step 5.
5. Open the transmitter, and check for water damage.
   - If you find any water damage, replace the transmitter, then register the new transmitter (see page 22-447).
   - If there is no water damage, go to step 6.



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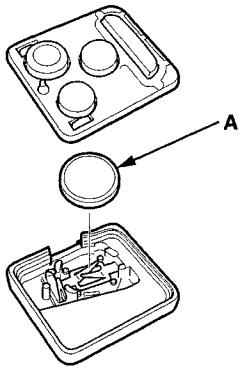
6. Replace the transmitter battery (A) with a new one, and press the lock or unlock button and check the response on the screen of the HDS.
   - If KEYLESS ENTRY TRANSMITTER CODE RECEIVED is indicated, the transmitter is OK.
   - If KEYLESS ENTRY TRANSMITTER CODE NOT RECEIVED is indicated, go to step 7.



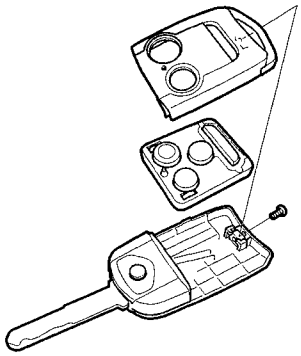
7. Use a different known-good keyless transmitter assembly and repeat steps 3 and 4.

   NOTE: The keyless transmitter does not need to be programmed to the vehicle for this test.
   - If DIFFERENT KEYLESS ENTRY TRANSMITTER CODE WAS RECEIVED is indicated, replace the keyless transmitter and do the immobilizer system registration (see page 22-447).
   - If KEYLESS ENTRY TRANSMITTER CODE WAS NOT RECEIVED is indicated, the immobilizer-keyless control unit is faulty, replace it and do the immobilizer system registration (see page 22-447).

   NOTE: The keyless transmitter is combined with the immobilizer transponder, so when the transponder is registered by the HDS, the keyless transmitter programming is completed automatically.

Without HDS

1. Start the engine.
   - If the engine does not start, go to the immobilizer system troubleshooting (see page 22-438).
   - If the engine starts, go to step 2.
2. Press the transmitter lock or unlock button at least 10 times to reset the transmitter.
   - If the locks work, the transmitter is OK.
   - If the locks don't work, go to step 3.
3. Open the transmitter, and check for water damage.
   - If you find any water damage, replace the transmitter and register the new transmitter (see page 22-447).
   - If there is no water damage, go to step 4.



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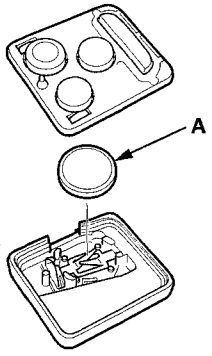
Transmitter Test (cont'd)

4. Replace the transmitter battery (A) with a new one (CR1616), and try to lock and unlock the doors with the transmitter by pressing the lock or unlock button five or six times.
   - If the doors lock and unlock, the transmitter is OK.
   - If the doors don't lock and unlock, go to step 5.



5. Reprogram and register the transmitter (see page 22-447), then try to lock and unlock the doors.
   - If the doors lock and unlock, the transmitter is OK.
   - If the doors don't lock and unlock, substitute a known-good transmitter, register it and recheck (see page 22-447). If still not operating, replace the immobilizer-keyless control unit.

Tripped Sensor History

The security system stores information on the last tripped sensor if the security system had been actuated. The information can be retrieved using the HDS.

To retrieve the last tripped sensor data:

1. Select HISTORY DATA from the security system MODE menu.
2. Scroll through the data list.
   - Sensors that were actuated will indicate DETECT.
   - Sensors that were not actuated will indicate NONE.
3. Inspect the DETECT circuit for:
   - Misadjusted or damaged switch.
   - Loose or corroded connections.
   - Intermittent short to ground.

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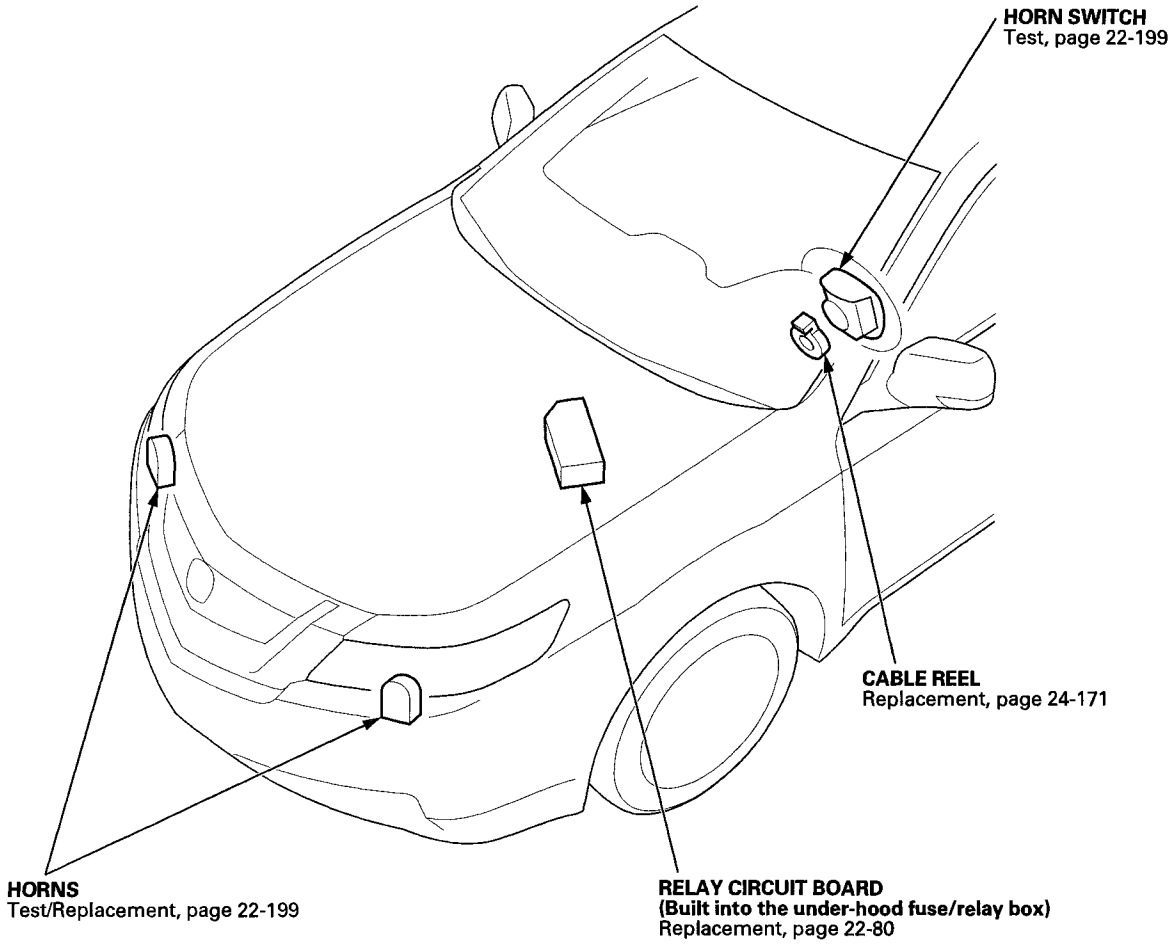
Component Location Index



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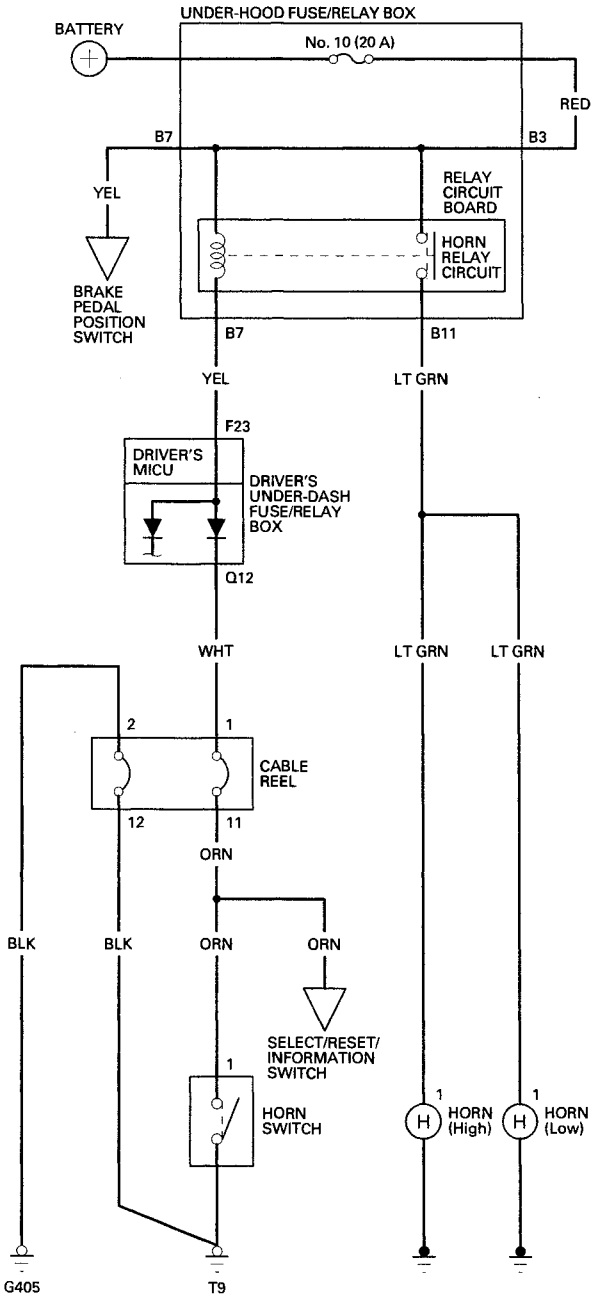
Horns

Circuit Diagram



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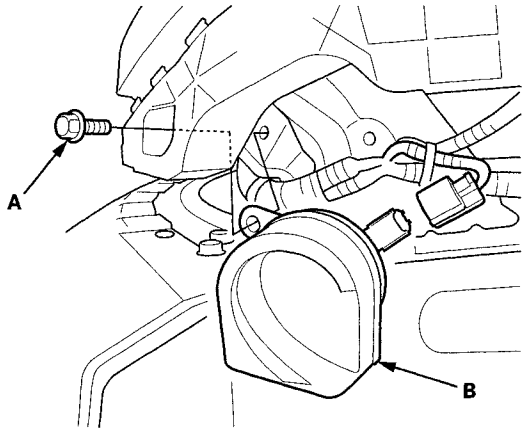
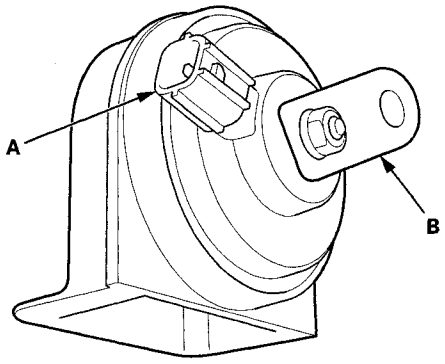
Horn Test/Replacement

1. Remove the front bumper (see page 20-164).
2. Disconnect the 1P connector (A) from each horn (B).



3. Test the horn by momentarily connecting battery power to the terminal (A) and grounding the bracket (B). The horn should sound.



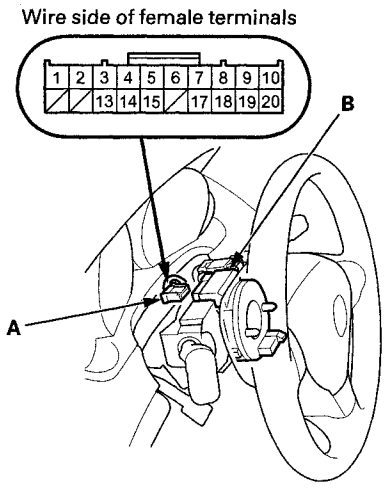
4. If it fails to sound, replace it.

Horn Switch Test

NOTE:

- SRS components are located in this area. Review the SRS component locations (see page 24-11), precautions and procedures (see page 24-13) before doing repairs or servicing.
- Check for a blown No. 10 (20 A) fuse in the under-hood fuse/relay box. If it is blown, check for a faulty horn relay (built in the relay circuit board) (see page 22-88).

1. Remove the steering column covers (see page 20-126).
2. Disconnect the dash board wire harness 20P connector (A) from the cable reel (B).



3. Connect dash board wire harness 20P connector terminals No. 1 and No. 2 with a jumper wire. The horns should sound.
   - If the horns sound, go to step 7.
   - If the horns don't sound, go to step 4.

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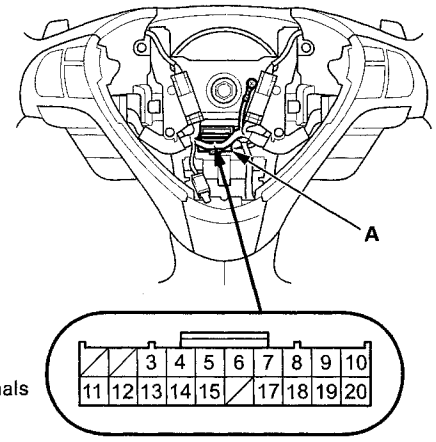
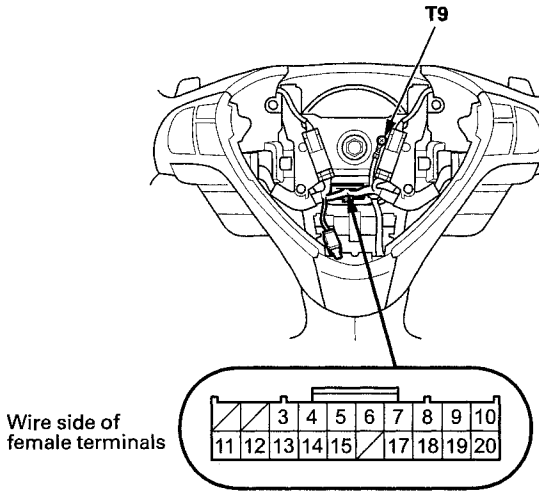
Horn Switch Test (cont'd)

4. Remove the jumper wire from the horn switch 20P connector.
5. Check for continuity between dash board wire harness 20P connector terminal No. 2 and body ground. There should continuity.
   - If there is continuity, go to step 6.
   - If there is no continuity, repair an open or high resistance in the wire, or poor ground (G405).
6. Measure the voltage between dashboard wire harness 20P connector terminal No. 1 and body ground. There should be battery voltage.
   - If there is battery voltage, replace the horns.
   - If there is no battery voltage, repair an open in the wire, or faulty driver's MICU; replace the driver's under-dash fuse/relay box.
7. Reconnect dashboard wire harness 20P connector to the cable reel, then remove the driver's airbag assembly (see page 24-157).
8. Connect cable reel subharness 20P connector terminals No. 11 and No. 12 with a jumper wire. The horns should sound.
   - If the horns sound, go to step 9.
   - If the horns don't sound, repair open in the wire, or replace the cable reel (see page 24-171).
9. Disconnect the cable reel subharness 20P connector (A).



10. Check for continuity between terminal (T9) and cable reel subharness 20P connector terminal No. 12. There should be continuity.
    - If there is continuity, go to step 11
    - If there is no continuity.
      - An open in the wire, replace the cable reel subharness.
      - Poor terminal (T9).



11. Check for continuity between cable reel subharness 20P connector terminal No. 11 and horn switch positive terminal 1P. There should be continuity.
    - If there is continuity, check or adjust the installation of the driver's airbag assembly and the horn switch plate or replace the driver's airbag assembly.
    - If there is no continuity, repair open in the wire, or replace the cable reel subharness.

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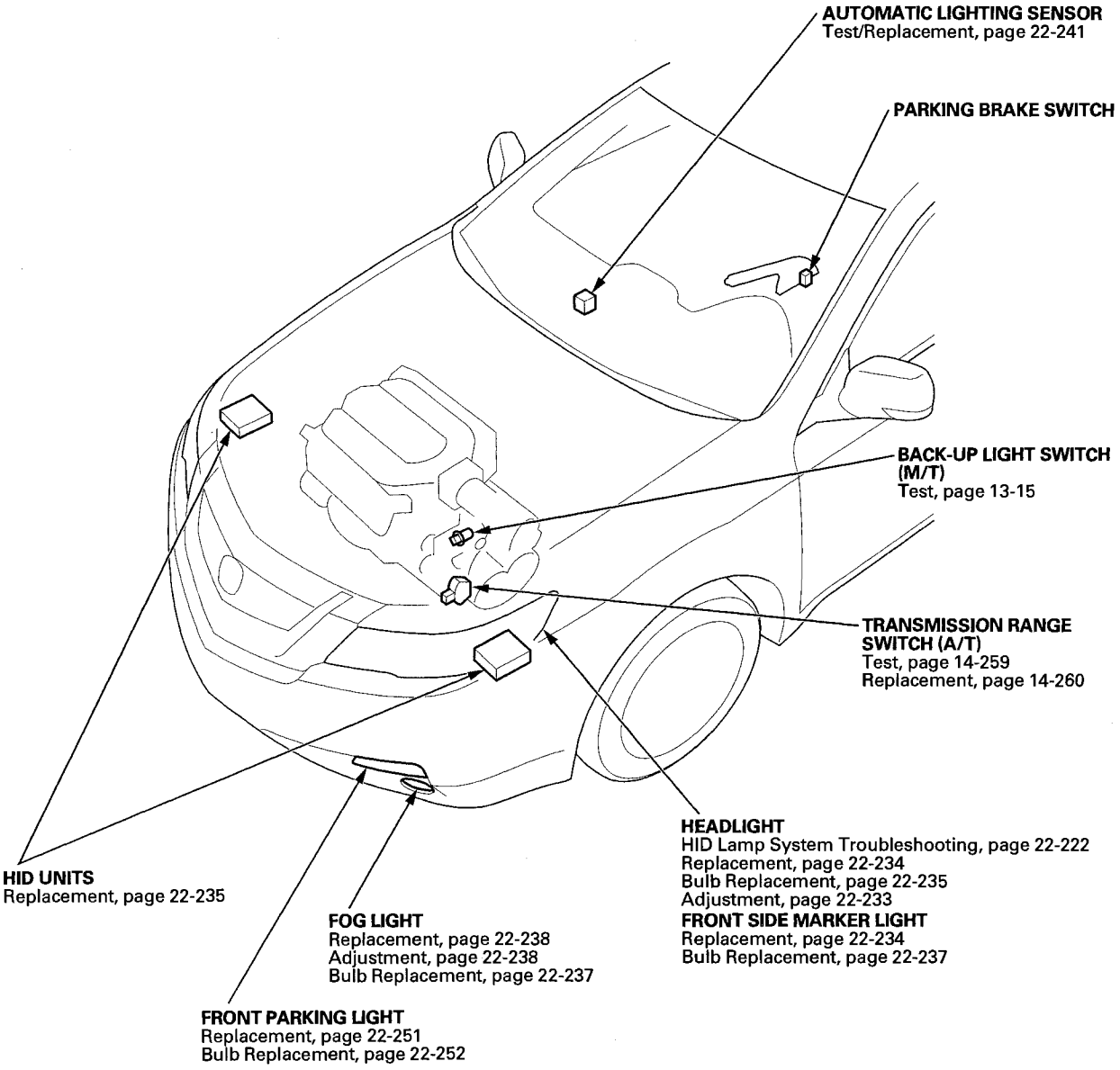
Component Location Index



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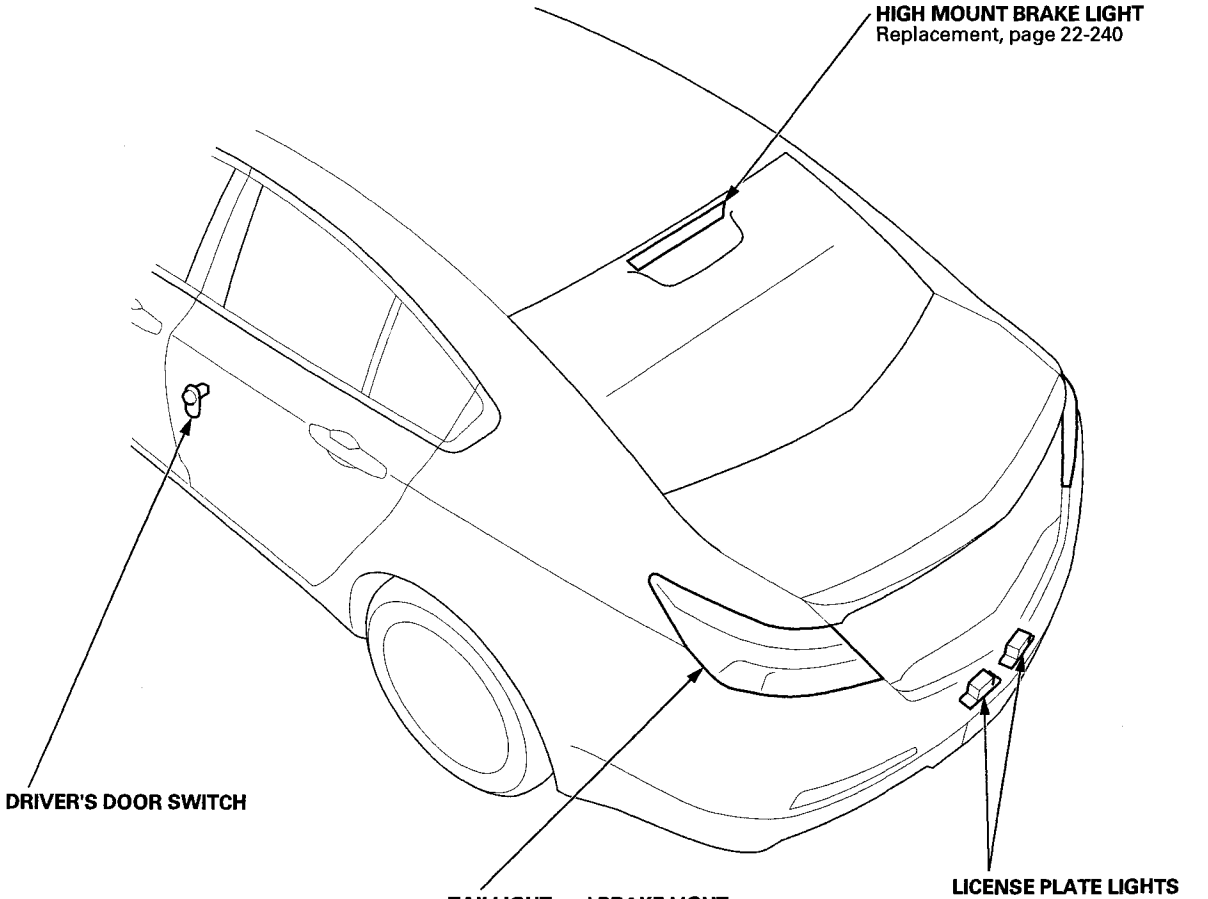
Component Location Index (cont'd)



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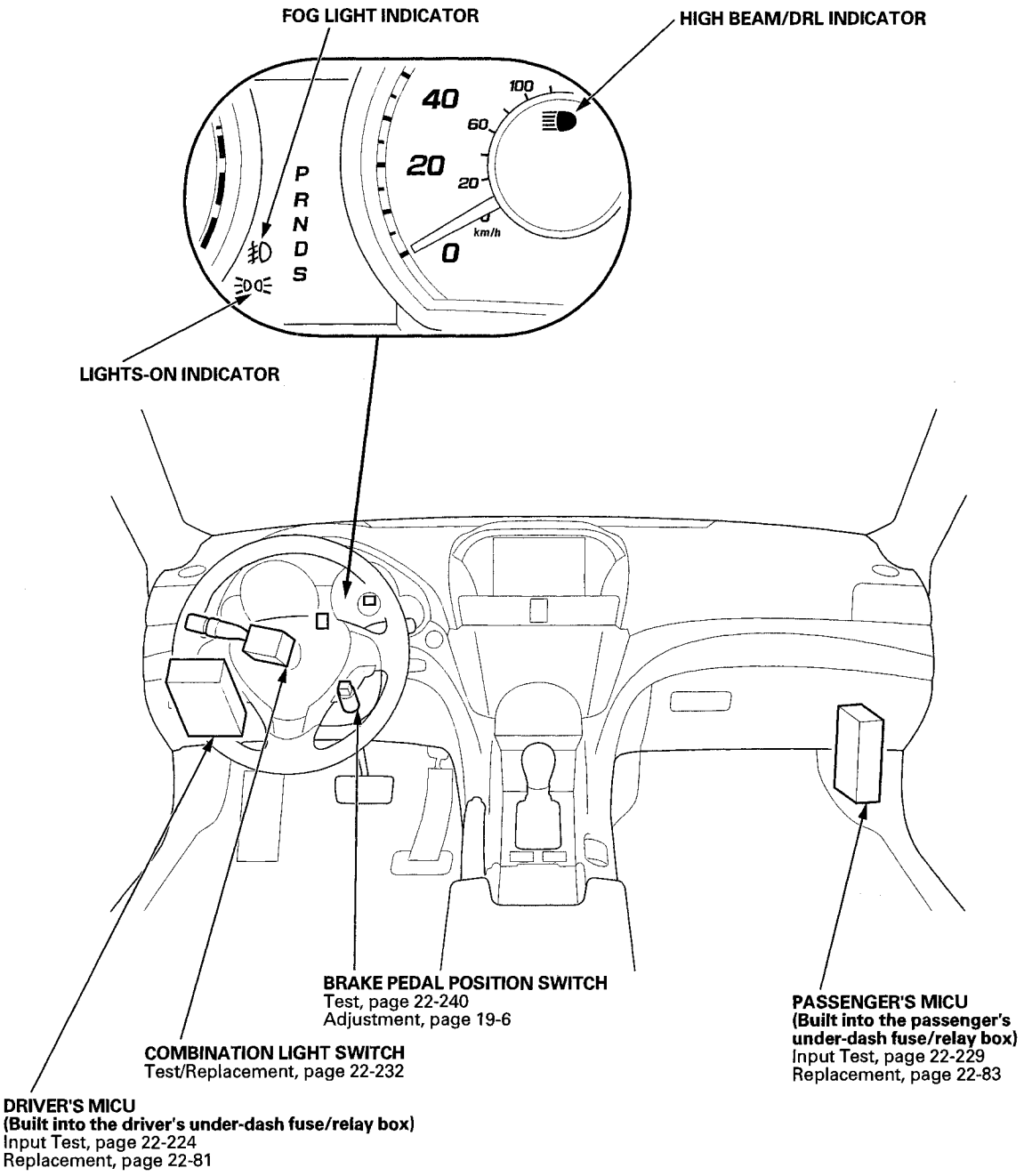

BRAKE PEDAL POSITION SWITCH
Test, page 22-240
Adjustment, page 19-6

COMBINATION LIGHT SWITCH
Test/Replacement, page 22-232

DRIVER'S MICU
(Built into the driver's under-dash fuse/relay box)
Input Test, page 22-224
Replacement, page 22-81

PASSENGER'S MICU
(Built into the passenger's under-dash fuse/relay box)
Input Test, page 22-229
Replacement, page 22-83

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System Description

Headlights System Description

The headlight system is composed of the driver's MICU, the passenger's MICU, the headlight and dimmer/flash-to-pass switches (inside the combination light switch), the left and right headlights, and the high beam indicator.

Each MICU controls each side of the front parking/side marker light and headlights. The taillights and license plate lights are controlled by the driver's MICU only.

Low Beams

When you move the headlight switch to the ON position and the dimmer/flash-to-pass switch to the low position, a ground signal is supplied to terminal No. 8 of driver's under-dash fuse/relay box connector R (24P). The driver's MICU then energizes the low beam control circuit, supplying battery voltage to the low beam of the left headlight, turning it on. Also the driver's MICU sends the message to the passenger's MICU via the B-CAN communication lines. The passenger's MICU then energizes the low beam control circuit, supplying battery voltage to the low beam of the right headlight, turning it on.

NOTE: If there is a B-CAN communication failure, the headlight back-up circuit commands the right low beam to come on when the ignition is on and the headlight switch is in the ON position. The right high beam does not come on if there is a B-CAN system failure.

High Beams

When you turn the headlight switch to the ON position and the dimmer/flash-to-pass switch to the high position, ground signals are supplied to terminals No. 8 and No. 22 of driver's under-dash fuse/relay box (driver's MICU) connector R (24P). The driver's and passenger's MICUs then energize the each side of the high beam headlight control circuits, supplying battery voltage to the high beam headlights, turning them on.

Flash-to-Pass

When you pull the dimmer/flash-to-pass switch to the passing position, a ground signal is supplied to terminal No. 21 of driver's under-dash fuse/relay box (MICU) connector R (24P). The driver's and passenger's MICUs then energize the high beam control circuits for as long as the switch is held, supplying battery voltage to the high beam headlights, turning them on.

Daytime Running Lights System Description

The daytime running lights system includes the driver's and passenger's MICUs, the left and right high beam headlights, the parking brake switch, and the DRL indication on the multi-information display (MID). The daytime running lights operate with the ignition switch turned to ON (II), or the engine start/stop button is pressed to select the ON mode, the headlights off (headlight switch OFF or in the parking position), and the parking brake released.

When the daytime running lights are on, the MICU turns the high beam headlight control circuit on and off (duty cycle), which provides a reduced voltage (approximately 6—8 volts) to the high beam headlights (via the No. 1 and No. 28 fuses in the driver's under-dash fuse/relay box and No. 1 fuse in the passenger's under-dash fuse/relay box); the high beam headlights come on with reduced brightness. The MICU also send a signal to the gauge control module, and the DRL indication is indicated by the high beam indicator glowing dimly.

NOTE:

- The daytime running lights are disabled when the ignition switch is turned to LOCK (0), or the engine start/stop button is pressed to select the OFF mode. To keep the daytime running lights from coming on, apply the parking brake switch while the ignition switch is in LOCK (0) position, or the vehicle is in OFF mode. When you then turn the ignition switch back to ON (II), or press the engine start/stop button to select the ON mode, the daytime running lights will not come on until the parking brake is released.
- The headlights revert to normal operation when you turn them on with the headlight switch.

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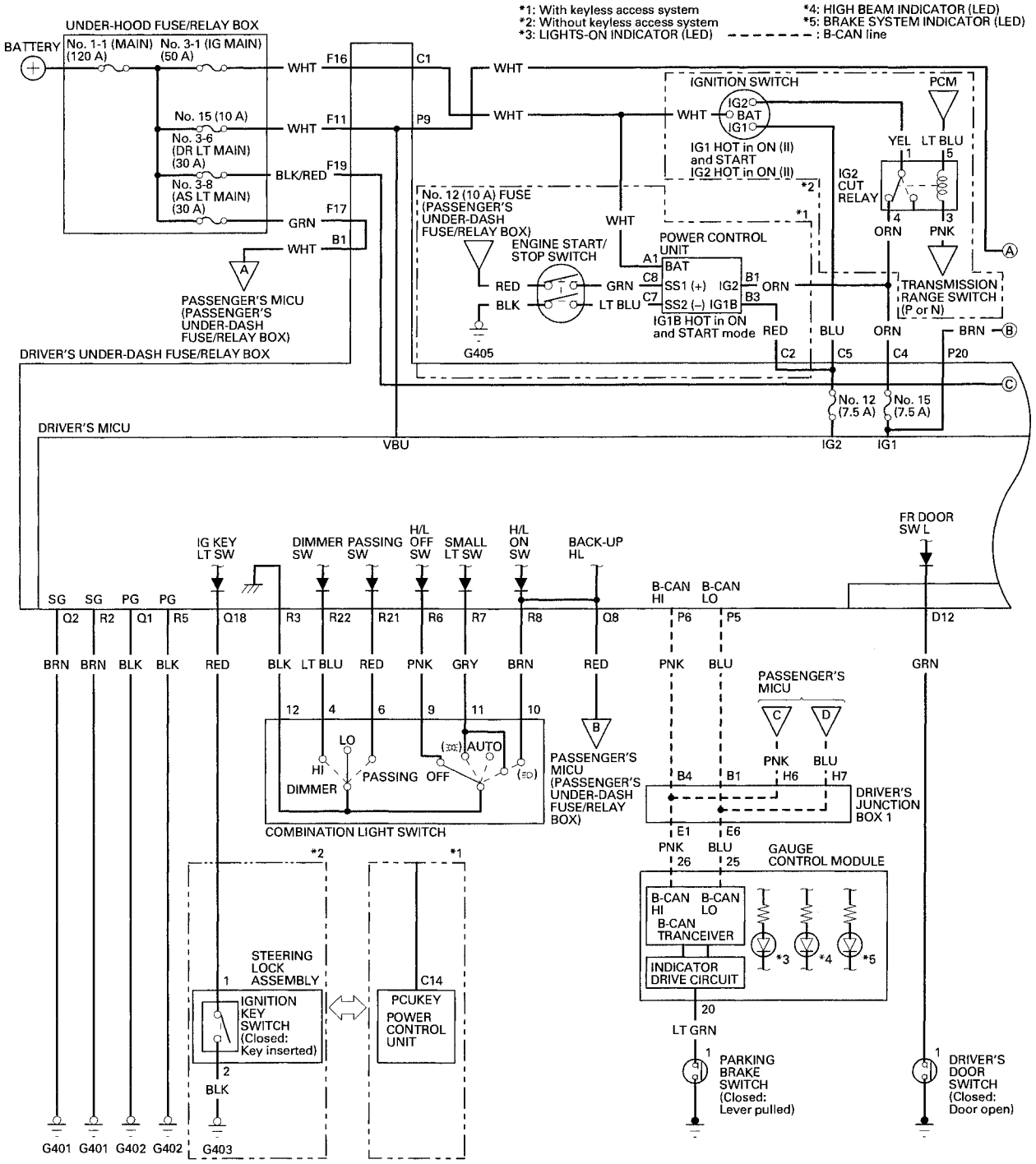
Circuit Diagram - Headlights/Parking/Side Marker Lights/Taillights/License Plate Lights



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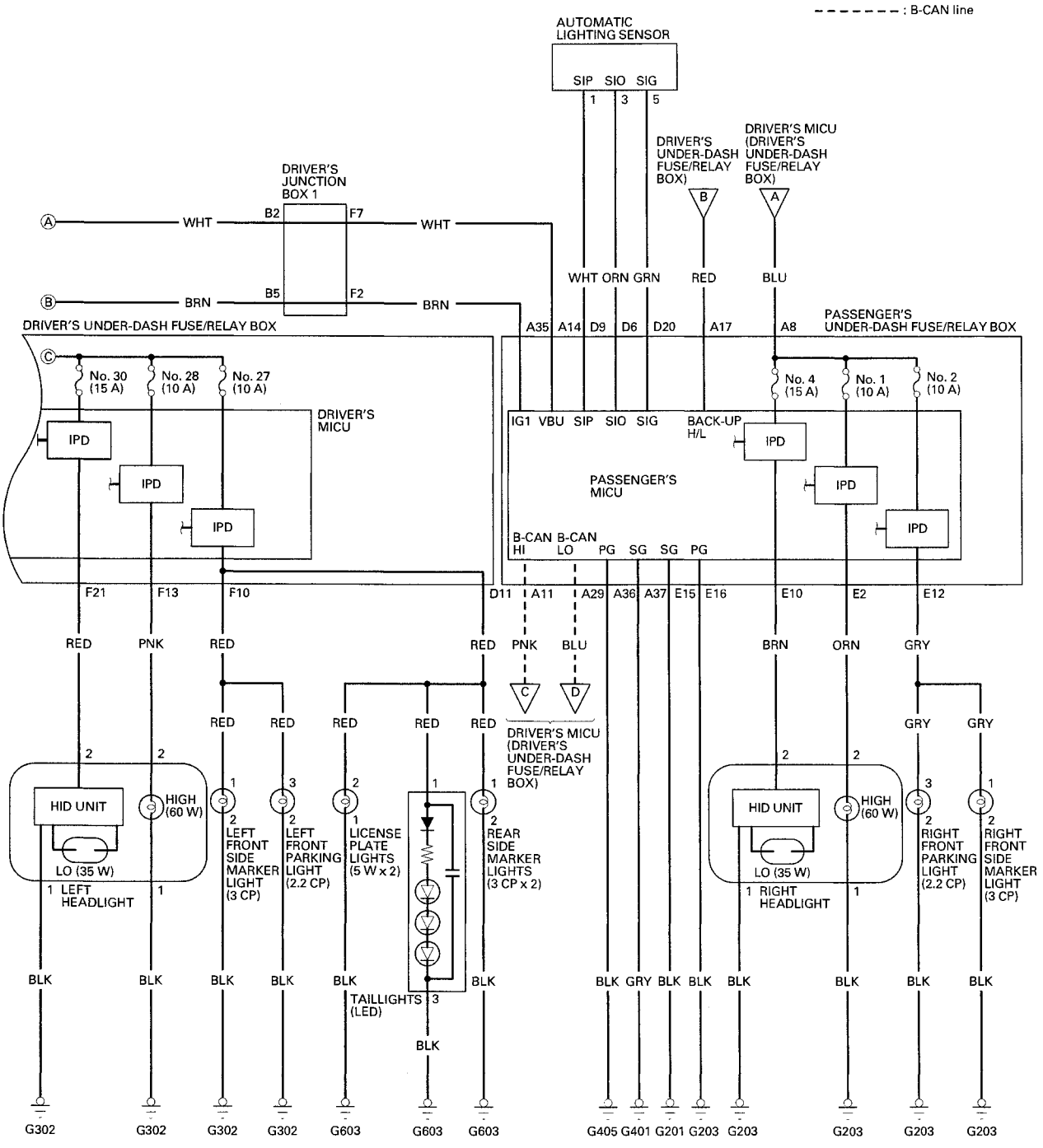
Circuit Diagram - Headlights/Parking/Side Marker Lights/Taillights/License Plate Lights (cont'd)



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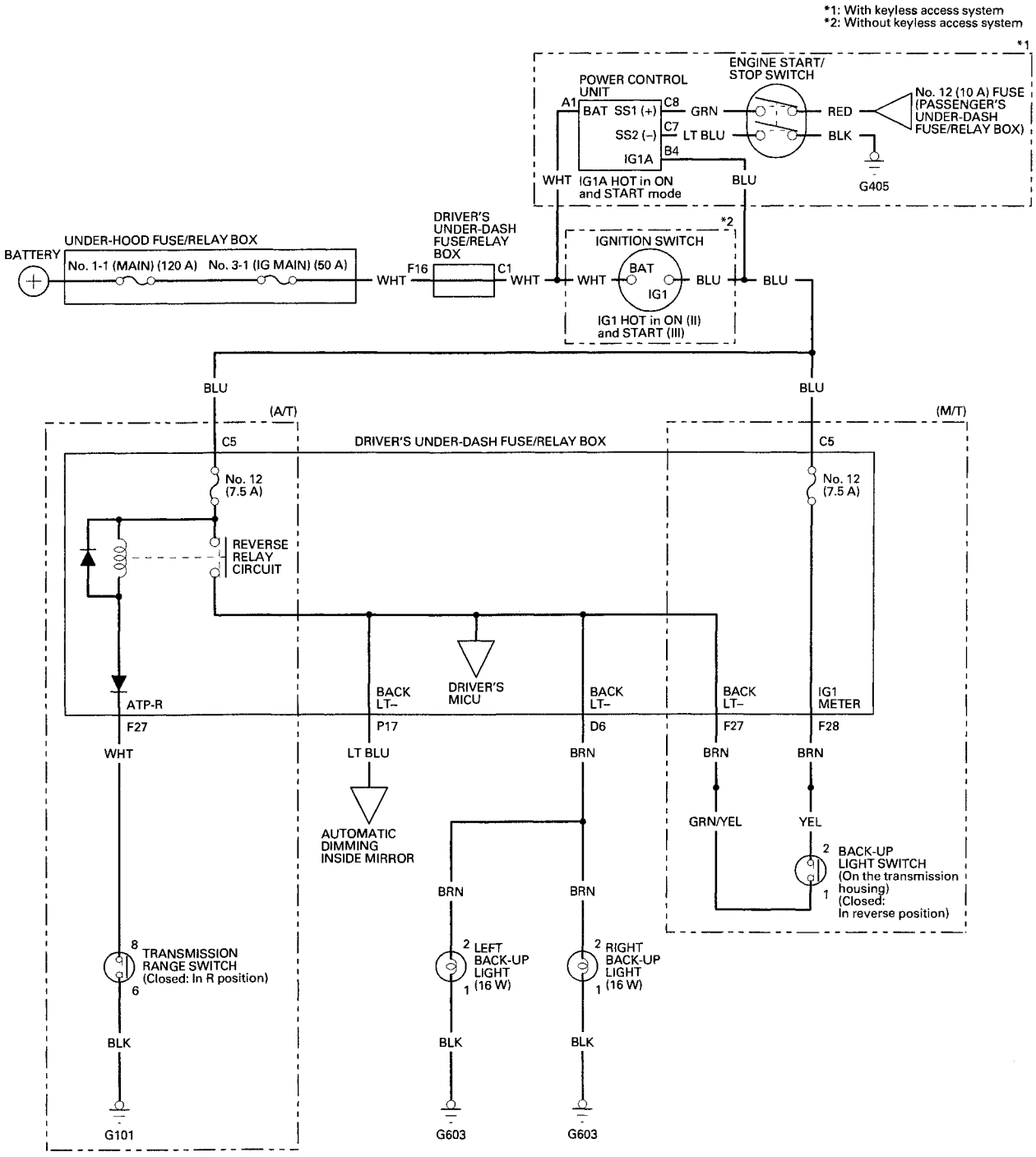
Circuit Diagram - Back-up Lights



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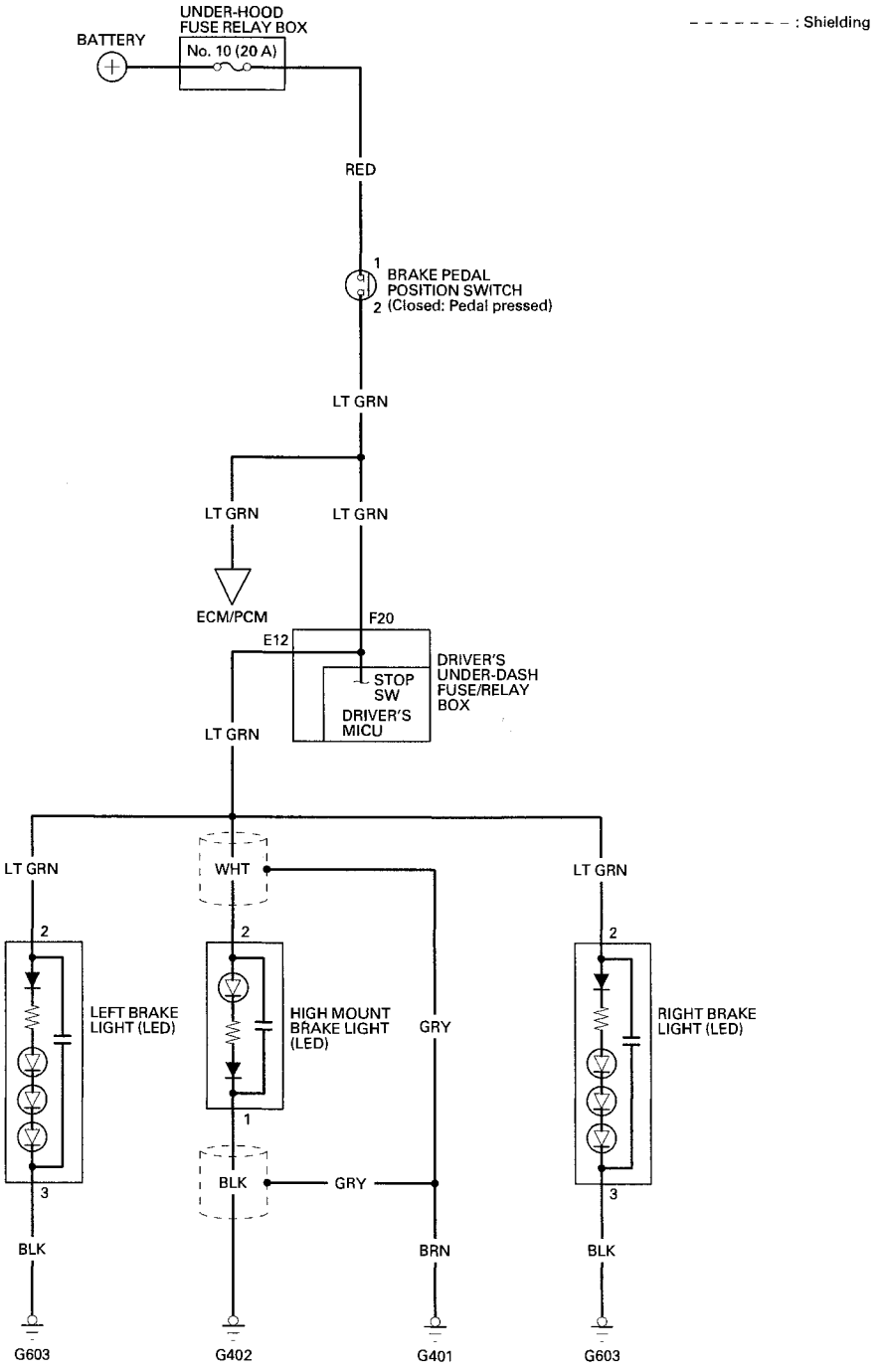
Circuit Diagram - Brake Lights



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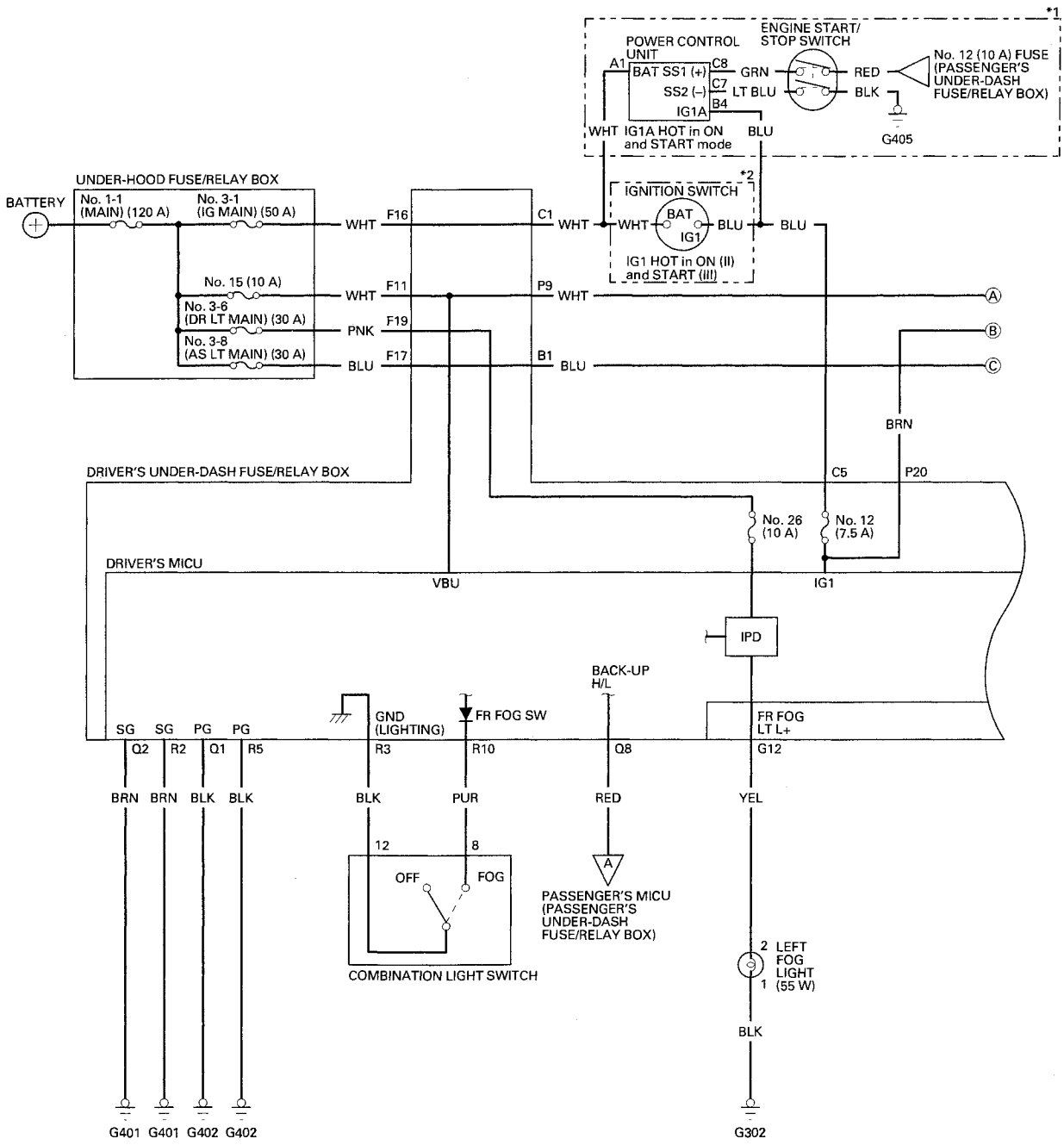
Circuit Diagram - Fog Lights

*1: With keyless access system
*2: Without keyless access system



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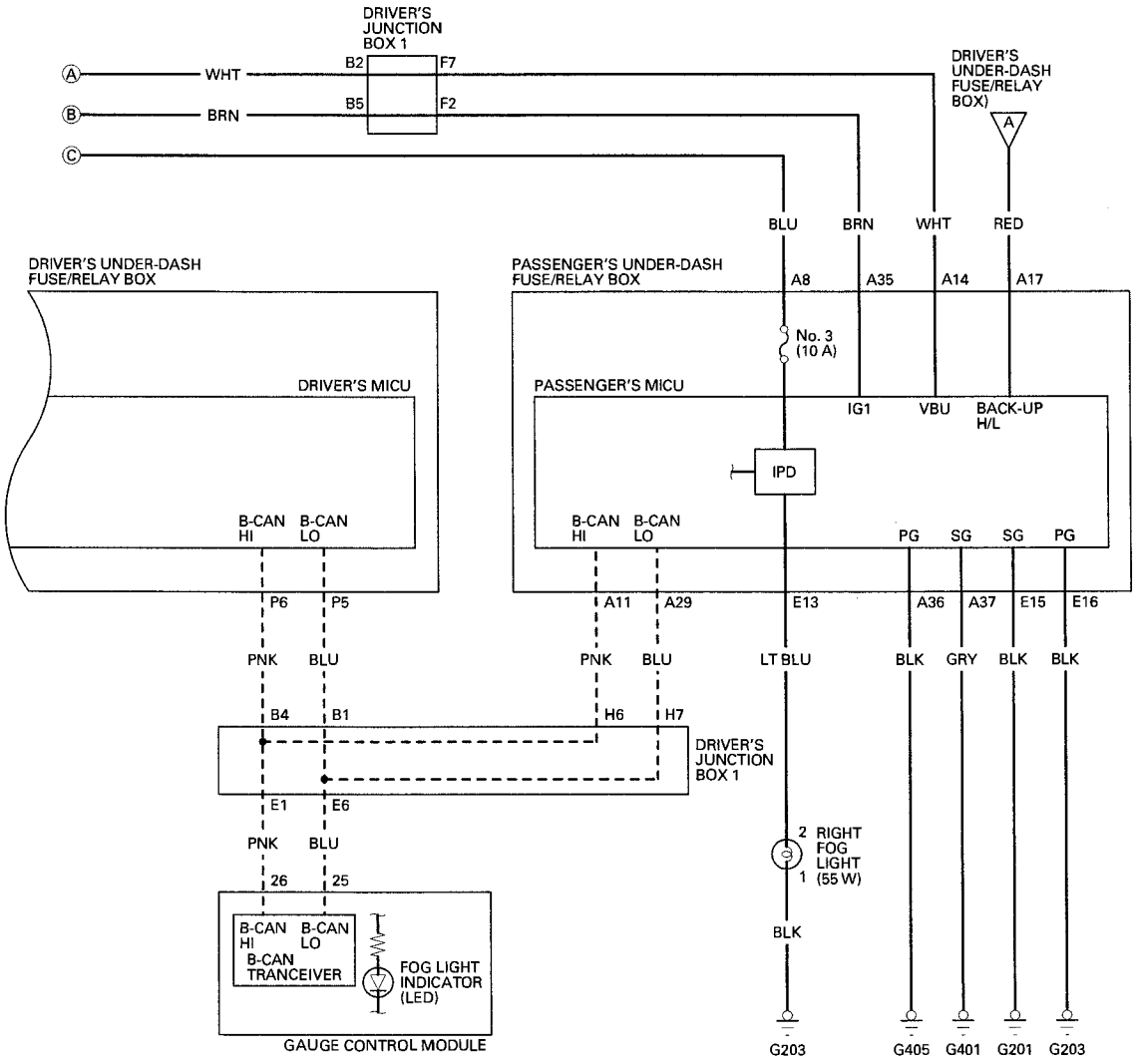
Circuit Diagram - Fog Lights (cont'd)

- - - - - - - : B-CAN line



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DTC Troubleshooting

DTC B10CF: Left Daytime Running Lights Circuit Malfunction

NOTE:

- If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).
- Make sure the No. 15 (10 A) fuse in the driver's under-dash fuse/relay box is OK.

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
3. Release the parking brake lever.
4. Turn the headlight switch OFF.
5. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.

   Is DTC B10CF indicated?

   YES–Go to step 6.

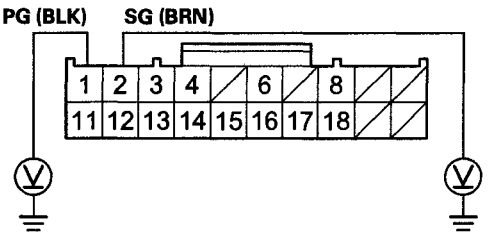
   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
6. Turn the headlight high beam ON.

   Does the left headlight (high beam) come on?

   YES–Go to step 7.

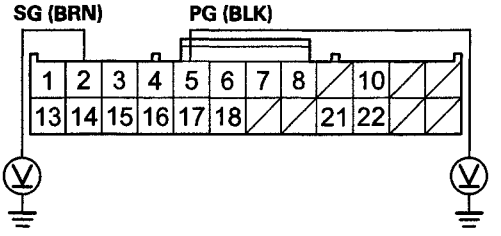
   NO–Go to step 9.
7. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
8. Measure the voltage between body ground and driver's under-dash fuse/relay box connector Q (20P) terminals No.1 and No. 2, and between body ground and connector R (24P) terminals No. 2 and No. 5 individually.

DRIVER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR Q (20P)



Wire side of female terminals

DRIVER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR R (24P)



Wire side of female terminals

Is there less than 0.2 V?

YES–Faulty driver's MICU; replace the driver's under-dash fuse/relay box (see page 22-81).■

NO–Repair an open or high resistance in the wire or poor ground (G401, G402).■

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DTC Troubleshooting (cont'd)

9. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
10. Turn the headlight switch OFF.
11. Check the No. 28 (10 A) fuse in the driver's under-dash fuse/relay box.

    Is the fuse OK?

    YES–Go to step 12.

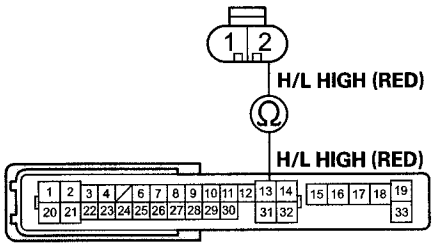
    NO–Replace the fuse, and recheck. If the fuse is blown again, repair a short in the wire.■
12. Check the left headlight bulb.

    Is the bulb OK?

    YES–Go to step 13.

    NO–Replace the bulb and recheck.■
13. Disconnect driver's under-dash fuse/relay box connector F (33P).
14. Disconnect the left headlight (high beam) 2P connector.
15. Check for continuity between driver's under-dash fuse/relay box connector F (33P) terminal No. 13 and left headlight (high beam) 2P connector terminal No. 2.

LEFT HEADLIGHT (HIGH BEAM) 2P CONNECTOR
Wire side of female terminals



DRIVER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR F (33P)
Wire side of female terminals

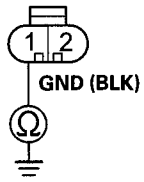
Is there continuity?

YES–Go to step 16.

NO–Repair an open in the wire.■

16. Check for continuity between left headlight (high beam) 2P connector terminal No. 1 and body ground.

RIGHT HEADLIGHT (HIGH BEAM) 2P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Faulty driver's MICU; replace the driver's under-dash fuse/relay box (see page 22-81).■

NO–Repair an open in the wire or poor ground (G302).■

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DTC B11CF: Right Daytime Running Lights Circuit Malfunction

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
3. Release the parking brake lever.
4. Turn the headlight switch OFF.
5. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.

   Is DTC B11CF indicated?

   YES–Go to step 6.

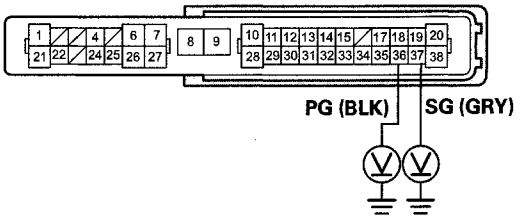
   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
6. Turn the headlight high beam ON.

   Does the right headlight (high beam) come on?

   YES–Go to step 7.

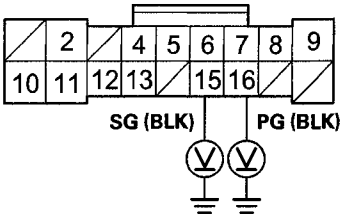
   NO–Go to step 9.
7. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
8. Measure the voltage between body ground and passenger's under-dash fuse/relay box connector A (38P) terminals No. 36 and No. 37, and between body ground and connector E (18P) terminals No. 15 and No. 16 individually.

PASSENGER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR A (38P)



Wire side of female terminals

PASSENGER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR E (18P)



Wire side of female terminals

Is there less than 0.2 V?

YES–Faulty passenger's MICU; replace the passenger's under-dash fuse/relay box (see page 22-83).■

NO–Repair an open or high resistance in the wire or poor ground (G201, G203, G401, G405).■

(cont'd)

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DTC Troubleshooting (cont'd)

9. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
10. Turn the headlight switch OFF.
11. Check the No. 1 (10 A) fuse in the passenger's under-dash fuse/relay box.

    Is the fuse OK?

    YES–Go to step 12.

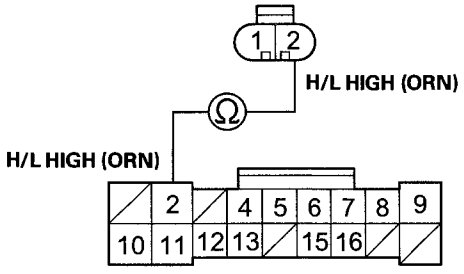
    NO–Replace the fuse, and recheck. If the fuse is blown again, repair short in the wire.■
12. Check the right headlight bulb.

    Is the bulb OK?

    YES–Go to step 13.

    NO–Replace the bulb and recheck.■
13. Disconnect passenger's under-dash fuse/relay box connector E (18P).
14. Disconnect the right headlight (high beam) 2P connector.
15. Check for continuity between passenger's under-dash fuse/relay box connector E (18P) terminal No. 2 and right headlight (high beam) 2P connector terminal No. 2.

RIGHT HEADLIGHT (HIGH BEAM) 2P CONNECTOR
Wire side of female terminals



PASSENGER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR E (18P)
Wire side of female terminals

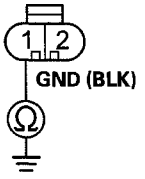
Is there continuity?

YES–Go to step 16.

NO–Repair an open in the wire.■

16. Check for continuity between right headlight (high beam) 2P connector terminal No. 1 and body ground.

RIGHT HEADLIGHT (HIGH BEAM) 2P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Faulty passenger's MICU; replace the passenger's under-dash fuse/relay box (see page 22-83).■

NO–Repair an open in the wire or poor ground (G203).■

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DTC B1275: Headlight OFF Position Circuit Malfunction

DTC B1276: Combination Light Switch Parking (PARKING LIGHT) Position Circuit Malfunction

DTC B1277: Headlight AUTO Position Circuit Malfunction

DTC B1278: Headlight ON Position Circuit Malfunction

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then ON mode.
3. Turn the combination light switch to the PARKING (SMALL), AUTO, and ON (low beam) positions for 6 seconds in each position, and then to the OFF position.
4. Check for DTCs with the HDS.

   Are DTCs B1275, B1276, B1277, and/or B1278 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Select LIGHTING from the BODY ELECTRICAL system select menu, and enter DATA LIST.
6. Check each combination light switch position value with the DATA LIST menu.

When the combination light switch is turned OFF

Data List	Value
Headlight Switch (OFF)	ON
Headlight Switch (PARKING)	OFF
Headlight Switch (AUTO)	OFF
Headlight Switch (HEADLIGHT)	OFF

When the combination light switch is turned to PARKING LIGHT

Data List	Value
Headlight Switch (OFF)	OFF
Headlight Switch (PARKING)	ON
Headlight Switch (AUTO)	OFF
Headlight Switch (HEADLIGHT)	OFF

When the combination light switch is turned to AUTO

Data List	Value
Headlight Switch (OFF)	OFF
Headlight Switch (PARKING)	OFF
Headlight Switch (AUTO)	ON
Headlight Switch (HEADLIGHT)	OFF

When the combination light switch is turned ON (HEADLIGHT)

Data List	Value
Headlight Switch (OFF)	OFF
Headlight Switch (PARKING)	ON
Headlight Switch (AUTO)	OFF
Headlight Switch (HEADLIGHT)	ON

Are all data list values correct?

YES–Faulty driver's MICU; replace the driver's under-dash fuse/relay box (see page 22-81).■

NO–Go to step 7.

(cont'd)

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DTC Troubleshooting (cont'd)

7. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
8. Disconnect the combination light switch 12P connector.
9. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
10. Select LIGHTING from the BODY ELECTRICAL system select menu, and enter DATA LIST.
11. Check each combination light switch position value with the DATA LIST menu.

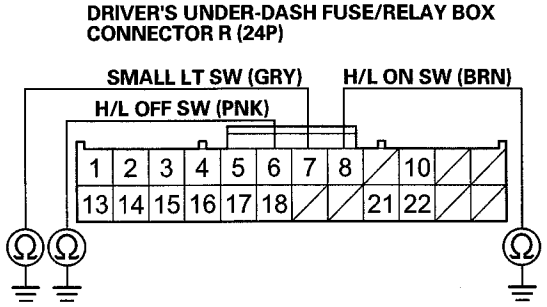
Data List	Value
Headlight Switch (OFF)	OFF
Headlight Switch (PARKING)	OFF
Headlight Switch (AUTO)	OFF
Headlight Switch (HEADLIGHT)	OFF

Are all data list values indicated OFF?

YES–Go to step 15.

NO–Go to step 12.

12. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
13. Disconnect driver's under-dash fuse/relay box connector R (24P).
14. Check for continuity between body ground and driver's under-dash fuse/relay box connector R (24P) terminals No. 6, No. 7, and No. 8 individually.



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Faulty driver's MICU; replace the driver's under-dash fuse/relay box (see page 22-81).■

15. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
16. Do the combination light switch test (see page 22-232).

Is the combination light switch OK?

YES–Go to step 17.

NO–Replace the combination light switch.■

17. Disconnect driver's under-dash fuse/relay box connector R (24P).

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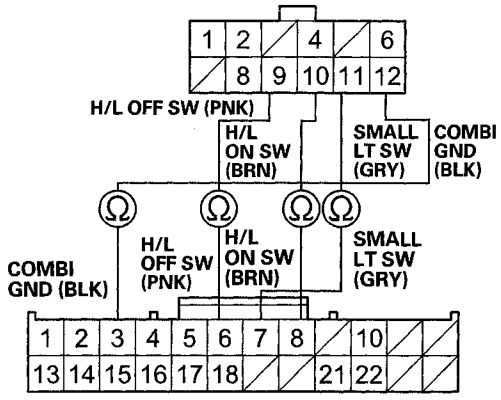
18. Check for continuity between driver's under-dash fuse/relay box connector R (24P) terminals and the combination light switch 12P connector terminals as shown:

Driver's under-dash fuse/relay box connector R (24P)	Combination light switch 12P connector
6	9
8	10
7	11
3	12

COMBINATION LIGHT SWITCH 12P CONNECTOR
Wire side of female terminals



DRIVER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR R (24P)
Wire side of female terminals

Is there continuity?

YES–Go to step 19.

NO–Repair open in the wire.■

19. Check for continuity between driver's under-dash fuse/relay box connector R (24P) terminals as shown:

From terminal	To terminal
6 (PNK)	7 (GRY) 8 (BRN) 21 (RED) 22 (LT BLU)
7 (GRY)	8 (BRN) 21 (RED) 22 (LT BLU)

Is there continuity?

YES–Repair a short between the wires.■

NO–Faulty driver's MICU; replace the driver's under-dash fuse/relay box (see page 22-81).■

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DTC Troubleshooting (cont'd)

DTC B1279: Dimmer Switch Circuit Malfunction

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Turn the combination light (headlight) switch ON.
4. Change the dimmer switch from low beam to high beam.
5. Turn the combination light switch OFF, and then to the passing position, and wait for at least 6 seconds.
6. Check for DTCs with the HDS.

   Is DTC B1279 indicated?

   YES–Go to step 7.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
7. Select LIGHTING from the BODY ELECTRICAL system select menu, then enter DATA LIST.
8. Check each combination light switch position value with the DATA LIST menu.

   When the passing switch is operated

Data List	Value
Headlight Switch (PASSING)	ON
Headlight Switch (High beam)	OFF

   When the headlight switch is turned ON, and the dimmer switch changed from low beam to high beam

Data List	Value
Headlight Switch (PASSING)	OFF
Headlight Switch (High beam)	ON
Headlight Switch (HEADLIGHT)	ON

   Are all data list values correct?

   YES–Faulty driver's MICU; replace the driver's under-dash fuse/relay box (see page 22-81).■

   NO–Go to step 9.
9. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
10. Disconnect the combination light switch 12P connector.

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11. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
12. Select LIGHTING from the BODY ELECTRICAL system select menu, then enter DATA LIST.
13. Check each combination light switch position value with the DATA LIST menu.

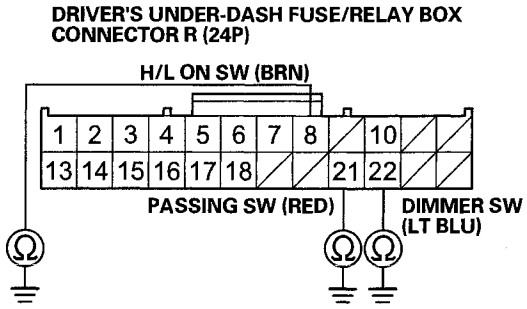
Data List	Value
Headlight Switch (PASSING)	OFF
Headlight Switch (High beam)	OFF
Headlight Switch (HEADLIGHT)	OFF

Are all data list values indicated OFF?

YES–Go to step 17.

NO–Go to step 14.

14. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
15. Disconnect under-dash fuse/relay box connector R (24P).
16. Check for continuity between body ground and driver's under-dash fuse/relay box connector R (24P) terminals No. 8, No. 21, and No. 22 individually.



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Faulty driver's MICU; replace the driver's under-dash fuse/relay box (see page 22-81).■

(cont'd)

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DTC Troubleshooting (cont'd)

17. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
18. Do the combination light switch test (see page 22-232).

    Is the combination light switch OK?

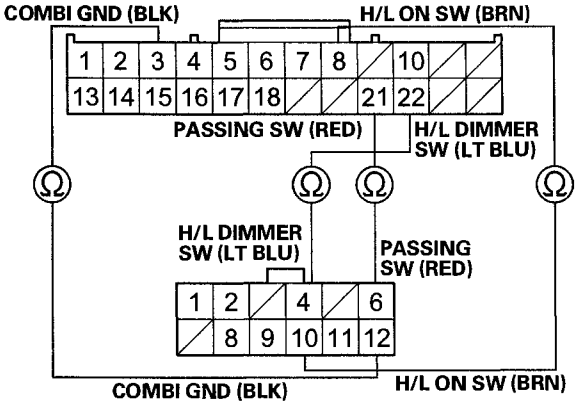
    YES–Go to step 19.

    NO–Replace the combination light switch.■
19. Disconnect driver's under-dash fuse/relay box connector R (24P).
20. Check for continuity between driver's under-dash fuse/relay box connector R (24P) terminals and the combination light switch 12P connector terminals as shown:

Driver's under-dash fuse/relay box connector R (24P)	Combination light switch 12P connector
3	12
8	10
21	6
22	4

DRIVER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR R (24P)

Wire side of female terminals



COMBINATION LIGHT SWITCH 12P CONNECTOR

Wire side of female terminals

Is there continuity?

YES–Go to step 21.

NO–Repair an open in the wire.■

21. Check for continuity between driver's under-dash fuse/relay box connector R (24P) terminals as shown:

From terminal	To terminal
21 (RED)	6 (PNK) 7 (GRY) 8 (BRN) 22 (LT BLU)
22 (LT BLU)	6 (PNK) 7 (GRY) 8 (BRN)

Is there continuity?

YES–Repair a short between the wires.■

NO–Faulty driver's MICU; replace the driver's under-dash fuse/relay box (see page 22-81).■

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DTC B1575: Auto Lighting Sensor Malfunction

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

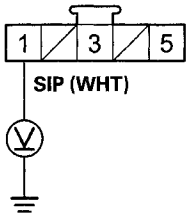
1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for one second.
4. Check for DTCs with the HDS.

   Is DTC B1575 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
6. Disconnect the automatic lighting sensor 5P connector.
7. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
8. Measure the voltage between body ground and automatic lighting sensor 5P connector terminal No. 1.

AUTOMATIC LIGHTING SENSOR 5P CONNECTOR



Wire side of female terminals

Is there about 5 V?

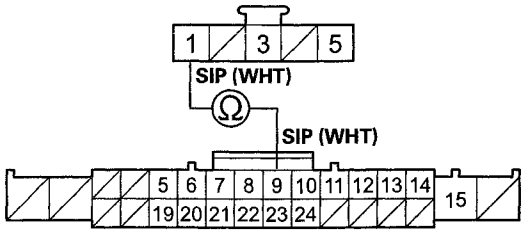
YES–Replace the automatic lighting sensor (see page 22-241).■

NO–Go to step 9.

9. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
10. Disconnect passenger's under-dash fuse/relay box connector D (28P).
11. Check for continuity between passenger's under-dash fuse/relay box connector D (28P) terminal No. 9 and automatic lighting sensor 5P connector terminal No. 1.

AUTOMATIC LIGHTING SENSOR 5P CONNECTOR

Wire side of female terminals



PASSENGER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR D (28P)

Wire side of female terminals

Is there continuity?

YES–Faulty passenger's MICU. Substitute a known-good passenger's under-dash fuse/relay box and recheck.■

NO–Repair an open in the wire.■

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HID Lamp System Troubleshooting

⚠WARNING

A transient high tension (25,000 V) occurs at the bulb sockets of the high intensity discharge (HID) lamps when the combination light switch is turned ON, that may cause serious electrical shock or electrocution if you do not observe the cautions.

⚠CAUTION

- Never turn on the combination light switch before fitting the HID bulbs to their bulb sockets and completing the reassembly of the headlight assembly.
- Do not service the headlights assembly in wet conditions, such as rain or snow, near a sprinkler system, or when your hands are wet to prevent electrocution.
- Do not touch the surface of the HID bulbs with your bare hands and do not stain then with any oils and fats.
- Do not disassemble the inverter unit and the igniter unit.
- Do not turn on the HID bulb by using a power source other than the battery mounted on the vehicle.

Special Tools Required

HID Bulb Test Light 07AAJ-S3MA100

NOTE: Before troubleshooting the HID Lamp System, perform the multiplex integrated control system troubleshooting using B-CAN System Diagnosis Test Mode A (see page 22-135).

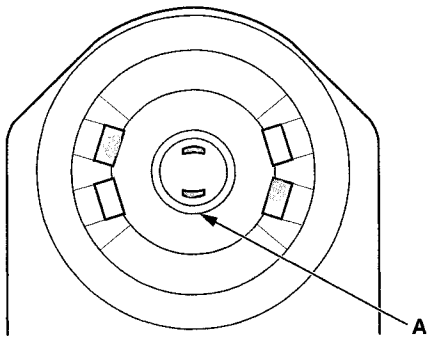
1. Check the No. 30 (15 A) fuse in the driver's under-dash fuse/relay box and No. 4 (15 A) fuses in the passenger's under-dash fuse/relay box.

   Are the fuses OK?

   YES–Go to step 2.

   NO–Replace the fuse(s), and recheck.■

2. Turn the combination light switch to OFF.
3. Do the battery terminal disconnection procedure (see page 22-86).
4. Remove the bulb socket from the HID bulb (see page 22-235).
5. Check for corrosion and traces of electrical arcing on the contacts of the socket (A).

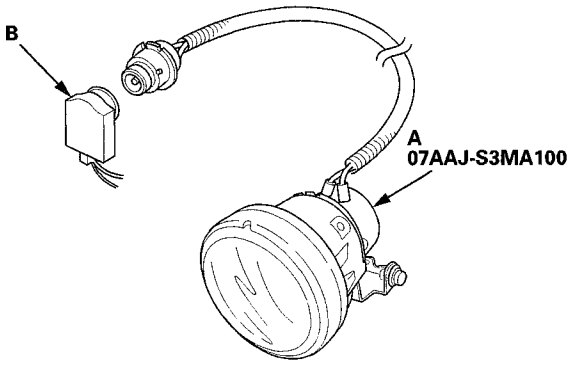


   Is the socket corroded or burnt?

   YES–Replace the socket, and recheck.■

   NO–Go to step 6.

6. Connect the HID bulb test light assembly (A) to the bulb socket (B).



7. Do the battery terminal reconnection procedure (see page 22-86).
8. Turn the combination light (headlight) switch to ON.

   Does the HID bulb test light come on?

   YES–Replace the original HID bulb (see page 22-235).■

   NO–Go to step 9.

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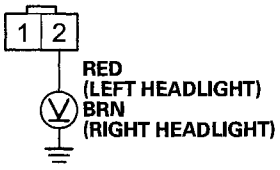
9. Measure the voltage between HID unit 2P connector terminal No. 2 and body ground.

HID UNIT 2P CONNECTOR



Wire side of female terminals

Is there battery voltage?

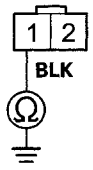
YES–Go to step 10.

NO–Repair an open in the RED or BRN wire.■

10. Turn the combination light (headlight) switch to OFF.
11. Do the battery terminal disconnection procedure (see page 22-86).
12. Remove the HID bulb test light assembly from the bulb socket.
13. Disconnect the HID unit 2P connector.
14. Do the battery terminal reconnection procedure (see page 22-86).

15. Check for continuity between HID unit 2P connector terminal No. 1 and body ground.

HID UNIT 2P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Replace the HID unit.■

NO–Repair an open in the wire between the HID unit and body ground. If the wire is OK, check for poor ground (G203, G302).■

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MICU Input Test

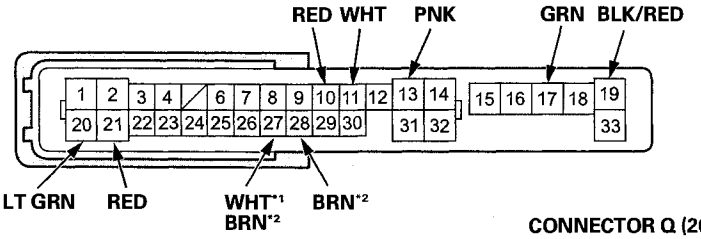
NOTE:
- Before testing, troubleshoot the multiplex integrated control system first, using B-CAN System Diagnosis Test Mode A (see page 22-135).
- Before testing, make sure the No. 12 (7.5 A), No. 15 (7.5 A), No. 26 (10 A), No. 27 (10 A), No. 28 (10 A), and No. 30 (15 A) fuse in the driver's under-dash fuse/relay box, and the No. 1 (10 A), No. 2 (10 A), No. 3 (10 A), and No. 4 (15 A) fuse in the passenger's under-dash fuse/relay box are OK.

Driver's MICU

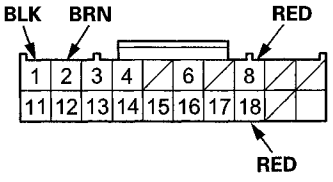
1. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
2. Remove the driver's dashboard undercover (see page 20-118).
3. Disconnect driver's under-dash fuse/relay box connectors B, D, E, F, G, Q, and R.

   NOTE: All connector views are wire side of female terminals.

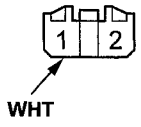
CONNECTOR F (33P)



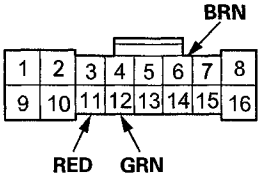
CONNECTOR Q (20P)



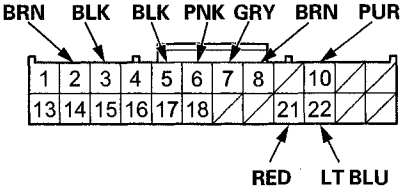
CONNECTOR B (2P)



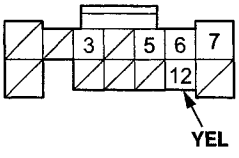
CONNECTOR D (16P)



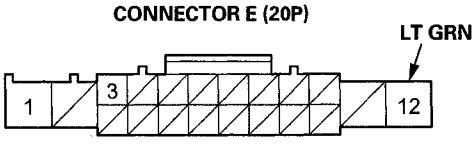
CONNECTOR R (24P)



CONNECTOR G (13P)



CONNECTOR E (20P)



*1: A/T
*2: M/T

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4. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary and recheck the system.
   - If the terminals look OK, go to step 5.
5. With the connectors still disconnected, do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 6.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
D6	BRN	Under all conditions	Connect terminals C5 and D6 with a jumper wire: The back-up lights should come on.	• Blown bulb • Poor ground (G603) or an open in the ground wire • An open or high resistance in the wire
D11	RED	Under all conditions	Connect terminals F19 and D11 with a jumper wire: The taillights, license plate lights and the rear side marker lights should come on.	• Blown bulb • Poor ground (G603) or an open in the ground wire • An open or high resistance in the wire
E12	LT GRN	Brake pedal pressed	Connect terminals F20 and E12 with a jumper wire: The brake lights should come on.	• Faulty LED • Poor ground (G402, G603) or an open in the ground wire • An open or high resistance in the wire
F20		Brake pedal released	Measure the voltage to ground: There should be no voltage.	• Faulty brake pedal position switch • A short to ground in the wire
F10	RED	Under all conditions	Connect terminals F19 and F10 with a jumper wire: The left front parking light and the left front side marker light should come on.	• Blown left front parking and side marker bulb • Poor ground (G302) or an open in the ground wire • An open or high resistance in the wire
F13	PNK	Under all conditions	Connect terminals F19 and F13 with a jumper wire: The left headlight (high beam) should come on.	• Blown left high beam bulb • Poor ground (G302) or an open in the ground wire • An open or high resistance in the wire
F21	RED	Under all conditions	Connect terminals F19 and F21 with a jumper wire: The left headlight (low beam) should come on.	• Blown left low beam (HID) bulb • Faulty HID unit • Poor ground (G302) or an open in the ground wire • An open or high resistance in the wire
G12	YEL	Under all conditions	Connect terminals F19 and G12 with a jumper wire: The left fog light should come on.	• Blown left fog bulb • Poor ground (G302) or an open in the ground wire • An open or high resistance in the wire

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(cont'd)

MICU Input Test (cont'd)

6. Reconnect the connectors to the driver's under-dash fuse/relay box, and do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 7.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
B1	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 3-8 (AS LT MAIN) (30 A) fuse in the under-hood fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
Q1	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
Q2	BRN	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
R2	BRN	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
R5	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
D12	GRN	Driver's door open	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty driver's door switch • Faulty driver's door switch ground • An open or high resistance in the wire
		Driver's door closed	Measure the voltage to ground: There should be about 5 V.	• Faulty driver's door switch • A short to ground in the wire
F11	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
F17	GRN	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 3-8 (AS LT MAIN) (30 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
F19	BLK/ RED	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 3-6 (DR LT MAIN) (30 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
F27 (A/T)	WHT	Ignition switch ON (II), or power mode ON. Transmission range switch in any other position than R.	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G101) or an open in the ground wire • Faulty transmission range switch • An open or high resistance in the wire
		Ignition switch ON (II), or power mode ON. Lever in R position.	Measure the voltage to ground: There should be battery voltage.	• Blown No. 12 (7.5 A) fuse in the driver's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box

*1: Without keyless access system
*2: With keyless access system

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Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
F27 (M/T)	BRN	Power mode ON	Connect terminals F28 and F27 with a jumper wire: The back-up lights should come on.	• Blown No. 12 (7.5 A) fuse in the driver's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire • Blown bulb(s) • A short to ground in the wire • Poor ground (G603) or an open in the ground wire
Q18*1	RED	Ignition key inserted into the ignition switch	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty ignition key switch • An open or high resistance in the wire • Poor ground (G403) or an open in the ground wire
		Ignition key removed from the ignition switch	Measure the voltage to ground: There should be about 5 V.	• Faulty ignition key switch • A short to ground in the wire
Q18*2	RED	Keyless access remote inserted into the remote slot	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty power control unit • An open or high resistance in the wire
		Keyless access remote removed from the remote slot	Measure the voltage to ground: There should be about 5 V.	• Faulty power control unit • An open or high resistance in the wire
R6 · R3	PNK · BLK	Combination light switch OFF	Measure the voltage between terminals R6 and R3: There should be less than 0.2 V.	• Faulty combination light switch • An open or high resistance in the wire
		Combination light switch in any other position than OFF	Measure the voltage between terminals R6 and R3: There should be about 5 V.	• Faulty combination light switch • A short to ground in the wire
R7 · R3	GRY · BLK	Combination light switch (PARKING LIGHT position) ON	Measure the voltage between terminals R7 and R3: There should be less than 0.2 V.	• Faulty combination light switch • An open or high resistance in the wire
		Combination light switch OFF	Measure the voltage between terminals R7 and R3: There should be about 5 V.	• Faulty combination light switch • A short to ground in the wire
R8 · R3	BRN · BLK	Combination light switch (headlight) ON	Measure the voltage between terminals R8 and R3: There should be less than 0.2 V.	• Faulty combination light switch • An open or high resistance in the wire
		Combination light switch OFF	Measure the voltage between terminals R8 and R3: There should be about 5 V.	• Faulty combination light switch • A short to ground in the wire

*1: Without keyless access system
*2: With keyless access system

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MICU Input Test (cont'd)

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
R21 · R3	RED · BLK	Combination light switch lever pulled (Passing)	Measure the voltage between terminals R21 and R3: There should be less than 0.2 V.	• Faulty combination light switch • An open or high resistance in the wire
		Combination light switch lever released (OFF)	Measure the voltage between terminals R21 and R3: There should be about 5 V.	• Faulty combination light switch • A short to ground in the wire
R22 · R3	LT BLU · BLK	Combination light switch (Dimmer) in high beam position	Measure the voltage between terminals R22 and R3: There should be less than 0.2 V.	• Faulty combination light switch • An open or high resistance in the wire
		Combination light switch (Dimmer) in low beam position	Measure the voltage between terminals R22 and R3: There should be about 5 V.	• Faulty combination light switch • A short to ground in the wire
R10 · R3	PUR · BLK	Fog light switch ON	Measure the voltage between terminals R10 and R3: There should be less than 0.2 V.	• Faulty combination light switch • An open or high resistance in the wire
		Fog light switch OFF	Measure the voltage between terminals R10 and R3: There should be about 5 V.	• Faulty combination light switch • A short to ground in the wire

*1: Without keyless access system
*2: With keyless access system

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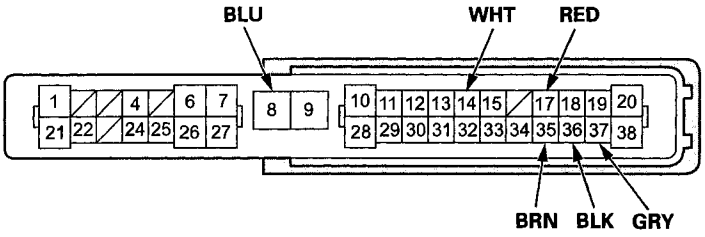
Passenger's MICU

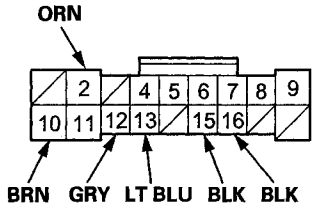
7. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode, and remove the passenger's side kick panel (see page 20-81).
8. Disconnect passenger's under-dash fuse/relay box connectors A and E.

   NOTE: All connector views are wire side of female terminals.

CONNECTOR A (38P)



CONNECTOR E (18P)



9. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary and recheck the system.
   - If the terminals look OK, go to step 10.

(cont'd)

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MICU Input Test (cont'd)

10. With the connectors still disconnected, do the following input tests:
    - If any test indicates a problem, find and correct the cause, then recheck the system.
    - If all the input tests prove OK, go to step 11.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
A8	BLU	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 3-8 (AS LT MAIN) (30 A) fuse in the under-hood fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
A17	RED	Under all conditions	Check for continuity between passenger's under-dash fuse/relay box connector A (38P) terminal No. 17 and driver's under-dash fuse/relay box connector Q (20P) terminal No. 8: There should be continuity.	An open or high resistance in the wire
E2	ORN	Under all conditions	Connect terminals A8 and E2 with a jumper wire: The right headlight (high beam) should come on.	• Blown right high beam bulb • Poor ground (G203) or an open in the ground wire • An open or high resistance in the wire
E10	BRN	Under all conditions	Connect terminals A8 and E10 with a jumper wire: The right headlight (low beam) should come on.	• Blown right low beam (HID) bulb • Faulty HID unit • Poor ground (G203) or an open in the ground wire • An open or high resistance in the wire
E12	GRY	Under all conditions	Connect terminals A8 and E12 with a jumper wire: The right front parking light and the right front side marker light should come on.	• Blown right front parking or side marker bulb • Poor ground (G203) or an open in the ground wire • An open or high resistance in the wire
E13	LT BLU	Under all conditions	Connect terminals A8 and E13 with a jumper wire: The right fog light should come on.	• Blown right fog bulb • Poor ground (G201) or an open in the ground wire • An open or high resistance in the wire

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11. Reconnect the connectors to the passenger's under-dash fuse/relay box, turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode, and do the following input tests:
    - If any test indicates a problem, find and correct the cause, then recheck the system.
    - If all the input tests prove OK, go to step 12.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
A14	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
A35	BRN	Ignition switch ON (II), or power mode ON	Measure the voltage to ground: There should be battery voltage.	• Blown No. 12 (7.5 A) fuse in the driver's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
A36	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G405) or an open in the ground wire • An open or high resistance in the wire
A37	GRY	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
E15	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G201) or an open in the ground wire • An open or high resistance in the wire
E16	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G203) or an open in the ground wire • An open or high resistance in the wire

12. If multiple failures are found on more than one control unit, replace the driver's under-dash fuse/relay box (includes the driver's MICU) (see page 22-81). If input failures are related to a particular control unit, replace the control unit.

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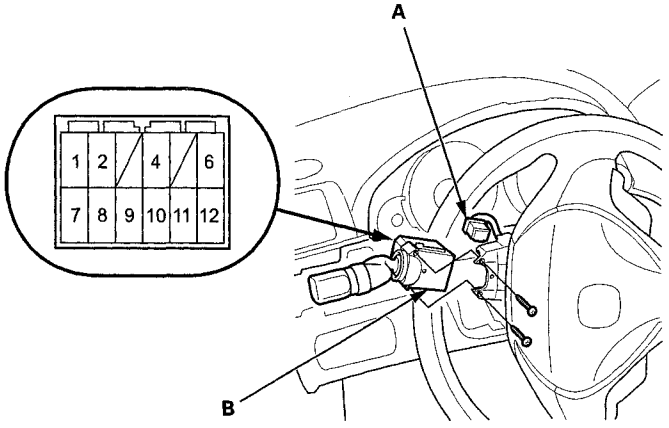
Combination Light Switch Test/Replacement

1. Remove the driver's dashboard undercover (see page 20-118).
2. Remove the steering column covers (see page 20-126).
3. Disconnect the dashboard wire harness 12P connector (A) from the combination light switch (B).



4. Remove the two screws, then slide out the combination light switch.
5. Inspect the connector terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
   - If the terminals look OK, check for continuity between the terminals in each switch position according to the tables.

Light switch

Position		Terminal 4	6	9	10	11	12
Headlight switch	OFF			○			○
	≡D					○	○
	≡D LOW				○	○	○
	≡D HIGH	○			○	○	○
Passing switch	OFF						
	ON		○				○

Turn signal switch

Position	Terminal 1	2	12
LEFT		○	○
Neutral			
RIGHT	○		○

Fog light switch

Position	Terminal 8	9	12
ON	○		○
OFF		○	○

6. If all the continuity is not as specified, remove the two screws and replace the switch.
7. Install the parts in the reverse order of removal.

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Headlight Adjustment

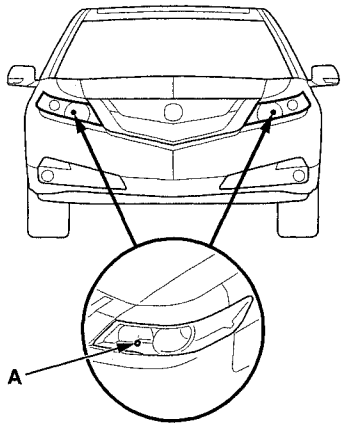
⚠CAUTION

Headlights become very hot during use; do not touch them or any attaching hardware immediately after they have been turned off.

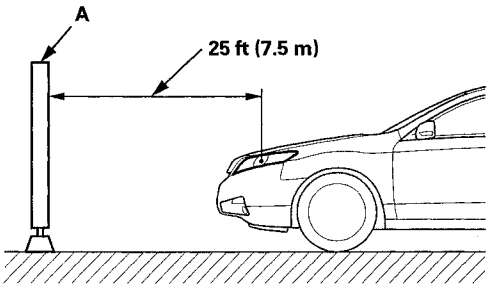
Before adjusting the headlights:

- Park the vehicle on a level surface.
- Make sure the tire pressures are correct.
- The driver or someone who weighs the same should sit in the driver's seat.

1. Clean the outer lens so that you can see the center (A) of the headlights.



2. Park the vehicle in front of a wall or a screen (A).

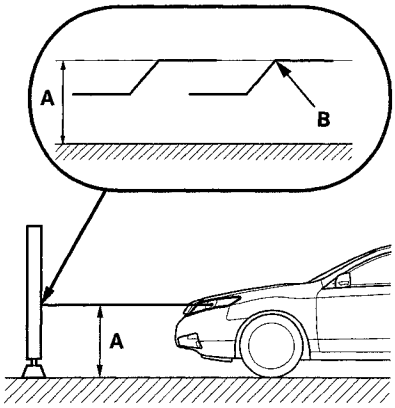


3. Turn the low beams on.

4. Determine if the headlights are aimed properly.

   Vertical adjustment:

   - Measure the height of the headlights (A).
   - Adjust the upper edge of cut line (B) to the headlights' height.



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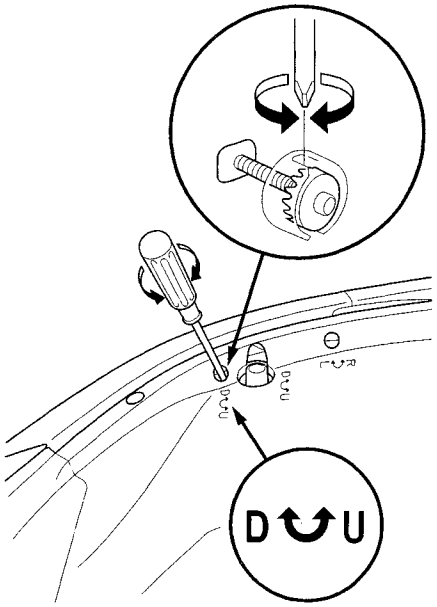
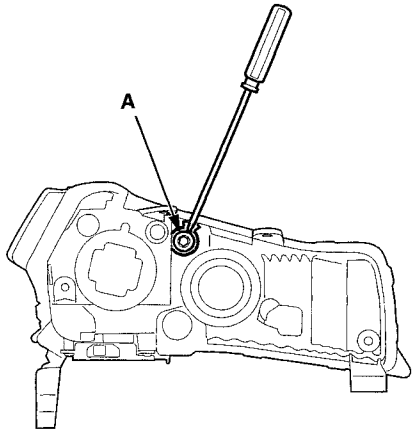
Headlight Adjustment (cont'd)

5. If necessary, open the hood and adjust the headlights by turning the vertical adjuster (A).

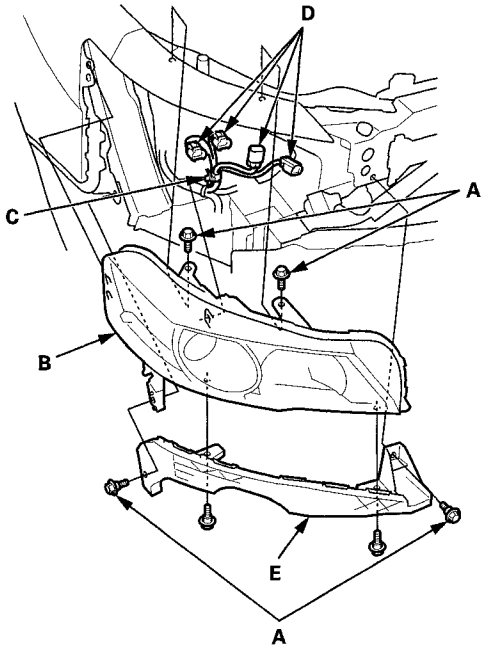
   NOTE: The R and L adjusters are not applicable for USA models.





Headlight Replacement

1. Turn the combination light switch OFF.
2. Remove the these items:
   - Front bumper (see page 20-164)
   - Bulkhead cover (see page 20-186)
3. Remove the three bolts (A), and pull the headlight (B) out slightly.



The illustration shows the right side.

4. Remove the harness clip (C) from the headlight housing, and disconnect the connectors (D) from the bulb sockets.
5. Remove the headlight with the corner upper beam (E).

   NOTE: Be careful not to scratch the headlight lens and the fender.

6. Remove the bolt and the corner upper beam from the headlight.
7. Install the headlight in the reverse order of removal.
8. After replacement, adjust the headlight (see page 22-233).

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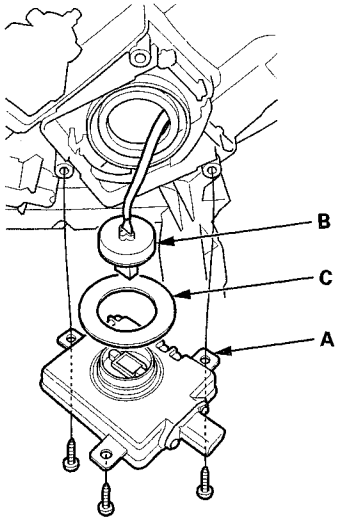
HID Unit Replacement

1. Turn the combination light switch OFF.
2. Make sure the ignition switch is in LOCK (0) position, or the vehicle ignition in the OFF mode, then do the battery terminal disconnection procedure (see page 22-86).
3. Remove the headlight assembly (see page 22-234).
4. Remove the three mounting screws and the HID unit (A).



The illustration shows the right side.

5. Disconnect the 4P connector (B) from the HID unit.
6. Inspect the gasket (C) for damage. If damaged, replace it.
7. Install the HID unit in the reverse order of removal.
8. Do the battery terminal reconnection procedure (see page 22-86).
9. After replacement, adjust the headlight (see page 22-233).

HID Bulb Replacement

HID Bulb (Headlight Low Beam)

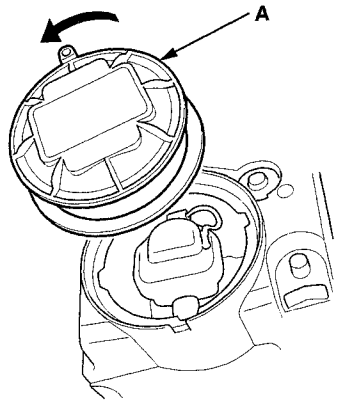
⚠WARNING

A transient high tension (25,000 V) occurs at the bulb sockets of the high intensity discharge (HID) lamps when the combination light switch is turned ON, that may cause serious electrical shock or electrocution if you do not observe the cautions.

⚠CAUTION

- Never turn on the combination light switch before fitting the HID bulbs to their bulb sockets and completing the reassembly of the headlight assembly.
- Do not service the headlights assembly in wet conditions, such as rain or snow, near a sprinkler system, or when your hands are wet to prevent electrocution.
- Do not touch the surface of the HID bulbs with your bare hands and do not stain it with any oils and fats.
- Do not disassemble the inverter unit and the igniter unit.
- Do not turn on the HID bulb by using a power source other than the battery mounted on your vehicle.

1. Turn the combination light switch OFF.
2. Make sure the ignition switch is in the LOCK (0), or the vehicle ignition in the OFF mode, then do the battery terminal disconnection procedure (see page 22-86).
3. Remove the inner fender (see page 20-203).
4. Turn the cover (A) 45 ° counterclockwise to remove it from the headlight assembly.



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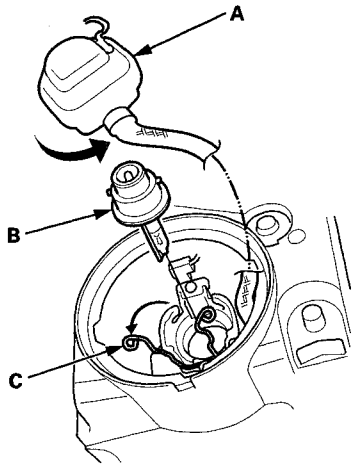
HID Bulb Replacement (cont'd)

5. Turn the socket (A) 45 ° counterclockwise to remove it from the bulb (B).

Headlight: 35 W



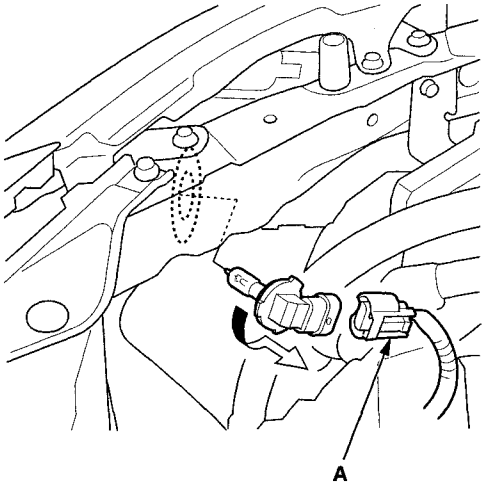
6. Pull the retaining spring (C) away from the bulb then remove the bulb.
7. Install a new bulb in the reverse order of removal. Make sure the notches in the bulb align with the tabs in the headlight.
8. Install the parts in the reverse order of removal.
9. Do the battery terminal reconnection procedure (see page 22-86).

Bulb Replacement

Headlight (High Beam)

1. Left headlight: Remove the intake air duct cover and duct (see step 4 on page 5-3).
2. Right headlight: Remove the coolant reservoir from its mounting bracket, and set it aside.
3. Disconnect the 2P connector (A) from the headlight.

Headlight (High Beam): 60 W



The illustration shows the right side.

4. Turn the bulb socket 45 ° counterclockwise to remove the bulb.
5. Install a new bulb in the reverse order of removal.

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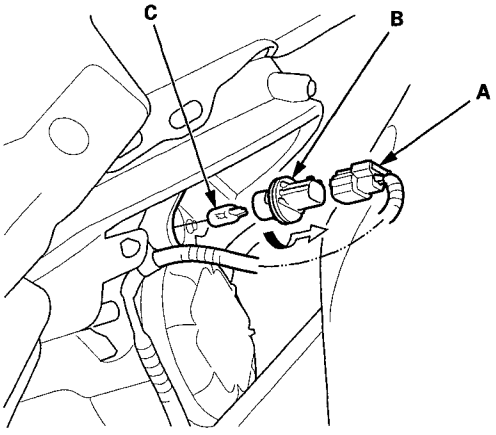
Front Side Marker Light

1. Remove the inner fender (see page 20-203).
2. Disconnect the 2P connector (A) from the front side marker light.

   Front Side Marker Light: 3 CP

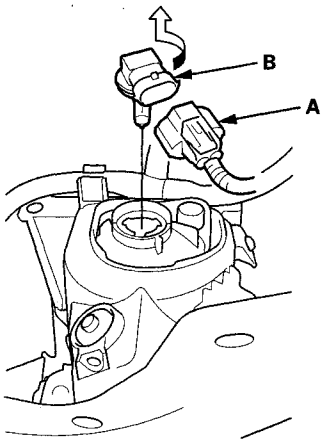


3. Turn the bulb socket (B) 45 ° counterclockwise to remove the bulb (C).
4. Install a new bulb in the reverse order of removal.

Fog Light

1. Remove the splash shield (see page 20-205).
2. Disconnect the 2P connector (A) from the fog light (B).

   Fog Light: 55 W



The illustration shows the right side.

3. Turn the bulb socket 45 ° counterclockwise to remove it from the housing.
4. Install a new bulb in the reverse order of removal.

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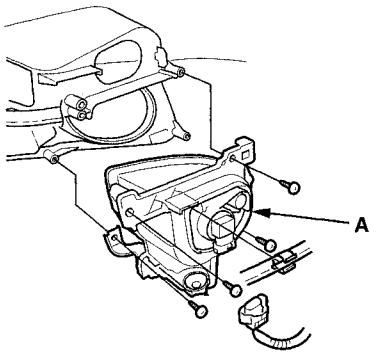
Fog Light Replacement

1. Remove the front bumper (see page 20-164), and disconnect the connectors from the fog lights.
2. Remove the four screws, then remove the fog light (A) from the front bumper.

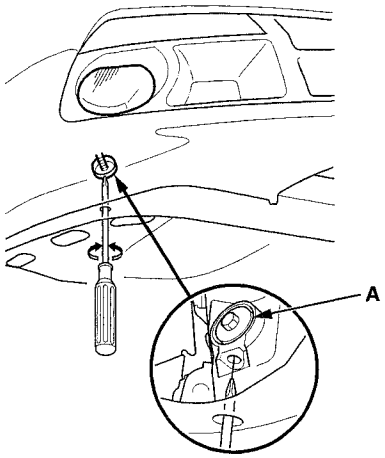


The illustration shows the right side.

3. Install the fog light in the reverse order of removal.
4. After replacement, adjust the fog lights to local requirements.

Fog Light Adjustment

1. Adjust the fog lights at the adjuster (A) to local requirements.



The illustration shows the right side.

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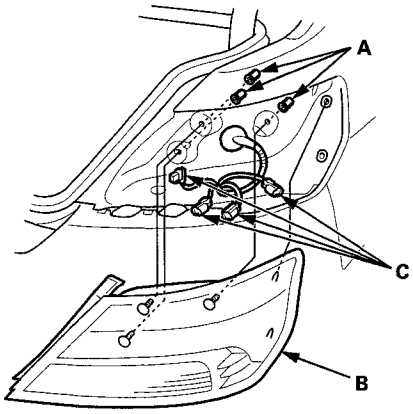
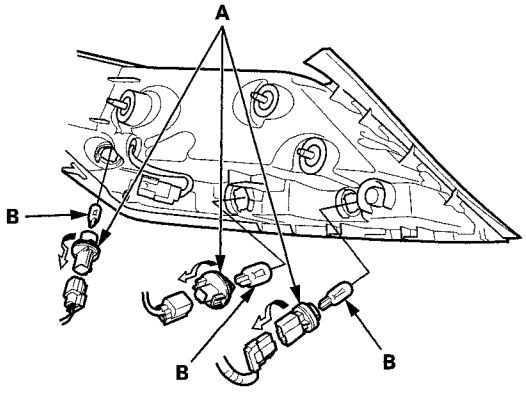
Taillight Replacement

1. Open the trunk lid, and remove the trunk side trim panel (see page 20-93).
2. Remove the three special nuts (A) from the taillight unit.

Rear Turn Signal Light:	**21 W**
Rear Side Marker Light:	**3 CP**
Back-up Light:	**16 W**
Brake Light:	**(LED)**
Taillight:	**(LED)**



3. Carefully pull out the taillight (B).
4. Disconnect the connectors (C) from the taillight.
5. Turn the bulb sockets (A) 45 ° counterclockwise to remove the bulbs (B).

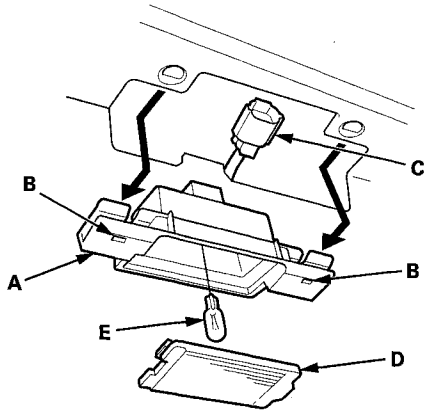


6. Install the light in the reverse order of removal.

License Plate Light Replacement

1. Remove the license plate light (A) by pushing it away from the bumper to release the clips (B) from the rear bumper.

License Plate Light: 5 W



2. Disconnect the 2P connector (C) from the light.
3. Take the lens (D) off, then remove the bulb (E).
4. Install the light in the reverse order of removal.

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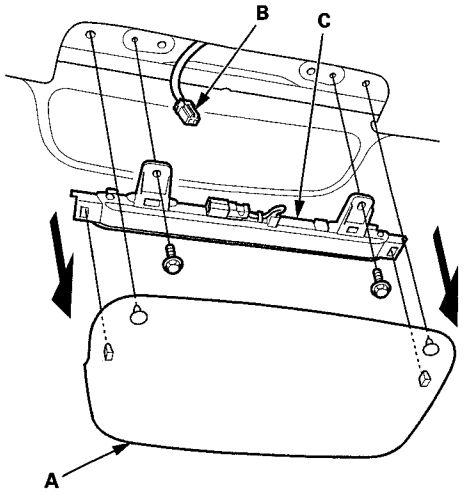
High Mount Brake Light Replacement

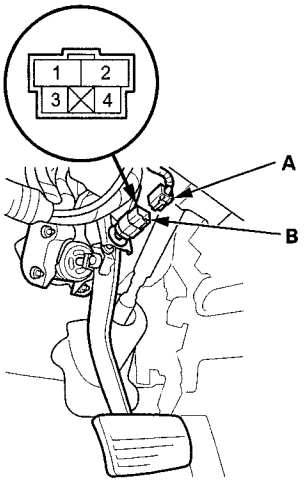
1. Remove the high mount brake light cover (A) by pulling straight down on the cover to release the clips.



2. Disconnect the 2P connector (B) from the high mount brake light (C).
3. Remove the two bolts and the high mount brake light.
4. Install the light in the reverse order of removal.
5. Clean the rear window, and install the high mount brake light cover in the reverse order of removal.

Brake Pedal Position Switch Test

1. Disconnect the 4P connector (A) from the brake pedal position switch (B).



2. Check for continuity between terminals No. 1 and No. 2.
   - There should be no continuity when the brake pedal is released.
   - There should be continuity when the brake pedal is pressed.
3. Check for continuity between terminals No. 3 and No. 4.
   - There should be continuity when the brake pedal is released.
   - There should be no continuity when the brake pedal is pressed.
4. If necessary, adjust or replace the switch, or adjust the pedal height (see page 19-6).

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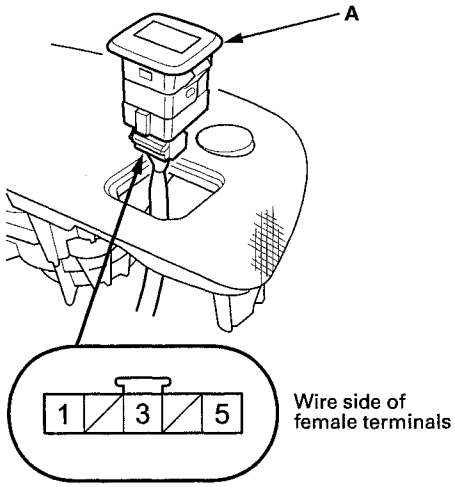
Automatic Lighting Sensor Test/Replacement

NOTE: Take care not to scratch the dashboard.

1. Remove the center speaker lid (see page 23-153).
2. Pry out the automatic lighting sensor (A).



3. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
4. Measure the voltage between automatic lighting sensor 5P connector terminals No. 3 and No. 5.
   - 3.6—3.7 V or more with the sensor out of direct sunlight.
   - 3.3—3.5 V or less with the sensor in direct sunlight.
5. If the voltage is not as specified, replace the automatic lighting sensor.

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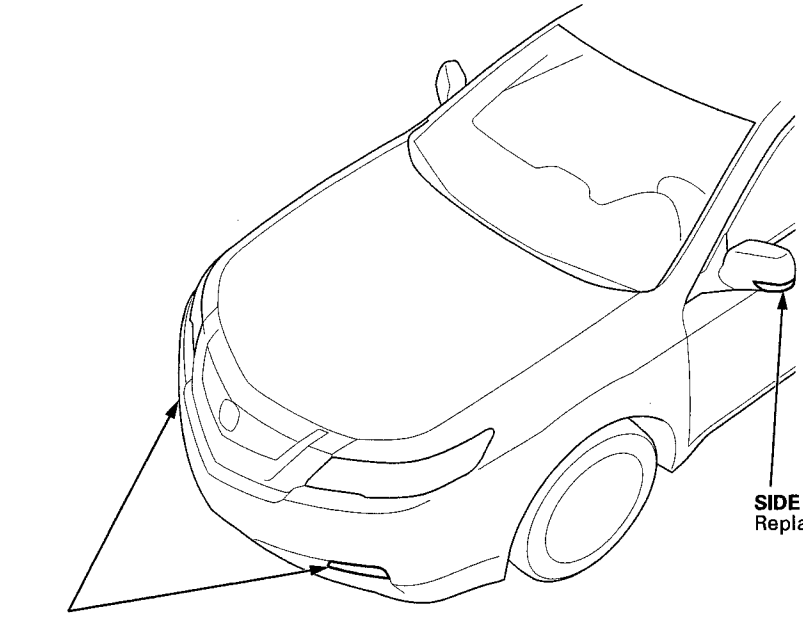
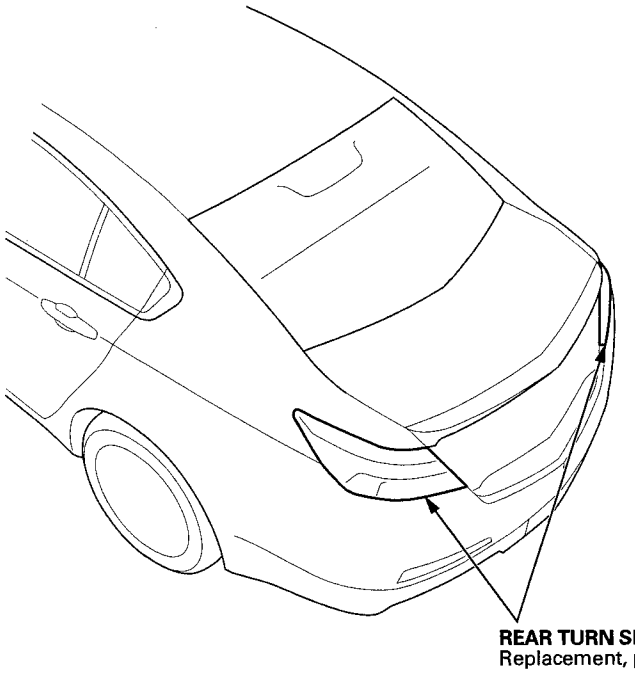
Turn Signal/Hazard Warning Lights

Component Location Index





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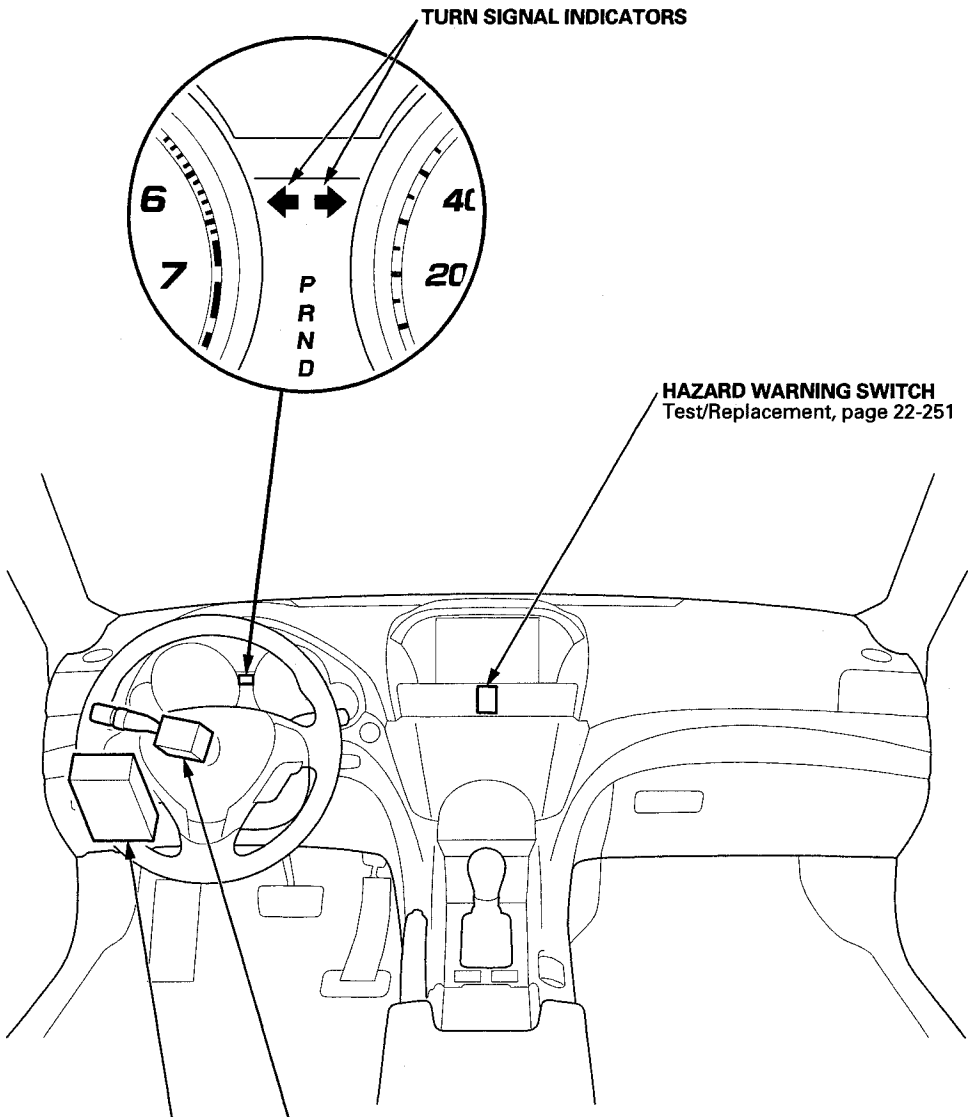

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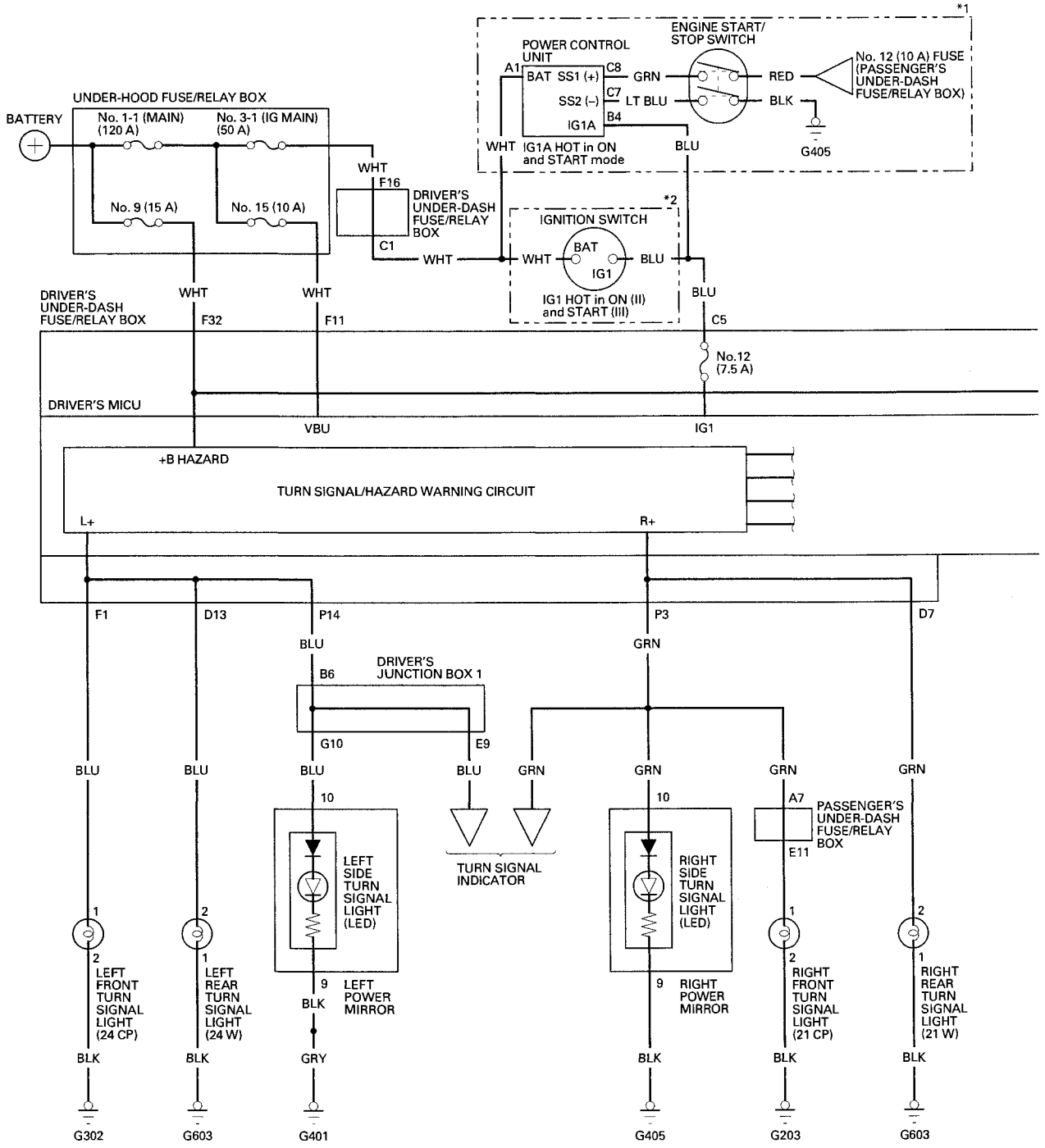
Turn Signal/Hazard Warning Lights

Circuit Diagram



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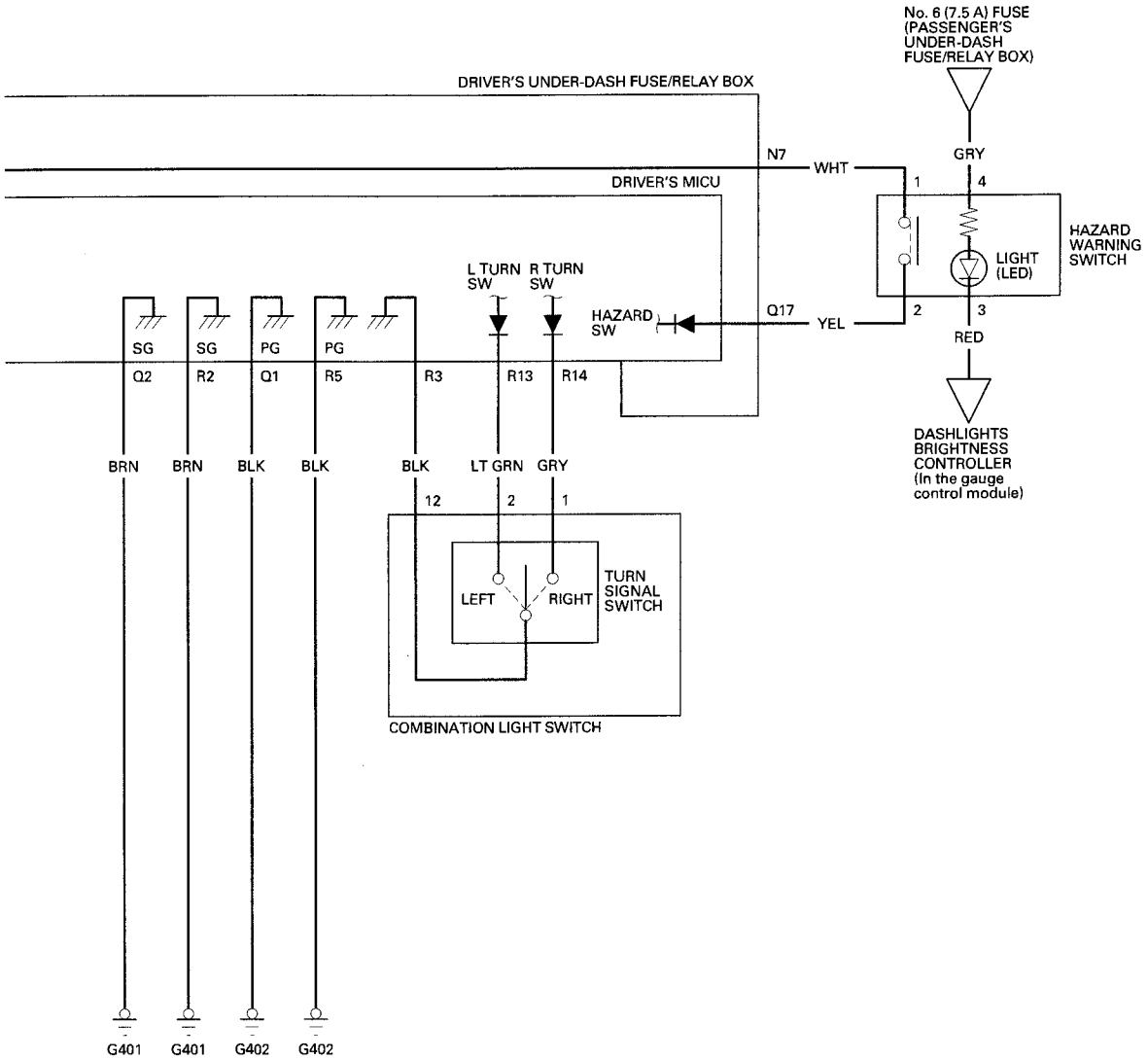
*1: With keyless access system
*2: Without keyless access system



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DTC Troubleshooting

DTC B1280: Turn Switch Circuit Malfunction

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Operate the turn signal switch in left and right positions, and wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC B1280 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Select LIGHTING from the BODY ELECTRICAL system select menu, then enter DATA LIST.
6. Check each turn signal switch position value with the DATA LIST menu.

   When the turn signal switch is in left position

Data List	Value
Turn Signal Switch (LEFT)	ON
Turn Signal Switch (RIGHT)	OFF

   When the turn signal switch is in right position

Data List	Value
Turn Signal Switch (LEFT)	OFF
Turn Signal Switch (RIGHT)	ON

   Are all data list values correct?

   YES–Faulty driver's MICU; replace the driver's under-dash fuse/relay box (see page 22-81).■

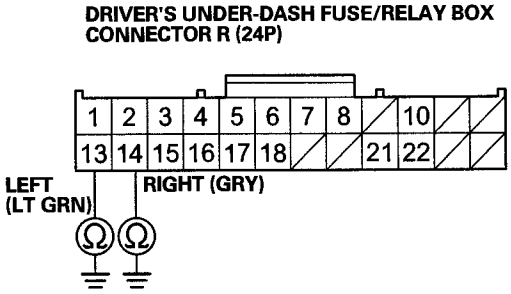
   NO–Go to step 7.
7. Disconnect the combination light switch 12P connector.
8. Check each turn signal switch position value with the DATA LIST menu.

Data List	Value
Turn Signal Switch (LEFT)	OFF
Turn Signal Switch (RIGHT)	OFF

   Do both values now showing OFF?

   YES–Replace the combination light switch (see page 22-232).■

   NO–Go to step 9.
9. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
10. Disconnect driver's under-dash fuse/relay box connector R (24P).
11. Check for continuity between body ground and driver's under-dash fuse/relay box connector R (24P) terminals No. 13 and No. 14 individually.



Wire side of female terminals

   Is there continuity?

   YES–Repair a short to ground in the wire.■

   NO–Go to step 12.

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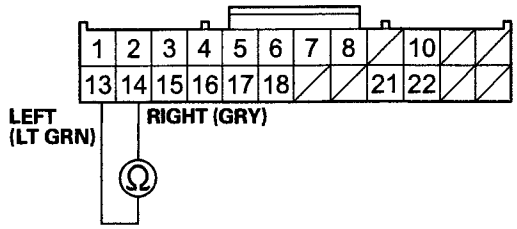
12. Check for continuity between driver's under-dash fuse/relay box connector R (24P) terminals No. 13 and No. 14.

