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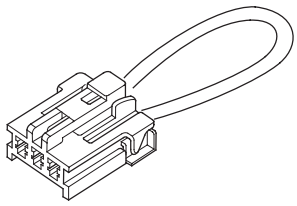
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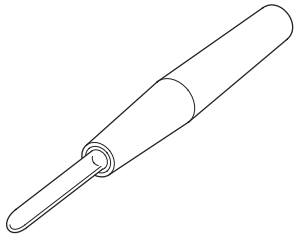
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Special Tools

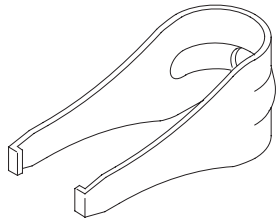
Ref. No.	Tool Number	Description	Qty
①	07WAZ-001010A	MPCS (MCIC) Service Connector	1
②	07TAZ-001020A	Back Probe Adaptor	1
③	07AAC-000A1A0	Relay Puller	1
④	07AAJ-S3MA100	HID Bulb Test Light Assembly	1



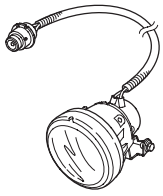
①



②



③



④

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General Troubleshooting Information

Tips and Precautions

Before Troubleshooting

1. Check applicable fuses in the appropriate fuse/relay box.

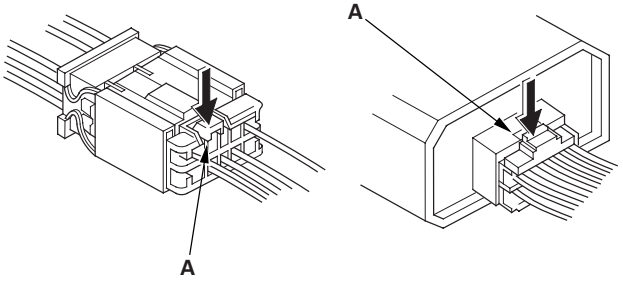
2. Check the battery for damage, state of charge, and clean and tight connections.

NOTICE

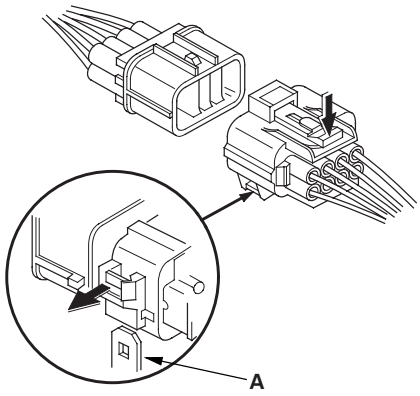
- Do not quick-charge a battery unless the battery ground cable has been disconnected, otherwise you will damage the alternator diodes.
- Do not attempt to crank the engine with the battery ground cable loosely connected or you will severely damage the wiring.

Handling Connectors

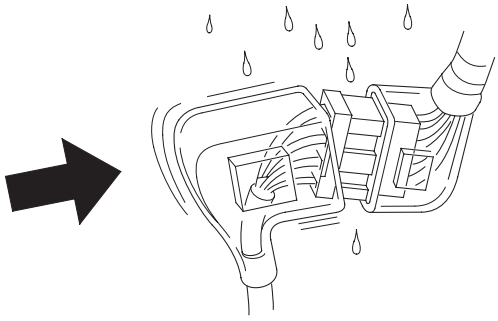
- Make sure the connectors are clean and have no loose wire terminals.
- Make sure multiple cavity connectors are packed with dielectric grease (except watertight connectors).
- All connectors have push-down release type locks (A).



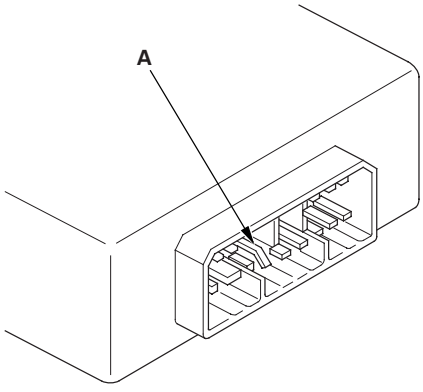
- Some connectors have a clip on their side used to attach them to a mount bracket on the body or on another component. This clip has a pull type lock.
- Some mounted connectors cannot be disconnected unless you first release the lock and remove the connector from its mount bracket (A).



- 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.

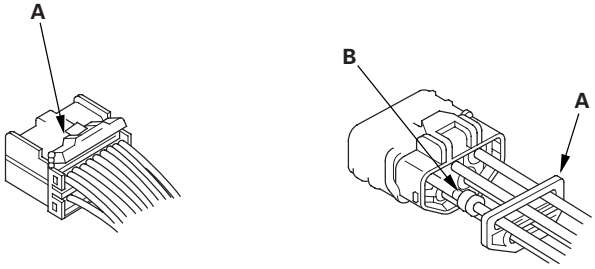


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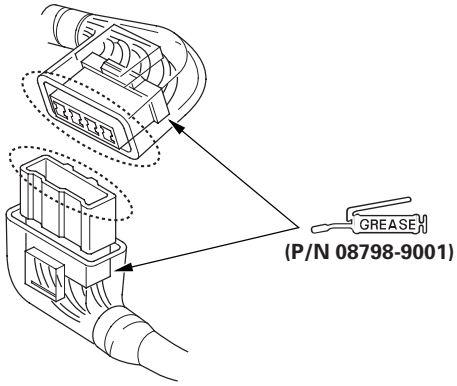
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General Troubleshooting Information (cont'd)

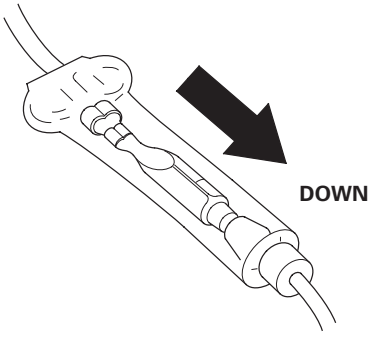
- Check for loose retainers (A) and rubber seals (B).



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

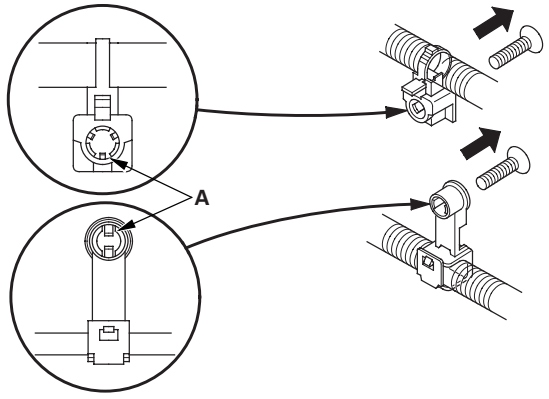


- Insert the connector all the way and make sure it is securely locked.
- Position wires so that the open end of the cover faces down.

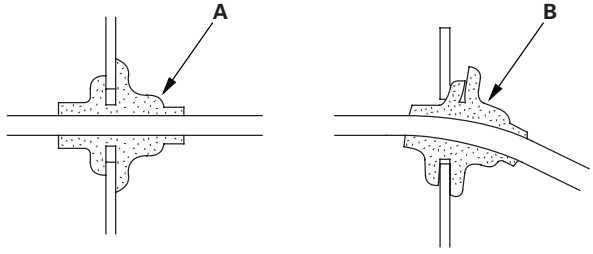


Handling Wires and Harnesses

- 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).



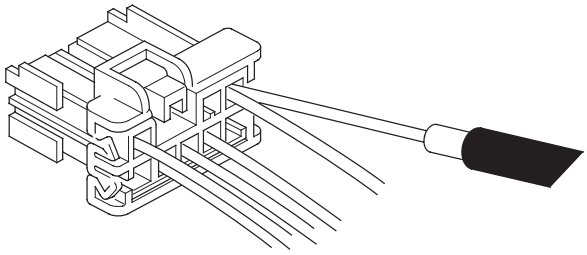
- After installing harness clips, make sure the harness doesn't interfere with any moving parts.
- Keep wire harnesses away from exhaust components and other hot parts, from sharp edges of brackets and holes, and from exposed screws and bolts.
- Seat grommets in their grooves properly (A). Do not leave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



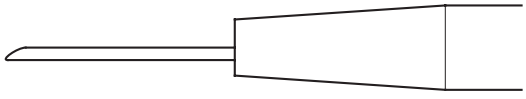
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Testing and Repairs

- Do not use wires or harnesses with broken insulation. Replace them or repair them by wrapping the break with electrical tape.
- 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 adaptor 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.

(cont'd)

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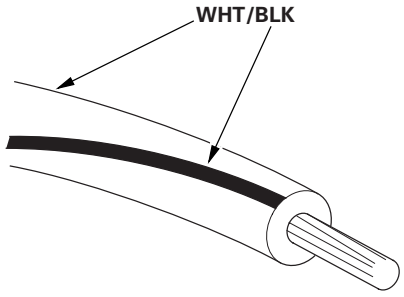
General Troubleshooting Information (cont'd)

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
LT BLU	Light Blue
LT GRN	Light Green

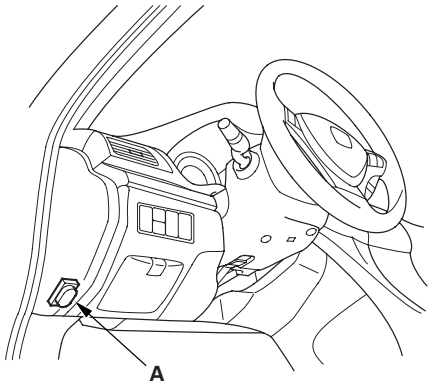
The wire insulation has one color or one color with another color stripe. The second color is the stripe.



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).

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 ON (II).
3. Make sure the HDS communicates with the vehicle, if it doesn't, troubleshoot the DLC circuit (see page 11-210).
4. Enter the BODY ELECTRICAL then select the desired TEST MODE menu.
5. Check for DTCs with the HDS.

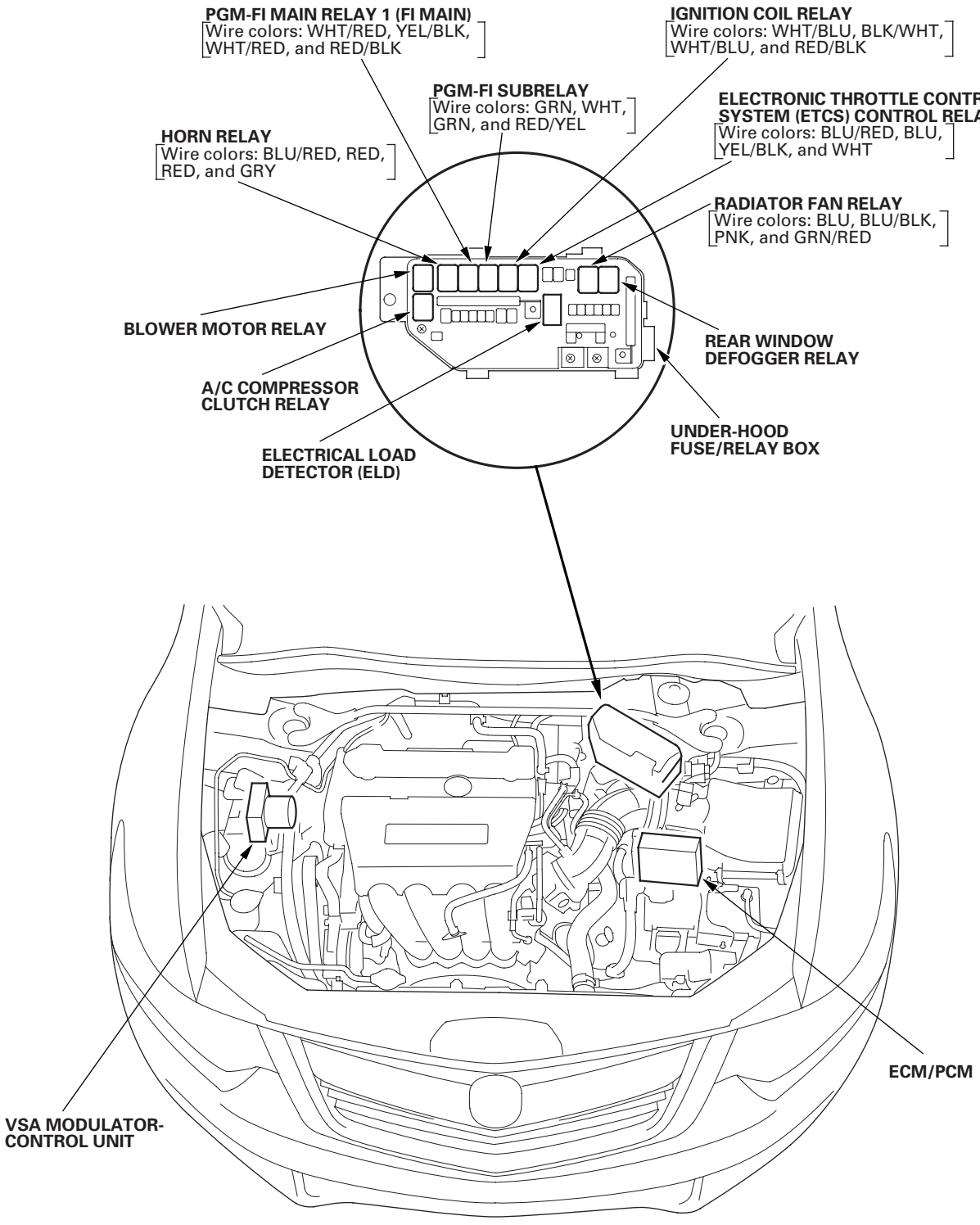
   NOTE: If the DTCs do not pertain to the selected menu, select the All DTC Check icon to view all Body DTCs.

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

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Relay and Control Unit Locations

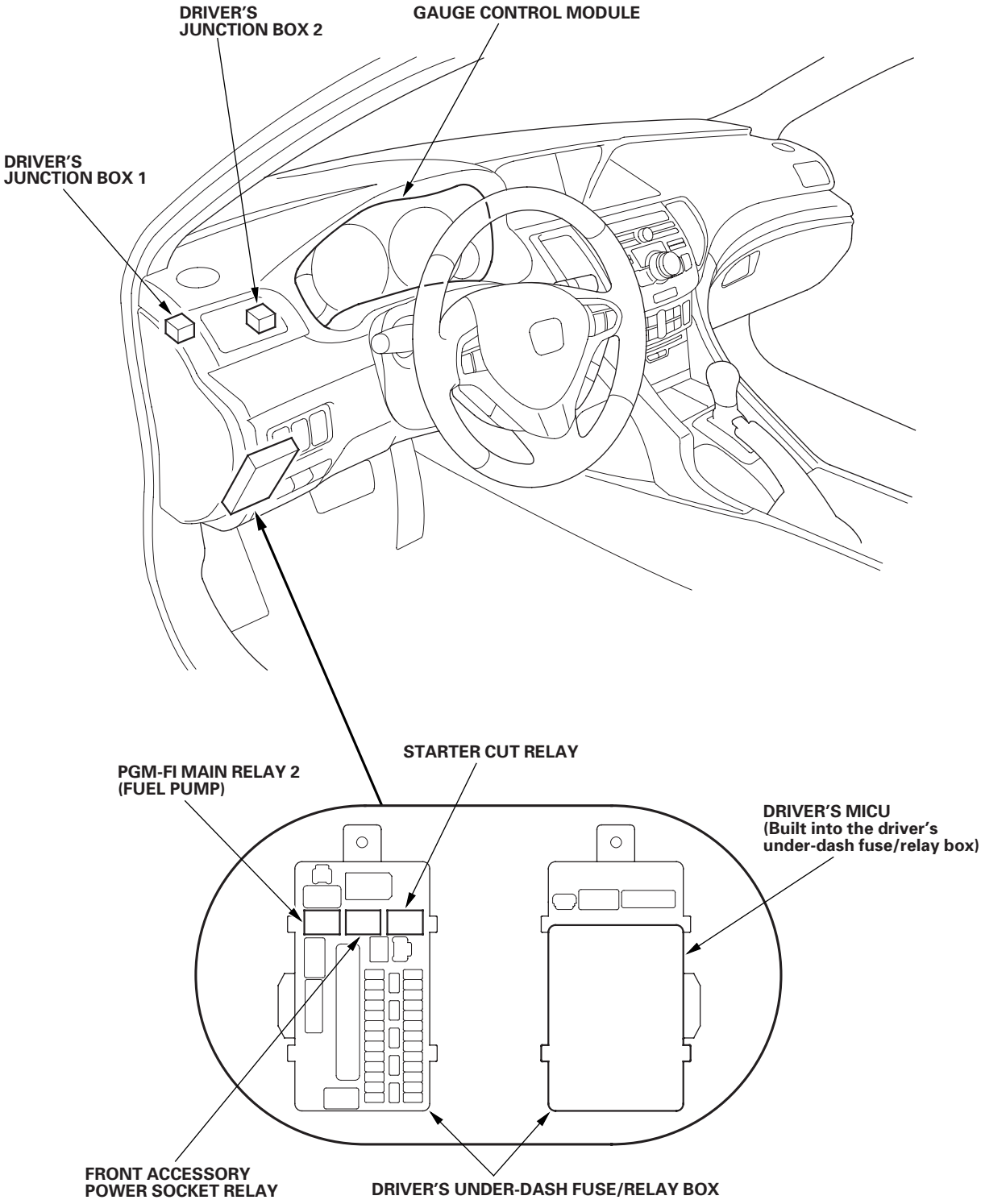
Engine Compartment



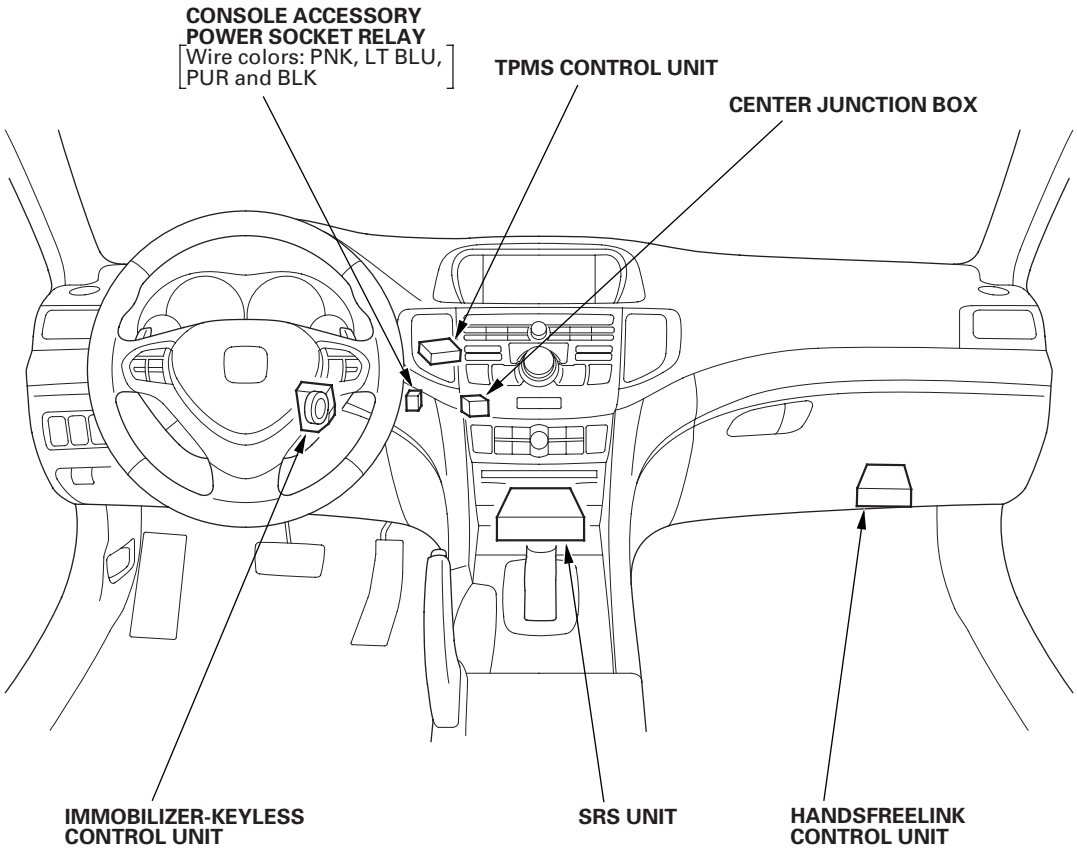
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Relay and Control Unit Locations

Dashboard



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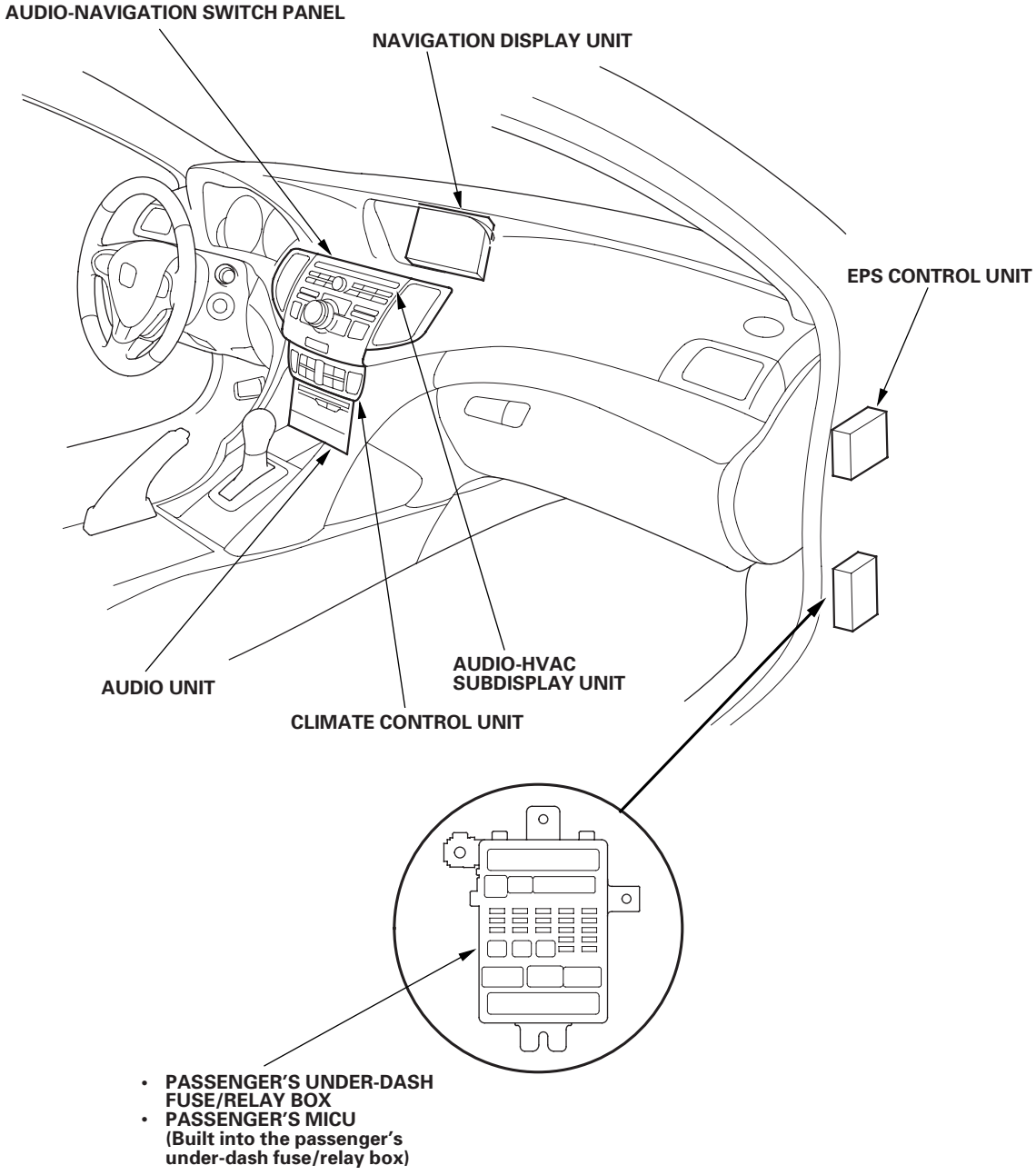


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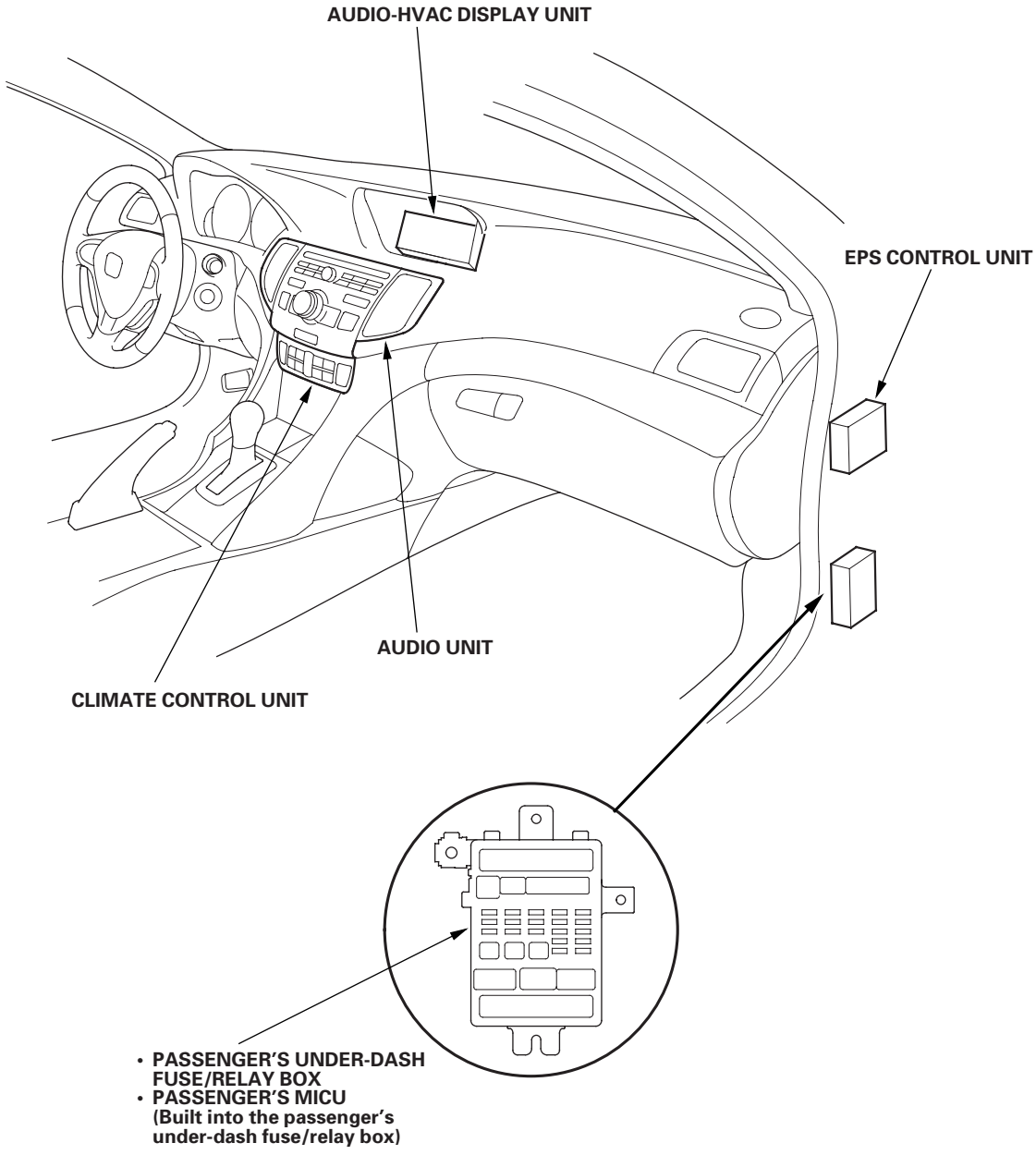
Dashboard (cont'd)

With Navigation System



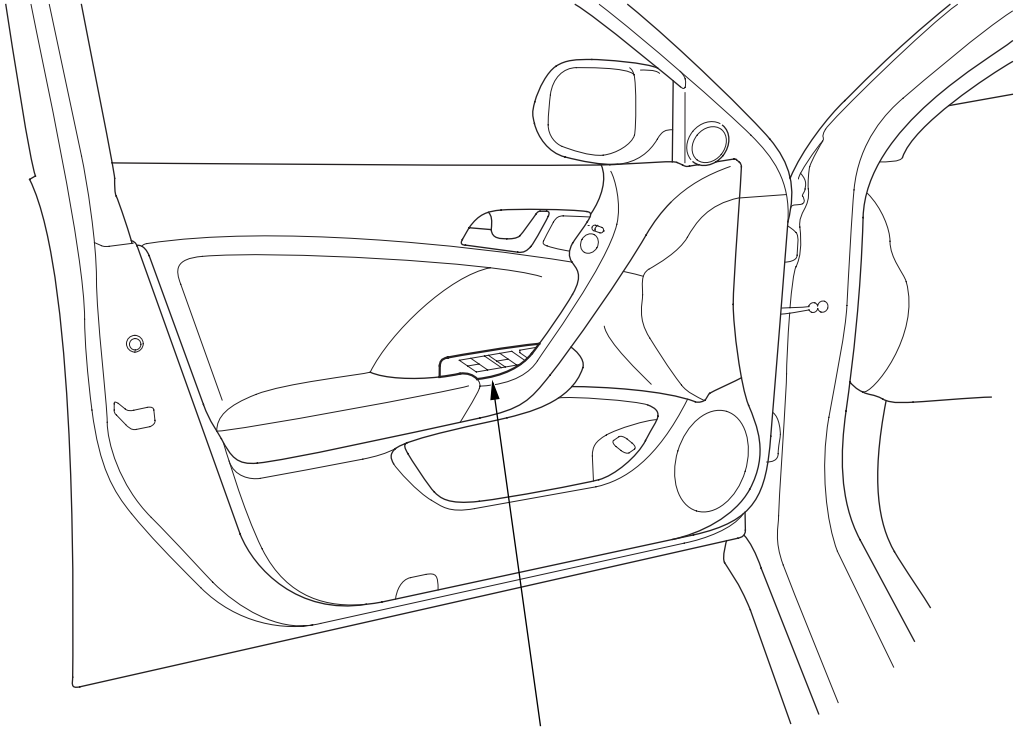
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Without Navigation System



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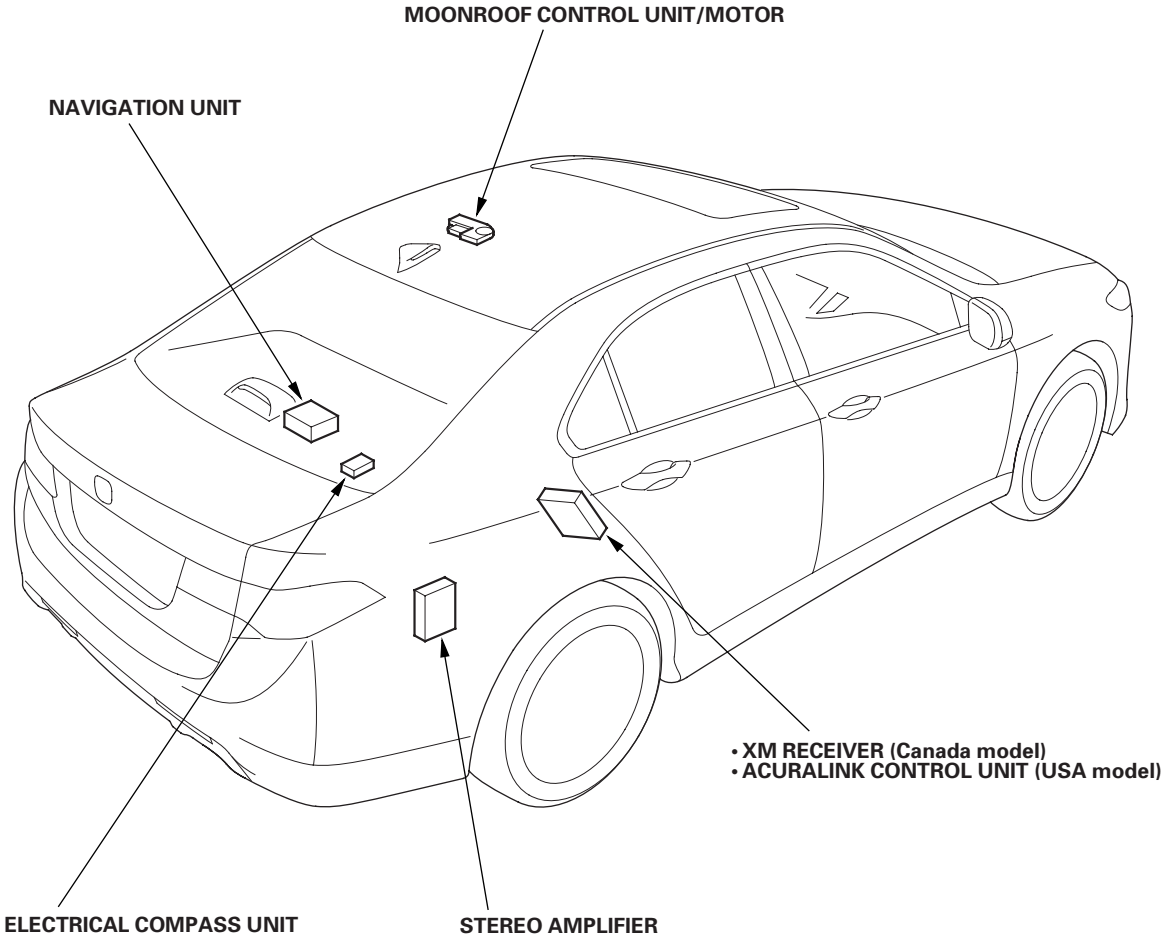
Door



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

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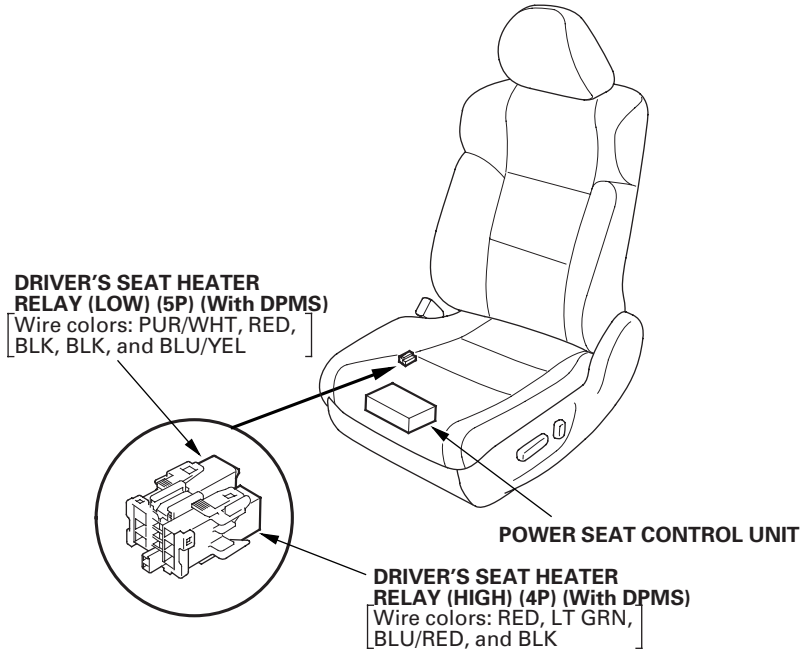
Roof and Trunk



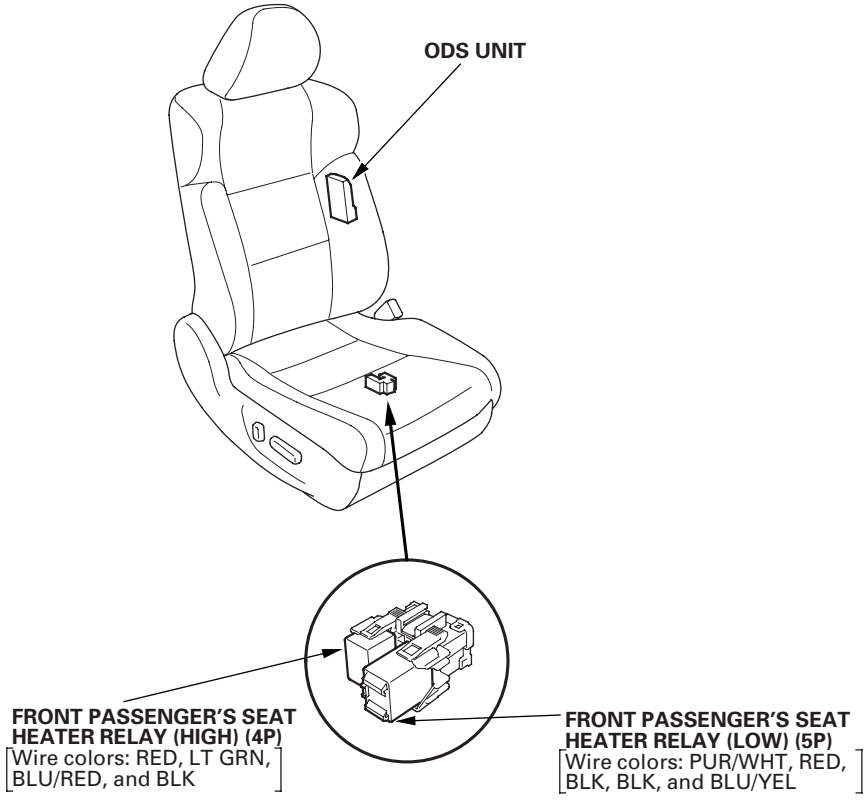
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Seat

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		C351, C409		(see page 22-62)
Audio wire harness (With navigation system)		C401, C402, C403, C404, C405, C406, C407, C408, C409, C410, C411, C412 G401		(see page 22-40)
Audio wire harness (Without navigation system)		C401, C402, C403, C404, C405, C406, C407, C408, C409, C410, C411, C412 G401		(see page 22-42)
Battery ground cable	(—), G1			(see page 22-17)
Cable reel subharness				(see page 22-61)
CKP sensor subharness	C104			(see page 22-24)
Dashboard wire harness (View of driver's side)		C301, C302, C303, C304, C501, C502, C601, C602, C751 G501, G502		(see page 22-33)
Dashboard wire harness (View of middle to passenger's side)		C204, C205, C206, C401, C402, C651, C761 G503, G505	G504	(see page 22-38)
Dashboard wire harness (View of steering column side)				(see page 22-37)
Driver's door courtesy light subharness			C752	(see page 22-52)
Driver's door switch subharness			C753	(see page 22-52)
Driver's door wire harness			C751, C752, C753, C754	(see page 22-52)
Driver's seat wire harness (With DPMS)			C701	(see page 22-57)
Driver's seat wire harness (Without DPMS)			C701	(see page 22-58)
Engine ground cable	T1, G2			(see page 22-17)
Engine wire harness (A/T)	C101, C102, C103, C104, C106, C107 G101, G102			(see page 22-22)
Engine wire harness (M/T)	C101, C102, C103, C104, C105 G101, G102			(see page 22-20)
EPS ground cable	T3, G4			(see page 22-17)
EPS subharness	C354 T6, T7, T8			(see page 22-25)
Front passenger's door courtesy light subharness			C762	(see page 22-54)
Front passenger's door wire harness			C761, C762	(see page 22-54)
Front passenger's seat wire harness			C702	(see page 22-59)
Left engine compartment subharness		C202, C203, C352, C353		(see page 22-30)
Left engine compartment wire harness (Dashboard branch)		C301, C302, C303, C304, C305, C351, C352, C353 G302		(see page 22-28)
Left engine compartment wire harness (Engine compartment branch)	C101, C151, C201, C354 G301			(see page 22-26)
Left rear door wire harness			C771	(see page 22-55)
Left side wire harness		C305, C601, C602	C603, C604, C651, C771 G601, G602, G603	(see page 22-44)
Moonroof subharness			C551	(see page 22-51)

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Connector Index (cont'd)

Harness	Location			
	Engine Compartment	Dashboard	Others (Floor, Door, Trunk, and Roof)	Notes
ODS unit harness			G703	(see page 22-60)
Rear window defogger ground wire			C801	(see page 22-48)
Rear wire harness			C604, C605 G901	(see page 22-50)
Right engine compartment wire harness (Dashboard branch)		C202, C203, C204, C205, C206, C207 G201, G203		(see page 22-32)
Right engine compartment wire harness (Engine compartment branch)	C201 G202			(see page 22-31)
Right rear door wire harness			C781	(see page 22-56)
Right side wire harness		C410, C411, C412, C651	C652, C653, C654, C655, C781 G651	(see page 22-48)
Roof wire harness		C501, C502	C551, C552	(see page 22-51)
Shift solenoid wire harness (A/T)	C106			(see page 22-24)
SRS floor wire harness		C403	C603, C653, C701, C702, C703 G701, G702	(see page 22-46)
Starter subharness	(+), C102, C151, T4, T5, T101, T102			(see page 22-19)
Transmission ground cable	T2, G3			(see page 22-17)
Transmission range switch subharness (A/T)	C107			(see page 22-24)

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Connector to Harness Index

Battery Ground Cable

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

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
T1	7		Right side of engine compartment	Engine	
G2	8		Right side of engine compartment	Body ground, via engine ground cable	

EPS Ground Cable

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
T3	1		Left side of engine compartment	Transmission housing	
G4	2		Left side of engine compartment	Body ground, via EPS ground cable	

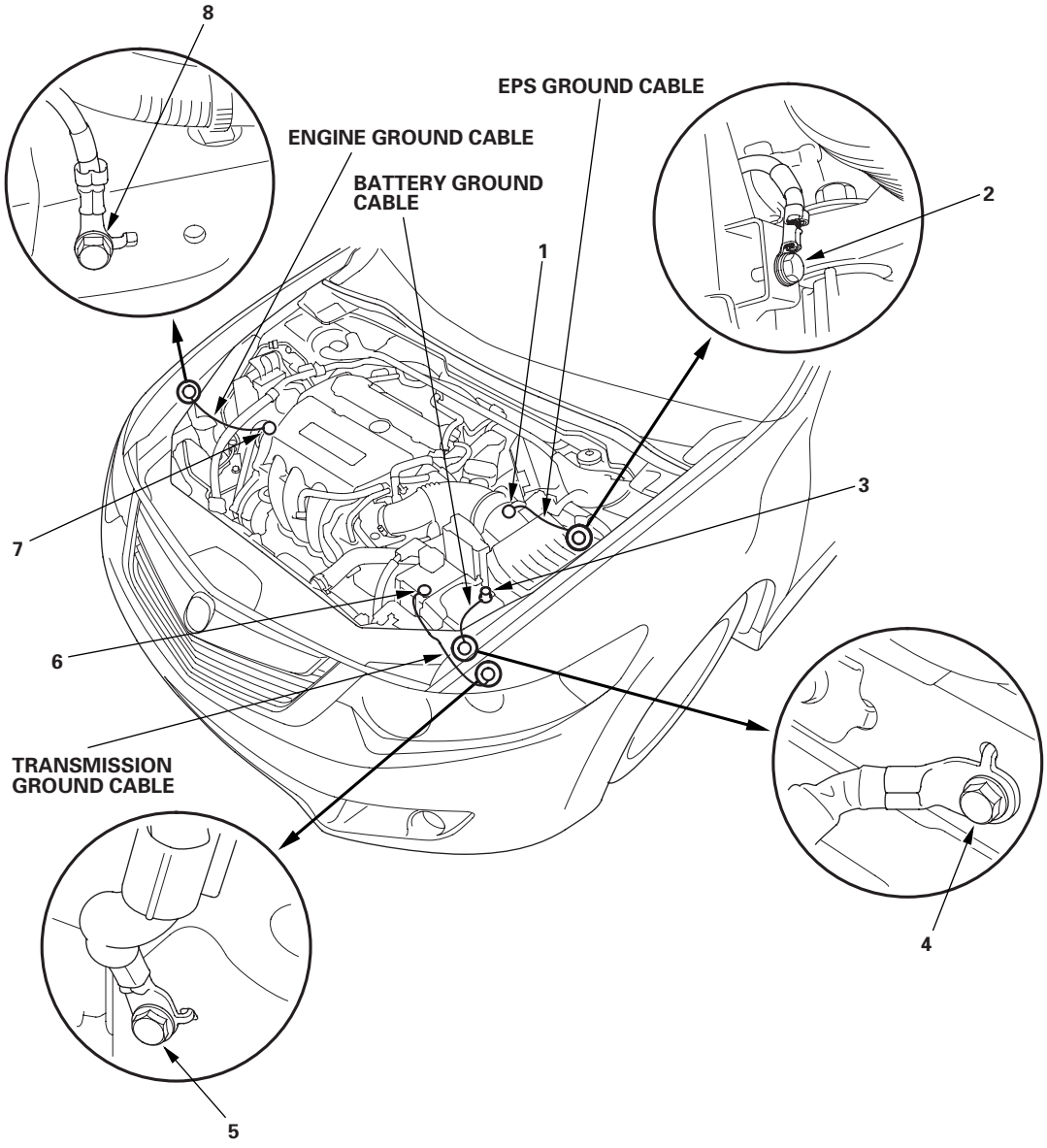
Transmission Ground Cable

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
T2	6		Left side of engine compartment	Transmission housing	
G3	5		Left side of engine compartment	Body ground, via transmission ground cable	

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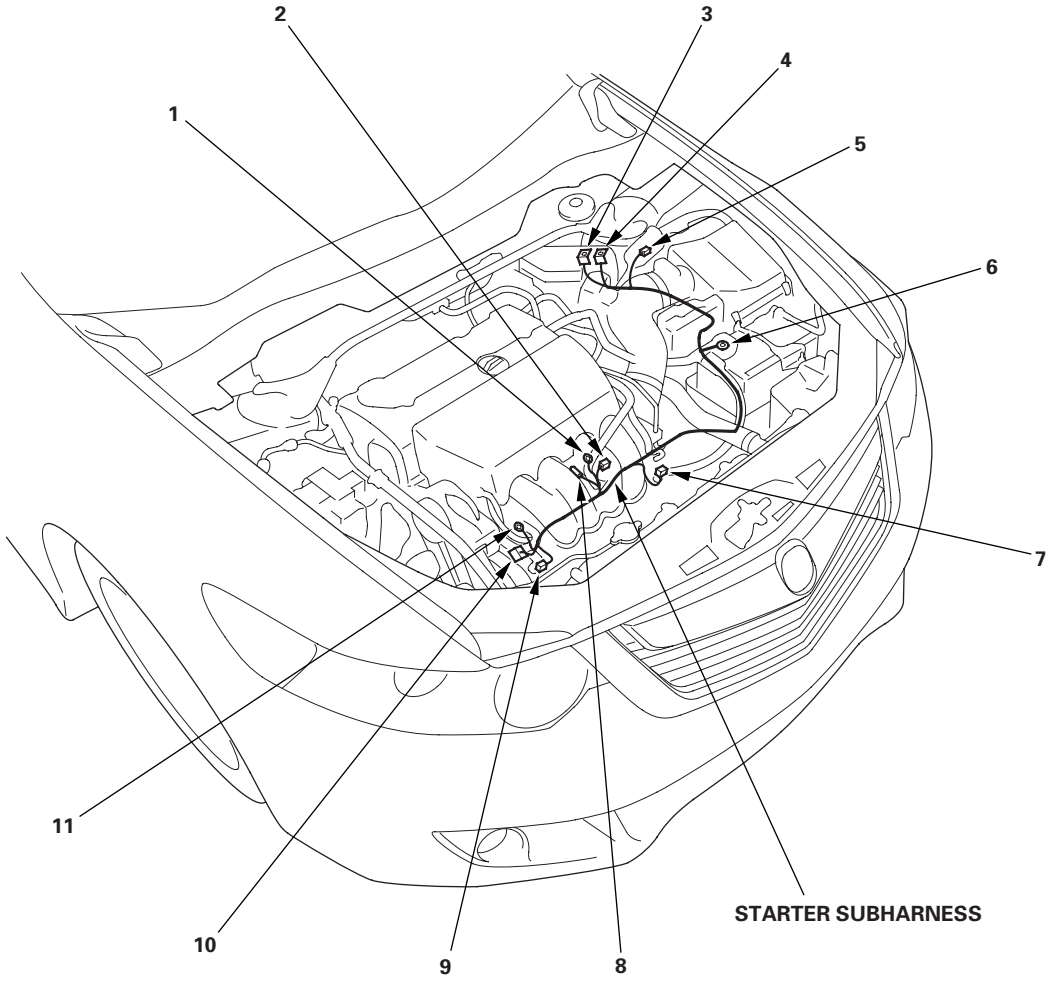
Connector to Harness Index (cont'd)



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Starter Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
A/C compressor	9	1	Right front of engine compartment		
Alternator	10	4	Right front of engine compartment		
Knock sensor	8	1	Front of engine		
Starter solenoid	2	1	Front of engine		
C102	7	10	Front of engine	Engine wire harness M/T (see page 22-20) A/T (see page 22-22)	
C151	5	1	Left side of engine compartment	Left engine compartment wire harness (Engine compartment branch) (see page 22-26)	
T4	11		Right front of engine compartment	Alternator +B terminal	
T5	1		Front of engine	Starter motor	
T101 (battery)	3		Left side of engine compartment	Under-hood fuse/relay box (see page 22-63)	
T102 (alternator)	4		Left side of engine compartment	Under-hood fuse/relay box (see page 22-63)	
(+)	6		Left side of engine compartment	Battery positive terminal	



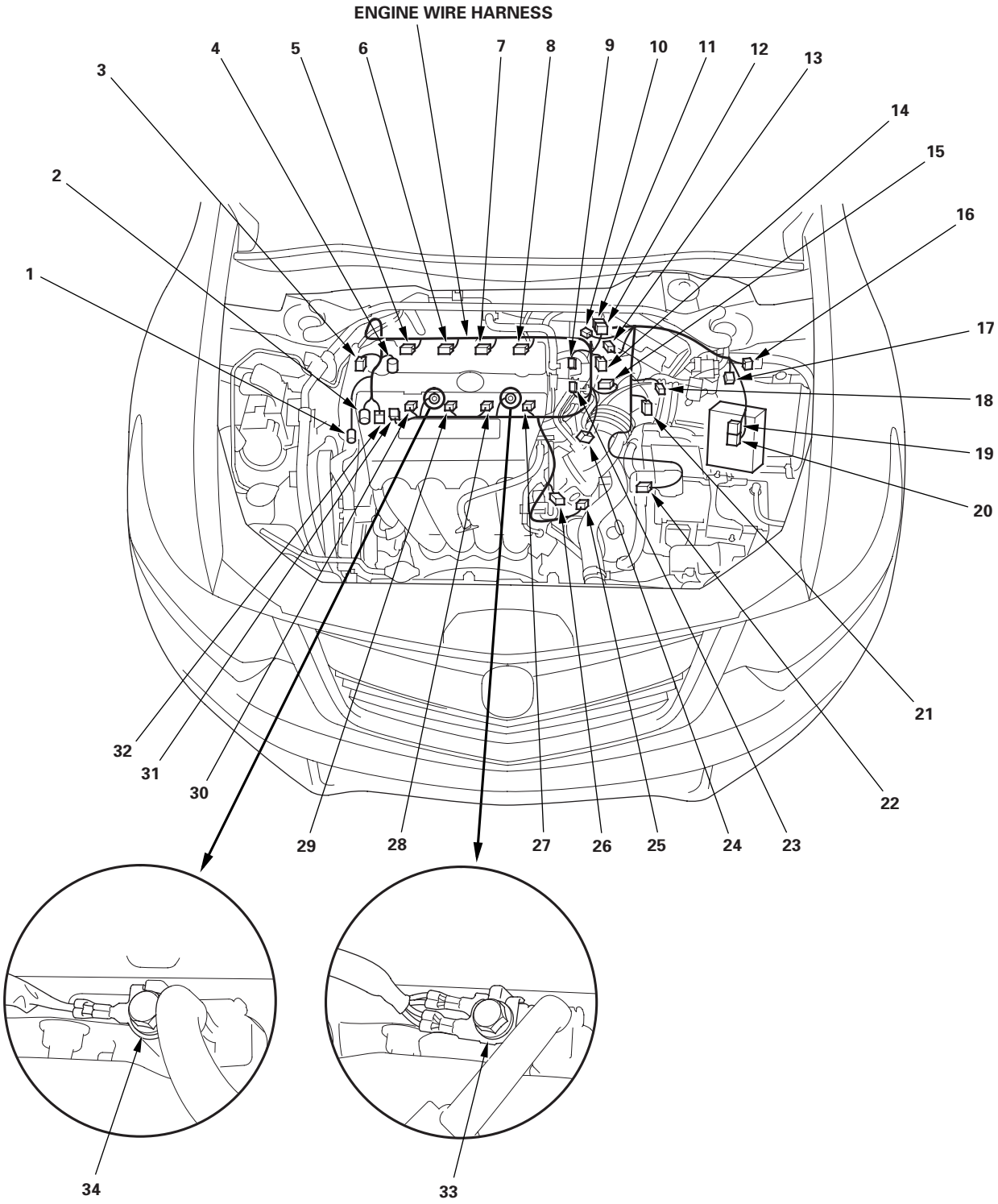
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Connector to Harness Index (cont'd)

Engine Wire Harness (M/T)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Air fuel ratio (A/F) sensor	10	4	Middle of engine compartment		
Back-up light switch	21	2	On the transmission housing		
Camshaft position (CMP) sensor A	23	3	Middle of engine compartment		
Camshaft position (CMP) sensor B	9	3	Middle of engine compartment		
ECM connector B	20	49	Left side of engine compartment		
ECM connector C	19	49	Left side of engine compartment		
Engine coolant temperature (ECT) sensor 1	15	2	Middle of engine compartment		
Engine mount control solenoid	31	2	Middle of engine compartment		
EVAP canister purge valve	14	2	Middle of engine compartment		
Ignition coil No. 1	5	3	Middle of engine compartment		
Ignition coil No. 2	6	3	Middle of engine compartment		
Ignition coil No. 3	7	3	Middle of engine compartment		
Ignition coil No. 4	8	3	Middle of engine compartment		
Injector No. 1	30	2	Middle of engine compartment		
Injector No. 2	29	2	Middle of engine compartment		
Injector No. 3	28	2	Middle of engine compartment		
Injector No. 4	27	2	Middle of engine compartment		
Manifold absolute pressure (MAP) sensor	26	3	Middle of engine compartment		
Mass air flow (MAF) sensor/Intake air temperature (IAT) sensor	17	5	Air cleaner housing cover		
Oil pressure switch	2	1	Middle of engine compartment		
Output shaft (countershaft) speed sensor	22	3	Front of transmission housing		
Reverse lockout solenoid	18	2	On the transmission housing		
Rocker arm oil control solenoid	3	2	Middle of engine compartment		
Rocker arm oil pressure switch	4	2	Middle of engine compartment		
Secondary HO2S	32	4	Middle of engine compartment		
Throttle position sensor/Throttle actuator	24	6	Middle of engine compartment		
VTC oil control solenoid valve	1	2	Middle of engine compartment		
C101	16	23	Left side of engine compartment	Left engine compartment wire harness (Engine compartment branch) (see page 22-26)	
C102	25	10	Left side of engine compartment	Starter subharness (see page 22-19)	
C103 (junction connector)	12	24	Middle of engine compartment		
C104	13	3	Middle of engine compartment	CKP sensor subharness (see page 24-24)	
C105 (junction connector)	11	12	Middle of engine compartment		
G101	33		Middle of engine compartment	Body ground, via engine wire harness	
G102	34		Middle of engine compartment	Body ground, via engine wire harness	

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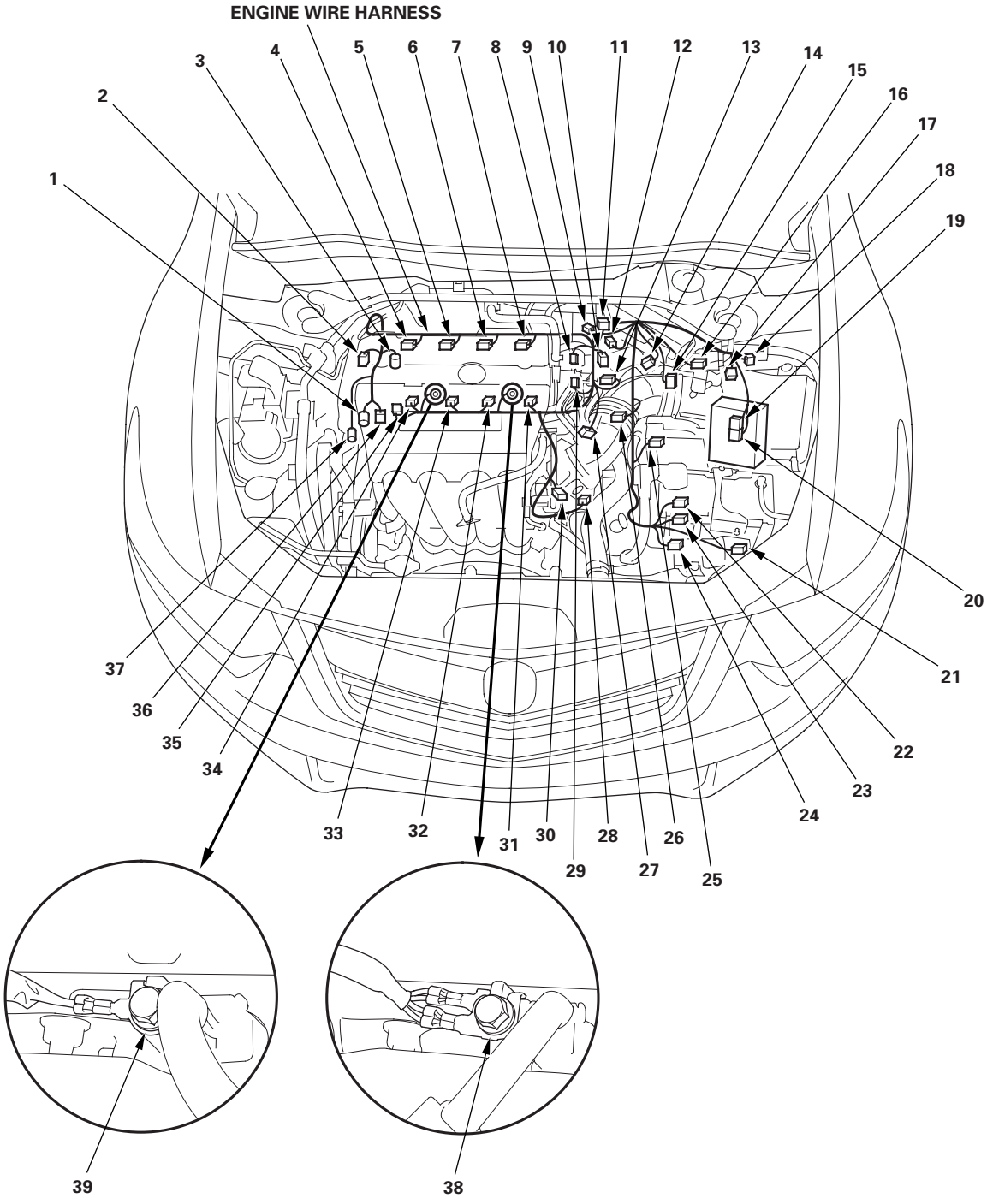
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Connector to Harness Index (cont'd)

Engine Wire Harness (A/T)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
A/T clutch pressure control solenoid valve A	25	2	Transmission housing		
A/T clutch pressure control solenoid valve B	23	2	Transmission housing		
A/T clutch pressure control solenoid valve C	22	2	Transmission housing		
Air fuel ratio (A/F) sensor	9	4	Exhaust manifold		
Camshaft position (CMP) sensor A	29	3	Middle of engine compartment		
Camshaft position (CMP) sensor B	8	3	Middle of engine compartment		
Engine coolant temperature (ECT) sensor 1	13	2	Middle of engine compartment		
Engine mount control solenoid	35	2	Middle of engine compartment		
EVAP canister purge valve	10	2	Middle of engine compartment		
Ignition coil No. 1	4	3	Middle of engine compartment		
Ignition coil No. 2	5	3	Middle of engine compartment		
Ignition coil No. 3	6	3	Middle of engine compartment		
Ignition coil No. 4	7	3	Middle of engine compartment		
Injector No. 1	34	2	Middle of engine compartment		
Injector No. 2	33	2	Middle of engine compartment		
Injector No. 3	32	2	Middle of engine compartment		
Injector No. 4	31	2	Middle of engine compartment		
Input shaft (mainshaft) speed sensor	16	3	Transmission housing		
Manifold absolute pressure (MAP) sensor	30	3	Middle of engine compartment		
Mass air flow (MAF) sensor/Intake air temperature (IAT) sensor	17	5	Middle of engine compartment		
Oil pressure switch	1	1	Middle of engine compartment		
Output shaft (countershaft) speed sensor	14	3	Transmission housing		
PCM connector B	20	49	Left side of engine compartment		
PCM connector C	19	49	Left side of engine compartment		
Rocker arm oil control solenoid	2	2	Middle of engine compartment		
Rocker arm oil pressure switch	3	2	Middle of engine compartment		
Secondary HO2S	36	4	Exhaust manifold		
Throttle position sensor/Throttle actuator	27	6	Middle of engine compartment		
VTC oil control solenoid valve	37	2	Middle of engine compartment		
2nd clutch transmission fluid pressure switch	26	1	Transmission housing		
3rd clutch transmission fluid pressure switch	21	1	Transmission housing		
C101	18	23	Left side of engine compartment	Left engine compartment wire harness (Engine compartment branch) (see page 22-26)	
C102	28	10	Left side of engine compartment	Starter subharness (see page 22-19)	
C103 (junction connector)	11	24	Middle of engine compartment		
C104	12	3	Middle of engine compartment	CKP sensor subharness (see page 22-24)	
C106	24	8	Transmission housing	Shift solenoid wire harness (see page 22-24)	
C107	15	10	Transmission housing	Transmission range switch subharness (see page 22-24)	
G101	38		Middle of engine compartment	Body ground, via engine wire harness	
G102	39		Middle of engine compartment	Body ground, via engine wire harness	

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Connector to Harness Index (cont'd)

CKP Sensor Subharness

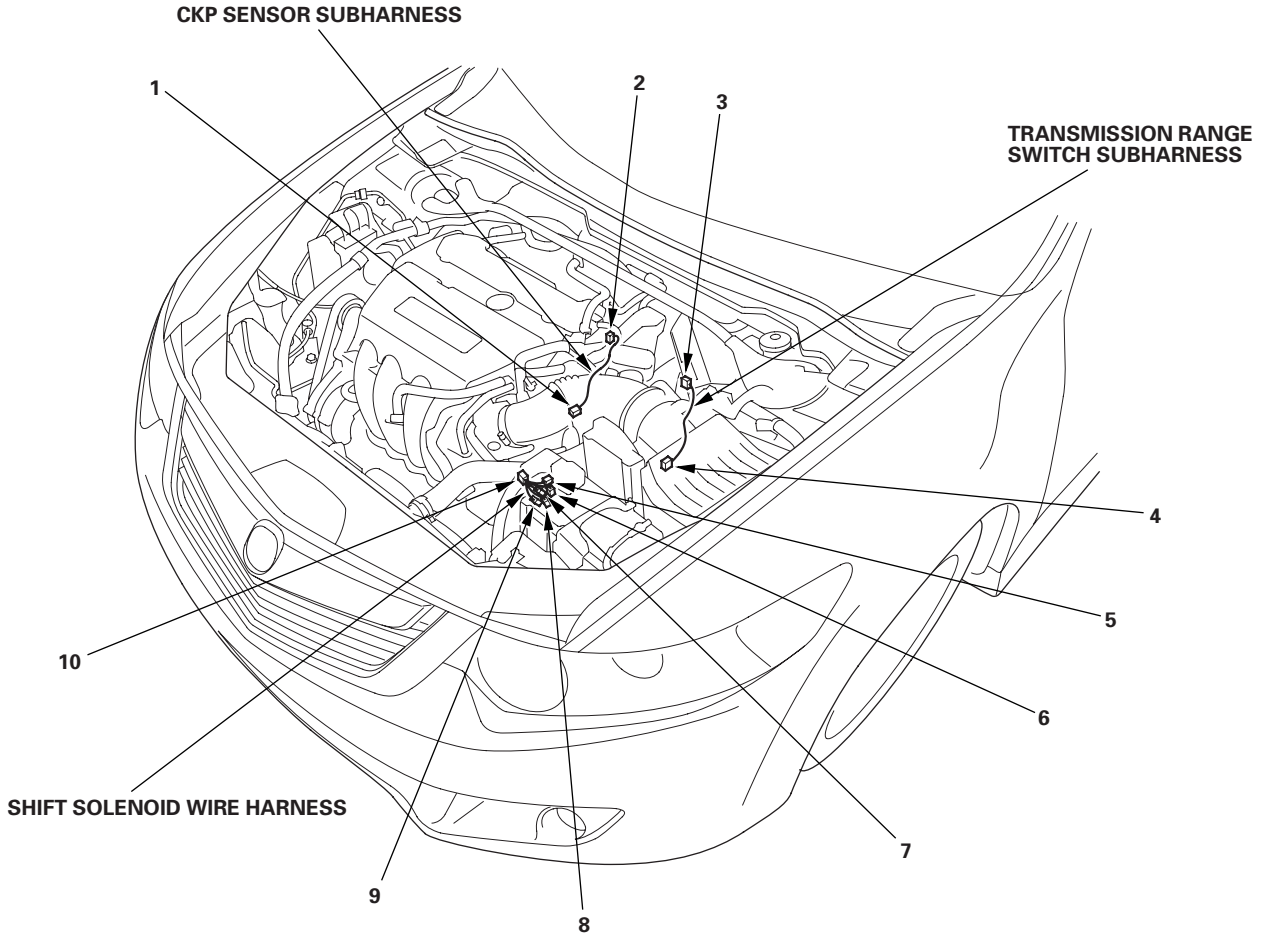
Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
CKP sensor	1	3	Under the engine		
C104	2	3	Middle of engine compartment	Engine wire harness M/T (see page 22-20) A/T (see page 22-22)	

Shift Solenoid Wire Harness (A/T)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
ATF temperature sensor	9	2	In the transmission		
Shift solenoid valve A	8	1	In the transmission		
Shift solenoid valve B	6	1	In the transmission		
Shift solenoid valve C	5	1	In the transmission		
Shift solenoid valve E	7	1	In the transmission		
C106	10	8	Transmission housing	Engine wire harness (see page 22-22)	

Transmission Range Switch Subharness (A/T)

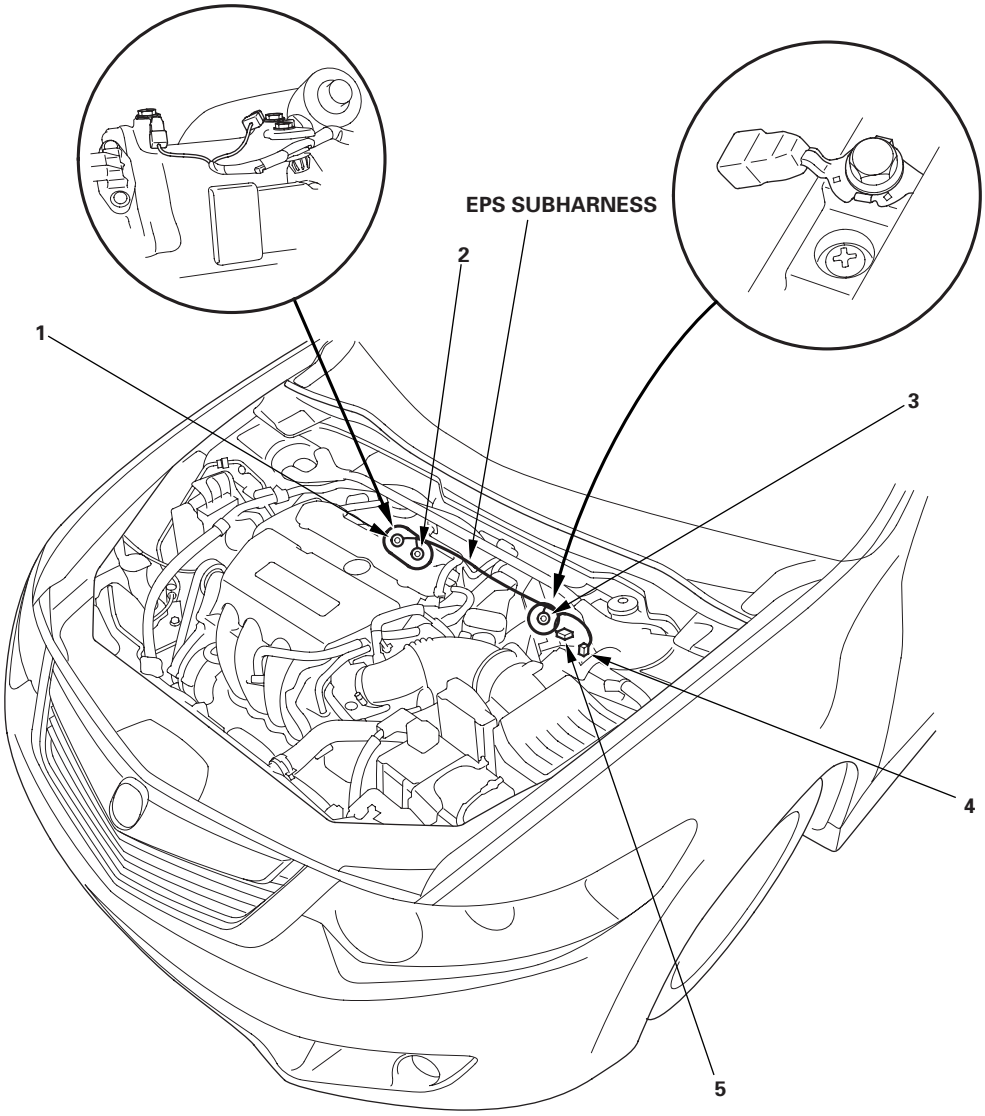
Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Transmission range switch	4	10	Left side of transmission		
C107	3	10	Transmission housing	Engine wire harness (see page 22-22)	



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EPS Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Torque sensor	7	6	Left of engine compartment		
C354	6	6	Left of engine compartment	Left engine compartment wire harness (Engine compartment branch) (see page 22-26)	
T6	3	———	Left of engine compartment	Steering gear box	
T7	2	———	Right of engine compartment	Steering gear box	
T8	1	———	Right of engine compartment	Steering gear box	



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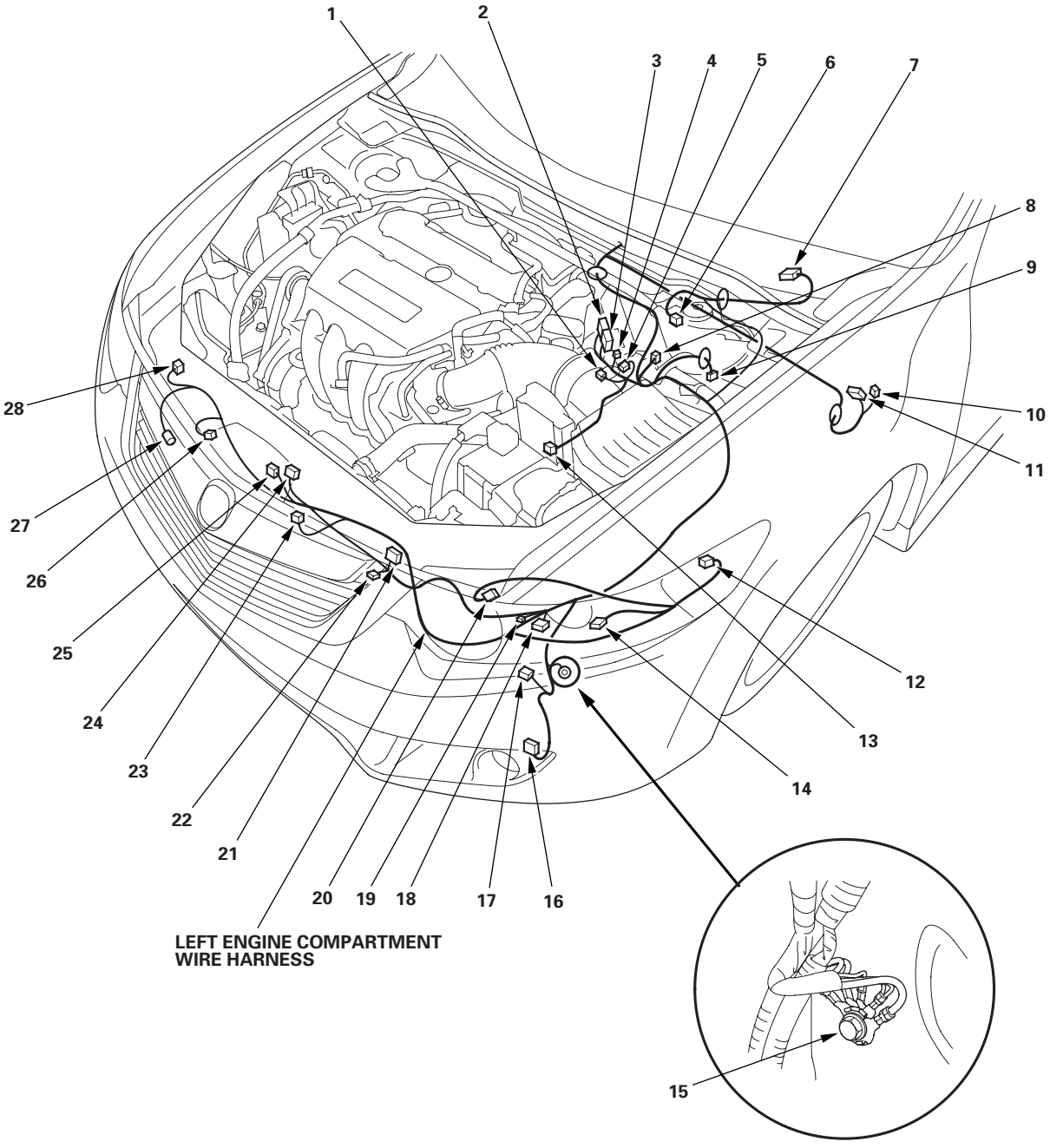
Connector to Harness Index (cont'd)

Left Engine Compartment Wire Harness (Engine compartment branch)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
A/C condenser fan motor	24	2	Front of engine compartment		
Answer back buzzer	10	2	Left front of fenderwell		
Brake fluid level switch	6	2	Left side of engine compartment		
ECM connector A	13	49	Left side of engine compartment		M/T
Engine coolant temperature (ECT) sensor 2	22	2	Front of engine compartment		
Hood switch	25	2	Front of engine compartment		
Horn (high)	23	1	Front of engine compartment		
Horn (low)	26	1	Front of engine compartment		
Left fog light	16	2	Behind left side of front bumper		
Left front impact sensor	17	2	Behind left side of front bumper		
Left front TPMS initiator	11	3	Left front of fenderwell		
Left front parking/side marker/turn signal light	12	3	Behind left headlight		
Left front wheel speed sensor	9	2	Left side of engine compartment		
Left headlight (high)	20	2	Behind left headlight		
Left headlight (low)	14	3	Behind left headlight		* 2
Left headlight (low)	14	2	Behind left headlight		* 1
Optional connector (for fog light)	19	1	Left front of engine compartment		
Optional connector (for parking and back-up lights)	18	4	Left front of engine compartment		
Outside air temperature sensor	27	2	Front of engine compartment		
PCM connector A	13	49	Left side of engine compartment		A/T
Radiator fan motor	21	2	Front of engine compartment		
Under-hood fuse/relay box connector A (electrical load detector) (see page 22-63)	4	3	Left side of engine compartment		
Under-hood fuse/relay box connector B (see page 22-63)	2	14	Left side of engine compartment		
Under-hood fuse/relay box connector C (see page 22-63)	3	10	Left side of engine compartment		
Wiper motor	7	4	Left side of engine compartment		
C101	5	23	Left side of engine compartment	Engine wire harness M/T (see page 22-20) A/T (see page 22-22)	
C151	1	1	Left side of engine compartment	Starter subharness (see page 22-19)	
C201	28	2	Right front of engine compartment	Right engine compartment wire harness (Engine compartment branch) (see page 22-31)	
C354	8	6	Left side of engine compartment	EPS subharness (see page 22-25)	
G301	15		Behind left side of front bumper	Body ground, via left engine compartment wire harness	

* 1: With HID
* 2: Without HID

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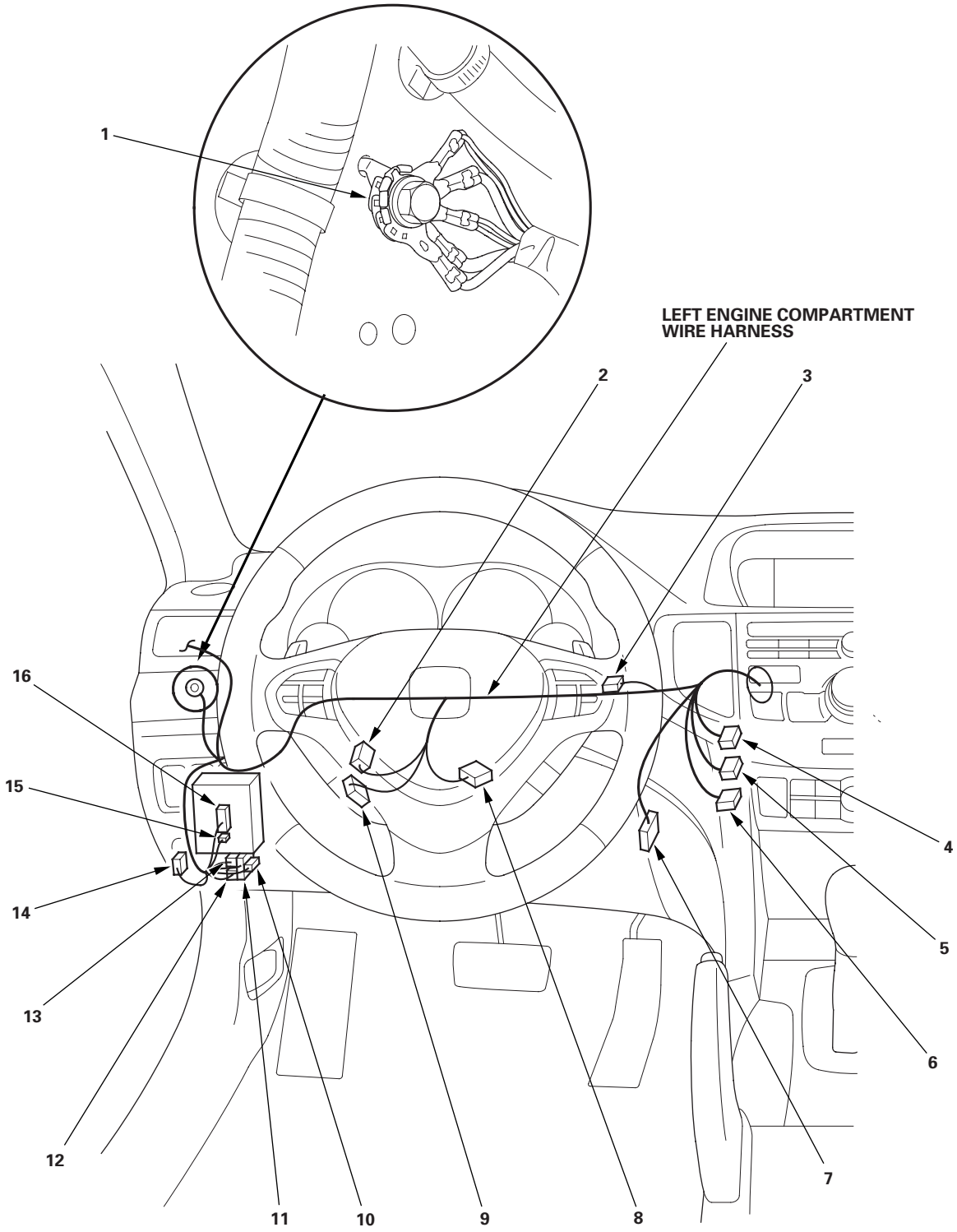
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Connector to Harness Index (cont'd)

Left Engine Compartment Wire Harness (Dashboard branch)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Accelerator pedal position sensor	7	6	Under left side of dash		
Brake pedal position switch	8	12	Under left side of dash		
Clutch interlock switch (for starter cut)	2	13	Under left side of dash		M/T
Clutch pedal position switch (for cruise)	9	14	Under left side of dash		M/T
Driver's under-dash fuse/relay box connector F (see page 22-64)	16	33	Under left side of dash		
Driver's under-dash fuse/relay box connector G (see page 22-64)	15	13	Under left side of dash		
Optional connector (for parking and back-up sensor system)	3	4	Under left side of dash		
C301	11	24	Under left side of dash	Dashboard wire harness (View of driver's side) (see page 22-33)	
C302	12	2	Under left side of dash	Dashboard wire harness (View of driver's side) (see page 22-33)	
C303	10	4	Under left side of dash	Dashboard wire harness (View of driver's side) (see page 22-33)	
C304	13	13	Under left side of dash	Dashboard wire harness (View of driver's side) (see page 22-33)	
C305	14	8	Under left side of dash	Left side wire harness (see page 22-44)	
C351	6	2	Under middle of dash	A/C wire harness (see page 22-62)	
C352	5	23	Under middle of dash	Left engine compartment subharness (see page 22-30)	
C353	4	2	Under middle of dash	Left engine compartment subharness (see page 22-30)	
G302	1		Under left side of dash	Body ground, via left engine compartment wire harness	

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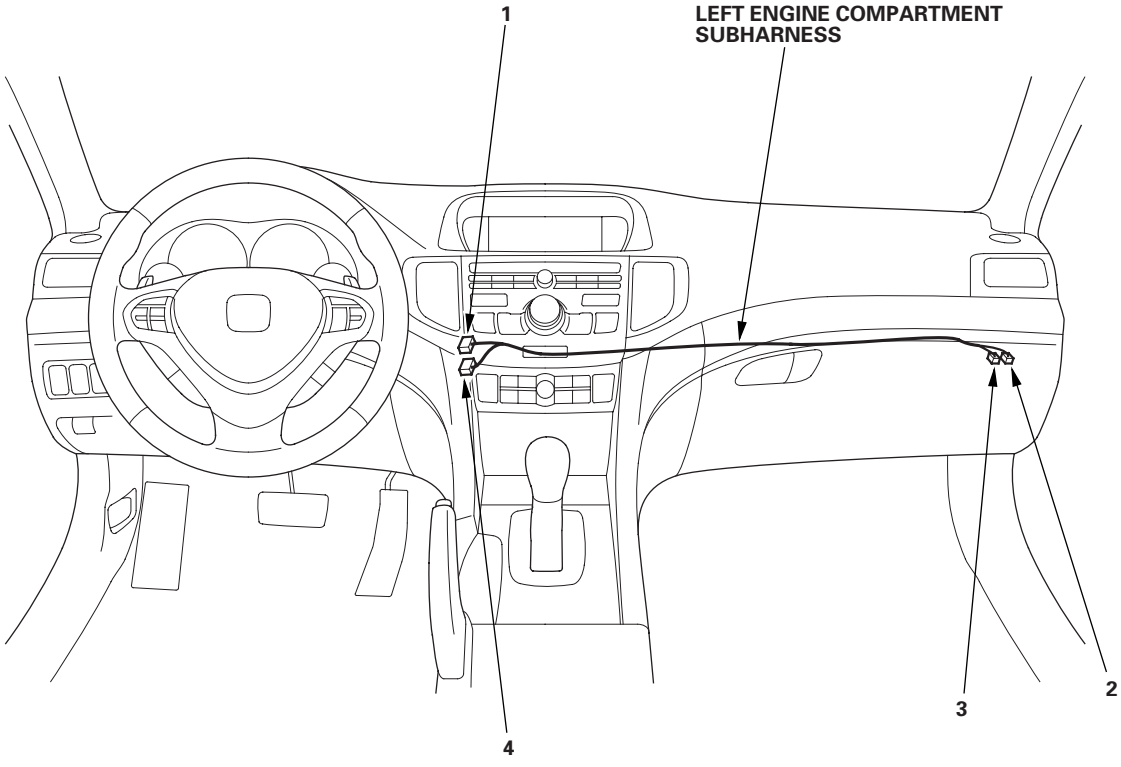


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Connector to Harness Index (cont'd)

Left Engine Compartment Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
C202	3	18	Under right side of dash	Right engine compartment wire harness (Dashboard branch) (see page 22-32)	
C203	2	2	Under right side of dash	Right engine compartment wire harness (Dashboard branch) (see page 22-32)	
C352	4	23	Under middle of dash	Left engine compartment wire harness (Dashboard branch) (see page 22-28)	
C353	1	2	Under middle of dash	Left engine compartment wire harness (Dashboard branch) (see page 22-28)	

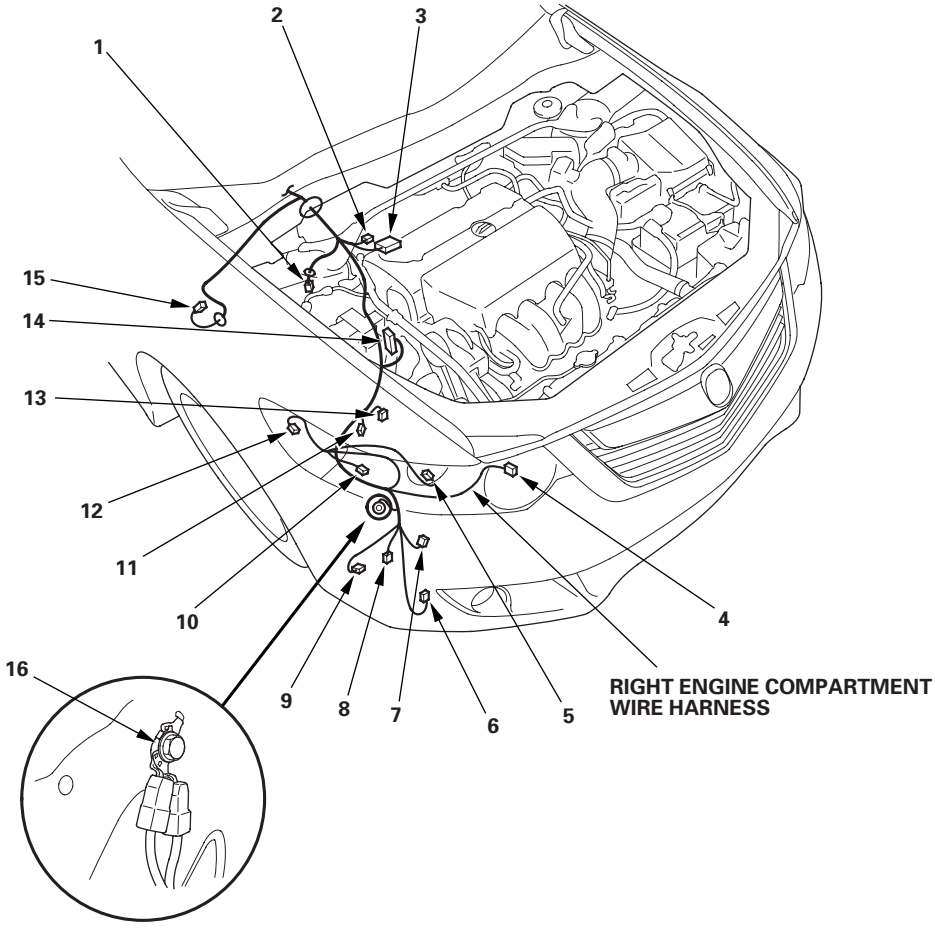


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Right Engine Compartment Wire Harness (Engine compartment branch)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
A/C pressure sensor	13	3	Right front of engine compartment		
EPS motor	2	3	Right rear of engine compartment		
Motor angle sensor	3	6	Right rear of engine compartment		
Optional connector (for fog light)	11	1	Right front of engine compartment		
Right fog light	6	3	Behind right side of front bumper		
Right front impact sensor	7	2	Behind right side of front bumper		
Right front parking/side marker/turn signal light	12	3	Behind right headlight		
Right front TPMS initiator	15	3	Right front of fenderwell		
Right front wheel speed sensor	1	2	Right side of engine compartment		
Right headlight (high)	5	2	Behind right headlight		
Right headlight (low)	10	2	Behind right headlight		* 2
Right headlight (low)	10	3	Behind right headlight		* 1
VSA modulator-control unit	14	32	Right side of engine compartment		
Washer fluid level switch	9	2	Behind right side of front bumper		* 3
Washer motor	8	2	Behind right side of front bumper		
C201	4	2	Right front of engine compartment	Left engine compartment wire harness (Engine compartment branch) (see page 22-26)	
G202	16		Behind right side of front bumper	Body ground, via right engine compartment wire harness	

* 1: With HID
* 2: Without HID
* 3: Canada models

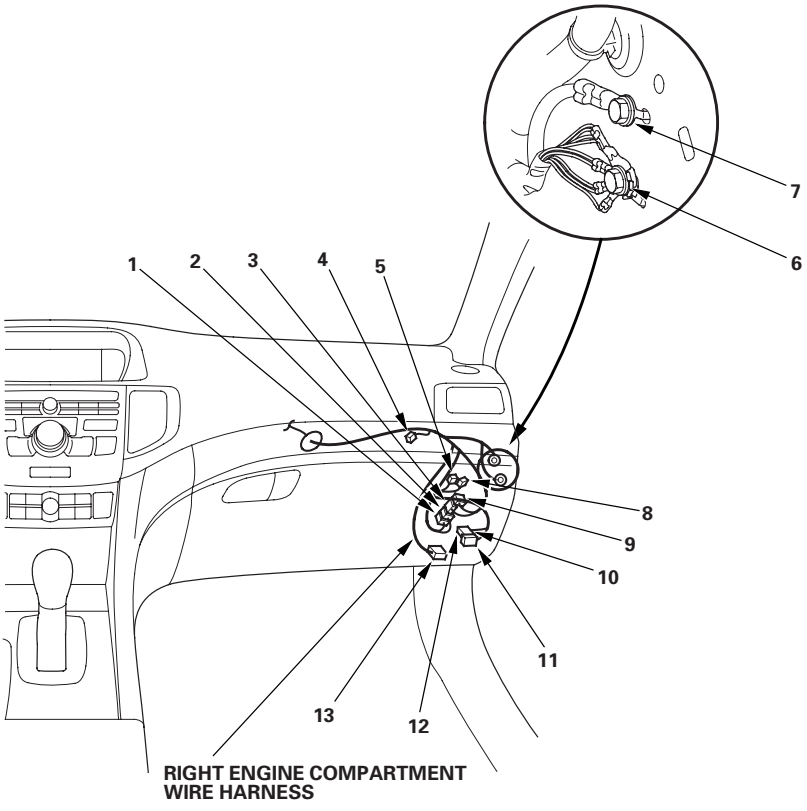


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Connector to Harness Index (cont'd)

Right Engine Compartment Wire Harness (Dashboard branch)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
EPS control unit connector A	9	2	Under right side of dash		
EPS control unit connector B	2	2	Under right side of dash		
EPS control unit connector C	1	2	Under right side of dash		
EPS control unit connector D	3	28	Under right side of dash		
Passenger's under-dash fuse/relay box connector E (see page 22-65)	13	18	Under right side of dash		
C202	5	18	Under right side of dash	Left engine compartment subharness (see page 22-30)	
C203	8	2	Under right side of dash	Left engine compartment subharness (see page 22-30)	
C204	10	2	Under right side of dash	Dashboard wire harness (View of middle to passenger's side) (see page 22-38)	
C205	12	16	Under right side of dash	Dashboard wire harness (View of middle to passenger's side) (see page 22-38)	
C206	11	4	Under right side of dash	Dashboard wire harness (View of middle to passenger's side) (see page 22-38)	
C207 (junction connector)	4	12	Under right side of dash		
G201	6		Under right side of dash	Body ground, via right engine compartment wire harness	
G203	7		Under right side of dash	Body ground, via right engine compartment wire harness	



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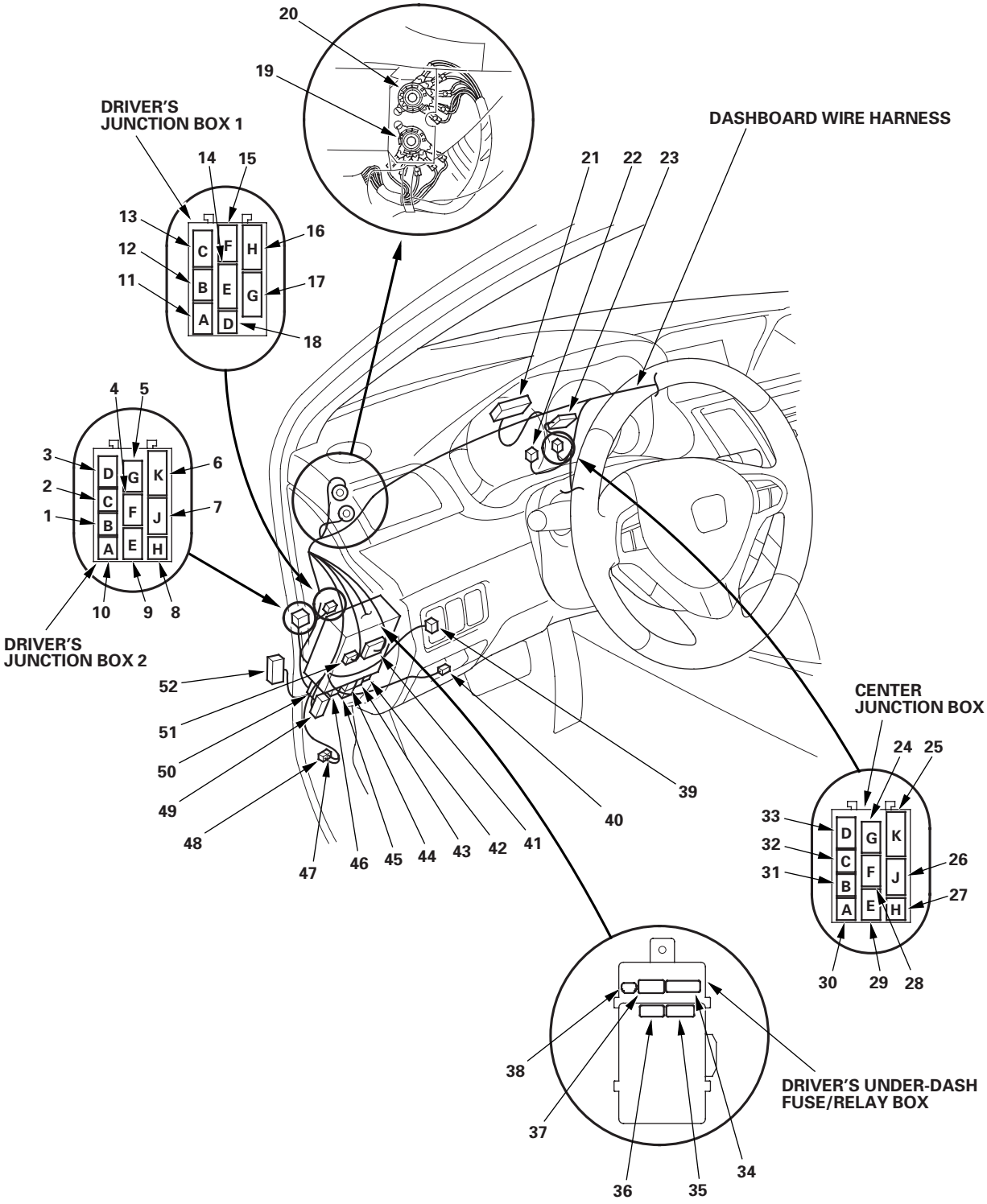
Dashboard Wire Harness (View of driver's side)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Center junction box connector A	30	4	Under middle of dash		
Center junction box connector B	31	4	Under middle of dash		
Center junction box connector C	32	4	Under middle of dash		
Center junction box connector D	33	6	Under middle of dash		
Center junction box connector E	29	6	Under middle of dash		
Center junction box connector F	28	6	Under middle of dash		
Center junction box connector G	24	6	Under middle of dash		
Center junction box connector H	27	4	Under middle of dash		
Center junction box connector J	26	8	Under middle of dash		
Center junction box connector K	25	10	Under middle of dash		
Console accessory power socket relay	22	4	Behind gauge		
Data link connector (DLC)	49	16	Under left side of dash		
Driver's footwell light	40	2	Under left side of dash		
Driver's junction box 1 connector A	11	6	Under left side of dash		
Driver's junction box 1 connector B	12	6	Under left side of dash		
Driver's junction box 1 connector C	13	8	Under left side of dash		
Driver's junction box 1 connector D	18	4	Under left side of dash		
Driver's junction box 1 connector E	14	10	Under left side of dash		
Driver's junction box 1 connector F	15	8	Under left side of dash		
Driver's junction box 1 connector G	17	10	Under left side of dash		
Driver's junction box 1 connector H	16	10	Under left side of dash		
Driver's junction box 2 connector A	10	4	Under left side of dash		
Driver's junction box 2 connector B	1	4	Under left side of dash		
Driver's junction box 2 connector C	2	4	Under left side of dash		
Driver's junction box 2 connector D	3	6	Under left side of dash		
Driver's junction box 2 connector E	9	6	Under left side of dash		
Driver's junction box 2 connector F	4	6	Under left side of dash		
Driver's junction box 2 connector G	5	6	Under left side of dash		
Driver's junction box 2 connector H	8	4	Under left side of dash		
Driver's junction box 2 connector J	7	8	Under left side of dash		
Driver's junction box 2 connector K	6	10	Under left side of dash		
Driver's under-dash fuse/relay box connector B (see page 22-64)	51	2	Under left side of dash		
Driver's under-dash fuse/relay box connector C (see page 22-64)	41	5	Under left side of dash		
Driver's under-dash fuse/relay box connector M (see page 22-64)	38	4	Under left side of dash		
Driver's under-dash fuse/relay box connector N (see page 22-64)	37	16	Under left side of dash		
Driver's under-dash fuse/relay box connector P (see page 22-64)	34	20	Under left side of dash		
Driver's under-dash fuse/relay box connector Q (see page 22-64)	36	20	Under left side of dash	Driver's MICU	
Driver's under-dash fuse/relay box connector R (see page 22-64)	35	24	Under left side of dash	Driver's MICU	
Gauge control module	21	32	Behind gauge		
TPMS control unit	23	20	Behind gauge		
VSA OFF switch	39	5	Left side of dashboard		

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Connector to Harness Index (cont'd)



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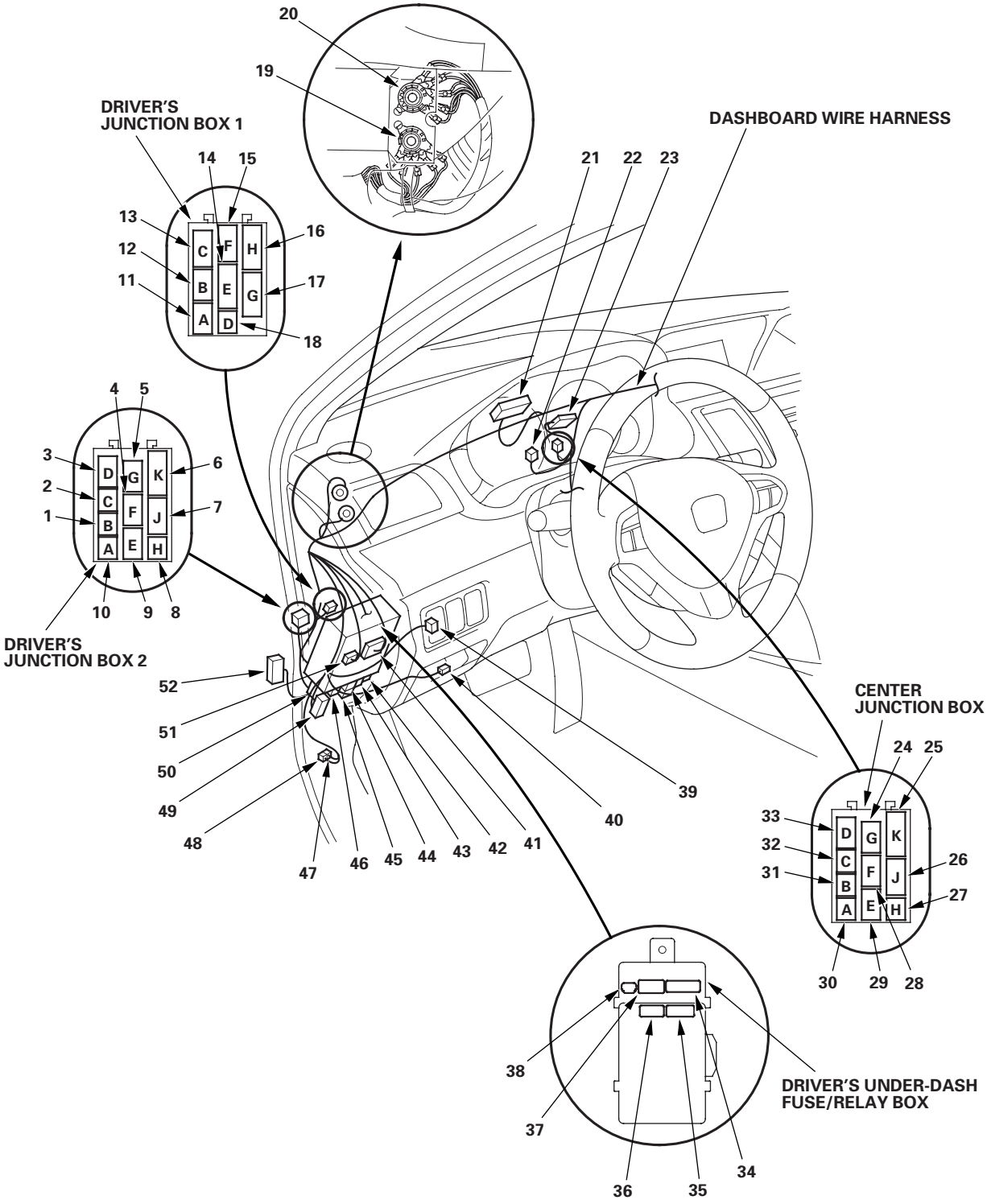
Dashboard Wire Harness (View of driver's side)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
C301	43	24	Under left side of dash	Left engine compartment wire harness (Dashboard branch) (see page 22-28)	
C302	45	2	Under left side of dash	Left engine compartment wire harness (Dashboard branch) (see page 22-28)	
C303	42	4	Under left side of dash	Left engine compartment wire harness (Dashboard branch) (see page 22-28)	
C304	44	13	Under left side of dash	Left engine compartment wire harness (Dashboard branch) (see page 22-28)	
C501	46	20	Under left side of dash	Roof wire harness (see page 22-51)	
C502	50	8	Under left side of dash	Roof wire harness (see page 22-51)	
C601	48	23	Under left side of dash	Left side wire harness (see page 22-44)	
C602	47	16	Under left side of dash	Left side wire harness (see page 22-44)	
C751	52	28	Under left side of dash	Driver's door wire harness (see page 22-52)	
G501	20		Under left side of dash	Body ground, via dashboard wire harness	
G502	19		Under left side of dash	Body ground, via dashboard wire harness	

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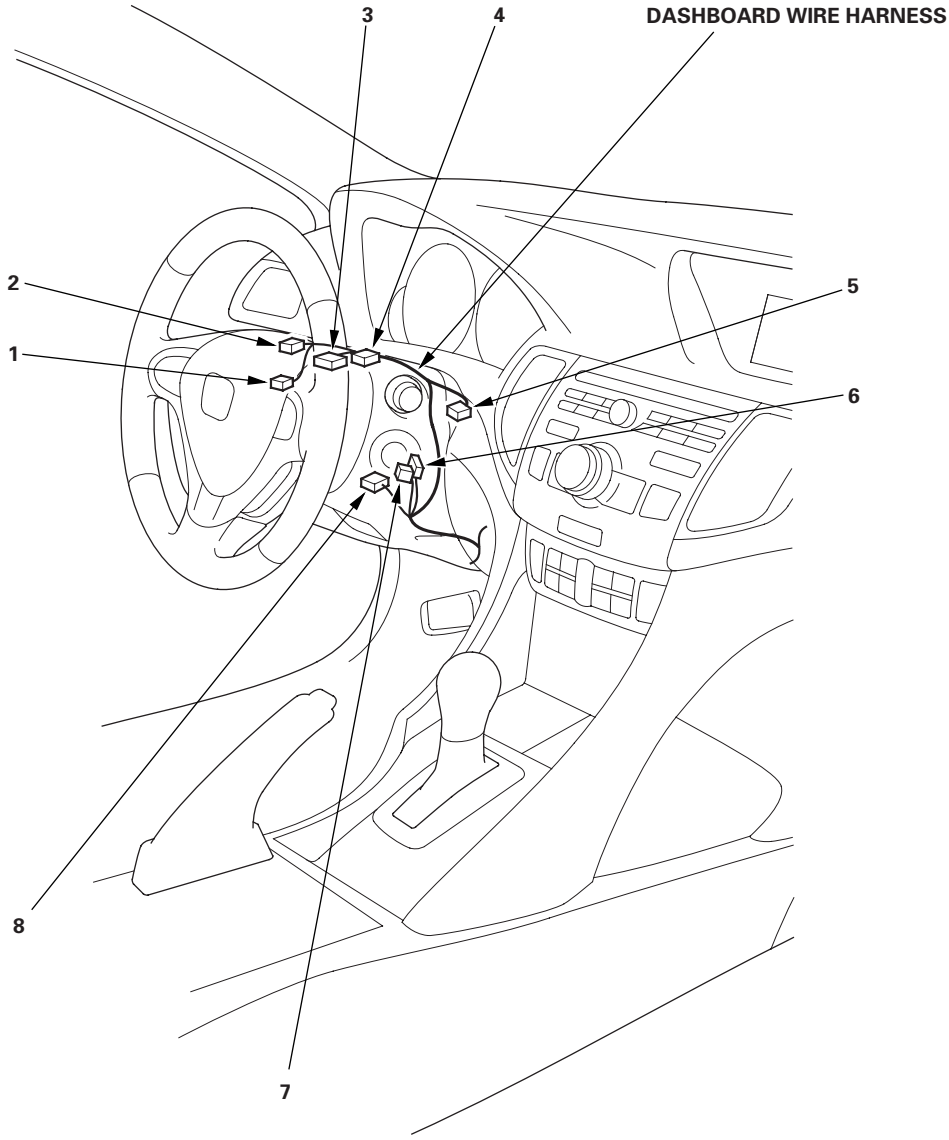
Connector to Harness Index (cont'd)



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Dashboard Wire Harness (View of steering column side)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Cable reel connector A	3	20	In steering column	Cable reel subharness via cable reel	
Combination light switch	2	12	In steering column		
Driver's airbag inflator	4	4	In steering column		
Ignition key switch	7	6	In steering column		
Ignition switch	8	5	In steering column		
Immobilizer-keyless control unit	6	7	In steering column		
Steering angle sensor	1	5	In steering column		
Wiper/washer switch	5	8	In steering column		



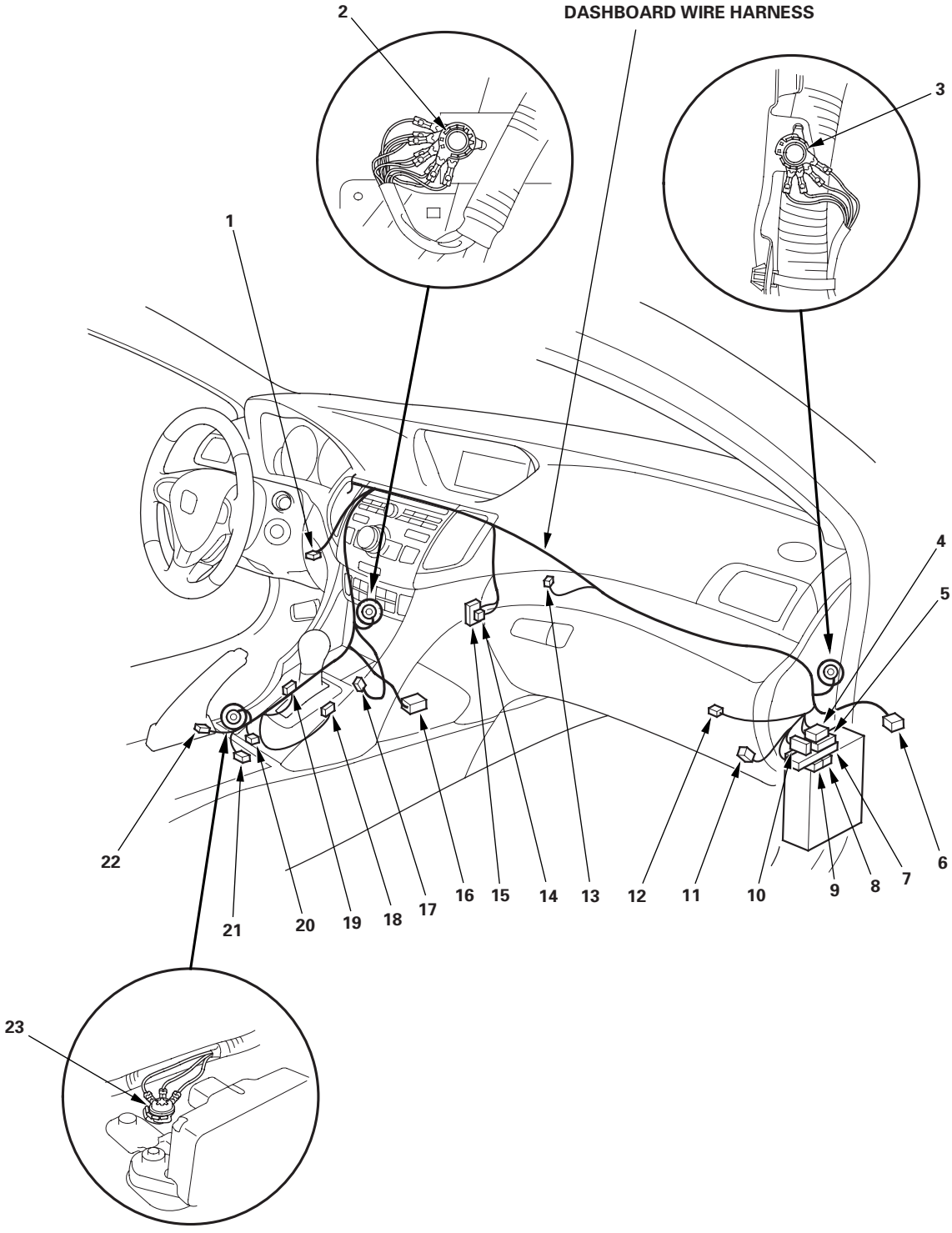
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Connector to Harness Index (cont'd)

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/park-pin switch	20	6	Under center console	A/T	
Driver's seat heater switch	19	6	Under center console		
Front accessory power socket	17	2	Under center console		
Front passenger's airbag inflator	13	4	Under right side of dash		
Front passenger's footwell light	12	2	Under right side of dash		
Front passenger's seat heater switch	18	7	Under center console		
In-car temperature sensor	1	2	Middle of dash		
Parking brake switch	22	1	Center console		
Passenger's under-dash fuse/relay box connector A (see page 22-65)	7	38	Under right side of dash		
Passenger's under-dash fuse/relay box connector B (see page 22-65)	8	1	Under right side of dash		
Passenger's under-dash fuse/relay box connector C (see page 22-65)	9	12	Under right side of dash		
SRS unit connector A	16	39	Under middle of dash		
Yaw rate-lateral acceleration sensor	21	4	Under center console		
C204	5	2	Under left side of dash	Right engine compartment wire harness (Dashboard branch) (see page 22-32)	
C205	4	16	Under left side of dash	Right engine compartment wire harness (Dashboard branch) (see page 22-32)	
C206	10	4	Under left side of dash	Right engine compartment wire harness (Dashboard branch) (see page 22-32)	
C401	15	28	Under middle of dash	Audio wire harness (without navigation system) (see page 22-42) Audio wire harness (with navigation system) (see page 22-40)	
C402	14	16	Under middle of dash	Audio wire harness (without navigation system) (see page 22-42) Audio wire harness (with navigation system) (see page 22-40)	
C651	11	18	Under right side of dash	Right side wire harness (see page 22-48)	
C761	6	23	Under right side of dash	Front passenger's door wire harness (see page 22-54)	
G503	2		Under middle of dash	Body ground, via dashboard wire harness	
G504	23		Under center console	Body ground, via dashboard wire harness	
G505	3		Under center console	Body ground, via dashboard wire harness	

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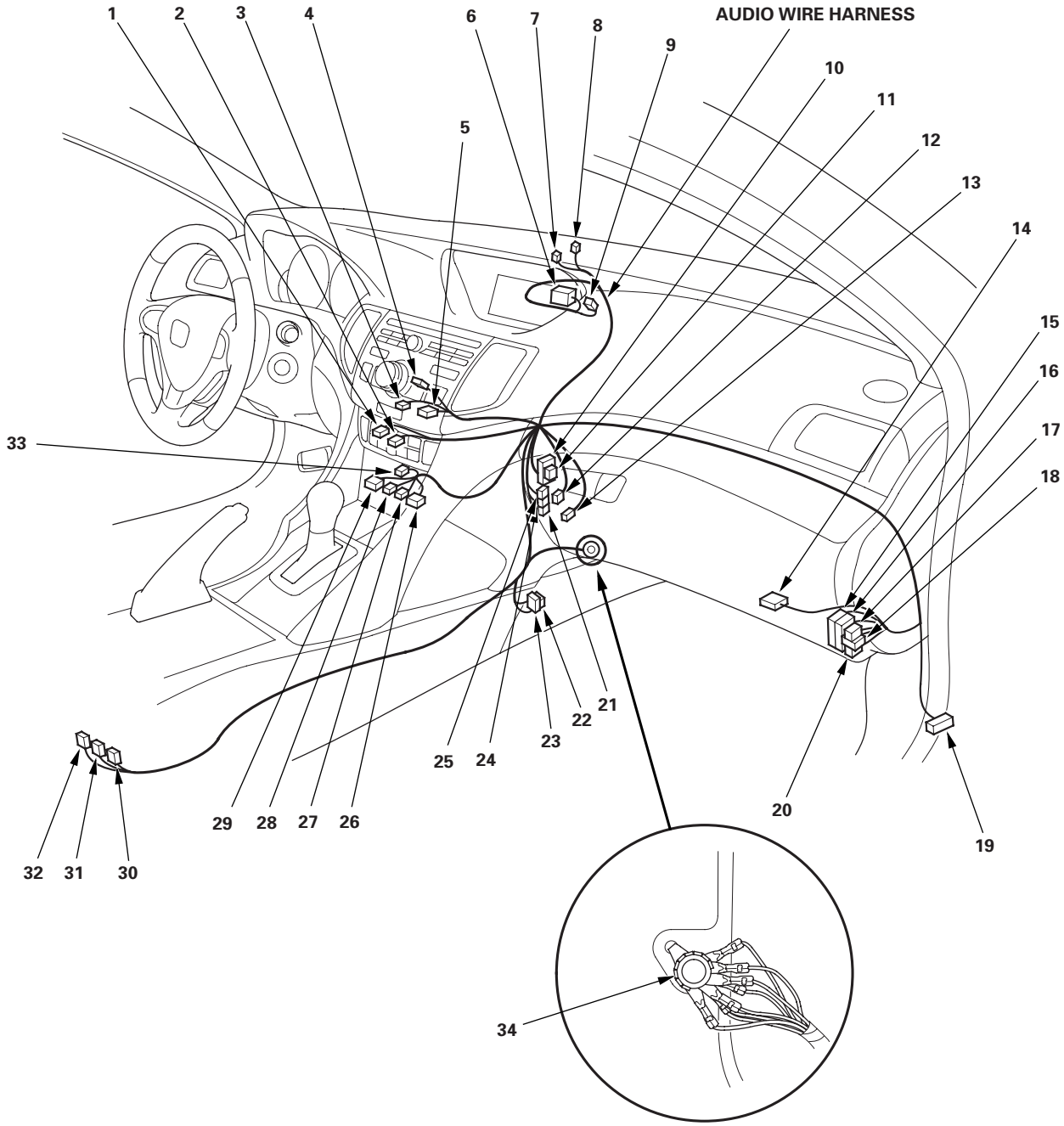
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Connector to Harness Index (cont'd)

Audio Wire Harness (With Navigation System)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Audio unit connector A	29	24	Under middle of dash		
Audio unit connector B	28	20	Under middle of dash		
Audio unit connector C	27	12	Under middle of dash		
Audio unit connector D	33	8	Under middle of dash		
Audio unit connector E	26	14	Under middle of dash		
Audio/Navigation switch panel	5	24	Middle of dash		
Automatic lighting/sunlight sensor	8	5	Middle of dash		
Auxiliary jack	30	5	Under center console		
Center speaker	7	2	Middle of dash		
Climate control unit connector A	2	28	Middle of dash		
Climate control unit connector B	1	12	Middle of dash		
Console accessory power socket	32	2	Under center console		
Glove box light	13	2	Glove box		
HandsFreeLink control unit	14	28	Under right of dash		
Hazard warning switch	3	5	Middle of dash		
Interface dial	4	5	Middle of dash		
Navigation display unit	6	28	Middle of dash		
Passenger's airbag cutoff indicator	9	6	Middle of dash		
Passenger's under-dash fuse/relay box connector D (see page 22-65)	19	28	Under right side of dash		
Trunk lid opener main switch	12	2	Under right of dash		
USB adaptor unit	31	14	Under center console		
C401	10	28	Middle of dash	Dashboard wire harness (View of middle to passenger's side) (see page 22-38)	
C402	11	16	Middle of dash	Dashboard wire harness (View of middle to passenger's side) (see page 22-38)	
C403	22	16	Middle of dash	SRS floor wire harness (see page 22-46)	
C404 (junction connector)	25	12	Under middle of dash		
C405 (junction connector)	24	12	Under middle of dash		
C406 (junction connector)	21	12	Under middle of dash		
C407 (junction connector)	20	12	Under right side of dash		
C408 (junction connector)	17	12	Under right side of dash		
C409	23	20	Under middle of dash	A/C wire harness (see page 22-62)	
C410	16	28	Under right side of dash	Right side wire harness (see page 22-48)	
C411	15	34	Under right side of dash	Right side wire harness (see page 22-48)	
C412	18	18	Under right side of dash	Right side wire harness (see page 22-48)	
G401	34		Under middle of dash	Body ground, via audio wire harness	

