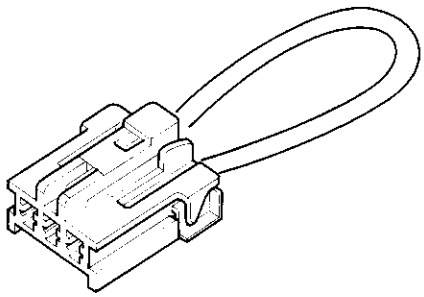
Body Electrical

Special Tools

Ref. No.	Tool Number	Description	Qty
①	07WAZ-001010A	MPCS Service Connector	1
②	07LAJ-PT3020A	Test Harness	1
③	07TAZ-001020A	Back Probe Adapter	1



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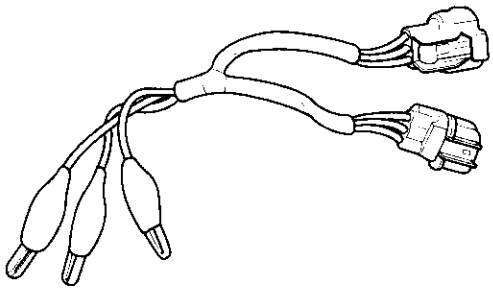

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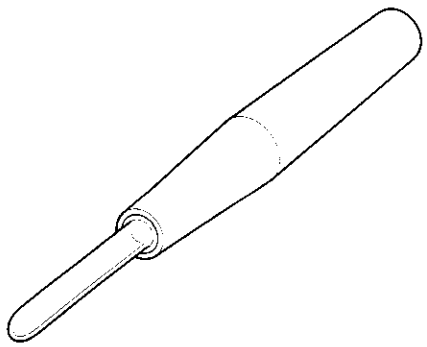


③

General Troubleshooting Information

Tips and Precautions

Before Troubleshooting

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

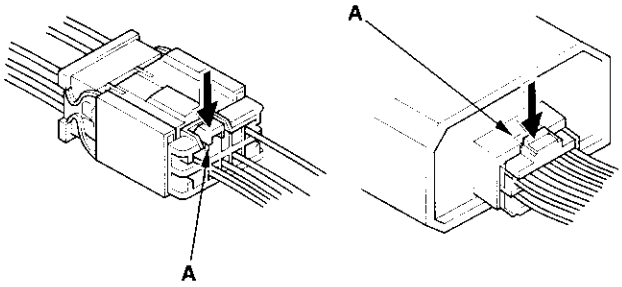
2. Check the battery for damage, state of charge, and clean and tight connections.

NOTICE

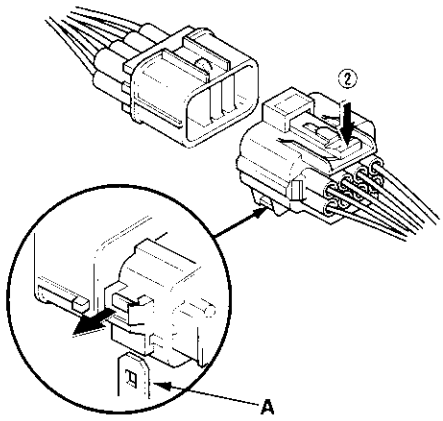
- Do not quick-charge a battery unless the battery ground cable has been disconnected, otherwise you will damage the alternator diodes.
- Do not attempt to crank the engine with the battery ground cable loosely connected or you will severely damage the wiring.

Handling Connectors

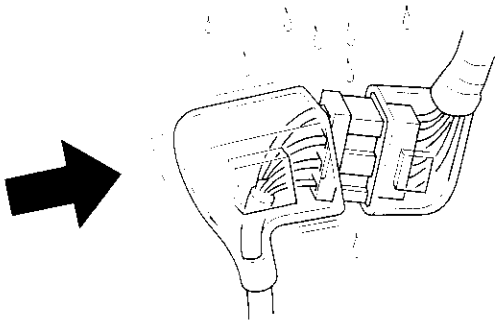
- Make sure the connectors are clean and have no loose wire terminals.
- Make sure multiple cavity connectors are packed with dielectric grease (except watertight connectors).
- All connectors have push-down release type locks (A).



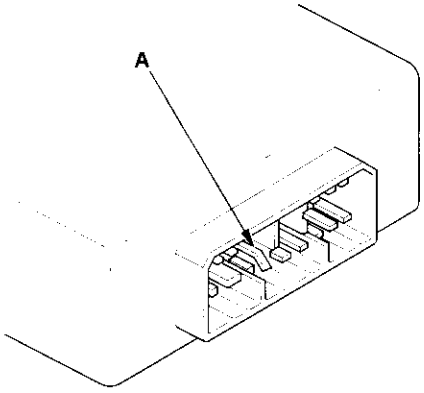
- Some connectors have a clip on their side used to attach them to a mount bracket on the body or on another component. This clip has a pull type lock.
- Some mounted connectors cannot be disconnected unless you first release the lock and remove the connector from its mount bracket (A).



- 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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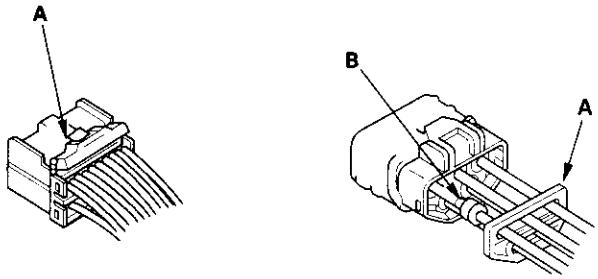
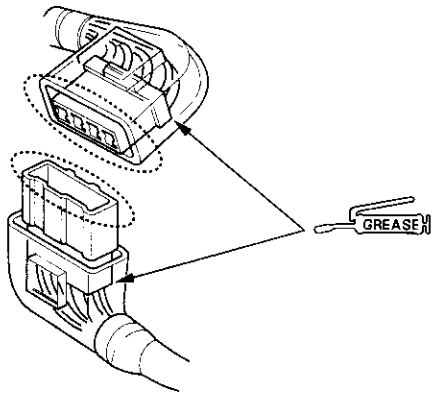
General Troubleshooting Information (cont'd)

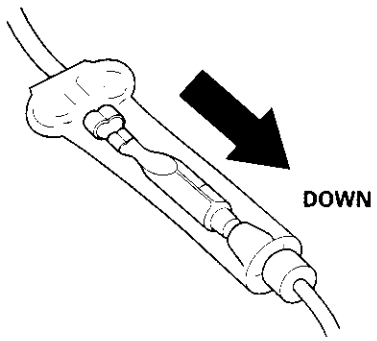
- Check for loose retainer (A) and rubber seals (B).



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

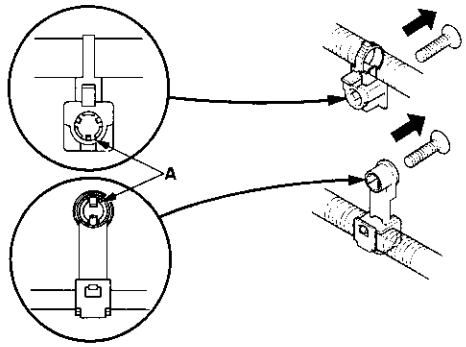


- Insert the connector all the way and make sure it is securely locked.
- Position wires so that the open end of the cover faces down.

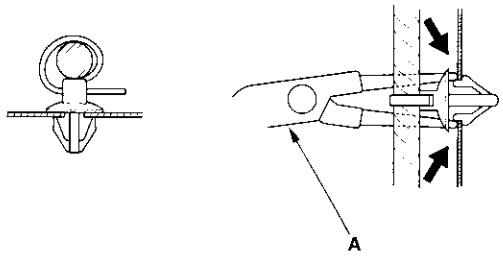


Handling Wires and Harnesses

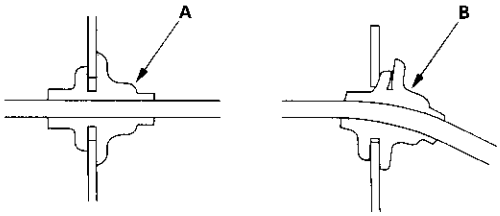
- Secure wires and wire harnesses to the frame with their respective wire ties at the designated locations.
- Remove clips carefully; don't damage their locks (A).



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

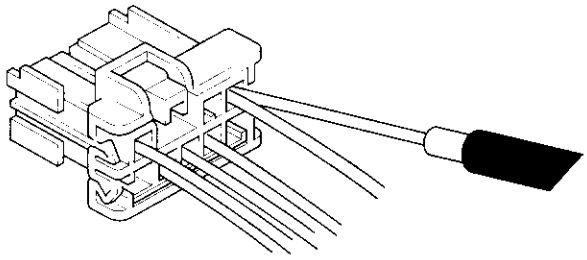


- After installing harness clips, make sure the harness doesn't interfere with any moving parts.
- Keep wire harnesses away from exhaust pipes and other hot parts, from sharp edges of brackets and holes, and from exposed screws and bolts.
- Seat grommets in their grooves properly (A). Do not leave grommets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

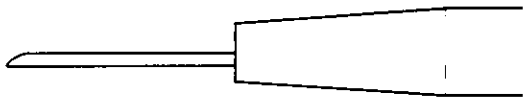


Testing and Repairs

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

(cont'd)

General Troubleshooting Information (cont'd)

Five-step Troubleshooting

1. Verify The Complaint
   Turn on all the components in the problem circuit to verify the customer 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 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.

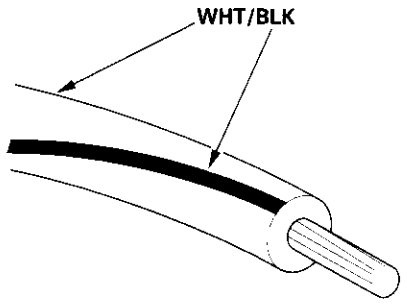
5. Make Sure The Circuit Works
   Turn on all components in the repaired circuit in all modes to make sure you've fixed the entire problem. If the problem was a blown fuse, be sure to test all of the circuits on the fuse. Make sure no new problems turn up and the original problem does not recur.

Wire Color Codes

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

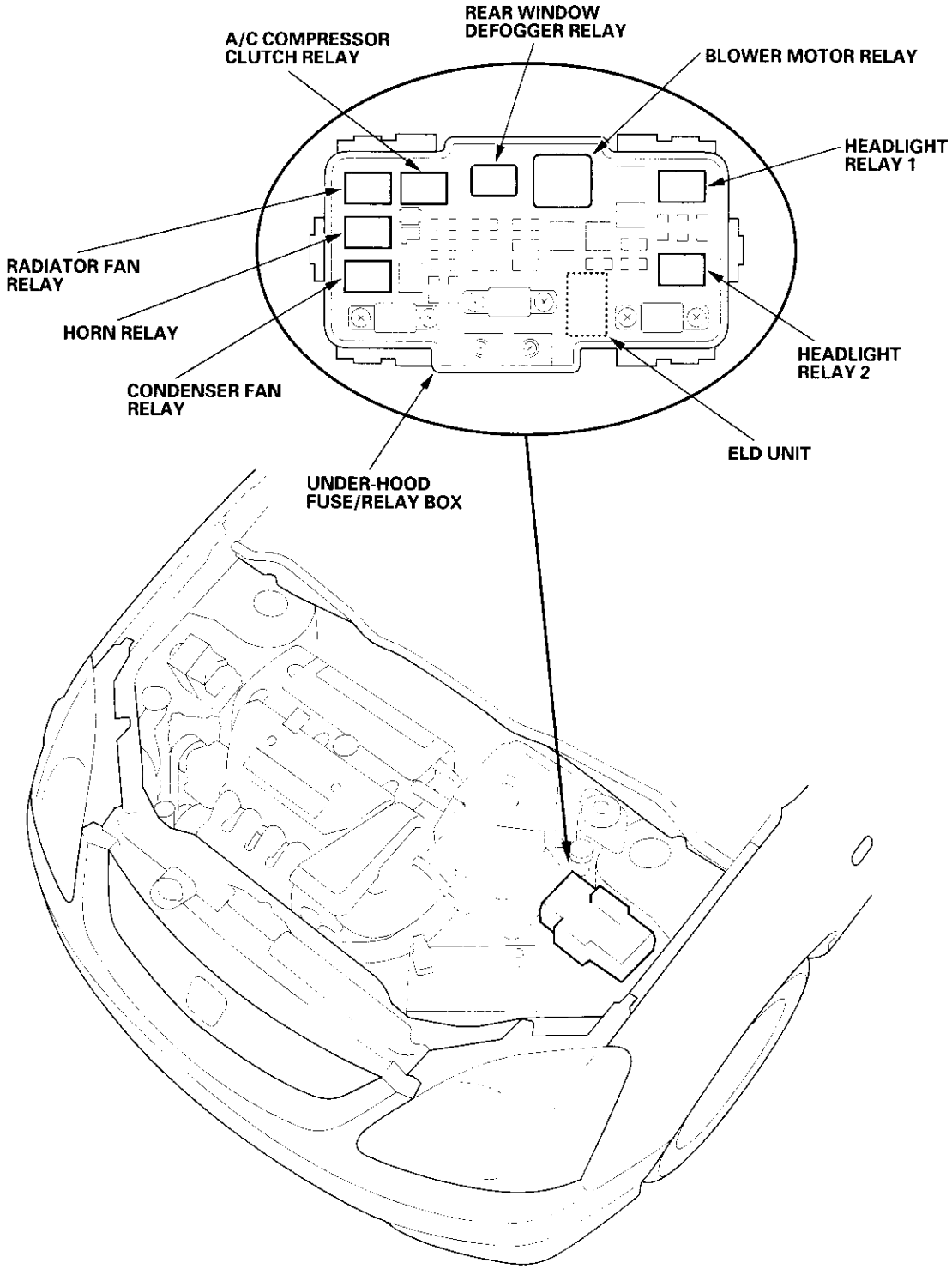
WHT	White
YEL	Yellow
BLK	Black
BLU	Blue
GRN	Green
RED	Red
ORN	Orange
PNK	Pink
BRN	Brown
GRY	Gray
PUR	Purple
LT BLU	Light Blue
LT GRN	Light Green

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



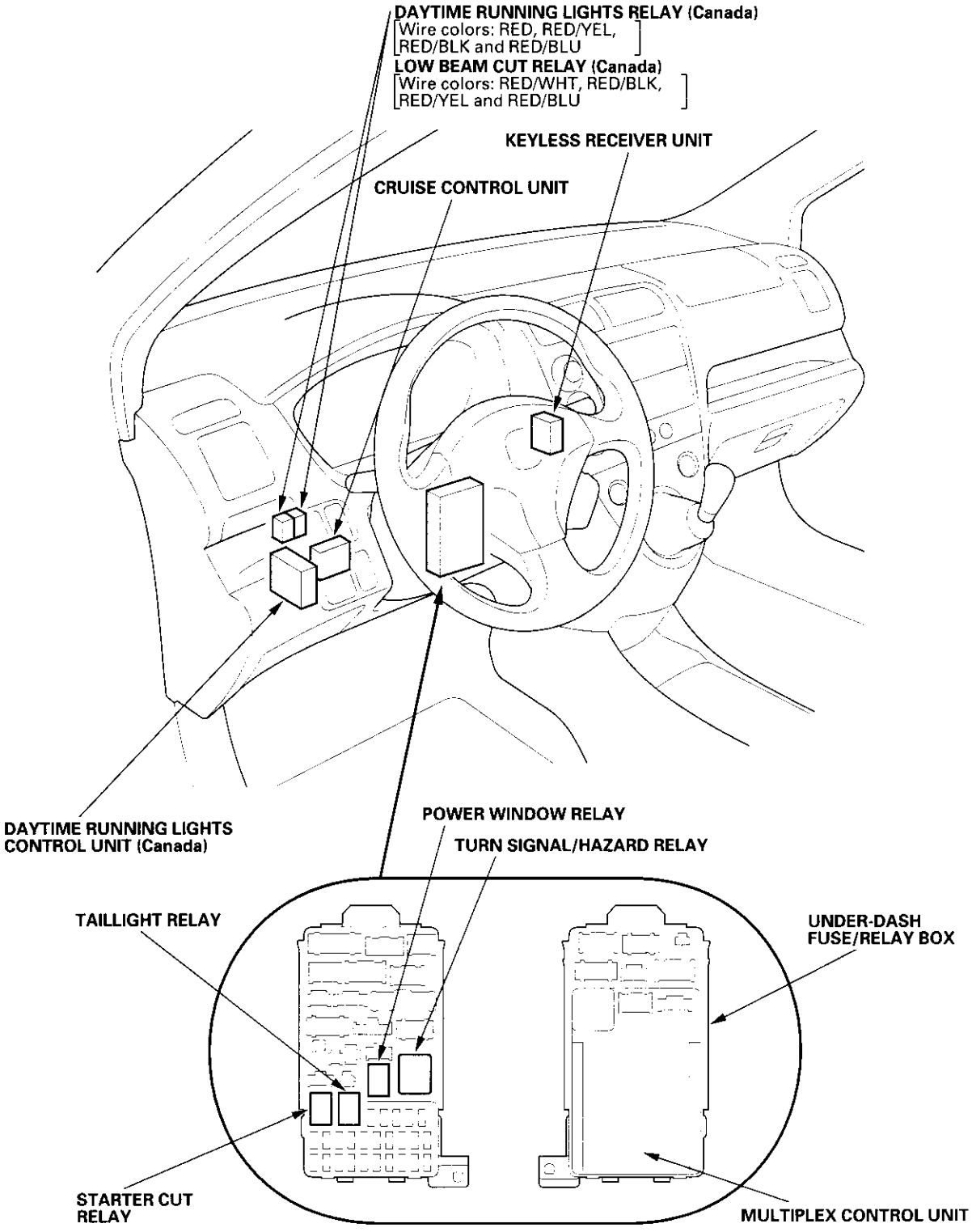
Relay and Control Unit Locations

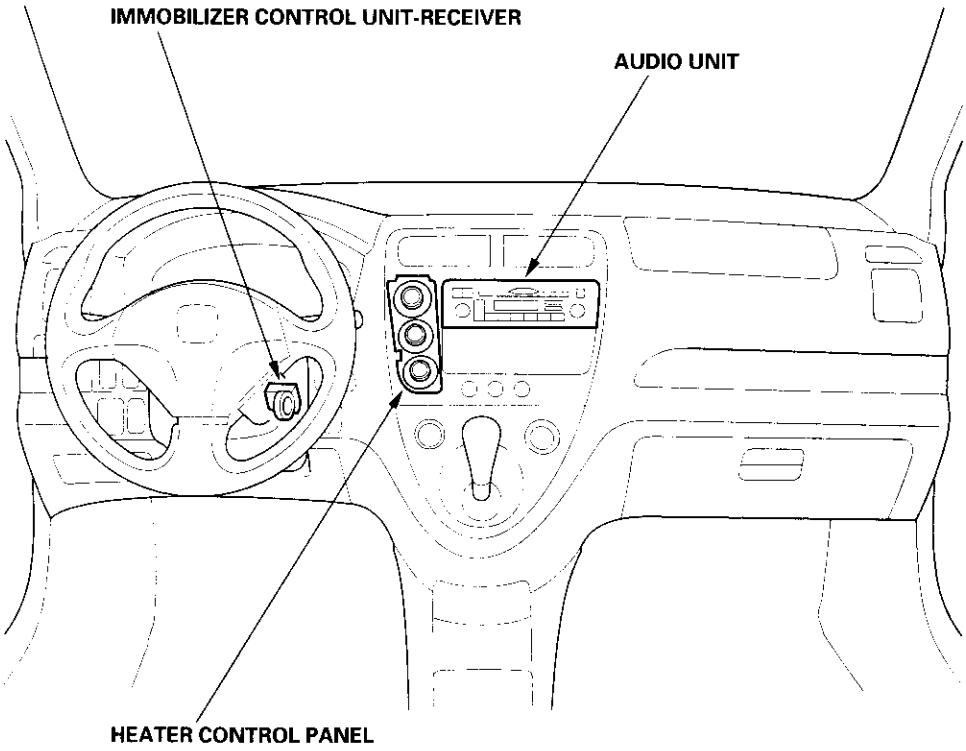
Engine Compartment



Relay and Control Unit Locations

Dashboard

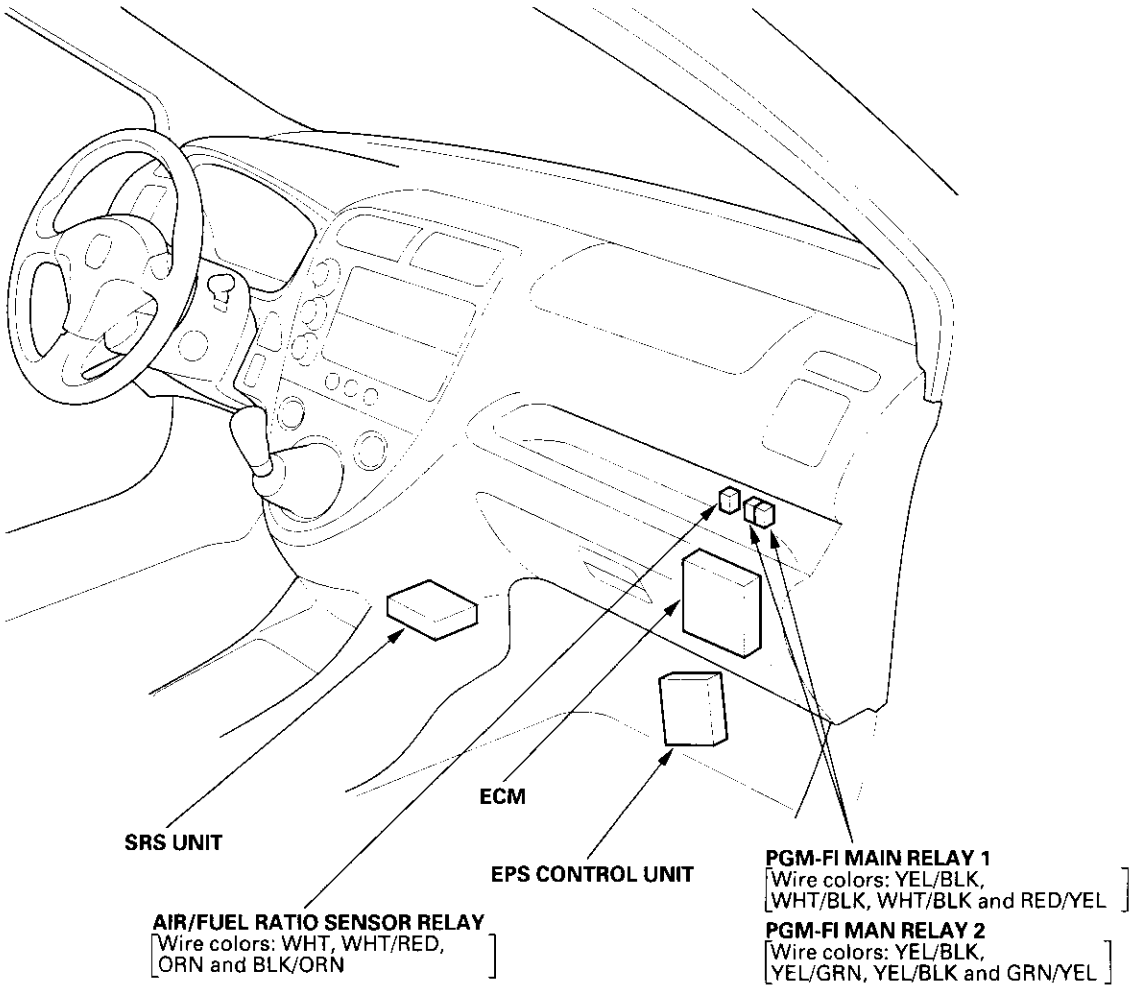



IMMOBILIZER CONTROL UNIT-RECEIVER
AUDIO UNIT
HEATER CONTROL PANEL

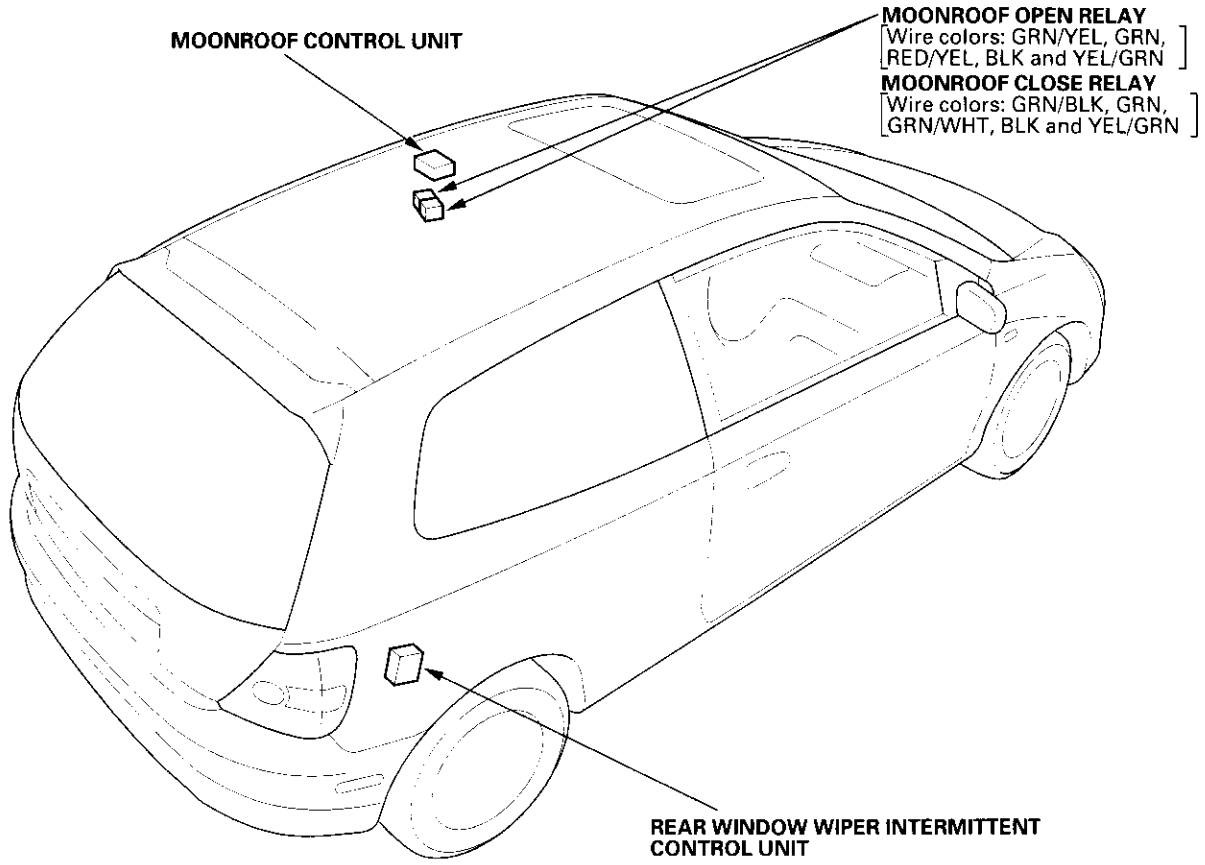
(cont'd)

Relay and Control Unit Locations

Dashboard (cont'd)



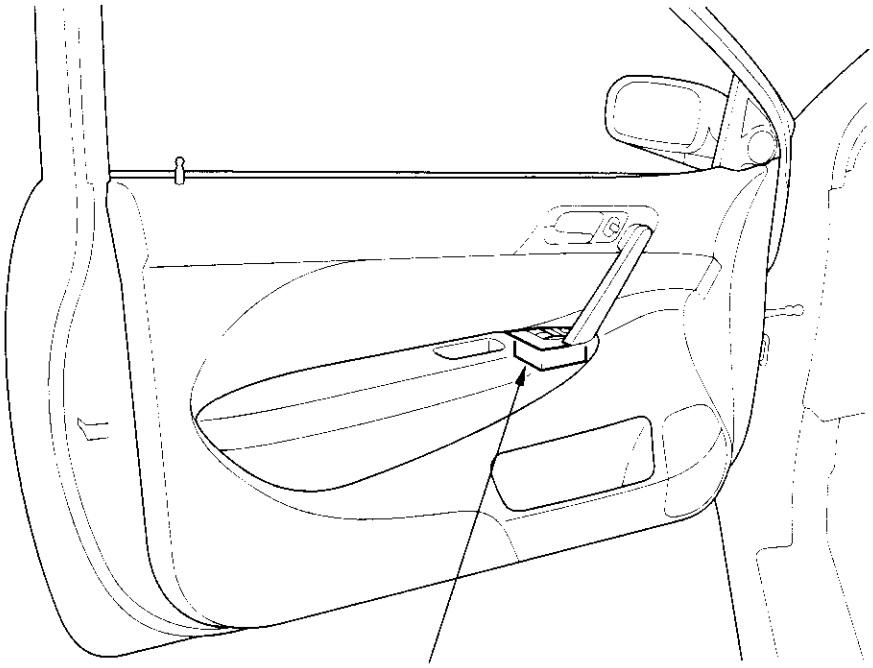
Rear and Roof



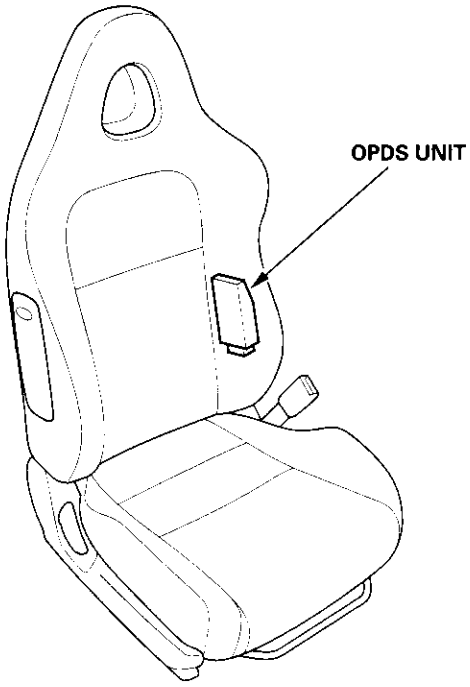
Relay and Control Unit Locations

Door and Seat

Driver's Door:



Passenger's Seat:



Connector Index

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

Harness	Location			
	Engine Compartment	Dashboard	Others (Floor, Door, Trunk, and Roof)	Notes
Starter subharness	C102 and C103 T1 and T2 T101 and T102 (+)			(see page 22-15)
Battery ground cable	T3 G1 and (−)			(see page 22-14)
Engine ground cable	T4 G2			(see page 22-14)
Engine wire harness	C101 through C104 G101			(see page 22-16)
Engine compartment wire harness (right branch)	G201 and G202			(see page 22-18)
Engine compartment wire harness (left branch)	G301			(see page 22-18)
Engine compartment wire harness (dashboard)		C151 C401 C451 and C452 C501 through C503 C551 C851 G402		(see page 22-18)
EPS subharness		C151 and C152 G151		(see page 22-24)
Dashboard wire harness A (left branch)		C504 through C510 G501 and G503		(see page 22-26)
Left side turn signal light sub harness		C506		(see page 22-26)
Dashboard wire harness A (right branch)		C501 through C503 C511 through C515 C852 and C853 G502		(see page 22-26)
Right side turn signal light sub harness		C513		(see page 22-26)
Dashboard wire harness B		C401 through C403 C510 G401		(see page 22-30)
ECM wire harness		C101 C152 C451 through C453 C511 G451		(see page 22-32)
Floor wire harness (front side)		C402 and C403 C453 C508 and C509 C512 C551 and C552	G551	(see page 22-34)
Floor wire harness (rear side)			C553 and C554 G552 and G553	(see page 22-34)
Roof wire harness			C507	(see page 22-38)
Hatch wire harness			C553 and C554	(see page 22-39)
Driver's door wire harness			C504 and C505	(see page 22-40)
Passenger's door wire harness			C514 and C515	(see page 22-41)
OPDS wire harness			C552	(see page 22-42)
A/C wire harness			C851 through C853	(see page 22-43)

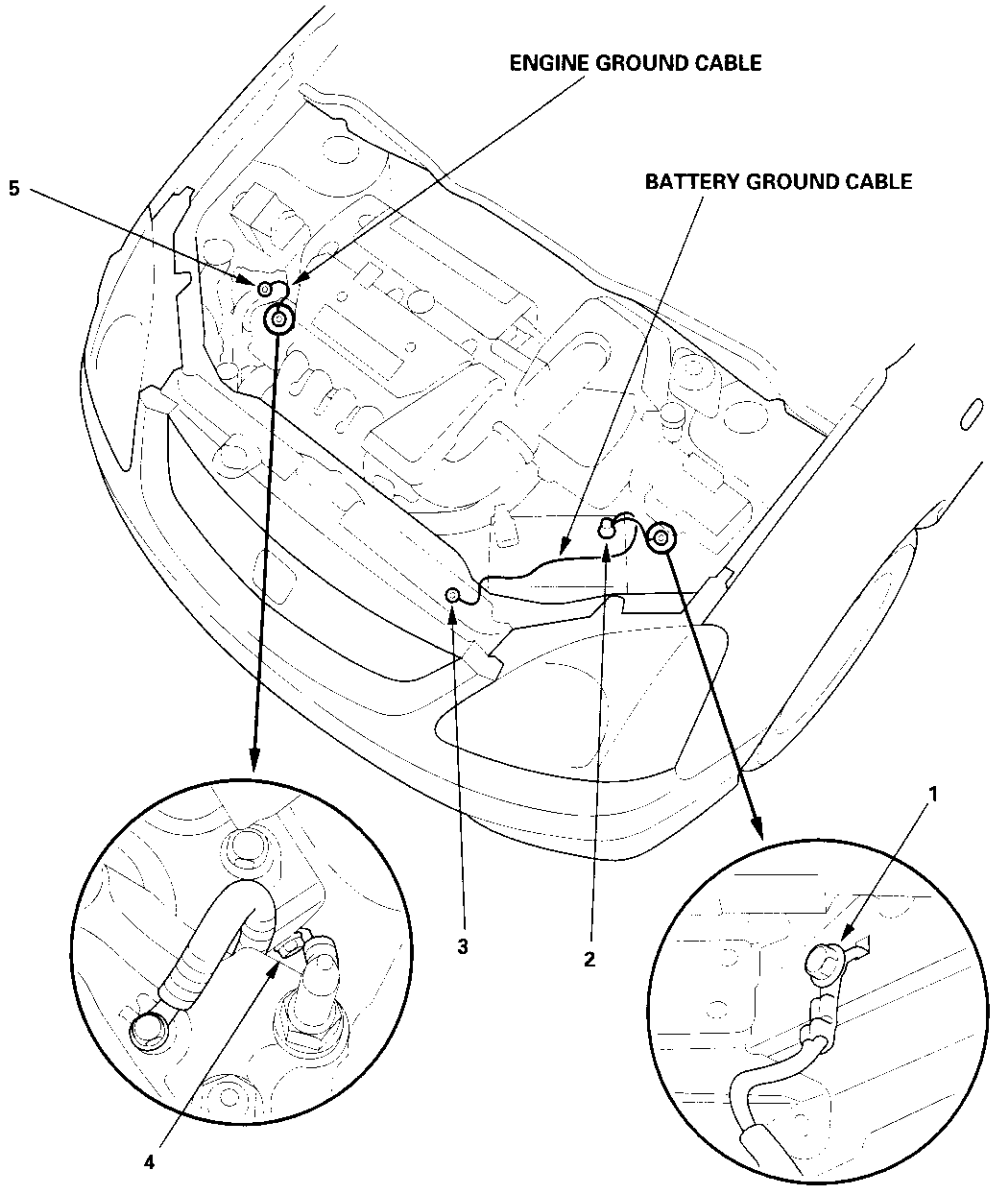
Connector to Harness Index

Battery Ground Cable

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
T3	3		Left side of engine compartment		
G1	1		Left side of engine compartment	Body ground via battery ground cable	
(−)	2		Battery	Battery negative terminal	

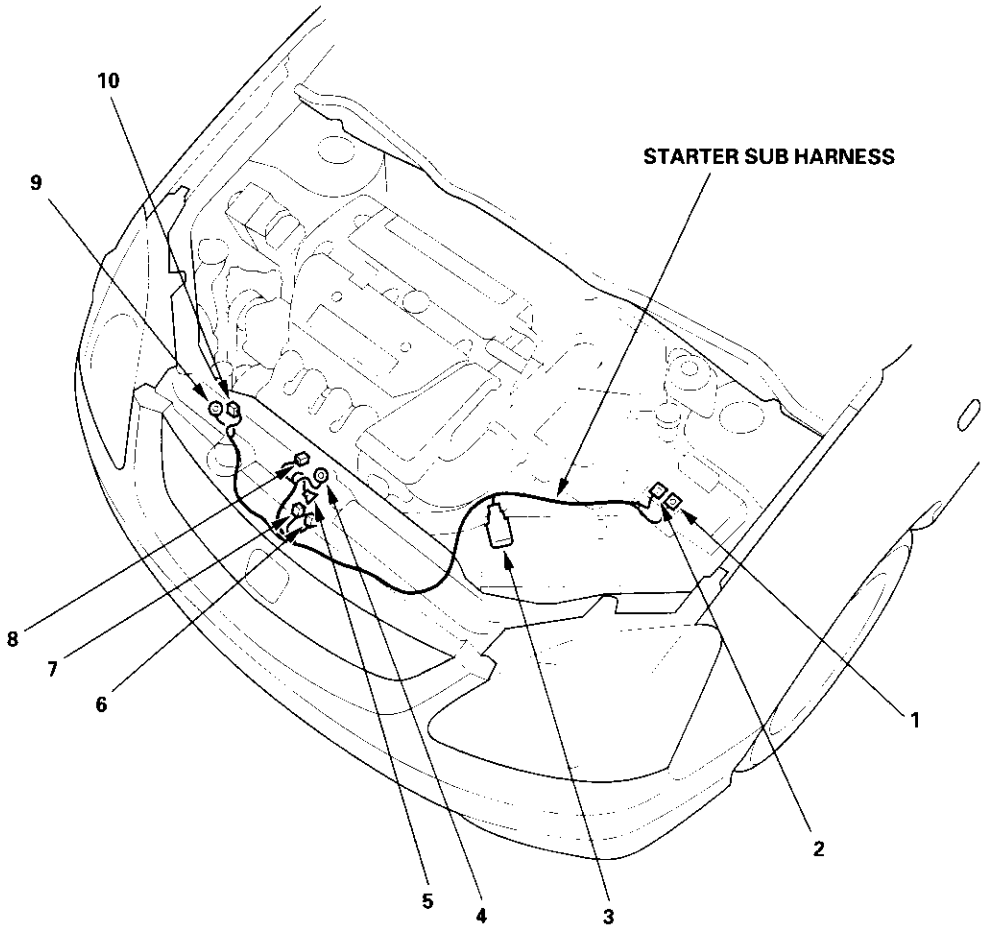
Engine Ground Cable

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
T4	5		Right side of engine		
G2	4		Right side of engine compartment	Body ground via engine ground cable	



Starter Subharness

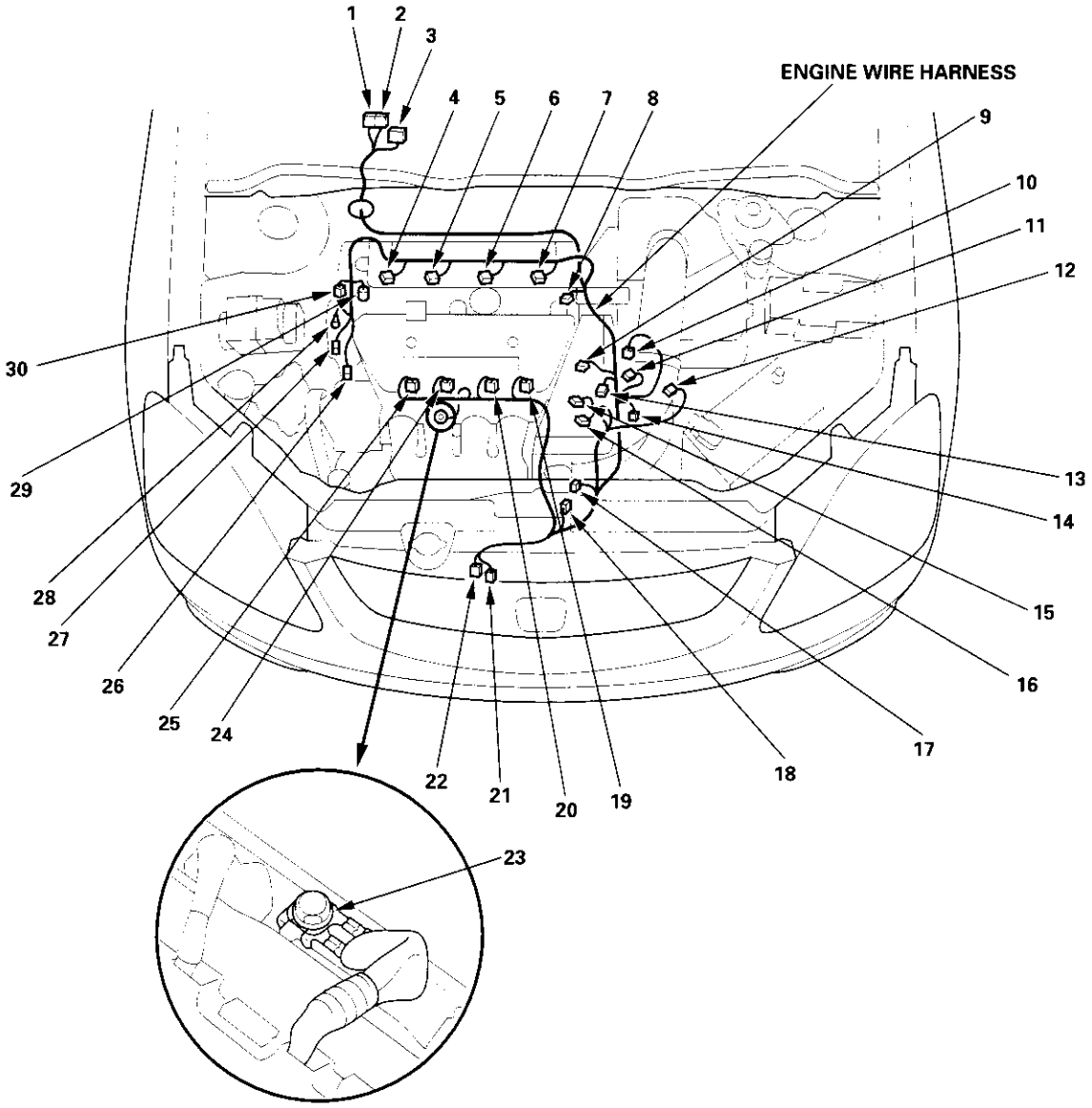
Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Alternator	10	4	Right side of engine compartment		
Knock sensor	8	1	Front of engine		
Starter solenoid	5	1	Middle of engine compartment		
C102	7	6	Front of engine compartment	Engine wire harness (see page 22-16)	
C103	6	1	Front of engine compartment	Engine wire harness (see page 22-16)	
T1	2		Left side of engine compartment	Under-hood fuse/relay box	
T2	4		Middle or engine compartment	Starter motor	
T101	1		Under-hood fuse/relay box		
T102	9		Alternator		
(+)	3		Battery	Battery positive terminal	



Connector to Harness Index (cont'd)

Engine Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Back-up light switch	14	2	Transmission housing		
Camshaft position (CMP) sensor	9	3	Left side of engine		
CKP sensor	26	3	Right side of engine		
ECM connector A	2	31	Under glove box		
ECM connector B	1	24	Under glove box		
Engine coolant temperature (ECT) sensor	11	2	Left side of engine		
Engine oil pressure switch	28	1	Right side of engine		
EVAP canister purge valve	16	2	Left side of intake manifold		
Idle air control (IAC) valve	18	3	Left side of intake manifold		
Ignition coil No. 1	4	3	Middle of engine compartment		
Ignition coil No. 2	5	3	Middle of engine compartment		
Ignition coil No. 3	6	3	Middle of engine compartment		
Ignition coil No. 4	7	3	Middle of engine compartment		
Injector No. 1	25	2	Middle of engine compartment		
Injector No. 2	24	2	Middle of engine compartment		
Injector No. 3	20	2	Middle of engine compartment		
Injector No. 4	19	2	Middle of engine compartment		
Intake air temperature (IAT) sensor	12	2	Intake air duct		
MAP sensor	15	3	Left side of intake manifold		
TDC sensor	8	3	Left side of engine		
Throttle position (TP) sensor	17	3	Left side of intake manifold		
Vehicle speed sensor (VSS)	10	3	Transmission housing		
VTC oil control solenoid valve	27	2	Right side of engine		
VTEC oil pressure switch	29	2	Right side of engine		
VTEC solenoid valve	30	2	Right side of engine		
C101	3	20	Under right side of dash	ECM wire harness (see page 22-32)	
C102	22	6	Front of engine compartment	Starter subharness (see page 22-15)	
C103	21	1	Front of engine compartment	Starter subharness (see page 22-15)	
C104	13	24	Left side of engine	Junction connector	
G101	23		Cylinder head cover	Engine ground via engine wire harness	


ENGINE WIRE HARNESS
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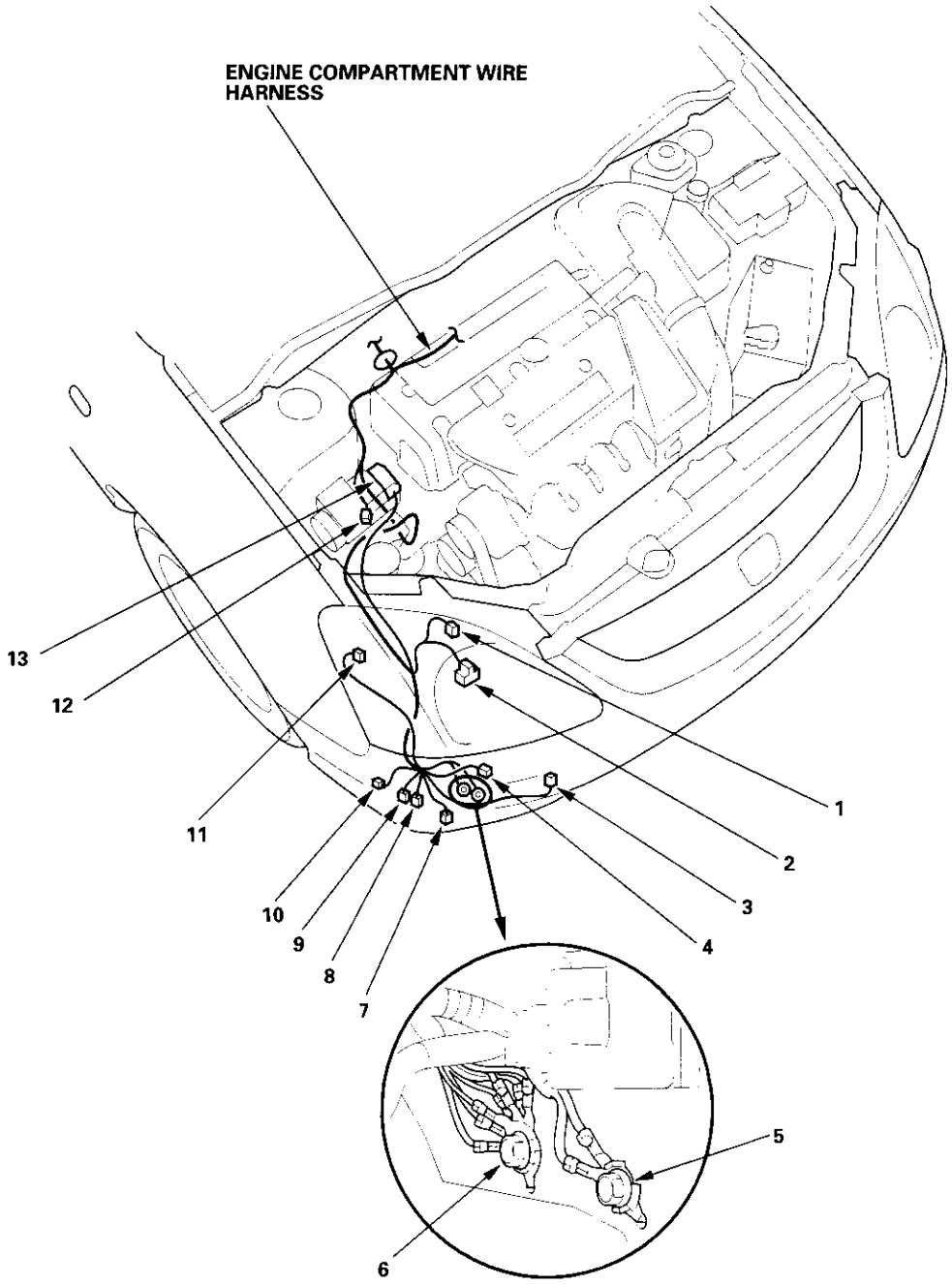
Connector to Harness Index (cont'd)

Engine Compartment Wire Harness (Right branch)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
ABS modulator-control unit	13	26	Right side of engine compartment		
Rear washer motor	8	2	Behind right side of front bumper		
Right front ABS wheel sensor	12	2	Right side of engine compartment		
Right front airbag sensor	4	2	Behind right side of front bumper		
Right front parking light	1	2	Behind right headlight		
Right front side marker light	10	2	Behind right side of front bumper		
Right front turn signal light	11	2	Behind right headlight		
Right headlight	2	3	Behind right headlight		
Right horn	3	1	Behind front bumper		
Washer fluid level switch	7	2	Behind right side of front bumper		Canada
Windshield washer motor	9	2	Behind right side of front bumper		
G201	6		Behind right side of front bumper	Body ground via engine compartment wire harness	
G202	5		Behind right side of front bumper	Body ground via engine compartment wire harness	



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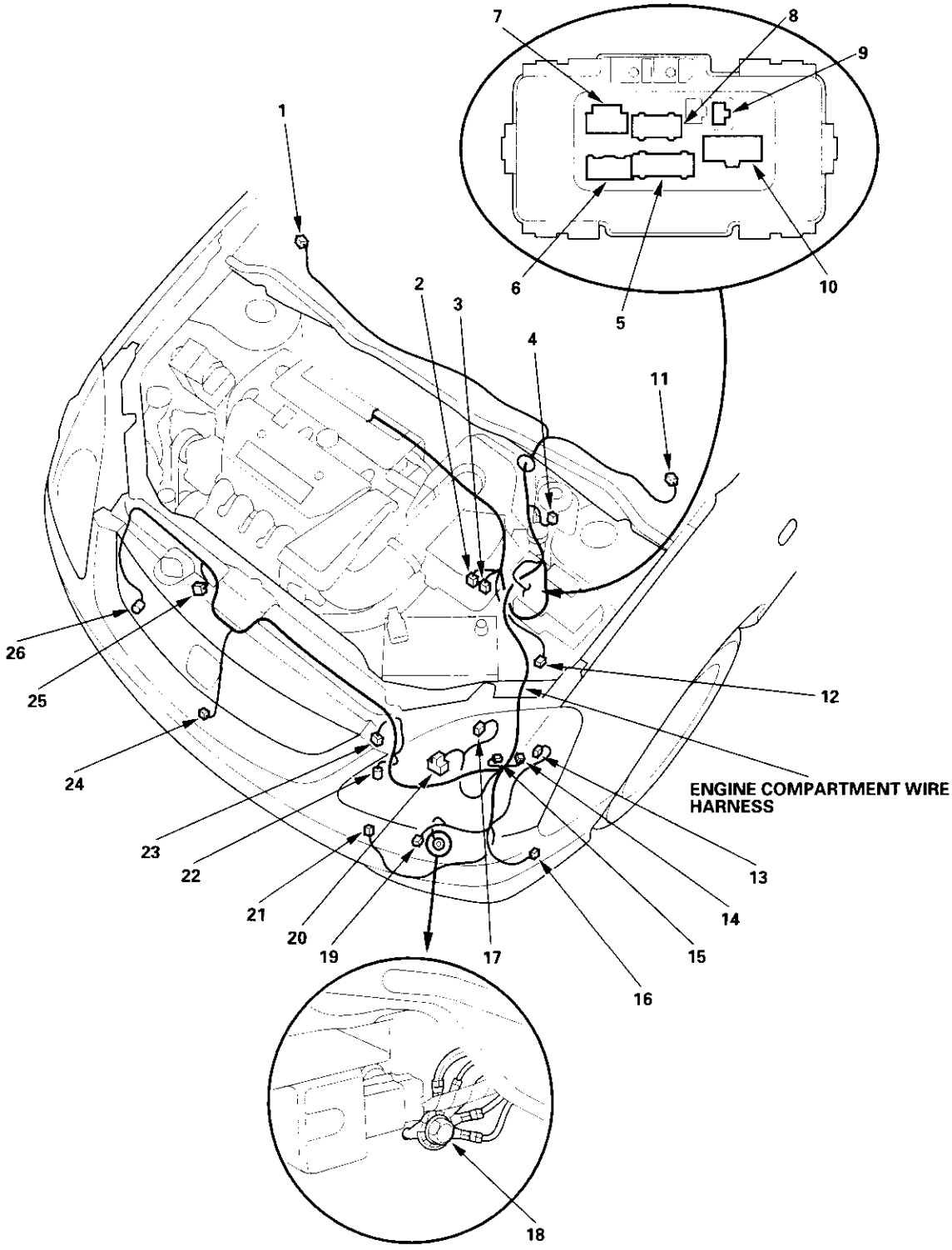
Connector to Harness Index (cont'd)