DRIVER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR R (24P)



Wire side of female terminals

Is there continuity?

YES–Repair a short between the wires.■

NO–Replace the combination light switch (see page 22-232).■

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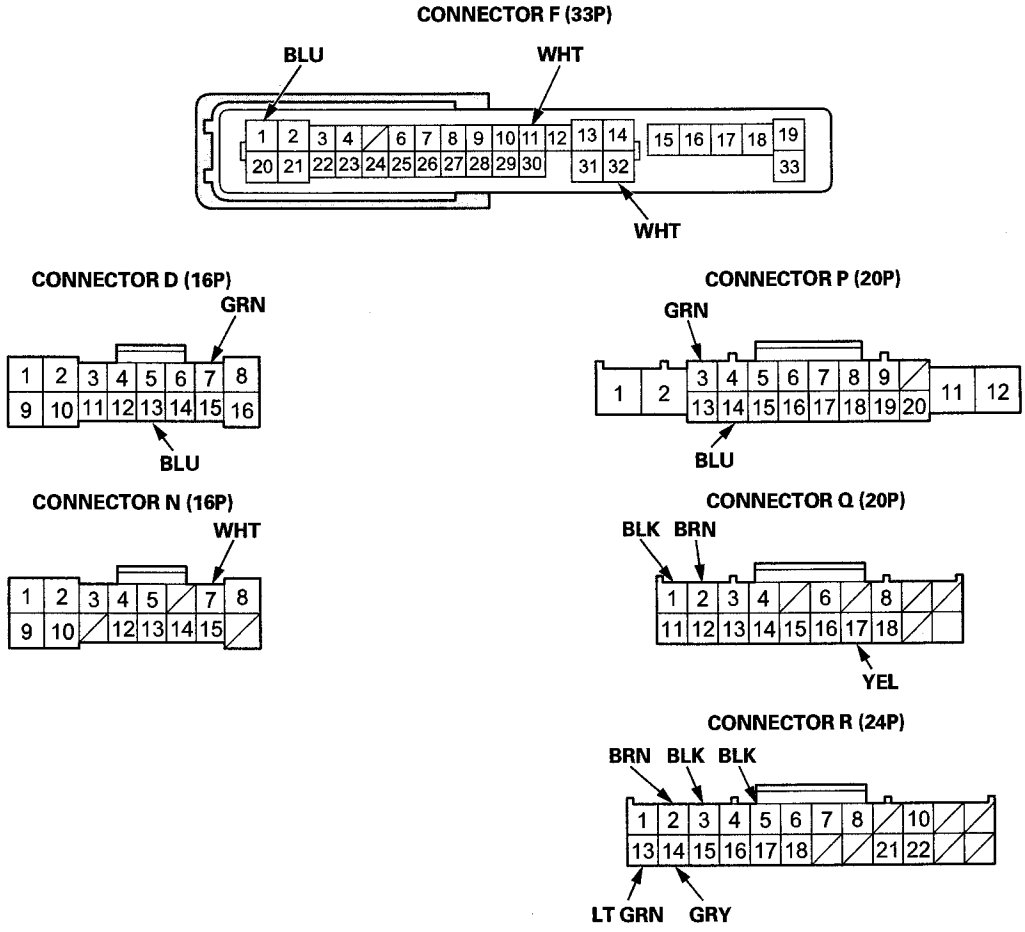
MICU Input Test

NOTE:
- Before testing, troubleshoot the multiplex integrated control system first, using B-CAN System Diagnosis Test Mode A (see page 22-135).
- Before testing, make sure the No. 12 (7.5 A) fuse in the driver's under-dash fuse/relay box is OK.

Driver's MICU

1. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
2. Remove the driver's dashboard undercover (see page 20-118).
3. Disconnect driver's under-dash fuse/relay box connectors D, F, N, P, Q, and R.

   NOTE: All connector views are wire side of female terminals.



4. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
   - If the terminals look OK, go to step 5.

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5. With the connectors still disconnected, do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 6.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
D7	GRN	Under all conditions	Connect terminals F32 and D7 with a jumper wire: The right rear turn signal light should come on.	• Poor ground (G603) or an open in the ground wire • Blown bulb • An open or high resistance in the wire
D13	BLU	Under all conditions	Connect terminals F32 and D13 with a jumper wire: The left rear turn signal light should come on.	• Poor ground (G603) or an open in the ground wire • Blown bulb • An open or high resistance in the wire
F1	BLU	Under all conditions	Connect terminals F32 and F1 with a jumper wire: The left front turn signal light should come on.	• Poor ground (G302) or an open in the ground wire • Blown bulb • An open or high resistance in the wire
F32	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 9 (15 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
P3	GRN	Under all conditions	Connect terminals F32 and P3 with a jumper wire: The right front turn signal light, the right side turn signal light, and the right turn signal indicator should come on.	• Poor ground (G203, G405) or an open in the ground wire • Blown bulb • Faulty gauge control module • Faulty indicator • An open or high resistance in the wire
P14	BLU	Under all conditions	Connect terminals F32 and P14 with a jumper wire: The left side turn signal light and the left turn signal indicator should come on.	• Faulty gauge control module • Faulty indicator • An open or high resistance in the wire • Poor ground (G401) or an open in the ground wire

6. Reconnect the connectors to the driver's under-dash fuse/relay box, and do the following input tests:

(cont'd)

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MICU Input Test (cont'd)

- If any test indicates a problem, find and correct the cause, then recheck the system.
- If all the input tests prove OK, the driver's MICU must be faulty; replace the driver's under-dash fuse/relay box (see page 22-81).

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
F11	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
Q1	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
Q2	BRN	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
R2	BRN	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
R5	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
N7	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Faulty driver's under-dash fuse/relay box • A short to ground in the wire
Q17	YEL	Hazard warning switch pressed	Measure the voltage to ground: There should be battery voltage.	• Faulty hazard warning switch • An open or high resistance in the wire
R13 . R3	LT GRN . BLK	Ignition switch ON (II), or power mode ON, turn signal switch in left position	Measure the voltage between terminals R13 and R3: There should be less than 0.2 V.	• Faulty combination light switch • An open or high resistance in the wire
		Ignition switch ON (II), or power mode ON, turn signal switch in right or neutral position	Measure the voltage between terminals R13 and R3: There should be about 5 V.	• Faulty combination light switch • A short to ground in the wire
R14 . R3	GRY . BLK	Ignition switch ON (II), or power mode ON, turn signal switch in right position	Measure the voltage between terminals R14 and R3: There should be less than 0.2 V.	• Faulty combination light switch • An open or high resistance in the wire
		Ignition switch ON (II), or power mode ON, turn signal switch in left or neutral position	Measure the voltage between terminals R14 and R3: There should be about 5 V.	• Faulty combination light switch • A short to ground in the wire

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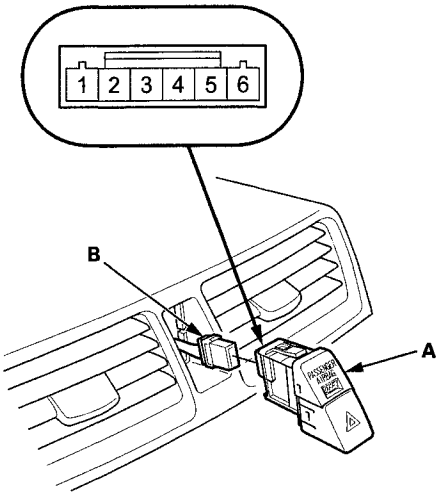
Hazard Warning Switch Test/Replacement

1. Remove the dashboard center vent (see page 20-121).
2. Push out the hazard warning switch (A) from behind the vent panel.



3. Disconnect the 5P connector (B) from the hazard warning switch.
4. Check for continuity between the terminals in each switch position according to the table.

Position \ Terminal	1	2	4		3
OFF			⊕	⊗	⊖
ON	○	○	⊕	⊗	⊖

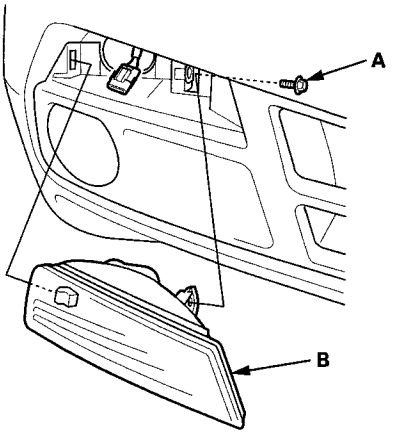
5. If the continuity is not as specified, replace the hazard warning switch.
6. Install the switch in the reverse order of removal.

Front Turn Signal/Parking Light Replacement

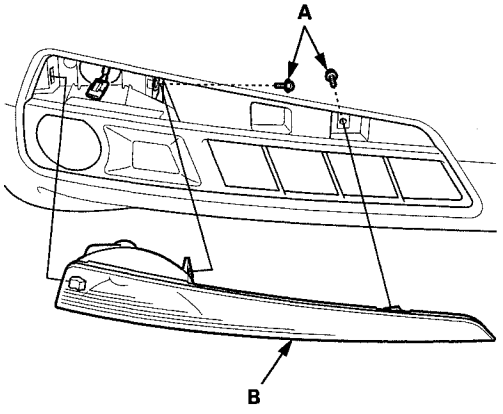
Replacement

1. Remove the splash shield (see page 20-205).
2. Remove the bolt(s) (A), then pull the front turn signal light (B) from the front bumper.

With SH-AWD



Without SH-AWD



3. Install in the reverse order of removal.

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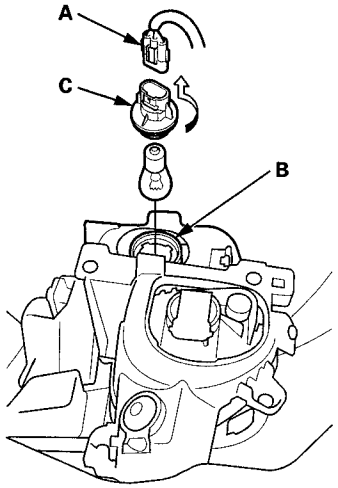
Front Turn Signal/Parking Light Replacement (cont'd)

Bulb Replacement

1. Remove the inner fender (see page 20-203).
2. Disconnect the 3P connector (A) from the front turn signal light (B).

Front Turn Signal/Parking Light: 24/2.2 CP

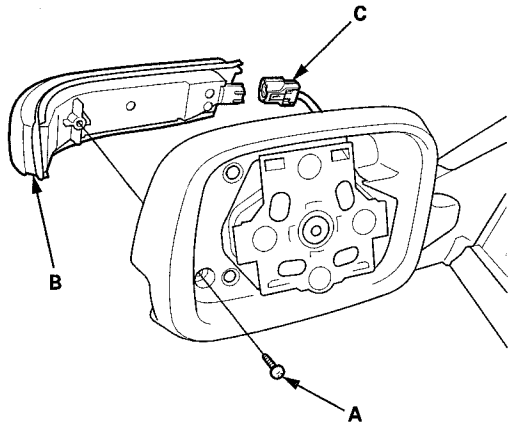


The illustration shows the right side.

3. Turn the bulb socket (C) 45 ° counter clockwise to remove it from the housing.
4. Install a new bulb in the reverse order of removal.

Side Turn Signal Light Replacement

1. Remove the mirror holder (see page 20-50).
2. Remove the screw (A), then pull out side turn signal light (B), then disconnect the 2P connector (C) from it.



3. Install the light in the reverse order of removal.

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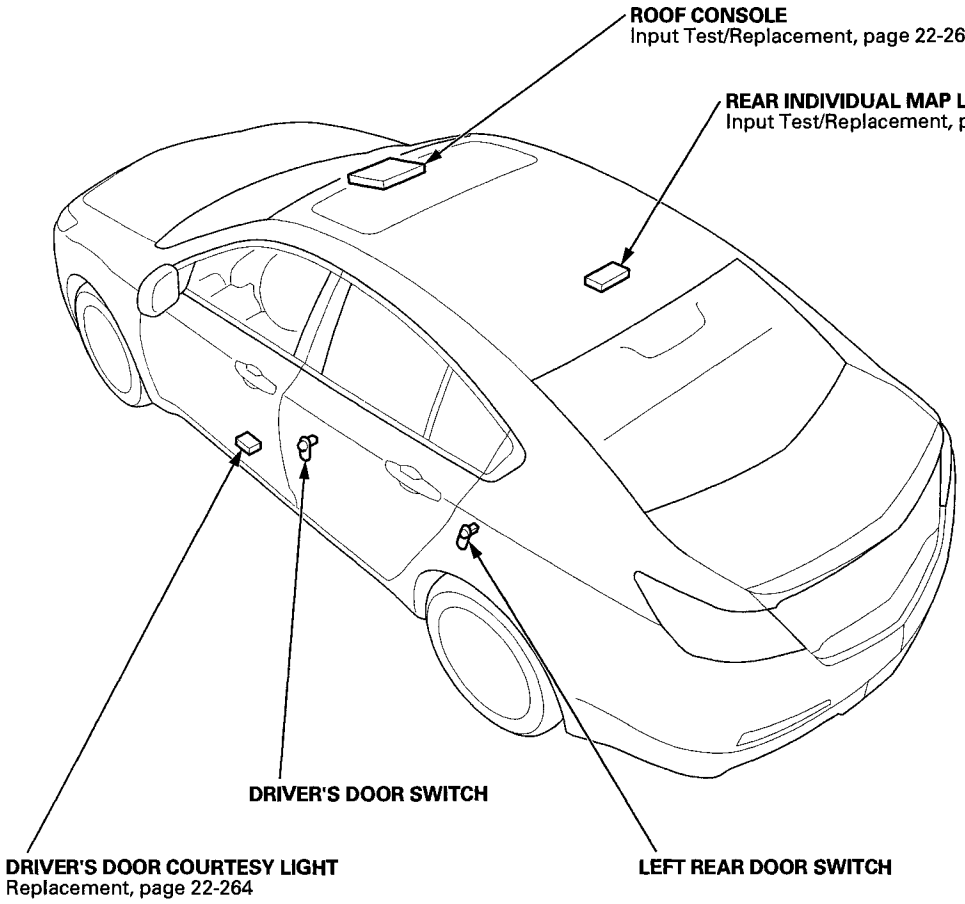
Interior Lights

Component Location Index



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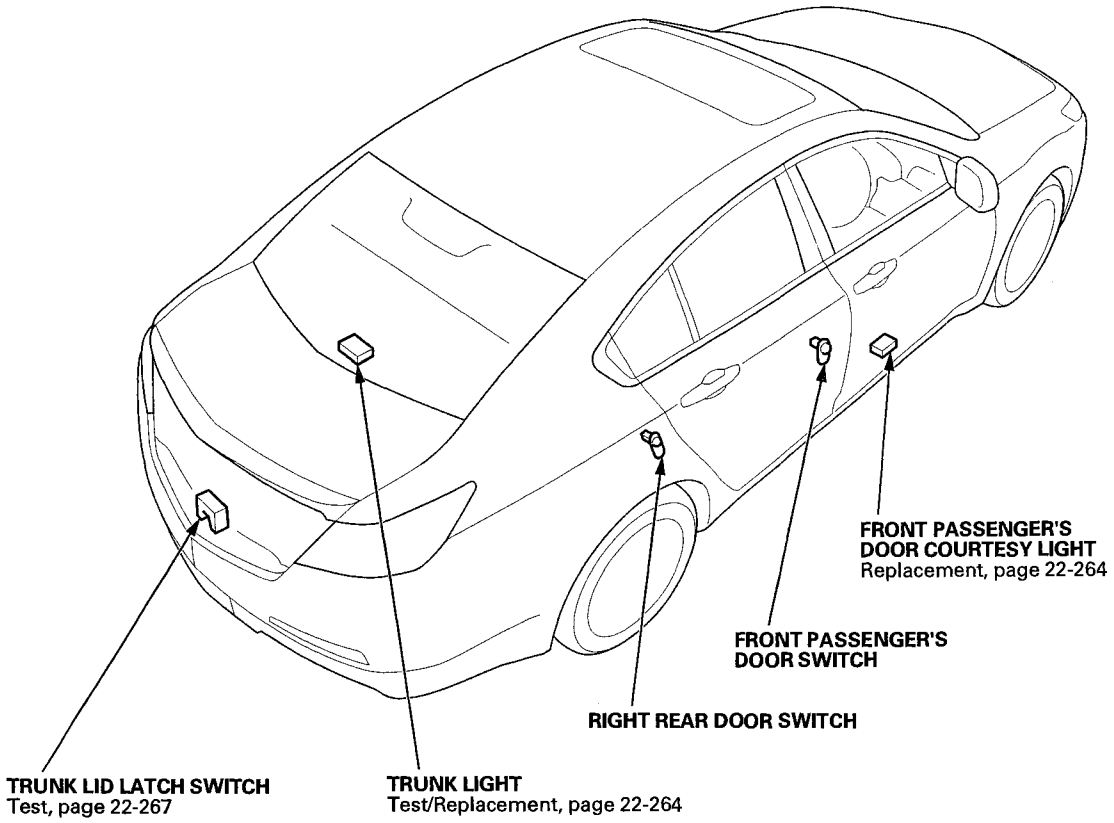
Component Location Index (cont'd)



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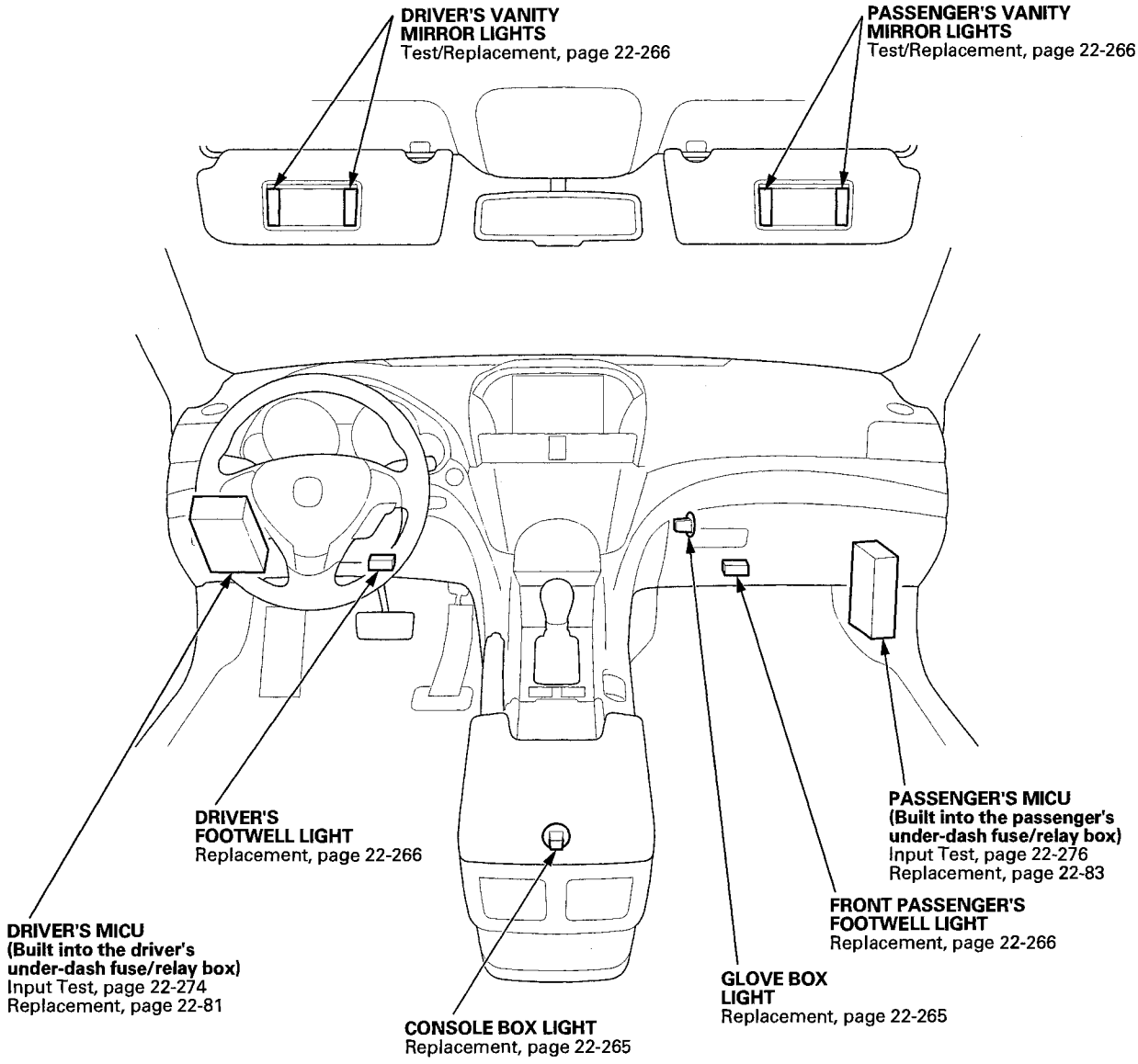

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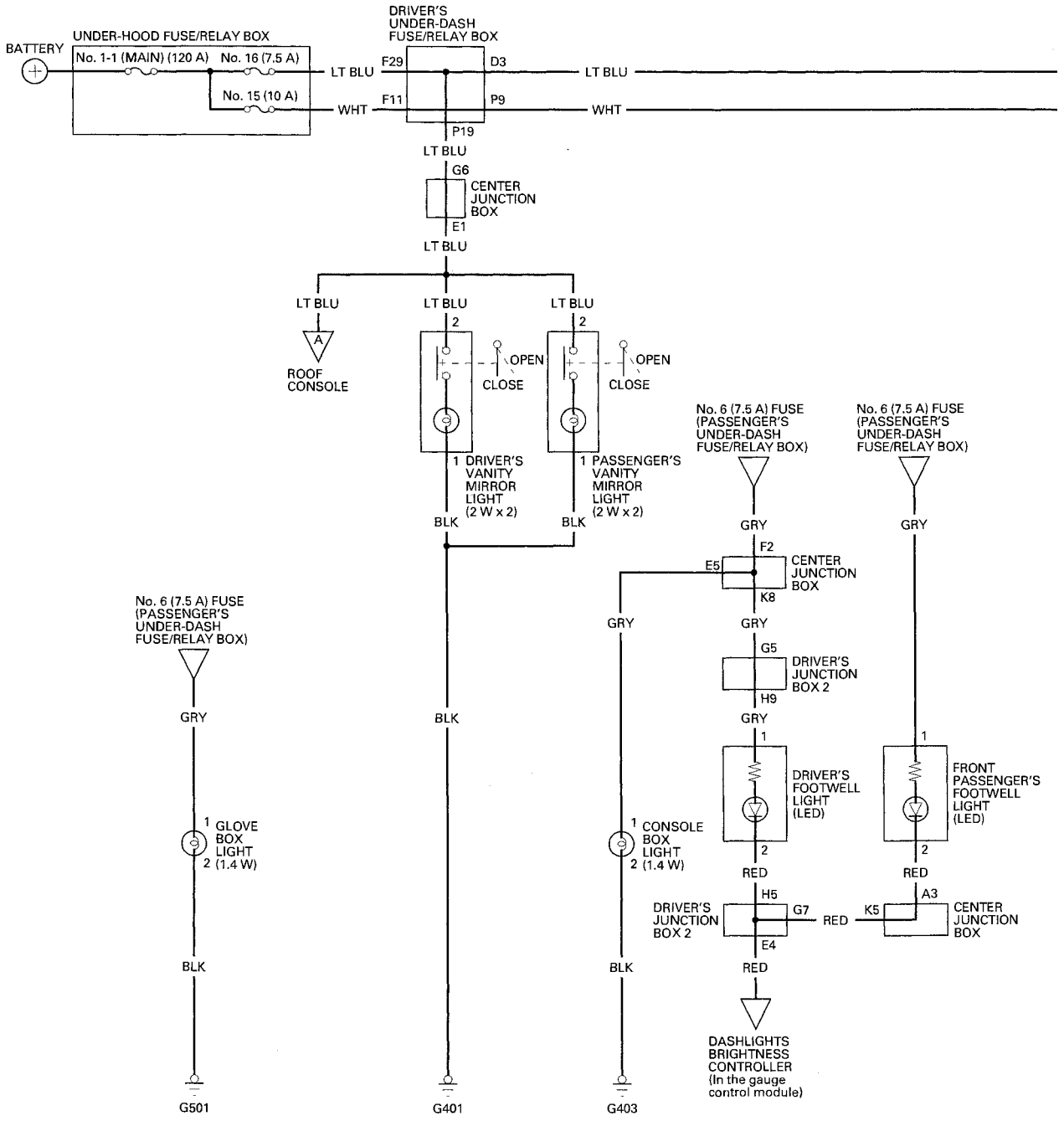
Interior Lights

Circuit Diagram



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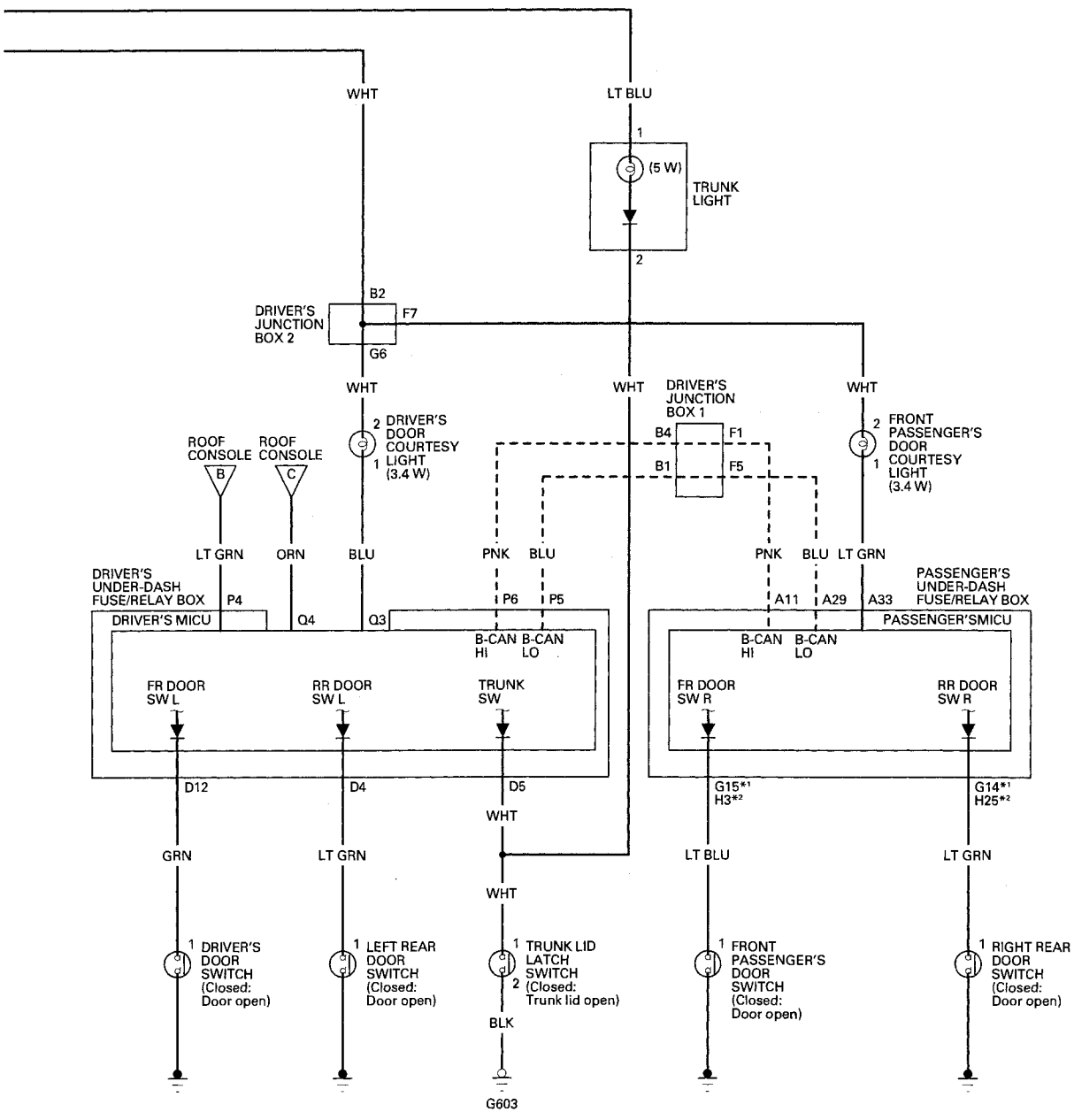
*1: Without SH-AWD
*2: With SH-AWD
- - - - - - - : B-CAN line



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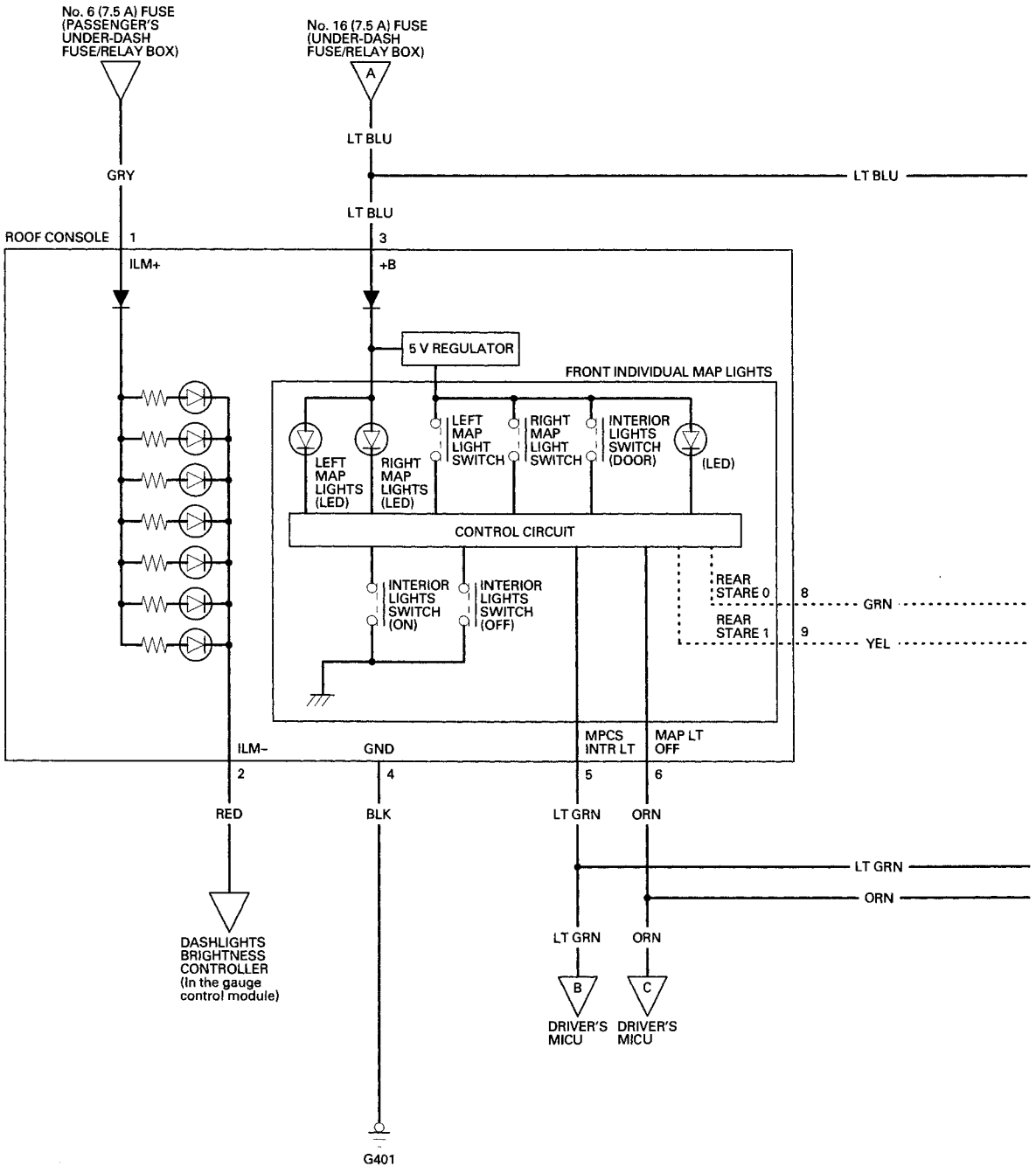
Circuit Diagram (cont'd)



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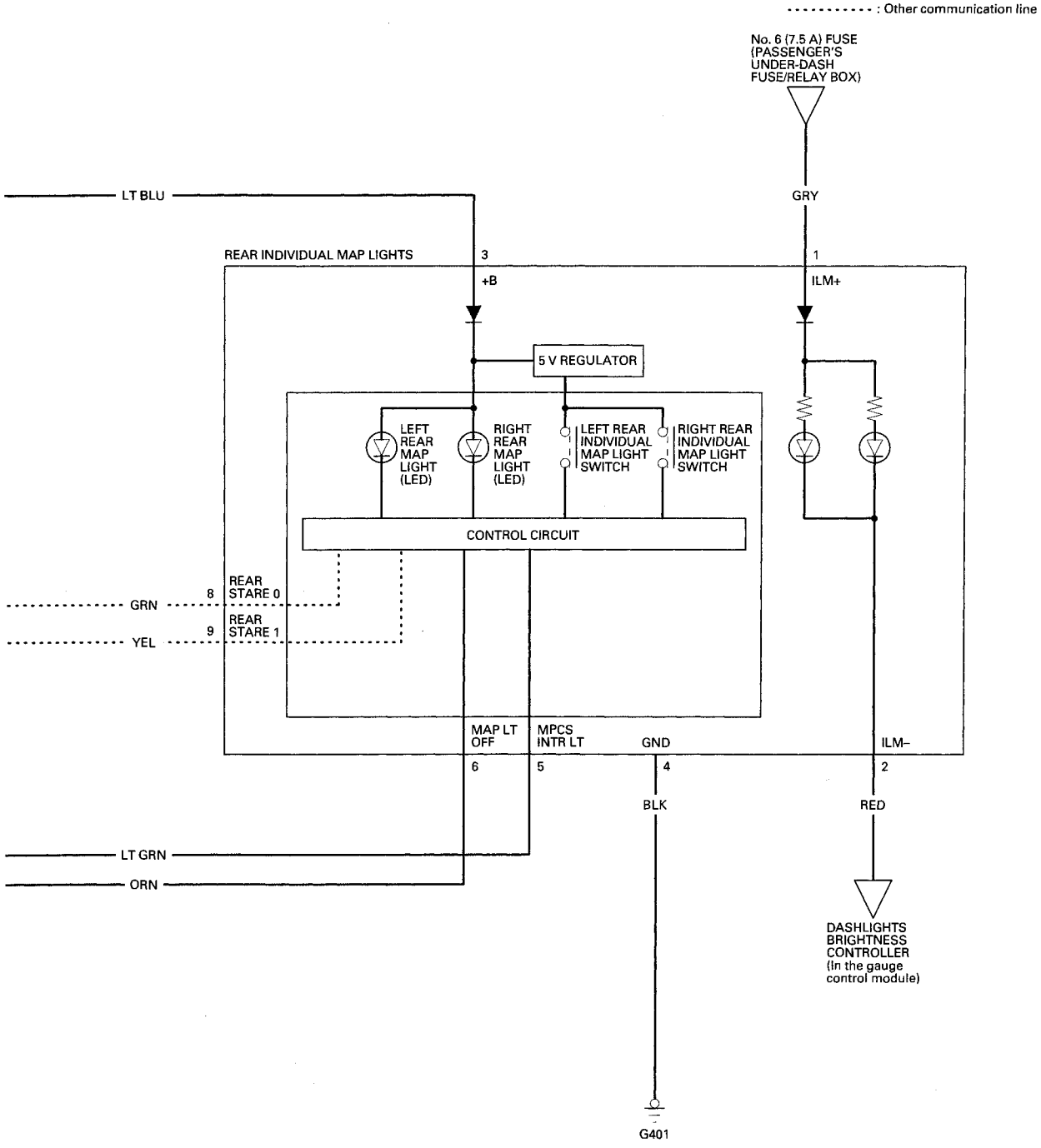

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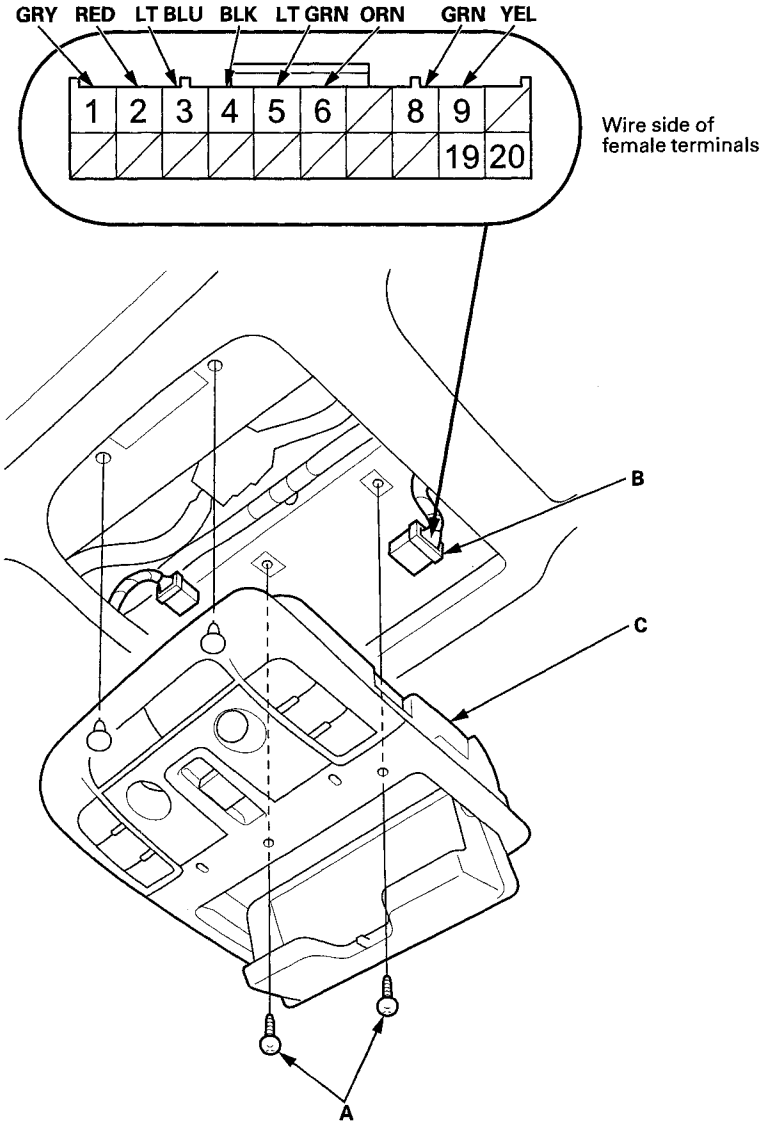
Roof Console Input Test/Replacement

1. Turn the map light switch OFF.
2. Open the sunglass holder, then remove the two screws (A).



3. Disconnect the 20P connector (B) from the roof console (C).
4. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary and recheck the system.
   - If the terminals look OK, go to step 5.

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5. With the connector still disconnected, do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 6.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
5	LT GRN	Disconnect driver's under-dash fuse/relay box connector P (20P)	Check for continuity between terminal No. 5 and driver's under-dash fuse/relay box connector P (20P) terminal No. 4: There should be continuity.	An open or high resistance in the wire
6	ORN	Disconnect driver's under-dash fuse/relay box connector Q (20P)	Check for continuity between terminal No. 6 and driver's under-dash fuse/relay box connector Q (20P) terminal No. 4: There should be continuity.	An open or high resistance in the wire
8	GRN	Disconnect the rear individual map lights 10P connector	Check for continuity between terminal No. 8 and the rear individual map lights 10P connector terminal No. 8: There should be continuity.	An open in the wire
9	YEL	Disconnect the rear individual map lights 10P connector	Check for continuity between terminal No. 9 and the rear individual map lights 10P connector terminal No. 9: There should be continuity.	An open in the wire
2	RED	Disconnect the gauge control module 32P connector	Check for continuity between terminal No. 2 and the gauge control module 32P connector terminal No. 8: There should be continuity.	An open or high resistance in the wire

6. Reconnect the connector to the roof console, and do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, the roof console must be faulty; replace it.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
3	LT BLU	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 16 (7.5 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
4	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
1	GRY	Combination light switch (SMALL position) ON	Measure the voltage to ground: There should be battery voltage.	• Blown No. 6 (7.5 A) fuse in the passenger's under-dash fuse/relay box • An open or high resistance in the wire

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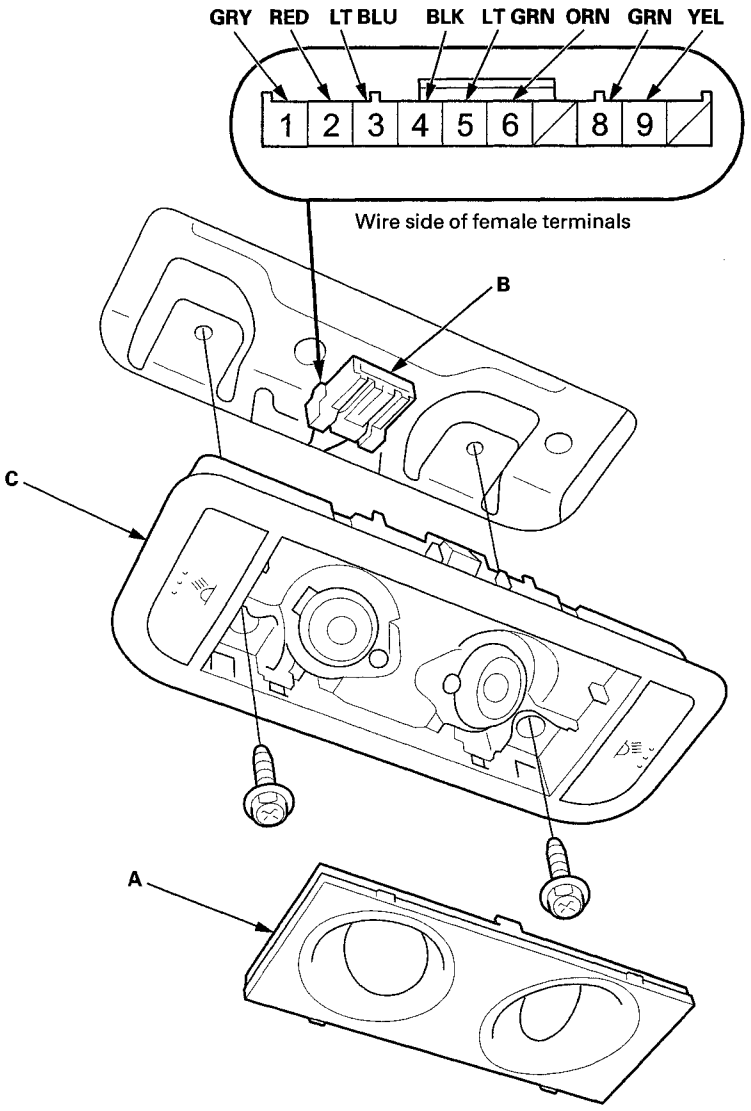
Rear Individual Map Light Input Test/Replacement

1. Carefully pry off the lens (A) with a small screwdriver.



2. Remove the two mounting bolts.
3. Disconnect the 10P connector (B) from the rear individual map light (C).
4. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary and recheck the system.
   - If the terminals look OK, go to step 5.

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5. With the connector still disconnected, do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 6.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
5	LT GRN	Disconnect driver's under-dash fuse/relay box connector P (20P)	Check for continuity between terminal No. 5 and driver's under-dash fuse/relay box connector P (20P) connector terminal No. 4: There should be continuity.	An open or high resistance in the wire
6	ORN	Disconnect driver's under-dash fuse/relay box connector Q (20P)	Check for continuity between terminal No. 6 and driver's under-dash fuse/relay box connector Q (20P) connector terminal No. 4: There should be continuity.	An open or high resistance in the wire
8	GRN	Disconnect the roof console 20P connector	Check for continuity between terminal No. 8 and the roof console 20P connector terminal No. 8: There should be continuity.	An open in the wire
9	YEL	Disconnect the roof console 20P connector	Check for continuity between terminal No. 9 and the roof console 20P connector terminal No. 9: There should be continuity.	An open in the wire
2	RED	Disconnect the gauge control module 32P connector	Check for continuity between terminal No. 2 and the gauge control module 32P connector terminal No. 8: There should be continuity.	An open or high resistance in the wire

6. Reconnect the connector to the rear individual map light, and do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, the rear individual map light must be faulty; replace it.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
3	LT BLU	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 16 (7.5 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
4	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
1	GRY	Combination light switch (SMALL position) ON	Measure the voltage to ground: There should be battery voltage.	• Blown No. 6 (7.5 A) fuse in the passenger's under-dash fuse/relay box • An open or high resistance in the wire

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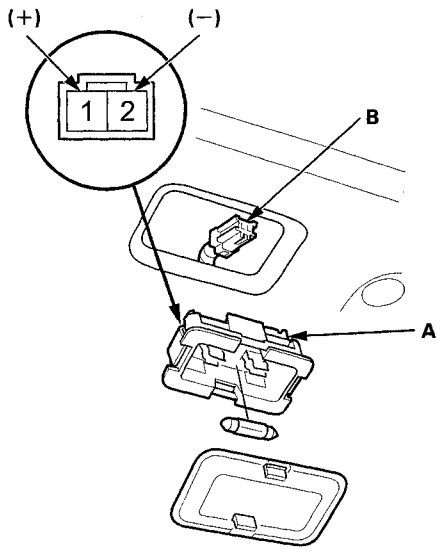
Trunk Light Test/Replacement

1. Open the trunk lid.
2. Carefully pry out the trunk light (A).

Trunk Light: 5 W

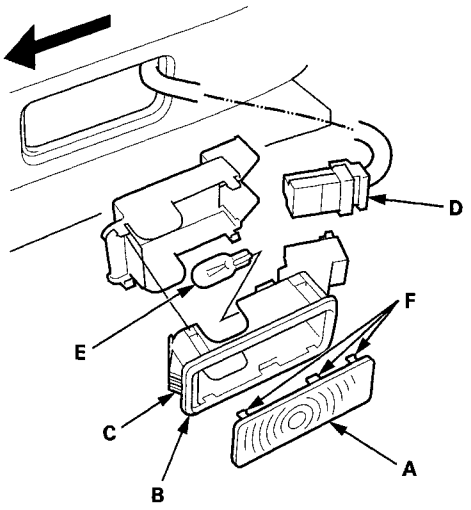


3. Disconnect the 2P connector (B) from the light.
4. Check for continuity between terminals No. 1 (+) and No. 2 (−). There should be continuity. If there is no continuity, check the bulb. If the bulb is OK, replace the trunk light assembly.
5. Install the light in the reverse order of removal.

Courtesy Light Replacement

1. Carefully pry off the lens (A) with a small screwdriver.

Courtesy Light: 3.4 W



2. Carefully remove the housing (B) from the door panel by prying at the lift point (C), then disconnect the 2P connector (D).
3. Remove the bulb (E) from the socket.
4. Install the parts in the reverse order of removal. Note the direction of the lens lock tabs (F).

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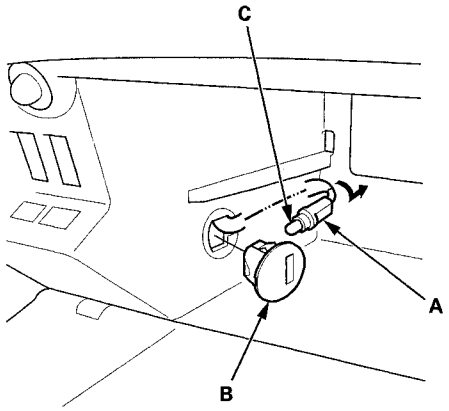
Glove Box Light Replacement

1. Remove the glove box stops and damper (see page 20-125).
2. Carefully pry the glove box light out of the glove box housing.
3. Twist the socket (A) to remove it from the glove box light (B).

Glove Box Light: 1.4 W

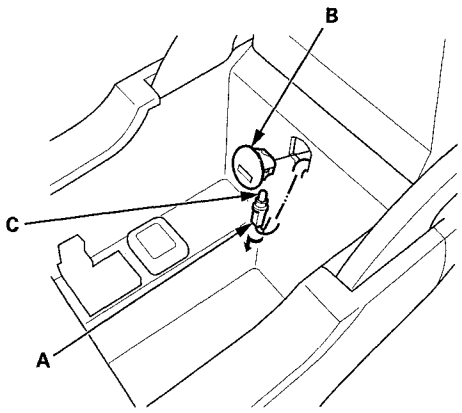


4. Remove the bulb (C) from the socket.
5. Install the light in the reverse order of removal.

Console Box Light Replacement

1. Remove the center console (see page 20-109).
2. Carefully pry out the console box light out of the center console.
3. Twist the socket (A) to remove it from the console box light (B).

Console Box Light: 1.4 W



4. Remove the bulb (C) from the socket.
5. Install the light in the reverse order of removal.

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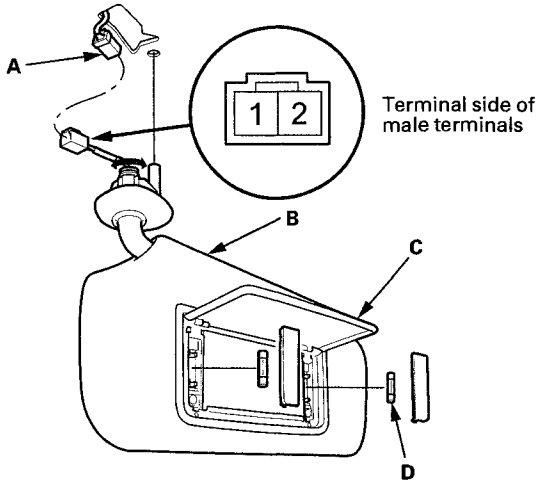
Vanity Mirror Light Test/Replacement

1. Remove the sunvisor (see page 20-96).
2. Disconnect the 2P connector (A) from the sunvisor (B).

Vanity Mirror Light: 2 W x 2

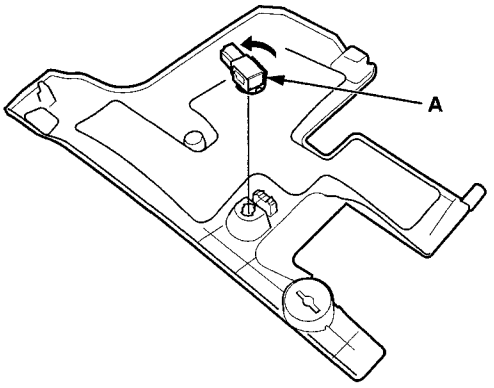


3. Check for continuity between terminals No. 1 and No. 2.
   - With the vanity mirror cover (C) opened, there should be continuity.
   - With the vanity mirror cover closed, there should be no continuity.
4. If the continuity is not as specified, check the bulbs (D). If the bulbs are OK, replace the sunvisor (see page 20-96).
5. Install the parts in the reverse order of removal.

Footwell Light Replacement

Driver's

1. Remove the driver's dashboard undercover (see page 20-118).
2. Remove the footwell light (A) from the driver's dashboard undercover.



3. Install the light in the reverse order of removal.

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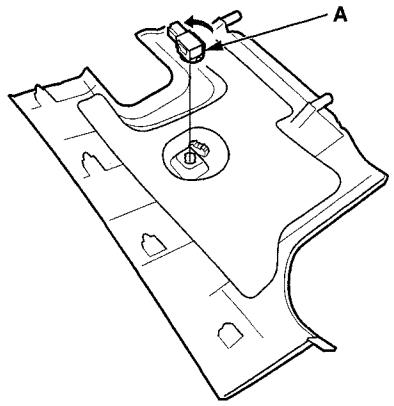
Front Passenger's

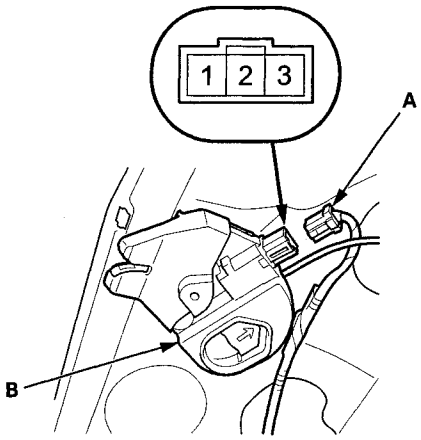
1. Remove the passenger's dashboard undercover (see page 20-125).
2. Remove the footwell light (A) from the passenger's dashboard undercover.



3. Install the light in the reverse order of removal.

Trunk Lid Latch Switch Test

1. Open the trunk lid, and remove the trunk lid trim (see page 20-95).
2. Disconnect the 3P connector (A) from the trunk lid latch assembly (B).



3. Check for continuity between terminals No. 1 and No. 2.
   - There should be continuity with the trunk lid open.
   - There should be no continuity with the trunk lid closed.
4. If the continuity is not as specified, replace the trunk lid latch assembly.

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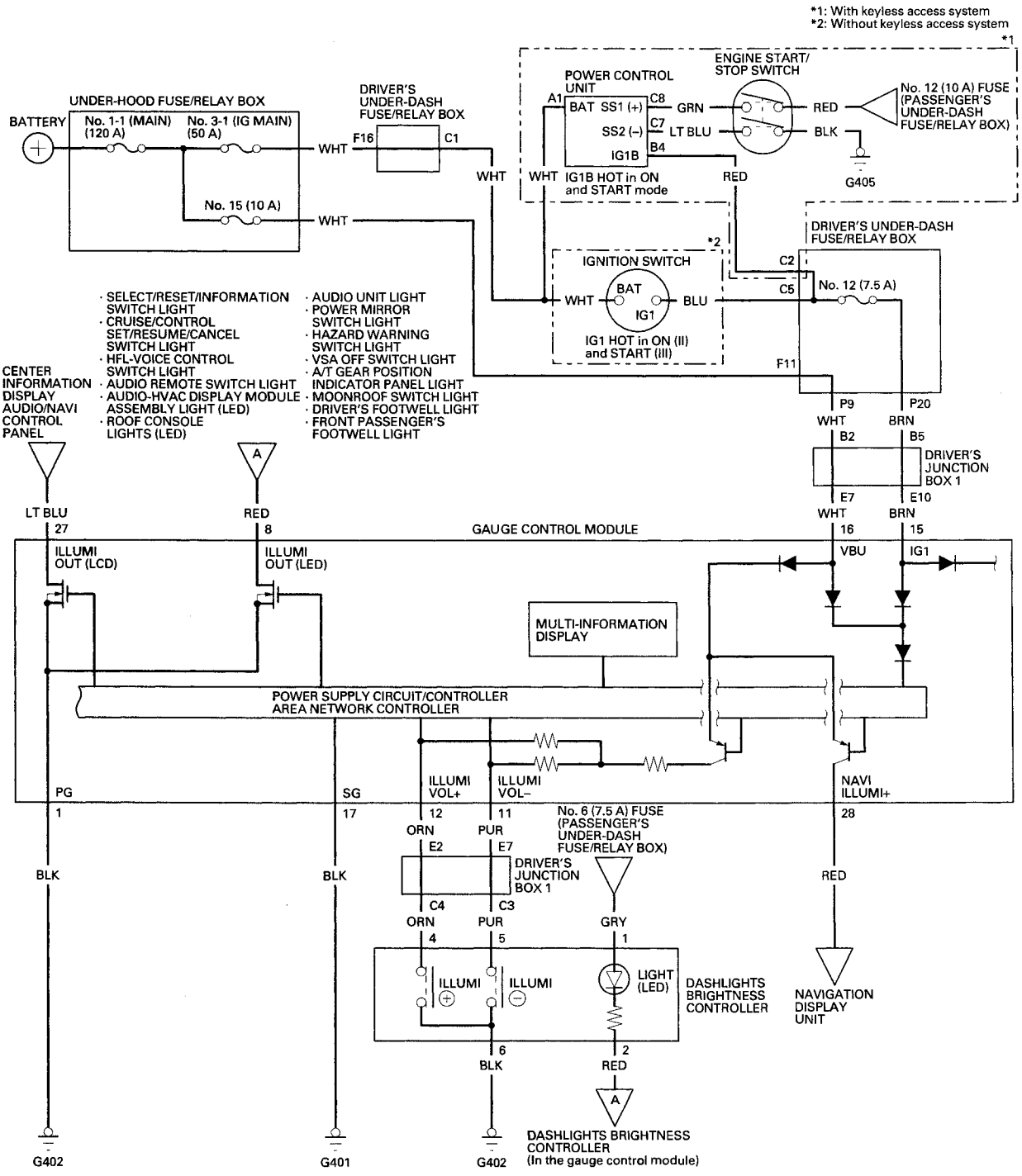
Dashlights Brightness Controller

Circuit Diagram



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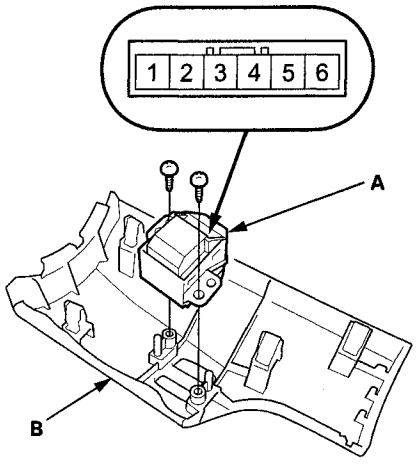
Dashlights Brightness Controller Test/Replacement

1. Remove the driver's dashboard trim (see page 20-116).
2. Remove the two screws and dashlights brightness controller (A) from the driver's outer dashboard trim (B).



3. Check for continuity between the terminals in each switch position according to the table.

Position \ Terminal	4	5	6	1		2
ILLUMI (−)		○	○	○	▷	○
ILLUMI (+)	○		○	○	▷	○

4. If the continuity is not as specified or LED does not turn on, replace the switch.

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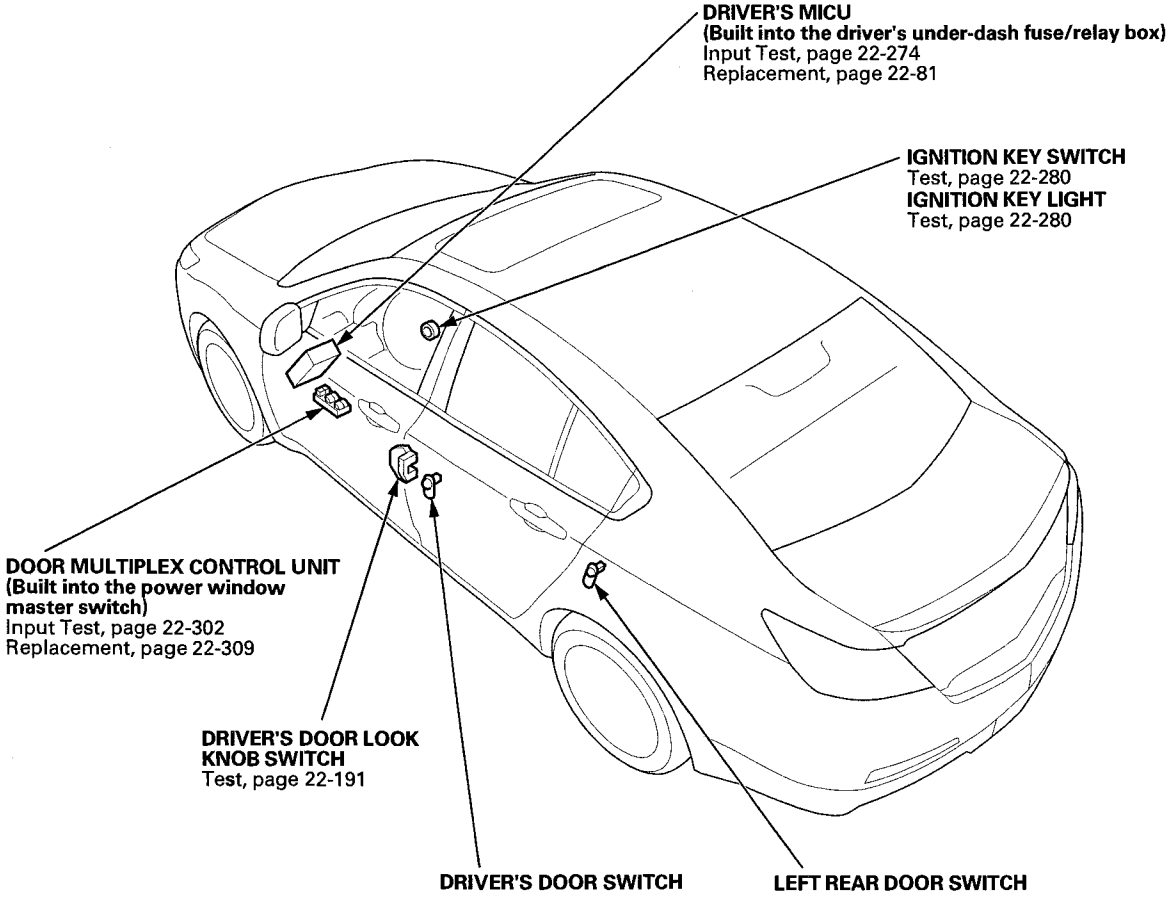
Entry Lights Control System

Component Location Index



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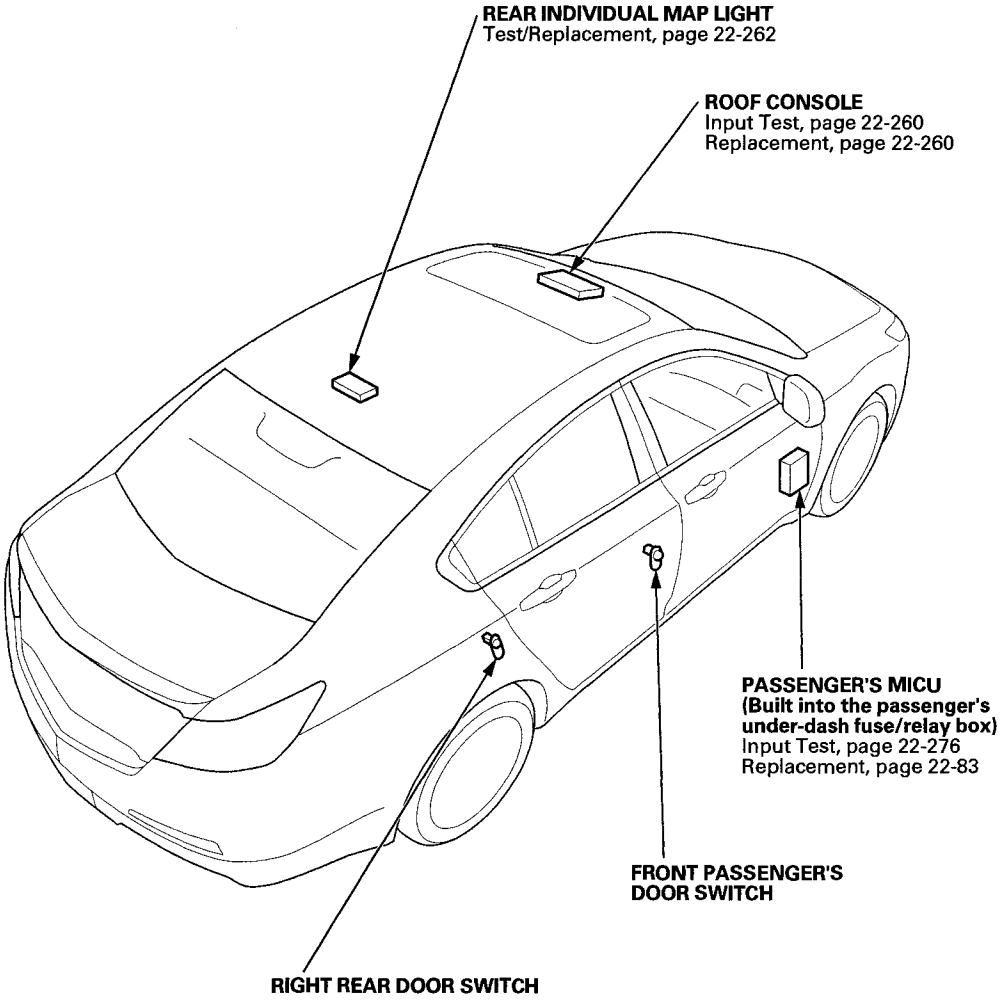

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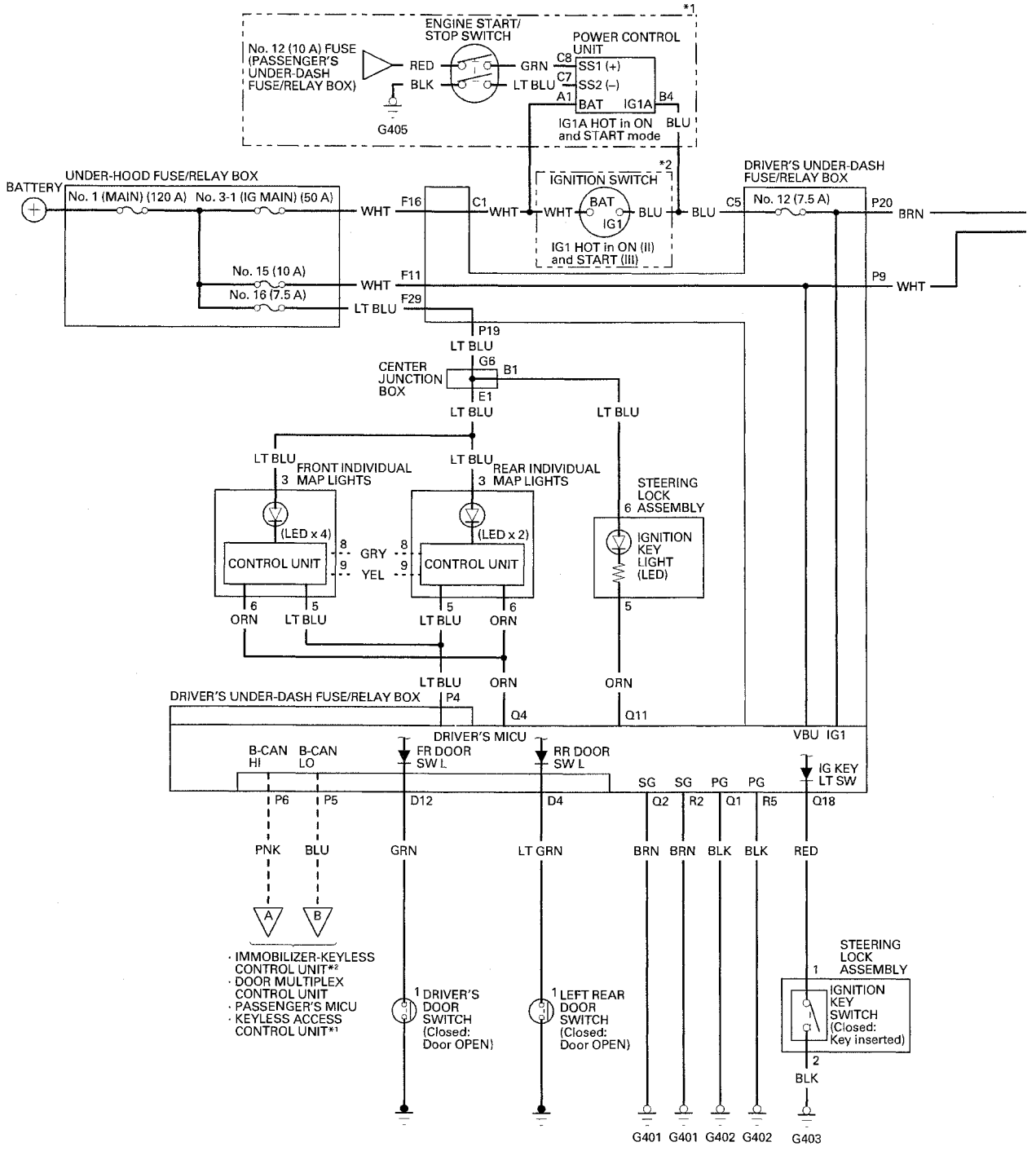
Entry Lights Control System

Circuit Diagram



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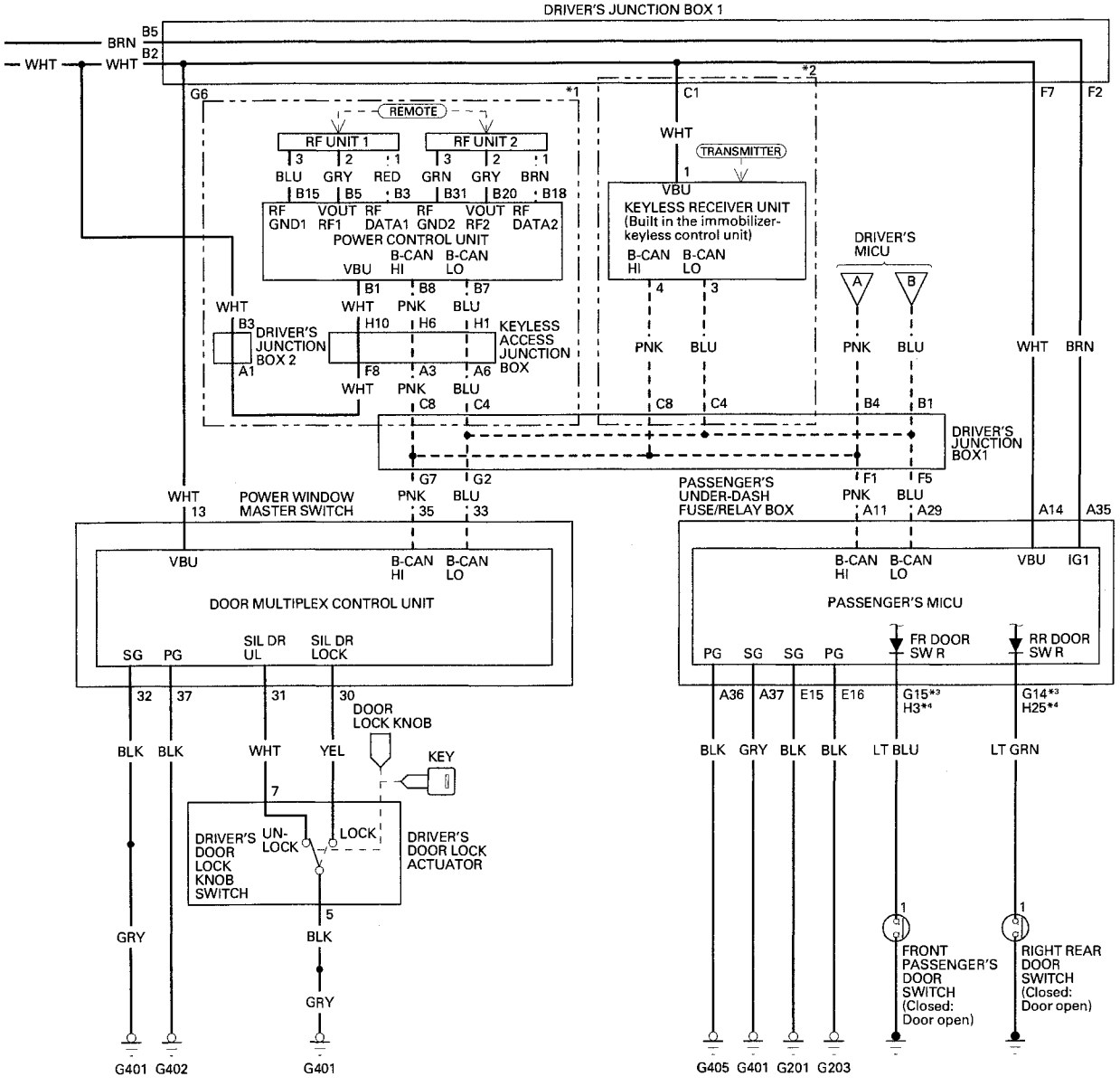
*1: With keyless access system
*2: Without keyless access system
*3: Without SH-AWD
*4: With SH-AWD
– – – – – – – : B-CAN line
– – – – – – – – – – : Other communication line



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Entry Lights Control System

Control Unit Input Test

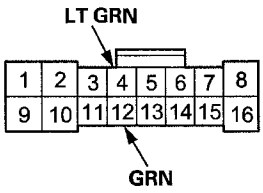
NOTE: Before testing, troubleshoot the multiplex integrated control system first, using B-CAN System Diagnosis Test Mode A (see page 22-135).

Driver's MICU

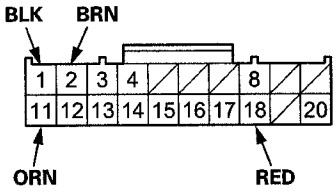
1. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
2. Remove the driver's dashboard undercover (see page 20-118).
3. Disconnect driver's under-dash fuse/relay box connectors D, P, Q, and R.

   NOTE: All connector views are wire side of female terminals.

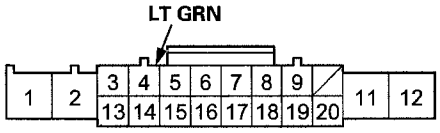
CONNECTOR D (16P)



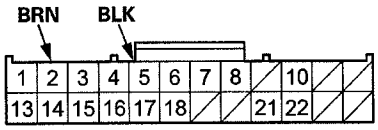
CONNECTOR Q (20P)



CONNECTOR P (20P)



CONNECTOR R (24P)



4. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
   - If the terminals look OK, go to step 5.

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5. Reconnect the connectors to the driver's under-dash fuse/relay box, and do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 6.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
Q1	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
Q2	BRN	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
R2	BRN	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
R5	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
D4	LT GRN	Left rear door open	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty left rear door switch • Faulty left rear door switch ground • An open or high resistance in the wire
		Left rear door closed	Measure the voltage to ground: There should be about 5 V.	• Faulty left rear door switch • A short to ground in the wire
D12	GRN	Driver's door open	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty driver's door switch • Faulty driver's door switch ground • An open or high resistance in the wire
		Driver's door closed	Measure the voltage to ground: There should be about 5 V.	• Faulty driver's door switch • A short to ground in the wire
P4	LT GRN	Interior light switch in the DOOR position	Connect to ground with a jumper wire: The individual map lights should come on.	• Blown No. 16 (7.5 A) fuse in the under-hood fuse/relay box • Faulty roof console • An open or high resistance in the wire
Q11	ORN	Under all conditions	Connect to ground with a jumper wire: The ignition key light should come on.	• Blown No. 16 (7.5 A) fuse in the under-hood fuse/relay box • Faulty ignition key light • An open or high resistance in the wire
Q18	RED	Ignition key inserted into the ignition switch	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty ignition key switch • An open or high resistance in the wire • Poor ground (G403) or an open in the ground wire
		Ignition switch LOCK (0), and the ignition key removed from the ignition switch	Measure the voltage to ground: There should be about 5 V.	• Faulty ignition key switch • A short to ground in the wire

(cont'd)

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Control Unit Input Test (cont'd)

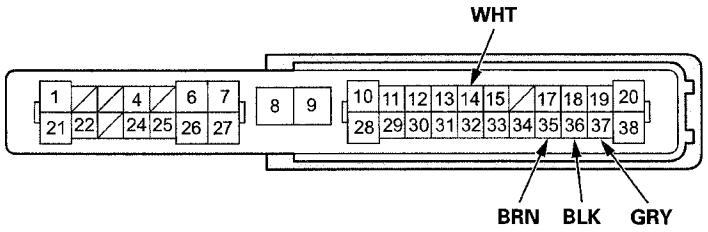
Passenger's MICU

6. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode, and remove the right kick panel (see page 20-81).
7. Disconnect passenger's under-dash fuse/relay box connectors A, E, and G*1 (or H*2).

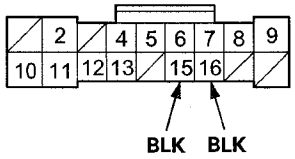
*1: Without SH-AWD
*2: With SH-AWD

NOTE: All connector views are wire side of female terminals.

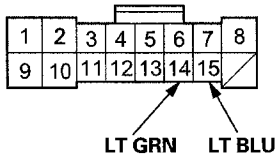
CONNECTOR A (38P)



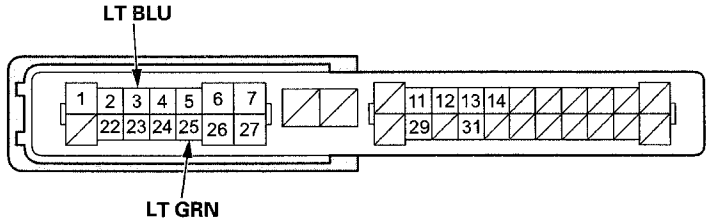
CONNECTOR E (18P)



CONNECTOR G (16P)*1



CONNECTOR H (38P)*2



***1: Without SH-AWD**
***2: With SH-AWD**

8. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary and recheck the system.
   - If the terminals look OK, go to step 9.

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9. Reconnect the connectors to the passenger's under-dash fuse/relay box, and do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 10.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
A14	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
A35	BRN	Ignition switch ON (II), or power mode ON	Measure the voltage to ground: There should be battery voltage.	• Blown No. 12 (7.5 A) fuse in the driver's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
A36	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G405) or an open in the ground wire • An open or high resistance in the wire
A37	GRY	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
E15	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G201) or an open in the ground wire • An open or high resistance in the wire
E16	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G203) or an open in the ground wire • An open or high resistance in the wire
G14*1 or H25*2	LT GRN	Right rear door open	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty right rear door switch • Faulty right rear door switch ground • An open or high resistance in the wire
		Right rear door closed	Measure the voltage to ground: There should be about 5 V.	• Faulty right rear door switch • A short to ground in the wire
G15*1 or H3*2	LT BLU	Front passenger's door open	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty front passenger's door switch • Faulty front passenger's door switch ground • An open or high resistance in the wire
		Front passenger's door closed	Measure the voltage to ground: There should be about 5 V.	• Faulty front passenger's door switch • A short to ground in the wire

*1: Without SH-AWD
*2: With SH-AWD

(cont'd)

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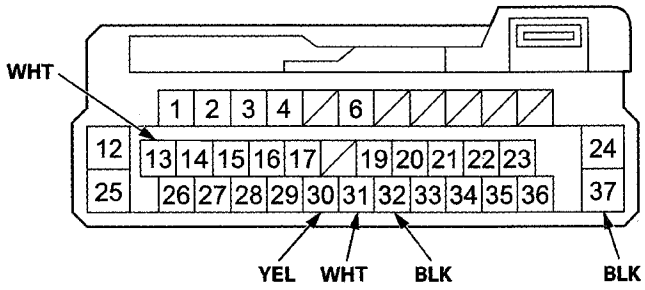
Control Unit Input Test (cont'd)

Door Multiplex Control Unit

10. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode, and remove the driver's door panel (see page 20-9).
11. Disconnect the 37P connector from the door multiplex control unit.

DOOR MULTIPLEX CONTROL UNIT 37P CONNECTOR



Wire side of female terminals

12. Inspect the connector and socket terminals to be sure they are all making good contact.
    - If the terminals are bent, loose or corroded, repair them as necessary and recheck the system.
    - If the terminals look OK, go to step 13.
13. Reconnect the 37P connector to the door multiplex control unit, and do the following input tests:
    - If any test indicates a problem, find and correct the cause, then recheck the system.
    - If all the input tests prove OK, go to step 14.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
13	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • Faulty driver's under-dash fuse/relay box • An open in the wire
32	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
37	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
30	YEL	Driver's door lock knob switch in LOCK	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • Faulty driver's door lock knob switch • An open or high resistance in the wire
		Driver's door lock knob switch in UNLOCK	Measure the voltage to ground: There should be battery voltage.	• Faulty driver's door lock knob switch • A short to ground in the wire

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Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
31	WHT	Driver's door lock knob switch in UNLOCK	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • Faulty driver's door lock knob switch • An open or high resistance in the wire
		Driver's door lock knob switch in LOCK	Measure the voltage to ground: There should be battery voltage.	• Faulty driver's door lock knob switch • A short to ground in the wire

14. If multiple failures are found on more than one control unit, replace the driver's under-dash fuse/relay box (includes the driver's MICU) (see page 22-81). If input failures are related to a particular control unit, replace the control unit.

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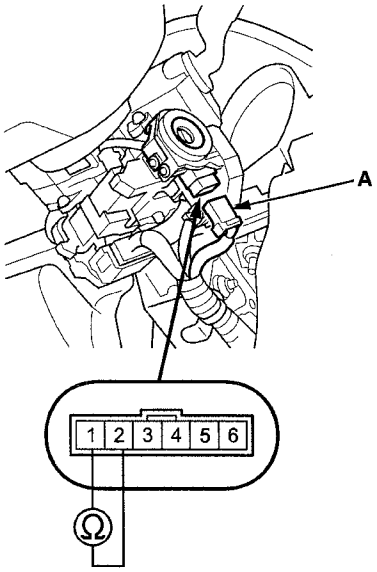
Ignition Key Switch Test

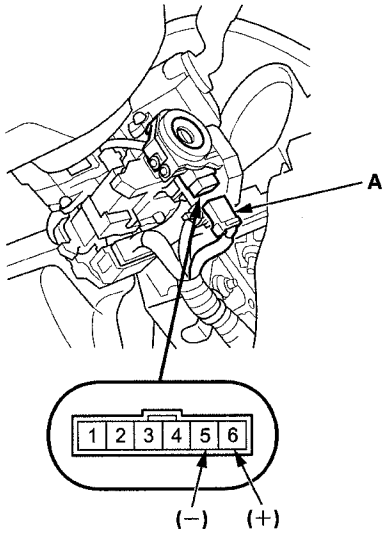
1. Remove the steering column upper and lower covers (see page 20-126).
2. Disconnect the 6P connector (A).



3. Check for continuity between terminals No. 1 and No. 2.
   - There should be continuity with the key in the ignition switch.
   - There should be no continuity with the key removed.
4. If the continuity is not as specified, the ignition key switch is faulty; replace the steering lock assembly (see page 17-16).

Ignition Key Light Test

1. Remove the steering column upper and lower covers (see page 20-126).
2. Disconnect the 6P connector (A).



3. The LED should come on when power is connected to terminal No. 6 and ground is connected to terminal No. 5.
4. If the LED does not come on, the ignition key light is faulty; replace the steering lock assembly (see page 17-16).

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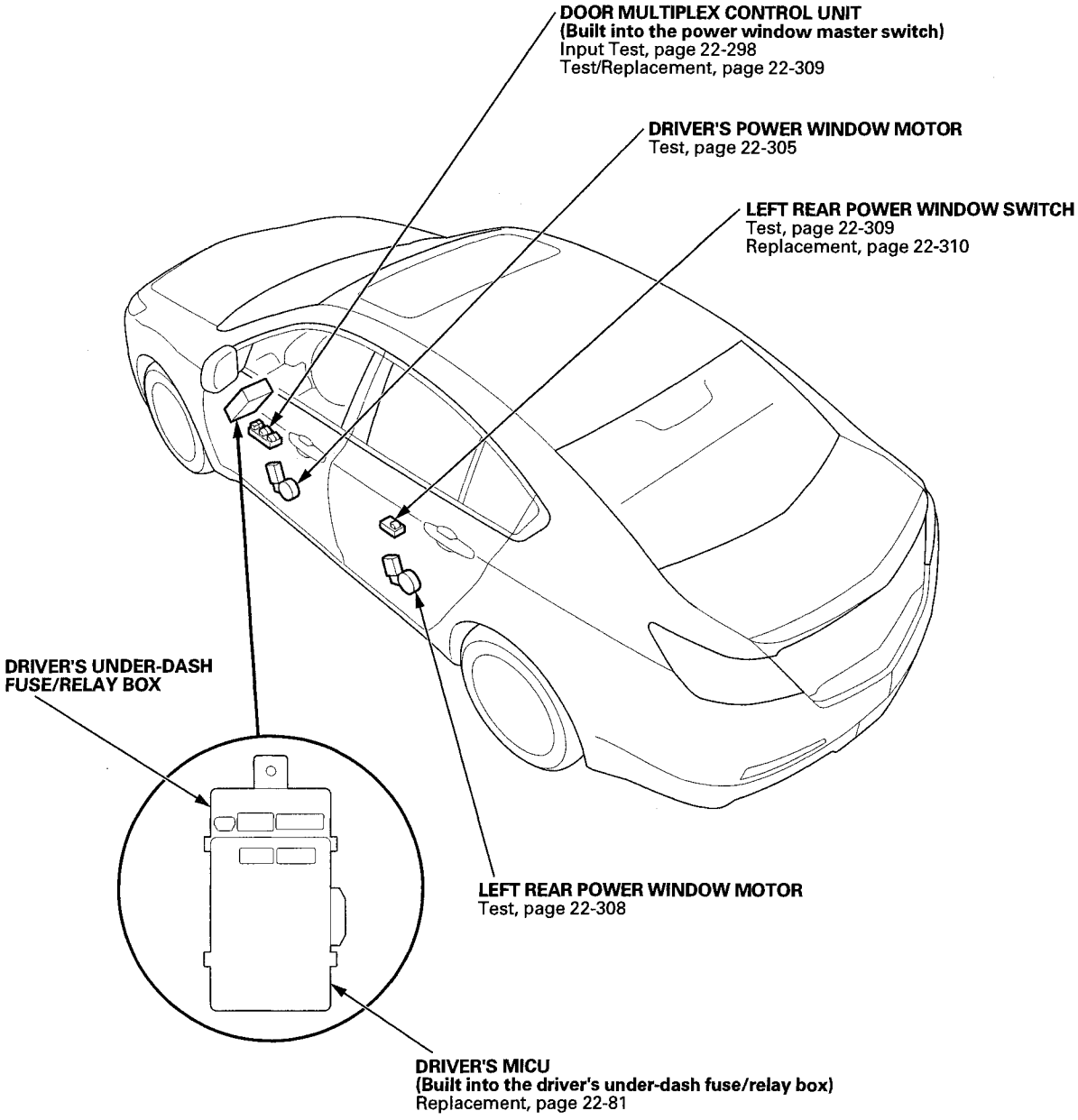
Component Location Index



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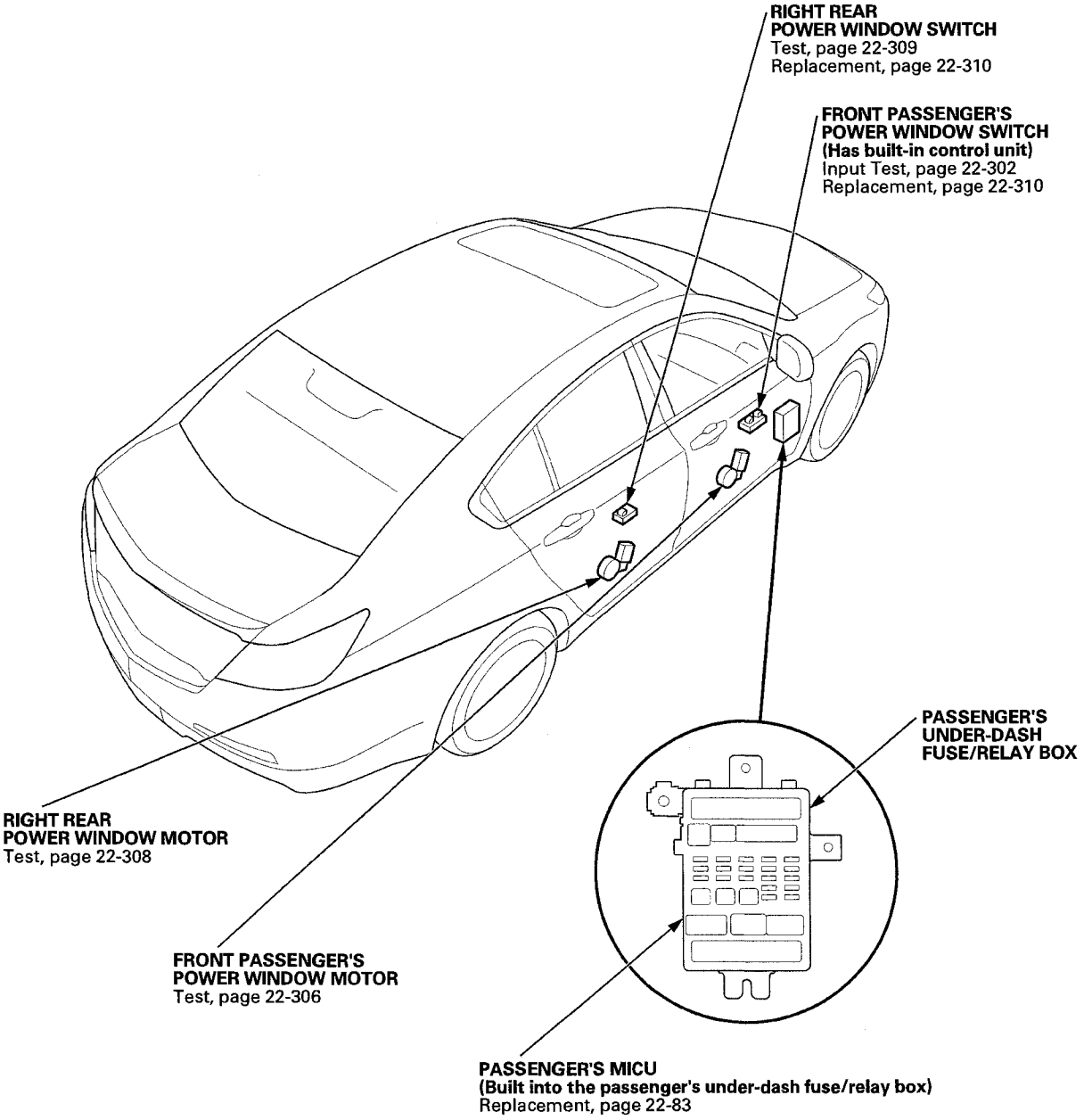
Component Location Index (cont'd)



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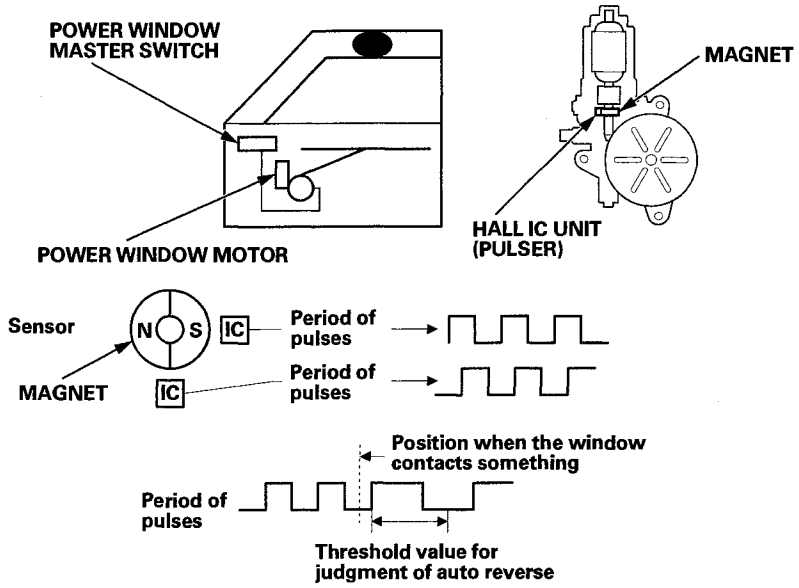
System Description

Auto Reverse Power Window Operation

The system is composed of the driver's MICU, passenger's MICU unit, door multiplex control unit (built into the power window master switch), front passenger's power window control unit (built into the front passenger's switch), and power window motors.

The driver's and front passenger's power window motors incorporate a Hall IC unit (pulser) which generates pulses during the motor's operation and sends pulses to the driver's and passenger's power window control units. As soon as the power window control units detect a change in the pulse frequency from the Hall IC unit (pulser), the power window control units make the power window motor stop and reverse. This prevents pinching your hand or fingers during auto-up operation. The auto reverse function does not work when the power window master switch is held in the closed position.



Key Cylinder Operation

With the key inserted in the driver's door key cylinder, turn the key a second time within 15 seconds and hold it to operate the windows and moonroof (clockwise to open, counterclockwise to close). The windows and moonroof stop moving when the key is released. The auto reverse operation is not active when closing the windows and moonroof with the key cylinder.

Keyless Operation

By pressing and holding the UNLOCK button of the keyless transmitter, or remote a second time within 15 seconds, the windows and moonroof open. The windows and moonroof stop moving when the UNLOCK button is released. The windows do not close with the LOCK button.

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Resetting the Power Window Control Unit

Reset the power windows after doing any of the following actions:

- Power window regulator replacement, removal/installation, or repair
- Power window motor replacement, removal/installation, or repair
- Window run channel replacement or removal/installation
- Front passenger's power window switch replacement or removal/installation*
- Door glass replacement, removal/installation, or repair
- Power is removed from the driver's power window master switch or front passenger's power window switch while the power window timer is ON.

NOTE: If the front passenger's power window has lost power when the key off timer is ON, it cannot be operated from the driver's switch and must be reset from the front passenger's power window switch.

Using the HDS

1. Connect the HDS to the data link connector.
2. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode, then enter the vehicle's VIN and mileage at the prompts.
3. Select BODY ELECTRICAL from the SYSTEM SELECT menu.
4. From the BODY ELECTRICAL SYSTEM SELECT menu, select POWER WINDOWS.
5. From the MODE menu, select ADJUSTMENT.
6. From the ADJUSTMENT menu, select WINDOW RESET for driver's side window.
7. Follow the prompts on the screen.
8. Confirm that the power window control unit is reset by using the power window AUTO UP and AUTO DOWN function.

Without the HDS

NOTE: Do the reset procedure from the power window switch of the affected window.

1. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
2. Move the power window all the way down by using the power window DOWN switch.
3. Open the driver's or front passenger's door.
4. Do the following four times to clear the memory before going to step 5:

   NOTE: Do each bullet step within 5 seconds of each other.
   - Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
   - Push and hold the driver's power window DOWN switch.
   - Turn the ignition switch to ON (II) or press the engine start/stop button to select the ON mode.
   - Release the driver's power window DOWN switch.
5. Confirm that AUTO UP no longer works. If AUTO UP still works, repeat step 4, paying close attention to the 5 second time limit.
6. Move the power window all the way down using the power window DOWN switch.
7. Pull up and hold the power window UP switch until the power window is all the way up, then continue to hold the switch for several seconds.
8. Confirm that the power window control unit is reset by using the power window AUTO UP and AUTO DOWN function. If the power window still does not work in AUTO, repeat the procedure several times, paying close attention to the 5 second time limit between each bulleted step. If the window still does not work, troubleshoot the power window circuit.

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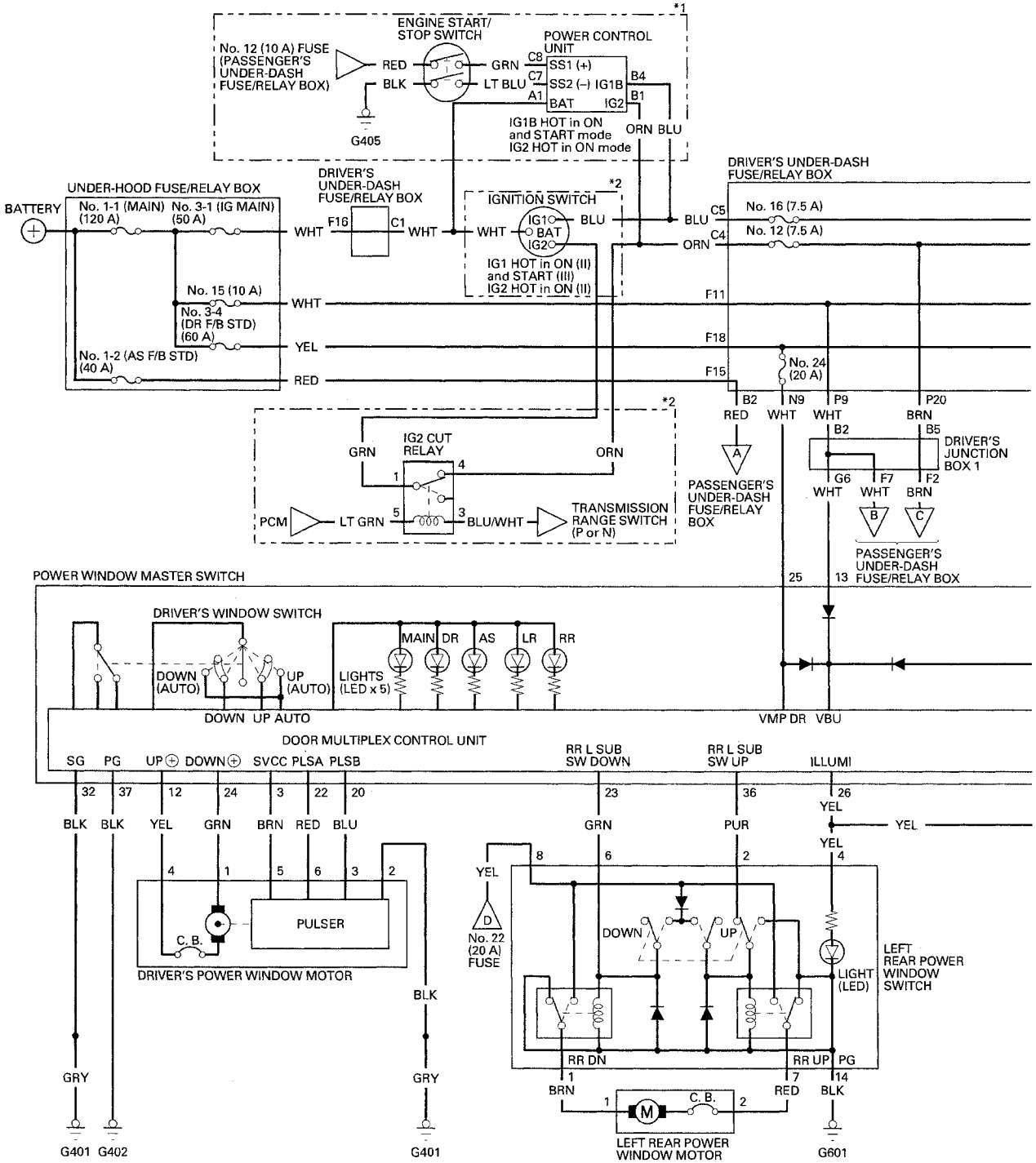
Power Windows

Circuit Diagram



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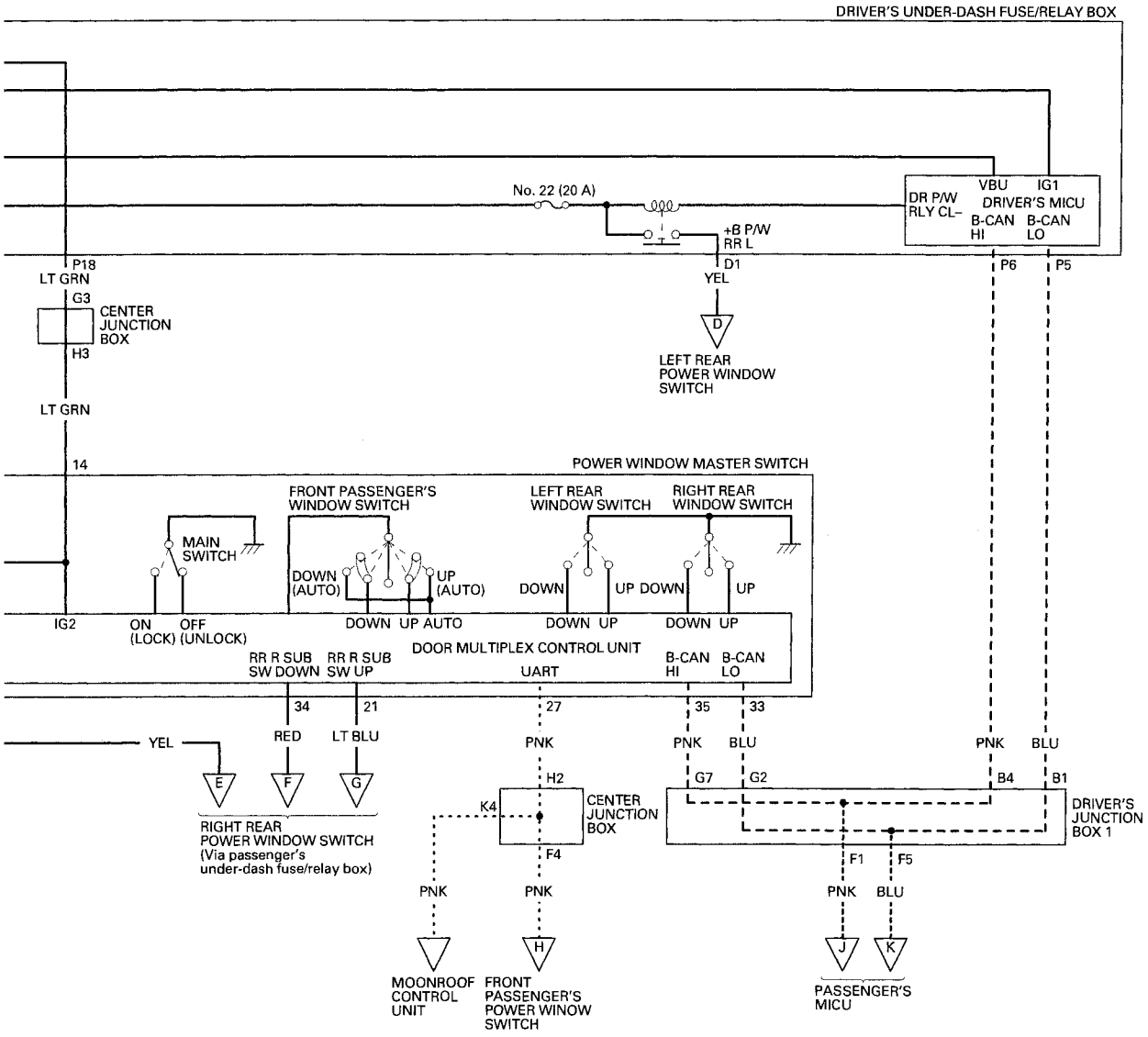
*1: With keyless access system
*2: Without keyless access system
*3: Without SH-AWD and keyless access system
– – – – – – – – : B-CAN line
– – – – – – – – – – : Other communication line



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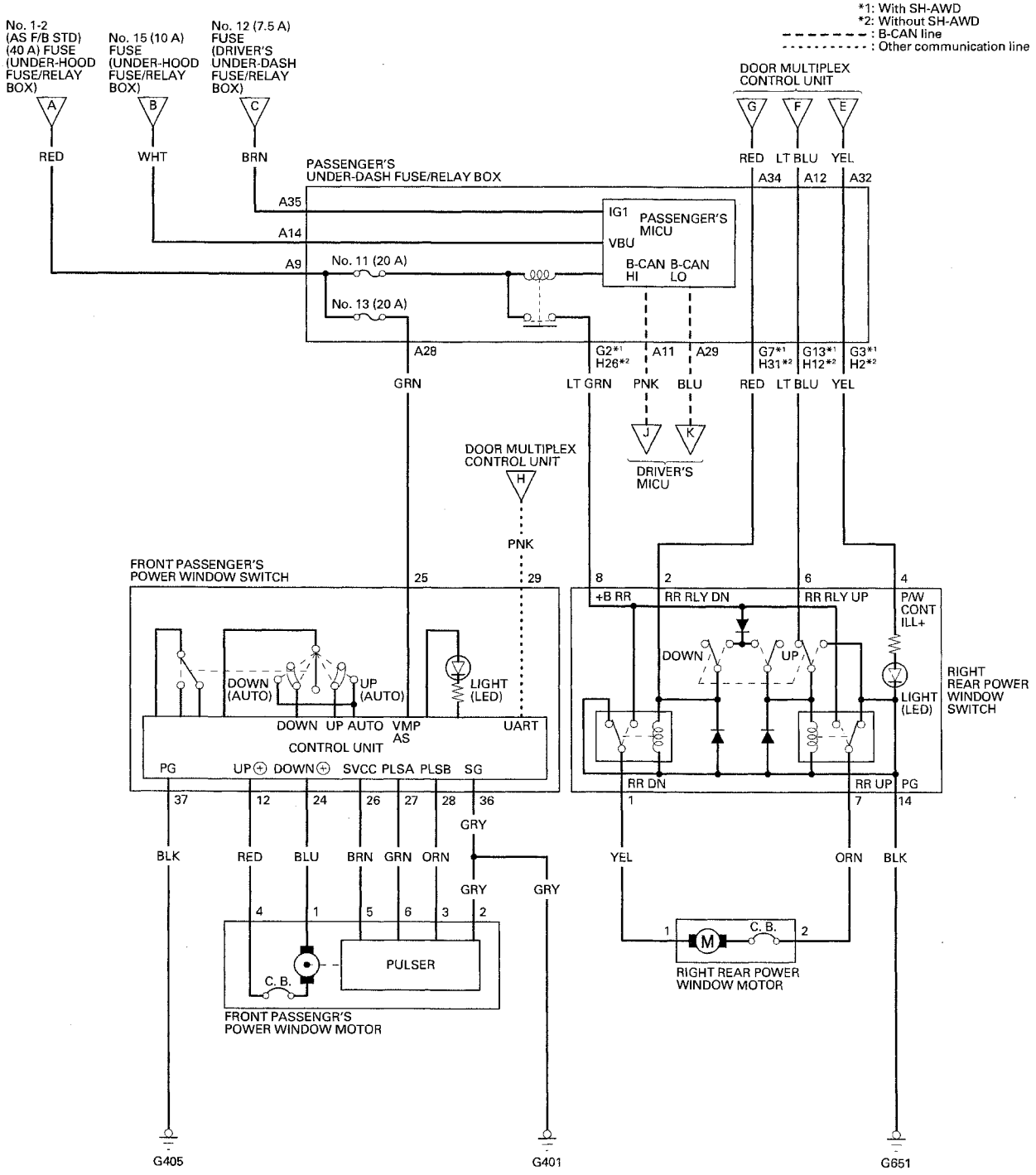
Circuit Diagram (cont'd)



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DTC Troubleshooting

DTC B1125: Driver's Power Window Motor A Pulse Error

DTC B1126: Driver's Power Window Motor B Pulse Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Open and close the driver's power window by using the power window master switch manually.

   Does the window motor operate?

   YES–Go to step 4.

   NO–Test the driver's power window motor (see page 22-305). If the motor tests OK, go to step 4.
4. Check for DTCs with the HDS.

   Are DTCs B1125 and/or B1126 indicated?

   YES–Go to step 5

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Select the POWER WINDOWS from the BODY ELECTRICAL system select menu, and enter DATA LIST.
6. Check the DETECT/NONE information of the driver's window motor A-phase pulse signal in the DATA LIST.

   Does the information indicator display DETECT while the window is moving, and display NONE when the window is stopped?

   YES–Replace the power window master switch (see page 22-309).■

   NO–Go to step 7.
7. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
8. Disconnect the door multiplex control unit 37P connector.
9. Disconnect the driver's power window motor 6P connector.

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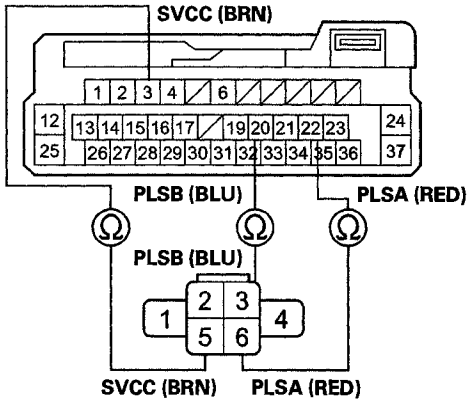
DTC Troubleshooting (cont'd)

10. Check for continuity between terminals No. 3, No. 20, and No. 22 of door multiplex control unit 37P connector and terminals No. 5, No. 3, and No. 6 of the driver's power window motor 6P connector respectively.

DOOR MULTIPLEX CONTROL UNIT 37P CONNECTOR
Wire side of female terminals



DRIVER'S POWER WINDOW MOTOR 6P CONNECTOR
Wire side of female terminals

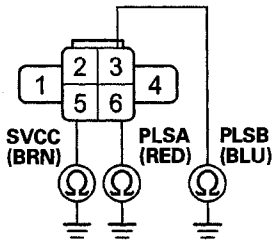
Is there continuity?

YES–Go to step 11.

NO–Repair an open in the wire between the door multiplex control unit and the driver's power window motor.■

11. Check for continuity between driver's power window motor 6P connector terminals No. 3, No. 5, and No. 6 and body ground individually.

DRIVER'S POWER WINDOW MOTOR 6P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 12.

12. Test the driver's power window motor (see page 22-305).

Is the motor OK?

YES–Replace the power window master switch (see page 22-309).■

NO–Replace the driver's power window motor (see page 20-21).■

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DTC B1130: Front Passenger's Power Window Motor A Pulse Error

DTC B1131: Front Passenger's Power Window Motor B Pulse Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTC with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Open and close the front passenger's power window by using the front passenger's power window switch manually.

   Does the window motor operate?

   YES–Go to step 4.

   NO–Test the front passenger's power window motor (see page 22-306). If the motor tests OK, go to step 4.
4. Check for DTCs with the HDS.

   Are DTCs B1130 and/or B1131 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Select the POWER WINDOWS from the BODY ELECTRICAL system select menu, and enter DATA LIST.
6. Check the DETECT/NONE information of the front window motor A-phase and B-phase signal in the DATA LIST.

   Does the information indicator display DETECT while the window is moving, and display NONE when the window is stopped?

   YES–Replace the front passenger's power window switch (see page 22-302).■

   NO–Go to step 7.
7. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
8. Disconnect the front passenger's power window switch 37P connector.
9. Disconnect the front passenger's power window motor 6P connector.

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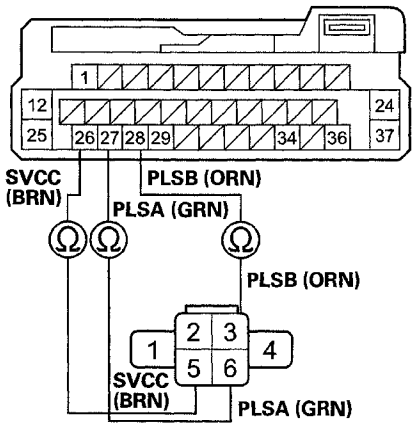
DTC Troubleshooting (cont'd)

10. Check for continuity between front passenger's power window switch 37P connector terminals No. 26, No. 27, and No. 28 and passenger's power window motor 6P connector terminals No. 5, No. 6, and No. 3 respectively.

FRONT PASSENGER'S POWER WINDOW SWITCH 37P CONNECTOR

Wire side of female terminals



FRONT PASSENGER'S POWER WINDOW MOTOR 6P CONNECTOR

Wire side of female terminals

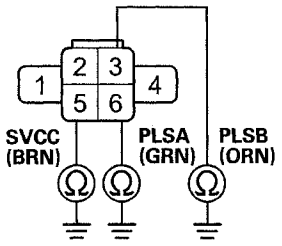
Is there continuity?

YES–Go to step 11.

NO–Repair an open in the wire between the front passenger's window switch and the front passenger's power window motor.■

11. Check for continuity front passenger's window motor 6P connector between terminals No. 3, No. 5, and No. 6 and body ground individually.

FRONT PASSENGER'S POWER WINDOW MOTOR 6P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 12.

12. Test the front passenger's power window motor (see page 22-306).

Is the motor OK?

YES–Replace the front passenger's power window switch (see page 22-310).■

NO–Replace the front passenger's power window motor (see page 20-21).■

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DTC B1140: Driver's Power Window Position Detect Circuit Malfunction

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Open and close the driver's power window by using the driver's switch manually.
4. Check for DTCs with the HDS.

   Is DTC B1125 or B1126 indicated?

   YES–Troubleshoot the DTC B1125 or B1126 (see page 22-289).■

   NO–Go to step 5.
5. Reset the power window control unit (see page 22-284).
6. Check for DTCs again with the HDS.

   Is DTC B1140 indicated?

   YES–Go to step 7.

   NO–The system is OK at this time.■
7. Substitute a known-good power window master switch.
8. Open and close the driver's power window by using the driver's switch manually.
9. Check for DTCs with the HDS.

   Is DTC B1140 indicated?

   YES–Replace the driver's power window motor (see page 20-21).■

   NO–Faulty door multiplex control unit; replace the power window master switch (see page 22-309).■

DTC B1142: Door Multiplex Control Unit Lost Communication With Front Passenger's Power Window Switch (UART Line Open)

NOTE:

- If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).
- Before troubleshooting, check the No. 12 (7.5 A), No. 16 (7.5 A) and No. 24 (20 A) fuses in the driver's under-dash fuse/relay box

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Open and close all power windows by using the power window master switch.
4. Check for DTCs with the HDS.

   Is DTC B1142 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
6. Disconnect the door multiplex control unit 37P connector.
7. Disconnect the moonroof control unit 14P connector.

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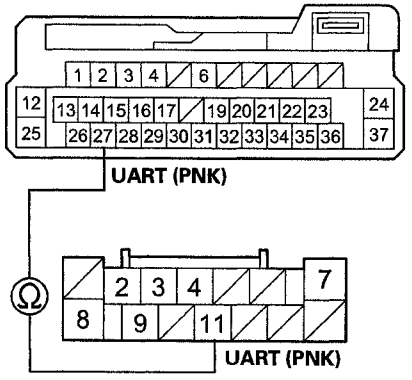
DTC Troubleshooting (cont'd)

8. Check for continuity between power window master switch 37P connector terminal No. 27 and moonroof control unit 14P connector terminal No. 11.

DOOR MULTIPLEX CONTROL UNIT 37P CONNECTOR
Wire side of female terminals



MOONROOF CONTROL UNIT 14P CONNECTOR
Wire side of female terminals

Is there continuity?

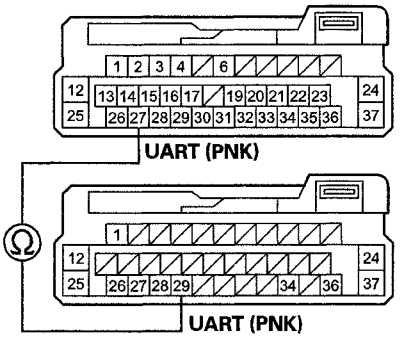
YES–Go to step 9.

NO–Repair an open in the wire.■

9. Disconnect the front passenger's power window switch 37P connector.

10. Check for continuity between door multiplex control unit 37P connector terminal No. 27 and front passenger's power window switch 37P connector terminal No. 29.

DOOR MULTIPLEX CONTROL UNIT 37P CONNECTOR
Wire side of female terminals



FRONT PASSENGER'S POWER WINDOW SWITCH 37P CONNECTOR
Wire side of female terminals

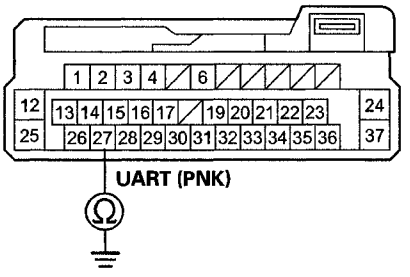
Is there continuity?

YES–Go to step 11.

NO–Repair an open in the wire.■

11. Check for continuity between door multiplex control unit 37P connector terminal No. 27 and body ground.

DOOR MULTIPLEX CONTROL UNIT 37P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in PNK wire.■

NO–Go to step 12.

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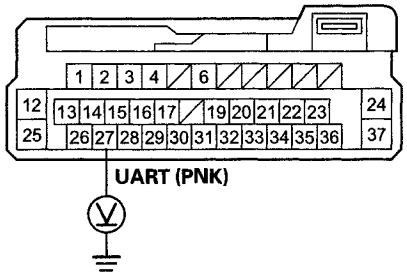
12. Reconnect the door multiplex control unit 37P connector.
13. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
14. Measure the voltage between door multiplex control unit 37P connector terminal No. 27 and body ground.

DOOR MULTIPLEX CONTROL UNIT 37P CONNECTOR



Wire side of female terminals

Is there less than 0.2 V?

YES–Substitute a known-good power window master switch, then reset the power window control unit and recheck. If the DTC goes away, replace the original power window master switch (see page 22-309). If the DTC is still present, substitute a known-good passenger's power window switch, and recheck. If the DTC is still present, replace the moonroof control unit (see page 20-73).■

NO–Repair a short to power in the wire.■

DTC B1145: Front Passenger's Power Window Position Detect Circuit Malfunction

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTC with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Open and close the front passenger's power window by using the front passenger's switch manually.
4. Check for DTCs with the HDS.

   Is DTC B1130 or B1131 indicated?

   YES–Troubleshoot DTC B1130 or B1131 (see page 22-291).■

   NO–Go to step 5.
5. Reset the power window control unit and the front passenger's power window control unit (see page 22-284).
6. Check for DTCs again with the HDS.

   Is DTC B1145 indicated?

   YES–Go to step 7.

   NO–The system is OK at this time.■
7. Substitute a known-good passenger's power window switch.
8. Open and close the front passenger's power window by using the front passenger's switch manually.
9. Check for DTCs with the HDS.

   Is DTC B1145 indicated?

   YES–Replace the front passenger's power window motor (see page 20-21).■

   NO–Replace the front passenger's power window switch (see page 22-310).■

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DTC Troubleshooting (cont'd)

DTC U0155: Door Multiplex Control Unit Lost Communication With Gauge Control Module

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U0155 indicated?

   YES–Go to the gauge control module input test, and do all power, ground and communication input tests (see page 22-363). If the tests prove OK, replace the gauge control module (see page 22-367).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at the gauge control module and the related units.■

DTC U0164: Door Multiplex Control Unit Lost Communication With Climate Control Unit

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U0164 indicated?

   YES–Go to the door multiplex control unit input test and check the power and ground. If OK, replace the driver's power window master switch (see page 22-309).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections between the door multiplex control unit and climate control unit.■

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DTC U1282: Door Multiplex Control Unit Lost Communication With Driver's MICU

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U1282 indicated?

   YES–Go to the driver's MICU input test, and do all power, ground and communication input tests (see page 22-156). If the tests prove OK, replace the driver's under-dash fuse/relay box (see page 22-81).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at driver's under-dash fuse/relay box connector P (20P) and the related units.■

DTC U1283: Door Multiplex Control Unit Lost Communication With Passenger's MICU

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U1283 indicated?

   YES–Go to the passenger's MICU input test, and do all power, ground and communication input tests (see page 22-156). If the tests prove OK, replace the passenger's under-dash fuse/relay box (see page 22-81).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at passenger's under-dash fuse/relay box connector A (38P) and the related units.■

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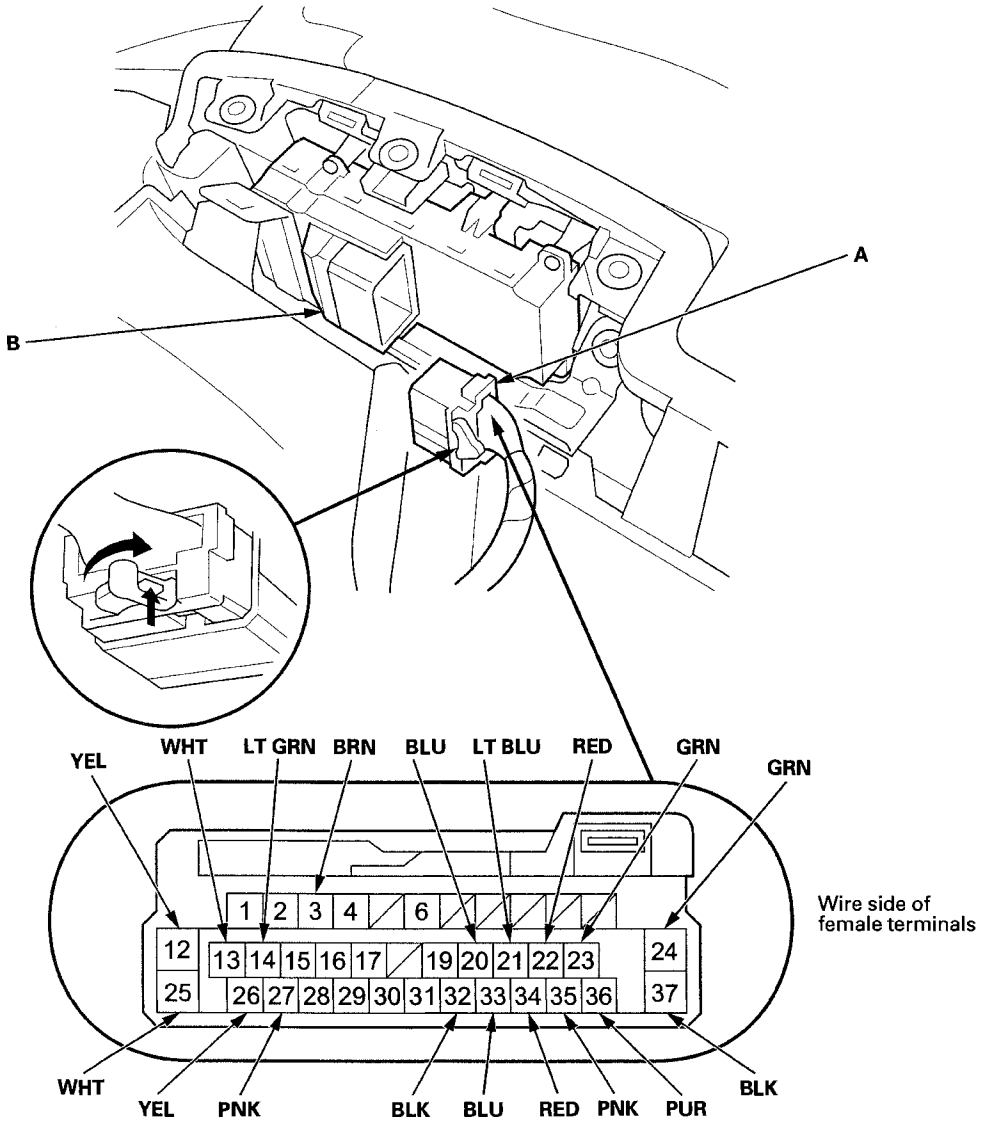
Power Window Master Switch Input Test

NOTE: Before testing, troubleshoot the multiplex integrated control unit first, using B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode, open and close the driver's door, then remove the driver's door panel (see page 20-9).
2. Disconnect the door multiplex control unit 37P connector (A) from the power window master switch (B).



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3. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary and recheck the system.
   - If the terminals look OK, go to step 4.
4. Reconnect the driver's door harness to driver's door subharness.
5. With the door multiplex control unit 37P connector still disconnected from the power window master switch, do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 6.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
12 24	YEL GRN	Turn the ignition switch ON (II), or power mode ON connect terminals No. 25 and No. 24 (or No. 12), and terminals No. 12 (or No. 24) and No. 37 with jumper wires.	Check driver's power window motor operation: The driver's power window should open (or close).	• Faulty driver's power window motor • An open or high resistance in the wire
23 36	GRN PUR	Turn the ignition switch ON (II), or power mode ON connect terminals No. 25 and No. 36 (or No. 23), and terminals No. 23 (or No. 36) and No. 37 with jumper wires.	Check left rear power window motor operation: The left rear power window should open (or close).	• Poor ground (G601*1 or G603*2) or an open in the ground wire • Faulty left rear power window switch • Faulty left rear power window motor • An open or high resistance in the wire
21 34	LT BLU RED	Turn the ignition switch ON (II), or power mode ON connect terminals No. 25 and No. 34 (or No. 21), and terminals No. 21 (or No. 34) and No. 37 with jumper wires.	Check right rear power window motor operation: The right rear power window should open (or close).	• Faulty passenger's under-dash fuse/relay box • Poor ground (G651) or an open in the ground wire • Faulty right rear power window switch • Faulty right rear power window motor • An open or high resistance in the wire
25	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 24 (20 A) fuse in the driver's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
26	YEL	Turn the ignition switch ON (II), or power mode ON connect terminals No. 25 and No. 26 with a jumper wire.	Check left and right rear power window switch lights: The left and right rear power window switch lights should come on.	• Faulty LED • Blown No. 24 (20 A) fuse in the driver's under-dash fuse/relay box • Poor ground (G601*1 or G603*2, G651) or an open in the ground wire • Faulty left or right rear power window switch • A short to ground in the wire • An open or high resistance in the wire

*1: Without SH-AWD and navigation system
*2: With SH-AWD and navigation system

(cont'd)

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Power Window Master Switch Input Test (cont'd)

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
27	PNK	Disconnect the front passenger's power window switch 37P connector	Check for continuity between power window master switch terminal No. 27 and front passenger's power window switch 37P connector terminal No. 29: There should be continuity.	An open in the UART wire
			Check for continuity to ground: There should be no continuity.	A short to ground in the wire
33	BLU	Disconnect driver's under-dash fuse/relay box connector P (20P)	Check for continuity between power window master switch terminal No. 33 and driver's under-dash fuse/relay box connector P (20P) terminal No. 5: There should be continuity.	An open in the B-CAN wire
			Check for continuity to ground: There should be no continuity.	A short to ground in the wire
35	PNK	Disconnect driver's under-dash fuse/relay box connector P (20P)	Check for continuity between power window master switch terminal No. 35 and driver's under-dash fuse/relay box connector P (20P) terminal No. 6: There should be continuity.	An open in the B-CAN wire
			Check for continuity to ground: There should be no continuity.	A short to ground in the wire

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6. Reconnect the door multiplex control unit connector to the power window master switch, and do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, the door multiplex control unit is faulty; replace the power window master switch (see page 22-309).