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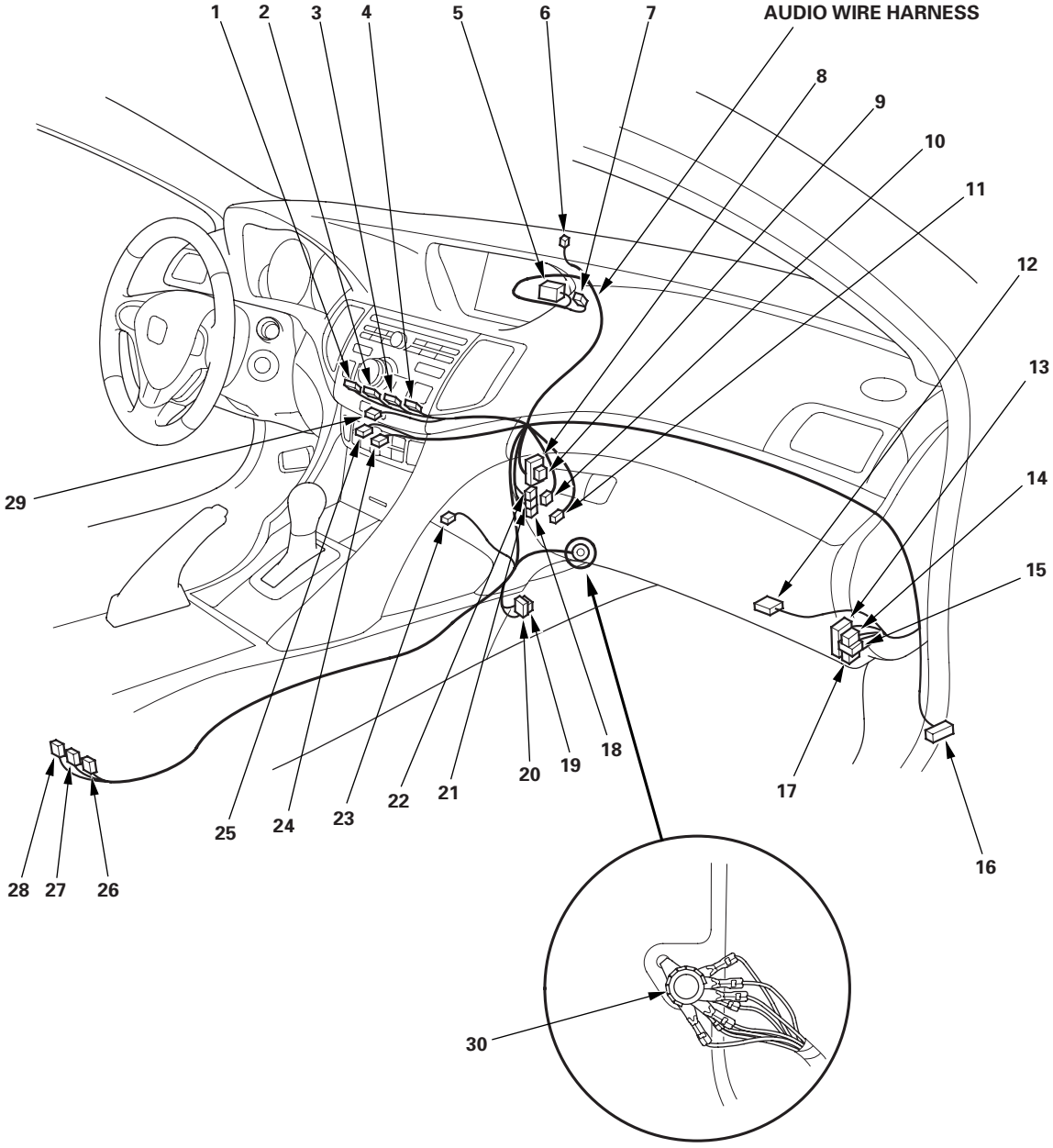
Connector to Harness Index (cont'd)

Audio Wire Harness (Without Navigation System)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Audio unit connector A	1	24	Under middle of dash		
Audio unit connector B	2	20	Under middle of dash		
Audio unit connector D	3	8	Under middle of dash		
Audio unit connector E	4	14	Under middle of dash		
Audio-HVAC display unit	5	12	Middle of dash		
Automatic lighting/sunlight sensor	6	5	Middle of dash		* 1
Auxiliary jack	26	5	Under center console		
Center pocket light	23	2	Middle of dash		
Climate control switch connector A	25	28	Middle of dash		
Climate control switch connector B	24	12	Middle of dash		
Console accessory power socket	27	2	Under center console		
Glove box light	11	2	Glove box		
HandsFreeLink control unit	12	28	Under right of dash		
Hazard warning switch	29	5	Middle of dash		
Passenger's airbag cutoff indicator	7	6	Middle of dash		
Passenger's under-dash fuse/relay box connector D (see page 22-65)	16	28	Under right side of dash		
Sunlight sensor	6	2	Middle of dash		* 2
Trunk lid opener main switch	10	2	Under right of dash		
USB adaptor unit	28	14	Under center console		
C401	8	28	Middle of dash	Dashboard wire harness (View of middle to passenger's side) (see page 22-38)	
C402	9	16	Middle of dash	Dashboard wire harness (View of middle to passenger's side) (see page 22-38)	
C403	19	16	Middle of dash	SRS floor wire harness (see page 22-46)	
C404 (junction connector)	22	12			
C405 (junction connector)	21	12	Under middle of dash		
C406 (junction connector)	18	12	Under middle of dash		
C407 (junction connector)	17	12	Under middle of dash		* 3
C408 (junction connector)	14	12	Under middle of dash		* 3
C409	20	20	Under right side of dash	A/C wire harness (see page 22-62)	
C410	13	28	Under right side of dash	Right side wire harness (see page 22-48)	
C411	15	34	Under right side of dash	Right side wire harness (see page 22-48)	
C412	15	12	Under right side of dash	Right side wire harness (see page 22-48)	* 3
G401	30		Under middle of dash	Body ground, via audio wire harness	

* 1: With automatic lighting
* 2: Without automatic lighting
* 3: With XM radio

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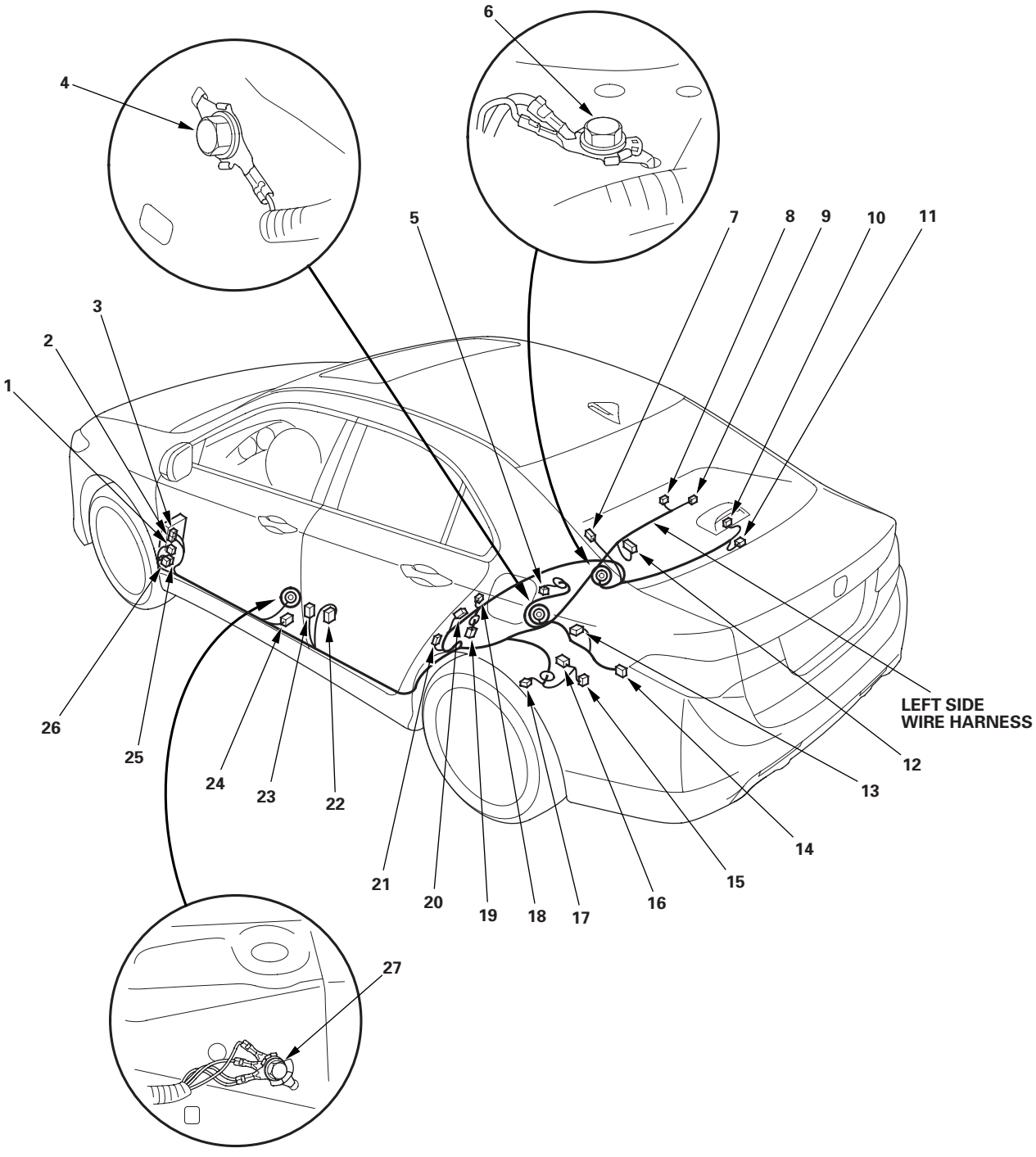
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Connector to Harness Index (cont'd)

Left Side Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Condenser A (for rear window defogger)	18	2	Left B-pillar		
Condenser B (for rear window defogger)	21	2	Left B-pillar		
Driver's door switch	23	1	Left B-pillar		
Driver's under-dash fuse/relay box connector D (see page 22-64)	3	16	Under left side of dash		
Driver's under-dash fuse/relay box connector E (see page 22-64)	2	20	Under left side of dash		
EVAP canister vent shut valve	15	2	Under floor (Fuel tank)		
Fuel fill door lock actuator	13	2	Left front of trunk		
Fuel tank pressure (FTP) sensor	16	3	Under floor (Fuel tank)		
Fuel tank unit	5	4	Under rear seat cushion		
High mount brake light	10	2	Middle of rear shelf		
Left rear door switch	20	1	Left C-pillar		
Left rear speaker	12	2	Left side of rear shelf		
Left rear TPMS initiator	19	3	Under floor		
Left rear wheel speed sensor	17	2	Under floor		
Rear window defogger connector A (+)	7	1	Middle of rear shelf		
Subwoofer	8	2	Middle of rear shelf		
Trunk light	11	2	Middle of rear shelf		
C305	1	8	Under left side of dash	Left engine compartment wire harness (Dashboard branch) (see page 22-28)	
C601	26	23	Under left side of dash	Dashboard wire harness (View of driver's side) (see page 22-33)	
C602	25	16	Under left side of dash	Dashboard wire harness (View of driver's side) (see page 22-33)	
C603	24	2	Under left side of dash	SRS floor wire harness (see page 22-46)	
C604	14	20	Left rear of trunk	Rear wire harness (see page 22-50)	
C654	9	18	Under rear shelf	Right side wire harness (see page 22-48)	
C771	22	18	Left B-pillar	Left rear door wire harness (see page 22-55)	
G601	27		Left side of floor	Body ground, via left side wire harness	
G602	6		Under rear seat cushion	Body ground, via left side wire harness	
G603	4		Left of rear shelf	Body ground, via left side wire harness	

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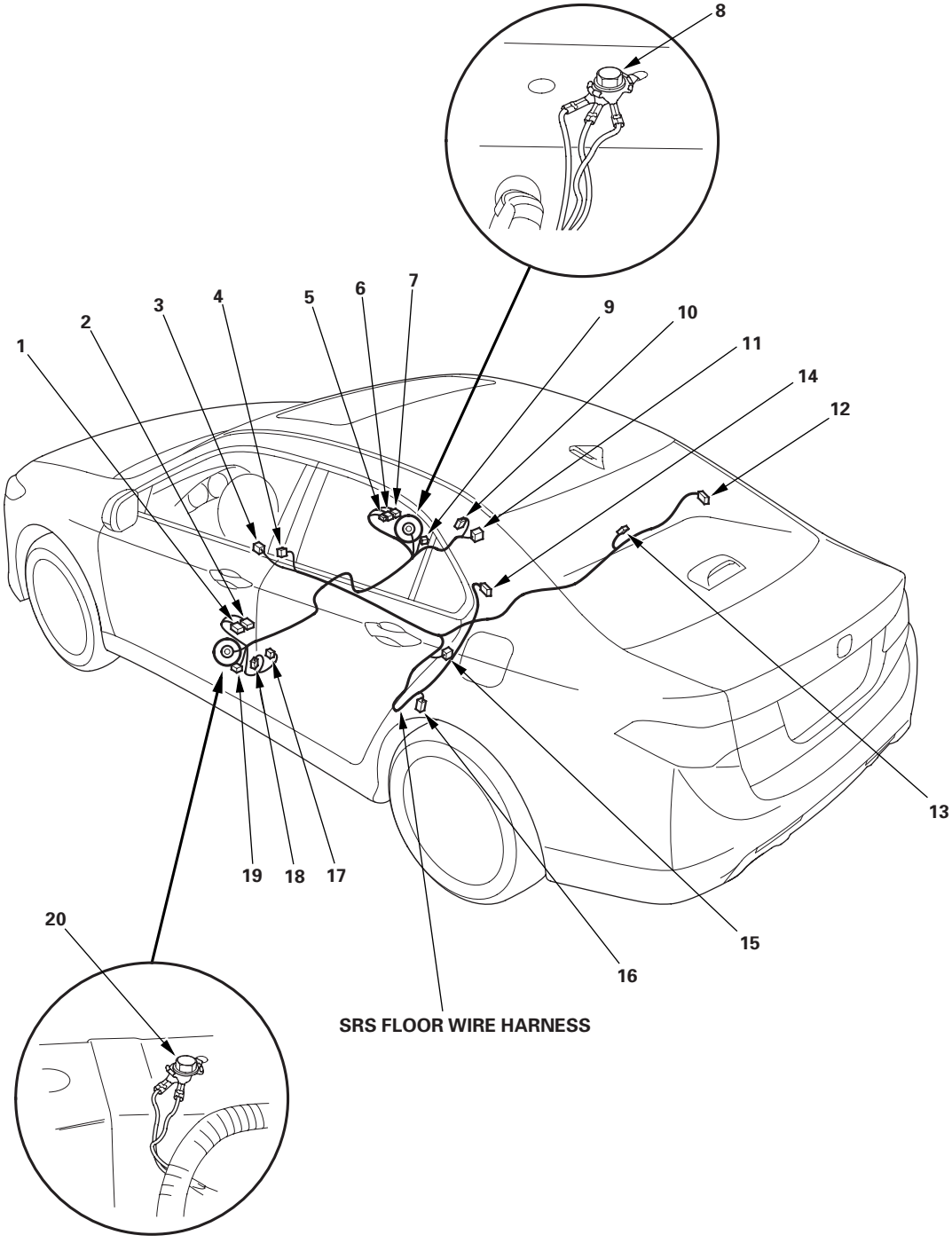
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Connector to Harness Index (cont'd)

SRS Floor Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Driver's seat belt tensioner	17	4	Left B-pillar		
Driver's side airbag inflator	2	2	Under driver's seat		
Front passenger's seat belt tensioner	11	4	Right B-pillar		
Front passenger's side airbag inflator	7	2	Under front passenger's seat		
Left side curtain airbag inflator	14	2	Left C-pillar		
Left side impact sensor (first)	18	2	Left B-pillar		
Left side impact sensor (second)	16	2	Left C-pillar		
Right safing sensor	15	4	Under rear seat cushion		
Right side curtain airbag inflator	12	2	Right C-pillar		
Right side impact sensor (first)	10	2	Right B-pillar		
Right side impact sensor (second)	13	2	Right C-pillar		
SRS unit	3	39	Under middle of dash	Audio wire harness (with navigation system) (see page 22-40)	
C403	4	16	Under middle of dash	Audio wire harness (without navigation system) (see page 22-42)	
C603	19	2	Under driver's seat	Left side wire harness (see page 22-44)	
C653	9	4	Under front passenger's seat	Right side wire harness (see page 22-48)	
C701	1	23	Under driver's seat	Driver's seat wire harness (with DPMS) (see page 22-57), (without DPMS) (see page 22-58)	
C702	6	18	Under front passenger's seat	Front passenger's seat wire harness (see page 22-59)	
C703	5	18	Under front passenger's seat	ODS unit harness (see page 22-60)	
G701	20		Under driver's seat	Body ground, via SRS floor wire harness	
G702	8		Under front passenger's seat	Body ground, via SRS floor wire harness	

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Connector to Harness Index (cont'd)

Right Side Wire Harness

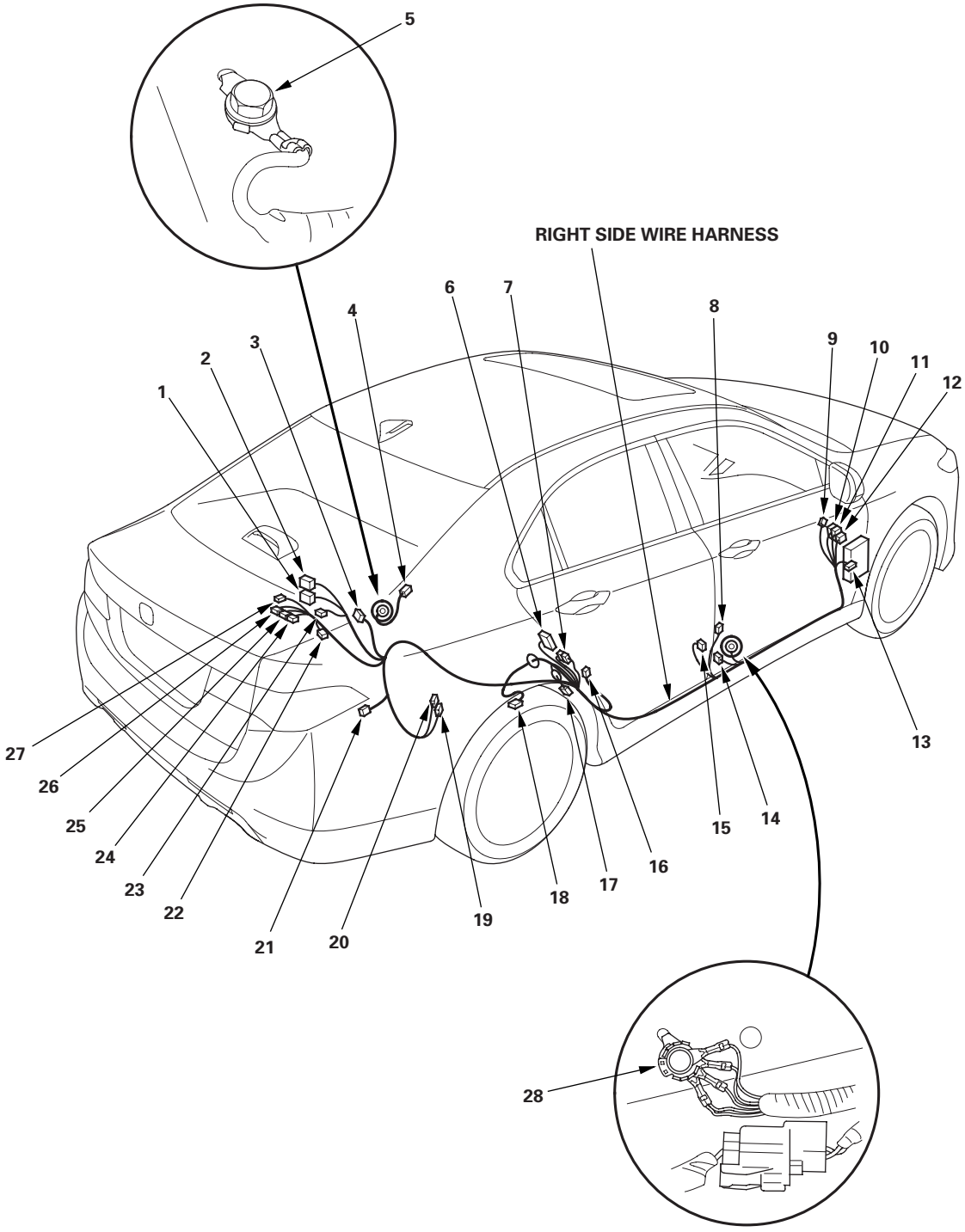
Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
AcuraLink connector (Female connector)	7	5	Under right side of rear seat		* 1
AcuraLink connector (Male connector)	7	5	Under right side of rear seat		* 1
AcuraLink control unit (XM receiver) connector A	6	32	Under right side of rear seat		* 1
Electrical compass unit	23	6	Under rear shelf		* 4
Front passenger's door switch	8	1	Right B-pillar		
Navigation service check connector	22	2	Under rear shelf		* 3
Navigation unit connector A	24	8	Under rear shelf		* 3
Navigation unit connector B	25	32	Under rear shelf		* 3
Navigation unit connector C	26	16	Under rear shelf		* 3
Navigation unit connector D	27	5	Under rear shelf		* 3
Passenger's under-dash fuse/relay box connector H (see page 22-65)	13	38	Under right side of dash		
Right rear door switch	16	1	Right C-pillar		
Right rear speaker	3	2	Right side of 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	18	Right side of trunk		
Stereo amplifier B	20	28	Right side of trunk		* 3
Stereo amplifier B	20	24	Right side of trunk		* 4
XM receiver connector A	6	14	Under right side of rear seat	Audio wire harness (with navigation system) (see page 22-40)	* 2
C410	10	28	Under right side of dash	Audio wire harness (without navigation system) (see page 22-42) Audio wire harness (with navigation system) (see page 22-40)	
C411	11	34	Under right side of dash	Audio wire harness (without navigation system) (see page 22-42) Audio wire harness (with navigation system) (see page 22-40)	* 3
C412	12	12	Under right side of dash	Audio wire harness (without navigation system) (see page 22-42) Audio wire harness (with navigation system) (see page 22-40)	* 5
C651	9	18	Right kick panel	Dashboard wire harness (View of middle to passenger's side) (see page 22-38)	
C652 (junction connector)	2	12	Under rear shelf		
C653	14	4	Under front passenger's seat	SRS floor wire harness (see page 22-46)	
C654	1	18	Under rear shelf	Left side wire harness (see page 22-44)	
C655	21	6	Right side of trunk	Rear wire harness (see page 22-50)	* 3
C781	15	18	Right B-pillar	Right rear door wire harness (see page 22-56)	
G651	28		Under front passenger's seat	Body ground, via right side wire harness	

* 1: With AcuraLink system
* 2: Without AcuraLink system
* 3: With navigation
* 4: Without navigation
* 5: With XM radio

Rear Window Defogger Ground Wire

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Rear window defogger connector B (—)	4	1	Right C-pillar		
G801	5		Right C-pillar	Body ground, via rear window defogger ground	

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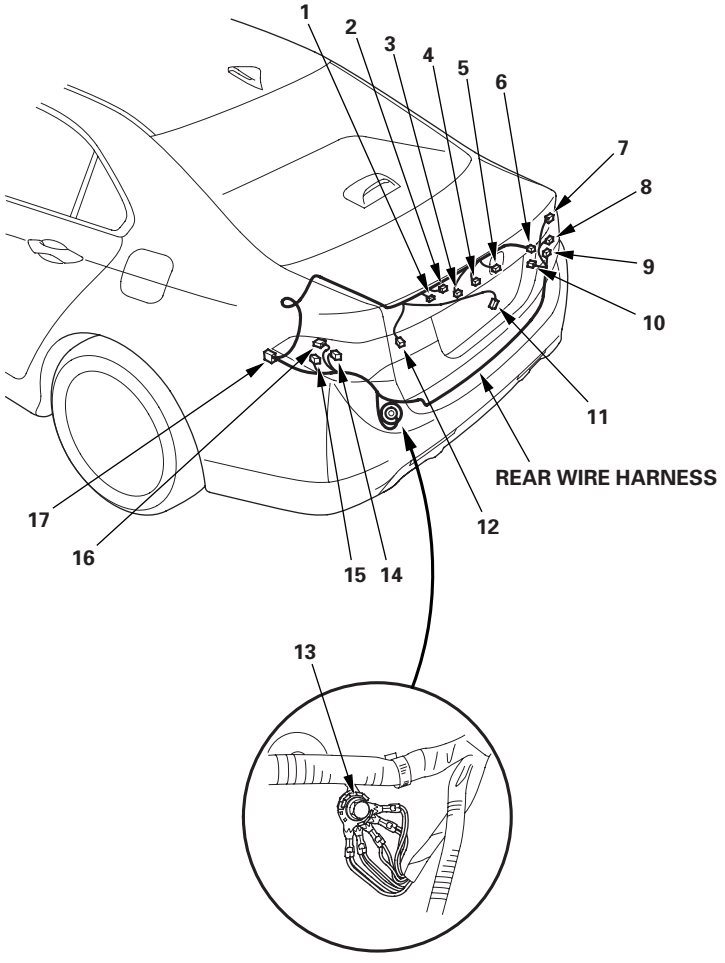
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Connector to Harness Index (cont'd)

Rear Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Diode (for trunk lid release actuator)	2	2	Left side of trunk		
Left back-up light	12	3	Left side of trunk		
Left rear license light	3	2	Middle of trunk		
Left rear side marker light	16	2	Left side of trunk		
Left rear taillight/brake light	14	4	Left side of trunk		
Left rear turn signal light	15	3	Left side of trunk		
Rearview camera	1	6	Middle of trunk		*
Right back-up light	6	3	Right side of trunk		
Right rear license light	5	2	Middle of trunk		
Right rear side marker light	7	2	Right side of trunk		
Right rear taillight/brake light	9	4	Right side of trunk		
Right rear turn signal light	8	3	Right side of trunk		
Trunk lid outer handle switch	4	3	Middle of trunk		
Trunk lid release actuator/Trunk lid latch switch	11	3	Middle of trunk		
C604	17	20	Left side of rear	Left side wire harness (see page 22-44)	
C655	10	6	Right side of rear	Right side wire harness (see page 22-48)	*
G901	13		Left side of rear	Body ground, via rear wire harness	

*: With navigation system



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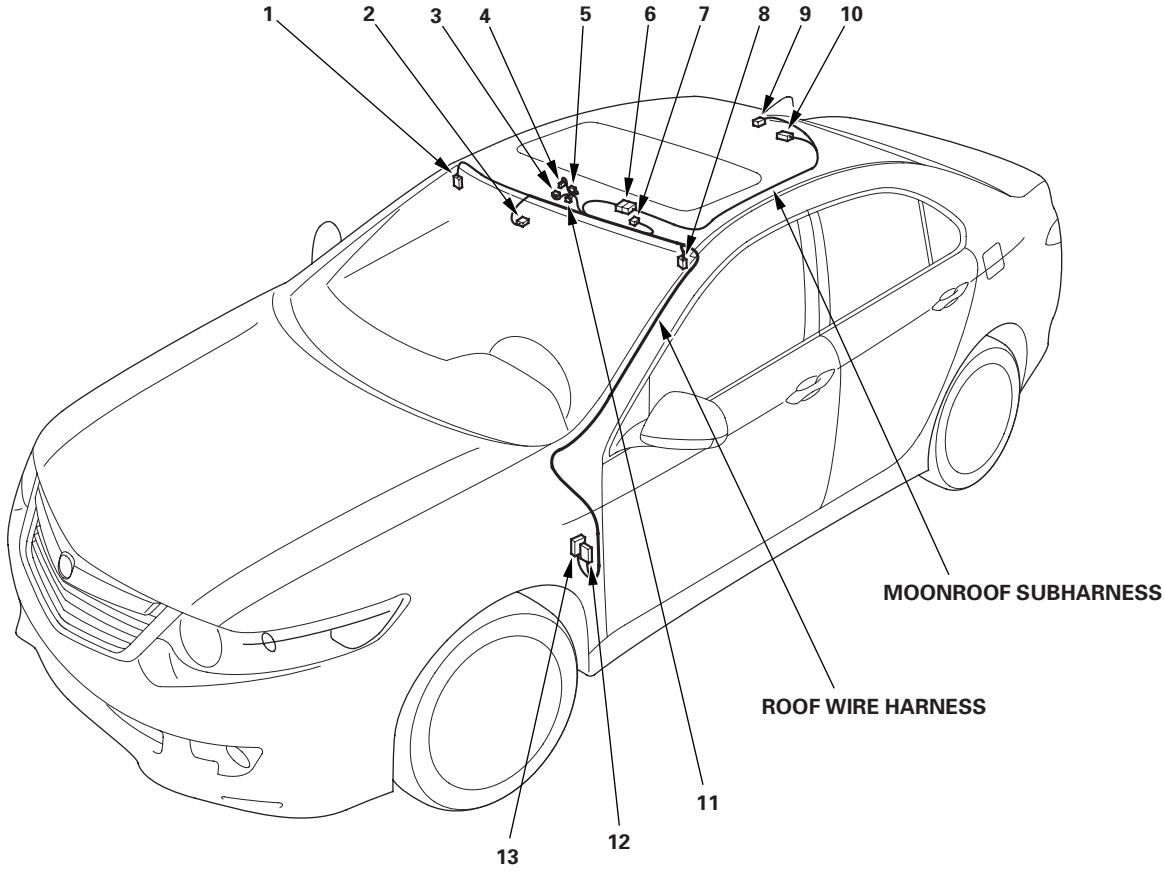
Roof Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Automatic dimming inside mirror	2	7	Front of roof		
Front individual map light	11	3	Front of roof		
Left vanity mirror light	8	2	Left front of roof		
HFL microphone	5	3	Front of roof		* 2
HFL/navigation microphone	5	7	Front of roof		* 1
HomeLink unit	4	5	Front of roof		
Moonroof switch	3	12	Front of roof		
Right vanity mirror light	1	2	Right front of roof		
C501	13	20	Under left side of dash	Dashboard wire harness (View of driver's side) (see page 22-33)	
C502	12	8	Under left side of dash	Dashboard wire harness (View of driver's side) (see page 22-33)	
C551	6	13	Middle of roof	Moonroof subharness	
C552 (junction connector)	7	6	Left front of roof		

* 1: With navigation system
* 2: Without navigation system

Moonroof Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Ceiling light	9	3	Rear of roof		
Moonroof control unit/motor	10	14	Rear of roof		
C551	6	13	Middle of roof	Roof wire harness	



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Connector to Harness Index (cont'd)

Driver's Door Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Driver's door lock actuator/knob switch/key cylinder switch	14	10	Driver's door		
Driver's power window motor	11	6	Driver's door		
Left front speaker	9	2	Driver's door		
Left front tweeter	4	2	Driver's door		
Left power mirror	5	13	Driver's door		
Power window master switch (door multiplex control unit)	1	37	Driver's door		
Trunk lid opener switch	10	5	Driver's door		
C751	7	28	Under left side of dash	Dashboard wire harness (View of driver's side) (see page 22-33)	
C752	13	2	Driver's door	Driver's door courtesy light subharness	
C753	8	20	Driver's door	Driver's door switch subharness	
C754 (junction connector)	6	6	Driver's door		

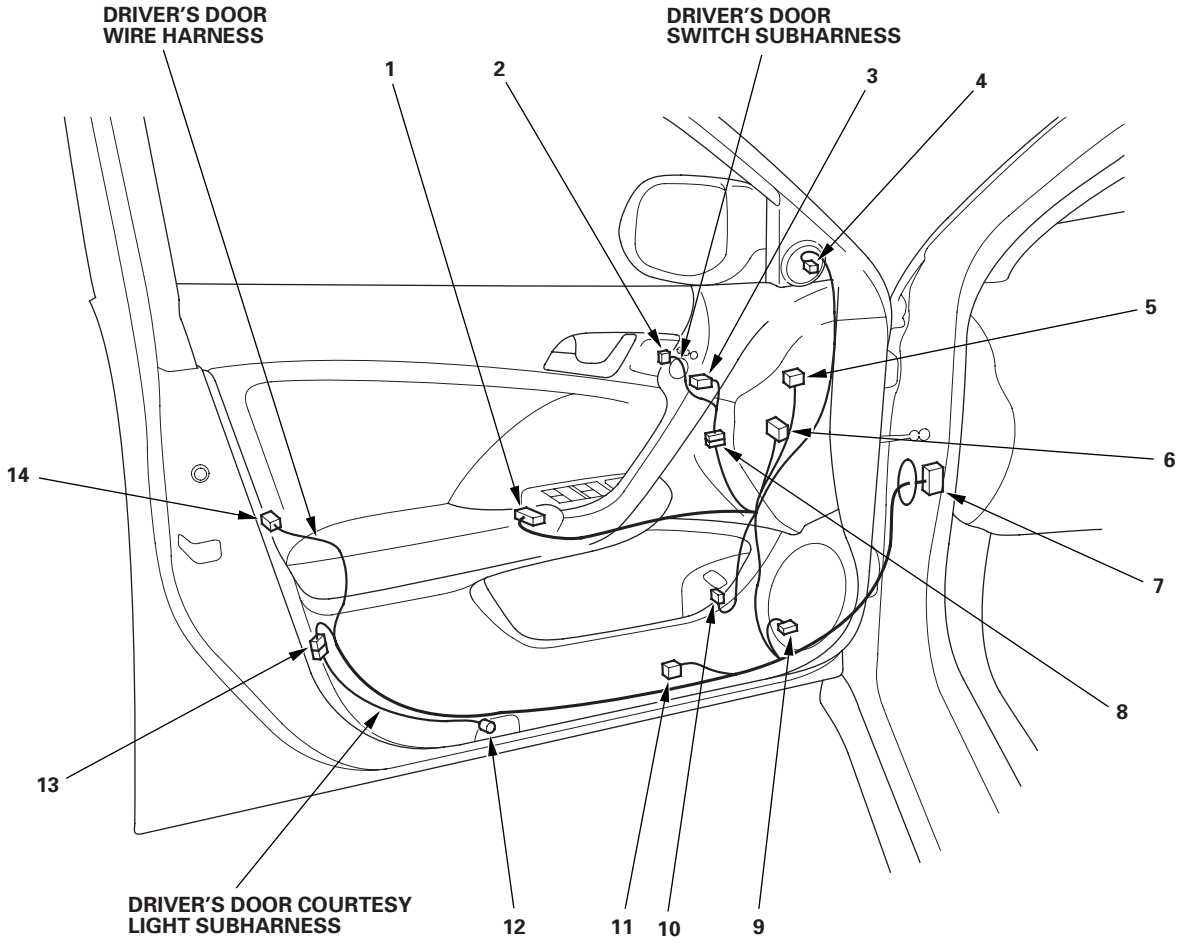
Driver's Door Courtesy Light Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Driver's door courtesy light	12	2	Driver's door		
C752	13	2	Driver's door	Driver's door wire harness	

Driver's Door Switch Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Driving position memory switch	2	7	Driver's door		
Power mirror switch	3	13	Driver's door		
C753	8	20	Driver's door	Driver's door wire harness	

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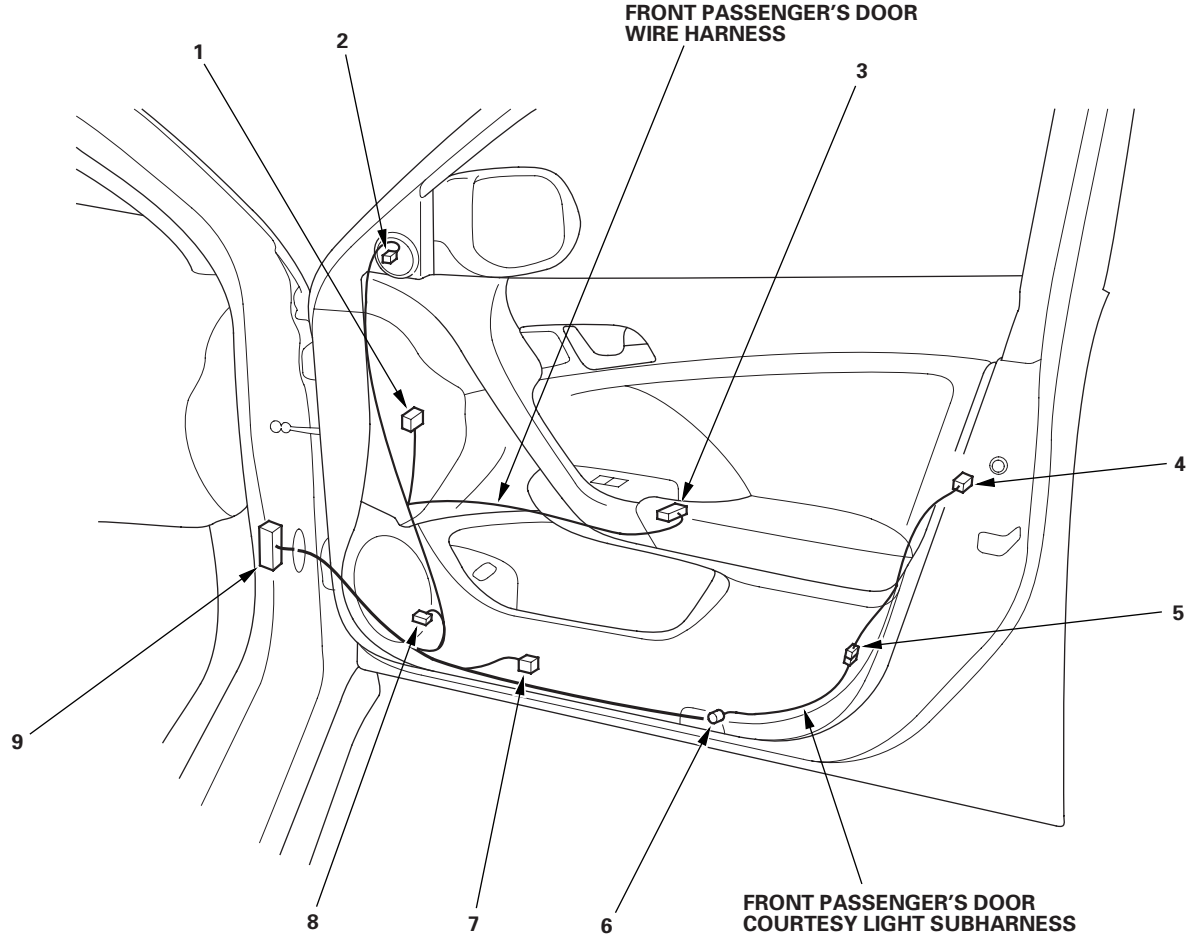
Connector to Harness Index (cont'd)

Front Passenger's Door Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Front passenger's door lock actuator/ knob switch	4	10	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 front tweeter	2	2	Front passenger's door		
Right power mirror	1	13	Front passenger's door		
C761	9	23	Under right side of dash	Dashboard wire harness (View of middle to passenger's side) (see page 22-38)	
C762	5	2	Front passenger's door	Front passenger's door courtesy light subharness	

Front Passenger's Door Courtesy Light Subharness

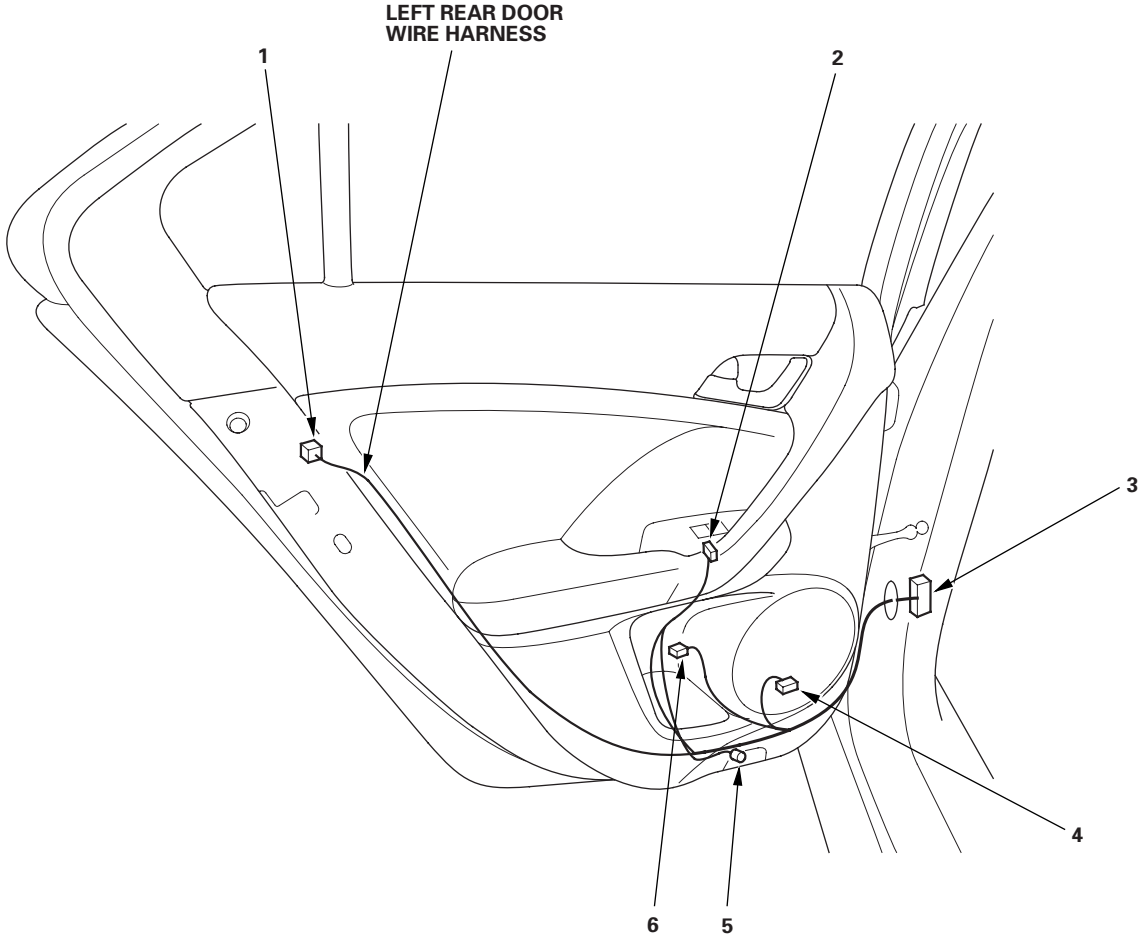
Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Front passenger's door courtesy light	6	2	Front passenger's door		
C762	5	2	Front passenger's door	Front passenger's door wire harness	



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Left Rear Door Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Left rear door courtesy light	5	2	Left rear door		
Left rear door lock actuator/knob switch	1	10	Left rear door		
Left rear power window motor	6	2	Left rear door		
Left rear power window switch	2	14	Left rear door		
Left rear speaker	4	2	Left rear door		
C771	3	18	Left B-pillar	Left side wire harness (see page 22-44)	

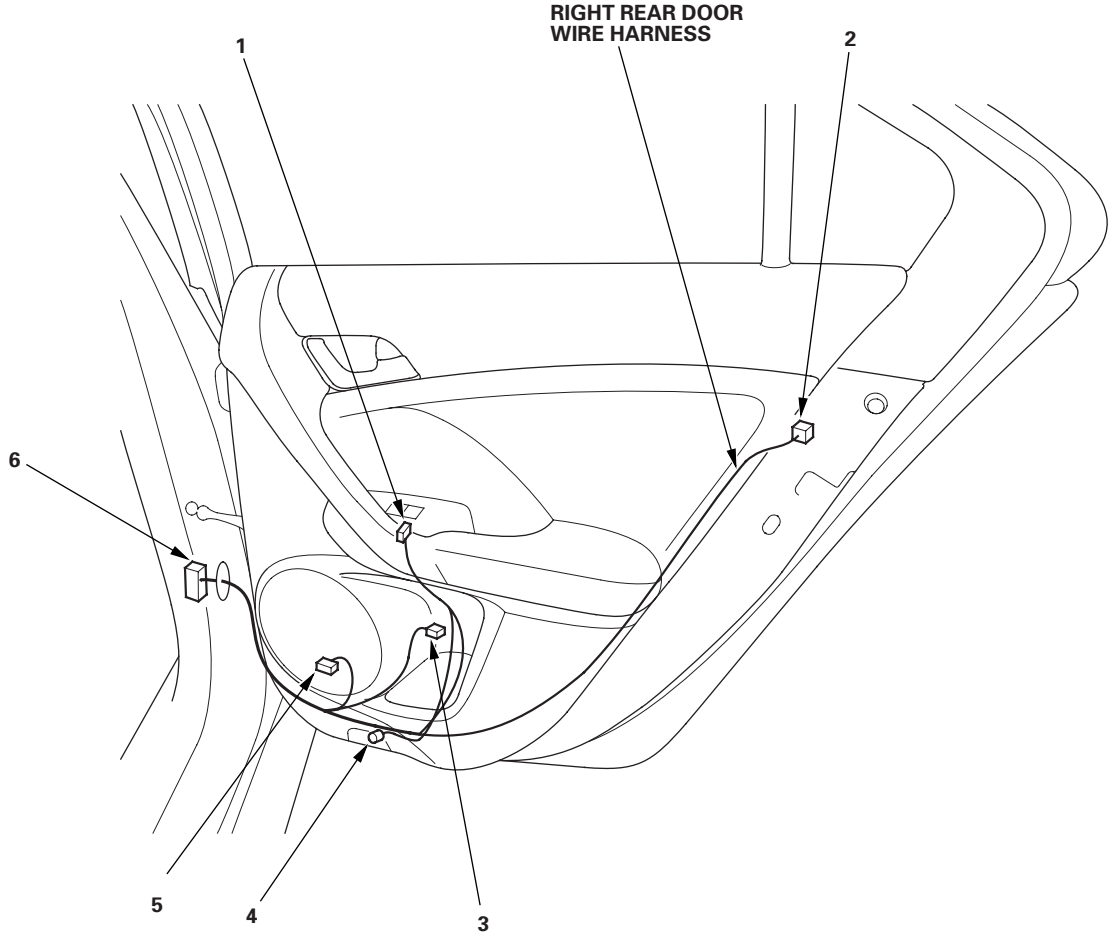


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Connector to Harness Index (cont'd)

Right Rear Door Courtesy Wire Harness

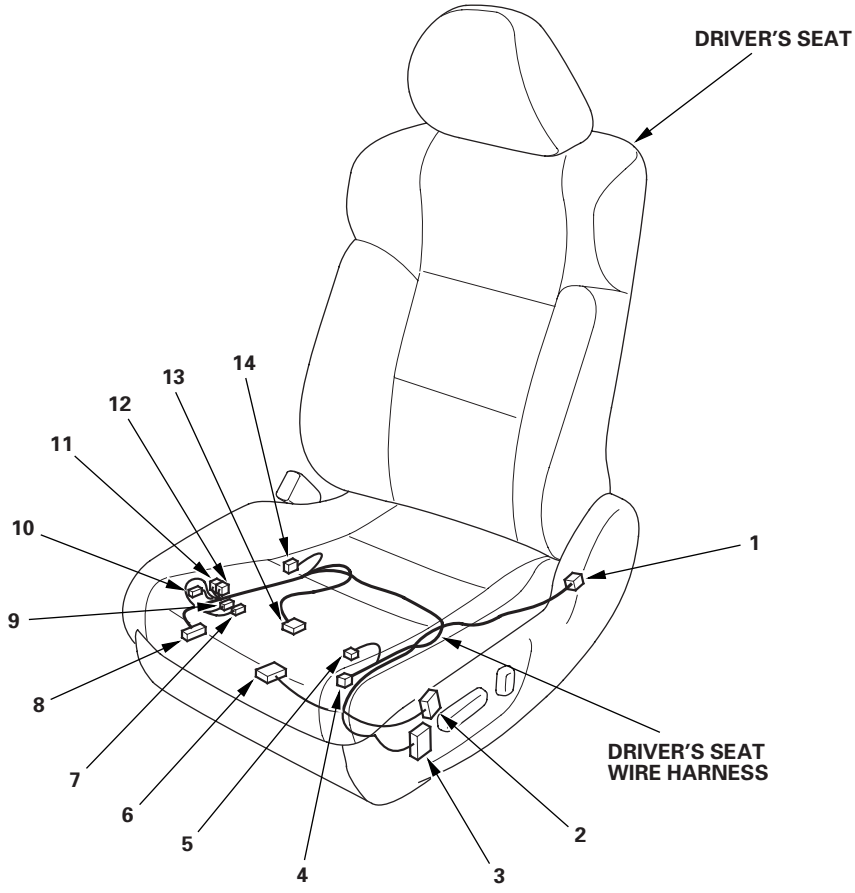
Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Right rear door courtesy light	4	2	Right rear door		
Right rear door lock actuator/knob switch	2	10	Right rear door		
Right rear power window motor	3	2	Right rear door		
Right rear power window switch	1	14	Right rear door		
Right rear speaker	5	2	Right rear door		
C781	6	18	Right B-pillar	Right side wire harness (see page 22-48)	



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Driver's Seat Wire Harness (With DPMS)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Driver's power seat adjustment switch	3	12	Left side of driver's seat		
Driver's seat back heater	9	2	Driver's seat		
Driver's seat belt buckle switch	10	2	Driver's seat		
Driver's seat cushion heater	7	4	Driver's seat		
Driver's seat front up-down motor/ positon sensor	14	5	Driver's seat		
Driver's seat heater relay (high)	12	4	Driver's seat		
Driver's seat heater relay (low)	11	5	Driver's seat		
Driver's seat position sensor	1	5	Driver's seat		
Driver's seat rear up-down motor/ positon sensor	2	5	Driver's seat		
Driver's seat recline motor/positon sensor	5	5	Bottom of seat back		
Driver's seat slide motor/positon sensor	13	5	Driver's seat		
Power seat control unit connector A	8	40	Under driver's seat		
Power seat control unit connector B	6	18	Under driver's seat		
C701	4	23	Under driver's seat	SRS floor wire harness (see page 22-46)	

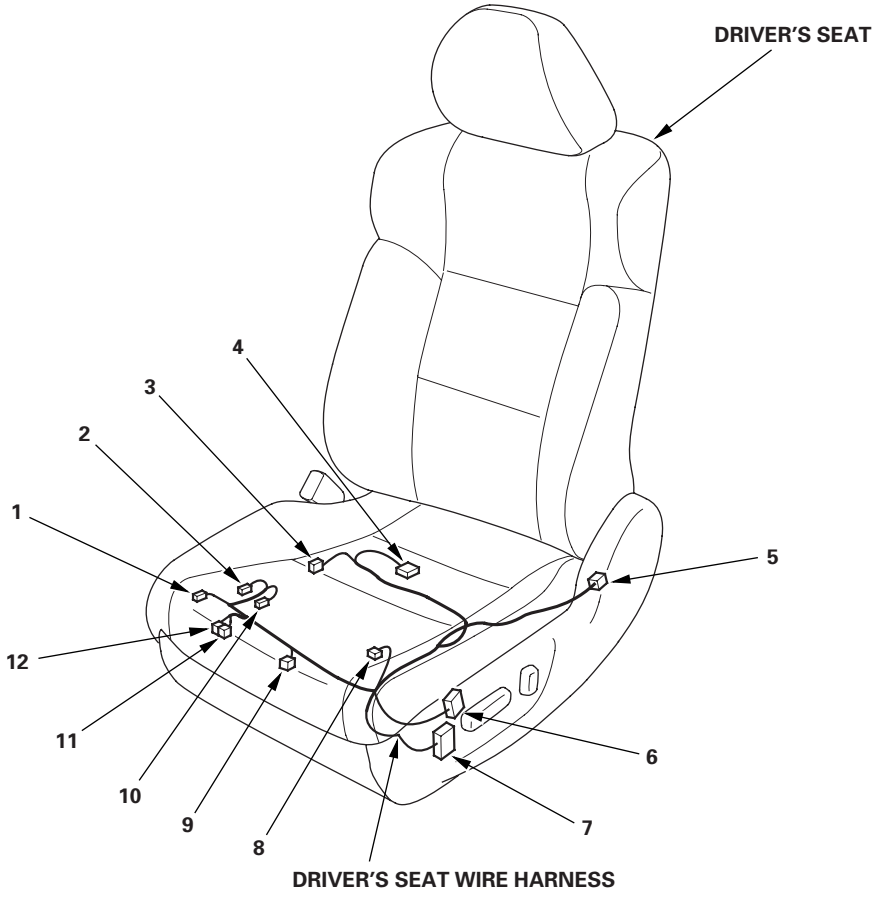


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Connector to Harness Index (cont'd)

Driver's Seat Wire Harness (Without DPMS)

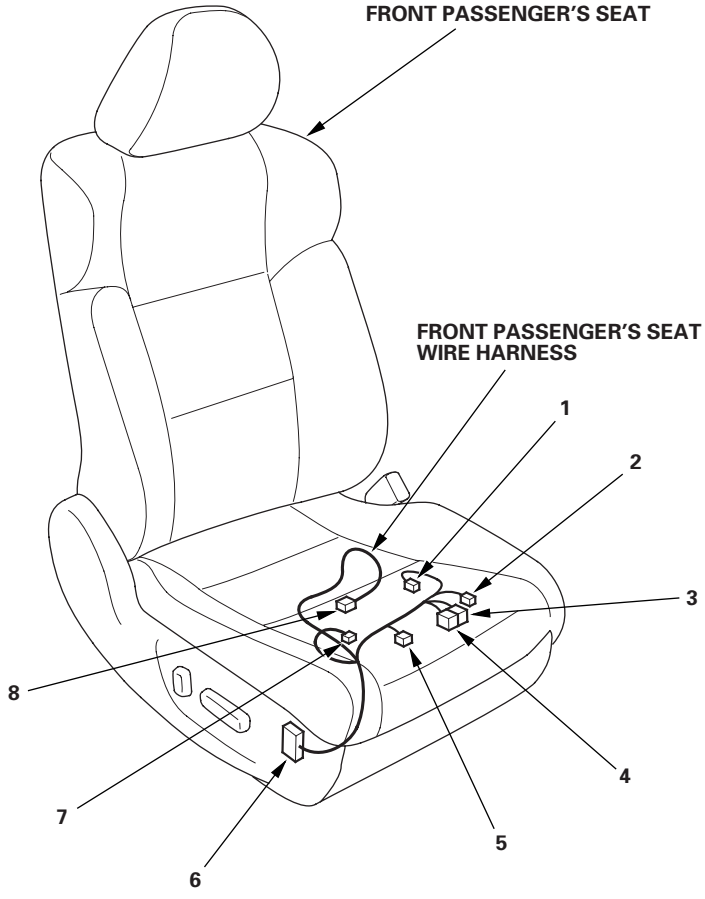
Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Driver's power seat adjustment switch	7	12	Left side of driver's seat		
Driver's seat back heater	10	2	Driver's seat		
Driver's seat belt buckle switch	1	2	Right side of driver's seat		
Driver's seat cushion heater	2	4	Driver's seat		
Driver's seat front up-down motor	3	2	Driver's seat		
Driver's seat heater relay (high)	11	4	Driver's seat		
Driver's seat heater relay (low)	12	5	Driver's seat		
Driver's seat position sensor	5	2	Driver's seat		
Driver's seat rear up-down motor	6	2	Driver's seat		
Driver's seat slide motor	4	5	Driver's seat		
Driver's seat recline motor	8	2	Bottom of seat back		
C701	9	23	Under driver's seat	SRS floor wire harness (see page 22-46)	



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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	6	12	Front passenger's seat		
Front passenger's seat belt buckle switch	2	2	Front passenger's seat		
Front passenger's seat cushion heater	1	4	Front passenger's seat		
Front passenger's seat heater relay (high)	4	4	Front passenger's seat		
Front passenger's seat heater relay (low)	3	5	Front passenger's seat		
Front passenger's seat recline motor	7	2	Front passenger's seat		
Front passenger's seat slide motor	8	5	Front passenger's seat		
C702	5	18	Under front passenger's seat	SRS floor wire harness (see page 22-46)	

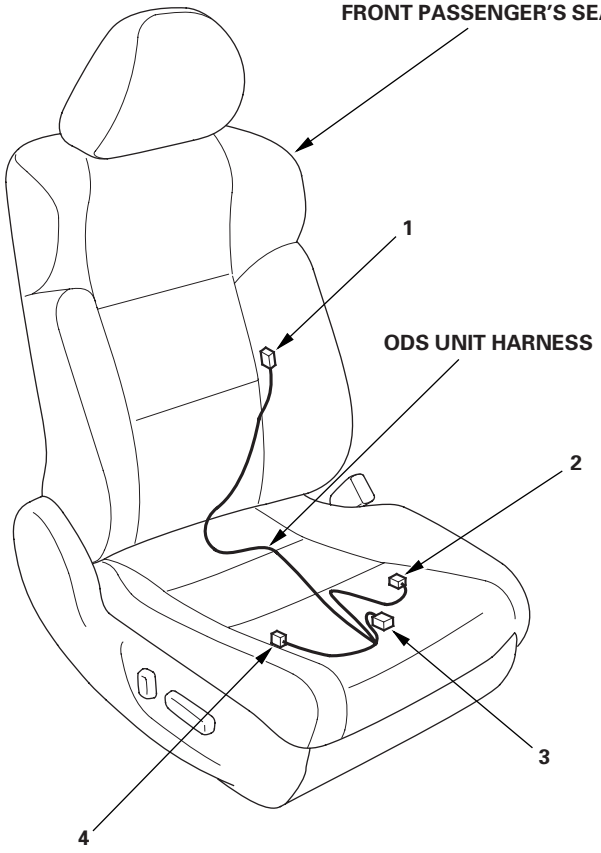


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Connector to Harness Index (cont'd)

ODS Unit Harness

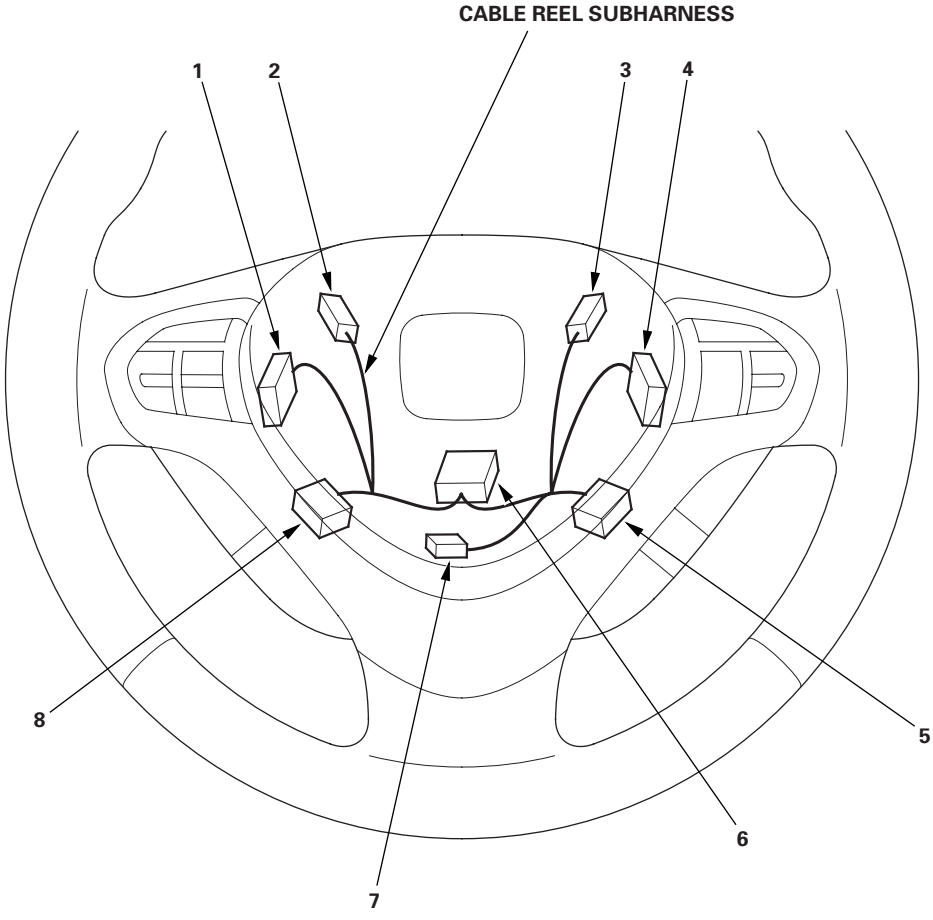
Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Front passenger's seat weight sensor (inner side)	2	4	Front passenger's seat		
Front passenger's seat weight sensor (outer side)	4	4	Front passenger's seat		
ODS unit	1	5	Front passenger's seat		
C703	3	18	Under front passenger's seat	SRS floor wire harness (see page 22-46)	



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Cable Reel Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Audio remote switch	1	12	Steering wheel		
Cable reel connector C	6	20	Steering wheel		
Cruise control set/resume/cancel switch	4	12	Steering wheel		
HFL/Voice control switch	8	7	Steering wheel		
Horn switch	7	2	Steering wheel		
Select/reset/information switch	5	7	Steering wheel		
Paddle shifter+ (Upshift switch)	3	4	Steering wheel		A/T
Paddle shifter− (Downshift switch)	2	4	Steering wheel		A/T

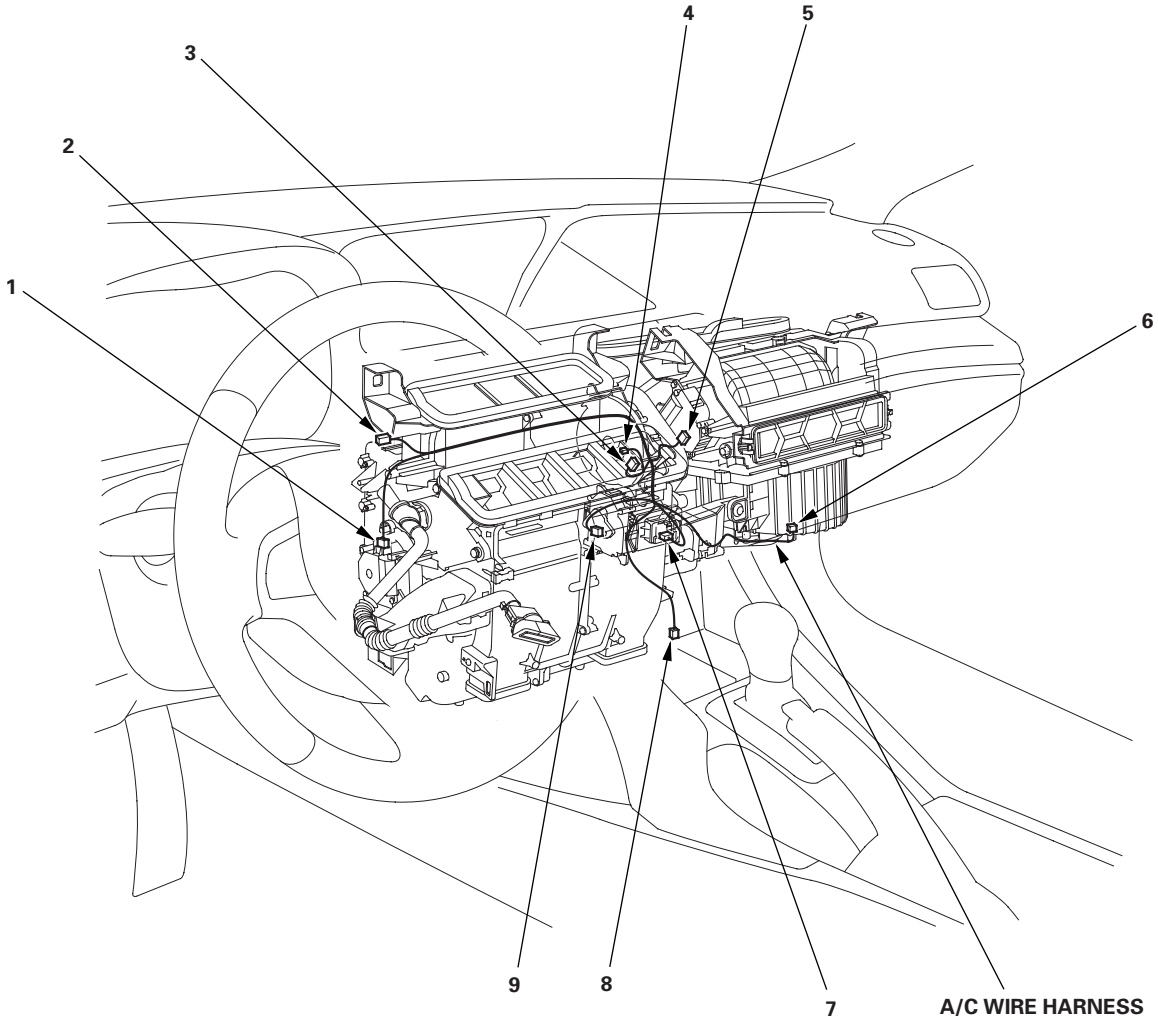


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Connector to Harness Index (cont'd)

A/C Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Blower motor	6	2	Under right side of dash		
Driver's air mix control motor	1	7	Under middle of dash		
Evaporator temperature sensor	4	2	Under middle of dash		
Mode control motor	3	7	Under middle of dash		
Passenger's air mix control motor	9	7	Under middle of dash		
Power transistor	7	4	Under middle of dash		
Recirculation control motor	5	7	Under middle of dash		
C351	2	2	Under middle of dash	Left engine compartment wire harness (Dashboard branch) (see page 22-28)	
C409	8	20	Under middle of dash	Audio wire harness (with navigation system) (see page 22-40) Audio wire harness (without navigation system) (see page 22-42)	



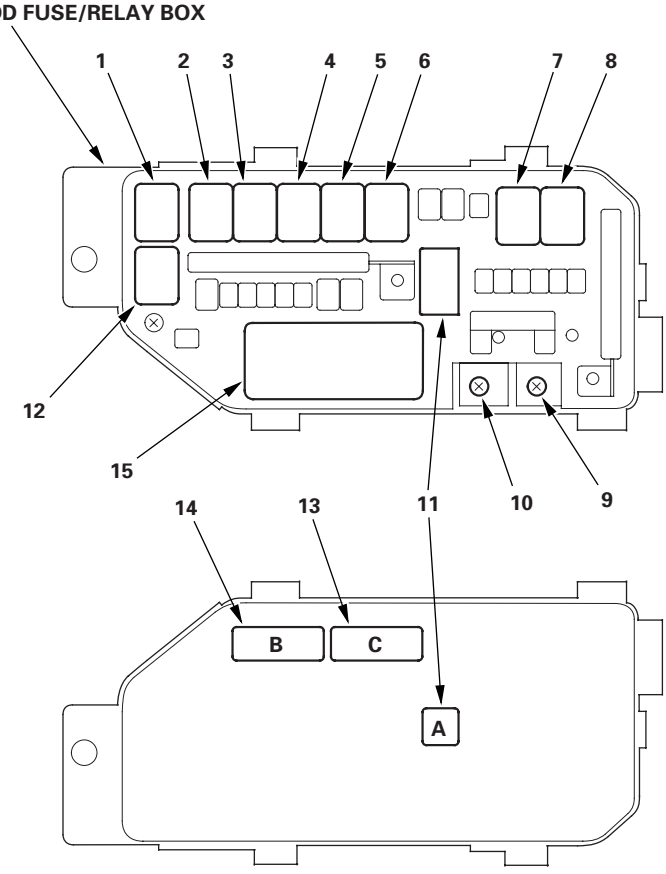
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Connector to Fuse/Relay Box Index

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 22-26)	
A/C compressor clutch relay	12	4		
B	14	14	Left engine compartment wire harness (Engine compartment branch) (see page 22-26)	
Blower motor relay	1	4		
C	13	10	Left engine compartment wire harness (Engine compartment branch) (see page 22-26)	
Electronic throttle control system (ETCS) control relay	6	4		
Horn relay	2	4		
Ignition coil relay	5	4		
PGM-FI main relay 1 (FI MAIN)	3	4		
PGM-FI subrelay	4	4		
Radiator fan relay	7	4		
Rear window defogger relay	8	4		
Relay circuit board	15		Connector B (14P) and C (10P)	
T101	9	——	Starter subharness (see page 22-19)	
T102	10	——	Starter subharness (see page 22-19)	

UNDER-HOOD FUSE/RELAY BOX



View of front side

View of back side

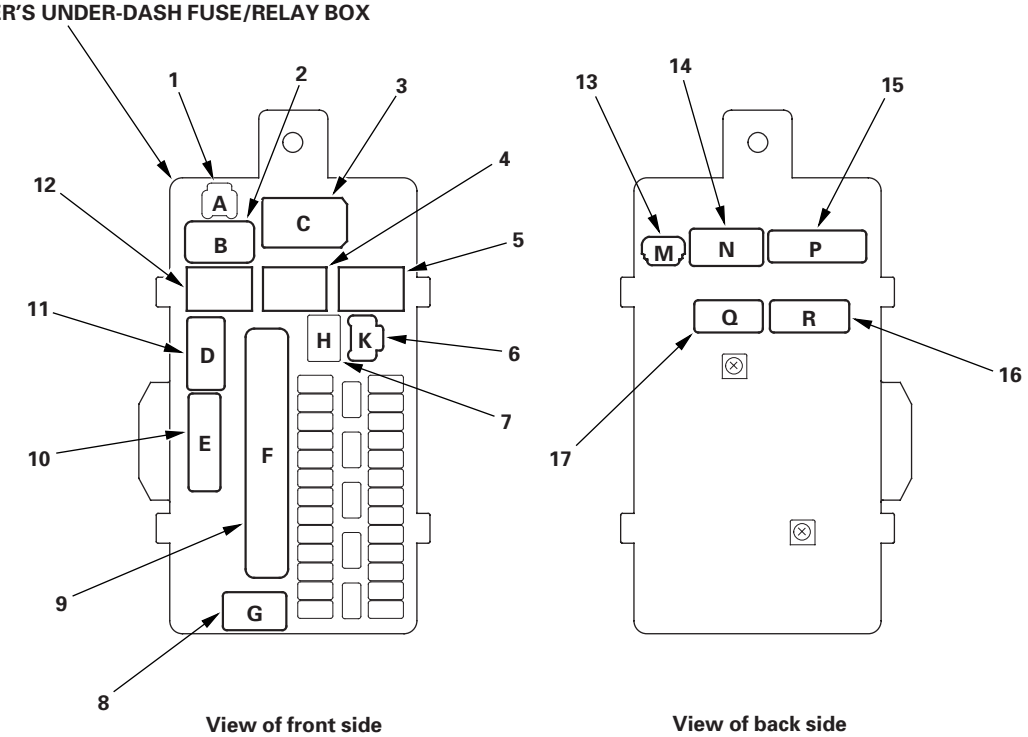
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Connector to Fuse/Relay Box Index (cont'd)

Driver's Under-dash Fuse/Relay Box

Socket	Ref	Terminal	Connects to	Notes
A	1	———	Not used	
B	2	2	Dashboard wire harness (View of driver's side) (see page 22-33)	
C	3	5	Dashboard wire harness (View of driver's side) (see page 22-33)	
D	11	16	Left side wire harness (see page 22-44)	
E	10	20	Left side wire harness (see page 22-44)	
F	9	33	Left engine compartment wire harness (Dashboard branch) (see page 22-28)	
Front accessory power socket relay	4	4		
G	8	13	Left engine compartment wire harness (Dashboard branch) (see page 22-28)	
H (optional connector)	7	10		
K (MICU service check connector)	6	2		
M	13	2	Dashboard wire harness (see page 22-33)	
N	14	16	Dashboard wire harness (see page 22-33)	
P	15	20	Dashboard wire harness (see page 22-33)	
PGM-FI main relay 2 (FUEL PUMP)	12	4		
Q	17	20	Dashboard wire harness (see page 22-33)	
R	16	24	Dashboard wire harness (see page 22-33)	
Starter cut relay	5	4		

DRIVER'S UNDER-DASH FUSE/RELAY BOX



View of front side

View of back side

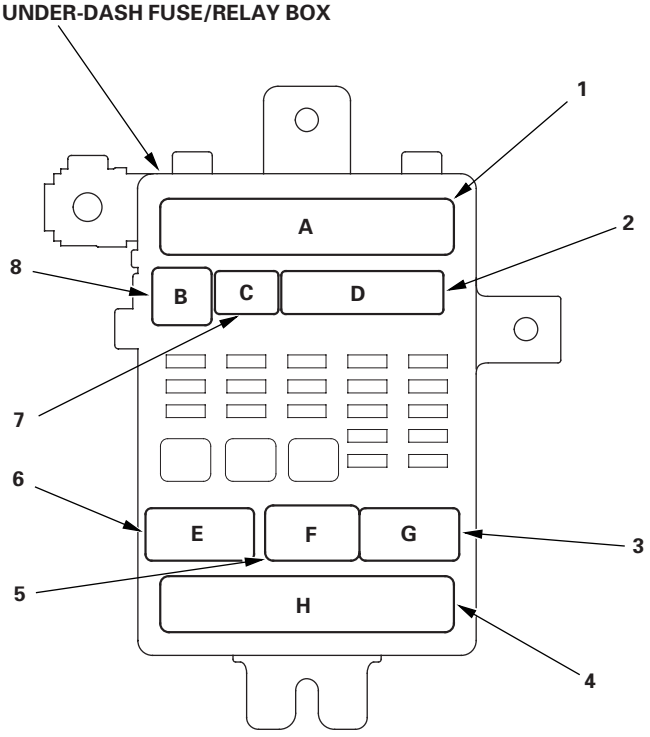
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Passenger's Under-dash Fuse/Relay Box

Socket	Ref	Terminal	Connects to	Notes
A	1	38	Dashboard wire harness (View of middle to passenger's side) (see page 22-38)	
B	8	1	Dashboard wire harness (View of middle to passenger's side) (see page 22-38)	
C	7	12	Dashboard wire harness (View of middle to passenger's side) (see page 22-38)	
D	2	28	Audio wire harness (With navigation system) (see page 22-40)	* 1
			Audio wire harness (Without navigation system) (see page 22-42)	* 2
E	6	18	Right engine compartment wire harness (Dashboard branch) (see page 22-32)	
F	5	2	Not used	
G	3	16	Not used	
H	4	38	Right side wire harness (see page 22-48)	

* 1: With navigation
* 2: Without navigation

PASSENGER'S UNDER-DASH FUSE/RELAY BOX



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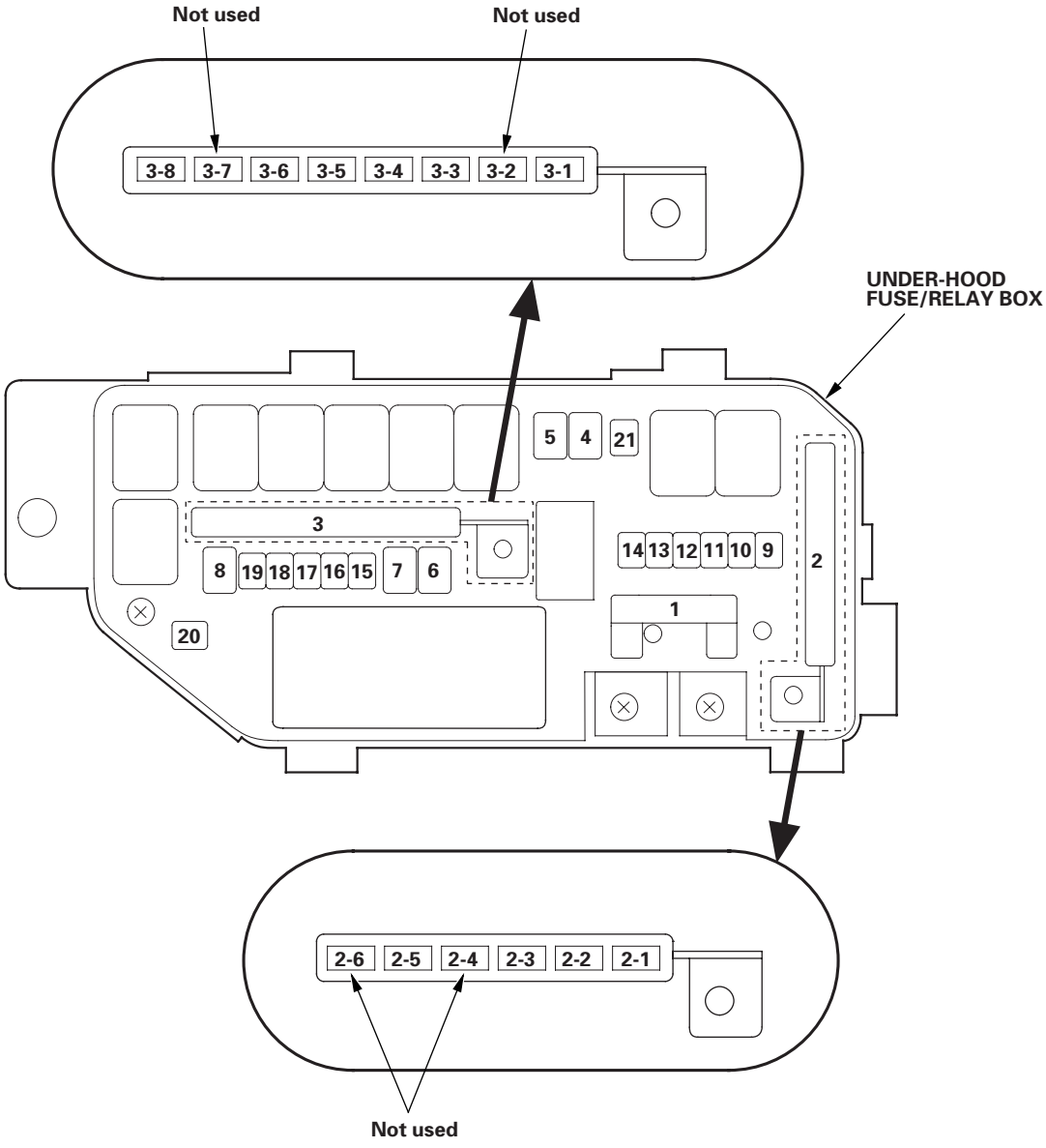
Fuse to Components Index

Under-hood Fuse/Relay Box

Fuse Number			Amps	Component(s) or Circuit(s) Protected
1		MAIN	100 A	Battery, Power supply
		AS F/B	40 A	No. 8, No. 9, No. 10, No. 11, No. 12 and No. 13 fuse in the passenger's under-dash fuse/relay box
2	2-1	EPS	70 A	EPS control unit
	2-2	AS F/B OP	40 A	No. 14, No. 15, No. 16, No. 18 and No. 19 fuse in the passenger's under-dash fuse/relay box
	2-3	VSA FSR	30 A	VSA modulator-control unit (FSR)
	2-4	———	40 A	Not used
	2-5	VSA MTR	30 A	VSA modulator-control unit (MTR)
	2-6	———	30 A	Not used
3	3-1	IG MAIN	50 A	Ignition switch
	3-2	———	40 A	Not used
	3-3	AS LT MAIN	30 A	No. 1, No. 2, No. 3, No. 4 and No. 5 fuse in the passenger's under-dash fuse/relay box
	3-4	DR F/B	60 A	No. 19, No. 20, No. 21, No. 22, No. 23, No. 24 and No. 25 fuse in the driver's under-dash fuse/relay box
	3-5	DR LT MAIN	30 A	No. 26, No. 27, No. 28, No. 29 and No. 30 fuse in the driver's under-dash fuse/relay box
	3-6	MAIN FAN MTR	30 A	ECM/PCM, Radiator fan, Radiator fan motor
	3-7	———	30 A	Not used
	3-8	WIP MTR	30 A	Driver's MICU, Wiper motor relay circuit, Wiper motor intermittent relay circuit and Wiper motor HI/LOW relay circuit in the relay circuit board, Wiper motor
4			40 A	Condensers, Rear window defogger relay, Rear window defogger
5			20 A	A/C condenser fan relay circuit in the relay circuit board, A/C condenser fan motor
6			———	Not used
7			———	Not used
8			40 A	Blower motor relay, Blower motor
9			15 A	Driver's MICU, Hazard warning switch
10			10 A	Driver's under-dash fuse/relay box, Horn relay, Horns
11			———	Not used
12			15 A	Brake pedal position switch
13			15 A	Ignition coil relay, Ignition coils
14			15 A	A/F sensor, ECM/PCM (SUBRLY), PGM-FI subrelay
15			10 A	AcuraLink control unit *3 and AcuraLink control unit (XM receiver) *3, Audio/Navigation switch panel, Audio unit, Audio-HVAC display unit *2, Data link connector (DLC), Driver's door courtesy light, Driver's MICU, Front passenger's door courtesy light, Gauge control module, HandsFreeLink control unit *1, HFL/navigation microphone *1, Immobilizer-keyless control unit, Navigation display unit *1, Navigation unit *1, Passenger's MICU, Power window master switch, Power seat control unit
16			7.5 A	Ceiling light, Ignition key light, Individual map light, Left rear door courtesy light, Right rear door courtesy light, Trunk light, Vanity mirror lights
17			15 A	CKP sensor, CMP sensor B, ECM/PCM (ETCSRLY), ECM/PCM (IGP), ECM/PCM (IMOFPR), ECM/PCM (MRLY), ETCS control relay, Injectors, MAF sensor, PGM-FI main relay 1 (FI MAIN), PGM-FI main relay 2 (FUEL PUMP)
18			15 A	ECM/PCM (VBETCS), ETCS control relay
19			———	Not used
20			7.5 A	A/C compressor clutch relay, A/C compressor clutch
21			7.5 A	A/C condenser fan relay circuit, ECM/PCM

* 1: With navigation system
* 2: Without navigation system
* 3: USA models with navigation

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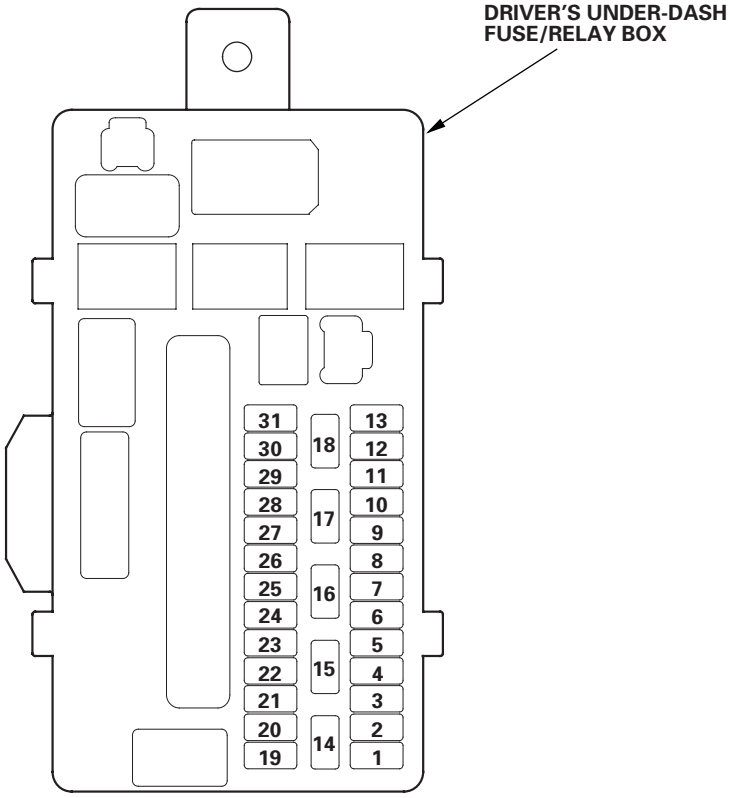
Fuse to Components Index (cont'd)

Driver's Under-dash Fuse/Relay Box

Fuse Number	Amps	Component(s) or Circuit(s) Protected
1	———	Not used
2	7.5 A	Power seat control unit
3	15 A	Passenger's MICU, Passenger's under-dash fuse/relay box, Windshield washer motor, Windshield washer relay circuit
4	10 A	Relay circuit board, Wiper motor relay circuit
5	7.5 A	AcuraLink control unit (XM receiver) *1, Automatic dimming inside mirror, Back-up lights, Back-up light switch *2, Driver's MICU, Electrical compass unit *5, Gauge control module, Navigation unit *4, Passenger's MICU, Passenger's under-dash fuse/relay box, PCM *3, Reverse relay circuit *3, Shift lock solenoid *3, TPMS control unit, Transmission range switch (R) *3
6	7.5 A	EPS control unit, VSA modulator-control unit, Yaw rate-lateral acceleration sensor
7	15 A	Alternator, Brake pedal position switch, CMP sensor A, ECM/PCM, Electrical load detector (ELD), Engine mount control solenoid valve, EVAP canister purge valve, Reverse lockout solenoid valve *2, Secondary HO2S
8 *6	7.5 A	Not used
9	20 A	ECM/PCM, Fuel pump, Immobilizer-keyless control unit, PGM-FI main relay 2
10 *3	10 A	ECM/PCM (VBSOL)
11	10 A	SRS unit
12	7.5 A	Front passenger's airbag cutoff indicator, ODS unit, SRS unit
13	———	Not used
14	———	Not used
15	7.5 A	Driver's MICU (With daytime running light)
16	7.5 A	A/C Compressor clutch relay, Audio-HVAC subdisplay unit *5, Audio-Navigation switch panel, Blower motor relay, Climate control unit, Door multiplex control unit (Power window master switch), Driver's MICU, Driver's seat heater switch, ECM/PCM, Fan control relay circuit, Front passenger's seat heater switch, Power mirror switch, Radiator fan relay, Rear window defogger relay, Relay circuit board, Under-hood fuse/relay box
17	7.5 A	Driver's MICU
18	7.5 A	AcuraLink control unit *1, Audio unit *5, Console accessory power socket relay, Front accessory power socket relay, HandsFreeLink control unit, Interface dial, HFL-Navigation microphone *4, Key interlock solenoid *3, Navigation display unit *4, Navigation unit *4, Passenger's under-dash fuse/relay box
19	20 A	Front up-down motor, Power seat control unit *7, Slide motor *8
20	20 A	Moonroof control unit/motor
21	20 A	Power seat control unit
22	20 A	Driver's MICU, Left rear power window relay circuit, Left rear power window switch
23	20 A	Front accessory power socket relay, Front accessory power socket
24	20 A	Power window master switch (Door multiplex control unit)
25	15 A	Diode (for trunk lid release actuator), Driver's door lock actuator, Driver's MICU, Fuel fill door lock actuator, 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, Fog light relay circuit, Left fog light
27	10 A	Driver's MICU, Left front parking/side marker light, Left taillight, License plate lights, Right taillight, Taillight relay circuit
28	10 A	Driver's MICU (H/L HI)
29	10 A	TPMS control unit
30	15 A	Driver's MICU (H/L LO)
31	———	Not used

* 1: USA model with navigation
* 2: M/T
* 3: A/T
* 4: With navigation
* 5: Without navigation
* 6: This fuse is not used.
* 7: With DPMS
* 8: Without DPMS

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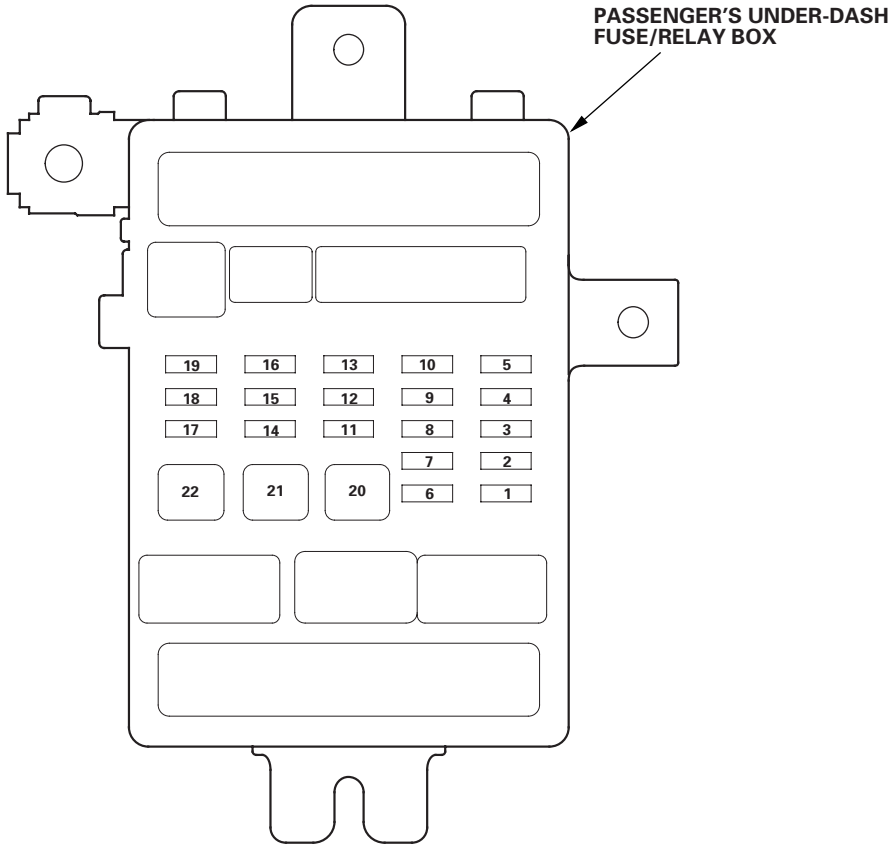
Fuse to Components Index (cont'd)

Passenger's Under-dash Fuse/Relay Box

Fuse Number	Amps	Component(s) or Circuit(s) Protected
1	10 A	Passenger's MICU (RIGHT H/L HI)
2	10 A	Passenger's MICU, Taillight relay circuit *1, Right front parking/side marker light
3	10 A	Passenger's MICU, Fog light relay circuit, Right fog light
4	15 A	Passenger's MICU (RIGHT H/L LO)
5 *4	10 A	Not used
6	7.5 A	A/T gear position indicator panel light, Ambient light, Audio-Navigation switch panel, Audio-HVAC display unit *3, Center pocket light *3, Climate control unit light, 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, HomeLink unit, Moonroof switch light, Navigation display unit *2, Navigation unit *2, Steering wheel switch lights, VSA OFF switch light
7	———	Not used
8	20 A	Front passenger's power recline seat motor
9	20 A	Front passenger's power slide seat motor
10	10 A	Front passenger's door lock actuator, Power door lock relay circuit (LOCK), Power door lock relay circuit (UNLOCK), Passenger's MICU, Right rear door lock actuator
11	20 A	Right rear power window relay circuit, Passenger's MICU, Right rear power window switch
12	20 A	Console accessory power socket, Console accessory power socket relay
13	20 A	Front passenger's power window switch
14	———	Not used
15	20 A	Stereo amplifier
16	———	Not used
17	———	Not used
18 *4	10 A	Not used
19	20 A	Driver's seat heater, Front passenger's seat heater
20	———	Not used
21	———	Not used
22	———	Not used

* 1: Without automatic lighting system
* 2: With navigation
* 3: Without navigation
* 4: This fuse is not used.

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Ground Distribution

Ground to Components Index

Ground	Component or circuit grounded
G1	Battery
G2	Engine
G3	Transmission housing
G4	Transmission housing
G101	A/T clutch pressure control solenoid valve A, B, C, ECM/PCM (PG1), ECM/PCM (LG2), Rocker arm oil pressure switch, Transmission range switch, VTEC solenoid valve, VTC oil control solenoid valve
G102	Ignition coils
G201	Headlight washer level switch, Headlight washer motor, Passenger's MICU (PG), Passenger's MICU (SG), Right fog light, Right front parking light/Right front side marker light, Right front turn signal light, Right headlight (High), Right headlight (Low) (Without HID), Right headlight (Low) (With HID)
G202	VSA modulator-control unit
G203	EPS control unit
G301	A/C condenser fan motor, Blower motor relay, Electrical load detector (ELD), Fan control relay circuit, Torque sensor, Wiper motor relay circuit, Wiper intermittent relay circuit
G302	A/C Power transistor, Answer back buzzer, Brake fluid level switch, Clutch pedal position switch (for cruise control), Cruise control switch, Hood switch, Left fog light, Left front parking light/Left front side marker light, Left front turn signal light, Left headlight (High), Left headlight (Low) (Without HID), Left headlight (With HID), Torque sensor, Wiper motor
G401	Accessory power socket, Audio-Navigation switch panel *1, Audio unit *2, Audio-HVAC display unit *2, Climate control unit/heater control unit, Glove box light, HandsFreeLink control unit, Interface dial, Stereo amplifier, Trunk lid opener main switch
G501	Automatic dimming inside mirror, Door multiplex control unit (Power window master switch), Driver's seat memory switch, Driver's vanity mirror light, Driver's door lock knob switch/key cylinder switch, Driver's power window motor, Data link connector (DLC), Driver's MICU (SG), Gauge control module, HFL-Navigation microphone *1, HomeLink unit, Individual map light, Left power mirror, Moonroof main switch, MICU service check connector, Power mirror switch, Passenger's vanity mirror light, Steering wheel shift switches, Trunk lid opener switch, VSA OFF switch
G502	Door multiplex control unit (Power window master switch), Driver's MICU (PG), Gauge control module, Moonroof control unit/motor
G503	A/T gear position indicator panel light, Console accessory power socket relay, Driver's power seat heater switch, Front accessory power socket, Ignition key switch, Passenger's seat heater switch, TPMS control unit, Yaw rate-lateral acceleration sensor
G504	SRS unit
G505	Front passenger's door lock knob switch, Front passenger's door lock switch (Built in the front passenger's power window switch), Passenger's MICU (PG), Passenger's MICU (SG), Right power mirror
G601	Driver's door lock actuator, Driver's door lock relay circuit (UNLOCK), Front accessory power socket relay, Fuel fill door lock actuator, Left rear power window switch, Left rear door lock actuator, Left rear door lock knob switch, Left rear power window motor, Left rear power window switch, Power door lock relay circuit (UNLOCK), Power door lock relay circuit (LOCK)
G602	Condenser, High mount brake light
G603	Fuel pump
G651	AcuraLink control unit (XM receiver) *3, AcuraLink control unit *3, Electrical compass unit, Front passenger's door lock actuator, Navigation unit *1, Navigation display unit *1, Power door lock relay circuit (UNLOCK), Power door lock relay circuit (LOCK), Right rear power window switch, Right rear door lock actuator, Right rear door lock knob switch, Right rear power window motor, Stereo amplifier, Windshield washer relay circuit
G701	Driver's power seat control unit, Driver's seat-back heater, Driver's seat heater relay (High), Driver's seat heater relay (Low), Driver's seat belt buckle switch
G702	Front passenger's seat sitting switch, Front passenger's power seat adjustment switch, Front passenger's seat heater relay (High), Front passenger's seat heater relay (Low), Front passenger's seat belt buckle switch, ODS unit
G801	Rear window defogger
G901	Left rear side marker light, Left brake light/taillight, Left rear turn signal light, License plate lights, Left back-up light, Right rear side marker light, Right brake light/taillight, Right back-up light, Right rear turn signal light, Trunk lid latch switch/trunk lid release actuator, Trunk lid outer handle switch

* 1: With navigation
* 2: Without navigation
* 3: USA models with navigation

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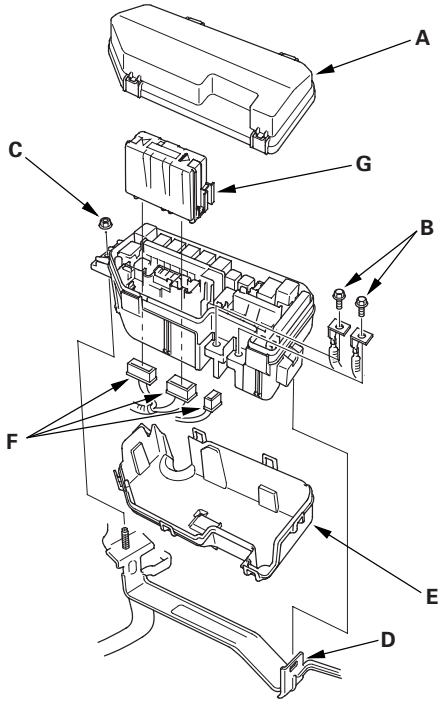
Under-hood Fuse/Relay Box

Removal and Installation

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 22-78).
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), and 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 by prying under the base of the relay.

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

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 22-78).
4. Confirm that all systems work properly.

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

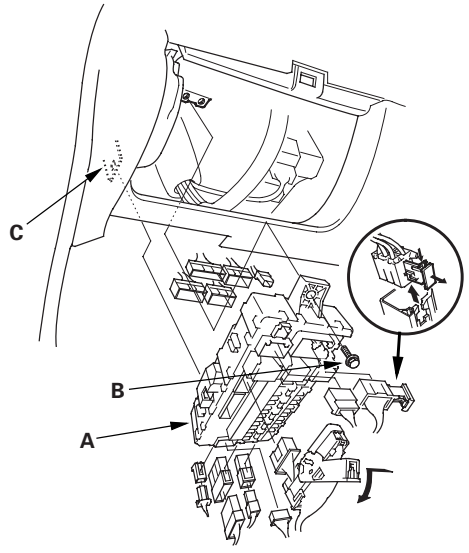
NOTE: SRS components are located in this area. Review the SRS component locations (see page 24-12) and precautions and procedures (see page 24-14) before doing repairs or servicing.

Removal

1. Do the battery terminal disconnection procedure (see page 22-78).

2. Remove the driver's dashboard undercover (see page 20-119), then remove the dashboard lower cover (see page 20-118).

3. Disconnect the connectors from the fuse side of the driver's under-dash fuse/relay box (A).



4. Remove the mounting bolt (B) and release the tab (C), and then pull the driver's under-dash fuse/relay box away from the body.

5. 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.

6. Carefully remove the relays by prying under the base of the relay.

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

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Installation

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 (see page 22-78).

4. Register the immobilizer system with the HDS (see page 22-391).

   NOTE: The imoes unit is built into the driver's MICU which is part of the driver's under-dash fuse/relay box. Because of this construction, the imoes must be registered, or the vehicle will not start.

5. Confirm that all systems work properly.

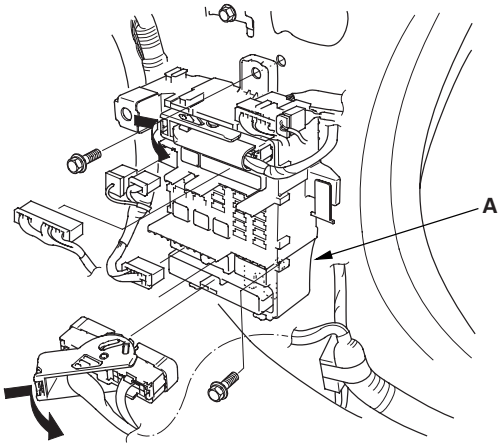
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Passenger's Under-dash Fuse/Relay Box (MICU) Removal/Installation

NOTE: SRS components are located in this area. Review the SRS component locations (see page 24-12), and precautions and procedures (see page 24-14) before doing repairs or servicing.

Removal

1. Do the battery terminal disconnection procedure (see page 22-78).
2. Remove the right kick panel (see page 20-76).
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 22-78).
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.

Required Test Equipment
Honda Electrical System Analyzer (ED-18 Battery tester): T/N INBED18LLH

Ordering Information
To order an Electrical System Analyzer, go to the Honda Tool and Equipment catalog on the iN, or call 888-424-6857.

Software Version
Make sure you have the latest software in the ED-18. To check the virsion on the do this:

- Press the POWER button.
- Select Reports, then press ENTER.
- Select i Version, then press ENTER.

If you do not have the correct version, Tools Hotline at 800-346-6327.

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 rating of the battery. If the number is not entered correctly, the redult will not be accurate.

3. Here are the five possible battery conditions:

   - Good Battery: The battery has at least 60 percent of its charge and requires no action.
   - Good-Recharge: The battery condition appears to be good, but charging is recommended and then retest. See your battery charger's instructions to fully charge the battery, then recheck. Do not charge the battery using the vehicle's alternator.
   - Charge and Retest: The battery condition is not not known because its charge is too low. Recharge the battery, then retest. See your battery's instructions to fully charge the battery, then recheck. Do not charge the battery using the vehicle's alternator.
   - 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 that is lost when the battery is disconnected. Do the following steps before disconnecting the battery.

1. Make sure you have the anti-theft code(s) for the audio and/or the navigation system (if equipped).
2. If you are replacing the audio unit, write down the audio presets (AM and FM), and the XM audio presets (if equipped), because the audio unit does not retain the presets after the battery is disconnected.
3. Make sure the ignition switch is in LOCK (0).
4. Disconnect and isolate the negative cable from the battery.

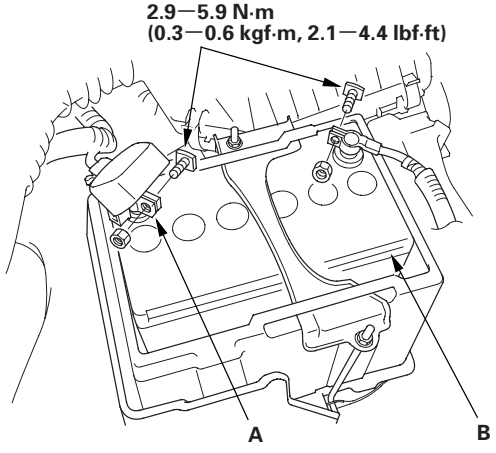
   NOTE: Always disconnect the negative cable from the battery first.
5. Disconnect the positive cable from the battery.

Reconnection

NOTE: Some systems store data in memory that is lost when the battery is disconnected. Do the following steps to restore the systems back to normal operation.

1. Clean the battery terminals.
2. Test the battery (see page 22-77).
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. Enter the anti-theft code(s) for the audio system and/or the navigation system (if equipped).
6. Enter the audio presets (if applicable), and enter the XM audio presets (if equipped).
7. Set the clock (for vehicles without navigation).

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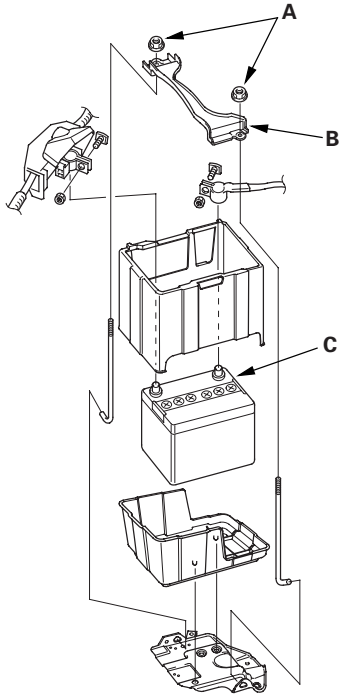
Battery Removal and Installation

NOTE: The battery terminal disconnection/reconnection procedure (see page 22-78) must be done before and after doing this procedure. Some systems store data in memory that is lost when the battery is disconnected.

Removal

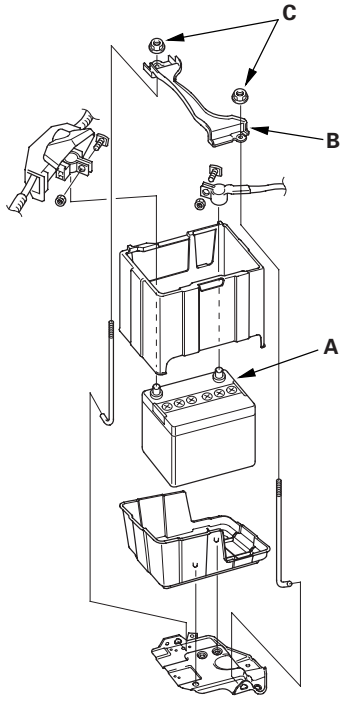
1. Do the battery terminal disconnection procedure (see page 22-78).

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



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. Do the battery terminal reconnection procedure (see page 22-78).

   NOTE: Make sure the positive terminal and the negative terminal are not reverse-connected.

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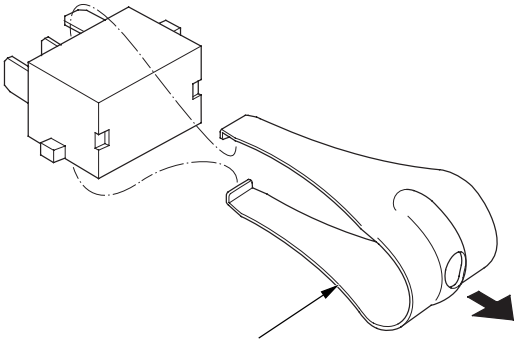
Power Relay Test

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
A/C compressor clutch relay	Normally-open type
Blower motor relay	
Console accessory power socket relay	
ETCS control relay	
Front accessory power socket relay *	
Horn relay	
Ignition coil relay	
PGM-FI main relay 1 (FI MAIN)	
PGM-FI main relay 2 (FUEL PUMP) *	
PGM-FI subrelay	
Radiator fan relay	
Rear window defogger relay	
Seat heater relays (high)	
Starter cut relay *	
Seat heater relay (low)	Five-terminal type

*: Carefully remove the relay from the driver's under-dash fuse/relay box using the relay puller. Do not use pliers. Pliers will damage the relay.

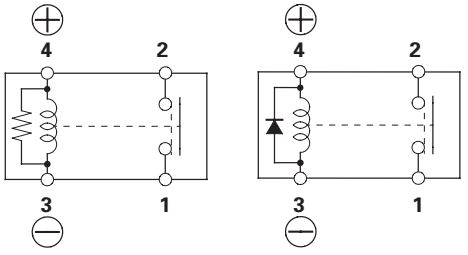


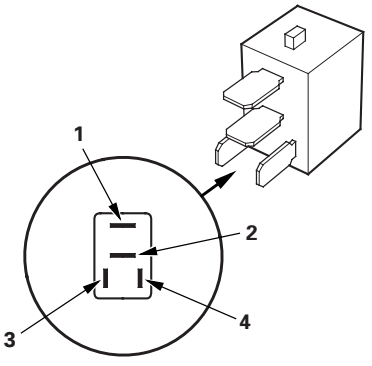
Normally-open Type

Check for continuity between the terminals:

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

Resistance type **Diode type**





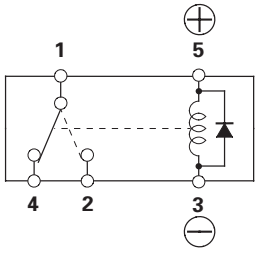
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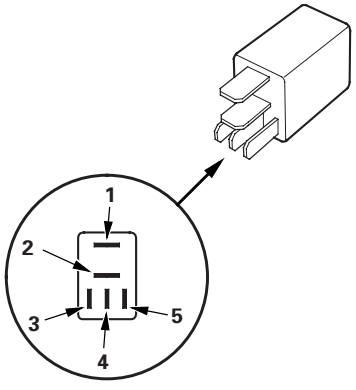
Five-terminal Type

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

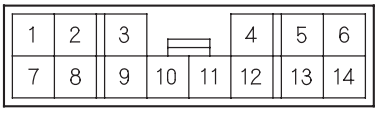
The relay circuit board is part of the under-hood fuse/relay box, and it contains these relays:

- A/C condenser fan relay
- Fan control relay
- Wiper motor relay
- Wiper intermittent relay
- Wiper high/low relay

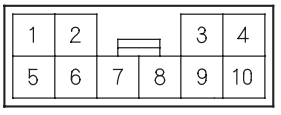
1. Do the battery terminal disconnection procedure (see page 22-78).

2. Disconnect the under-hood fuse/relay box connectors B (14P) and C (10P).

CONNECTOR B (14P)



CONNECTOR C (10P)



(cont'd)

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Power Relay Test (cont'd)

3. Test each relay circuit as shown:

   A/C condenser fan relay:
   There should be continuity between terminals C1 and C4 when battery power is connected to terminal B7 (or B8), and body ground is connected to terminal C10. There should be no continuity between terminals C1 and C4 when power is disconnected.

   Fan control relay circuit test:
   There should be continuity between terminals B1 and B11 when battery power is connected to terminal B2, and body ground is connected to terminal C10. There should be continuity between terminals B11 and B4 when power is disconnected.

   Wiper motor relay circuit test:
   There should be continuity between terminals B3 and B12, and terminals B3 and B14 when battery power is connected to terminal B13, and body ground is connected to terminal B4. There should be no continuity between terminals B3 and B12, and terminals B3 and B14 when power is disconnected.

   Wiper intermittent relay circuit test:
   There should be battery voltage at terminal B6 when battery power is connected to terminals B3 and B13, and body ground is connected to terminals B4 and B14. There should be no voltage at terminal B6 when power is disconnected.

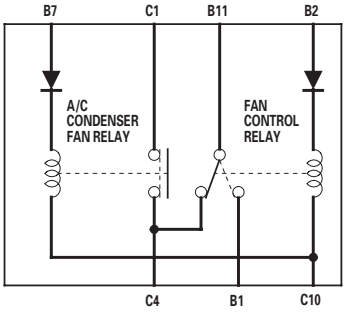
   Wiper high/low relay circuit test:
   There should be battery voltage at the terminal B5 when battery power is connected to terminals B3 and B13, and body ground is connected to terminals B4 and B12. There should be no voltage at terminal B5 when power is disconnected.

4. If any of these relay circuits fail the test, replace the relay circuit board.

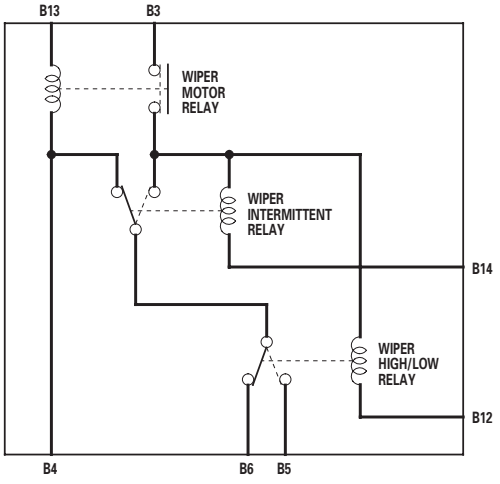
5. Reinstall all removed parts.

6. Do the battery terminal reconnection procedure (see page 22-78).

A/C condenser fan relay, Fan control relay



Wiper motor relay, Wiper intermittent relay, Wiper high/low relay



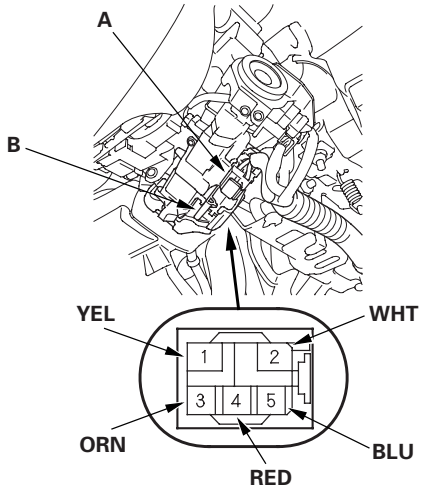
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Ignition Switch

Test

SRS components are located in the area. Review the SRS component locations (see page 24-12), and precautions and procedures (see page 24-14) before doing repairs or servicing.

1. Do the battery terminal disconnection procedure (see page 22-78).
2. Remove the steering column covers (see page 20-132).
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.

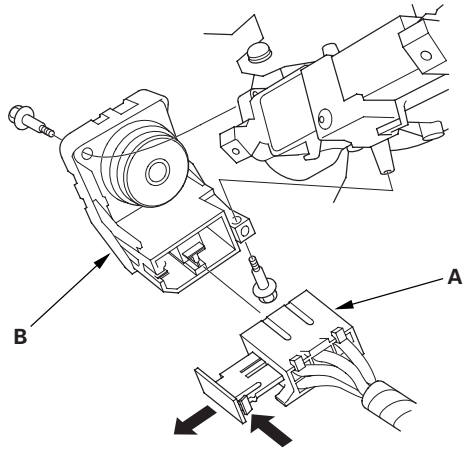
Position \ Terminal	RED (ACC)	WHT (BAT)	BLU (IG1)	ORN (IG2)	YEL (ST)
0 (LOCK)					
I (ACC)	○	○			
II (ON)	○	○	○	○	
III (START)		○	○		○

5. If the continuity is not as specified, replace the ignition switch (see page 22-83).
6. Do the battery terminal reconnection procedure (see page 22-78).

Replacement

SRS components are located in the area. Review the SRS component locations (see page 24-12), and precautions and procedures (see page 24-14) before doing repairs or servicing.

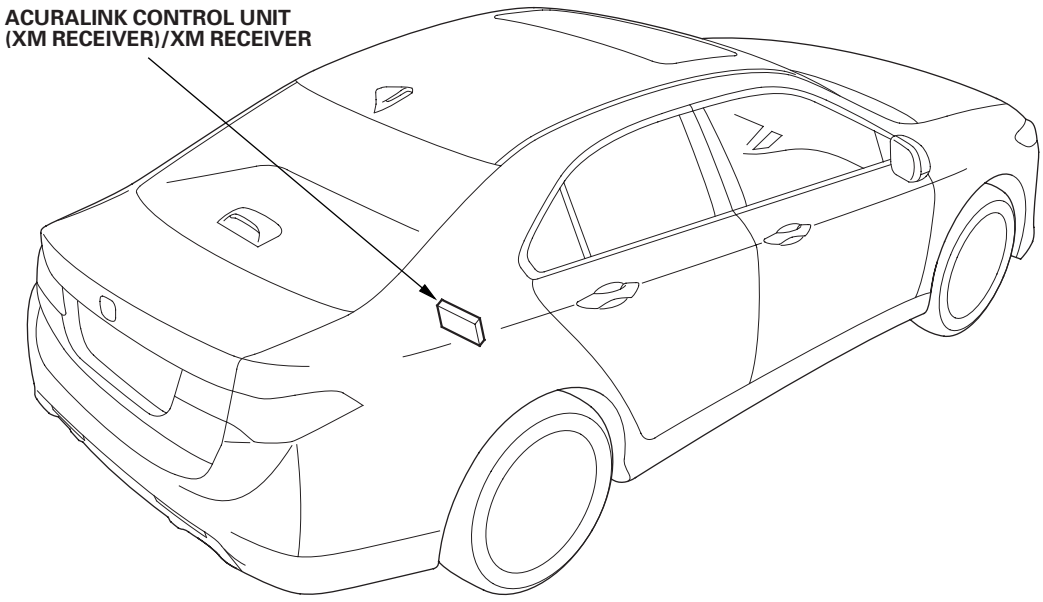
1. Do the battery terminal disconnection procedure (see page 22-78).
2. Remove the steering column covers (see page 20-132).
3. Disconnect the 5P connector (A) from the ignition switch (B).



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 22-78).

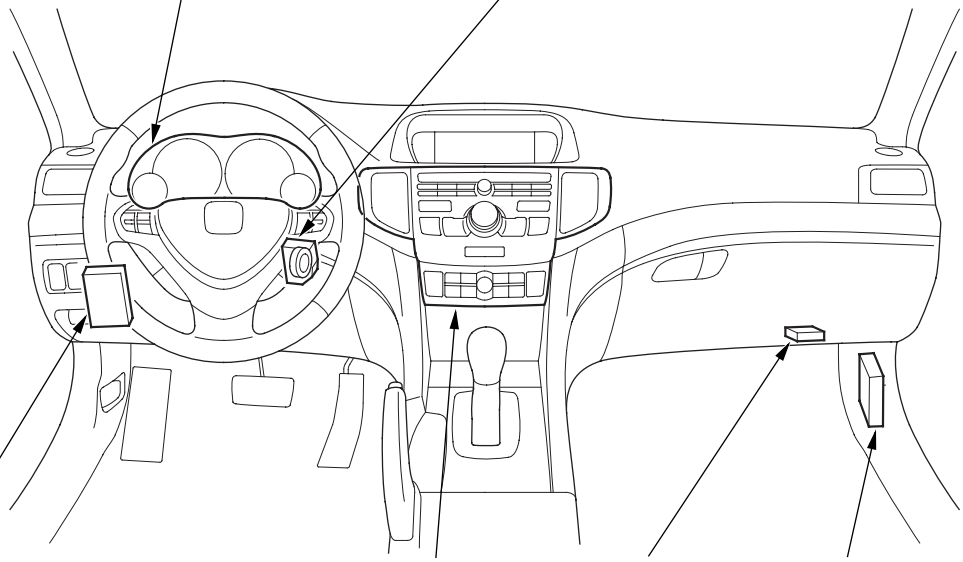
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Component Location Index



GAUGE CONTROL MODULE
Input Test, page 22-309
Replacement, page 22-313

IMMOBILIZER-KEYLESS CONTROL UNIT
(Built-in receiver)
Symptom Troubleshooting, page 22-383
Registration, page 22-391
Input Test, page 22-389
Replacement, page 22-392



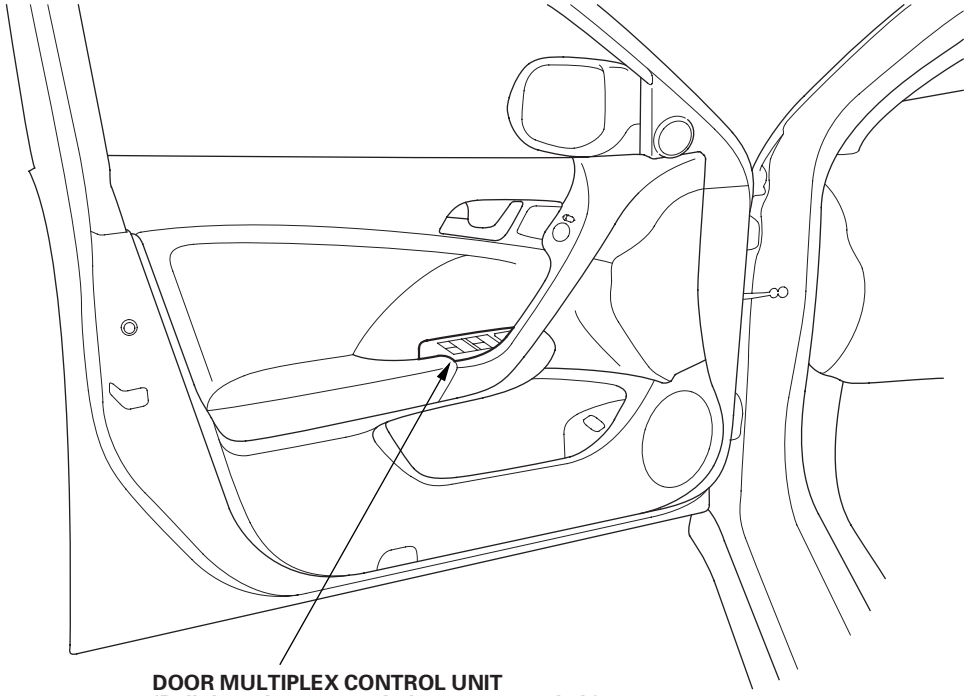
DRIVER'S MICU
(Built into the driver's under-dash fuse/relay box)
Input Test, page 22-128
Replacement, page 22-74

AUDIO UNIT

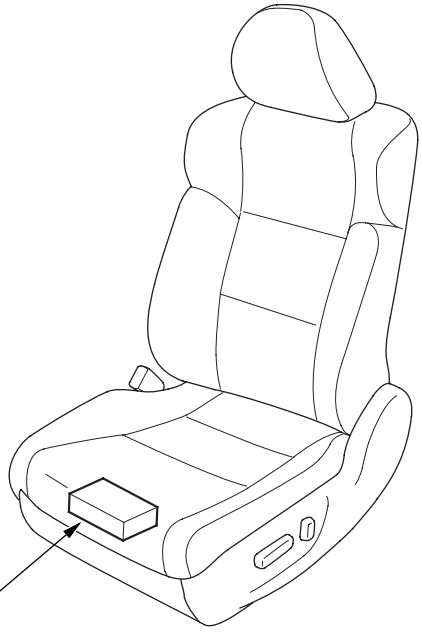
HANDSFREELINK CONTROL UNIT

PASSENGER'S MICU
(Built into the passenger's under-dash fuse/relay box)
Input Test, page 22-128
Replacement, page 22-76

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DOOR MULTIPLEX CONTROL UNIT
(Built into the power window master switch)
Input Test, page 22-257
Replacement, page 22-268



POWER SEAT CONTROL UNIT
Input Test/Replacement, page 22-425

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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)

1. Go to B-CAN System Diagnosis Test Mode A to check for ''Connected units'' and DTCs (see page 22-110).
2. If no DTCs are retrieved, go to B-CAN System Diagnosis Test Mode C (see page 22-113) or D (see page 22-114).

