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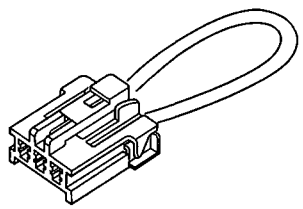
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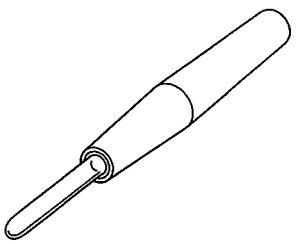
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Special Tools

Ref. No.	Tool Number	Description	Qty
①	07WAZ-001010A	MPCS (MICU) Service Connector	1
②	07TAZ-001020A	Back Probe Adaptor	1



①



②

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General Troubleshooting Information

Tips and Precautions

Before Troubleshooting

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

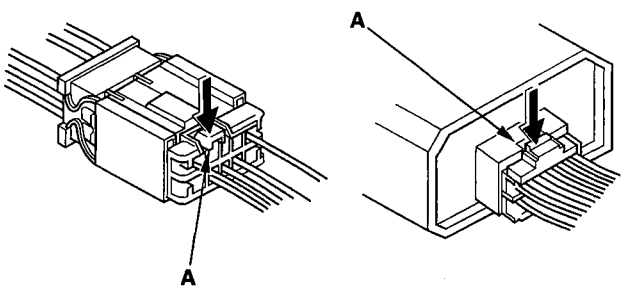
2. Check the battery for damage, state of charge, and clean and tight connections.

NOTICE

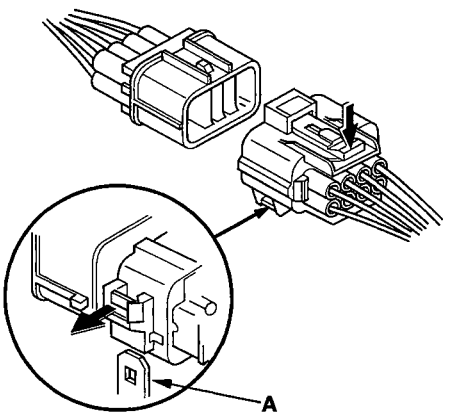
- Do not quick-charge a battery unless the battery ground cable has been disconnected, otherwise you will damage the alternator diodes.
- Do not attempt to crank the engine with the battery ground cable loosely connected or you will severely damage the wiring.

Handling Connectors

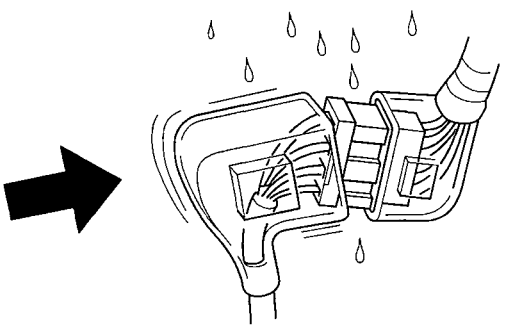
- Make sure the connectors are clean and have no loose wire terminals.
- Make sure multiple cavity connectors are packed with dielectric grease (except watertight connectors).
- All connectors have push-down release type locks (A).



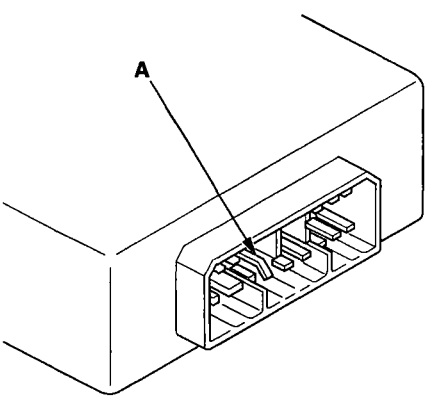
- Some connectors have a clip on their side used to attach them to a mount bracket on the body or on another component. This clip has a pull type lock.
- Some mounted connectors cannot be disconnected unless you first release the lock and remove the connector from its mount bracket (A).



- 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.

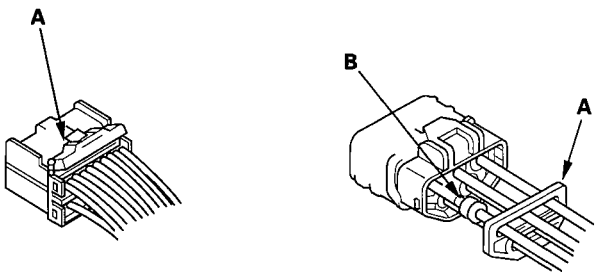


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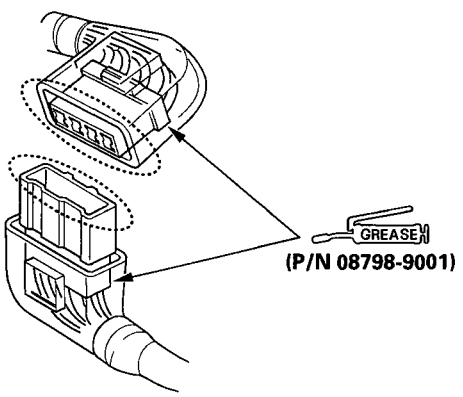
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General Troubleshooting Information (cont'd)

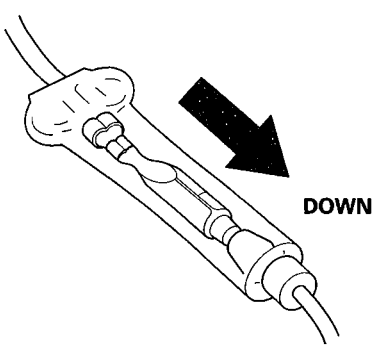
- Check for loose retainer (A) and rubber seals (B).



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

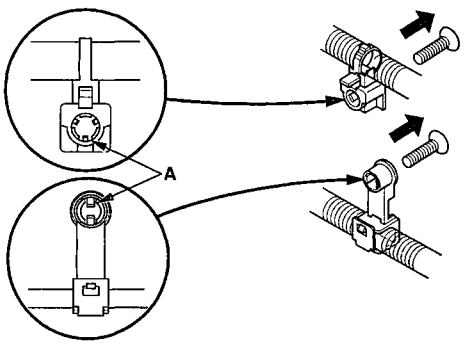


- Insert the connector all the way and make sure it is securely locked.
- Position wires so that the open end of the cover faces down.

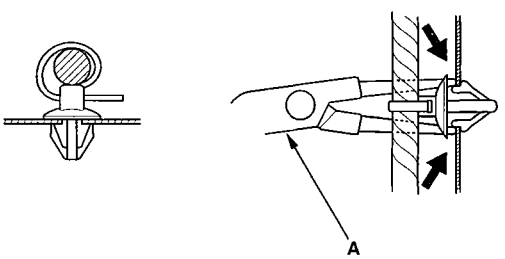


Handling Wires and Harnesses

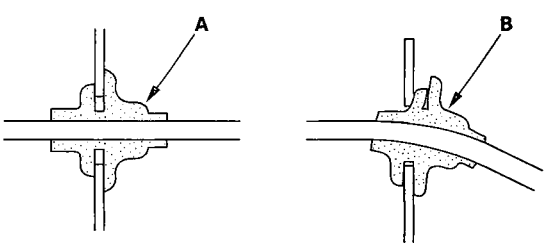
- Secure wires and wire harnesses to the frame with their respective wire ties at the designated locations.
- Remove clips carefully; don't damage their locks (A).



- Slip pliers (A) under the clip base and through the hole at an angle, then squeeze the expansion tabs to release the clip.



- 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).

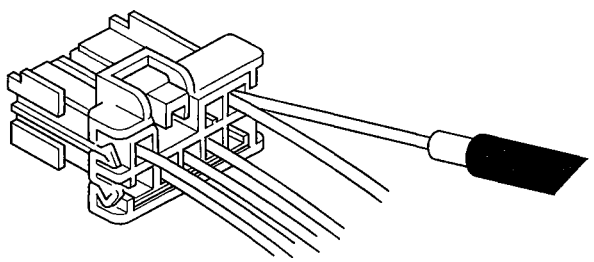


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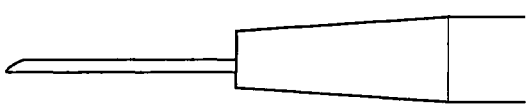
BACK

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 is 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.

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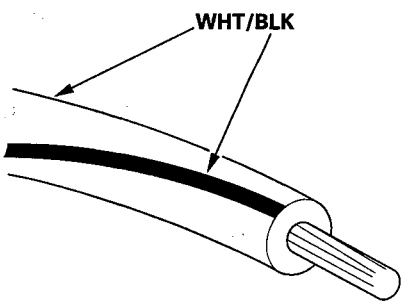
General Troubleshooting Information (cont'd)

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

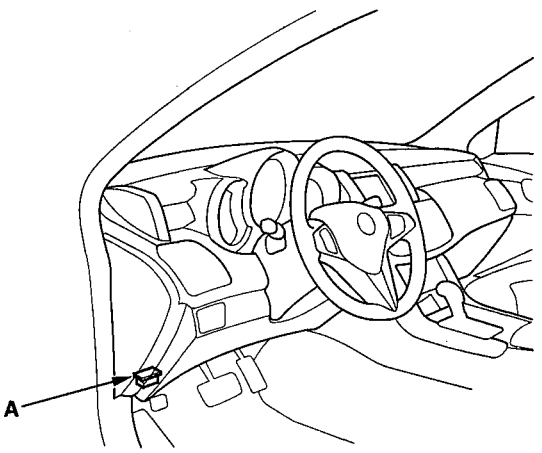
The wire insulation has one color or one color with another color stripe. The second color is the stripe.



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 (A) located under the driver's side of the dashboard.



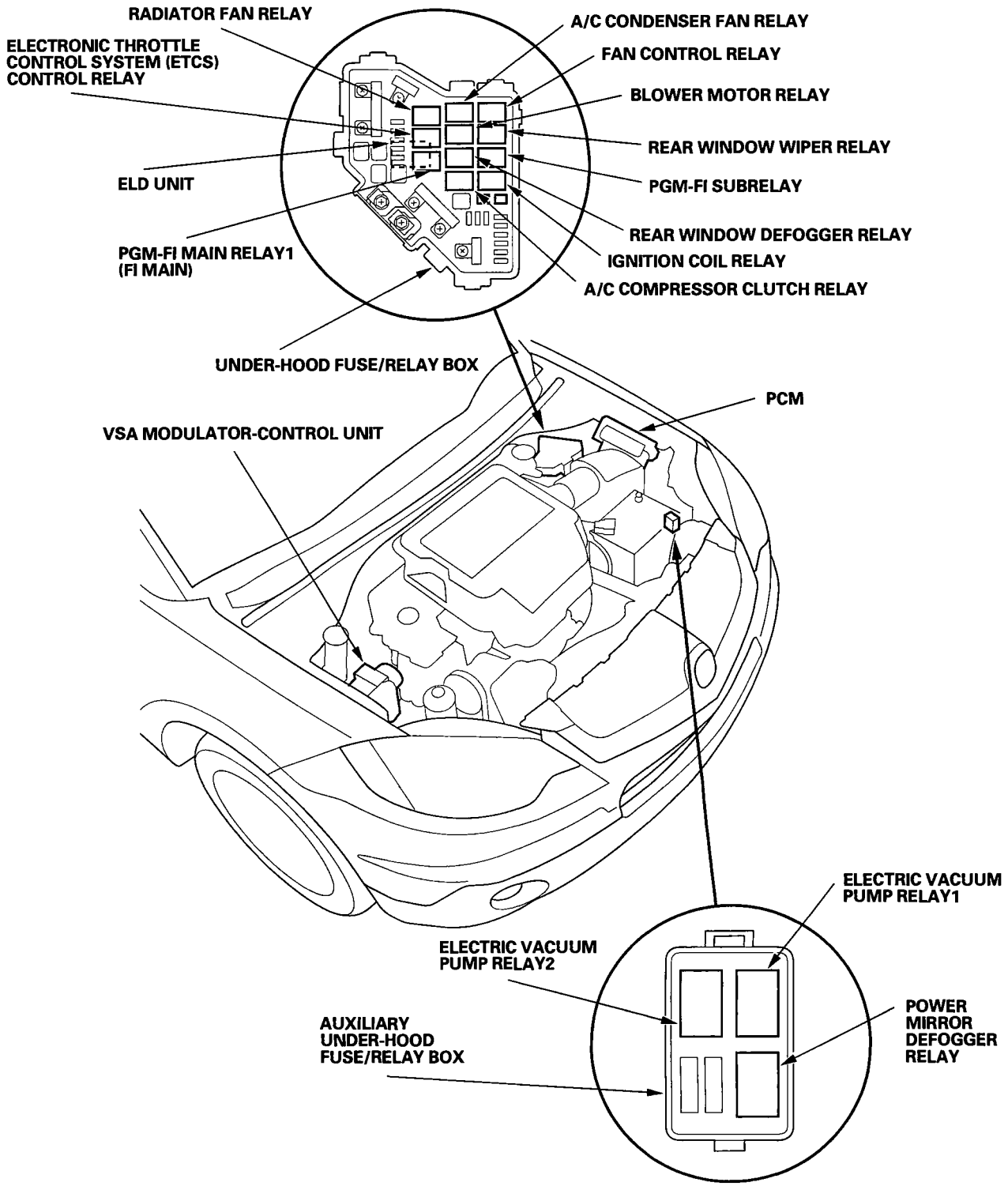
2. Turn the ignition switch ON (II).
3. Make sure the HDS communicates with the vehicle, if it doesn't, troubleshoot the DLC circuit (see page 11-229).
4. Enter the BODY ELECTRICAL then select the TEST MODE menu.
5. Check for DTCs with the HDS.
6. If any DTCs are indicated, note them, and go to the indicated DTC troubleshooting.

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Relay and Control Unit Locations

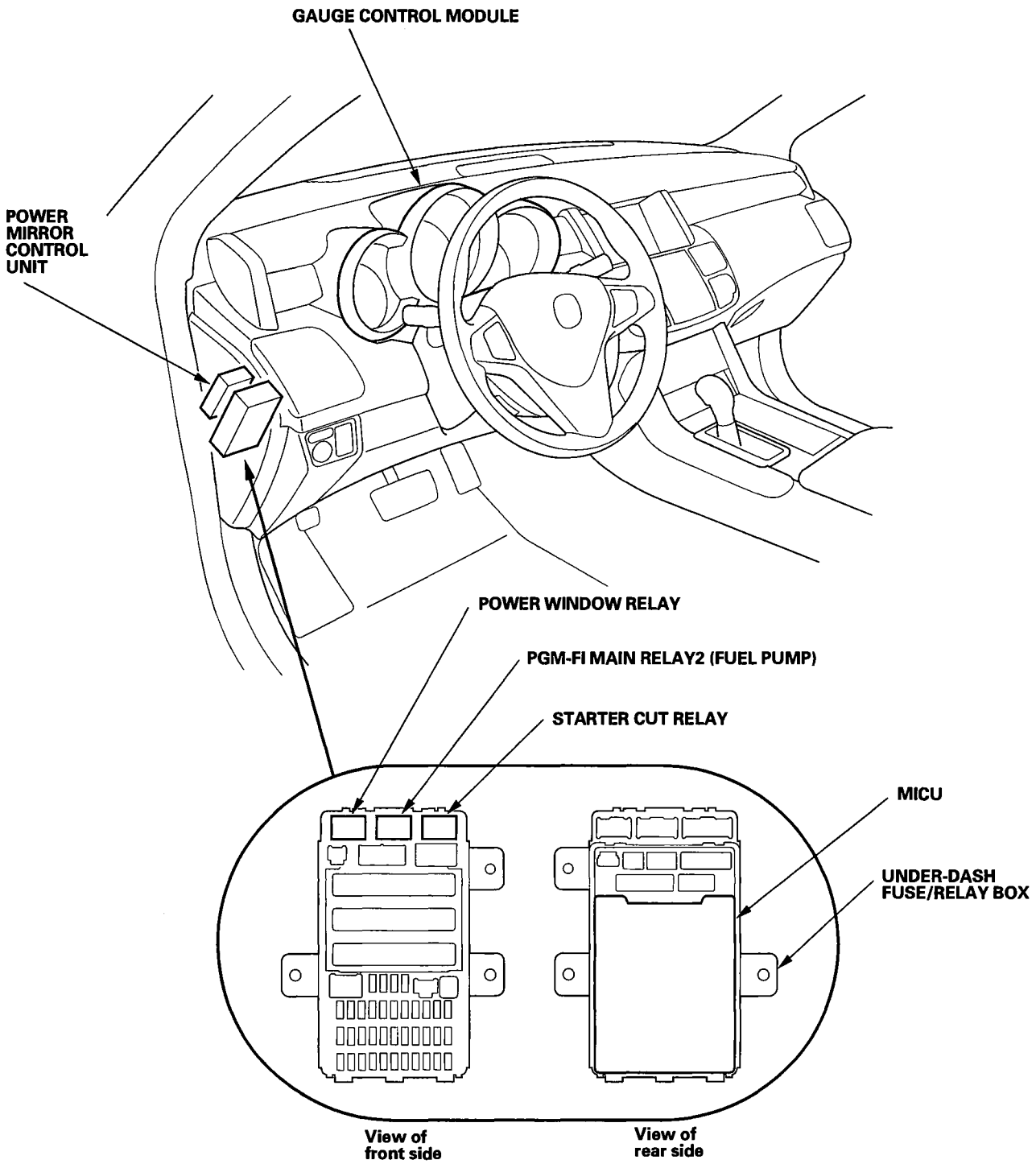
Engine Compartment



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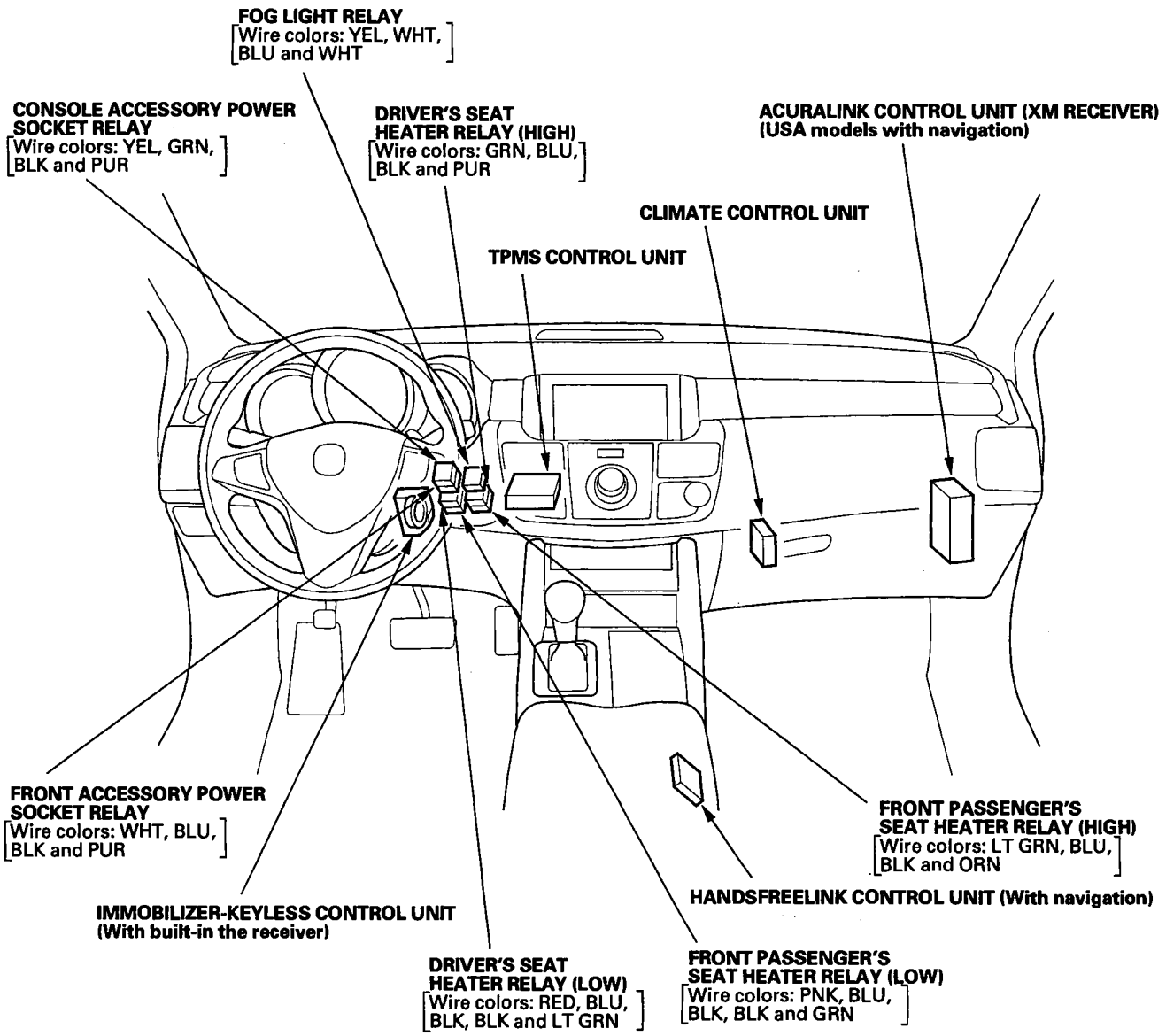
Relay and Control Unit Locations

Dashboard



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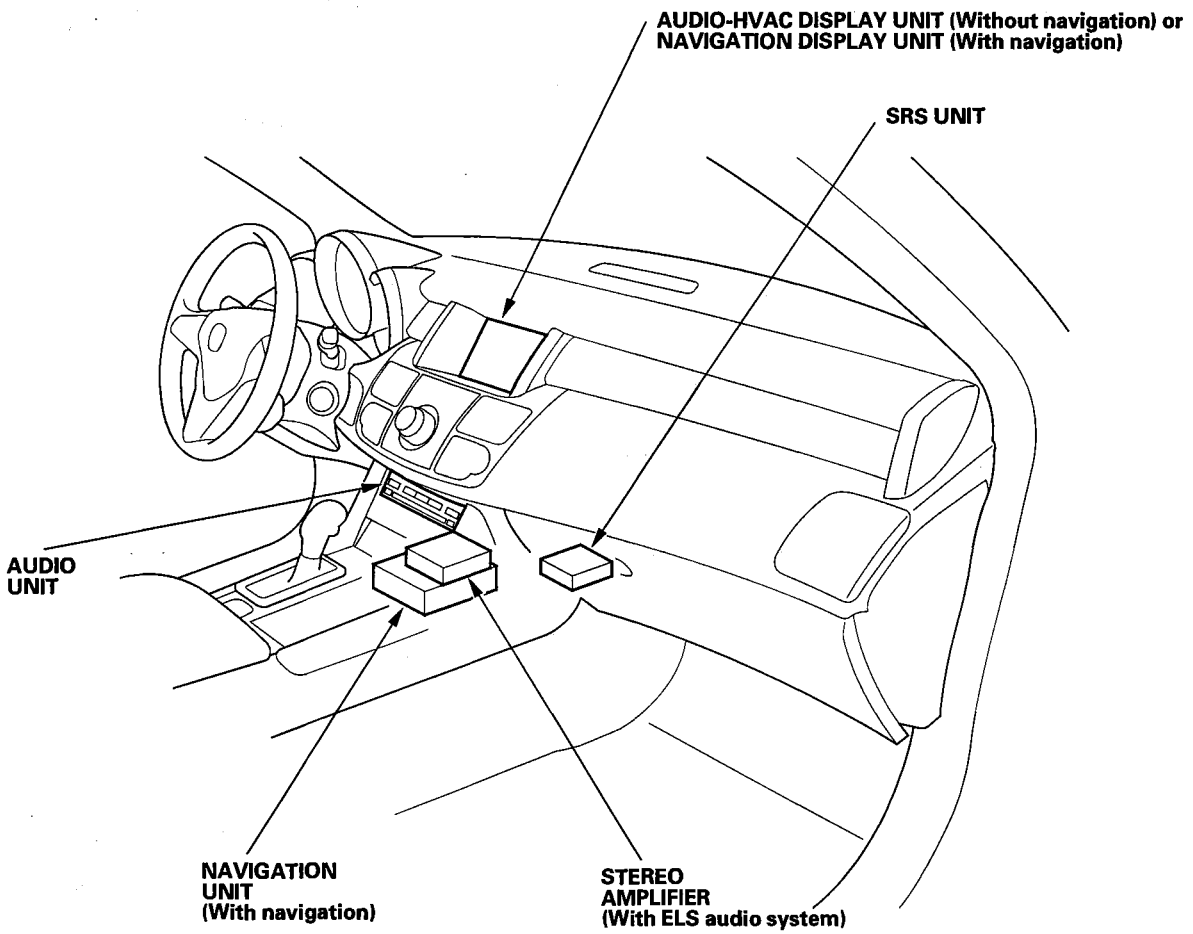


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Relay and Control Unit Locations

Dashboard (cont'd)

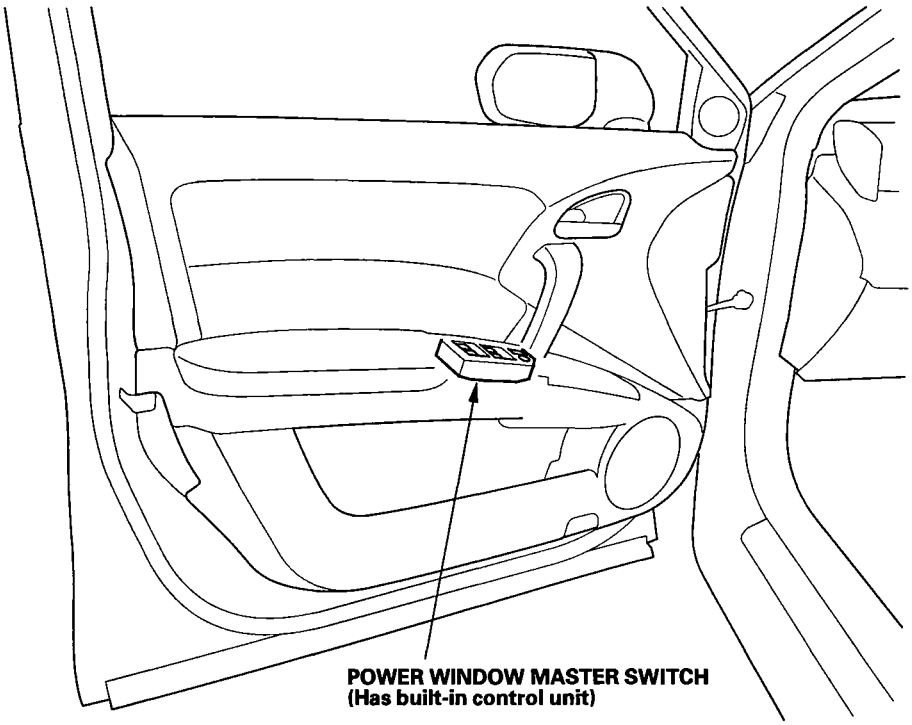


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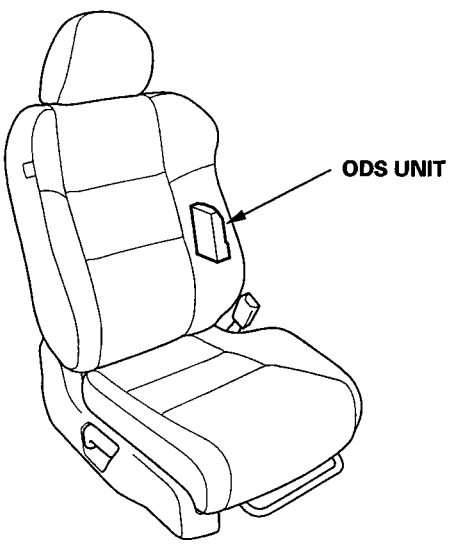
BACK

Door and Seat

Driver's Door



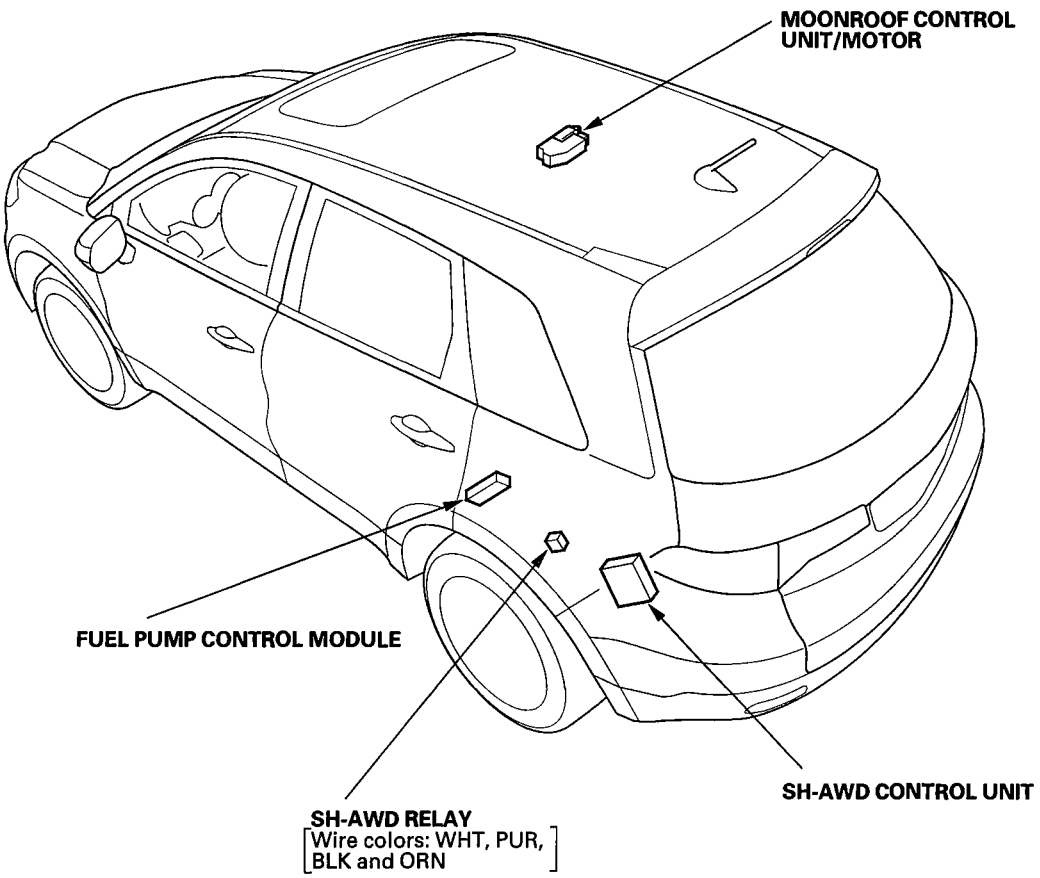
Front Passenger's Seat



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Relay and Control Unit Locations

Rear and Roof



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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, Tailgate, and Roof)	Notes
A/C wire harness		C206 G571		(see page 22-48)
Battery ground cable	(−), G1			(see page 22-14)
Cable reel subharness				(see page 22-49)
Dashboard wire harness (View of driver's side)		C203 through C205, C208 through C211, C401, C402, C501, C502 G501		(see page 22-28)
Dashboard wire harness (View of middle)		C403 through C405 G502, G503, G504, G506		(see page 22-30)
Dashboard wire harness (View of passenger's side)		C302 through C307, C551, C552 G505		(see page 22-32)
Driver's door subharness			C503	(see page 22-44)
Driver's door wire harness		C501, C502	C503	(see page 22-44)
Driver's seat subharness			C702	(see page 22-50)
Driver's seat wire harness			C701, C702	(see page 22-50)
Engine compartment wire harness (Left branch)	C101, C104 G201, G202	C201 through C207 G451		(see page 22-22)
Engine compartment wire harness (Right branch)	C301	C301 through C303 G401, G402		(see page 22-26)
Engine ground cable	T1, G2			(see page 22-14)
Engine wire harness	C102 through C107 C101			(see page 22-18)
Front passenger's door subharness			C553	(see page 22-45)
Front passenger's door wire harness		C551, C552	C553	(see page 22-45)
Left rear door wire harness			C601	(see page 22-46)
Left side wire harness		C201, C202, C208, C209	C601, C751, C752, C801, C802 G601, G602	(see page 22-34)
Left TPMS subharness	C211			(see page 22-16)
Moonroof wire harness		C210		(see page 22-42)
ODS unit harness			C703	(see page 22-51)
Rear differential subharness			C751, C752 T15	(see page 22-43)
Right rear door wire harness			C651	(see page 22-47)
Right side wire harness		C301, C304, C305	C651 G651	(see page 22-36)
Right TPMS subharness	C306			(see page 22-16)
Shift solenoid wire harness	C107			(see page 22-18)
SRS wire harness (Left branch)			C701 G551	(see page 22-38)
SRS wire harness (Right branch)		C405	C703 G552	(see page 22-39)
Starter cable	(+), C101, C102 T3, T101, T102, T103			(see page 22-16)
Tailgate subharness			C801 through C804	(see page 22-40)
Tailgate wire harness			C803, C804	(see page 22-40)
Transmission ground cable	T2, G3			(see page 22-14)
Transmission range switch subharness	C103			(see page 22-18)

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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

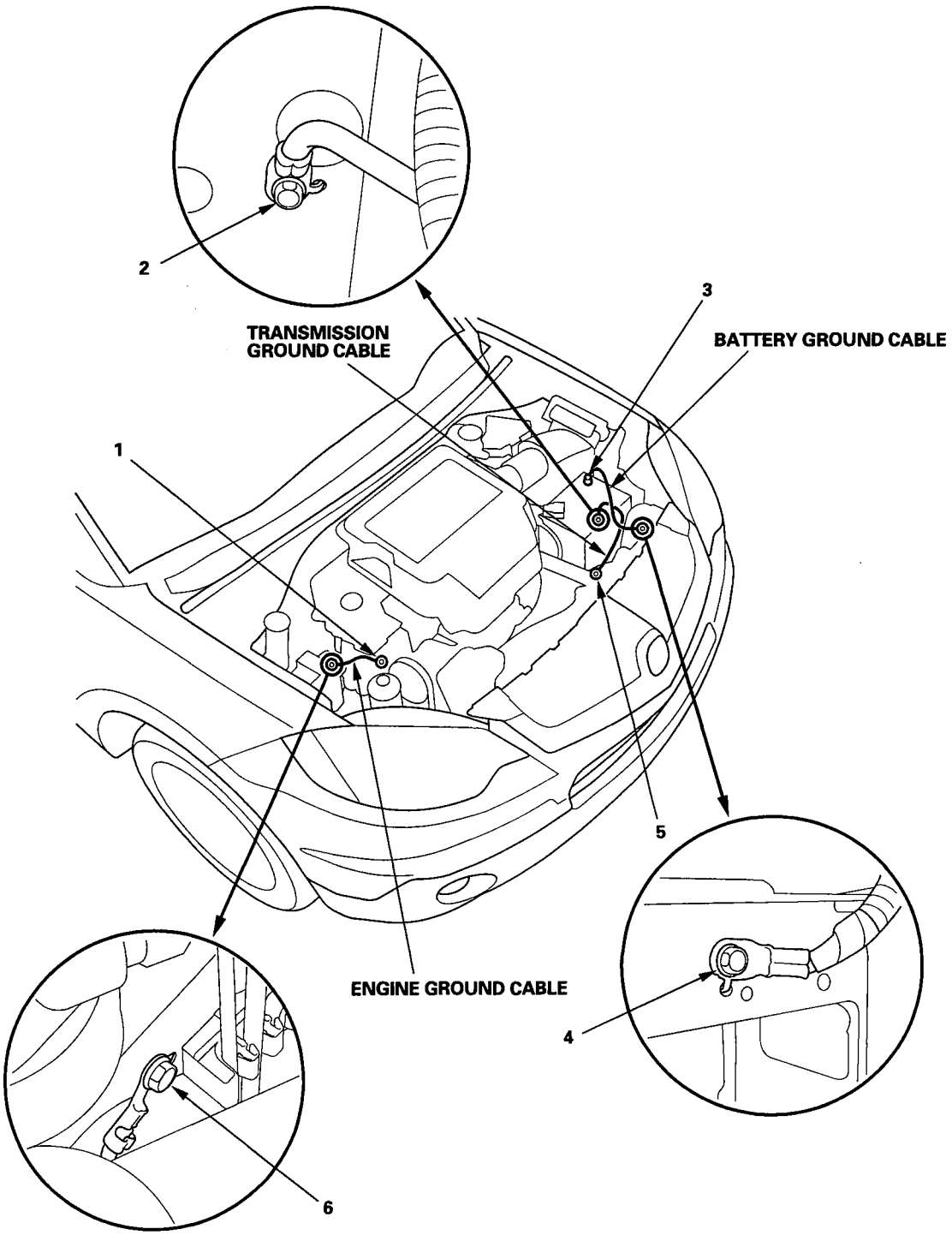
Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
T1	1		Right side of engine compartment	Engine	
G2	6		Right side of engine compartment	Body ground, via engine ground cable	

Transmission Ground Cable

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
T2	5		Left side of engine compartment	Transmission housing	
G3	2		Left side of engine compartment	Body ground, via transmission ground cable	

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Connector to Harness Index (cont'd)

Starter Cable

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
A/C compressor	1	3	Right side of engine compartment		
Alternator	5	4	Right side of engine compartment		
Knock sensor	7	1	Middle of engine		
MAF sensor	10	5	Left side of engine compartment		
Starter solenoid	9	1	Middle of engine compartment		
C101	13	1	Left side of engine compartment	Engine compartment wire harness (see page 22-22)	
C102	6	13	Middle of engine compartment	Engine wire harness (see page 22-18)	
(+)	16		Middle of engine compartment	Battery (+) terminal	
T3	8		Middle of engine compartment	Starter	
T101	11		Left side of engine compartment	Under-hood fuse/relay box (see page 22-52)	
T102	12		Left side of engine compartment	Under-hood fuse/relay box (see page 22-52)	
T103	4		Right side of engine compartment	Alternator	

Left TPMS Subharness

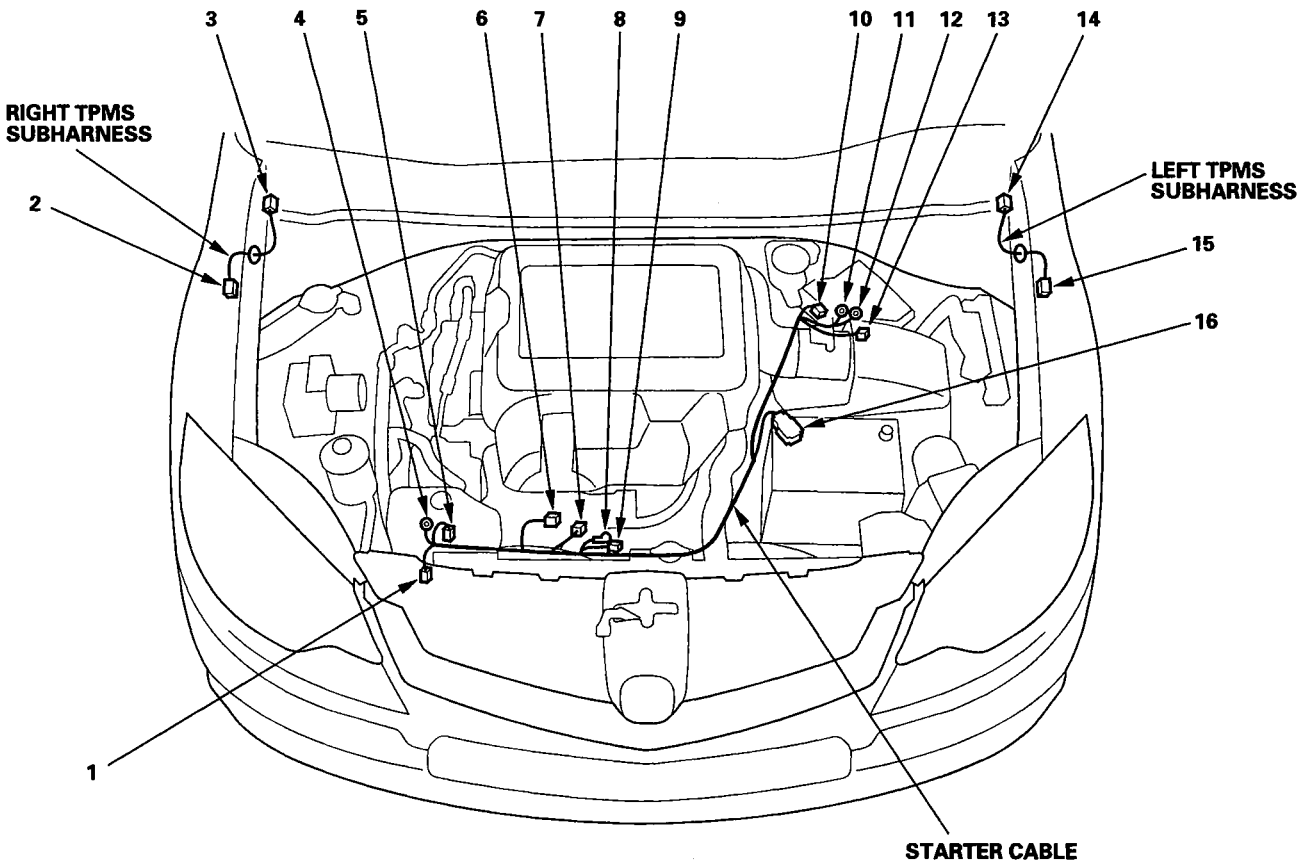
Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Left front initiator	15	3	Left side of engine compartment		
C211	14	4	Under left side of dash	Dashboard wire harness (see page 22-28)	

Right TPMS Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Right front initiator	2	3	Right side of engine compartment		
C306	3	4	Under right side of dash	Dashboard wire harness (see page 22-32)	

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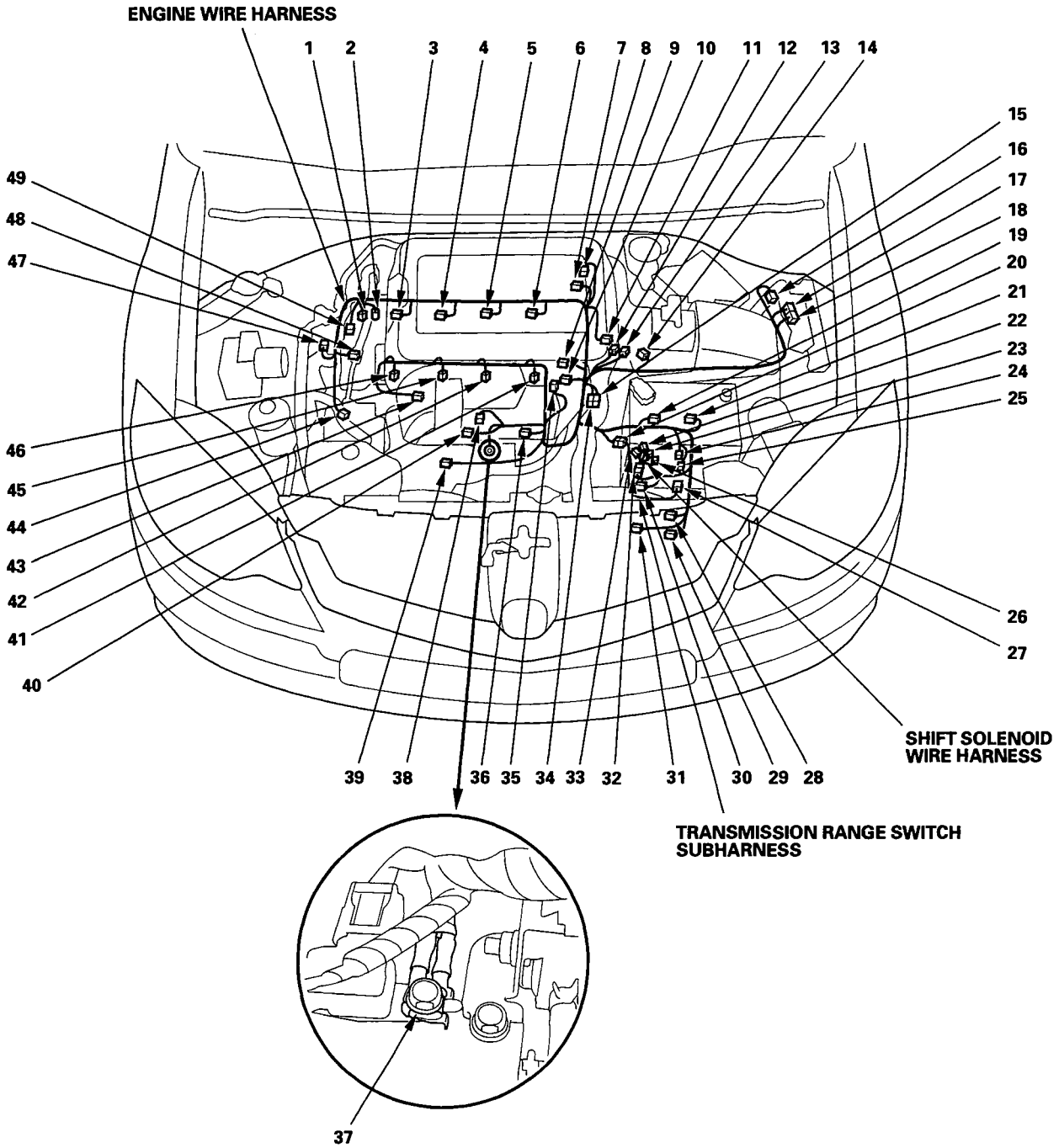
Connector to Harness Index (cont'd)

Engine Wire Harnes

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
ATF temperature sensor	29	2	Transmission housing		
A/F sensor (sensor 1)	47	4	Right side of engine compartment		
A/T clutch pressure control solenoid valve A	24	2	Transmisson housing		
A/T clutch pressure control solenoid valve B	25	2	Transmission housing		
A/T clutch pressure control solenoid valve C	19	2	Transmission housing		
Turbocharger boost sensor	35	3	Left side of engine		
CKP sensor	44	3	Under right side of engine		
CMP sensor A	9	3	Left side of engine		
CMP sensor B	13	3	Left side of engine		
Engine coolant temperature (ECT) sensor 1	10	2	Left side of engine		
EVAP canister purge valve	12	2	Left side of engine		
Ignition coil No. 1	3	3	Middle of engine		
Ignition coil No. 2	4	3	Middle of engine		
Ignition coil No. 3	5	3	Middle of engine		
Ignition coil No. 4	6	3	Middle of engine		
Injector No. 1	46	2	Middle of engine		
Injector No. 2	45	2	Middle of engine		
Injector No. 3	42	2	Middle of engine		
Injector No. 4	41	2	Middle of engine		
Intake air temperature (IAT) sensor	40	2	Middle of engine		
Input shaft (mainshaft) speed sensor	30	3	Transmission Housing		
MAP sensor	38	3	Middle of engine		
Oil pressure switch	48	1	Under right side of engine		
Output shaft (countershaft) speed sensor	28	3	Transmission housing		
PCM connector B	18	44	Left side of engine compartment		
PCM connector C	17	44	Left side of engine compartment		
Rocker arm oil control solenoid	1	2	Rear side engine		
Rocker arm oil pressure switch	2	2	Rear side of engine		
Secondary HO2S (Sensor 2)	14	4	Left side of engine		
TP sensor/throttle actuator (throttle body)	43	6	Middle of engine		
Turbocharger boost control solenoid valve	8	2	Rear side of engine		
Turbocharger bypass control solenoid valve	36	2	Middle of engine		
Turbocharger wastegate control solenoid valve	7	2	Rear side of engine		
VTC oil control solenoid valve	49	2	Rear side of engine		
2nd clutch transmission fluid pressure switch	11	1	Transmission housing		
3rd clutch transmission fluid pressure switch	31	1	Transmission housing		
4th clutch transmission fluid pressure switch	21	1	Transmission housing		

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Connector to Harness Index (cont'd)

Engine Wire Harness (cont'd)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
C102	39	13	Middle of engine compartment	Starter cable (see page 22-16)	
C103	20	10	Transmission housing	Transmission range switch subharness	
C104	16	23	Left side of engine	Engine compartment wire harness (see page 22-22)	
C105 (Junction connector)	34	24	Left side of engine		
C106 (Junction connector)	15	12	Left side of engine		
C107	32	5	Transmission housing	Shift solenoid wire harness	
G101	37		Middle of engine	Engine ground, via engine wire harness	

Transmission Range Switch Subharness

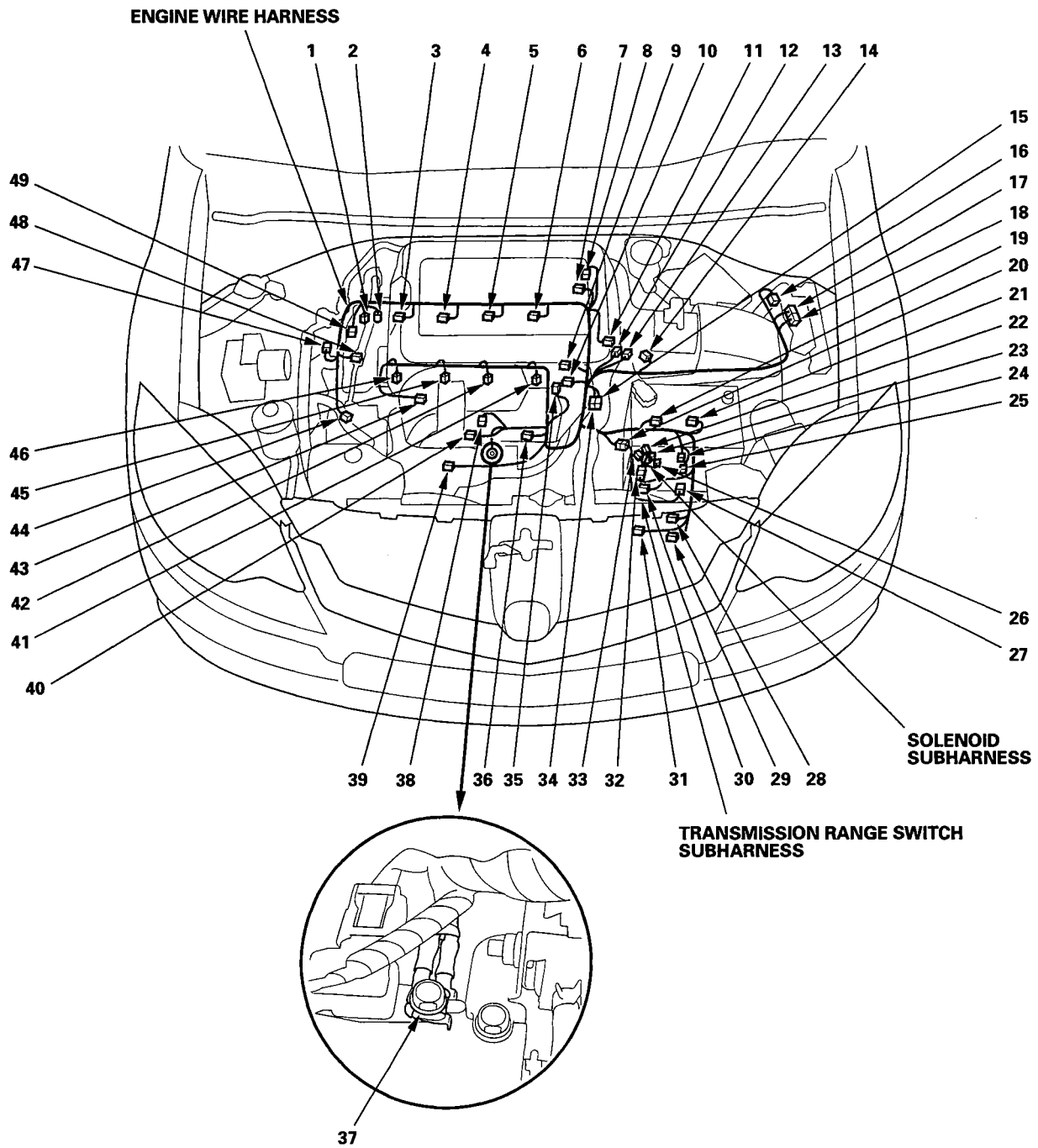
Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Transmission range switch	27	10	Transmission housing		
C103	20	10	Transmission housing	Engine wire harness	

Shift Solenoid Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Shift solenoid valve A	23	1	Transmission housing		
Shift solenoid valve B	33	1	Transmission housing		
Shift solenoid valve C	22	1	Transmission housing		
Shift solenoid valve D	26	1	Transmission housing		
C107	32	5	Transmission housing	Engine wire harness	

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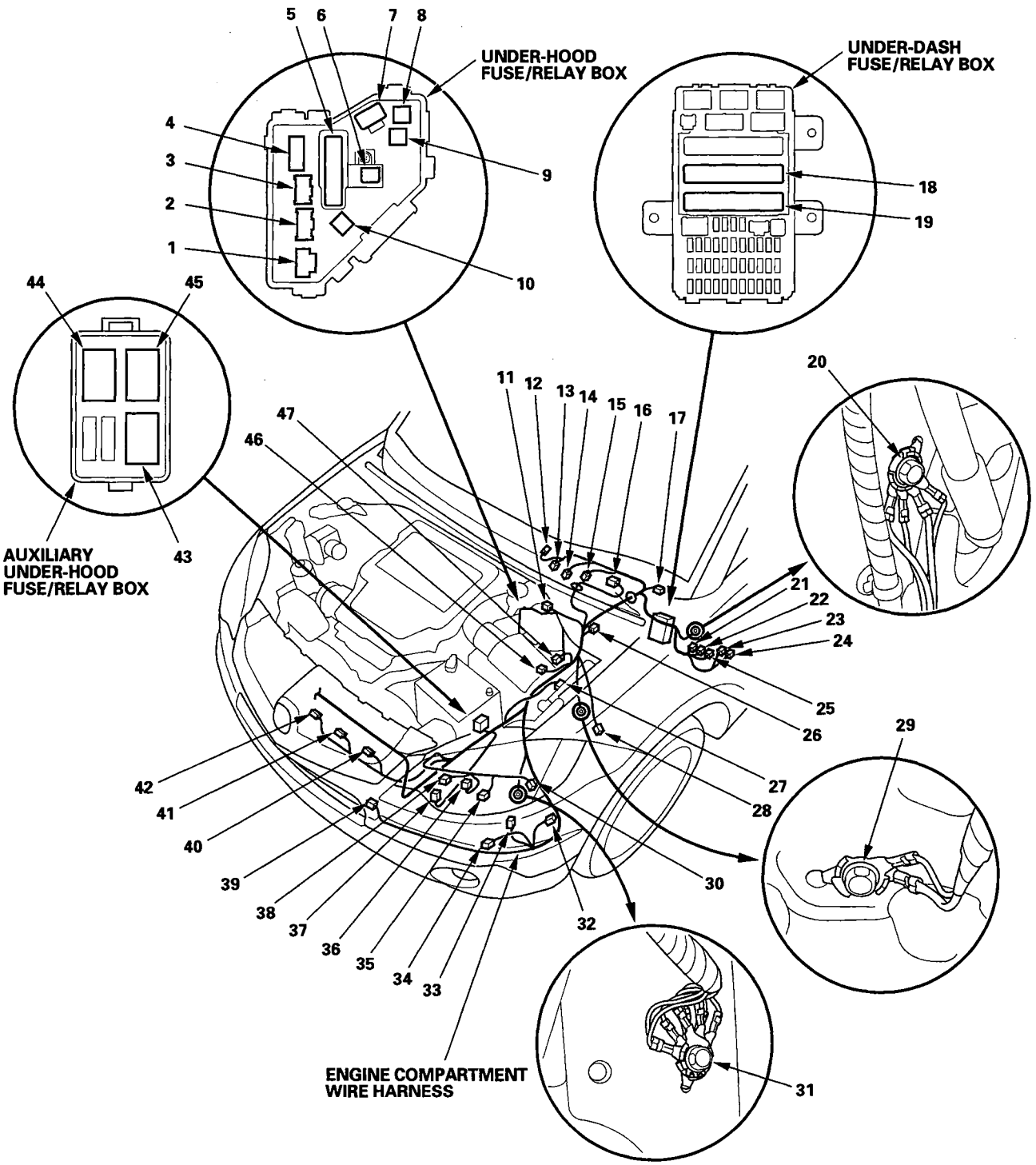
Connector to Harness Index (cont'd)

Engine Compartment Wire Harness (Left branch)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Accelerator pedal position sensor	13	6	Under left side of dash		
A/C condenser fan motor	42	2	Middle of engine compartment		
Brake booster pressure sensor	26	3	Left side of engine compartment		
Brake fluid level switch	11	2	Left side of engine compartment		
Brake pedal position switch	14	4	Under left side of dash		
Electric vacuum pump relay 1	45	4	Left side of engine compartment		
Electric vacuum pump relay 2	44	4	Left side of engine compartment		
Engine coolant temperature (ECT) sensor 2	40	2	Middle of engine compartment		
High horn	33	1	Behind left side of front bumper		
Keyless buzzer	32	2	Behind left side of front bumper		
Left fog light	34	2	Behind left side of front bumper		
Left front impact sensor	37	2	Behind middle of front bumper		
Left front parking/turn signal light	38	3	Behind left headlight		
Left front side marker light	30	2	Behind left headlight		
Left front wheel sensor	28	2	Left side of engine compartment		
Left headlight (low)	35	2	Behind left headlight		
Left headlight (high)	36	2	Behind left headlight		
Outside air temperature sensor	39	2	Behind middle of front bumper		
Parking brake switch	15	1	Under left side of dash		
PCM connector A	27	44	Left side of engine compartment		
Power mirror defogger relay	43	4	Left side of engine compartment		
Radiator fan motor	41	2	Middle of engine compartment		
Under-dash fuse/relay box connector F	18	34	Under left side of dash		
Under-dash fuse/relay box connector G	19	21	Under left side of dash		
Under-hood fuse/relay box connector A (ELD unit) (see page 22-52)	6	3	Left side of engine compartment		
Under-hood fuse/relay box connector B (see page 22-52)	10	1	Left side of engine compartment		
Under-hood fuse/relay box connector C (see page 22-52)	1	2	Left side of engine compartment		
Under-hood fuse/relay box connector D (see page 22-52)	3	8	Left side of engine compartment		
Under-hood fuse/relay box connector E (see page 22-52)	2	10	Left side of engine compartment		
Under-hood fuse/relay box connector F (see page 22-52)	5	20	Left side of engine compartment		
Under-hood fuse/relay box connector G (see page 22-52)	8	1	Left side of engine compartment		
Under-hood fuse/relay box connector H (see page 22-52)	9	1	Left side of engine compartment		
Under-hood fuse/relay box connector J (see page 22-52)	4	4	Left side of engine compartment		
Under-hood fuse/relay box connector K (see page 22-52)	7	2	Left side of engine compartment		
Windshield wiper motor	16	5	Under left side of cowl cover		

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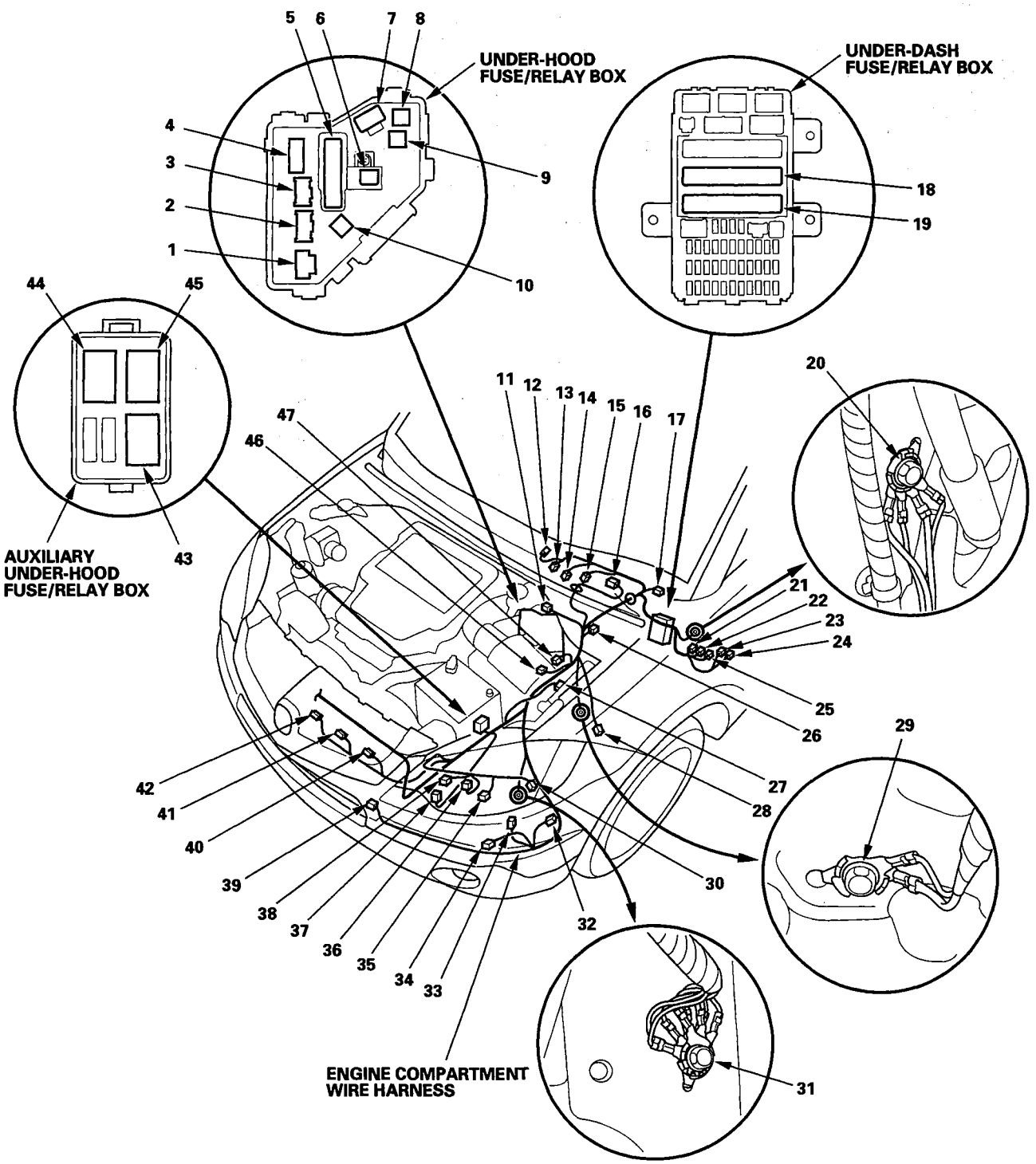
Connector to Harness Index (cont'd)

Engine Compartment Wire Harness (Left branch) (cont'd)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
C101	46	1	Left side of engine compartment	starter cable (see page 22-16)	
C104	47	23	Left side of engine compartment	Engine wire harness (see page 22-18)	
C201	24	13	Under left side of dash	Left side wire harness (see page 22-34)	
C202	23	2	Under left side of dash	Left side wire harness (see page 22-34)	
C203	25	20	Under left side of dash	Dashboard wire harness (see page 22-28)	
C204	22	4	Under left side of dash	Dashboard wire harness (see page 22-28)	
C205	21	4	Under left side of dash	Dashboard wire harness (see page 22-28)	
C206	12	12	Under left side of dash	A/C wire harness (see page 22-48)	
C207 (Junction connector)	17	12	Under left side of dash		
G201	31		Behind left side of front bumper	Body ground, via engine compartment wire harness	
G202	29		Left side of engine compartment	Body ground, via engine compartment wire harness	
G451	20		Behind left kick panel	Body ground, via engine compartment wire harness	

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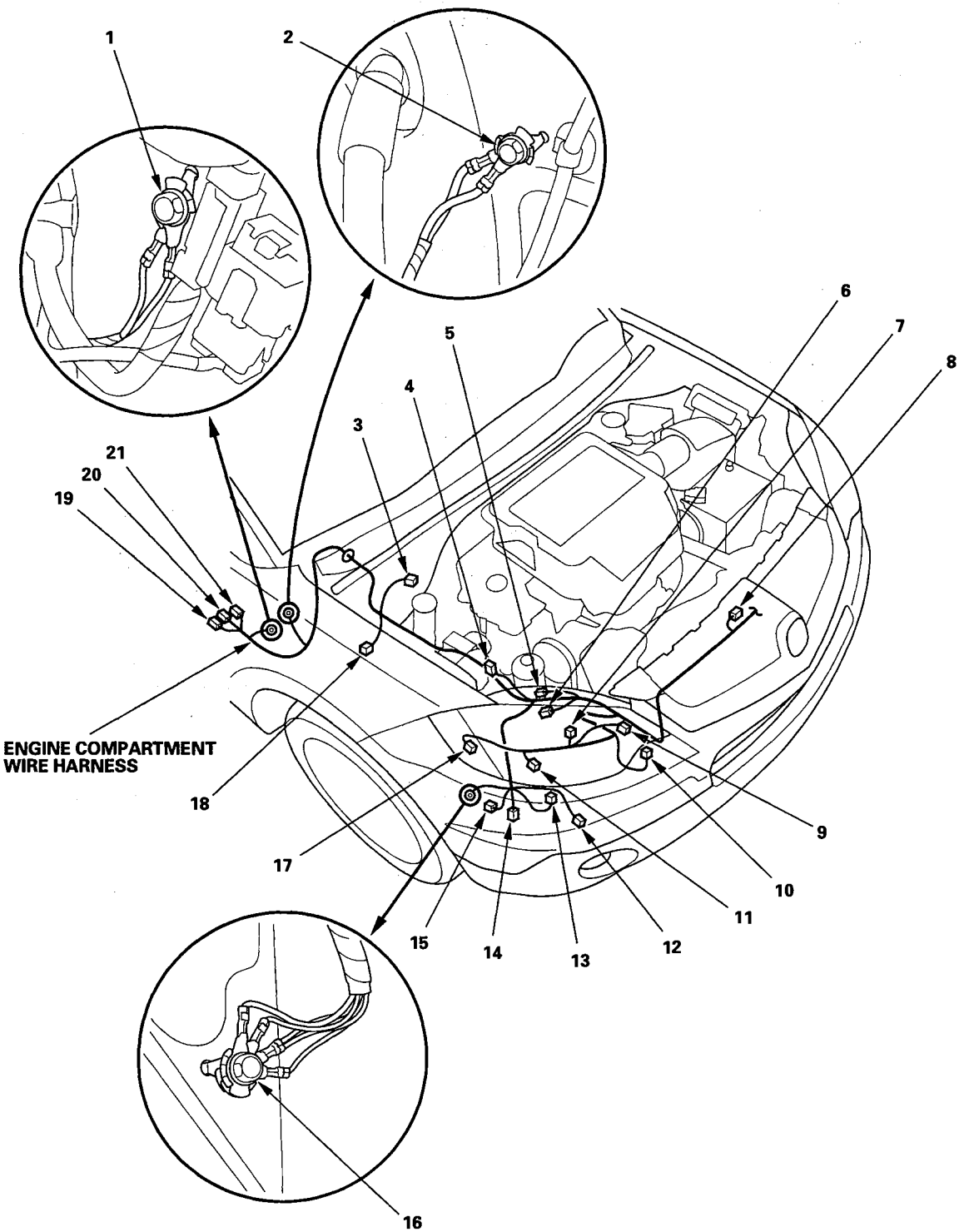
Connector to Harness Index (cont'd)

Engine Compartment Wire Harness (Right branch)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
A/C pressure switch	5	3	Right side of engine compartment		
Electric vacuum pump	6	2	Right side of engine compartment		
Hood switch	8	2	Front of engine compartment		
Low horn	13	1	Behind right side of front bumper		
Power steering pressure (PSP) switch	3	2	Right side of engine compartment		
Right front impact sensor	10	2	Behind middle of front bumper		
Right fog light	12	2	Behind right side of front bumper		
Right front parking/turn signal light	9	3	Behind right headlight		
Right front side marker light	17	2	Behind right headlight		
Right front wheel sensor	18	2	Right side of engine compartment		
Right headlight (high)	7	2	Behind right headlight		
Right headlight (low)	11	2	Behind right headlight		
VSA modulator-control unit	4	46	Right side of engine compartment		
Windshield/rear window washer motor	14	2	Behind right side of front bumper		
Washer fluid level switch	15	2	Behind right side of front bumper		Canada models
C301	19	2	Under right side of dash	Right side wire harness (see page 22-36)	
C302	20	6	Under right side of dash	Dashboard wire harness (see page 22-32)	
C303	21	4	Under right side of dash	Dashboard wire harness (see page 22-32)	
G301	16		Behind right side of front bumper	Body ground, via engine compartment wire harness	
G401	1		Under right side of dash	Body ground, via engine compartment wire harness	
G402	2		Under right side of dash	Body ground, via engine compartment wire harness	

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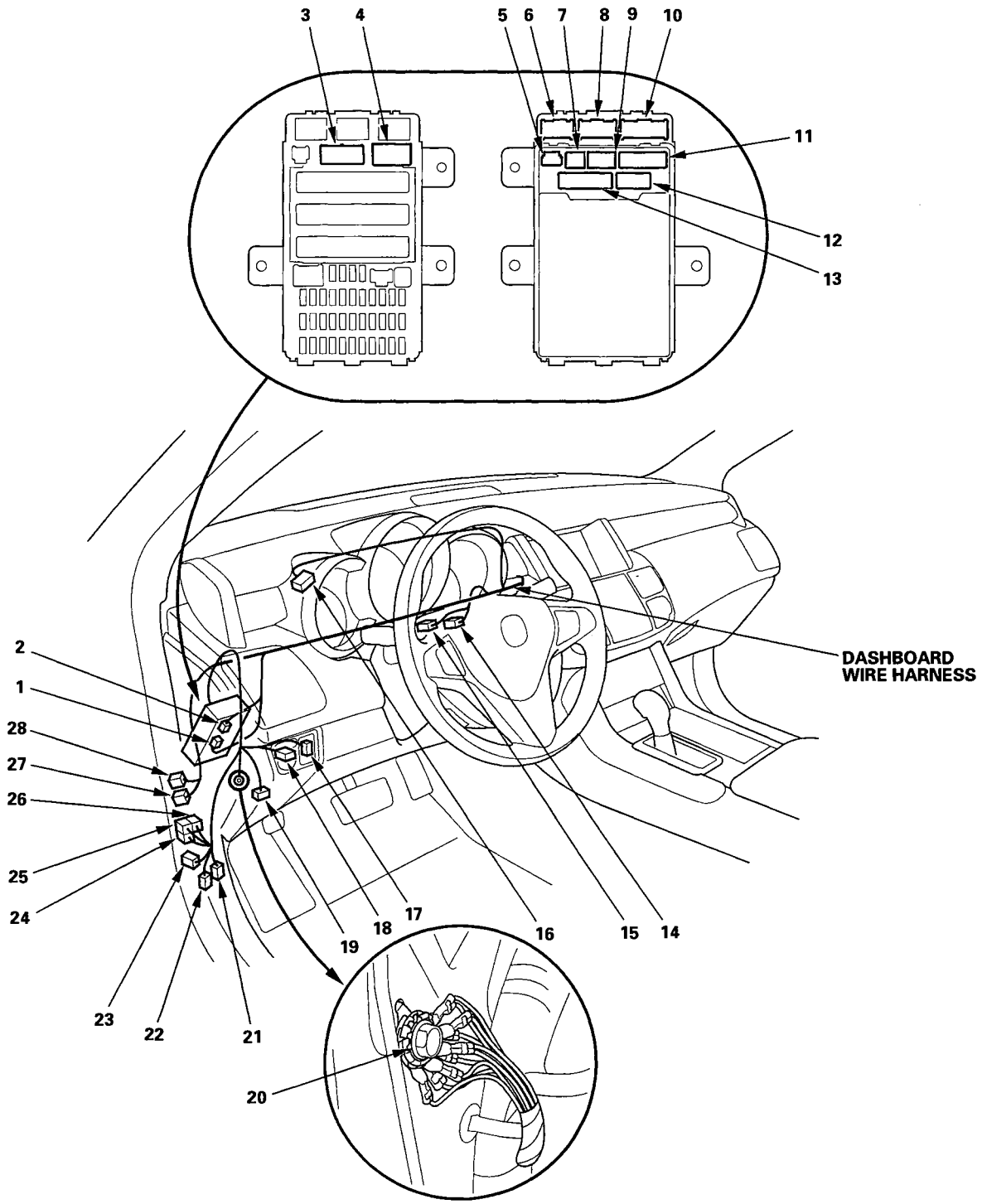
Connector to Harness Index (cont'd)

Dashboard Wire Harness (View of driver's side)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Data link connector (DLC)	19	16	Under left side of dash		
Gauge control module	16	36	Behind gauge control module		
Power mirror control unit	1	24	Under left side of dash		
Power mirror switch	18	13	Left side of dash		
Under-dash fuse/relay box connector C (see page 22-54)	3	4	Under left side of dash		
Under-dash fuse/relay box connector D (see page 22-54)	4	2	Under left side of dash		
Under-dash fuse/relay box connector O (see page 22-54)	5	4	Under left side of dash		
Under-dash fuse/relay box connector K (see page 22-54)	6	8	Under left side of dash		
Under-dash fuse/relay box connector P (see page 22-54)	7	10	Under left side of dash		
Under-dash fuse/relay box connector M (see page 22-54)	8	10	Under left side of dash		
Under-dash fuse/relay box connector Q (see page 22-54)	9	16	Under left side of dash		
Under-dash fuse/relay box connector N (see page 22-54)	10	14	Under left side of dash		
Under-dash fuse/relay box connector R (see page 22-54)	11	20	Under left side of dash		
Under-dash fuse/relay box connector S (MICU) (see page 22-54)	12	20	Under left side of dash		
Under-dash fuse/relay box connector T (MICU) (see page 22-54)	13	34	Under left side of dash		
VSA OFF switch	17	5	Left side of dash		
C203	25	20	Under left side of dash	Engine compartment wire harness (see page 22-22)	
C204	24	4	Under left side of dash	Engine compartment wire harness (see page 22-22)	
C205	26	4	Under left side of dash	Engine compartment wire harness (see page 22-22)	
C208	21	16	Under left side of dash	Left side wire harness (see page 22-34)	
C209	22	18	Under left side of dash	Left side wire harness (see page 22-34)	
C210	23	20	Under left side of dash	Moonroof wire harness (see page 22-42)	
C211	2	4	Under left side of dash	Left TPMS subharness (see page 22-16)	
C401 (Junction connector)	15	12	Under middle of dash		
C402 (Junction connector)	14	12	Under middle of dash		
C501	28	18	Under left side of dash	Driver's door wire harness (see page 22-44)	
C502	27	16	Under left side of dash	Driver's door wire harness (see page 22-44)	
G501	20		Under left side of dash	Body ground, via dashboard wire harness	

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Connector to Harness Index (cont'd)

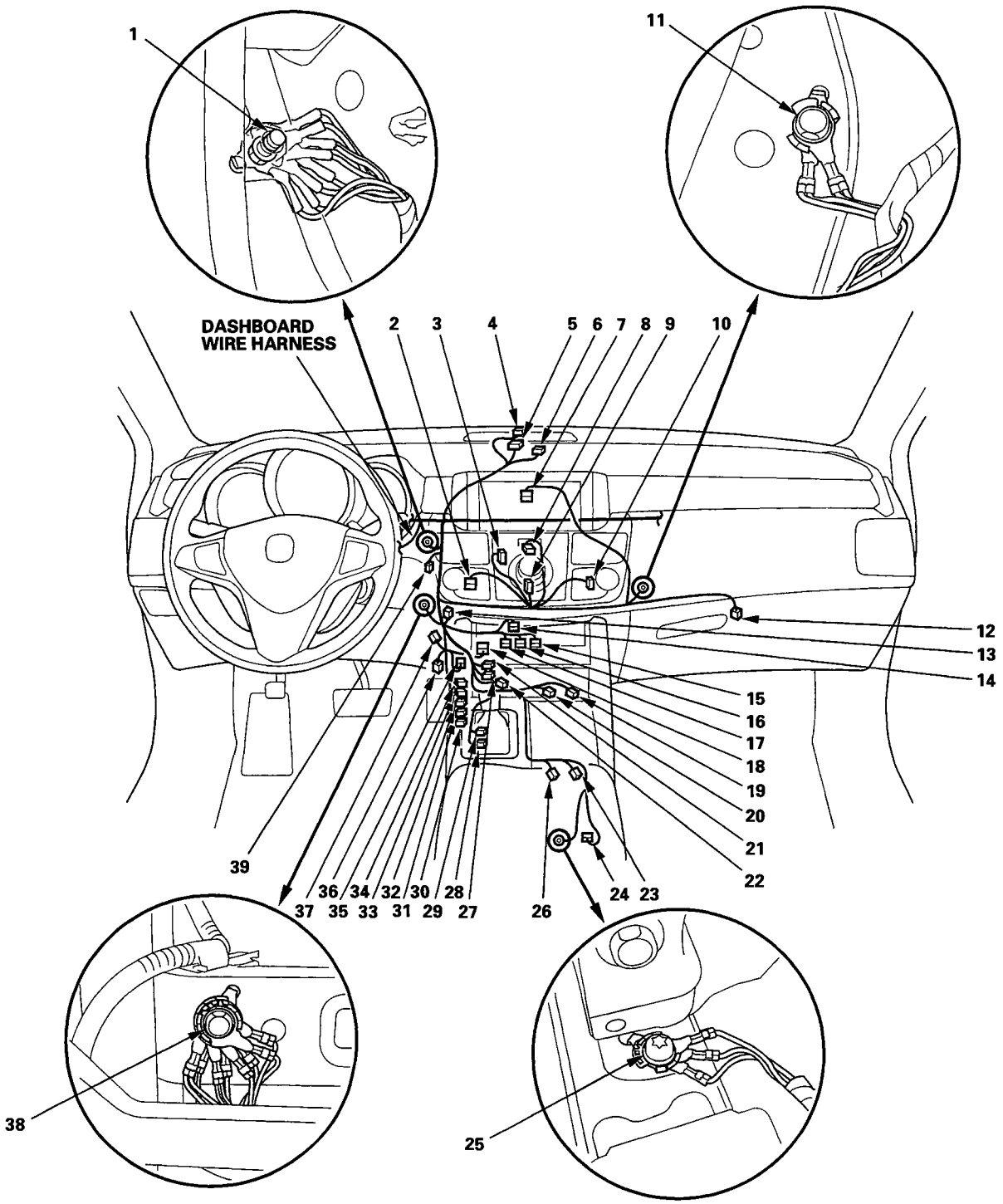
Dashboard Wire Harness (View of middle)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Audio switch panel connector A	3	20	Behind audio switch panel		* 1
Audio switch panel connector B	9	5	Behind audio switch panel		* 1
Audio-HVAC display unit	7	12	Middle of dash		* 1
Audio-HVAC subdisplay unit	5	12	Under middle of dash		* 2
Audio unit connector A	15	17	Behind audio unit		
Audio unit connector B	16	14	Behind audio unit		
Audio unit connector C	14	28	Behind audio unit		
Audio unit connector D	17	32	Behind audio unit		
A/T gear position indicator panel light/ park-pin switch	29	6	Under middle of dash		
A/T shift lock solenoid	28	2	Under middle of dash		
Climate control unit connector B	12	16	Under middle of dash		
Console accessory power socket	23	2	Middle of dash		
Console box light	26	2	Middle of dash		
Driver's climate control switch	2	16	Middle of dash		
Driver's seat heater switch	22	6	Middle of dash		
Front accessory power socket	20	2	Middle of dash		
Front center speaker	6	2	Under middle of dash		* 2
Front passenger's seat heater switch	19	7	Middle of dash		
HandsFreeLink control unit	24	22	Under middle of dash		
Hazard warning switch	8	5	Middle of dash		
Navigation display unit	7	20	Middle of dash		* 2
Navigation service check connector	37	2	Under middle of dash		* 2
Navigation switch panel connector A	3	5	Behind navigation switch panel		* 2
Navigation switch panel connector B	9	6	Behind navigation switch panel		* 2
Navigation unit connector A	33	20	Under middle of dash		* 2
Navigation unit connector B	30	14	Under middle of dash		* 2
Navigation unit connector C	34	8	Under middle of dash		* 2
Navigation unit connector F	31	5	Under middle of dash		* 2
Navigation unit connector G	32	7	Under middle of dash		* 2
Passenger's climate control switch	10	12	Middle of dash		
SRS unit connector A	18	28	Under middle of dash		
Stereo amplifier connector A	27	18	Under middle of dash		
Stereo amplifier connector B	21	28	Under middle of dash		* 2
Stereo amplifier connector B	21	24	Under middle of dash		* 1
Sunlight sensor	4	2	Under middle of dash		
Yaw rate-lateral acceleration sensor	35	4	Under middle of dash		
C403 (Junction connector)	13	12	Under middle of dash		
C404 (Junction connector)	39	12	Under middle of dash		
C405	36	20	Under middle of dash	SRS wire harness (see page 22-39)	
G502	1		Under middle of dash	Body ground, via dashboard wire harness	
G503	38		Under middle of dash	Body ground, via dashboard wire harness	
G504	11		Under middle of dash	Body ground, via dashboard wire harness	
G506	25		Under middle of dash	Body ground, via dashboard wire harness	

* 1: Without navigation
* 2: With navigation

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Connector to Harness Index (cont'd)

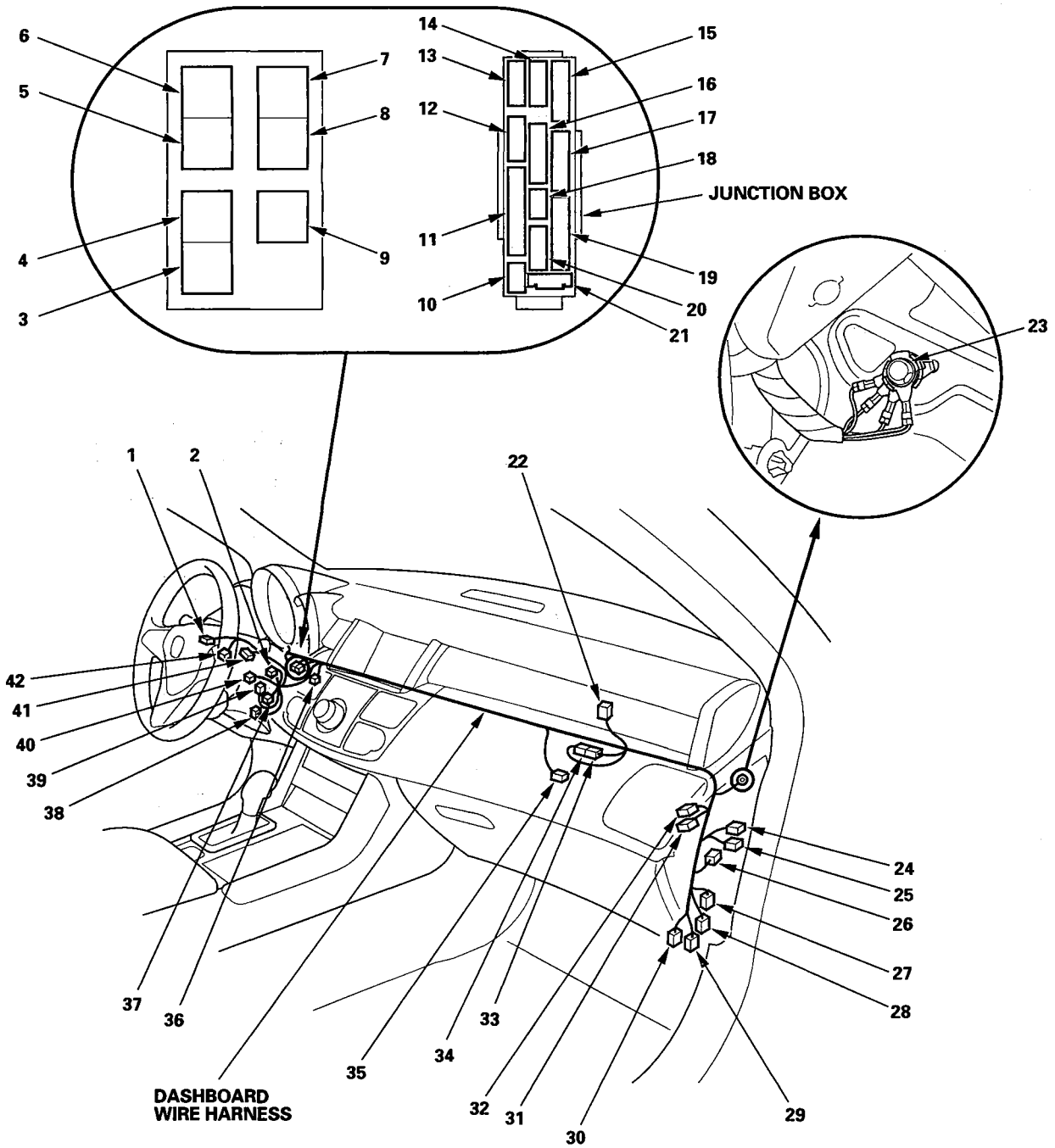
Dashboard Wire Harness (View of passenger's side)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
AcuraLink control unit connector A	31	20	Under right side of dash		* 2
AcuraLink control unit connector B	32	16	Under right side of dash		* 2
Cable reel	41	20	Steering column		
Combination light switch	1	12	steering column		
Console accessory power socket relay	3	4	Under middle of dash		
Driver's airbag inflator	40	4	Steering column		
Driver's seat heater relay (high)	8	4	Under middle of dash		
Driver's seat heater relay (low)	5	5	Under middle of dash		
Fog light relay	9	4	Under middle of dash		
Front accessory power socket relay	4	4	Under middle of dash		
Front passenger's airbag inflator	22	4	Under middle of dash		
Front passenger's seat heater relay (high)	7	4	Under middle of dash		
Front passenger's seat heater relay (low)	6	5	Under middle of dash		
Glove box light	35	2	Under middle of dash		
Ignition switch	38	7	Steering column		
Ignition key switch	37	6	Steering column		
Immobilizer-keyless control unit	39	7	Steering column		
Junction box connector A	21	6	Under middle of dash		
Junction box connector B	10	6	Under middle of dash		
Junction box connector C	15	14	Under middle of dash		
Junction box connector D	18	6	Under middle of dash		
Junction box connector E	19	18	Under middle of dash		
Junction box connector F	20	10	Under middle of dash		
Junction box connector G	17	14	Under middle of dash		
Junction box connector H	13	10	Under middle of dash		
Junction box connector J	11	22	Under middle of dash		
Junction box connector K	16	14	Under middle of dash		
Junction box connector L	12	10	Under middle of dash		
Junction box connector M	14	10	Under middle of dash		
Steering angle sensor	42	5	Steering column		
TPMS control unit	36	20	Under middle of dash		
Wiper/washer switch	2	8	Steering column		
XM receiver	31	14	Under right side of dash		* 1
C302	27	6	Under right side of dash	Engine compartment wire harness (see page 22-26)	
C303	28	4	Under right side of dash	Engine compartment wire harness (see page 22-26)	
C304	29	18	Under right side of dash	Right side wire harness (see page 22-36)	
C305	30	12	Under right side of dash	Right side wire harness (see page 22-36)	
C306	26	4	Under right side of dash	Right TPMS subharness harness (see page 22-16)	
C307 (Female connector)	34	5	Under right side of dash		* 2
C307 (Male connector)	33	5	Under right side of dash		* 2
C551	24	18	Under right side of dash	Right side wire harness (see page 22-45)	
C552	25	8	Under right side of dash	Right side wire harness (see page 22-45)	
G505	23		Under right side of dash	Body ground, via dashboard wire harness	

* 1: USA models without AcuraLink
* 2: With AcuraLink

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Connector to Harness Index (cont'd)

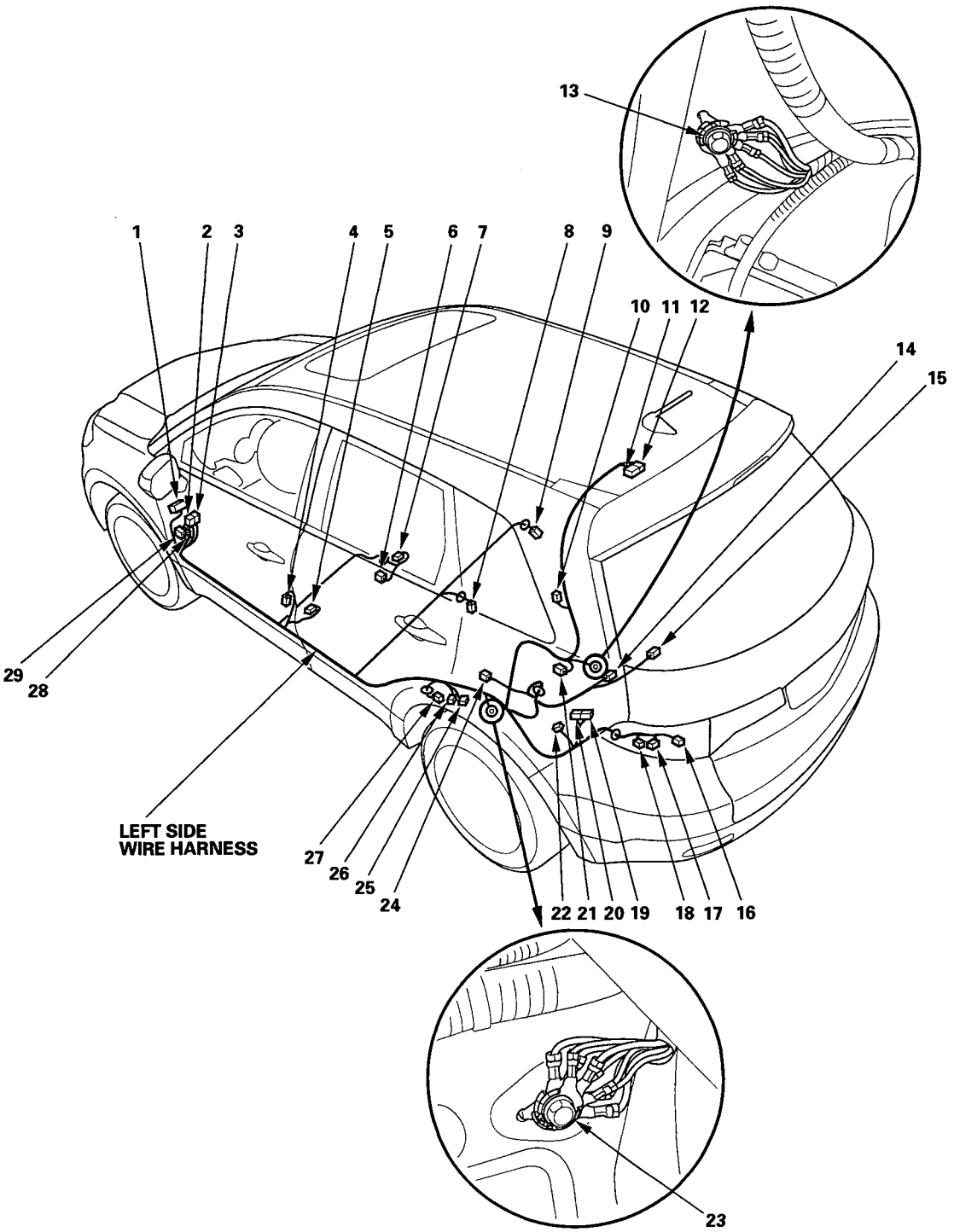
Left Side Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Cargo light	21	2	Left side of cargo area		
Driver's door switch	4	1	Left B-pillar		
EVAP canister vent shut valve	7	2	Fuel tank		
Fuel gauge sending unit	8	4	Fuel tank		
Fuel pump control module	25	10	Left C-pillar		
Fuel tank pressure (FTP) sensor	6	3	Fuel tank		
Left rear door switch	26	1	Left C-pillar		
Left rear initiator	27	3	Left rear of floor		
Left rear side marker light	17	2	Behind left taillight		
Left rear turn signal light	18	2	Behind left taillight		
Left rear tweeter	10	2	Middle of tailgate		*
Left rear wheel sensor	24	2	Left rear of floor		
Left taillight/brake light	16	3	Behind left taillight		
Secondary fuel gauge sending unit	9	4	Fuel tank		
SH-AWD control unit connector A	20	20	Behind left taillight		
SH-AWD control unit connector B	19	8	Behind left taillight		
SH-AWD relay	22	4	Left side of cargo area		
Under-dash fuse/relay box connector E (see page 22-54)	1	42	Under middle of dash		
C201	29	13	Under left side of dash	Engine compartment wire harness (see page 22-22)	
C202	28	2	Under left side of dash	Engine compartment wire harness (see page 22-22)	
C208	3	16	Under left side of dash	Dashboard wire harness (see page 22-28)	
C209	2	18	Under left side of dash	Dashboard wire harness (see page 22-28)	
C601	5	18	Left-B-pillar	Left rear door wire harness (see page 22-46)	
C751	14	6	Under rear floor	Rear differential subharness (see page 22-43)	
C752	15	6	Under rear floor	Rear differential subharness (see page 22-43)	
C801	11	20	Rear of roof	Tailgate subharness (see page 22-40)	
C802	12	2	Rear of roof	Tailgate subharness (see page 22-40)	
G601	23		Behind left rear lining	Body ground, via left side wire harness	
G602	13		Right quarter panel	Body ground, via left side wire harness	

*: With ELS audio system

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Connector to Harness Index (cont'd)

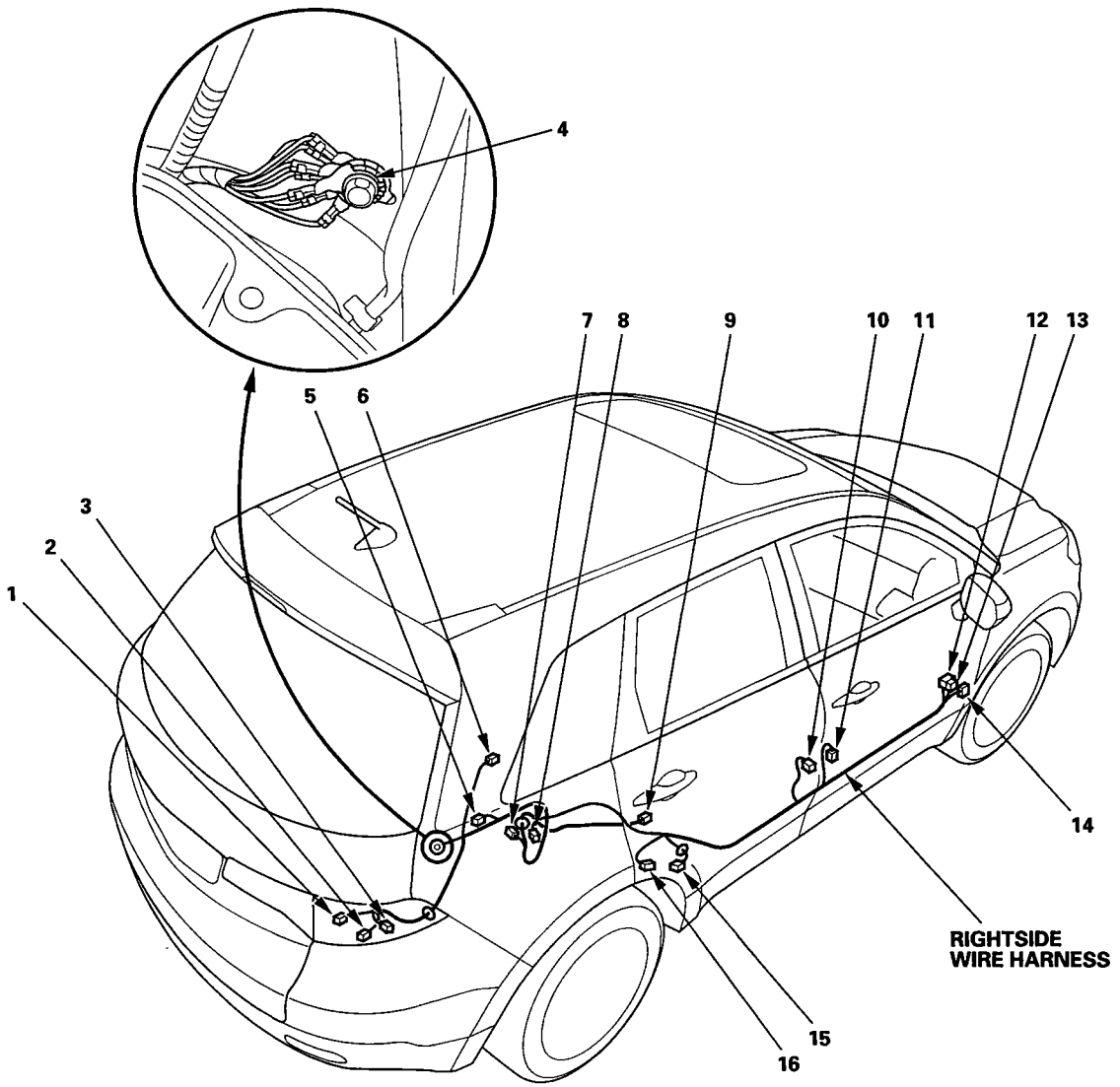
Right Side Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Passenger's door switch	11	1	Right B-pillar		
Right door switch	16	1	Right C-pillar		
Right rear initiator	15	3	Right side of floor		
Right rear side marker light	3	2	Behind right taillight		
Right rear turn signal light	2	2	Behind right taillight		
Right rear tweeter	6	2	Middle of tailgate		* 1
Right rear wheel sensor	9	2	Right side of floor		
Right taillight/brake light	1	3	Behind right taillight		
Subwoofer	8	8	Middle of tailgate		* 1
Subwoofer	8	2	Middle of tailgate		* 2
Trailer lighting connector	7	6	Middle of tailgate		
YOP connector (back-up sensor)	5	2	Middle of tailage		
C301	14	2	Under left side of dash	Engine compartment wire harness (see page 22-26)	
C304	13	18	Under left side of dash	Dashboard wire harness (see page 22-32)	
C305	12	12	Under left side of dash	Dashboard wire harness (see page 22-32)	
C651	10	18	Right B-pillar	Right rear door wire harness (see page 22-47)	
G651	4		Right quarter panel	Body ground, via rear wire harness	

* 1: With ELS audio system
* 2: Without ELS audio system

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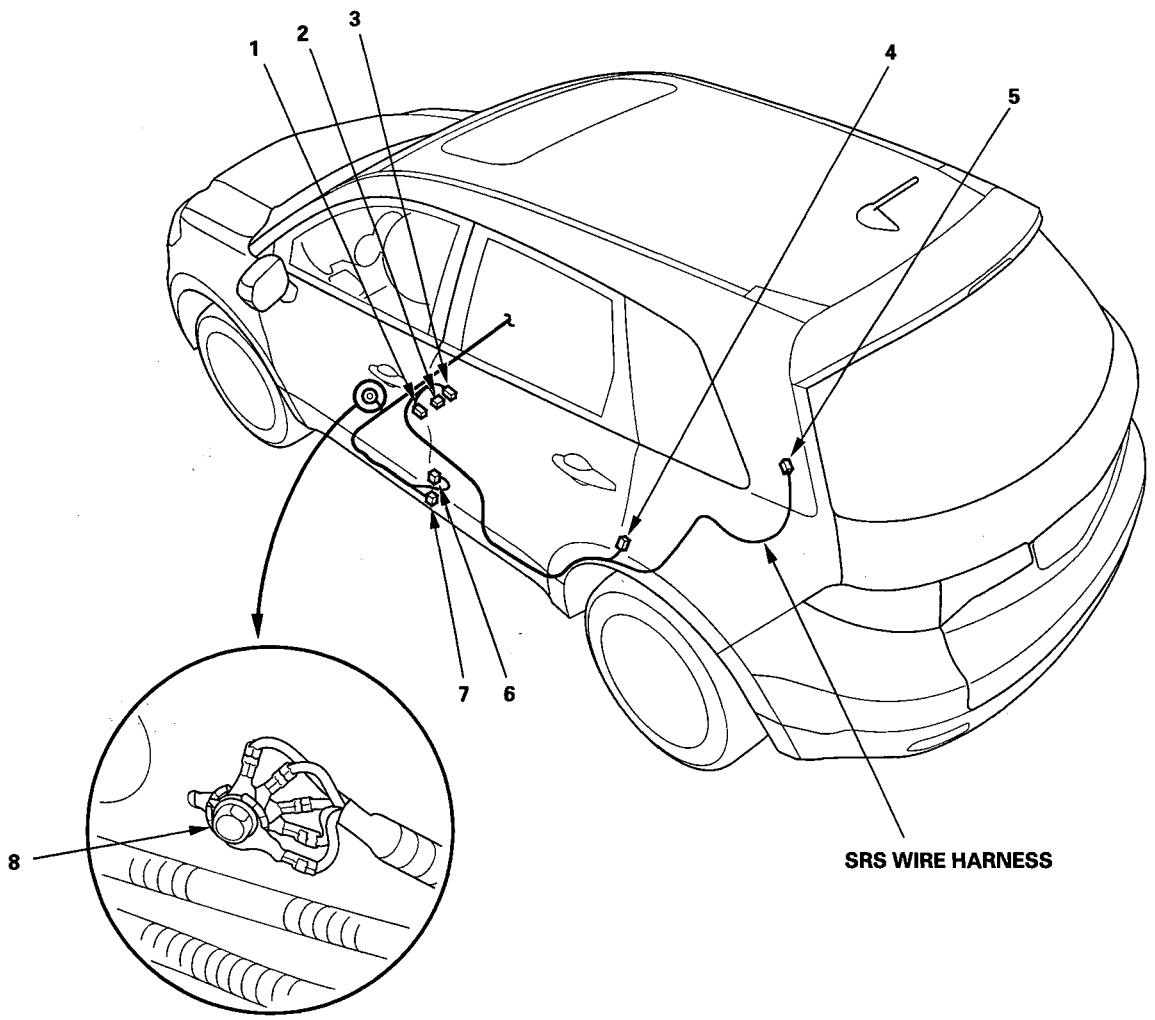


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Connector to Harness Index (cont'd)

SRS Wire Harness (Left branch)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Driver's seat belt buckle tensioner	3	4	Under driver's seat		
Driver's seat belt tensioner	6	4	Left B-pillar		
Driver's side airbag	1	2	Under driver's seat		
Left side curtain airbag	5	2	Left C-pillar		
Left side impact sensor (first)	7	4	Left B-pillar		
Left side impact sensor (second)	4	2	Left C-pillar		
C701	2	23	Under driver's seat	Driver's seat wire harness (see page 22-50)	
G551	8		Left side of floor	Body ground, via SRS wire harness	