Engine Compartment Wire Harness (Left branch)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
A/C compressor clutch	24	1	Front of engine compartment		
A/C pressure switch	22	2	Left side of engine compartment		
Air fuel (A/F) ratio sensor	2	4	Left side of engine compartment		
Brake fluid level switch	4	2	Left side of engine compartment		
Condenser fan motor	25	2	Front of engine compartment		
Cruise control actuator	1	4	Under right side of cowl cover		
ELD unit	9	3	Under-hood fuse/relay box		
Fog light connector	15	1	Left side of engine compartment		Option
Left front ABS wheel sensor	12	2	Left side of engine compartment		
Left front airbag sensor	19	2	Behind left side of front bumper		
Left front parking light	17	2	Behind left headlight		
Left front side marker light	16	2	Behind left side of front bumper		
Left front turn signal light	13	2	Behind left headlight		
Left headlight	20	3	Behind left headlight		
Left horn	21	1	Behind front bumper		
Radiator fan motor	23	2	Left side of engine compartment		
Radiator fan switch	26	2	Front of engine compartment		
Secondary heated oxygen (SHO2S) sensor	3	4	Left side of engine compartment		
Test tachometer connector	14	2	Left side of engine compartment		
Windshield wiper motor	11	5	Under left side of cowl cover		
Under-hood fuse/relay box connector A (see page 22-44)	7	2	Under-hood fuse/relay box		
Under-hood fuse/relay box connector B (see page 22-44)	8	5	Under-hood fuse/relay box		
Under-hood fuse/relay box connector C (see page 22-44)	10	12	Under-hood fuse/relay box		
Under-hood fuse/relay box connector D (see page 22-44)	5	14	Under-hood fuse/relay box		
Under-hood fuse/relay box connector E (see page 22-44)	6	7	Under-hood fuse/relay box		
G301	18		Behind left side of front bumper	Body ground via engine compartment wire harness	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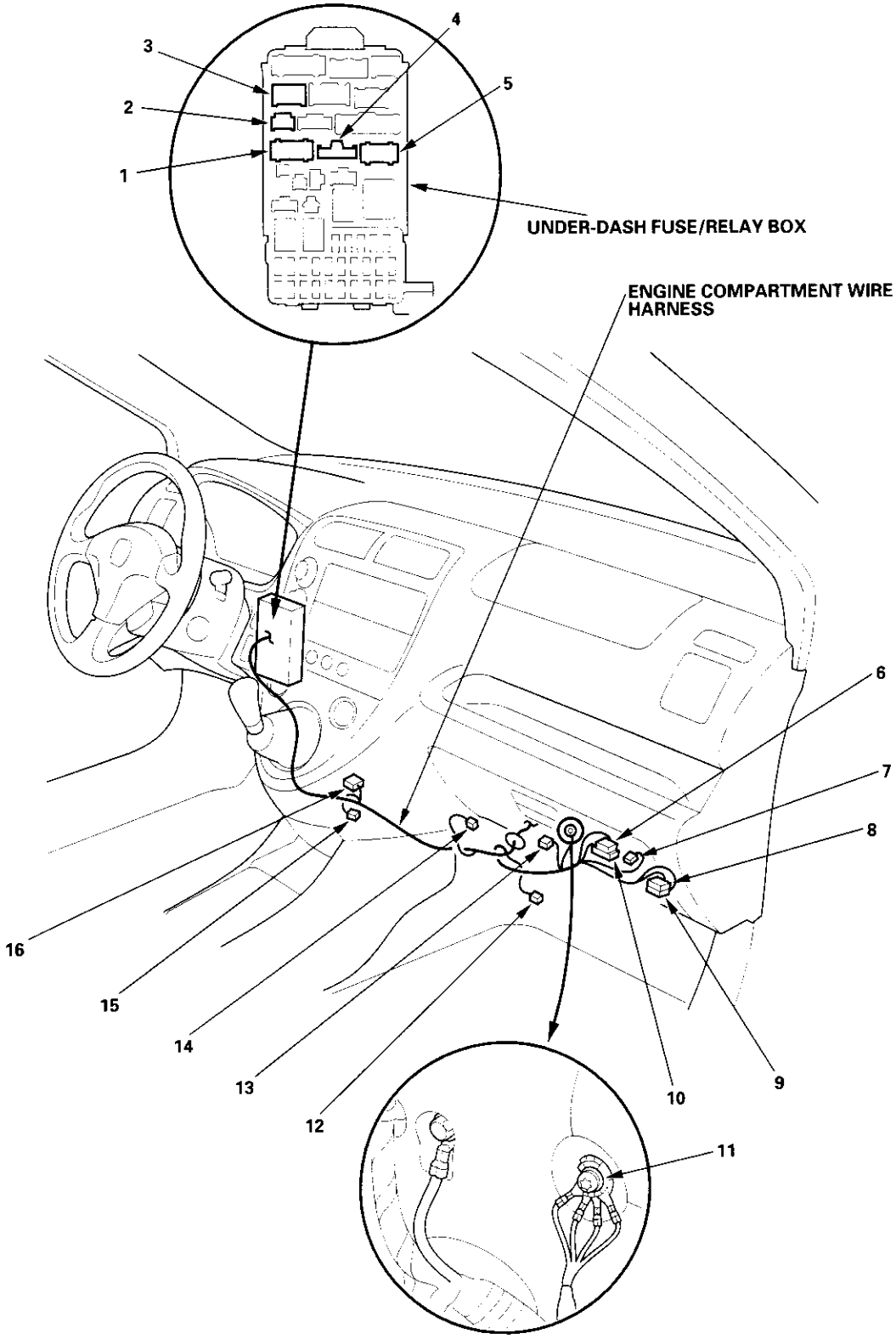
ENGINE COMPARTMENT WIRE HARNESS

(cont'd)

Connector to Harness Index (cont'd)

Engine Compartment Wire Harness (Dashboard)(cont'd)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Fog light connector	15	1	Under middle of dash		Option
Under-dash fuse/relay box connector F (see page 22-45)	1	12	Under left side of dash		
Under-dash fuse/relay box connector G (see page 22-45)	5	10	Under left side of dash		
Under-dash fuse/relay box connector H (see page 22-45)	4	3	Under left side of dash		
Under-dash fuse/relay box connector I (see page 22-45)	2	5	Under left side of dash		
Under-dash fuse/relay box connector J (see page 22-45)	3	8	Under left side of dash		
C151	12	2	Under right side of dash	EPS subharness (see page 22-24)	
C401	7	4	Under right side of dash	Dashboard wire harness B (see page 22-30)	
C451	8	13	Under right side of dash	ECM wire harness (see page 22-32)	
C452	9	4	Under right side of dash	ECM wire harness (see page 22-32)	
C501	10	10	Under right side of dash	Dashboard wire harness A (see page 22-26)	
C502	6	4	Under right side of dash	Dashboard wire harness A (see page 22-26)	USA
C502	6	8	Under right side of dash	Dashboard wire harness A (see page 22-26)	Canada
C503	13	5	Under right side of dash	Dashboard wire harness A (see page 22-26)	
C551	16	10	Under middle of dash	Floor wire harness (see page 22-34)	
C851	14	1	Under right side of dash	A/C wire harness (see page 22-43)	
G402	11			Body ground via engine compartment wire harness	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UNDER-DASH FUSE/RELAY BOX
ENGINE COMPARTMENT WIRE HARNESS
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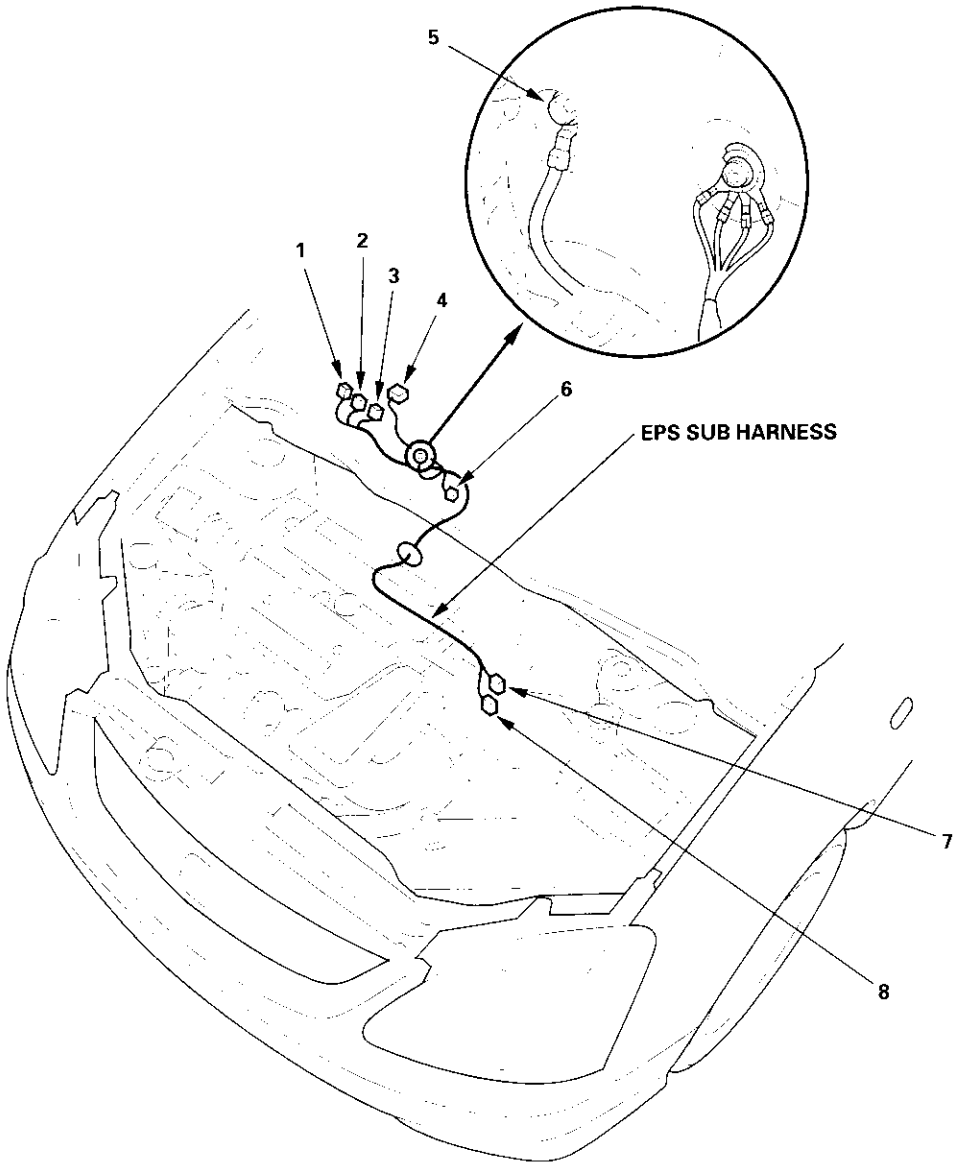
Connector to Harness Index (cont'd)

EPS Subharness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
EPS control unit connector A	2	2	Under right side of dash		
EPS control unit connector B	1	2	Under right side of dash		
EPS control unit connector C	3	20	Under right side of dash		
EPS motor	7	2	Middle of engine compartment		
EPS torque sensor	8	6	Middle of engine compartment		
C151	6	2	Under right side of dash	Engine compartment wire harness (see page 22-18)	
C152	4	8	Under right side of dash	ECM wire harness (see page 22-32)	
G151	5			Body ground via EPS sub harness	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EPS SUB HARNESS
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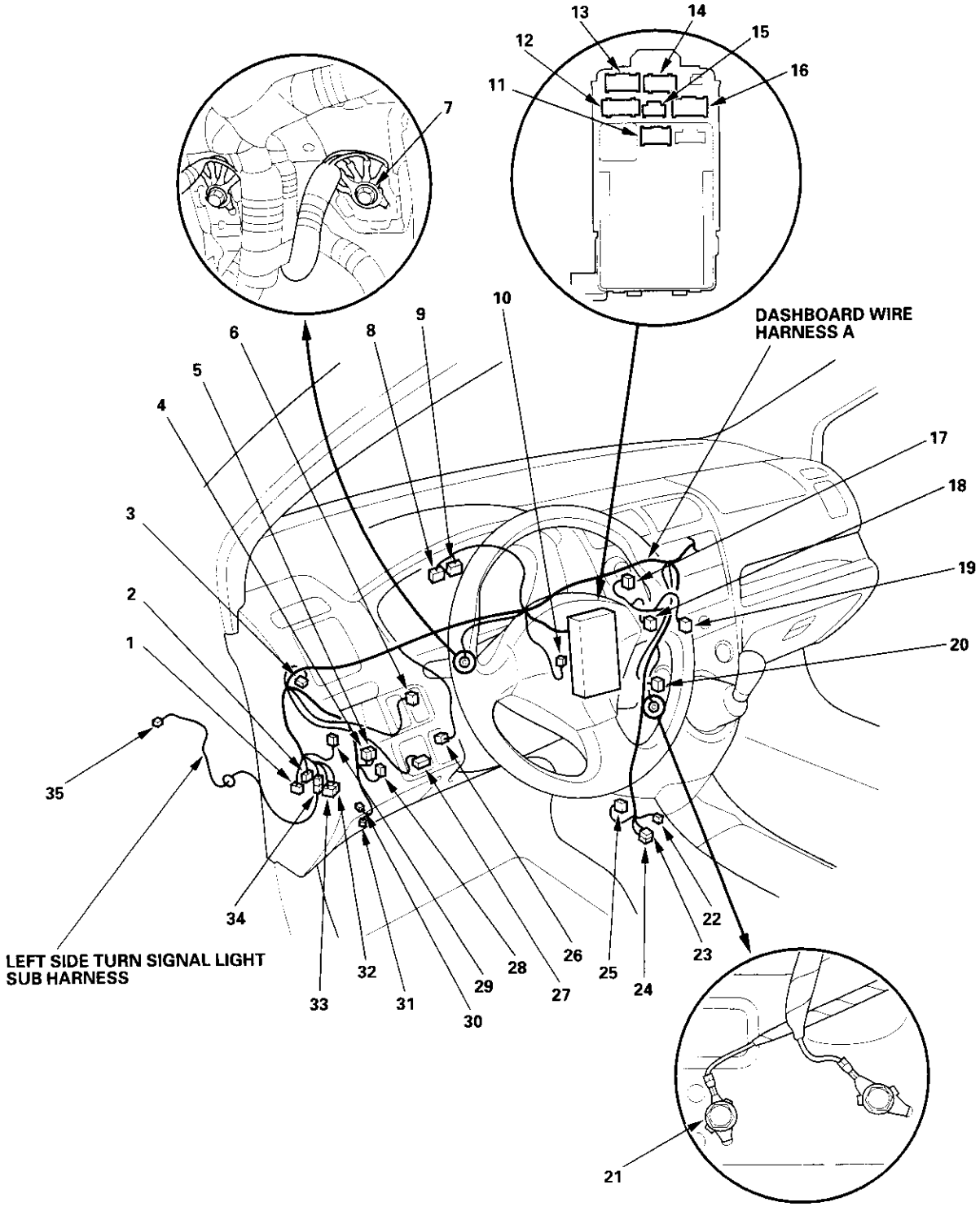
Connector to Harness Index (cont'd)

Dashboard Wire Harness A (Left branch)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Accessory power socket	22	2	Under middle of dash		
Audio antenna	2	2	Under left side of dash		
Brake pedal position switch	26	4	Under left side of dash		
Clutch interlock switch	31	2	Under left side of dash		
Clutch pedal poistion switch	30	2	Under left side of dash		
Cruise control unit	29	14	Under left side of dash		
Cruise main switch	6	5	Under left side of dash		
Daytime running lights control unit	28	14	Under left side of dash		Canada
Daytime running lights relay	4	4	Under left side of dash		Canada
Gauge assembly connector A	9	22	Behind gauge assembly		
Gauge assembly connector B	8	22	Behind gauge assembly		
Hazard warning switch	20	10	Behind hazard warnning switch		
Heater control panel connector A	17	22	Behind heater control panel		
Heater control panel connector B	18	14	Behind heater control panel		
HVAC push switch assembly	19	10	Behind HVAC switch assembly		
Keyless receiver unit	10	5	Under middle of dash		
Low beam cut relay	5	5	Under left side of dash		
Optional security connector	3	16	Under left side of dash		
Power mirror switch	27	13	Under left side of dash		
Under-dash fuse/relay box connector K (see page 22-45)	13	17	In the under-dash fuse/relay box		
Under-dash fuse/relay box connector L (see page 22-45)	14	10	In the under-dash fuse/relay box		
Under-dash fuse/relay box connector M (see page 22-45)	12	12	In the under-dash fuse/relay box		
Under-dash fuse/relay box connector N (see page 22-45)	15	6	In the under-dash fuse/relay box		
Under-dash fuse/relay box connector O (see page 22-45)	16	12	In the under-dash fuse/relay box		
Under-dash fuse/relay box connector Y (see page 22-45)	11	13	In the under-dash fuse/relay box		
C504	32	20	Under left side of dash	Driver's door wire harness (see page 22-40)	
C505	33	13	Under left side of dash	Driver's door wire harness (see page 22-40)	
C506	34	2	Under left side of dash	Left side turn signal light subharness	
C507	1	8	Under left side of dash	Roof wire harness (see page 22-38)	
C508	23	4	Under middle of dash	Floor wire harness (see page 22-34)	
C509	24	6	Under middle of dash	Floor wire harness (see page 22-34)	
C510	25	12	Under middle of dash	Dashboard wire harness B (see page 22-30)	
G501	7		Under gauge assembly	Body ground via dashboard wire harness A	
G503	21		Under left side of dash	Body ground via dashboard wire harness A	

Left Side Turn Signal Light Sub harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Left side turn signal light	35	2	Behind left side turn signal light		
C506	34	2	Under left side of dash	Dashboard wire harness A	


DASHBOARD WIRE HARNESS A
LEFT SIDE TURN SIGNAL LIGHT SUB HARNESS
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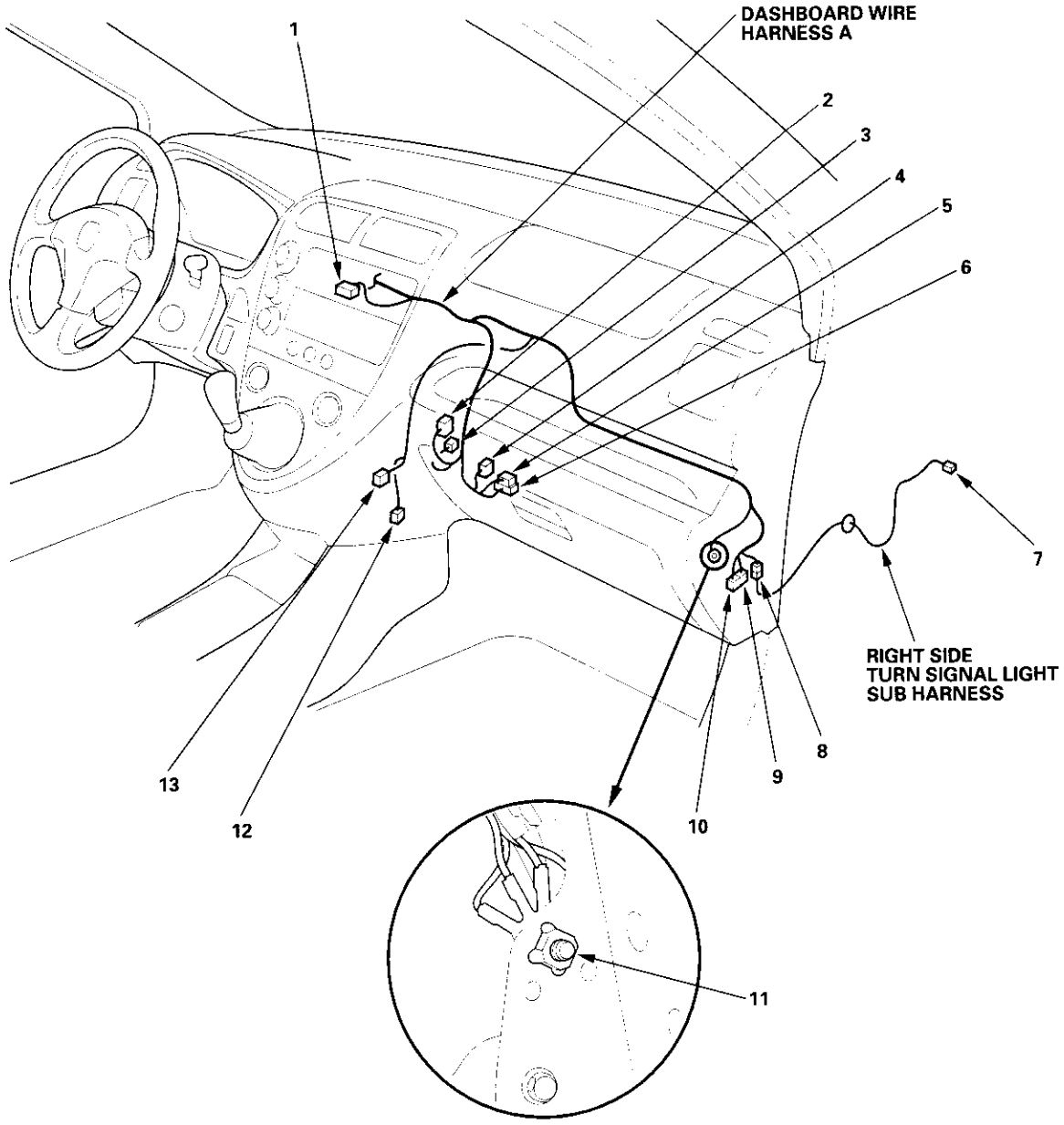
Connector to Harness Index (cont'd)

Dashboard Wire Harness A (Right branch)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Audio unit connector A	1	20	Behind audio unit		
C501	6	10	Under right side of dash	Engine compartment wire harness (see page 22-18)	
C502	5	4	Under right side of dash	Engine compartment wire harness (see page 22-18)	USA
C502	5	8	Under right side of dash	Engine compartment wire harness (see page 22-18)	Canada
C503	4	5	Under right side of dash	Engine compartment wire harness (see page 22-18)	
C511	13	13	Under middle of dash	ECM wire harness (see page 22-32)	
C512	12	8	Under middle of dash	Floor wire harness (see page 22-34)	
C513	8	2	Under right side of dash	Right side turn signal light subharness	
C514	9	13	Under right side of dash	Passenger's door wire harness (see page 22-41)	
C515	10	6	Under right side of dash	Passenger's door wire harness (see page 22-41)	
C852	2	21	Under middle of dash	A/C wire harness (see page 22-43)	
C853	3	1	Under middle of dash	A/C wire harness (see page 22-43)	
G502	11		Under right side of dash	Body ground via dashboard wire harness A	

Right Side Turn Signal Light Sub harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Right side turn signal light	7	2	Behind right side turn signal light		
C513	8	2	Under right side of dash	Dashboard wire harness A	


DASHBOARD WIRE HARNESS A
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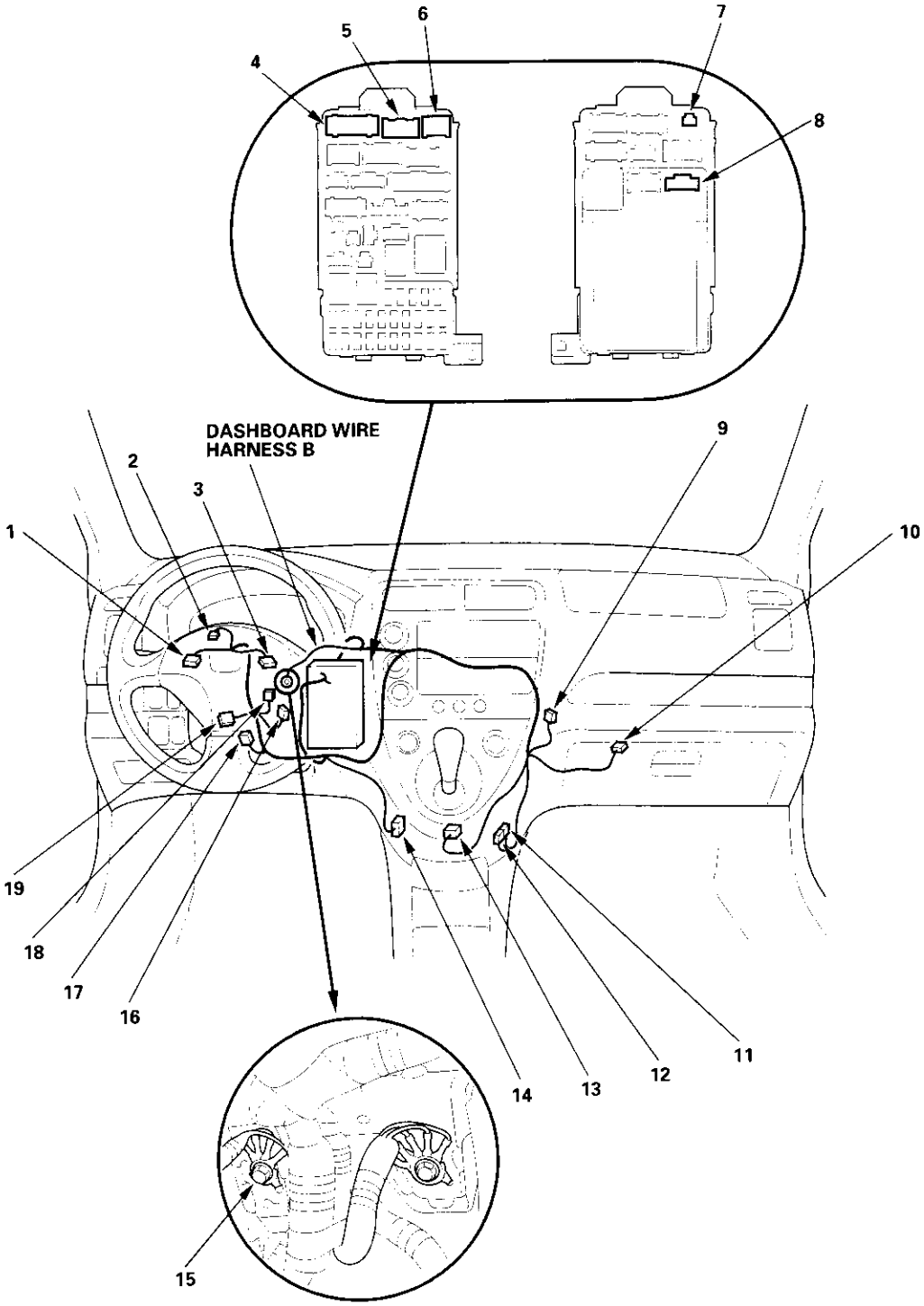
RIGHT SIDE TURN SIGNAL LIGHT SUB HARNESS

Connector to Harness Index (cont'd)

Dashboard Wire Harness B

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Cable reel	2	5	In steering column cover		
Combination light switch	1	16	In steering column cover		
Driver's airbag inflator	17	4	In steering column cover		
Ignition key switch	16	6	In steering column cover		
Ignition switch	19	7	In steering column cover		
Immobilizer control unit-receiver	18	7	In steering column cover		
Passenger's airbag inflator	9	4	Under middle of dash		
SRS unit connector A	13	18	Under middle of dash		
Wiper/washer switch	3	14	In steering column cover		
Under-dash fuse/relay box connector A (see page 22-45)	5	5	Under left side of dash		
Under-dash fuse/relay box connector B (see page 22-45)	6	6	Under left side of dash		
Under-dash fuse/relay box connector C (see page 22-45)	4	14	Under left side of dash		
Under-dash fuse/relay box connector S (see page 22-45)	7	2	Under left side of dash		
Under-dash fuse/relay box connector X (see page 22-45)	8	8	Under left side of dash		
C401	10	4	Under right side of dash	Engine compartment wire harness (see page 22-18)	
C402	12	10	Under middle of dash	Floor wire harness (see page 22-34)	
C403	11	4	Under middle of dash	Floor wire harness (see page 22-34)	
G510	14	12	Under middle side of dash	Dashboard wire harness A (see page 22-26)	
G401	15		Under gauge assembly	Body ground via dashboard wire harness B	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DASHBOARD WIRE HARNESS B
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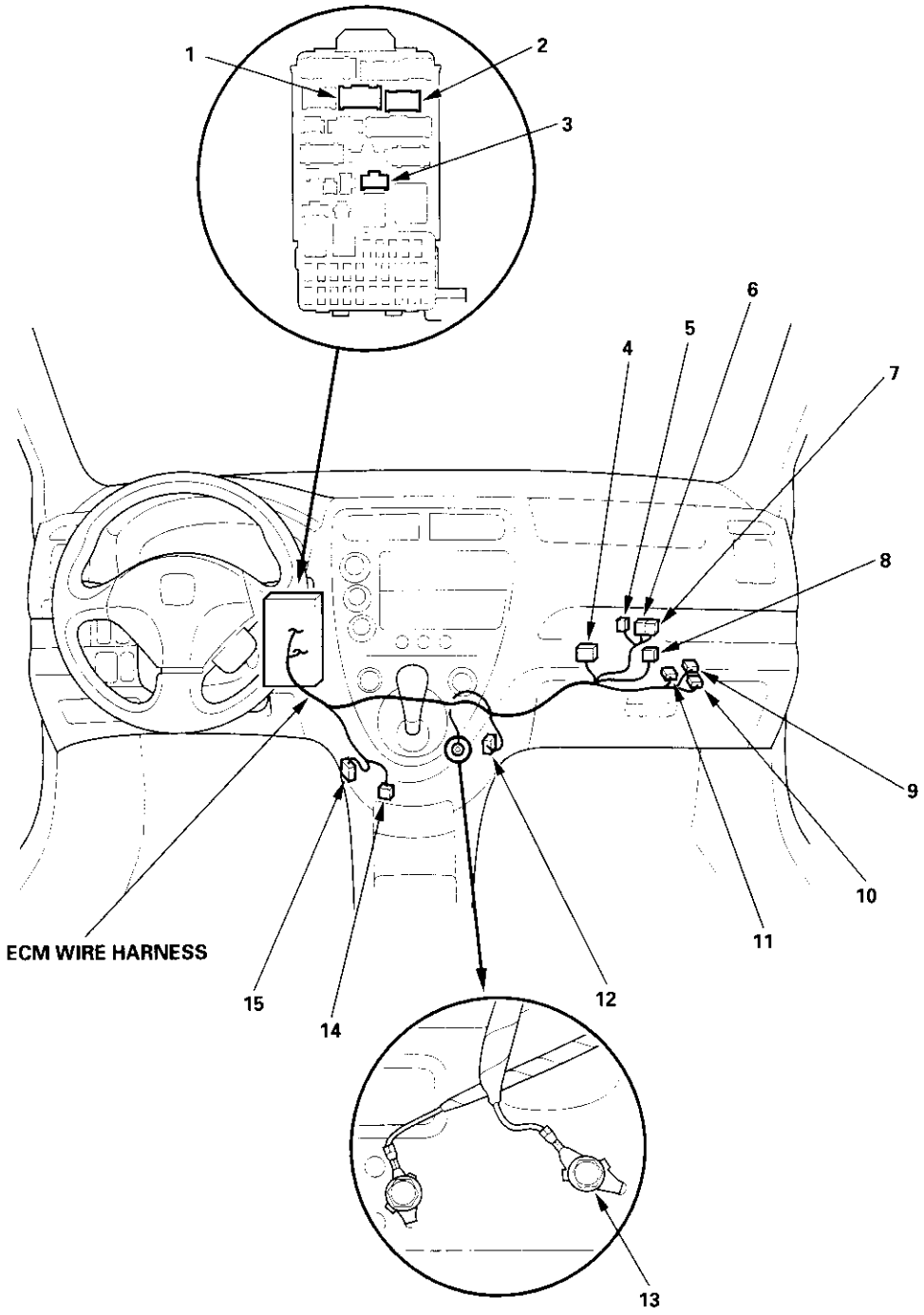
Connector to Harness Index (cont'd)

ECM Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Air fuel (A/F) ratio sensor relay	5	4	Behind glove box		
Data link connector	15	16	Under middle of dash		
ECM connector E	8	31	Behind glove box		
PGM-FI main relay 1	7	4	Behind glove box		
PGM-FI main relay 2	6	4	Behind glove box		
Under-dash fuse/relay box connector D (see page 22-45)	1	12	In the under-dash fuse/relay box		
Under-dash fuse/relay box connector E (see page 22-45)	2	13	In the under-dash fuse/relay box		
Under-dash fuse/relay box connector R (see page 22-45)	3	6	In the under-dash fuse/relay box		
C101	4	20	Under right side of dash	Engine wire harness (see page 22-16)	
C152	11	8	Under right side of dash	EPS sub harness (see page 22-24)	
C451	9	13	Under right side of dash	Engine compartment wire harness (see page 22-18)	
C452	10	4	Under right side of dash	Engine compartment wire harness (see page 22-18)	
C453	14	6	Under middle of dash	Floor wire harness (see page 22-34)	
C511	12	13	Under middle of dash	Dashboard wire harness A (see page 22-26)	
G451	13		Under gauge assembly	Body ground via ECM wire harness	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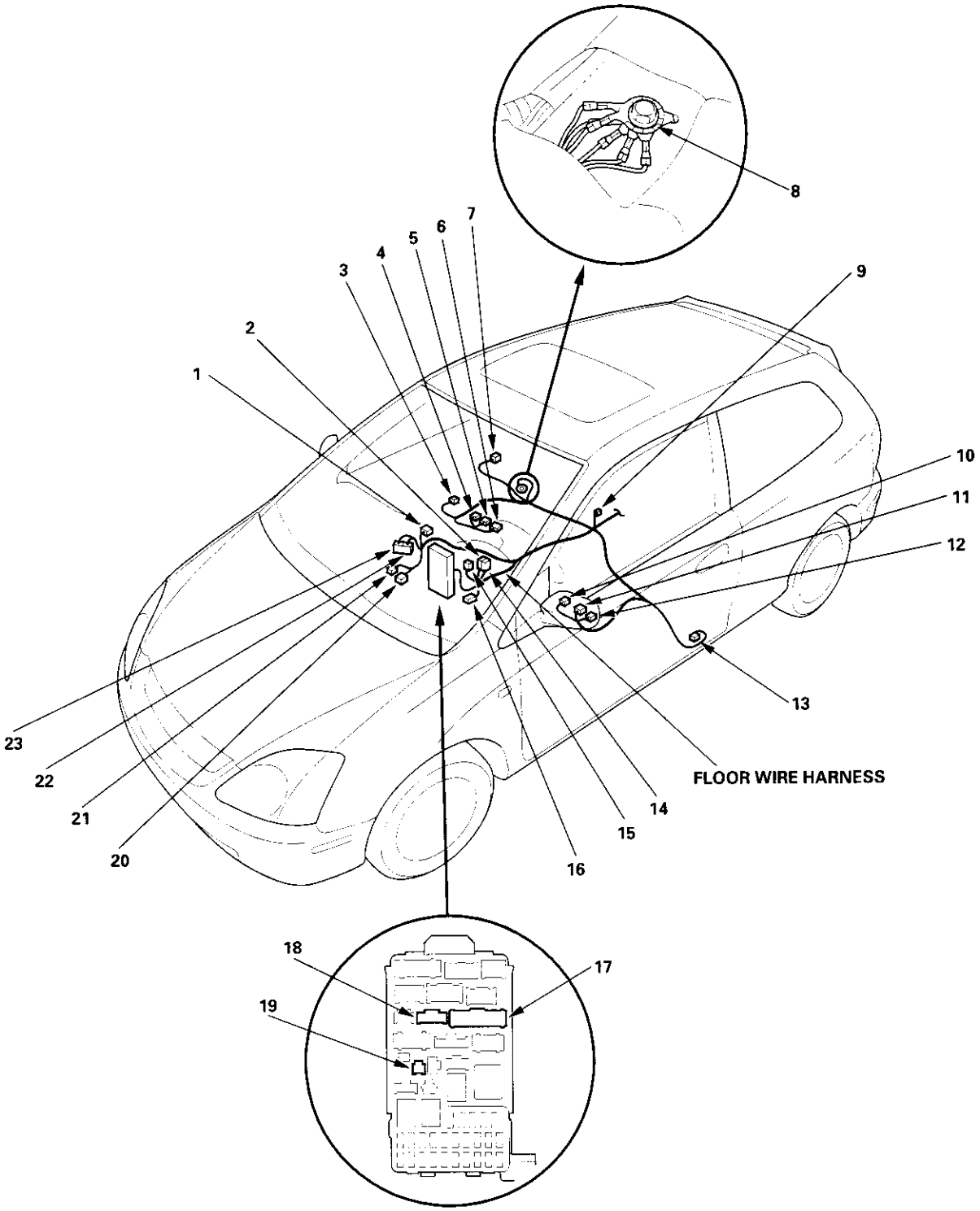
ECM WIRE HARNESS

Connector to Harness Index (cont'd)

Floor Wire Harness (Front side)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Driver's seat belt switch	11	3	Under driver's seat		
Driver's side airbag inflator	10	2	Under driver's seat		
Driver's side impact sensor	13	2	Left side of floor		
Left side seat belt buckle tensioner	12	4	Under driver's seat		
Memory erase signal (MES) connector	19	2	Under-dash fuse/relay box		
Parking brake switch	9	1	Middle of floor		
Passenger's seat belt switch	5	3	Under passenger's seat		
Passenger's side airbag inflator	3	2	Under passenger's seat		
Passenger's side impact sensor	7	2	Right side of floor		
Right side seat belt buckle tensioner	4	4	Under passenger's seat		
SRS unit connector B	20	18	Under middle of dash		
SRS unit connector C	21	8	Under middle of dash		
Under-dash fuse/relay box connector P (see page 22-45)	17	18	Under-dash fuse/relay box		
Under-dash fuse/relay box connector Q (see page 22-45)	18	8	Under-dash fuse/relay box		
C402	22	10	Under middle of dash	Dashboard wire harness B (see page 22-30)	
C403	23	4	Under middle of dash	Dashboard wire harness B (see page 22-30)	
C453	15	6	Under middle of dash	ECM wire harness (see page 22-32)	
C508	2	4	Under middle of dash	Dashboard wire harness A (see page 22-26)	
C509	14	6	Under middle of dash	Dashboard wire harness A (see page 22-26)	
C512	1	8	Under middle of dash	Dashboard wire harness A (see page 22-26)	
C551	16	10	Under middle of dash	Engine compartment wire harness (see page 22-18)	
C552	6	4	Under middle of dash	OPDS unit harness (see page 22-42)	
G551	8		Under passenger's seat	Body ground via floor wire harness	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FLOOR WIRE HARNESS
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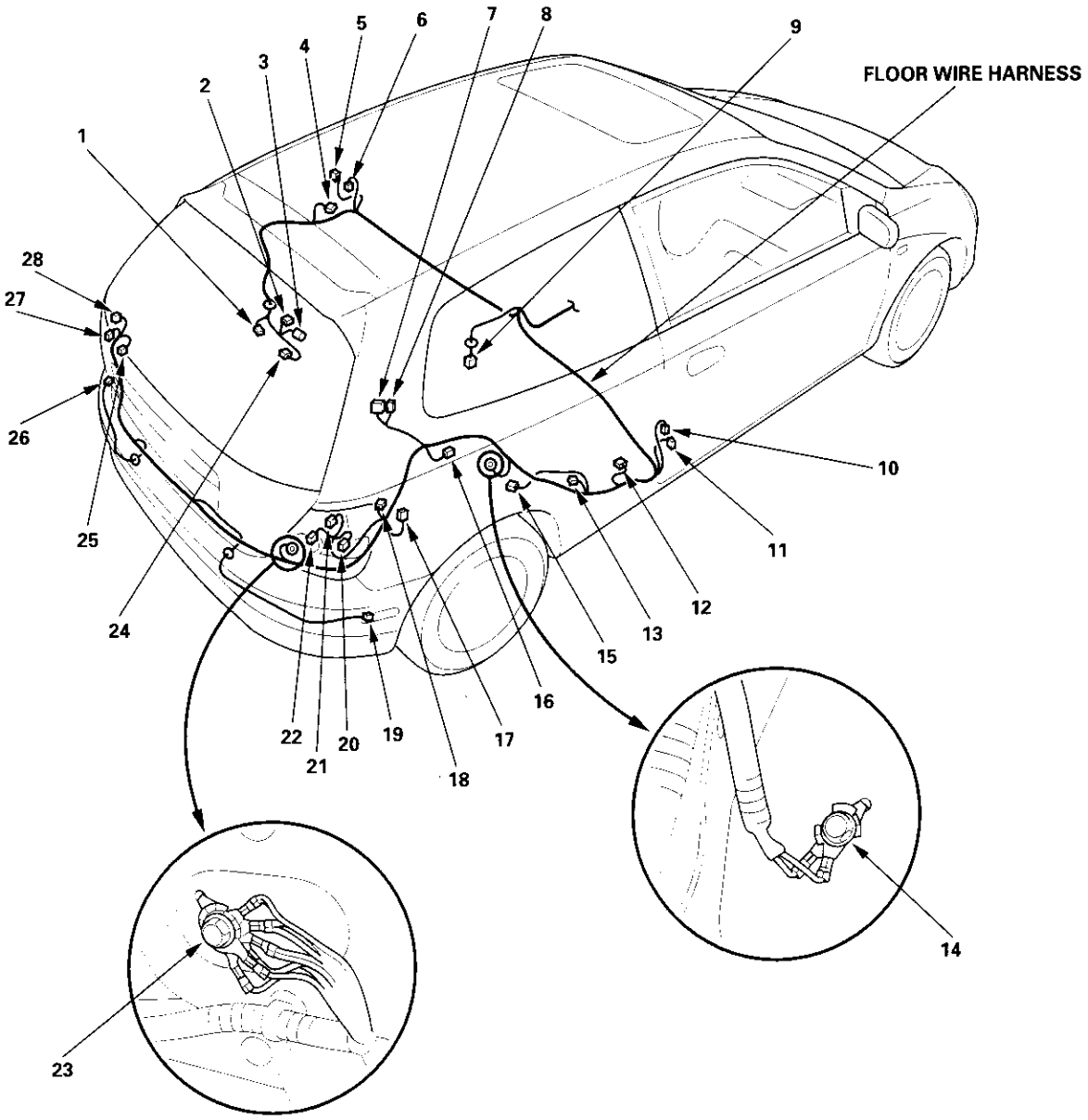
(cont'd)

Connector to Harness Index (cont'd)

Floor Wire Harness (Rear side)(cont'd)

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Cargo area light	16	2	Right side of cargo area		
Driver's door switch	6	1	Left B-pillar		
EVAP emission bypass solenoid valve	2	2	Fuel tank		
EVAP emission control canister vent shut valve	24	2	Fuel tank		
Fuel pump/sending unit	9	5	Fuel tank		
Fuel tank pressure sensor	3	3	Fuel tank		
Left back-up light	25	2	Left taillight		
Left rear ABS wheel sensor	1	2	Left rear of floor		
Left rear side marker light	26	2	Behind left side of rear bumper		
Left rear speaker	4	2	Left quarter panel		
Left rear turn signal light	28	2	Left taillight		
Left side seat belt tensioner	5	2	Left B-pillar		
Left taillight/brake light	27	3	Left taillight		
Noise condenser (rear window defogger)	13	2	Right quarter panel		
Noise condenser (rear window wiper)	18	2	Right quarter panel		
Passenger's door switch	10	1	Right B-pillar		
Rear window wiper intermittent control unit	17	20	Right quarter panel		
Right back-up light	22	2	Right taillight		
Right taillight/brake light	20	3	Right taillight		
Right rear turn signal light	21	2	Right taillight		
Right rear ABS wheel sensor	15	2	Right side of cargo area		
Right rear side marker light	19	2	Behind right side of rear bumper		
Right rear speaker	12	2	Right quarter panel		
Right side seat belt tensioner	11	2	Right B-pillar		
C553	7	12	Right quarter panel	Hatch wire harness (see page 22-39)	
C554	8	12	Right quarter panel	Hatch wire harness (see page 22-39)	
G552	14		Behind right rear seat back	Body ground via floor wire harness	
G553	23		Right side of cargo area	Body ground via floor wire harness	


FLOOR WIRE HARNESS
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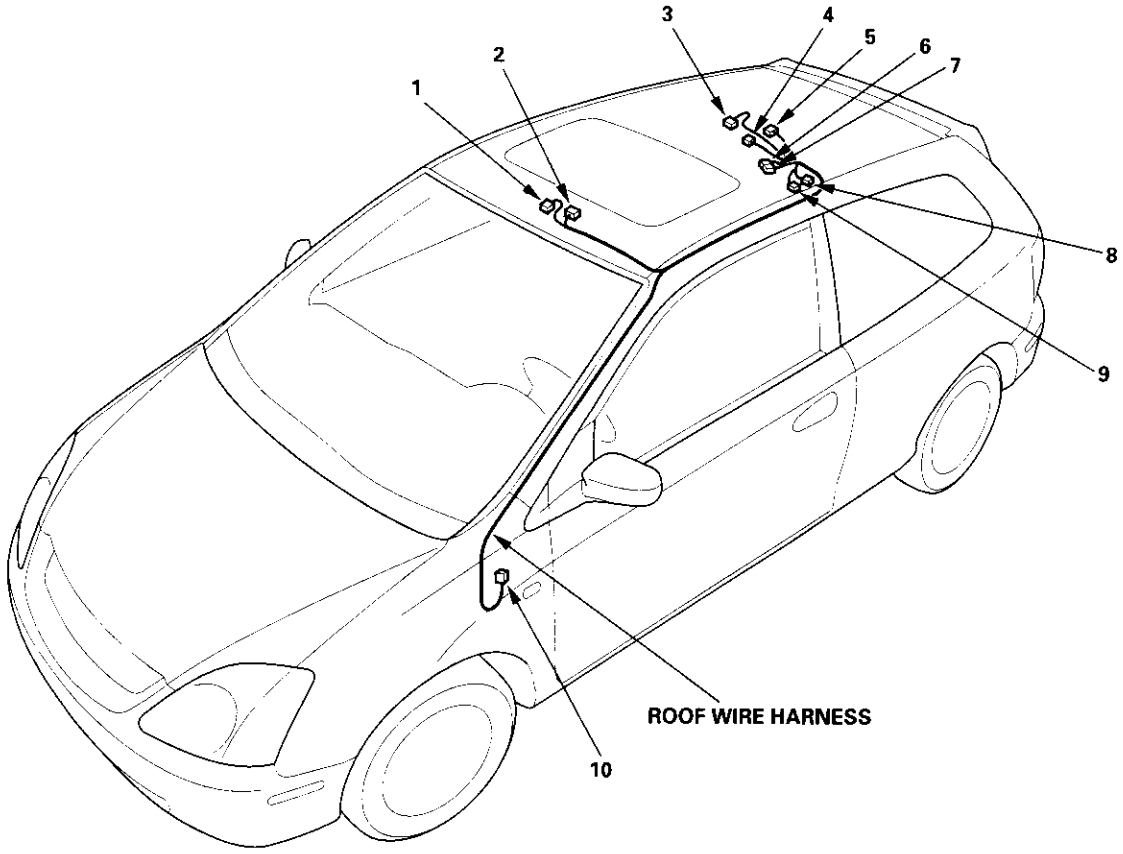
Connector to Harness Index (cont'd)

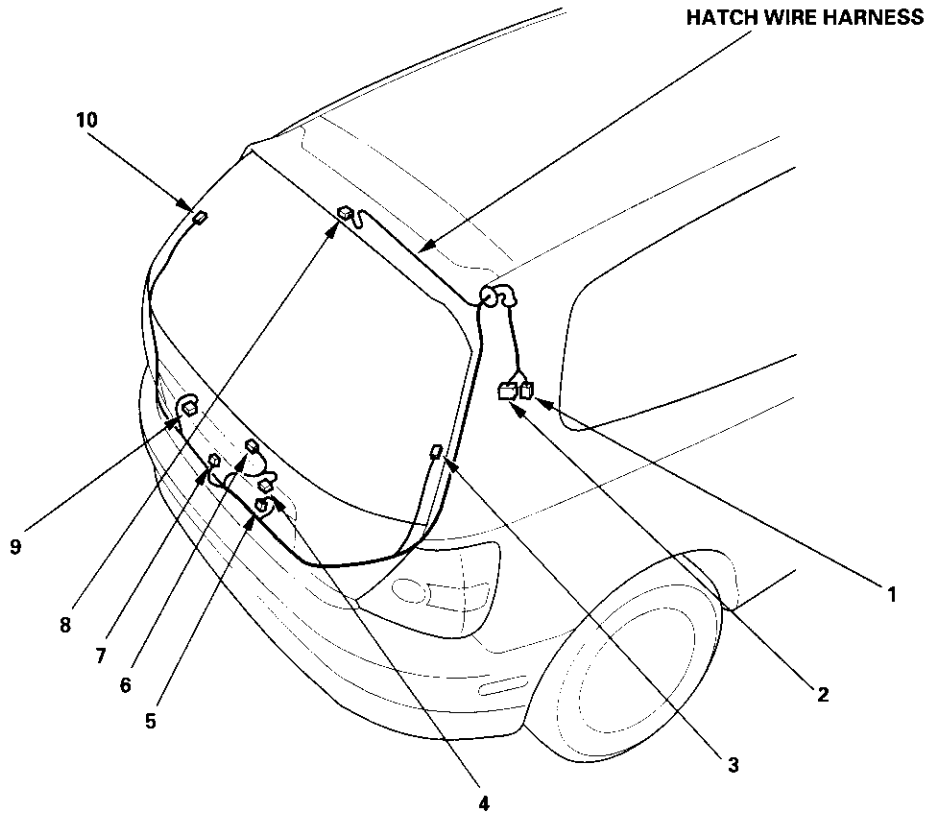
Roof Wire Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Moonroof close relay	6	5	Middle of roof		
Moonroof control unit	9	5	Middle of roof		
Moonroof motor	4	2	Middle of roof		
Moonroof open relay	7	5	Middle of roof		
Moonroof position sensor 1	8	2	Middle of roof		
Moonroof position sensor 2	5	4	Middle of roof		
Moonroof switch	1	5	Front of roof		
Rear ceiling light	3	3	Middle of roof		
Spotlight/ceiling light	2	4	Front of roof		
C507	10	8	Under left side of dash	Dashboard wire harness A (see page 22-26)	



Hatch Wire Harness

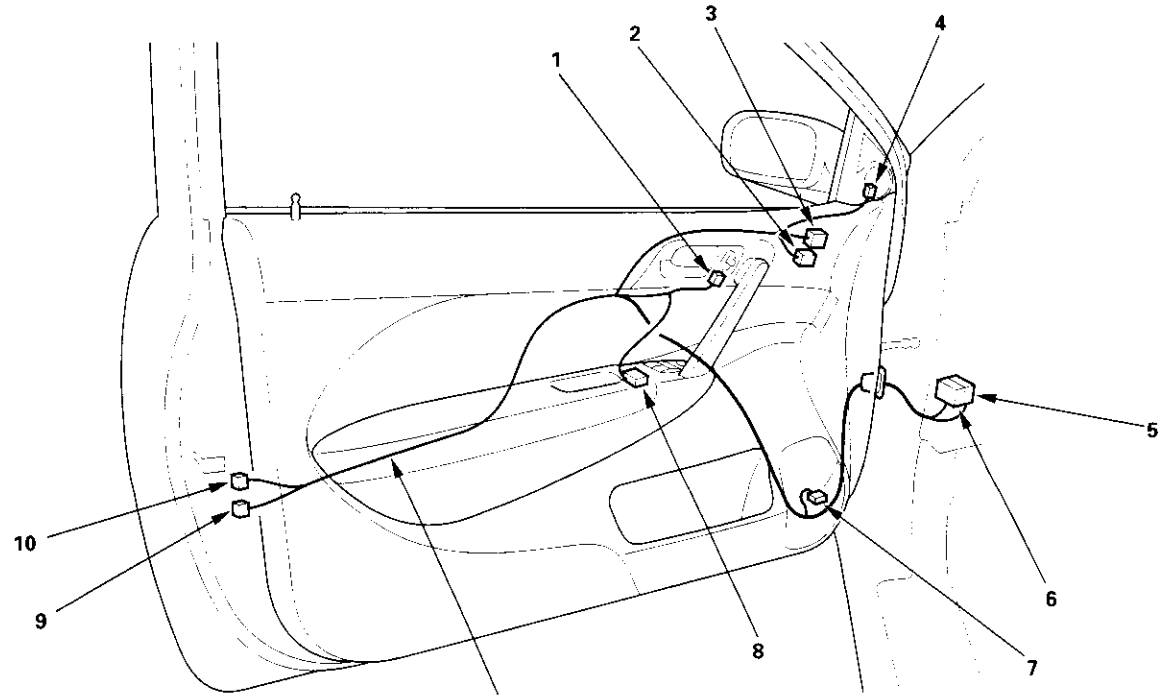
Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Hatch latch switch	7	2	Middle of hatch		
Hatch lock actuator	5	2	Middle of hatch		
High mount brake light	8	2	Behind high mount brake light		
License plate light connector A	4	2	Middle of hatch		
License plate light connector B	9	2	Middle of hatch		
Rear window defogger connector A (+)	3	1	Right C-pillar		
Rear window defogger connector B (−)	10	1	Left C-pillar		
Rear window wiper motor	6	4	Middle of hatch		
C553	2	12	Right quarter panel	Floor wire harness (see page 22-34)	
C554	1	2	Right quarter panel	Floor wire harness (see page 22-34)	



Connector to Harness Index (cont'd)