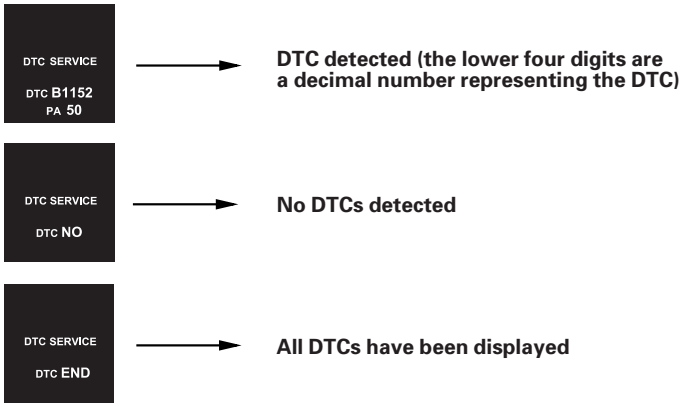
Using the B-CAN System Diagnosis Test Mode 1 (Use only if the HDS is unavailable) (see page 22-115).

1. Check for communication circuit problems using B-CAN System Diagnostic Test Mode 1 (see page 22-115).
2. Check for DTCs.
3. Sort, 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.
   - 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 22-115).

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How to display DTCs on the gauge control module

Enter the B-CAN System Diagnosis Test Mode 1 (see page 22-115). While in Test Mode 1, 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 when the communication between the MICU and the gauge control module is normal. To scroll through the DTCs, press the select/reset switch.



The unit that has stored the code can be identified by the number shown on the odometer display.

Control Unit	Control Unit I.D. Number
Driver's MICU	13
Passenger's MICU	14
Door multiplex control unit	30
Gauge control module	50
Climate control unit	51
HandsFreeLink control unit	94
Power seat control unit	95
Immobilizer-keyless control unit	96
AcuraLink control unit	97

How to clear DTCs

Enter the B-CAN System Diagnosis Test Mode 1 (see page 22-115). While in Test Mode 1, press and hold down the SELECT/RESET switch for more than 10 seconds to clear the DTCs.

(cont'd)

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General Troubleshooting Information (cont'd)

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

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								
	Drive's MICU	Passenger's MICU	Gauge control module	Door multiplex control unit	Immobilizer-keyless 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
ECU (EEPROM) Error	B10A2	B11A2	B1152						

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	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
Passenger's MICU	U1283	TX	U1283	U1283					
Gauge control module	U0155	U0155	TX	U0155	U0155	U0155	U0155		U0155
Door multiplex control unit	U0199			TX	U0199				
Climate control unit				U0164		TX			
ECM/PCM			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 DTC troubleshooting index, 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 (EEPROM) error	Internal error	(see page 22-120)
B10CF	Left daytime running lights circuit malfunction	Signal error	(see page 22-181)
B1036	Driver's MICU IG1 line input error	Signal error	(see page 22-121)
B1077	Wiper Auto-stop (As) signal circuit malfunction	Signal error	(see page 22-274)
B1275	Combination light switch OFF position circuit malfunction	Signal error	(see page 22-185)
B1276	Combination light switch parking (SMALL) position circuit malfunction	Signal error	(see page 22-185)
B1277	Combination light switch AUTO position circuit malfunction	Signal error	(see page 22-185)
B1278	Combination light switch ON position circuit malfunction	Signal error	(see page 22-185)
B1279	Headlight switch DIMMER position circuit malfunction	Signal error	(see page 22-187)
B1280	Turn signal switch circuit malfunction	Signal error	(see page 22-214)
B1281	Windshield wiper switch MIST position circuit malfunction	Signal error	(see page 22-276)
B1282	Windshield wiper switch INT position circuit malfunction	Signal error	(see page 22-276)
B1283	Windshield wiper switch LOW position circuit malfunction	Signal error	(see page 22-276)
B1284	Windshield wiper switch HIGH position circuit malfunction	Signal error	(see page 22-276)
U0155	Driver's MICU lost communication with gauge control module	Loss of communication	(see page 22-123)
U0199	Driver's MICU lost communication with door multiplex control unit	Loss of communication	(see page 22-124)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	(see page 22-125)
U1283	Driver's MICU lost communication with passenger's MICU	Loss of communication	(see page 22-127)

Passenger's MICU

DTC	Description	DTC Type	Page
B11A2	Passenger's MICU (EEPROM) error	Internal error	(see page 22-120)
B11C7	Passenger's MICU IG1 line input error	Signal error	(see page 22-122)
B11CF	Right daytime running lights circuit malfunction	Signal error	(see page 22-183)
B1575	Automatic lighting sensor circuit malfunction	Signal error	(see page 22-189)
U0155	Passenger's MICU lost communication with gauge control module	Loss of communication	(see page 22-123)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	(see page 22-125)
U1282	Passenger's MICU lost communication with driver's MICU	Loss of communication	(see page 22-127)

(cont'd)

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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	(see page 22-379)
U0199	Immobilizer-keyless control unit lost communication with door multiplex control unit	Loss of communication	(see page 22-379)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	(see page 22-125)
U1282	Immobilizer-keyless control unit lost communication with driver's MICU	Loss of communication	(see page 22-380)

Door Multiplex Control Unit

DTC	Description	DTC Type	Page
B1125	Driver's power window motor pulse A error	Signal error	(see page 22-248)
B1126	Driver's power window motor pulse B error	Signal error	(see page 22-248)
B1127	Driver's door key cylinder switch input circuit malfunction	Signal error	(see page 22-141)
B1128	Driver's door lock switch input circuit malfunction	Signal error	(see page 22-142)
B1129	Driver's door lock knob switch input circuit malfunction	Signal error	(see page 22-143)
B1130	Front passenger's power window motor pulse A error	Signal error	(see page 22-250)
B1131	Front passenger's power window motor pulse B error	Signal error	(see page 22-250)
B1140	Driver's power window position detect circuit malfunction	Signal error	(see page 22-251)
B1142	Communication line communication error (UART line)	Signal error	(see page 22-252)
B1145	Front passenger's power window position detect circuit malfunction	Loss of communication	(see page 22-254)
U0155	Door multiplex control unit lost communication with gauge control module	Loss of communication	(see page 22-254)
U0164	Door multiplex control unit lost communication with climate control unit	Loss of communication	(see page 22-255)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	(see page 22-125)
U1282	Door multiplex control unit lost communication with driver's MICU	Loss of communication	(see page 22-255)
U1283	Door multiplex control unit lost communication with passenger's MICU	Loss of communication	(see page 22-256)

Gauge Control Module

DTC	Description	DTC Type	Page
B1175	Fuel level sensor (Fuel gauge sending unit) circuit open	Signal error	(see page 22-299)
B1176	Fuel level sensor (Fuel gauge sending unit) circuit short	Signal error	(see page 22-300)
U0029	F-CAN circuit malfanction (BUS OFF)	Loss of communication	(see page 22-301)
U0100	Gauge control module lost communication with ECM/PCM	Loss of communication	(see page 22-303)
U0122	Gauge control module lost communication with VSA modulator-control unit (VSA message)	Loss of communication	(see page 22-304)
U0127	Gauge control module lost communication with TPMS control unit (TPMS message)	Loss of communication	(see page 22-305)
U0131	Gauge control module lost communication with EPS control unit (EPS message)	Loss of communication	(see page 22-306)
U0151	Gauge control module lost communication with SRS unit (SRS message)	Loss of communication	(see page 22-307)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	(see page 22-125)
U1282	Gauge control module lost communication with driver's MICU	Loss of communication	(see page 22-308)
U1283	Gauge control module lost communication with passenger's MICU	Loss of communication	(see page 22-308)

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HandsFreeLink Control Unit

DTC	Description	DTC Type	Page
B1775	Microphone input/output short to power/open	Signal error	(see page 23-350)
B1776	Microphone input/output short to ground (with navigation)	Signal error	(see page 23-352)
B1776	Microphone input/output short to ground	Signal error	(see page 23-352)
B1779	HFL switch or voice control switch (HFL TALK/HFL BACK buttons) circuit open/short	Signal error	(see page 23-356)
B1780	HFL switch (HFL TALK/HFL BACK buttons) circuit short to power	Signal error	(see page 23-358)
B1792	HandsFreeLink control unit internal error	Signal error	(see page 23-359)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	(see page 22-125)

Climate Control Unit

DTC	Description	DTC Type	Page
U1280	Communication bus line error (BUS-OFF)	Loss of communication	(see page 22-125)
U0155	Climate control unit lost communication with gauge control module	Loss of communication	(see page 21-30)
B121A	An open in the mode control motor circuit	Signal error	(see page 21-31)
B121B	A short in the mode control motor circuit	Signal error	(see page 21-33)
B1220	A short in the recirculation control motor circuit	Signal error	(see page 21-36)
B1225	An open in the in-car temperature circuit	Signal error	(see page 21-40)
B1226	A short in the in-car temperature sensor circuit	Signal error	(see page 21-41)
B1227	An open in the outside air temperature sensor circuit	Signal error	(see page 21-43)
B1228	A short in the outside air temperature sensor circuit	Signal error	(see page 21-44)
B1229	An open in the sunlight sensor circuit	Signal error	(see page 21-45)
B1230	A short in the sunlight sensor circuit	Signal error	(see page 21-47)
B1231	An open in the evaporator temperature sensor circuit	Signal error	(see page 21-48)
B1232	A short in the evaporator temperature sensor circuit	Signal error	(see page 21-50)
B1233	An open in the driver's air mix control motor circuit	Signal error	(see page 21-51)
B1234	A short in the driver's air mix control motor circuit	Signal error	(see page 21-52)
B1235	A problem in the driver's air mix control linkage, door, or motor circuit	Signal error	(see page 21-55)
B1236	An open in the passenger's air mix control motor circuit	Signal error	(see page 21-56)
B1237	A short in the passenger's air mix control motor circuit	Signal error	(see page 21-57)
B1238	A problem in the passenger's air mix control linkage, door, or motor circuit	Signal error	(see page 21-61)
B1240	Problem in the mode control linkage, doors, motor or circuit	Signal error	(see page 21-62)
B1241	A problem in the blower motor circuit	Signal error	(see page 21-64)
B2983	A problem in the recirculation control linkage, door, or motor circuit	Signal error	(see page 21-68)
B2986	An open in the recirculation control motor circuit	Signal error	(see page 21-69)

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DTC Troubleshooting Index (cont'd)

AcuraLink Control Unit

DTC	Description	DTC Type	Page
B2240	XM antenna error	Internal error	(see page 23-313)
B2248	HIP power supply abnormal (more than 16 V)	Battery voltage	(see page 23-313)
B2249	HIP power supply abnormal (less than 9 V)	Battery voltage	(see page 23-314)
U0100	Gauge control module lost communication with ECM/PCM	Loss of communication	(see page 22-303)
U0155	Gauge control module lost F-CAN communication with AcuraLink control unit (XM receiver)	Loss of communication	(see page 23-314)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	(see page 22-125)
U128D	AcuraLink control unit (XM receiver) lost B-CAN communication with gauge control module	Loss of communication	(see page 23-314)

Power Seat Control Unit

DTC	Description	DTC Type	Page
B1802	Power seat control unit (EEPROM) error	Internal error	(see page 22-399)
B1825	Power seat slide motor pulse error	Signal error	(see page 22-400)
B1826	Power seat front up-down motor pulse error	Signal error	(see page 22-404)
B1827	Power seat rear up-down motor pulse error	Signal error	(see page 22-408)
B1828	Power seat recline motor pulse error	Signal error	(see page 22-412)
B1829	A/T P signal and VSS signal mismatch	Signal error	(see page 22-415)
B1836	Power seat position sensor circuit short	Signal error	(see page 22-416)
B1837	Driving position memory recall timeout	Signal error	(see page 22-417)
B1844	Power seat slide switch circuit malfunction	Signal error	(see page 22-418)
B1845	Power seat recline switch circuit malfunction	Signal error	(see page 22-419)
B1846	Power seat front up-down switch circuit malfunction	Signal error	(see page 22-420)
B1847	Power seat rear up-down switch circuit malfunction	Signal error	(see page 22-421)
U0155	Power seat control unit lost communication with gauge control module	Loss of communication	(see page 22-422)
U0199	Power seat control unit lost communication with door multiplex control unit	Loss of communication	(see page 22-423)
U1280	Communication bus line error (BUS-OFF)	Loss of communication	(see page 22-125)
U1282	Power seat control unit lost communication with driver's MICU	Loss of communication	(see page 22-424)

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System Description

MICU Control Functions Index

The driver's MICU (built into the driver's under-dash fuse/relay box) is one of the B-CAN components. The driver's MICU controls many systems related to the body controller area network and a security system, and also works as a gateway to diagnose the other B-CAN connected ECUs with the HDS.
Refer to each system circuit diagram for details.

System	Function
Multiplex Control	Sends switch input/output signal information to the driver's MICU. The driver's MICU controls the ECUs electric load and communication based upon the information received via the B-CAN.
On-Board Diagnosis	The driver's MICU has a gateway function which sends the results of the driver's MICU internal diagnosis and the B-CAN connected ECU's diagnosis to the HDS.
Self-Diagnosis	Test mode 1 diagnoses the communication line between the driver's MICU and B-CAN connected units. Test mode 2 checks the switch inputs connected to the driver's MICU.
Interior Light(s)	The driver's MICU controls the interior lights ON, OFF and dimming based upon the information of the related switches and/or the B-CAN related information.
Sleep Function	The driver's MICU has a sleep function, which it enters during the power down mode.

The driver's MICU also controls the function of these circuits:

- Entry lights control (front individual map lights and ceiling light)
- Exterior lights control (including the daytime running lights control, and auto-headlights off control)
- Horns
- Interlock system
- Keyless entry
- Power door locks
- Power window key-off timer
- Security alarm
- Turn signal/hazard warning lights
- Wiper/washer

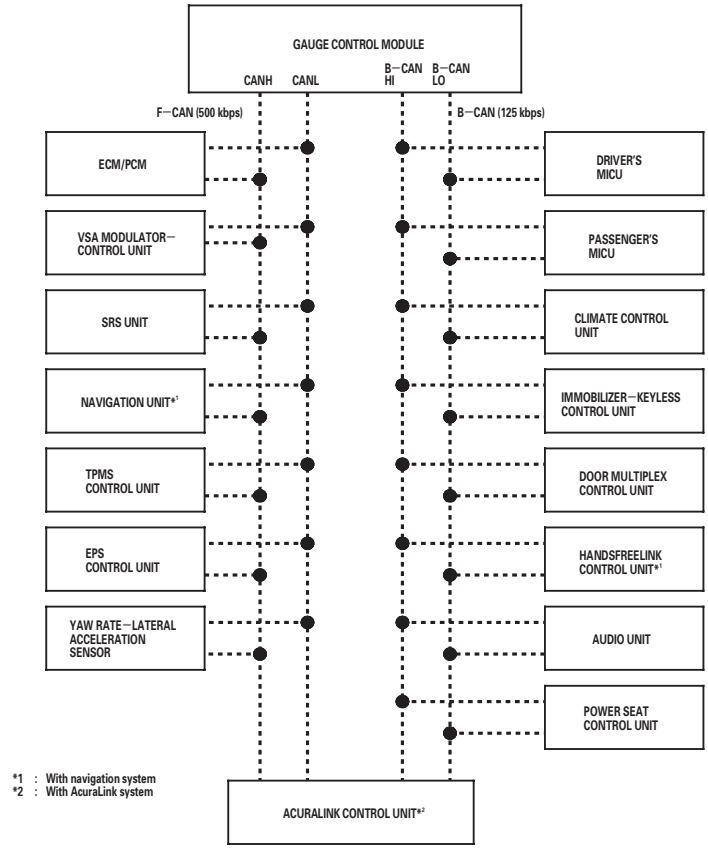
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System Description (cont'd)

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

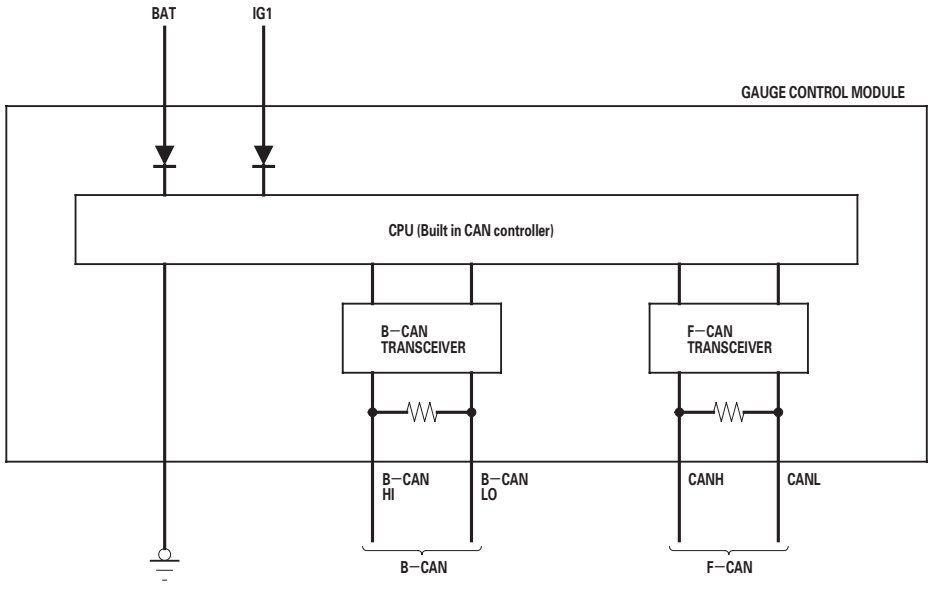
The body controller area network (B-CAN) and the fast controller area network (F-CAN) share information between multiple electronic control units (ECUs). B-CAN communication moves at a slower speed (125 kbps) for convenience related items and for other functions. F-CAN information moves at a faster speed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



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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 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 on the gauge control module can indicate the error messages by entering the gauge control module self-diagnostic function (see page 22-292).

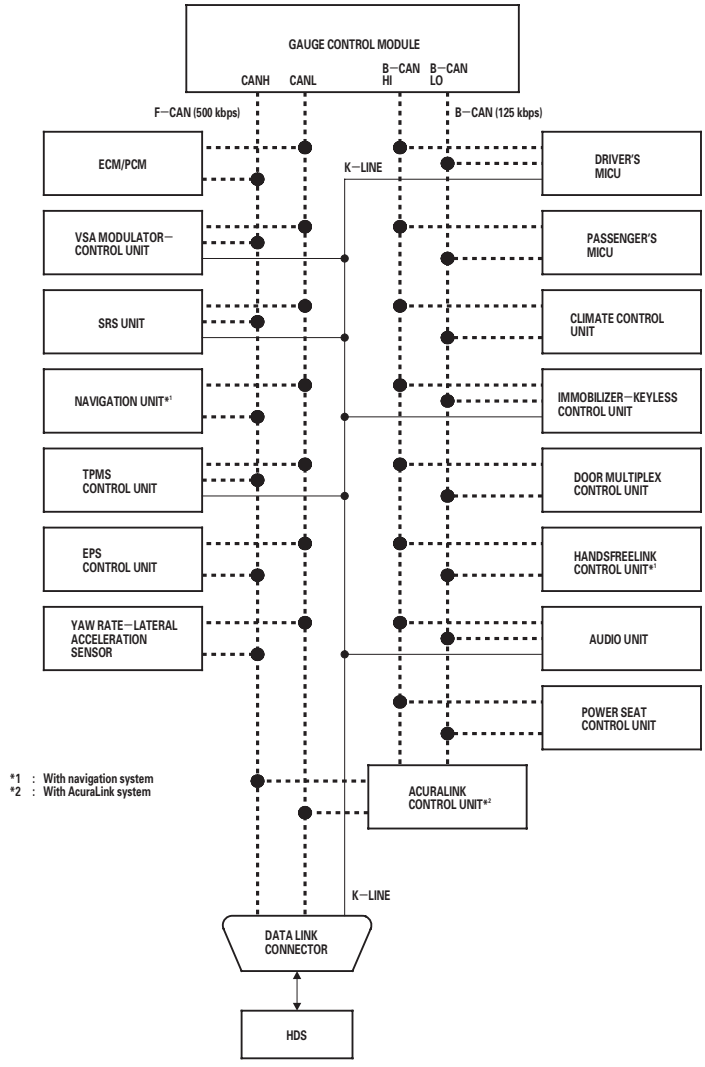
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System Description (cont'd)

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 K-LINE. The K-LINE is separated from the CAN lines, but it is connected to 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 its self.



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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).

- 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), 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 opened or if a key is in the ignition.
- 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 22-117).

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 a 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 the data is recognized, the MICUs move to the software fail-safe mode. The data that cannot be received is forced to a pre-programmed value.

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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 Right rear door switch Driver's door lock knob switch (LOCK/UNLOCK) Front passenger's door switch	

Collision Detection Signal (CDS)

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

	Input	Output
Driver's MICU	IG1 power supply	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 signals.

	Input	Output
Driver's MICU	Ignition switch (I) 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 the rear window defogger switch signals.

	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 input signals from each 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 the input signals 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 message

Fog Lights

The driver's MICU control of fog lights is based on input signal 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 the input signals from each switch.

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

Turn Signal/Hazard Warning Lights

The driver's MICU control of the turn signal/hazard warning lights is based on the input signals 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 input signals 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

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System Description (cont'd)

Wiper

The driver's MICU control of the wiper is based on input signals 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	Wiper intermittent relay Wiper motor high/low relay
B-CAN	Parking brake signal (A/T) IG1 meter signal (A/T) Washer signal Vehicle speed pulse signal	WIPSW messages

Driver's Power Window Relay

The driver's MICU control of the power windows is based on input signals 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	

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	Answer back buzzer message

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

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 (SMALL) ANSWER BACK signal (H/L LO)	Taillight relay Horn relay

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Power Door Locks

The driver's MICU control of the door lock actuators is based on the input signals of 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
B-CAN	Driver's door lock switch (LOCK/UNLOCK) Driver's door key cylinder switch (LOCK/UNLOCK) Driver's door lock knob switch (LOCK) Front passenger's door lock switch (LOCK/UNLOCK) Front passenger's door switch Right rear door switch	Door lock signal (LOCK) Door lock signal (UNLOCK)

Door Lock Response Operation

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

	Input	Output
Driver's MICU	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	Door lock signals	

Keyless Entry System

The driver's MICU control of the door lock actuators is based on the input signals of 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 LOCK/UNLOCK signal	Door lock signal (LOCK) Door lock signal (UNLOCK) Relock signal

Keyless PANIC Operation

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

	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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System Description (cont'd)

Auto Power Door Locks (LOCK operation)

The driver's MICU control of the door lock actuators is based on input signals 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)

Auto Power Door Locks (UNLOCK operation)

The driver's MICU control of the door lock actuators is based on input signals 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)

Security Alarm System

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

	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) 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

A/C Pressure Switch

The driver's MICU sends A/C pressure switch signal information when the ignition switch is in the IG1 position.

	Input	Output
Driver's MICU	Ignition switch (IG1) A/C pressure switch	
B-CAN		A/C pressure switch 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 input signals from the front passenger and right rear door switch.

	Input	Output
Passenger's MICU	Front passenger's door switch	Front passenger's door courtesy light
	Right rear door switch	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 input signals from the driver's MICU.

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

Power Door Locks (UNLOCK)

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

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

Exterior Lights

The passenger's MICU control of the front passenger's side headlight, and parking lights is based on input signals 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	

Automatic Lighting

The passenger's MICU control of the headlights and the parking lights is based on input signals 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

Fog Lights

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

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

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System Description (cont'd)

Washer Operation

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

	Input	Output
Passenger's MICU	IG1 power supply	Washer motor
B-CAN	Wiper switch signal	

Keyless Buzzer Operation

The passenger's MICU control of the keyless buzzer is based on input signal 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 input signals from the power window switches.

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

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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 for 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
Gauges	Cruise Control Main Switch	OFF/ON
	Cruise Control Set Switch	OFF/ON
	Cruise Control Resume Switch	OFF/ON
	VSA Off Switch	OFF/ON
	Select/Reset (on cluster) Switch	OFF/ON
	Parking Brake Switch	OFF/ON
	Brake Fluid Switch	OFF/ON
	Select/Reset (on steering) Switch	OFF/ON
	Previous Switch	OFF/ON
	Next or INFO Switch	OFF/ON
	Fuel Sending Unit 1	deg
	Fuel Sending Unit 2	V
	A/T Gear Position Switch R	OFF/ON
	A/T Gear Position Switch P	OFF/ON
	Seat Belt Indicator	OFF/ON
	VSA/TCS Activation Indicator	OFF/ON
	VSA/TCS Trouble Indicator (Warning)	OFF/ON
	ABS Trouble Indicator	OFF/ON
	Cruise Control Main Switch Indicator	OFF/ON
	MIL Indicator	OFF/ON
	DRL Indicator	OFF/ON
	LOW OIL Pressure Indicator	OFF/ON
	Charging Trouble 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
	Front Fog Indicator	OFF/ON
	Seat belt Indicator	OFF/ON
	Tire Pressure Warn	OFF/ON
	TPMS Trouble Indicator	OFF/ON
	History Records for Transferred ODO Data	
	ATF Change Times	times
	Door Open 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 Air Bag Off Indicator	OFF/ON
	Speed Indicator (km/h) Command	km/h/Fail
	Speed Indicator (mile/h) Command	mile/h/Fail

(cont'd)

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System Description (cont'd)

System Menu	Data List	Data List Indication
Lighting	Autolight Sensor Input Voltage for the Diagnosis	V
	Autolight Sensor malfunstion detection Voltage MAX	V
	Autolight Sensor malfunstion detection Voltage MIN	V
	Headlight OFF Switch	OFF/ON
	Headlight Parking Switch	OFF/ON
	Headlight ON Switch	OFF/ON
	Calculated HEAD AUTO Switch	OFF/ON
	Headlight DIMMER Switch	OFF/ON
	Headlight PASSING Switch	OFF/ON
	TURN LEFT Switch	OFF/ON
	TURN RIGHT Switch	OFF/ON
	FOG Switch	OFF/ON
	Driver's Door Switch	OFF/ON
	Hazard Switch	OFF/ON
	Passenger's Courtesy Light	
	Passenger Rear Courtesy Light	
	Driver Rear Courtesy Light	
	Turn Signal Command Left	
	Turn Signal Command Right	
	Head Light Command	
	Parking Light Command	
	Fog Light Command	
	DRL Command	
	Parking Brake Switch (Input for DRL)	OFF/ON

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System Menu	Data List	Data List Indication
Wiper	Windshield Wiper LO Switch	OFF/ON
	Windshield Wiper Mist Switch	OFF/ON
	Windshield Wiper INT Switch	OFF/ON
	Front Washer Switch	OFF/ON
	Windshield wiper motor park switch	OFF/ON
	Brake pedal position switch	OFF/ON
	Windshield Wiper Washer Motor Command	
	Windshield Wiper Motor HI Command	
	Windshield Wiper Motor Lo Command	
Security	Front passenger's Door Switch	OFF/ON
	Passenger Rear Door Switch	OFF/ON
	Passenger Rear Door Lock Knob Switch Lock Knob Unlock	OFF/ON
	Ignition Key Cylinder Switch	OFF/ON
	Seat Belt Switch	OFF/ON
	Driver's Door Switch	OFF/ON
	Driver Rear Door Switch	OFF/ON
	Trunk Switch (4 door)/Tailgate Switch (5 door)	OFF/ON
	Driver Rear Door Lock Knob Switch Unlock	OFF/ON
	Trunk Handle Switch	OFF/ON
	Check Input Signal	OFF/ON
	Hazard Switch	OFF/ON
	HEAD ON Switch	OFF/ON
	Hood Switch	OFF/ON
	Horn Command	
Keyless	Front Passenger's Door Switch	OFF/ON
	Passenger Rear Door Switch	OFF/ON
	Passenger Rear Door Lock Knob Switch Unlock	OFF/ON
	Driver's Door Switch	OFF/ON
	Driver Rear Door Switch	OFF/ON
	Trunk Switch (4 door)/Tailgate Switch (5 door)	OFF/ON
	Driver Rear Door Lock Knob Switch Unlock	OFF/ON
	Trunk Handle Switch	OFF/ON
	Trunk Main Switch	OFF/ON
	Keyless Buzzer Command	
	Trunk Lock Unlock Command	
Door Locks	Passenger's Door Switch	OFF/ON
	Passenger Rear Door Switch	OFF/ON
	Passenger Rear Door Lock Knob Switch Unlock	OFF/ON
	Driver's Door Switch	OFF/ON
	Driver Rear Door Switch	OFF/ON
	Driver Rear Door Lock Knob Switch Unlock	OFF/ON
	Door Lock Lock Command	
	Door Lock Unlock Command	
	Door Lock Driver's Door Unlock Command	

(cont'd)

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System Description (cont'd)

System Menu	Data List	Data List Indication
Power Seat/Power Mirrors	Slide Switch Backward	OFF/ON
	Slide Switch Forward	OFF/ON
	Recline Backward Switch	OFF/ON
	Recline Forward Switch	OFF/ON
	Front Up-Down Down Switch (DOWN)	OFF/ON
	Front Up-Down Down Switch (UP)	OFF/ON
	Rear Up-Down Switch (DOWN)	OFF/ON
	Rear Up-Down Switch (UP)	OFF/ON
	Ignition Switch for Power Seat Control	OFF/ON
	ATP Switch	OFF/ON
	HandBrake Switch	OFF/ON
	Slide Sensor	OFF/ON
	Front Up-Down Sensor	OFF/ON
	Recline Sensor	OFF/ON
	Rear Up-Down Sensor	OFF/ON
	Slide Motor Command	OFF/FWD/RWD/Not Defined
	Recline Motor Command	OFF/FWD/RWD/Not Defined
	Front Height Motor Command	OFF/UP/DWN/Not Defined
	Rear Height Motor Command	OFF/UP/DWN/Not Defined
	Power Seat Buzzer Command	OFF/ON
Power Windows	Power Window Main Switch	OFF/ON
	Power Window Master, Driver Side Auto Switch	OFF/ON
	Power Window Master, Driver Side Up Switch	OFF/ON
	Power Window Master, Driver Side Down Switch	OFF/ON
	Power Window Master, Passenger's Up Switch	OFF/ON
	Power Window Master, Passenger's Down Switch	OFF/ON
	Power Window Master, Left Rear Up Switch	OFF/ON
	Power Window Master, Left Rear Down Switch	OFF/ON
	Power Window Master, Right Rear Up Switch	OFF/ON
	Power Window Master, Right Rear Down Switch	OFF/ON
	Power Window Master, Passenger's Auto Switch	OFF/ON
	Seat MEMO Switch	OFF/ON
	Driver 1 Position Switch for Seat	OFF/ON
	Driver 2 Position Switch for Seat	OFF/ON
	Driver Power Window Motor A-phase Pulse Signal	Not EXIST/EXIST
	Driver Power Window Motor B-phase Pulse Signal	Not EXIST/EXIST
	Driver's P/W Motor Command	OFF/UP
HVAC/Climate Control	Air Conditioner Pressure Switch	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
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	Keyless Buzzer	Outputs for 120 Milliseconds Outputs for 2 Seconds
Lighting	Left Turn Signal	Blinks Turn Signal (Left) for 5 Seconds
		Blinks Turn Signal (Left) for 15 Seconds
	Right Turn Signal	Blinks Turn Signal (Right) for 5 Seconds
		Blinks Turn Signal (Right) for 15 Seconds
	Headlight Command	Operates Head Light (Low) for 15 Seconds
		ON
		OFF
	Headlight Hight Beam Command	Operates Head Light (High) for 15 Seconds
		ON
		ON for Daytime Running Light (KA/KC)
		OFF
	Fog Light	Operates Fog Light Relay for 15 seconds
	Courtesy Light (DR)	Illuminates for 30 Seconds
	Small Light	Operates Small Light for 15 Seconds
	Courtesy LT RD	Outputs for 30 Seconds
	Power Window RLY Rr	Outputs for 30 Seconds
Power Window	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
Security	Horn (In with the Europe Security)	Operates Horn for 1 Seconds
Wiper	Windshield Washer Command	Operates Front Washer for 5 Seconds
	Windshield Wiper Motor (Low) Command	Operates Front Wiper for 5 Seconds (Low Speed)
	Windshield Wiper Motor (High) Command	Operates Front Wiper for 5 Seconds (High Speed)

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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.

NOTE: Always cycle the ignition switch within 3 seconds when prompted in the DTC troubleshooting procedures in this section.

1. Compare the symptom with this list of B-CAN related systems:

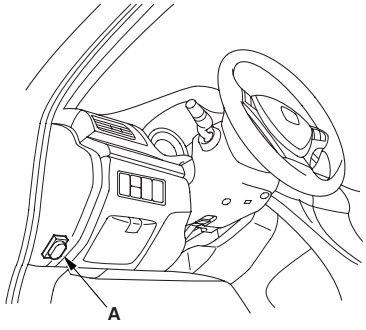
   - Gauge control module
   - Exterior lights
   - Turn signals
   - Entry light control
   - Interior lights
   - Safety indicators
   - Horns (security and panic)
   - Chimes (key-in, seat belt, lights-on, and parking brake)
   - Power window/moonroof timer
   - Wiper/washer
   - Security
   - Keyless entry
   - Power door locks
   - Key interlock
   - Dash light brightness
   - Immobilizer
   - Daytime running lights
   - Driving position memory system
   - XM radio

   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 (A), then turn the ignition switch to ON (II).



3. From the BODY ELECTRICAL menu, select UNIT INFORMATION, and then select CONNECTED UNIT listed to see if the following control units are communicating with the HDS.

   - Driver's MICU
   - Passenger's MICU
   - Door multiplex control unit
   - Gauge control module
   - Immobilizer-keyless control unit
   - Climate control unit
   - HandsFreeLink control unit
   - Audio unit
   - Power seat control unit
   - AcuraLink control unit

   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 22-112). If all units are not communicating or only the driver's MICU is communicating, go to DTC U1280 troubleshooting (see page 22-125). ■

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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 does not stop or turn off, go to B-CAN System Diagnosis Test Mode C (see page 22-113). If the problem is related to one of the following items and the system does not run or turn on, go to B-CAN System Diagnosis Test Mode D (see page 22-114).

   - 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
   - Dash light brightness
   - Audio system
   - Navigation (if equipped)
   - HandsFreeLink
   - Immobilizer
   - Driving position memory system

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 22-110).

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 22-128)
Gauge control module (see page 22-309)
Immobilizer-keyless control unit (see page 22-389)
Passenger's MICU (see page 22-132)
Door multiplex control unit (see page 22-257)
Climate control unit (see page 21-71)
Audio unit (see page 23-17)
Power seat control unit (see page 22-425)
AcuraLink control unit (see page 23-292)
HandsFreeLink control unit (see page 23-345)

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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 22-114).
- 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 controls the output devices (see page 22-105).
- Always cycle the ignition switch within 3 seconds when prompted in the DTC troubleshooting procedures in this section.

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

   Are any DTCs indicated?

   YES—Go to B-CAN System Diagnosis Test Mode A (see page 22-110). ■

   NO—Go to step 2.

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

3. Select DATA LIST from the TEST 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, 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 turn OFF. ■

   NO—Replace the relay or repair 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 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 22-113).
- 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 controls the output devices (see page 22-105).
- Always cycle the ignition switch within 3 seconds when prompted in the DTC troubleshooting procedures in this section.

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 TEST MODE menu from the HDS.

   Are any DTCs indicated ?

   YES—Go to B-CAN System Diagnosis Test Mode A (see page 22-110). ■

   NO—Go to step 3.

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

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

   Does the switch input indicated 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 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. 5 (7.5 A) fuse in the driver's under-dash fuse/relay box.

   Are the fuses OK?

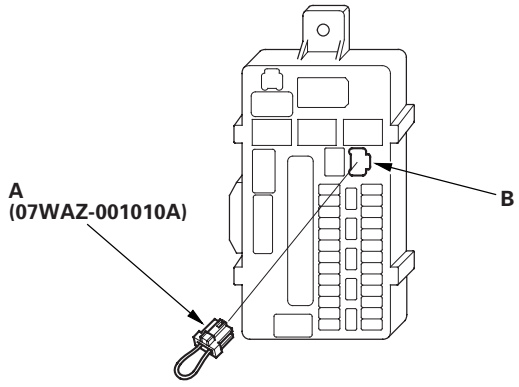
   YES—Go to step 2.

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

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

3. Turn the ignition switch to ON (II), 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 on the gauge control module while still in Test Mode 1. Push the odometer select/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.

   Are any DTCs indicated?

   YES—Go to step 7.

   NO—Go to step 10.

7. Record all DTCs and sort them.

8. Troubleshoot the DTCs in this order:

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

9. Clear the DTCs by pressing and holding the select/reset button for about 10 seconds. 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 will flash two times quickly and then go off.

    NOTE: If the MPCS service connector is disconnected for too short or too long of a time, or the ignition switch is turned to LOCK (0), the system will return 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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Troubleshooting - B-CAN System Diagnosis Test Mode 1 and Test Mode 2 (without the HDS) (cont'd)

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
A/C pressure switch
Transmission range switch (P) (A/T)
Ignition key switch
Hood switch
Back-up light switch
Wiper motor park position (Auto stop)

Passenger's MICU

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

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:
   Turn the ignition switch to LOCK (0), and remove the key, 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 40 seconds.

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

2. Confirm the sleep mode:
   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.

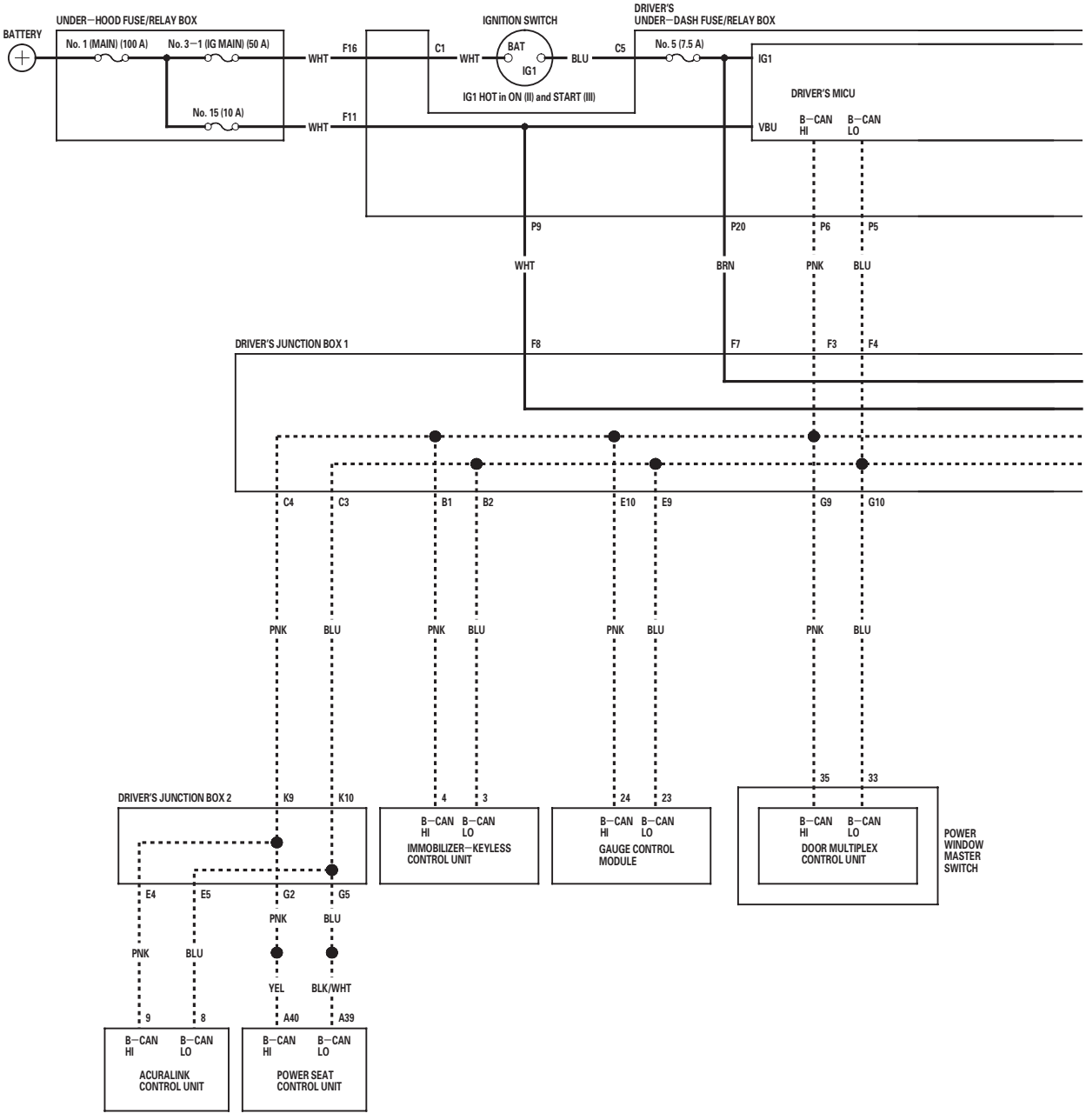
3. Shift to the wake up mode:
   When the ignition switch is turned to ON (II), the driver's MICU, passenger's MICU, gauge control module, immobilizer-keyless control unit, and ECM/PCM wake up at the same time without ''talking'' to each other through the communication lines. When any switch in the multiplex 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, it is a list of the switches and input signals that can wake it up.

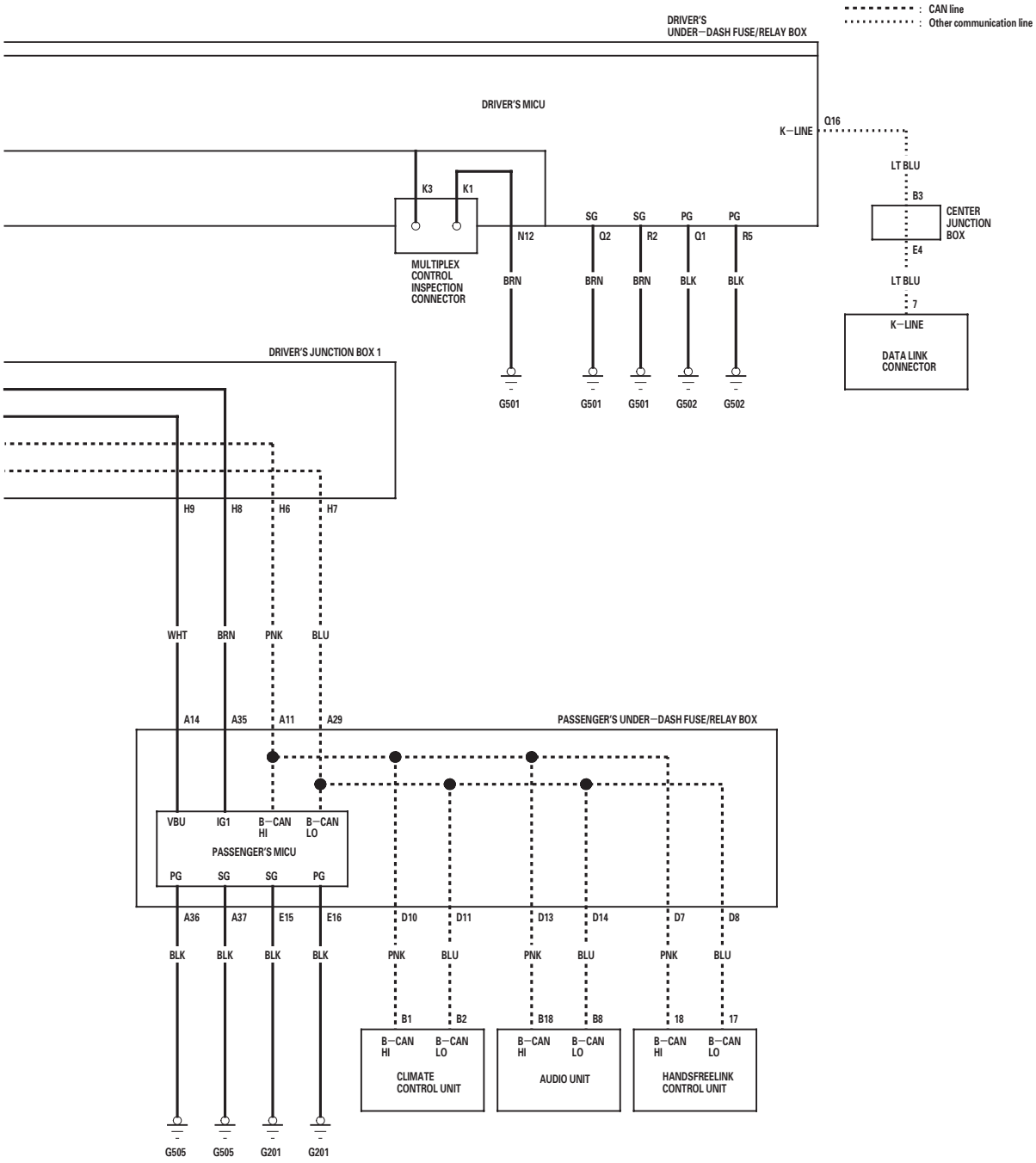
Driver's door switch (door open)
Left rear door switch (door open)
Trunk lid latch switch (Trunk lid open)
Left rear door lock knob switch
Hood switch (hood open)
Hazard warning switch (ON)
Combination light switch (Parking, Headlight, Dimmer, Passing ON)
Ignition key switch (key inserted)
Trunk lid 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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DTC Troubleshooting

DTC B10A2: Driver's MICU (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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-74). ■

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

DTC B11A2: Passenger's MICU (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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-76). ■

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

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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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
4. Check for DTCs with the HDS.

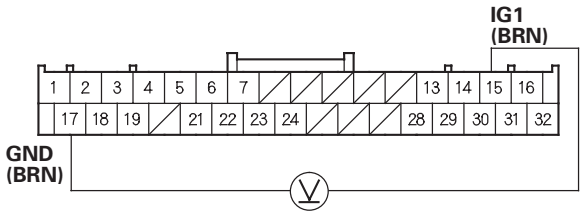
   Is DTC B1036 indicated?

   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 22-77) and the charging system. ■

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

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 the No. 5 (7.5 A) fuse in the driver's under-dash fuse/relay box. If the fuse is OK, check for an open in the BRN wire or a poor connection at G501, or an open in the wire between the driver's under-dash fuse/relay box and the gauge control module, or 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 Troubleshooting (cont'd)

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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
4. Check for DTCs with the HDS.

   Is DTC B11C7 indicated?

   YES—Go to step 5.

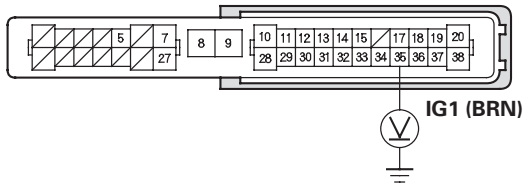
   NO—Intermittent failure, the system is OK at this time. Check for loose or poor connections. If the connections are good, check the battery condition (see page 22-77) and the charging system. ■
5. Check the DTCs with the HDS.

   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).
7. Turn the ignition switch to ON (II).
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 the No. 5 (7.5 A) fuse in the driver's under-dash fuse/relay box. If the fuse is OK, 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 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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-309). If the tests prove OK, replace the gauge control module (see page 22-313). ■

   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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-309). If the tests prove OK, replace the gauge control module (see page 22-313). ■

   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 Troubleshooting (cont'd)

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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-257). If the tests prove OK, replace the power window master switch (see page 22-268). ■

   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. ■

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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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-77) and the charging system. ■
5. Turn the ignition switch to LOCK (0).
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	7P connector
Audio unit	Connector B (20P)
Climate control unit	Connector B (12P)
Power seat control unit *1	40P connector
HandsFreeLink control unit *2	28P connector
AcuraLink control unit *3	Connector A (32P)

* 1: With DPMS
* 2: With HandsFreeLink
* 3: With AcuraLink

Is DTC U1280 indicated with each individual unit disconnected?

YES—Go to step 7.

NO—Go to 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 22-132)
- Door multiplex control unit input test (see page 22-257)
- Gauge control unit input test (see page 22-309)
- Immobilizer-keyless control unit input test (see page 22-389)
- Climate control unit power and ground circuit troubleshooting (see page 21-71)
- Power seat control unit input test (see page 22-425)
- HandsFreeLink control unit input test (see page 23-381)
- AcuraLink control unit input test (see page 23-292)
- Audio unit input test (see page 23-17)

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DTC Troubleshooting (cont'd)

7. Turn the ignition switch to LOCK (0).

8. Disconnect each control unit connector in the table.

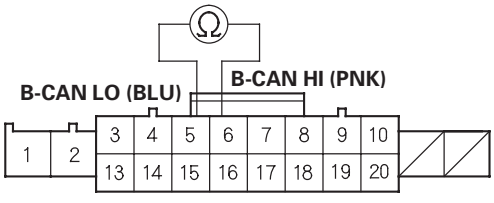
Control Unit	Connector
Passenger's MICU	Passenger's under-dash fuse/relay box connector A (38P)
Door multiplex control unit	37P connector
Gauge control module	32P connector
Immobilizer-keyless control unit	7P connector
Audio unit	Connector B (20P)
Climate control unit	Connector B (12P)
Power seat control unit *1	40P connector
HandsFreeLink control unit *2	28P connector
AcuraLink control unit *3	Connector A (32P)

* 1: With DPMS
* 2: With HandsFreeLink
* 3: With AcuraLink

9. Disconnect driver's under-dash fuse/relay box connector P (20P).

10. 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

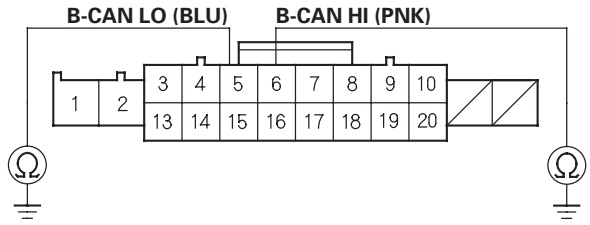
Is there continuity?

YES—Repair a short between the B-CAN wires. ■

NO—Go to step 11.

11. Check for continuity between body ground and the 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?

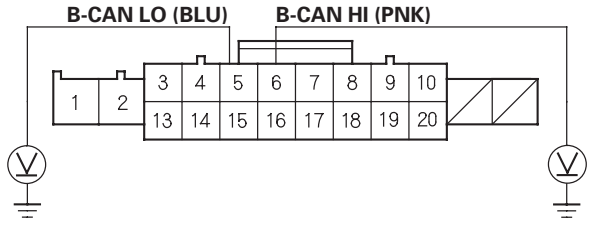
YES—Repair a short to ground in the wire. ■

NO—Go to step 12.

12. Turn the ignition switch to ON (II).

13. Measure the voltage between body ground and the 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. ■

NO—Faulty driver's MICU, replace the driver's under-dash fuse/relay box (see page 22-74). ■

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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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-128). If the tests prove OK, replace the driver's under-dash fuse/relay box (see page 22-74). ■

   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: 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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-132). If the tests prove OK, replace the driver's under-dash fuse/relay box (see page 22-74). ■

   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

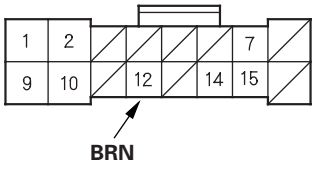
NOTE: Before testing, troubleshoot the multiplex integrated control system first, using B-CAN System Diagnosis Test Mode A (see page 22-110).

Driver's MICU

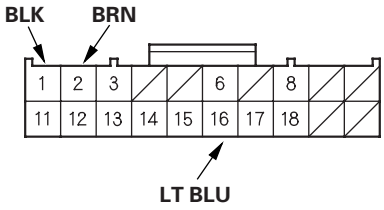
1. Turn the ignition switch to LOCK (0).
2. Remove the driver's dashboard undercover (see page 20-119), then remove the dashboard lower cover (see page 20-118).
3. Disconnect driver's under-dash fuse/relay box connectors N, P, Q, and R.

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

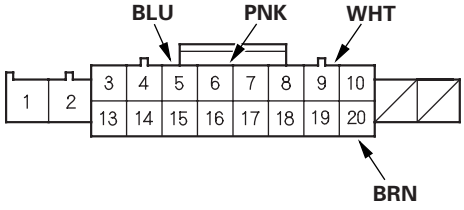
CONNECTOR N (16P)



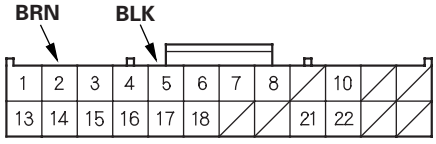
CONNECTOR Q (20P)



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 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
P5	BLU	Immobilizer-keyless control unit 7P connector disconnected	Check for continuity between terminal P5 and the immobilizer-keyless control unit 7P connector terminal No. 3: There should be continuity.	An open in the wire
P6	PNK		Check for continuity between terminal P6 and the immobilizer-keyless control unit 7P connector terminal No. 4: There should be continuity.	An open in the wire
P5	BLU	Gauge control module 32P connector disconnected	Check for continuity between terminal P5 and the gauge control module 32P connector terminal No. 23: There should be continuity.	An open in the wire
P6	PNK		Check for continuity between terminal P6 and the gauge control module 32P connector terminal No. 24: There should be continuity.	An open in the wire
P5	BLU	Door multiplex control unit 37P connector disconnected	Check for continuity between terminal P5 and the door multiplex control unit 37P connector terminal No. 33: There should be continuity.	An open in the wire
P6	PNK		Check for continuity between terminal P6 and the door multiplex control unit 37P connector terminal No. 35: There should be continuity.	An open in the wire
P5	BLU	Passenger's under-dash fuse/relay box connector A (38P) disconnected	Check for continuity between terminal P5 and the passenger's under-dash fuse/relay box connector A (38P) terminal No. 29: There should be continuity.	An open in the wire
P6	PNK		Check for continuity between terminal P6 and the passenger's under-dash fuse/relay box connector A (38P) terminal No. 11: There should be continuity.	An open in the wire
P5	BLU	Climate control unit connector B (12P) disconnected	Check for continuity between terminal P5 and the climate control unit connector B (12P) terminal No. 2: There should be continuity.	An open in the wire
P6	PNK		Check for continuity between terminal P6 and the climate control unit connector B (12P) terminal No. 1: There should be continuity.	An open 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
P5	BLU	Audio unit connector B (20P) disconnected	Check for continuity between terminal P5 and the audio unit connector B (20P) terminal No. 8: There should be continuity.	An open in the wire
P6	PNK		Check for continuity between terminal P6 and the audio unit connector B (20P) terminal No. 18: There should be continuity.	An open in the wire
P5	BLU	Power seat control unit connector A (40P) *1 disconnected	Check for continuity between terminal P5 and the power seat control unit connector A (40P) terminal No. 39: There should be continuity.	An open in the wire
P6	PNK		Check for continuity between terminal P6 and the power seat control unit connect A (40P) terminal No. 40: There should be continuity.	An open in the wire
P5	BLU	HandsFreeLink control unit 28P connector *2 disconnected	Check for continuity between terminal P5 and the HandsFreeLink control unit 28P connector terminal No. 17: There should be continuity.	An open in the wire
P6	PNK		Check for continuity between terminal P6 and the HandsFreeLink control unit 28P connector terminal No. 18: There should be continuity.	An open in the wire
P5	BLU	AcuraLink control unit 32P connector *3 disconnected	Check for continuity between terminal P5 and the AcuraLink control unit 32P connector terminal No. 8: There should be continuity.	An open in the wire
P6	PNK		Check for continuity between terminal P6 and the AcuraLink control unit 32P connector terminal No. 9: There should be continuity.	An open in the wire
Q16	LT BLU	Under all conditions	Check for continuity between terminal Q16 and the data link connector 16P connector terminal No. 7: There should be continuity.	An open in the wire

* 1: With DPMS
* 2: With HandsFreeLink
* 3: With AcuraLink

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6. Reconnect the connectors to the driver's under-dash fuse/relay box, turn the ignition switch to ON (II), 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.

   NOTE: These are power and ground tests for the multiplex integrated control unit.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
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 in the wire
P20	BRN	Ignition switch ON (II)	Measure the voltage to ground: There should be battery voltage.	• Blown No. 5 (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
N12	BRN	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
Q1	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
Q2	BRN	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
R2	BRN	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
R5	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire

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MICU Input Test (cont'd)

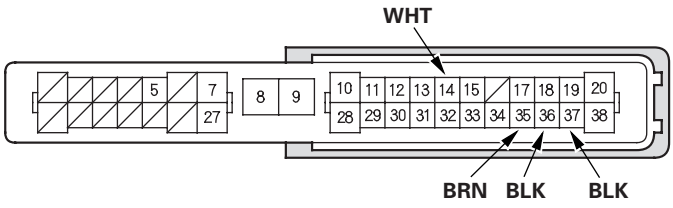
Passenger's MICU

7. Turn the ignition switch to LOCK (0), and remove the right kick panel (see page 20-76).

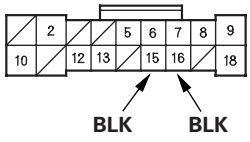
8. Disconnect passenger's under-dash fuse/relay box connectors A and E.

   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.

10. Reconnect the connectors to the passenger's under-dash fuse/relay box, turn the ignition switch to ON (II), and do these input tests at the following connectors.

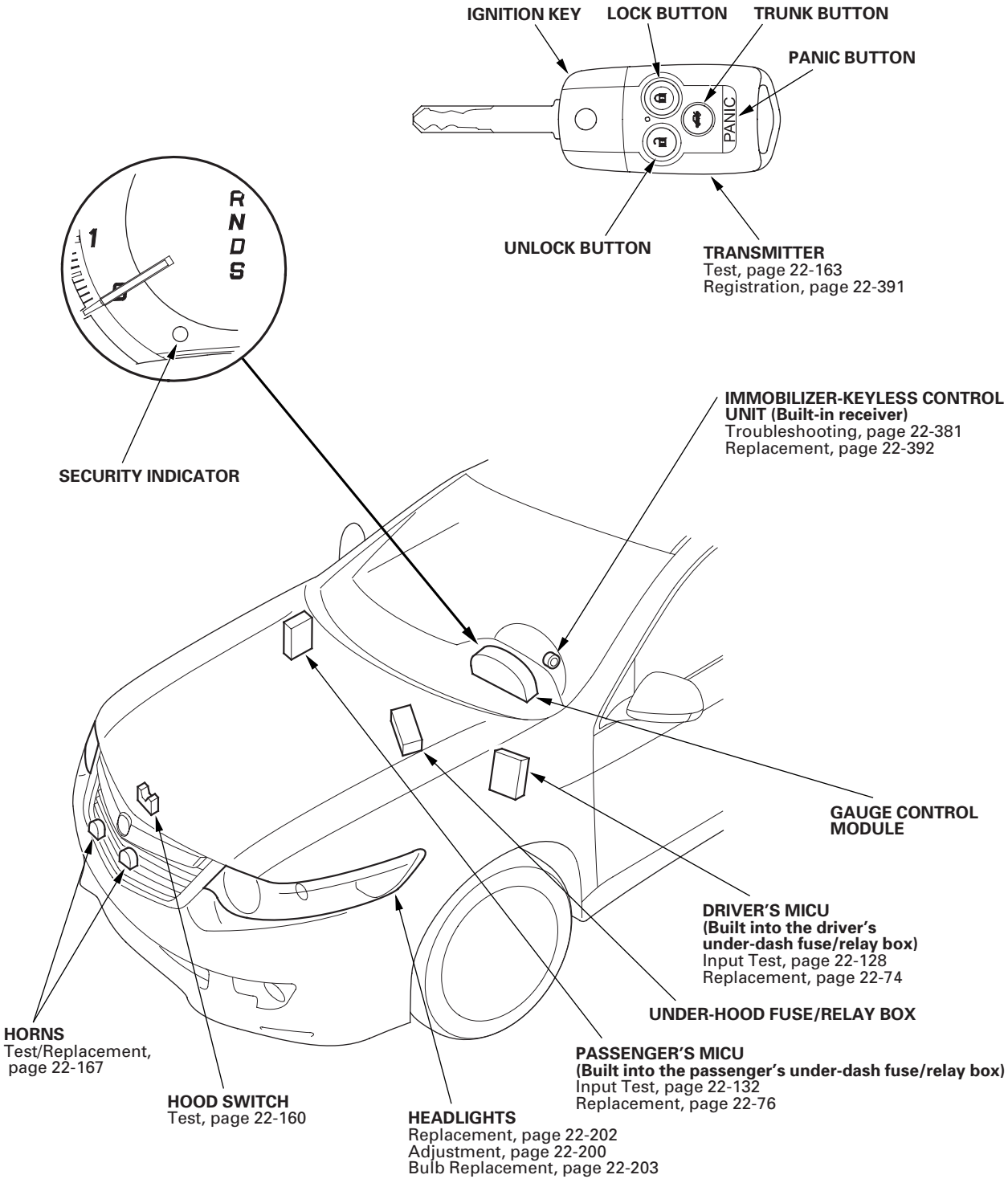
    - If any test indicates a problem, find and correct the cause, then recheck the system.
    - If all the input tests prove OK, go to step 11.

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.
A35	BRN	Ignition switch ON (II)	Measure the voltage to ground: There should be battery voltage.	• Blown No. 5 (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.
A36	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G505) • An open in the wire.
A37	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G505) • An open in the wire.
E15	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G201) • An open in the wire.
E16	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G201) • An open 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 22-74). If input failures are related to a particular control unit, replace the control unit.

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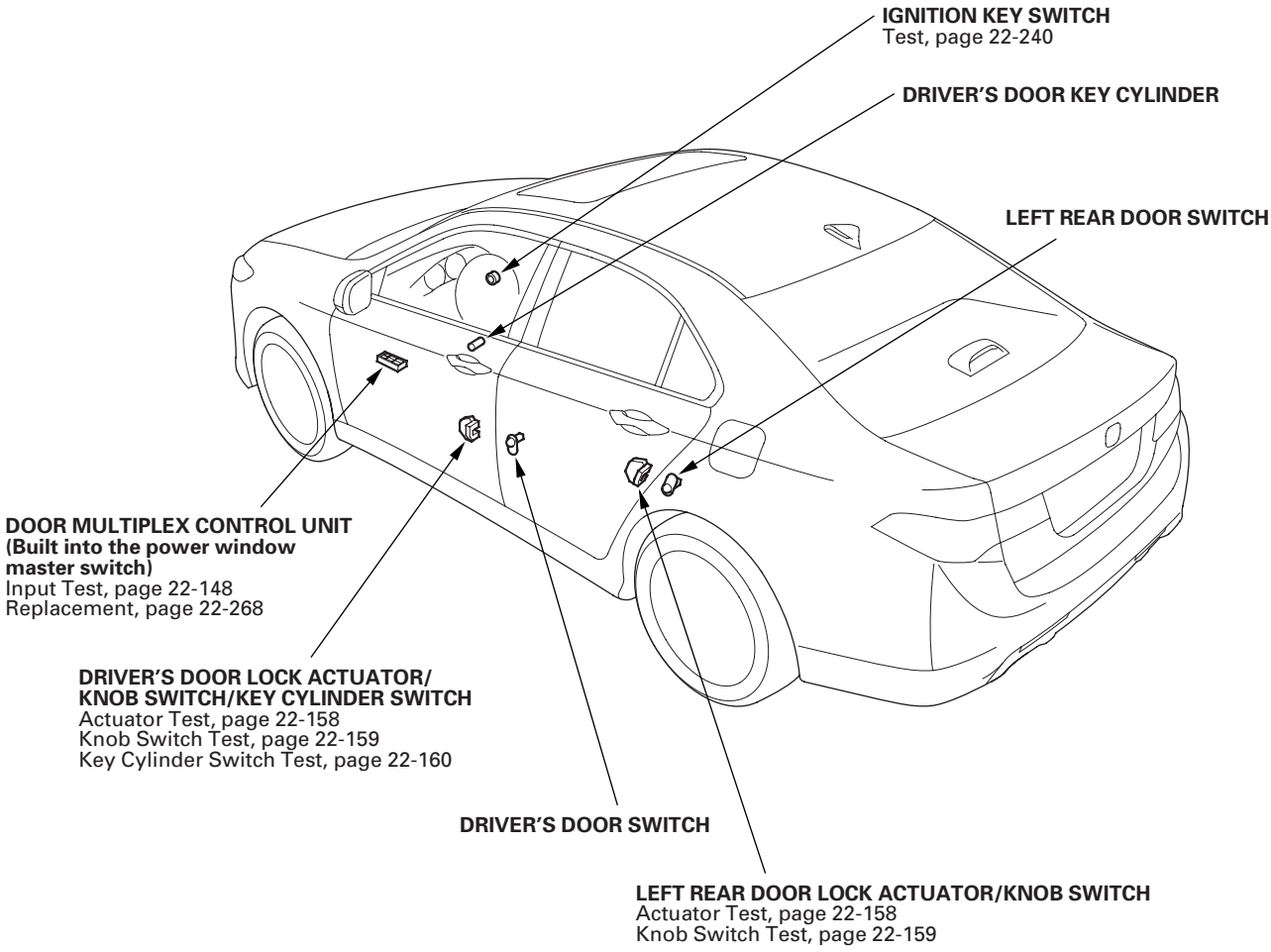
Component Location Index



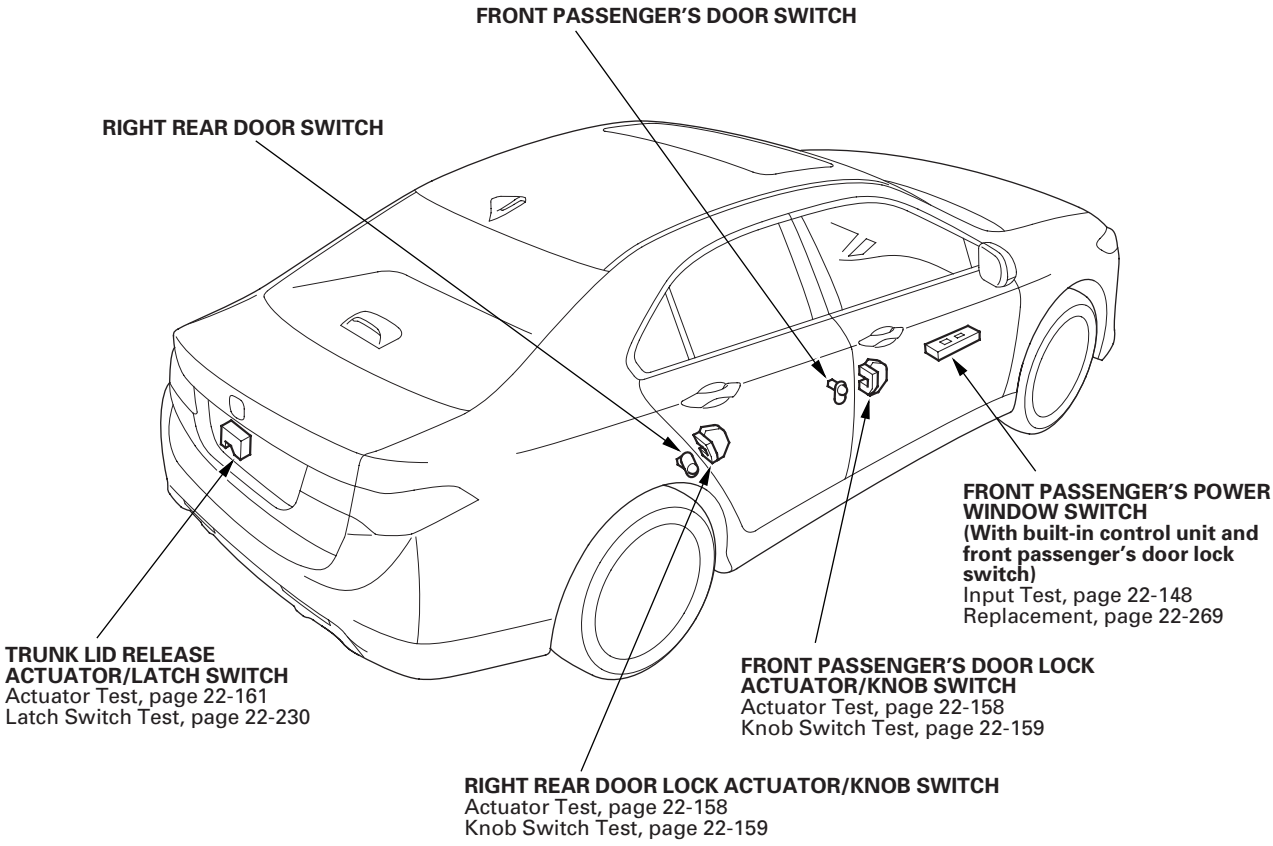
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Component Location Index (cont'd)



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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, the key must be removed from the ignition switch, 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's door with the key or pressing the UNLOCK button on the transmitter.

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 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. 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. 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.

If one of the switches is misadjusted or shorted internally, or there is a short in the circuit, the security system will not arm. As long as the control unit continues to receive a ground signal (0 V), 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. 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 navigation unit (if equipped) is disconnected, the input loses its ground, and the input voltage goes 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 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 with the key, or by pressing any button on the transmitter.

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.

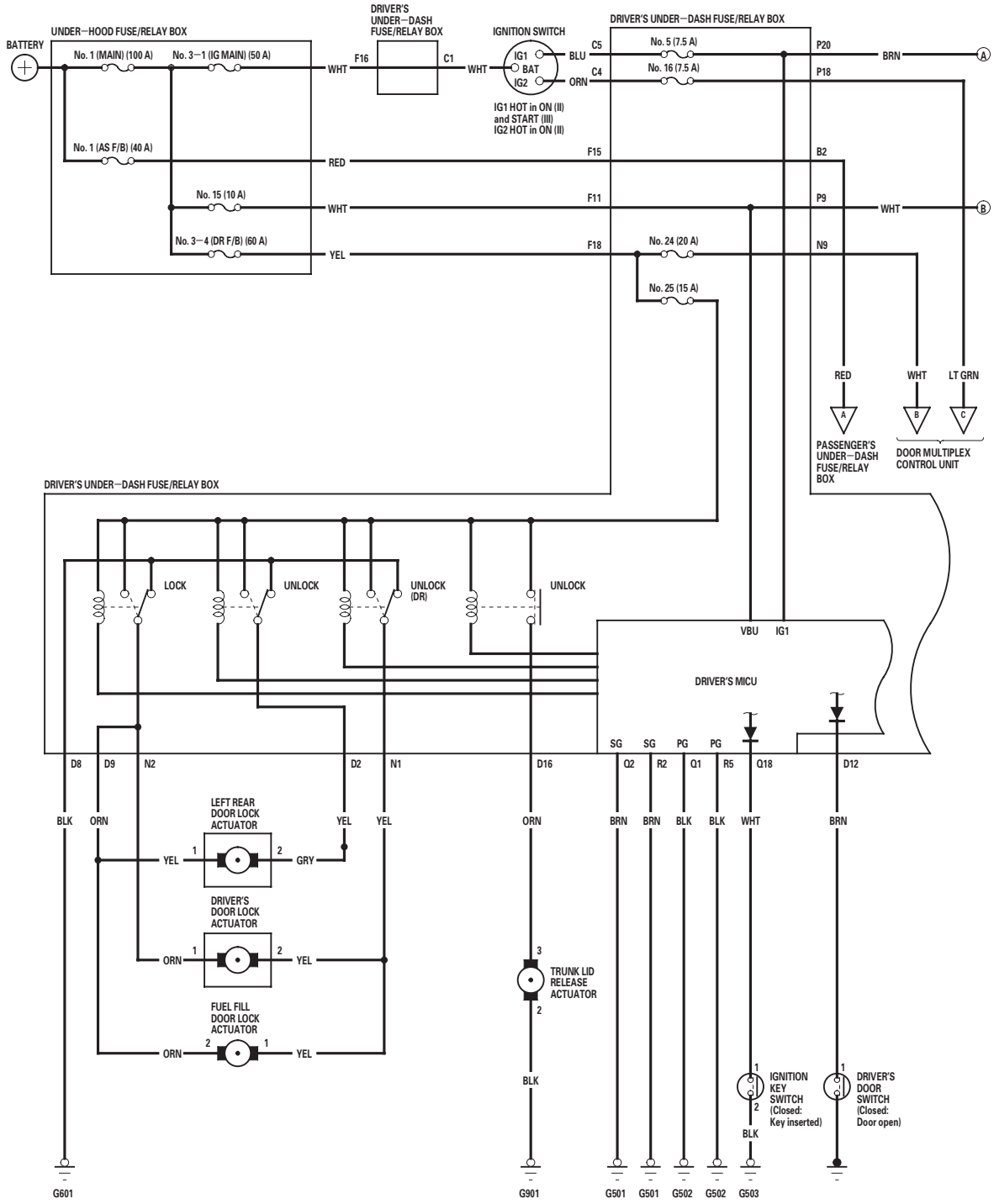
Panic Mode

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). The panic mode will not function if the ignition switch is in ON (II).

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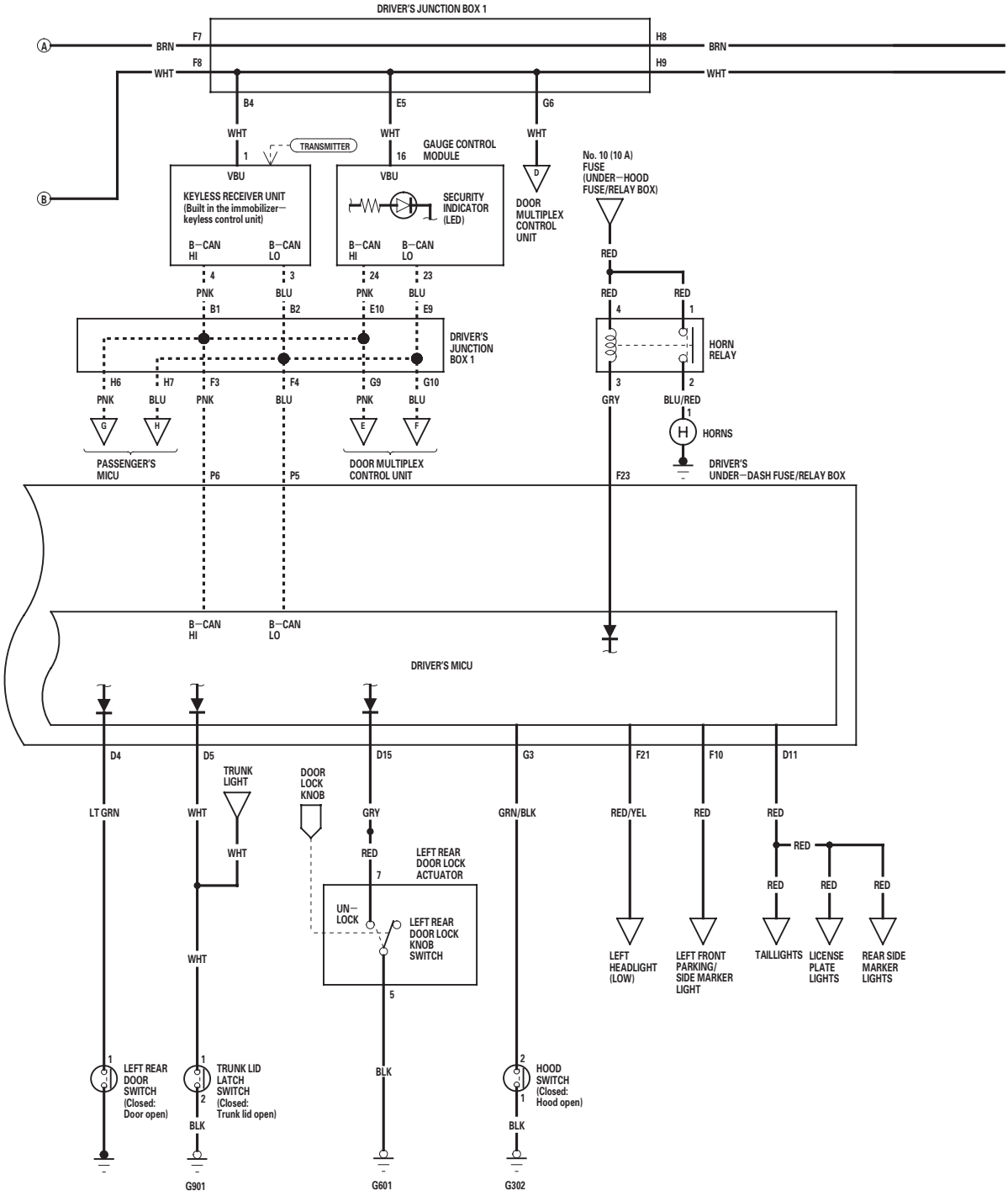
Circuit Diagram



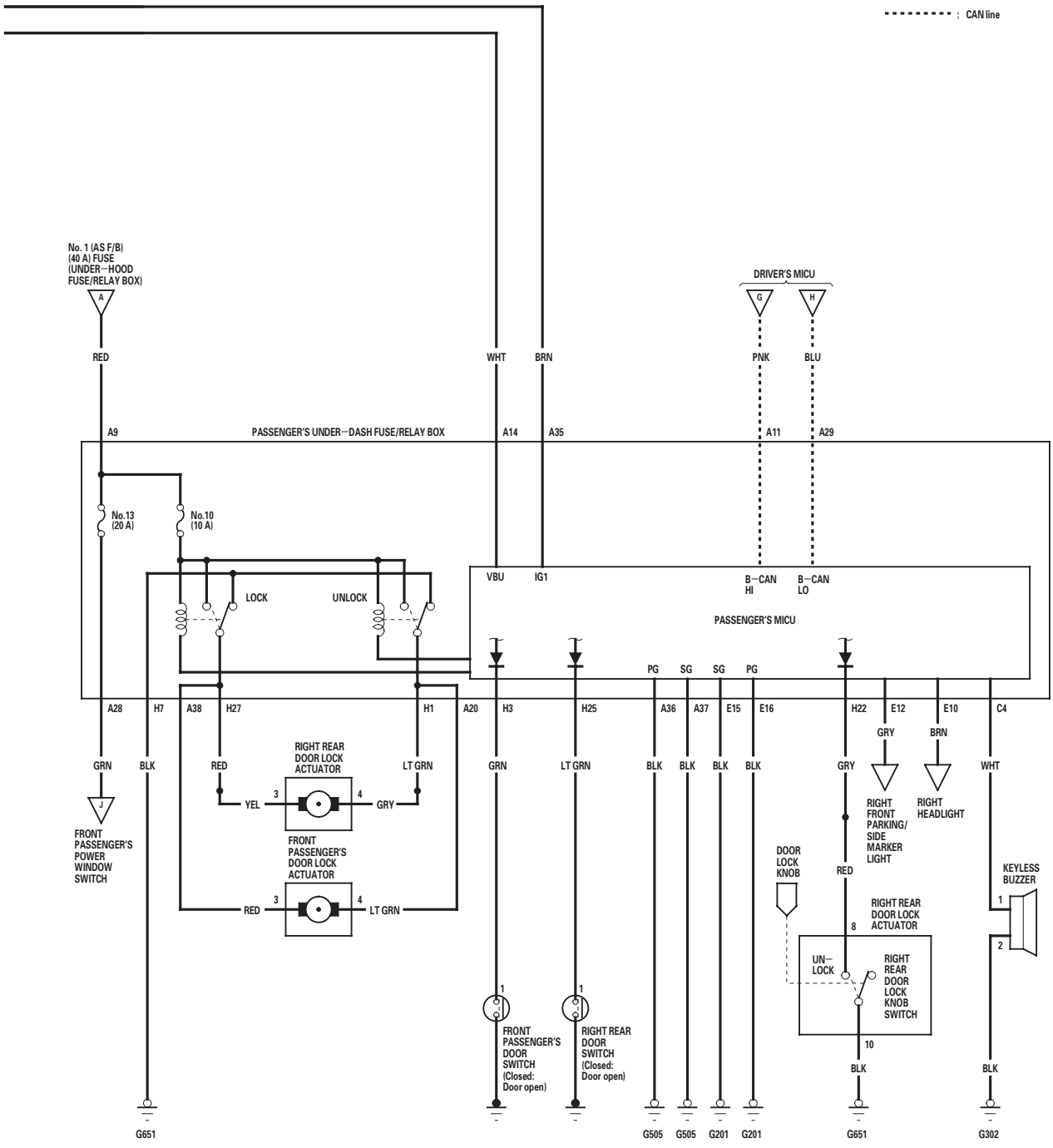
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Circuit Diagram (cont'd)



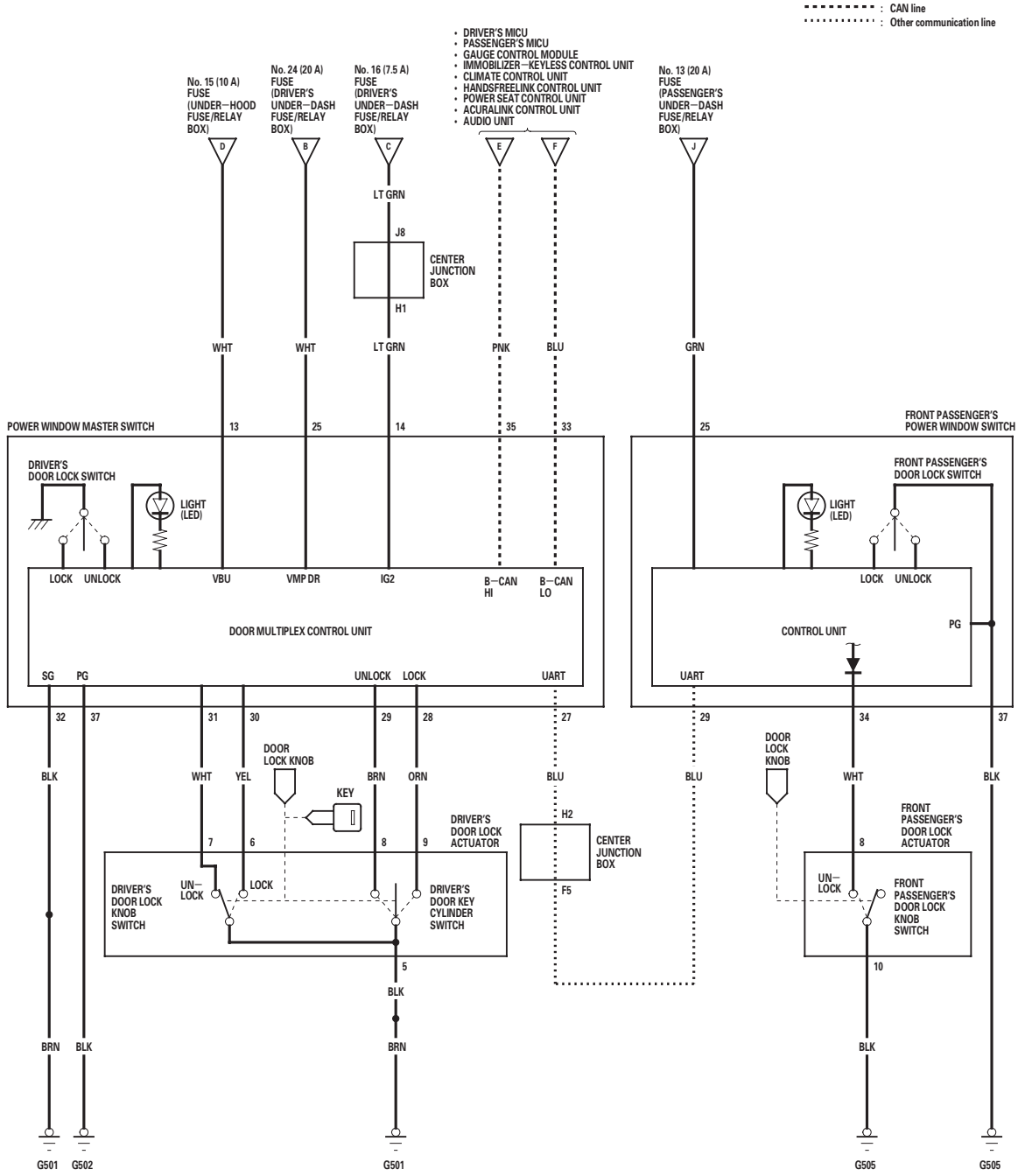
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Circuit Diagram (cont'd)



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DTC Troubleshooting

DTC B1127: Driver's Door Key Cylinder Switch Signal Error (LOCK/UNLOCK)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
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 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.

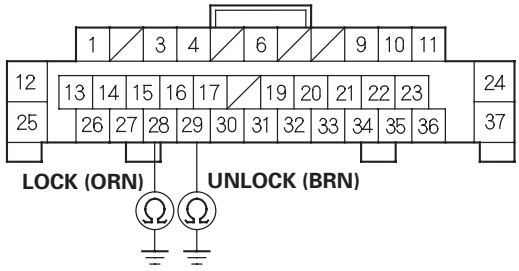
   NO—Go to step 7.
7. Disconnect the driver's door lock actuator 10P connector.
8. Check the ON/OFF information of the DRIVER'S DOOR KEY CYLINDER SWITCH (LOCK) and DRIVER'S DOOR KEY CYLINDER SWITCH (UNLOCK) in the DATA LIST.

   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).
10. Disconnect the door multiplex control unit 37P connector.
11. Check for continuity between body ground and the 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 to ground in the LOCK or UNLOCK wire. ■

NO—Replace the power window master switch (see page 22-268). ■

12. Turn the ignition switch to LOCK (0).
13. Disconnect the driver's door lock actuator 10P connector.
14. Disconnect the door multiplex control unit 37P connector.

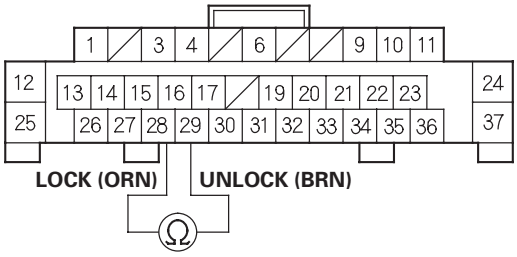
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DTC Troubleshooting (cont'd)

15. Check for continuity between the 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. If not, replace the driver's door lock actuator. ■

DTC B1128: Driver's Door Lock Switch Signal Error (LOCK/UNLOCK)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-110).

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 22-268). ■

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

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DTC B1129: Driver's Door Lock Knob Switch Signal Error (LOCK/UNLOCK)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
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 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 22-268). ■

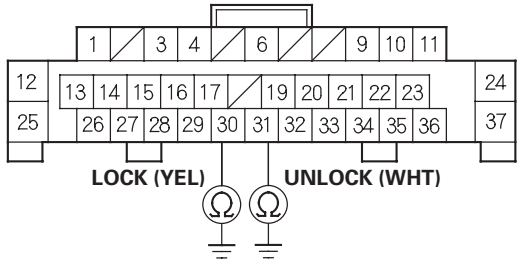
   NO—Go to step 7.
7. Disconnect the driver's door lock actuator 10P connector.
8. Check the ON/OFF information of the DRIVER'S DOOR LOCK KNOB SWITCH (LOCK) and DRIVER'S DOOR LOCK KNOB SWITCH (UNLOCK) in the DATA LIST.

   Are both information indicators OFF?

   YES—Go to step 12.

   NO—Go to step 9.
9. Turn the ignition switch to LOCK (0).
10. Disconnect the door multiplex control unit 37P connector.
11. Check for continuity between body ground and the 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 to ground in the LOCK or UNLOCK wire. ■

NO—Replace the power window master switch (see page 22-268). ■

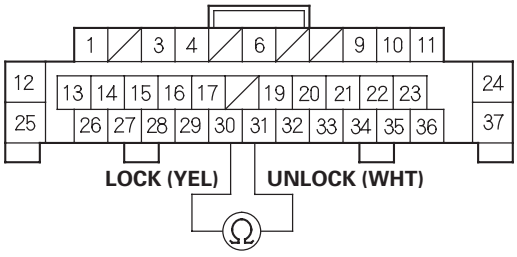
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DTC Troubleshooting (cont'd)

12. Turn the ignition switch to LOCK (0).
13. Disconnect the door multiplex control unit 37P connector.
14. Check for continuity between the 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. ■

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Symptom Troubleshooting

Power Door Locks/Keyless

1. Check for B-CAN DTCs. If any B-CAN DTCs are indicated, troubleshoot 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).

No.	Symptom	Check Items
1	All the doors will not lock or unlock with driver's door key cylinder or door lock switch or keyless transmitter.*	• Poor ground (G501, G502, G505, G601, G651) • Driver's door key cylinder switch test (see page 22-160). • 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) • Also, check for continuity of the UART line between the door multiplex control unit 37P connector terminal No. 27 and the front passenger's power window switch 37P connector terminal No. 29.
2	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 (G501, G502, G505, 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 22-148). • Door multiplex control unit input test (see page 22-154).
3	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, G505, G651) • Blown No. 1 (AS F/B) (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 22-151). • Door multiplex control unit input test (see page 22-154).
4	Keyless operation does not work (LOCK, UNLOCK, PANIC).	Symptom troubleshooting (see page 22-147).
5	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 22-147). • Door lock switch test (check the door switch ON/OFF information with the HDS)
6	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 22-147). • Door lock switch test (check the door switch ON/OFF information with the HDS)
7	Doors automatically relock 30 seconds after being unlocked with the transmitter even though a door has been opened.	• Symptom troubleshooting (see page 22-146). • Door switch test (check the door switch ON/OFF information with the HDS)
8	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 22-158).
9	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
10	The horn does not sound when PANIC button on the transmitter pressed.	Symptom troubleshooting (see page 22-146).
11	Keyless operation will work even though the ignition key is in the ignition switch.	Ignition key switch test (see page 22-240).

*: 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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Symptom Troubleshooting (cont'd)

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 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 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 22-163).

   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 22-392) or MICU (see page 22-74). ■

   NO—Replace the transmitter. ■

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

NOTE:
- Before troubleshooting, check the B-CAN DTCs. If any DTC is indicated, troubleshoot the indicated DTC 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 ceiling light switch to the DOOR position.

2. Turn the ignition switch to ON (II).

3. Watch the ceiling light and the multi-information display on the gauge control module.

   Does the ceiling 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 22-74) and each door switch, or a bad door switch. ■

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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 first.
- Before troubleshooting, do the keyless transmitter test (see page 22-163).

1. Turn the ignition switch to ON (II).
2. Try to start the engine.

   Does the engine start?

   YES—Go to step 3.

   NO—Go to the immobilizer symptom troubleshooting (see page 22-383). ■
3. Turn the ignition switch to LOCK (0).
4. Do the transmitter test (see page 22-163).

   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 (lock) with the door switch

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

1. Turn the ignition switch to LOCK (0).
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 22-163).

   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 22-392). ■

   NO—Replace the transmitter. ■

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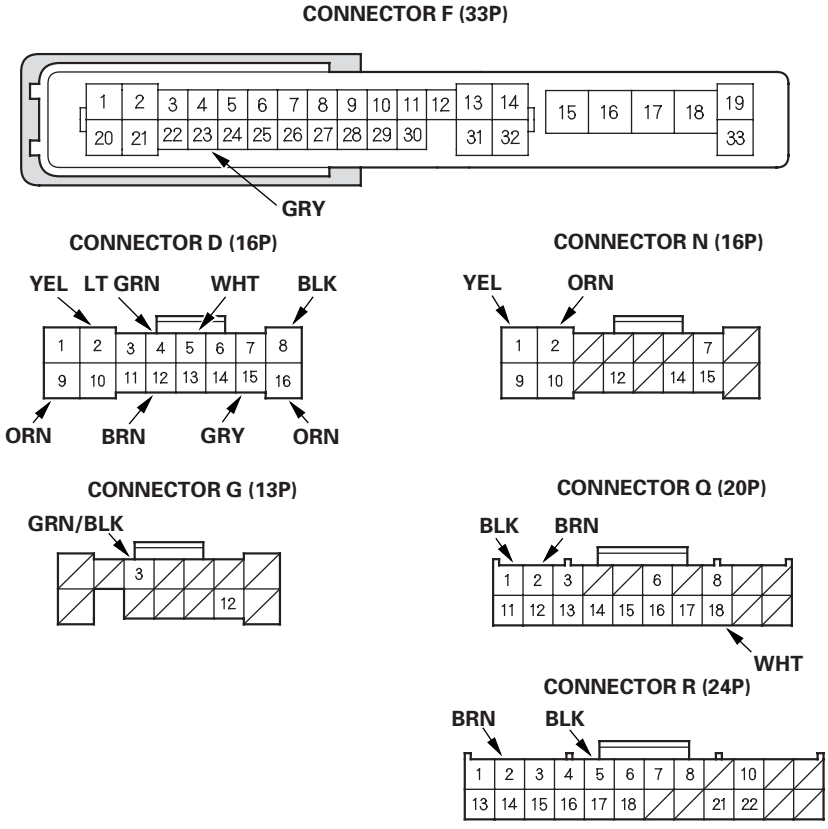
Control Unit Input Test

NOTE: Before testing, troubleshoot the multiplex integrated control system first, using B-CAN System Diagnosis Test Mode A (see page 22-110), and make sure the lighting system works properly.

Driver's MICU

1. Turn the ignition switch to LOCK (0).
2. Remove the driver's dashboard undercover (see page 20-119), then remove the dashboard lower cover (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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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.

   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 ORN	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 in the wire
D16	ORN	Connect terminal F11 to terminal D16 momentarily	Check actuator operation: The trunk lid release actuator should work.	• Poor ground (G901) • Faulty trunk lid release actuator • An open in the wire
F23	GRY	Under all conditions	Attach to ground: The horns should sound.	• Blown No. 10 (10 A) fuse in the under-hood fuse/relay box • Faulty horn relay • Faulty horn • An open in the wire
N1 N2	YEL ORN	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 in the wire
N1 D9	YEL ORN	Connect terminal F11 to terminal N1 (or D9), and terminal D9 (or N1) to body ground.	Check actuator operation: The fuel fill door lock actuator should UNLOCK (or LOCK).	• Faulty fuel fill door lock actuator • An open in the wire

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Control Unit Input Test (cont'd)

6. Reconnect the connectors to the driver's under-dash fuse/relay box, 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
D8	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G601) • An open in the wire
Q1	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
Q2	BRN	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
R2	BRN	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
R5	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
D4	LT GRN	Left rear door open	Measure the voltage to ground: There should be less than 1 V.	• Faulty left rear door switch • An open in the wire
		Left rear door closed	Measure the voltage to ground: There should be more than 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 1 V.	• Faulty trunk lid latch switch • Poor ground (G901) • An open in the wire
		Trunk lid closed	Measure the voltage to ground: There should be more than 5 V.	• Faulty trunk lid latch switch • A short to ground in the wire
D12	BRN	Driver's door open	Measure the voltage to ground: There should be less than 1 V.	• Faulty driver's door switch • An open in the wire
		Driver's door closed	Measure the voltage to ground: There should be more than 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 1 V.	• Poor ground (G601) • Faulty left rear door lock knob switch • An open in the wire
		Left rear door lock knob switch in LOCK	Measure the voltage to ground: There should be more than 5 V.	• Faulty left rear door lock knob switch • A short to ground in the wire
G3	GRN/ BLK	Hood open	Measure the voltage to ground: There should be less than 1 V.	• Faulty hood switch • Poor ground (G302) • An open in the wire
		Hood closed	Measure the voltage to ground: There should be more than 5 V.	• Faulty hood switch • A short to ground in the wire
Q18	WHT	Ignition key inserted into the ignition switch	Measure the voltage to ground: There should be less than 1 V.	• Faulty ignition key switch • Poor ground (G503) • An open in the wire
		Ignition switch LOCK (0), and the ignition key removed from the ignition switch	Measure the voltage to ground: There should be more than 5 V.	• Faulty ignition key switch • A short to ground in the wire

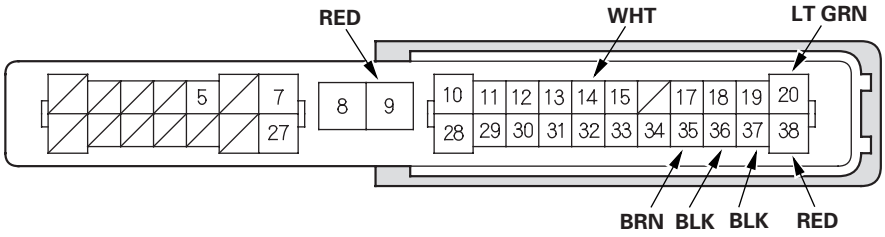
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Passenger's MICU

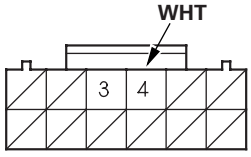
7. Turn the ignition switch to LOCK (0), and remove the right kick panel (see page 20-76).
8. Disconnect passenger's under-dash fuse/relay box connectors A, C, E, and H.

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

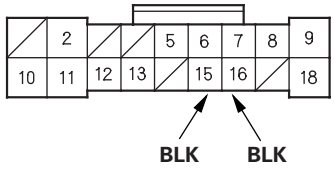
CONNECTOR A (33P)



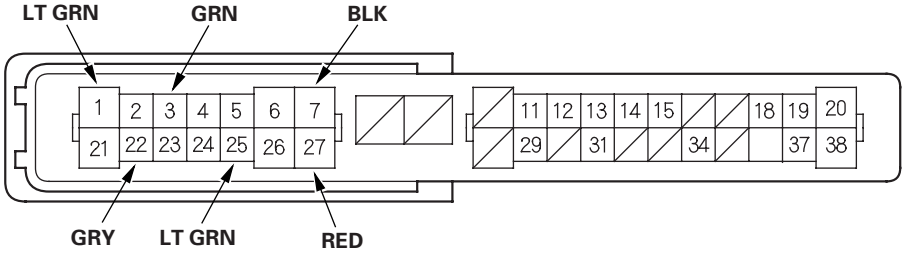
CONNECTOR C (12P)



CONNECTOR E (18P)



CONNECTOR H (38P)



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.

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Control Unit Input Test (cont'd)

10. 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 11.

    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
A20 A38	LT GRN RED	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 in the wire
H27 H1	RED LT GRN	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 in the wire
C4	WHT	Connect battery power to the terminal C4 momentarily.	Check keyless buzzer operation: The keyless buzzer should sound.	• Faulty keyless buzzer • Poor ground (G302) • An open in the wire

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11. Reconnect the connectors to the passenger's under-dash fuse/relay box, 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 12.

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 (AS F/B) (40 A) fuse in the under-hood fuse/relay box • Faulty driver's under-dash fuse/relay box • An open 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 in the wire
A35	BRN	Ignition switch ON (II)	Measure the voltage to ground: There should be battery voltage.	• Blown No. 5 (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
A36	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G505) • An open in the wire
A37	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G505) • An open in the wire
E15	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G201) • An open in the wire
E16	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G201) • An open in the wire
H7	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G651) • An open in the wire
H25	LT GRN	Right rear door open	Measure the voltage to ground: There should be less than 1 V.	• Faulty right rear door switch • An open in the wire
		Right rear door closed	Measure the voltage to ground: There should be more than 5 V.	• Faulty right rear door switch • A short to ground in the wire
H3	GRN	Front passenger's door open	Measure the voltage to ground: There should be less than 1 V.	• Faulty front passenger's door switch • An open in the wire
		Front passenger's door closed	Measure the voltage to ground: There should be more than 5 V.	• Faulty front passenger's door switch • A short to ground in the wire
H22	GRY	Right rear door lock knob switch in UNLOCK	Measure the voltage to ground: There should be less than 1 V.	• Poor ground (G651) • Faulty right rear door lock knob switch • An open in the wire
		Right rear door lock knob switch in LOCK	Measure the voltage to ground: There should be more than 5 V.	• Faulty right rear door lock knob switch • A short to ground in the wire

(cont'd)

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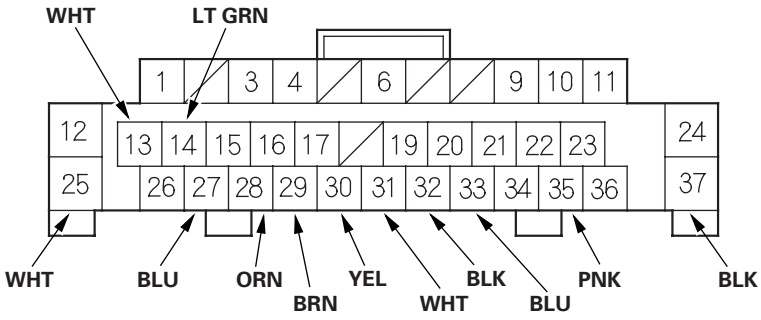
Control Unit Input Test (cont'd)

Door Multiplex Control Unit

12. Turn the ignition switch to LOCK (0), and open and close the driver's door, then remove the power window master switch (see page 22-268)

13. Disconnect the 37P connector from the door multiplex control unit.

DOOR MULTIPLEX CONTROL UNIT 37P CONNECTOR



Wire side of female terminals

14. 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 15.

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15. 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 test proves OK, go to step 16.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
27	BLU	Disconnect the front passenger's power window switch 37P connector	Check for continuity between the 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 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 the 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 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 the 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 wire
			Check for continuity to ground: There should be no continuity.	A short to ground in the wire

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(cont'd)

Control Unit Input Test (cont'd)

16. Reconnect the 37P connector to the door multiplex 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 17.

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
14	LT GRN	Ignition switch ON (II)	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 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 in the wire
32	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
37	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
28	ORN	Driver's door key cylinder switch in LOCK	Measure the voltage to ground: There should be less than 1 V.	• Poor ground (G501) • Faulty driver's door key cylinder switch • An open in the wire
		Driver's door key cylinder switch in neutral or UNLOCK	Measure the voltage to ground: There should be more than 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 1 V.	• Poor ground (G501) • Faulty driver's door key cylinder switch • An open in the wire
		Driver's door key cylinder switch in neutral or LOCK	Measure the voltage to ground: There should be more than 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 1 V.	• Poor ground (G501) • Faulty driver's door lock knob switch • An open in the wire
		Driver's door lock knob switch in neutral or UNLOCK	Measure the voltage to ground: There should be more than 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 1 V.	• Poor ground (G501) • Faulty driver's door lock knob switch • An open in the wire
		Driver's door lock knob switch in neutral or LOCK	Measure the voltage to ground: There should be more than 5 V.	• Faulty driver's door lock knob switch • A short to ground in the wire

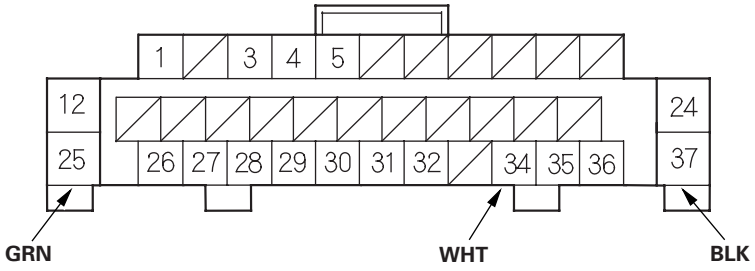
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Front Passenger's Power Window Switch

17. Turn the ignition switch to LOCK (0), and remove the front passenger's power window switch (see page 22-269).

18. 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

19. 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 20.

20. Reconnect the 37P connector to the front passenger's power window switch, and do these input tests at the 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 21.

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 in the wire
37	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G505) • An open in the wire
34	WHT	Front passenger's door lock knob switch in UNLOCK	Measure the voltage to ground: There should be less than 1 V.	• Poor ground (G505) • Faulty front passenger's door lock knob switch • An open in the wire
		Front passenger's door lock knob switch in LOCK	Measure the voltage to ground: There should be more than 5 V.	• Faulty front passenger's door lock knob switch • A short to ground in the wire

21. 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 22-74). If input failures are related to a particular control unit, replace the control unit.

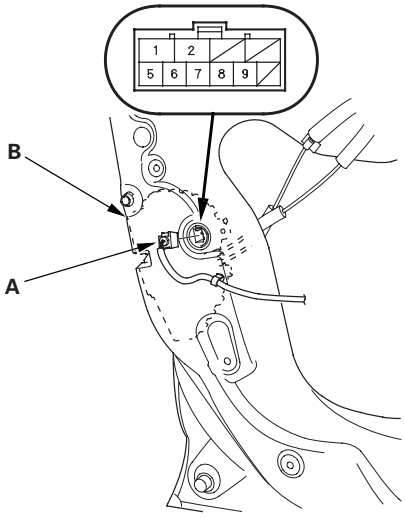
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Door Lock Actuator Test

Driver's Door and Left Rear Door

1. Remove the door panel.
   - Front (see page 20-9)
   - Rear (see page 20-25)
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.

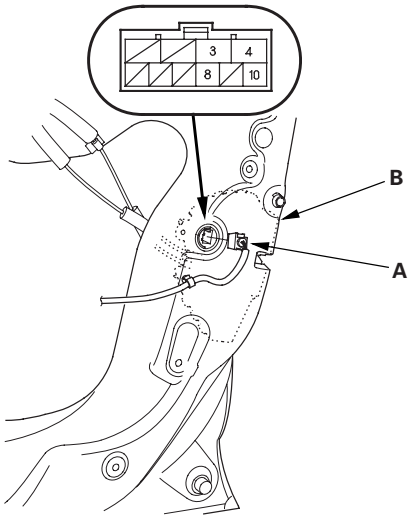
Terminal / Position	1	2
LOCK	⊕	⊖
UNLOCK	⊖	⊕

4. If the actuator does not operate as specified, replace it.

Front Passenger's Door and Right Rear Door

1. Remove the door panel.
   - Front (see page 20-9)
   - Rear (see page 20-25)
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.

Terminal / Position	3	4
LOCK	⊕	⊖
UNLOCK	⊖	⊕

4. If the actuator does not operate as specified, replace it.

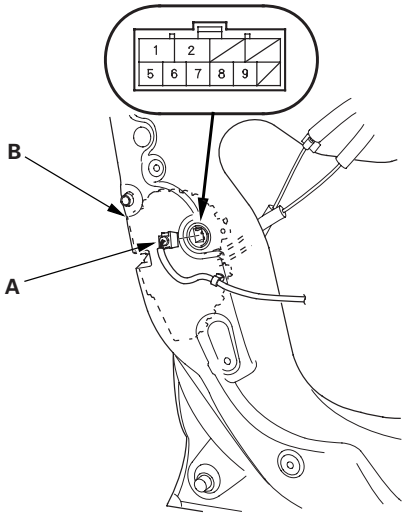
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Door Lock Knob Switch Test

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.

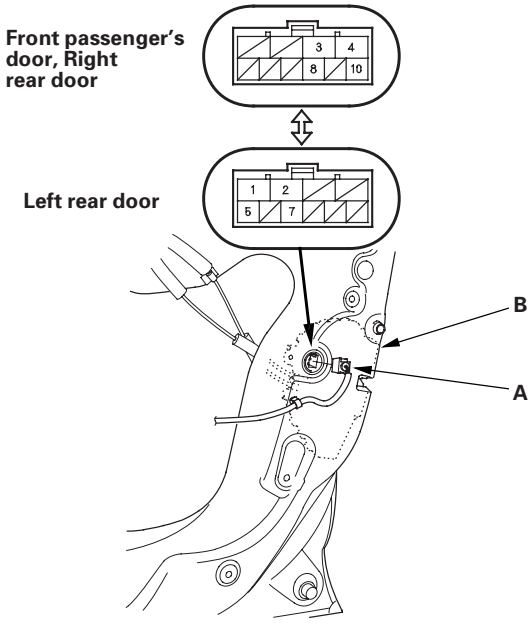
4. If the continuity is not as specified, replace the door lock actuator.

Passenger Doors

1. Remove the passenger's door panel.

   - Front (see page 20-9)
   - Rear (see page 20-25)

2. Disconnect the 10P connector (A) from the door lock actuator (B).



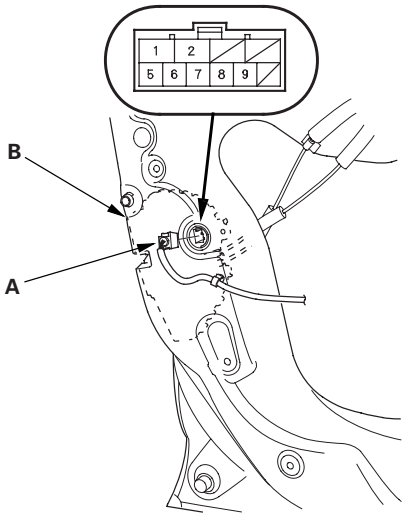
3. Check for continuity between the terminals. There should be continuity between terminals No. 8 [No. 7] and No. 10 [No. 5] when the door lock knob switch in the UNLOCK position and no continuity when the switch is in the LOCK position.
   [ ] : Left rear door

4. If the continuity is not as specified, replace the door lock actuator.

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Door Key Cylinder Switch Test

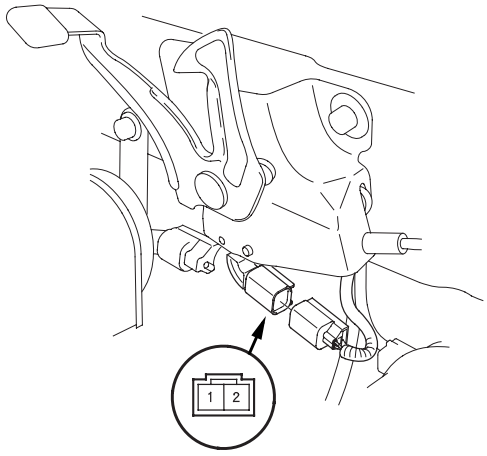
1. Remove the driver's door panel (see page 20-9).
2. Disconnect the 10P connector (A) from the door lock actuator (key cylinder switch) (B).



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.
4. If the continuity is not as specified, replace the door lock/actuator (see page 20-17).

Hood Switch Test

1. Open the hood.
2. Disconnect the 2P connector from the hood switch.

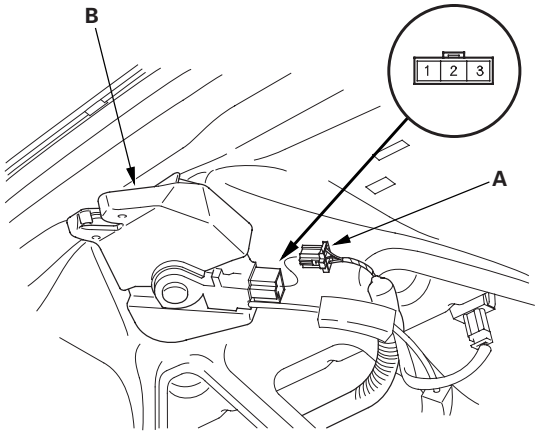


3. Check for continuity between the terminals.
   - There should be continuity between terminals No. 1 and No. 2 when the hood is opened (latch released).
   - There should be no continuity between terminals No. 1 and No. 2 when the hood is closed (latch pushed down).
4. If the continuity is not as specified, replace the hood latch assembly (see page 20-224).

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Trunk Lid Release Actuator Test

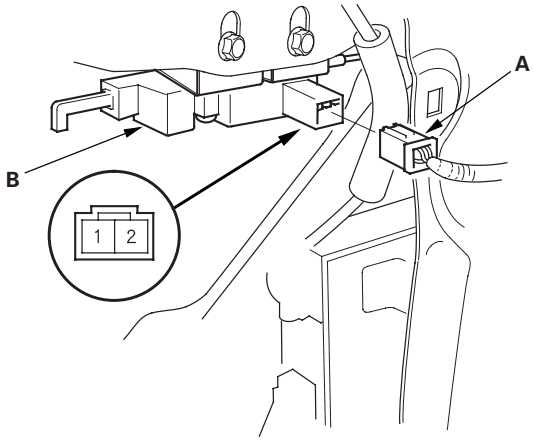
1. Open the trunk lid.
2. Disconnect the 3P connector (A) from the trunk lid latch switch/trunk release actuator (B).



3. Check actuator operation by connecting power to the terminal No. 3 and ground to terminal No. 2 momentarily. The actuator should work.
4. If the actuator does not work, replace the trunk lid latch switch/release actuator assembly (see page 20-228).

Fuel Fill Door Lock Actuator Test/ Replacement

1. Open the trunk lid, and remove the left trunk side trim panel (see page 20-91).
2. Disconnect the 2P connector (A) from the fuel fill door lock actuator (B).



3. Check actuator operation by connecting power to terminal No. 2 and ground to terminal No. 1 momentarily.

   NOTE: To prevent damage to the actuator, apply battery voltage momentarily.

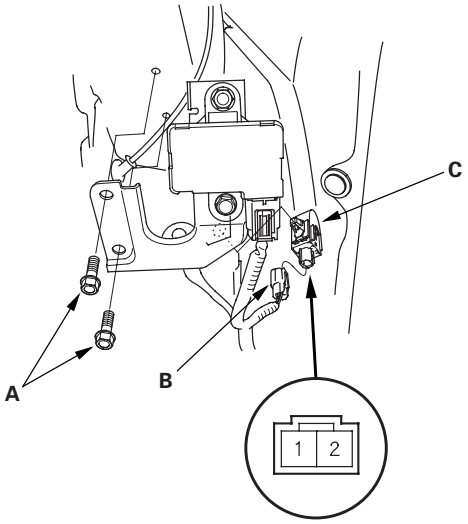
4. If the actuator does not work, replace it (see page 20-226).

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Keyless Buzzer Test/Replacement

1. Remove the left front inner fender (see page 20-213).

2. Remove the two bolts (A).



3. Disconnect the 2P connector (B) from the keyless buzzer (C).

4. Test the buzzer by connecting battery power to terminal No. 1 and ground to terminal No. 2. The buzzer should sound.

5. If the buzzer does not sound, replace it.

6. Install the buzzer in the reverse order of removal.

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Transmitter Test

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.
- 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 lock or unlock button five or six 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 transmitter (see page 22-391).
   - If the locks don't work, go to step 2.

2. Connect the HDS to the data link connector.

3. Select KEYLESS from the BODY ELECTRICAL menu, then select INSPECTION, then KEYLESS CHECK.

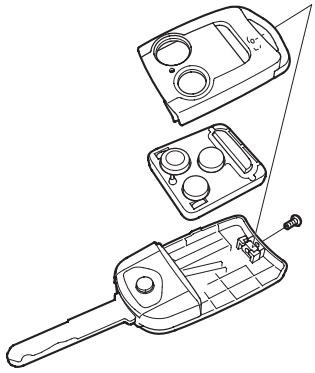
4. Press the lock, unlock, or panic button and check the response on the screen of the HDS.

   NOTE: The door lock actuators may or may not cycle when receiving input from the transmitter.

   - If KEYLESS ENTRY TRANSMITTER CODE IS RECEIVED is indicated, the transmitter is OK.
   - If DIFFERENT KEYLESS ENTRY TRANSMITTER CODE IS RECEIVED is indicated, the transmitter is not registered to the vehicle. If necessary, register the transmitter (see page 22-391).
   - If KEYLESS ENTRY TRANSMITTER CODE IS NOT RECEIVED is indicated, go to step 5.

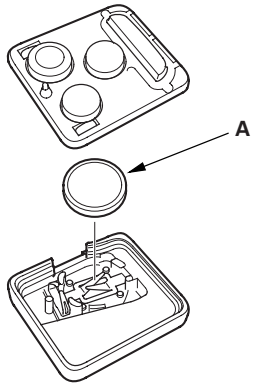
5. Open the transmitter, and check for water damage.

   - If you find any water damage, replace the transmitter, then register it (see page 22-391).
   - If there is no water damage, go to step 6.



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 IS RECEIVED is indicated, the transmitter is OK.
   - If KEYLESS ENTRY TRANSMITTER CODE IS NOT RECEIVED is indicated, go to step 7.