   NOTE: If you replace the power window master switch, reset the power window control unit (see page 22-284).

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
13	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
14	LT GRN	Ignition switch ON (II), or power mode ON	Measure the voltage to ground: There should be battery voltage.	• Blown No. 16 (7.5 A) fuse in the driver's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
25	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 24 (20 A) fuse in the driver's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
32	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
37	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
3	BRN	Ignition switch ON (II), or power mode ON	Measure the voltage to ground: There should be battery voltage.	• Faulty power window master switch • A short to ground in the wire
20	BLU	Ignition switch ON (II), or power mode ON and driver's power window moving up or down	Measure the voltage between terminals No. 20 and No. 37: An analog meter should alternate between 0 V and about 5 V (a digital voltmeter should read about 2.5 V while the window moves).	• Faulty power window master switch • Faulty driver's power window motor • An open or high resistance in the wire • A short to ground in the wire
22	RED	Ignition switch ON (II), or power ON and driver's power window moving up or down	Measure the voltage between the terminals No. 22 and No. 37: An analog meter should alternate between 0 V and about 5 V (a digital voltmeter should read about 2.5 V while the window moves).	• Faulty power window master switch • Faulty driver's power window motor • An open or high resistance in the wire • A short to ground in the wire

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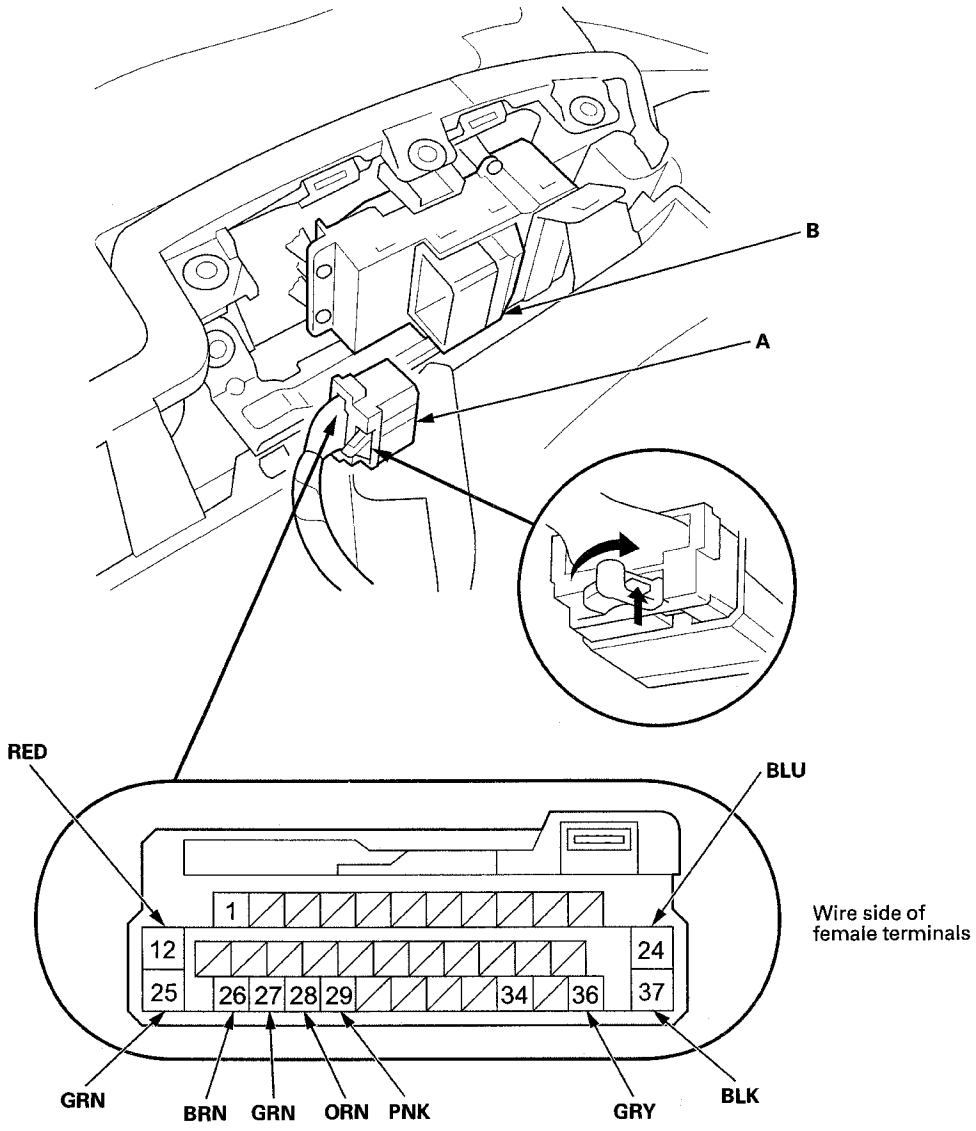
Front Passenger's Power Window Switch Input Test

1. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode, open and close the driver's door, then remove the front passenger's door panel (see page 20-9).
2. Disconnect the front passenger's power window switch 37P connector (A) from the front passenger's power window switch (B).



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3. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary and recheck the system.
   - If the terminals look OK, go to step 4.
4. With the connector still disconnected, do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 5.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
12 24	RED BLU	Under all conditions, connect terminals No. 25 and No. 24 (or No. 12), and terminals No. 12 (or No. 24) and No. 37 with jumper wires.	Check front passenger's power window motor operation: The front passenger's power window should open (or close).	• Faulty front passenger's power window motor • An open or high resistance in the wire
25	GRN	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 13 (20 A) fuse in the passenger's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box • Faulty passenger's under-dash fuse/relay box • An open or high resistance in the wire
29	PNK	Under all conditions, disconnect the power window master switch 37P connector.	Check for continuity between front passenger's power window switch 37P connector terminal No. 29 and power window master switch 37P connector terminal No. 27: There should be continuity.	An open in the UART wire

(cont'd)

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Front Passenger's Power Window Switch Input Test (cont'd)

5. Reconnect the front passenger's power window switch connector to the front passenger's power window switch, and do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, replace the front passenger's power window switch (see page 22-310).

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
37	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G405) or an open in the ground wire • An open or high resistance in the wire
26	BRN	Ignition switch ON (II), or power mode ON	Measure the voltage to ground: There should be battery voltage.	• Faulty front passenger's power window switch • A short to ground in the wire
27	GRN	Ignition switch ON (II), or power mode ON, and front passenger's power window switch moving up or down	Measure the voltage between terminals No. 27 and No. 37: An analog meter should alternate between 0 V and about 5 V (a digital voltmeter should read about 2.5 V while the window moves).	• Faulty front passenger's power window switch • Faulty front passenger's power window motor • An open or high resistance in the wire • A short to ground in the wire
28	ORN	Ignition switch ON (II), or power mode ON, and front passenger's power window switch moving up or down	Measure the voltage between terminals No. 28 and No. 37: An analog meter should alternate between 0 V and about 5 V (a digital voltmeter should read about 2.5 V while the window moves).	• Faulty front passenger's power window switch • Faulty front passenger's power window motor • An open or high resistance in the wire • A short to ground in the wire
36	GRY	Under all conditions, disconnect the front passenger's power window motor 6P connector.	Check for continuity to ground: There should be continuity.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire

6. Reset the power window control unit (see page 22-284).

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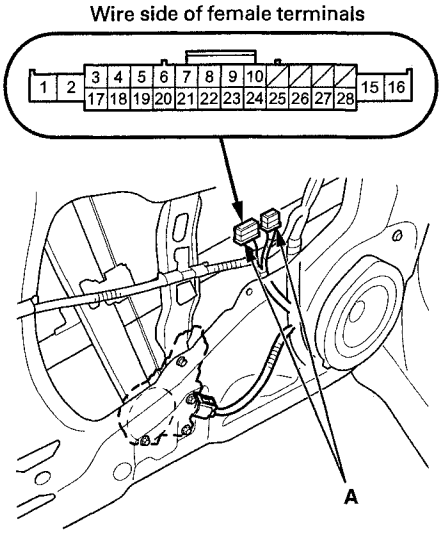
Driver's Power Window Motor Test

Motor Test

1. Remove the driver's door panel (see page 20-9), and disconnect the driver's door wire harness connectors (A) from the driver's door subharness.

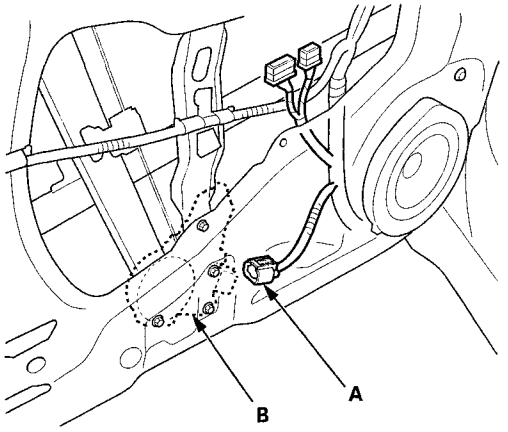


2. At the driver's door wire harness 28P connector, test the power window motor in each direction by connecting battery power and ground according to the table. When the motor stops running, disconnect one lead immediately.

Direction \ Terminal	2	16
UP	⊕	⊖
DOWN	⊖	⊕

3. If the motor does not run or fails to run smoothly, go to step 4, if the motor runs smoothly, go to step 7.

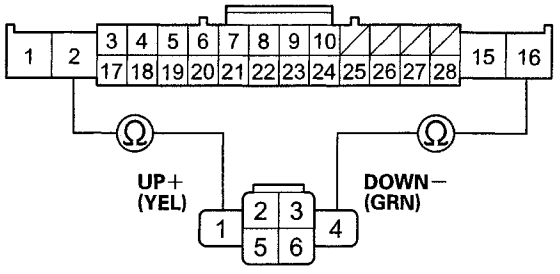
4. Disconnect the 6P connector (A) from the driver's power window motor (B).



5. Check for continuity between driver's door harness 28P connector terminals No. 2 and No. 16, and driver's power window motor 6P connector terminals No. 1 and No. 4 respectively. There should be continuity.

DRIVER'S DOOR HARNESS 28P CONNECTOR	DRIVER'S POWER WINDOW MOTOR 6P CONNECTOR
Terminal No. 2	Terminal No. 1
Terminal No. 16	Terminal No. 4

DRIVER'S DOOR HARNESS 28P CONNECTOR
Wire side of female terminals



DRIVER'S POWER WINDOW MOTOR 6P CONNECTOR
Wire side of female terminals

6. If there is no continuity, repair an open in the wires. If the wire harness is OK, replace the driver's power window motor.

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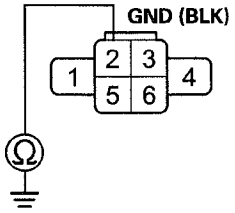
Driver's Power Window Motor Test (cont'd)

Pulser Test

7. Check for continuity between driver's power window motor 6P connector terminal No. 2 and body ground. There should be continuity.
   - If there is continuity, go to step 8.
   - If there is no continuity, check for an open in the BLK and/or GRY wire or poor ground (G401).

DRIVER'S POWER WINDOW MOTOR 6P CONNECTOR



Wire side of female terminals

8. Do the power window master switch input test terminals No. 3, No. 20, and No. 22 (see page 22-298).

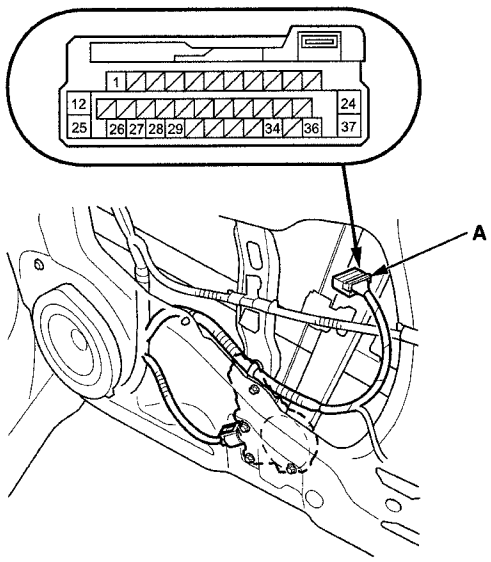
Front Passenger's Power Window Motor Test

Motor Test

1. Remove the front passenger's door panel (see page 20-9).
2. Test the front passenger's power window motor in each direction by connecting battery power and ground to the front passenger's power window switch 37P connector (A) according to the table.

Terminal / Direction	12	24
UP	⊕	⊖
DOWN	⊖	⊕

Wire side of female terminals



3. If the front passenger's power window motor does not run or fails to run smoothly, go to step 4, if the motor runs smoothly, go to step 7.

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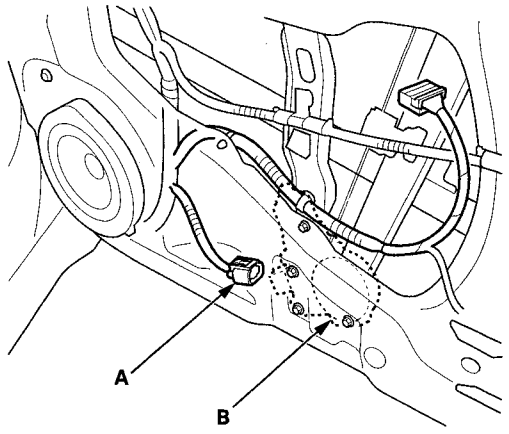
4. Disconnect the 6P connector (A) from the front passenger's power window motor (B).

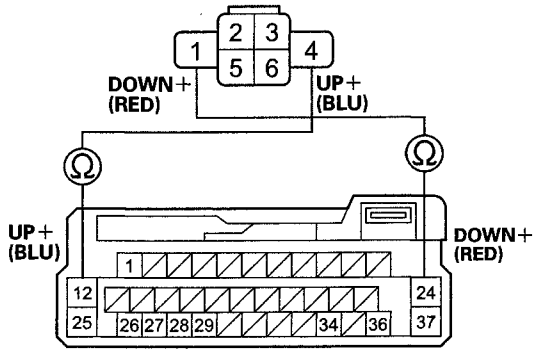


5. Check for continuity between front passenger's power window switch 37P connector terminals No. 12 and No. 24, and front passenger's power window motor 6P connector terminals No. 1 and No. 4 respectively. There should be continuity.

FRONT PASSENGER'S POWER WINDOW SWITCH 37P CONNECTOR	FRONT PASSENGER'S POWER WINDOW MOTOR 6P CONNECTOR
Terminal No. 12	Terminal No. 4
Terminal No. 24	Terminal No. 1

FRONT PASSENGER'S POWER WINDOW MOTOR 6P CONNECTOR

Wire side of female terminals



FRONT PASSENGER'S POWER WINDOW SWITCH 37P CONNECTOR

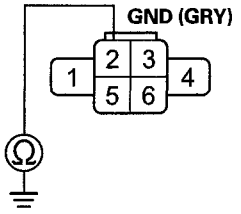
Wire side of female terminals

6. If there is no continuity, repair an open in the wires. If the wire harness is OK, replace the front passenger's power window motor.

Pulser Test

7. Check for continuity between front passenger's power window motor 6P connector terminal No. 2 and body ground. There should be continuity.
   - If there is continuity, go to step 8.
   - If there is no continuity, check for an open in the GRY wire or poor ground (G401).

FRONT PASSENGER'S POWER WINDOW MOTOR 6P CONNECTOR



Wire side of female terminals

8. Do the front passenger's power window switch input test terminals No. 26, No. 27, and No. 28 (see page 22-302).

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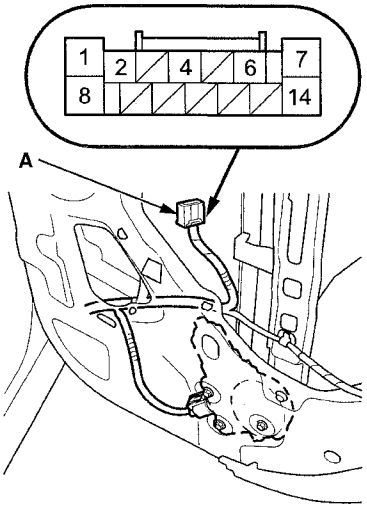
Rear Power Window Motor Test

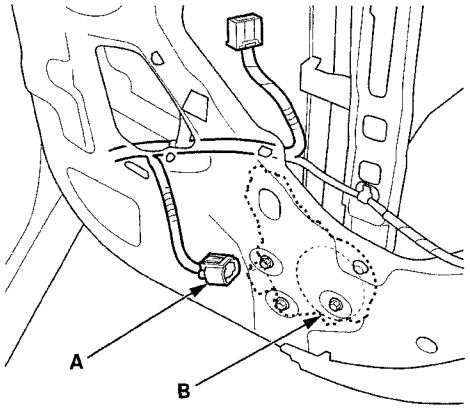
1. Remove the rear door panel (see page 20-27).
2. Test the rear power window motor in each direction by connecting battery power and ground to the rear power window switch 14P connector (A) according to the table.

Direction \ Terminal	1	7
UP	⊖	⊕
DOWN	⊕	⊖

Wire side of female terminals



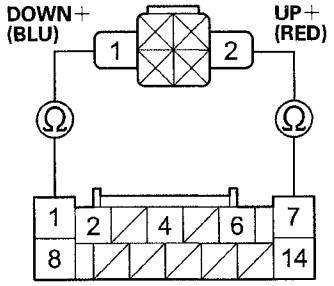
3. If the motor does not run or fails to run smoothly, go to step 4.
4. Disconnect the 2P connector (A) from the rear power window motor (B).



5. Check for continuity between rear power window switch 14P connector terminals No. 1 and No. 7, and rear power window motor 2P connector terminals No. 1 and No. 2 respectively. There should be continuity.

REAR POWER WINDOW SWITCH 14P CONNECTOR	REAR POWER WINDOW MOTOR 2P CONNECTOR
Terminal No. 1	Terminal No. 1
Terminal No. 7	Terminal No. 2

REAR POWER WINDOW MOTOR 2P CONNECTOR
Wire side of female terminals



REAR POWER WINDOW SWITCH 14P CONNECTOR
Wire side of female terminals

6. If there is no continuity, repair an open in the wires. If the wire harness is OK, replace the rear power window motor.

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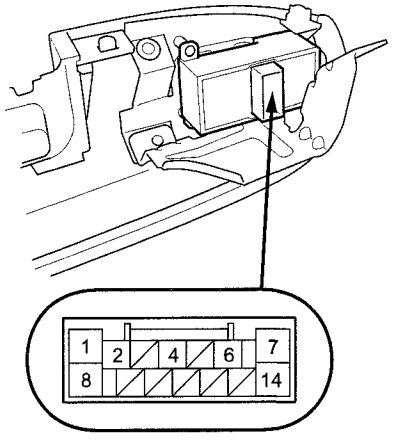
Rear Power Window Switch Test

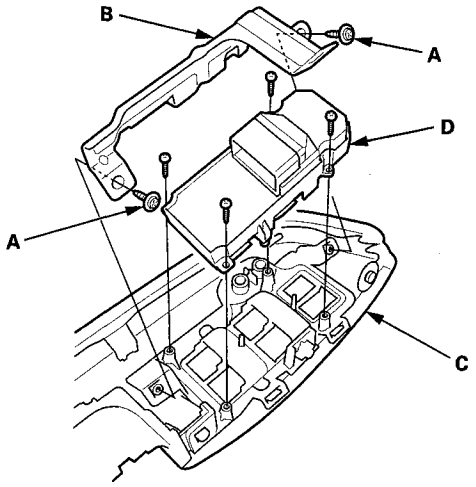
1. Remove the rear door panel (see page 20-27), and disconnect the 14P connector from the switch.
2. Test the rear power window switch:
   - When the power is connected to terminal No. 2 and ground is connected to terminal No. 14. There should be continuity between terminals No. 8 and No. 1.
   - When the power is connected to terminal No. 6 and ground is connected to terminal No. 14. There should be continuity between terminals No. 8 and No. 7.
   - When the power is connected to terminal No. 8 and ground is connected to terminal No. 14, then push the rear power window switch to DOWN. There should be continuity between terminals No. 8 and No. 1.
   - When the power is connected to terminal No. 8 and ground is connected to terminal No. 14, then pull the rear power window switch to UP. There should be continuity between terminals No. 8 and No. 7.



3. If continuity is not as specified, replace the switch (see page 22-310).

Power Window Master Switch Replacement

1. Remove the driver's door armrest (see step 12 on page 20-13).
2. Remove the two screws (A), then remove the bracket (B) from the armrest assembly (C).



3. Remove the four screws and the power window master switch (D).
4. Install the switch in the reverse order of removal.
5. After replacement, reset the power window control unit (see page 22-284).

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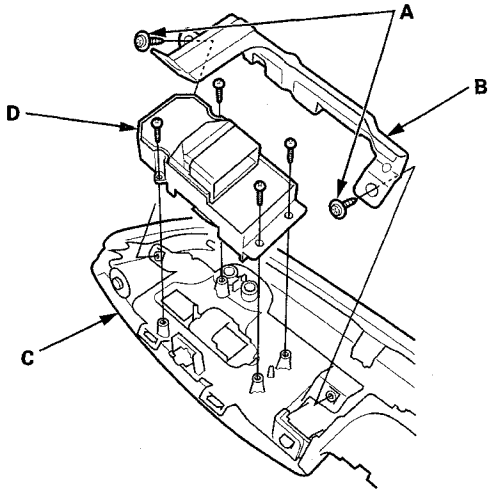
Front Passenger's Power Window Switch Replacement

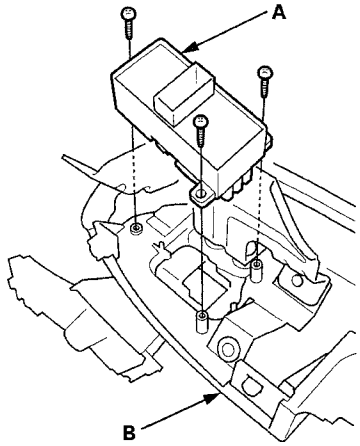
1. Remove the passenger's door armrest (see step 12 on page 20-13).
2. Remove the two screws (A), then remove the bracket (B) from the armrest assembly (C).



3. Remove the four screws and the front passenger's power window switch (D).
4. Install the switch in the reverse order or removal.
5. After replacement, reset the power window control unit (see page 22-284).

Rear Power Window Switch Replacement

1. Remove the rear door armrest (see step 12 on page 20-31).
2. Remove the three screws and rear power window switch (A) from the armrest assembly (B).



3. Install the switch in the reverse order of removal.

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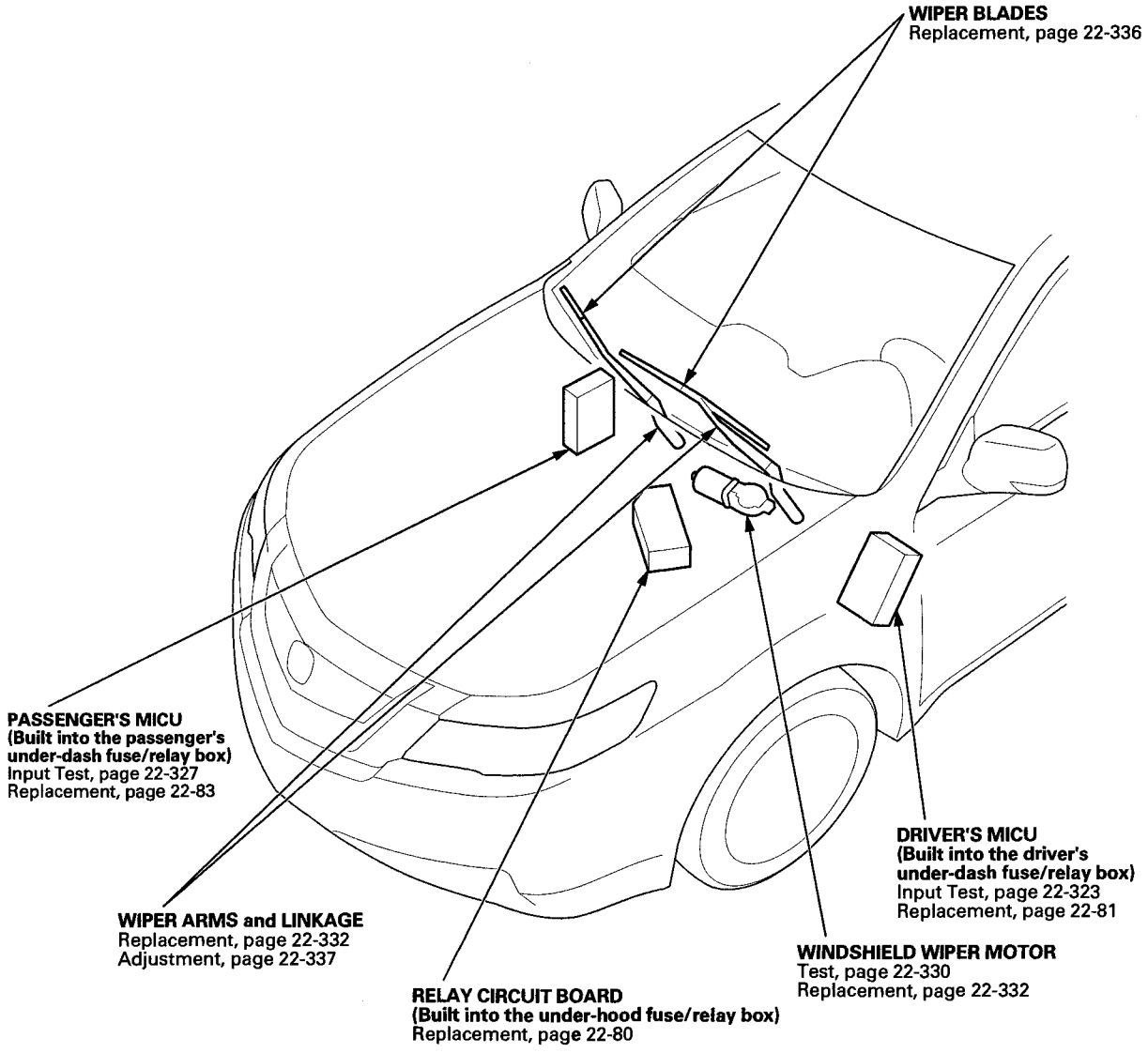
Component Location Index



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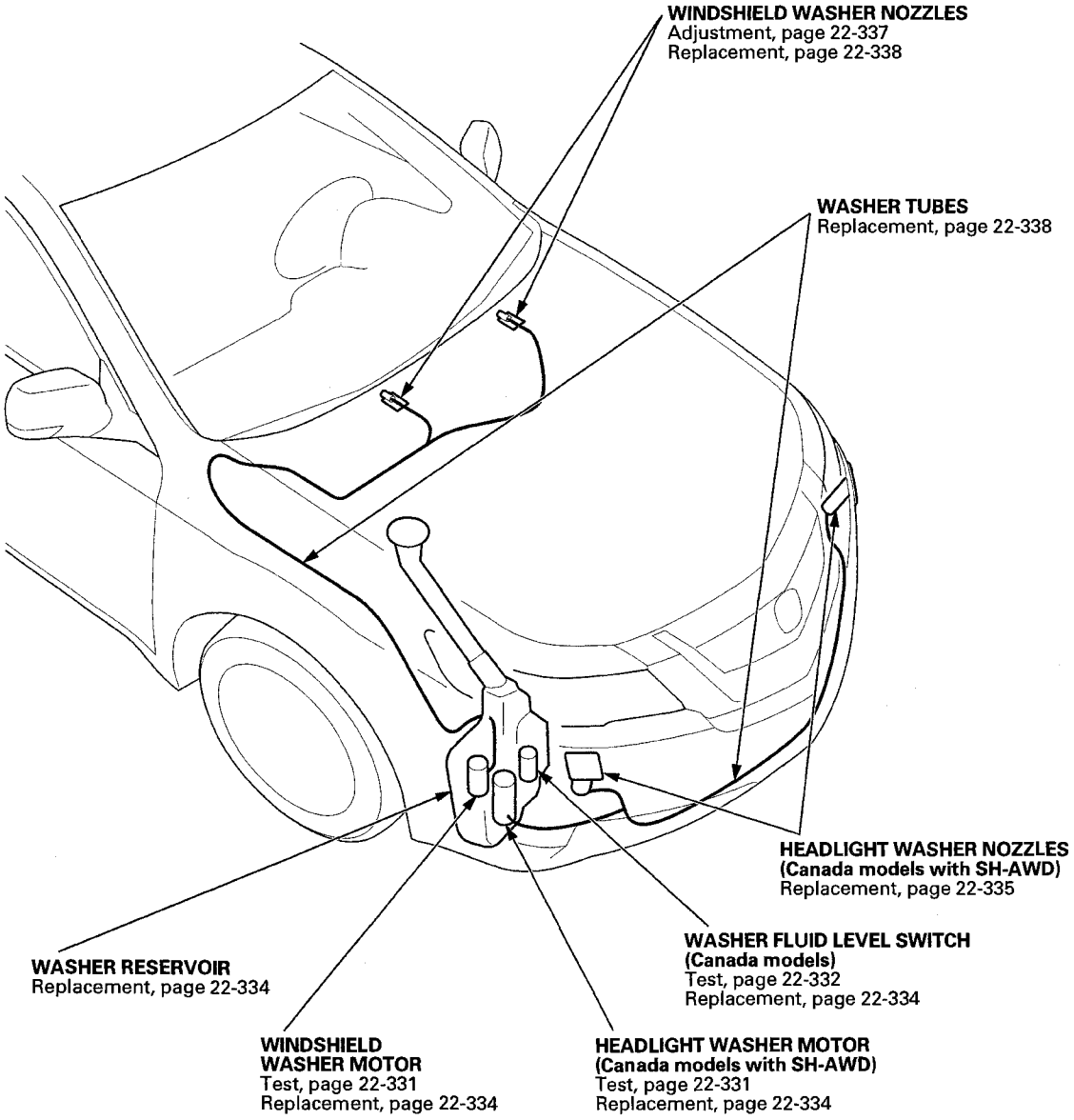
Component Location Index (cont'd)



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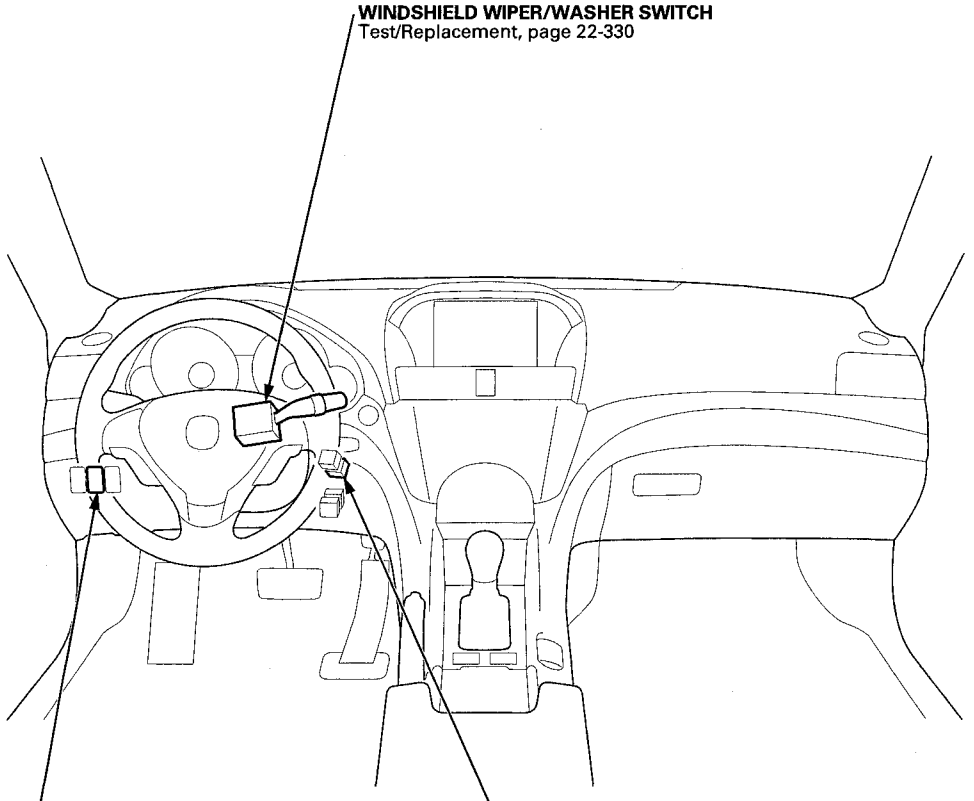

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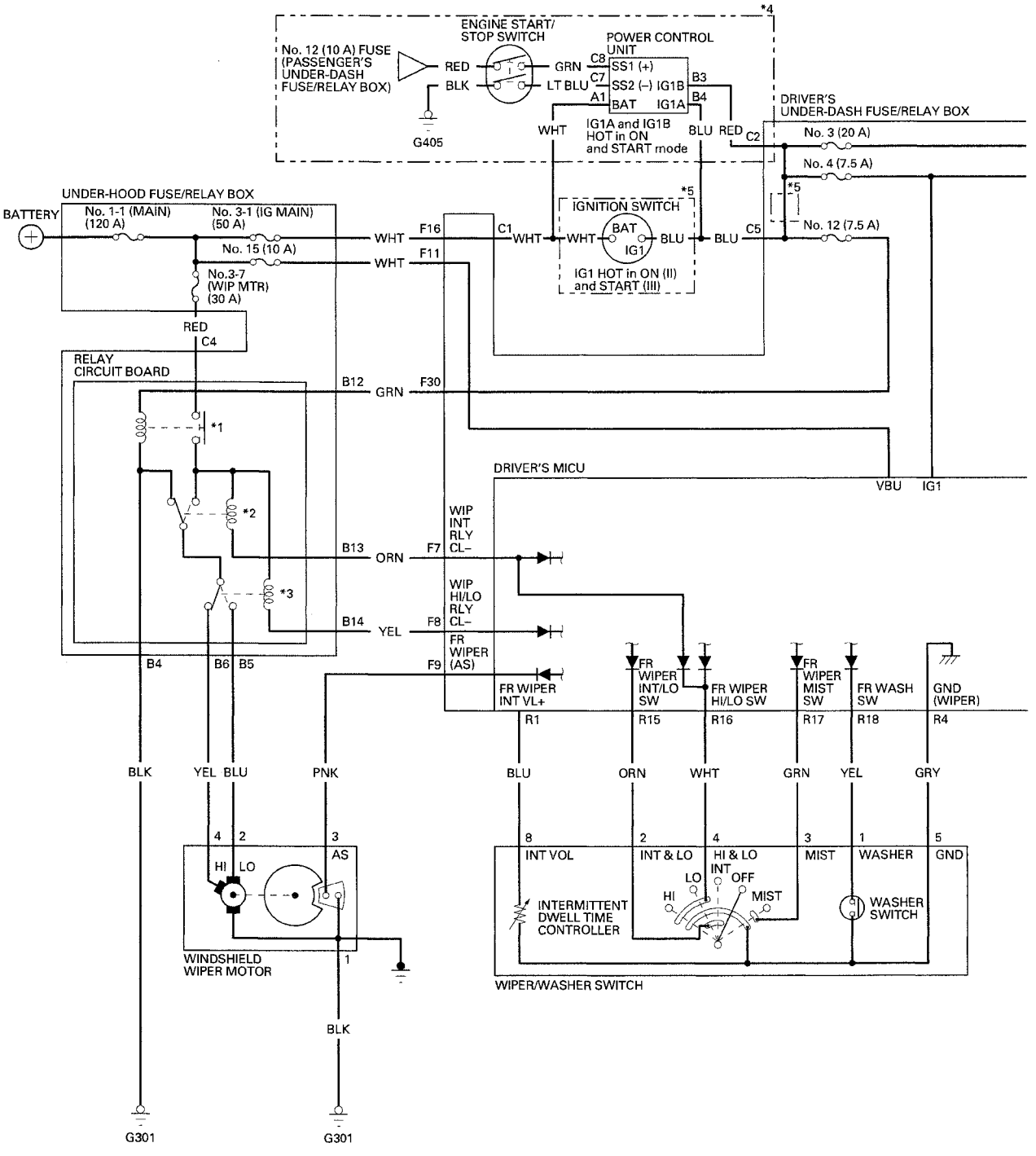
Circuit Diagram



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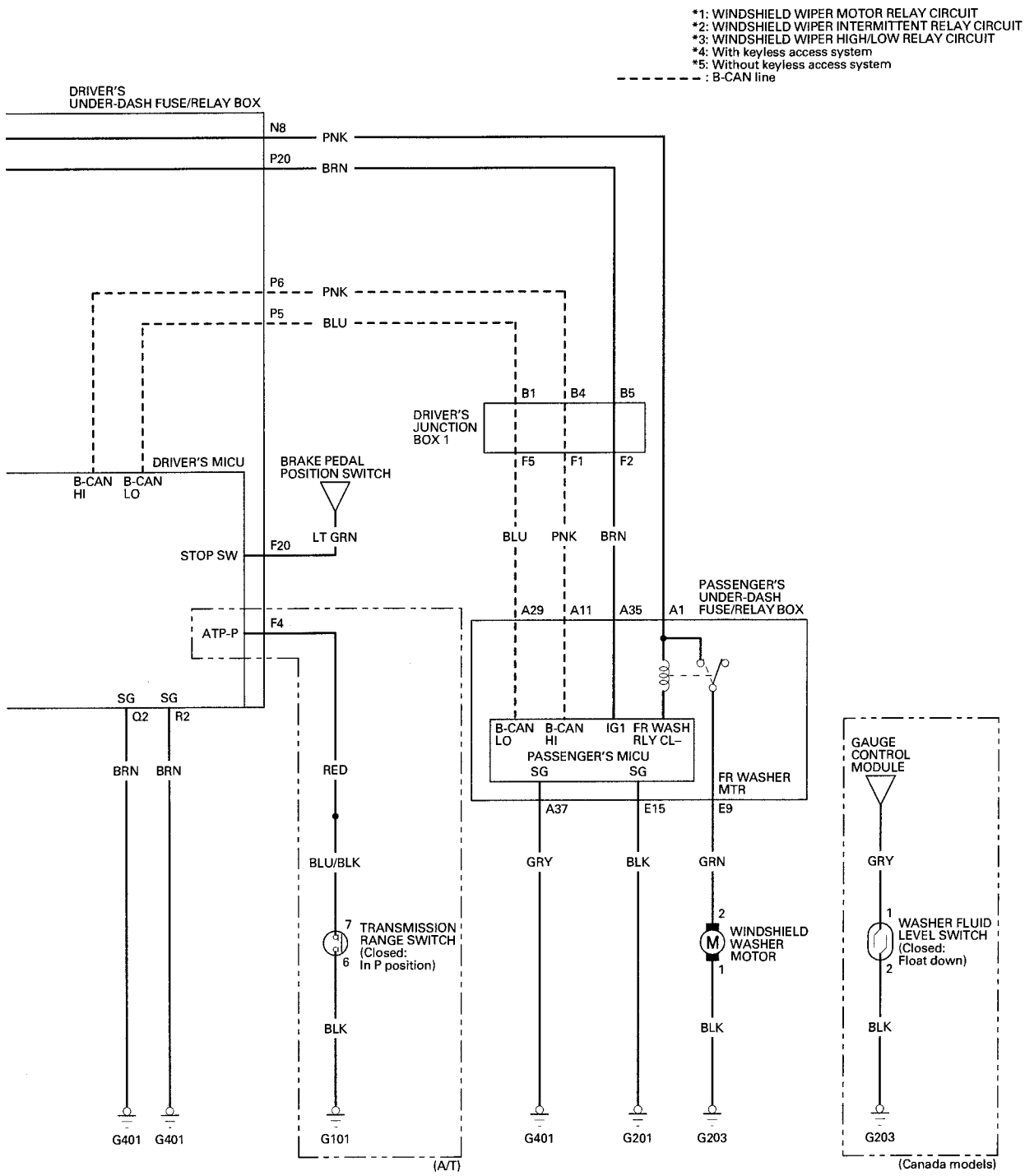

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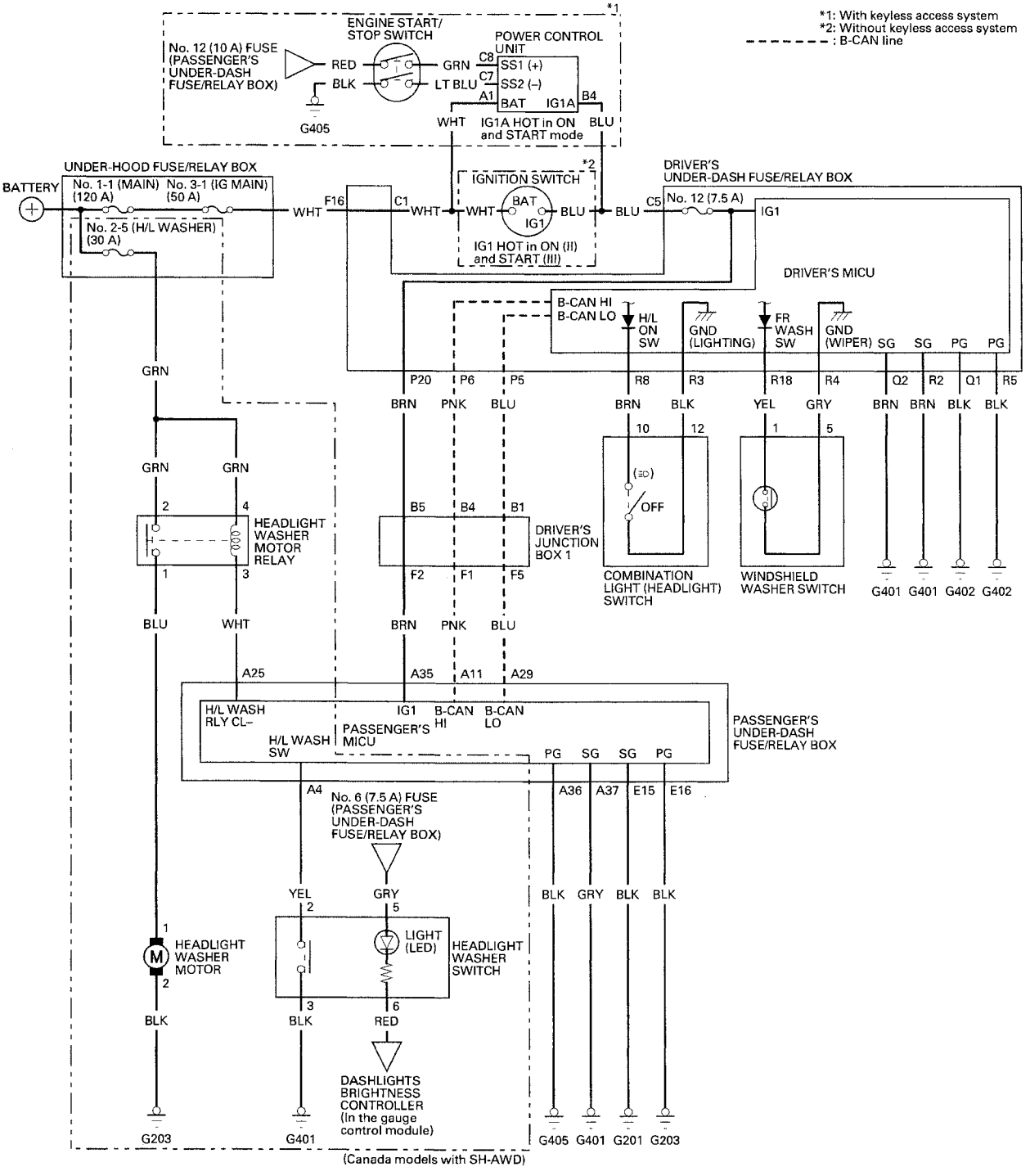
Circuit Diagram - Headlight Washer



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DTC Troubleshooting

DTC B1077: Wiper (As) Signal Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Turn the wiper switch to LOW or HIGH for at least 15 seconds, then turn the wiper switch OFF.

   NOTE: If the wiper motor does not run, go to step 13.

   Do the wiper arms stop at AUTO STOP (park) position?

   YES–Go to step 4.

   NO–Go to step 5.

4. Check for DTCs with the HDS.

   Is DTC B1077 indicated?

   YES–Check for loose or poor connections at the driver's MICU and the wiper motor. If the connections are OK, substitute a known-good driver's under-dash fuse/relay box, and recheck. If the DTC does not reappear, replace the driver's under-dash fuse/relay box (see page 22-81).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■

5. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
6. Do the windshield wiper motor test (see page 22-330).

   Is the windshield wiper motor OK?

   YES–Go to step 7.

   NO–Replace the windshield wiper motor, and recheck.■

7. Disconnect the windshield wiper motor 4P connector.
8. Disconnect driver's under-dash fuse/relay box connector F (33P).

(cont'd)

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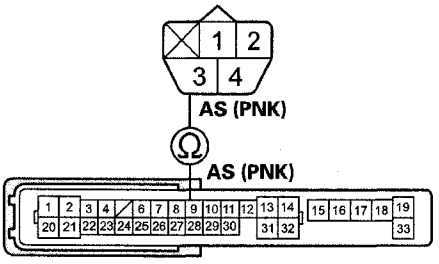
DTC Troubleshooting (cont'd)

9. Check for continuity between windshield wiper motor 4P connector terminal No. 3 and driver's under-dash fuse/relay box connector F (33P) terminal No. 9.

WINDSHIELD WIPER MOTOR 4P CONNECTOR

Wire side of female terminals



DRIVER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR F (33P)

Wire side of female terminals

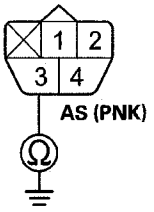
Is there continuity?

YES–Go to step 10.

NO–Repair an open in the wire.■

10. Check for continuity between windshield wiper motor 4P connector terminal No. 3 and body ground.

WINDSHIELD WIPER MOTOR 4P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 11.

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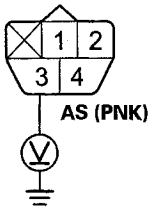
11. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
12. Measure the voltage between windshield wiper motor 4P connector terminal No. 3 and body ground.

WINDSHIELD WIPER MOTOR 4P CONNECTOR



Wire side of female terminals

Is there voltage?

YES–Repair a short to power in the PNK wire.■

NO–Faulty driver's MICU; replace the driver's under-dash fuse/relay box (see page 22-81).■

13. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
14. Check the No. 3-7 (WIP MTR) (30 A) fuse in the under-hood fuse/relay box.

    Is the fuse OK?

    YES–Go to step 15.

    NO–Replace the fuse, and recheck the system.■
15. Do the windshield wiper motor test (see page 22-330).

    Is the windshield wiper motor OK?

    YES–Go to step 16.

    NO–Replace the windshield wiper motor (see page 22-332), and recheck.■
16. Reconnect the windshield wiper motor 4P connector.
17. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.

(cont'd)

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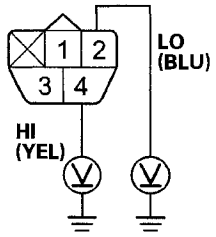
DTC Troubleshooting (cont'd)

18. Measure the voltage between body ground and windshield wiper motor 4P connector terminal No. 2 with the wiper switch ON (Low), and measure the voltage between body ground and windshield wiper motor 4P connector terminal No. 4 with the wiper switch ON (High) individually.

WINDSHIELD WIPER MOTOR 4P CONNECTOR



Wire side of female terminals

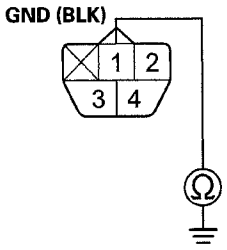
Is there battery voltage?

YES–Go to step 19.

NO–Test the wiper relay circuit (see page 22-89). If the relay circuit is OK, check terminals F7 and F8 of the driver's under-dash fuse/relay box connector F (33P) using the input test (see page 22-323). If the input tests prove OK, replace the driver's under-dash fuse/relay box (see page 22-81). If the relay circuit is faulty, replace the relay circuit board (see page 22-80).■

19. Check for continuity between windshield wiper motor 4P connector terminal No. 1 and body ground.

WINDSHIELD WIPER MOTOR 4P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair an open or high resistance in the BLU (low) or YEL (high) wire.■

NO–Repair an open in the wire or poor ground (G301).■

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DTC B1281: Front Wiper MIST Position Circuit Malfunction

DTC B1282: Front Wiper INT (AUTO) Position Circuit Malfunction

DTC B1283: Front Wiper LOW Position Circuit Malfunction

DTC B1284: Front Wiper HIGH Position Circuit Malfunction

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Turn the wiper switch to the MIST, INT, LOW, HIGH, and OFF positions, and wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Are DTCs B1281, B1282, B1283, and/or B1284 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the wiper system is OK at this time. Check for loose or poor connections.■
5. Select WIPERS from the BODY ELECTRICAL menu, and enter DATA LIST.
6. Check each wiper switch position value with the DATA LIST menu.

   When the wiper switch is turned OFF

Data List	Value
Wiper switch (LOW)	OFF
Wiper switch (HIGH)	OFF
Wiper switch (MIST)	OFF
Wiper switch (INT)	OFF

   Are all data list values correct?

   YES–Go to step 7.

   NO–Go to step 10.
7. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
8. Disconnect driver's under-dash fuse/relay box connector R (24P).
9. Check for continuity between driver's under-dash fuse/relay box connector R (24P) terminals as shown:

From terminal	To terminal
15 (ORN)	1 (BLU) 16 (WHT) 17 (GRN)
17 (GRN)	1 (BLU) 16 (WHT)

   Is there continuity?

   YES–Repair short between the wires.■

   NO–Faulty driver's MICU; replace the driver's under-dash fuse/relay box (see page 22-81).■
10. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
11. Disconnect the 8P connector from the wiper switch.
12. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
13. Check each wiper switch position value with the DATA LIST menu.

Data List	Value
Wiper switch (LOW)	OFF
Wiper switch (HIGH)	OFF
Wiper switch (MIST)	OFF
Wiper switch (INT)	OFF

    Are all data list values correct?

    YES–Replace the wiper/washer switch (see page 22-330).■

    NO–Go to step 14.

(cont'd)

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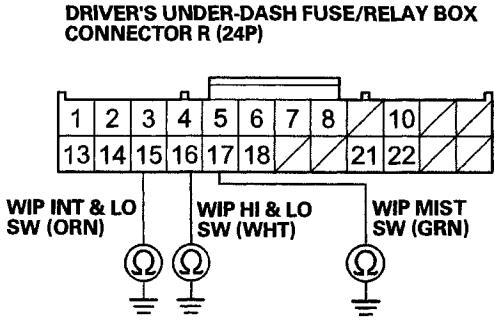
DTC Troubleshooting (cont'd)

14. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
15. Disconnect driver's under-dash fuse/relay box connector R (24P).
16. Check for continuity between body ground and driver's under-dash fuse/relay box connector R (24P) terminals No. 15, No. 16, and No. 17 individually.



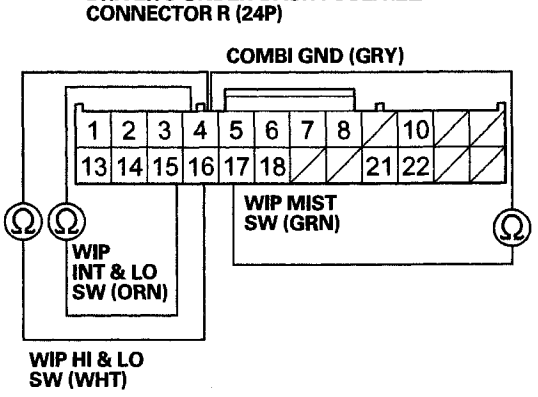
Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 17.

17. Check for continuity between driver's under-dash fuse/relay box connector R (24P) terminal No. 4 and terminals No. 15, No. 16, and No. 17 respectively.



Wire side of female terminals

Is there continuity?

YES–Repair a short between the wires.■

NO–Faulty driver's MICU; replace the driver's under-dash fuse/relay box (see page 22-81).■

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MICU Input Test

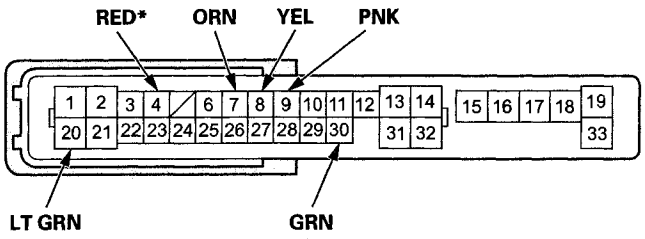
NOTE: Before testing, troubleshoot the multiplex integrated control system first, using B-CAN System Diagnosis Test Mode A (see page 22-135).

Driver's MICU

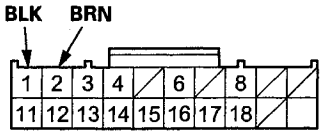
1. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
2. Remove the driver's dashboard undercover (see page 20-118).
3. Disconnect driver's under-dash fuse/relay box connectors F, Q, and R.

   NOTE: All connector views are wire side of female terminals.

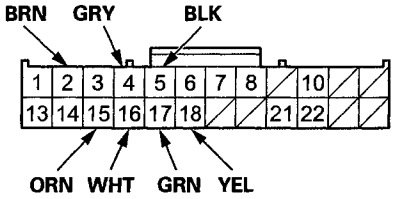
CONNECTOR F (33P)



CONNECTOR Q (20P)



CONNECTOR R (24P)



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MICU Input Test (cont'd)

4. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary and recheck the system.
   - If the terminals look OK, go to step 5.
5. With the connectors still disconnected, do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 6.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
F7 . F30	ORN . GRN	Under all conditions	Connect terminals F16 and F30 and terminal F7 to body ground: The windshield wiper motor should run at high speed.	• Blown No. 3-7 (WIP MTR) (30 A) fuse in the under-hood fuse/relay box • Faulty relay circuit board • Faulty windshield wiper motor • Poor ground (G301) or an open in the ground wire • An open or high resistance in the wire
F8	YEL	Run the windshield wiper motor by connecting terminals F16 and F30 to terminal F7 to body ground.	Connect terminal F8 to body ground: The windshield wiper motor speed should change from high speed to low speed.	• Faulty under-hood fuse/relay box • Faulty relay circuit board • Faulty windshield wiper motor • An open or high resistance in the wire
F9	PNK	Run the windshield wiper motor by connecting terminals F16 and F30 to terminal F7 to body ground.	Check for continuity to ground: The needle of the ohmmeter should pulse 1 time per wiper motor cycle. NOTE: Use a DVOM.	• Faulty windshield wiper motor • An open or high resistance in the wire • Poor ground (G301) or an open in the ground wire

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6. Reconnect the connectors to the driver's under-dash fuse/relay box, turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode, and do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 7.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
Q1	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
Q2	BRN	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
R2	BRN	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
R5	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
F4 (A/T)	RED	Transmission range switch in P	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G101) or an open in the ground wire • Faulty transmission range switch • An open or high resistance in the wire
		Transmission range switch in any other position than P	Measure the voltage to ground: There should be about 5 V.	A short to ground in the wire
F20	LT GRN	Brake pedal pressed	Measure the voltage to ground: There should be battery voltage.	• Blown No. 10 (20 A) fuse in the under-hood fuse/relay box • Faulty brake pedal position switch • An open or high resistance in the wire
		Brake pedal released	Measure the voltage to ground: There should be no voltage.	• Faulty brake pedal position switch • A short to power in the wire
R15 · R4	ORN · GRY	Wiper switch (INT or LO) ON	Measure the voltage between terminals R15 and R4: There should be less than 0.2 V.	• Faulty windshield wiper/washer switch • An open or high resistance in the wire
		Wiper switch OFF	Measure the voltage between terminals R15 and R4: There should be about 5 V.	• Faulty windshield wiper/washer switch • A short to ground in the wire
R16 · R4	WHT · GRY	Wiper switch (LO or HI) ON	Measure the voltage between terminals R16 and R4: There should be less than 0.2 V.	• Faulty windshield wiper/washer switch • An open or high resistance in the wire
		Wiper switch OFF	Measure the voltage between terminals R16 and R4: There should be about 5 V.	• Faulty windshield wiper/washer switch • A short to ground in the wire
R17 · R4	GRN · GRY	Wiper switch (MIST) ON	Measure the voltage between terminals R17 and R4: There should be less than 0.2 V.	• Faulty windshield wiper/washer switch • An open or high resistance in the wire
		Wiper switch OFF	Measure the voltage between terminals R17 and R4: There should be about 5 V.	• Faulty windshield wiper/washer switch • A short to ground in the wire

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MICU Input Test (cont'd)

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
R18 · R4	YEL · GRY	Washer switch ON	Measure the voltage between terminals R18 and R4: There should be less than 0.2 V.	• Faulty windshield wiper/washer switch • An open or high resistance in the wire
		Washer switch OFF	Measure the voltage between terminals R18 and R4: There should be about 5 V.	• Faulty windshield wiper/washer switch • A short to ground in the wire

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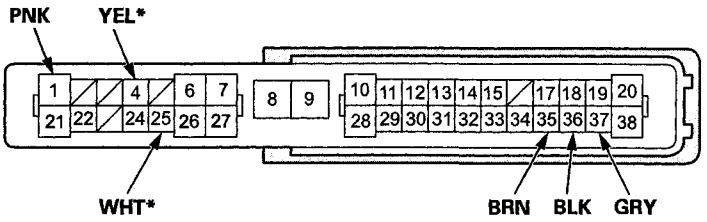
Passenger's MICU

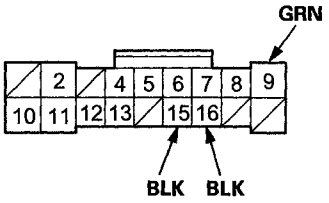
7. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode, and remove the front passenger's kick panel (see page 20-81).
8. Disconnect passenger's under-dash fuse/relay box connectors A and E.

   NOTE: All connector views are wire side of female terminals.

CONNECTOR A (38P)



CONNECTOR E (18P)



***: Canada models with SH-AWD**

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MICU Input Test (cont'd)

9. With the connectors still disconnected, do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 10.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
E9	GRN	Ignition switch ON (II), or power mode ON	Connect terminals A1 and E9: The windshield washer motor should run.	• Faulty windshield washer motor • An open or high resistance in the wire
A25*	WHT	Under all conditions	Connect to ground with a jumper wire: The headlight washer motor should run.	• Blown No. 2-5 (H/L WASHER) (30 A) fuse in the under-hood fuse/relay box • Poor ground (G203) or an open in the ground wire • Faulty headlight washer motor • Faulty headlight washer motor relay • An open or high resistance in the wire
A4*	YEL	Headlight washer switch pushed	Check for continuity to ground: There should be continuity.	• Faulty headlight washer switch • Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
		Headlight washer switch released	Check for continuity to ground: There should be continuity.	• Faulty headlight washer switch • A short to ground in the wire

*: Canada models with SH-AWD

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10. Reconnect the connectors to the passenger's under-dash fuse/relay box, and do the following input tests:
    - If any test indicates a problem, find and correct the cause, then recheck the system.
    - If all the input tests prove OK, go to step 11.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
A1	PNK	Ignition switch ON (II), or power mode ON	Measure the voltage to ground: There should be battery voltage.	• Blown No. 3 (20 A) fuse in the driver's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
A35	BRN	Ignition switch ON (II), or power mode ON	Measure the voltage to ground: There should be battery voltage.	• Blown No. 4 (7.5 A) fuse in the driver's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
E16	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G203) or an open in the ground wire • An open or high resistance in the wire
E15	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G201) or an open in the ground wire • An open or high resistance in the wire
A36	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G405) or an open in the ground wire • An open or high resistance in the wire
A37	GRY	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire

11. If multiple failures are found on more than one control unit, replace the driver's under-dash fuse/relay box (includes the driver's MICU) (see page 22-81). If input failures are related to a particular control unit, replace the control unit.

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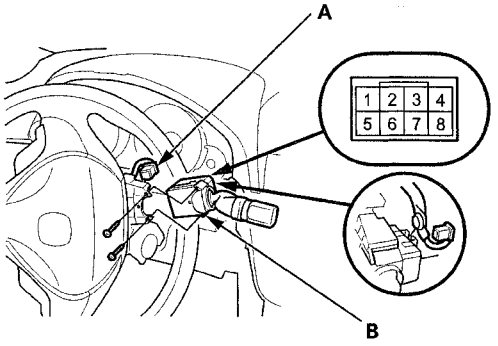
Wiper/Washer Switch Test/Replacement

1. Remove the steering column covers (see page 20-126).
2. Disconnect the dashboard wire harness 8P connector (A) from the windshield wiper/washer switch (B).



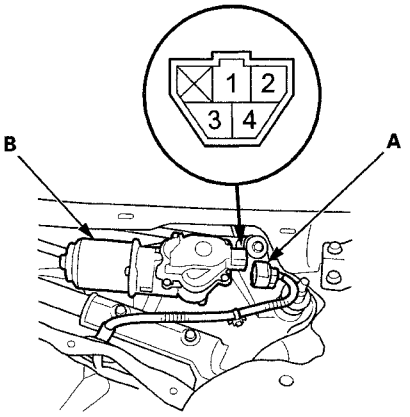
3. Remove the two screws, then slide out the switch.
4. Inspect the connector terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
   - If the terminals look OK, go to step 5.
5. Check for continuity between the terminals in each switch position according to the table.

Position \ Terminal	1	2	3	4	5		8
OFF							
INT		○			○		
LO		○		○	○		
HI				○	○		
Mist ON			○		○		
Washer ON	○				○		
Intermittent dwell timer					○	~	○

6. If the continuity is not as specified, replace the switch.
7. Install the switch in the reverse order of removal.

Wiper Motor Test

1. Remove the wiper arms (see page 22-332).
2. Remove the cowl cover (see page 20-189).
3. Disconnect the 4P connector (A) from the windshield wiper motor (B).



4. Test the motor by connecting battery power to terminal No. 2 and ground to terminal No. 1 of wiper motor 4P connector. The motor should run at low speed.
5. Test the motor by connecting battery power to terminal No. 4 and ground to terminal No. 1 of the wiper motor 4P connector. The motor should run at high speed.
6. Connect an analog ohmmeter to the terminals No. 3 and No. 1, and run the motor at low or high speed. The needle of the ohmmeter should pulse.
7. If the motor does not run or fails to run smoothly, or there is no pulse, replace the motor (see page 22-332).

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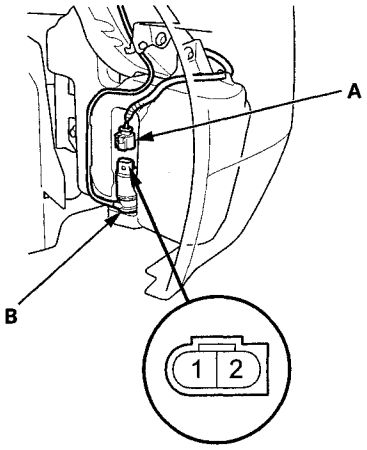
Washer Motor Test

Windshield

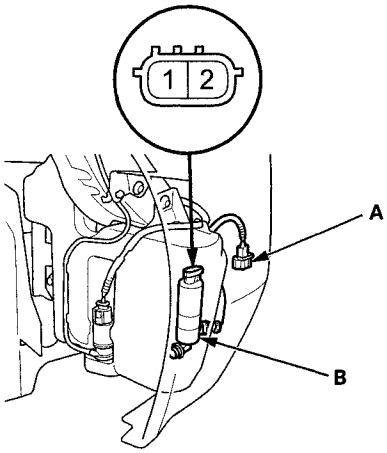
1. Remove the right inner fender (see page 20-203).
2. Disconnect the 2P connector (A) from the windshield washer motor (B).



3. Test the motor by connecting battery power to terminal No. 2 and ground to terminal No. 1 of the washer motor. The motor should run.
   - If the motor does not run or fails to run smoothly, replace it.
   - If the motor runs smoothly, but little or no washer fluid is pumped, check for a disconnected or blocked washer hose, or a clogged washer motor outlet.

Headlight Washer (Canada model with SH-AWD)

1. Remove the right inner fender (see page 20-203).
2. Disconnect the 2P connector (A) from the headlight washer motor (B).



3. Test the motor by connecting battery power to terminal No. 1 and ground to terminal No. 2 of the washer motor. The motor should run.
   - If the motor does not run or fails to run smoothly, replace it.
   - If the motor runs smoothly, but little or no washer fluid is pumped, check for a disconnected or blocked washer hose, or a clogged washer motor outlet.

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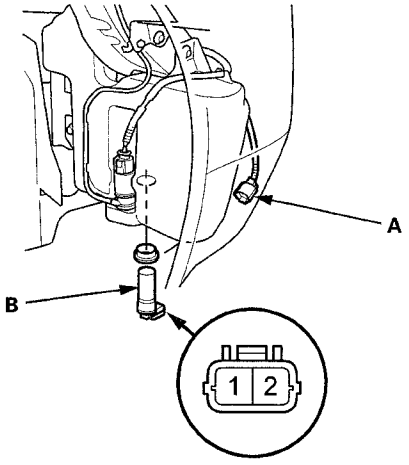
Washer Fluid Level Switch Test

Canada models

1. Remove the right inner fender (see page 20-203).
2. Disconnect the 2P connector (A) from the washer fluid level switch (B).



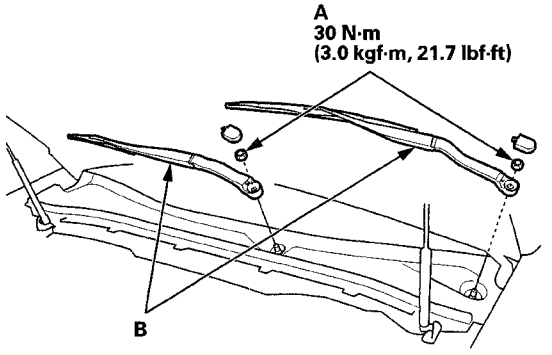
3. Remove the washer fluid level switch from the washer reservoir.

   NOTE: Fluid may flow out of the opening.

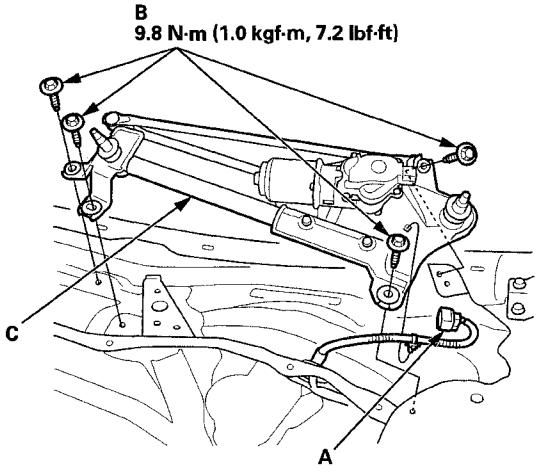
4. Check for continuity between terminals No. 1 and No. 2 in each float position.
   - There should be continuity when the float is down.
   - There should be no continuity when the float is up.
5. If the continuity is not as specified, replace the switch.

Wiper Motor Replacement

1. Open the hood. Remove the cap, nuts (A), and the windshield wiper arms (B).



2. Remove the cowl cover (see page 20-189).
3. Disconnect the 5P connector (A) from the windshield wiper motor.



4. Remove the four bolts (B) and the wiper linkage assembly (C).

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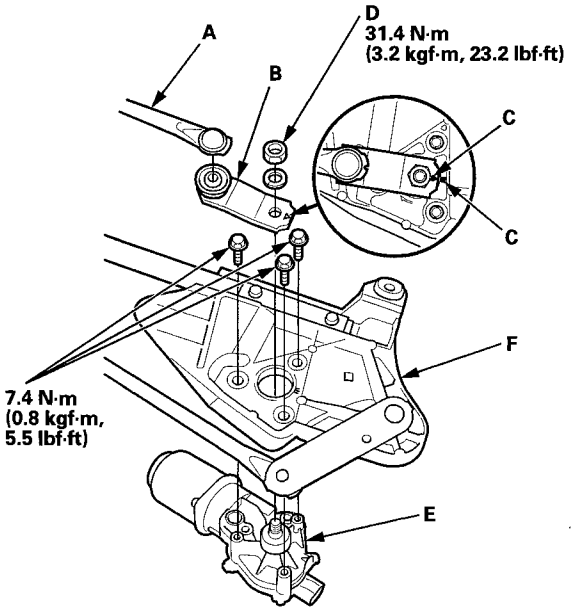
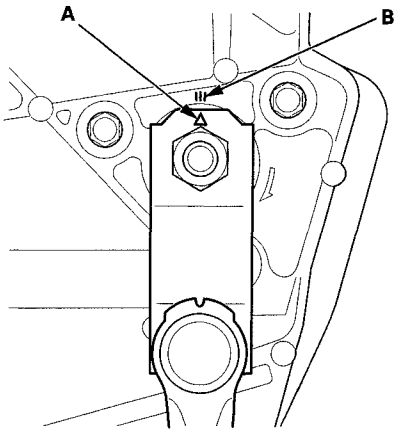
5. Separate the linkage (A) from the link (B).



6. Note the position (C), then remove the nut (D) and the link from the wiper motor (E).
7. Remove the three bolts, and separate the wiper motor from the linkage (F).
8. Before installing the motor, connect the 4P connector to the wiper motor, and turn the wiper/washer switch ON to (LO) or (HI) position, then OFF to return the motor shaft to the park position.

   NOTE:
   - Do not use the wiper/washer switch (INT) position in this step.
   - If necessary, replace any damaged clips.
   - Apply multipurpose grease to the moving parts.
9. Install the wiper motor to the wiper linkage assembly in the reverse order of removal.
10. Install the link to the wiper motor shaft, then align the mark (A) of the link and the mark (B) of the wiper linkage assembly.



11. After installation, adjust the wiper arms (see page 22-337).

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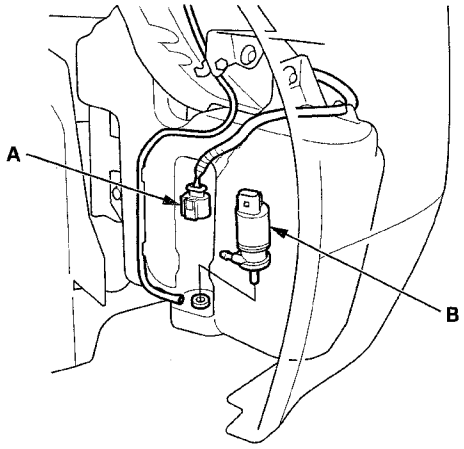
Washer Reservoir Replacement

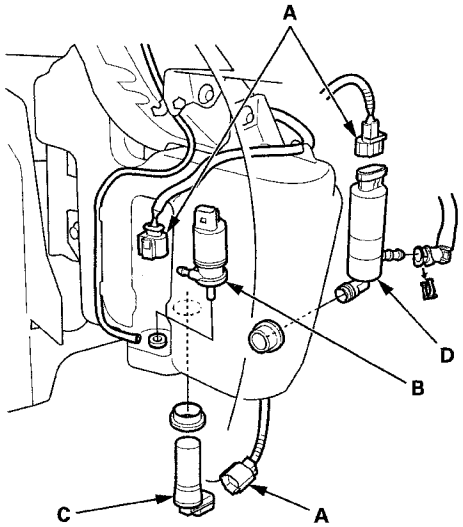
1. Remove the right front inner fender (see page 20-203).
2. Disconnect the 2P connector(s) (A) from the windshield washer motor (B), washer fluid level switch (Canada models), and the headlight washer motor (Canada models with SH-AWD).

Washer Reservoir Capacity:
2.5 L (2.64 US qt): USA models
5.5 L (5.81 US qt): Canada models

USA models



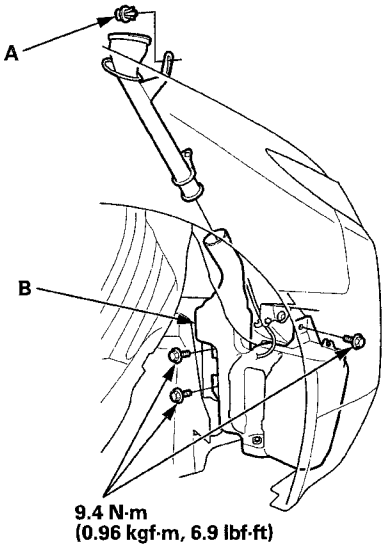
Canada models



3. Disconnect the washer tube(s), then if necessary, remove the washer motor, the washer fluid level switch (C) (Canada models), and the headlight washer motor (D) (Canada models with SH-AWD).

NOTE: Fluid may flow out of the opening.

4. Remove the clip (A) and three bolts from the washer reservoir (B).



5. Install the washer reservoir in the reverse order of removal. Check the washer motor operation.

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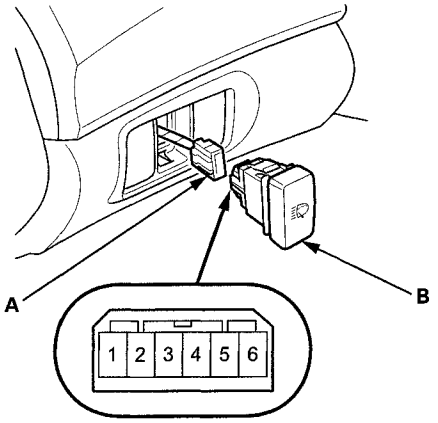
Headlight Washer Switch Test/Replacement

Canada models with SH-AWD

1. Remove the driver's dashboard undercover (see page 20-118).
2. Disconnect the 6P connector (A) from the headlight washer switch (B).



3. Check for continuity between the terminals in each switch position according to the table.

   NOTE: Make sure the correct test lead (+ or −) is placed on the terminal.

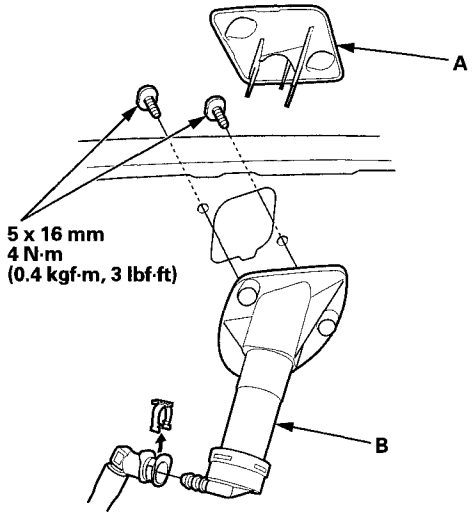
Position \ Terminal	2	3	5		6
OFF			⊕ ▷ ⊖		
ON	○ ○		⊕ ▷ ⊖		

4. If the continuity is not as specified, replace the switch.
5. Install the switch in the reverse order of removal.

Headlight Washer Nozzle Replacement

Canada models with SH-AWD

1. Remove the front bumper (see page 20-164).
2. Remove the cover (A), tube, mounting screws and headlight washer nozzles (B).



3. Install the nozzle in the reverse order of removal. Take care not to pinch the washer tube. Check the headlight washer operation.

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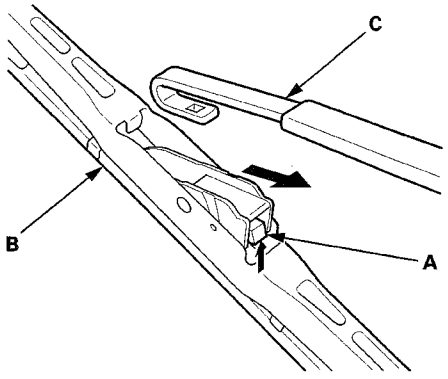
Wiper Blade Replacement

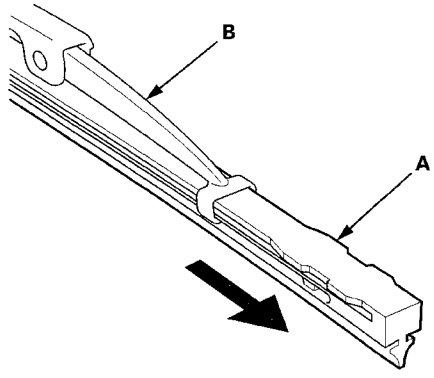
1. Lift the wiper arms from the windshield.

   NOTE: Lift the driver's side first.

2. Press and hold the tab (A) and slide the wiper blade (B) toward the tab to release it from the wiper arm (C).



3. Slide the rubber (A) out from the wiper blade (B).



4. Install a new rubber to the wiper blade in the reverse order of removal.
5. Install the wiper blades onto the wiper arms in the reverse order of removal.
6. Check the wiper operation, if the blades slip, turn the wiper switch OFF, and reinstall the wiper blades securely.

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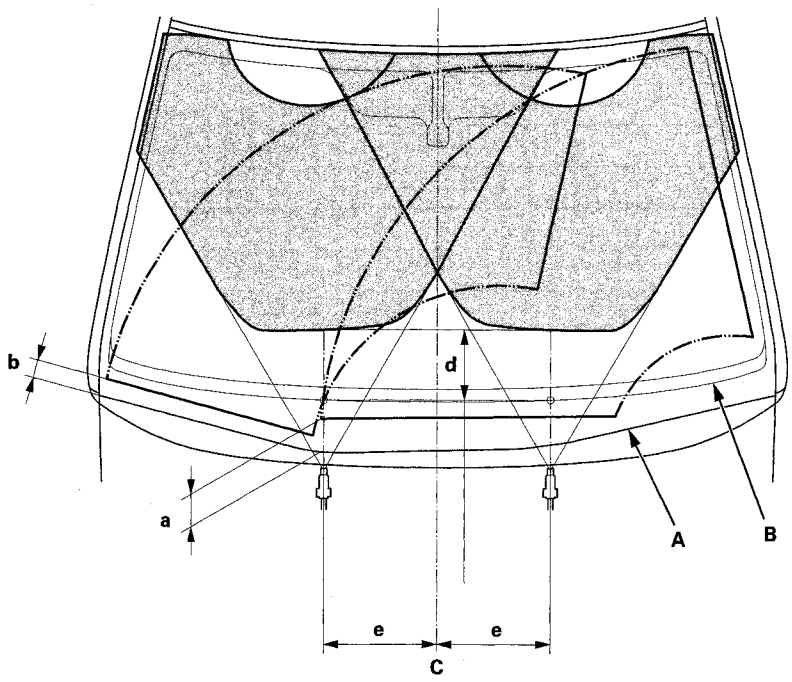
Wiper Arm/Nozzle Adjustment

1. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode, then turn the wiper switch ON, and then back OFF.
2. When the wiper arms stop at the park position, make sure that they are at the correct position.
   a: Position at about 2.6 in (66.9 mm) from the top of cowl cover (A).
   b: Position at about 1.4 in (36.2 mm) from the top of cowl cover (A).



3. When you turn on the washer(s), make sure 50 % or more of the washer fluid lands within the spray area. If the spray area is not within the standard positions, adjust the nozzle(s).
   d: Position at about 6.0 in (153 mm) from the top of the black ceramic area (B) at the lower windshield.
   e: Position at about 9.8 in (250 mm) from the windshield center line (C).

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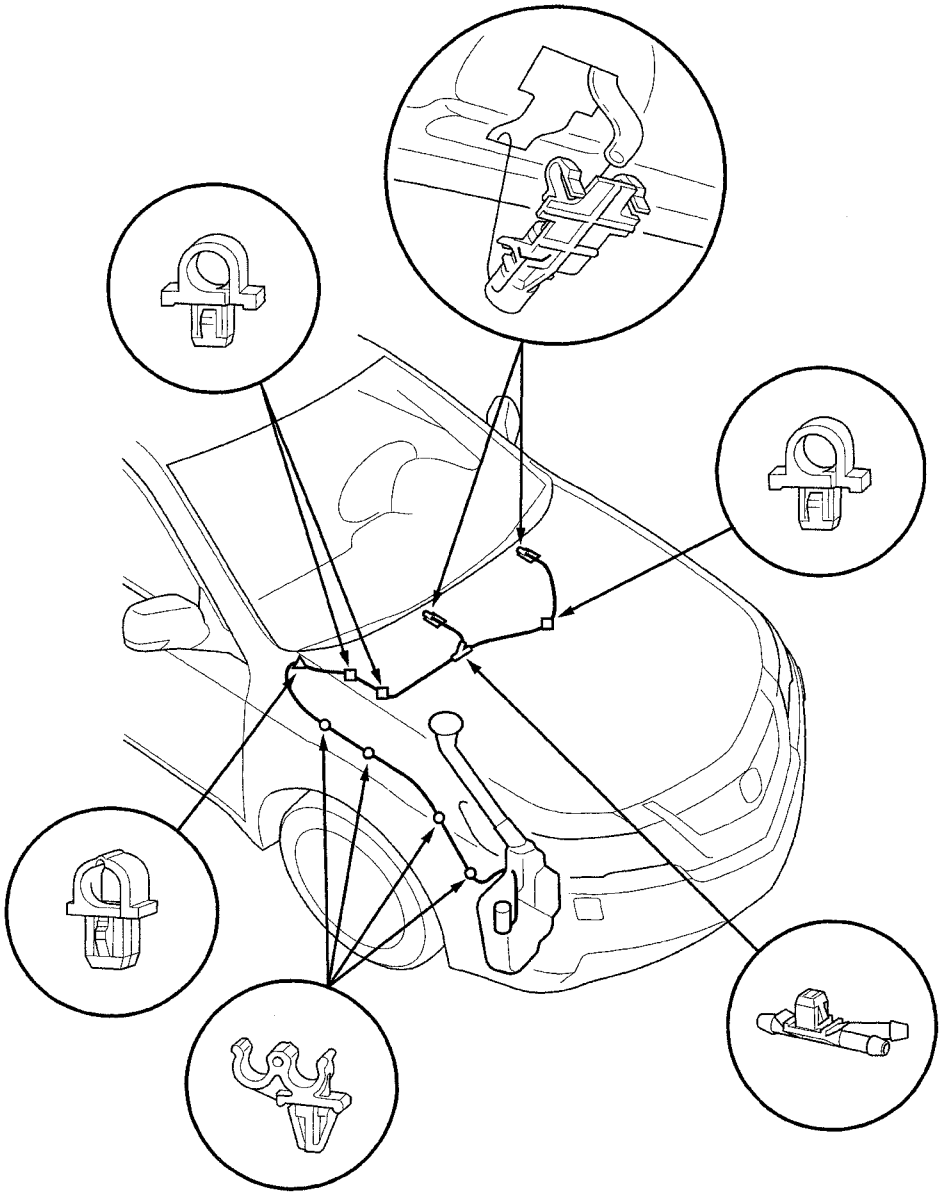
Washer Tube Replacement

Windshield

1. Remove the right front inner fender (see page 20-203).
2. Remove the washer nozzles and clips, then remove the tubes.



3. Install in the reverse order of removal. Take care not to pinch the washer tubes. Check the washer operation.

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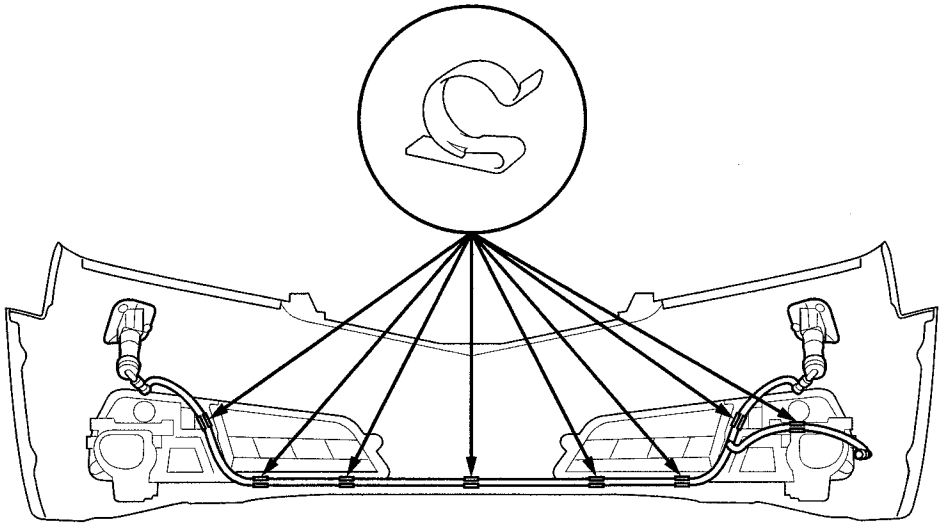
Headlight Washer (Canada models with SH-AWD)

1. Remove the front bumper (see page 20-164).
2. Remove the tube, mounting bolts and washer nozzles.



3. Install the parts in the reverse order of removal. Take care not to pinch the washer tubes. Check the washer operation.

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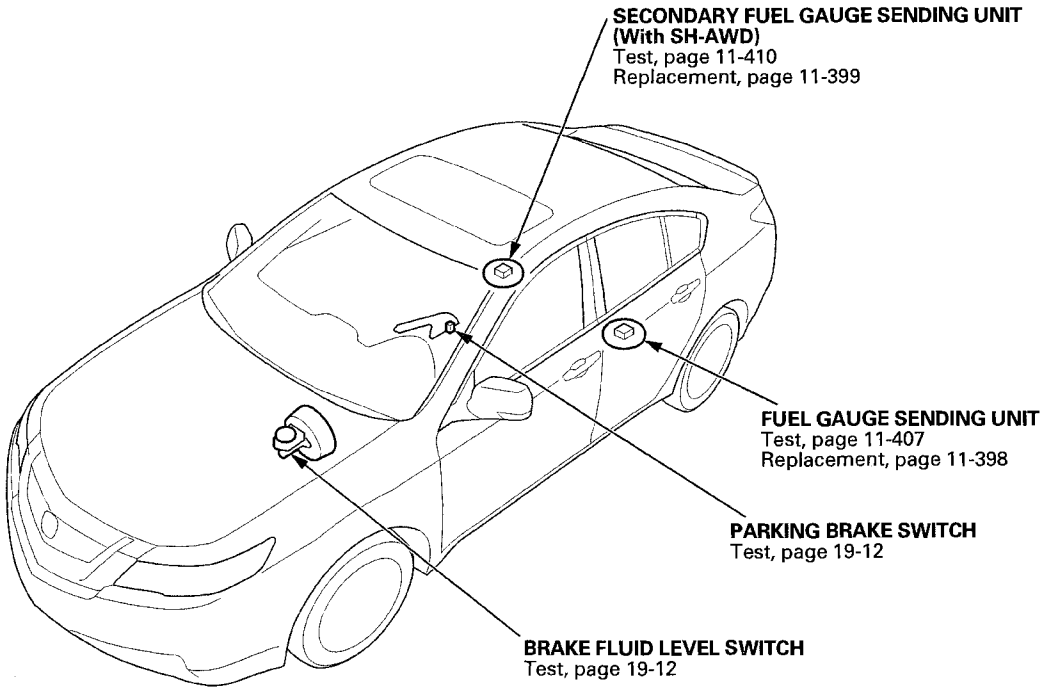
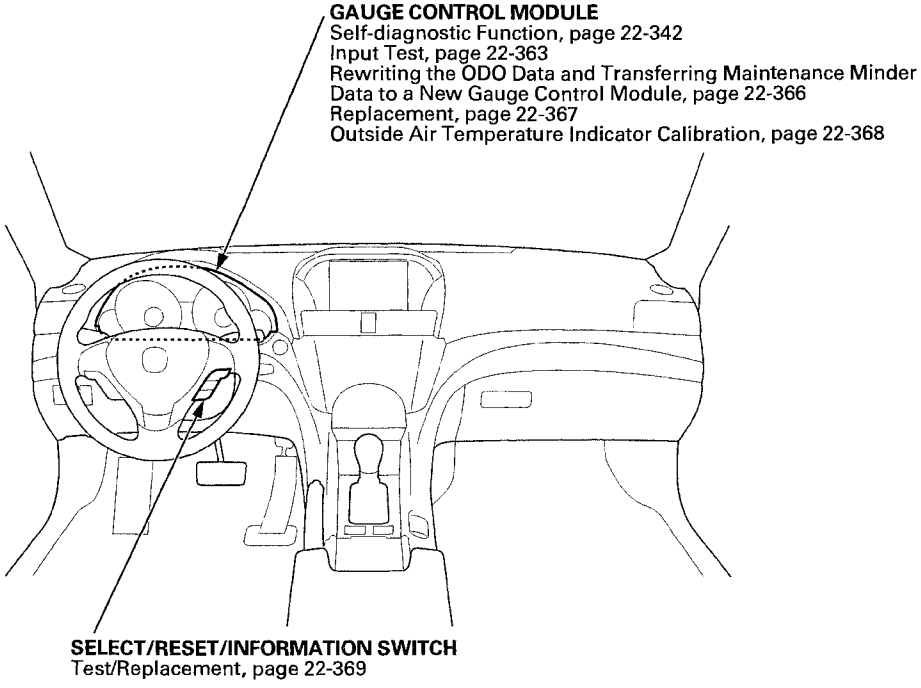
Component Location Index





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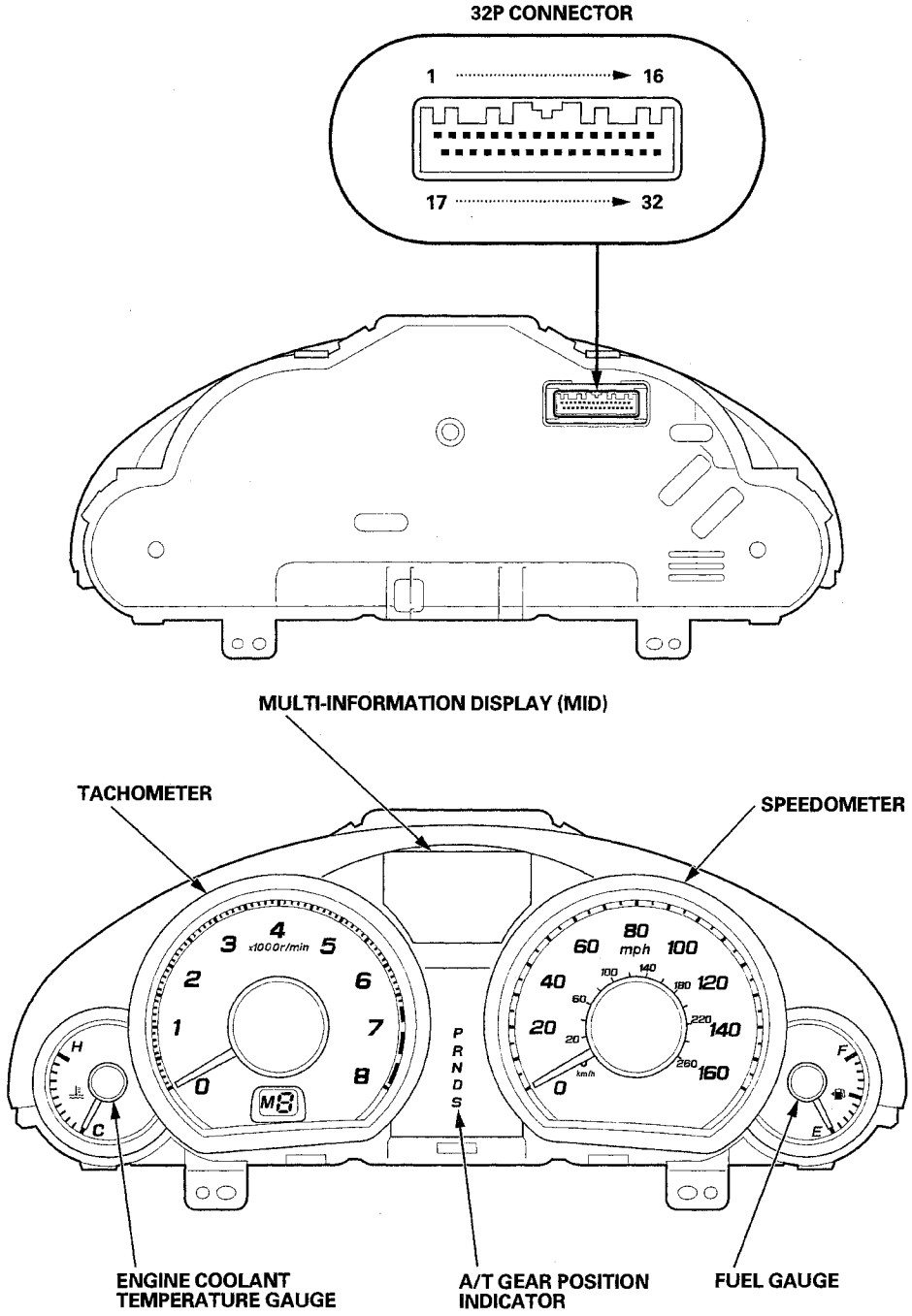

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Self-diagnostic Function

NOTE: Before testing, troubleshoot the multiplex integrated control unit first, using B-CAN System Diagnosis Test Mode A (see page 22-135).

The gauge control module has a self-diagnostic function which consists of the following checks:
- The beeper drive circuit check.
- The indicator drive circuit check.
- The switch input test.
- The LCD/MID segments check.
- The gauges drive circuit check (Tachometer, Fuel gauge, Speedometer, Engine coolant temperature gauge).
- The communication line check (of the body-controller area network (B-CAN) communication line and the fast-controller area network (F-CAN) communication line between the gauges).

NOTE:

Indicators are also controlled via the communication lines.

Entering the self-diagnostic function with the HDS

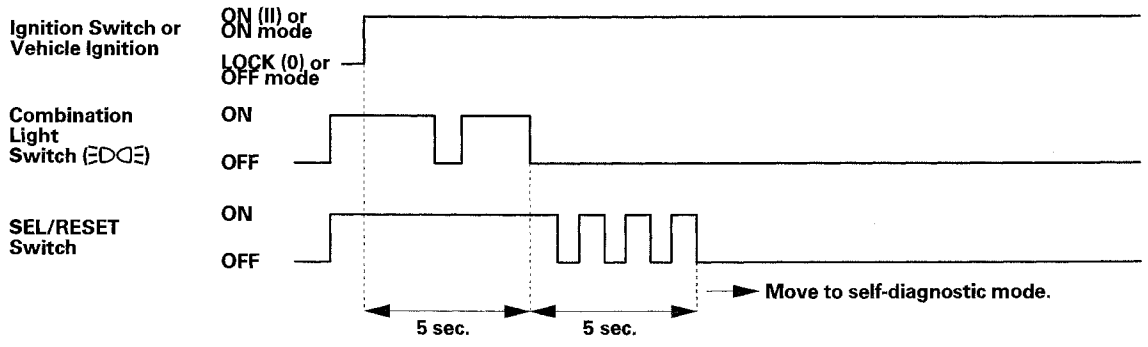
Using the HDS, select Body Electrical, Gauges, then Function Test and do the self-diagnostic function.

Entering the self-diagnostic function (manual method)

Before doing the self-diagnostic function, make sure the No. 12 (7.5 A) fuse in the driver's under-dash fuse/relay box and the No. 15 (10 A) fuse in the under-hood fuse/relay box are OK.

1. Push and hold the SEL/RESET button.
2. Turn the combination light switch (≡DC≡) ON.
3. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
4. Within 5 sec., turn the combination light switch OFF, then (≡DC≡) ON and OFF again.
5. Within 5 sec., release the SEL/RESET button, and then push and release the button three times repeatedly.

NOTE:
- While in the self-diagnostic mode, the dashlights brightness controller operates normally.
- While in the self-diagnostic mode, the SEL/RESET switch is used to start the Beeper Drive Circuit Test and the Gauge Drive Circuit Check.
- If the vehicle speed exceeds 1.2 mph (2 km/h) or the ignition switch is turned to LOCK (0), or the vehicle is in OFF mode, the self-diagnostic mode ends.



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The Indicator Drive Circuit Check

When entering the self-diagnostic mode, the following indicators (if equipped) blink:

A/T gear position indicator, ABS indicator, brake system indicator, charging system indicator, cruise control indicator, cruise main indicator, door indicator, EPS indicator, high beam indicator, fog light indicator, immobilizer indicator, lights-on indicator, keyless access indicator, low oil pressure indicator, low fuel indicator, malfunction indicator lamp (MIL), message indicator, seat belt reminder indicator, security indicator, SH-AWD indicator, side airbag cutoff indicator, SRS indicator, TPMS indicator, VSA activation indicator ('09 model), VSA indicator, and VSA OFF indicator ('10 model).

Switch Input Check

At the initial stage of the self-diagnostic function, the beeper sounds intermittently. The beeper sounds continuously when any of the following switch inputs are switched from OFF to ON:

Cruise control main, SET/DECEL, RES/ACCEL, CANCEL switches, SEL/RESET switch, parking brake switch, PREVIOUS, NEXT switch, and VSA OFF switch.

The Beeper Drive Circuit Check

When entering the self-diagnostic mode, the beeper sounds five times.

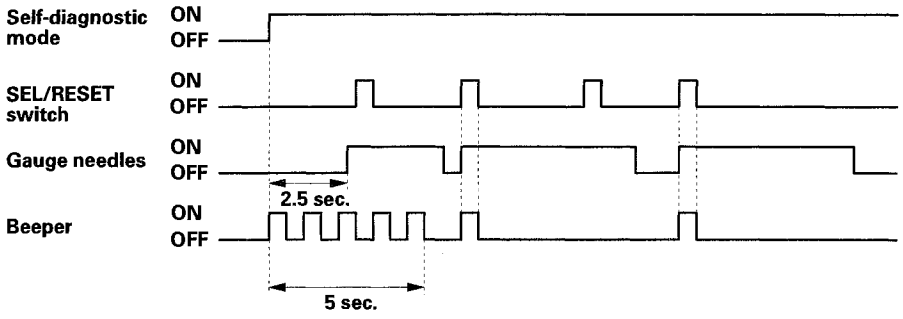
The LCD/MID Segment Check

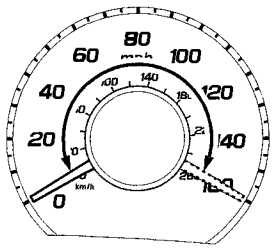
When entering the self-diagnostic mode, the words "CHECKING NOW" show on the MID, and blink five times.

The Gauge Drive Circuit Check

When entering the self-diagnostic mode, the speedometer, the tachometer, the fuel gauge, and the engine coolant temperature gauge needles sweep from the minimum position to maximum position, then return to the minimum position.

NOTE: After the beeper stops sounding and the gauge needles return to the minimum position, pushing the SEL/RESET button starts the Beeper Drive Circuit Check (one beep) and the Gauge Drive Circuit Check again. The check cannot be started again until the gauge needles return to the minimum position.





The needles sweep from the minimum position to the maximum position, then return to the minimum position.

If the needles fail to sweep, or the beeper does not sound, replace the gauge control module.

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Self-diagnostic Function (cont'd)

The Communication Line Check

While in the self-diagnostic mode, the Communication Line Check starts after the LCD/MID Segments Check.

If the communication line is OK, the word "OK" will be indicated on the multi-information display (MID). If there is a communication line error, the word "ERROR" will be indicated on the MID.

Indication pattern

There is a malfunction in the communication line between the F-CAN and gauge control module. The B-CAN is OK at this time. Check for DTCs in the ECM/PCM and troubleshoot any DTCs found.

There is a malfunction in the communication line between the B-CAN and gauge control module. The F-CAN line is OK at this this time.

There is a malfunction in the communication line between the gauge control module and F-CAN and B-CAN. Check for DTCs in the ECM/PCM and troubleshoot any DTCs found.

Ending the self-diagnostic function

Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.

NOTE: If the vehicle speed exceeds 1.2 mph (2 km/h), the self-diagnostic function ends.

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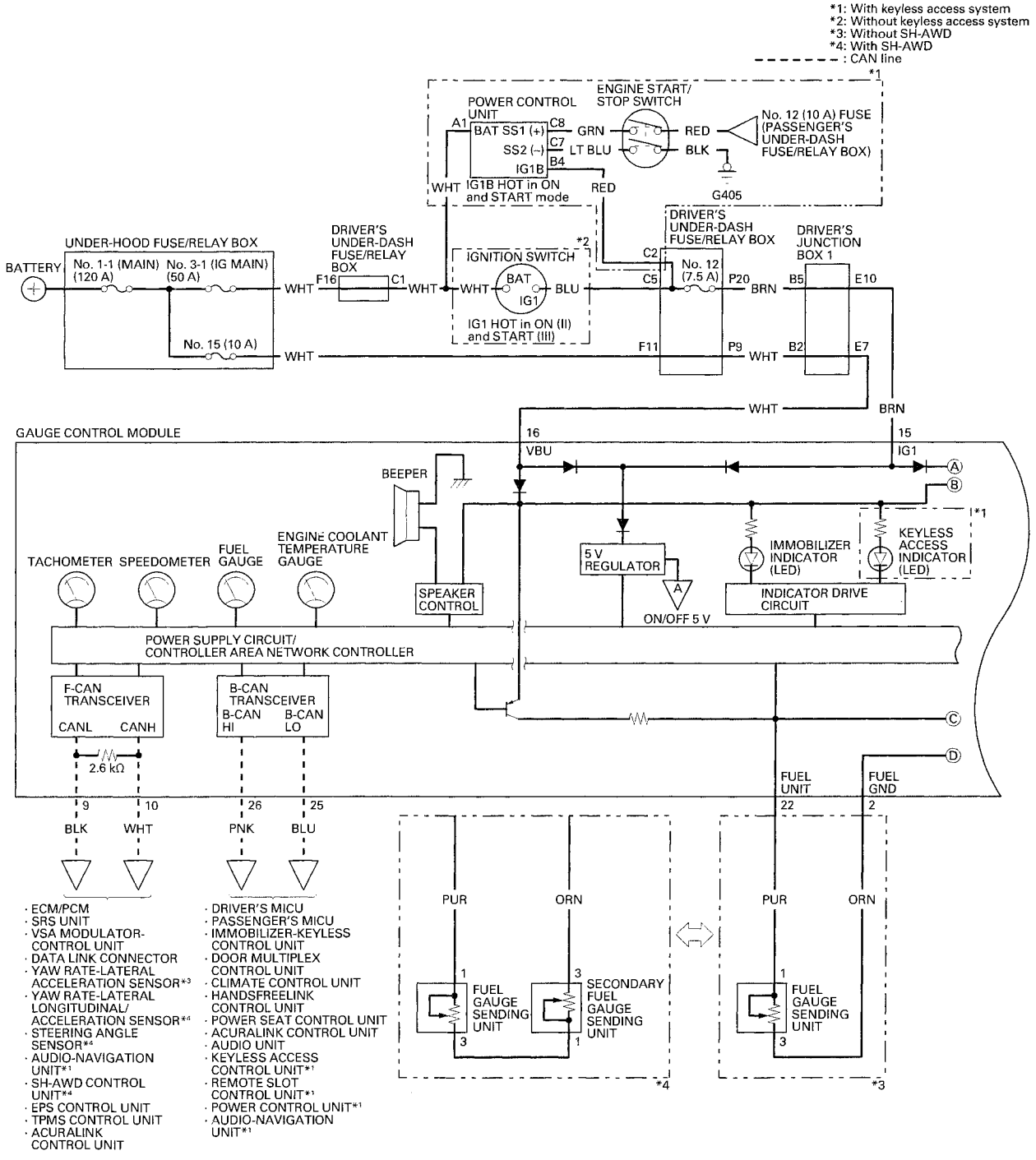
Circuit Diagram



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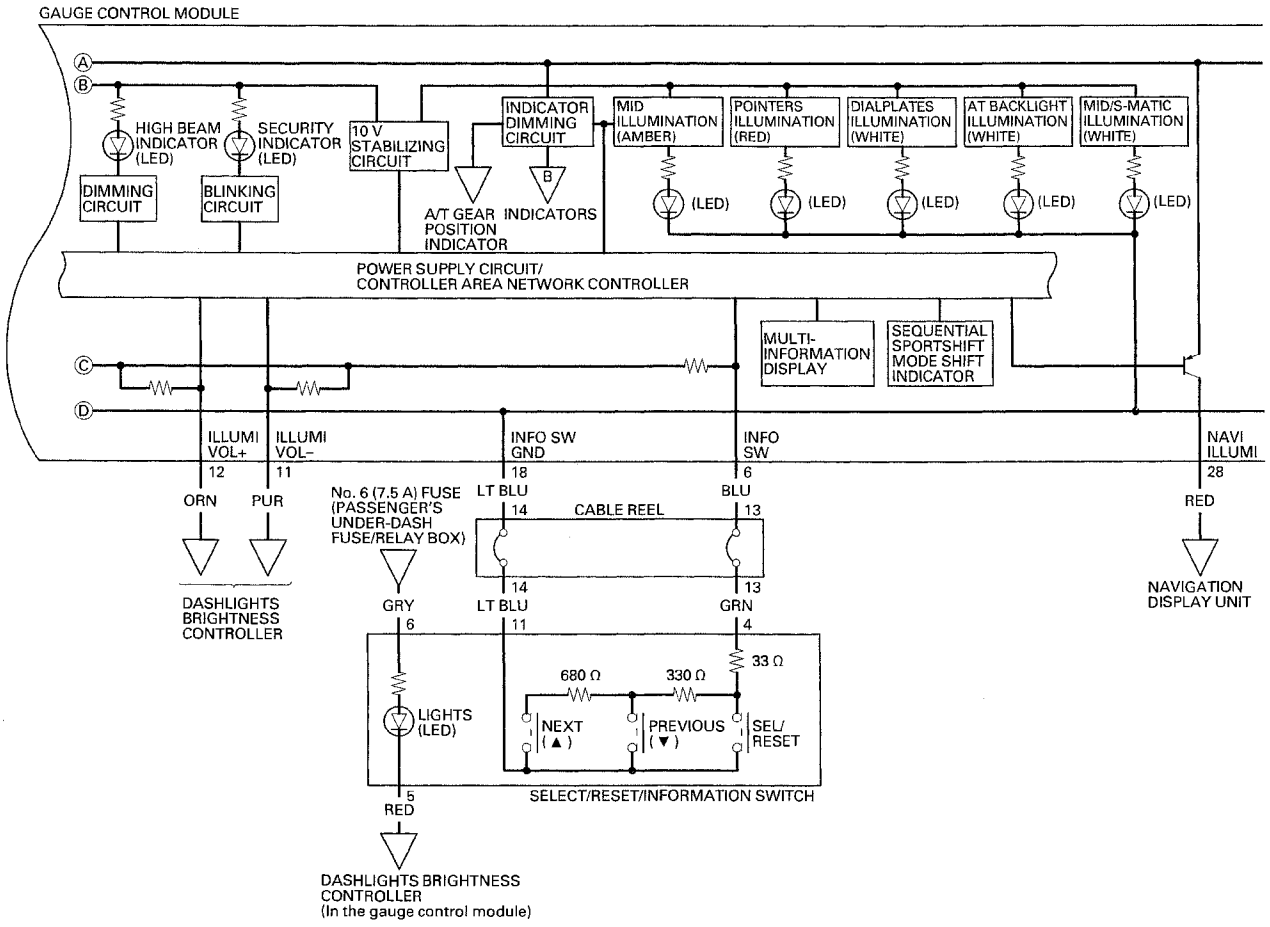
Circuit Diagram (cont'd)



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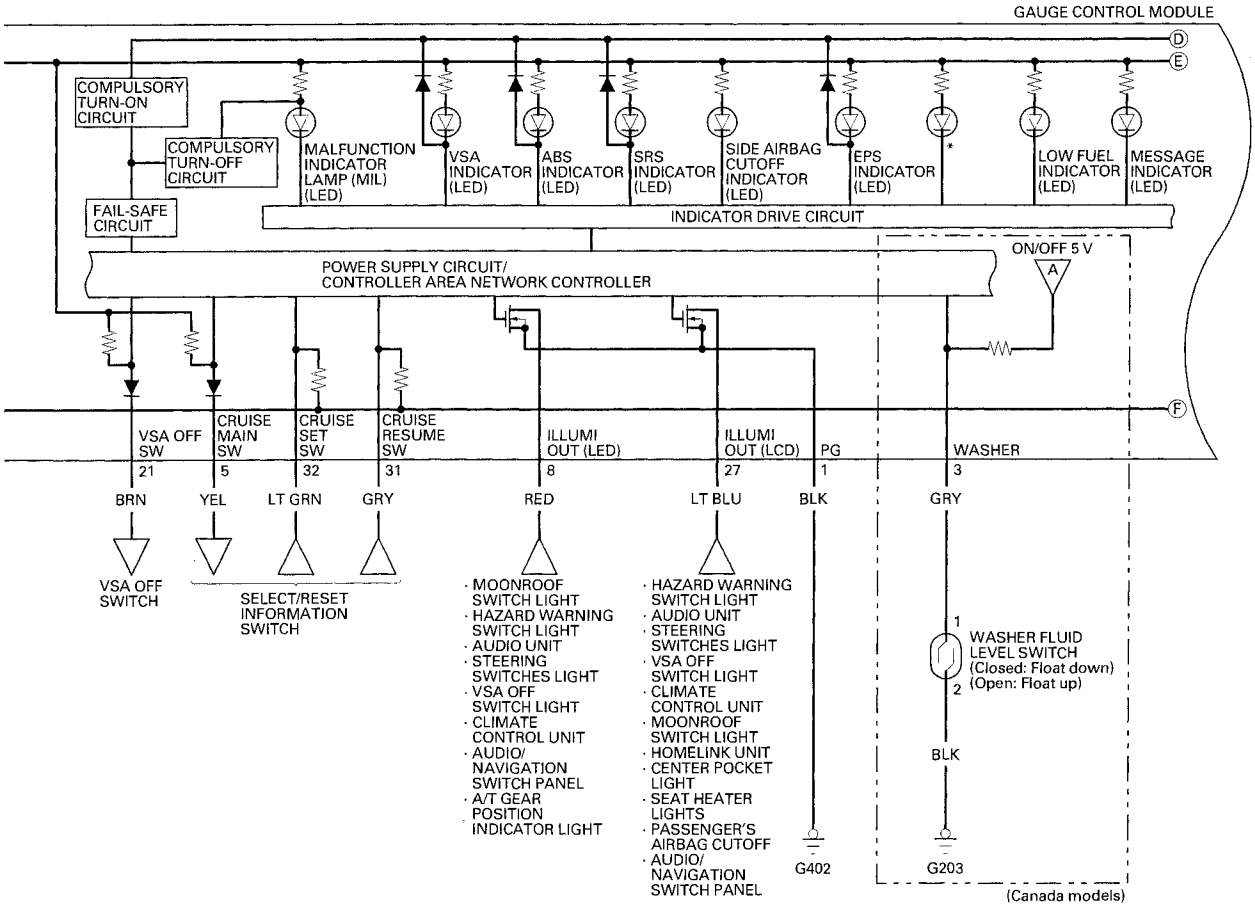
* '09 model: VSA ACTIVATION INDICATOR (LED)
'10 model: VSA OFF INDICATOR (LED)



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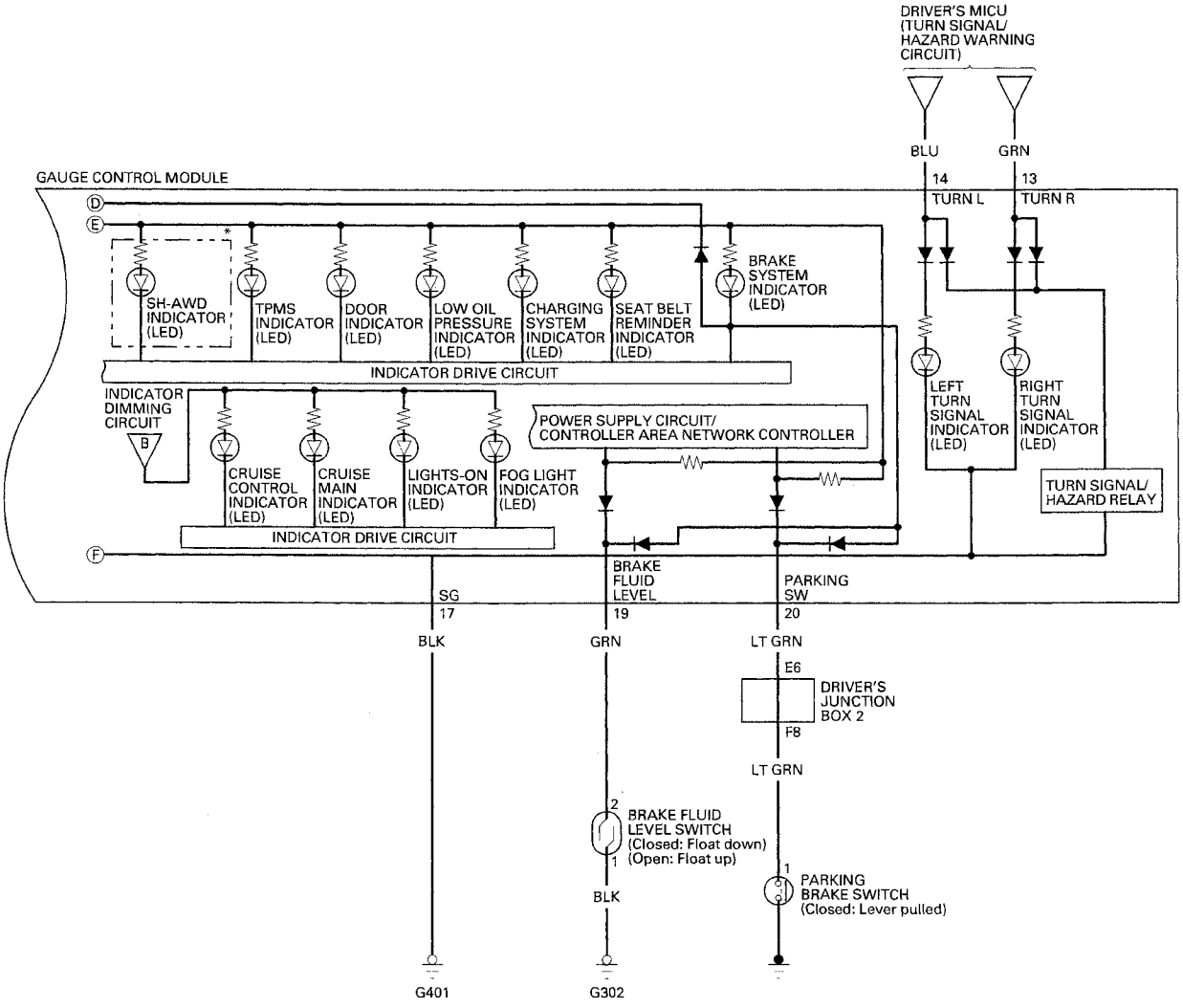
Circuit Diagram (cont'd)

*: With SH-AWD



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DTC Troubleshooting

DTC B1152: Gauge Control Module (EEPROM) Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC B1152 indicated?

   YES–Replace the gauge control module (see page 22-367).■

   NO–Intermittent failure, the system is OK at this time.■

DTC B1175: Fuel Level Sensor (Fuel Gauge Sending Unit) Circuit

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Check for DTCs with the HDS.

   Is DTC B1175 indicated?

   YES–

   - With SH-AWD: Go to step .7
   - Without SH-AWD: Go to step 4.

   NO–Intermittent failure, the fuel level sensor circuit is OK at this time. Check for loose or poor connections.■
4. Test the fuel gauge sending unit (see page 11-407).

   Is the fuel gauge sending unit OK?

   YES–Reconnect the sending units, then go to step 5.

   NO–Replace the affected fuel gauge sending unit(s) (see page 11-398).■
5. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.

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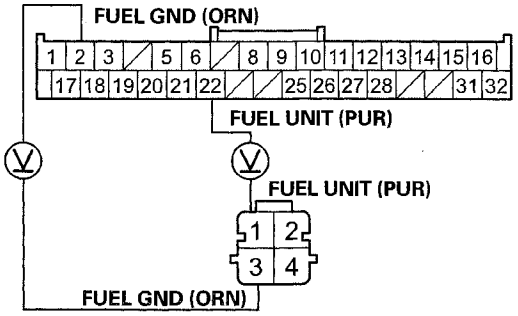
DTC Troubleshooting (cont'd)

6. Without disconnecting the connectors, measure the voltage between terminals No. 2 and No. 22 of the gauge control module 32P connector and terminals No. 3 and No. 1 of the fuel gauge sending unit 4P connector respectively.

GAUGE CONTROL MODULE 32P CONNECTOR
Wire side of female terminals



FUEL GAUGE SENDING UNIT 4P CONNECTOR
Wire side of female terminals

Is there less than 0.2 V?

YES–Replace the gauge control module (see page 22-367).■

NO–Repair the loose connection, high resistance, or an open in the PUR or ORN wire between the gauge control module and fuel gauge sending unit.■

7. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
8. Test the fuel gauge sending unit and the secondary fuel gauge sending unit (see page 11-407).

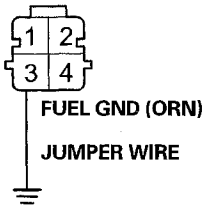
Are the fuel gauge sending units OK?

YES–Go to step 9.

NO–Replace the affected fuel gauge sending unit(s) (see page 11-409).■

9. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
10. Disconnect the fuel gauge sending unit 4P connector (see page 11-398).
11. Disconnect the gauge control module 32P connector.
12. Connect secondary fuel gauge sending unit 4P connector terminal No. 3 to body ground with a jumper wire.

SECONDARY FUEL GAUGE SENDING UNIT 4P CONNECTOR



Wire side of female terminals

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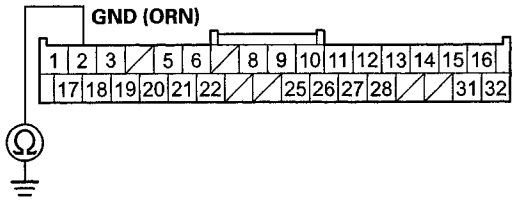
13. Check for continuity between gauge control module 32P connector terminal No. 2 and body ground.

GAUGE CONTROL MODULE 32P CONNECTOR



Wire side of female terminals

Is there continuity?

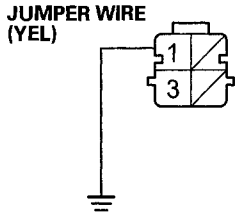
YES–Go to step 14.

NO–Repair an open in the wire.■

14. Disconnect the secondary fuel gauge sending unit 4P connector (see page 11-399).

15. Connect secondary fuel gauge sending unit 4P connector terminal No. **1** to body ground with a jumper wire.

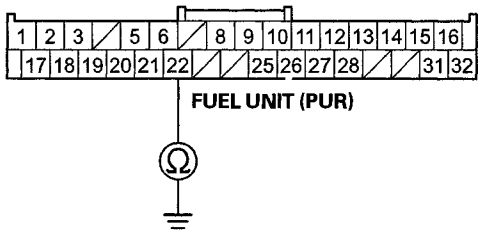
SECONDARY FUEL GAUGE SENDING UNIT 4P CONNECTOR



Wire side of female terminals

16. Check for continuity between gauge control module 32P connector terminal No. 22 and body ground.

GAUGE CONTROL MODULE 32P CONNECTOR



Wire side of female terminals

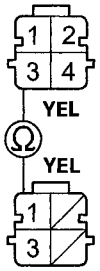
Is there continuity?

YES–Go to step 17.

NO–Repair an open in the wire.■

17. Check for continuity between fuel gauge sending unit 4P connector terminal No. 3 and secondary fuel gauge sending unit 4P connector terminal No. 1.

FUEL GAUGE SENDING UNIT 4P CONNECTOR
Wire side of female terminals



SECONDARY FUEL GAUGE SENDING UNIT 4P CONNECTOR
Wire side of female terminals

Is there continuity?

YES–Replace the gauge control module (see page 22-367).

NO–Repair the loose connection, high resistance, or an open in the YEL wire between the fuel gauge sending units.■

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DTC Troubleshooting (cont'd)

DTC B1176: Fuel Level Sensor (Fuel Gauge Sending Unit) Circuit Short

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 30 seconds.
4. Check for DTCs with the HDS.

   Is DTC B1176 indicated?

   YES–Go to step 5.

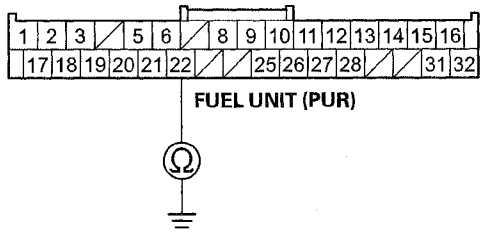
   NO–Intermittent failure, the fuel level sensor circuit is OK at this time. Check for worn/missing insulation or an internal short in the wire.■
5. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
6. Disconnect the fuel gauge sending unit 4P connector.
7. Clear the DTCs with the HDS.
8. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
9. Wait for at least 30 seconds.
10. Check for DTCs with the HDS.

    Is DTC B1176 indicated?

    YES–Go to step 11.

    NO–Replace the fuel gauge sending unit (see page 11-398).■
11. Disconnect the gauge control module 32P connector.
12. Check for continuity between gauge control module 32P connector terminal No. 22 and body ground.

GAUGE CONTROL MODULE 32P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire between the gauge control module and the fuel gauge sending unit.■

NO–Replace the gauge control module (see page 22-367).■

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DTC U0029: F-CAN Communication Line Error

NOTE:

- Make sure the HDS communicates with the ECM/PCM and other vehicle systems. If it does not, go to DLC Circuit Troubleshooting (see page 11-258).
- If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U0029 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections, or worn/shorted wires. If the connections are good, check the battery condition (see page 22-84) and the charging system.■

5. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
6. Disconnect the appropriate connector at each control unit in the table one at a time. Clear the DTC, then recheck for DTCs after each unit is disconnected.

Control Unit	Connector
Gauge control module	32P connector
ECM/PCM	Connector A (49P)
VSA modulator-control unit	47P connector
SRS unit	Connector A (39P)
Audio-navigation unit*1	Connector H (28P)
TPMS control unit	20P connector
EPS control unit	28P connector
Yaw rate-lateral acceleration sensor*2	4P connector
Yaw rate-lateral longitudinal/acceleration sensor*3	
Steering angle sensor	5P connector
SH-AWD control unit	Connector A (20P)
AcuraLink control unit*4	Connector A (32P)

*1: With navigation system
*2: Without SH-AWD
*3: With SH-AWD
*4: With AcuraLink

Is DTC U0029 indicated after each individual unit was disconnected?

YES–Go to step 7.

NO–Replace the control unit that was disconnected when DTC U0029 did not set.■

(cont'd)

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DTC Troubleshooting (cont'd)

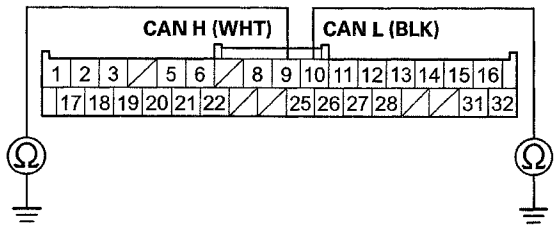
7. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
8. Disconnect all the control units' connectors in the following table.

Control Unit	Connector
Gauge control module	32P connector
ECM/PCM	Connector A (49P)
VSA modulator-control unit	47P connector
SRS unit	Connector A (39P)
Audio-navigation unit*1	Connector H (28P)
TPMS control unit	20P connector
EPS control unit	28P connector
Yaw rate-lateral acceleration sensor*2	4P connector
Yaw rate-lateral longitudinal/acceleration sensor*3	
Steering angle sensor*3	5P connector
SH-AWD control unit*3	Connector A (20P)
AcuraLink control unit*4	Connector A (32P)

*1: With navigation system
*2: Without SH-AWD
*3: With SH-AWD
*4: With AcuraLink

9. Disconnect the HDS from the data link connector.
10. Check for continuity between body ground and gauge control module 32P connector terminals No. 9 and No. 10 individually.

GAUGE CONTROL MODULE 32P CONNECTOR



Wire side of female terminals

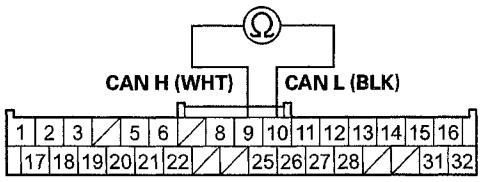
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 11.

11. Check for continuity between gauge control module 32P connector terminals No. 9 and No. 10.

GAUGE CONTROL MODULE 32P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair a short in the F-CAN wires.■

NO–Replace the gauge control module (see page 22-367).■

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DTC U0100: Gauge Control Module Lost Communication With ECM/PCM

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Start and run the engine for at least 5 seconds, then turn the engine off.
4. Check for DTCs with the HDS.

   Is DTC U0100 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the F-CAN communication line is OK at this time. Check for DTCs in the ECM/PCM with the HDS. If F-CAN DTCs are present, check for loose or poor connections at the gauge control module and the ECM/PCM. If the connections are good, check the battery condition and the charging system, then clear all DTCs.■
5. Check for DTCs in the ECM/PCM with the HDS.

   Are any DTCs indicated?

   YES–Go to the ECM/PCM indicated DTC's troubleshooting.■

   NO–Go to step 6.
6. Do the gauge control module input test (see page 22-363).

   Are all inputs OK?

   YES–Go to step 7.