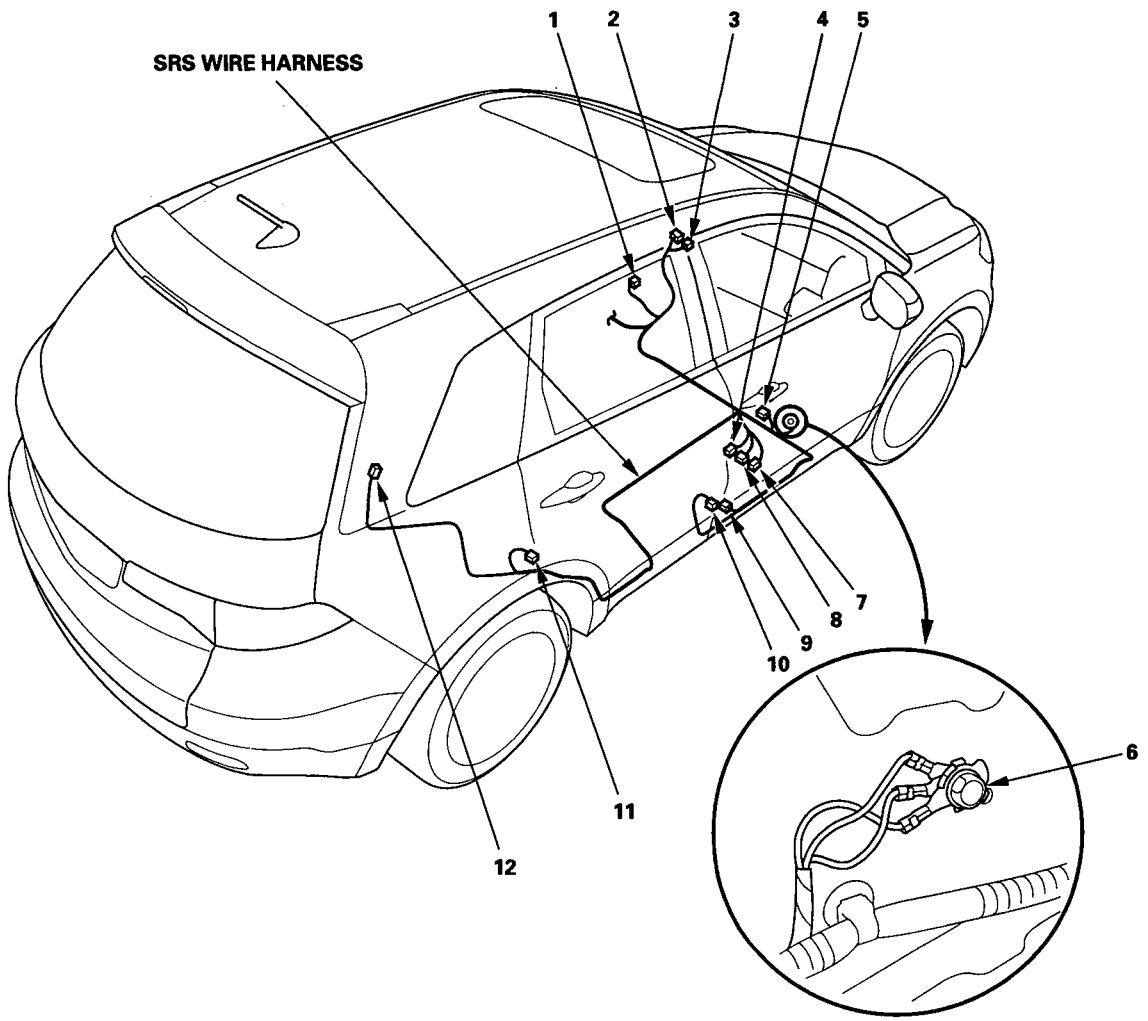


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SRS Wire Harness (Right branch)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Front passenger's seat belt buckle tensioner	4	4	Under front passenger's seat		
Front passenger's seat belt tensioner	10	4	Right B-pillar		
Front passenger's seat airbag	7	2	Under front passenger's seat		
Right side curtain airbag	12	2	Right C-pillar		
Right side impact sensor (first)	9	4	Right B-pillar		
Right side impact sensor (second)	11	2	Right C-pillar		
Roll rate sensor	5	2	Under front passenger's seat		
SRS unit connector B	2	28	Under middle of dash		
SRS unit connector C	3	28	Under middle of dash		
C405	1	20	Under middle of dash	Dashboard wire harness (see page 22-30)	
C703	8	14	Under front passenger's seat	ODS unit harness (see page 22-51)	
G552	6		Right side of floor	Body ground, via SRS wire harness	



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Connector to Harness Index (cont'd)

Tailgate Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Left back-up light	15	2	Left of tailgate		
Left license plate light	12	2	Left of tailgate		
Left inner taillight	16	2	Left of tailgate		
Rear window defogger connector (+)	5	1	Right to tailgate		
Rear window wiper motor	10	4	Middle of tailgate		
Rearview camera	8	6	Right to tailgate		*
Right back-up light	7	2	Right to tailgate		
Right license plate light	9	2	Middle of tailgate		
Right inner taillight	6	2	Right to tailgate		
Tailgate latch switch	14	2	Middle of tailgate		
Tailgate release actuator	13	2	Middle of tailgate		
Tailgate outer handle switch	11	3	Middle of tailgate		
C803	18	20	Left of tailgate	Tailgate subharness	
C804	17	1	Left of tailgate	Tailgate subharness	

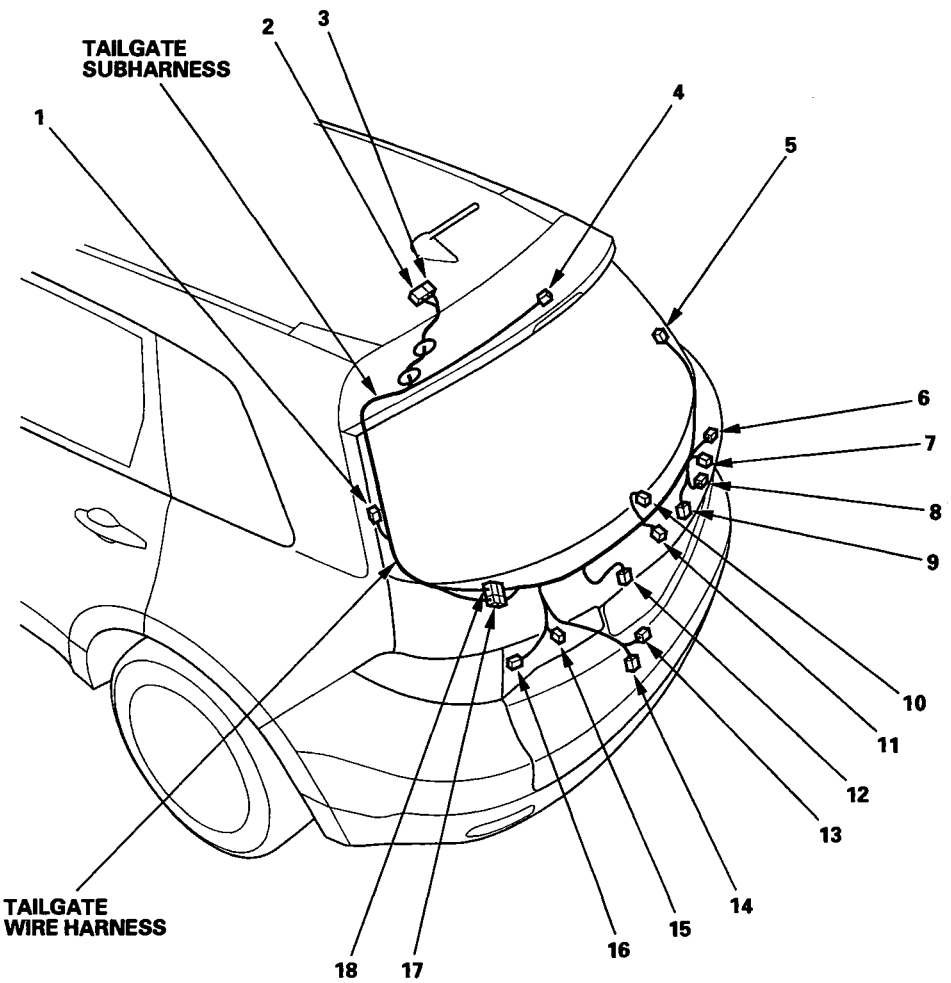
*: With navigation

Tailgate Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
High mount brake light	4	2	Behind high mount brake light		
Rear window defogger connector (−)	1	1	Left of tailgate		
C801	2	20	Rear of roof	Left side wire harness (see page 22-34)	
C802	3	2	Rear of roof	Left side wire harness (see page 22-34)	
C803	18	20	Left of tailgate	Tailgate wire harness	
C804	17	1	Left of tailgate	Tailgate wire harness	

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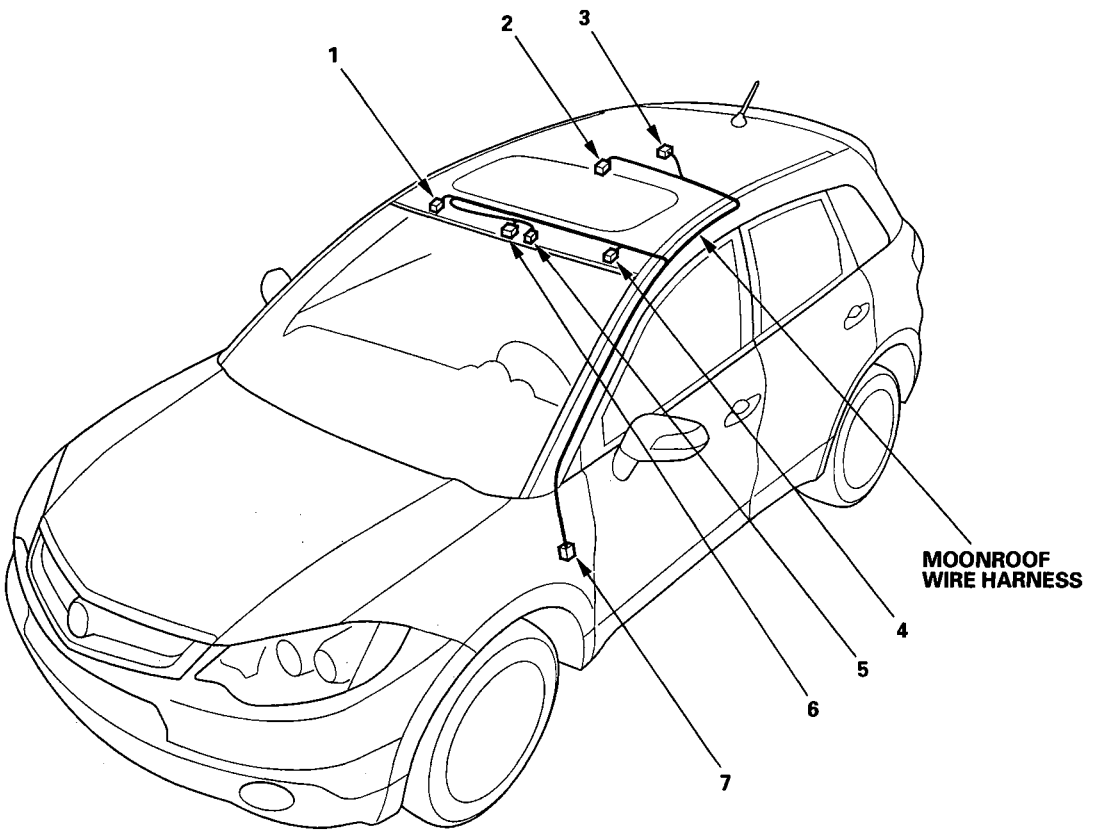


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Connector to Harness Index (cont'd)

Moonroof Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Ceiling light	3	3	Middle of roof		
Left vanity mirror light	4	2	Left side of roof		
Moonroof control unit	2	14	Middle of roof		
Moonroof switch	5	7	Middle of roof		
Right vanity mirror light	1	2	Right side of roof		
Roof console	6	20	Middle of roof		
C210	7	20	Under left side of dash	Dashboard wire harness (see page 22-28)	

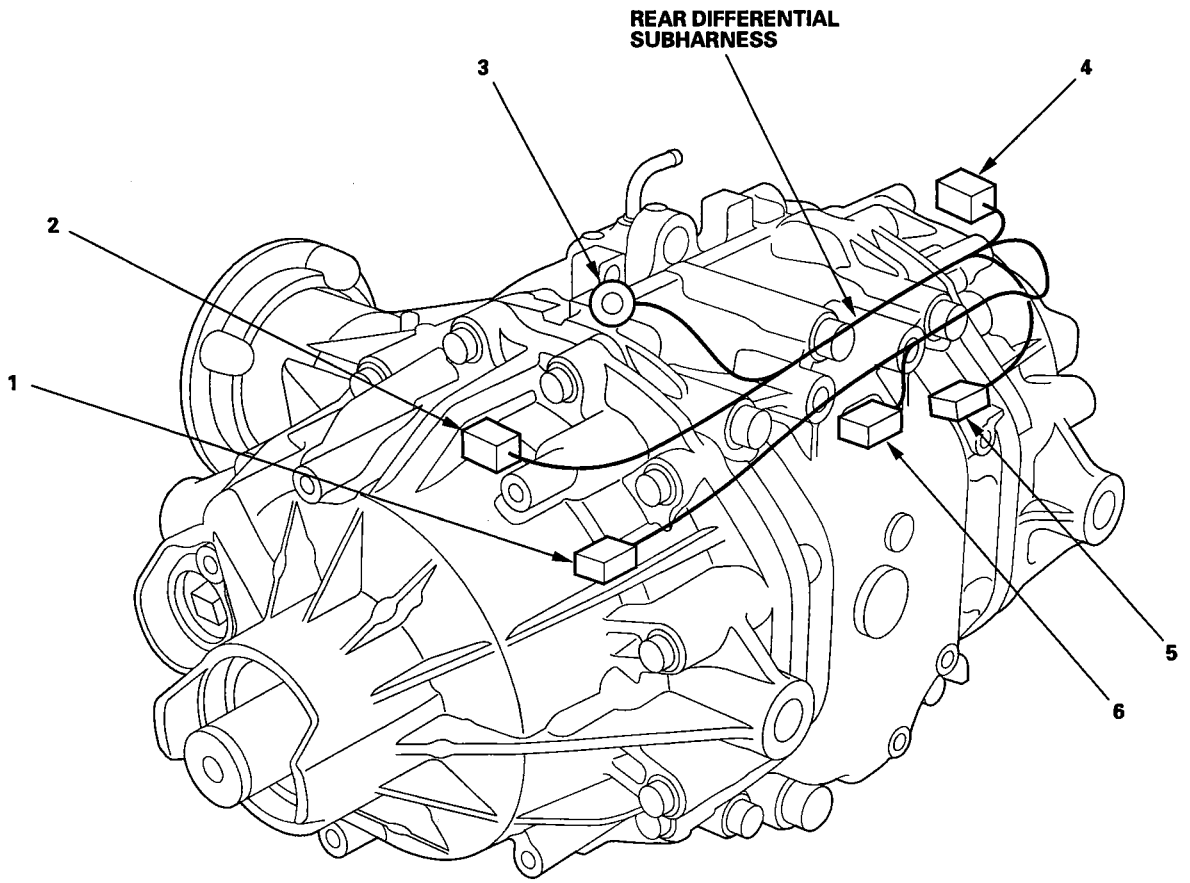


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Rear Differential Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Differential temperature sensor	5	2	Rear differential		
Left clutch electromagnetic coil	2	4	Rear differential		
Right clutch electromagnetic coil	4	4	Rear differential		
C751	6	6	Rear differential	Left side wire harness (see page 22-34)	
C752	1	6	Rear differential	Left side wire harness (see page 22-34)	
T15	3		Rear differential		



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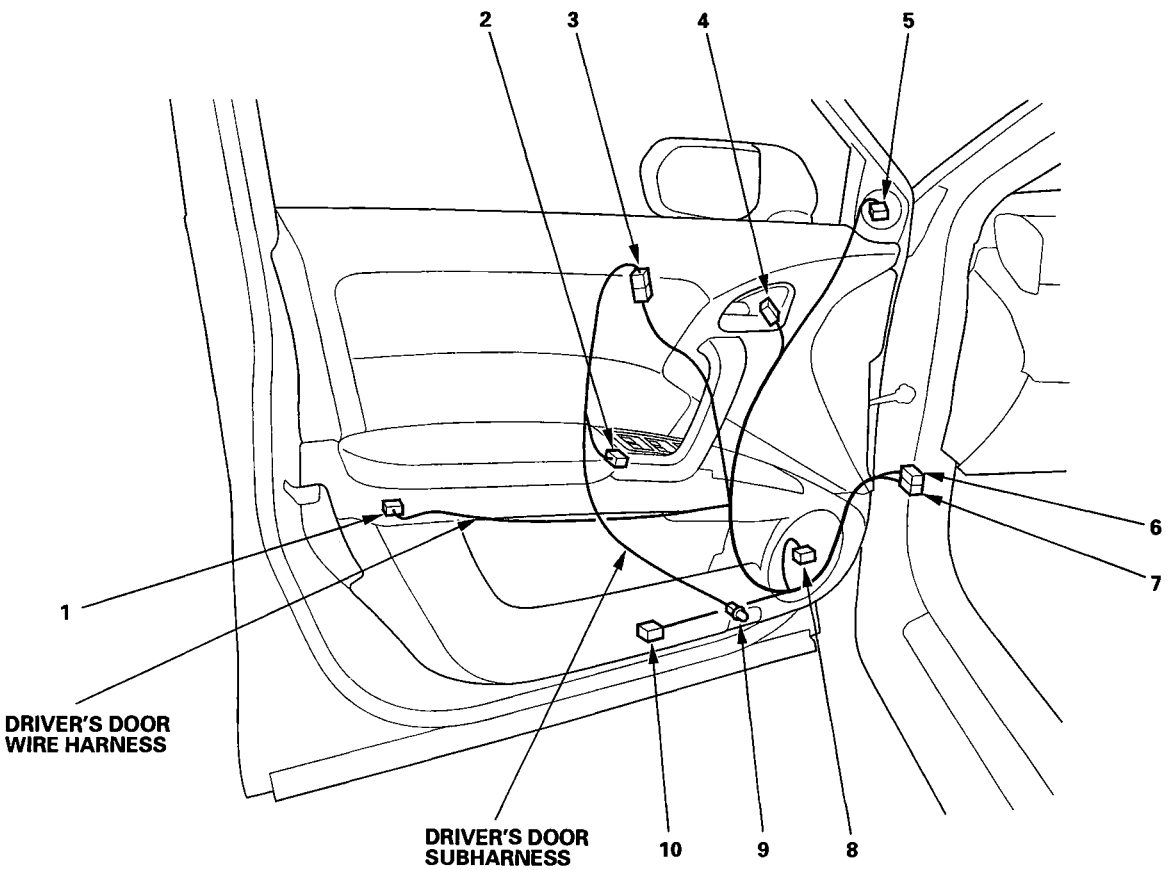
Connector to Harness Index (cont'd)

Driver's Door Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Driver's power window motor	10	6	Driver's door		
Driver's door lock actuator	1	10	Driver's door		
Left front speaker	8	2	Driver's door		
Left power mirror	4	8	Driver's door		
Left front tweeter	5	2	Driver's door		
C501	6	18	Under left side of dash	Dashboard wire harness (see page 22-28)	
C502	7	16	Under left side of dash	Dashboard wire harness (see page 22-28)	
C503	3	23	Driver's door	Driver's door subharness	

Driver's Door Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Driver's door courtesy light	9	2	Driver's door		
Power window master switch	2	22	Driver's door		
C503	3	23	Driver's door	Driver's door wire harness	



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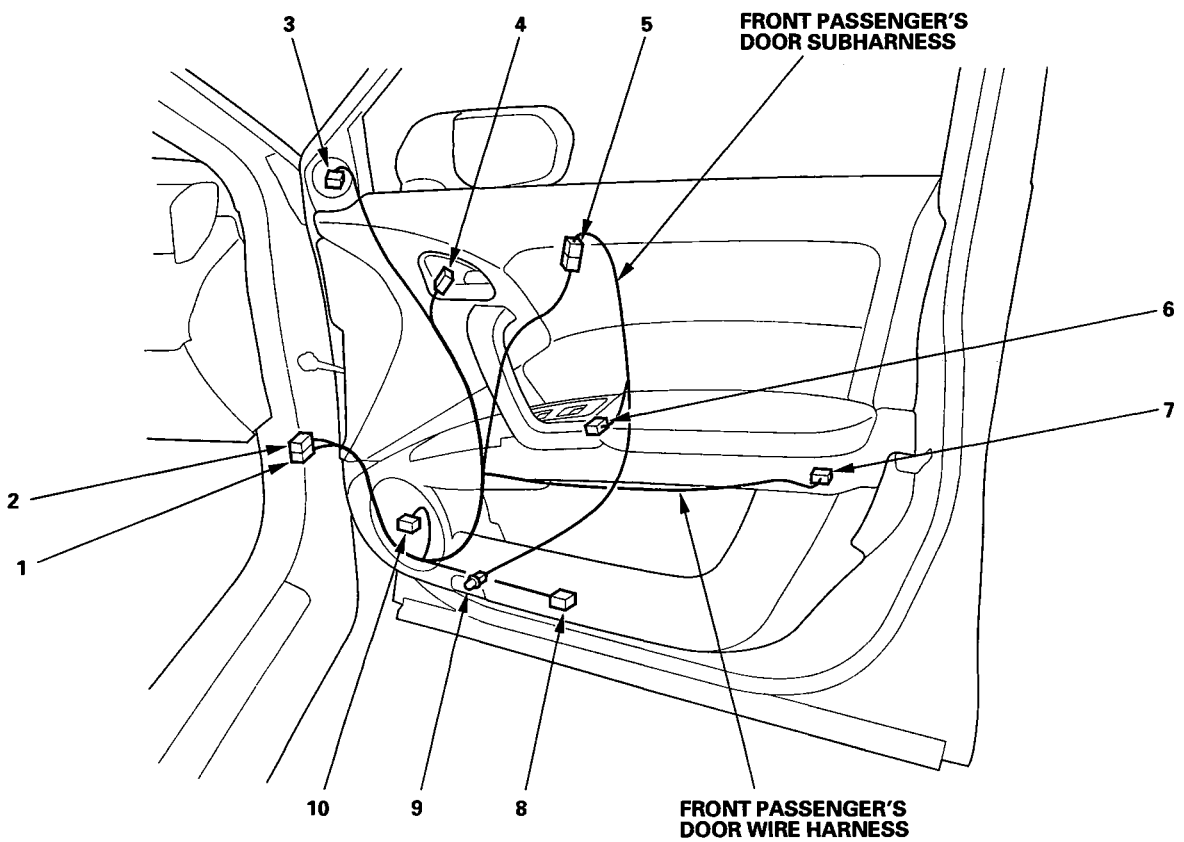
BACK

Front Passenger's Door Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Front passenger's door lock actuator	7	10	Front passenger's door		
Front passenger's power window motor	8	6	Front passenger's door		
Right front speaker	10	2	Front passenger's door		
Right power mirror	4	14	Front passenger's door		
Right front tweeter	3	2	Front passenger's door		
C551	2	18	Under right side of dash	Dashboard wire harness (see page 22-32)	
C552	1	8	Under right side of dash	Dashboard wire harness (see page 22-32)	
C553	5	14	Front passenger's door	Front passenger's door subharness	

Front Passenger's Door Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Front passenger's door courtesy light	9	2	Front passenger's door		
Front passenger's power window switch	6	14	Front passenger's door		
C553	5	14	Front passenger's door	Front passenger's door wire harness	

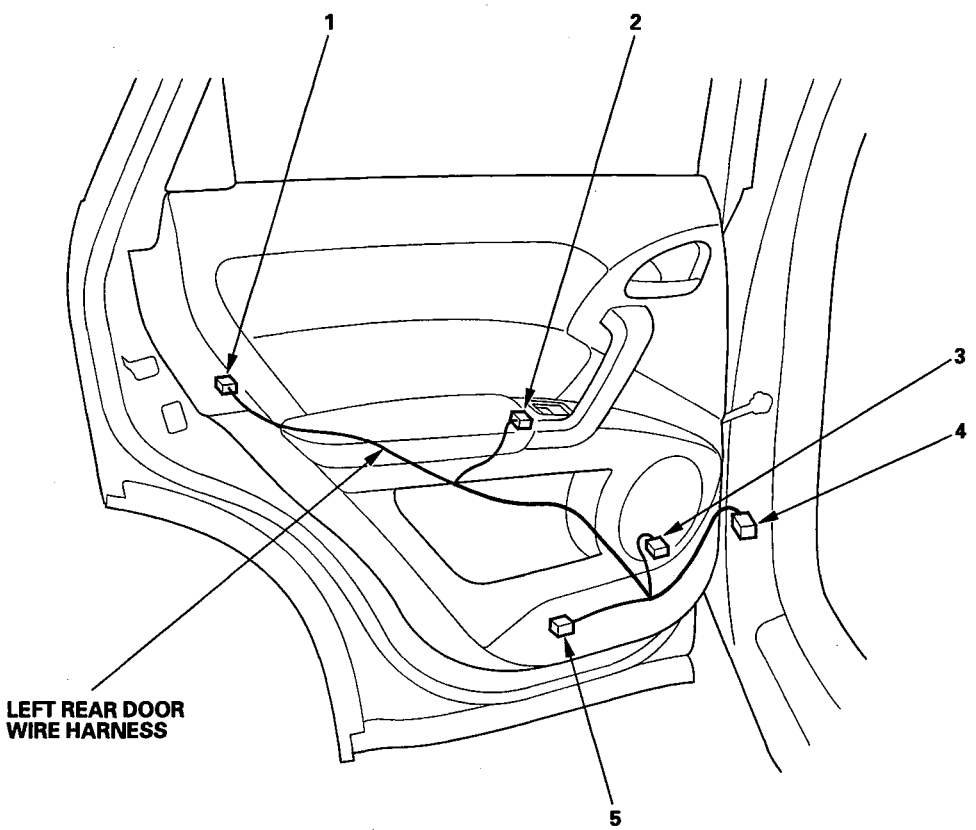


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Connector to Harness Index (cont'd)

Left Rear Door Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Left rear door lock actuator	1	10	Left rear door		
Left rear speaker	3	2	Left rear door		
Left rear power window motor	5	2	Left rear door		
Left rear power window switch	2	14	Left rear door		
C601	4	18	Left rear door	Left side wire harness (see page 22-34)	

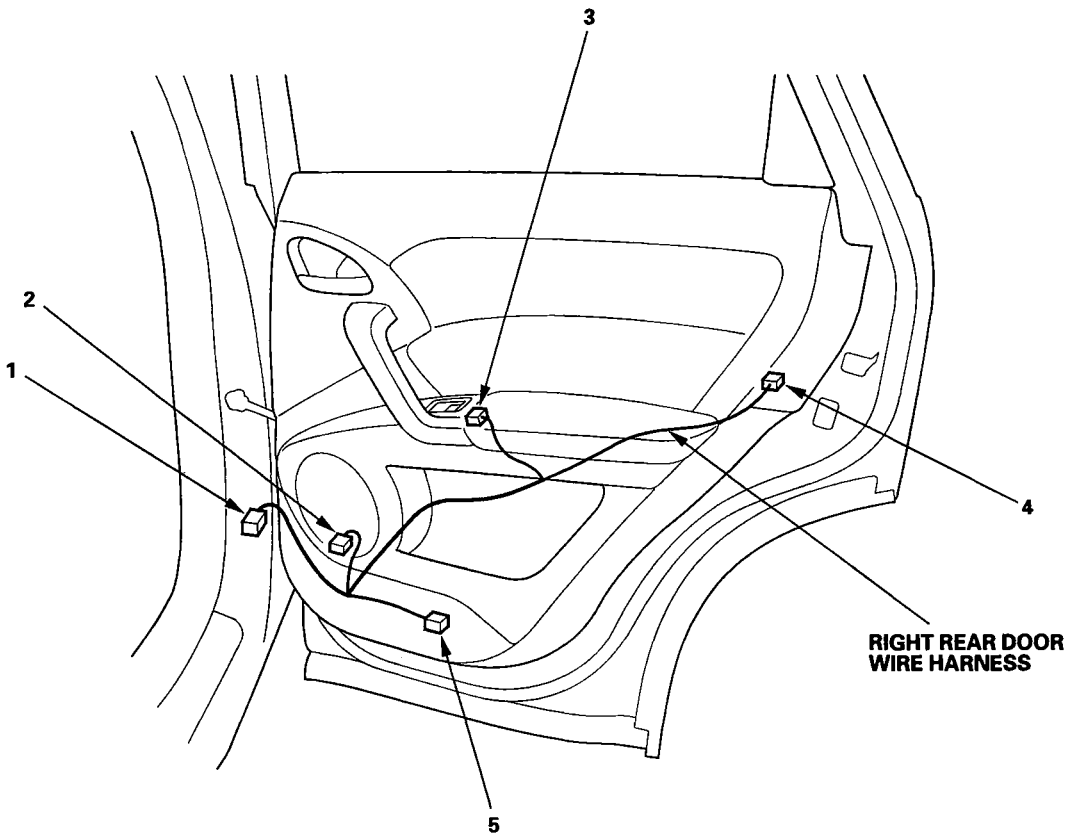


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Right Rear Door Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Right rear door lock actuator	4	10	Right rear door		
Right rear speaker	2	2	Right rear door		
Right rear power window motor	5	2	Right rear door		
Right rear power window switch	3	14	Right rear door		
C651	1	18	Right rear door	Right side wire harness (see page 22-36)	

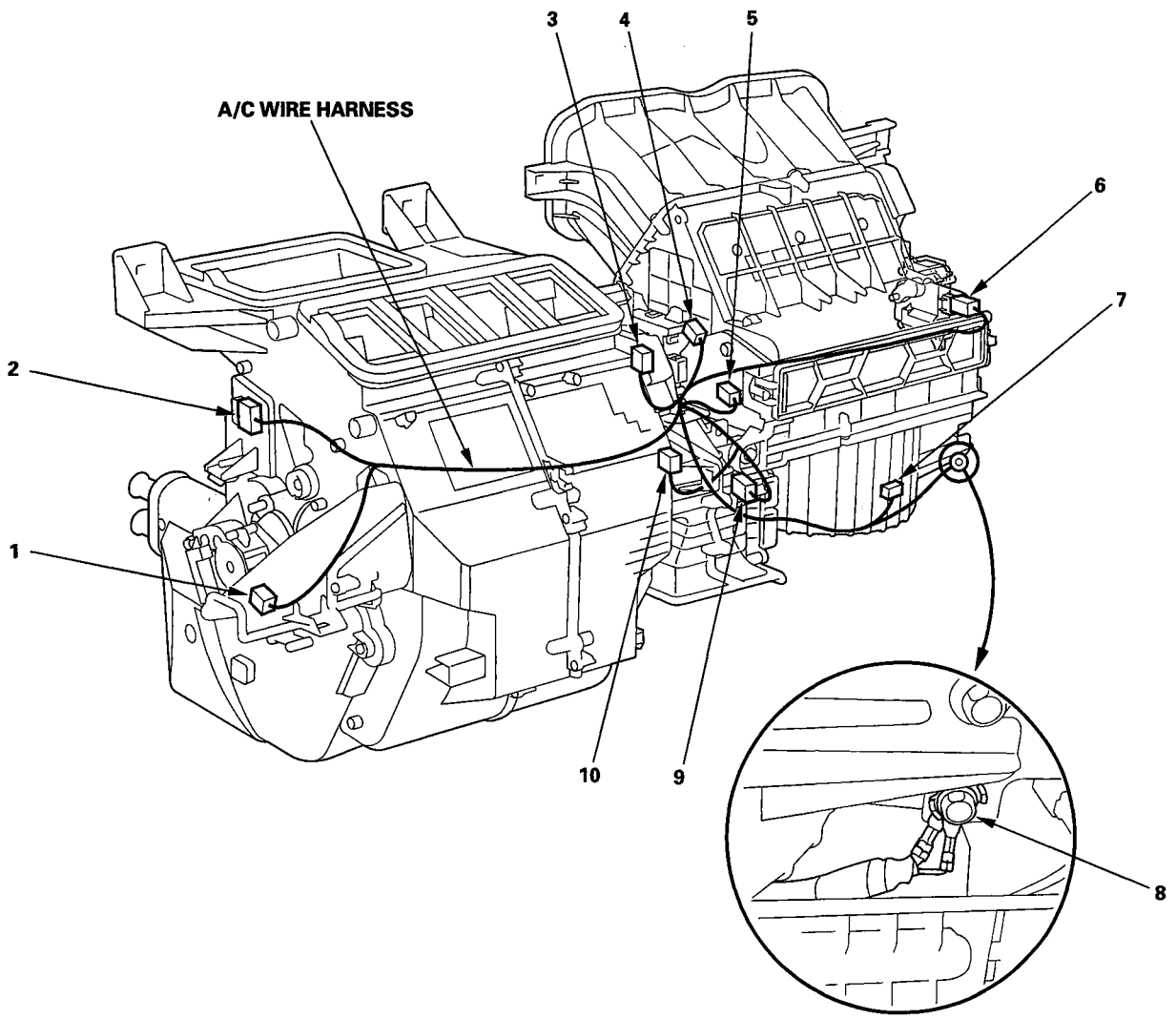


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Connector to Harness Index (cont'd)

A/C Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Blower motor	7	2	Under middle of dash		
Climate control unit	9	24	Under middle 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	10	7	Under middle of dash		
Power transistor	5	4	Under middle of dash		
Recirculation control motor	8	7	Under middle of dash		
C206	2	12	Under middle of dash	Engine compartment wire harness (see page 22-22)	
G571	8		Under middle of dash		



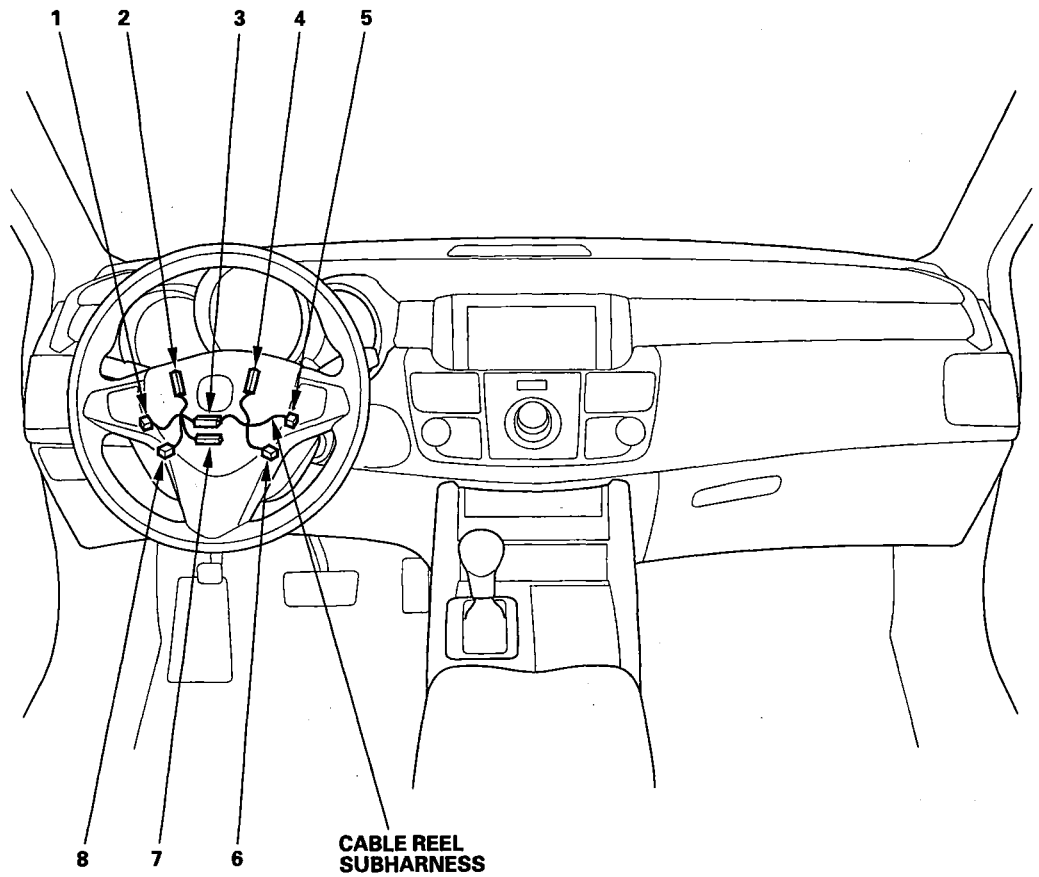
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Cable Reel Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Audio remote switch	1	12	Steering column		
Cable reel	3	20	Steering column		
Cruise control combination switch	5	12	Steering column		
Horn switch	7	1	Steering column		
Multi-information switch	6	7	Steering column		*
Steering wheel downshift switch	2	2	Steering column		
Steering wheel upshift switch	4	2	Steering column		
HFL-voice control switch	8	7	Steering column		*

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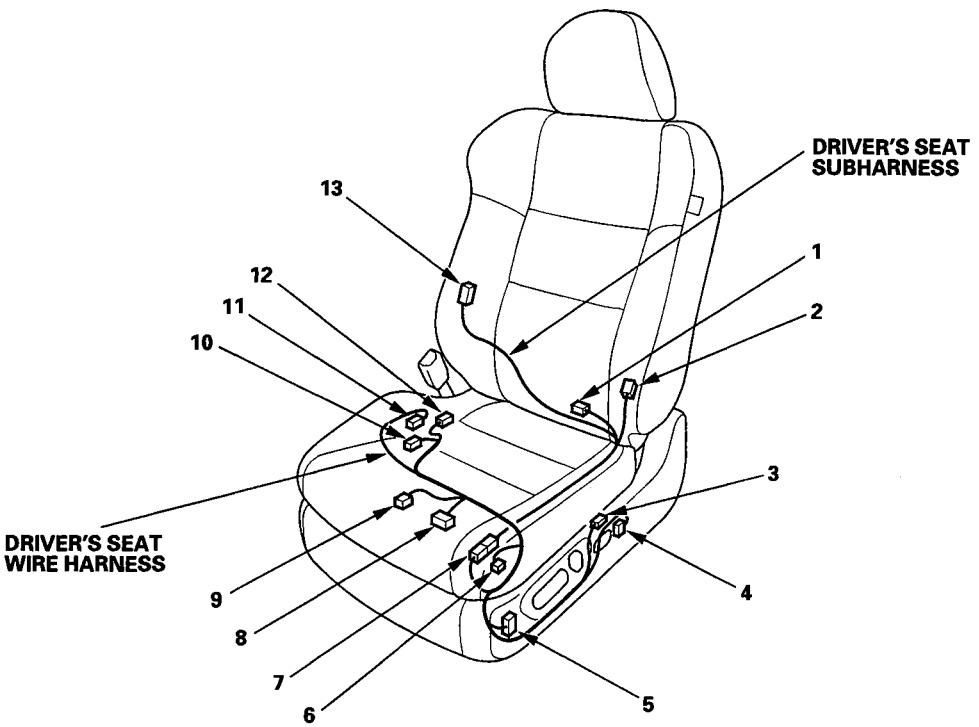
Connector to Harness Index (cont'd)

Driver's Seat Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Driver's power seat adjustment switch	5	12	Left side of driver's seat		
Driver's power seat front up-down	11	2	Driver's seat		
Driver's power seat rear up-down	3	2	Under driver's seat		
Driver's power seat slide motor	6	2	Under driver's seat		
Driver's seat belt buckle switch	10	3	Driver's seat		
Driver's seat heater cushion	9	3	Driver's seat		
Driver's seat lumbar switch	4	5	Left side of driver's seat		
Driver's seat position sensor	12	2	Driver's seat		
C701	8	23	Under driver's seat	SRS wire harness (see page 22-38)	
C702	7	6	Under driver's seat	Driver's seat subharness	

Driver's Seat Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Driver's power lumber support motor	13	2	Driver's seat		
Driver's power seat recline motor	2	2	Driver's seat		
Driver's seat heater back	1	2	Driver's seat		
C702	7	6	Under driver's seat	Driver's seat wire harness	

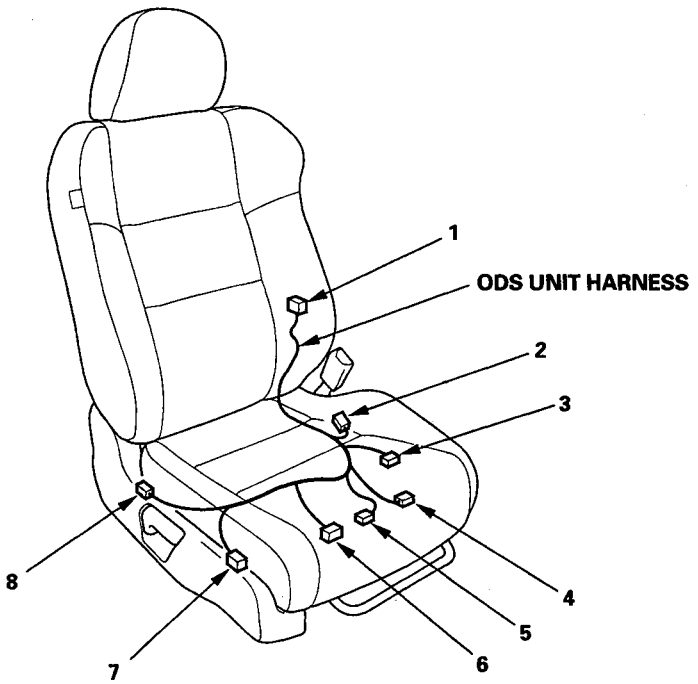


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ODS Unit Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Front passenger's seat belt buckle switch	4	3	Front passenger's seat		
Front passenger's seat heater cushion	5	4	Front passenger's seat		
Front passenger's weight sensor (front inner side)	3	3	Front passenger's seat		
Front passenger's weight sensor (front outer side)	7	3	Front passenger's seat		
Front passenger's weight sensor (rear inner side)	2	3	Front passenger's seat		
Front passenger's weight sensor (rear outer side)	8	3	Front passenger's seat		
ODS unit	1	18	Front passenger's seat		
C703	6	14	Front passenger's seat	SRS wire harness (see page 22-39).	

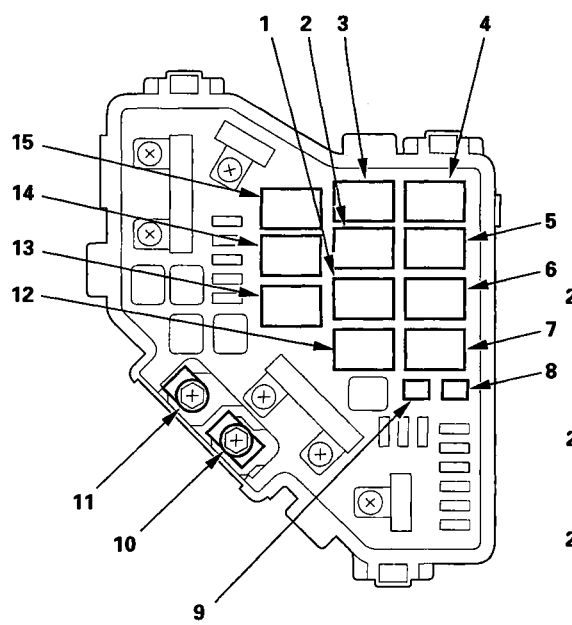


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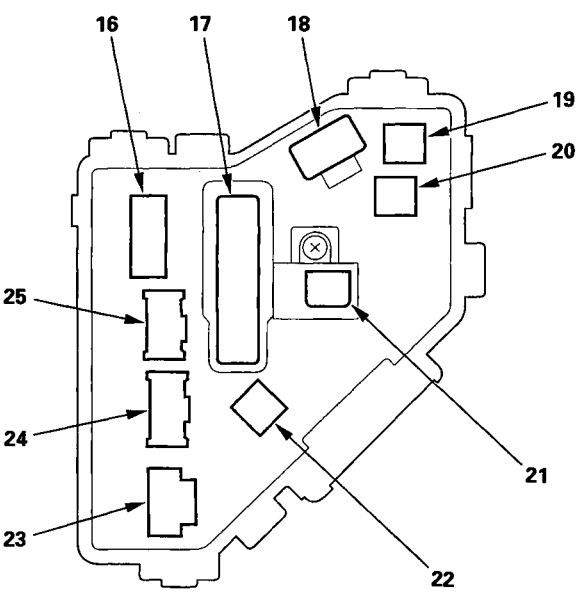
Connector to Fuse/Relay Box Index

Under-hood Fuse/Relay Box

Socket	Ref	Terminal	Connects to	Notes
A (ELD unit)	21	3	Engine compartment wire harness (see page 22-22)	
A/C compressor clutch relay	12	4		
A/C condenser fan relay	15	4		
B	22	1	Engine compartment wire harness (see page 22-22)	
Blower motor relay	2	4		
C	23	2	Engine compartment wire harness (see page 22-22)	
D	25	8	Engine compartment wire harness (see page 22-22)	
Diode (for A/C condenser fan)	9	———		
Diode (for radiator fan)	8	———		
E	24	10	Engine compartment wire harness (see page 22-22)	
Electronic throttle control system (ETCS) control relay	14	4		
F	17	20	Engine compartment wire harness (see page 22-22)	
Fan control relay	4	5		
G	19	1	Engine compartment wire harness (see page 22-22)	
H	20	1	Engine compartment wire harness (see page 22-22)	
Ignition coil relay	7	4		
J	16	4	Engine compartment wire harness (see page 22-22)	
K	18	2	Engine compartment wire harness (see page 22-22)	
PGM-FI main relay 1 (FI MAIN)	13	4		
PGM-FI subrelay	6	4		
Radiator fan relay	3	4		
Rear window defogger relay	1	4		
Rear window wiper relay	5	5		
T3	10		Starter cable (see page 22-16)	
T101	11		Starter cable (see page 22-16)	



(View of front side)



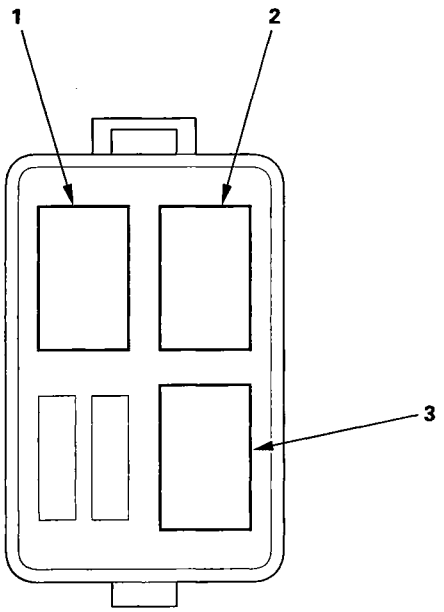
(View of back side)

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BACK

Auxiliary Under-hood Fuse/Relay Box

Socket	Ref	Terminal	Connects to	Notes
Power mirror defogger relay	3	4	Engine compartment wire harness (see page 22-22)	
Vacuum pump relay 1	2	4	Engine compartment wire harness (see page 22-22)	
Vacuum pump relay 2	1	4	Engine compartment wire harness (see page 22-22)	

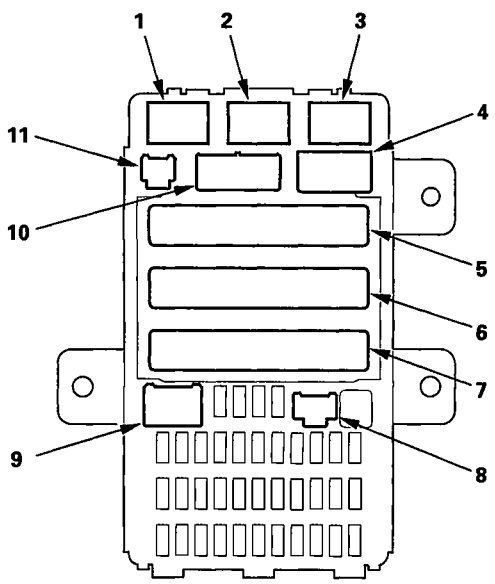


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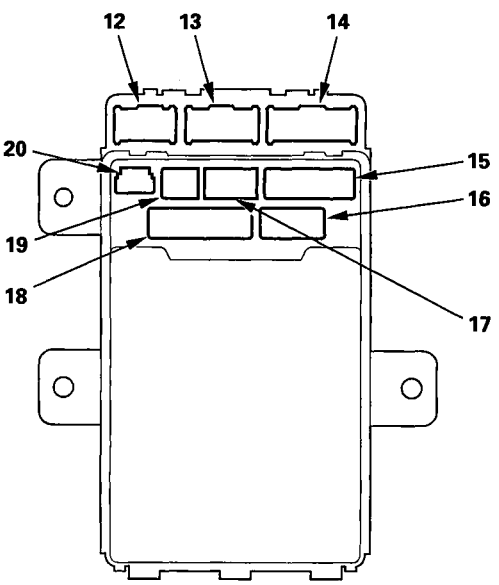
Connector to Fuse/Relay Box Index (cont'd)

Under-dash Fuse/Relay Box

Socket	Ref	Terminal	Connects to	Notes
A (Optional connector)	9	6	Not used	
C	10	4	Dashboard wire harness (see page 22-28)	
D	4	2	Dashboard wire harness (see page 22-28)	
E	5	42	Left side wire harness (see page 22-34)	
F	6	34	Engine compartment wire harness (see page 22-22)	
G	7	21	Engine compartment wire harness (see page 22-22)	
H (MICU service check connector)	8	3		
K	12	8	Dashboard wire harness (see page 22-28)	
M	13	10	Dashboard wire harness (see page 22-28)	
Memory erase signal connector socket	11	—		
N	14	14	Dashboard wire harness (see page 22-28)	
O	20	4	Dashboard wire harness (see page 22-28)	
P	19	10	Dashboard wire harness (see page 22-28)	
PGM-FI main relay 2 (FUEL PUMP)	2	4		
Power window relay	1	4		
Q	17	16	Dashboard wire harness (see page 22-28)	
R	15	20	Dashboard wire harness (see page 22-28)	
Starter cut relay	3	4		
S	16	20	Dashboard wire harness (see page 22-28)	
T	18	34	Dashboard wire harness (see page 22-28)	



(View of front side)



(View of back side)

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Fuse to Components Index

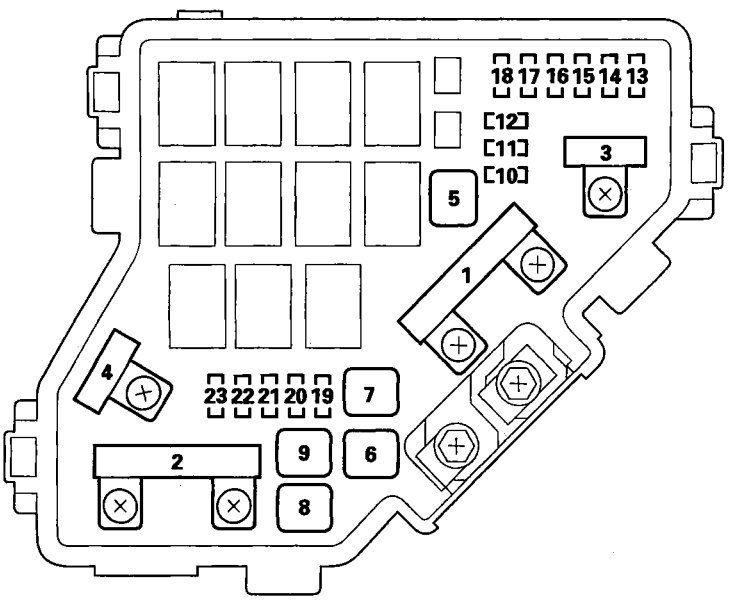
Under-hood Fuse/Relay Box

Fuse Number	Amps	Component(s) or Circuit(s) Protected
1	100 A (BAT)	Battery, Power distribution
	30 A (SH-AWD)	SH-AWD control unit (via SH-AWD relay)
2	50 A (IG)	Ignition switch
	80 A (OPTION)	No. 5, No. 6, No. 7, No. 27, No. 28, No. 29, and No. 31 fuses (in the under-dash fuse/relay box)
3	40 A (VSA MTR)	VSA modulator-control unit
	20 A (VSA FSR)	VSA modulator-control unit
4	50 A (H/L)	No. 18, No. 19, No. 20, and No. 21 fuses (in the under-dash fuse/relay box)
	40 A (P/W)	No. 24, No. 25, No. 26, No. 30, No. 32, and No. 33 fuses (in the under-dash fuse/relay box)
5	———	Not used
6	30 A	Radiator fan motor (via radiator fan relay)
7	30 A	A/C condenser fan motor (via A/C condenser fan relay)
8	30 A	Rear window defogger (via rear window defogger relay)
9	40 A	Blower motor (via blower motor relay)
10	15 A	MICU (turn signal/hazard flasher circuit)
11	15 A	PGM-FI subrelay, EVAP canister purge valve (via PGM-FI subrelay), EVAP canister vent shut valve (via PGM-FI subrelay), A/F sensor (Sensor 1) (via PGM-FI subrelay), No. 15 fuse (in the under-hood fuse/relay box) (via PGM-FI subrelay)
12	15 A	Brake lights, Horns (via MICU)
13	20 A	Rear up-down motor (via driver's power seat adjustment switch), Recline motor (via driver's power seat adjustment switch)
14	20 A	Front up-down motor (via driver's power seat adjustment switch), Slide motor (via driver's power seat adjustment switch)
15	7.5 A	Radiator fan relay (via A/C diode B)
16	———	Not used
17	15 A	Electric vacuum pump (via electric vacuum pump relays)
18	15 A	Ignition coil relay, Ignition coils (via ignition coil relay)
19	15 A	CKP sensor (via PGM-FI main relay 1), CMP sensor B (via PGM-FI main relay 1), PCM (via PGM-FI main relay 1), ETCS control relay (via PGM-FI main relay 1), Injectors (via PGM-FI main relay 1), PGM-FI main relay 1 (FI MAIN), PGM-FI main relay 2 (FUEL PUMP) (via PGM-FI main relay 1), Data link connector
20	7.5 A	A/C compressor clutch (via A/C compressor clutch relay)
21	15 A	PCM (via ETCS control relay)
22	7.5 A	Power mirror control unit, Front individual map lights, Ceiling light, Vanity mirror lights, Door courtesy lights, Ignition key light
23	10 A	Gauge control module, Navigation unit (with navigation), Navigation display unit (with navigation), AcuraLink control unit (USA models with navigation), Audio unit, MICU, HandsFreeLink control unit (with navigation)

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Fuse to Components Index (cont'd)

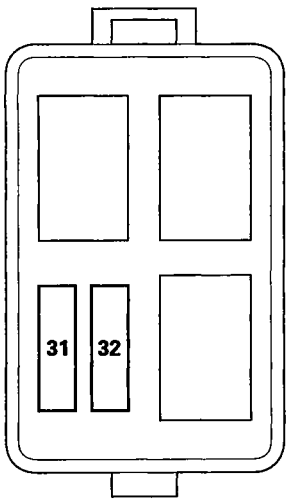


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Auxiliary Under-hood Fuse/Relay Box

Fuse Number	Amps	Component(s) or Circuit(s) Protected
31	7.5 A	Electric vaccum pump (via electric vacuum pump relay 2)
32	—	Not used



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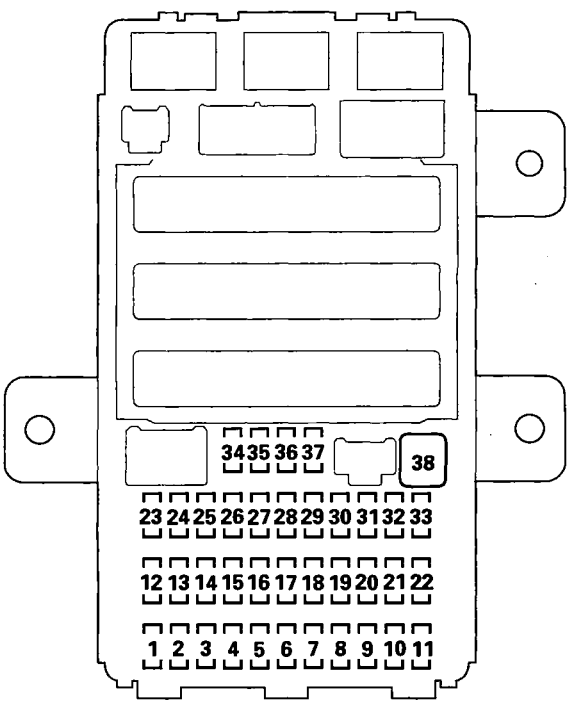
Fuse to Components Index (cont'd)

Under-dash Fuse/Relay Box

Fuse Number	Amps	Component(s) or Circuit(s) Protected
1	7.5 A	Power mirror control unit, Power window master switch, Moonroof control unit, SH-AWD control unit
2	20 A	PCM, Fuel pump control module (via PGM-FI main relay 2), Immobilizer-keyless control unit
3	15 A	Turbocharger boost control solenoid valve, Turbocharger wastegate control solenoid valve, Turbocharger bypass control solenoid valve, ELD unit, Secondary HO2S (SENSOR 2), Alternator, CMP sensor A
4	7.5 A	VSA modulator-control unit, Yaw rate-lateral acceleration sensor, Steering angle sensor
5	15 A	Seat heaters (via seat heater relays)
6	20 A	Fog light relay, fog lights (via fog light relay)
7	7.5 A	Lumber support motor (via lumber support switch)
8	10 A	Rear window wiper motor (via rear window wiper relay), Rear window wiper relay
9	7.5 A	SRS unit, ODS unit, Passenger's airbag CUTOFF indicator
10	7.5 A	TPMS control unit, Gauge control module, AcuraLink control unit (USA models with navigation), Shift lock solenoid, MICU
11	10 A	SRS unit
12	10 A	Right headlight (high beam)
13	10 A	Left headlight (high beam)
14	7.5 A	Audio unit light, Audio switch panel (without navigation), Cargo area light, Glove box light, Console box light, A/T gear position console light, Interior light switch light, Ambient light, Hazard warning switch light, Climate control switches, Power mirror switch light, Passengers' airbag CUTOFF indicator light, Navigation switch panel (with navigation), Navigation unit (with navigation), Navigation display unit (with navigation), Seat heater switch lights, VSA OFF switch light, Multi information switch light, Moonroof switch light, HFL-voice control switch (with navigation), Audio remote switch, Cruise control combination switch light
15	15 A	Parking lights, Taillights, License plate lights, Side marker lights, Inner taillights
16	15 A	Right headlight (low beam)
17	15 A	Left headlight (low beam)
18	20 A	No.12 and No. 13 fuses (in the under-dash fuse/relay box) (via MICU)
19	20 A	No. 15 fuse (in the under-dash fuse/relay box) (via MICU)
20	7.5 A	TPMS control unit
21	30 A	No. 16 and No. 17 fuses (in the under-dash fuse/relay box) (via MICU)
22	—	Not used
23	—	Not used
24	20 A	Moonroof control unit/motor
25	20 A	Door lock actuators (via door lock circuit in the MICU)
26	20 A	Driver's power window motor (via power window master switch)
27	—	Not used
28	15 A	Console accessory power socket (via console accessory power socket relay)
29	15 A	Front accessory power socket (via front accessory power socket relay)
30	20 A	Front passenger's power window motor (via front passenger's power window switch)
31	20 A	Stereo amplifier, Subwoofer (with navigation)
32	20 A	Right rear power window motor (via right rear power window switch)
33	20 A	Left rear power window motor (via left rear power window switch)
34	—	Not used
35	7.5 A	AcuraLink control unit (USA models with navigation), HFL-voice control unit (with navigation), Front accessory power socket relay, Console accessory power socket relay, Audio unit, Navigation display unit (with navigation), Navigation unit (with navigation), Key interlock solenoid
36	10 A	Seat heaters relays (via seat heater switches), Blower motor relay, A/C compressor clutch relay, A/C condenser fan relay (via A/C diode A), Fan control relay (via A/C diode A), Climate control switches, Climate control unit, Recirculation control motor, Left mirror (via power mirror switch)
37	7.5 A	MICU (daytime running lights power supply)
38	30 A	Windshield wiper motor (via wiper circuit in the MICU), Windshield/rear window washer motor (via wiper circuit in the MICU)

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Ground Distribution

Ground to Components Index

Ground	Component or Circuit Grounded
G1	Battery
G2	Engine
G3	Transmission housing
G101	PCM (PG and LG2 is BLK; LG1 is BRN/YEL) BLK: A/T clutch pressure control solenoid valves A, B, C, Ignition coils, Rocker arm oil control solenoid, Transmission range switch, VTC oil control solenoid valve BRN/YEL: CKP sensor, CMP sensor B, Data link connector (DLC), Immobilizer-keyless control unit, Rocker arm oil pressure switch, Shielding between the PCM and these components have BRN/YEL wires: Knock sensor (KS), Secondary HO2S (Sensor 2)
G201	Electric vacuum pump relay 1, 2, Left fog light, Left front side marker/parking/turn signal lights, Left headlights (high/low beam), Radiator fan motor
G202	Blower motor relay, ELD unit, Fan control relay
G301	Right headlights (high/low beam), Right fog light, Right front side marker/parking /turn signal lights
G401	Electric vacuum pump, PSP switch, Washer fluid level switch (Canada models)
G402	VSA modulator-control unit (2 wires)
G451	Brake fluid level switch, Hood switch, Keyless buzzer, MICU (PG), Windshield wiper motor
G501	BLK wire: Data link connector (DLC), Driver's door lock switch, Front individual map light, Gauge control module (2 wires), Left mirror defogger, MICU (SG), Moonroof control unit/motor, Moonroof switch, Power mirror control unit, Power mirror switch, Power window master switch, Vanity mirror lights (driver's and front passenger's), VSA OFF switch BRN wire: Driver's door lock knob switch, Driver's door key cylinder switch, Driver's power window motor, Left side turn signal light
G502	Accessory power socket relays (front and console), Audio switch panel (with premium audio system), Audio-HVAC subdisplay unit, Cruise control combination switch, Driver's climate control switch, Driver's seat heater relay (high), Driver's seat heater relay (low) (2 wires), Front passenger's seat heater relay (high), Ignition key switch, Interface dial, Steering angle sensor, Navigation display unit, Navigation switch panel, Steering wheel shift switches
G503	Accessory power socket (front and console), Console box light, Front passenger's seat heater relay (low) (2 wires), HandsFreeLink control unit (with navigation), Navigation unit (with navigation), Park pin switch, Seat heater switch (driver's and front passenger's), Stereo amplifier, TPMS control unit, Yaw rate-lateral acceleration sensor
G504	Audio unit (2 wires), Stereo amplifier
G505	AcuraLink control unit (USA models with navigation), AcuraLink tester connector ground (USA models with navigation), Front passenger's door lock knob switch, Front passenger's door lock switch, Front passenger's power window motor, Front passenger's power window switch, Glove box light, Right mirror defogger, Right side turn signal light
G506	Memory erase signal (MES) connector, SRS unit (2 wires)
G551	Driver's seat belt buckle switch, Driver's power seat adjustment switch (2 wires), Driver's seat heater, Lumber support switch (2 wires)
G552	Front pasenger's seat belt buckle switch, Front passenger's seat heater, ODS unit
G571	Climate control unit, Power transistor
G601	Fuel pump control module, Left rear door lock knob switch, Left rear power window switch, MICU (PG and SG) (2 wires), SH-AWD control unit (3 wires), SH-AWD relay
G602	Back-up lights, High mount brake light, Left rear side marker light, Left rear turn signal light, Left taillight/brake light, License plate lights, Inner taillights, Rear differential, Rear window defogger, Rear wiper motor
G651	Right rear door lock knob switch, Right rear side marker light, Right rear turn signal light, Right rear power window switch, Right taillight/brake light, Subwoofer (with ELS audio system), Trailer lighting connector

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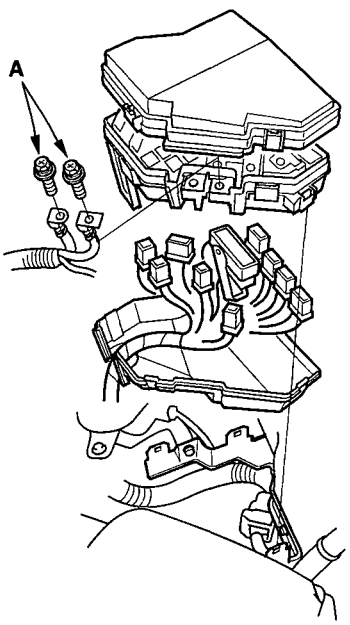
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Under-hood Fuse/Relay Box

Removal and Installation

Removal

1. Make sure you have the anti-theft code for the audio system and the navigation system (if equipped), then write down the audio presets.
2. Make sure the ignition switch is OFF.
3. Disconnect the negative battery cable, then disconnect the positive cable, and wait at least 3 minutes.
4. Remove the screws (A) for the alternator and battery cable terminals from the under-hood fuse/relay box.



5. Remove the bottom cover from the under-hood fuse/relay box.
6. Disconnect the connectors from the under-hood fuse/relay box.
7. 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. Connect the positive cable to the battery, then connect the negative cable to the battery.
4. Enter the anti-theft code for the audio system and the navigation system (if equipped), then enter the audio presets.
5. Confirm that all systems work properly.
6. Set the clock.

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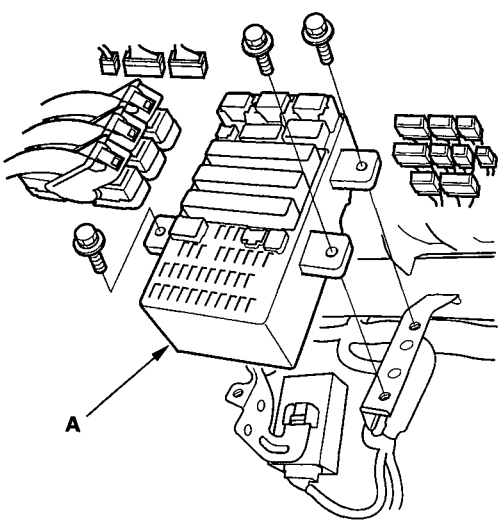
Under-dash Fuse/Relay Box

Removal and Installation

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 performing repairs or servicing.

Removal

1. Make sure you have the anti-theft code for the audio system and the navigation system (if equipped), then write down the audio presets.
2. Make sure the ignition switch is OFF.
3. Disconnect the negative battery cable, then disconnect the positive cable, and wait at least 3 minutes.
4. Remove the driver's dashboard undercover (see page 20-102).
5. Disconnect the connectors from the fuse side of the under-dash fuse/relay box (A).



6. Remove the mounting bolt, and pull the fuse/relay box away from the body.
7. Disconnect the connectors from the back side of the under-dash fuse/relay box, then remove the under-dash fuse/relay box.
8. 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-dash fuse/relay box, then install the under-dash fuse/relay box in the reverse order of removal.
2. Install the removed parts in the reverse order of removal.
3. Connect the positive cable to the battery, then connect the negative cable to the battery.
4. Register the immobilizer system with the HDS (see page 22-341).

   NOTE: The IMOES unit is built into the MICU which is part of the under-dash fuse/relay box. Because of this construction, the IMOES must be registered, or the vehicle will not start.
5. Enter the anti-theft code for the audio system and the navigation system (if equipped), then enter the audio presets.
6. Confirm that all systems work properly.
7. Set the clock.

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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.

Use an ED-18™ Battery Tester, and follow the manufacturer's procedures. If you don't have one of these computerized testers, follow this conventional test procedure:

1. Be sure the temperature of the electrolyte is between 70 °F (21 °C) and 100 °F (38 °C).
2. Inspect the battery case for cracks or leaks.
   - If the case is damaged, replace the battery. ■
   - If the case looks OK, go to step 3.
3. Check the test indicator window.
   - If the test indicator window indicates the battery is charged, go to step 4.
   - If the test indicator window indicates a low charge, go to step 7.
4. Apply a 300 amp load for 15 seconds to remove the surface charge.
5. Wait 15 seconds, then apply a test load of 280 amps for 15 seconds.
6. Record battery voltage.
   - If voltage is above 9.6 V, the battery is OK. ■
   - If voltage is below 9.6 V, go to step 7.
7. Charge the battery on High (40 amps) until the test indicator window shows the battery is charged, plus an additional 30 minutes. If the battery charge is very low, it may be necessary to bypass the charger's polarity protection circuitry.
   - If the test indicator window indicates the battery is charged within three hours, repeat steps 4 through 6. If the battery is still below 9.6 V, replace the battery. ■
   - If the test indicator window indicates the battery is not charged within three hours, replace the battery. ■

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Power Relay Test

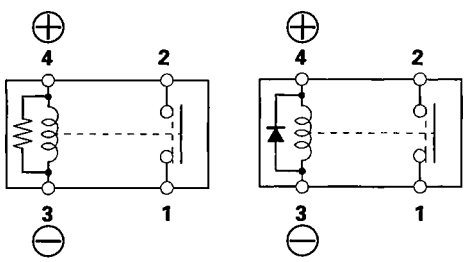
Use this chart to identify the type of relay, then do the test listed for it.

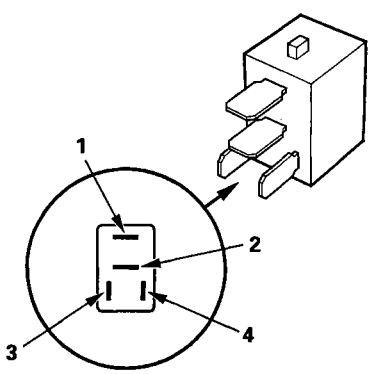
Relay	Test
A/C compressor clutch relay	Normally-open type
A/C condenser fan relay	
Blower motor relay	
Driver's seat heater relay (HIGH)	
Electric vacuum pump relay 1, 2	
Electronic throttle control system (ETCS) control relay	
Fog light relay	
Front accessory power socket relay	
Front passenger's seat heater relay (HIGH)	
Ignition coil relay	
PGM-FI main relay 1, 2	
PGM-FI subrelay	
Power mirror defogger relay	
Power window relay	
Radiator fan relay	
Console accessory power socket relay	
Rear window defogger relay	
SH-AWD relay	
Starter cut relay	
Driver's seat heater relay (LOW)	Five-terminal type
Fan control relay	
Front passenger's seat heater relay (LOW)	
Rear window wiper relay	

Normally-open type

Check for continuity between the terminals.

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





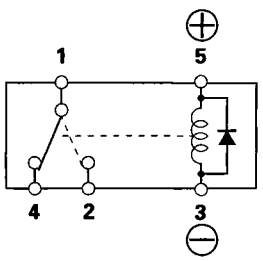
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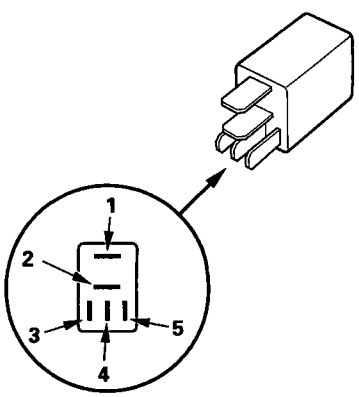
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Five-terminal type

Check for continuity between the terminals.

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





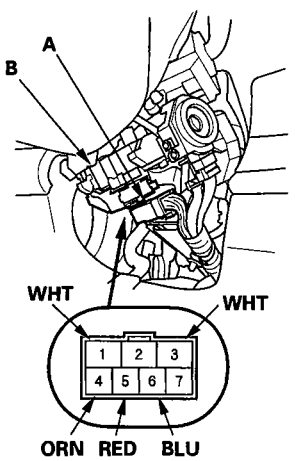
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Ignition Switch

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 performing repairs or servicing.

1. Make sure you have the anti-theft code for the audio system and the navigation system (if equipped), then write down the audio presets.
2. Disconnect the negative battery cable.
3. Remove the steering column covers (see page 20-107).
4. Disconnect the 7P connector (A) from the ignition switch (B).



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

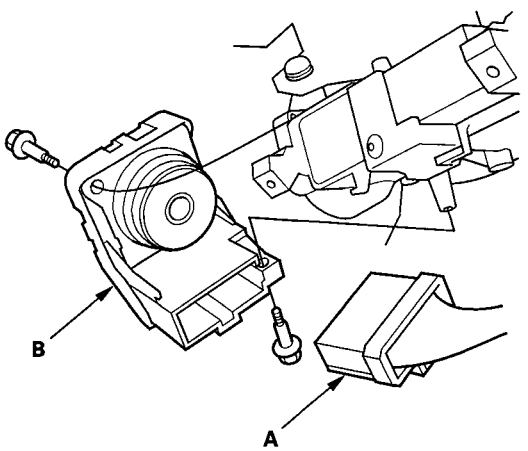
Position \ Terminal	RED (ACC)	WHT (BAT)	BLU (IG1)	ORN (IG2)	YEL (ST)
O (LOCK)					
I (ACC)	○—○				
II (ON)	○—○	○—○	○—○	○—○	
III (START)		○—○			○—○

6. If the continuity checks do not agree with the table, replace the ignition switch (see page 22-66).
7. Enter the anti-theft code for the audio system and the navigation system (if equipped), then enter the audio presets.
8. Set the clock.

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 performing repairs or servicing.

1. Make sure you have the anti-theft code for the audio system and the navigation system (if equipped), then write down the audio presets.
2. Disconnect the negative battery cable.
3. Remove the steering column covers (see page 20-107).
4. Disconnect the 7P connector (A) from the ignition switch (B).

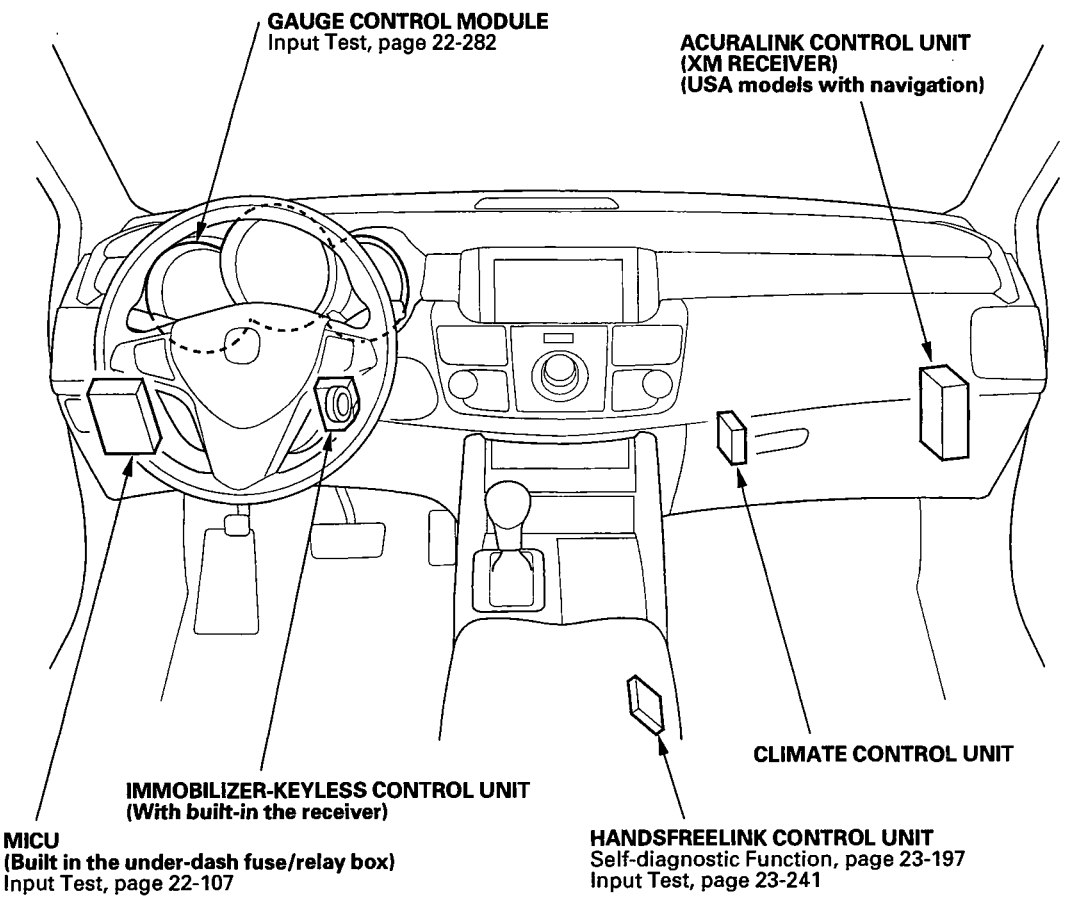


5. Remove the two screws and the ignition switch.
6. Install in the reverse order of removal.
7. Enter the anti-theft code for the audio system and the navigation system (if equipped), then enter the audio presets.
8. Set the clock.

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Component Location Index



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General Troubleshooting Information

Troubleshooting CAN Circuit Related Problems

NOTE: Check the PCM for DTCs and troubleshoot 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 22-88).
2. If no DTCs are retrieved, go to B-CAN System Diagnosis Test Mode C (see page 22-91) or D (see page 22-92).

Set the B-CAN system diagnosis Test mode 1 (see page 22-93). Without HDS (Use only if the HDS is unavailable)

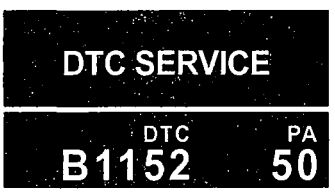
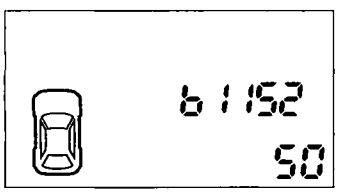
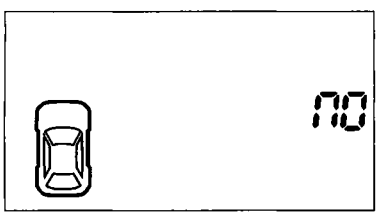
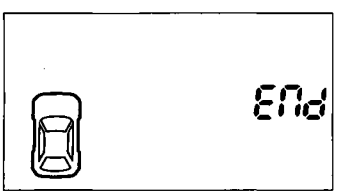
1. Check for communication circuit problems using B-CAN System Diagnostic Test (see page 22-88).
2. Check for DTCs.
3. Sort, and then troubleshoot the DTCs in the order.
   - -1 Battery voltage DTCs
   - -2 Internal error DTCs
   - -3 Loss of communication DTCs (beginning with the lowest number first; for example, if B1008 and B1011 are retrieved, troubleshoot B1008 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 failure (see step 10 on page 22-93).

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How to display DTCs on the gauge control module

Set the B-CAN System Diagnosis Test Mode 1 (see page 22-93). 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 LCD display when the communication between the MICU and the gauge control module is normal. To scroll through the DTCs, press the select/reset button.

	With navigation	Without navigation
DTC detected (the lower four digits is a decimal number representing the DTC)		
No DTCs detected		
All DTCs have been displayed		

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

Control Unit	Control Unit I.D. Number
MICU	10
Gauge control module	50
Climate control unit	51
HansFreeLink control unit	94
Immobilizer-keyless control unit	96
AcuraLink control unit (XM receiver)	97

How to clear the DTC

Set the B-CAN System Diagnosis Test Mode 1 (see page 22-93). While in Test Mode 1, press and hold down the SELECT/RESET button for more than 10 seconds.

(cont'd)

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General Troubleshooting Information (cont'd)

Loss of Communication DTC cross-reference chart

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					
	MICU	Gauge Control Module	Climate Control Unit	Hands FreeLink Control Unit	Immobilizer-Keyless Control Unit	AcuraLink Control Unit (XM Receiver)
BUS OFF	B1000	B1150	B1200	B1750	B1900	B2200
ECU (CPU) Error	B1001					
ECU (EEPROM) Error	B1002	B1152				
ECU (Internal) Error				B1792		B2209

Transmitting Control Unit	Message	Receiving Unit/Loss of Communication DTC						
		MICU	Gauge Control Module	Climate Control Unit	Hands FreeLink Control Unit	Immobilizer-Keyless Control Unit	AcuraLink Control Unit (XM Receiver)	Navigation Unit
MICU	RM	TX	B1188					
	HLSW	TX	B1155					
	WIPSW	TX	B1156					
	MICU	TX	B1157					
	DOORSW	TX	B1159					
	DRLOCK SW	TX	B1160			B1905		
Gauge Control Module	VSP/NE	B1011	TX	B1205				
	A/T	B1008	TX			B1906		
	ENGTEMP		TX	B1206				
	ILLMI		TX	B1207				
	CDS (SRS)	B1032	TX					
PCM	ENGTEMP		B1168					
	A/T		B1169					
VSA	VSA		B1170					
TPMS	TPMS		B1173					
SRS Unit	SRS MSG		B1187					
AcuraLink					B2208			B2207

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

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DTC Troubleshooting Index

NOTE: Check the PCM for DTCs and troubleshoot PCM (see page 11-3) or F-CAN loss of communication errors first, then 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 (beginning with the lowest number first; for example, if B1008 and B1011 are retrieved, troubleshoot B1008 first).
- Signal error DTCs

MICU

DTC	Description	DTC type	Page
B1000	Communication bus line error (BUS-OFF)	Loss of communication	(see page 22-99)
B1001	MICU internal error (CPU error)	Internal error	(see page 22-100)
B1002	MICU internal error (EEPROM error)	Internal error	(see page 22-100)
B1008	MICU lost communication with gauge control module (A/T message)	Loss of communication	(see page 22-101)
B1011	MICU lost communication with gauge control module (VSP/NE message)	Loss of communication	(see page 22-101)
B1026	Front passenger's door lock switch LOCK/UNLOCK signal error	Signal error	(see page 22-118)
B1028	Rear window wiper motor (Park) signal error	Signal error	(see page 22-232)
B1032	MICU lost communication with SRS unit (CDS message)	Loss of communication	(see page 22-102)
B1036	IG1 line input error	Signal error	(see page 22-103)
B1077	Windshield wiper motor (Park) signal error	Signal error	(see page 22-236)
B1078	Daytime running lights signal error (Canada)	Signal error	(see page 22-157)
B1079	Daytime running lights signal error (USA)	Signal error	(see page 22-157)
B1127	Driver's door key cylinder switch signal error	Signal error	(see page 22-120)
B1128	Driver's door lock switch signal error	Signal error	(see page 22-122)
B1129	Driver's door lock knob switch signal error	Signal error	(see page 22-124)
B1275	Combination light switch OFF position circuit malfunction	Signal error	(see page 22-159)
B1276	Combination light switch parking (small) position circuit malfunction	Signal error	(see page 22-159)
B1278	Headlight switch ON position circuit malfunction	Signal error	(see page 22-159)
B1279	Headlight switch DIMMER position circuit malfunction	Signal error	(see page 22-161)
B1280	Turn signal switch circuit malfunction	Signal error	(see page 22-184)
B1281	Windshield wiper switch MIST position circuit malfunction	Signal error	(see page 22-241)
B1282	Windshield wiper switch INT (AUTO) position circuit malfunction	Signal error	(see page 22-241)
B1283	Windshield wiper switch LOW position circuit malfunction	Signal error	(see page 22-241)
B1284	Windshield wiper switch HIGH position circuit malfunction	Signal error	(see page 22-241)

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DTC Troubleshooting Index (cont'd)

Gauge Control Module

DTC	Description	DTC type	Page
B1150	Communication bus line error (BUS-OFF)	Loss of communication	(see page 22-104)
B1152	Gauge control module internal error (EEPROM error)	Internal error	(see page 22-269)
B1155	Gauge control module lost communication with the MICU (Headlight switch message)	Loss of communication	(see page 22-269)
B1156	Gauge control module lost communication with the MICU (Wiper switch message)	Loss of communication	(see page 22-270)
B1157	Gauge control module lost communication with the MICU (MICU message)	Loss of communication	(see page 22-270)
B1159	Gauge control module lost communication with the MICU (DOORSW message)	Loss of communication	(see page 22-271)
B1160	Gauge control module lost communication with the MICU (DRLOCKSW message)	Loss of communication	(see page 22-271)
B1168	Gauge control module lost communication with the PCM (Engine messages)	Loss of communication	(see page 22-272)
B1169	Gauge control module lost communication with the PCM (A/T message)	Loss of communication	(see page 22-272)
B1170	Gauge control module lost communication with the VSA modulator-control unit (VSA message)	Loss of communication	(see page 22-273)
B1173	Gauge control module lost communication with the TPMS control unit (TPMS message)	Loss of communication	(see page 22-274)
B1175	Fuel level sensor (Fuel gauge sending unit) circuit open	Signal error	(see page 22-275)
B1176	Fuel level sensor (Fuel gauge sending unit) circuit short	Signal error	(see page 22-277)
B1177	Battery voltage abnormal	Battery voltage	(see page 22-278)
B1178	F-CAN communication line error	Loss of communication	(see page 22-279)
B1187	Gauge control module lost communication with the SRS unit (SRS message)	Loss of communication	(see page 22-280)
B1188	Gauge control module lost communication with the MICU (RM message)	Loss of communication	(see page 22-281)

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Climate Control Unit

DTC	Description	DTC type	Page
B1200	Communication bus line error (BUS-OFF)	Loss of communication	(see page 22-104)
B1205	Climate control unit lost communication with gauge control module (VSP/NE massage)	Loss of communication	(see page 21-26)
B1206	Climate control unit lost communication with gauge control (ECT message)	Loss of communication	(see page 21-27)
B1207	Climate control unit lost communication with gauge control module (ILLUMI massage)	Loss of communication	(see page 21-28)
B1225	An open in the in-car temperature sensor circuit	Signal error	(see page 21-29)
B1226	A short in the in-car temperature sensor circuit	Signal error	(see page 21-31)
B1227	An open in the outside air temperature sensor circuit	Signal error	(see page 21-32)
B1228	A short in the outside air temperature sensor circuit	Signal error	(see page 21-33)
B1229	An open in the sunlight sensor circuit	Signal error	(see page 21-34)
B1230	A short in the sunlight sensor circuit	Signal error	(see page 21-35)
B1231	An open in the evaporator temperature sensor circuit	Signal error	(see page 21-36)
B1232	A short in the evaporator temperature sensor circuit	Signal error	(see page 21-38)
B1233	An open in the driver's air mix control motor circuit	Signal error	(see page 21-39)
B1234	A short in the driver's air mix control motor circuit	Signal error	(see page 21-40)
B1235	A problem in the driver's air mix control linkage, door, or motor	Signal error	(see page 21-41)
B1236	An open in the passenger's air mix control motor circuit	Signal error	(see page 21-43)
B1237	A short in the passenger's air mix control motor circuit	Signal error	(see page 21-44)
B1238	A problem in the passenger's air mix control linkage, door, or motor	Signal error	(see page 21-45)
B1239	An open or short in the mode control motor circuit	Signal error	(see page 21-47)
B1240	A problem in the mode control linkage, doors, or motor	Signal error	(see page 21-49)
B1241	A problem in the blower motor circuit	Signal error	(see page 21-51)

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DTC Troubleshooting Index (cont'd)

HandsFreeLink Control Unit

DTC	Description	DTC type	Page
B1750	Communication bus line error (BUS-OFF)	Loss of communication	(see page 22-105)
B1775	Microphone input/output short to power/open	Signal error	(see page 23-231)
B1776	Microphone input/output short to ground/open	Signal error	(see page 23-232)
B1779	HFL switch or HFL-voice control switch (HFL talk/HFL back buttons) circuit open/short	Signal error	(see page 23-234)
B1780	HFL-voice control switch (HFL talk/HFL back buttons) circuit short	Signal error	(see page 23-236)
B1792	HandsFreeLink control unit internal error	Internal error	(see page 23-238)

Immobilizer-Keyless Control Unit

DTC	Description	DTC type	Page
B1900	Communication bus line error (BUS-OFF)	Loss of communication	(see page 22-105)
B1905	Immobilizer-keyless control unit lost communication with MICU (DRLOCKSW message)	Loss of communication	(see page 22-331)
B1906	Immobilizer-keyless control unit lost communication with gauge control module (A/T message)	Loss of communication	(see page 22-332)

AcuraLink Control Unit (XM Receiver)

DTC	Description	DTC type	Page
B2200	B-CAN BUS Off	Loss of communication	(see page 22-106)
B2204	B-CAN communication line error	Loss of communication	(see page 23-211)
B2205	F-CAN communication line error	Loss of communication	(see page 23-212)
B2207	Navigation unit lost communication with AcuraLink control unit (XM receiver)	Loss of communication	(see page 23-213)
B2208	HandsFreeLink control unit lost communication with AcuraLink control unit (XM receiver)	Loss of communication	(see page 23-216)
B2209	AcuraLink control unit internal error	Loss of communication	(see page 23-219)
B2240	XM antenna error	Loss of communication	(see page 23-219)

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System Description

MICU Control Functions Index

The MICU (built into the under-dash fuse/relay box) is one of the B-CAN components. The MICU controls many systems related to the body controller area 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 the switch input signal information to the MICU and outputs the information. The MICU controls the ECUs electric load and communication based upon the information received the B-CAN.
On-Board Diagnosis	The MICU has a gateway function which sends the results of the MICU internal diagnosis and the B-CAN connected ECUs diagnosis to the HDS.
Self-Diagnosis	Test mode 1 diagnoses the communication line between the MICU and B-CAN connected unit. Test mode 2 checks the switch inputs connected to the MICU.
Interior Light(s)	The 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 MICU has a sleep function, which it enters during the power down mode.

The 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)
- Horn
- Interlock system
- Key-in reminder
- Keyless entry
- Lights-on reminder
- Power door locks
- Power window key-off timer
- Seat belt reminder
- Security alarm
- Turn signal/hazard flasher
- Wiper/washer

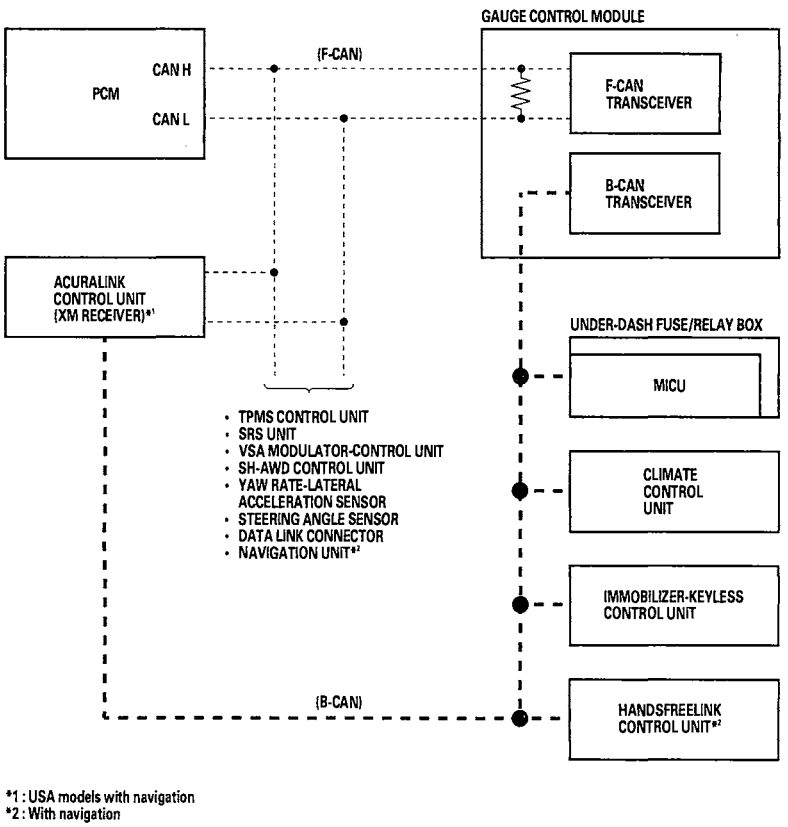
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System Description (cont'd)

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 (33.33 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.



*1 : USA models with navigation
*2 : With navigation

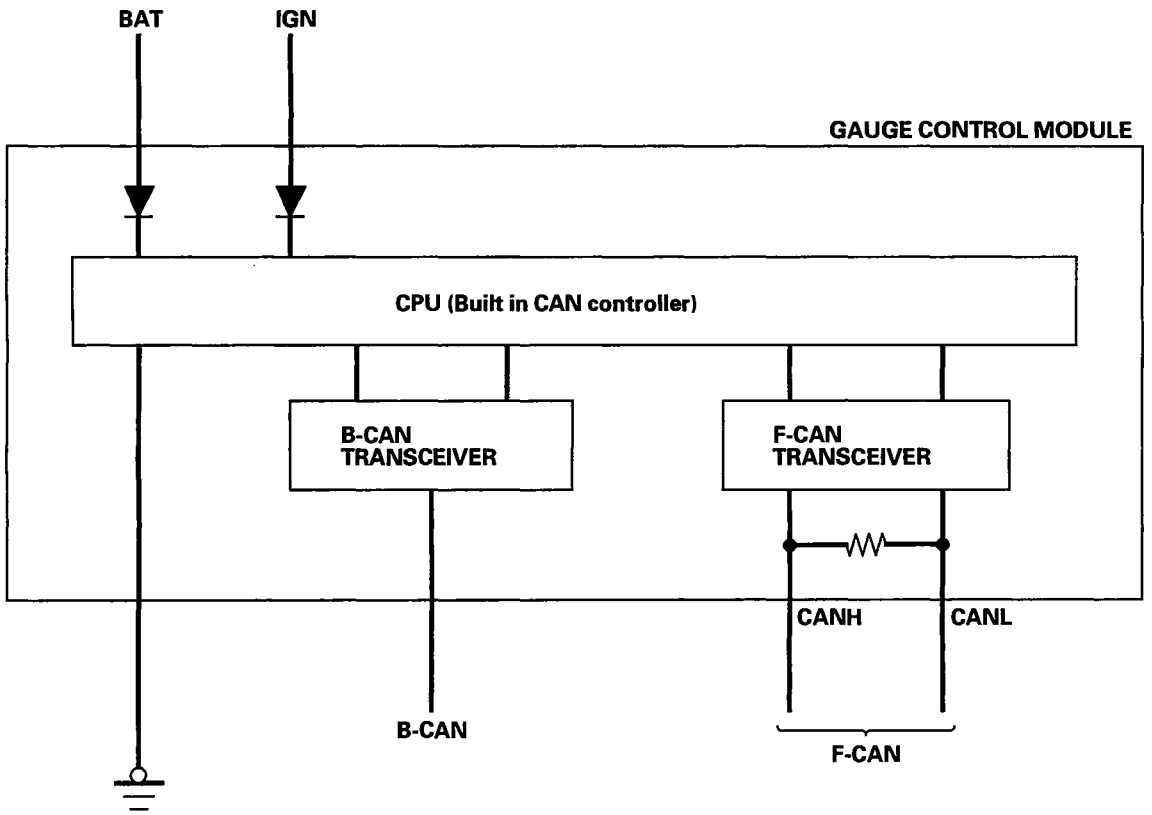
- The single wire method is used between the units not requiring the communication to move at a fast speed.
- Using a single wire method reduces the number of the wires used on the body controller area network.

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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 malfunctions on the network, the LCD display on the gauge control module can indicate the error messages by entering the gauge self-diagnostic function (see page 22-258).

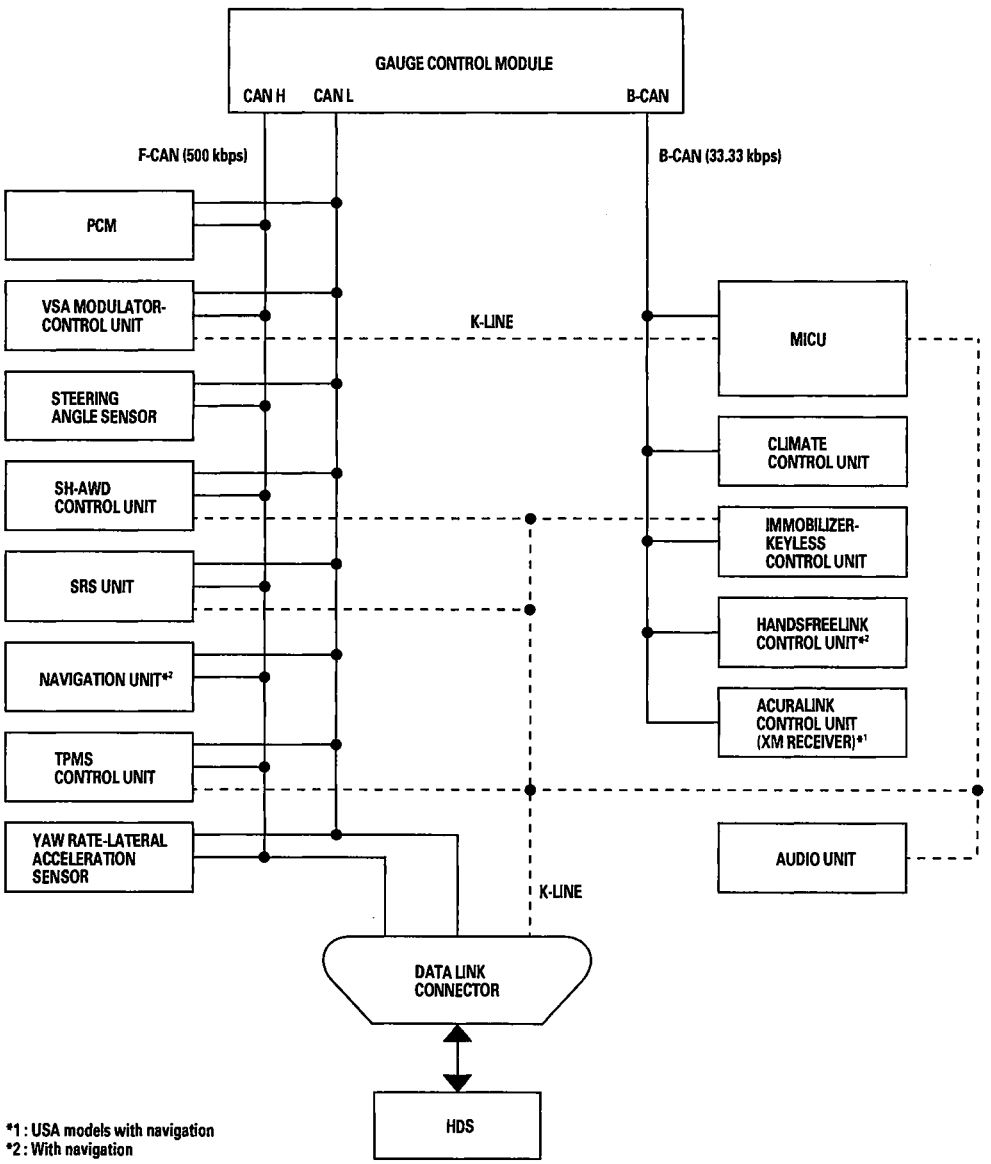
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System Description (cont'd)

Self-diagnostic Function

By connecting the HDS to the data link connector (DLC), the HDS can retrieve the diagnostic results from the MICU via a diagnostic line called K-LINE. The K-LINE is distinguished from the CAN line, and connected to the CAN related ECUs. The MICU is a gateway between the HDS and B-CAN related ECUs, and sends B-CAN diagnostic results to the HDS. When performing a function test with the HDS, the HDS sends an output signal through the K-LINE to the MICU. The 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 OFF.

- In the sleep mode, the MICU 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 unit in the sleep mode immediately wakes up and begins to function.
- When the ignition switch is turned OFF, 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 22-95).

Fail-safe Function

To prevent improper operation, the MICU has 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 MICU moves 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 MICU moves 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)

Power Supply Voltage Monitoring Function

The MICU monitors the power supply voltage (back-up voltage). If the voltage goes below 10 V, the MICU sends a MICU message and will not store DTCs.

	Input	Output
MICU	Battery voltage	MICU*
		*: MICU internal circuit

Entry Lights Control System

The MICU controls the ceiling light ON/OFF and dimming based upon the input signals from each switch.

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

Lighting System (Headlights, Parking Lights, Side Marker Lights, Fog Lights, License Plate Lights, and Taillights)

The MICU contains the relay circuits of the headlight high/low beam and taillights, and controls the lighting system ON/OFF based upon the input signals from the combination light switch.

	Input	Output
MICU	IG1 power supply	Headlights (low beam)
	Headlight OFF switch	Headlights (high beam)
	Headlight ON switch	Parking lights
	Dimmer switch	Side marker lights
	Combination light switch (parking lights, side marker lights, license plate lights, and taillights)	License plate lights
		Taillights
	Passing switch	Lid lights
	Fog light switch	Fog light

Daytime Running Lights

The MICU controls the exterior lights as a daytime running lights based upon the input signals from the each switch.

	Input	Output
MICU	IG1 power supply	Headlights (low beam)
	Headlight OFF switch	Headlights (high beam)
	Headlight ON switch	Parking lights
	Dimmer switch	Slide marker lights
	Passing switch	License plate lights
B-CAN	Parking brake switch	Taillights

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Turn Signal/Hazard Flasher

The MICU controls the turn signal/hazard flasher based upon the input signals from the turn signal and hazard warning switches.

	Input	Output
MICU	IG1 power supply Turn signal switch (left/right) Hazard warning switch	Turn signal lights (left/right)

Power Door Locks (Vehicle Speed Sense)

The MICU controls the door lock actuators based upon the B-CAN and input signals.

	Input	Output
MICU	IG1 power supply Driver's door switch Front passenger's door switch Left rear door switch Right rear door switch Tailgate latch switch Driver's door lock knob switch (UNLOCK) Front passenger's door lock knob switch (UNLOCK) Left rear door lock knob switch (UNLOCK) Right rear door lock knob switch (UNLOCK) Transmission range switch (P position)	Door lock (LOCK)
B-CAN	Vehicle speed pulse SRS (CDS) signal Engine RPM	

Power Door Locks (Normally LOCK/UNLOCK Operation)

The MICU controls the door lock actuators based upon the input signals of each switch.

	Input	Output
MICU	IG1 power supply Ignition key switch Driver's door switch Front passenger's door switch Left rear door switch Right rear door switch Tailgate latch switch Driver's door lock knob switch (LOCK) Driver's door lock switch (LOCK/UNLOCK) Driver's door key cylinder switch (UNLOCK) Front passenger's door lock switch (LOCK/UNLOCK)	Door lock actuators (LOCK/UNLOCK)
B-CAN	SRS (CDS) signal	

Door Lock Response Operation

The MICU controls the door lock actuators based upon the B-CAN signals.

	Input	Output
B-CAN	Door lock signals	Door lock actuator (LOCK/UNLOCK) Driver's door lock actuator (UNLOCK) Tailgate release actuator

Power Window Key-off Operation

The MICU controls the power windows key-off operation based upon the input signals.

	Input	Output
MICU	IG1 power supply Ignition key switch Driver's door switch Front passenger's door switch	Power window key-off timer

(cont'd)

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System Description (cont'd)

Keyless Entry System

The MICU controls the door lock actuators based upon the input signals of each switch and the B-CAN signals.

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

Keyless PANIC

The MICU controls the keyless PANIC based upon the B-CAN signals.

	Input	Output
B-CAN	Keyless PANIC signal (action, headlight low, parking light and horn)	Headlights (low beam) Parking lights Side marker lights License plate lights Taillights Horn

Security Alarm System

The MICU controls the lighting system and horn based upon the input signals of each switch and the B-CAN signals.