(cont'd)

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Transmitter Test (cont'd)

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 IS RECEIVED is indicated, replace the keyless transmitter and do the immobilizer system registration (see page 22-391).
   - If KEYLESS ENTRY TRANSMITTER CODE IS NOT RECEIVED is indicated, the immobilizer-keyless control unit is faulty, replace it and do the immobilizer system registration (see page 22-391).

   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.

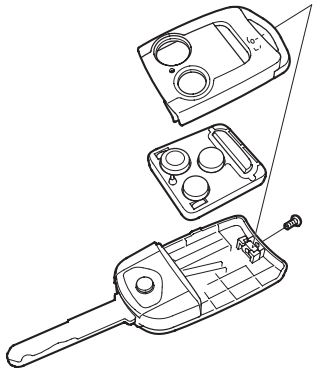
   - If the engine does not start, go to the immobilizer system troubleshooting (see page 22-383).
   - If the engine starts, go to step 2.

2. Press the lock or unlock button five or six 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.

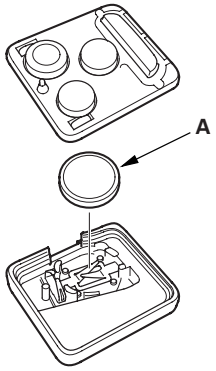
   - If you find any water damage, replace the transmitter.
   - If there is no water damage, go to step 4.



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4. Replace the transmitter battery (A) with a new one, 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 22-391), 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 and recheck (see page 22-391). 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 has been violated. The information can be retrieved using the HDS.

To retrieve the last tripped sensor data:

1. Select HISTORY DATA from the security system test mode menu.

2. Scroll through the data list.

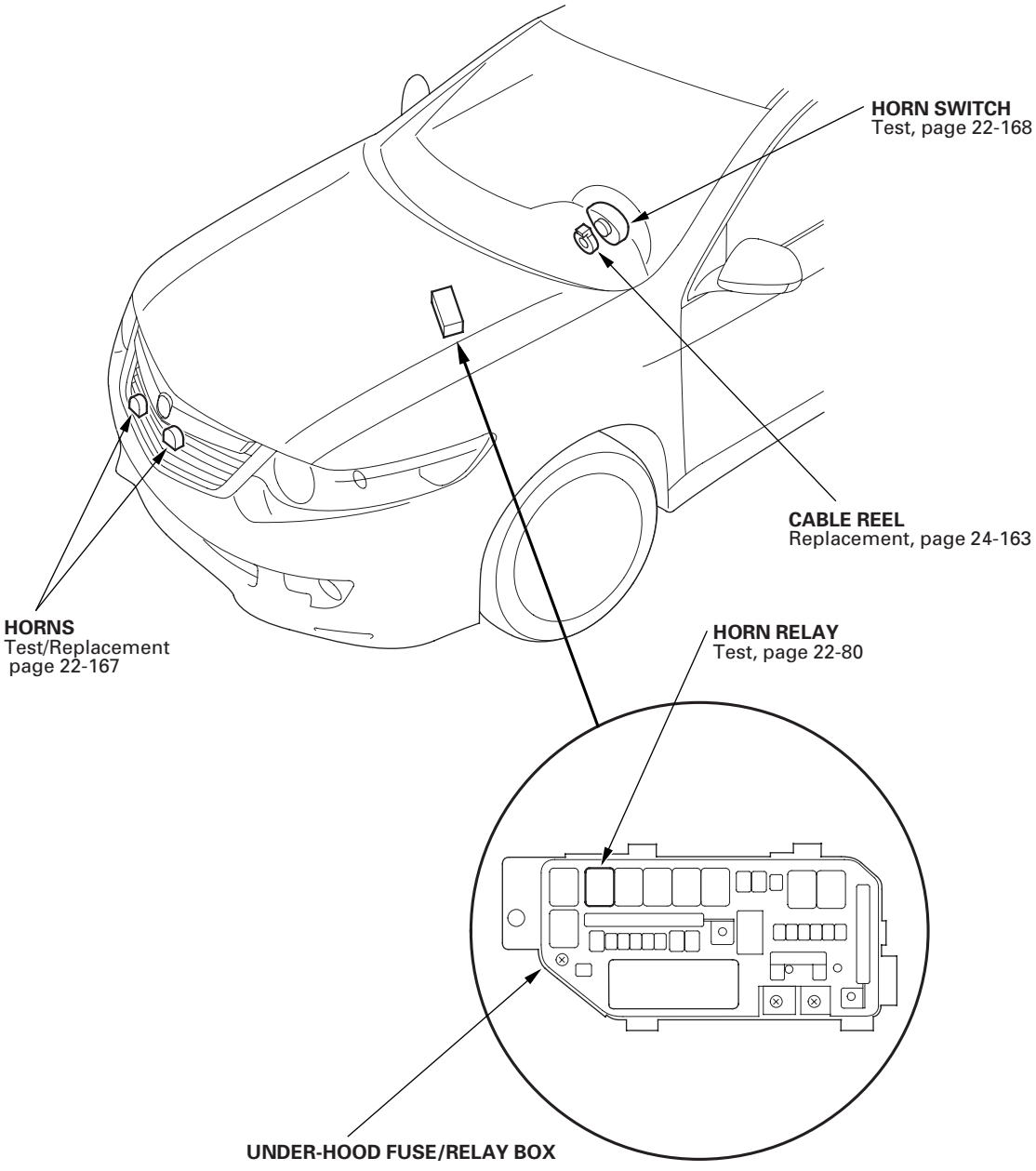
   - Sensors that were violated will indicate DETECT.
   - Sensors that were not violated will indicate NONE.

3. Inspect the DETECT circuit for:

   - Misadjusted or damaged switch.
   - Loose or corroded connections.
   - Intermittent short to ground.

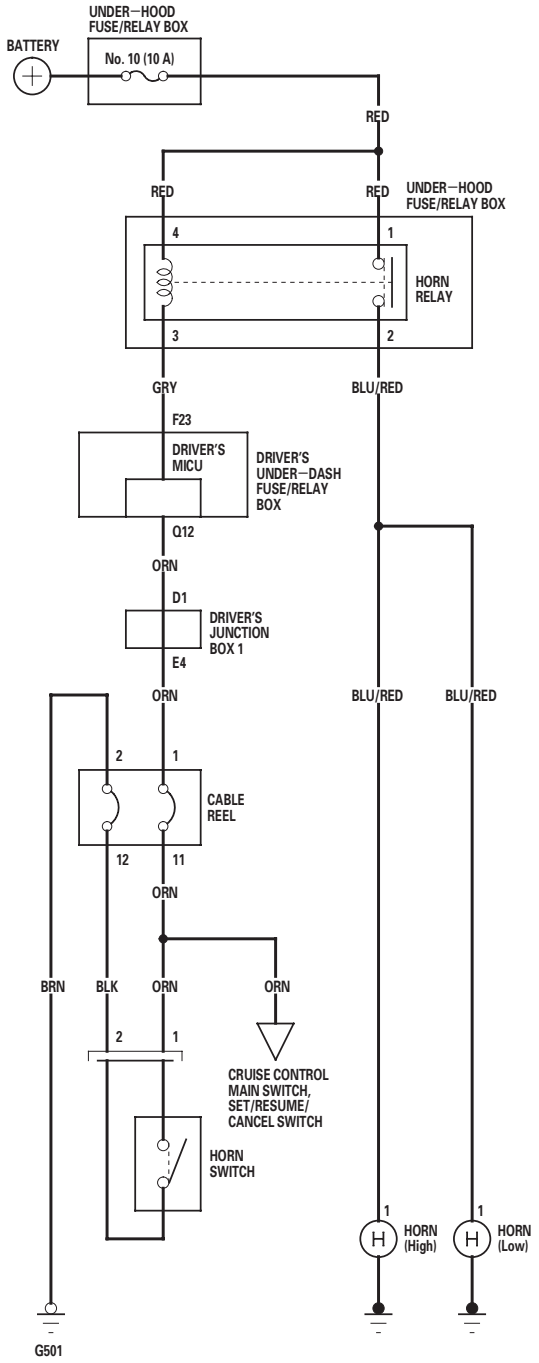
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Component Location Index



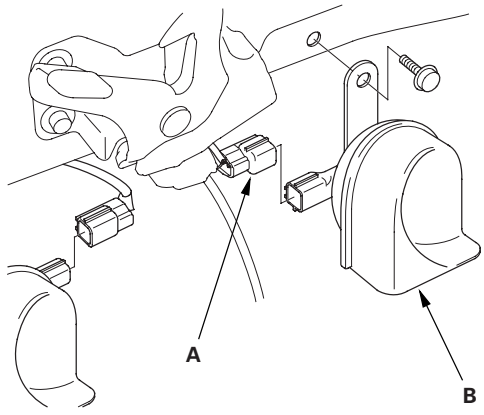
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Circuit Diagram

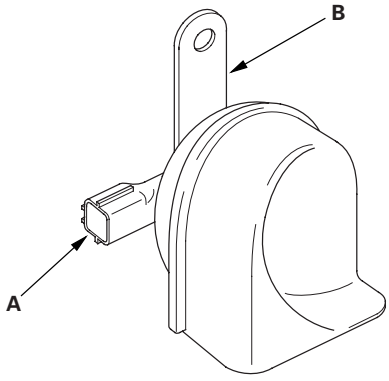


Horn Test/Replacement

1. Remove the grille cover (see page 20-202).
2. Disconnect the 1P connector (A) from each horn (B).



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



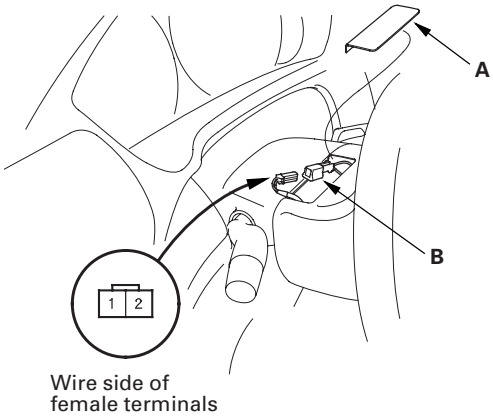
4. If it fails to sound, replace it.

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Horn Switch Test

NOTE: Check for a blown No. 10 (10 A) fuse in the under-hood fuse/relay box. If it is blown, check for a faulty horn relay.

1. Turn the steering wheel 180 degrees from the center position and remove the cover (A).



2. Disconnect the horn switch 2P connector (B).

3. Connect the horn switch 2P connector terminals No. 1 and No. 2 with a jumper wire. The horns should sound.

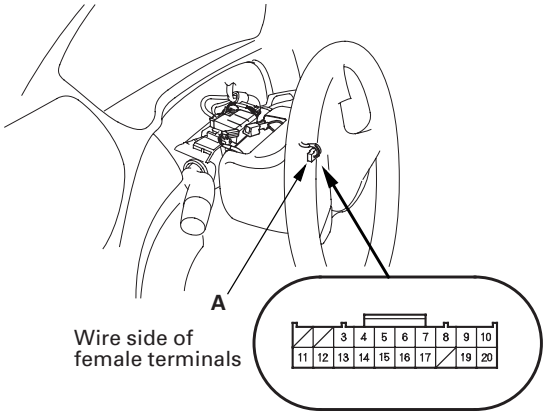
   - If the horns sound, check or adjust the installation of the driver's airbag assembly and the horn switch plate.
   - If the horns don't sound, go to step 4.

4. Remove the jumper wire from the horn switch 2P connector.

5. Remove the steering column covers (see page 20-132).

6. Remove the driver's airbag assembly (see page 24-150).

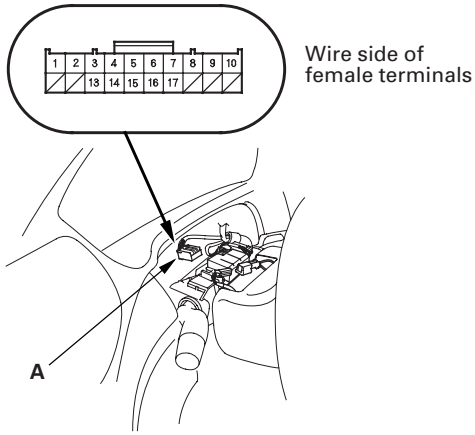
7. Disconnect the cable reel subharness 20P connector (A).



8. Connect the cable reel subharness 20P connector (A) terminals No. 11 and No. 12 with a jumper wire. The horns should sound.

   - If the horns sound, replace the cable reel subharness.
   - If the horns don't sound, go to step 9.

9. Disconnect the dashboard wire harness 20P connector (A).

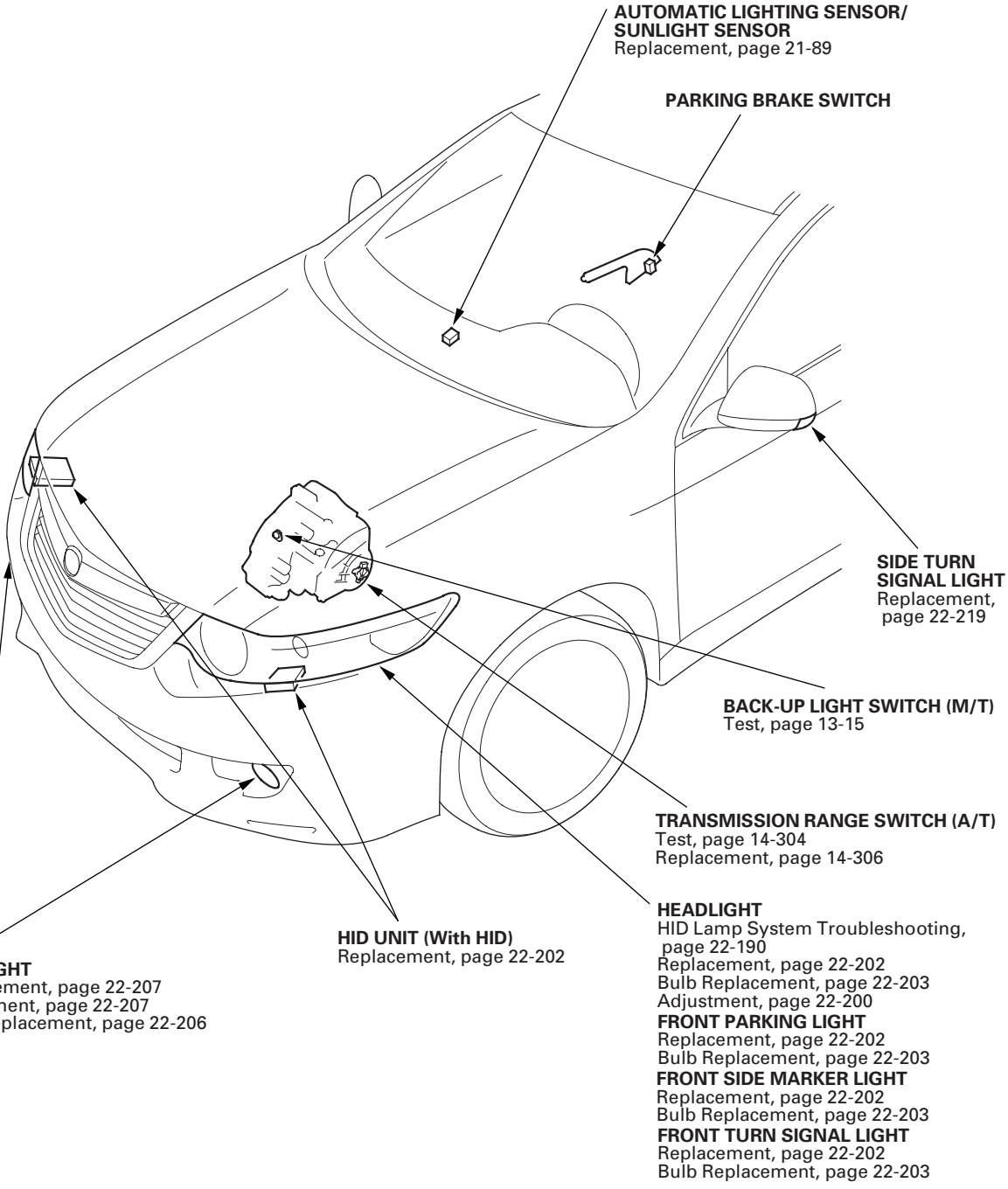


10. Connect the dashboard wire harness 20P connector terminals No. 1 and No. 2 with a jumper wire. The horns should sound.

    - If the horns sound, replace the cable reel.
    - If the horns don't sound, repair an open in terminal No. 2 or No. 1 wire, or a faulty driver's MICU.

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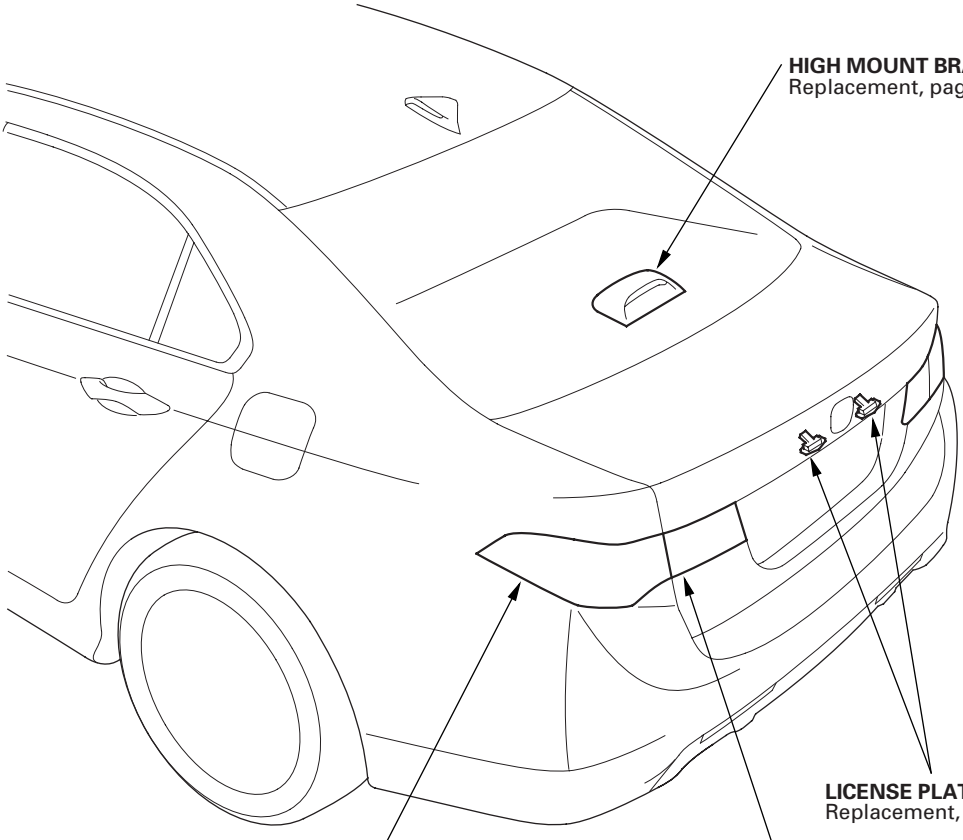
Component Location Index



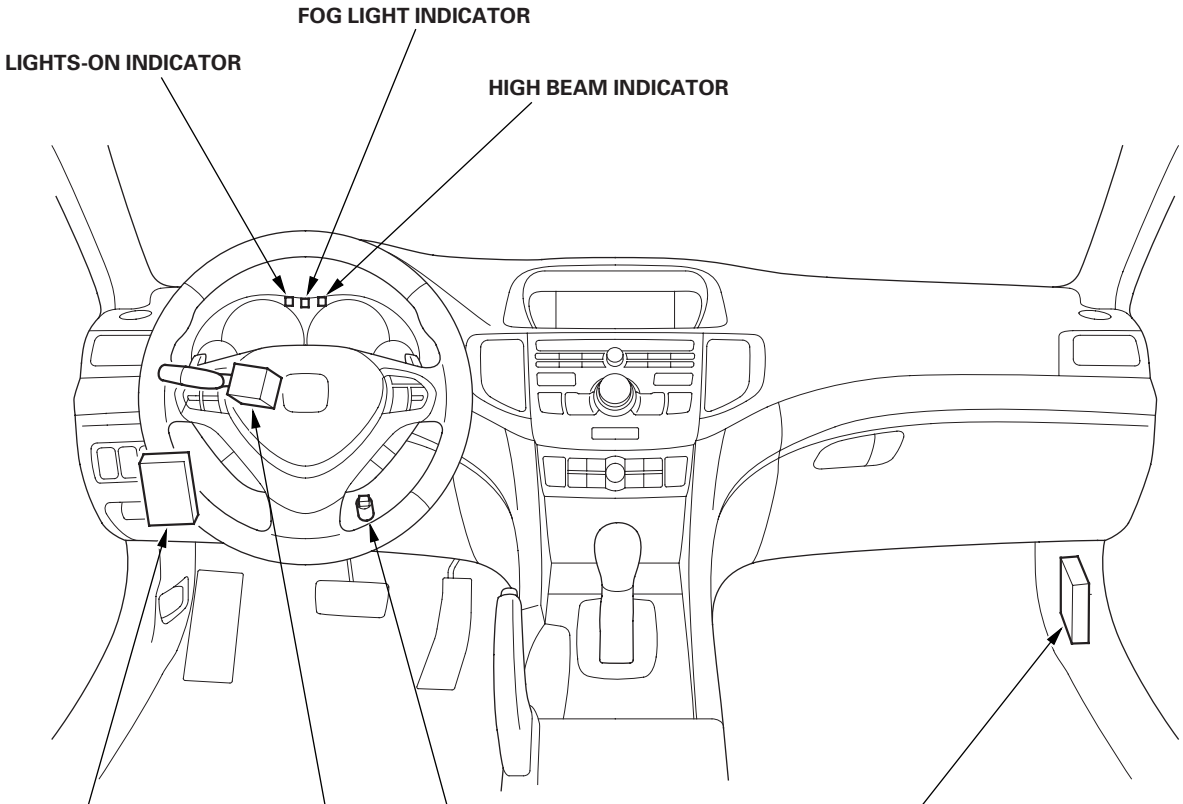
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Component Location Index (cont'd)



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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 the No. 8 terminal of the 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 by 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 headright 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 the No. 8 and No. 22 terminals of the 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 No. 21 terminal of the 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.

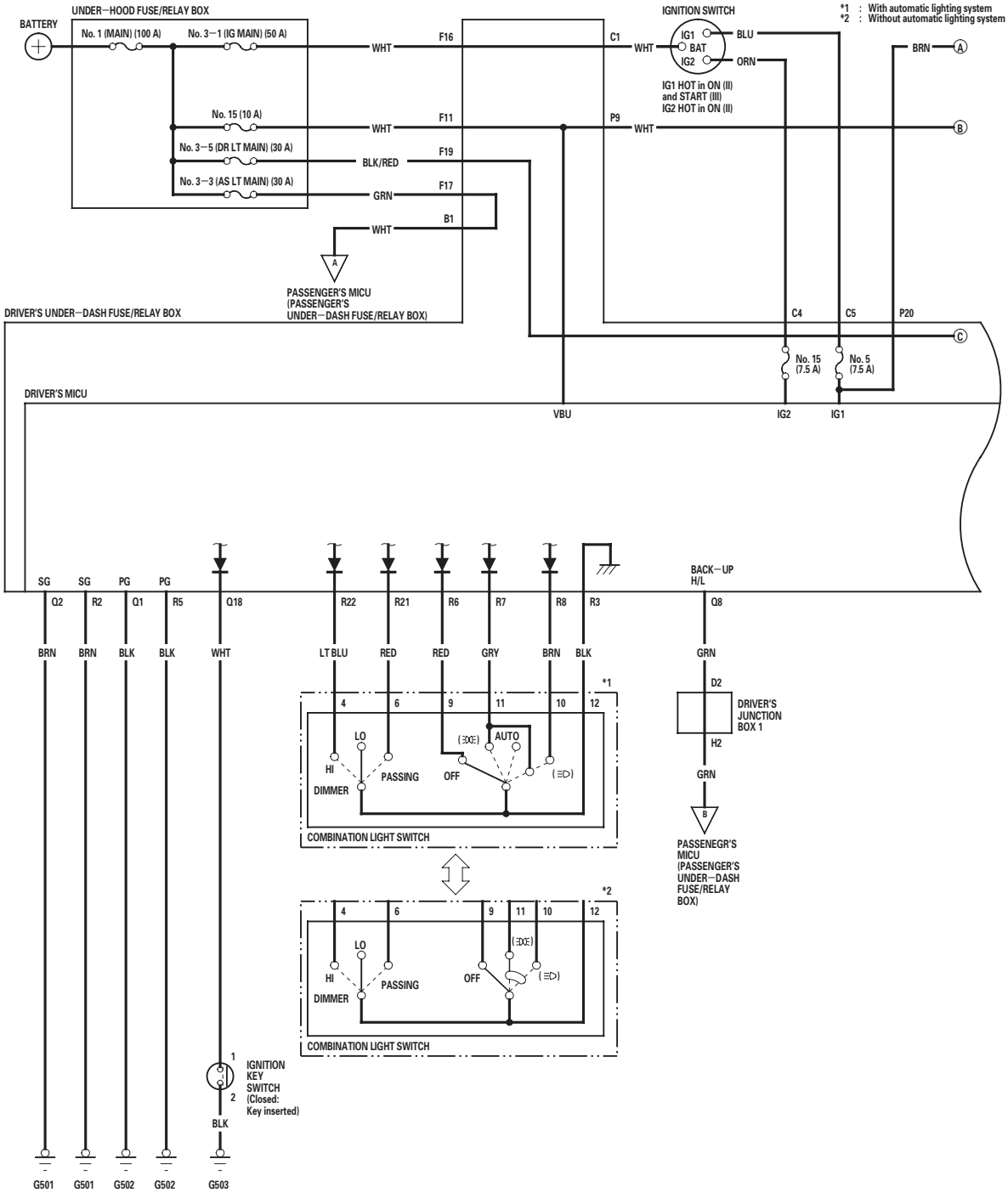
Daytime Running Lights System Description

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), 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 sends a signal to the gauge control module, and the DRL indication is indicated on the MID.

NOTE:
- The daytime running lights are disabled when the ignition switch is turned to LOCK (0). To keep the daytime running lights from coming on, apply the parking brake switch while the ignition switch is in LOCK (0) position. When you then turn the ignition switch back to ON (II), 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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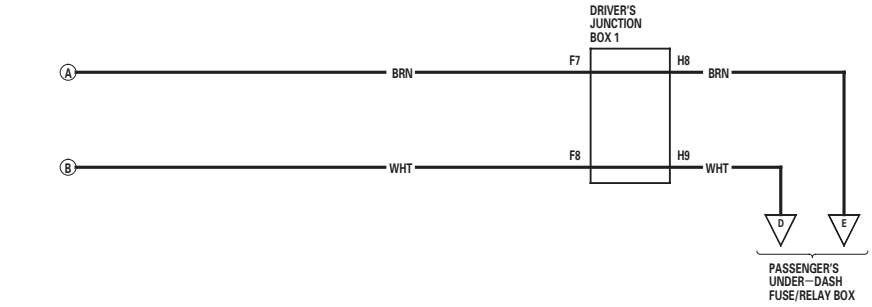
Circuit Diagram

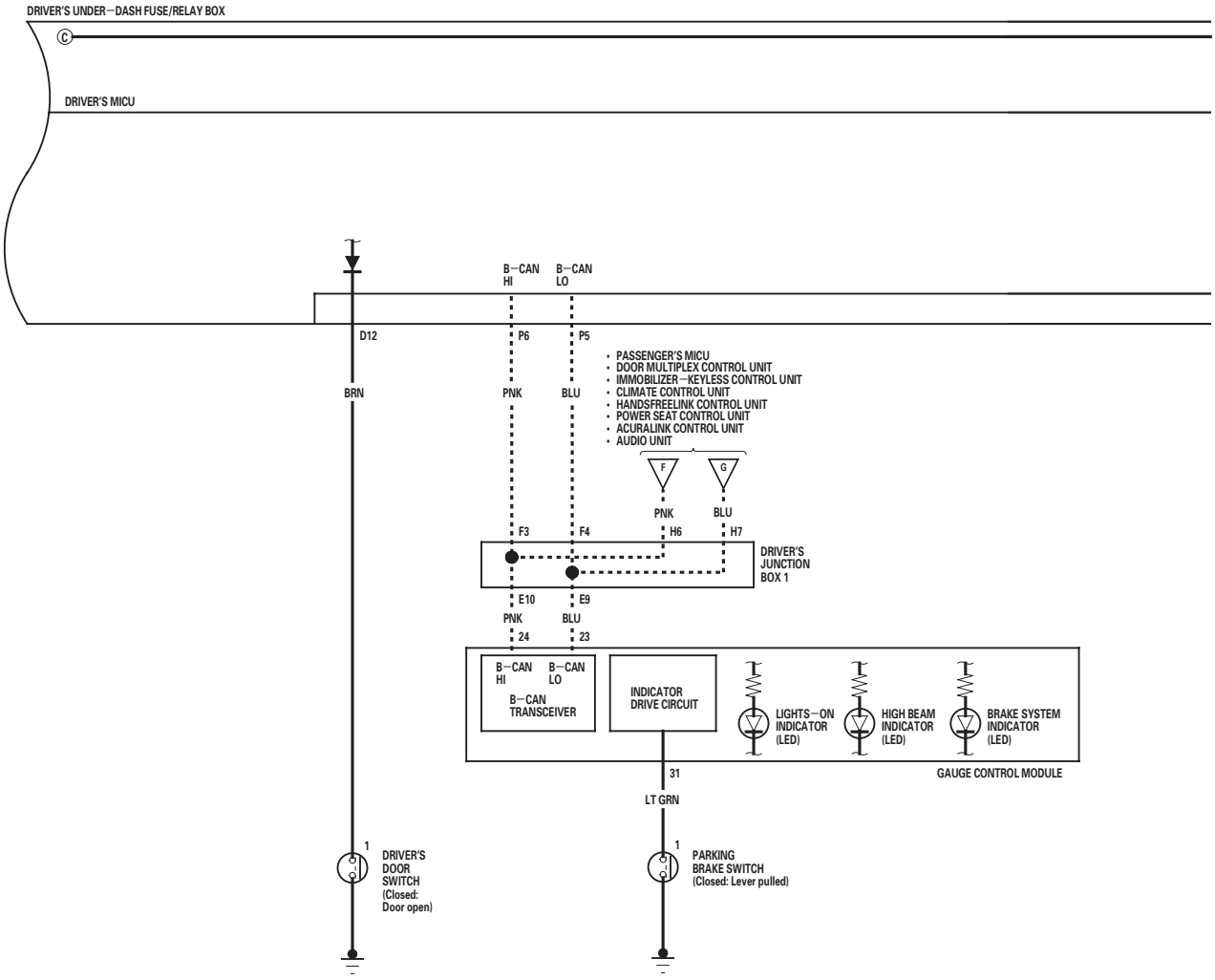


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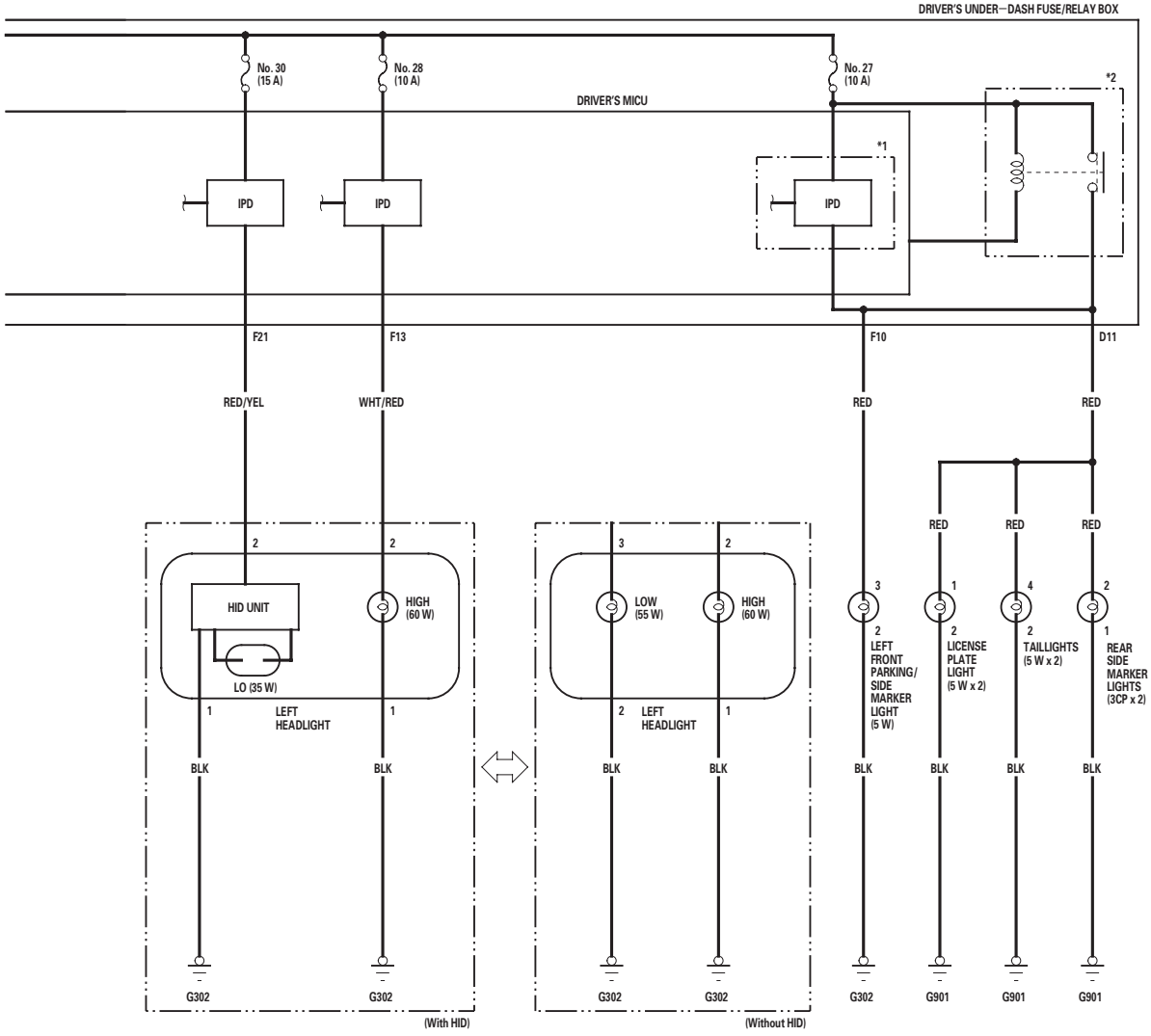
Circuit Diagram (cont'd)





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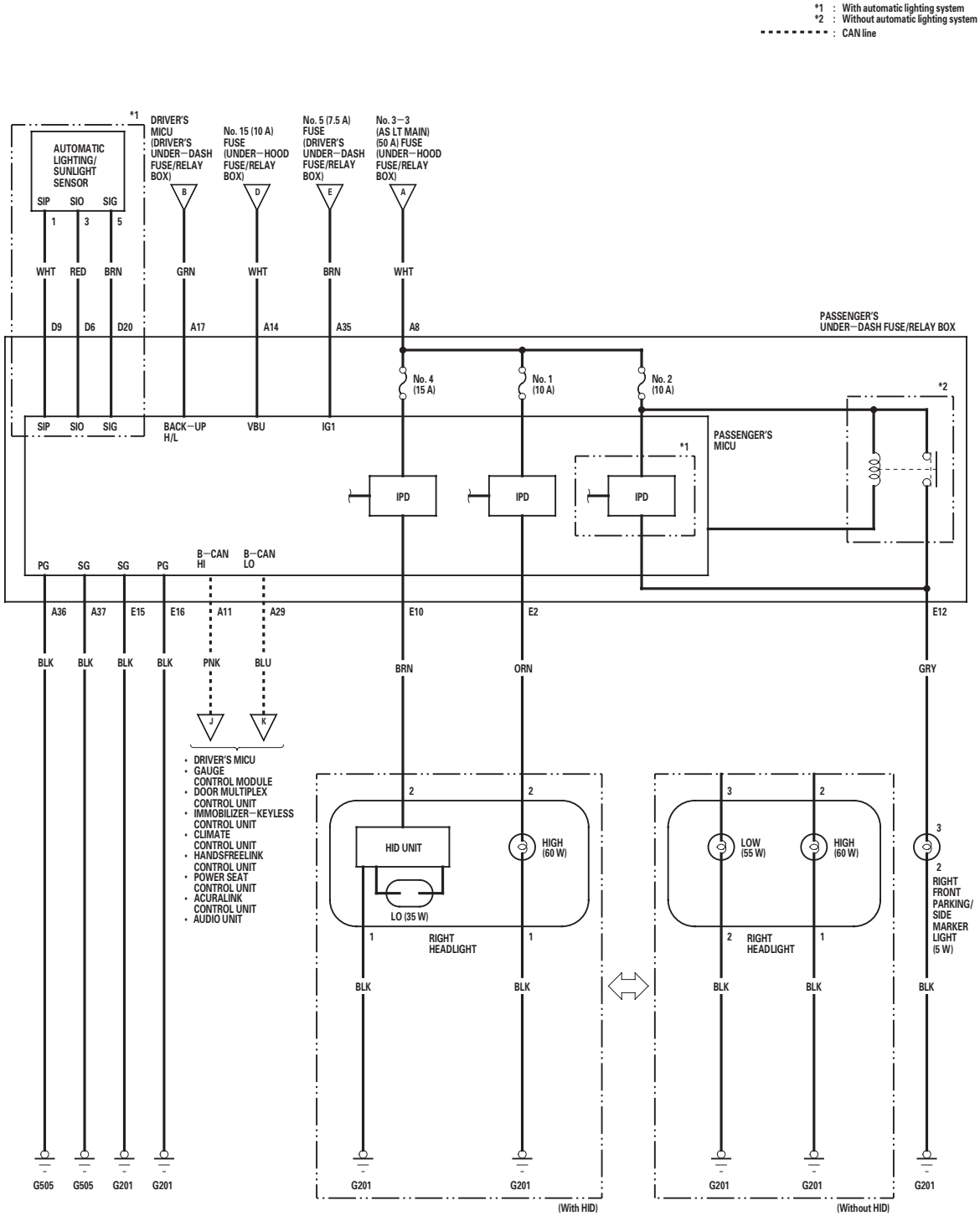
*1 : With automatic lighting system
*2 : Without automatic lighting system
- - - - - - - - - : CAN line



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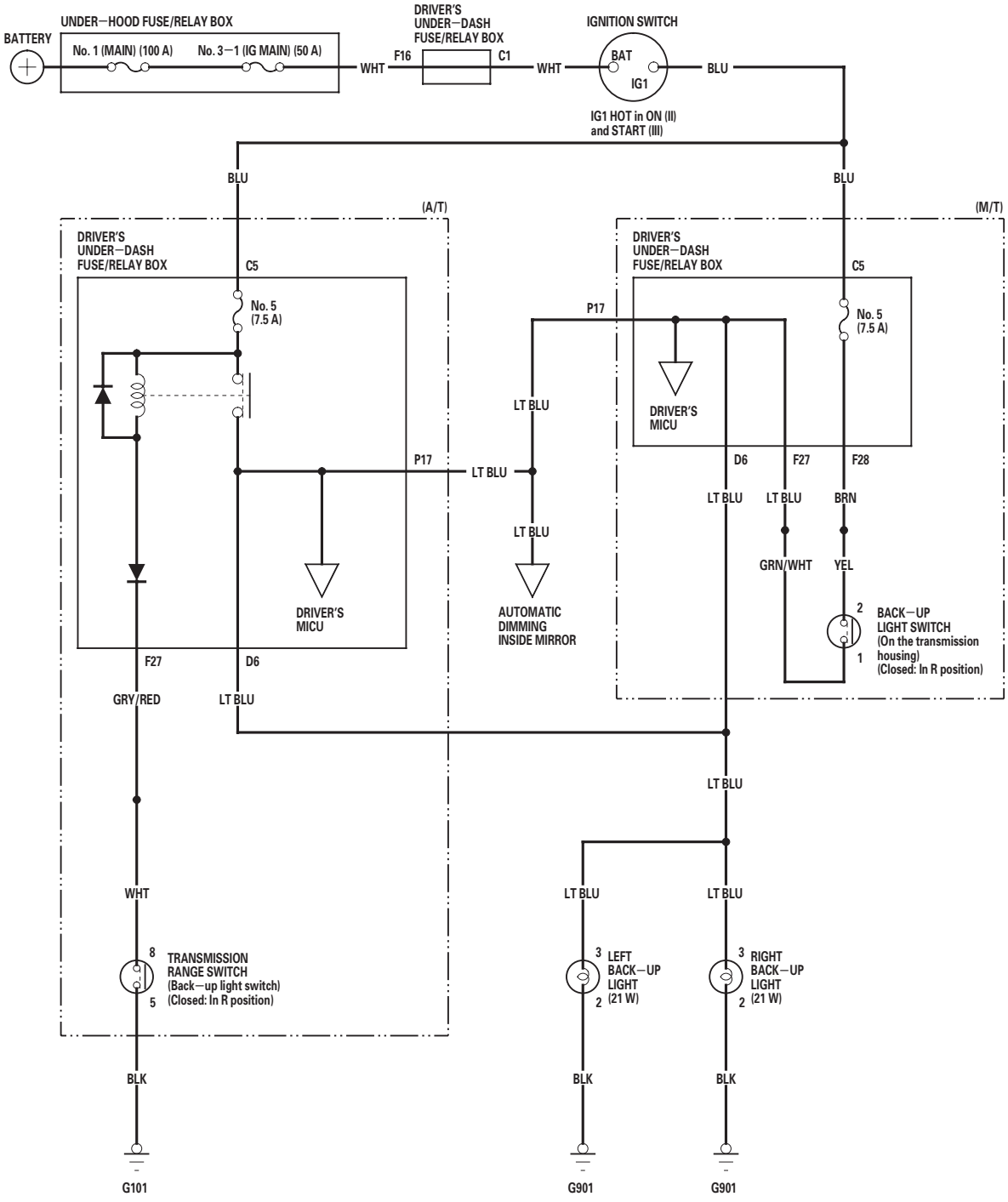
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Circuit Diagram (cont'd)



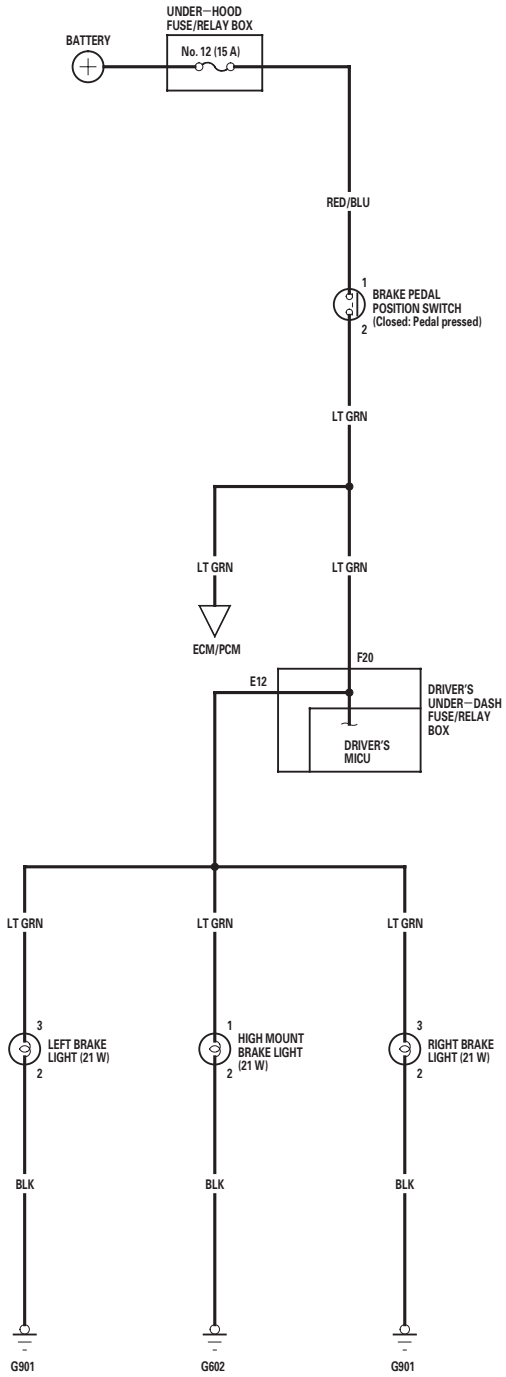
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Circuit Diagram - Back-up Lights



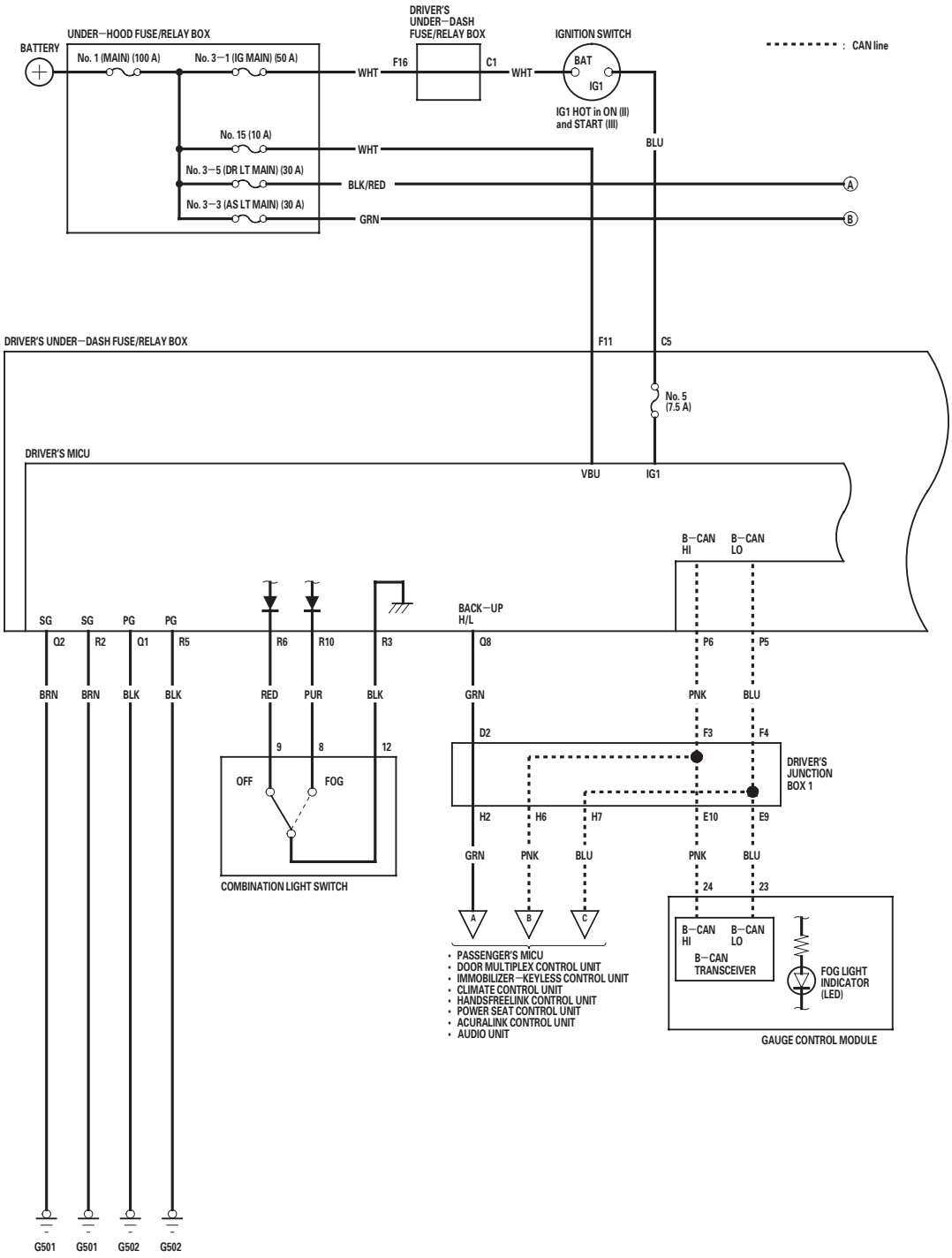
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Circuit Diagram - Brake Lights



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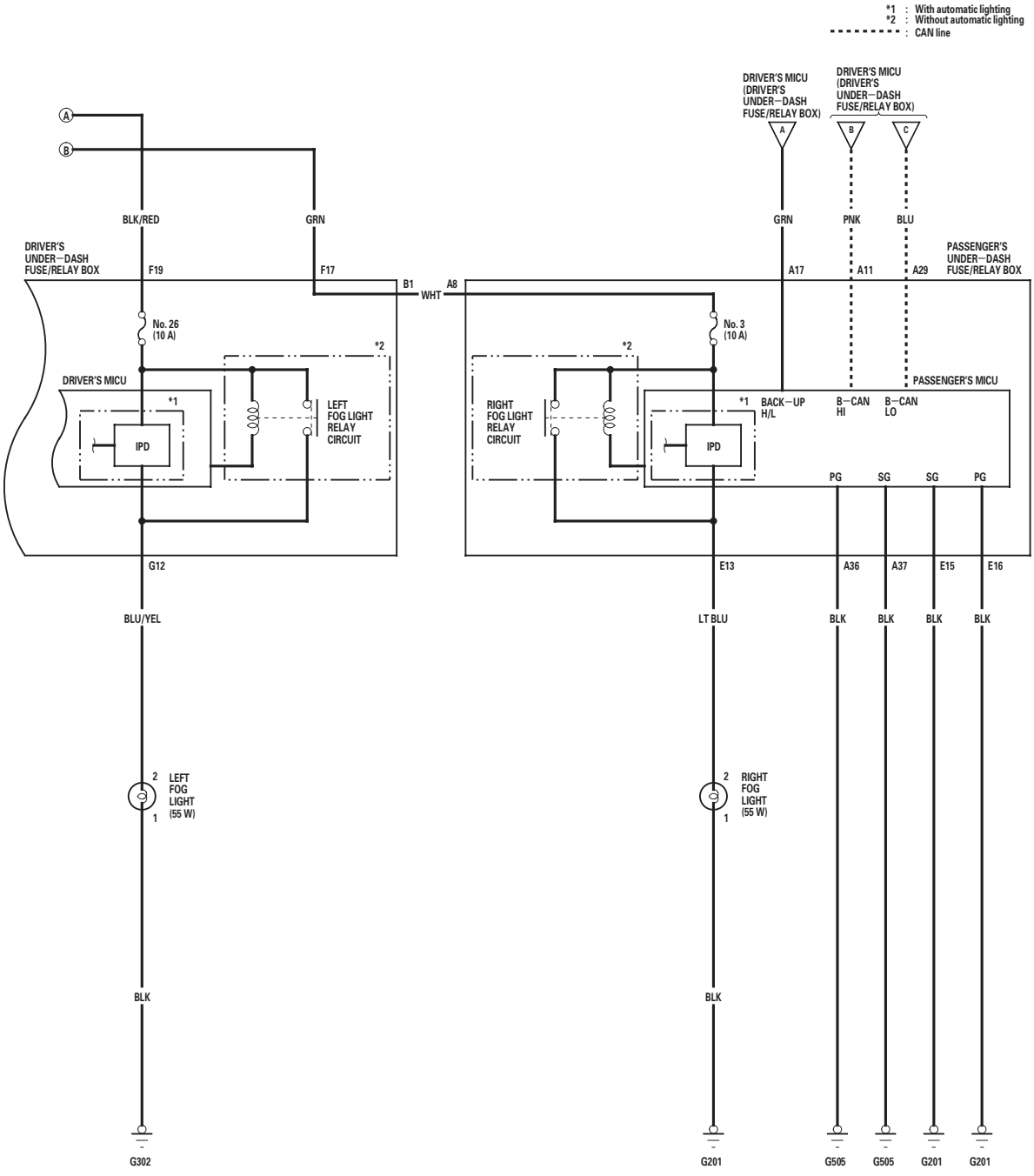
Circuit Diagram - Fog Lights



(cont'd)

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Circuit Diagram - Fog Lights (cont'd)



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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 22-110).
- 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).
3. Release the parking brake lever.
4. Turn the headlight switch OFF.
5. Turn the ignition switch to ON (II).

   Is DTC B10CF indicated?

   YES—Go to step 6.

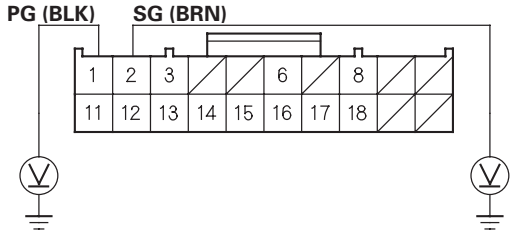
   NO—Intermittent failure, the system is OK at this time. Check for loose or poor connections. ■
6. Turn the headlight high beam ON.

   Does the left headlight (high beam) come on?

   YES—Go to step 7.

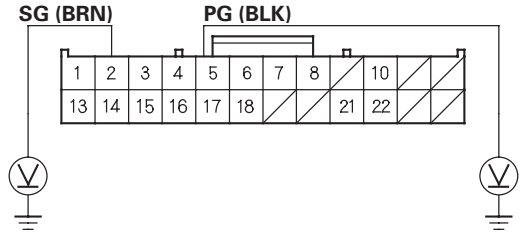
   NO—Go to step 9.
7. Turn the ignition switch to LOCK (0).
8. Measure the voltage between body ground and driver's under-dash fuse/relay box connector Q (20P) terminals No.1 and No. 2, and between body ground and connector R (24P) terminals No. 2 and No. 5 individually.

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 0.5 V or less?

YES—Faulty driver's MICU; replace the driver's under-dash fuse/relay box (see page 22-74). ■

NO—Repair an open in the wire or poor ground (G501, G502). ■

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DTC Troubleshooting (cont'd)

9. Turn the ignition switch to LOCK (0).

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.

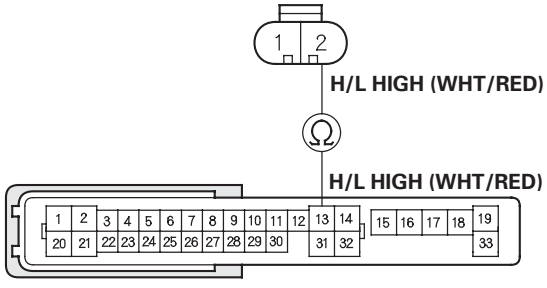
    NO—Replace the bulb and recheck. ■

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 the 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

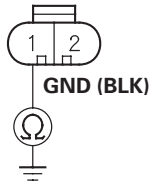
Is there continuity?

YES—Go to step 16.

NO—Repair an open in the wire. ■

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

LEFT 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 22-74). ■

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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0).
3. Release the parking brake lever.
4. Turn the headlight switch OFF.
5. Turn the ignition switch to ON (II).

   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?

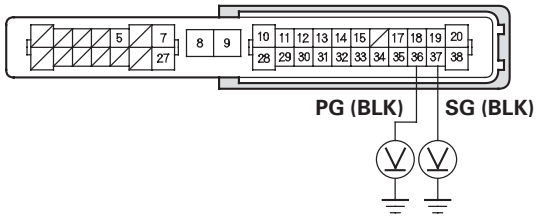
   YES—Go to step 7.

   NO—Go to step 9.

7. Turn the ignition switch to LOCK (0).

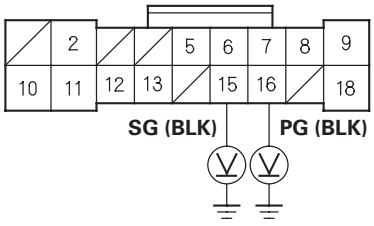
8. Measure the voltage between body ground and passenger's under-dash fuse/relay box connector A (38P) terminals No. 36 and No. 37, and between body ground and connector E (18P) terminals No. 15 and No. 16 individually.

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 0.5 V or less?

YES—Faulty passenger's MICU; replace the passenger's under-dash fuse/relay box (see page 22-76). ■

NO—Repair an open in the wire or poor ground (G201, G505). ■

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DTC Troubleshooting (cont'd)

9. Turn the ignition switch to LOCK (0).
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.

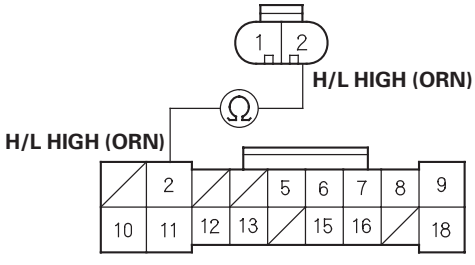
    NO—Replace the fuse, and recheck. If the fuse is blown again, repair a short in the wire. ■
12. Check the right headlight bulb.

    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 the right headlight (high beam) 2P connector terminal No. 2.

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



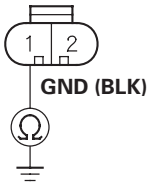
PASSENGER'S UNDER-DASH FUSE/RELAY BOX CONNECTOR E (18P)
Wire side of female terminals

Is there continuity?

YES—Go to step 16.

NO—Repair an open in the wire. ■
16. Check for continuity between the 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 22-76). ■

NO—Repair an open in the wire or poor ground (G201). ■

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DTC B1275: Combination Light Switch OFF Position Circuit Malfunction

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

DTC B1277: Combination Light Switch AUTO Position Circuit Malfunction

DTC B1278: Combination Light Switch 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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
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.

   Is DTC B1275, B1276, B1277, 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 (SMALL)

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 22-74). ■

NO—Go to step 7.

7. Turn the ignition switch to LOCK (0).
8. Disconnect the combination light switch 12P connector.
9. Turn the ignition switch to ON (II).
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.

When the combination light switch is turned OFF

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.

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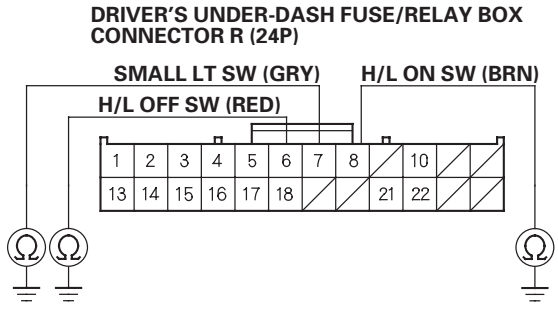
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DTC Troubleshooting (cont'd)

12. Turn the ignition switch to LOCK (0).

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

14. Check for continuity between body ground and the 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 22-74). ■

15. Turn the ignition switch to LOCK (0).

16. Do the combination light switch test (see page 22-199).

Is the combination light switch OK?

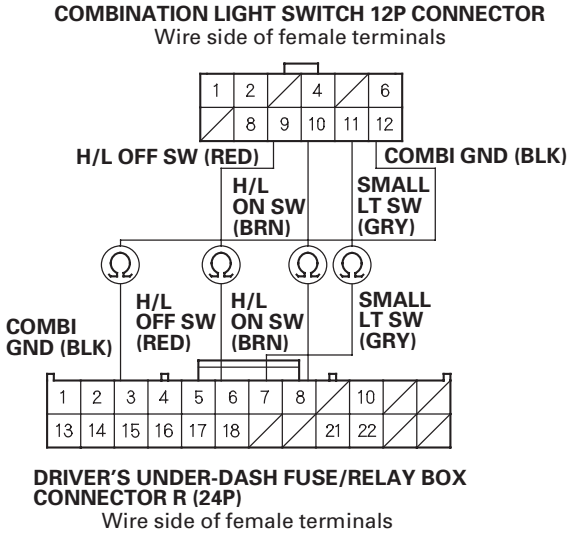
YES—Go to step 17.

NO—Replace the combination light switch. ■

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

18. Check for continuity between the 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



Is there continuity?

YES—Go to step 19.

NO—Repair an open in the wire. ■

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

From terminal	To terminal
6	7, 8, 21, 22
7	8, 21, 22

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 22-74). ■

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DTC B1279: Headlight Switch DIMMER 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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
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 22-74). ■

   NO—Go to step 9.
9. Turn the ignition switch to LOCK (0).
10. Disconnect the combination light switch 12P connector.
11. Turn the ignition switch to ON (II).
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.

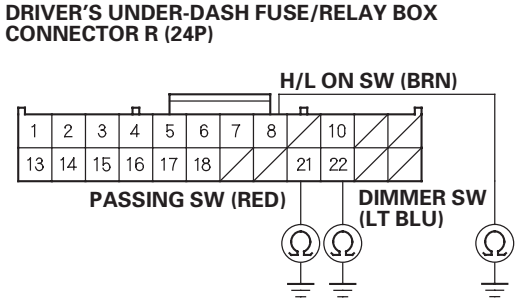
    When the combination light switch is turned OFF

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).
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.



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 22-74). ■

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DTC Troubleshooting (cont'd)

17. Turn the ignition switch to LOCK (0).

18. Do the combination light switch test (see page 22-199).

    Is the combination light switch OK?

    YES—Go to step 19.

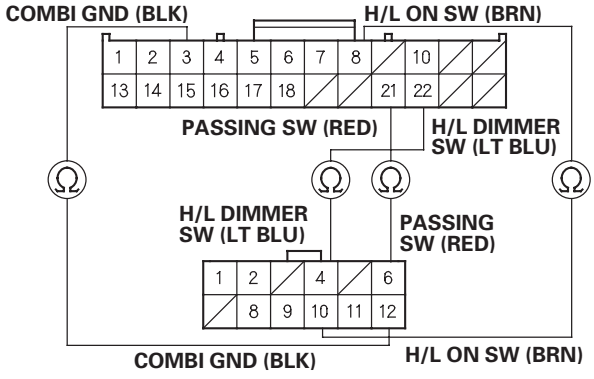
    NO—Replace the combination light switch. ■

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	6, 7, 8, 22
22	6, 7, 8

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 22-74). ■

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DTC B1575: Automatic Lighting Sensor Circuit Malfunction

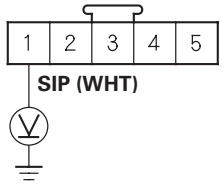
1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for one second.
4. Check for DTCs with the HDS.

   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).
6. Disconnect the automatic lighting sensor/sunlight sensor 5P connector.
7. Turn the ignition switch to ON (II).
8. Measure the voltage between body ground and the automatic lighting sensor/sunlight sensor 5P connector terminal No. 1.

AUTOMATIC LIGHTING SENSOR/SUNLIGHT SENSOR 5P CONNECTOR



Wire side of female terminals

Is there about 5 V?

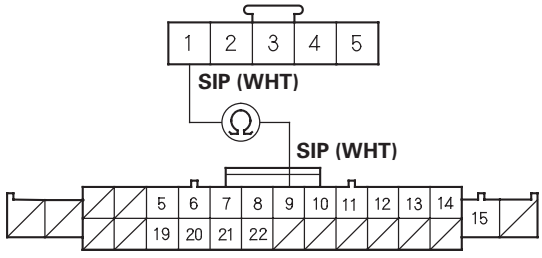
YES—Replace the automatic lighting sensor/sunlight sensor. ■

NO—Go to step 9.

9. Turn the ignition switch to LOCK (0).
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 the automatic lighting sensor/sunlight sensor 5P connector terminal No. 1.

AUTOMATIC LIGHTING SENSOR/SUNLIGHT 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 or the high intensity discharge (HID) lamps when the combination light switch is turned ON, it 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 assembly 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 22-110).

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.

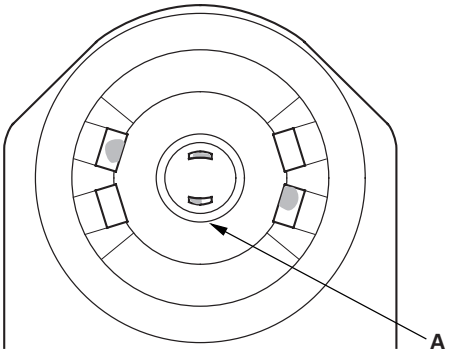
   NO—Replace the fuse(s), and recheck. ■

2. Turn the combination light switch to OFF.

3. Do the battery terminal disconnection procedure (see page 22-78).

4. Remove the bulb socket from the HID bulb (see page 22-204).

5. Check for corrosion and traces of electrical arcing on the contacts of the socket (A).

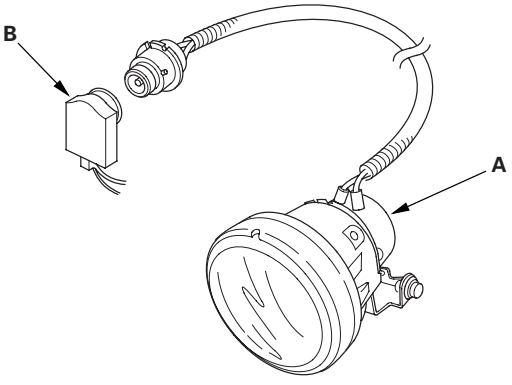


   Is the socket corroded or burnt?

   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 22-78).

8. Turn the combination light (headlight) switch to ON.

   Does the test light bulb come on?

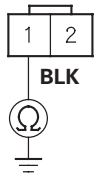
   YES—Replace the original HID bulb (see page 22-204). ■

   NO—Go to step 9.

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9. Turn the combination light (headlight) switch to OFF.
10. Do the battery terminal disconnection procedure (see page 22-78).
11. Remove the HID bulb test light assembly from the bulb socket.
12. Disconnect the HID unit 2P connector.
13. Do the battery terminal reconnection procedure (see page 22-78).
14. Turn the combination light (headlight) switch to ON.
15. Check for continuity between the terminal No. 1 of the HID unit 2P connector 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 (G201/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 22-110).
- Before testing, make sure the No. 15 (10 A) fuse in the driver's under-dash fuse/relay box is OK.

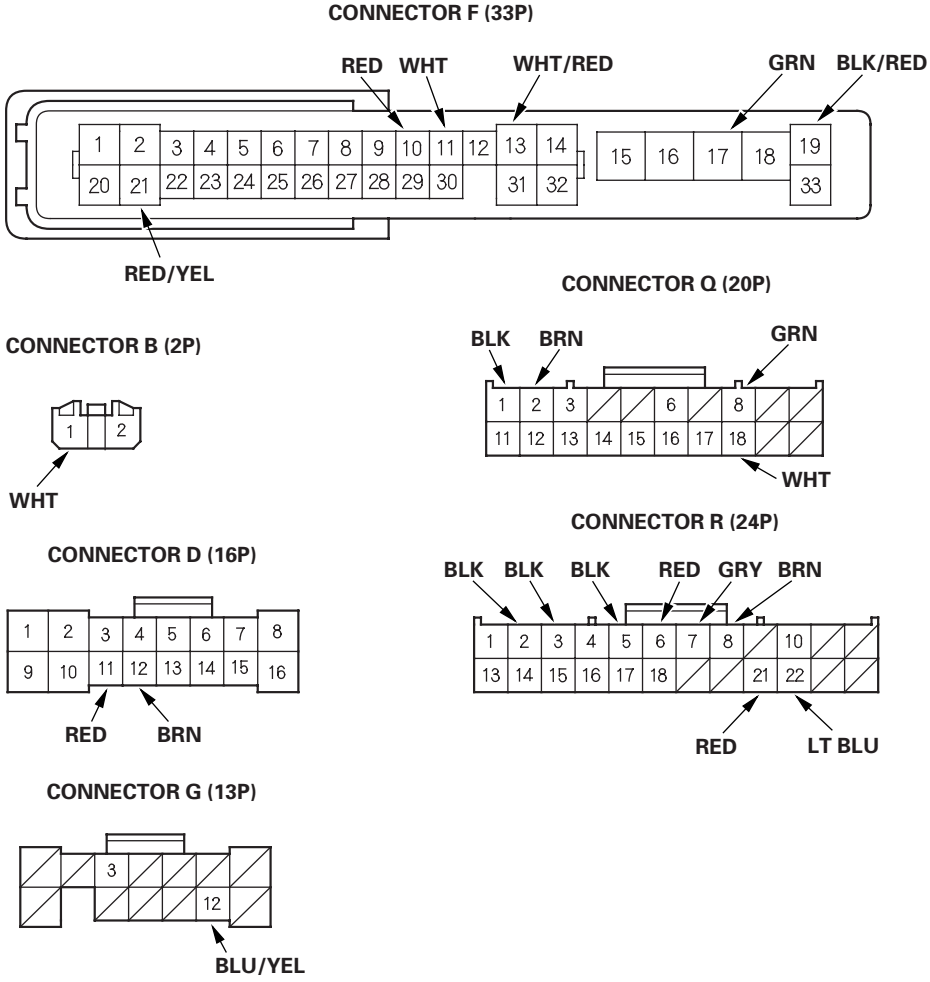
Driver's MICU

1. Turn the ignition switch to LOCK (0).

2. Remove the driver's dashboard undercover (see page 20-119), then remove the dashboard lower cover (see page 20-118).

3. Disconnect driver's under-dash fuse/relay box connectors B, D, F, G, 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 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 result is not obtained
D11	RED	Under all conditions	Connect the terminal F19 and terminal D11 with a jumper wire: The taillights, license plate lights and the rear side marker lights should come on.	• Blown bulb • Poor ground (G901) • An open in the wire
F10	RED	Under all conditions	Connect the terminal F19 and terminal F10 with a jumper wire: The left front parking light and the left front side marker light should come on.	• Blown bulb • Poor ground (G302) • An open in the wire
F13	WHT/ RED	Under all conditions	Connect the terminal F19 and terminal F13 with a jumper wire: The left headlight (high beam) should come on.	• Blown bulb • Poor ground (G302) • An open in the wire
F21	RED/ YEL	Under all conditions	Connect the terminal F19 and terminal F21 with a jumper wire: The left headlight (low beam) should come on.	• Blown bulb • Poor HID unit • Poor ground (G302) • An open in the wire
G12	BLU/ YEL	Under all conditions	Connect the terminal F19 and terminal G12 with a jumper wire: The left fog light should come on.	• Blown bulb • Poor ground (G302) • An open in the wire

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MICU Input Test (cont'd)

6. Reconnect the connectors to the driver's under-dash fuse/relay box, 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 result is not obtained
B1	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 3—3 (AS LT MAIN) (30 A) fuse in the under-hood fuse/relay box • Faulty driver's under-dash fuse/relay box • An open in the wire
Q1	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
Q2	BRN	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
R2	BRN	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
R5	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
D12	BRN	Driver's door open	Measure the voltage to ground: There should be less than 1 V.	• Faulty driver's door switch • An open in the wire
		Driver's door closed	Measure the voltage to ground: There should be more than 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 in the wire
F17	GRN	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 3—3 (AS LT MAIN) (30 A) fuse in the under-hood fuse/relay box • An open in the wire
F19	BLK/ RED	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 3—5 (DR LT MAIN) (30 A) fuse in the under-hood fuse/relay box • An open in the wire
Q18	WHT	Ignition key inserted into the ignition switch	Measure the voltage to ground: There should be less than 1 V.	• Faulty ignition key switch • An open in the wire • Poor ground (G503)
		Ignition switch LOCK (0), and the ignition key removed from the ignition switch	Measure the voltage to ground: There should be more than 5 V.	• Faulty ignition key switch • A short to ground in the wire

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Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
R6 . R3	RED . BLK	Combination light switch OFF	Measure the voltage between terminals R6 and R3: There should be less than 1 V.	• Faulty combination light switch • An open in the wire
		Combination light switch in any other position than OFF	Measure the voltage between terminals R6 and R3: There should be more than 5 V.	• Faulty combination light switch • A short to ground in the wire
R7 . R3	GRY . BLK	Combination light switch (SMALL position) ON	Measure the voltage between terminals R7 and R3: There should be less than 1 V.	• Faulty combination light switch • An open in the wire
		Combination light switch OFF	Measure the voltage between terminals R7 and R3: There should be more than 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 1 V.	• Faulty combination light switch • An open in the wire
		Combination light switch OFF	Measure the voltage between terminals R8 and R3: There should be more than 5 V.	• Faulty combination light switch • A short to ground in the wire
R21 . R3	RED . BLK	Combination light switch lever pulled (Passing)	Measure the voltage between terminals R21 and R3: There should be less than 1 V.	• Faulty combination light switch • An open in the wire
		Combination light switch lever released (OFF)	Measure the voltage between terminals R21 and R3: There should be more than 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 1 V.	• Faulty combination light switch • An open in the wire
		Combination light switch (Dimmer) in low beam position	Measure the voltage between terminals R22 and R3: There should be more than 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 1 V.	• Faulty fog light switch • An open in the wire
		Fog light switch OFF	Measure the voltage between terminals R10 and R3: There should be more than 5 V.	• Faulty fog light switch • A short to ground in the wire

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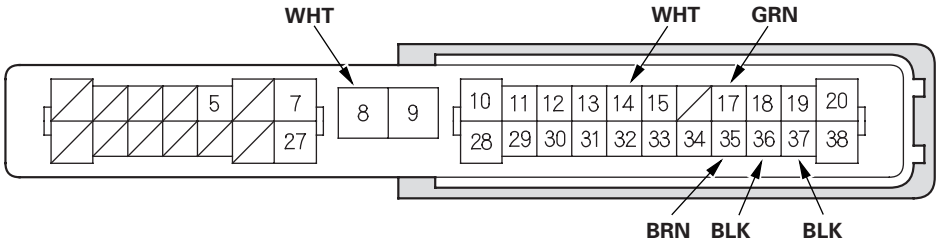
MICU Input Test (cont'd)

Passenger's MICU

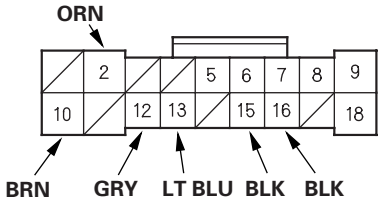
7. Turn the ignition switch to LOCK (0), and remove the right kick panel (see page 20-76).
8. Disconnect passenger's under-dash fuse/relay box connectors A and E.

   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.

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10. 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 11.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
A8	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 3—3 (AS LT MAIN) (30 A) fuse in the under-hood fuse/relay box • Faulty driver's under-dash fuse/relay box • An open in the wire
A17	GRN	Passenger's under-dash fuse/relay box connector A (38P) disconnected	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 in the wire
E2	ORN	Under all conditions	Connect the terminals A8 and E2 with a jumper wire: The right headlight (high beam) should come on.	• Blown bulb • Poor ground (G201) • An open in the wire
E10	BRN	Under all conditions	Connect the terminals A8 and E10 with a jumper wire: The right headlight (low beam) should come on.	• Blown bulb • Poor HID unit • Poor ground (G201) • An open in the wire
E12	GRY	Under all conditions	Connect the terminals A8 and E12 with a jumper wire: The right front parking light and the right front side marker light should come on.	• Blown bulb • Poor ground (G201) • An open in the wire
E13	LT BLU	Under all conditions	Connect the terminals A8 and E13 with a jumper wire: The right fog light should come on.	• Blown bulb • Poor ground (G201) • An open in the wire

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MICU Input Test (cont'd)

11. Reconnect the connectors to the passenger's under-dash fuse/relay box, turn the ignition switch to ON (II), 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 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 in the wire
A35	BRN	Ignition switch ON (II)	Measure the voltage to ground: There should be battery voltage.	• Blown No. 5 (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
A36	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G505) • An open in the wire
A37	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G505) • An open in the wire
E15	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G201) • An open in the wire
E16	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G201) • An open 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 22-74). If input failures are related to a particular control unit, replace the control unit.

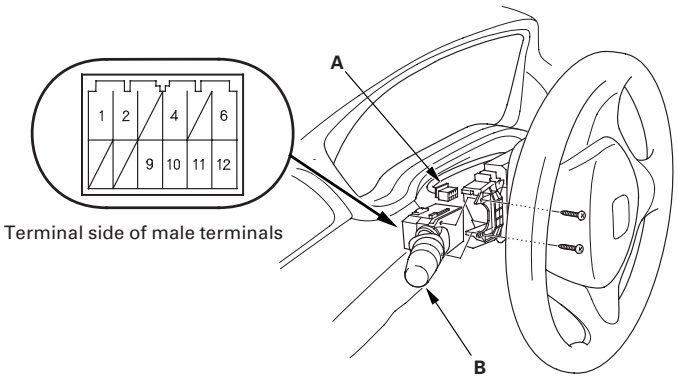
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Combination Light Switch Test/Replacement

1. Remove the driver's dashboard undercover (see page 20-119), then remove the dashboard lower cover (see page 20-118).

2. Remove the steering column covers (see page 20-132).

3. Disconnect the 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

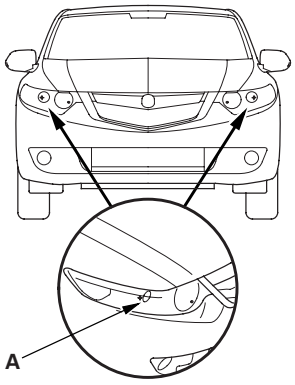
⚠CAUTION

Headlights become very hot during use; do not touch them or any attaching hardware immediately after they have been turned off.

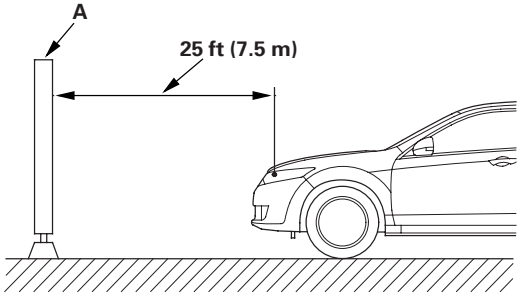
Before adjusting the headlights:

- 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.



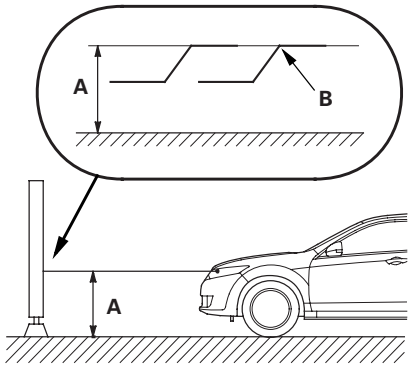
2. Park the vehicle in front of a wall or a screen (A).



3. Turn the low beams on.

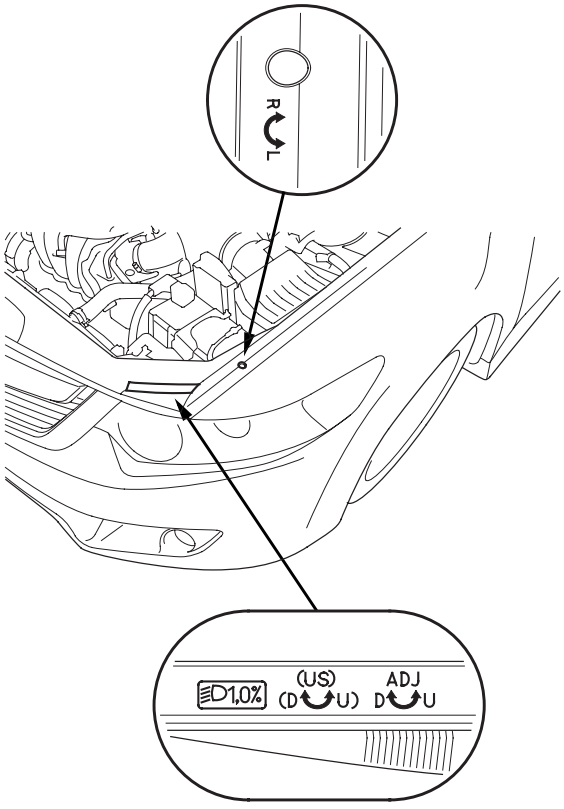
4. Determine if the headlights are aimed properly.

   Vertical adjustment:
   Measure the height of the headlights (A).
   Adjust the cut line (B) to the light's height.

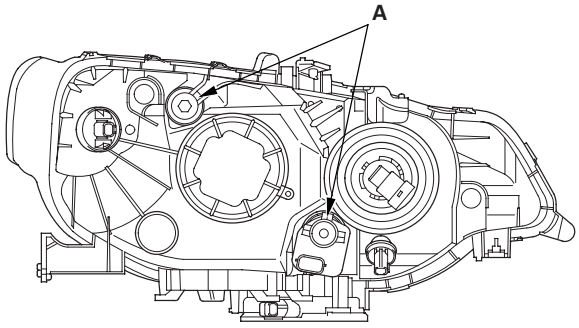


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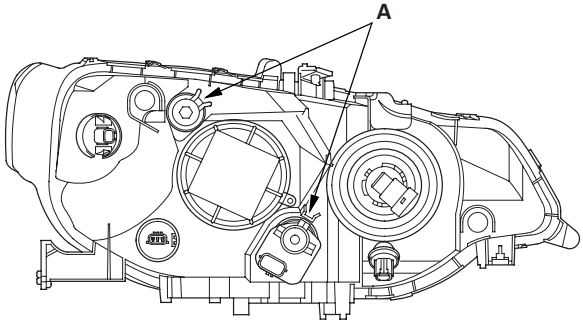
5. If necessary, open the hood and adjust the headlights by turning the vertical adjuster (A).



With HID



Without HID



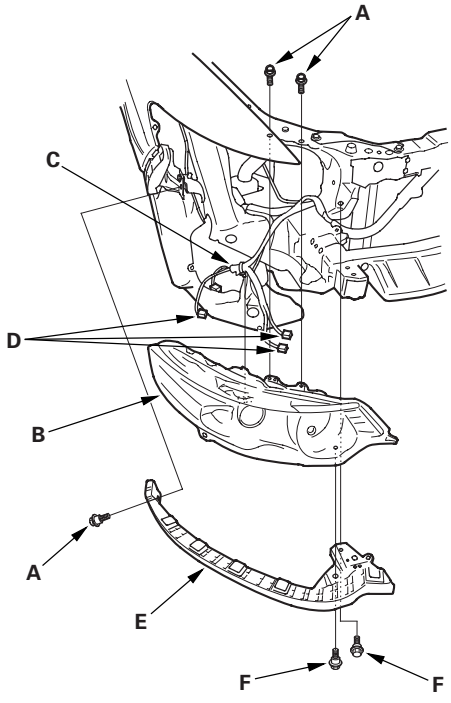
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Headlight Replacement

1. Remove the parts shown.

   - Upper fender trim (see page 20-204)
   - Front bumper (see page 20-186)
   - Front bumper absorber (see page 20-186)

2. Remove the four bolts (A), and pull the headlight (B) out slightly.



3. Remove the harness clip (C) from the headlight housing, and disconnect the connectors (D) from the bulb sockets.

4. Remove the headlight with the corner upper beam (E).

   NOTE: Be careful not to scratch the headlight lens and the fender.

5. Remove the bolt (F) and the corner upper beam from the headlight.

6. Install the headlight in the reverse order of removal.

7. After replacement, adjust the headlight (see page 22-200).

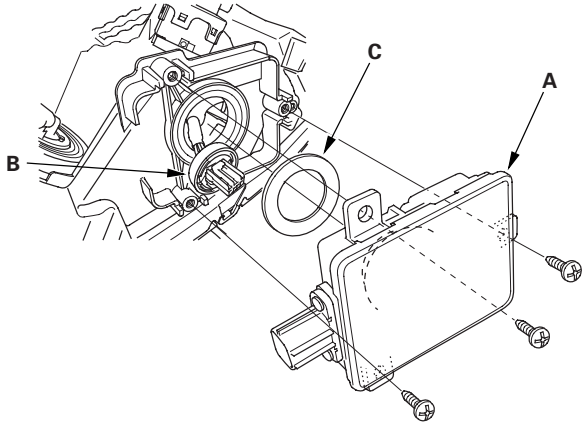
HID Unit Replacement

1. Turn the combination light switch OFF.

2. Make sure the ignition switch is in LOCK (0) position, then do the battery terminal disconnection procedure (see page 22-78).

3. Remove the headlight assembly (see page 22-202).

4. Remove the three mounting screws and the HID unit (A).



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 22-78).

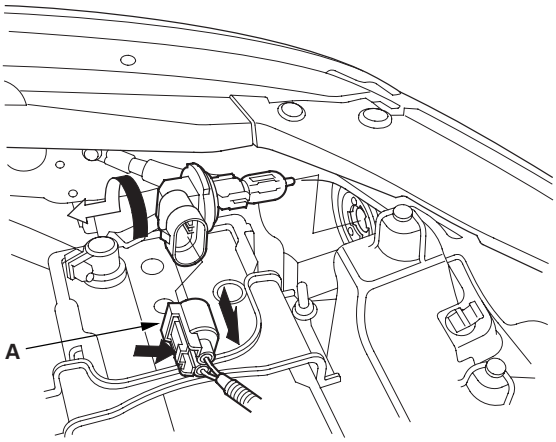
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Bulb Replacement

Headlight (High Beam)

1. Left headlight: Remove the intake air duct cover and duct (see page 9-3).
2. Right headlight: Remove the coolant reservoir from its mounting bracket, and set it aside.
3. Disconnect the 2P connector (A) from the headlight.

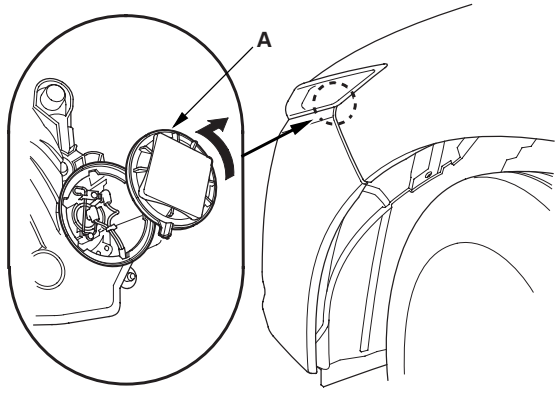
   Headlight (High Beam): 60 W



4. Turn the bulb socket 45 ° counterclockwise to remove the bulb.
5. Install a new bulb in the reverse order of removal.

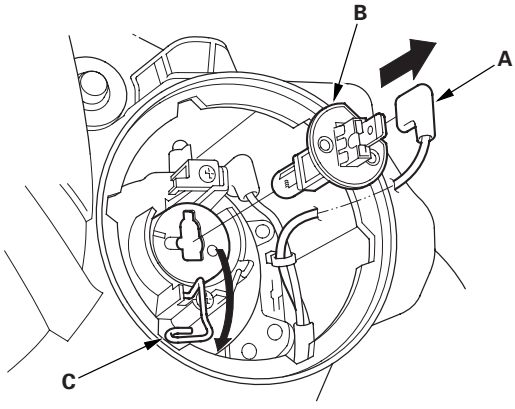
Headlight (Low Beam) (Without HID)

1. Remove the inner fender (see page 20-213).
2. Turn the cover (A) 45 ° counterclockwise to remove it from the headlight assembly.



3. Disconnect the 1P connector (A) from the headlight bulb (B).

   Headlight Bulb (Low Beam): 55 W



4. Pull the retaining spring (C) away from the bulb then remove the bulb.
5. Install a new bulb in the reverse order of removal. Make sure the notches in the bulb align with the tabs in the headlight.

   NOTE: Do not touch the glass of the bulb with your hands. If necessary, clean the glass area with alcohol.

(cont'd)

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Bulb Replacement (cont'd)

HID Bulb (Headlight Low Beam)

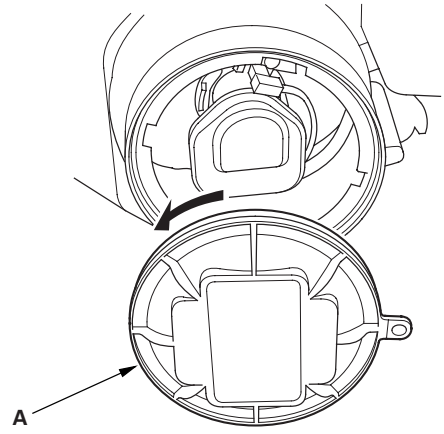
⚠ WARNING

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, it may cause serious electrical shock or electrocution if you do not observe the cautions below.

⚠ CAUTION

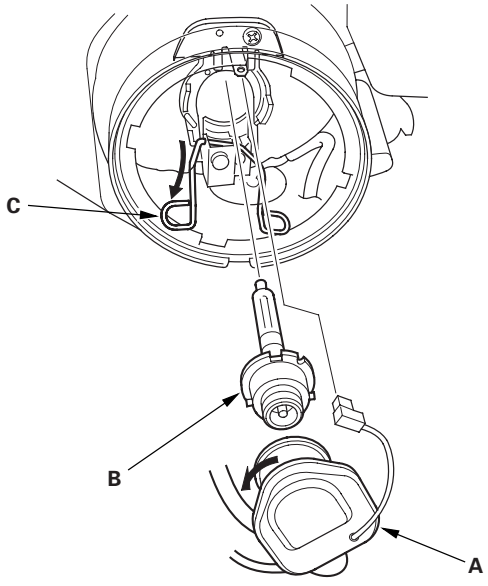
- Never turn on the combination light switch before fitting the HID bulbs to their bulb sockets and completing the reassembly of the headlight assembly.
- Do not service the headlights assembly in wet conditions, such as rain or snow, near a sprinkler system, or when your hands are wet to prevent electrocution.
- 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 the vehicle.

1. Turn the combination light switch OFF.
2. Turn the ignition switch to LOCK (0).
3. Do the battery terminal disconnection procedure (see page 22-78).
4. Turn the cover (A) 45 ° counterclockwise to remove it from the headlight assembly.



5. Turn the socket (A) 45 ° counterclockwise to remove it from the bulb (B).

Headlight: 35 W



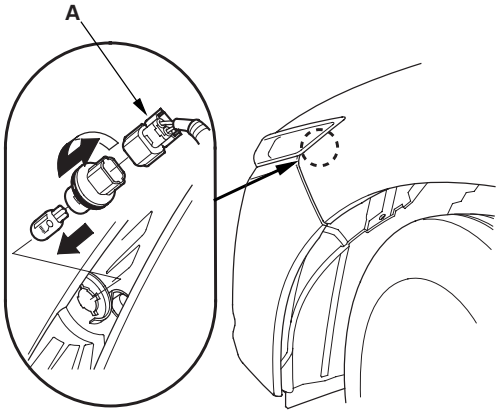
6. Pull the retaining spring (C) away from the bulb then remove the bulb.
7. Install a new bulb in the reverse order of removal. Make sure the notches in the bulb align with the tabs in the headlight.
8. Install the parts in the reverse order of removal.
9. Do the battery terminal reconnection procedure (see page 22-78).

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Front Parking/Side Marker/Turn Signal Light

1. Remove the inner fender (see page 20-213).
2. Disconnect the 2P connector (A) from the front turn signal light.

   Front Parking/Side Marker/Turn Signal Light: 21/5 W

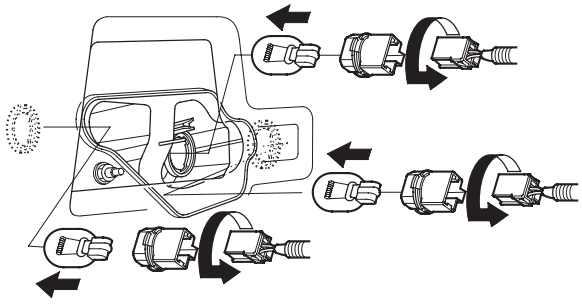


3. Turn the bulb socket 45 ° counterclockwise to remove the bulb.
4. Install a new bulb in the reverse order of removal.

Taillights

1. Open the trunk lid, and remove the trunk side trim panel (see page 20-91).
2. Disconnect the connectors from the lights.

   Brake Lights/Taillights: 21/5 W
   Rear Turn Signal Light: 21 W
   Rear Side Marker Light: 3 CP



3. Turn the bulb socket 45 ° counterclockwise to remove the bulb.
4. Install new bulb(s) in the reverse order of removal.

(cont'd)

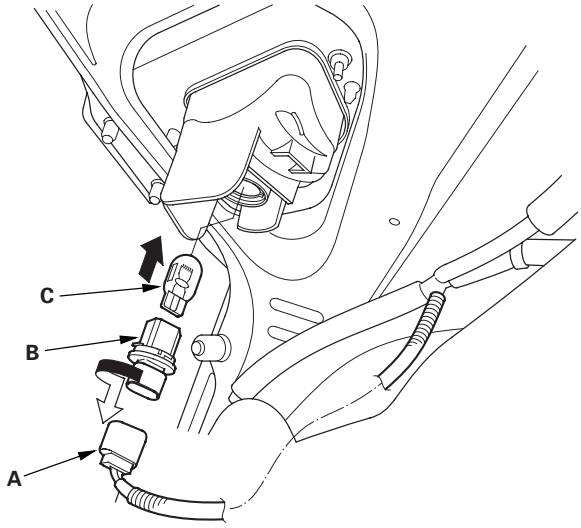
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Bulb Replacement (cont'd)

Inner Taillight

1. Open the trunk lid, and remove the trunk lid trim panel (see page 20-91).
2. Disconnect the connector (A) from the light.

Back-up Light: 21 W

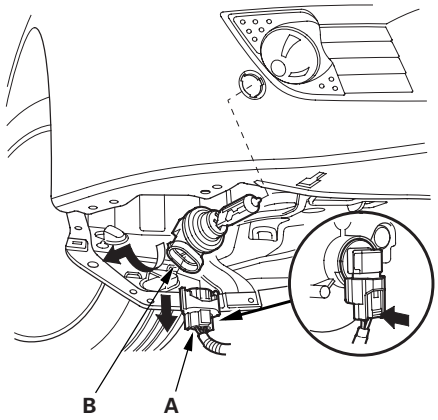


3. Turn the bulb socket (B) 45 ° counterclockwise to remove the bulb (C).
4. Install a new bulb in the reverse order of removal.

Fog Light

1. For right side, remove the splash shield (see page 20-214), for left side, remove the left inner fender (see page 20-213).
2. Disconnect the 2P connector (A) from the fog light (B).

Fog Light: 55 W



The illustration shows the right side.

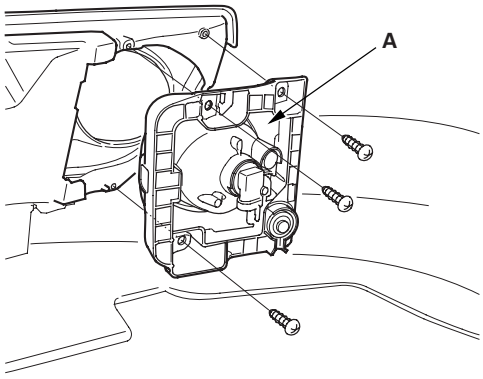
3. Turn the bulb socket 45 ° counterclockwise to remove it from the housing.
4. Install a new bulb in the reverse order of removal.

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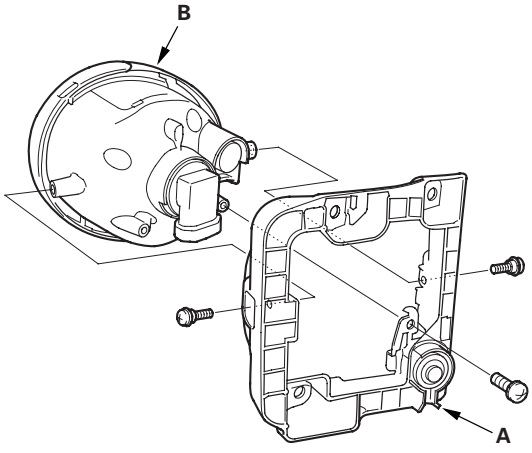
Fog Light Replacement

1. Remove the front bumper (see page 20-186), and disconnect the connectors from the fog lights.

2. Remove the three screws, then remove the fog light (A) from the front bumper.



3. Remove the three screws, and separate the bracket (A) and fog light (B).

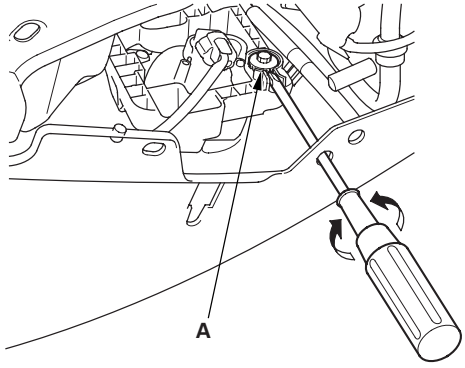


4. Install the light in the reverse order of removal.

5. After replacement, adjust the fog lights to local requirements.

Fog Light Adjustment

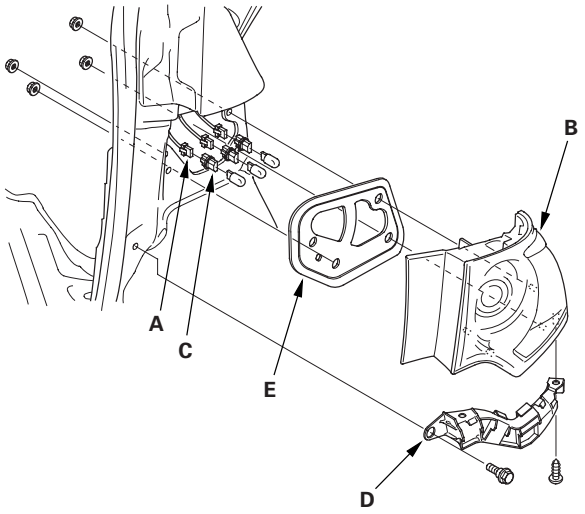
1. Adjust the fog lights at the adjuster (A) to local requirements.



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Taillight Replacement

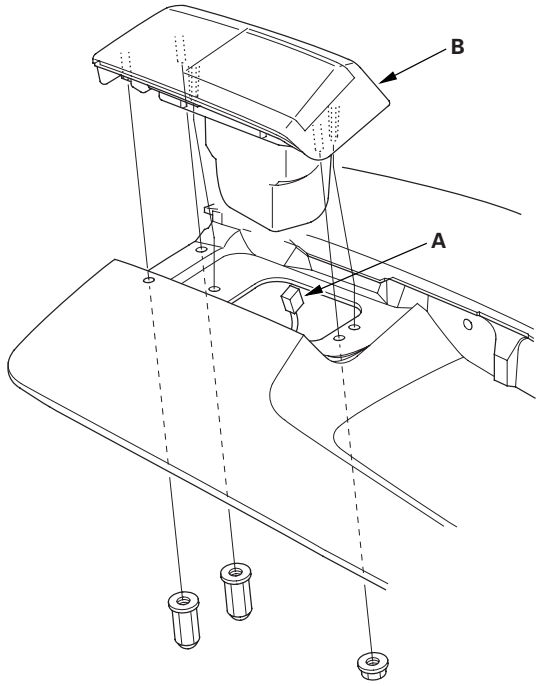
1. Remove the rear bumper (see page 20-191).
2. Remove the trunk side trim panel (see page 20-91).
3. Disconnect the connectors (A) from the taillights (B).



4. Turn the bulb sockets 45 ° counterclockwise to remove the bulb sockets (C).
5. Remove the mounting nuts and bolts, then remove the taillight.
6. Remove the screw and separate the taillight and bracket (D).
7. Inspect the gasket (E); replace it if it is distorted or stays compressed.
8. Install the taillight in the reverse order of removal, and tighten the nuts to 5 N·m (0.5 kgf·m, 4 lbf·ft).

Inner Taillight Replacement

1. Open the trunk lid, and remove the rear license plate trim panel (see page 20-210).
2. Remove the trunk trim (see page 20-94).
3. Disconnect the connector (A) from the taillight (B).



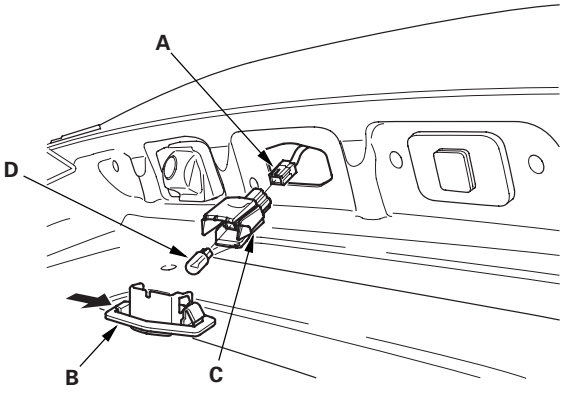
4. Remove the nuts, then remove the taillight.
5. Inspect the gasket; replace it if it is distorted or stays compressed.
6. Install the taillight in the reverse order of removal, and tighten the nuts to 5 N·m (0.5 kgf·m, 4 lbf·ft).

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License Plate Light Replacement

1. Open the trunk lid, and remove the rear license plate trim panel (see page 20-94).
2. Pull the license plate light assembly out, and disconnect the 2P connector (A) from the light.

   License Plate Light: 5 W

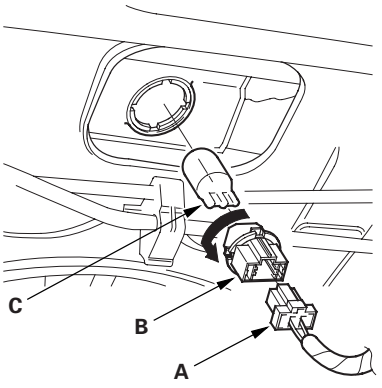


3. Separate the lens (B) and housing (C), then remove the bulb (D).
4. Install the license plate light in the reverse order of removal.

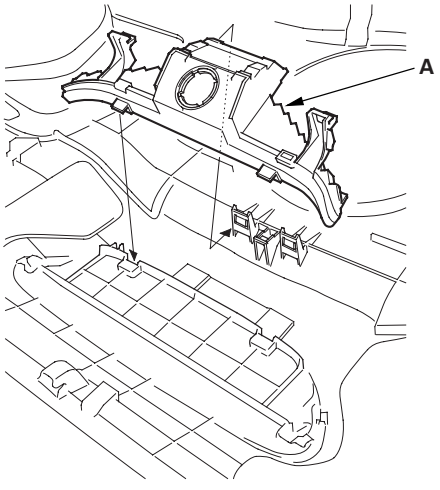
High Mount Brake Light Replacement

1. Open the trunk lid.
2. Disconnect the 2P connector (A) from the high mount brake light.

   High Mount Brake Light: 21 W



3. Turn the bulb socket (B) 45 ° counterclockwise to remove the bulb (C).
4. To replace the high mount brake light housing, remove the rear shelf (see page 20-88).
5. Remove the high mount brake light (A).

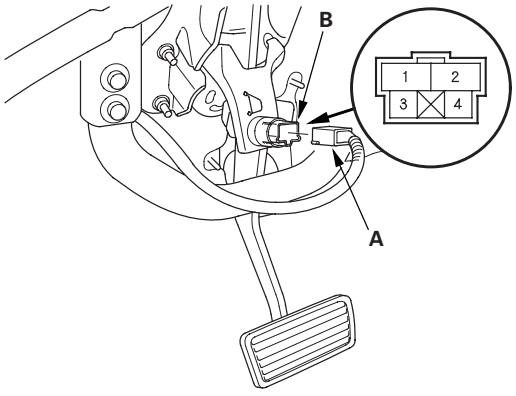


6. Install the high mount brake light in the reverse order of removal.

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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 continuity when the brake pedal is pressed.
   - There should be no continuity when the brake pedal is released.

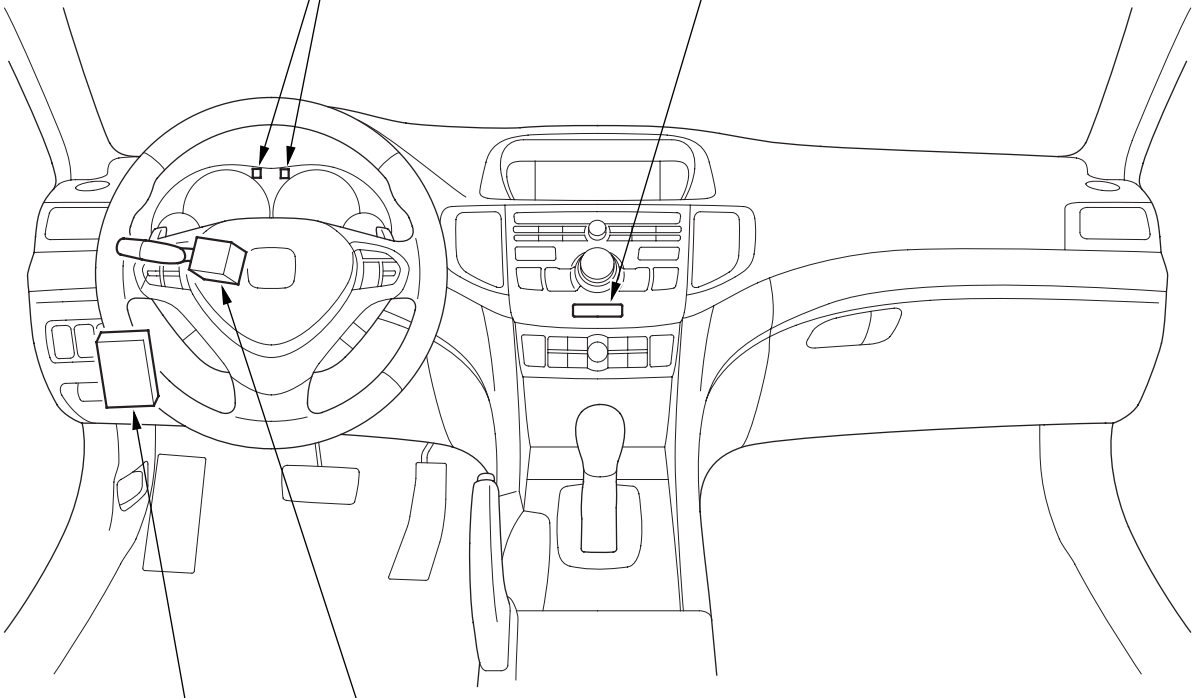
3. Check for continuity between terminals No. 3 and No. 4.

   - There should be no continuity when the brake pedal is pressed.
   - There should be continuity when the brake pedal is released.

4. If necessary, replace the switch or adjust the pedal height (see page 19-6).

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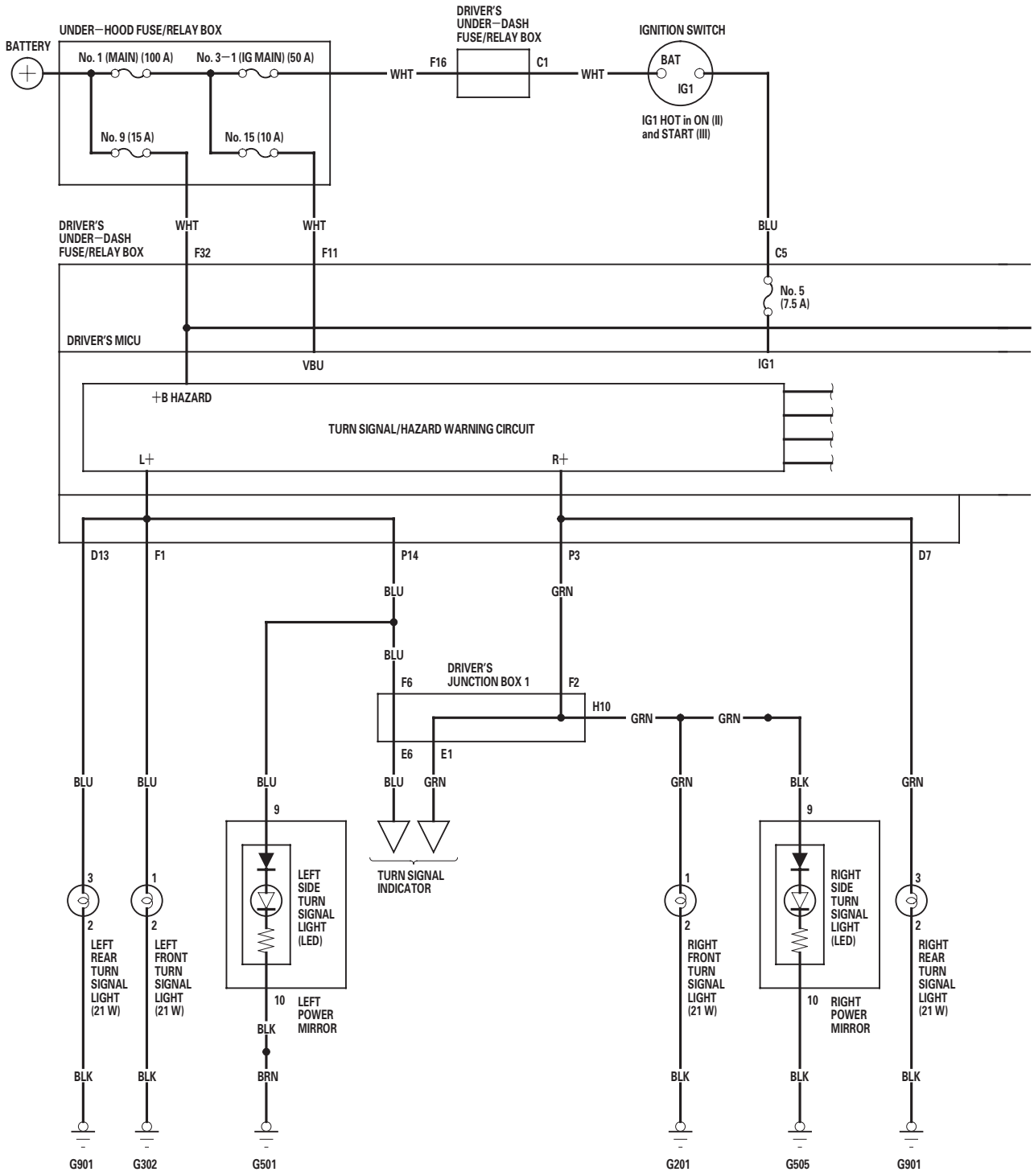
Component Location Index



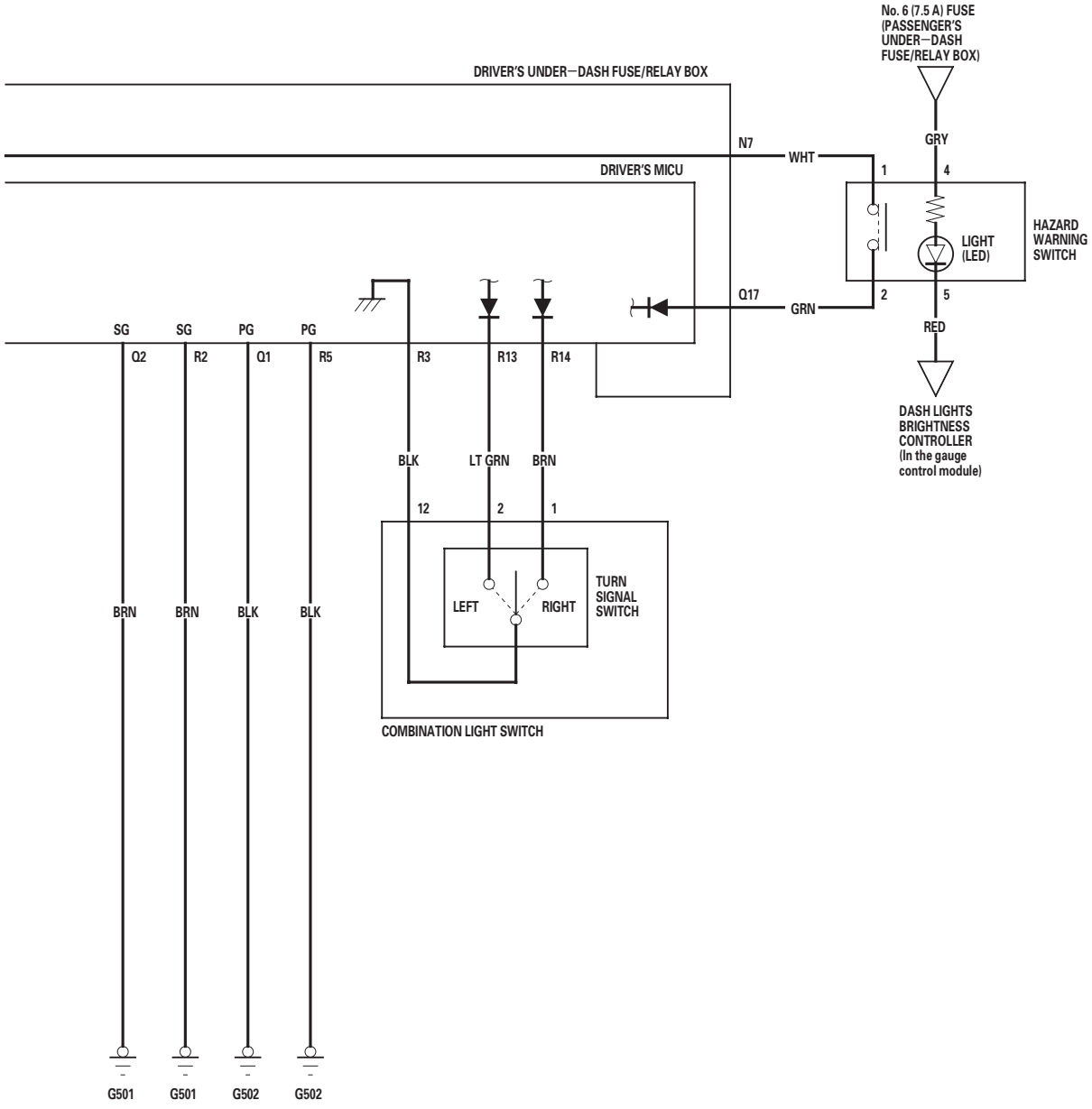
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Turn Signal/Hazard Warning Lights

Circuit Diagram



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DTC Troubleshooting

DTC B1280: Turn Signal 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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Operate the turn signal switch in left and right positions, and wait for 6 seconds or more.
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 22-74). ■

   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.

   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

   Do both values now showing OFF?

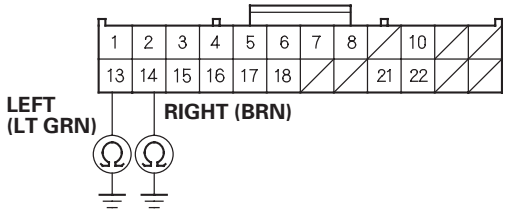
   YES—Replace the combination light switch (see page 22-199). ■

   NO—Go to step 9.
9. Turn the ignition switch to LOCK (0).
10. Disconnect driver's under-dash fuse/relay box connector R (24P).

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11. Check for continuity between body ground and 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

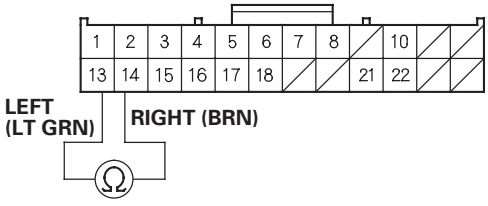
Is there continuity?

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

NO—Go to step 12.

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. ■

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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 22-110).
- Before testing, make sure the No. 5 (7.5 A) fuse in the driver's under-dash fuse/relay box is OK.

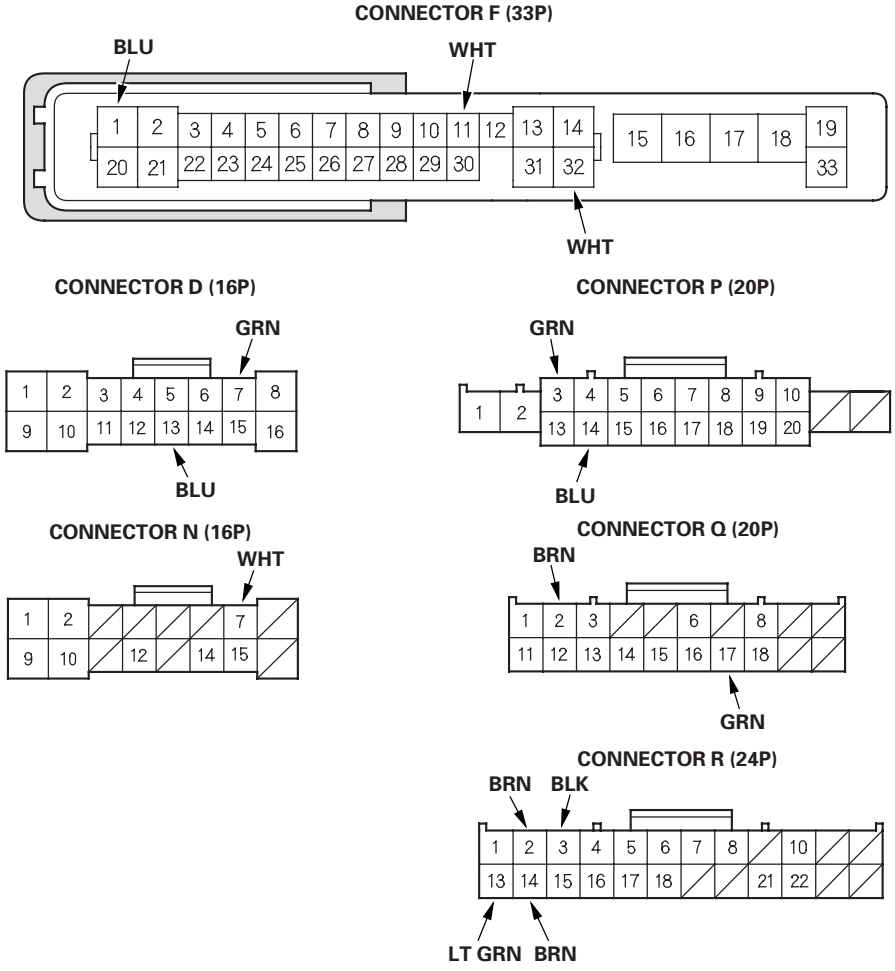
Driver's MICU

1. Turn the ignition switch to LOCK (0).

2. Remove the driver's dashboard undercover (see page 20-119), then remove the dashboard lower cover (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 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
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 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 in the wire
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 (G901) • Blown bulb • An open 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 (G901) • Blown bulb • An open 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) • Blown bulb • An open in the wire
P3	GRN	Under all conditions	Connect terminals F32 and P3 with a jumper wire: The right front turn signal light and the right turn signal indicator should come on.	• Poor ground (G201) • Blown bulb • Faulty gauge control module • Faulty indicator • An open in the wire
P14	BLU	Under all conditions	Connect terminals F32 and P14 with a jumper wire: The left turn signal indicator should come on.	• Faulty gauge control module • Faulty indicator • An open in the wire • Poor ground (G302)

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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 these input tests at the connectors.

   - 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 22-74).