   NO–Repair the faulty input, then recheck the DTCs.■
7. Substitute a known-good gauge control module.
8. Clear the DTCs with the HDS.
9. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
10. Start and run the engine for at least 5 seconds, then turn the engine off.
11. Check for DTCs with the HDS.

    Is DTC U0100 indicated?

    YES–Replace the ECM/PCM (see page 11-282).■

    NO–The original gauge control module is faulty; replace it (see page 22-367).■

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DTC Troubleshooting (cont'd)

DTC U0122: Gauge Control Module Lost Communication With VSA Modulator-Control Unit (VSA message)

NOTE:

- If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).
- If the HDS does not communicate with the VSA modulator-control unit, the VSA indicator stay on, and no VSA DTCs are stored, go to symptom troubleshooting for ABS indicator, brake system indicator, and VSA indicator do not go off, and no DTCs are stored (see page 19-112).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U0122 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the F-CAN communication line is OK at this time. Check for DTCs in the ECM/PCM and the VSA modulator-control unit with the HDS. If F-CAN DTCs are present, check for a loose VSA ground or poor connections at the VSA modulator-control unit or gauge control module. If the connections are good, check the battery condition and the charging system, then clear all DTCs.■
5. Check for DTCs in the ECM/PCM or VSA with the HDS.

   Are any DTCs indicated?

   YES–Go to the ECM/PCM or VSA indicated DTC's troubleshooting.■

   NO–Go to step 6.
6. Do the gauge control module input test (see page 22-363).

   Are all inputs OK?

   YES–Go to step 7.

   NO–Repair the faulty input, then recheck the DTCs.■
7. Substitute a known-good gauge control module.
8. Clear the DTCs with the HDS.
9. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
10. Check for DTCs with the HDS.

    Is DTC U0122 indicated?

    YES–Recheck ECM/PCM for DTCs, then recheck the VSA modulator-control unit for DTCs.■

    NO–The original gauge control module is faulty; replace it (see page 22-367).■

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DTC U0127: Gauge Control Module Lost Communication With the TPMS Control Unit (TPMS message)

NOTE:

- If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).
- If the HDS does not communicate with the TPMS control unit, the TPMS indicator stay on, and no TPMS DTCs are stored, go to symptom troubleshooting for TPMS indicator does not go off, and no DTCs are stored (see page 18-98).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U0127 indicated?

   YES–Go to step 5.

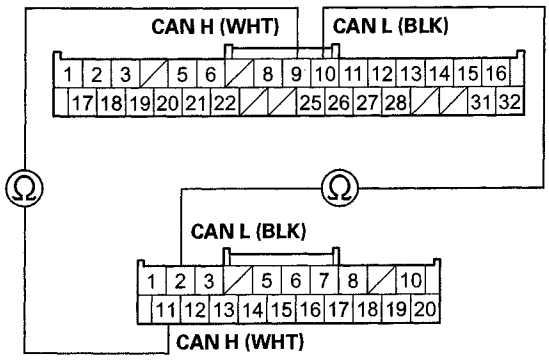
   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Check for TPMS DTCs with the HDS.

   Are any DTCs indicated?

   YES–Go to the indicated DTC's troubleshooting, then recheck.

   NO–Go to step 6.
6. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
7. Disconnect the gauge control module 32P connector.
8. Disconnect the TPMS control unit 20P connector.
9. Check for continuity between the gauge control module 32P connector terminals No. 9 and No. 10 and TPMS control unit 20P connector terminals No. 11 and No. 2 respectively.

GAUGE CONTROL MODULE 32P CONNECTOR
Wire side of female terminals



TPMS CONTROL UNIT 20P CONNECTOR
Wire side of female terminals

Is there continuity?

YES–Substitute a known-good TPMS control unit, and recheck. If the indication goes away, replace the original TPMS control unit. If the DTC is still present, replace the gauge control module (see page 22-367).■

NO–Repair an open in the wire.■

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DTC Troubleshooting (cont'd)

DTC U0131: Gauge Control Module Lost Communication With EPS Control Unit (EPS message)

NOTE:

- If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).
- If the HDS does not communicate with the EPS control unit, the EPS indicator stay on, and no EPS DTCs are stored, go to symptom troubleshooting for EPS indicator does not go off, and no DTCs are stored (see page 17-61).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U0131 indicated?

   YES–Go to step 5.

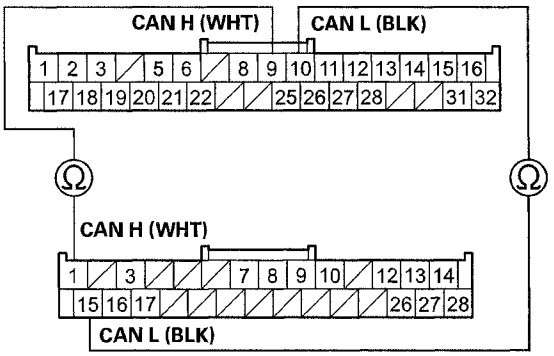
   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Check for EPS DTCs with the HDS.

   Are any DTCs indicated?

   YES–Go to the indicated DTC's troubleshooting, then recheck.

   NO–Go to step 6.
6. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
7. Disconnect the gauge control module 32P connector.
8. Disconnect the EPS control unit 28P connector.
9. Check for continuity between the gauge control module 32P connector terminals No. 9 and No. 10 and EPS control unit 28P connector terminals No. 1 and No. 15 respectively.

GAUGE CONTROL MODULE 32P CONNECTOR
Wire side of female terminals



EPS CONTROL UNIT 28P CONNECTOR
Wire side of female terminals

Is there continuity?

YES–Substitute a known-good EPS control unit, and recheck. If the indication goes away, replace the original EPS control unit. If the DTC is still present, replace the gauge control module (see page 22-367).■

NO–Repair an open in the wire.■

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DTC U0151: Gauge Control Module Lost Communication With SRS Unit

NOTE:

- If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).
- If the HDS does not communicate with the SRS unit, the SRS indicator stay on, go to symptom troubleshooting for SRS indicator stay on, but no DTCs are stored (see page 24-152).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U0151 indicated?

   YES–Go to step 5.

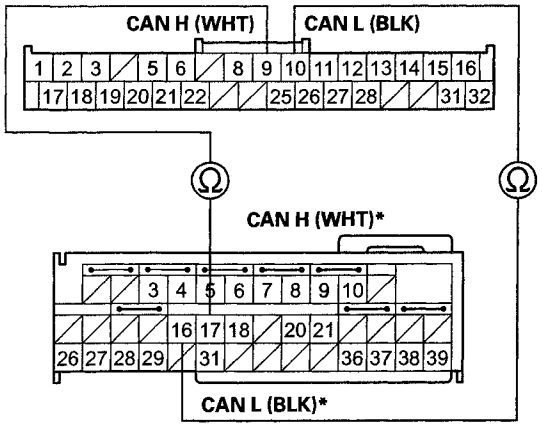
   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections between the gauge control module, and the SRS unit.■
5. Check for SRS DTC's with the HDS.

   Are any DTCs indicated?

   YES–Go to the indicated DTC's troubleshooting, then recheck.

   NO–Go to step 6.
6. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
7. Do the battery terminal disconnection procedure (see page 22-86), then wait at least 3 minutes.
8. Disconnect the gauge control module 32P connector.
9. Disconnect SRS unit connector A (39P).
10. Check for continuity between gauge control module 32P connector terminals No. 9 and No. 10 and SRS unit connector A (39P) terminals No. 17 and No. 16 respectively.

GAUGE CONTROL MODULE 32P CONNECTOR
Wire side of female terminals



SRS UNIT CONNECTOR A (39P)
Wire side of female terminals

***: BLU, BRN, or GRN wire may be used at the SRS unit.**

Is there continuity?

YES–Substitute a known-good SRS unit (see page 24-174), and recheck. If the indication goes away, replace the original SRS unit. If the DTC is still present, replace the gauge control module (see page 22-367).■

NO–Repair an open or poor connection in the wire between the SRS unit and the gauge control module.■

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DTC Troubleshooting (cont'd)

DTC U128B: Gauge Control Module Lost Communication With Power Control Unit

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Press the engine start/stop button to select the OFF, ACC, ON, and OFF mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U128B indicated?

   YES–Go to the power control unit input test, and do all power, ground, and communication input tests (see page 22-609). If the tests prove OK, replace the power control unit (see page 22-609).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at power control unit connector C (36P) and the related units.■

DTC U1282: Gauge Control Module Lost Communication With Driver's MICU

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U1282 indicated?

   YES–Go to the driver's MICU input test, and do all power, ground, and communication input tests (see page 22-156). If the tests prove OK, replace the driver's under-dash fuse/relay box (see page 22-81).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at driver's under-dash fuse/relay box connector P (20P) and the related units.■

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DTC U1283: Gauge Control Module Lost Communication With Passenger's MICU

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U1283 indicated?

   YES–Go to the passenger's MICU input test, and do all power, ground, and communication input tests (see page 22-161). If the tests prove OK, replace the passenger's under-dash fuse/relay box (see page 22-83).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at passenger's under-dash fuse/relay box connector A (38P) and the related units.■

DTC U1286: Gauge Control Module Lost Communication With Keyless Access Control Unit

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Press the engine start/stop button to select the OFF, ACC, ON, and OFF mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U1286 indicated?

   YES–Go to the keyless access control unit input test, and do all power, ground, and communication input tests (see page 22-605). If the tests prove OK, replace the keyless access control unit (see page 22-605).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at keyless access control unit connector B (32P) and the related units.■

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DTC Troubleshooting (cont'd)

DTC U1289: Gauge Control Module Lost Communication With Remote Slot Control Unit

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Press the engine start/stop button to select the OFF, ACC, ON, and OFF mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U1289 indicated?

   YES–Go to the remote slot control unit input test, and do all power, ground, and communication input tests (see page 22-614). If the tests prove OK, replace the remote slot control unit (see page 22-614).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at the remote slot control unit 40P connector and the related units.■

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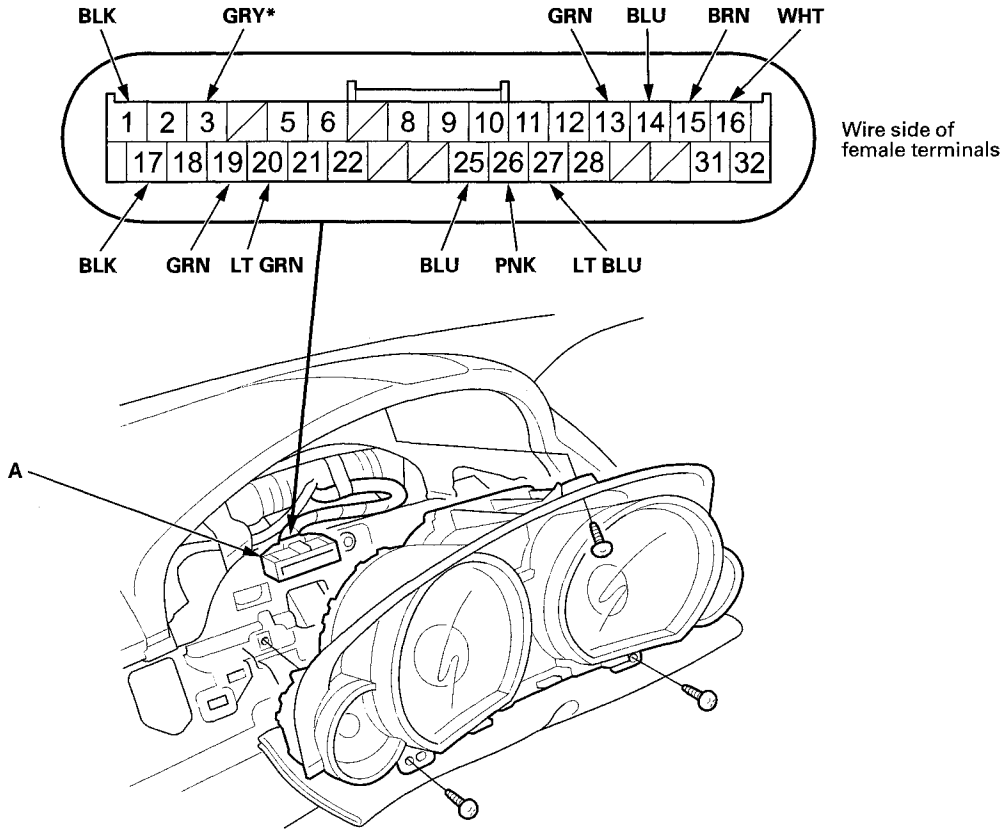
Gauge Control Module Input Test

NOTE: Before testing, do the gauge control module self-diagnostic function (see page 22-342), and make sure the B-CAN communication lines are OK.

1. Remove the gauge control module (see page 22-367), and disconnect the 32P connector (A) from it.



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2. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
   - If the terminals are OK, go to step 3.

(cont'd)

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Gauge Control Module Input Test (cont'd)

3. With the connector still disconnected, do these input tests at the following connector.
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 4.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
27	LT BLU	Combination light switch ON	Connect to ground with a jumper wire: The dashlights, audio unit light, and climate control unit light, moonroof switch light, and seat heater switch lights should come on full bright. NOTE: To help test the vehicle, park it in a dark or shaded area, and compare it to a known-good vehicle.	• Faulty LEDs and bulbs • An open or high resistance in the wire
13	GRN	Ignition switch ON (II), or power mode ON, turn signal switch in RIGHT	Measure the voltage to ground: There should be battery voltage when the lights are flashing.	• Faulty driver's MICU • Faulty combination light switch • An open or high resistance in the wire
14	BLU	Ignition switch ON (II), or power mode ON, turn signal switch in LEFT	Measure the voltage to ground: There should be battery voltage when the lights are flashing.	• Faulty driver's MICU • Faulty combination light switch • An open or high resistance in the wire
25	BLU	Disconnect driver's under-dash fuse/relay box connector P (20P)	Check for continuity between the terminal No. 23 and driver's under-dash fuse/relay box connector P (20P) terminal No. 5: There should be continuity.	An open in the B-CAN wire
			Check for continuity to ground: There should be no continuity.	A short to ground in the B-CAN wire
26	PNK	Disconnect driver's under-dash fuse/relay box connector P (20P)	Check for continuity between the terminal No. 24 and driver's under-dash fuse/relay box connector P (20P) terminal No. 6: There should be continuity.	An open in the B-CAN wire
			Check for continuity to ground: There should be no continuity.	A short to ground in the B-CAN wire

4. Reconnect the 32P connector to the gauge control module, and do the following input tests:

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- If any test indicates a problem, find and correct the cause, then recheck the system.
- If all the input tests prove OK, the gauge control module must be faulty; replace it (see page 22-367).

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
16	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
15	BRN	Ignition switch ON (II), or power mode ON	Measure the voltage to ground: There should be battery voltage.	• Blown No. 12 (7.5 A) fuse in the driver's under-dash fuse/relay box • An open or high resistance in the wire
17	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
1	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
3*	GRY	Ignition switch ON (II), or power mode ON, washer fluid is half or more in the washer reservoir	Measure the voltage to ground: There should be about 5 V.	• Faulty washer fluid level switch • A short to ground in the wire
		Ignition switch ON (II), or power mode ON washer fluid is empty in the washer reservoir	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G203) or an open in the ground wire • Faulty washer fluid level switch • An open or high resistance in the wire
19	GRN	Ignition switch ON (II), or power mode ON, brake fluid is full level in the reservoir	Measure the voltage to ground: There should be about 5 V.	• Faulty brake fluid level switch • A short to ground in the wire
		Ignition switch ON (II), or power mode ON, brake fluid is lower level in the reservoir	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G302) or an open in the ground wire • Faulty brake fluid level switch • An open or high resistance in the wire
20	LT GRN	Ignition switch ON (II), or power mode ON, parking brake lever pulled	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty parking brake switch • An open or high resistance in the wire
		Ignition switch ON (II), or power mode ON, parking brake lever released	Measure the voltage to ground: There should be about 5 V.	• Faulty parking brake switch • A short to ground in the wire

*: Canada models

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Rewriting the ODO Data and Transferring the Maintenance Minder Data to a New Gauge Control Module

NOTE:

- Obtain a new gauge control module before starting the rewriting process. Only new gauges can be rewritten.
- Rewriting is not possible on a gauge control module that will not communicate with the HDS.
- Make sure that the HDS shows the correct VIN for the vehicle you are working on.
- Once you have started this procedure, you must complete it before removing the HDS from the DLC.
- Connect a jumper battery (do not connect a battery charger) to ensure that correct battery voltage will be maintained.
- Check any official Honda service website for more service information about the odometer.

1. Before replacing the gauge control module, connect the HDS.
2. Select GAUGES from the BODY ELECTRICAL system select menu with the HDS.
3. Select Gauge Control Module Replacement (ODO Rewrite) from the ADJUSTMENT menu, and select READ OUT DATA and save ODO value and smart maintenance data into the HDS.
4. Replace the gauge control module (see page 22-367).
5. Select WRITE DATA and follow the instructions on the HDS display, and install the ODO value and smart maintenance data into the replacement gauge control module. If the data transfer fails, refer to the instructions below to release the locked ODO value.

How to release locked odometer mileage to the original gauge control module.

If, after you attempt to transfer mileage to a new gauge assembly, the odometer display has dashes (———), is garbled, or shows an incorrect value, the original gauge control module can be unlocked and restored to its original state. In this way, it can be used again for additional attempts to transfer the mileage:

1. Confirm that you have the latest HDS version of software.
2. Make sure that the HDS shows the correct VIN for the vehicle you are working on.
3. With the ignition switch in LOCK (0), or the vehicle ignition in the OFF mode, reconnect the original gauge control module.
4. Completely re-boot the HDS.
5. Clear any stored DTCs.
6. Navigate to BODY ELECTRIC/GAUGES/GAUGE CONTROL MODULE REPLACEMENT (ODO REWRITE, etc.).
7. Select 3. RELEASING LOCKED ODO VALUE.
8. Follow the prompts and the odometer mileage will be restored.
9. Start over and make sure the screen prompts are followed.

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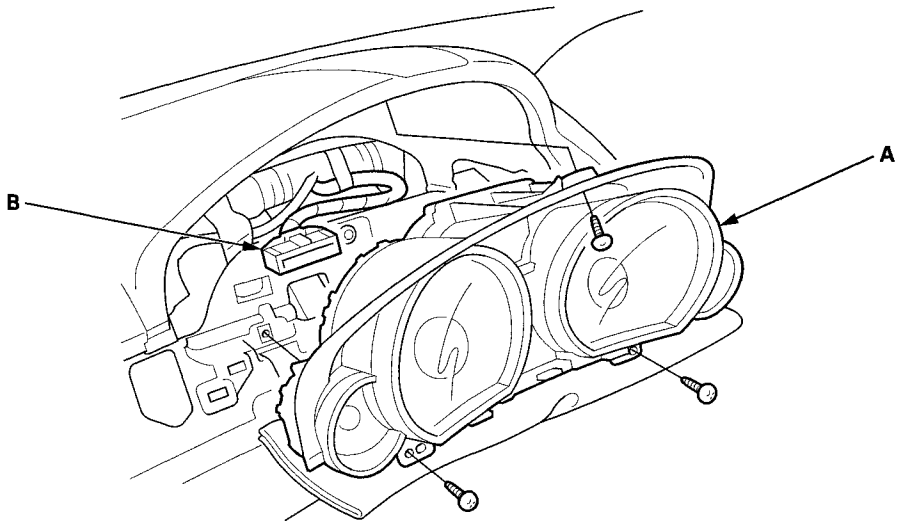
Gauge Control Module Replacement

NOTE: Before replacing the gauge control module, retrieve the ODO data and transferring maintenance minder information from the gauge control module with the HDS (see page 22-366).

1. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
2. Adjust the steering column to full tilt down position and to the full telescopic pull position, then remove the instrument fascia (see page 20-117).
3. Remove the three screws from gauge control module (A), then pull the gauge control module out carefully.



4. Disconnect the 32P connector (B) from the gauge control module.
5. Install the gauge control module in the reverse order of removal.
6. Do rewriting the ODO data and transferring the maintenance minder data to a new gauge control module (see page 22-366).

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Outside Air Temperature Indicator Calibration

NOTE: To test the outside air temperature sensor (see page 21-95).

Description

The outside air temperature sensor is located behind the center of the front bumper. The gauge control module uses measurements from this sensor to display the outside air temperature.

Because of the location of the sensor, it may be affected by heat reflection from the road, engine and radiator heat, or hot exhaust from surrounding traffic.

These conditions can heat soak the outside air temperature sensor and cause inaccurate readings. Logic has been written into the gauge control module to help prevent abnormal or fluctuating outside air temperature indicator readings.

Outside Air Temperature Indicator Logic

Engine coolant temperature is 140 °F (60 °C) or higher:

Initial outside air temperature indication after the ignition switch is turned to ON (II), or the engine start/stop button is pressed to select the ON mode.

If the engine coolant temperature is 140 °F (60 °C) or higher when the ignition switch is turned to ON (II), or the engine start/stop button is pressed to select the ON mode, the outside air temperature indicated the last time the key was turned off will be displayed regardless of the current temperature measured by the outside air temperature sensor.

Engine coolant temperature is less than 140 °F (60 °C):

If the engine coolant temperature less than 140 °F (60 °C) or lower when the ignition switch is turned to ON (II), or the engine start/stop button is pressed to select the ON mode, the current temperature measured by the outside air temperature sensor will be indicated.

Update to the outside air temperature indicator while driving

Engine coolant temperature is 140 °F (60 °C) or higher:

If the temperature measured by the outside air temperature sensor is greater than the temperature on the outside air temperature indicator, the outside temperature indicator will increase by 1 °F (1 °C) per minute after the vehicle speed is greater than 19 mph (30 km/h) for more than 1 minute and 30 seconds. It will continue to increase until the current outside air temperature is indicated. So, the first change to the outside air temperature indicator is 1 minute and 30 seconds after the vehicle speed is greater than 19 mph (30 km/h). If the vehicle speed drops below 19 mph (30 km/h), the indicator will not update again until the vehicle speed is increased to 19 mph (30 km/h) or more for more than 1 minute and 30 seconds again.

Engine coolant temperature is less than 140 °F (60 °C):

If the engine coolant air temperature is less than 140 °F (60 °C), the temperature displayed increases 1 °F (1 °C) every 2 seconds until the current outside air temperature is displayed.

If the outside air temperature is less than the indicated temperature, the temperature will decrease 1 °F (1 °C) every 2 seconds until the current outside air temperature is indicated regardless of vehicle speed.

Troubleshooting

If the indicator displays "— — —" for more than 2 seconds after selecting the outside air temperature display mode, the gauge is not receiving the outside temperature data from the climate control unit over the B-CAN. Check the climate control system or multiplex integrated control system for DTCs (see B-CAN System Diagnosis Test Mode A) (see page 22-135).

Calibration

The outside air temperature indicator's displayed temperature can be recalibrated ±5 °F or ±3 °C to meet the client's expectations.

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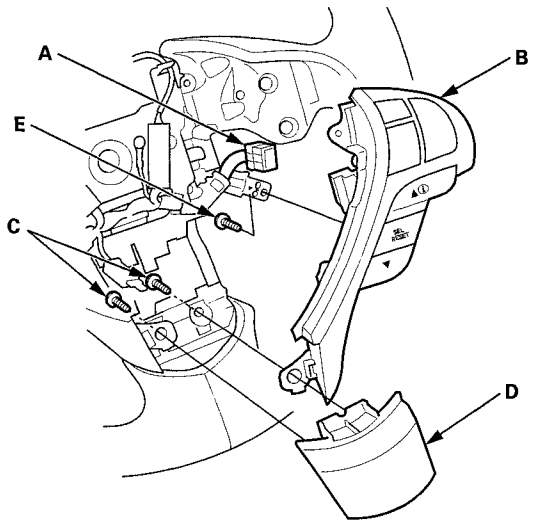
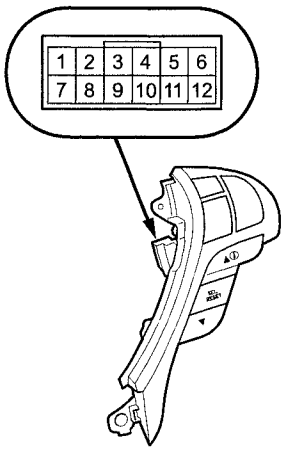
Select/Reset/Information Switch Test/Replacement

1. Remove the steering wheel (see page 17-6).
2. Remove the paddle shifter (+) (upshift switch) (see page 14-271).
3. Disconnect the 12P connector (A) from the select/reset/information switch (B).



4. Remove the screws (C), then pull out the center trim (D) from the steering wheel.
5. Remove the screw (E), then pull the select/reset/information switch from the steering wheel.
6. Measure the resistance between select/reset/information switch 12P connector terminals No. 4 and No. 11 in each switch position according to the table.



Position	Resistance
▲	About 1,043 Ω
SEL/RESET	About 33 Ω
▼	About 363 Ω

7. If the resistance is not as specified, replace the switch.
8. If the switch is OK, but there is a problem with the switch function, check the cable reel subharness and cable reel.

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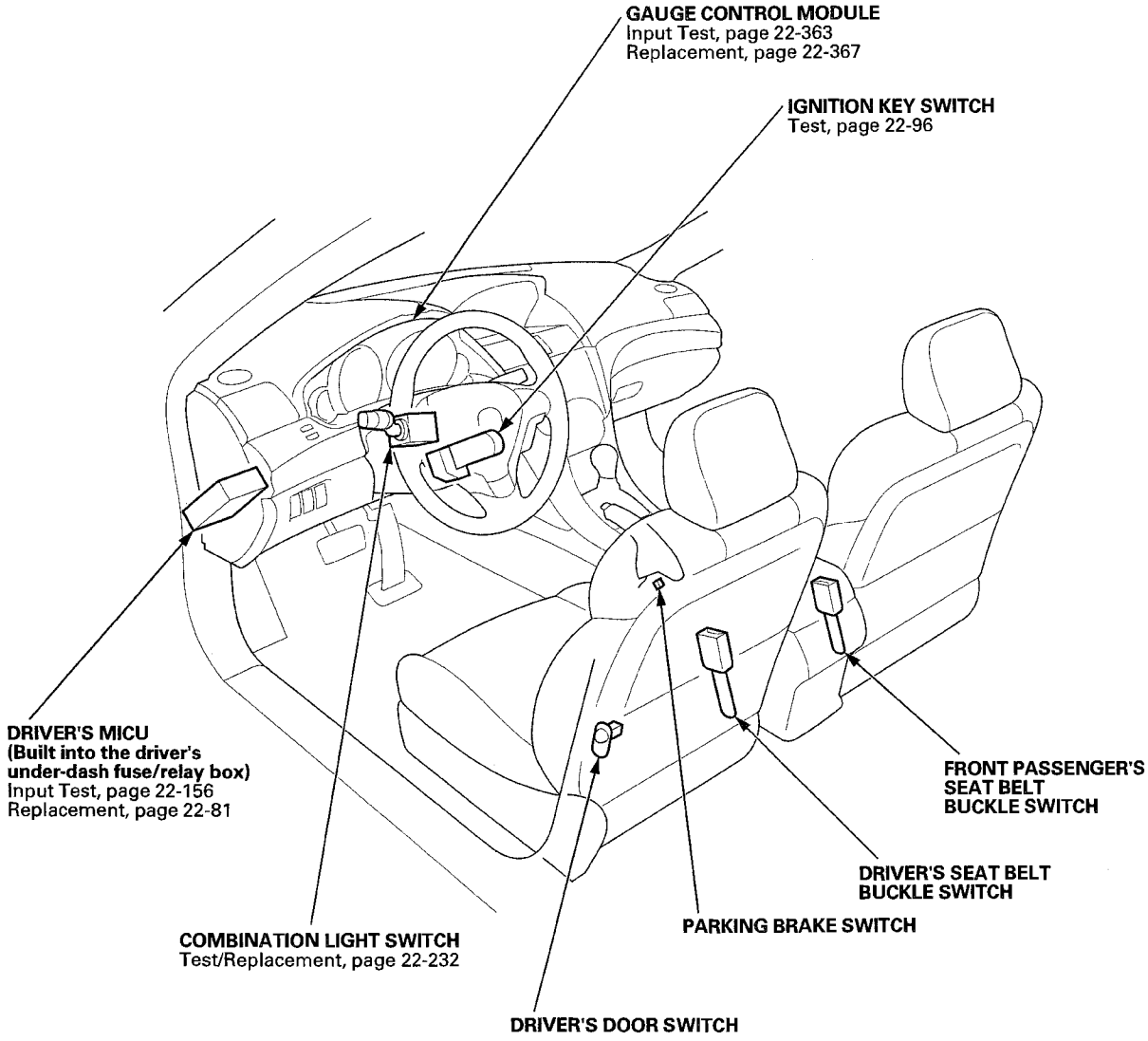
Component Location Index



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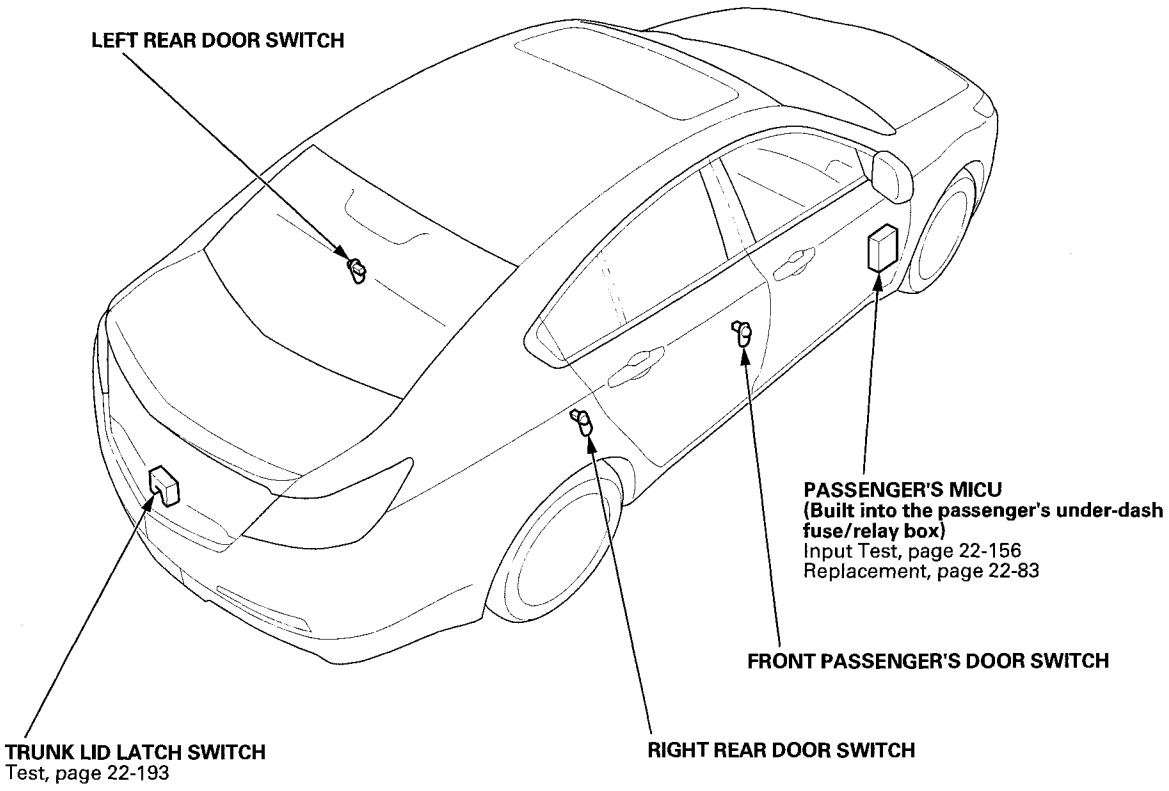

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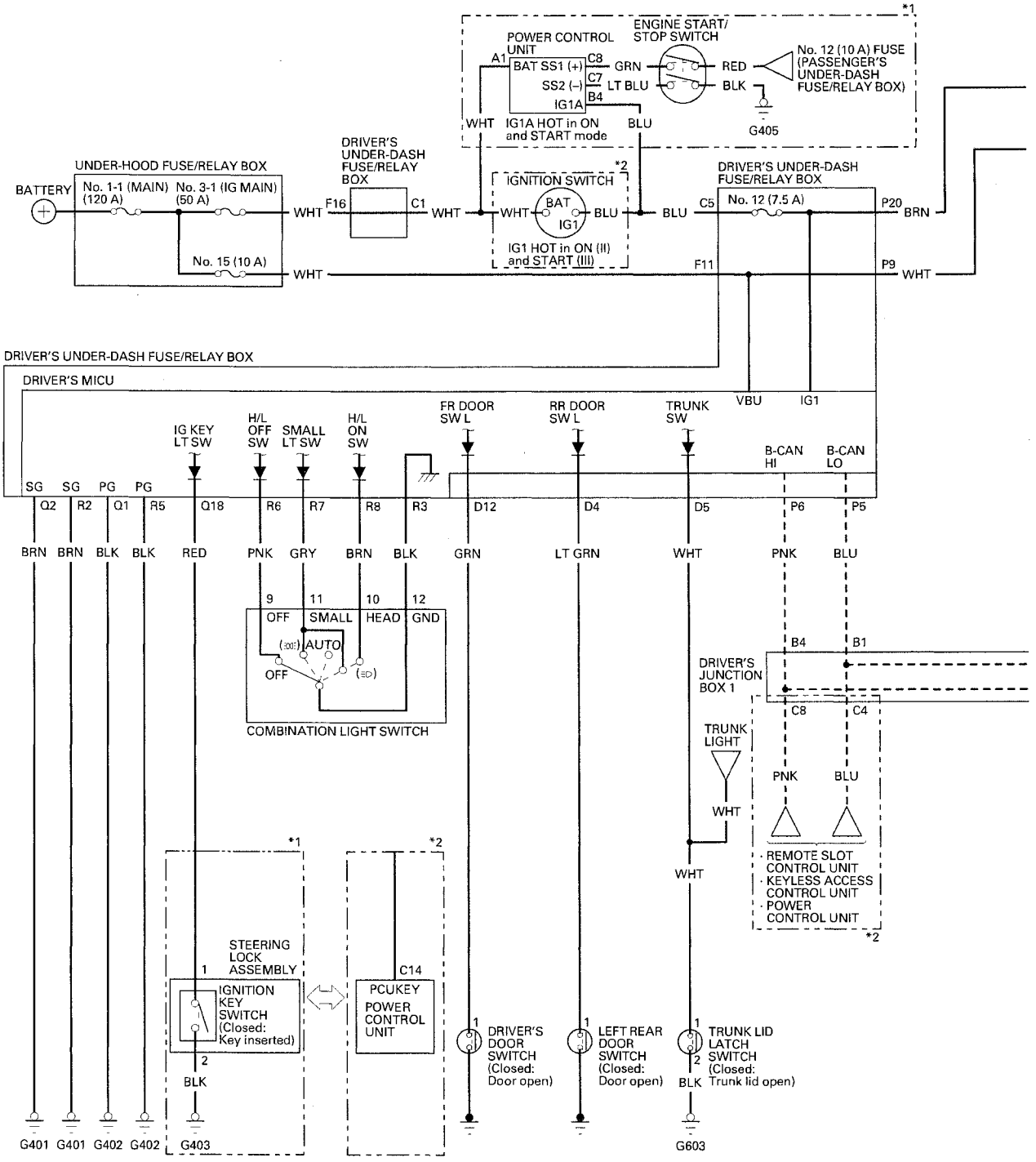
Circuit Diagram



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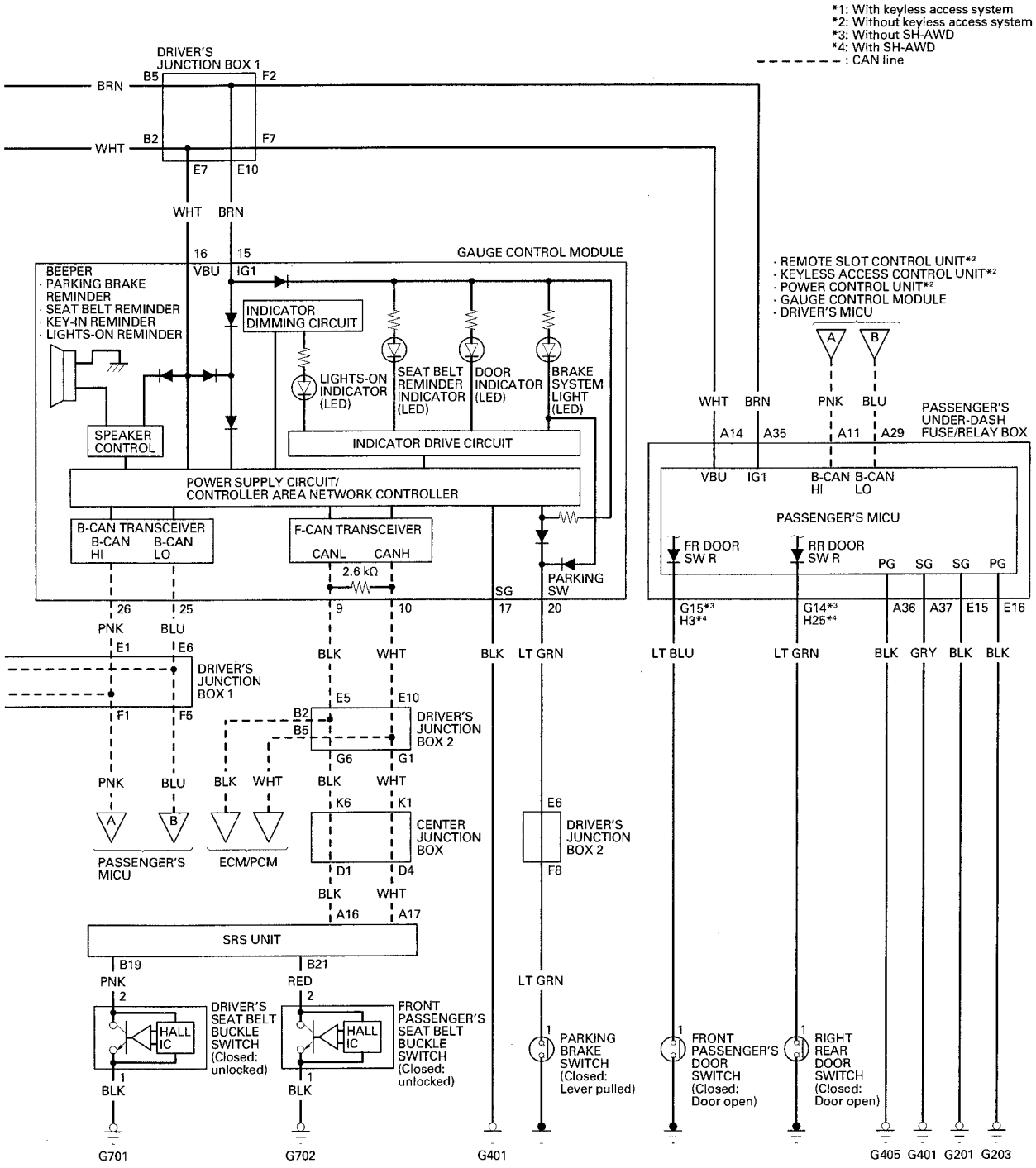

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Control Unit Input Test

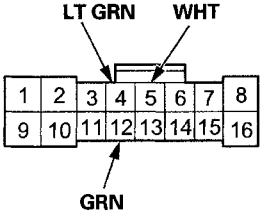
NOTE:
- Before testing, troubleshoot the multiplex integrated control unit first, using B-CAN System Diagnosis Test Mode A (see page 22-135).
- Before testing, do the gauge control module self-diagnostic function (see page 22-342) to make sure the beeper and the indicators in the gauge control module work properly and the F-CAN line are OK.
- Before doing the input tests, check the No. 12 (7.5 A) fuse in the driver's under-dash fuse/relay box is OK.

Driver's MICU

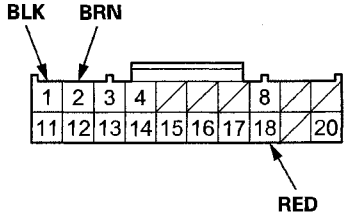
1. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
2. Remove the driver's dashboard undercover (see page 20-118).
3. Disconnect driver's under-dash fuse/relay box connectors D, Q, and R.

   NOTE: All connector views are wire side of female terminals.

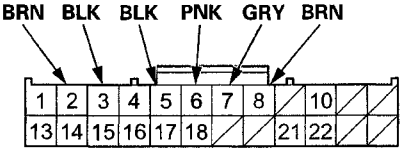
CONNECTOR D (16P)



CONNECTOR Q (20P)



CONNECTOR R (24P)



4. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary and recheck the system.
   - If the terminals are OK, go to step 5.

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5. Reconnect the connectors, turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode, and do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 6.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
Q1	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
Q2	BRN	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
R2	BRN	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
R5	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
D12	GRN	Driver's door open	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty driver's door switch • Faulty driver's door switch ground • An open or high resistance in the wire
		Driver's door closed	Measure the voltage to ground: There should be about 5 V.	• Faulty driver's door switch • A short to ground in the wire
D4	LT GRN	Left rear door open	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty left rear door switch • Faulty left rear door switch ground • An open or high resistance in the wire
		Left rear door closed	Measure the voltage to ground: There should be about 5 V.	• Faulty left rear door switch • A short to ground in the wire
D5	WHT	Trunk lid open (Remove the trunk light bulb)	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty trunk lid latch switch • An open or high resistance in the wire • Poor ground (G603) or an open in the ground wire
		Trunk lid closed (Remove the trunk light bulb)	Measure the voltage to ground: There should be about 5 V.	• Faulty trunk lid latch switch • A short to ground in the wire
Q18*1	RED	Remote key inserted into the Remote slot	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty Remote slot • Faulty power control unit • Poor ground • An open or high resistance in the wire
		Remote key removed from the Remote slot	Measure the voltage to ground: There should be about 5 V.	• Faulty Remote slot • Faulty power control unit • A short to ground in the wire

*1: With keyless access
*2: Without keyless access

(cont'd)

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Control Unit Input Test (cont'd)

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
Q18*2	RED	Ignition key inserted into the ignition switch	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G403) or an open in the ground wire • Faulty ignition key switch • An open or high resistance in the wire
		Ignition switch in LOCK (0) position and ignition key removed from the ignition switch	Measure the voltage to ground: There should be about 5 V.	• Faulty ignition key switch • A short to ground in the wire
R6 · R3	PNK · BLK	Combination light switch OFF	Measure the voltage between terminals R6 and R3: There should be less than 0.2 V.	• Faulty combination light switch • An open or high resistance in the wire
		Combination light switch in any other position than OFF	Measure the voltage between terminals R6 and R3: There should be about 5 V.	• Faulty combination light switch • A short to ground in the wire
R7 · R3	GRY · BLK	Combination light switch (PARKING position) ON	Measure the voltage between terminals R7 and R3: There should be less than 0.2 V.	• Faulty combination light switch • An open or high resistance in the wire
		Combination light switch OFF	Measure the voltage between terminals R7 and R3: There should be about 5 V.	• Faulty combination light switch • A short to ground in the wire
R8 · R3	BRN · BLK	Combination light switch (Headlight position) ON	Measure the voltage between terminals R8 and R3: There should be less than 0.2 V.	• Faulty combination light switch • An open or high resistance in the wire
		Combination light switch OFF	Measure the voltage between terminals R8 and R3: There should be about 5 V.	• Faulty combination light switch • A short to ground in the wire

*1: With keyless access
*2: Without keyless access

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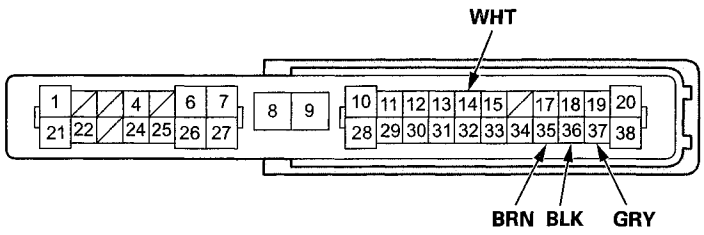
Passenger's MICU

6. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode, and remove the passenger's side kick panel (see page 20-81).
7. Disconnect passenger's under-dash fuse/relay box connectors A, E, and G*1 (or H*2).

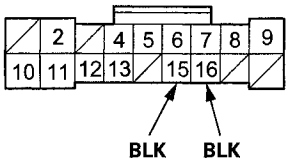
*1:Without SH-AWD
*2:With SH-AWD

NOTE: All connector views are wire side of female terminals.

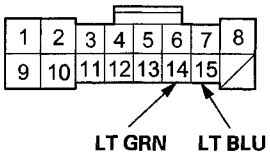
CONNECTOR A (38P)



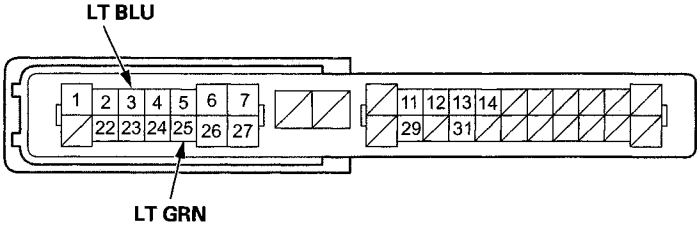
CONNECTOR E (18P)



CONNECTOR G (16P) (without SH-AWD)



CONNECTOR H (38P) (with SH-AWD)



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Control Unit Input Test (cont'd)

8. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
   - If the terminals look OK, go to step 9.
9. Reconnect the connectors to the passenger's under-dash fuse/relay box, and do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 10.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
A14	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
A35	BRN	Ignition switch ON (II), or power mode ON	Measure the voltage to ground: There should be battery voltage.	• Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
A36	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G405) or an open in the ground wire • An open or high resistance in the wire
A37	GRY	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
E15	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G201) or an open in the ground wire • An open or high resistance in the wire
E16	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G203) or an open in the ground wire • An open or high resistance in the wire
G15*1 or H3*2	LT BLU	Front passenger's door open	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty front passenger's door switch • Faulty front passenger's door switch ground • An open or high resistance in the wire
		Front passenger's door closed	Measure the voltage to ground: There should be about 5 V.	• Faulty front passenger's door switch • A short to ground in the wire
G14*1 or H25*2	LT GRN	Right rear door open	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty right rear door switch • Faulty right rear door switch ground • An open or high resistance in the wire
		Right rear door closed	Measure the voltage to ground: There should be about 5 V.	• Faulty right rear door switch • A short to ground in the wire

*1: Without SH-AWD
*2: With SH-AWD

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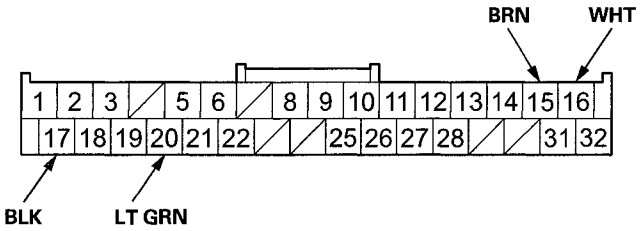
Gauge Control Module

10. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
11. Remove the gauge control module (see page 22-367), and disconnect the 32P connector from it.

GAUGE CONTROL MODULE 32P CONNECTOR



Wire side of female terminals

12. Inspect the connector and socket terminals to be sure they are all making good contact.
    - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
    - If the terminals are OK, go to step 13.

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Control Unit Input Test (cont'd)

13. Reconnect the connector to the gauge control module, turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode, and do the following input tests:
    - If any test indicates a problem, find and correct the cause, then recheck the system.
    - If all the input tests prove OK, go to step 14.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
16	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
15	BRN	Ignition switch ON (II), or power mode ON	Measure the voltage to ground: There should be battery voltage.	• Faulty driver's under-dash fuse/relay box • An open or high resistance in the wire
17	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
20	LT GRN	Parking brake lever pulled	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty parking brake switch • Faulty parking brake switch ground • An open or high resistance in the wire
		Parking brake lever released	Measure the voltage to ground: There should be about 5 V.	• Faulty parking brake switch • A short to ground in the wire

14. Do the Gauge Control Module Self-diagnostic Function (see page 22-342), and check the beeper and the seat belt reminder indicator.
    - If the beeper sounds and the seat belt reminder indicator flashes, go to step 15.
    - If the beeper does not sound or the seat belt reminder indicator does not flash, replace the gauge control module (see page 22-367).
15. Substitute a known-good gauge control module, and recheck the system.
    - If the symptom is gone, the gauge control module is faulty; replace it (see page 22-367).
    - If the symptom is still present, the driver's MICU is faulty; replace the driver's under-dash fuse/relay box (see page 22-81).

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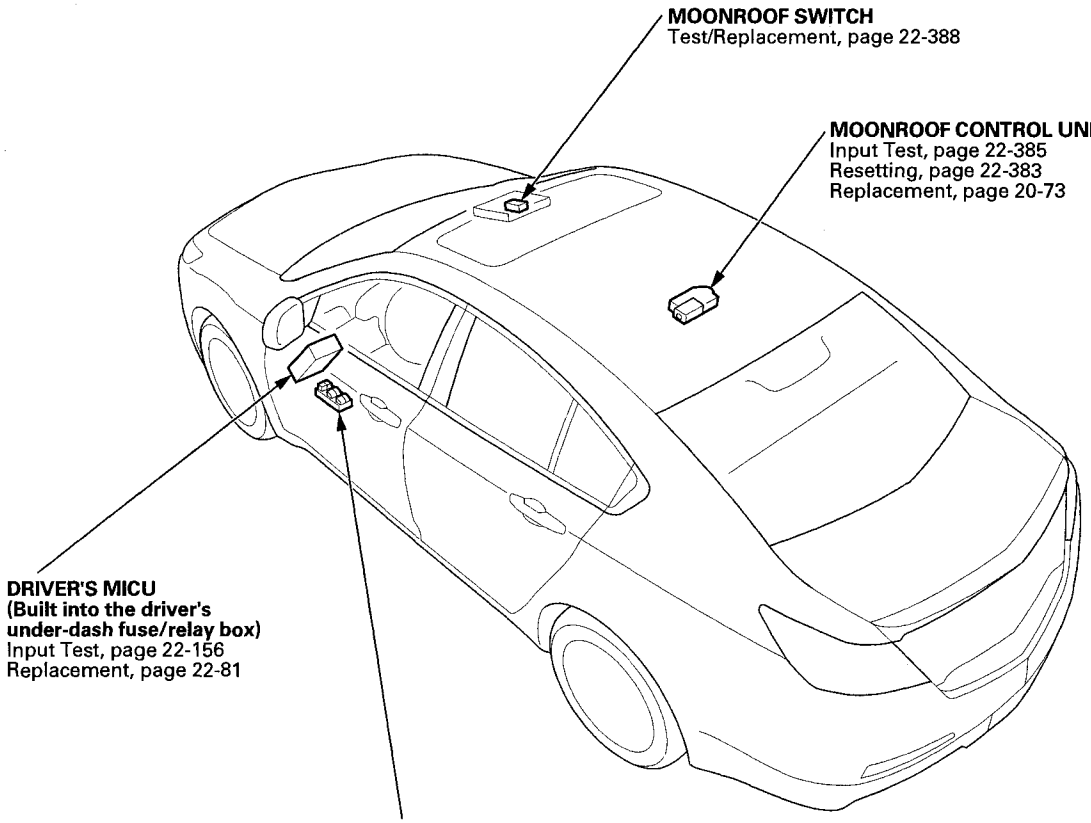
Component Location Index



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Symptom Troubleshooting Index

Symptom	Diagnostic procedure
Water leaks from moonroof	1. Check for a clogged or detached drain tube. 2. Check the glass position adjustment (see page 20-68). 3. Check for a defective or an improperly installed glass weatherstrip or drain channel. 4. Check for a gap between the drain seal and the roof panel.
Wind noise from moonroof	1. Check for excessive clearance between the glass weatherstrip and the roof panel. 2. Check the glass position adjustment (see page 20-68).
Motor noise from moonroof	1. Check for a loose motor. 2. Check for a worn gear or bearing. 3. Check for a deformed cable assembly. 4. Check for dirt or debris.
Moonroof glass does not move, but motor turns	1. Check for foreign matter stuck between the guide rail and the slider. 2. Make sure the cable assembly is attached properly. 3. Check for a loose inner cable. 4. Check for a defective gear or inner cable.
Moonroof glass does not move and motor does not turn (glass can be moved with 4 mm hex wrench)	1. Check for a run down battery. 2. Check for a blown fuse. 3. Check for a faulty moonroof switch. 4. Check for a defective moonroof control unit/motor.
Moonroof glass does not stop at proper flush closed position	1. Reset the moonroof control unit (see page 22-383). 2. Check the glass position adjustment (see page 20-68).
Moonroof glass moves in a jerking motion (moves 40 mm (1.57 in), stops for 0.4 seconds, and repeats)	Reset the moonroof control unit (see page 22-383).
During auto close operation, moonroof glass reverses when no object is trapped	1. Check for dirt and debris in the track. 2. Reset the moonroof control unit (see page 22-383).
Moonroof glass moves, but there is no AUTO function	Reset the moonroof control unit (see page 22-383).

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Resetting the Moonroof Control Unit

Reset the moonroof after doing any of the following actions:
- The moonroof was moved manually while the battery was dead or disconnected.
- The moonroof motor was replaced with a new one.
- Any components related to the moonroof were replaced or removed and reinstalled.
  - Wind deflector
  - Moonroof glass
  - Moonroof seal
  - Moonroof glass bracket
  - Moonroof cables, etc.

To reset the moonroof control unit, do these steps:

1. Close the driver's door, and leave it closed until the procedure is complete.
2. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
3. Press and hold the tilt switch, and turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
4. Release the tilt switch, and turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
5. Repeat steps 3 and 4 four times.
6. Check if the AUTO OPEN and AUTO CLOSE functions still work. If they still work, the AUTO functions have not been cleared, go back to step 1. If the AUTO functions have been cleared, go to step 7.
7. Press and hold the moonroof open switch for at least 3 additional seconds after the moonroof is fully opened.
8. Press and hold the moonroof close switch for at least 3 additional seconds after the moonroof is fully closed (tilted).
9. Confirm that the moonroof control unit is reset by using the moonroof AUTO OPEN and AUTO CLOSE function.

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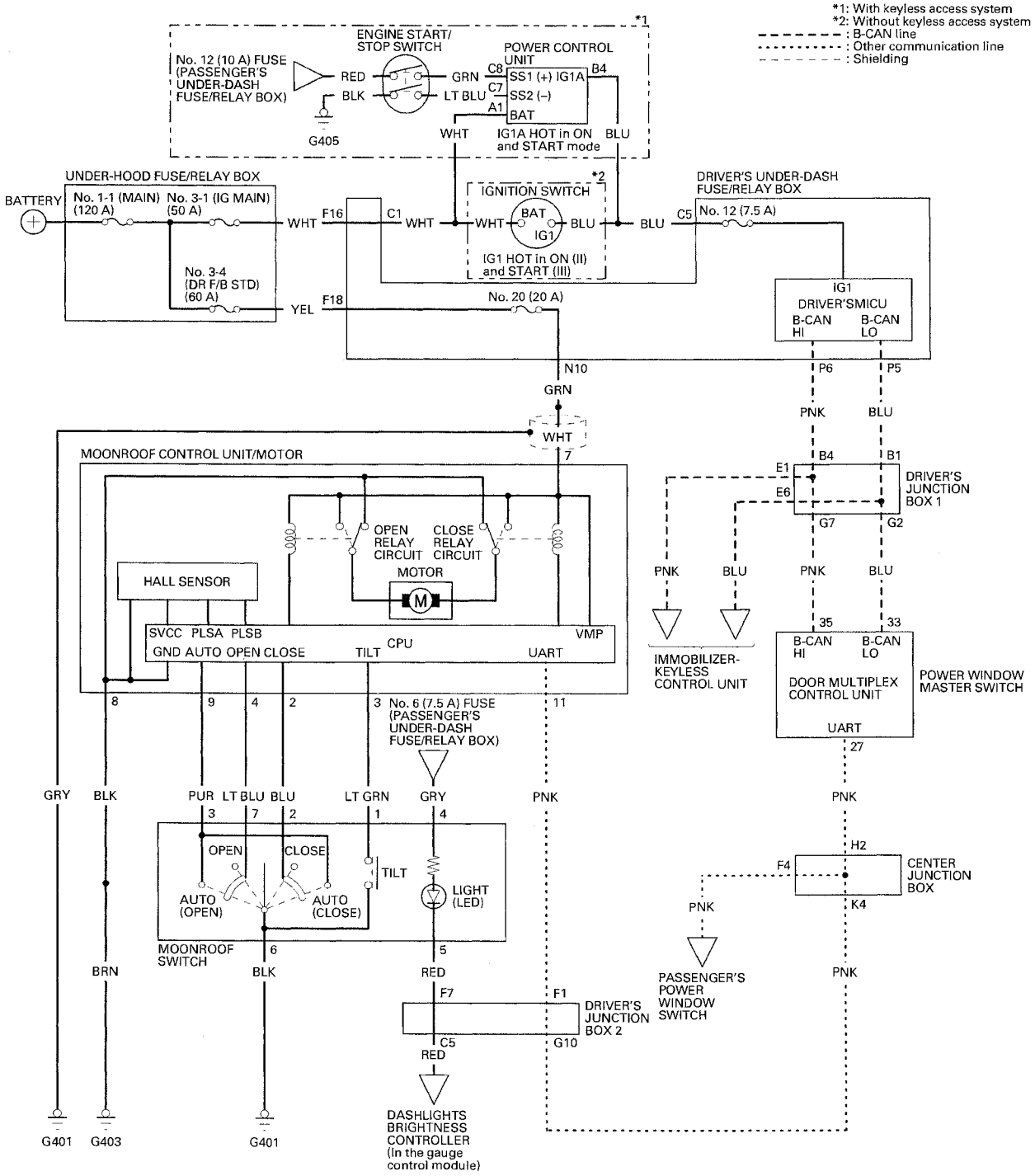
Moonroof

Circuit Diagram



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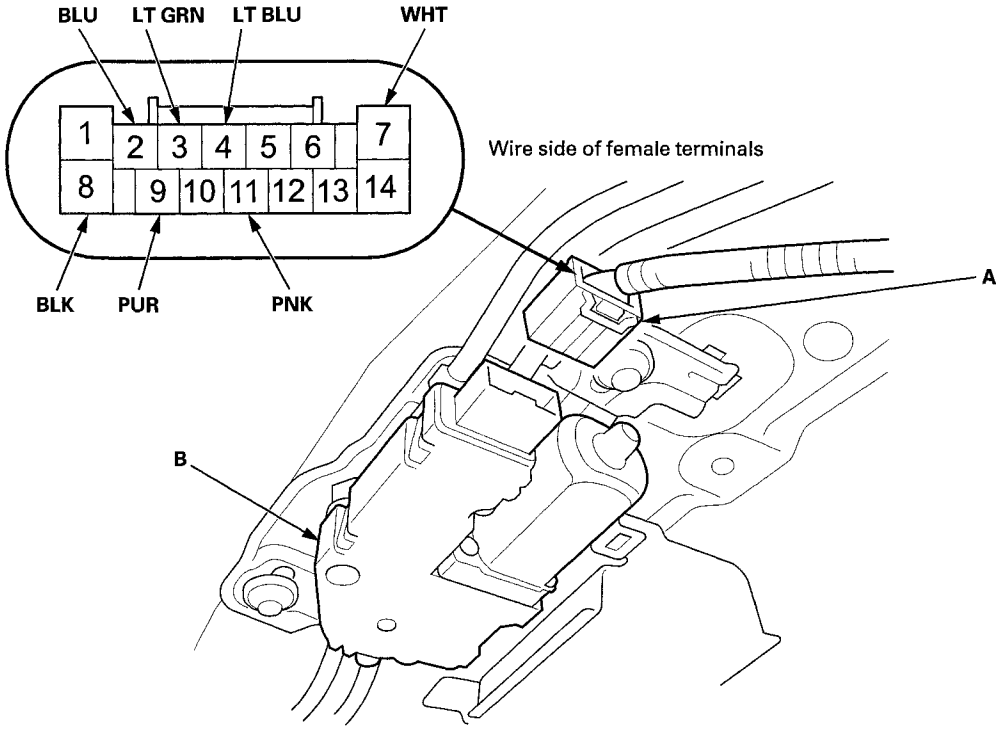
Moonroof Control Unit Input Test

NOTE: If the moonroof works OK manually, but will not work in AUTO, or reverses frequently (obstacle detection), reset the moonroof (see page 22-383) before proceeding with the input test.

1. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
2. Remove the headliner (see page 20-101).
3. Disconnect the 14P connector (A) from the moonroof control unit/motor (B).



4. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose, or corroded, repair them as necessary, and recheck the system.
   - If the terminals look OK, go to step 5.
5. With the connector still disconnected, do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If the input test proves OK, go to step 6.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
11	PNK	Under all conditions	Check for continuity between moonroof switch 14P connector terminal No. 11 and power window master switch 37P connector terminal No. 27: There should be continuity.	An open in the UART wire
			Check for continuity between moonroof switch 14P connector terminal No. 11 and body ground: There should be no continuity.	A short to ground in the wire

(cont'd)

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Moonroof Control Unit Input Test (cont'd)

6. Reconnect the connector to the control unit, and do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 7.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
7	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 20 (20 A) fuse in the driver's under-dash fuse/relay box • An open or high resistance in the wire
8	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G403) or an open in the ground wire • An open or high resistance in the wire
2	BLU	Ignition switch to ON (II), or power mode ON, moonroof switch in CLOSE position	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty moonroof switch • Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire • High resistance between moonroof control unit terminal No. 2 and moonroof switch terminal No. 2
		Ignition switch to ON (II), or power mode ON, moonroof switch released	Measure the voltage to ground: There should be battery voltage.	• Blown No. 20 (20 A) fuse in the driver's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box • Faulty moonroof switch • A short to ground in the wire
3	LT GRN	Ignition switch to ON (II), or power mode ON, moonroof switch in TILT position	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty moonroof switch • Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire • High resistance between moonroof control unit terminal No. 3 and moonroof switch terminal No. 2
		Ignition switch to ON (II), or power mode ON, moonroof switch released	Measure the voltage to ground: There should be battery voltage.	• Blown No. 20 (20 A) fuse in the driver's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box • Faulty moonroof switch • A short to ground in the wire
4	LT BLU	Ignition switch to ON (II), or power mode ON, moonroof switch in OPEN position	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty moonroof switch • Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire • High resistance between moonroof control unit terminal No. 4 and moonroof switch terminal No. 2
		Ignition switch to ON (II), or power mode ON, moonroof switch released	Measure the voltage to ground: There should be battery voltage.	• Blown No. 20 (20 A) fuse in the driver's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box • Faulty moonroof switch • A short to ground in the wire

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Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
9	PUR	Ignition switch to ON (II), or power mode ON, moonroof switch in AUTO OPEN or AUTO CLOSE position	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty moonroof switch • Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire • High resistance between moonroof control unit terminal No. 9 and moonroof switch terminal No. 2
		Ignition switch to ON (II), or power mode ON, moonroof switch released	Measure the voltage to ground: There should be battery voltage.	• Blown No. 20 (20 A) fuse in the driver's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box • Faulty moonroof switch • A short to ground in the wire

7. If all the input tests are OK and multiple failures are found, replace the moonroof control unit/motor assembly (see page 20-73). If the problem is related to the key-off operation, go to the driver's MICU input test (see page 22-179), and power window master switch input test (see page 22-298).

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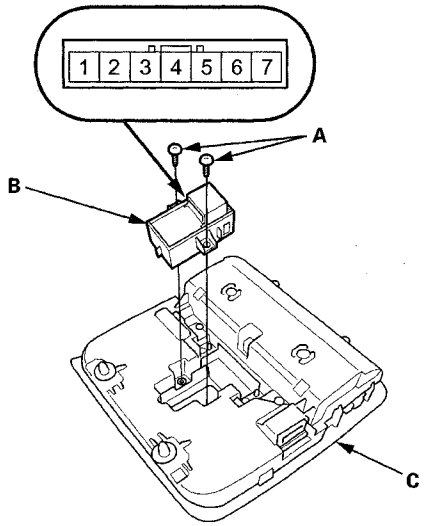
Moonroof Switch Test/Replacement

1. Remove the roof console (see page 22-260).
2. Remove the two screws (A) then pull out the moonroof switch (B) from the roof console (C).



3. Check for continuity between the terminals in each switch position according to the table.

Position \ Terminal	6	1	7	2	3	5		4
OPEN	○		○					
CLOSE	○			○				
TILT	○	○				○	⊗	○
CLOSE+AUTO	○			○	○			
OPEN+AUTO	○		○		○			

4. If the continuity is not as specified, replace the switch.
5. Install the switch in the reverse order of removal.

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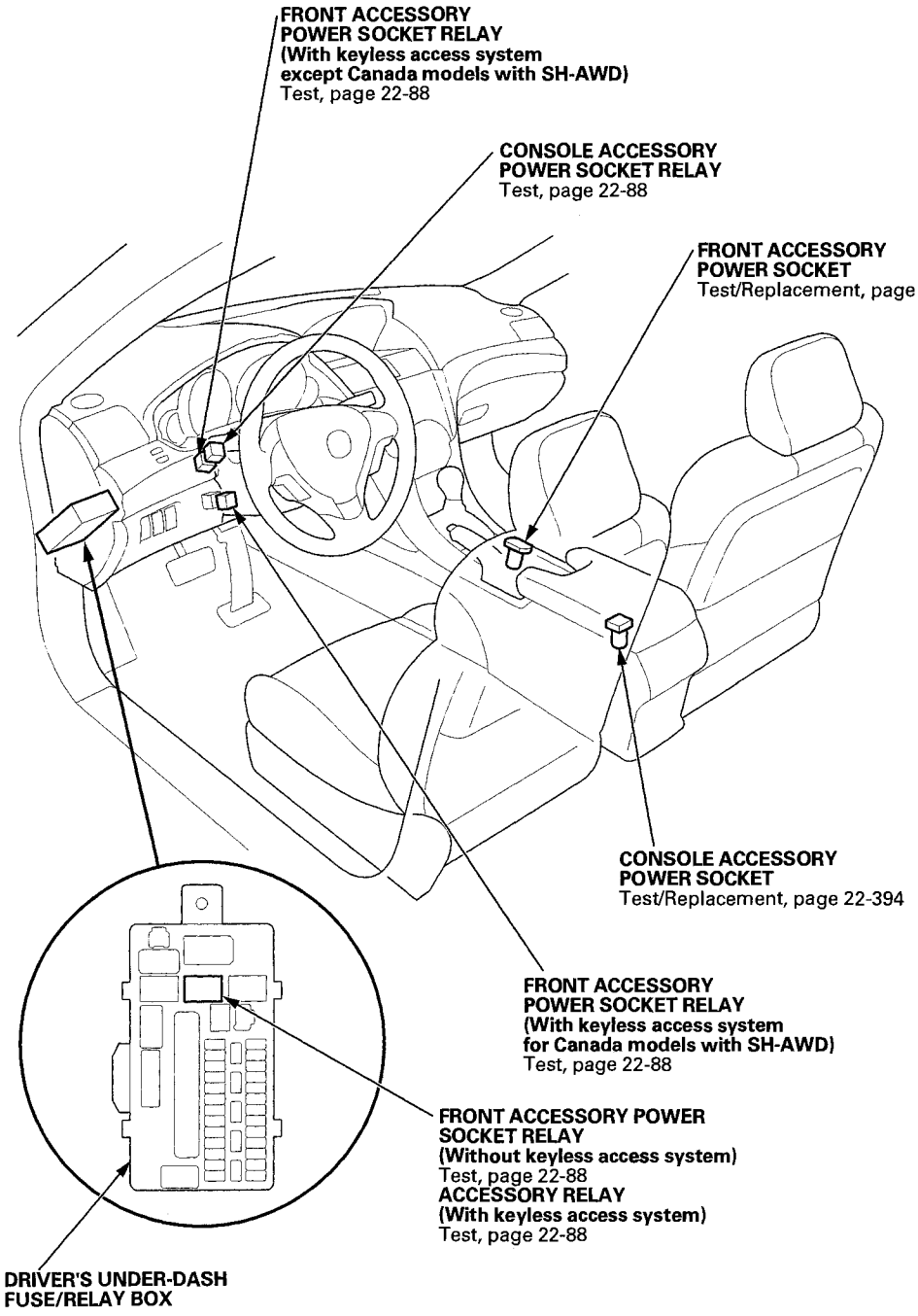
Accessory Power Sockets

Component Location Index



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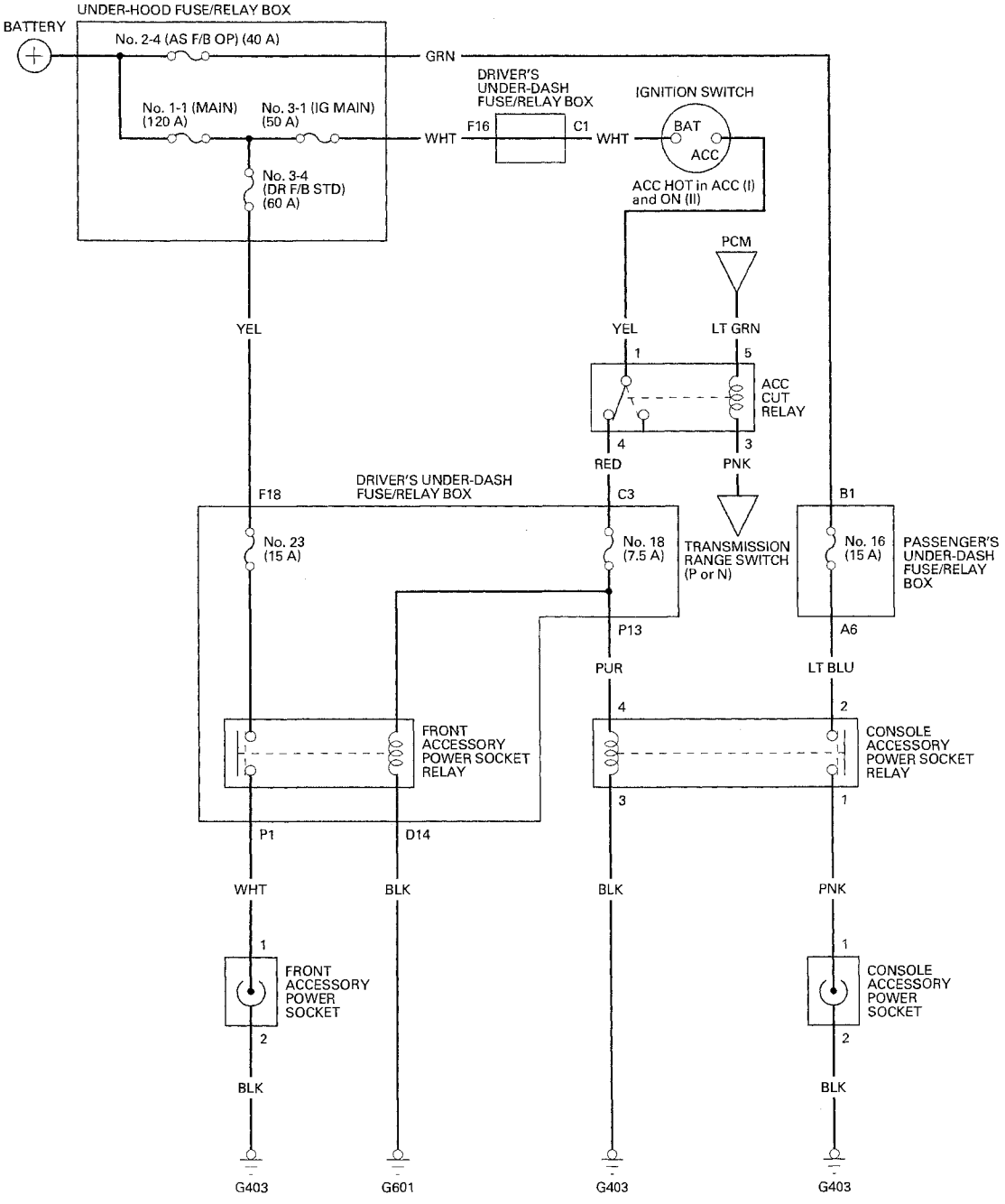
Accessory Power Sockets

Circuit Diagram

Without keyless access system



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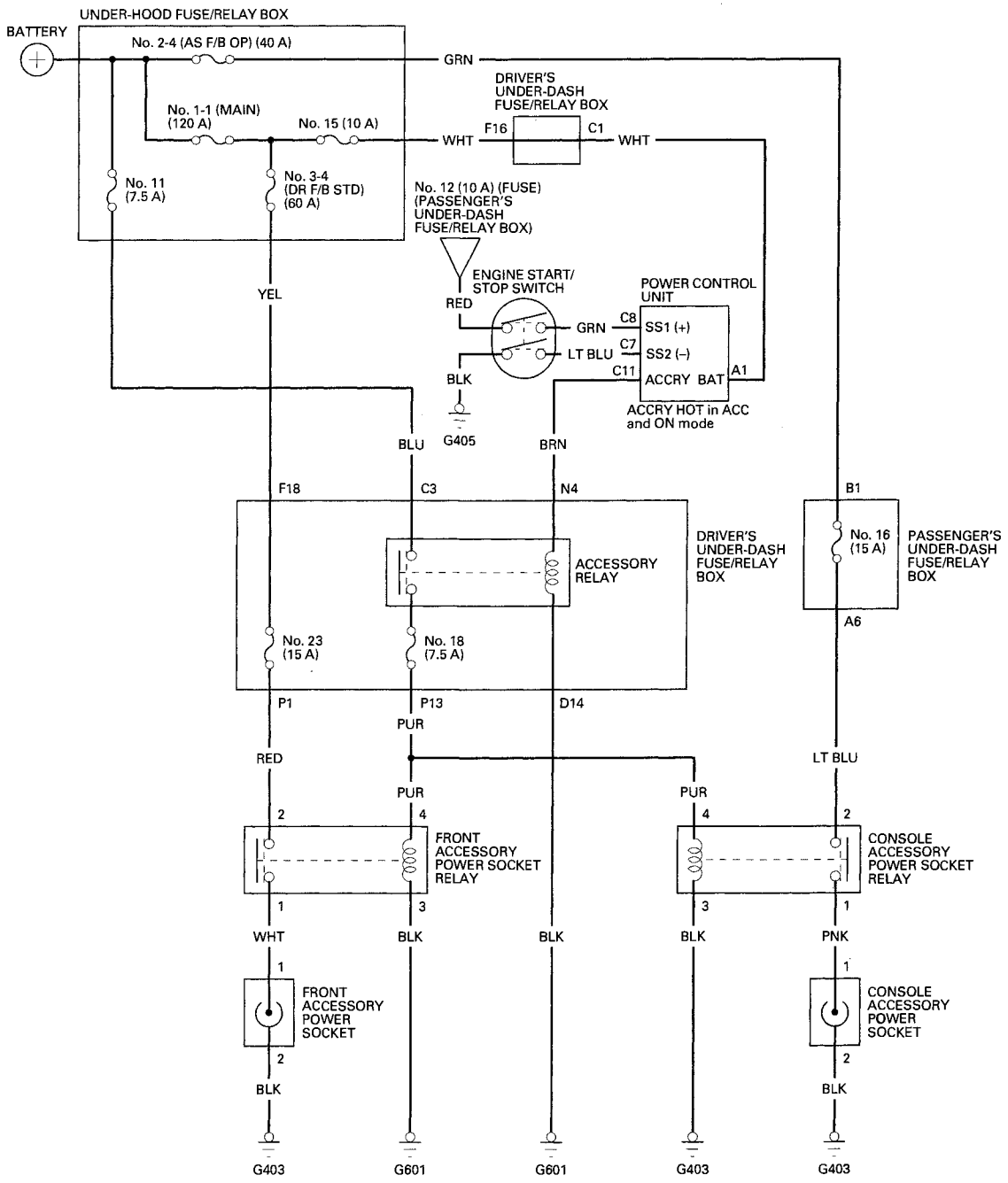
With keyless access system



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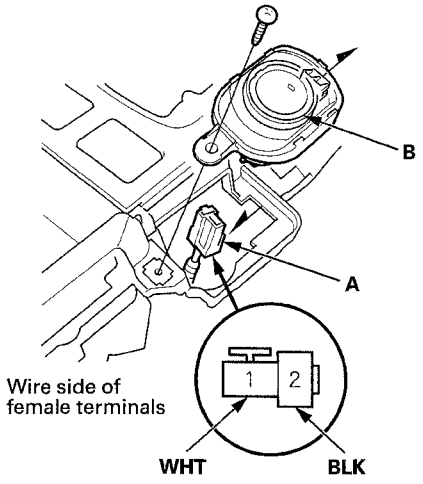
Accessory Power Sockets

Front Accessory Power Socket Test/Replacement

NOTE: If all of the front and console accessory power sockets do not work, check the No. 18 (7.5 A) fuse in the driver's under-dash fuse/relay box and ground (G403) first.

1. Remove the passenger's center trim (see page 20-119).
2. Disconnect the 2P connector (A) from the front accessory power socket (B).



3. Inspect the connector terminals to be sure they are all making good contact.
   - If the terminals are bent, loose, or corroded, repair them as necessary and recheck the system.
   - If the terminals look OK, go to step 4.
4. Turn the ignition switch to ACCESSORY (I), or press the engine start/stop button to select the ACC mode:
   - With keyless access system, go to step 5.
   - Without keyless access system, go to step 6.
5. Measure the voltage between front accessory power socket relay terminal No. 3 and body ground. There should be less than 0.2 V.
   - If there is less than 0.2 V, go to step 7.
   - If there is more than 0.2 V, check for:
     - An open or high resistance in the wire between front accessory power socket relay terminal No. 3 and ground (G601).
     - Poor ground (G601) or an open in the ground wire.
6. Measure the voltage between driver's under-dash fuse/relay box connector D (16P) terminal No. 14 and body ground. There should be less than 0.2 V.
   - If there is less than 0.2 V, go to step 7.
   - If there is more than 0.2 V, check for:
     - An open or high resistance in the wire between driver's under-dash fuse/relay box connector D (16P) terminal No. 14 and ground (G601).
     - Poor ground (G601) or an open in the ground wire.

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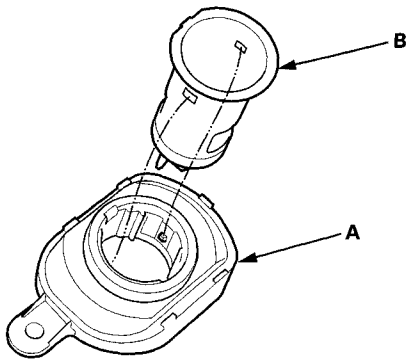
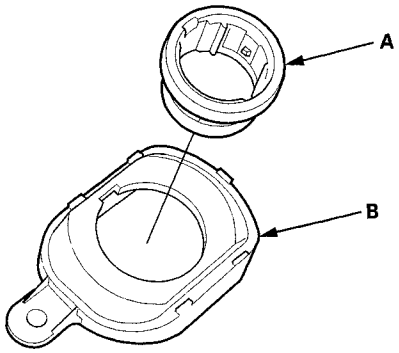
7. Measure the voltage between front accessory power socket 2P connector terminal No. 1 and body ground. There should be battery voltage.
   - If there is battery voltage, go to step 8.
   - If there is no voltage, check for:
     - A blown No. 23 (15 A) fuse in the driver's under-dash fuse/relay box.
     - A faulty front accessory power socket relay.
     - A faulty faulty driver's under-dash fuse/relay box.
     - An open in the wire between front accessory power socket terminal No. 1 and driver's under-dash fuse/relay box connector P (20P) terminal No. 1.
8. Check for continuity between front accessory power socket 2P connector terminal No. 2 and body ground. There should be continuity.
   - If there is continuity, replace the power socket; go to step 9.
   - If there is no continuity, check for:
     - Poor ground (G403).
     - An open or high resistance in the wire between front accessory power socket 2P connector terminal No. 2 and ground (G403).
9. Remove the screw and socket base (A), then remove the socket (B).



10. Remove the housing (A) from the socket base (B).



11. Install the power socket in the reverse order of removal.

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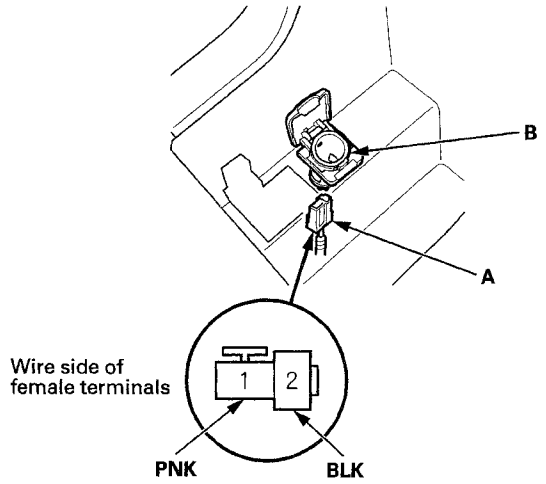
Console Accessory Power Socket Test/Replacement

NOTE: If the front and console accessory power socket do not work, check the No. 18 (7.5 A) fuse in the driver's under-dash fuse/relay box and ground (G403, G601) first.

1. Remove the center console panel (see page 20-108).
2. Disconnect the 2P connector (A) from the console accessory power socket (B).



3. Inspect the connector terminals to be sure they are all making good contact.
   - If the terminals are bent, loose, or corroded, repair them as necessary and recheck the system.
   - If the terminals look OK, go to step 4.
4. Turn the ignition switch to ACCESSORY (I), or press the engine start/stop button to select the ACC mode.
5. Measure the voltage between console accessory power socket relay terminal No. 3 and body ground. There should be less than 0.2 V.
   - If there is less than 0.2 V, go to step 6.
   - If there is more than 0.2 V, check for:
     - An open or high resistance in the wire between console accessory power socket relay terminal No. 3 and ground (G403).
     - Poor ground (G403) or an open in the ground wire.
6. Measure the voltage between console accessory power socket 2P connector terminal No. 1 and body ground. There should be battery voltage.
   - If there is battery voltage, go to step 7.
   - If there is no voltage, check for:
     - A blown No. 16 (15 A) fuse in the passenger's under-dash fuse/relay box.
     - A faulty console accessory power socket relay.
     - A faulty passenger's under-dash fuse/relay box.
     - An open in the wire between console accessory power socket relay terminal No. 3 and passenger's under-dash fuse/relay box connector A (38P) terminal No. 6.
7. Check for continuity between console accessory power socket 2P connector terminal No. 2 and body ground. There should be continuity.
   - If there is continuity, replace the power socket; go to step 8.
   - If there is no continuity, check for:
     - Poor ground (G403).
     - An open or high resistance in the wire between console accessory power socket 2P connector terminal No. 2 and ground (G403).

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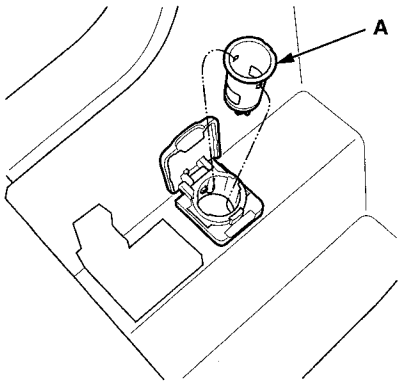
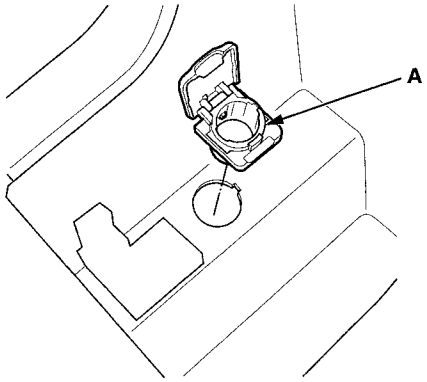
8. Remove the socket (A).



9. Remove the housing (A) from the panel.



10. Install the power socket in the reverse order of removal.

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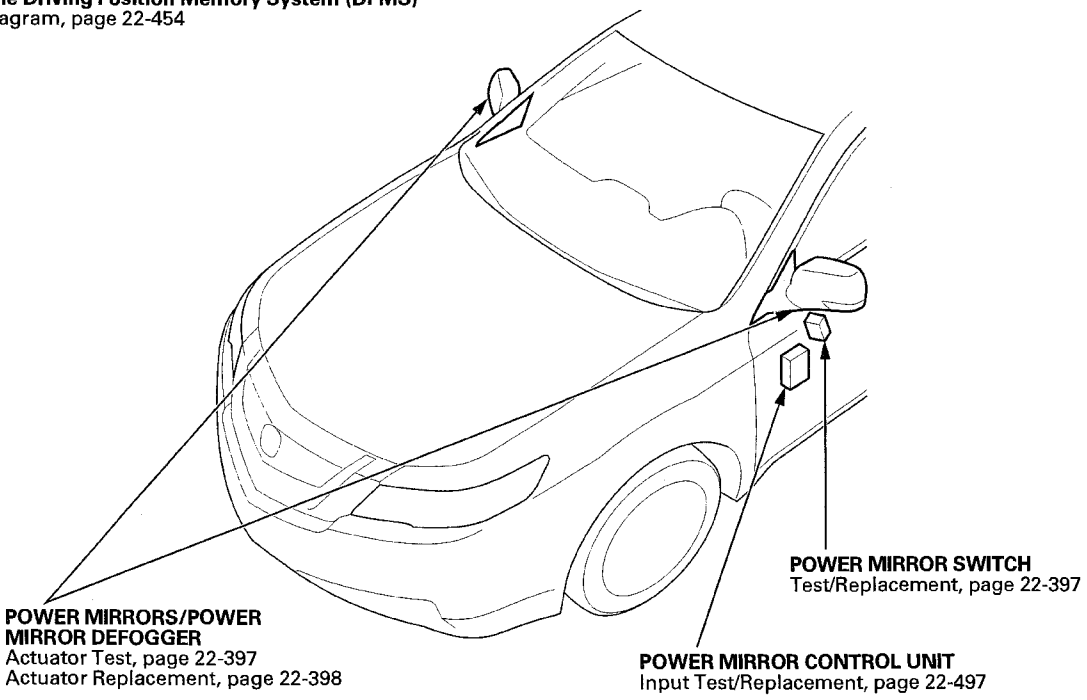
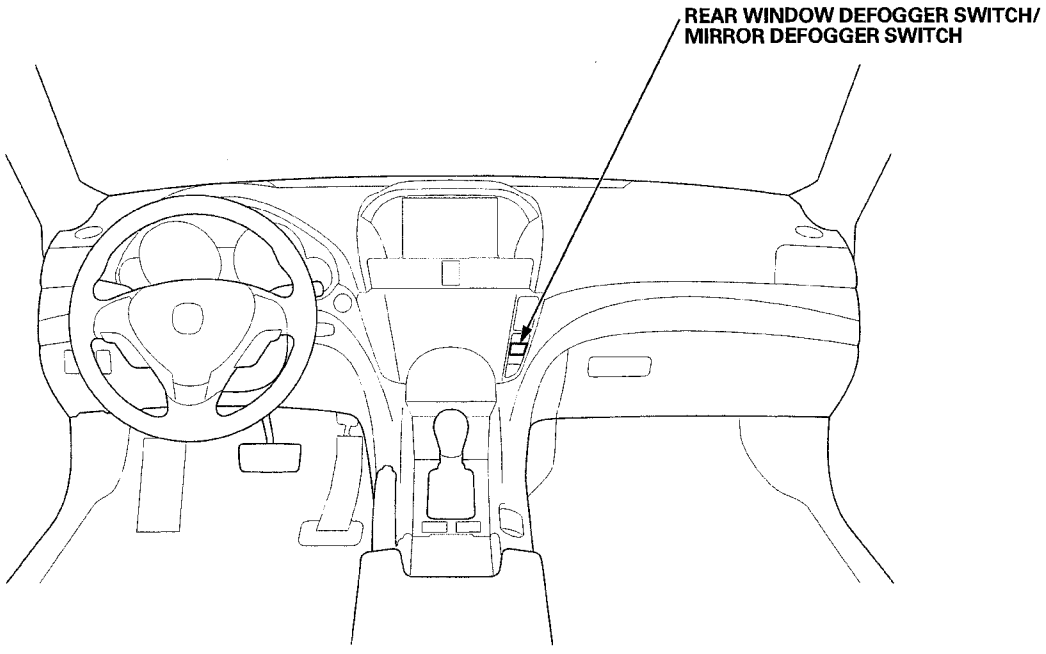
Power Mirrors

Component Location Index

For additional power mirror diagnosis, refer to the Driving Position Memory System (DPMS)
Circuit Diagram, page 22-454





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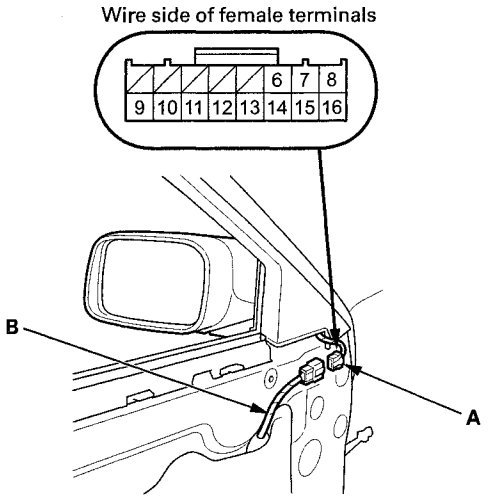
Power Mirror Actuator Test

1. Remove the door panel (see page 20-9).
2. Disconnect the 16P connector (A) from the door harness (B).



3. At the 16P connector, check the actuator operation by connecting power and ground according to the table.

Power mirror actuator

Terminal / Position	14	15	16
TILT UP		⊖	⊕
TILT DOWN		⊕	⊖
SWING LEFT	⊖	⊕	
SWING RIGHT	⊕	⊖	

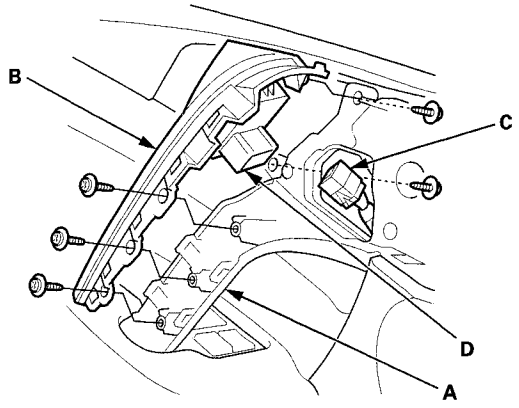
4. If the mirror fails to work properly, check for an open in the wire between the connector and the mirror holder. If the wire is OK, replace the mirror actuator.

Defogger Test

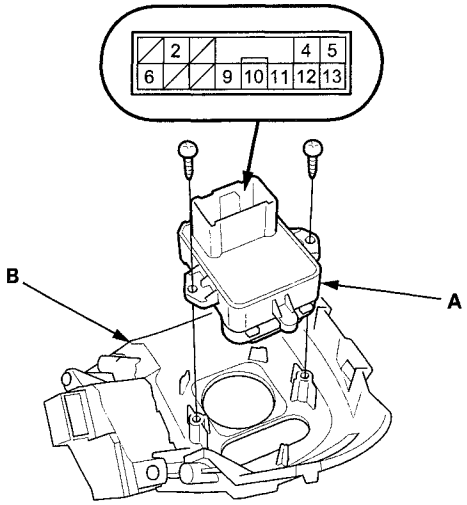
5. Check for continuity between terminals No. 11 and No. 12 of the 16P connector. There should be continuity.
6. If there is no continuity, check for an open in the wire between the connector and the mirror holder. If the wire is OK, replace the mirror holder.

Power Mirror Switch Test/Replacement

1. Remove the driver's door panel (see page 20-9).
2. Remove the screws from the driver's door grip (A) and grip cover (B).



3. Pull out the grip cover slightly from the door grip, then disconnect the 13P connector (C) from the power mirror switch (D).
4. Remove the two screws and the power mirror switch (A) from the grip trim (B).



(cont'd)

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Power Mirror Switch Test/Replacement (cont'd)

5. Check for continuity between the terminals in each switch position according to the table.

Power mirror switch

Position		Terminal 2	5	6	10	11	12	13
L	UP	○	○		○			
	DOWN	○		○	○			
	LEFT	○			○		○	
	RIGHT	○			○		○	
R	UP	○	○			○		
	DOWN	○		○		○		
	LEFT	○			○			○
	RIGHT	○			○			○

6. If the continuity is not as specified, replace the power mirror switch.

7. Install the switch in the reverse order of removal.

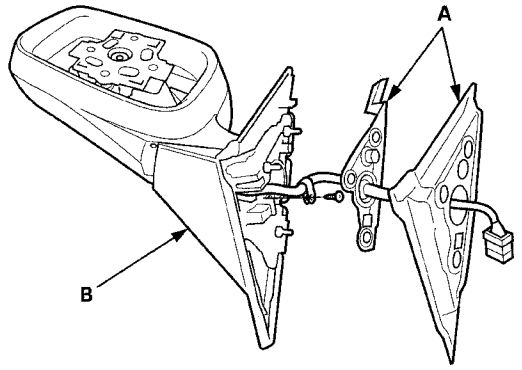
Power Mirror Actuator Replacement

Removal

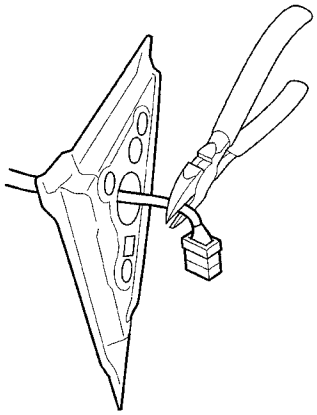
1. Remove the these items:
   - Mirror holder (see page 20-50)
   - Power mirror (see page 20-50)
   - Side turn signal light (see page 22-252)

2. Disconnect the power mirror 16P connector from the door harness.

3. Remove the gaskets (A), then remove the screw and cord from the mirror bracket (B).



4. Record the terminal location and wire colors, then cut the mirror actuator wires with the wire cutter.



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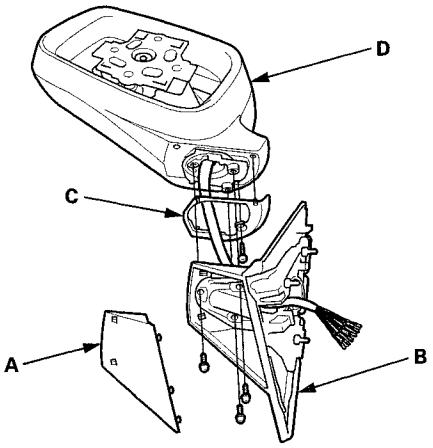
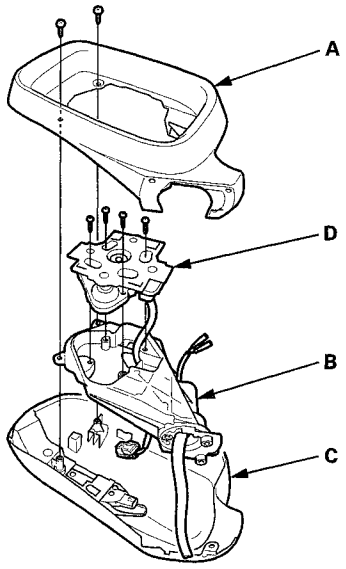
5. Remove the cover (A).



6. Remove the three screws, separate the mirror bracket (B), then remove screw, separate the seal (C) from the housing (D).

7. Remove the two screws then remove the visor (A) and the actuator housing (B) from the housing (C).

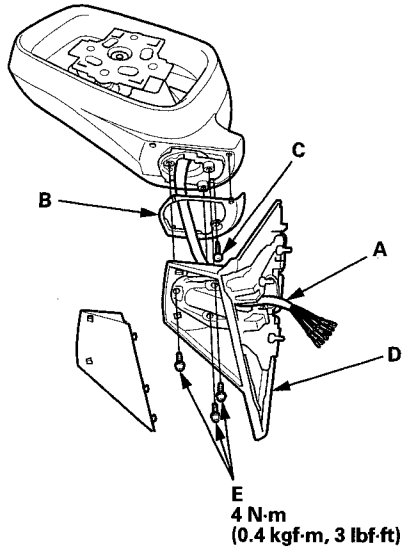


8. Remove the four screws and the actuator (D) from the actuator housing.

Installation

9. Install new actuator to the housing and visor in the reverse order of step 7 and 8.

10. Route the wire harness (A) of a new actuator through the hole in the seal (B), then tighten a screw (C).



11. Route the wire harness of a new actuator through the hole in the bracket (D).

12. Reassemble the mirror in the reverse order of removal. Apply LOCTITE to the three screws (E) and tighten to 4 N·m (0.4 kgf·m, 3 lbf·ft).

13. Install the gasket in the reverse order of removal.

14. Insert the mirror actuator wires into the original terminal locations as noted in step 4.

    NOTE: Be careful to insert the wires correctly because the wires cannot be removed from the coupler once they are inserted.

15. Reassemble in the reverse order of disassembly.

    NOTE: Be careful not to break the mirror when reinstalling it to the actuator.

16. Reinstall the mirror assembly on the door.

17. Operate the power mirror to ensure smooth operation.

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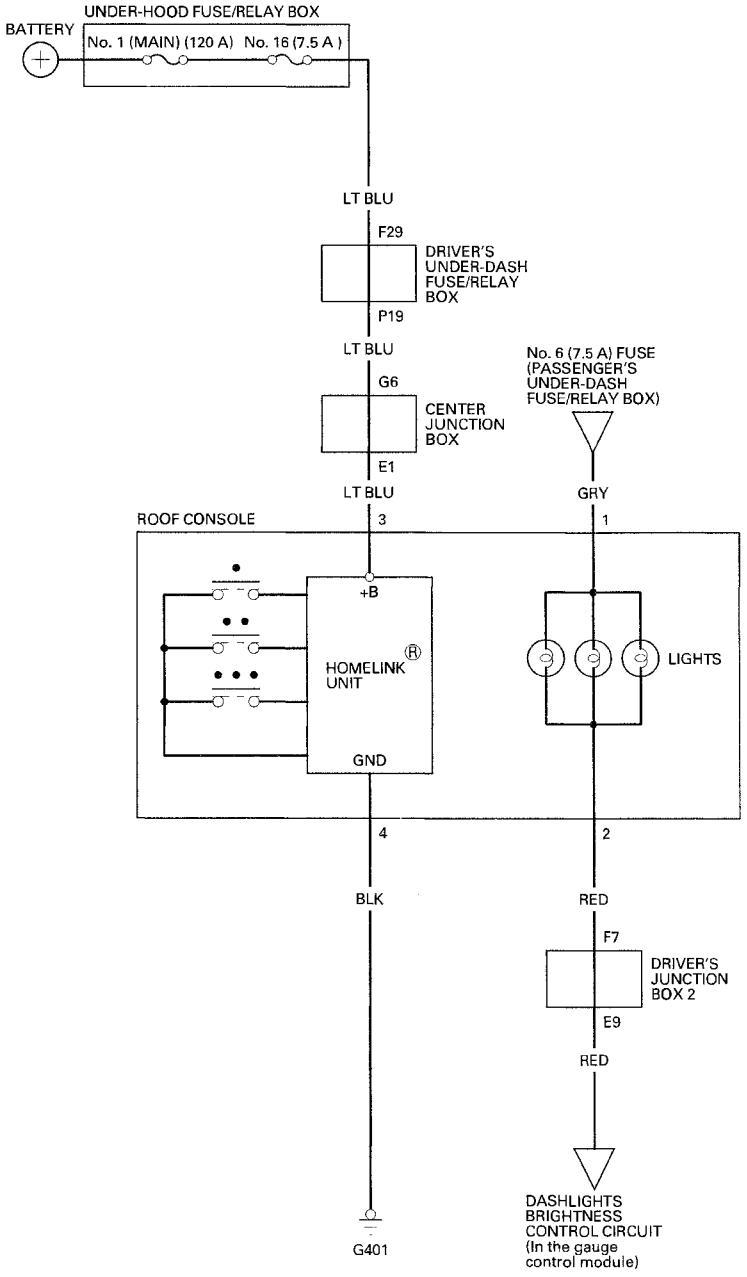
HomeLink Remote Control System

Circuit Diagram



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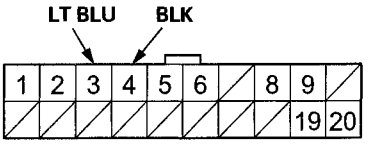
Test

NOTE:
- Explain to the client that garage door remote transmitters come in two types: fixed code and rolling code. Each type has its own programming method, and each method is covered in the owner's manual. If the client has concerns about the HomeLink unit, have the client contact the HomeLink the assistance desk at 800-355-3515.
- If the HomeLink will not open the client's garage, do the following procedures.

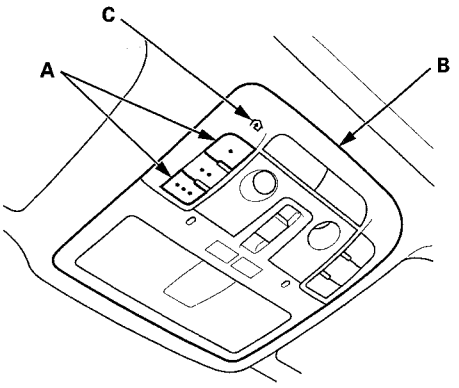
1. Press any of the buttons on the HomeLink unit.
   - If the red indicator comes on, go to step 4.
   - If the red indicator does not come on, go to step 2.
2. Remove the roof console (see page 22-260).
3. Measure the voltage between terminals No. 3 (+) and No. 4 (−) of the roof console 20P connector (A). There should be battery voltage.
   - If the voltage is not as specified, check for these problems:
     - A blown No. 16 (7.5 A) fuse in the under-hood fuse/relay box.
     - A faulty under-dash fuse/relay box.
     - An open or high resistance in the wire.
     - Poor ground (G401).
   - If the voltage is specified, go to step 4.

ROOF CONSOLE 20P CONNECTOR

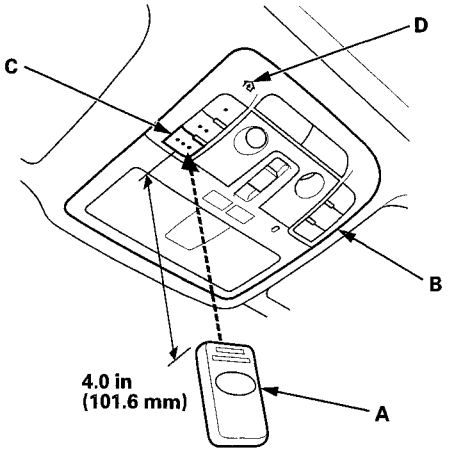


Wire side of female terminals

4. Make sure the Genie remote transmitter (test remote) has fresh batteries.
5. Clear any previously learned codes by pressing and holding the two outside buttons (A) on the HomeLink unit (B) for until (about 20 seconds) the red indicator (C) on the unit starts blinking, release the buttons.



6. Point the test remote transmitter (A) straight up exactly 4.0 in (101.6 mm) away from the HomeLink unit (B).



7. Press and hold the test transmitter button and one of the HomeLink unit buttons (C) at the same time.
8. Wait for about 20 seconds while watching the red indicator (D) on the HomeLink unit.
   - If the red indicator starts out blinking slowly and then blinks faster, the unit is OK. Release the buttons, then clear the learned code (see step 1). On the internet, go to www. homelink. com.
   - If the red indicator does not blink, faulty HomeLink unit; replace the roof console (see page 22-260).

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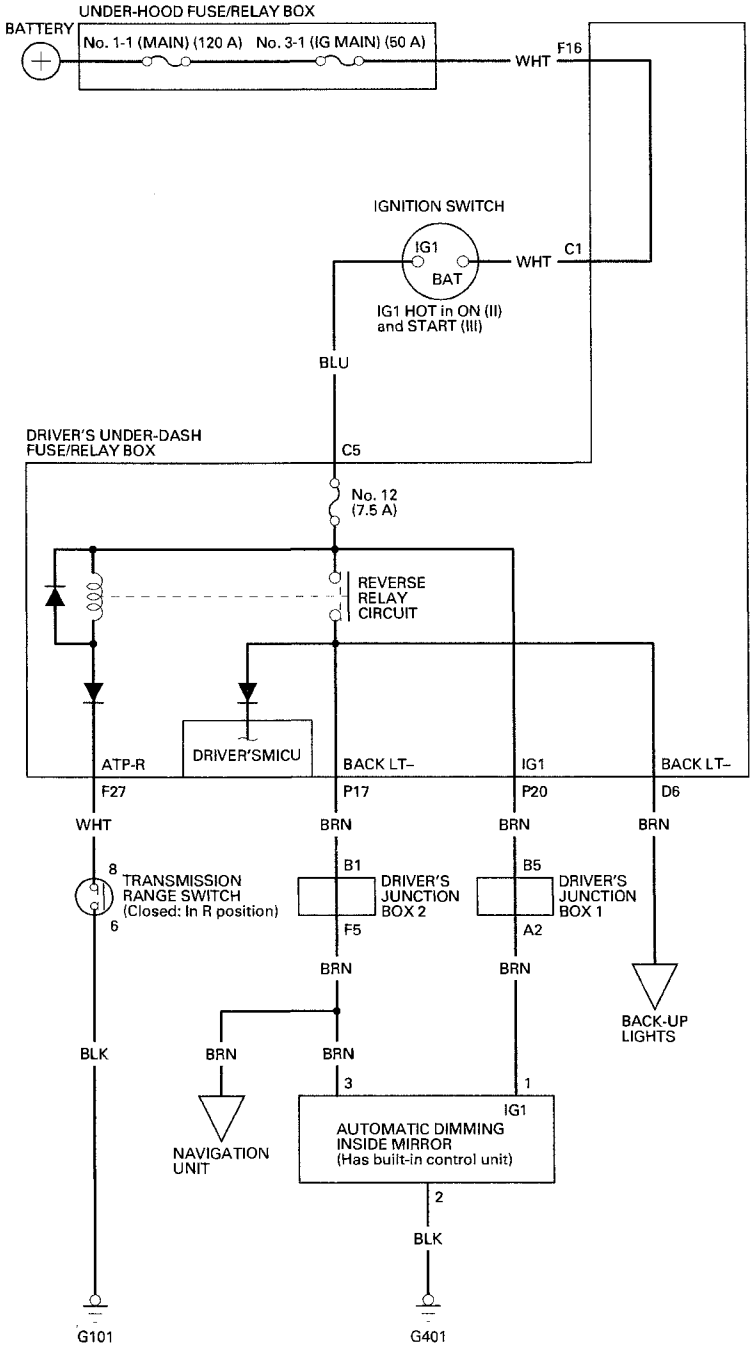
Automatic Dimming Inside Mirror

Circuit Diagram

Without keyless access system



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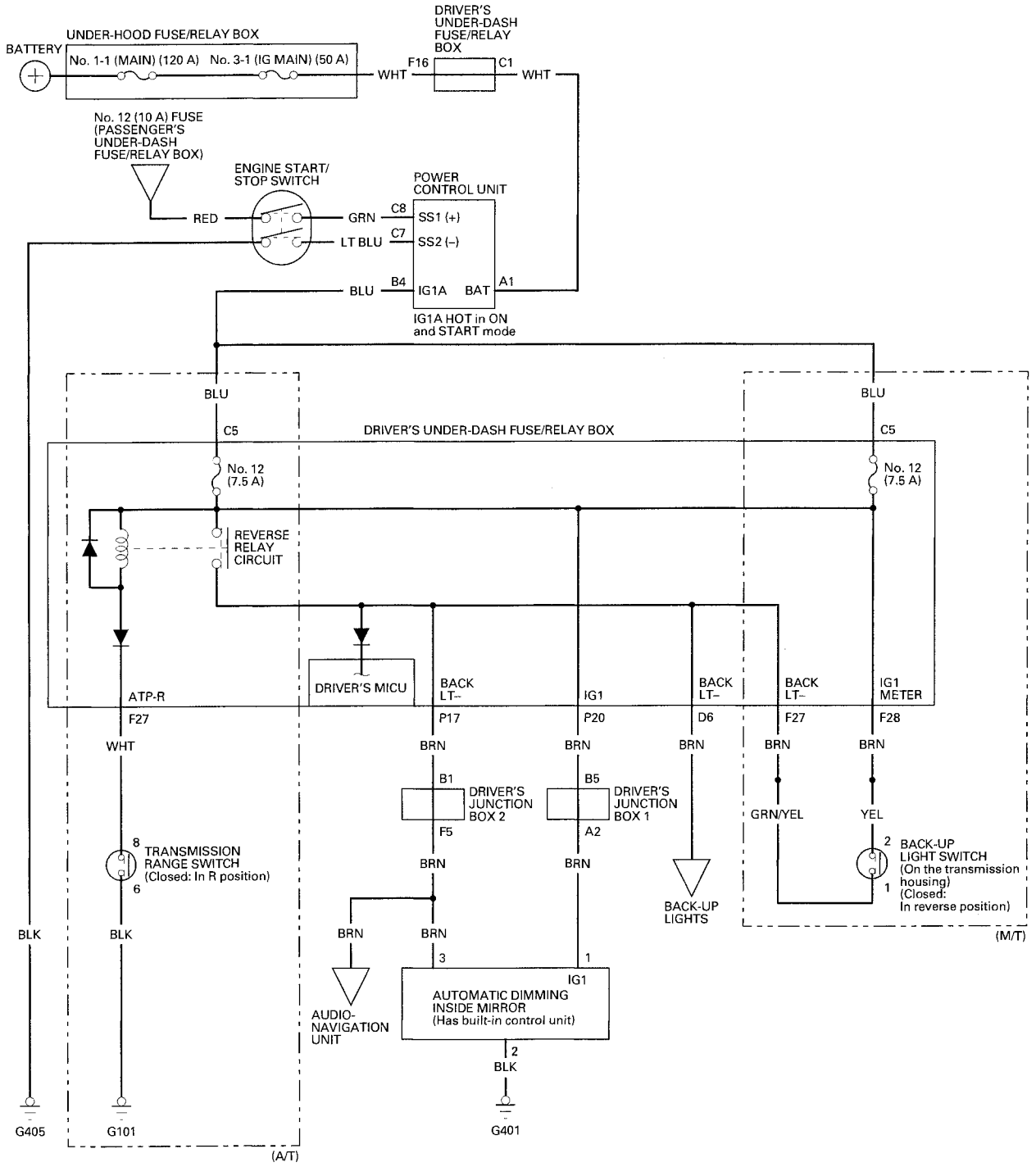
With keyless access system



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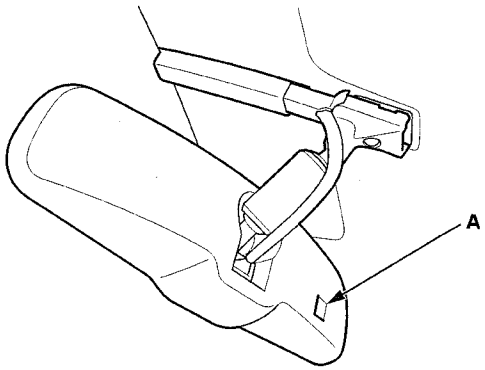
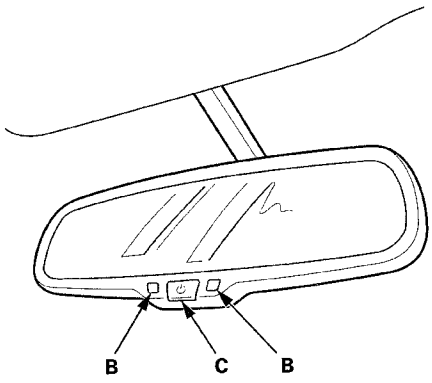
Automatic Dimming Inside Mirror

System Description

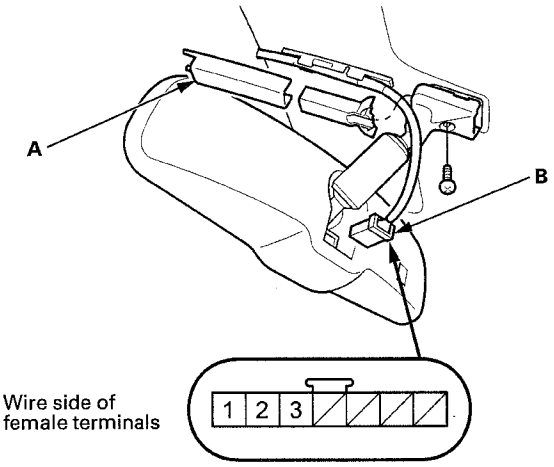
The automatic dimming inside mirror has a front-facing lux level sensor (A), rear-facing lux level sensors (B), and a control unit. The control unit receives signals from each sensor. Based on the difference between the two lux levels (the light outside the vehicle and the light from the headlights of the other vehicle, etc.), the control unit controls the electro-chromic gel to reduce glare. This dimming function is canceled when the transmission is in reverse, or when the automatic dimming off switch (C) is turned OFF.





Test/Replacement

1. Remove the cover (A), then disconnect 7P connector (B).



2. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
3. Measure the voltage between terminal No. 2 and body ground.
   - If there is less than 0.2 V, go to step 4.
   - If there is more than 0.2 V, check for:
     - An open or high resistance in the wire.
     - Poor ground (G401).
4. Measure the voltage between terminal No. 1 and body ground.
   - If there is battery voltage, go to step 5.
   - If there is no voltage, check for:
     - A blown No. 12 (7.5 A) fuse in the driver's under-dash fuse/relay box.
     - An open or high resistance in the wire.
5. Measure the voltage between terminal No. 3 and body ground with the shift lever in R (or reverse) position.
   - If there is battery voltage, replace the mirror assembly.
   - If there is no voltage, check for:
     - An open or high resistance in the wire.
     - A faulty driver's under-dash fuse/relay box.
     - A faulty transmission range switch (A/T).
     - A faulty back-up light switch (M/T).

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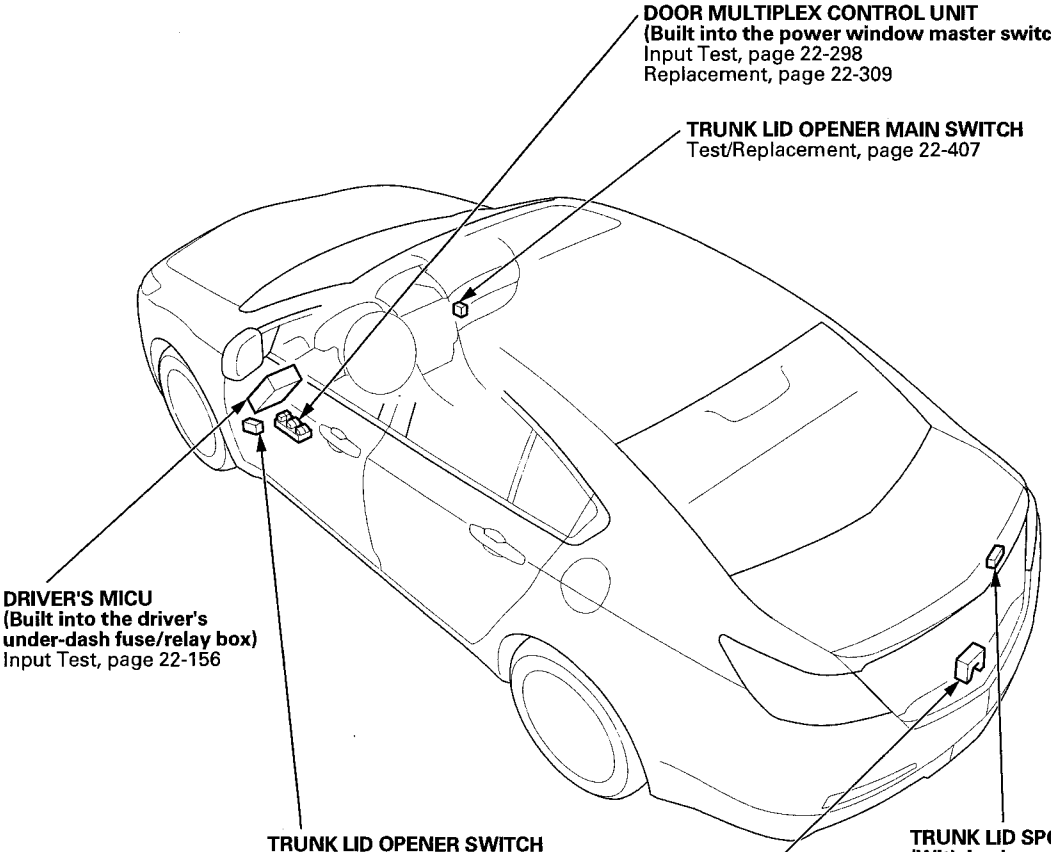
Trunk Lid Opener

Component Location Index



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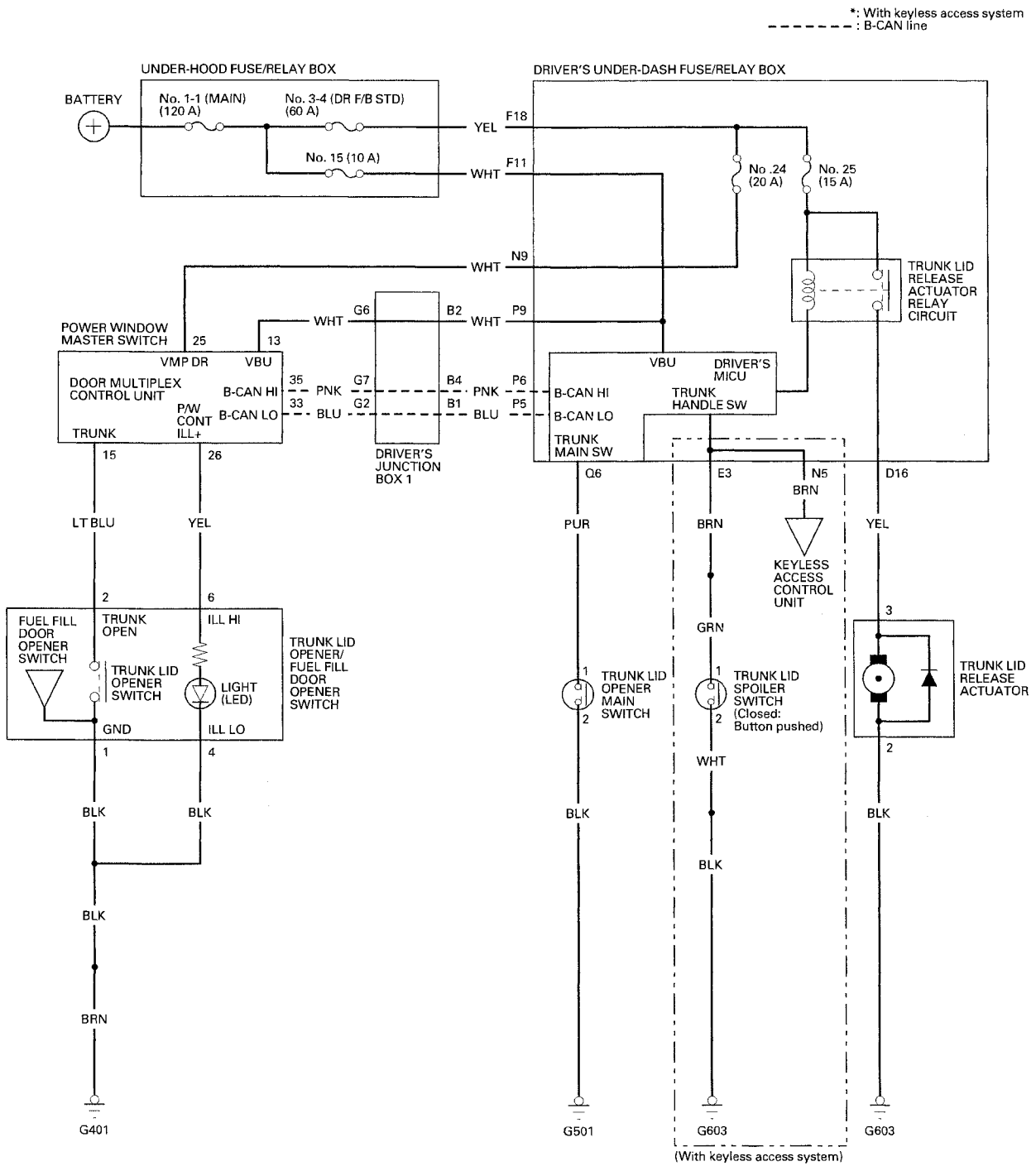
Trunk Lid Opener

Circuit Diagram



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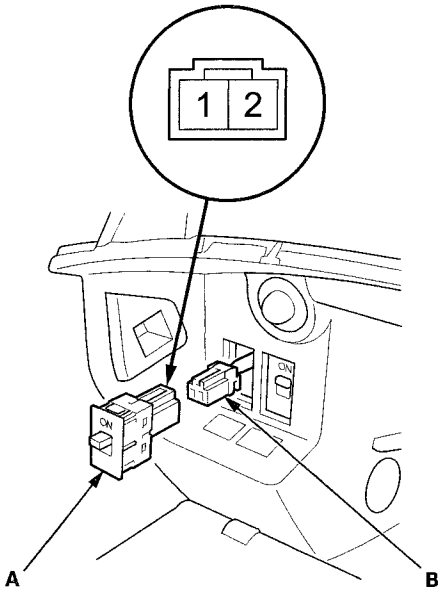
Trunk Lid Opener Main Switch Test/Replacement

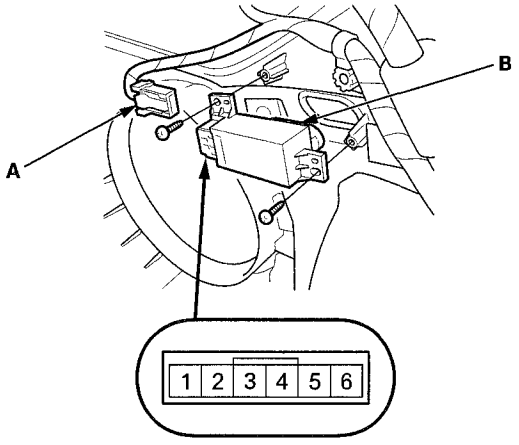
1. Remove the glove box housing (see page 20-123).
2. Carefully push the main switch (A) out from behind the glove box housing.



3. Disconnect the 2P connector (B) from the trunk lid opener main switch.
4. Check for continuity between terminals No. 1 and No. 2.
   - With the main switch ON, there should be continuity.
   - With the main switch OFF, there should be no continuity.
5. If the continuity is not as specified, replace the main switch.
6. Install the switch in the reverse order of removal.

Trunk Lid Opener Switch Test/Replacement

1. Remove the driver's door panel (see page 20-9).
2. Disconnect the 6P connector (A) from the trunk lid opener switch (B).



3. Check for continuity between the terminals in each switch position according to the table.

Position \ Terminal	1	2
ON	○	○
OFF		

4. If the continuity is not as specified, remove the two screws and replace the switch.
5. Install the switch in the reverse order of removal.

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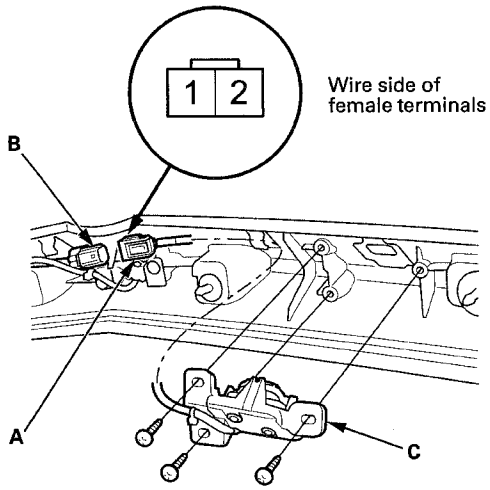
Trunk Lid Spoiler Switch Test/Replacement

1. Open the trunk lid, and remove the trunk lid spoiler (see page 20-197).
2. Disconnect the 2P connector (A) from the rearview harness (B).



3. Remove the three screws, and the trunk lid spoiler switch (C).
4. Check for continuity between terminals No. 1 and No. 2.
   - With the switch pushed, there should be continuity.
   - With the switch released, there should be no continuity.
5. If the continuity is not as specified, replace the switch.
6. Install the switch in the reverse order of removal.