	Input	Output
MICU	IG1 power supply Ignition key switch Audio switch Driver's door switch Front passenger's door switch Left rear door switch Right rear door switch Tailgate latch switch Driver's door key cylinder switch (LOCK/UNLOCK) Driver's door lock knob switch (UNLOCK) Front passenger's door lock knob switch (UNLOCK) Left rear door lock knob switch (UNLOCK) Right rear door lock knob switch (UNLOCK) Tailgate latch switch Hood switch	Horn Headlights (low beam) Parking lights Side marker lights License plate lights Taillights
B-CAN	Keyless LOCK signal Door lock signal	

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Key Interlock

The MICU controls the key interlock solenoid based upon the IG1, the transmission range switch, and the park-pin switch signals.

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

Answer Back Response Operation

The MICU controls the lighting system and keyless buzzer based upon the B-CAN signals.

	Input	Output
B-CAN	Answer back signals (headlight low, keyless buzzer, parking lights)	Keyless buzzer Headlights Parking lights Side marker lights License plate lights Taillights

Windshield Wiper/Washer

The MICU controls the windshield wiper motor and the washer motor based upon the IG1, wiper/washer switch windshield wiper motor signals and the B-CAN signals.

	Input	Output
MICU	IG1 power supply Windshield wiper switch (INT and LO) Windshield wiper switch (LO and HI) Windshield washer switch Windshield wiper intermittent volume Windshield wiper motor signal	Windshield wiper motor Windshield washer motor
B-CAN	IG1 power supply	

Rear Wiper/Washer

The MICU controls the rear wiper motor and the washer motor based upon the IG1, wiper/washer switch and the rear wiper motor signals.

	Input	Output
MICU	IG1 power supply Rear wiper switch Rear washer switch Rear wiper motor signal	Rear wiper motor Rear washer motor

Collision Detection Signal (CDS)

The MICU controls the door lock actuators based upon the IG1 and the B-CAN signals.

	Input	Output
MICU	IG1 power supply	Door lock (UNLOCK)
B-CAN	SRS signal (front and side) Impact sensors and roll rate sensor	

(cont'd)

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System Description (cont'd)

HDS Inputs and Commands

Certain inputs happen so quickly that 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.

Input:

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
	Washer Fluid Level Switch	OFF/ON
	Gauge Select/Reset Switch	OFF/ON
	Parking Brake Switch	OFF/ON
	Brake Fluid Level Switch	OFF/ON
	Illumination Volume Plus Switch	OFF/ON
	Illumination Volume Minus Switch	OFF/ON
	km/h Mile/h Select Switch	OFF/ON
	Fuel Sending Unit Input 1	deg
	Fuel Sending Unit Input 2	VOLTAGE
	ABS Indicator	OFF/ON
	EBD Indicator (Electronic Brake Distribution)	OFF/ON
	Cruise Control Main Switch Indicator	OFF/ON
	MIL Indicator	OFF/ON
	Washer Fluid Level Indicator (Canada)	OFF/ON
	DRL Indicator	OFF/ON
	Low Oil Pressure Indicator	OFF/ON
	Charging System Indicator	OFF/ON
	Cruise Main Switch ON Indicator	OFF/ON
	Maintenance Minder Indicator	OFF/ON
	High Beam Indicator	OFF/ON
	Parking Light ON Indicator	OFF/ON
	Low Fuel Warning Indicator	OFF/ON
	Security Indicator	OFF/ON
	Fog light Indicator	OFF/ON
	Seat Belt Indicator	OFF/ON
	Speed Indicator (km/h)	0—249 km/h, over 250 km/h, Fail
	Speed Indicator (mile/h)	0—154 mile/h, over 155 mile/h, Fail
	A/T Gear Position Switch (R)	OFF/ON
	A/T Gear Position Switch (P)	OFF/ON
Lighting	Driver's Door Switch	OFF/ON
	Hazard Switch	OFF/ON
	Headlight Switch (OFF)	OFF/ON
	Headlight Switch (PARKING)	OFF/ON
	Headlight Switch (HEADLIGHT)	OFF/ON
	Headlight Switch (High Beam)	OFF/ON
	Headlight Switch (PASSING)	OFF/ON
	Turn Signal Switch (LEFT)	OFF/ON
	Turn Signal Switch (RIGHT)	OFF/ON
	Fog Light Switch	OFF/ON
	Interior Light Command (Ignition Key Cylinder Light Command)	OFF/ON
	Left Turn Signal Command	OFF/ON
	Right Turn Signal Command	OFF/ON
	Headlight Command	OFF/ON
	Headlight High Beam Command	OFF/ON
	Parking Light Command	OFF/ON
	Fog Light Command	OFF/ON
	DRL Command	OFF/ON

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System Menu	Data List	Data List Indication
Door Locks	Driver's Door Switch	OFF/ON
	Front Passenger's Door Switch	OFF/ON
	Driver's Rear Door Switch	OFF/ON
	Passenger's Rear Door Switch	OFF/ON
	Front Passenger's Door Lock Sw. (LOCK)	OFF/ON
	Front Passenger's Door Lock Sw. (UNLOCK)	OFF/ON
	Front Passenger's Door Lock Knob Sw. (UNLOCK)	OFF/ON
	Driver's Rear Door Lock Knob Switch (UNLOCK)	OFF/ON
	Passenger's Rear Door Lock Knob Sw. (UNLOCK)	OFF/ON
	Driver's Door Key Cylinder Switch (LOCK)	OFF/ON
	Driver's Door Key Cylinder Switch (UNLOCK)	OFF/ON
	Driver's Door Lock Switch (LOCK)	OFF/ON
	Driver's Door Lock Switch (UNLOCK)	OFF/ON
	Driver's Door Lock Knob Switch (LOCK)	OFF/ON
	Driver's Door Lock Knob Switch (UNLOCK)	OFF/ON
	Door LOCK Command	OFF/ON
	Door UNLOCK Command	OFF/ON
	Driver's Door UNLOCK Command	OFF/ON
Keyless	Driver's Door Switch	OFF/ON
	Front Passenger's Door Switch	OFF/ON
	Driver's Rear Door Switch	OFF/ON
	Passenger's Rear Door Switch	OFF/ON
	Tailgate Switch	OFF/ON
	Front Passenger's Door Lock Sw. (LOCK)	OFF/ON
	Front Passenger's Door Lock Sw. (UNLOCK)	OFF/ON
	Front Passenger's Door Lock Knob Sw. (UNLOCK)	OFF/ON
	Driver's Rear Door Lock Knob Switch (UNLOCK)	OFF/ON
	Passenger's Rear Door Lock Knob Sw. (UNLOCK)	OFF/ON
	Driver's Door Key Cylinder Switch (LOCK)	OFF/ON
	Driver's Door Key Cylinder Switch (UNLOCK)	OFF/ON
	Driver's Door Lock Switch (LOCK)	OFF/ON
	Driver's Door Lock Switch (UNLOCK)	OFF/ON
	Driver's Door Lock Knob Switch (LOCK)	OFF/ON
	Driver's Door Lock Knob Switch (UNLOCK)	OFF/ON
	Door LOCK Command	OFF/ON
	Door UNLOCK Command	OFF/ON
	Driver's Door UNLOCK Command	OFF/ON
Wipers	Brake Pedal Position Switch	OFF/ON
	Windshield Wiper Switch (LOW)	OFF/ON
	Windshield Wiper Switch (HIGH)	OFF/ON
	Windshield Wiper Switch (MIST)	OFF/ON
	Windshield Wiper Switch (INT)	OFF/ON
	Windshield Washer Switch	OFF/ON
	Windshield Wiper Motor PARK Switch	OFF/ON
	Intermittent Wiper Dwell Timer	0.0—1.0 kΩ/OPEN
	Windshield Wiper Motor HI Command	OFF/ON
	Windshield Wiper Motor LO Command	OFF/ON
	Windshield Washer Motor Command	OFF/ON
	Rear Wiper Switch	OFF/ON
	Rear Washer Switch	OFF/ON
	Rear Wiper Auto Stop Switch	OFF/ON

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System Description (cont'd)

System Menu	Data List	Data List Indication
Security	Ignition Key Cylinder Switch	OFF/ON
	Driver's Door Switch	OFF/ON
	Front Passenger's Door Switch	OFF/ON
	Driver's Rear Door Switch	OFF/ON
	Passenger's Rear Door Switch	OFF/ON
	Tailgate Switch	OFF/ON
	Front Passenger's Door Lock Sw. (LOCK)	OFF/ON
	Front Passenger's Door Lock Sw. (UNLOCK)	OFF/ON
	Front Passenger's Door Lock Knob Sw. (UNLOCK)	OFF/ON
	Driver's Rear Door Lock Knob Switch (UNLOCK)	OFF/ON
	Passenger's Rear Door Lock Knob Sw. (UNLOCK)	OFF/ON
	Radio Switch	OFF/ON
	Hood Switch	OFF/ON
	Driver's Door Key Cylinder Switch (LOCK)	OFF/ON
	Driver's Door Key Cylinder Switch (UNLOCK)	OFF/ON
	Driver's Door Look Switch (LOCK)	OFF/ON
	Driver's Door Look Switch (UNLOCK)	OFF/ON
	Driver's Door Look Knob Switch (LOCK)	OFF/ON
	Driver's Door Look Knob Switch (UNLOCK)	OFF/ON
	Door LOCK Command	OFF/ON
	Door UNLOCK Command	OFF/ON
	Driver's Door UNLOCK Command	OFF/ON
	Headlight Command	OFF/ON
	Parking Light Command	OFF/ON
	Horn Command	OFF/ON

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Function Test:

System Menu	Data List Indication	Data List and Operation Time
Door	LOCK all doors	Outputs LOCK signal 1 time (0.6 sec) to all doors
	UNLOCK driver's side door	Outputs UNLOCK signal 1 time (0.6 sec) to driver's door
	UNLOCK all doors	Outputs UNLOCK signal 1 time (0.6 sec) to all doors
Lighting	Interior Light Command	Illuminates for 30 seconds.
	LEFT Turn Signal Command	Blinks for 5 seconds.
	RIGHT Turn Signal Command	Blinks for 5 seconds.
	Hazard flasher	Blinks turn signal (left and right) for 15 seconds.
	Headlight Command	Operates headlight (low) for 15 seconds.
	Headlight HIGH Beam Command	Operates headlight (high) for 15 seconds.
	Fog Light	Operates a relay of front fog lights for 15 seconds.
	Parking Light Command	Operates small lights for 15 seconds.
Keyless	Trunk Lid/Tailgate Release Command	Unlock trunk
Security	Horn Command	Operates horn for 1 second.
Wipers	Windshield Wiper Motor LOW Command	Operates windshield wiper motor for 5 seconds (low speed).
	Windshield Wiper Motor HIGH Command	Operates windshield wiper motor for 5 seconds (high speed).
	Windshield Washer Command	Operates windshield washer motor for 5 seconds.
	Rear Wiper Motor	Illuminate for 15 seconds.
	Rear Wiper Washer	Illuminate for 15 seconds.
Gauges	Self Diagnostic Test	———
	Speedometer	0—300 mph
	Tachometer	0—10,000 rpm
	Fuel Level Gauge	0—255 litter
	Engine Temperature Gauge	0—150 deg (℃)
	ABS Indicator	Illuminates for 10 seconds.
	EBD Indicator (Electronic Brake Distribution)	Illuminates for 10 seconds.
	Cruise Activation Indicator	Illuminates for 10 seconds.
	MIL Status	Illuminates for 10 seconds.
	Windshield Washer Fluid Level Indicator	Illuminates for 10 seconds.
	Daytime Running Light Indicator (Canada)	Illuminates for 10 seconds.
	Engine Oil Pressure Indicator	Illuminates for 10 seconds.
	Charging System Indicator	Illuminates for 10 seconds.
	Cruise Control Main Switch Indicator	Illuminates for 10 seconds.
	Maintenance Required Indicator	Illuminates for 10 seconds.
	High Beam Indicator	Illuminates for 10 seconds.
	Light On Indicator	Illuminates for 10 seconds.
	Low fuel level Indicator	Illuminates for 10 seconds.
	Security Indicator	Illuminates for 10 seconds.
	Fog Light	Illuminates for 10 seconds.
	Seat Belt Indicator Lamp	Illuminates for 10 seconds.
	Trip Meter	0—9999.9 (mph)
	A/T Gear Position Indicator (P)	Illuminates for 10 seconds.
	A/T Gear Position Indicator (R)	Illuminates for 10 seconds.
	A/T Gear Position Indicator (N)	Illuminates for 10 seconds.
	A/T Gear Position Indicator (D)	Illuminates for 10 seconds.
	A/T Gear Position Indicator (D3)	Illuminates for 10 seconds.
	A/T Gear Position Indicator (2)	Illuminates for 10 seconds.
	A/T Gear Position Indicator (1)	Illuminates for 10 seconds.
	Illumination Brightness Control	(Illuminates for meter panel according) 30—100 %
	Key Alarm Chime	Sound alarm for 10 seconds.
	Headlight Alarm Chime	Sound alarm for 10 seconds.
	Seat Belt Reminder Chime	Sound alarm for 10 seconds.

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Troubleshooting - B-CAN System Diagnosis Test Mode A

Check the PCM for DTCs and troubleshoot PCM (see page 11-3) or F-CAN loss of communication errors first, then perform 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:

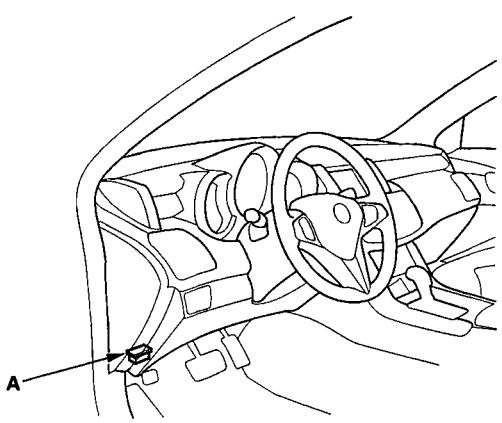
   - Gauge control module
   - Exterior lights
   - Turn signals
   - Entry light control
   - Interior lights
   - Door-open and tailgate-open indicators
   - Horns (security and panic)
   - Chimes (key-in, seat belt, lights-on, and parking brake)
   - Power window/moonroof timer
   - Wiper/washer
   - Security
   - Keyless entry
   - Power door locks
   - Key interlock
   - Dash light brightness
   - Immobilizer

   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 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.

   - MICU
   - Gauge control module
   - Immobilizer-keyless control unit
   - Climate control unit
   - HandsFreeLink control unit (with navigation)
   - Acuralink control unit (XM receiver) (USA models with navigation)

   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.

   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 22-90). If all units are not communicating or only the MICU is communicating, go to DTC B1000 troubleshooting (see page 22-99). ■

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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, go to B-CAN System Diagnosis Test Mode C (see page 22-91) if the system does not stop or turn off. Go to Test Mode D (see page 22-92) if the system does not run or turn on.

   - Exterior lights
   - Turn signals
   - Entry light control
   - Interior lights
   - Horn (security and panic)
   - Wiper/washer

   If the problem is related to one of the following items, go to the troubleshooting for that individual system. ■

   - Gauge control module
   - Door-open and tailgate-open indicators
   - Chimes (key-in, seat belt, lights-on, and parking brake)
   - Security
   - Keyless entry
   - Key interlock
   - Dash light brightness
   - Audio system
   - Navigation (if equipped)

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. Begin troubleshooting with the lowest number first (Example: if DTC B1008 and B1011 are retrieved, begin by troubleshooting B1008).
   - Signal error DTCs.

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Troubleshooting - B-CAN System Diagnosis Test Mode B

Perform 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 22-88).

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 MICU. ■
3. Perform the input test for the unit not communicating with the HDS.

Unit not communicating
MICU (see page 22-107)
Gauge control module (see page 22-282)
Immobilizer-keyless control unit (see page 22-342)

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Troubleshooting - B-CAN System Diagnosis Test Mode C

Perform 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 22-92).
- 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 22-84).
- 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 22-88). ■

   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.

   Is 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

Perform 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 22-91).
- 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 22-84).
- 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 22-88).■

   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.

   Are the relay and circuit OK?

   YES—Go to step 6.

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

6. Perform 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—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 PCM for DTCs and troubleshoot PCM (see page 11-3) or F-CAN loss of communication errors first, then perform this diagnosis if the HDS is not available.

1. Check the No. 23 (10 A) fuse in the under-hood fuse/relay box and No. 10 (7.5 A) fuse in the under-dash fuse/relay box.

   Are the fuses OK?

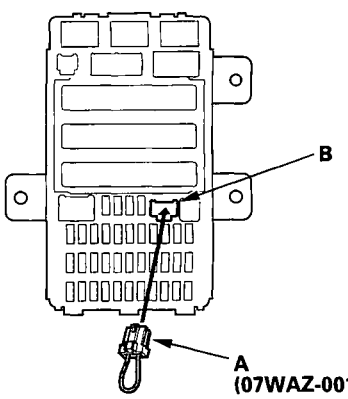
   YES—Go to step 2.

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

2. Remove the driver's dashboard undercover (see page 20-102).

3. Turn the ignition switch 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 (B) in the 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 gauge control module LCD display 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 (begin with the lowest number first; for example, if B1008 and B1011 are retrieved, troubleshoot B1008 first)
   - 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 code have been cleared. Operate the devices that failed, and recheck for codes.

Test Mode 2

10. Remove the MPCS service connector from the under-dash fuse/relay box 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 connector is disconnected for too short or too long of a time, or the ignition switch is turned OFF, 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)

MICU

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 key cylinder switch (UNLOCK)*
Driver's door key cylinder switch (LOCK)*
Front passenger's door lock switch (UNLOCK)
Front passenger's door lock switch (LOCK)
Front passenger's door lock knob switch (UNLOCK)
Left rear door lock knob switch (UNLOCK)
Right rear door lock knob switch (UNLOCK)
Driver's door switch (OPEN)
Front passenger's door switch (OPEN)
Left rear door switch (OPEN)
Right rear door switch (OPEN)
Trunk lid/Tailgate switch (OPEN)
Audio switch
Windshield wiper HI/LO switch
Windshield wiper INT/LO switch
Windshield wiper MIST switch
Windshield washer switch (ON)
Windshield wiper intermittent dwell time controller
Turn signal switch (LEFT)
Turn signal switch (RIGHT)
Hazard warning switch (ON)
Headlight switch (ON)
Headlight switch (OFF)
Lighting switch (ON)
Dimmer switch (ON)
Passing switch (ON)
Hood switch (OPEN)
Transmission range switch (P)
Brake switch (ON)
Fog light switch
Ignition key cylinder switch
Windshield wiper motor park switch
Rear washer switch
Rear wiper motor park switch
Rear wiper switch (ON)
Transmission range switch (R)
A/C pressure switch/thermal protector

* 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.

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 OFF, 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.

Driver's door lock switch (LOCK or UNLOCK)
Driver's door key cylinder switch (LOCK or UNLOCK)
Front passenger's door lock switch (LOCK or UNLOCK)
Tailgate latch switch (Tailgate closed)
Hazard warning switch (OFF)

2. Confirm the sleep mode:
   Check for voltage on the B-CAN communication line (PNK wires); there should be battery voltage in 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.

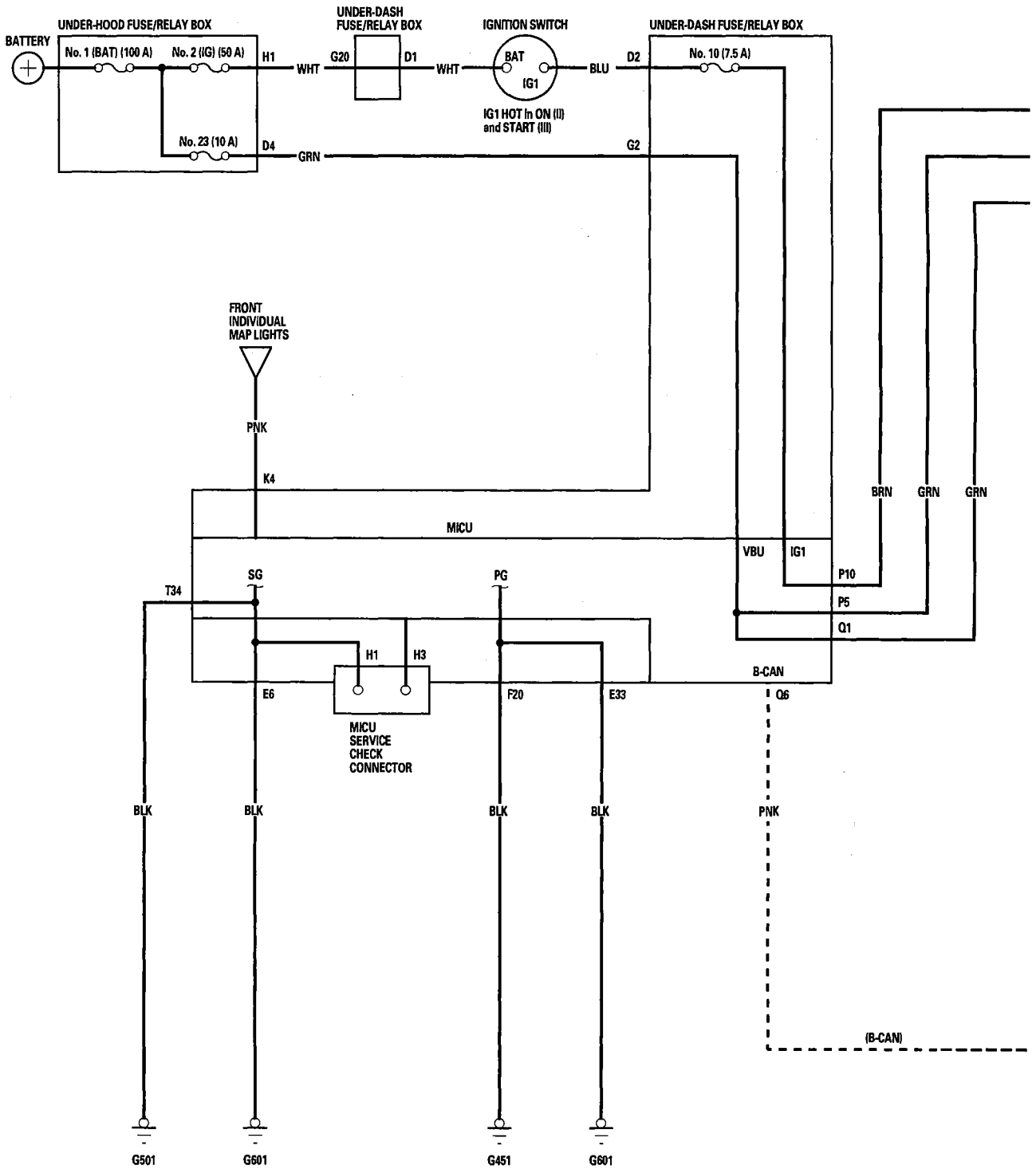
3. Shift to the wake up mode:
   When the ignition switch is turned ON (II), the MICU, gauge control module, immobilizer-keyless control unit-receiver, and PCM wake up at the same time without "talking" to each other through the communication lines. When any switch in the multiplex integrated control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

Door switches (door open)
Driver's door lock switch (LOCK or UNLOCK)
Driver's door lock knob switch (LOCK or UNLOCK)
Driver's door key cylinder switch (LOCK or UNLOCK)
Front passenger's door lock switch (LOCK or UNLOCK)
Front passenger's door lock knob switch (LOCK or UNLOCK)
Left rear door lock knob switch
Right rear door lock knob switch
Tailgate latch switch (Tailgate open)
Hood switch (hood open)
Hazard warning switch (ON)
Combination light switch (Parking, Headlight, Dimmer, Passing ON)
Ignition key switch (key inserted)

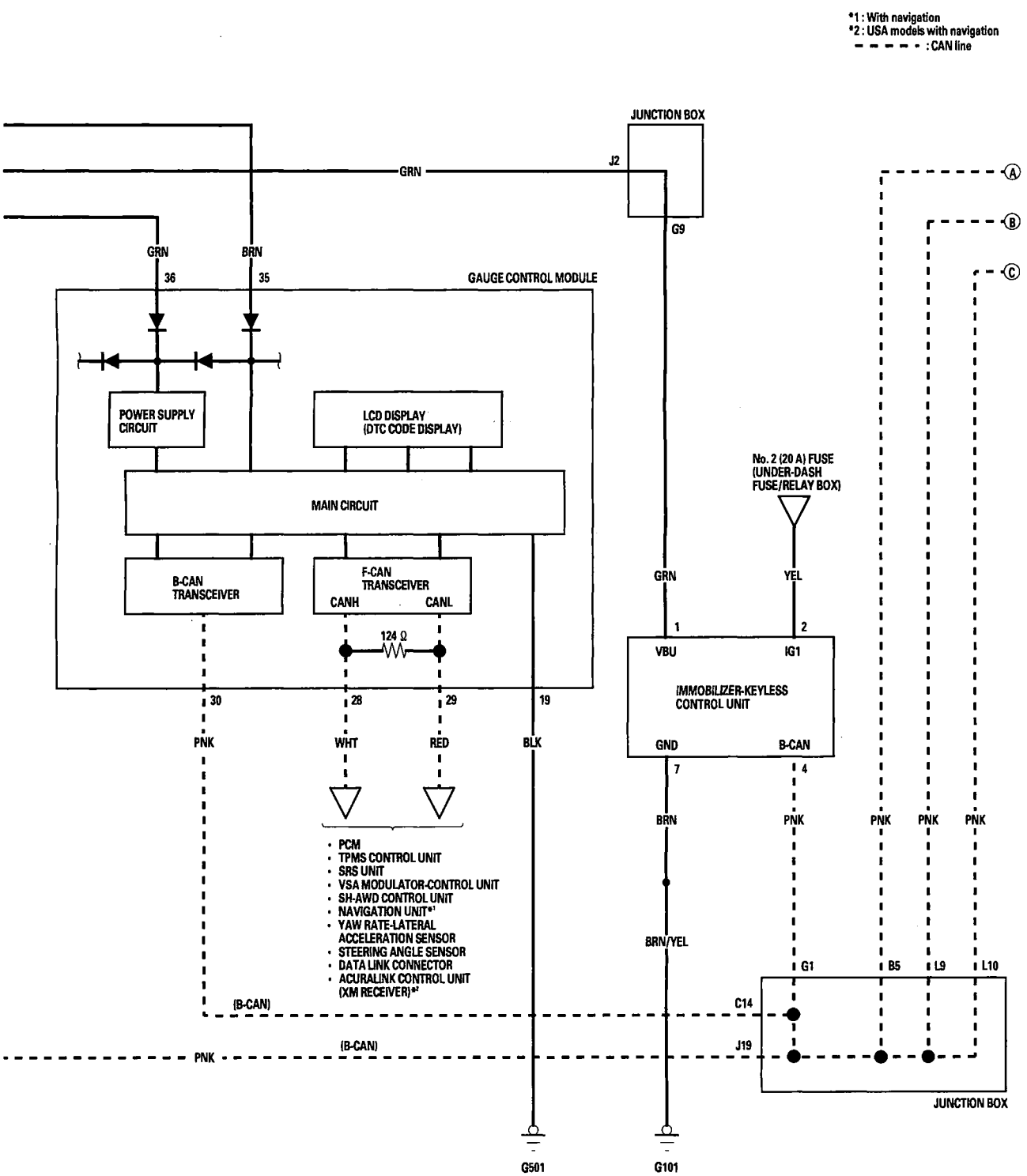
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Circuit Diagram



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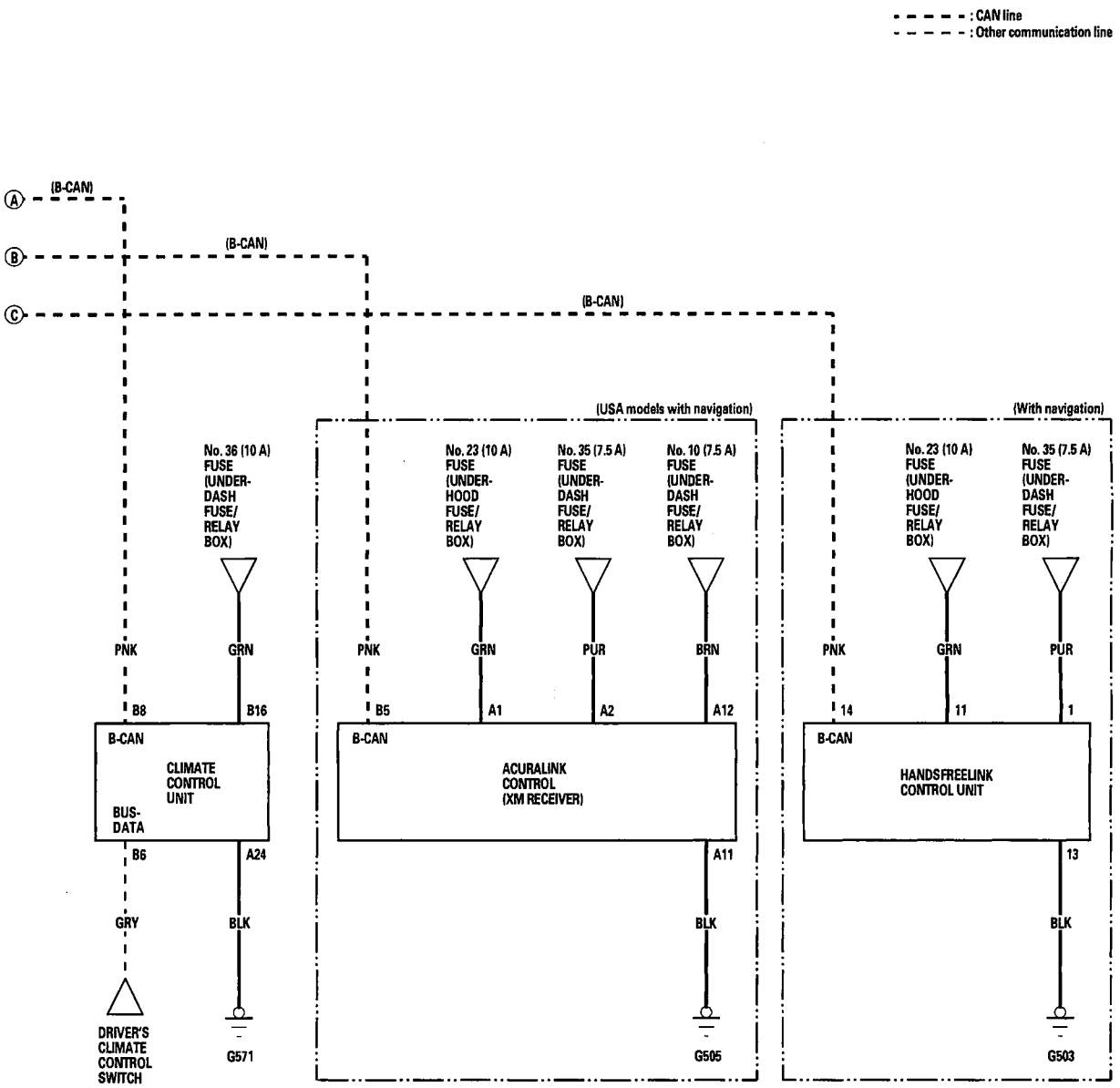
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Circuit Diagram (cont'd)



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DTC Troubleshooting

DTC B1000: 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 22-88).

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

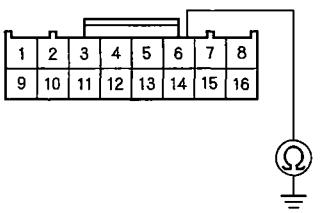
   Is DTC B1000 indicated?
   YES—Go to step 5.
   NO—Intermittent failure. The communication bus line is OK at this time. Check for loose or poor connections, or worn/shorted wires. If the connections are good, check the battery condition (see page 22-63) and the charging system. ■
5. Check for DTCs with the HDS.

   Are DTCs B1008, B1011, and B1032 also indicated with DTC B1000?
   YES—Go to step 6.
   NO—Faulty MICU; replace the under-dash fuse/relay box. ■
6. Turn the ignition switch OFF.
7. Disconnect the appropriate connector at each control unit in the table one at a time. Clear the DTCs, then recheck for DTCs after each unit is disconnected.

Control Unit	Appropriate Connector
Gauge control module	36P connector
Immobilizer-keyless control unit	7P connector
Climate control unit	Connector B (16P)
AcuraLink control unit	Connector B (16P)
HandsFreeLink control unit	22P connector

   Is DTC B1000 indicated with each individual unit disconnected?
   YES—Go to step 8.
   NO—Replace the control unit that was disconnected and B1000 did not reset. ■
8. Disconnect the under-dash fuse/relay box connector Q (16P).
9. Check for continuity between the under-dash fuse/relay box connector Q (16P) No. 6 terminal and body ground.

UNDER-DASH FUSE/RELAY BOX CONNECTOR Q (16P)



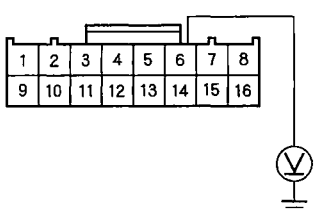
Wire side of female terminals

   Is there continuity?

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

   NO—Go to step 10.
10. Turn the ignition switch ON (II).
11. Check for voltage between the under-dash fuse/relay box connector Q (16P) No. 6 terminal and body ground.

UNDER-DASH FUSE/RELAY BOX CONNECTOR Q (16P)



Wire side of female terminals

   Is there voltage?

   YES—Repair the short to power in the wire between the under-dash fuse/relay box connector, the junction box, and the affected control unit. ■

   NO—Faulty MICU; replace the under-dash fuse/relay box. ■

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DTC Troubleshooting (cont'd)

DTC B1001: MICU Internal Error (CPU Error)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

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

   Is DTC B1001 indicated?

   YES—Faulty MICU; replace the under-dash fuse/relay box.■

   NO—Intermittent failure, the MICU is OK at this time. Check for loose or poor connections. If the connections are good, check the battery condition (see page 22-63) and the charging system.■

DTC B1002: MICU Internal Error (EEPROM Error)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

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

   Is DTC B1002 indicated?

   YES—Faulty MICU; replace the under-dash fuse/relay box.■

   NO—Intermittent failure, the MICU is OK at this time. Check for loose or poor connections. If the connections are good, check the battery condition (see page 22-63) and the charging system.■

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DTC B1008: MICU Lost Communication with Gauge Control Module (A/T Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

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

   Is DTC B1008 indicated?

   YES—Go to step 5.

   NO—Intermittent failure, the gauge control module is OK at this time. Check for loose or poor connections at gauge control module 36P connector and at the under-dash fuse/relay box connector Q (16P). If the connections are good, check the battery condition (see page 22-63) and the charging system. ■
5. Check for DTCs with the HDS.

   Are DTCs B1011 and B1032 also indicated with DTC B1008?

   YES—Check for an open in the communication circuit between the MICU and the gauge control module. If the circuit is bad, repair the open. ■

   NO—Go to the gauge control module input test (see page 22-282). ■

DTC B1011: MICU Lost Communication with Gauge Control Module (VSP/NE Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

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

   Is DTC B1011 indicated?

   YES—Go to step 5.

   NO—Intermittent failure, the gauge control module is OK at this time. Check for loose or poor connections at gauge control module 36P connector and at under-dash fuse/relay box connector Q (16P). If the connections are good, check the battery condition (see page 22-63) and the charging system. ■
5. Check for DTCs with the HDS.

   Are DTCs B1008 and B1032 also indicated with DTC B1011?

   YES—Check for an open in the communication circuit between the MICU and the gauge control module. If the circuit is bad, repair the open. ■

   NO—Go to the gauge control module input test (see page 22-282). ■

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DTC Troubleshooting (cont'd)

DTC B1032: MICU Lost Communication with the SRS Unit (CDS Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

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

   Is DTC B1032 indicated?

   YES—Go to step 5.

   NO—Intermittent failure, the gauge control module is OK at this time. Check for loose or poor connections at the gauge control module 36P connector, and at the under-dash fuse/relay box connector Q (16P). If the connections are good, check the battery condition (see page 22-63) and the charging system. ■

5. Check for DTCs with the HDS.

   Are DTCs B1008 and B1011 also indicated with DTC B1032?

   YES—Check for an open in the communication circuit between the MICU and the gauge control module. If the circuit is bad, repair the open. ■

   NO—Do the gauge control module input test (see page 22-282). ■

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DTC B1036: 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 22-88).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, and then back 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.

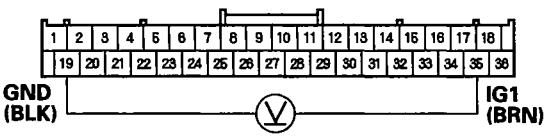
   NO—Intermittent failure, the system is OK at this time. Check for loose or poor connection at the gauge control module 36P connector, and at the under-dash fuse/relay box connector Q (16P). If the connections are good, check the battery condition (see page 22-63) and the charging system. ■
5. Check for DTCs with the HDS.

   Is DTC B1008 indicated with DTC B1036?

   YES—Troubleshoot the indicated DTC. ■

   NO—Go to step 6.
6. Turn the ignition switch OFF.
7. Turn the ignition switch ON (II).
8. Check for voltage between the gauge control module 36P connector No. 35 and No. 19 terminals.

GAUGE CONTROL MODULE 36P CONNECTOR



Wire side of female terminals

Is there battery voltage?

YES—Faulty MICU; substitute a known-good under-dash fuse/relay box and recheck. ■

NO—Check No. 10 (7.5 A) fuse in the under-dash fuse/relay box. If the fuse is OK, check for an open in the wire between the under-dash fuse/relay box and the gauge control module, or repair a short in the wire between the under-dash fuse/relay box and the gauge control module. ■

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DTC Troubleshooting (cont'd)

DTC B1150: 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 22-88).

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

   Are DTCs B1000, B1008, B1011, and B1032 also indicated with DTC B1150?

   YES—Troubleshoot DTC B1000.■

   NO—If only DTC B1150 is present, replace the gauge control module assembly. If no DTCs are present, it's an intermittent failure, the system is OK at this time. Check for loose or poor connections at the gauge control module 36P connector, and at the under-dash fuse/relay box connector Q (16P).■

DTC B1200: 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 22-88).

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

   Are DTCs B1000, B1008, B1011, and B1032 also indicated with DTC B1200?

   YES—Troubleshoot DTC B1000.■

   NO—If only DTC B1200 is present, replace the climate control unit. If no DTCs are present, it's an intermittent failure, the system is OK at this time. Check for loose or poor connections at the climate control unit 24P connector, and at the under-dash fuse/relay box connector Q (16P).■

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DTC B1750: 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 22-88).

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

   Are DTCs B1000, B1008, B1011, and B1032 also indicated?

   YES—Troubleshoot DTC B1000 (see page 22-99). ■

   NO—If only DTC B1750 is present, replace the HandsFreeLink control unit. If no DTCs are present, it's an intermittent failure, the system is OK at this time. Check for loose or poor connections at the HandsFreeLink control unit 22P connector, and at the under-dash fuse/relay box connector Q (16P). ■

DTC B1900: 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 22-88).

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

   Are DTCs B1000, B1008, B1011, and B1032 also indicated with DTC B1900?

   YES—Troubleshoot DTC B1000. ■

   NO—If only DTC B1900 is present, replace the immobilizer-keyless control unit. If no DTCs are present, it's an intermittent failure, the system is OK at this time. Check for loose or poor connections at the immobilizer-keyless control unit 7P connector, and at the under-dash fuse/relay box connector Q (16P). ■

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DTC Troubleshooting (cont'd)

DTC B2200: B-CAN 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 22-88).

1. Clear the DTCs using the HDS.
2. Turn the ignition switch OFF, and then back 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 DTCs B1000, B1008, B1011, and/or B1032 indicated?

   YES—Troubleshoot DTC B1000.■

   NO—If only DTC B2200 is present, replace the AcuraLink control unit. Intermittent failure, B-CAN communication line is OK at this time. Check for loose or poor connections. If the connections are good, check the battery condition (see page 22-63), and the charging system.■

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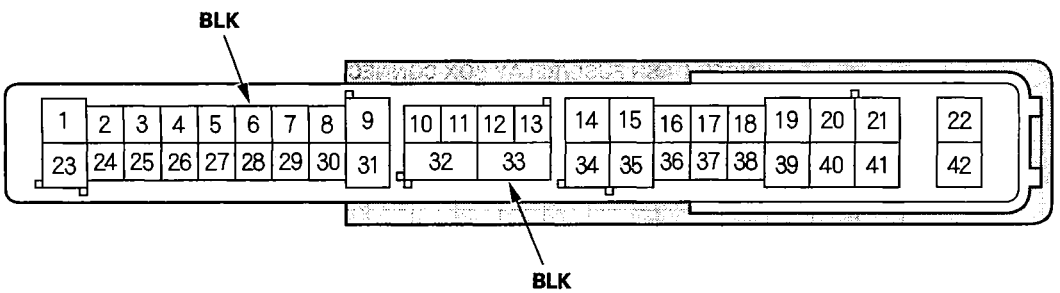
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MICU Input Test

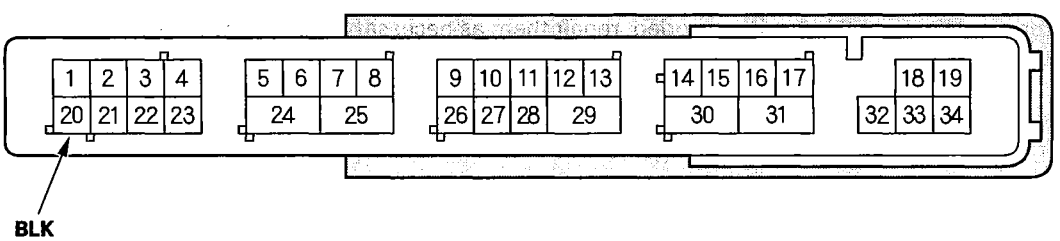
1. Before troubleshooting the multiplex integrated control system, troubleshoot the B-CAN System Diagnosis Test Mode A (see page 22-88).
2. Check the No. 10 (7.5 A) fuse in the under-dash fuse/relay box. If any fuse is blown, replace it and go to step 3.
3. Disconnect the under-dash fuse/relay box connectors E, F, G, K, and T.

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

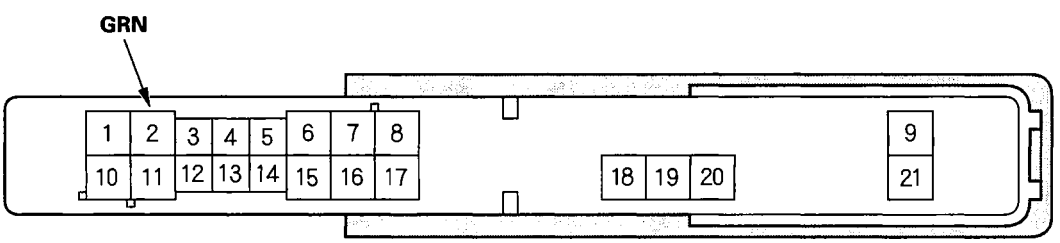
UNDER-DASH FUSE/RELAY BOX CONNECTOR E (42P)



UNDER-DASH FUSE/RELAY BOX CONNECTOR F (34P)



UNDER-DASH FUSE/RELAY BOX CONNECTOR G (21P)

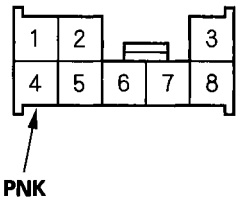


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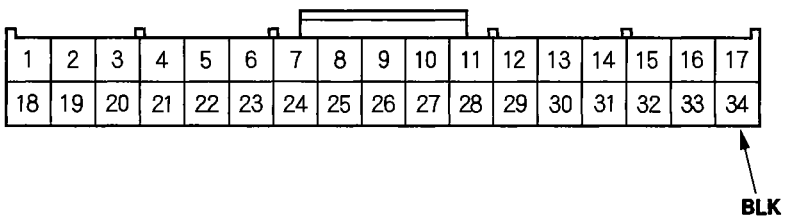
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MICU Input Test (cont'd)

UNDER-DASH FUSE/RELAY BOX CONNECTOR K (8P)



UNDER-DASH FUSE/RELAY BOX CONNECTOR T (34P)



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, make these input tests at the appropriate 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 result is not obtained
K4	PNK	Under all conditions	Attach to ground: The ceiling light should come on.	• Blown No. 22 (7.5 A) fuse in the under-hood fuse/relay box • Blown bulb(s) • Faulty ceiling light • An open in the wire

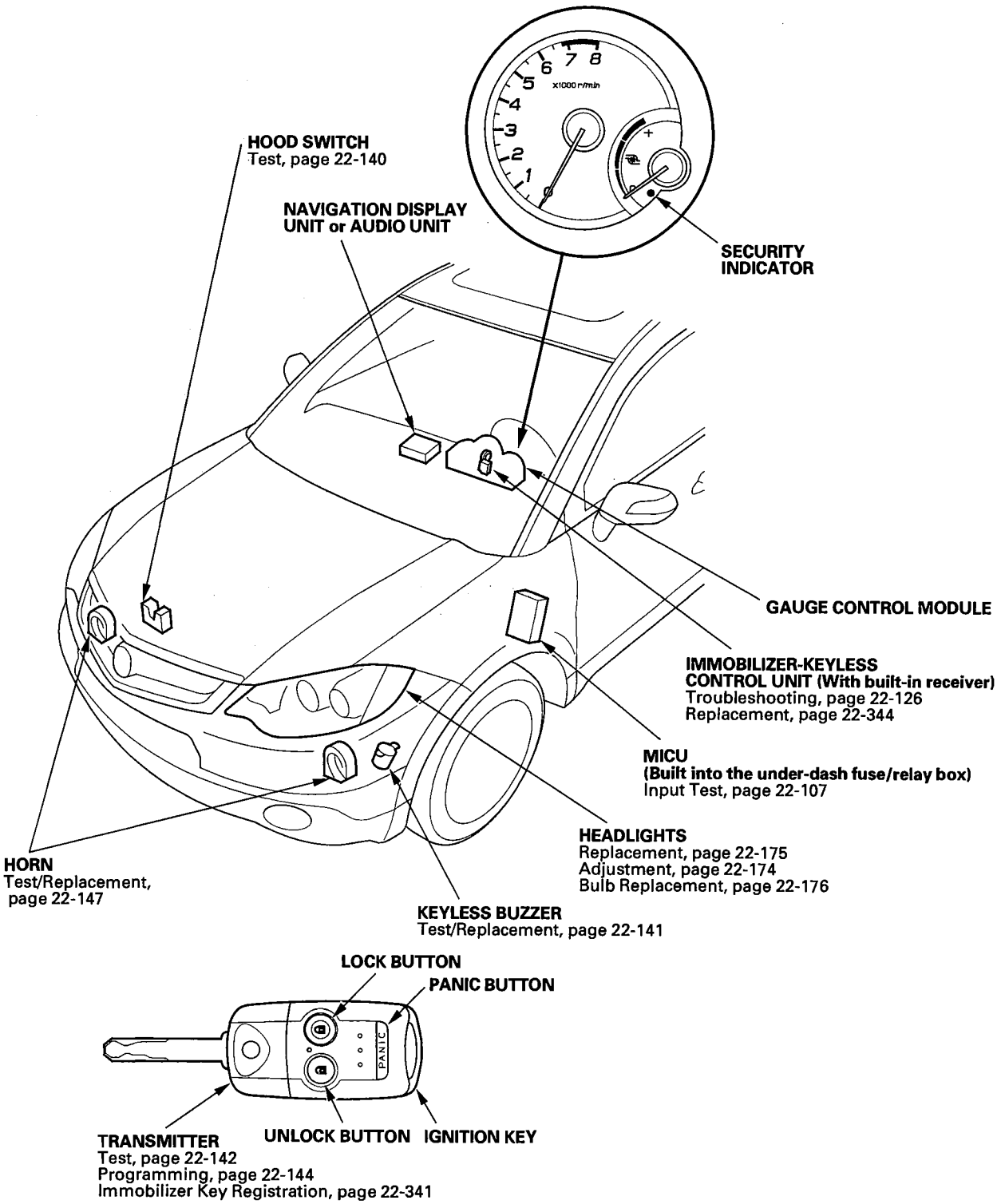
6. Reconnect the connectors to the under-dash fuse/relay box, and make these input tests at the connectors.

   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, the MICU must be faulty; replace the under-dash fuse/relay box.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
G2	GRN	Under all conditions	Check for voltage to ground: There should be battery voltage.	• Blown No. 23 (10 A) fuse in the under-hood fuse/relay box • An open in the wire
E6	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G601) • An open in the wire
E33	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G601) • An open in the wire
F20	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G451) • An open in the wire
T34	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire

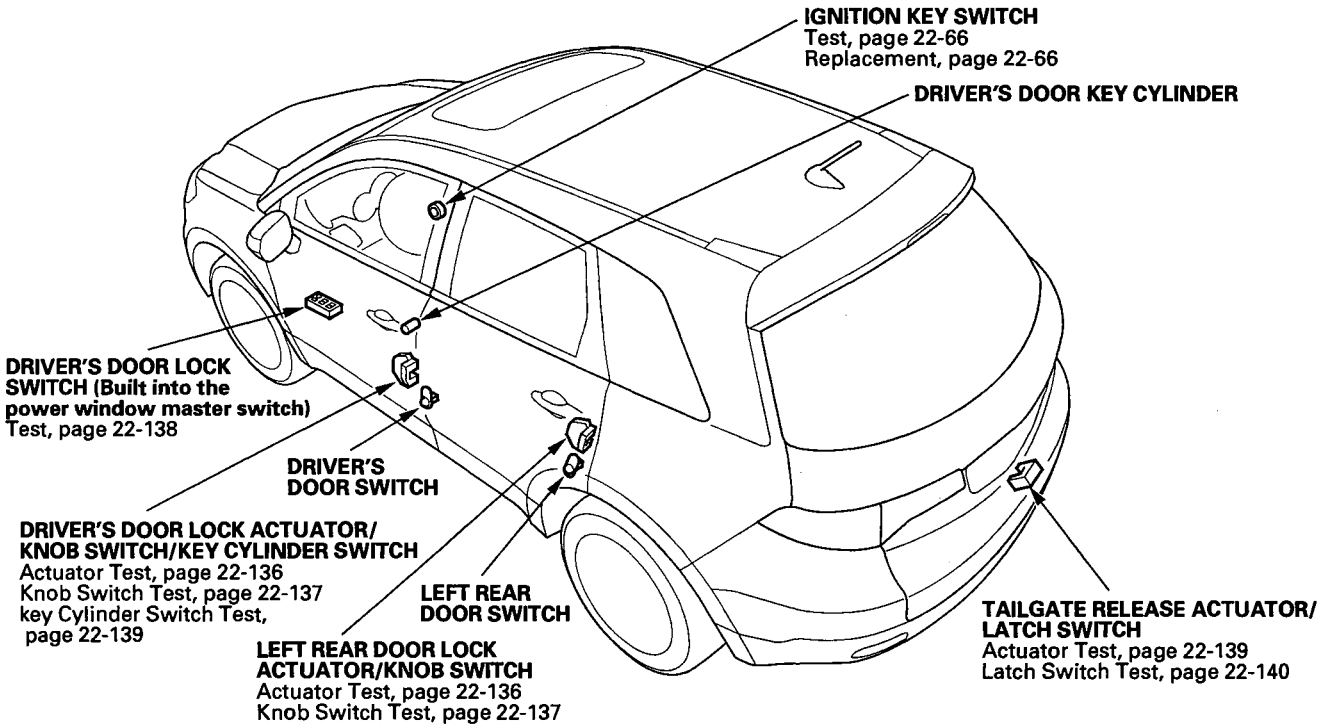
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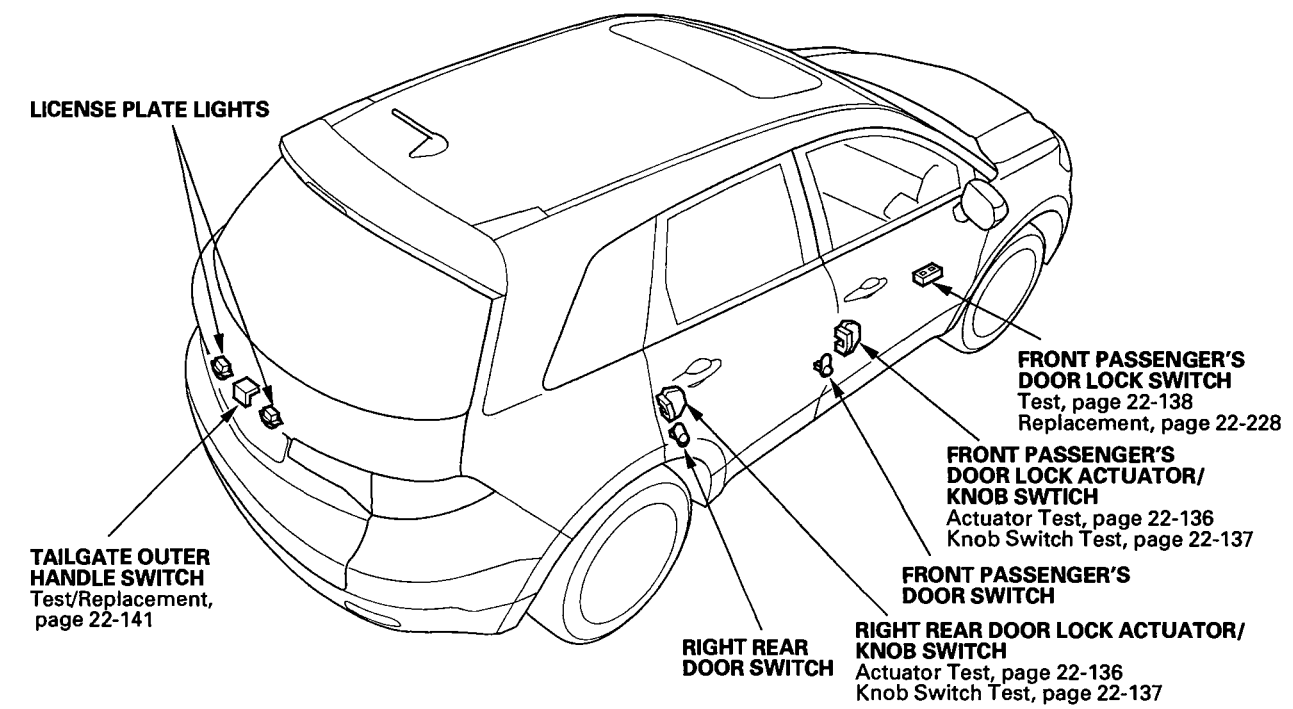
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System Description

Security Alarm System

The security alarm system is armed automatically after the doors, hood, and tailgate are closed and locked. For the system to arm, the ignition switch must be off, the key must be removed from the ignition switch, and the MICU must receive signals that the doors, hood, and tailgate 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 (blink rate changes from slow to fast). 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 or an open in the circuit, the security system will not arm. As long as the control unit continues to receive a ground signal (0 V, or open to 12 V depending on the circuit), 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 detector 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 tailgate 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.

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

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Keyless Entry System

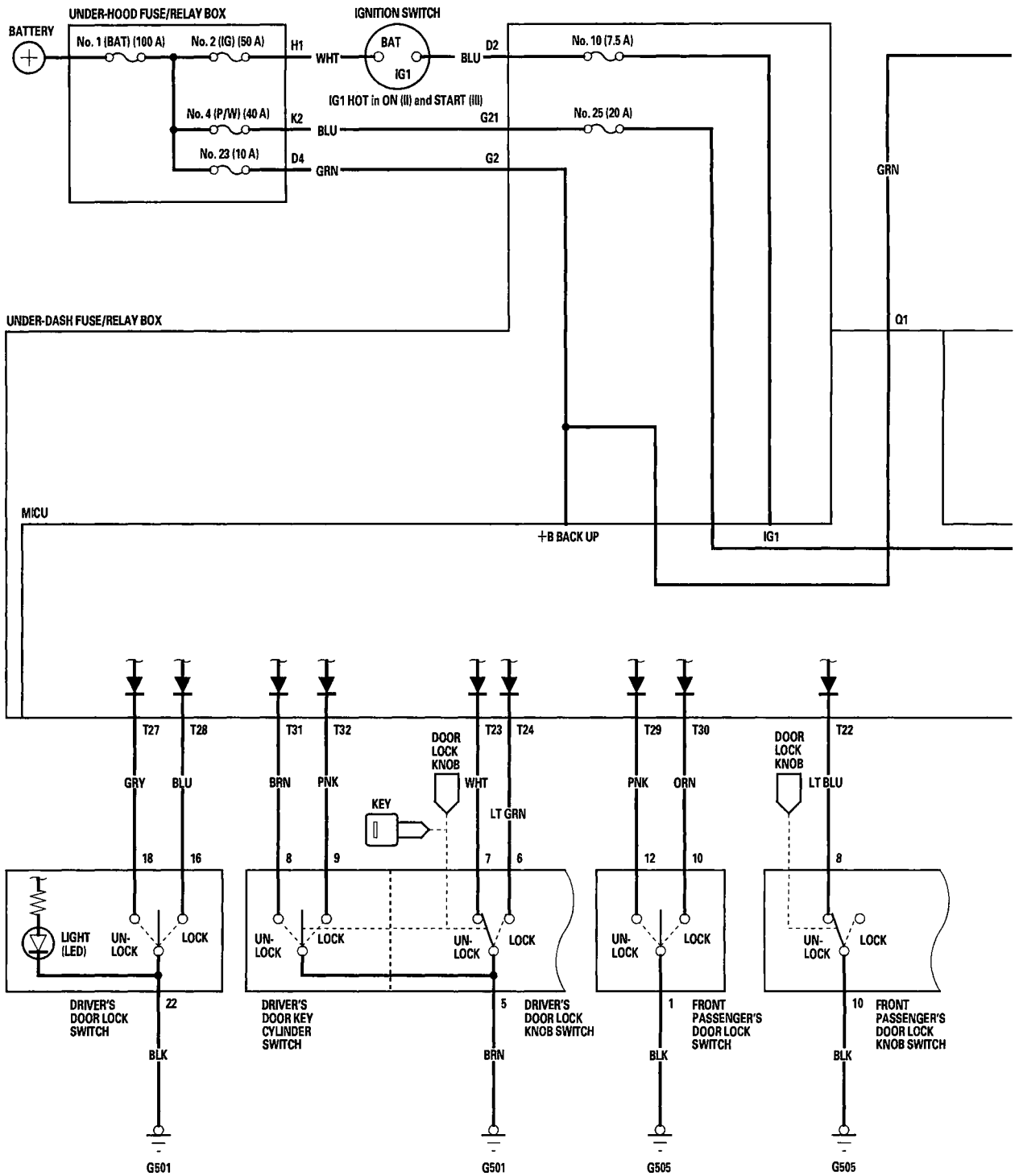
The keyless entry system is integrated with the multiplex integrated control system. The multiplex integrated control unit (MICU) receives LOCK, UNLOCK and PANIC signals from the immobilizer-keyless control unit (keyless receiver).

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

When the switch for the ceiling light is in the center (DOOR) position, it will come on when the UNLOCK button is pressed. If a door is not opened, the light will go off in about 15 to 60 seconds, (depending on the customized selections), and the door will relock in about 30 to 90 seconds (depending on the customized selections). If the doors are not locked will the remote, the light will go off immediately.

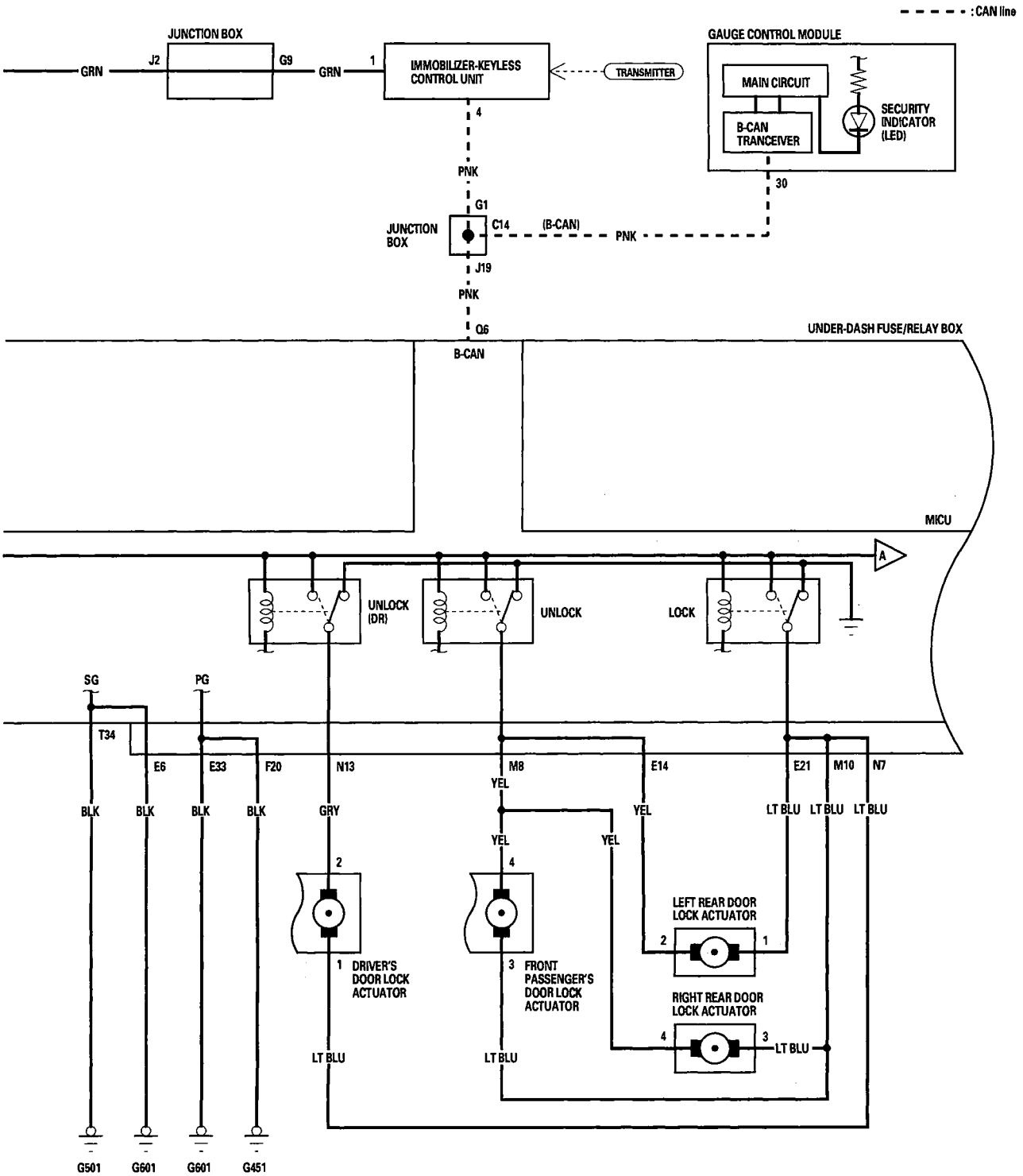
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Circuit Diagram



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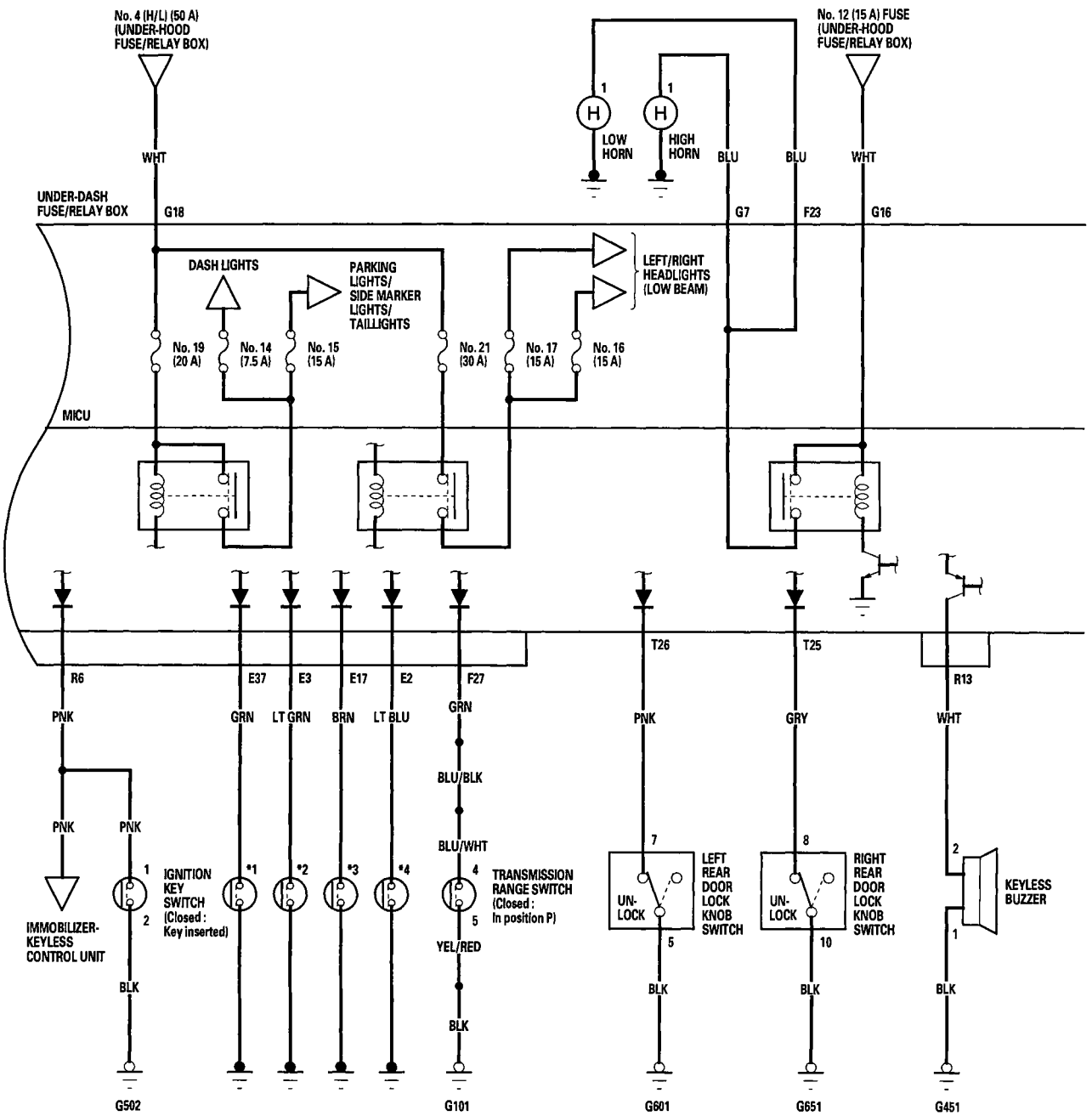
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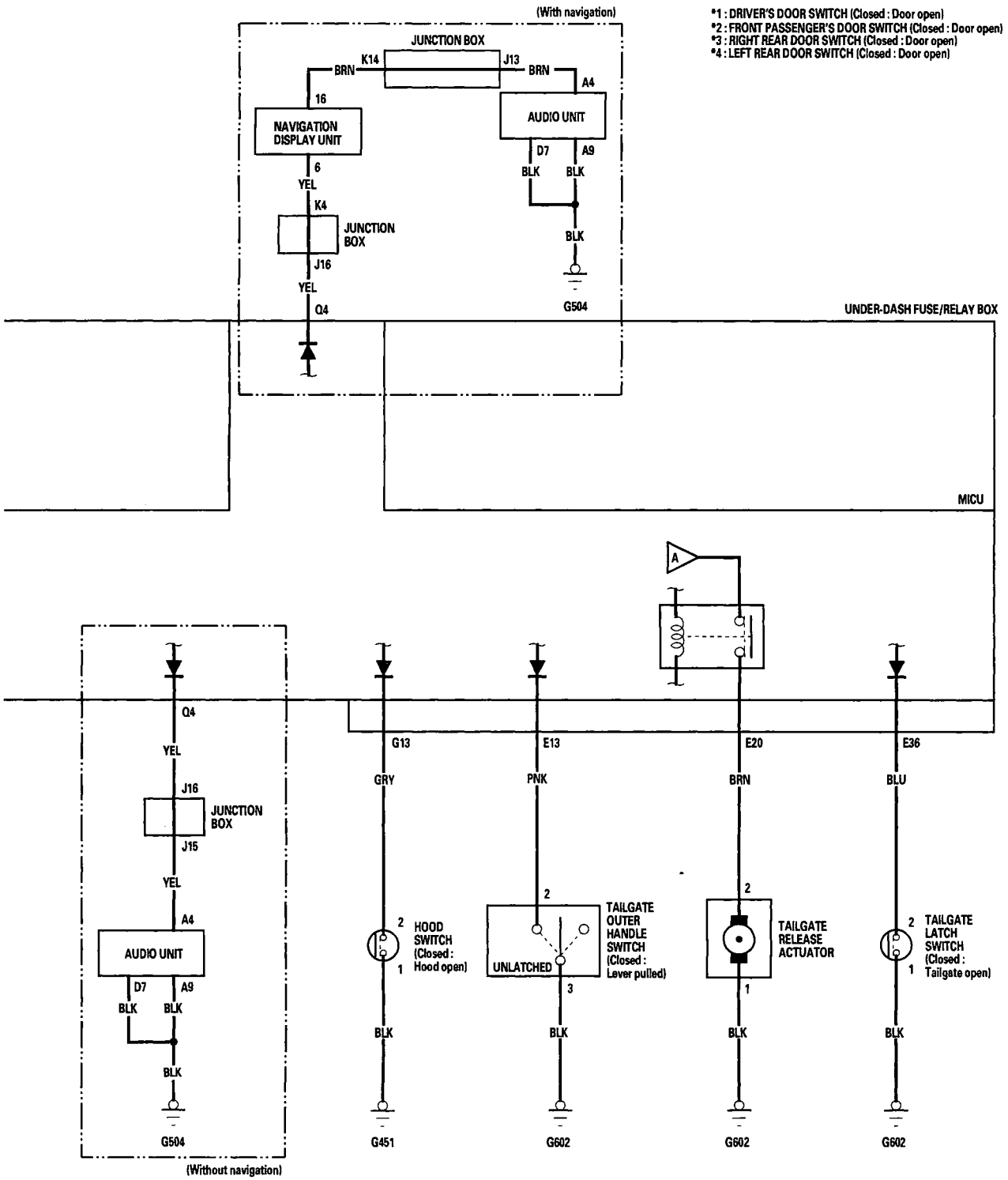
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Circuit Diagram (cont'd)



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DTC Troubleshooting

DTC B1026: Front Passenger's Door Lock Switch Lock/Unlock Signal Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, and then back ON (II).
3. Operate the front passenger's door lock switch several times.
4. Check for DTCs with the HDS.

   Is DTC B1026 indicated?

   YES—Go to step 5.

   NO—Intermittent failure. The front passenger's door lock system is OK at this time. ■
5. With the front passenger's door lock switch in the neutral position, select KEYLESS from the HDS and enter the DATA LIST.
6. Check the ON/OFF information of the FRONT PASSENGER'S DOOR LOCK SWITCH (LOCK) and FRONT PASSENGER'S DOOR LOCK SWITCH (UNLOCK) in the DATA LIST.

   Are both information indicators OFF?

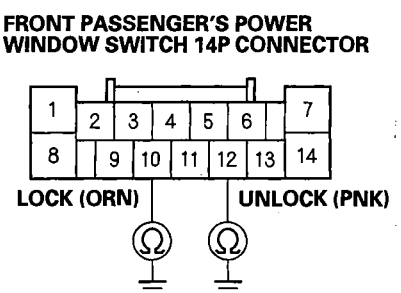
   YES—Go to step 12.

   NO—Go to step 7.
7. Disconnect the front passenger's power window switch 8P connector.
8. Check the ON/OFF information of the FRONT PASSENGER'S DOOR LOCK SWITCH (LOCK) and FRONT PASSENGER'S DOOR LOCK SWITCH (UNLOCK) in the DATA LIST.

   Are both information indicators OFF?

   YES—Faulty door lock switch; replace the front passenger's power window switch. ■

   NO—Go to step 9.
9. Turn the ignition switch OFF.
10. Disconnect the under-dash fuse/relay box connector T (34P).
11. Check for continuity between the No. 12 (UNLOCK) and No. 10 (LOCK) terminals of the front passenger's power window switch 14P connector and body ground.



Wire side of female terminals

Is there continuity?

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

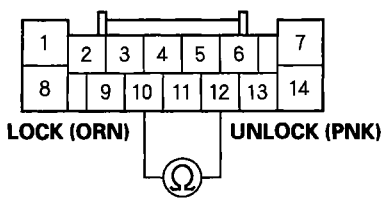
NO—Faulty MICU; replace the under-dash fuse/relay box. ■

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12. Turn the ignition switch OFF.
13. Disconnect the front passenger's window switch 14P connector.
14. Disconnect under-dash fuse/relay box connector T (34P).
15. Check for continuity between the No. 12 (UNLOCK) and No. 10 (LOCK) terminals of the front passenger's power window switch 14P connector.

FRONT PASSENGER'S POWER WINDOW SWITCH 14P CONNECTOR



Wire side of female terminals

Is there continuity?

YES—Repair a short in the wire between the LOCK and UNLOCK wires. ■

NO—Substitute a known-good passenger's window switch, and recheck. If the symptom/indication goes away, replace the original passenger's window switch. If not, the MICU is faulty, replace the under-dash fuse/relay box. ■

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DTC Troubleshooting (cont'd)

DTC B1127: Driver's Door Key Cylinder Switch Signal Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, and then back ON (II).
3. Insert the ignition key into the driver's door key cylinder switch, and turn the key in LOCK and UNLOCK positions ten 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 the 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.

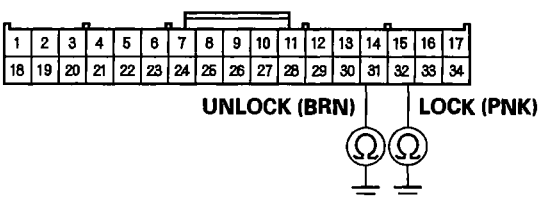
   NO—Go to step 7.
7. Disconnect the driver's door lock actuator 10P connector.
8. Check the ON/OFF information of the DRIVER'S DOOR KEY CYLINDER SWITCH (LOCK) and DRIVER'S DOOR KEY CYLINDER SWITCH (UNLOCK) in the DATA LIST.

   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 OFF.
10. Disconnect the under-dash fuse/relay box connector T (34P).
11. Check for continuity between the No. 31 (UNLOCK) and No. 32 (LOCK) terminals of the under-dash fuse/relay box connector T (34P) and body ground.

UNDER-DASH FUSE/RELAY BOX CONNECTOR T (34P)



Wire side of female terminals

Is there continuity?

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

NO—Faulty MICU; replace the under-dash fuse/relay box.■

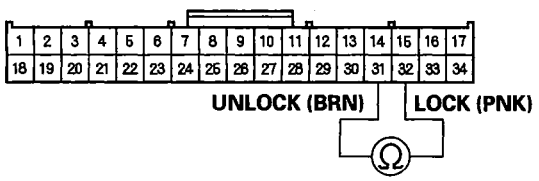
12. Turn the ignition switch OFF.
13. Disconnect the driver's door lock actuator 10P connector.
14. Disconnect under-dash fuse/relay box connector T (34P).

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15. Check for continuity between the No. 31 (UNLOCK) and No. 32 (LOCK) terminals of the under-dash fuse/relay box connector T (34P).

UNDER-DASH FUSE/RELAY BOX CONNECTOR T (34P)



Wire side of female terminals

Is there continuity?

YES—Repair a short in the wire between the LOCK and UNLOCK wires. ■

NO—Substitute a known-good MICU, and recheck. If the symptom/indication goes away, replace the original MICU, if not, replace the driver's door lock actuator. ■

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DTC Troubleshooting (cont'd)

DTC B1128: Driver's Door Lock Switch Signal Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, and then back ON (II).
3. Operate the driver's door lock switch LOCK/UNLOCK several times.
4. Check for DTCs with the HDS.

   Is DTC B1128 indicated?

   YES—Go to step 5.

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

   Are both information indicators OFF?

   YES—Go to step 12.

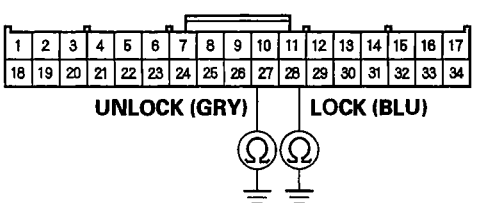
   NO—Go to step 7.
7. Disconnect the power window master switch 22P connector.
8. Check the ON/OFF information of the DRIVER'S DOOR LOCK SWITCH (LOCK) and DRIVER'S DOOR LOCK SWITCH (UNLOCK) in the DATA LIST.

   Are both information indicators OFF?

   YES—Faulty door lock switch; replace the power window master switch.■

   NO—Go to step 9.
9. Turn the ignition switch OFF.
10. Disconnect the under-dash fuse/relay box connector T (34P).
11. Check for continuity between the No. 28 (LOCK) and No. 27 (UNLOCK) terminals of the under-dash fuse/relay box connector T (34P) and body ground.

UNDER-DASH FUSE/RELAY BOX CONNECTOR T (34P)



Wire side of female terminals

Are there continuity?

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

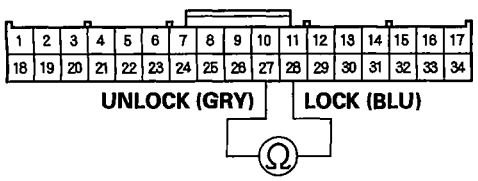
NO—Faulty MICU; replace the under-dash fuse/relay box.■

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12. Turn the ignition switch OFF.
13. Disconnect the power window master switch 22P connector.
14. Disconnect under-dash fuse/relay box connector T (34P).
15. Check for continuity between the No. 28 (LOCK) and No. 27 (UNLOCK) terminals of the under-dash fuse/relay box connector T (34P).

UNDER-DASH FUSE/RELAY BOX CONNECTOR T (34P)



Wire side of female terminals

Is there continuity?

YES—Repair a short in the wire between the LOCK and UNLOCK wires.■

NO—Substitute a known-good power window master switch, and recheck. If the symptom/indication goes away, replace the orignal power window master switch. If not, the MICU is faulty, replace the under-dash fuse/relay box.■

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DTC Troubleshooting (cont'd)

DTC B1129: Driver's Door Lock Knob Switch Signal Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, and then back 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.■
5. Select KEYLESS from the BODY ELECTRICAL menu, and enter the 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).

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

   YES—Faulty MICU; replace the under-dash fuse/relay box.■

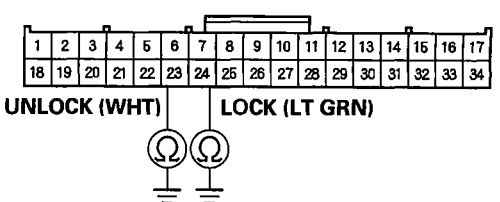
   NO—Go to step 7.
7. Disconnect the driver's door lock actuator 10P connector.
8. Check the ON/OFF information of the DRIVER'S DOOR LOCK KNOB SWITCH (LOCK) and DRIVER'S DOOR LOCK KNOB SWITCH (UNLOCK) in the DATA LIST.

   Are both information indicators OFF?

   YES—Check for an open in the driver's door lock knob switch (LOCK) wire or the driver's door lock knob switch (UNLOCK) wire between the MICU and the driver's door lock knob switch. If OK, replace the driver's door lock actuator.■

   NO—Go to step 9.
9. Turn the ignition switch OFF.
10. Disconnect the under-dash fuse/relay box connector T (34P).
11. Check for continuity between the No. 23 (UNLOCK) and No. 24 (LOCK) terminals of the under-dash fuse/relay box connector T (34P) and body ground.

UNDER-DASH FUSE/RELAY BOX CONNECTOR T (34P)



Wire side of female terminals

Is there continuity?

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

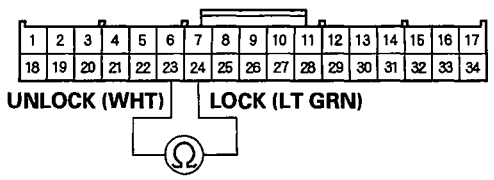
NO—Go to step 12.

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12. Check for continuity between the No. 23 (UNLOCK) and No. 24 (LOCK) terminals of the under-dash fuse/relay box connector T (34P).

UNDER-DASH FUSE/RELAY BOX CONNECTOR T (34P)



Wire side of female terminals

Is there continuity?

YES—Repair a short in the wire between the LOCK wire and UNLOCK wire. ■

NO—Faulty MICU; replace the under-dash fuse/relay box. ■

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Symptom Troubleshooting

Power Door Locks/Keyless

1. If the door lock system works properly, but the keyless operation does not, refer to the immobilizer-keyless control unit symptom troubleshooting information (see page 22-333).

NOTE: The keyless system does not function when:
- Any of the doors is open.
- Ignition key is in the ignition key switch.
- Ignition switch is ON (II).

No.	Symptom	Check Items
1	The doors will not lock or unlock.*	• MICU input test (see page 22-131) • Driver's door key cylinder switch test (see page 22-139) • Door lock switch test (see page 22-138) • Door lock knob switch test (see page 22-137) • Keyless remote transmitter test (see page 22-142)
2	The doors will not lock.*	• MICU input test (see page 22-131) • Door lock knob switch test (see page 22-137) • Tailgate latch switch test (see page 22-140) • Driver's door switch test (check the door switch ON/OFF information with the HDS) • Keyless remote transmitter test (see page 22-142)
3	The doors will not unlock.*	• MICU input test (see page 22-131) • Door lock knob switch test (see page 22-137) • Keyless remote transmitter test (see page 22-142)
4	Keyless operation does not work (LOCK, UNLOCK, PANIC).	Symptom troubleshooting (see page 22-127).
5	Doors will not unlock with the transmitter, but will unlock with the door switch.	Symptom troubleshooting (see page 22-129).
6	Doors will not lock with the transmitter, but will lock with the door switch.	Symptom troubleshooting (see page 22-129).
7	Doors automatically relock after being unlocked with the transmitter even though a door has been opened.	Symptom troubleshooting (see page 22-130).
8	The horn does not sound and/or the headlights do not flash when PANIC button on the transmitter pressed.	Symptom troubleshooting (see page 22-129).
9	Keyless operation will work even though the ignition key is in the ignition switch.	Ignition key switch test (see page 22-207).

*: 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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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 22-142).

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

   Does the engine start?

   YES—The immobilizer system is OK, go to step 3.

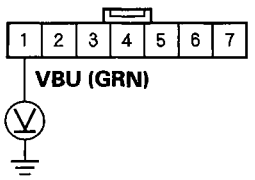
   NO—Go to the immobilizer symptom troubleshooting (see page 22-335).■
3. Turn the ignition switch OFF.
4. Connect the HDS to the data link connector.
5. Close all doors, then turn the ignition switch ON (II).
6. Enter the BODY ELECTRICAL menu, and check the door switch parameters.

   Do all door switches indicate OFF?

   YES—Go to step 7.

   NO—Faulty door switch, or shorted door switch wire. Repair as necessary.■
7. Remove the ignition key from the ignition switch.
8. Disconnect the immobilizer-keyless control unit 7P connector.
9. Check for voltage between the immobilizer-keyless control unit 7P connector No. 1 terminal and body ground.

IMMOBILIZER-KEYLESS CONTROL UNIT 7P CONNECTOR



Wire side of female terminals

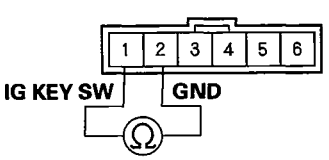
Is there battery voltage?

YES—Go to step 10.

NO—Check the No. 23 (10 A) fuse in the under-hood fuse/relay box. If the fuse is blown, replace the fuse and repair a short to ground in the wire. If the fuse is OK, repair an open in the wire.■

10. Disconnect the ignition key switch 6P connector.
11. At the ignition key switch side, check for continuity between the ignition key switch 6P connector No. 1 and No. 2 terminals.

IGNITION KEY SWITCH 6P CONNECTOR



Terminal side of male terminals

Is there continuity?

YES—Faulty ignition key switch, replace the steering lock assembly.■

NO—Go to step 12.

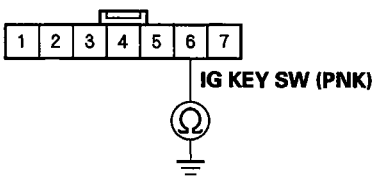
(cont'd)

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Symptom Troubleshooting (cont'd)

12. Check for continuity between the immobilizer-keyless control unit 7P connector No. 6 terminal and body ground.

IMMOBILIZER-KEYLESS CONTROL UNIT 7P CONNECTOR



Wire side of female terminals

Is there continuity?

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

NO—Replace the immobilizer-keyless control unit. ■

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BACK

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 OFF.
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 with the key in the ignition switch?

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

   NO—Go to step 6.
6. Do the transmitter test (see page 22-142).

   Is the transmitter OK?

   YES—Substitute a known-good MICU and recheck. ■

   NO—Replace the transmitter. ■

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.

   Does the horn sound?

   YES—Go to step 3.

   NO—Go to step 2.
2. Press the horn button.

   Does the horn 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 22-142).

   Is the transmitter OK?

   YES—Substitute a known-good MICU and recheck. ■

   NO—Replace the transmitter. ■

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Symptom Troubleshooting (cont'd)

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

1. Turn the ceiling light switch in DOOR position.
2. Turn the ignition switch ON (II).
3. Close all doors.
4. Open and close each door one at a time.
5. Watch the ceiling light and the door indicator on the gauge control module.

   Does the ceiling light and door indicator come on when the door is open, and go off when the door is closed?

   YES—Substitute a known-good MICU and recheck. If the symptom goes away, replace the original MICU. ■

   NO—Check for an open in the wire between the MICU and the door switch. If the wire is OK, replace the door switch. ■

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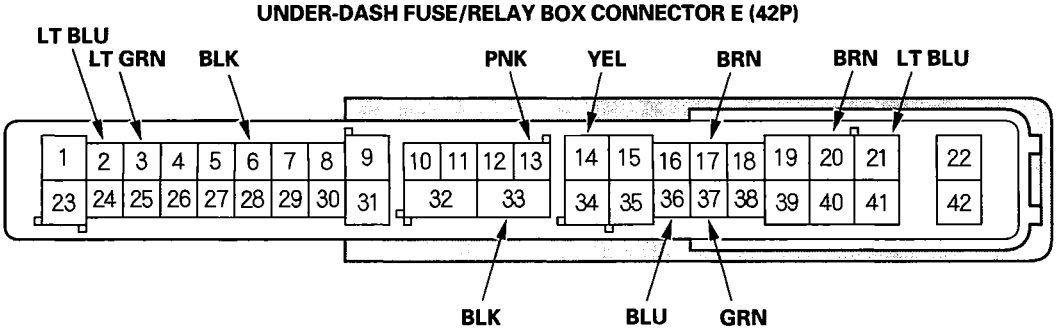
BACK

MICU Input Test

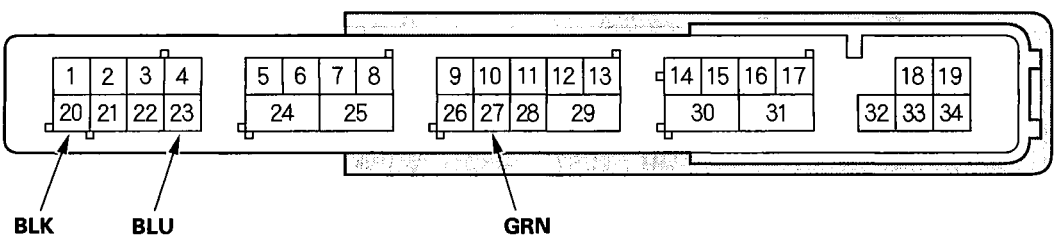
1. Before troubleshooting the keyless/poor door locks/security system, troubleshoot the B-CAN System Diagnosis Test Mode A (see page 22-88).
2. Check the No. 10 (7.5 A) and No. 25 (20 A) fuses in the under-dash fuse/relay box. If any fuse is blown, replace it and go to step 3.
3. Disconnect the under-dash fuse/relay box connectors E, F, G, M, N, Q, R, and T.

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

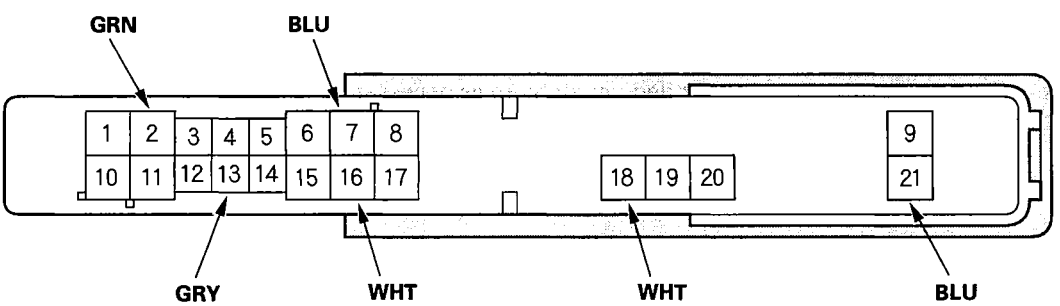
UNDER-DASH FUSE/RELAY BOX CONNECTOR E (42P)



UNDER-DASH FUSE/RELAY BOX CONNECTOR F (34P)



UNDER-DASH FUSE/RELAY BOX CONNECTOR G (21P)

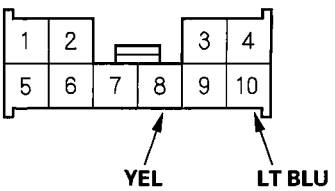


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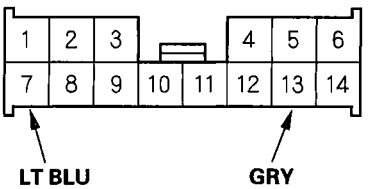
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MICU Input Test (cont'd)

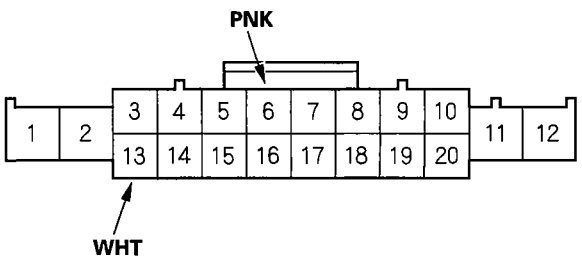
UNDER-DASH FUSE/RELAY BOX
CONNECTOR M (10P)



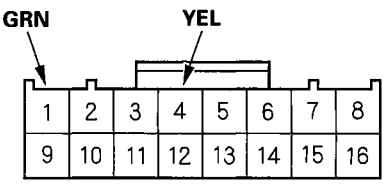
UNDER-DASH FUSE/RELAY BOX
CONNECTOR N (14P)



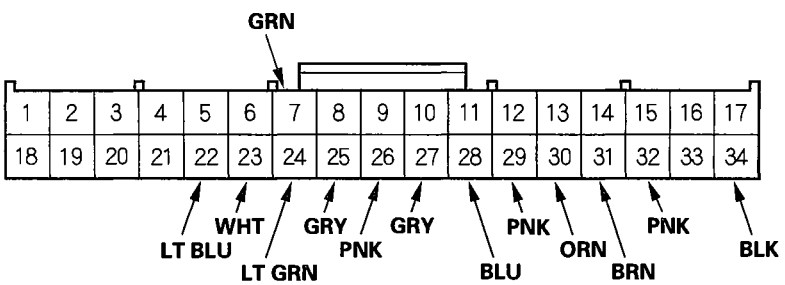
UNDER-DASH FUSE/RELAY BOX
CONNECTOR R (20P)



UNDER-DASH FUSE/RELAY BOX
CONNECTOR Q (16P)



UNDER-DASH FUSE/RELAY BOX
CONNECTOR T (34P)



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, make these input tests at the appropriate 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 result is not obtained
F23 G7	BLU	Under all conditions	Connect G16 and F23, G16 and G7 terminals with a jumper wire momentarily: The horn should sound.	• Poor ground (body ground) • Blown No. 12 (15 A) fuse in the under-hood fuse/relay box • Faulty horn • An open in the wire
G16	WHT	Under all conditions	Check for voltage to ground: There should be battery voltage.	• Blown No. 12 (15 A) fuse in the under-hood fuse/relay box • An open in the wire
G18	WHT	Under all conditions	Check for voltage to ground: There should be battery voltage.	• Blown No. 4 (50 A) fuse in the under-hood fuse/relay box • An open in the wire
E20	BRN	Under all conditions	Connect G21 and E20 terminals with a jumper wire: The tailgate release actuator should work (Tailgate should open).	• Poor ground (G602) • Faulty tailgate release actuator • An open in the wire
N7 N13	LT BLU GRY	Under all conditions	Connect battery power to the N13 terminal and ground the N7 terminal momentarily: The driver's door lock actuator should unlock.	• Faulty driver's door lock actuator • An open in the wire
M8 M10	YEL LT BLU	Under all conditions	Connect battery power to the M8 terminal and ground the M10 terminal momentarily: The front passenger's and right rear door lock actuators should unlock.	• Faulty front passenger's or right rear door lock actuator • An open in the wire
E14 E21	YEL LT BLU	Under all conditions	Connect battery power to the E14 terminal and ground the E21 terminal momentarily: The left rear door lock actuator should unlock.	• Faulty left rear door lock actuator • An open in the wire
R13	WHT	Under all conditions	Connect G2 and R13 terminals with a jumper wire momentarily: The keyless buzzer should sound.	• Blown No. 23 (10 A) fuse in the under-hood fuse/relay box • Faulty keyless buzzer • Poor ground (G451) • An open in the wire

(cont'd)

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MICU Input Test (cont'd)

6. Reconnect the connectors to the under-dash fuse/relay box, and make 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 MICU must be faulty; replace the under-dash fuse/relay box.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
E6	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G601) • An open in the wire
E13	PNK	Tailgate outer handle switch unlocked	Check for voltage to ground: There should be less than 1 V.	• Poor ground (G602) • Faulty tailgate outer handle switch • An open in the wire
		Tailgate outer handle switch neutral	Check for voltage to ground: There should be 5 V or more.	• Faulty tailgate outer handle switch • Short to ground
E33	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G601) • An open in the wire
F20	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G451) • An open in the wire
T34	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
E2	LT BLU	Right rear door open	Check for voltage to ground: There should be less than 1 V.	• Faulty right rear door switch • An open in the wire
		Right rear door closed	Check for voltage to ground: There should be 5 V or more.	• Faulty right rear door switch • Short to ground
E3	LT GRN	Front passenger's door open	Check for 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	Check for voltage to ground: There should be 5 V or more.	• Faulty front passenger's door switch • Short to ground
E17	BRN	Left rear door open	Check for voltage to ground: There should be less than 1 V.	• Faulty left rear door switch • An open in the wire
		Left rear door closed	Check for voltage to ground: There should be 5 V or more.	• Faulty left rear door switch • Short to ground
E36	BLU	Tailgate open	Check for voltage to ground: There should be less than 1 V.	• Poor ground (G602) • Faulty tailgate latch switch • An open in the wire
		Tailgate closed	Check for voltage to ground: There should be 5 V or more.	• Faulty tailgate latch switch • Short to ground
E37	GRN	Driver's door open	Check for voltage to ground: There should be less than 1 V.	• Faulty driver's door switch • An open in the wire
		Driver's door closed	Check for voltage to ground: There should be 5 V or more.	• Faulty driver's door switch • Short to ground
F27	GRN	Transmission range switch in P	Check for 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	Check for voltage to ground: There should be 5 V or more.	• Faulty transmission range switch • Short to ground
G13	GRY	Hood open	Check for voltage to ground: There should be less than 1 V.	• Poor ground (G451) • Faulty hood switch • An open in the wire
		Hood closed	Check for voltage to ground: There should be 5 V or more.	• Faulty hood switch • Short to ground
Q1	GRN	Under all conditions	Check for voltage to ground: There should be battery voltage.	• Blown No. 23 (10 A) fuse in the under-hood fuse/relay box • An open in the wire • Faulty under-dash fuse/relay box
Q4	YEL	Under all conditions	Check for voltage to ground: There should be 5 V or more.	An open in the wire
R6	PNK	Ignition key inserted into the ignition switch	Check for voltage to ground: There should be less than 1 V.	• Poor ground (G502) • Faulty ignition key switch • An open in the wire
		Ignition key removed from the ignition switch	Check for voltage to ground: There should be 5 V or more.	• Faulty ignition key switch • Short to ground
T22	LT BLU	Front passenger's door lock knob switch unlocked	Check for 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 locked	Check for voltage to ground: There should be 5 V or more.	• Faulty front passenger's door lock knob switch • Short to ground

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BACK

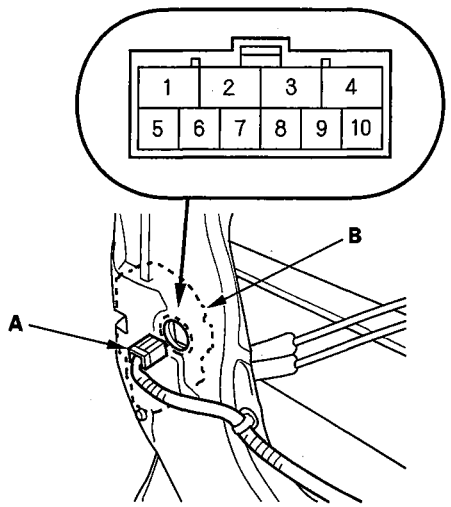
Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
T23	WHT	Driver's door lock knob switch unlocked	Check for voltage to ground: There should be less than 1 V.	• Poor ground (G501) • Faulty driver's door lock knob switch • An open in the wire
		Driver's door lock knob switch locked	Check for voltage to ground: There should be 5 V or more.	• Faulty driver's door lock knob switch • Short to ground
T24	LT GRN	Driver's door lock knob switch unlocked	Check for voltage to ground: There should be 5 V or more.	• Faulty driver's door lock knob switch • Short to ground
		Driver's door lock knob switch locked	Check for 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
T25	GRY	Right rear door lock knob switch unlocked	Check for 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 locked	Check for voltage to ground: There should be 5 V or more.	• Faulty right rear door lock knob switch • Short to ground
T26	PNK	Left rear door lock knob switch unlocked	Check for 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 locked	Check for voltage to ground: There should be 5 V or more.	• Faulty left rear door lock knob switch • Short to ground
T27	GRY	Driver door lock switch unlocked	Check for voltage to ground: There should be less than 1 V.	• Poor ground (G501) • Faulty driver door lock switch • An open in the wire
		Driver door lock switch in neutral	Check for voltage to ground: There should be 5 V or more.	• Faulty driver door lock switch • Short to ground
T28	BLU	Driver door lock switch locked	Check for voltage to ground: There should be less than 1 V.	• Poor ground (G501) • Faulty driver door lock switch • An open in the wire
		Driver door lock switch in neutral	Check for voltage to ground: There should be 5 V or more.	• Faulty driver door lock switch • Short to ground
T29	PNK	Front passenger's door lock switch unlocked	Check for voltage to ground: There should be less than 1 V.	• Poor ground (G505) • Faulty front passenger's door lock switch • An open in the wire
		Front passenger's door lock switch in neutral	Check for voltage to ground: There should be 5 V or more.	• Faulty front passenger's door lock switch • Short to ground
T30	ORN	Front passenger's door lock switch locked	Check for voltage to ground: There should be less than 1 V.	• Poor ground (G505) • Faulty front passenger's door lock switch • An open in the wire
		Front passenger's door lock switch in neutral	Check for voltage to ground: There should be 5 V or more.	• Faulty front passenger's door lock switch • Short to ground
T31	BRN	Driver's door key cylinder switch unlocked	Check for 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	Check for voltage to ground: There should be 5 V or more.	• Faulty driver's door key cylinder switch • Short to ground
T32	PNK	Driver's door key cylinder switch locked	Check for 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	Check for voltage to ground: There should be 5 V or more.	• Faulty driver's door key cylinder switch • Short to ground

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Door Lock Actuator Test

Driver's Door and Left Rear Door

1. Remove the door panel (see page 20-6).
2. Disconnect the 10P connector (A) from the actuator (B).



The illustration shows the driver's door.

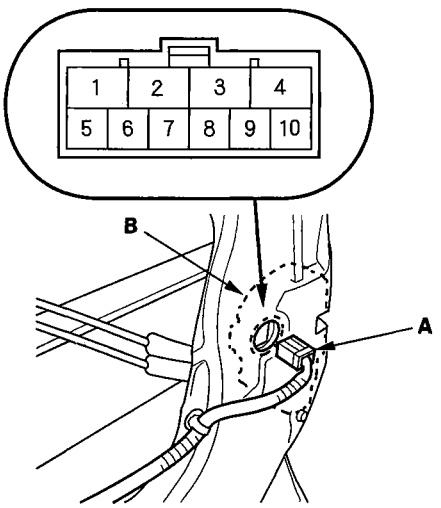
3. Check actuator operation by connecting power and ground according to the table. To prevent damage to the actuator, apply battery voltage only momentarily.

Position \ Terminal	1	2
LOCK	⊕	⊖
UNLOCK	⊖	⊕

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

Front Passenger's Door and Right Rear Door

1. Remove the door panel (see page 20-6).
2. Disconnect the 10P connector (A) from the actuator (B).



The illustration shows the front passenger's door.

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

Position \ Terminal	3	4
LOCK	⊕	⊖
UNLOCK	⊖	⊕

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

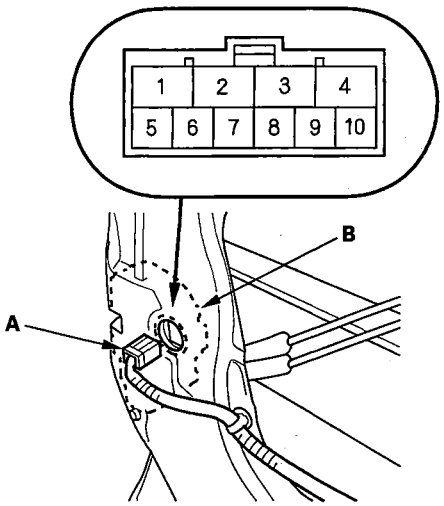
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BACK

Door Lock Knob Switch Test

Driver's Door

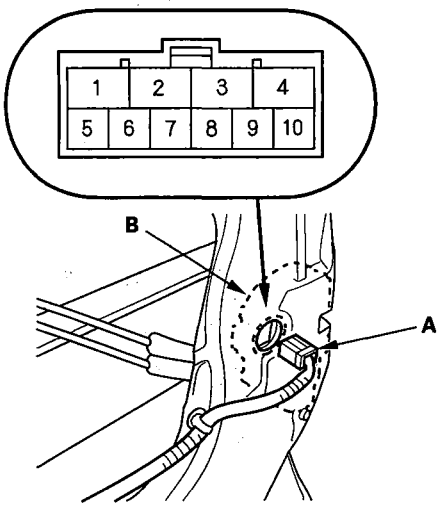
1. Remove the driver's door panel (see page 20-6).
2. Disconnect the 10P connector (A) from the actuator (B).