Driver's Door Wire Harness

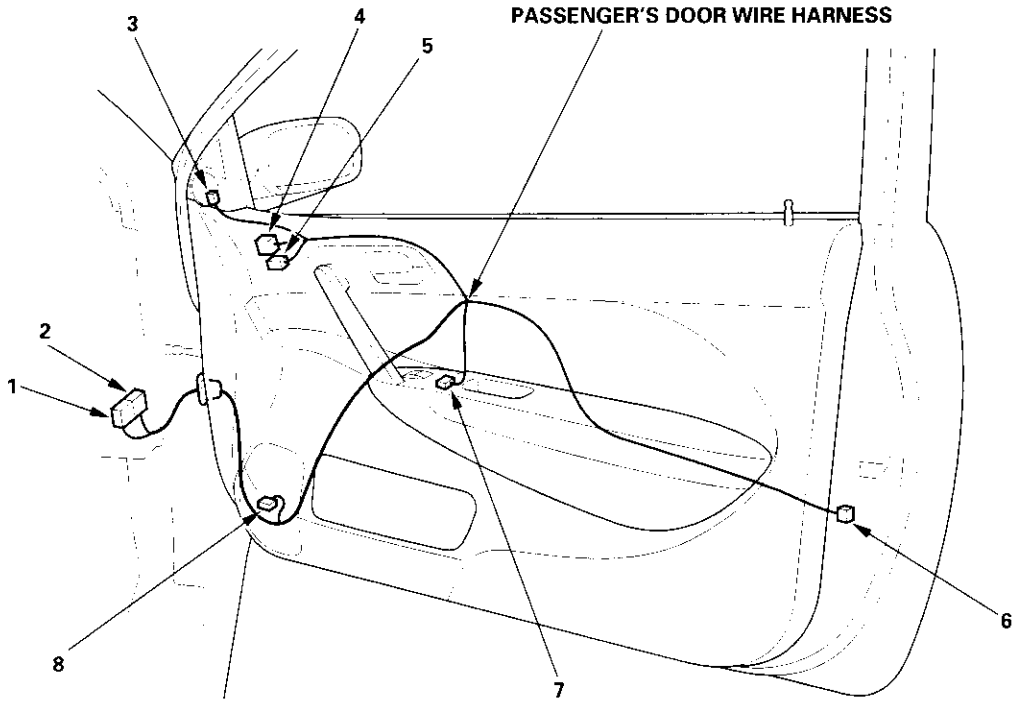
Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Driver's door lock actuator	9	2	Driver's door		
Driver's door lock knob switch	10	3	Driver's door		
Driver's door lock switch	1	3	Driver's door		
Driver's door speaker	7	2	Driver's door		
Driver's power window motor	2	4	Driver's door		
Left power mirror actuator	3	6	Driver's door		
Left tweeter	4	2	Driver's door		
Power window master switch	8	14	Driver's door		
C504	5	20	Under left side of dash	Dashboard wire harness A (see page 22-26)	
C505	6	13	Under left side of dash	Dashboard wire harness A (see page 22-26)	



DRIVER'S DOOR WIRE HARNESS

Passenger's Door Wire Harness

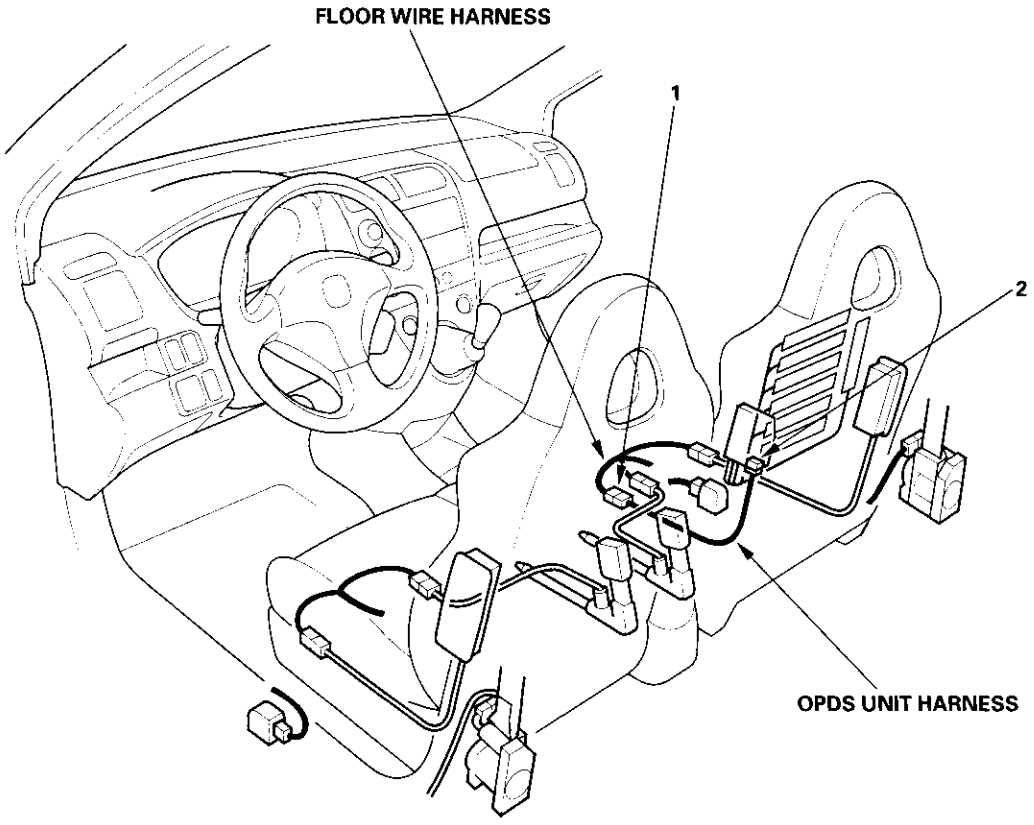
Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Passenger's door lock actuator	6	2	Passenger's door		
Passenger's door speaker	8	2	Passenger's door		
Passenger's power window motor	5	2	Passenger's door		
Passenger's power window switch	7	5	Passenger's door		
Right power mirror actuator	4	6	Passenger's door		
Right tweeter	3	2	Passenger's door		
C514	2	13	Under right side of dash	Dashboard wire harness A (see page 22-26)	
C515	1	6	Under right side of dash	Dashboard wire harness A (see page 22-26)	



Connector to Harness Index (cont'd)

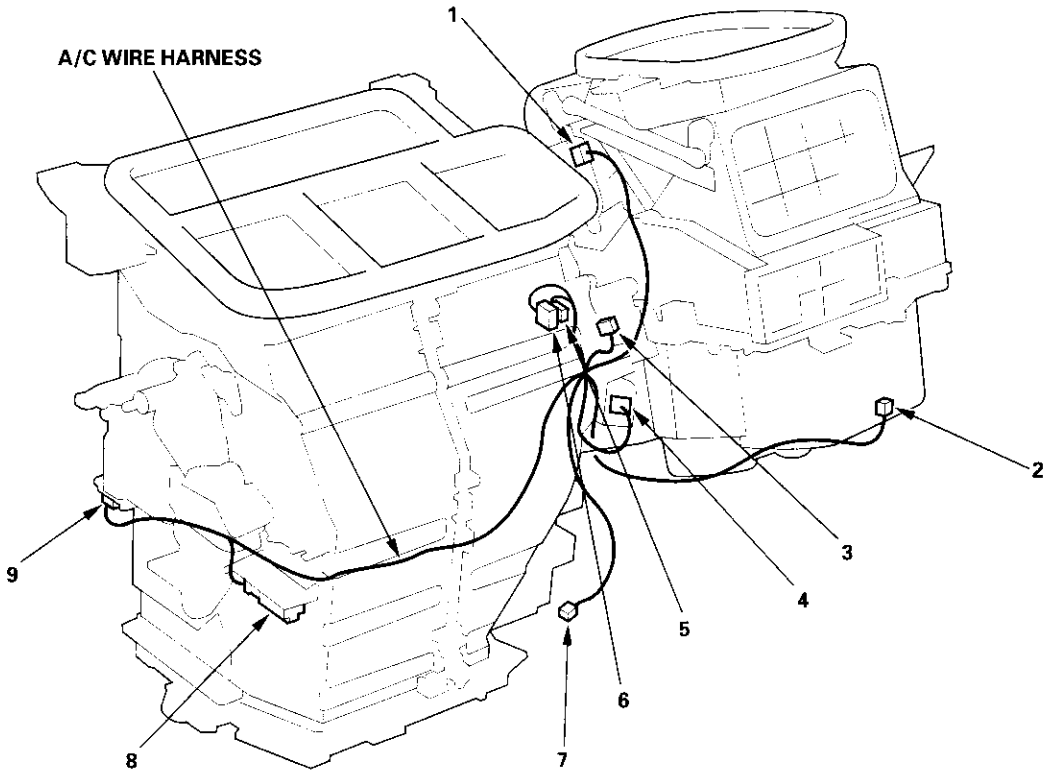
OPDS Unit Harness

Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
OPDS unit	2	8	In front passenger's seat		
C552	1	4	Under front passenger's seat	Floor wire harness (see page 22-34)	



A/C Wire Harness

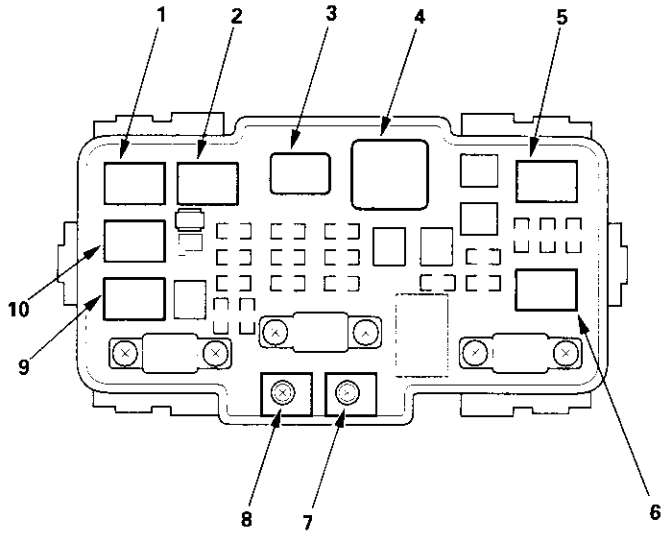
Connector or Terminal	Ref	Cavities	Location	Connects to	Notes
Air mix control motor	9	5	Under middle of dash		
Blower motor	2	2	Under right side of dash		
Evaporator temperature sensor	8	2	Under middle of dash		
Mode control motor	3	10	Under right side of dash		
Power transistor	4	4	Under right side of dash		
Recirculation control motor	1	5	Under right side of dash		
C851	7	1	Under middle of dash	Engine compartment wire harness (see page 22-18)	
C852	6	21	Under middle of dash	Dashboard wire harness A (see page 22-26)	
C853	5	1	Under middle of dash	Dashboard wire harness A (see page 22-26)	



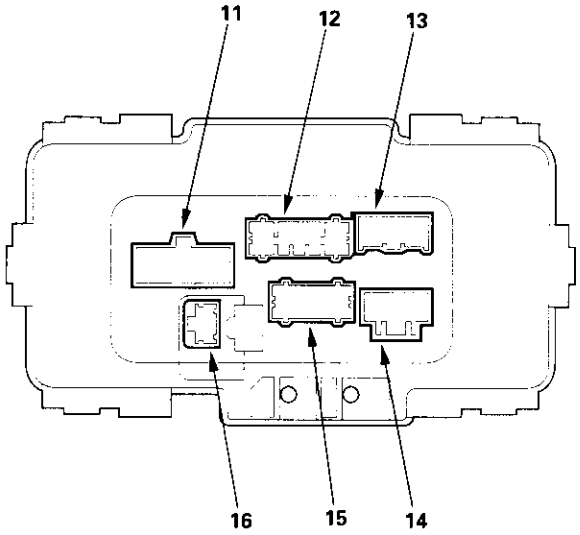
Connector to Fuse/Relay Box Index

Under-hood Fuse/Relay Box

Socket	Ref	Terminal	Connects to
A	14	2	Engine compartment wire harness (see page 22-18)
A/C compressor clutch relay	2	4	
B	13	5	Engine compartment wire harness (see page 22-18)
Blower motor relay	4	4	
C	15	12	Engine compartment wire harness (see page 22-18)
Condenser fan relay	9	4	
D	12	14	Engine compartment wire harness (see page 22-18)
E	11	7	Engine compartment wire harness (see page 22-18)
ELD unit	16	3	Engine compartment wire harness (see page 22-18)
Headlight relay 1	5	4	
Headlight relay 2	6	4	
Horn relay	10	4	
Radiator fan relay	1	4	
Rear window defogger relay	3	4	
T1 (Battery)	8		Starter subharness (see page 22-15)
T101 (Alternator)	7		Starter subharness (see page 22-15)



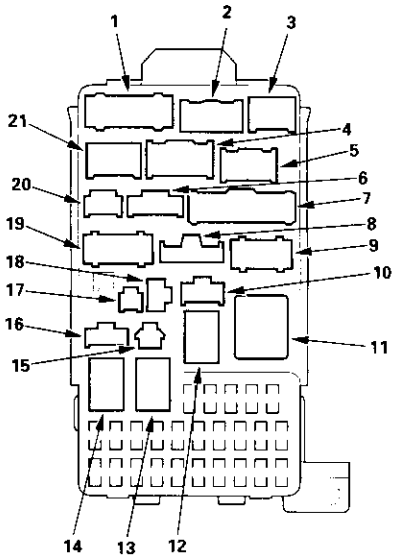
(View of front side)



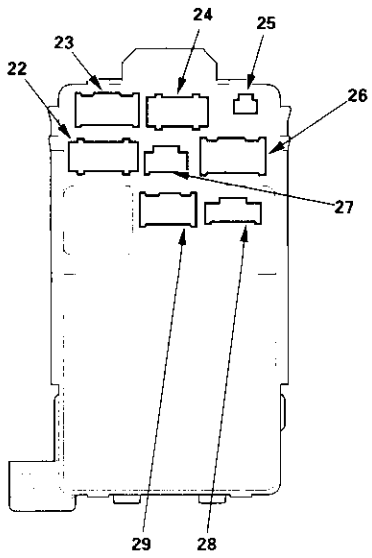
(View of back side)

Under-dash Fuse/Relay Box

Socket	Ref	Terminal	Connects to
A	2	5	Dashboard wire harness B (see page 22-30)
B	3	6	Dashboard wire harness B (see page 22-30)
C	1	14	Dashboard wire harness B (see page 22-30)
D	4	12	ECM wire harness (see page 22-32)
E	5	13	ECM wire harness (see page 22-32)
F	19	12	Engine compartment wire harness (see page 22-18)
G	9	10	Engine compartment wire harness (see page 22-18)
H	8	3	Engine compartment wire harness (see page 22-18)
I	20	5	Engine compartment wire harness (see page 22-18)
J	21	8	Engine compartment wire harness (see page 22-18)
K	23	17	Dashboard wire harness A (see page 22-26)
L	24	10	Dashboard wire harness A (see page 22-26)
M	22	12	Dashboard wire harness A (see page 22-26)
N	27	6	Dashboard wire harness A (see page 22-26)
O	26	12	Dashboard wire harness A (see page 22-26)
P	7	18	Floor wire harness (see page 22-34)
Power window relay	12	4	
Q	6	8	Floor wire harness (see page 22-34)
R	10	6	ECM wire harness (see page 22-32)
S	25	2	Dashboard wire harness B (see page 22-30)
Starter cut relay	14	4	
T	18	3	Multiplex control unit service check connector
Taillight relay	13	4	
Turn signal/hazard relay	11	3	
U	15	1	Optional connector
V	16	4	Optional connector
W (Memory erase signal (MES) connector)	17	2	Floor wire harness (see page 22-34)
X	28	8	(Plugs directly into the multiplex control unit)
Y	29	13	(Plugs directly into the multiplex control unit)



(View of front side)



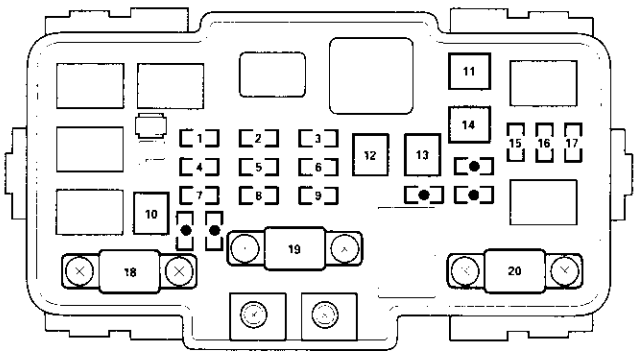
(View of back side)

Fuse to Components Index

Under-hood Fuse/Relay Box

Fuse Number	Amps	Wire Color	Component(s) or Circuit(s) Protected
1	20A	BLU/YEL	Condenser fan motor
		BLU/RED	A/C compressor clutch
2	15A	WHT/GRN	Dash lights, Front parking lights, Front side marker lights, License plate light, Rear side marker lights, Taillights
3	7.5A	WHT/BLU	Cargo area light, Ceiling lights, Ignition Key light, Spotlights
4	20A	BLU/BLK	Radiator fan motor
5	10A	WHT/BLK	Turn signal/hazard relay, Turn signal lights
6	15A	WHT/BLK	CKP sensor, ECM, IAC valve, Immobilizer control unit-receiver, Injectors, PGM-FI main relay 1 and 2, TDC sensor
7	15A	WHT/GRN	Brake lights, Brake signals (to ABS modulator-control unit, Cruise control unit, ECM)
		BLU/RED	Horns
8	20A	WHT/GRN	ABS modulator-control unit
9	10A	WHT/RED	Audio unit, Data link connector (DLC), Gauge assembly, Immobilizer control unit-receiver, Immobilizer indicator light, Keyless receiver unit, Multiplex control unit
10	40A	WHT/RED	ABS modulator-control unit
11	30A	BLK/YEL	Noise condenser, Rear window defogger
12	40A	BLU/WHT	Blower motor
13	40A	WHT/BLK	No. 7 fuse (in the under-dash fuse/relay box), Power window relay
14	40A	WHT/RED	No. 2 and No. 3 fuses (in the under-dash fuse/relay box)
15	15A	RED/YEL	Daytime running lights control unit (Canada), Daytime running lights relay (Canada), High beam indicator light, Left headlight
16	20A	WHT	Multiplex control unit
17	15A	RED	Daytime running lights control unit (Canada), Right headlight
18	60A	WHT/BLU	EPS control unit
19	80A	——	Battery, Power distribution
20	40A*1 50A*2	WHT	Ignition switch (BAT)

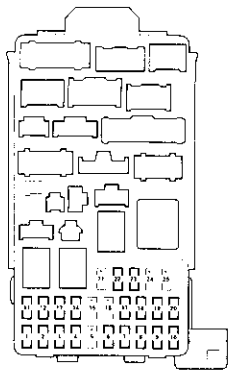
* 1: USA
* 2: Canada



●: Spare fuse

Under-dash Fuse/Relay Box

Fuse Number	Amps	Wire Color	Component(s) or Circuit(s) Protected
1	15A	BLK/WHT	Ignition coils
2	20A	WHT/RED	Air/fuel ratio sensor, ECM
3	10A	RED/BLU	Daytime running lights control unit (Canada)
4	10A	BLK/ORN	Air/fuel ratio sensor relay, Alternator, CMP sensor, Cruise control main switch, Cruise control unit, ELD unit, Evaporative emission (EVAP) bypass solenoid valve, Evaporative emission (EVAP) canister purge valve, Evaporative emission (EVAP) canister vent shut valve, Secondary HO2S, Vehicle speed sensor
5	———	———	Not used
6	7.5A	YEL/GRN	Moonroof control unit, Moonroof open and close relay, Power window relay
7	20A	GRN	Moonroof motor
8	7.5A	YEL/RED	Audio unit
9	10A	GRN	OPDS unit, Rear window wiper motor, Rear window washer motor, Rear window wiper intermittent control unit
10	7.5A	YEL	Back-up lights, Cruise indicator light, EPS control unit, Gauge assembly, Keyless receiver unit, Multiplex control unit, Security control unit connector (optional)
11	7.5A	BLK/ORN	ABS modulator-control unit
12	7.5A	YEL/RED	Daytime running lights control unit (Canada)
13	10A	PNK	SRS unit
14	10A	BLK/YEL	A/C compressor clutch relay, Blower motor relay, Condenser fan relay, Heater control panel, Power mirror actuator, Power mirror defogger (Canada), Radiator fan relay, Rear window defogger relay, Recirculation control motor
15	———	———	Not used
16	———	———	Not used
17	15A	YEL/BLK	ECM, Fuel pump
		BLK/YEL	SRS unit
18	15A	YEL/GRN	Accessory power socket
19	7.5A	YEL/BLK	Turn signal/hazard relay, Turn signal lights
20	30A	GRN/BLK	Multiplex control unit, Windshield washer motor, Windshield wiper motor
21	———	———	Not used
22	20A	GRN/BLK	Passenger's window motor
23	20A	GRN/WHT	Driver's window motor
24	———	———	Not used
25	———	———	Not used



*: Not used

Ground Distribution

Ground to Components Index

Ground	Component or circuit grounded
G1	Battery, Transmission housing
G2	Engine
G101	ECM (PG is BLK; LG is BRN/YEL) BLK: IAC valve, Ignition coils, Vehicle speed sensor, VTEC solenoid valve BRN/YEL: Camshaft position (CMP) sensor, CKP sensor, TDC sensor, VTEC oil pressure switch
G151	EPS control unit
G201	ELD unit, Multiplex control inspection connector, Multiplex control unit, Power window relay, Rear window washer motor, Right front parking light, Right front side marker light, Right front turn signal light, Turn signal/hazard relay, Washer fluid level sensor (Canada) , Windshield washer motor, Windshield wiper motor
G202	ABS modulator-control unit
G301	Blower motor relay, Brake fluid level switch, Condensor fan motor, Cruise control actuator, Left front parking light, Left front side marker light, Left front turn signal light, Radiator fan motor, Radiator fan switch
G401	Combination light switch, Ignition key switch, Wiper/washer switch
G402	Left and right airbag sensors, SRS unit
G451	Data link connector (DLC)
G501	Clutch interlock switchm Clutch pedal position switch (for cruise control), Cruise control main switch, Cruise control unit, Daytime running lights control unit (Canada), Driver's door lock knob switch, Driver's door lock switch, Driver's power window motor, Heater control panel, Left power mirror defogger (Canada), left side turn signal light, Moonroof control unit, Monroof open and close relays, Moonroof position sensor 1, Moonroof seitch, Power mirror switch, Power transistor, Power window master switch, Spotlights
G502	Accessory power socket, Gauge assembly, Keyless receiver unit, Multiplex control unit, Right power mirror defogger (Canada)
G503	Audio unit
G551	Driver's seat belt switch, Fuel gauge sending unit, Fuel pump, Memory erase signal (MES) connector, OPDS unit, Right seat belt switch
G552	High mount brake light, License plate lights, Rear window defogger, Rear window defogger noise condenser, Rear window wiper motor, Hatch latch switch
G553	Back-up lights, Brake lights, Rear side marker lights, Rear turn signal lights, Rear window wiper noise condenser, Rear window wiper intermittent control unit, Taillights

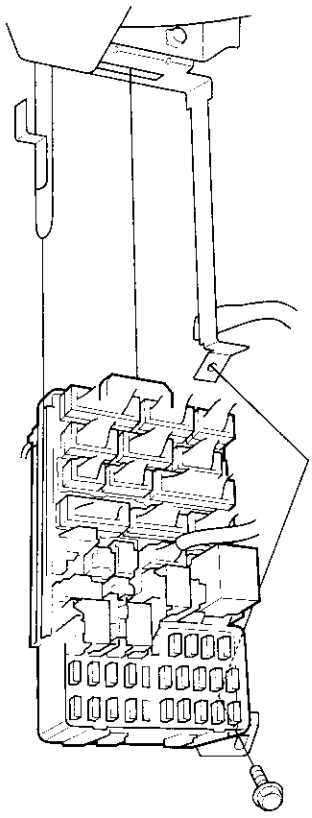
Under-dash Fuse/Relay Box

Removal and Installation

SRS components are located in this area. Review the SRS component locations (see page 23-13) and precautions and procedures (see page 23-14) in the SRS section before performing repairs or service.

Removal

1. Make sure you have the anti-theft code for the radio, then write down the frequencies for the radio's preset buttons.
2. Disconnect the battery negative cable, then disconnect the positive cable, and wait at least three minutes.
3. Remove the driver's dashboard lower cover (see page 20-59).
4. Disconnect the connectors from the fuse side of the under-dash fuse/relay box.



5. Remove the mounting bolt, and slide the under-dash fuse/relay box (A) down from the bracket (B).
6. Disconnect the back side from connectors from the back of the under-dash fuse/relay box, and remove the fuse/relay box.

   NOTE: The SRS connector is a spring-loaded lock type (see page 23-11).

Installation

1. Install the under-dash fuse/relay box in the reverse order of removal and connect all connectors to the under-dash fuse/relay box.
2. Install the driver's dashboard lower cover.
3. Connect both the negative cable and positive cable to the battery.
4. Enter the anti-theft code for the radio, then enter the customer's radio station presets.
5. Confirm that all systems work properly.
6. Do the engine control module (ECM) idle learn procedure (see page 11-139).

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 either a JCI or Bear ARBST 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 indicator EYE.
   - If the EYE indicates the battery is charged, go to step 4.
   - If the EYE 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 volts, the battery is OK. ■
   - If voltage is below 9.6 volts, go to step 7.
7. Charge the battery on High (40 amps) until the EYE 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 EYE indicates the battery is charged within 3 hours, the battery is OK. ■
   - If the EYE indicates the battery is not charged within 3 hours, replace the battery. ■

Power Relay Test

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

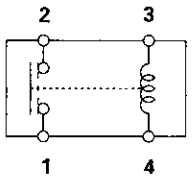
NOTE: Turn signal/hazard relay input test (see page 22-87).

Relay	Test
A/C compressor clutch relay	Normally-open type A
Air/fuel ratio sensor relay	
Condenser fan relay	
Headlight relay 1	
Headlight relay 2	
Horn relay	
Power window relay	
Radiator fan relay	
Reverse relay	
Starter cut relay	
Taillight relay	
Daytime running lights relay (Canada)	
PGM-FI main relay 1	
PGM-FI main relay 2	
Blower motor relay	Normally-open type B
Rear window defogger relay	
Moonroof close relay	Five terminal type
Moonroof open relay	
Low beam cut relay (Canada)	

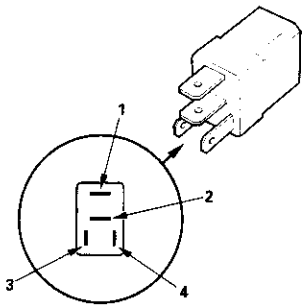
Normally-open type A:

Check for continuity between the terminals.

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



type 1:



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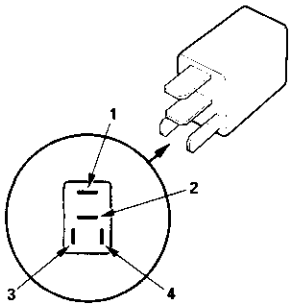
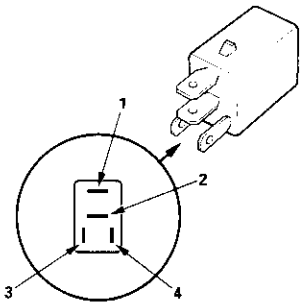
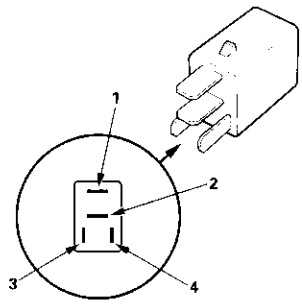


PGM-FI main relay 1
PGM-FI main relay 2
type 1:



type 2:



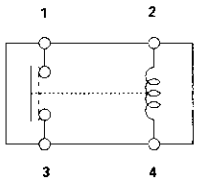
(cont'd)

Power Relay Test (cont'd)

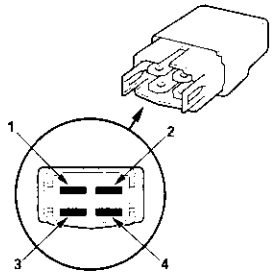
Normally-open type B:

Check for continuity between the terminals.

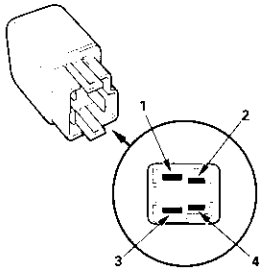
- There should be continuity between the No. 1 and No. 3 terminals when power and ground are connected to the No. 2 and No. 4 terminals.
- There should be no continuity between the No. 1 and No. 3 terminals when power is disconnected.



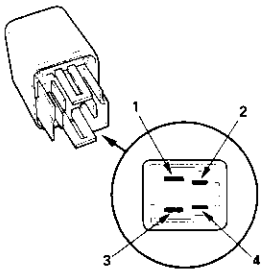
Rear window defogger relay



Blower motor relay
type 1:



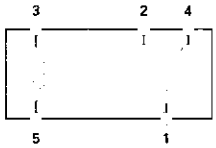
type 2:



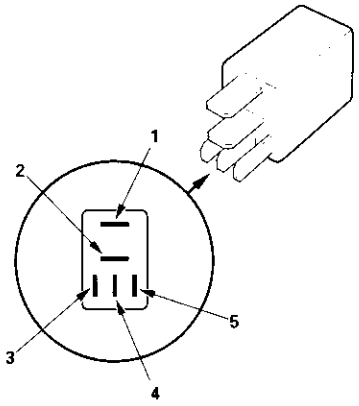
Five-terminal type

Check for continuity between the terminals.

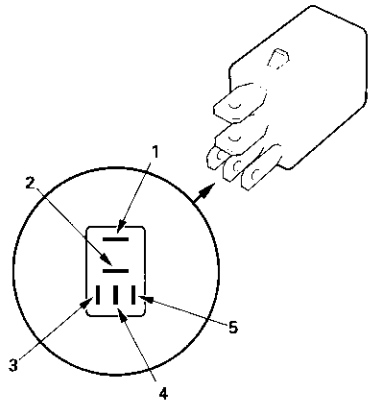
- There should be continuity between the No. 1 and No. 2 terminals when power and ground are connected to the No. 3 and No. 5 terminals.
- There should be continuity between the No. 1 and No. 4 terminals when power is disconnected.



type 1:



type 2:



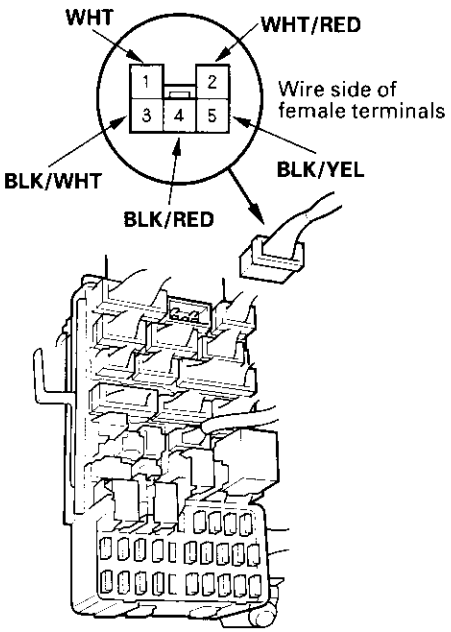
Ignition Switch

Test

SRS components are located in this area. Review the SRS component locations (see page 23-13) and precautions and procedures (see page 23-14) in the SRS section before performing repairs or service.

1. Remove the driver's dashboard lower cover (see page 20-59).

2. Disconnect the 5P connector from the under-dash fuse/relay box.

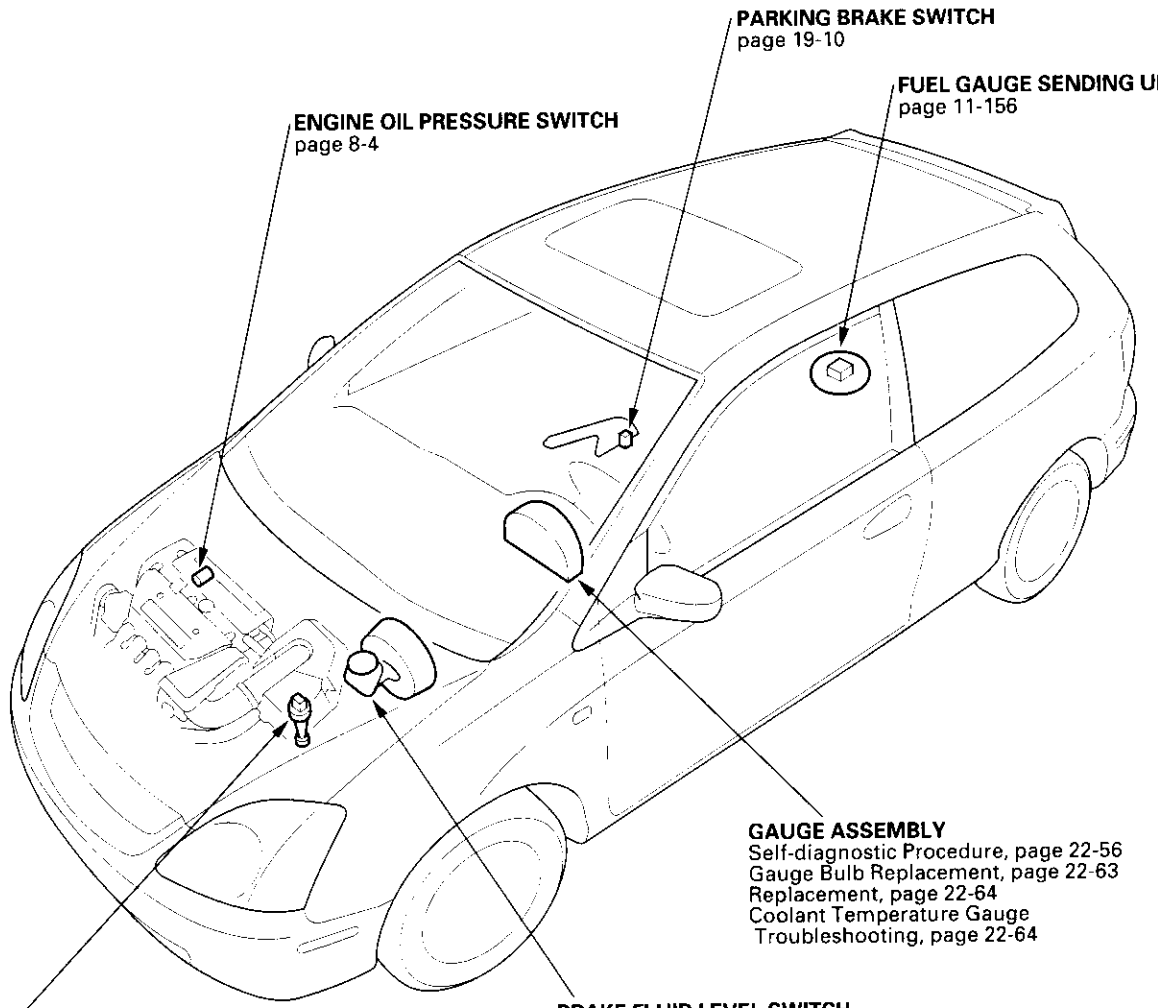


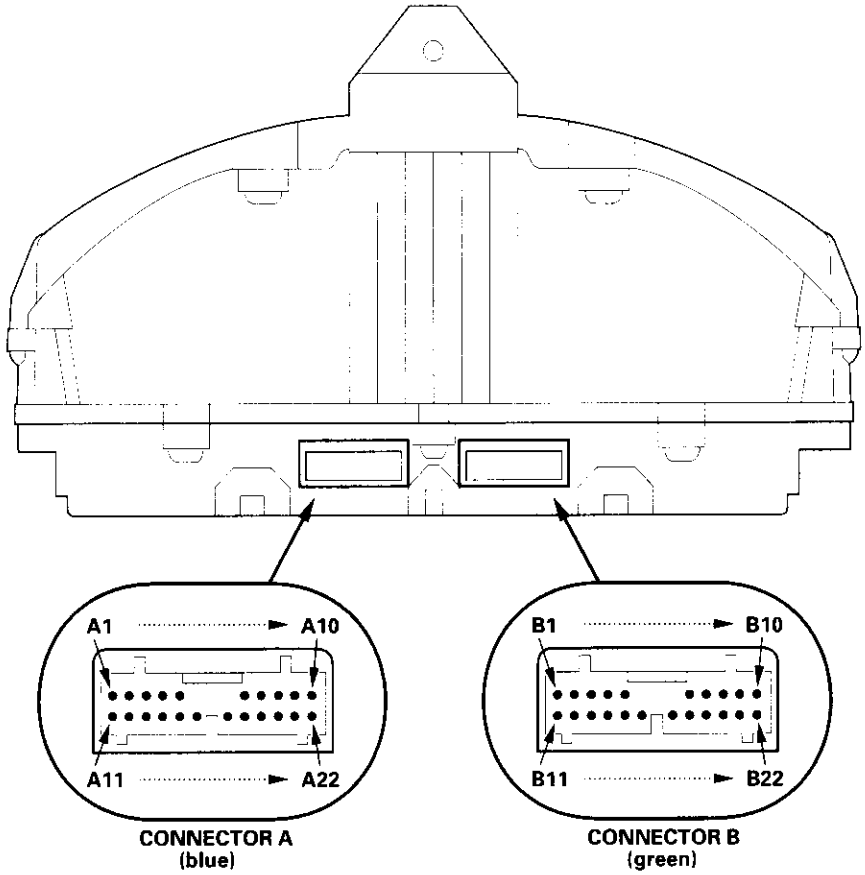
3. Check for continuity between the terminals in each switch position according to the table.

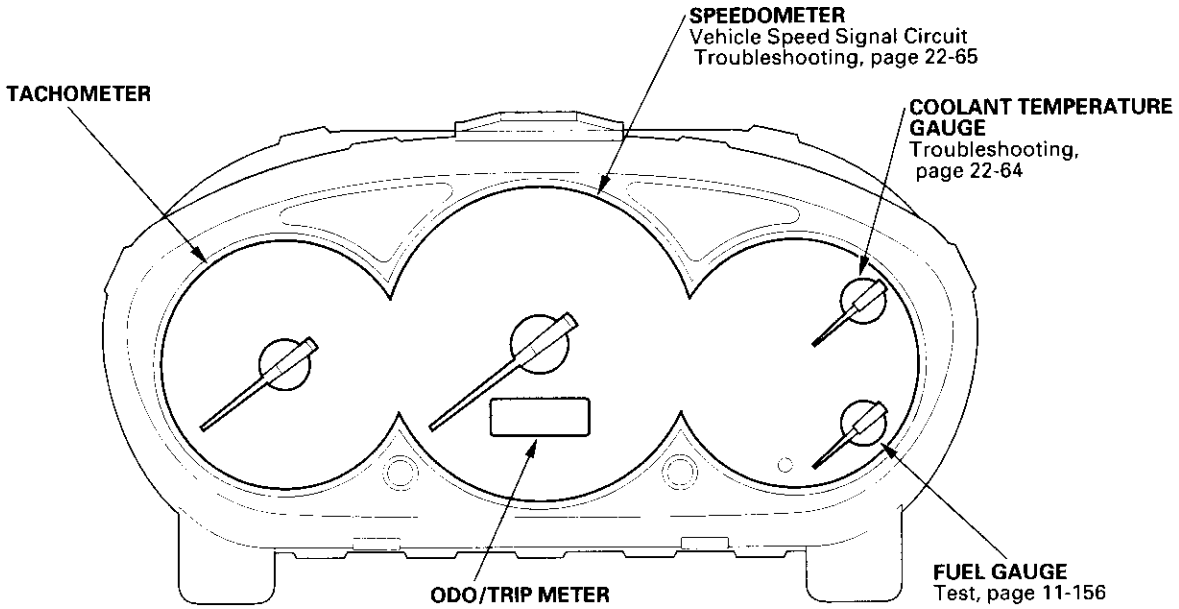
Terminal / Position	WHT/RED (ACC)	WHT (BAT)	BLK/YEL (IG1)	BLK/RED (IG2)	BLK/WHT (ST)
O (LOCK)					
I (ACC)	○—○				
II (ON)	○—○	○—○	○—○		
III (START)		○—○	○—○	○—○	

4. If the continuity checks do not agree with the table, replace the steering lock assembly (see page 17-12).

Component Location Index




A1
A10
A11
A22
CONNECTOR A
(blue)
B1
B10
B11
B22
CONNECTOR B
(green)


SPEEDOMETER
Vehicle Speed Signal Circuit Troubleshooting, page 22-65
TACHOMETER
COOLANT TEMPERATURE GAUGE
Troubleshooting, page 22-64
ODO/TRIP METER
FUEL GAUGE
Test, page 11-156

Self-diagnostic Procedure

The gauge assembly has a self-diagnosis function.
- The Beeper Drive Circuit Check
- The Indicator Drive Circuit Check
- The LCD Segments Check
- The Gauges Drive Circuit Check (Speedometer, Tachometer, Fuel gauge, Coolant temperature gauge)
- The Communication Line Check (the coolant temperature signal line between the gauge and ECM)

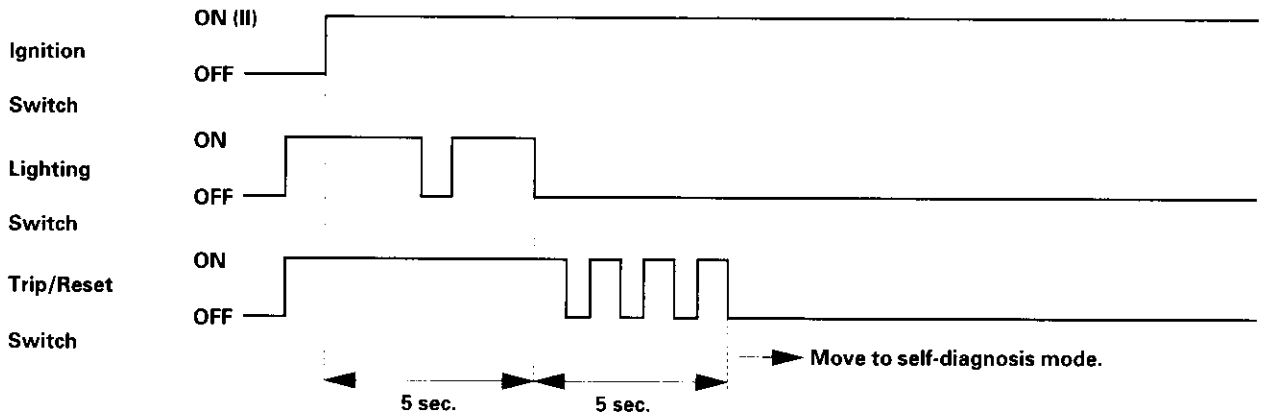
NOTE: Indicators are also controlled via the communication line.

Entering the self-diagnosis function:

Before doing the self-diagnosis function, check the No. 9 (10A) fuse in the under-hood fuse/relay box and No. 10 (7.5A) fuse in the under-dash fuse/relay box.

1. Push and hold the trip/reset button.
2. Turn the lighting switch ON.
3. Turn the ignition switch ON (II).
4. Within 5 sec., turn the lighting switch OFF, then ON and OFF again.
5. Within 5 sec., release the trip/reset button, then push and release the button four times repeatedly.

NOTE:
- While in the self-diagnosis mode, the dash lights brightness controller operates normally.
- While in the self-diagnosis mode, the trip/reset button is used to start the beeper drive circuit check and the gauge drive cicuit check.
- If the vehicle speed exceeds 1.2 mph (2 km/h) or the ignition switch is turned OFF, the self-diagnosis mode ends.



The Beeper Drive Circuit Check:

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

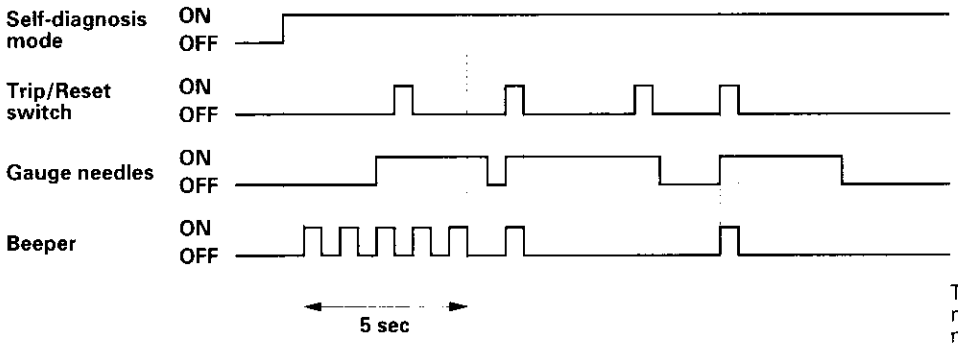
The Indicator Drive Circuit Check:

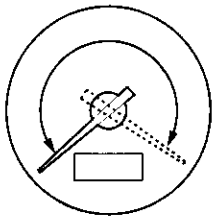
When entering the self-diagnosis mode, the following indicators blink.
Seat belt indicator, Door/hatch indicator, Brake system, Low fuel indicator, Maintenance required indicator (USA), Washer fluid level indicator (Canada), Oil pressure light.

The LCD Segment Check:
When entering the self-diagnosis mode, the odo/trip segment blinks five times.

The Gauge Drive Circuit Check:
When entering the self-diagnosis mode, the speedometer, the tachometer, the fuel gauge, and the coolant temperature gauge needles sweep from the minimum position to maximum position, then return to the minimum position.

NOTE: After the beeper stops sounding and the needles return to the minimum position, pushing the trip/reset button starts the beeper drive circuit check (one beep) and the gauge drive circuit check again.
The check cannot be started until the needles return to the minimum position.



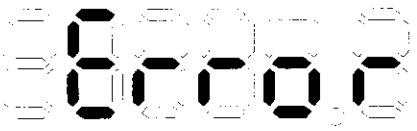


The needles sweep from the minimum position to the maximum position, then return to the minimum position.

The Communication Line Check:
In the self-diagnosis mode, after the odo/trip LCD segments check, the self-diagnosis starts the communication line check.
If all segments comes on, the communication line is OK.
If the word "Error" is indicated, there is a malfunction in the communication line between the gauge assembly, the multiplex control unit, and the ECM.

Normal:

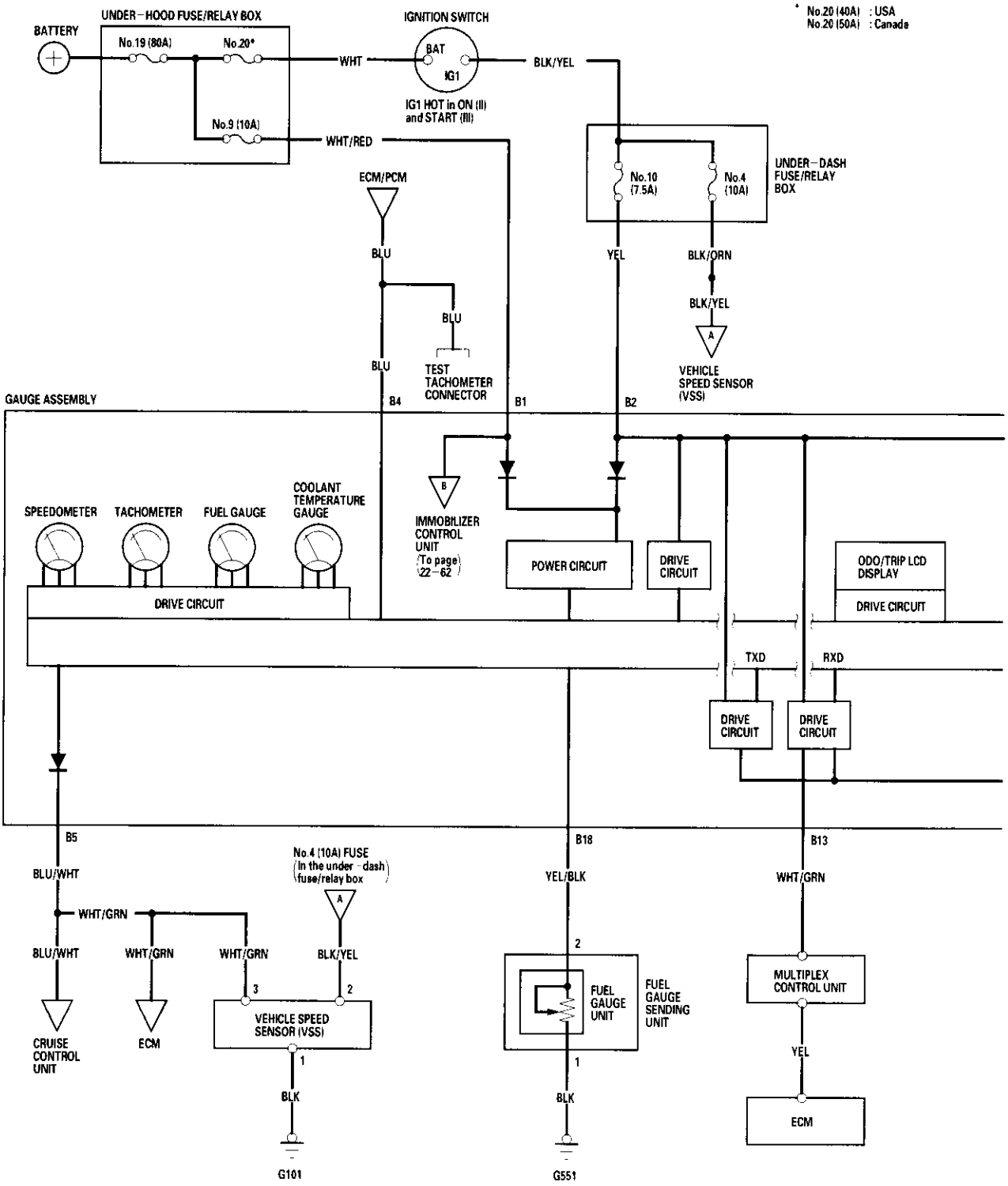
Faulty:

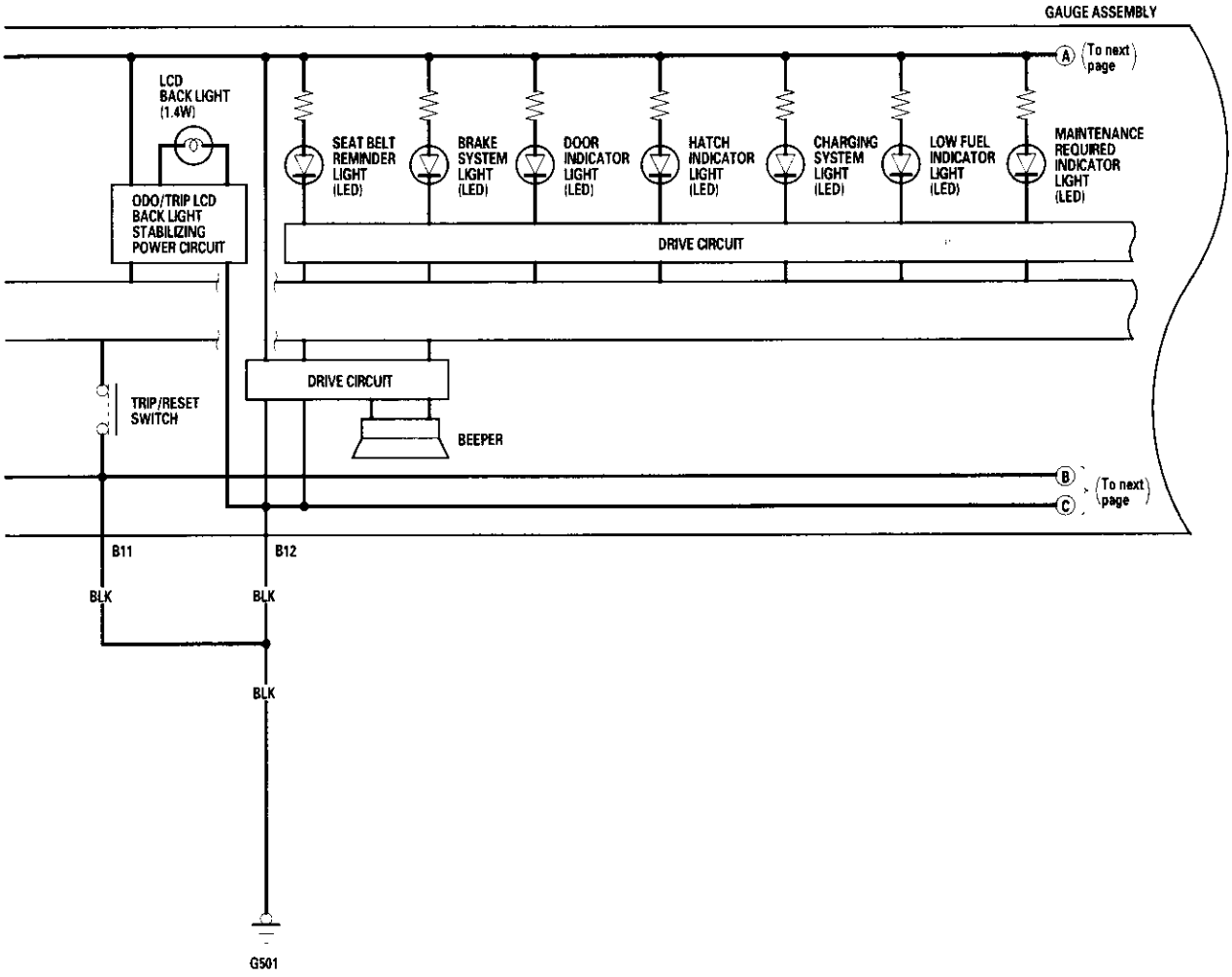


Ending the self-diagnosis function:
Turn the ignition switch OFF.