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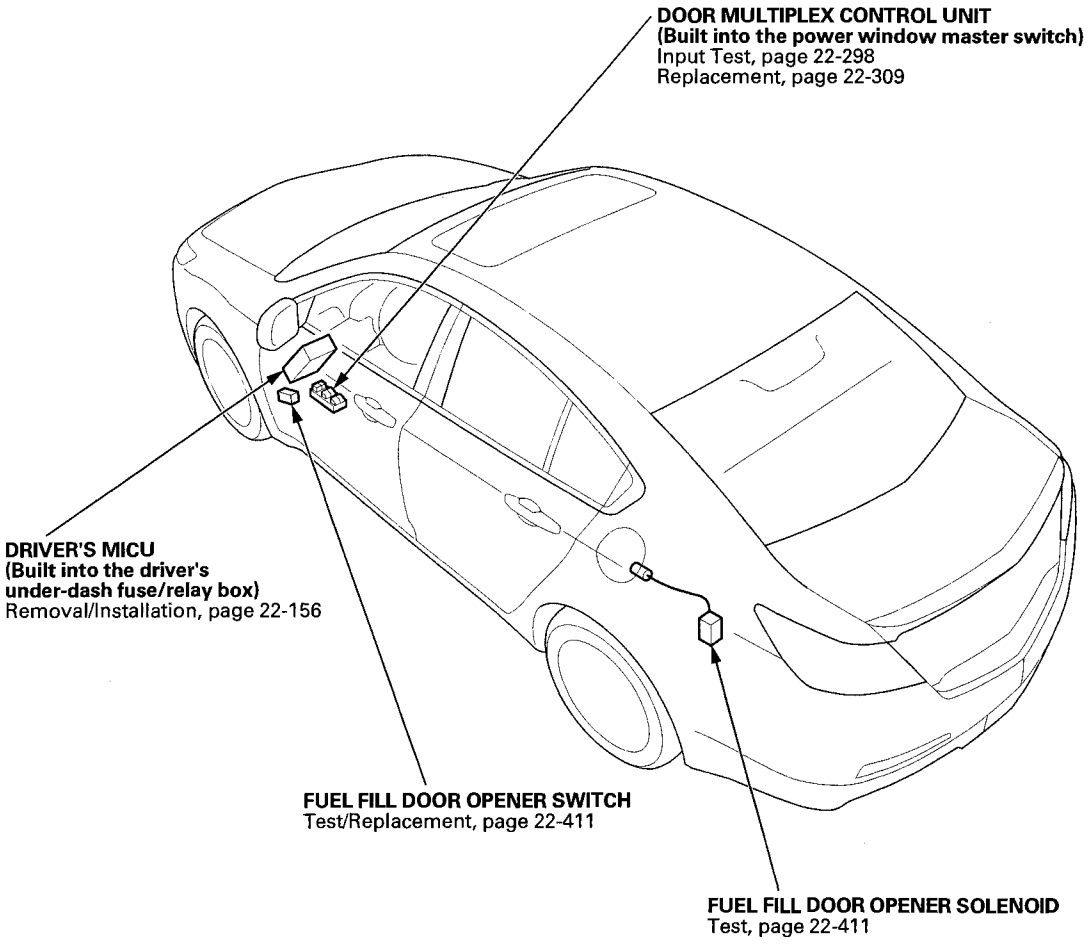
Fuel Fill Door Opener

Component Location Index



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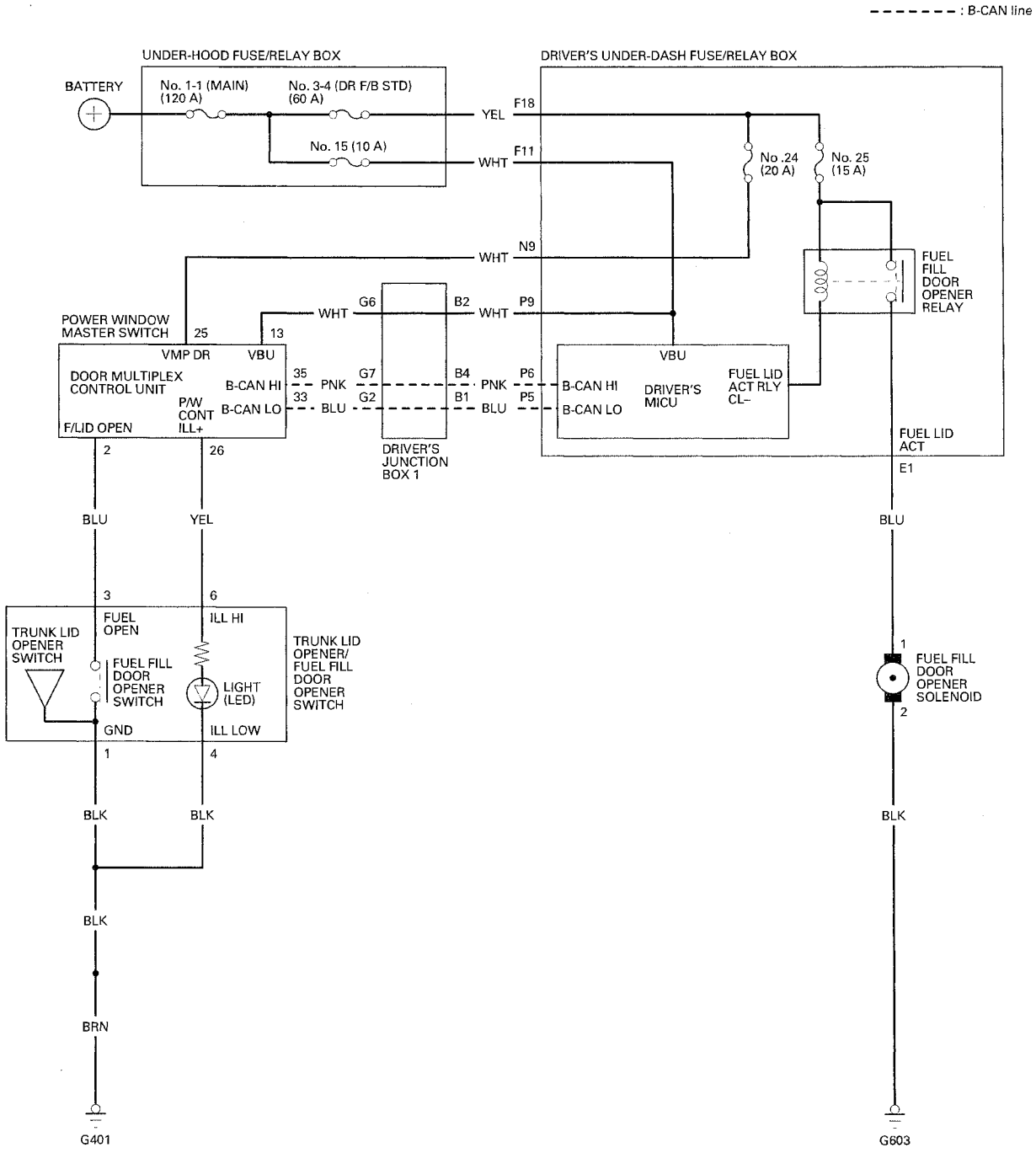
Fuel Fill Door Opener

Circuit Diagram



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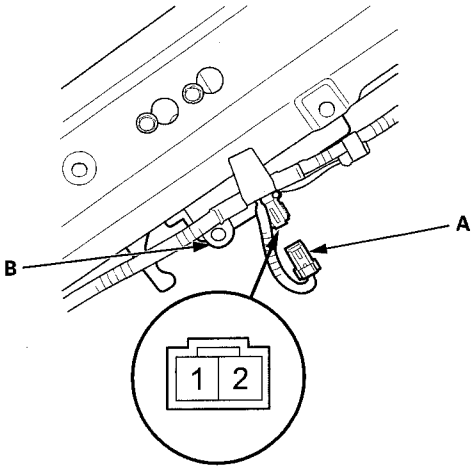
Fuel Fill Door Opener Solenoid Test

1. Open the trunk lid, and remove the left trunk side trim panel (see page 20-93).
2. Disconnect the 2P connector (A) from the fuel fill door opener solenoid (B).



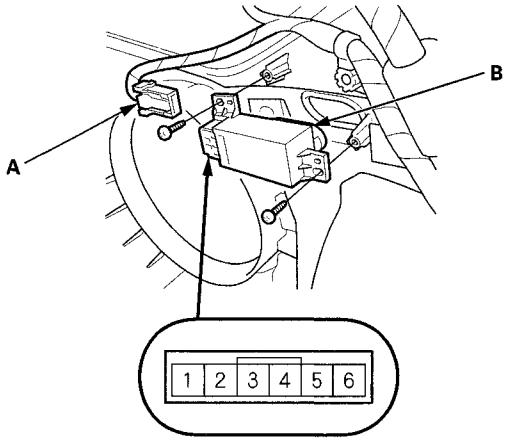
3. Check solenoid operation by connecting power to terminal No. 2 and ground terminal No. 1 momentarily.

   NOTE: To prevent damage to the solenoid only apply battery voltage momentarily.

4. If the solenoid does not actuate, replace it.

Fuel Fill Door Opener Switch Test/Replacement

1. Remove the driver's door panel (see page 20-9).
2. Disconnect the 6P connector (A) from the fuel fill door opener switch (B).



3. Check for continuity between terminals No. 1 and No. 3.
   - With the switch pushed, there should be continuity.
   - With the switch released, there should be no continuity.
4. If the continuity is not as specified, remove the two screws and replace the switch.

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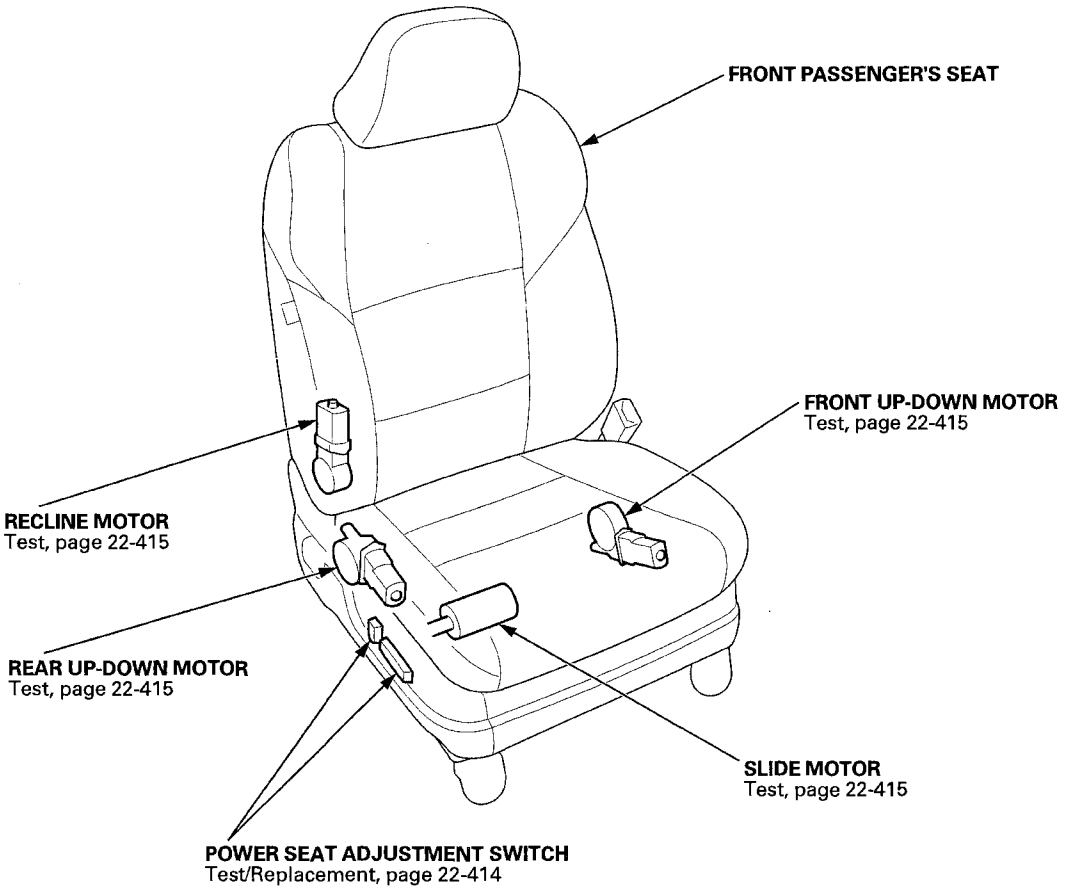
Power Seats

Component Location Index

For the driver's power seat, refer to the Driving Position Memory System (DPMS)
Component Location Index, page 22-449
Circuit Diagram, page 22-454



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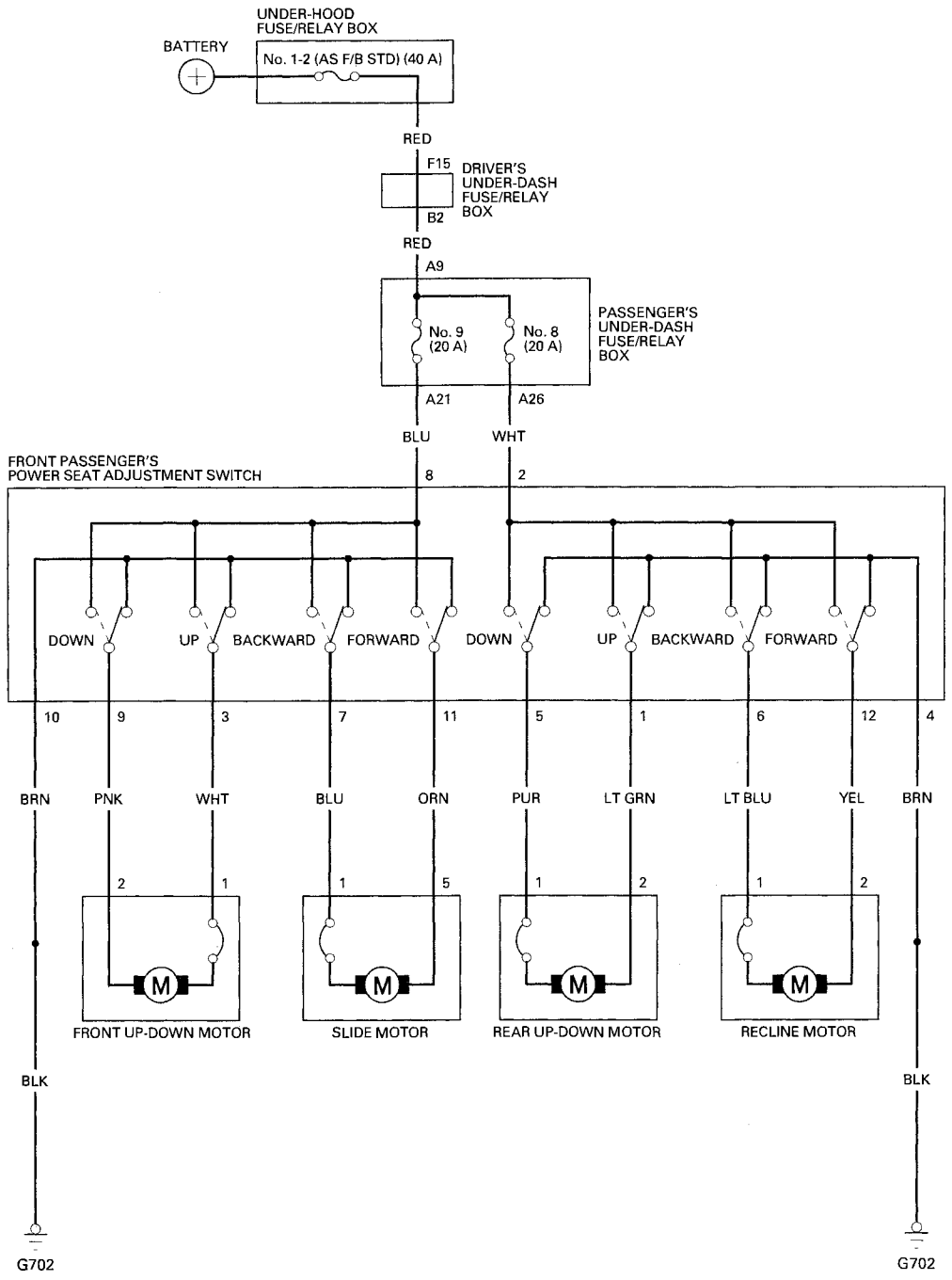
Circuit Diagram - Front Passenger's Power Seat



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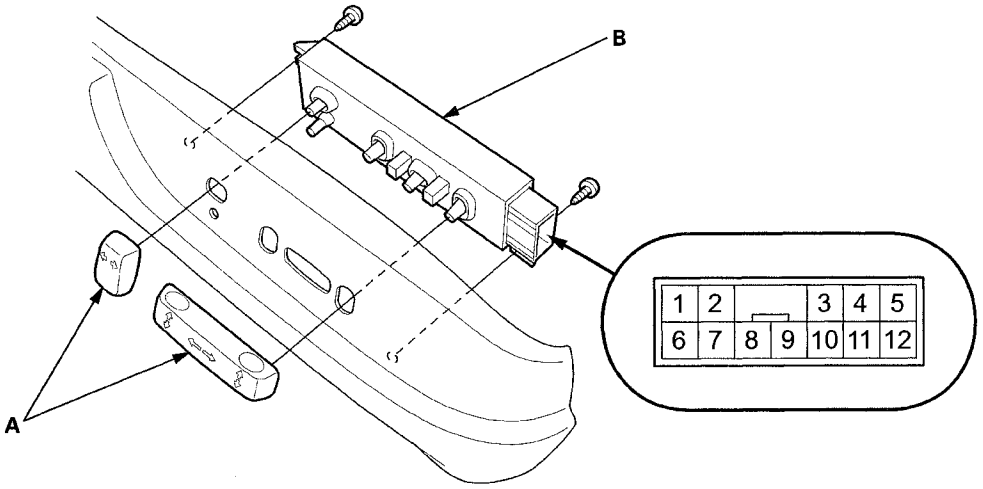
Power Seat Adjustment Switch Test/Replacement

Front Passenger's Seat

1. Remove the front passenger's seat (see page 20-139).
2. Remove the power seat adjustment switch knobs (A) and the recline cover from the front passenger's seat (see page 20-152), then remove the two screws and the power seat adjustment switch (B).



3. Disconnect the 12P connector from the power seat adjustment switch.
4. Reinstall the adjustment switch knobs to the switch.
5. Check for continuity between the terminals in each switch position according to the table.

Position \ Terminal		1	2	3	4	5	6	7	8	9	10	11	12
SLIDE SWITCH	Forward							*	○		○	○	
	Backward							○	○		*	○	
RECLINE SWITCH	Forward		○		*	○							○
	Backward		○		*	○							○
FRONT UP-DOWN SWITCH	UP			○					○	*	○		
	DOWN			*					○	○	○		
REAR UP-DOWN SWITCH	UP	○	○		*	○							
	DOWN	*	○		○	○							

*: There is continuity without operating a switch.

6. If the continuity is not as specified, replace the switch.

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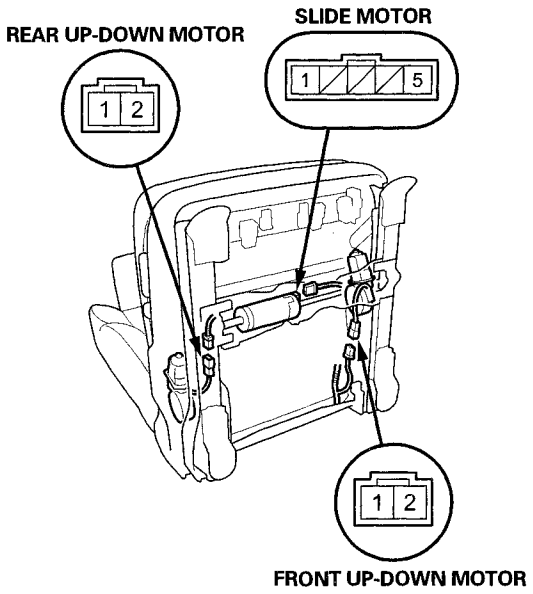
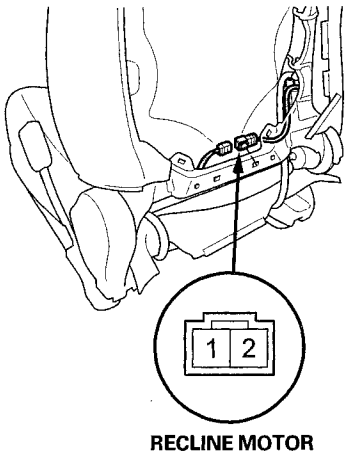
Front Passenger's Power Seat Motor Test

1. Remove the front passenger's seat (see page 20-139).
2. Disconnect the connector from each power seat motor.

   NOTE: All connectors are terminal side of male terminals.





3. Test each motor by connecting power and ground according to the table. When the motor stops running, disconnect battery power immediately.

Position \ Terminal		1	5
SLIDE MOTOR	Forward	⊖	⊕
	Backward	⊕	⊖

Position \ Terminal		1	2
RECLINE MOTOR	Forward	⊖	⊕
	Backward	⊕	⊖

Position \ Terminal		1	2
FRONT UP-DOWN MOTOR	UP	⊕	⊖
	DOWN	⊖	⊕

Position \ Terminal		1	2
REAR UP-DOWN MOTOR	UP	⊖	⊕
	DOWN	⊕	⊖

4. If the motor does not run or fails to run smoothly, replace:
   - Slide motor (see page 20-144)
   - Front up-down motor (see page 20-146)
   - Rear up-down motor (see page 20-146)
   - Recline motor (see page 20-141)

   NOTE: The front and rear up-down motors are part of the seat frame.

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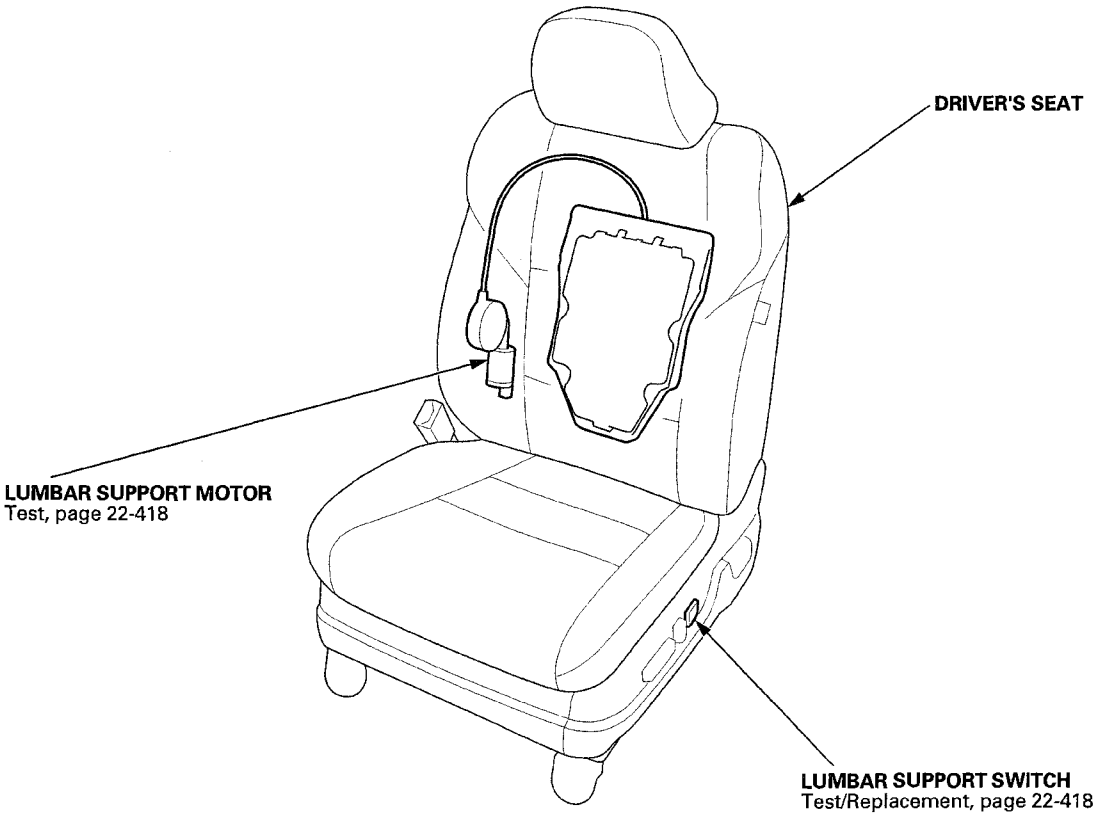
Power Lumbar Support

Component Location Index



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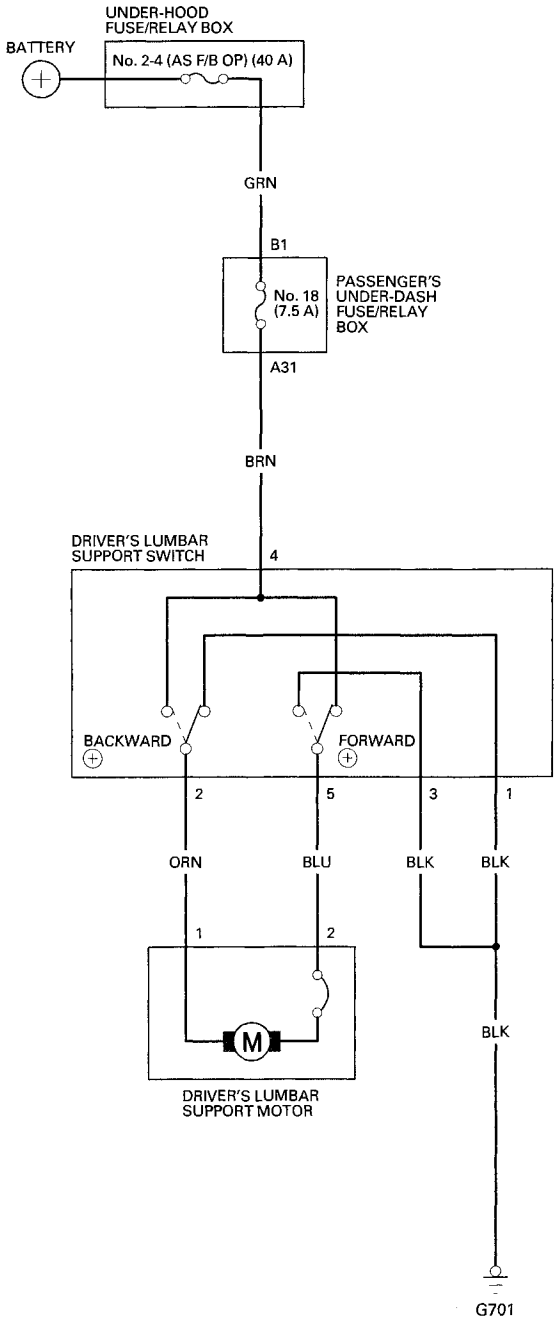
Circuit Diagram



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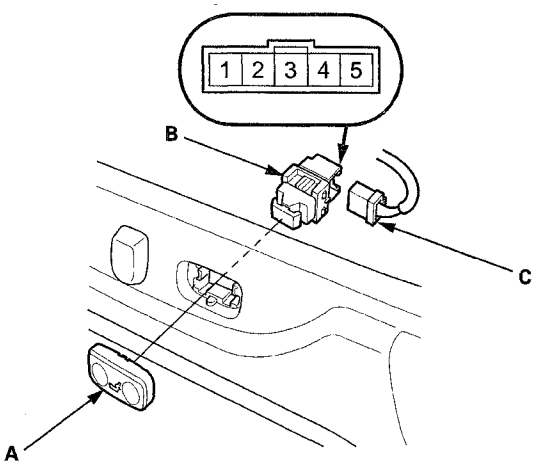
Power Lumbar Support

Switch Test/Replacement

1. Separate the lumbar support switch cover (A) from the switch (B).



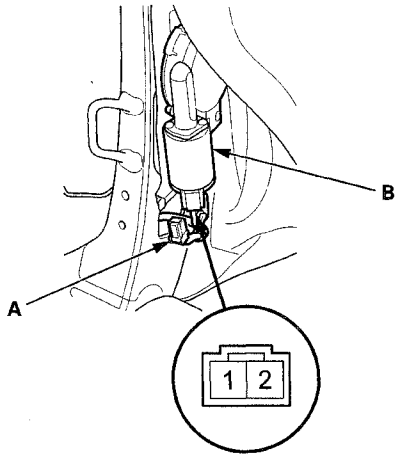
2. Disconnect the 5P connector (C) from the switch.
3. Check for continuity between the terminals in each switch position according to the table.

Position \ Terminal	1	2	3	4	5
Forward	○—○			○—○	
Backward		○—○	○—○		

4. If the continuity is not as specified, replace the switch.

Motor Test

1. Remove the front seat-back cover, and seat-back cover/pad (see page 20-148).
2. Disconnect the 2P connector (A) from the lumbar support motor (B).



3. Test the motor by applying battery power and body ground to the terminals.

Position \ Terminal	1	2
Forward	⊖	⊕
Backward	⊕	⊖

4. If the motor does not run or fails to run smoothly, replace it (see page 20-142).

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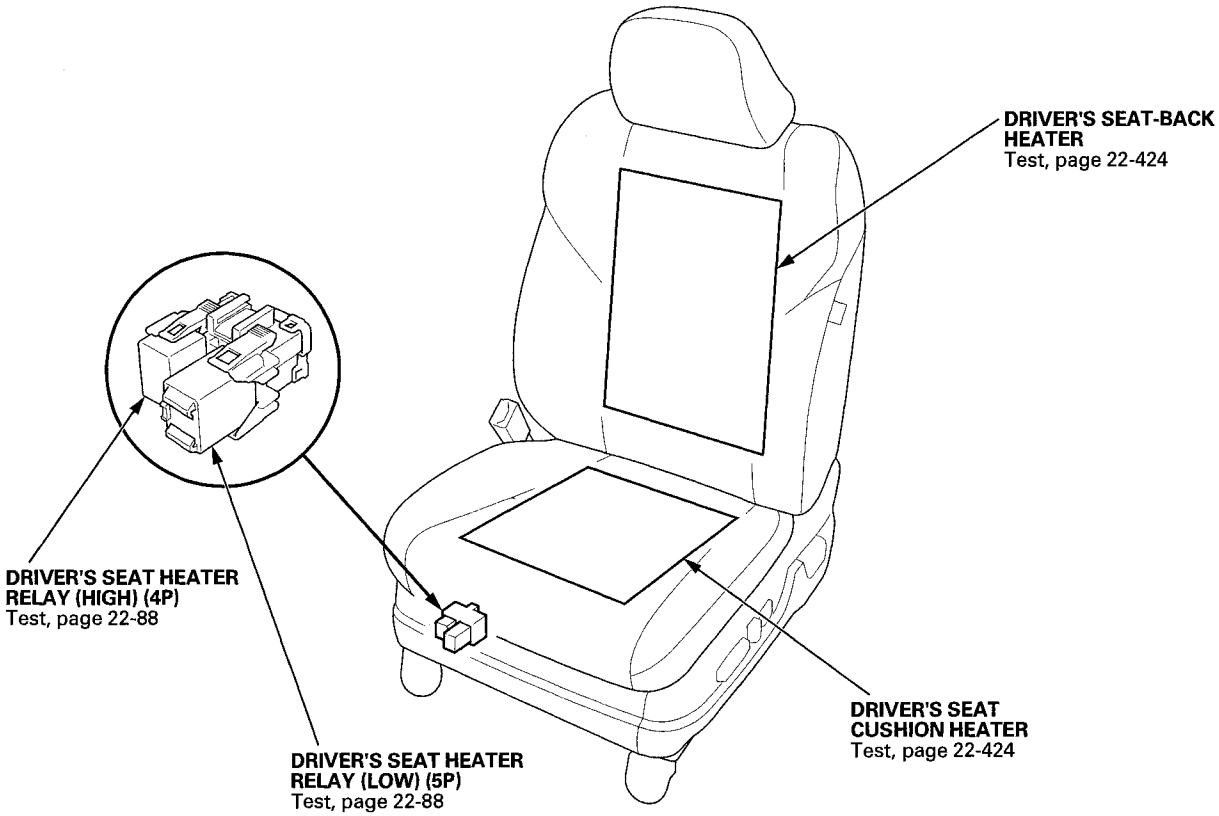
Component Location Index

Driver's Seat



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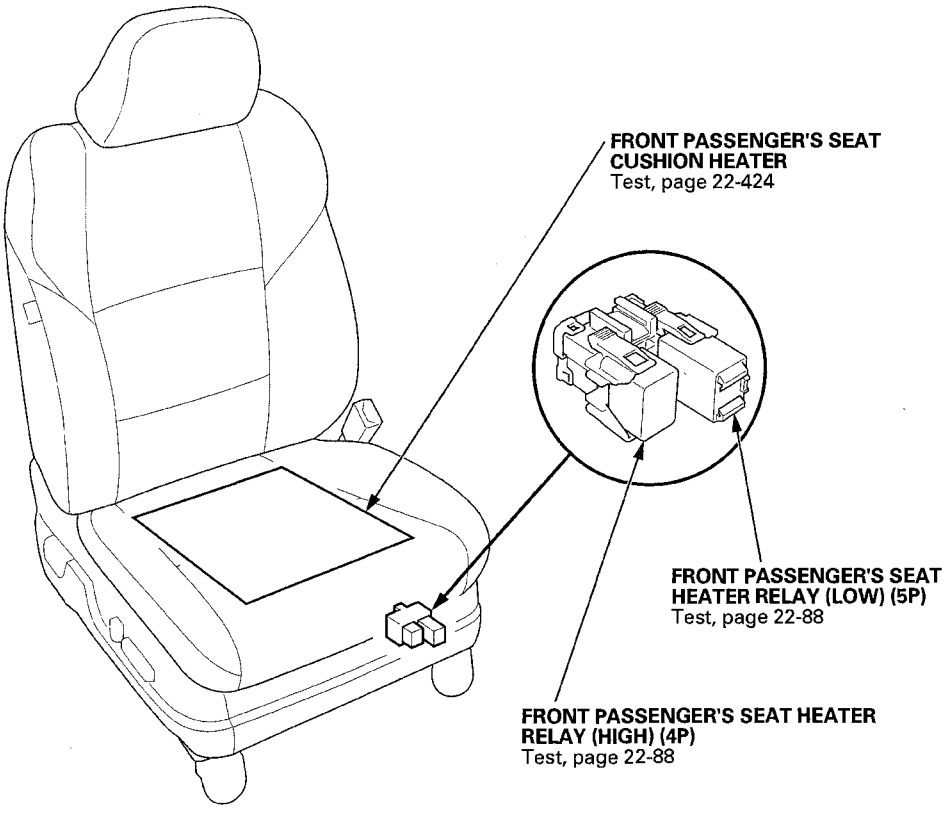
(cont'd)

Component Location Index (cont'd)

Front Passenger's Seat



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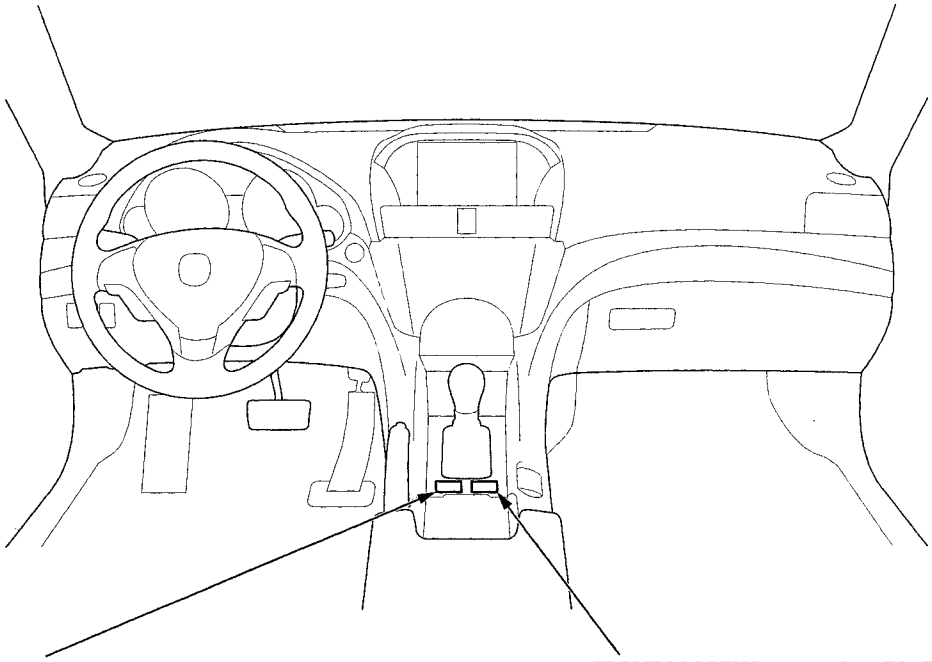

DRIVER'S SEAT HEATER SWITCH
Test/Replacement, page 22-425

FRONT PASSENGER'S SEAT HEATER SWITCH
Test/Replacement, page 22-425

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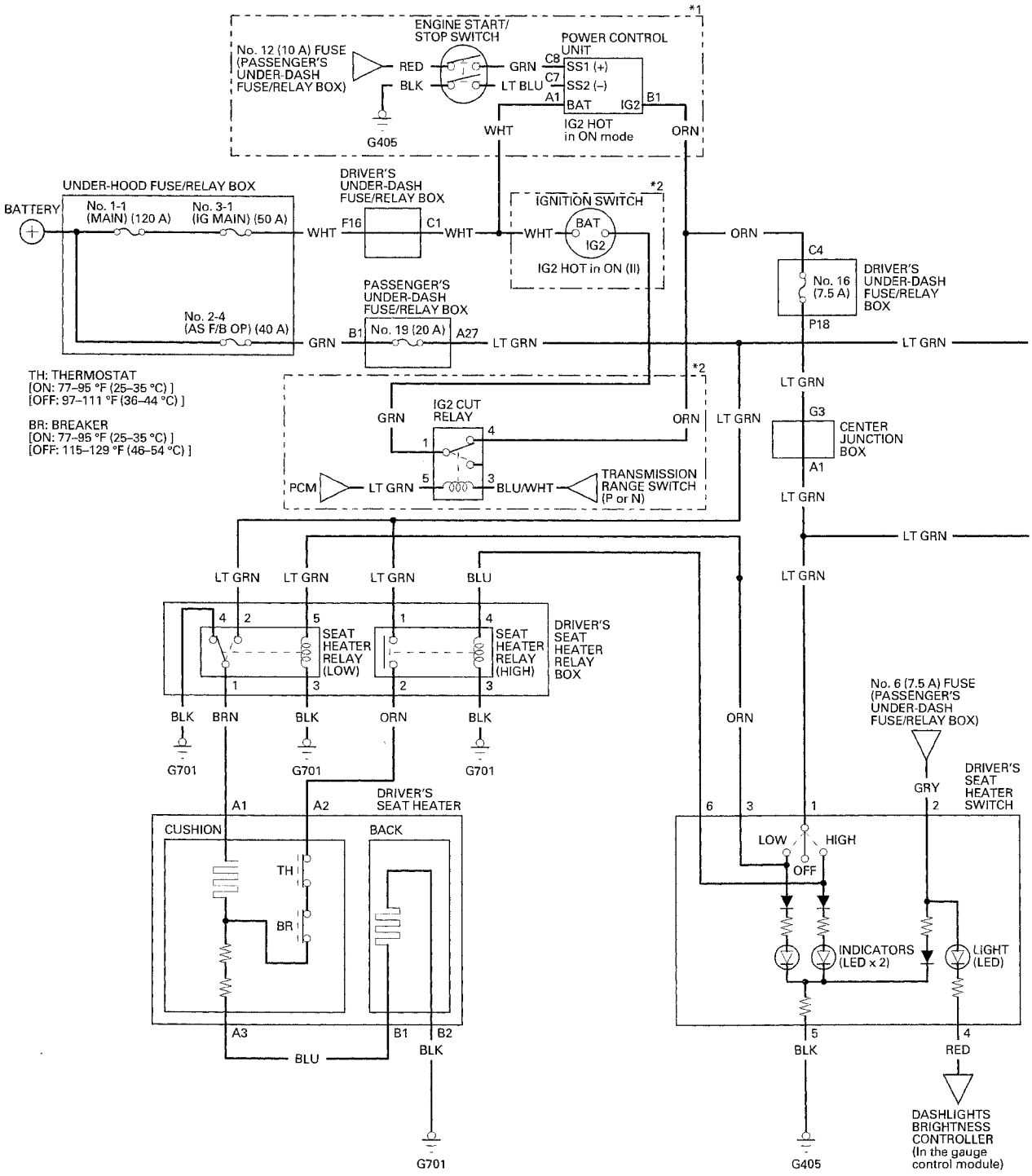
Seat Heaters

Circuit Diagram



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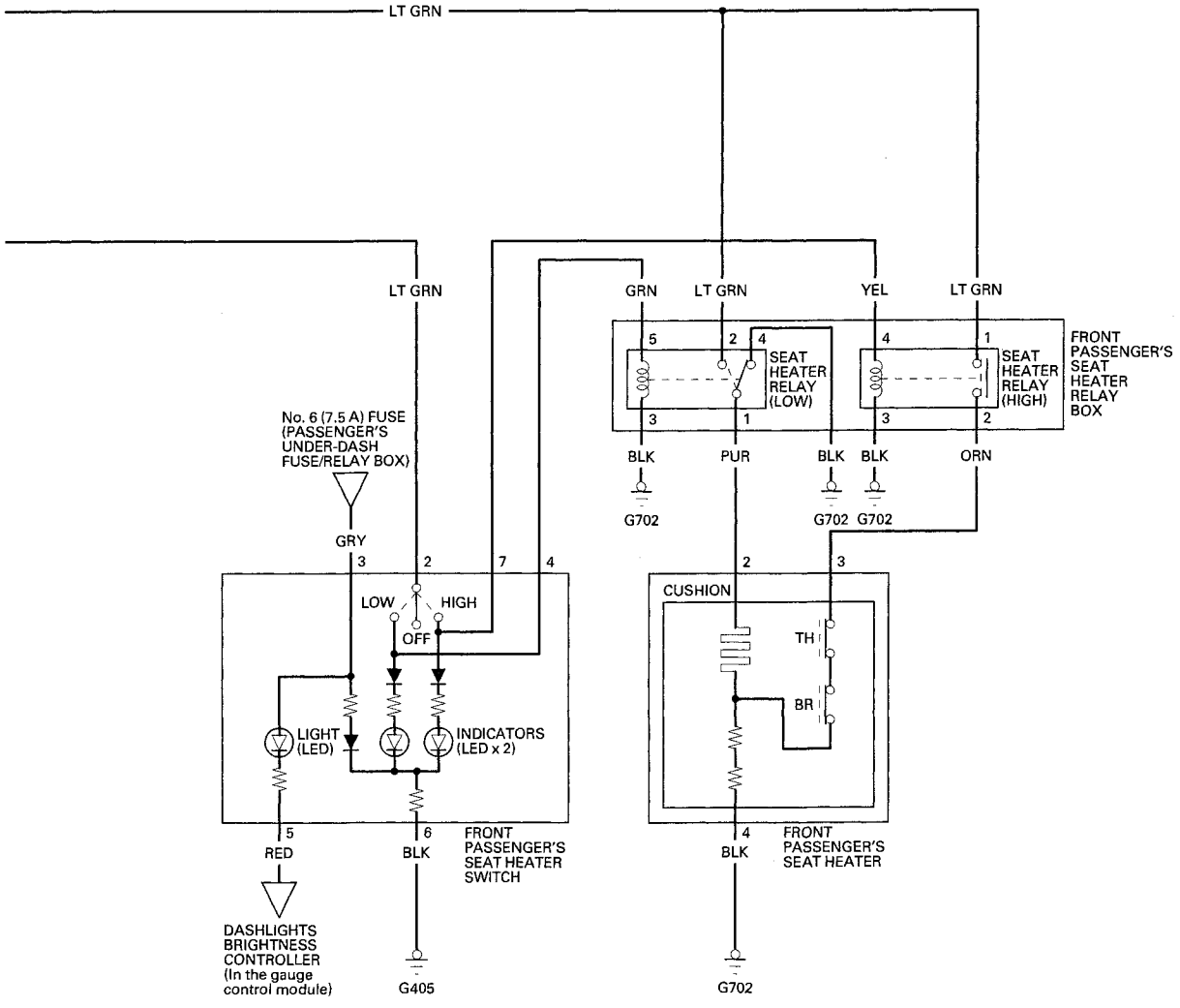
*1: With keyless access system
*2: Without keyless access system



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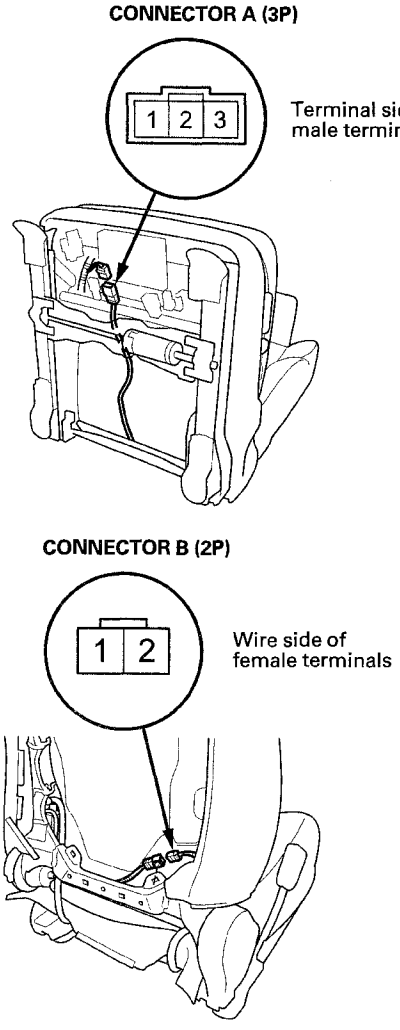
Seat Heater Test

Driver's Seat

1. Remove the driver's seat (see page 20-139).
2. Remove the seat-back cover (see page 20-148).
3. Disconnect the connector A (3P) and connector B (2P) from the seat heaters.



4. Check for continuity between seat heater connector A (3P) terminal No. 3, and seat heater connector B (2P) terminal No. 1. There should be continuity.
5. If the continuity is not as specified, replace the seat wire harness.
6. Check for continuity between seat heater connector B (2P) terminals No. 1 and No. 2. There should be continuity.
7. If the continuity is not as specified, replace the seat-back heater.
8. Check for continuity between seat heater connector A (3P) terminals No. 1 and No. 3, and terminals No. 2 and No. 3. There should be continuity.
9. If the continuity is not as specified, replace the seat cushion heater.

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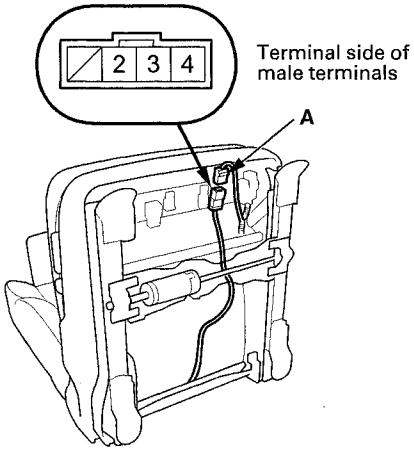
Front Passenger's Seat

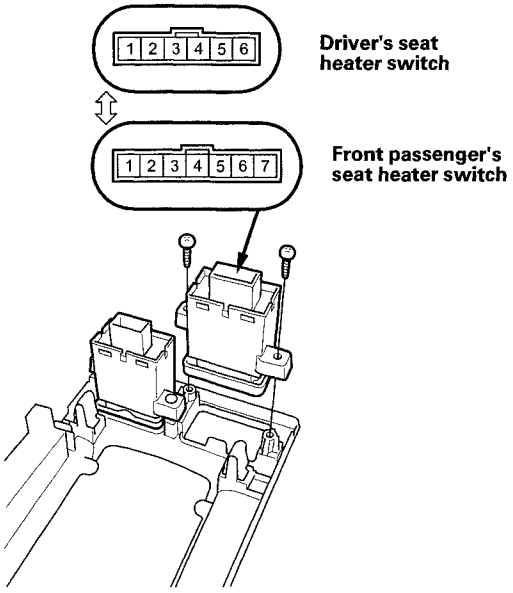
1. Remove the front passenger's seat (see page 20-139).
2. Disconnect the 4P connector (A) from the seat heater.



3. Check for continuity between seat heater 4P connector terminals No. 2 and No. 4 and terminals No. 3 and No. 4. There should be continuity.
4. If the continuity is not as specified, replace the seat heater.

Switch Test/Replacement

1. Remove the shift panel (see page 20-108).
2. Remove the seat heater switch from panel.



3. Check for continuity between the terminals in each switch position according to the table.

NOTE:
- Make sure the correct test lead (+ or −) is placed on the terminal.
- When check for continuity across the diode, use the diode setting (→|←) on the digital volt/ohm meter to check the diode bias.
- Be careful of the characteristic (Diode is one that conducts fully in one direction (forward) and not at all in the opposite direction (reverse)).

Position \ Terminal		1 [2]	2 [3]	3 [4]		4 [5]	5 [6]	6 [7]
ON	HIGH	○						○
		⊕			▶| ⊗ ⊗		⊖	
			⊕		⊗ ⊗	⊖		
			⊕		⊗ ▶|		⊖	
	LOW	○		○				
		⊕			▶| ⊗ ⊗		⊖	
			⊕		⊗ ⊗	⊖		
			⊕		⊗ ▶|		⊖	
OFF			⊕		⊗ ⊗	⊖		
			⊕		⊗ ▶|		⊖	

[ ] : **Front passenger's seat heater switch**

4. If the continuity is not as specified, replace the switch.

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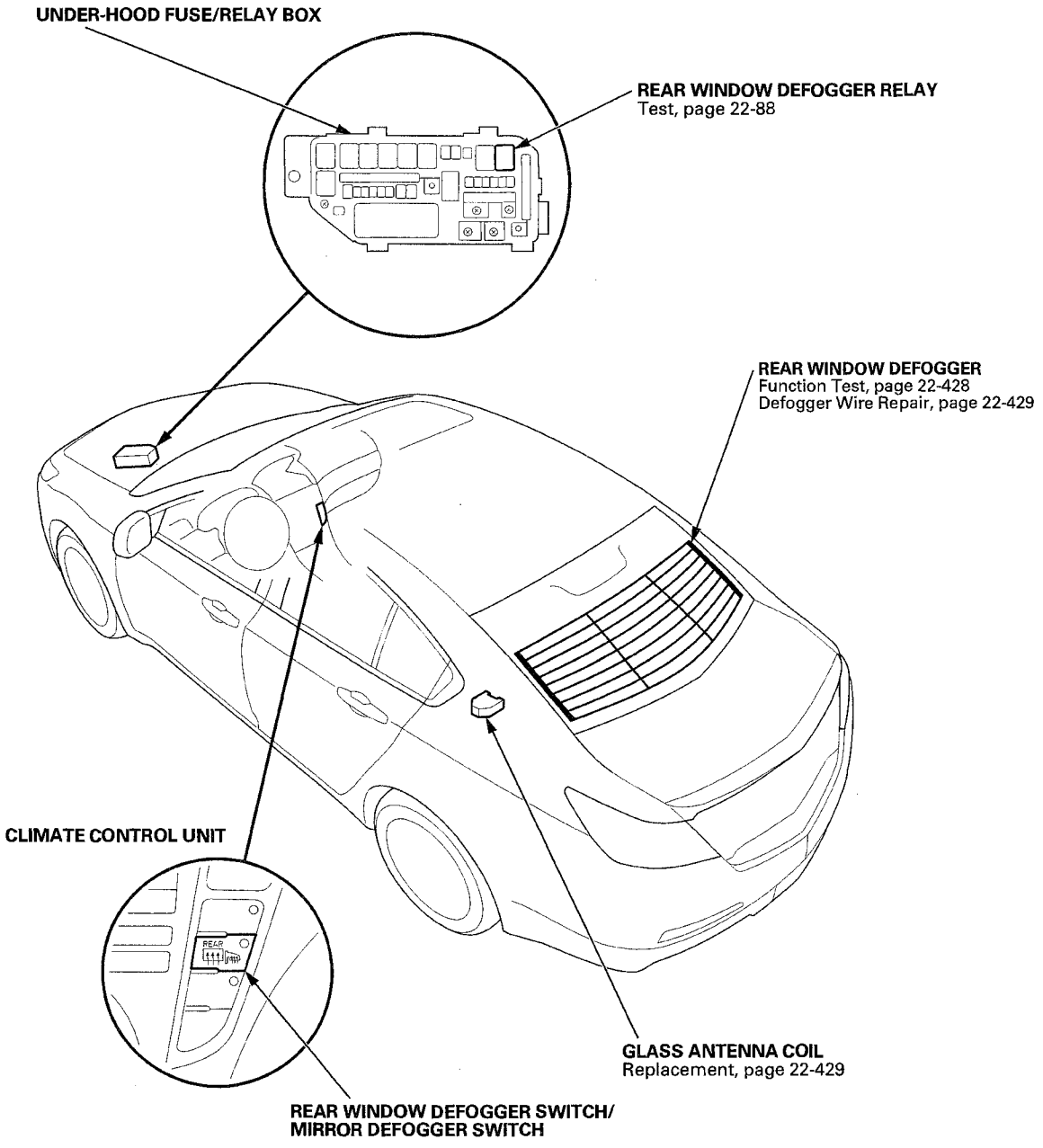
Rear Window Defogger

Component Location Index



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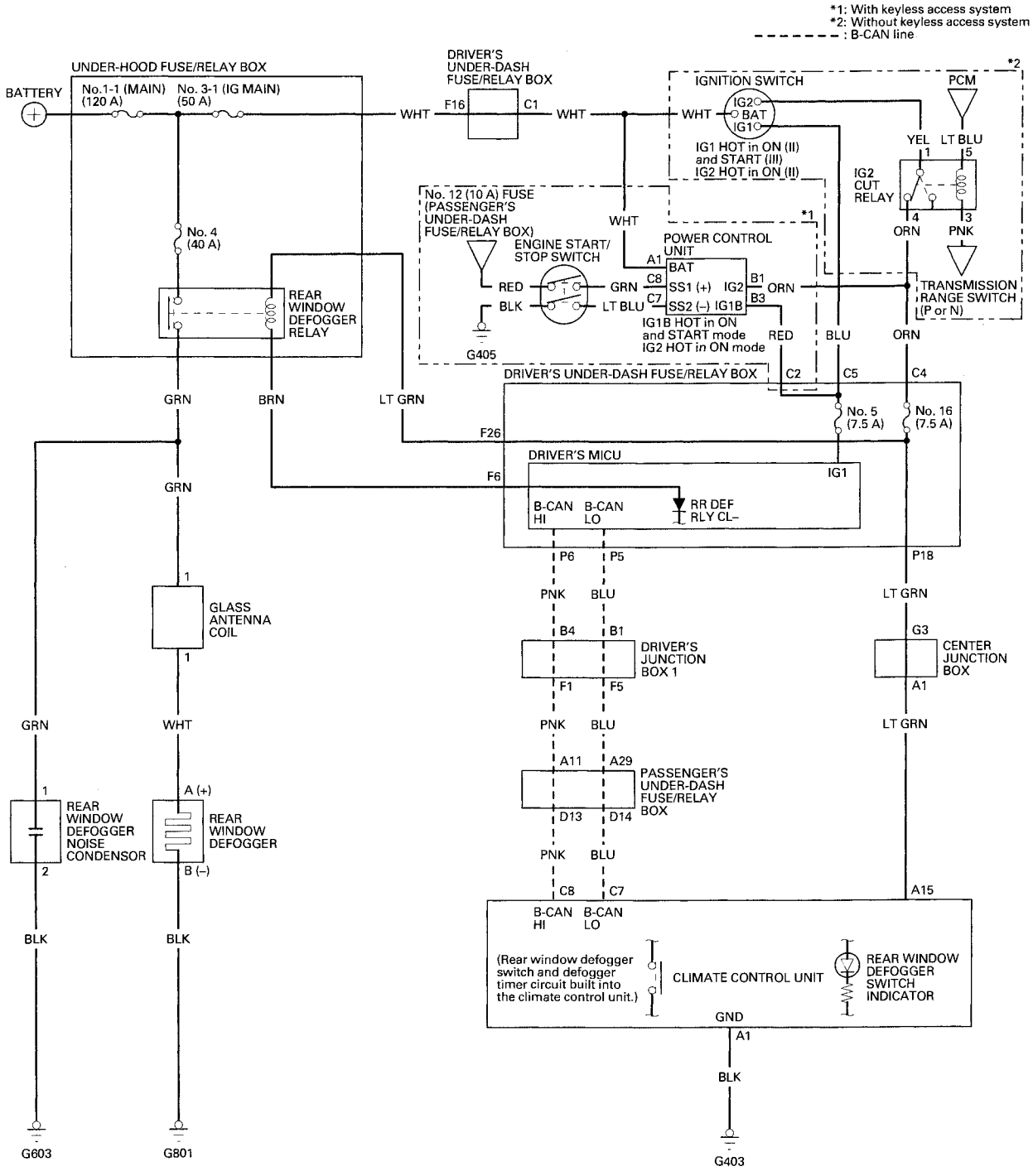
Circuit Diagram



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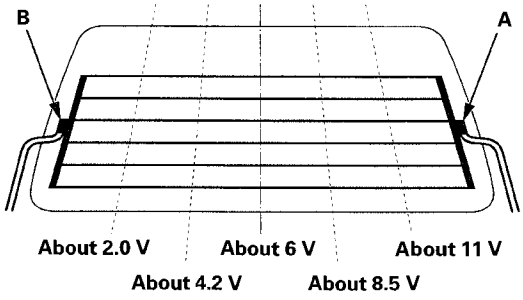
Function Test

NOTE:
- With climate control: Before testing, troubleshoot the B-CAN System Diagnosis Test Mode A (see page 22-135).
- Before testing, check the No. 4 (40 A) fuse in the under-hood fuse/relay box and the No. 16 (7.5 A) fuse in the driver's under-dash fuse/relay box.
- Be careful not to scratch or damage the defogger wires with the tester probe.

1. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode, then turn the rear window defogger switch ON.
2. Measure the voltage between the positive terminal (A) and body ground. There should be battery voltage.
   - If there is no voltage, check for:
     - A faulty rear window defogger relay (see page 22-88).
     - A faulty climate control unit.
     - A faulty glass antenna coil.
     - An open in the GRN or WHT wire to the positive terminal.
   - If there is battery voltage, go to step 3.



3. Measure the voltage between the negative terminal (B) and body ground. There should be less than 0.2 V.
   - If there is less than 0.2 V, go to step 4.
   - If there is more than 0.2 V, check for:
     - An open or high resistance in the wire.
     - Poor ground (G801).
4. Touch the voltmeter positive probe along each defogger wire, and the negative probe to the negative terminal.
   - If the voltage is as specified, the defogger wire up to that point is OK.
   - If the voltage is not as specified, repair the defogger wire.
     - If voltage is more than specified at one of the points, there is a break in the negative half of the wire.
     - If voltage is less than specified at one of the points, there is a break in the positive half of the wire.

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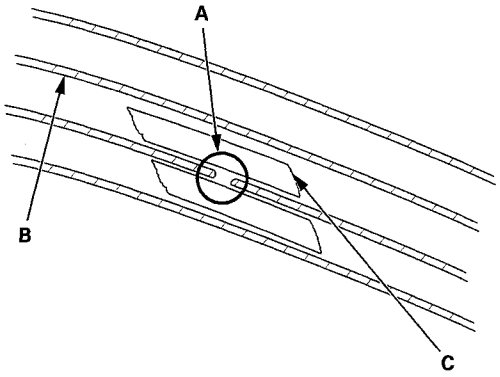
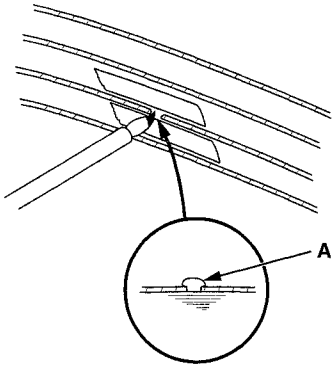
Defogger Wire Repair

NOTE: To make an effective repair, the broken section must be no longer than 1.0 in (25 mm).

1. Lightly rub the area around the broken section (A) with fine steel wool, then clean it with isopropyl alcohol.



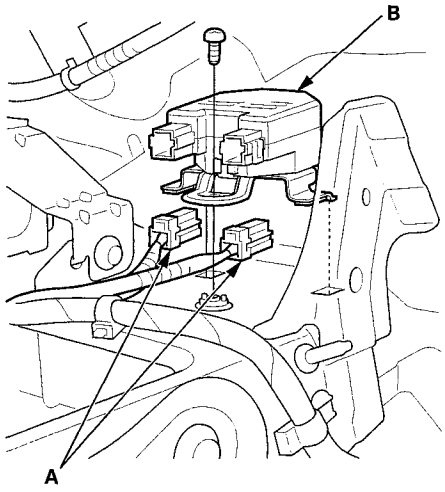
2. Carefully mask above and below the broken portion of the defogger wire (B) with cellophane tape (C).
3. Using a small brush, apply a heavy coat of silver conductive paint (commercially available) (A) extending about 1/8" (3.0 mm) on both sides of the break. Allow 25 minutes to dry.



4. Do the function test to confirm that the wire is repaired.
5. Apply a second coat of paint in the same way. Let it dry 3 hours before removing the tape.

Window Antenna Coil Replacement

1. Remove the rear shelf (see page 20-92).
2. Disconnect the 1P connectors (A) from the glass antenna coil (B).



3. Remove the mounting screw, then remove the glass antenna coil.
4. Install the glass antenna coil in the reverse order of removal.

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Immobilizer System

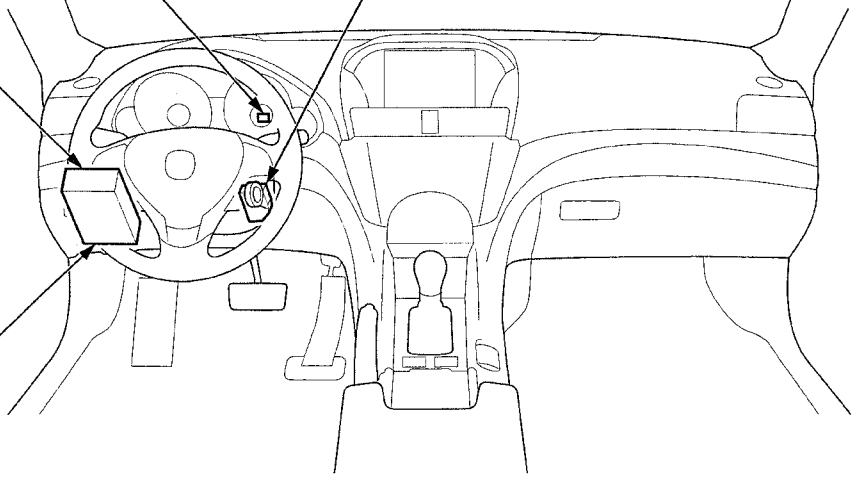
Component Location Index

For the Keyless Access System, refer to Keyless Access System,
Component Location Index, page 22-506
Circuit Diagram, page 22-514

DRIVER'S UNDER-DASH FUSE/RELAY BOX

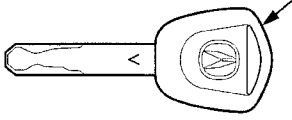
IMMOBILIZER INDICATOR

IMMOBILIZER-KEYLESS CONTROL UNIT (Has built-in receiver)
Symptom Troubleshooting, page 22-438
Registration, page 22-447
Input Test, page 22-444
Replacement, page 22-448

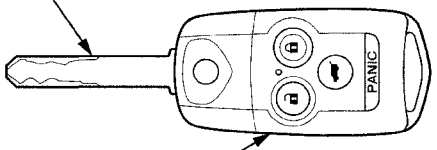


IMOES UNIT (Built into the driver's MICU)
Replacement, page 22-81

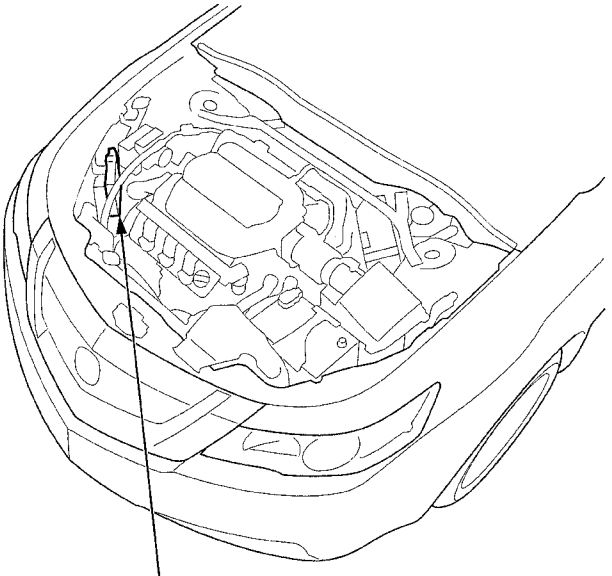
VALET KEY



IGNITION KEY



IMMOBILIZER TRANSPONDER (Built into the key)



PCM
Replacement, page 11-282
Substitute known-good for testing, page 11-7

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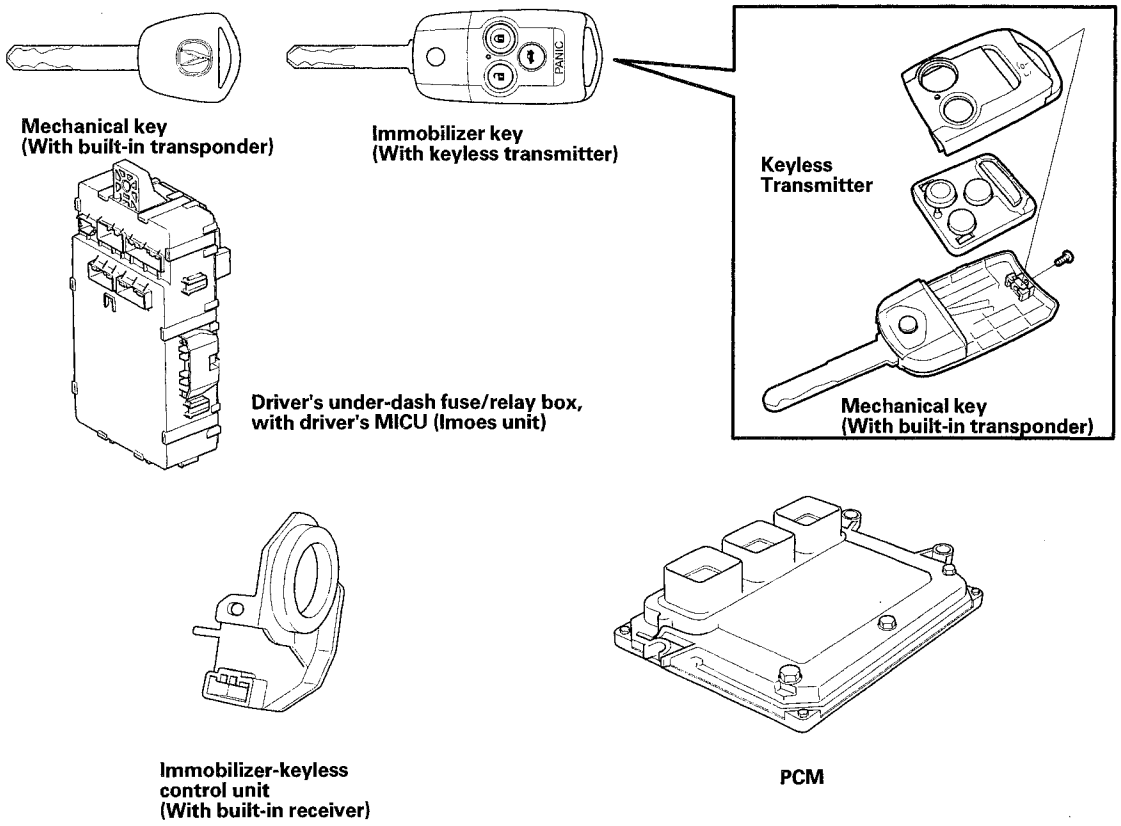
System Description

The vehicle is equipped with a Type VII (GEN 5) immobilizer system that will disable the vehicle unless a programmed ignition key is used.

This system consists of a transponder built into the ignition key, an immobilizer-keyless control unit (with a built-in receiver), the driver's MICU (has built-in imoes unit), an immobilizer indicator, and the PCM.

When the immobilizer key (programmed by the HDS) is inserted into the ignition switch and turned to ON (II), the immobilizer-keyless control unit sends power to the transponder. The transponder then sends a coded signal back to the immobilizer-keyless control unit, which then sends a coded signal to the PCM and the driver's MICU (imoes unit). The PCM and driver's MICU (imoes unit) identify this coded signal, then voltage is supplied to the fuel pump.



If the wrong key has been used or the code was not received or recognized, the indicator will flash once, then it will blink until the ignition switch is turned to LOCK (0). When the ignition switch is turned to the LOCK (0) position, the indicator will blink ten times to signal that unit has reset correctly, then the indicator will go off.

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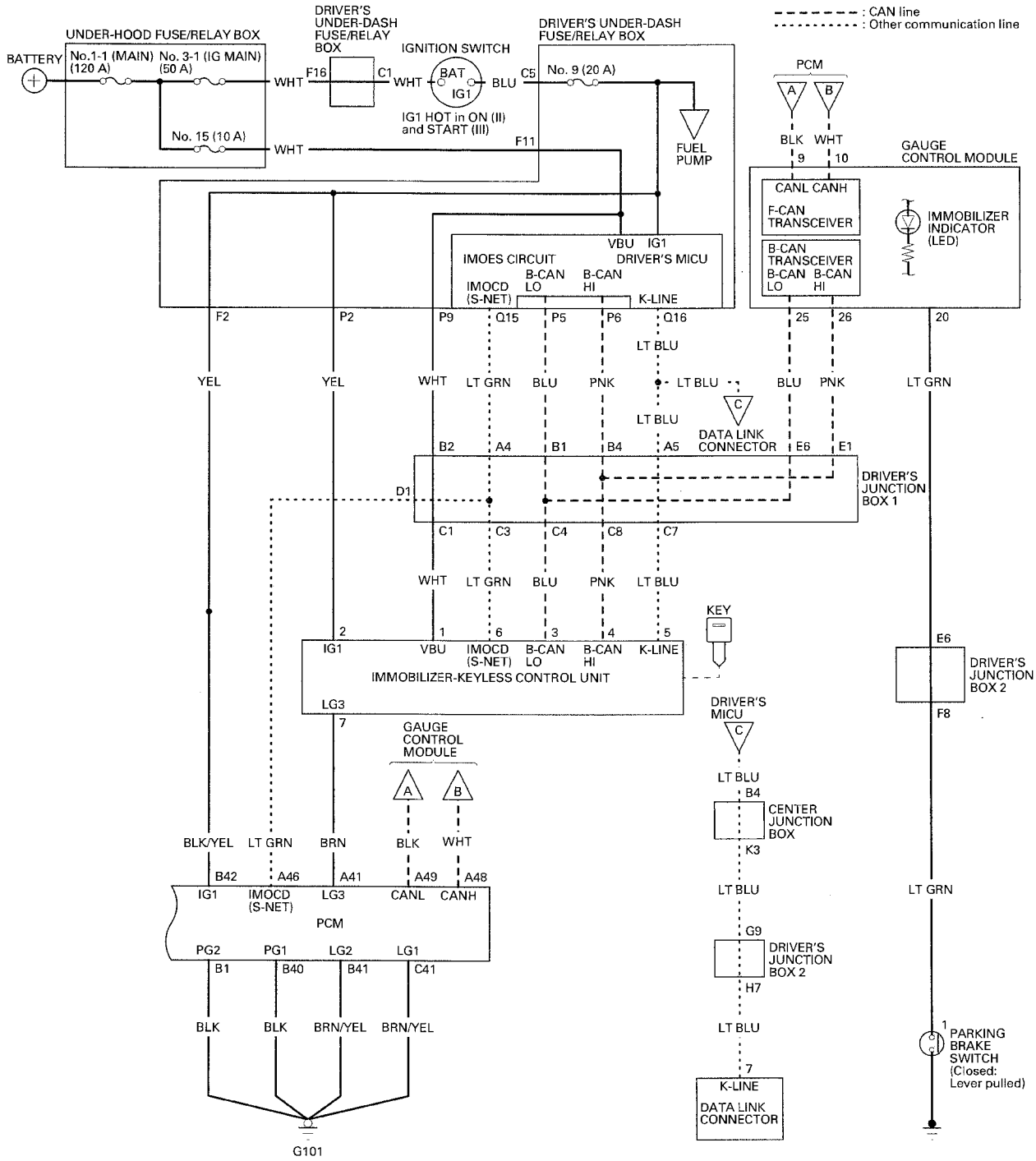
Immobilizer System

Circuit Diagram



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DTC Troubleshooting

DTC U0155: Immobilizer-keyless Control Unit Lost Communication With Gauge Control Module

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U0155 indicated?

   YES–Do the gauge control module input test, and do all power, ground, and communication input tests (see page 22-363). If the tests prove OK, replace the gauge control module (see page 22-367).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at the gauge control module and the related units.■

DTC U0199: Immobilizer-keyless Control Unit Lost Communication With Door Multiplex Control Unit

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U0199 indicated?

   YES–Do the door multiplex control unit input test, and do all power, ground, and communication input tests (see page 22-298). If the tests prove OK, replace the power window master switch (see page 22-309).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at the door multiplex control unit and the related units.■

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DTC Troubleshooting (cont'd)

DTC U1282: Immobilizer-keyless Control Unit Lost Communication With Driver's MICU

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U1282 indicated?

   YES–Do the driver's MICU input test, and do all power, ground, and communication input tests (see page 22-156). If the tests prove OK, replace the driver's under-dash fuse/relay box (see page 22-81).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at driver's under-dash fuse/relay box connector P (20P) and the related units.■

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Symptom Troubleshooting Information

General Check Before Troubleshooting

Before troubleshooting the immobilizer system, check the following general items and solve any if applicable:
- The battery is low; charge the battery fully, then troubleshoot the immobilizer system.
- The ignition key is not a genuine Acura part; use a Acura-approved key blank, register the key, then troubleshoot the immobilizer system.
- A key ring, keys, or a key case is used; remove the key from it, and troubleshoot the immobilizer system with the key only.
- An aftermarket electrical part is installed; remove it, then troubleshoot the immobilizer system.

Symptom Troubleshooting Using the Immobilizer Indicator Lighting Pattern

The pattern of the immobilizer indicator can help troubleshoot the condition of the immobilizer system. Here are descriptions of the four possible patterns:

Normal operation

If the immobilizer code is identified, the immobilizer indicator quickly flashes once when the ignition switch is turned to ON (II).

The immobilizer indicator does not come on when the ignition switch is turned to LOCK (0).

Immobilizer code is not identified

If the immobilizer code is not identified, the immobilizer indicator will quickly flash once, then will blink until the ignition switch is turned to LOCK (0). When the ignition switch is turned to LOCK (0), the indicator will blink ten times, then go OFF to show the system is correctly reset.

The state of the immobilizer key registration and the IMOCD (S-NET) line can be checked by doing a SYSTEM CHECK (see page 22-441), and STATUS LOG CHECK (see page 22-443) with the HDS.

Immobilizer indicator does not come on

If the immobilizer indicator does not come on after turning the ignition switch to ON (II), there is an open or short in the F-CAN lines between the PCM and the gauge control module. Watch the malfunction indicator lamp (MIL). If the MIL stays on, go to the PGM-FI system troubleshooting (see page 11-3).

Immobilizer indicator does not go off

If the immobilizer indicator does not go off after turning the ignition switch to ON (II), do the gauge control module self-diagnostic function (see page 22-342). If the indicator drive circuit is OK, do the SYSTEM CHECK and STATUS LOG CHECK with the HDS.

(cont'd)

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Symptom Troubleshooting Information (cont'd)

Symptom Troubleshooting Using Malfunctioning Circuit Functions

If a malfunction occurs in the immobilizer circuit, use the table to cross-reference the malfunction criteria to the line(s) that should be checked in the table:

Function / Line Error: Terminal No. (Wire Color)	Cause of Malfunction	Immobilizer Indicator	Engine Start	Key Registration	Tester Communication	Keyless Operation
1 (WHT)	VBU line open or short	Comes on, then goes off.	Possible	Impossible	Possible	Impossible
2 (YEL)	IG1 line open or short	Blinking	Impossible	Impossible	Impossible	Possible
3 (BLU)	B-CAN line open or short	Comes on, then goes off.	Possible	Possible	Immobilizer: Possible Keyless: Impossible	Impossible
4 (PNK)	B-CAN line open or short	Comes on, then goes off.	Possible	Possible	Immobilizer: Possible Keyless: Impossible	Impossible
5 (LT BLU)	K-LINE line open or short	Comes on, then goes off.	Possible	Impossible	Impossible	Possible
6 (LT GRN)	IMOCD (S-NET) line open or short	Blinking	Impossible	Impossible	Impossible	Possible
7 (BRN)	GND (LG3) line open	Blinking	Impossible	Impossible	Impossible	Impossible

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System Check and Status Log

NOTE: The HDS can be used to:
- Check the state of the immobilizer key registration and the IMOCD (S-NET) line by doing a SYSTEM CHECK.
- Check the number of times the immobilizer-keyless control unit doesn't permit the engine to run by checking the STATUS LOG.

1. Connect the HDS to the data link connector, then turn the ignition switch to ON (II) and follow the prompts to the MAIN MENU.

   NOTE: If the HDS does not communicate with the vehicle, go to the DLC circuit troubleshooting (see page 11-258).

2. At MAIN MENU, enter IMMOBI, then select IMMOBILIZER SETUP.
3. Do the SYSTEM CHECK. If there is a system check number, do the troubleshooting for the item indicated (see page 22-441).
4. Check the STATUS LOG using the HDS. Troubleshoot the line with the highest counts first (see page 22-443). If all the lines are 0 (zero), the problem may not be caused by the immobilizer system; check for ignition or fuel problems.

   NOTE: Once repaired, clear the status log by removing the No. 15 (10 A) fuse in the under-hood fuse/relay box or disconnecting the battery.

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Symptom Troubleshooting

1. Troubleshoot the immobilizer system in the order shown:

Order of Priority	Symptom	Possible cause
1	Immobilizer indicator blinks.	Symptom troubleshooting (see page 22-439).
2	Engine does not start with the immobilizer key.	Symptom troubleshooting (see page 22-440).
3	Immobilizer indicator does not come on.	Check the MIL indication. If the MIL comes on, go to the PGM-FI System MIL circuit troubleshooting (see page 11-257).
4	Immobilizer indicator does not go off.	Symptom troubleshooting (see page 22-440).

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Immobilizer indicator blinks

NOTE: Before troubleshooting, check the items listed in General Check before Troubleshooting.

1. Turn the ignition switch to LOCK (0).
2. Connect the HDS, then turn the ignition switch to ON (II).
3. From the main menu, enter IMMOBI, select IMMOBILIZER SETUP, then select System Check, Number of Keys, and Status Log.
4. Select SYSTEM CHECK.

   Is SYSTEM CHECK indicated?

   YES–Troubleshoot the immobilizer system according to the result of the SYSTEM CHECK (see page 22-441).■

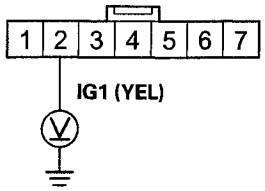
   NO–Go to step 5.
5. Turn the ignition switch to LOCK (0).
6. Enter the vehicle, and remove the ignition key from the ignition switch, then close all doors.
7. Operate the keyless transmitter LOCK and UNLOCK several times in the vehicle.

   Do the door lock actuators work normally?

   YES–Go to step 8.

   NO–Check for a poor ground through PCM to G101 and/or an open in the wire between immobilizer-keyless control unit 7P connector terminal No. 7 and PCM connector A (49P) terminal No. 41. Measure the voltage between body ground and immobilizer-keyless control unit terminal No. 1. If no voltage, check for No. 15 (10 A) fuse in the under-hood fuse/relay box. If the fuse is OK, repair an open in the wire between the under-hood fuse/relay box and immobilizer-keyless control unit.■
8. Turn the ignition switch to ON (II).
9. Back-probe and measure the voltage between immobilizer-keyless control unit 7P connector terminal No. 2 and body ground.

IMMOBILIZER-KEYLESS CONTROL UNIT 7P CONNECTOR



Wire side of female terminals

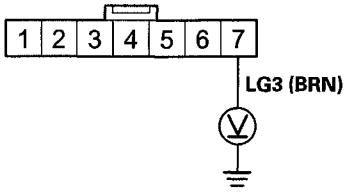
Is there battery voltage?

YES–Go to step 10.

NO–Check for a blown No. 9 (20 A) fuse in the driver's under-dash fuse/relay box. If the fuse is OK, repair open in the YEL wire between the driver's under-dash fuse/relay box and the immobilizer-keyless control unit.■

10. Back-probe and measure the voltage between immobilizer-keyless control unit 7P connector terminal No. 7 and body ground.

IMMOBILIZER-KEYLESS CONTROL UNIT 7P CONNECTOR



Wire side of female terminals

Is there at least 0.2 V?

YES–Repair poor connection or open between immobilizer-keyless control unit 7P connector terminal No. 7 and PCM connector A (49P) terminal No. 41 and/or poor ground G101.■

NO–Replace the immobilizer-keyless control unit (see page 22-448).■

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Symptom Troubleshooting (cont'd)

Engine does not start with the immobilizer key

NOTE: Before troubleshooting, check the items listed in "General Check before Troubleshooting" (see page 22-435).

1. Try to start the engine.

   Does the engine start?

   YES–Intermittent failure, the vehicle is OK at this time. Check status log (see page 22-443) and check the line indicated in the table.■

   NO–Go to step 2.

2. Turn the ignition switch to LOCK (0).
3. Turn the ignition switch to ON (II), and check the immobilizer indicator.

   Does the indicator blink once, then stay off?

   YES–Go to step 4.

   NO–Go to the immobilizer indicator blinks troubleshooting (see page 22-439).■

4. Turn the ignition switch to START (III).

   Does the starter motor run?

   YES–Go to step 5.

   NO–Go to Starting System, and check the starter motor (see page 4-17).■

5. Try to start the engine with the immobilizer key.

   Does the engine start?

   YES–Go to step 6.

   NO–Go to the PGM-FI System Symptom Troubleshooting (see page 11-3).■

6. Wait for a few minutes with the engine running.

   Does the engine stop?

   YES–Go to the PGM-FI System Symptom Troubleshooting (see page 11-3).■

   NO–The system is OK at this time.■

Immobilizer indicator does not go off

1. Turn the ignition switch to LOCK (0).
2. Connect the HDS to the data link connector.
3. Turn the ignition switch to ON (II).
4. From the main menu, enter IMMOBI, then select IMMOBILIZER SETUP, then select System Check, Number of Keys, and Status Log.
5. Do the SYSTEM CHECK with the HDS.

   Is N-1 OK indicated?

   YES–Replace the gauge control module (see page 22-367).■

   NO–Substitute a known-good immobilizer-keyless control unit, then register it and recheck. If the symptom goes away, replace the original immobilizer-keyless control units (see page 22-448).■

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System Check

1. Connect the HDS to the data link connector.
2. Turn the ignition switch to ON (II).
3. Monitor the SYSTEM CHECK in the IMMOBILIZER INFO with the HDS.
4. If the HDS displays NORMAL N-1, the immobilizer system is OK at this time, refer to the STATUS LOG. If the HDS displays any other messages, check as follows:

System Check No.	System Check	Possible Cause
A-1	The key is not registered	• This key is not registered in the immobilizer-keyless control unit. Try to register keys using the HDS. • No communication between the antenna and the immobilizer key because of interference from metal such as key chains/key rings/other keys. • Low battery voltage.
A-2	Communication error between the key and immobilizer-keyless control unit	• Intermittent interruption between transponder and immobilizer-keyless control unit. • The immobilizer key type is incorrect non-Acura key. • Key failure (transponder failure) • No communication between the antenna and the immobilizer key because of interference from metal such as key chains/key rings/other keys. • Low battery voltage.
A-3	No communication between the key and immobilizer-keyless control unit	• The ignition switch was turned to ON (II) with a non-immobilizer key. • The immobilizer key type is incorrect non-Acura key. • Key failure (transponder failure) • No communication between the antenna and the immobilizer key because of interference from metal such as key chains/key rings/other keys. • Low battery voltage. • Immobilizer-keyless control unit failure
B-1	The PCM is not registered	• The PCM was not registered. Try to register the PCM using the HDS. • No communication between the PCM and the immobilizer-keyless control unit because of low battery voltage. • No communication between the immobilizer-keyless control unit and the PCM because of interference. • Open in the IG1 line
B-2	Error of communication format in PCM	• The PCM was not registered. Try to register the PCM using the HDS. • No communication between the PCM and the immobilizer-keyless control unit because of low battery voltage. • No communication between the immobilizer-keyless control unit and the PCM because of interference.
C-1	The Imoes unit is not registered	• Imoes unit was not registered. • No communication between the Imoes unit and the immobilizer-keyless control unit because of low battery voltage. • No communication between the Imoes unit and the immobilizer-keyless control unit because of interference. • Try to register the Imoes unit with the HDS.
C-2	Error of communication format in Imoes unit	• Imoes unit was not registered. • No communication between the Imoes unit and the immobilizer-keyless control unit because of low battery voltage. • No communication between the Imoes unit and the immobilizer-keyless control unit because of interference. • Try to register the Imoes unit with the HDS.
D-1	S-NET line short	• Harness short from the PCM to the immobilizer-keyless control unit. (IMOCD (S-NET) line short) • No communication between the PCM and the immobilizer-keyless control unit because of low battery voltage. • No communication between the immobilizer-keyless control unit and the PCM because of interference. • Immobilizer-keyless control unit failure • PCM failure

(cont'd)

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System Check (cont'd)

System Check No.	System Check	Possible Cause
D-2	No communication between imoes unit and immobilizer-keyless control unit	• Blown fuse • Harness open from the Imoes unit to the immobilizer-keyless control unit. (IMOCD (S-NET) line open) • No communication between the Imoes unit and the immobilizer-keyless control unit because of low battery voltage. • No communication between the Imoes unit and the immobilizer-keyless control unit because of interference. • Immobilizer-keyless control unit failure • Imoes unit failure
D-3	No communication between PCM and immobilizer-keyless control unit	• Blown fuse • Harness open from the PCM to the immobilizer-keyless control unit. • No communication between the PCM and the immobilizer-keyless control unit because of low battery voltage. • No communication between the immobilizer-keyless control unit and the PCM because of interference. • Immobilizer-keyless control unit failure • PCM failure
E-1 E-2 E-3 E-4 E-5	Initial registration of immobilizer-keyless control unit is not completed	The immobilizer-keyless control unit is not registered. Try to register the immobilizer-keyless control unit using the HDS.
F-1 F-2 F-3 F-4 F-5	Special Mode	Turn the ignition switch to ON (II) and to LOCK (0) with the registered key.

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Status Log

If you suspect there is a immobilizer system problem, check the status log in the HDS.

1. Connect the HDS to the data link connector.
2. Turn the ignition switch to ON (II).
3. On the HDS screen, at MAIN MENU, enter IMMOBI, then select IMMOBILIZER SETUP, select System Check, Number of Keys, and Status Log, then select STATUS LOG.
4. Check the Status Log count. Troubleshoot the status with the highest count first. If no counts are listed, the immobilizer system is OK. Continue with normal symptom troubleshooting.

Status Log No.	Detected Item	Probable Cause
A-1	KEY CODE MISMATCH (Code format normal, but code data is mismatch)	• The key was not registered • Interference from metal such as key chains • Low battery voltage
A-2	KEY CODE MISMATCH (Code format failure)	• Ignition switch was turned to ON (II) with another type of immobilizer key or aftermarket key • Interference from metal such as key chains • Low battery voltage
A-3	KEY CODE MISMATCH (No key code or non-immobilizer key)	• Ignition switch was turned to ON (II) with another type of immobilizer key or aftermarket key • Interference from metal such as key chains • Low battery voltage • Key failure • Immobilizer-keyless control unit failure
B-1	PCM CODE MISMATCH (Code format normal, but code data is mismatch)	• PCM was not registered correctly • Low battery voltage • Poor or loose terminal connections at the immobilizer-keyless control unit • Communication line electrical noise
B-2	PCM MISMATCH (Code format failure)	• PCM was not registered correctly • Low battery voltage • Poor or loose terminal connections at the immobilizer-keyless control unit • Communication line electrical noise
C-1	IMOES UNIT MISMATCH (Code format normal, but data is mismatch)	• Imoes unit was not registered • The communication was not good between Imoes unit and immobilizer-keyless control unit by battery voltage low • The communication was not good between Imoes unit and immobilizer-keyless control unit by influence of some noise
C-2	IMOES UNIT MISMATCH (Code format failure)	• Imoes unit was not registered correctly • The communication was not good between Imoes unit and immobilizer-keyless control unit by battery voltage low • The communication was not good between Imoes unit and immobilizer-keyless control unit by influence of some noise
D-1	IMOCD (S-NET) LINE PROBLEM (Short to ground)	• Low battery voltage • Poor or loose terminal connections at the immobilizer-keyless control unit and the PCM • Communication line electrical noise
D-2	IMOCD (S-NET) LINE PROBLEM (No communication)	• Blown fuse • Harness open from Imoes unit to immobilizer-keyless control unit • The communication was not good between Imoes unit and immobilizer-keyless control unit by battery voltage low • The communication was not good between Imoes unit and immobilizer-keyless control unit by influence of some noise • Imoes unit failure • Immobilizer-keyless control unit failure
D-3	IMOCD (S-NET) LINE PROBLEM (Open line or PCM failure)	• Open or short in the harness from the PCM to the immobilizer-keyless control unit • Low battery voltage • Poor or loose terminal connections at the immobilizer-keyless control unit and the PCM • Communication line electrical noise

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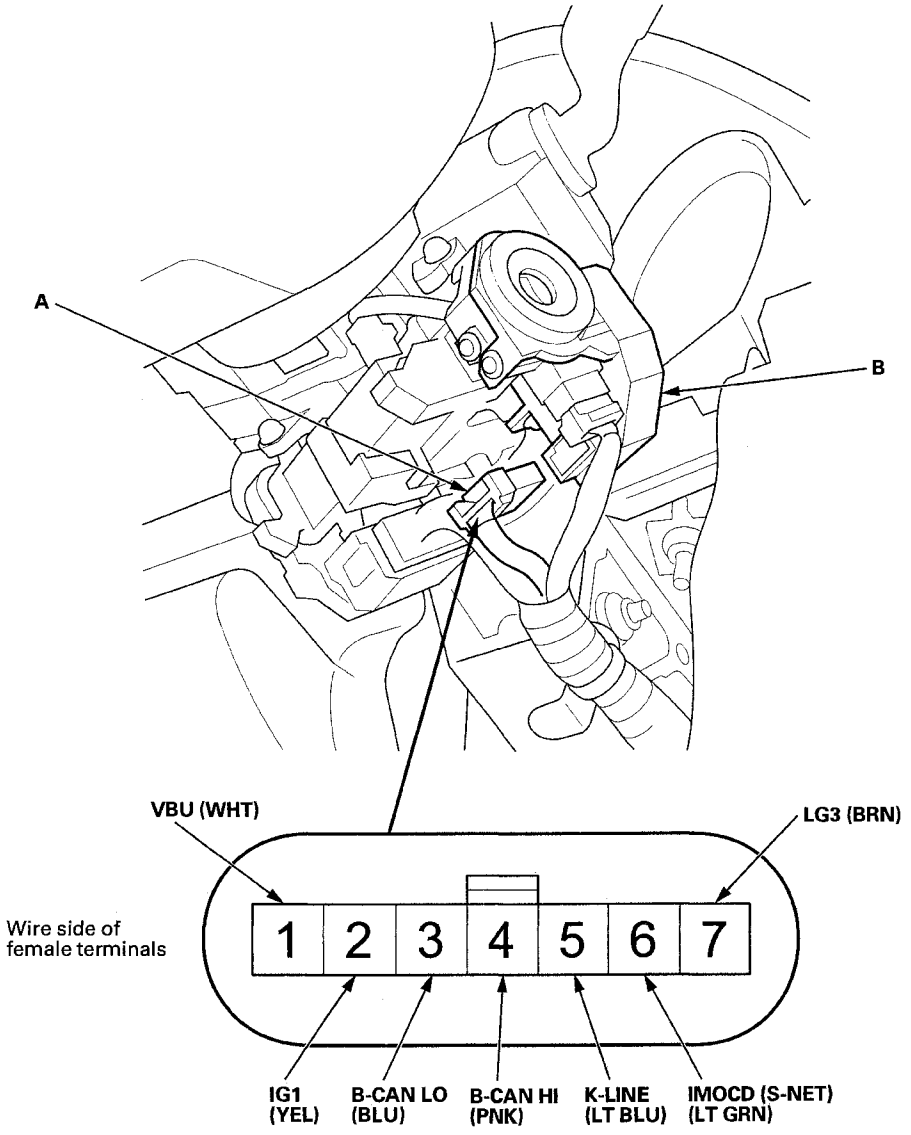
Immobilizer-Keyless Control Unit Input Test

NOTE: Before testing, troubleshoot the multiplex integrated control unit first, using B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Remove the steering column covers (see page 20-126).
2. Disconnect the 7P connector (A) from the immobilizer-keyless control unit (B).



3. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
   - If the terminals look OK, go to step 4.

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4. With the connector still disconnected, do the following input tests:
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 5.

Cavity	Wire	Terminal name	Test condition	Test: Desired result	Possible cause if desired result is not obtained
3	BLU	B-CAN LO	Disconnect the gauge control module 32P connector. Also disconnect driver's under-dash fuse/relay box connector P (20P).	Check for continuity between terminal and gauge control module 32P connector terminal No. 25: There should be continuity.	An open in the B-CAN wire
				Check for continuity between terminal and driver's under-dash fuse/relay box connector P (20P) terminal No. 5: There should be continuity.	
4	PNK	B-CAN HI	Disconnect the gauge control module 32P connector. Also disconnect driver's under-dash fuse/relay box connector P (20P).	Check for continuity between terminal and gauge control module 32P connector terminal No. 26: There should be continuity.	An open in the B-CAN wire
				Check for continuity between terminal and driver's under-dash fuse/relay box connector P (20P) terminal No. 6: There should be continuity.	
6	LT GRN	IMOCD (S-NET)	Disconnect PCM connector A (49P) (see page 11-282)	Measure the voltage to ground: There should be about 5 V.	• A short to ground in the wire • An open in the wire
			Disconnect the battery negative terminal	Measure the resistance between terminal and body ground: There should be more than 50 kΩ.	• Faulty Imoes unit (built into the MICU) • Faulty driver's under-dash fuse/relay box • An open in the IMOCD wire
			Disconnect PCM connector A (49P) (see page 11-282)	Check for continuity between terminal and PCM connector A (49P) terminal No. 46: There should be continuity.	An open in the wire

5. Reconnect the connector to the immobilizer-keyless control unit, and do the following input tests:

(cont'd)

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Immobilizer-Keyless Control Unit Input Test (cont'd)

- If any test indicates a problem, find and correct the cause, then recheck the system.
- If all the input tests prove OK, replace the immobilizer-keyless control unit (see page 22-448).

NOTE: If you replace the immobilizer-keyless control unit, do the immobilizer registration (see page 22-447).

Cavity	Wire	Terminal name	Test condition	Test: Desired result	Possible cause if desired result is not obtained
1	WHT	VBU	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
2	YEL	IG1	Ignition switch ON (II)	Measure the voltage to ground: There should be battery voltage.	• Blown No. 9 (20 A) fuse in the driver's under-dash fuse/relay box • An open or high resistance in the wire
7	BRN	LG3	Under all conditions	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G101) or an open in the ground wire • An open or high resistance in the wire • Faulty PCM
5	LT BLU	K-LINE	Ignition switch ON (II)	Measure the voltage to ground: There should be 9—12 V.	• Bad control unit on the k-line • K-line short to ground

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Immobilizer Key Registration

NOTE:
- The HDS is required for registration of the immobilizer keys.
- Programming the immobilizer also programs the keyless transmitter.
- Check for aftermarket electrical equipment that can cause problems with transponder operation.
- The immobilizer-keyless control unit can store up to six immobilizer keys.

Add one new key/Keyless transmitter

1. Have a registered key, a new immobilizer key, and the first password from the iN system.
2. Connect the HDS to the data link connector.
3. Turn the ignition switch to ON (II).
4. Select IMMOBI from the main menu, then select IMMOBILIZER SETUP.
5. Select Add and Delete keys, then Add 1 key.
6. Do the registration according to the instructions on the HDS screen.
7. Check if the engine can be started with the newly registered key.
8. When prompted by the HDS, do the keyless transmitter programming.

Add and Delete keys/Keyless transmitters, Then select Delete or Add keys

1. Have all registered keys, all new keys, and the first password from the iN system.
2. Connect the HDS to the data link connector.
3. Turn the ignition switch to ON (II).
4. Select IMMOBI from the main menu, then select IMMOBILIZER SETUP.
5. Select Add and Delete Keys, or Delete or Add Multiple Keys.
6. Do the registration according to the instructions on the HDS screen.
7. Check if the engine can be started with all the registered keys.
8. When prompted by the HDS, do the keyless transmitter programming.

All keys are lost

1. Prepare all new keys and have the immobilizer PCM code.
2. Connect the HDS to the data link connector.
3. Turn the ignition switch to ON (II).
4. Select IMMOBI from the main menu, then select IMMOBILIZER SETUP.
5. Select Add and Delete keys, then ALL KEYS LOST.
6. Do the registration according to the instructions on the HDS screen.
7. Check if the engine can be started using all the registered keys.
8. When prompted by the HDS, do the keyless transmitter programming.

Programming immobilizer-keyless control unit

1. Have all registered keys and the PCM code.
2. Connect the HDS to the data link connector.
3. Turn the ignition switch to ON (II).
4. Select IMMOBI from the main menu, then select IMMOBILIZER SETUP.
5. Select REPLACE IMMOBILIZER/KEYLESS CONTROL UNIT REPLACE.
6. Do the registration according to the instructions on the HDS screen.
7. Check that the engine can be started with all registered keys.
8. When prompted by the HDS, do the keyless transmitter programming.

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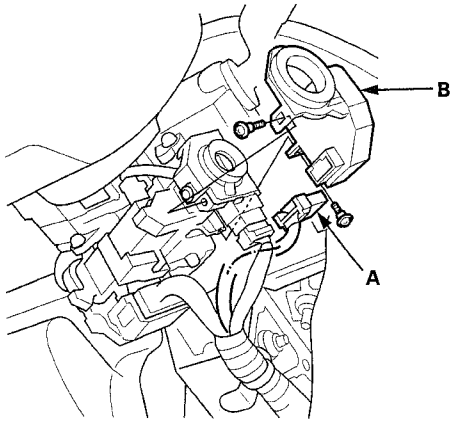
Immobilizer-Keyless Control Unit Replacement

1. Remove the steering column covers (see page 20-126).
2. Disconnect the 7P connector (A) from the immobilizer-keyless control unit (B).



3. Remove the two screws and the immobilizer-keyless control unit.
4. Install the immobilizer-keyless control unit in the reverse order of removal.
5. After replacement, register the immobilizer-keyless control unit (see page 22-447), and make sure the immobilizer system works properly.
6. Program all of the client's keys/keyless transmitters (see page 22-447).

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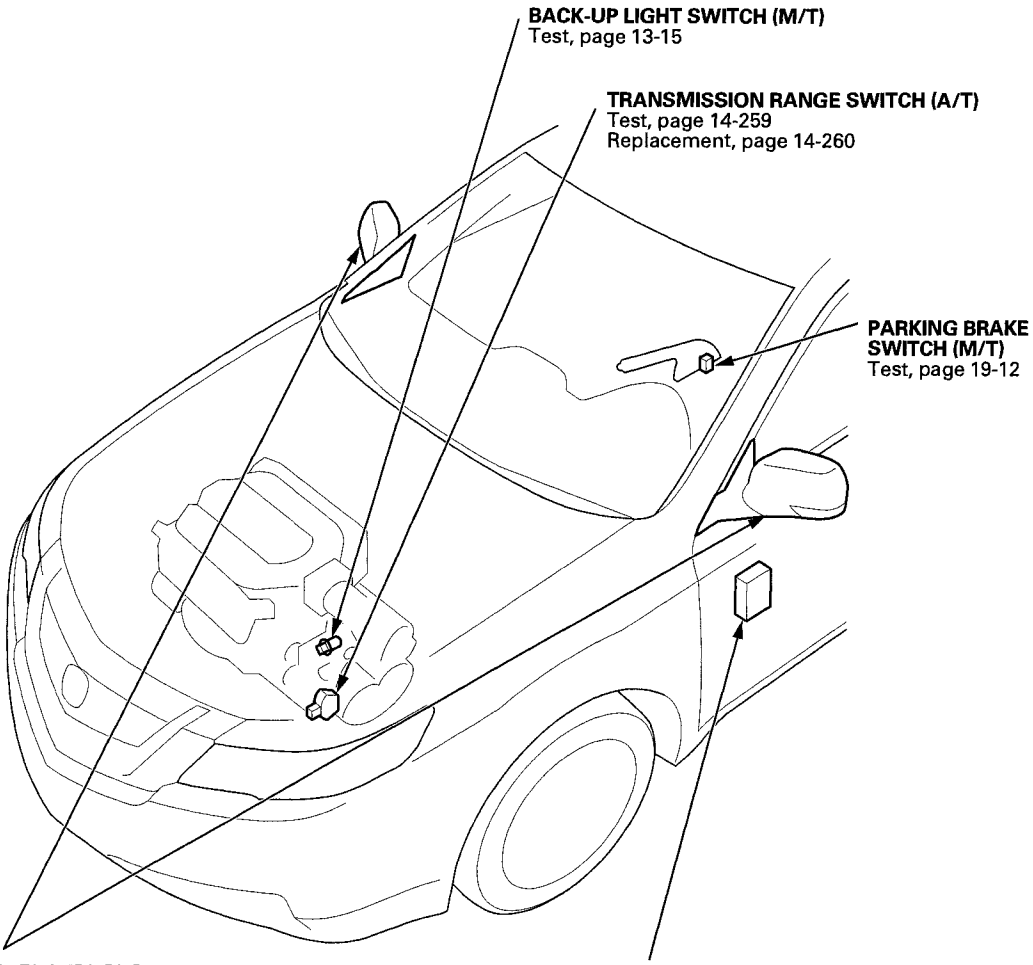
Driving Position Memory System (DPMS)

Component Location Index



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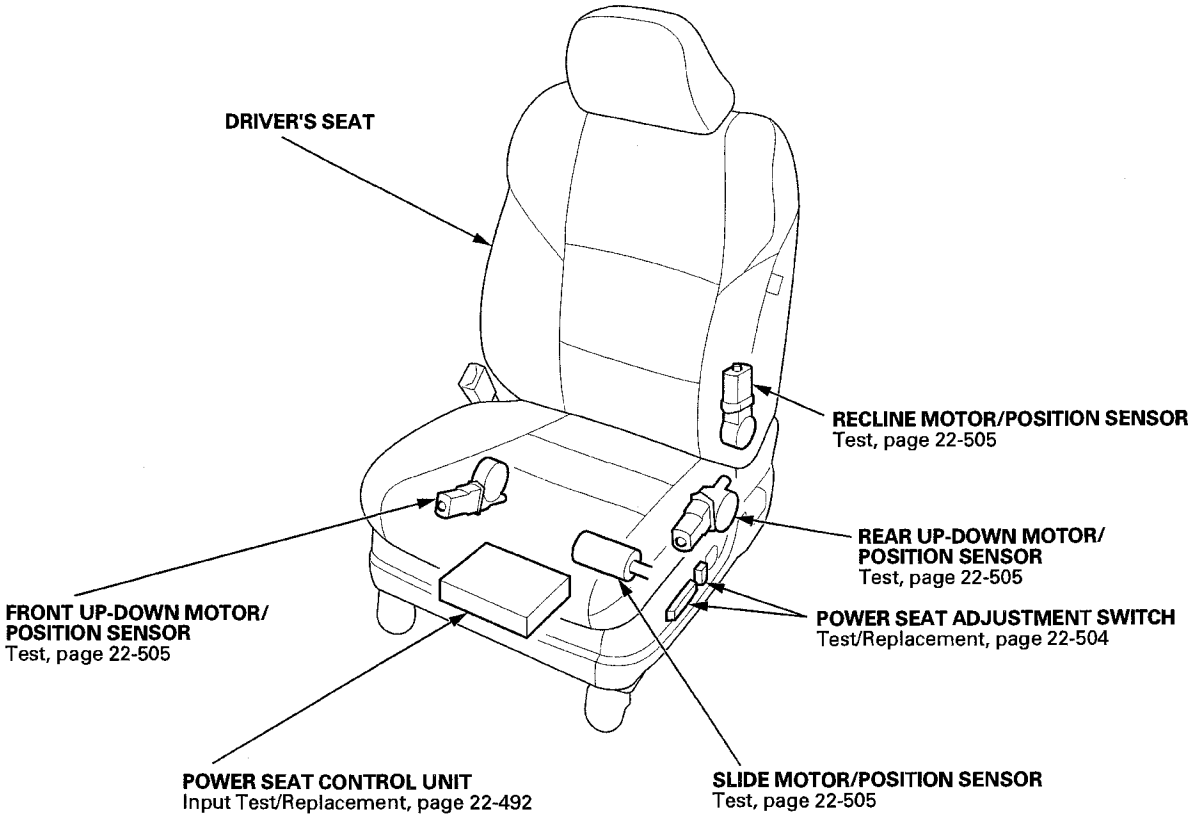
Component Location Index (cont'd)



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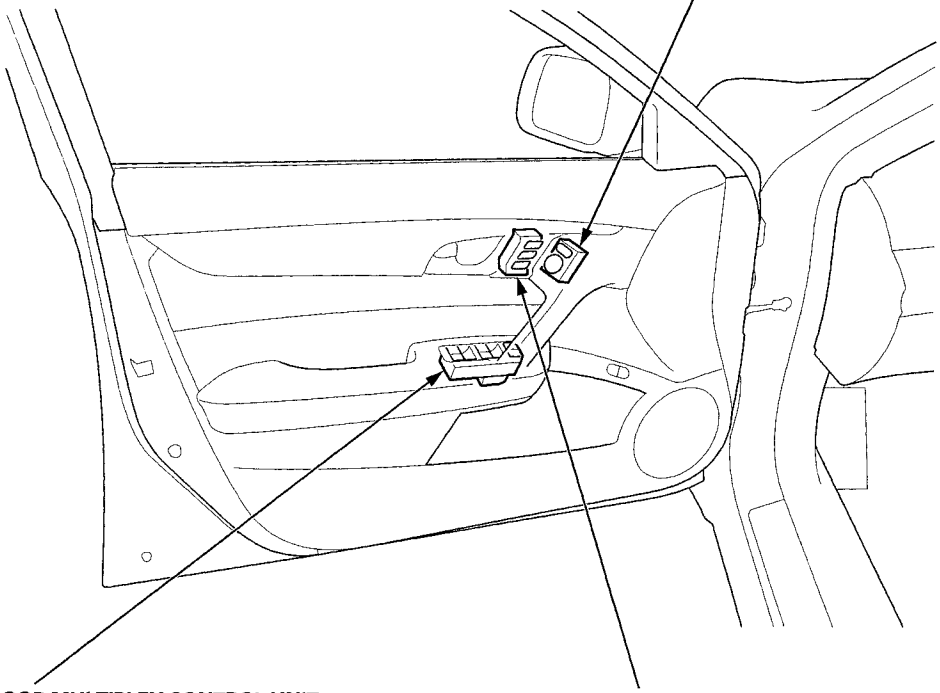

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Driving Position Memory System (DPMS)

System Description

The driver's seat and the power mirrors have a memory feature. All the adjustments can be memorized by pressing the SET button on the driving position memory switch, and then pressing one of two position buttons within 5 seconds. Pressing the appropriate position button will move the seat and the mirrors to the memorized positions.

This system is integrated with the multiplex integrated control system, and has 9 wake-up and sleep modes. All digital signals are sent via shared B-CAN and UART communication lines. For more information about communication line and wake-up/sleep mode, refer to the Multiplex Integrated Control System Description (see page 22-112).

Disconnecting the battery will cancel the memorized positions.

Memorizing a Seat and Mirror Position

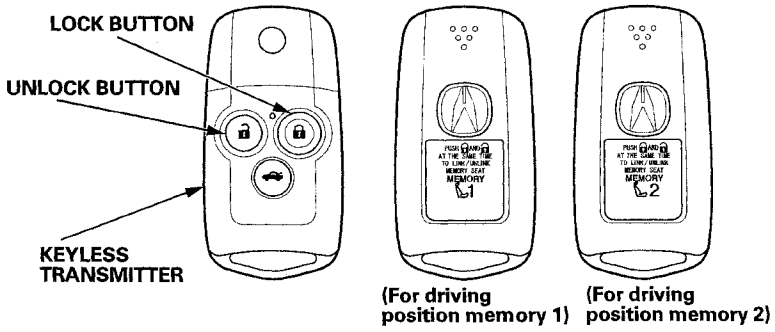
Move the seat and the mirrors to the desired position. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.

Press and hold the SET button on the driver's position memory switch. A single beep will be heard and both of the green LED will begin to flash. Press No. 1 or No. 2 to match the remote that is to be used. There will be two more beeps confirming that the seat and mirror positions have been memorized. The LED will remain lit, unless the seat and the mirrors are moved from the memorized position.

Memorized Position Recall with the Remotes

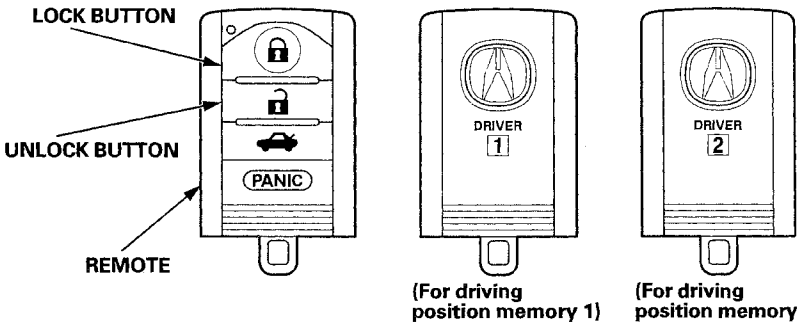
After the seat and mirror positions have been memorized, the seat and mirror will move to the position when the appropriate remote UNLOCK is pressed and the driver's door is opened. When the seat and mirrors move to the memorized position, the green LED corresponding with that remote will stay lit until the position is changed or the key is turned to LOCK (0), or engine start/stop button is pressed to select the OFF mode.

Without keyless access system



(For driving position memory 1) (For driving position memory 2)

With keyless access system



(For driving position memory 1) (For driving position memory 2)

View of the remote when the door key is removed.

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Power Seat Position Sensors

Each motor has a sensor that detects motor rotation and sends a pulse to the power seat control unit when the motor rotates. The control unit stores the number of pulses in its memory, and the seat position is memorized.

Power Mirror Position Sensors

By means of a tilt position sensor and swing position sensor, the power mirror control circuit in the power mirror control unit detects the voltage changes caused by the movements of the mirrors. These voltage changes are stored in memory, and the power mirror positions are memorized for each stored driving position.

Reverse Mirror Control

When the vehicle is shifted to R or reverse (shift lever in R or reverse) with the power mirror selector switch in Left (or Right) position, the driver's (or passenger's) side mirror tilts down automatically to help the driver's view. The mirror will return to the previous position when the shift lever is shifted out of R or reverse. The reverse mirror control is cancelled if the power mirror selector switch is in the center position.

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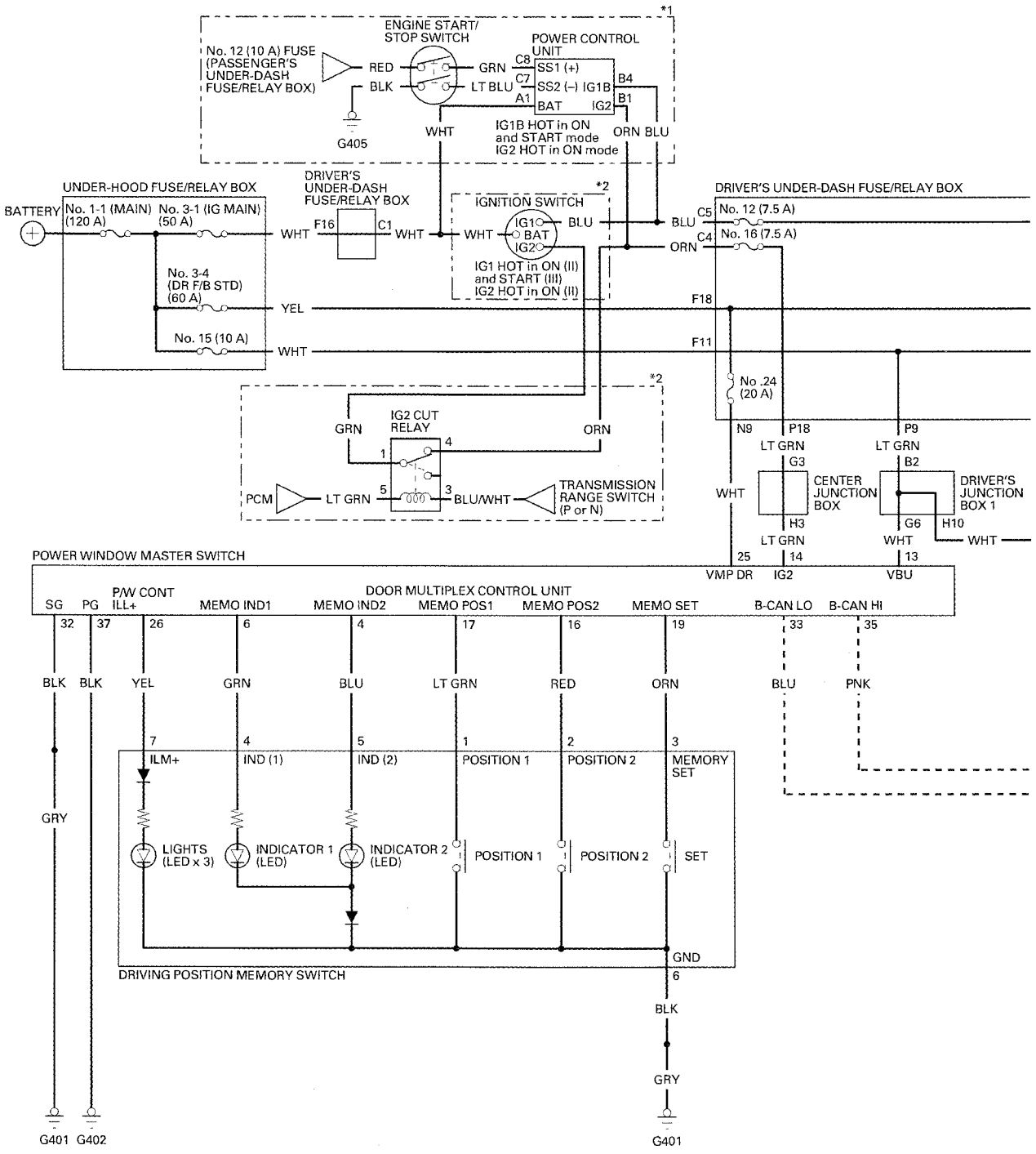
Driving Position Memory System (DPMS)

Circuit Diagram



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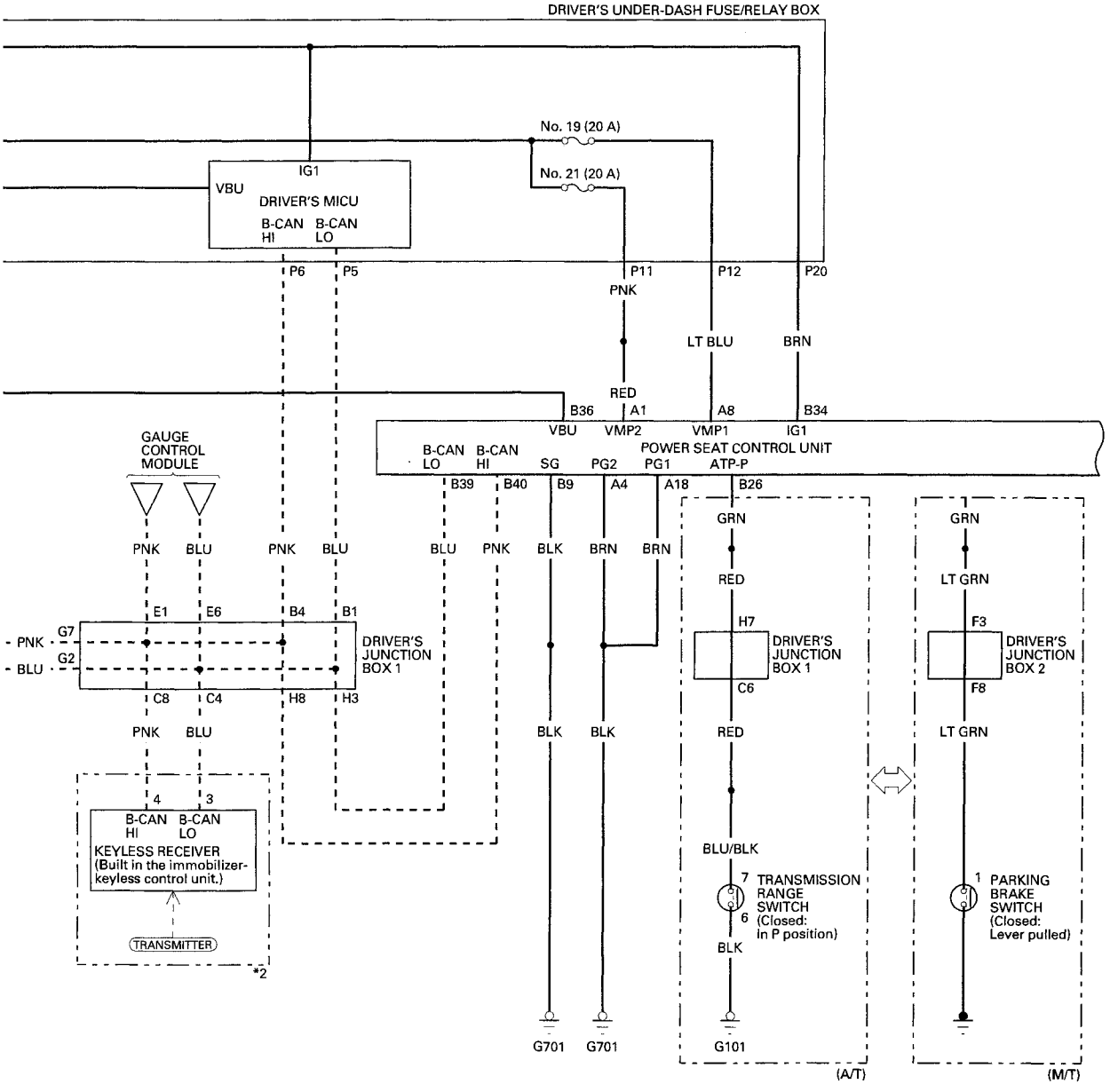
*1: With keyless access system
*2: Without keyless access system
- - - - - - - : B-CAN line



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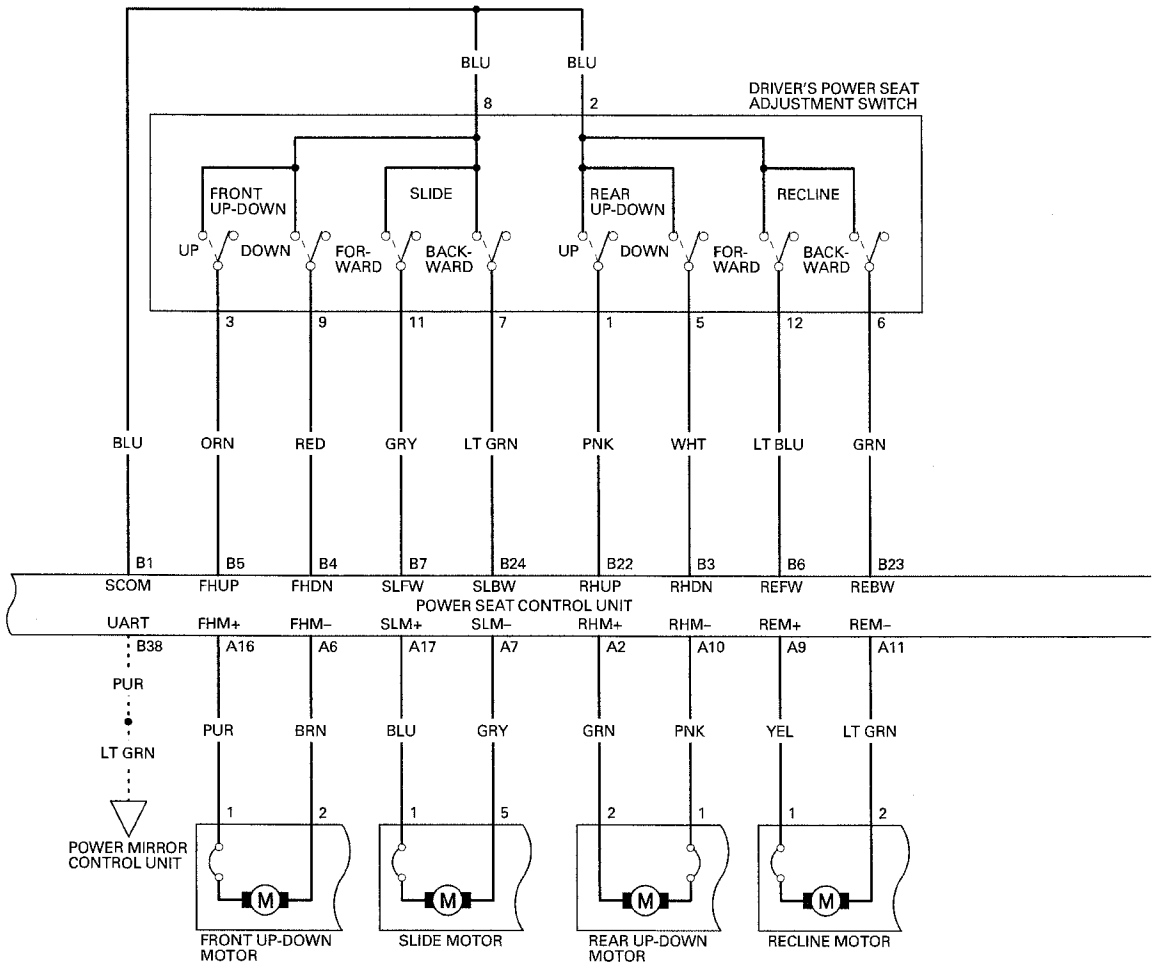
Circuit Diagram (cont'd)



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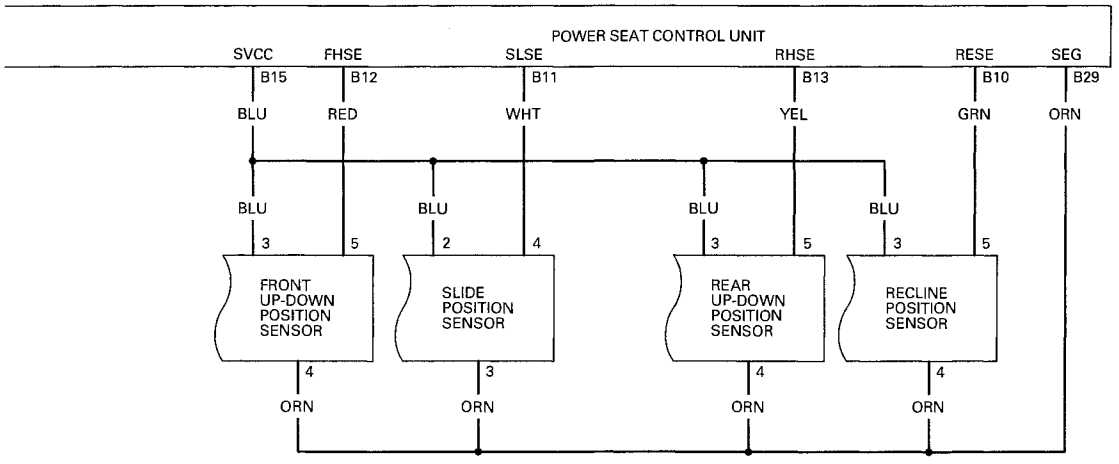
- - - - - - - - - - : Other communication line



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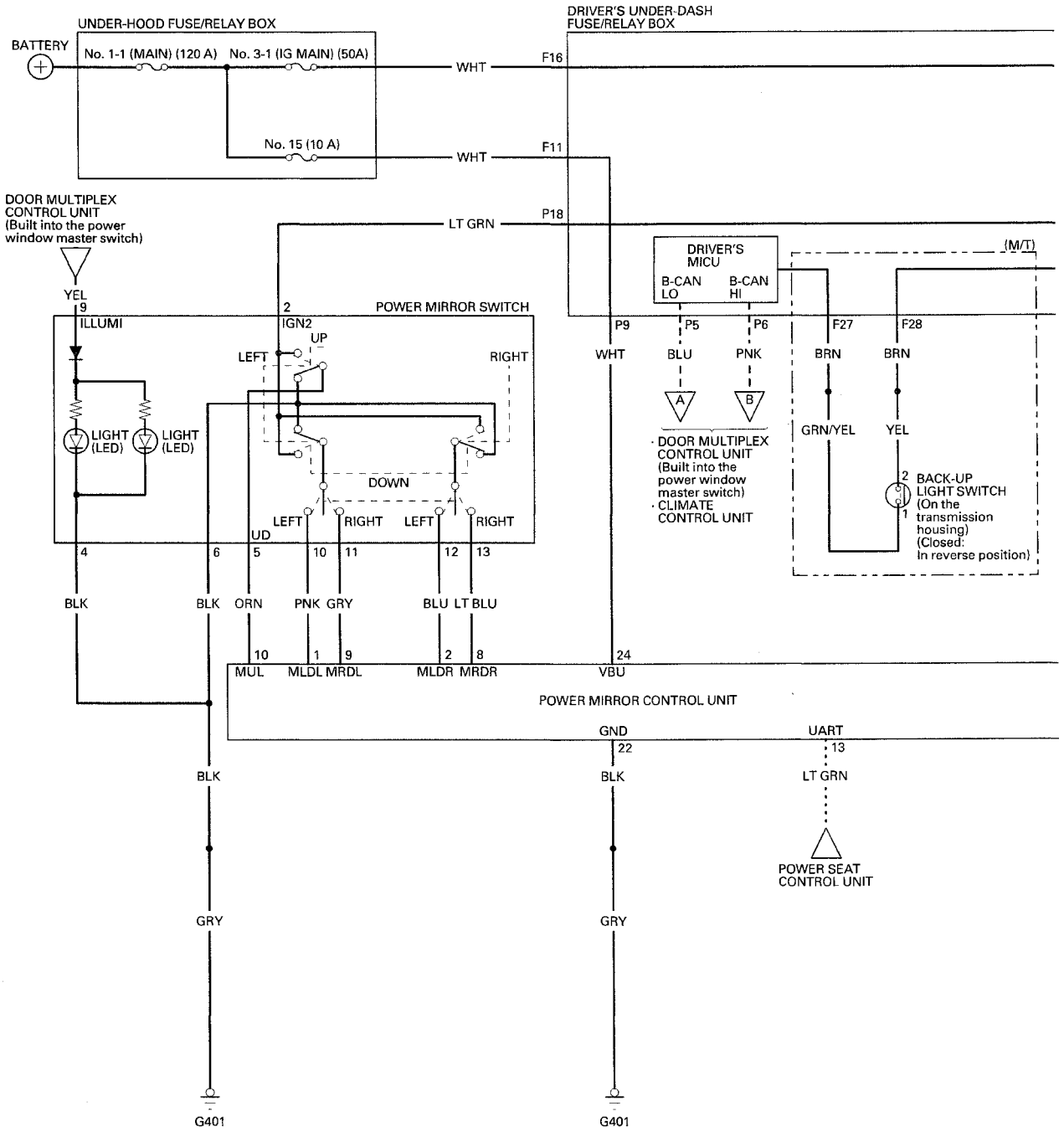
Driving Position Memory System (DPMS)

Circuit Diagram - Power Mirror



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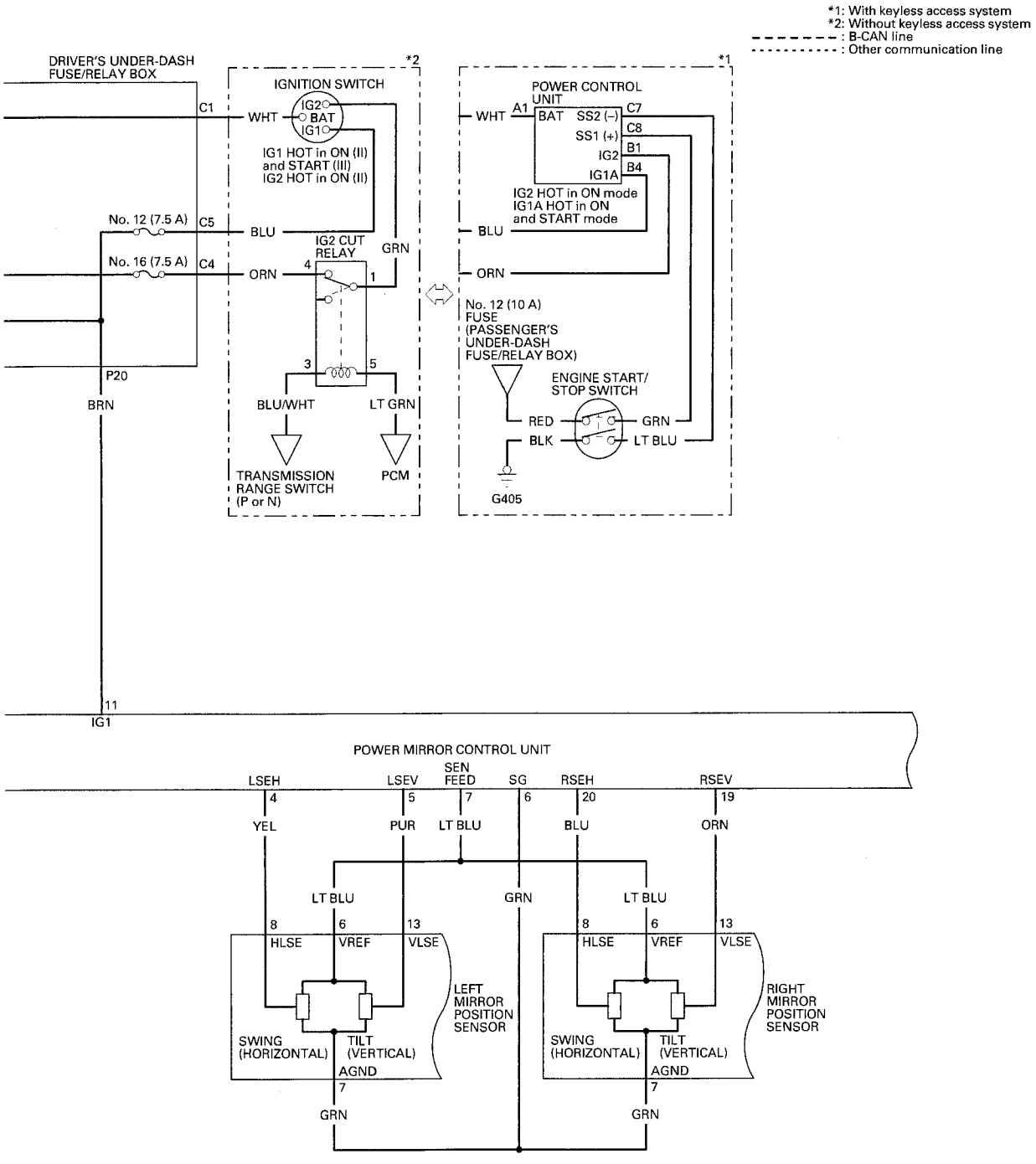

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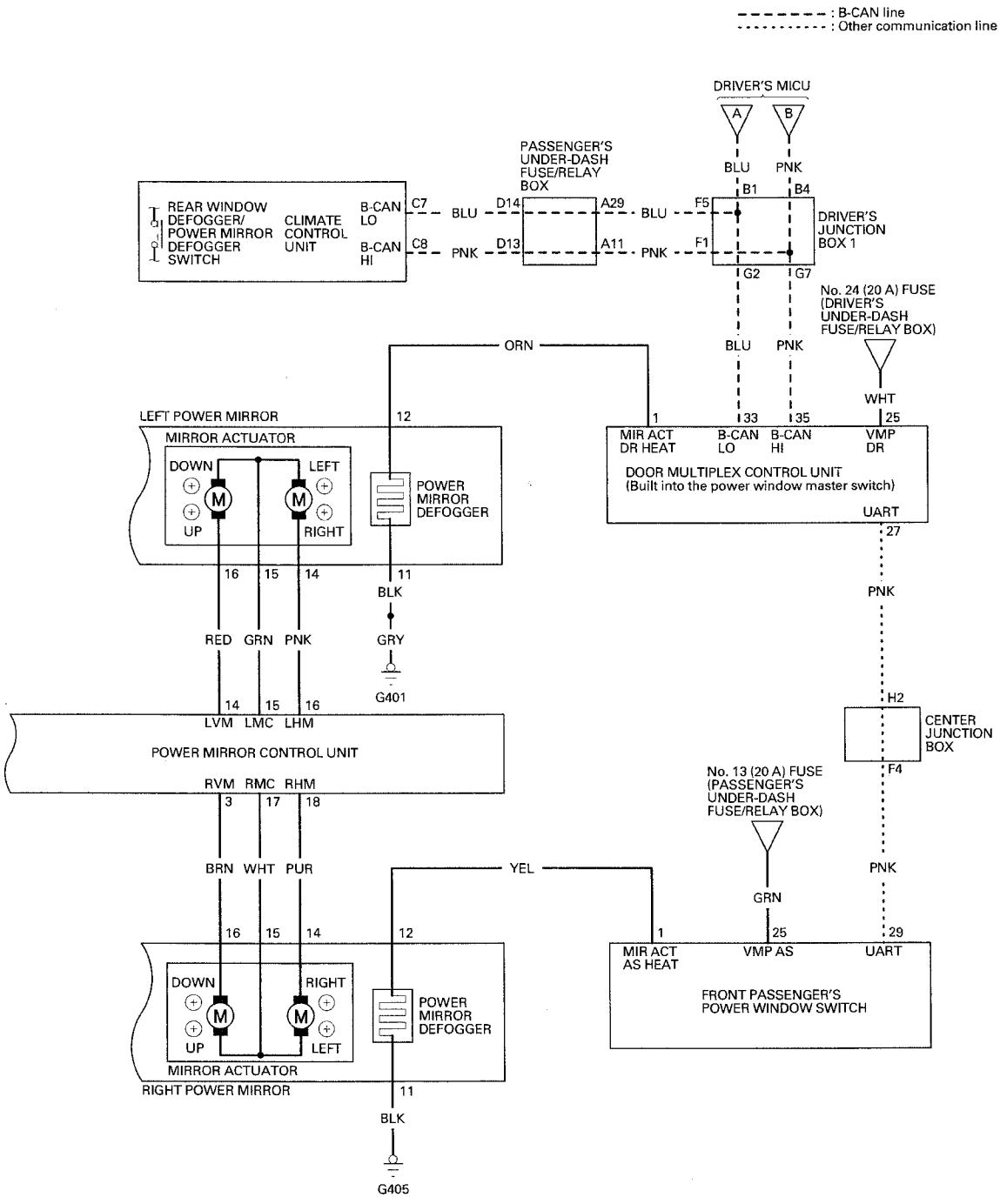
Circuit Diagram - Power Mirror (cont'd)



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DTC Troubleshooting

DTC B1802: Power Seat Control Unit Failure

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC B1802 indicated?