3. Check for continuity between the terminals.
   - There should be continuity between the No. 6 and No. 5 terminals 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 the No. 7 and No. 5 terminals 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's Door

1. Remove the passenger's door panel (see page 20-6).
2. Disconnect the 10P connector (A) from the actuator (B).



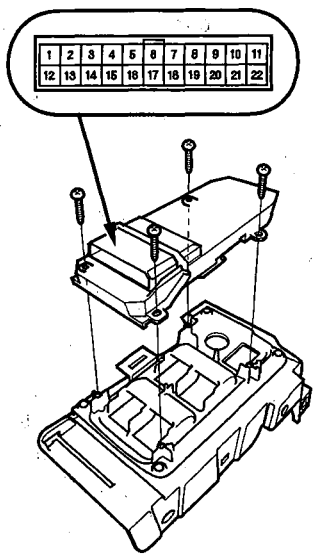
3. Check for continuity between the terminals. There should be continuity between the No. 8 [No. 7] and No. 10 [No. 5] terminals when the door lock knob switch in the UNLOCK position and no continuity when the switch is in the LOCK position.
   [ ] : Left rear door
4. If the continuity is not specified, replace the door lock actuator.

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Door Lock Switch Test

Driver's door

1. Remove the power window master switch and disconnect its connector (see page 22-228).

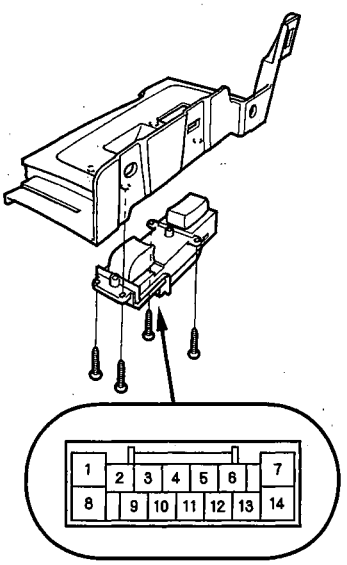


2. Check for continuity between the power window master switch 22P connector terminals.
   - There should be continuity between the No. 16 and No. 22 terminals when the door lock switch is in the LOCK position.
   - There should be no continuity between the No. 16 and No. 22 terminals when the door lock switch is in the neutral or UNLOCK position.
   - There should be continuity between the No. 18 and No. 22 terminals when the door lock switch is in the UNLOCK position.
   - There should be no continuity between the No. 18 and No. 22 terminals when the door lock switch is in the neutral or LOCK position.

3. If the continuity is not as specified, replace the power window master switch (see page 22-228).

Front passenger's door

1. Remove the front passenger's power window switch (see page 22-228).



2. Check for continuity between the front passenger's power window switch 14P connector terminals.
   - There should be continuity between the No. 1 and No. 10 terminals when the door lock switch is in the LOCK position.
   - There should be no continuity between the No. 1 and No. 10 terminals when the door lock switch is in the neutral or UNLOCK position.
   - There should be continuity between the No. 1 and No. 12 terminals when the door lock switch is in the UNLOCK position.
   - There should be no continuity between the No. 1 and No. 12 terminals when the door lock switch is in the neutral or LOCK position.

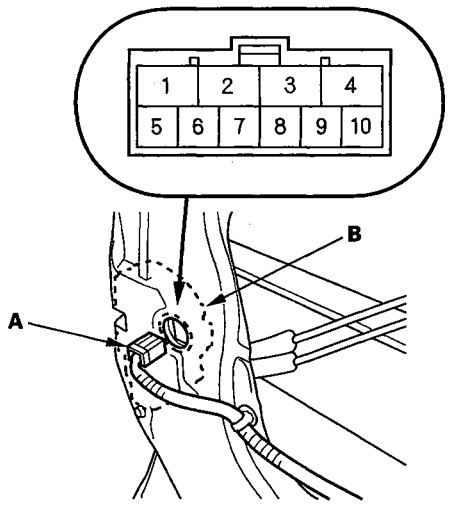
3. If the continuity is not as specified, replace the front passenger's power window switch (see page 22-228).

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Door Key Cylinder Switch Test

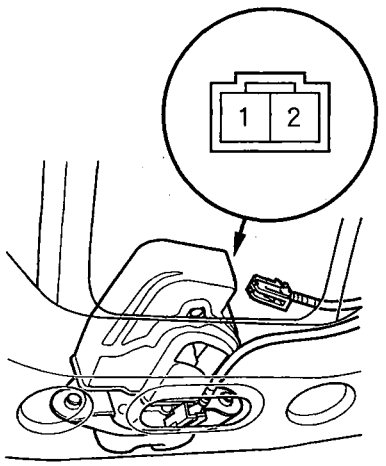
1. Remove the driver's door panel (see page 20-6).
2. Disconnect the 10P connector (A) from the key cylinder switch (B).



3. Check for continuity between the terminals.
   - There should be continuity between the No. 9 and No. 5 terminals when the door key cylinder switch is in LOCK position.
   - There should be no continuity between the No. 9 and No. 5 terminals when the door key cylinder switch is in the neutral or UNLOCK position.
   - There should be continuity between the No. 8 and No. 5 terminals when the door key cylinder switch is in UNLOCK position.
   - There should be no continuity between the No. 8 and No. 5 terminals when the door key cylinder switch is in the neutral or LOCK position.
4. If the continuity is not as specified, replace the door latch (see page 20-11).

Tailgate Release Actuator Test

1. Open the tailgate.
2. Remove the tailgate lower trim panel (see page 20-174).
3. Disconnect the 2P connector from the tailgate latch.

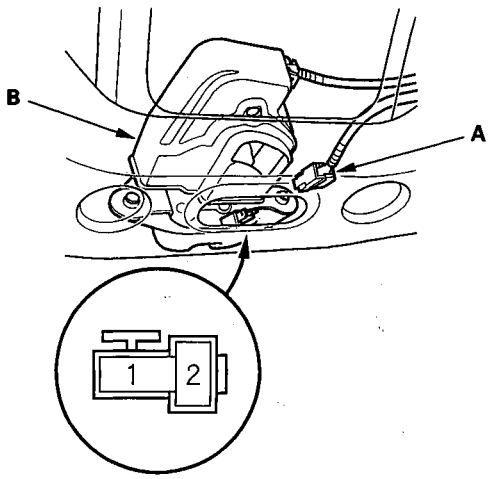


4. Check actuator operation by connecting power to the No. 2 terminal and ground to the No. 1 terminal momentarily. The actuator should work.
5. If the actuator does not work, replace the tailgate latch (see page 20-188).

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Tailgate Latch Switch Test

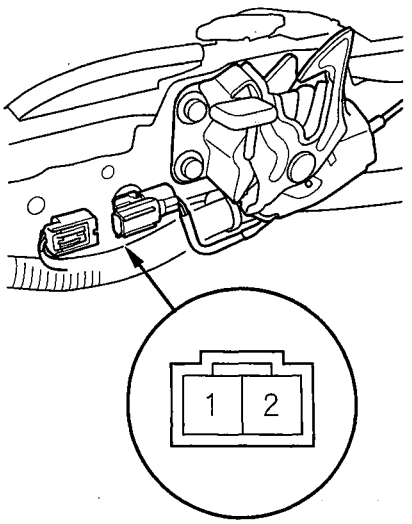
1. Open the tailgate.
2. Remove the tailgate lower trim panel (see page 20-174).
3. Disconnect the 2P connector (A) from the tailgate latch (B).



4. Check for continuity between the No. 1 and No. 2 terminals.
   - With the tailgate open, there should be continuity.
   - With the tailgate closed, there should be no continuity.
5. If the continuity is not as specified, replace the tailgate latch (see page 20-188).

Hood Switch Test

1. Open the hood.
2. Remove the cover (see page 20-187).
3. Disconnect the 2P connector from the hood switch.



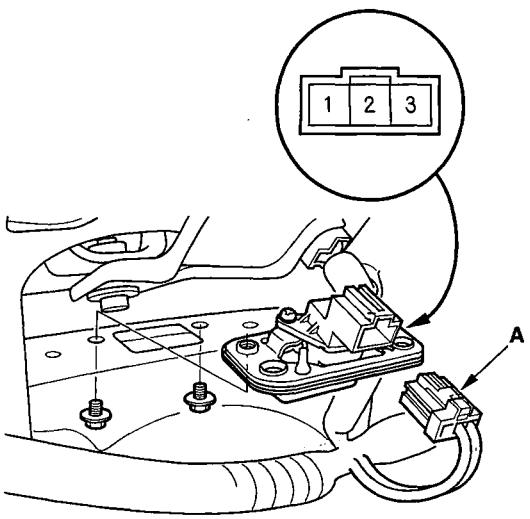
4. Check for continuity between the terminals.
   - There should be continuity between the No. 1 and No. 2 terminals when the hood is opened (latch released).
   - There should be no continuity between the No. 1 and No. 2 terminals when the hood is closed and completely latched.
5. If the continuity is not as specified, replace the hood latch assembly (see page 20-187).

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Tailgate Outer Handle Switch Test/ Replacement

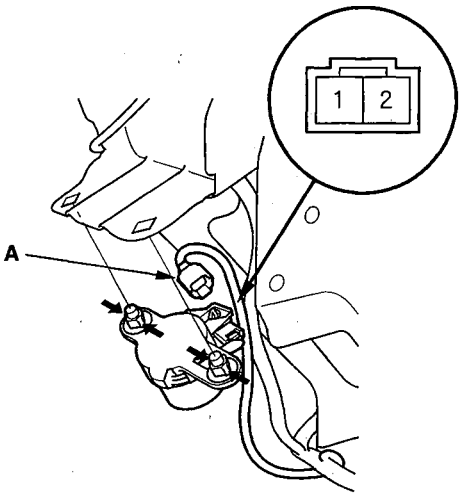
1. Open the tailgate.
2. Remove the tailgate lower trim panel (see page 20-174).
3. Disconnect the 3P connector (A) and remove the two bolts.



4. Check for continuity between the terminals.
   - There should be continuity between the No. 2 and No. 3 terminals when the switch is pressed.
   - There should be no continuity between the No. 2 and No. 3 terminals when the switch is released.
5. If the continuity is not as specified, replace the tailgate outer handle switch.

Keyless Buzzer Test/Replacement

1. Remove the left inner fender (see page 20-176).
2. Disconnect the 2P connector (A) and remove the keyless buzzer by releasing the hooks.



3. Test the buzzer by connecting battery power to the No. 2 terminal and grounding the No. 1 terminal of the buzzer momentarily; the buzzer should sound.
4. If the buzzer does not sound, replace the keyless buzzer.

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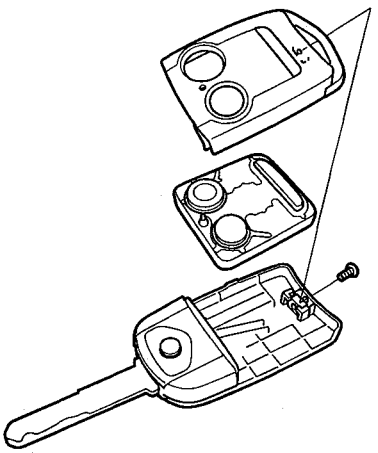
Transmitter Test

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 to 90 seconds, the doors relock automatically.
- The doors do not lock/unlock, and panic does not work with the transmitter if the ignition key is inserted in the ignition switch.

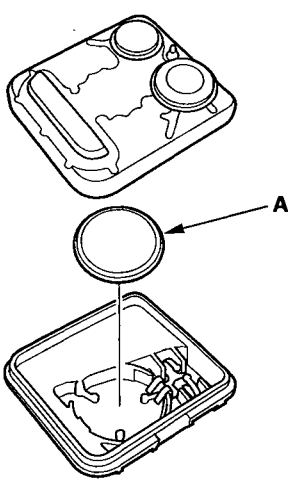
With HDS

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 does not work, replace the transmitter, then do the transmitter programming register (see page 22-341).
   - If the locks don't work, go to step 2.
2. Connect the HDS to the data link connector.
3. Select the KEYLESS from the BODY ELECTRICAL menu, then enter the KEYLESS CHECK.
4. Press lock, unlock, trunk, or panic button and check the responce 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, reprogram and register the transmitter (see page 22-341).
   - 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 reprogram and register the transmitter (see page 22-341).
   - If there is no water damage, go to step 6.



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



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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 22-341).
   - 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 22-341).

Without HDS

1. Start the engine.

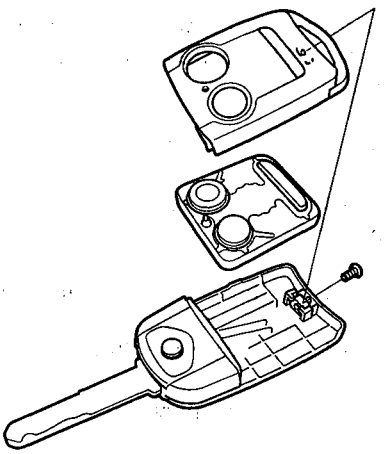
   - If the engine does not start, go to the immobilizer system troubleshooting (see page 22-335).
   - If the engine starts, go to step 2.

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.

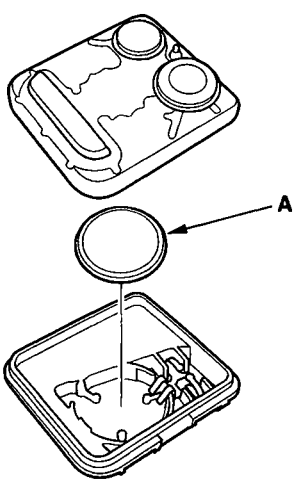
3. Open the transmitter and check for water damage.

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



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 22-144), 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 22-341). If still not operating, replace the immobilizer-keyless control unit.

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Transmitter Programming

Storing transmitter codes:
The codes of up to six transmitters can be stored into the immobilizer-keyless control unit memory. (If a seventh code is stored, the code which was input first will be erased.)

NOTE: It is important to maintain the time limits between the steps. Make sure the doors, the hood and the tailgate are closed.

1. Turn the ignition switch ON (II).
2. Within 1 to 4 sec., press the transmitter lock or unlock button.
3. Within 1 to 4 sec., turn the ignition switch OFF.
4. Within 1 to 4 sec., turn the ignition switch ON (II).
5. Repeat steps 2—4 two more times.
6. Within 1 to 4 sec., press the transmitter lock or unlock button.
7. Confirm you can hear the sound of the door lock actuators within 1 to 4 sec., then push the transmitter lock or unlock button again, or the code will not be stored.
8. Within 10 seconds of each other, push the lock or unlock buttons of the client's additional transmitters (up to five additional ones) for which you want the codes stored in the immobilizer-keyless control unit.
   Confirm that you can hear the sound of the door lock actuators after each transmitter code is stored.

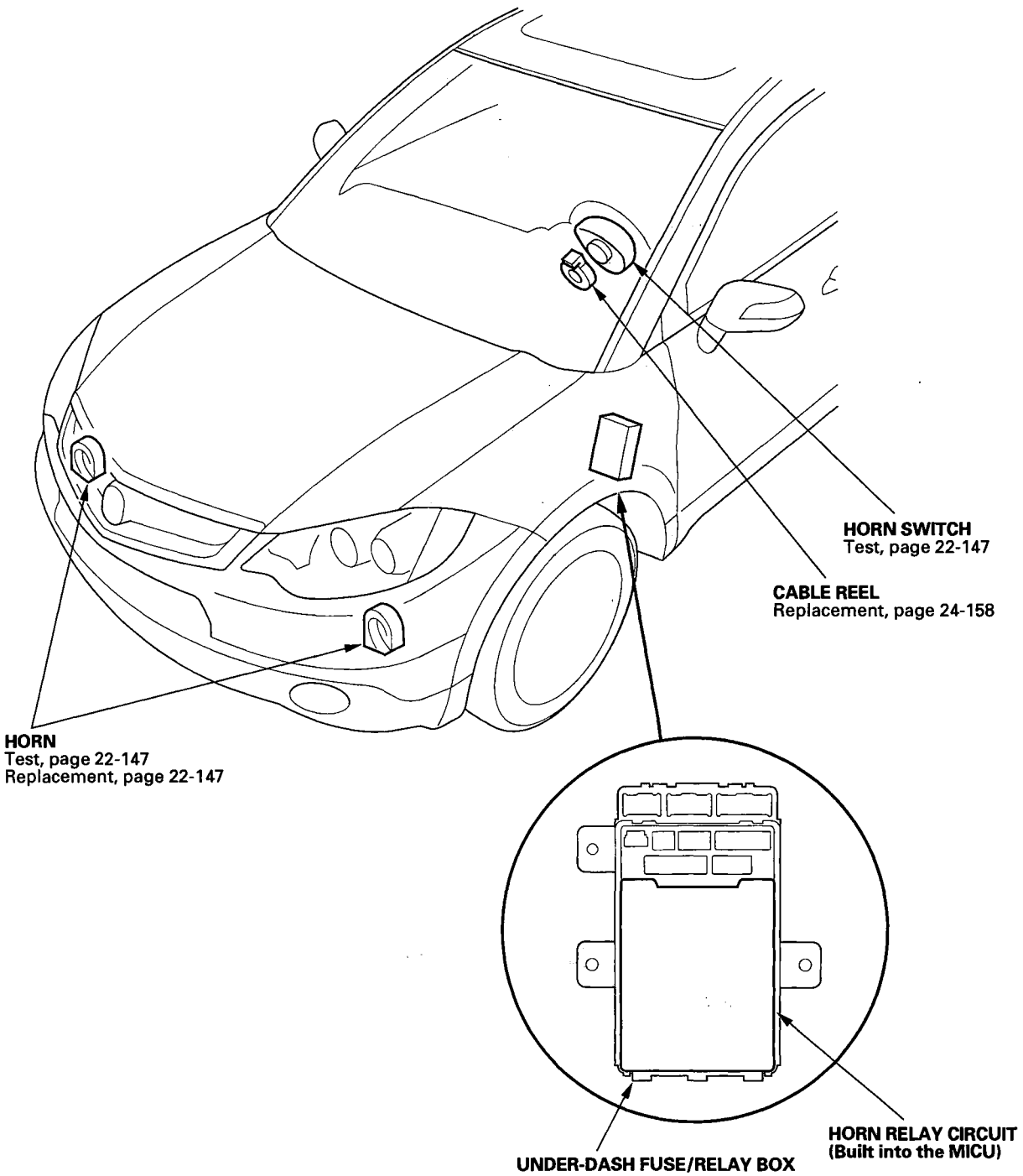
   NOTE: In order to delete codes for lost transmitters, you must have all of the client's transmitters for which you want the codes stored in the immobilizer-keyless control unit. Using each transmitter at least once, program a combination of the transmitters into the immobilizer-keyless control unit's six available memory positions. Here are some examples:

   - If the client had 2 transmitters, and lost one, but will not be replacing it; program the remaining transmitter six times.
   - If the client had 2 transmitters, and lost one, and will be replacing it; program both transmitters three times.
9. Turn the ignition switch OFF, and remove the key.
10. Confirm proper operation with the transmitters.

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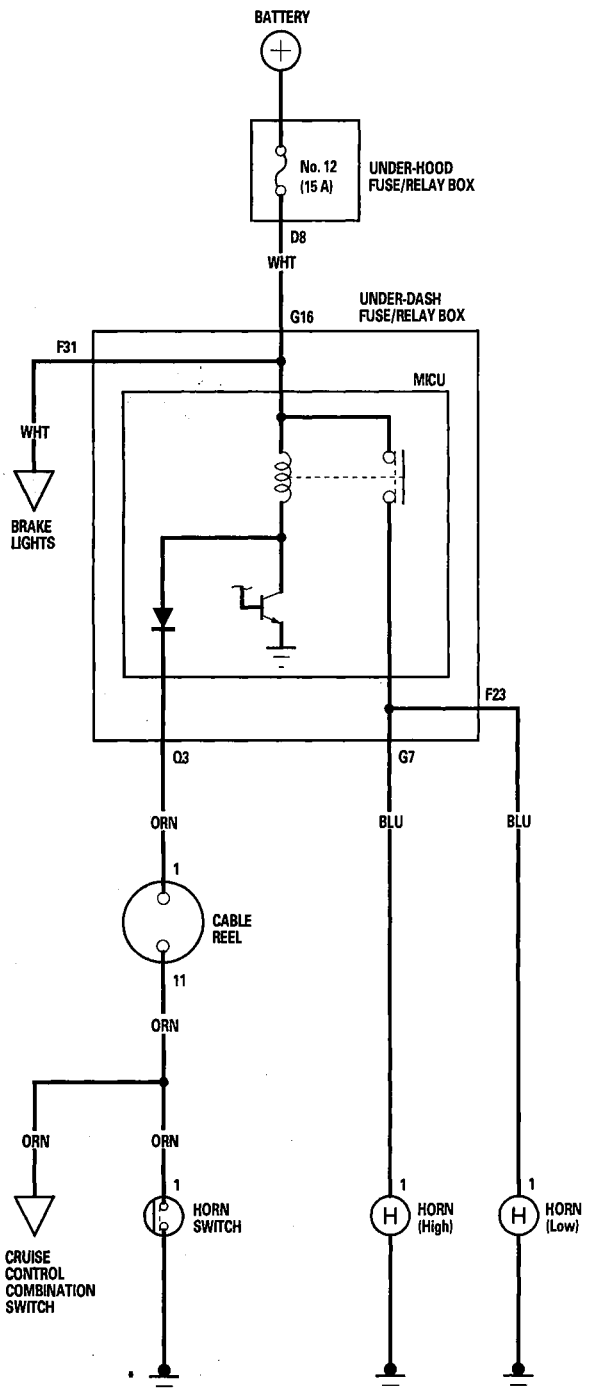
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Horns

Circuit Diagram



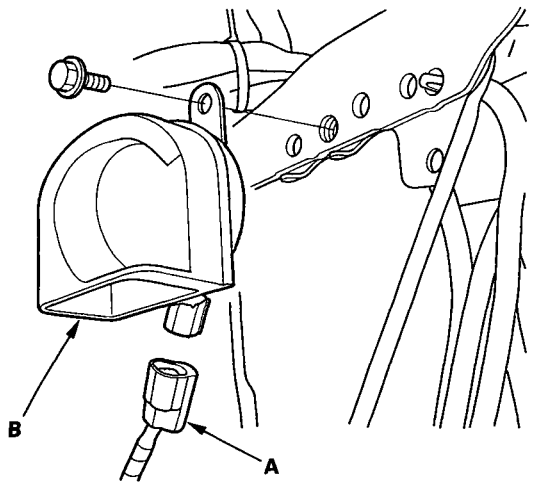
*: Ground through steering column.

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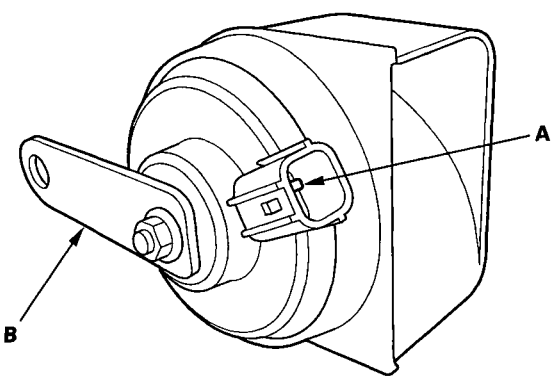
BACK

Horn Test/Replacement

1. Remove the inner fender (see page 20-176).
2. Disconnect the 1P connector (A) from each horn (B).



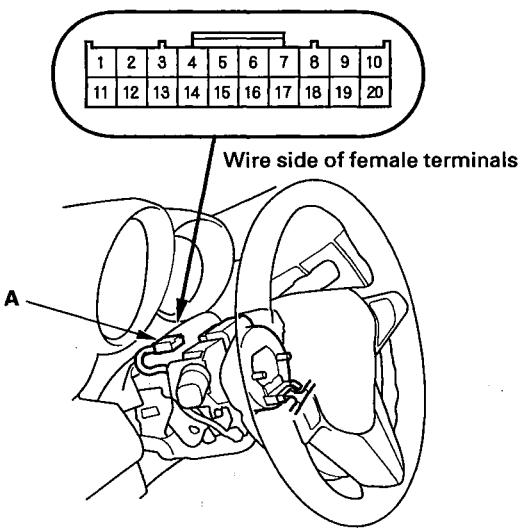
3. Test the horn by connecting battery power to the terminal (A) and grounding the bracket (B). The horn should sound.



4. If it fails to sound, replace it.

Horn Switch Test

1. Remove the steering column covers (see page 20-107).
2. Disconnect the cable reel 20P connector (A) from the dashboard wire harness.



3. Using a jumper wire, connect the No. 1 terminal of the dashboard wire harness 20P connector to body ground.

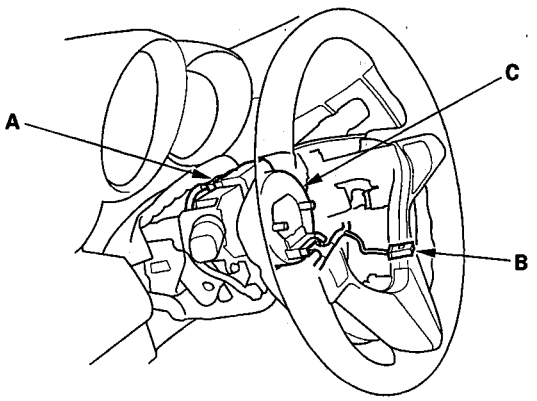
   - If the horns sound, go to step 4.
   - If the horns don't sound, check these items:
     – No. 12 (15 A) fuse in the under-hood fuse/relay box.
     – MICU.
     – Horns.
     – An open in the wire.

(cont'd)

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Horn Switch Test (cont'd)

4. Reconnect the cable reel 20P connector (A) to the dashboard wire harness.



5. Remove the driver's airbag assembly (see page 24-146), and disconnect the horn switch 1P positive terminal (B) from the cable reel (C).

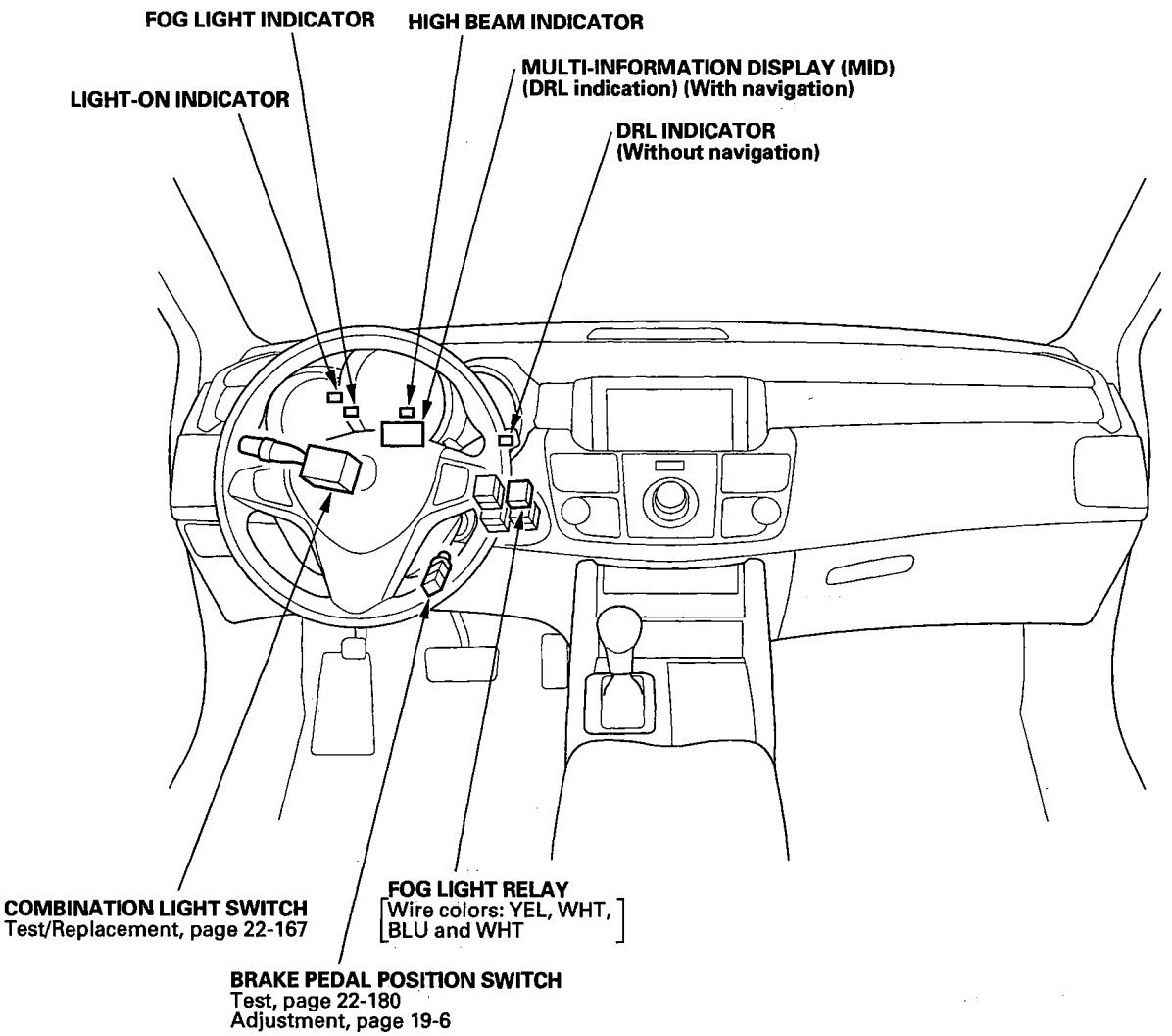
6. Using a jumper wire, connect the cable reel side 1P connector (C) to body ground.

   - If the horns sound, replace the driver's airbag assembly.
   - If the horns do not sound, check these items:
     – Cable reel.
     – An open in the wire (cable reel subharness).

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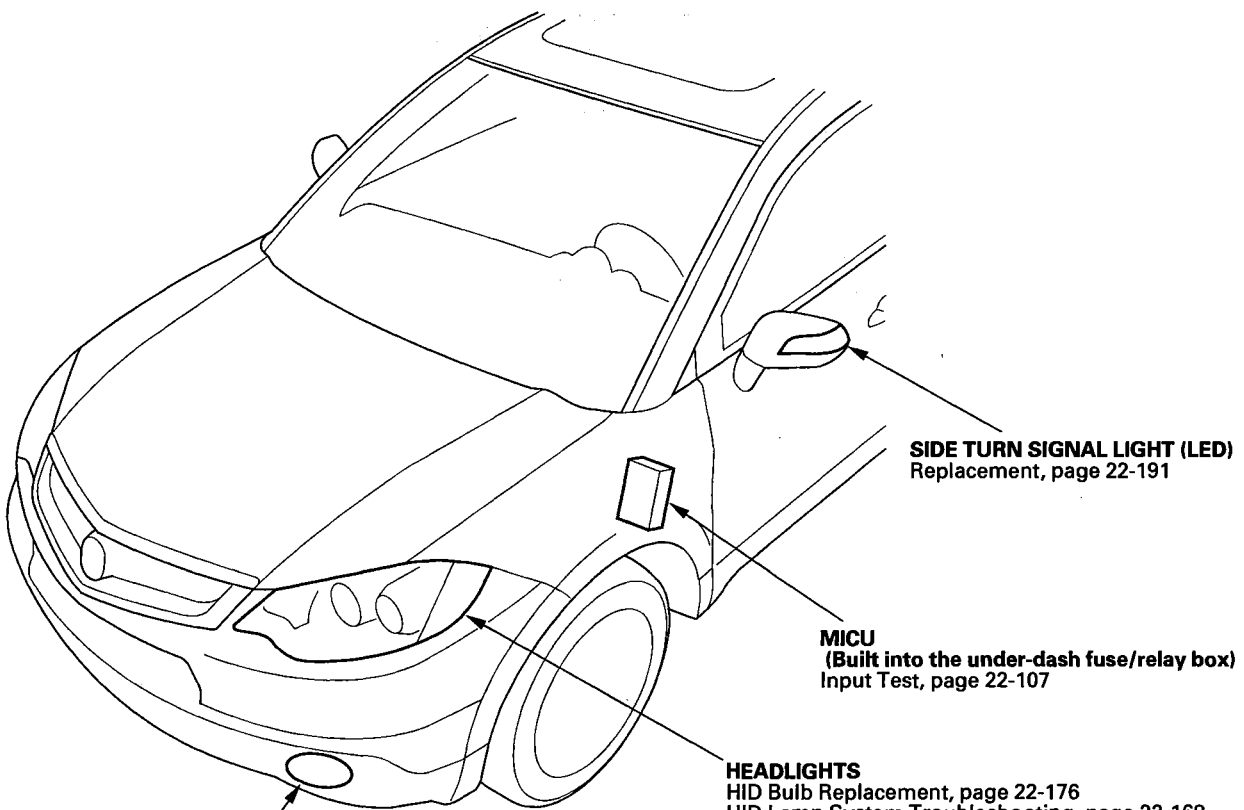
Component Location Index



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Component Location Index (cont'd)



SIDE TURN SIGNAL LIGHT (LED)
Replacement, page 22-191

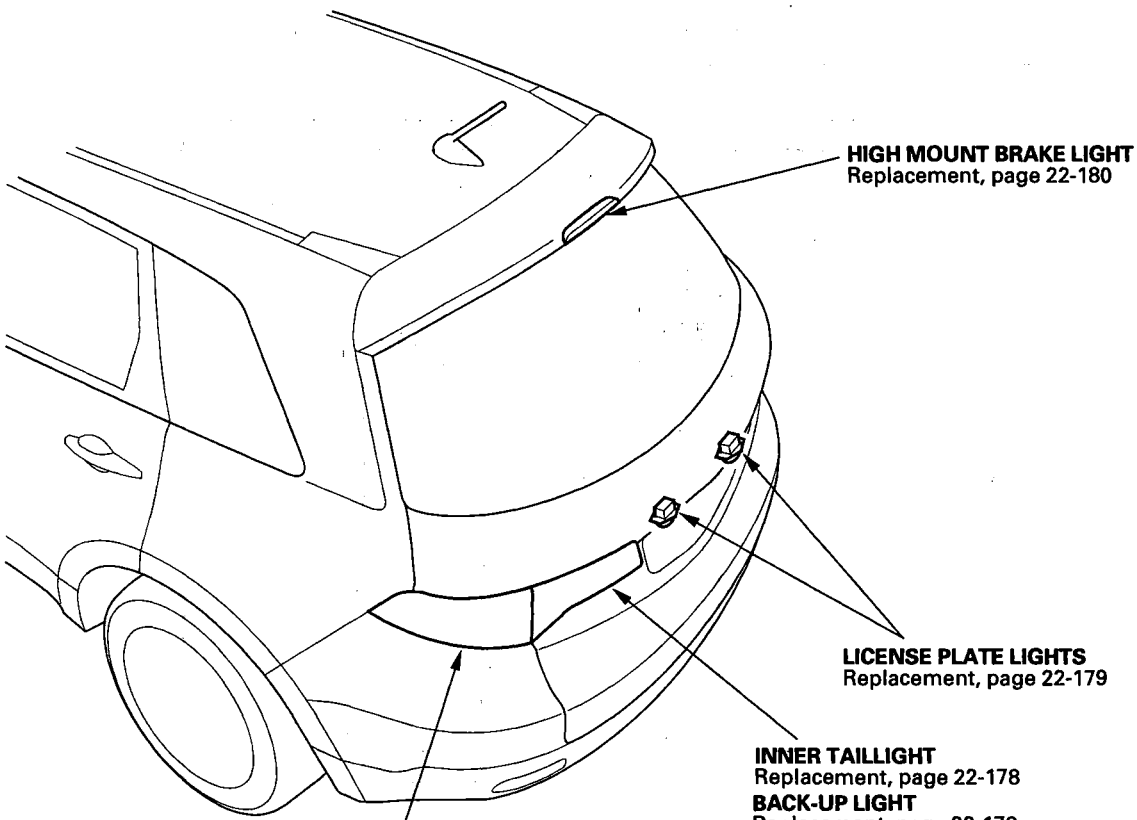
MICU
(Built into the under-dash fuse/relay box)
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HID Lamp System Troubleshooting, page 22-168
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High Beam Bulb Replacement, page 22-176
FRONT SIDE MARKER LIGHT
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FRONT PARKING/
TURN SIGNAL LIGHT
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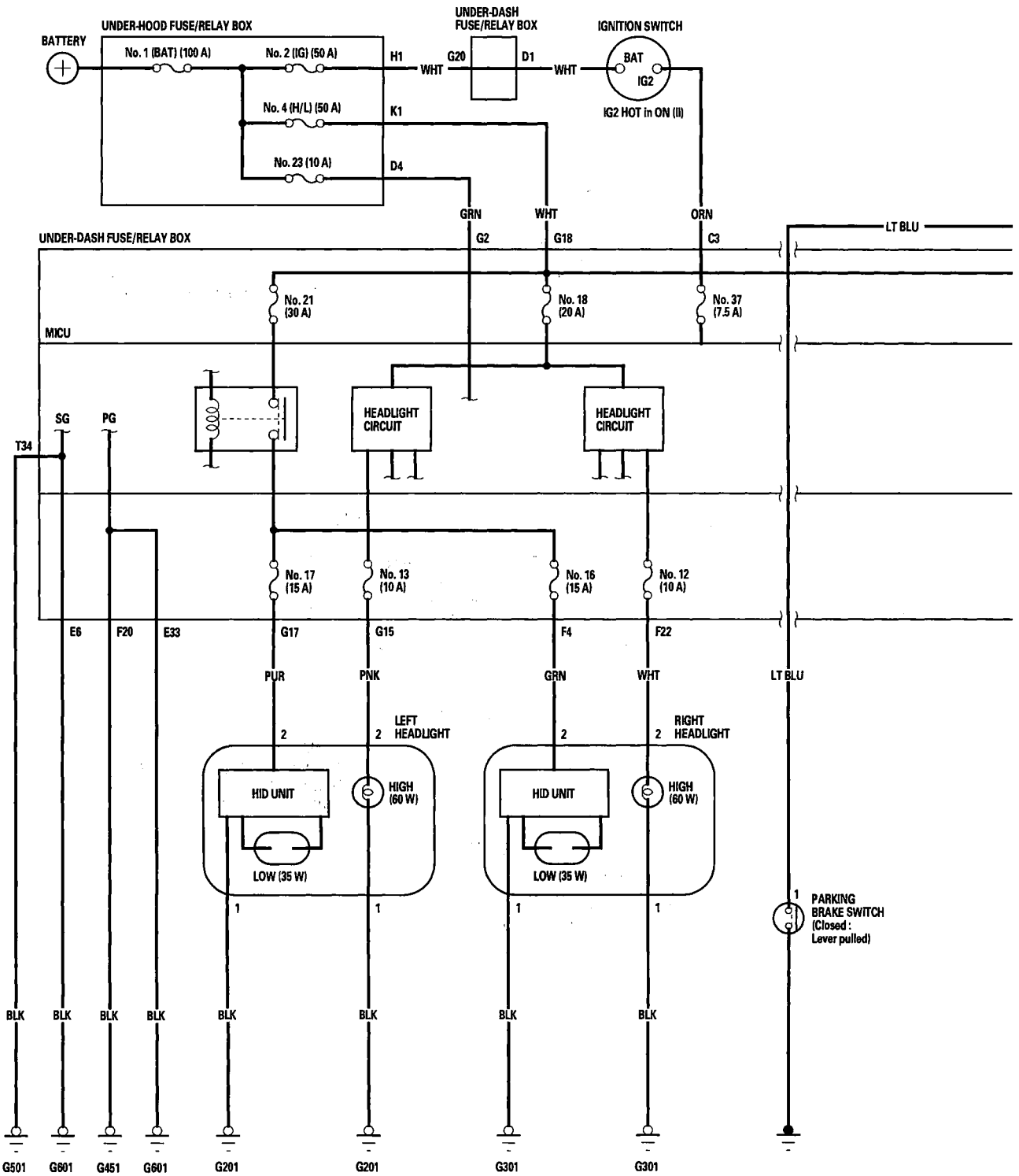
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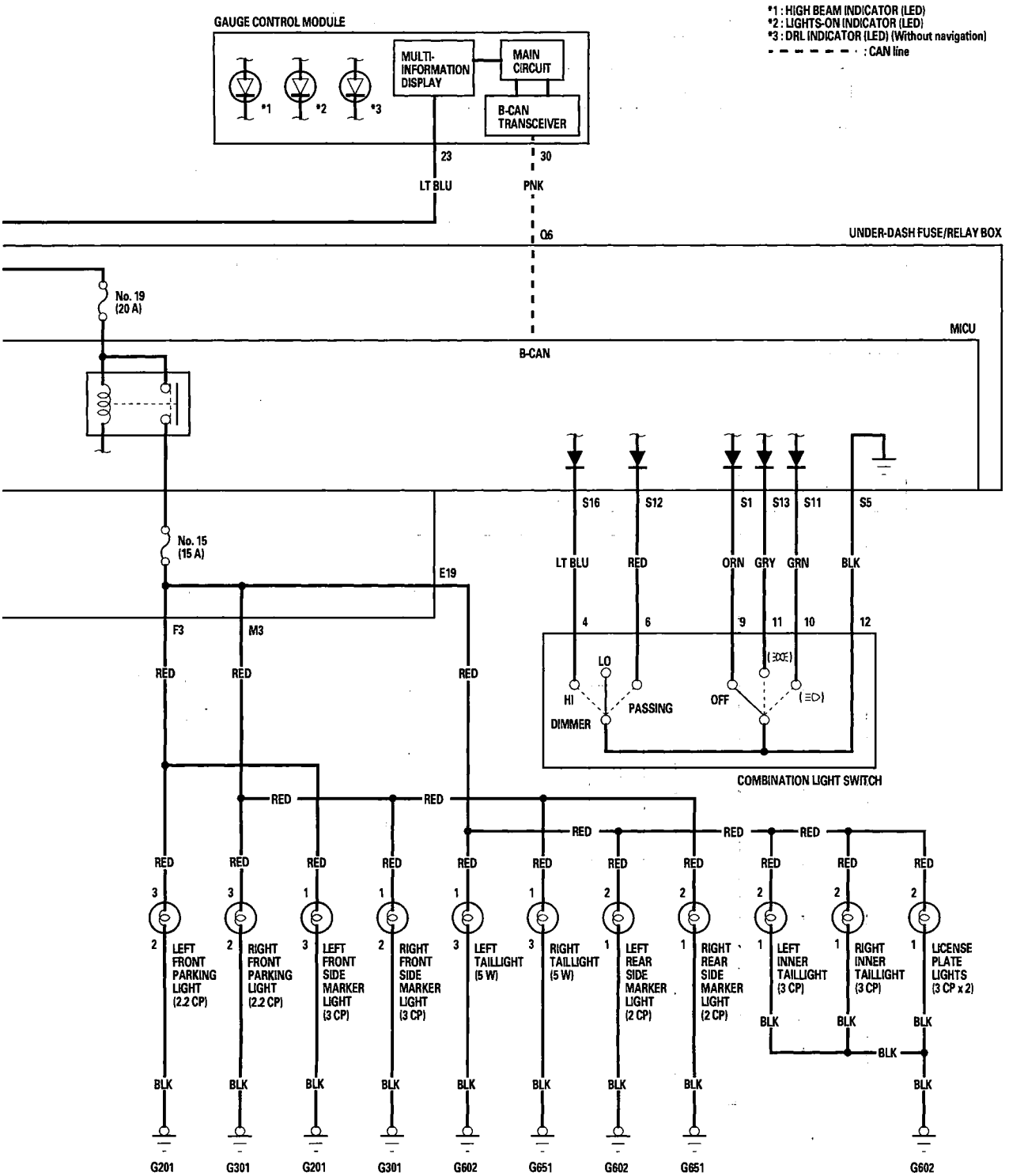
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Circuit Diagram



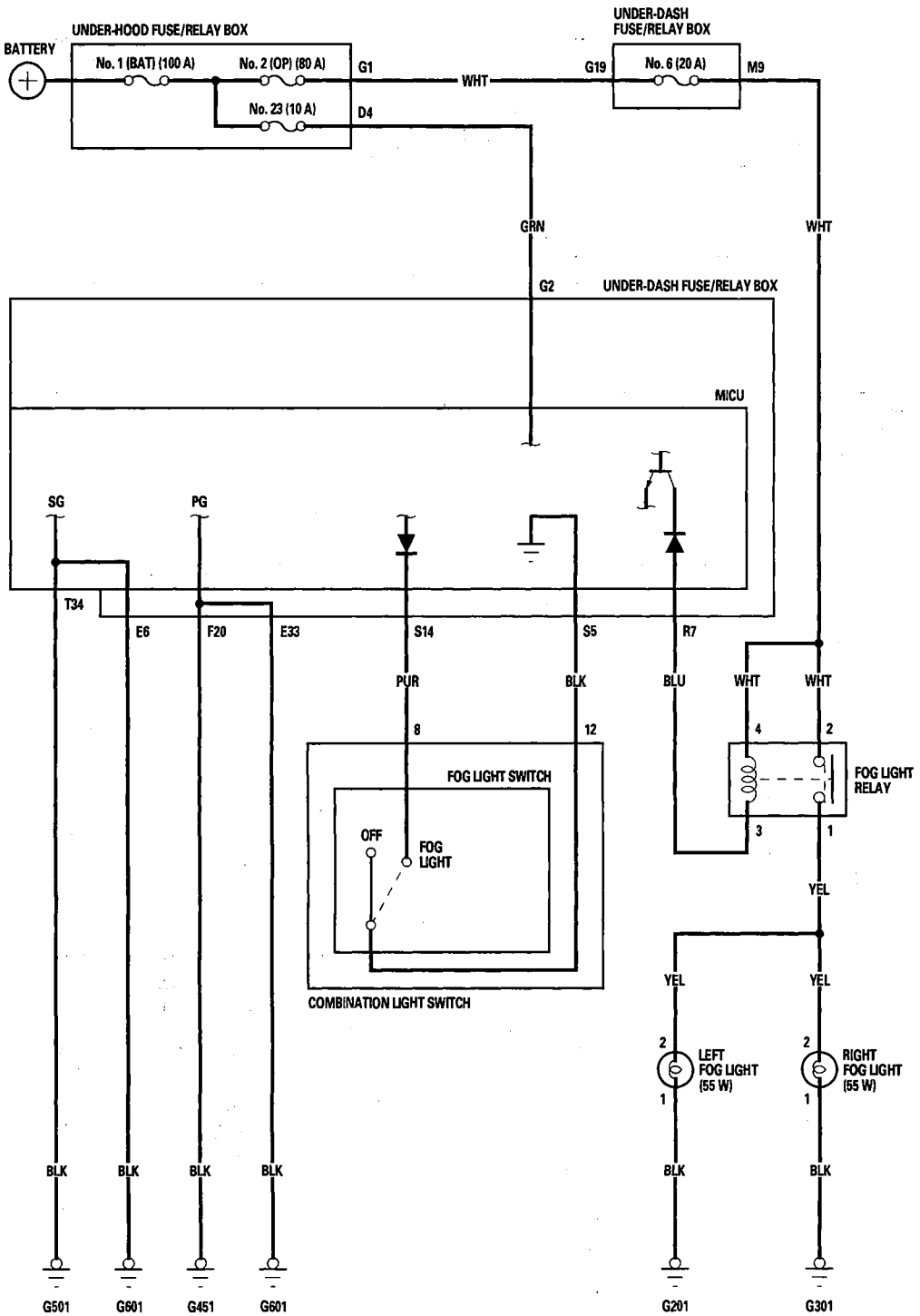
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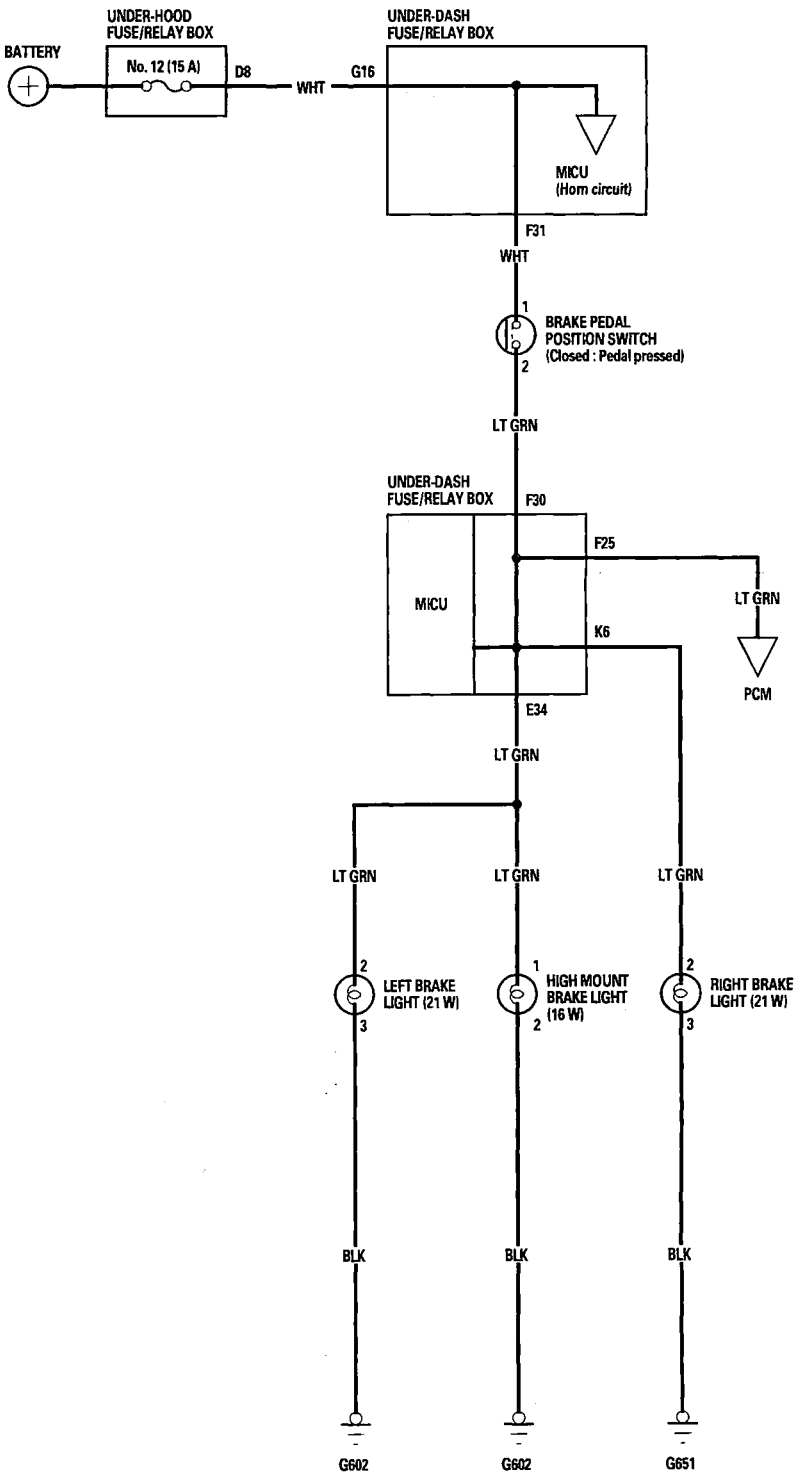
Circuit Diagram - Fog Lights



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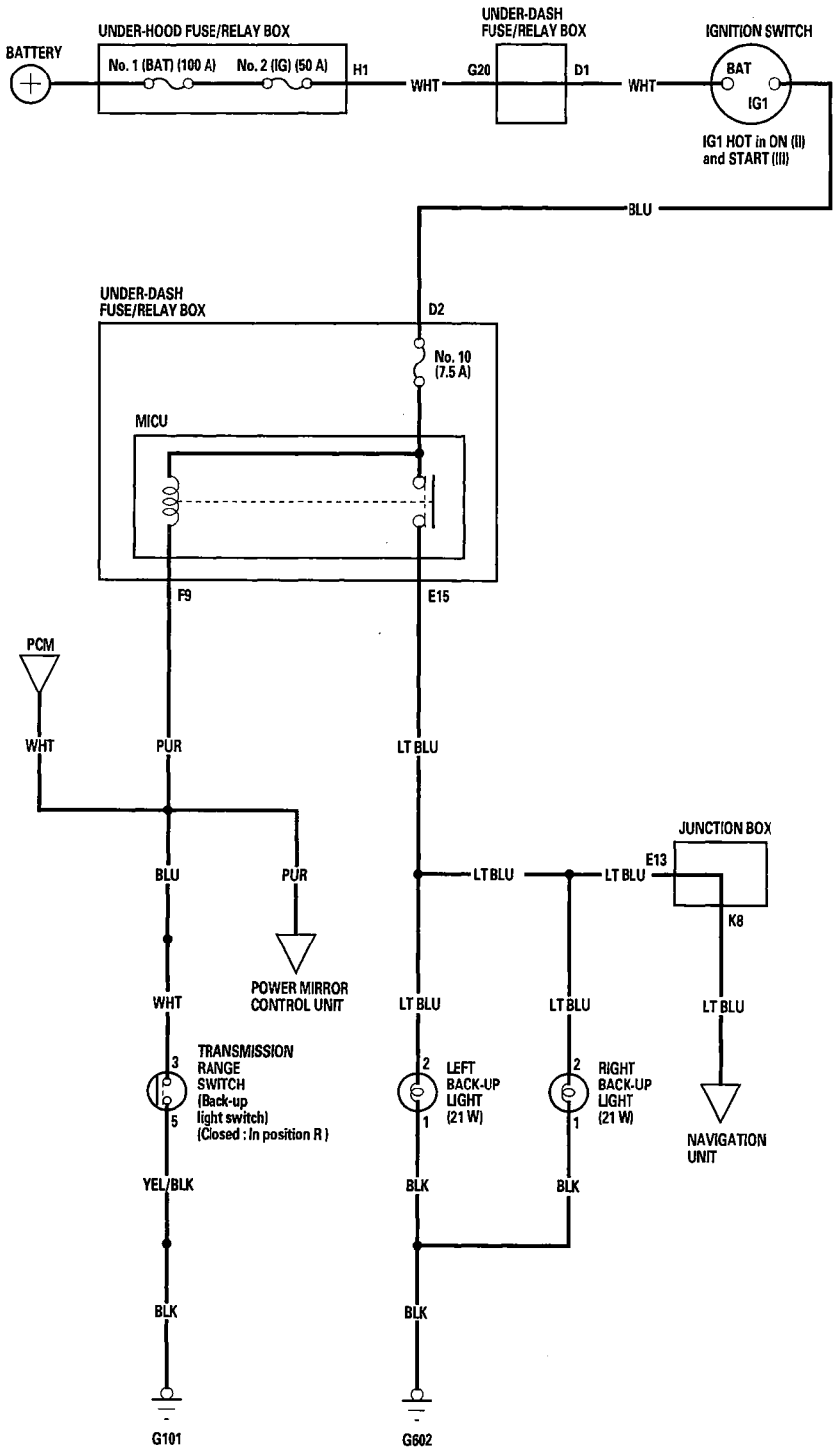
BACK

Circuit Diagram - Brake Lights



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Circuit Diagram - Back-up Lights



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BACK

DTC Troubleshooting

DTC B1078: Daytime Running Lights Signal Error (Canada)

DTC B1079: Daytime Running Lights Signal Error (USA)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

1. Turn the ignition switch ON (II).
2. Pull the parking brake lever.
3. Clear the DTCs with the HDS.
4. Release the parking brake lever.
5. Turn the ignition switch OFF, and then back ON (II).
6. Check for DTCs with the HDS.

   Is DTC B1078 (Canada) or B1079 (USA) indicated?

   YES—Go to step 7.

   NO—Intermittent failure. The daytime running lights system is OK at this time. Check for loose or poor connections.■

7. Turn the headlight switch ON (high beam).

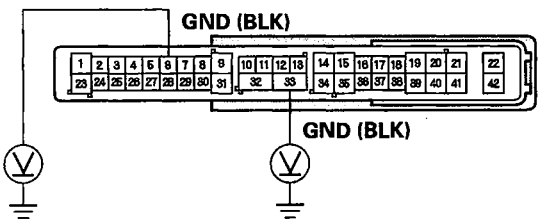
   Do both headlights (high beam) come on?

   YES—Go to step 8.

   NO—Go to step 10.

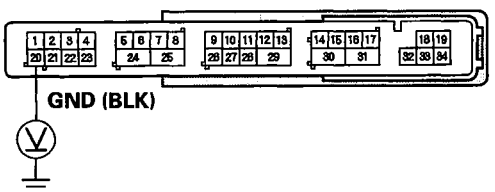
8. Turn the ignition switch OFF.
9. Check the voltage between the No. 6 and No. 33 terminals of the under-dash fuse/relay box connector E (42P) and body ground, and between the No. 20 terminal of the under-dash fuse/relay box connector F (34P) and body ground individually.

UNDER-DASH FUSE/RELAY BOX CONNECTOR E (42P)



Wire side of female terminals

UNDER-DASH FUSE/RELAY BOX CONNECTOR F (34P)



Wire side of female terminals

Is there less than 0.5 V?

YES—Faulty MICU; replace the under-dash fuse/relay box.■

NO—Repair an open in the BLK wire or poor ground (G451, G601).■

10. Turn the ignition and headlight switches OFF.

(cont'd)

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DTC Troubleshooting (cont'd)

11. Check the No. 12, No. 13, and No. 18 fuses in the under-dash fuse/relay box.

    Are all fuses OK?

    YES—Go to step 12.

    NO—Replace the blown fuse and recheck. If the No. 18 (20 A) fuse is blown again, replace the under-dash fuse/relay box. If the No. 12 (10 A) or No. 13 (10 A) fuse is blown again, repair a short in the wire between the under-dash fuse/relay box and the appropriate headlight (high beam). ■

12. Check the headlight (high beam) bulbs.

    Are the headlight (high beam) bulbs OK?

    YES—Go to step 13.

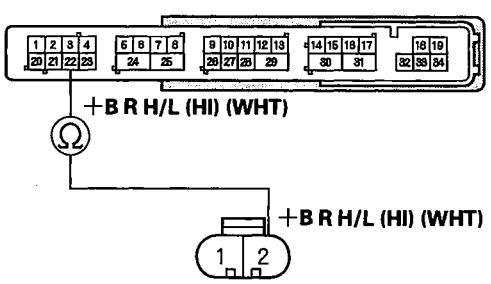
    NO—Replace the faulty bulb. ■

13. Disconnect the under-dash fuse/relay box connectors F (34P) and G (21P).

14. Disconnect both of the headlight (high beam) 2P connectors.

15. Check for continuity between the No. 2 terminal of the right headlight (high beam) 2P connector and No. 22 terminal of the under-dash fuse/relay box connector F (34P).

UNDER-DASH FUSE/RELAY BOX CONNECTOR F (34P)
Wire side of female terminals



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

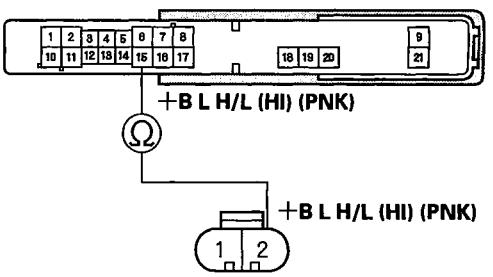
Is there continuity?

YES—Go to step 16.

NO—Repair an open in the wire between the right headlight (high beam) and the under-dash fuse/relay box. ■

16. Check for continuity between the No. 2 terminal of the left headlight (high beam) 2P connector and No. 15 terminal of the under-dash fuse/relay box connector G (21P).

UNDER-DASH FUSE/RELAY BOX CONNECTOR G (21P)
Wire side of female terminals



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

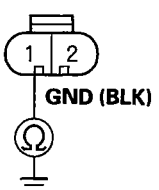
Is there continuity?

YES—Go to step 17.

NO—Repair an open in the wire between the left headlight (high beam) and the under-dash fuse/relay box. ■

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

HEADLIGHT (HIGH BEAM) 2P CONNECTOR



Wire side of female terminals

Is there continuity?

YES—Faulty MICU; replace the under-dash fuse/relay box. ■

NO—Repair an open in the BLK wire or poor ground (G201-left side, G301-right side). ■

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BACK

DTC B1275: Combination Light Switch OFF Position Circuit Malfunction

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

DTC B1278: Headlight 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 22-88).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, and then back ON (II).
3. Turn the combination light switch to the park position, headlight position, then back to the off position.
4. Clear the DTCs with the HDS.

   Is DTC B1275, B1276 or B1278 indicated?

   YES—Go to step 5.

   NO—Intermittent failure. The lighting system is OK at this time. Check for loose or poor connections. ■
5. Select LIGHTING from the BODY ELECTRICAL menu, and enter the DATA LIST.
6. Check the ON/OFF information of the HEADLIGHT SWITCH (OFF), HEADLIGHT SWITCH (PARKING) and HEADLIGHT SWITCH (HEADLIGHT).

   Are the HEADLIGHT SWITCH (OFF) information indicator ON, HEADLIGHT SWITCH (PARKING) information indicator OFF and HEADLIGHT SWITCH (HEADLIGHT) information indicator OFF with the combination light switch in OFF position, and are the HEADLIGHT SWITCH (OFF) information indicator OFF, HEADLIGHT SWITCH (PARKING) information indicator ON and HEADLIGHT SWITCH (HEADLIGHT) information indicator OFF with the combination light switch in SMALL position, and are the HEADLIGHT SWITCH (OFF) information indicator OFF, HEADLIGHT SWITCH (PARKING) information indicator OFF and HEADLIGHT SWITCH (HEADLIGHT) information indicator ON with the combination light switch in ON position?

   YES—Check for loose or poor connections connector. If all the connector tests prove OK, replace the under-dash fuse/relay box. ■

   NO—Go to step 7.
7. Disconnect the 12P connector from the combination light switch.
8. Check the ON/OFF information of the HEADLIGHT SWITCH (OFF), HEADLIGHT SWITCH (PARKING) and HEADLIGHT SWITCH (HEADLIGHT) in the DATA LIST.

   All the information indicators OFF?

   YES—Go to step 12.

   NO—Go to step 9.
9. Turn the ignition switch OFF.
10. Disconnect the under-dash fuse/relay box connector S (20P).

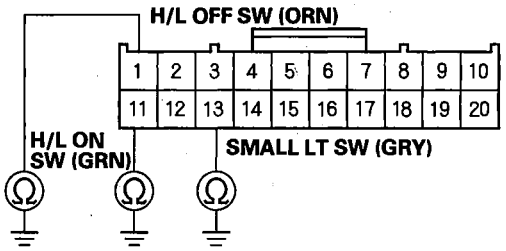
(cont'd)

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DTC Troubleshooting (cont'd)

11. Check the continuity between the body ground and under-dash fuse/relay box connector S (20P) terminals No. 1, No. 11, and No. 13 individually.

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



Wire side of female terminals

Is there continuity?

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

NO—Faulty MICU; replace the under-dash fuse/relay box. ■

12. Turn the ignition switch OFF.

13. Check the combination light switch (see page 22-167).

Is the combination light switch OK?

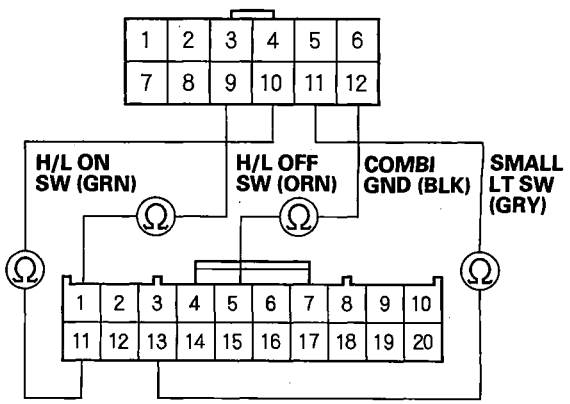
YES—Go to step 14.

NO—Faulty combination light switch; replace it. ■

14. Disconnect the under-dash fuse/relay box connectors S (20P).

15. Check for continuity between the under-dash fuse/relay box connector S (20P) No. 1, No. 5, No. 11, and No. 13 terminals and the combination light switch 12P connector No. 9, No. 12, No. 10, and No. 11 terminals.

COMBINATION LIGHT SWITCH 12P CONNECTOR
Wire side of female terminals



UNDER-DASH FUSE/RELAY BOX CONNECTOR S (20P)
Wire side of female terminals

Is there continuity?

YES—Faulty MICU; replace the under-dash fuse/relay box. ■

NO—Repair an open in the wire. ■

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BACK

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 22-88).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, and then back ON (II).
3. Turn the combination light switch ON.
4. Change the DIMMER switch from low beam to high beam.
5. Turn the combination light switch OFF, and then PASSING position.
6. Check the DTCs with the HDS.

   Is DTC B1279 indicated?

   YES—Go to step 7.

   NO—Intermittent failure. The lighting system is OK at this time. Check for loose or poor connections.■
7. Select LIGHTING from the BODY ELECTRICAL menu, and enter the DATA LIST.
8. Check the ON/OFF information of the HEADLIGHT SWITCH (HEADLIGHT), HEADLIGHT SWITCH (HIGH BEAM) and HEADLIGHT SWITCH (PASSING).

   Are the HEADLIGHT SWITCH (HIGH BEAM) information indicator ON, HEADLIGHT SWITCH (PASSING) information indicator ON with the combination light switch in DIMMER position, and are the HEADLIGHT SWITCH (HEADLIGHT) information indicator OFF, HEADLIGHT SWITCH (HIGH BEAM) information indicator OFF and HEADLIGHT SWITCH (PASSING) information indicator OFF with the combination light switch in ON position?

   YES—Faulty MICU; replace the under-dash fuse/relay box.■

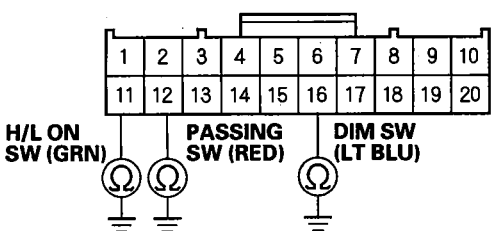
   NO—Go to step 9.
9. Disconnect the 12P connector from the combination light switch.
10. Check the ON/OFF information of the HEADLIGHT SWITCH (HEADLIGHT), HEADLIGHT SWITCH (HIGH BEAM) and HEADLIGHT SWITCH (PASSING) in the DATA LIST.

    All the information indicators OFF?

    YES—Go to step 14.

    NO—Go to step 11.
11. Turn the ignition switch OFF.
12. Disconnect the under-dash fuse/relay box connector S (20P).
13. Check for continuity between the body ground and under-dash fuse/relay box connector S (20P) terminals No. 11, No. 12, and No. 16 individually.

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



Wire side of female terminals

Is there continuity?

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

NO—Faulty MICU; replace the under-dash fuse/relay box.■

(cont'd)

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DTC Troubleshooting (cont'd)

14. Turn the ignition switch OFF.

15. Check the combination light switch (see page 22-167).

    Is the combination light switch OK?

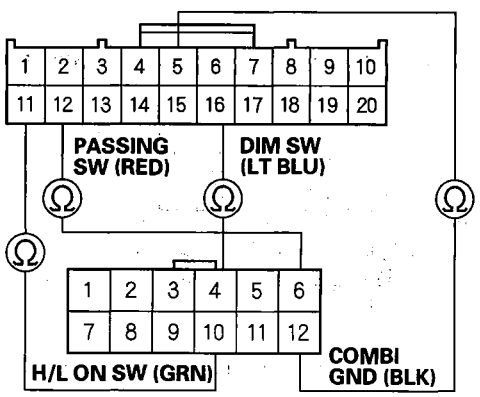
    YES—Go to step 16.

    NO—Faulty combination light switch; replace it. ■

16. Disconnect the under-dash fuse/relay box connectors S (20P).

17. Check for continuity between the under-dash fuse/relay box connector S (20P) No. 5, No. 11, No. 12, and No. 16 terminals and the combination light switch 12P connector No. 12, No. 10, No. 6, and No. 4 terminals.

UNDER-DASH FUSE/RELAY BOX CONNECTOR S (20P)
Wire side of female terminals



COMBINATION LIGHT SWITCH 12P CONNECTOR
Wire side of female terminals

Is there continuity?

YES—Faulty MICU; replace the under-dash fuse/relay box. ■

NO—Repair an open in the wire. ■

BACK

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MICU Input Test

NOTE:
- The MICU turns on the headlights (high beams) in a dimming mode for the Daytime Running Lights under the following conditions:
  - With the ignition switch ON (II)
  - The headlight switch OFF
  - The parking brake is released (parking brake switch OFF)
- The DRL indicator will come when one of the headlight (high beams) bulbs is blown, or if the high beam wiring has an open circuit with the daytime running lights ON.
- For Canada models: If the vehicle is equipped with an optional remote control engine start system, the daytime running lights will not function when started with the remote start.

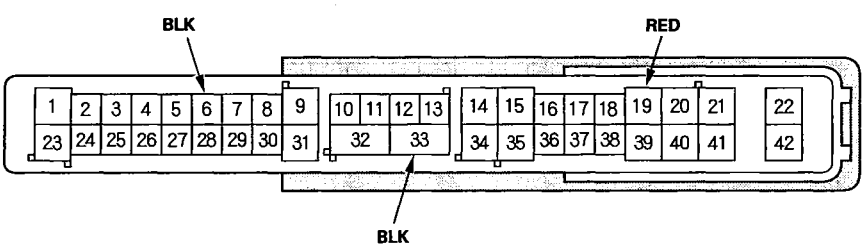
1. Before troubleshooting the lighting system, troubleshoot the B-CAN System Diagnosis Test Mode A (see page 22-88).

2. Check the No. 12 (10 A), No. 13 (10 A), No. 15 (15 A), No. 16 (15 A), No. 17 (15 A), No. 18 (20 A), No. 19 (20 A), No. 21 (30 A), and No. 37 (7.5 A) fuses in the under-dash fuse/relay box. If any fuse is blown, replace it and go to step 3.

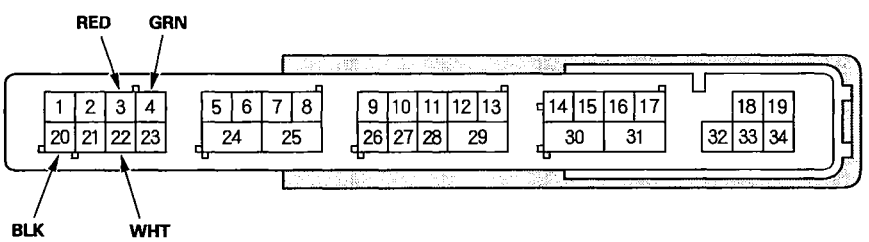
3. Disconnect the under-dash fuse/relay box connectors E, F, G, M, R, S, and T.

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

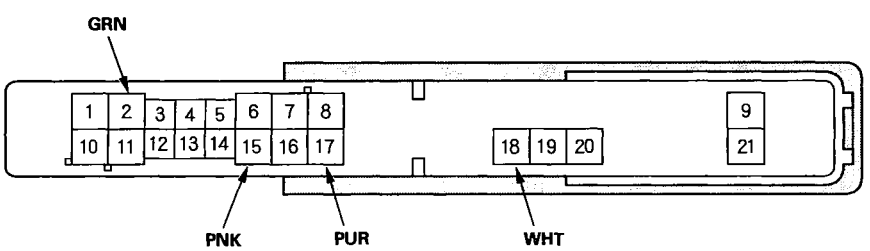
UNDER-DASH FUSE/RELAY BOX CONNECTOR E (42P)



UNDER-DASH FUSE/RELAY BOX CONNECTOR F (34P)



UNDER-DASH FUSE/RELAY BOX CONNECTOR G (21P)

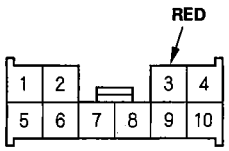


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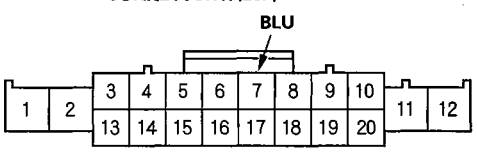
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MICU Input Test (cont'd)

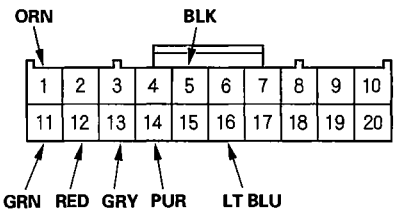
UNDER-DASH FUSE/RELAY BOX
CONNECTOR M (10P)



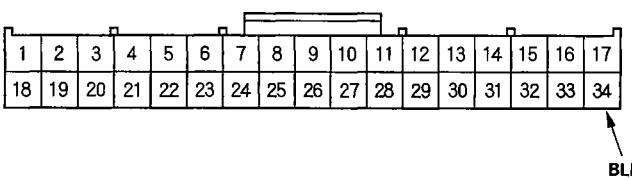
UNDER-DASH FUSE/RELAY BOX
CONNECTOR R (20P)



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



UNDER-DASH FUSE/RELAY BOX
CONNECTOR T (34P)



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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BACK

5. With the connector still disconnected, make these input tests at the appropriate 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 result is not obtained
E19	RED	Under all conditions	Connect battery power to the E19 terminal: The left taillight, right rear side marker light, inner taillights, and license plate lights should come on.	• Poor ground (G602) • Blown bulb • An open in the wire
F3	RED	Under all conditions	Connect battery power to the F3 terminal: The left front parking light and left front side marker light should come on.	• Poor ground (G201) • Blown bulb • An open in the wire
F4	GRN	Under all conditions	Connect battery power to the F4 terminal: The right headlight (low beam) should come on.	• Poor ground (G301) • Blown bulb • Faulty HID unit • An open in the wire
F22	WHT	Under all conditions	Connect battery power to the F22 terminal: The right headlight (high beam) should come on.	• Poor ground (G301) • Blown bulb • An open in the wire
G15	PNK	Under all conditions	Connect battery power to the G15 terminal: The left headlight (high beam) should come on.	• Poor ground (G201) • Blown bulb • An open in the wire
G17	PUR	Under all conditions	Connect battery power to the G17 terminal: The left headlight (low beam) should come on.	• Poor ground (G201) • Blown bulb • An open in the wire
M3	RED	Under all conditions	Connect battery power to the M3 terminal: The right front parking light, right front side marker light, right taillight, and right rear side marker light should come on.	• Poor ground (G301 and G651) • Blown bulb • An open in the wire

(cont'd)

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MICU Input Test (cont'd)

6. Reconnect the connectors to the under-dash fuse/relay box, and make 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 MICU must be faulty; replace the under-dash fuse/relay box.

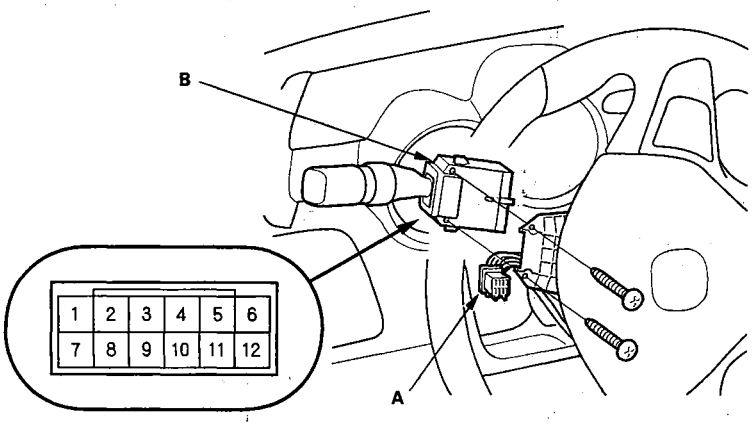
Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
G2	GRN	Under all conditions	Check for voltage between G2 terminal and body ground: There should be battery voltage.	• Blown No. 23 (10 A) fuse in the under-hood fuse/relay box • An open in the wire
G18	WHT	Under all conditions	Check for voltage between G18 terminal and body ground: There should be battery voltage.	• Blown No. 4 (50 A) fuse in the under-hood fuse/relay box • An open in the wire
E6	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G601) • An open in the wire
E33	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G601) • An open in the wire
F20	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G451) • An open in the wire
T34	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
R7	BLU	Under all conditions	Connect body ground to the R7 terminal: The fog lights should come on.	• Blown No. 6 (20 A) fuse in the under-dash fuse/relay box • Faulty fog light relay • Blown bulb • An open in the wire
S1	ORN	Combination light switch OFF	Check for voltage between S1 and S5 terminals: 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	Check for voltage between S1 and S5 terminals: There should be 5 V or more.	• Faulty combination light switch • A short to ground in the wire
S11	GRN	Combination light switch (Headlight position) ON	Check for voltage between S11 and S5 terminals: There should be less than 1 V.	• Faulty combination light switch • An open in the wire
		Combination light switch OFF	Check for voltage between S11 and S5 terminals: There should be 5 V or more.	• Faulty combination light switch • A short to ground in the wire
S12	RED	Combination light switch lever pulled (Passing)	Check for voltage between S12 and S5 terminals: There should be less than 1 V.	• Faulty combination light switch • An open in the wire
		Combination light switch lever released from passing position	Check for voltage between S12 and S5 terminals: There should be 5 V or more.	• Faulty combination light switch • A short to ground in the wire
S13	GRY	Combination light switch (SMALL position) ON	Check for voltage between S13 and S5 terminals: There should be less than 1 V.	• Faulty combination light switch • An open in the wire
		Combination light switch OFF	Check for voltage between S13 and S5 terminals: There should be 5 V or more.	• Faulty combination light switch • A short to ground in the wire
S16	LT BLU	Combination light switch (Dimmer) in high beam position	Check for voltage between S16 and S5 terminals: There should be less than 1 V.	• Faulty combination light switch • An open in the wire
		Combination light switch (Dimmer) in low beam position	Check for voltage between S16 and S5 terminals: There should be 5 V or more.	• Faulty combination light switch • A short to ground in the wire
S14	PUR	Combination light switch (Fog light position) ON	Check for voltage between S14 and S5 terminals: There should be less than 1 V.	• Faulty combination light switch • An open in the wire
		Combination light switch OFF	Check for voltage between S14 and S5 terminals: There should be 5 V or more.	• Faulty combination light switch • A short to ground in the wire

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Combination Light Switch Test/Replacement

1. Remove the steering column covers (see page 20-107).
2. Disconnect the 12P connector (A) from the combination light switch (B).



3. Remove the two screws, then slide out the combination light 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, check for continuity between the terminals in each switch position according to the tables.
     – If the continuity is not as specified, replace the switch.

Light switch:

Position \ Terminal			4	6	9	10	11	12
Headlight switch	OFF				○			○
							○	○
		LOW				○		○
		HIGH	○			○		○
Passing switch	OFF							
	ON			○				○

Turn signal switch:

Position \ Terminal	1	2	12
LEFT		○	○
Neutral			
RIGHT	○		○

Fog light switch:

Position \ Terminal	8	12
ON	○	○
OFF		

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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 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 ignitor unit.
- Do not turn on the HID bulb by using a power source other than the battery mounted on your vehicle.

NOTE: Before troubleshooting the HID Lamp System, perform the multiplex integrated control system troubleshooting using B-CAN System Diagnosis Test Mode A (see page 22-88).

1. Check the No. 17 (15 A) and No. 16 (15 A) fuses in the under-dash fuse/relay box.

   Are the fuses OK?

   YES—Go to step 2.

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

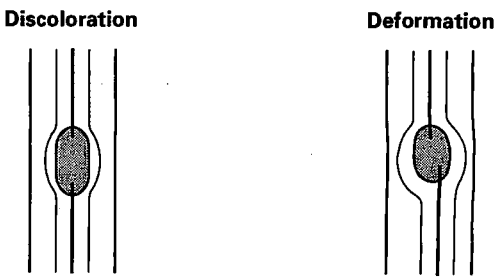
2. Make sure you have the anti-theft code for the audio system and the navigation system (if equipped), then write down the audio presets. Make sure the ignition switch is OFF.

3. Turn the combination light switch OFF.

4. Disconnect the negative battery cable, then disconnect the positive cable.

5. Remove the bulb socket from the HID bulb (see page 22-172).

6. Check for discoloration and deformation of the light emitting part of the bulb.

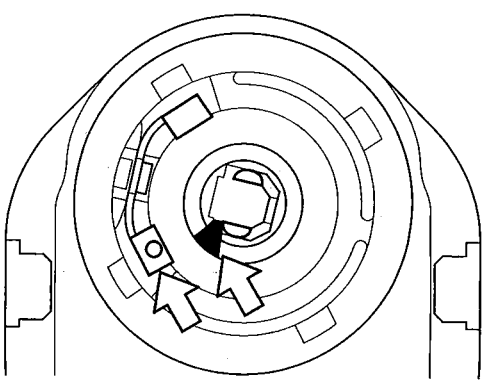


Is the bulb discolored and/or deformed?

YES—Replace the HID bulb, and recheck.■

NO—Go to step 7.

7. Check for discoloration, deformation, and traces of abnormal discharge at the socket mating part.



Is the socket normal?

YES—Go to step 8.

NO—Replace the socket, and recheck.■

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8. Exchange the HID bulb from the problem headlight with one from another headlight.

9. Reconnect the positive battery cable, then connect the negative cable.

10. Turn the combination light switch ON.

Does the headlight come on?

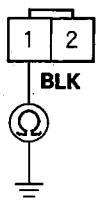
YES—Replace the HID bulb, and recheck.■

NO—Go to step 11.

11. Disconnect the 2P connector from the HID unit.

12. Check for continuity between the No. 1 terminal of the HID unit 2P connector and body ground.

HID UNIT 2P CONNECTOR



Wire side of female terminals

Is there continuity?

YES—Go to step 13.

NO—Repair an open in the wire between the HID unit and body ground. If the wire is OK, check for poor ground at G201 or G301.■

NOTE: Enter the anti-theft code for the audio system and the navigation system (if equipped), then enter the audio presets.

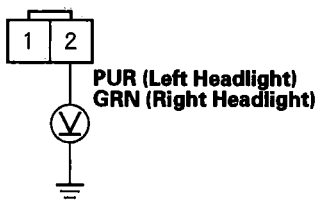
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HID Lamp System Troubleshooting (cont'd)

13. Measure the voltage between the No. 2 terminal of the HID unit 2P connector and body ground.

HID UNIT 2P CONNECTOR



Wire side of female terminals

Is there battery voltage?

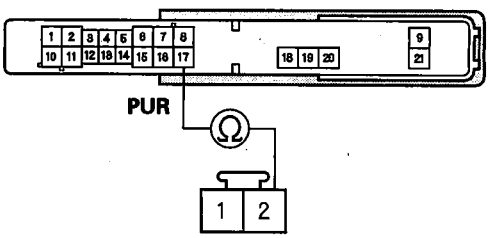
YES—Substitute a known good HID, and recheck. If the symptom/indication goes away, replace the original inverter unit.■

NO—
- For the left headlight, go to step 14.
- For the right headlight, go to step 16.

14. Disconnect the under-dash fuse/relay box connector G (21P).

15. Check for continuity between the No. 17 terminal of the under-dash fuse/relay box connector G (21P) and the No. 2 terminal of the HID unit 2P connector.

UNDER-DASH FUSE/RELAY BOX CONNECTOR G (21P)
Wire side of female terminals



HID UNIT 2P CONNECTOR (LEFT HEADLIGHT)
Wire side of female terminals

Is there continuity?

YES—Replace the under-dash fuse/relay box.■

NO—Repair an open in the wire between the under-dash fuse/relay box and the HID unit.■

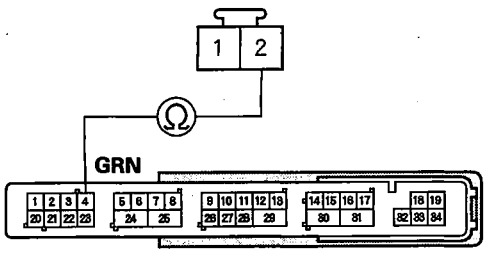
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16. Disconnect the under-dash fuse/relay box connector F (34P).

17. Check for continuity between the No. 4 terminal of the under-dash fuse/relay box connector F (34P) and the No. 2 terminal of the HID unit 2P connector.

HID UNIT 2P CONNECTOR (RIGHT HEADLIGHT)
Wire side of female terminals



UNDER-DASH FUSE/RELAY BOX CONNECTOR F (34P)
Wire side of female terminals

Is there continuity?

YES—Replace the under-dash fuse/relay box. ■

NO—Repair an open in the wire between the under-dash fuse/relay box and the HID unit. ■

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HID Bulb Replacement

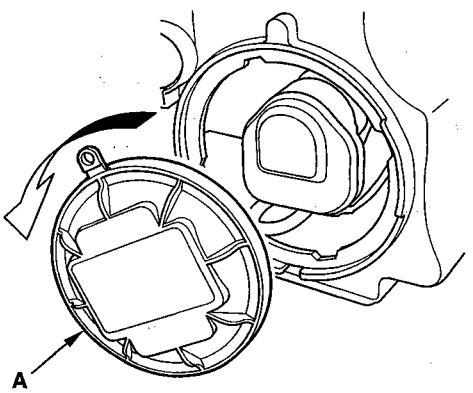
⚠ WARNING

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 ignitor unit.
- Do not turn on the HID bulb by using a power source other than the battery mounted on your vehicle.

1. Make sure you have the anti-theft code for audio system and navigation system (if equipped), then write down the audio presets. Make sure the ignition switch is OFF.
2. Turn the combination light switch OFF.
3. Disconnect the battery negative cable, then disconnect the positive cable.
4. Remove the headlight assembly (see page 22-175).
5. Turn the cover (A) 45 °counterclockwise to remove it from the headlight assembly.

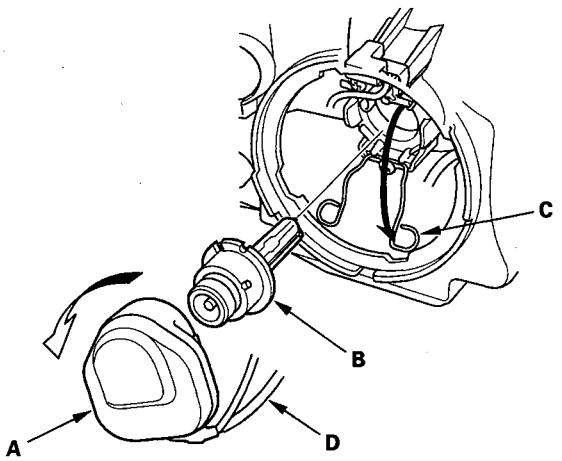


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BACK

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

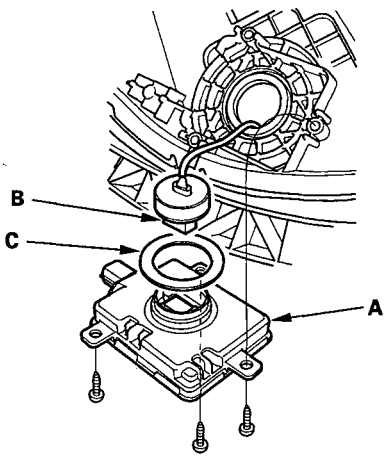
Headlight: 35 W



7. Pull the retaining spring (C) away from the bulb then remove the bulb.
8. Make sure the bulb harness (D) is routed correctly so it does not contact the reflector.
9. Install the new bulb in the reverse order of removal. Make sure the notches in the bulb align with the tabs in the headlight.
10. Enter the anti-theft code for the audio system and the navigation system(if equipped), then enter the audio presets.
11. Set the clock.

HID Unit Replacement

1. Make sure you have anti-theft code for the audio system and the navigation system (if equipped), then write down the audio presets. Make sure the ignition switch is OFF.
2. Turn the combination light switch OFF.
3. Disconnect the battery negative cable, then disconnect the positive cable.
4. Remove the headlight assembly (see page 22-175).
5. Remove the bulb socket from the HID bulb (see page 22-172).
6. Remove the three mounting screws and HID unit (A).



7. Disconnect the 4P connector (B) from the HID unit.
8. Inspect the gasket (C) for damage. If damaged, replace it.
9. Install in the reverse order of removal.
10. Enter the anti-theft code for the audio system and the navigation system (if equipped), then enter the audio presets.
11. Set the clock.

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Headlight Adjustment

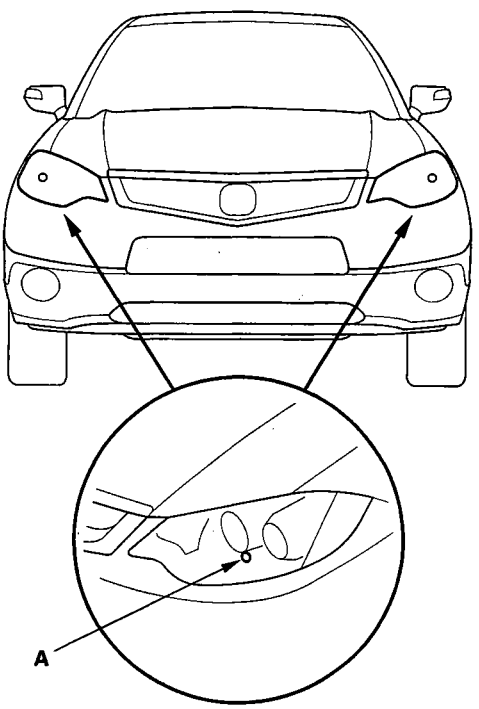
⚠CAUTION

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

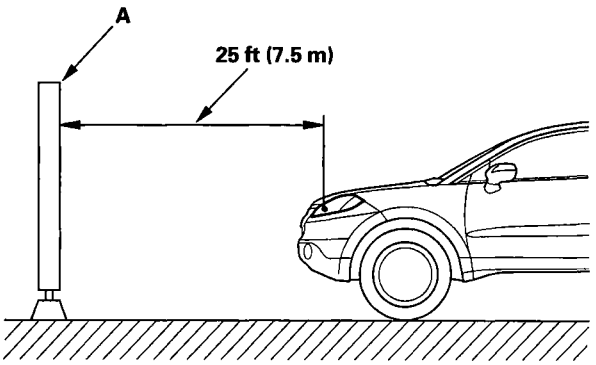
Before adjusting the headlights:

- 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.



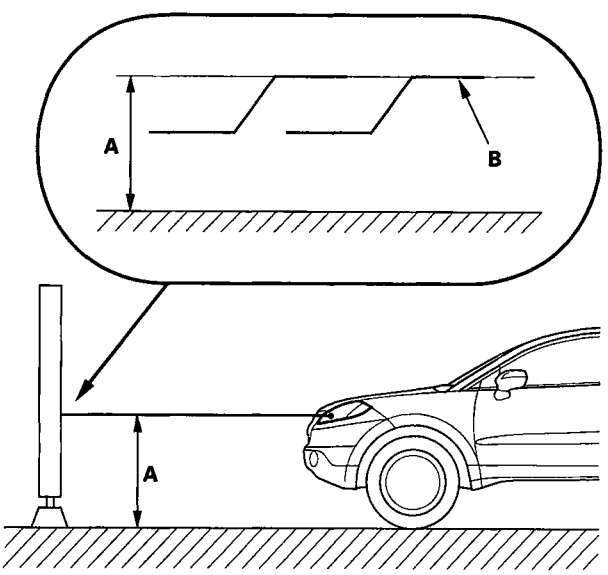
2. Park the vehicle in front of a wall or a screen (A).



3. Turn the low beams on.

4. Determine if the headlights are aimed properly.

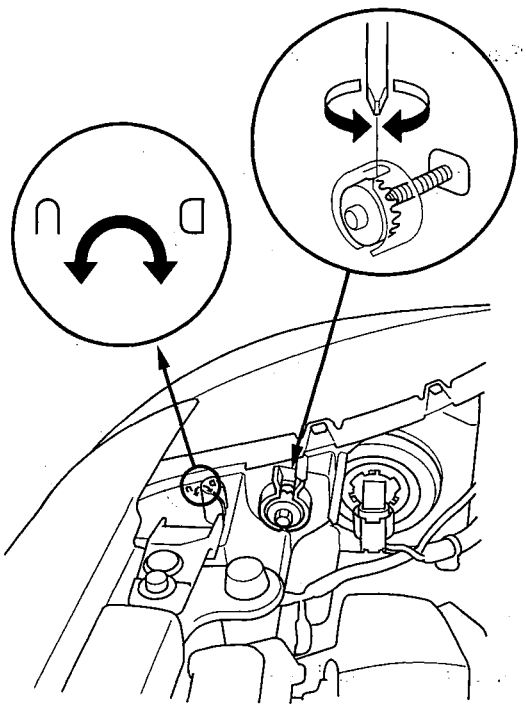
Vertical adjustment:
Measure the height of the headlights (A).
Adjust the cut line (B) to the lights height.



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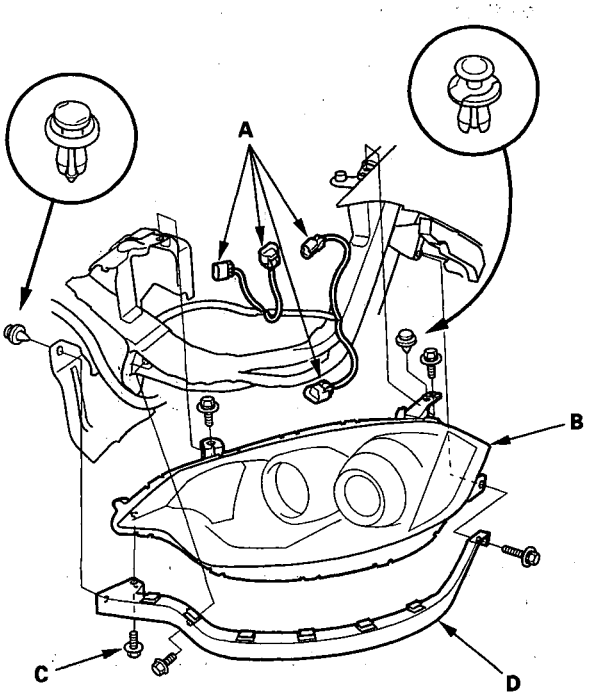
BACK

5. If necessary, open the hood and adjust the headlights to local requirements by turning the vertical adjuster.



Headlight Replacement

1. Remove the front bumper (see page 20-146).
2. Remove the connectors (A) from the headlight assembly (B).



3. Remove the clips and bolts, then remove the headlight.
4. Remove the bolt (C) and the corner upper beam (D) from the headlight.
5. Install the headlight in the reverse order of removal.
6. After replacement, adjust the headlight to local requirement.

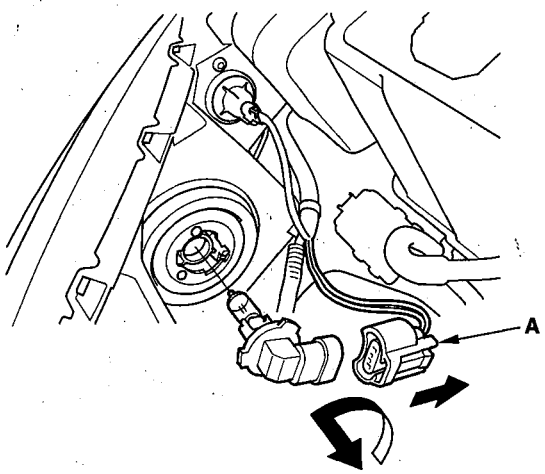
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Bulb Replacement

Headlight

1. Disconnect the 2P connector (A) from the headlight.

Headlight (high beam): 60 W

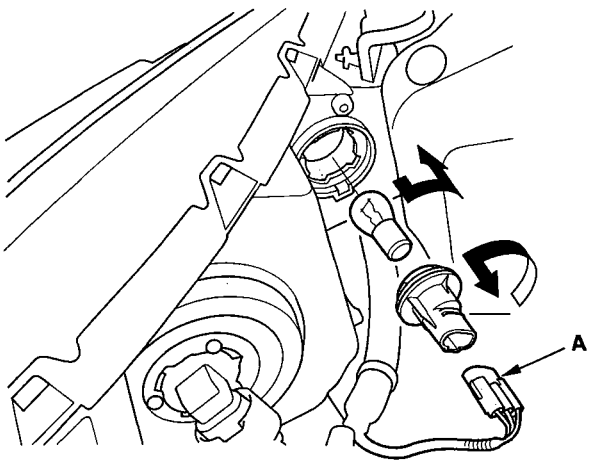


2. Turn the bulb socket 45 ° counterclockwise to remove the bulb.
3. Install a new bulb in the reverse order of removal.

Front Parking/Turn Signal Lights

1. Disconnect the 3P connector (A) from the front parking/turn signal light.

Front Parking/Turn Signal Lights: 24/2.2 CP



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

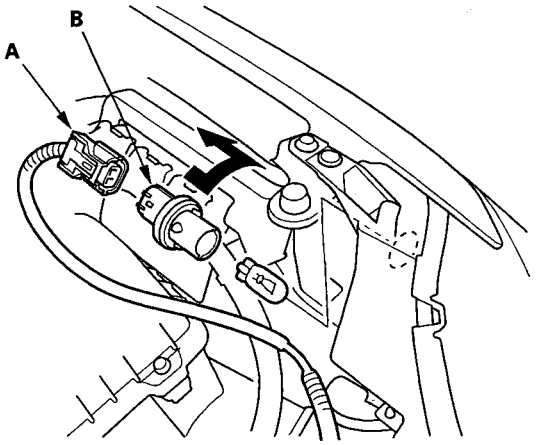
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Front Side Marker Light

1. Disconnect the 2P connector (A) from the front turn signal/front parking light.

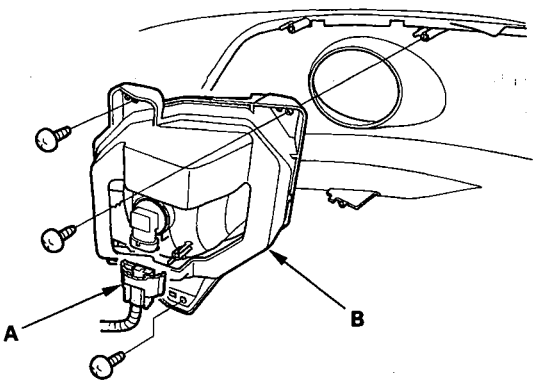
Front Side Marker Light: 3 CP



2. Turn the bulb socket (B) 45 °counterclockwise to remove it from the headlight housing.
3. Install a new bulb in the reverse order of removal.

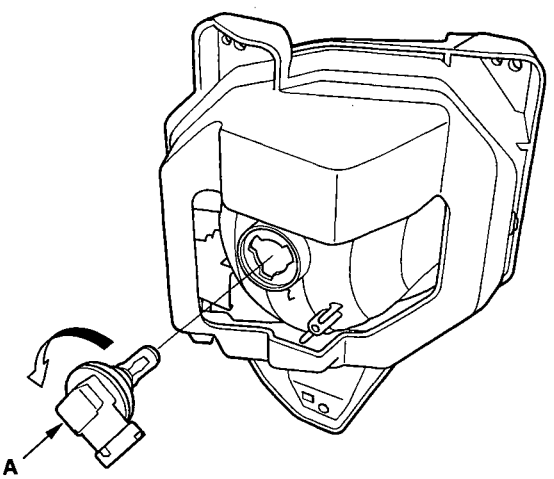
Fog Light Replacement

1. Remove the front bumper (see page 20-146).
2. Disconnect the 2P connector (A) from the fog light (B).



3. Remove the screws, then remove the fog light.
4. Turn the bulb socket (A) counterclockwise to remove it from the housing.

Fog Light: 55 W



5. Install in the reverse order of removal.
6. After replacement, adjust the fog lights (see page 22-178).

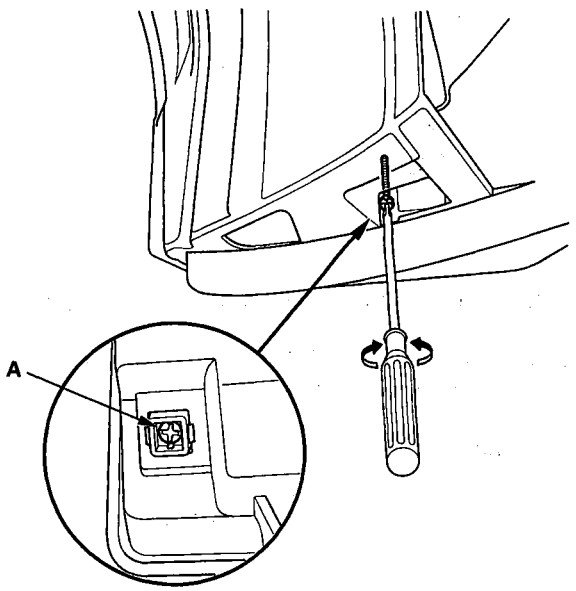
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Fog Light Adjustment

Before adjusting the fog lights:

- 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.

Adjust the fog lights to local requirements by turning the adjuster (A).