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

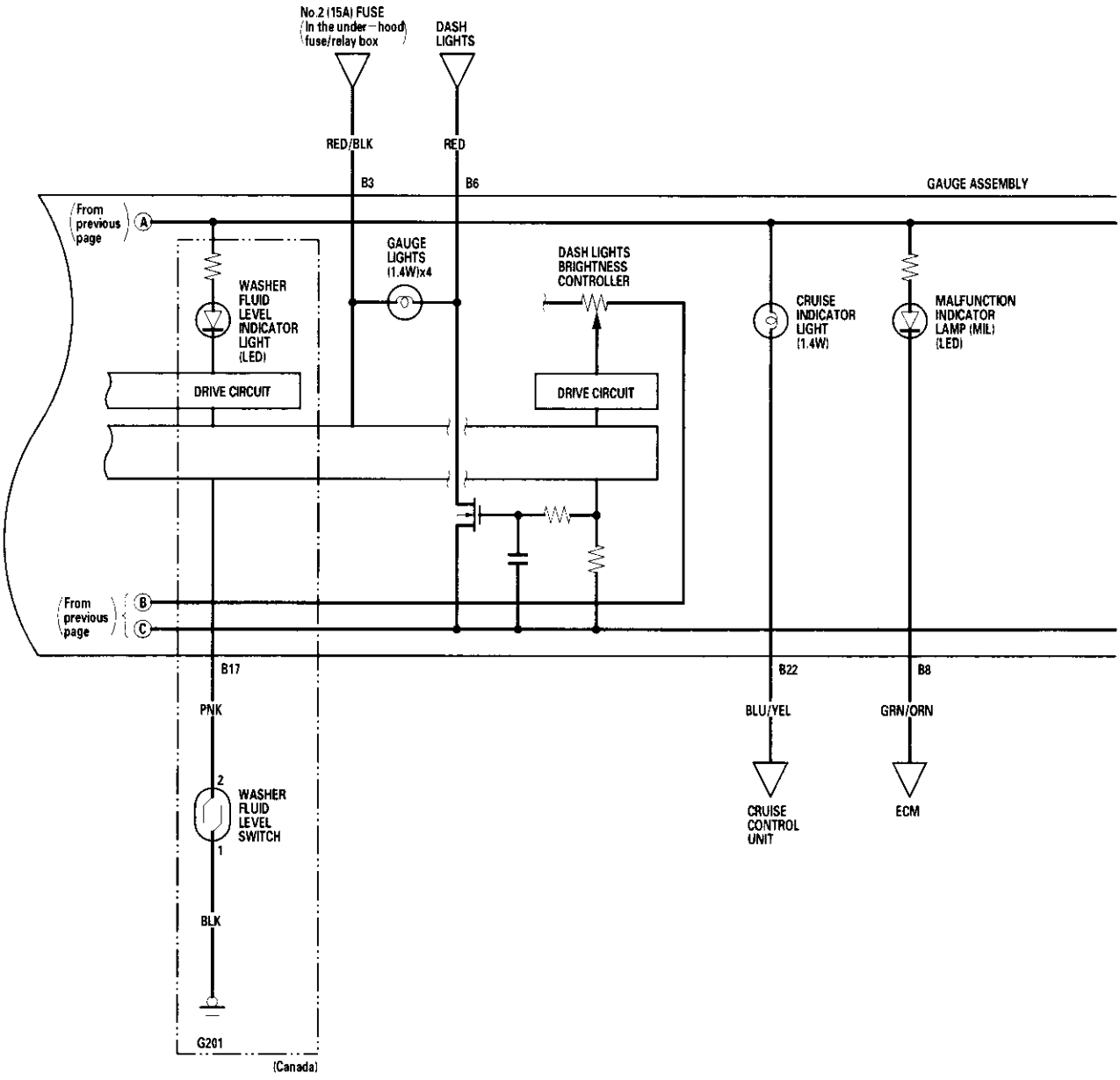
Circuit Diagram

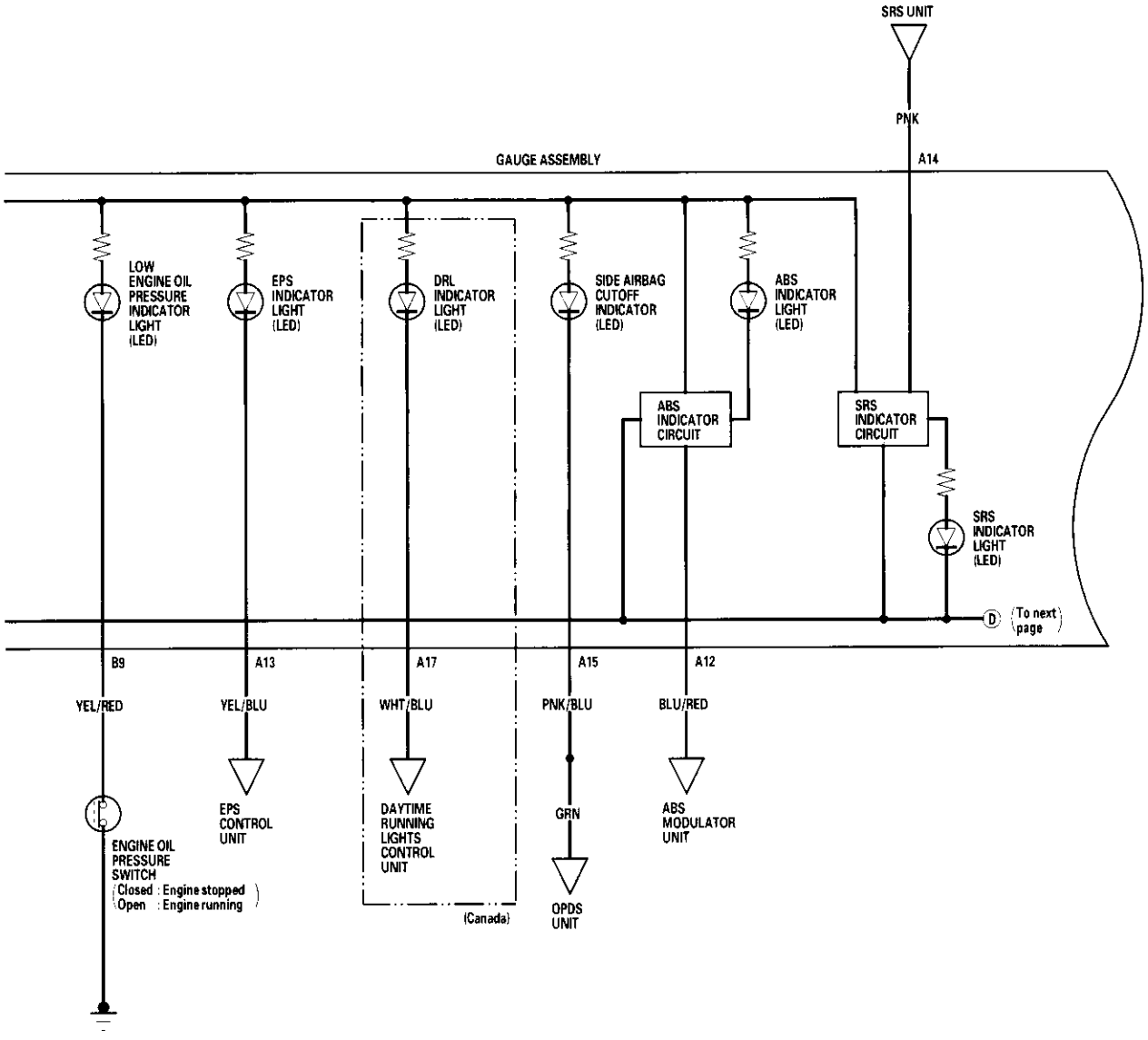



GAUGE ASSEMBLY
LCD BACK LIGHT (1.4W)
ODO/TRIP LCD BACK LIGHT STABILIZING POWER CIRCUIT
SEAT BELT REMINDER LIGHT (LED)
BRAKE SYSTEM LIGHT (LED)
DOOR INDICATOR LIGHT (LED)
HATCH INDICATOR LIGHT (LED)
CHARGING SYSTEM LIGHT (LED)
LOW FUEL INDICATOR LIGHT (LED)
MAINTENANCE REQUIRED INDICATOR LIGHT (LED)
DRIVE CIRCUIT
DRIVE CIRCUIT
TRIP/RESET SWITCH
BEEPER
A (To next page)
B
C (To next page)
B11
B12
BLK
BLK
BLK
G501

(cont'd)

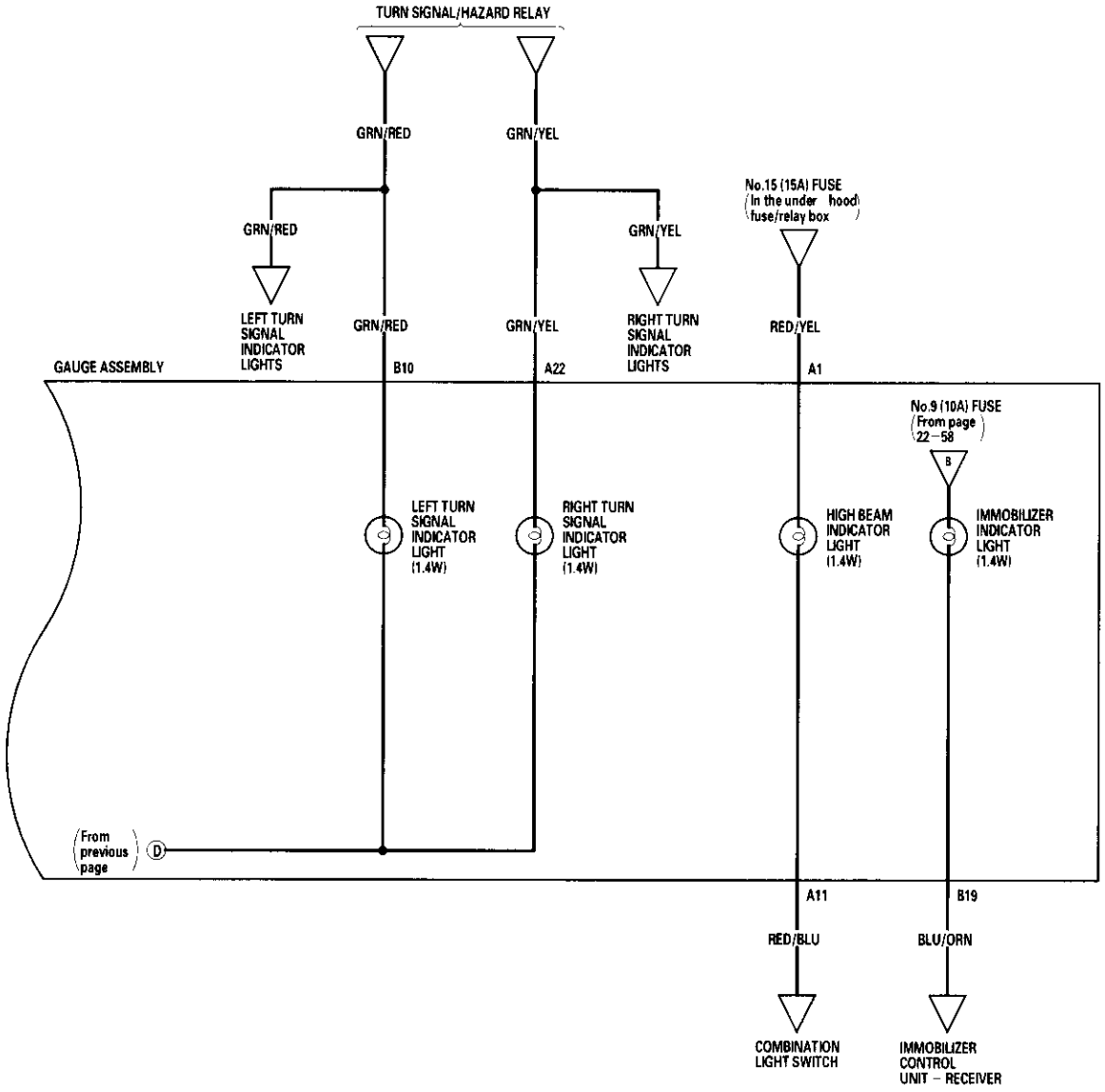
Circuit Diagram (cont'd)



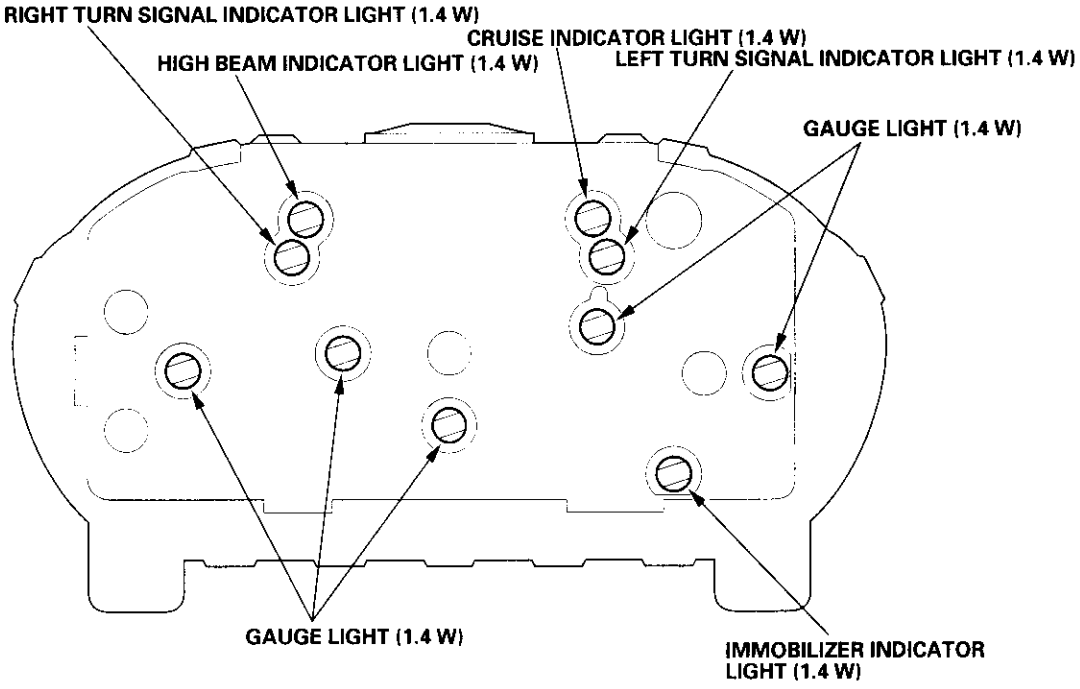

SRS UNIT
PNK
GAUGE ASSEMBLY
A14
LOW ENGINE OIL PRESSURE INDICATOR LIGHT (LED)
EPS INDICATOR LIGHT (LED)
DRL INDICATOR LIGHT (LED)
SIDE AIRBAG CUTOFF INDICATOR (LED)
ABS INDICATOR LIGHT (LED)
ABS INDICATOR CIRCUIT
SRS INDICATOR CIRCUIT
SRS INDICATOR LIGHT (LED)
D
(To next page)
B9
A13
A17
A15
A12
YEL/RED
YEL/BLU
WHT/BLU
PNK/BLU
BLU/RED
EPS CONTROL UNIT
DAYTIME RUNNING LIGHTS CONTROL UNIT
GRN
ABS MODULATOR UNIT
ENGINE OIL PRESSURE SWITCH
(Closed : Engine stopped
Open : Engine running)
(Canada)
OPDS UNIT

(cont'd)

Circuit Diagram (cont'd)

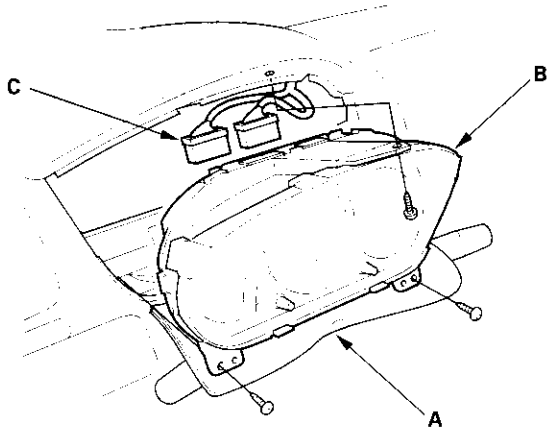


Gauge Bulb Replacement



Gauge Assembly Replacement

1. Remove the instrument panel (see page 20-59), then remove the upper column cover (see page 17-9).
2. Place a clean shop towel (A) under the gauge assembly to prevent scratching the steering column or dash panel.
3. Remove the screws from the gauge assembly (B).



4. Disconnect the connectors (C), and remove the gauge assembly.
5. Install the gauge assembly in the reverse order of removal.

Coolant Temperature Gauge Troubleshooting

Before testing, check the No. 9 (10A) fuse in the under-hood fuse/relay box and the No. 10 (7.5A) fuse in the under-dash fuse/relay box.

1. Start the engine, and check the malfunction indicator lamp (MIL).

   Does the MIL come on?

   YES—Troubleshoot the cause of the ECM DTC (see page 11-57), and recheck.
   NO—Go to step 2.

2. Check for a multiplex control unit DTC (see page 22-168).

   Is a DTC indicated?

   YES—Troubleshooting the cause of the multiplex control unit DTC (see page 22-168), and recheck.
   NO—Go to step 3.

3. Do the communication line check with the self-diagnosis procedure (see page 22-56).

   Is the word "Error" indicated on the odo/trip display?

   YES—The gauge cannot receive the signal from the multiplex control unit and the ECM. Check for an open in the WHT/GRN wire (gauge connector terminal B13). If no open is found, go to step 5.
   NO—Go to step 4.

4. Do the gauge drive circuit check with the self-diagnosis procedure (see page 22-56).

   Does the temperature gauge needle sweep from the minimum position to the maximum, then return to the minimum position?

   YES—Go to step 5.
   NO—Replace the gauge assembly.■

5. Substitute a known-good ECM and recheck.

   Did the symptom/indication go away?

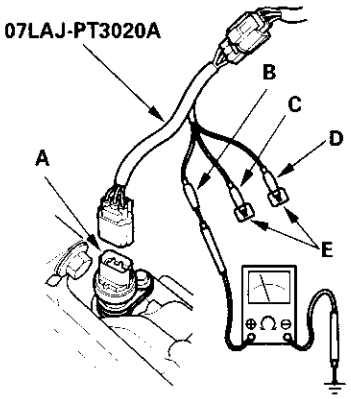
   YES—Replace the ECM.
   NO—Substitute a known-good gauge assembly. If the symptom/indication goes away, replace the gauge assembly.■

Vehicle Speed Signal Circuit Troubleshooting

Special Tools Required:
Test Harness 07LAJ-PT3020A

Before testing, inspect the No. 4 (10A) and No. 10 (7.5A) fuses in the under-dash fuse/relay box.

1. Disconnect the 3P connector from the vehicle speed sensor (VSS) (A).



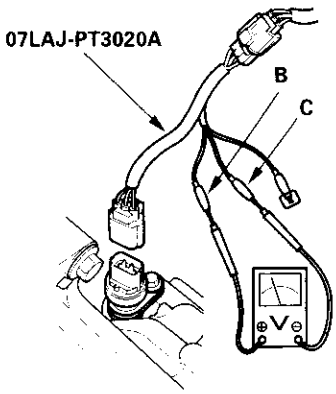
2. Connect the test harness only to the engine wire harness.
3. Connect the RED test harness clip (B) to the positive probe of an ohmmeter. Cover the white (C) and green (D) test harness leads with protective tape (E).
4. Check for continuity between the RED test harness clip and body ground.

   Is there continuity?

   YES—Go to step 5.

   NO—Repair open in the BLK wire between the VSS and G101.■

5. Connect the WHT test harness clip (B) to the positive probe of a voltmeter, and connect the RED test harness clip (C) to the negative probe.



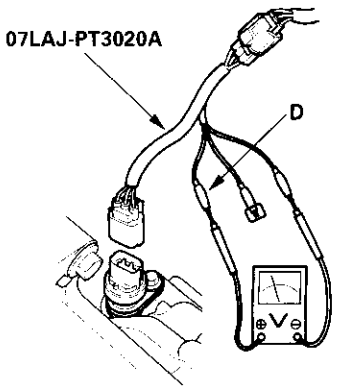
6. Turn the ignition switch ON (II).

   Is there battery voltage?

   YES—Go to step 7.

   NO—Repair open in the BLK/YEL wire between the VSS and the under-dash fuse/relay box.■

7. Disconnect the WHT test harness clip (B).
8. Connect the GRN test harness clip (D) to the positive probe of a voltmeter.



   Is there 5 V or more?

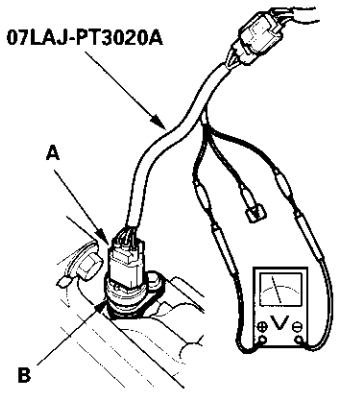
   YES—Go to step 9.

   NO—Repair short or open in the BLU/WHT or WHT/GRN wire between the VSS and the cruise control unit, or the ECM.■

(cont'd)

Vehicle Speed Signal Circuit Troubleshooting (cont'd)

9. Turn the ignition switch OFF.
10. Connect the other test harness connector (A) to the VSS (B).



11. Raise the front of the vehicle, and make sure it is securely supported.
12. Put the vehicle in neutral with the ignition switch ON (II).
13. Slowly rotate one wheel with the other wheel blocked.

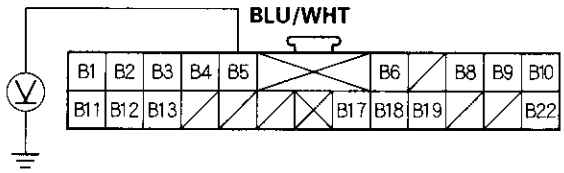
    Does voltage pulse from 0 to about 5 V or more?

    YES—Go to step 14.

    NO—Replace the VSS.■

14. Disconnect the 22P connector "B" from the gauge assembly.

GAUGE ASSEMBLY CONNECTOR B (22P)



Wire side of female terminals

15. Connect the positive probe of a voltmeter to the BLU/WHT wire and the negative probe to ground.
16. Slowly rotate one wheel with the other wheel blocked.

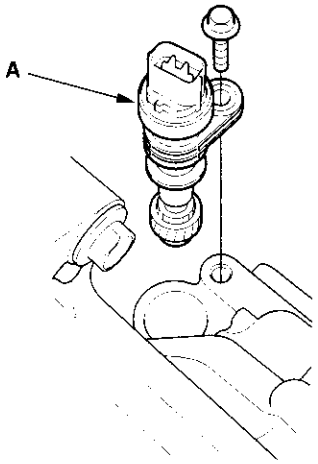
    Does voltage pulse from 0 to about 5 V or more?

    YES—Replace the speedometer assembly.■

    NO—Repair open in the BLU/WHT wire between the VSS and the speedometer.■

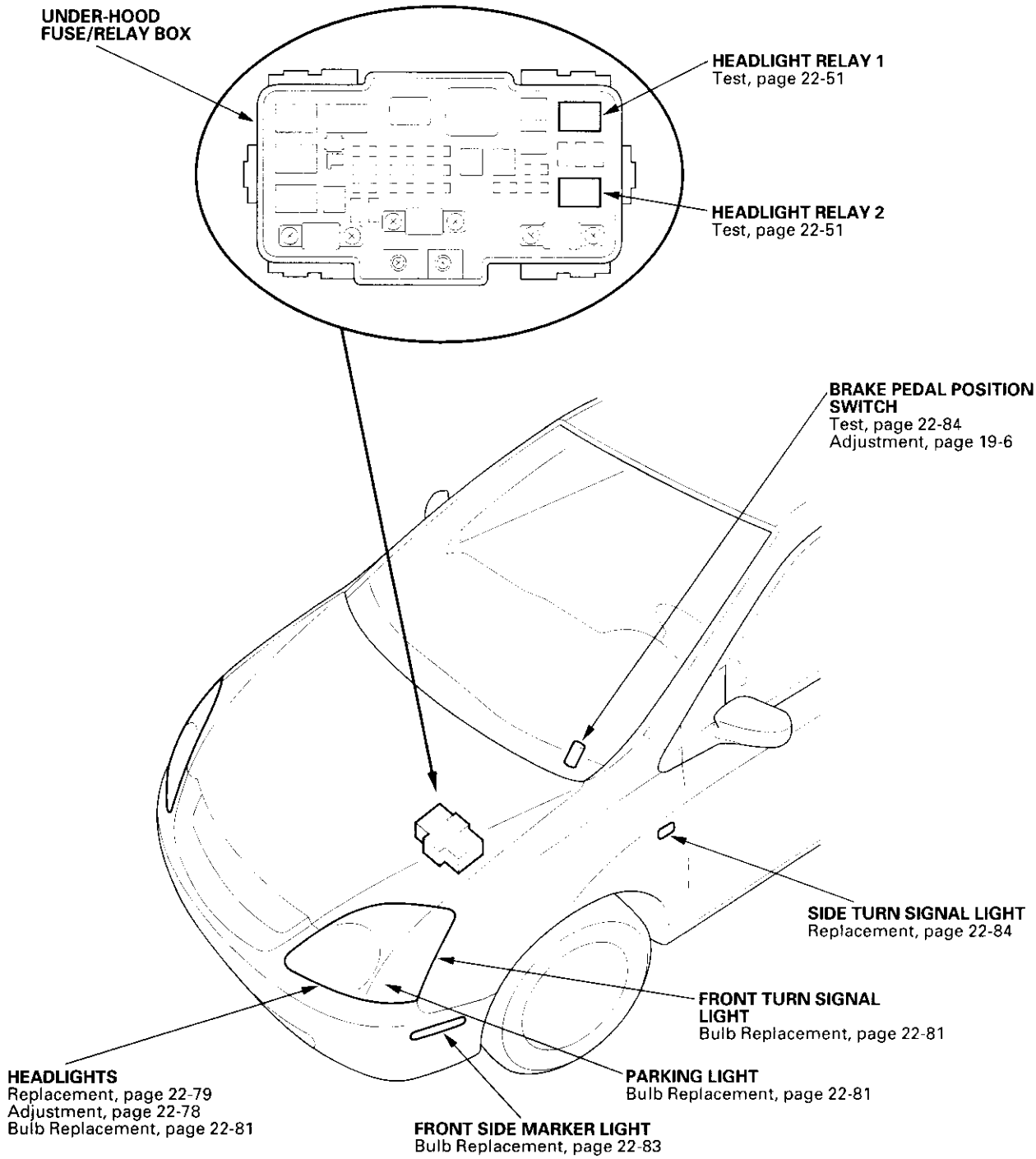
VSS Replacement

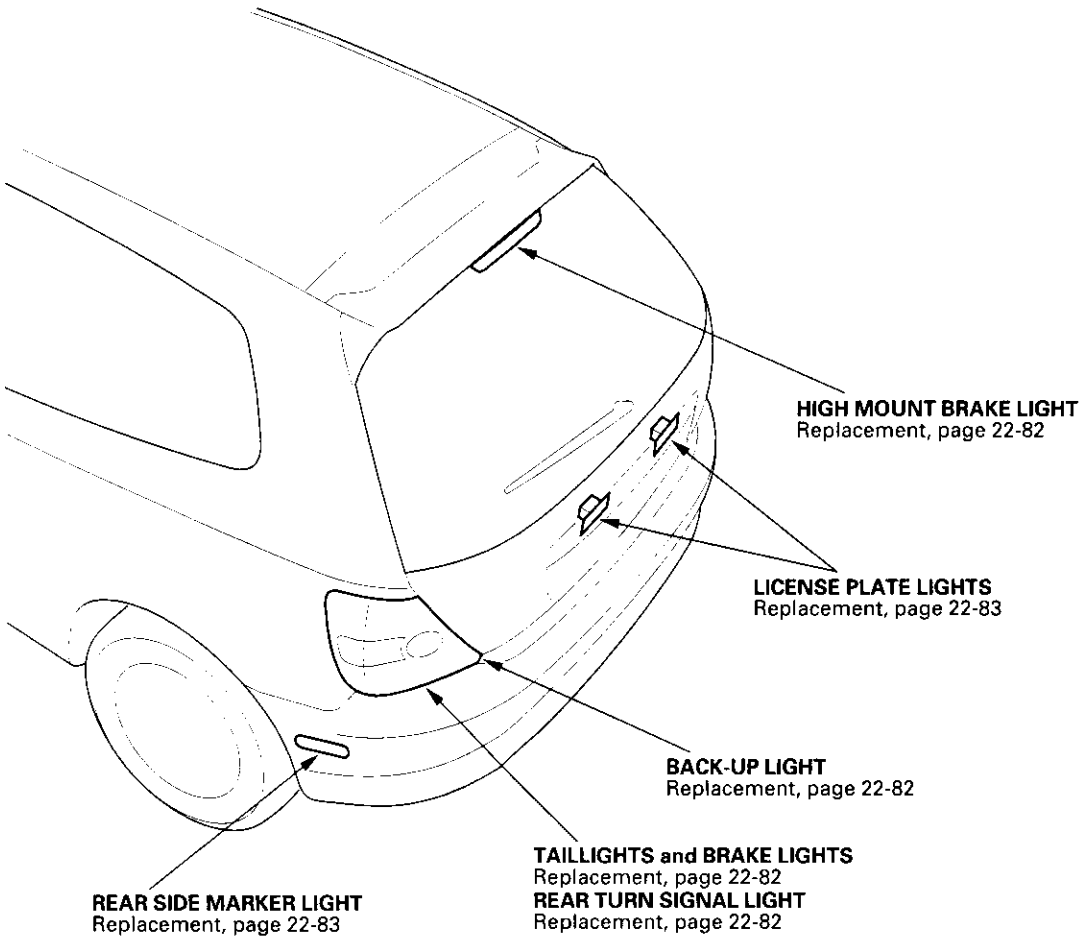
1. Remove the intake resonator.
2. Disconnect the 3P connector from the vehicle speed sensor (VSS) (A).



3. Remove the mounting bolt, then remove the VSS.
4. Install the VSS in the reverse order of removal.

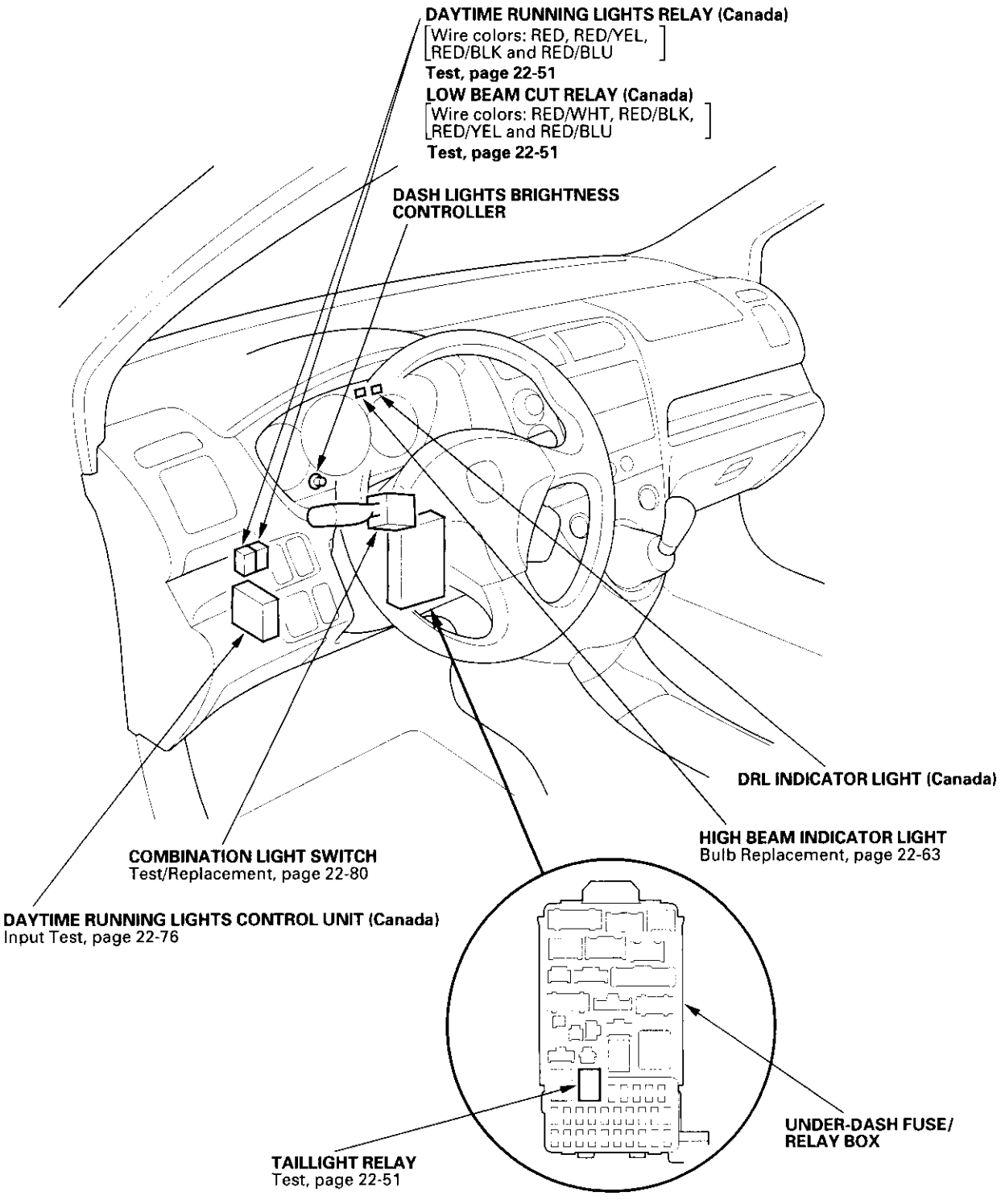
Component Location Index



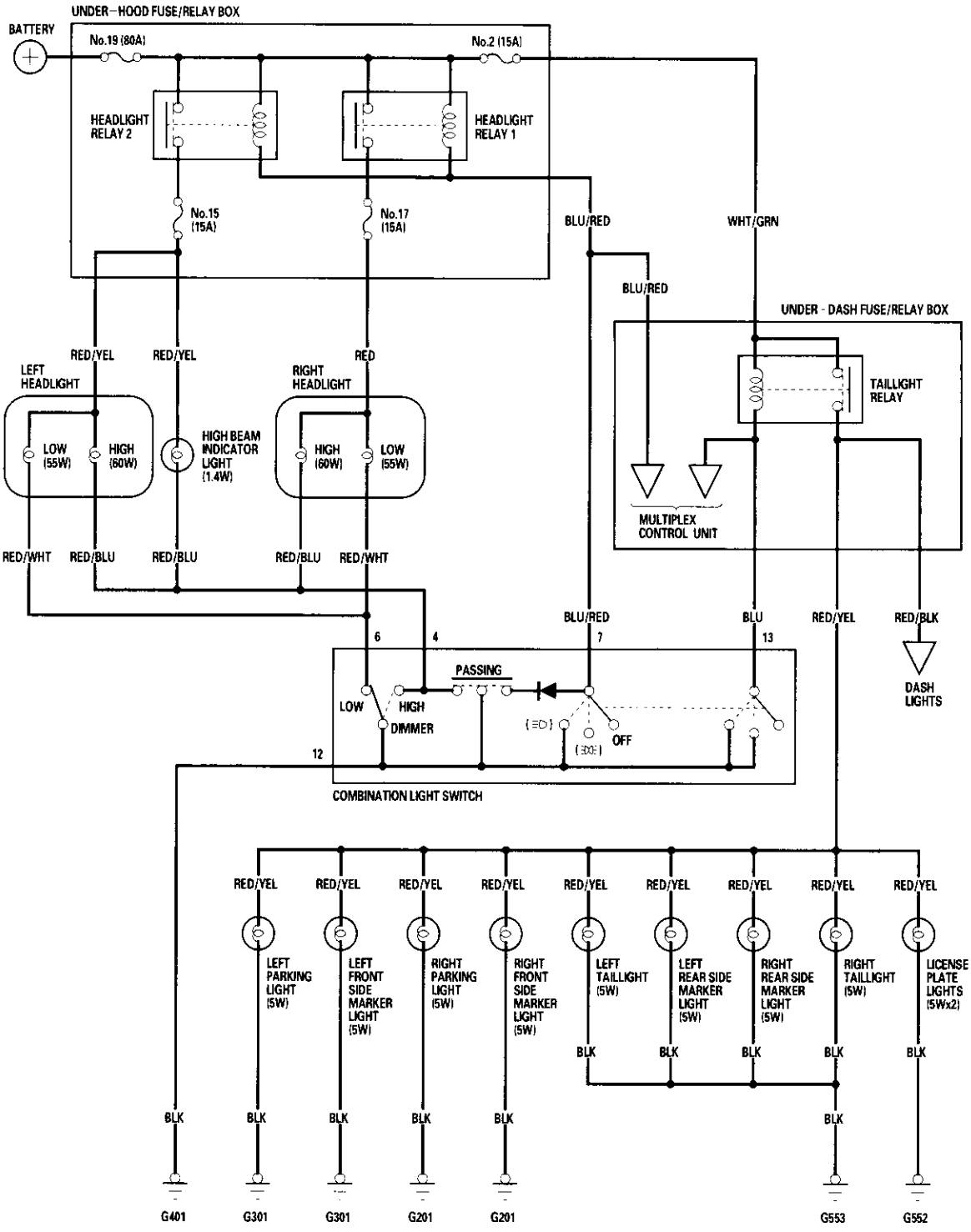

HIGH MOUNT BRAKE LIGHT
Replacement, page 22-82
LICENSE PLATE LIGHTS
Replacement, page 22-83
BACK-UP LIGHT
Replacement, page 22-82
TAILLIGHTS and BRAKE LIGHTS
Replacement, page 22-82
REAR TURN SIGNAL LIGHT
Replacement, page 22-82
REAR SIDE MARKER LIGHT
Replacement, page 22-83

(cont'd)

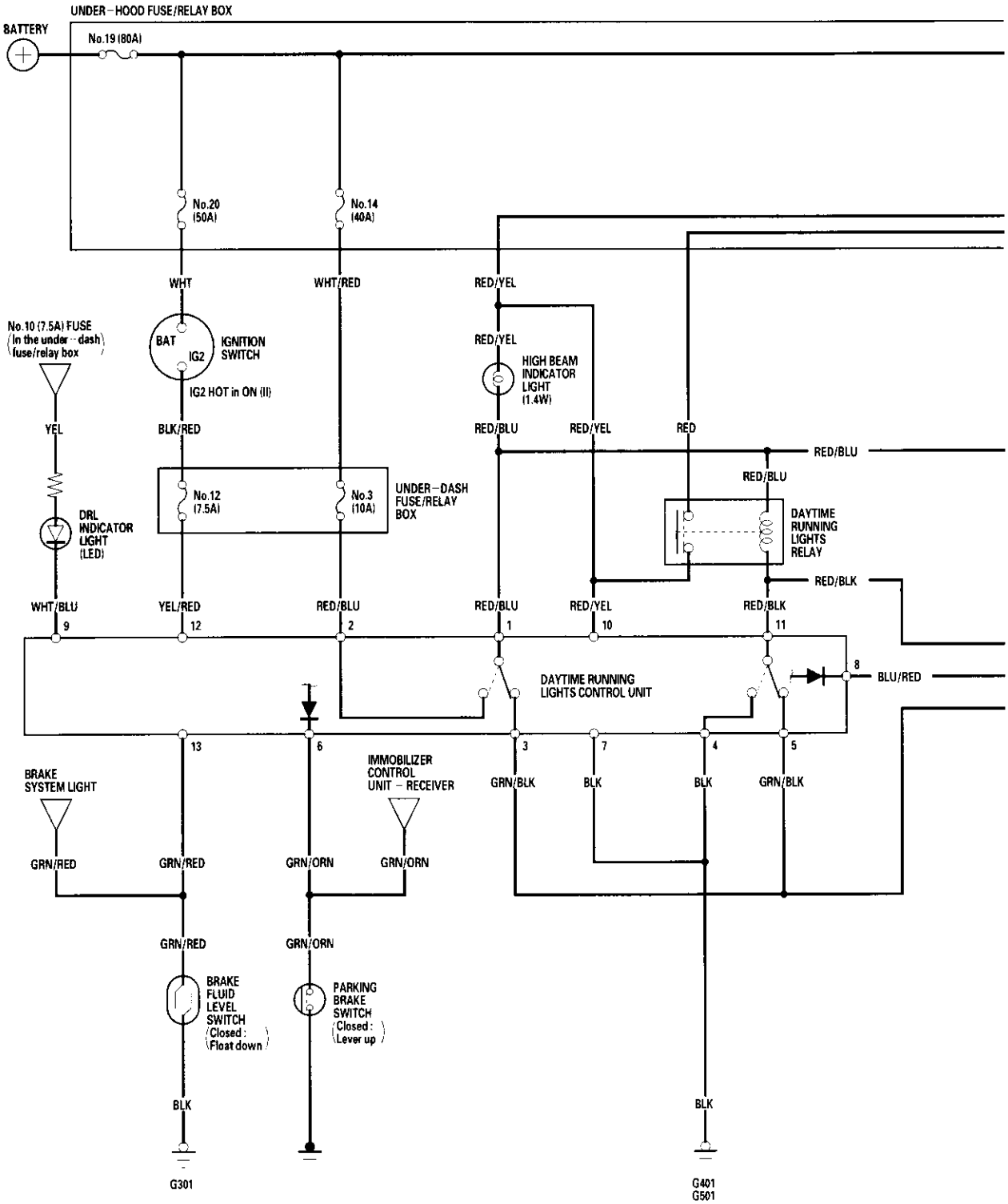
Component Location Index (cont'd)

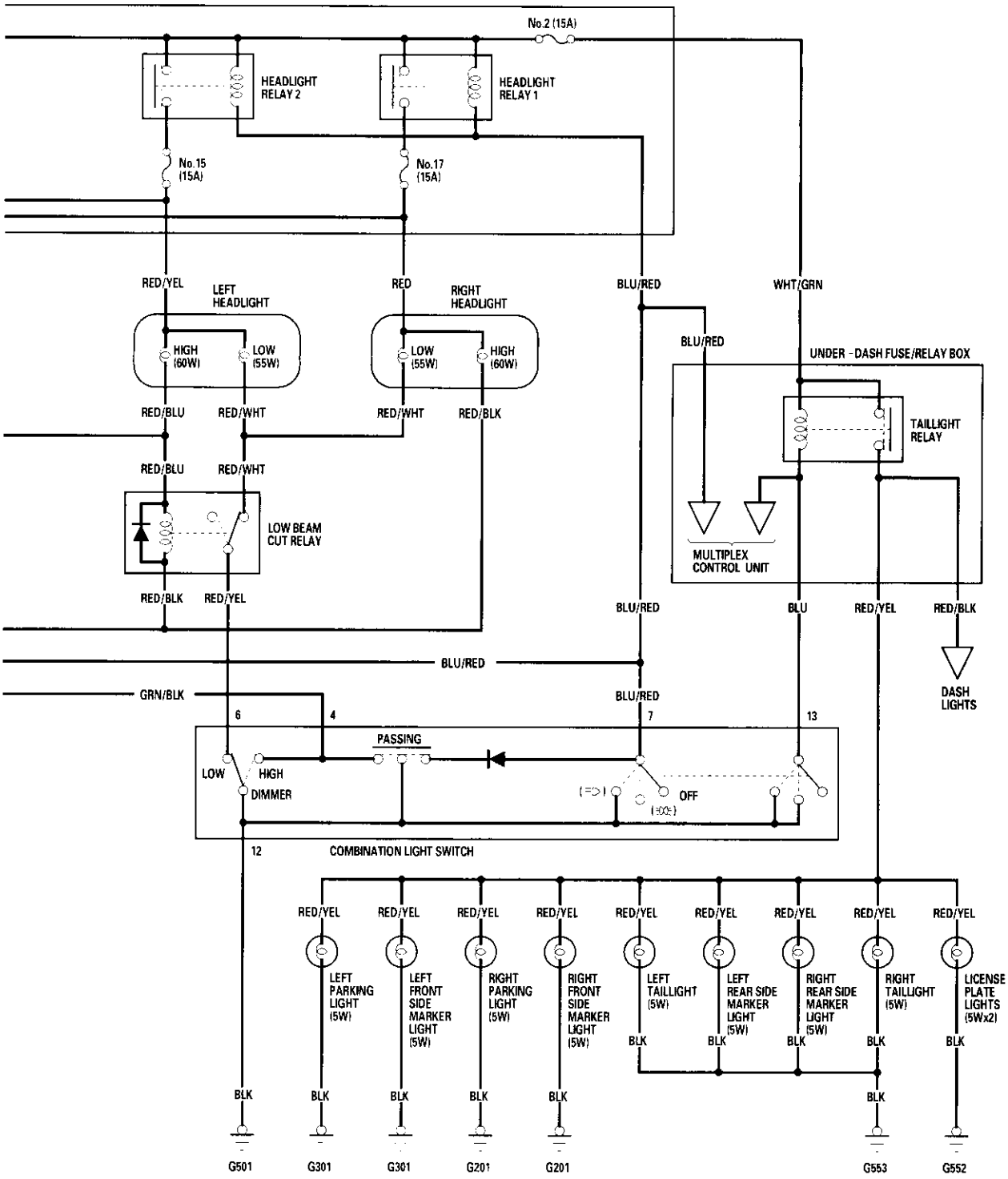


Circuit Diagram - USA

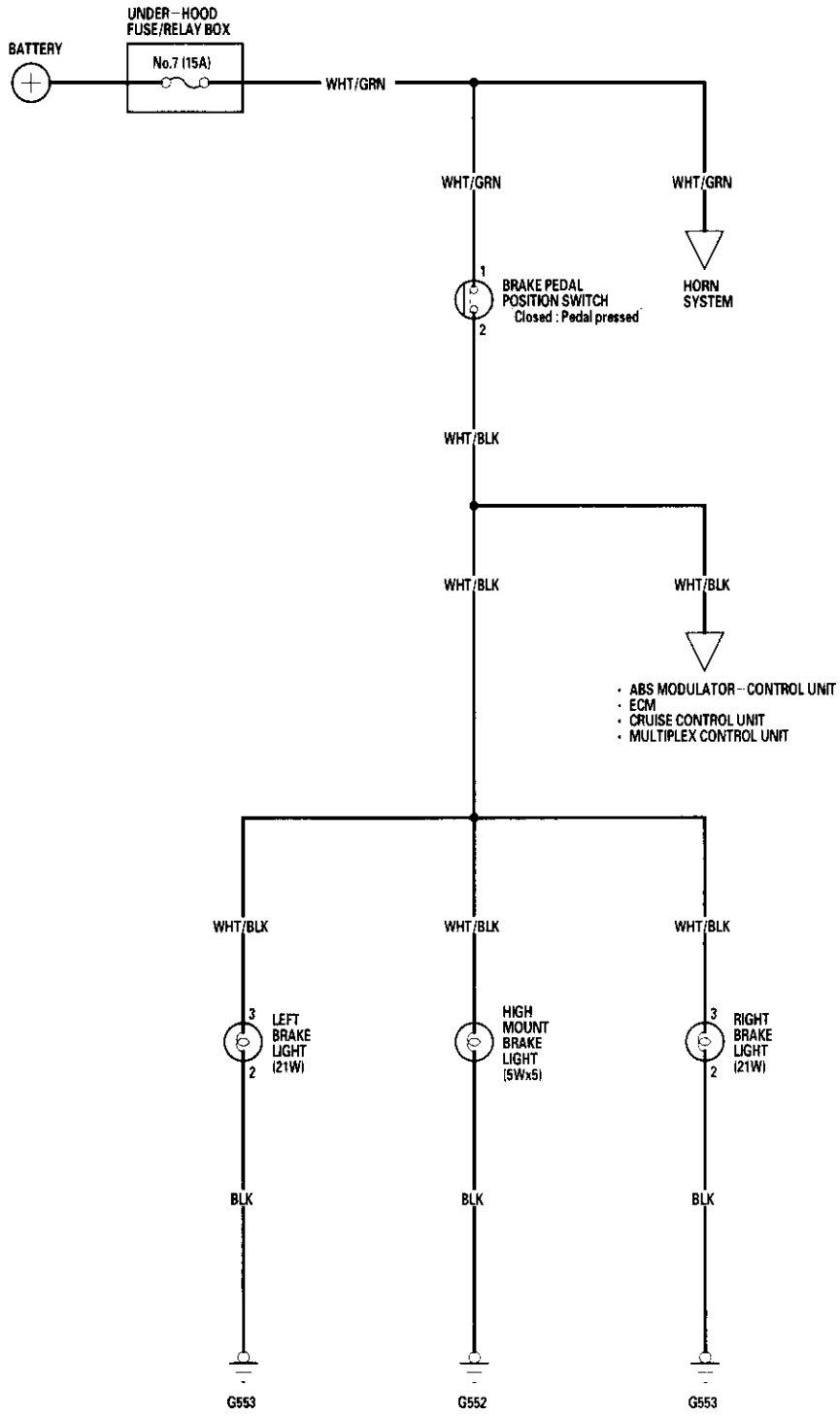


Circuit Diagram - Canada

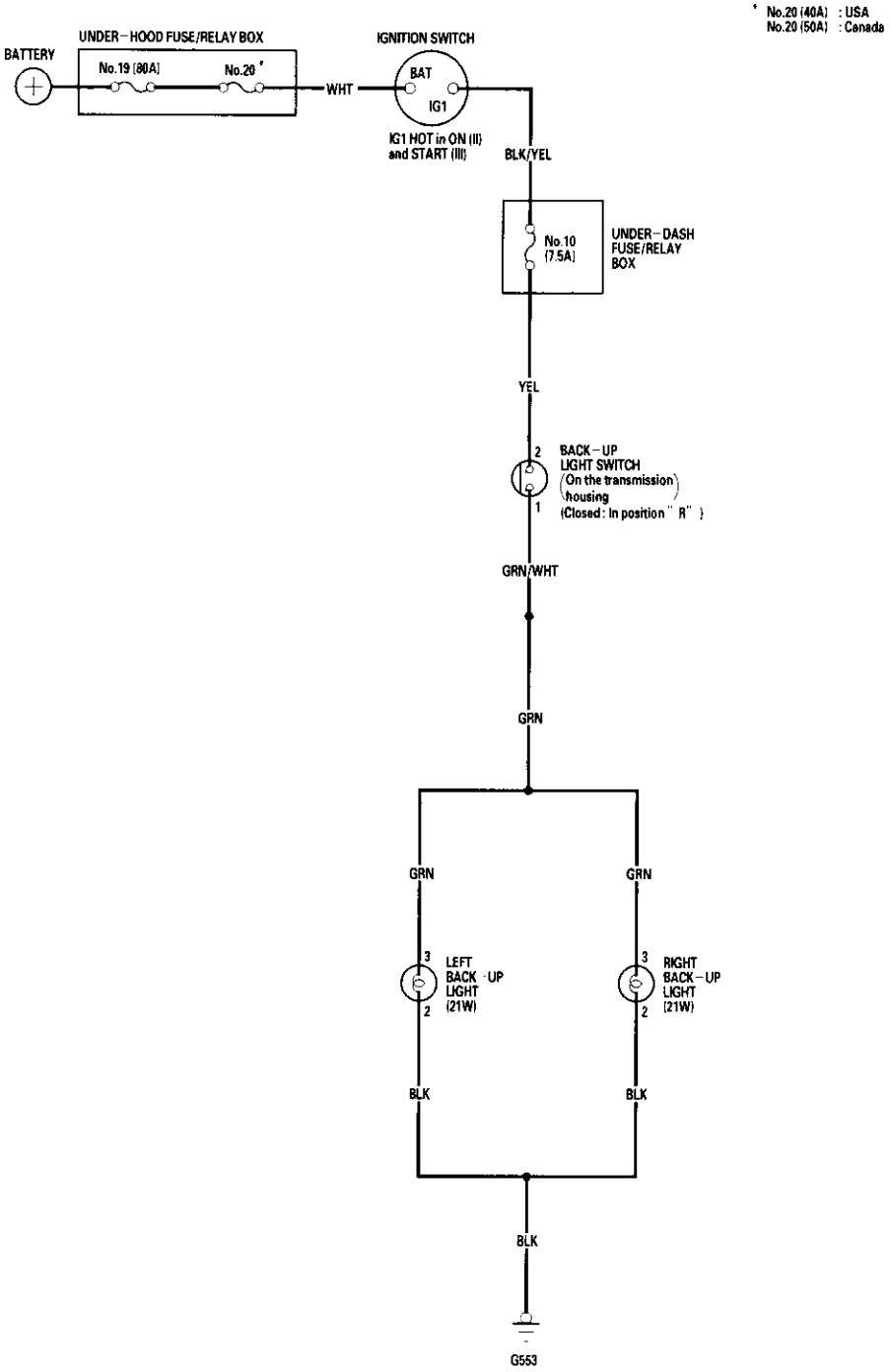



No.2 (15A)
HEADLIGHT RELAY 2
HEADLIGHT RELAY 1
No.15 (15A)
No.17 (15A)
RED/YEL
LEFT HEADLIGHT
RED
RIGHT HEADLIGHT
BLU/RED
WHT/GRN
HIGH (60W)
LOW (55W)
LOW (55W)
HIGH (60W)
BLU/RED
UNDER - DASH FUSE/RELAY BOX
TAILLIGHT RELAY
RED/BLU
RED/WHT
RED/WHT
RED/BLK
RED/BLU
RED/WHT
LOW BEAM CUT RELAY
MULTIPLEX CONTROL UNIT
RED/BLK
RED/YEL
BLU/RED
BLU
RED/YEL
RED/BLK
DASH LIGHTS
BLU/RED
GRN/BLK
BLU/RED
6
4
7
13
PASSING
LOW
HIGH
DIMMER
OFF
12
COMBINATION LIGHT SWITCH
RED/YEL
LEFT PARKING LIGHT (5W)
LEFT FRONT SIDE MARKER LIGHT (5W)
RIGHT PARKING LIGHT (5W)
RIGHT FRONT SIDE MARKER LIGHT (5W)
LEFT TAILLIGHT (5W)
LEFT REAR SIDE MARKER LIGHT (5W)
RIGHT REAR SIDE MARKER LIGHT (5W)
RIGHT TAILLIGHT (5W)
LICENSE PLATE LIGHTS (5Wx2)
BLK
G501
G301
G301
G201
G201
G553
G552

Circuit Diagram - Brake Lights



Circuit Diagram - Back-up Lights



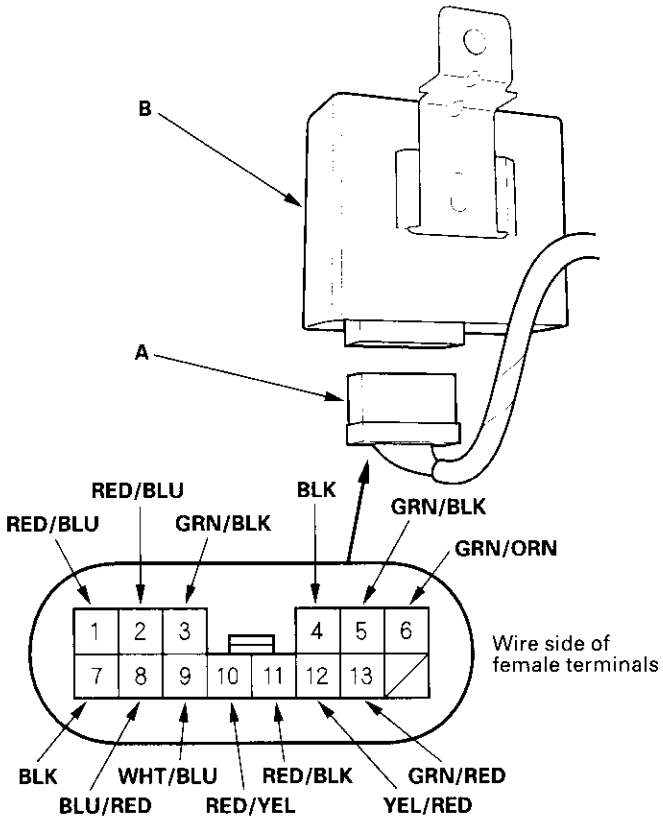
Daytime Running Lights Control Unit Input Test - Canada

The DRL indicator light in the gauge assembly will come on when you turn the ignition switch to ON (II) with the headlight switch off and the parking brake set. It should go off when you turn on the headlight switch and release the parking brake. If it comes on at any other time, do the control unit input test.