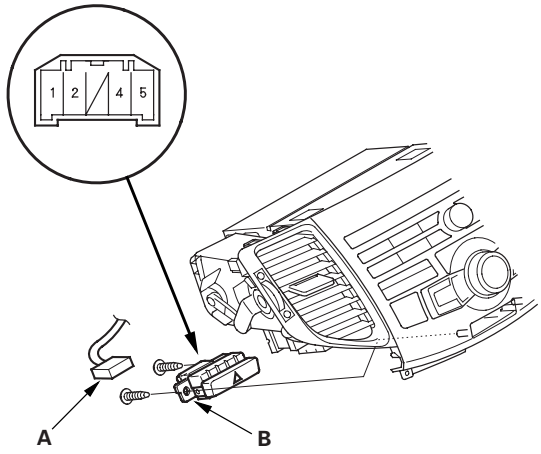
Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
Q1	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
Q2	BRN	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
R2	BRN	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
R5	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open 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	GRN	Hazard warning switch pressed	Measure the voltage to ground: There should be battery voltage.	• Faulty hazard warning switch • An open in the wire
R13 · R3	LT GRN · BLK	Ignition switch ON (II), turn signal switch in left position	Measure the voltage between terminals R13 and R3: There should be less than 1 V.	• Faulty combination light switch • An open in the wire
		Ignition switch ON (II), turn signal switch in right or neutral position	Measure the voltage between terminals R13 and R3: There should be more than 5 V.	• Faulty combination light switch • A short to ground in the wire
R14 · R3	BRN · BLK	Ignition switch ON (II), turn signal switch in right position	Measure the voltage between terminals R14 and R3: There should be less than 1 V.	• Faulty combination light switch • An open in the wire
		Ignition switch ON (II), turn signal switch in left or neutral position	Measure the voltage between terminals R14 and R3: There should be more than 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 audio-navigation switch panel *1 (see page 23-130) or audio unit *2 (see page 23-128).
   * 1: With navigation
   * 2: Without navigation

2. Disconnect the 5P connector (A) from the hazard warning switch (B).



3. Remove the two screws and the hazard warning switch.

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

Position \ Terminal	1	2	4		5
OFF			⊕	⏚	⊖
ON	○	○	⊕	⏚	⊖

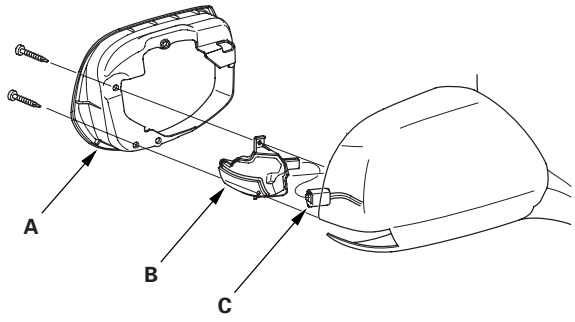
5. If the continuity is not as specified, replace the hazard warning switch.

6. Install the switch in the reverse order of removal.

Side Turn Signal Light Replacement

1. Remove the mirror holder (see page 20-48).

2. Remove the screws and the visor (A).

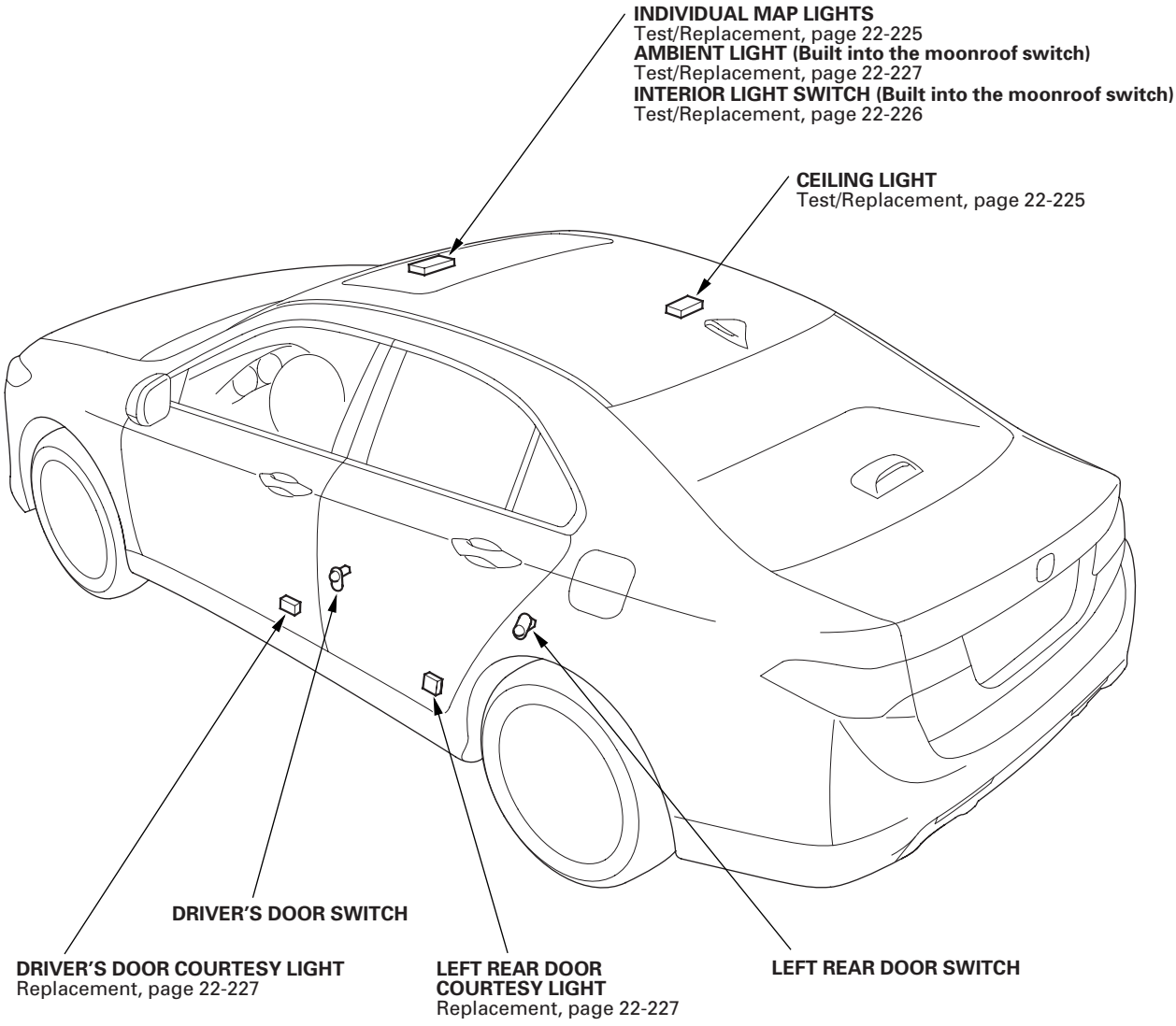


3. Pull out the side turn signal light (B), then disconnect the 2P connector (C) from it.

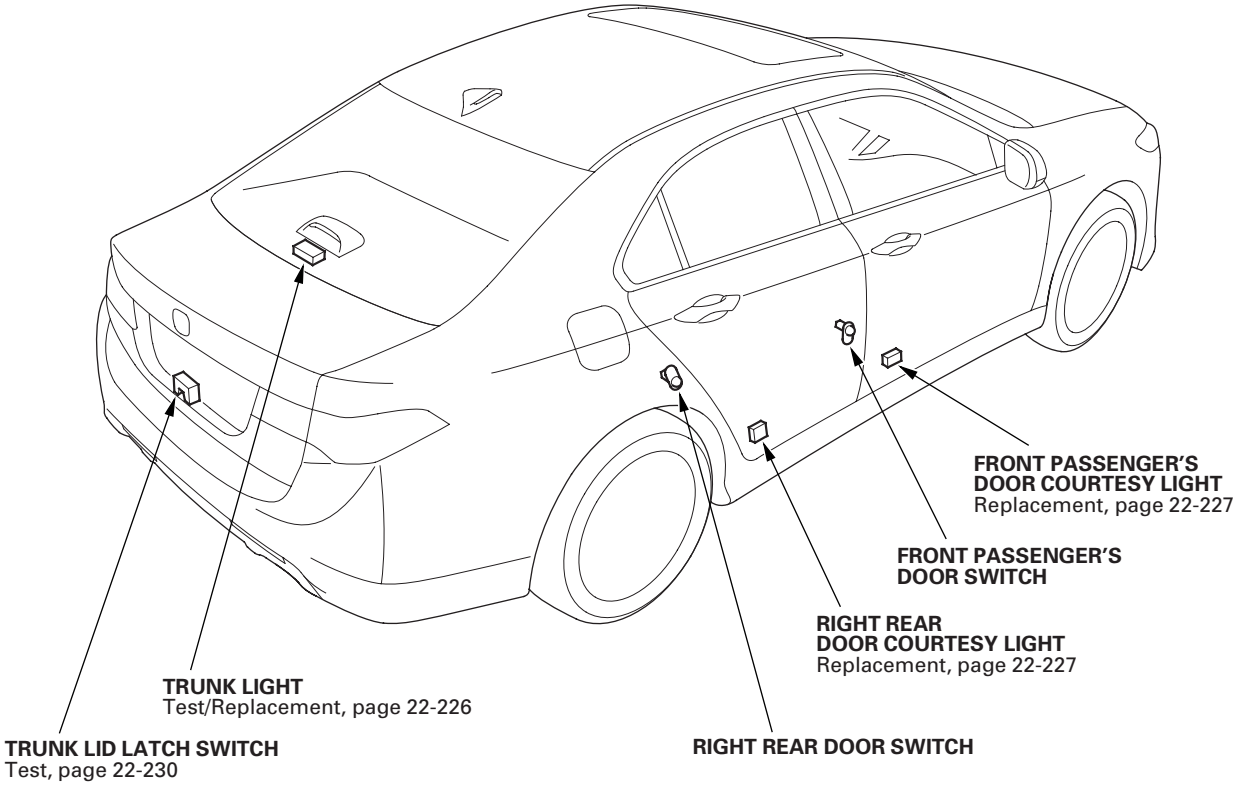
4. Install the light in the reverse order of removal.

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Component Location Index



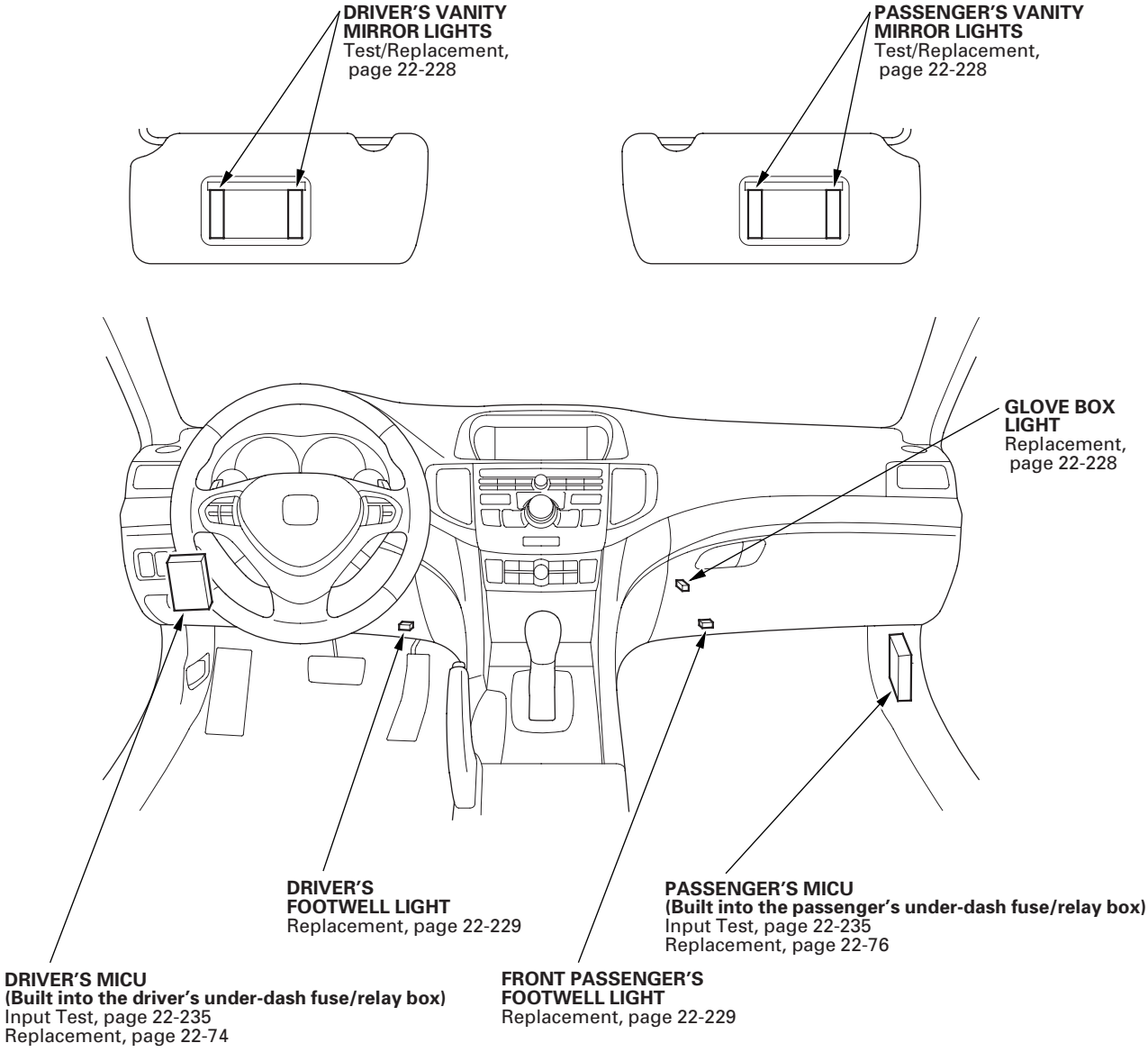
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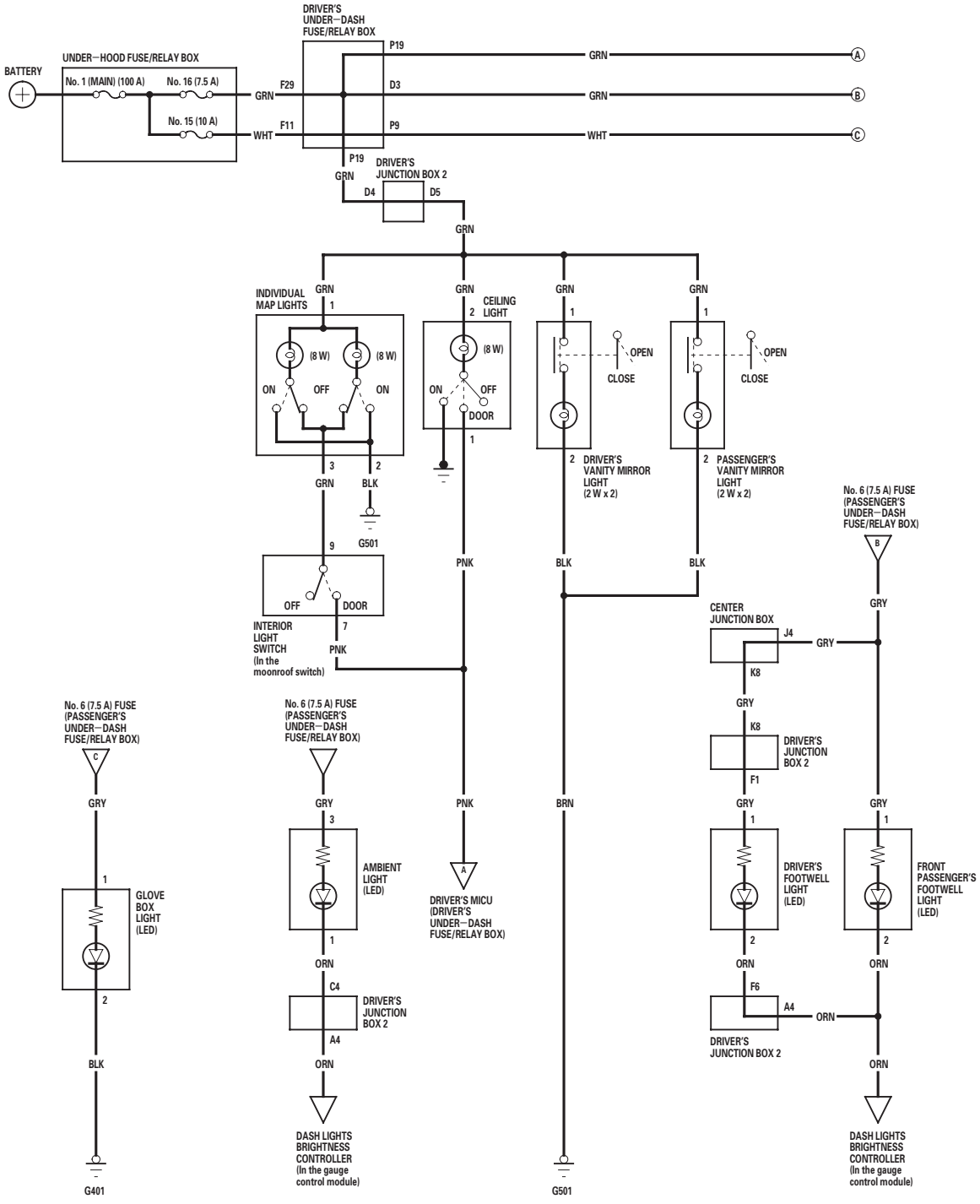
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Component Location Index (cont'd)



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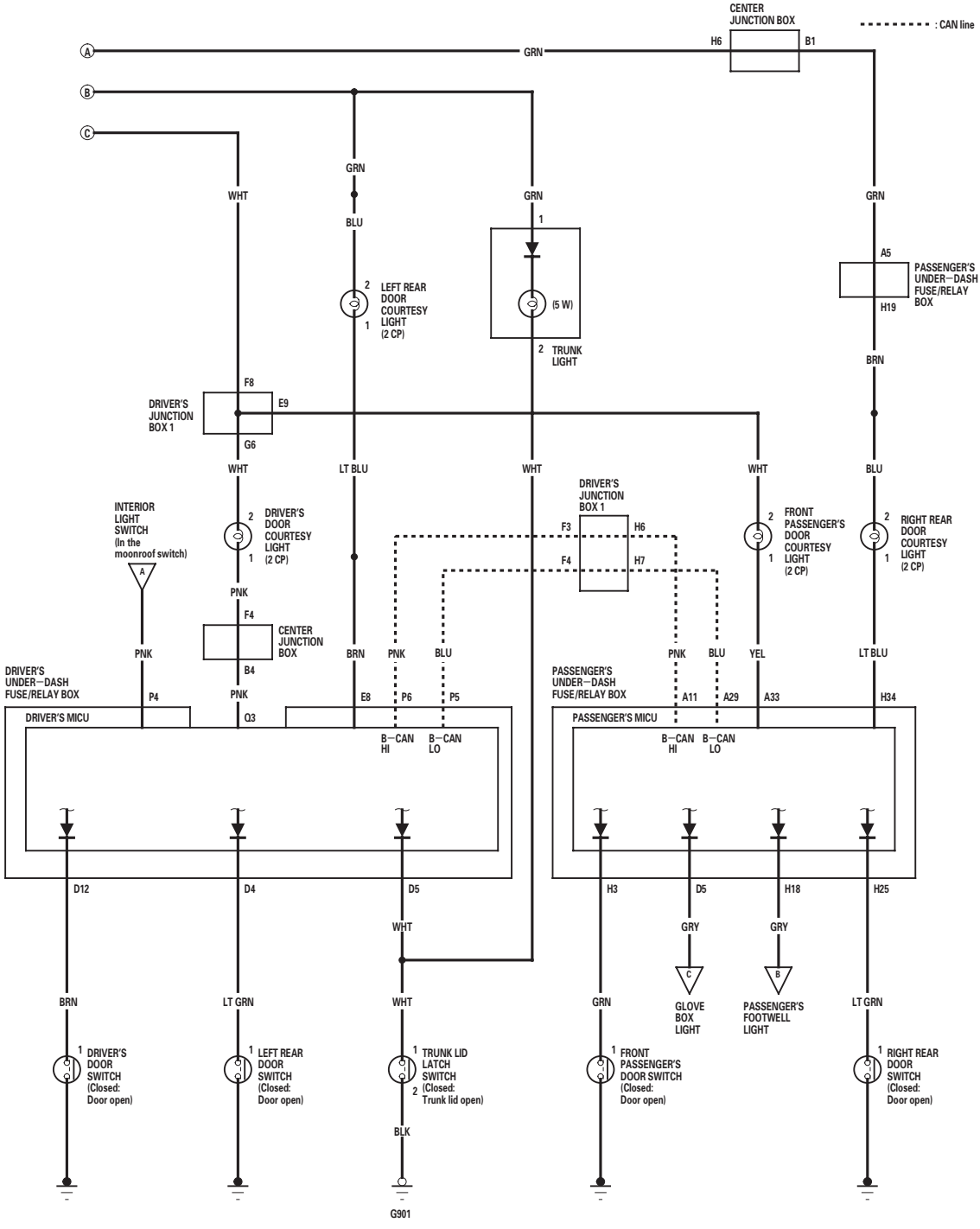
Circuit Diagram



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Circuit Diagram (cont'd)

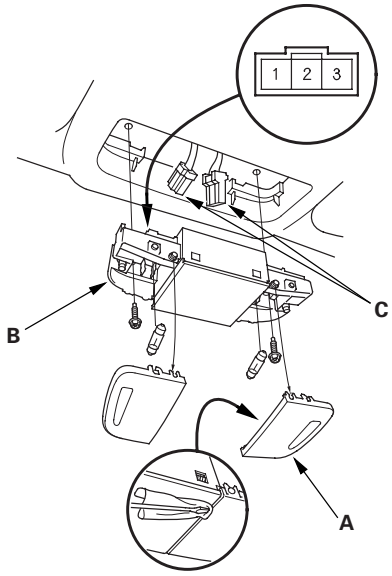


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Front Individual Map Light Test/ Replacement

1. Turn the map light switch OFF.
2. Carefully pry the lens (A) off with a small screwdriver.

   Front Map Light: 8 W x 2



3. Remove the screws, then remove the map lights (B).
4. Disconnect the connectors (C) from the map lights.
5. Check for continuity between the terminals in each switch position according to the table.

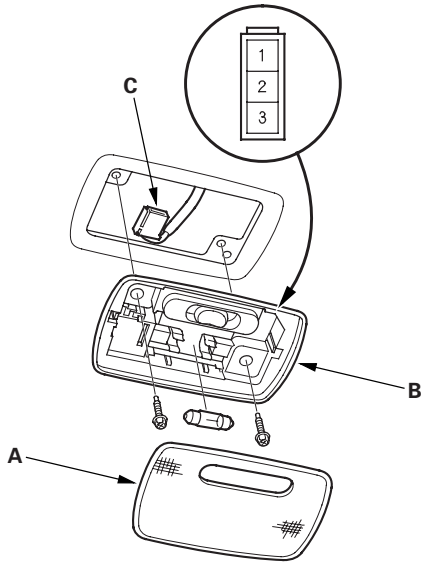
Position	Terminal	1		2	3
RIGHT	ON	○	○	○	
	OFF	○	○		○
LEFT	ON	○	○	○	
	OFF	○	○		○

6. If the continuity is not as specified, check the bulb(s). If the bulb(s) are OK, replace the map light.
7. Install the light in the reverse order of removal.

Ceiling Light Test/Replacement

1. Turn the ceiling light switch OFF.
2. Carefully pry the lens (A) off with a small screwdriver.

   Ceiling Light: 8 W



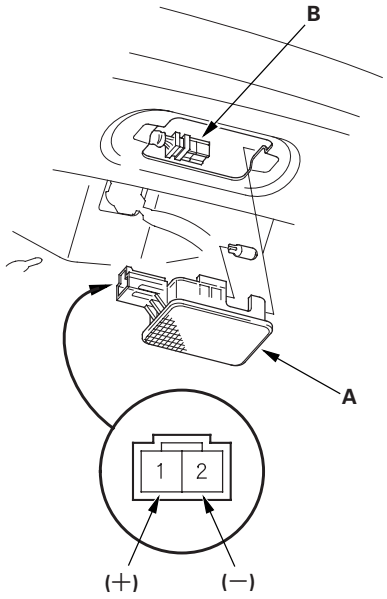
3. Remove the screws, then remove the ceiling light (B).
4. Disconnect the 3P connector (C) from the ceiling light.
5. Check for continuity between the terminals.
   - There should be continuity between terminals No. 1 and No. 2 with the switch in the MIDDLE (DOOR) position.
   - There should be continuity between terminals No. 2 and No. 3 (body ground) with the switch in the ON position.
   - There should be no continuity between terminals No. 1 and No. 2, and between terminals No. 2 and No. 3 (body ground) with the switch in the OFF position.
6. If the continuity is not as specified, check the bulb. If the bulb is OK, replace the ceiling light.
7. Install the light in the reverse order of removal.

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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

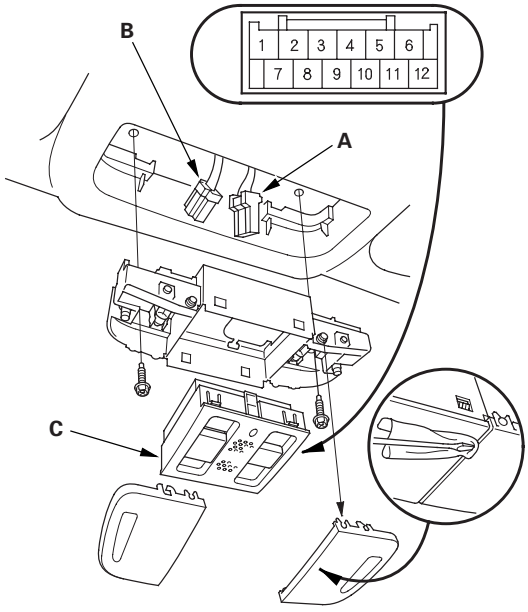


3. Disconnect the 2P connector (B) from the light.
4. Check for continuity between terminals No. 1 (+) and No. 2 (−). There should be continuity. If there is no continuity, check the bulb. If the bulb is OK, replace the trunk light assembly.
5. Install the light in the reverse order of removal.

Interior Light Switch Test/ Replacement

NOTE: The interior light switch is built into the moonroof switch.

1. Remove the individual map lights (see page 22-225).
2. Disconnect the moonroof switch 12P connector (A) and the map light 3P connector (B).



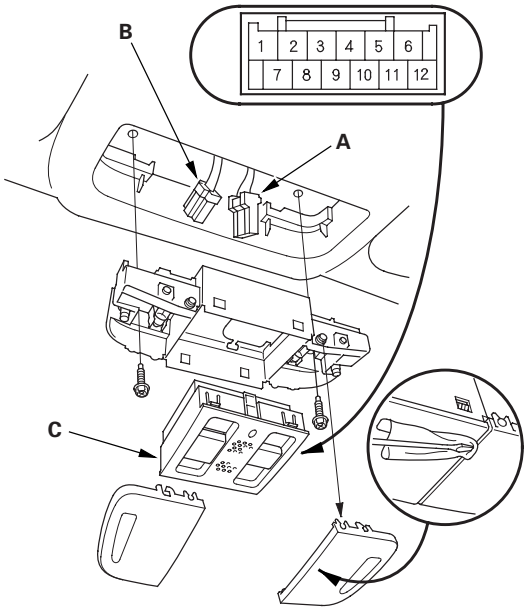
3. Remove the moonroof switch (C) from the map light housing.
4. At the moonroof switch side, check for continuity between terminals No. 9 and No. 7.
   - There should be continuity when the interior light switch is in the DOOR position.
   - There should be no continuity when the interior light switch is in the OFF position.
5. If the continuity is not as specified, replace the moonroof switch assembly.
6. Install the parts in the reverse order of removal.

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Ambient Light Test/Replacement

NOTE: The ambient light is built into the moonroof switch.

1. Remove the individual map lights (see page 22-225).
2. Disconnect the moonroof switch 12P connector (A) and the map light 3P connector (B).

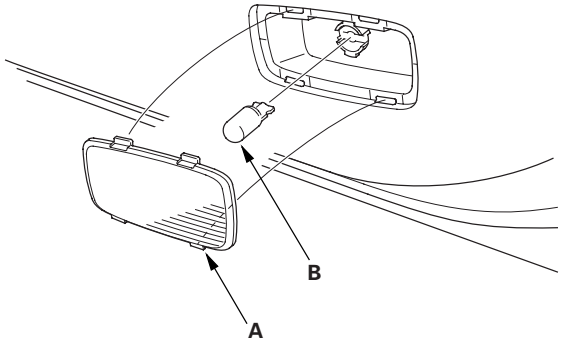


3. Remove the moonroof switch (C) from the map light housing.
4. At the moonroof switch side, check the light by connecting battery power to the terminal No. 3 and ground to the terminal No. 1. The ambient light should come on. If the light does not come on, replace the moonroof switch assembly.
5. Install the parts in the reverse order of removal.

Courtesy Light Replacement

1. Carefully pry off the lens (A) with a small screwdriver.

Courtesy Light: 2 CP

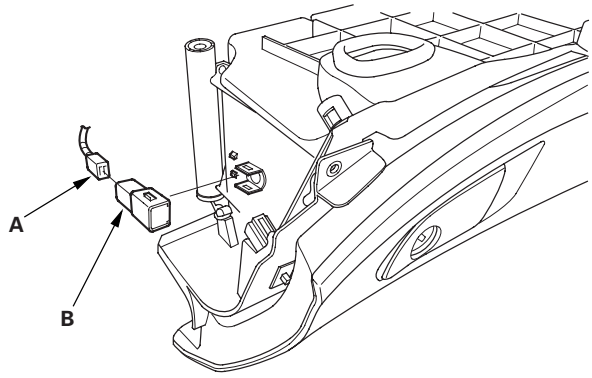


2. Remove the bulb (B) from the socket.
3. Install the light in the reverse order of removal.

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Glove Box Light Replacement

1. Remove the glove box stops and damper (see page 20-129).
2. Disconnect the 2P connector (A).

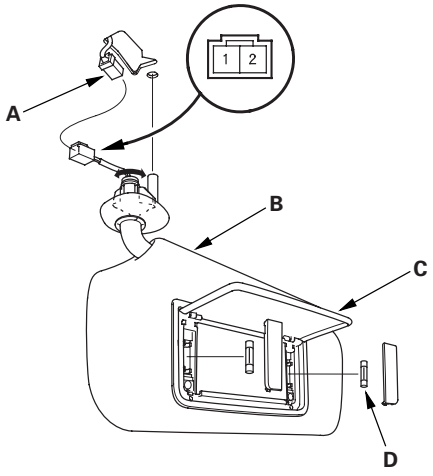


3. Remove the glove box light (B).
4. Install the light in the reverse order of removal.

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



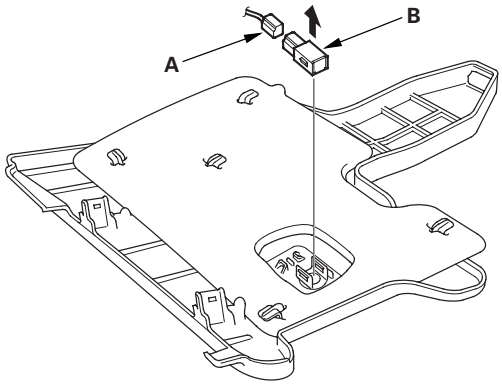
3. Check for continuity between terminals No. 1 and No. 2.
   - With the vanity mirror cover (C) opened, there should be continuity.
   - With the vanity mirror cover closed, there should be no continuity.
4. If the continuity is not as specified, check the bulbs (D). If the bulbs are OK, replace the sunvisor (see page 20-96).
5. Install the parts in the reverse order of removal.

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Footwell Light Replacement

Driver's

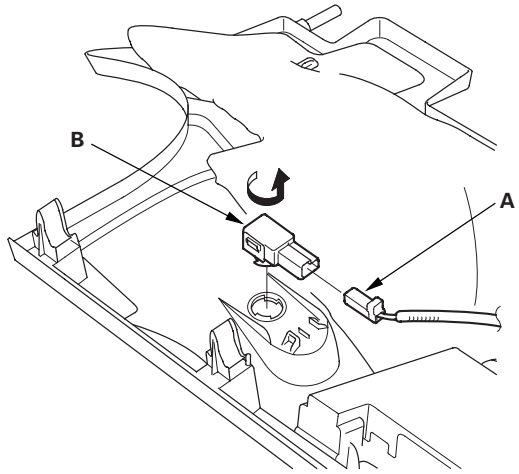
1. Remove the driver's dashboard undercover (see page 20-119).
2. Disconnect the 2P connector (A) from the driver's footwell light (B).



3. Remove the footwell light.
4. Install the light in the reverse order of removal.

Front Passenger's

1. Remove the passenger's dashboard undercover (see page 20-129).
2. Disconnect the 2P connector (A) from the passenger's footwell light (B).

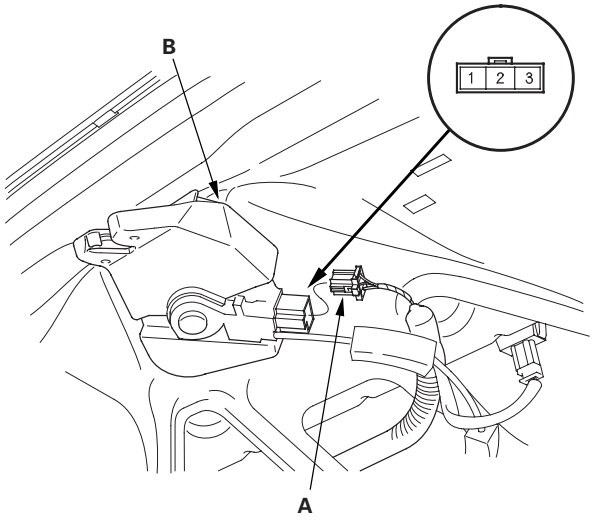


3. Remove the footwell light.
4. Install the light in the reverse order of removal.

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Trunk Lid Latch Switch Test

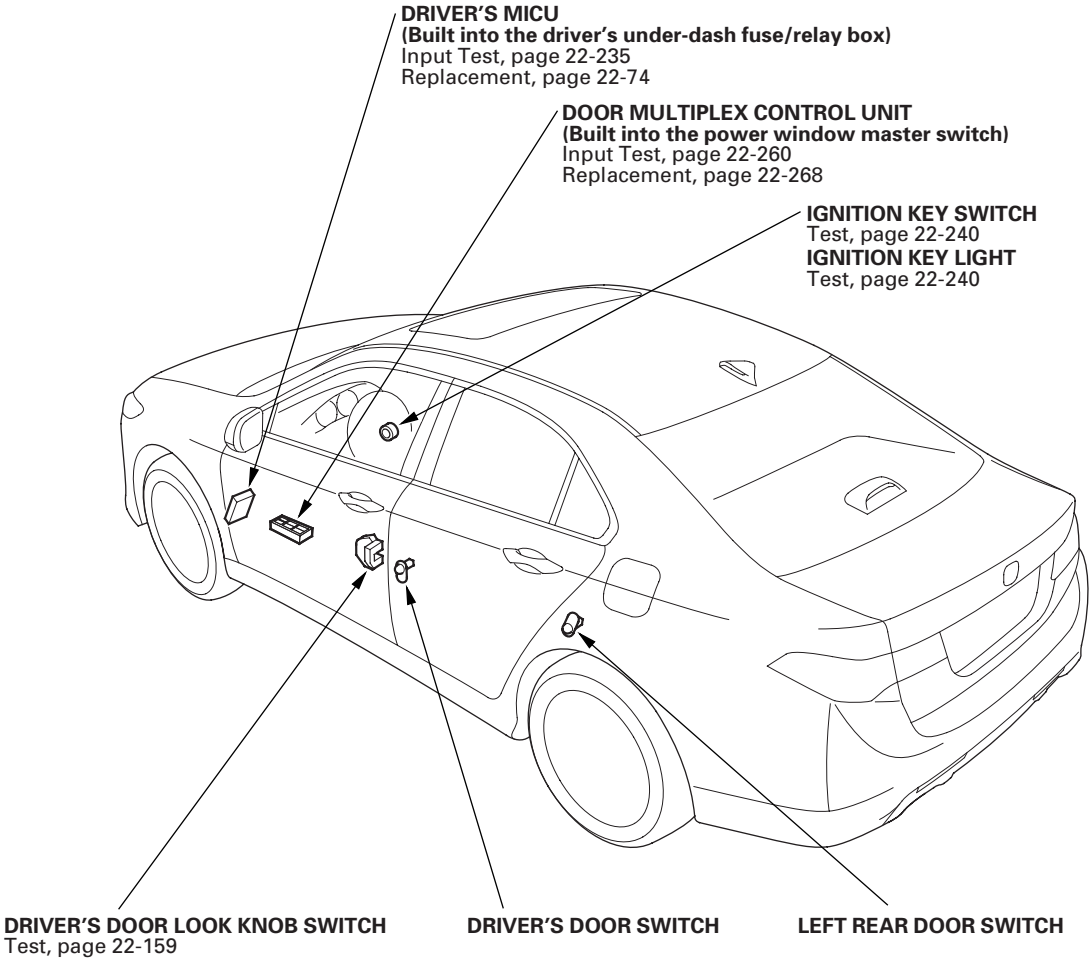
1. Open the trunk lid.
2. Disconnect the 3P connector (A) from the trunk lid latch assembly (B).



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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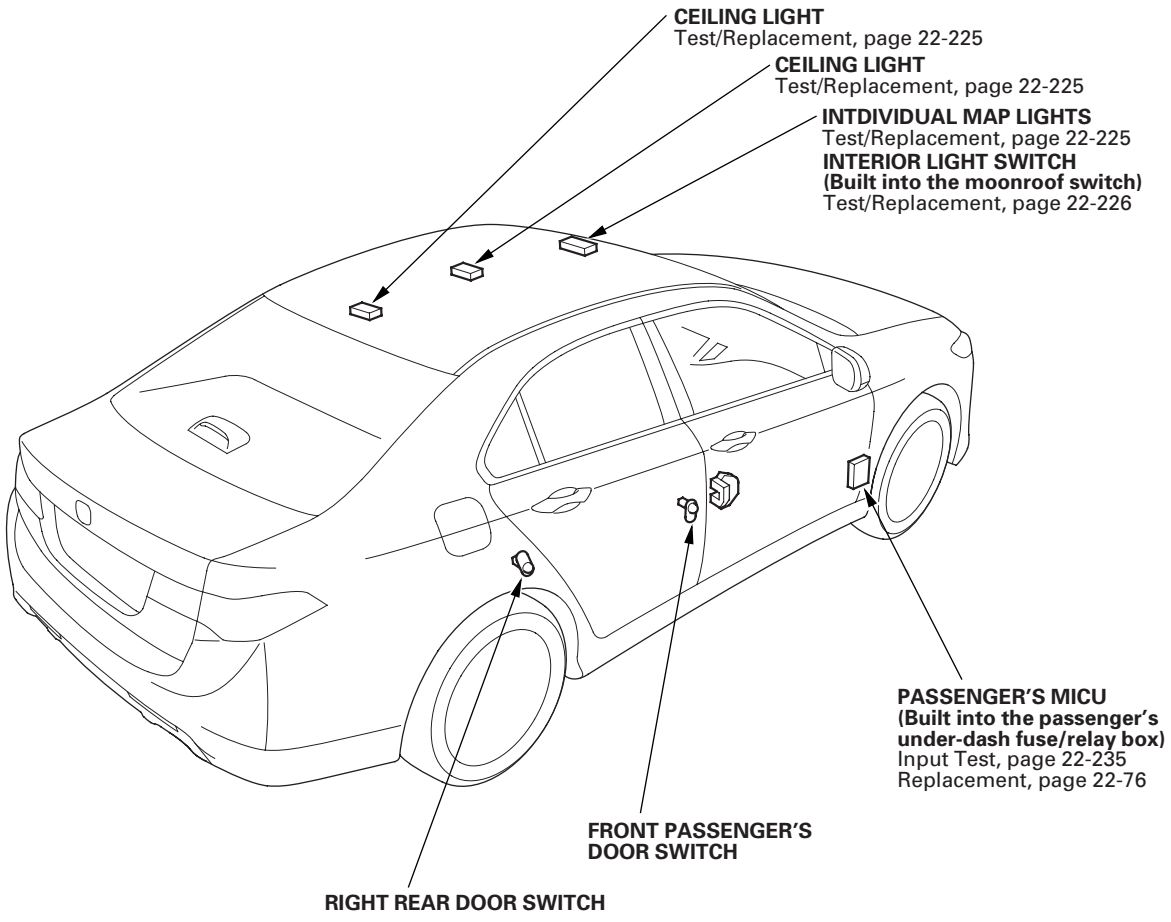
Component Location Index



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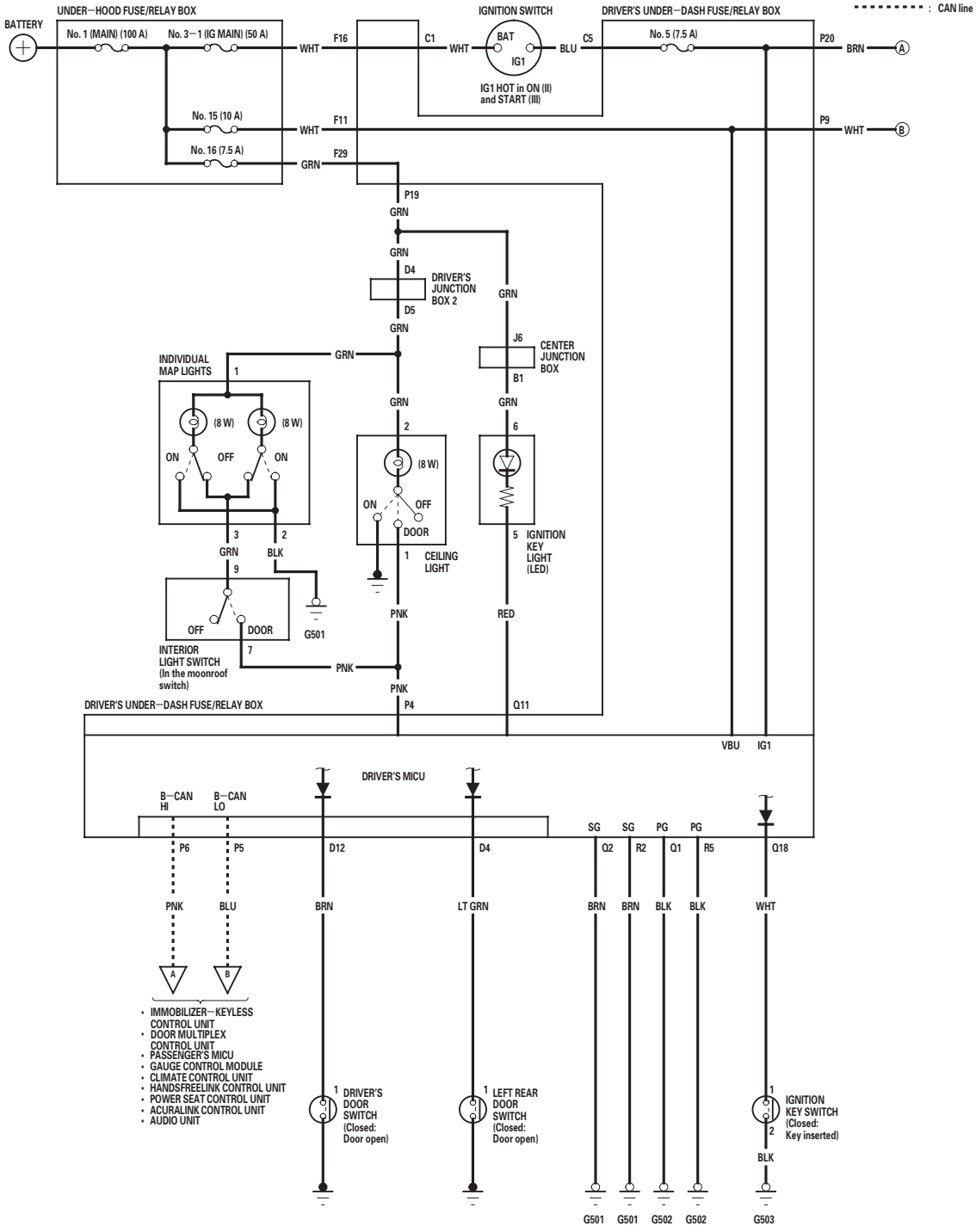
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Component Location Index (cont'd)



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Circuit Diagram

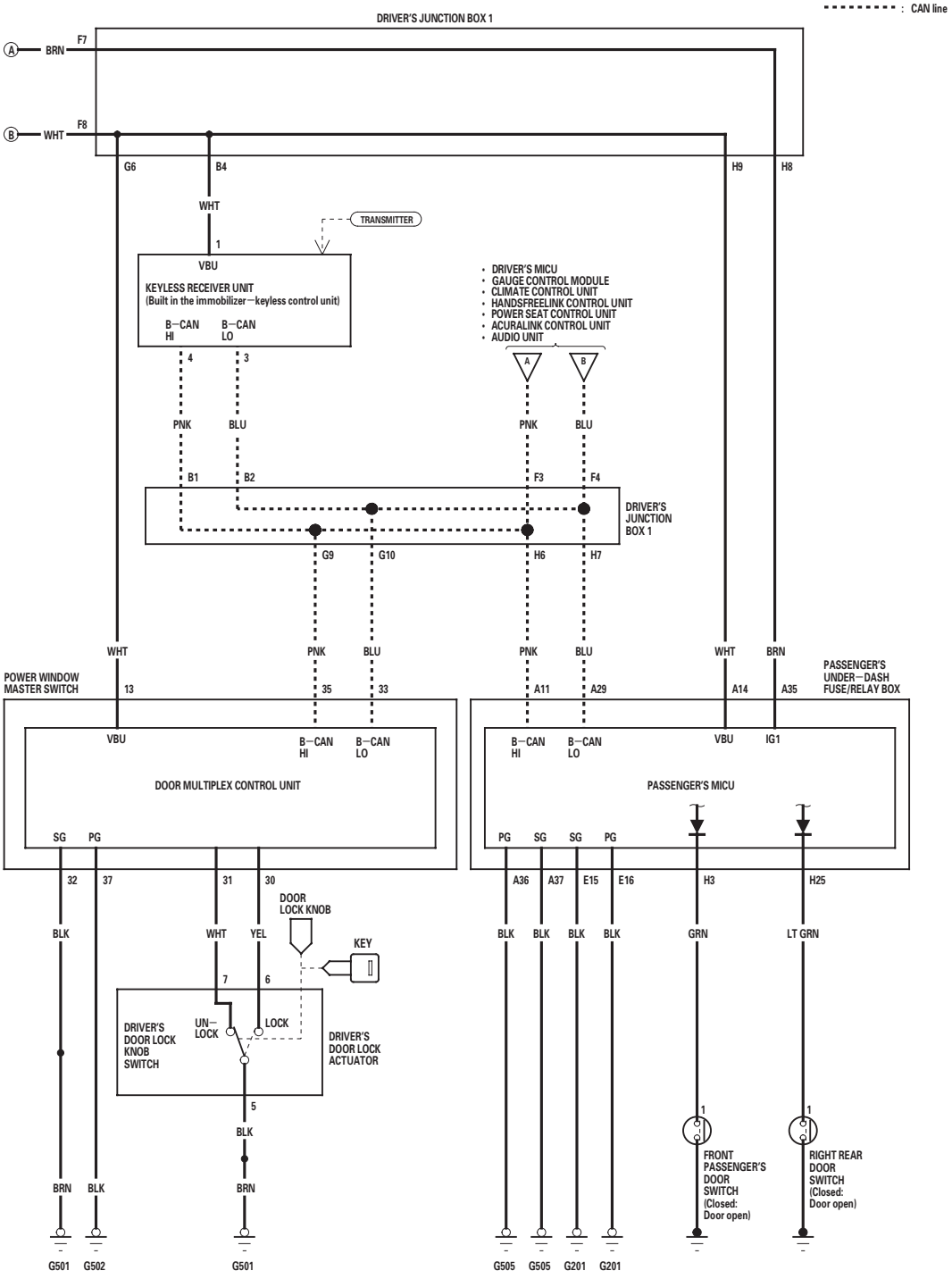


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Entry Lights Control System

Circuit Diagram (cont'd)



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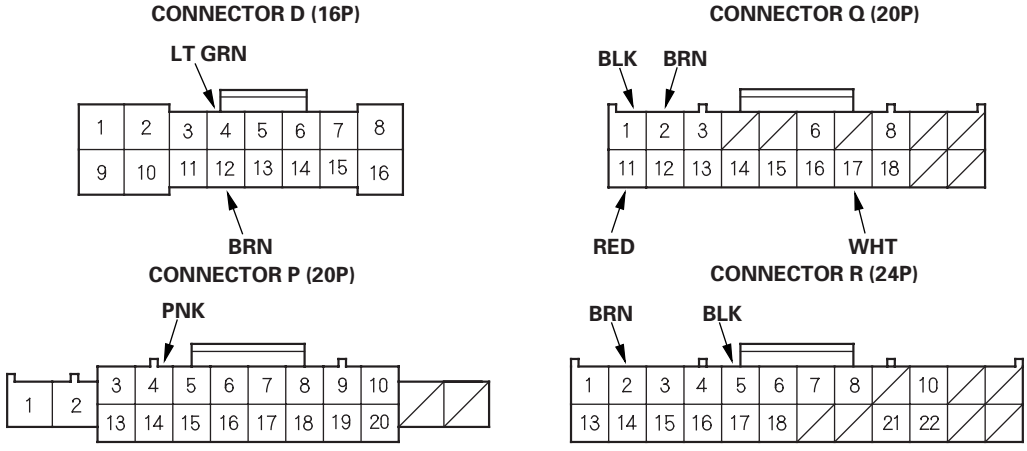
Control Unit Input Test

NOTE: Before testing, troubleshoot the multiplex integrated control system first, using B-CAN System Diagnosis Test Mode A (see page 22-110).

Driver's MICU

1. Turn the ignition switch to LOCK (0).
2. Remove the driver's dashboard undercover (see page 20-119), then remove the dashboard lower cover (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.



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. Reconnect the connectors to the driver's under-dash fuse/relay box, 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
Q1	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
Q2	BRN	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
R2	BRN	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
R5	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
D4	LT GRN	Left rear door open	Measure the voltage to ground: There should be less than 1 V.	• Faulty left rear door switch • An open in the wire
		Left rear door closed	Measure the voltage to ground: There should be more than 5 V.	• Faulty left rear door switch • A short to ground in the wire
D12	BRN	Driver's door open	Measure the voltage to ground: There should be less than 1 V.	• Faulty driver's door switch • An open in the wire
		Driver's door closed	Measure the voltage to ground: There should be more than 5 V.	• Faulty driver's door switch • A short to ground in the wire
P4	PNK	Ceiling light switch in the middle position, Interior light switch in the DOOR position, individual map lights in the ON position	Attach to ground: The ceiling light and map light should come on.	• Blown No. 16 (7.5 A) fuse in the under-hood fuse/relay box • Faulty ceiling light • Faulty individual map light • Faulty interior light switch • Blown bulb • An open in the wire
Q11	RED	Under all conditions	Attach to ground: 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 in the wire
Q18	WHT	Ignition key inserted into the ignition switch	Measure the voltage to ground: There should be less than 1 V.	• Faulty ignition key switch • An open in the wire • Poor ground (G503)
		Ignition switch LOCK (0), and the ignition key removed from the ignition switch	Measure the voltage to ground: There should be more than 5 V.	• Faulty ignition key switch • A short to ground in the wire

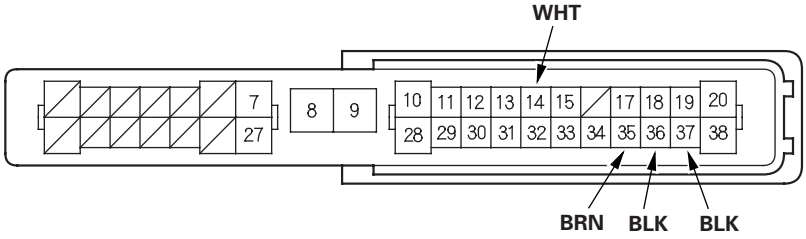
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Passenger's MICU

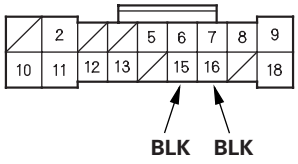
6. Turn the ignition switch to LOCK (0), and remove the right kick panel (see page 20-76).
7. Disconnect passenger's under-dash fuse/relay box connectors A, E, and H.

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

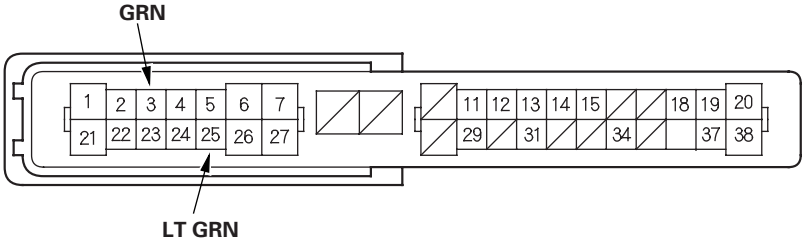
CONNECTOR A (33P)



CONNECTOR E (18P)



CONNECTOR H (38P)



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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Control Unit Input Test (cont'd)

9. Reconnect the connectors to the passenger's under-dash fuse/relay box, 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 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 in the wire
A35	BRN	Ignition switch ON (II)	Measure the voltage to ground: There should be battery voltage.	• Blown No. 5 (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
A36	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G505) • An open in the wire
A37	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G505) • An open in the wire
E15	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G201) • An open in the wire
E16	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G201) • An open in the wire
H25	LT GRN	Right rear door open	Measure the voltage to ground: There should be less than 1 V.	• Faulty right rear door switch • An open in the wire
		Right rear door closed	Measure the voltage to ground: There should be more than 5 V.	• Faulty right rear door switch • A short to ground in the wire
H3	GRN	Front passenger's door open	Measure the voltage to ground: There should be less than 1 V.	• Faulty front passenger's door switch • An open in the wire
		Front passenger's door closed	Measure the voltage to ground: There should be more than 5 V.	• Faulty front passenger's door switch • A short to ground in the wire

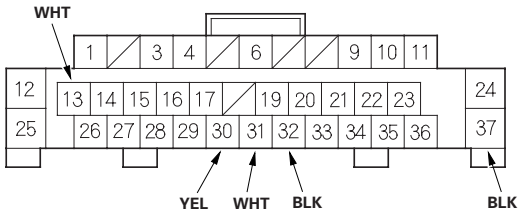
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Door Multiplex Control Unit

10. Turn the ignition switch to LOCK (0), and remove the power window master switch (see page 22-268).

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 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 14.

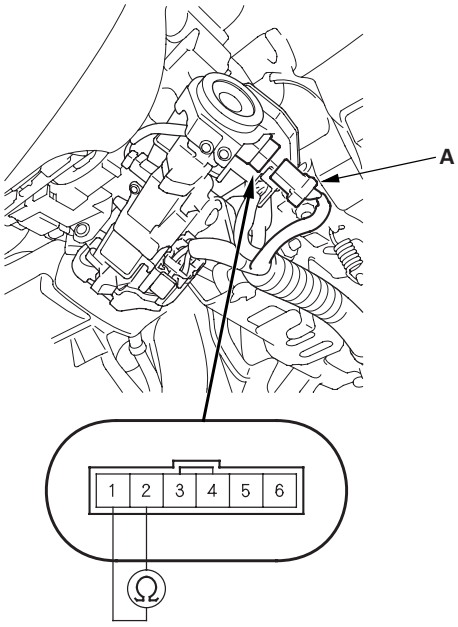
Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
13	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 15 (10 A) fuse in the under-hood fuse/relay box • Faulty driver's under-dash fuse/relay box • An open in the wire
32	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
37	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
30	YEL	Driver's door lock knob switch in LOCK	Measure the voltage to ground: There should be less than 1 V.	• Poor ground (G501) • Faulty driver's door lock knob switch • An open 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
31	WHT	Driver's door lock knob switch in UNLOCK	Measure the voltage to ground: There should be less than 1 V.	• Poor ground (G501) • Faulty driver's door lock knob switch • An open 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 22-74). If input failures are related to a particular control unit, replace the control unit.

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Ignition Key Switch Test

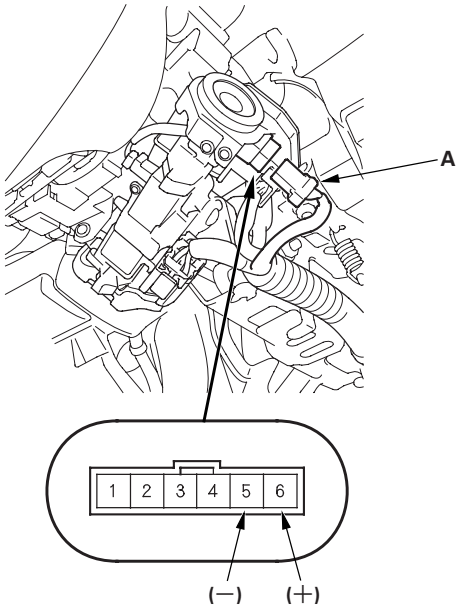
1. Remove the steering column upper and lower covers (see page 20-132).
2. Disconnect the 6P connector (A).



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, replace the ignition switch.

Ignition Key Light Test

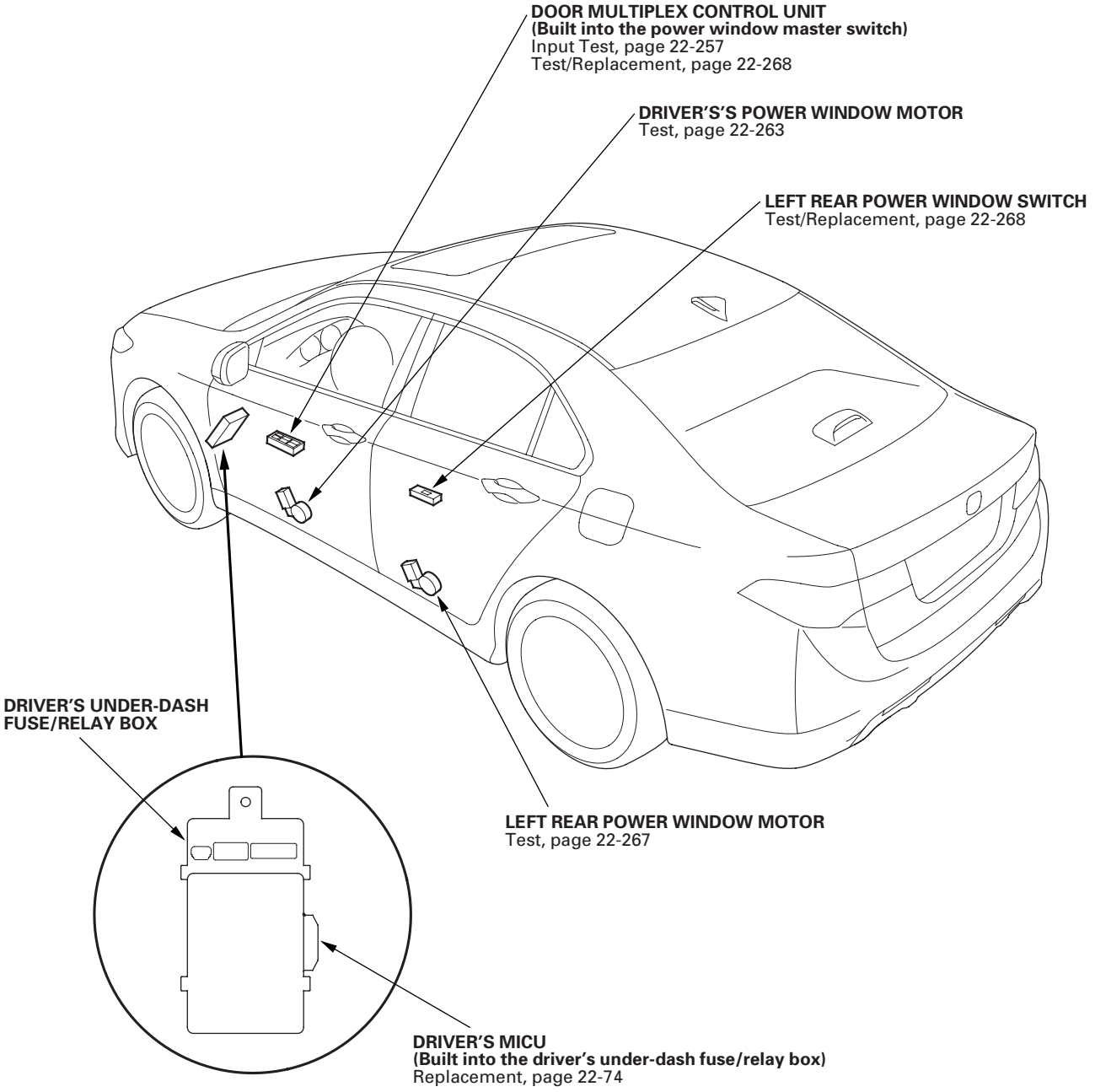
1. Remove the steering column upper and lower covers (see page 20-132).
2. Disconnect the 6P connector (A).



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, replace the ignition switch.

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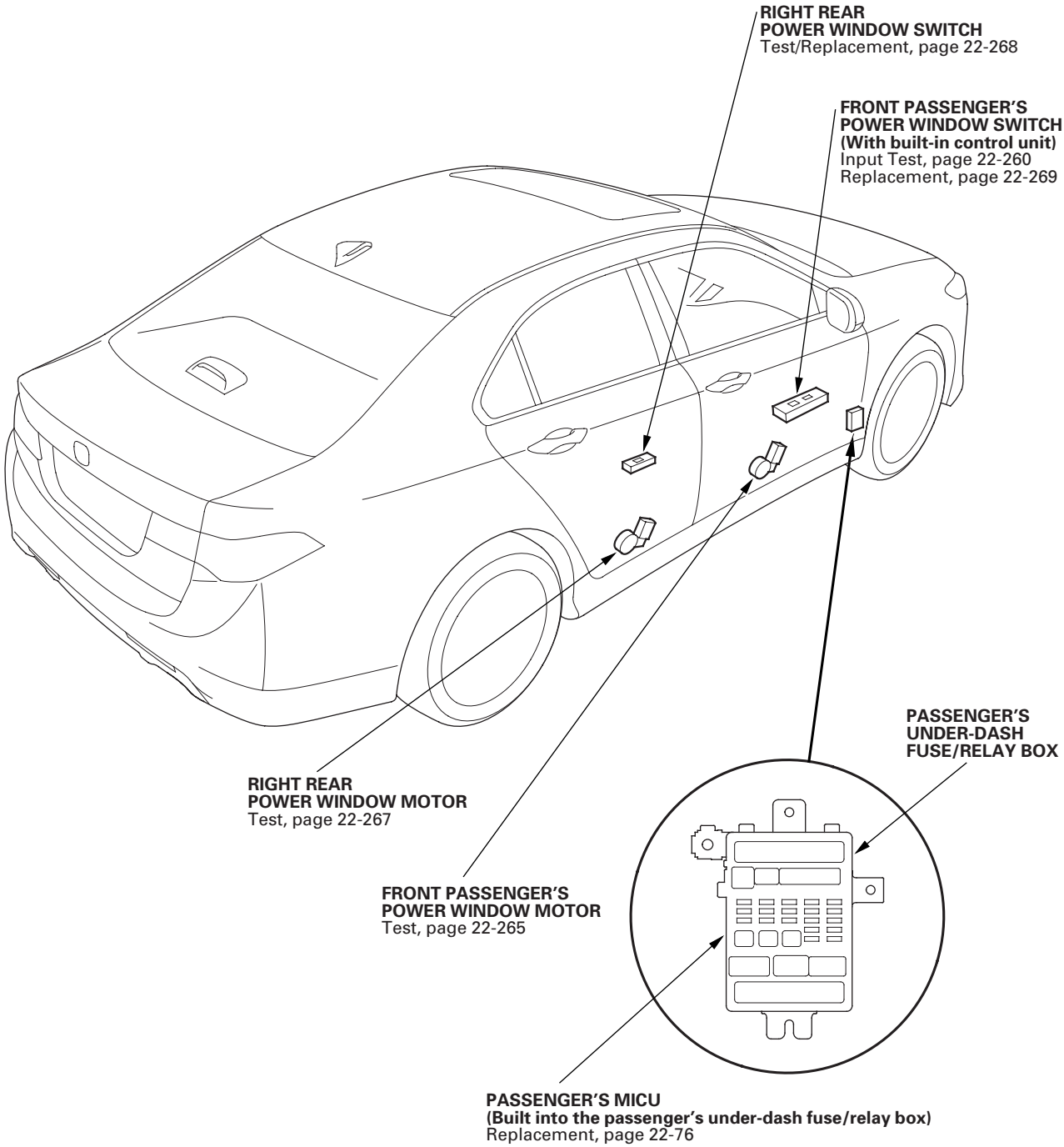
Component Location Index



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Component Location Index (cont'd)



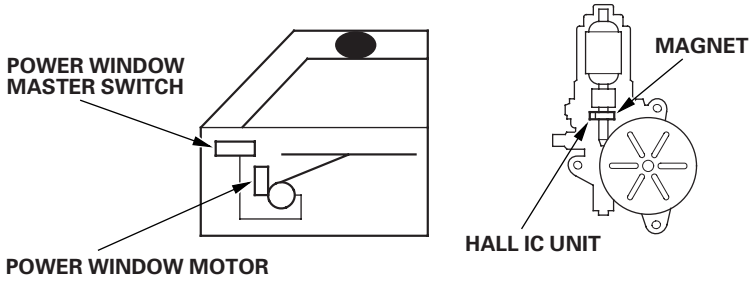
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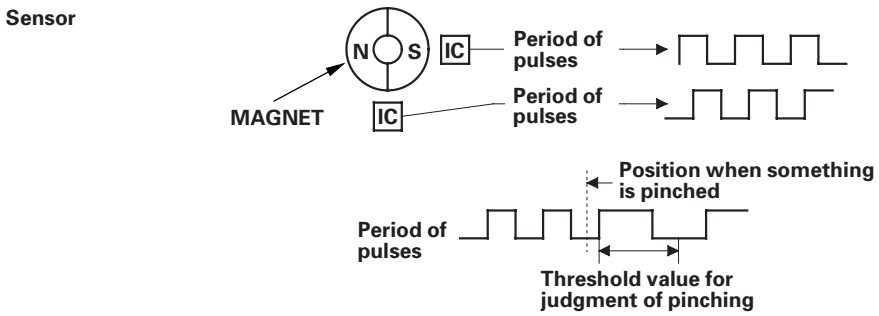
System Description

Anti-pinch 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 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, 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 anti-pinch 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 anti-pinch 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 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), 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 (passenger'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.

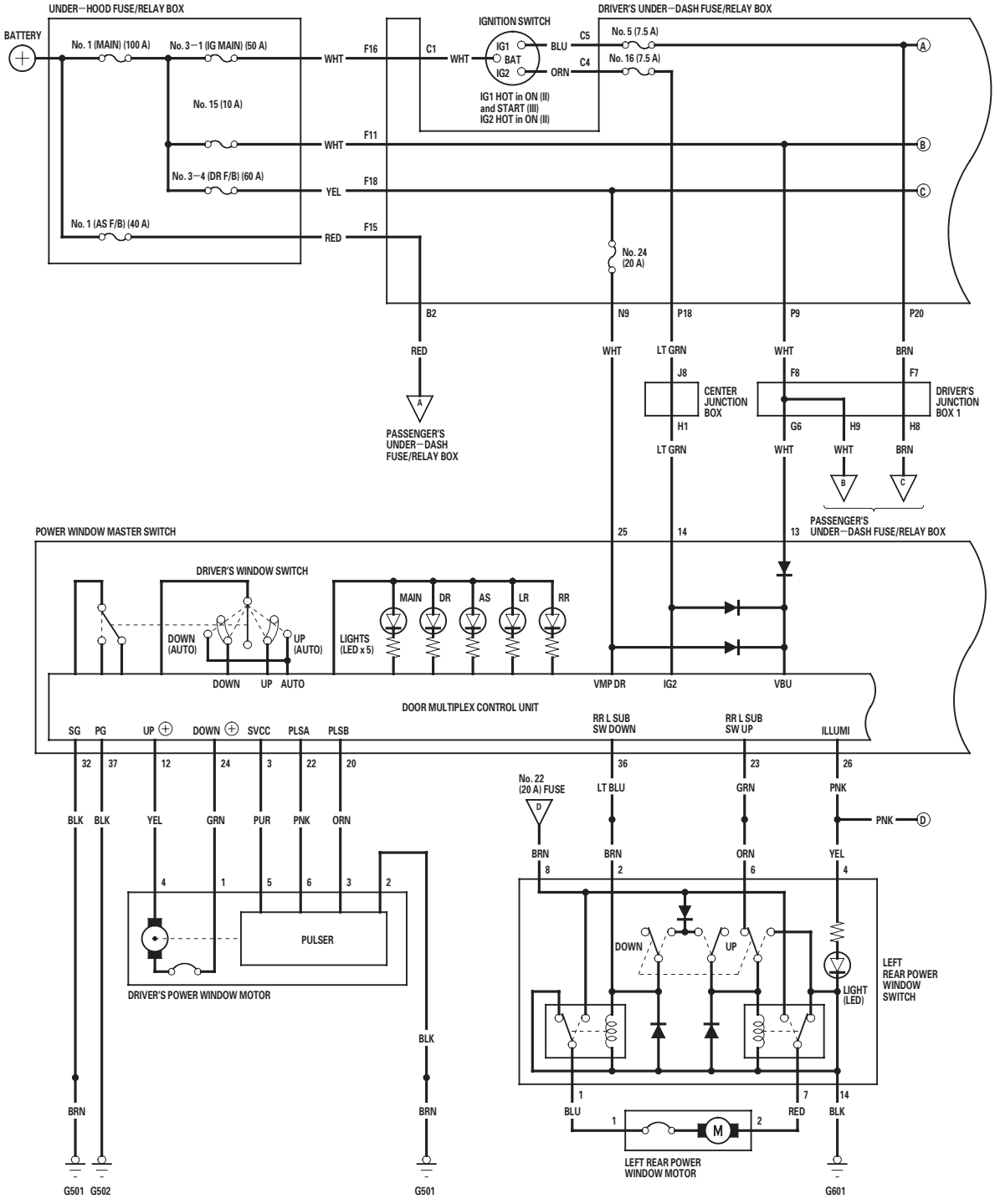
Without the HDS

NOTE:
- Do each bullet in step 4 within 5 seconds of each other.
- The front passenger's power window must be reset from the front passenger's power window switch.

1. Turn the ignition switch to ON (II).
2. Move the power window all the way down by using the power window DOWN switch.
3. Open the driver's door.
4. Do the following three times before going to step 5:
   - Turn the ignition switch to LOCK (0).
   - Push and hold the power window DOWN switch.
   - Turn the ignition switch ON (II).
   - Release the power window DOWN switch.
5. Confirm that AUTO UP no longer works. If AUTO UP still works, go back to step 1.
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 1 second.
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 steps.
   - If it still does not work, go to B-CAN System Diagnosis Test Mode A (see page 22-110).

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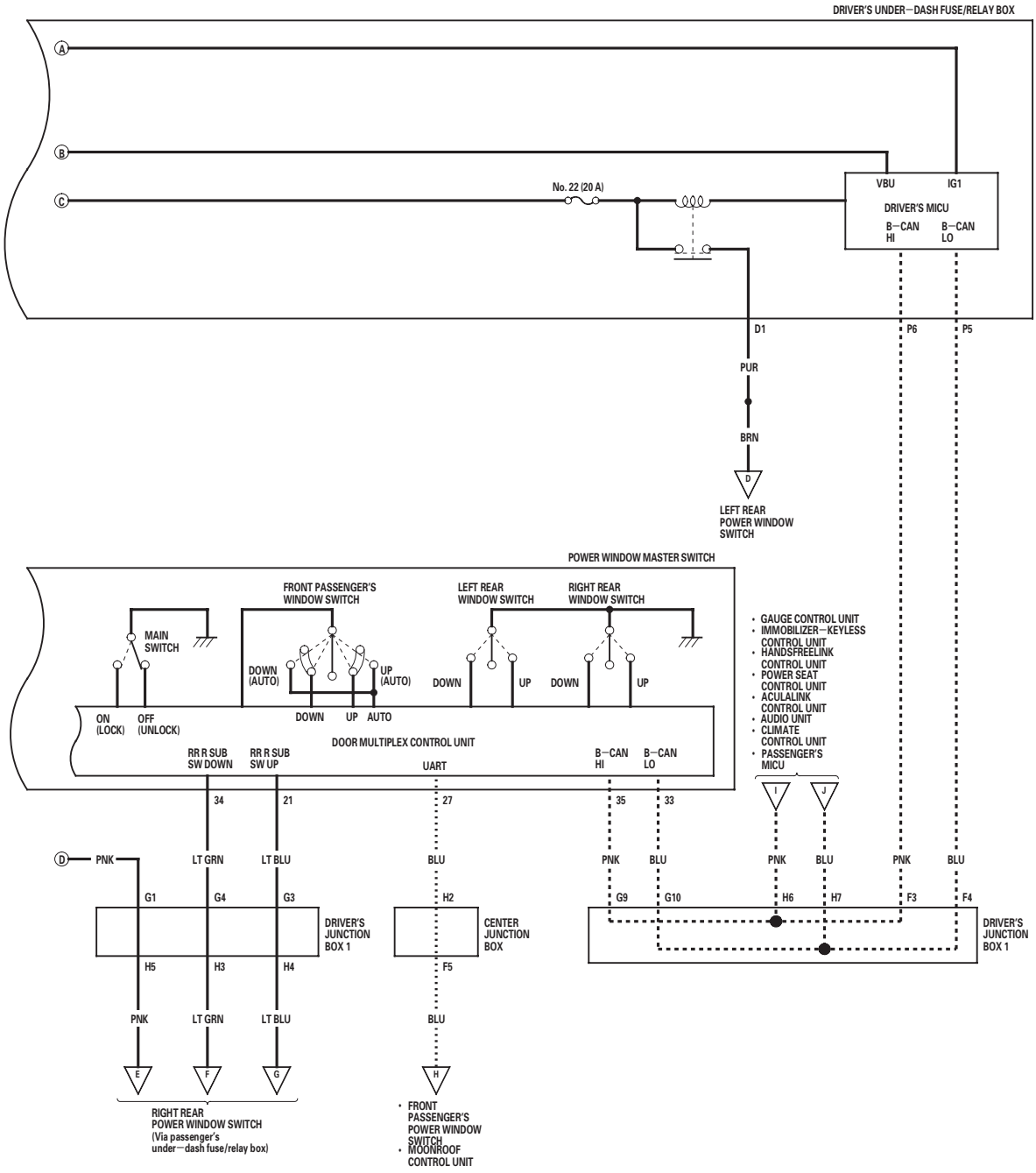
Circuit Diagram



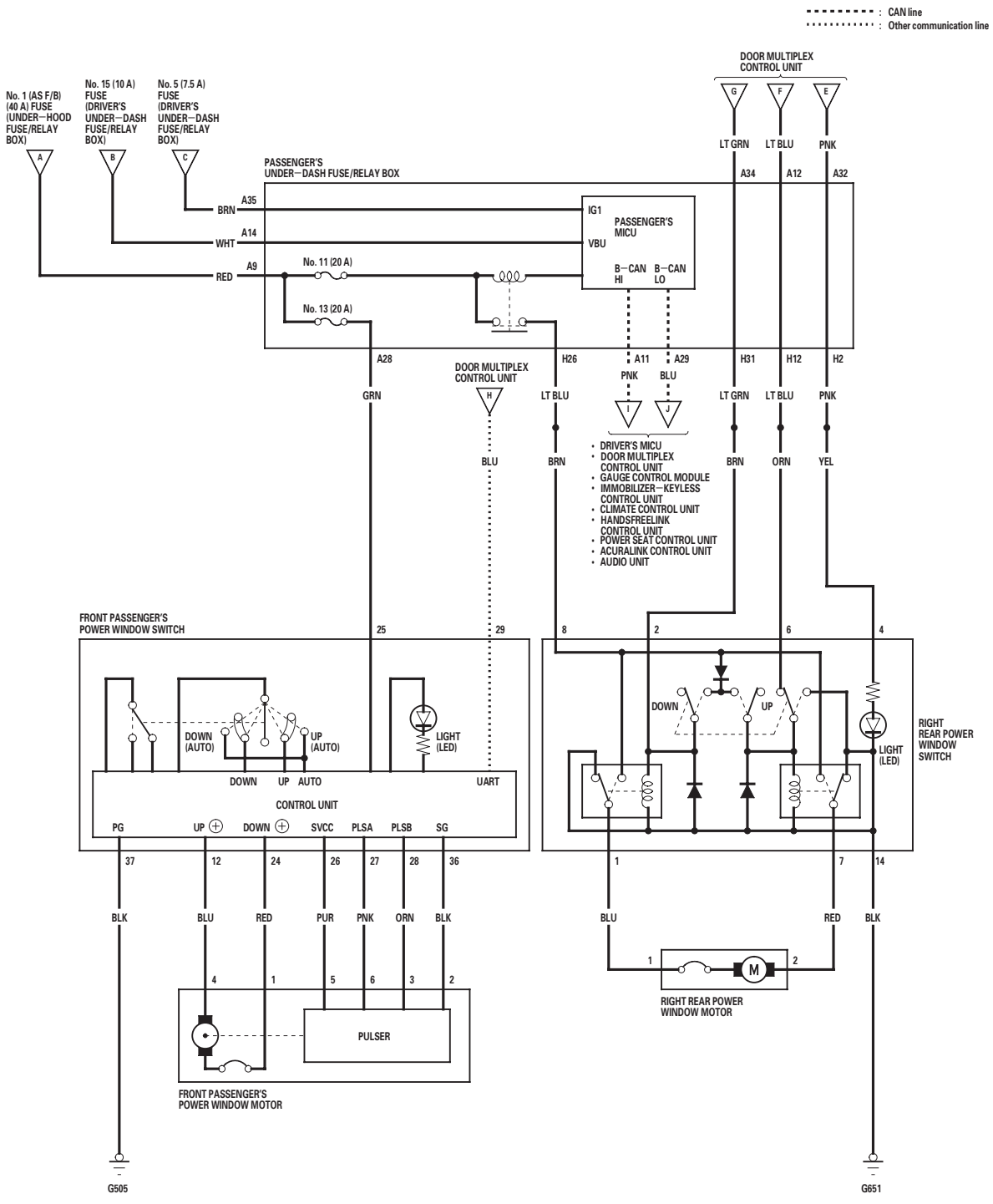
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Circuit Diagram (cont'd)



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DTC Troubleshooting

DTC B1125: Driver's Power Window Motor Pulse A Error

DTC B1126: Driver's Power Window Motor Pulse B Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
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 22-263). ■
4. Check for DTCs with the HDS.

   Is DTC B1125 and/or B1126 indicated?

   YES—Go to step 5

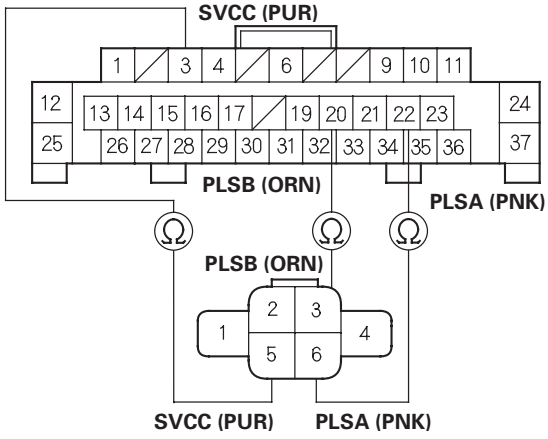
   NO—Intermittent failure, the system is OK at this time. Check for loose or poor connections. ■
5. Select the POWER WINDOWS from the BODY ELECTRICAL system select menu, and enter DATA LIST.
6. Check the DETECT/NONE information of the driver's window motor A-phase pulse signal in the DATA LIST.

   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 22-268). ■

   NO—Go to step 7.
7. Turn the ignition switch to LOCK (0).
8. Disconnect the door multiplex control unit 37P connector.
9. Disconnect the driver's power window motor 6P connector.
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.

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?

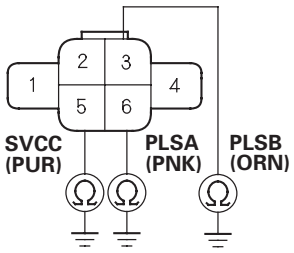
YES—Go to step 11.

NO—Repair an open in the wire between the door multiplex control unit and the driver's power window motor. ■

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11. Check for continuity between terminals No. 3, No. 5, and No. 6 of the driver's window motor connector and body ground.

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 22-263).

Is the motor OK?

YES—Replace the power window master switch. ■ (see page 22-268).

NO—Replace the driver's power window motor. ■

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DTC Troubleshooting (cont'd)

DTC B1130: Front Passenger's Power Window Motor Pulse A Error

DTC B1131: Front Passenger's Power Window Motor Pulse B Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-110).

1. Clear the DTC with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
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 22-265). ■
4. Check for DTCs with the HDS.

   Is DTC B1130 and/or B1131 indicated?

   YES—Go to step 5.

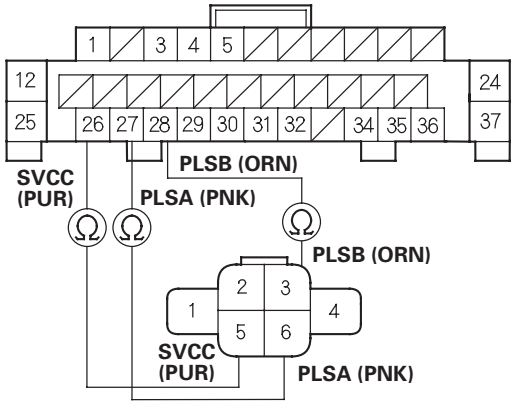
   NO—Intermittent failure, the system is OK at this time. Check for loose or poor connections. ■
5. Select the POWER WINDOWS from the BODY ELECTRICAL system select menu, and enter DATA LIST.
6. Check the DETECT/NONE information of the front window motor A-phase and B-phase signal in the DATA LIST.

   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. ■

   NO—Go to step 7.
7. Turn the ignition switch to LOCK (0).
8. Disconnect the front passenger's power window switch 37P connector.
9. Disconnect the front passenger's power window motor 6P connector.
10. Check for continuity between terminals No. 26, No. 27, and No. 28 of the front passenger's power window switch 37P connector and terminals No. 5, No. 3, and No. 6 of the passenger's power window motor.

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?

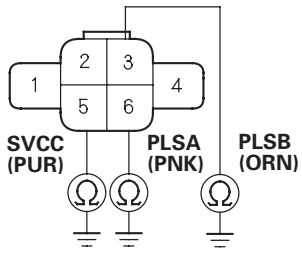
YES—Go to step 11.

NO—Repair an open in the wire between the front passenger's window switch and the front passenger's power window motor. ■

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11. Check for continuity between terminals No. 3, No. 5 and No. 6 of the front passenger's window motor 6P connector and body ground.

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 22-265).

Is the motor OK?

YES—Replace the front passenger's power window switch. ■

NO—Replace the front passenger's power window motor. ■

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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
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 (see page 22-248) or B1126 (see page 22-248). ■

   NO—Go to step 5.
5. Reset the power window control unit (see page 22-244).
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 20-19). ■

   NO—Faulty door multiplex control unit; replace the power window master switch (see page 22-268). ■

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DTC Troubleshooting (cont'd)

DTC B1142: Communication Line (UART Line) 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 22-110).
- Before troubleshooting, check the No. 16 (7.5 A), No. 20 (20 A) and No. 24 (20 A) fuses in the driver's under-dash fuse/relay box

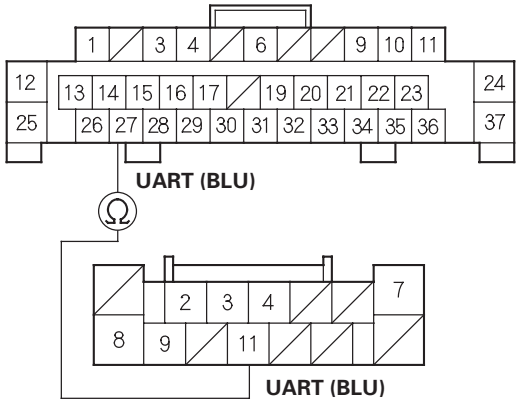
1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Open and close all power windows by using the power window master switch.
4. Check for DTCs with the HDS.

   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).
6. Disconnect the door multiplex control unit 37P connector.
7. Disconnect the moonroof control unit 14P connector.
8. Check for continuity between the power window master switch 37P connector terminal No. 27 and the 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.

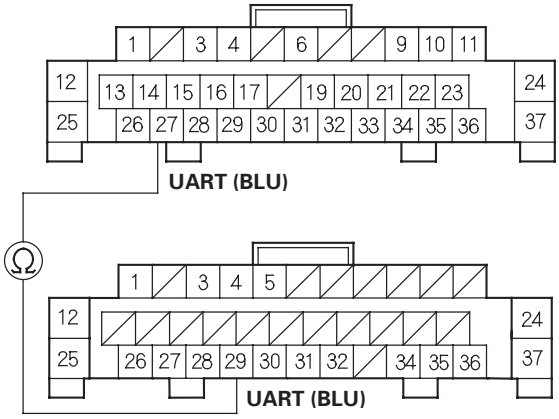
NO—Repair an open in the wire. ■

9. Disconnect the front passenger's power window switch 37P connector.

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10. Check for continuity between the door multiplex control unit 37P connector terminal No. 27 and the 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

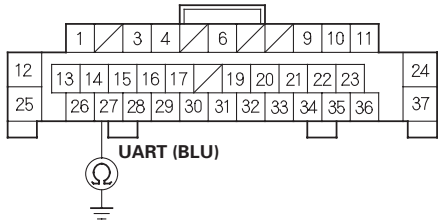
Is there continuity?

YES—Go to step 11.

NO—Repair an open in the wire. ■

11. Check for continuity between the 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?

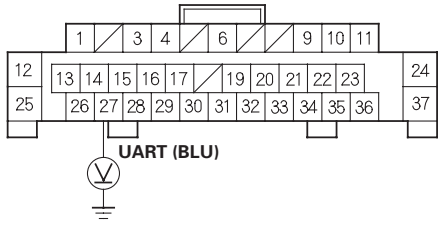
YES—Repair a short to ground in BLU wire. ■
NO—Go to step 12.

12. Reconnect the door multiplex control unit 37P connector.

13. Turn the ignition switch to ON (II).

14. Measure the voltage between the 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 0.5 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 22-268). 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 22-331). ■
NO—Repair a short to power in the wire. ■

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DTC Troubleshooting (cont'd)

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 22-110).

1. Clear the DTC with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
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 (see page 22-250) or B1131 (see page 22-250). ■

   NO—Go to step 5.
5. Reset the power window control unit and the front passenger's power window control unit (see page 22-244).
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 window motor. ■

   NO—Replace the front passenger's power window switch. ■

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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-309). If the tests prove OK, replace the gauge control module (see page 22-313). ■

   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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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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-268). ■

   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. ■

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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-128). If the tests prove OK, replace the driver's under-dash fuse/relay box (see page 22-74). ■

   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 Troubleshooting (cont'd)

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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-128). If the tests prove OK, replace the passenger's under-dash fuse/relay box (see page 22-74). ■

   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. ■

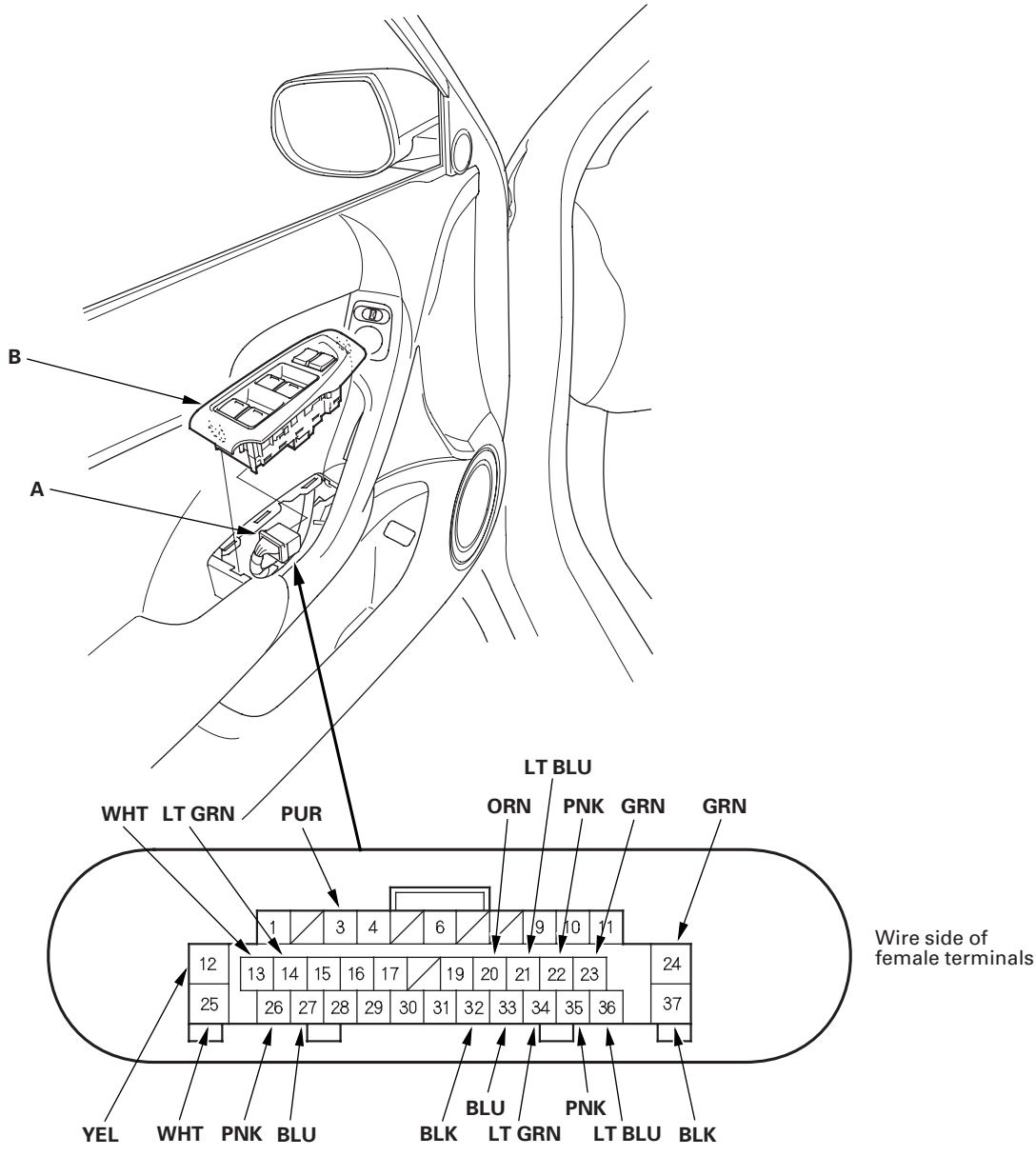
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Power Window Master Switch Input Test

NOTE: Before testing, troubleshoot the multiplex integrated control unit first, using B-CAN System Diagnosis Test Mode A (see page 22-110).

1. Turn the ignition switch to LOCK (0), open and close the driver's door, then remove the power window master switch (see page 22-268).

2. Disconnect the 37P connector (A) from the power window master switch (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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Power Window Master Switch Input Test (cont'd)

4. Reconnect the connector to the power window master switch, turn the ignition switch to ON (II), 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 5.

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
14	LT GRN	Ignition switch ON (II)	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 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 in the wire
32	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
37	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
3	PUR	Ignition switch ON (II)	Measure the voltage to ground: There should be battery voltage.	• Faulty power window master switch • A short to ground in the wire
20	ORN	Ignition switch ON (II), and driver's power window moving up or down	Measure the voltage between terminals No. 20 and No. 37: An analog voltmeter should read about 0 V—about 5 V—0 V—about 5 V repeatedly (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 in the wire • A short to ground in the wire
22	PNK	Ignition switch ON (II), and driver's power window moving up or down	Measure the voltage between the terminals No. 22 and No. 37: An analog voltmeter should read about 0 V—about 5 V—0 V—about 5 V repeatedly (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 in the wire • A short to ground in the wire

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5. Turn the ignition switch to LOCK (0), open and close the driver's door, then disconnect the 37P connector from the power window master switch again.

6. 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, the door multiplex control unit must be faulty, replace the power window master switch (see page 22-268).

   NOTE: After replacing the power window master switch, reset the power window control unit (see page 22-244).

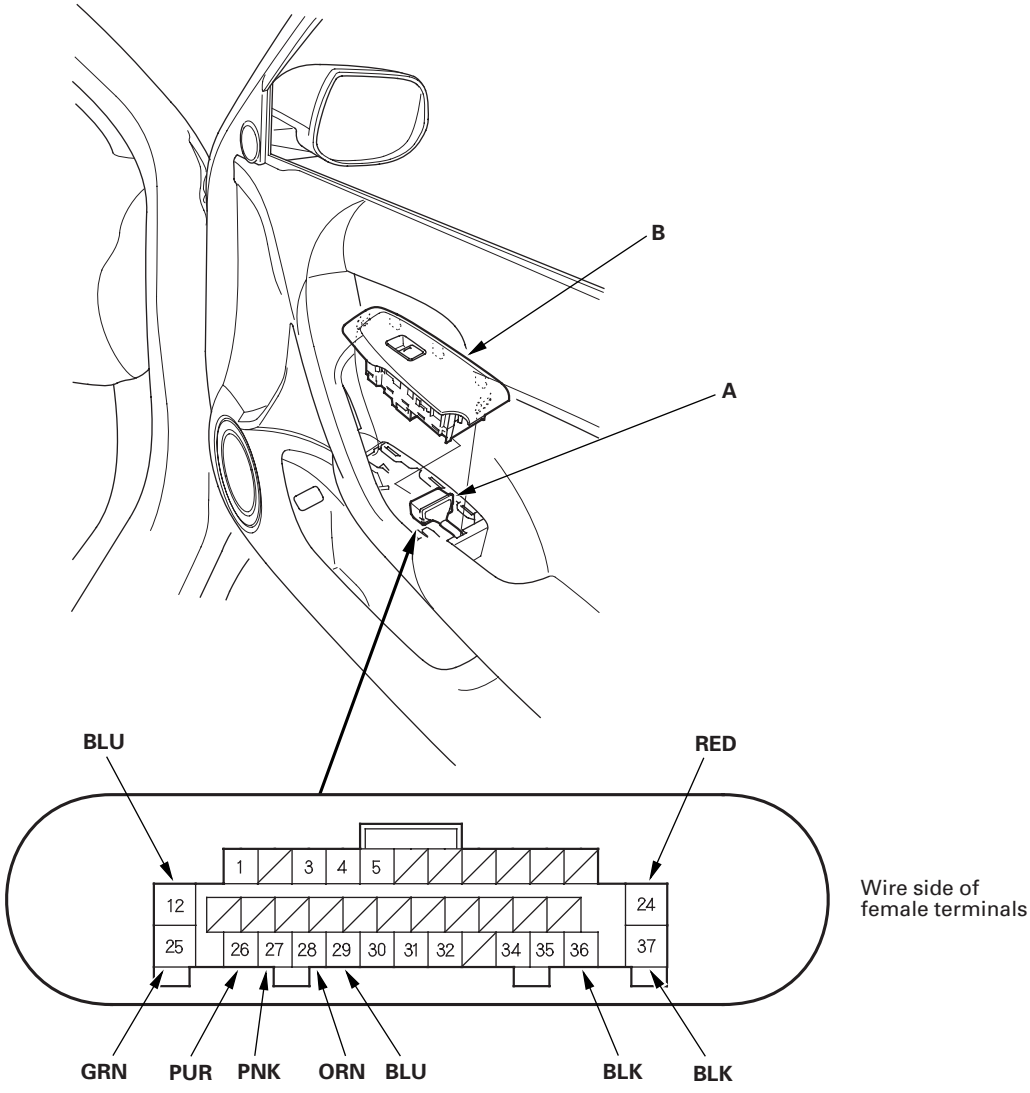
Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
12 24	YEL GRN	Turn the ignition switch ON (II), connect No. 25 and No. 24 (or No. 12) terminals, and No. 12 (or No. 24) and No. 37 terminals with jumper wires.	Check driver's power window motor operation: The driver's power window should open (or close).	• Faulty driver's power window motor • An open in the wire
23 (4-door) 36 (4-door)	GRN LT BLU	Turn the ignition switch ON (II), connect No. 25 and No. 36 (or No. 23) terminals, and No. 23 (or No. 36) and No. 37 terminals with jumper wires.	Check left rear power window motor operation: The left rear power window should open (or close).	• Poor ground (G601) • Faulty left rear power window switch • Faulty left rear power window motor • An open in the wire
21 (4-door) 34 (4-door)	LT BLU LT GRN	Turn the ignition switch ON (II), connect No. 25 and No. 34 (or No. 21) terminals, and No. 21 (or No. 34) and No. 37 terminals 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) • Faulty right rear power window switch • Faulty right rear power window motor • An open in the wire
26 (4-door)	PNK	Turn the ignition switch ON (II), connect No. 25 and No. 26 terminals 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 • Poor ground (G601, G651) • Faulty left or right rear power window switch • An open in the wire
27	BLU	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 wire
			Check for continuity to ground: There should be no continuity.	A short to ground in the wire
33	BLU	Disconnect the 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 wire
			Check for continuity to ground: There should be no continuity.	A short to ground in the wire
35	PNK	Disconnect the 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 wire
			Check for continuity to ground: There should be no continuity.	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), open and close the driver's door, then remove the front passenger's power window switch (see page 22-269).

2. Disconnect the 37P connector (A) from the front passenger's power window switch (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. Reconnect the connector to the front passenger's power window switch, turn the ignition switch to ON (II), 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 5.

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 • Faulty driver's under-dash fuse/relay box • Faulty passenger's under-dash fuse/relay box • An open in the wire
37	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G505) • An open in the wire
26	PUR	Ignition switch ON (II)	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	PNK	Ignition switch ON (II), and front passenger's power window switch moving up or down	Measure the voltage between terminals No. 27 and No. 37: An analog voltmeter should read about 0 V—about 5 V—0 V—about 5 V repeatedly (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 in the wire • A short to ground in the wire
28	ORN	Ignition switch ON (II), and front passenger's power window switch moving up or down	Measure the voltage between terminals No. 28 and No. 37: An analog voltmeter should read about 0 V—about 5 V—0 V—about 5 V repeatedly (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 in the wire • A short to ground in the wire
36	BLK	Under all conditions, disconnect the front passenger's power window motor 6P connector.	Check for continuity to ground: There should be continuity.	• Poor ground (G505) • An open in the wire

(cont'd)

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Front Passenger's Power Window Switch Input Test (cont'd)

5. Turn the ignition switch to LOCK (0), open and close the driver's door, then disconnect the 37P connector from the front passenger's power window switch again.

6. 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, replace the front passenger's power window switch, then go to step 7.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
12	BLU	Under all conditions, connect No. 25 and No. 24 (or No. 12) terminals, and No. 12 (or No. 24) and No. 37 terminals 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 in the wire
24	RED			
29	BLU	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 wire

7. Reset the power window control unit (see page 22-244).

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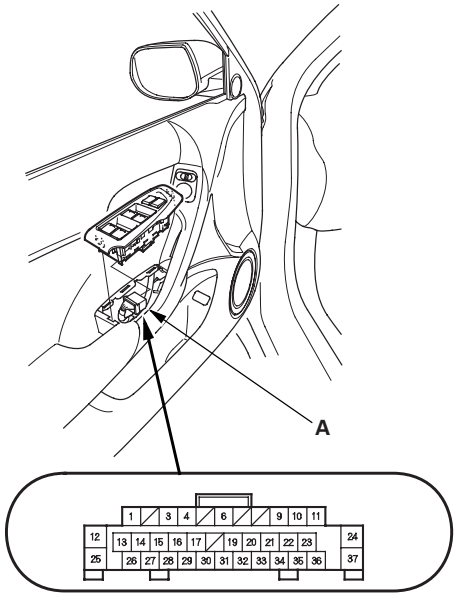
Driver's Power Window Motor Test

Motor Test

1. Remove the power window master switch (see page 22-268).

2. Test the motor in each direction by connecting battery power and ground to the door multiplex control unit 37P connector (A) according to the table.

Direction \ Terminal	12	24
UP	⊕	⊖
DOWN	⊖	⊕

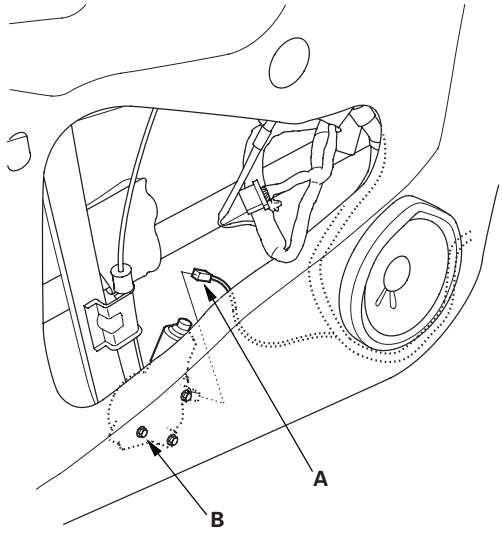


Wire side of female terminals

3. If the motor does not run or fails to run smoothly, go to step 4, if the motor runs smoothly, go to step 8.

4. Remove the door panel (see page 20-9).

5. Disconnect the 6P connector (A) from the driver's power window motor (B).



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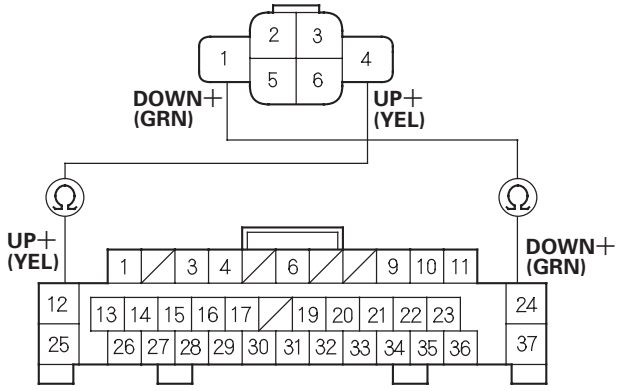
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Driver's Power Window Motor Test (cont'd)

6. Check for continuity between door multiplex control unit 37P connector terminals No. 12 and No. 24, and driver's power window motor 6P connector terminals No. 1 and No. 4 respectively. There should be continuity.

DOOR MULTIPLEX CONTROL UNIT 37P CONNECTOR	DRIVER'S POWER WINDOW MOTOR 6P CONNECTOR
Terminal No. 12	Terminal No. 4
Terminal No. 24	Terminal No. 1

DRIVER'S POWER WINDOW MOTOR 6P CONNECTOR
Wire side of female terminals



DOOR MULTIPLEX CONTROL UNIT 37P CONNECTOR
Wire side of female terminals

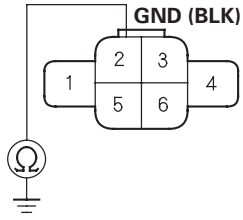
7. If the wire harness is OK, replace the driver's power window motor.

Pulser Test

8. 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 9.
   - If there is no continuity, check for an open in the BLK wire or poor ground (G501).

DRIVER'S POWER WINDOW MOTOR 6P CONNECTOR



Wire side of female terminals

9. Do the power window master switch input test terminals No. 3, No. 20, and No. 22 (see page 22-257).

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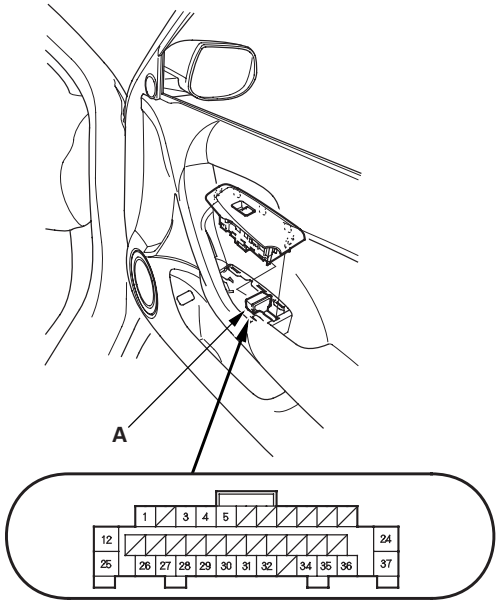
Front Passenger's Power Window Motor Test

Motor Test

1. Remove the front passenger's power window switch (see page 22-269).

2. Test the 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	⊖	⊕

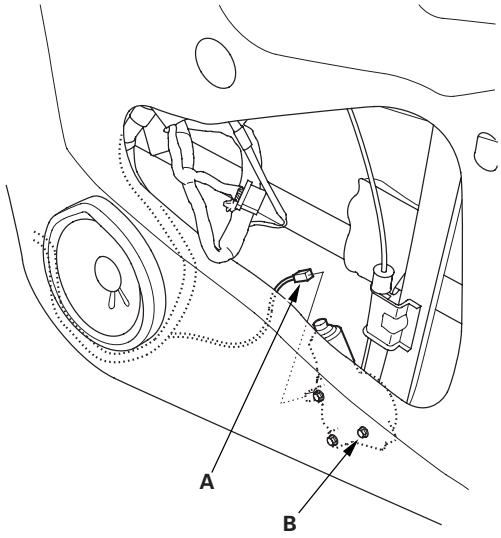


Wire side of female terminals

3. If the motor does not run or fails to run smoothly, go to step 4, if the motor runs smoothly, go to step 8.

4. Remove the door panel (see page 20-9).

5. Disconnect the 6P connector (A) from the front passenger's power window motor (B).



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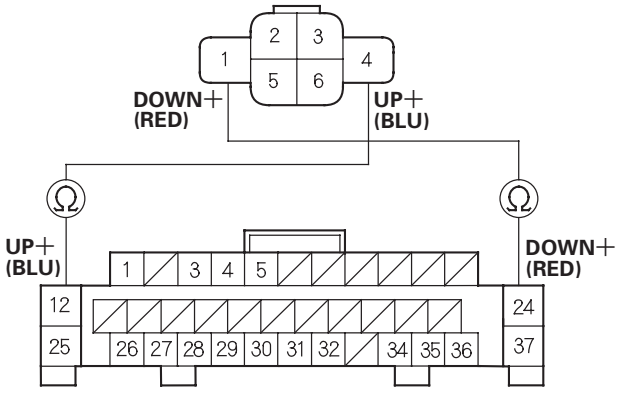
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Front Passenger's Power Window Motor Test (cont'd)

6. 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

7. If the wire harness is OK, replace the front passenger's power window motor.

Pulser Test

8. Do the front passenger's power window switch input test terminals No. 26, No. 27, and No. 28 (see page 22-260).

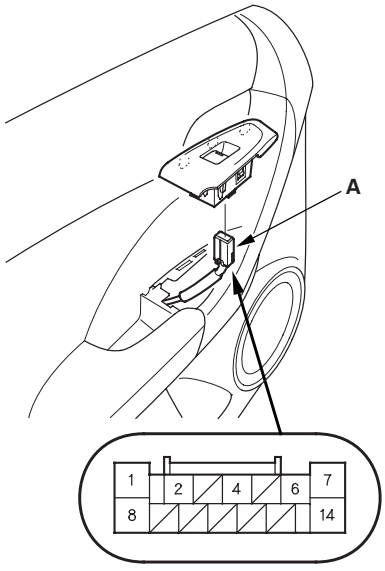
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Rear Power Window Motor Test

1. Remove the rear power window switch (see page 22-269).

2. Test the 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	⊕	⊖

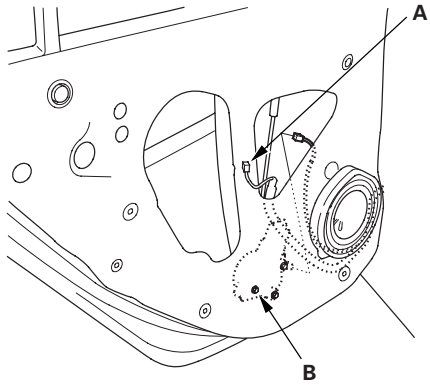


Wire side of female terminals

3. If the motor does not run or fails to run smoothly, go to step 4.

4. Remove the door panel (see page 20-25).

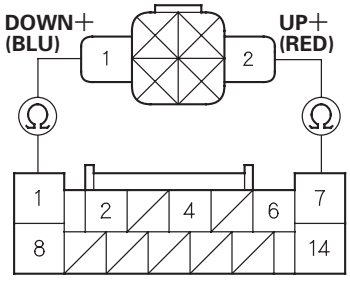
5. Disconnect the 2P connector (A) from the rear power window motor (B).



6. 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

7. If the wire harness is OK, replace the rear power window motor.

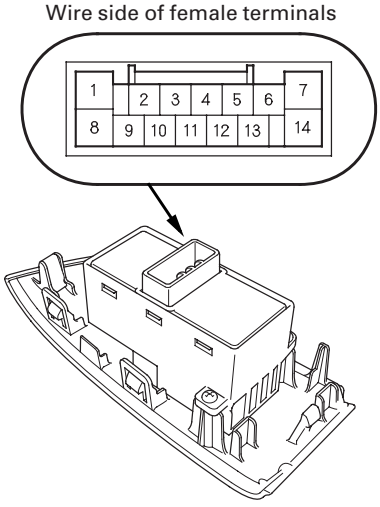
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Rear Power Window Switch Test

1. Remove the rear window switch (see page 22-269), and disconnect the 14P connector from the switch.

2. Test the rear power window switch:

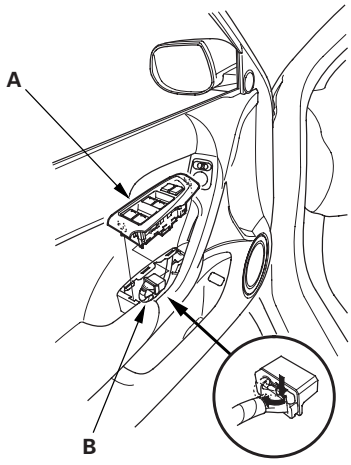
   - When the power is connected to the No. 2 terminal and ground is connected to the No. 14 terminal. There should be continuity between the No. 8 and No. 1 terminals.
   - When the power is connected to the No. 6 terminal and ground is connected to the No. 14 terminal. There should be continuity between the No. 8 and No. 7 terminals.
   - When the power is connected to the No. 8 terminal and ground is connected to the No. 14 terminal, then push the rear power window switch to DOWN. There should be continuity between the No. 8 and No. 1 terminals.
   - When the power is connected to the No. 8 terminal and ground is connected to the No. 14 terminal, then pull the rear power window switch to UP. There should be continuity between the No. 8 and No. 7 terminals.



3. If the continuity is not as specified, replace the switch.

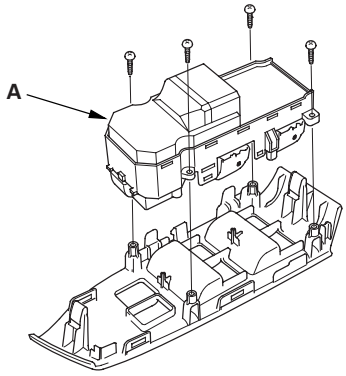
Power Window Master Switch Replacement

1. Carefully remove the power window master switch (A).



2. Disconnect the 37P connector (B) from the power window master switch.

3. Remove the four screws and the power window master switch (A).



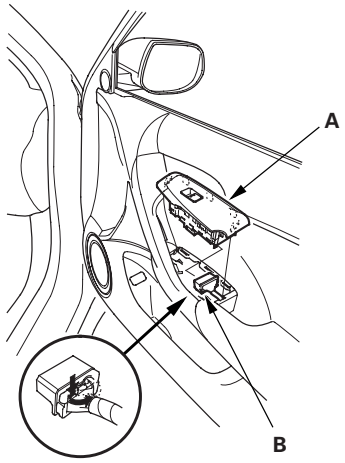
4. Install the switch in the reverse order of removal.

5. Reset the power window control unit (see page 22-244).

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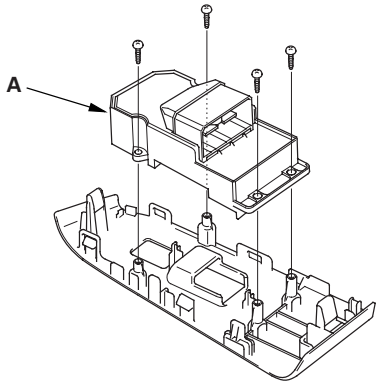
Front Passenger's Power Window Switch Replacement

1. Carefully remove the front passenger's power window switch (A).



2. Disconnect the 37P connector (B) from the front passenger's power window switch.

3. Remove the four screws and the front passenger's power window switch (A).

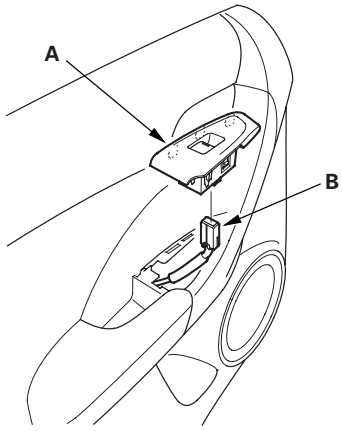


4. Install the switch in the reverse order of removal.

5. Reset the power window control unit (see page 22-244).

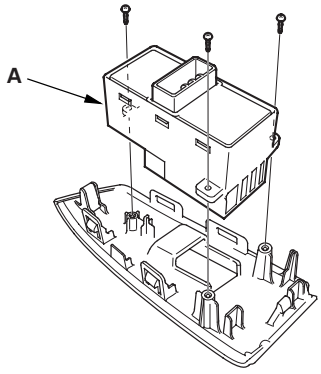
Rear Power Window Switch Replacement

1. Carefully remove the rear power window switch (A).



2. Disconnect the 14P connector (B) from the rear power window switch.

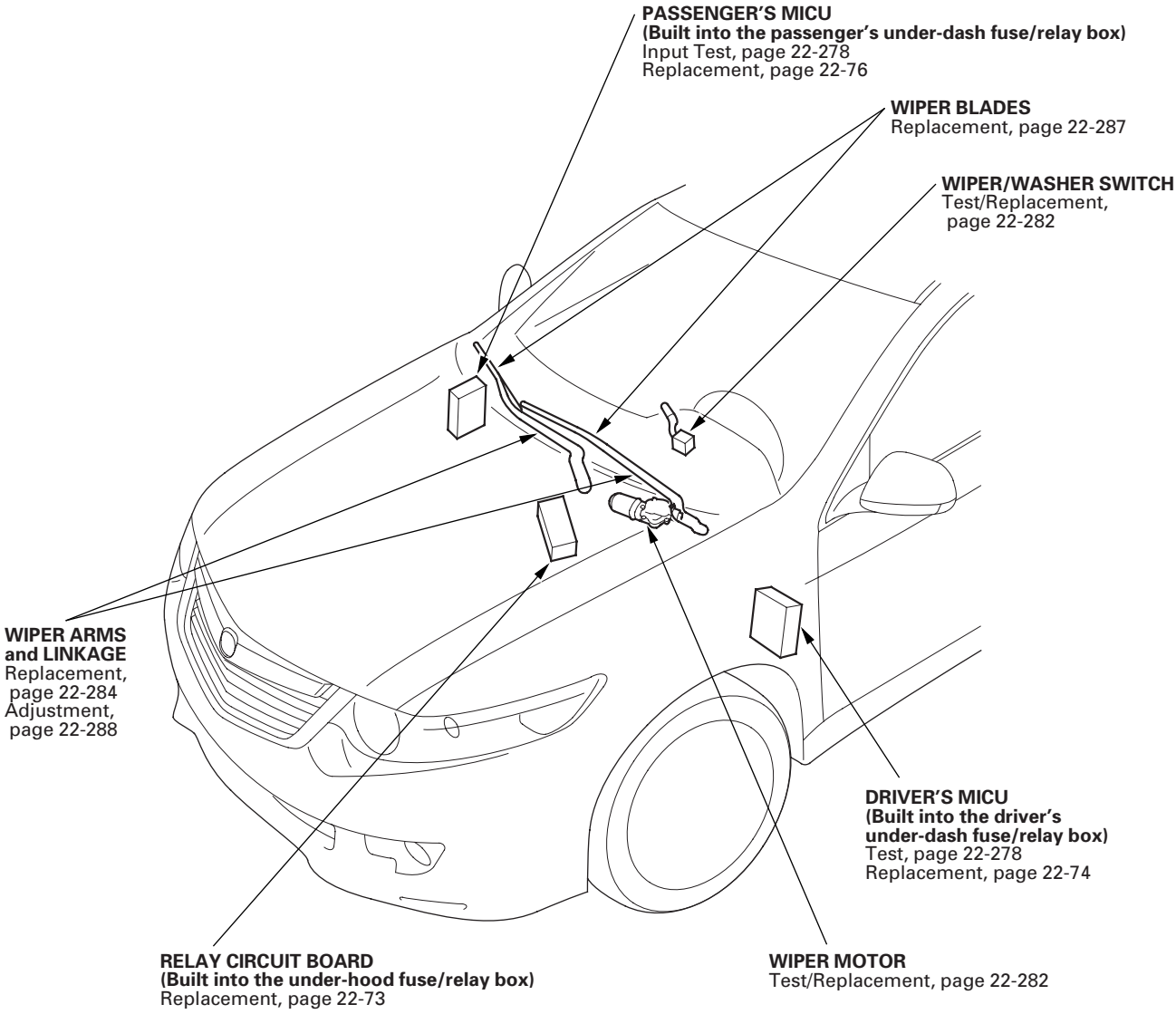
3. Remove the three screws and the rear power window switch (A).