   YES–Replace the power seat control unit (see page 22-492).■

   NO–Intermittent failure, the system is OK at this time.■

DTC B1825: Power Seat Slide Motor Pulse Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Operate the power seat adjustment switch for several seconds in each direction.

   NOTE: DTC B1825 is stored when the slide switch is operated more than 1 second after the seat moves to the most forward or backward position, even when the system is OK.

4. Check for the DTCs with the HDS.

   Is DTC B1825 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■

5. Clear the DTCs with the HDS.

   Is DTC B1836 also indicated?

   YES–Go to the DTC B1836 troubleshooting.■

   NO–Go to step 6.

6. Clear the DTCs with the HDS.

   Are DTCs B1826, B1827, and/or B1828 also indicated?

   YES–Go to step 17.

   NO–Go to step 7.

7. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
8. Operate the slide switch for 2 seconds, and check the slide motor operation.

   Does the slide motor run smoothly?

   YES–Go to step 9.

   NO–Go to step 26.

(cont'd)

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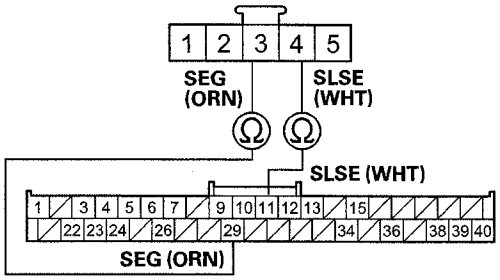
DTC Troubleshooting (cont'd)

9. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
10. Disconnect power seat control unit connector B (40P).
11. Disconnect the slide motor/position sensor 5P connector.
12. Check for continuity between power seat control unit connector B (40P) terminals No. 29 and No. 11 and slide motor/position sensor 5P connector terminals No. 3 and No. 4 respectively.

SLIDE MOTOR/POSITION SENSOR 5P CONNECTOR
Wire side of female terminals



POWER SEAT CONTROL UNIT CONNECTOR B (40P)
Wire side of female terminals

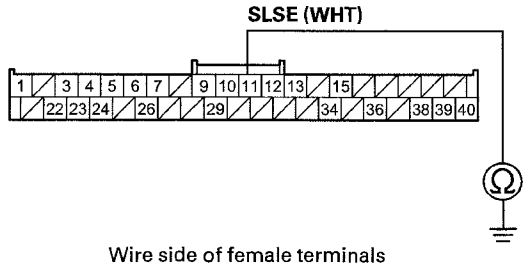
Is there continuity?

YES–Go to step 13.

NO–Repair an open in the wire.■

13. Check for continuity between body ground and power seat control unit connector B (40P) terminal No. 11.

POWER SEAT CONTROL UNIT CONNECTOR B (40P)



Wire side of female terminals

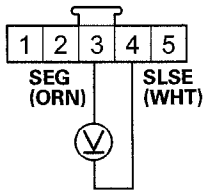
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 14.

14. Reconnect power seat control unit connector B (40P).
15. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
16. Measure the voltage between slide motor/position sensor 5P connector terminals No. 4 (+) and No. 3 (−).

SLIDE MOTOR/POSITION SENSOR 5P CONNECTOR



Wire side of female terminals

Is there about 5 V?

YES–Replace the slide motor/position sensor (see page 20-144).■

NO–If there is no voltage, replace the power seat control unit. If there is battery voltage, repair a short in the wire (sensor line).■

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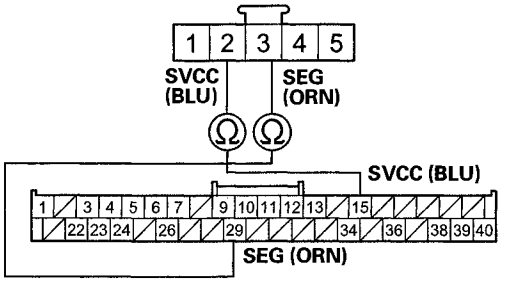
17. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
18. Disconnect power seat control unit connector B (40P).
19. Disconnect the slide motor/position sensor 5P connector.
20. Check for continuity between power seat control unit connector B (40P) terminals No. 15 and No. 29 and slide motor/position sensor 5P connector terminals No. 2 and No. 3 respectively.

SLIDE MOTOR/POSITION SENSOR 5P CONNECTOR
Wire side of female terminals



POWER SEAT CONTROL UNIT CONNECTOR B (40P)
Wire side of female terminals

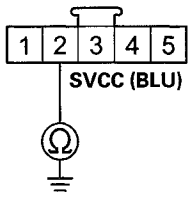
Is there continuity?

YES–Go to step 21.

NO–Repair an open in the wire.■

21. Disconnect the 5P connector from the front up-down motor/position sensor, rear up-down motor/position sensor, and recline motor/position sensor.
22. Check for continuity between body ground and slide motor/position sensor 5P connector terminal No. 2.

SLIDE MOTOR/POSITION SENSOR 5P CONNECTOR



Wire side of female terminals

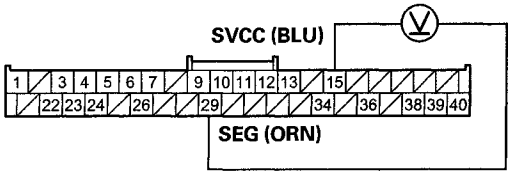
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 23.

23. Reconnect power seat control unit connector B (40P).
24. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
25. Measure the voltage between power seat control unit connector B (40P) terminals No. 15 and No. 29.

POWER SEAT CONTROL UNIT CONNECTOR B (40P)



Wire side of female terminals

Is there battery voltage when the slide switch is operated?

YES–Replace the slide motor/position sensor (see page 20-144).■

NO–Replace the power seat control unit (see page 22-492).■

(cont'd)

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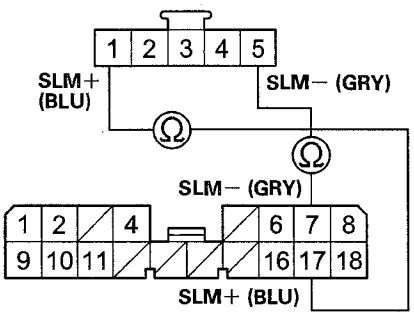
DTC Troubleshooting (cont'd)

26. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
27. Disconnect power seat control unit connector A (18P).
28. Disconnect the slide motor/position sensor 5P connector.
29. Check for continuity between power seat control unit connector A (18P) terminals No. 17 and No. 7 and slide motor/position sensor 5P connector terminals No. 1 and No. 5 respectively.

SLIDE MOTOR/POSITION SENSOR 5P CONNECTOR
Wire side of female terminals



POWER SEAT CONTROL UNIT CONNECTOR A (18P)
Wire side of female terminals

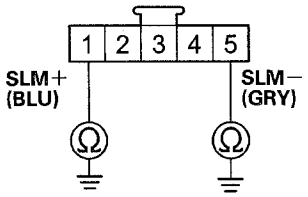
Is there continuity?

YES–Go to step 30.

NO–Repair an open in the wire.■

30. Check for continuity between body ground and slide motor/position sensor 5P connector terminals No. 1 and No. 5 individually.

SLIDE MOTOR/POSITION SENSOR 5P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 31.

31. Test the slide motor (see page 22-505).

Is the motor OK?

YES–Replace the power seat control unit (see page 22-492).■

NO–Replace the slide motor/position sensor (see page 20-144).■

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DTC B1826: Power Seat Front Up-Down Motor Pulse Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Operate the power seat adjustment switch in all directions for more than 1 second each.

   NOTE: DTC B1826 is stored when the front up-down switch is operated more than 1 second after the seat moves to the most up or down position, even when the system is OK.
4. Check for the DTCs with the HDS.

   Is DTC B1826 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Clear the DTCs with the HDS.

   Is DTC B1836 also indicated?

   YES–Go to the DTC B1836 troubleshooting.■

   NO–Go to step 6.
6. Clear the DTCs with the HDS.

   Are DTCs B1825, B1827, and/or B1828 also indicated?

   YES–Go to step 17.

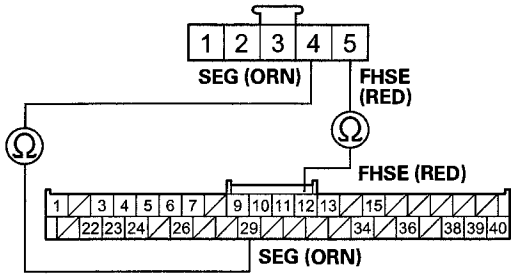
   NO–Go to step 7.
7. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
8. Operate the front up-down switch for 2 seconds, and check the front up-down motor operation.

   Does the front up-down motor run smoothly?

   YES–Go to step 9.

   NO–Go to step 26.
9. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
10. Disconnect power seat control unit connector B (40P).
11. Disconnect the front up-down motor/position sensor 5P connector.
12. Check for continuity between power seat control unit connector B (40P) terminals No. 12 and No. 29 and front up-down motor/position sensor 5P connector terminals No. 5 and No. 4 respectively.

FRONT UP-DOWN MOTOR/POSITION SENSOR 5P CONNECTOR
Wire side of female terminals



POWER SEAT CONTROL UNIT CONNECTOR B (40P)
Wire side of female terminals

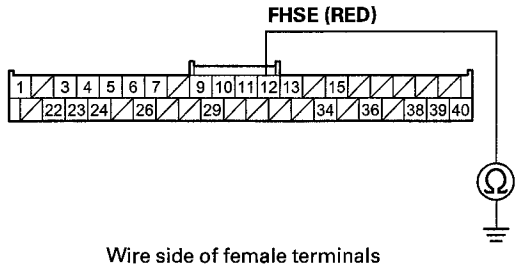
Is there continuity?

YES–Go to step 13.

NO–Repair an open in the wire.■

13. Check for continuity between body ground and power seat control unit connector B (40P) terminal No. 12.

POWER SEAT CONTROL UNIT CONNECTOR B (40P)



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 14.

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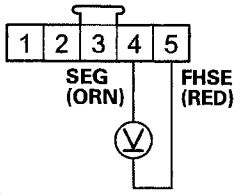
DTC Troubleshooting (cont'd)

14. Reconnect power seat control unit connector B (40P).
15. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
16. Measure the voltage between front up-down motor/position sensor 5P connector terminals No. 5 (+) and No. 4 (−).

FRONT UP-DOWN MOTOR/POSITION SENSOR 5P CONNECTOR



Wire side of female terminals

Is there about 5 V?

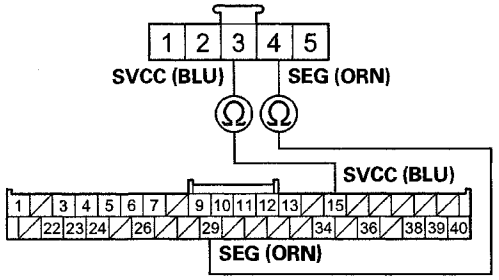
YES–Faulty the front up-down motor/position sensor, replace the seat frame assembly (see page 20-146).■

NO–If there is no voltage, replace the power seat control unit (see page 22-492). If there is battery voltage, repair a short in the wire (sensor line).■

17. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
18. Disconnect power seat control unit connector B (40P).
19. Disconnect the front up-down motor/position sensor 5P connector.
20. Check for continuity between power seat control unit connector B (40P) terminals No. 15 and No. 29 and front up-down motor/position sensor 5P connector terminals No. 3 and No. 4 respectively.

FRONT UP-DOWN MOTOR/POSITION SENSOR 5P CONNECTOR

Wire side of female terminals



POWER SEAT CONTROL UNIT CONNECTOR B (40P)
Wire side of female terminals

Is there continuity?

YES–Go to step 21.

NO–Repair an open in the wire.■

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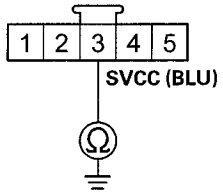
21. Disconnect the 5P connector from the slide motor/position sensor, rear up-down motor/position sensor, and recline motor/position sensor.
22. Check for continuity between body ground and front up-down motor/position sensor 5P connector terminal No. 3.

FRONT UP-DOWN MOTOR/POSITION SENSOR 5P CONNECTOR



Wire side of female terminals

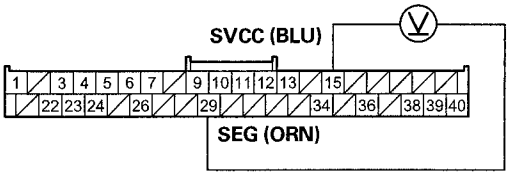
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 23.

23. Reconnect power seat control unit connector B (40P).
24. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
25. Measure the voltage between power seat control unit connector B (40P) terminals No. 15 and No. 29.

POWER SEAT CONTROL UNIT CONNECTOR B (40P)



Wire side of female terminals

Is there battery voltage when the front up-down switch is operated?

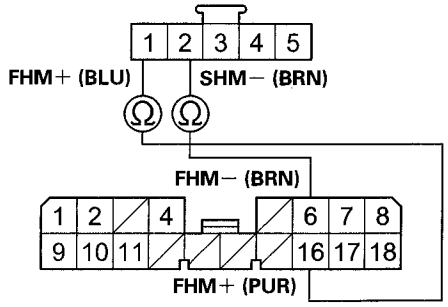
YES–Faulty the front up-down motor/position sensor, replace the seat frame assembly (see page 20-146).■

NO–Replace the power seat control unit (see page 22-492).■

26. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
27. Disconnect power seat control unit connector A (18P).
28. Disconnect the front up-down motor/position sensor 5P connector.
29. Check for continuity between power seat control unit connector A (18P) terminals No. 6 and No. 16 and front up-down motor/position sensor 5P connector terminals No. 2 and No. 1 respectively.

FRONT UP-DOWN MOTOR/POSITION SENSOR 5P CONNECTOR

Wire side of female terminals



POWER SEAT CONTROL UNIT CONNECTOR A (18P)
Wire side of female terminals

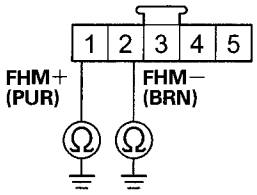
Is there continuity?

YES–Go to step 30.

NO–Repair an open in the wire.■

30. Check for continuity between body ground and front up-down motor/position sensor 5P connector terminals No. 1 and No. 2 individually.

FRONT UP-DOWN MOTOR/POSITION SENSOR 5P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 31.

(cont'd)

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DTC Troubleshooting (cont'd)

31. Test the front up-down motor (see page 22-505).

    Is the motor OK?

    YES–Replace the power seat control unit (see page 22-492).■

    NO–Faulty the front up-down motor/position sensor, replace the seat frame assembly (see page 20-146).■

DTC B1827: Power Seat Rear Up-Down Motor Pulse Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Operate the power seat adjustment switch for several seconds in each direction.

   NOTE: DTC B1827 is stored when the rear up-down switch is operated more than 1 second after the seat moves to the most up or down position, even when the system is OK.
4. Check for the DTCs with the HDS.

   Is DTC B1827 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Clear the DTCs with the HDS.

   Is DTC B1836 also indicated?

   YES–Go to the DTC B1836 troubleshooting.■

   NO–Go to step 6.
6. Clear the DTCs with the HDS.

   Are DTCs B1825, B1826, and/or B1828 also indicated?

   YES–Go to step 17.

   NO–Go to step 7.
7. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
8. Operate the rear up-down switch for 2 seconds, and check the rear up-down motor operation.

   Does the rear up-down motor run smoothly?

   YES–Go to step 9.

   NO–Go to step 26.

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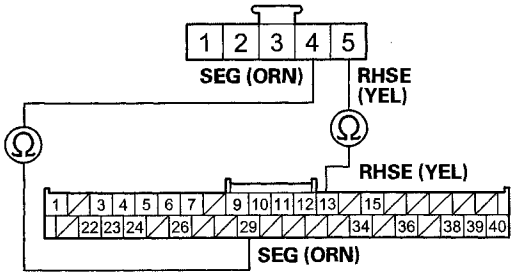
9. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
10. Disconnect power seat control unit connector B (40P).
11. Disconnect the rear up-down motor/position sensor 5P connector.
12. Check for continuity between power seat control unit connector B (40P) terminals No. 13 and No. 29 and rear up-down motor/position sensor 5P connector terminals No. 5 and No. 4 respectively.

REAR UP-DOWN MOTOR/POSITION SENSOR 5P CONNECTOR

Wire side of female terminals



POWER SEAT CONTROL UNIT CONNECTOR B (40P)

Wire side of female terminals

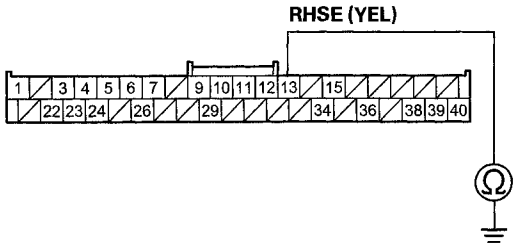
Is there continuity?

YES–Go to step 13.

NO–Repair an open in the wire.■

13. Check for continuity between body ground and power seat control unit connector B (40P) terminal No. 13.

POWER SEAT CONTROL UNIT CONNECTOR B (40P)



Wire side of female terminals

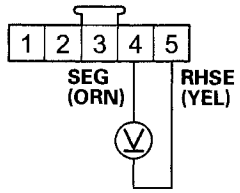
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 14.

14. Reconnect power seat control unit connector B (40P).
15. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
16. Measure the voltage between rear up-down motor/position sensor 5P connector terminals No. 5 (+) and No. 4 (−).

REAR UP-DOWN MOTOR/POSITION SENSOR 5P CONNECTOR



Wire side of female terminals

Is there about 5 V?

YES–Faulty the rear up-down motor/position sensor, replace the seat frame assembly (see page 20-146).■

NO–If there is no voltage, replace the power seat control unit (see page 22-492). If there is battery voltage, repair a short in the wire (sensor line).■

(cont'd)

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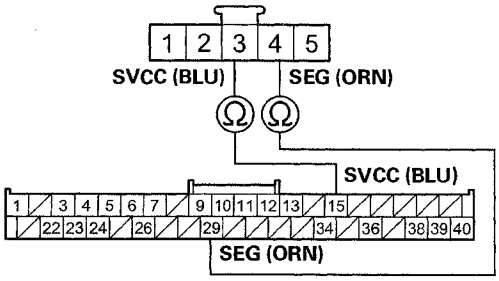
DTC Troubleshooting (cont'd)

17. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
18. Disconnect power seat control unit connector B (40P).
19. Disconnect the rear up-down motor/position sensor 5P connector.
20. Check for continuity between power seat control unit connector B (40P) terminals No. 15 and No. 29 and rear up-down motor/position sensor 5P connector terminals No. 3 and No. 4 respectively.

REAR UP-DOWN MOTOR/POSITION SENSOR 5P CONNECTOR

Wire side of female terminals



POWER SEAT CONTROL UNIT CONNECTOR B (40P)

Wire side of female terminals

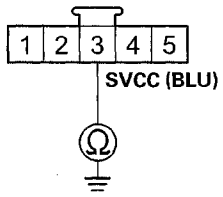
Is there continuity?

YES–Go to step 21.

NO–Repair an open in the wire.■

21. Disconnect the 5P connector from the slide motor/position sensor, front up-down motor/position sensor, and recline motor/position sensor.
22. Check for continuity between body ground and rear up-down motor/position sensor 5P connector terminal No. 3.

REAR UP-DOWN MOTOR/POSITION SENSOR 5P CONNECTOR



Wire side of female terminals

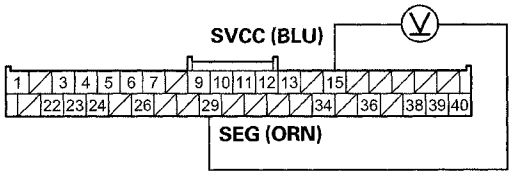
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 23.

23. Reconnect power seat control unit connector B (40P).
24. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
25. Measure the voltage between power seat control unit connector B (40P) terminals No. 15 and No. 29.

POWER SEAT CONTROL UNIT CONNECTOR B (40P)



Wire side of female terminals

Is there battery voltage when the rear up-down switch is operated?

YES–Faulty the rear up-down motor/position sensor, replace the seat frame assembly (see page 20-146).■

NO–Replace the power seat control unit (see page 22-492).■

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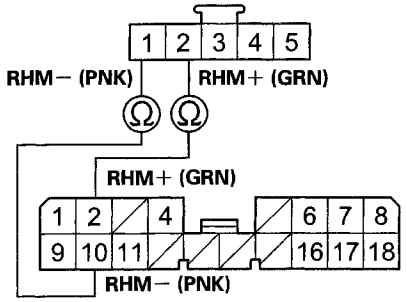
26. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
27. Disconnect power seat control unit connector A (18P).
28. Disconnect the rear up-down motor/position sensor 5P connector.
29. Check for continuity between power seat control unit connector A (18P) terminals No. 2 and No. 10 and rear up-down motor/position sensor 5P connector terminals No. 2 and No. 1 respectively.

REAR UP-DOWN MOTOR/POSITION SENSOR 5P CONNECTOR

Wire side of female terminals



POWER SEAT CONTROL UNIT CONNECTOR A (18P)
Wire side of female terminals

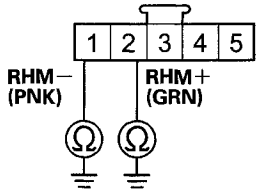
Is there continuity?

YES–Go to step 30.

NO–Repair an open in the wire.■

30. Check for continuity between body ground and rear up-down motor/position sensor 5P connector terminals No. 1 and No. 2 individually.

REAR UP-DOWN MOTOR/POSITION SENSOR 5P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 31.

31. Test the rear up-down motor (see page 22-505).

Is the motor OK?

YES–Replace the power seat control unit (see page 22-492).■

NO–Faulty the rear up-down motor/position sensor, replace the seat frame assembly (see page 20-146).■

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DTC Troubleshooting (cont'd)

DTC B1828: Power Seat Recline Motor Pulse Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Operate the power seat adjustment switch in all directions for more than 1 second each.

   NOTE: DTC B1828 is stored when the recline switch is operated more than 1 second after the seat moves to the most forward or backward position, even when the system is OK.
4. Check for the DTCs with the HDS.

   Is DTC B1828 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Clear the DTCs with the HDS.

   Is DTC B1836 also indicated?

   YES–Go to the DTC B1836 troubleshooting.■

   NO–Go to step 6.
6. Clear the DTCs with the HDS.

   Are DTCs B1825, B1826, and/or B1827 also indicated?

   YES–Go to step 18.

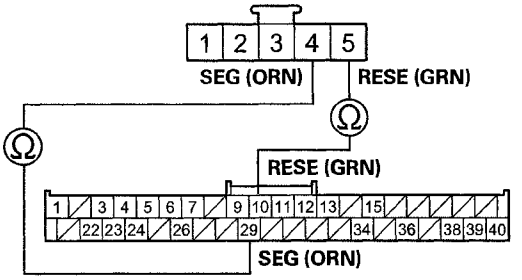
   NO–Go to step 7.
7. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
8. Operate the recline switch for 2 seconds, and check the recline motor operation.

   Does the recline motor run smoothly?

   YES–Go to step 9.

   NO–Go to step 26.
9. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
10. Disconnect power seat control unit connector B (40P).
11. Disconnect the recline motor/position sensor 5P connector.
12. Check for continuity between power seat control unit connector B (40P) terminals No. 10 and No. 29 and recline motor/position sensor 5P connector terminals No. 5 and No. 4 respectively.

RECLINE MOTOR/POSITION SENSOR 5P CONNECTOR
Wire side of female terminals



POWER SEAT CONTROL UNIT CONNECTOR B (40P)
Wire side of female terminals

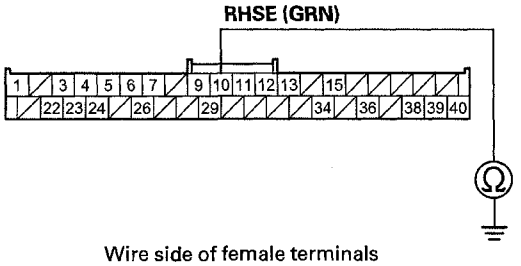
Is there continuity?

YES–Go to step 13.

NO–Repair an open in the wire.■

13. Check for continuity between body ground and power seat control unit connector B (40P) terminal No. 10.

POWER SEAT CONTROL UNIT CONNECTOR B (40P)



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 14.

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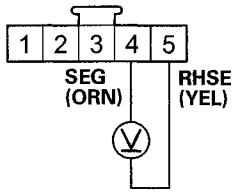
14. Reconnect power seat control unit connector B (40P).
15. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
16. Measure the voltage between recline motor/position sensor 5P connector terminals No. 5 (+) and No. 4 (−).

RECLINE MOTOR/POSITION SENSOR 5P CONNECTOR



Wire side of female terminals

Is there about 5 V?

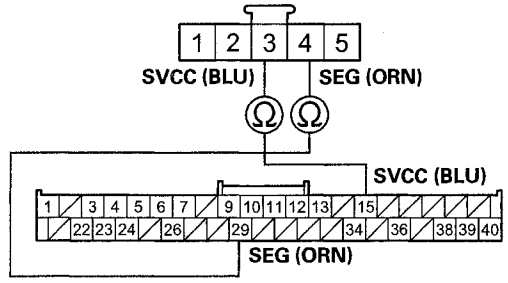
YES–Replace the recline motor/position sensor (see page 20-141).■

NO–If there is no voltage, replace the power seat control unit (see page 22-492). If there is battery voltage, repair a short in the wire (sensor line).■

17. Disconnect power seat control unit connector B (40P).
18. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
19. Disconnect the recline motor/position sensor 5P connector.
20. Check for continuity between power seat control unit connector B (40P) terminals No. 15 and No. 29 and recline motor/position sensor 5P connector terminals No. 3 and No. 4 respectively.

RECLINE MOTOR/POSITION SENSOR 5P CONNECTOR

Wire side of female terminals



POWER SEAT CONTROL UNIT CONNECTOR B (40P)
Wire side of female terminals

Is there continuity?

YES–Go to step 21.

NO–Repair an open in the wire.■

(cont'd)

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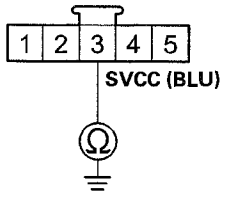
DTC Troubleshooting (cont'd)

21. Disconnect the 5P connector from the slide motor/position sensor, front up-down motor/position sensor, and rear up-down motor/position sensor.
22. Check for continuity between body ground and recline motor/position sensor 5P connector terminal No. 3.

RECLINE MOTOR/POSITION SENSOR 5P CONNECTOR



Wire side of female terminals

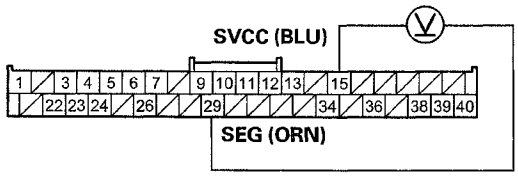
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 23.

23. Reconnect power seat control unit connector B (40P).
24. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.
25. Measure the voltage between power seat control unit connector B (40P) terminals No. 15 and No. 29.

POWER SEAT CONTROL UNIT CONNECTOR B (40P)



Wire side of female terminals

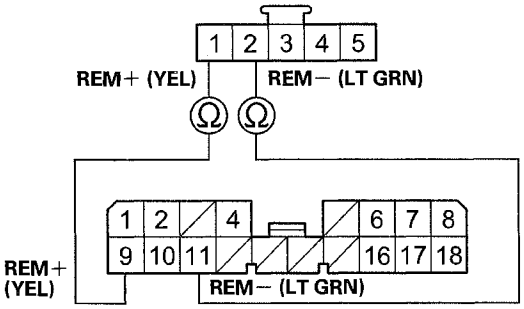
Is there battery voltage when the recline switch is operated?

YES–Replace the recline motor/position sensor (see page 20-141).■

NO–Replace the power seat control unit (see page 22-492).■

26. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
27. Disconnect power seat control unit connector A (18P).
28. Disconnect the recline motor/position sensor 5P connector.
29. Check for continuity between power seat control unit connector A (18P) terminals No. 9 and No. 11 and recline motor/position sensor 5P connector terminals No. 1 and No. 2 respectively.

RECLINE MOTOR/POSITION SENSOR 5P CONNECTOR
Wire side of female terminals



POWER SEAT CONTROL UNIT CONNECTOR A (18P)
Wire side of female terminals

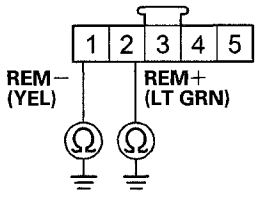
Is there continuity?

YES–Go to step 30.

NO–Repair an open in the wire.■

30. Check for continuity between body ground and recline motor/position sensor 5P connector terminals No. 1 and No. 2 individually.

RECLINE MOTOR/POSITION SENSOR 5P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 31.

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31. Test the recline motor (see page 22-505).

Is the motor OK?

YES–Replace the power seat control unit (see page 22-492).■

NO–Replace the recline motor/position sensor (see page 20-141).■

DTC B1829: A/T P Signal and VSP Signal Have an Illegal Combination

NOTE:

- If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).
- Check for DTCs with the HDS.

1. Clear the DTCs with the HDS.
2. Start the engine.
3. Test drive at 6 mph (10 km/h) for 10 seconds.
4. Check for the DTCs with the HDS.

   Is DTC B1829 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Check the P shift position indicator and the MIL.

   Does the P indicator and MIL come on?

   YES–Troubleshoot the automatic transmission system.■

   NO–Go to step 6.
6. Check for the gauge control module DTCs with the HDS.

   Are any DTCs indicated?

   YES–Go to the indicated DTC's troubleshooting.■

   NO–Replace the power seat control unit (see page 22-492).■

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DTC Troubleshooting (cont'd)

DTC B1830: Left Mirror Position Sensor Malfunction

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

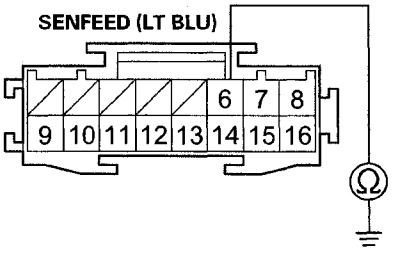
1. Clear the DTC with the HDS.
2. Turn the ignition switch to LOCK (0), and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Operate the left power mirror in each direction with the power mirror switch.
4. Check for DTCs with the HDS.

   Is DTC B1830 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time.■
5. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
6. Remove the driver's door panel (see page 20-9).
7. Disconnect the power mirror control unit 24P connector.
8. Disconnect the left power mirror 16P connectors.
9. Check for continuity between body ground and left power mirror connector (16P) terminal No. 6.

LEFT POWER MIRROR CONNECTOR (16P)



Terminal side of male terminals

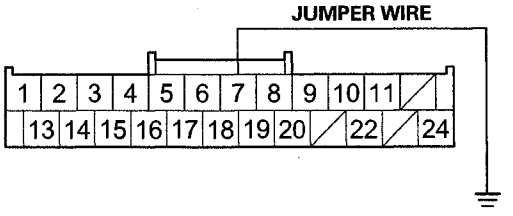
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 10.

10. Connect power mirror control unit connector (24P) terminal No. 7 to body ground with a jumper wire.

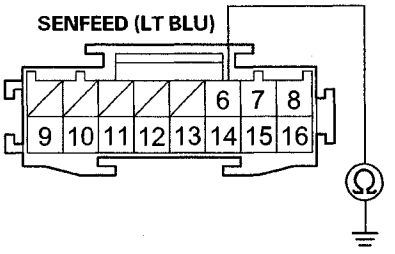
POWER MIRROR CONTROL UNIT CONNECTOR (24P)



Wire side of female terminals

11. Check for continuity between body ground and left power mirror connector (16P) terminal No. 6.

LEFT POWER MIRROR CONNECTOR (16P)



Terminal side of male terminals

Is there continuity?

YES–Go to step 12.

NO–Repair an open in the wire.■

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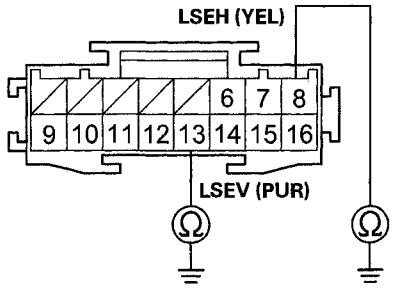
12. Check for continuity between body ground and left power mirror connector (16P) terminals No. 8 and No. 13.

LEFT POWER MIRROR CONNECTOR (16P)



Terminal side of male terminals

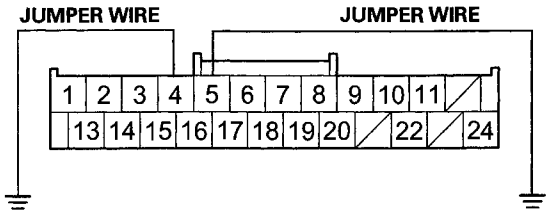
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 13.

13. Connect power mirror control unit connector (24P) terminals No. 4 and No. 5 to body ground with jumper wires.

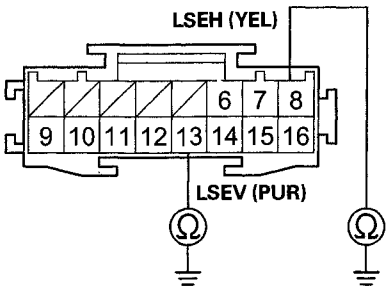
POWER MIRROR CONTROL UNIT CONNECTOR (24P)



Wire side of female terminals

14. Check for continuity between body ground and left power mirror connector (16P) terminals No. 8 and No. 13.

LEFT POWER MIRROR CONNECTOR (16P)



Terminal side of male terminals

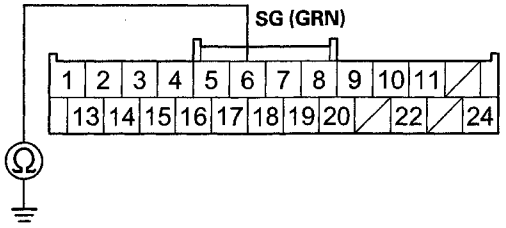
Is there continuity?

YES–Go to step 15.

NO–Repair an open in the wire.■

15. Check for continuity between body ground and power mirror control unit connector (24P) terminal No. 6.

POWER MIRROR CONTROL UNIT CONNECTOR (24P)



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 16.

(cont'd)

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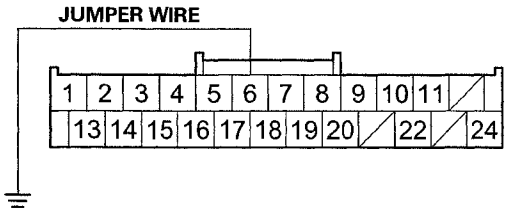
DTC Troubleshooting (cont'd)

16. Connect power mirror control unit connector (24P) terminal No. 6 to body ground with a jumper wire.

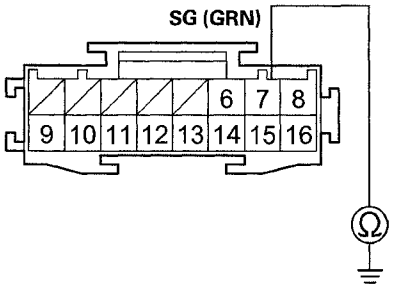
POWER MIRROR CONTROL UNIT CONNECTOR (24P)



Wire side of female terminals

17. Check for continuity between body ground and left power mirror connector (16P) terminal No. 7.

LEFT POWER MIRROR CONNECTOR (16P)



Terminal side of male terminals

Is there continuity?

YES–Go to step 18.

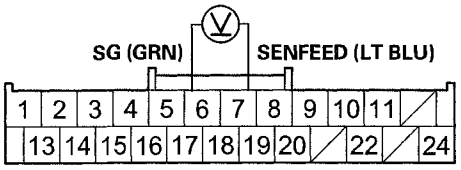
NO–Repair an open in the wire.■

18. Reconnect the power mirror control unit connector (24P).

19. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.

20. Measure the voltage between power mirror control unit connector (24P) terminals No. 6 and No. 7.

POWER MIRROR CONTROL UNIT CONNECTOR (24P)



Wire side of female terminals

Is there about 5 V?

YES–Faulty left power mirror position sensor; replace the power mirror actuator (see page 22-398).■

NO–Substitute a known-good power mirror control unit, and recheck. If DTC is gone, the original power mirror control unit is faulty; replace it (see page 22-497).■

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DTC B1832: Right Mirror Position Sensor Malfunction

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

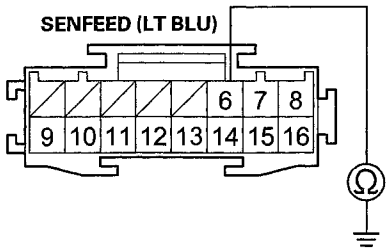
1. Clear the DTC with the HDS.
2. Turn the ignition switch to LOCK (0), and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Operate the right power mirror in each direction with the power mirror switch.
4. Check for DTCs with the HDS.

   Is DTC B1832 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time.■
5. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
6. Remove the front passenger's door panel (see page 20-9).
7. Disconnect the power mirror control unit 24P connector.
8. Disconnect the right power mirror 16P connectors.
9. Check for continuity between body ground and right power mirror connector (16P) terminal No. 6.

RIGHT POWER MIRROR CONNECTOR (16P)



Terminal side of male terminals

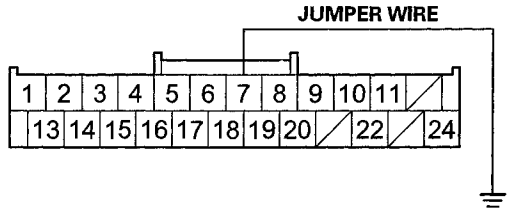
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 10.

10. Connect power mirror control unit connector (24P) terminal No. 7 to body ground with a jumper wire.

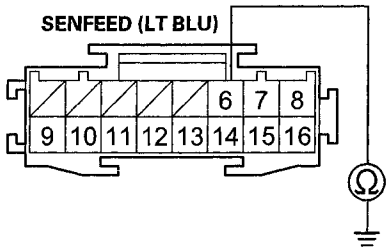
POWER MIRROR CONTROL UNIT CONNECTOR (24P)



Wire side of female terminals

11. Check for continuity between body ground and right power mirror connector (16P) terminal No. 6.

RIGHT POWER MIRROR CONNECTOR (16P)



Terminal side of male terminals

Is there continuity?

YES–Go to step 12.

NO–Repair an open in the wire.■

(cont'd)

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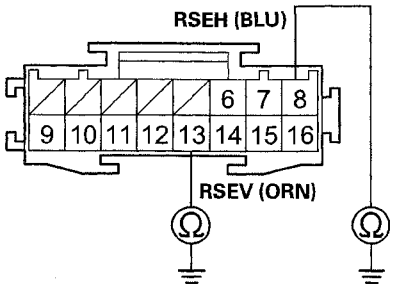
DTC Troubleshooting (cont'd)

12. Check for continuity between body ground and right power mirror connector (16P) terminals No. 8 and No. 13.

RIGHT POWER MIRROR CONNECTOR (16P)



Terminal side of male terminals

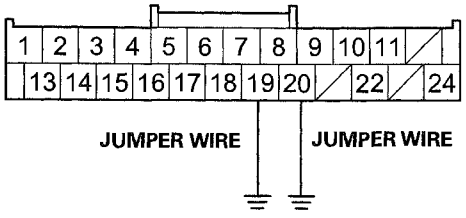
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 13.

13. Connect power mirror control unit connector (24P) terminals No. 19 and No. 20 to body ground with jumper wires.

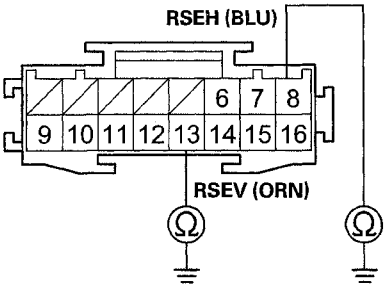
POWER MIRROR CONTROL UNIT CONNECTOR (24P)



Wire side of female terminals

14. Check for continuity between body ground and right power mirror connector (16P) terminals No. 8 and No. 13.

RIGHT POWER MIRROR CONNECTOR (16P)



Terminal side of male terminals

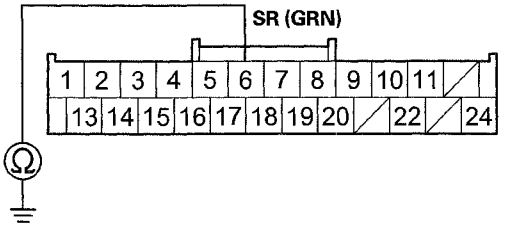
Is there continuity?

YES–Go to step 15.

NO–Repair an open in the wire.■

15. Check for continuity between power mirror control unit connector (24P) terminal No. 6 and body ground.

POWER MIRROR CONTROL UNIT CONNECTOR (24P)



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 16.

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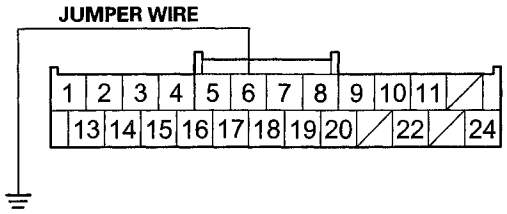
16. Connect power mirror control unit connector (24P) terminal No. 6 to body ground with a jumper wire.

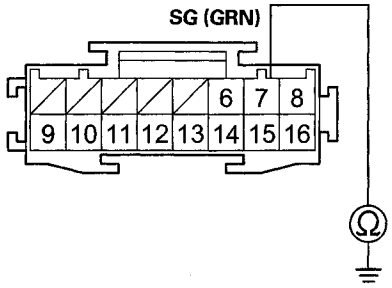
POWER MIRROR CONTROL UNIT CONNECTOR (24P)



Wire side of female terminals

17. Check for continuity between body ground and right power mirror connector (16P) terminal No. 7.

RIGHT POWER MIRROR CONNECTOR (16P)



Terminal side of male terminals

Is there continuity?

YES–Go to step 18.

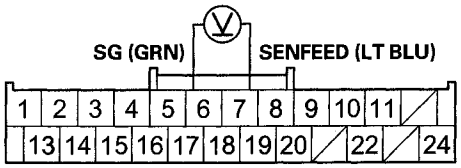
NO–Repair an open in the wire.■

18. Reconnect the power mirror control unit connector (24P).

19. Turn the ignition switch to ON (II), or press the engine start/stop button to select the ON mode.

20. Measure the voltage between power mirror control unit connector (24P) terminals No. 6 and No. 7.

POWER MIRROR CONTROL UNIT CONNECTOR (24P)



Wire side of female terminals

Is there about 5 V?

YES–Faulty right power mirror position sensor; replace the power mirror actuator (see page 22-398).■

NO–Substitute a known-good power mirror control unit, and recheck. If DTC is gone, the original power mirror control unit is faulty; replace it (see page 22-497).■

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DTC Troubleshooting (cont'd)

DTC B1836: Power Seat Position Sensor Circuit Short

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

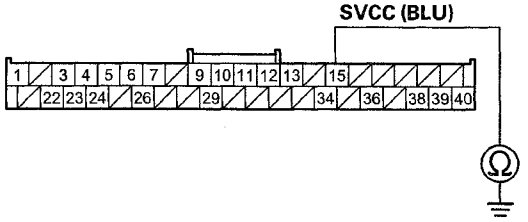
1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Operate the power seat adjustment switch in all directions for more than 1 second each.
4. Check for DTCs with the HDS.

   Is DTC B1836 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
6. Disconnect power seat control unit connector B (40P).
7. Disconnect the 5P connector from each motor.
8. Check for continuity between body ground and power seat control unit connector B (40P) terminal No. 15.

POWER SEAT CONTROL UNIT CONNECTOR B (40P)



Wire side of female terminals

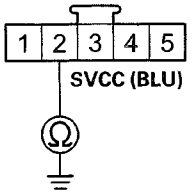
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 9.

9. Check for continuity between body ground (motor body) and terminal No. 2 of the slide motor/position sensor.

SLIDE MOTOR/POSITION SENSOR 5P CONNECTOR



Wire side of female terminals

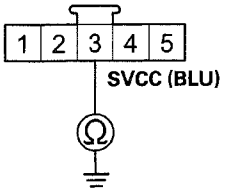
Is there continuity?

YES–Repair or replace the slide motor/position sensor (see page 20-144).■

NO–Go to step 10.

10. Check for continuity between body ground (motor body) and terminal No. 3 of the front up-down motor/position sensor, rear up-down motor/position sensor, and recline motor/position sensor.

FRONT UP-DOWN MOTOR/POSITION SENSOR 5P CONNECTOR
REAR UP-DOWN MOTOR/POSITION SENSOR 5P CONNECTOR
RECLINE MOTOR/POSITION SENSOR 5P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–If the front or rear up-down motor/position sensor is faulty, replace the seat frame assembly. If the recline motor/position sensor is faulty, replace the recline motor/position sensor.■

NO–Replace the power seat control unit (see page 22-492).■

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DTC B1837: Memory Position Delay

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTC with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Move the power seat to the full front up and full rear up positions, then slide the seat all the way back and completely recline the seat-back backward with the power seat adjustment switch.
4. Put this seating position into memory with the driving position memory switch (see page 22-452).
5. Using the power seat switches, move the seat away from the position just memorized.
6. Recall the memory position with the driving position memory switch.
7. Wait for 3 minutes.
8. Check for DTCs with the HDS.

   Are any DTCs indicated?

   YES–Go to step 9.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
9. Check for DTCs with the HDS.

   Are any DTCs other than B1837 indicated?

   YES–Go to the indicated DTC's troubleshooting.■

   NO–Go to step 10.
10. Clear the DTCs with the HDS.
11. Wait for 6 seconds.
12. Move each power seat motor one at a time, and check the operation time.

    Does any motor fail to run smoothly?

    YES–Go to the power seat motor test (see page 22-505). If the motor is OK, check the engagement of the motor gear.■

    NO–Go to the power seat control unit input test (see page 22-492).■

DTC B1843: UART Communication Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

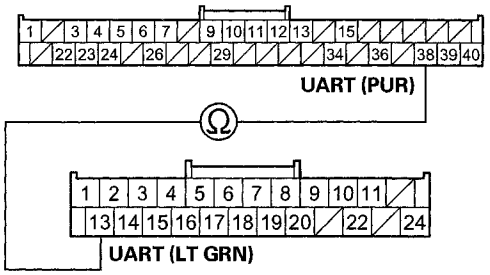
1. Clear the DTC with the HDS.
2. Turn the ignition switch to LOCK (0), and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Operate the power seat with the driving position memory switch.
4. Check for DTCs with the HDS.

   Is DTC B1843 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time.■
5. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
6. Disconnect the power seat control unit connectors and power mirror control unit connector (24P).
7. Check for continuity between power seat control unit connector B (40P) terminal No. 38 and power mirror control unit connector (24P) terminal No. 13.

POWER SEAT CONTROL UNIT CONNECTOR B (40P)
Wire side of female terminals



POWER MIRROR CONTROL UNIT CONNECTOR (24P)
Wire side of female terminals

Is there continuity?

YES–Go to step 8.

NO–Repair an open in the wire between the power mirror control unit connector (24P) and power seat control unit connector B (40P).■

(cont'd)

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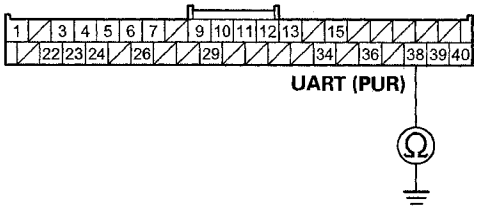
DTC Troubleshooting (cont'd)

8. Check for continuity between body ground and power seat control unit connector B (40P) terminal No. 38.

POWER SEAT CONTROL UNIT CONNECTOR B (40P)



Wire side of female terminals

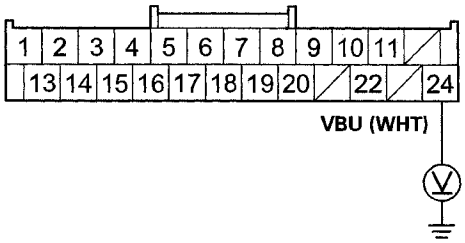
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 9.

9. Measure the voltage between body ground and power mirror control unit connector (24P) terminal No. 24.

POWER MIRROR CONTROL UNIT CONNECTOR (24P)



Wire side of female terminals

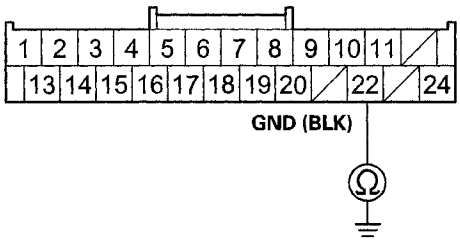
Is there battery voltage?

YES–Go to step 10.

NO–Check No. 15 (10 A) fuse in the under-hood fuse/relay box. If the fuse is OK, repair an open in the wire.■

10. Check for continuity between body ground and power mirror control unit connector (24P) terminal No. 22.

POWER MIRROR CONTROL UNIT CONNECTOR (24P)



Wire side of female terminals

Is there continuity?

YES–Repair an open in the wire between the power mirror control unit and G401. If the wire is OK, repair G401.■

NO–Replace the power mirror control unit (see page 22-497).■

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DTC B1844: Power Seat Slide Switch Circuit Malfunction

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

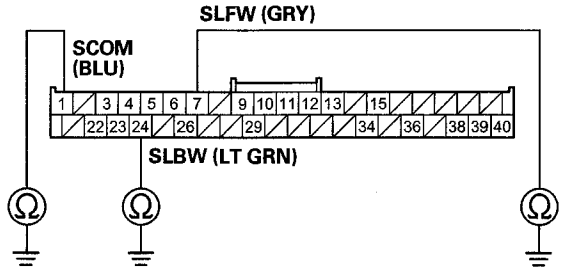
1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Operate the slide switch in each direction for more than 1 second.
4. Check for DTCs with the HDS.

   Is DTC B1844 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
6. Disconnect power seat control unit connector B (40P).
7. Disconnect the power seat adjustment switch 12P connector.
8. Check for continuity between body ground and power seat control unit connector B (40P) terminals No. 1, No. 7, and No. 24 individually.

POWER SEAT CONTROL UNIT CONNECTOR B (40P)



Wire side of female terminals

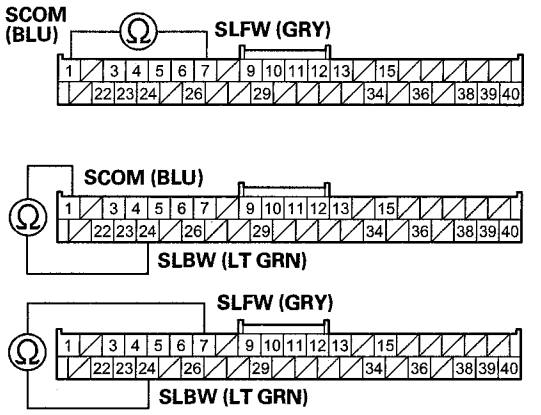
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 9.

9. Check for continuity between these power seat control unit connector B (40P) terminals:
   - No. 1 and No. 7
   - No. 1 and No. 24
   - No. 7 and No. 24

POWER SEAT CONTROL UNIT CONNECTOR B (40P)



Wire side of female terminals

Is there continuity?

YES–Repair a short in the wire(s).■

NO–Go to step 10.

10. Test the power seat adjustment switch (see page 22-504).

    Is the switch OK?

    YES–Replace the power seat control unit (see page 22-492).■

    NO–Replace the power seat adjustment switch (see page 22-504).■

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DTC Troubleshooting (cont'd)

DTC B1845: Power Seat Recline Switch Circuit Malfunction

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

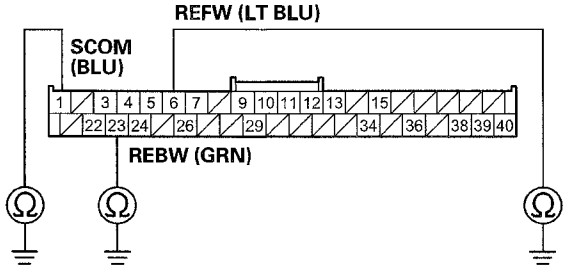
1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Operate the recline switch in each direction for more than 1 second.
4. Check for DTCs with the HDS.

   Is DTC B1845 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
6. Disconnect power seat control unit connector B (40P).
7. Disconnect the power seat adjustment switch 12P connector.
8. Check for continuity between body ground and power seat control unit connector B (40P) terminals No. 1, No. 6, and No. 23 individually.

POWER SEAT CONTROL UNIT CONNECTOR B (40P)



Wire side of female terminals

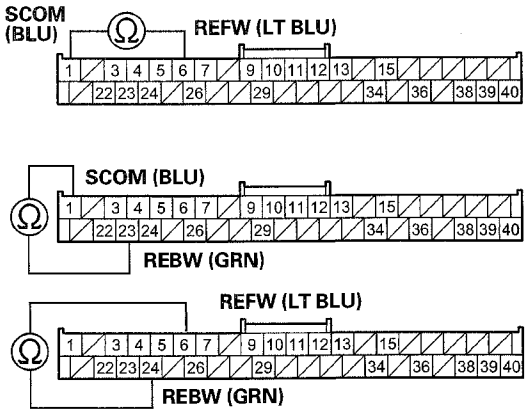
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 9.

9. Check for continuity between these power seat control unit connector B (40P) terminals:
   - No. 1 and No. 6
   - No. 1 and No. 23
   - No. 6 and No. 23

POWER SEAT CONTROL UNIT CONNECTOR B (40P)



Wire side of female terminals

Is there continuity?

YES–Repair a short in the wire.■

NO–Go to step 10.

10. Test the power seat adjustment switch (see page 22-504).

    Is the switch OK?

    YES–Replace the power seat control unit (see page 22-492).■

    NO–Replace the power seat adjustment switch (see page 22-504).■

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DTC B1846: Power Seat Front Up-Down Switch Circuit Malfunction

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

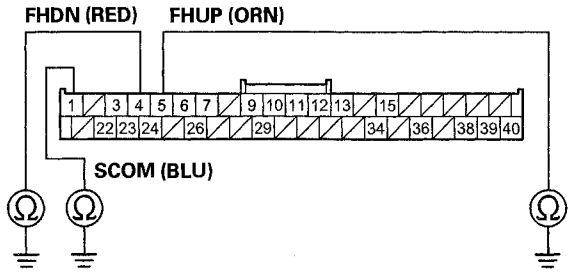
1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Operate the front up-down switch in each direction for more than 1 second.
4. Check for DTCs with the HDS.

   Is DTC B1846 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
6. Disconnect power seat control unit connector B (40P).
7. Disconnect the power seat adjustment switch 12P connector.
8. Check for continuity between body ground and power seat control unit connector B (40P) terminals No. 1, No. 4, and No. 5 individually.

POWER SEAT CONTROL UNIT CONNECTOR B (40P)



Wire side of female terminals

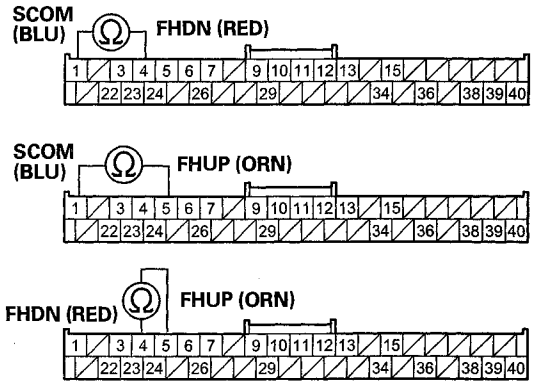
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 9.

9. Check for continuity between these power seat control unit connector B (40P) terminals:
   - No. 1 and No. 4
   - No. 1 and No. 5
   - No. 4 and No. 5

POWER SEAT CONTROL UNIT CONNECTOR B (40P)



Wire side of female terminals

Is there continuity?

YES–Repair a short in the wire.■

NO–Go to step 10.

10. Test the power seat adjustment switch (see page 22-504).

    Is the switch OK?

    YES–Replace the power seat control unit (see page 22-492).■

    NO–Replace the power seat adjustment switch (see page 22-504).■

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DTC Troubleshooting (cont'd)

DTC B1847: Power Seat Rear Up-Down Switch Circuit Malfunction

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

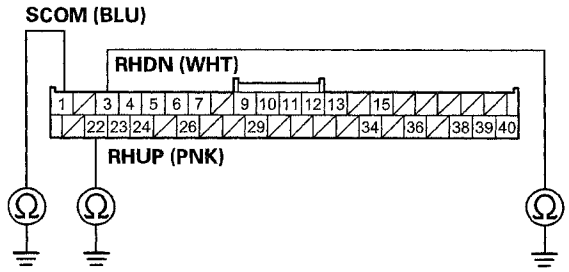
1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Operate the rear up-down switch in each direction for more than 1 second.
4. Check for DTCs with the HDS.

   Is DTC B1847 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
6. Disconnect power seat control unit connector B (40P).
7. Disconnect the power seat adjustment switch 12P connector.
8. Check for continuity between body ground and power seat control unit connector B (40P) terminals No. 1, No. 3, and No. 22 individually.

POWER SEAT CONTROL UNIT CONNECTOR B (40P)



Wire side of female terminals

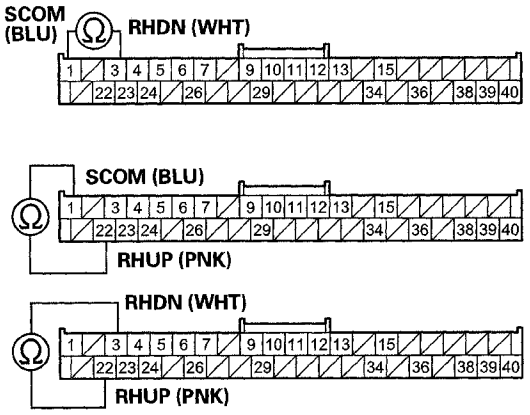
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 9.

9. Check for continuity between these power seat control unit connector B (40P) terminals:
   - No. 1 and No. 3
   - No. 1 and No. 22
   - No. 3 and No. 22

POWER SEAT CONTROL UNIT CONNECTOR B (40P)



Wire side of female terminals

Is there continuity?

YES–Repair a short in the wire.■

NO–Go to step 10.

10. Test the power seat adjustment switch (see page 22-504).

    Is the switch OK?

    YES–Replace the power seat control unit (see page 22-492).■

    NO–Replace the power seat adjustment switch (see page 22-504).■

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DTC U0155: Lost Communication With Gauge Control Module (VSP/NE Frame)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U0155 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections between the power seat control unit and the gauge control module.■

5. From the BODY ELECTRICAL system select menu, select UNIT INFORMATION, and then select CONNECTED UNITS.

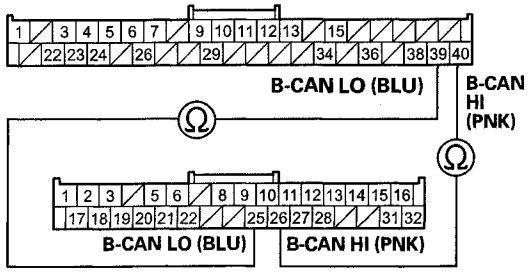
   Is the gauge control module detected?

   YES–Go to the power seat control unit input test (see page 22-492).■

   NO–Go to step 6.

6. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
7. Disconnect the gauge control module 32P connector.
8. Disconnect power seat control unit connector B (40P).
9. Check for continuity between power seat control unit connector B (40P) terminals No. 39 and No. 40 and gauge control module 32P connector terminals No. 25 and No. 26 respectively.

POWER SEAT CONTROL UNIT CONNECTOR B (40P)
Wire side of female terminals



GAUGE CONTROL MODULE 32P CONNECTOR
Wire side of female terminals

Is there continuity?

YES–Replace the gauge control module (see page 22-367).■

NO–An open or poor connection in the wire between the gauge control module and the power seat control unit.■

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DTC Troubleshooting (cont'd)

DTC U0199: Lost Communication With P/W (DRLockSW Frame)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U0199 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections between the power seat control unit and the door multiplex control unit.■

5. From the BODY ELECTRICAL system select menu, select UNIT INFORMATION, and then select CONNECTED UNITS.

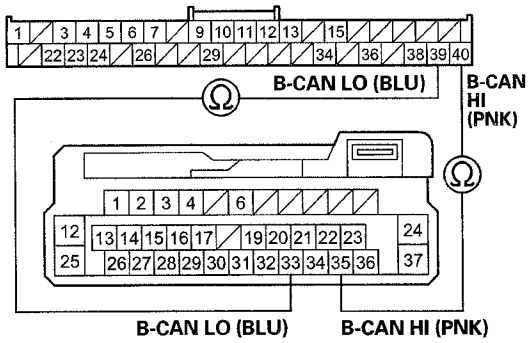
   Is the power window master switch (door multiplex control unit) detected?

   YES–Go to the power seat control unit input test (see page 22-492).■

   NO–Go to step 6.

6. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
7. Disconnect the door multiplex control unit 37P connector.
8. Disconnect power seat control unit connector B (40P).
9. Check for continuity between power seat control unit connector B (40P) terminals No. 39 and No. 40 and door multiplex control unit 37P connector terminals No. 33 and No. 35 individually.

POWER SEAT CONTROL UNIT CONNECTOR B (40P)
Wire side of female terminals



DOOR MULTIPLEX CONTROL UNIT 37P CONNECTOR
Wire side of female terminals

Is there continuity?

YES–Replace the door multiplex control unit (see page 22-309).■

NO–An open or poor connection in the wire between the door multiplex control unit and the power seat control unit.■

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DTC U1282: Lost Communication With Driver's MICU

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II), or press the engine start/stop button to select the OFF mode and then the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U1282 indicated?

   YES–Go to the power seat control unit input test (see page 22-492).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections between the power seat control unit and the driver's MICU.■

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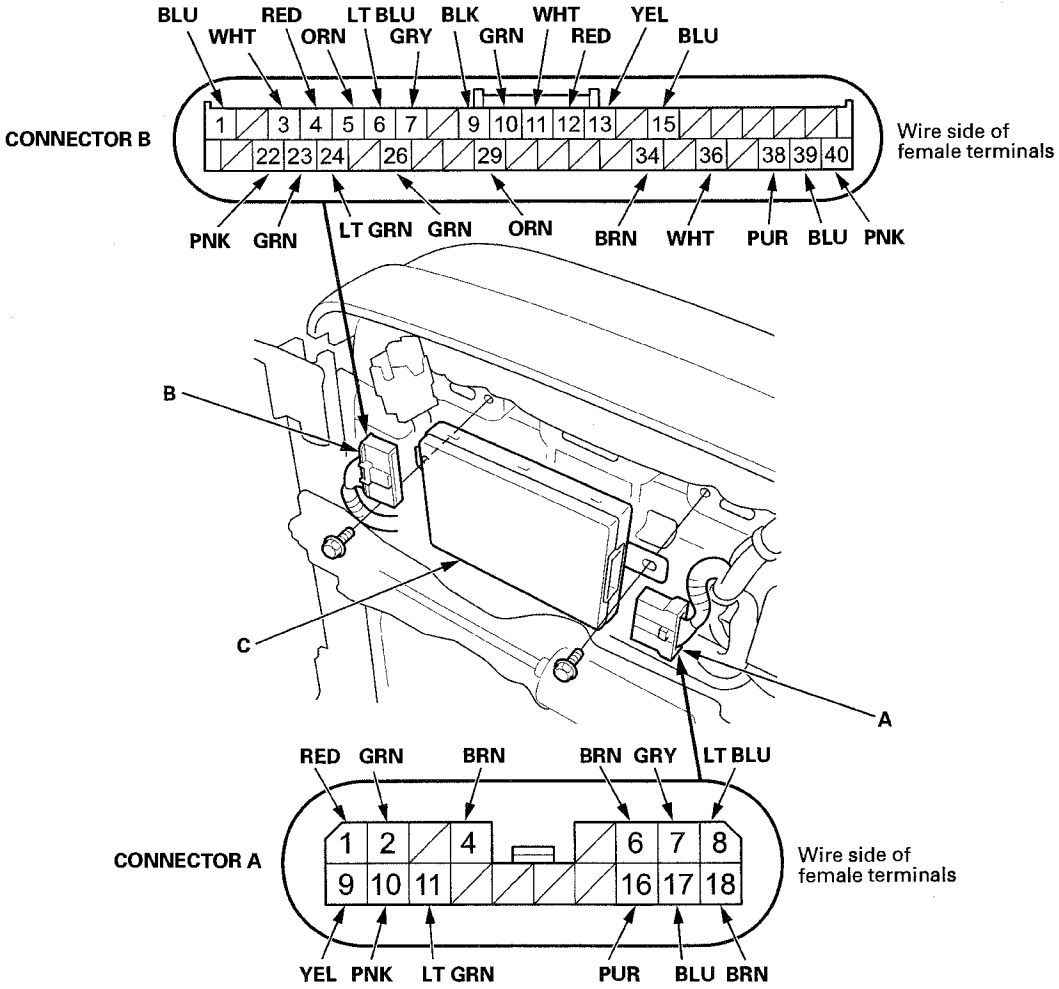
Power Seat Control Unit Input Test/Replacement

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
2. Remove the driver's seat (see page 20-139).

   NOTE: Be careful not to scratch the interior trim.
3. Disconnect the 18P connector (A) and 40P connector (B) from the power seat control unit (C).



4. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary and recheck the system.
   - If the terminals look OK, go to step 5.

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5. Reconnect the connectors to the power seat control unit, and do these input tests at the following connectors.
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 6.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
B34	BRN	Ignition switch ON (II), or power mode ON	Measure the voltage to ground: There should be battery voltage.	• Blown No. 12 (7.5 A) fuse in the driver's under-dash fuse/relay box • An open or high resistance in the wire
B36	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
A1	RED	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 3-4 (DR F/B) (60 A) fuse in the under-hood fuse/relay box • Blown No. 21 (20 A) fuse in the driver's under-dash fuse/relay box • An open or high resistance in the wire
A8	LT BLU	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 3-4 (DR F/B) (60 A) fuse in the under-hood fuse/relay box • Blown No. 19 (20 A) fuse in the driver's under-dash fuse/relay box • An open or high resistance in the wire
B9	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G701) or an open in the ground wire • An open or high resistance in the wire
A4	BRN	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G701) or an open in the ground wire • An open or high resistance in the wire
A18	BRN	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G701) or an open in the ground wire • An open or high resistance in the wire
B26 (A/T)	GRN	Shift lever in P position	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G101) or an open in the ground wire • Faulty transmission range switch • An open or high resistance in the wire
		Shift lever in any other position than P	Measure the voltage to ground: There should be about 5 V.	• Faulty transmission range switch • A short to ground in the wire
B26 (M/T)	GRN	Ignition switch ON (II), or power mode ON, parking brake lever pulled	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty parking brake switch • An open or high resistance in the wire
		Ignition switch ON (II), or power mode ON, parking brake lever released	Measure the voltage to ground: There should be about 5 V.	• Faulty parking brake switch • A short to ground in the wire
B15	BLU	Run the power seat motors	Measure the voltage to ground: There should be at least about 10 V.	• Faulty position sensor • A short to ground in the wire

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Power Seat Control Unit Input Test/Replacement (cont'd)

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
B10 · B29	GRN · ORN	Run the recline motor	Measure the voltage between terminals B10 (+) and B29 (−): There should be about 2.5 V average.	• Faulty position sensor • An open or high resistance in the wire • A short to ground in the wire
B11 · B29	WHT · ORN	Run the slide motor	Measure the voltage between terminals B11 (+) and B29 (−): There should be about 2.5 V average.	• Faulty position sensor • An open or high resistance in the wire • A short to ground in the wire
B12 · B29	RED · ORN	Run the front up-down motor	Measure the voltage between terminals B12 (+) and B29 (−): There should be about 2.5 V average.	• Faulty position sensor • An open or high resistance in the wire • A short to ground in the wire
B13 · B29	YEL · ORN	Run the rear up-down motor	Measure the voltage between terminals B13 (+) and B29 (−): There should be about 2.5 V average.	• Faulty position sensor • An open or high resistance in the wire • A short to ground in the wire
B1 · B7	BLU · GRY	Slide switch in FORWARD position	Measure the voltage between the terminals: There should be less then 0.2 V.	• Faulty driver's power seat adjustment switch • An open or high resistance in the wire
B1 · B24	BLU · LT GRN	Slide switch in BACKWARD position	Measure the voltage between the terminals: There should be less then 0.2 V.	• Faulty driver's power seat adjustment switch • An open or high resistance in the wire
B1 · B6	BLU · LT BLU	Recline switch in FORWARD position	Measure the voltage between the terminals: There should be less then 0.2 V.	• Faulty driver's power seat adjustment switch • An open or high resistance in the wire
B1 · B23	BLU · GRN	Recline switch in BACKWARD position	Measure the voltage between the terminals: There should be less then 0.2 V.	• Faulty driver's power seat adjustment switch • An open or high resistance in the wire
B1 · B5	BLU · ORN	Front up-down switch in UP position	Measure the voltage between the terminals: There should be less then 0.2 V.	• Faulty driver's power seat adjustment switch • An open or high resistance in the wire
B1 · B4	BLU · RED	Front up-down switch in DOWN position	Measure the voltage between the terminals: There should be less then 0.2 V.	• Faulty driver's power seat adjustment switch • An open or high resistance in the wire
B1 · B22	BLU · PNK	Rear up-down switch in UP position	Measure the voltage between the terminals: There should be less then 0.2 V.	• Faulty driver's power seat adjustment switch • An open or high resistance in the wire
B1 · B3	BLU · WHT	Rear up-down switch in DOWN position	Measure the voltage between the terminals: There should be less then 0.2 V.	• Faulty driver's power seat adjustment switch • An open or high resistance in the wire

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6. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode, then disconnect the connectors from the power seat control unit, and do these input tests at the following connectors.
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, the control unit must be faulty; replace it.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
B39	BLU	Under all conditions (disconnect the door multiplex control unit 37P connector)	Check for continuity between terminal B39 and door multiplex control unit 37P connector terminal No. 33: There should be continuity.	An open in the B-CAN wire
		Under all conditions (disconnect the immobilizer-keyless control unit 7P connector)	Check for continuity between terminal B39 and immobilizer-keyless control unit 7P connector terminal No. 3: There should be continuity.	An open in the B-CAN wire
B40	PNK	Under all conditions (disconnect the door multiplex control unit 37P connector)	Check for continuity between terminal B40 and door multiplex control unit 37P connector terminal No. 35: There should be continuity.	An open in the B-CAN wire
		Under all conditions (disconnect the immobilizer-keyless control unit 7P connector)	Check for continuity between terminal B40 and immobilizer-keyless control unit 7P connector terminal No. 4: There should be continuity.	An open in the B-CAN wire
B38	PUR	Disconnect the power mirror control unit 24P connector	Check for continuity between terminal B38 and power mirror control unit 24P connector terminal No. 13: There should be continuity.	An open in the UART wire
A7 . A17	GRY . BLU	Under all conditions	Connect terminals A1 and A7, and terminals A17 and A4: The seat should slide backward.	• Faulty slide motor • An open or high resistance in the wire
			Connect terminals A1 and A17, and terminals A7 and A4: The seat should slide forward.	
A9 . A11	YEL . LT GRN	Under all conditions	Connect terminals A1 and A9, and terminals A11 and A4: The seat should recline forward.	• Faulty recline motor • An open or high resistance in the wire
			Connect terminals A1 and A11, and terminals A9 and A4: The seat should recline backward.	
A6 . A16	BRN . PUR	Under all conditions	Connect terminals A1 and A6, and terminals A16 and A4: The front of seat should move down.	• Faulty front up-down motor • An open or high resistance in the wire
			Connect terminals A1 and A16, and terminals A6 and A4: The front of seat should move up.	

(cont'd)

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Power Seat Control Unit Input Test/Replacement (cont'd)

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
A2 . A10	GRN . PNK	Under all conditions	Connect terminals A1 and A2, and terminals A10 and A4: The rear of seat should move up.	• Faulty rear up-down motor • An open or high resistance in the wire
			Connect terminals A1 and A10, and terminals A2 and A4: The rear of seat should move down.	

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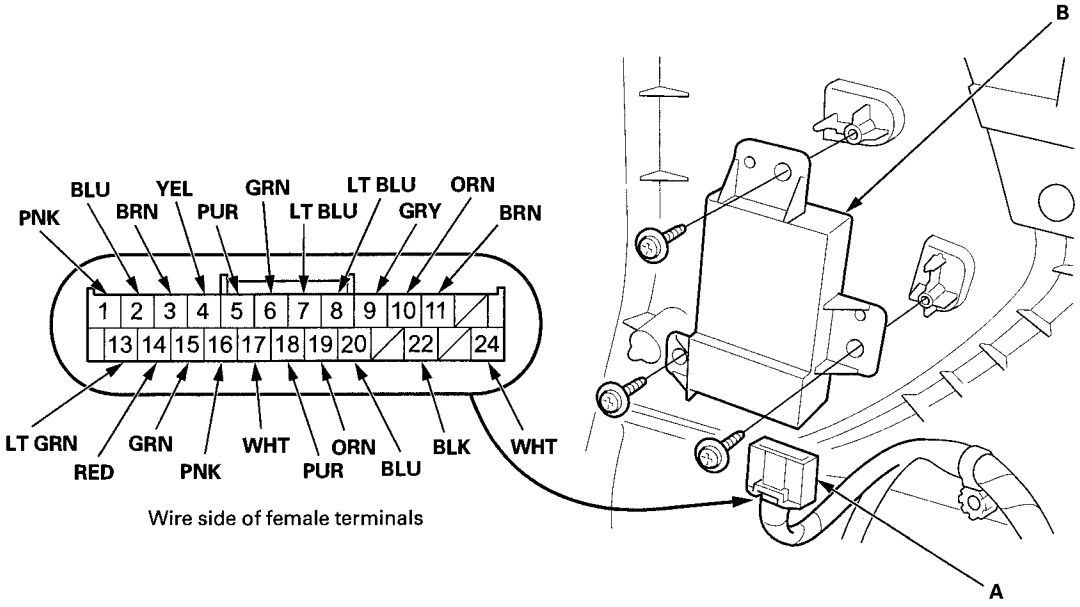
Power Mirror Control Unit Input Test/Replacement

NOTE: Before troubleshooting the DPMS, troubleshoot the multiplex integrated control system first using B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
2. Remove the driver's door panel (see page 20-9).
3. Disconnect the 24P connector (A) from the power mirror control unit (B).



4. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
   - If the terminals look OK, go to step 5.

(cont'd)

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Power Mirror Control Unit Input Test/Replacement (cont'd)

5. Reconnect the connector to the power mirror control unit, and do these input tests at the following connector.
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 6.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
11	BRN	Ignition switch ON (II), or power mode ON	Measure the voltage to ground: There should be battery voltage.	• Blown No. 12 (7.5 A) fuse in the driver's under-dash fuse/relay box • An open or high resistance in the wire
24	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
22	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) an open in the ground wire • An open or high resistance in the wire
1 · 2	PNK · BLU	Ignition switch ON (II), or power mode ON, and mirror select switch in LEFT, then mirror down switch pressed	Measure the voltage to ground: There should be battery voltage.	• Blown No. 16 (7.5 A) fuse in the driver's under-dash fuse/relay box • Faulty power mirror switch • An open or high resistance in the wire
8 · 9	LT BLU · GRY	Ignition switch ON (II), or power mode ON, and mirror select switch in RIGHT, then mirror down switch pressed	Measure the voltage to ground: There should be battery voltage.	• Blown No. 16 (7.5 A) fuse in the driver's under-dash fuse/relay box • Faulty power mirror switch • An open or high resistance in the wire
10	ORN	Ignition switch ON (II), or power mode ON, and mirror select switch in LEFT or RIGHT, then mirror up switch pressed	Measure the voltage to ground: There should be battery voltage.	• Blown No. 16 (7.5 A) fuse in the driver's under-dash fuse/relay box • Faulty power mirror switch • An open or high resistance in the wire
7	LT BLU	Move left or right mirrors	Measure the voltage to ground: There should be about 5 V.	• Faulty mirror position sensor • A short to ground in the wire
4 · 6	YEL · GRN	Swing the left mirror from full left to full right	Measure the voltage between terminals No. 4 and No. 6: There should be about 0.5 V to 4.5 V (about 2.5 V).	• Faulty left mirror position sensor • An open or high resistance in the wire • A short to ground in the wire
5 · 6	PUR · GRN	Move the left mirror from full up to full down	Measure the voltage between terminals No. 5 and No. 6: There should be about 0.5 V to 4.5 V (about 2.5 V).	• Faulty left mirror position sensor • An open or high resistance in the wire • A short to ground in the wire
20 · 6	BLU · GRN	Swing the right mirror from full left to full right	Measure the voltage between terminals No. 20 and No. 6: There should be about 0.5 V to 4.5 V (about 2.5 V).	• Faulty right mirror position sensor • An open or high resistance in the wire • A short to ground in the wire
19 · 6	ORN · GRN	Move the right mirror from full up to full down	Measure the voltage between terminals No. 19 and No. 6: There should be about 0.5 V to 4.5 V (about 2.5 V).	• Faulty right mirror position sensor • An open or high resistance in the wire • A short to ground in the wire

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6. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode, then disconnect the connectors from the power mirror control unit, and do these input tests at the following connectors.
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, the control unit must be faulty; replace it.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
13	LT GRN	Disconnect power seat control unit B (40P) connector	Check for continuity between terminal No. 13 (LT GRN) and power seat control unit B (40P) connector terminal No. 38 (PUR): There should be continuity.	An open or high resistance in the wire
14 . 15	RED . GRN	Under all conditions	Connect terminals No. 14 and No. 24, and terminals No. 15 and No. 22: The left mirror should move up.	• Faulty left mirror actuator • An open or high resistance in the wire
			Connect terminals No. 15 and No. 24, and terminals No. 14 and No. 22: The left mirror should move down.	
15 . 16	GRN . PNK	Under all conditions	Connect terminals No. 15 and No. 24, and terminals No. 16 and No. 22: The left mirror should swing left.	• Faulty left mirror actuator • An open or high resistance in the wire
			Connect terminals No. 16 and No. 24, and terminals No. 15 and No. 22: The left mirror should swing right.	
3 . 17	BRN . WHT	Under all conditions	Connect terminals No. 3 and No. 24, and terminals No. 17 and No. 22: The right mirror should move up.	• Faulty right mirror actuator • An open or high resistance in the wire
			Connect terminals No. 17 and No. 24, and terminals No. 3 and No. 22: The right mirror should move down.	
17 . 18	WHT . PUR	Under all conditions	Connect terminals No. 17 and No. 24, and terminals No. 18 and No. 22: The right mirror should swing left.	• Faulty right mirror actuator • An open or high resistance in the wire
			Connect terminals No. 18 and No. 24, and terminals No. 17 and No. 22: The right mirror should swing right.	

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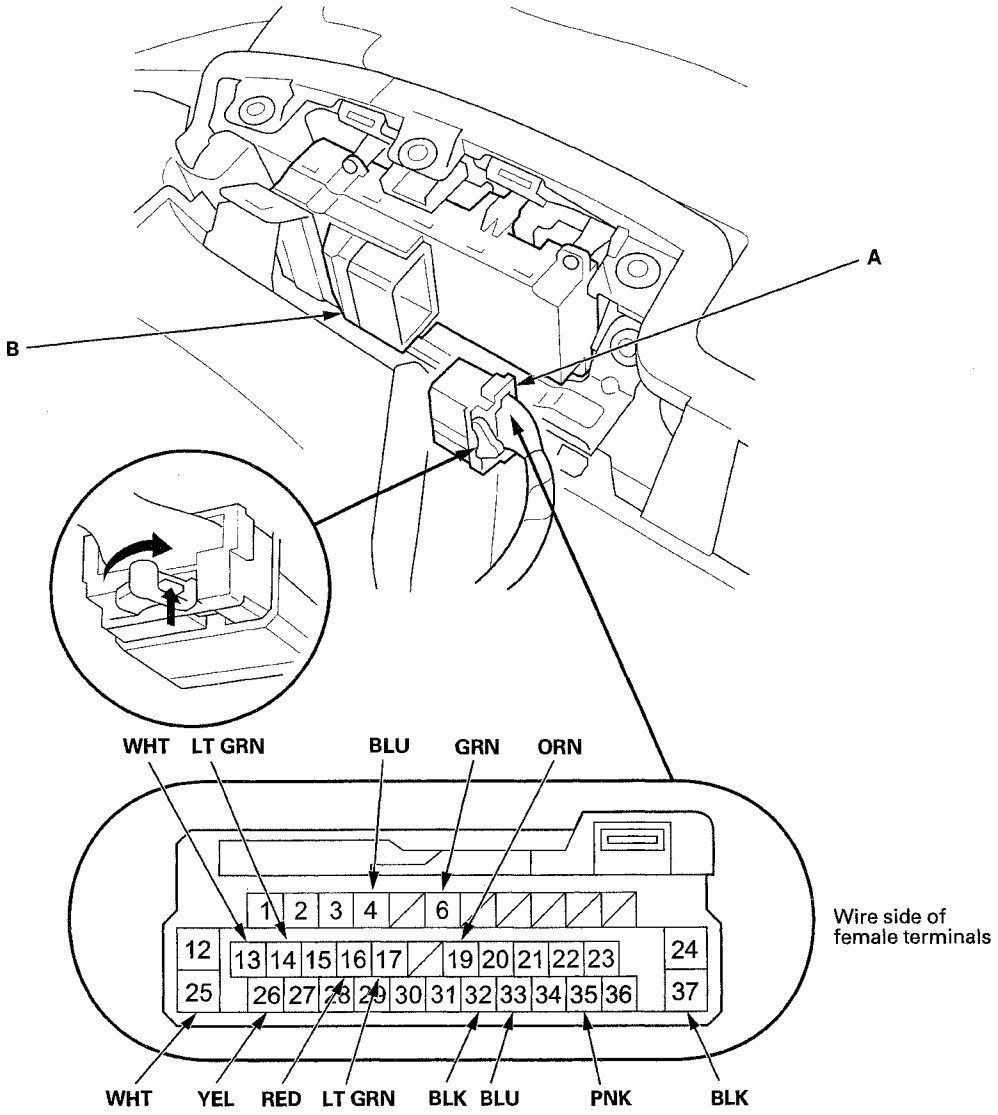
Door Multiplex Control Unit Input Test

1. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode.
2. Remove the driver's door panel (see page 20-9).
3. Disconnect the 37P connector (A) from the power window master switch (B).



4. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
   - If the terminals look OK, go to step 5.

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5. Reconnect the connector to the power window master switch, and do these input tests at the following connector.
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 6.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
13	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
14	LT GRN	Ignition switch ON (II), or ignition mode ON	Measure the voltage to ground: There should be battery voltage.	• Blown No. 16 (7.5 A) fuse in the driver's under-dash fuse/relay box • An open or high resistance in the wire
25	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 3-4 (DR F/B) (60 A) fuse in the under-hood fuse/relay box • Blown No. 24 (20 A) fuse in the driver's under-dash fuse/relay box • An open or high resistance in the wire
32	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
37	BLK	In all ignition switch positions or all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
16	RED	Ignition switch ON (II), or ignition mode ON, position 2 switch pressed	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • Faulty driving position memory switch • An open or high resistance in the wire
		Ignition switch ON (II), or ignition mode ON, position 2 switch released	Measure the voltage to ground: There should be about 5 V.	• Faulty driving position memory switch • A short to ground in the wire
17	LT GRN	Ignition switch ON (II), or ignition mode ON, position 1 switch pressed	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • Faulty driving position memory switch • An open or high resistance in the wire
		Ignition switch ON (II), or ignition mode ON, position 1 switch released	Measure the voltage to ground: There should be about 5 V.	• Faulty driving position memory switch • A short to ground in the wire
19	ORN	Ignition switch ON (II), or ignition mode ON, SET switch pressed	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G401) or an open in the ground wire • Faulty driving position memory switch • An open or high resistance in the wire
		Ignition switch ON (II), or ignition mode ON, SET switch released	Measure the voltage to ground: There should be about 5 V.	• Faulty driving position memory switch • A short to ground in the wire

(cont'd)

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Door Multiplex Control Unit Input Test (cont'd)

6. Turn the ignition switch to LOCK (0), or press the engine start/stop button to select the OFF mode, then disconnect the connector from the power window master switch, and do these input tests at the following connector.
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, the door multiplex control unit must be faulty; replace the power window master switch.

   NOTE: After replacing the power window master switch, reset the power window control unit (see page 22-284).

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
4	BLU	Under all conditions	Connect terminals No. 13 and No. 4: The driving position memory switch indicator 2 should come on.	• Faulty driving position memory switch • Faulty LED • Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
6	GRN	Under all conditions	Connect terminals No. 13 and No. 6: The driving position memory switch indicator 1 should come on.	• Faulty driving position memory switch • Faulty LED • Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
26	YEL	Under all conditions	Connect terminals No. 13 and No. 26: The driving position memory switch lights should come on.	• Faulty driving position memory switch • Faulty LED • Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
33	BLU	Under all conditions (disconnect the power seat control unit connector B (40P))	Check for continuity between terminal No. 33 and power seat control unit connector B (40P) terminal No. 39: There should be continuity.	An open or high resistance in the wire
35	PNK	Under all conditions (disconnect the power seat control unit connector B (40P))	Check for continuity between terminal No. 35 and power seat control unit connector B (40P) terminal No. 40: There should be continuity.	An open or high resistance in the wire

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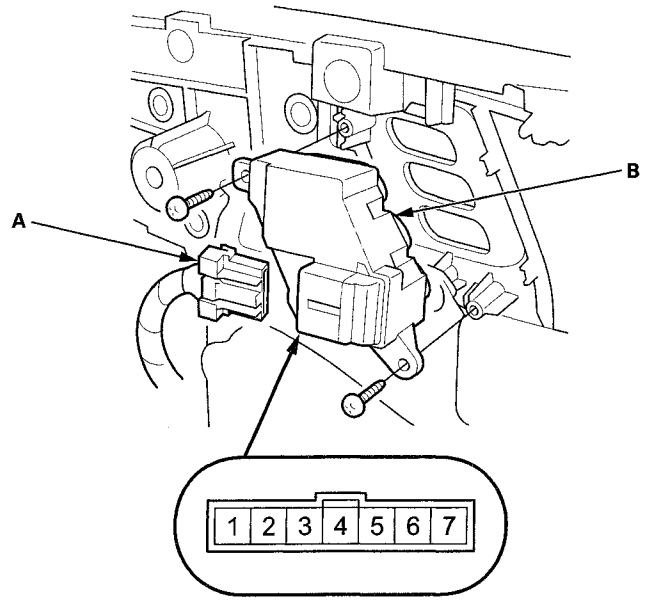
Driving Position Memory Switch Test/Replacement

1. Remove the driver's door panel (see page 20-9).
2. Disconnect the 7P connector (A) from the driver's position memory switch (B).



3. Remove the two screws, then remove the switch from the door panel.
4. Check for continuity between the terminals in each switch position according to the table.

Position \ Terminal		1	2	3	4	5		6	7
SET button	OFF								
	ON			○				○	
Position 1 button	OFF								
	ON	○						○	
Position 2 button	OFF								
	ON		○					○	
Indicator 1					⊕		⊖	⊖	
Indicator 2						⊕	⊖	⊖	
Lights								⊖	⊕

5. If the continuity is not as specified, replace the switch.

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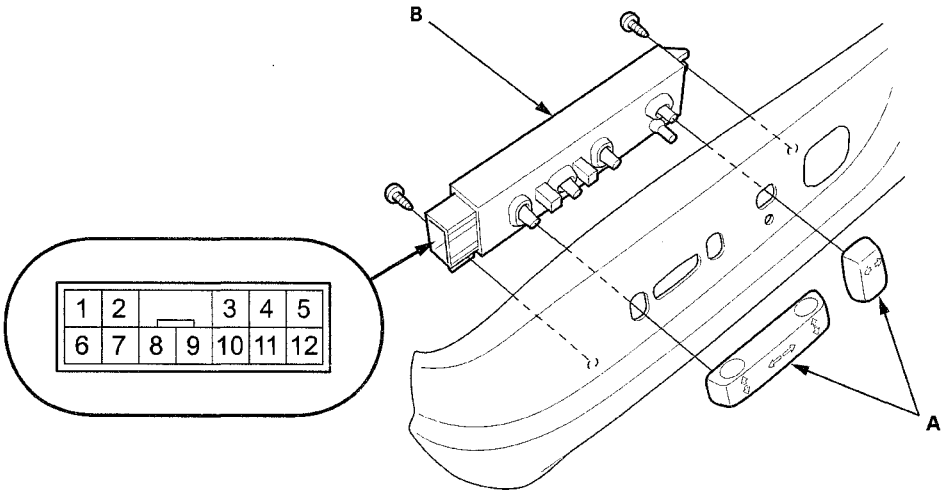
Power Seat Adjustment Switch Test/Replacement

1. Remove the driver's seat (see page 20-139).
2. Remove the power seat adjustment switch knobs (A) and the recline cover from the driver's seat (see page 20-152), then remove the two screws and the power seat adjustment switch (B).



3. Disconnect the 12P connector from the power seat adjustment switch.
4. Reinstall the adjustment switch knobs to the switch.
5. Check for continuity between the terminals in each position according to the table.

Position \ Terminal		1	2	3	4	5	6	7	8	9	10	11	12
SLIDE SWITCH	Forward								○			○	
	Backward							○	○				
RECLINE SWITCH	Forward		○										○
	Backward		○				○						
FRONT UP-DOWN SWITCH	UP			○					○				
	DOWN								○	○			
REAR UP-DOWN SWITCH	UP	○	○										
	DOWN		○			○							

6. If the continuity is not as specified, replace the switch.

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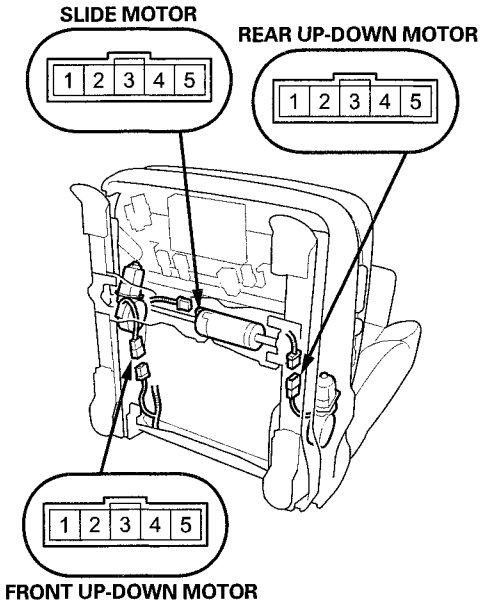
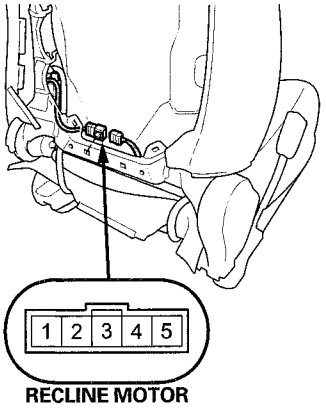
Driver's Power Seat Motor Test

1. Remove the driver's seat (see page 20-139).
2. Disconnect the connector from each power seat motor.

   NOTE:
   - For the recline motor, remove the seat-back cover (see page 20-148).
   - All connectors are terminal side of male terminals.





3. Test each motor by connecting power and ground according to the table. When the motor stops running, disconnect battery power immediately.

Position \ Terminal		1	5
SLIDE MOTOR	Forward	⊕	⊖
	Backward	⊖	⊕

Position \ Terminal		1	2
RECLINE MOTOR	Forward	⊕	⊖
	Backward	⊖	⊕

Position \ Terminal		1	2
FRONT UP-DOWN MOTOR	UP	⊕	⊖
	DOWN	⊖	⊕

Position \ Terminal		1	2
REAR UP-DOWN MOTOR	UP	⊖	⊕
	DOWN	⊕	⊖

4. If the motor does not run or fails to run smoothly, replace:
   - Slide motor (see page 20-144)
   - Front up-down motor (see page 20-146)
   - Rear up-down motor (see page 20-146)
   - Recline motor (see page 20-141)

   NOTE: The front and rear up-down motors are part of the seat frame.

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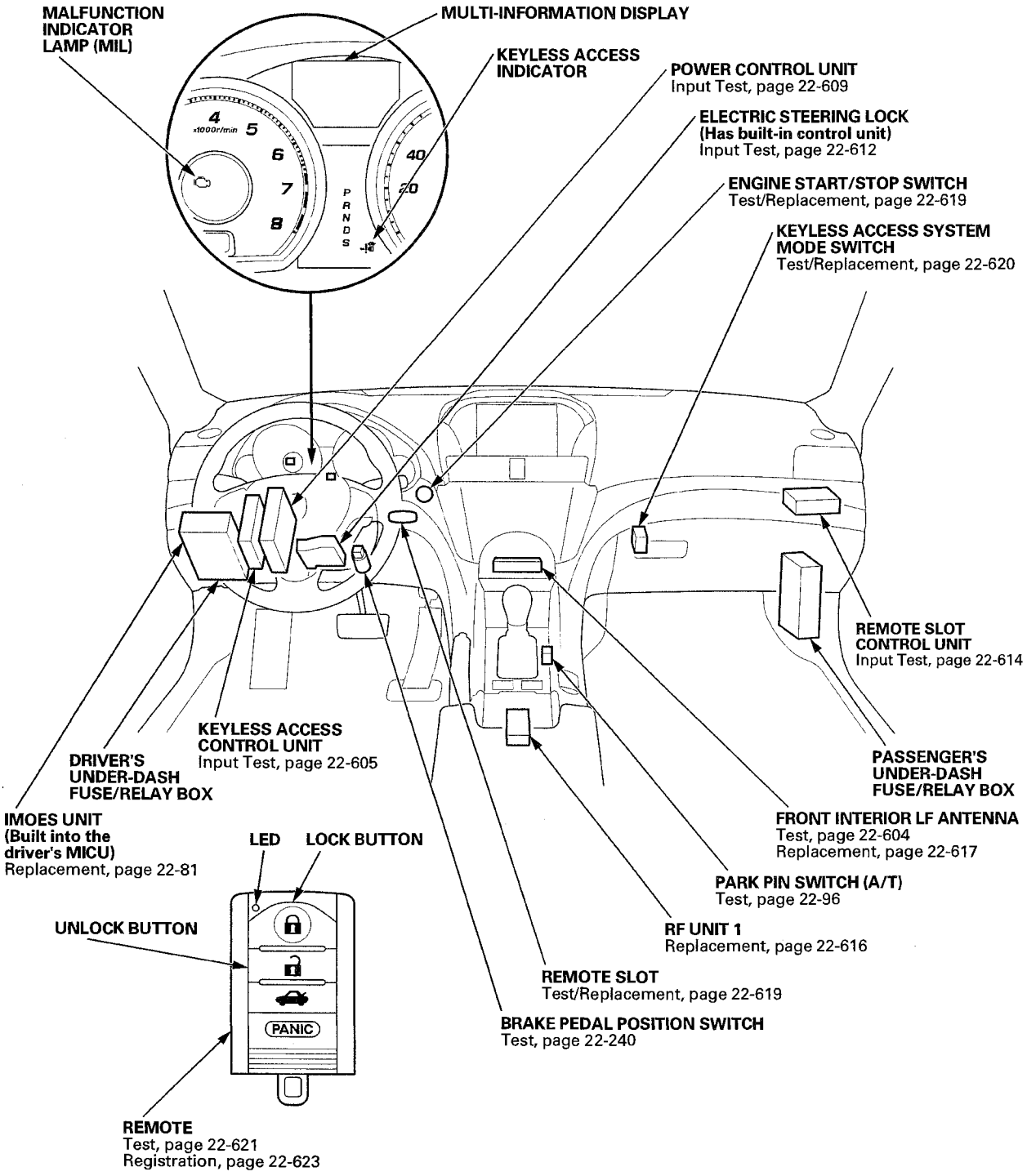
Keyless Access System

Component Location Index



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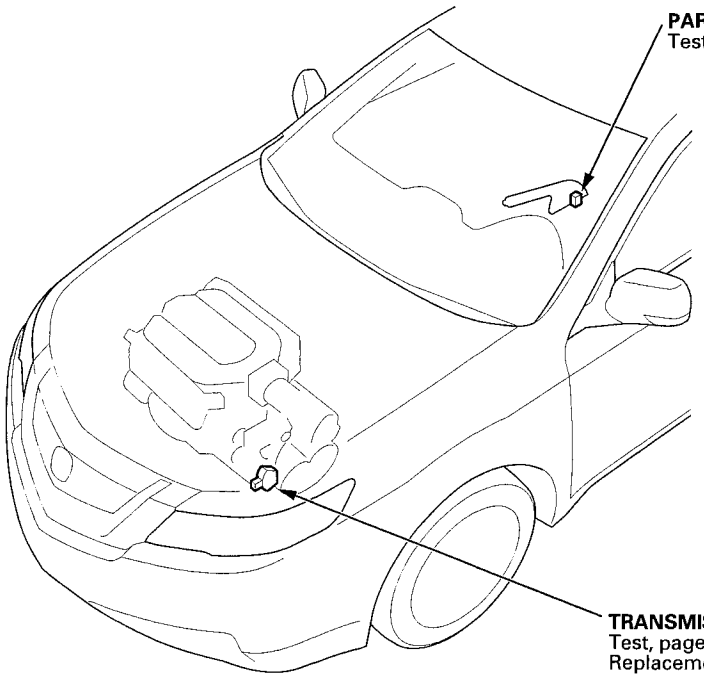

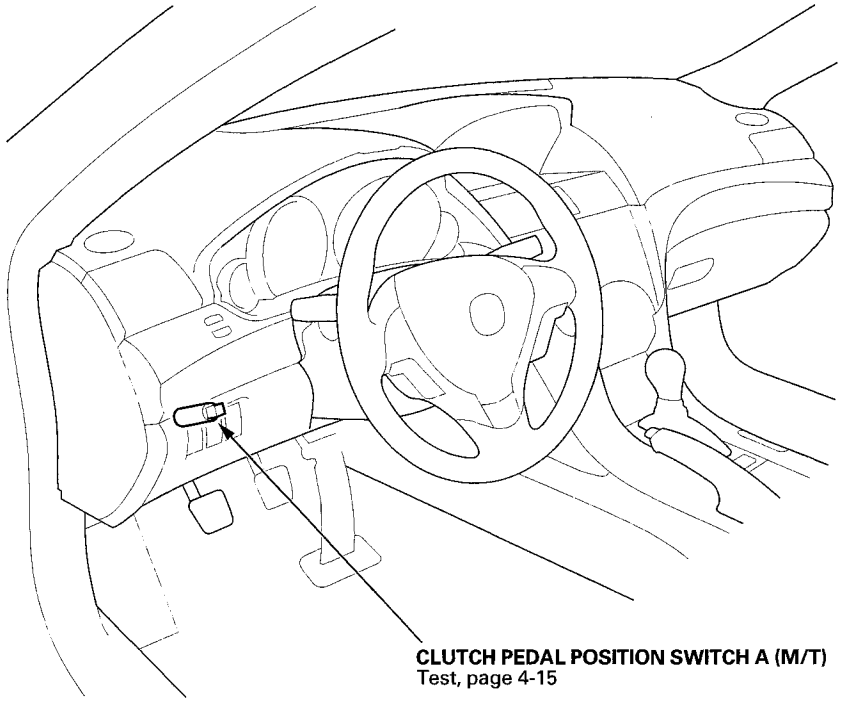

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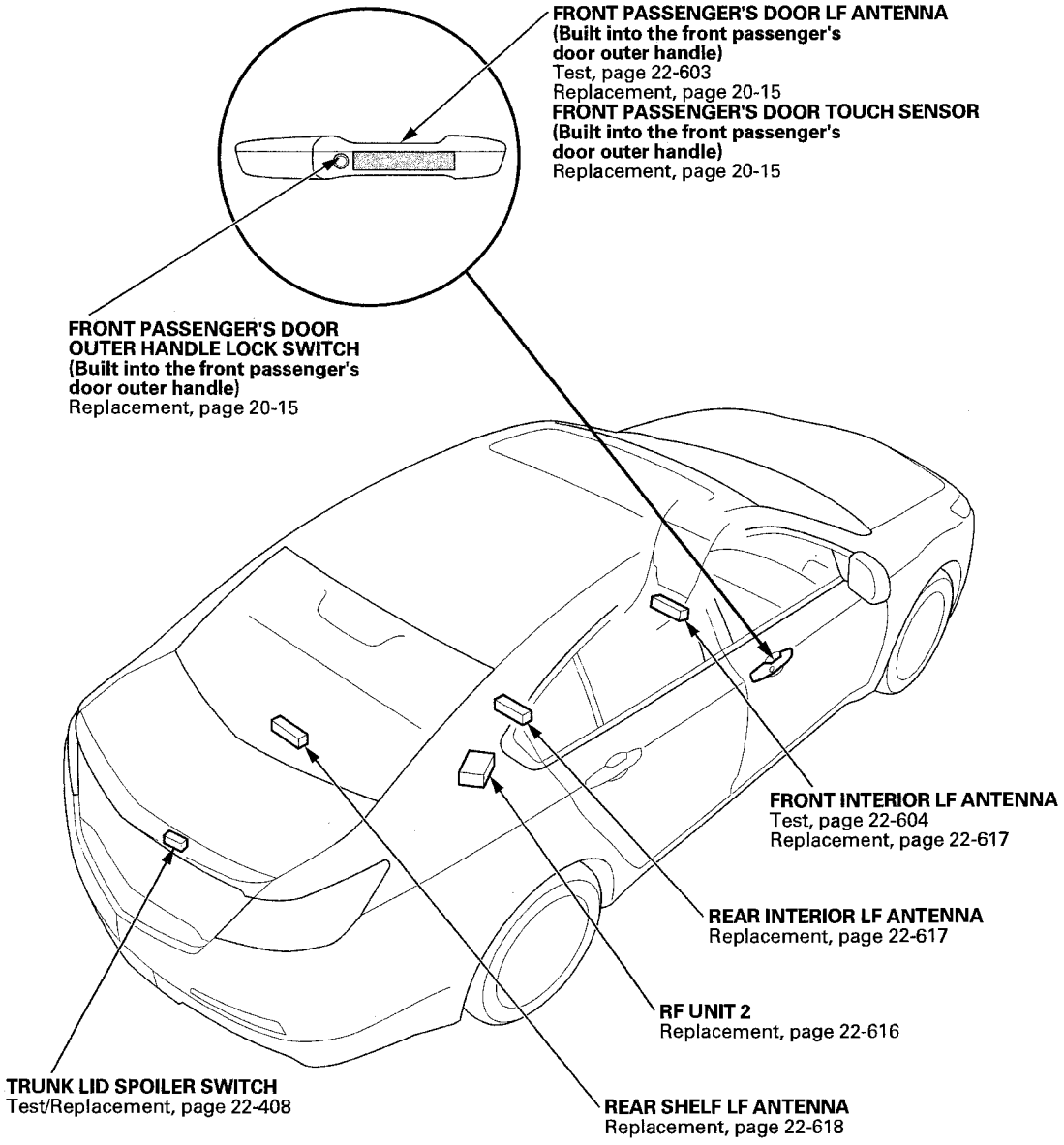
Component Location Index (cont'd)



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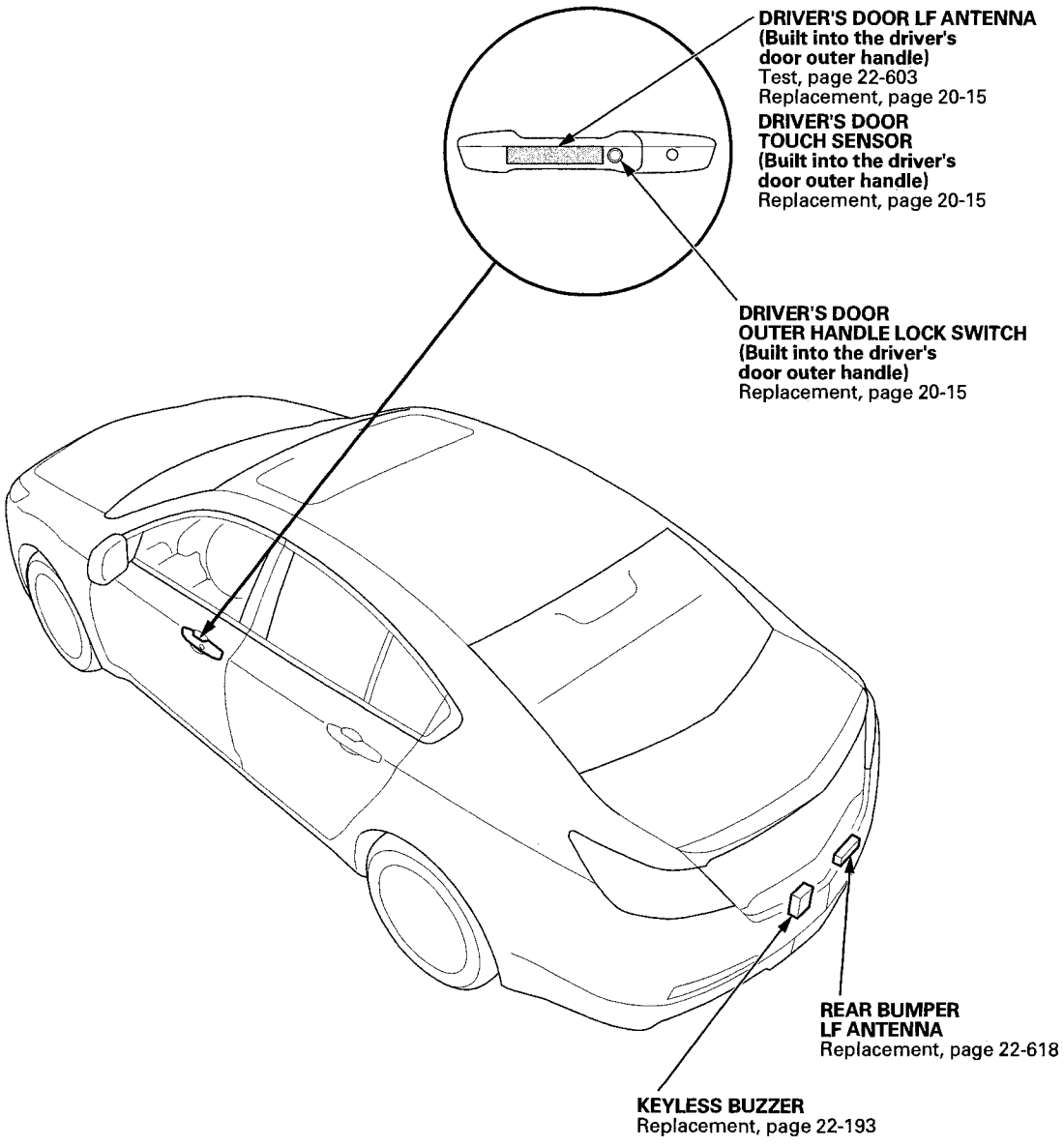

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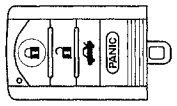
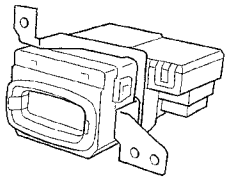
Keyless Access System

System Description

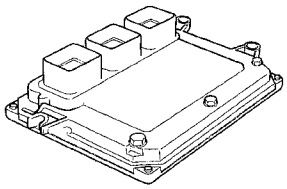
The keyless access system consists of the keyless access control unit, the power control unit, the engine start/stop switch, the remote slot control unit, the electric steering lock, the remote slot, the door outer handle touch sensors/door lock switches, the LF (low frequency) antennas, the RF (radio frequency) units, the keyless access indicator, the keyless buzzer, the keyless access system mode switch, and the remote. The function of the system is to allow the driver keyless entry into the vehicle along with starting the engine without an ignition key.



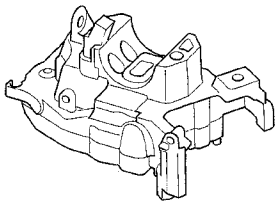
Remote (Including transponder)



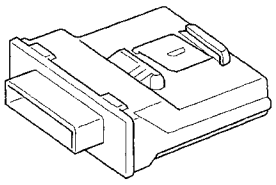
Remote slot



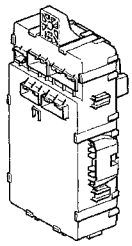
ECM/PCM



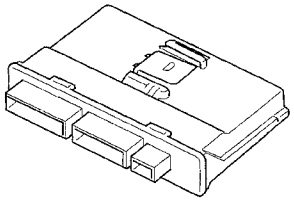
Electric steering lock (Has built-in control unit)



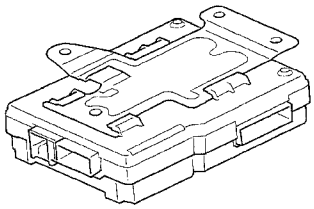
Remote slot control unit



Driver's under-dash fuse/relay box, with driver's MICU (Imoes unit)



Keyless access control unit



Power control unit

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Power Control Unit

The power control unit is located under left side of dash. The power control unit controls the power modes based upon signal from the engine start/stop switch, transmission range switch (A/T), park pin switch (A/T), brake pedal position switch (A/T), clutch pedal position switch A (M/T), and B-CAN.

Touch Sensor and Lock Switches

The touch sensors and lock switches are built into the driver's and front passenger's door outer handles. To operate the door locks without the built-in key while carrying the remote, grip the door outer handle to unlock the doors and press the lock switch on the door outer handle to lock the doors.

RF (Radio Frequency) Units

RF unit 1 is located under the center console, and RF unit 2 is located on the right side of rear shelf.

LF (Low Frequency) Antennas

The front interior, rear interior and rear shelf LF antennas send the signals to the remote placed in the interior. The driver's door, front passenger's door, and rear bumper antennas send the signals to the keyless remote outside of the vehicle.

Engine Start/Stop Switch

The engine start/stop switch is located on the left side of dash. The power modes of the power control unit can be changed by pressing the engine start/stop button.

Keyless Access System Mode Switch

The keyless access system mode switch is installed in a glove box, and turns the keyless access function ON and OFF.

Remote Slot

The remote slot is located on the left side of dash. Insert the remote into the remote slot when the remote battery is dead, or the keyless access system mode switch is OFF. The remote cannot be removed until the power mode is OFF.

Remote Slot Control Unit

The remote slot control unit is installed behind the glove box, and it controls the remote slot lock.

Built-in immobilizer function operates when the keyless access function is off.

Electric Steering Lock

The electric steering lock control unit is built into the electric steering lock, and it controls the steering lock motor. When the remote code is identified, the electric steering lock control unit unlocks the steering lock by controlling the steering lock motor.

Fail-safe Function

The system has a fail-safe function. If any malfunction occurs, the keyless access system indicator and the malfunction indicator lamp (MIL) in the gauge come on.

Self-diagnostic Function

The system also has a self-diagnostic function.

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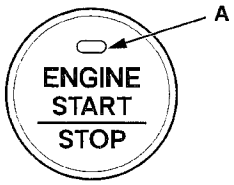
System Description (cont'd)

Power Mode Control Function

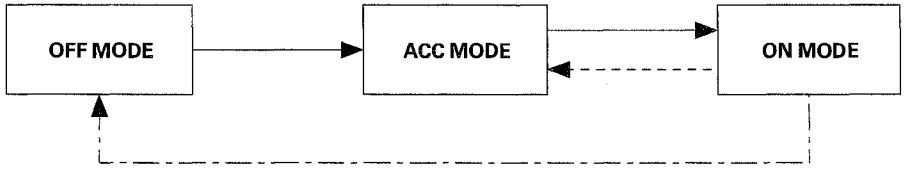
The keyless access system has four power modes: OFF, ACC, ON, and START. The power modes can be changed by pressing the engine start/stop button. The power mode changes to START mode any time the engine start/stop button is pressed while also pressing the brake pedal (A/T) or clutch pedal (M/T).

- OFF and START mode: Indicator (A) in the engine start/stop button is off.
- ACC mode: Indicator in the engine start/stop button comes on green.
- ON mode: Indicator in the engine start/stop button remains green when the engine is not running (If the engine is running, the indicator goes off).

NOTE: If the keyless access system mode switch is OFF, Insert the remote into the remote slot, and press the engine start/stop button to select the mode.



A/T

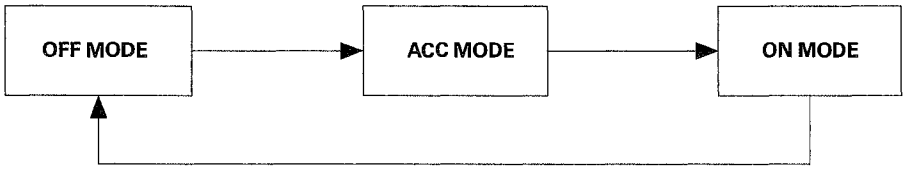


——— : Press the engine start/stop button.

- - - - - - - : Press the engine start/stop button with the shift lever in any other position than P.

— — — — : Shift to P, then press the engine start/stop button.

M/T



——— : Press the engine start/stop button.

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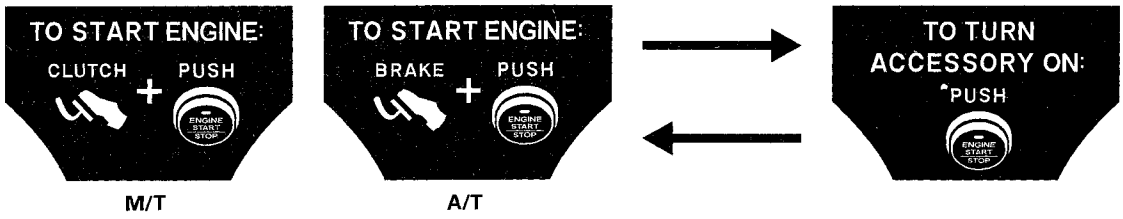
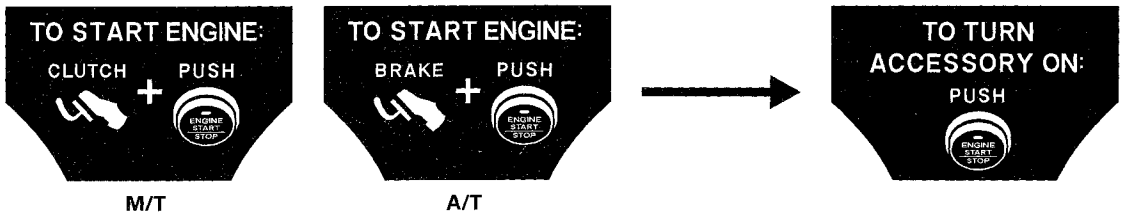
Multi-information Display Indication Pattern

NOTE: Some examples of indication patterns are shown.

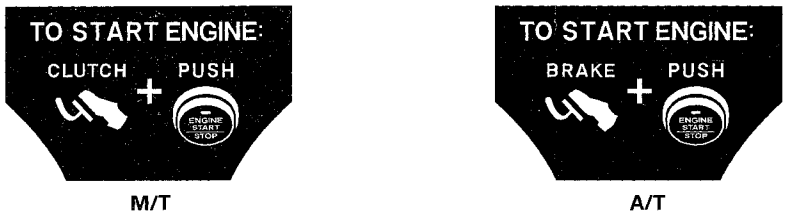
When the door is opened and the power mode is OFF, the display alternates every 3 seconds.