NOTE: When the daytime running lights are on, the high beam indicator will glow at half its normal intensity.

1. Remove the driver's dashboard lower cover (see page 20-60).

2. Disconnect the 14P connector (A) from the daytime running lights 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. 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 it.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
2	RED/BLU	Under all conditions	Check for voltage to ground: There should be battery voltage.	• Blown No. 14 (40A) fuse in the under-hood fuse/relay box • Blown No. 3 (10A) fuse in the under-dash fuse/relay box • An open in the wire
12	YEL/RED	Ignition switch ON (II)	Check for voltage to ground: There should be battery voltage.	• Blown No. 12 (7.5A) fuse in the under-dash fuse/relay box • An open in the wire
4	BLK	Under all conditions	Check for continuity to ground: There should be continuity.	• Poor ground (G501) • An open in the wire
7	BLK	Under all conditions	Check for continuity to ground: There should be continuity.	• Poor ground (G501) • An open in the wire
10	RED/YEL	Combination light switch ON (≣D)	Check for voltage to ground: There should be battery voltage.	• Blown No. 15 (15A) fuse in the under-hood fuse/relay box • Faulty headlight relay 2 • Faulty combination light switch • An open in the wire
1	RED/BLU	Combination light switch ON (≣D), and dimmer switch in HIGH	Connect a jumper wire between No. 3 and No. 1 terminals. Both headlights (HIGH) and high beam indicator light should come on.	• Blown bulb • Faulty low beam cut relay • Faulty combination light switch • Poor ground (G501) • An open in the wire
11	RED/BLK	Combination light switch ON (≣D), and dimmer switch in HIGH	Connect a jumper wire between No. 5 and No. 11 terminals. Right headlight (HIGH) should come on.	• Blown bulb • Faulty combination light switch • Poor ground (G501) • An open in the wire
3 5	GRN/BLK	Combination light switch ON (≣D), and dimmer switch in HIGH	Check for continuity to ground: There should be continuity.	• Faulty combination light switch • Poor ground (G501) • An open in the wire
6	GRN/ORN	Parking brake lever pulled	Check for continuity to ground: There should be continuity.	• Faulty parking brake switch • An open in the wire
8	BLU/RED	Combination light switch OFF	Check for voltage to ground: There should be battery voltage.	• Faulty headlight relays • Short to ground • An open in the wire
9	WHT/BLU	Ignition switch ON (II)	Attach to ground: The DRL indicator light should come on.	• Blown No. 10 (7.5A) fuse in the under-dash fuse/relay box • Faulty DRL indicator • An open in the wire
13	GRN/RED	Ignition switch ON (II)	Attach to ground: The brake system light should come on.	• Faulty brake system indicator • An open in the wire

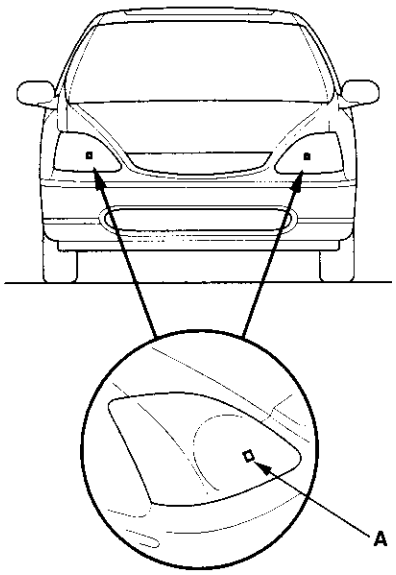
Headlight Adjustment

⚠CAUTION

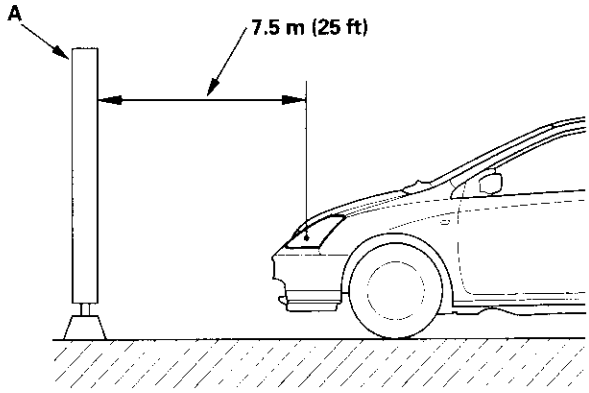
Headlights become very hot during use; do not touch them or any attaching hardware immediately after they have been turned off.

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 of the headlights (A).



2. Park the vehicle 7.5 m (25 ft) away from a wall or a screen (A).

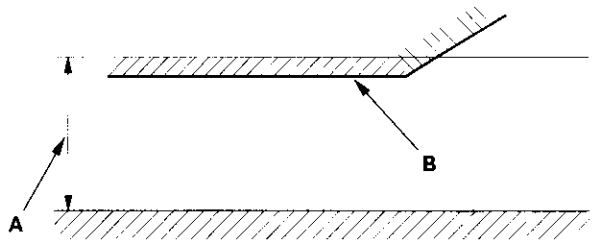


3. Open the hood.

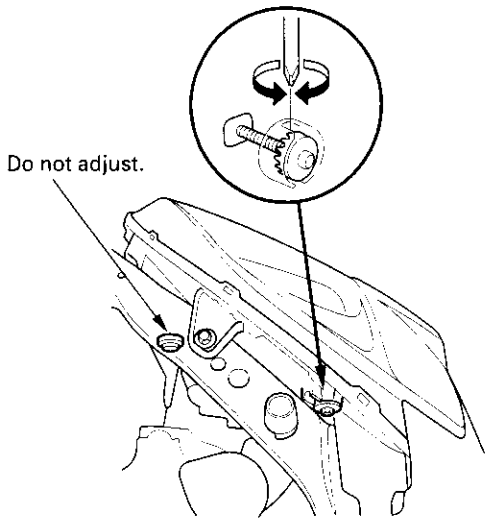
4. Turn the low beams on.

5. Determine if the headlights are aimed properly.

   Vertical adjustment:
   Measure the height of the headlights (A). The lights should reflect 52 mm (2.1 in.) below headlight height (B).



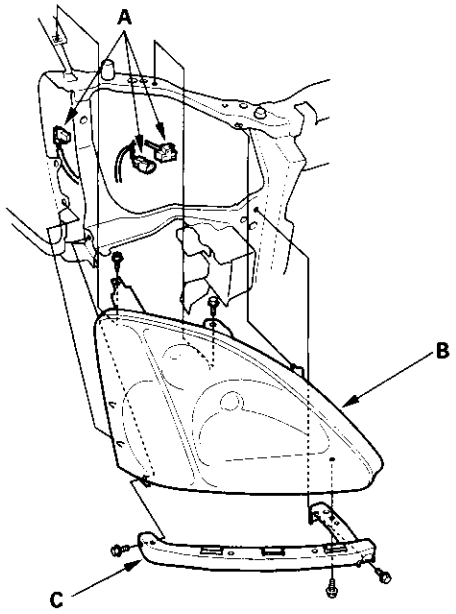
6. If necessary, adjust the headlights to local requirements by turning the vertical adjuster.



Headlight Replacement

1. Remove the front bumper (see page 20-85).

2. Disconnect the connectors (A) from the headlight (B).



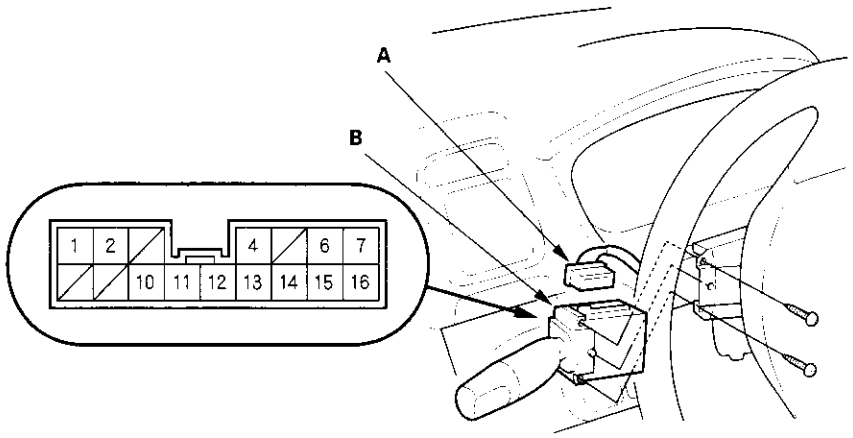
3. Remove the five mounting bolts, then remove the corner upper beam (C) and headlight assembly.

4. Install in the reverse order of removal.

5. After replacement, adjust the headlights to local requirements.

Combination Light Switch Test/Replacement

1. Remove the driver's dashboard lower cover (see page 20-60).
2. Remove the steering column covers (see page 17-9).
3. Disconnect the 16P connector (A) from the combination light switch (B).



4. Remove the two screws, then slide out the combination light switch.
5. Inspect the connector terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
   - If the terminals look OK, check for continuity between the terminals in each switch position according to the tables.
     - If the continuity is not as specified, replace the switch.

Light switch:

Position \ Terminal			4	5	6	7		12	13
Headlight switch	OFF				○	——	——	○	
	≡◯							○	○
	≡D	LOW			○	——	——	○	○
		HIGH	○	——	——	○	——	○	○
Passing switch	OFF								
	ON		○	——	○	——	▶	○	
								○	

Turn signal switch:

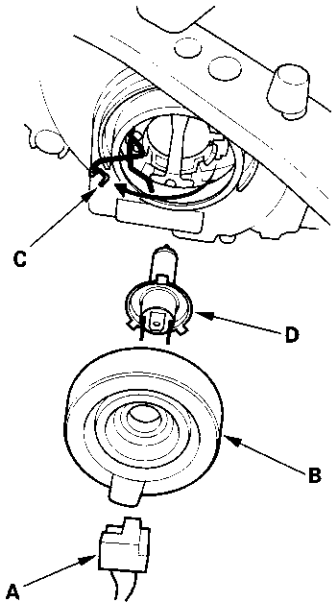
Position \ Terminal	2	10	11
LEFT	○	—— ○	
NEUTRAL			
RIGHT		○ ——	○

Bulb Replacement

Headlight:

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

Headlight (high/low): 60/55 W

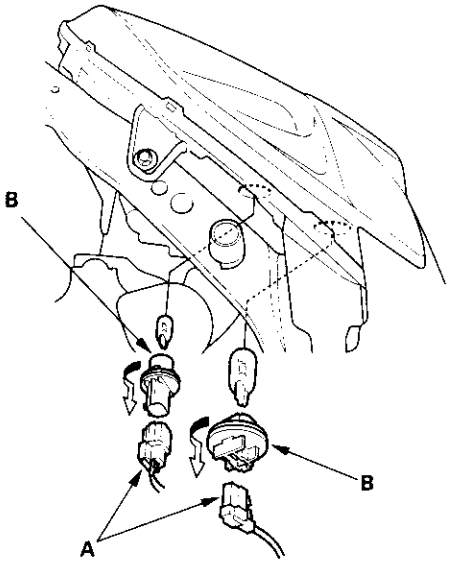


2. Remove the rubber cover (B).
3. Pull the retaining spring (C) away from the bulb (D), then remove the bulb.
4. Install a new bulb in the reverse order of removal. Make sure the notches in the bulb align with the tabs in the headlight.

Front Turn Signal Light: Parking Light:

1. Remove the inner fender (see page 20-102).
2. Disconnect the connectors (A) from the lights.

Front turn signal light:	**21 W**
Parking light:	**5 W**

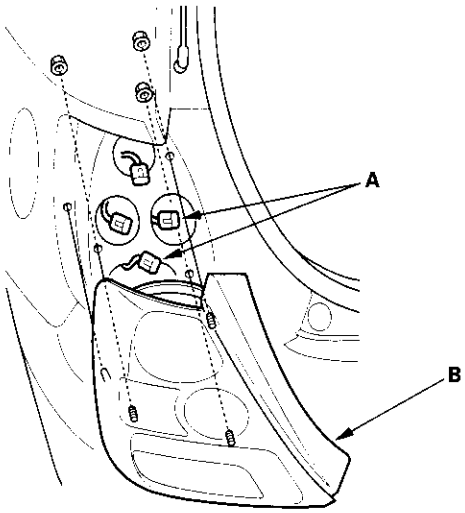


3. Turn the bulb sockets (B) 45° counterclockwise to remove them from the headlight housing.
4. Install the new bulb(s) in the reverse order of removal.

Taillight Replacement

1. Remove the rear bumper (see page 20-86).
2. Open the tailgate, and disconnect the connectors (A) from the taillight (B).

Brake/Taillight: **21/5 W**
Turn Signal Light: **21 W**
Back-up Light: **21 W**

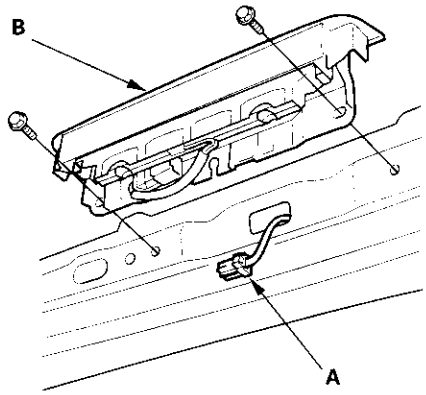


3. Remove the mounting nuts and bolts, then remove the taillight.
4. Turn the bulb socket 45° counterclockwise to remove the bulb socket.
5. When installing the taillight, check the gasket; if it is distorted or stays compressed, replace it.
6. After installing the taillight, run water over the taillight to make sure it does not leak.

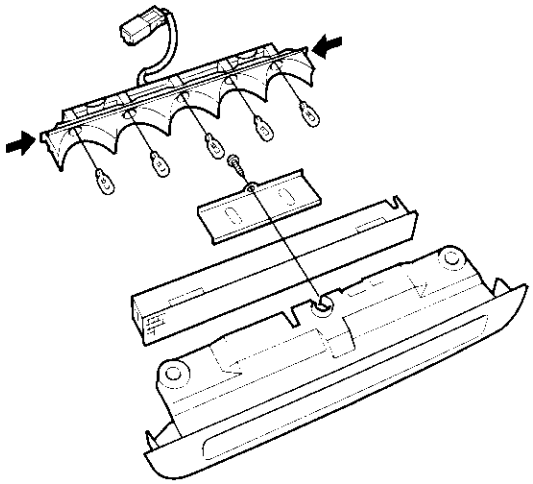
High Mount Brake Light Replacement

1. Open the hatch.
2. Remove the plastic trim.
3. Disconnect the 2P connectors (A) from the high mount brake light (B).

High Mount Brake Light: **5 W x 5**



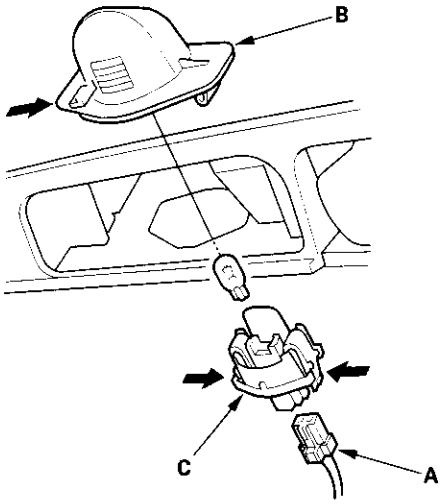
4. Carefully remove the high mount brake light.
5. Install the light in the reverse order of removal.



License Plate Light Replacement

1. Remove the hatch lower trim panel (see page 20-53).
2. Pull the license plate light assembly out, and disconnect the 2P connector (A) from the light.

License Plate Light: 5 W x 2

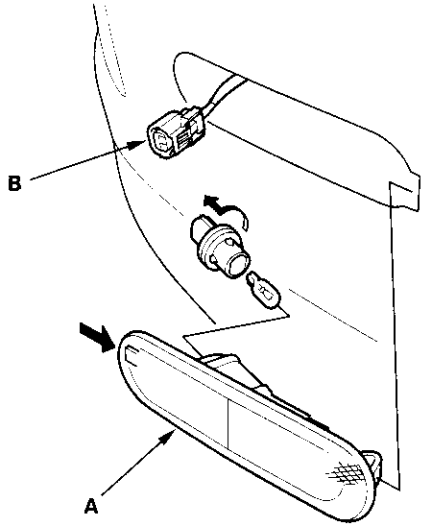


3. Separate the lens (B) and housing (C), then remove the bulb.
4. Install the light in the reverse order of removal.

Side Marker Light Replacement

1. Carefully pry the light (A) out of the rear bumper, and disconnect the 2P connector (B) from the light. Be careful not to damage the rear bumper.

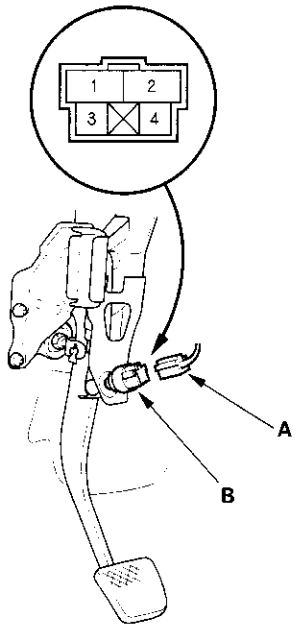
Side Marker Light: 5 W



2. Remove the bulb socket (A) by turning it 45° counterclockwise, then replace the bulb.

Brake Pedal Position Switch Test

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



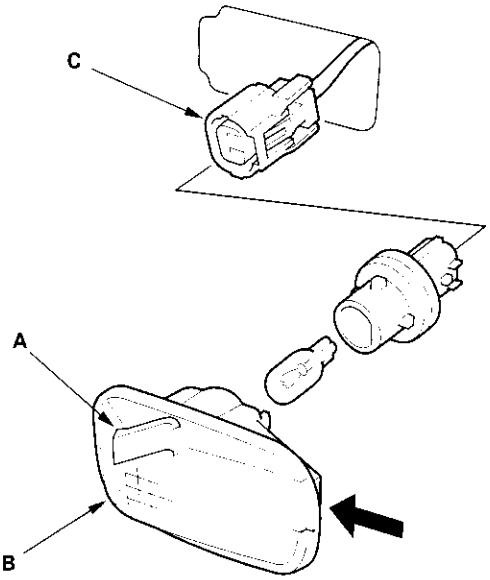
2. Check for continuity between the No. 1 and No. 2 terminals.
   - There should be continuity when the brake pedal is pressed.
   - There should be no continuity when the brake pedal is released.
3. Check for continuity between the No. 3 and No. 4 terminals (with cruise control).
   - There should be 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).

Side Turn Signal Light Replacement

NOTE: Be careful not to damage the fender.

1. Push the retaining spring (A), and remove the side turn signal light (B).

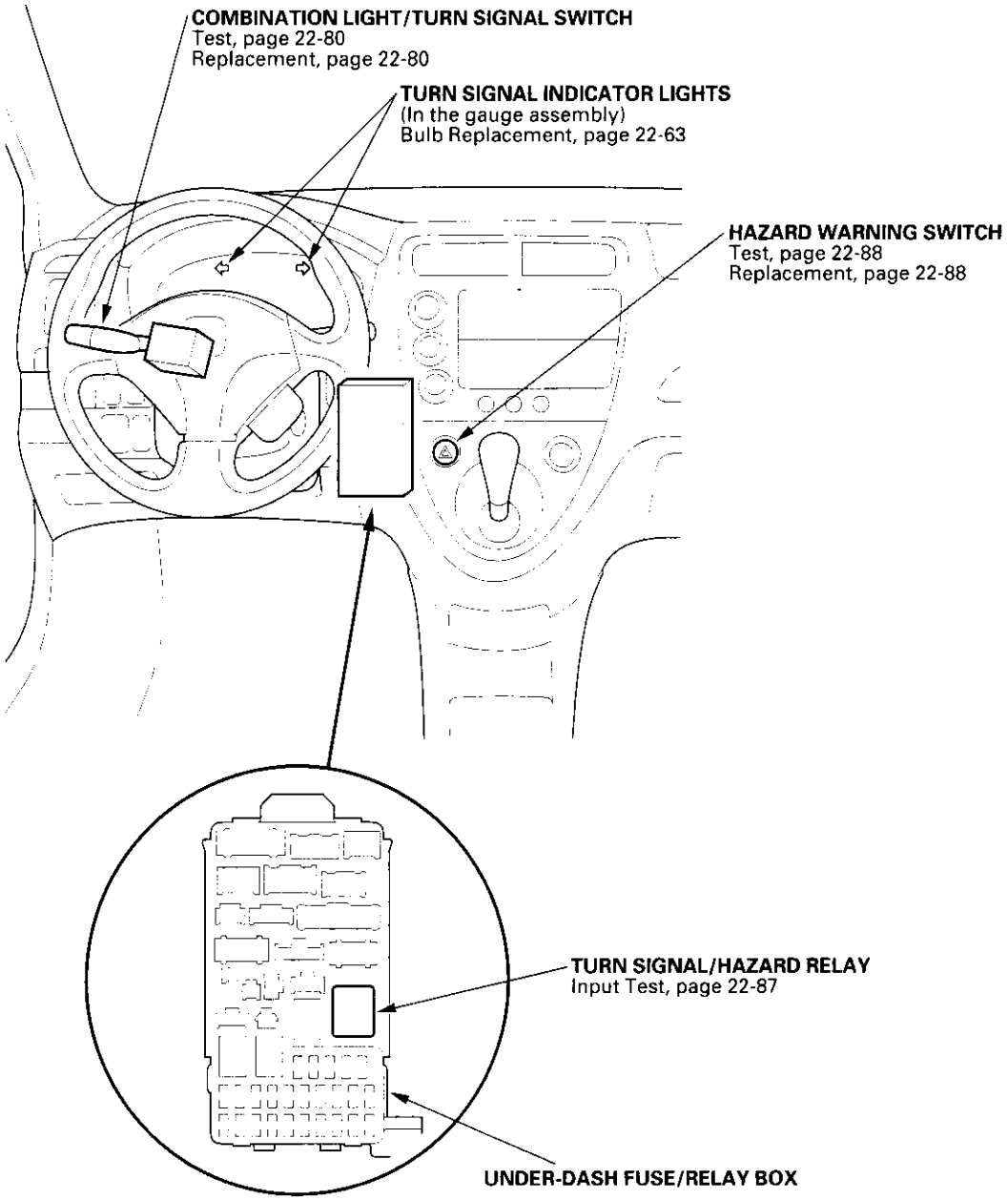
Side Turn Signal Light: 5 W



2. Disconnect the 2P connector (C) from the light.

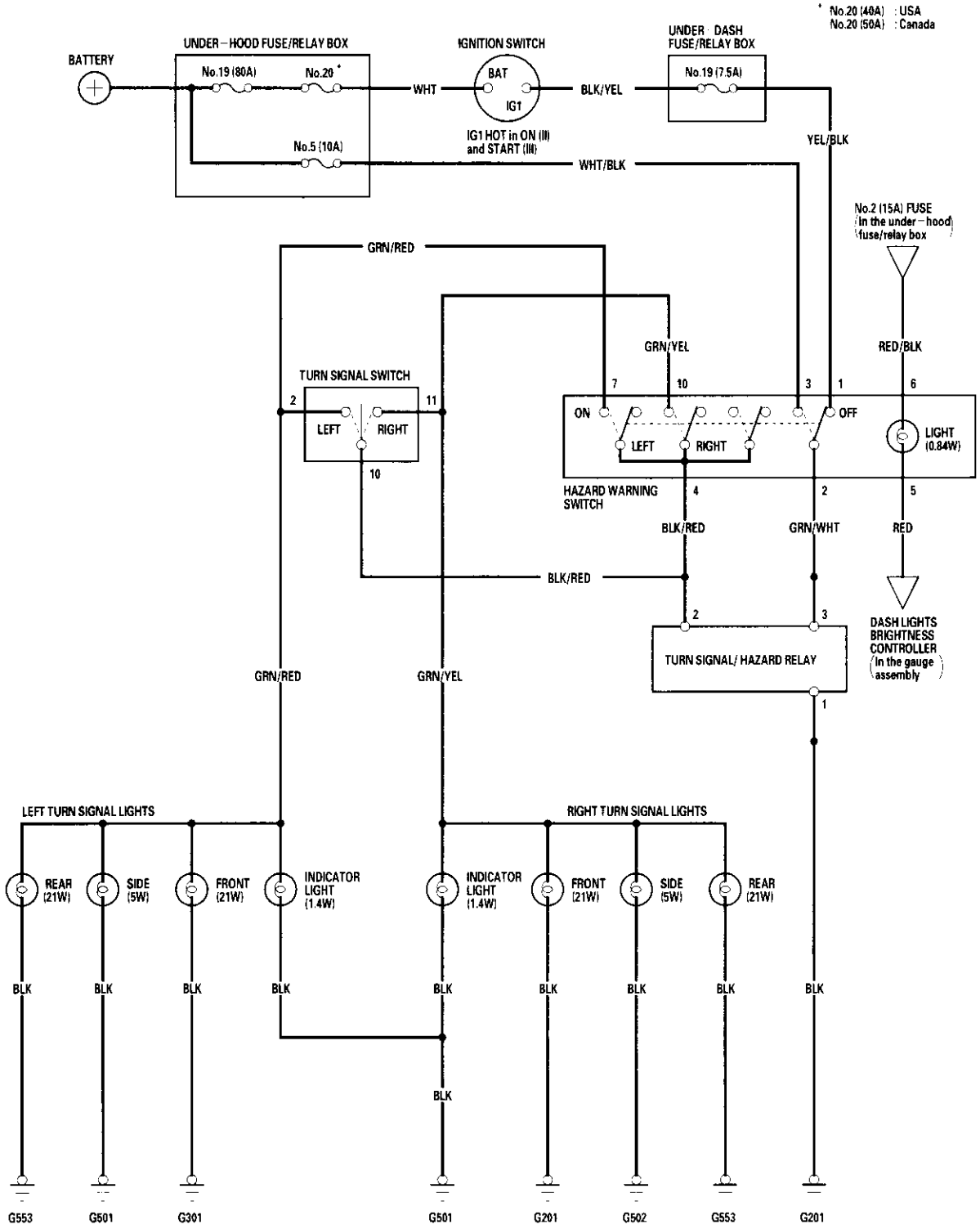
Turn Signal/Hazard Flasher

Component Location Index



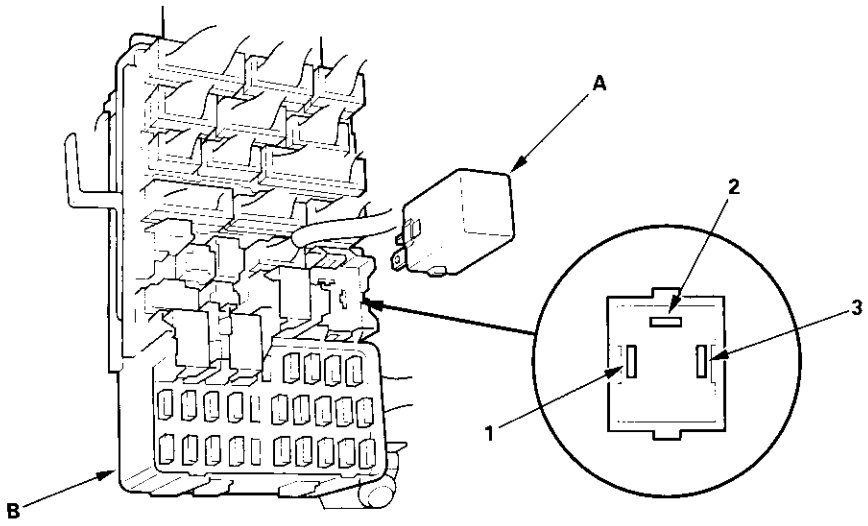
Turn Signal/Hazard Flasher

Circuit Diagram



Turn Signal/Hazard Relay Input Test

1. Remove the turn signal/hazard relay (A) from the under-dash fuse/relay box (B).



2. Inspect the relay and fuse/relay box 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 3.

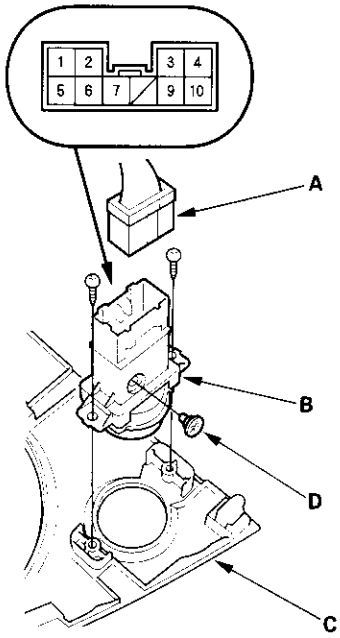
3. Make these input tests at the fuse/relay box.

   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, the turn signal/hazard relay must be faulty. Replace it.

Cavity	Test condition	Test: Desired result	Possible cause if result is not obtained
1	Under all conditions	Check for continuity to ground: There should be continuity.	• Poor ground (G201) • An open in the wire
3	Ignition switch ON (II) Hazard warning switch OFF	Check for voltage to ground: There should be battery voltage.	• Blown No. 19 (7.5A) fuse in the under-dash fuse/relay box • Faulty hazard warning switch • An open in the wire
	Hazard warning switch ON Ignition switch OFF	Check for voltage to ground: There should be battery voltage.	• Blown No. 5 (10A) fuse in the under-hood fuse/relay box • Faulty hazard warning switch • An open in the wire
2	Ignition switch ON (II) and turn signal switch in Right or Left position	Connect No. 2 terminal to No. 3 terminal: Right or left turn signal lights should come on.	• Poor ground (G201, G301, G501, G502, G553) • Faulty turn signal switch • An open in the wire
	Ignition switch OFF Hazard warning switch ON	Connect No. 2 terminal to No. 3 terminal: Hazard warning lights should come on.	• Poor ground (G201, G301, G501, G502, G553) • Faulty hazard warning switch • An open in the wire

Hazard Warning Switch Test

1. Remove the center panel (see page 20-62).
2. Disconnect the 10P connector (A) from the hazard warning switch (B).

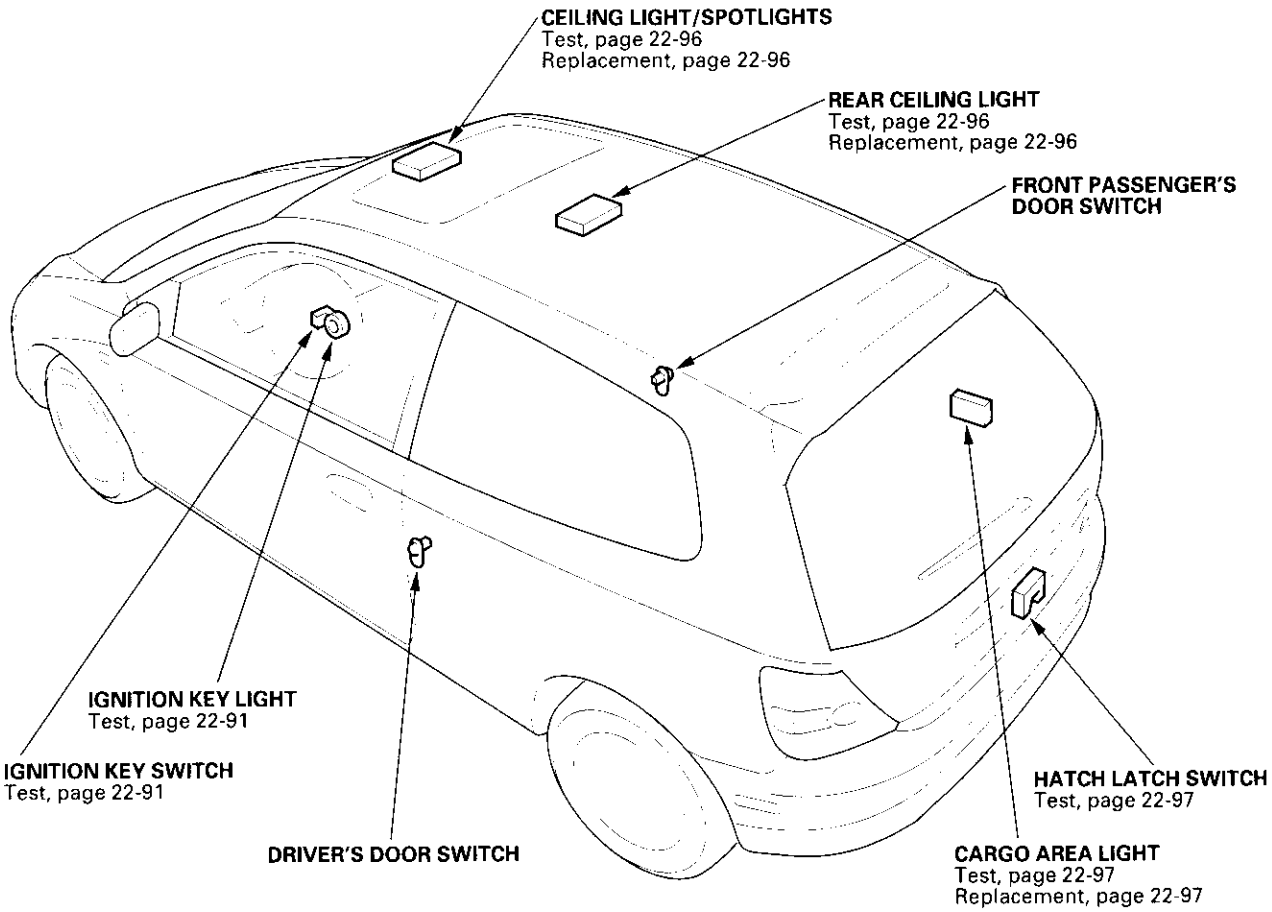


3. Push out the hazard warning switch from behind the center panel (C).
4. Check for continuity between the terminals in each switch position according to the table.
5. If the continuity is not as specified, replace the bulb (D) or the hazard warning switch.

Terminal / Position	5		6	1	2	3	4	7	10
OFF	○	⊗	○	○	○				
ON	○	⊗	○		○	○	○	○	○

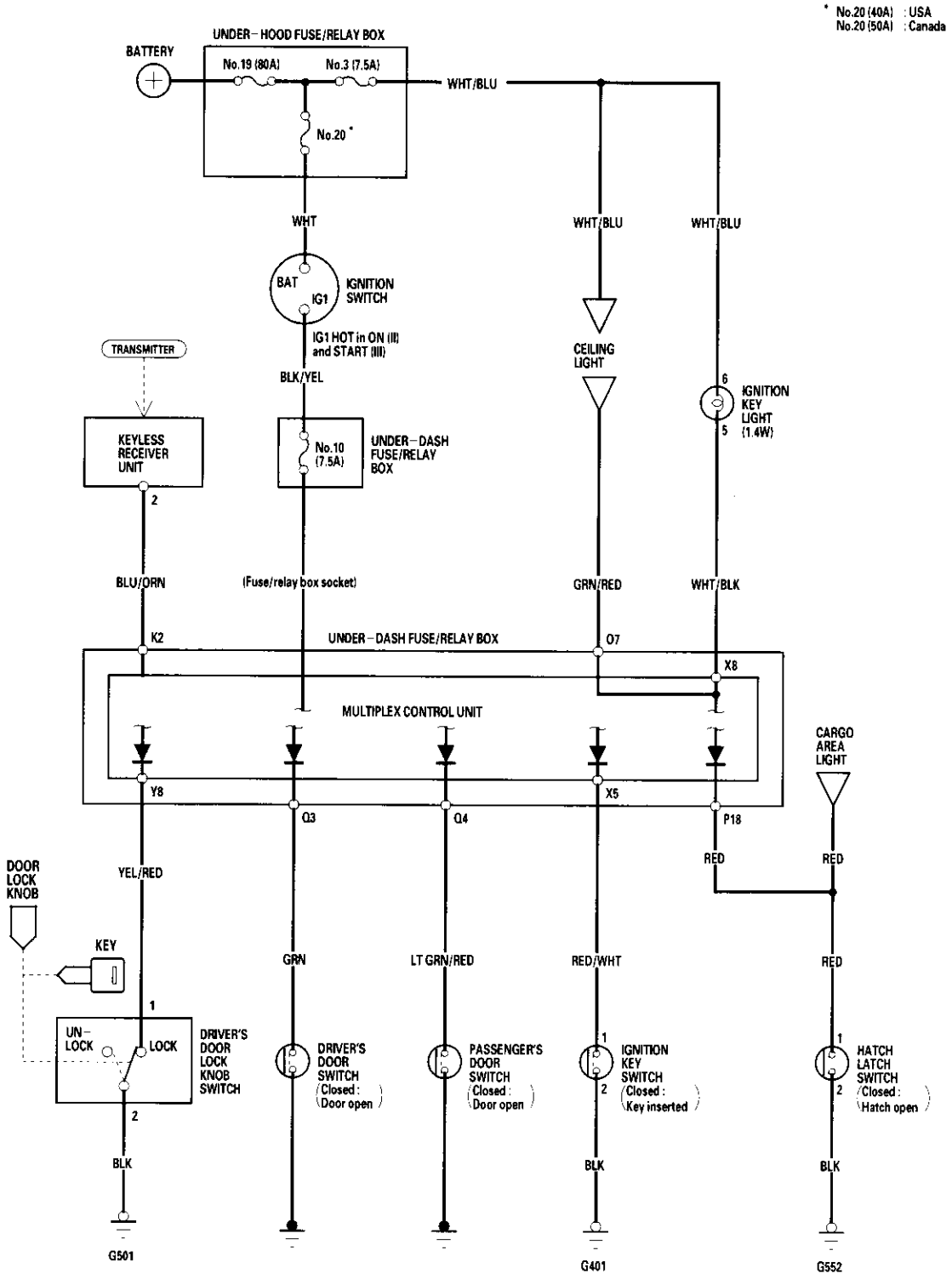
Entry Light Control System

Component Location Index



Entry Light Control System

Circuit Diagram

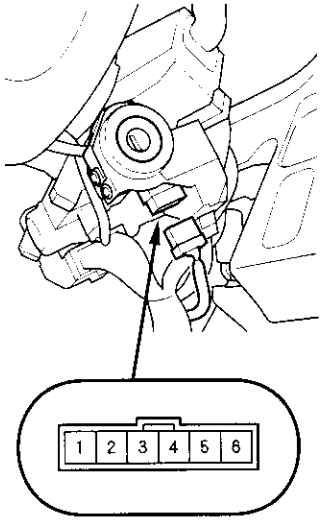


Ignition Key Switch Test

NOTE: For more key-in beeper information, refer to the circuit diagram (see page 22-90) and input test (see page 22-92).

When the ignition key is in the ignition switch the multiplex control unit senses ground through the closed ignition key switch. When you open the driver's door, the multiplex control unit senses ground through the closed door switch and sounds the beeper.

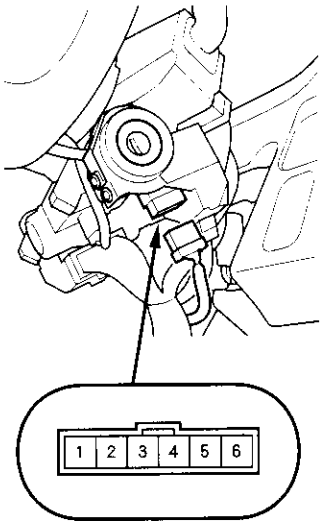
1. Remove the steering column upper and lower covers (see page 17-9).
2. Disconnect the 6P connector.



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 from the ignition switch.
4. If the continuity is not as specfied, replace the ignition switch.

Ignition Key Light Test

1. Remove the steering column upper and lower covers (see page 17-9).
2. Disconnect the 6P connector.



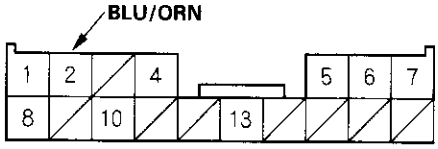
3. The LED should come on when power is connected to the No. 6 terminal and ground is connected to No. 5 terminal.
4. If the LED does not come on, replace the ignition switch.

Control Unit Input Test

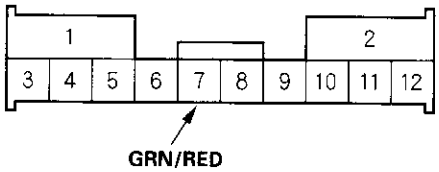
1. Before testing, troubleshoot the multiplex control system (see page 22-172).
2. Remove the dashboard lower cover.
3. Disconnect the under-dash fuse/relay box connectors.

   NOTE: All connectors are wire side of female terminals.

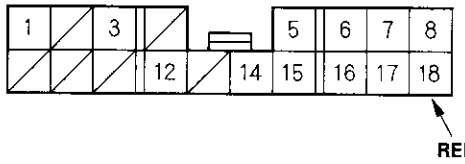
UNDER-DASH FUSE/RELAY BOX CONNECTOR K (17P)



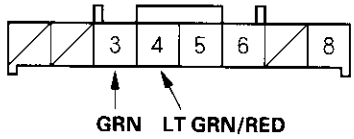
UNDER-DASH FUSE/RELAY BOX CONNECTOR O (12P)



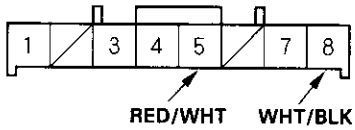
UNDER-DASH FUSE/RELAY BOX CONNECTOR P (18P)



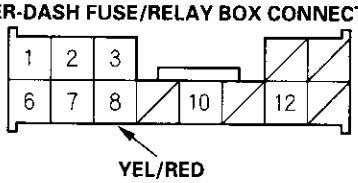
UNDER-DASH FUSE/RELAY BOX CONNECTOR Q (8P)



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



UNDER-DASH FUSE/RELAY BOX CONNECTOR Y (13P)



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 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
K2	BLU/ORN	Under all conditions	Check for continuity between the K2 terminal and the keyless receiver unit 5P connector No. 2 terminal: There should be continuity.	• An open in the wire
O7	GRN/RED	Ceiling light switch in middle position.	Attach to ground: Ceiling light(s) should come on.	• Blown No. 3 (7.5A) fuse in the under-hood fuse/relay box • Blown bulb • Faulty ceiling light • An open in the wire
X8	WHT/BLK	Under all conditions	Attach to ground: Ignition key light should come on.	• Blown No. 3 (7.5A) fuse in the under-hood fuse/relay box • Faulty ignition key light (LED) • An open in the wire

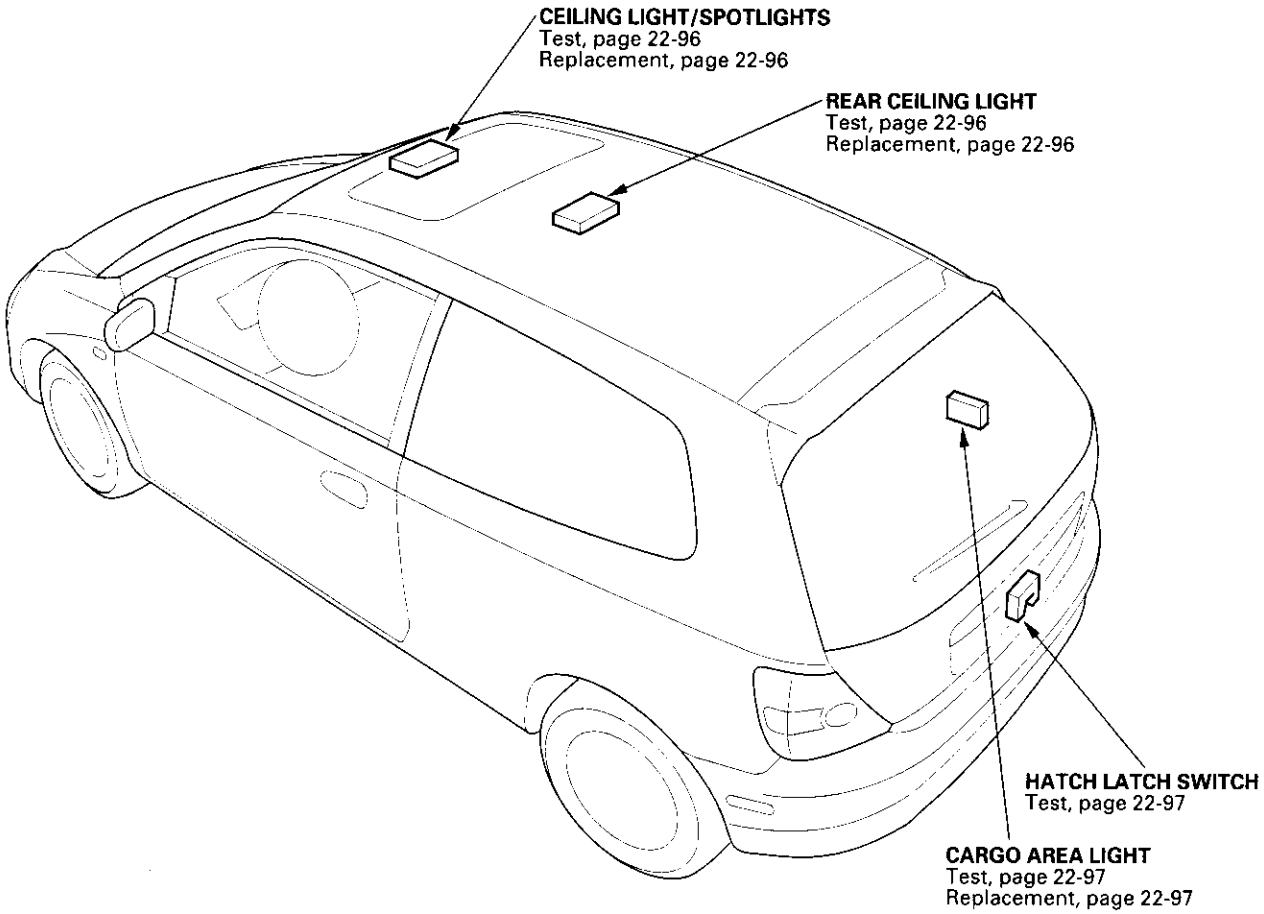
6. Reconnect the connectors to the under-dash fuse/relay box, and make these input tests at the appropriate connectors on the under-dash fuse/relay box.

   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, the multiplex control unit must be faulty. Replace the under-dash fuse/relay box assembly.

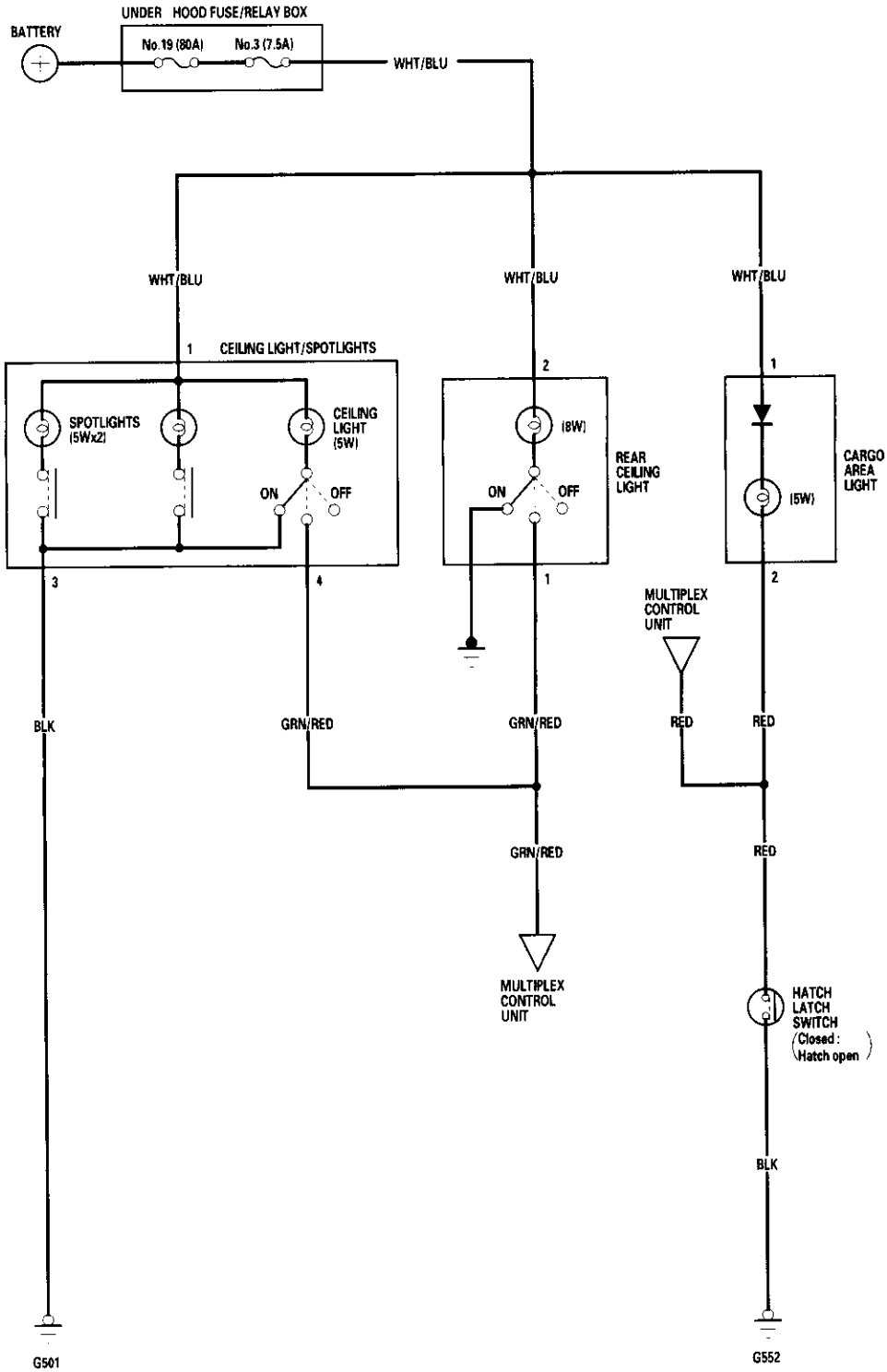
Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
P18	RED	Hatch open	Check for voltage to ground: There should be 1 V or less.	• Poor ground (G552) • Faulty hatch latch switch • An open in the wire
		Hatch closed	Check for voltage to ground: There should be 5 V or more.	• Faulty hatch latch switch • Short to ground
Q3	GRN	Driver's door open	Check for voltage to ground: There should be 1 V or less.	• 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
Q4	LT GRN/ RED	Passenger's door open	Check for voltage to ground: There should be 1 V or less.	• Faulty passenger's door switch • An open in the wire
		Passenger's door closed	Check for voltage to ground: There should be 5 V or more.	• Faulty passenger's door switch • Short to ground
X5	RED/WHT	Ignition key inserted into the ignition switch	Check for voltage to ground: There should be 1 V or less.	• Poor ground (G401) • 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
Y8	YEL/RED	Driver's door lock knob switch locked	Check for voltage to ground: There should be 1 V or less.	• Poor ground (G501) • Faulty driver's door lock knob switch • An open in the wire
		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

Interior Lights

Component Location Index



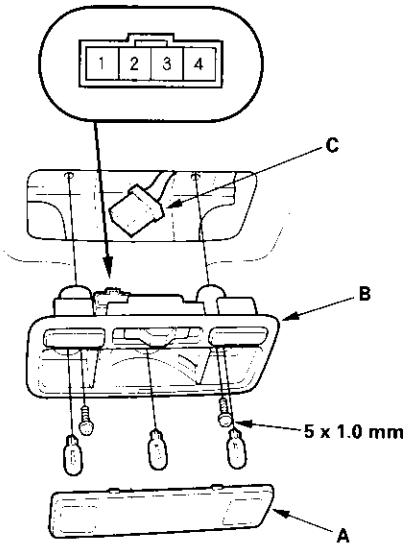
Circuit Diagram



Ceiling Light/Spotlights Test/ Replacement

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

Ceiling Light: 5 W
Spotlight: 5 W x 2



3. Remove the two screws and the housing (B).
4. Disconnect the 4P connector (C) from the housing.
5. Check for continuity between the terminals in each switch position according to the table.