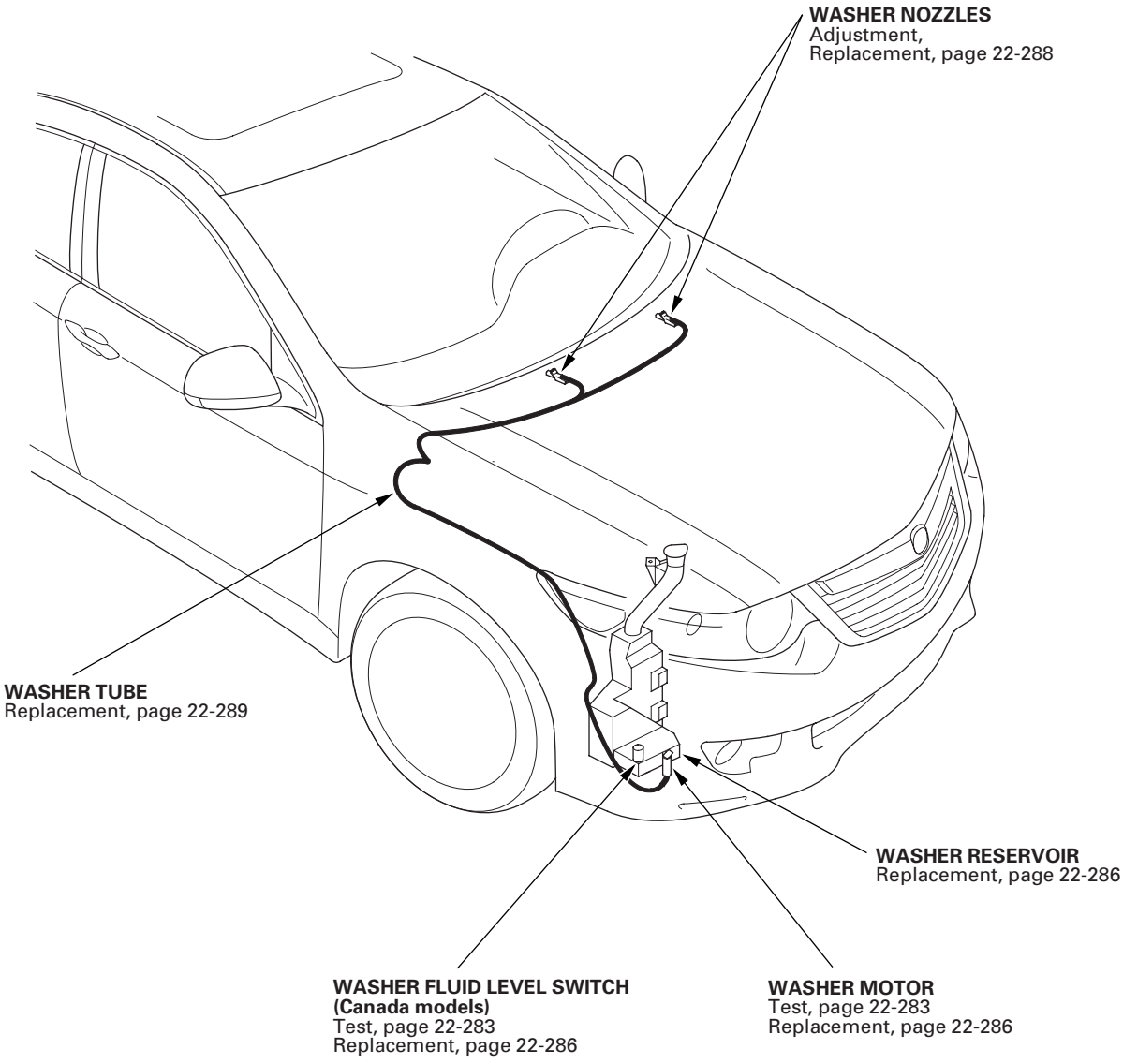
4. Install the switch in the reverse order of removal.

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Component Location Index

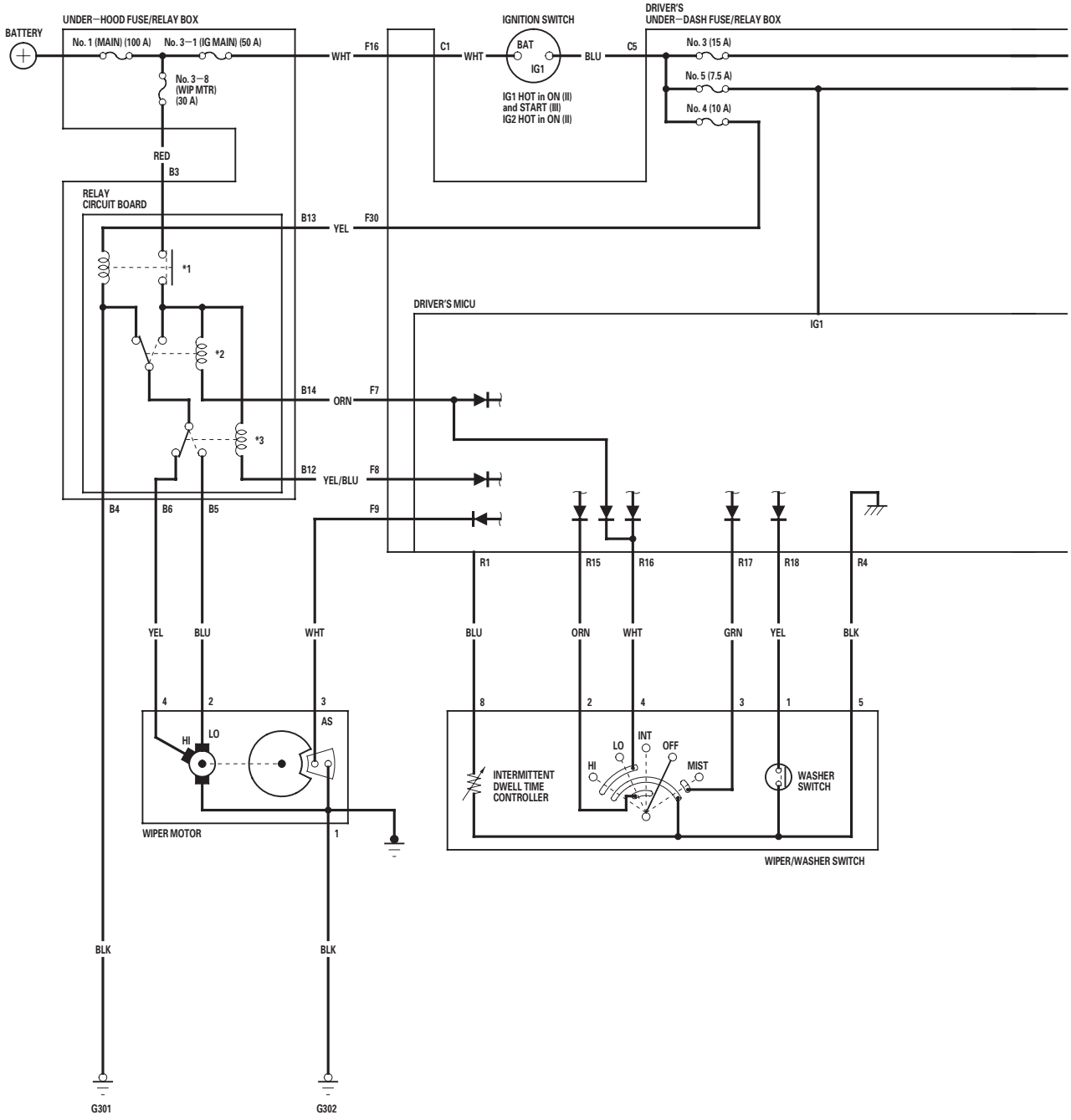


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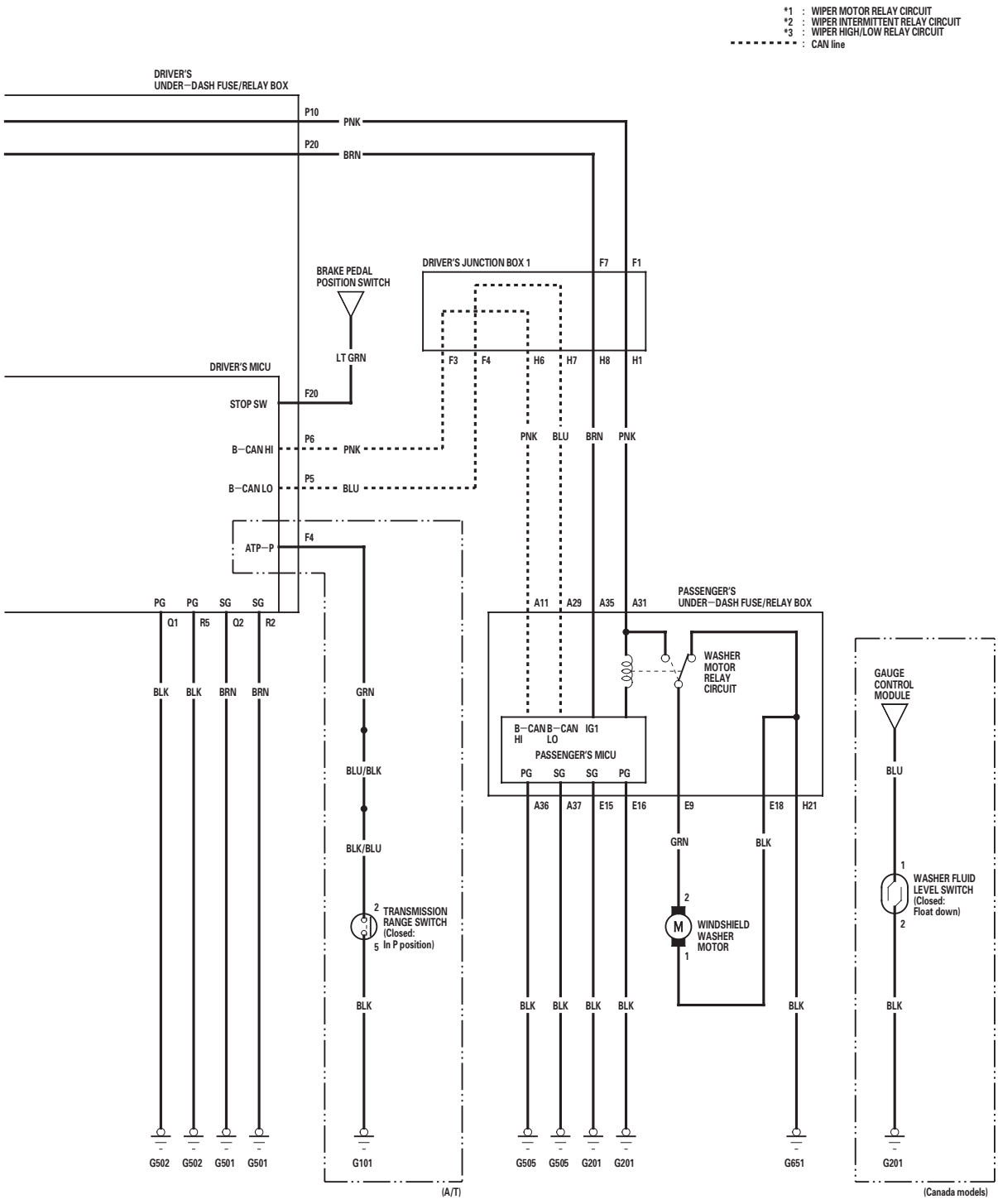


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Circuit Diagram



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DTC Troubleshooting

DTC B1077: Wiper Auto-stop (As) Signal 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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
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 22-74). ■

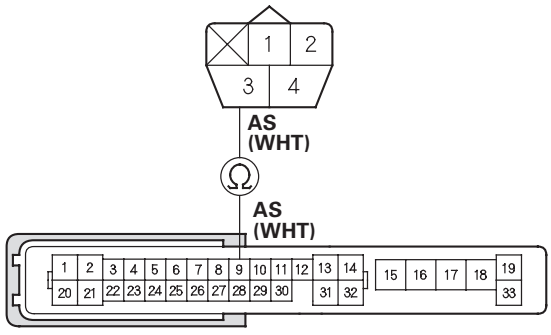
   NO—Intermittent failure, the system is OK at this time. Check for loose or poor connections. ■
5. Turn the ignition switch to LOCK (0).
6. Do the wiper motor test (see page 22-282).

   Is the wiper motor OK?

   YES—Go to step 7.

   NO—Replace the wiper motor and recheck. ■
7. Disconnect the wiper motor 4P connector.
8. Disconnect driver's under-dash fuse/relay box connector F (33P).
9. Check for continuity between wiper motor 4P connector terminal No. 3 and driver's under-dash fuse/relay box connector F (33P) terminal No. 9.

WIPER MOTOR 4P CONNECTOR
Wire side of female terminals



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

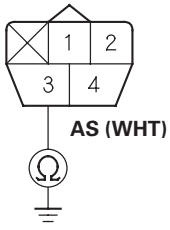
Is there continuity?

YES—Go to step 10.

NO—Repair an open in the wire. ■

10. Check for continuity between wiper motor 4P connector terminal No. 3 and body ground.

WIPER MOTOR 4P CONNECTOR



Wire side of female terminals

Is there continuity?

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

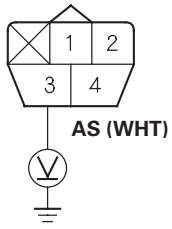
NO—Go to step 11.

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11. Turn the ignition switch to ON (II).

12. Measure the voltage between wiper motor 4P connector terminal No. 3 and body ground.

WIPER MOTOR 4P CONNECTOR



Wire side of female terminals

Is there voltage?

YES—Repair a short to power in the WHT wire. ■

NO—Faulty driver's MICU; replace the driver's under-dash fuse/relay box (see page 22-74). ■

13. Turn the ignition switch to LOCK (0).

14. Check the No. 3 (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 wiper motor test (see page 22-282).

Is the wiper motor OK?

YES—Go to step 16.

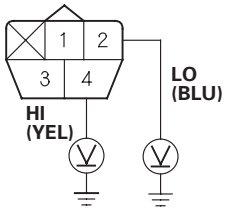
NO—Replace the wiper motor and recheck. ■

16. Reconnect the wiper motor 4P connector.

17. Turn the ignition switch to ON (II).

18. Measure the voltage between body ground and wiper motor 4P connector terminal No. 2 with the wiper switch ON (Low), and measure the voltage between body ground and wiper motor 4P connector terminal No. 4 with the wiper switch ON (High) respectively.

WIPER MOTOR 4P CONNECTOR



Wire side of female terminals

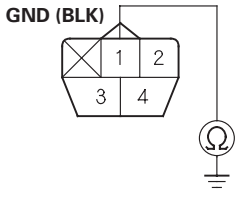
Is there battery voltage?

YES—Go to step 19.

NO—Test the wiper relay circuit (see page 22-81). If the relay circuit is OK, check the terminals F7 and F8 of the driver's under-dash fuse/relay box connector F (33P) by the input test (see page 22-278). If the input tests prove OK, replace the driver's under-dash fuse/relay box (see page 22-74). If the relay circuit is faulty, replace the relay circuit board (see page 22-73). ■

19. Check for continuity between the wiper motor 4P connector No. 1 terminal and body ground.

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 (G302). ■

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DTC Troubleshooting (cont'd)

DTC B1281: Windshield Wiper Switch MIST Position Circuit Malfunction

DTC B1282: Windshield Wiper Switch INT Position Circuit Malfunction

DTC B1283: Windshield Wiper Switch LOW Position Circuit Malfunction

DTC B1284: Windshield Wiper Switch 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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Turn the wiper switch to the MIST, INT, LOW, HIGH, and OFF positions, and wait for 6 seconds or more.
4. Check for DTCs with the HDS.

   Is DTC B1281, B1282, B1283, 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).
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	1, 16, 17
17	1, 16

   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 22-74). ■
10. Turn the ignition switch to LOCK (0).
11. Disconnect the 8P connector from the wiper switch.
12. Turn the ignition switch to ON (II).
13. 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—Replace the wiper/washer switch (see page 22-282). ■

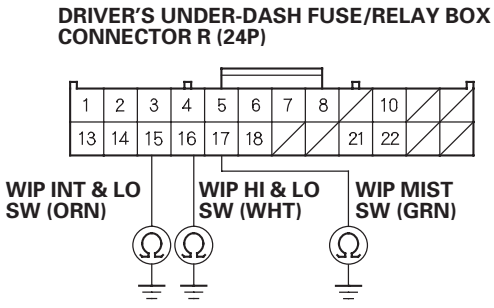
    NO—Go to step 14.

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14. Turn the ignition switch to LOCK (0).

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.



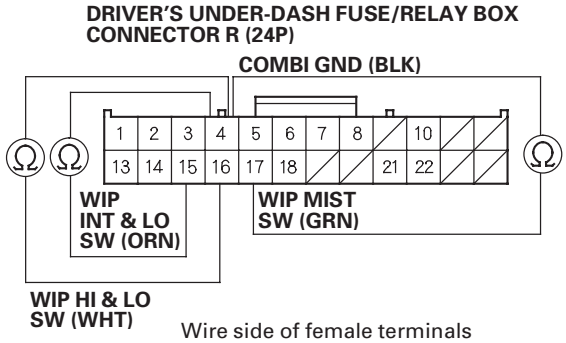
Wire side of female terminals

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 individually.



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 22-74). ■

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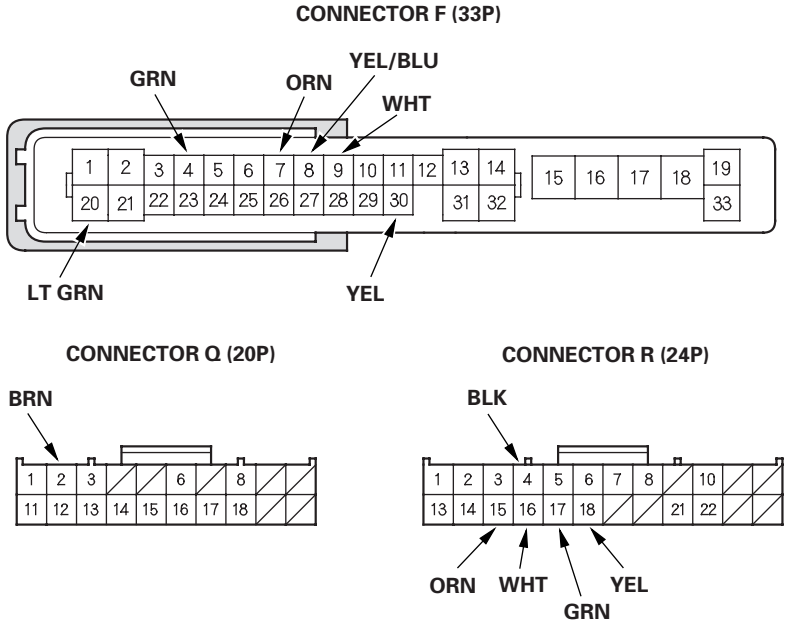
MICU Input Test

NOTE: Before testing, troubleshoot the multiplex integrated control system first, using B-CAN System Diagnosis Test Mode A (see page 22-110).

Driver's MICU

1. Turn the ignition switch to LOCK (0).
2. Remove the driver's dashboard undercover (see page 20-119), then remove the dashboard lower cover (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.



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 these input tests at the 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
F7 . F30	ORN . YEL	Under all conditions	Connect the terminals F16 and F30 and terminal F7 to body ground: The wiper motor should run at high speed.	• Blown No. 3—8 (WIP MTR) (30 A) fuse in the under-hood fuse/relay box • Faulty relay circuit board • Faulty wiper motor • Poor ground (G301, G302) • An open in the wire
F8	YEL/ BLU	Run the wiper motor by connecting terminals F16 and F30 and the terminal F7 and body ground.	Connect the terminal F8 to body ground: The wiper motor speed should change from high speed to low speed.	• Faulty under-hood fuse/relay box • Faulty relay circuit board • Faulty wiper motor • An open in the wire
F9	WHT	Run the wiper motor by connecting terminals F16 and F30 and the terminal F7 and body ground.	Check wiper motor operation: The needle of the ohmmeter should pulse. NOTE: Use an ohmmeter.	• Faulty wiper motor • An open in the 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), 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
Q1	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
Q2	BRN	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
R2	BRN	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
R5	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
F4 (A/T)	GRN	Transmission range switch in P	Measure the voltage to ground: There should be less than 1 V.	• Poor ground (G101) • Faulty transmission range switch • An open in the wire
		Transmission range switch in any other position than P	Measure the voltage to ground: There should be more than 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. 12 (15 A) fuse in the under-hood fuse/relay box • Faulty brake pedal position switch • An open 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 . BLK	Wiper switch (INT or LO) ON	Measure the voltage between terminals R15 and the R4: There should be less than 1 V.	• Faulty wiper/washer switch • An open in the wire
		Wiper switch OFF	Measure the voltage between terminals R15 and the R4: There should be more than 5 V.	• Faulty wiper/washer switch • A short to ground in the wire
R16 . R4	WHT . BLK	Wiper switch (LO or HI) ON	Measure the voltage between terminals R16 and the R4: There should be less than 1 V.	• Faulty wiper/washer switch • An open in the wire
		Wiper switch OFF	Measure the voltage between terminals R16 and the R4: There should be more than 5 V.	• Faulty wiper/washer switch • A short to ground in the wire
R17 . R4	GRN . BLK	Wiper switch (MIST) ON	Measure the voltage between terminals R17 and the R4: There should be less than 1 V.	• Faulty wiper/washer switch • An open in the wire
		Wiper switch OFF	Measure the voltage between terminals R17 and the R4: There should be more than 5 V.	• Faulty wiper/washer switch • A short to ground in the wire
R18 . R4	YEL . BLK	Washer switch ON	Measure the voltage between terminals R18 and the R4: There should be less than 1 V.	• Faulty wiper/washer switch • An open in the wire
		Washer switch OFF	Measure the voltage between terminals R18 and the R4: There should be more than 5 V.	• Faulty wiper/washer switch • A short to ground in the wire

(cont'd)

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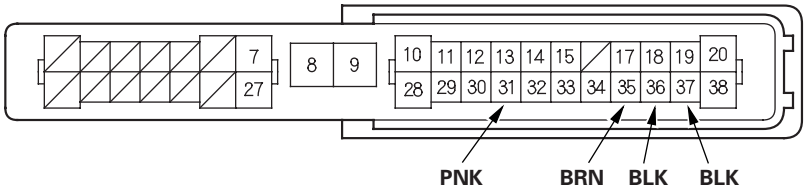
MICU Input Test (cont'd)

Passenger's MICU

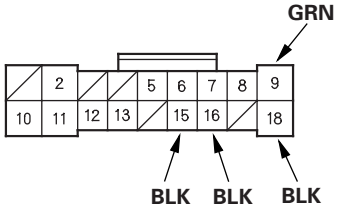
7. Turn the ignition switch to LOCK (0), and remove the right kick panel (see page 20-76).
8. Disconnect passenger's under-dash fuse/relay box connectors A, E, and H.

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

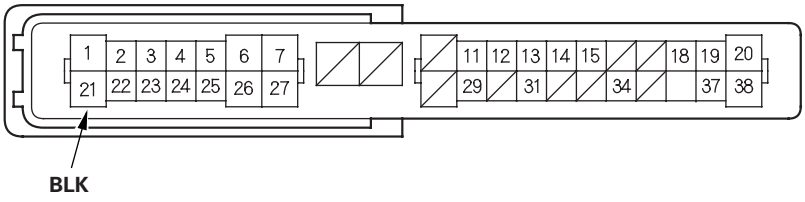
CONNECTOR A (33P)



CONNECTOR E (18P)



CONNECTOR H (38P)



9. With the connectors still disconnected, do these input test 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 10.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
E9 . E18	GRN . BLK	Ignition switch ON (II)	Connect the terminals A31 and E9, and the terminal E18 and body ground: The washer motor should run.	• Faulty washer motor • An open in the wire

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10. Reconnect the connectors to the passenger's under-dash fuse/relay box, 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 11.

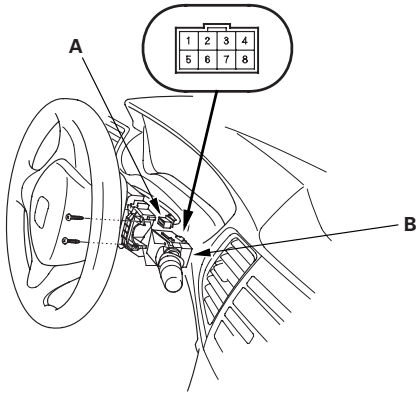
Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
A31	PNK	Ignition switch ON (II)	Measure the voltage to ground: There should be battery voltage.	• Blown No. 3 (15 A) fuse in the driver's under-dash fuse/relay box • Faulty driver's under-dash fuse/relay box • An open in the wire
A35	BRN	Ignition switch ON (II)	Measure the voltage to ground: There should be battery voltage.	• Blown No. 5 (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
E16	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G201) • An open in the wire
E15	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G201) • An open in the wire
A36	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G505) • An open in the wire
A37	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G505) • An open in the wire
H21	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G651) • An open 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 22-74). 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 20-132).
2. Disconnect the dashboard wire harness 8P connector (A) from the wiper/washer switch (B).



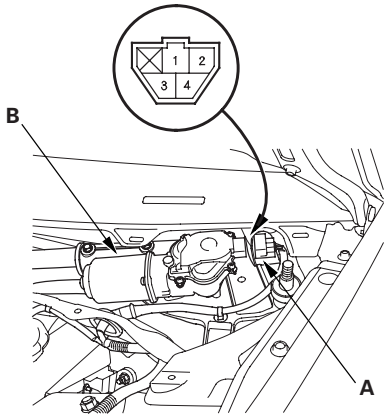
3. Remove the two screws, then slide out the wiper/ washer switch.
4. Inspect the connector terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
   - If the terminals look OK, go to step 5.
5. Check 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 driver's side wiper arm (see page 22-284).
2. Remove the left side cowl cover (see page 20-204).
3. Disconnect the 4P connector (A) from the wiper motor (B).



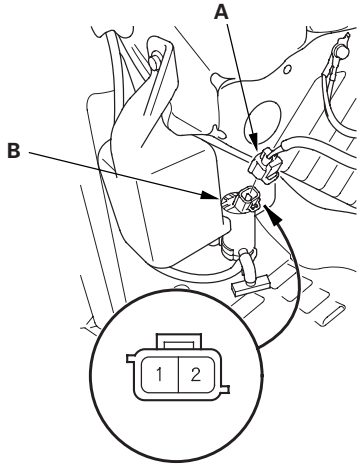
4. Test the motor by connecting battery power to terminal No. 2 and ground to terminal No. 1 of the wiper motor 4P connector. The motor should run at low speed.
5. Test the motor by connecting battery power to the No. 4 terminal and ground to the terminal No. 1 of the wiper motor 4P connector. The motor 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.

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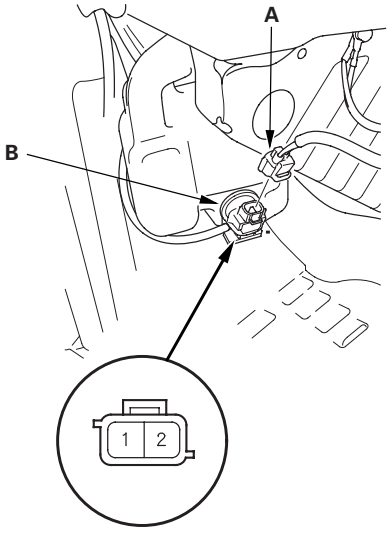
Washer Motor Test

1. Remove the right inner fender (see page 20-213).
2. Disconnect the 2P connector (A) from the washer motor (B).

USA models



Canada models

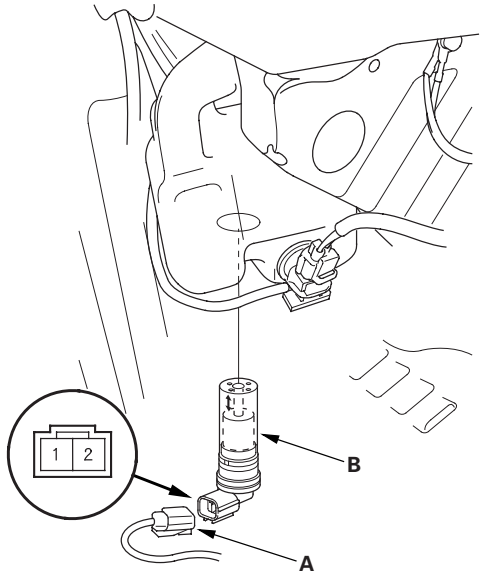


3. Test the motor by connecting battery power to the terminal No. 2 and ground to the terminal No. 1 of the washer motor. The motor should run.
   - If the motor does not run or fails to run smoothly, replace it.
   - If the motor runs smoothly, but little or no washer fluid is pumped, check for a disconnected or blocked washer hose, or a clogged washer motor outlet.

Washer Fluid Level Switch Test

Canada models

1. Remove the right inner fender (see page 20-213).
2. Disconnect the 2P connector (A) from the washer fluid level switch (B).



3. Remove the washer fluid level switch from the washer reservoir.

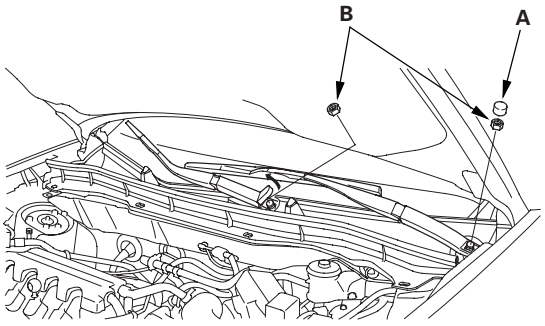
   NOTE: Fluid may flow out of the opening.

4. Check for continuity between the 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.

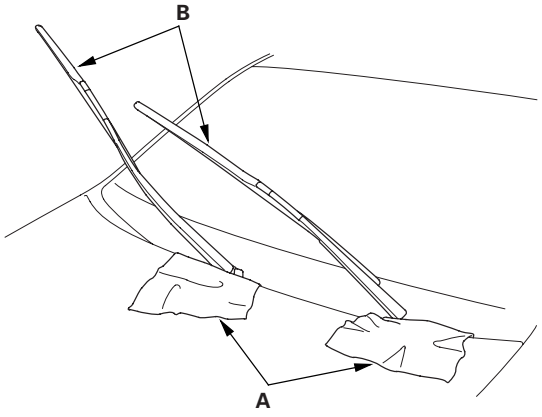
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Wiper Motor Replacement

1. Open the hood. Remove the cap (A) and nuts (B).

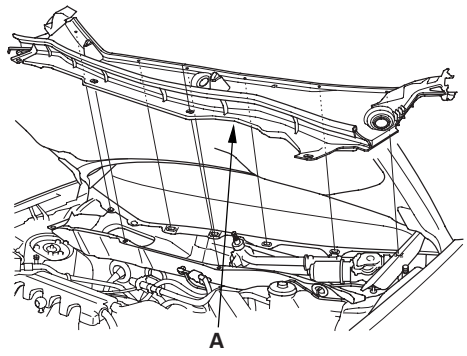


2. Close the hood, then spread protective cloths (A) on the hood to avoid scratching the hood edge.

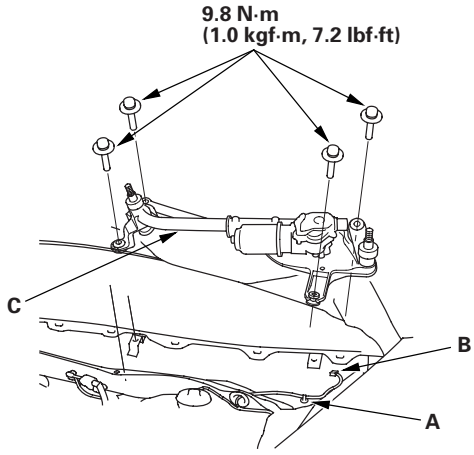


3. Raise the wiper arms (B) off the windshield, then remove the wiper arms.

4. Remove the hood seal and cowl covers (A).



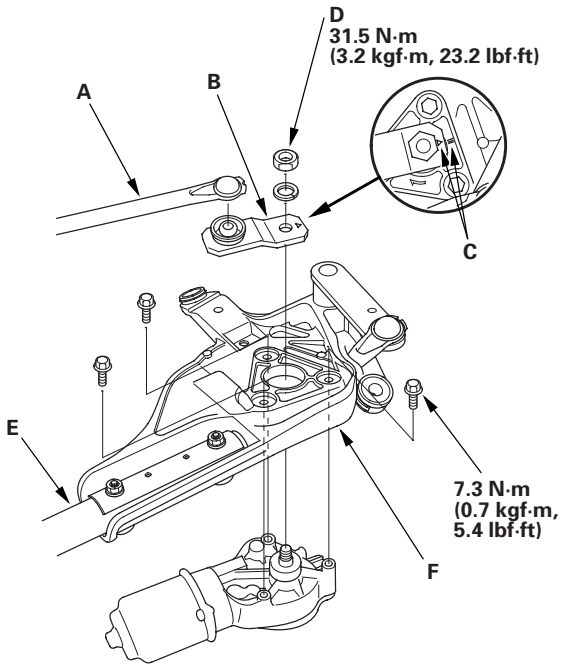
5. Disconnect the harness clip (A) and 4P connector (B) from the wiper motor.



6. Remove the four bolts and wiper linkage assembly (C).

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7. Separate the linkage (A) from the link (B).



8. Note the positions (C), then remove the nut (D) and the link from the wiper motor (E).

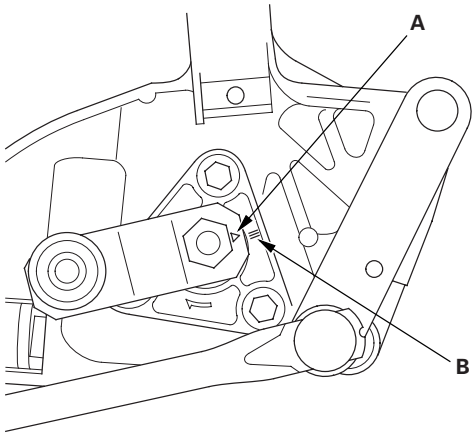
9. Remove the three bolts, and separate the wiper motor from the linkage (F).

10. 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.

11. Install the wiper motor to the wiper linkage assembly in the reverse order of removal.

12. 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.



13. After installation, adjust the wiper arms (see page 22-288).

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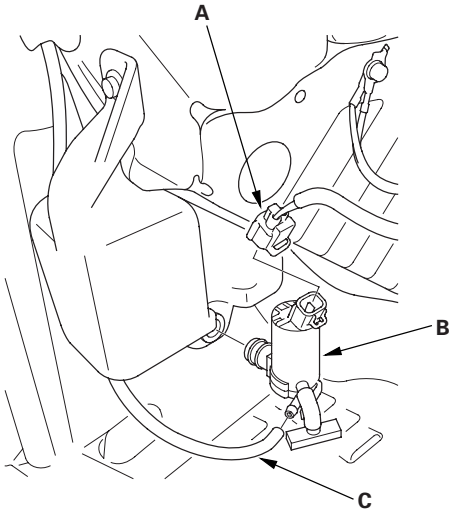
Washer Reservoir Replacement

1. Remove the front section of right front inner fender (see page 20-213).

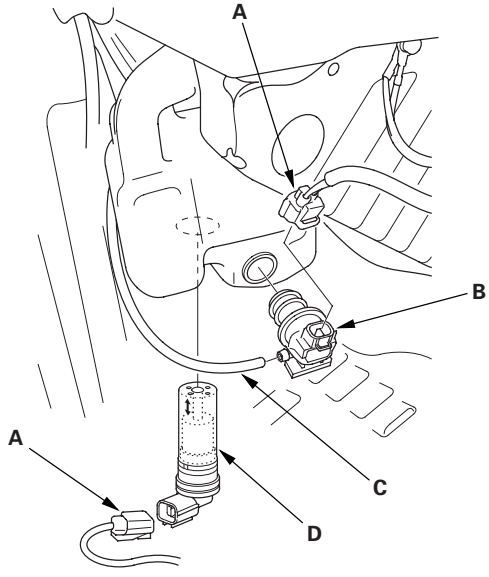
2. Disconnect the 2P connector(s) (A) from the washer motor (B) and the washer fluid level switch (Canada models).

   Washer Reservoir Capacity:
   2.5 L (2.64 US qt): USA models
   4.5 L (4.75 US qt): Canada models

   USA models



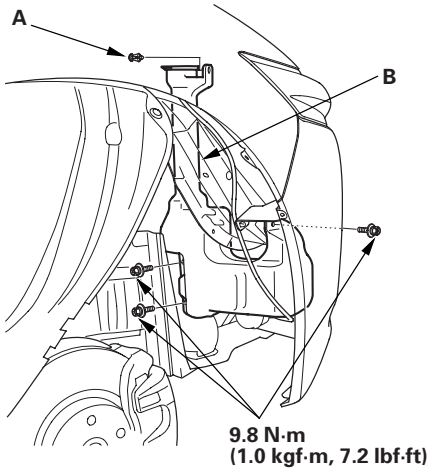
   Canada models



3. Disconnect the washer tube (C), then if necessary, remove the washer motor and the washer fluid level switch (D) (Canada models).

   NOTE: Fluid may flow out of the opening.

4. Remove the clip (A) and three bolts from the washer reservoir (B).



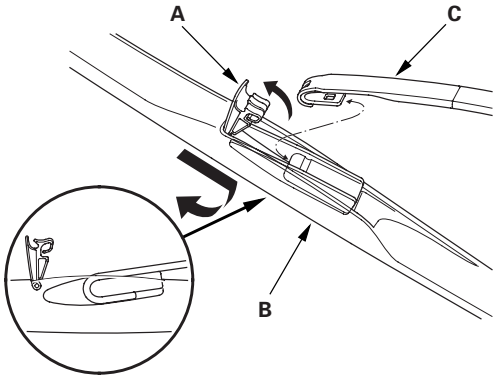
5. Install the washer reservoir in the reverse order of removal. Check the washer motor operation.

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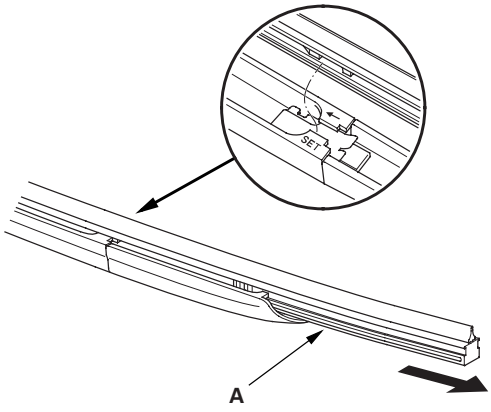
Wiper Blade Replacement

Removal

1. Lift the wiper arms off the windshield.
2. Pull up and hold the tab (A), and slide the wiper blade assembly (B) toward the tabs until it releases from the wiper arm (C).

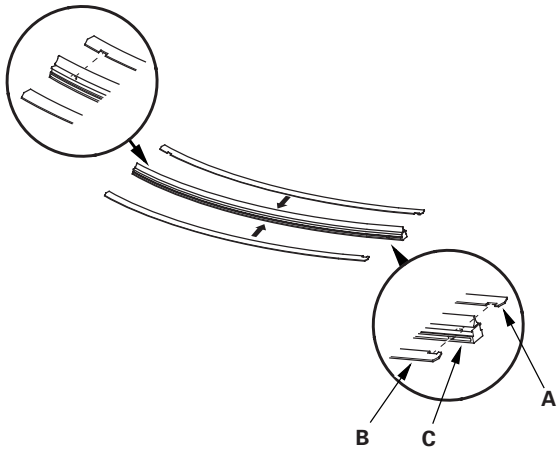


3. Pull back the end of the blade and slide out the old blade (A).

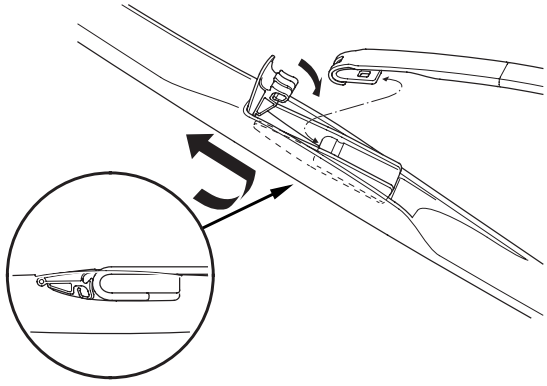


Installation

1. Align the groove (A) of the each rail (B) and a new blade (C).



2. Install the new blade with the rails into the blade holder in the reverse order of removal.
3. Install the wiper blade assemblies onto the wiper arms in the reverse order of removal.



4. Test the wipers by turning the wiper switch on. If the blades slip, turn the wiper switch off and seat the wiper blade securely.

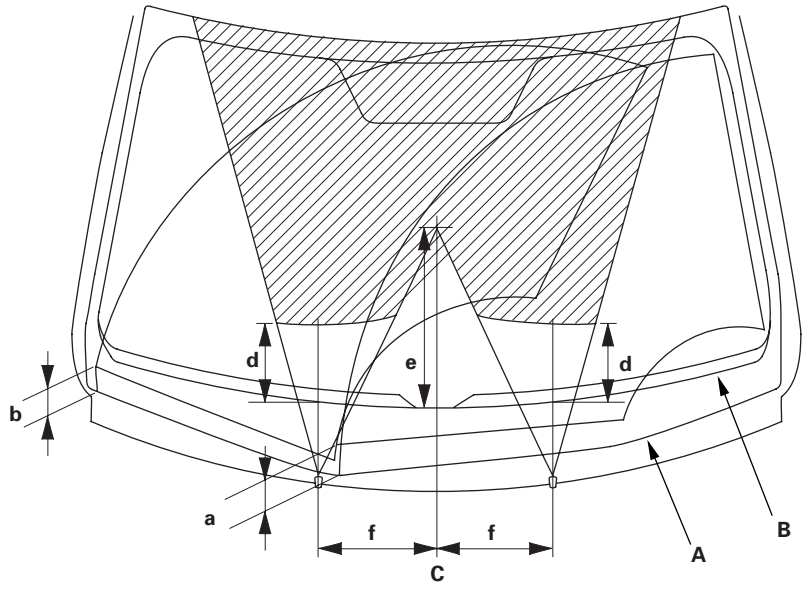
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Wiper Arm/Nozzle Adjustment

1. Turn the ignition switch to ON (II), then turn the wiper switch ON, and then back OFF.

2. When the wiper arms stop at the park position, confirm that they are at the standard position.

   a: Position at about 1.9 in. (48 mm) from the top of cowl cover (A).
   b: Position at about 1.3 in. (33.2 mm) from the top of cowl cover (A).



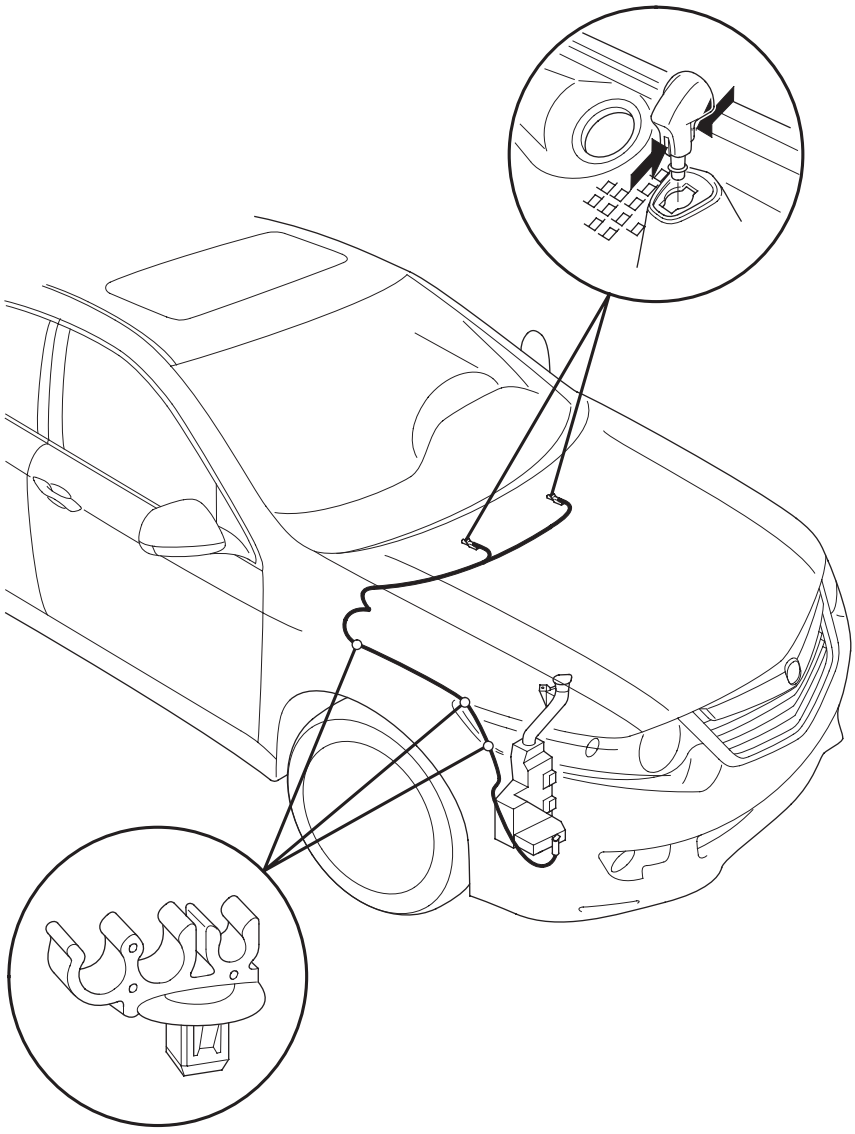
3. When you turn on the washer(s), confirm 50 % or more of the washer fluid lands within the spray area. If the spray area is not within the standard positions, adjust the nozzle(s).

   d: Position at about 6.5 in. (166 mm) from the top of the black ceramic area (B) at the lower windshield.
   e: Position at about 15 in. (380 mm) from the top of the black ceramic area (B) at the lower windshield.
   f: Position at about 9.8 in. (250 mm) from the windshield center line (C).

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Washer Tube Replacement

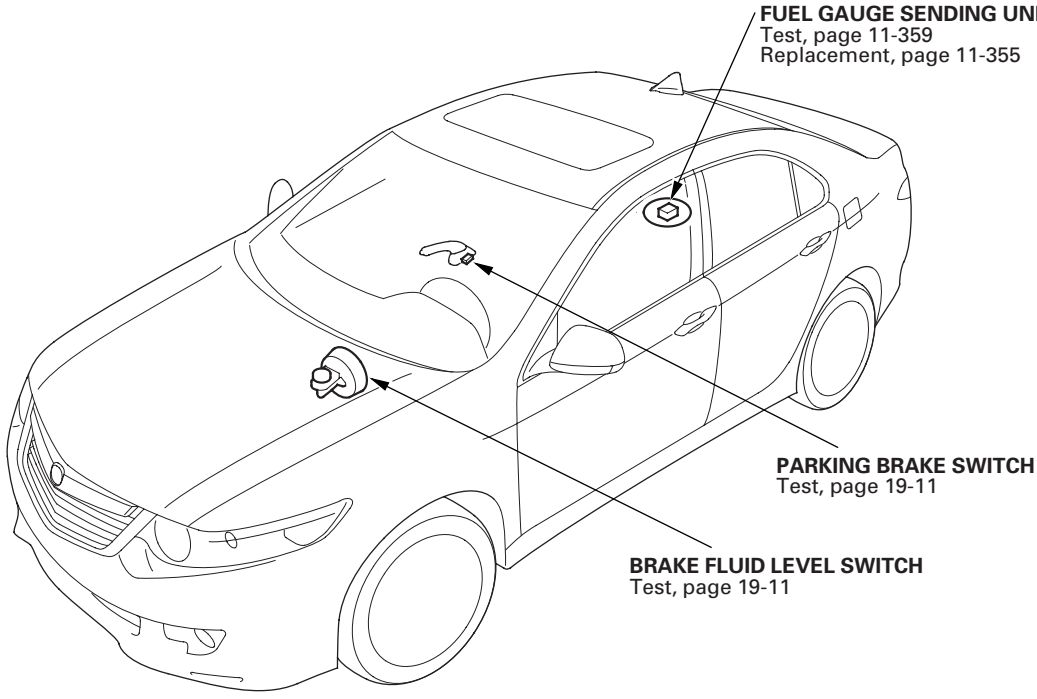
1. Remove the right front inner fender (see page 20-213).
2. Remove the washer nozzles and clips, then remove the tubes.

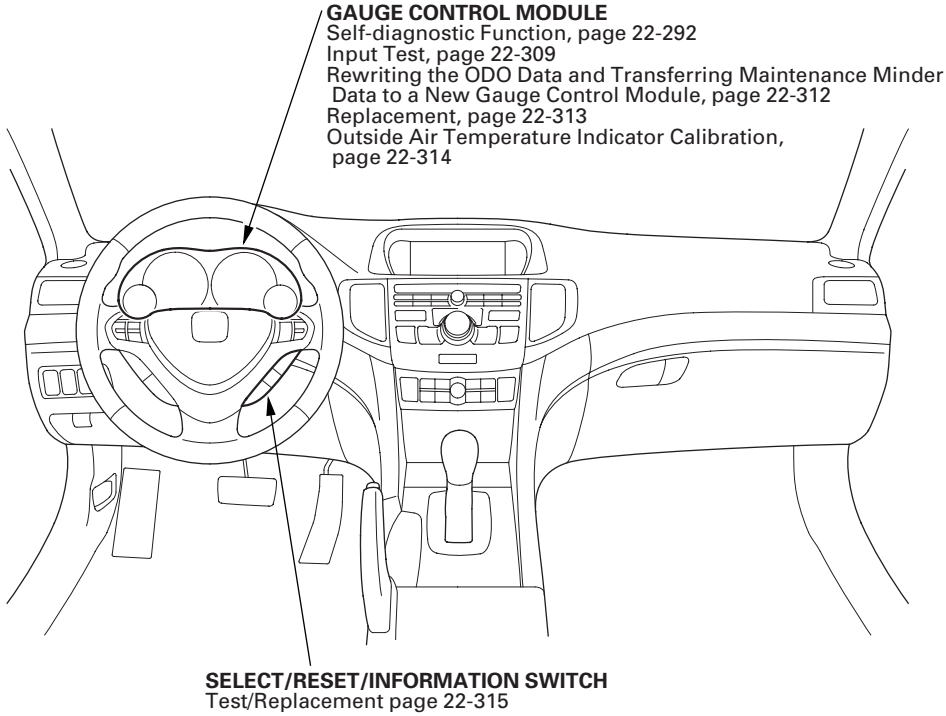


3. Install the parts in the reverse order of removal. Take care not to pinch the washer tubes. Check the washer operation.

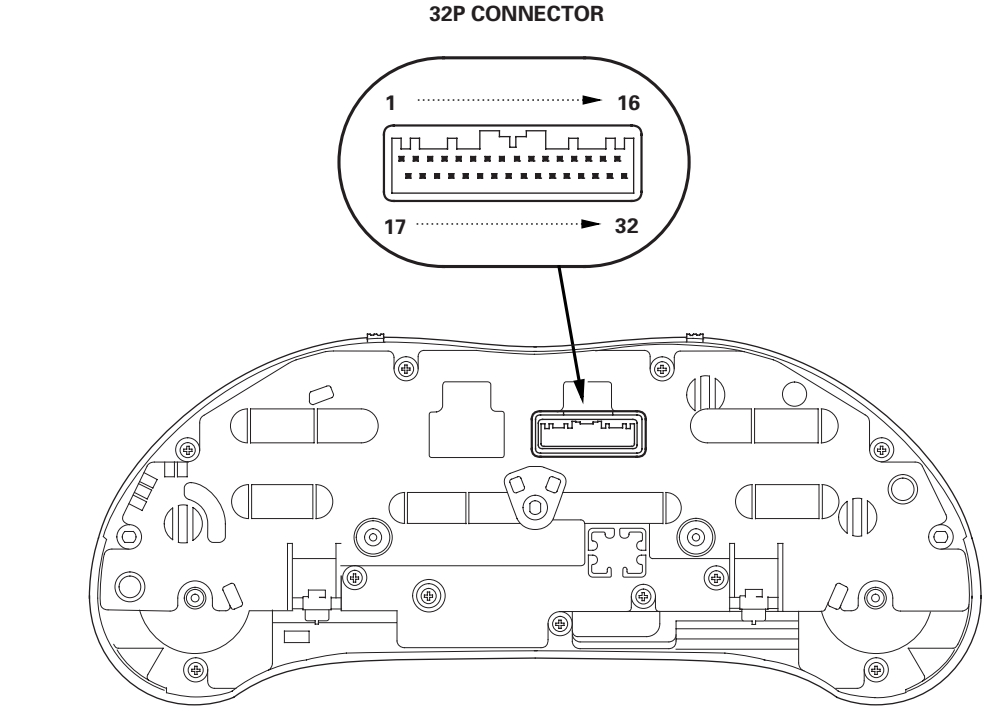
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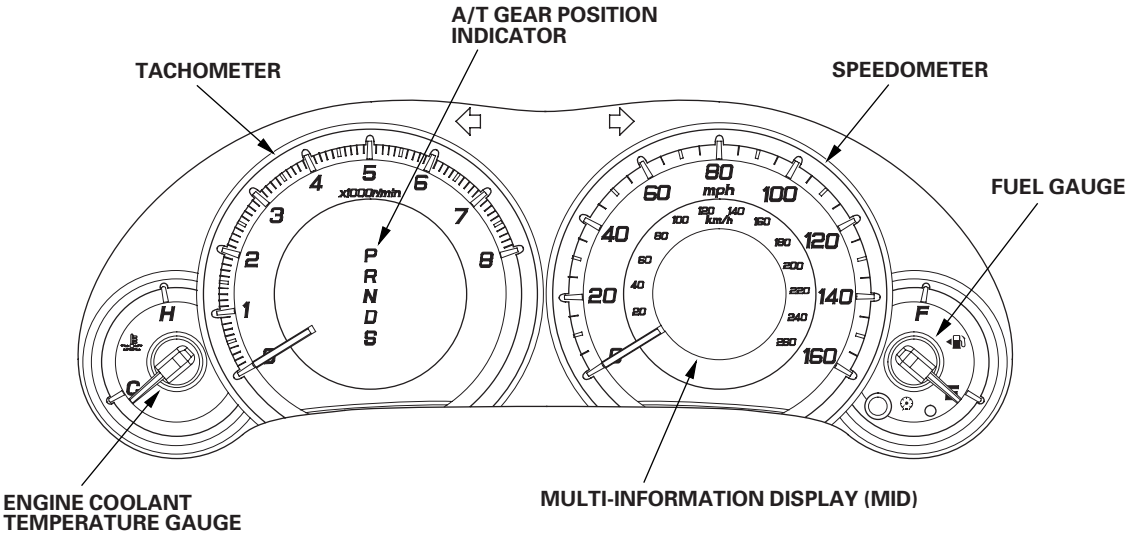
Component Location Index





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Self-diagnostic Function

NOTE: Before testing, troubleshoot the multiplex integrated control unit first, using B-CAN System Diagnosis Test Mode A (see page 22-110).

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 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 line.

Entering the self-diagnostic function with the HDS

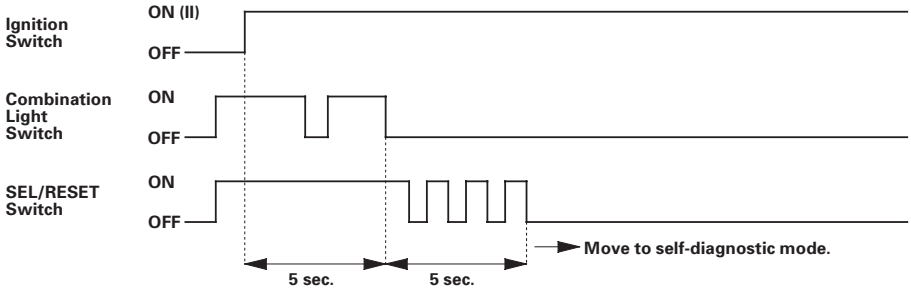
Using the HDS, select Body Electrical, Gauges, then Function Test and do the self-diagnostic function.

Entering the self-diagnostic function (manual method)

Before doing the self-diagnostic function, make sure the No. 5 (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 switch.
2. Turn the combination light switch (≡DO≡) ON.
3. Turn the ignition switch to ON (II).
4. Within 5 sec., turn the combination light switch OFF, then (≡DO≡) ON and OFF again.
5. Within 5 sec., release the SEL/RESET switch, and then push and release the button three times repeatedly.

NOTE:
- While in the self-diagnostic mode, the dash lights 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), the self-diagnostic mode ends.



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The Indicator Drive Circuit Check

When entering the self-diagnostic mode, the following indicators 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, low oil pressure indicator, low fuel indicator, malfunction indicator lamp (MIL), message indicator, maintenance required indicator, seat belt reminder indicator, security indicator, side airbag cutoff indicator, SRS indicator, TPMS indicator, VSA activation indicator, and VSA indicator.

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.

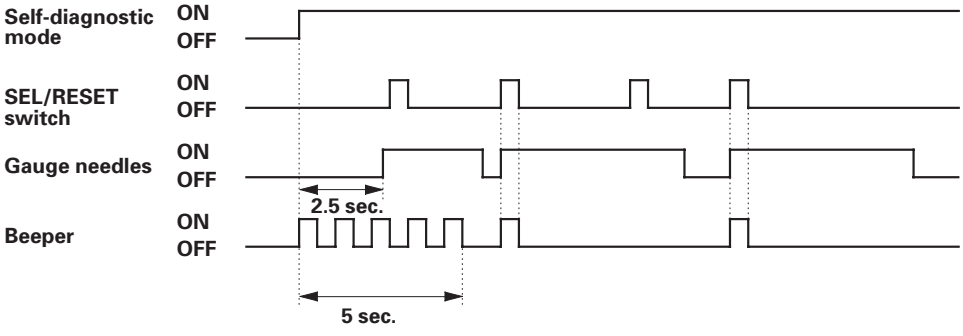
The LCD/MID Segment Check

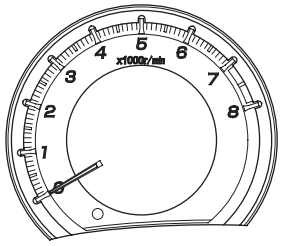
When entering the self-diagnostic mode, all the segments blink five times.

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 switch 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.

(cont'd)

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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 Segments Check.
If all segments come on, the communication line is OK. If faulty, the word Error will be indicated on the odometer display followed by a number(s).

Error Code List

Error code	Type of communication line(s) error
F-CAN	F-CAN communication
B-CAN	B-CAN communication
F-CAN and B-CAN	F-CAN and B-CAN communication

Example Indication

Normal



Communication (Error)



- If F-CAN···Error is indicated, there is a malfunction in the communication line between the F-CAN and the gauge control module. The B-CAN is OK at this time. Check for DTCs in the F-CAN connected units and troubleshoot any DTCs found. If no DTCs are found, go to B-CAN System Diagnosis Test Mode A (see page 22-110).
- If B-CAN···Error is indicated, there is a malfunction in the communication line between the B-CAN and the gauge control module. The F-CAN line is OK at this time. Go to B-CAN System Diagnosis Test Mode A (see page 22-110).
- If F-CAN···Error and B-CAN···Error are is indicated, there is a malfunction in the communication line between the gauge control module, the F-CAN, and the B-CAN. Check the DTCs in the F-CAN connected units and troubleshoot any DTCs found. If no DTCs are found, go to B-CAN System Diagnosis Test Mode A (see page 22-110).

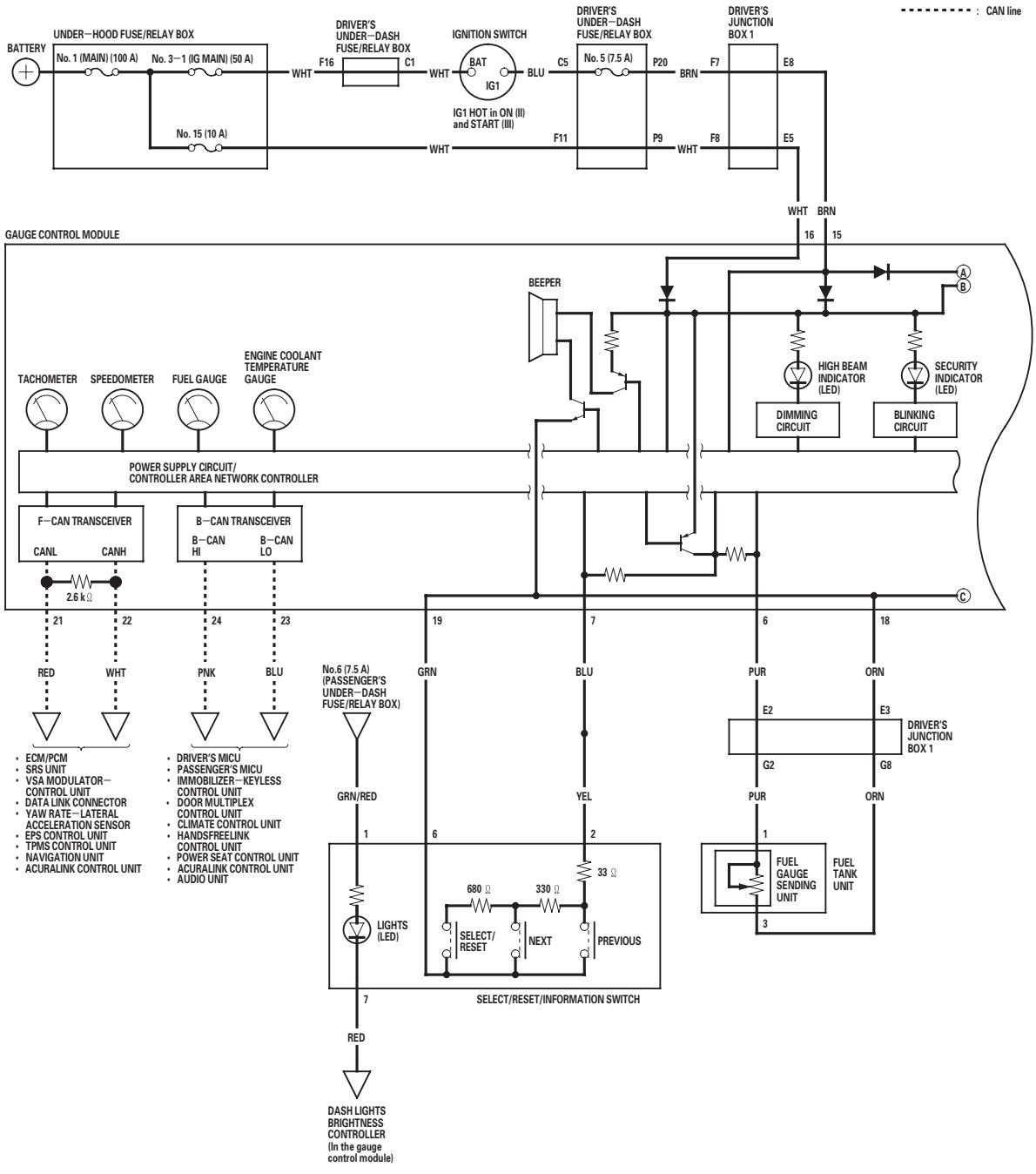
Ending the self-diagnostic function

Turn the ignition switch to LOCK (0).

NOTE: If the vehicle speed exceeds 1.2 mph (2 km/h), the self-diagnostic function ends.

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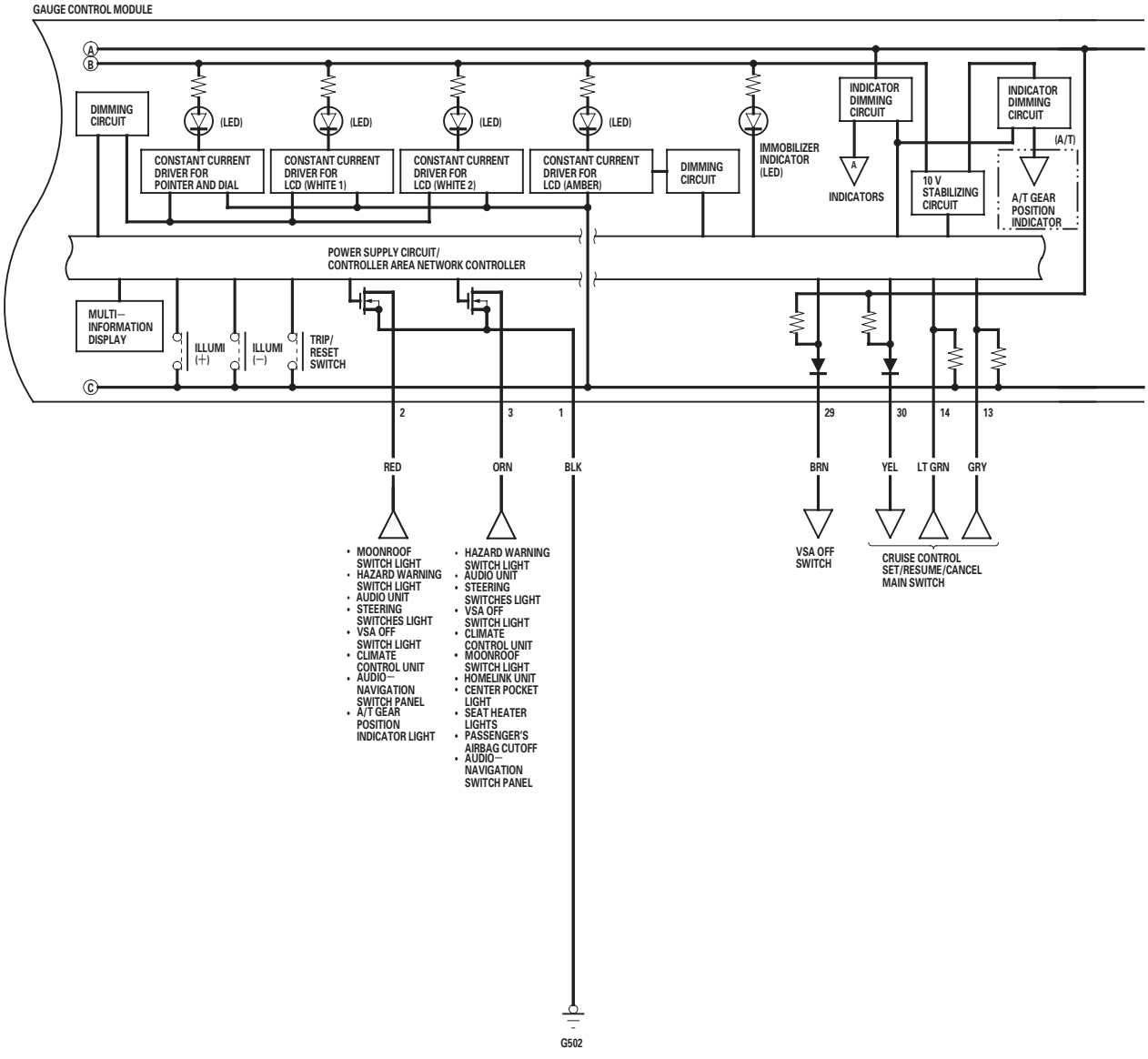
Circuit Diagram



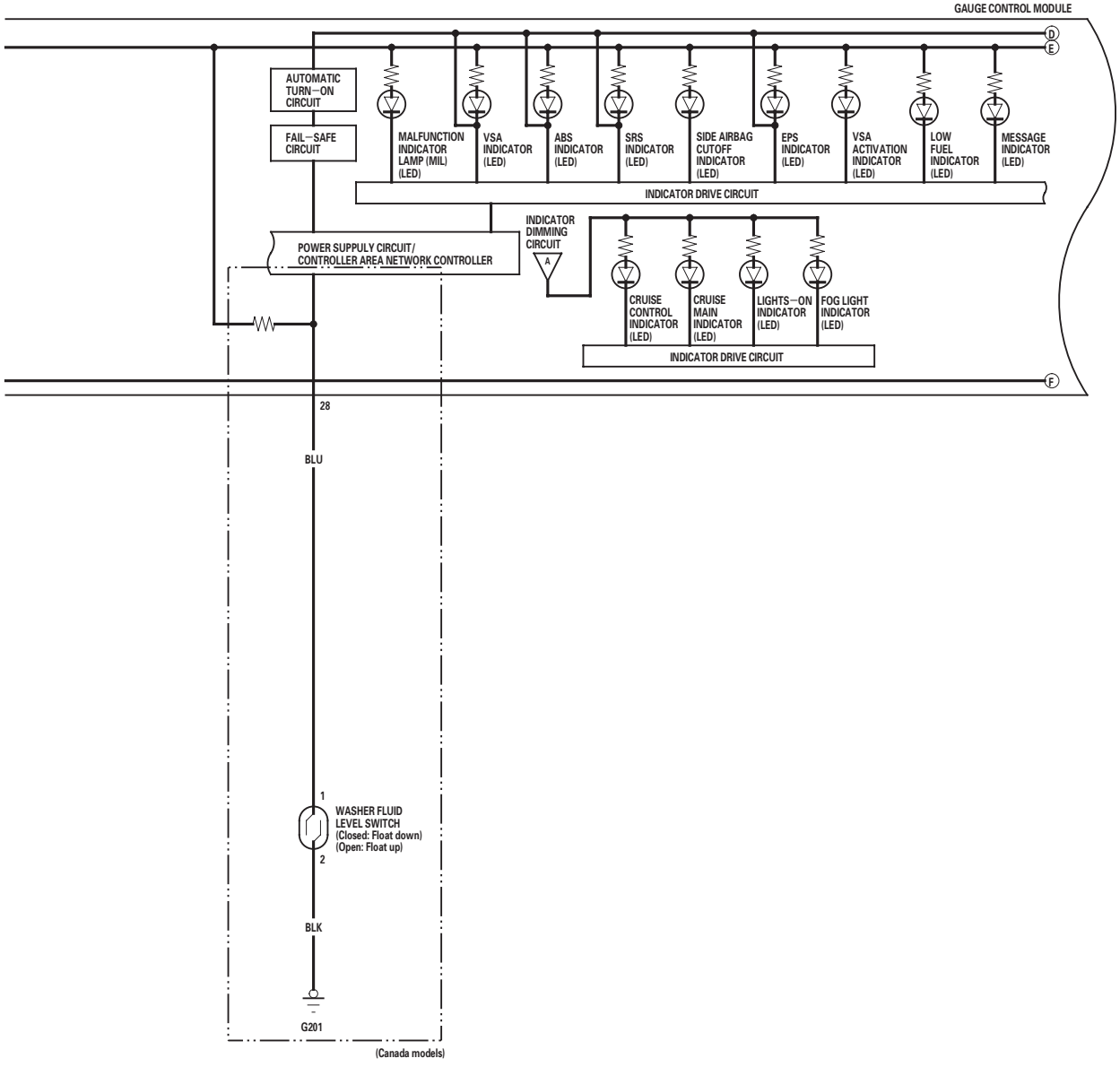
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Circuit Diagram (cont'd)



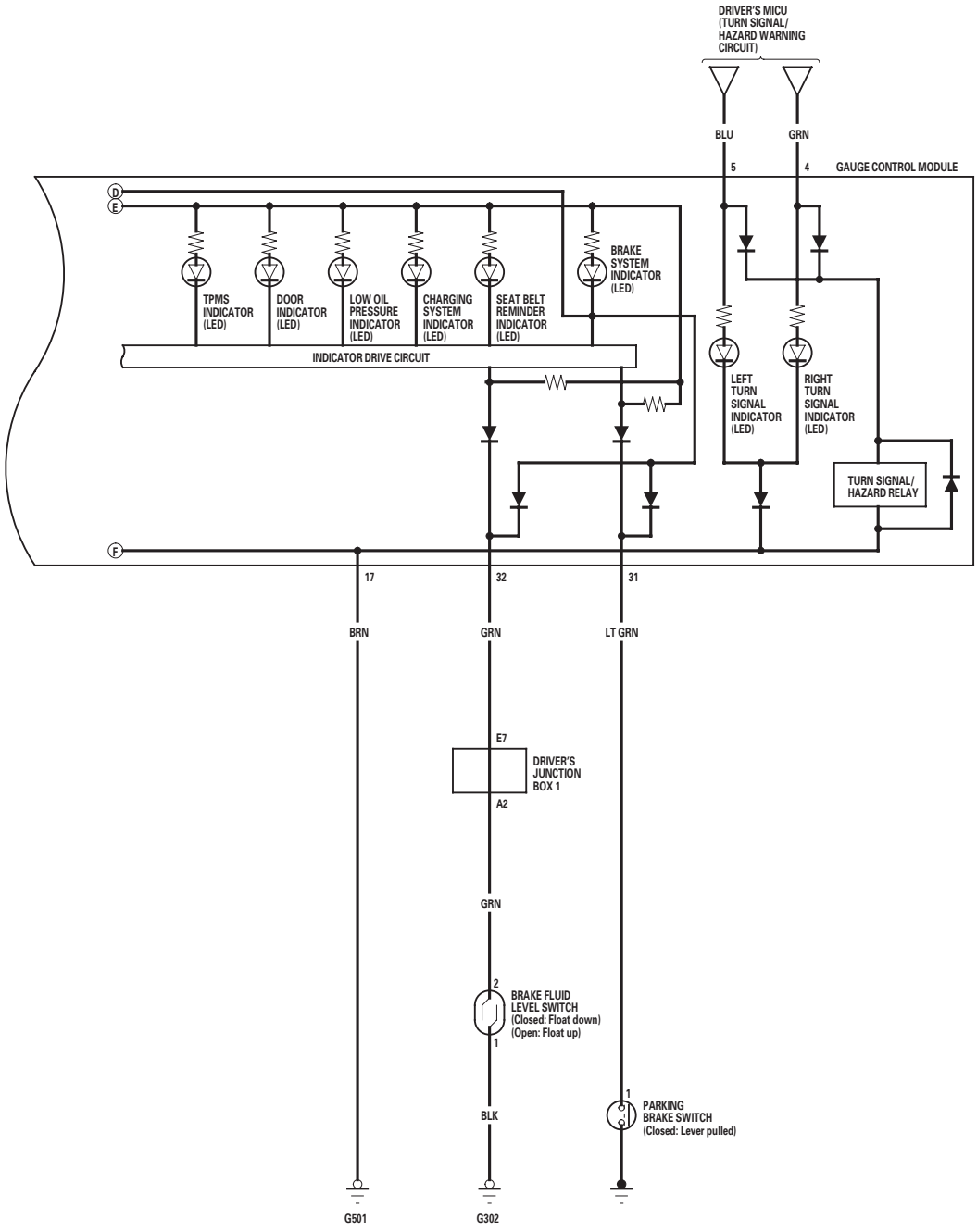
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(cont'd)

Circuit Diagram (cont'd)



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DTC Troubleshooting

DTC B1175: Fuel Level Sensor (Fuel Gauge Sending Unit) Circuit Open

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Check for DTCs with the HDS.

   Is DTC B1175 indicated?

   YES—Go to step 4.

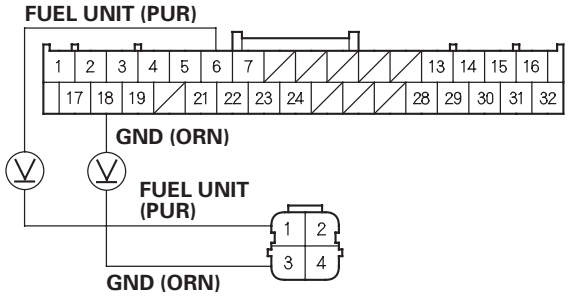
   NO—Intermittent failure, the fuel level sensor circuit is OK at this time. Check for loose or poor connections. ■
4. Test the fuel gauge sending unit (see page 11-359).

   Is the fuel gauge sending unit OK?

   YES—Go to step 5.

   NO—Replace the fuel gauge sending unit (see page 11-355). ■
5. Turn the ignition switch to ON (II).
6. Without disconnecting the connectors, measure the voltage between terminals No. 6 and No. 18 of the gauge control module 32P connector and terminals No. 1 and No. 3 of the fuel tank unit 4P connector.

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 0.5 V?

YES—Replace the gauge control module (see page 22-313). ■

NO—Repair the loose connection or open in the PUR or ORN wire between the gauge control module and fuel tank unit. ■

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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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 30 seconds.
4. Check for DTCs with the HDS.

   Is DTC B1176 indicated?

   YES—Go to step 5.

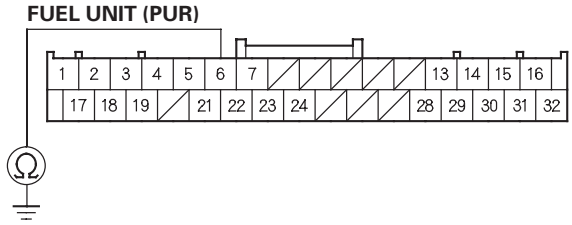
   NO—Intermittent failure, the fuel level sensor circuit is OK at this time. Check for worn/missing insulation or an internal short in the wire. ■
5. Turn the ignition switch to LOCK (0).
6. Disconnect the fuel tank unit 4P connector.
7. Clear the DTCs with the HDS.
8. Turn the ignition switch to ON (II).
9. Wait for 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 11-355). ■
11. Disconnect the gauge control module 32P connector.
12. Check for continuity between gauge control module 32P terminal connector No. 6 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 tank unit. ■

NO—Replace the gauge control module (see page 22-313). ■

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DTC U0029: F-CAN Circuit Malfunction (BUS OFF)

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 11-210).
- If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-77) and the charging system. ■
5. Turn the ignition switch to LOCK (0).
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	32P connector
SRS unit	Connector A (39P)
Navigation unit *1	32P connector
TPMS control unit	20P connector
EPS control unit	28P connector
Yaw rate-lateral acceleration sensor	4P connector
AcuraLink control unit *2	Connector B (14P)

* 1: With navigation
* 2: With AcuraLink

Is DTC U0029 indicated with each individual unit disconnected?

YES—Go to step 7.

NO—Replace the control unit that was disconnected when DTC U0029 is not reset. ■

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DTC Troubleshooting (cont'd)

7. Turn the ignition switch to LOCK (0).

8. Disconnect each control unit connectors in the table.

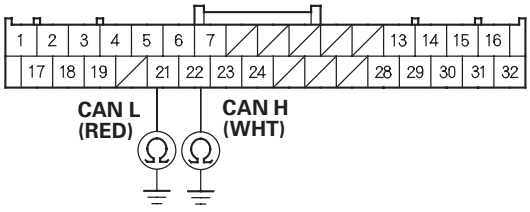
Control Unit	Connector
Gauge control module	32P connector
ECM/PCM	Connector A (49P)
VSA modulator-control unit	32P connector
SRS unit	Connector A (39P)
Navigation unit *1	32P connector
TPMS control unit	20P connector
EPS control unit	28P connector
Yaw rate-lateral acceleration sensor	4P connector
AcuraLink control unit *2	Connector B (14P)

* 1: With navigation
* 2: 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. 21 and No. 22 individually.

GAUGE CONTROL MODULE 32P CONNECTOR



Wire side of female terminals

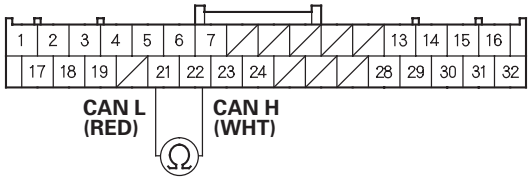
Is there continuity?

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. 21 and No. 22.

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 22-313). ■

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DTC U0100: Gauge Control Module Lost Commuication 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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
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 22-309).

   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).
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 11-234). ■

    NO—The original gauge control module is faulty; replace it (see page 22-313). ■

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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 22-110).
- 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 19-96).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-309).

   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).
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 22-313). ■

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DTC U0127: Gauge Control Module Lost Communication with 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 22-110).
- 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 18-91).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
4. Check for DTCs with the HDS.

   Is DTC U0127 indicated?

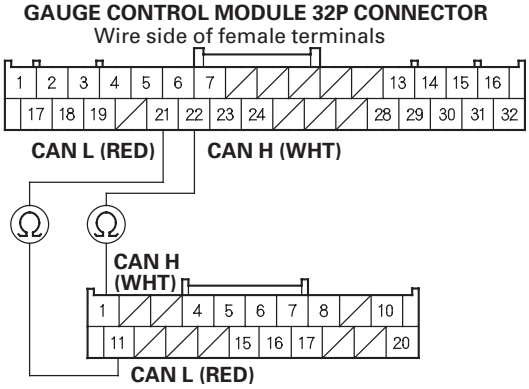
   YES—Go to step 5.

   NO—Intermittent failure, the system is OK at this time. Check for loose or poor connections. ■
5. Check for TPMS DTCs with the HDS.

   Is 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).
7. Disconnect the gauge control module 32P connector.
8. Disconnect the TPMS control unit 20P connector.
9. Check for continuity between gauge control module 32P connector terminals No. 21 and No. 22 and the TPMS control unit 20P connector terminals No. 1 and No. 11 respectively.



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 22-313). ■

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 22-110).
- If the HDS does not communicate with the EPS control unit, the EPS indicator stay on, and no EPS DTCs are stored, go tor symptom troubleshooting for EPS indicator does not go off, and no DTCs are stored (see page 17-63).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
4. Check for DTCs with the HDS.

   Is DTC U0131 indicated?

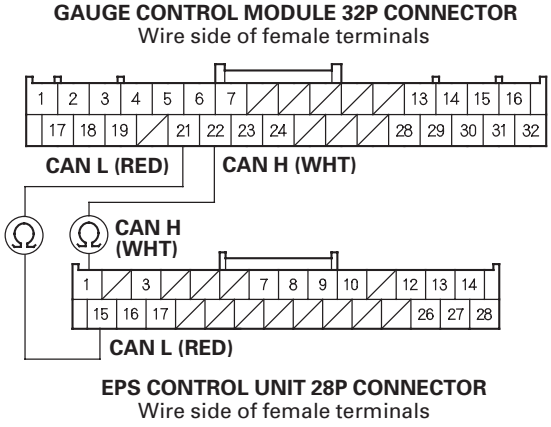
   YES—Go to step 5.

   NO—Intermittent failure, the system is OK at this time. Check for loose or poor connections. ■
5. Check for EPS DTCs with the HDS.

   Is 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).
7. Disconnect the gauge control module 32P connector.
8. Disconnect the EPS control unit 28P connector.
9. Check for continuity between gauge control module 32P connector terminals No. 21 and No. 22 and the EPS control unit 28P connector terminals No. 1 and No. 15 respectively.



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 22-313). ■

NO—Repair an open in the wire. ■

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DTC U0151: Gauge Control Module Lost Communication with SRS Unit (SRS message)

NOTE:
- If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-110).
- 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 24-144).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
4. Check for DTCs with the HDS.

   Is DTC U0151 indicated?

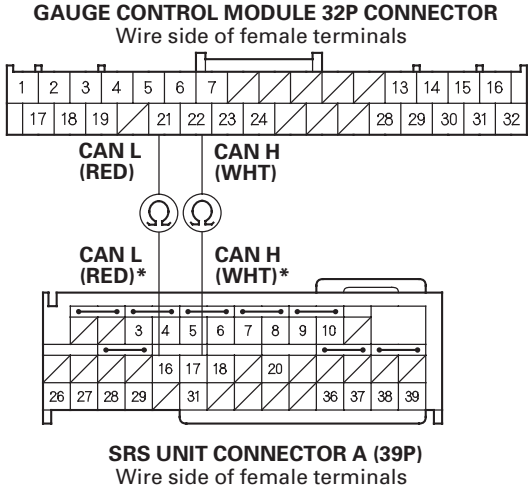
   YES—Go to step 5.

   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.

   Is 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).
7. Do the battery terminal disconnection procedure (see page 22-78), then wait for 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. 21 and No. 22 and SRS unit connector A (39P) terminals No. 16 and No. 17 respectively.



***: BLU, BRN, or GRN wire may be used at the SRS unit.**

Is there continuity?

YES—Substitute a known-good SRS unit (see page 24-166), 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 22-313). ■

NO—Repair an open in the wire. ■

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DTC Troubleshooting (cont'd)

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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-128). If the tests prove OK, replace the driver's under-dash fuse/relay box (see page 22-74). ■

   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: 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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-132). If the tests prove OK, replace the passenger's under-dash fuse/relay box (see page 22-76). ■

   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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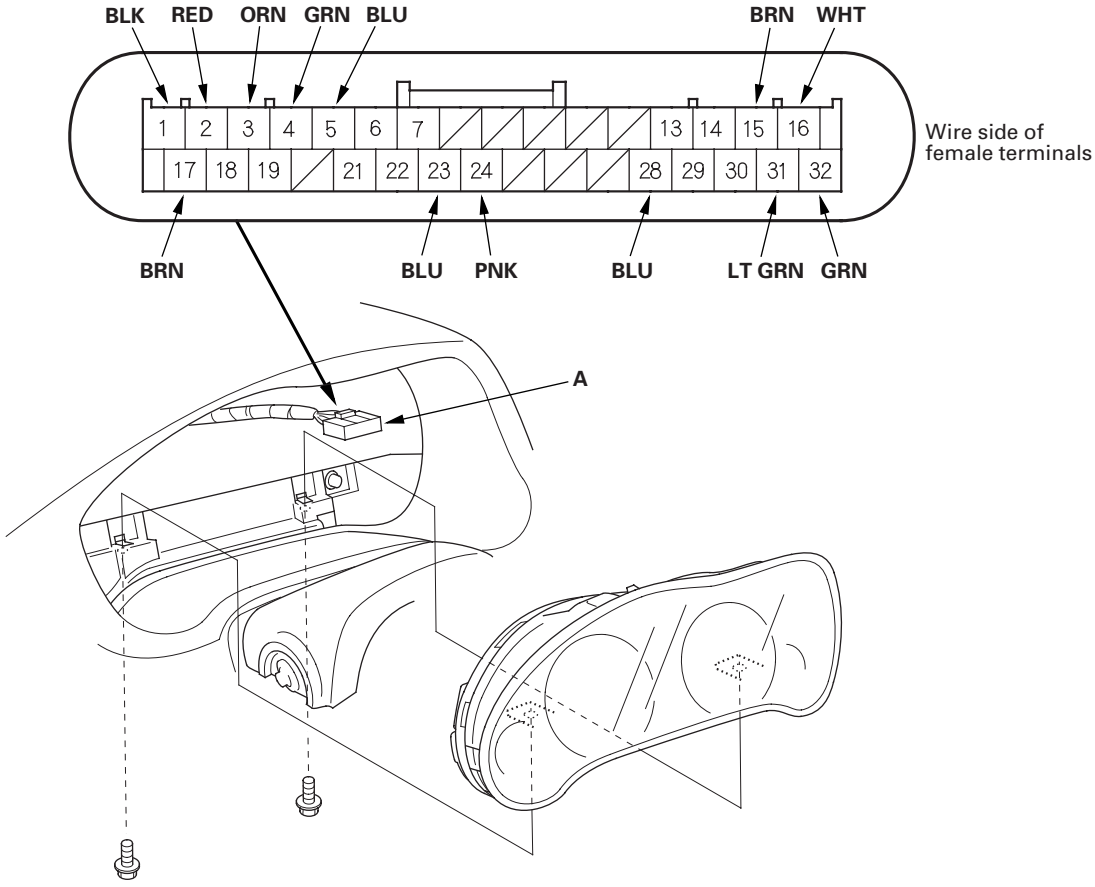
Gauge Control Module Input Test

NOTE: Before testing, do the gauge control module self-diagnostic function, and make sure the B-CAN communication lines are OK.

1. Turn the ignition switch to LOCK (0).

2. Remove the driver's dashboard undercover (see page 20-119), then remove the dashboard lower cover (see page 20-118).

3. Remove the gauge control module (see page 22-313), and disconnect the 32P connector (A) from it.



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.

(cont'd)

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Gauge Control Module Input Test (cont'd)

5. 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 6.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
3	ORN	Combination light switch ON	Attach to ground: The dash lights, audio unit light, and climate control unit light, moonroof switch light, and seat heater switch lights should come on full bright.	• Faulty LEDs and bulbs • An open in the wire
4	GRN	Ignition switch ON (II), 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 in the wire
5	BLU	Ignition switch ON (II), 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 in the wire
23	BLU	Disconnect driver's under-dash fuse/relay box connector P (20P)	Check for continuity between the No. 23 terminal and driver's under-dash fuse/relay box connector P (20P) terminal No. 5: There should be continuity.	An open in the wire
			Check for continuity to ground: There should be no continuity.	A short to ground in the wire
24	PNK	Disconnect driver's under-dash fuse/relay box connector P (20P)	Check for continuity between the No. 24 terminal and driver's under-dash fuse/relay box connector P (20P) terminal No. 6: There should be continuity.	An open in the 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 32P connector to the gauge control module, 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 gauge control module must be faulty; replace it (see page 22-313).

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 in the wire
15	BRN	Ignition switch ON (II)	Measure the voltage to ground: There should be battery voltage.	• Blown No. 5 (7.5 A) fuse in the driver's under-dash fuse/relay box • An open in the wire
17	BRN	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
1	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
28*	BLU	Ignition switch ON (II), washer fluid is half or more in the washer reservoir	Measure the voltage to ground: There should be more than 5 V.	• Faulty washer fluid level switch • A short to ground in the wire
		Ignition switch ON (II), washer fluid is empty in the washer reservoir	Measure the voltage to ground: There should be less than 1 V.	• Poor ground (G201) • Faulty washer fluid level switch • An open in the wire
32	GRN	Ignition switch ON (II), brake fluid is full level in the reservoir	Measure the voltage to ground: There should be more than 5 V.	• Faulty brake fluid level switch • A short to ground in the wire
		Ignition switch ON (II), brake fluid is lower level in the reservoir	Measure the voltage to ground: There should be less than 1 V.	• Poor ground (G302) • Faulty brake fluid level switch • An open in the wire
31	LT GRN	Ignition switch ON (II), parking brake lever pulled	Measure the voltage to ground: There should be less than 1 V.	• Faulty parking brake switch • An open in the wire
		Ignition switch ON (II), parking brake lever released	Measure the voltage to ground: There should be more than 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.
- 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 battery jumper box (not a battery charger) to ensure that correct battery voltage will be maintained.

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 follow the instructions on the display to retrieve the ODO value and the Maintenance Minder Information.
4. Replace the gauge control module.
5. Follow the instructions on the display to write the new ODO value and Maintenance Minder Data to the new gauge control module. If the data transfer fails, refer to the instructions below to release the locked ODO value.

Release Locked odometer mileage to the original gauge control module.

If, after you attempt to transfer mileage, the odometer display has dashes (———), is garbled, or shows an incorrect value, the original gauge control module needs to be unlocked and restored to its original state:

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), reconnect the original gauge control module.
4. Completely re-boot the HDS.
5. Clear any stored DTCs.
6. Navigate to BODY ELECTRIC/GAUGES/ ADJUSTMENT/INSTRUMENT PANEL REPLACEMENT.
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.

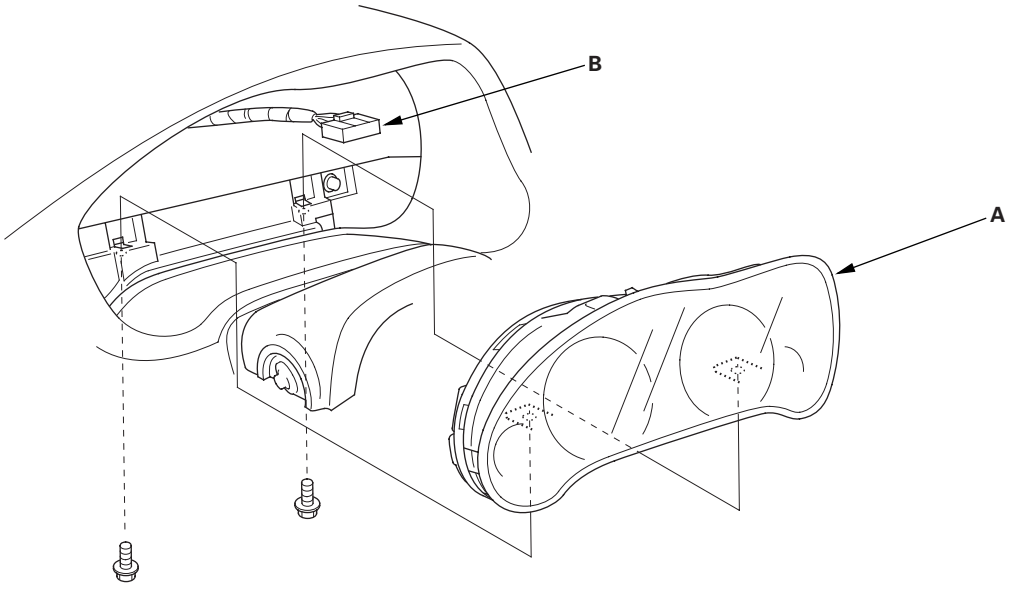
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Gauge Control Module Replacement

NOTE: Before replacing the gauge control module, retrieve the ODO value and the maintenance minder information from the gauge control module with the HDS (see page 22-312).

1. Remove the driver's dashboard undercover (see page 20-119), then remove the dashboard lower cover (see page 20-118).

2. Remove the two bolts from under the dashboard, then pull the gauge control module (A) out carefully.



3. Disconnect the 32P connector (B) from the gauge control module.

4. Install the gauge control module in the reverse order of removal.

5. Write the ODO value and maintenance minder information to the new gauge control module (see page 22-312).

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Outside Air Temperature Indicator Calibration

NOTE: To test the outside air temperature sensor (see page 21-88).

Description

The outside air temperature sensor is located behind the right side 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 ℉ (60 ℃) or higher:
Initial outside air temperature indication after the ignition switch is turned to ON (II).
If the engine coolant temperature is 140 ℉ (60 ℃) or higher when the ignition switch is turned to ON (II), 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 ℉ (60 ℃):
If the engine coolant temperature less than 140 ℉ (60 ℃) or lower when the ignition switch is turned to ON (II), 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 ℉ (60 ℃) 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 ℉ (1 ℃) 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 ℉ (60 ℃):
If the engine coolant air temperature is less than 140 ℉ (60 ℃), the temperature displayed increases 1 ℉ (1 ℃) 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 ℉ (1 ℃) 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, check the climate control system or multiplex integrated control system for DTCs (see B-CAN System Diagnosis Test Mode A) (see page 22-110).

Calibration

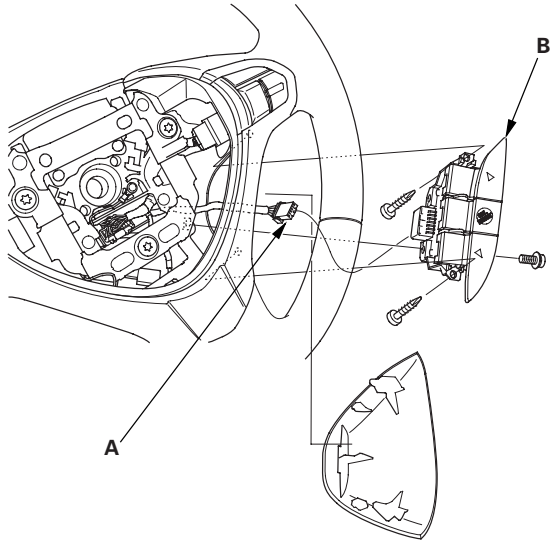
The outside air temperature indicator's displayed temperature can be recalibrated ±5 ℉ or ±3 ℃ to meet the client's expectations.

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Select/Reset/Information Switch Test/Replacement

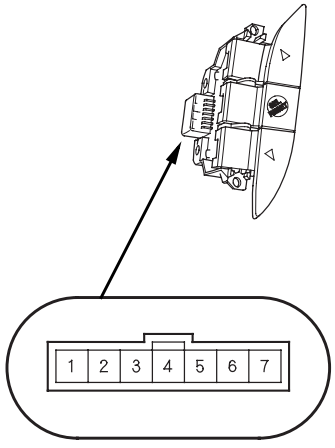
1. Remove the driver's airbag assembly (see page 24-150).

2. Disconnect the 7P connector (A) from the select/reset/information switch (B).



3. Remove the screws and the switch.

4. Measure the resistance between select/reset/information switch 7P connector terminals No. 2 and No. 6 in each switch position according to the table.



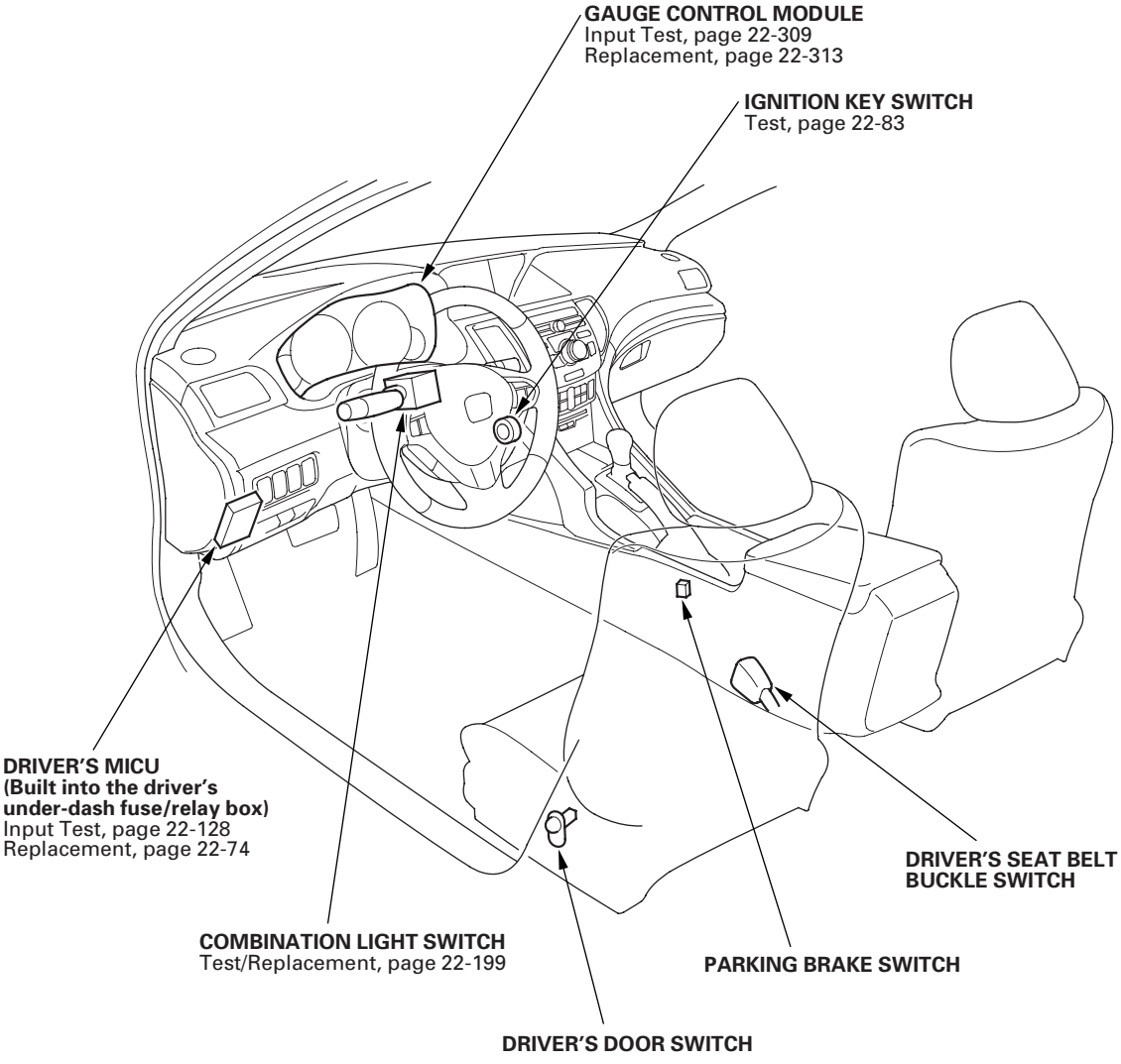
Position	Resistance
▲	About 33 Ω
SEL/RESET	About 1,043 Ω
▼	About 363 Ω

5. If the resistance is not as specified, replace the switch.

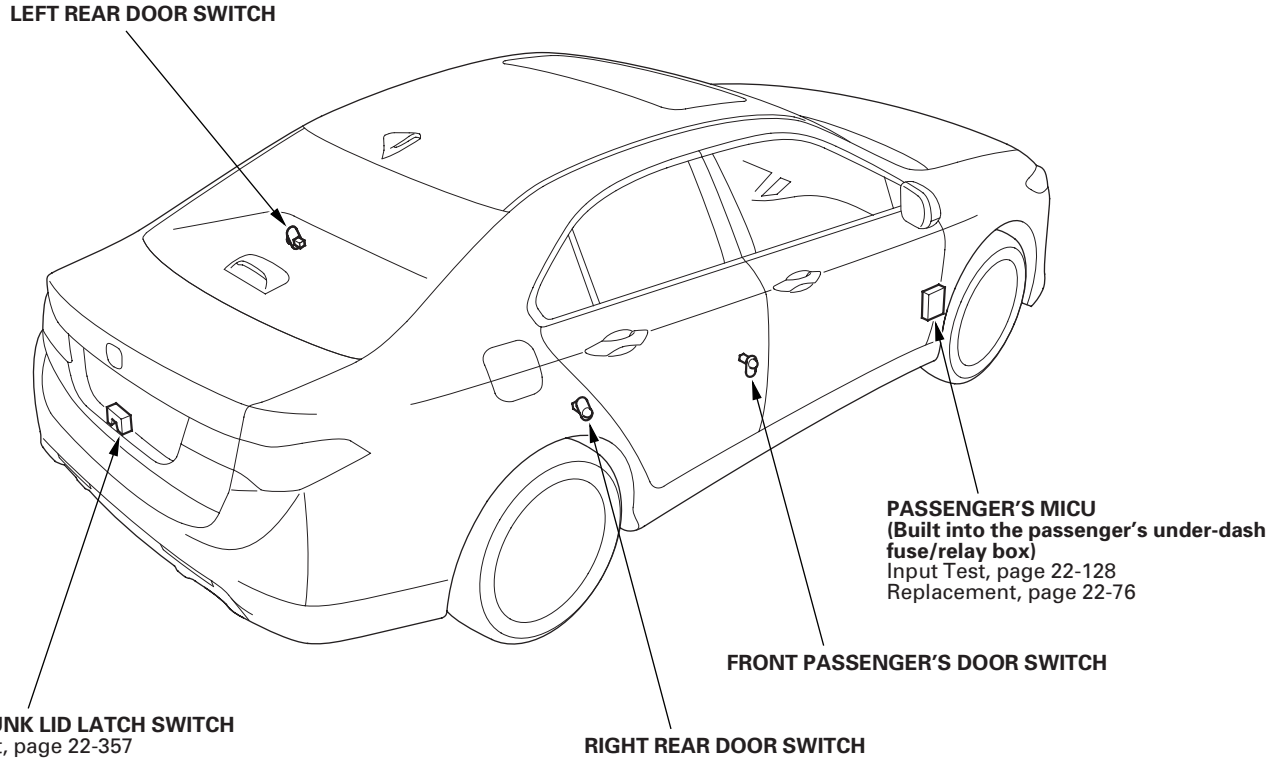
6. If the switch is OK, but there is a problem with the switch function, check the steering switches harness and cable reel.

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Component Location Index

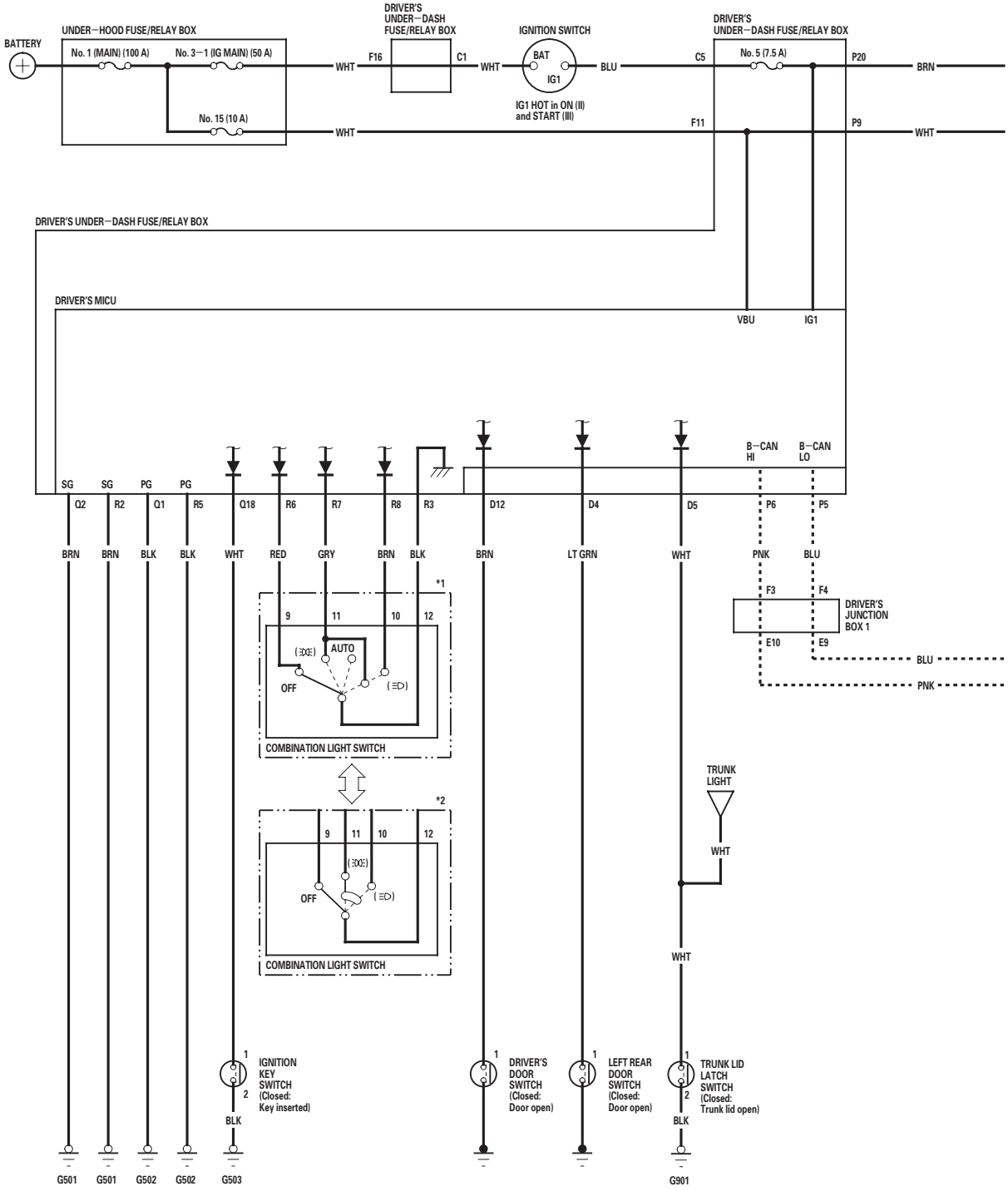


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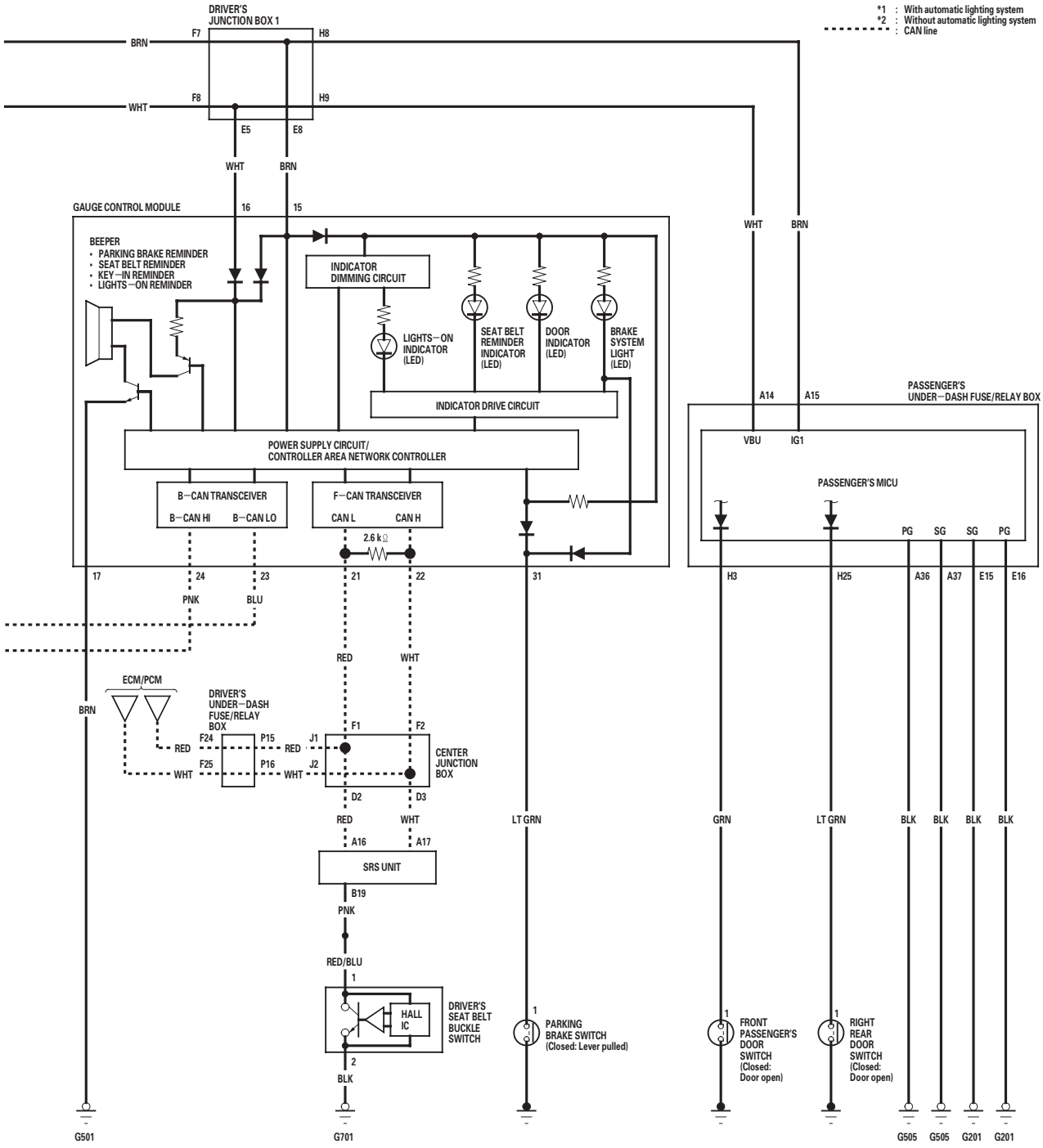


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Circuit Diagram



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Control Unit Input Test

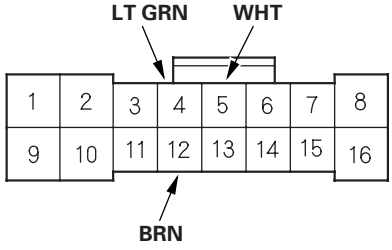
NOTE: Before testing, troubleshoot the multiplex integrated control unit first, using B-CAN System Diagnosis Test Mode A (see page 22-110).

Driver's MICU

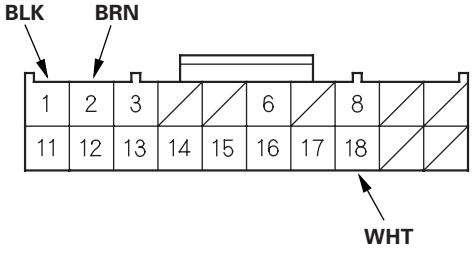
1. Turn the ignition switch to LOCK (0).
2. Remove the driver's dashboard undercover (see page 20-119), then remove the dashboard lower cover (see page 20-118).
3. Disconnect driver's under-dash fuse/relay box connectors D, Q, and R.

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

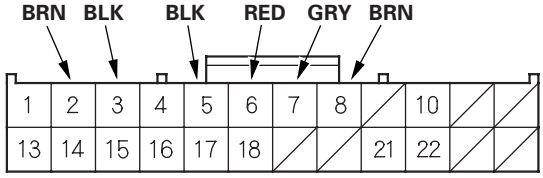
CONNECTOR D (16P)



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), 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 result is not obtained
Q1	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
Q2	BRN	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
R2	BRN	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
R5	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
D12	BRN	Driver's door open	Measure the voltage to ground: There should be less than 1 V.	• Faulty driver's door switch • An open in the wire
		Driver's door closed	Measure the voltage to ground: There should be more than 5 V.	• Faulty driver's door switch • A short to ground in the wire
D4	LT GRN	Left door open	Measure the voltage to ground: There should be less than 1 V.	• Faulty left rear door switch • An open in the wire
		Left door closed	Measure the voltage to ground: There should be more than 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 1 V.	• Faulty trunk lid latch switch • An open in the wire • Poor ground (G901)
		Trunk lid closed (Remove the trunk light bulb)	Measure the voltage to ground: There should be more than 5 V.	• Faulty trunk lid latch switch • A short to ground in the wire
Q18	WHT	Ignition key inserted into the ignition switch	Measure the voltage to ground: There should be less than 1 V.	• Poor ground (G503) • Faulty ignition key switch • An open 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 more than 5 V.	• Faulty ignition key switch • A short to ground in the wire
R6 . R3	RED . BLK	Combination light switch OFF	Measure the voltage between terminals R6 and R3: There should be less than 1 V.	• Faulty combination light switch • An open in the wire
		Combination light switch in any other position than OFF	Measure the voltage between terminals R6 and R3: There should be more than 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 1 V.	• Faulty combination light switch • An open in the wire
		Combination light switch OFF	Measure the voltage between terminals R7 and R3: There should be more than 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 1 V.	• Faulty combination light switch • An open in the wire
		Combination light switch OFF	Measure the voltage between terminals R8 and R3: There should be more than 5 V.	• Faulty combination light switch • A short to ground in the wire

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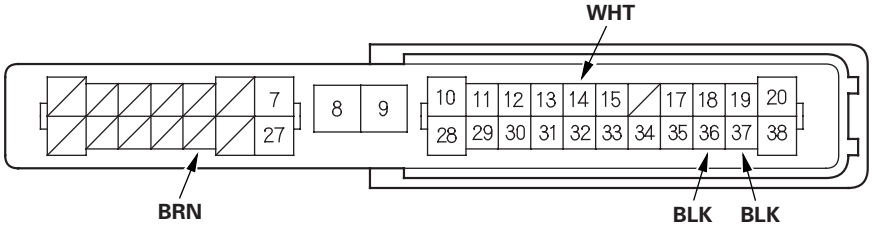
Control Unit Input Test (cont'd)

Passenger's MICU

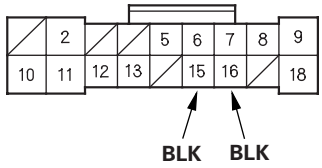
6. Turn the ignition switch to LOCK (0), and remove the right kick panel (see page 20-76).
7. Disconnect passenger's under-dash fuse/relay box connectors A, E, and H.

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

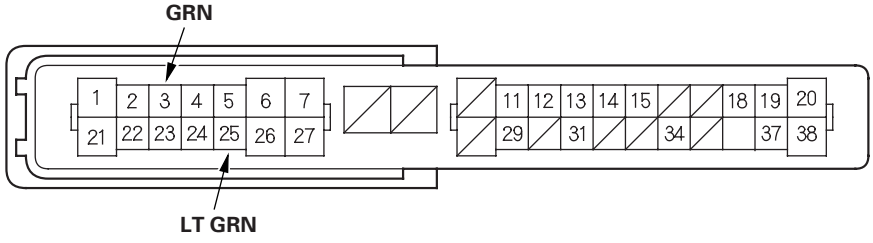
CONNECTOR A (33P)



CONNECTOR E (18P)



CONNECTOR H (38P)



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 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 10.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if 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
A25	BRN	Ignition switch ON (II)	Measure the voltage to ground: There should be battery voltage.	• Blown No. 5 (7.5 A) fuse in the under-hood fuse/relay box • Faulty driver's under-dash fuse/relay box • An open in the wire
A36	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G505) • An open in the wire
A37	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G505) • An open in the wire
E15	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G201) • An open in the wire
E16	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G201) • An open in the wire
H3	GRN	Front passenger's door open	Measure the voltage to ground: There should be less than 1 V.	• Faulty front passenger's door switch • An open in the wire
		Front passenger's door closed	Measure the voltage to ground: There should be more than 5 V.	• Faulty front passenger's door switch • A short to ground in the wire
H25	LT GRN	Right rear door open	Measure the voltage to ground: There should be less than 1 V.	• Faulty right rear door switch • An open in the wire
		Right rear door closed	Measure the voltage to ground: There should be more than 5 V.	• Faulty right rear door switch • A short to ground in the wire

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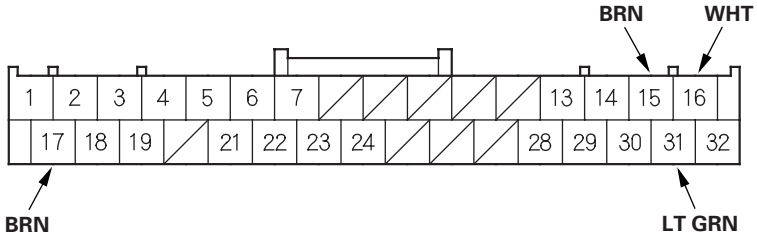
Control Unit Input Test (cont'd)

Gauge Control Module

10. Turn the ignition switch to LOCK (0).

11. Remove the gauge control module (see page 22-313), 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.

13. Reconnect the connector to the gauge control module, turn the ignition switch to ON (II), 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 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 in the wire
15	BRN	Ignition switch ON (II)	Measure the voltage to ground: There should be battery voltage.	• Blown No. 5 (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
17	BRN	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
31	LT GRN	Parking brake lever pulled	Measure the voltage to ground: There should be less than 1 V.	• Faulty parking brake switch • An open in the wire
		Parking brake lever released	Measure the voltage to ground: There should be more than 5 V.	• Faulty parking brake switch • A short to ground in the wire

14. Do the Gauge Control Module Self-diagnostic Function (see page 22-292), and check the beeper and the seat belt reminder indicator.