When the power mode is ACC, the display alternates in 3 seconds.



When the power mode is ON.



Emergency Engine Stop Function

If you must stop the engine while driving in a serious emergency condition, do either of the following operations:

- Press and hold the engine start/stop button.
- Press the engine start/stop button three times continuously.

Immobilizer Function

The vehicle is equipped with a Type VII (GEN 5) immobilizer system that disables the vehicle unless a programmed remote is used.

This system consists of a transponder built into the remote, a remote slot control unit, the driver's MICU (has built-in imoes unit), an immobilizer indicator, and the ECM/PCM.

When the remote (programmed by the HDS) is inserted into the remote slot and the engine start/stop switch is pressed to select the ON mode, the remote slot control unit sends power to the transponder. The transponder then sends a coded signal back to the remote slot control unit, which then sends a coded signal to the ECM/PCM and the driver's MICU (imoes unit). The ECM/PCM and driver's MICU (imoes unit) identify this coded signal, then voltage is supplied to the fuel pump.

If the wrong remote is used or the code was not received or recognized by the units, the indicator flashes once, then it blinks until the OFF mode is selected by pressing the engine start/stop button. When the OFF mode is selected by pressing the engine start/stop button, the indicator blinks ten times to signal that unit has reset correctly, then the indicator goes off.

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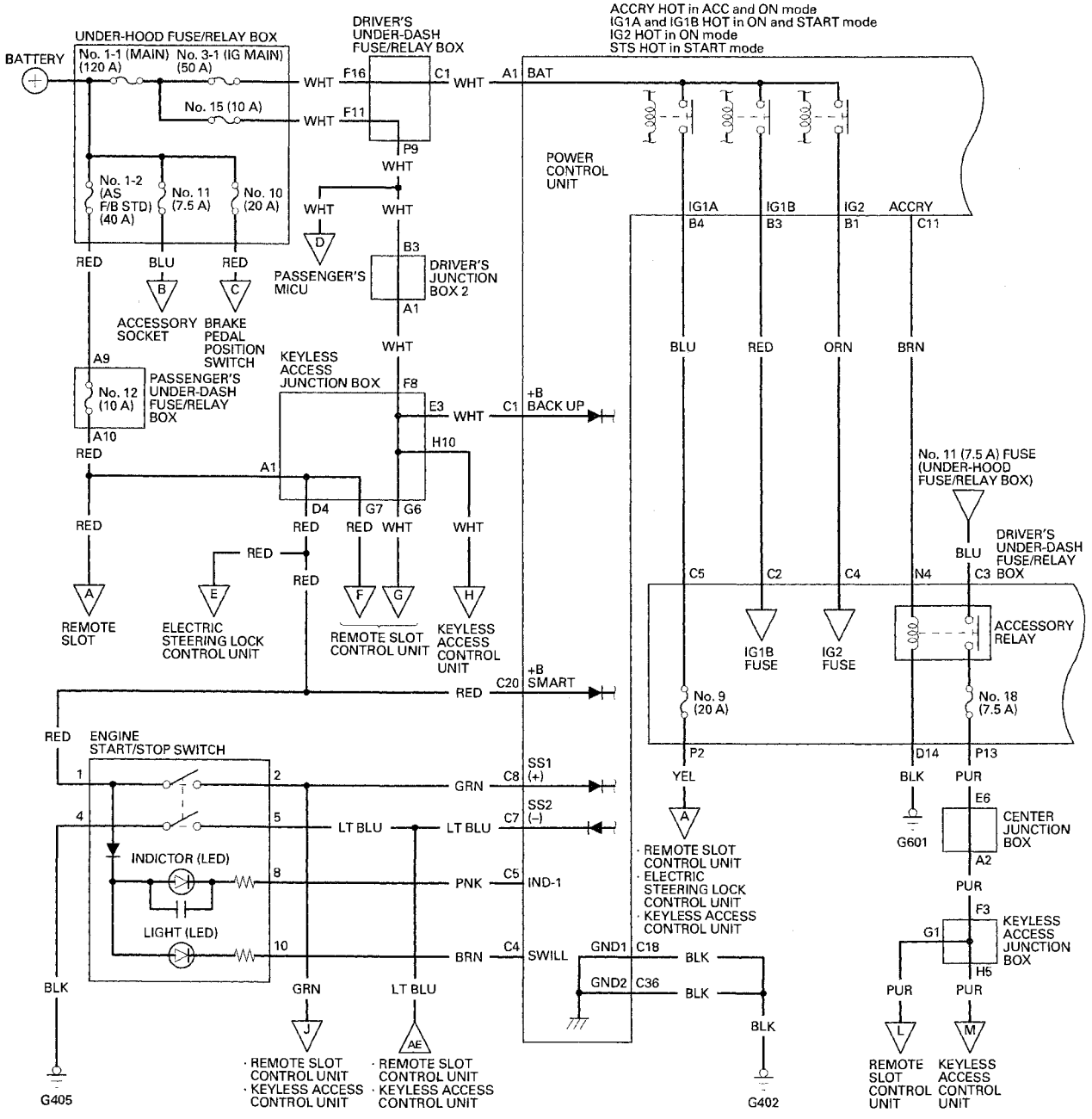
Keyless Access System

Circuit Diagram



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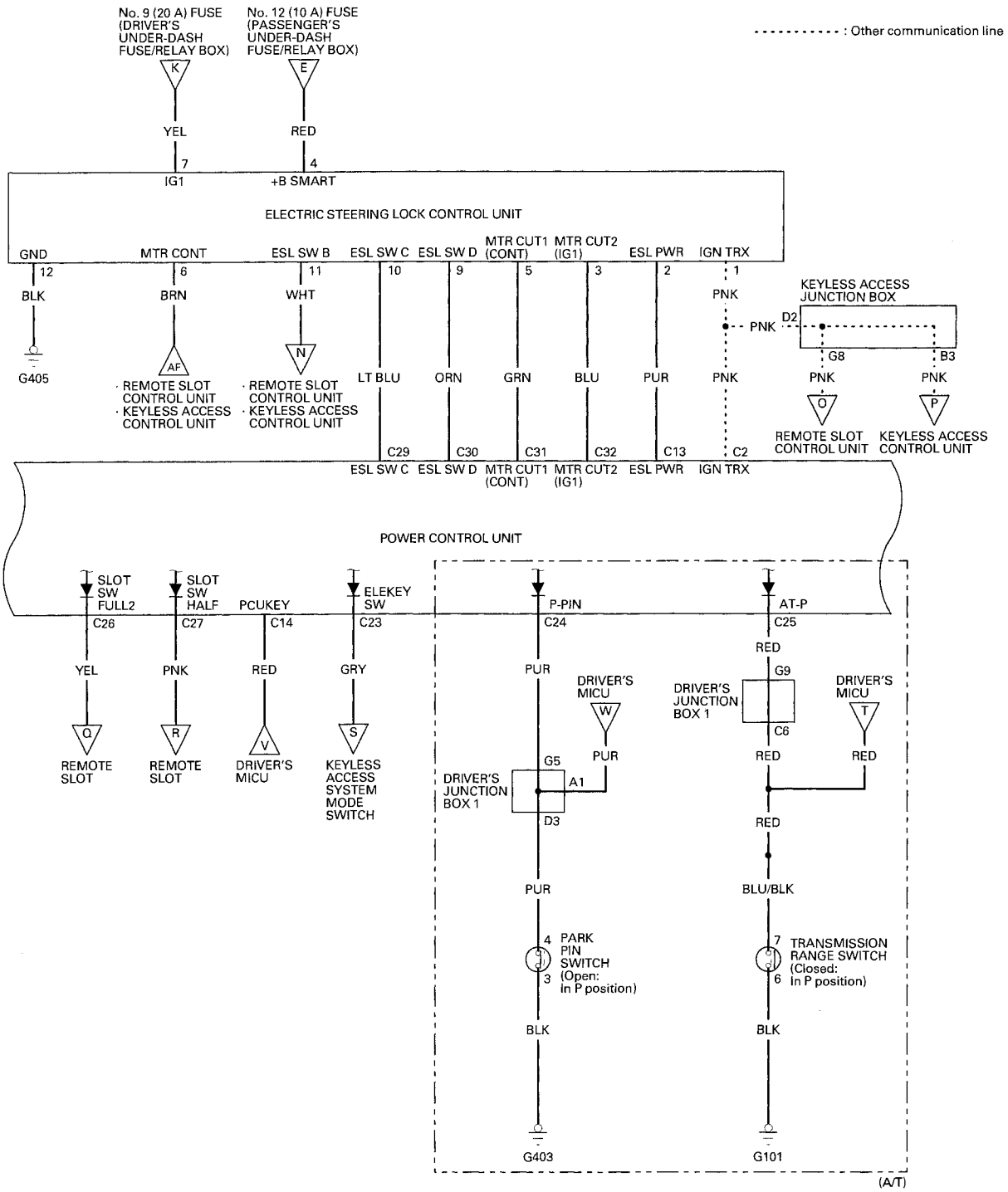

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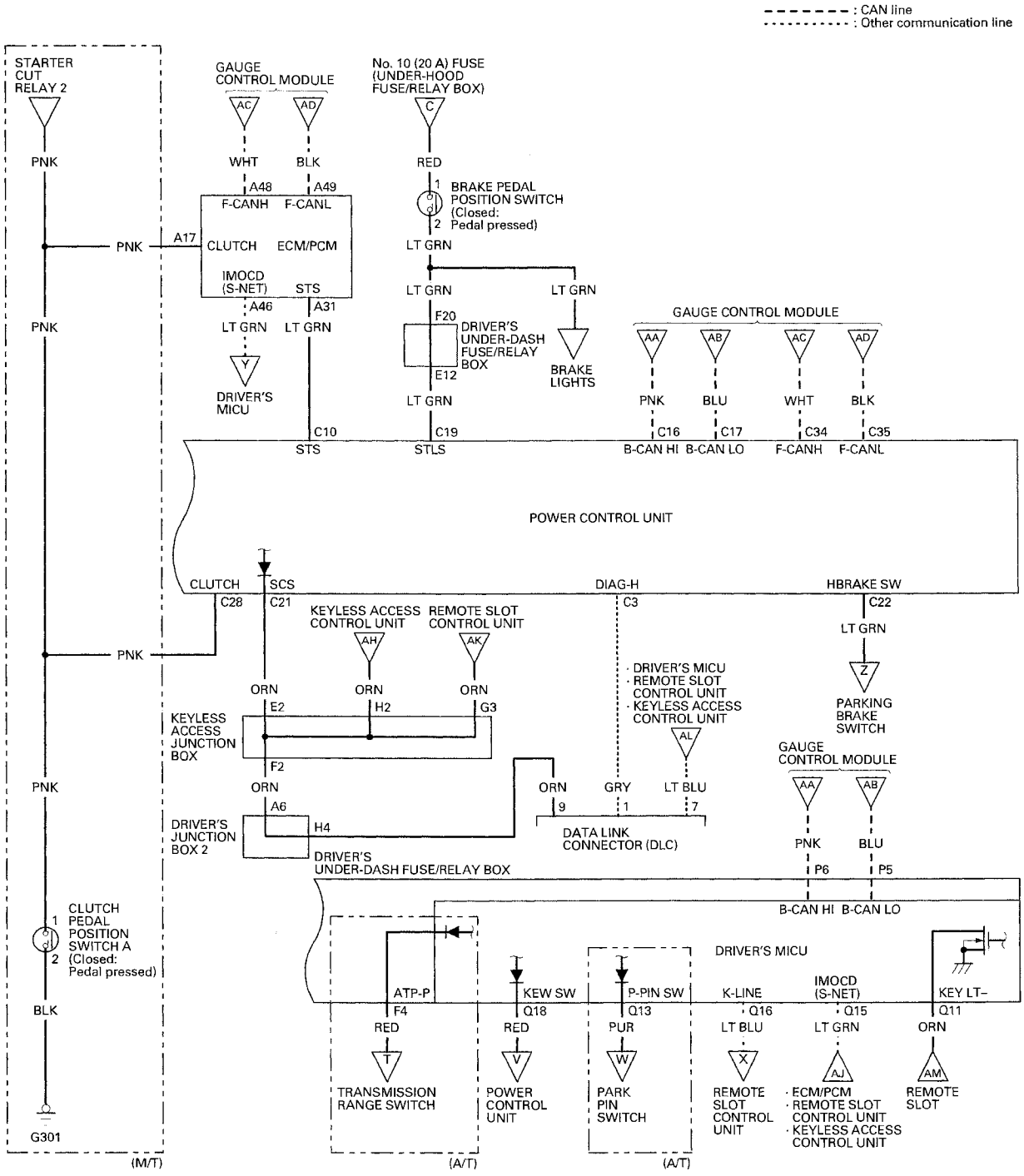
Circuit Diagram (cont'd)



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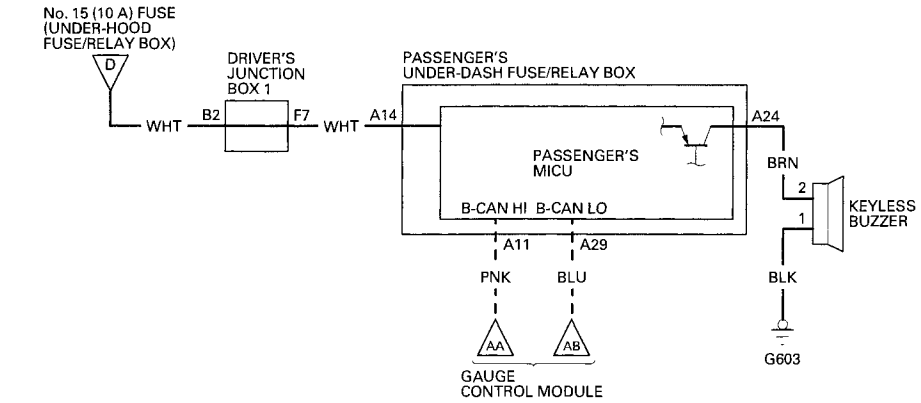
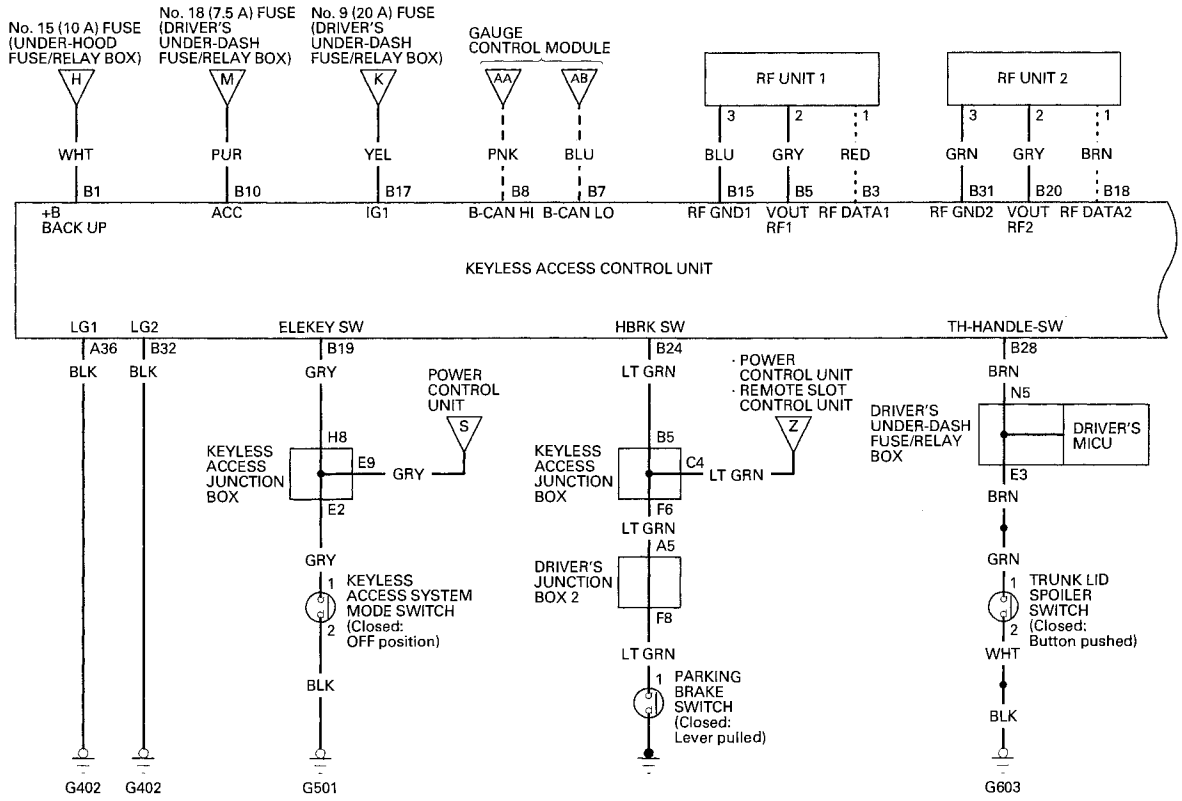
- - - - - - - : B-CAN line
. . . . . : Other communication line





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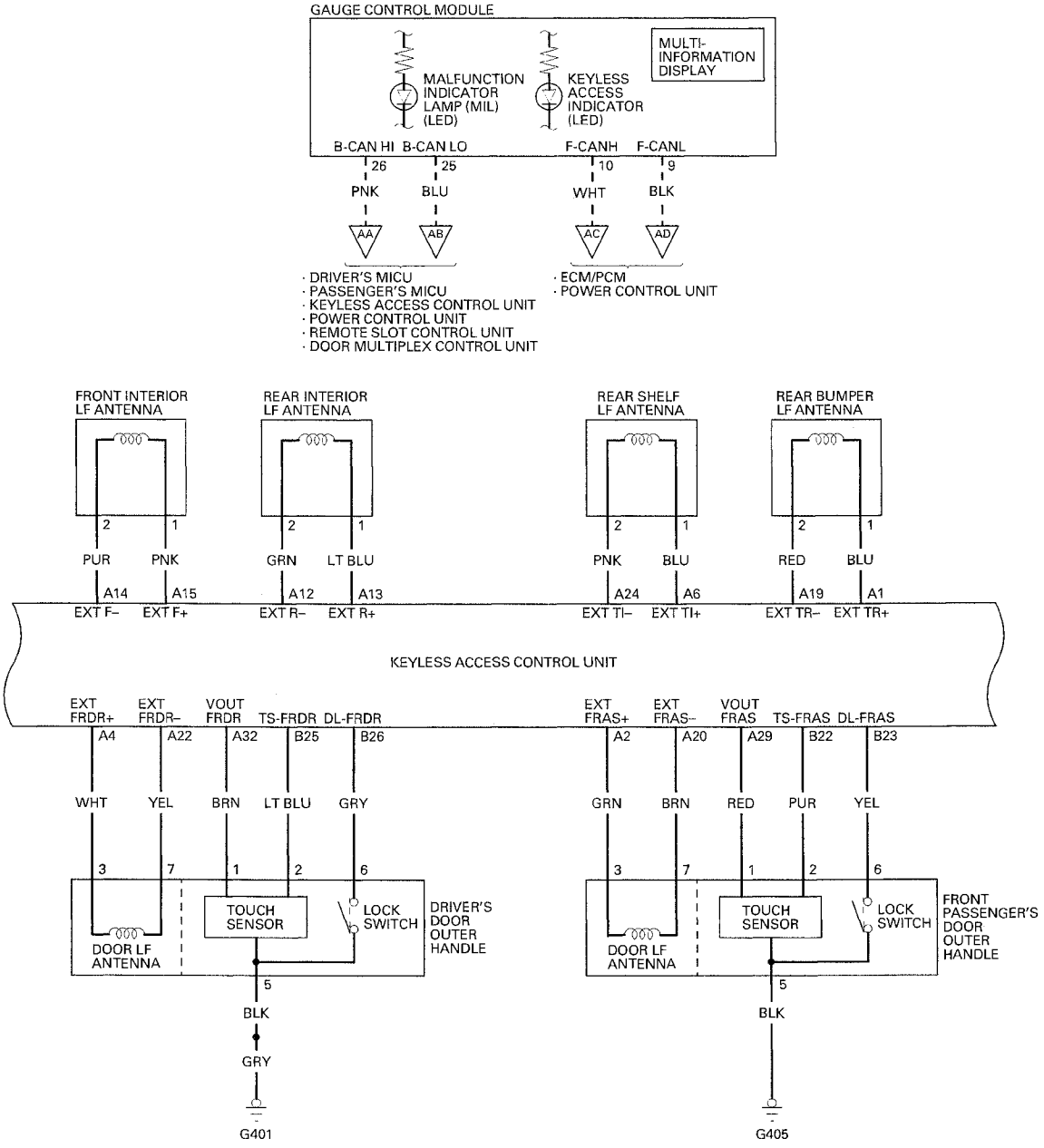
Circuit Diagram (cont'd)

– – – – – – – : CAN line



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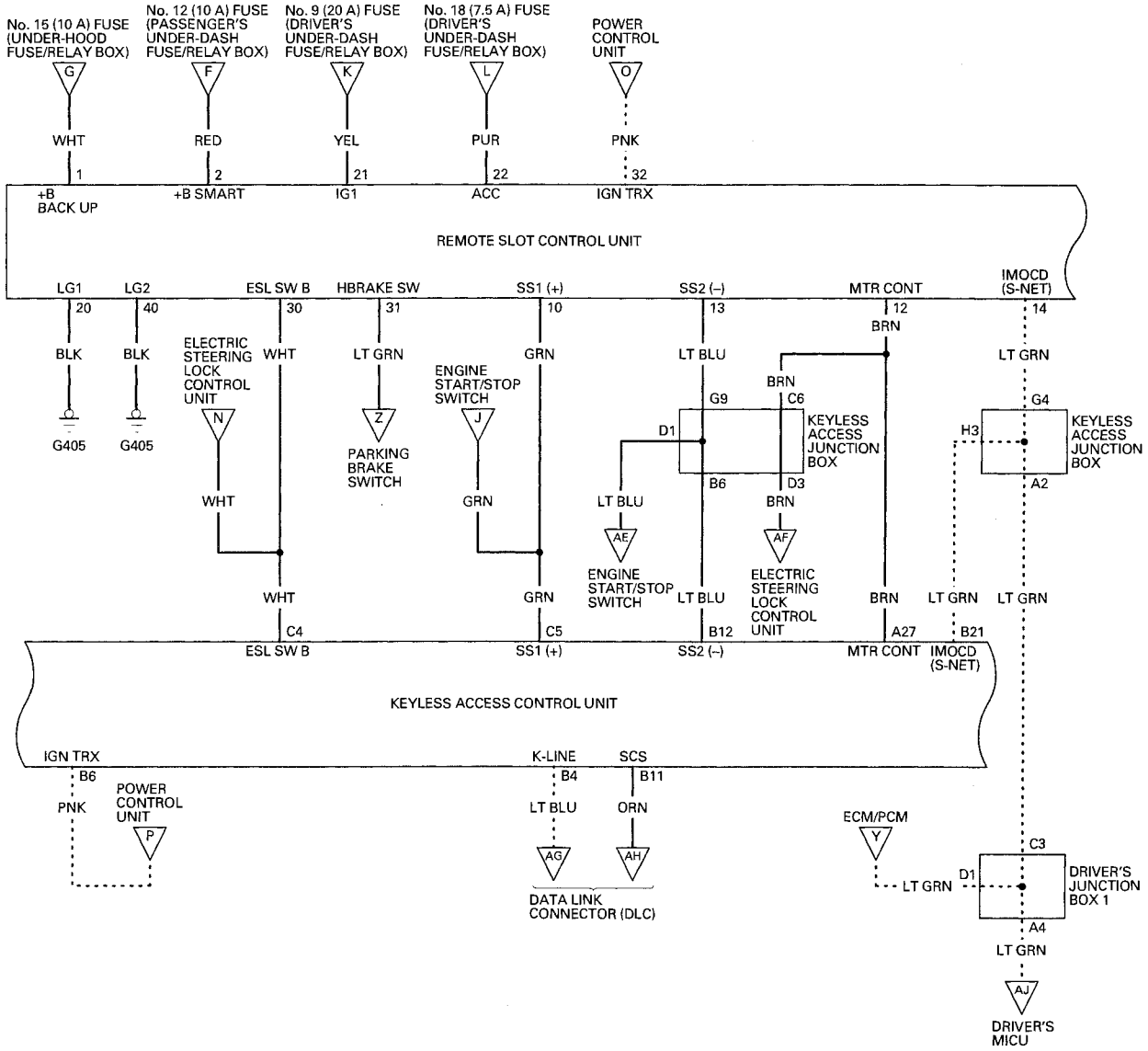
- - - - - - - - - - : Other communication line



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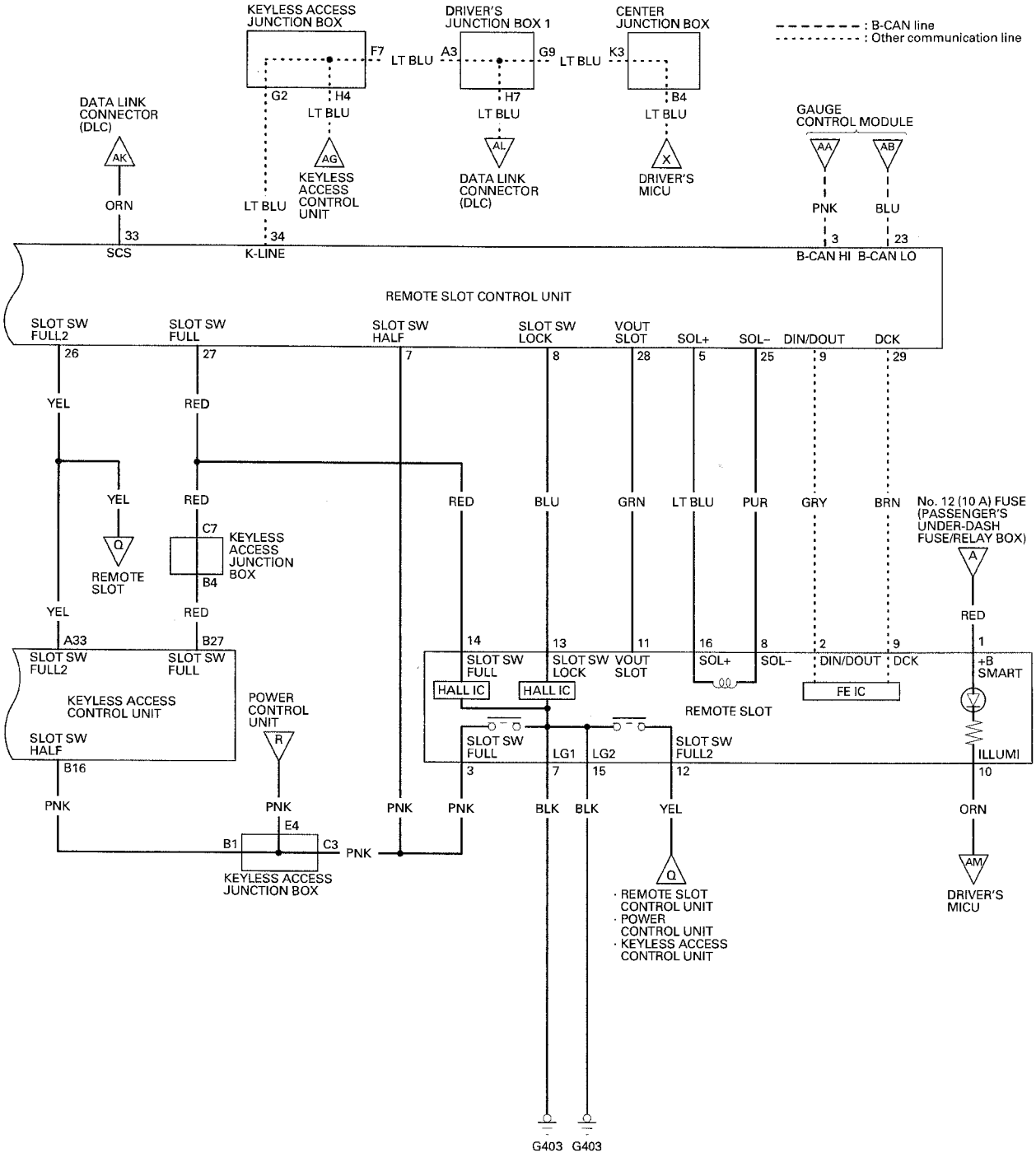
Circuit Diagram (cont'd)



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General Troubleshooting Information

Self-diagnostic Function

The keyless access system has a self-diagnostic function. If any malfunction is stored in the keyless access control unit, the DTC codes can be determined by the keyless access indicator blinking pattern.

Short the SCS line with the HDS, then press the engine start/stop button to select the ON mode. The keyless access indicator starts to show the DTCs if any DTCs are stored.

The DTC is cleared when the battery terminal is disconnected, or by removing the No. 15 (10 A) fuse from the under-hood fuse/relay box.

DTC	Keyless access indicator		Description
B1601	1	○	Keyless access control unit internal (CPU) error (see page 22-536)
B1602	2	○	Keyless access control unit internal (EEPROM) error (see page 22-536)
B1632	32	○	MTR CONT signal error (see page 22-536)
B1640	40	○	RF unit 1 not connected (see page 22-538)
B1641	41	○	RF unit 2 not connected (see page 22-539)
B1646	46	○	Driver's door LF antenna circuit open or short (see page 22-540)
B1648	48	○	Passenger's door LF antenna circuit open or short (see page 22-541)
B1658	58	○	Rear bumper LF antenna circuit open or short (see page 22-543)
B1660	60	○	Front interior LF antenna circuit open or short (see page 22-544)
B1664	64	○	Rear interior LF antenna circuit open or short (see page 22-546)
B1668	68	○	Rear shelf LF antenna circuit open or short (see page 22-547)
U0155	10	○	Keyless access control unit lost communication with gauge control module (see page 22-549)
U0199	7	○	Keyless access control unit lost communication with door multiplex control unit (see page 22-549)
U1280	100	○	Communication bus line error (BUS-OFF) (see page 22-151)
U1282	5	○	Keyless access control unit lost communication with driver's MICU (see page 22-550)
U1283	16	○	Keyless access control unit lost communication with passenger's MICU (see page 22-550)

NOTE: When the engine start/stop button is pressed and the mode changes to ON, the keyless access indicator comes on when any malfunction is detected.

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DTC Troubleshooting

DTC B12A1: Power Control Unit Internal (CPU) Error

1. Do the battery terminal disconnect procedure (see page 22-86).
2. Wait for at least 10 seconds to clear the DTCs.
3. Do the battery terminal reconnection procedure (see page 22-86).
4. Press and hold the engine start/stop button.
5. Wait for at least 10 seconds.
6. Check for DTCs with the HDS.

   Is DTC B12A1 indicated?

   YES–Replace the power control unit (see page 22-609).■

   NO–Intermittent failure, the system is OK at this time.■

DTC B12C5: Engine Start/Stop Switch Failure

1. Clear the DTCs with the HDS.
2. Press the engine start/stop button at least 20 times, then wait for at least 20 seconds.
3. Check for DTCs with the HDS.

   Is DTC B12C5 indicated?

   YES–Go to step 4.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■

4. Do the engine start/stop switch test (see page 22-619).

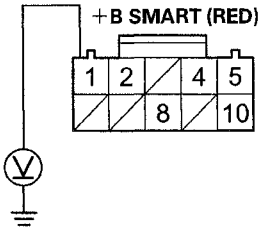
   Is the engine start/stop switch OK?

   YES–Go to step 5.

   NO–Replace the engine start/stop switch (see page 22-619).■

5. Reconnect the engine start/stop switch 10P connector.
6. Measure the voltage between body ground and engine start/stop switch 10P connector terminal No. 1.

ENGINE START/STOP SWITCH 10P CONNECTOR



Wire side of female terminals

Is there battery voltage?

YES–Go to step 7.

NO–Check the No. 12 (10 A) fuse in the passenger's under-dash fuse/relay box. If the fuse is OK, check for an open in the RED wire.■

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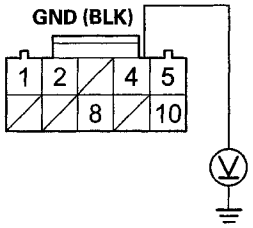
7. Press and hold the engine start/stop button.
8. Measure the voltage between body ground and engine start/stop switch 10P connector terminal No. 4.

ENGINE START/STOP SWITCH 10P CONNECTOR



Wire side of female terminals

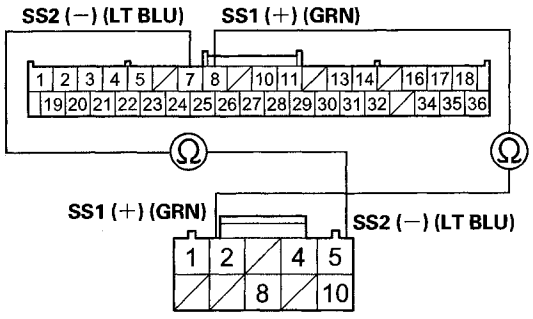
Is there less than 0.2 V?

YES–Go to step 9.

NO–Repair an open in the wire or poor ground (G405).■

9. Disconnect the engine start/stop switch 10P connector.
10. Disconnect power control unit connector C (36P).
11. Check for continuity between engine start/stop switch 10P connector terminals No. 2 and No. 5, and power control unit connector C (36P) terminals No. 8 and No. 7 respectively.

POWER CONTROL UNIT CONNECTOR C (36P)
Wire side of female terminals



ENGINE START/STOP SWITCH 10P CONNECTOR
Wire side of female terminals

Is there continuity?

YES–Replace the power control unit (see page 22-609).■

NO–Repair an open in the wire.■

DTC B12C6: Electric Steering Lock Switch C/D Monitor Circuit Failure

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Press the engine start/stop button at least 10 times.
3. Check for DTCs with the HDS.

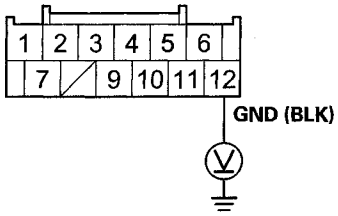
Is DTC B12C6 indicated?

YES–Go to step 4.

NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■

4. Measure the voltage between body ground and electric steering lock 12P connector terminal No. 12.

ELECTRIC STEERING LOCK 12P CONNECTOR



Wire side of female terminals

Is there less than 0.2 V?

YES–Go to step 5.

NO–Repair an open in the wire or poor ground (G405).■

(cont'd)

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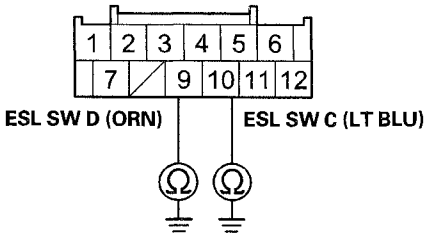
DTC Troubleshooting (cont'd)

5. Disconnect the electric steering lock 12P connector.
6. Disconnect power control unit connector C (36P).
7. Check for continuity between body ground and electric steering lock 12P connector terminals No. 9 and No. 10 individually.

ELECTRIC STEERING LOCK 12P CONNECTOR



Wire side of female terminals

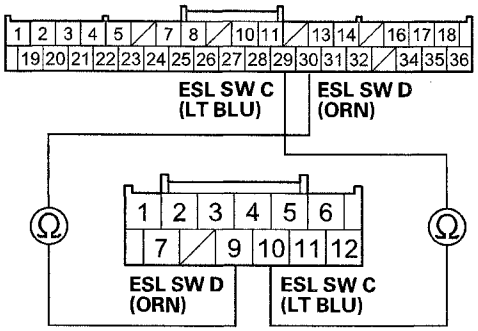
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 8.

8. Check for continuity between power control unit connector C (36P) terminals No. 29 and No. 30, and electric steering lock 12P connector terminals No. 10 and No. 9 respectively.

POWER CONTROL UNIT CONNECTOR C (36P)
Wire side of female terminals



ELECTRIC STEERING LOCK CONTROL UNIT 12P CONNECTOR
Wire side of female terminals

Is there continuity?

YES–Go to step 9.

NO–Repair an open in the wire.■

9. Reconnect power control unit connector C (36P).
10. Select PCU from the ONE-PUSH START system select menu with the HDS, and enter DATA LIST.
11. Check each PCU value with the DATA LIST menu.
12. Connect the jumper wires to body ground and to electric steering control unit 12P connector terminals No. 10 and No. 9.

Data List	Value
ESL SWITCH C	ON
ESL SWITCH D	ON

Are all data list values correct?

YES–Replace the electric steering lock (see page 17-16).■

NO–Replace the power control unit (see page 22-609).■

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DTC B12C7: Electric Steering Lock Motor Circuit Failure

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

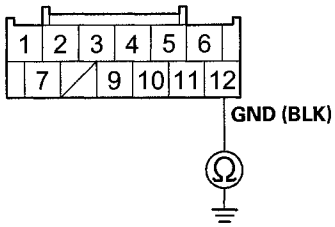
1. Clear the DTCs with the HDS.
2. Do this procedure 10 times: Press the engine start/stop button to select the OFF, ACC, ON, and OFF mode.
3. Check for DTCs with the HDS.

   Is DTC B12C7 indicated?

   YES–Go to step 4.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
4. Disconnect the engine start/stop switch 10P connector.
5. Check for continuity between body ground and electric steering lock 12P connector terminal No. 12.

ELECTRIC STEERING LOCK 12P CONNECTOR



Wire side of female terminals

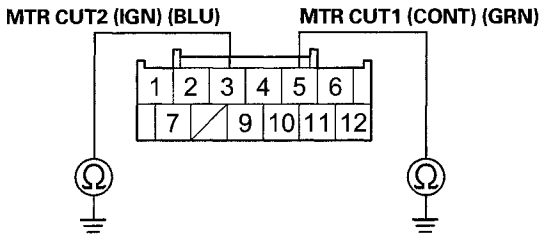
Is there continuity?

YES–Go to step 6.

NO–Repair an open in the wire or poor ground (G405).■

6. Disconnect the electric steering lock 12P connector.
7. Disconnect power control unit connector C (36P).
8. Check for continuity between body ground and electric steering lock 12P connector terminals No. 3 and No. 5 individually.

ELECTRIC STEERING LOCK 12P CONNECTOR



Wire side of female terminals

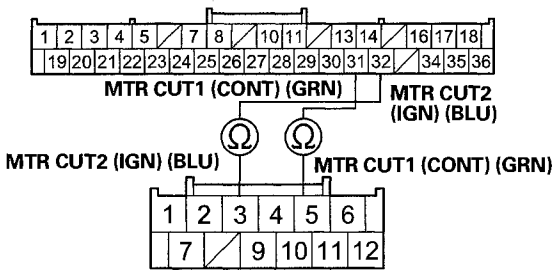
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 9.

9. Check for continuity between power control unit connector C (36P) terminals No. 31 and No. 32, and electric steering lock 12P connector terminals No. 5 and No. 3 respectively.

POWER CONTROL UNIT CONNECTOR C (36P)
Wire side of female terminals



ELECTRIC STEERING LOCK 12P CONNECTOR
Wire side of female terminals

Is there continuity?

YES–Substitute a known-good power control unit. If the symptom goes away, replace the original power control unit. If not, replace the electric steering lock (see page 17-16).■

NO–Repair an open in the wire.■

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DTC Troubleshooting (cont'd)

DTC B12D0: Power Control Unit IG1A Circuit Error

DTC B12D1: Power Control Unit IG1B Circuit Error

DTC B12D2: Power Control Unit IG2 Circuit Error

DTC B12D3: Power Control Unit IG Latch Circuit Error

NOTE: Make sure aftermarket accessories are not installed.

1. Clear the DTCs with the HDS.
2. Do this procedure 5 times:
   - Press the engine start/stop button to select the OFF mode
   - Wait 10 seconds
   - Select the ACC mode
   - Wait 10 seconds
   - Select the ON mode
   - Wait 10 seconds before repeating this procedure
3. Check for DTCs with the HDS.

   Are DTCs B12D0, B12D1, B12D2, and/or B12D3 indicated?

   YES–Replace the power control unit (see page 22-609).■

   NO–Intermittent failure, the system is OK at this time.■

DTC B12E0: Electric Steering Lock Switch Internal Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Do this procedure at least 10 times: Press the engine start/stop button to select the OFF, ACC, ON, and OFF mode.
3. Check for DTCs with the HDS.

   Is DTC B12E0 indicated?

   YES–Replace the electric steering lock (see page 17-16).■

   NO–Intermittent failure, the system is OK at this time.■

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DTC B12E1: Electric Steering Lock Motor Internal Error

DTC B12E2: Electric Steering Lock Low Level Failure of MTRCUT1

DTC B12E3: Electric Steering Lock High Level Failure of MTRCUT1

DTC B12E4: Electric Steering Lock High Level Failure of MTRCUT2

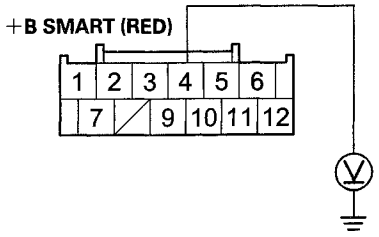
1. Clear the DTCs with the HDS.
2. Do this procedure 11 times: Press the engine start/stop button to select the OFF, ACC, ON, and OFF mode.
3. Check for DTCs with the HDS.

   Are DTCs B12E1, B12E2, B12E3, and/or B12E4 indicated?

   YES–Go to step 4.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
4. Disconnect the electric steering lock 12P connector.
5. Measure the voltage between body ground and electric steering lock 12P connector terminal No. 4.

ELECTRIC STEERING LOCK 12P CONNECTOR



Wire side of female terminals

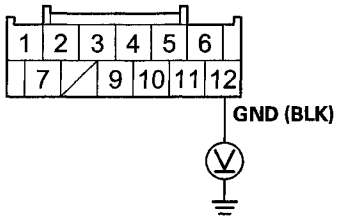
Is there battery voltage?

YES–Go to step 6.

NO–Repair an open in the wire.■

6. Reconnect the electric steering lock 12P connector.
7. Measure the voltage between body ground and electric steering lock 12P connector terminal No. 12.

ELECTRIC STEERING LOCK 12P CONNECTOR



Wire side of female terminals

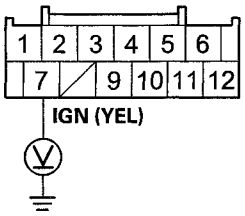
Is there less than 0.2 V?

YES–Go to step 8.

NO–Repair an open in the wire or poor ground (G405).■

8. Press the engine start/stop button to select the ON mode.
9. Measure the voltage between body ground and electric steering lock 12P connector terminal No. 7.

ELECTRIC STEERING LOCK 12P CONNECTOR



Wire side of female terminals

Is there battery voltage?

YES–Go to step 10.

NO–Repair an open in the wire or blown No. 9 (20 A) fuse in the driver's under-dash fuse/relay box.■

(cont'd)

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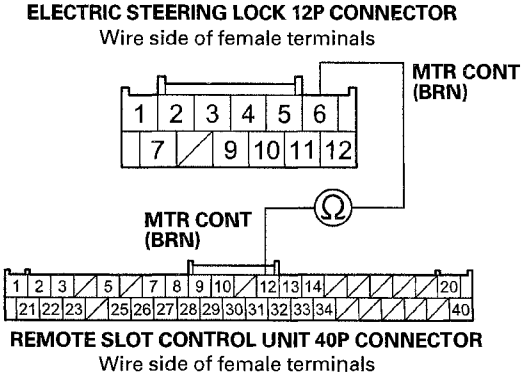
DTC Troubleshooting (cont'd)

10. Press the engine start/stop button to select the OFF mode.
11. Disconnect the remote slot control unit 40P connector.
12. Disconnect keyless access control unit connector A (36P).
13. Check for continuity between electric steering lock 12P connector terminal No. 6 and remote slot control unit 40P connector terminal No. 12.

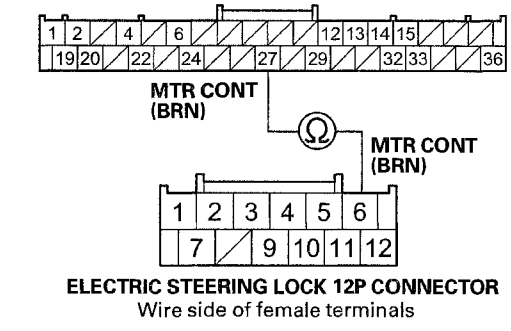


Is there continuity?

YES–Go to step 14.

NO–Repair an open in the wire.■

14. Check for continuity between electric steering lock 12P connector terminal No. 6 and keyless access control unit connector A (36P) terminal No. 27.

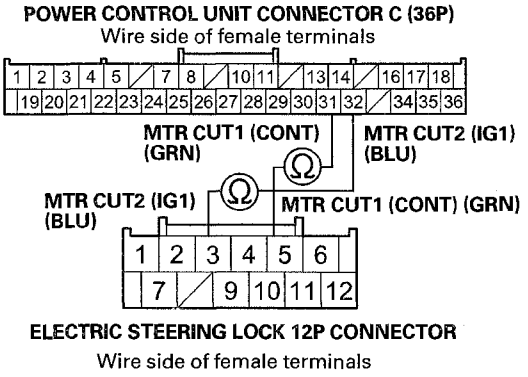


Is there continuity?

YES–Go to step 15.

NO–Repair an open in the wire.■

15. Disconnect power control unit connector C (36P).
16. Check for continuity between electric steering lock 12P connector terminals No. 5 and No. 3 and power control unit connector C (36P) terminals No. 31 and No. 32 respectively.



Is there continuity?

YES–Substitute a known-good electric steering lock. If the symptom goes away, replace the original electric steering lock (see page 17-16). If not, replace the remote slot control unit (see page 22-614).■

NO–Repair an open in the wire.■

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DTC B12F0: Power Control Unit Lost Communication With Electric Steering Lock

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

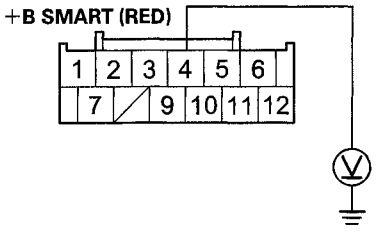
1. Clear the DTCs with the HDS.
2. Do this procedure 10 times: Press the engine start/stop button to select the OFF, ACC, ON, and OFF mode.
3. Check for DTCs with the HDS.

   Is DTC B12F0 indicated?

   YES–Go to step 4.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
4. Measure the voltage between body ground and electric steering lock 12P connector terminal No. 4.

ELECTRIC STEERING LOCK 12P CONNECTOR



Wire side of female terminals

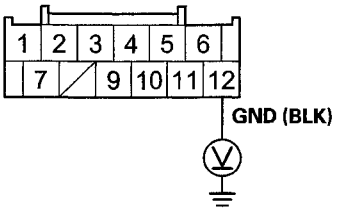
Is there battery voltage?

YES–Go to step 5.

NO–Repair an open in the wire.■

5. Measure the voltage between body ground and electric steering lock 12P connector terminal No. 12.

ELECTRIC STEERING LOCK 12P CONNECTOR



Wire side of female terminals

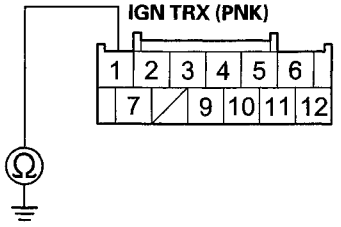
Is there less than 0.2 V?

YES–Go to step 6.

NO–Repair an open in the wire or poor ground (G405).■

6. Press the engine start/stop button to select the OFF mode.
7. Disconnect the electric steering lock 12P connector.
8. Disconnect power control unit connector C (36P).
9. Disconnect the remote slot control unit 40P connector.
10. Disconnect keyless access control unit connector B (32P).
11. Check for continuity between body ground and electric steering lock 12P connector terminal No. 1.

ELECTRIC STEERING LOCK 12P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 12.

(cont'd)

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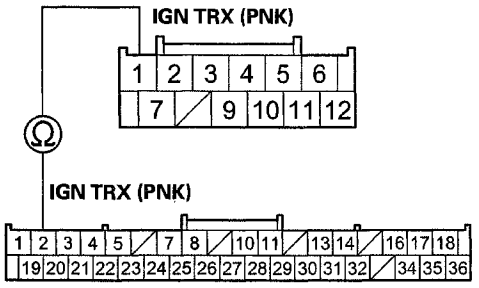
DTC Troubleshooting (cont'd)

12. Check for continuity between electric steering lock 12P connector terminal No. 1 and power control unit connector C (36P) terminal No. 2.

ELECTRIC STEERING LOCK 12P CONNECTOR
Wire side of female terminals



POWER CONTROL UNIT CONNECTOR C (36P)
Wire side of female terminals

Is there continuity?

YES–Go to step 13.

NO–Repair an open in the wire.■

13. Press the engine start/stop button to select the OFF mode.
14. Do the battery terminal disconnect procedure (see page 22-86).
15. Wait for at least 10 seconds to clear the DTCs.
16. Do the battery terminal reconnection procedure (see page 22-86).
17. Turn the keyless access system mode switch ON.
18. If necessary, remove the remote form the remote slot.
19. Press the engine start/stop button to select the ON mode, then select the OFF mode.
20. Insert the remote into the remote slot.
21. Press and hold the engine start/stop button to select the ON mode.

Does the mode change to ON?

YES–Go to step 22.

NO–Go to step 25.

22. Clear the DTCs with the HDS.
23. Do this procedure 10 times: Press the engine start/stop button to select the OFF, ACC, ON, and OFF mode.
24. Check for DTCs with the HDS.

Is DTC B12F0 indicated?

YES–Replace the electric steering lock (see page 17-16).■

NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■

25. Connect the HDS to the data link connector.
26. Select COMMUNICATION STATUS in the INSPECTION MENU with the HDS.
27. Check the value of STATUS with ESL, STATUS with KEYLESS ACCESS CONTROL UNIT, and STATUS with SLOT with the HDS.

	HDS Description	Value
Status with ESL	MTR CUT1 (Cont) Status	1
	MTR CUT2 (IG) Status	1
	IG1 Input State of ESL	1
	MTRCONT Status of ESL	1
	ESL Motor Status	1
	Switch D detection for Unlock Status	1
	Switch C detection for Unlock Status	1
	Switch B detection for Unlock Status	1
Status with KEYLESS ACCESS CONTROL UNIT	FOR KEY Authentication Result	1
Status with SLOT	FOR KEY Authentication Result	1

Are only values of status with ESL 1?

YES–Replace the electric steering lock (see page 17-16).■

NO–Replace the power control unit (see page 22-609).■

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DTC B12F1: Power Control Unit Lost Communication With Remote Slot Control Unit

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Insert the remote into the remote slot.
2. Clear the DTCs with the HDS.
3. Do this procedure 10 times: Press the engine start/stop button to select the OFF, ACC, ON, and OFF mode.
4. Check for DTCs with the HDS.

   Is DTC B12F1 indicated?

   YES–Go to step 5.

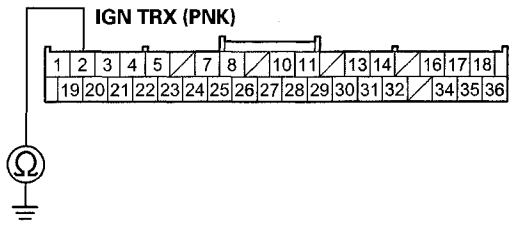
   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Select ONE-PUSH START from the system select menu with the HDS.
6. Select the KEY SLOT UNIT and check for DTCs with the HDS.

   Are any DTCs indicated?

   YES–Go to the indicated DTC's troubleshooting.■

   NO–Go to step 7.
7. Press the engine start/stop button to select the OFF mode.
8. Disconnect power control unit connector C (36P).
9. Disconnect the remote slot control unit 40P connector.
10. Disconnect the electric steering lock 12P connector.
11. Disconnect keyless access control unit connector B (32P).
12. Check for continuity between body ground and power control unit connector C (36P) terminal No. 2.

POWER CONTROL UNIT CONNECTOR C (36P)



Wire side of female terminals

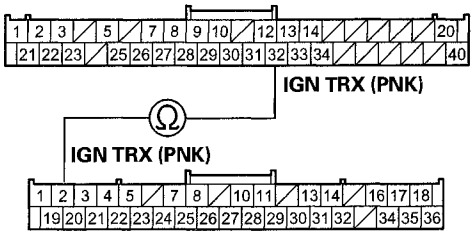
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 13.

13. Check for continuity between remote slot control unit 40P connector terminal No. 32 and power control unit connector C (36P) terminal No. 2.

REMOTE SLOT CONTROL UNIT 40P CONNECTOR
Wire side of female terminals



POWER CONTROL UNIT CONNECTOR C (36P)
Wire side of female terminals

Is there continuity?

YES–Go to step 14.

NO–Repair an open in the wire.■

(cont'd)

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DTC Troubleshooting (cont'd)

14. Press the engine start/stop button to select the OFF mode.
15. Do the battery terminal disconnect procedure (see page 22-86).
16. Wait for at least 10 seconds to clear the DTCs.
17. Do the battery terminal reconnection procedure (see page 22-86).
18. Turn the keyless access system mode switch ON.
19. If necessary, remove the remote from the remote slot.
20. Press the engine start/stop button to select the ON mode, then select the OFF mode.
21. Insert the remote into the remote slot.
22. Press and hold the engine start/stop button to select the ON mode.

    Does the mode change to ON?

    YES–Go to step 23.

    NO–Go to step 26.
23. Clear the DTCs with the HDS.
24. Do this procedure 10 time: Press the engine start/stop button to select the OFF, ACC, ON, and OFF mode.
25. Check for DTCs with the HDS.

    Is DTC B12F1 indicated?

    YES–Replace the remote slot control unit (see page 22-614).■

    NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
26. Connect the HDS to the data link connector.
27. Select COMMUNICATION STATUS in the INSPECTION MENU with the HDS.
28. Check the value of STATUS with ESL, STATUS with KEYLESS ACCESS CONTROL UNIT, and STATUS with SLOT with the HDS.

	HDS Description	Value
Status with ESL	MTR CUT1 (Cont) Status	1
	MTR CUT2 (IG) Status	1
	IG1 Input State of ESL	1
	MTRCONT Status of ESL	1
	ESL Motor Status	1
	Switch D detection for Unlock Status	1
	Switch C detection for Unlock Status	1
	Switch B detection for Unlock Status	1
Status with KEYLESS ACCESS CONTROL UNIT	FOR KEY Authentication Result	1
Status with SLOT	FOR KEY Authentication Result	1

Are only values of status with SLOT 1?

YES–Replace the remote slot control unit (see page 22-614).■

NO–Replace the power control unit (see page 22-609).■

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DTC B12F2: Power Control Unit Lost Communication With Keyless Access Control Unit

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Make sure the remote is not in the remote slot.
2. Clear the DTCs with the HDS.
3. Do this procedure 10 times: Press the engine start/stop button to select the OFF, ACC, ON, and OFF mode.
4. Check for DTCs with the HDS.

   Is DTC B12F2 indicated?

   YES–Go to step 5.

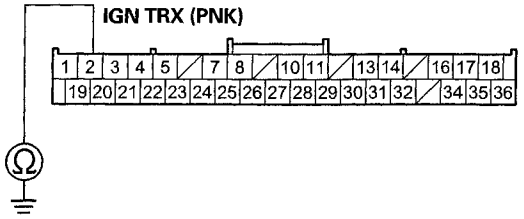
   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Select ONE-PUSH START from the system select menu with the HDS.
6. Select the KEYLESS ACCESS CONTROL UNIT and check for DTCs with the HDS.

   Are any DTCs indicated?

   YES–Go to the indicated DTC's troubleshooting.■

   NO–Go to step 7.
7. Press the engine start/stop button to select the OFF mode.
8. Disconnect power control unit connector C (36P).
9. Disconnect the remote slot control unit 40P connector.
10. Disconnect the electric steering lock 12P connector.
11. Disconnect keyless access control unit connector B (32P).
12. Check for continuity between body ground and power control unit connector C (36P) terminal No. 2.

POWER CONTROL UNIT CONNECTOR C (36P)



Wire side of female terminals

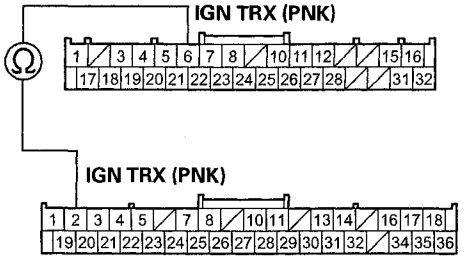
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 13.

13. Check for continuity between keyless access control unit connector B (32P) terminal No. 6 and power control unit connector C (36P) terminal No. 2.

KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)
Wire side of female terminals



POWER CONTROL UNIT CONNECTOR C (36P)
Wire side of female terminals

Is there continuity?

YES–Go to step 14.

NO–Repair an open in the wire.■

(cont'd)

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DTC Troubleshooting (cont'd)

14. Press the engine start/stop button to select the OFF mode.
15. Do the battery terminal disconnect procedure (see page 22-86).
16. Wait for at least 10 seconds to clear the DTCs.
17. Do the battery terminal reconnection procedure (see page 22-86).
18. Turn the keyless access system mode switch ON.
19. If necessary, remove the remote from the remote slot.
20. Press the engine start/stop button to select the ON mode, then select the OFF mode.
21. Insert the remote into the remote slot.
22. Press and hold the engine start/stop button to select the ON mode.

    Does the mode change to ON?

    YES–Go to step 23.

    NO–Go to step 26.
23. Clear the DTCs with the HDS.
24. Press the engine start/stop button to select the OFF.
25. Check for DTCs with the HDS.

    Is DTC B12F2 indicated?

    YES–Replace the keyless access control unit (see page 22-605).■

    NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
26. Connect the HDS to the data link connector.
27. Select COMMUNICATION STATUS in the INSPECTION MENU with the HDS.
28. Check the value of STATUS with ESL, STATUS with KEYLESS ACCESS CONTROL UNIT, and STATUS with SLOT with the HDS.

	HDS Description	Value
Status with ESL	MTR CUT1 (Cont) Status	1
	MTR CUT2 (IG) Status	1
	IG1 Input State of ESL	1
	MTRCONT Status of ESL	1
	ESL Motor Status	1
	Switch D detection for Unlock Status	1
	Switch C detection for Unlock Status	1
	Switch B detection for Unlock Status	1
Status with KEYLESS ACCESS CONTROL UNIT	FOR KEY Authentication Result	1
Status with SLOT	FOR KEY Authentication Result	1

Are only values of status with KEYLESS ACCESS CONTROL UNIT 1?

YES–Replace the keyless access control unit (see page 22-605).■

NO–Replace the power control unit (see page 22-609).■

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DTC U0155: Power Control Unit Lost Communication With Gauge Control Module

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Press the engine start/stop button to select the ON mode.
3. Wait for at least 10 seconds.
4. Check for DTCs with the HDS.

   Is DTC U0155 indicated?

   YES–Go to the gauge control module input test, and do all power, ground, and communication input tests (see page 22-363). If the tests prove OK, replace the gauge control module (see page 22-367).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections between the power control unit and the gauge control module.■

DTC U0199: Power Control Unit Lost Communication With Door Multiplex Control Unit

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Press the engine start/stop button to select the OFF, ACC, and ON mode.
3. Wait for at least 10 seconds.
4. Check for DTCs with the HDS.

   Is DTC U0199 indicated?

   YES–Go to the door multiplex control unit input test, and do all power, ground, and communication input tests (see page 22-298). If the tests prove OK, replace the power window master switch (see page 22-309).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections between the power control unit and the door multiplex control unit.■

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DTC Troubleshooting (cont'd)

DTC B1601: Keyless Access Control Unit Internal (CPU) Error

DTC B1602: Keyless Access Control Unit Internal (EEPROM) Error

1. Do the battery terminal disconnection procedure (see page 22-86).
2. Wait for at least 10 seconds to clear the DTCs.
3. Do the battery terminal reconnection procedure (see page 22-86).
4. Push the door outer handle door lock button to lock the door.
5. Touch the door outer handle touch sensor to unlock the door.
6. Connect the HDS to the data link connector.
7. Press the engine start/stop button to select the ON mode according to the instructions on the HDS screen.
8. Check for DTCs with the HDS.

   Are DTCs B1601 and/or B1602 indicated?

   YES–Replace the keyless access control unit.■

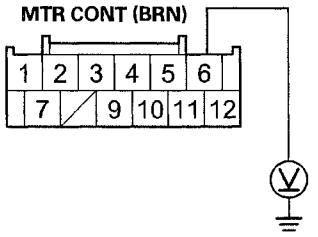
   NO–Intermittent failure, the system is OK at this time.■

DTC B1632: MTR CONT Signal Error

DTC B1927: MTR CONT Signal Error

1. Press the engine start/stop button to select the OFF mode.
2. Disconnect the electric steering lock 12P connector.
3. Measure the voltage between body ground and electric steering lock 12P connector terminal No. 6.

ELECTRIC STEERING LOCK 12P CONNECTOR



Wire side of female terminals

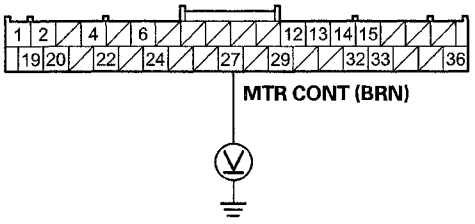
Is there battery voltage?

YES–Go to step 4.

NO–Go to step 8.

4. Disconnect keyless access control unit connector A (36P).
5. Measure the voltage between body ground and keyless access control unit connector A (36P) terminal No. 27.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there battery voltage?

YES–Go to step 6.

NO–Replace the keyless access control unit (see page 22-605).■

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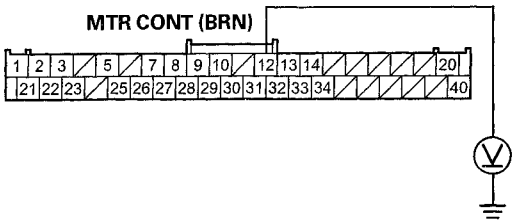
6. Disconnect the remote slot control unit 40P connector.
7. Measure the voltage between body ground and remote slot control unit 40P connector terminal No. 12.

REMOTE SLOT CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

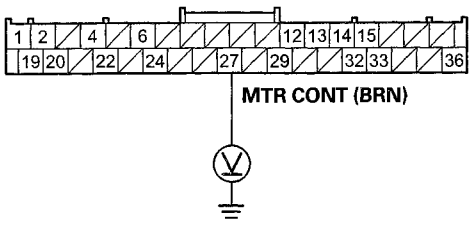
Is there battery voltage?

YES–Repair a short to power in the wire.■

NO–Replace the remote slot control unit (see page 22-614).■

8. Reconnect the electric steering lock 12P connector.
9. Disconnect keyless access control unit connector A (36P).
10. Measure the voltage between body ground and keyless access control unit connector A (36P) terminal No. 27.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there battery voltage?

YES–Replace the electric steering lock (see page 17-16).■

NO–Go to step 11.

11. Reconnect keyless access control unit connector A (36P).
12. Clear the DTCs with the HDS.
13. Do this procedure 10 times: Press the engine start/stop button to select the OFF, ACC, ON, and OFF mode.
14. Check for DTCs with the HDS.

Are DTCs B1632 and/or B1927 indicated?

YES–Substitute a known-good remote slot control unit. If the symptom goes away, replace the original remote slot control unit (see page 22-614). If not, substitute a known-good keyless access control unit. If the symptom goes away, replace the original keyless access control unit (see page 22-605). If not, replace the electric steering lock (see page 17-16).■

NO–Go to step 15.

15. Insert the remote into the remote slot.
16. Do this procedure 10 times: Press the engine start/stop button to select the OFF, ACC, ON, and OFF mode.
17. Check for DTCs with the HDS.

Are DTCs B1632 and/or B1927 indicated?

YES–Substitute a known-good remote slot control unit. If the symptom goes away, replace the original remote slot control unit (see page 22-614). If not, substitute a known-good keyless access control unit. If the symptom goes away, replace the original keyless access control unit (see page 22-605). If not, replace the electric steering lock (see page 17-16).■

NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■

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DTC Troubleshooting (cont'd)

DTC B1640: RF Unit 1 Not Connected

1. Clear the DTCs with the HDS.
2. Select the MODE MENU from the HDS, then enter the SELF CHECK.
3. Do the SELF CHECK.
4. Check for DTCs with the HDS.

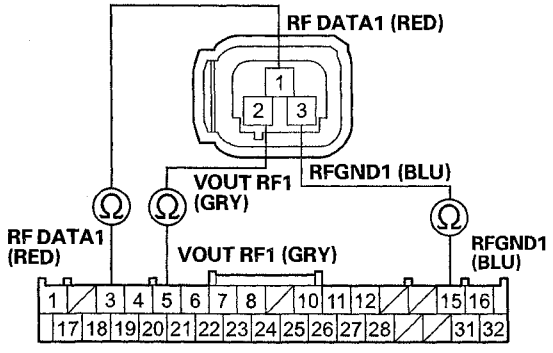
   Is DTC B1640 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Press the engine start/stop button to select the OFF mode.
6. Disconnect the RF unit 1 3P connector.
7. Disconnect keyless access control unit connector B (32P).
8. Check for continuity between the following RF unit 1 3P connector terminals and keyless access control unit connector B (32P) terminals.

RF UNIT 1	KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)
No. 1	No. 3
No. 2	No. 5
No. 3	No. 15

RF UNIT 1 3P CONNECTOR
Wire side of female terminals



KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)
Wire side of female terminals

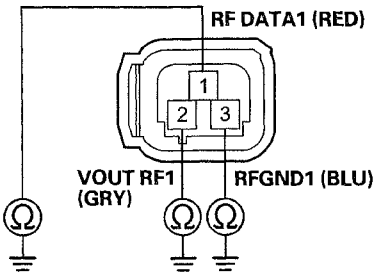
Is there continuity?

YES–Go to step 9.

NO–Repair an open in the wire.■

9. Check for continuity between body ground and RF unit 1 3P connector terminals No. 1, No. 2, and No. 3 individually.

RF UNIT 1 3P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Substitute a known-good RF unit 1. If the symptom goes away, replace the original RF unit 1 (see page 22-616). If not, replace the keyless access control unit (see page 22-605).■

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DTC B1641: RF Unit 2 Not Connected

1. Clear the DTCs with the HDS.
2. Select the MODE MENU from the HDS, then enter the SELF CHECK.
3. Do the SELF CHECK.
4. Check for DTCs with the HDS.

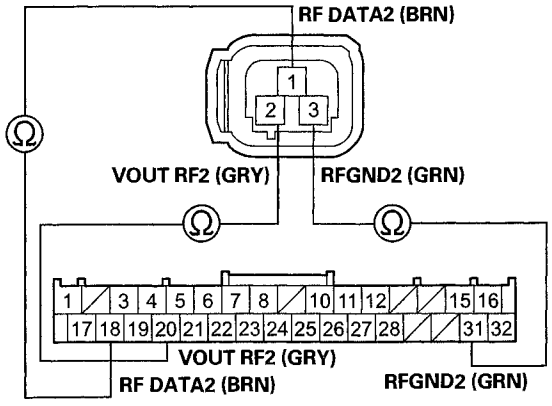
   Is DTC B1641 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Press the engine start/stop button to select the OFF mode.
6. Disconnect the RF unit 2 3P connector.
7. Disconnect keyless access control unit connector B (32P).
8. Check for continuity between the following RF unit 2 3P connector terminals and keyless access control unit connector B (32P) terminals.

RF UNIT 2	KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)
No. 1	No. 18
No. 2	No. 20
No. 3	No. 31

RF UNIT 2 3P CONNECTOR
Wire side of female terminals



KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)
Wire side of female terminals

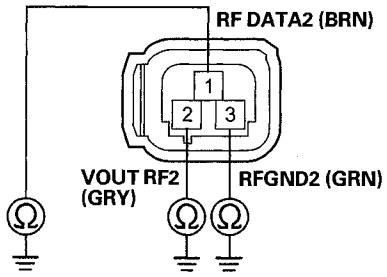
Is there continuity?

YES–Go to step 9.

NO–Repair an open in the wire.■

9. Check for continuity between body ground and RF unit 2 3P connector terminals No. 1, No. 2, and No. 3 individually.

RF UNIT 2 3P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Substitute a known-good RF unit 2. If the symptom goes away, replace the original RF unit 2 (see page 22-616). If not, replace the keyless access control unit (see page 22-605).■

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DTC Troubleshooting (cont'd)

DTC B1646: Driver's Door LF Antenna Circuit Open or Short

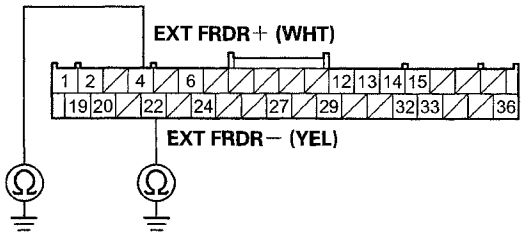
1. Clear the DTCs with the HDS.
2. Select the MODE MENU from the HDS, then enter the SELF CHECK.
3. Do the SELF CHECK.
4. Check for DTCs with the HDS.

   Is DTC B1646 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Press the engine start/stop button to select the OFF mode.
6. Disconnect keyless access control unit connector A (36P).
7. Disconnect the driver's door LF antenna 8P connector.
8. Check for continuity between body ground and keyless access control unit connector A (36P) terminals No. 4 and No. 22 individually.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there continuity?

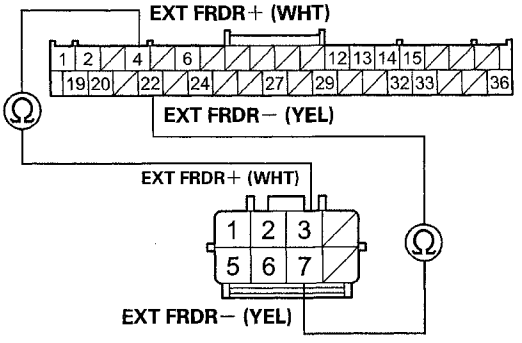
YES–Repair a short to ground in the wire.■

NO–Go to step 9.

9. Check for continuity between keyless access control unit connector A (36P) terminals No. 4 and No. 22 and driver's door LF antenna 8P connector terminals No. 3 and No. 7 respectively.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)

Wire side of female terminals



DRIVER'S DOOR LF ANTENNA 8P CONNECTOR

Wire side of female terminals

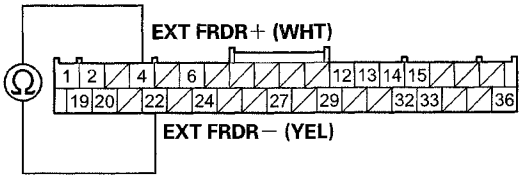
Is there continuity?

YES–Go to step 10.

NO–Repair an open in the wire.■

10. Check for continuity between keyless access control unit connector A (36P) terminals No. 4 and No. 22.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there continuity?

YES–Repair a short between the wires.■

NO–Go to step 11.

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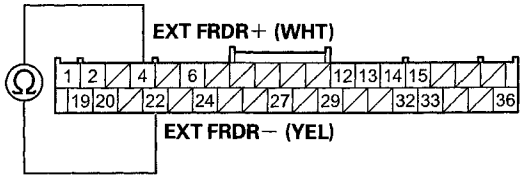
11. Reconnect the driver's door LF antenna 8P connector.
12. Measure the resistance between keyless access control unit connector A (36P) terminals No. 4 and No. 22.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there 1—5 Ω?

YES–Replace the keyless access control unit (see page 22-605).■

NO–Replace the driver's door LF antenna (see page 20-15).■

DTC B1648: Passenger's Door LF Antenna Circuit Open or Short

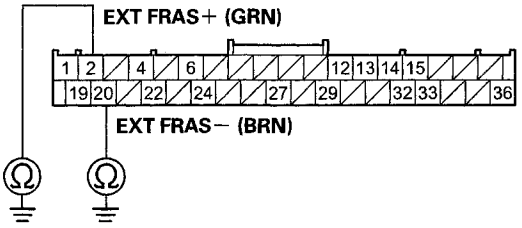
1. Clear the DTCs with the HDS.
2. Select the MODE MENU from the HDS, then enter the SELF CHECK.
3. Do the SELF CHECK.
4. Check for DTCs with the HDS.

   Is DTC B1648 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Press the engine start/stop button to select the OFF mode.
6. Disconnect keyless access control unit connector A (36P).
7. Disconnect the passenger's door LF antenna 8P connector.
8. Check for continuity between body ground and keyless access control unit connector A (36P) terminals No. 2 and No. 20 individually.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 9.

(cont'd)

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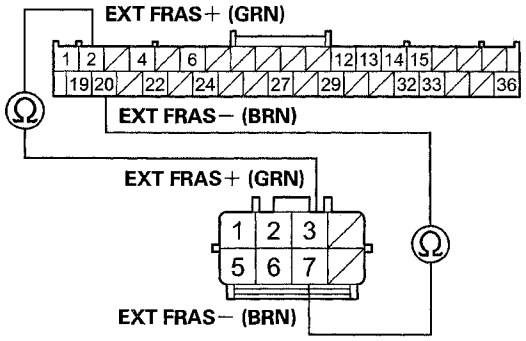
DTC Troubleshooting (cont'd)

9. Check for continuity between keyless access control unit connector A (36P) terminals No. 2 and No. 20 and passenger's door LF antenna 8P connector terminals No. 3 and No. 7 respectively.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)
Wire side of female terminals



PASSENGER'S DOOR LF ANTENNA 8P CONNECTOR
Wire side of female terminals

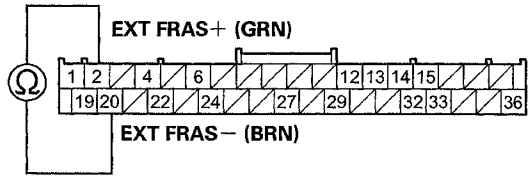
Is there continuity?

YES–Go to step 10.

NO–Repair an open in the wire.■

10. Check for continuity between keyless access control unit connector A (36P) terminals No. 2 and No. 20.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there continuity?

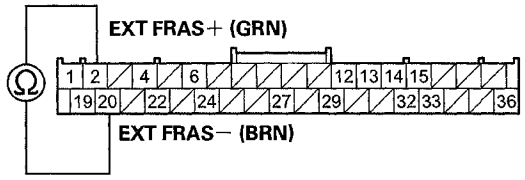
YES–Repair a short between the wires.■

NO–Go to step 11.

11. Reconnect the passenger's door LF antenna 8P connector.

12. Measure the resistance between keyless access control unit connector A (36P) terminals No. 2 and No. 20.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there 1—5 Ω?

YES–Replace the keyless access control unit (see page 22-605).■

NO–Replace the passenger's door LF antenna (see page 20-15).■

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DTC B1658: Rear Bumper LF Antenna Circuit Open or Short

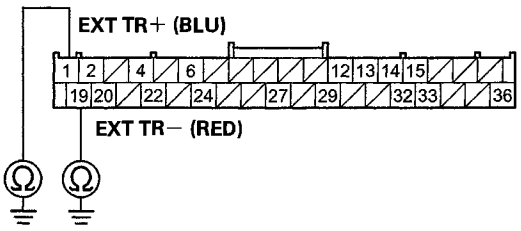
1. Clear the DTCs with the HDS.
2. Select the MODE MENU from the HDS, then enter the SELF CHECK.
3. Do the SELF CHECK.
4. Check for DTCs with the HDS.

   Is DTC B1658 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Press the engine start/stop button to select the OFF mode.
6. Disconnect keyless access control unit connector A (36P).
7. Disconnect the rear bumper LF antenna 2P connector.
8. Check for continuity between body ground and keyless access control unit connector A (36P) terminals No. 1 and No. 19 individually.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

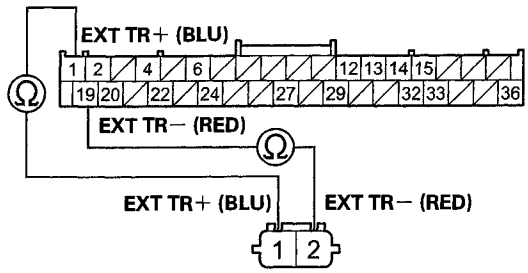
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 9.

9. Check for continuity between keyless access control unit connector A (36P) terminals No. 1 and No. 19 and rear bumper LF antenna 2P connector terminals No. 1 and No. 2 respectively.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)
Wire side of female terminals



REAR BUMPER LF ANTENNA 2P CONNECTOR
Wire side of female terminals

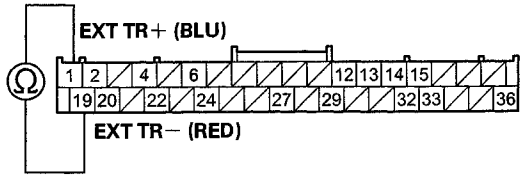
Is there continuity?

YES–Go to step 10.

NO–Repair an open in the wire.■

10. Check for continuity between keyless access control unit connector A (36P) terminals No. 1 and No. 19.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there continuity?

YES–Repair a short between the wires.■

NO–Go to step 11.

(cont'd)

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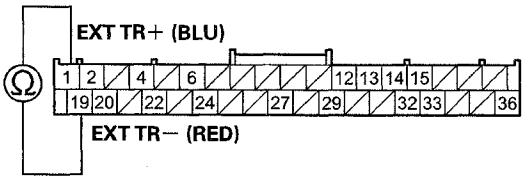
DTC Troubleshooting (cont'd)

11. Reconnect the rear bumper LF antenna 2P connector.
12. Measure the resistance between keyless access control unit connector A (36P) terminals No. 1 and No. 19.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there 1–5 Ω?

YES–Replace the keyless access control unit (see page 22-605).■

NO–Replace the rear bumper LF antenna (see page 22-618).■

DTC B1660: Front Interior LF Antenna Circuit Open or Short

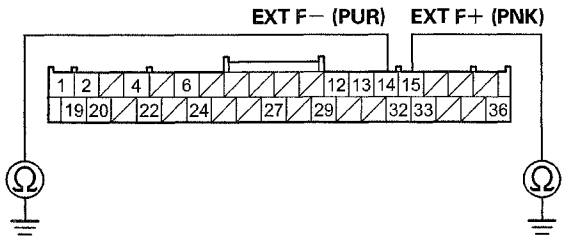
1. Clear the DTCs with the HDS.
2. Select the MODE MENU from the HDS, then enter the SELF CHECK.
3. Do the SELF CHECK.
4. Check for DTCs with the HDS.

   Is DTC B1660 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Press the engine start/stop button to select the OFF mode.
6. Disconnect keyless access control unit connector A (36P).
7. Disconnect the front interior LF antenna 2P connector.
8. Check for continuity between body ground and keyless access control unit connector A (36P) terminals No. 14 and No. 15 individually.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 9.

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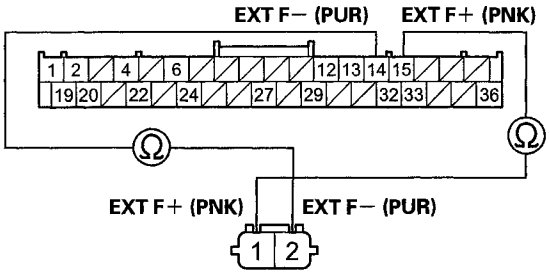
9. Check for continuity between keyless access control unit connector A (36P) terminals No. 14 and No. 15 and front interior LF antenna 2P connector terminals No. 2 and No. 1 respectively.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)
Wire side of female terminals



FRONT INTERIOR LF ANTENNA 2P CONNECTOR
Wire side of female terminals

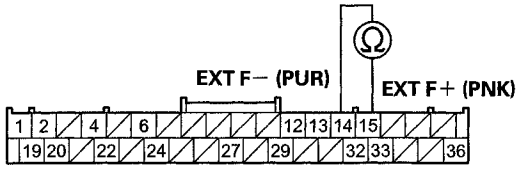
Is there continuity?

YES–Go to step 10.

NO–Repair an open in the wire.■

10. Check for continuity between keyless access control unit connector A (36P) terminals No. 14 and No. 15.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there continuity?

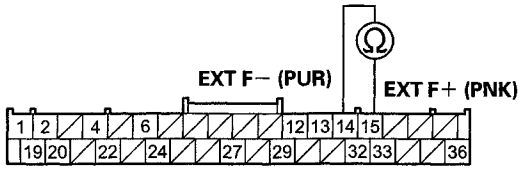
YES–Repair a short between the wires.■

NO–Go to step 11.

11. Reconnect the front interior LF antenna 2P connector.

12. Measure the resistance between keyless access control unit connector A (36P) terminals No. 14 and No. 15.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there 1—5 Ω?

YES–Replace the keyless access control unit (see page 22-605).■

NO–Replace the front interior LF antenna (see page 22-617).■

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DTC Troubleshooting (cont'd)

DTC B1664: Rear Interior LF Antenna Circuit Open or Short

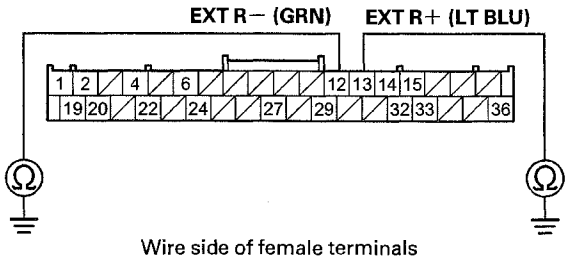
1. Clear the DTCs with the HDS.
2. Select the MODE MENU from the HDS, then enter the SELF CHECK.
3. Do the SELF CHECK.
4. Check for DTCs with the HDS.

   Is DTC B1664 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Press the engine start/stop button to select the OFF mode.
6. Disconnect keyless access control unit connector A (36P).
7. Disconnect the rear interior LF antenna 2P connector.
8. Check for continuity between body ground and keyless access control unit connector A (36P) terminals No. 12 and No. 13 individually.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

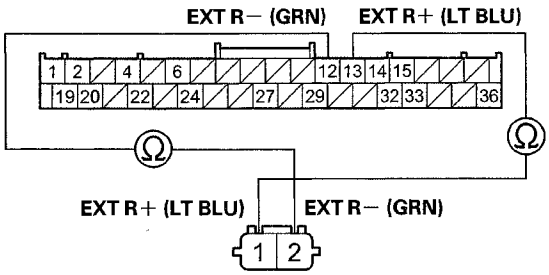
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 9.

9. Check for continuity between keyless access control unit connector A (36P) terminals No. 12 and No. 13 and rear interior LF antenna 2P connector terminals No. 2 and No. 1 respectively.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)
Wire side of female terminals



REAR INTERIOR LF ANTENNA 2P CONNECTOR
Wire side of female terminals

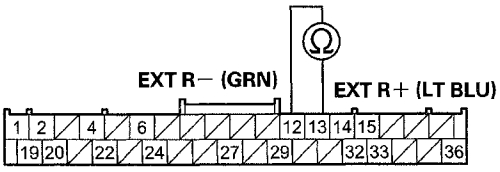
Is there continuity?

YES–Go to step 10.

NO–Repair an open in the wire.■

10. Check for continuity between keyless access control unit connector A (36P) terminals No. 12 and No. 13.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there continuity?

YES–Repair a short between the wires.■

NO–Go to step 11.

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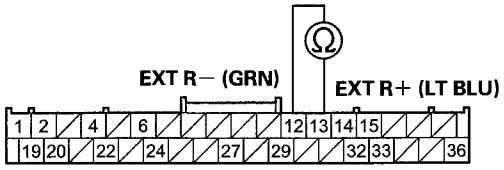
11. Reconnect the rear interior LF antenna 2P connector.
12. Measure the resistance between keyless access control unit connector A (36P) terminals No. 12 and No. 13.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there 1−5 Ω?

YES–Replace the keyless access control unit (see page 22-605).■

NO–Replace the rear interior LF antenna (see page 22-617).■

DTC B1668: Rear Shelf LF Antenna Circuit Open or Short

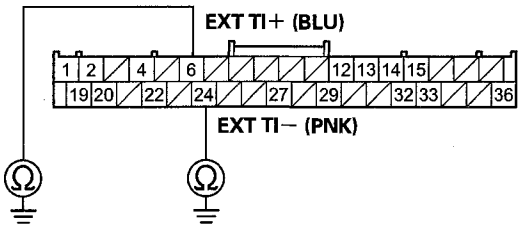
1. Clear the DTCs with the HDS.
2. Select the MODE MENU from the HDS, then enter the SELF CHECK.
3. Do the SELF CHECK.
4. Check for DTCs with the HDS.

   Is DTC B1668 indicated?

   YES–Go to step 5.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
5. Press the engine start/stop button to select the OFF mode.
6. Disconnect keyless access control unit connector A (36P).
7. Disconnect the rear shelf LF antenna 2P connector.
8. Check for continuity between body ground and keyless access control unit connector A (36P) terminals No. 6 and No. 24 individually.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 9.

(cont'd)

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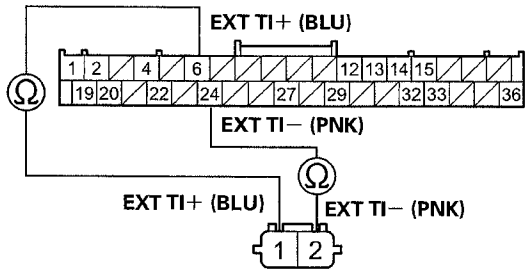
DTC Troubleshooting (cont'd)

9. Check for continuity between keyless access control unit connector A (36P) terminals No. 6 and No. 24 and rear shelf LF antenna 2P connector terminals No. 1 and No. 2 respectively.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)
Wire side of female terminals



REAR SHELF LF ANTENNA 2P CONNECTOR
Wire side of female terminals

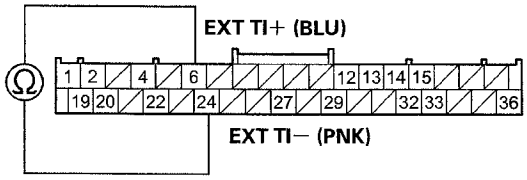
Is there continuity?

YES–Go to step 10.

NO–Repair an open in the wire.■

10. Check for continuity between keyless access control unit connector A (36P) terminals No. 6 and No. 24.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there continuity?

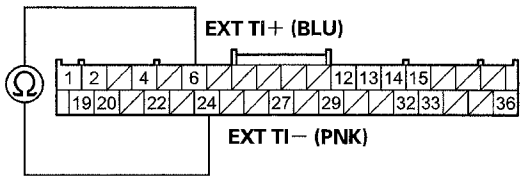
YES–Repair a short between the wires.■

NO–Go to step 11.

11. Reconnect the rear shelf LF antenna 2P connector.

12. Measure the resistance between keyless access control unit connector A (36P) terminals No. 6 and No. 24.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there 1–5 Ω?

YES–Replace the keyless access control unit (see page 22-605).■

NO–Replace the rear shelf LF antenna (see page 22-618).■

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DTC U0155: Keyless Access Control Unit Lost Communication With Gauge Control Module

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Press the engine start/stop button to select the OFF, ACC, and ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U0155 indicated?

   YES–Go to the gauge control module input test, and do all power, ground, and communication input tests (see page 22-363). If the tests prove OK, replace the gauge control module (see page 22-367).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at the gauge control module and the related units.■

DTC U0199: Keyless Access Control Unit Lost Communication With Door Multiplex Control Unit

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Press the engine start/stop button to select the OFF, ACC, and ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U0199 indicated?

   YES–Go to the door multiplex control unit input test, and do all power, ground, and communication input tests (see page 22-298). If the tests prove OK, replace the power window master switch (see page 22-309).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at the door multiplex control unit and the related units.■

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DTC Troubleshooting (cont'd)

DTC U1282: Keyless Access Control Unit Lost Communication With Driver's MICU

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Press the engine start/stop button to select the OFF, ACC, and ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U1282 indicated?

   YES–Go to the driver's MICU input test, and do all power, ground, and communication input tests (see page 22-156). If the tests prove OK, replace the driver's under-dash fuse/relay box (see page 22-81).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at driver's under-dash fuse/relay box connector P (20P) and the related units.■

DTC U1283: Keyless Access Control Unit Lost Communication With Passenger's MICU

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Press the engine start/stop button to select the OFF, ACC, and ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

   Is DTC U1283 indicated?

   YES–Go to the passenger's MICU input test, and do all power, ground, and communication input tests (see page 22-161). If the tests prove OK, replace the passenger's under-dash fuse/relay box (see page 22-83).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at passenger's under-dash fuse/relay box connector A (33P) and the related units.■

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DTC B1901: Remote Slot Control Unit Internal Error (CPU Error)

DTC B1902: Remote Slot Control Unit Internal Error (EEPROM Error)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Do the battery terminal disconnect procedure (see page 22-86).
2. Wait for at least 10 seconds to clear the DTCs.
3. Do the battery terminal reconnection procedure (see page 22-86).
4. Push the door outer handle lock button to lock the door.
5. Touch the door outer handle touch sensor to unlock the door.
6. Connect the HDS to the data link connector.
7. Press the engine start/stop button to select the ON mode according to the instructions on the HDS screen.
8. Check for DTCs with the HDS.

   Are DTCs B1901 and/or B1902 indicated?

   YES–Faulty remote slot control unit; replace it (see page 22-614).■

   NO–Intermittent failure, the system is OK at this time.■

DTC B1926: Remote Slot Antenna Open or Short

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Insert the remote into the remote slot.
3. Do the procedure 10 times: Press the engine start/stop button to select the OFF, ACC, ON, and OFF mode.
4. Select the ONE-PUSH START from the system select menu with the HDS.
5. Select the SLOT UNIT and check for DTCs with the HDS.

   Is DTC B1926 indicated?

   YES–Replace the remote slot (see page 22-614).■

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■

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DTC Troubleshooting (cont'd)

DTC B1930: Remote Slot Control Unit LOCK/ UNLOCK Error

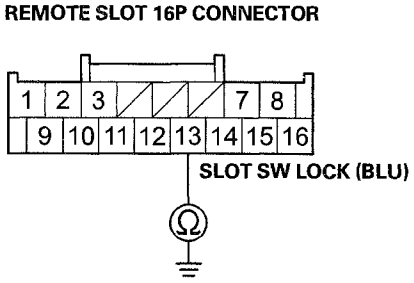
NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Insert the remote into the remote slot.
3. Do the procedure 10 times: Press the engine start/stop button to select the OFF, ACC, ON, and OFF mode.
4. Select the ONE-PUSH START from the system select menu with the HDS.
5. Select the SLOT UNIT and check for DTCs with the HDS.

   Is DTC B1930 indicated?

   YES–Go to step 6.

   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
6. Press the engine start/stop button to select the OFF mode.
7. Disconnect the remote slot control unit 40P connector.
8. Disconnect the remote slot 16P connector.
9. Check for continuity between body ground and remote slot 16P connector terminal No. 13.



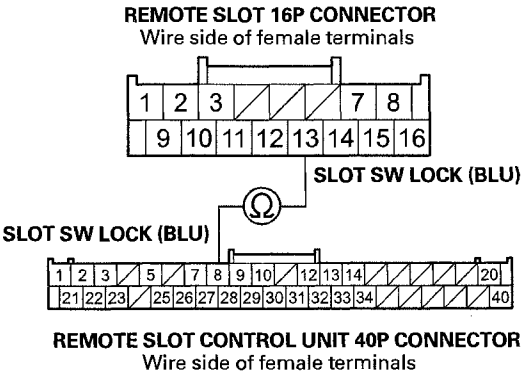
Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 10.

10. Check for continuity between remote slot control unit 40P connector terminal No. 8 and remote slot 16P connector terminal No. 13.

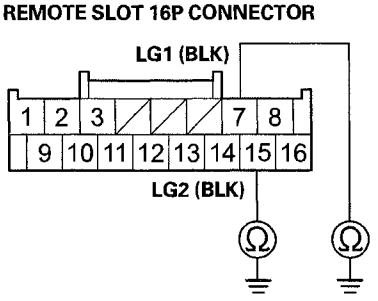


Is there continuity?

YES–Go to step 11.

NO–Repair an open in the wire.■

11. Check for continuity between body ground and remote slot 16P connector terminals No. 7 and No. 15 individually.



Wire side of female terminals

Is there continuity?

YES–Check for loose or poor connections at the remote slot control unit and the remote slot. If the connections are OK, substitute a known-good remote slot. If the symptom goes away, replace the original remote slot. If not, replace the remote slot control unit.■

NO–Repair an open in the wire or poor ground (G403).■

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DTC B1931: Remote Slot Control Unit no Response

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Insert the remote into the remote slot.
3. Do the procedure 10 times: Press the engine start/stop button to select the OFF, ACC, ON, and OFF mode.
4. Select the ONE-PUSH START from the system select menu with the HDS.
5. Select the SLOT UNIT and check for DTCs with the HDS.

   Is DTC B1931 indicated?

   YES–Go to step 6.

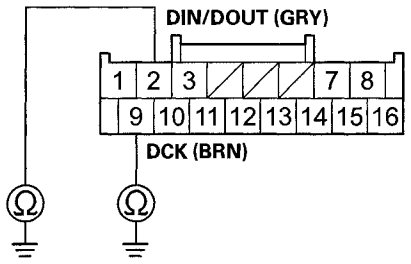
   NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections.■
6. Check for loose connections in the remote slot 16P connector.

   Is the connections OK?

   YES–Go to step 7.

   NO–Replace the faulty connections, and then recheck the system.■
7. Press the engine start/stop button to select the OFF mode.
8. Disconnect the remote slot control unit 40P connector.
9. Disconnect the remote slot 16P connector.
10. Check for continuity between body ground and remote slot 16P connector terminals No. 2 and No. 9 individually.

REMOTE SLOT 16P CONNECTOR



Wire side of female terminals

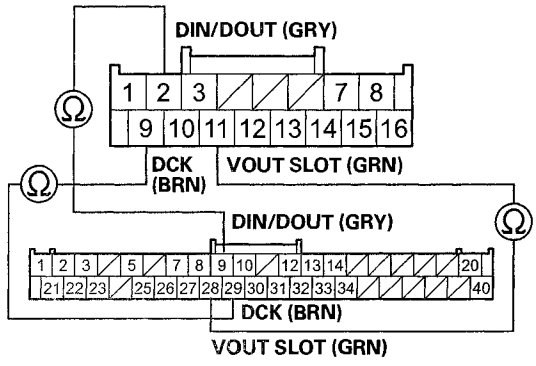
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 11.

11. Check for continuity between remote slot control unit 40P connector terminals No. 9, No. 29, and No. 28, and remote slot 16P connector terminals No. 2, No. 9, and No. 11 respectively.

REMOTE SLOT 16P CONNECTOR
Wire side of female terminals



REMOTE SLOT CONTROL UNIT 40P CONNECTOR
Wire side of female terminals

Is there continuity?

YES–Go to step 12.

NO–Repair an open in the wire.■

(cont'd)

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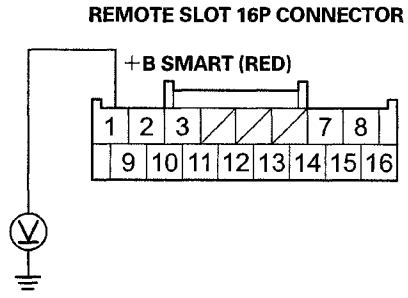
DTC Troubleshooting (cont'd)

12. Reconnect the remote slot control unit 40P connector.
13. Press the engine start/stop button to select the OFF mode.
14. Measure the voltage between body ground and the remote slot 16P connector terminal No. 1.



Wire side of female terminals

Is there battery voltage?

YES–Substitute a known-good remote slot. If the symptom goes away, replace the original remote slot (see page 22-619). If not, replace the remote slot control unit (see page 22-614).■

NO–Repair an open in the wire.■

DTC U0155: Remote Slot Control Unit Lost Communication With Gauge Control Module

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Clear the DTCs with the HDS.
2. Press the engine start/stop button to select the ON mode.
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

Is DTC U0155 indicated?

YES–Go to the gauge control module input test, and do all power, ground, and communication input tests (see page 22-363). If the tests prove OK, replace the gauge control module (see page 22-367).■

NO–Intermittent failure, the system is OK at this time. Check for loose or poor connections at the gauge control module and the related units.■

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Symptom Troubleshooting Information

1. Symptom troubleshooting by the immobilizer indicator.

   The immobilizer and keyless access system condition can be checked by the immobilizer indicator lighting pattern.

   Normal operation:

   When pressing the engine start/stop button to select the ON mode and the immobilizer code is identified, the immobilizer indicator quickly flashes once.

   Immobilizer code is not identified:

   When pressing the engine start/stop button to select the ON mode but the immobilizer code is not identified, the immobilizer indicator comes on for 2 seconds, then blinks until the OFF mode is selected. The state of the keyless registration and IMOCD (S-NET) line can be checked by doing a system check and status log checks with the HDS.

   When in the OFF mode, the immobilizer indicator will blink 10 times to signal that until has reset correctly, then the immobilizer indicator will go off.

   Immobilizer indicator does not come on:

   If the immobilizer indicator does not come on after pressing the engine start/stop button to select the ON mode, there is an open or short in the F-CAN lines between the ECM/PCM and the gauge control module. Watch the malfunction indicator lamp (MIL). If the MIL stays on, go to the PGM-FI system troubleshooting (see page 11-257).

   Immobilizer indicator does not go off:

   If the immobilizer indicator does not go off after pressing the engine start/stop button to select the ON mode, do the gauge control module self-diagnostic function (see page 22-342). If the indicator drive circuit is OK, do the SYSTEM CHECK and STATUS LOG CHECK with the HDS.

2. General check before troubleshooting.

   Before troubleshooting the keyless access system, check the following items and solve any if applicable issues.
   - Check the No. 3-1 (IG MAIN) (50 A) fuse and the No. 15 (10 A) in the under-hood fuse/relay box.
   - Check the No. 9 (20 A) fuse in the driver's under-dash fuse/relay box.
   - Check for poor connection at the power control unit and the keyless access control unit.
   - Check for DTCs with the HDS, if there is a DTC indicated, troubleshoot the DTC first.
   - Before testing, troubleshoot the keyless access system first using SELF CHECK, and if any malfunction is found, troubleshoot it first.
   - Make sure the remote is not in a purse with coins, wrapped with any metal material, placed near a mobile phone or computer.
   - Make sure the vehicle battery is fully charged.
   - Make sure the remote batteries are not low; if they are, replace the battery.
   - Make sure a different remote is not being used; only use an Acura-approved remote.
   - Make sure the remote is not attached to a key ring or key case, if it is, remove the key from it.
   - Make sure aftermarket accessories are not installed: remove any aftermarket accessories.
   - Make sure aftermarket accessories are not connected to the IMOCD (S-NET) line: disconnect any aftermarket accessories from the IMOCD (S-NET) line.
   - Make sure there is no electrical interference nearby: avoid areas with electrical interference.

(cont'd)

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Symptom Troubleshooting Information (cont'd)

3. System Checks.

If a System Check 1 or 2 result is indicated on the display of the HDS, troubleshoot the items based on these Check tables.

System Check 1 (Keyless Access Control Unit)

System Check No.	Possible cause	Check items
A-1 A-2 A-3 G-4	• Remote is mismatched • RF unit failure • LF interior antenna failure • Remote is not registered	• Remote test • RF unit test • LF interior antenna test • Register the remote
B-1 B-2 G-1	• ECM/PCM is replaced • No communication between Keyless Access Control Unit and ECM/PCM • Open in the IG1 line • Keyless Access Control Unit is replaced	• Register the ECM/PCM • Check ECM/ PCM • Check harness • Register the Keyless Access Control Unit
C-1 C-2 G-2	• MICU (Imoes unit) is replaced • Communication error between Keyless Access Control Unit and MICU • Open in the IG1 line • Keyless Access Control Unit is replaced • Remote Slot Control Unit is replaced	• Register the Keyless Access Control Unit • Check MICU • Check harness
G-5	• Power Control Unit is replaced • Electric Steering Lock is replaced • Keyless Access Control Unit is replaced	• Register the Power Control Unit • Check for an open or short in the wire IGN TRX lines

System Check 2 (Keyless Access Control Unit)

System Check No.	Possible cause	Check items
C-3 C-4	• Power Control Unit is replaced • Electric Steering Lock is replaced • Keyless Access Control Unit is replaced	• Register the Power Control Unit • Check for an open or short in the wire IGN TRX lines
D-1 D-2 D-3	• IMOCD (S-NET) line is short • No communication between Keyless Access Control Unit and MICU (Imoes unit) • No communication between Keyless Access Control Unit and ECM/PCM	• Check harness • Check MICU • Check ECM/PCM
D-4 D-5	IGN TRX line trouble	Check IGN TRX line
E-1 E-2 E-3 E-4 E-5	Remote Slot Control Unit is not registered	Register the Remote Slot Control Unit
F-1 F-2 F-3 F-4 F-5	Special Mode	Press the engine start/stop button to select the ON mode and then select the OFF mode with a registered remote

System Check (Remote Slot Control Unit)

System Check No.	Possible cause	Check items
A-1 A-2 A-3	• Remote is mismatched • Remote Slot failure • Remote is not registered	• Register the remote • Check Remote Slot
B-1 B-2	• ECM/PCM is replaced • Communication error between Remote Slot Control Unit and ECM/PCM	• Register the ECM/PCM • Check ECM/PCM
C-1 C-2	• MICU is replaced • Communication error between Remote Slot Control Unit and MICU • Open in the IG1 line	• Register the Remote Slot Control Unit • Check MICU • Check harness
D-1 D-2 D-3	• S-NET line short • No communication between Remote Slot Control Unit and MICU • No communication between Remote Slot Control Unit and ECM/PCM	• Check harness • Check MICU • Check ECM/PCM

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4. Status Log.

If the symptom does not occur again during the symptom check, check the Status Log with the HDS, and troubleshoot the items based on this table:

Check the status log count. Troubleshoot the status log number with the highest count first. If no counts are listed, the keyless access system is OK. Continue with normal symptom troubleshooting.

Status Log (Keyless Access Control Unit)

Status Log No.	Possible cause
B-1 B-2	• ECM/PCM was not registered correctly. • Keyless Access Control Unit was registered correctly • Poor connections or loose terminals between Keyless Access Control Unit and ECM/PCM • Poor connections or loose terminals in the IG1 line • Low Battery voltage • Electrical noise
C-1 C-2	• Communication error between Keyless Access Control Unit and MICU • Poor connections or loose terminals in the IG1 line • Keyless Access Control Unit was not registered • Low Battery voltage • Electrical noise
D-1 D-2 D-3	• Poor connections or loose terminals between Keyless Access Control Unit and MICU (Imoes unit) • Poor connections or loose terminals between Keyless Access Control Unit and ECM/PCM • Low Battery voltage • Electrical noise • Blown fuse

Status Log (Remote Slot Control Unit)

Status Log No.	Possible cause
A-1 A-2 A-3	• Remote was not registered correctly • Remote Slot failure
B-1 B-2	• ECM/PCM was not registered correctly • Communication error between Remote Slot Control Unit and ECM/PCM • Low Battery voltage • Electrical noise
C-1 C-2	• Remote Slot Control Unit was not registered correctly • Communication error between Remote Slot Control Unit and MICU • Poor connections or loose terminals in the IG1 line • Low Battery voltage • Electrical noise
D-1 D-2 D-3	• Poor connections or loose terminals between Remote Slot Control Unit and MICU (Imoes unit) • Poor connections or loose terminals between Remote Slot Control Unit and ECM/PCM • S-NET line short • Low Battery voltage • Electrical noise • Blown fuse

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Symptom Troubleshooting Index

Symptom	Diagnostic procedure	Also check for
Cannot select ON mode with keyless access or with the remote in the remote slot	Symptom Troubleshooting (see page 22-561)	• No. 3-1 (IG MAIN) (50 A) and No. 15 (10 A) fuses in the under-hood fuse/relay box • No. 9 (20 A) fuse in the driver's under-dash fuse/relay box • Poor connections at the power control unit • Gauge control module • Power control unit • Electric steering lock • Engine start/stop switch • SS1 (+) line open/power short/ground short • SS2 (−) line open/short • B-CAN communication line • F-CAN communication line • ESL SW B, C, D lines open/short • MTR CONT line open/short • IGN TRX line open/short • Not registered • Harness/connections
Cannot select ON mode with keyless access, but can select ON mode with the remote in the remote slot	Symptom Troubleshooting (see page 22-569)	• Keyless access control unit • Keyless access system mode switch • Remote slot • RF unit • LF antenna • Remote • Low or weak remote battery • MTR CONT line open/short • IGN TRX line open/short • ESLID mismatch • Not registered • Harness/connections
Cannot select ON mode with the remote in the remote slot, but can select ON mode with the remote removed	Symptom Troubleshooting (see page 22-572)	• Keyless access control unit • Remote slot control unit • Remote slot • MTR CONT line power short • ESLID mismatch • Not registered • Harness/connections
The engine cranks but will not start with keyless access or with the remote in the remote slot	Symptom Troubleshooting (see page 22-576)	• No power to ECM/PCM • No power to driver's MICU • ESL SW B line open • Electric steering lock • Harness/fuses
The engine cranks but will not start with keyless access	Symptom Troubleshooting (see page 22-579)	• S-net line open/short • ESL SW B line open • IMOCD mismatch • IMOES mismatch
The engine cranks but will not start with the remote in the remote slot	Symptom Troubleshooting (see page 22-580)	• S-net line open/short • ESL SW B line open • IMOCD mismatch • IMOES mismatch

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Symptom	Diagnostic procedure	Also check for
All the doors and the trunk will not lock and unlock	Symptom Troubleshooting (see page 22-581)	• Keyless access control unit • RF unit • LF antenna • Keyless access system mode switch • Driver's door lock knob switch • Door outer handle touch sensor/lock switch • Door lock actuators • Remote • Low or weak remote battery • Not registered
The doors will not unlock (lock is normal) with keyless access or with the remote buttons, or the doors will not lock (unlock is normal) with keyless access or with the remote buttons	Symptom Troubleshooting (see page 22-589)	• Driver's MICU • Remote • Door outer handle touch sensor/lock switch • Door switches
Keyless access indicator does not go off or does not come on	Symptom Troubleshooting (see page 22-590)	• Gauge control module • Keyless access control unit • Power control unit • Remote slot control unit
Immobilizer indicator does not go off or does not come on	Symptom Troubleshooting (see page 22-591)	• Gauge control module • Keyless access control unit • ECM/PCM
The key-in reminder does not sound	Symptom Troubleshooting (see page 22-592)	• Gauge control module • Driver's door switch • Keyless access control unit • Driver's MICU • PCUKEY line open • Harness
The key-in reminder sounds when the remote is removed from the remote slot and door is open	Symptom Troubleshooting (see page 22-593)	• Remote slot • Driver's MICU • Power control unit • Engine start/stop switch • Harness
Engine does not crank (power supply is normal)	• Check the brake pedal position switch (A/T) (see page 22-240) • Check the clutch pedal position switch A (M/T) (see page 4-15) • Check the power control unit (see page 22-609)	• Power control unit • STS line open/short • Brake pedal position switch (A/T) • Brake light line open/short (A/T) • Clutch pedal position switch A (M/T) • CLUTCH line open/short (M/T)
Engine start/stop switch does not work	Check for DTCs. If any DTC is indicated, go to the DTC troubleshooting	• Power control unit • Engine start/stop switch • SS1 (+) line open/short • SS2 (−) line open/short • Harness
The mode changes between ACC and ON, but it does not change to OFF (A/T)	• Check the transmission range switch (see page 14-259) • Check the power control unit (see page 22-609)	• AT-P line short • Transmission range switch • Power control unit

(cont'd)

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Symptom Troubleshooting Index (cont'd)

Symptom	Diagnostic procedure	Also check for
The mode changes between ACC and ON, but it is difficult to change to OFF	• Check the power control unit (see page 22-609) • Check the keyless access control unit (see page 22-605) • Check the remote slot control unit (see page 22-614) • Check the gauge control module (see page 22-363)	• Gauge control module • Keyless access control unit • Remote slot control unit • Power control unit • ECM/PCM • B-CAN communication line open/short • F-CAN communication line open/short • Speed signal line open
Remote cannot be removed from the remote slot	Check the park pin switch (A/T) (see page 22-96)	• Remote slot • Park pin switch (A/T) • P-PIN line short (A/T)
Remote will not go into the remote slot	Symptom Troubleshooting (see page 22-597)	Damaged remote casing
The doors will not unlock or lock with the remote, but will unlock or lock with the door outer handles	Symptom Troubleshooting (see page 22-582)	• Remote battery dead • Remote • Driver's MICU • RF unit • Remote slot • Power control unit • SLOT SW HALF/FULL/FULL2 lines short • PCUKEY line short • SS1 (+) line short • SS2 (−) line short • IG1A line short • ACC line short • B-CAN communication line open/short • Not registered • Harness/fuses
The doors will not unlock or lock with the door outer handle touch sensor or lock switch, but will unlock or lock with the remote	Symptom Troubleshooting (see page 22-584)	• Door outer handles • Keyless access system mode switch • Keyless access control unit • Remote • LF antenna • Driver's MICU • RF unit • Not registered • Harness/fuses

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Symptom Troubleshooting

Cannot select ON mode with keyless access or with the remote in the remote slot

1. Check the following fuses:
   - No. 3-1 (IG MAIN) (50 A) and No. 15 (10 A) in the under-hood fuse/relay box
   - No. 9 (20 A) in the driver's under-dash fuse relay/box
   - No. 12 (10 A) in the passenger's under-dash fuse/relay box

   Are the fuses OK?

   YES–Go to step 2.

   NO–Replace the fuse(s) and recheck the system.■
2. Turn the keyless access system mode switch ON.
3. Insert the remote into the remote slot.
4. Press the engine start/stop button to select the ON mode while turning the steering wheel to the left and to the right.

   Does the system change to ON mode?

   YES–The system is OK at this time.■

   NO–Go to step 5.
5. Repeat step 4 at least 10 times.

   Does the system change to ON mode?

   YES–The system is OK at this time.■

   NO–Go to step 6.
6. Remove the remote from the remote slot.
7. Press the engine start/stop button to select the ON mode while turning the steering wheel to the left and to the right.

   Does the system change to ON mode?

   YES–The system is OK at this time.■

   NO–Go to step 8.
8. Repeat step 7 at least 10 times.

   Does the system change to ON mode?

   YES–The system is OK at this time.■

   NO–Go to step 9.
9. Connect the HDS to the data link connector (DLC), and boot the HDS.
10. Select model on the HDS screen.
11. When prompted by the HDS, select YES when asked if the vehicle has keyless access system, then press and hold the engine start/stop button for up to 120 seconds. This selects the forced ON mode.

    Does the system change to forced ON mode?

    YES–Go to step 12.

    NO–If the screen displays a DTC is stored, go to step 46. If the screen displays "Cannot detect ENGINE START/STOP button signal," go to step 18.
12. Check for PCU DTCs with the HDS.

    Are any DTCs indicated?

    YES–Troubleshoot the PCU DTCs.■

    NO–Go to step 13.
13. Check for KEYLESS ACCESS CONTROL UNIT communication with the HDS.

    Is there communication?

    YES–Go to step 14.

    NO–Do the keyless access control unit input test (see page 22-605).■
14. Check for KEYLESS ACCESS CONTROL UNIT DTCs with the HDS.

    Are any DTCs indicated?

    YES–Troubleshoot the KEYLESS ACCESS CONTROL UNIT DTCs.■

    NO–Go to step 15.
15. Check for REMOTE SLOT CONTROL UNIT communication with the HDS.

    Is there communication?

    YES–Go to step 16.

    NO–Do the remote slot control unit input test (see page 22-614).■
16. Check for REMOTE SLOT CONTROL UNIT DTCs with the HDS.

    Are any DTCs indicated?

    YES–Troubleshoot the REMOTE SLOT CONTROL UNIT DTCs.■

    NO–Go to step 17.

(cont'd)

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Symptom Troubleshooting (cont'd)

17. Do the remote test (see page 22-621).

    Is the remote OK?

    YES–Go to step 47.

    NO–Substitute a known-good remote and recheck. If the symptom goes away, replace the original remote, then register all the remotes (see page 22-623).■

18. Check for loose or poor connections at the power control unit.

    Are the connections OK?

    YES–Go to step 19.

    NO–Repair the connections, and retest.■

19. Do the engine start/stop switch test (see page 22-619).

    Is the engine start/stop switch OK?

    YES–Go to step 20.

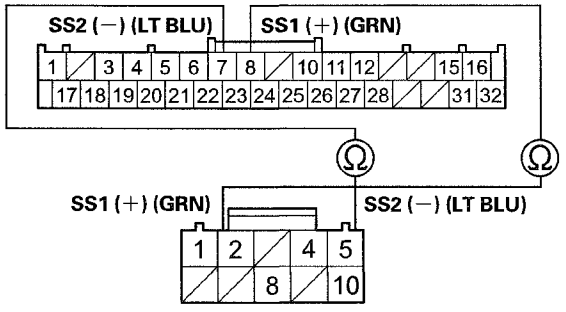
    NO–Replace the engine start/stop switch (see page 22-619).■

20. Disconnect the engine start/stop switch 10P connector.

21. Disconnect power control unit connector C (36P).

22. Check for continuity between engine start/stop switch 10P connector terminals No. 2 and No. 5, and power control unit connector C (36P) terminals No. 8 and No. 7 respectively.

POWER CONTROL UNIT CONNECTOR C (36P)
Wire side of female terminals



ENGINE START/STOP SWITCH 10P CONNECTOR
Wire side of female terminals

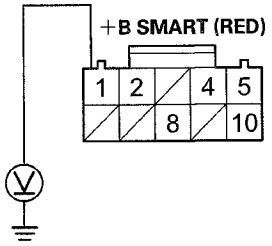
Is there continuity?

YES–Go to step 23.

NO–Repair an open in the wire.■

23. Measure the voltage between body ground and engine start/stop switch 10P connector terminal No. 1.

ENGINE START/STOP SWITCH 10P CONNECTOR



Wire side of female terminals

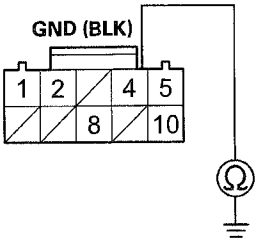
Is there battery voltage?

YES–Go to step 24.

NO–Repair an open in the wire.■

24. Check for continuity between body ground and engine start/stop switch 10P connector terminal No. 4.

ENGINE START/STOP SWITCH 10P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Go to step 25.

NO–Repair an open in the wire or poor ground (G405).■

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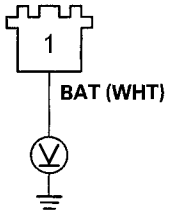
25. Disconnect power control unit connector A (1P).
26. Measure the voltage between body ground and power control unit connector A (1P) and C (36P) terminals as shown.

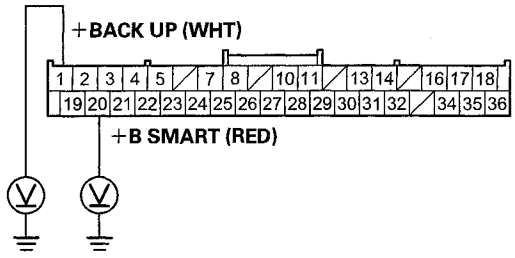
Power control unit connector	
A1	Body ground
C1	
C20	

POWER CONTROL UNIT CONNECTOR A (1P)



Wire side of female terminals

POWER CONTROL UNIT CONNECTOR C (36P)



Wire side of female terminals

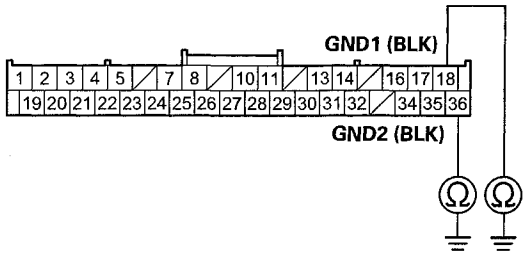
Is there battery voltage?

YES–Go to step 27.

NO–Repair an open in the wire.■

27. Check for continuity between body ground and power control unit connector C (36P) terminals No. 18 and No. 36 individually.

POWER CONTROL UNIT CONNECTOR C (36P)



Wire side of female terminals

Is there continuity?

YES–Go to step 28.

NO–Repair an open in the wire or poor ground (G402).■

(cont'd)

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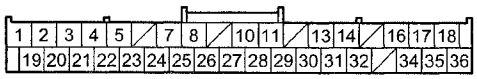
Symptom Troubleshooting (cont'd)

28. Disconnect the electric steering lock 12P connector.
29. Check for continuity between electric steering lock 12P connector terminals and power control unit connector C (36P) terminals as shown.

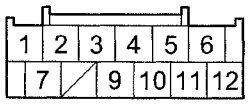
Power control unit connector C (36P)	Electric steering lock 12P connector
2 (PNK)	1 (PNK)
13 (PUR)	2 (PUR)
29 (LT BLU)	10 (LT BLU)
30 (ORN)	9 (ORN)
31 (GRN)	5 (GRN)
32 (BLU)	3 (BLU)

POWER CONTROL UNIT CONNECTOR C (36P)



Wire side of female terminals

ELECTRIC STEERING LOCK 12P CONNECTOR



Wire side of female terminals

Is there continuity?

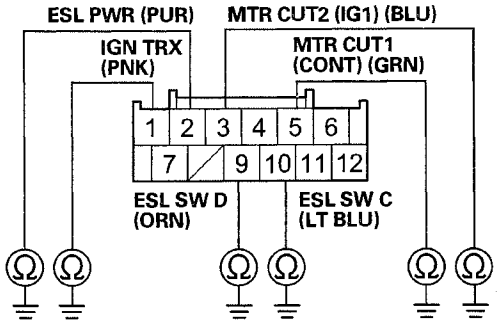
YES–Go to step 30.

NO–Repair an open in the wire.■

30. Disconnect keyless access control unit connector B (32P).
31. Disconnect the remote slot control unit 40P connector.
32. Check for continuity between body ground and electric steering lock 12P connector terminals as shown.

Electric steering lock 12P connector	
1	Body ground
2	
3	
5	
9	
10	

ELECTRIC STEERING LOCK 12P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 33.

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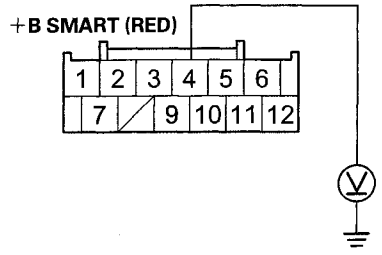
33. Measure the voltage between body ground and electric steering lock 12P connector terminal No. 4.

ELECTRIC STEERING LOCK 12P CONNECTOR



Wire side of female terminals

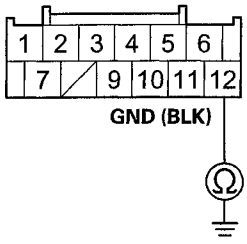
Is there battery voltage?

YES–Go to step 34.

NO–Repair an open in the wire.■

34. Check for continuity between body ground and electric steering lock 12P connector terminal No. 12.

ELECTRIC STEERING LOCK 12P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Go to step 35.

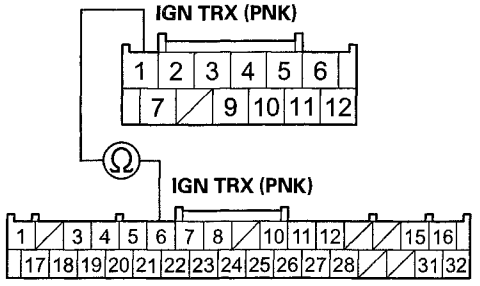
NO–Repair an open in the wire or poor ground (G405).■

35. Disconnect keyless access control unit connector A (36P).

36. Check for continuity between keyless access control unit connector A (36P) and B (32P) terminals and electric steering lock 12P connector terminals as shown.

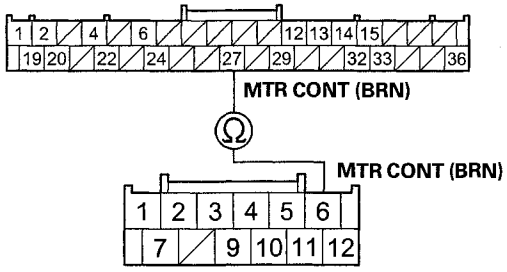
Keyless access control unit connector	Electric steering lock 12P connector
B6	1
A27	6

ELECTRIC STEERING LOCK 12P CONNECTOR
Wire side of female terminals



KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)
Wire side of female terminals

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)
Wire side of female terminals



ELECTRIC STEERING LOCK 12P CONNECTOR
Wire side of female terminals

Is there continuity?

YES–Go to step 37.

NO–Repair an open in the wire.■

(cont'd)

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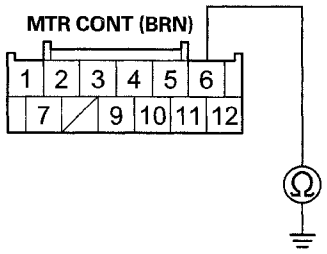
Symptom Troubleshooting (cont'd)

37. Check for continuity between body ground and electric steering lock 12P connector terminal No. 6.

ELECTRIC STEERING LOCK 12P CONNECTOR



Wire side of female terminals

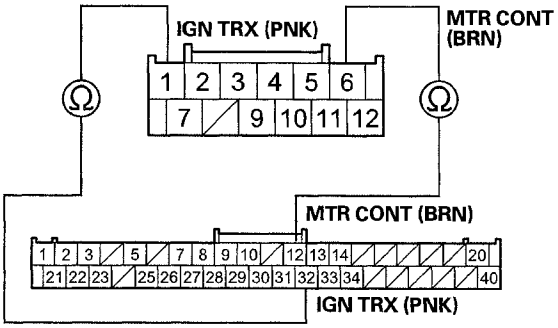
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Go to step 38.

38. Check for continuity between electric steering lock 12P connector terminals No. 1 and No. 6 and remote slot control unit 40P connector terminals No. 32 and No. 12 respectively.

ELECTRIC STEERING LOCK 12P CONNECTOR
Wire side of female terminals



REMOTE SLOT CONTROL UNIT 40P CONNECTOR
Wire side of female terminals

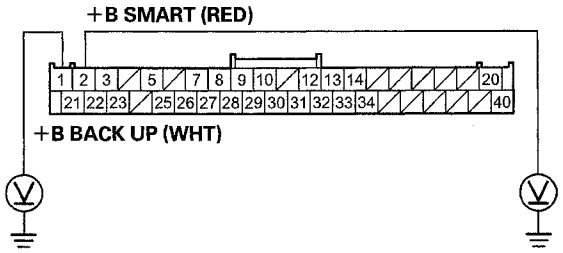
Is there continuity?

YES–Go to step 39.

NO–Repair an open in the wire.■

39. Measure the voltage between body ground and remote slot control unit 40P connector terminals No. 1 and No. 2 individually.

REMOTE SLOT CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

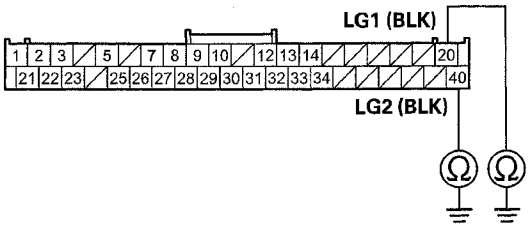
Is there battery voltage?

YES–Go to step 40.

NO–Repair an open in the wire.■

40. Check for continuity between body ground and remote slot control unit 40P connector terminals No. 20 and No. 40 individually.

REMOTE SLOT CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Go to step 41.

NO–Repair an open in the wire or poor ground (G405).■

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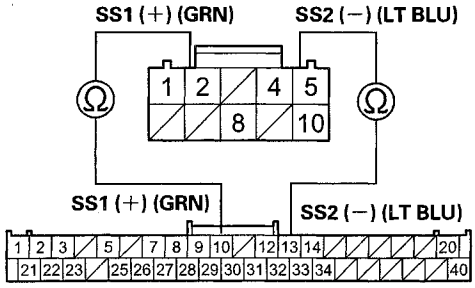
41. Check for continuity between remote slot control unit 40P connector terminals No. 10 and No. 13 and engine start/stop switch 10P connector terminals No. 2 and No. 5 respectively.

ENGINE START/STOP SWITCH 10P CONNECTOR
Wire side of female terminals



REMOTE SLOT CONTROL UNIT 40P CONNECTOR
Wire side of female terminals

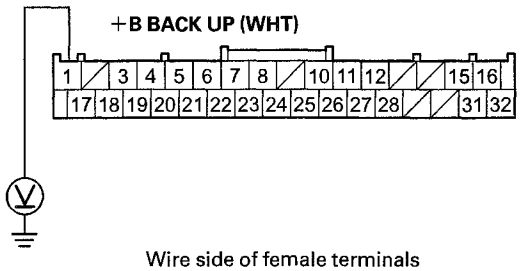
Is there continuity?

YES–Go to step 42.

NO–Repair an open in the wire.■

42. Measure the voltage between body ground and keyless access control unit connector B (32P) terminal No. 1.

KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)



Wire side of female terminals

Is there battery voltage?

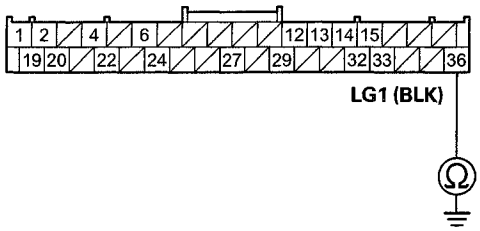
YES–Go to step 43.