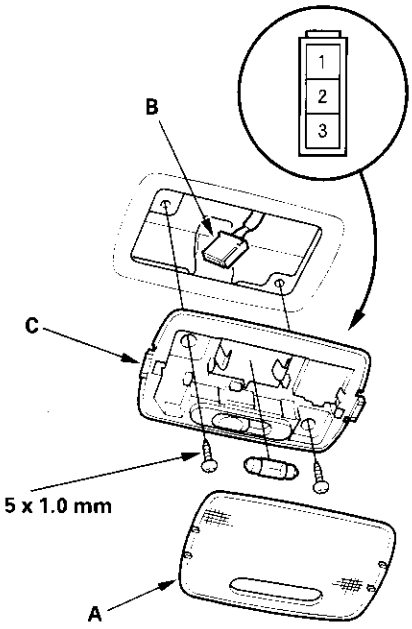
Position			Terminal 1	3	4
CEILING LIGHT (Spotlights OFF)		OFF			
		MIDDLE	○—⊙		—○
		ON	○—⊙	—○	
SPOTLIGHTS (Ceiling light OFF)	R	ON	○—⊙	—○	
		OFF			
	L	ON	○—⊙	—○	
		OFF			

6. If the continuity is not as specified, check the bulb. If the bulb is OK, replace the ceiling light/spotlights.

Rear Ceiling Light Test/ Replacement

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

Ceiling Light: 8 W



3. Remove the two mounting screws.
4. Disconnect the 3P connector (B) from the housing (C).
5. Check for continuity between the terminals in each switch position according to the table.

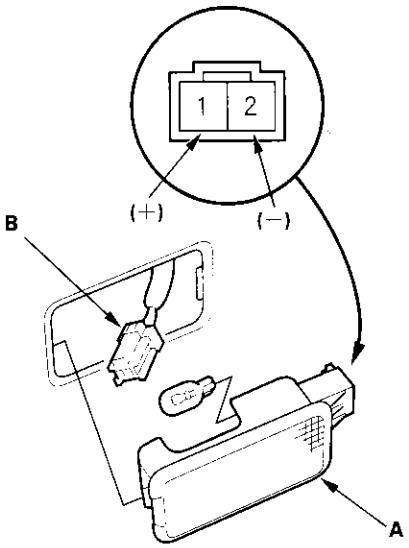
Position	Terminal 1	2	3
OFF			
MIDDLE	○—⊙	—○	
ON		○—⊙	—○

6. If the continuity is not as specified, check the bulb. If the bulb is OK, replace the rear ceiling light.

Cargo Area Light Test/Replacement

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

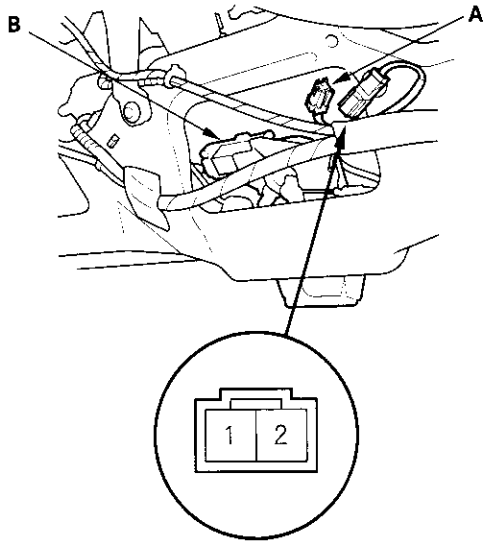
   Cargo Area Light: 5 W



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. If the bulb is OK, replace the cargo area light.

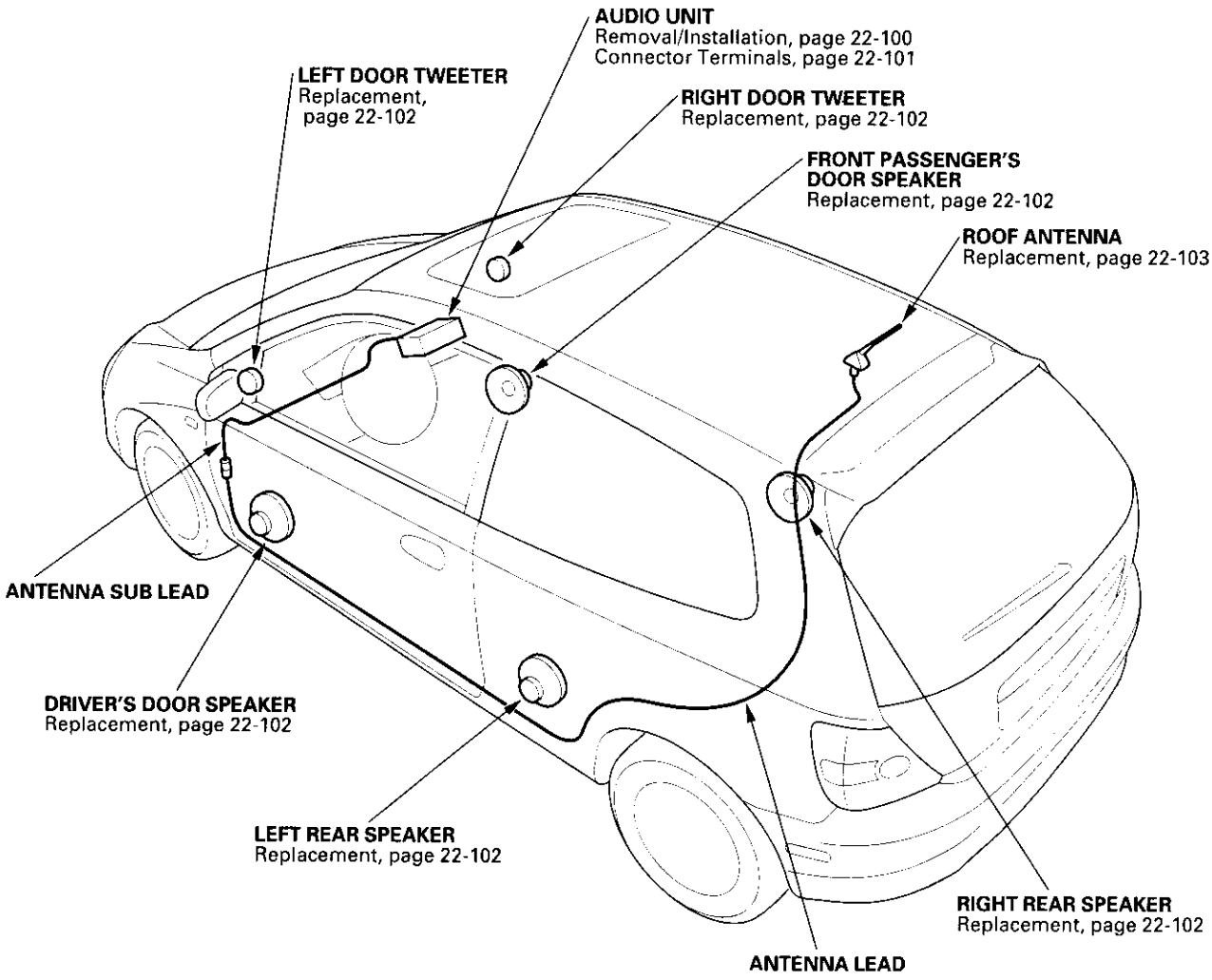
Hatch Latch Switch Test

1. Open the hatch.
2. Remove the hatch lower trim panel (see page 20-53).
3. Disconnect the 2P connector (A) from the hatch latch (B).

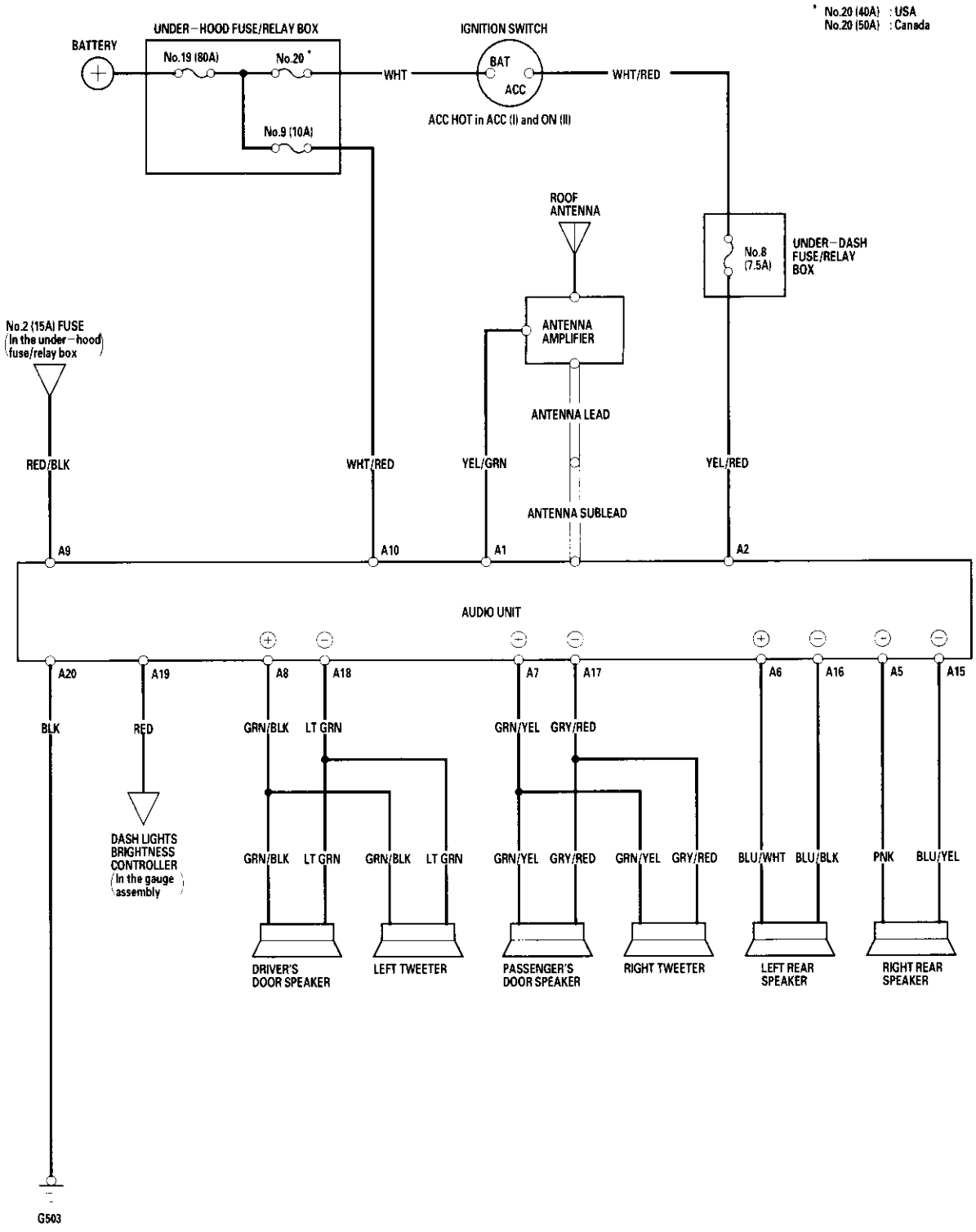


4. Check for continuity between the No. 1 and No. 2 terminals.
   - There should be continuity with the hatch open.
   - There should be no continuity with the hatch closed.
5. If the continuity is not as specified, replace the hatch latch.

Component Location Index



Circuit Diagram



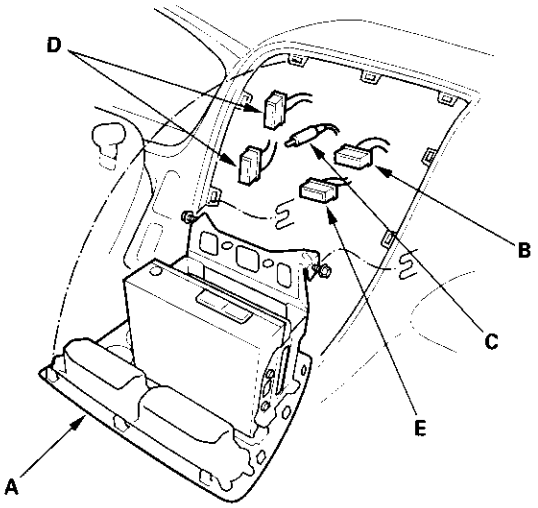
Audio Unit Removal/Installation

NOTE:
- Put on gloves to protect your hands.
- Take care not to scratch the dashboard and related parts.

1. Make sure you have the anti-theft code for the radio, then write down the frequencies for the radio's preset buttons.

2. Remove the driver's dashboard lower cover (see page 20-59).

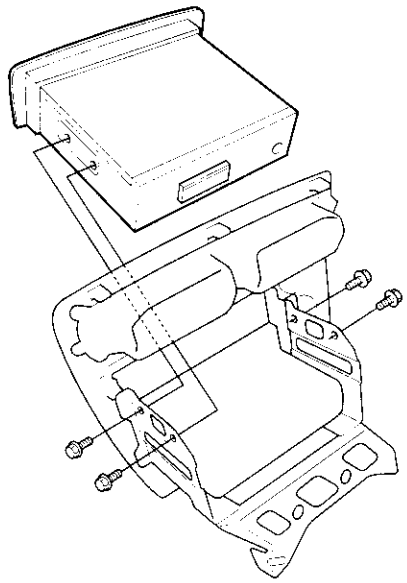
3. Remove the two mounting bolts, then pull out the center panel (A).



4. Disconnect the audio connector (B) and antenna lead (C), heater control panel connectors (D) and HAVC push switch assembly (E), then remove the center panel.

5. Remove the heater control panel (see page 21-38).

6. Remove the four mounting bolts and the audio unit from the radio brackets.



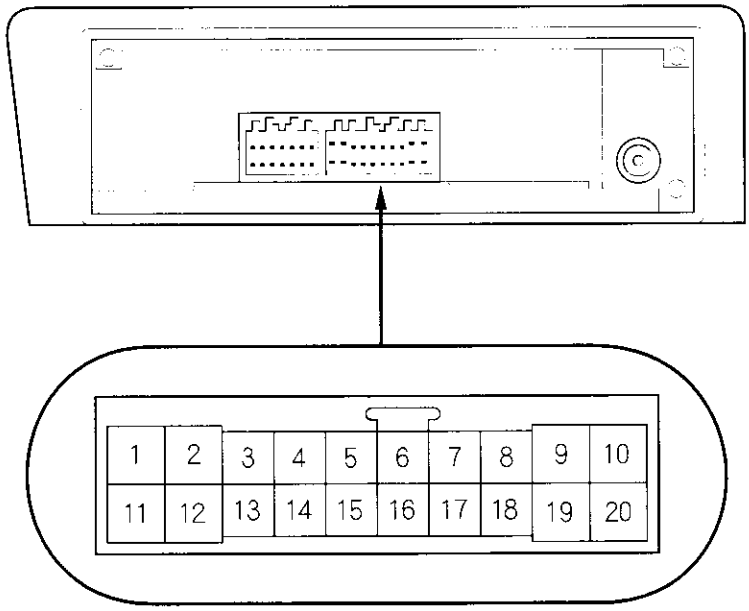
7. Install the audio unit in the reverse order of removal, and note these items:

   - Make sure the audio unit and A/C connectors are plugged in properly, and the antenna lead is connected properly.
   - Enter the anti-theft code for the radio, then enter the customer's radio station presets.

Audio Unit Connector Replacement

Cavity	Wire	Connects to
1	YEL/GRN	Roof antenna
2	YEL/RED	ACC (Power)
3	———	Not used
4	———	Not used
5	PNK	Right rear speaker (+)
6	BLU/WHT	Left rear speaker (+)
7	GRN/YEL	Front passenger's door speaker (+)/Right tweeter (+)
8	GRN/BLK	Driver's door speaker (+)/Left tweeter (+)
9	RED/BLK	Lights-on signal
10	WHT/RED	Constant power
11	———	Not used
12	———	Not used
13	———	Not used
14	———	Not used
15	BLU/YEL	Right rear speaker (−)
16	BLU/BLK	Left rear speaker (−)
17	GRY/RED	Front passenger's door speaker (−)/Right tweeter (−)
18	LT GRN	Driver's door speaker (−)/Left tweetr (−)
19	RED	Dash lights brightness controller
20	BLK	Ground (G503)

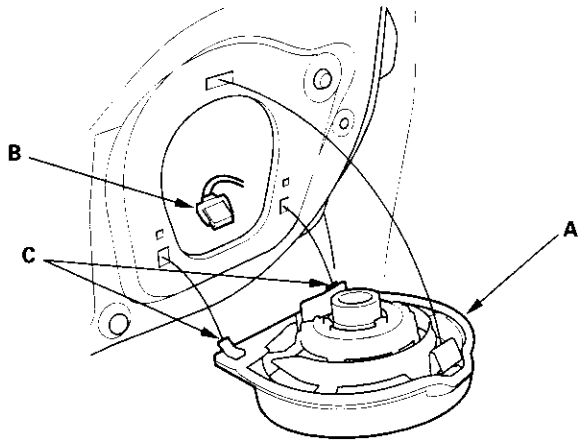
AUDIO UNIT 20P CONNECTOR



Speaker Replacement

Door Speaker:

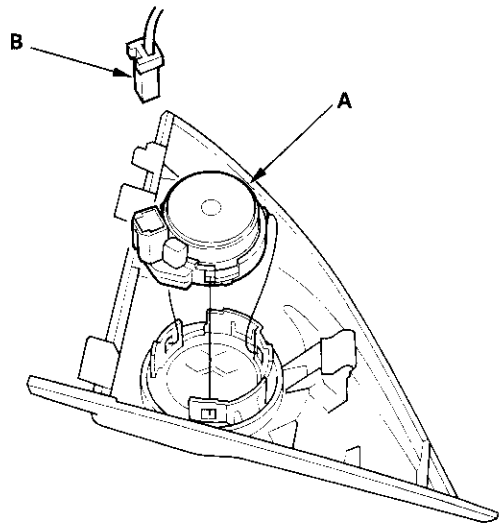
1. Remove the door panel (see page 20-4).
2. Pull the top of the speaker (A) straight out, just enough to release the upper clip. If you pull the speaker out too far, you will damage the lower clips (C). Then lift the speaker straight up to release the lower clips.



3. Disconnect the 2P connector (B), and remove the speaker.

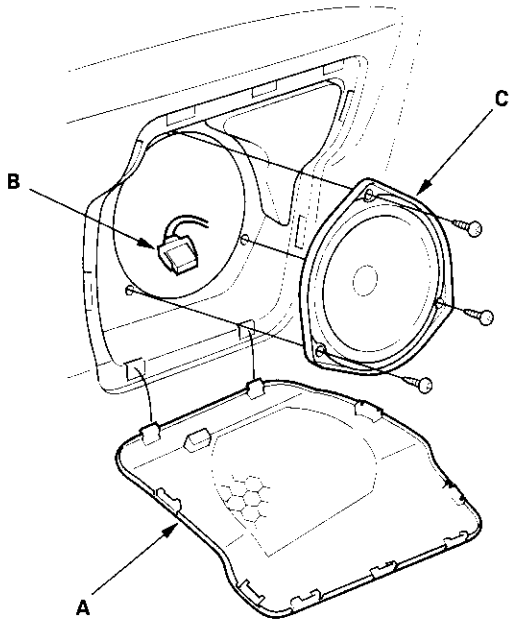
Tweeter:

Carefully pry the tweeter (A) out of the mirror mount cover, then disconnect the 2P connector (B) from the tweeter.



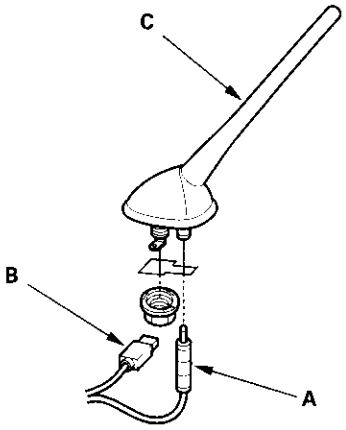
Rear:

1. Remove the speaker cover (A).
2. Remove the three screws, then disconnect the 2P connector (B) from the speaker (C).



Roof Antenna Replacement

1. Remove the rear part of headliner (see page 20-54).
2. Disconnect the antenna lead connector (A) and 1P connector (B) from the roof antenna (C).

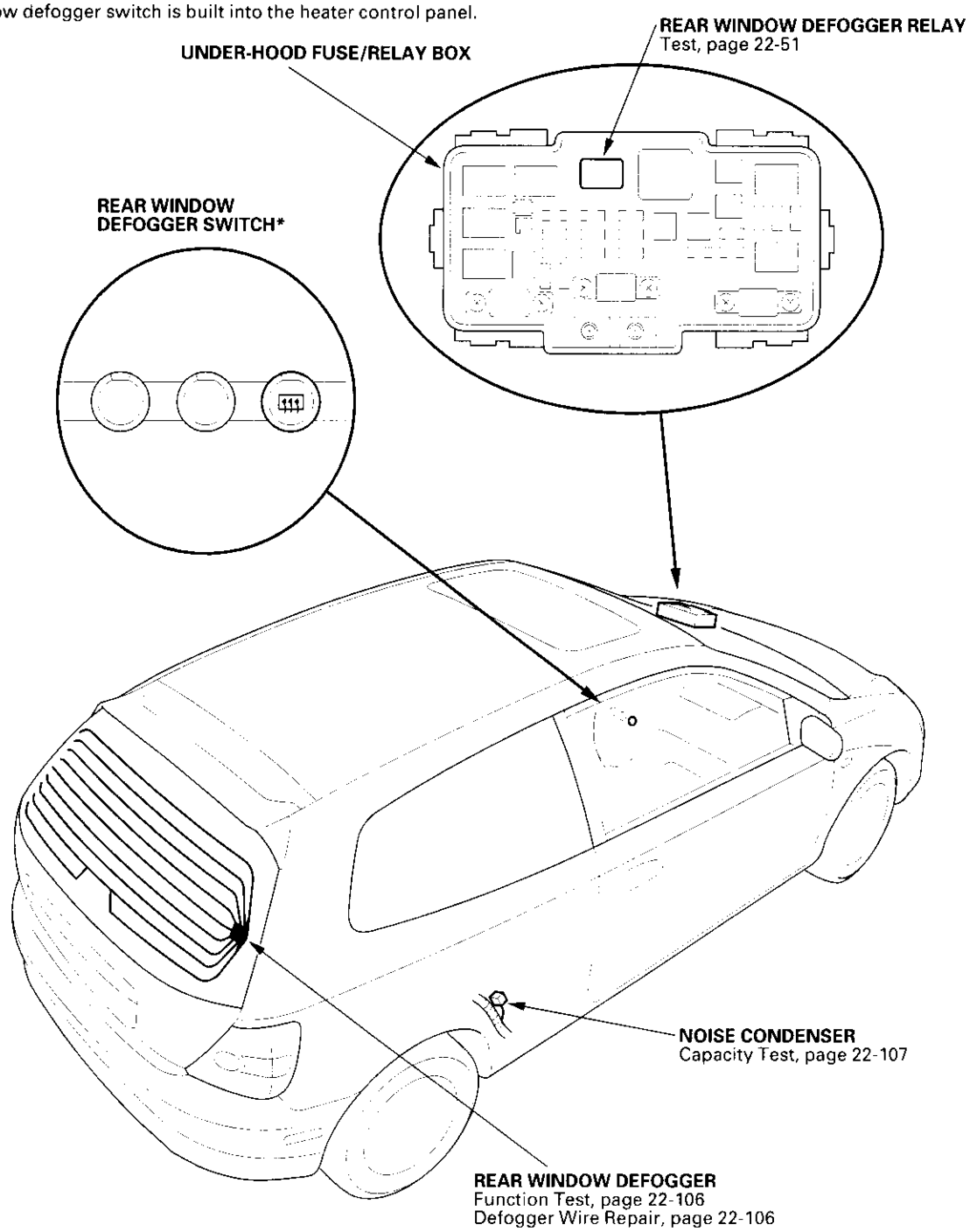


3. Remove the mounting nut and the antenna.

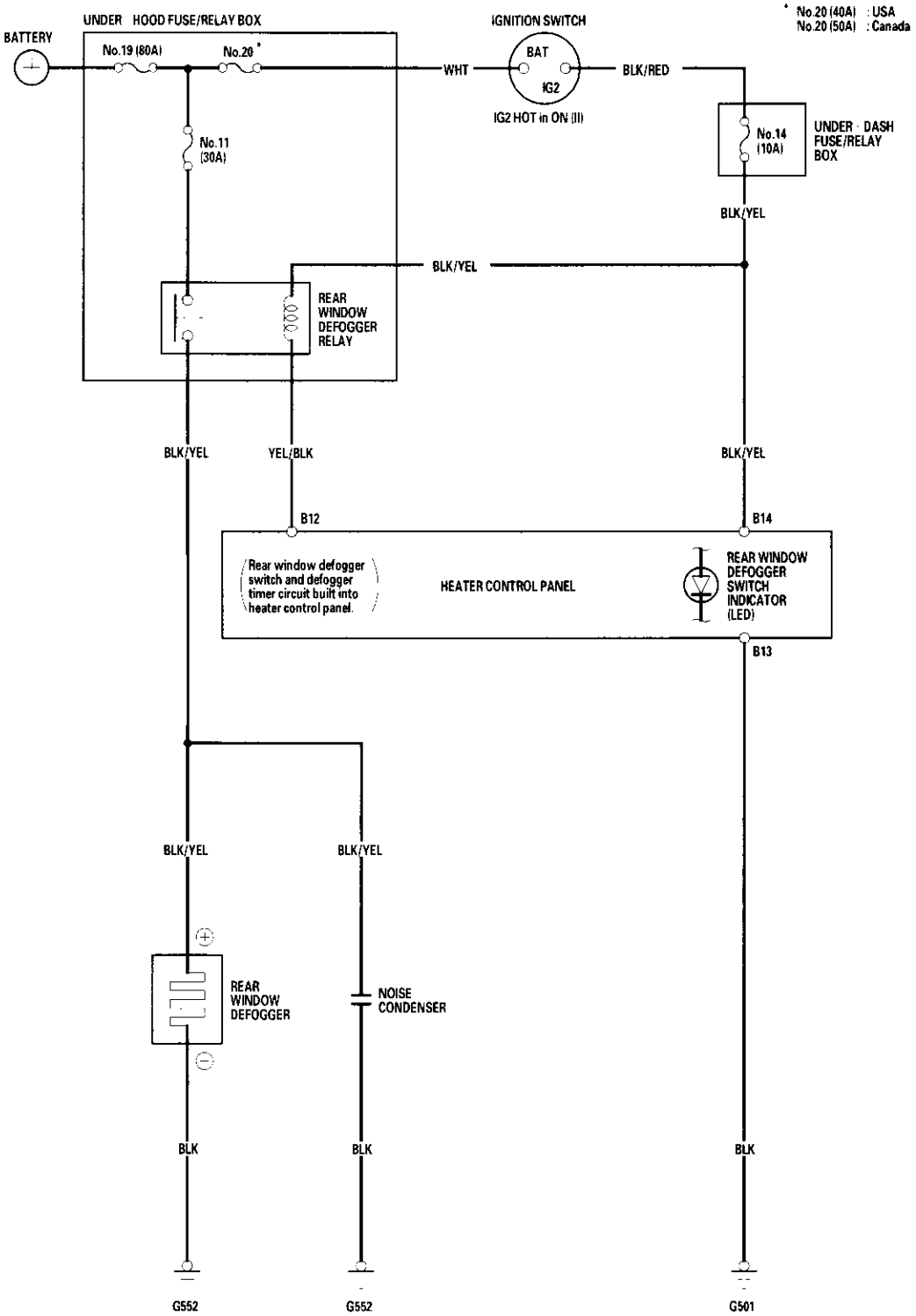
Rear Window Defogger

Component Location Index

*:Rear window defogger switch is built into the heater control panel.



Circuit Diagram



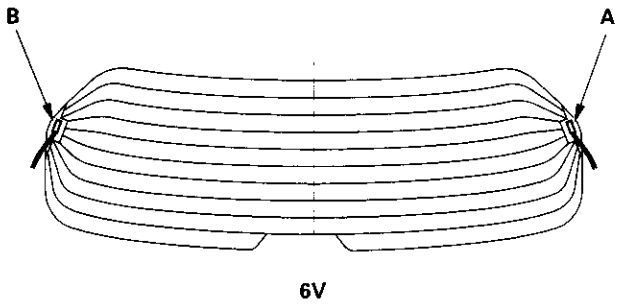
Rear Window Defogger

Function Test

NOTE:
- Be careful not to scratch or damage the defogger wires with the tester probe.
- Before testing, check the No. 11 (30A) fuse in the under-hood fuse/relay box and No. 14 (10A) fuse in the under-dash fuse/relay box.

1. Check for voltage between the vertical dividers and body ground with the ignition switch and defogger switch ON.
   There should be voltage as shown.

   - If there is no voltage, check for:
     - faulty defogger relay.
     - an open in the BLK, BLK/YEL, or YEL/BLK wire.
     - faulty heater control panel.
   - If there is battery voltage, go to step 2.



2. Check for continuity between the negative terminal (B) and body ground.
   If there is no continuity, check for:
   - an open in the BLK wire.
   - Poor body ground at the window antenna coil mounting bolt.

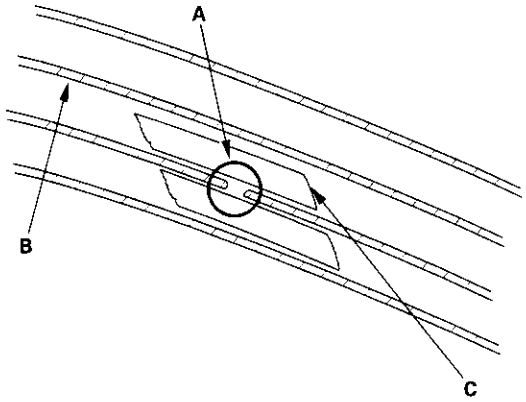
3. Touch the voltmeter positive probe to the halfway point of each defogger wire, and the negative probe to the negative terminal.
   There should be about 6 V with the ignition switch and the defogger switch ON.

   - If the voltage is as specified, the defogger wire is OK.
   - If the voltage is not as specified, repair the defogger wire.
     - If it is more than 6 V, there is a break in the negative half of the wire.
     - If it is less than 6 V, there is a break in the positive half of the wire.

Defogger Wire Repair

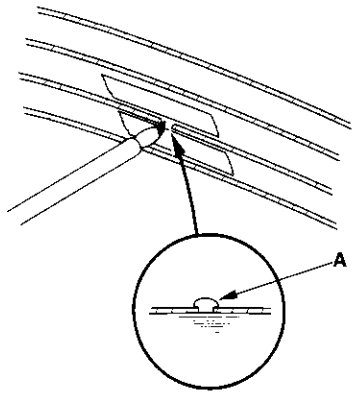
NOTE: To make an effective repair, the broken section must be no longer than one inch.

1. Lightly rub the area around the broken section (A) with fine steel wool, then clean it with alcohol.



2. Carefully mask above and below the broken portion of the defogger wire (B) with transparent tape (C).

3. Mix the silver conductive paint thoroughly. Using a small brush, apply a heavy coat of paint extending about 1/8 inch on both sides of the break. Allow 30 minutes to dry.



4. Check for continuity in the repaired wire.

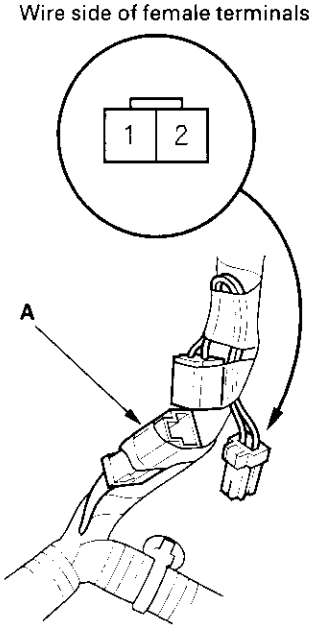
5. Apply a second coat of paint in the same way. Let it dry 3 hours before removing the tape.

Noise Condenser Capacity Test

1. Remove the right rear side trim panel (see page 20-66).

2. Disconnect the 2P connector (A) from the noise condenser.

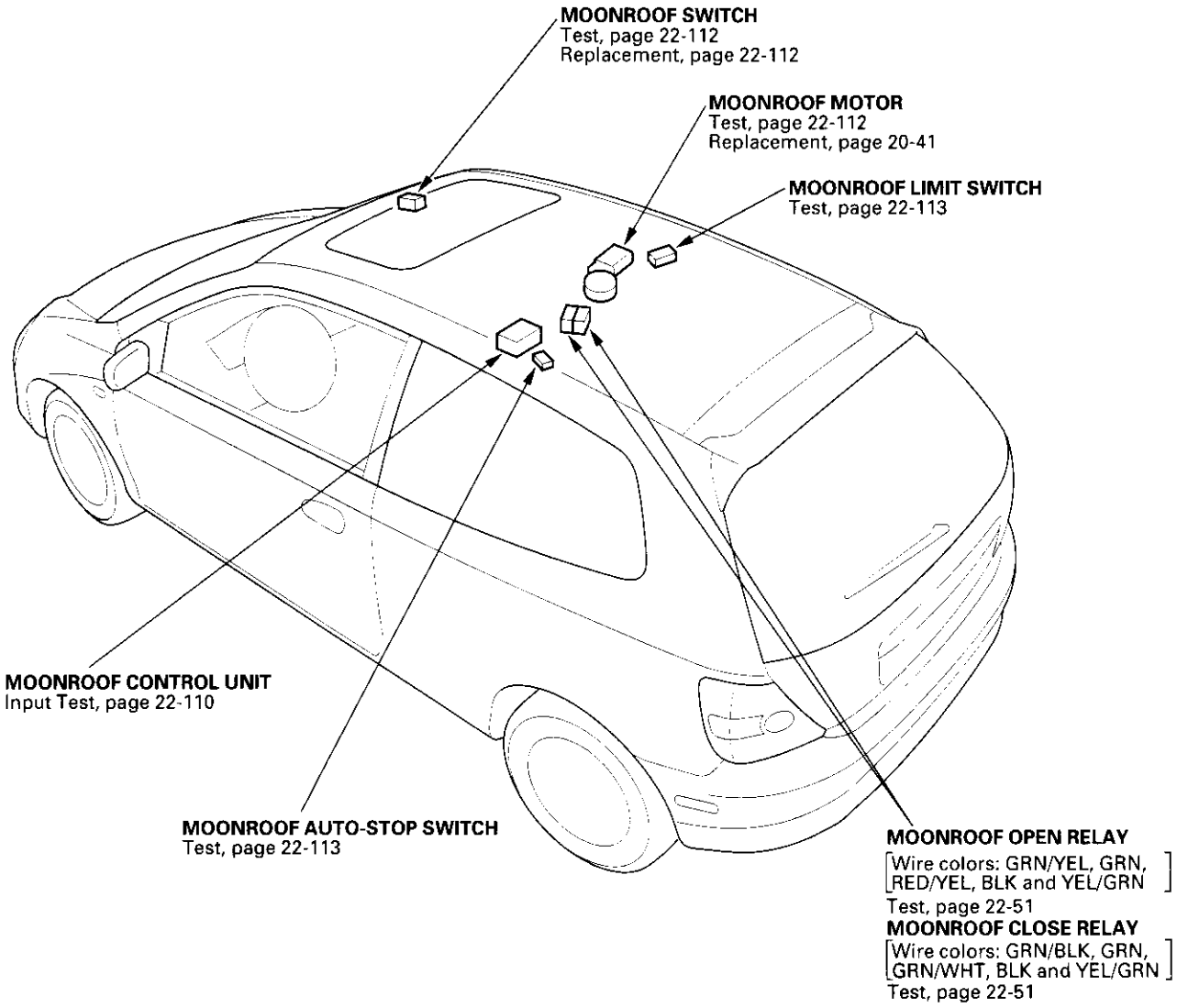
   Noise condenser capacity:
   0.47 ± 0.09 microfarads



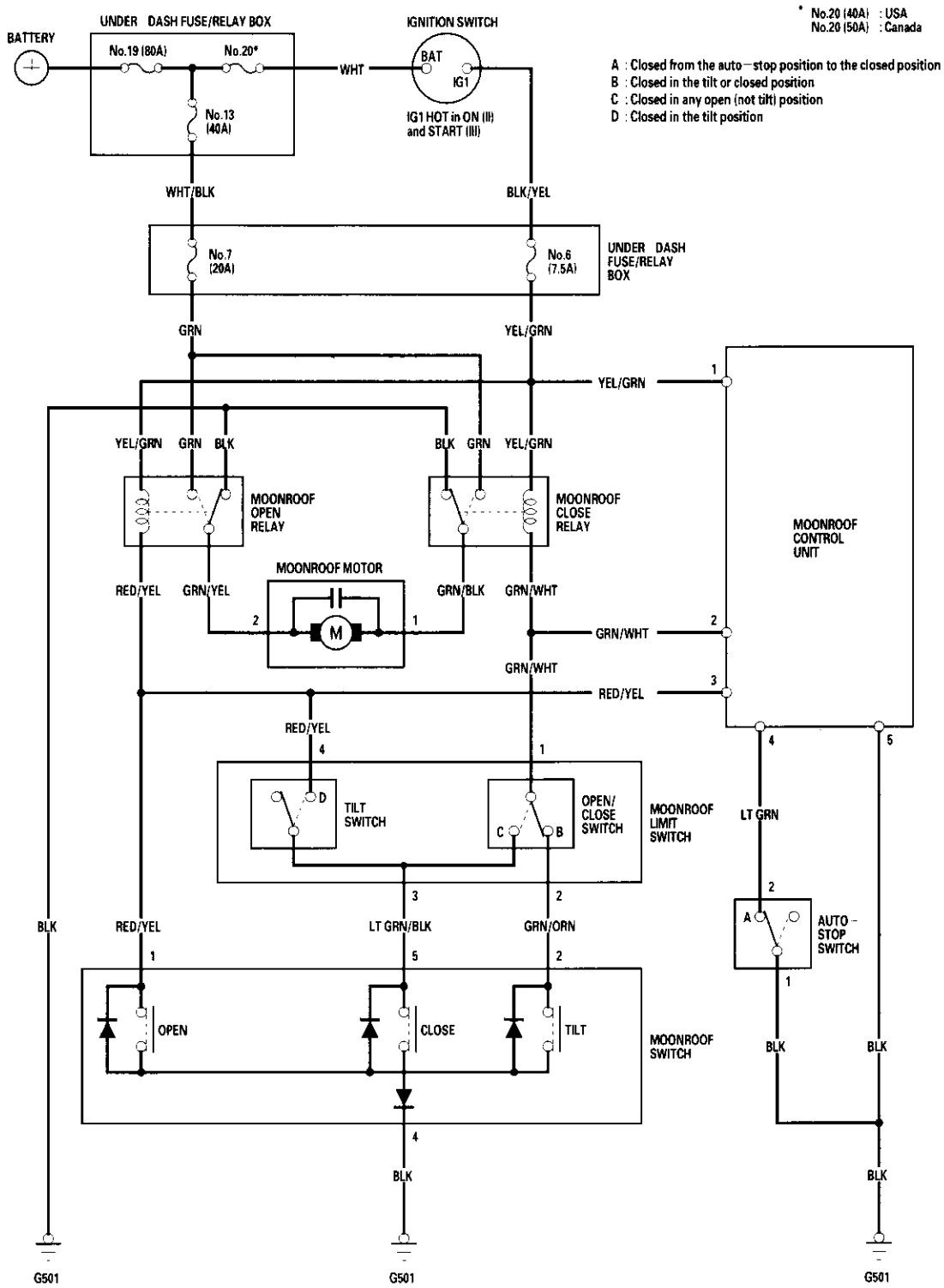
3. Use a commercially available condenser tester. Connect the condenser tester probes, and the measure condenser capacity.

4. If it is not within the specification, replace the noise condenser.

Component Location Index



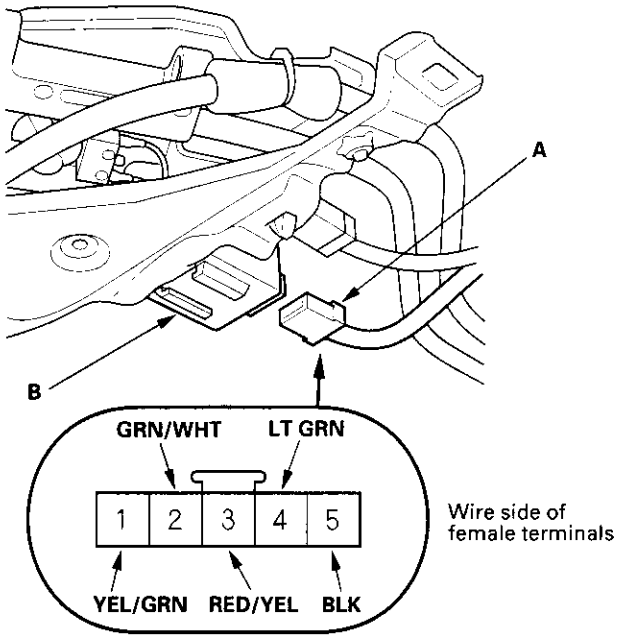
Circuit Diagram



Moonroof Control Unit Input Test

1. Remove the headliner (see page 20-54).

2. Disconnect the 5P connector (A) from the 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 moonroof control unit 5P connector, 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
5	BLK	Under all conditions	Check for continuity to ground: There should be continuity.	• Poor ground (G501) • An open in the wire
1	YEL/GRN	Ignition switch ON (II)	Check for voltage to ground: There should be battery voltage.	• Blown No. 6 (7.5A) fuse in the under-dash fuse/relay box • An open in the wire
4	LT GRN	Ignition switch ON (II) Moonroof closed	Check for voltage to ground: There should be 1 V or less.	• Poor ground (G501) • Faulty moonroof auto-stop switch • An open in the wire
		Moonroof open	Check for voltage to ground: There should be battery voltage.	• Short to ground • Faulty moonroof auto-stop switch

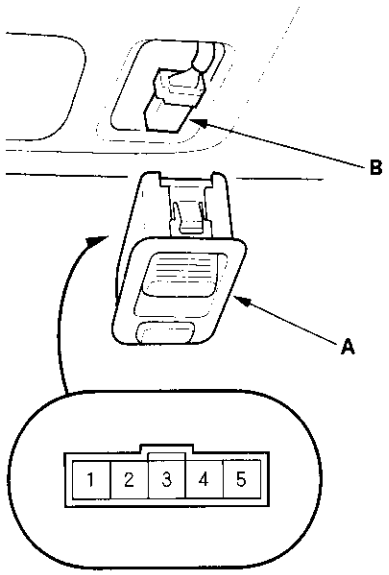
5. Disconnect the moonroof control unit 5P connector, and make these input tests at the connector.

   - 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 it.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
3	RED/YEL	Ignition switch ON (II)	Connect a jumper wire between No. 3 and No. 5 terminals. Moonroof motor should run (opened).	• Poor ground (G501) • Blown No. 6 (7.5A) fuse in the under-dash fuse/relay box • Blown No. 7 (20A) fuse in the under-dash fuse/relay box • Faulty moonroof open relay • Faulty moonroof close relay • Faulty moonroof motor • An open in the wire
2	GRN/WHT	Ignition switch ON (II)	Connect a jumper wire between No. 2 and No. 5 terminals. Moonroof motor should run (closed).	• Poor ground (G501) • Blown No. 6 (7.5A) fuse in the under-dash fuse/relay box • Blown No. 7 (20A) fuse in the under-dash fuse/relay box • Faulty moonroof open relay • Faulty moonroof close relay • Faulty moonroof motor • An open in the wire

Switch Test/Replacement

1. Carefully pry the moonroof switch (A) out of the headliner.



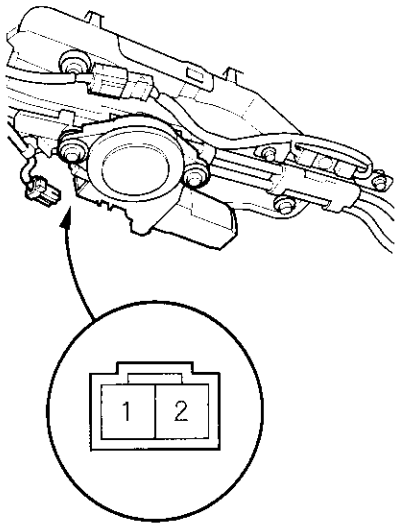
2. Disconnect the 5P connector (B) from the moonroof switch.
3. Check for continuity between the terminals in each switch position according to the table.

Terminal / Position	1	2	3	4	5
CLOSE				○—◀—○	
TILT		○	—▶—	○	
OPEN	○	——	—▶—	○	

4. If the continuity is not as specified, replace the moonroof switch.

Motor Test

1. Remove the headliner (see page 20-54).
2. Disconnect the 2P connector from the moonroof motor.



3. Check the motor by connecting power and ground according to the table.

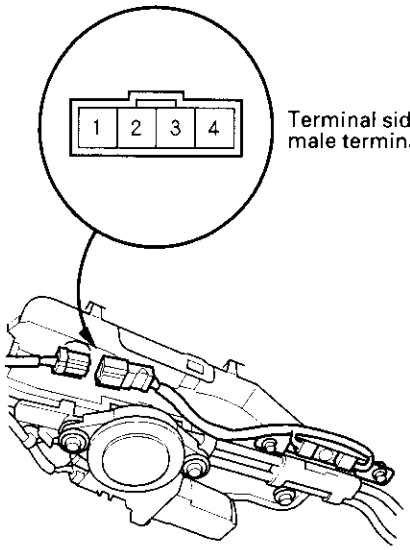
Terminal / Position	1	2
OPEN	⊖	⊕
CLOSE	⊕	⊖

4. If the motor does not run, replace it.

   NOTE: See closing force check (see page 20-48) for motor clutch test.

Limit Switch Test

1. Remove the headliner (see page 20-54).
2. Disconnect the 4P connector from the moonroof limit switch.



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

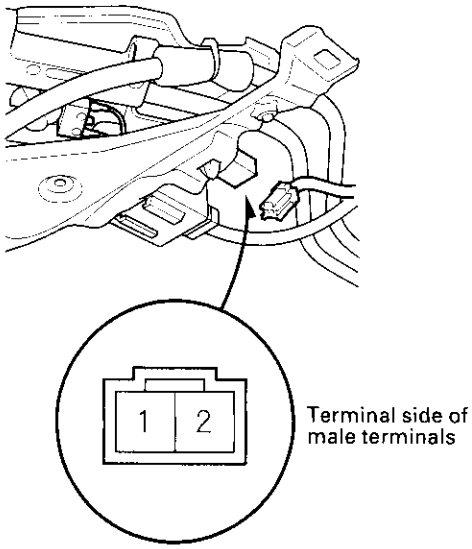
   NOTE: Turn the motor by hand with the wrench.

Terminal / Position	1	2	3	4
TILT	○—○		○—○	
OPEN	○—		—○	
CLOSE	○—○			

4. If the continuity is not as specified, replace the moonroof limit switch.

Auto-stop Switch Test

1. Remove the headliner (see page 20-54).
2. Disconnect the 2P connector from the moonroof auto-stop switch.



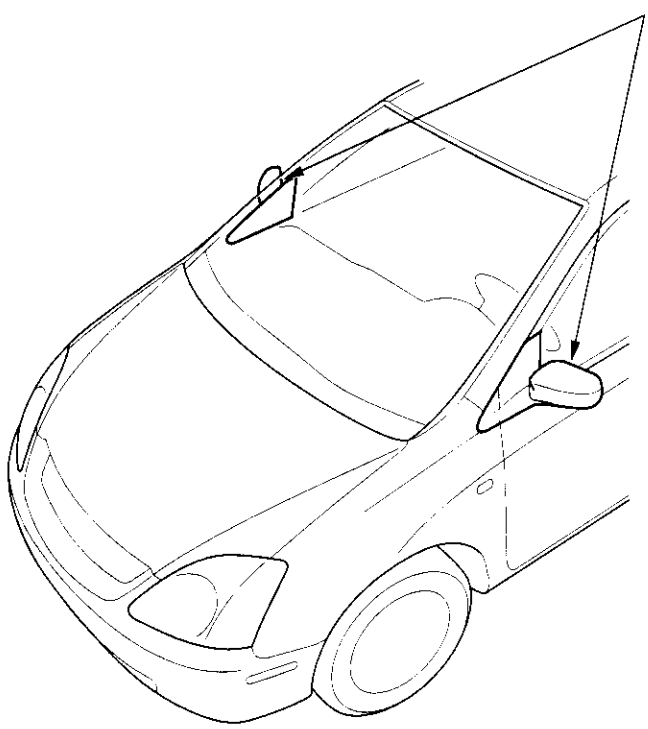
3. Check for continuity between the terminals in each switch position according to the table.

   NOTE:
   - Turn the motor by hand with the wrench.
   - The auto-stop position is about 145 mm (5.75 in.) from fully closed.

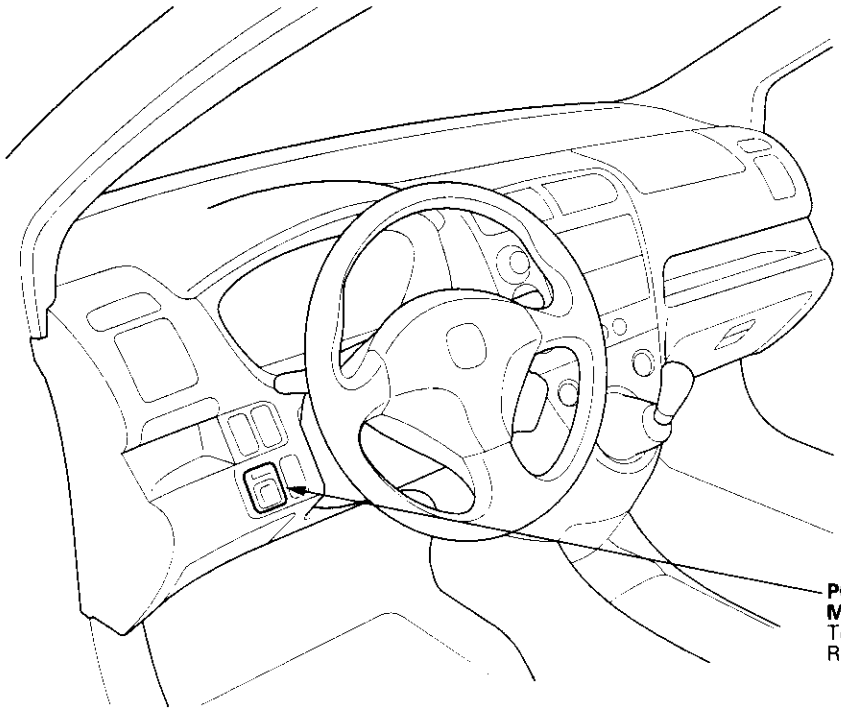
Terminal / Position	1	2
Between AUTO-STOP and CLOSE	○—○	
Between OPEN and AUTO-STOP		

4. If the continuity is not as specified, repair or replace the auto-stop switch.

Component Location Index

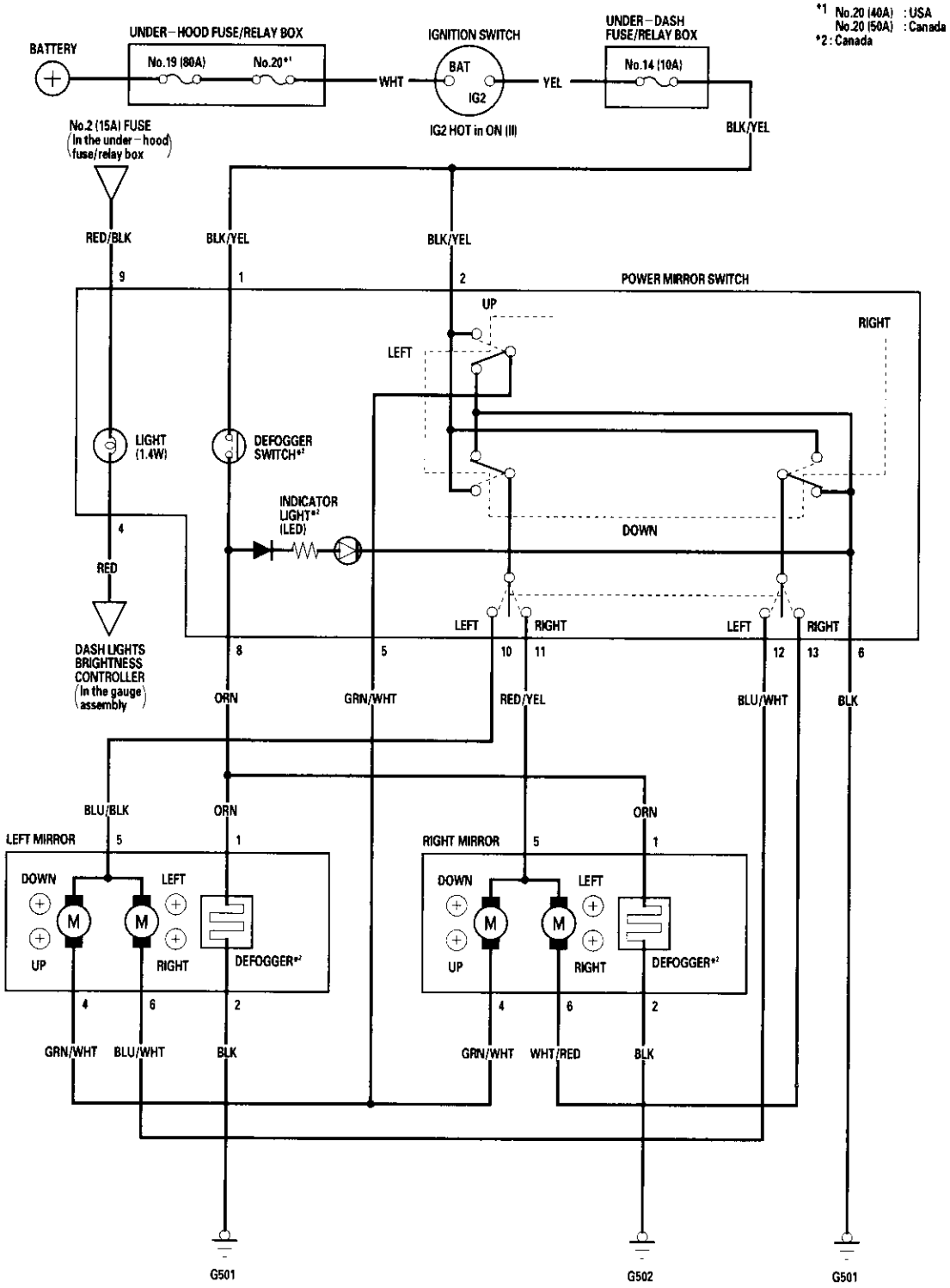


POWER MIRRORS
Function Test, page 22-116
Replacement, page 20-15
Actuator Test, page 22-117
Actuator Replacement, page 22-118



POWER MIRROR and MIRROR DEFOGGER SWITCH
Test, page 22-117
Replacement, page 22-117

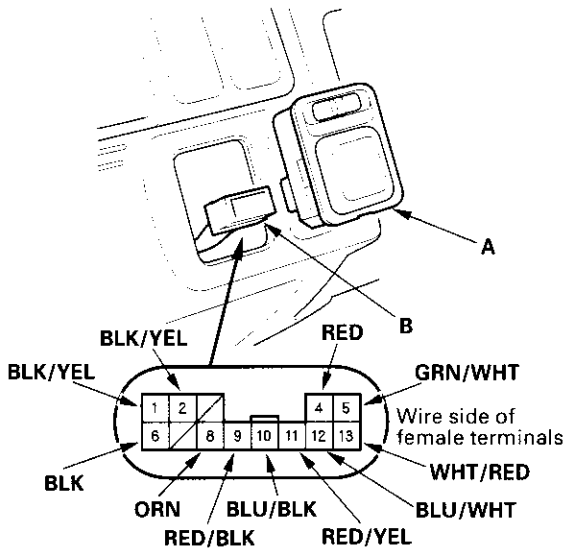
Circuit Diagram



Function Test

1. Remove the driver's pocket (see page 20-60).

2. Reach through the pocket opening, and push out the power mirror switch (A).



3. Disconnect the 13P connector (B) from the switch.

4. Choose the appropriate test based on the symptom:
   - Both mirrors don't work, go to step 5.
   - Left mirror doesn't work, go to step 7.
   - Right mirror doesn't work, go to step 8.
   - Defogger doesn't work (Canada), go to step 9.