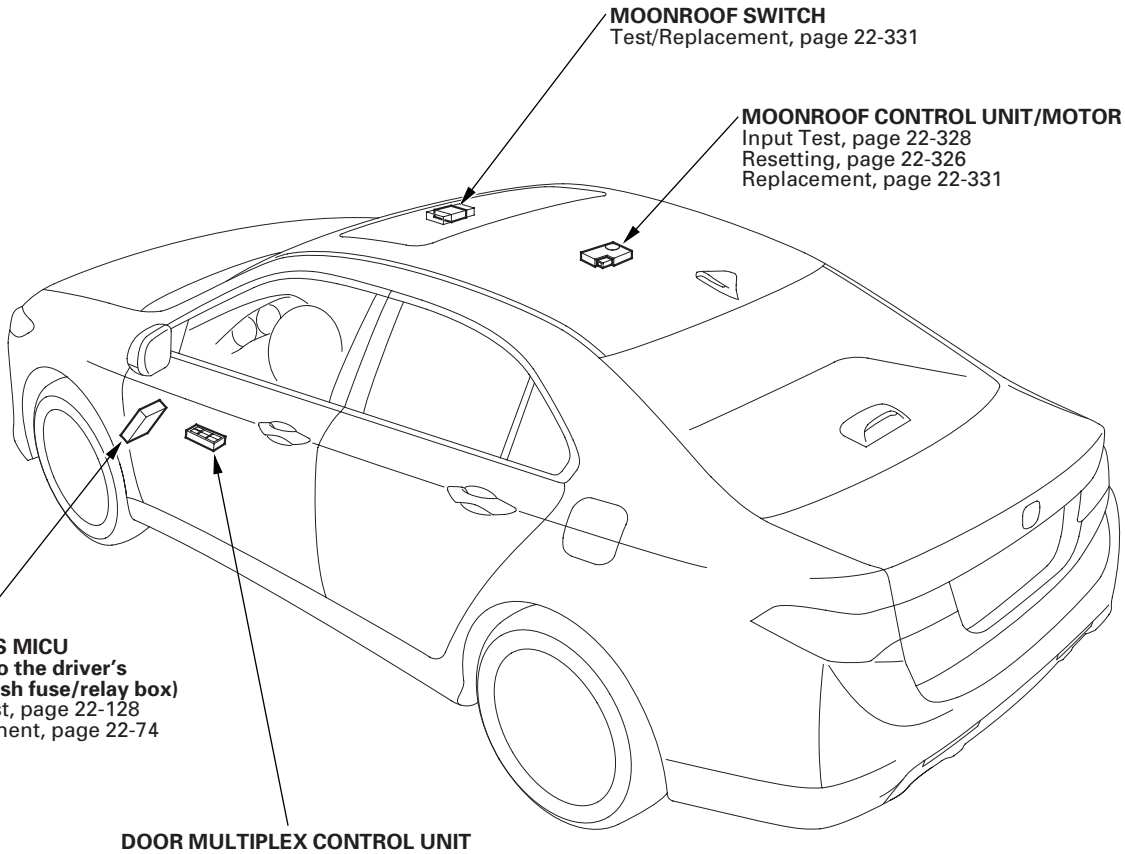
    • If the beeper sounds and the seat belt reminder indicator flashes, go to step 15.
    • If the beeper does not sound or the seat belt reminder indicator does not flash, replace the gauge control module (see page 22-313).

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 22-313).
    • If the symptom is still present, the driver's MICU is faulty; replace the driver's under-dash fuse/relay box (see page 22-74).

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Component Location Index



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Resetting the Moonroof Control Unit

Reset the moonroof after doing any of the following actions:

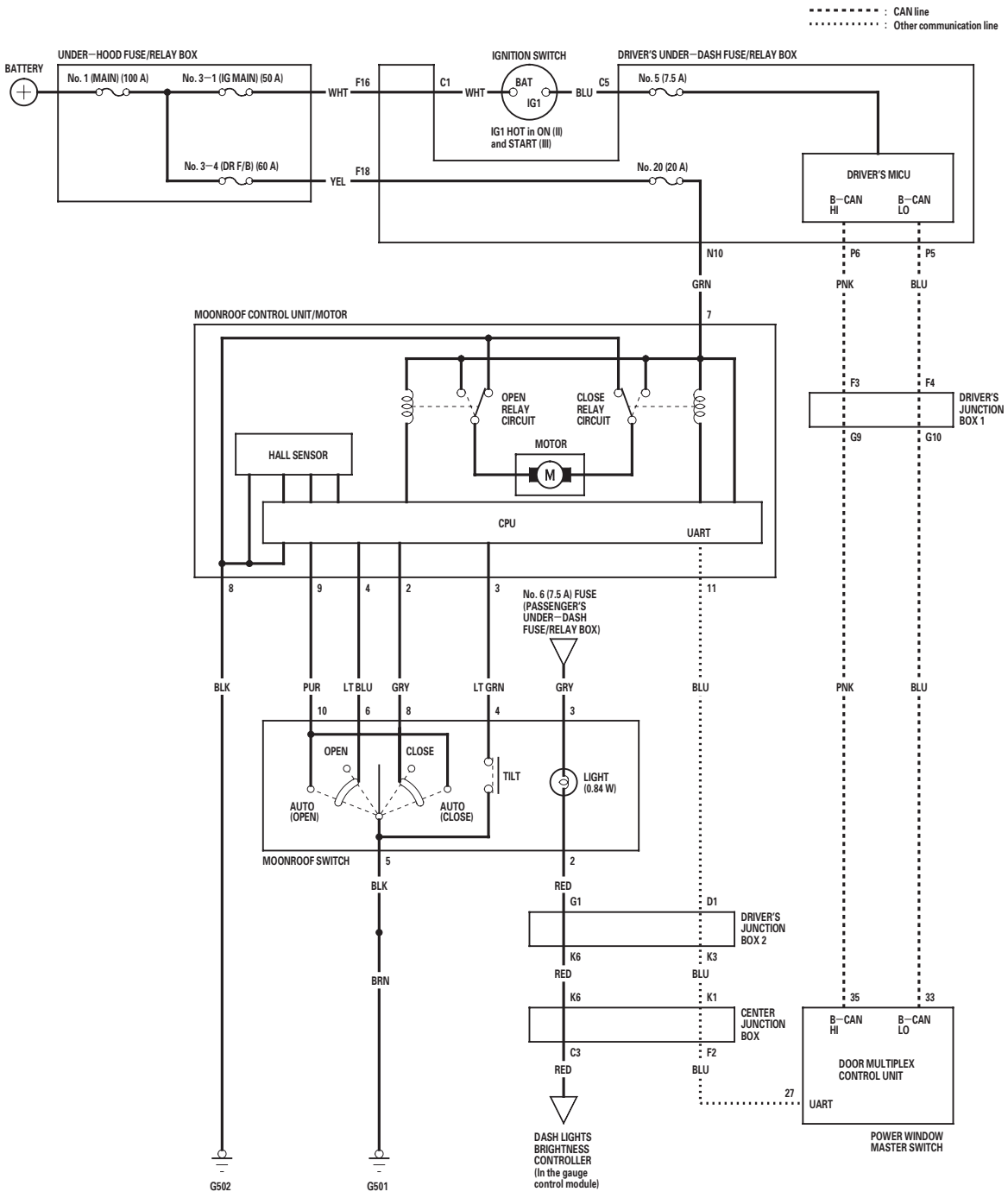
- The moonroof was moved manually while the battery was dead or disconnected.
- The moonroof motor was replaced with a new one.
- Any components related to the moonroof were replaced or removed and reinstalled.
  - Wind deflector
  - Moonroof glass
  - Moonroof seal
  - Moonroof glass bracket
  - Moonroof 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).
3. Press and hold the tilt switch, and turn the ignition switch to ON (II).
4. Release the tilt switch, and turn the ignition switch to LOCK (0).
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 3 additional seconds after the moonroof is fully opened.
8. Press and hold the moonroof close switch for 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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Circuit Diagram

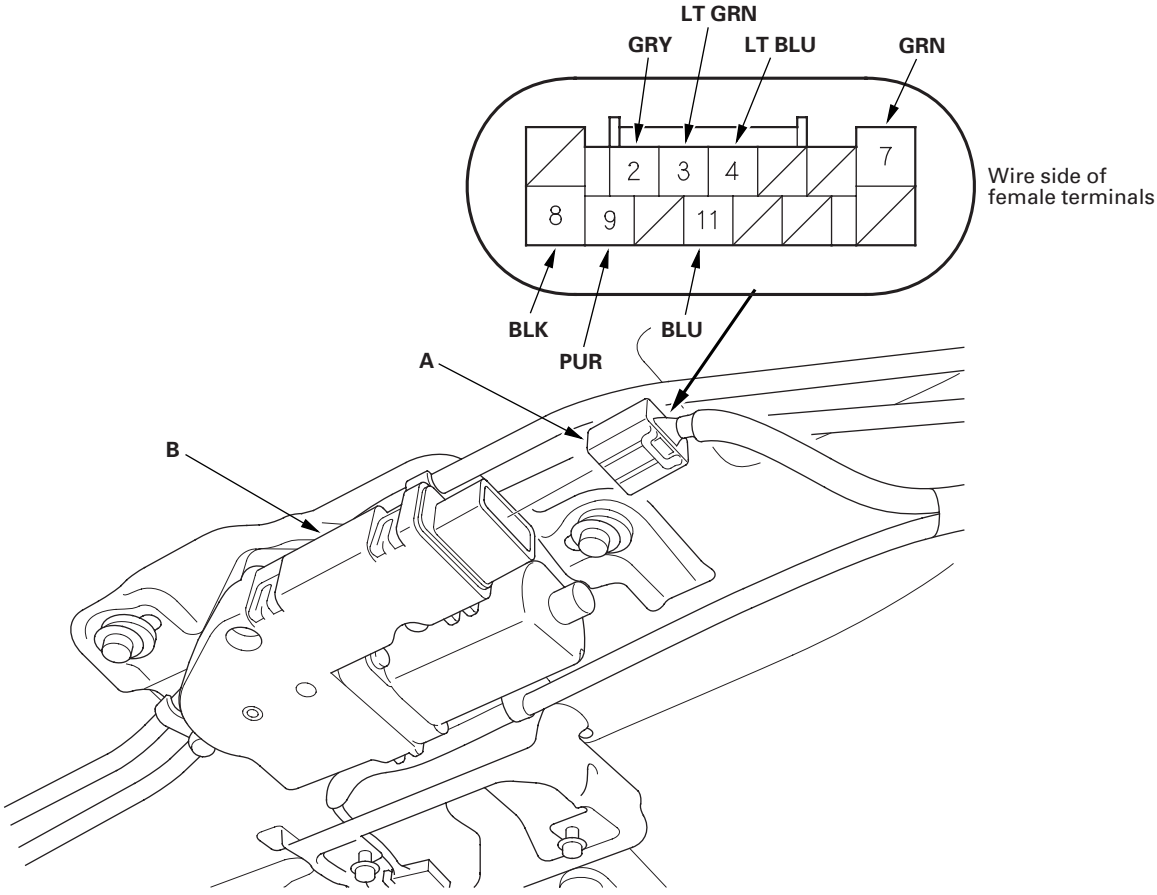


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Moonroof Control Unit Input Test

NOTE: If the moonroof works OK manually, but will not work in AUTO, or reverses frequently (obstacle detection), reset the moonroof (see page 22-326) before proceeding with the input test.

1. Turn the ignition switch to LOCK (0).
2. Remove the headliner (see page 20-100).
3. Disconnect the 14P connector (A) from the moonroof 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.

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5. With the connector still disconnected, do this input tests at the connector.

   • 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	BLU	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 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

6. Reconnect the connector to the 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 7.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
7	GRN	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 in the wire
8	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
2	GRY	Ignition switch to ON (II), moonroof switch in CLOSE position	Measure the voltage to ground: There should be less than 0.5 V.	• Faulty moonroof switch • Poor ground (G501) • An open in the wire
		Ignition switch to ON (II), 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

(cont'd)

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Moonroof Control Unit Input Test (cont'd)

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
3	LT GRN	Ignition switch to ON (II), moonroof switch in TILT position	Measure the voltage to ground: There should be less than 0.5 V.	• Faulty moonroof switch • Poor ground (G501) • An open in the wire
		Ignition switch to ON (II), 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), moonroof switch in OPEN position	Measure the voltage to ground: There should be less than 0.5 V.	• Faulty moonroof switch • Poor ground (G501) • An open in the wire
		Ignition switch to ON (II), 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
9	PUR	Ignition switch to ON (II), moonroof switch in AUTO OPEN or AUTO CLOSE position	Measure the voltage to ground: There should be less than 0.5 V.	• Faulty moonroof switch • Poor ground (G501) • An open in the wire
		Ignition switch to ON (II), 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

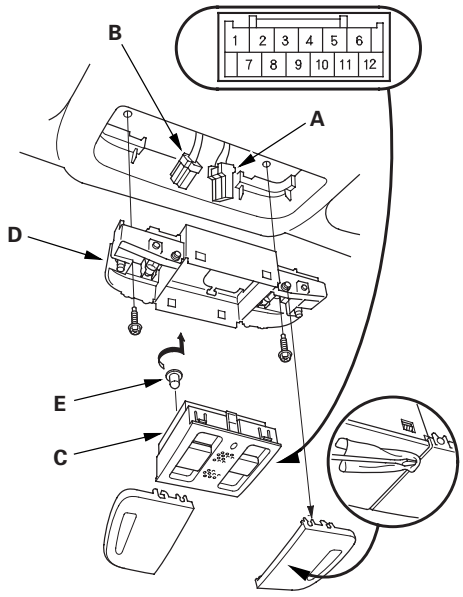
7. If all the input tests are OK and multiple failures are found, replace the moonroof control unit/motor assembly. If the problem is related to the key-off operation, go to the driver's MICU input test (see page 22-148), and power window master switch input test (see page 22-257).

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Moonroof Switch Test/Replacement

1. Remove the front individual map lights (see page 22-225).

2. Disconnect the moonroof switch 12P connector (A) and map light 3P connector (B).



3. Remove the moonroof switch (C) from the map light housing (D).

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

Position \ Terminal	5	4	6	8	10	2		3
OPEN	○		○					
CLOSE	○			○				
TILT	○	○				○	○	○
CLOSE+AUTO	○			○	○			
OPEN+AUTO	○		○		○			

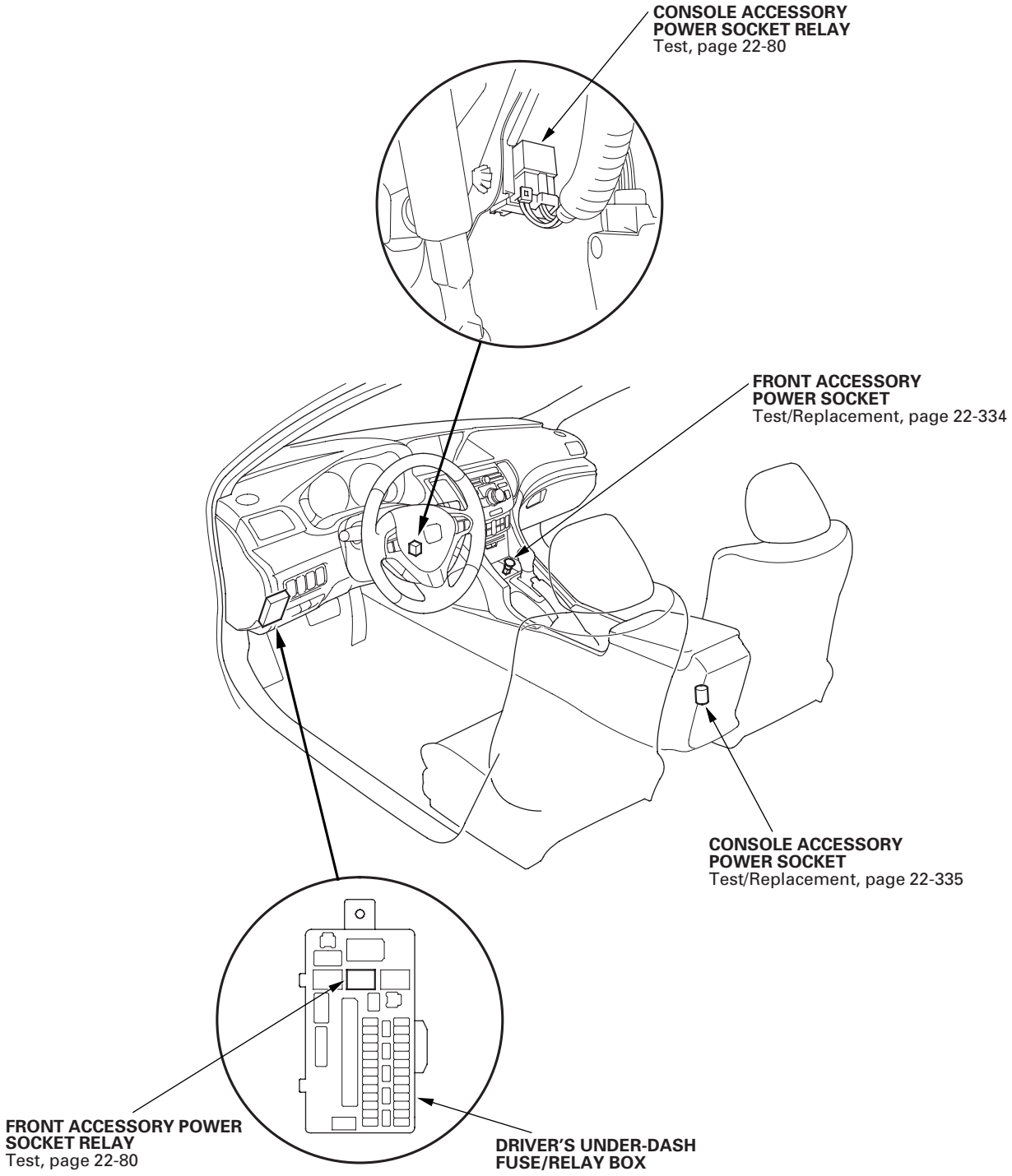
5. If the continuity is not as specified, replace the illumination bulb (E) or the switch.

6. Install the switch and light in the reverse order of removal.

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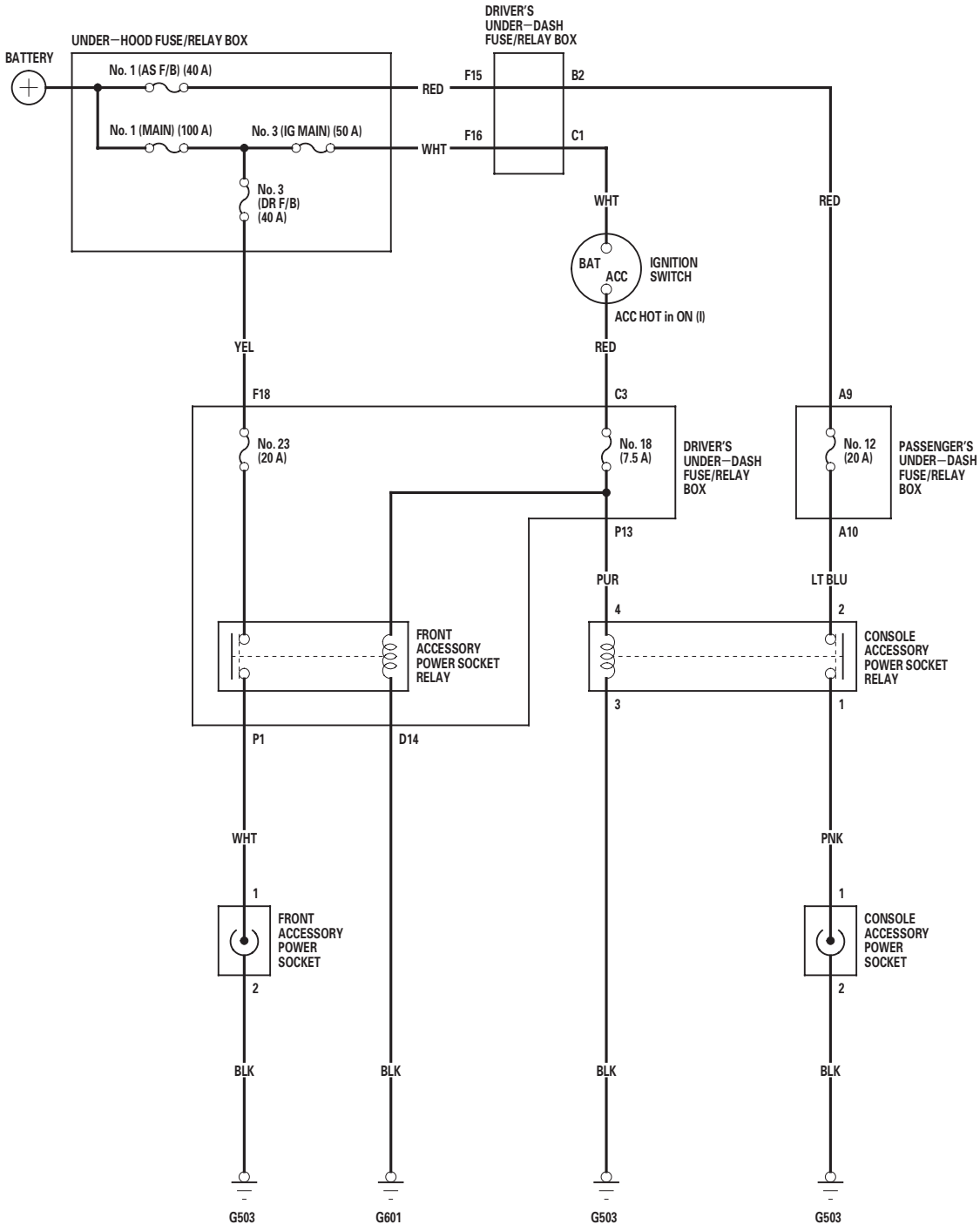
Accessory Power Sockets

Component Location Index



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Circuit Diagram



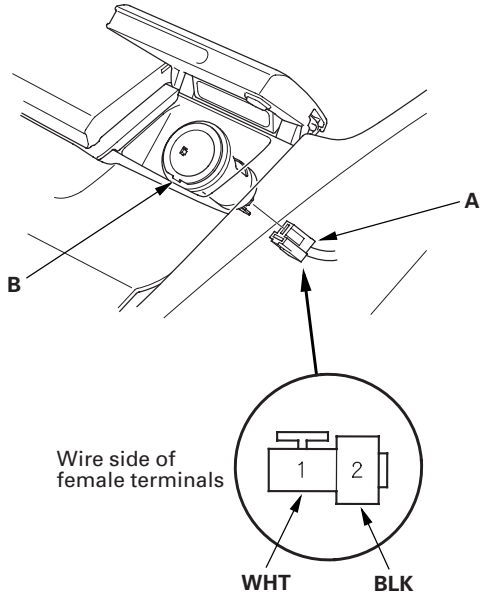
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Front Accessory Power Socket Test/Replacement

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 (G503) first.

1. Remove the center console panel (see page 20-111).

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 ACC (I).

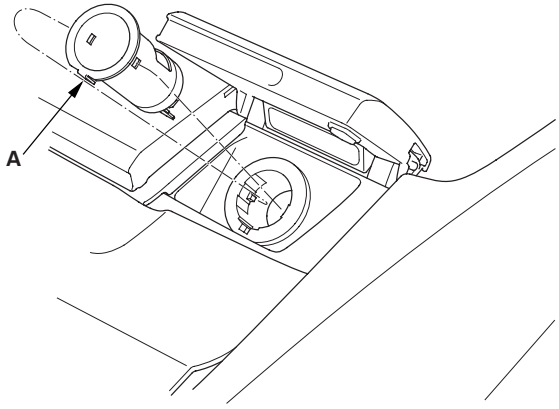
5. Measure the voltage between front accessory power socket 2P connector terminal No. 1 and body ground. There should be battery voltage.

   - If there is battery voltage, go to step 6.
   - If there is no battery voltage, check for:
     – Blown No. 23 (20 A) fuse in the driver's under-dash fuse/relay box.
     – Faulty front accessory power socket relay.
     – Poor ground (G 601).
     – An open in the wire.

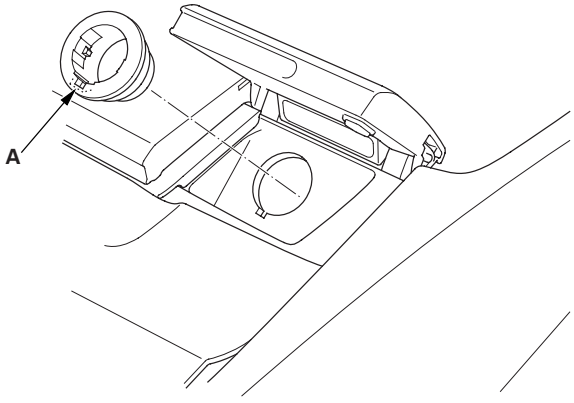
6. Check for continuity between front accessory power socket 2P connector terminal No. 2 and body ground. There should be continuity.

   - If there is continuity, replace the power socket; go to step 7.
   - If there is no continuity, check for:
     – Poor ground (G 503).
     – An open in the wire.

7. Remove the socket (A).



8. Remove the housing (A) from the panel.



9. Install the power socket in the reverse order of removal.

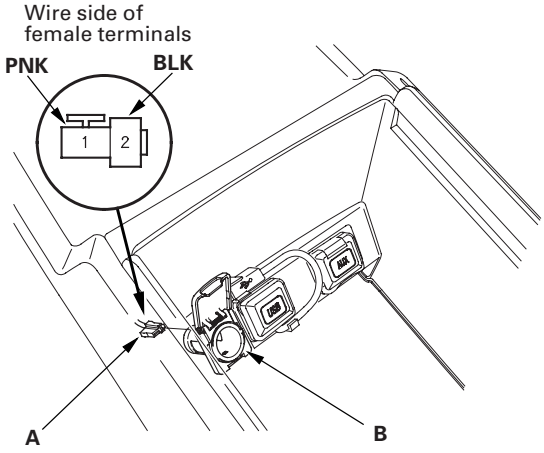
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Console Accessory Power Socket Test/Replacement

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 (G503) first.

1. Remove the center console panel (see page 20-111).

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 ACC (I).

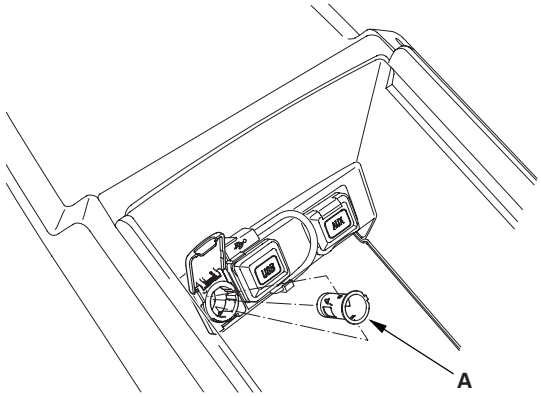
5. Measure the voltage between console accessory power socket 2P connector terminal No. 1 and body ground. There should be battery voltage.

   - If there is battery voltage, go to step 6.
   - If there is no battery voltage, check for:
     – Blown No. 12 (20 A) fuse in the passenger's under-dash fuse/relay box.
     – Faulty console accessory power socket relay.
     – Poor ground (G 503).
     – An open in the wire.

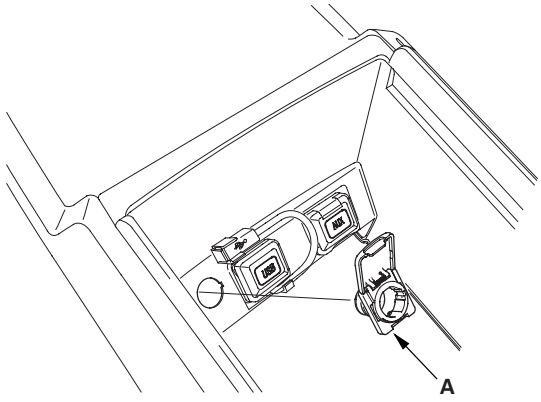
6. Check for continuity between console accessory power socket 2P connector terminal No. 2 and body ground. There should be continuity.

   - If there is continuity, go to step 7.
   - If there is no continuity, check for:
     – Poor ground (G 503).
     – An open in the wire.

7. Remove the socket (A).



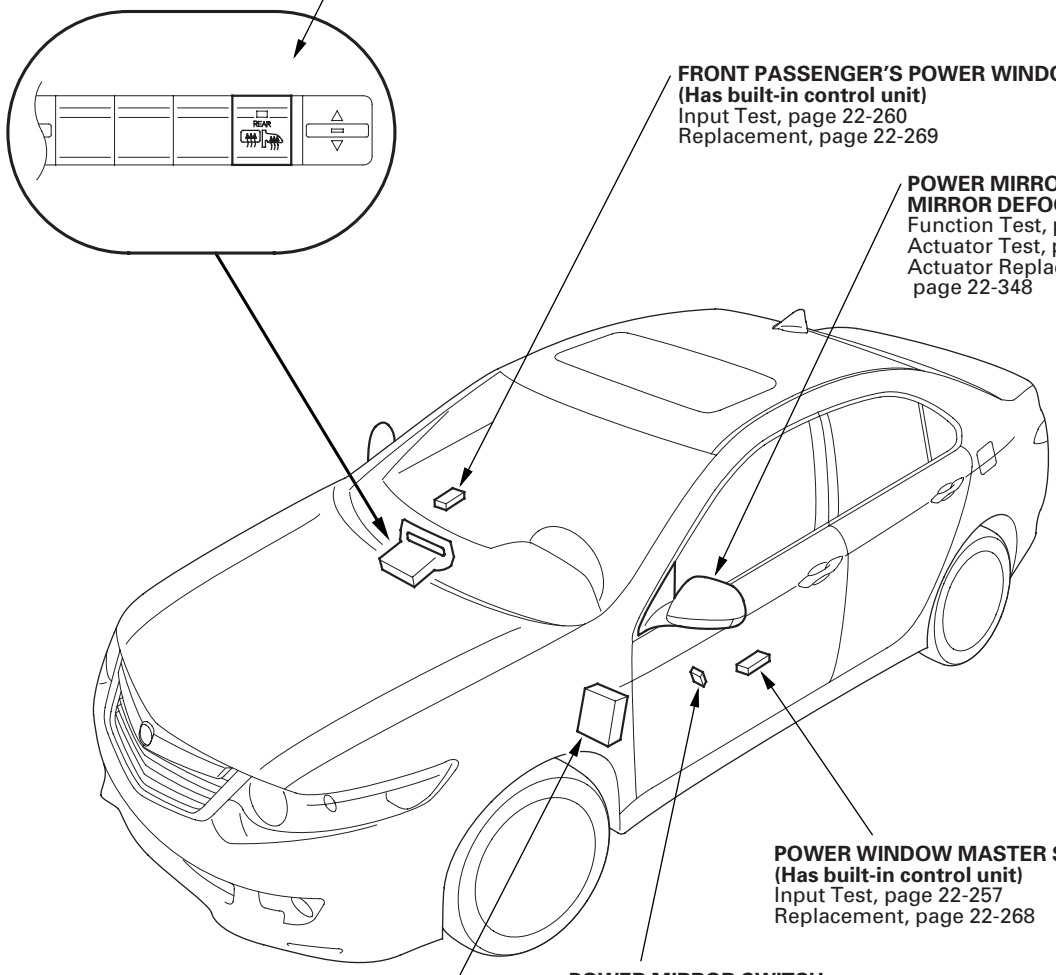
8. Remove the housing (A) from the panel.



9. Install the power socket in the reverse order of removal.

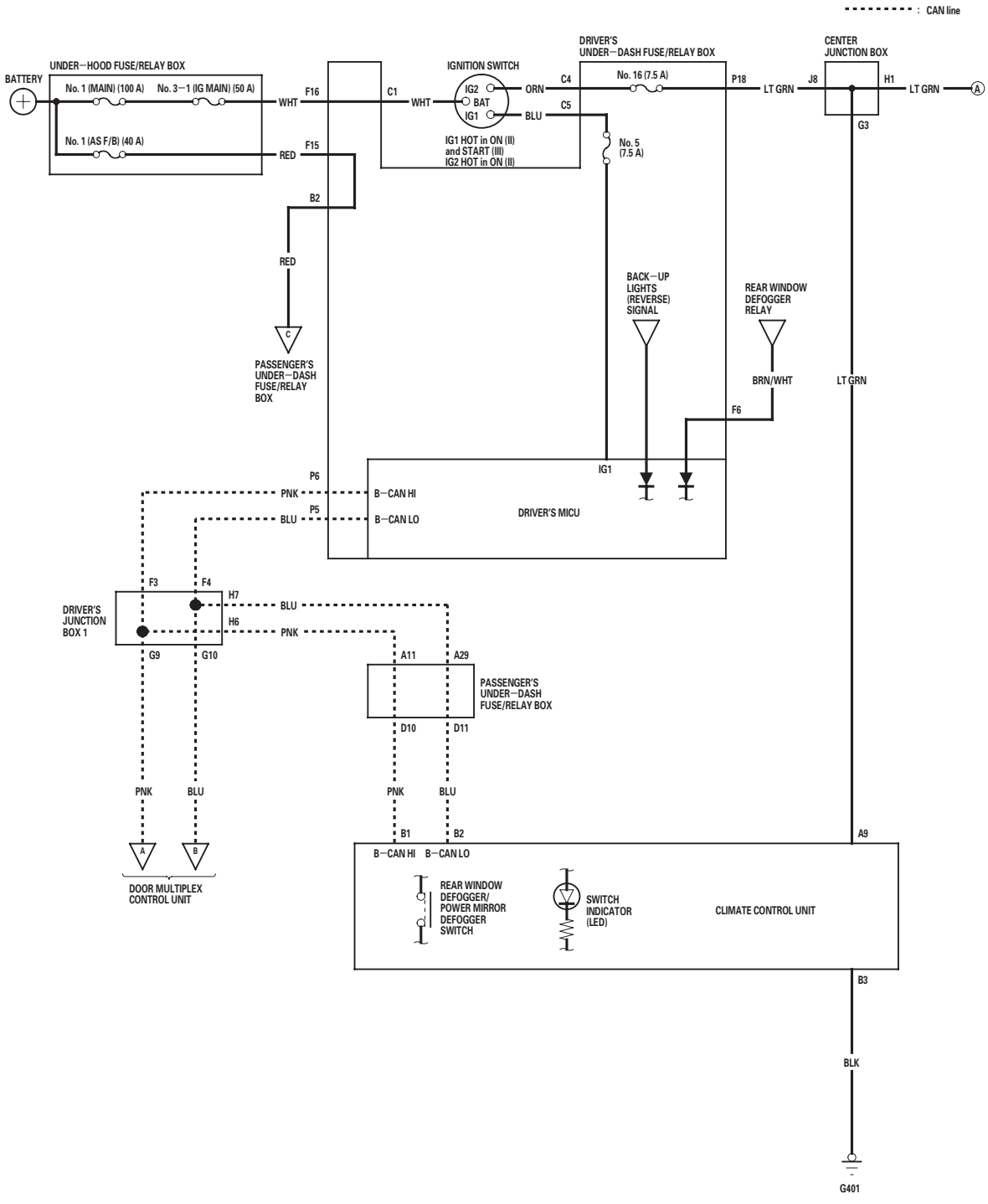
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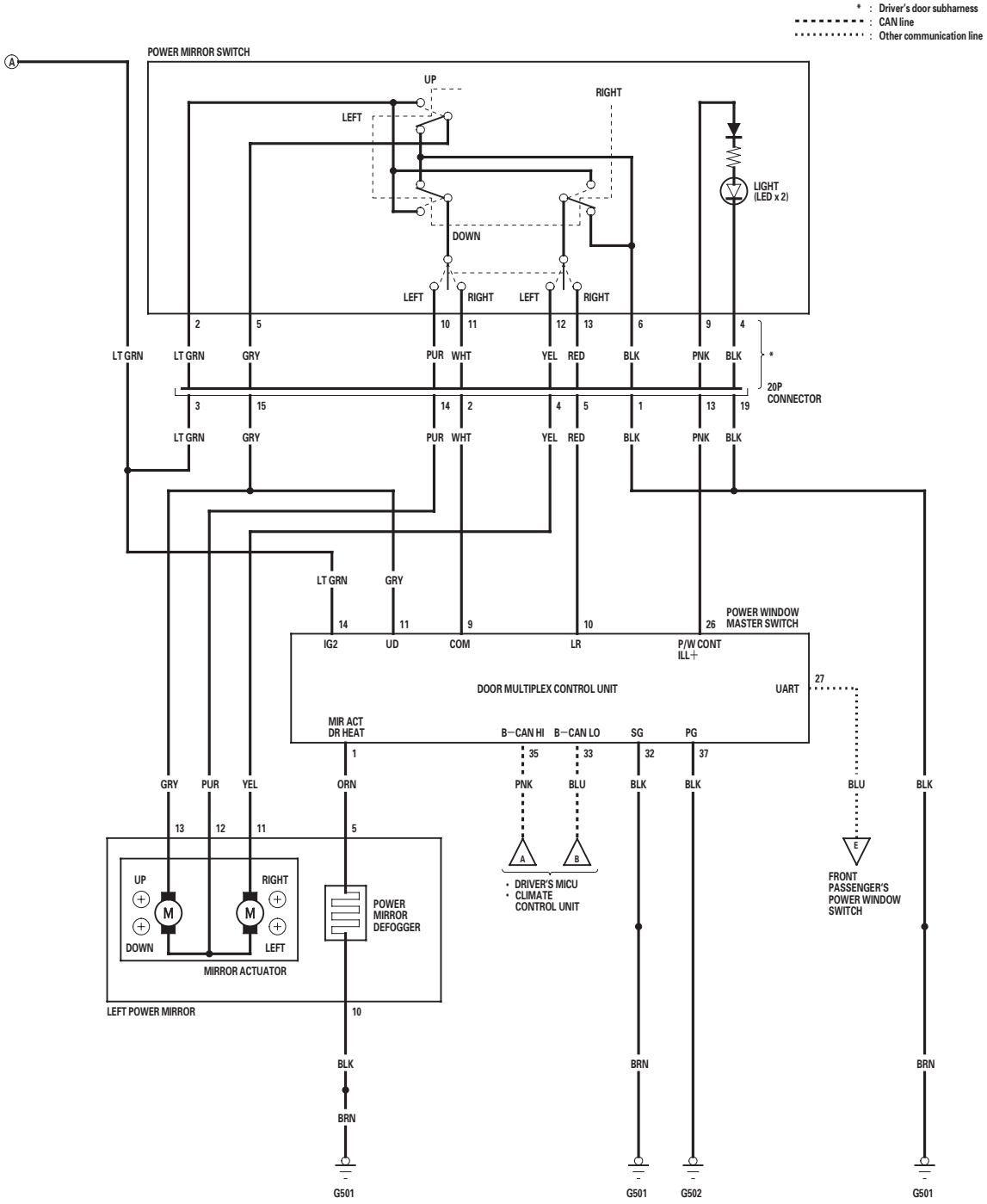
Circuit Diagram



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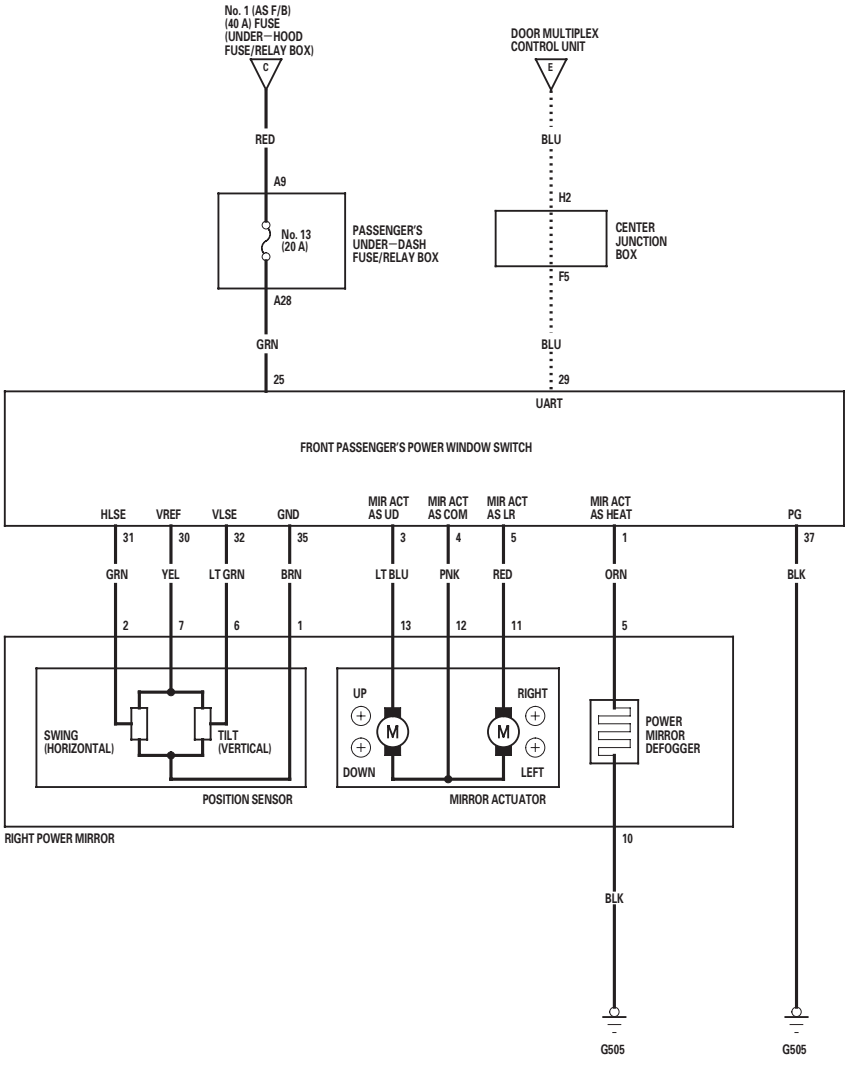
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Circuit Diagram (cont'd)



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: CAN line
: Other communication line



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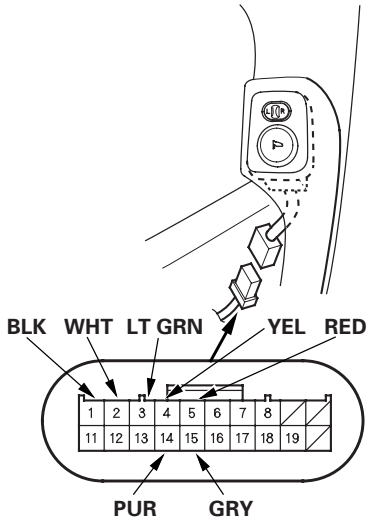
Function Test

NOTE: The right power mirror actuator is controlled by the front passenger's power window switch. When the power mirror switch is operated, the power window master switch receives the signals from the power window master switch and send them to the front passenger's power window switch. So if there is malfunction of the right power mirror actuator operation, do the door multiplex control unit input test (see page 22-341) and front passenger's power window switch input test (see page 22-260). Also, the power mirror defoggers, position sensor and retractable power mirrors are controlled by door multiplex control unit and front passenger's power window switch, do the door multiplex control unit input test (see page 22-343) and front passenger's power window switch input test (see page 22-260).

Left Power Mirror Function Test

1. Remove the driver's door panel (see page 20-9).

2. Disconnect the 20P connector from the driver's door subharness.



Wire side of female terminals

3. Turn the ignition switch to ON (II).

4. Measure the voltage between body ground and terminal No. 3 of the driver's door subharness 20P connector with the ignition switch to ON (II). There should be battery voltage.

   - If there is no battery voltage, check for:
     – Blown No. 16 (7.5 A) fuse in the driver's under-dash fuse/relay box.
     – An open in the LT GRN wire.
   - If there is battery voltage, go to step 5.

5. Check for continuity between terminal No. 1 of the driver's door subharness 20P connector and body ground. There should be continuity.

   - If there is no continuity, check for:
     – An open in the BLK wire.
     – Poor ground (G 501).
   - If there is continuity, go to step 6.

6. Connect terminals No. 3 and No. 14, and terminals No. 15 (or No. 4) and No. 1 with jumper wires. The left mirror should tilt down (or swing left) with the ignition switch to ON (II).

   - If the left mirror does not tilt down (or does not swing left), check for an open in the GRY (or YEL) wire between the left mirror and the 20P connector. If the wire is OK, check the left mirror actuator.
   - If the mirror neither tilts down nor swings left, repair the PUR wire.
   - If the mirror works properly, check the power mirror switch.

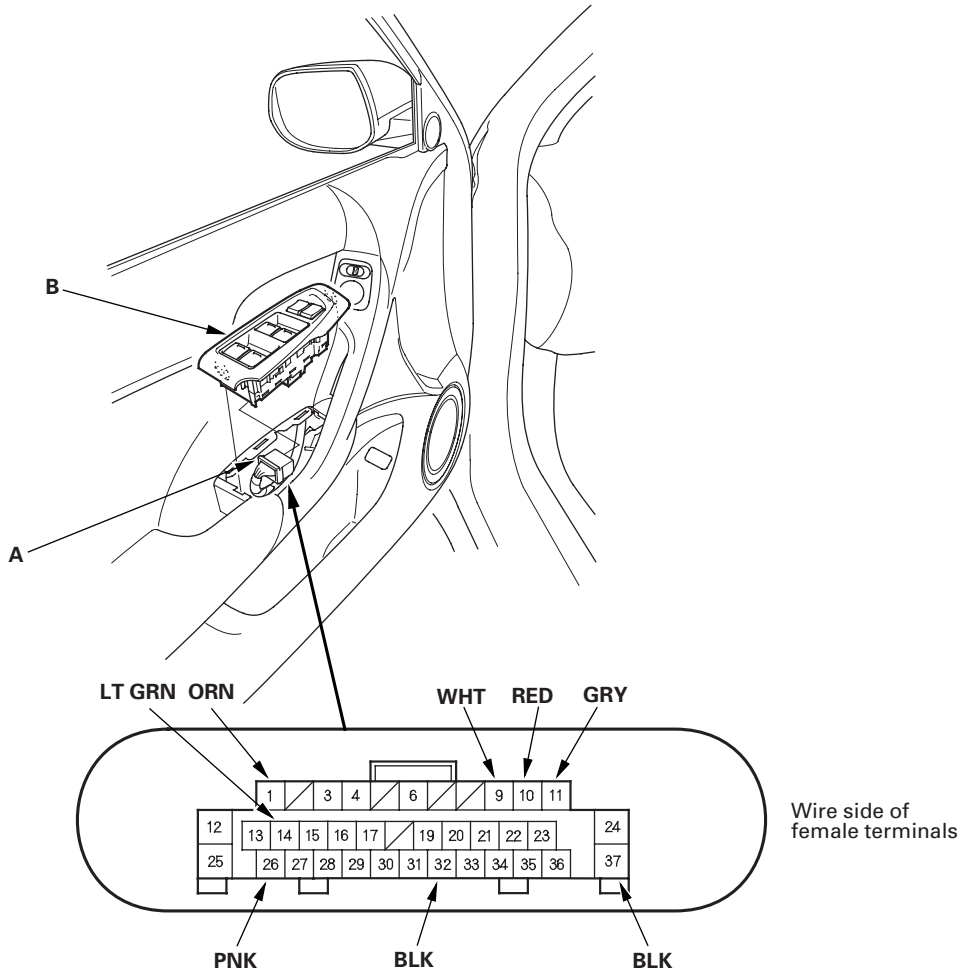
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Power Window Master Switch Input Test

NOTE: Before testing, troubleshoot the multiplex integrated control unit first, using B-CAN System Diagnosis Test Mode A (see page 22-110).

1. Turn the ignition switch to LOCK (0), and remove the power window master switch (see page 22-268).

2. Disconnect the 37P connector (A) from the power window master switch (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.

(cont'd)

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Power Window Master Switch Input Test (cont'd)

4. Reconnect the connector to the power window master switch, turn the ignition switch to ON (II), 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 5.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
32	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
37	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
14	LT GRN	Ignition switch ON (II)	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 in the wire

5. Turn the ignition switch to LOCK (0), open and close the driver's door, then disconnect the 37P connector from the power window master switch again.

6. 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, the power window master switch must be faulty, replace it.

   NOTE: After replacing the power window master switch, reset the power window control unit (see page 22-244).

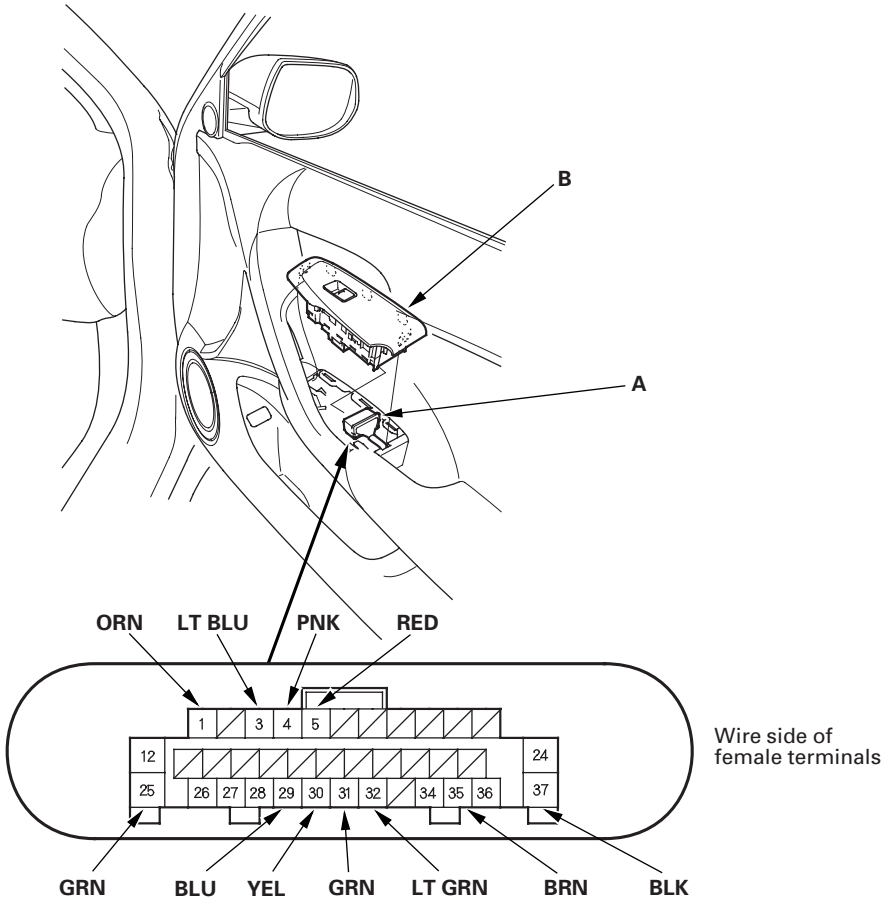
Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
9	WHT	Ignition switch ON (II), power mirror switch in RIGHT mirror position	Measure the voltage to ground: There should be battery voltage when the power mirror switch LEFT or DOWN is pressed.	• Blown No. 16 (7.5 A) fuse in the driver's under-dash fuse/relay box • Faulty power mirror switch • An open in the wire
10	RED	Ignition switch ON (II), power mirror switch in RIGHT mirror position	Measure the voltage to ground: There should be battery voltage when the power mirror switch RIGHT or DOWN is pressed.	• Blown No. 16 (7.5 A) fuse in the driver's under-dash fuse/relay box • Faulty power mirror switch • An open in the wire
11	GRY	Ignition switch ON (II), power mirror switch in RIGHT mirror position	Measure the voltage to ground: There should be battery voltage when the power mirror switch UP or LEFT is pressed.	• Blown No. 16 (7.5 A) fuse in the driver's under-dash fuse/relay box • Faulty power mirror switch • An open in the wire
1	ORN	Ignition switch ON (II), connect terminals No. 14 and No. 1 with a jumper wire	Check the left power mirror defogger operation: The left power mirror defogger should work (the inside lower edge becomes warm).	• Faulty left power mirror defogger • Poor ground (G501) • An open in the wire
26	PNK	Ignition switch ON (II), connect terminals No. 14 and No. 26 with a jumper wire	Check the power mirror switch light operation: The power mirror switch light should come on.	• Faulty LED • Faulty power mirror switch • Poor ground (G501) • An open in the wire

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Front Passenger's Power Window Switch Input Test

1. Turn the ignition switch to LOCK (0), and remove the front passenger's power window switch (see page 22-269).

2. Disconnect the 37P connector (A) from the front passenger's power window switch (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.

(cont'd)

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Front Passenger's Power Window Switch Input Test (cont'd)

4. Reconnect the connector to the front passenger's power window switch, turn the ignition switch to ON (II), 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 5.

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 • Faulty driver's under-dash fuse/relay box • Faulty passenger's under-dash fuse/relay box • An open in the wire
37	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G505) • An open in the wire
30	YEL	Ignition switch ON (II)	Measure the voltage to ground: There should be about 5 V.	• Faulty position sensor • An open in the wire
31	GRN	Ignition switch ON (II), and move the mirror from full left to full right	Measure the voltage to ground: The voltage should vary from about 9.5 V to 4.5 V.	• Faulty position sensor • A short to ground in the wire
32	LT GRN	Ignition switch ON (II), and move the mirror from full up to full down	Measure the voltage to ground: The voltage should vary from about 0.5 V to 4.5 V.	• Faulty position sensor • An open in the wire
35	BRN	Ignition switch ON (II)	Measure the voltage to ground: There should be about less than 1 V.	• Faulty position sensor • Poor ground (G505) • An open in the wire

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5. Turn the ignition switch to LOCK (0), open and close the driver's door, then disconnect the 37P connector from the front passenger's power window switch again.

6. 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, replace the front passenger's power window switch, and go to step 7.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
3 · 4	LT BLU · PNK	Connect terminals No. 25 and No. 3 (or No. 4), and terminals No. 4 (or No. 3) and No. 37 with jumper wires.	Check the right power mirror operation: The right power mirror should move UP (or DOWN).	• Faulty right power mirror • Poor ground (G505) • An open in the wire
4 · 5	PNK · RED	Connect terminals No. 25 and No. 4 (or No. 5), and terminals No. 5 (or No. 4) and No. 37 with jumper wires.	Check the right power mirror operation: The right power mirror should move LEFT (or RIGHT).	• Faulty right power mirror • Poor ground (G505) • An open in the wire
1	ORN	Connect terminals No. 25 and No. 1 with a jumper wire	Check the right power mirror defogger operation: The right power mirror defogger should work (the inside lower edge becomes warm).	• Faulty right power mirror defogger • Poor ground (G505) • An open in the wire
29	BLU	Under all conditions, disconnect the power window master switch 37P connector	Check for continuity between terminal No. 29 and power window master switch 37P connector terminal No. 27: There should be continuity.	An open in the wire

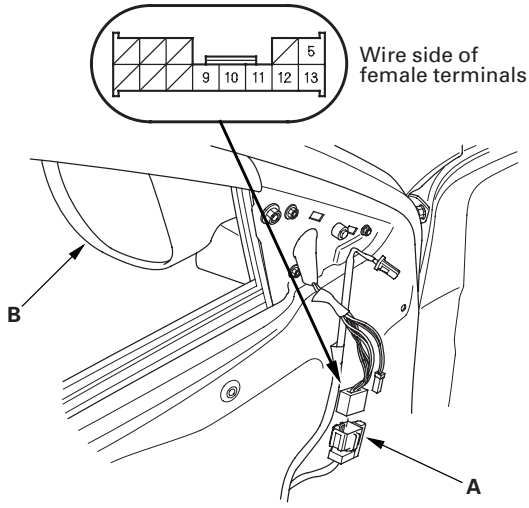
7. With the front passenger's power window AUTO UP/AUTO DOWN function, reset the power window control unit (see page 22-244).

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Power Mirror Actuator Test

1. Remove the door panel (see page 20-9).

2. Disconnect the 13P connector (A) from the power mirror (B).



3. At the 13P connector, check actuator operation by connecting power and ground according to the table.

Power mirror actuator

Terminal / Position	11	12	13
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

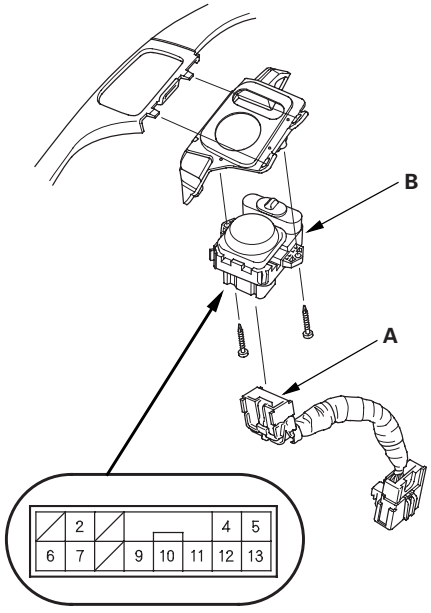
5. Check for continuity between terminals No. 5 and No. 10 of the 13P connector. There should be continuity.

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.

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Power Mirror Switch Test/Replacement

1. Remove the driver's door panel (see page 20-9).
2. Remove the armrest and switch panel from the door panel (see page 20-9).
3. Disconnect the 13P connector (A) from the power mirror switch (B), then remove the two screws and power mirror switch.



4. 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	○		○		○		○

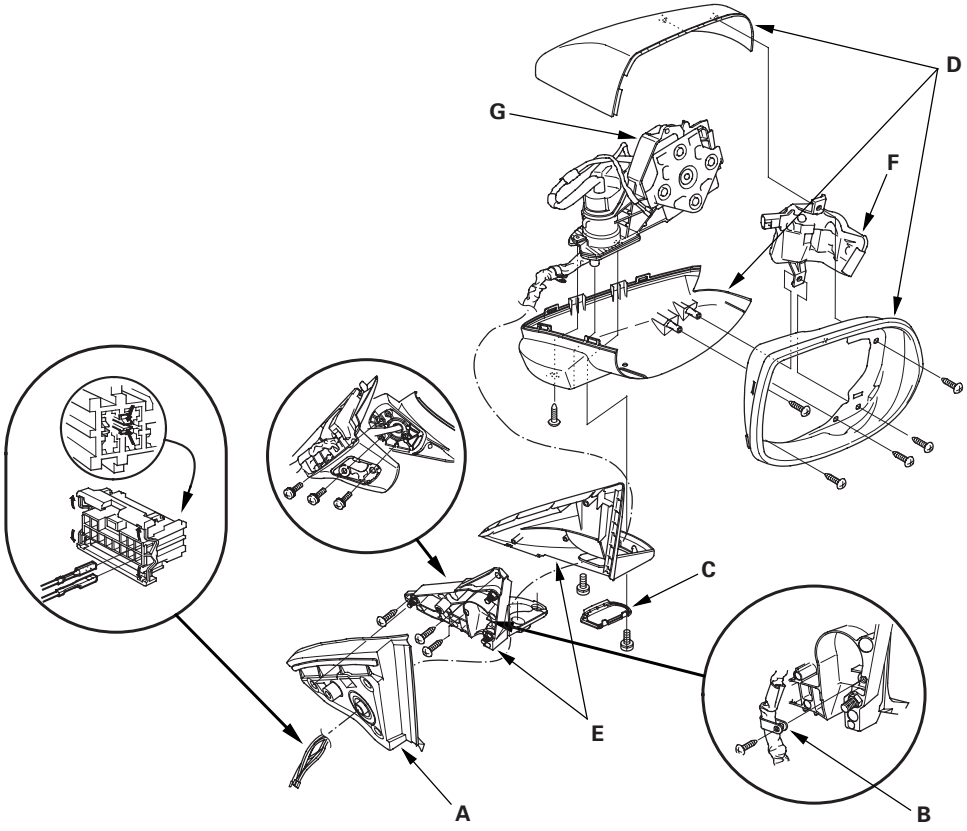
5. If the continuity is not as specified, replace the power mirror switch.
6. Install the switch in the reverse order of removal.

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Power Mirror Actuator Replacement

Removal

1. Remove the mirror holder (see page 20-48).
2. Remove the mirror from the door (see page 20-47).
3. Disconnect the connector(s) from the power mirror.
4. Record the power mirror 13P connector terminal locations and wire colors.
5. Disassemble the power mirror 13P connector, and remove all terminals from it.
6. Remove the gasket (A).

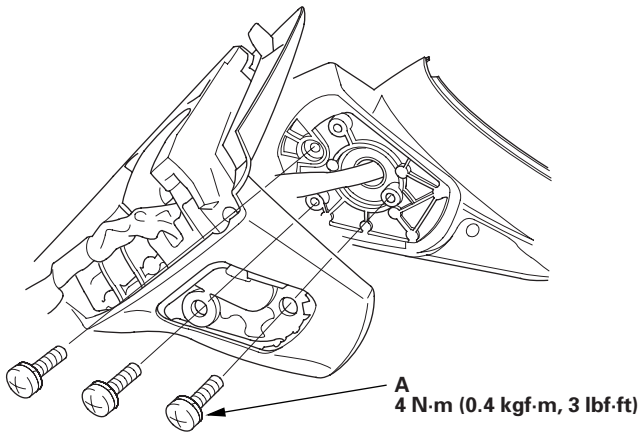


7. Remove the screw and harness clip (B).
8. Remove the cover (C) and screws, then separate the mirror housings (D) from the bracket.
9. Remove the screws, and separate the brackets (E).
10. Remove the side turn signal light (F) and disconnect the 2P connector from the light.
11. Remove the screws and disassemble the mirror housing, then remove the mirror actuator (G).

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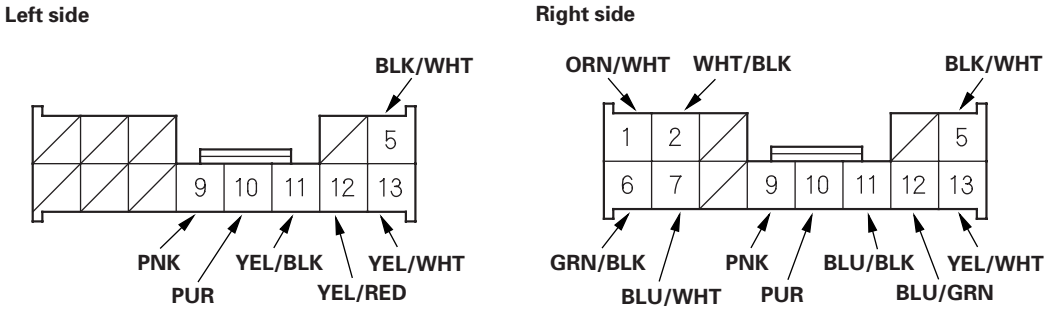
Installation

1. Route the wire harness of a new actuator through the hole in the bracket.
2. Reassemble the mirror in the reverse order of removal. Apply the LOCTITE to the screws (A) and tighten them to 4 N·m (0.4 kgf·m, 3 lbf·ft).



3. Insert the new actuator terminals into the 13P connector in the original arrangement.

POWER MIRROR 13P CONNECTOR



Wire side of female terminals

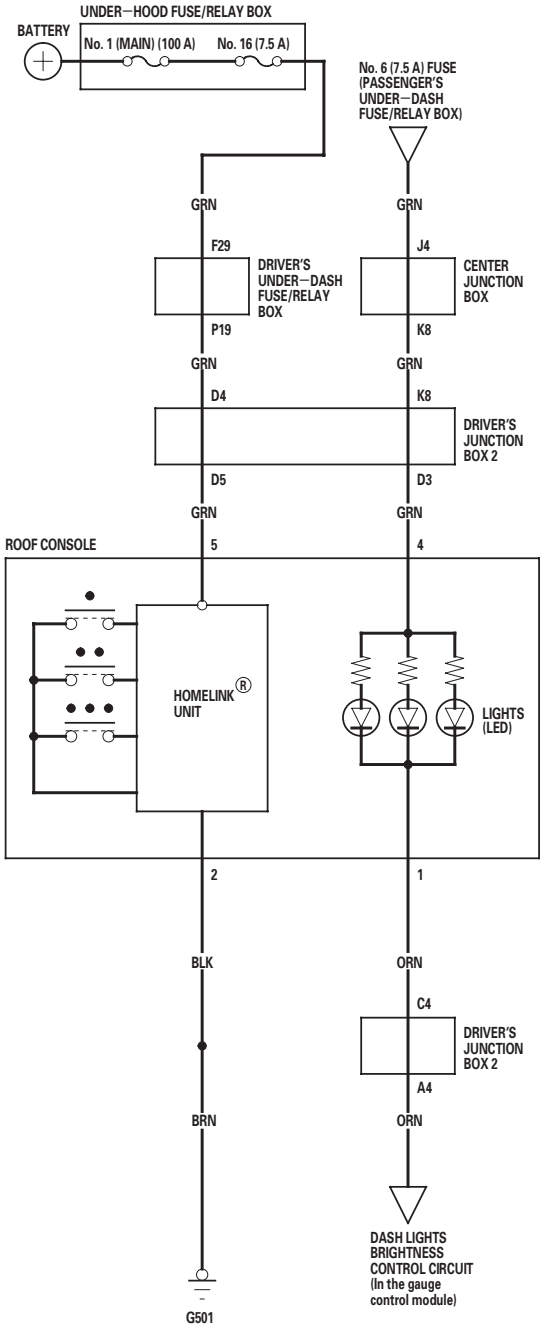
4. Apply EPT sealer to the intersection of the wire harness and the 13P connector.
5. Install the mirror holder.

   NOTE: Be careful not to break the mirror when reinstalling it to the actuator.

6. Reinstall the mirror assembly on the door.
7. Operate the power mirror to ensure correct operation.

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Circuit Diagram

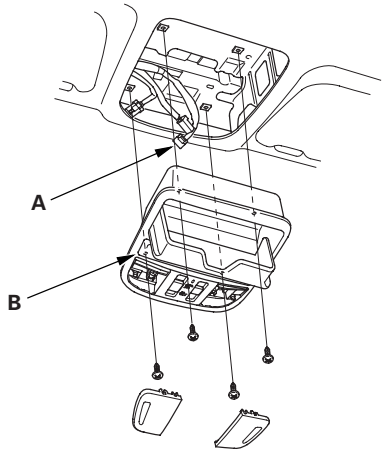


Test

NOTE: If the HomeLink will not open the client's garage, do this:

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 22-352), and disconnect the 5P connector (A) from the HomeLink unit (B).

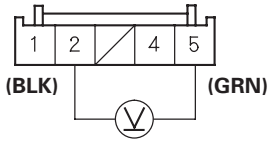


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3. Measure the voltage between terminals No. 5 (+) and No. 2 (−) of the HomeLink unit 5P connector (A). There should be battery voltage.

   - If the voltage is not as specified, check for these problems:
     – A blown No. 16 (7.5 A) fuse in the under-dash fuse/relay box
     – A faulty driver's under-dash fuse/relay box
     – An open in the wire
     – Poor ground (G 501)
   - If there is battery voltage, go to step 4.

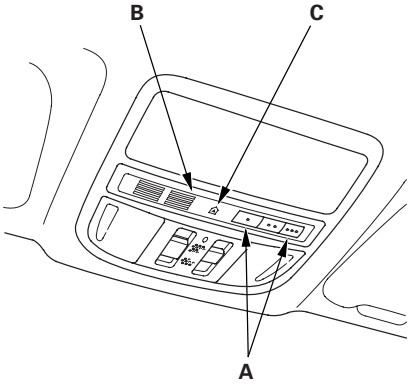
HOMELINK UNIT 5P CONNECTOR



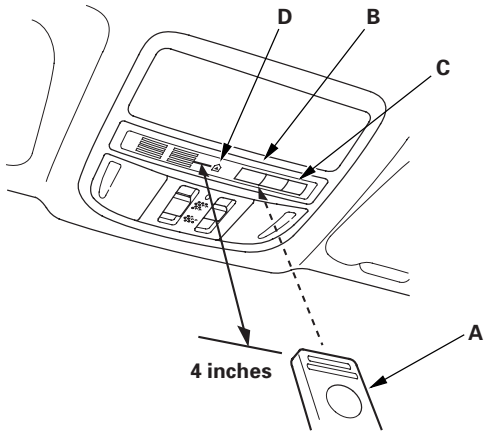
Wire side of female terminals

4. Make sure the HomeLink compatible 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 about 20 seconds. When 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.

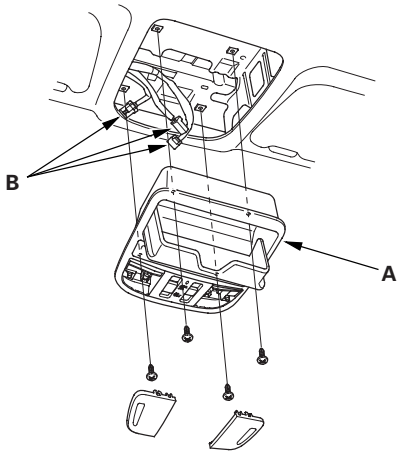
   - If the red indicator starts out blinking slowly and then blinks faster, the unit is OK. Release the buttons, then clear the learned code (see step 1). Explain to the client that garage door remote transmitters come in two types: fixed code and rolling code. Each type has its own programming method, and each method is covered in the owner's manual. If the customer has concerns about the HomeLink unit, have the customer contact the HomeLink the assistance desk at 1-800-355-3515. On the internet, go to www.homelink.com.
   - If the red indicator does not blink, replace the HomeLink unit (see page 22-352).

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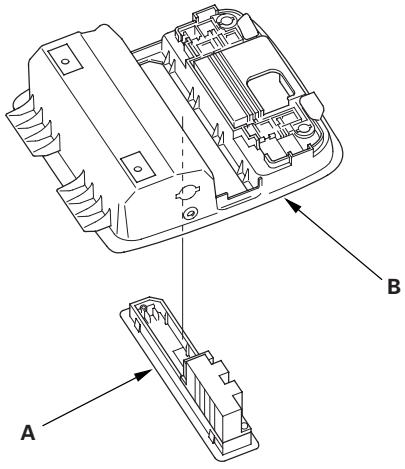
HomeLink Unit Replacement

1. Turn the map light switch OFF, and remove the map light (see page 22-225).

2. Remove the screws and roof console (A), then disconnect the connectors (B).



3. Remove the HomeLink unit (A) from the roof console (B).



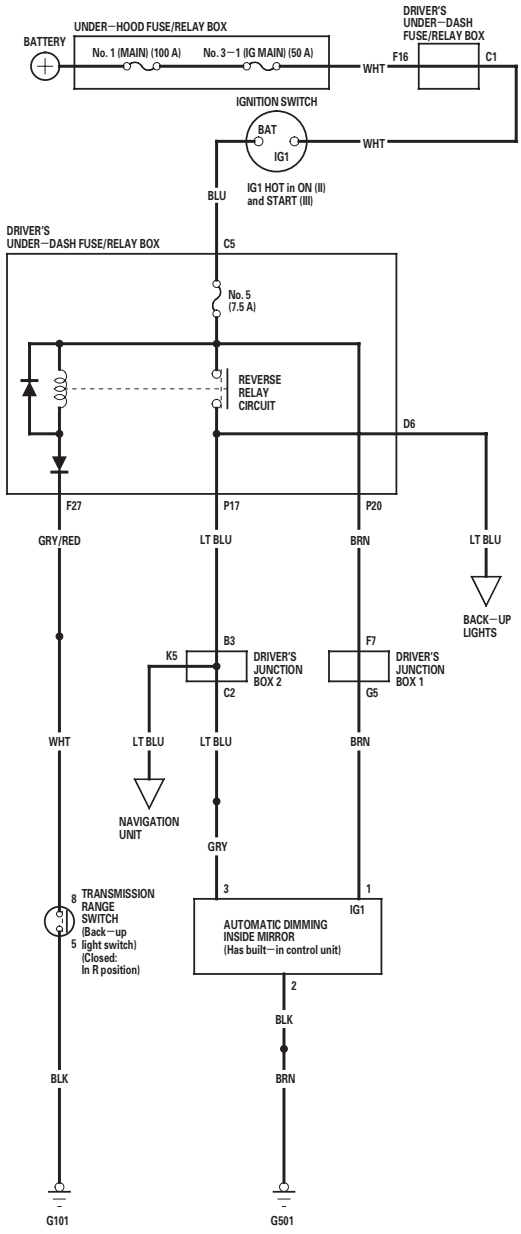
4. Install the parts in the reverse order of removal.

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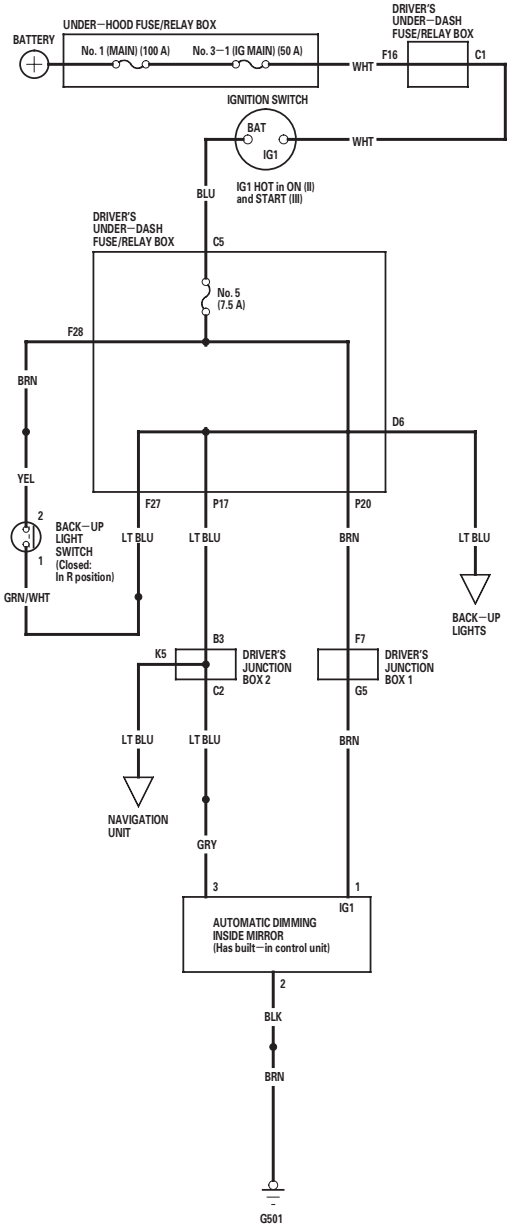
Automatic Dimming Inside Mirror

Circuit Diagram

A/T



M/T

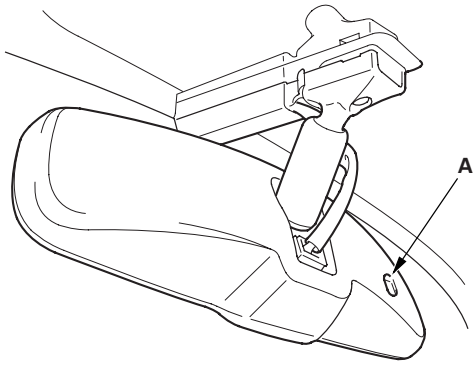


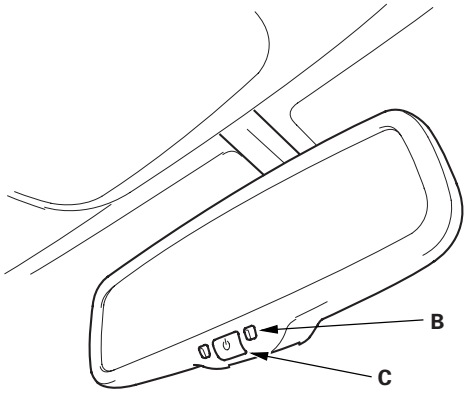
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Automatic Dimming Inside Mirror

System Description

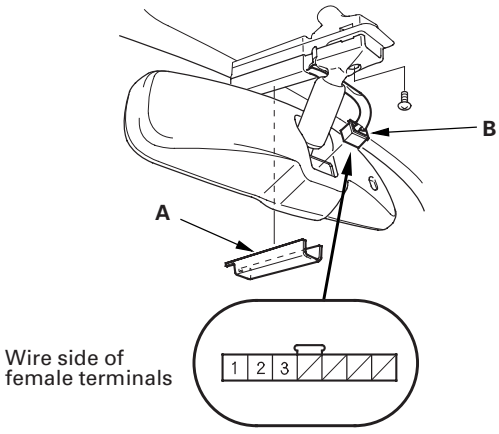
The automatic dimming inside mirror has a front-facing lux level sensor (A), rear-facing lux level sensors (B), and a control unit. The control unit receives signals from each sensor. Based on the difference between the two lux levels (the light outside the vehicle and the light from the headlights of the other vehicle, etc.), the control unit controls the electro-chromic gel to reduce the 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).

3. Measure the voltage between terminal No. 2 and body ground.

   - If there is less than 0.5 V, go to step 4.
   - If there is more than 0.5 V, check for:
     – An open in the wire.
     – Poor ground (G 501).

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:
     – Blown No. 5 (7.5 A) fuse in the driver's under-dash fuse/relay box.
     – An open in the wire.

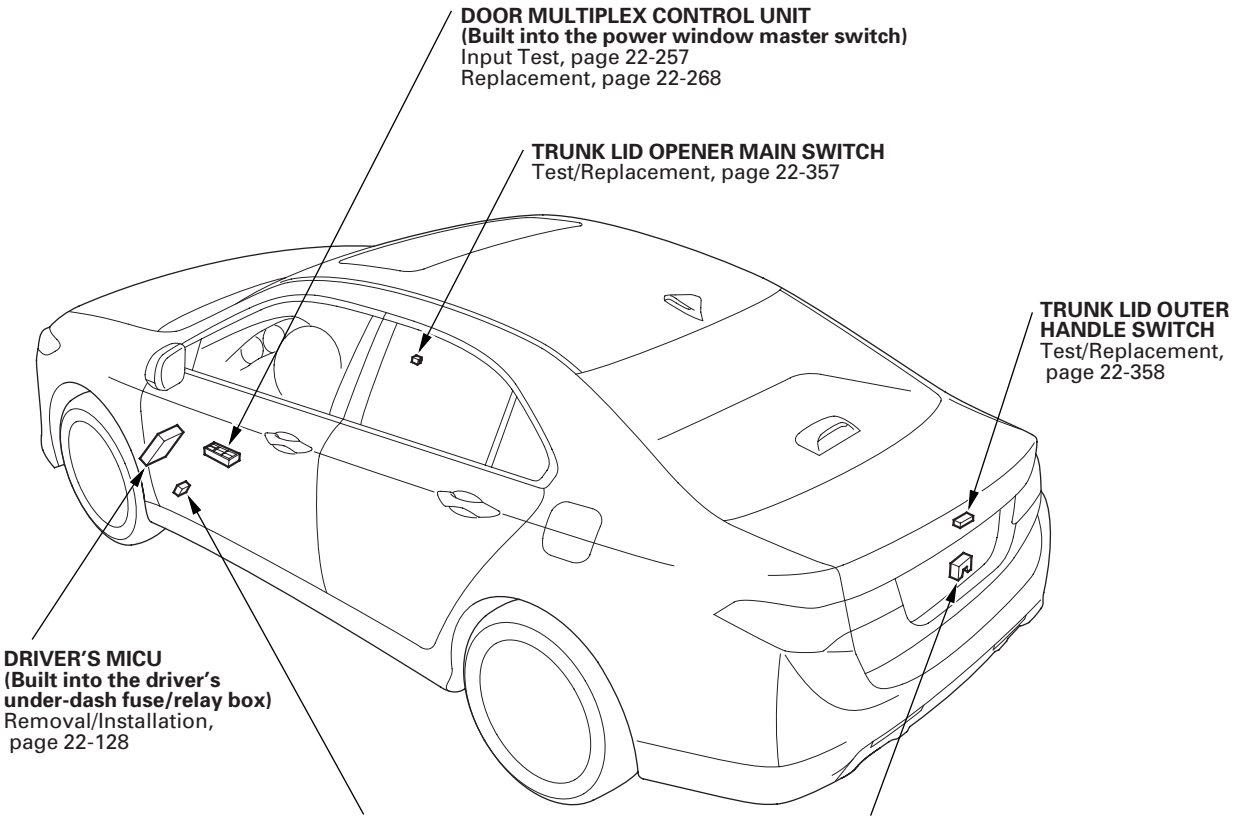
5. Measure the voltage between terminal No. 3 and body ground with the shift lever in R (reverse) position.

   - If there is battery voltage, replace the mirror assembly.
   - If there is no voltage, check for:
     – An open in the wire.
     – Faulty driver's under-dash fuse/relay box.
     – Faulty transmission range switch (A/T).
     – Faulty back-up light switch (M/T).

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Trunk Lid Opener

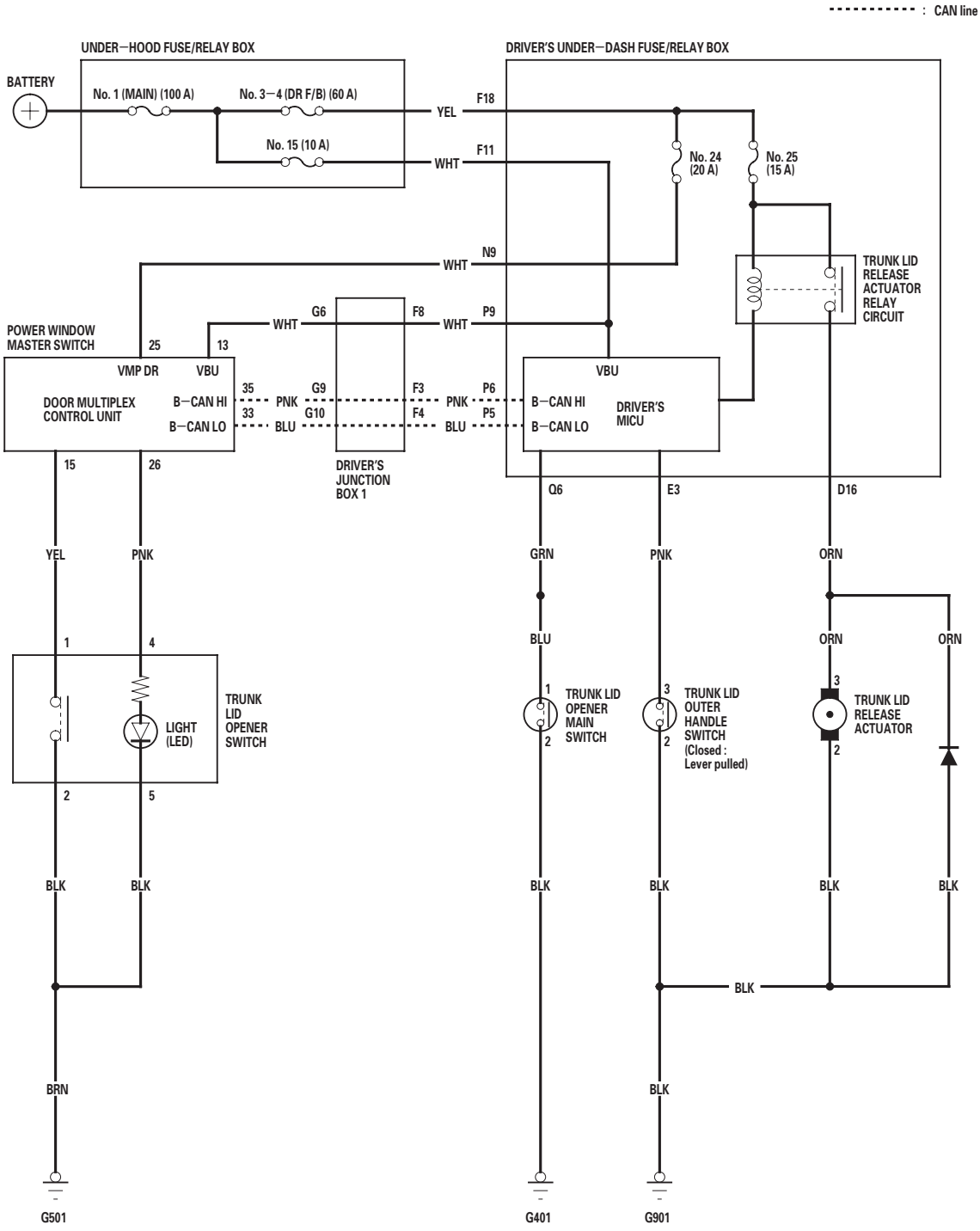
Component Location Index



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Trunk Lid Opener

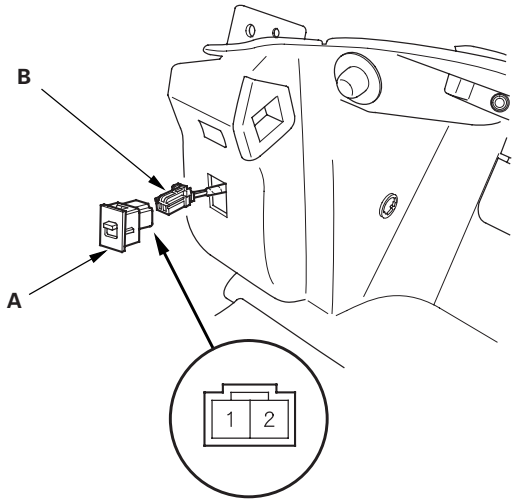
Circuit Diagram



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Trunk Lid Opener Main Switch Test /Replacement

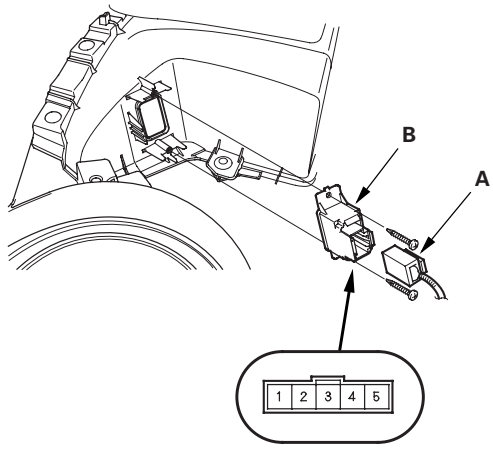
1. Remove the glove box housing (see page 20-128).
2. Carefully push the main switch (A) out from behind the glove box housing.



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 5P connector (A) from the trunk lid opener switch (B).



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

Terminal / Position	1	2
ON	○	○
OFF		

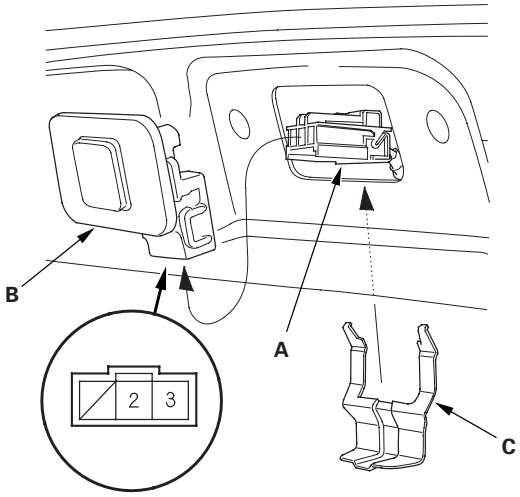
4. If the continuity is not as specified, remove the two screws and replace the switch.
5. Install the switch in the reverse order of removal.

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Trunk Lid Outer Handle Switch Test/Replacement

1. Open the trunk lid, and remove the trunk lid trim (see page 20-94).

2. Disconnect the 3P connector (A) from the trunk lid outer handle switch (B).



3. Check for continuity between terminals No. 2 and No. 3.

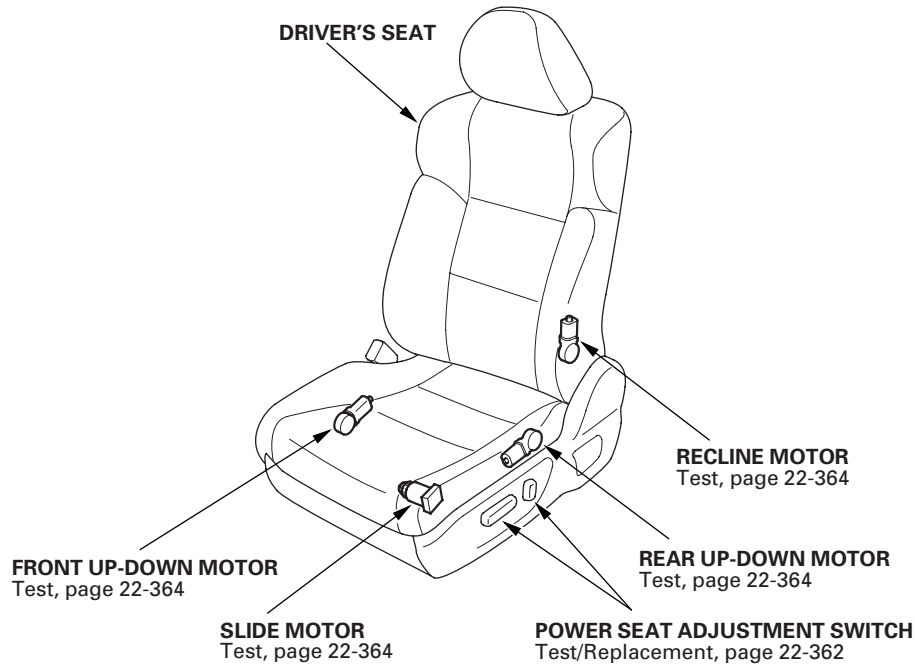
   - With the switch pressed, there should be continuity.
   - With the switch released, there should be no continuity.

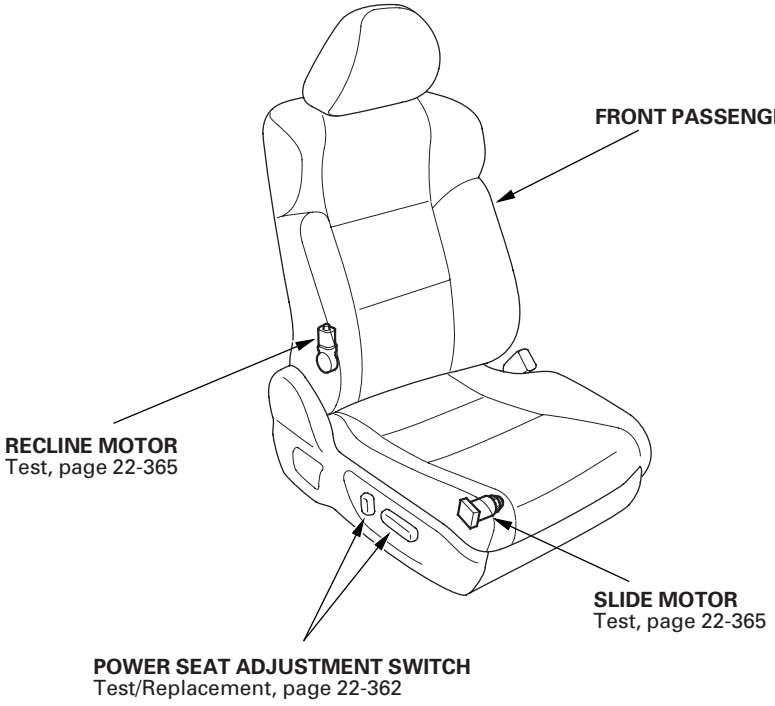
4. If the continuity is not as specified, remove lock plate (C) and replace the switch.

5. Install the switch in the reverse order of removal.

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Component Location Index

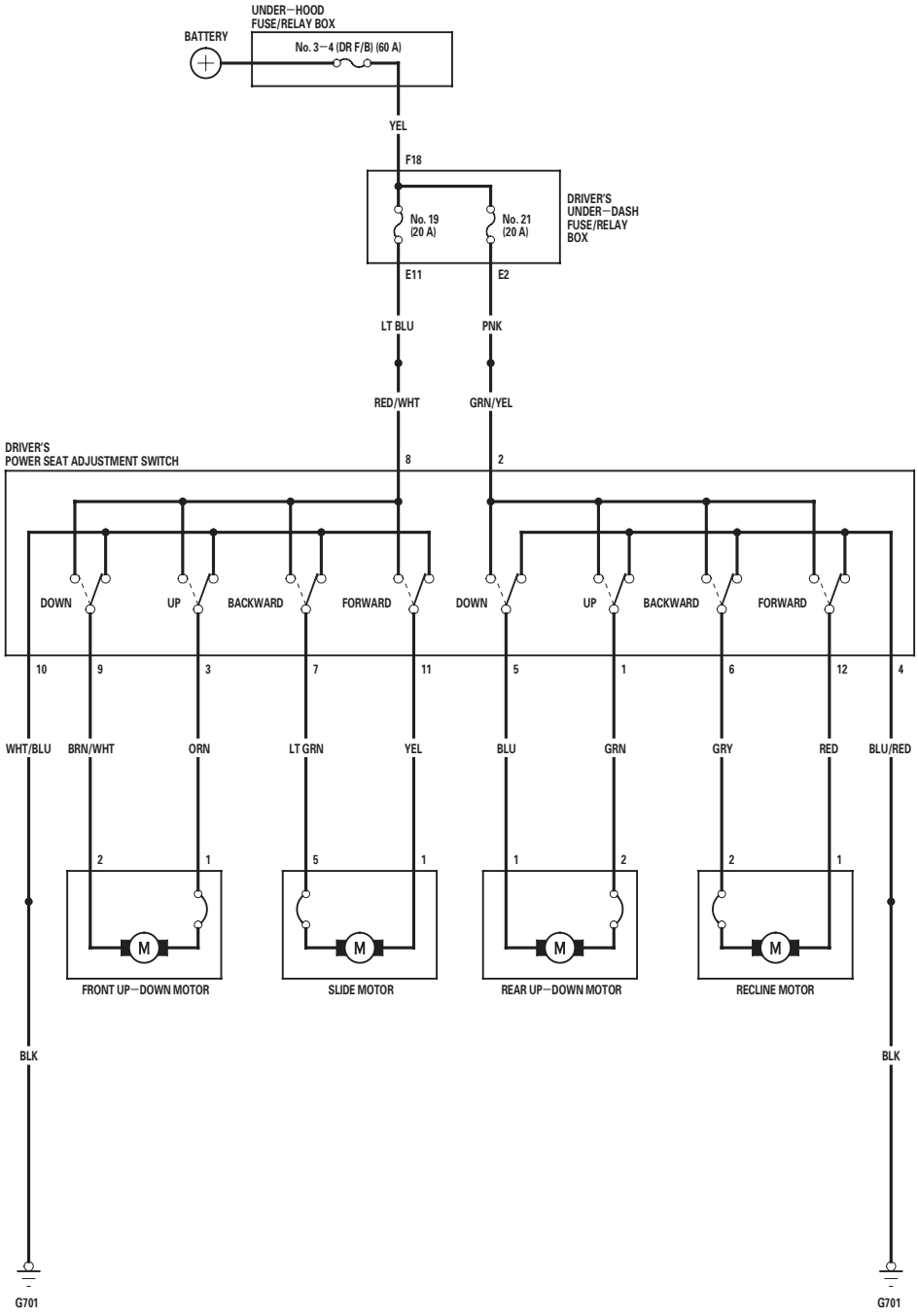




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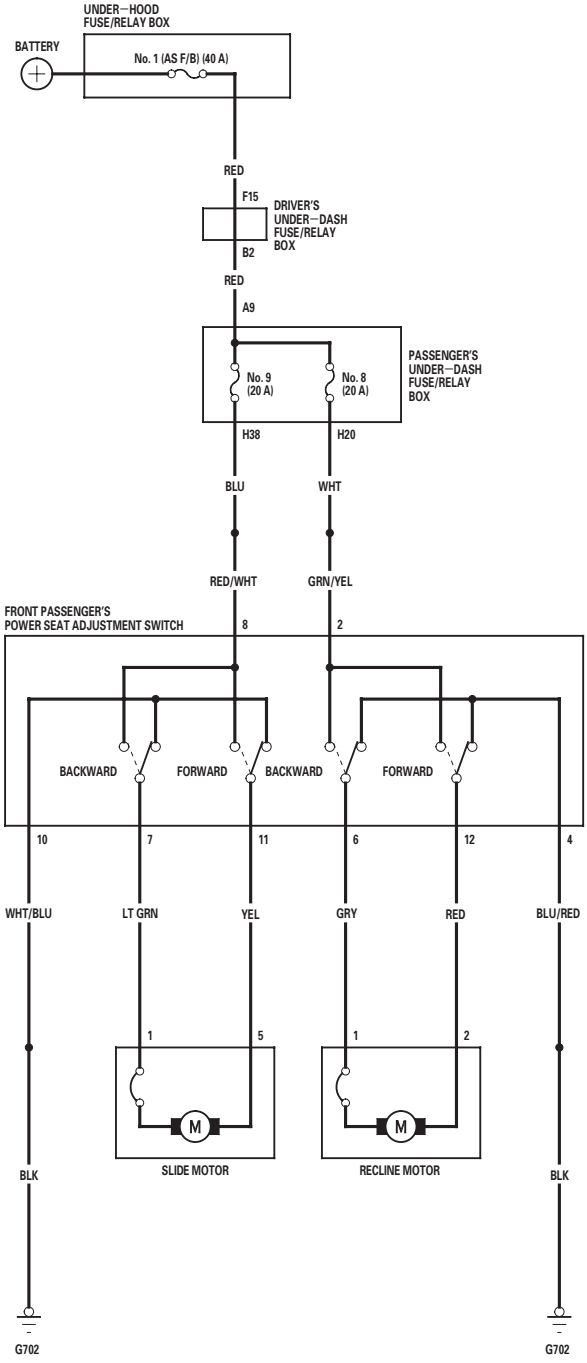
Circuit Diagram - Driver's Power Seat

Without DPMS



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Circuit Diagram - Front Passenger's Power Seat



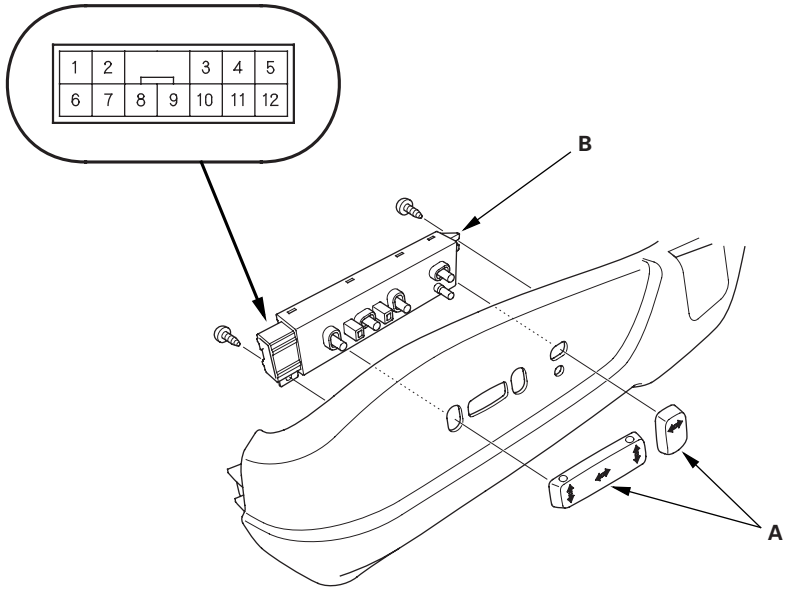
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Power Seat Adjustment Switch Test/Replacement

Driver's Seat

1. Remove the driver's seat (see page 20-148).

2. Remove the power seat adjustment switch knobs (A) and the recline cover from the driver's seat (see page 20-167), 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	○	○		○	○							

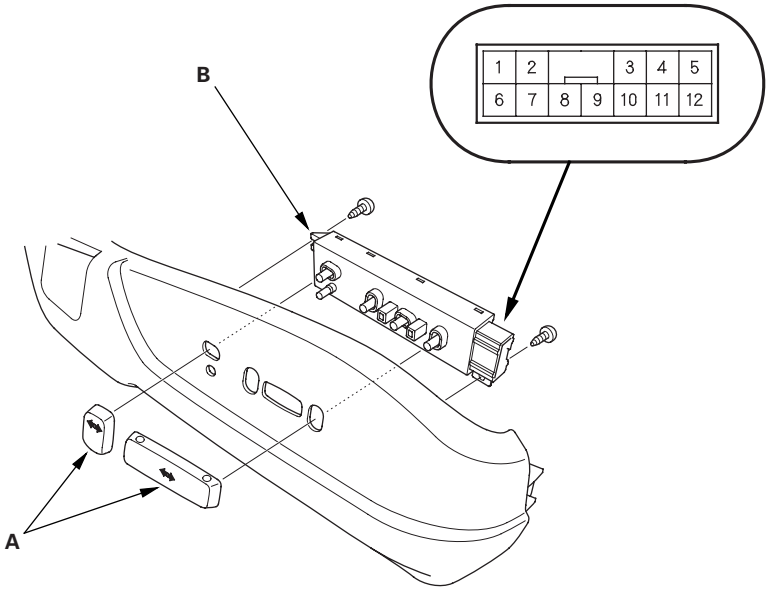
6. If the continuity is not as specified, replace the switch.

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Front Passenger's Seat

1. Remove the front passenger's seat (see page 20-148).

2. Remove the power seat adjustment switch knobs (A) and the recline cover from the front passenger's seat (see page 20-167), 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		2	4	6	7	8	10	11	12
SLIDE SWITCH	Forward				○	○	○	○	
	Backward				○	○	○	○	
RECLINE SWITCH	Forward	○	○	○					○
	Backward	○	○	○					○

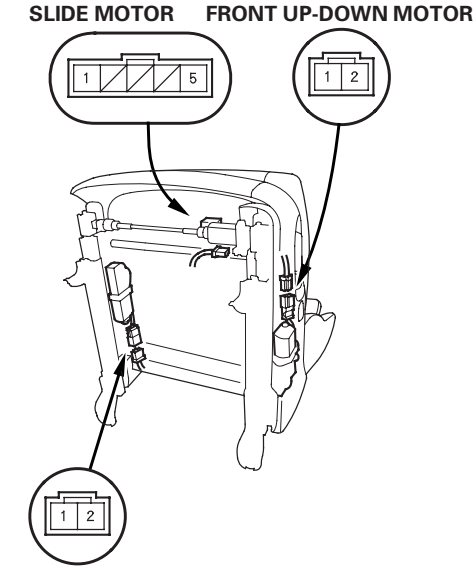
6. If the continuity is not as specified, replace the switch.

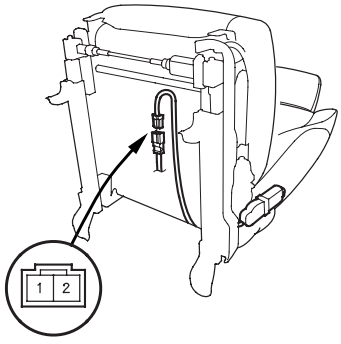
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Driver's Power Seat Motor Test

1. Remove the driver's seat (see page 20-148).
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 20-153)
   - Front up-down motor (see page 20-155)
   - Rear up-down motor (see page 20-156)
   - Recline motor (see page 20-151)

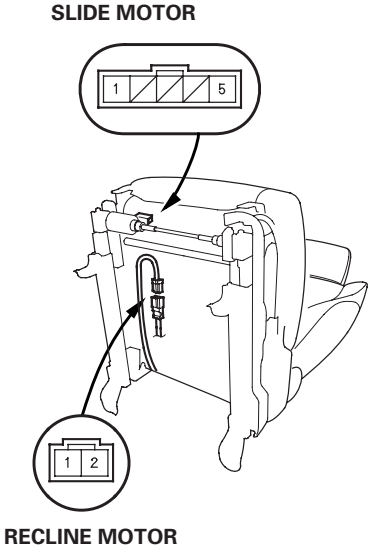
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Front Passenger's Power Seat Motor Test

1. Remove the front passenger's seat (see page 20-148).

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	⊕	⊖

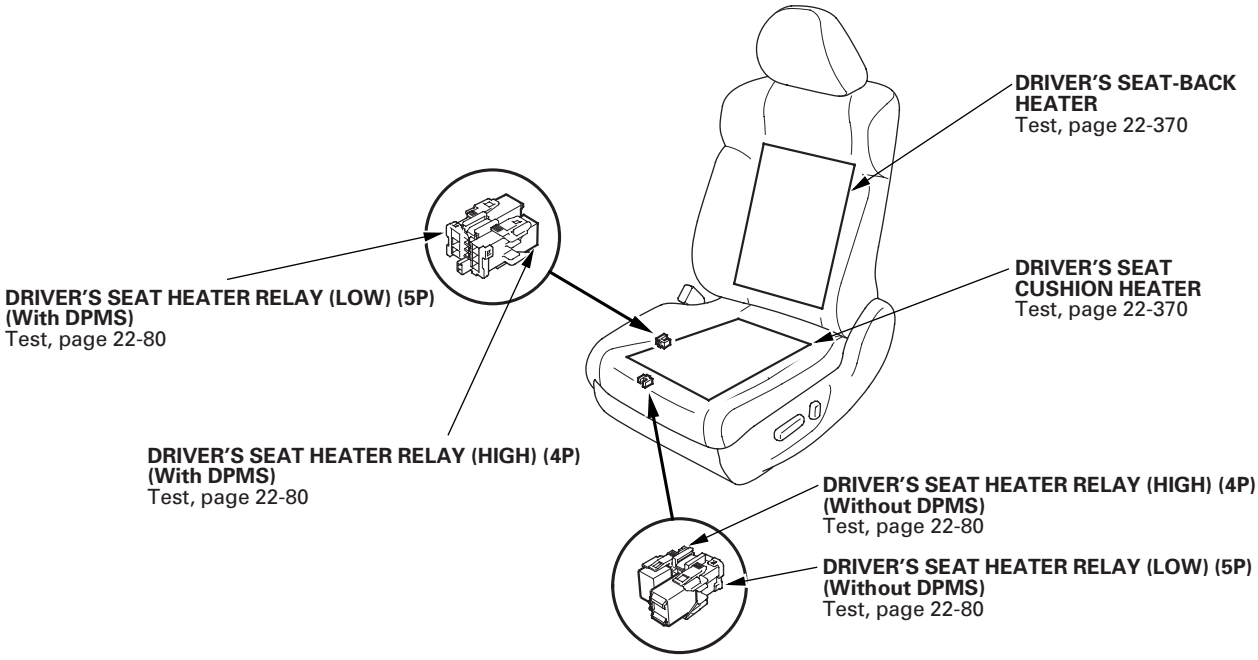
4. If the motor does not run or fails to run smoothly, replace:

   - Slide motor (see page 20-153)
   - Recline motor (see page 20-151)

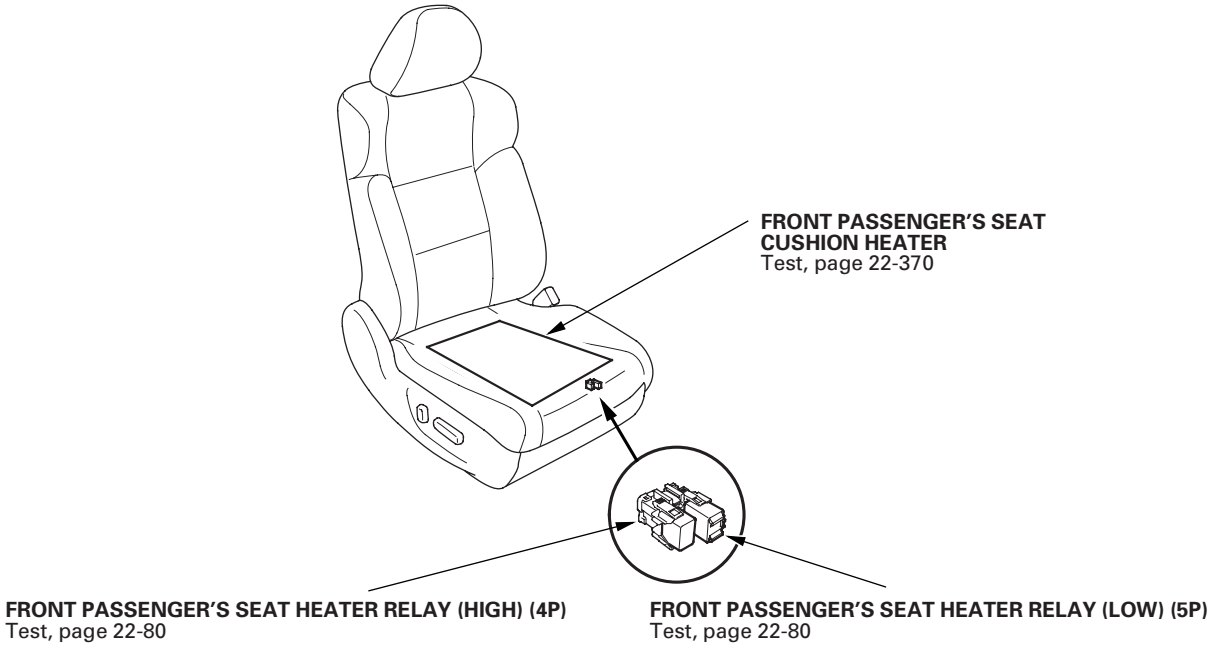
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Component Location Index

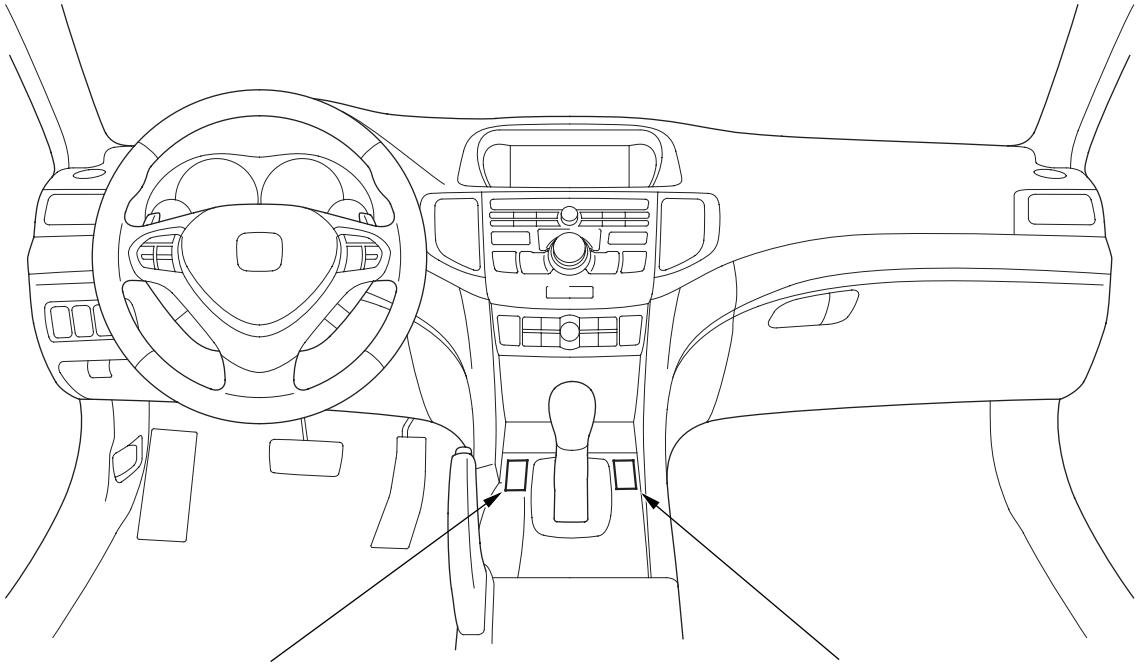
Driver's Seat



Front Passenger's Seat



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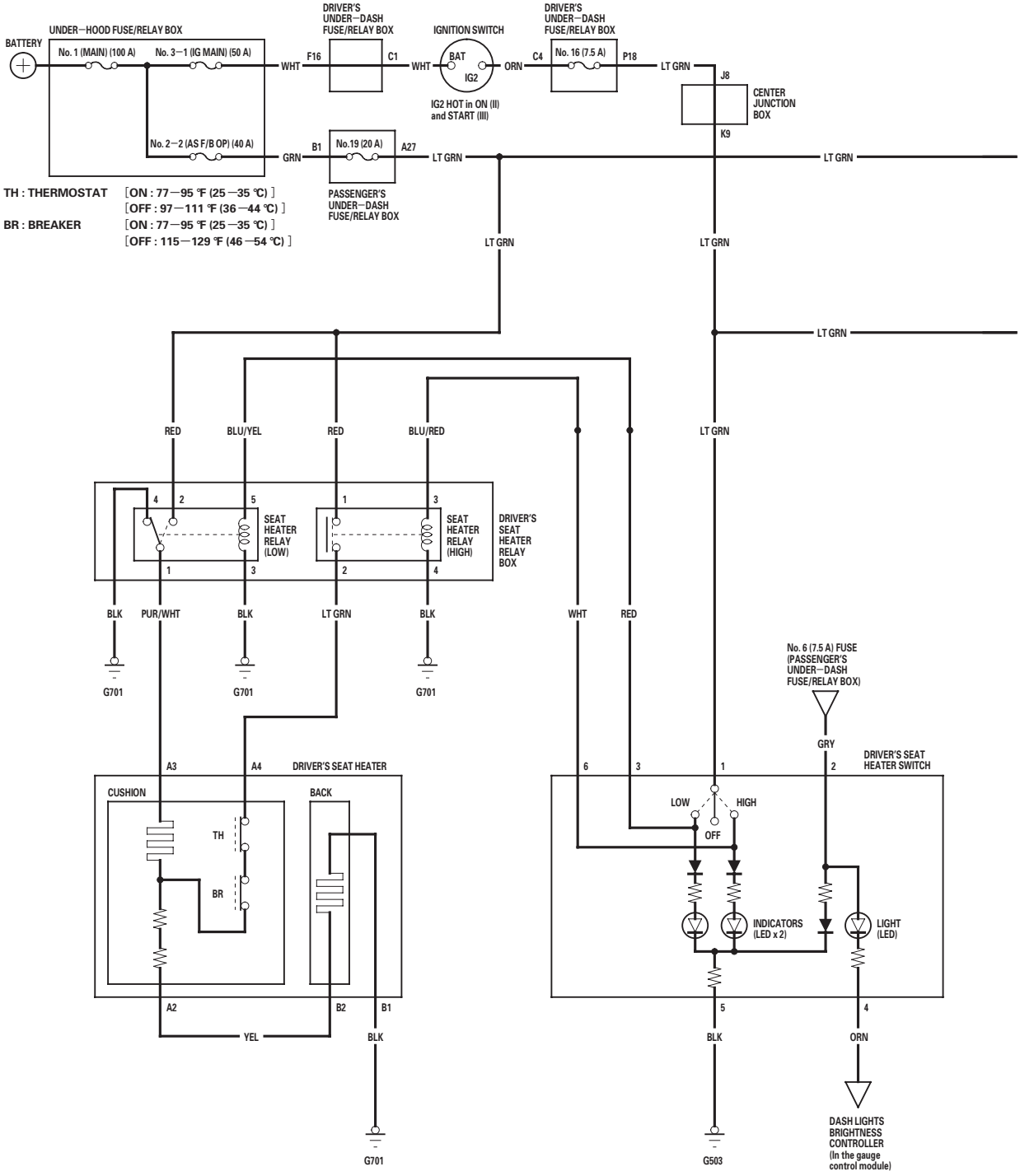
DRIVER'S SEAT HEATER SWITCH
Test/Replacement, page 22-371

FRONT PASSENGER'S SEAT HEATER SWITCH
Test/Replacement, page 22-371

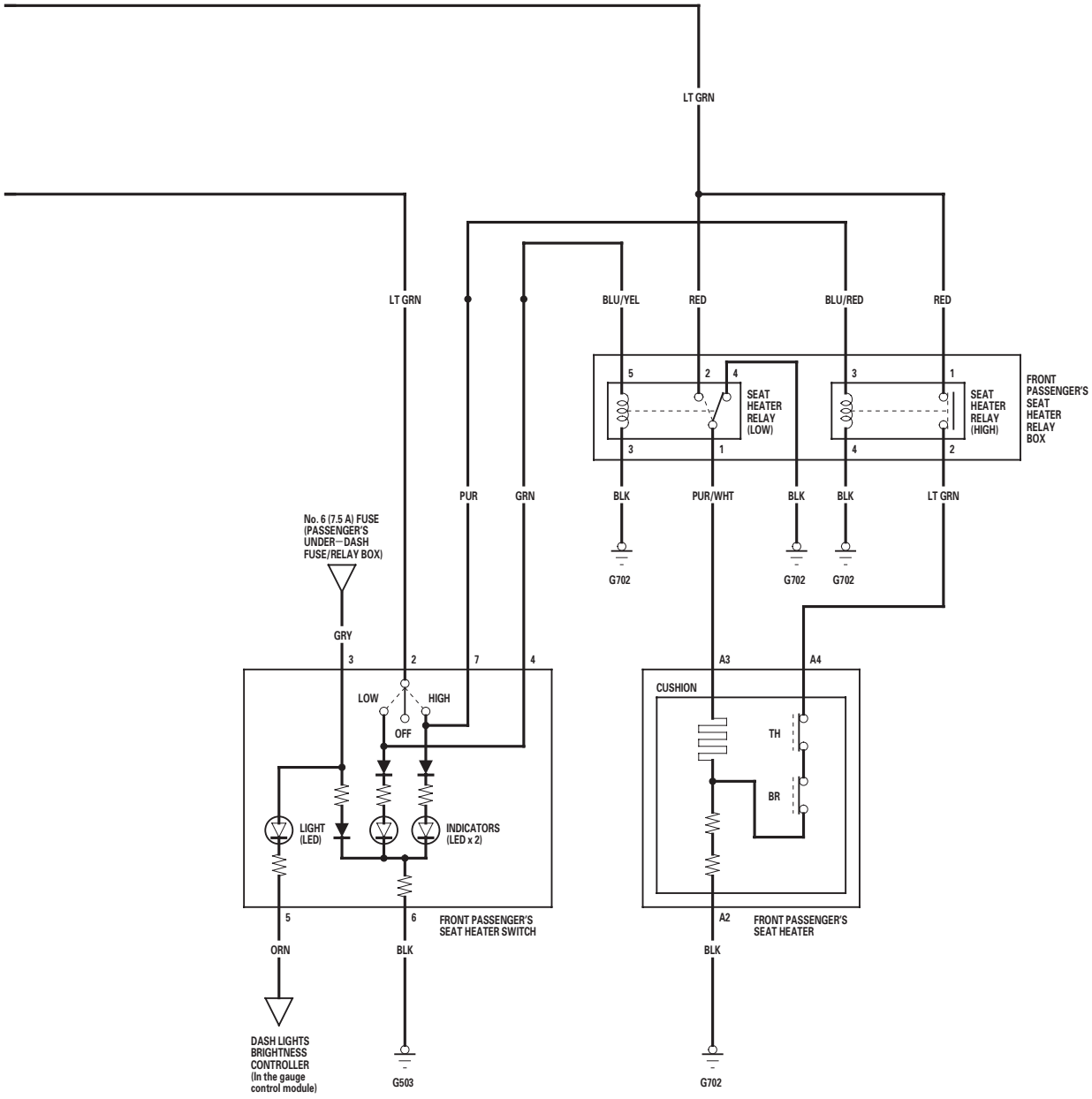
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Seat Heaters

Circuit Diagram



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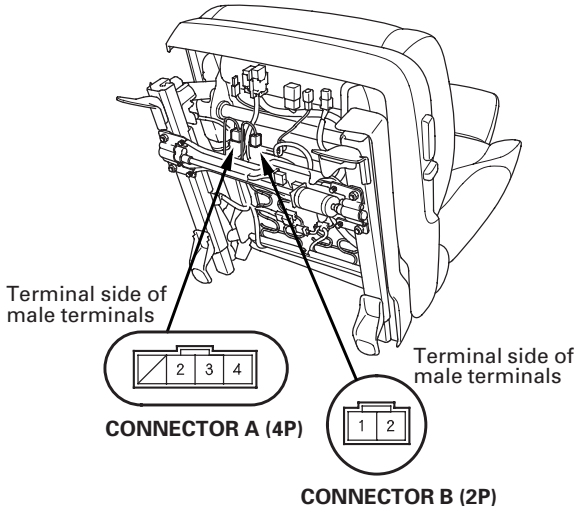
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Seat Heater Test

Driver's Seat

1. Remove the driver's seat (see page 20-148).

2. Disconnect the connector A (4P) and connector B (2P) from the seat heaters.



3. Check for continuity between seat heater connector A (4P) terminal No. 2, and seat heater connector B (2P) terminal No. 2. There should be continuity.