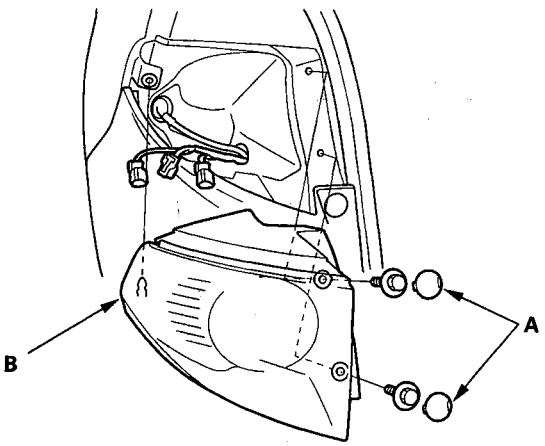


Taillight Replacement

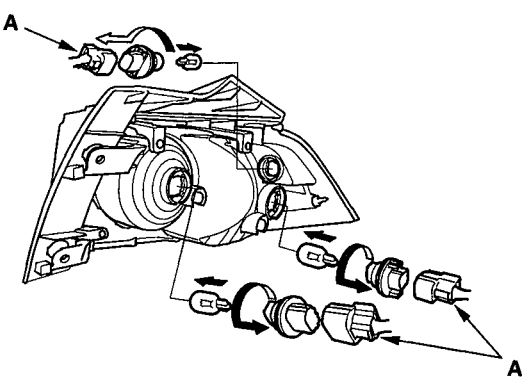
Taillight

1. Remove the covers (A) and two bolts from the taillight (B).

Brake Lights/Taillight:	**21/5 W**
Rear Turn Signal Light:	**21 W**
Rear Side Maker Light:	**2 CP**



2. Carefully pull out the taillight.
3. Disconnect the connectors (A) from the taillight.



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

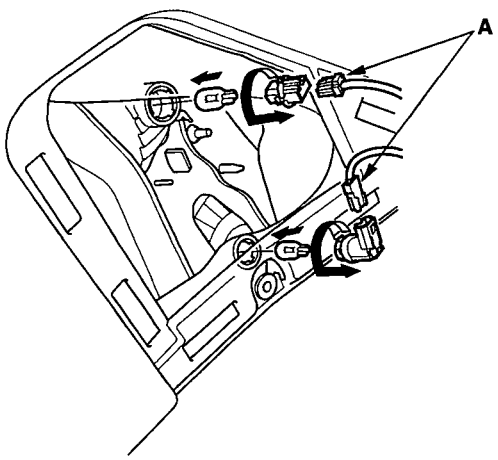
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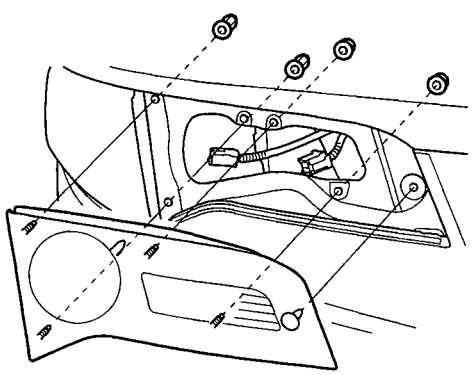
Inner Taillight

1. Remove the tailgate lid panel (see page 20-174).
2. Disconnect the 2P connectors (A) from the inner taillight.

   Inner Taillight: 3 CP
   Back-up light: 21 W



3. Turn the bulb socket 45 °counterclockwise to remove the bulb.
4. Remove the four nuts and inner taillight

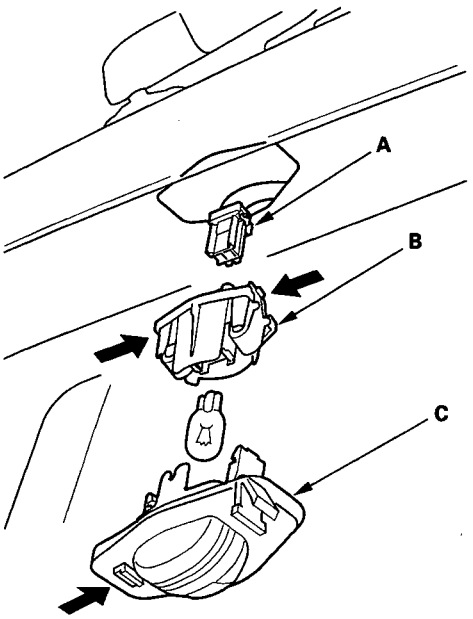


5. Install the inner taillight in the reverse order of removal.

License Plate Light Replacement

1. Open the tailgate, and remove the rear license trim and the tailgate license panel (see page 20-173).
2. Disconnect the 2P connector (A) from the license plate light.

   License Plate Light: 3 CP

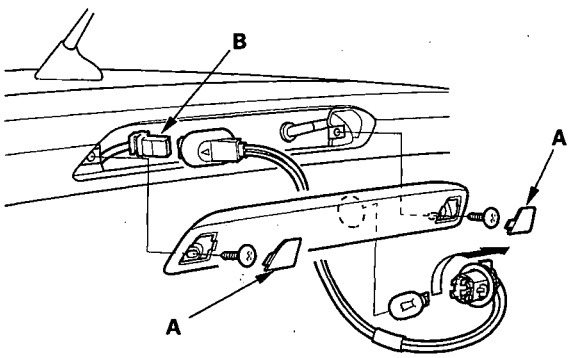


3. Release the bulb socket (B) from the lens (C) by pressing on the tabs.
4. Remove the lens from the tailgate by pressing on the tabs.
5. Install the light in the reverse order of removal.

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High Mount Brake Light Replacement

1. Remove the covers (A) and two screws from the high mount brake light.



2. Disconnect the 2P connector (B) from the high mount brake light.

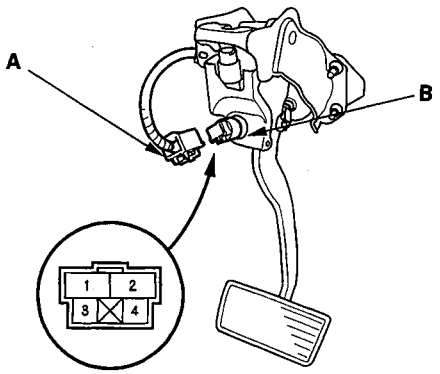
   Bulb: 16 W

3. Turn the bulb socket 45 °counterclockwise to remove the bulbs.

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

Brake Pedal Position Switch Test

1. Disconnect the 4P connector (A) from the brake pedal position switch (B).



2. Check for continuity between the No. 1 and No. 2 terminals.

   - 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 the No. 3 and No. 4 terminals (with cruise control).

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

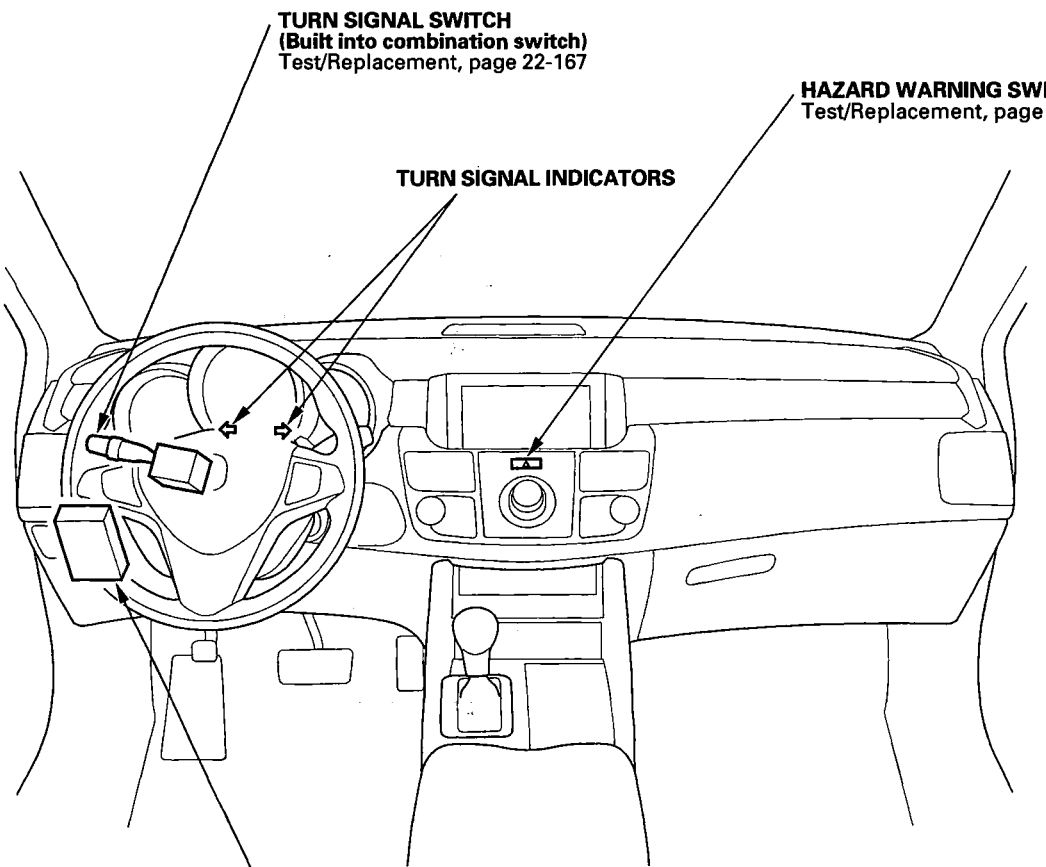
4. If necessary, adjust or replace the switch, or adjust the pedal height (see page 19-6).

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Turn Signal/Hazard Flasher

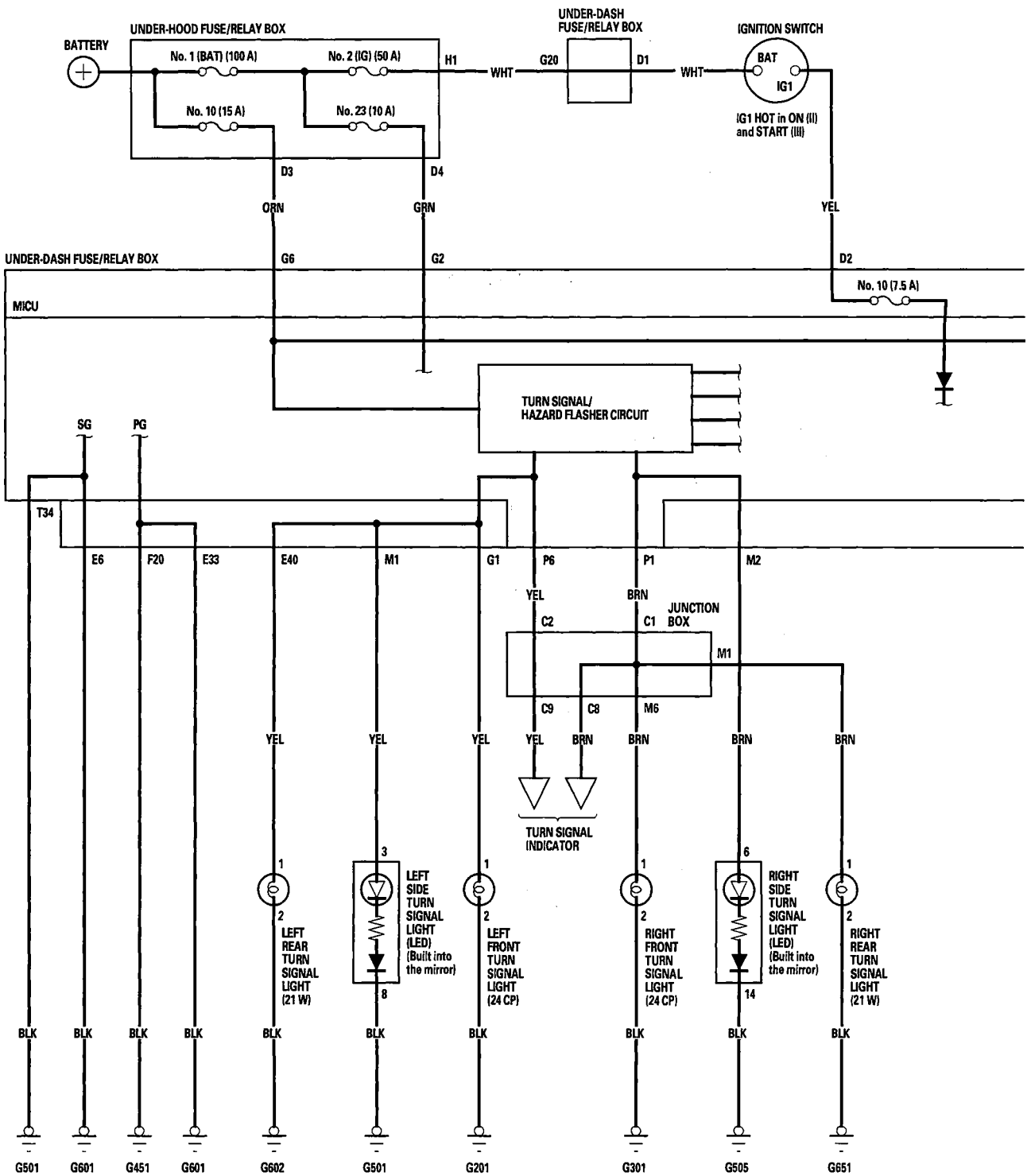
Component Location Index



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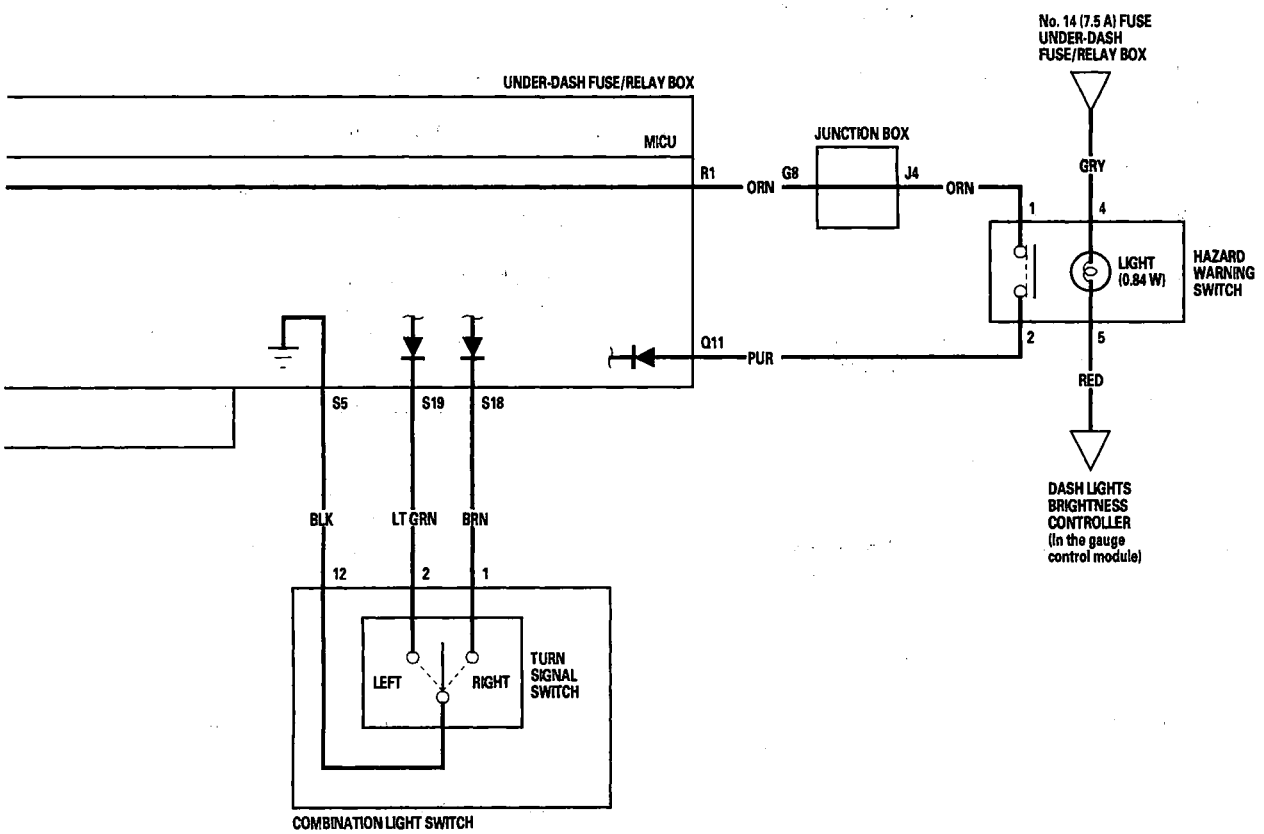
Turn Signal/Hazard Flasher

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 22-88).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, and then back ON (II).
3. Turn the turn signal switch to the left position and the right position.
4. Check the DTCs with the HDS.

   Is DTC B1280 indicated?

   YES—Go to step 5.

   NO—Intermittent failure. The turn signal/hazard flasher system is OK at this time. Check for loose or poor connections. ■
5. Select LIGHTING from the BODY ELECTRICAL menu, and enter the DATA LIST.
6. Check the ON/OFF information of the TURN SIGNAL SWITCH (LEFT) and TURN SIGNAL SWITCH (RIGHT).

   Are the TURN SIGNAL SWITCH (LEFT) information indicator ON, TURN SIGNAL SWITCH (RIGHT) information indicator OFF with the turn signal switch to the LEFT position, and are the TURN SIGNAL SWITCH (LEFT) information indicator OFF, TURN SIGNAL SWITCH (RIGHT) information indicator ON with the turn signal switch to the RIGHT position?

   YES—Faulty MICU; replace the under-dash fuse/relay box. ■

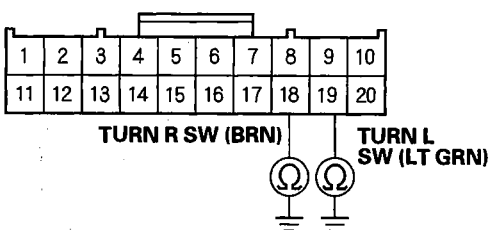
   NO—Go to step 7.
7. Disconnect the 12P connector from the combination light switch.
8. Check the ON/OFF information of the TURN SIGNAL SWITCH (LEFT) and TURN SIGNAL SWITCH (RIGHT) in the DATA LIST.

   All the information indicators OFF?

   YES—Go to step 12.

   NO—Go to step 9.
9. Turn the ignition switch OFF.
10. Disconnect the under-dash fuse/relay box connector S (20P).
11. Check for continuity between the body ground and under-dash fuse/relay box connector S (20P) terminals No. 18 and No. 19 individually.

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



Wire side of female terminals

Is there continuity?

YES—Check for continuity between terminal No. 5 and terminals No. 18, and 19 individually. If there is still continuity, repair short to ground, or to another wire.

NO—Faulty MICU; replace the under-dash fuse/relay box. ■

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12. Turn the ignition switch OFF.

13. Check the combination light switch (see page 22-167).

    Is the combination light switch OK?

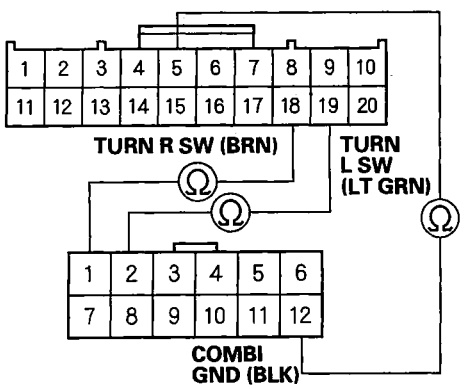
    YES—Go to step 14.

    NO—Faulty combination light switch; replace it.■

14. Disconnect the under-dash fuse/relay box connectors S (20P).

15. Check for continuity between the under-dash fuse/relay box connector S (20P) No. 5, No. 18, and No. 19 terminals and the combination light switch 12P connector No. 12, No. 1, and No. 2 terminals.

UNDER-DASH FUSE/RELAY BOX CONNECTOR S (20P)
Wire side of female terminals



COMBINATION LIGHT SWITCH 12P CONNECTOR
Wire side of female terminals

Is there continuity?

YES—Faulty MICU; replace the under-dash fuse/relay box.■

NO—Repair an open in the wire.■

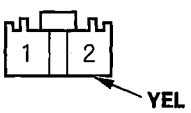
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MICU Input Test

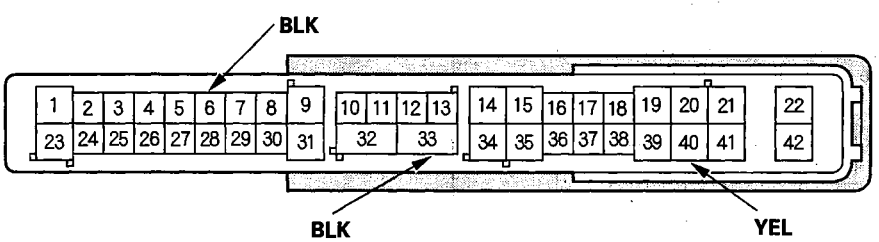
1. Before troubleshooting the turn signal/hazard flasher system, troubleshoot the B-CAN System Diagnosis Test Mode A (see page 22-88).
2. Check the No. 10 (7.5 A) fuse in the under-dash fuse/relay box. If the fuse is blown, replace it and go to step 3.
3. Disconnect the under-dash fuse/relay box connectors D, E, F, G, M, P, Q, R, S, and T.

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

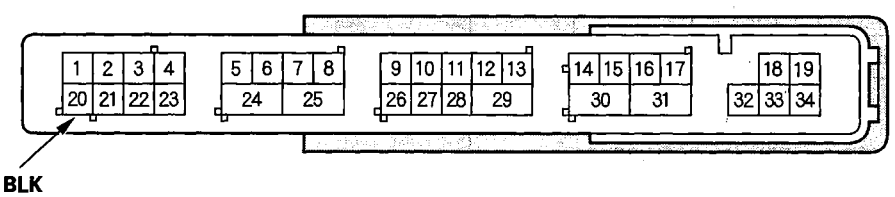
UNDER-DASH FUSE/RELAY BOX CONNECTOR D (2P)



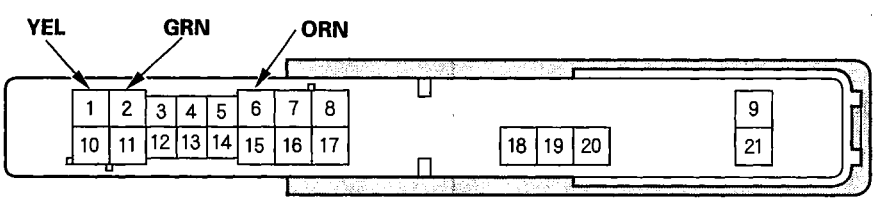
UNDER-DASH FUSE/RELAY BOX CONNECTOR E (42P)



UNDER-DASH FUSE/RELAY BOX CONNECTOR F (34P)



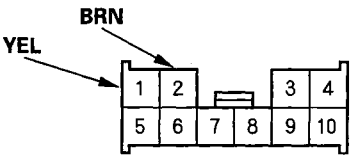
UNDER-DASH FUSE/RELAY BOX CONNECTOR G (21P)



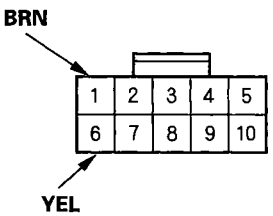
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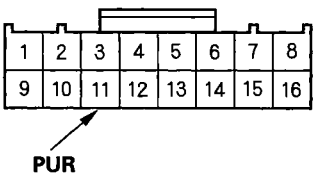
UNDER-DASH FUSE/RELAY BOX
CONNECTOR M (10P)



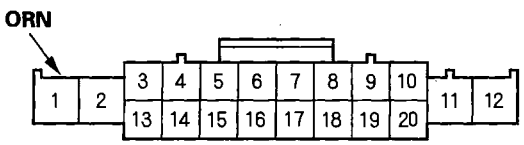
UNDER-DASH FUSE/RELAY BOX
CONNECTOR P (10P)



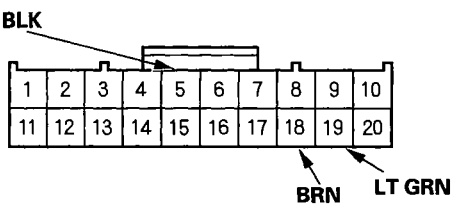
UNDER-DASH FUSE/RELAY BOX
CONNECTOR Q (16P)



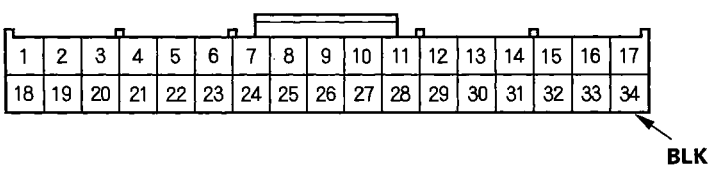
UNDER-DASH FUSE/RELAY BOX
CONNECTOR R (20P)



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



UMDER-DASH FUSE/RELAY BOX
CONNECTOR T (34P)



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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MICU Input Test (cont'd)

5. With the connectors still disconnected, make these input tests at the appropriate 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 result is not obtained
E40	YEL	Under all conditions	Connect G2 and E40 terminals with a jumper wire: The left rear turn signal light should come on.	• Poor ground (G602) • Blown bulb • An open in the wire
G1	YEL	Under all conditions	Connect G2 and G1 terminals with a jumper wire: The left front turn signal light should come on.	• Poor ground (G201) • Blown bulb • An open in the wire
M1	YEL	Under all conditions	Connect G2 and M1 terminals with a jumper wire: The left side turn signal light (in mirror) should come on.	• Poor ground (G501) • Faulty left side turn signal light • An open in the wire
M2	BRN	Under all conditions	Connect G2 and M2 terminals with a jumper wire: The right side turn signal light (in mirror) should come on.	• Poor ground (G505) • Faulty right side turn signal light • An open in the wire
P1	BRN	Under all conditions	Connect G2 and P1 terminals with a jumper wire: The right front turn signal light, right rear turn signal light and right turn signal indicator should come on.	• Poor ground (G301, G651 or G501) • Faulty junction box • Blown bulb • An open in the wire
P6	YEL	Under all conditions	Connect G2 and P6 terminals with a jumper wire: The left turn signal indicator should come on.	• Faulty gauge control module • Faulty junction box • An open in the wire • Poor ground (G501)
Q11 · R1	PUR · ORN	Hazard warning switch pressed	Check for continuity Q11 and R1 terminal: There should be continuity.	• Faulty junction box • Faulty hazard warning switch • An open in the wire

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BACK

6. Reconnect the connectors to the under-dash fuse/relay box, and make these input tests at the connectors.

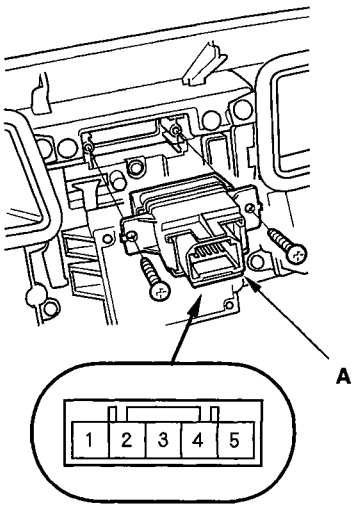
- If any test indicates a problem, find and correct the cause, then recheck the system.
- If all the input tests prove OK, the MICU must be faulty; replace the under-dash fuse/relay box.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
G2	GRN	Under all conditions	Check for voltage between G2 terminal and body ground: There should be battery voltage.	• Blown No. 23 (10 A) fuse in the under-hood fuse/relay box • An open in the wire
G6	ORN	Under all conditions	Check for voltage between G6 terminal and body ground: There should be battery voltage.	• Blown No. 10 (15 A) fuse in the under-hood fuse/relay box • An open in the wire
D2	YEL	Ignition switch ON (II)	Check for voltage between D2 terminal and body ground: There should be battery voltage.	An open in the wire
E6	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G601) • An open in the wire
E33	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G601) • An open in the wire
F20	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G451) • An open in the wire
T34	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
S18 · S5	BRN · BLK	Turn signal switch in right position	Check for voltage between S18 and S5 terminals: There should be less than 1 V.	• Faulty combination light switch • An open in the wire
		Turn signal switch in left or neutral position	Check for voltage between S18 and S5 terminals: There should be 5 V or more.	• Faulty combination light switch • Short to ground
S19 · S5	LT GRN · BLK	Turn signal switch in left position	Check for voltage between S19 and S5 terminals: There should be less than 1 V.	• Faulty combination light switch • An open in the wire
		Turn signal switch in right or neutral position	Check for voltage between S19 and S5 terminals: There should be 5 V or more.	• Faulty combination light switch • Short to ground

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Hazard Warning Switch Test/Replacement

1. Remove the center panel (see page 20-100).
2. Remove the screws and the hazard warning switch (A).

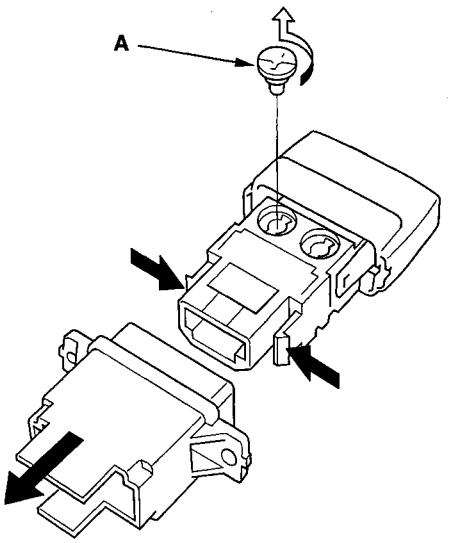


3. Check for continuity between the terminals in each switch position according to the table.

Position \ Terminal	1	2	4		5
OFF			○	○	○
ON	○	○	○	○	○

NOTE: Both illumination bulbs are connected in parallel. If there is continuity, remove one illumination bulb at a time and recheck.

4. If the continuity is not as specified, replace the bulbs (A) or the hazard warning switch.

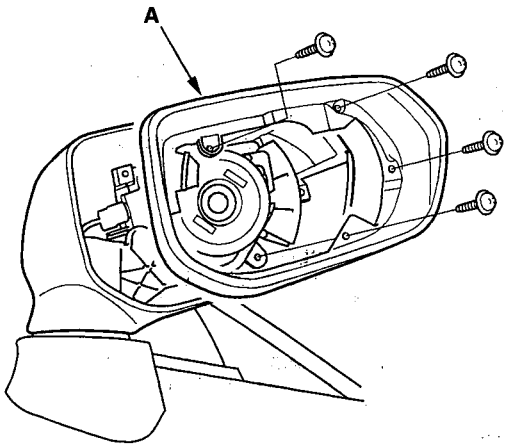


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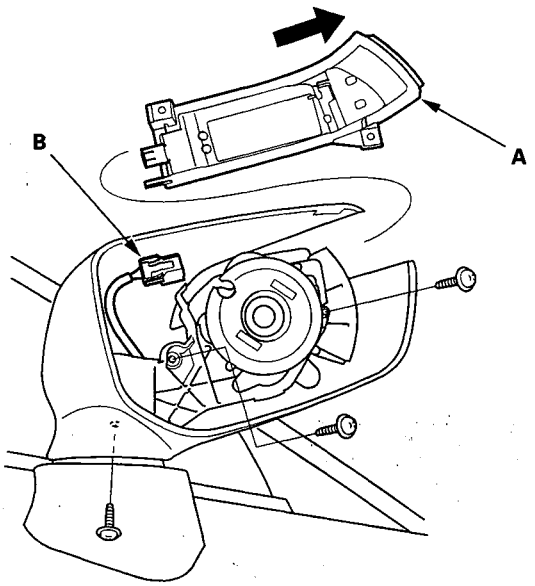
BACK

Side Turn Signal Light Replacement

1. Remove the mirror holder (see page 20-33).
2. Remove the four TORX screws using a TORX T10 bit, then remove the visor (A).



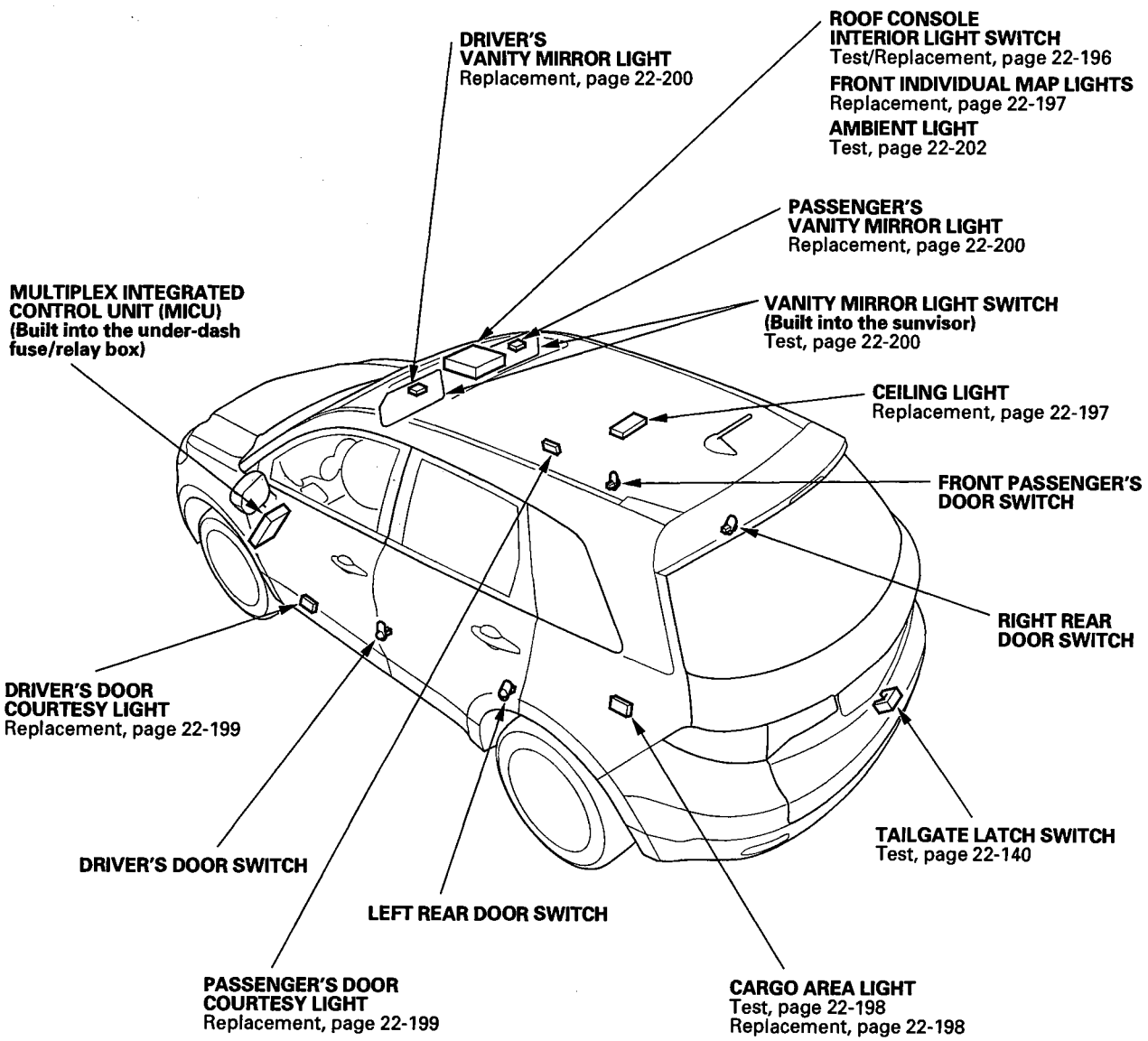
3. Remove the three TORX screws using a TORX T10 bit, then pull out the side turn signal light (A).



4. Disconnect the 2P connector (B) from the light.
5. Install in the reverse order of removal.

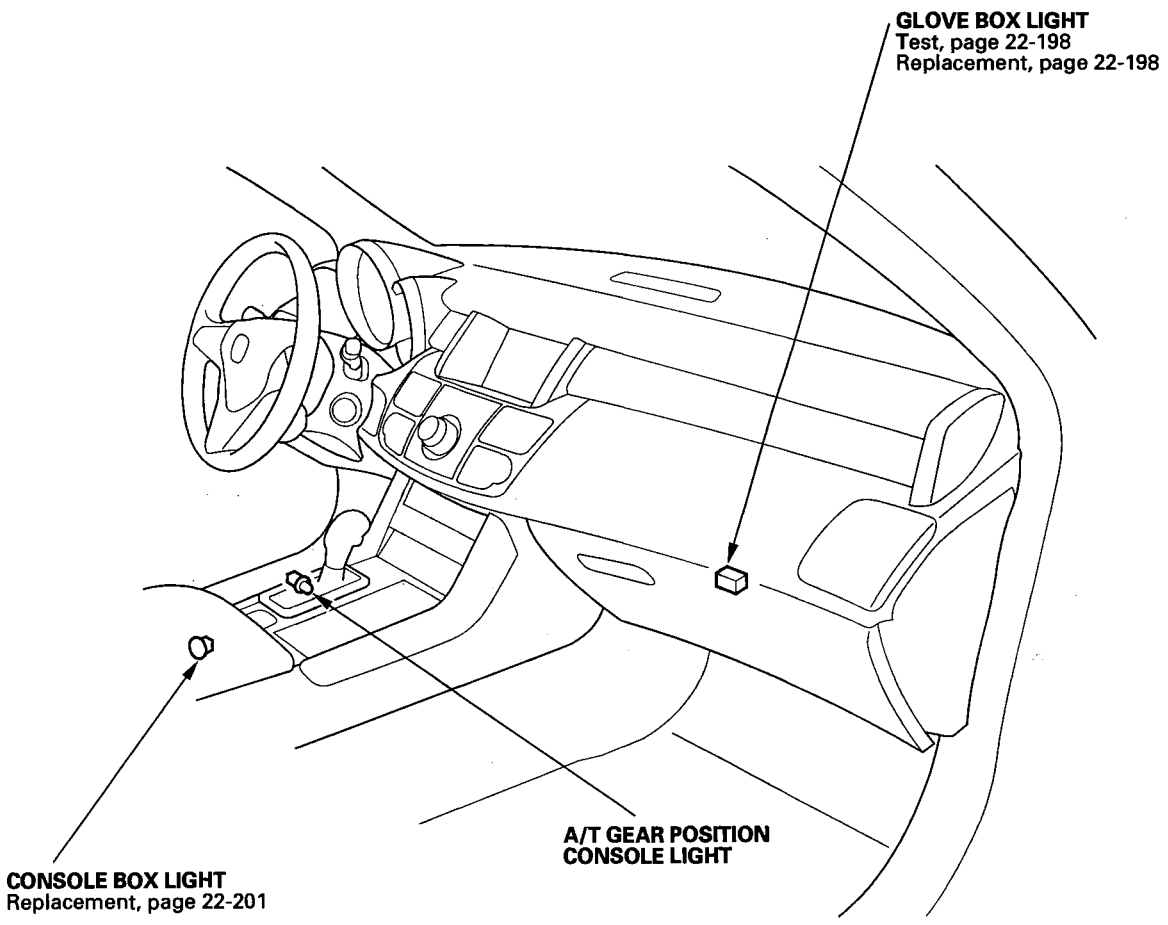
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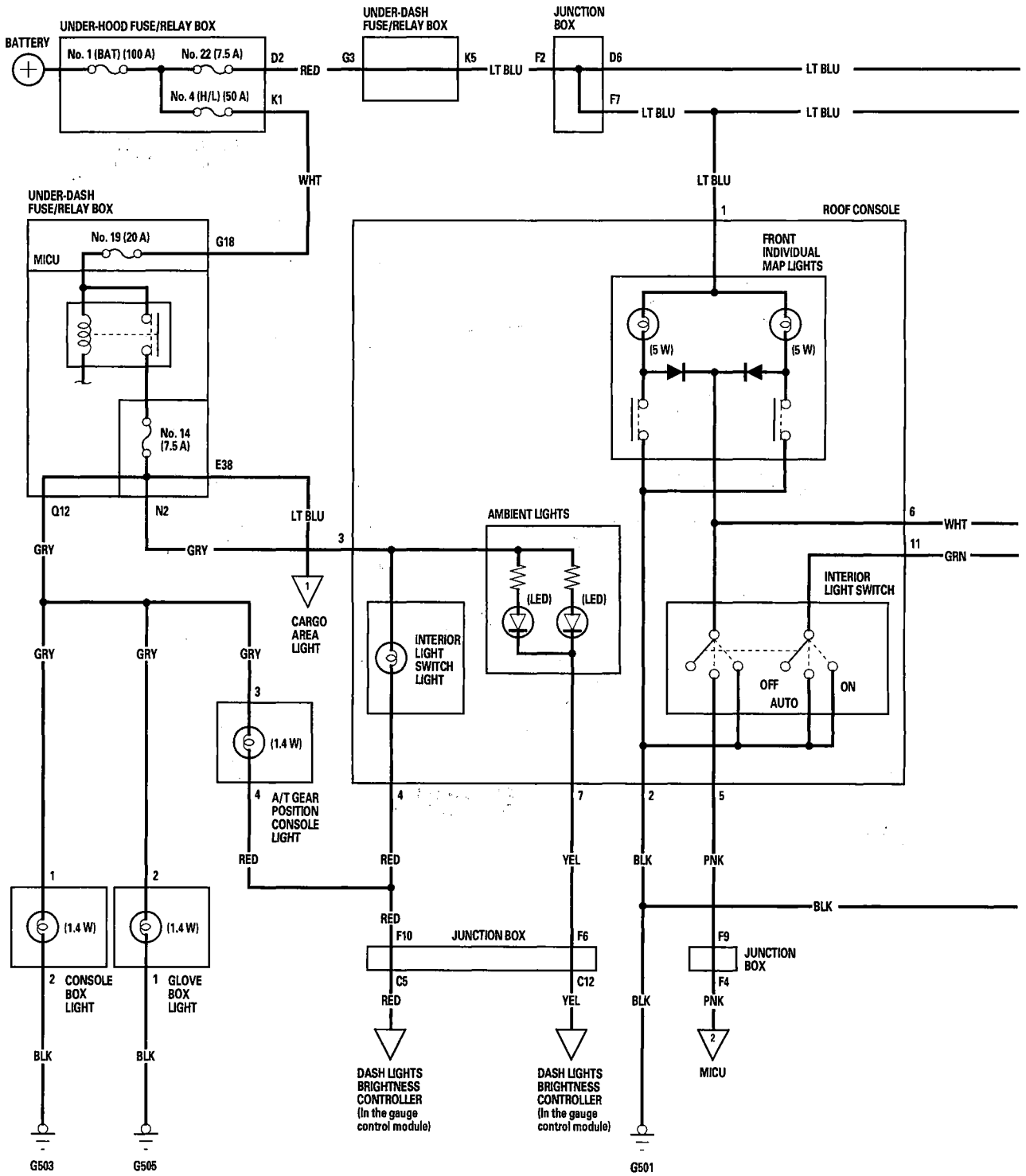
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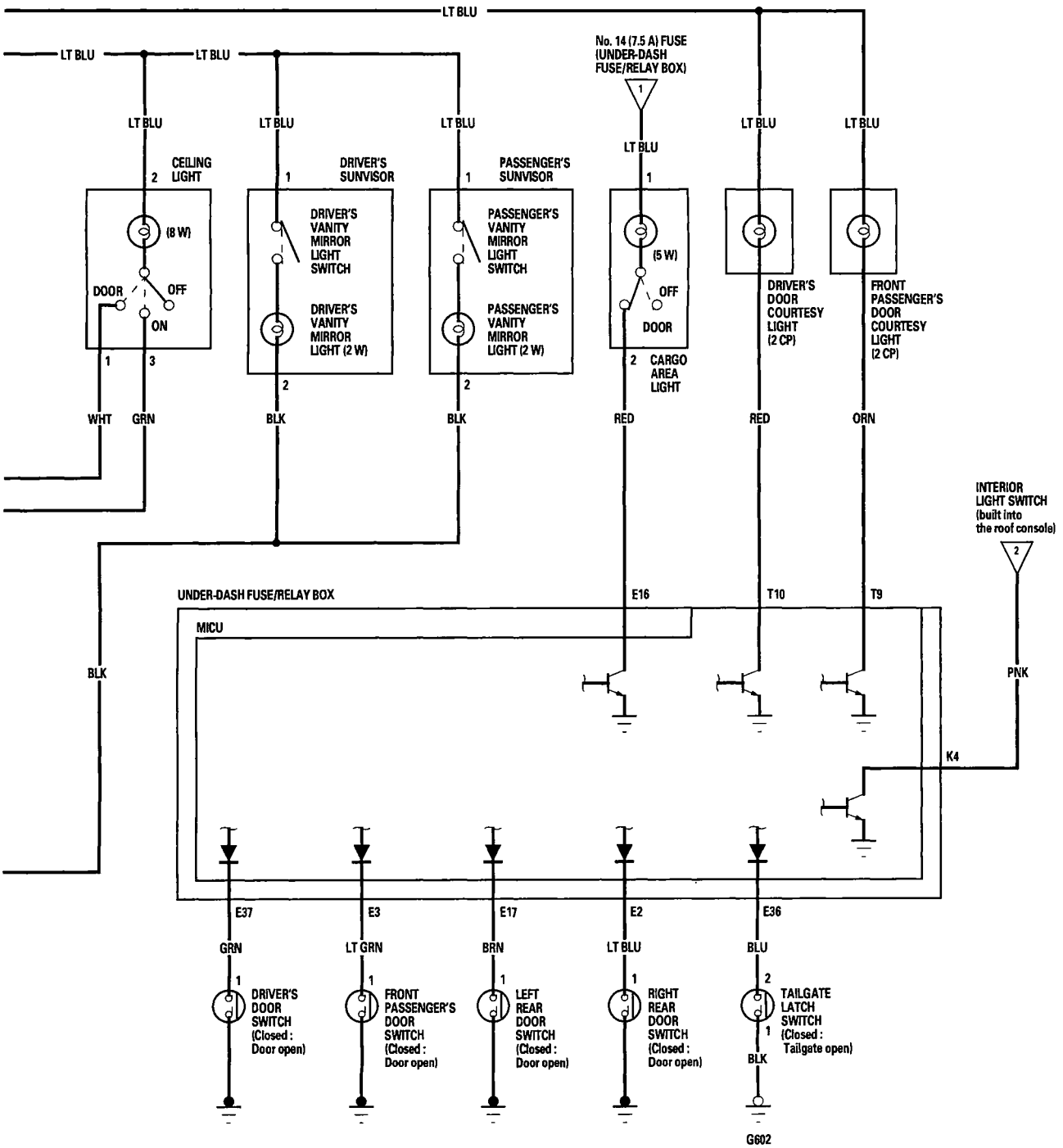
Interior Lights

Circuit Diagram



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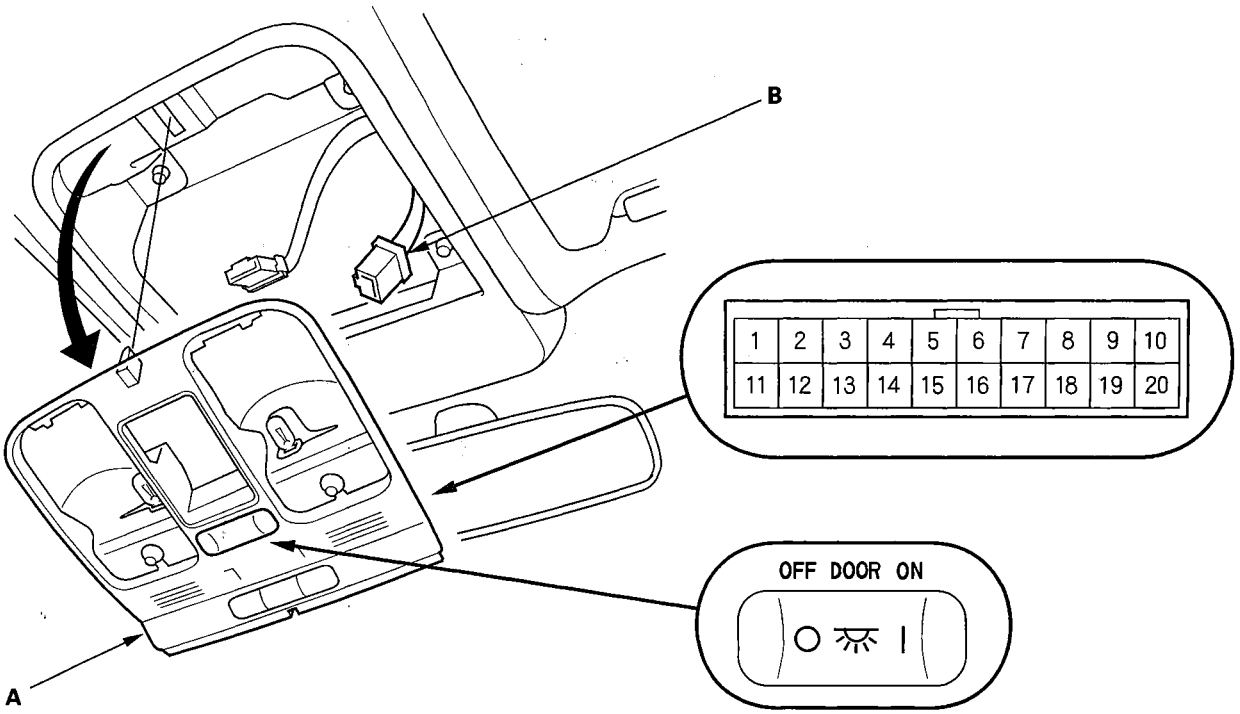
BACK



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Interior Light Switch Test/Replacement

1. Carefully pry off the lens with a small screwdriver (see page 22-197).
2. Pull down the roof console (A) holding the center part of the roof console.



3. Remove the moonroof switch (see page 22-295).
4. Disconnect the 20P connector (B) from the roof console.
5. Check for continuity between the terminals in each interior light switch position according to the table.

NOTE:
- Before testing, check the front individual map light bulb(s).
- When check for continuity across the diode, use the diode setting (→|—) on the digital volt/ohm meter to check the diode bias.

Position \ Terminal		1		2	5	6	11
OFF	○	○	○ ▶			○	
OFF (Front map light switch ON)	○	○	○ ▶	○		○	
Middle (DOOR) position	⌒	○	○ ▶		○	○	
ON	—	○	○ ▶	○		○	○

6. If the continuity and the diode bias is not as specified, replace the roof console as an assembly.

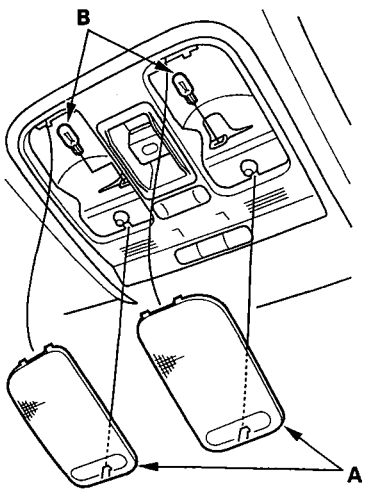
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Front Individual Map Light Replacement

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

Front Map Light: 5 W x 2

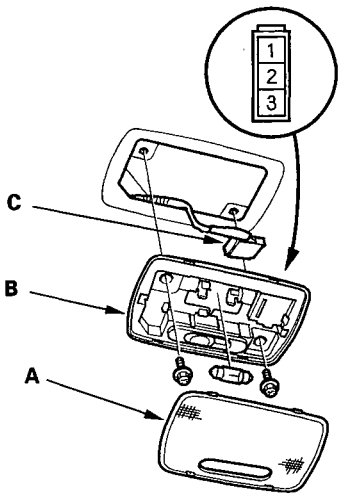


2. Check the bulb(s) (B). If the bulb is OK, but there is a malfunction, check the interior light switch (see page 22-196).

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



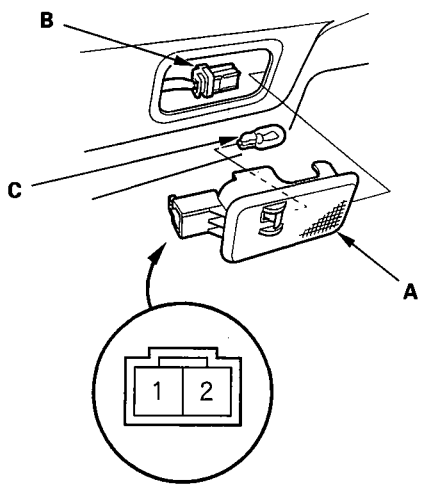
3. Remove the screws, then remove the ceiling light (B).
4. Disconnect the 3P connector (C) from the ceiling light.
5. Check for continuity between the terminals.
   - There should be continuity between the No. 1 and No. 2 terminals with the switch in the ON position.
   - There should be continuity between the No. 2 and No. 3 terminals with the switch in the DOOR position.
   - There should be no continuity between the No. 1 and No. 2 terminals, and between the No. 2 and No. 3 terminals 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 light.
7. Install in the reverse order of removal.

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Cargo Area Light Test/Replacement

1. Open the tailgate.
2. Carefully pry out the cargo area light (A).

   Cargo Area Light: 5 W

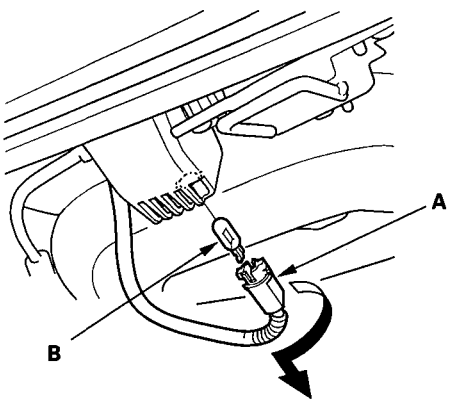


3. Disconnect the 2P connector (B) from the light.
4. Check for continuity between the No. 1 and No. 2 terminals. There should be continuity. If there is no continuity, check the bulb (C). If the bulb is OK, replace the cargo area light.

Glove Box Light Test/Replacement

1. Remove the glove box stops and damper (see page 20-104).
2. Turn the bulb socket (A) 45° counterclockwise to remove it.

   Glove Box Light: 1.4 W



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

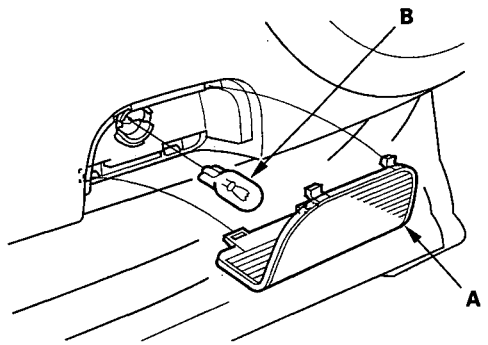
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Courtesy Light Replacement

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

   Courtesy Light: 2 CP

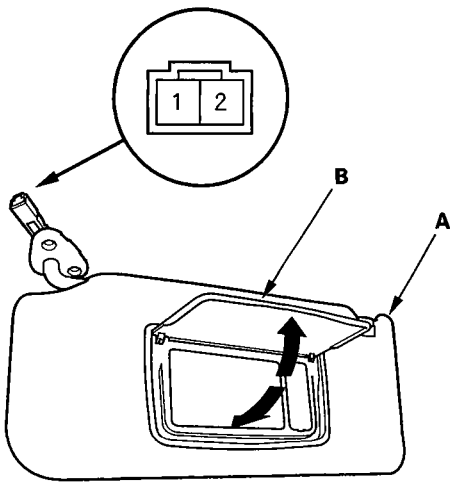


2. Remove the bulb (B) from the socket.
3. Install in the reverse order of removal.

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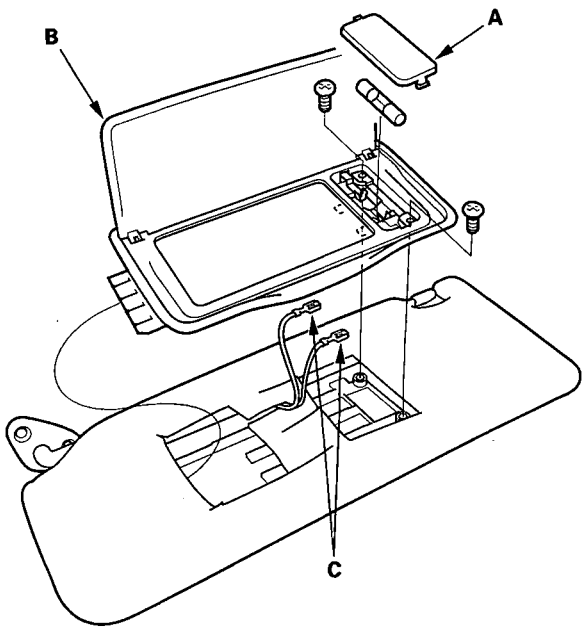
Vanity Mirror Light Test/Replacement

1. Remove the sunvisor (see page 20-82).
2. Disconnect the 2P connector from the sunvisor (A).



3. Check for continuity between the No. 1 and No. 2 terminals.
   - With the vanity mirror cover (B) opened, there should be continuity.
   - With the vanity mirror cover closed, there should be no continuity.
4. If the continuity check is not as specified, go to step 5.
5. Carefully pry off the lens (A) with a small screwdriver.

Vanity Mirror Light: 2 W



6. Remove the two screws, then remove the vanity mirror light (B).
7. Disconnect the two terminals (C) from the vanity mirror light.
8. Check for continuity between the terminals.
   - There should continuity between the terminals with the vanity mirror cover opened.
   - There should be no continuity between the terminals, with the vanity mirror cover closed.
9. If the continuity is not as specified, check the bulb or the light. If the bulb or light is OK, replace the sunvisor.
10. Install in the reverse order of removal.

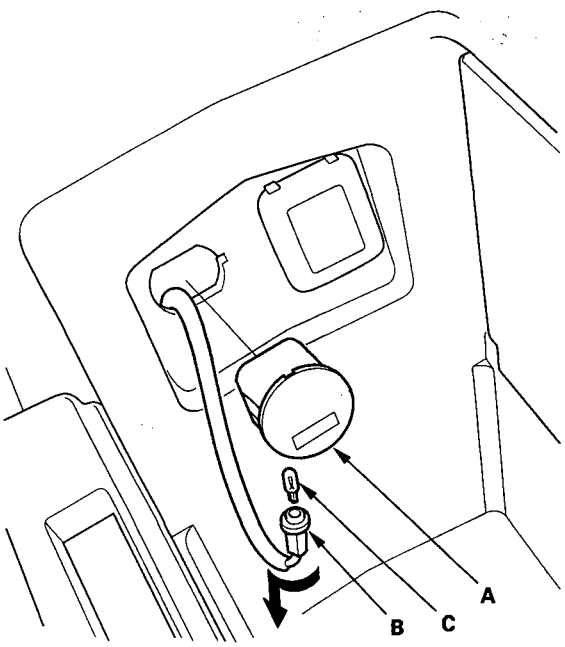
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Console Box Light Replacement

1. Open the center console lid.
2. Carefully pry out the console box light lens (A).

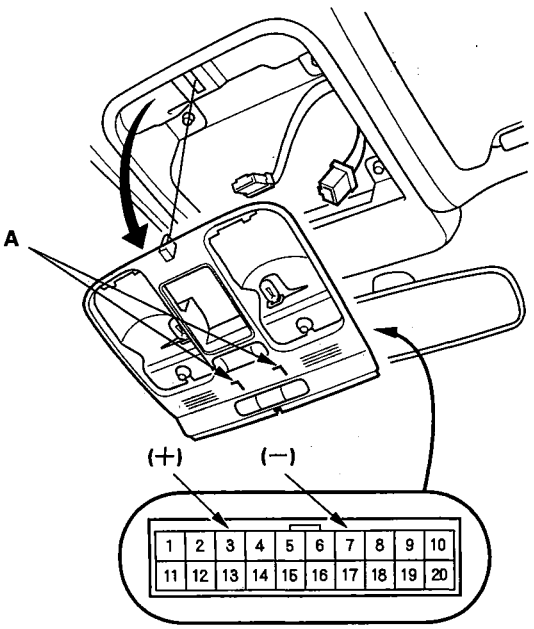
   Console Box Light: 1.4 W



3. Turn the bulb socket (B) 45 ° counterclockwise to remove it from the lens.
4. Remove the bulb (C) from the socket.
5. Install in the reverse order of removal.

Ambient Light Test

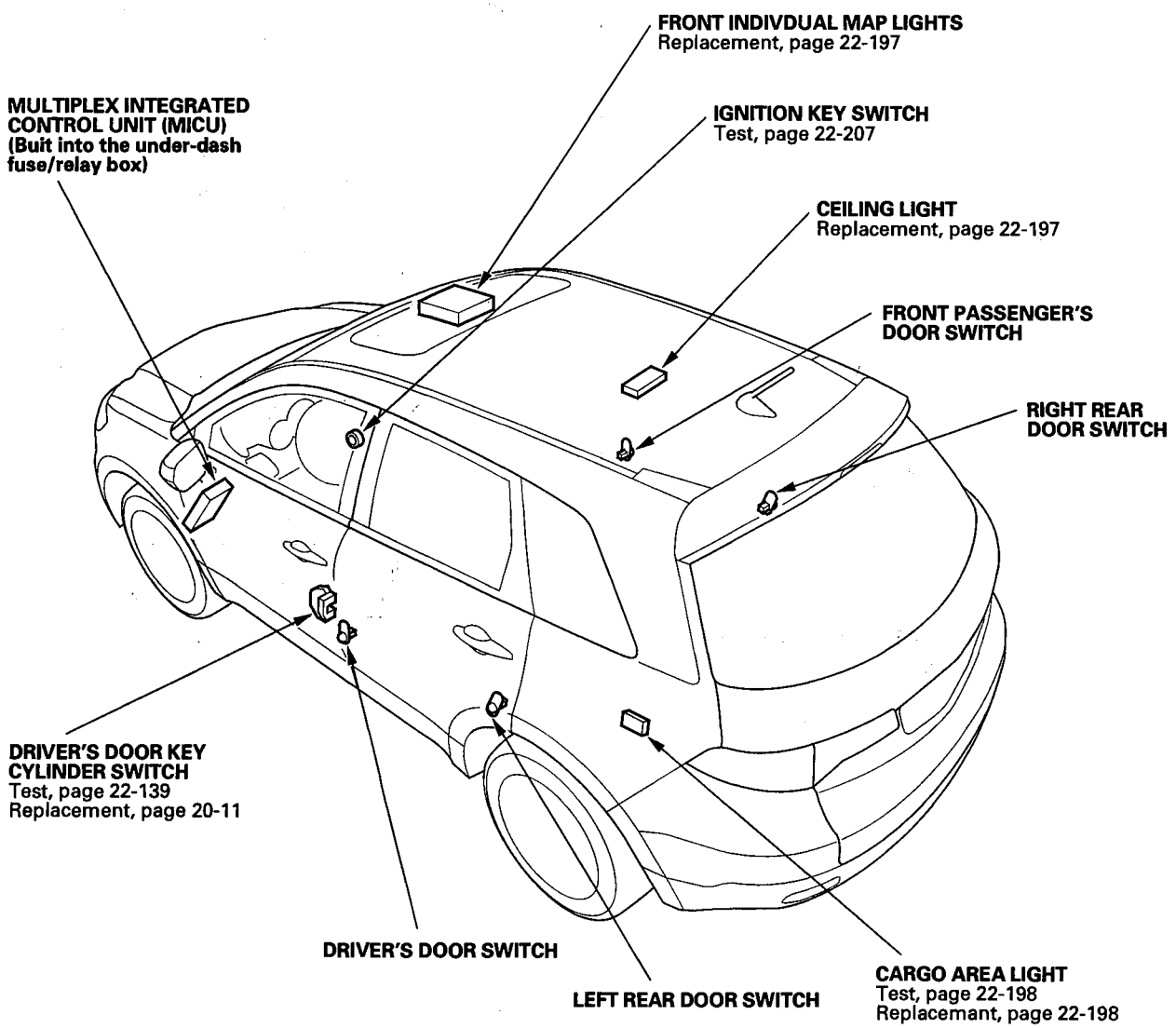
1. Remove the roof console and disconnect the 20P connector (see page 22-196).
2. Connect the roof console connector terminal No. 3 to battery power and terminal No. 7 to body ground. The ambient lights (A) should turn on. If they do not turn on, replace the roof console.



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Entry Lights Control System

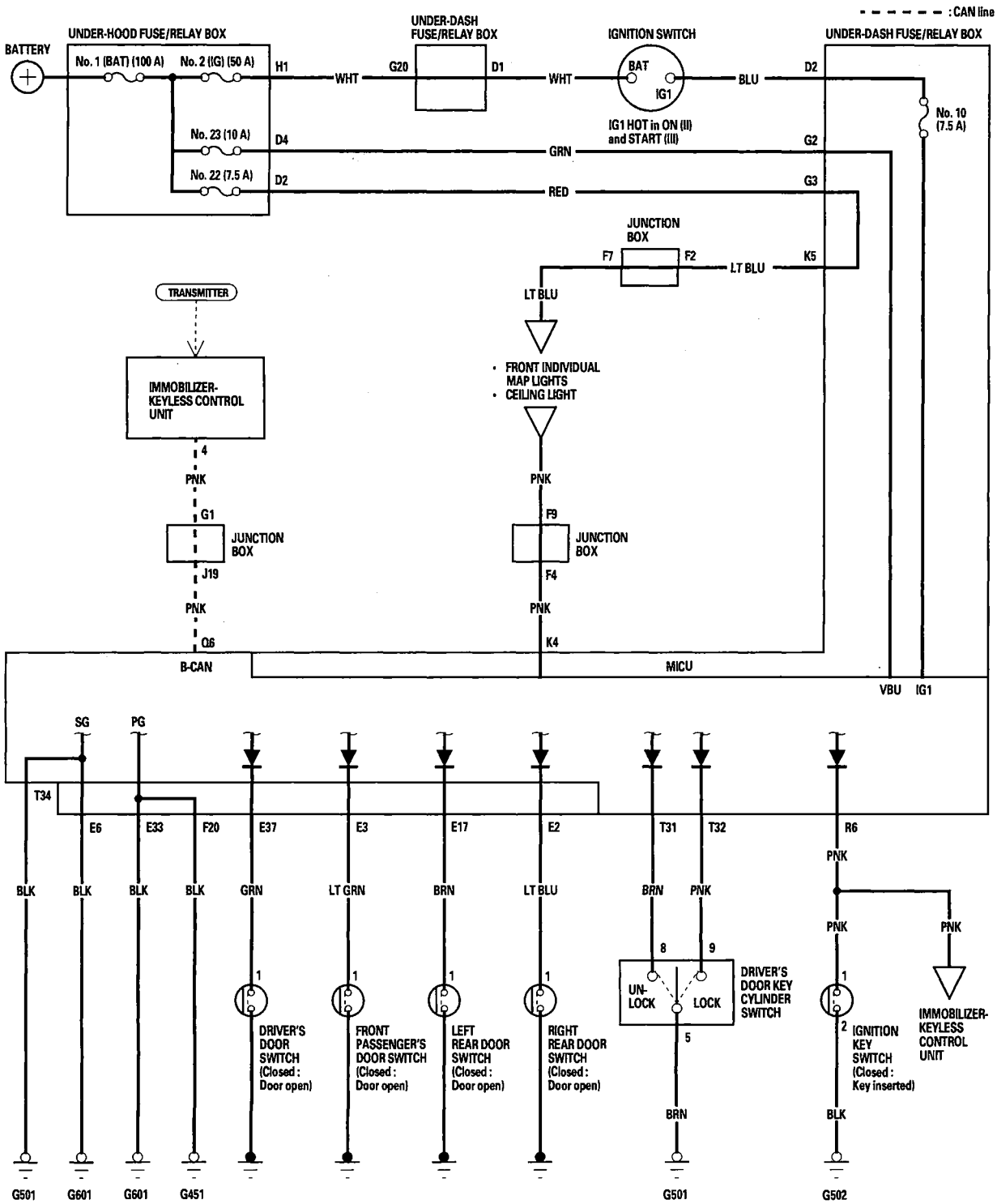
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Circuit Diagram



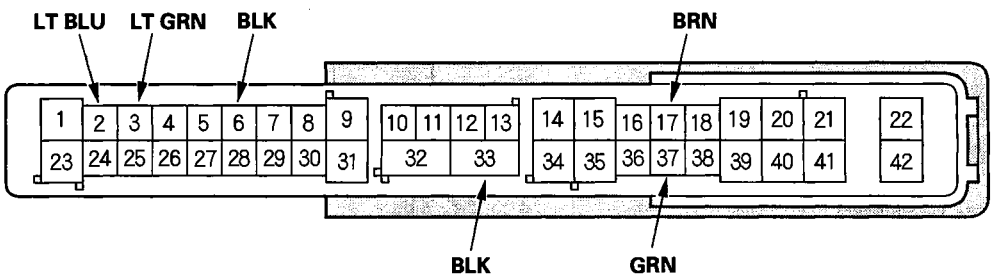
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MICU Input Test

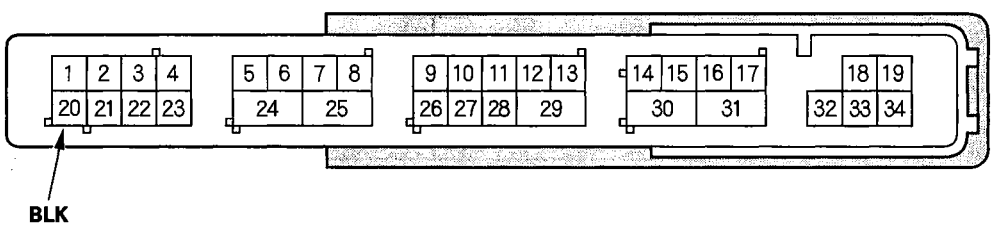
1. Before troubleshooting the entry lights control system, troubleshoot the B-CAN System Diagnosis Test Mode A (see page 22-88).
2. Check the No. 10 (7.5 A) fuse in the under-dash fuse/relay box. If any fuse is blown, replace it and go to step 3.
3. Disconnect the under-dash fuse/relay box connectors E, F, G, K, Q, and T.

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

UNDER-DASH FUSE/RELAY BOX CONNECTOR E (42P)



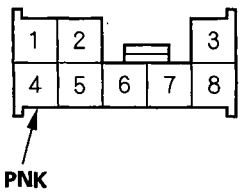
UNDER-DASH FUSE/RELAY BOX CONNECTOR F (34P)



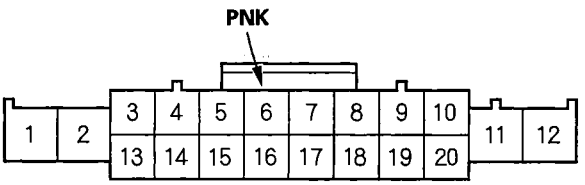
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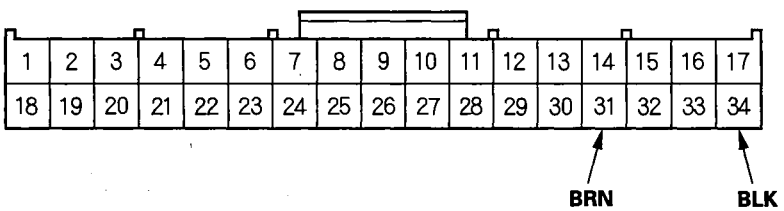
UNDER-DASH FUSE/RELAY BOX
CONNECTOR K (8P)



UNDER-DASH FUSE/RELAY BOX
CONNECTOR R (20P)



UNDER-DASH FUSE/RELAY BOX
CONNECTOR T (34P)



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, make these input tests at the appropriate 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 result is not obtained
K4	PNK	Interior light switch in middle (DOOR) position	Attach to ground: The ceiling light and front individual map lights should come on.	• Blown No. 22 (7.5 A) fuse in the under-hood fuse/relay box • Blown bulb(s) • Faulty ceiling light • Faulty front individual map light • Faulty interior light switch • Faulty junction box • An open in the wire

(cont'd)

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MICU Input Test (cont'd)

6. Reconnect the connectors to the under-dash fuse/relay box, and make 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 MICU must be faulty; replace the under-dash fuse/relay box.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
E6	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G601) • An open in the wire
E33	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G601) • An open in the wire
F20	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G451) • An open in the wire
T34	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
E37	GRN	Driver's door open	Check for voltage to ground: There should be less than 1 V.	• Faulty driver's door switch • An open in the wire
		Driver's door closed	Check for voltage to ground: There should be 5 V or more.	• Faulty driver's door switch • Short to ground in the wire
E3	LT GRN	Front passenger's door open	Check for 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	Check for voltage to ground: There should be 5 V or more.	• Faulty front passenger's door switch • Short to ground in the wire
E2	LT BLU	Right rear door open	Check for voltage to ground: There should be less than 1 V.	• Faulty right rear door switch • An open in the wire
		Right rear door closed	Check for voltage to ground: There should be 5 V or more.	• Faulty right rear door switch • Short to ground in the wire
E17	BRN	Left rear door open	Check for voltage to ground: There should be less than 1 V.	• Faulty left rear door switch • An open in the wire
		Left rear door closed	Check for voltage to ground: There should be 5 V or more.	• Faulty left rear door switch • Short to ground in the wire
R6	PNK	Ignition key inserted into the ignition switch	Check for voltage to ground: There should be less than 1 V.	• Poor ground (G502) • Faulty ignition key switch • An open in the wire
		Ignition key removed from the ignition switch	Check for voltage to ground: There should be 5 V or more.	• Faulty ignition key switch • Short to ground in the wire
T31	BRN	Driver door key cylinder switch unlocked	Check for voltage to ground: There should be less than 1 V.	• Poor ground (G501) • Faulty driver door key cylinder switch • An open in the wire
		Driver door key cylinder switch in neutral	Check for voltage to ground: There should be 5 V or more.	• Faulty driver door key cylinder switch • Short to ground in the wire

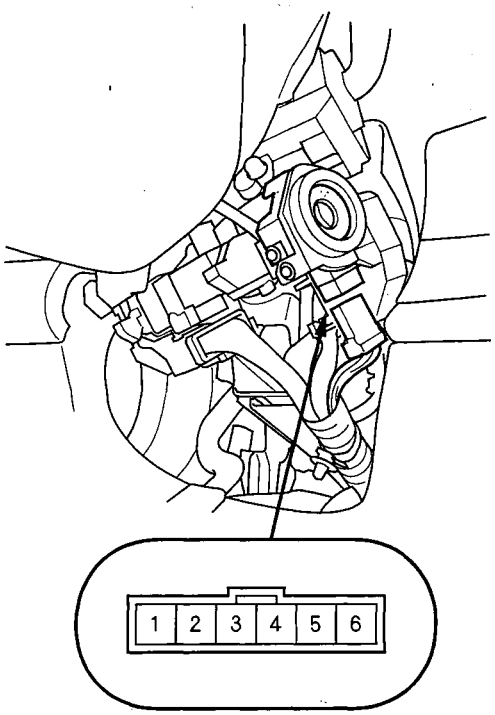
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BACK

Ignition Key Switch Test

1. Remove the steering column upper and lower covers (see page 20-107).

2. Disconnect the 6P connector.



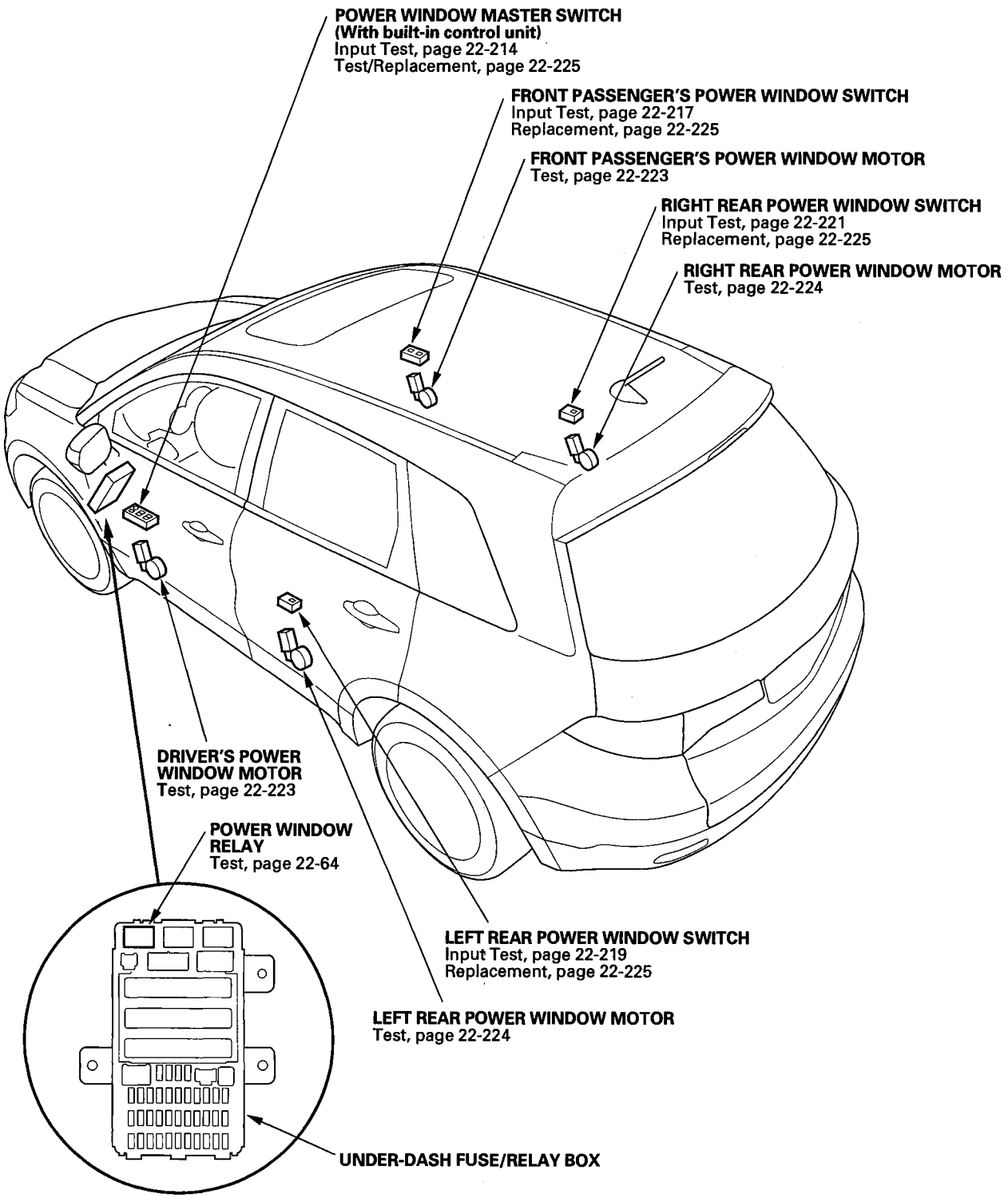
3. Check for continuity between the No. 1 and No. 2 terminals.

   - 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.

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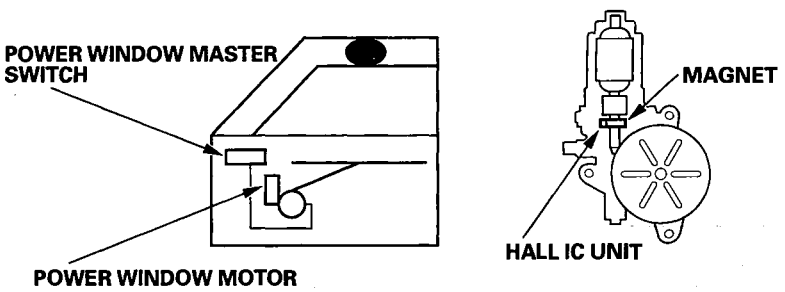
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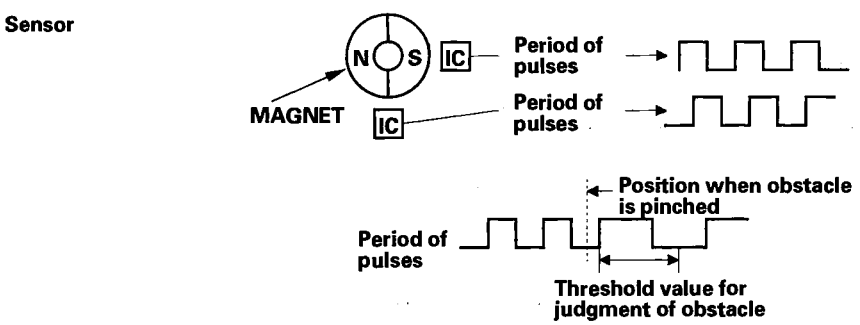
System Description

Auto Reverse Operation

The system is composed of the power window master switch, the front passenger's power window switch, the driver's power window motor and the front passenger's power window motor.

The power window motor incorporates a pulser, which generates pulses during the motor's operation and sends the pulses to the power window control unit. As soon as the power window control unit detects no pulses from the pulser, the power window control unit makes the power window motor stop and reverse. If the window is more than halfway closed, it will reverse to the half open position. If the window is less than halfway closed, it will stop and reverse about 2 inches. This is to prevent pinching an obstacle during auto-up operation. The auto reverse operation is not active when the switch is held in the up position.

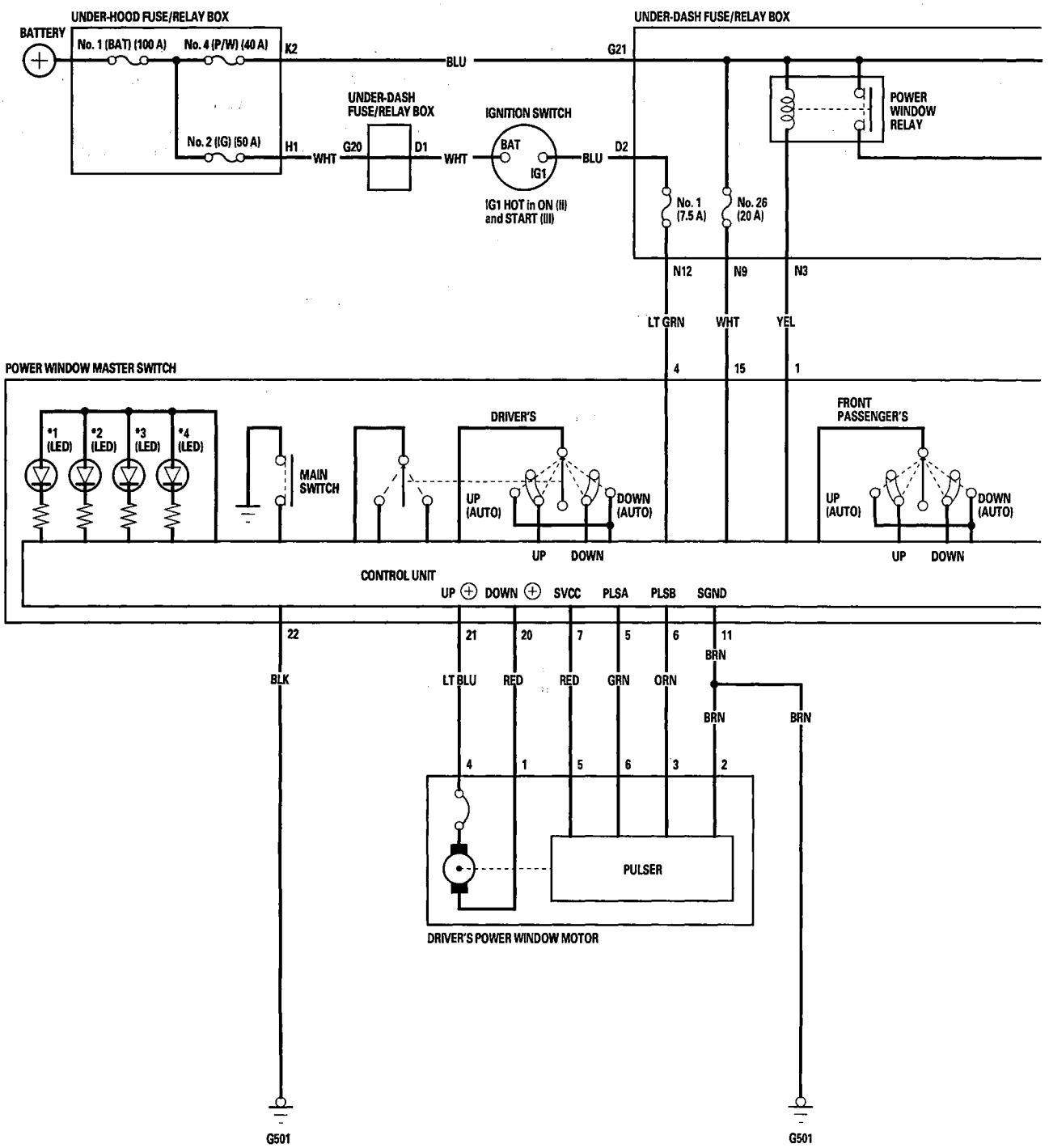




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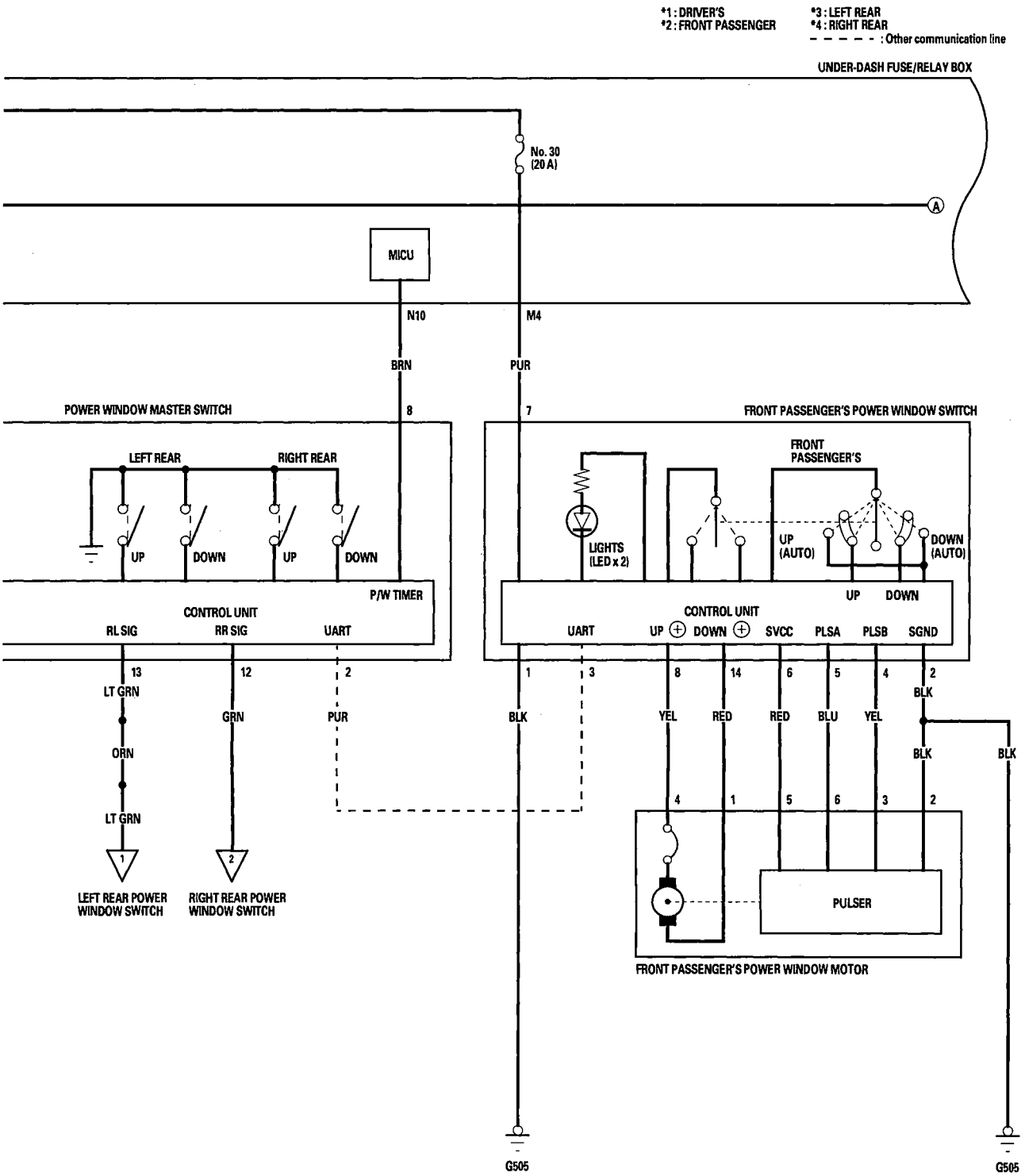
Power Windows

Circuit Diagram



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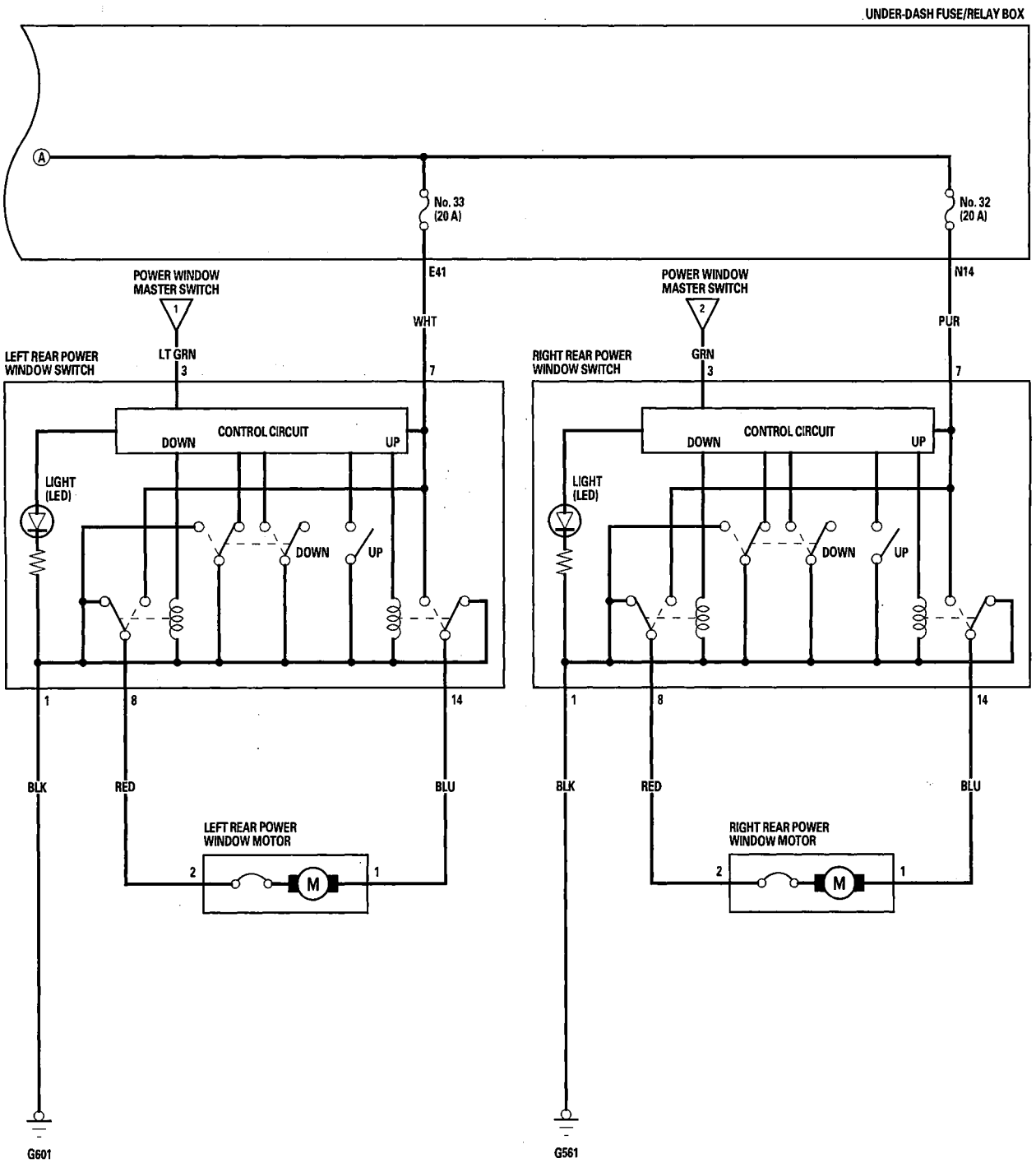
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Circuit Diagram (cont'd)



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BACK

Resetting the Power Window Control Unit

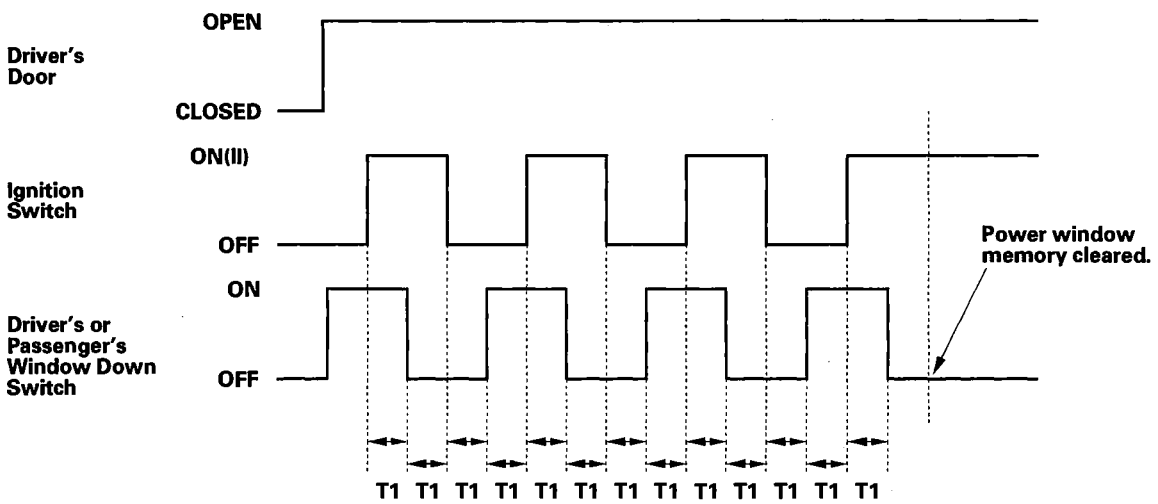
NOTE: The clear procedure must be done prior to the learn procedure even if the auto function is working.

Resetting the driver's or passenger's power windows is required when any of the following have occurred:

- Power window control unit (built into the driver's master switch) is replaced
- Power window regulator replacement or repair
- Power window motor replacement or repair
- Window run channel replacement or repair
- Driver's or passenger's door glass replacement or repair
- Power is removed from the power window control unit while the power window is moving.

1. Turn the ignition switch ON (II).
2. Move the driver's or passenger's window all the way down by using the driver's window DOWN switch.
3. Open the driver's or front passenger's door.

   NOTE: Steps 4—7 must be done within 5 seconds of each other.



T1=Less than 5 seconds

4. Turn the ignition switch OFF.
5. Push and hold the driver's or passenger's window DOWN switch.
6. Turn the ignition switch ON (II).
7. Release the driver's or passenger's window DOWN switch.
8. Repeat step 4—7 three more times.
9. Wait 1 second.
10. Confirm that UP AUTO and DOWN AUTO do not work. If UP AUTO and DOWN work, go back to step 1.
11. Move the driver's or passenger's window all the way down by using the driver's or passenger's window DOWN switch.
12. Pull up and hold the driver's or passenger's window UP switch until the window reaches the fully closed position, then continue to hold the switch for 1 second.
13. Confirm that the power window control unit is reset by using the driver's or passenger's window UP AUTO and DOWN AUTO functions.

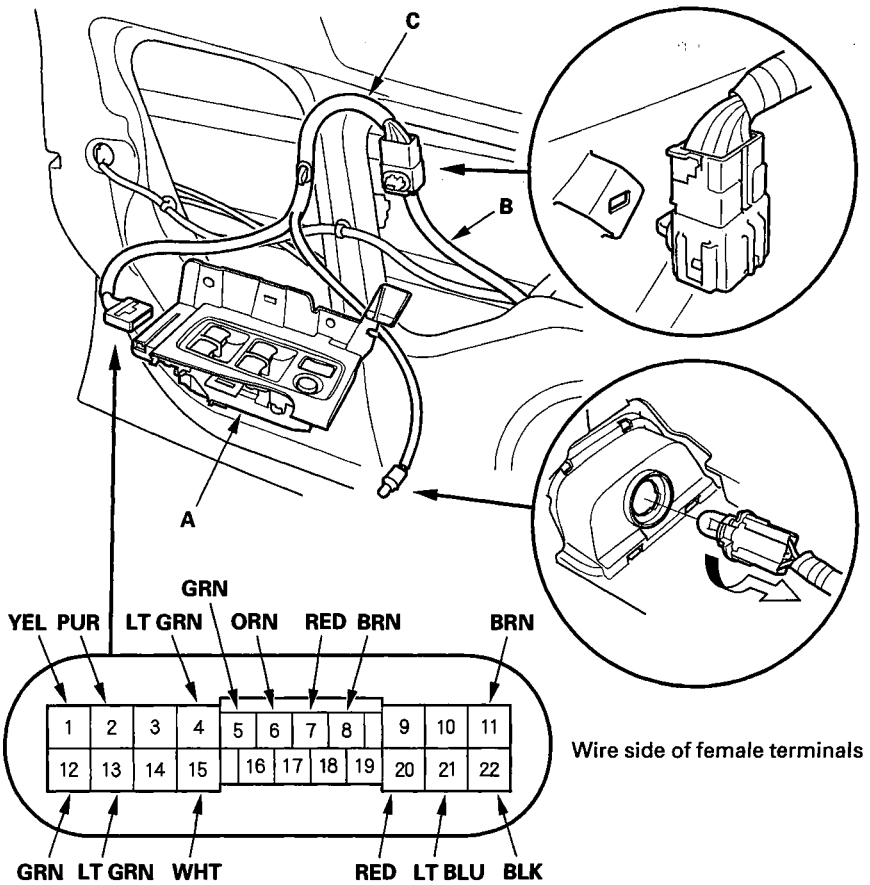
    If the window still does not work in AUTO, repeat the procedure several times, paying close attention to the 5 second time limit between steps.

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Master Switch Input Test

NOTE: The power window control unit is built into the power window master switch.

1. Remove the power window master switch (A) (see page 22-225).



2. Reconnect the driver's door wire harness (B) to the driver's door subharness (C).

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, make the following input tests at the connector.
     – If a 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.

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4. With the master switch still disconnected, make 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 5.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
20	RED	Connect the No. 20 and the No. 15 terminals and No. 21 and No. 22 terminals momentarily with jumper wires	Check driver's power window motor operation: The window should go down.	• Blown No. 26 (20 A) fuse in the under-dash fuse/relay box • Faulty driver's power window motor • An open in the wire • Poor ground (G501)
21	LT BLU	Connect the No. 21 and the No. 15 terminals and No. 20 and No. 22 terminals momentarily with jumper wires	Check driver's power window motor operation: The window should go up.	
2	PUR	Under all conditions	Check for continuity No. 2 terminal and the No. 3 terminal of the front passenger's power window switch 14P connector: There should be continuity.	An open in the wire
13	LT GRN	Under all conditions	Check for continuity No. 13 terminal and the No. 3 terminal of the left rear power window switch 14P connector: There should be continuity.	An open in the wire
12	GRN	Under all conditions	Check for continuity No. 12 terminal and the No. 3 terminal of the right rear power window switch 14P connector: There should be continuity.	An open in the wire
8	BRN	Ignition switch ON (II)	Check for voltage to ground: There should be about less than 1 V.	• Faulty MICU • An open in the wire

(cont'd)

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Master Switch Input Test (cont'd)

5. Reconnect the 22P connector to the power window master switch. Turn the ignition switch ON (II), and make 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, the control unit must be faulty; replace the power window master switch.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
4	LT GRN	Ignition switch ON (II)	Check for voltage to ground: There should be battery voltage.	• Blown No. 1 (7.5 A) fuse in the under-dash fuse/relay box • An open in the wire
1	YEL	Under all conditions	Check for voltage to ground: There should be battery voltage.	• Blown No. 4 (P/W) (40 A) fuse in the under-hood fuse/relay box • Faulty power window relay • An open in the wire
15	WHT	Under all conditions	Check for voltage to ground: There should be battery voltage.	• Blown No. 26 (20 A) fuse in the under-dash fuse/relay box • An open in the wire
11	BRN	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
22	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
7	RED	Ignition switch ON (II)	Check for voltage to ground: There should be battery voltage.	• Faulty driver's power window master switch • Short to ground in the wire
5	GRN	Ignition switch ON (II), and driver's window switch moving up or down	Check for voltage between the No. 5 and No. 7 terminals: There should be 0 V—about 5 V—0 V— about 5 V repeatedly (a digital voltmeter should reads about 2.5 V while the window moves).	• Faulty driver's power window motor • An open in the wire • Short to ground in the wire
6	ORN	Ignition switch ON (II), and driver's power window switch moving up or down	Check for voltage between the No. 6 and No. 7 terminals: There should be 0 V—about 5 V—0 V— about 5 V repeatedly (a digital voltmeter should reads about 2.5 V while the window moves).	

6. Reset the power window control unit (see page 22-213).

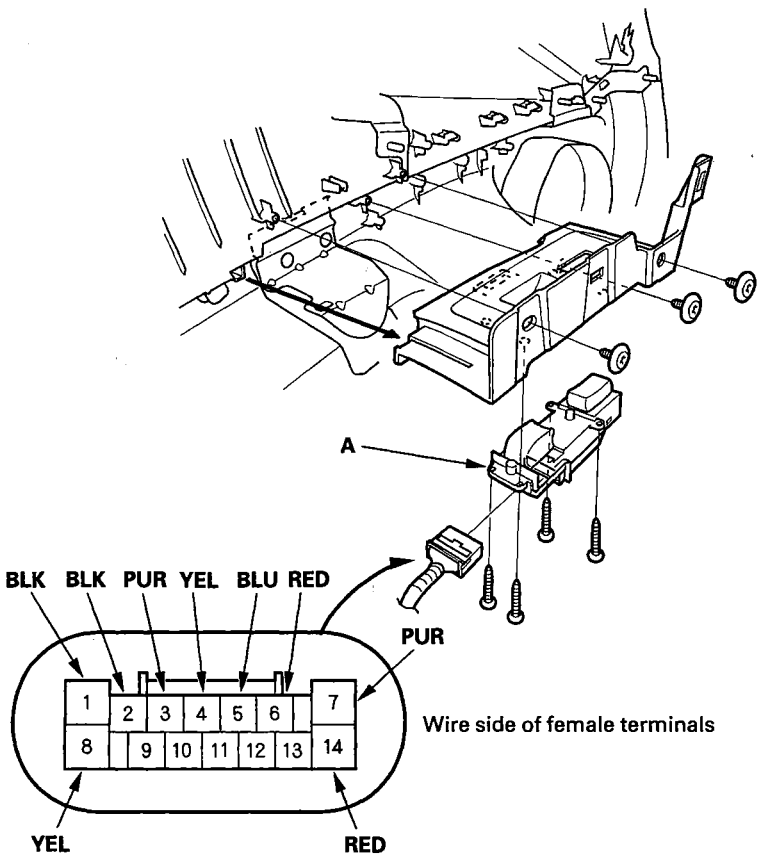
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Front Passenger's Power Window Switch Input Test

NOTE: The power window control unit is built into the front passenger's window switch.

1. Remove the front passenger's power window switch (A) (see page 22-226).



2. Reconnect the front passenger's door wire harness to the front passenger's door subharness.

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, make the following input tests at the connector.
     – If a test indicates a problem, find and correct the cause, then recheck the system.
     – If all the input tests prove OK, the front passenger's power window switch must be faulty; replace it.

(cont'd)

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

4. With the switch still disconnected, make 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 5.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
3	PUR	Under all conditions	Check for continuity No. 3 terminal and the No. 2 terminal of the power window master switch 22P connector: There should be continuity.	An open in the wire
14	RED	Connect the No. 14 and the No. 7 terminals and No. 8 and No. 1 terminals momentarily with jumper wires	Check front passenger's power window motor operation: The window should go down.	• Blown No. 30 (20 A) fuse in the under-dash fuse/relay box • Faulty front passenger's power window motor • An open in the wire • Poor ground (G505)
8	YEL	Connect the No. 8 and the No. 7 terminals and No. 14 and No. 1 terminals momentarily with jumper wires	Check driver's front passenger's power window motor operation: The window should go up.	