Both mirrors

5. 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. 14 (10A) fuse in the under-dash fuse/relay box.
     - an open in the BLK/YEL wire.
   - If there is battery voltage, go to step 6.

6. 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 (G501).
   - If there is continuity, check both mirrors individually as described in the next column.

Left mirror

7. Connect the No. 2 terminal to the No. 10 terminal, and the No. 5 (or No. 12) terminal to the No. 6 terminal with jumper wires. The left mirror should tilt down (or swing left) with the ignition switch ON (II).
   - If the mirror does not tilt down (or does not swing left), check for an open in the GRN/WHT (or BLU/WHT) wire between the left mirror and the 13P connector. If the wire is OK, check the left mirror actuator.
   - If the mirror neither tilts down nor swings left, repair the BLU/BLK wire.
   - If the mirror works properly, check the mirror switch.

Right mirror

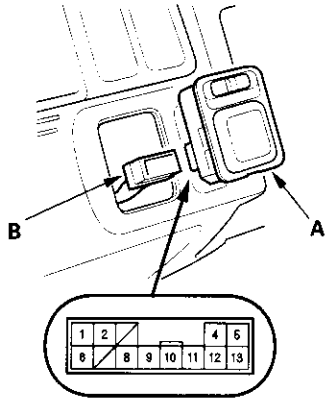
8. Connect the No. 2 terminal to the No. 11 terminal, and the No. 5 (or No. 13) terminal to the No. 6 terminal with jumper wires. The right mirror should tilt down (or swing left) with the ignition switch ON (II).
   - If the mirror does not tilt down (or does not swing left), check for an open in the GRN/WHT (or WHT/RED) wire between the right mirror and the 13P connector.
     If the wire is OK, check the right mirror actuator.
   - If the mirror neither tilts down nor swings left, repair the RED/YEL wire.
   - If the mirror works properly, check the mirror switch.

Defogger (Canada)

9. Connect the No. 1 and No. 8 terminals with a jumper wire, and check for voltage between the No. 2 terminal of the mirror connector 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 BLK/YEL or ORN wire.
     - blown No. 14 (10A) fuse in the under-dash fuse/relay box.
   - If only one fails to warm up, check:
     - its defogger.
     - poor ground (G501, G502).
   - If both warm up, check the defogger switch.

Power Mirror Switch Test

1. Remove the driver's pocket (see page 20-60).
2. Reach through the pocket opening, and push out the power mirror switch (A).



3. Disconnect the 13P connector (B) from the switch.
4. Check for continuity between the terminals in each switch position according to the table.

Mirror Switch:

	Terminal / Position	2	5	6	10	11	12	13
L	UP	○	○		○			
	DOWN	○		○	○			
	LEFT	○		○			○	
	RIGHT	○			○		○	
R	UP	○	○			○		
	DOWN	○		○		○		
	LEFT	○			○			○
	RIGHT	○			○			○

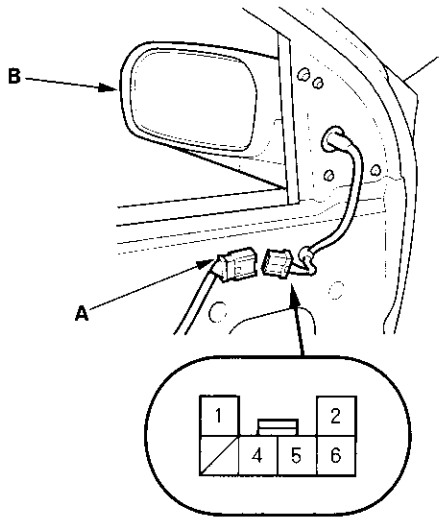
Defogger Switch (Canada):

Terminal / Position	1	8
ON	○	○
OFF		

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

Power Mirror Actuator Test

1. Remove the door panel (see page 20-4).
2. Disconnect the 6P connector (A) from the power mirror actuator (B).



3. Check actuator operation by connecting power and ground according to the table.

Terminal / Position	6	5	4
TILT UP		⊖	⊕
TILT DOWN		⊕	⊖
SWING LEFT	⊖	⊕	
SWING RIGHT	⊕	⊖	

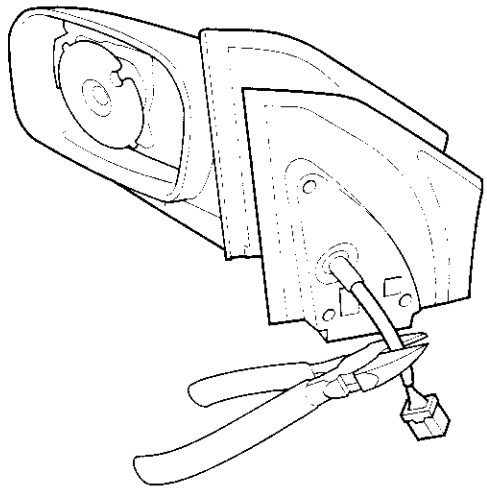
4. If the mirror fails to work properly, replace the mirror actuator.

Defogger Test (Canada):

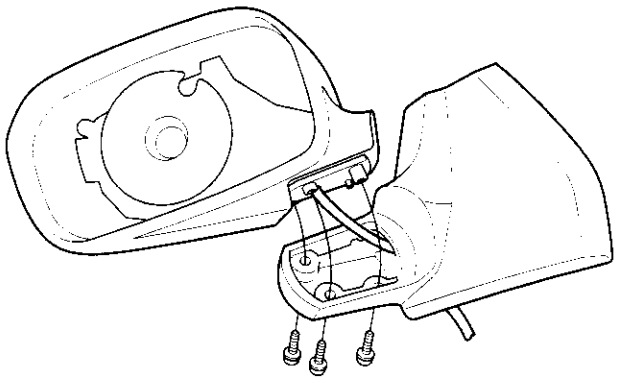
5. Check for continuity between the No. 1 and No. 2 terminals of the 6P connector. There should be continuity. If there is no continuity, check for an open circuit.

Power Mirror Actuator Replacement

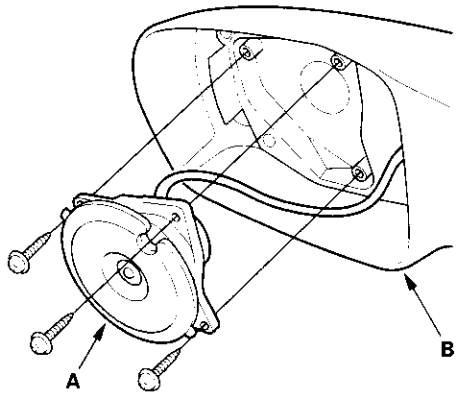
1. Remove the power mirror (see page 20-15).
2. Carefully remove the mirror holder from the mirror housing. Gently pull it out by hand (see page 20-15).
3. Disconnect the connector.
4. Remove the cover, then remove the two Torx screws from the mirror connector.
5. Record the terminal locations and wire colors.
6. Cut the wire harness with the wire cutter.



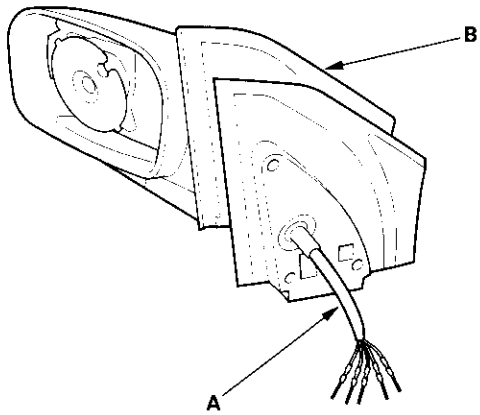
7. Remove the three screws, and separate the mirror housing from the mirror base.



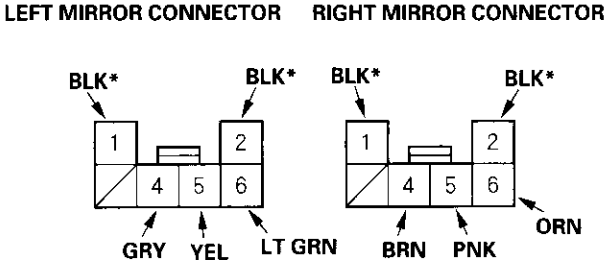
8. Remove the three Torx screws, and separate the actuator (A) from the mirror housing (B).



9. Route the wire harness (A) of the new actuator through the hole in the bracket (B).



10. Insert the terminals into the connector in the original arrangement as shown below.



Wire side of female terminals

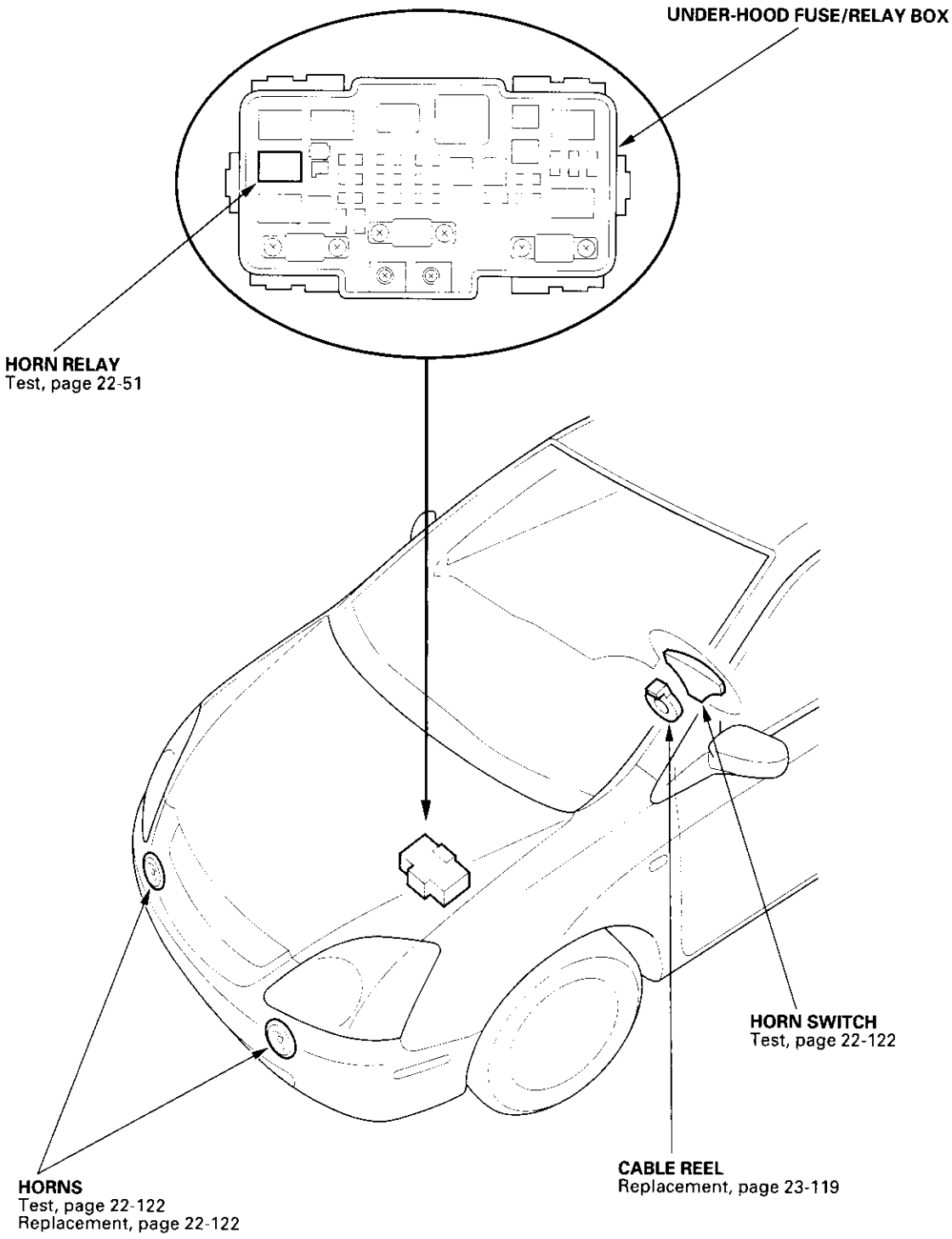
*:Canada

11. Reassemble in the reverse order of disassembly. Be careful not to break the mirror holder when reinstalling it to the actuator.

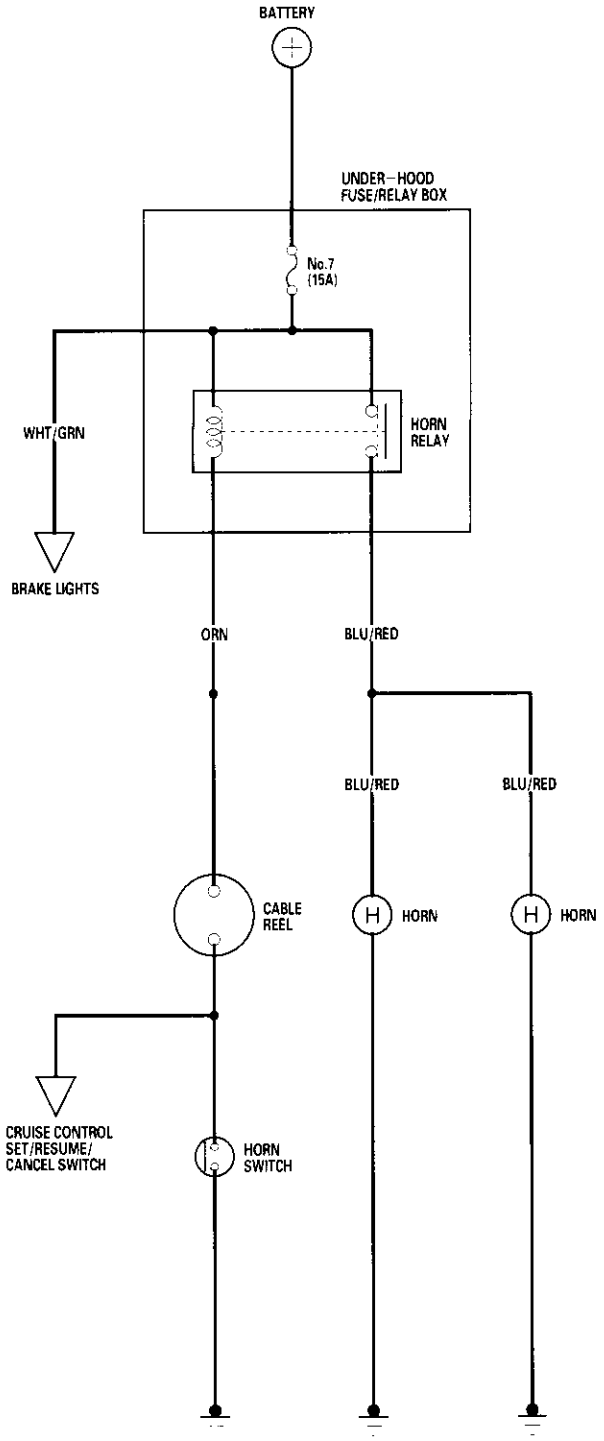
12. Reinstall the mirror assembly on the door.

13. Operate the power mirror to ensure smooth operation.

Component Location Index

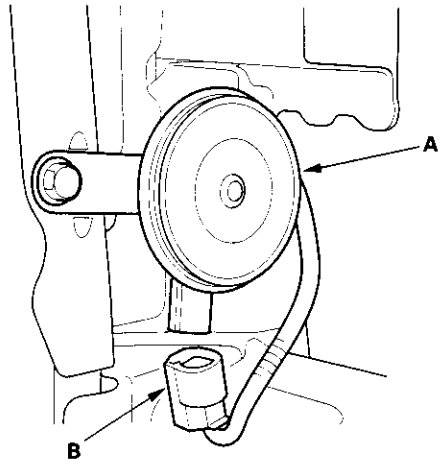


Circuit Diagram

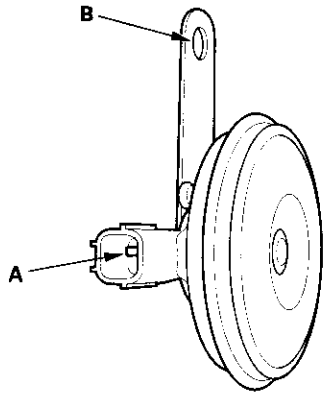


Horn Test/Replacement

1. Remove the front bumper (see page 20-85).
2. Disconnect the 1P connector (B), and remove the horn (A).



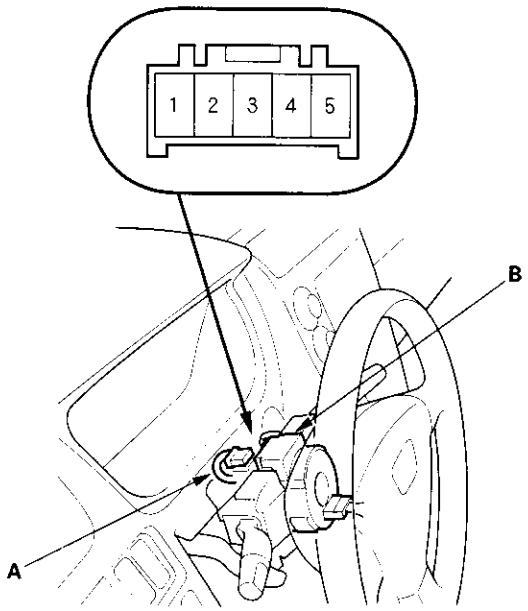
3. Test the horn by connecting battery power to the terminal (A) and ground to the bracket (B). The horn should sound.



4. If it fails to sound, replace it.

Horn Switch Test

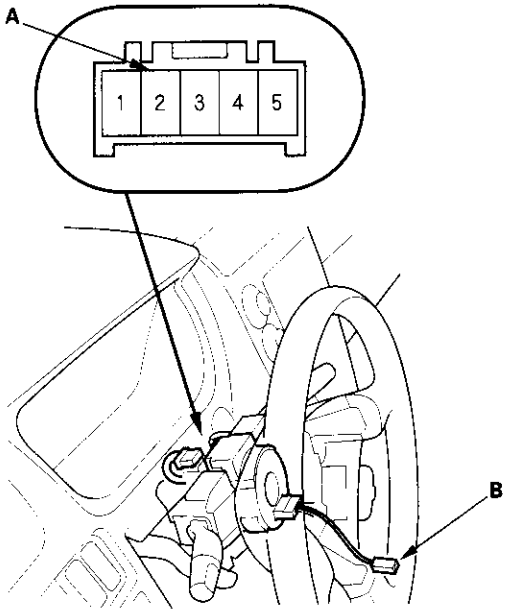
1. Remove the steering column covers (see page 17-9).
2. Disconnect the dashboard wire harness B 5P connector (A) from the cable reel (B).



3. Using a jumper wire , connect the dashboard wire harness B 5P connector (A) No. 2 terminal to body ground .

   - If the horns sound, go to step 4.
   - If the horns do not sound, check these items:
     - Horn relay
     - No. 7 (15A) fuse in the under-hood fuse/relay box
     - Horns (see page 22-122).
     - An open in the wire

4. Reconnect the dashboard wire harness B 5P connector (A), and disconnect the horn switch positive 1P connector (B).



5. Using a jumper wire, connect the horn switch positive 1P connector (B) to ground.

   - If the horns sound, go to step 6.
   - If the horns do not sound, replace the cable reel.

6. Reconnect the horn switch positive 1P conector (B).

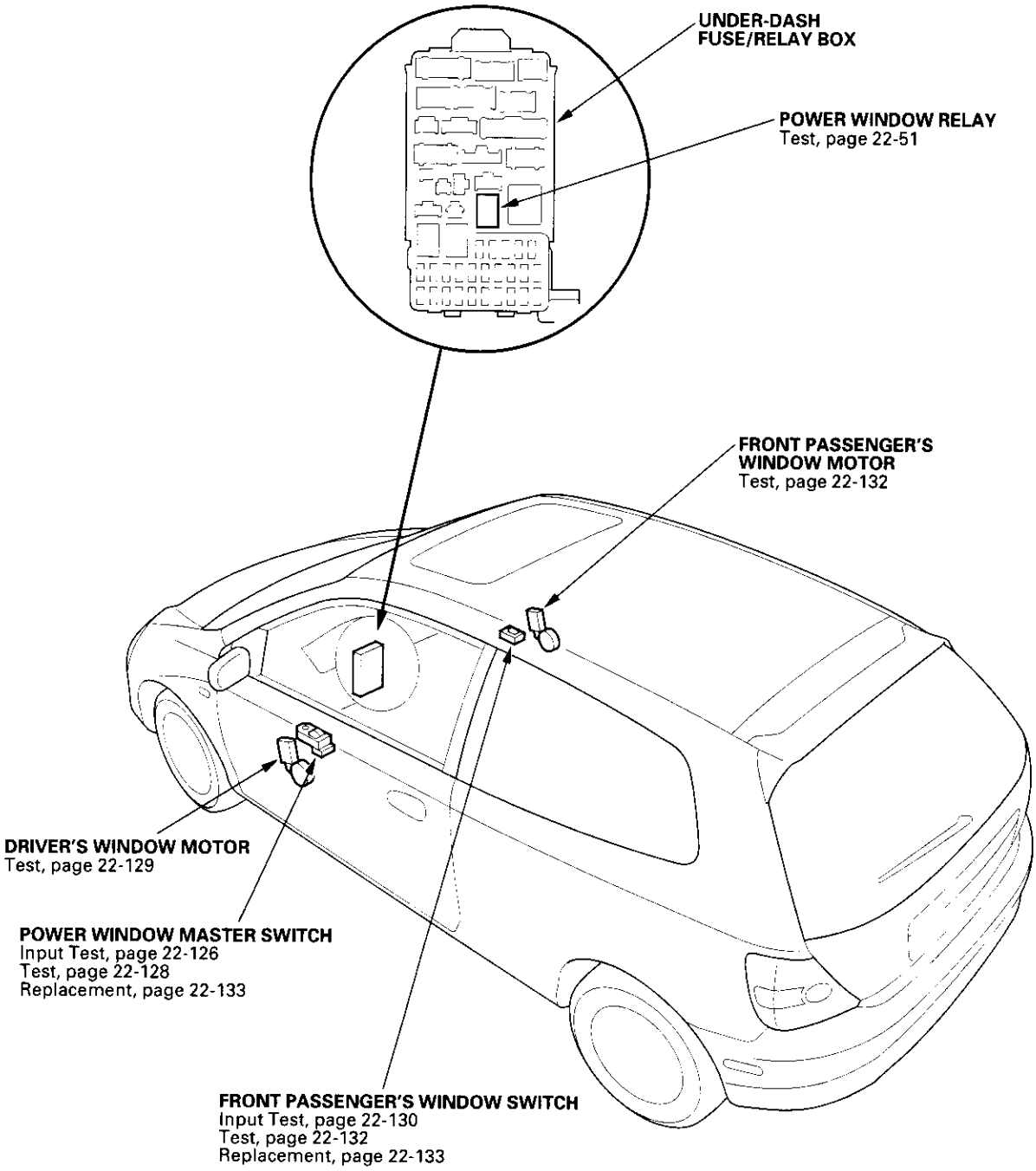
7. Using a jumper wire, connent the steering wheel to body ground.

8. Close the contacts between the horn plate and the contact plate.

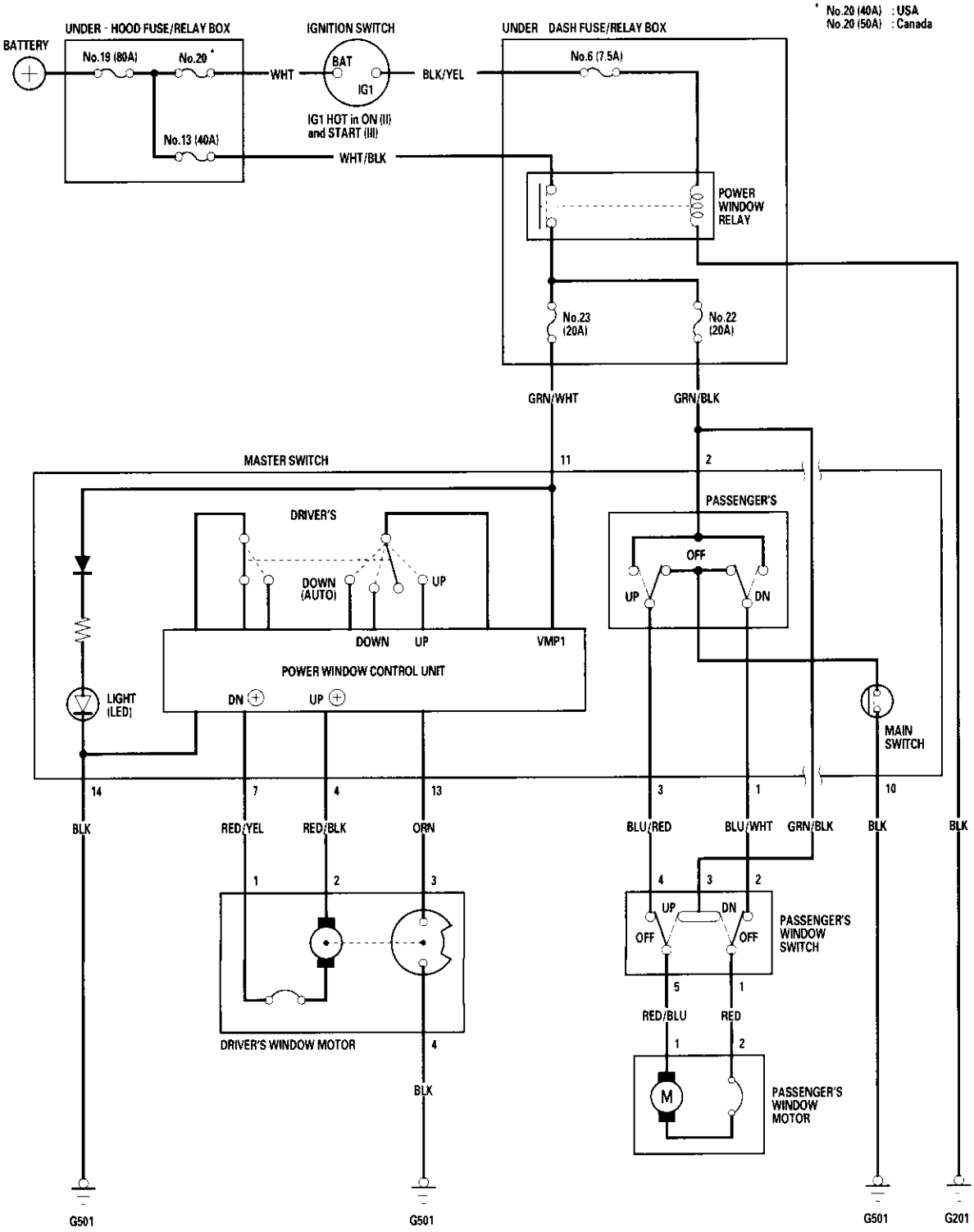
   - If the horns sound, replace the steering column.
   - If the horns do not sound, replace the horn and contact plate.

Power Windows

Component Location Index



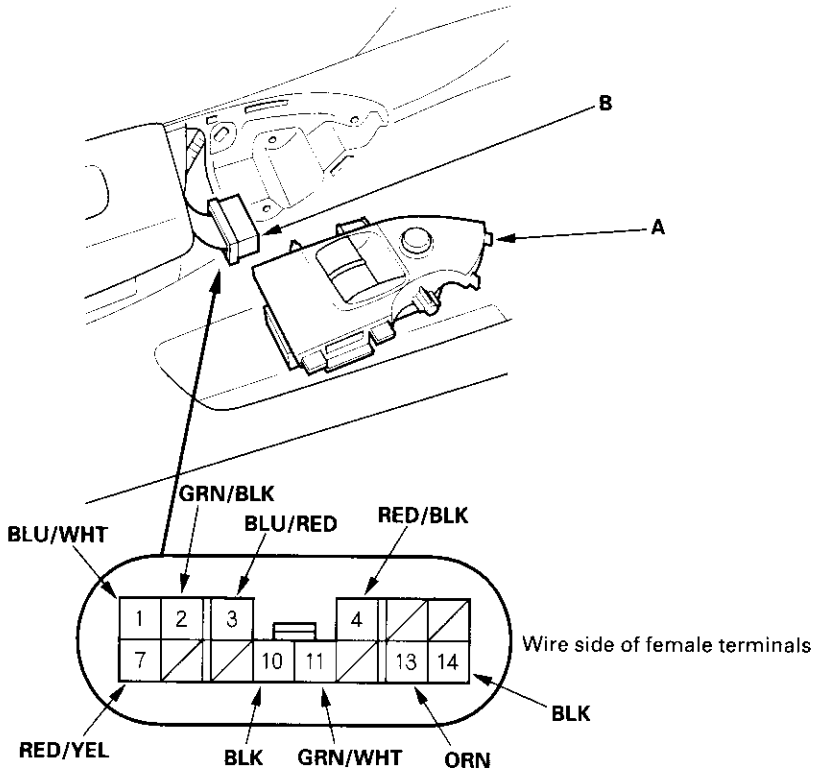
Circuit Diagram



Master Switch Input Test

NOTE: The power window control unit is built into the power window master switch, and it only controls the driver's window operations.

1. Remove the window master switch (A) (see page 22-133).
2. Disconnect the 14P connector (B) from the master switch.



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

4. With the connector still disconnected, 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
10 14	BLK	Under all conditions	Check for continuity to ground: There should be continuity.	• Poor ground (G501) • An open in the wire
11	GRN/WHT	Ignition switch ON (II)	Check for voltage to ground: There should be battery voltage.	• Blown No. 6 (7.5A) fuse in the under-dash fuse/relay box • Blown No. 22, 23 (20A) fuse in the under-dash fuse/relay box • Faulty power window relay • Poor ground (G201) • An open in the wire
2	GRN/BLK			
7	RED/YEL	Connect the No. 11 and No. 7 terminals, and the No. 4 and No. 14 terminals, and turn the ignition switch ON (II).	Check for driver's window motor operation: It should run (the driver's window moves down).	• Faulty driver's window motor • An open in the wire
4	RED/BLK			
3	BLU/RED	Connect the No. 2 and No. 1 terminals, and the No. 3 and No. 10 terminals, and turn the ignition switch ON (II).	Check for passenger's window motor operation: It should run (the passenger's window moves down).	• Faulty passenger's window motor • Faulty passenger's window switch • An open in the wire
1	BLU/WHT			

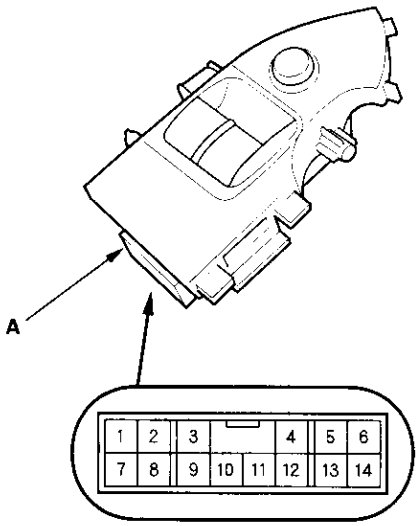
5. Reconnect the 14P connector to the switch, and perform the following input tests.

   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, the 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
13	ORN	Connect the No. 11 and No. 7 terminals, and the No. 4 and No. 14 terminals, and turn the ignition switch ON (II).	Check for voltage between the No. 13 and No. 14 terminals: About 6 V should be indicated with the driver's window motor running.	• Faulty driver's window motor • An open in the wire

Master Switch Test

1. Remove the power window master switch (see page 22-133).
2. Disconnect the 14P connector from the switch (A).



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

Driver's Window Switch:

The driver's switch is combined with the control unit so you cannot isolate the switch to test it. Instead, run the master switch input test procedures on page 22-126. If the tests are normal, the driver's switch must be faulty.

Passenger's Window Switch:

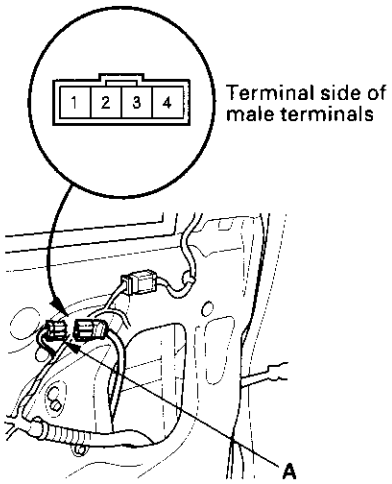
Position \ Terminal	Main Switch	1	2	3	10
OFF	ON	○		○	○
	OFF	○		○	
UP	ON	○	○	○	○
	OFF		○	○	
DOWN	ON	○	○		○
	OFF	○	○		

4. If the switch is faulty, replace the switch.

Driver's Window Motor Test

Motor Test:

1. Remove the door panel (see page 20-4).
2. Disconnect the 4P connector (A) from the driver's window motor.



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.

Terminal / Direction	1	2
UP	⊖	⊕
DOWN	⊕	⊖

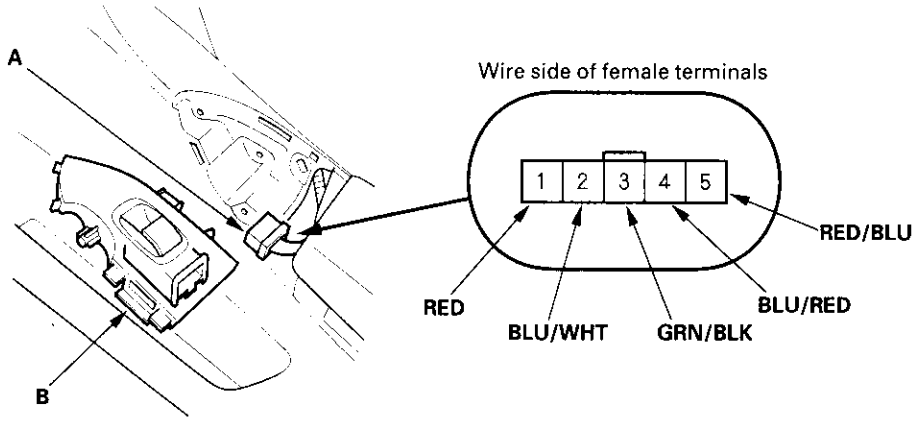
4. If the motor does not run or fails to run smoothly, replace it.

Pulser Test:

1. Reconnect the 4P connector to the driver's window motor, and reconnect the 20P connector to the power window master switch.
2. Connect the test leads of a voltmeter to the No. 3 and No. 4 terminals of the driver's window motor 4P connector.
3. Run the motor using the master switch. The voltmeter should read about 6 V.
4. If the voltage is not as specified, check for an open in the wires. If the wires are OK, replace the driver's window motor.

Passenger's Window Switch Input Test

1. Remove the switch panel (see page 20-4).
2. Disconnect the 5P connector (A) from the switch (B).



3. Input 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 connector, and using a back probe, make these input tests at the connector. If any test indicates a problem, find and correct the cause, then recheck the system.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
3	GRN/BLK	Ignition switch ON (II)	Check for voltage to ground: There should be battery voltage.	• Blown No. 6 (7.5A) fuse in the under-dash fuse/relay box • Blown No. 22 (20A) fuse in the under-dash fuse/relay box • Faulty power window relay • An open in the wire • Poor ground (G201)
2	BLD/WHT	Ignition switch ON (II) At the master window switch, press and hold down the passenger's switch	Check for voltage to ground: There should be battery voltage.	• Faulty master window switch • An open in the wire
4	BLU/RED	Ignition switch ON (II) At the master window switch, pull up and hold the passenger's switch	Check for voltage to ground: There should be battery voltage.	• Faulty master window switch • An open in the wire

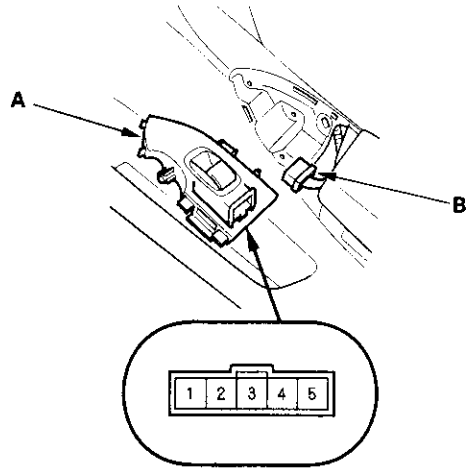
5. Disconnect the 5P connector, and make these input tests.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
1	RED	Connect the No. 2 terminal to the No. 1 terminal, and the No. 4 terminal to the No. 5 terminal, and turn the ignition switch ON (II), and press the down button on the power window master switch for the passenger's window.	Check for passenger's window motor operation: If should run (the passenger's window moves down). There should be battery voltage.	• Faulty master's window switch • An open in the wire • Faulty passenger's window motor.
5	RED/BLU			

6. If all the tests prove OK, the switch must be faulty. Replace it.

Passenger's Window Switch Test

1. Remove the switch panel (see page 20-4).
2. Remove the power window switch (A) from the door panel.
3. Disconnect the 5P connector (B) from the passenger's power window switch.



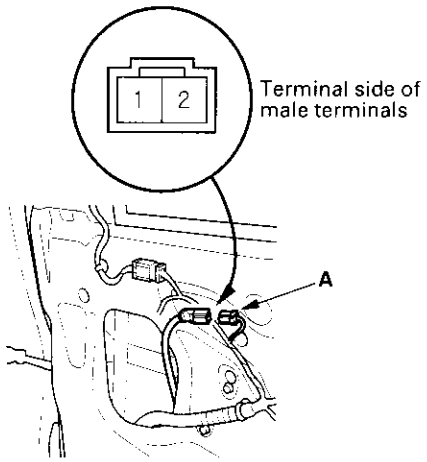
4. Check for continuity between the terminals in each switch position according to the table.

Terminal / Position	1	2	3	4	5
UP	○—○		○		○
OFF	○—○			○—○	
DOWN	○		○	○—○	

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

Passenger's Window Motor Test

1. Remove the passenger's door panel (see page 20-4).
2. Disconnect the 2P connector (A) from the passenger's power window motor.



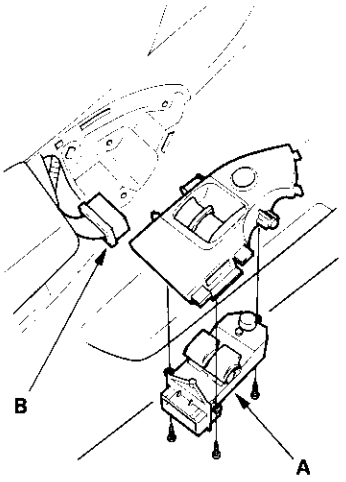
3. Test the motor in each direction by connecting battery power and ground according to the table. When the motor stops running, disconnect one lead immediately.

Terminal / Direction	1	2
UP	⊕	⊖
DOWN	⊖	⊕

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

Master Switch Replacement

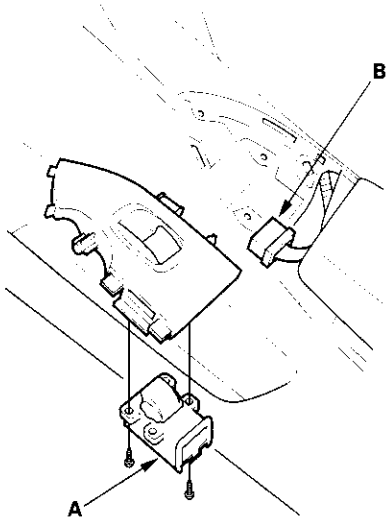
1. Remove the door grip (see page 20-4).
2. Remove the power window master switch (A) from the door panel.



3. Disconnect the 14P connector (B) from the switch.
4. Remove the three screws and the switch from the switch panel.

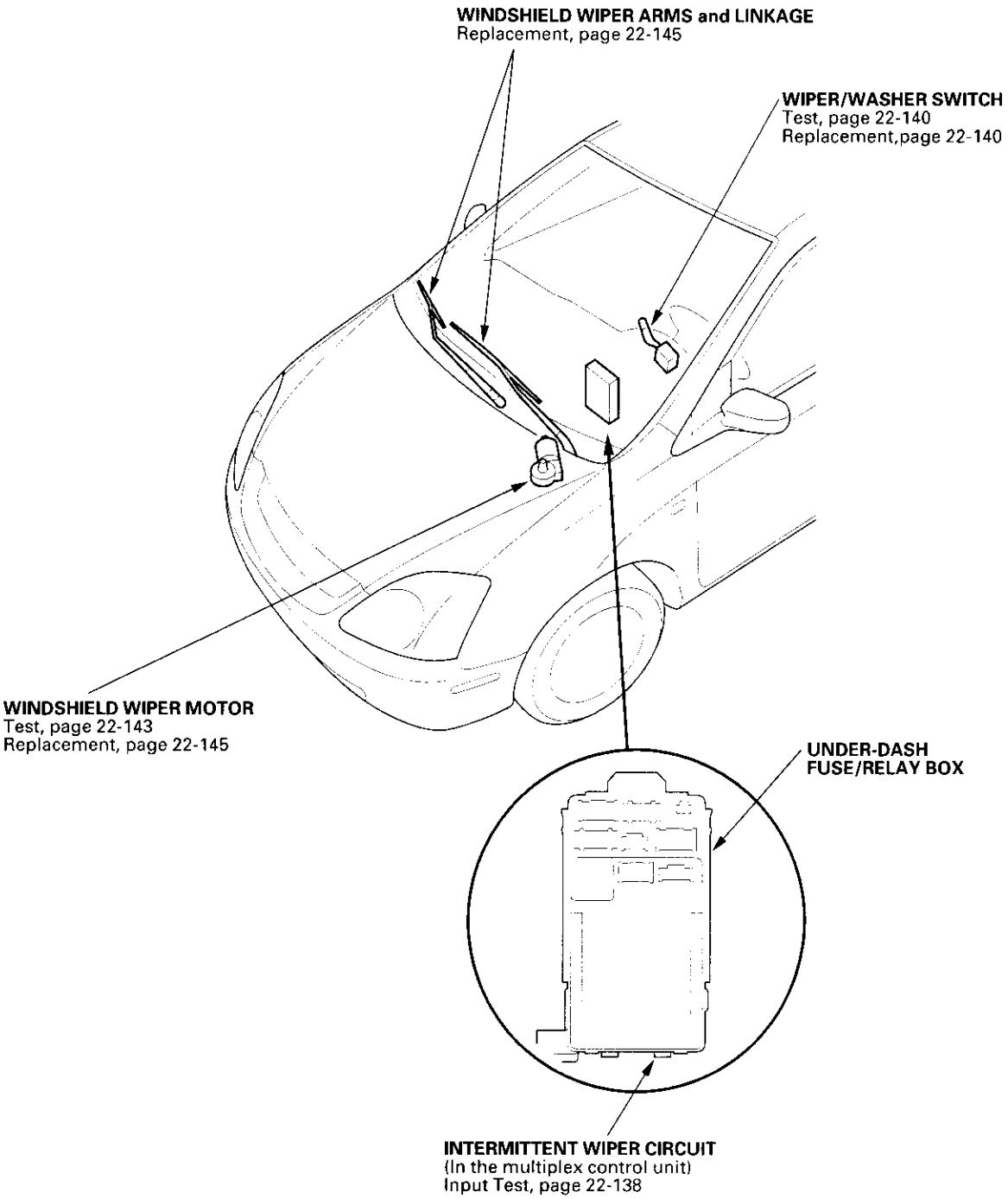
Passenger's Window Switch Replacement

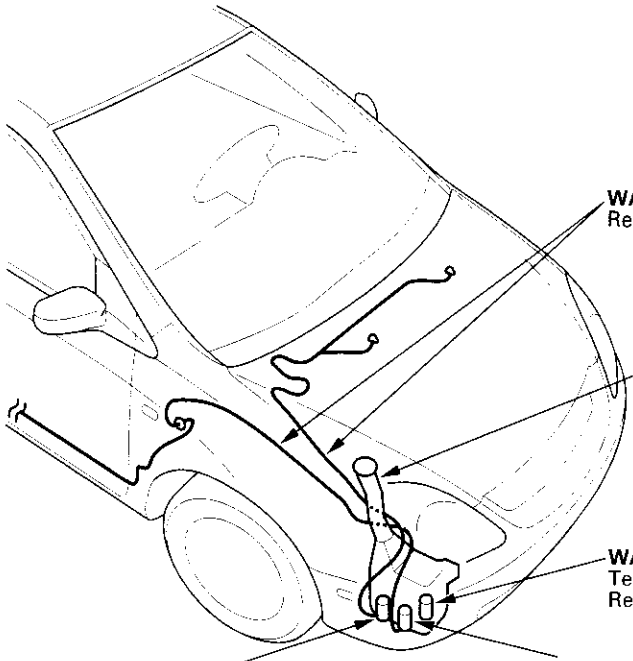
1. Remove the door grip (see page 20-4).
2. Remove the power window switch (A) from the door panel.



3. Disconnect the 5P connector (B) from the switch.
4. Remove the two screws and the switch from the switch panel.

Component Location Index





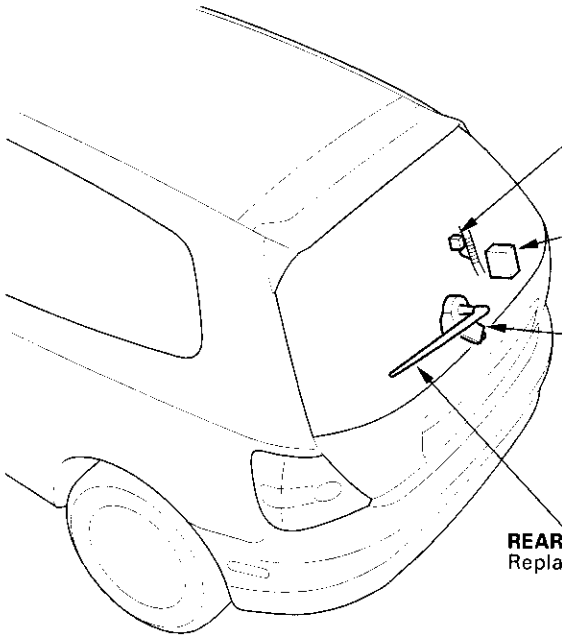
WASHER TUBES
Replacement, page 22-147

WASHER RESERVOIR
Replacement, page 22-146

WASHER FLUID LEVEL SWITCH (Canada)
Test, page 22-144
Replacement, page 22-144

REAR WINDOW WASHER MOTOR
Test, page 22-144
Replacement, page 22-146

WINDSHIELD WASHER MOTOR
Test, page 22-144
Replacement, page 22-146



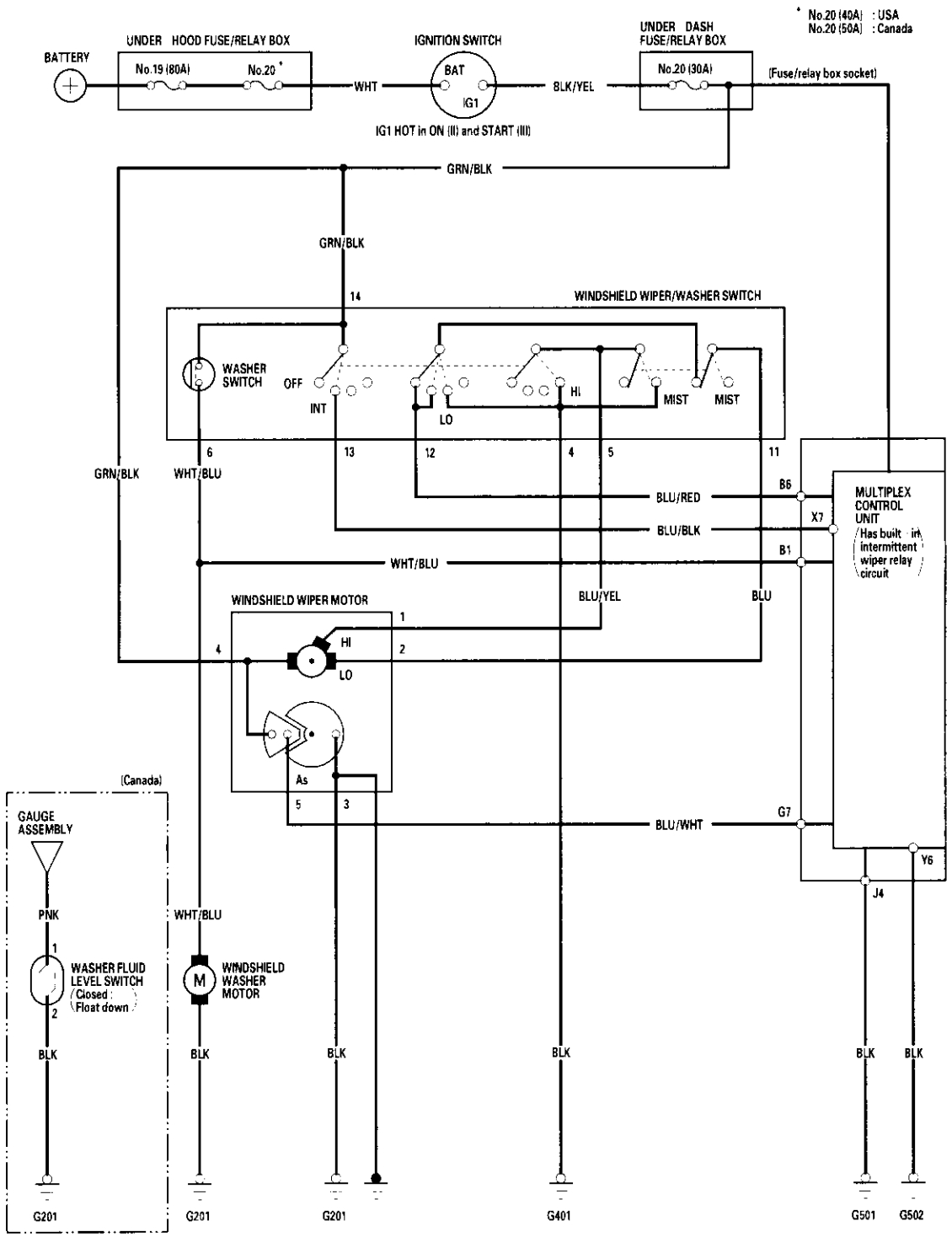
NOISE CONDENSER
Capacity Test, page 22-107

REAR WINDOW WIPER INTERMITTENT CONTROL UNIT
Input Test, page 22-138

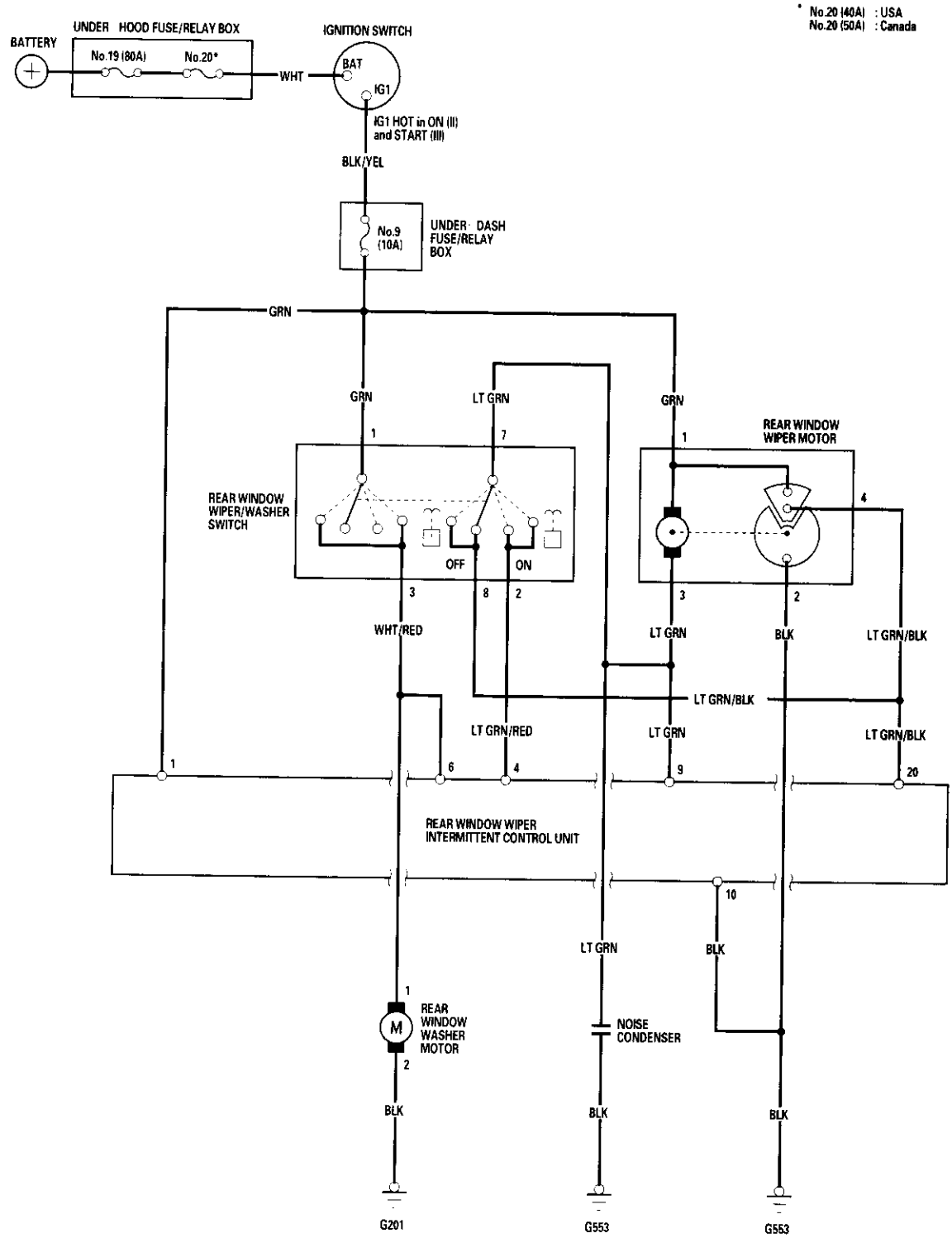
REAR WINDOW WIPER MOTOR
Test, page 22-143
Replacement, page 22-146

REAR WINDOW WIPER ARM
Replacement, page 22-146

Circuit Diagram - Windshield

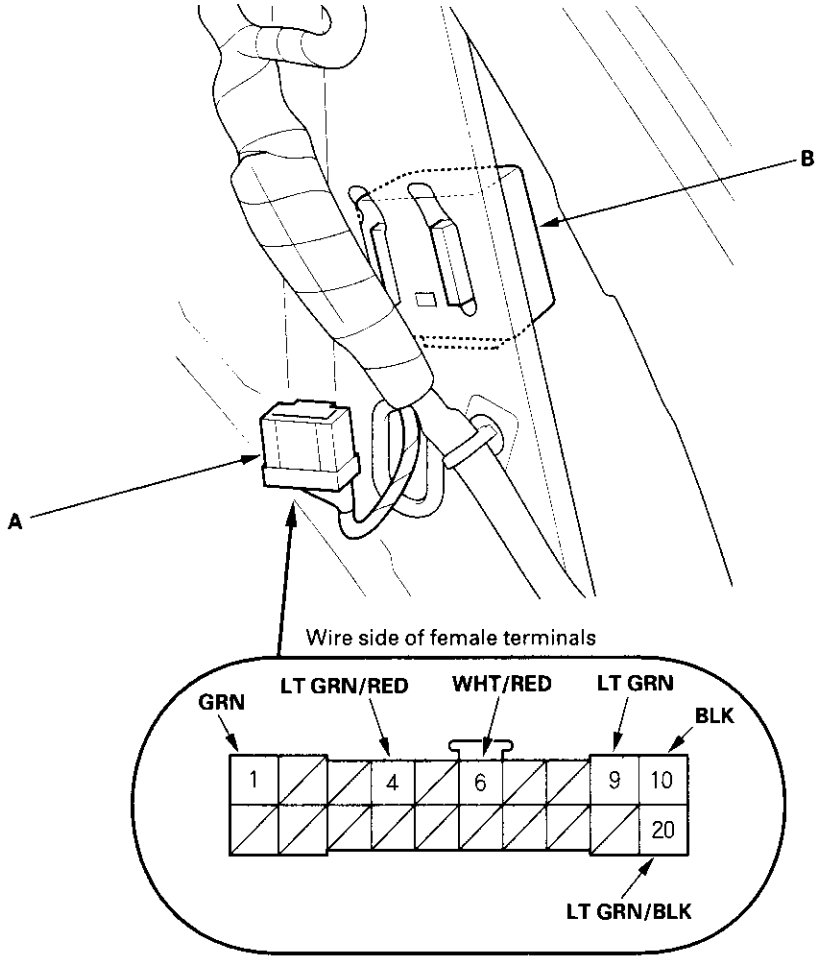


Circuit Diagram - Rear Window



Rear Window Wiper Intermittent Control Unit Input Test

1. Remove the right rear side trim panel (see page 20-51).
2. Disconnect the 20P connector (A) from the rear window wiper intermittent 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.