4. If the continuity is not as specified, replace the seat wire harness.

5. Check for continuity between seat heater connector B (2P) terminals No. 1 and No. 2. There should be continuity.

6. If the continuity is not as specified, replace the seat-back heater.

7. Reconnect seat heater connector B (2P) to the seat-back heater.

8. Check for continuity between seat heater connector A (4P) terminals No. 2 and No. 3, and terminals No. 3 and No. 4. There should be continuity.

9. If the continuity is not as specified, replace the seat cushion heater.

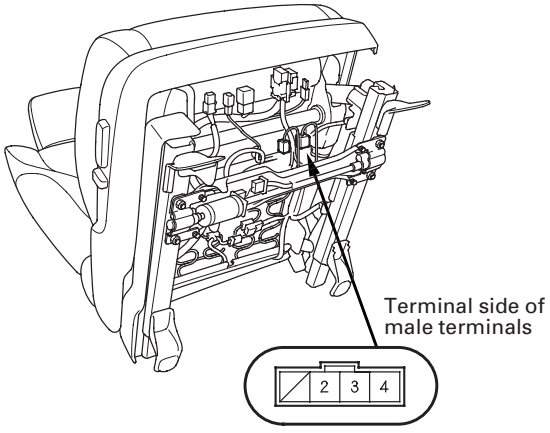
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Switch Test/Replacement

Front Passenger's Seat

1. Remove the front passenger's seat (see page 20-148).

2. Disconnect the 4P connector (A) from the seat cushion heater.



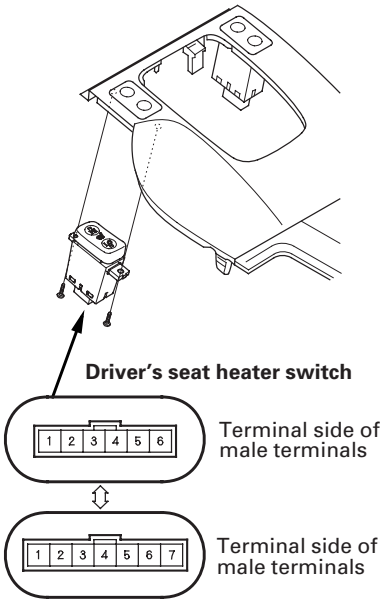
CONNECTOR A (4P)

3. Check for continuity between seat cushion heater 3P connector terminals No. 2 and No. 3 and terminals No. 4 and No. 3. There should be continuity.

4. If the continuity is not as specified, replace the seat cushion heater.

1. Remove the center console panel (see page 20-111).

2. Disconnect the 6P (or 7P*) connector from the seat heater switch, then remove the switch.
   *: Front passenger's seat heater switch



Front passenger's seat heater switch

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.

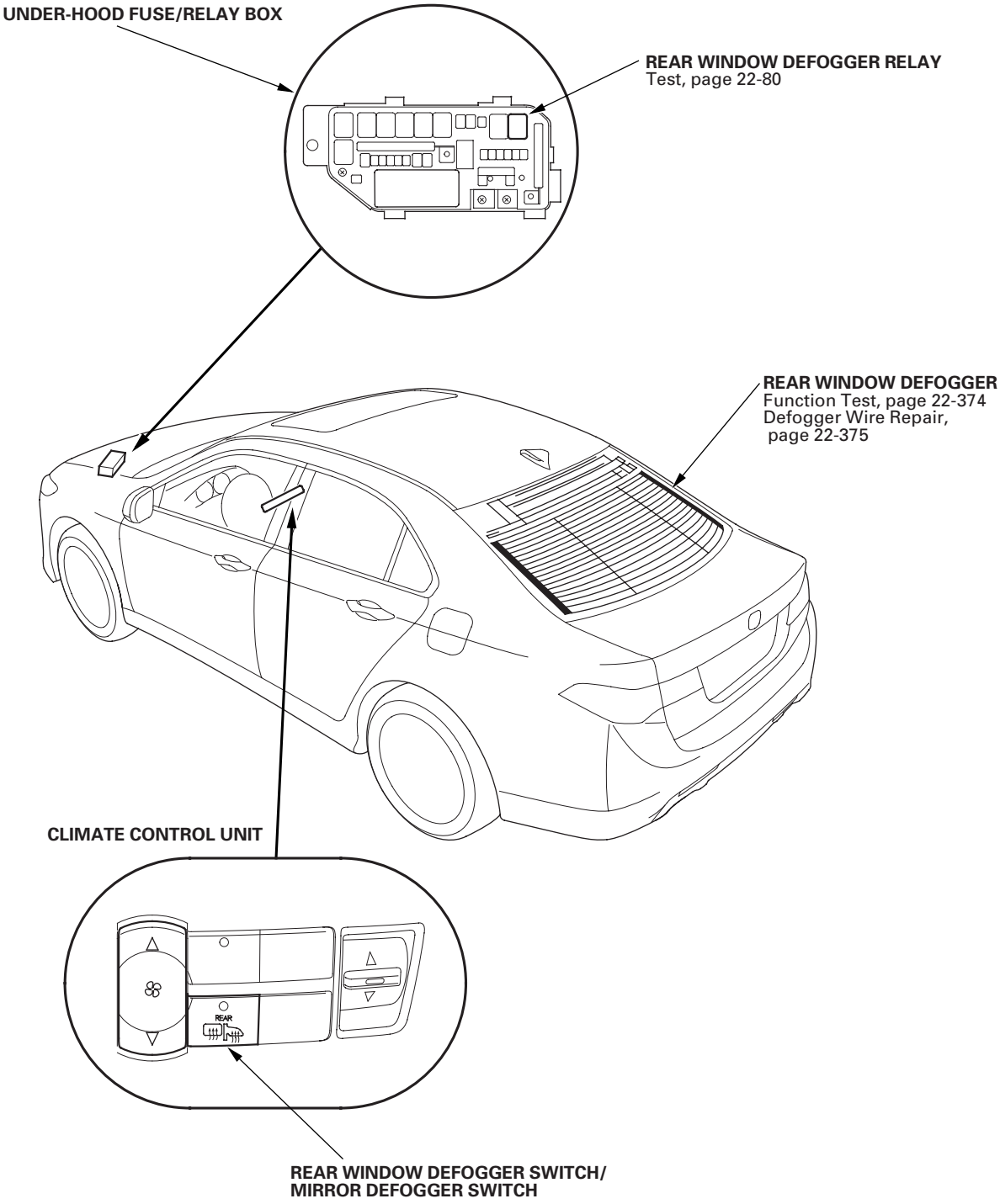
Terminal / Position		1 [2]	2 [3]	3 [4]		4 [5]	5 [6]	6 [7]
ON	HIGH	⊕	⊕		⊖		⊖	⊖
			⊕		⊖	⊖		
			⊕		⊖		⊖	
	LOW	⊕		⊖				
			⊕		⊖	⊖		
			⊕		⊖		⊖	
OFF			⊕		⊖	⊖		
			⊕		⊖		⊖	

[ ] : **Front passenger's seat heater switch**

4. If the continuity is not as specified, replace the switch.

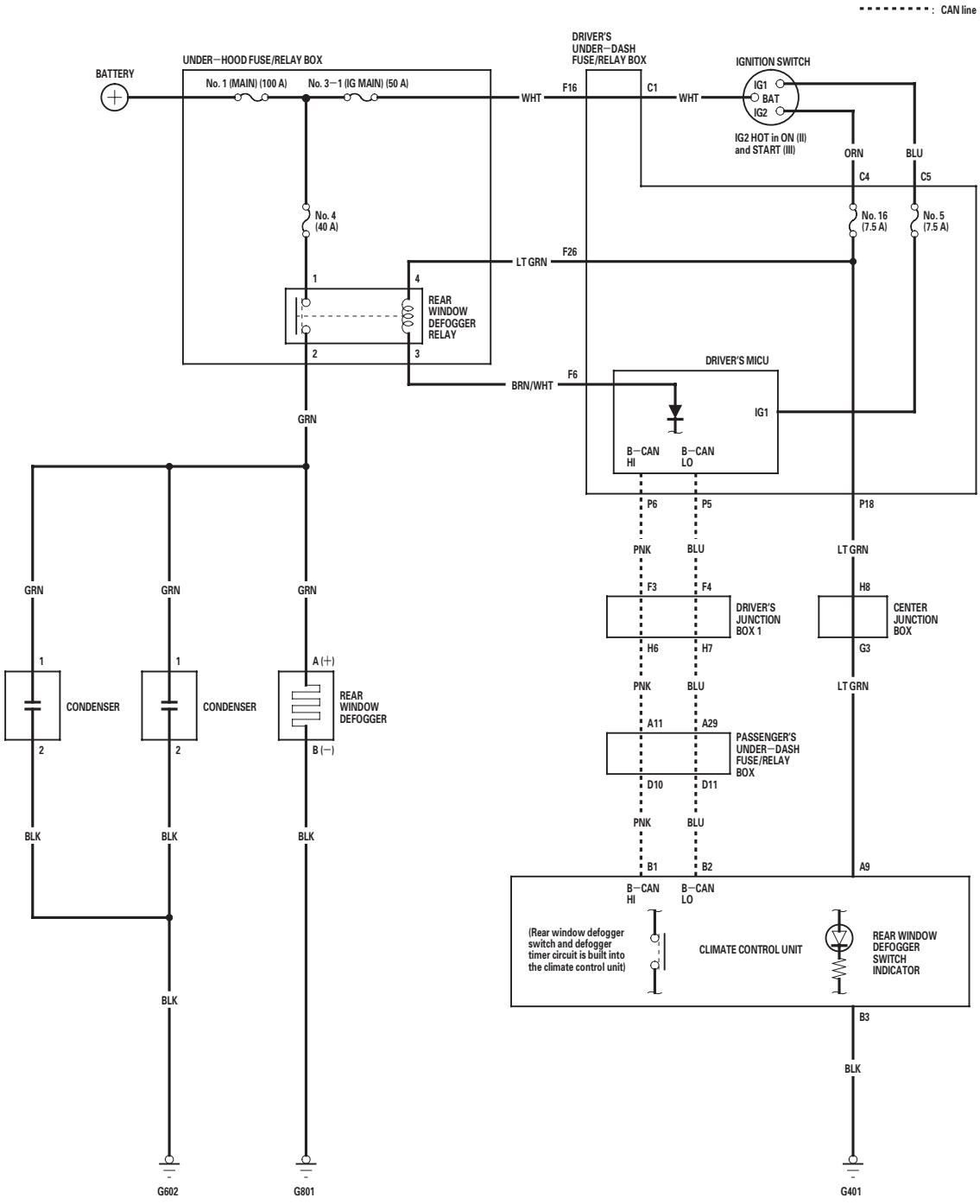
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Component Location Index



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Circuit Diagram



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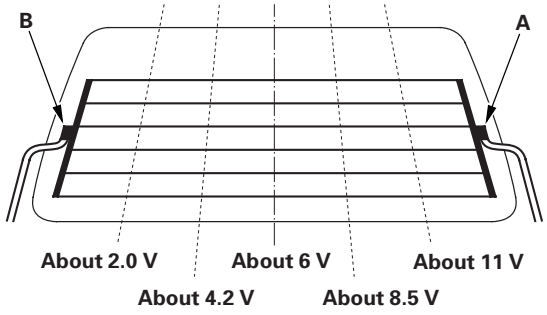
Function Test

NOTE:
- With climate control: Before testing, troubleshoot the B-CAN System Diagnosis Test Mode A (see page 22-110).
- 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), 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:
     – Faulty rear window defogger relay.
     – Faulty climate control unit.
     – An open in the GRN wire to the positive terminal.
   - If there is voltage, go to step 3.



3. Turn the ignition switch to LOCK (0).

4. Disconnect the negative terminal (B) from the rear window defogger.

5. Check for continuity between the negative terminal (B) and body ground. There should be continuity.

   If there is no continuity, check for an open in the BLK wire or poor ground (G801). If there is continuity, go to step 6.

6. Reconnect the negative terminal to the rear window defogger.

7. Turn the ignition switch to ON (II), then turn the rear window defogger switch ON.

8. Touch the voltmeter positive probe to each point on each defogger wire, and the negative probe to the negative terminal.

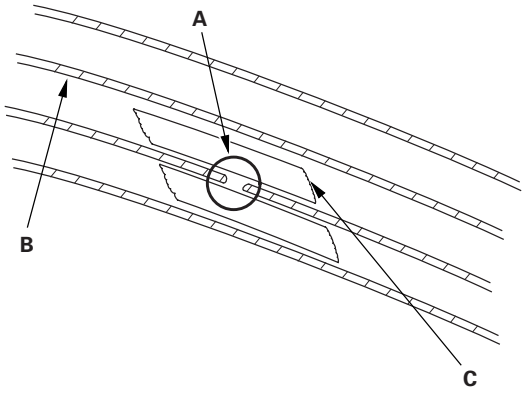
   - If the voltage is as specified, the defogger wire up to that point is OK.
   - If the voltage is not as specified, repair the defogger wire.
     – If it is more than specified at one of the points, there is a break in the negative half of the wire.
     – If it is less than specified at one of the points, there is a break in the positive half of the wire.

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Defogger Wire Repair

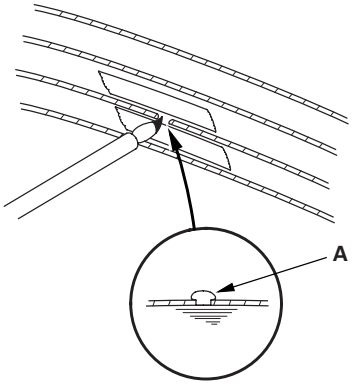
NOTE: To make an effective repair, the broken section must be no longer than 1 inch (25 mm).

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'' on both sides of the break. Allow 25 minutes to dry.

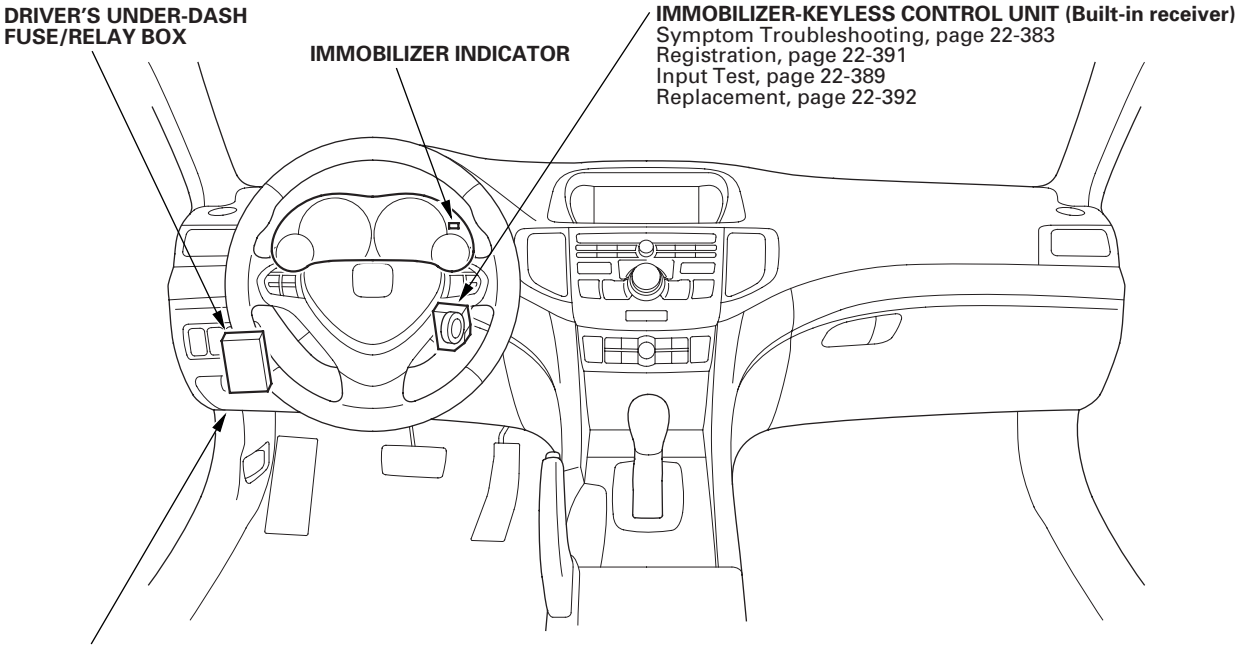


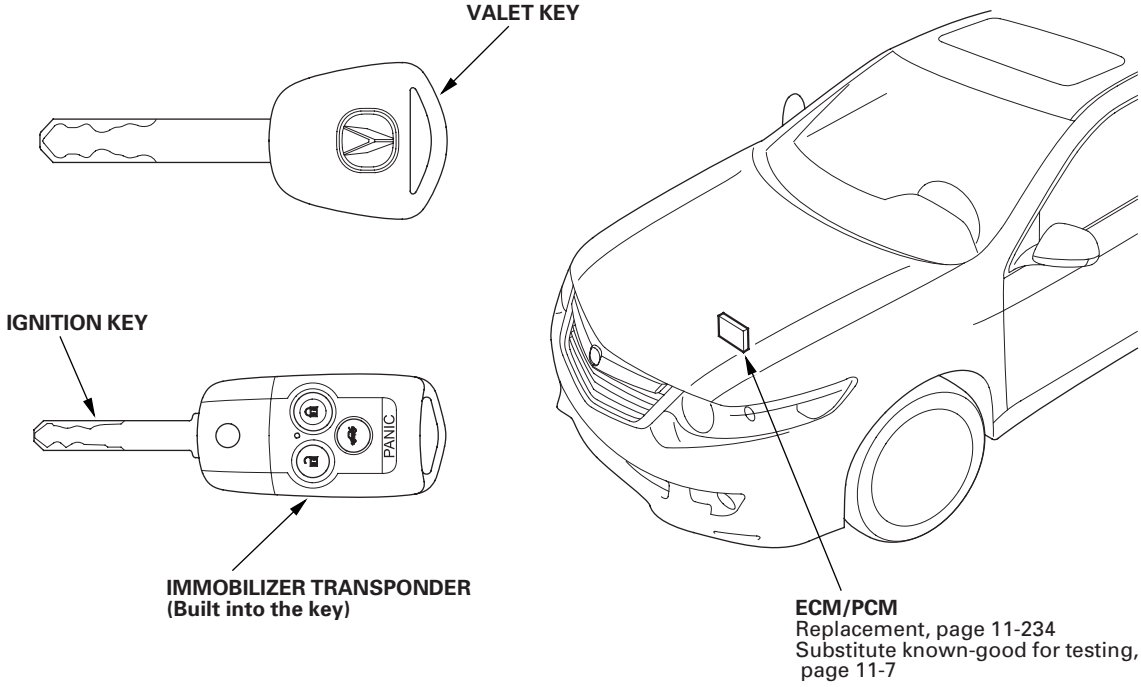
4. Do the function test to confirm that the wire is repaired.

5. Apply a second coat of paint in the same way. Let it dry 3 hours before removing the tape.

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Component Location Index

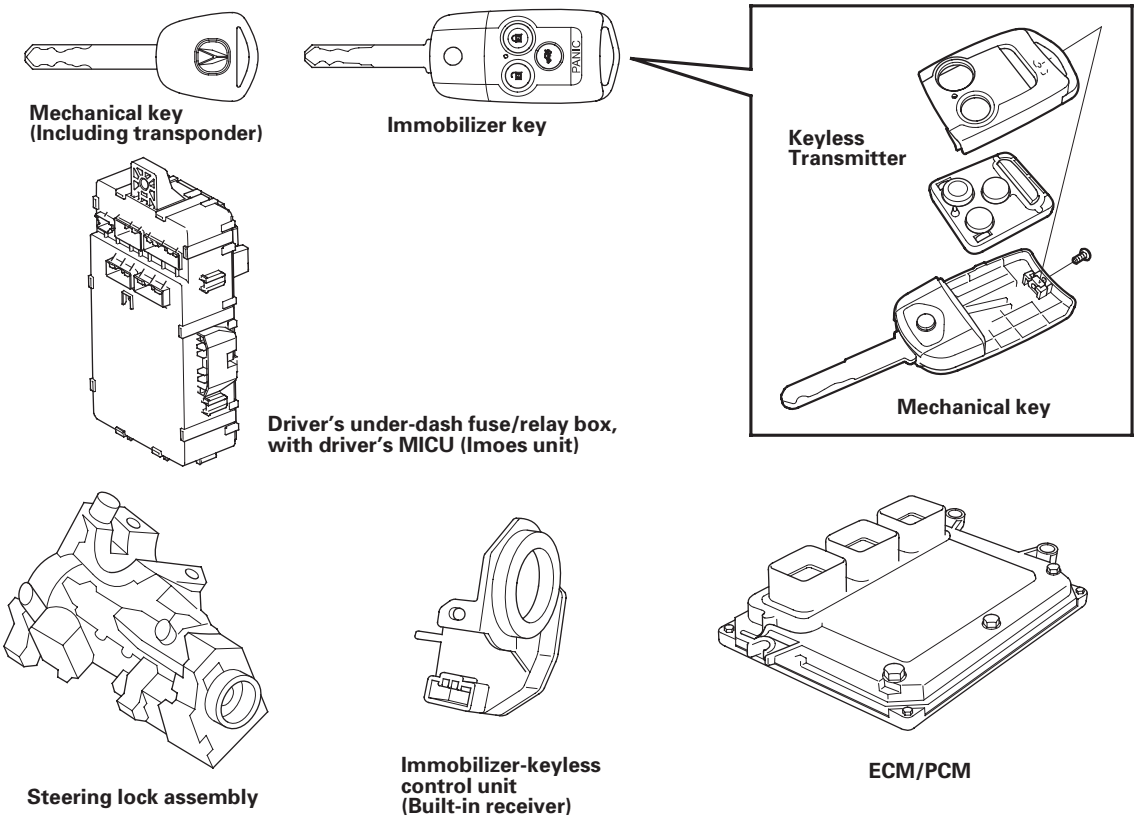




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System Description

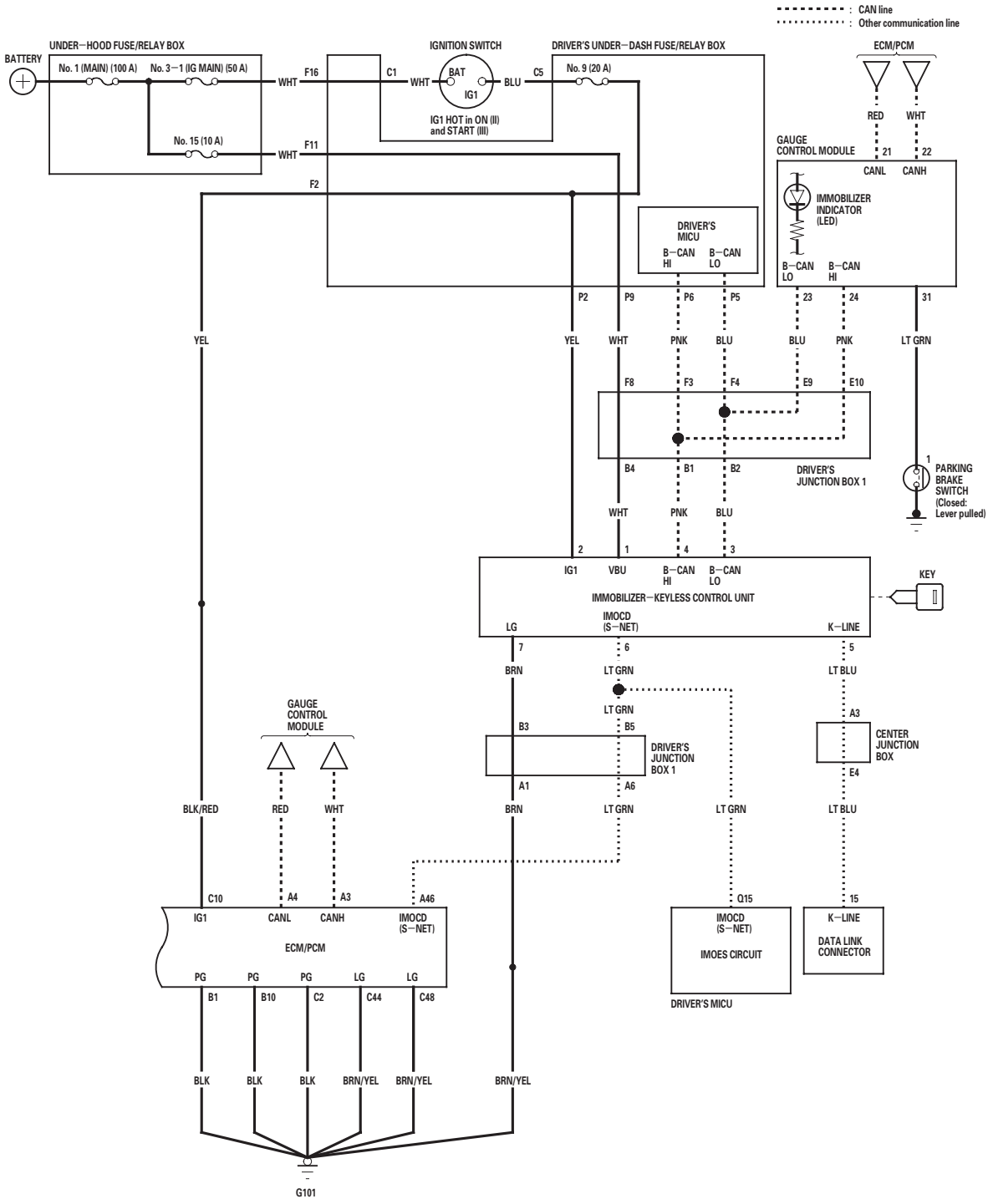
The vehicle is equipped with a Type VII immobilizer system that will disable the vehicle unless a programmed ignition key is used.
This system consists of a transponder built into the ignition key, an immobilizer-keyless control unit, the driver's MICU (has built-in imoes unit), an immobilizer indicator, and the ECM/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 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 key has been used or the code was not received or recognized by the unit, the indicator will come on for about 2 seconds, 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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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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-309). If the tests prove OK, replace the gauge control module (see page 22-313). ■

   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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-257). If the tests prove OK, replace the power window master switch (see page 22-268). ■

   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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 22-128). If the tests prove OK, replace the driver's under-dash fuse/relay box (see page 22-74). ■

   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.
The state of the immobilizer key registration and the IMOCD (S-NET) line can be checked by doing a SYSTEM CHECK and STATUS LOG CHECK with the HDS (see page 22-386).

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 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 11-3).

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 22-292). 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		Immobilizer Indicator	Engine Start	Key Registration	Tester Communication
Terminal No. (Wire Color)	Cause of Malfunction				
1 (WHT)	VBU line open or short	Comes on, then goes off.	Possible	Impossible	Possible
2 (YEL)	IG1 line open or short	Blinking	Impossible	Impossible	Impossible
3 (BLU)	B-CAN line open or short	Comes on, then goes off.	Possible	Possible	Possible
4 (PNK)	B-CAN line open or short	Comes on, then goes off.	Possible	Possible	Possible
5 (LT BLU)	K-LINE line open or short	Comes on, then goes off.	Possible	Impossible	Impossible
6 (LT GRN)	IMOCD (S-NET) line open or short	Blinking	Impossible	Possible	Impossible
7 (BRN)	GND (LG) line open	Blinking	Impossible	Impossible	Impossible

System Check and Status Log

NOTE: The HDS can be used to:
- Check the state of the immobilizer key registration and the IMOCD line by doing a SYSTEM CHECK.
- Check the number of times the immobilizer control unit-receiver 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 11-210).

2. At MAIN MENU, enter IMMOBILIZER, then select IMMOBILIZER SETUP.

3. Do the SYSTEM CHECK. If there is a system check number, do the troubleshooting for the item indicated.

4. Check the STATUS LOG using the HDS. Troubleshoot the line with the highest counts first. 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 22-384).
2	Engine does not start with the immobilizer key.	Symptom troubleshooting (see page 22-385).
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 11-209).
4	Immobilizer indicator does not go off.	Symptom troubleshooting (see page 22-385).

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Symptom Troubleshooting (cont'd)

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 IMMOBILIZER, then select IMMOBILIZER SETUP.
4. Select SYSTEM CHECK.

   Is SYSTEM CHECK indicated?

   YES—Troubleshoot the immobilizer system according to the result of the SYSTEM CHECK (see page 22-386). ■

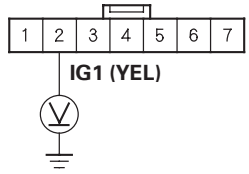
   NO—Go to step 5.
5. Turn the ignition switch to LOCK (0).
6. Enter the vehicle, and remove the ignition key from the ignition switch, then close the all doors.
7. Operate the keyless transmitter LOCK and UNLOCK several times in the vehicle.

   Do the door lock actuators work normally?

   YES—Go to step 8.

   NO—Check for a poor ground and/or an open in the wire between the immobilizer-keyless control unit 7P connector No. 7 terminal and body ground (G101). ■
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

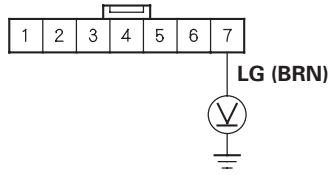
Is there battery voltage?

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 0.5 V or more?

YES—Repair poor connection or open between immobilizer-keyless control unit 7P connector terminal No. 7 and G101. ■

NO—Replace the immobilizer-keyless control unit (see page 22-392). ■

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Engine does not start with the immobilizer key

NOTE: Before troubleshooting, check the items listed in ''General Check before Troubleshooting'' (see page 22-381).

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 22-388). ■

   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 brink once, then stay off?

   YES—Go to step 4.

   NO—Go to the immobilizer indicator blinks troubleshooting (see page 22-384). ■

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 4-9). ■

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. Enter IMMOBILIZER, then select IMMOBILIZER INFORMATION.

5. Do the SYSTEM CHECK with the HDS.

   Is N-1 OK indicated?

   YES—Replace the gauge control module (see page 22-313). ■

   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 22-392). ■

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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 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 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 ECM/PCM is not registered	• The ECM/PCM was not registered. Try to register the ECM/PCM using the HDS. • No communication between the ECM/PCM and the immobilizer-keyless control unit because of low battery voltage. • No communication between the immobilizer-keyless control unit and the ECM/PCM because of interference. • Open in the IG1 line
B-2	Error of communication format in ECM/ PCM	• The ECM/PCM was not registered. Try to register the ECM/PCM using the HDS. • No communication between the ECM/PCM and the immobilizer-keyless control unit because of low battery voltage. • No communication between the immobilizer-keyless control unit and the ECM/PCM because of interference.

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System Check No.	System Check	Possible Cause
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.
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.
D-1	S-net line short	• Harness short from the ECM/PCM to the immobilizer-keyless control unit. (IMOCD (S-net) line short) • No communication between the ECM/PCM and the immobilizer-keyless control unit because of low battery voltage. • No communication between the immobilizer-keyless unit and the ECM/PCM because of interference. • Immobilizer-keyless control unit failure • ECM/PCM failure
D-2	No communication between imoes unit and immobilizer 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 ECM/PCM and immobilizer unit	• Blown fuse • Harness open from the ECM/PCM to the immobilizer-keyless control unit. • No communication between the ECM/PCM and the immobilizer-keyless control unit because of low battery voltage. • No communication between the immobilizer-keyless control unit and the ECM/PCM because of interference. • Immobilizer-keyless control unit failure • ECM/PCM failure
E-1	Initial registration of immobilizer unit is not completed	The immobilizer-keyless control unit is not registered. Try to register the immobilizer-keyless control unit using the HDS.
E-2		
E-3		
E-4		
E-5		
F-1	Special Mode	Turn the ignition switch to ON (II) and to LOCK (0) with the registered key.
F-2		
F-3		
F-4		
F-5		

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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 IMMOBILIZER, then select IMMOBILIZER SET-UP, select IMMOBILIZER INFORMATION, 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	ECM/PCM CODE MISMATCH (Code format normal, but code data is mismatch)	• ECM/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	ECM/PCM MISMATCH (Code format failure)	• ECM/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 nomal, but data is mismatch)	• Imoes unit was not registered • The communication was not good between imoes unit and immobilizer unit by battery voltage low • The communication was not good between imoes unit and immobilizer 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 unit by battery voltage low • The communication was not good between imoes unit and immobilizer unit by influence of some noise
D-1	SECURITY-NET LINE PROBLEM IMOCD (S-NET) (Short to ground)	• Low battery voltage • Poor or loose terminal connections at the immobilizer-keyless control unit and the ECM/PCM • Communication line electrical noise
D-2	SECURITY-NET LINE PROBLEM (No communication)	• Blown fuse • Harness open from imoes unit to immobilizer unit • The communication was not good between imoes unit and immobilizer unit by battery voltage low • The communication was not good between imoes unit and immobilizer unit by influence of some noise • Imoes unit failure • Immobilizer unit failure
D-3	SECURITY-NET LINE PROBLEM IMOCD (S-NET) (Open line or ECM/PCM failure)	• Open or short in the harness from the ECM/PCM to the immobilizer-keyless control unit • Low battery voltage • Poor or loose terminal connections at the immobilizer-keyless control unit and the ECM/PCM • Communication line electrical noise

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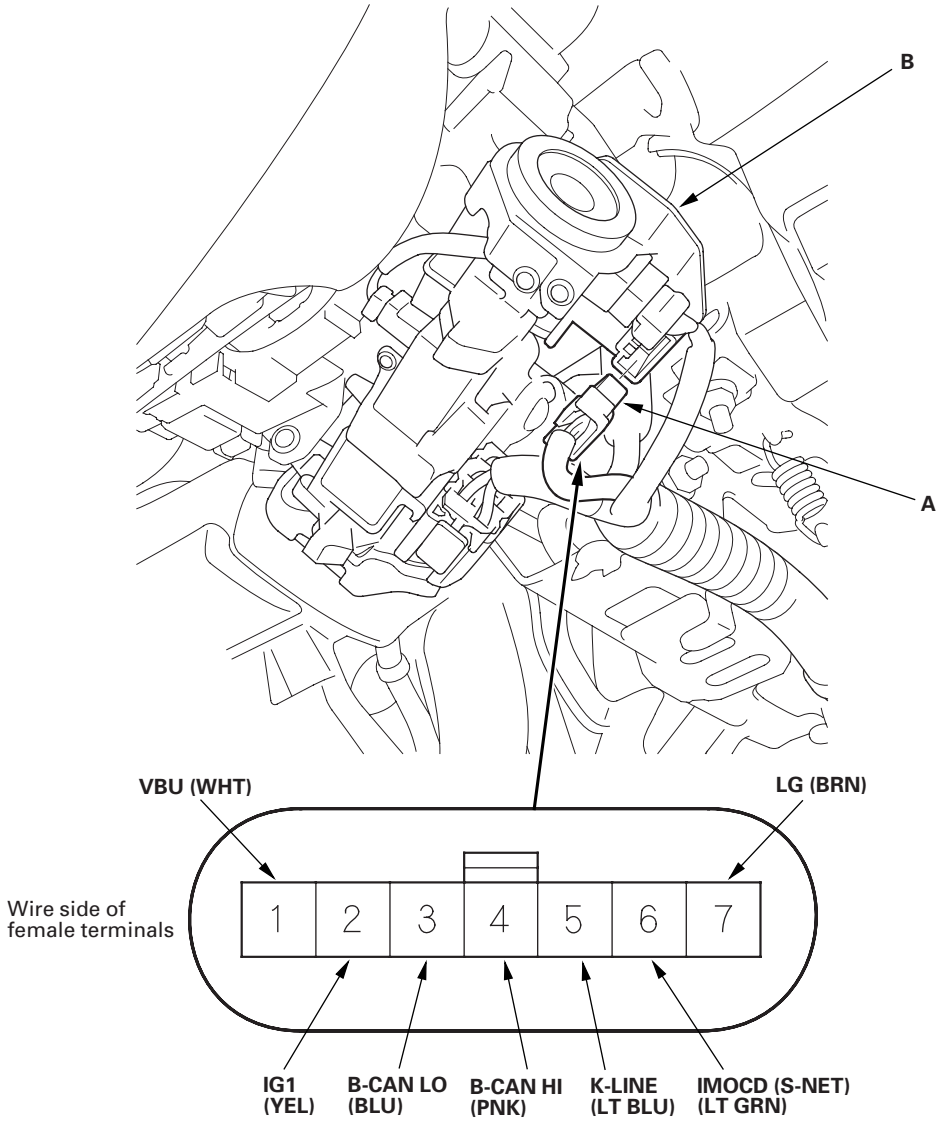
Immobilizer-keyless Control Unit Input Test

NOTE: Before testing, troubleshoot the multiplex integrated control unit first, using B-CAN System Diagnosis Test Mode A (see page 22-110).

1. Remove the driver's dashboard undercover (see page 20-119), then remove the dashboard lower cover (see page 20-118).

2. Remove the steering column covers (see page 20-132).

3. Disconnect the 7P connector (A) from the immobilizer-keyless 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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Immobilizer-keyless Control Unit Input Test (cont'd)

5. 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 6.

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	Check for continuity between the terminal and the gauge control module 32P connector No. 23 terminal: There should be continuity.	An open in the wire
			Disconnect driver's under-dash fuse/relay box connector P (20P)	Check for continuity between the terminal and driver's under-dash fuse/relay box connector P (20P) No. 5 terminal: There should be continuity.	An open in the wire
4	PNK	B-CAN HI	Disconnect the gauge control module 32P connector	Check for continuity between the terminal and the gauge control module 32P connector No. 24 terminal: There should be continuity.	An open in the wire
			Disconnect driver's under-dash fuse/relay box connector P (20P)	Check for continuity between the terminal and driver's under-dash fuse/relay box connector P (20P) No. 6 terminal: There should be continuity.	An open in the wire
6	LT GRN	IMOCD (S-NET)	Ignition switch ON (II), disconnect ECM/PCM connector A (49P) (see page 11-234)	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 the terminal and body ground: There should be more than 50 kΩ.	• Faulty imoes unit • Faulty driver's under-dash fuse/relay box • An open in the wire
			Disconnect ECM/PCM connector A (49P) (see page 11-234)	Check for continuity between the terminal and ECM/PCM connector A (49P) terminal No. 46: There should be continuity.	An open in the wire

6. Reconnect the connector to the immobilizer-keyless 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, replace the immobilizer-keyless control unit (see page 22-392).

   NOTE: After replacing the immobilizer-keyless control unit, do the immobilizer registration (see page 22-391).

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 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 in the wire
7	BRN	LG	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G101) • An open in the wire
5	LT BLU	K-LINE	Under all conditions	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 IMMOBILIZER from the SYSTEM SELECT menu.
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 IMMOBILIZER from the SYSTEM SELECT menu.
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 IMMOBILIZER from the SYSTEM SELECT menu.
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 with started by 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 IMMOBILIZER from the SYSTEM SELECT menu.
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.

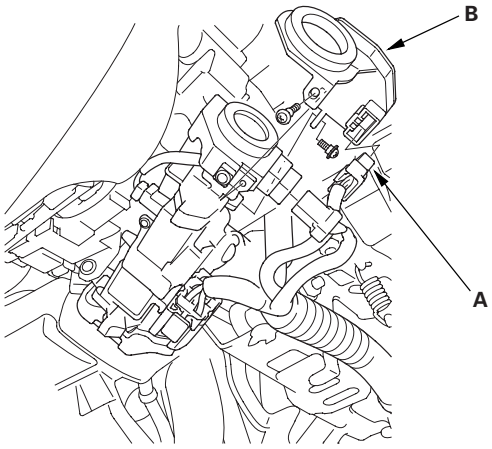
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Immobilizer-keyless Control Unit Replacement

1. Remove the driver's dashboard undercover (see page 20-119), then remove the dashboard lower cover (see page 20-118).

2. Remove the steering column covers (see page 20-132).

3. Disconnect the 7P connector (A) from the immobilizer-keyless control unit (B).



4. Remove the two screws and the immobilizer-keyless control unit.

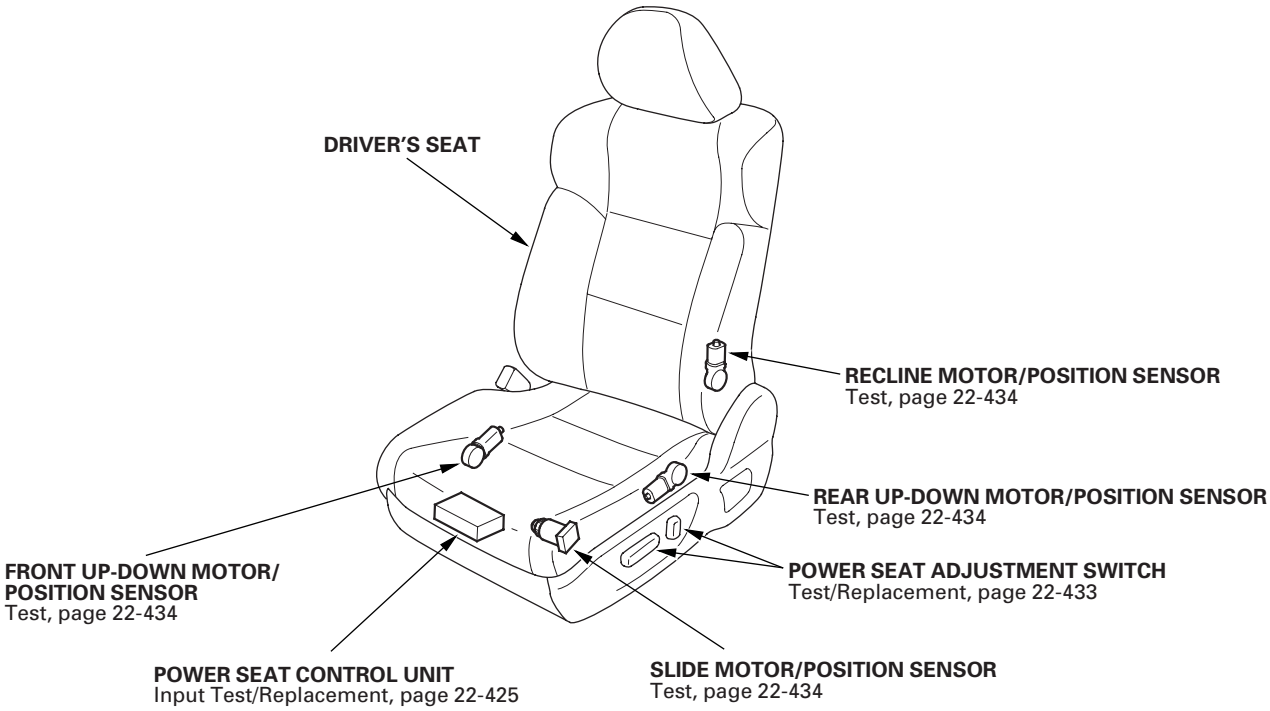
5. Install the immobilizer-keyless control unit in the reverse order of removal.

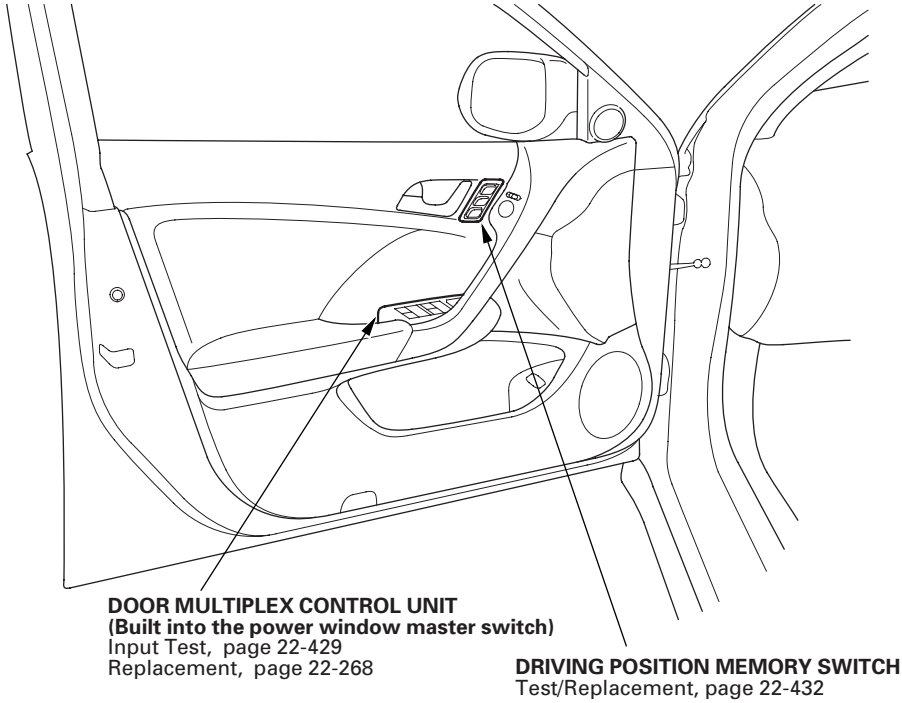
6. After replacement, register the immobilizer-keyless control unit (see page 22-391), and make sure the immobilizer system works properly.

7. Program all of the client's keys/keyless transmitters (see page 22-391).

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Component Location Index





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Driving Position Memory System (DPMS)

System Description

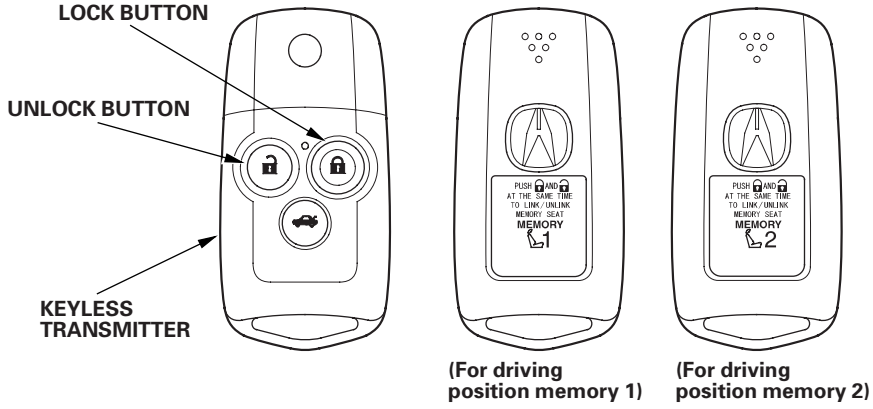
The driver's seat has a memory feature. All the adjustments can be memorized by pressing the SET button on the driving position memory switch, and then pressing one of two position buttons within 5 seconds. Pressing the appropriate position button will move the seat to the memorized positions.
This system 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 22-93).
Disconnecting the battery will cancel the memorized positions.

Memorizing a Seat Position

Move the seat to the desired position. Turn the ignition switch to ON (II).
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 positions have been memorized. The LED will remain lit, unless the seat is moved from the memorized position.

Memorized Position Recall with the Remotes

Make sure that the remotes are LINKED. Press and hold the LOCK and UNLOCK button at the same time. The red LED on the remote will flash ONE time when the remote has been LINKED and will flash TWO times when the remote has been UNLINKED. After the seat position has been memorized, the seat will move to the position when the appropriate remote UNLOCK is pressed and the driver's door is opened. When the seat gets to the memorized position, the green LED corresponding with that remote will stay lit until the position is changed or the key is turned OFF.



(For driving position memory 1)

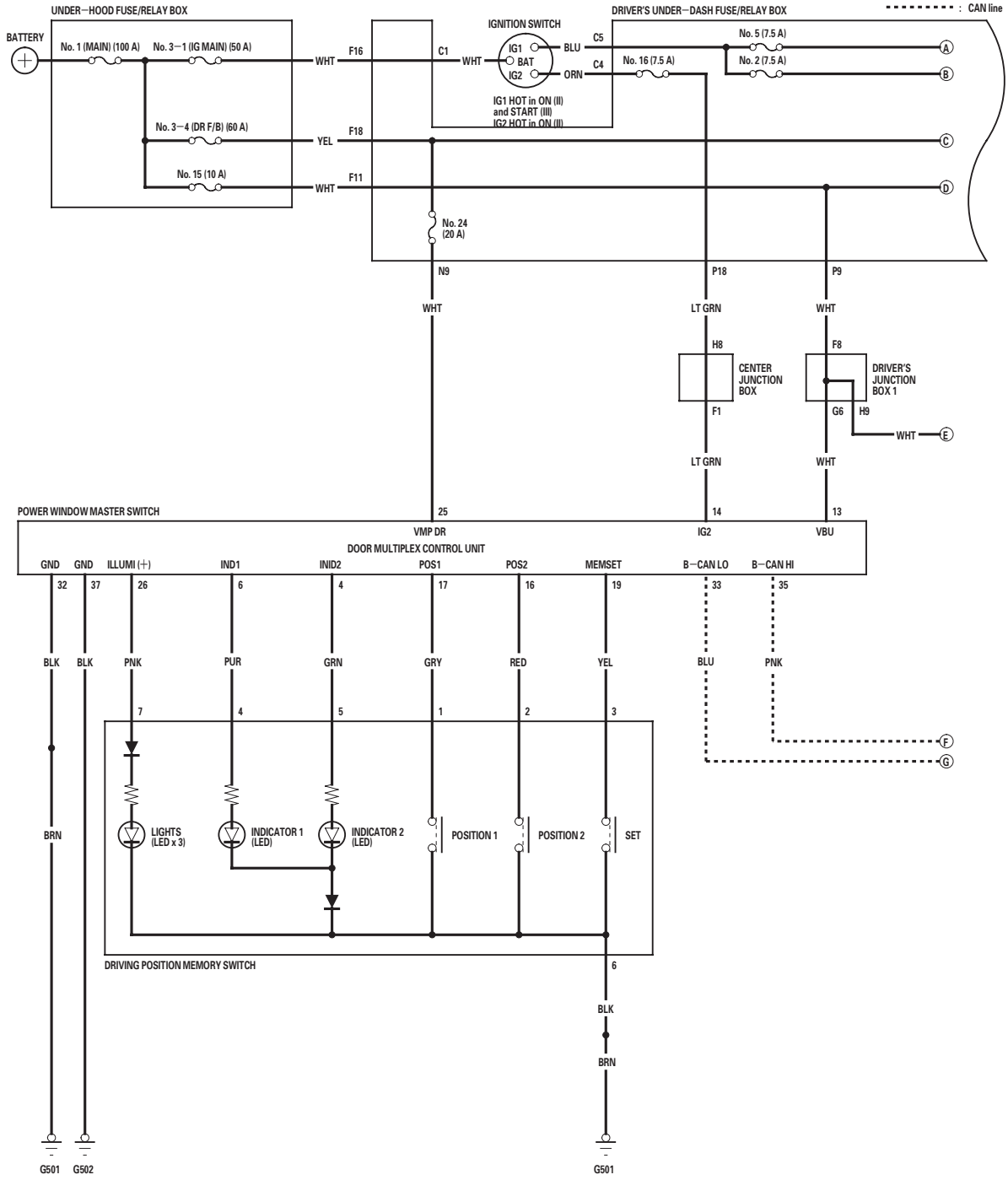
(For driving position memory 2)

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.

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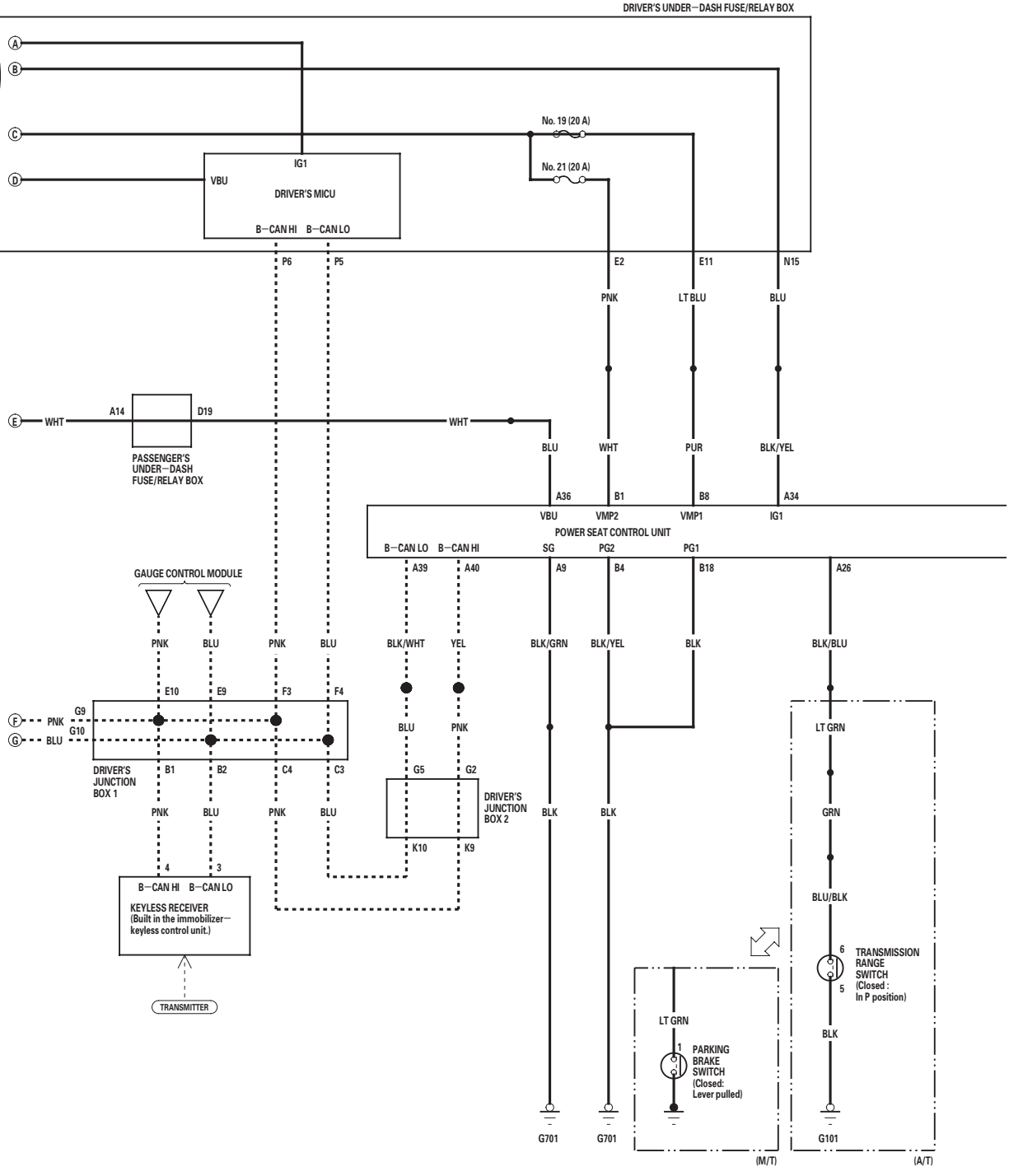
Circuit Diagram



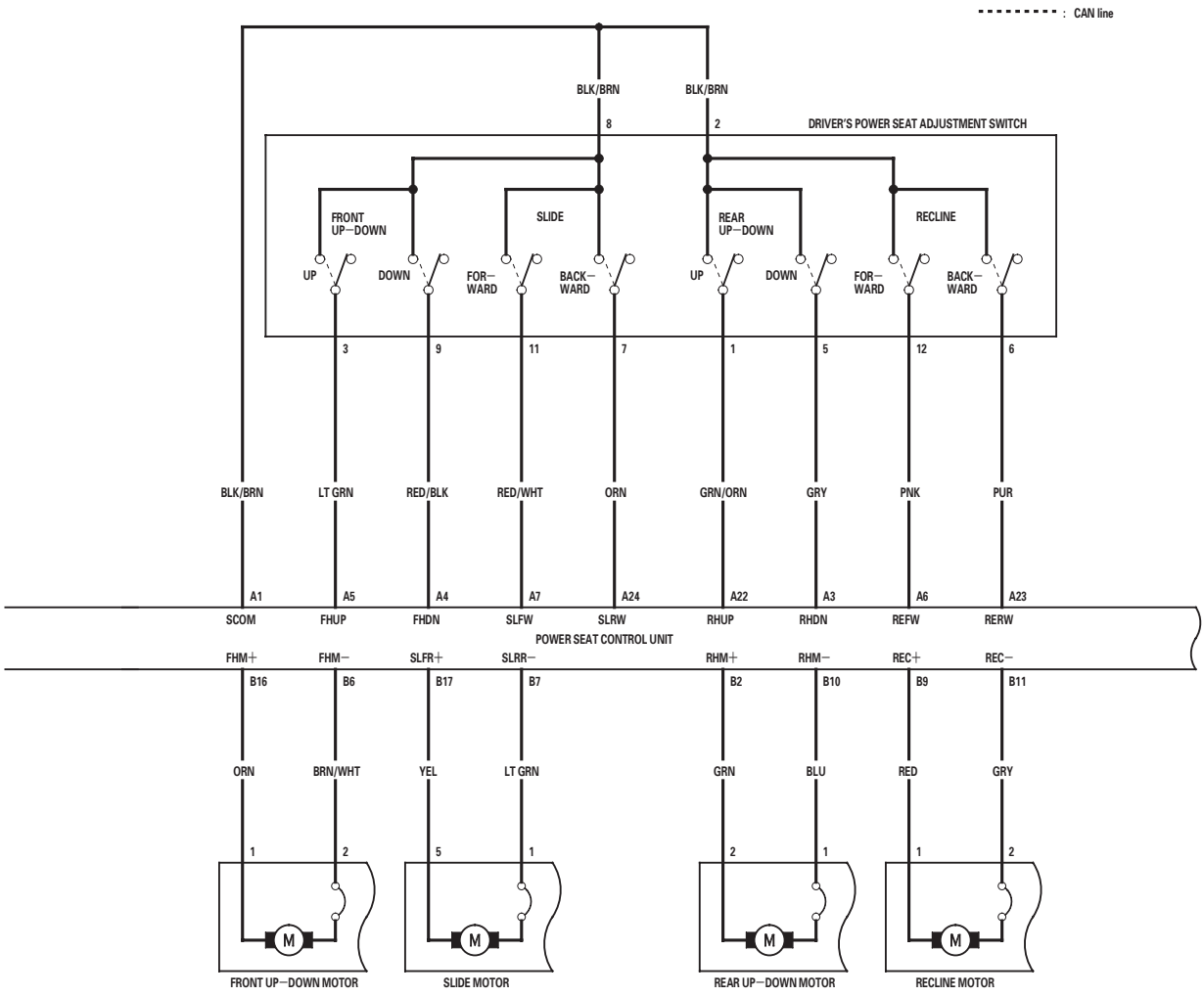
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Circuit Diagram (cont'd)



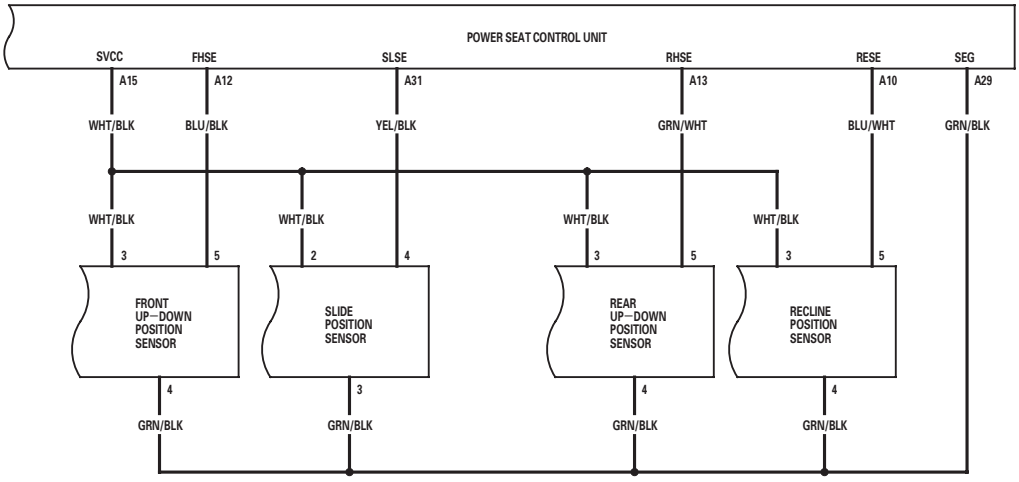
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Circuit Diagram (cont'd)



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DTC Troubleshooting

DTC B1802: Power Seat Control Unit (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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
4. Check for DTCs with the HDS.

   Is DTC B1802 indicated?

   YES—Replace the power seat control unit (see page 22-425). ■

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

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DTC Troubleshooting (cont'd)

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 22-110).
- DTC B1825 is stored when the slide switch is operated more than 1 second after the seat moves to the most backward position, even when the system is OK.

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Operate the power seat adjustment switch in all directions for more than 1 second each.
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.

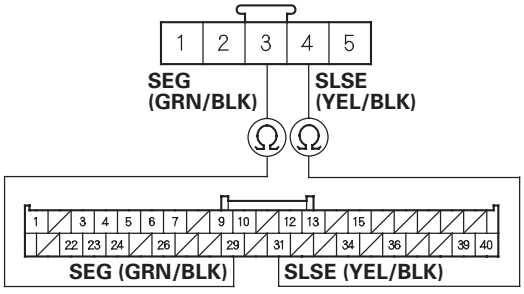
   NO—Go to step 7.
7. Turn the ignition switch to LOCK (0) and then back to ON (II).
8. Operate the slide switch for 2 seconds, and check the slide motor operation.

   Does the slide motor run smoothly?

   YES—Go to step 9.

   NO—Go to step 26.
9. Turn the ignition switch to LOCK (0).
10. Disconnect power seat control unit connector A (40P).
11. Disconnect the slide motor/position sensor 5P connector.
12. Check for continuity between power seat control unit connector A (40P) terminals No. 31 and No. 29 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 A (40P)
Wire side of female terminals

Is there continuity?

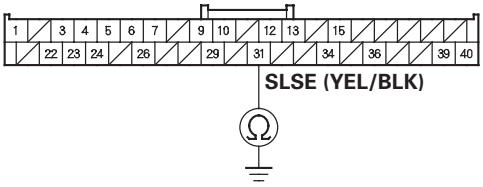
YES—Go to step 13.

NO—Repair an open in the wire. ■

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13. Check for continuity between body ground and power seat control unit connector A (40P) terminal No. 31.

POWER SEAT CONTROL UNIT CONNECTOR A (40P)



Wire side of female terminals

Is there continuity?

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

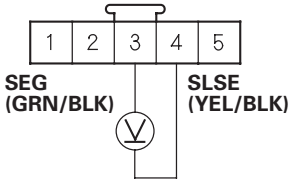
NO—Go to step 14.

14. Reconnect power seat control unit connector A (40P).

15. Turn the ignition switch to ON (II).

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 20-153). ■

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). ■

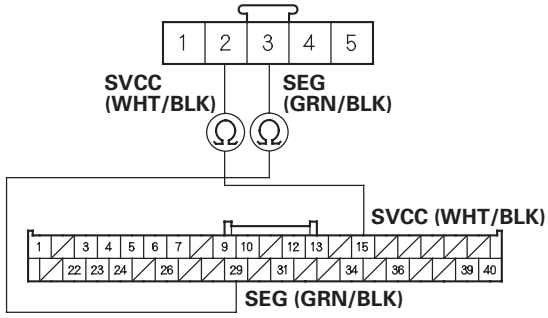
17. Turn the ignition switch to LOCK (0).

18. Disconnect power seat control unit connector A (40P).

19. Disconnect the slide motor/position sensor 5P connector.

20. Check for continuity between power seat control unit connector A (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 A (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.

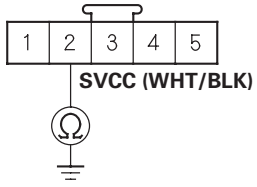
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DTC Troubleshooting (cont'd)

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. ■

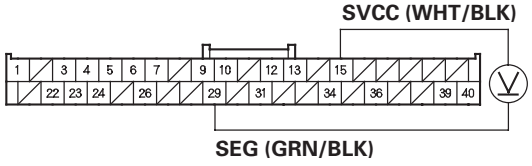
NO—Go to step 23.

23. Reconnect power seat control unit connector A (40P).

24. Turn the ignition switch to ON (II).

25. Measure the voltage between power seat control unit connector A (40P) terminals No. 15 and No. 29.

POWER SEAT CONTROL UNIT CONNECTOR A (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 20-153). ■

NO—Replace the power seat control unit (see page 22-425). ■

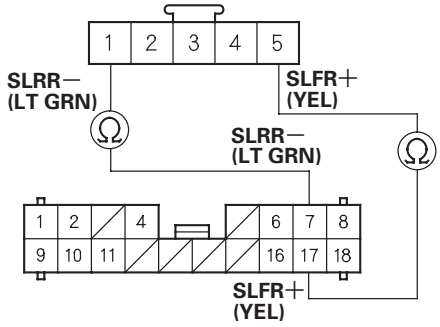
26. Turn the ignition switch to LOCK (0).

27. Disconnect power seat control unit connector B (18P).

28. Disconnect the slide motor/position sensor 5P connector.

29. Check for continuity between power seat control unit connector B (18P) terminals No. 7 and No. 17 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 B (18P)
Wire side of female terminals

Is there continuity?

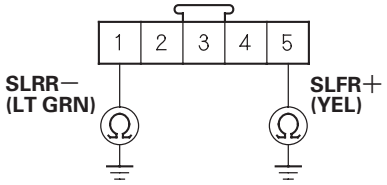
YES—Go to step 30.

NO—Repair an open in the wire. ■

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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 22-434).

Is the motor OK?

YES—Replace the power seat control unit (see page 22-425). ■

NO—Replace the slide motor/position sensor (see page 20-153). ■

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DTC Troubleshooting (cont'd)

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 22-110).
- 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 most down position, even when the system is OK.

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Operate the power seat adjustment switch in all directions for more than 1 second each.
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?

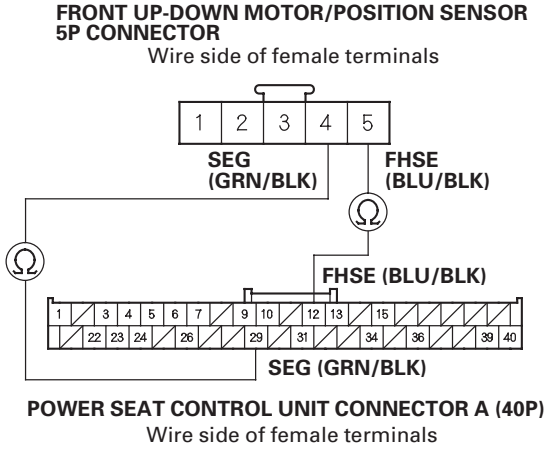
   YES—Go to step 17.

   NO—Go to step 7.
7. Turn the ignition switch to LOCK (0) and then back to ON (II).
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).
10. Disconnect power seat control unit connector A (40P).
11. Disconnect the front up-down motor/position sensor 5P connector.
12. Check for continuity between power seat control unit connector A (40P) terminals No. 12 and No. 29 and front up-down motor/position sensor 5P connector terminals No. 4 and No. 5 respectively.



Is there continuity?

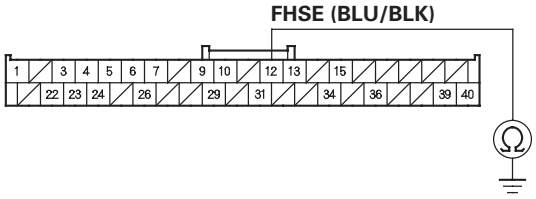
YES—Go to step 13.

NO—Repair an open in the wire. ■

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13. Check for continuity between body ground and power seat control unit connector A (40P) terminal No. 12.

POWER SEAT CONTROL UNIT CONNECTOR A (40P)



Wire side of female terminals

Is there continuity?

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

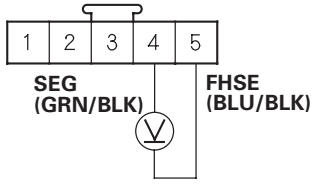
NO—Go to step 14.

14. Reconnect power seat control unit connector A (40P).

15. Turn the ignition switch to ON (II).

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—Replace the front up-down motor/position sensor (see page 20-155). ■

NO—If there is no voltage, replace the power seat control unit (see page 22-425). If there is battery voltage, repair a short in the wire (sensor line). ■

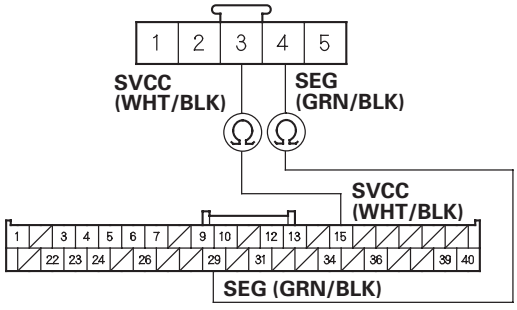
17. Turn the ignition switch to LOCK (0).

18. Disconnect power seat control unit connector A (40P).

19. Disconnect the front up-down motor/position sensor 5P connector.

20. Check for continuity between power seat control unit connector A (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 A (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, rear up-down motor/position sensor, and recline motor/position sensor.

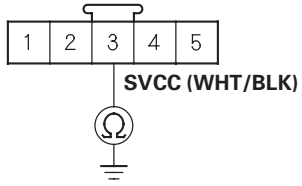
(cont'd)

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DTC Troubleshooting (cont'd)

22. Check for continuity between body ground and the 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. ■

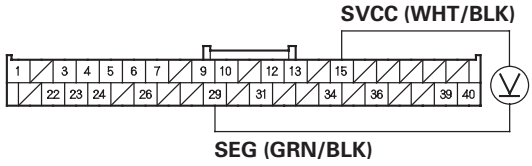
NO—Go to step 23.

23. Reconnect power seat control unit connector A (40P).

24. Turn the ignition switch to ON (II).

25. Measure the voltage between power seat control unit connector A (40P) terminals No. 15 and No. 29.

POWER SEAT CONTROL UNIT CONNECTOR A (40P)



Wire side of female terminals

Is there battery voltage when the front up-down switch is operated?

YES—Replace the front up-down motor/position sensor (see page 20-155). ■

NO—Replace the power seat control unit (see page 22-425). ■

26. Turn the ignition switch to LOCK (0).

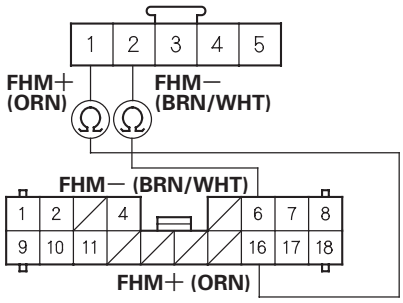
27. Disconnect power seat control unit connector B (18P).

28. Disconnect the front up-down motor/position sensor 5P connector.

29. Check for continuity between power seat control unit connector B (18P) terminals No. 6 and No. 16 and front up-down motor/position sensor 5P connector terminals No. 1 and No. 2 respectively.

FRONT UP-DOWN MOTOR/POSITION SENSOR 5P CONNECTOR

Wire side of female terminals



POWER SEAT CONTROL UNIT CONNECTOR B (18P)

Wire side of female terminals

Is there continuity?

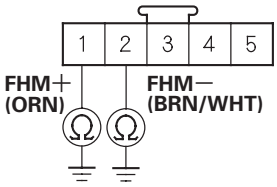
YES—Go to step 30.

NO—Repair an open in the wire. ■

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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.

31. Test the front up-down motor (see page 22-434).

Is the motor OK?

YES—Replace the power seat control unit (see page 22-425). ■

NO—Replace the front up-down motor/position sensor (see page 20-155). ■

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DTC Troubleshooting (cont'd)

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 22-110).
- 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 most down position, even when the system is OK.

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Operate the power seat adjustment switch in all directions for more than 1 second each.
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?

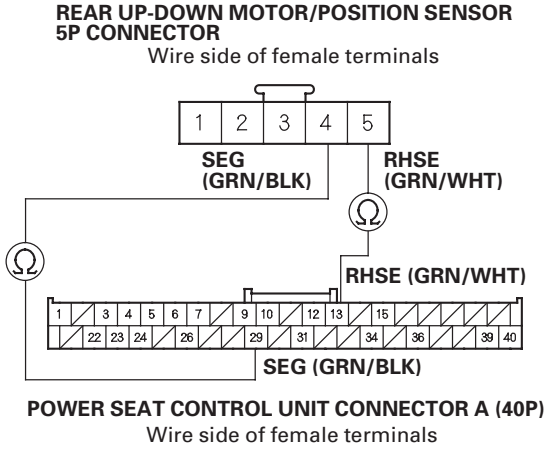
   YES—Go to step 17.

   NO—Go to step 7.
7. Turn the ignition switch to LOCK (0) and then back to ON (II).
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.
9. Turn the ignition switch to LOCK (0).
10. Disconnect power seat control unit connector A (40P).
11. Disconnect the rear up-down motor/position sensor 5P connector.
12. Check for continuity between power seat control unit connector A (40P) terminals No. 13 and No. 29 and rear up-down motor/position sensor 5P connector terminals No. 4 and No. 5 respectively.



Is there continuity?

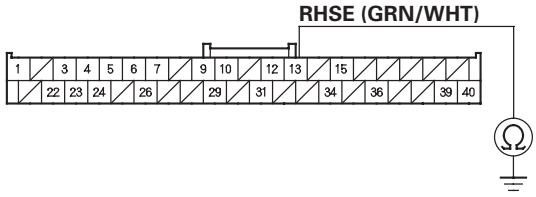
YES—Go to step 13.

NO—Repair an open in the wire. ■

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13. Check for continuity between body ground and power seat control unit connector A (40P) terminal No. 13.

POWER SEAT CONTROL UNIT CONNECTOR A (40P)



Wire side of female terminals

Is there continuity?

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

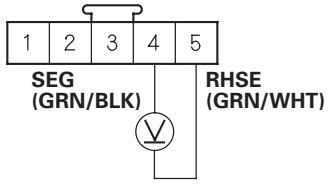
NO—Go to step 14.

14. Reconnect power seat control unit connector A (40P).

15. Turn the ignition switch to ON (II).

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—Replace the rear up-down motor/position sensor (see page 20-156). ■

NO—If there is no voltage, replace the power seat control unit (see page 22-425). If there is battery voltage, repair a short in the wire (sensor line). ■

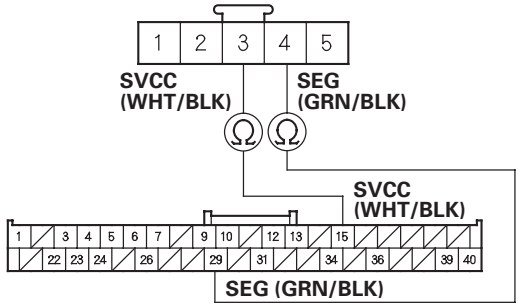
17. Turn the ignition switch to LOCK (0).

18. Disconnect power seat control unit connector A (40P).

19. Disconnect the rear up-down motor/position sensor 5P connector.

20. Check for continuity between power seat control unit connector A (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 A (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.

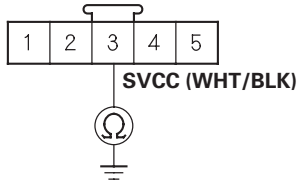
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DTC Troubleshooting (cont'd)

22. Check for continuity between body ground and the 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. ■

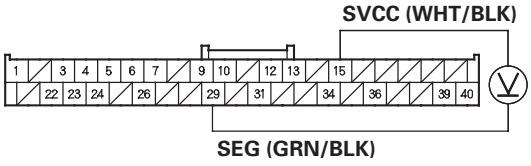
NO—Go to step 23.

23. Reconnect power seat control unit connector A (40P).

24. Turn the ignition switch to ON (II).

25. Measure the voltage between power seat control unit connector A (40P) terminals No. 15 and No. 29.

POWER SEAT CONTROL UNIT CONNECTOR A (40P)



Wire side of female terminals

Is there battery voltage when the rear up-down switch is operated?

YES—Replace the rear up-down motor/position sensor (see page 20-156). ■

NO—Replace the power seat control unit (see page 22-425). ■

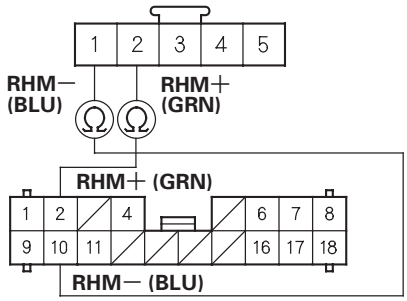
26. Turn the ignition switch to LOCK (0).

27. Disconnect power seat control unit connector B (18P).

28. Disconnect the rear up-down motor/position sensor 5P connector.

29. Check for continuity between power seat control unit connector B (18P) terminals No. 2 and No. 10 and rear up-down motor/position sensor 5P connector terminals No. 1 and No. 2 respectively.

REAR UP-DOWN MOTOR/POSITION SENSOR 5P CONNECTOR
Wire side of female terminals



POWER SEAT CONTROL UNIT CONNECTOR B (18P)
Wire side of female terminals

Is there continuity?

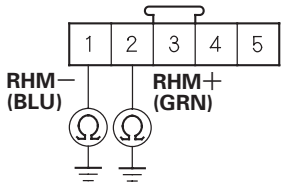
YES—Go to step 30.

NO—Repair an open in the wire. ■

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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 22-434).

Is the motor OK?

YES—Replace the power seat control unit (see page 22-425). ■

NO—Replace the rear up-down motor/position sensor (see page 20-156). ■

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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 22-110).
- DTC B1828 is stored when the recline switch is operated more than 1 second after the seat moves to the most forward or most backward position, even when the system is OK.

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Operate the power seat adjustment switch in all directions for more than 1 second each.
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 17.

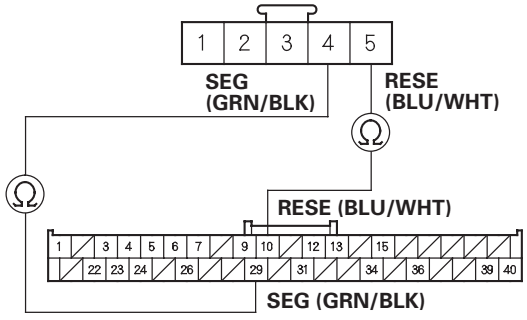
   NO—Go to step 7.
7. Turn the ignition switch to LOCK (0) and then back to ON (II).
8. Operate the recline switch for 2 seconds, and check the recline motor operation.

   Does the recline motor run smoothly?

   YES—Go to step 9.

   NO—Go to step 26.
9. Turn the ignition switch to LOCK (0).
10. Disconnect power seat control unit connector A (40P).
11. Disconnect the recline motor/position sensor 5P connector.
12. Check for continuity between power seat control unit connector A (40P) terminals No. 10 and No. 29 and recline motor/position sensor 5P connector terminals No. 4 and No. 5 respectively.

RECLINE MOTOR/POSITION SENSOR 5P CONNECTOR
Wire side of female terminals



POWER SEAT CONTROL UNIT CONNECTOR A (40P)
Wire side of female terminals

Is there continuity?

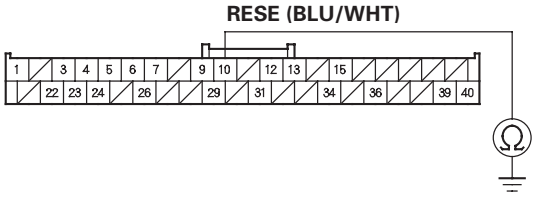
YES—Go to step 13.

NO—Repair an open in the wire. ■

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13. Check for continuity between body ground and power seat control unit connector A (40P) terminal No. 10.

POWER SEAT CONTROL UNIT CONNECTOR A (40P)



Wire side of female terminals

Is there continuity?

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

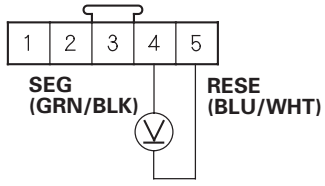
NO—Go to step 14.

14. Reconnect power seat control unit connector A (40P).

15. Turn the ignition switch to ON (II).

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 20-151). ■

NO—If there is no voltage, replace the power seat control unit (see page 22-425). If there is battery voltage, repair a short in the wire (sensor line). ■

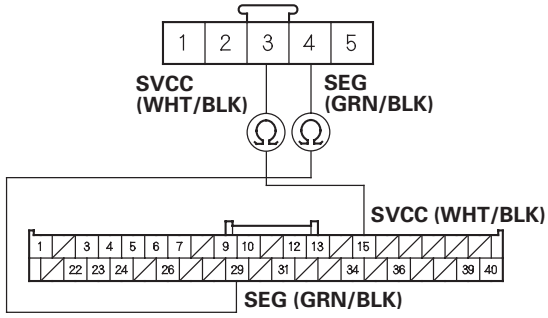
17. Turn the ignition switch to LOCK (0).

18. Disconnect power seat control unit connector A (40P).

19. Disconnect the recline motor/position sensor 5P connector.

20. Check for continuity between power seat control unit connector A (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 A (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 rear up-down motor/position sensor.

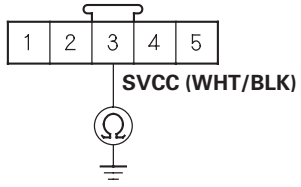
(cont'd)

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DTC Troubleshooting (cont'd)

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. ■

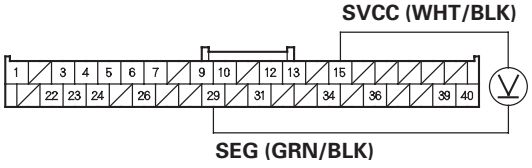
NO—Go to step 23.

23. Reconnect power seat control unit connector A (40P).

24. Turn the ignition switch to ON (II).

25. Measure the voltage between power seat control unit connector A (40P) terminals No. 15 and No. 29.

POWER SEAT CONTROL UNIT CONNECTOR A (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 20-151). ■

NO—Replace the power seat control unit (see page 22-425). ■

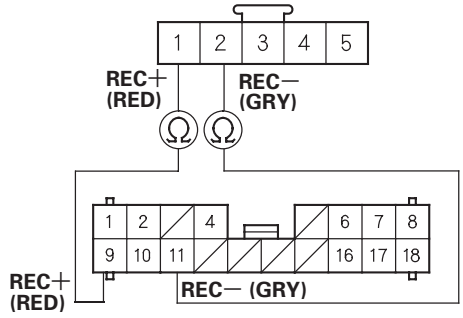
26. Turn the ignition switch to LOCK (0).

27. Disconnect power seat control unit connector B (18P).

28. Disconnect the recline motor/position sensor 5P connector.

29. Check for continuity between power seat control unit connector B (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 B (18P)
Wire side of female terminals

Is there continuity?

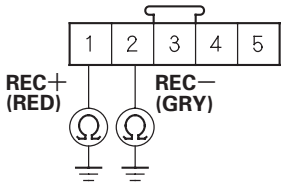
YES—Go to step 30.

NO—Repair an open in the wire. ■

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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.

31. Test the recline motor (see page 22-434).

Is the motor OK?

YES—Replace the power seat control unit (see page 22-425). ■

NO—Replace the recline motor/position sensor (see page 20-151). ■

DTC B1829: A/T P Signal and VSS Signal Mismatch

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-110).

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 22-425). ■

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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 22-110).

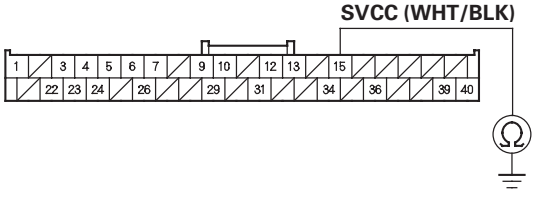
1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Operate the power seat adjustment switch in all directions for more than 1 second each.
4. Check for DTCs with the HDS.

   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).
6. Disconnect power seat control unit connector A (40P).
7. Disconnect the 5P connector from each motor.
8. Check for continuity between body ground and power seat control unit connector A (40P) terminal No. 15.

POWER SEAT CONTROL UNIT CONNECTOR A (40P)



Wire side of female terminals

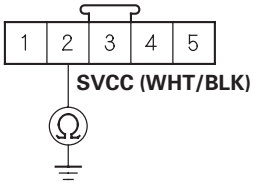
Is there continuity?

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

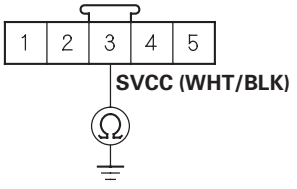
Is there continuity?

YES—Repair the slide motor/position sensor (see page 20-153). ■

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 faulty up-down motor/position sensor (front: see page 20-155) (rear: see page 20-156). If the recline motor/position sensor is. faulty, replace the recline motor/position sensor. ■

NO—Replace the power seat control unit (see page 22-425). ■

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DTC B1837: Driving Position Memory Recall Timeout

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-110).

1. Clear the DTC with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
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.
5. Manually 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 22-434). If the motor is OK, check the engagement of the motor gear. ■

    NO—Go to the power seat control unit input test (see page 22-425). ■

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DTC Troubleshooting (cont'd)

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 22-110).

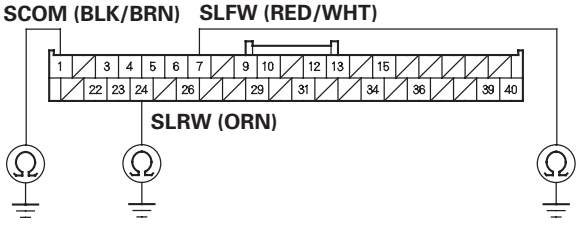
1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Operate the slide switch in each direction for more than 1 second.
4. Check for DTCs with the HDS.

   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).
6. Disconnect power seat control unit connector A (40P).
7. Disconnect the power seat adjustment switch 12P connector.
8. Check for continuity between body ground and power seat control unit connector A (40P) terminals No. 1, No. 7, and No. 24 individually.

POWER SEAT CONTROL UNIT CONNECTOR A (40P)



Wire side of female terminals

Is there continuity?

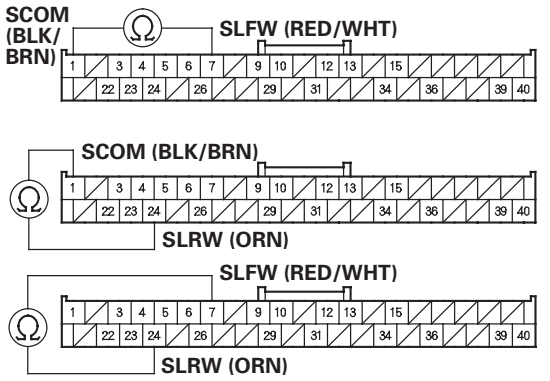
YES—Repair a short to ground in the wire. ■

NO—Go to step 9.

9. Check for continuity between these power seat control unit connector A (40P) terminals:

   • No. 1 and No. 7
   • No. 1 and No. 24
   • No. 7 and No. 24

POWER SEAT CONTROL UNIT CONNECTOR A (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 22-433).

    Is the switch OK?

    YES—Replace the power seat control unit (see page 22-425). ■

    NO—Replace the power seat adjustment switch (see page 22-433). ■

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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 22-110).

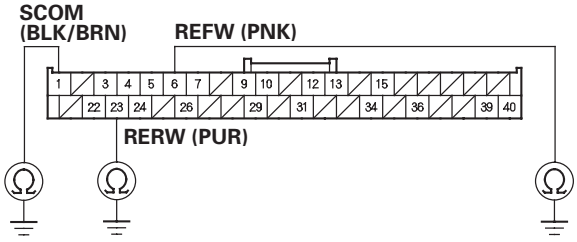
1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Operate the recline switch in each direction for more than 1 second.
4. Check for DTCs with the HDS.

   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).
6. Disconnect power seat control unit connector A (40P).
7. Disconnect the power seat adjustment switch 12P connector.
8. Check for continuity between body ground and power seat control unit connector A (40P) terminals No. 1, No. 6, and No. 23 individually.

POWER SEAT CONTROL UNIT CONNECTOR A (40P)



Wire side of female terminals

Is there continuity?

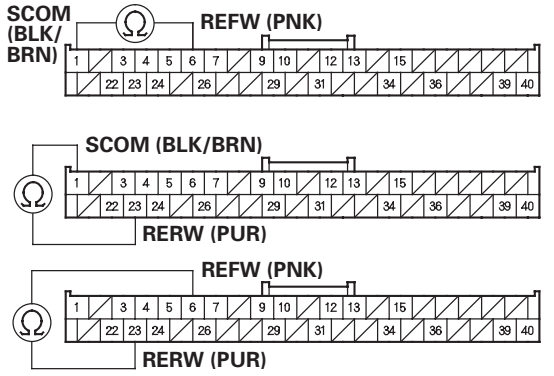
YES—Repair a short to ground in the wire. ■

NO—Go to step 9.

9. Check for continuity between these power seat control unit connector A (40P) terminals:

   - No. 1 and No. 6
   - No. 1 and No. 23
   - No. 6 and No. 23

POWER SEAT CONTROL UNIT CONNECTOR A (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 22-433).

    Is the switch OK?

    YES—Replace the power seat control unit (see page 22-425). ■

    NO—Replace the power seat adjustment switch (see page 22-433). ■

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DTC Troubleshooting (cont'd)

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 22-110).

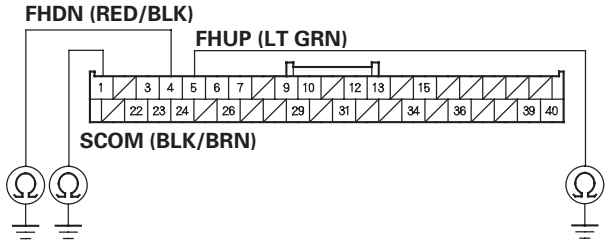
1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Operate the front up-down switch in each direction for more than 1 second.
4. Check for DTCs with the HDS.

   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).
6. Disconnect power seat control unit connector A (40P).
7. Disconnect the power seat adjustment switch 12P connector.
8. Check for continuity between body ground and power seat control unit connector A (40P) terminals No. 1, No. 4, and No. 5 individually.

POWER SEAT CONTROL UNIT CONNECTOR A (40P)



Wire side of female terminals

Is there continuity?

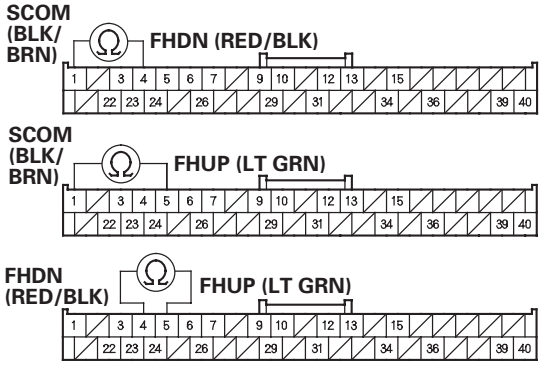
YES—Repair a short to ground in the wire. ■

NO—Go to step 9.

9. Check for continuity between these power seat control unit connector A (40P) terminals:

   - No. 1 and No. 4
   - No. 1 and No. 5
   - No. 4 and No. 5

POWER SEAT CONTROL UNIT CONNECTOR A (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 22-433).

    Is the switch OK?

    YES—Replace the power seat control unit (see page 22-425). ■

    NO—Replace the power seat adjustment switch (see page 22-433). ■

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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 22-110).

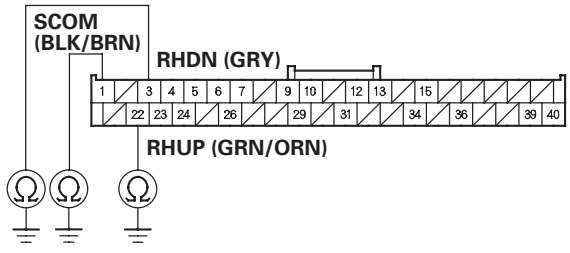
1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Operate the rear up-down switch in each direction for more than 1 second.
4. Check for DTCs with the HDS.

   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).
6. Disconnect power seat control unit connector A (40P).
7. Disconnect the power seat adjustment switch 12P connector.
8. Check for continuity between body ground and power seat control unit connector A (40P) terminals No. 1, No. 3, and No. 22 individually.

POWER SEAT CONTROL UNIT CONNECTOR A (40P)



Wire side of female terminals

Is there continuity?

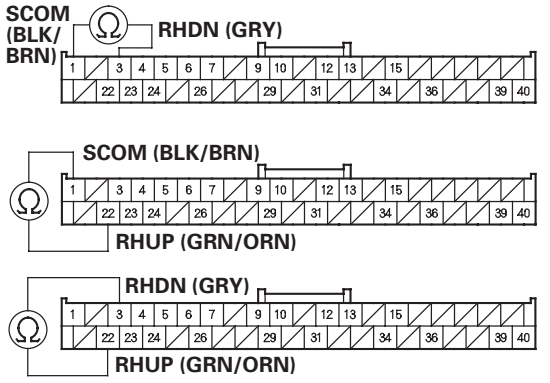
YES—Repair a short to ground in the wire. ■

NO—Go to step 9.

9. Check for continuity between these power seat control unit connector A (40P) terminals:

   • No. 1 and No. 3
   • No. 1 and No. 22
   • No. 3 and No. 22

POWER SEAT CONTROL UNIT CONNECTOR A (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 22-433).

    Is the switch OK?

    YES—Replace the power seat control unit (see page 22-425). ■

    NO—Replace the power seat adjustment switch (see page 22-433). ■

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DTC Troubleshooting (cont'd)

DTC U0155: Power Seat 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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
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 UNIT.

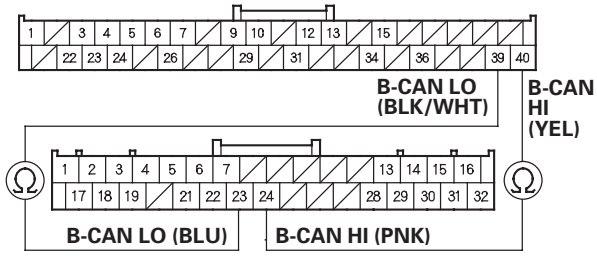
   Is the gauge control module detected?

   YES—Go to the power seat control unit input test (see page 22-425). ■

   NO—Go to step 6.

6. Turn the ignition switch to LOCK (0).
7. Disconnect the gauge control module 32P connector.
8. Disconnect power seat control unit connector A (40P).
9. Check for continuity between power seat control unit connector A (40P) terminals No. 39 and No. 40 and gauge control module 32P connector terminals No. 23 and No. 24 individually.

POWER SEAT CONTROL UNIT CONNECTOR A (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 22-313). ■

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 U0199: Power Seat 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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
4. Check for DTCs with the HDS.

   Is DTC U0199 indicated?

   YES—Go to step 5.

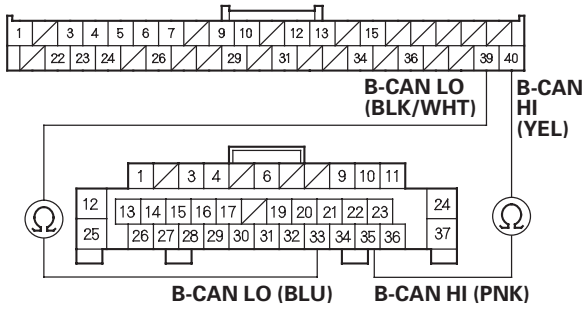
   NO—Intermittent failure, the system is OK at this time. Check for loose or poor connections between the power seat control unit and the door multiplex control unit. ■
5. From the BODY ELECTRICAL system select menu, select UNIT INFORMATION, and then select CONNECTED UNIT.

   Is the power window master switch (door multiplex control unit) detected?

   YES—Go to the power seat control unit input test (see page 22-425). ■

   NO—Go to step 6.
6. Turn the ignition switch to LOCK (0).
7. Disconnect the door multiplex control unit 37P connector.
8. Disconnect power seat control unit connector A (40P).
9. Check for continuity between power seat control unit connector A (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 A (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 22-268). ■

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 Troubleshooting (cont'd)

DTC U1282: Power Seat 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 22-110).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for 6 seconds or more.
4. Check for DTCs with the HDS.

   Is DTC U1282 indicated?

   YES—Go to the power seat control unit input test (see page 22-425). ■

   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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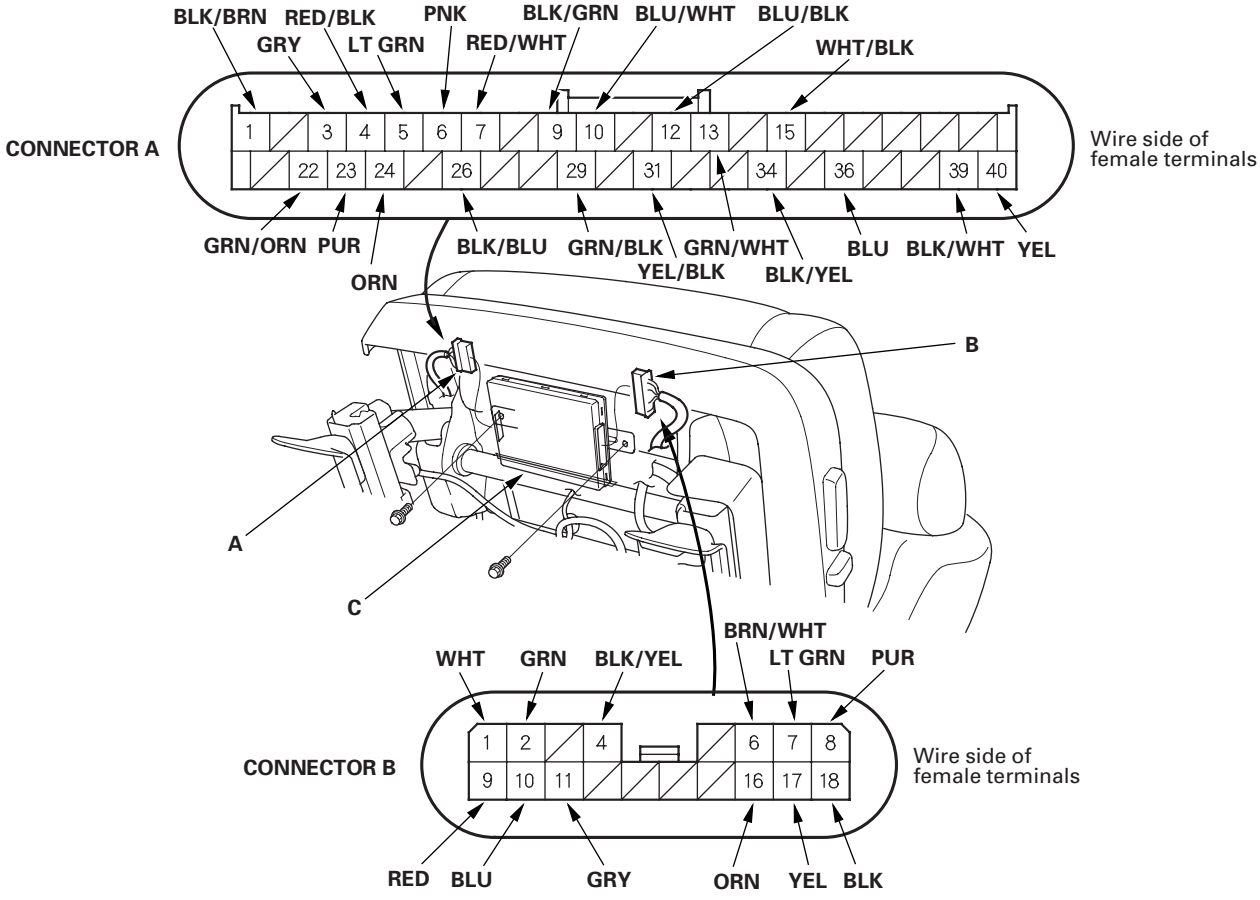
Power Seat Control Unit Input Test/Replacement

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-110).

1. Turn the ignition switch to LOCK (0).
2. Remove the driver's seat (see page 20-148).

   NOTE: Be careful not to scratch the interior trim.

3. Disconnect the 40P connector (A) and 18P 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.

(cont'd)

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Power Seat Control Unit Input Test/Replacement (cont'd)

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
A9	BLK/GRN	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G701) • An open in the wire
B4	BLK/YEL	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G701) • An open in the wire
B18	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G701) • An open in the wire
A34	BLK/YEL	Ignition switch ON (II)	Measure the voltage to ground: There should be battery voltage.	• Blown No. 2 (7.5 A) fuse in the driver's under-dash fuse/relay box • An open in the wire
A36	BLU	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 in the wire
B1	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. 21 (20 A) fuse in the driver's under-dash fuse/relay box • An open in the wire
B8	PUR	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 in the wire
A26 (M/T)	BLK/BLU	Parking brake lever pulled	Measure the voltage to ground: There should be less than 1 V.	• Faulty parking brake switch • An open in the wire
		Parking brake lever released	Measure the voltage to ground: There should be 5 V or more.	• Faulty parking brake switch • A short to ground in the wire
A26 (A/T)	BLK/BLU	Shift lever in P position	Measure the voltage to ground: There should be less than 1 V.	• Poor ground (G101) • Faulty transmission range switch • An open in the wire
		Shift lever in any other position than P	Measure the voltage to ground: There should be 5 V or more.	• Faulty transmission range switch • A short to ground in the wire
A15	WHT/BLK	Under all conditions	Measure the voltage to ground: There should be about 5 V.	• Faulty position sensor • A short to ground in the wire
A10 . A29	BLU/WHT . GRN/BLK	Run the recline motor	Measure the voltage between terminals A10 (+) and A29 (—): There should be about 2.5 V average.	• Faulty position sensor • An open in the wire • A short to ground in the wire
A31 . A29	YEL/BLK . GRN/BLK	Run the slide motor	Measure the voltage between terminals A31 (+) and A29 (—): There should be about 2.5 V average.	• Faulty position sensor • An open in the wire • A short to ground in the wire
A12 . A29	BLU/BLK . GRN/BLK	Run the front up-down motor	Measure the voltage between terminals A12 (+) and A29 (—): There should be about 2.5 V average.	• Faulty position sensor • An open in the wire • A short to ground in the wire
A13 . A29	GRN/WHT . GRN/BLK	Run the rear up-down motor	Measure the voltage between terminals A13 (+) and A29 (—): There should be about 2.5 V average.	• Faulty position sensor • An open in the wire • A short to ground in the wire

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6. Turn the ignition switch to LOCK (0), 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
A39	BLK/WHT	Under all conditions (disconnect the door multiplex control unit 37P connector)	Check for continuity between terminal A39 and door multiplex control unit 37P connector terminal No. 33: There should be continuity.	An open in the wire
		Under all conditions (disconnect the immobilizer-keyless control unit 7P connector)	Check for continuity between terminal A39 and immobilizer-keyless control unit 7P connector terminal No. 3: There should be continuity.	An open in the wire
A40	YEL	Under all conditions (disconnect the door multiplex control unit 37P connector)	Check for continuity between terminal A40 and door multiplex control unit 37P connector terminal No. 35: There should be continuity.	An open in the wire
		Under all conditions (disconnect the immobilizer-keyless control unit 7P connector)	Check for continuity between terminal A40 and immobilizer-keyless control unit 7P connector terminal No. 4: There should be continuity.	An open in the wire
A1 · A7	BLK/BRN · RED/WHT	Slide switch in FORWARD position	Check for continuity between the terminals: There should be continuity.	• Faulty driver's power seat adjustment switch • An open in the wire
A1 · A24	BLK/BRN · ORN	Slide switch in BACKWARD position	Check for continuity between the terminals: There should be continuity.	• Faulty driver's power seat adjustment switch • An open in the wire
A1 · A6	BLK/BRN · PNK	Recline switch in FORWARD position	Check for continuity between the terminals: There should be continuity.	• Faulty driver's power seat adjustment switch • An open in the wire
A1 · A23	BLK/BRN · PUR	Recline switch in BACKWARD position	Check for continuity between the terminals: There should be continuity.	• Faulty driver's power seat adjustment switch • An open in the wire
A1 · A5	BLK/BRN · LT GRN	Front up-down switch in UP position	Check for continuity between the terminals: There should be continuity.	• Faulty driver's power seat adjustment switch • An open in the wire
A1 · A4	BLK/BRN · RED/BLK	Front up-down switch in DOWN position	Check for continuity between the terminals: There should be continuity.	• Faulty driver's power seat adjustment switch • An open in the wire
A1 · A22	BLK/BRN · GRN/ORN	Rear up-down switch in UP position	Check for continuity between the terminals: There should be continuity.	• Faulty driver's power seat adjustment switch • An open in the wire
A1 · A3	BLK/BRN · GRY	Rear up-down switch in DOWN position	Check for continuity between the terminals: There should be continuity.	• Faulty driver's power seat adjustment switch • An open in the wire

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Power Seat Control Unit Input Test/Replacement (cont'd)

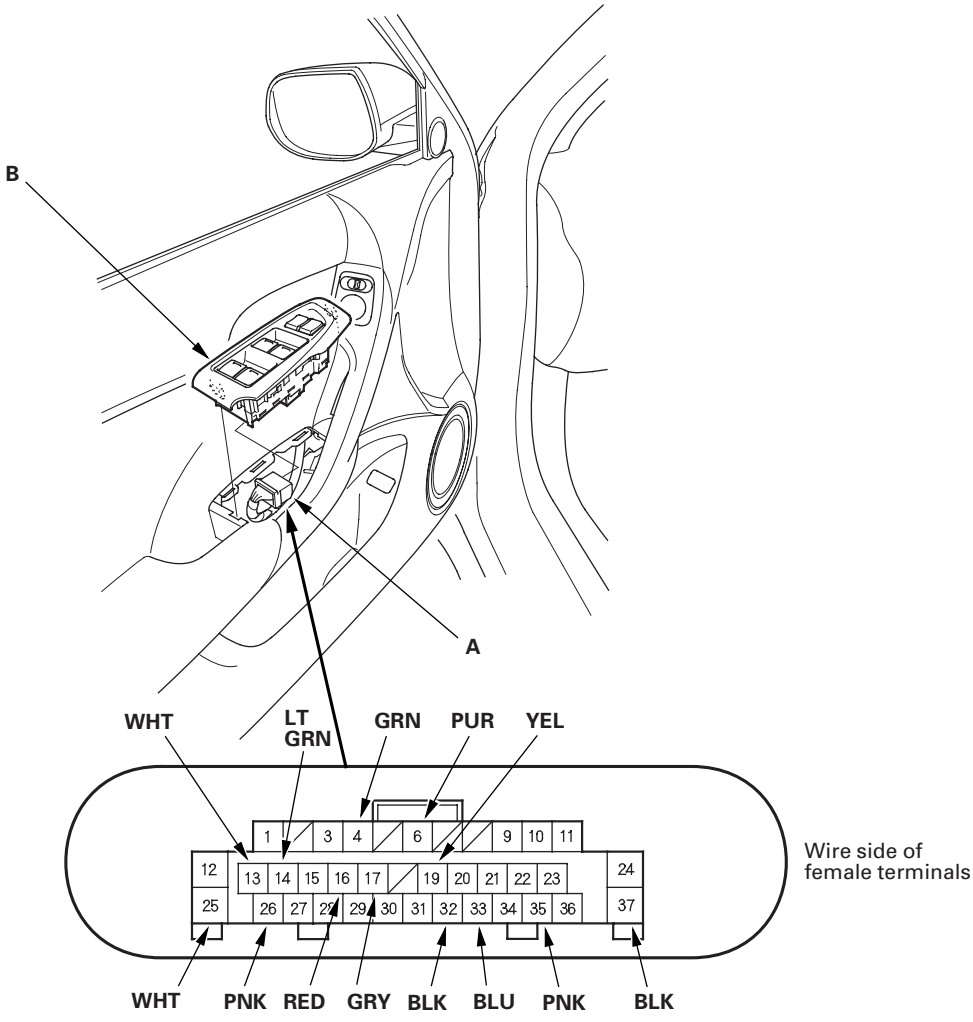
Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
B7 . B17	LT GRN . YEL	Under all conditions	Connect terminals B1 and B7, and terminals B17 and B4: The seat should slide backward.	• Faulty slide motor • An open in the wire
			Connect terminals B1 and B17, and terminals B7 and B4: The seat should slide forward.	
B9 . B11	RED . GRY	Under all conditions	Connect terminals B1 and B9, and terminals B11 and B4: The seat should recline forward.	• Faulty recline motor • An open in the wire
			Connect terminals B1 and B11, and terminals B9 and B4: The seat should recline backward.	
B6 . B16	BRN/WHT . ORN	Under all conditions	Connect terminals B1 and B6, and terminals B16 and B4: The front of seat should move down.	• Faulty front up-down motor • An open in the wire
			Connect terminals B1 and B16, and terminals B6 and B4: The front of seat should move up.	
B2 . B10	GRN . BLU	Under all conditions	Connect terminals B1 and B2, and terminals B10 and B4: The rear of seat should move up.	• Faulty rear up-down motor • An open in the wire
			Connect terminals B1 and B10, and terminals B2 and B4: The rear of seat should move down.	

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Door Multiplex Control Unit Input Test

1. Turn the ignition switch to LOCK (0).
2. Remove the power window master switch (see page 22-268).

   NOTE: Be careful not to scratch the door trim.
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.

(cont'd)

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Door Multiplex Control Unit Input Test (cont'd)

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
32	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
37	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • An open in the wire
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 in the wire
14	LT GRN	Ignition switch ON (II)	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 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 in the wire
16	RED	Ignition switch ON (II), position 2 switch pressed	Measure the voltage to ground: There should be less than 1 V.	• Poor ground (G501) • Faulty driving position memory switch • An open in the wire
		Ignition switch ON (II), 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	GRY	Ignition switch ON (II), position 1 switch pressed	Measure the voltage to ground: There should be less than 1 V.	• Poor ground (G501) • Faulty driving position memory switch • An open in the wire
		Ignition switch ON (II), 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	YEL	Ignition switch ON (II), SET switch pressed	Measure the voltage to ground: There should be less than 1 V.	• Poor ground (G501) • Faulty driving position memory switch • An open in the wire
		Ignition switch ON (II), 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

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6. Turn the ignition switch to LOCK (0), 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.

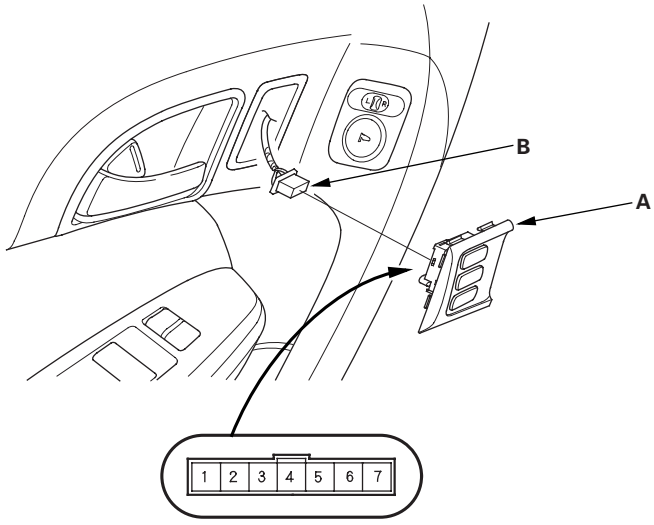
   NOTE: After replacing the power window master switch, reset the power window control unit (see page 22-244).

Cavity	Wire	Test condition	Test: Desired result	Possible cause if desired result is not obtained
4	GRN	Under all conditions	Connect terminals No. 25 and No. 4: The driving position memory switch indicator 2 should come on.	• Faulty driving position memory switch • Faulty LED • Poor ground (G501) • An open in the wire
6	PUR	Under all conditions	Connect terminals No. 25 and No. 6: The driving position memory switch indicator 1 should come on.	• Faulty driving position memory switch • Faulty LED • Poor ground (G501) • An open in the wire
26	PNK	Ignition switch ON (II)	Connect terminals No. 14 and No. 26: The driving position memory switch lights should come on.	• Faulty driving position memory switch • Faulty LED • Poor ground (G501) • An open in the wire
33	BLU	Under all conditions (disconnect the power seat control unit connector A (40P))	Check for continuity between terminal No. 33 and power seat control unit connector A (40P) terminal No. 39: There should be continuity.	An open in the wire
35	PNK	Under all conditions (disconnect the power seat control unit connector A (40P))	Check for continuity between terminal No. 35 and power seat control unit connector A (40P) terminal No. 40: There should be continuity.	An open in the wire

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Driving Position Memory Switch Test/Replacement

1. Carefully pry the driving position memory switch (A) out from the door panel.



2. Disconnect the 7P connector (B) 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		6
SET button	OFF							
	ON			○				○
Position 1 button	OFF							
	ON	○						○
Position 2 button	OFF							
	ON		○					○
Indicator 1					⊕		▷	⊖
Indicator 2						⊕	▷	⊖

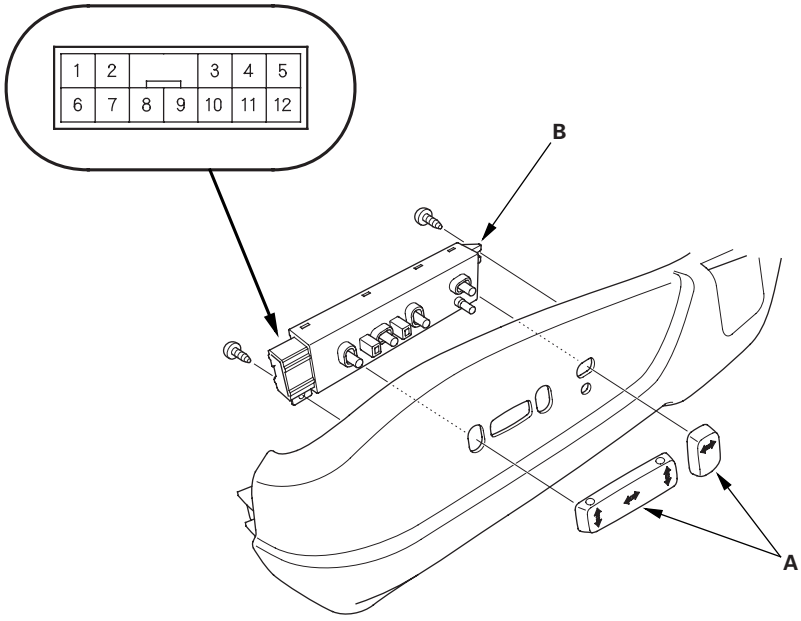
4. If the continuity is not as specified, replace the switch.

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Power Seat Adjustment Switch Test/Replacement

1. Remove the driver's seat (see page 20-148).

2. Remove the power seat adjustment switch knobs (A) and the recline cover from the driver's seat (see page 20-167), 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		○			○							

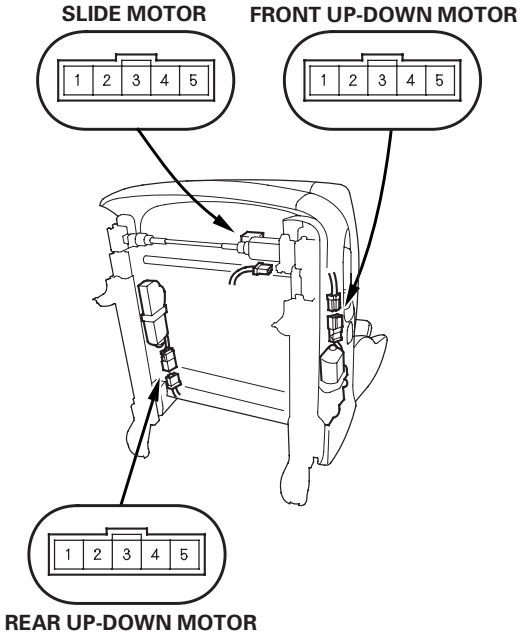
6. If the continuity is not as specified, replace the switch.

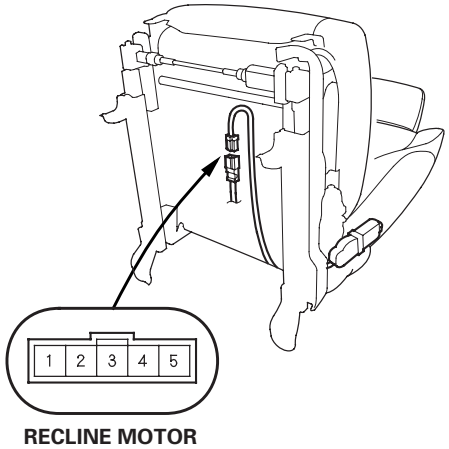
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Driver's Power Seat Motor Test

1. Remove the driver's seat (see page 20-148).
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 20-153)
   - Front up-down motor (see page 20-155)
   - Rear up-down motor (see page 20-156)
   - Recline motor (see page 20-151)

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