5. Reconnect the 14P connector to the front passenger's power window switch. Turn the ignition switch ON (II), and make 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, the control unit must be faulty; replace the front passenger's power window switch.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
7	PUR	Under all conditions	Check for voltage to ground: There should be battery voltage.	• Blown No. 30 (20 A) fuse in the under-dash fuse/relay box • An open in the wire
1	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G505) • An open in the wire
2	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G505) • An open in the wire
6	RED	Ignition switch ON (II)	Check for voltage to ground: There should be battery voltage.	Short to ground in the wire
5	BLU	Ignition switch ON (II), and front passenger's power window switch moving up or down	Check for voltage between the No. 5 and No. 6 terminals: There should be 0 V—about 5 V—0 V— about 5 V repeatedly (a digital voltmeter should reads about 2.5 V while the window moves).	• Faulty front passenger's power window motor • An open in the wire • Short to ground in the wire
4	YEL	Ignition switch ON (II), and front passenger's power window switch moving up or down	Check for voltage between the No. 4 and No. 6 terminals: There should be 0 V—about 5 V—0 V— about 5 V repeatedly (a digital voltmeter should reads about 2.5 V while the window moves).	

6. Reset the power window control unit (see page 22-213).

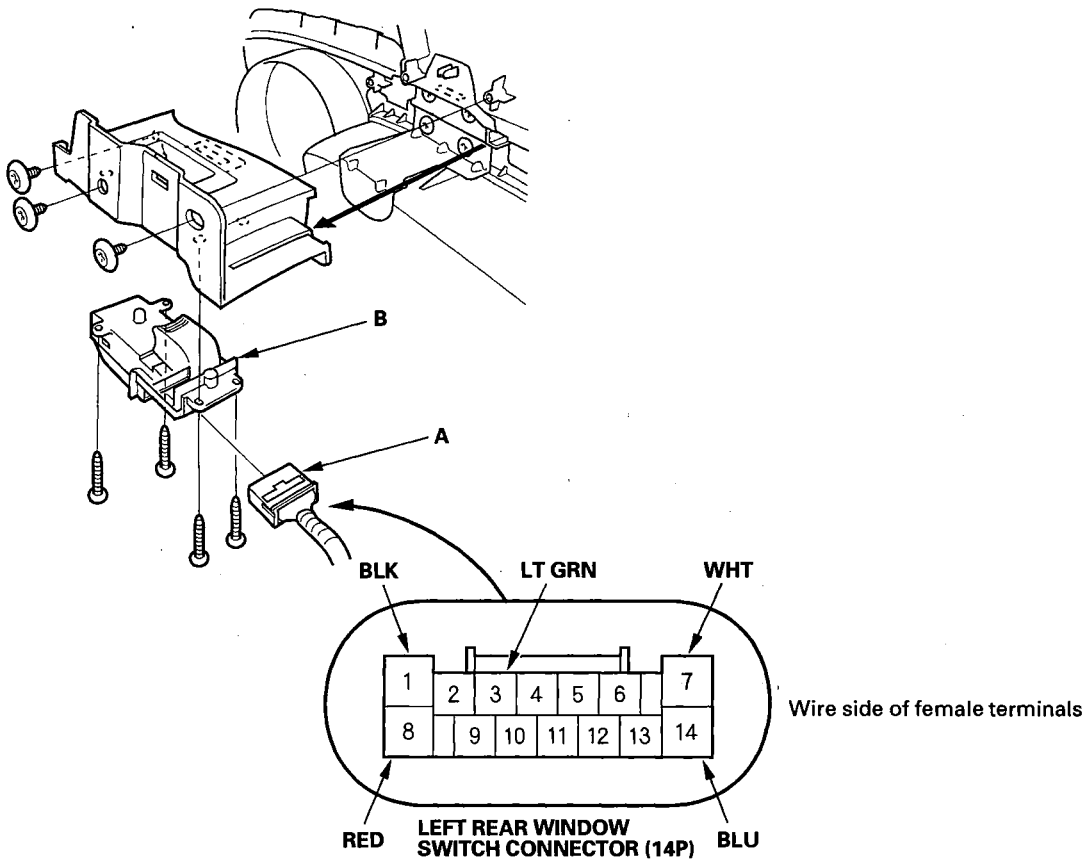
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Left Rear Power Window Switch Input Test

1. Remove the left rear power window switch (see page 22-225).

2. Disconnect the 14P connector (A) from the left rear 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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Left Rear Power Window Switch Input Test (cont'd)

4. With the connector still disconnected, make 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 5.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
3	LT GRN	Power window master switch 22P connector disconnected	Check for continuity between the No. 3 terminal and power window master switch 22P connector No. 13 terminal: There should be continuity.	An open in the wire
			Check for continuity to ground: There should be continuity.	
8	RED	Connect the No. 8 terminal to battery power with a jumper wire, and connect the No. 14 terminal to body.	Check for the left rear power window motor operation: The motor should run (the window should go down).	• Faulty left rear power window motor • An open in the wire
14	BLU	Connect the No. 14 terminal to battery power with a jumper wire, and connect the No. 8 terminal to body.	Check for the left rear power window motor operation: The motor should run (the window should go up).	• Faulty left rear power window motor • An open in the wire

5. Reconnect the connector to the left rear power window switch, and make 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, the left rear power window switch must be faulty; replace it.

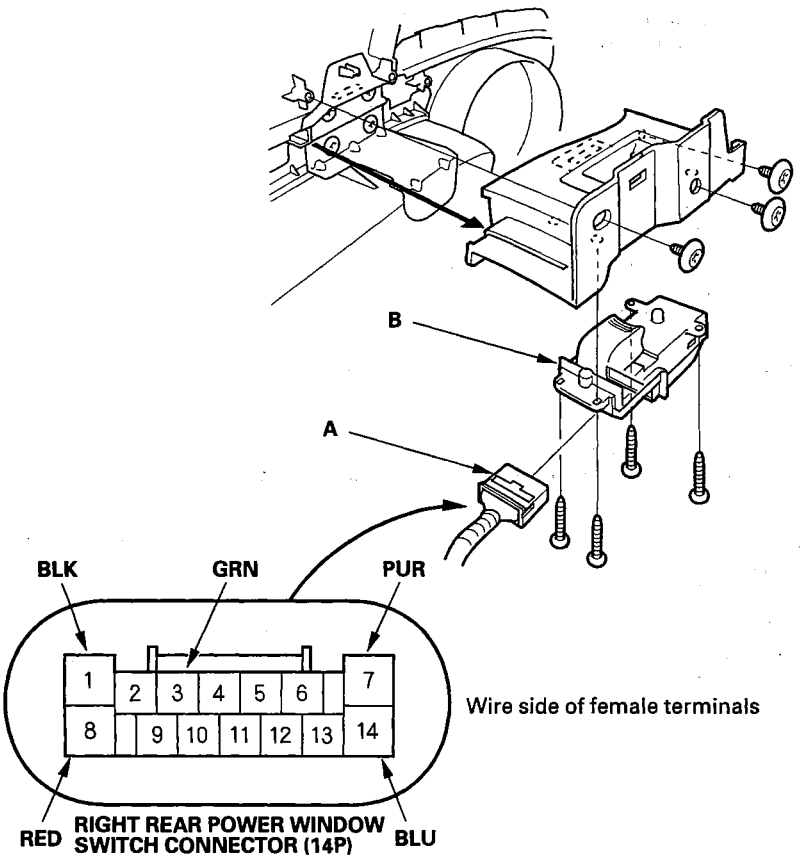
Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
1	BLK	Ignition switch ON (II) and left rear power window switch pushed UP or DOWN	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G601) • An open in the wire
7	WHT	Ignition switch ON (II) and left rear power window switch pushed UP or DOWN	Check for voltage to ground: There should be battery voltage.	• Blown No. 33 (20 A) fuse in the under-dash fuse/relay box • Faulty power window relay • An open in the wire

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Right Rear Power Window Switch Input Test

1. Remove the right rear power window switch (see page 22-225).
2. Disconnect the 14P connector (A) from the right rear 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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Right Rear Power Window Switch Input Test (cont'd)

4. With the connector still disconnected, make 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 5.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
3	GRN	Power window master switch 22P connector disconnected	Check for continuity between the No. 3 terminal and power window master switch 22P connector No. 12 terminal: There should be continuity.	An open in the wire
			Check for continuity to ground: There should be continuity.	Short to ground in the wire
8	RED	Connect the No. 8 terminal to battery power with a jumper wire, and connect the No. 14 terminal to body.	Check for the right rear power window motor operation: The motor should run (the window should go up).	• Faulty right rear power window motor • An open in the wire
14	BLU	Connect the No. 14 terminal to battery power with a jumper wire, and connect the No. 8 terminal to body.	Check for the right rear power window motor operation: The motor should run (the window should go down).	• Faulty right rear power window motor • An open in the wire

5. Reconnect the connector to the right rear power window switch, and make 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, the right rear power window switch must be faulty; replace it.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
1	BLK	Ignition switch ON (II) and right rear power window switch pushed UP or DOWN	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G561) • An open in the wire
7	PUR	Ignition switch ON (II) and left rear power window switch pushed UP or DOWN	Check for voltage to ground: There should be battery voltage.	• Blown No. 32 (20 A) fuse in the under-dash fuse/relay box • Faulty power window relay • An open in the wire

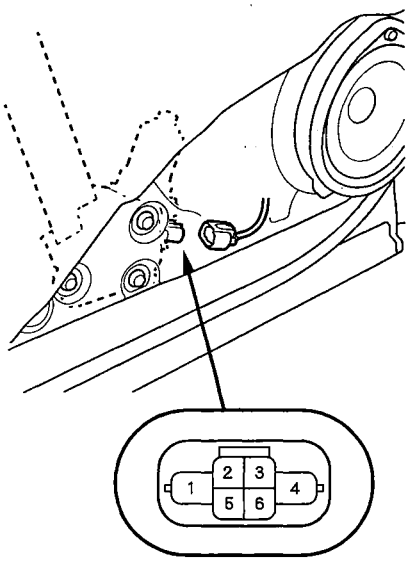
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Driver's and Front Passenger's Power Window Motor Test

1. Remove the door panel (see page 20-6).

2. Disconnect the 6P connector from the power window motor.



Motor Test

3. Test the motor in each direction by connecting battery power and ground according to the table. When the motor stops running, disconnect one lead immediately.

Direction \ Terminal	1	4
UP	⊖	⊕
DOWN	⊕	⊖

4. If the motor does not run or fails to run smoothly, replace it.

Pulser Test

5. Reconnect the 6P connector to the power window motor.

6. Turn the ignition switch ON (II).

7. Check for voltage between the terminals.

   - There should be battery voltage between the No. 5 (+) and No. 2 (−) terminals.
   - Connect an analog voltmeter between the No. 6 (+) and No. 2 (−) terminals, and run the power window motor down or up. The voltmeter needle should move back and forth alternately (a digital voltmeter reads about 2.5 V).
   - Connect an analog voltmeter between the No. 3 (+) and No. 2 (−) terminals, and run the power window motor down or up. The voltmeter needle should move back and forth alternately (a digital voltmeter reads about 2.5 V).

8. If the voltage is not as specified, do the power window switch input test:

   - Driver's terminals No. 5, 6, 7, and 11 (see step 5 on page 22-216).
   - Front passenger's terminals No. 2, 4, 5 and 6 (see page 22-219).

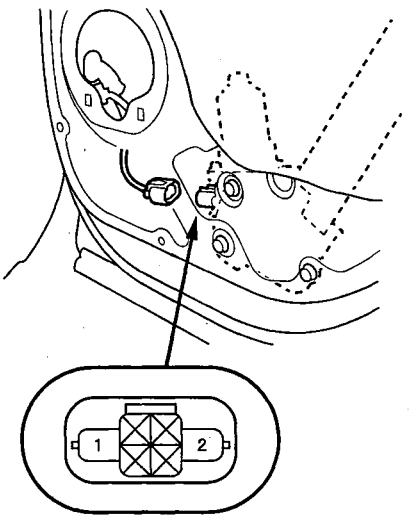
9. If the switch is OK, replace the power window motor.

10. Reset the power window control unit (see page 22-213).

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Rear Passenger's Power Window Motor Test

1. Remove the door panel (see page 20-17).
2. Disconnect the 2P connector from the power window motor.



3. Test the motor by connecting battery power and ground according to the table. When the motor stops running, disconnect one lead immediately.

Direction \ Terminal	1	2
UP	⊕	⊖
DOWN	⊖	⊕

4. If the motor does not run or fails to run smoothly, replace it.

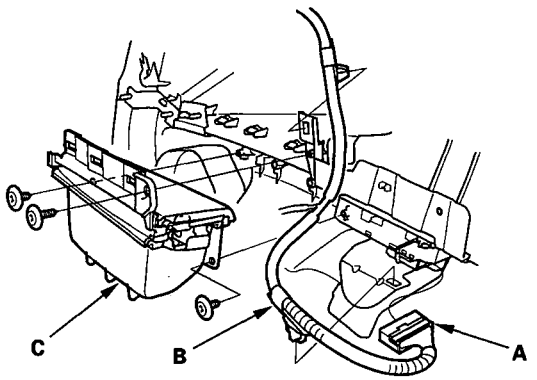
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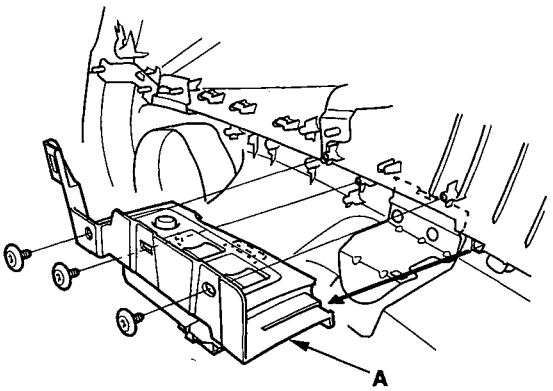
Power Window Switch Replacement

Driver's

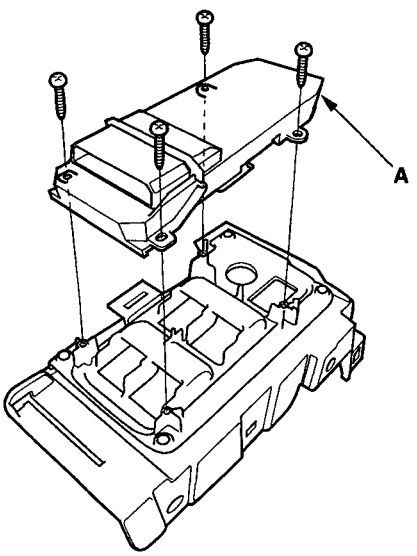
1. Remove the driver's door panel (see page 20-6).
2. Disconnect the 22P conector (A) from the power window master switch.



3. Remove the driver's door subharness (B) from the power window master switch.
4. Remove the three screws from the door panel, then pull up on the door pocket (C) to release the clips.
5. Remove the three screws and the power window master switch (A) from the door panel.



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



7. Install the switch in the reverse order of removal.
8. After replacement, reset the power window control unit (see page 22-213).

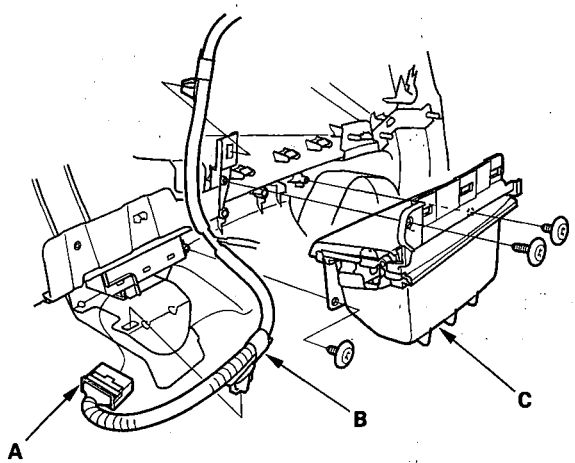
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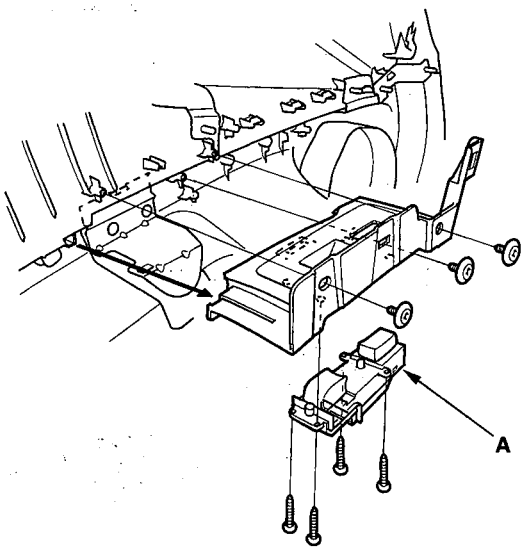
Power Window Switch Replacement (cont'd)

Front passenger's

1. Removal the front passenger's door panel (see page 20-6).
2. Disconnect the 14P connector (A) from the power window switch.



3. Remove the front passenger's door subharness (B) from the power window switch.
4. Remove the three screws from the door panel, then pull up on the door pocket (C) to release the clips.
5. Remove the three screws and the power window switch (A) from the door panel.



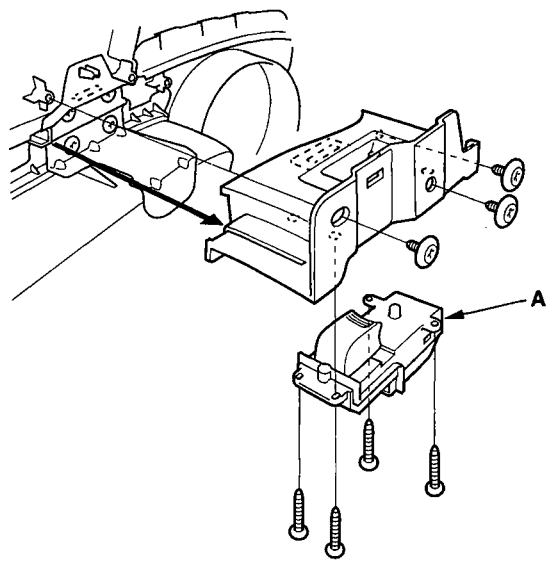
6. Remove the four screws and the power window switch.
7. Install the switch in the reverse order of removal.
8. After replacement, reset the power window control unit (see page 22-213).

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Rear passenger's

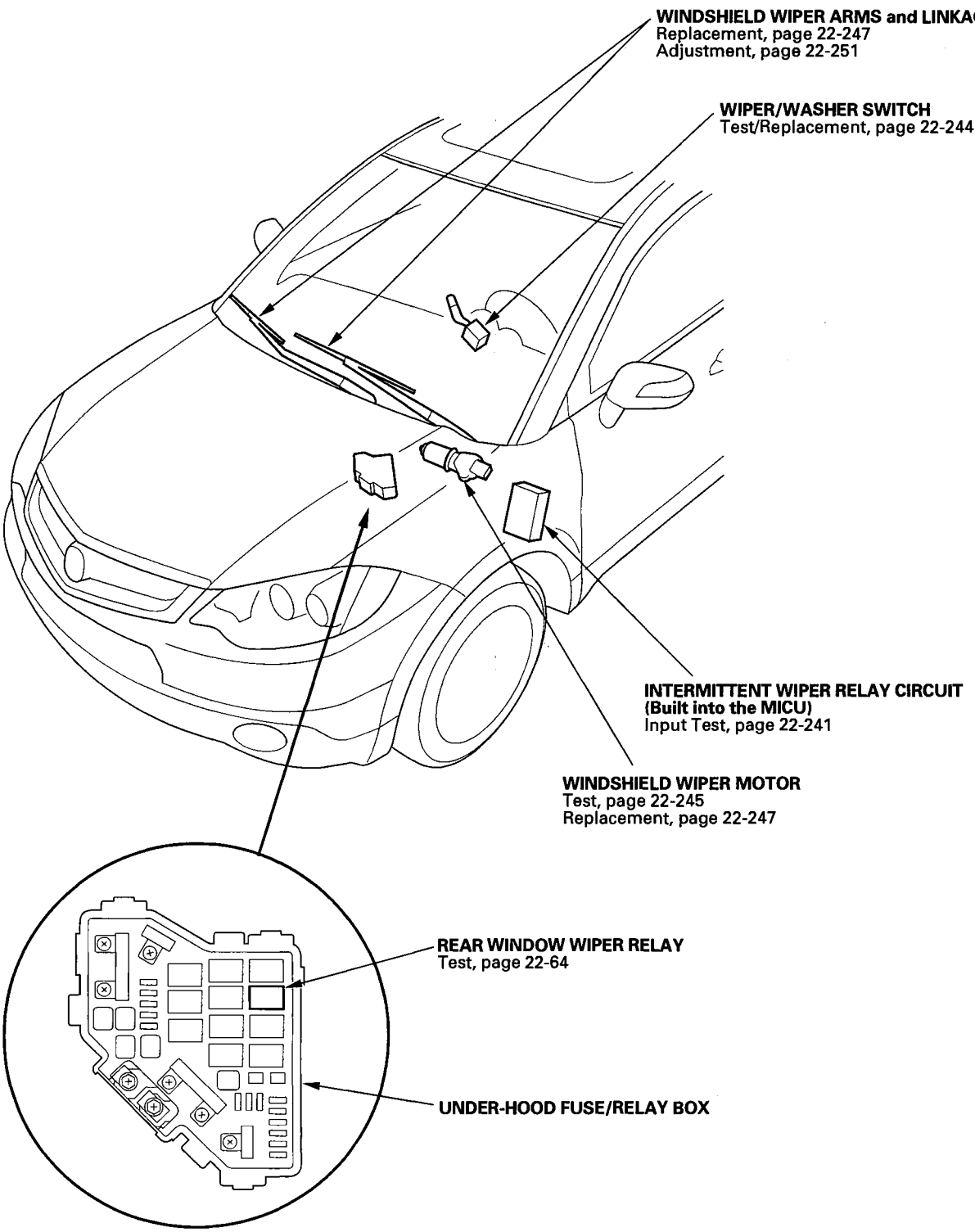
1. Remove the door panel (see page 20-17).
2. Disconnect the 14P connector from the power window switch (A).



3. Remove the screws and the power window switch from the door panel.
4. Remove the four screws and the power window switch.
5. Install the switch in the reverse order of removal.

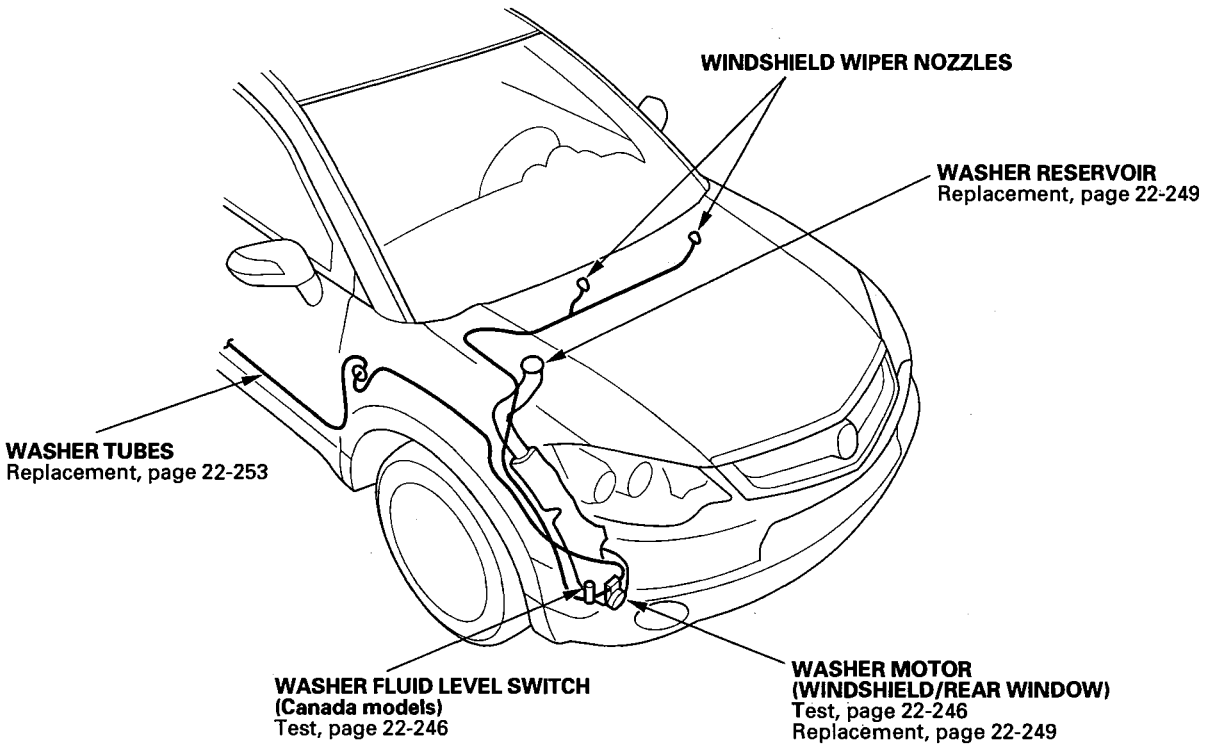
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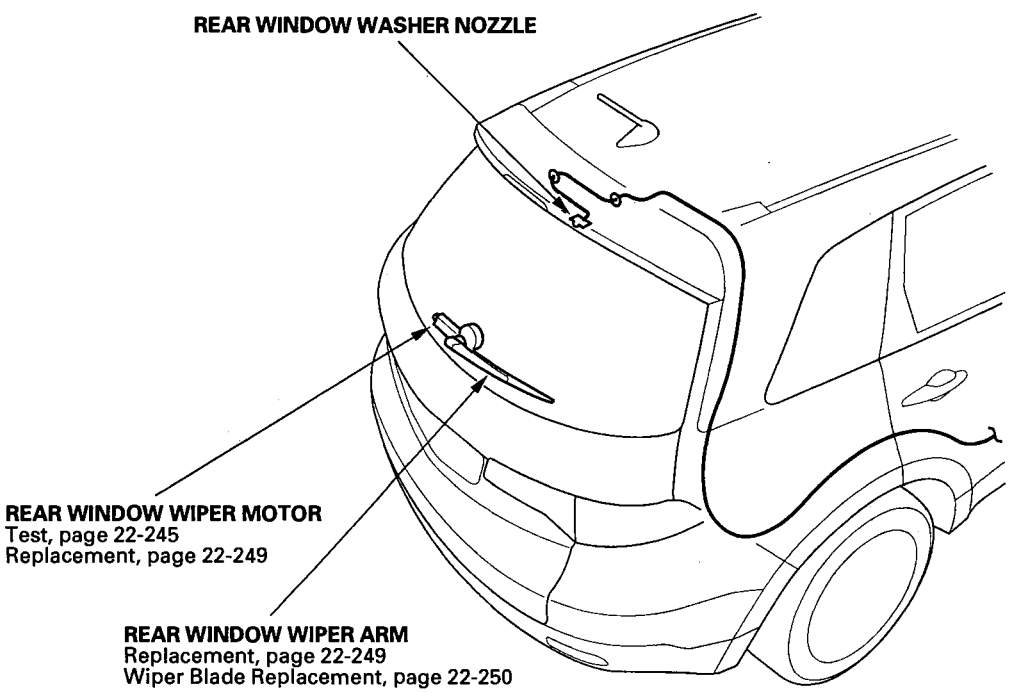
Component Location Index



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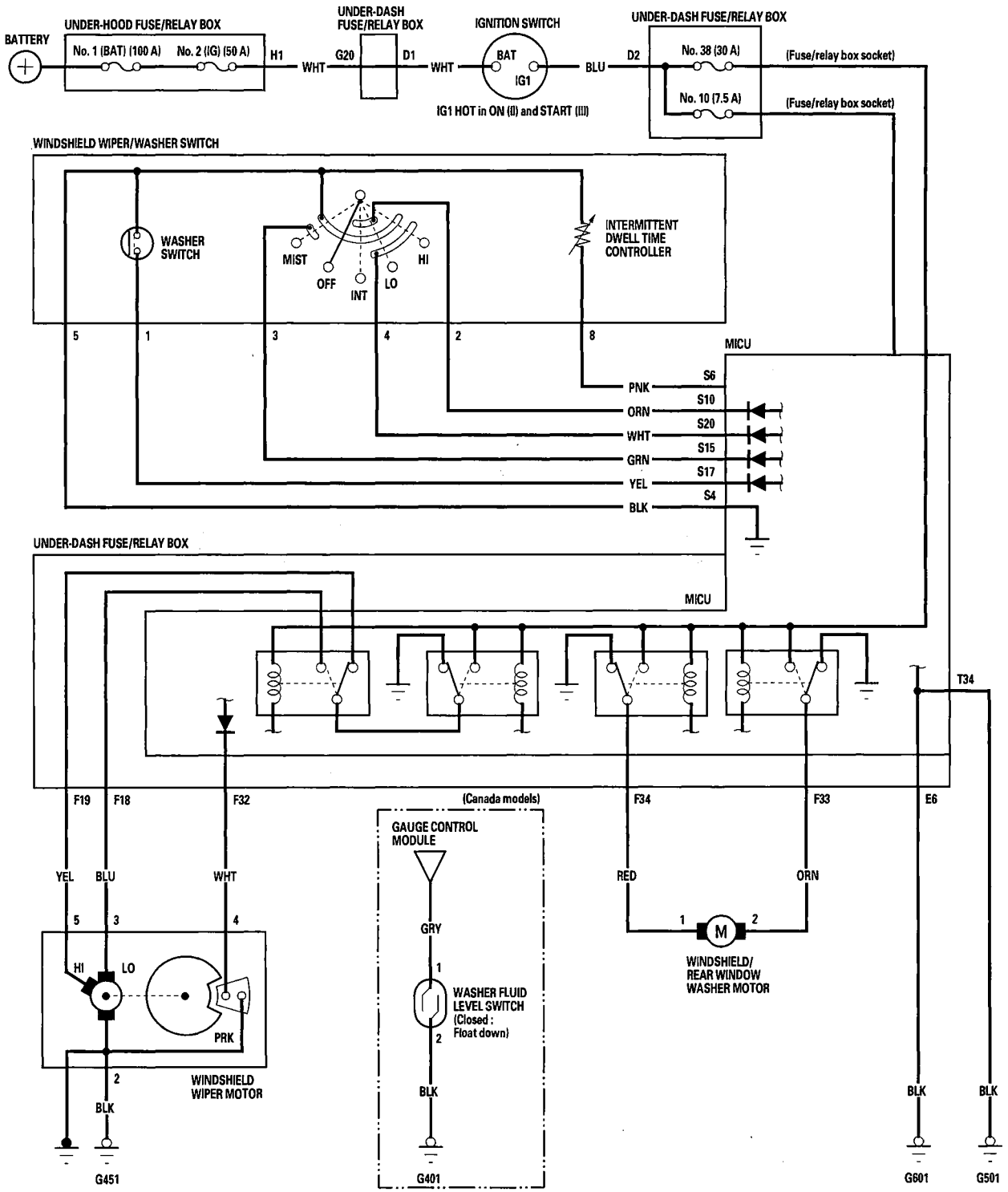
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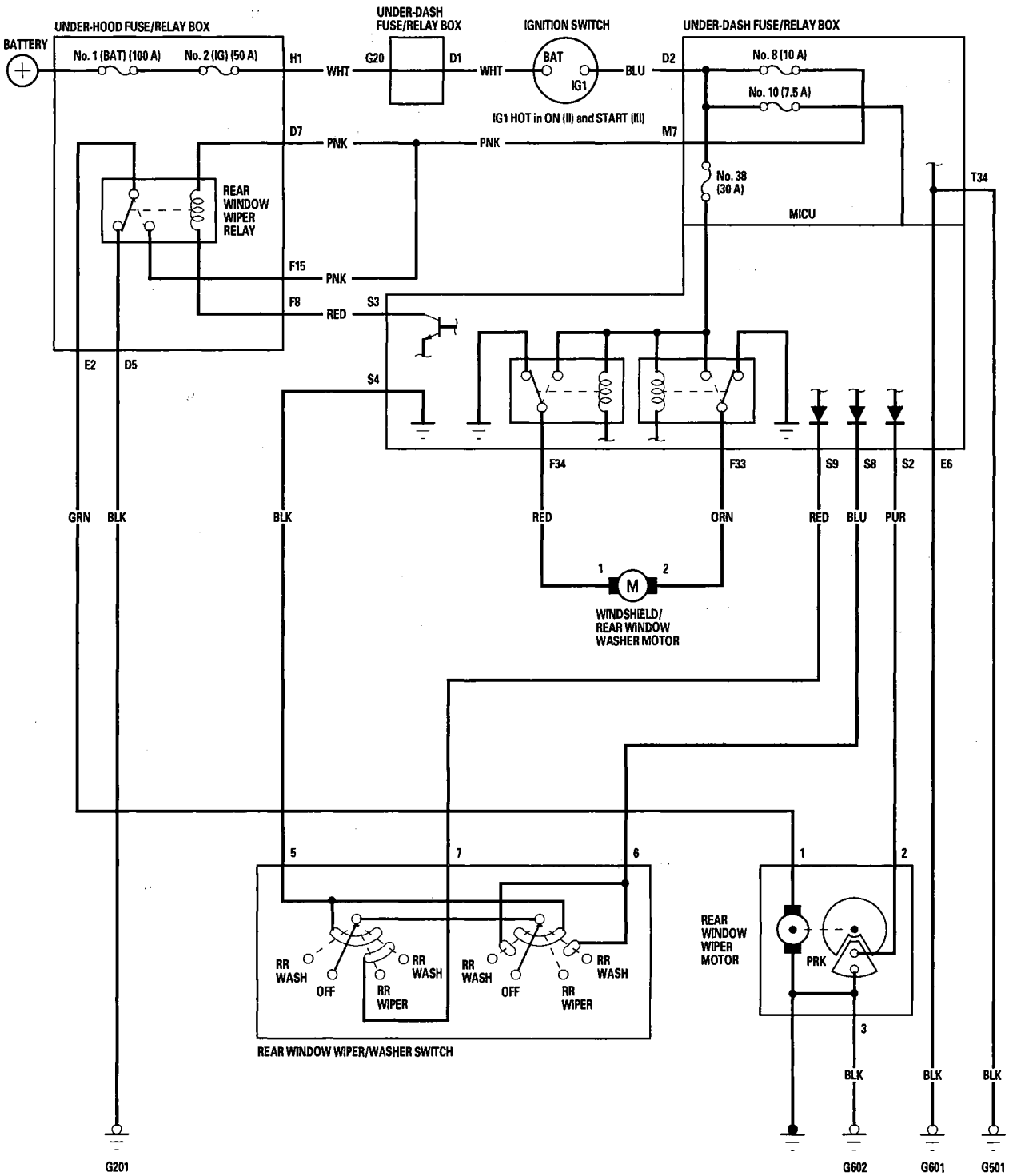
Circuit Diagram - Windshield



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Circuit Diagram - Rear Window



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DTC Troubleshooting

DTC B1028: Rear Window Wiper Motor (Park) Signal Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, and then back ON (II).
3. Turn the rear wiper switch to ON for 15 seconds or more, then turn the switch OFF.

   Does the rear window wiper motor run?

   YES—Go to step 4.

   NO—Go to step 11.
4. Check for DTCs with the HDS.

   Is DTC B1028 indicated?

   YES—Go to step 5.

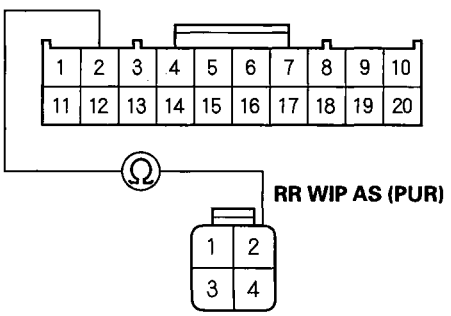
   NO—Intermittent failure. The rear window wiper (Park) signal is OK at this time. Check for loose or poor connections.
5. Do the rear wiper motor test (see page 22-247).

   Does the rear wiper motor run and does it pulse normally?

   YES—Go to step 6.

   NO—Replace the rear wiper motor and recheck. ■
6. Disconnect the under-dash fuse/relay box connector S (20P) and rear wiper motor 4P connector.
7. Check for continuity between the No. 2 terminal of the rear wiper motor 4P connector and No. 2 terminal of the under-dash fuse/relay box connector S (20P).

UNDER-DASH FUSE/RELAY BOX CONNECTOR S (20P)
Wire side of female terminals



REAR WIPER MOTOR 4P CONNECTOR
Wire side of female terminals

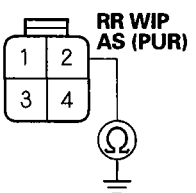
Is there continuity?

YES—Go to step 8.

NO—Repair an open in the PUR wire. ■

8. Check for continuity between the rear window wiper motor 4P connector No. 2 terminal and body ground.

REAR WIPER MOTOR 4P CONNECTOR



Wire side of female terminals

Is there continuity?

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

NO—Go to step 9.

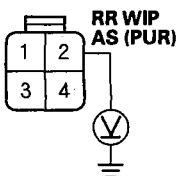
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9. Turn the ignition switch ON (II).

10. Measure the voltage between the rear window wiper motor 4P conector No. 2 terminal and body ground.

REAR WIPER MOTOR 4P CONNECTOR



Wire side of female terminals

Is there voltage?

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

NO—Faulty MICU; replace the under-dash fuse/relay box. ■

11. Turn the ignition switch OFF.

12. Check the No. 8 (10 A) fuse in the under-dash fuse/relay box.

Is the fuse OK?

YES—Go to step 13.

NO—Replace the fuse and recheck the system. ■

13. Do the wiper motor test (see page 22-247).

Does the wiper motor run normally?

YES—Go to step 14.

NO—Replace the windshield wiper motor and recheck. ■

14. Do the rear window wiper relay test (see page 22-64).

Is the relay OK?

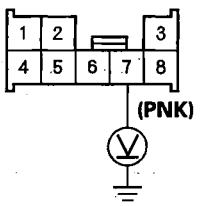
YES—Go to step 15.

NO—Replace the rear window wiper relay and recheck. ■

15. Turn the igniton switch ON (II).

16. Measure the voltage between the No. 7 terminal of the under-hood fuse/relay box connector D (8P) and body ground.

UNDER-HOOD FUSE/RELAY BOX CONNECTOR D (8P)



Wire side of female terminals

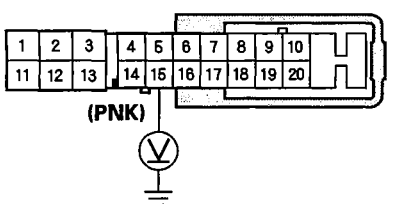
Is there voltage?

YES—Go to step 17.

NO—Repair an open in the PNK wire or blown No. 8 fuse in the under-dash fuse/relay box. ■

17. Measure the voltage between the NO. 15 terminal of the under-hood fuse/relay box connector F (20P) and body ground.

UNDER-HOOD FUSE/RELAY BOX CONNECTOR F (20P)



Wire side of female terminals

Is there voltage?

YES—Go to step 18.

NO—Repair an open in the PNK wire. ■

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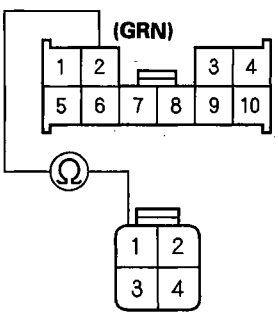
DTC Troubleshooting (cont'd)

18. Turn the ignition switch OFF.

19. Disconnect the under-hood fuse/relay box connector E (10P) and rear wiper motor 4P connector.

20. Check for continuity between the No. 1 terminal of the rear window wiper motor 4P connector and No. 2 terminal of the under-hood fuse/relay box connector E (10P).

UNDER-HOOD FUSE/RELAY BOX CONNECTOR E (10P)
Wire side of female terminals



REAR WIPER MOTOR 4P CONNECTOR
Wire side of female terminals

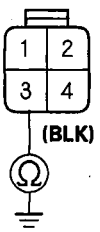
Is there continuity?

YES—Go to step 21.

NO—Repair open in the GRN wire.■

21. Check for continuity between the rear window wiper motor 4P connector No. 3 terminal and body ground.

REAR WIPER MOTOR 4P CONNECTOR



Wire side of female terminals

Is there continuity?

YES—Go to step 22.

NO—Repair open in the BLK wire or poor ground (G602).■

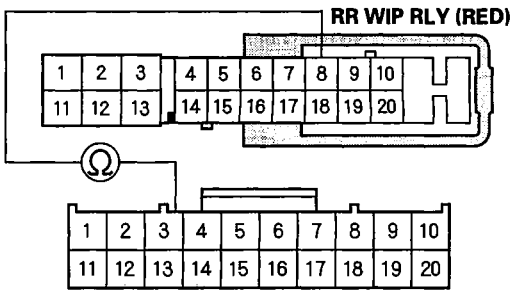
22. Disconnect the under-hood fuse/relay box connector F (20P) and under-hood fuse/relay box connector S (20P).

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23. Check for continuity between the No. 8 terminal of the under-hood fuse/relay box connector F (20P) and No. 3 terminal of the under-dash fuse/relay box connector S (20P).

UNDER-HOOD FUSE/RELAY BOX CONNECTOR F (20P)
Wire side of female terminals



UNDER-DASH FUSE/RELAY BOX CONNECTOR S (20P)
Wire side of female terminals

Is there continuity?

YES—Repair open in the RED wire. ■

NO—Faulty MICU; replace the under-dash fuse/relay box. ■

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DTC Troubleshooting (cont'd)

DTC B1077: Windshield Wiper Motor (Park) Signal Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, and then back ON (II).
3. Turn the wiper switch to LOW or HIGH for 15 seconds or more, then turn the switch OFF.

   Do the windshield wipers run?

   YES—Go to step 4.

   NO—Go to step 12.
4. Check for DTCs with the HDS.

   Is DTC B1077 indicated?

   YES—Go to step 5.

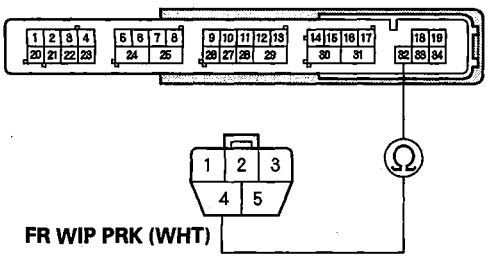
   NO—Intermittent failure. The windshield wiper system is OK at this time. Check for loose or poor connections. ■
5. Turn the ignition switch OFF.
6. Do the wiper motor test (see page 22-245).

   Does the wiper motor run normally and does it pulse?

   YES—Go to step 7.

   NO—Replace the windshield wiper motor and recheck. ■
7. Disconnect the under-dash fuse/relay box connector F (34P) and windshield wiper motor 5P connector.
8. Check for continuity between the No. 4 terminal of the windshield wiper motor 5P connector and No. 32 terminal of the under-dash fuse/relay box connector F (34P).

UNDER-DASH FUSE/RELAY BOX CONNECTOR F (34P)
Wire side of female terminals



WINDSHIELD WIPER MOTOR 5P CONNECTOR
Wire side of female terminals

Is there continuity?

YES—Go to step 9.

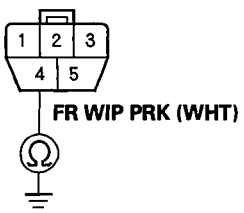
NO—Repair open in the WHT wire. ■

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9. Check for continuity between the No. 4 terminal of the windshield wiper motor 5P connector and body ground.

WINDSHIELD WIPER MOTOR 5P CONNECTOR



Wire side of female terminals

Is there continuity?

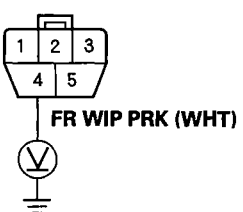
YES—Repair short in the WHT wire. ■

NO—Go to step 10.

10. Turn the ignition switch ON (II).

11. Measure the voltage between the No. 4 terminal of the windshield wiper motor 5P connector and body ground.

WINDSHIELD WIPER MOTOR 5P CONNECTOR



Wire side of female terminals

Is there voltage?

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

NO—Faulty MICU; replace the under-dash fuse/relay box. ■

12. Turn the ignition switch OFF.

13. Check the No. 38 (30 A) fuse in the under-dash fuse/relay box.

Is the fuse OK?

YES—Go to step 14.

NO—Replace the fuse and recheck the system. ■

14. Do the wiper motor test (see page 22-245).

Does the wiper motor run normally?

YES—Go to step 15.

NO—Replace the windshield wiper motor and recheck. ■

15. Reconnect the windshield wiper motor 5P connector.

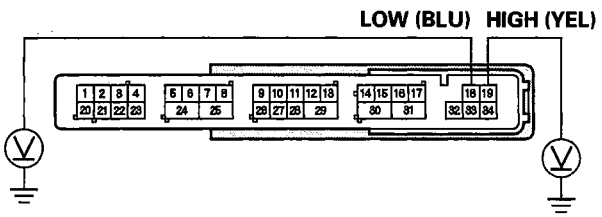
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DTC Troubleshooting (cont'd)

16. Measure the voltage between the No. 18 (LO) and No. 19 (HI) terminals of the under-dash fuse/relay box connector F (34P) and body ground with the wiper switch in the corresponding position individually.

UNDER-DASH FUSE/RELAY BOX CONNECTOR F (34P)



Wire side of female terminals

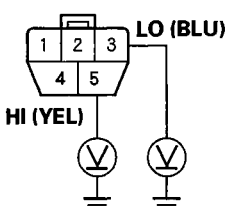
Is there battery voltage?

YES—Go to step 17.

NO—Faulty MICU; replace the under-dash fuse/relay box.■

17. Measure the voltage between the No. 3 (LO) and No. 5 (HI) terminals of the windshield wiper motor 5P connector and body ground with the wiper switch in the corresponding position individually.

WINDSHIELD WIPER MOTOR 5P CONNECTOR



Wire side of female terminals

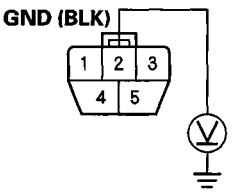
Is there battery voltage?

YES—Go to step 18.

NO—Repair an open in the BLU (LO) or YEL (HI) wire.■

18. Measure the voltage between the No. 2 terminal of the windshield wiper motor 5P connector and body ground.

WINDSHIELD WIPER MOTOR 5P CONNECTOR



Wire side of female terminals

Is there less than 1 V?

YES—Faulty MICU; replace the under-dash fuse/relay box.■

NO—Repair an open in the BLK wire or poor ground (G451).■

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DTC B1281: Windshield Wiper Switch MIST Position Circuit Malfunction

DTC B1282: Windshield Wiper Switch INT (AUTO) 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 22-88).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF and then back ON (II).
3. Turn the windshield wiper switch in MIST, INT, LOW, HIGH and OFF positions.
4. Check the 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 the DATA LIST.
6. Check the ON/OFF information of the WINDSHIELD WIPER SWITCH (MIST), WINDSHIELD WIPER SWITCH (INT), WINDSHIELD WIPER SWITCH (LOW) and WINDSHIELD WIPER SWITCH (HIGH) in the DATA LIST.

   Are the WINDSHIELD WIPER SWITCH (MIST) information indicator OFF, WINDSHIELD WIPER SWITCH (INT) information indicator OFF, WINDSHIELD WIPER SWITCH (LOW) information indicator OFF and WINDSHIELD WIPER SWITCH (HIGH) information indicator OFF with the windshield wiper switch in OFF position?

   YES—Go to step 13.

   NO—Go to step 7.
7. Turn the ignition switch OFF.
8. Disconnect the 8P connector from the windshield wiper switch.
9. Check the ON/OFF information of the WINDSHIELD WIPER SWITCH (MIST), WINDSHIELD WIPER SWITCH (INT), WINDSHIELD WIPER SWITCH (LOW) and WINDSHIELD WIPER SWITCH (HIGH) in the DATA LIST.

   Are the information indicators OFF?

   YES—Faulty windshield wiper switch; replace it. ■

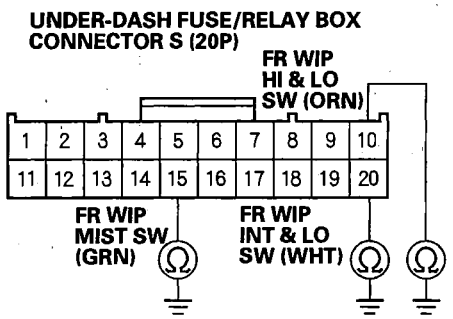
   NO—Go to step 10.
10. Turn the ignition switch OFF.
11. Disconnect the under-dash fuse/relay box connector S (20P).

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DTC Troubleshooting (cont'd)

12. Check for continuity between the body ground and under-dash fuse/relay box connector S (20P) terminals No. 10, No. 20 and No. 15 individually.



Wire side of female terminals

Is there continuity?

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

NO—Faulty MICU; replace the under-dash fuse/relay box.■

13. Check the ON/OFF information in the DATA LIST for WINDSHIELD WIPER SWITCH (MIST) with the windshield wiper switch in the MIST position, WINDSHIELD WIPER SWITCH (INT) with the windshield wiper switch in the INT position, WINDSHIELD WIPER SWITCH (LOW) with the windshield wiper switch in the LOW position, and WINDSHIELD WIPER SWITCH (HIGH) with the windshield wiper switch in the HIGH position.

Are all the information indicators ON?

YES—Faulty MICU; replace the under-dash fuse/relay box.■

NO—Go to step 14.

14. Turn the ignition switch OFF.

15. Check the windshield wiper switch (see page 22-244).

Is the windshield wiper switch OK?

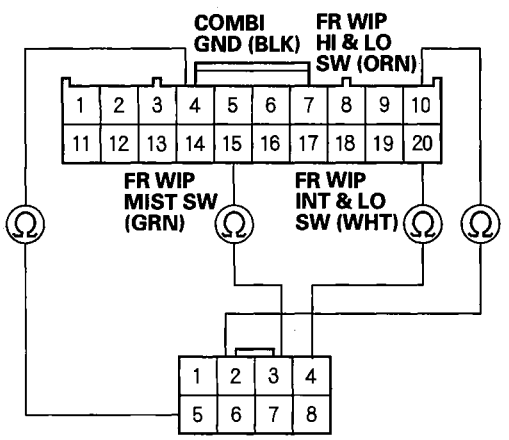
YES—Go to step 16.

NO—Faulty windshield wiper switch, replace it.■

16. Disconnect the under-dash fuse/relay box connector S (20P).

17. Check for continuity between the under-dash fuse/relay box connector S (20P) No. 4, No. 10, No. 15 and No. 20 terminals and the windshield wiper switch 8P connector No. 5, No. 2 No. 3 and No. 4 terminals.

UNDER-DASH FUSE/RELAY BOX CONNECTOR S (20P)
Wire side of female terminals



WINDSHIELD WIPER SWITCH 8P CONNECTOR
Wire side of female terminals

Is there continuity?

YES—Faulty MICU; replace the under-dash fuse/relay box.■

NO—Repair an open in the wire.■

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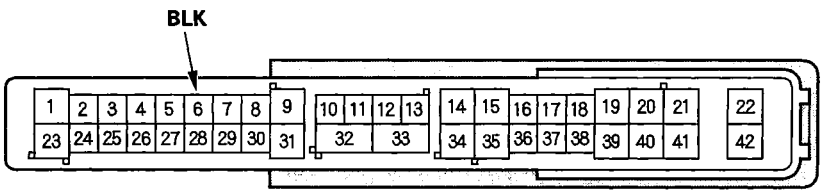
MICU Input Test

1. Before troubleshooting the wiper/washer system, troubleshoot the B-CAN System Diagnosis Test Mode A (see page 22-88), and check the No. 8 (10 A), No. 10 (7.5 A) and No. 38 (30 A) fuses in the under-dash fuse/relay box.

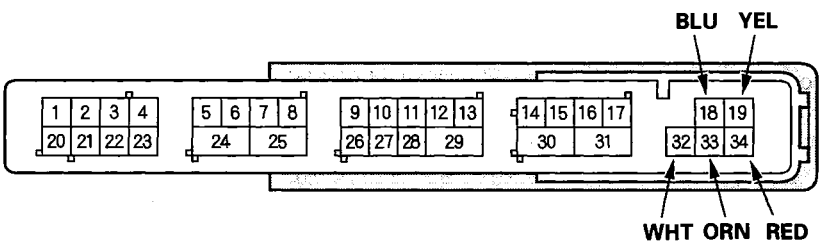
2. Disconnect the under-dash fuse/relay box connectors E, F, S, and T.

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

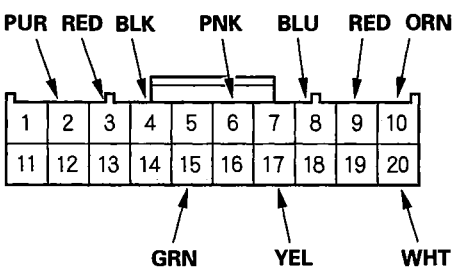
UNDER-DASH FUSE/RELAY BOX CONNECTOR E (42P)



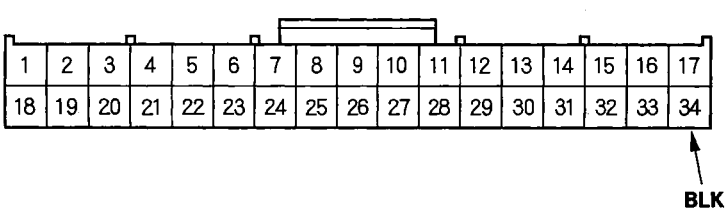
UNDER-DASH FUSE/RELAY BOX CONNECTOR F (34P)



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



UNDER-DASH FUSE/RELAY BOX CONNECTOR T (34P)



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MICU Input Test (cont'd)

3. Inspect the connector and socket terminals to be sure they are all making good contact.

   - If the terminals are bent, loose or corroded, repair them as necessary and recheck the system.
   - If the terminals look OK, go to step 4.

4. With the connectors still disconnected, make these input tests at the appropriate 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 result is not obtained
F18	BLU	Under all conditions	Connect battery power to the F18 terminal: The wiper motor should run at low speed.	• Poor ground (G451) • Faulty windshield wiper motor • An open in the wire
F19	YEL	Under all conditions	Connect battery power to the F19 terminal: The windshield wiper motor should run at high speed.	• Poor ground (G451) • Faulty windshield wiper motor • An open in the wire
F32	WHT	Under all conditions (disconnect the windshield wiper motor 5P connector)	Check for continuity between the F32 terminal and windshield wiper motor 5P connector No. 4 terminal: There should be continuity.	An open in the wire
F33 . F34	ORN . RED	Under all conditions	Connect battery power to the F33 terminal and the body ground to the F34 terminal: The windshield/rear window washer motor should run.	• Faulty windshield/rear window washer motor • An open in the wire
S2	PUR	Under all conditions (disconnect the rear window wiper motor 4P connector)	Check for continuity between the S2 terminal and rear window wiper motor 5P connector No. 2 terminal: There should be continuity.	An open in the wire
S3	RED	ignition switch ON (II)	Connect body ground to the S3 terminal: The rear window wiper motor should run.	• Poor ground (G602) • Faulty rear window wiper motor • Faulty rear window wiper relay • An open in the wire
S6 . S4	PNK . BLK	Wiper/washer switch (intermittent dwell timer) turned	Check resistance between S6 and S4 terminals: The resistance should vary between 0 and 1 kΩ.	• Faulty windshild wiper/ washer switch • An open in the wire • A short to ground in the wire

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5. Reconnect the connectors to the under-dash fuse/relay box, and make these input tests at the connectors.

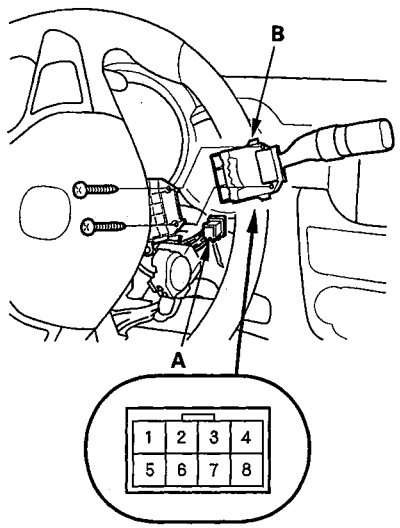
- If any test indicates a problem, find and correct the cause, then recheck the system.
- If all the input tests prove OK, the MICU must be faulty; replace the under-dash fuse/relay box.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
E6	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G601) • An open in the wire
T34	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
S10	ORN	Ignition switch ON (II), wiper/ washer switch (INT) ON	Check for voltage between S10 and S4 terminals, and S20 and S4 terminals: There should be less than 1 V.	• Faulty windshield wiper/washer switch • An open in the wire
		Ignition switch ON (II), wiper/ washer switch OFF	Check for voltage between S10 and S4 terminals, and S20 and S4 terminals: There should be 5 V or more.	• Faulty windshield wiper/washer switch • A short to ground in the wire
S15	GRN	Ignition switch ON (II), wiper/ washer switch (MIST) ON	Check for voltage between S15 and S4 terminals: There should be less than 1 V.	• Faulty windshield wiper/washer switch • An open in the wire
		Ignition switch ON (II), wiper/ washer switch (MIST) OFF	Check for voltage between S15 and S4 terminals: There should be 5 V or more.	• Faulty windshield wiper/washer switch • A short to ground in the wire
S17	YEL	Ignition switch ON (II), washer switch ON	Check for voltage between S17 and S4 terminals: There should be less than 1 V.	• Faulty windshield wiper/washer switch • An open in the wire
		Ignition switch ON (II), washer switch OFF	Check for voltage between S17 and S4 terminals: There should be 5 V or more.	• Faulty windshield wiper/washer switch • A short to ground in the wire
S20	WHT	Ignition switch ON (II), wiper/ washer switch (LOW) ON	Check for voltage between S20 and S4 terminals: There should be less than 1 V.	• Faulty windshield wiper/washer switch • An open in the wire
		Ignition switch ON (II), wiper/ washer switch OFF	Check for voltage between S20 and S4 terminals: There should be 5 V or more.	• Faulty windshield wiper/washer switch • A short to ground in the wire
	WHT	Ignition switch ON (II), wiper/ washer switch (HIGH) ON	Check for voltage between S20 and S4 terminals: There should be less than 1 V.	• Faulty windshield wiper/washer switch • An open in the wire
		Ignition switch ON (II), wiper/ washer switch OFF	Check for voltage between S20 and S4 terminals: There should be 5 V or more.	• Faulty windshield wiper/washer switch • A short to ground in the wire
S8	BLU	Ignition switch ON (II), rear window wiper/washer switch RR WASH	Check for voltage between S9 and S4 terminals: There should be less than 1 V.	• Faulty rear window wiper/washer switch • An open in the wire
		Ignition switch ON (II), rear window wiper/washer switch OFF	Check for voltage between S9 and S4 terminals: There should be 5 V or more.	• Faulty rear window wiper/washer switch • A short to ground in the wire
S9	RED	Ignition switch ON (II), rear window wiper/washer switch RR WIPER	Check for voltage between S9 and S4 terminals: There should be less than 1 V.	• Faulty rear window wiper/washer switch • An open in the wire
		Ignition switch ON (II), rear window wiper/washer switch OFF	Check for voltage between S9 and S4 terminals: There should be 5 V or more.	• Faulty rear window wiper/washer switch • A short to ground in the wire

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Wiper/Washer Switch Test/Replacement

1. Remove the steering column covers (see page 20-107).
2. Disconnect the windshield wiper switch 8P connector (A) from the wiper/washer switch (B).



3. Remove the two screws, then pull out the wiper/washer switch.
4. Check for continuity between the terminals in each switch position according to the table.

Windshield

Position \ Terminal	1	2	3	4	5		8
OFF							
INT		○			○		
LO		○		○	○		
HI				○	○		
Mist ON			○		○		
Washer ON	○				○		
Intermittent dwell timer turned					○	~	○

Rear window

Position \ Terminal	5	6	7
Washer switch ON and wiper switch OFF	○	○	
OFF			
ON	○		○
Wiper and Washer Switch ON	○	○	○

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

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BACK

Wiper Motor Test

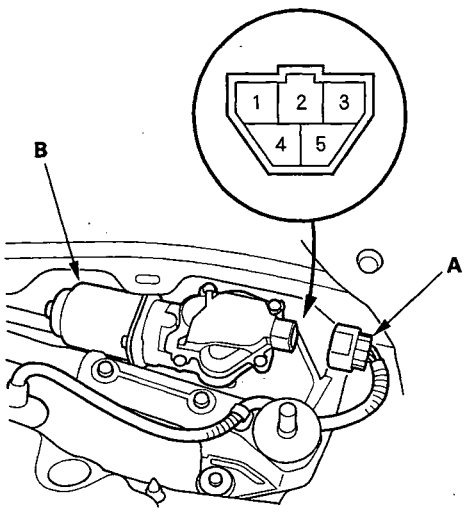
Windshield

1. Remove the wiper arms (see page 22-247).

   NOTE: Carefully remove the wiper arms so that they do not touch the hood.

2. Remove the hood seal and cowl cover.

3. Disconnect the 5P connector (A) from the wiper motor (B).



4. Test the motor by connecting battery power to the No. 3 terminal and ground to the No. 2 terminal of the wiper motor 5P connector. The motor should run at low speed. If the motor does not run or fails to run smoothly, replace the motor.

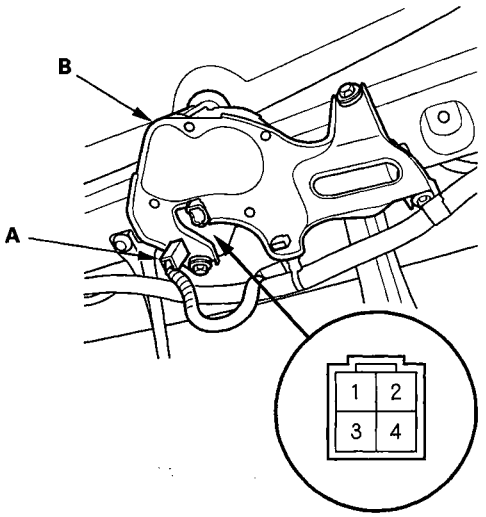
5. Test the motor by connecting battery power to the No. 5 terminal and ground to the No. 2 terminal of the wiper motor 5P connector. The motor should run at high speed. If the motor does not run or fails to run smoothly, replace the motor.

6. Connect an analog ohmmeter to the No. 4 and No. 2 terminals, and run the motor at low or high speed. The needle of the ohmmeter should pulse. If it does not, replace the motor.

Rear Window

1. Open the tailgate, and remove the tailgate lower trim panel (see page 20-174).

2. Disconnect the 4P connector (A) from the motor (B).



3. Test the motor by connecting battery power to the No. 1 terminal and ground to the No. 3 terminal of the 4P connector. The motor should run. If the motor does not run or fails to run smoothly, replace the motor.

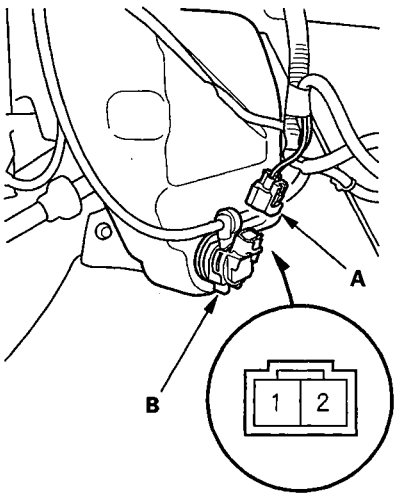
4. Connect an analog ohmmeter to the No. 2 and No. 3 terminals, and run the motor at low or high speed. The needle of the ohmmeter should pulse.

5. If the motor test is not as specified, replace the rear window wiper motor.

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Washer Motor Test

1. Remove the right inner fender (see page 20-176).
2. Disconnect the 2P connector (A) from the washer motor (B).



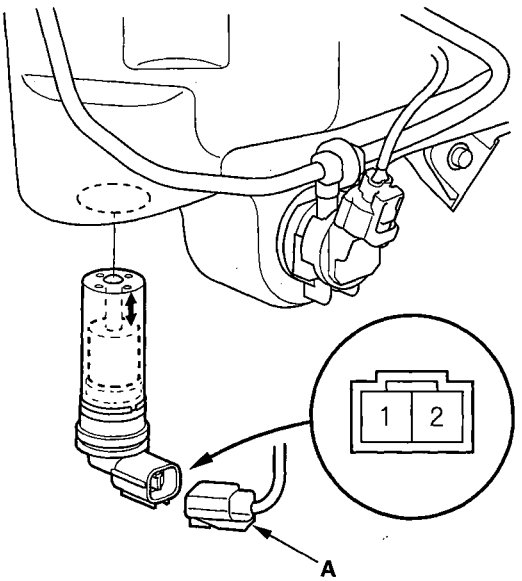
3. Test the motor by connecting battery power to the No. 2 (No. 1) terminal and ground the No. 1 (No. 2) terminal of the washer motor. The motor should run.
   ( ): Rear window washer direction.

   - 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 20-176).
2. Disconnect the 2P connector (A) from the washer fluid level switch.



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 No. 1 and No. 2 terminals 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.

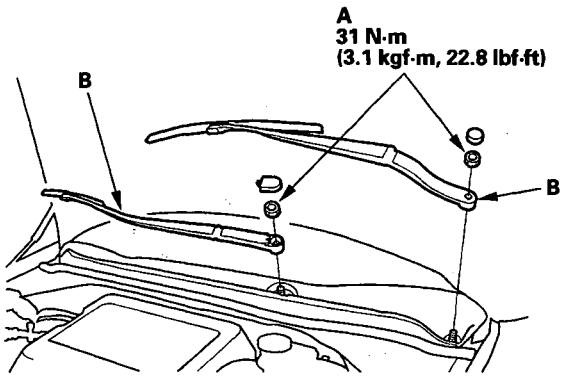
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BACK

Wiper Motor Replacement

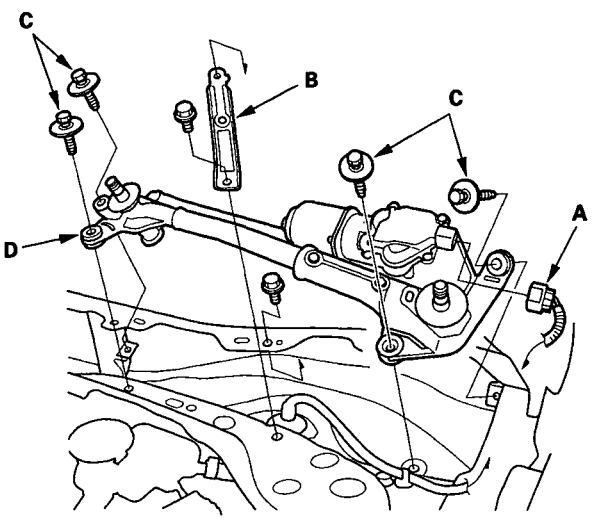
Removal

1. Open the hood. Remove the caps, nuts (A), and the windshield wiper arms (B).



2. Remove the cowl covers (see page 20-163).

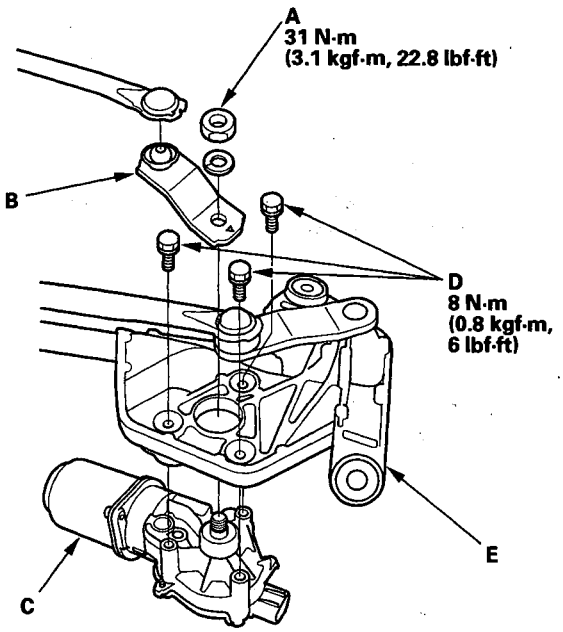
3. Disconnect the 5P connector (A) from the wiper motor.



4. Remove the two bolts and the bracket (B).

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

6. Remove the nut (A) and the link (B) from the wiper motor (C).



7. Remove the three bolts (D), and the wiper motor from the wiper linkage assembly (E).

(cont'd)

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Wiper Motor Replacement (cont'd)

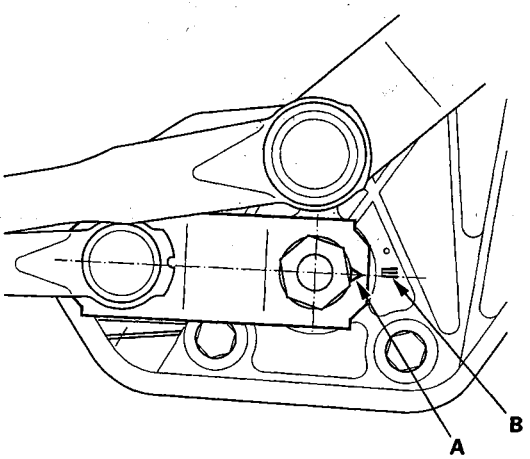
Installation

1. Before installing the motor, plug it in, then turn the wiper/washer switch to (LO) or (HI) ON, then OFF to return the motor shaft to the park position.

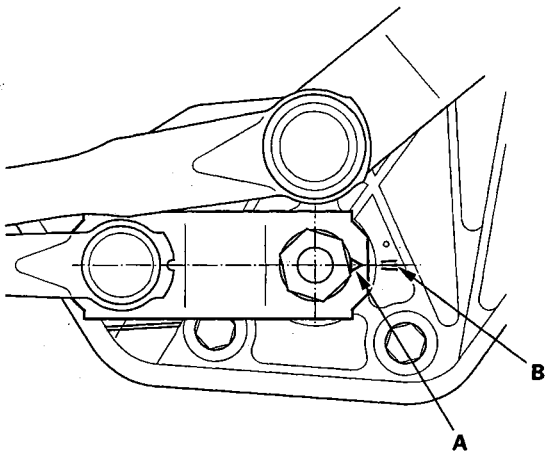
   NOTE:
   - Does not use the wiper/washer switch (INT) position in this step.
   - If necessary, replace any damaged clips.
   - Apply multipurpose grease to the moving parts.

2. Install the wiper motor to the wiper linkage assembly.

3. 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.



4. Before installing the wiper linkage assembly to the vehicle, align the mark (A) of the link and the mark (B) of the linkage assembly.



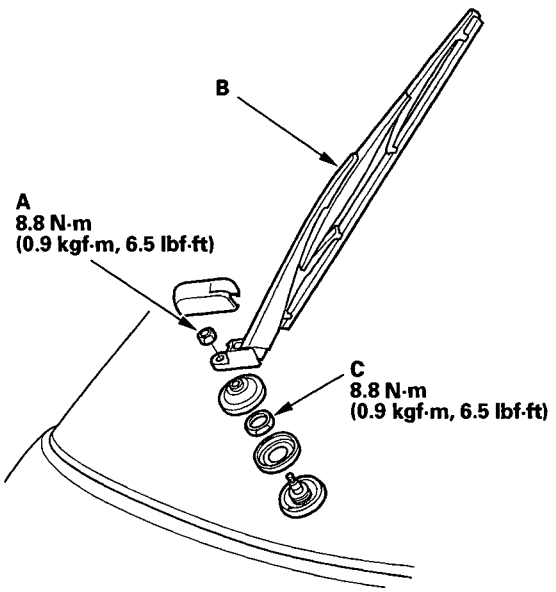
5. After installation, adjust the wiper arms (see page 22-251).

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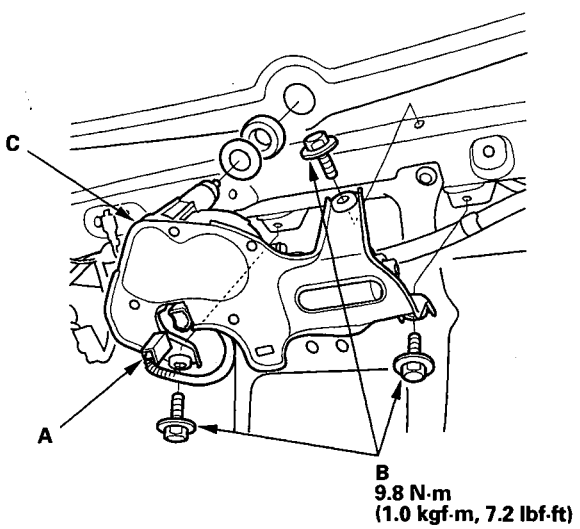
BACK

Rear Window Wiper Motor Replacement

1. Open the tailgate, and remove the tailgate lower trim panel (see page 20-174).
2. Remove the mounting nut (A), the wiper arm (B) and the special nut (C).



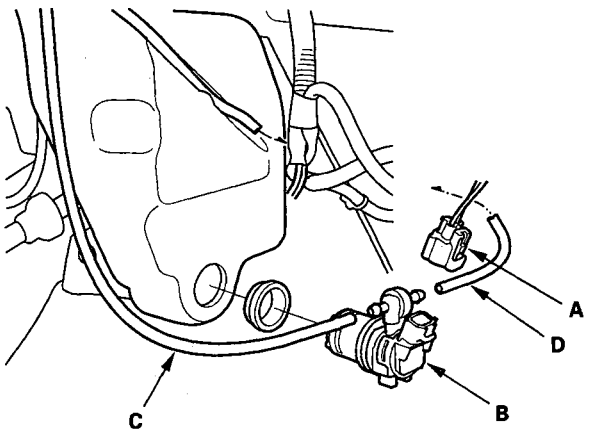
3. Disconnect the 4P connector (A) and remove the three mounting bolts (B), then remove the rear window wiper motor (C).



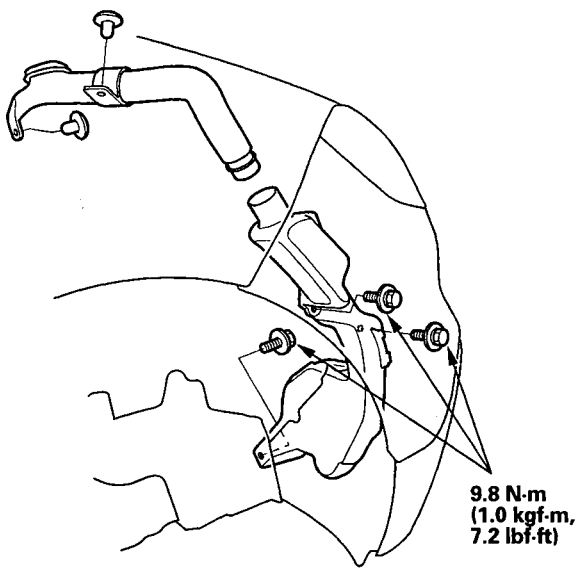
4. Install in the reverse order of removal.

Washer Reservoir Replacement

1. Remove the right inner fender (see page 20-176).
2. Disconnect the 2P connector (A) from the washer motor (B).



3. Disconnect the windshield washer tube (C) and the rear window washer tube (D).
4. Remove the clips and bolts, then remove the washer reservoir.



5. Install in the reverse order of removal.

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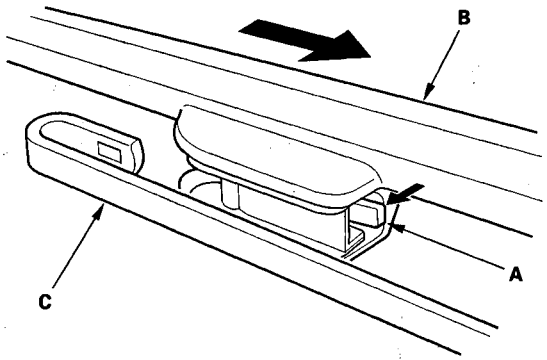
Wiper Blade Replacement

Windshield

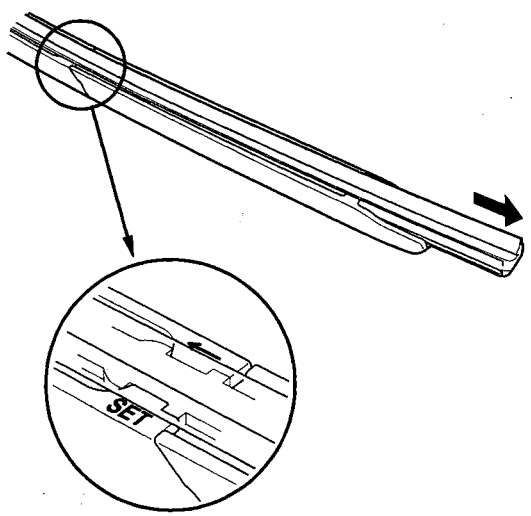
1. Lift the wiper arm from the windshield.

   NOTE: Lift the driver's side first.

2. Press and hold the tab (A) and side the wiper blade (B) toward the tabs until it releases from the wiper arm (C).



3. Pull the old rubber blade insert in the direction as shown, and remove it from the wiper blade.



4. Install a new rubber blade insert in the reverse order of removal.

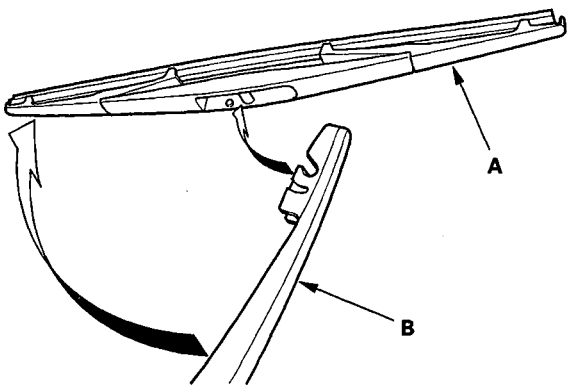
5. Install the wiper blades onto the windshield wiper arm in the reverse order of removal.

6. Test by turning on the wipers. If the blades slip, turn off the wipers and seat the attachments more firmly.

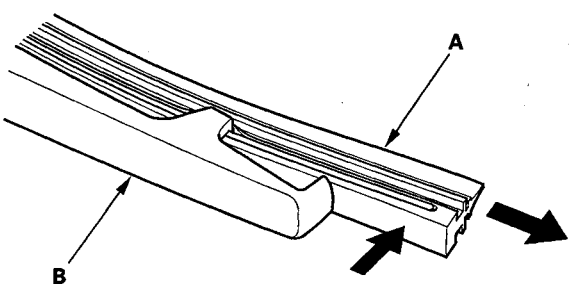
Rear window

1. Lift the wiper arm from the rear window.

2. Turn the rear wiper blade (A), release the lock, and then remove the wiper blade from the rear wiper arm (B).



3. Raise the old rubber blade insert (A), and remove it from the wiper blade (B).



4. Install the new rubber blade insert and the wiper blade in the reverse order of removal.

   NOTE: After installation, confirm that the wiper arm works smoothly.

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BACK

Wiper Arm/Nozzle Adjustment

FRONT

Wiper arms park position

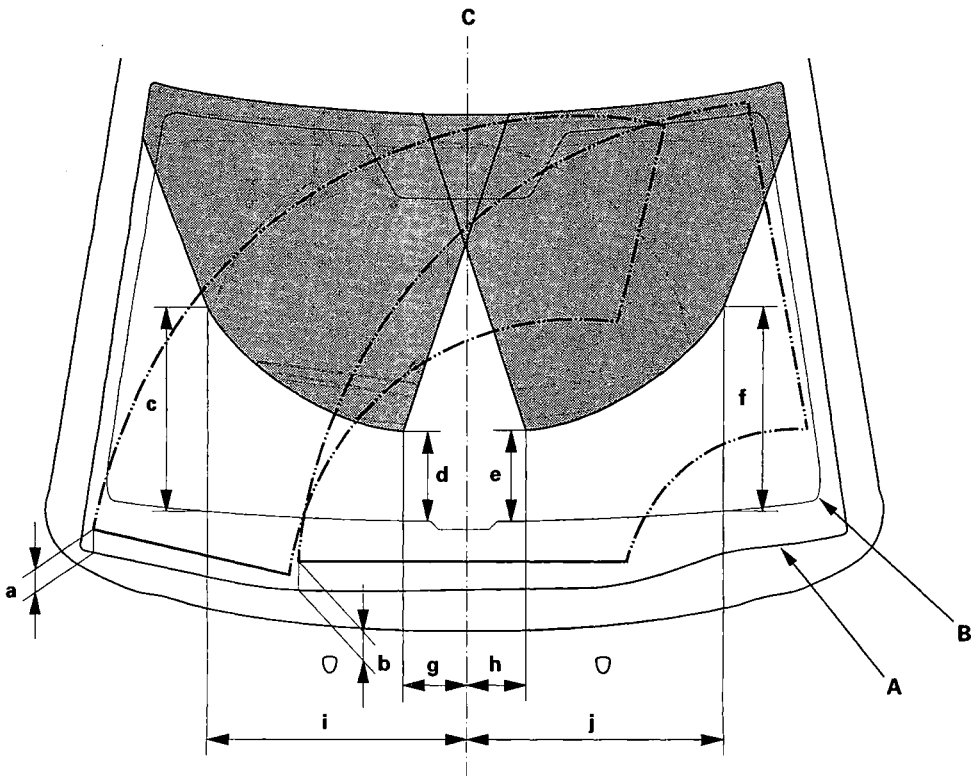
1. When the wiper arms stop at the park position, confirm that they are at the standard position.

   a: Position at about 1.2 in. (31 mm) from the top of cowl cover (A)
   b: Position at about 1.4 in. (35 mm) from the top of cowl cover (A)

Washer nozzle position

2. When you turn on the washers, 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 nozzles.

   c: Position at about 15.2 in. (385 mm) from the top of the black ceramic area (B) at the lower windshield
   d: Position at about 6.8 in. (173 mm) from the top of the black ceramic area (B) at the lower windshield
   e: Position at about 7.0 in. (178 mm) from the top of the black ceramic area (B) at the lower windshield
   f: Position at about 15.4 in. (392 mm) from the top of the black ceramic area (B) at the lower windshield
   g: Position at about 4.8 in. (121 mm) from the windshield center line (C)
   h: Position at about 4.7 in. (119 mm) from the windshield center line (C)
   i: Position at about 19.6 in. (497 mm) from the windshield center line (C)
   j: Position at about 19.7 in. (500 mm) from the windshield center line (C)



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Wiper Arm/Nozzle Adjustment (cont'd)

REAR

Wiper arm park position

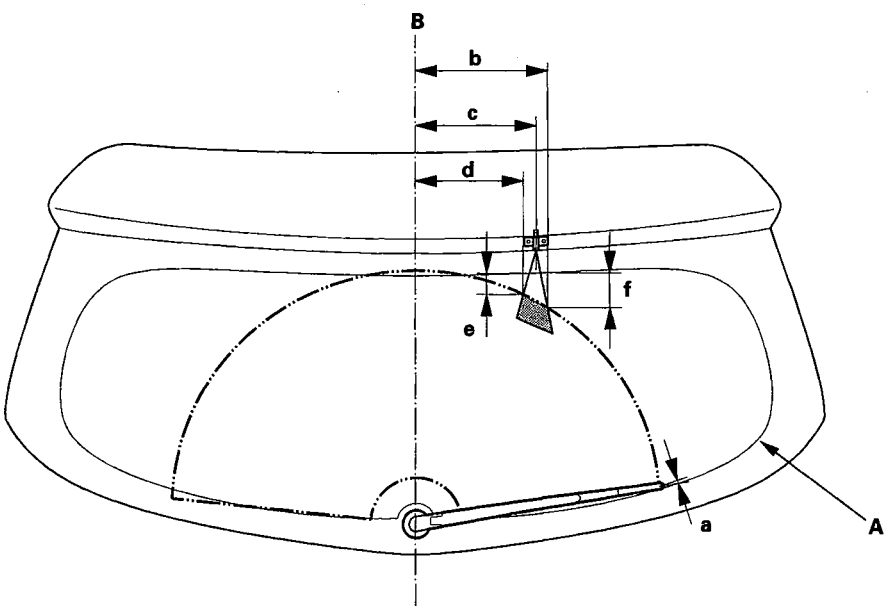
1. When the wiper arm stops at the park position, confirm that it is at the standard position.

   a: Position at about 0.2 in. (6 mm) from the black ceramic area (A)

Washer nozzle position

2. When you turn on the washers, 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 nozzles.

   b: Position at about 8.9 in. (226 mm) from the rear window center line (B)
   c: Position at about 8.2 in. (209 mm) from the rear window center line (B)
   d: Position at about 7.3 in. (186 mm) from the rear window center line (B)
   e: Position at about 1.6 in. (40 mm) from the top of the black ceramic area (A) at the lower rear window
   f: Position at about 2.1 in. (53 mm) from the top of the black ceramic area (A) at the lower rear window

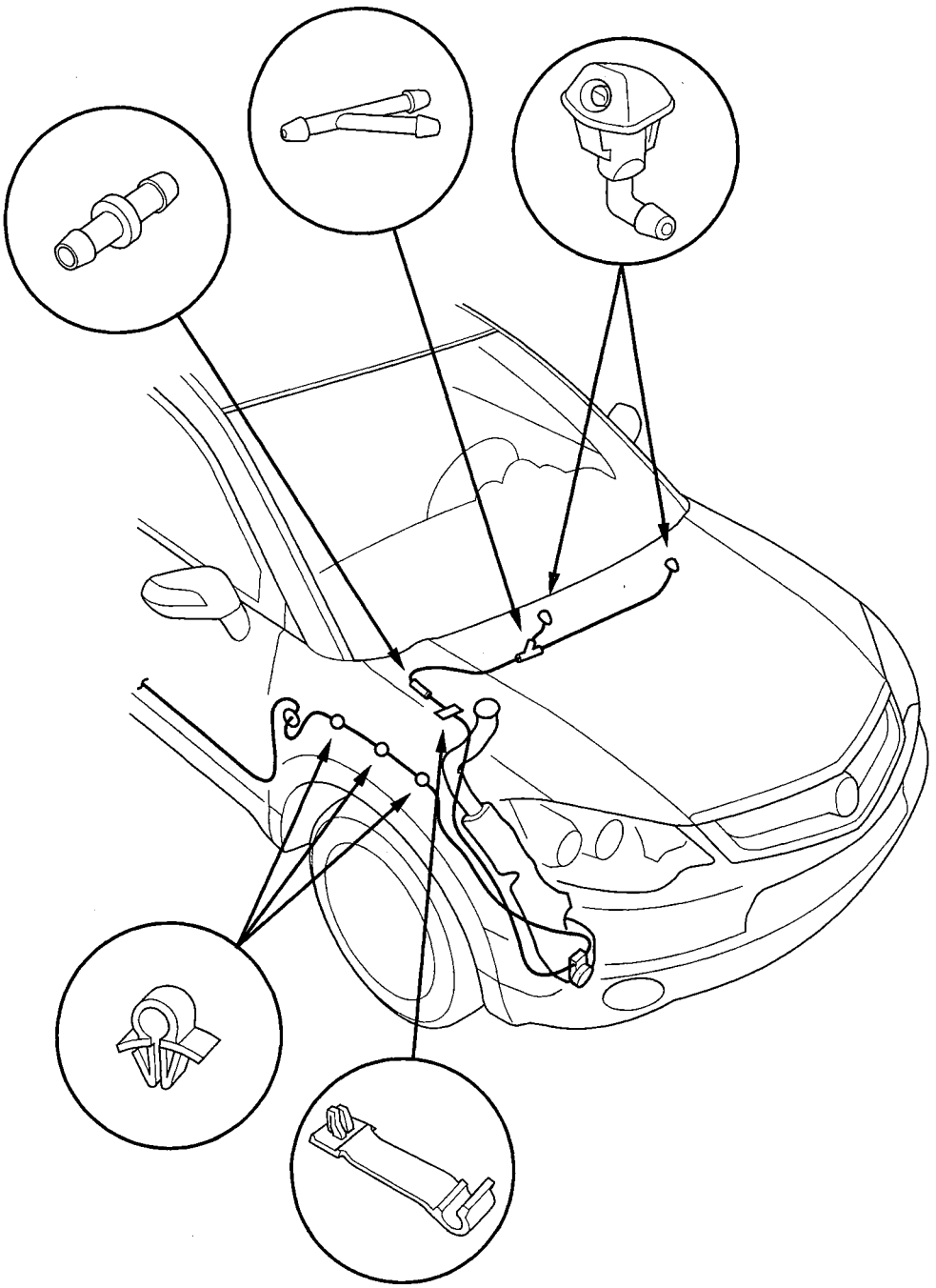


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Washer Tube Replacement

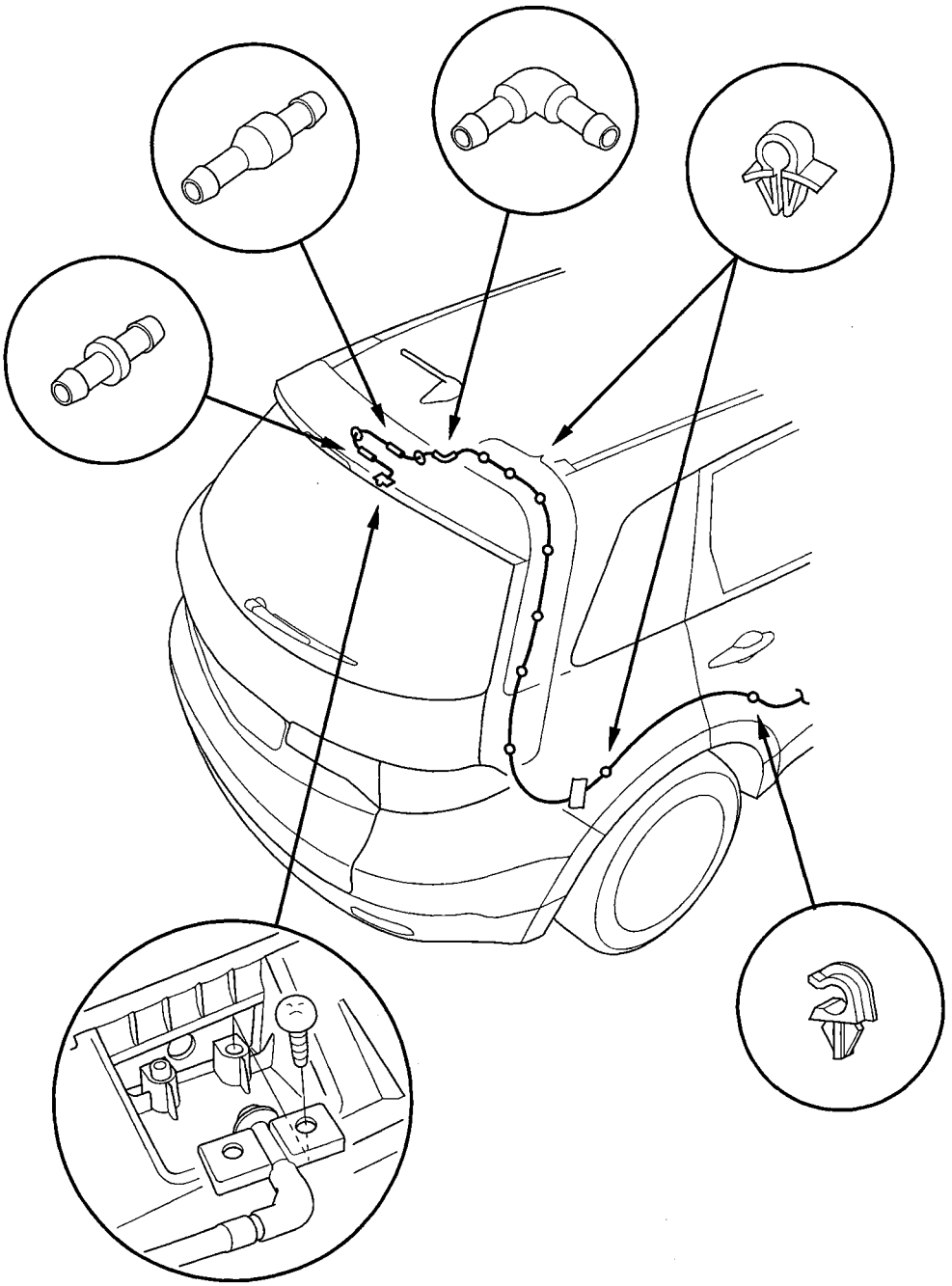
1. Remove the right inner fender (see page 20-176).
2. Remove the washer nozzles and clips, then remove the tubes.



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Washer Tube Replacement (cont'd)

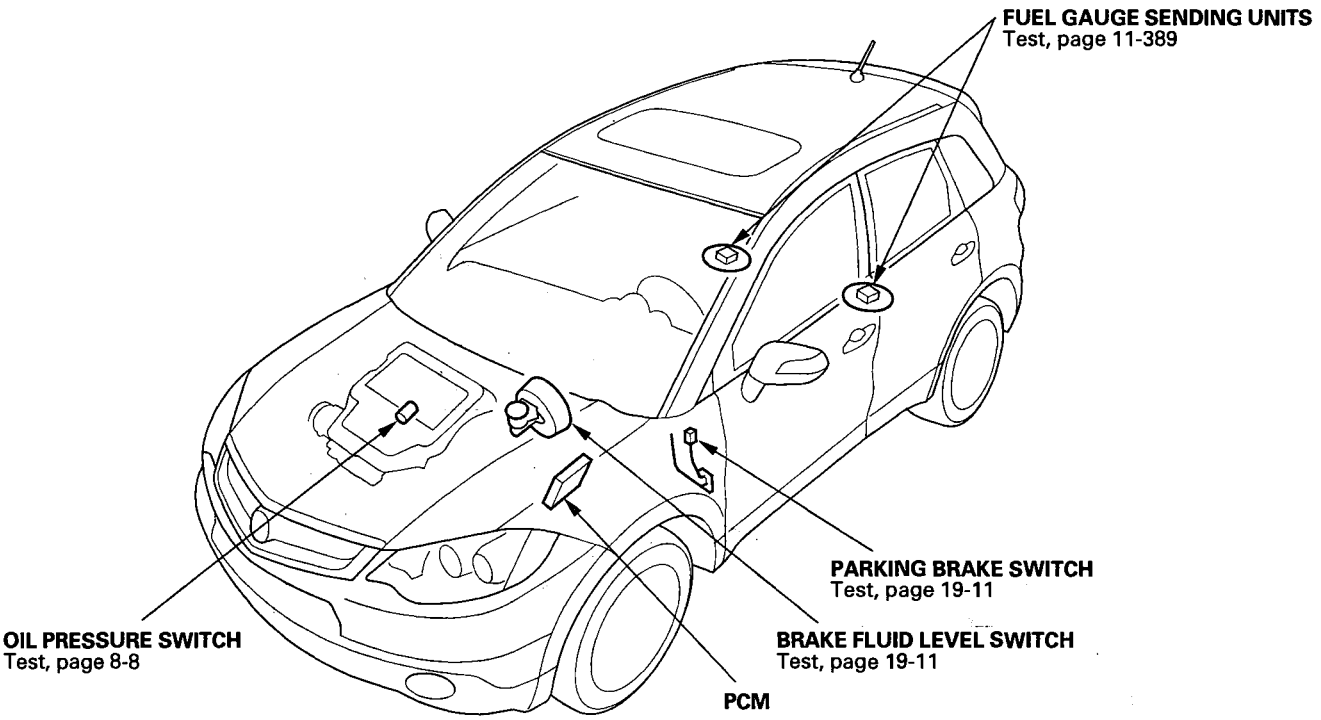


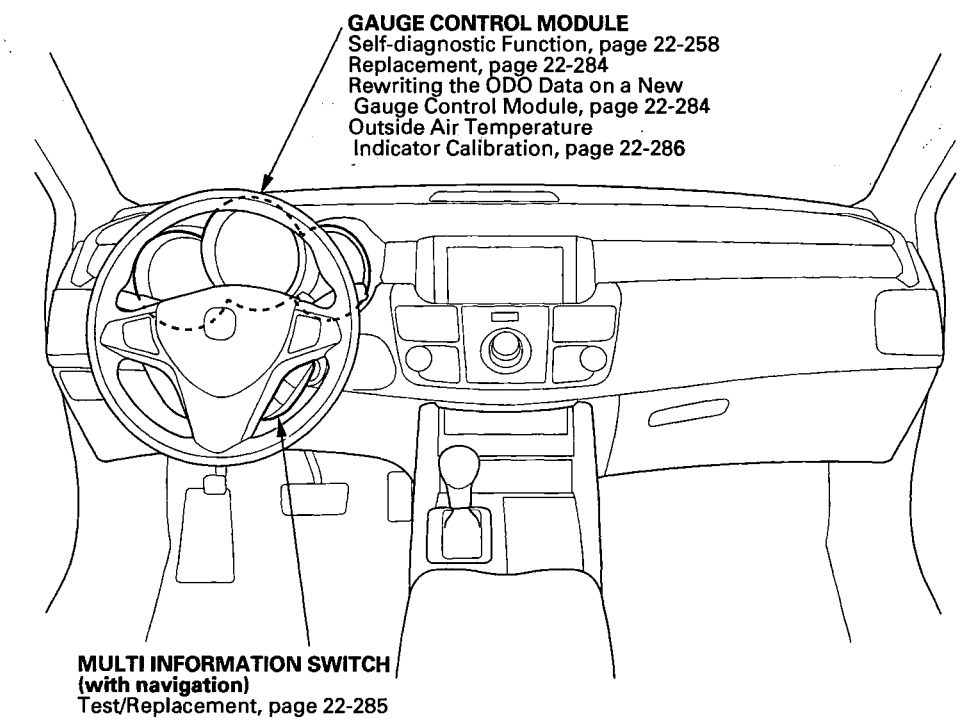
3. Install in the reverse order of removal. Take care not to pinch the washer tubes. Check the washer operation.

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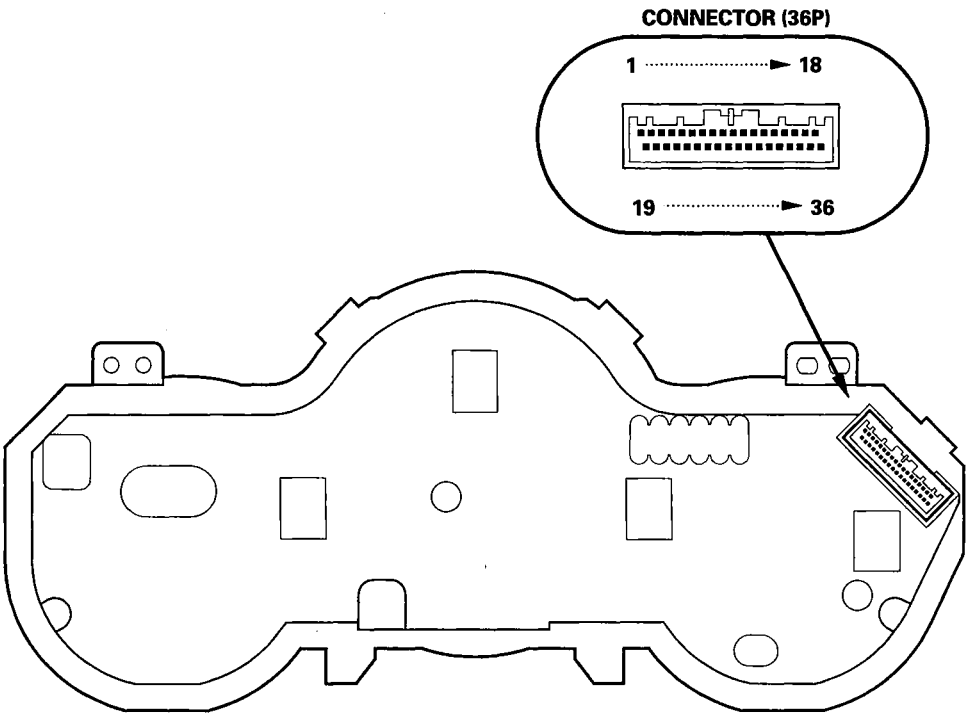




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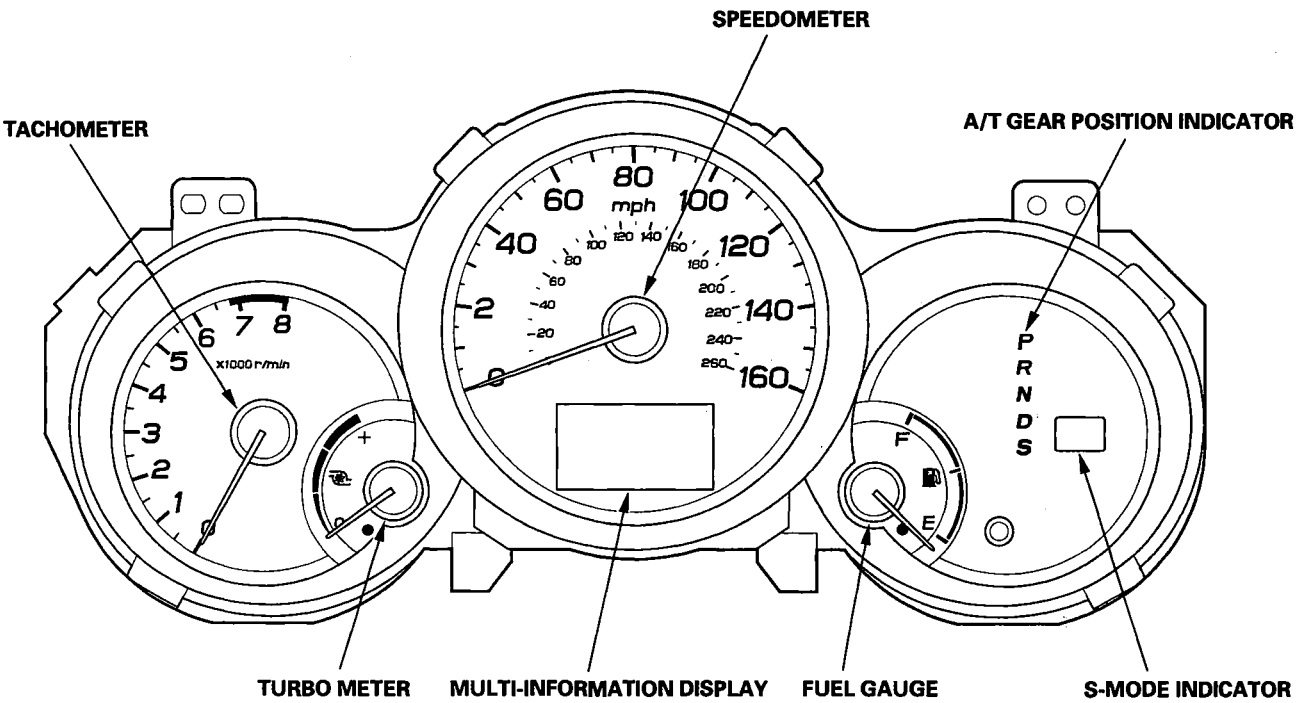
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Self-diagnostic Function

Before troubleshooting the gauge system, refer to multiplex integrated control system B-CAN System Diagnosis Test Mode A (see page 22-88).