NO–Repair an open in the wire.■

43. Check for continuity between body ground and keyless access control unit connectors A (36P) and B (32P) terminals as shown.

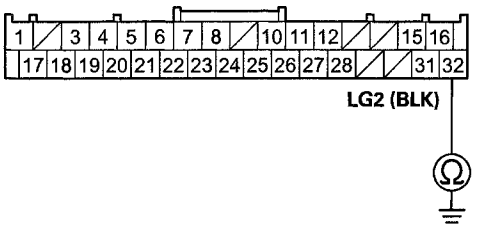
Keyless access control unit connector	
A36	Body ground
B32	

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)



Wire side of female terminals

Is there continuity?

YES–Go to step 44.

NO–Repair an open in the wire or poor ground (G402).■

(cont'd)

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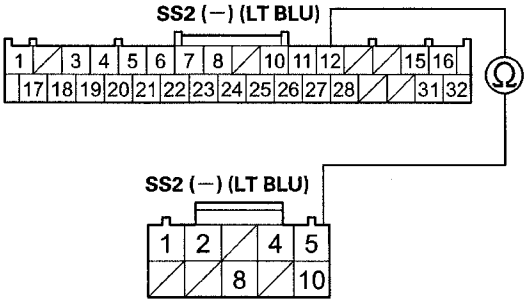
Symptom Troubleshooting (cont'd)

44. Disconnect keyless access control unit connector C (5P).
45. Check for continuity between keyless access control unit connectors B (32P) and C (5P) terminals and engine start/stop switch 10P connector terminals as shown.

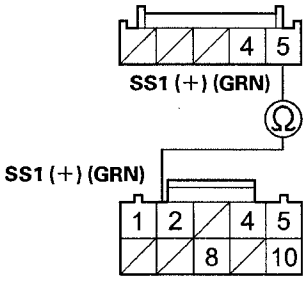
Keyless access control unit connector	Engine start/stop switch 10P connector
B12	5
C5	2

KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)
Wire side of female terminals



ENGINE START/STOP SWITCH 10P CONNECTOR
Wire side of female terminals

KEYLESS ACCESS CONTROL UNIT CONNECTOR C (5P)
Wire side of female terminals



ENGINE START/STOP SWITCH 10P CONNECTOR
Wire side of female terminals

Is there continuity?

YES–Substitute a known-good power control unit. If the symptom goes away, replace the original power control unit (see page 22-609). If not, replace the electric steering lock (see page 17-16).■

NO–Repair an open in the wire.■

46. Select DTC from the INSPECTION mode menu with the HDS, then check for PCU DTCs with the HDS.

    Are any DTCs indicated?

    YES–Troubleshoot the PCU DTCs.■

    NO–Go to step 25.

47. Press the engine start/stop button to select the OFF mode.
48. Remove all the remotes from inside the vehicle. Place the remotes more then 5 feet away from the vehicle.
49. Disconnect the electric steering lock 12P connector.
50. Reboot the HDS without pressing the engine start/stop button.
51. Select REGISTRATION from the ONE-PUSH START system select menu with the HDS, then select REPLACE PCU.
52. Reconnect the electric steering lock 12P connector.
53. Do the registration of PCU according to the instructions on the HDS screen.
54. Take the remote into the vehicle, and clear the PCU DTCs with the HDS.
55. Recheck the system.

    Is a system normal?

    YES–System is OK at this time.■

    NO–Repeat steps 47 to 55, and recheck the system.■

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Cannot select ON mode with keyless access, but can select ON mode with the remote in the remote slot

1. Turn the keyless access system mode switch ON.
2. Remove the remote from the remote slot.
3. Push the LOCK and the UNLOCK buttons of the remote, and check if the LED on the remote comes on.

   Does the LED come on?

   YES–Go to step 4.

   NO–Replace the remote battery and recheck the system. If the symptom does not go away, replace the remote.■
4. Press the engine start/stop button to select the ON mode while turning the steering wheel to the left and to the right.

   Does the system change to ON mode?

   YES–The system is OK at this time.■

   NO–Go to step 5.
5. Repeat step 4 at least 10 times.

   Does the system change to ON mode?

   YES–The system is OK at this time.■

   NO–Go to step 6.
6. Insert the remote into the remote slot.
7. Press the engine start/stop button to select the ON mode while turning the steering wheel to the left and to the right.
8. Connect the HDS to the data link connector (DLC).
9. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, and enter SELF CHECK.

   Does the system communicate with the HDS?

   YES–Go to step 10.

   NO–Do the DLC circuit troubleshooting (see page 11-258) and recheck the system. If the symptom does not go away, do the keyless access control unit input test (see page 22-605).■
10. Check for KEYLESS ACCESS CONTROL UNIT DTCs with the HDS.

    Are any DTCs indicated?

    YES–Troubleshoot the KEYLESS ACCESS CONTROL UNIT DTCs.■

    NO–Go to step 11.
11. Check for PCU DTCs with the HDS

    Are any DTCs indicated?

    YES–Troubleshoot the PCU DTCs.■

    NO–Go to step 12.
12. Check for REMOTE SLOT CONTROL UNIT DTCs with the HDS.

    Are any DTCs indicated?

    YES–Troubleshoot the REMOTE SLOT CONTROL UNIT DTCs.■

    NO–Go to step 13.
13. Select HISTORY CLEAR from the KEYLESS ACCESS CONTROL UNIT mode menu with the HDS.
14. Press the engine start/stop button to select the OFF mode.
15. Remove the remote from the remote slot, then insert the remote into the remote slot.
16. Turn the keyless access system mode switch OFF, then turn the keyless access system mode switch ON.
17. Press the engine start/stop button to select the ON mode.
18. Select HISTORY DATA from the KEYLESS ACCESS CONTROL UNIT mode menu with the HDS.

    History Data

ENGINE START/STOP SWITCH 1 (+)	ON
ENGINE START/STOP SWITCH 2 (−)	ON
Keyless access system mode SW	ON
SLOT SW FULL	ON
SLOT SW HALF	ON
SLOT SW FULL2	ON

    Is all the information ON?

    YES–Go to step 19.

    NO–Go to the keyless access control unit input test (see page 22-605).■

(cont'd)

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Symptom Troubleshooting (cont'd)

19. Turn the keyless access system mode switch OFF.
20. Press the engine start/stop button to select the OFF mode.
21. Remove the remote from the remote slot.
22. Disconnect the electric steering lock 12P connector.
23. Reboot the HDS.
24. Press the engine start/stop button to enter PCU inspection menu according to the instruction on the HDS screen.
25. Reconnect the electric steering lock 12P connector.
26. Select PCU from the ONE-PUSH START system select menu with the HDS, and enter DATA LIST.
27. Check each keyless access system mode switch and remote slot value with the DATA LIST menu.

    NOTE: When the keyless access system mode switch is OFF, the HDS value is ON; this is normal.

    Press and hold the engine start/stop button

Data List	Value
KEYLESS ACCESS SYSTEM MODE SW	ON
SLOT SW FULL2	OFF
SLOT SW HALF	OFF

    Are all data list values correct?

    YES–Go to step 28.

    NO–Go to the power control unit input test (see page 22-609).■

28. Insert the remote into the remote slot.
29. Turn the keyless access system mode switch ON.
30. Press the engine start/stop button to select the ON mode.
31. Check each remote slot and keyless access system mode switch value with the DATA LIST menu.

    NOTE: When the keyless access system mode switch is ON, the HDS value is OFF; this is normal.

Data List	Value
KEYLESS ACCESS SYSTEM MODE SW	OFF
SLOT SW FULL2	ON
SLOT SW HALF	ON

    Are all data list values correct?

    YES–Go to step 32.

    NO–Go to the power control unit input test (see page 22-609).■

32. Reboot the HDS.
33. Select KEYLESS TRANSMITTER from the BODY ELECTRICAL system select menu, then select INSPECTION, then KEYLESS CHECK.
34. Do the KEYLESS CHECK with the HDS using the remote.

    Is KEYLESS ENTRY TRANSMITTER CODE IS RECEIVED indicated?

    YES–Go to step 35.

    NO–Go to step 45.

35. Do the KEYLESS CHECK with the HDS using the remote.

    Is DIFFERENT KEYLESS ENTRY TRANSMITTER CODE RECEIVED indicated?

    YES–Register all the remotes, and recheck.■

    NO–Go to step 36.

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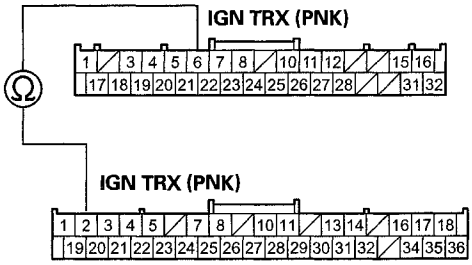
36. Press the engine start/stop button to select the OFF mode.
37. Disconnect keyless access control unit connector B (32P).
38. Disconnect power control unit connector C (36P).
39. Check for continuity between keyless access control unit connector B (32P) terminal No. 6 and power control unit connector C (36P) terminal No. 2.

KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)
Wire side of female terminals



POWER CONTROL UNIT CONNECTOR C (36P)
Wire side of female terminals

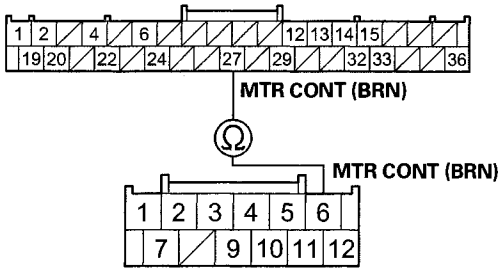
Is there continuity?

YES–Go to step 40.

NO–Repair an open in the wire and recheck the system.■

40. Disconnect the electric steering lock 12P connector.
41. Disconnect keyless access control unit connector A (36P).
42. Check for continuity between keyless access control unit connector A (36P) terminal No. 27 and electric steering lock 12P connector terminal No. 6.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)
Wire side of female terminals



ELECTRIC STEERING LOCK 12P CONNECTOR
Wire side of female terminals

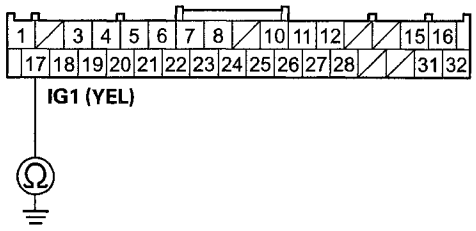
Is there continuity?

YES–Go to step 43.

NO–Repair an open in the wire.■

43. Measure the voltage between body ground and keyless access control unit connector B (32P) terminal No. 17.

KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)



Wire side of female terminals

Is there voltage?

YES–Repair a short to power in the wire.■

NO–Go to step 44.

(cont'd)

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Symptom Troubleshooting (cont'd)

44. Substitute a known-good remote, then recheck the system.

    Did the symptom go away?

    YES–Replace the original remote.■

    NO–Substitute a known-good keyless access control unit. If the symptom goes away, replace the original keyless access control unit (see page 22-605). If not, replace the RF unit 1 (see page 22-616) and/or the RF unit 2 (see page 22-616).■

45. Substitute a known-good RF unit 1 (see page 22-616) and/or RF unit 2 (see page 22-616), then recheck the system.

    Did the symptom go away?

    YES–Replace the original RF unit 1 (see page 22-616) and/or RF unit 2 (see page 22-616).■

    NO–Substitute a known-good remote. If the symptom goes away, replace the original remote. If not, replace the keyless access control unit (see page 22-605).■

Cannot select ON mode with the remote in the remote slot, but can select ON mode with the remote removed

1. Turn the keyless access system mode switch OFF.
2. Insert the remote into the remote slot.
3. Press the engine start/stop button to select the ON mode while turning the steering wheel to the left and to the right.

   Does the system change to ON mode?

   YES–The system is OK at this time.■

   NO–Go to step 4.

4. Repeat step 3 at least 10 times.

   Does the system change to ON mode?

   YES–The system is OK at this time.■

   NO–Go to step 5.

5. Remove the remote from the remote slot.
6. Turn the keyless access system mode switch ON.
7. Press the engine start/stop button to select the ON mode.
8. Connect the HDS to the data link connector (DLC).
9. Select REMOTE SLOT CONTROL UNIT from the ONE-PUSH START system select menu.

   Does the system communicate with the HDS?

   YES–Go to step 10.

   NO–Do the DLC circuit troubleshooting (see page 11-258) and recheck the system. If the symptom does not go away, do the remote slot control unit input test (see page 22-614).■

10. Check for REMOTE SLOT CONTROL UNIT DTCs with the HDS.

    Are any DTCs indicated?

    YES–Troubleshoot the REMOTE SLOT CONTROL UNIT DTCs.■

    NO–Go to step 11.

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11. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu, and enter the SELF CHECK.
12. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu, and check for KEYLESS ACCESS CONTROL UNIT DTCs with the HDS.

    Are any DTCs indicated?

    YES–Troubleshoot the KEYLESS ACCESS CONTROL UNIT DTCs.■

    NO–Go to step 13.
13. Check for PCU DTCs with the HDS.

    Are any DTCs indicated?

    YES–Troubleshoot the PCU DTCs.■

    NO–Go to step 14.
14. Select REMOTE SLOT CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, and enter DATA LIST.
15. Check each REMOTE SLOT CONTROL UNIT value with the DATA LIST menu.

Data List	Value
ENGINE START/STOP SWITCH 1 (+)	OFF
ENGINE START/STOP SWITCH 2 (−)	OFF
SLOT SW FULL	OFF
SLOT SW HALF	OFF
SLOT SW FULL2	OFF

    Are all data list values correct?

    YES–Go to step 16.

    NO–Do the remote slot control unit input test (see page 22-614).■
16. Insert the remote into the remote slot.
17. Check each REMOTE SLOT CONTROL UNIT value with the DATA LIST menu.

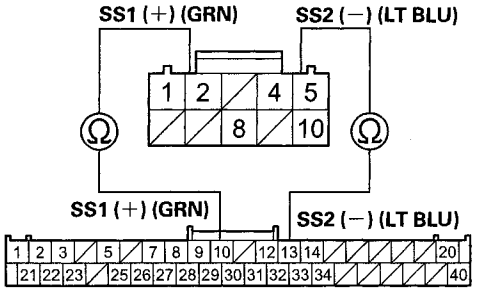
Data List	Value
SLOT SW FULL	ON
SLOT SW HALF	ON
SLOT SW FULL2	ON
+B SMART	ON
+B BACKUP	ON

    Are all data list values correct?

    YES–Go to step 18.

    NO–Do the remote slot control unit input test (see page 22-614).■
18. Press the engine start/stop button to select the OFF mode.
19. Disconnect the remote slot control unit 40P connector.
20. Disconnect the engine start/stop switch 10P connector.
21. Check for continuity between engine start/stop switch 10P connector terminals No. 2 and No. 5, and remote slot control unit connector 40P terminals No. 10 and No. 13 respectively.

ENGINE START/STOP SWITCH 10P CONNECTOR
Wire side of female terminals



REMOTE SLOT CONTROL UNIT 40P CONNECTOR
Wire side of female terminals

Is there continuity?

YES–Go to step 22.

NO–Repair an open in the wire.■

(cont'd)

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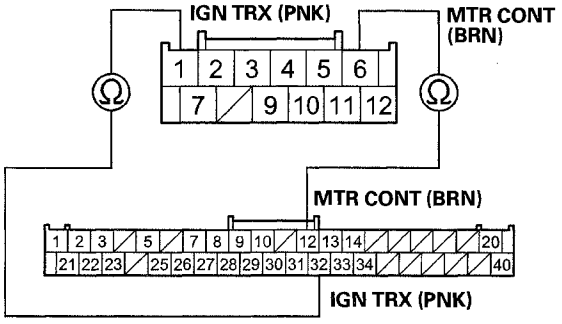
Symptom Troubleshooting (cont'd)

22. Disconnect the electric steering lock 12P connector.
23. Check for continuity between electric steering lock 12P connector terminals No. 1 and No. 6, and remote slot control unit 40P connector terminals No. 32 and No. 12 respectively.

ELECTRIC STEERING LOCK 12P CONNECTOR
Wire side of female terminals



REMOTE SLOT CONTROL UNIT 40P CONNECTOR
Wire side of female terminals

Is there continuity?

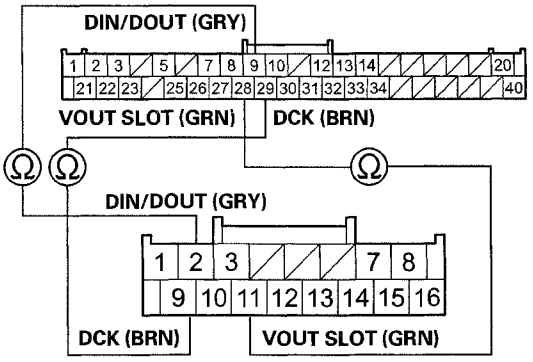
YES–Go to step 24.

NO–Repair an open in the wire.■

24. Disconnect the remote slot 16P connector.
25. Check for continuity between remote slot control unit 40P connector terminals and remote slot 16P connector terminals as shown.

Remote slot control unit 40P connector	Remote slot 16P connector
9 (GRY)	2 (GRY)
28 (GRN)	11 (GRN)
29 (BRN)	9 (BRN)

REMOTE SLOT CONTROL UNIT 40P CONNECTOR
Wire side of female terminals



REMOTE SLOT 16P CONNECTOR
Wire side of female terminals

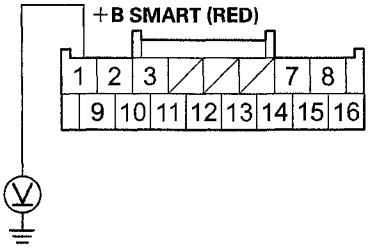
Is there continuity?

YES–Go to step 26.

NO–Repair an open in the wire.■

26. Measure the voltage between body ground and remote slot 16P connector terminal No. 1.

REMOTE SLOT 16P CONNECTOR



Wire side of female terminals

Is there battery voltage?

YES–Go to step 27.

NO–Repair an open in the wire.■

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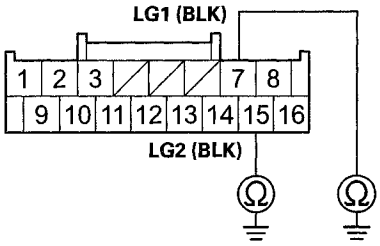
27. Check for continuity between body ground and remote slot 16P connector terminals No. 7 and No. 15 individually.

REMOTE SLOT 16P CONNECTOR



Wire side of female terminals

Is there continuity?

YES–Go to step 28.

NO–Repair an open in the wire or poor ground (G403).■

28. Reconnect the remote slot control unit 40P connector.
29. Reconnect the engine start/stop switch 10P connector.
30. Reconnect the electric steering lock 12P connector.
31. Reconnect the remote slot 16P connector.
32. Remove the remote from the remote slot.
33. Connect the HDS to the data link connector.
34. Press the engine start/stop button to select the ON mode.
35. Select PCU from the ONE-PUSH START system select menu with the HDS, and enter DATA LIST.
36. Wait for at least 10 seconds.
37. Check each PCU value with the DATA LIST menu.

Data List	Value
SLOT SW FULL	OFF
SLOT SW HALF	OFF

Are all data list values correct?

YES–Go to step 38.

NO–Do the power control unit input test (see page 22-609).■

38. Insert the remote into the remote slot.
39. Wait for at least 10 seconds.
40. Check each PCU value with the DATA LIST menu.

Data List	Value
SLOT SW FULL	ON
SLOT SW HALF	ON

Are all data list values correct?

YES–Go to step 41.

NO–Do the power control unit input test (see page 22-609).■

41. Press the engine start/stop button to select the OFF mode.
42. Remove all the remotes from inside the vehicle. Place the remotes more than 5 feet away from the vehicle.
43. Disconnect the electric steering lock 12P connector.
44. Reboot the HDS without pressing the engine start/stop button.
45. Select REGISTRATION from the ONE-PUSH START system select menu with the HDS, and enter REPLACE PCU.
46. Reconnect the electric steering lock 12P connector.
47. Do the registration of PCU according to the instructions on the HDS screen.
48. Take the remote into the vehicle, and press the engine start/stop button to select the ON mode.
49. Clear the PCU DTCs with the HDS.
50. Press the engine start/stop button to select the OFF mode.
51. Insert the remote into the remote slot.
52. Press the engine start/stop button to select the ON mode.
53. Recheck the system.

Is the system normal?

YES–System is OK at this time.■

NO–Go to step 54.

(cont'd)

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Symptom Troubleshooting (cont'd)

54. Substitute a known-good remote slot (see page 22-619), then recheck the system.

    Did the symptom go away?

    YES–Replace the original remote slot (see page 22-619).■

    NO–Substitute a known-good remote. If the symptom goes away, replace the original remote. If not, replace the remote slot control unit (see page 22-614).■

The engine cranks but will not start with keyless access or with the remote in the remote slot

1. Turn the keyless access system mode switch OFF.
2. Insert the remote into the remote slot.
3. Press the engine start/stop button to select the ON mode.
4. Check the immobilizer indicator.

   Is the immobilizer indicator blinking?

   YES–Go to step 5.

   NO–Go to step 20.
5. Connect the HDS to the data link connector (DLC).
6. Select REMOTE SLOT CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, and enter SYSTEM INFORMATION.
7. Do the SYSTEM CHECK with the HDS.

   Is N-1 OK indicated?

   YES–Go to step 8.

   NO–Troubleshooting the keyless access system according to the result of the SYSTEM CHECK (see page 22-555).■
8. Select REMOTE SLOT CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, and enter DATA LIST.
9. Check the ESL SW B in the DATA LIST.

   Is the information indicator ON?

   YES–Go to step 10.

   NO–Go to step 23.
10. Press the engine start/stop button to select the OFF mode.
11. Remove the remote from the remote slot.
12. Turn the keyless access system mode switch ON.
13. Press the engine start/stop button to select the ON mode.
14. Check the immobilizer indicator.

    Is the immobilizer indicator blinking?

    YES–Go to step 15.

    NO–Go to step 20.

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15. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, and enter KEYLESS ACCESS CONTROL INFORMATION.
16. Do the SYSTEM CHECK 1 with the HDS.

    Is N-1 OK indicated?

    YES–Go to step 17.

    NO–Troubleshoot the keyless access system according to the result of the SYSTEM CHECK 1 (see page 22-555).■
17. Do the SYSTEM CHECK 2 with the HDS.

    Is N-2 OK indicated?

    YES–Go to step 18.

    NO–Troubleshoot the keyless access system according to the result of the SYSTEM CHECK 2 (see page 22-555).■
18. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, and enter DATA LIST.
19. Check the ESL SW B in the DATA LIST.

    Is the indicator ON?

    YES–Go to the PGM-FI system symptom troubleshooting.■

    NO–Go to step 29.
20. Check the immobilizer indicator.

    Does the indicator come on?

    YES–Go to the PGM-FI system symptom troubleshooting.■

    NO–Go to step 21.
21. Select GAUGES from the BODY ELECTRICAL system select menu with the HDS.
22. Select FUNCTION TESTS from the TEST MODE menu with the HDS, and enter SELF TEST.

    Does the immobilizer indicator come on?

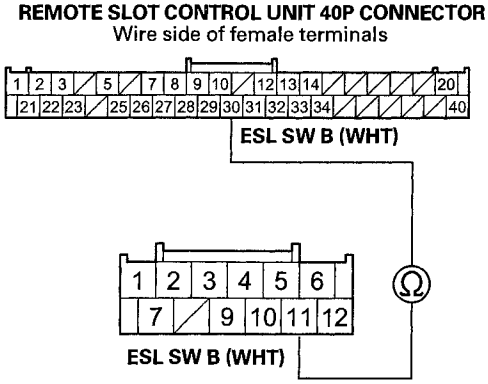
    YES–Go to the PGM-FI system troubleshooting.■

    NO–Replace the gauge control module (see page 22-367).■
23. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, and enter DATA LIST.
24. Check the ESL SW B in the DATA LIST.

    Is the indicator ON?

    YES–Go to step 25.

    NO–Go to step 33.
25. Press the engine start/stop button to select the OFF mode.
26. Disconnect the remote slot control unit 40P connector.
27. Disconnect the electric steering lock 12P connector.
28. Check for continuity between electric steering lock 12P connector terminal No. 11 and remote slot control unit 40P connector terminal No. 30.



Is there continuity?

YES–Replace the remote slot control unit (see page 22-614).■

NO–Repair an open in the wire.■

(cont'd)

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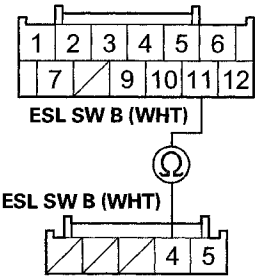
Symptom Troubleshooting (cont'd)

29. Press the engine start/stop button to select the OFF mode.
30. Disconnect keyless access control unit connector C (5P).
31. Disconnect the electric steering lock 12P connector.
32. Check for continuity between electric steering lock 12P connector terminal No. 11 and keyless access control unit connector C (5P) terminal No. 4.

ELECTRIC STEERING LOCK 12P CONNECTOR
Wire side of female terminals



KEYLESS ACCESS CONTROL UNIT CONNECTOR C (5P)
Wire side of female terminals

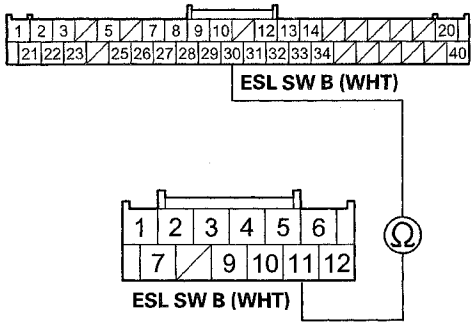
Is there continuity?

YES–Replace the keyless access control unit (see page 22-605).■

NO–Repair an open in the wire.■

33. Press the engine start/stop button to select the OFF mode.
34. Disconnect the remote slot control unit 40P connector.
35. Disconnect the electric steering lock 12P connector.
36. Check for continuity between electric steering lock 12P connector terminal No. 11 and remote slot control unit 40P connector terminal No. 30.

REMOTE SLOT CONTROL UNIT 40P CONNECTOR
Wire side of female terminals



ELECTRIC STEERING LOCK 12P CONNECTOR
Wire side of female terminals

Is there continuity?

YES–Replace the remote slot control unit (see page 22-614).■

NO–Repair an open in the wire.■

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The engine cranks but will not start with keyless access

1. Turn the keyless access system mode switch ON.
2. Remove the remote from the remote slot.
3. Press the engine start/stop button to select the ON mode.
4. Check the immobilizer indicator.

   Is the immobilizer indicator blinking?

   YES–Go to step 5.

   NO–Go to step 15.
5. Connect the HDS to the data link connector (DLC).
6. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, and enter SYSTEM INFORMATION.
7. Do the SYSTEM CHECK 1 with the HDS.

   Is N-1 OK indicated?

   YES–Go to step 8.

   NO–Troubleshooting the keyless access system according to the result of the SYSTEM CHECK 1 (see page 22-555).■
8. Do the SYSTEM CHECK 2 with the HDS.

   Is N-2 OK indicated?

   YES–Go to step 9.

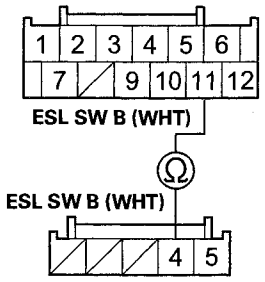
   NO–Troubleshoot the keyless access system according to the result of the SYSTEM CHECK 2 (see page 22-555).■
9. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, and enter DATA LIST.
10. Check the ESL SW B in the DATA LIST.

    Is the indicator ON?

    YES–Substitute a known-good ECM/PCM (see page 11-7) and recheck. If the symptom goes away, replace the original ECM/PCM (see page 11-282). If not, replace the keyless access control unit (see page 22-605).■

    NO–Go to step 11.
11. Press the engine start/stop button to select the OFF mode.
12. Disconnect keyless access control unit connector C (5P).
13. Disconnect the electric steering lock 12P connector.
14. Check for continuity between electric steering lock 12P connector terminal No. 11 and keyless access control unit connector C (5P) terminal No. 4.

ELECTRIC STEERING LOCK 12P CONNECTOR
Wire side of female terminals



KEYLESS ACCESS CONTROL UNIT CONNECTOR C (5P)
Wire side of female terminals

Is there continuity?

YES–Replace the keyless access control unit (see page 22-605).■

NO–Repair an open in the wire.■
15. Check the immobilizer indicator.

    Does the indicator come on?

    YES–Go to the PGM-FI system troubleshooting.■

    NO–Go to step 16.
16. Select GAUGES from the BODY ELECTRICAL system select menu with the HDS.
17. Select FUNCTION TESTS from the TEST MODE menu with the HDS, and enter SELF TEST.

    Does the immobilizer indicator come on?

    YES–Go to the PGM-FI system troubleshooting.■

    NO–Replace the gauge control module (see page 22-367).■

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Symptom Troubleshooting (cont'd)

The engine cranks but will not start with the remote in the remote slot

1. Turn the keyless access system mode switch OFF.
2. Insert the remote into the remote slot.
3. Press the engine start/stop button to select the ON mode.
4. Check the immobilizer indicator.

   Does the indicator blink once, then stay off?

   YES–Go to the PGM-FI System symptom Troubleshooting.■

   NO–Go to step 5.
5. Check the immobilizer indicator.

   Is the immobilizer indicator blinking?

   YES–Go to step 6.

   NO–Go to step 15.
6. Connect the HDS to the data link connector (DLC).
7. Select REMOTE SLOT CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, and enter SYSTEM INFORMATION.
8. Do the SYSTEM CHECK with the HDS.

   Is N-1 OK indicated?

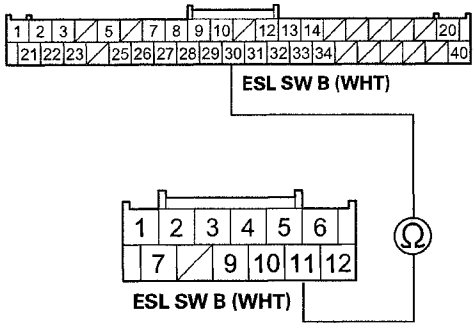
   YES–Go to step 9.

   NO–Troubleshooting the keyless access system according to the result of the SYSTEM CHECK (see page 22-555).■
9. Select REMOTE SLOT CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, and enter DATA LIST.
10. Check the ESL SW B in the DATA LIST.

    Is the indicator ON?

    YES–Substitute a known-good ECM/PCM (see page 11-7) and recheck. If the symptom goes away, replace the original ECM/PCM (see page 11-282). If not, replace the remote slot control unit (see page 22-614).■

    NO–Go to step 11.
11. Press the engine start/stop button to select the OFF mode.
12. Disconnect the remote slot control unit 40P connector.
13. Disconnect the electric steering lock 12P connector.
14. Check for continuity between electric steering lock 12P connector terminal No. 11 and remote slot control unit 40P connector terminal No. 30.



   Is there continuity?

   YES–Replace the remote slot control unit (see page 22-614).■

   NO–Repair an open in the wire.■
15. Select GAUGES from the BODY ELECTRICAL system select menu with the HDS.
16. Select FUNCTION TESTS from the TEST MODE menu with the HDS, and enter SELF TEST.

    Does the immobilizer indicator come on?

    YES–Go to the PGM-FI System symptom Troubleshooting.■

    NO–Replace the gauge control module (see page 22-367), and recheck.■

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All the doors and the trunk will not lock and unlock

1. Insert the remote into the remote slot.

   Does the remote go in?

   YES–Go to step 2.

   NO–Go to keyless access symptom troubleshooting "Remote will not go into the remote slot" (see page 22-597).■

2. Remove the remote from the remote slot, and close all doors.
3. Push the LOCK and the UNLOCK buttons of the remote, and check if the LED on the remote comes on.

   Does the LED come on?

   YES–Go to step 4.

   NO–Replace the remote battery and recheck the system. If the symptom does not go away, replace the remote.■

4. Lock and unlock the driver's door with the driver's door lock switch.

   Do the door lock actuators work normally?

   YES–Go to step 5.

   NO–Check the B-CAN system DTCs. If not, check the door lock system.■

5. Lock and unlock the front passenger's door with the front passenger's door lock switch.

   Do the door lock actuators work normally?

   YES–Go to step 6.

   NO–Check the B-CAN system DTCs. If not, check the door lock system.■

6. Push the UNLOCK button of the remote at least 10 times.

   Do the actuators operate?

   YES–Intermittent failure, the system is OK at this time.■

   NO–Go to step 7.

7. Open the driver's door.

   Does the key-in reminder sound?

   YES–Go to the keyless access system symptom troubleshooting "The key-in reminder sounds when the remote is removed from the remote slot and door is open" (see page 22-593).■

   NO–Go to step 8.

8. Turn the keyless access system mode switch ON.
9. Press the engine start/stop button to select the ON mode.

   Does the system change to ON mode?

   YES–Go to step 12.

   NO–Go to step 10.

10. Insert the remote into the remote slot.
11. Press the engine start/stop button to select the ON mode.

    Does the system change to ON mode?

    YES–Go to the keyless access system symptom troubleshooting "Cannot select ON mode with keyless access, but can select ON mode with the remote in the remote slot" (see page 22-569).■

    NO–Go to the keyless access system symptom troubleshooting "Cannot select ON mode with keyless access or with the remote in the remote slot" (see page 22-561).■

12. Connect the HDS to the data link connector (DLC).
13. Check for DTCs with the HDS.

    Are any DTCs indicated?

    YES–Go to the indicated DTC troubleshooting.■

    NO–Go to step 14.

(cont'd)

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Symptom Troubleshooting (cont'd)

14. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, and enter HISTORY CLEAR.
15. Select HISTORY DATA with the HDS.
16. Insert the remote into the remote slot, then check the HISTORY DATA.

History Data

SLOT SW FULL	OK
SLOT SW HALF	OK
SLOT SW FULL2	OK

Is all the information OK?

YES–Go to step 17.

NO–Go to step 19.

17. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, then enter SELF CHECK.
18. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu, and check for KEYLESS ACCESS CONTROL UNIT DTCs with the HDS.

Are any DTCs indicated?

YES–Troubleshoot the KEYLESS ACCESS CONTROL UNIT DTCs.■

NO–Go to the driver's MICU input test, and do all power, ground, and communication input tests (see page 22-156). If the tests prove OK, replace the driver's under-dash fuse/relay box (see page 22-81).■

19. Press the engine start/stop button to select the OFF mode.
20. Remove the remote from the remote slot.
21. Disconnect the remote slot 16P connector.
22. Close all doors.
23. Push the UNLOCK button of the remote.

Do the door lock actuators work normally?

YES–Replace the remote slot (see page 22-619).■

NO–Replace the keyless access control unit (see page 22-605).■

The doors will not unlock or lock with the remote, but will unlock or lock with the door outer handles

1. Remove the remote from the remote slot, and close all doors.
2. Push the UNLOCK button of the remote, at least 10 times.

Do the door lock actuators work normally?

YES–Intermittent failure, the system is OK at this time.■

NO–Go to step 3.

3. Open the driver's door.

Does the key-in reminder sound?

YES–Go to keyless access symptom troubleshooting "Key-in reminder sounds is removed from the remote slot and door is open" (see page 22-593).■

NO–Go to step 4.

4. Turn the keyless access system mode switch ON.
5. Press the engine start/stop button to select the ON mode.

Does the system change to ON mode?

YES–Go to step 8.

NO–Go to step 6.

6. Insert the remote into the remote slot.
7. Press the engine start/stop button to select the ON mode.

Does the system change to ON mode?

YES–Go to the keyless access system symptom troubleshooting "Cannot select ON mode with keyless access, but can select ON mode with keyless access remote in the remote slot" (see page 22-569).■

NO–Go to the keyless access system symptom troubleshooting "Cannot select ON mode with keyless access or with keyless access remote in the remote slot" (see page 22-561).■

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8. Connect the HDS to the data link connector (DLC).
9. Check for DTCs with the HDS.

   Are any DTCs indicated?

   YES–Go to the indicated DTC troubleshooting.■

   NO–Go to step 10.
10. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, and enter HISTORY CLEAR.
11. Select HISTORY DATA with the HDS.
12. Insert the remote into the remote slot, then check the HISTORY DATA.

    History Data

SLOT SW FULL	OK
SLOT SW HALF	OK
SLOT SW FULL2	OK

    Is all the information OK?

    YES–Go to step 13.

    NO–Go to step 20.
13. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, then enter SELF CHECK.
14. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu, and check for KEYLESS ACCESS CONTROL UNIT DTCs.

    Are any DTCs indicated?

    YES–Troubleshoot the KEYLESS ACCESS CONTROL UNIT DTCs.■

    NO–Go to step 15.
15. Select KEYLESS from the BODY ELECTRICAL system select menu, then select INSPECTION, then KEYLESS CHECK.
16. Do the KEYLESS CHECK with the HDS using the remote.

    Is DIFFERENT KEYLESS ENTRY TRANSMITTER CODE RECEIVED indicated?

    YES–Register all the remotes, and recheck.■

    NO–Go to step 17.
17. Do the KEYLESS CHECK with the HDS using the remote.

    Is DIFFERENT KEYLESS ENTRY TRANSMITTER CODE RECEIVED indicated?

    YES–Go to step 18.

    NO–Register the remote, and recheck. If the symptom does not go away, replace the remote.■
18. Press the engine start/stop button to select the OFF mode, and close all doors.
19. Lock and unlock the driver's door of the driver's door lock switch, and lock and unlock the front passenger's door of the front passenger's door lock switch.

    Do the door lock actuators work normally?

    YES–Go to the driver's MICU input test, and do all power, ground, and communication input tests (see page 22-156). If the tests prove OK, replace the driver's under-dash fuse/relay box (see page 22-81).■

    NO–Check the B-CAN system DTCs. If not, check the door lock system.■
20. Press the engine start/stop button to select the OFF mode.
21. Remove the remote from the remote slot.
22. Disconnect the remote slot 16P connector.
23. Close all doors, and push the UNLOCK button of the remote.

    Do the door lock actuators work normally?

    YES–Replace the remote slot (see page 22-619).■

    NO–Replace the keyless access control unit (see page 22-605).■

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Symptom Troubleshooting (cont'd)

The doors will not unlock or lock with the door outer handle touch sensor or lock switch, but will unlock or lock with the remote

1. Turn the keyless access system mode switch ON.
2. Remove the remote from the remote slot.
3. Press the engine start/stop button to select the ON mode.

   Does the system change to ON mode?

   YES–Go to step 4.

   NO–Go to the keyless access system symptom troubleshooting "Cannot select ON mode with keyless access, but can select ON mode with keyless access remote in the remote slot" (see page 22-569).■
4. Connect the HDS to the data link connector (DLC).
5. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, then enter SELF CHECK.
6. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu, and check for KEYLESS ACCESS CONTROL UNIT DTCs with the HDS.

   Are any DTCs indicated?

   YES–Troubleshoot the KEYLESS ACCESS CONTROL UNIT DTCs.■

   NO–Go to step 7.
7. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, and enter HISTORY CLEAR.
8. Select HISTORY DATA with the HDS.
9. Touch the driver's and the front passenger's door outer handle touch sensors, then check the HISTORY DATA.

   History Data

DRIVER DOOR UNLOCK SWITCH	OK
FRONT PASSENGER DOOR UNLOCK SWITCH	OK

   Is all the information OK?

   YES–Go to step 10.

   NO–Go to step 13.
10. Push the driver's and the front passenger's door outer handle lock buttons, then check the HISTORY DATA.

    History Data

DRIVER DOOR UNLOCK SWITCH	OK
FRONT PASSENGER DOOR LOCK SWITCH	OK

    Is all the information OK?

    YES–Go to step 11.

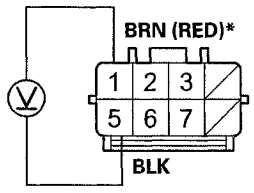
    NO–Go to step 18.
11. Press the engine start/stop button to select the OFF mode, and close all doors.
12. Lock and unlock the driver's door with the driver's door lock switch, and lock and unlock the front passenger's door with the front passenger's door lock switch.

    Do the door lock actuators work normally?

    YES–Go to the driver's MICU input test, and do all power, ground, and communication input tests (see page 22-156). If the tests prove OK, replace the driver's under-dash fuse/relay box (see page 22-81).■

    NO–Check the B-CAN system DTCs. If not, check the door lock system.■
13. Disconnect the faulty door outer handle touch sensor 8P connector.
14. Measure the voltage between driver's (or front passenger's)* door outer handle touch sensor 8P connector terminals No. 1 and No. 5.

DRIVER'S (or FRONT PASSENGER'S)* DOOR OUTER HANDLE TOUCH SENSOR 8P CONNECTOR



Wire side of female terminals

***: Front passenger's**

Is there battery voltage?

YES–Go to step 15.

NO–Go to step 23.

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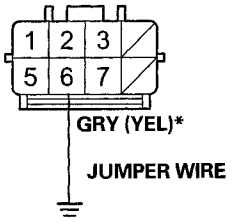
15. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, and enter HISTORY CLEAR.
16. Connect driver's (or front passenger's)* door outer handle touch sensor 8P connector terminals No. 6 to body ground with a jumper wire.

DRIVER'S (or FRONT PASSENGER'S)* DOOR OUTER HANDLE TOUCH SENSOR 8P CONNECTOR



Wire side of female terminals

***: Front passenger's**

17. Check the HISTORY DATA with the HDS.

History Data

DRIVER DOOR UNLOCK SWITCH	OK
FRONT PASSENGER DOOR UNLOCK SWITCH	OK

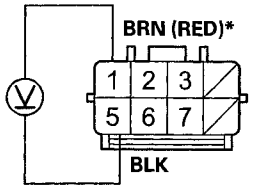
Is all the information OK?

YES–Replace the faulty door outer handle (see page 20-15).■

NO–Go to step 29.

18. Disconnect the faulty door outer handle touch sensor 8P connector.
19. Measure the voltage between driver's (or front passenger's)* door outer handle touch sensor 8P connector terminals No. 1 and No. 5.

DRIVER'S (or FRONT PASSENGER'S)* DOOR OUTER HANDLE TOUCH SENSOR 8P CONNECTOR



Wire side of female terminals

***: Front passenger's**

Is there battery voltage?

YES–Go to step 20.

NO–Go to step 23.

(cont'd)

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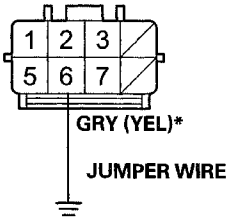
Symptom Troubleshooting (cont'd)

20. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu with the HDS, and enter HISTORY CLEAR.

21. Connect driver's (or front passenger's)* door outer handle touch sensor 8P connector terminals No. 6 to body ground with a jumper wire.

DRIVER'S (or FRONT PASSENGER'S)* DOOR OUTER HANDLE TOUCH SENSOR 8P CONNECTOR



Wire side of female terminals

***: Front passenger's**

22. Check the HISTORY DATA with the HDS.

History Data

DRIVER DOOR LOCK SWITCH	OK
FRONT PASSENGER DOOR LOCK SWITCH	OK

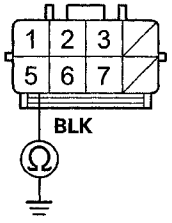
Is all the information OK?

YES–Replace the faulty door outer handle (see page 20-15).■

NO–Go to step 33.

23. Check for continuity between body ground and driver's (or front passenger's)* door outer handle touch sensor 8P connector terminal No. 5.

DRIVER'S (or FRONT PASSENGER'S)* DOOR OUTER HANDLE TOUCH SENSOR 8P CONNECTOR



Wire side of female terminals

***: Front passenger's**

Is there continuity?

YES–Go to step 24.

NO–Repair an open in the wire or poor ground (G401: driver's side, G405: passenger's side).■

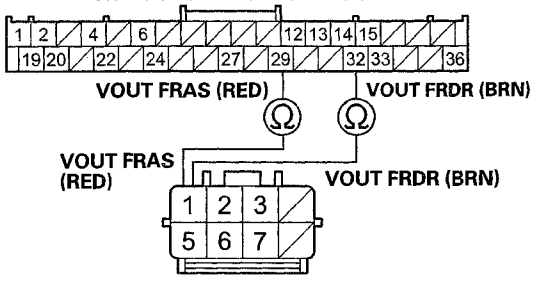
24. Disconnect keyless access control unit connector A (36P).

25. Check for continuity between keyless access control unit connector A (36P) terminals and driver's (or front passenger's)* door outer handle touch sensor 8P connector terminals as shown.

Keyless access control unit connector	Door outer handle touch sensor 8P connector
A32 (driver's side)	1 (driver's side)
A29 (front passenger's side)	1 (front passenger's side)

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)

Wire side of female terminals



DRIVER'S (or FRONT PASSENGER'S)* DOOR OUTER HANDLE TOUCH SENSOR 8P CONNECTOR

Wire side of female terminals

***: Front passenger's**

Is there continuity?

YES–Go to step 26.

NO–Repair an open in the wire.■

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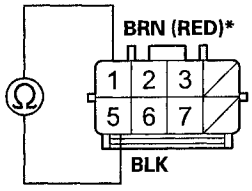
26. Check for continuity between body ground and driver's (or front passenger's)* door outer handle touch sensor 8P connector terminals No. 1 and No. 5.

DRIVER'S (or FRONT PASSENGER'S)* DOOR OUTER HANDLE TOUCH SENSOR 8P CONNECTOR



Wire side of female terminals

***: Front passenger's**

Is there continuity?

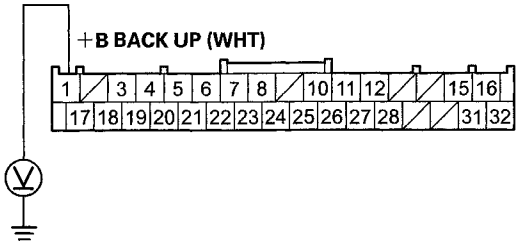
YES–Repair a short to ground in the wire.■

NO–Go to step 27.

27. Disconnect keyless access control unit connector B (32P).

28. Measure the voltage between body ground and keyless access control unit connector B (32P) terminal No. 1.

KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)



Wire side of female terminals

Is there battery voltage?

YES–Replace the keyless access control unit (see page 22-605).■

NO–Check the No. 15 (10 A) fuse in the under-hood fuse/relay box. If the fuse is OK, repair an open in the wire.■

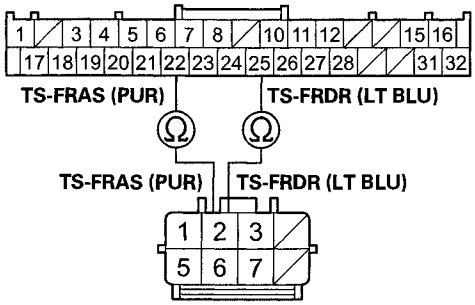
29. Disconnect keyless access control unit connector B (32P).

30. Disconnect the faulty door outer handle touch sensor 8P connector.

31. Check for continuity between keyless access control unit connector B (32P) terminals and driver's (or front passenger's)* door outer handle touch sensor 8P connector terminals as shown.

Keyless access control unit connector	Door outer handle touch sensor 8P connector
B25 (driver's side)	2 (driver's side)
B22 (front passenger's side)	2 (front passenger's side)

KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)
Wire side of female terminals



DRIVER'S (or FRONT PASSENGER'S)* DOOR OUTER HANDLE TOUCH SENSOR 8P CONNECTOR
Wire side of female terminals

***: Front passenger's**

Is there continuity?

YES–Go to step 32.

NO–Repair an open in the wire.■

(cont'd)

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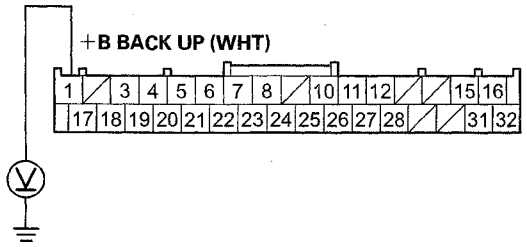
Symptom Troubleshooting (cont'd)

32. Measure the voltage between body ground and keyless access control unit connector B (32P) terminal No. 1.

KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)



Wire side of female terminals

Is there battery voltage?

YES–Replace the keyless access control unit (see page 22-605).■

NO–Check the No. 15 (10 A) fuse in the under-hood fuse/relay box. If the fuse is OK, repair open in the wire.■

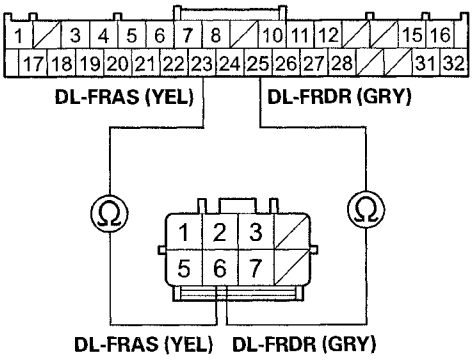
33. Remove the jumper wire from the touch sensor.

34. Disconnect keyless access control unit connector B (32P).

35. Check for continuity between keyless access control unit connector B (32P) terminals and driver's (or front passenger's)* door outer handle touch sensor 8P connector terminals as shown.

Keyless access control unit connector	Door outer handle touch sensor 8P connector
B26 (driver's side)	6 (driver's side)
B23 (front passenger's side)	6 (front passenger's side)

KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)
Wire side of female terminals



DRIVER'S (or FRONT PASSENGER'S)* DOOR OUTER HANDLE TOUCH SENSOR 8P CONNECTOR
Wire side of female terminals

***: Front passenger's**

Is there continuity?

YES–Go to step 36.

NO–Repair an open in the wire.■

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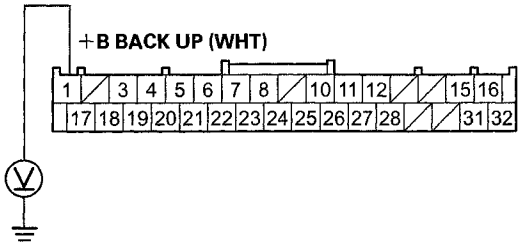
36. Measure the voltage between body ground and keyless access control unit connector B (32P) terminal No. 1.

KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)



Wire side of female terminals

Is there battery voltage?

YES–Replace the keyless access control unit (see page 22-605).■

NO–Check the No. 15 (10 A) fuse in the under-hood fuse/relay box. If the fuse is OK, repair an open in the wire.■

The doors will not unlock (lock is normal) with keyless access or with the remote buttons, or the doors will not lock (unlock is normal) with keyless access or with the remote buttons

The doors will not unlock under the following conditions:

- When the remote is far from the vehicle.
- When the operation is made without the remote.
- When the remote is inserted into the remote slot.
- When the doors are already unlocked.
- When the vehicle speed signal is detected.

The doors will not lock under the following conditions:

- When the remote is far from the vehicle.
- When the operation is made without the remote.
- When the remote is inserted into the remote slot.
- When the doors are already open.
- When the vehicle is in ACC or ON modes.

1. Select HISTORY CLEAR from the ONE-PUSH START system select menu with the HDS.
2. Select HISTORY DATA from the ONE-PUSH START system select menu with the HDS.
3. Touch the each door outer handle touch sensor and push the lock button, then check the HISTORY DATA.

History Data

DRIVER DOOR UNLOCK SWITCH	OK
DRIVER DOOR LOCK SWITCH	OK
FRONT PASSENGER DOOR UNLOCK SWITCH	OK
FRONT PASSENGER DOOR LOCK SWITCH	OK

Is all the information OK?

YES–Go to step 4.

NO–Go to the touch sensor circuit troubleshooting (see page 22-600).■

4. Remove the remote from the remote slot, get out of the vehicle with the remote, and close all doors.
5. Push the UNLOCK button of the remote at least 10 times.

Do the door lock actuators work normally?

YES–Go to step 6.

NO–Go to step 10.

(cont'd)

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Symptom Troubleshooting (cont'd)

6. Push the LOCK button of the remote at least 10 times.

   Do the door lock actuators work normally?

   YES–Intermittent failure, the system is OK at this time.■

   NO–Go to step 7.

7. Push the LOCK and the UNLOCK buttons of the remote, and check if the LED come on.

   Does the LED come on?

   YES–Go to step 8.

   NO–Replace the remote battery and recheck the system. If the symptom does not go away, replace the remote.■

8. Select DOOR LOCKS from the BODY ELECTRICAL system select menu with the HDS.

9. Check each door switch value with the DATA LIST menu.

   With all doors closed

Data List	Value
Driver's door switch	OFF
Front passenger's door switch	OFF
Left rear door switch	OFF
Right rear door switch	OFF

   Are all data list values correct?

   YES–Replace the driver's under-dash fuse/relay box (see page 22-81).■

   NO–Check the each door switch circuit and recheck.■

10. Push the LOCK button of the remote at least 10 times.

    Do the door lock actuators work normally?

    YES–Go to step 11.

    NO–Go to the keyless access system symptom troubleshooting "All the doors and the trunk will not lock and unlock" (see page 22-581).■

11. Push the LOCK and the UNLOCK buttons of the remote, and check if the LED come on.

    Does the LED come on?

    YES–Replace the keyless access control unit (see page 22-605).■

    NO–Replace the remote battery and recheck the system. If the symptom not goes away, replace the remote.■

Keyless access indicator does not go off or does not come on

1. Press the engine start/stop button to select the OFF mode.
2. Press the engine start/stop button to select the ON mode.
3. Check the keyless access indicator.

   Does the keyless access indicator come on for 2 seconds?

   YES–Go to step 4.

   NO–Do the indicator drive circuit check (see page 22-342). If the indicator does not come on, replace the gauge control module (see page 22-367).■

4. Check the immobilizer indicator.

   Does the indicator blink once, then stay off?

   YES–Intermittent failure, the system is OK at this time.■

   NO–Go to step 5.

5. Check for DTCs in the PCU, SLOT UNIT and KEYLESS ACCESS CONTROL UNIT with the HDS.

   Are there any DTCs?

   YES–Go to the indicated DTC troubleshooting.■

   NO–Go to step 6.

6. Press the engine start/stop button to select the OFF mode.
7. Disconnect keyless access control unit connector B (32P).
8. Wait for at least 30 seconds.
9. Press the engine start/stop button to select the ON mode.

   Does the keyless access indicator go off?

   YES–Go to step 10.

   NO–Replace the keyless access control unit (see page 22-605).■

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10. Press the engine start/stop button to select the OFF mode.
11. Reconnect keyless access control unit connector B (32P).
12. Disconnect the remote slot control unit 40P connector.
13. Wait for at least 30 seconds.
14. Press the engine start/stop button to select the ON mode.

    Does the keyless access indicator go off?

    YES–Go to step 15.

    NO–Replace the remote slot control unit (see page 22-614).■
15. Press the engine start/stop button to select the OFF mode.
16. Reconnect the remote slot control unit 40P connector.
17. Disconnect power control unit connector C (36P).
18. Wait for at least 30 seconds.
19. Press the engine start/stop button to select the ON mode.

    Does the keyless access indicator go off?

    YES–Replace the gauge control module (see page 22-367).■

    NO–Replace the power control unit (see page 22-609).■

Immobilizer indicator does not go off or does not come on

1. Press the engine start/stop button to select the OFF mode.
2. Press the engine start/stop button to select the ON mode.
3. Check the immobilizer indicator.

   Does the immobilizer indicator come on?

   YES–Go to step 4.

   NO–Go to step 9.
4. Check the immobilizer indicator.

   Does the indicator come on, then go off?

   YES–Go to step 5.

   NO–Go to step 10.
5. Press the engine start/stop button to select the OFF mode.
6. Insert the remote into the remote slot.
7. Press the engine start/stop button to select the ON mode.
8. Check the immobilizer indicator.

   Does the indicator blink once, then stay off?

   YES–Intermittent failure, the system is OK at this time.■

   NO–Go to step 12.
9. Check the malfunction indicator lamp (MIL).

   Does the indicator come on?

   YES–Troubleshooting the ECM/PCM DTCs.■

   NO–Replace the gauge control module (see page 22-367).■

(cont'd)

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Symptom Troubleshooting (cont'd)

10. Select KEYLESS ACCESS CONTROL UNIT from the ONE-PUSH START system select menu with HDS, and enter KEYLESS ACCESS CONTROL UNIT INFORMATION.
11. Do the SYSTEM CHECK 1 and 2 with the HDS.

    Is N-1 OK indicated?

    YES–Replace the gauge control module (see page 22-367).■

    NO–Troubleshoot the keyless access system according to the result of the SYSTEM CHECK 1 and 2 (see page 22-555).■
12. Select REMOTE SLOT CONTROL UNIT from the ONE-PUSH START system select menu with HDS, and enter KEYLESS ACCESS CONTROL UNIT INFORMATION.
13. Do the SYSTEM CHECK with the HDS.

    Is N-1 OK indicated?

    YES–Replace the gauge control module (see page 22-367).■

    NO–Troubleshoot the keyless access system according to the result of the SYSTEM CHECK (see page 22-555).■

The key-in reminder does not sound

1. Turn the interior light switch to DOOR position.
2. Open the driver's door.

   Does the individual map lights come on?

   YES–Go to step 3.

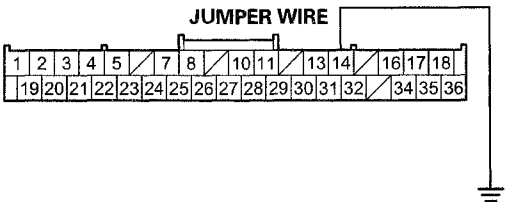
   NO–Faulty driver's door switch and/or open in the wire.■
3. Select GAUGES from the BODY ELECTRICAL system select menu with the HDS.
4. Select FUNCTION TESTS from the TEST MODE menu with the HDS, and enter SELF TEST.

   Does the key-in reminder sound?

   YES–Go to step 5.

   NO–Replace the gauge control module (see page 22-367).■
5. Open the driver's door.
6. Connect power control unit connector C (36P) terminal No. 14 to body ground with a jumper wire.

POWER CONTROL UNIT CONNECTOR C (36P)



Wire side of female terminals

Does the key-in reminder sound?

YES–Replace the power control unit (see page 22-609).■

NO–Go to step 7.

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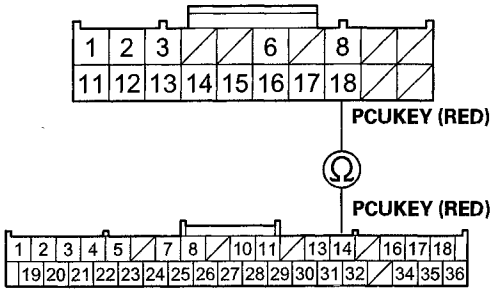
7. Press the engine start/stop button to select the OFF mode.
8. Disconnect power control unit connector C (36P).
9. Disconnect driver's under-dash fuse/relay box connector Q (20P).
10. Check for continuity between driver's under-dash fuse/relay box connector Q (20P) terminal No. 18 and power control unit connector C (36P) terminal No. 14.

DRIVER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR Q (20P)

Wire side of female terminals



POWER CONTROL UNIT CONNECTOR C (36P)

Wire side of female terminals

Is there continuity?

YES–Faulty driver's MICU; replace the under-dash fuse/relay box (see page 22-81).■

NO–Repair an open in the wire.■

The key-in reminder sounds when the remote is removed from the remote slot and door is open

1. Insert the remote into the remote slot.

   Does the remote go into the slot?

   YES–Go to step 2.

   NO–Go to symptom troubleshooting "Remote will not go into the remote slot" (see page 22-597).■

2. Select PCU from the ONE-PUSH START system select menu, and check for DTCs with HDS.

   Are there any DTCs?

   YES–Go to the indicated DTC troubleshooting.■

   NO–Go to step 3.

3. Select PCU from the ONE-PUSH START system select menu with the HDS, and enter DATA LIST.
4. Check each remote slot value with the DATA LIST menu.

With remote in the remote slot

Data List	Value
SLOT Switch HALF	OFF
SLOT Switch FULL	OFF
SLOT Switch FULL 2	OFF

Are all data list values correct?

YES–Go to step 5.

NO–Go to step 22.

(cont'd)

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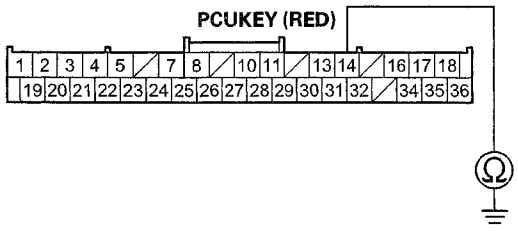
Symptom Troubleshooting (cont'd)

5. Press the engine start/stop button to select the OFF mode.
6. Disconnect power control unit connector C (36P).
7. Disconnect driver's under-dash fuse/relay box connector Q (20P).
8. Check for continuity between body ground and power control unit connector C (36P) terminal No. 14.

POWER CONTROL UNIT CONNECTOR C (36P)



Wire side of female terminals

Is there continuity?

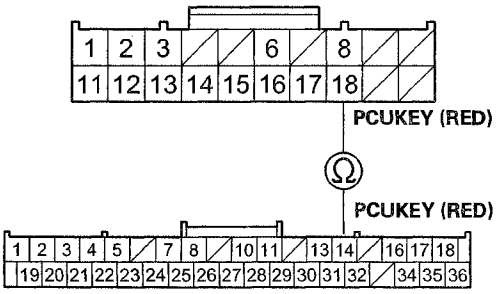
YES–Repair a short to ground in the wire.■

NO–Go to step 9.

9. Check for continuity between driver's under-dash fuse/relay box connector Q (20P) terminal No. 18 and power control unit connector C (36P) terminal No. 14.

DRIVER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR Q (20P)

Wire side of female terminals



POWER CONTROL UNIT CONNECTOR C (36P)

Wire side of female terminals

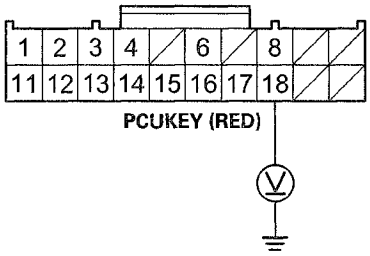
Is there continuity?

YES–Go to step 10.

NO–Repair an open in the wire.■

10. Reconnect driver's under-dash fuse/relay box connector Q (20P).
11. Measure the voltage between body ground and driver's under-dash fuse/relay box connector Q (20P) terminal No. 18.

DRIVER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR Q (20P)



Wire side of female terminals

Is there battery voltage?

YES–Go to step 12.

NO–Faulty driver's MICU; replace the driver's under-dash fuse/relay box (see page 22-81).■

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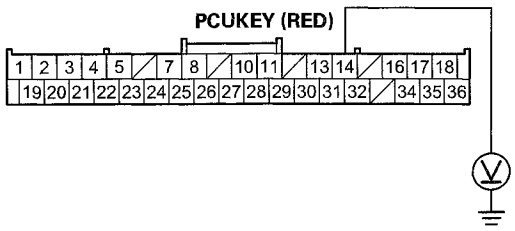
12. Reconnect power control unit connector C (36P).
13. Press the engine start/stop button to select the ON mode.
14. Select PCU from the ONE-PUSH START system select menu with the HDS, and enter FUNCTION TESTS.
15. Connect the voltmeter to body ground and to power control unit connector C (36P) terminal No. 14.

POWER CONTROL UNIT CONNECTOR C (36P)



Wire side of female terminals

16. Select DRLOCKSWOUT with the HDS.

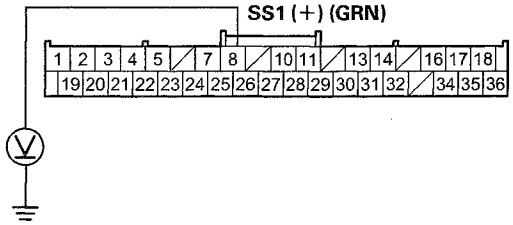
    Does the voltage change from about 12 to 0 V?

    YES–Go to step 16.

    NO–Replace the power control unit (see page 22-609).■

17. Press the engine start/stop button to select the OFF mode.
18. Disconnect power control unit connector C (36P).
19. Measure the voltage between body ground and power control unit connector C (36P) terminal No. 8.

POWER CONTROL UNIT CONNECTOR C (36P)



Wire side of female terminals

Is there about 0 V?

YES–Reconnect the connectors and recheck the system. If the symptom does not go away, replace the power control unit (see page 22-609).■

NO–Go to step 20.

20. Disconnect the engine start/stop switch 10P connector.
21. Do the engine start/stop switch test (see page 22-619).

    Is the engine start/stop switch OK?

    YES–Repair an open in the wire.■

    NO–Replace the engine start/stop switch (see page 22-619).■

(cont'd)

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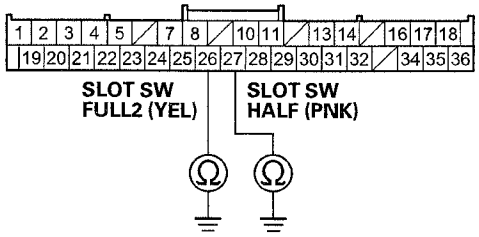
Symptom Troubleshooting (cont'd)

22. Press the engine start/stop button to select the OFF mode.
23. Disconnect the remote slot control unit 40P connector.
24. Disconnect the remote slot 16P connector.
25. Disconnect power control unit connector C (36P).
26. Disconnect keyless access control unit connectors A (36P) and B (32P).
27. Check for continuity between body ground and power control unit connector C (36P) terminal No. 26 and No. 27 individually.

POWER CONTROL UNIT CONNECTOR C (36P)



Wire side of female terminals

Is there continuity?

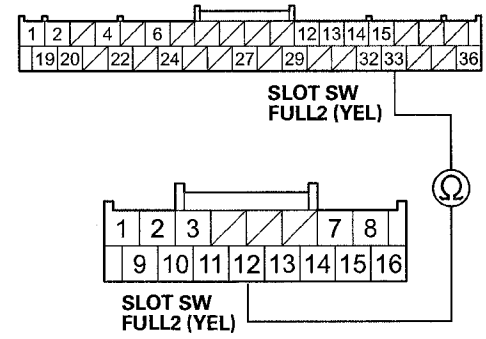
YES–Repair a short to ground in the wire.■

NO–Go to step 28.

28. Check for continuity between keyless access control unit connector A (36P) terminal, B (32P) terminals and the remote slot 16P connector terminals as shown.

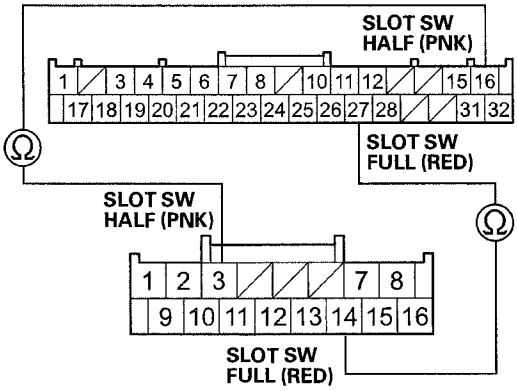
Keyless access control unit connector	Remote slot 16P connector
A33	12
B16	3
B27	14

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)
Wire side of female terminals



REMOTE SLOT 16P CONNECTOR
Wire side of female terminals

KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)
Wire side of female terminals



REMOTE SLOT 16P CONNECTOR
Wire side of female terminals

Is there continuity?

YES–Faulty remote slot; replace the remote slot (see page 22-619).■

NO–Repair an open in the wire.■

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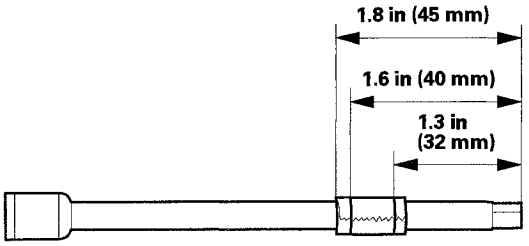
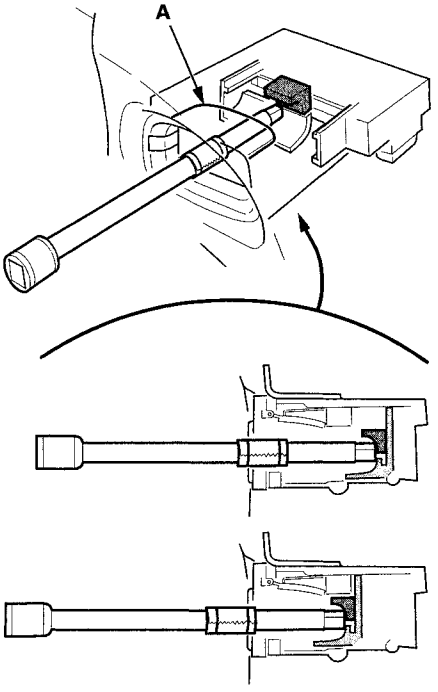
Remote will not go into the remote slot

NOTE: Take care not to scratch the remote slot.

1. Press the engine start/stop button to select the OFF mode.
2. Open the driver's door and check for the key-in reminder.
   - If the key-in reminder sounds, go to step 3.
   - If the key-in reminder do not sound, replace the remote slot (see page 22-619).
3. Press the unlock button on the remote to unlock the doors.
   - If the door lock actuators work, replace the remote slot (see page 22-619).
   - If the door lock actuators do not work, Go to step 4.
4. Create a measuring gauge by placing a piece of masking tape about 1.8 in (45 mm) from the tip of 6 inch long 1/4 inch drive extension. Make two lines on tape; one at 1.3 in (32 mm) and one at 1.6 in (40 mm).



5. Check the position of the remote carriage in the remote slot. Lift up on the flap (A) of the remote slot, then slide the gauge into the center of the remote slot, and note which line on the tape lines-up with remote slot rim.
   - If the remote carriage is at the 1.6 in (40 mm) line, go to step 6.
   - If the remote carriage is at the 1.3 in (32 mm) line, replace the remote slot (see page 22-619).



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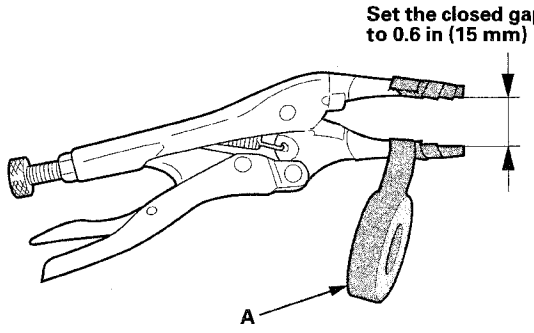
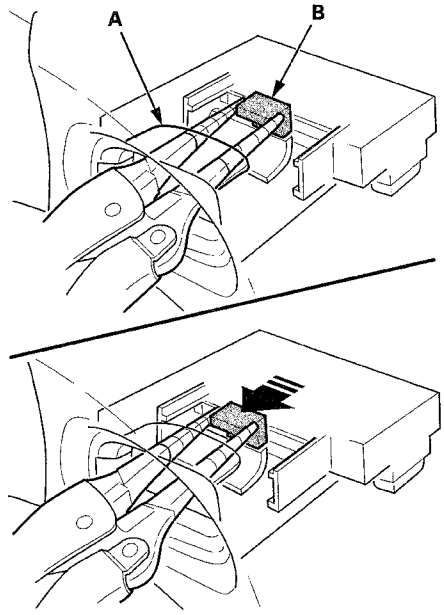
Symptom Troubleshooting (cont'd)

6. Wrap electrical tape (A) around the tips of a long nose locking pliers (Vise Grip tool number 4LN, or equivalent), then set the tips when closed to 0.6 in (15 mm).



7. Lift up on the flap (A) of the remote slot, then carefully grasp the upper center section of the remote carriage (B) with the pliers, and gently pull to slide the carriage outward.



8. Check the operation of the remote slot:
   - Insert the remote into the remote slot.
   - Press the engine start/stop button to select the ACC mode. The remote slot should click, locking the remote in place. If it does not click or lock the remote in place, replace the remote slot (see page 22-619).
   - Press the engine start/stop button to select the OFF mode. The remote slot should click again unlocking the remote. If it does not click or unlock the remote, replace the remote slot (see page 22-619).

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Keyless Buzzer Circuit Troubleshooting

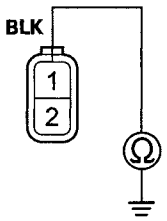
1. Connect the HDS to the data link connector (DLC).
2. Press the engine start/stop button to select the ON mode.
3. Check the "CUSTOMIZE SETUP" information on the multi-information display.

   Does the keyless buzzer (KEYLESS LOCK ACKNOWLEDGMENT) information indicate off?

   YES–Change to ON.■

   NO–Go to step 4.
4. Press the engine start/stop button to select the OFF mode.
5. Disconnect the keyless buzzer 2P connector.
6. Check for continuity between body ground and keyless buzzer 2P connector terminal No. 1.

KEYLESS BUZZER 2P CONNECTOR



Wire side of female terminals

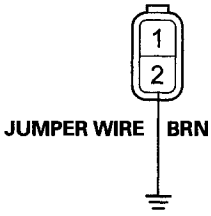
Is there continuity?

YES–Go to step 7.

NO–Repair an open in the wire or poor ground (G603).■

7. Disconnect passenger's under-dash fuse/relay box connector A (38P).
8. Connect keyless buzzer 2P connector terminal No. 2 to body ground with a jumper wire.

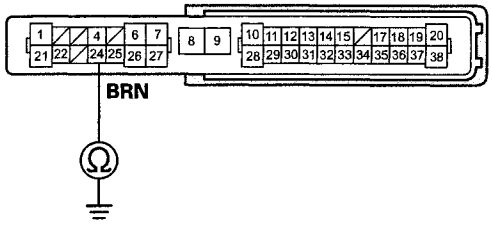
KEYLESS BUZZER 2P CONNECTOR



Wire side of female terminals

9. Check for continuity between body ground and passenger's under-dash fuse/relay box connector A (38P) terminal No. 24.

PASSENGER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR A (38P)



Wire side of female terminals

Is there continuity?

YES–Go to step 10.

NO–Repair an open in the wire.■

(cont'd)

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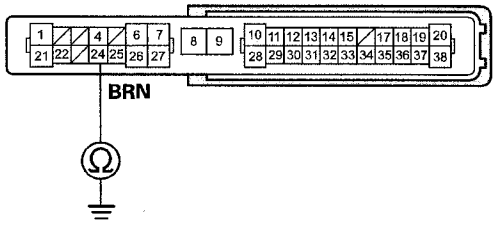
Keyless Buzzer Circuit Troubleshooting (cont'd)

10. Remove the jumper wire.
11. Check for continuity between body ground and passenger's under-dash fuse/relay box connector A (38P) terminal No. 24.

PASSENGER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR A (38P)



Wire side of female terminals

Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Substitute a known-good keyless access control unit, and recheck. If there is still a malfunction, the passenger's MICU must be faulty, replace the passenger's under-dash fuse/relay box.■

Touch Sensor Circuit Troubleshooting

1. Connect the HDS to the data link connector (DLC).
2. Press the engine start/stop button to select the ON mode.
3. Clear the freeze data with the HDS.
4. Select the HISTORY DATA, and record the ON/OFF information for the following touch sensors:

   NOTE: When the freeze data is cleared, the information indicates "NOT CONFIRMED".
   - DRIVER DOOR UNLOCK SWITCH
   - DRIVER DOOR LOCK SWITCH
   - FRONT PASSENGER DOOR UNLOCK SWITCH
   - FRONT PASSENGER DOOR LOCK SWITCH
5. Press the engine start/stop button to select the OFF mode.
6. Get out of the vehicle with the remote, and press the driver's or front passenger's door outer handle touch sensor and lock switch.
7. Check the ON/OFF information.

   Is all the information changed from OFF to ON?

   YES–The system is OK at this time.■

   NO–Go to step 8.

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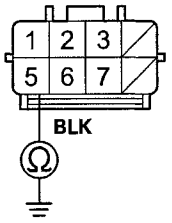
8. Disconnect the faulty outer handle touch sensor 8P connector.
9. Check for continuity between body ground and outer handle touch sensor 8P connector terminal No. 5.

DRIVER'S (or FRONT PASSENGER'S)* DOOR OUTER HANDLE TOUCH SENSOR 8P CONNECTOR



Wire side of female terminals

***: Front passenger's**

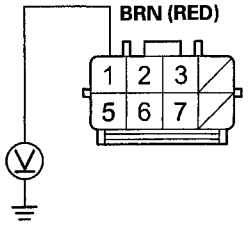
Is there continuity?

YES–Go to step 10.

NO–Repair an open in the wire or poor ground (G401: driver's side, G405: passenger's side).■

10. Measure the voltage between body ground and outer handle touch sensor 8P connector terminal No. 1.

DRIVER'S (or FRONT PASSENGER'S)* DOOR OUTER HANDLE TOUCH SENSOR 8P CONNECTOR



Wire side of female terminals

***: Front passenger's**

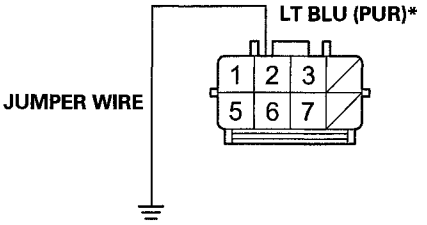
Is there battery voltage?

YES–Go to step 11.

NO–Go to step 16.

11. Disconnect keyless access control unit connector B (32P).
12. Connect the driver's (or front passenger's)* door outer handle touch sensor 8P connector terminal No. 2 to body ground with a jumper wire.

DRIVER'S (or FRONT PASSENGER'S)* DOOR OUTER HANDLE TOUCH SENSOR 8P CONNECTOR

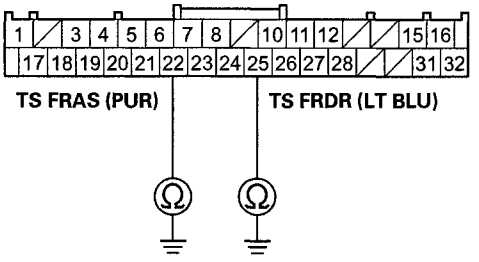


Wire side of female terminals

***: FRONT PASSENGER'S**

13. Check for continuity between keyless access control unit connector B (32P) terminal No. 22 and body ground (for front passenger's door touch sensor) or between keyless access control unit connector B (32P) terminal No. 25 and body ground (for driver's door touch sensor) individually.

KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)



Wire side of female terminals

Is there continuity?

YES–Go to step 14.

NO–Repair an open in the wire.■

(cont'd)

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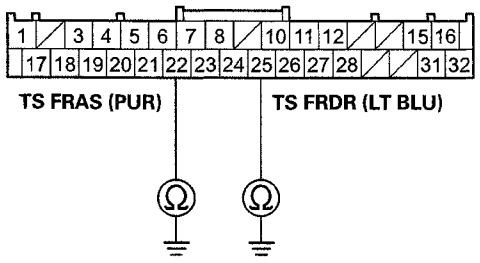
Touch Sensor Circuit Troubleshooting (cont'd)

14. Remove the jumper wire from the touch sensor.
15. Check for continuity between keyless access control unit connector B (32P) terminal No. 22 and body ground (for front passenger's door touch sensor), or between keyless access control unit connector B (32P) terminal No. 25 and body ground (for driver's door touch sensor) individually.

KEYLESS ACCESS CONTROL UNIT CONNECTOR B (32P)



Wire side of female terminals

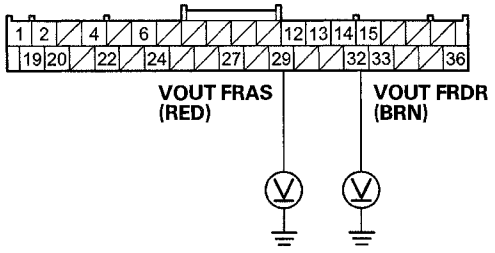
Is there continuity?

YES–Repair a short to ground in the wire.■

NO–Substitute a known-good touch sensor, and recheck. If there is still a malfunction, replace the keyless access control unit.■

16. Measure the voltage between keyless access control unit connector A (36P) terminal No. 32 and body ground (for driver's door touch sensor), or between keyless access control unit connector A (36P) terminal No. 29 and body ground (for front passenger's door touch sensor) individually.

KEYLESS ACCESS CONTROL UNIT CONNECTOR A (36P)



Wire side of female terminals

Is there battery voltage?

YES–Repair an open in the wire.■

NO–Blown No. 15 (10 A) fuse in the under-hood fuse/relay box. If fuse is OK, do the keyless access control unit input test and power input tests (see page 22-605).■

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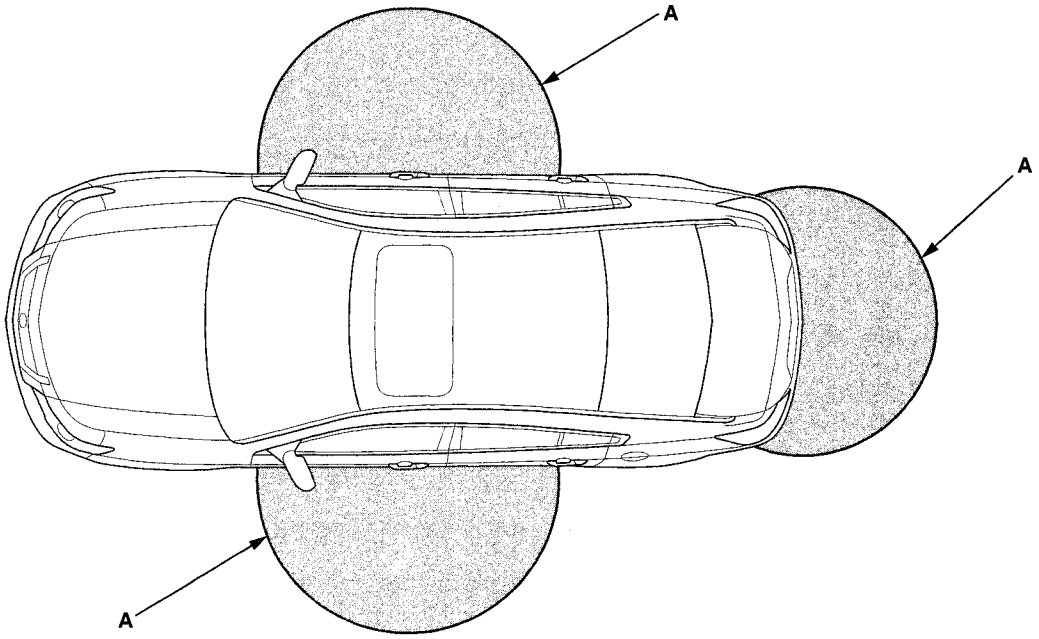
Door and Trunk LF Antenna Test

NOTE: Before testing, check for DTCs. If any DTCs are indicated, troubleshoot the indicated DTCs first.

1. Connect the HDS to the data link connector (DLC).
2. Press the engine start/stop button to select the ON mode.
3. Select the ONE-PUSH START from the system select menu with the HDS.
4. Select the SELF CHECK and if any malfunction is found, troubleshoot it first.
5. Select the FUNCTION TESTS, and do the antenna driving test by checking the transmitting areas (A) between the LF antenna and the remote.

LF Antenna Location	HDS Indication (Function Test)
Driver's door LF antenna	Driver Antenna Driving
Front passenger's door LF antenna	Front Passenger Antenna Driving
Rear bumper LF antenna	Trunk/Tailgate Driver Antenna Driving

NOTE:
- Function Test cannot operate at the same time, check the LF antennas one at a time.
- Test the transmitting area at about 35.4 in (90 cm) height from the ground.
- The LED will blink when the remote is within the shaded areas.



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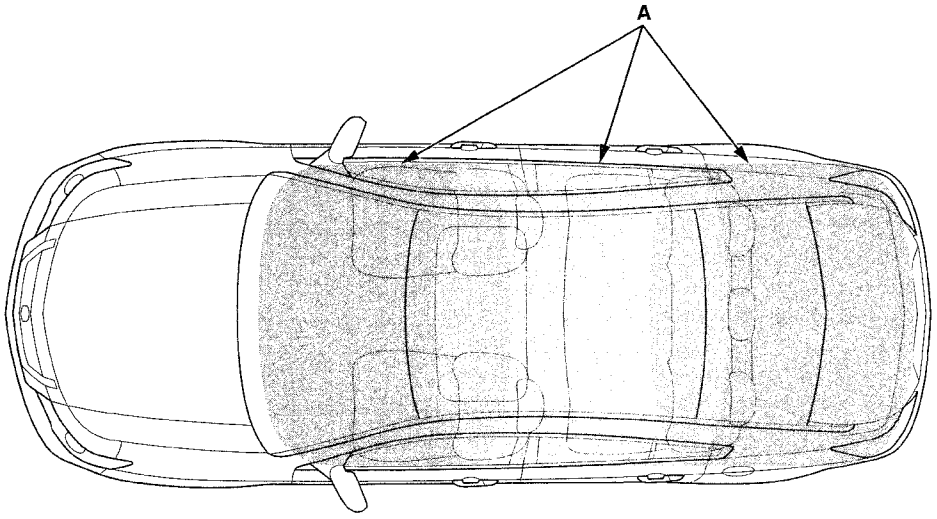
Interior LF Antenna Test

NOTE: Before testing, check for DTCs. If any DTCs are indicated, troubleshoot the indicated DTCs first.

1. Connect the HDS to the data link connector (DLC).
2. Press the engine start/stop button to select the ON mode.
3. Select the ONE-PUSH START from the system select menu with the HDS.
4. Select the SELF CHECK and if any malfunction is found, troubleshoot it first.
5. Select the FUNCTION TESTS, and do the antenna driving test by checking the transmitting area (A) between the LF antenna and the remote (except on the dashboard, in the glove box, door pockets, console box, and other enclosed areas).

LF Antenna Location	HDS Indication (Function Test)
Front Interior LF antenna	Front Interior Antenna Driving
Rear Interior LF antenna	Rear Interior Antenna Driving
Trunk interior/Rear shelf LF antenna	Trunk interior/Rear shelf LF Antenna Driving

NOTE: Function Test cannot operate at the same time, check the LF antennas one at a time.



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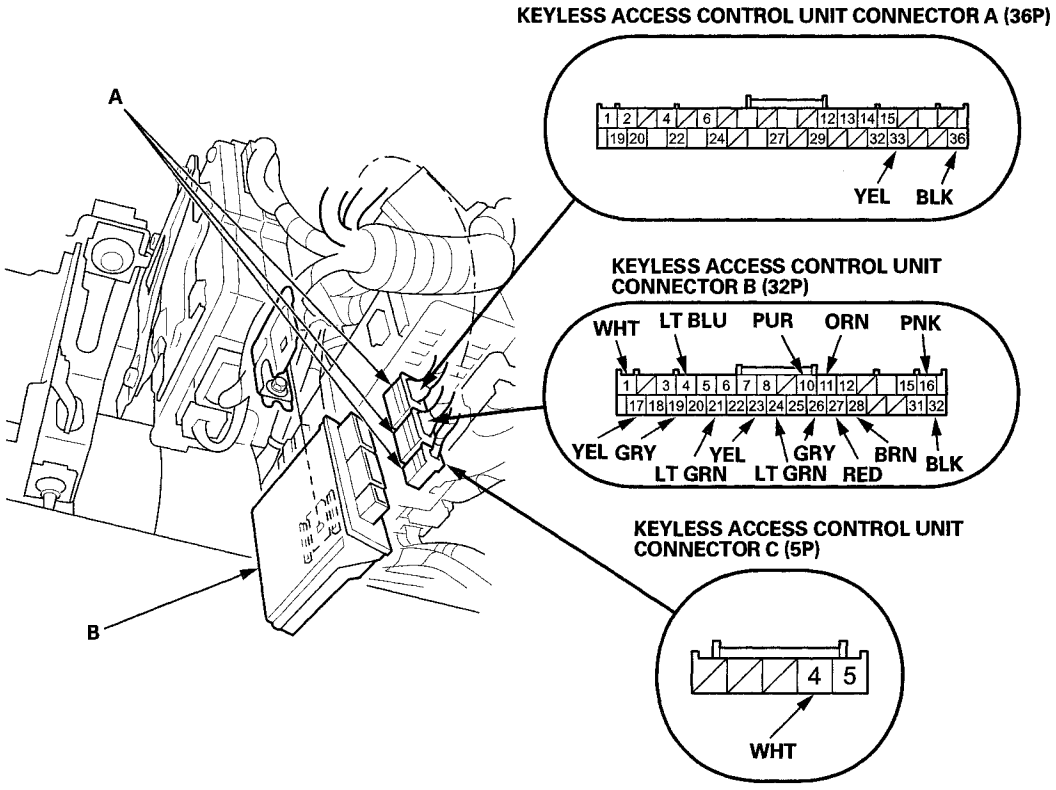
Control Unit Input Test

Keyless Access Control Unit

NOTE:
- Before doing the input tests, check the B-CAN DTCs. If any DTC is indicated, troubleshoot the indicated DTC first.
- If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-135).

1. Press the engine start/stop button to select the OFF mode.
2. Remove the driver's dashboard undercover (see page 20-118).
3. Disconnect the connectors (A) from the keyless access control unit (B).

   NOTE: All connector views are wire side of female terminals.



4. Inspect the connector and socket terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
   - If the terminals look OK, go to step 5.

(cont'd)

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Control Unit Input Test (cont'd)

5. With the connectors still disconnected, do these input tests at the following connectors.
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 6.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
B4	LT BLU	Under all conditions	Check for continuity between terminal B4 and data link connector (DLC) terminal No. 7: There should be continuity.	An open in the K-LINE wire
			Check for continuity between terminal B4 and body ground: There should be no continuity.	A short to ground in the wire
B11	ORN	Under all conditions	Check for continuity between terminal B11 and data link connector (DLC) terminal No. 9: There should be continuity.	An open or high resistance in the wire
			Check for continuity between terminal B11 and body ground: There should be no continuity.	A short to ground in the wire
B21	LT GRN	Disconnect the remote slot control unit 40P connector and driver's under-dash fuse/relay box connector Q (20P). Jump the SCS line with the HDS, disconnect ECM/PCM connector A (49P)	Check for continuity between terminal B21 and remote slot control unit 40P connector terminal No. 14: There should be continuity.	An open in the S-NET wire
			Check for continuity between terminal B21 and driver's under-dash fuse/relay box connector Q (20P) terminal No. 15: There should be continuity.	
			Check for continuity between terminal B21 and ECM/PCM connector A (49P) terminal No. 46: There should be continuity.	
			Check for continuity between terminal B21 and body ground: There should be no continuity.	A short to ground in the wire
B27	RED	Disconnect the remote slot control unit 40P connector and the remote slot 16P connector	Check for continuity between terminal B27 and remote slot control unit 40P connector terminal No. 27: There should be continuity.	An open or high resistance in the wire
			Check for continuity between terminal B27 and remote slot 16P connector terminal No. 14: There should be continuity.	
			Check for continuity between terminal B27 and body ground: There should be no continuity.	A short to ground in the wire

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6. Reconnect the connectors to the keyless access control unit, and do these input tests at the following connectors.
   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, go to step 7.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
B1	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
B10	PUR	Power mode ACC	Measure the voltage to ground: There should be battery voltage.	• Blown No. 18 (7.5 A) fuse in the driver's under-dash fuse/relay box • An open or high resistance in the wire
B17	YEL	Power mode ON	Measure the voltage to ground: There should be battery voltage.	• Blown No. 9 (20 A) fuse in the driver's under-dash fuse/relay box • An open or high resistance in the wire
A36	BLK	In all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
B32	BLK	In all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
C4	WHT	Electric steering lock (LOCK)	Measure the voltage to ground: There should be about 5 V.	• Faulty electric steering lock control unit • A short to ground in the wire
		Electric steering lock (UNLOCK)	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty electric steering lock control unit • An open or high resistance in the wire
B19	GRY	Keyless access system mode switch OFF	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G501) or an open in the ground wire • Faulty keyless access system mode switch • An open or high resistance in the wire
		Keyless access system mode switch ON	Measure the voltage to ground: There should be battery voltage.	• Faulty keyless access system mode switch • A short to ground in the wire
B23	YEL	Front passenger's door outer handle lock switch pushed	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty front passenger's door outer handle • Poor ground (G405) or an open in the ground wire • An open or high resistance in the wire
		Front passenger's door outer handle lock switch released	Measure the voltage to ground: There should be battery voltage.	• Faulty front passenger's door outer handle • A short to ground in the wire
B26	GRY	Driver's door outer handle lock switch pushed	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty driver's door outer handle • Poor ground (G401) or an open in the ground wire • An open or high resistance in the wire
		Driver's door outer handle lock switch released	Measure the voltage to ground: There should be battery voltage.	• Faulty driver's door outer handle • A short to ground in the wire

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Control Unit Input Test (cont'd)

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
B24	LT GRN	Power mode ON, parking brake lever pulled	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty parking brake switch • An open or high resistance in the wire
		Power mode ON, parking brake lever released	Measure the voltage to ground: There should be about 5 V.	• Faulty parking brake switch • A short to ground in the wire
B28	BRN	Trunk lid spoiler switch pushed	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty driver's under-dash fuse/relay box • Faulty trunk lid spoiler switch • Poor ground (G603) or an open in the ground wire • An open or high resistance in the wire
		Trunk lid spoiler switch released	Measure the voltage to ground: There should be about 5 V.	• Faulty driver's under-dash fuse/relay box • Faulty trunk lid spoiler switch • A short to ground in the wire
A33	YEL	Insert the remote into the remote slot	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G403) or an open in the ground wire • Faulty remote slot • An open or high resistance in the wire
B16	PNK	Insert the remote into the remote slot	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G403) or an open in the ground wire • Faulty remote slot • An open or high resistance in the wire

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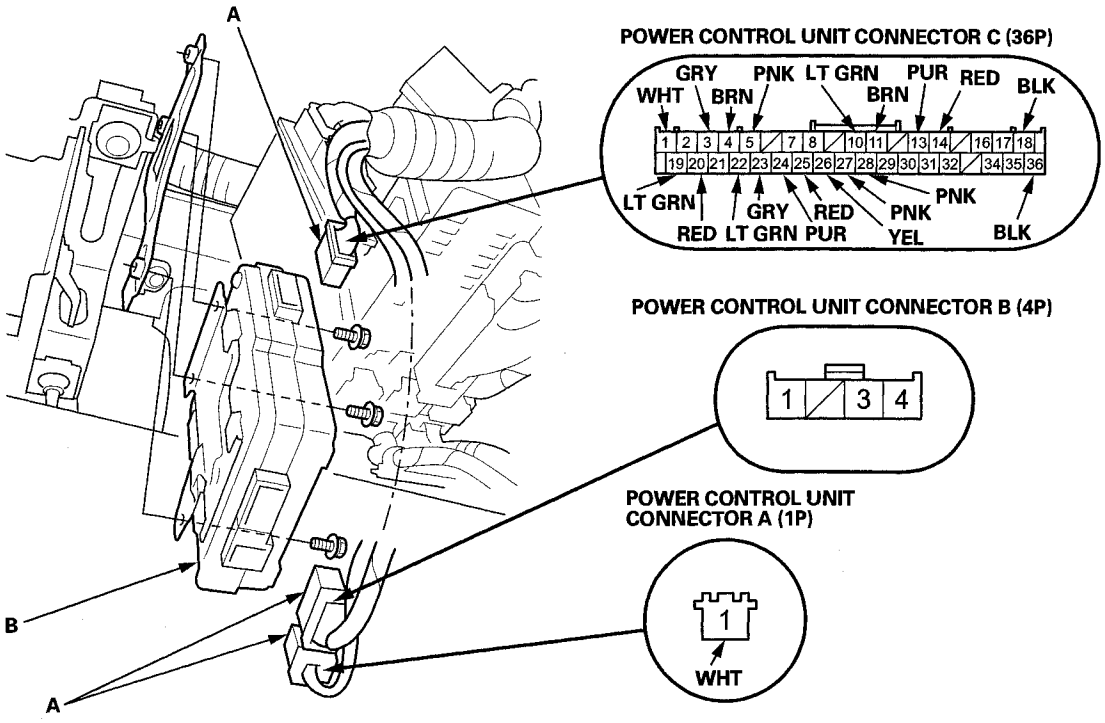
Power Control Unit

7. Press the engine start/stop button to select the OFF mode.
8. Remove the driver's dashboard undercover (see page 20-118).
9. Disconnect the connectors (A) from the power control unit (B).

   NOTE: All connector views are wire side of female terminals.



10. Inspect the connector and the socket terminals to be sure they are all making good contact.
    - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
    - If the terminals look OK, go to step 11.
11. With the connectors still disconnected, do these input tests at the following connectors.
    - If any test indicates a problem, find and correct the cause, then recheck the system.
    - If all the input tests prove OK, go to step 12.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
C3	GRY	Under all conditions	Check for continuity between terminal C3 and data link connector (DLC) terminal No. 1: There should be continuity.	An open in the DIAG-H wire
			Check for continuity between terminal C3 and body ground: There should be no continuity.	A short to ground in the wire

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Control Unit Input Test (cont'd)

12. Reconnect the connectors to the power control unit, and do these input tests at the following connectors.
    - If any test indicates a problem, find and correct the cause, then recheck the system.
    - If all the input tests prove OK, go to step 13.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
A1	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 3-1 (IG MAIN) (50 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
C1	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
C20	RED	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 12 (10 A) fuse in the passenger's under-dash fuse/relay box • An open or high resistance in the wire
C18	BLK	In all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
C36	BLK	In all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G402) or an open in the ground wire • An open or high resistance in the wire
C11	BRN	Power mode ACC	Measure the voltage to ground: There should be battery voltage.	• Faulty power control unit • Faulty driver's under-dash fuse/relay box • A short to ground in the wire
C10	LT GRN	Power mode START	Measure the voltage to ground: There should be battery voltage.	• Faulty ECM/PCM • Faulty power control unit • A short to ground in the wire
C4	BRN	Under all conditions	Connect to ground with a jumper wire: The engine start/stop switch light should come on.	• Blown No. 12 (10 A) fuse in the passenger's under-dash fuse/relay box • Faulty engine start/stop switch • An open or high resistance in the wire
C5	PNK	Under all conditions	Connect to ground with a jumper wire: The engine start/stop switch indicator should come on.	• Blown No. 12 (10 A) fuse in the passenger's under-dash fuse/relay box • Faulty engine start/stop switch • An open or high resistance in the wire
C13	PUR	Power mode ON	Measure the voltage to ground: There should be battery voltage.	• Power control unit • A short to ground in the wire
C14	RED	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Faulty driver's MICU • An open or high resistance in the wire • A short to ground in the wire
C19	LT GRN	Brake pedal pressed	Measure the voltage to ground: There should be battery voltage.	• Blown No. 10 (20 A) fuse in the under-hood fuse/relay box • Faulty brake pedal position switch • An open or high resistance in the wire • A short to ground in the wire
C22	LT GRN	Power mode ON, parking brake lever pulled	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty parking brake switch • An open or high resistance in the wire
		Power mode ON, parking brake lever released	Measure the voltage to ground: There should be about 5 V.	• Faulty parking brake switch • A short to ground in the wire

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Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
C23	GRY	Keyless access system mode switch OFF	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G501) or an open in the ground wire • Faulty keyless access system mode switch • An open or high resistance in the wire
		Keyless access system mode switch ON	Measure the voltage to ground: There should be battery voltage.	• Faulty keyless access system mode switch • A short to ground in the wire
C24	PUR	Shift lever out of P position	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G403) or an open in the ground wire • Faulty park pin switch • An open or high resistance in the wire
		Shift lever in P position	Measure the voltage to ground: There should be battery voltage.	• Faulty park pin switch • A short to ground in the wire
C25	RED	Shift lever in P position	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G101) or an open in the ground wire • Faulty transmission range switch • An open or high resistance in the wire
		Shift lever out of P position	Measure the voltage to ground: There should be battery voltage.	• Faulty transmission range switch • A short to ground in the wire
C26	YEL	Insert the remote into the remote slot	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G403) or an open in the ground wire • Faulty remote slot • An open or high resistance in the wire
C27	PNK	Insert the remote into the remote slot	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G403) or an open in the ground wire • Faulty remote slot • An open or high resistance in the wire
C28 (M/T)	PNK	Power mode ON, clutch pedal pressed.	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G301) or an open in the ground wire • Faulty clutch pedal position switch A • An open or high resistance in the wire
		Power mode ON, clutch pedal released.	Measure the voltage to ground: There should be battery voltage.	• Faulty clutch pedal position switch A • A short to ground in the wire

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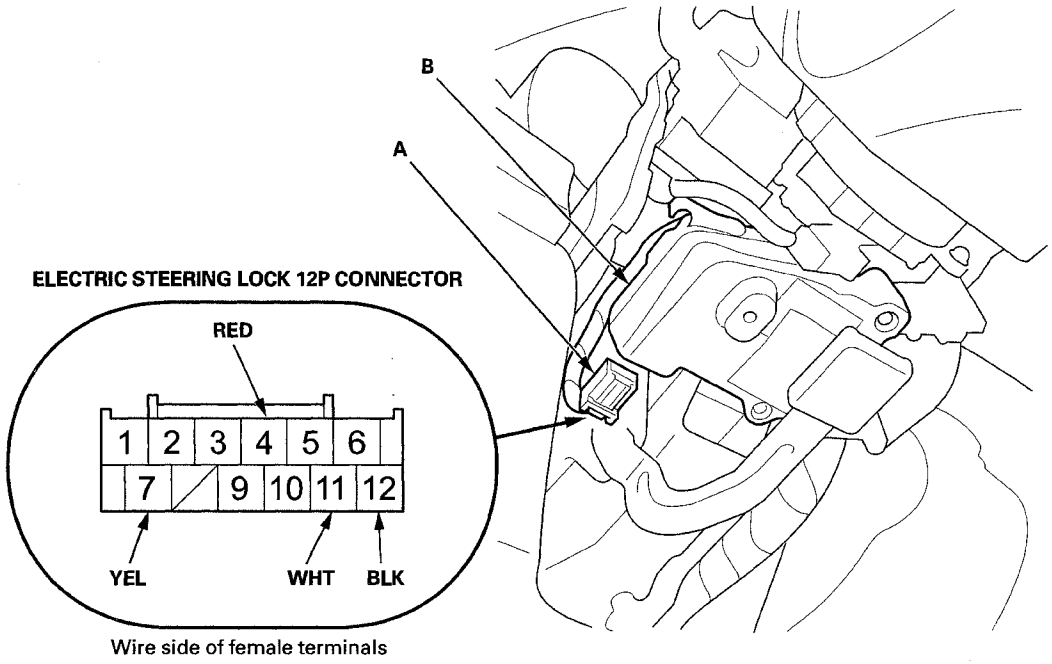
Control Unit Input Test (cont'd)

Electric Steering Lock

13. Press the engine start/stop button to select the OFF mode.
14. Remove the column covers (see page 20-126).
15. Disconnect the connector (A) from the electric steering lock (B).



Wire side of female terminals

16. Inspect the connector and socket terminals to be sure they are all making good contact.
    - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
    - If the terminals look OK, go to step 17.

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17. Reconnect the connector to the electric steering lock, and do these input tests at the following connector.
    - If any test indicates a problem, find and correct the cause, then recheck the system.
    - If all the input tests prove OK, go to step 18.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
4	RED	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 12 (10 A) fuse in the passenger's under-dash fuse/relay box • An open or high resistance in the wire
7	YEL	Power mode ON	Measure the voltage to ground: There should be battery voltage.	• Blown No. 9 (20 A) fuse in the driver's under-dash fuse/relay box • An open or high resistance in the wire
12	BLK	In all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G405) or an open in the ground wire • An open or high resistance in the wire
11	WHT	Electric steering lock (LOCK)	Measure the voltage to ground: There should be about 5 V.	• Faulty electric steering lock control unit • A short to ground in the wire
		Electric steering lock (UNLOCK)	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty electric steering lock control unit • An open or high resistance in the wire

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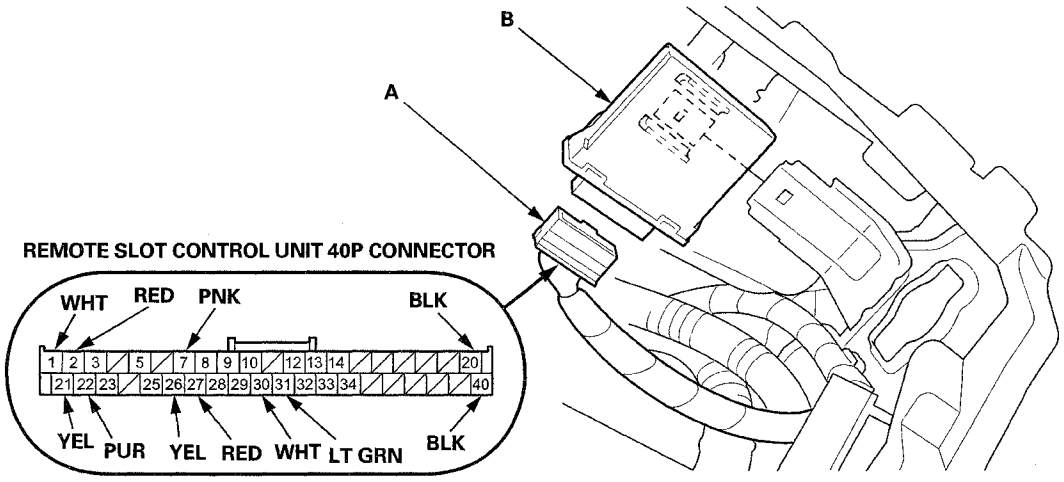
Control Unit Input Test (cont'd)

Remote Slot Control Unit

18. Press the engine start/stop button to select the OFF mode.
19. Remove the glove box (see page 20-123).
20. Disconnect the connector (A) from the remote slot control unit (B).



Wire side of female terminals

21. Inspect the connector and the socket terminals to be sure they are all making good contact.
    - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
    - If the terminals look OK, go to step 22.
22. With the connector still disconnected, do these input tests at the following connector.
    - If any test indicates a problem, find and correct the cause, then recheck the system.
    - If all the input tests prove OK, go to step 23.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
27	RED	Disconnect the remote slot 16P connector and keyless access control unit connector B (32P)	Check for continuity between terminal No. 27 and remote slot 16P connector terminal No. 14: There should be continuity.	An open or high resistance in the wire
			Check for continuity between terminal No. 27 and keyless access control unit connector B (32P) terminal No. 27: There should be continuity.	
			Check for continuity between terminal No. 27 and body ground: There should be no continuity.	A short to ground in the wire

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23. Reconnect the connector to the remote slot control unit, and do these input tests at the following connector.
    - If any test indicates a problem, find and correct the cause, then recheck the system.
    - If all the input tests prove OK, go to step 24.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
1	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • An open or high resistance in the wire
2	RED	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 12 (10 A) fuse in the passenger's under-dash fuse/relay box • An open or high resistance in the wire
21	YEL	Power mode ON	Measure the voltage to ground: There should be battery voltage.	• Blown No. 9 (20 A) fuse in the driver's under-dash fuse/relay box • An open or high resistance in the wire
22	PUR	Power mode ACC	Measure the voltage to ground: There should be battery voltage.	• Blown No. 18 (7.5 A) fuse in the driver's under-dash fuse/relay box • An open or high resistance in the wire
20	BLK	In all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G405) or an open in the ground wire • An open or high resistance in the wire
40	BLK	In all power modes	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G405) or an open in the ground wire • An open or high resistance in the wire
7	PNK	Insert the remote into the remote slot	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G403) or an open in the ground wire • Faulty remote slot • An open or high resistance in the wire
26	YEL	Insert the remote into the remote slot	Measure the voltage to ground: There should be less than 0.2 V.	• Poor ground (G403) or an open in the ground wire • Faulty remote slot • An open or high resistance in the wire
30	WHT	Electric steering lock (LOCK)	Measure the voltage to ground: There should be about 5 V.	• Faulty electric steering lock control unit • A short to ground in the wire
		Electric steering lock (UNLOCK)	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty electric steering lock control unit • An open or high resistance in the wire
31	LT GRN	Power mode ON, parking brake lever pulled	Measure the voltage to ground: There should be less than 0.2 V.	• Faulty parking brake switch • An open or high resistance in the wire
		Power mode ON, parking brake lever released	Measure the voltage to ground: There should be about 5 V.	• Faulty parking brake switch • A short to ground in the wire

24. If multiple failures are found on more than one control unit, replace the keyless access control unit. If input failures are related to a particular control unit, replace the control unit.

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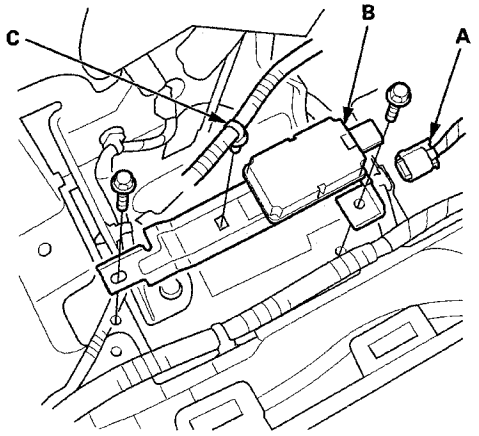
RF Unit 1 Replacement

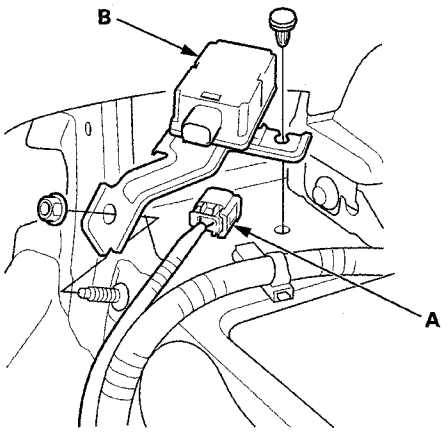
1. Remove the center console panel (see page 20-108).
2. Disconnect the 3P connector (A) from RF unit 1 (B) and remove the harness clip (C).



3. Remove the bolts and RF unit 1.
4. Install the unit in the reverse order of removal.

RF Unit 2 Replacement

1. Remove the rear seat-back (see page 20-156).
2. Disconnect the 3P connector (A) from RF unit 2 (B).



3. Remove the nut and the clip, then remove RF unit 2.
4. Install the unit in the reverse order of removal.

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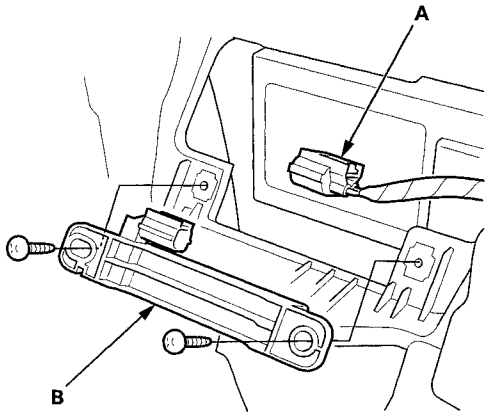
Front Interior LF Antenna Replacement

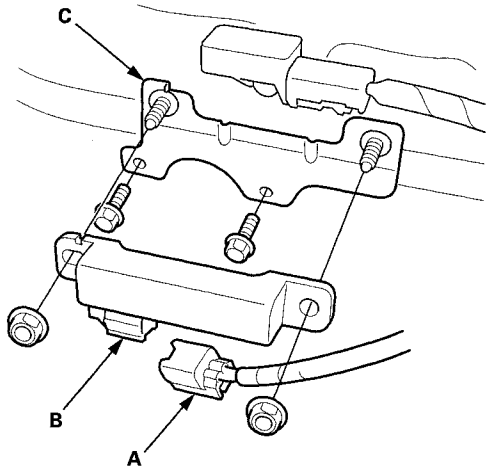
1. Remove the center console panel (see page 20-108).
2. Disconnect the 2P connector (A) from the front interior LF antenna (B).



3. Remove the two screws from the front interior LF antenna.
4. Install the antenna in the reverse order of removal.

Rear Interior LF Antenna Replacement

1. Remove the rear seat cushion (see page 20-156).
2. Pull out the carpet as needed.
3. Disconnect the 2P connector (A) from the rear interior LF antenna (B).



4. Remove the two nuts and the rear interior LF antenna.
5. If necessary, remove the two bolts and replace the bracket (C).
6. Install the antenna in the reverse order of removal.

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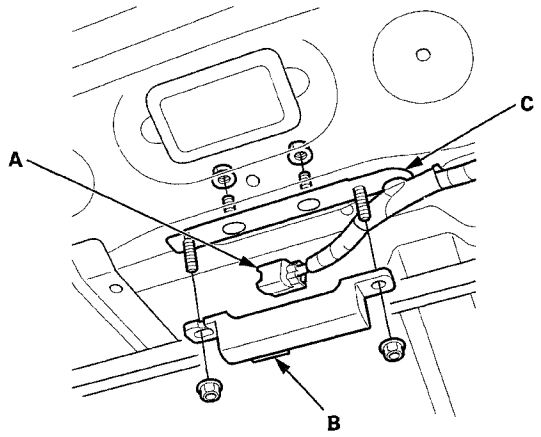
Rear Shelf LF Antenna Replacement

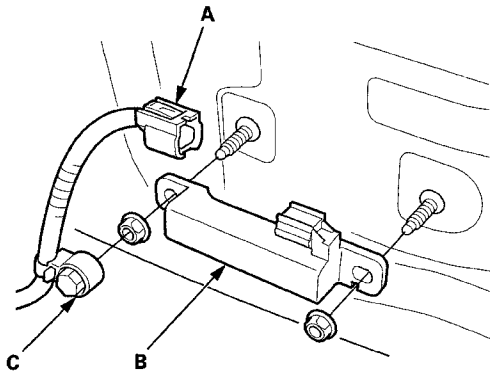
1. Remove the trunk upper trim panel (see page 20-95).
2. Disconnect the 2P connector (A) from the rear shelf LF antenna (B).



3. Remove the two nuts and the rear shelf LF antenna.
4. If necessary, remove the rear shelf (see page 20-92).
5. If necessary, remove the two nuts and replace the bracket (C).
6. Install the antenna in the reverse order of removal.

Rear Bumper LF Antenna Replacement

1. Remove the rear bumper (see page 20-166).
2. Disconnect the 2P connector (A) from the rear bumper LF antenna (B) and remove the harness clip (C).



3. Remove the two nuts and the rear bumper LF antenna.
4. Install the antenna in the reverse order of removal.

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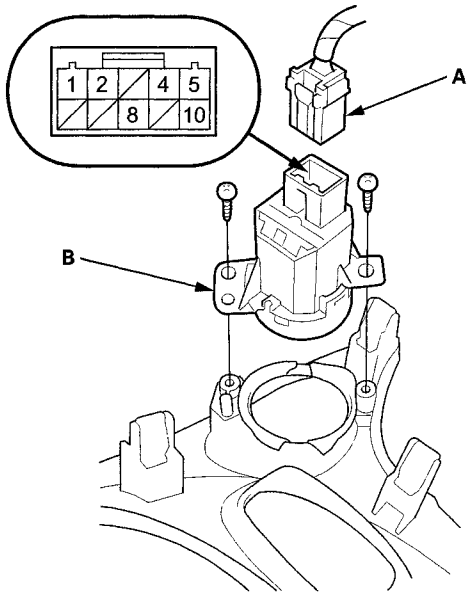
Engine Start/Stop Switch Test/Replacement

1. Remove the driver's center trim (see page 20-119).
2. Disconnect the 10P connector (A) from the engine start/stop switch (B).



3. Remove the two screws, and the engine start/stop switch.
4. Check for continuity between the terminals in each switch position according to the table.

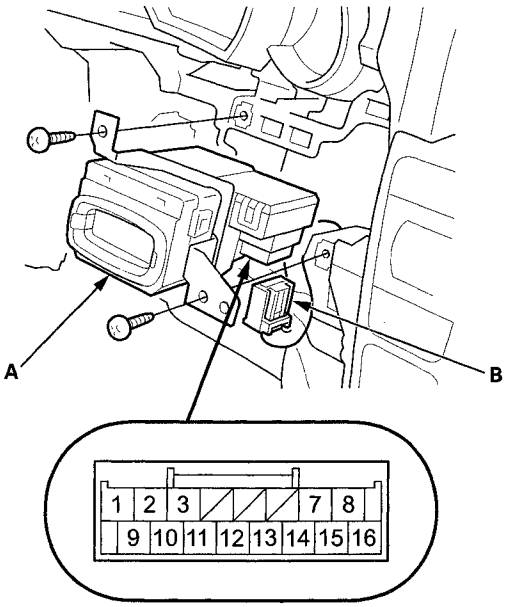
   NOTE: Make sure the correct test lead (+ or −) is placed on the terminal.

Terminal / Position	1	2	4	5		8	10
PUSHED	○	○	○	○			
	⊕				▷	⊖	
					▷	⊖	⊖
RELEASED	⊕				▷	⊖	
					▷		⊖

5. Install the switch in the reverse order of removal.

Remote Slot Test/Replacement

1. Remove the column covers (see page 20-126).
2. Remove the driver's center trim (see page 20-119).
3. Remove the two screws, then pull out the remote slot (A).



4. Disconnect the 16P connector (B) from the remote slot.
5. Check for continuity between the terminals in each slot state according to the table.

   NOTE: Make sure the correct test lead (+ or −) is placed on the terminal.

Terminal / Slot state	3	12	7	15	1		10
Remote removed			○	○	⊕	▷	⊖
Remote half inserted	○		○	○	⊕	▷	⊖
Remote full inserted		○	○	○	⊕	▷	⊖

6. If the continuity is not as specified, replace the remote slot.
7. Insert the remote into the remote slot.

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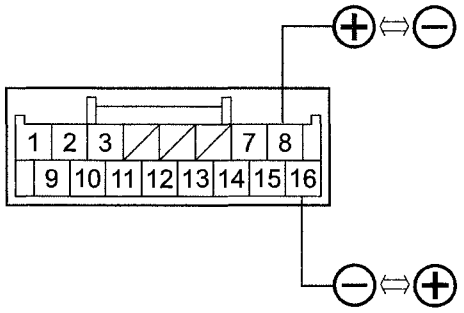
Remote Slot Test/Replacement (cont'd)

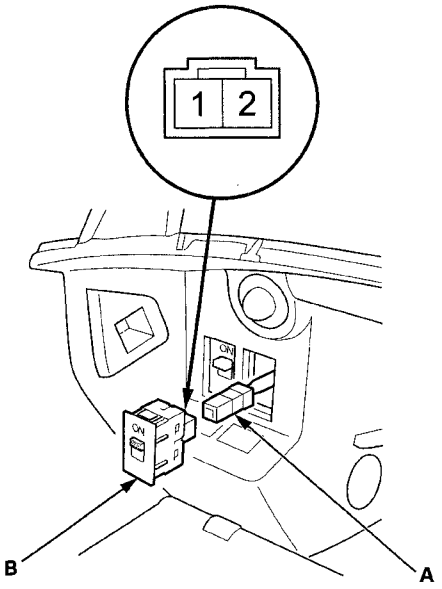
8. Connect the positive battery terminal to remote slot connector terminal No. 16, and the negative battery terminal to terminal No. 8. Check that the remote cannot be removed from the remote slot. Connect the positive battery terminal to remote slot connector terminal No. 8, and the negative battery terminal to terminal No. 16. Check that the remote can be removed from the remote slot.



9. If the remote interlock solenoid works improperly, replace the remote slot.
10. Install the remote slot in the reverse order of removal.

Keyless Access System Mode Switch Test/Replacement

1. Remove the glove box (see page 20-123).
2. Disconnect the 2P connector (A) from the keyless access system mode switch (B).



3. Push out the keyless access system mode switch from the glove box.
4. Check for continuity between the terminals in each switch position according to the table.

Terminal / Position	1	2
ON		
OFF	○	○

5. If the continuity is not as specified, replace the switch.
6. Install the switch in the reverse order of removal.

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Remote Test

With Keyless Access System

NOTE:

- If the doors unlock or lock with the remote, but the LED on the remote does not come on, the LED is faulty; replace the remote.
- If any door is open, you cannot lock the doors with the remote.
- If you unlocked the doors with the remote, but do not open any of the doors within 30 seconds, the doors relock automatically.
- The doors do not lock with the transmitter if the power mode is in ACC.

With HDS

1. Press the lock or unlock button at least 10 times to reset the remote.
   - If the locks work, the remote is OK.
   - If any of the remote buttons do not work, replace the remote, then register the remote (see page 22-623).
   - If the locks don't work, go to step 2.
2. Connect the HDS to the data link connector.
3. Select KEYLESS TRANSMITTER from the BODY ELECTRICAL menu, then select INSPECTION, then KEYLESS CHECK.
4. Press the lock, unlock, or panic button and check the response on the screen of the HDS.

   NOTE: The door lock actuators may or may not cycle when receiving input from the remote.
   - If KEYLESS ENTRY TRANSMITTER CODE IS RECEIVED is indicated, the remote is OK.
   - If DIFFERENT KEYLESS ENTRY TRANSMITTER CODE IS RECEIVED is indicated, the remote is not registered to the vehicle. If necessary, register the remote (see page 22-623).
   - If KEYLESS ENTRY TRANSMITTER CODE IS NOT RECEIVED is indicated, go to step 5.
5. Open the remote, and check for water damage.
   - If you find any water damage, replace the remote, then register it (see page 22-623).
   - If there is no water damage, go to step 6.

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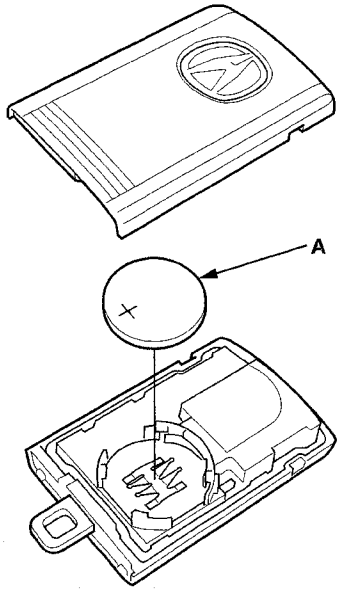
Remote Test (cont'd)

6. Replace the remote battery (A) with a new one (CR2032), and press the lock or unlock button and check the response on the screen of the HDS.
   - If KEYLESS ENTRY TRANSMITTER CODE IS RECEIVED is indicated, the remote is OK.
   - If KEYLESS ENTRY TRANSMITTER CODE IS NOT RECEIVED is indicated, go to step 7.



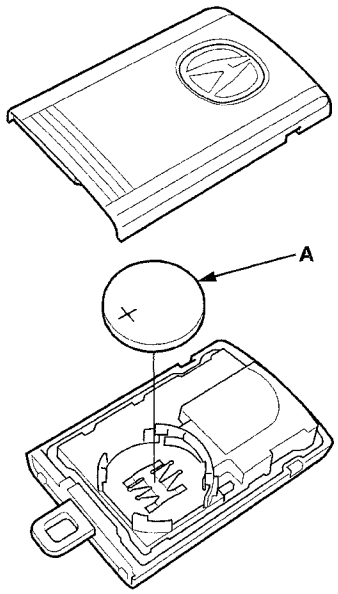
7. Use a different known-good remote assembly and repeat steps 3 and 4.

   NOTE: The remote does not need to be programmed to the vehicle for this test.
   - If (DIFFERENT) KEYLESS ENTRY TRANSMITTER CODE IS RECEIVED is indicated, replace the remote and do the keyless access system registration (see page 22-623).
   - If KEYLESS ENTRY TRANSMITTER CODE IS NOT RECEIVED is indicated, the keyless access control unit is faulty, replace it and do the keyless access system registration (see page 22-623).

   NOTE: The remote is combined with the immobilizer transponder, so when the transponder is registered by the HDS, the remote programming is completed automatically.

Without HDS

1. Open the remote, and check for water damage.
   - If you find any water damage, replace the remote.
   - If there is no water damage, go to step 2.
2. Replace the remote battery (A) with a new one (CR2032), and try to lock and unlock the doors with the remote by pressing the lock or unlock button at least 10 times.
   - If the doors lock and unlock, the remote is OK.
   - If the doors don't lock and unlock, go to step 3.



3. Reprogram the remote with the HDS, then try to lock and unlock the doors.
   - If the doors lock and unlock, the remote is OK.
   - If the doors don't lock and unlock, try and program to another vehicle.
     - If the remote programs to another vehicle, go to B-CAN System Diagnosis Test Mode A (see page 22-135).
     - If the remote will not program to another vehicle, replace it.

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Keyless Access System Registration

NOTE:
- Check for aftermarket electrical equipment that can cause problems with keyless access operation.
- While doing the registration, keep the remote away from computers.
- While doing the registration, make sure the doors are closed.
- Programming the remote also programs the keyless transmitter.

When Replacing the Remote Slot Control Unit/Keyless Access Control Unit/ECM/PCM/Driver's MICU or Registration of the Remote(s)

1. When the replacing keyless access control unit, insert the remote into the remote slot.
2. Connect the HDS to the data link connector.
3. When the all remotes are lost, select the ON mode according to the instructions on the HDS screen, then go to step 5.
4. Press the engine start/stop button to select the ON mode.
5. Select the ONE-PUSH START from the system select menu, then enter REGISTRATION mode.
6. Select the appropriate unit or the KEYS, and do the registration according to the instructions on the HDS screen.
7. Press the engine start/stop button to select the OFF mode, and verify systems work normally with all remotes.

When Replacing the Power Control Unit or the Electric Steering Control Unit

1. Connect the HDS to the data link connector.
2. Do the registration according to the instructions on the HDS screen.
3. After registration, verify systems work normally with all remotes.

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