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, Turbo meter
- 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

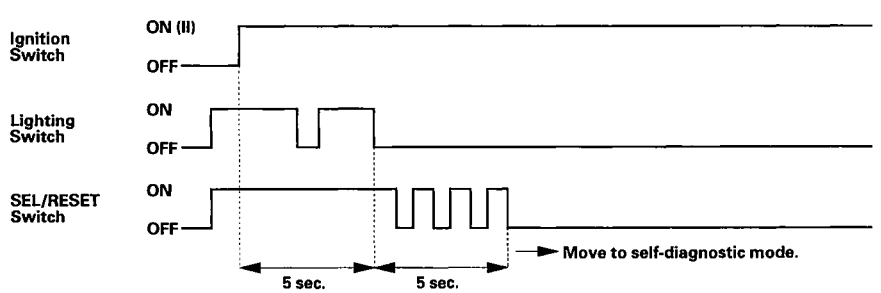
Using the HDS, select Body Electrical, Gauges, then Function Test and do the self-diagnostic Function.

Entering the self-diagnostic function (manual method)

Before doing the self-diagnostic function, check the No. 10 (7.5 A) fuse in the under-dash fuse/relay box and the No. 23 (10 A) fuse in the under-hood fuse/relay box.

1. Push and hold the SEL/RESET switch button.
2. Turn the headlights ON.
3. Turn the ignition switch ON (II).
4. Within 5 sec., turn the headlights OFF, then ON and OFF again.
5. Within 5 sec., release the SEL/RESET switch button, 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 button 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 OFF, 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, A/T temperature indicator, ABS indicator, brake system indicator, charging system indicator, cruise control indicator, cruise main indicator, DRL indicator (without navigation), electric vacuum pump system indicator, fog light indicator, high beam indicator, immobilizer indicator, lights-on indicator, low engine oil pressure indicator, low fuel indicator, low tire pressure indicator, malfunction indicator lamp (MIL), message indicator (with navigation), seat belt indicator, security indicator, SH-AWD indicator, side airbag cutoff indicator, SRS indicator, TPMS indicator (without navigation), VSA activation indicator, VSA indicator and washer fluid level indicator (Canada models).

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 master, SET, RESUME, CANCEL switches, multi information switch, SEL/RESET, NEXT, PREVIOUS switches (+), (−) switch, parking brake switch, and VSA OFF switch.

The Beeper Drive Circuit Check

When entering the self-diagnostic mode, the beeper sounds five times.

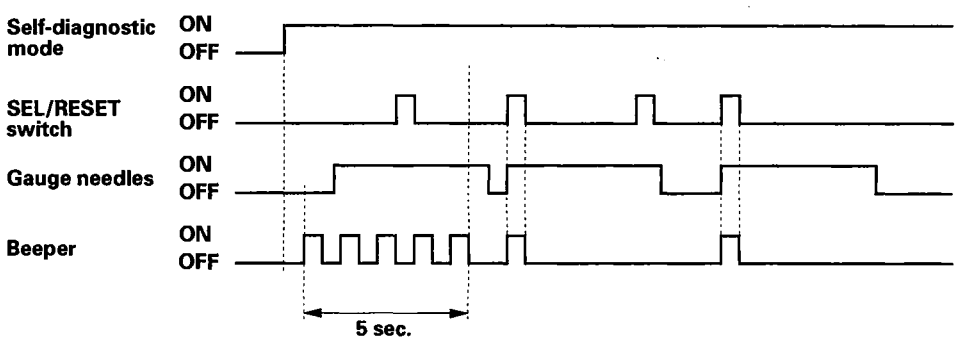
The LCD Segment Check

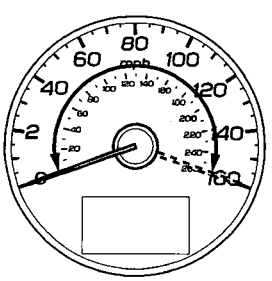
With navigation: When entering the self-diagnostic mode, all the segments blink five times.
Without navigation: When entering the self-diagnostic mode, the word "CHECKING NOW" shows on the LCD.

The Gauge Drive Circuit Check

When entering the self-diagnostic mode, the speedometer, the tachometer, the fuel gauge and the turbo meter needle sweeps from the minimum position to maximum position, then returns to the minimum position.

NOTE:
After the beeper stops sounding and the gauge needle returns 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 needle returns to the minimum position.





The needle sweeps from the minimum position to the maximum position, then return to the minimum position.

If the needle fails 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

Without navigation

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
Error 1	F-CAN communication
Error 2	B-CAN communication
Error 3	F-CAN and B-CAN communication

Example Indication

Normal (all segments come on.):



Faulty (Error 1):



- If the word "Error 1" 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 PCM and troubleshoot any DTCs found. If no DTCs are found, go to B-CAN System Diagnosis Test Mode A (see page 22-88).
- If the word "Error 2" 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 22-88).
- If the word "Error 3" 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 PCM and troubleshoot any DTCs found. If no DTCs are found, go to B-CAN System Diagnosis Test Mode A (see page 22-88).

With navigation

While in the self-diagnostic mode, the Communication Line Check starts after the LCD Segment Check.



If the communication line is OK, the word "OK" will be indicated on multi-information display (MID). If there is a communication line error, the word "NG" will be indicated on the MID.

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Indication pattern

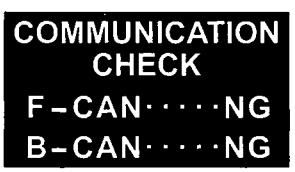
There is malfunction in the communication line between the F-CAN and the gauge control module. The B-CAN is OK at this time. Check for DTCs in the PCM and troubleshoot any DTCs found. If no DTCs are found, go to B-CAN System Diagnosis Test Mode A (see page 22-88).



There is malfunction in the communication line between the B-CAN and the gauge control module. The B-CAN line is OK at this time. Go to B-CAN System Diagnosis Test Mode A (see page 22-88).



There is malfunction in the communication line between the gauge control module, the F-CAN, and the B-CAN. Check for DTCs in the PCM and troubleshoot any DTCs found. If no DTCs are found, go to B-CAN System Diagnosis Test Mode A (see page 22-88).



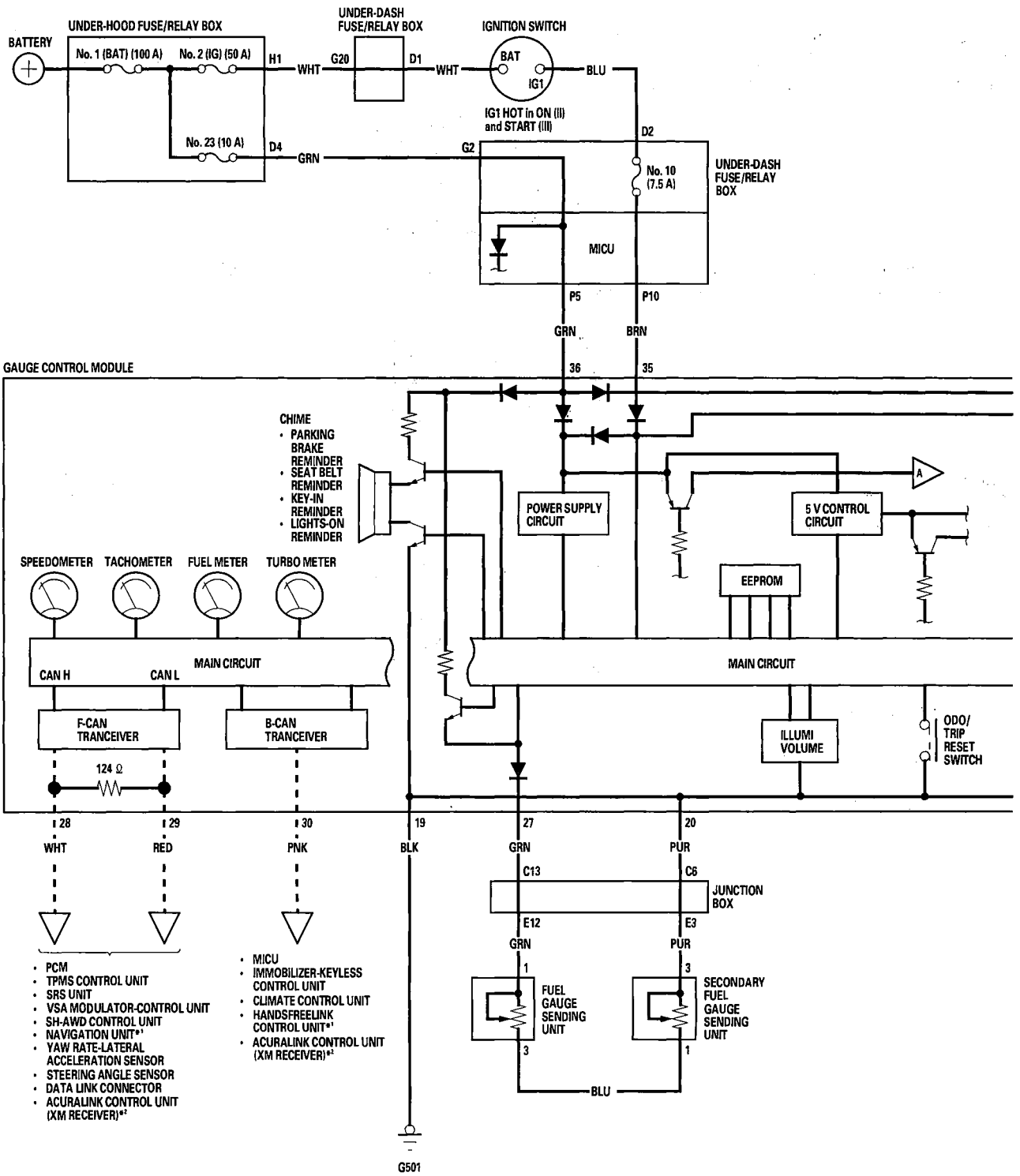
Ending the self-diagnostic function

Turn the ignition switch OFF.

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

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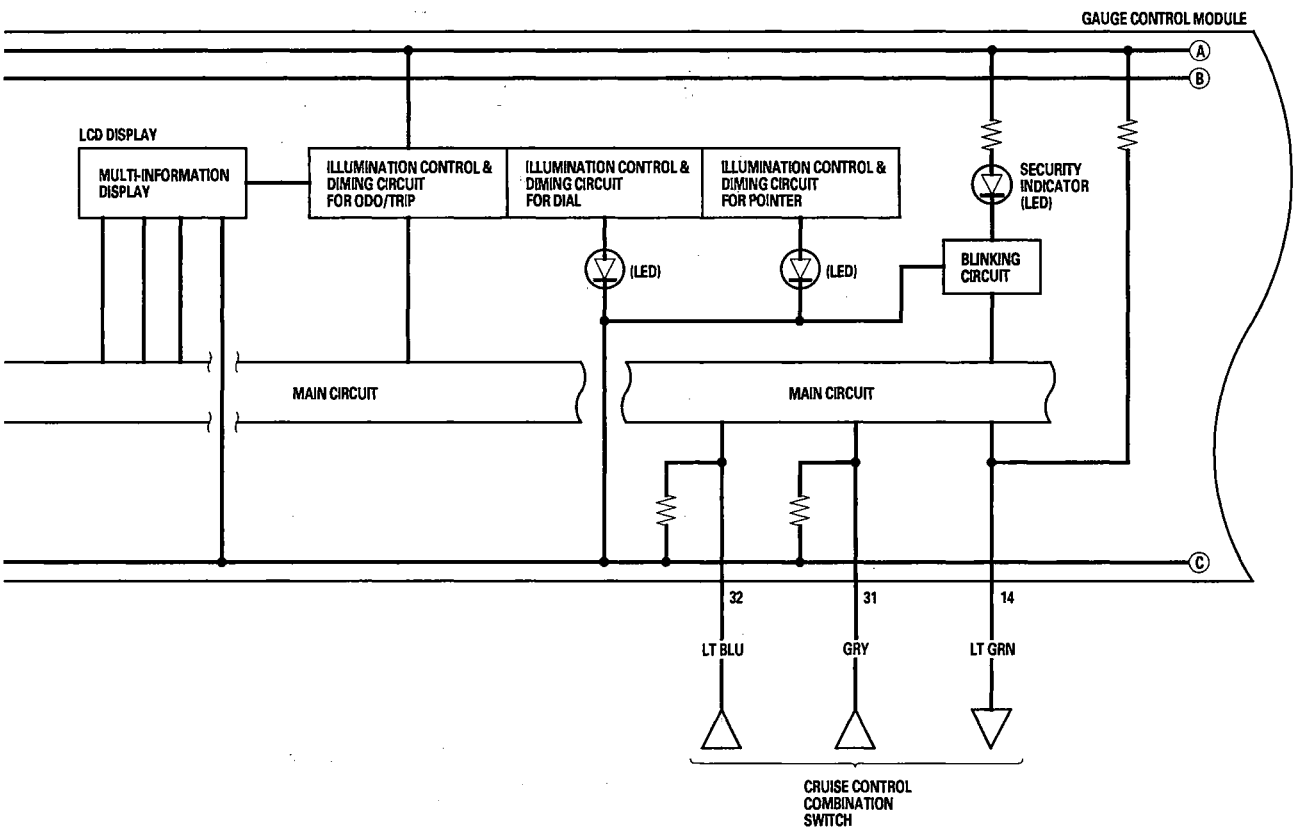
Circuit Diagram



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BACK

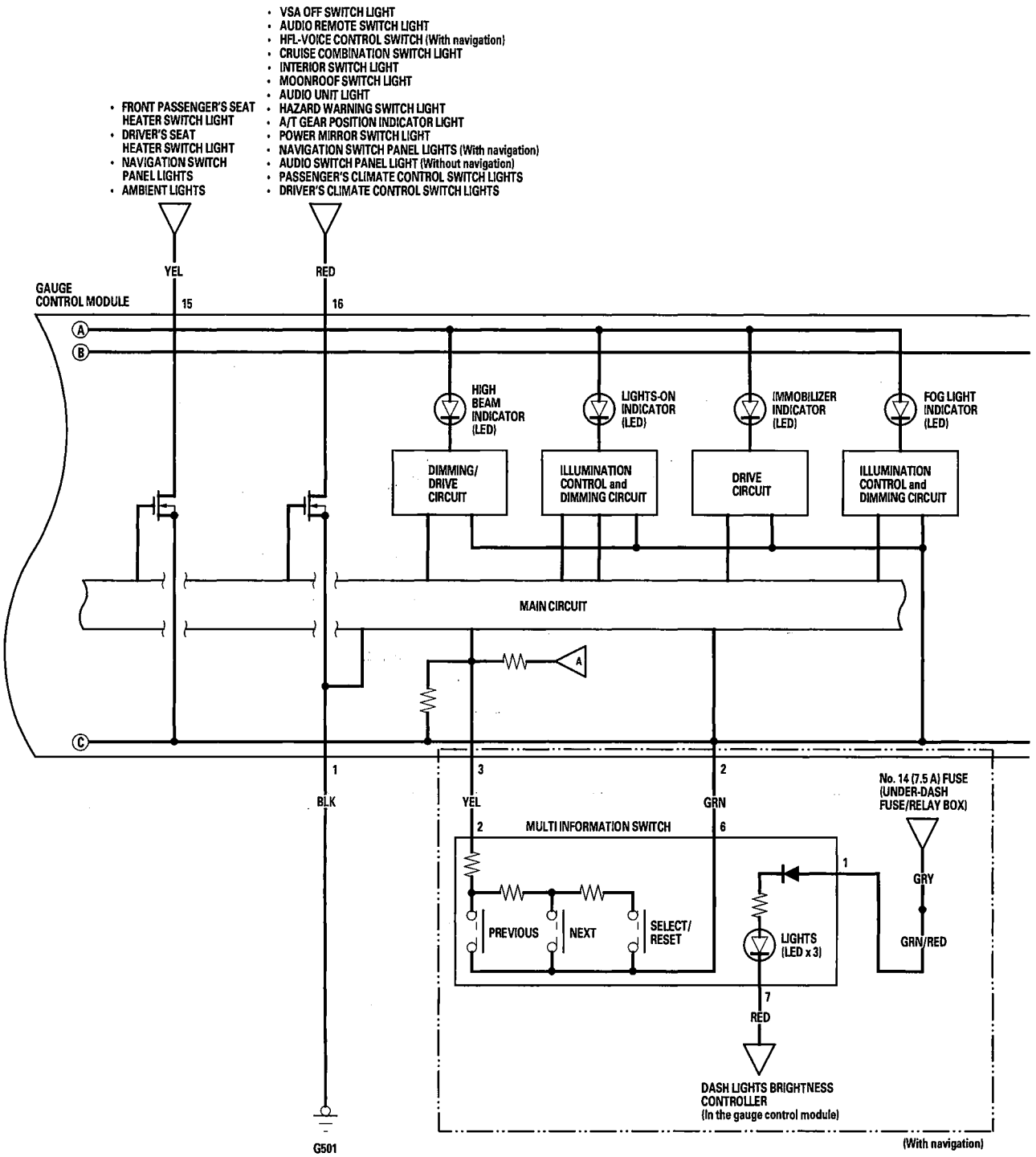
*1 : With navigation
*2 : USA models with navigation
- - - - - : CAN line



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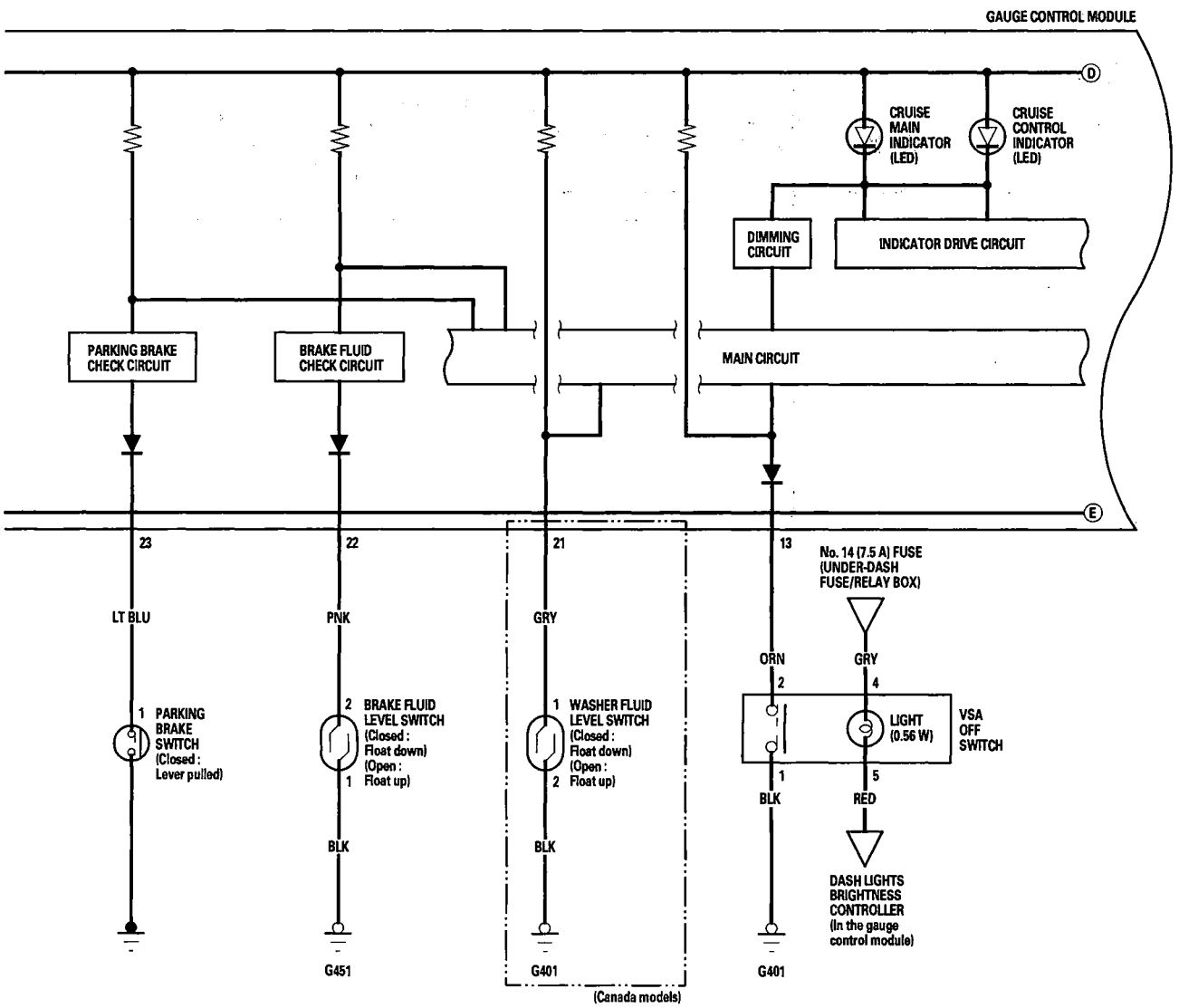
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Circuit Diagram (cont'd)



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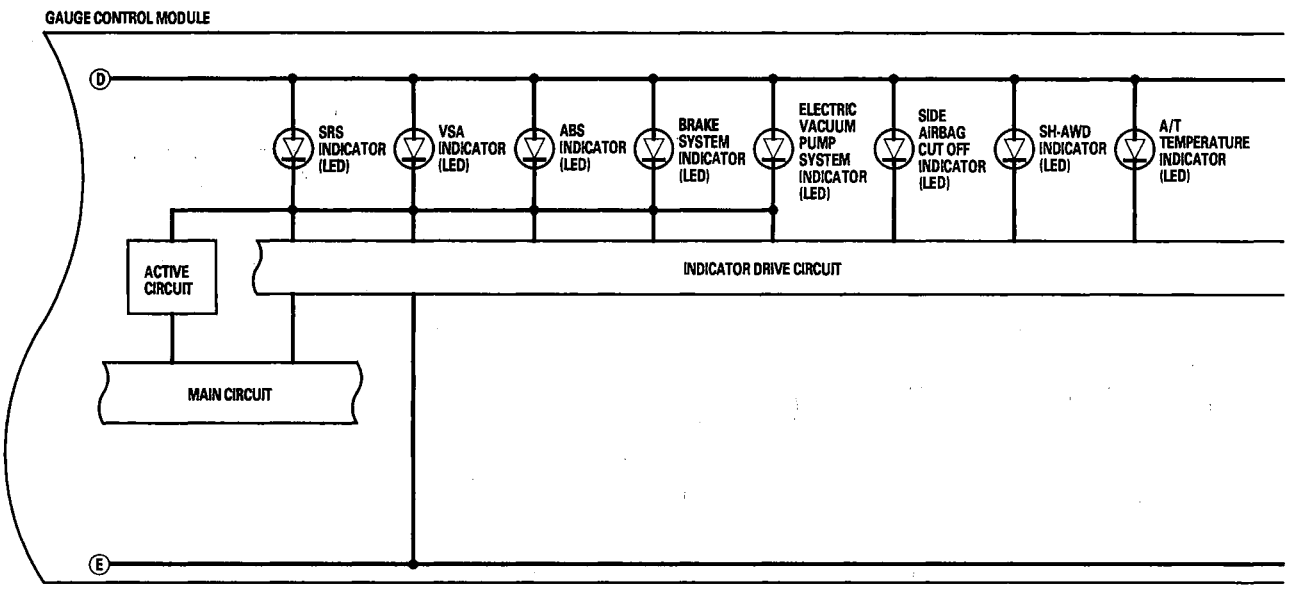
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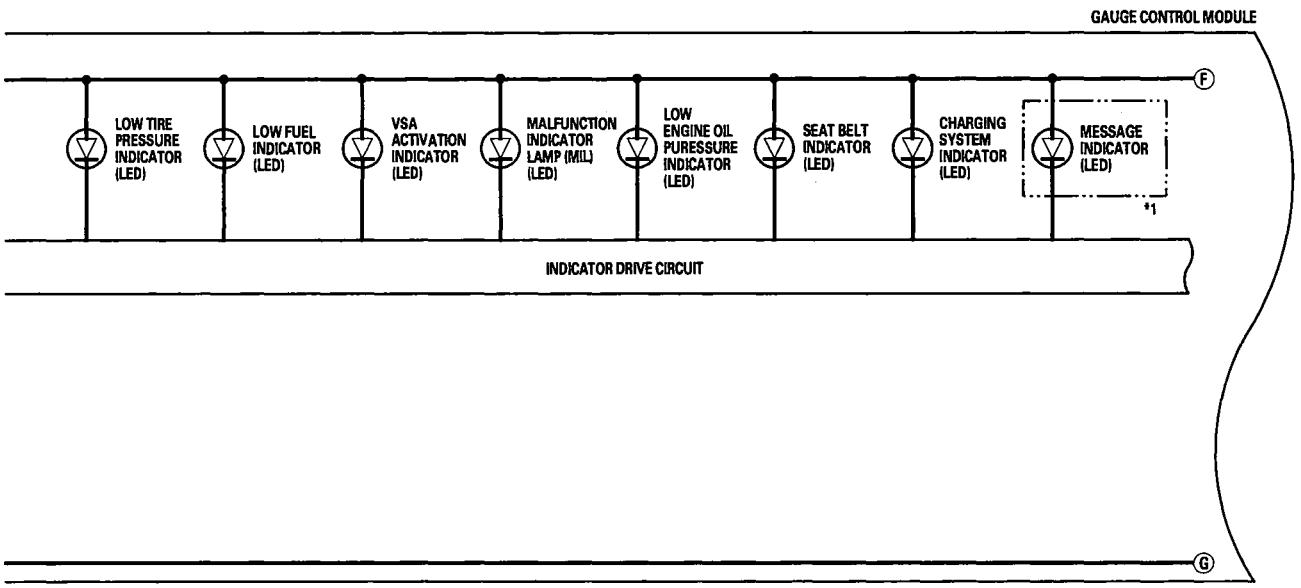
Circuit Diagram (cont'd)



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BACK

*1 : With navigation

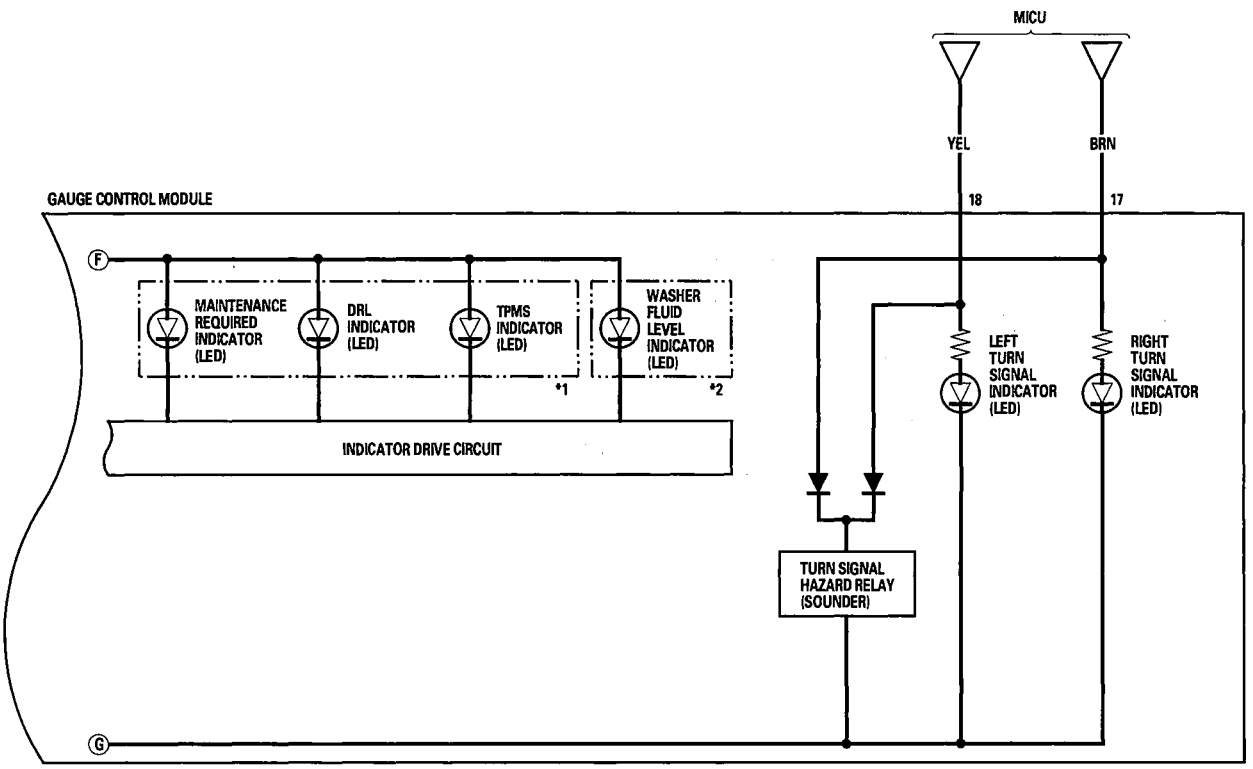


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(cont'd)

Circuit Diagram (cont'd)

*1 : Without navigation
*2 : Canada models without navigation



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BACK

DTC Troubleshooting

DTC B1152: Gauge Control Module Internal Error (EEPROM) Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

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

   Is DTC B1152 indicated?

   YES—Replace the gauge control module. ■

   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 22-63), and the charging system. ■

DTC B1155: Gauge Control Module Lost Communication with the MICU (Headlight Switch Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

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

   Is DTC B1155 indicated?

   YES—Go to step 5.

   NO—Intermittent failure. The gauge control module is OK at this time. Check for loose or poor connections. If the connections are good, check the battery condition (see page 22-63), and the charging system. ■

5. Check for DTCs with the HDS.

   Are DTCs B1155 and B1905 indicated at the same time?

   YES—Faulty MICU; replace the under-dash fuse/relay box. ■

   NO—Replace the gauge control module. ■

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DTC Troubleshooting (cont'd)

DTC B1156: Gauge Control Module Lost Communication with the MICU (Wiper Switch Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

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

   Is DTC B1156 indicated?

   YES—Go to step 5.

   NO—Intermittent failure. The gauge control module is OK at this time. Check for loose or poor connections. If the connections are good, check the battery condition (see page 22-63), and the charging system.■
5. Check for DTCs with the HDS.

   Are DTCs B1156 and B1905 indicated at the same time?

   YES—Faulty MICU; replace the under-dash fuse/relay box.■

   NO—Replace the gauge control module.■

DTC B1157: Gauge Control Module Lost Communication with the MICU (MICU Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

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

   Is DTC B1157 indicated?

   YES—Go to step 5.

   NO—Intermittent failure. The gauge control module is OK at this time. Check for loose or poor connections. If the connections are good, check the battery condition (see page 22-63), and the charging system.■
5. Check for DTCs with the HDS.

   Are DTCs B1157 and B1905 indicated at the same time?

   YES—Faulty MICU; replace the under-dash fuse/relay box.■

   NO—Replace the gauge control module.■

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BACK

DTC B1159: Gauge Control Module Lost Communication with the MICU (DOORSW Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

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

   Is DTC B1159 indicated?

   YES—Go to step 5.

   NO—Intermittent failure. The gauge control module is OK at this time. Check for loose or poor connections. If the connections are good, check the battery condition (see page 22-63), and the charging system. ■
5. Check for DTCs with the HDS.

   Are DTCs B1159 and B1905 indicated at the same time?

   YES—Faulty MICU; replace the under-dash fuse/relay box. ■

   NO—Replace the gauge control module. ■

DTC B1160: Gauge Control Module Lost Communication with the MICU (DRLOCKSW Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

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

   Is DTC B1160 indicated?

   YES—Go to step 5.

   NO—Intermittent failure. The gauge control module is OK at this time. Check for loose or poor connections. If the connections are good, check the battery condition (see page 22-63), and the charging system. ■
5. Check for DTCs with the HDS.

   Are DTCs B1160 and B1905 indicated at the same time?

   YES—Faulty MICU; replace the under-dash fuse/relay box. ■

   NO—Replace the gauge control module. ■

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DTC Troubleshooting (cont'd)

DTC B1168: Gauge Control Module Lost Communication with the PCM (Engine Messages)

DTC B1169: Gauge Control Module Lost Communication with the PCM (A/T Messages)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

1. Clear the DTCs using the HDS.
2. Turn the ignition switch OFF, and then back 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 B1168 or B1169 indicated?

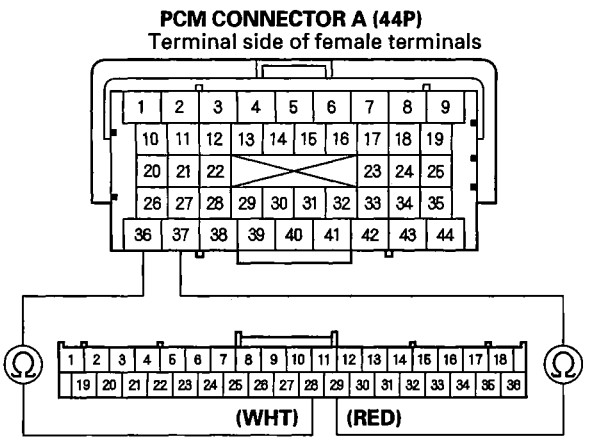
   YES—Go to step 5.

   NO—Intermittent failure, the F-CAN communication line is OK at this time. Check for loose or poor connections. If the connections are good, check the battery condition (see page 22-63), and the charging system. ■
5. Check for DTCs in the PCM with the HDS.

   Are any DTCs indicated?

   YES—Troubleshoot the PCM DTCs. ■

   NO—Go to step 6.
6. Turn the ignition switch OFF.
7. Jump the SCS line with the HDS.
8. Disconnect the gauge control module 36P connector.
9. Disconnect PCM connector A (44P).
10. Check for continuity between the No. 28 and No. 29 terminals of the gauge control module 36P connector and the A36 and A44 terminals of the PCM connector A (44P) A36 and A37 respectively.



Is there continuity?

YES—Go to step 11.

NO—Repair an open in the wire between the gauge control module and the PCM. ■

11. Substitute a known-good gauge control module and reset.
12. Check for DTCs with the HDS.

    Is DTCs B1168 or B1169 indicated?

    YES—Replace the PCM. ■

    NO—Replace the original gauge control module. ■

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BACK

DTC B1170: Gauge Control Module Lost Communication with the 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 22-88).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, and then back 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 B1170 indicated?

   YES—Go to step 5.

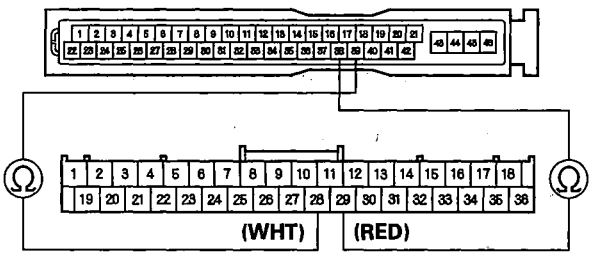
   NO—Intermittent failure, the F-CAN communication line is OK at this time. Check for loose or poor connections. If the connections are good, check the battery condition (see page 22-63), and the charging system. ■
5. Check for DTCs in the PCM/VSA with the HDS.

   Are any DTCs indicated?

   YES—Troubleshoot the PCM/VSA DTCs. ■

   NO—Go to step 6.
6. Turn the ignition switch OFF.
7. Disconnect the VSA modulator-control unit 46P connector.
8. Disconnect the gauge control module 36P connector.
9. Check for continuity between the No. 28 and No. 29 terminals of the gauge control module 36P connector and the No. 39 and No. 38 terminals of the VSA modulator-control unit 46P connector respectively.

VSA MODULATOR-CONTROL UNIT 46P CONNECTOR
Wire side of female terminals



GAUGE CONTROL MODULE 36P CONNECTOR
Wire side of female terminals

Is there continuity?

YES—Go to step 10.

NO—Repair an open in the wire between the gauge control module and the VSA modulator-control unit. ■

10. Check for poor connections, power, and ground to the VSA modulator-control unit. If OK, substitute a known-good VSA modulator-control unit.
11. Check for DTCs with the HDS.

    Is DTC B1170 indicated?

    YES—Replace the gauge control module. ■

    NO—Replace the original VSA modulator-control unit. ■

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DTC Troubleshooting (cont'd)

DTC B1173: Gauge Control Module Lost Communication with the TPMS Control Unit (TPMS Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

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

   Is DTC B1173 indicated?

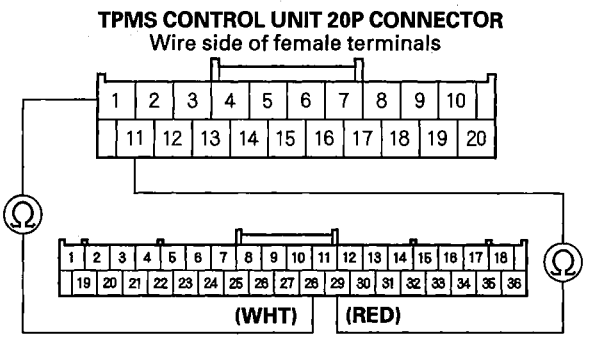
   YES—Go to step 4.

   NO—Intermittent failure, the F-CAN communication line is OK at this time. Check for loose or poor connections. If the connections are good, check the battery condition (see page 22-63), and the charging system.■
4. Check for DTCs in the TPMS.

   Are any DTCs indicated?

   YES—Troubleshoot the TPMS DTCs with the HDS.■

   NO—Go to step 5.
5. Turn the ignition switch OFF.
6. Disconnect the gauge control module 36P connector.
7. Disconnect the TPMS control unit 20P connector.
8. Check for continuity between the No. 28 and No. 29 terminals of the gauge control module 36P connector and the No. 1 and No. 11 terminals of the TPMS control unit 20P connector respectively.



   Is there continuity?

   YES—Go to step 9.

   NO—Repair an open in the wire between the gauge control module and the TPMS control unit.■
9. Check for poor connections, power, and ground to the TPMS control unit. If OK, substitute a known-good TPMS control unit.
10. Check for DTCs with the HDS.

    Is DTC B1173 indicated?

    YES—Replace the gauge control module.■

    NO—Replace the original TPMS control unit.■

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BACK

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 22-88).

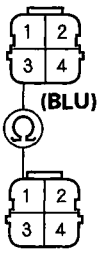
1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, and then back ON (II).
3. Wait for 30 seconds.
4. Check for DTCs with the HDS.

   Is DTC B1175 indicated?

   YES—Go to step 5.

   NO—Intermittent failure, the fuel level sensor circuit is OK at this time. Check for loose or poor connections. ■
5. Turn the ignition switch OFF.
6. Disconnect the fuel gauge sending unit 4P connector and the secondary fuel gauge sending unit 4P connector.
7. Check for continuity between fuel gauge sending unit 4P connector terminal No. 3 and secondary fuel gauge sending unit 4P connector terminal No. 1.

FUEL GAUGE SENDING UNIT 4P CONNECTOR
Wire side of female terminals



SECONDARY FUEL GAUGE SENDING UNIT 4P CONNECTOR
Wire side of female terminals

Is there continuity?

YES—Go to step 8.

NO—Repair an open in the BLU wire. ■

(cont'd)

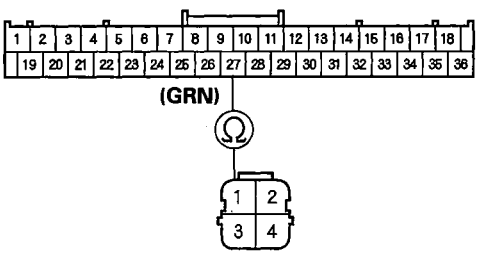
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DTC Troubleshooting (cont'd)

8. Disconnect the gauge control module 36P connector.

9. Check for continuity between gauge control module 36P connector terminal No. 27 and fuel gauge sending unit 4P connector terminal No. 1.

GAUGE CONTROL MODULE 36P CONNECTOR
Wire side of female terminals



FUEL GAUGE SENDING UNIT 4P CONNECTOR
Wire side of female terminals

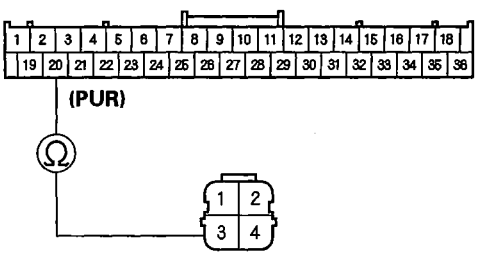
Is there continuity?

YES—Go to step 10.

NO—Repair an open in the GRN wire. ■

10. Check for continuity between gauge control module 36P connector terminal No. 20 and secondary fuel gauge sending unit 4P connector terminal No. 3.

GAUGE CONTROL MODULE 36P CONNECTOR
Wire side of female terminals



FUEL GAUGE SENDING UNIT 4P CONNECTOR
Wire side of female terminals

Is there continuity?

YES—Go to step 11.

NO—Repair an open in the PUR wire. ■

11. Do the fuel gauge sending unit test (see page 11-389).

Is the fuel gauge sending unit OK?

YES—Go to step 12.

NO—Replace the fuel gauge sending unit. ■

12. Do the secondary fuel gauge sending unit test (see page 11-390).

Is the secondary fuel gauge sending unit OK?

YES—Replace the gauge control module. ■

NO—Replace the secondary fuel gauge sending unit. ■

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BACK

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 22-88).

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

   Is DTC B1176 indicated?

   YES—Go to step 5.

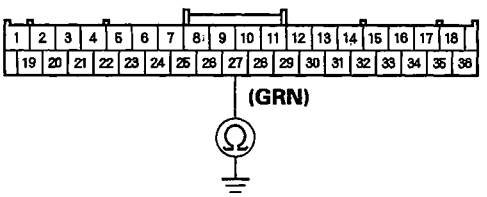
   NO—Intermittent failure, the fuel level sensor circuit is OK at this time. Check for loose or poor connections. ■
5. Turn the ignition switch OFF.
6. Disconnect the fuel gauge sending unit 4P connector.
7. Clear the DTCs with the HDS.
8. Turn the ignition switch OFF, and then back ON (II).
9. Wait for 30 seconds.
10. Check for DTCs with the HDS.

    Is DTC B1176 indicated?

    YES—Go to step 11.

    NO—Do the fuel gauge sending unit test (see page 11-389) and secondary fuel gauge sending unit test (see page 11-390).
11. Turn the ignition switch OFF.
12. Disconnect the gauge control module 36P connector.
13. Check for continuity between gauge control module 36P connector terminal No. 27 and body ground.

GAUGE CONTROL MODULE 36P CONNECTOR



Wire side of female terminals

Is there continuity?

YES—Repair a short in the wire between the gauge control module and the fuel gauge sending unit. ■

NO—Replace the gauge control module. ■

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DTC Troubleshooting (cont'd)

DTC B1177: Battery Voltage Abnormal

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

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

   Is DTC B1177 indicated?

   YES—Go to step 8.

   NO—Go to step 4.
4. Clear the DTCs with the HDS.
5. Turn the ignition switch OFF, and then back ON (II).
6. Crank the engine.
7. Check for DTCs with the HDS.

   Is DTC B1177 indicated?

   YES—Go to step 8.

   NO—Intermittent failure. The gauge control module and power supply voltage (IG1) that is supplied to the gauge control module are OK at this time. The battery may have been discharged, and recovered. ■
8. Check the battery (see page 22-63) and the charging system.

   Is the battery condition normal and the charging system OK?

   YES—Go to step 9.

   NO—The battery needs a recharge or replacement, or the charging system needs to repaired. ■
9. Turn the ignition switch ON (II).
10. With the gauge control module 36P connector still connected, check for voltage between the body ground and the gauge control module 36P connector No. 35 terminal.

    Is the voltage above 7.5 V?

    YES—Replace the gauge control module. ■

    NO—Repair an open or high resistance in the BRN wire between the ignition switch and the gauge control module. ■

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BACK

DTC B1178: F-CAN Communication Line Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

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

   Is DTCs B1168, B1169, B1170, B1173, and B1178 indicated?

   YES—Troubleshooting the indicated DTCs. ■

   NO—Intermittent failure, the F-CAN communication line is OK at this time. Check the F-CAN communication line for a short to ground. ■

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DTC Troubleshooting (cont'd)

DTC B1187: Gauge Control Module Lost Communication with the 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 22-88).

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

   Is DTC B1187 indicated?

   YES—Go to step 5.

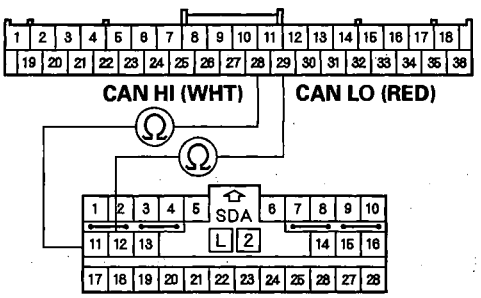
   NO—Intermittent failure. The gauge control module is OK at this time.■
5. Check for DTCs in the SRS with the HDS.

   Are any DTCs indicated?

   YES—Troubleshooting the SRS DTCs.■

   NO—Go to step 6.
6. Turn the ignition switch OFF.
7. Disconnect the gauge control module 36P connector.
8. Disconnect the negative cable from the battery, and wait at least 3 minutes before beginning work.
9. Disconnect the SRS unit connector A (28P).
10. Check for continuity between the SRS unit connector A (28P) terminals No. 11 and No. 12 and gauge control module 36P connector No. 28 and No. 29 terminals.

GAUGE CONTROL MODULE 36P CONNECTOR
Wire side of female terminals



SRS UNIT CONNECTOR A (28P)
Wire side of female terminals

Are there continuity?

YES—Substitute a known-good SRS unit, and recheck. If DTC B1187 is indicated again, replace the gauge control module.■

NO—Repair an open in the wire.■

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BACK

DTC B1188: Gauge Control Module Lost Communication with the MICU (RM Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

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

   Is DTC B1188 indicated?

   YES—Go to step 5.

   NO—Intermittent failure. The gauge control module is OK at this time. Check for loose or poor connections. If the connections are good, check the battery condition (see page 22-63), and the charging system. ■
5. Check for DTCs with the HDS.

   Are DTCs B1188 and B1905 indicated at the same time?

   YES—Faulty MICU; replace the under-dash fuse/relay box. ■

   NO—Replace the gauge control module. ■

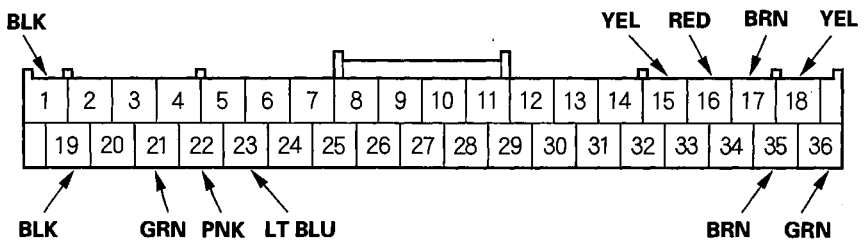
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Gauge Control Module Input Test

NOTE: Before testing, do the gauge control module self-diagnosis procedure, and make sure the B-CAN communication line is OK.

1. Turn the ignition switch OFF.
2. Remove the gauge control module and disconnect the 36P connector from it (see page 22-284).

GAUGE CONTROL MODULE 36P CONNECTOR



Wire side of female terminals

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 are OK, go to step 4.
4. With the connector still disconnected, make 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 5.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
15	YEL	Combination light switch ON	Attach to ground: The illuminations of the ambient lights and seat heater switches lights come on full.	• Faulty LEDs and bulbs • An open in the wire
16	RED	Combination light switch ON	Attach to ground: The illuminations of the dash lights, the audio unit, and the climate control switch lights come on full bright.	• Faulty LEDs and bulbs • An open in the wire
18	YEL	Ignition switch ON (II), turn signal switch in LEFT	Check for voltage to ground: There should be battery voltage when the lights are flashing.	• Faulty MICU • Faulty combination light switch • An open in the wire
17	BRN	Ignition switch ON (II), turn signal switch in RIGHT	Check for voltage to ground: There should be battery voltage when the lights are flashing.	• Faulty MICU • Faulty combination light switch • An open in the wire

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5. Reconnect the connector to the gauge control module, and make the 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, the gauge control module must be faulty; replace it.

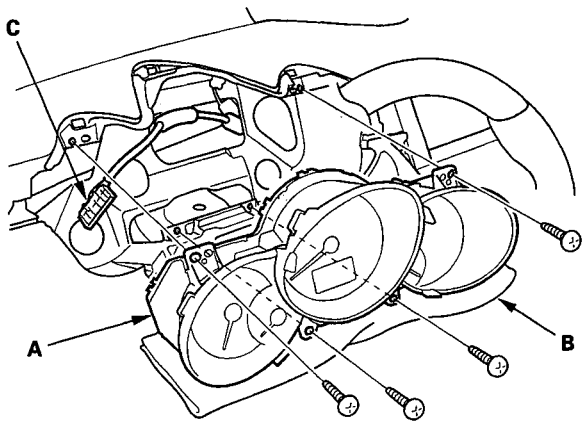
Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
1	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
19	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
35	BRN	Ignition switch ON (II)	Check for voltage to ground: There should be battery voltage.	• Blown No. 10 (7.5 A) fuse in the under-dash fuse/relay box • An open in the wire
36	GRN	Under all conditions	Check for voltage to ground: There should be battery voltage.	• Blown No. 23 (10 A) fuse in the under-hood fuse/relay box • An open in the wire
21	GRN (Canada models)	Ignition switch ON (II), washer fluid is half or more in the washer reservoir	Check for voltage to ground: There should be 5 V or more.	• Faulty washer fluid level switch • A short to ground in the wire
		Ignition switch ON (II), washer fluid is empty in the washer reservoir	Check for voltage to ground: There should be less than 1 V.	• Poor ground (G401) • Faulty washer fluid level switch • An open in the wire
22	PNK	Ignition switch ON (II), brake fluid is full level in the reservoir	Check for voltage to ground: There should be 5 V or more.	• Faulty brake fluid level switch • A short to ground in the wire
		Ignition switch ON (II), brake fluid is lower level in the reservoir	Check for voltage to ground: There should be less than 1 V.	• Poor ground (G451) • Faulty brake fluid level switch • An open in the wire
23	LT BLU	Ignition switch ON (II), parking brake level pulled	Check for 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 level released	Check for voltage to ground: There should be 5 V more.	• Faulty parking brake switch • A short to ground in the wire

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Gauge Control Module Replacement

1. Remove the instrument panel (see page 20-100).

2. Remove the four screws from the gauge control module (A), and spread a protective cloth (B) on the upper column cover.



3. Disconnect the 36P connector (C), and remove the gauge control module.

4. Install the gauge in the reverse order or removal.

Rewriting the ODO Data on a New Gauge Control Module

NOTE:
- If the HDS retrieves the ODO data from the gauge control module, the ODO value on the LCD display will appear as "— — —", making the ODO function unusable, and the HDS will be unable to retrieve additional ODO values.
- Rewriting is not possible on a gauge control module that does not communicate.
- Obtain a new gauge control module before starting the rewriting process.
- Make sure vehicle's battery is fully charged.

1. Before replacing the gauge control module, connect the HDS to the data link connector.

2. Select GAUGES from the BODY ELECTRICAL menu display.

3. Select "Gauge Control Module Replacement (ODO rewrite)" from the ADJUSTMENT menu, and follow the instructions on the display to retrieve the ODO value.

4. Replace the gauge control module.

5. Follow the instructions on the display to write the new ODO value to the new gauge control module.

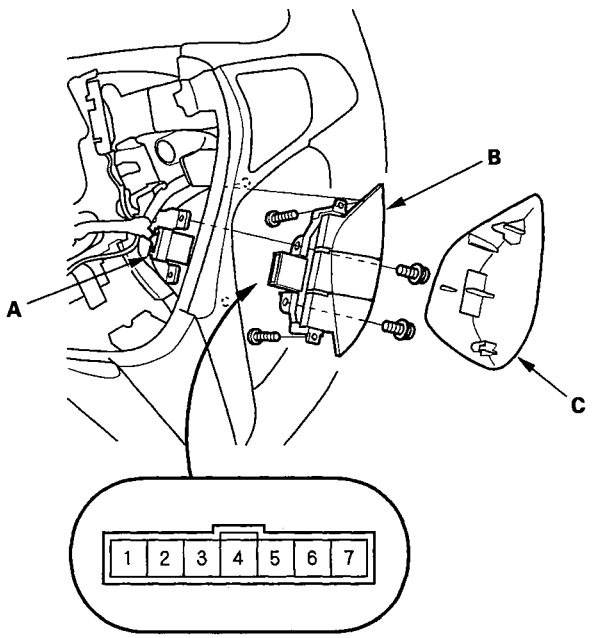
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Multi-information Switch Test/Replacement

1. Remove the driver's airbag assembly (see page 24-146).

2. Disconnect the 7P connector (A) from the multi-information switch (B).



3. Remove the steering wheel cover (C) from the steering wheel (see page 17-23).

4. Remove the multi-information switch from the steering wheel by removing the four screws.

5. Measure resistance between the multi-information switch 7P connector No. 2 and No. 6 terminals in each switch position according to the table.

Position	Resistance
▲	About 33 Ω
SEL/RESET	About 1.043 kΩ
▼	About 363 Ω

6. If the resistance is not as specified, then replace the switch.

7. If the switch is OK, but there is a problem with the switch function, check the cable reel subharness and cable reel.

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Outside Air Temperature Indicator Calibration

NOTE: To test the outside air temperature sensor (see page 21-79).

Description

The outside temperature sensor is located behind the center of the front bumper. The gauge control module uses measurements from this sensor to display the outside air temperature.
Because of the location of the sensor, it may be affected by heat reflection from the road, engine and radiator heat, or hot exhaust from surrounding traffic.
These conditions can heat soak the outside air temperature sensor and cause inaccurate readings.
Logic has been written into the gauge control module to help prevent abnormal of fluctuating outside air temperature indicator readings.

Outside Air Temperature Indicator Logic

Initial outside air temperature indication after the ignition switch is turned ON (II).
If the engine coolant temperature is 140 °F (60 °C) or higher when the ignition switch is turned 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.

If the engine coolant temperature is 139 °F (59 °C) or lower when the ignition switch is turned ON (II), the current temperature measured by the outside air temperature sensor will be indicated.

Update to the outside air temperature indicator while driving

If the temperature measured by the outside air temperature sensor is greater than the temperature on the outside air temperature indicator, the outside temperature indicator will increase by 1 °F (1 °C) per minute after the vehicle speed is greater than 19 mph (30 km/h) for more than 1minute 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.

If the outside air temperature is less than 140 °F (60 °C), the temperature increases 1 °F (1 °C) every 2 seconds until the current outside air temperature.

If the outside air temperature is less than the indicated temperature, the temperature will decrease 1 °F (1 °C) every 2 seconds until the current outside air temperature is indicated regardless of vehicle speed.

Troubleshooting

If the indicator displays "— — —" for more than 2 seconds after selecting the outside air temperature display mode, check the climate control system or multiplex integrated control system for DTCs (see B-CAN System Diagnosis Test Mode A) (see page 22-88).

Calibration

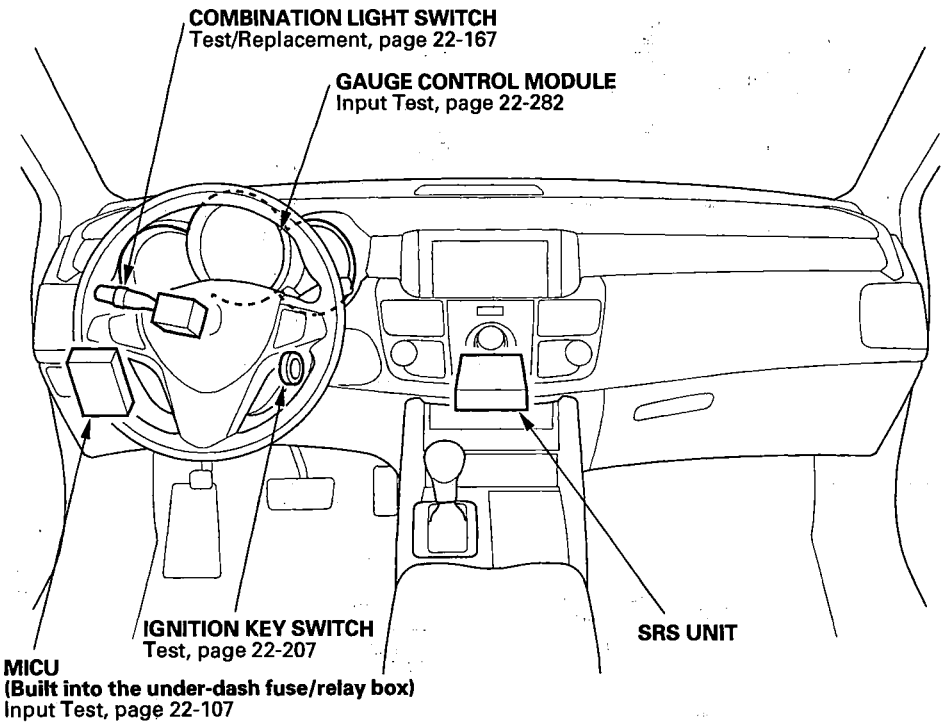
The outside air temperature indicator's displayed temperature can be recalibrated ±5 °F or ±3 °C to meet the client's expectations.

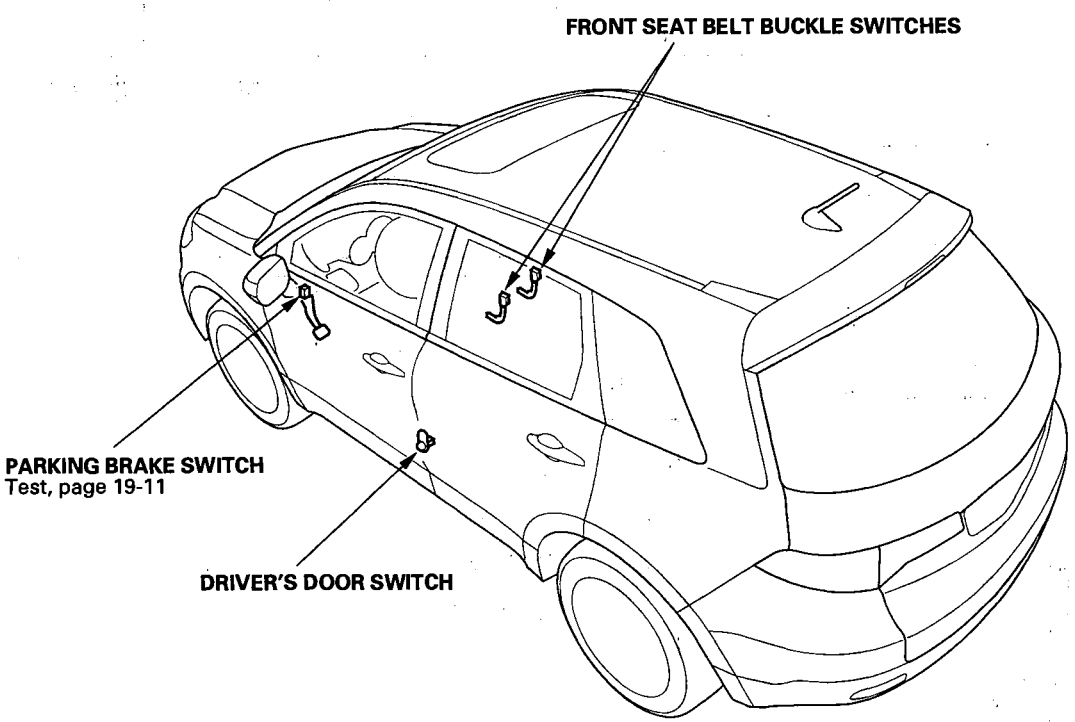
Calibrate the outside air temperature with the HDS or by custom memory setting.

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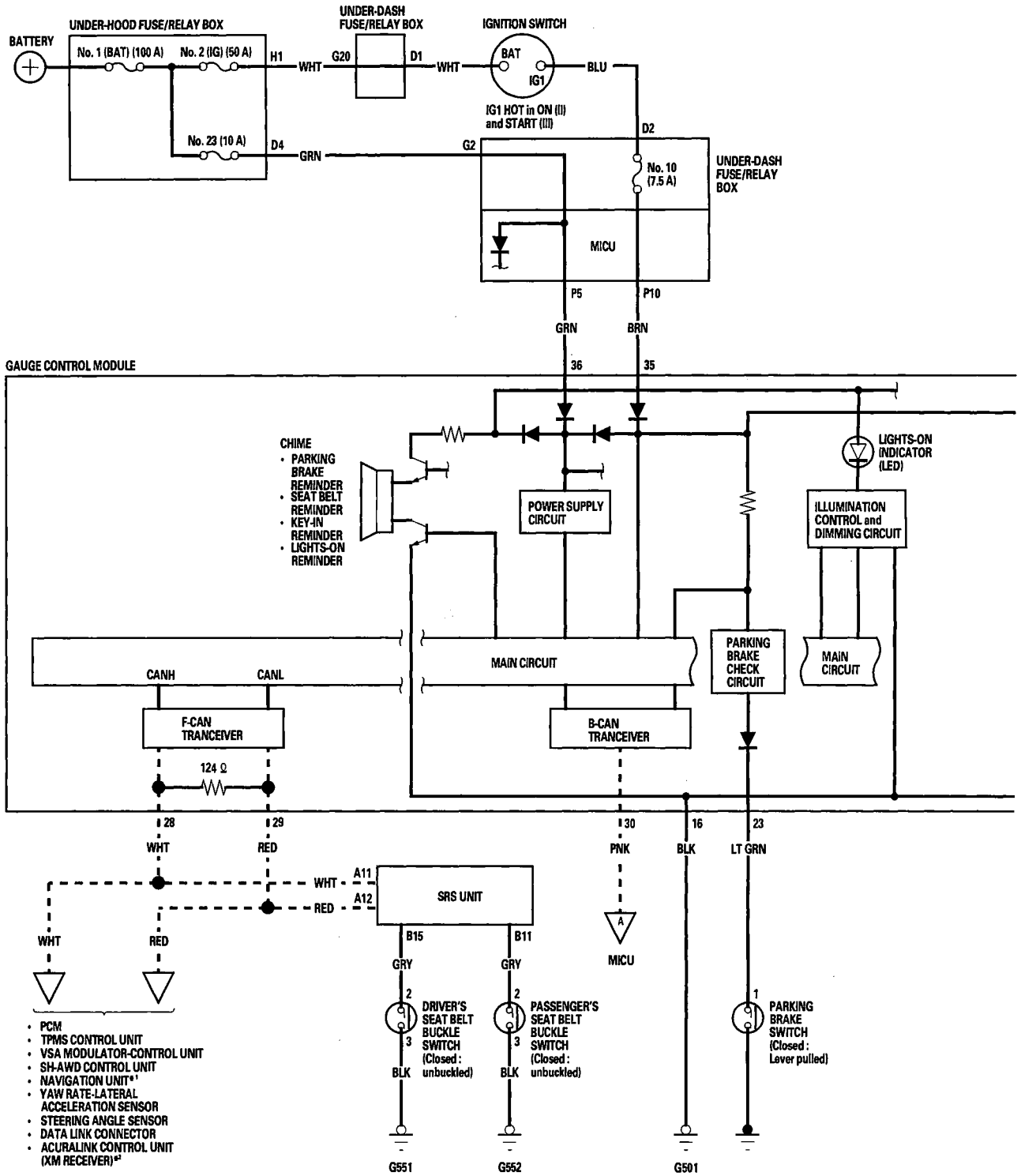
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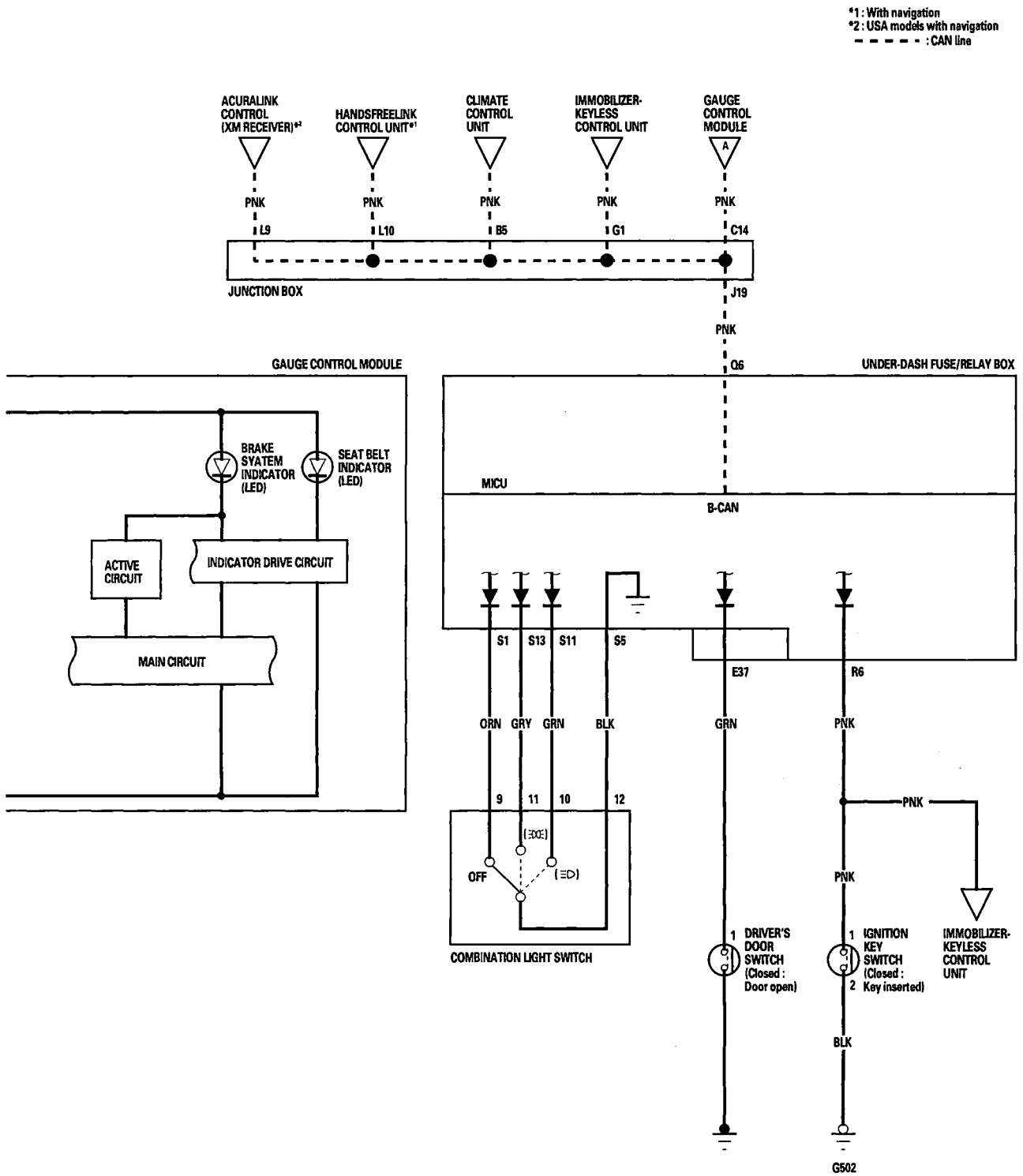
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Circuit Diagram



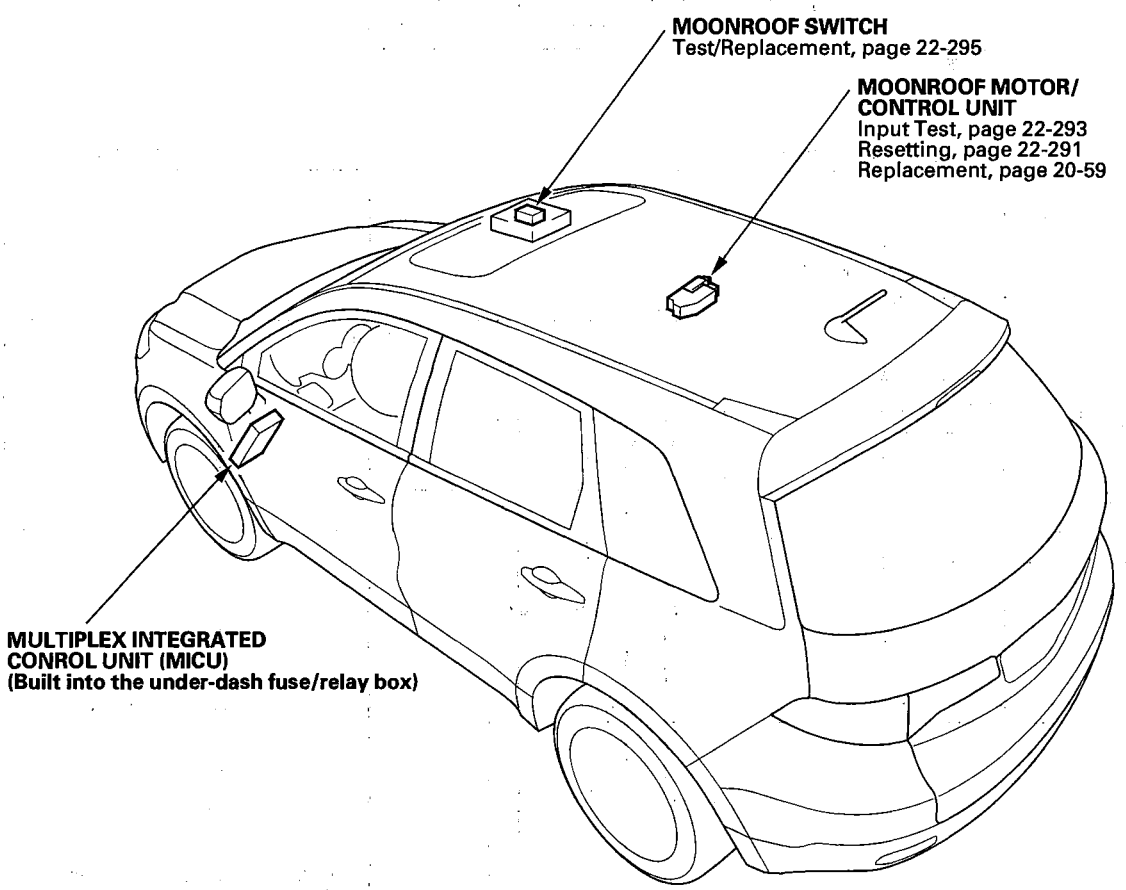
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Resetting the Moonroof Control Unit

NOTE:
- Perform resetting the moonroof control unit with all the doors and tailgate closed.
- The clear procedure must be done first.

Resetting the moonroof is required when any of the following has occurred:

- The moonroof was moved manually while the battery was dead or disconnected.
- The moonroof motor was replaced with a new one.
- Any of components related to the moonroof were replaced.
  - Wind deflector
  - Moonroof glass
  - Moonroof seal
  - Moonroof glass bracket
  - Moonroof cables, etc.

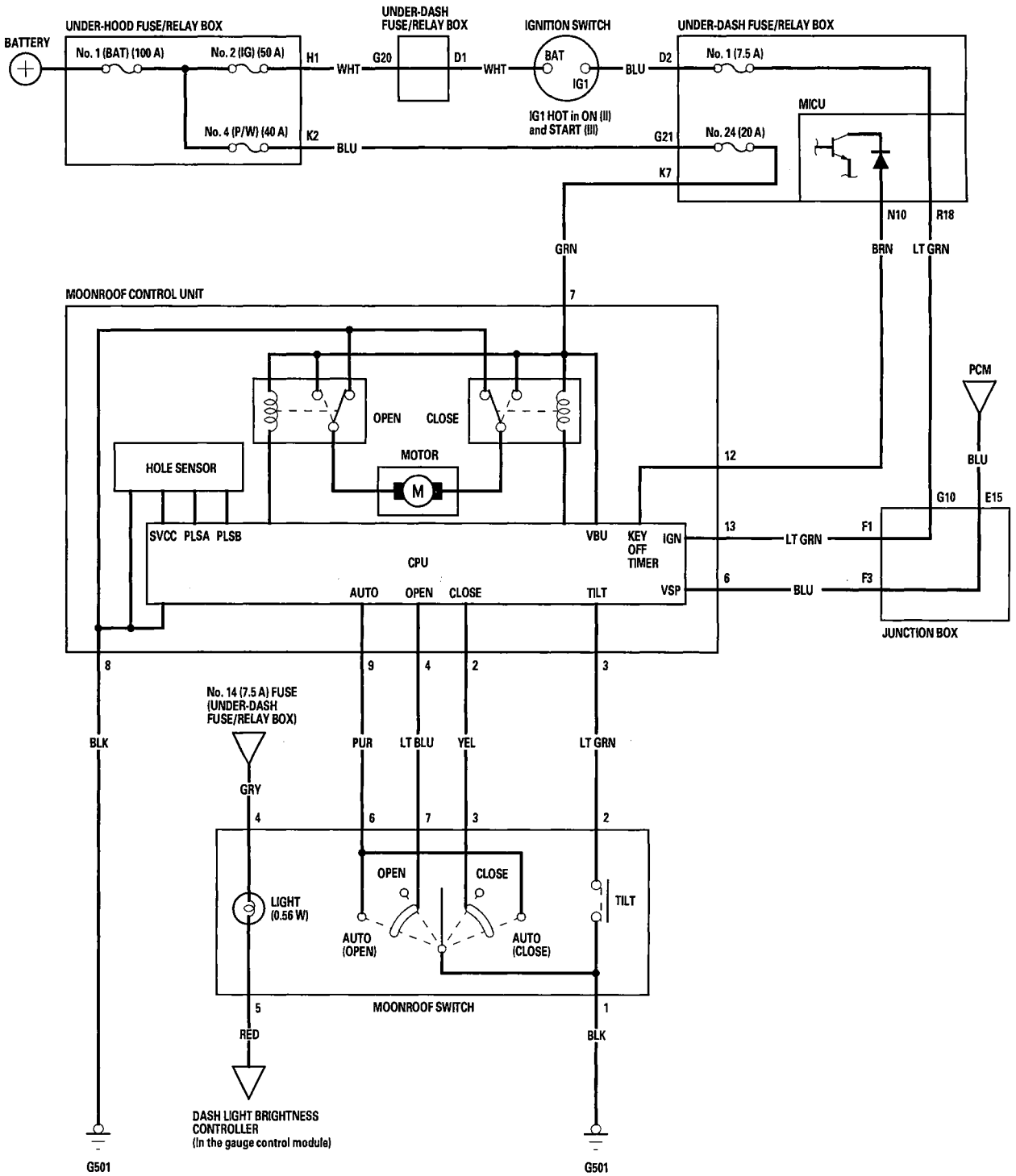
To reset the moonroof control unit, do these steps:

1. Turn the ignition switch OFF.
2. Press in and hold the tilt switch, and turn the ignition switch ON (II).
3. Release the tilt switch, and turn the ignition switch OFF.
4. Repeat step 2 and 3 four times.
5. Confirm the auto open/close function does not work. If the auto open/close function does work, repeat the clear procedure.
6. Press and hold the moonroof open switch for 3 additional seconds after the moonroof is fully opened.
7. Press and hold the moonroof close switch for 3 additional seconds after the moonroof is fully closed (tilted).
8. Confirm that the moonroof control unit is reset by using the moonroof AUTO OPEN and AUTO CLOSE function.

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Moonroof

Circuit Diagram



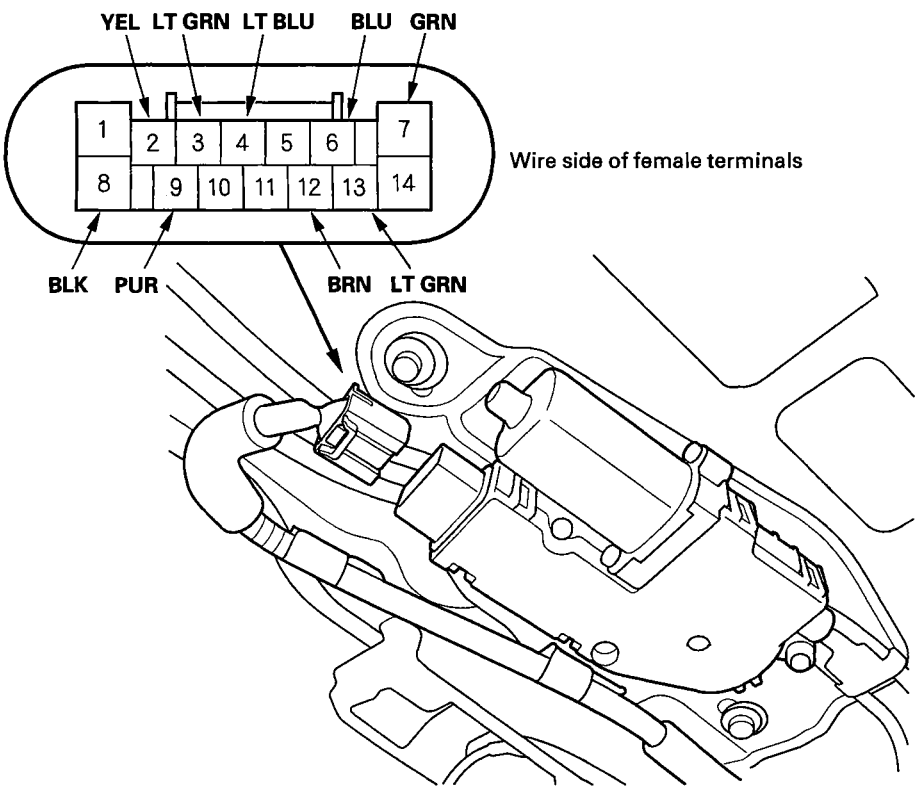
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Moonroof Control Unit Input Test

NOTE: If the moonroof works OK manually, but will not work in AUTO, or reverses frequently (obstacle detection), do the moonroof calibration (see page 22-291) before proceeding with the input test.

1. Turn the ignition switch OFF.
2. Remove the headliner (see page 20-85).
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.

(cont'd)

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Moonroof Control Unit Input Test (cont'd)

5. Reconnect the connector to the control unit, and make 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 6.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
7	GRN	Under all conditions	Check for voltage to ground: There should be battery voltage.	• Blown No. 24 (20 A) fuse in the under-dash fuse/relay box • An open in the wire
13	LT GRN	Ignition switch ON (II)	Check for voltage to ground: There should be battery voltage.	• Blown No. 1 (7.5 A) fuse in the under-dash fuse/relay box • Faulty junction box • An open in the wire
8	BLK	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G501) • An open in the wire
9	PUR	Moonroof switch in AUTO OPEN or AUTO CLOSE position	Check for voltage between the No. 7 and No. 9 terminals: There should be battery voltage.	• Poor ground (G501) • Faulty moonroof switch • An open in the wire
3	LT GRN	Moonroof switch in TILT position	Check for voltage between the No. 7 and No. 3 terminals: There should be battery voltage.	• Poor ground (G501) • Faulty moonroof switch • An open in the wire
2	YEL	Moonroof switch in CLOSE position	Check for voltage between the No. 7 and No. 2 terminals: There should be battery voltage.	• Poor ground (G501) • Faulty moonroof switch • An open in the wire
4	LT BLU	Moonroof switch in OPEN position	Check for voltage between the No. 7 and No. 4 terminals: There should be battery voltage.	• Poor ground (G501) • Faulty moonroof switch • An open in the wire

6. Check the PCM DTCs. If there is no DTC, jump the SCS line with the HDS, then disconnect the PCM connector A (44P), and the moonroof control unit/motor 14P connector.

7. Make 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, the control unit must be faulty; replace the moonroof control unit/motor.

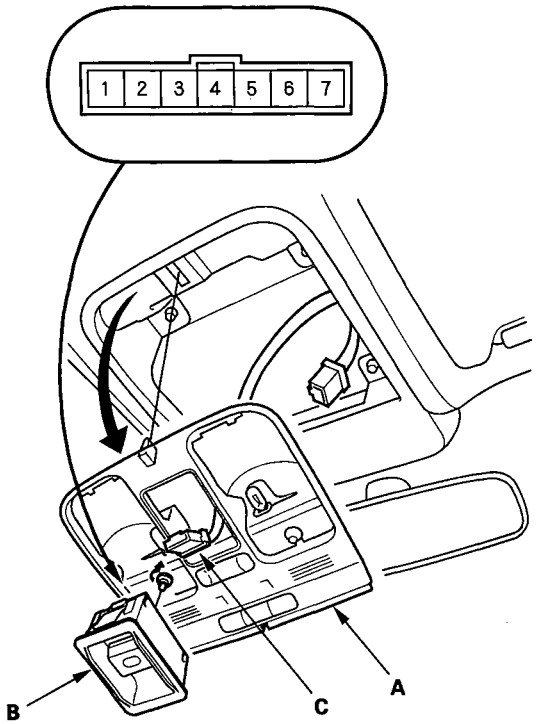
Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
6	BLU	Under all conditions	Check for continuity between the No. 6 terminal and PCM connector A (44P) No. 29 terminal: There should be continuity.	• Faulty junction box • An open in the wire
			Check for continuity between the No. 6 terminal and body ground: There should be no continuity.	A short to ground in the wire
12	BRN	Under all conditions	Check for continuity between the No. 12 terminal and MICU connector N (14P) No. 10 terminal: There should be continuity.	An open in the wire
			Check for continuity between the No. 12 terminal and body ground: There should be no continuity.	A short to ground in the wire

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Moonroof Switch Test/Replacement

1. Carefully pry off the lens with a small screwdriver (see page 22-197).
2. Pull down the roof console (A) holding the center part of the roof console.



3. Carefully push out the moonroof switch (B) from behind the roof console, then disconnect the 7P connector (C) from the switch.
4. Check for continuity between the terminals in each switch position according to the table.

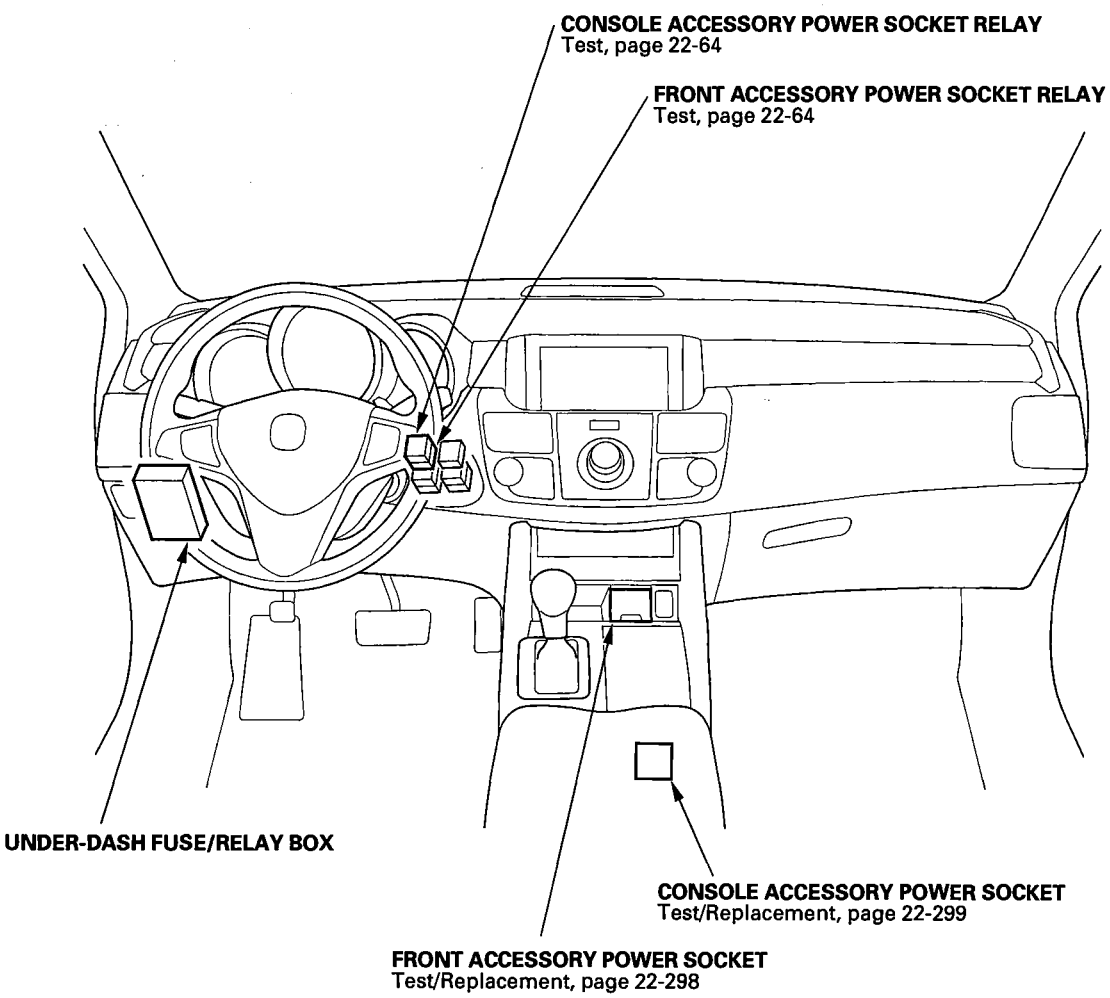
Position \ Terminal	1	2	3	6	7	4		5
OPEN	○				○	○	○	○
CLOSE	○		○			○	○	○
TILT	○	○				○	○	○
CLOSE AUTO	○		○	○		○	○	○
OPEN AUTO	○			○	○	○	○	○

5. If the continuity check is not as specified, check the bulb. If the bulb is OK, replace the switch.

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Accessory Power Sockets

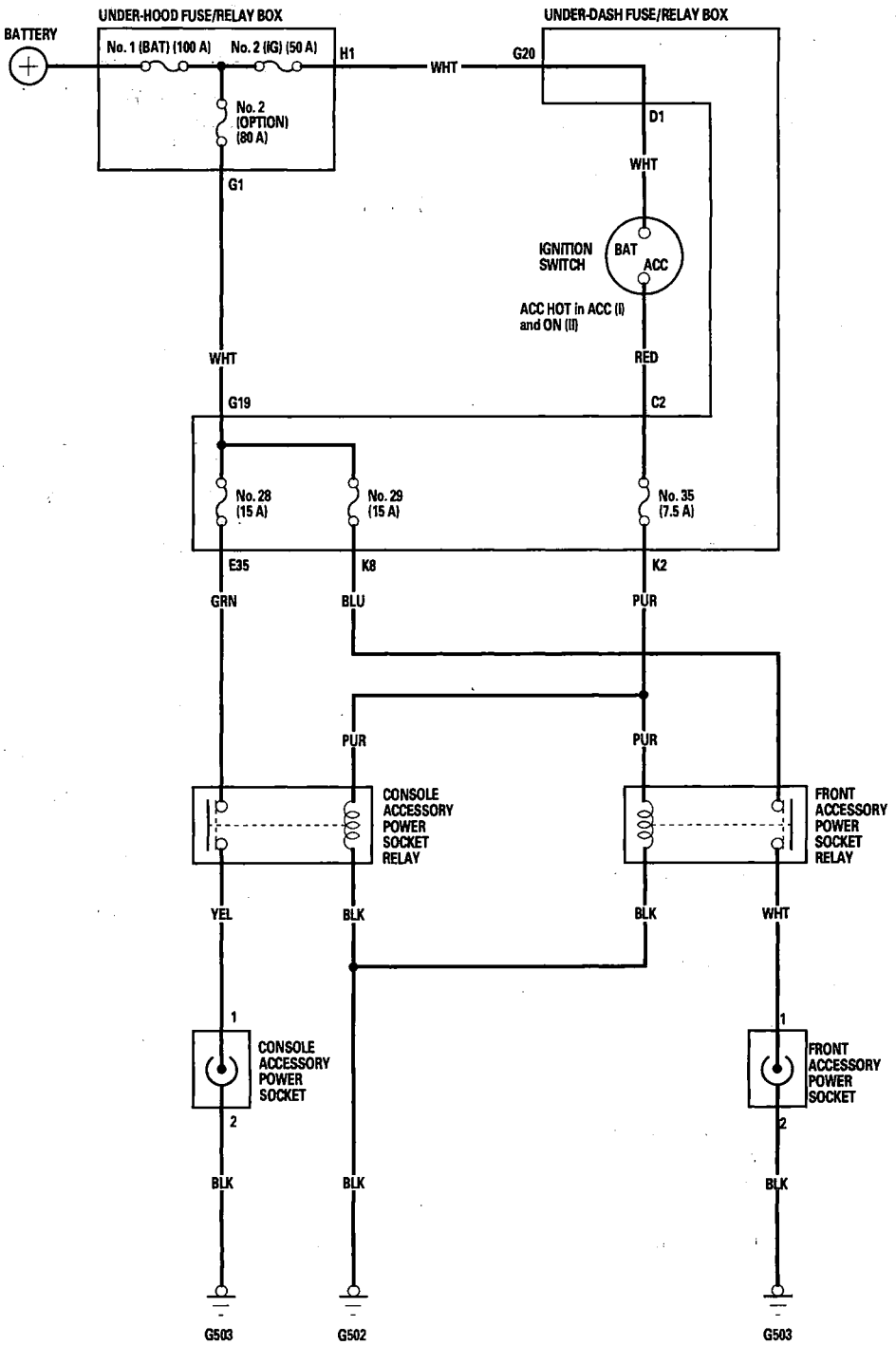
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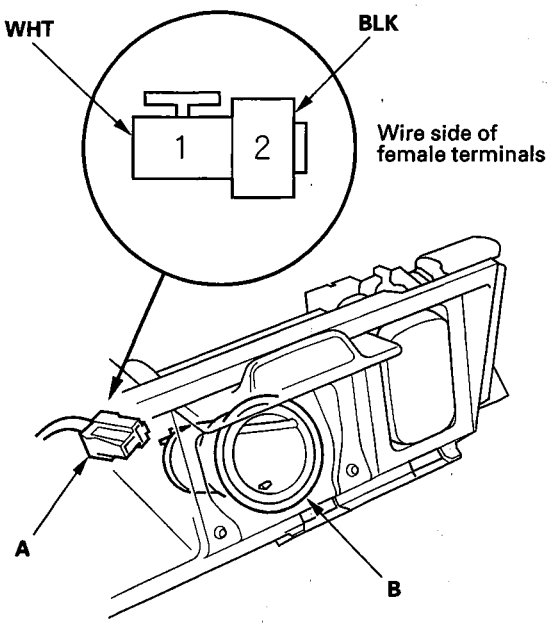
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Front Accessory Power Socket Test/Replacement

NOTE: If both the front and consle accessory power sockets do not work, check the No. 35 (7.5 A) fuse in the under-dash fuse/relay box or poor connection at G502.

1. Remove the center console panel (see step 3 on page 20-92) and audio pocket (see page 20-97).

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).

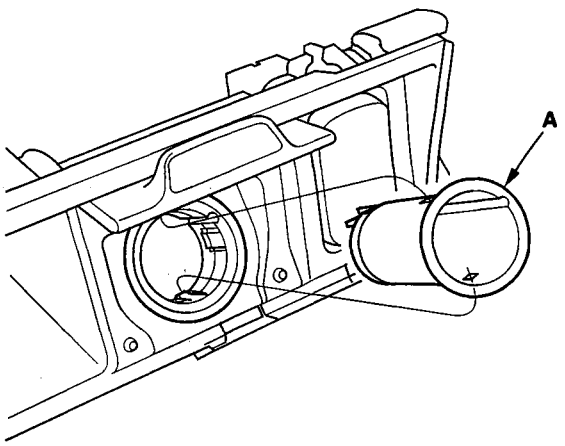
5. Check for voltage between the power accessory socket 2P connector No. 1 terminal and body ground. There should be battery voltage.

   - If there is battery voltage, go to step 6.
   - If there is no battery voltage, check for:
     – Blown No. 29 (15 A) fuse in the under-dash fuse/relay box.
     – Faulty front accessory power socket relay.
     – An open in the wire.

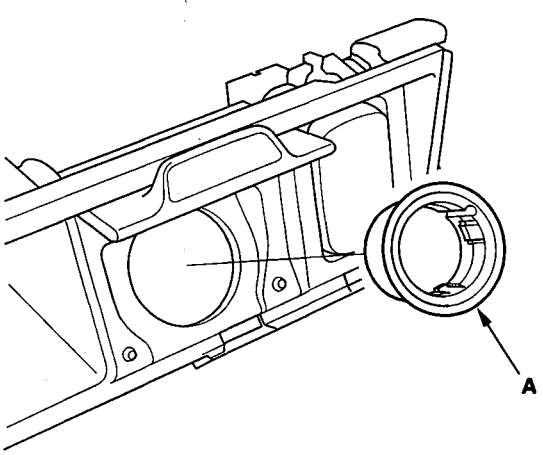
6. Check for continuity between the No. 2 terminal and body ground. There should be continuity.

   - 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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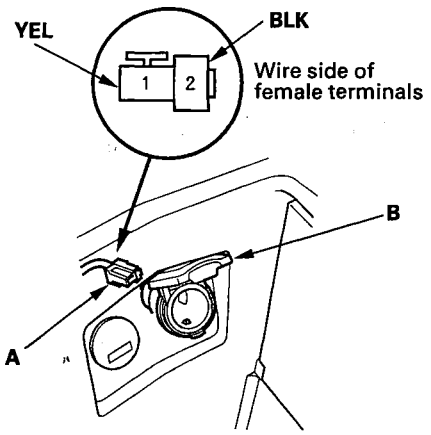
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Console Accessory Power Socket Test/Replacement

NOTE: If both the front and console accessory power sockets do not work, check the No. 35 (7.5 A) fuse in the under-dash fuse/relay box or poor connection at G502.

1. Remove the center console (see page 20-92).

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.

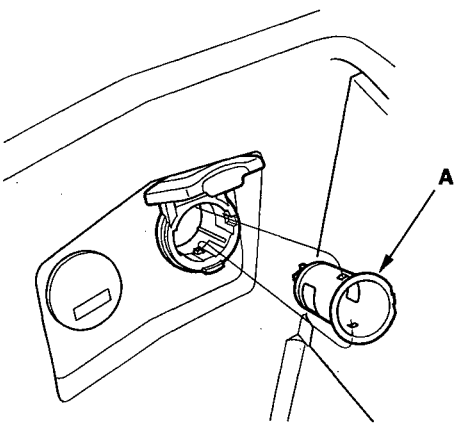
4. Turn the ignition switch to ACC (I), and check for voltage between the No. 1 terminal and body ground. There should be battery voltage.

   - If there is battery voltage, go to step 5.
   - If there is no battery voltage, check for:
     – Blown No. 28 (15 A) fuse in the under-dash fuse/relay box.
     – Faulty console accessory power socket relay.
     – An open in the wire.

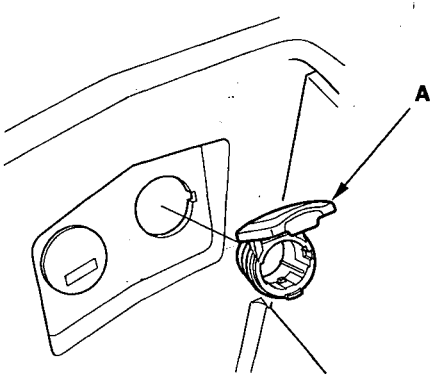
5. Check for continuity between the No. 2 terminal and body ground. There should be continuity.

   - If there is continuity, go to step 6.
   - If there is no continuity, check for:
     – Poor ground (G 503).
     – An open in the wire.

6. Remove the socket (A).



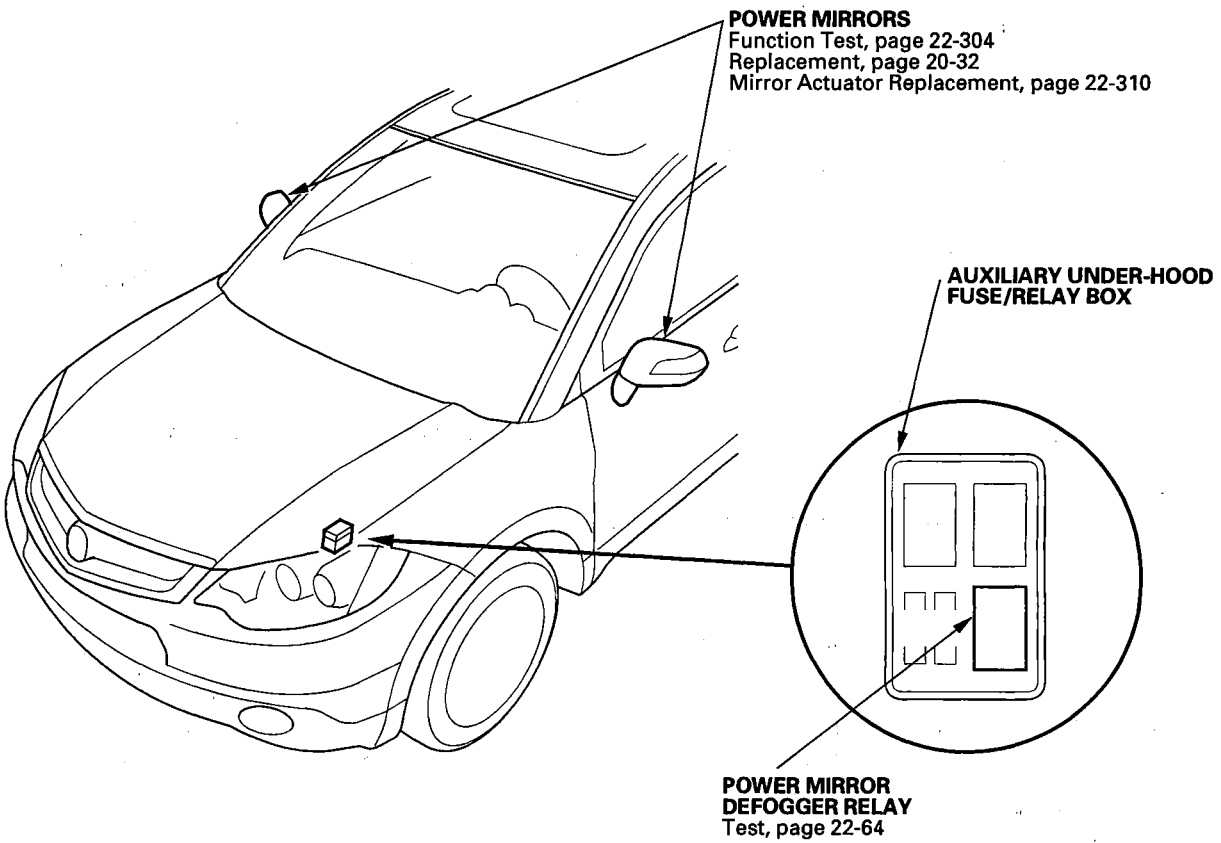
7. Remove the housing (A) from the panel.



8. Install the power socket in the reverse order of removal.

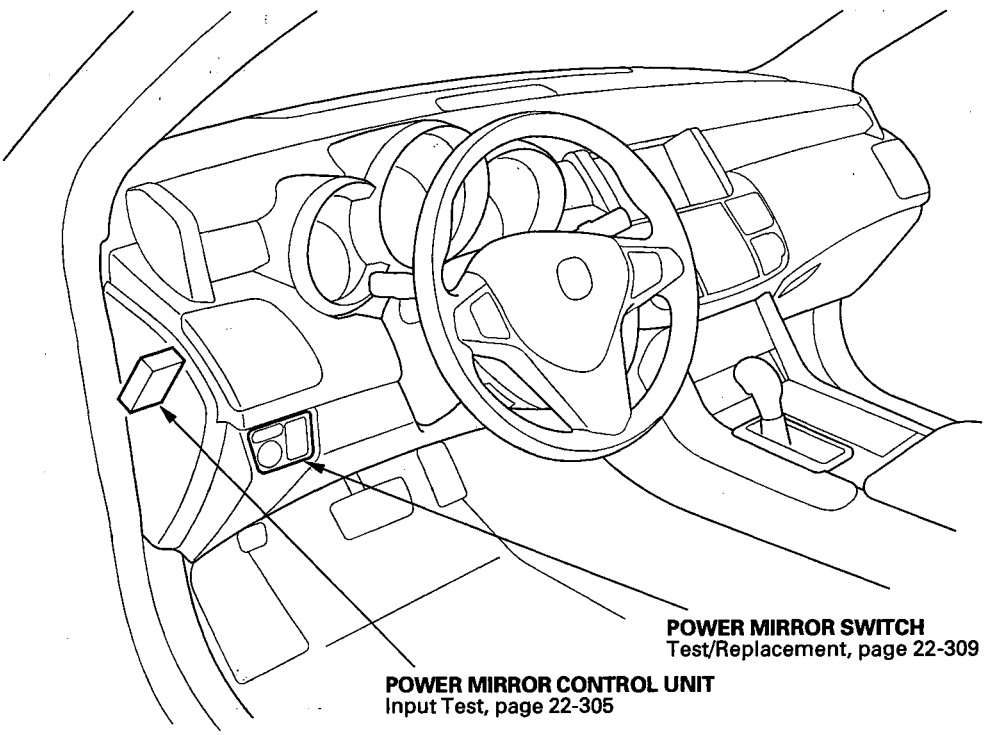
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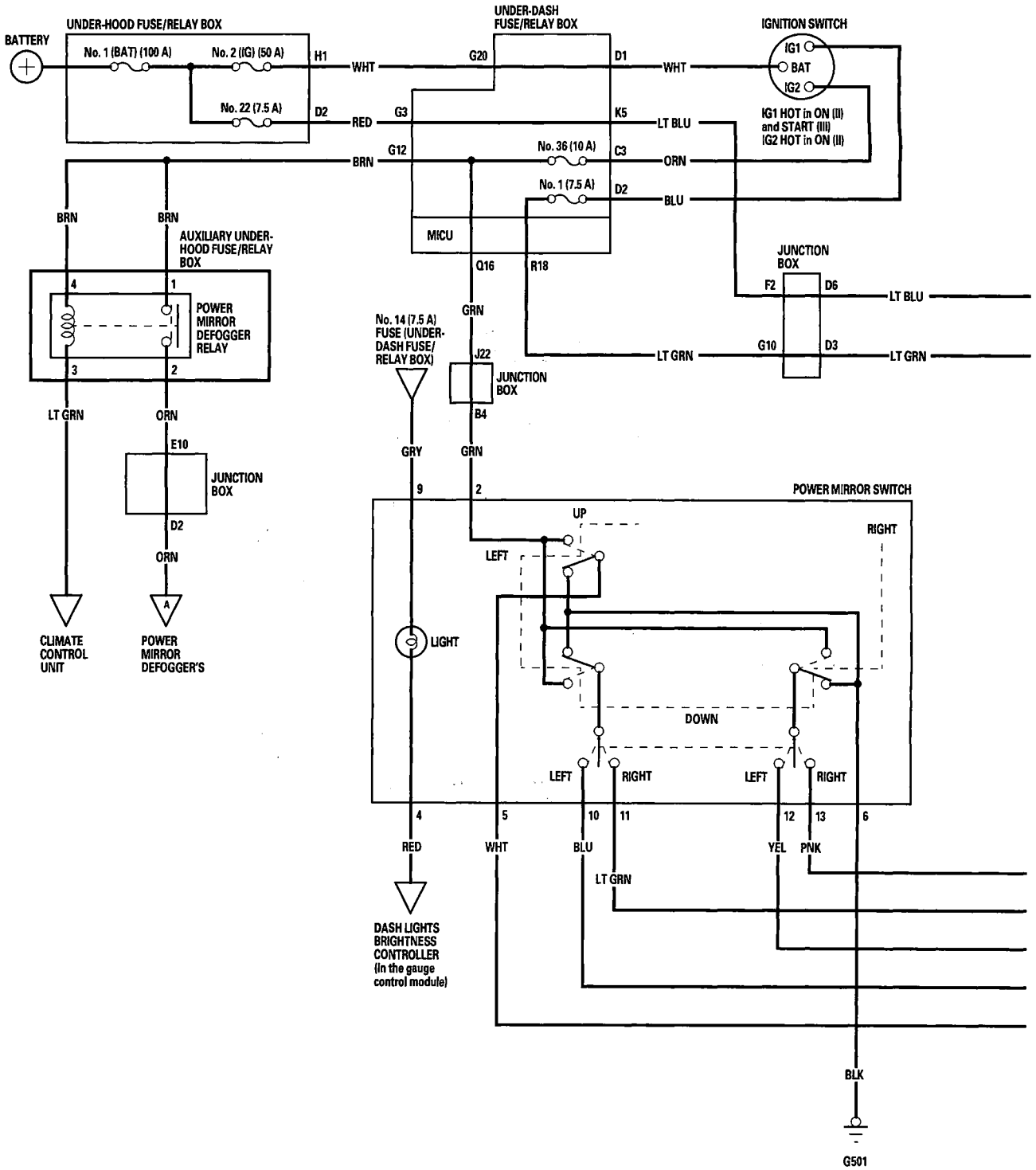
POWER MIRROR SWITCH
Test/Replacement, page 22-309

POWER MIRROR CONTROL UNIT
Input Test, page 22-305

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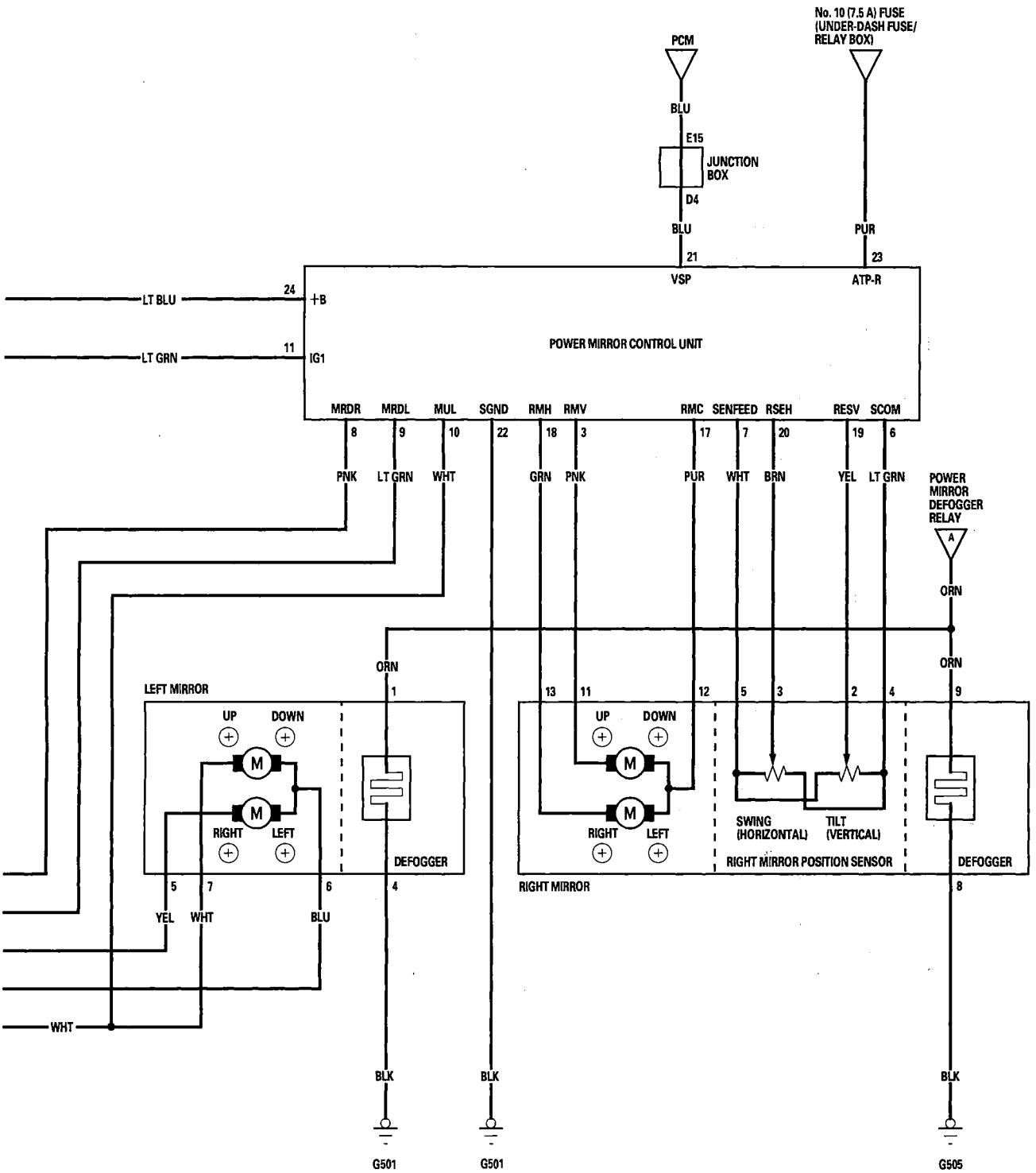
Power Mirrors

Circuit Diagram



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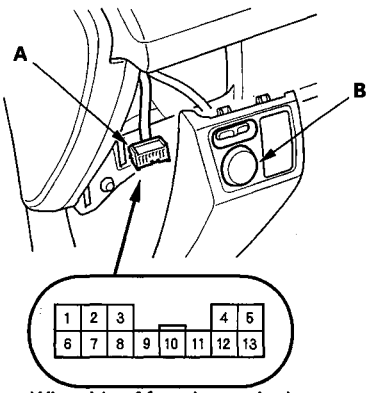


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Function Test

1. Remove the driver's switch panel (see page 20-102).

2. Disconnect the mirror switch 13P connector (A) from the power mirror switch (B).



Wire side of female terminals

3. Choose the appropriate test based on the symptom:

   - Both mirrors don't work, go to step 4.
   - Left mirror doesn't work, go to step 6.
   - Right mirror doesn't work, go to step 7.
   - Defogger doesn't work, go to step 8.

Both mirrors

4. Check for voltage between the No. 2 terminal and body ground with the ignition switch ON (II). There should be battery voltage.

   - If there is no battery voltage, check for:
     – Blown No. 36 (10 A) fuse in the under-dash fuse/relay box.
     – An open in the GRN wire.
   - If there is battery voltage, go to step 5.

5. Check for continuity between the No. 6 terminal 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, check both mirrors individually.

Left mirror

6. Connect the No. 2 and No. 10 terminals, and the No. 5 and No. 6 terminals with jumper wires. The left mirror should tilt down with the ignition switch ON (II). Connect the No. 12 and No. 6 terminals with jumper wires and the mirror should rotate left.

   - If the left mirror does not tilt down, check for an open in the WHT wire between the left mirror and the mirror switch 13P connector.
     If the wire is OK, check the left mirror actuator.
   - If the mirror neither tilts down nor swings left, repair the BLU wire.
   - If the mirror works properly, check the mirror switch.

Right mirror

7. Connect the No. 2 and No. 13 terminals, and the No. 5 and No.6 terminals with jumper wires. The right mirror should tilt down with the ignition switch ON (II). Connect the No. 2 and No. 11 terminals, and the No. 13 and No. 6 terminals with jumper wires and the mirror should rotate left.

   - If the mirror does not tilt down, check for an open in the WHT wire between the right mirror and the mirror switch 13P connector.
     If the wire is OK, check the power mirror control unit or right mirror actuator.
   - If the mirror neither tilts down nor swings left, repair the LT GRN wire.
   - If the mirror works properly, check the mirror switch.

Defogger

8. Connect the power mirror defogger relay No. 1 and No. 2 terminals in the auxiliary under-hood fuse/relay box with a jumper wire, and check for voltage between the No. 1 terminal of the mirror connectors and body ground. There should be battery voltage and both mirrors should warm up with the ignition switch ON (II).

   - If there is no voltage or neither warms up, check for:
     – An open in the ORN wire.
     – Faulty junction box
     – Blown No. 36 (10 A) fuse in the under-dash fuse/relay box.
   - If only one fails to warm up, check:
     – Its defogger.
     – Poor ground (G501 or G505).
   - If both warm up, check the climate control unit.

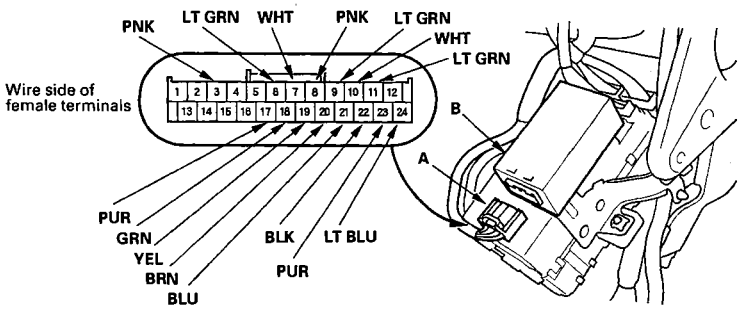
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BACK

Power Mirror Control Unit Input Test

1. Remove the driver's dashboard undercover (see page 20-102).

2. Disconnect the 24P connector (A) from the power mirror control unit (B).



3. Inspect the connector and socket terminals to be sure they are all making good contact.

   - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
   - If the terminals look OK, go to step 4.

4. Reconnect the 24P connector to the control unit, and make 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 5.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
24	LT BLU	Under all conditions	Check for voltage to ground: There should be battery voltage.	• Blown No. 22 (7.5 A) fuse in the under-hood fuse/relay box • Faulty under-dash fuse/relay box • Faulty junction box • An open in the wire
11	LT GRN	Ignition switch ON (II)	Check for voltage to ground: There should be battery voltage.	• Blown No. 2 (IG) (50 A) fuse in the under-hood fuse/relay box • Blown No. 1 (7.5 A) fuse in the under-dash fuse/relay box • Faulty under-dash fuse/relay box • Faulty junction box • An open in the wire
22	BLK	Under all conditions	Check for voltage to ground: There should be less then 0.1 V.	• Poor ground (G501) • An open in the wire
8	PNK	Ignition switch ON (II), the power mirror selector switch in the RIGHT position, and the right edge of the mirror position switch pushed.	Check for voltage to ground: There should be battery voltage.	• Blown No. 36 (10 A) fuse in the under-dash fuse/relay box • Faulty junction box • Faulty power mirror switch • An open in the wire

(cont'd)

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Power Mirror Control Unit Input Test (cont'd)

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
9	LT GRN	Ignition switch ON (II), the power mirror selector switch in the RIGHT position, and the bottom edge of the mirror position switch pushed.	Check for voltage to ground: There should be battery voltage.	• Blown No. 36 (10 A) fuse in the under-dash fuse/relay box • Faulty junction box • Faulty power mirror switch • An open in the wire
10	WHT	Ignition switch ON (II), the power mirror selector switch in the RIGHT position, and the top edge of the mirror position switch pushed.	Check for voltage to ground: There should be battery voltage.	• Blown No. 36 (10 A) fuse in the under-dash fuse/relay box • Faulty junction box • Faulty power mirror switch • An open in the wire
23	PUR	Ignition switch ON (II) and the transmission range switch in R position.	Check for voltage to ground: There should be less then 0.1 V.	• Faulty transmission range switch • An open in the wire
		Ignition switch ON (II) and the transmission range switch in any position except R.	Check for voltage to ground: There should be battery voltage.	• Blown No. 10 (7.5 A) fuse in the under-dash fuse/relay box • Faulty under-dash fuse/relay box • Faulty transmission range switch

5. Check the PCM DTCs. If there is no DTC, jump the SCS line with the HDS, then disconnect the PCM connector A (44P), and the power mirror control unit 24P connector.

6. Make 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, the control unit must be faulty; replace the power mirror control unit.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
3 • 17 • 18	PNK • PUR • GRN	Under all conditions	Connect the No. 24 and No. 3 terminals, and No. 17 and No. 22 terminals: The left power mirror moves UP.	• Faulty right power mirror actuator • An open in the wire
			Connect the No. 24 and No. 18 terminals, and No. 17 and No. 22 terminals: The left power mirror moves RIGHT.	• Faulty right power mirror actuator • An open in the wire

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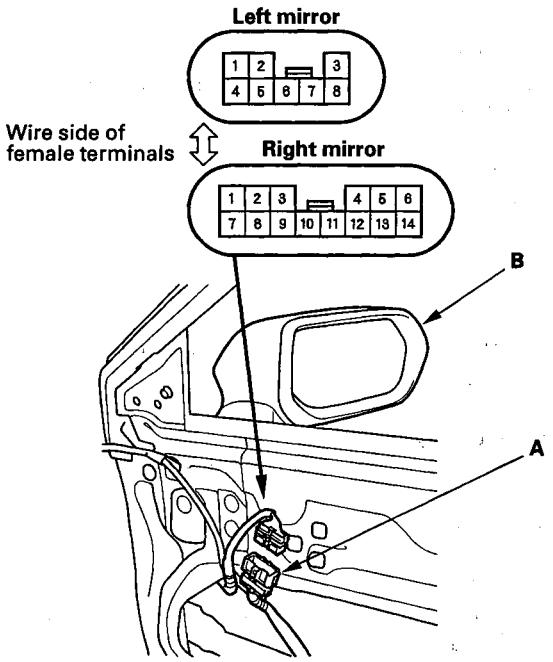
BACK

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
21	BLU	Under all conditions	Check for continuity between the No. 21 terminal and PCM connector A (44P) No. 29 terminal: There should be continuity.	An open in the wire
			Check for continuity between the No. 21 terminal and body ground: There should be no continuity.	A short to ground in the wire
6	LT GRN	Disconnect the right power mirror connector 14P	Check for continuity between the No. 6 terminal and right power mirror connector 14P No. 4 terminal: There should be continuity.	An open in the wire
			Check for continuity between the No. 6 terminal and body ground: There should be no continuity.	A short to ground in the wire
7	WHT	Disconnect the right power mirror connector 14P	Check for continuity between the No. 7 terminal and right power mirror connector 14P No. 5 terminal: There should be continuity.	An open in the wire
			Check for continuity between the No. 7 terminal and body ground: There should be no continuity.	A short to ground in the wire
19	YEL	Disconnect the right power mirror connector 14P	Check for continuity between the No. 19 terminal and right power mirror connector 14P No. 2 terminal: There should be continuity.	An open in the wire
			Check for continuity between the No. 19 terminal and body ground: There should be no continuity.	A short to ground in the wire
20	BRN	Disconnect the right power mirror connector 14P	Check for continuity between the No. 20 terminal and right power mirror connector 14P No. 3 terminal: There should be continuity.	An open in the wire
			Check for continuity between the No. 19 terminal and body ground: There should be no continuity.	A short to ground in the wire

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Power Mirror Actuator Test

1. Remove the door panel (see page 20-6).
2. Disconnect the 8P (or 14P) connector (A) from the power mirror actuator (B).



3. Check actuator operation by connecting power and ground according to the table.

Position \ Terminal	7 [11]	6 [12]	5 [13]
TILT UP	⊕	⊖	
TILT DOWN	⊖	⊕	
SWING LEFT		⊕	⊖
SWING RIGHT		⊖	⊕

[ ] : **Right mirror**

4. If the mirror fails to work properly, replace the mirror actuator.

Defogger Test

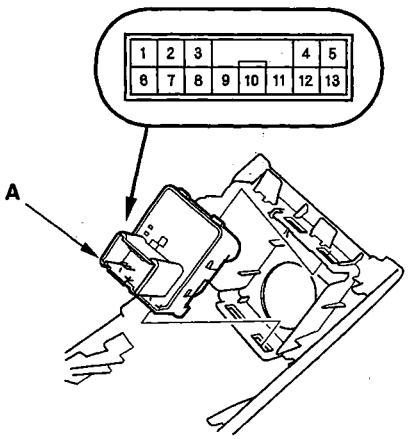
5. Check for continuity between the No. 1 [9] and No. 4 [8] terminals of the 8P [14] connector. These should be continuity.
   [ ] : Right mirror
6. If the continuity is not as specified, check for:
   - An open in the wire.
   - A faulty mirror holder.

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Power Mirror Switch Test/Replacement

1. Remove the driver's switch panel (see page 20-102).
2. Disconnect the 13P connector from the power mirror switch (A).



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

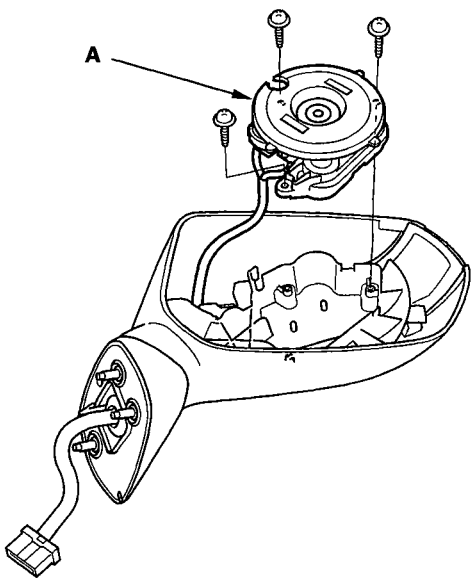
	Terminal / Position	2	5	6	10	11	12	13
L	UP	○	○		○		○	
	DOWN	○		○	○		○	
	LEFT	○	○		○		○	
	RIGHT	○		○	○		○	
R	UP	○	○			○		○
	DOWN	○		○		○		○
	LEFT	○	○			○		○
	RIGHT	○		○		○		○

4. If the continuity is not as specified, remove the screws and replace the switch.

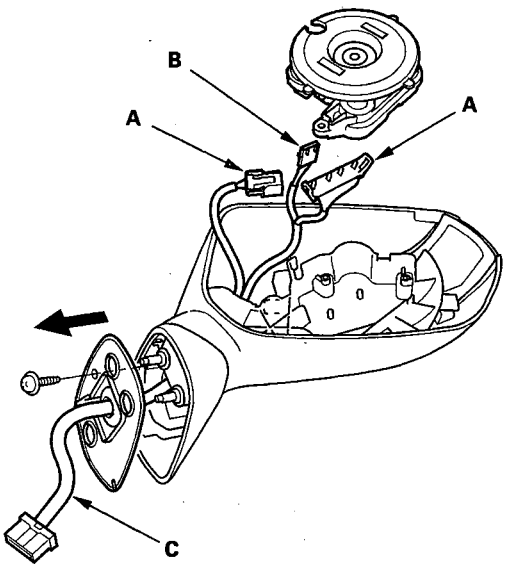
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Power Mirror Actuator Replacement

1. Remove the mirror holder (see page 20-33).
2. Remove the visor (see page 22-191).
3. Remove the power mirror (see page 20-32).
4. Disconnect the 8P (left side) or 14P (right side) connector from the mirror.
5. Remove the three TORX screws using a tamper-proof T10 TORX bit, then remove the actuator (A).



6. Disconnect the 8P (left side) or 14P (right side) connector from the mirror.
7. Remove the connectors (A) and (B) (right side), then remove the screw and separate the harness (C) from the power mirror.



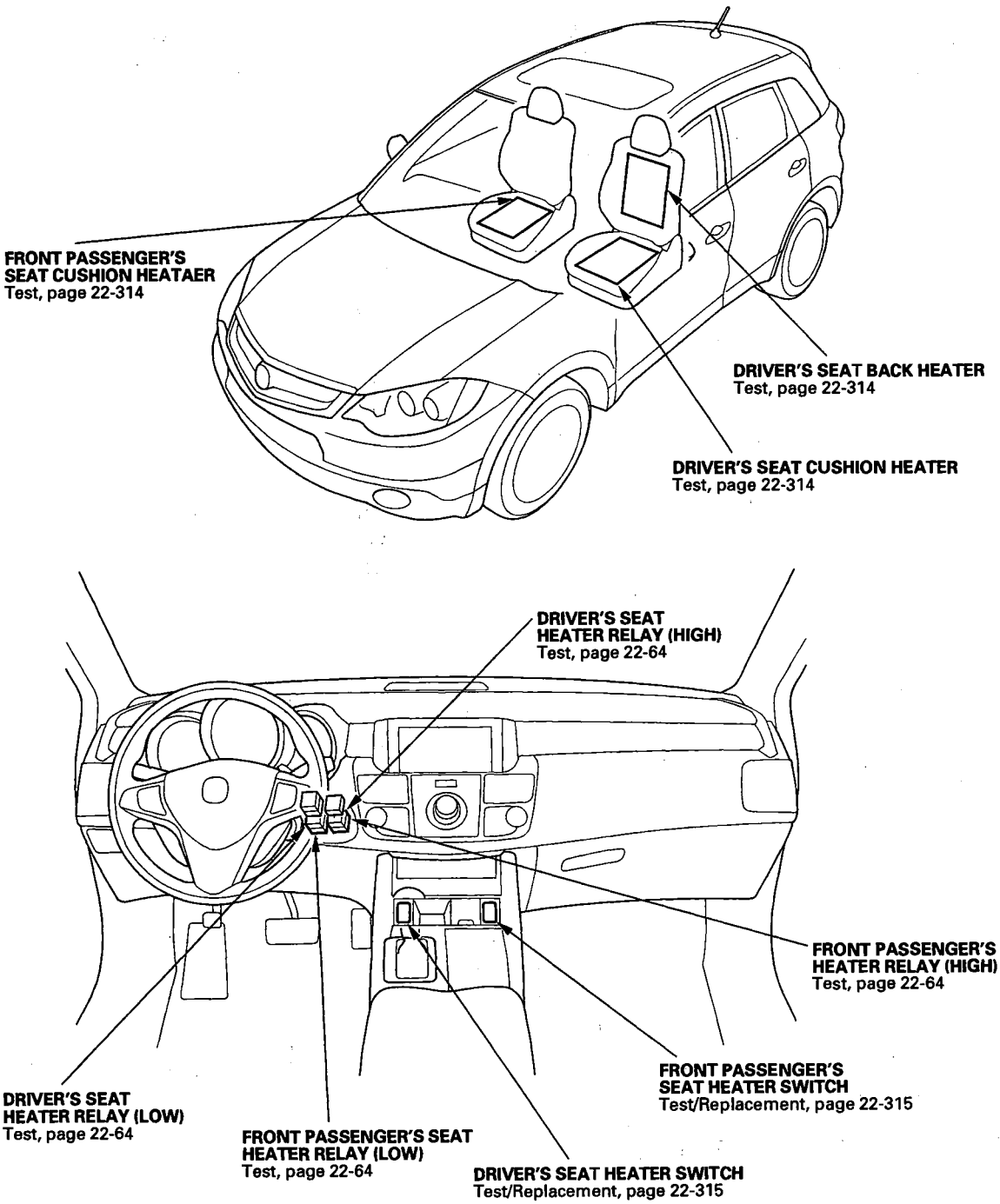
8. Route the wire harness of the new actuator through the hole in the bracket and the gasket.
9. Install the actuator, the harness clip, and the gasket in the reverse order of removal.

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BACK

Seat Heaters

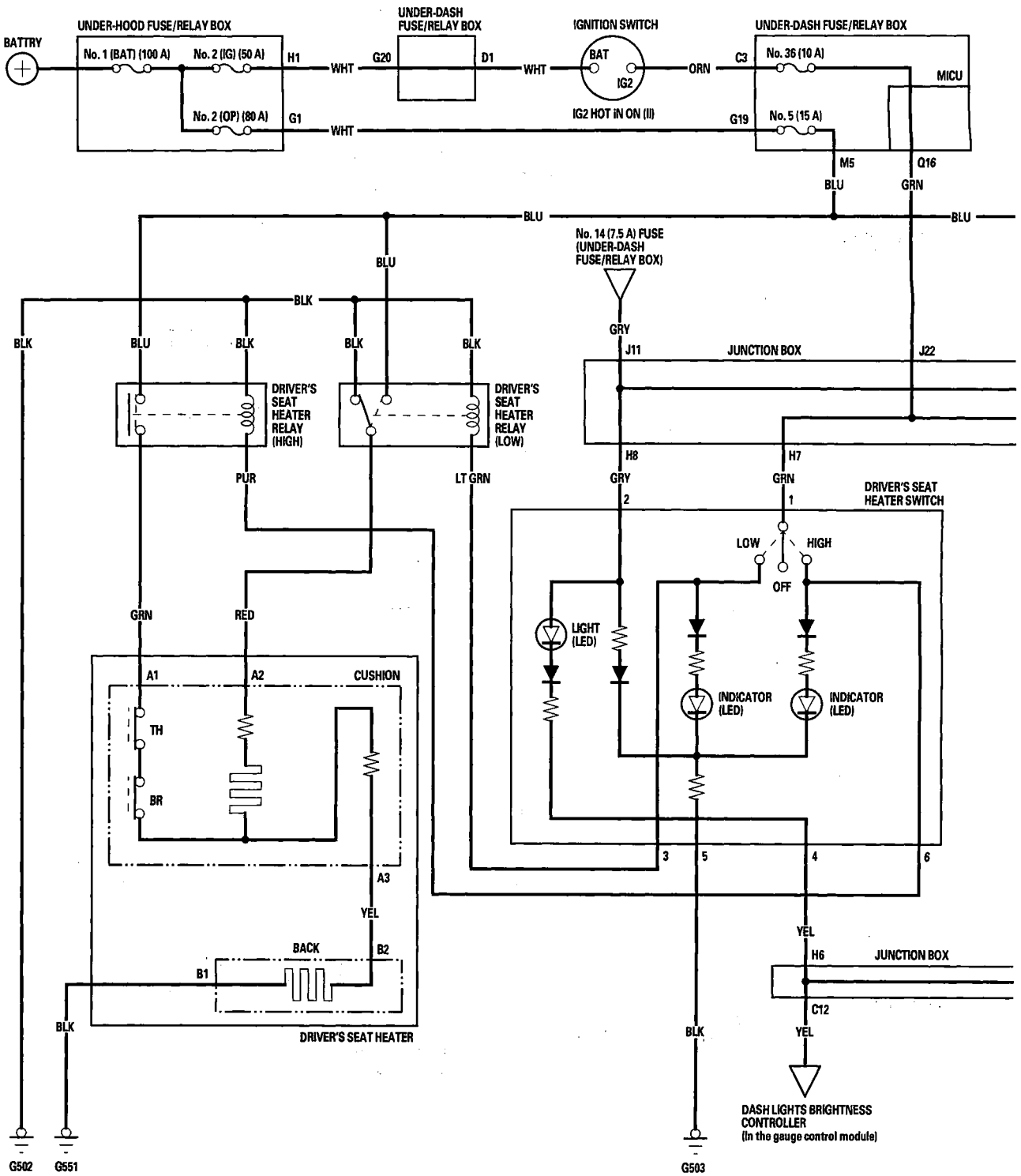
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Seat Heaters

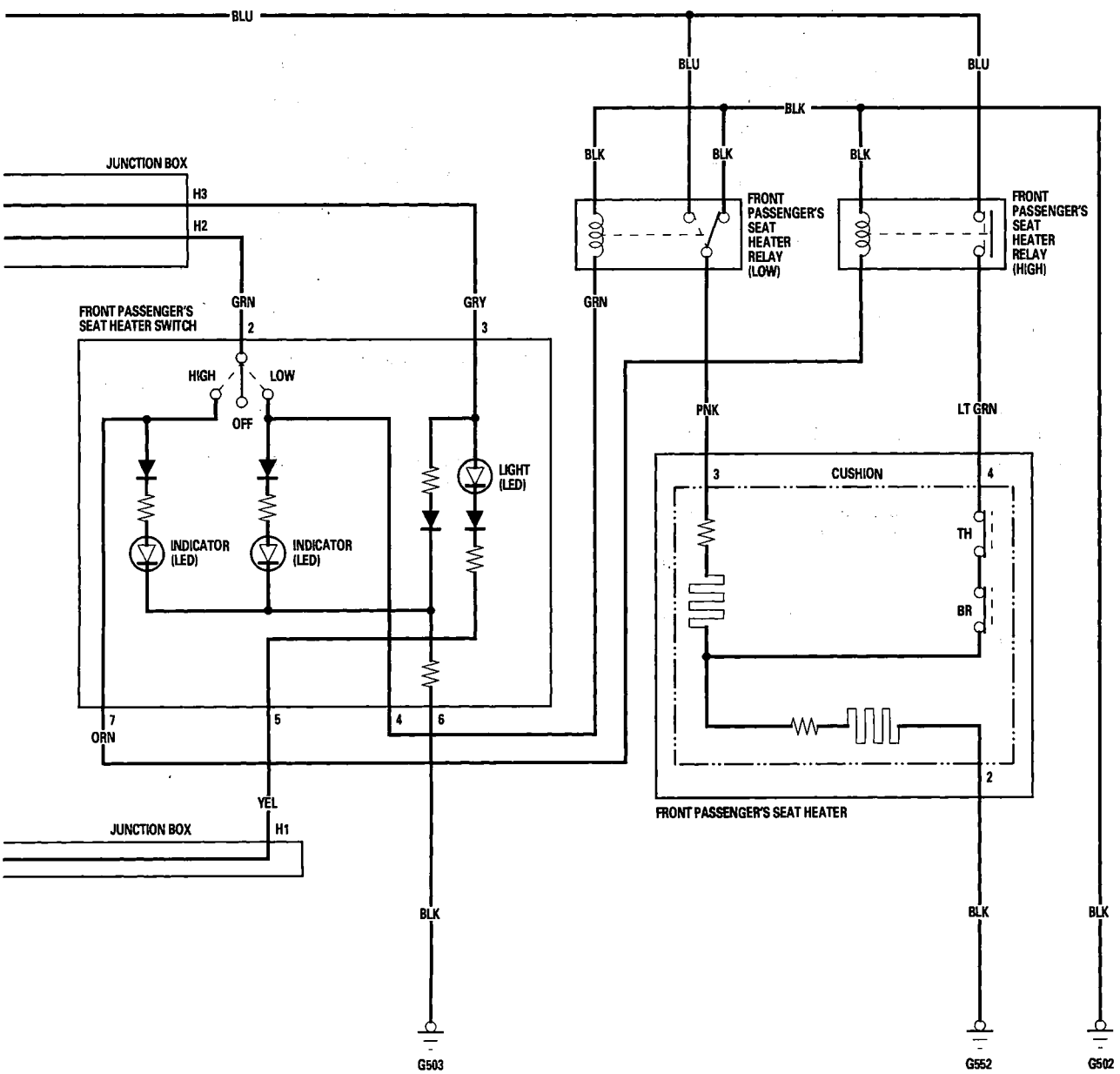
Circuit Diagram



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BACK

TH : THERMOSTAT [ON : 77-95 °F (25-35 °C)]
[OFF : 97-111 °F (36-44 °C)]
BR : BREAKER [ON : 77-95 °F (25-35 °C)]
[OFF : 115-130 °F (46-54 °C)]

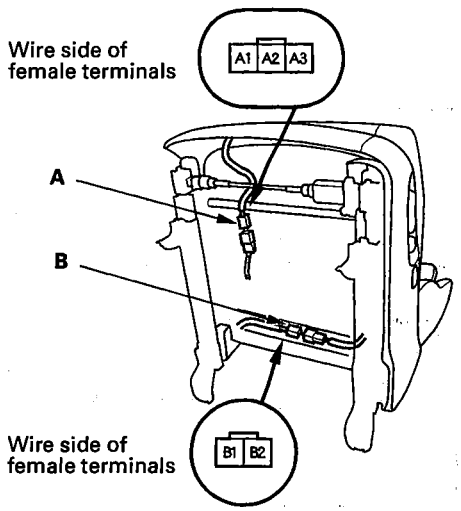


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Seat Heater Test

Driver's Seat

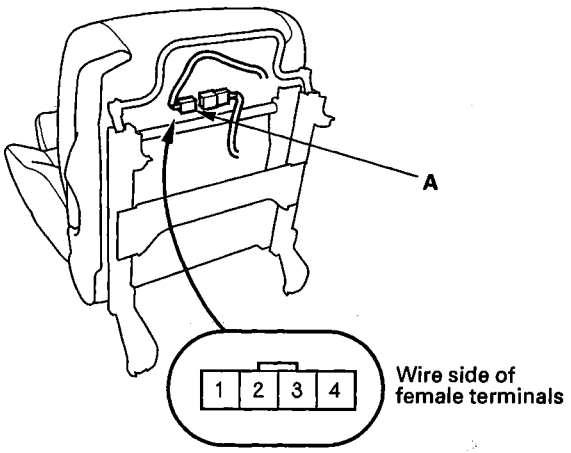
1. Remove the driver's seat (see page 20-118).
2. Disconnect the 3P connector (A) and 2P connector (B) from the seat heater.



3. Check for continuity between the B1 and B2 terminals of the seat-back heater 2P connector. There should be continuity.
4. Check for continuity between the A1 and A2 terminals, and the A1 and A3 terminals of the seat-cushion 3P connector. There should be continuity.
5. If the continuity is not as specified, replace the appropriate seat heater.

Front Passenger's Seat

1. Remove the passenger's seat (see page 20-118).
2. Disconnect the 4P connector (A) from the seat heater.



3. Check for continuity between the No. 2 and No. 4 terminals, and No. 3 and No. 2 terminals of the 4P connector. There should be continuity.
4. If the continuity is not as specified, replace the seat heater.

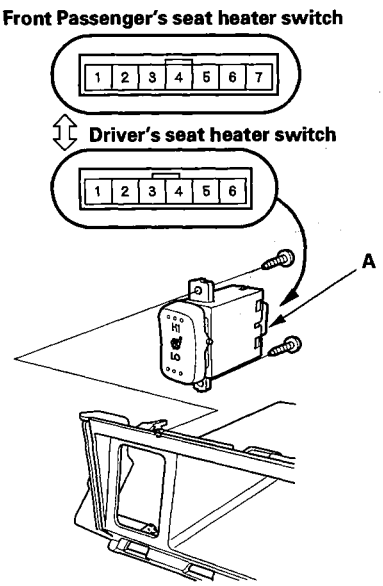
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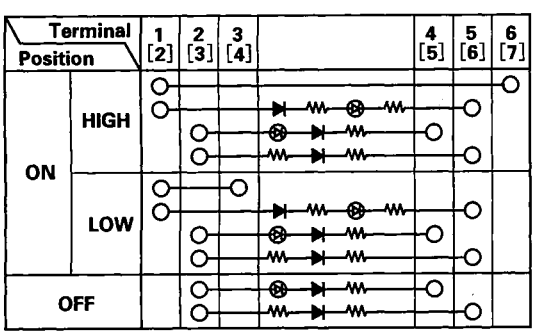
Switch Test/Replacement

1. Remove the center console front panel (see page 20-92).

2. Disconnect the 6P (or 7P*) connector from the seat heater switch (A), then remove the switch.
   * : Front passenger's



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



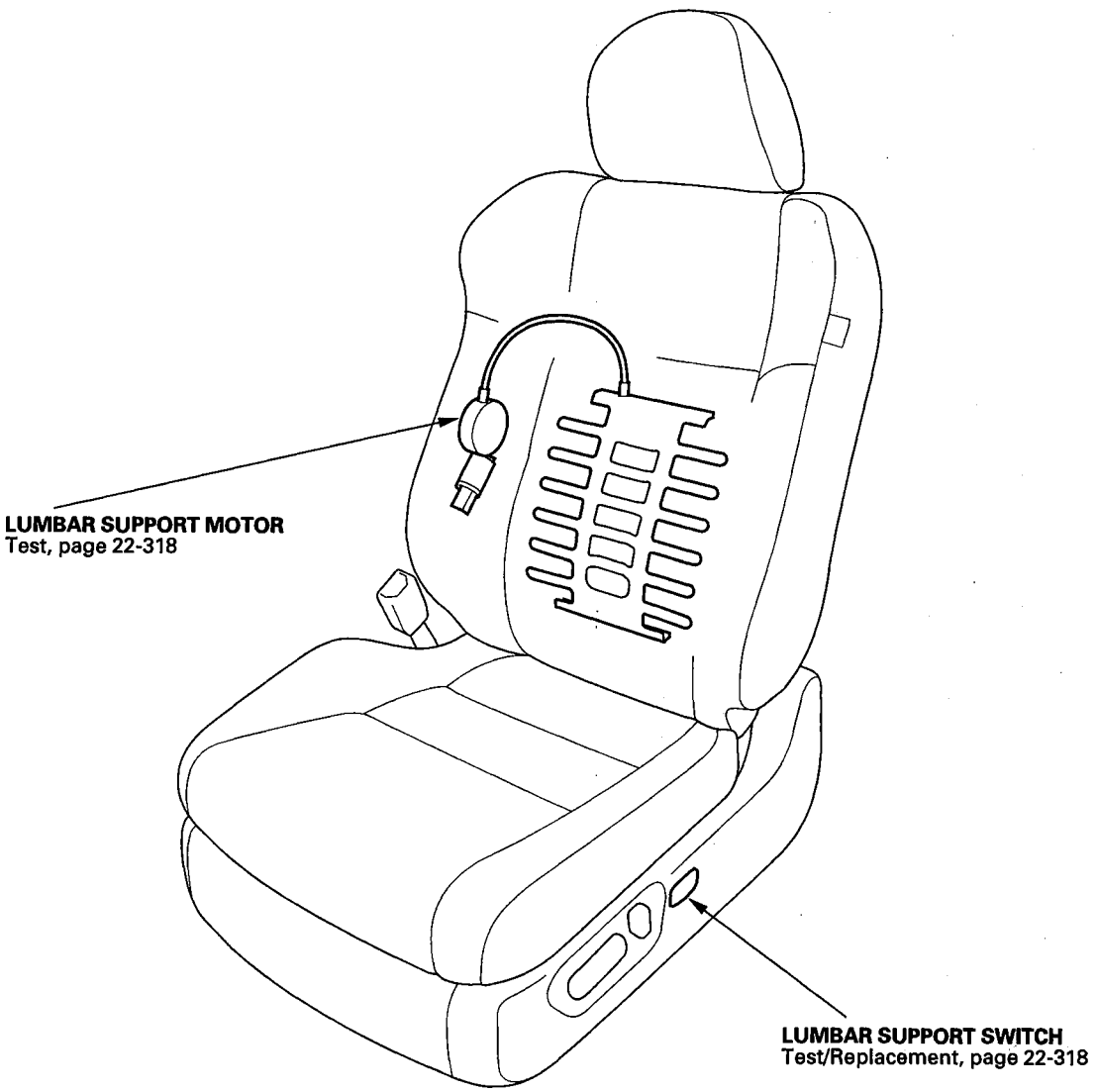
[ ] : Front passenger's seat heater switch

4. If the continuity check is not as specified, replace the switch.

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Power Lumbar Support

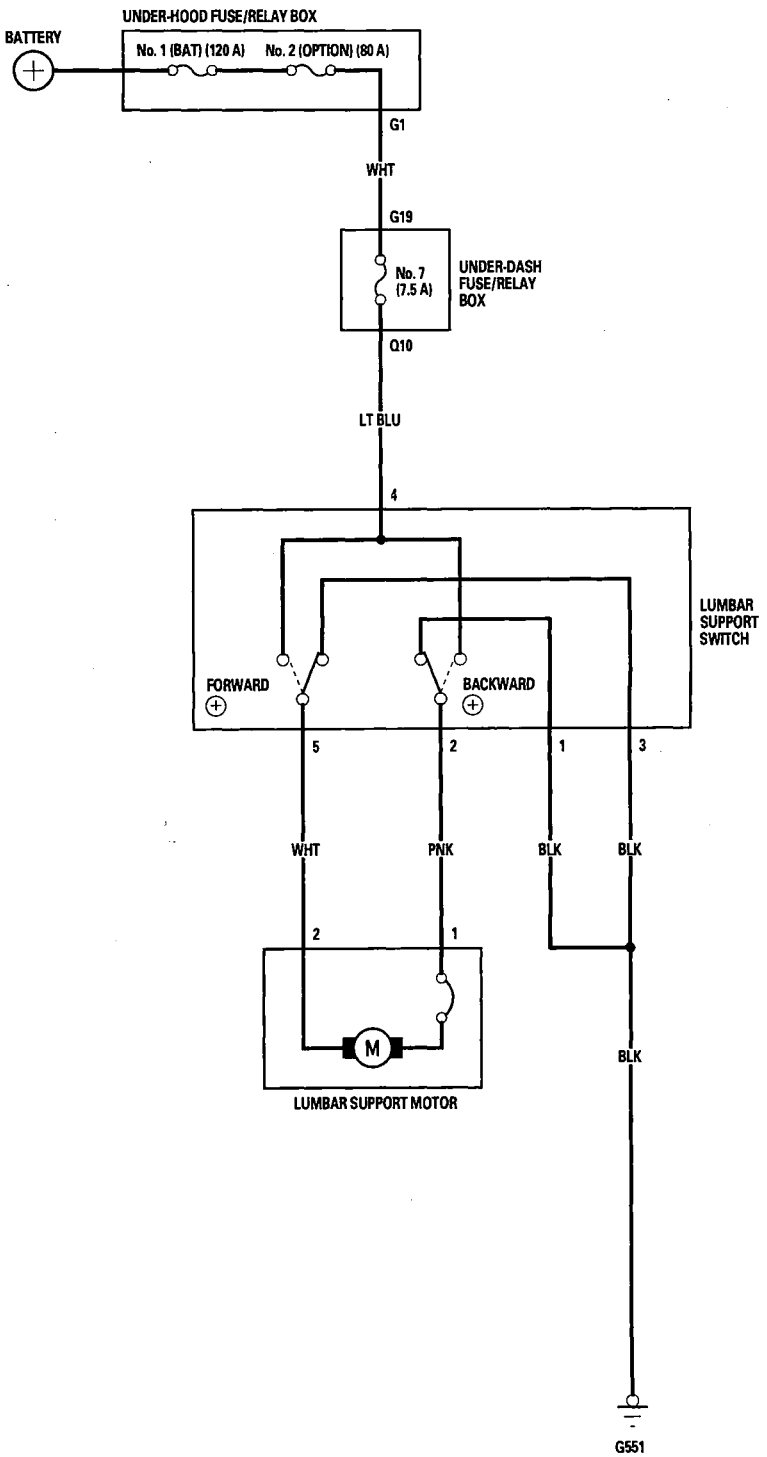
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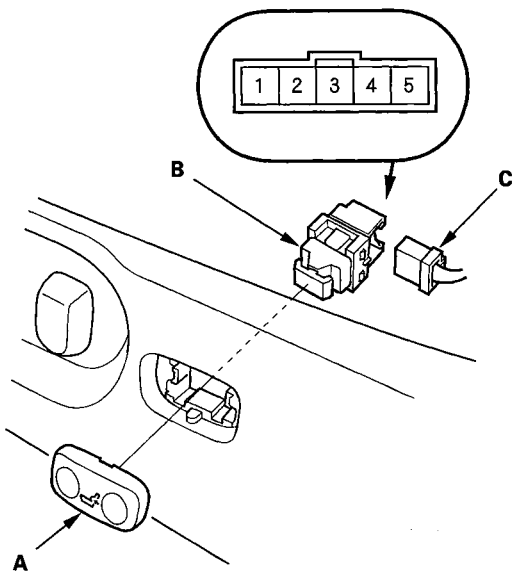
Circuit Diagram



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Switch Test/Replacement

1. Separate the lumbar support switch cover (A) from the switch (B).



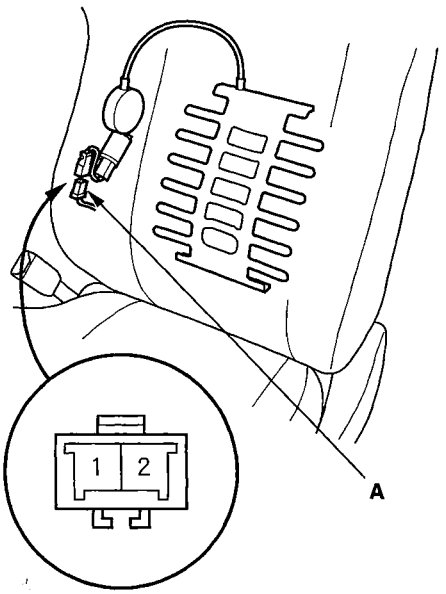
2. Disconnect the 5P connector (C) from the switch.
3. Check for continuity between the terminals in each switch position according to the table.

Terminal / Position	1	2	3	4	5
Forward	○—○			○—○	
Backward		○	○—○		○

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

Motor Test

1. Remove the driver's seat (see page 20-118).
2. Disconnect the 2P connector (A) from the lumbar support motor.



3. Test each motor by applying battery voltage and body ground to the terminals.

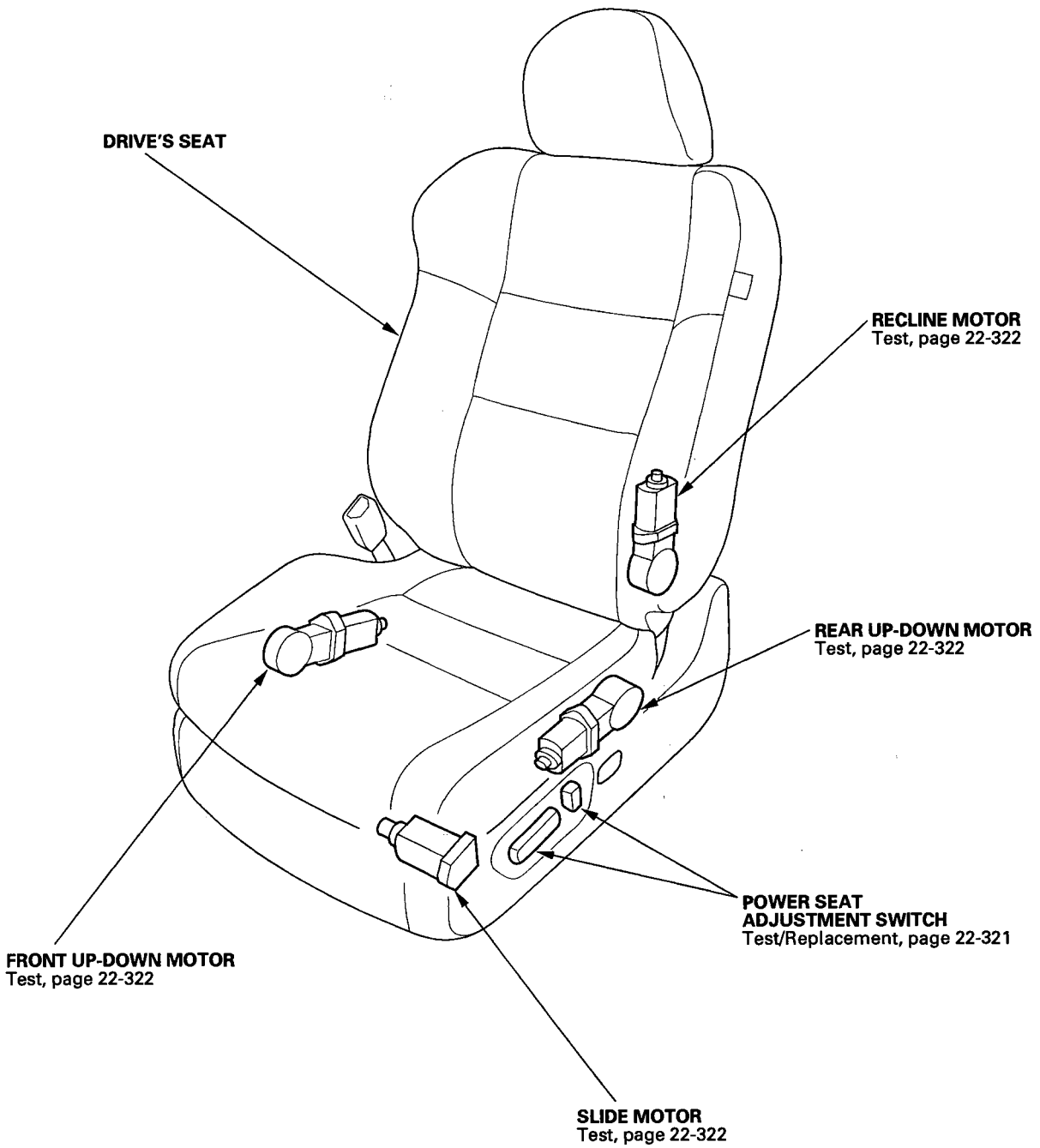
Terminal / Position	2	1
Forward	⊕	⊖
Backward	⊖	⊕

4. If the motor does not run or fails to run smoothly, replace it (see page 20-121).

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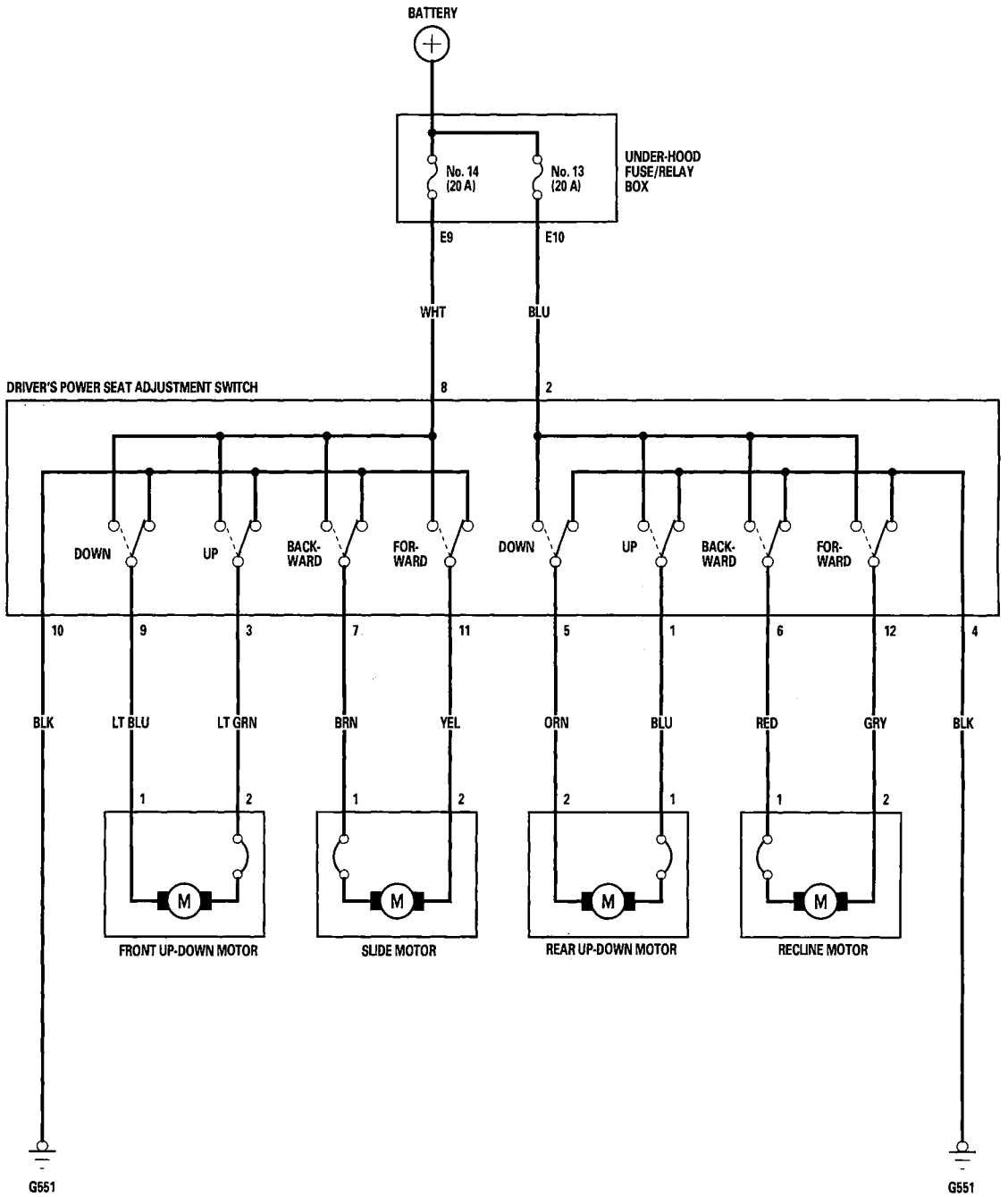
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Power Seats

Circuit Diagram

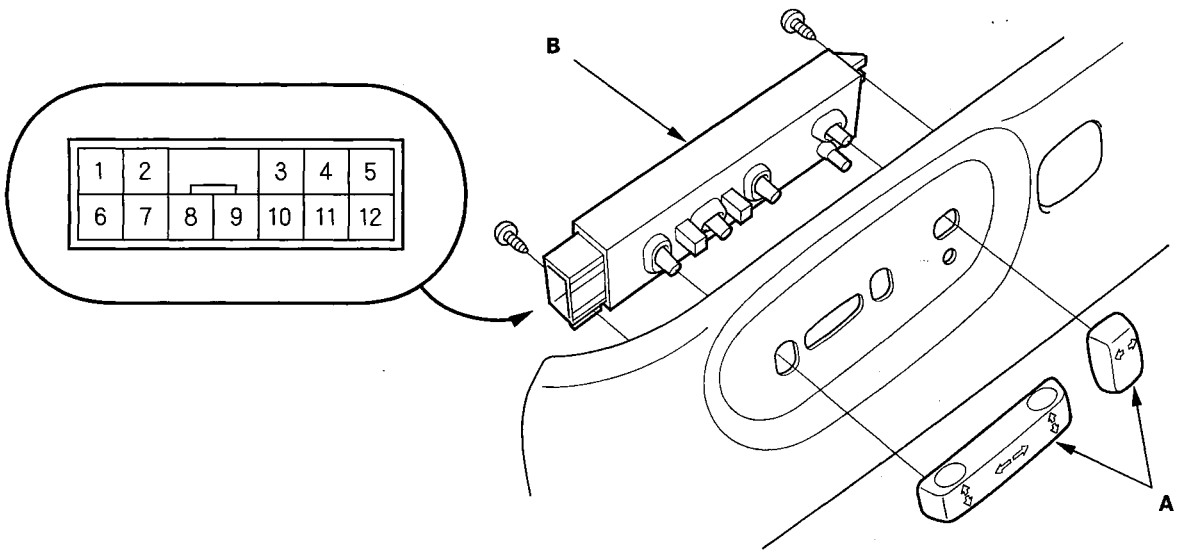


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Power Seat Adjustment Switch Test/Replacement

1. Remove the power seat adjustment switch knobs (A) and the recline cover from the driver's power seat (see page 20-131), then remove the two screws and the power seat adjustment switch (B).



2. Disconnect the 12P connector from the power seat adjustment switch.
3. Reinstall the adjustment switch knobs to the switch.
4. Check for continuity between the terminals in each switch position according to the table.

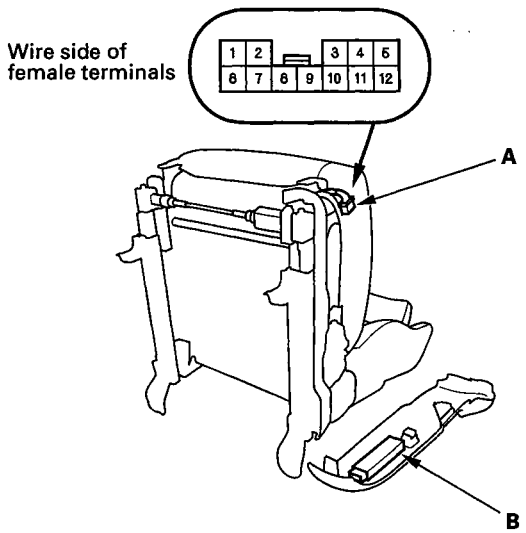
Position \ Terminal		1	2	3	4	5	6	7	8	9	10	11	12
SLIDE SWITCH	Forward							○	○		○	○	
	Backward							○	○		○	○	
RECLINE SWITCH	Forward		○		○		○						○
	Backward		○		○		○						○
FRONT UP-DOWN SWITCH	UP			○					○	○	○		
	DOWN			○					○	○	○		
REAR UP-DOWN SWITCH	UP	○	○		○	○							
	DOWN	○	○		○	○							

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

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Motor Test

1. Remove the driver's seat (see page 20-118).
2. Remove the power seat adjustment switch knobs and the recline cover from the seat (see page 20-131).
3. Disconnect the 12P connector (A) from the power seat adjustment switch (B).



4. Test each motor by applying battery voltage and body ground to the 12P connector terminals.

Slide motor

Terminal / Position	7	11
Forward	⊖	⊕
Backward	⊕	⊖

Recline motor

Terminal / Position	6	12
Forward	⊖	⊕
Backward	⊕	⊖

Front up-down motor

Terminal / Position	3	9
UP	⊕	⊖
DOWN	⊖	⊕

Rear up-down motor

Terminal / Position	1	5
UP	⊕	⊖
DOWN	⊖	⊕

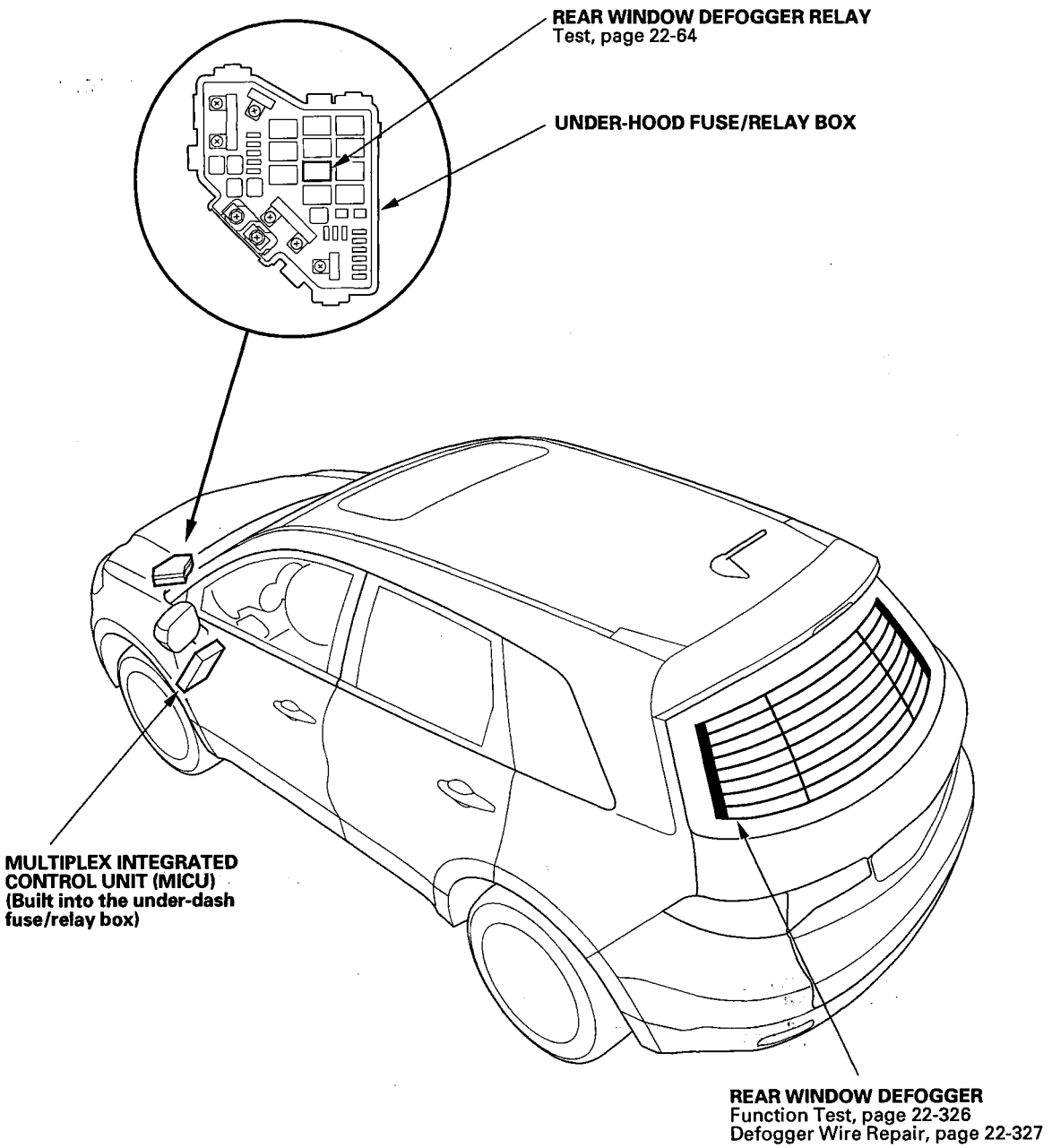
5. If the motor does not run or fails to run smoothly, check for an open in the driver's seat wire harness and driver's seat subharness. If the harness is OK, replace the motor (see page 20-121).

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Rear Window Defogger

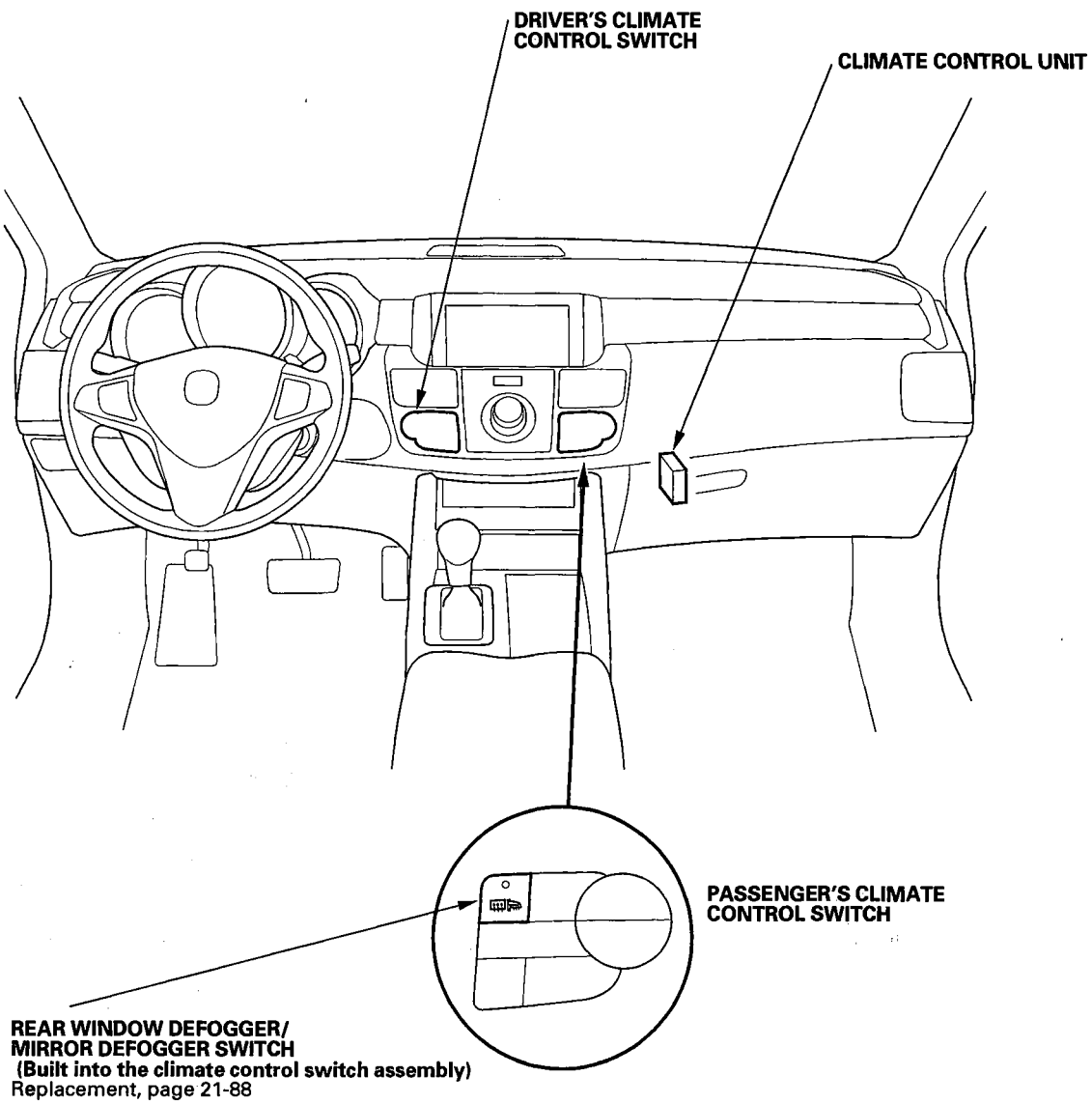
Component Location Index



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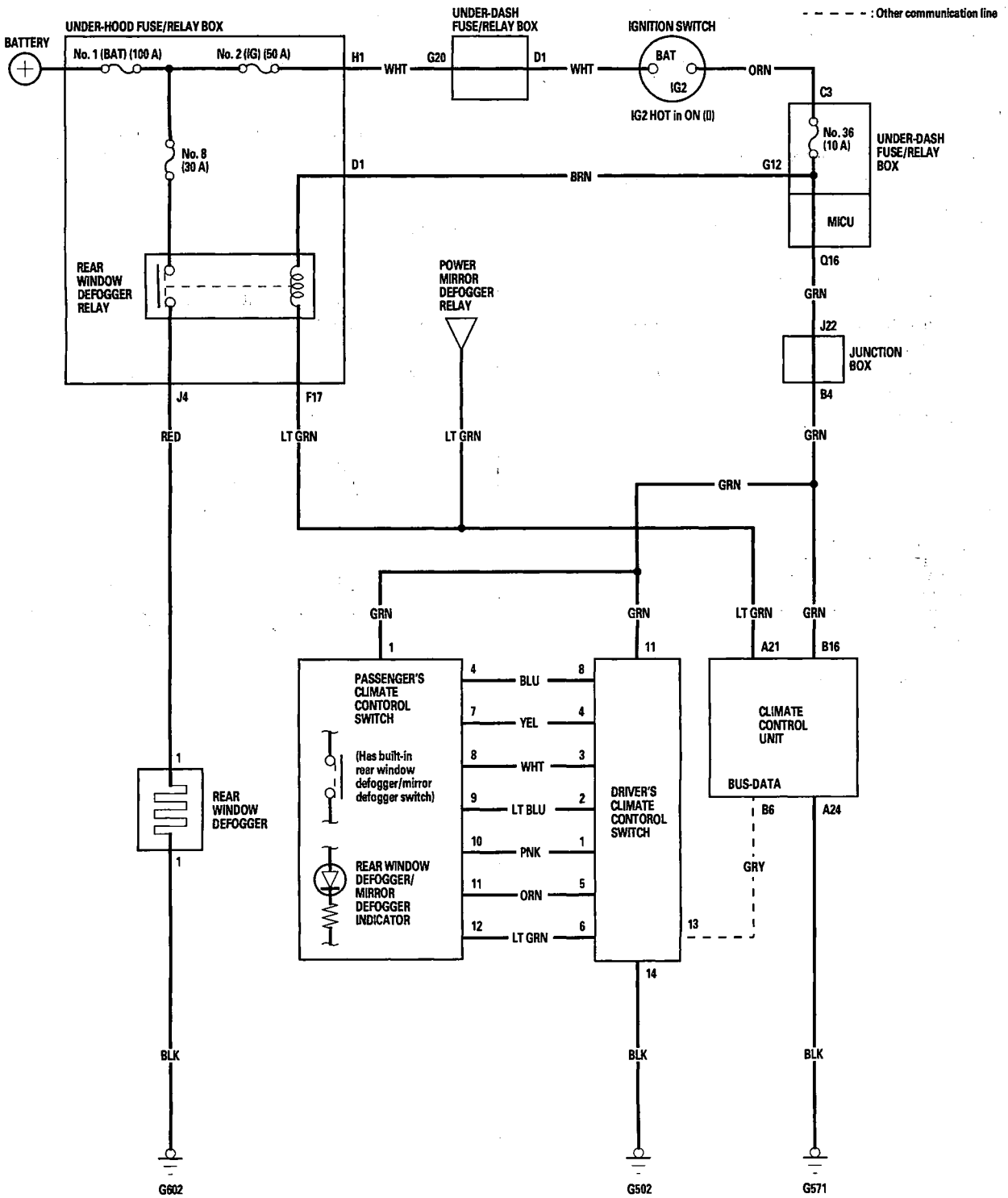
Component Location Index (cont'd)



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Circuit Diagram



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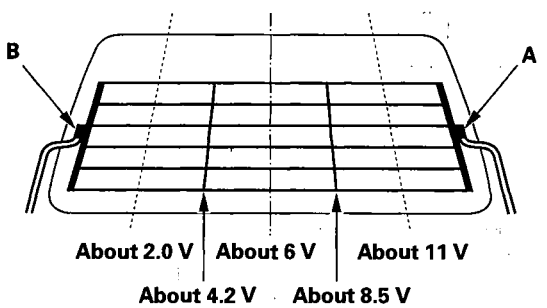
Rear Window Defogger

Function Test

NOTE:
- Be careful not to scratch or damage the defogger wires with the tester probe.
- Before testing, check the No. 8 (30 A) fuse in the under-hood fuse/relay box and the No. 36 (10 A) fuse in the under-dash fuse/relay box.

1. Check for voltage between the positive terminal (A) and body ground with the ignition switch and the defogger switch ON.
   There should be battery voltage.

   - If there is no voltage, check for:
     – Faulty rear window defogger relay.
     – Faulty climate control unit/climate control switches.
     – An open in the RED wire to the positive terminal.
   - If there is voltage, go to step 2.



2. Disconnect the negative terminal (B) from the rear window defogger.

3. Check for continuity between the negative terminal and body ground.

   If there is no continuity, check for an open in the wire or poor ground (G602). If there is continuity, go to step 4.

4. Reconnect the negative terminal to the rear window defogger.

5. Turn the ignition switch ON (II) and the rear window defogger switch ON.

6. 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.

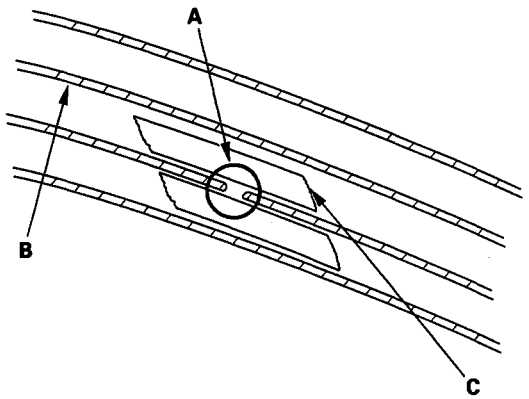
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BACK

Defogger Wire Repair

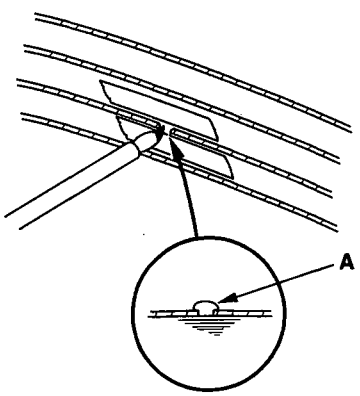
NOTE: To make an effective repair, the broken section must be no longer than 1 inch (2.5 mm).

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.

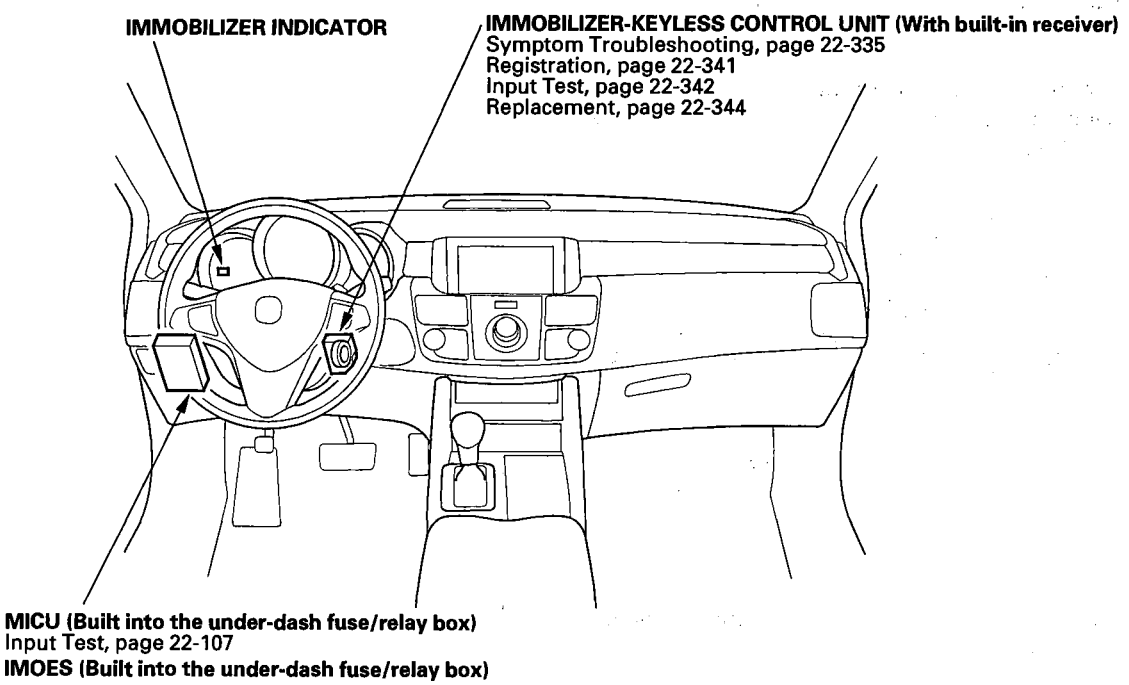


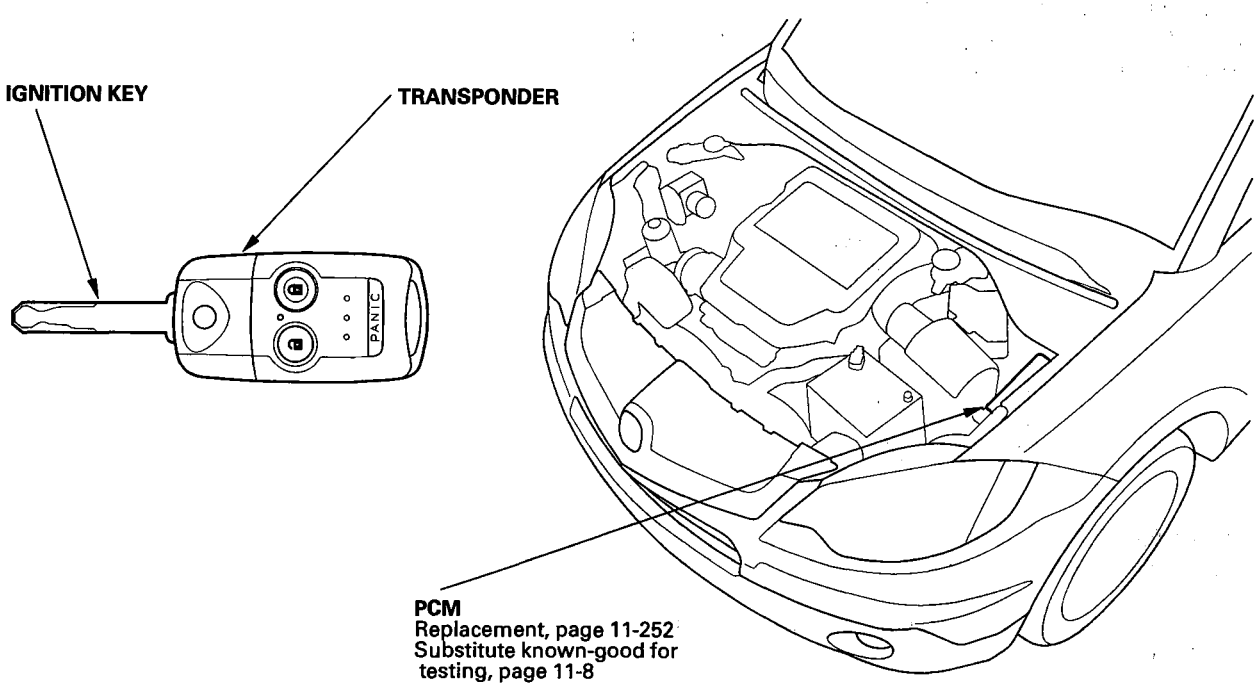
4. Do the function test to confirm that the wire is repaired (see page 22-326).

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



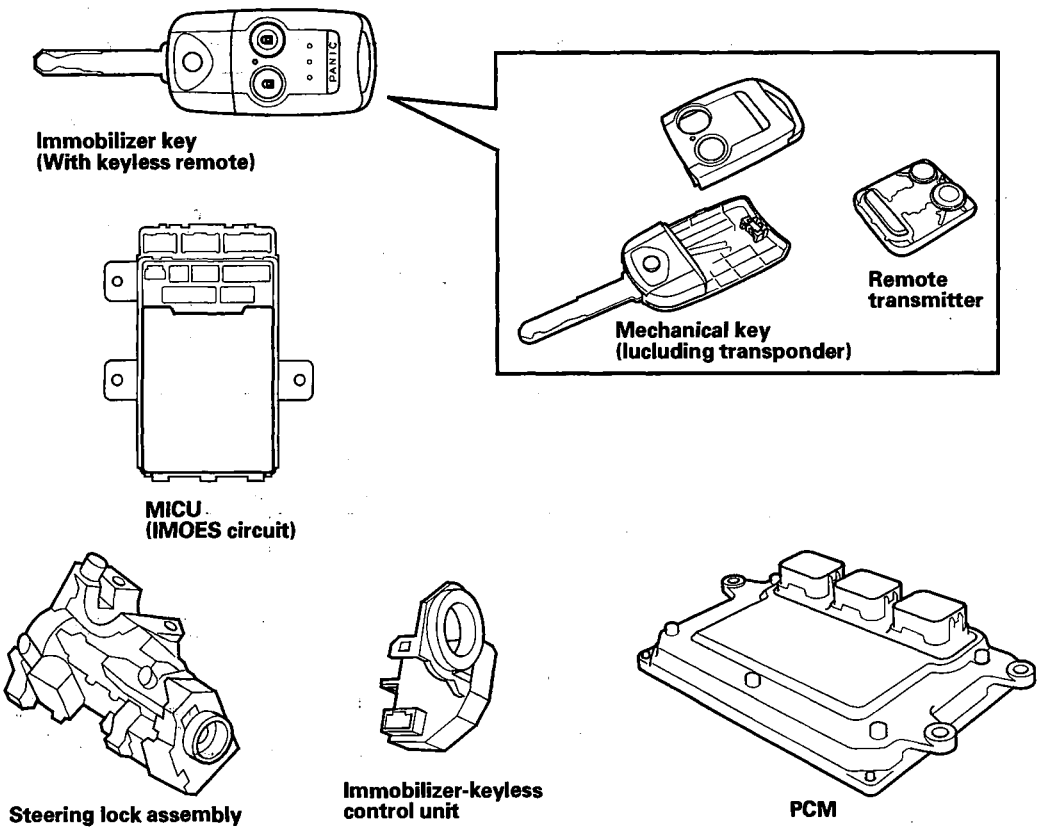


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System Description

The vehicle is equipped with an immobilizer system that will disable the vehicle unless a programmed ignition key is used.
This system consists of a transponder, a keyless transmitter, immobilizer-keyless control unit, immobilizer indicator, IMOES unit (built into the MICU), and the PCM.
When the immobilizer key (programmed by the HDS) is inserted into the ignition switch and turned to the ON (II) position, the immobilizer-keyless control unit sends power to the transponder in the ignition key. The transponder then sends a coded signal back to the immobilizer-keyless control unit which then sends a coded signal to the IMOES unit, which confirms the code and signals the PCM to supply power to the fuel pump circuit.

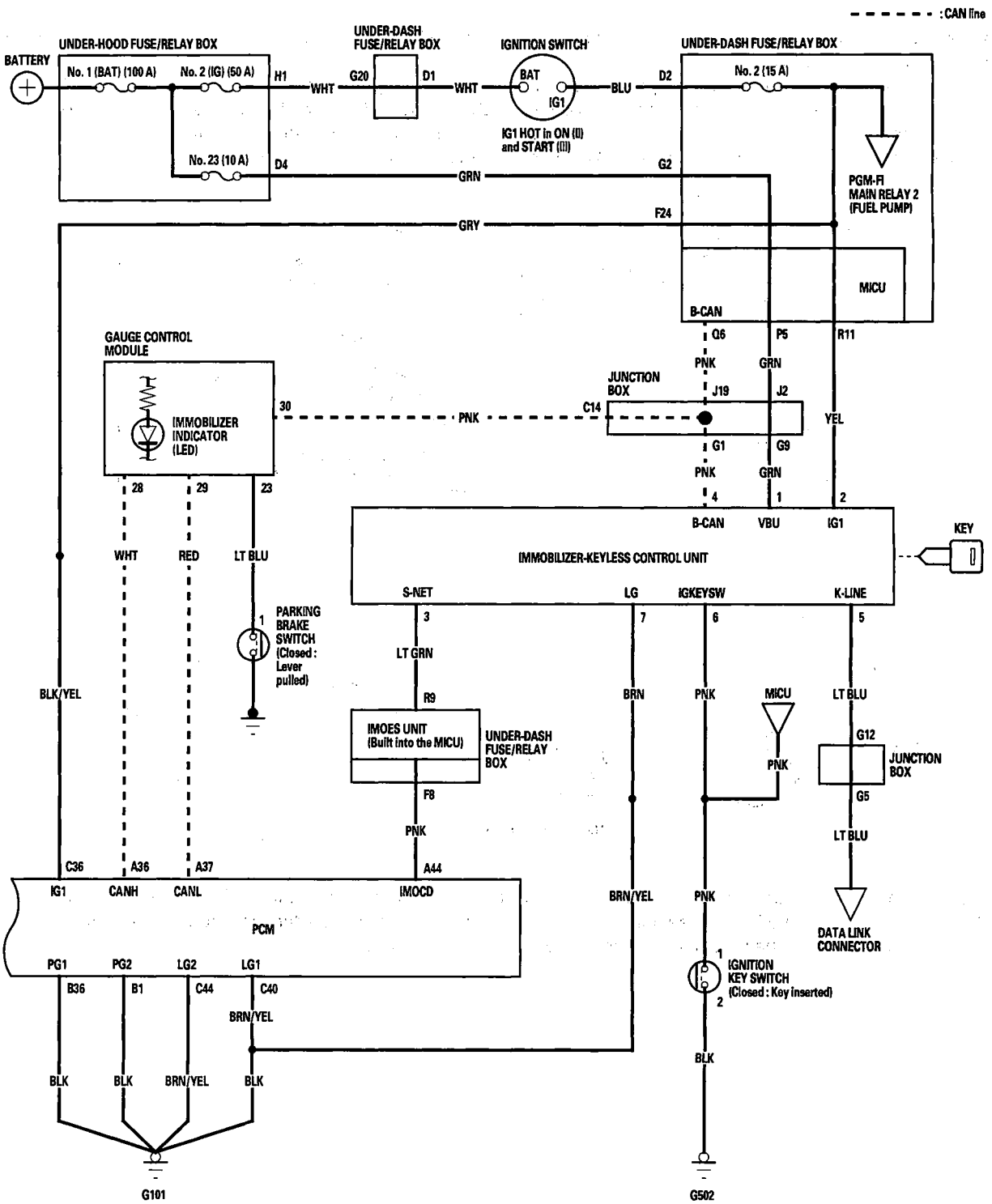


If the wrong key has been used or the code was not received or recognized by the unit, the indicator will quickly flash once, then it will blink until the ignition switch is turned OFF. When the ignition switch is turned OFF, the indicator will blink ten times to signal that the unit has reset correctly, then the indicator will go off.

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Immobilizer System

Circuit Diagram



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DTC Troubleshooting

DTC B1905: Immobilizer-Keyless Control Unit Lost Communication with MICU (DRLOCKSW Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

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

   Is DTC B1905 indicated?

   YES—Go to step 4.

   NO—Intermittent failure, the system is OK at this time. Check for loose or poor connections at the immobilizer-keyless control unit 7P connector, and the under-dash fuse/relay box connector Q (16P).■
4. Check for DTCs with the HDS.

   Is DTC B1160 also indicated with DTC B1905?

   YES—Faulty MICU; replace the under-dash fuse/relay box.■

   NO—Replace the immobilizer-keyless control unit.■

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DTC Troubleshooting (cont'd)

DTC B1906: Immobilizer-Keyless Control Unit Lost Communication with Gauge Control Module (A/T Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-88).

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

   Is DTC B1906 indicated?

   YES—Go to step 5.

   NO—Intermittent failure, the gauge control module is OK at this time. Check for loose or poor connections at the gauge control module 36P connector and at the immobilizer-keyless control unit 7P connector.■
5. Turn the ignition switch OFF.
6. Connect the HDS to the data link connector, then turn the ignition switch ON (II).
7. Select the BODY ELECTRICAL menu, then enter the UNIT INFORMATION.
8. Check the condition of the gauge control module from the CONNECTED UNIT list.

   Is NOT AVAILABLE indicated?

   YES—Go to step 9.

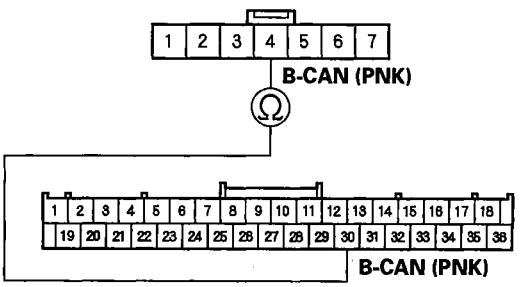
   NO—Replace the immobilizer-keyless control unit.■
9. Do the gauge control module input test (see page 22-282).

   Are all inputs OK?

   YES—Go to step 10.

   NO—Repair the faulty input, then recheck the DTCs.■
10. Disconnect the immobilizer-keyless control unit 7P connector.
11. Disconnect the gauge control module 36P connector.
12. Check for continuity between the immobilizer-keyless control unit 7P connector No. 4 terminal and the gauge control module 36P connector No. 30 terminal.

IMMOBILIZER-KEYLESS CONTROL UNIT 7P CONNECTOR
Wire side of female terminals



GAUGE CONTROL MODULE 36P CONNECTOR
Wire side of female terminals

Is there continuity?

YES—Replace the gauge control module.■

NO—Repair an open in the wire between the immobilizer-keyless control unit and the gauge control module.■

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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 Honda part; use the Honda-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 a key only.
- An aftermarket electrical part is attached; remove it, then troubleshoot the immobilizer system.

Symptom Troubleshooting Using the Immobilizer Indicator Lighting Pattern

The pattern of the immobilizer indicator light can help troubleshoot the condition of the immobilizer system. Following 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 ON (II).
The immobilizer indicator does not come on when the ignition switch is turned OFF.

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 OFF. When the ignition switch is turned OFF, the indicator will blink ten times, then go off.
The state of the immobilizer key registration and the IMOCD line can be checked by doing a SYSTEM CHECK with the HDS (see page 22-6)

Immobilizer indicator does not come on
If the immobilizer indicator does not come on after turning the ignition switch ON (II), an open or short in the F-CAN lines between the PCM and the gauge control module. Watch the malfunction indicator lamp (MIL). If the MIL stays on, go to the PGM-FI system troubleshooting (see page 11-228).

Immobilizer indicator does not go off
If the immobilizer indicator does not go off after turning the ignition switch ON (II), do the gauge control module self-diagnostic function (see page 22-258). If the indicator drive circuit is OK, do the SYSTEM 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 malfunctioning function to the line(s) that should be checked:

Function / Line Error		Immobilizer Indicator	Engine Start	Key Registration	Tester Communication	Keyless Operation
Terminal No.	Cause of Malfunction					
1	VBU line open or short	Comes on, then goes off.	Possible	Impossible	Possible	Impossible
2	IG1 line open or short	Blinking	Impossible	Impossible	Impossible	Possible
3	S-NET line open or short	Blinking	Impossible	Impossible	Impossible	Possible
4	B-CAN line open or short	Comes on, then goes off.	Possible	Impossible	Immobilizer: Possible Keyless: Impossible	Impossible
5	K-LINE line open or short	Comes on, then goes off.	Possible	Impossible	Impossible	Possible
6	KEYSW line open	Comes on, then goes off.	Possible	Possible	Possible	Possible (in spite of the key is in the ignition switch)
	KEYSW line short to ground					Impossible
7	GND (LG) line open	Blinking	Impossible	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.

1. Connect the HDS to the data link connector, then turn the ignition switch 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 11-229).

2. At the MAIN MENU, enter IMMOBILIZER, then select the 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 (see page 22-340). 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. 23 (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 by the order of the priority shown:

Order of Priority	Symptom	Possible cause
1	Immobilizer indicator blinks after the ignition switch is turned OFF.	Symptom troubleshooting (see page 22-336).
2	Engine does not start with the immobilizer key.	Symptom troubleshooting (see page 22-337).
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 11-228). • If the MIL does not come on, replace the gauge control module.
4	Immobilizer indicator does not go off.	Symptom troubleshooting (see page 22-337).

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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 OFF.
2. Connect the HDS, then turn the ignition switch ON (II).
3. Enter the IMMOBILIZER, then select the IMMOBILIZER SETUP.
4. Check the SYSTEM CHECK and STATUS LOG information.

   Is the SYSTEM CHECK indicated?

   YES—Troubleshoot the immobilizer system according to the result of the SYSTEM CHECK/ STATUS LOG (see page 22-333).■

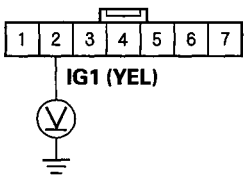
   NO—Go to step 5.
5. Turn the ignition switch OFF.
6. Enter the vehicle, and remove the ignition key from the ignition switch, then close the all doors.
7. Operate the keyless transmitter LOCK and UNLOCK several times in the vehicle.

   Do the door lock actuators work normally?

   YES—Go to step 8.

   NO—Check for a poor ground (G101) 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 ON (II).
9. Check for voltage between the immobilizer-keyless control unit 7P connector No. 2 terminal and body ground.

IMMOBILIZER-KEYLESS CONTROL UNIT 7P CONNECTOR



Wire side of female terminals

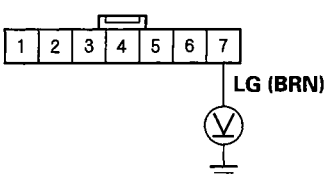
Is there battery voltage?

YES—Go to step 10.

NO—Check fuse No. 2 (15 A) in the under-dash fuse /relay box or for an open in the YEL wire between the under-dash fuse-relay box and the immobilizer-keyless control unit.■

10. Check for voltage between the immobilizer-keyless control unit 7P connector No. 7 terminal 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 the immobilizer-keyless control unit 7P connector No. 7 terminal and G101.■

NO—Replace the immobilizer-keyless control unit.■

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Engine does not start with the immobilizer key

NOTE: Before troubleshooting, check the items listed in "General Check before Troubleshooting" and "How to Troubleshoot" (see page 22-333).

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 22-333). ■

   NO—Go to step 2.

2. Turn the ignition switch OFF.
3. Turn the ignition switch ON (II), and check the immobilizer indicator indication.

   Does the indicator quickly flash once?

   YES—Go to step 4.

   NO—Go to the immobilizer indicator blinks troubleshooting (see page 22-336). ■

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. ■

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. ■

6. Wait for a few minutes with the engine running.

   Does the engine stop?

   YES—Go to the PGM-FI System Symptom Troubleshooting. ■

   NO—The system is OK at this time. ■

Immobilizer indicator does not go off

1. Turn the ignition switch OFF.
2. Connect the HDS to the data link connector.
3. Turn the ignition switch ON (II).
4. Enter the IMMOBILIZER, then select the IMMOBILIZER INFORMATION.
5. Do the SYSTEM CHECK with the HDS.

   Is N-1 OK indicated?

   YES—Replace the gauge control module. ■

   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 unit. ■

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System Check

1. Connect the HDS to the data link connector.
2. Turn the ignition switch ON (II).
3. Monitor the System Check in the Immobilizer Info with the HDS.
4. If the HDS displays the "Normal", the immobilizer system is OK. If the HDS displays any other messages, check as follows:

System Check No.	Status Log. Indication	System Check	Possible Cause
A-1	Possible	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 metal such as key chains/key rings/ other keys. • Low battery voltage.
A-2	Possible	Communication error between the key and immobilizer unit	• Intermittent interruption between transponder and immobilizer-keyless control unit. • The immobilizer key type is incorrect non-Honda key. • Key failure (transponder failure) • No communication between the antenna and the immobilizer key by influence of metal such as key chains/key rings/other keys. • Low battery voltage.
A-3	Possible	No communication between the key and immobilizer unit	• The ignition switch was turned on with a non-immobilizer key. • The immobilizer key type is incorrect non-Honda key. • Key failure (transponder failure) • No communication between the antenna and the immobilizer key by influence of metal such as key chains/key rings/other keys. • Low battery voltage. • Immobilizer-keyless control unit failure
B-1	Possible	The PCM is not registered	• The PCM was not registered. Try to register the PCM using the HDS. • No communication between the PCM and the immobilizer-keyless control unit because of low battery voltage. • No communication between the immobilizer-keyless control unit and the PCM because of interference.
B-2	Possible	Error of communication format in PCM	• The PCM was not registered. Try to register the PCM using the HDS. • No communication between the PCM and the immobilizer-keyless control unit because of low battery voltage. • No communication between the immobilizer-keyless control unit and the PCM because of interference.

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System Check No.	Status Log. Indication	System Check	Possible Cause
C-1	Possible	No registration of 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.
C-2	Possible	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	Possible	S-net line short	• Harness short from the PCM to the immobilizer-keyless control unit. (S-net line short) • No communication between the PCM and the immobilizer-keyless control unit because of low battery voltage. • No communication between the immobilizer-keyless unit and the PCM because of interference. • Immobilizer-keyless control unit failure • PCM failure
D-2	Possible	No communication between IMOES unit and Immobilizer Unit	• Blown fuse • Harness open from the IMOES unit to the immobilizer-keyless control unit. • 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	Possible	No communication between PCM and Immobilizer Unit	• Blown fuse • Harness open from the PCM to the immobilizer-keyless control unit. • No communication between the PCM and the immobilizer-keyless control unit because of low battery voltage. • No communication between the immobilizer-keyless control unit and the PCM because of interference. • Immobilizer-keyless control unit failure • PCM failuer
E-1 E-2 E-3 E-4 E-5	———	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.
F-1 F-2 F-3 F-4 F-5	———	Special Mode	Turn the ignition switch ON (II) and OFF with the registered key.

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Status Log

If you suspect there is a immobilizer system problem, check the status log.

1. Connect the HDS to the data link connector.
2. Turn the ignition switch ON (II).
3. On the HDS screen, select Honda systems, 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)	1. The key was not registered 2. Interference from metal such as key chains 3. Low battery voltage
A-2	KEY CODE MISMATCH (Code format failure)	1. Ignition switch was turned on with another type of immobilizer key or aftermarket key 2. Interference from metal such as key chains 3. Low battery voltage
A-3	KEY CODE MISMATCH (No key code or non-immobilizer key)	1. Ignition switch was turn on with another type of immobilizer key or aftermarket key 2. Interference from metal such as key chains 3. Low battery voltage 4. Key failure 5. Immobilizer control unit-receiver failure
B-1	PCM CODE MISMATCH (Code format normal, but code data is mismatch)	1. PCM was not registered correctly 2. Low battery voltage 3. Poor or loose terminal connections at the immobilizer control unit-receiver 4. Communication line electrical noise
B-2	PCM MISMATCH (Code format failure)	1. PCM was not registered correctly 2. Low battery voltage 3. Poor or loose terminal connections at the immobilizer control unit-receiver 4. Communication line electrical noise
D-1	SECURITY-NET LINE PROBLEM (Short to ground)	1. Low battery voltage 2. Poor or loose terminal connections at the immobilizer control unit-receiver and the PCM 3. Communication line electrical noise
D-3	SECURITY-NET LINE PROBLEM (Open line or PCM failure)	1. Open or short in the harness from the PCM to the immobilizer control unit-receiver 2. Low battery voltage 3. Poor or loose terminal connections at the immobilizer control unit-receiver and the PCM 4. Communication line electrical noise

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Immobilizer Key Registration

NOTE:
- The HDS is required for registration of the immobilizer keys.
- Check for aftermarket electrical equipment that can cause problems with transponder operation.
- The immobilizer control unit-receiver can store up to six immobilizer Keys.

Add one new key

1. Have a registered key, a new immobilizer key, and the first pass word from the iN system.
2. Connect the HDS to the data link connector.
3. Turn the ignition switch 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 by the newly registered key.

Delete or add multiple keys

NOTE: If any of the registered keys were lost, do the following procedure to delete the lost registered key.

1. Have all registered keys, all new keys, and the first password.
2. Connect the HDS to the data link connector.
3. Turn the ignition switch 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 instruction of HDS screen.
7. Check if the engine can be started by all the registered keys.

All keys are lost

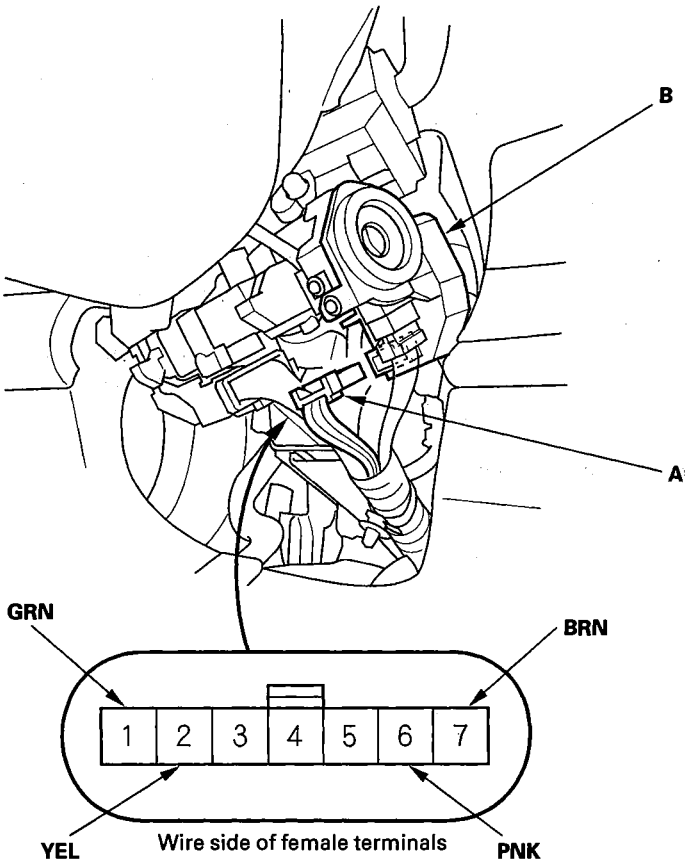
1. Prepare all new keys and have the immobilizer PCM code.
2. Connect the HDS to the data link connector.
3. Turn the ignition switch ON (II).
4. Select "IMMOBILIZER" from the "SYSTEM SELECT" menu.
5. Select "Add and Delete Keys", then "ALL KEYS LOST".
6. Do the registration according to the instruction of HDS screen.
7. Check if the engine can be started by all the registered keys.

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Immobilizer-keyless Control Unit Input Test

NOTE: Before troubleshooting the immobilizer system, troubleshoot the B-CAN System Diagnosis Test Mode A (see page 22-88) and check the No. 10 (7.5 A) and No. 38 (30 A) fuses in the under-dash fuse/relay box.

1. Remove the steering column covers (see page 20-107).
2. Disconnect the 7P connector (A) from the immobilizer-keyless control unit (B).



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

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4. With the connector still disconnected, make 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 5.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
1	GRN	Under all conditions	Check for voltage between immobilizer-keyless control unit 7P connector No. 1 terminal and body ground: There should be battery voltage.	• Blown No. 23 (10 A) fuse in the under-hood fuse/relay box • An open in the wire
2	YEL	Ignition switch ON (II)	Check for voltage to ground: There should be battery voltage.	• Blown No. 2 (15 A) fuse in the under-dash fuse/relay box • An open in the wire

5. Reconnect the connectors to the immobilizer-keyless control unit, and make 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, the immobilizer-keyless control unit must be faulty; replace it.

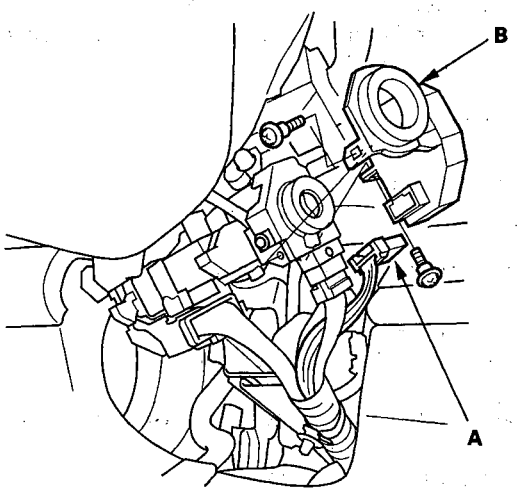
Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
7	BRN	Under all conditions	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G101) • An open in the wire
6	PNK	Ignition key inserted into the ignition switch	Check for voltage to ground: There should be less than 0.5 V.	• Poor ground (G502) • Faulty ignition key switch • An open in the wire

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Immobilizer-keyless Control Unit Replacement

NOTE: Requires PCM code and all of the client's keys.

1. Remove the steering column covers (see page 20-107).
2. Disconnect the 7P connector (A) from the immobilizer-keyless control unit (B).



3. Remove the two screws and the immobilizer-keyless control unit.
4. Install the immobilizer-keyless control unit in the reverse order of removal.
5. After replacement, register the immobilizer-keyless control unit (see page 22-341), and make sure the immobilizer system works properly.
6. Program all of the client's keyless transmitters (see page 22-144).

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SUPPLEMENTAL RESTRAINT SYSTEM (SRS) (If Audio, Navigation, and Telematics maintenance is required)

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

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

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