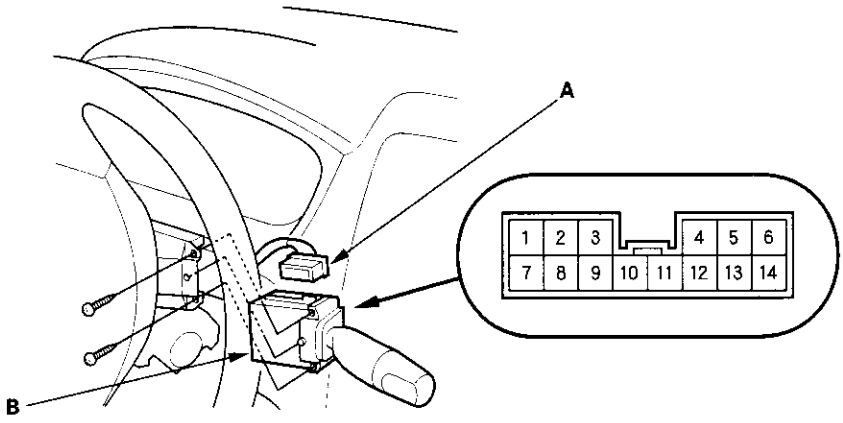
4. With the connector still disconnected, make these input tests at the connectors.

   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, the control unit must be faulty. Replace it.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
1	GRN	Ignition switch ON (II)	Check for voltage to ground: There should be battery voltage.	• Blown No. 9 (10A) fuse in the under-dash fuse/relay box • An open in the wire
10	BLK	Under all conditions	Check for continuity to ground: There should be continuity.	• Poor ground (G553) • An open in the wire
6	WHT/RED	Ignition switch ON (II) and rear window washer switch ON	Check for voltage to ground: There should be battery voltage.	• Blown No. 9 (10A) fuse in the under-dash fuse/relay box • Faulty rear window wiper/ washer switch • An open in the wire
4	LT GRN/ RED	Ignition switch ON (II) and rear window wiper switch ON	Attach to ground: The rear window wiper motor should run.	
9	LT GRN	Ignition switch ON (II)	Attach to ground: The rear window wiper motor should run.	• Blown No. 9 (10A) fuse in the under-dash fuse/relay box • Faulty rear window wiper motor • An open in the wire
20	LT GRN/ BLK	Ignition switch ON (II)	Check for voltage to ground: There should be battery voltage.	• Blown No. 9 (10A) fuse in the under-dash fuse/relay box • Faulty rear window wiper motor • An open in the wire

Wiper/Washer Switch Test/Replacement

1. Remove the driver's dashboard lower cover (see page 20-60).
2. Remove the steering column covers (see page 17-9).
3. Disconnect the 14P connector (A) from the wiper/washer switch (B)



4. Remove the two screws, then pull out the wiper/washer switch.
5. Inspect the connector terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
   - If the terminals look OK, check for continuity between the terminals in each switch position according to the tables.
     - If the continuity is not as specified, replace the switch.

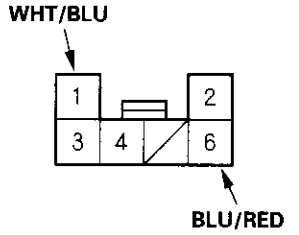
Terminal / Position	6	5	4	14	13	12	11
OFF						○—○	
INT				○—○		○—○	
LO			○—	—	—	—	—○
HI		○—○					
Mist switch ON		○—○					
Washer switch ON	○—	—	—	—○			

Control Unit Input Test

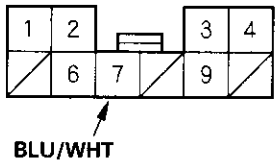
1. Before testing, troubleshoot the multiplex control system (see page 22-172).
2. Remove the dashboard lower cover.
3. Disconnect the under-dash fuse/relay box connectors B, G, J, X and Y.

   NOTE: All connectors are wire side of female terminals.

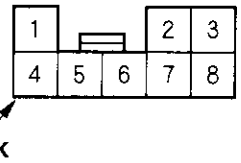
UNDER-DASH FUSE/RELAY BOX CONNECTOR B (6P)



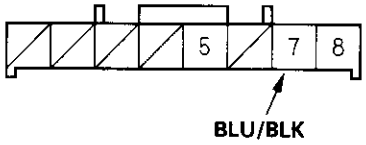
UNDER-DASH FUSE/RELAY BOX CONNECTOR G (10P)



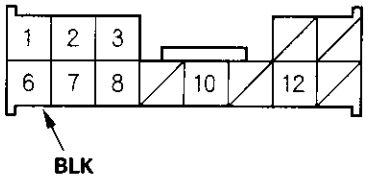
UNDER-DASH FUSE/RELAY BOX CONNECTOR J (8P)



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



UNDER-DASH FUSE/RELAY BOX CONNECTOR Y (13P)



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

   - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
   - If the terminals are OK, go to step 5.

(cont'd)

Control Unit Input Test (cont'd)

5. Reconnect the connectors, and make these input tests at the connector.

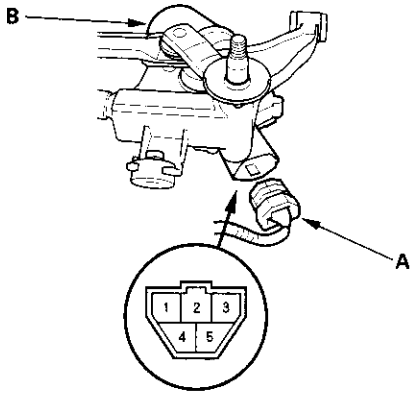
- If any test indicates a problem, find and correct the cause, then recheck the system.
- If all the input tests prove OK, the multiplex control unit must be faulty. Replace the under-dash fuse/relay box assembly.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
J4	BLK	Under all conditions	Check for voltage to ground: There should be 1 V or less.	• Poor ground (G501) • An open in the wire
Y6	BLK	Under all conditions	Check for voltage to ground: There should be 1 V or less.	• Poor ground (G502) • An open in the wire
B1	WHT/BLU	Ignition switch ON (II) and washer switch ON	Check for voltage to ground: There should be battery voltage.	• Blown No. 20 (20A) fuse in the under-dash fuse/relay box • Faulty wiper/washer switch • An open in the wire
B6	BLU/RED	Ignition switch ON (II) and wiper switch OFF (wiper motor stopped)	Check for voltage to ground: There should be battery voltage.	• Blown No. 20 (20A) fuse in the under-dash fuse/relay box • Faulty wiper/washer switch • Faulty windshield wiper motor • An open in the wire
G7	BLU/WHT	Ignition switch ON (II) and wipers in park position	Check for voltage to ground: There should be battery voltage.	• Blown No. 20 (20A) fuse in the under-dash fuse/relay box • Faulty windshield wiper motor • An open in the wire
X7	BLU/BLK	Ignition switch ON (II) and wiper switch in INT	Check for voltage to ground: There should be battery voltage.	• Blown No. 20 (20A) fuse in the under-dash fuse/relay box • Faulty wiper/washer switch • An open in the wire

Wiper Motor Test

Windshield:

1. Open the hood, and carefully remove the cap nuts and the wiper arms. Make sure they do not touch the hood.
2. Remove the hood seal and cowl cover.
3. Disconnect the 5P connector (A) from the motor (B).



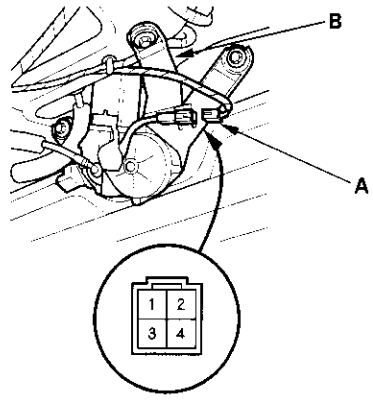
4. Test the motor by connecting battery power and ground according to the table. If the motor does not run or fails to run smoothly, replace it.

Terminal / Position	1	2	4
LOW SPEED		⊖	⊕
HIGH SPEED	⊖		⊕

5. Test the wiper motor park switch by connecting an analog voltmeter between the No. 5 (+) terminal and ground, and run the motor at low or high speed. The voltmeter should indicate 12 V and 4 V or less alternately. If it does not, replace the motor.

Rear Window:

1. Open the hatch, and remove the hatch trim panel (see page 20-53).
2. Disconnect the 4P connector (A) from the motor (B).



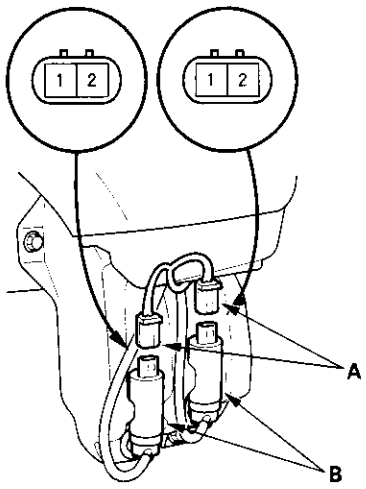
3. Test the motor by connecting battery power and ground according to the table. If the motor does not run or fails to run smoothly, replace it.

Terminal / Battery	1	3
Connected	⊕	⊖

4. Test the wiper motor park switch by connecting an analog voltmeter between the No. 4 (+) terminal and ground, and run the motor. The voltmeter should indicate 12 V and 4 V or less alternately. If it does not, replace the motor.

Washer Motor Test

1. Partially remove the right inner fender (see page 20-102).
2. Disconnect the 2P connectors (A) from the washer motors (B).



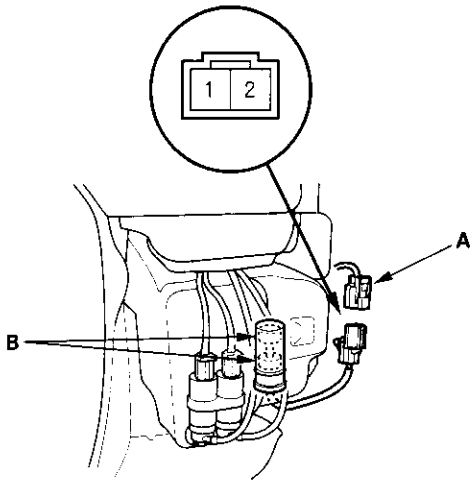
3. Test the washer motor by connecting battery power and ground according to the table.

Terminal / Battery	1	2
Connected	⊕	⊖

4. If the motor does not run, replace it.

Washer Fluid Level Switch Test/ Replacement - Canada

1. Partially remove the right inner fender (see page 20-102).
2. Disconnect the 2P connector (A) from the washer level switch.



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

   NOTE: Fluid may flow out the opening.

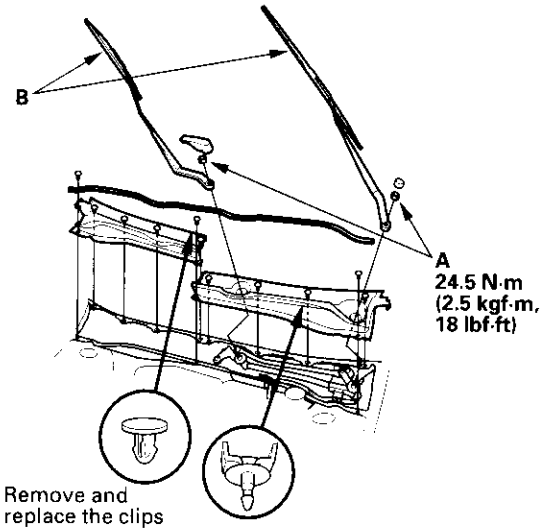
4. Check for continuity between the terminals in each float (B) position according to the table.

Terminal / Position	1	2
FLOAT UP		
FLOAT DOWN	○	○

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

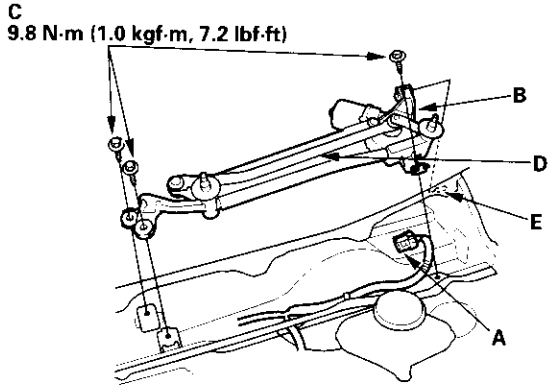
Windshield Wiper Motor Replacement

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



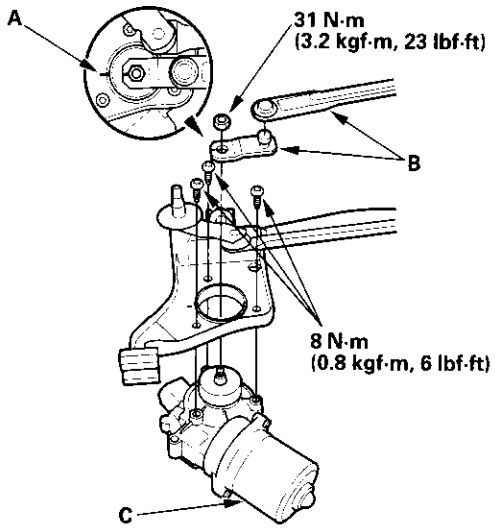
2. Remove the hood seal and cowl cover.

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



4. Remove the bolts (C), move windshield wiper linkage assembly (D) toward the passenger's side of the vehicle until it slides off of the pin (E), then remove the assembly.

5. Scribe a line (A) across the link and windshield wiper linkage to show the original adjustment. Separate the windshield wiper linkage (B) from the wiper motor (C).

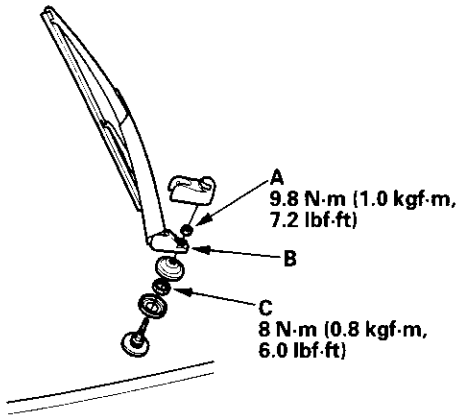


6. Install in the reverse order of removal, and note these items.

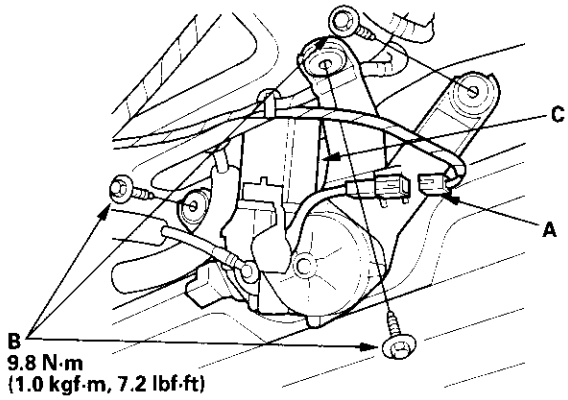
- Apply multipurpose grease to the moving parts.
- Before reinstalling the wiper arms, turn the wiper switch ON, then OFF to return the wiper shafts to the park position.
- If necessary, replace any damaged clips.
- Check the wiper motor operation.

Rear Window Wiper Motor Replacement

1. Open the hatch, and remove the hatch trim panel (see page 20-53).
2. Remove the mounting nut (A), the wiper arm (B) and the special nut (C).



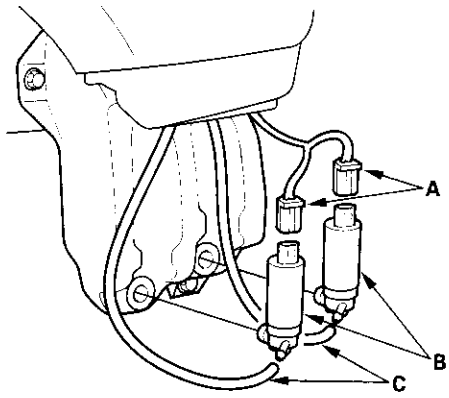
3. Disconnect the 4P connector (A), remove the three mounting bolts (B), then remove the rear window wiper motor (C).



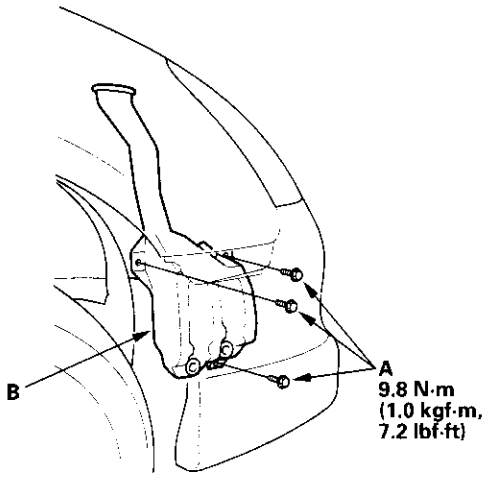
4. Install in the reverse order of removal, and note these items.
   - Apply multipurpose grease to the moving parts.
   - Before reinstalling the wiper arm, turn the wiper switch ON, then turn OFF to return the wiper shaft to the park positon.
   - If necessary, replace any damaged clips.
   - Check the wiper motor operation.

Washer Reservoir Replacement

1. Partially remove the right inner fender.
2. Disconnect the 2P connectors (A) from the washer motors (B) and level switch (Canada).

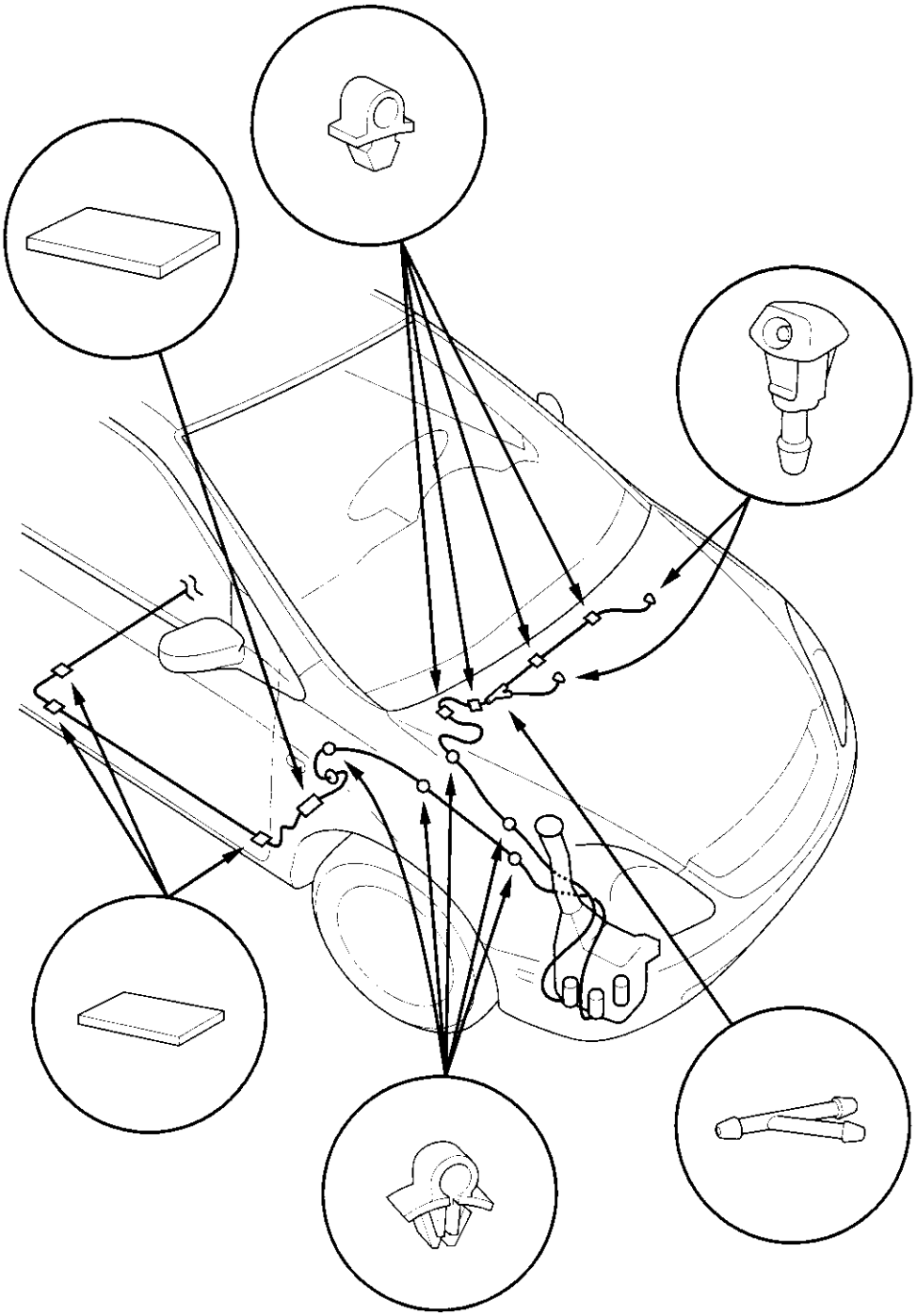


3. Disconnect the tubes (C) from the washer motors.
4. Remove the three bolts (A) and the washer reservoir (B).



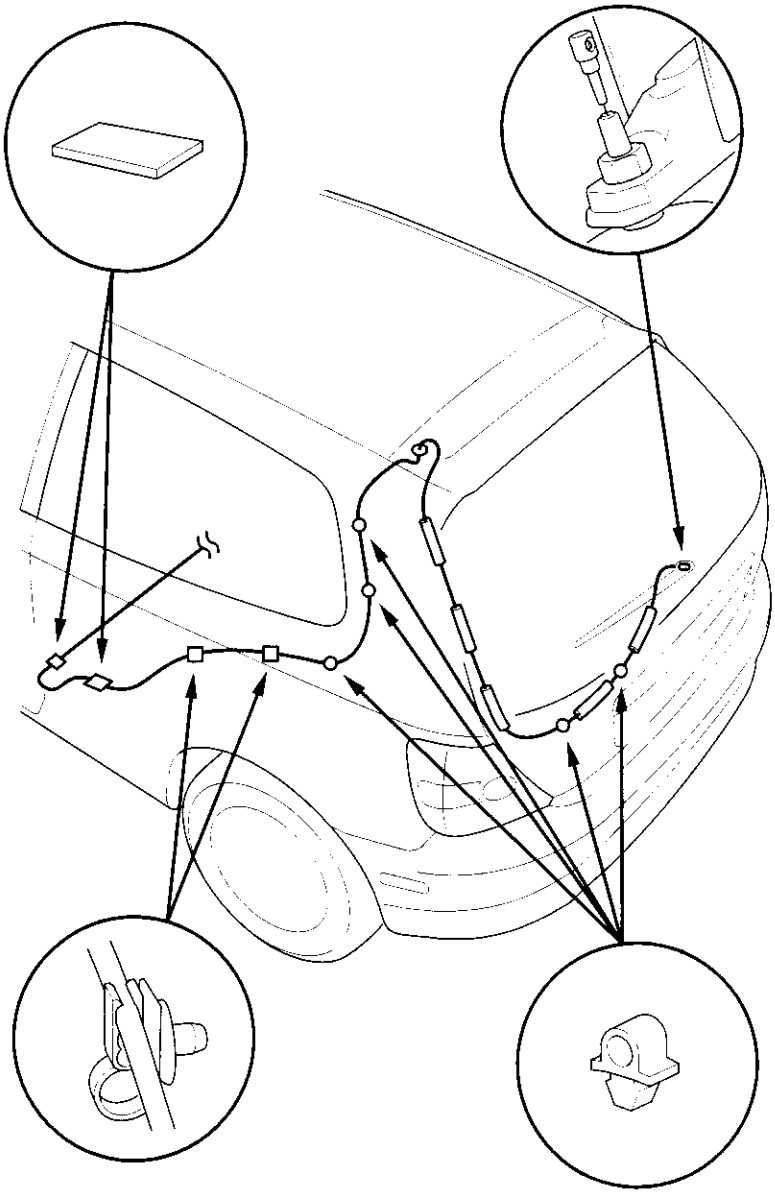
Washer Tubes Replacement

1. Remove the right inner fender (see page 20-102).
2. Remove the washer nozzles and clips, then remove the tubes.



(cont'd)

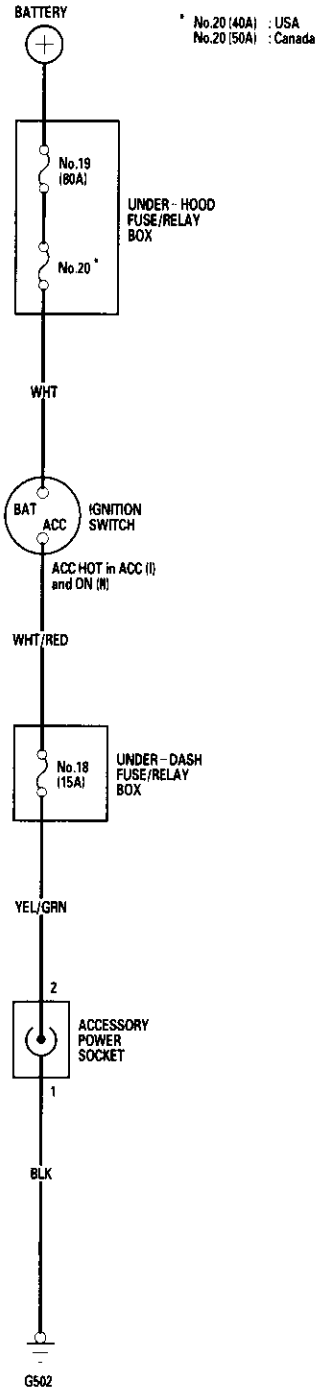
Washer Tubes Replacement (cont'd)



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

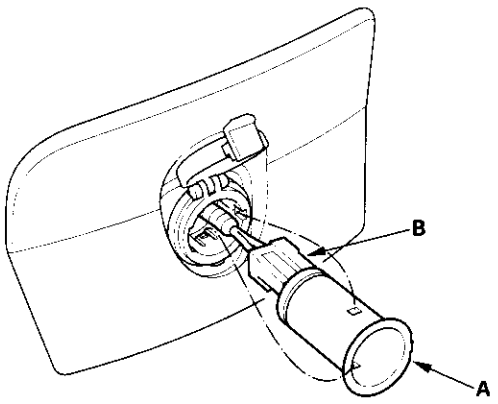
Accessory Power Socket

Circuit Diagram

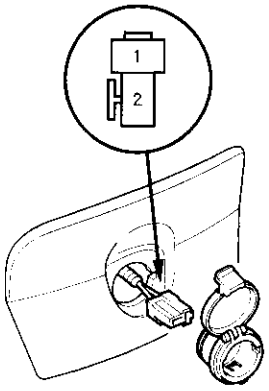


Accessory Power Socket Test/ Replacement

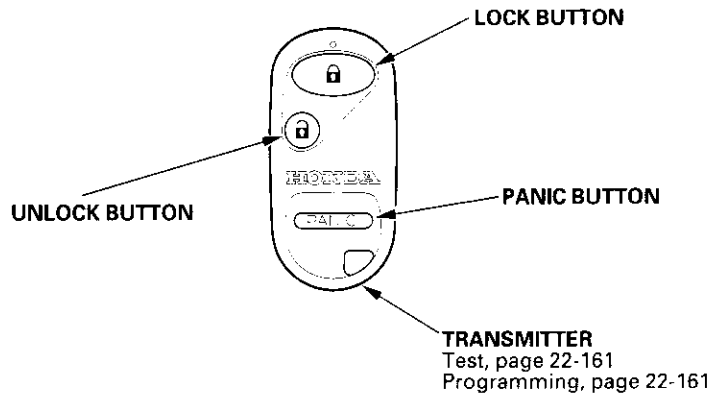
1. Carefully pry the accessory power socket (A) out from the center lower cover.
2. Disconnect the 2P connector (B) from the socket.

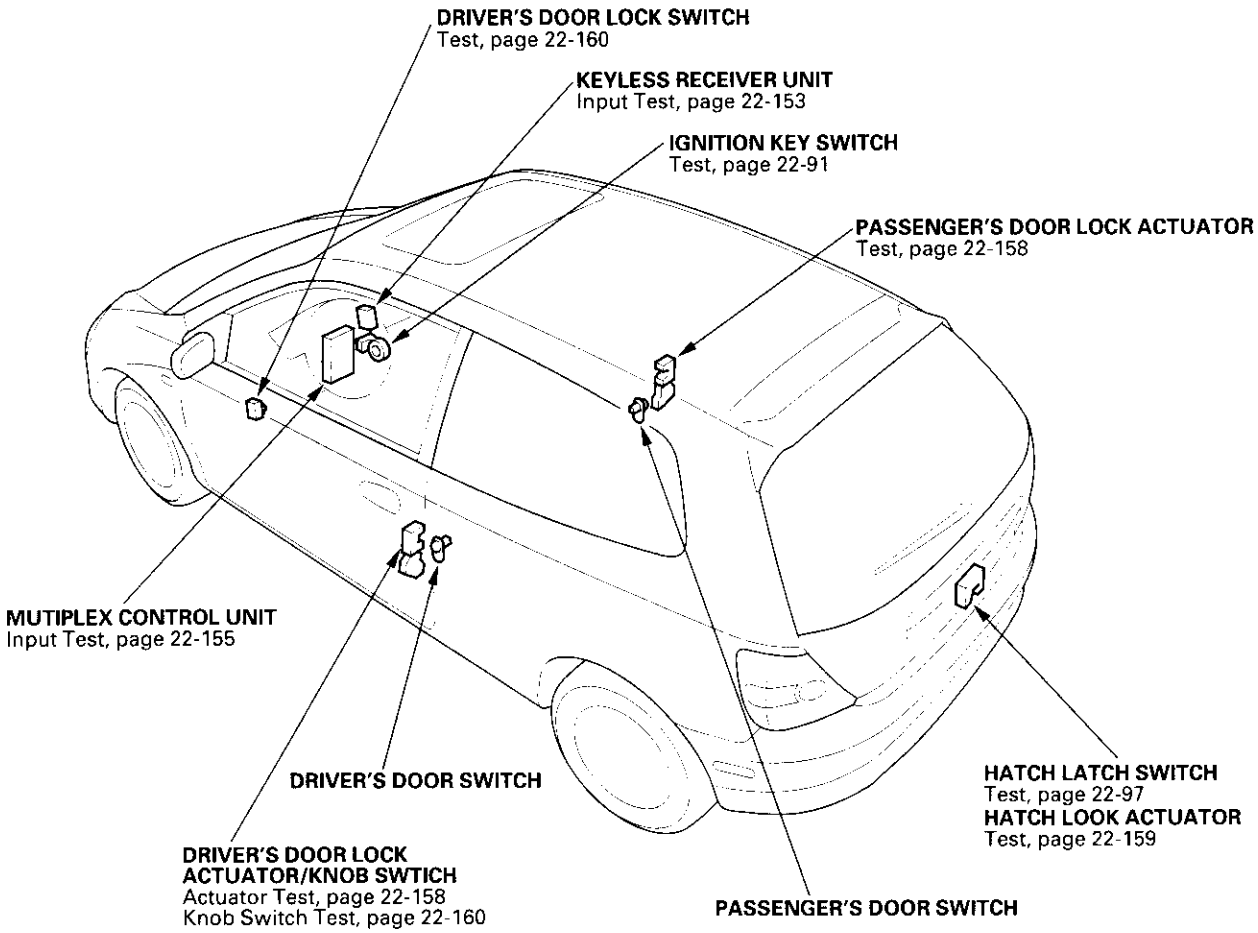


3. Inspect the connector terminals to be sure they are all making good contact.
   - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
   - If the terminals look OK, go to step 4.
4. Turn the ignition switch ACC (I), and check for voltage between the No. 1 and No. 2 terminals.
   - There should be battery voltage.
   - If there is no battery voltage, check for:
     - poor ground (G502).
     - an open in the wire.
     - blown No. 18 (15A) fuse in the under-dash fuse/relay box.

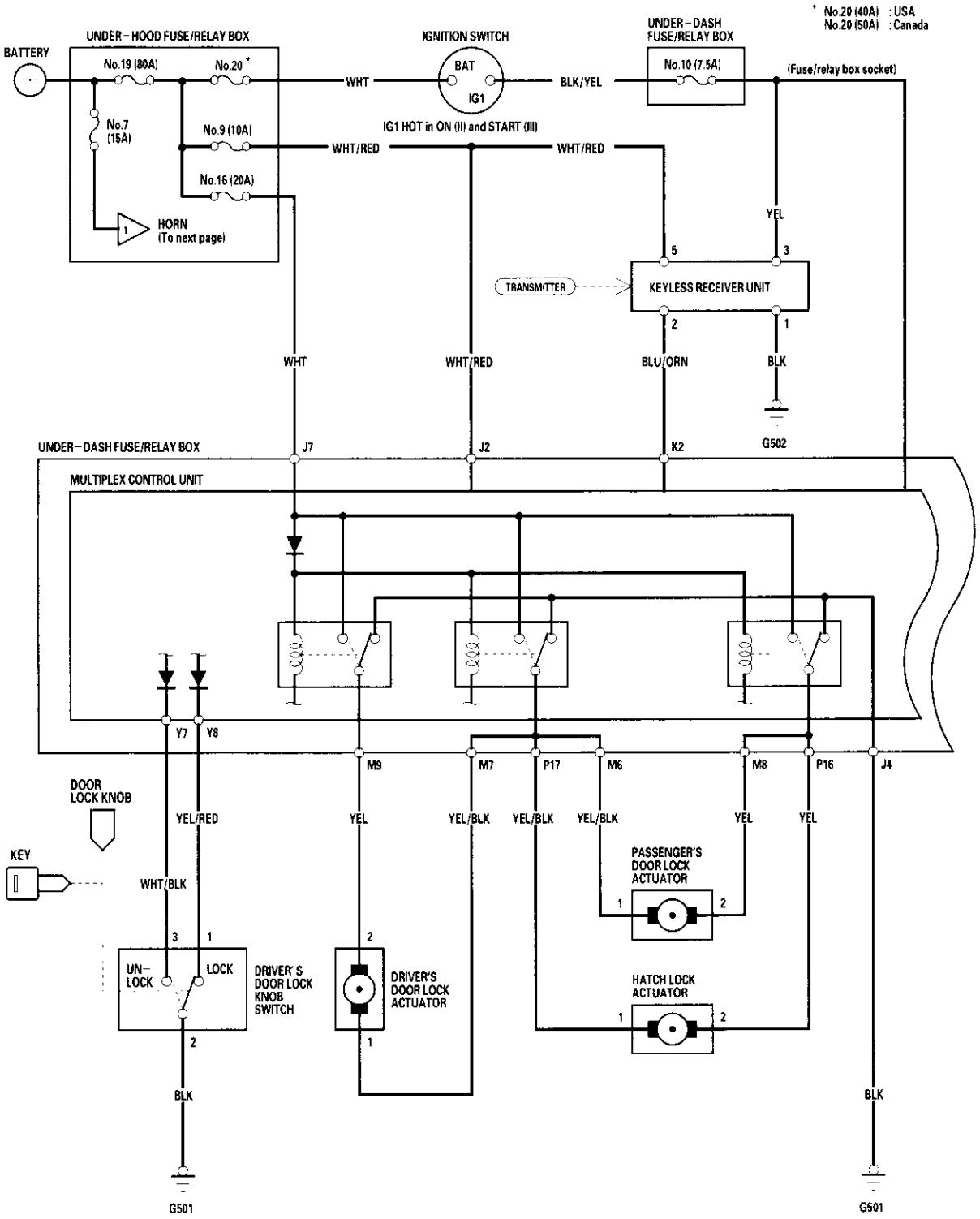


Component Location Index





Circuit Diagram



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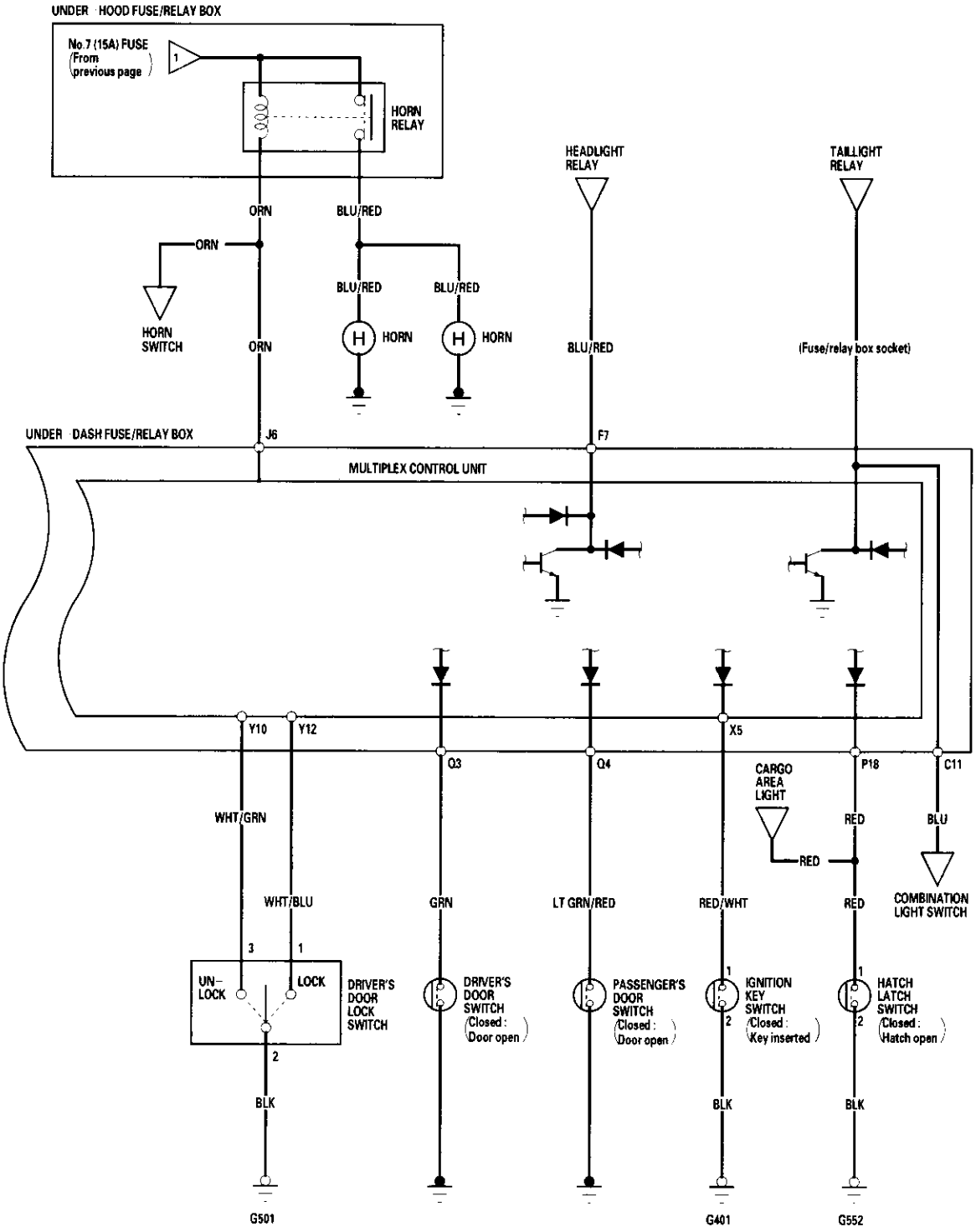
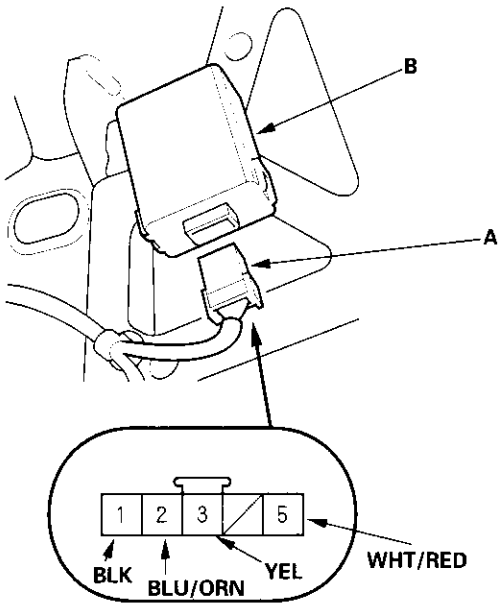
Circuit Diagram (cont'd)



Keyless Receiver Unit Input Test

1. Remove the driver's dashboard lower cover (see page 20-59).
2. Remove the audio unit (see page 22-100).
3. Disconnect the 5P connector (A) from the keyless receiver unit (B).



Wire side of female terminals

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

   - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
   - If the terminals are OK, go to step 5.

(cont'd)

Keyless Receiver Unit Input Test (cont'd)

5. With the connector still disconnected, make the input test at the connector.

   - If test indicates a problem, find and correct the cause, then recheck the system.
   - If the input test proves OK, go to step 6.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
2	BLU/ORN	Under all conditions	Check for continuity between the No. 2 terminal and the No. 2 terminal of the under-dash fuse/relay box connector K (17P). There should be continuity.	An open in the wire

6. Reconnect the 5P connector, 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, replace the keyless receiver unit.

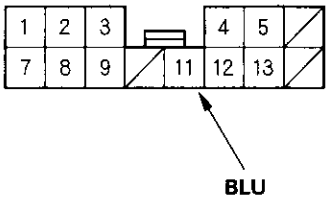
Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
1	BLK	Under all conditions	Check for voltage to ground: There should be 1 V or less.	• Poor ground (G502) • An open in the wire
3	YEL	Ignition switch ON (II)	Check for voltage to ground: There should be battery voltage.	• Blown No. 10 (7.5A) fuse in the under-dash fuse/relay box • An open in the wire
5	WHT/RED	Under all conditions	Check for voltage to ground: There should be battery voltage.	• Blown No. 9 (10A) fuse in the under-hood fuse/relay box • An open in the wire

Control Unit Input Test

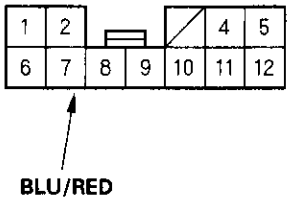
1. Before testing, troubleshoot the multiplex control system (see page 22-172).
2. Remove the dashboard lower cover.
3. Disconnect the under-dash fuse/relay box connectors.

   NOTE: All connectors are wire side of female terminals.

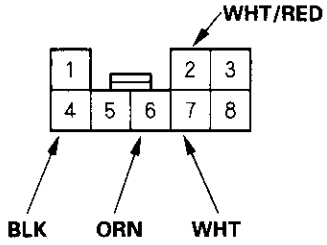
UNDER-DASH FUSE/RELAY BOX CONNECTOR C (14P)



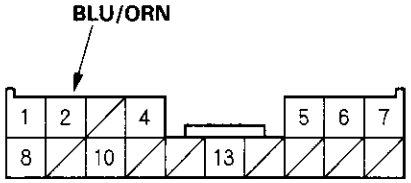
UNDER-DASH FUSE/RELAY BOX CONNECTOR F (12P)



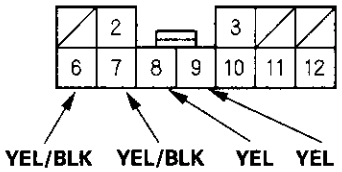
UNDER-DASH FUSE/RELAY BOX CONNECTOR J (8P)



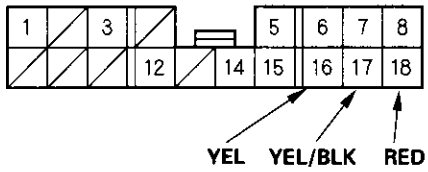
UNDER-DASH FUSE/RELAY BOX CONNECTOR K (17P)



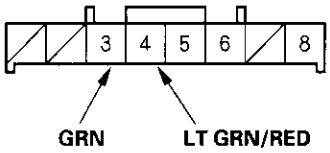
UNDER-DASH FUSE/RELAY BOX CONNECTOR M (12P)



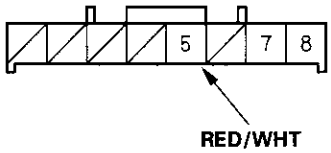
UNDER-DASH FUSE/RELAY BOX CONNECTOR P (18P)



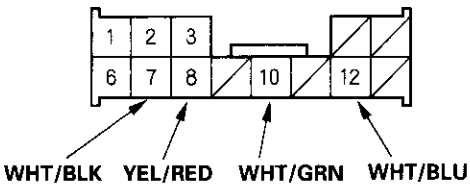
UNDER-DASH FUSE/RELAY BOX CONNECTOR Q (8P)



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



UNDER-DASH FUSE/RELAY BOX CONNECTOR Y (13P)



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)

Control Unit Input Test (cont'd)

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

   - 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
C11	BLU	Under all conditions	Attach to ground: Parking, side marker, license plate lights, and taillights should come on.	• Blown No. 2 (15A) fuse in the under-hood fuse/relay box • Faulty taillight relay • Faulty under-dash fuse/relay box • An open in the wire
F7	BLU/RED	Under all conditions	Attach to ground: Headlights should come on.	• Blown No. 15 or 17 (15A) fuse in the under-hood fuse/relay box • Faulty headlight relay 1 or 2 • An open in the wire
J2	WHT/RED	Under all conditions	Check for voltage to ground: There should be battery voltage.	• Blown No. 9 (15A) fuse in the under-hood fuse/relay box • An open in the wire
J4	BLK	Under all conditions	Check for voltage to ground: There should be 1 V or less.	• Poor ground (G501) • An open in the wire
J6	ORN	Under all conditions	Attach to ground: The horns should sound.	• Blown No. 7 (15A) fuse in the under-hood fuse/relay box • Faulty horn relay • Faulty horns • An open in the wire
J7	WHT	Under all conditions	Check for voltage to ground: There should be battery voltage.	• Blown No. 16 (20A) fuse in the under-hood fuse/relay box • An open in the wire
P18	RED	Hatch open	Check for voltage to ground: There should be 1 V or less.	• Poor ground (G552) • Faulty hatch latch switch • An open in the wire
		Hatch closed	Check for voltage to ground: There should be 5 V or more.	• Faulty hatch latch switch • Short to ground
Q3	GRN	Driver's door open	Check for voltage to ground: There should be 1 V or less.	• 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
Q4	LT GRN /RED	Passenger's door open	Check for voltage to ground: There should be 1 V or less.	• Faulty passenger's door switch • An open in the wire
		Passenger's door closed	Check for voltage to ground: There should be 5 V or more.	• Faulty passenger's door switch • Short to ground
X5	RED/WHT	Ignition key inserted into the ignition switch	Check for voltage to ground: There should be 1 V or less.	• Poor ground (G401) • 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
Y7	WHT/BLK	Driver's door lock knob switch unlocked	Check for voltage to ground: There should be 1 V or less.	• 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
Y8	YEL/RED	Driver's door lock knob switch locked	Check for voltage to ground: There should be 1 V or less.	• Poor ground (G501) • Faulty driver's door lock knob switch • An open in the wire
		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
Y10	WHT/GRN	Driver's door lock switch unlocked	Check for voltage to ground: There should be 1 V or less.	• Poor ground (G501) • Faulty driver's door lock switch • An open in the wire
		Driver's door lock switch in neutral	Check for voltage to ground: There should be 5 V or more.	• Faulty driver's door lock switch • Short to ground
Y12	WHT/BLU	Driver's door lock switch locked	Check for voltage to ground: There should be 1 V or less.	• Poor ground (G501) • Faulty driver's door lock switch • An open in the wire
		Driver's door lock switch in neutral	Check for voltage to ground: There should be 5 V or more.	• Faulty driver's door lock switch • Short to ground

6. Disconnect the M, P, K and J connectors from the under-dash fuse/relay box, and make these input tests at the connectors.

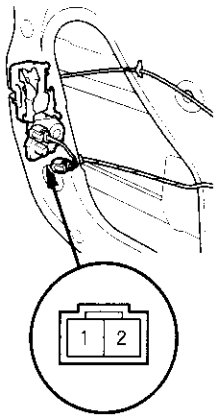
- If any test indicates a problem, find and correct the cause, then recheck the system.
- If all the input tests prove OK, the multiplex control unit must be faulty. Replace the under-dash fuse/relay box assembly.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
K2	BLU/ORN	Under all conditions	Check for continuity between the K2 terminal and the keyless receiver unit 5P connector disconnected: There should be continuity.	• An open in the wire
M7	YEL/BLK	Connect J7 terminal to M7 [M9] terminal, and M9 [M7] terminal to J4 terminal.	Check actuator operation: The driver's door lock actuator should lock [unlock].	• Faulty driver's door lock actuator • An open in the wire
M9	YEL			
M6	YEL/BLK	Connect J7 terminal to M6 [M8] terminal, and M8 [M6] terminal to J4 terminal.	Check actuator operation: The passenger's door lock actuator should lock [unlock].	• Faulty passenger's door lock actuator • An open in the wire
M8	YEL			
P16	YEL	Connect J7 terminal to P17 [P16] terminal, and P16 [P17] terminal to J4 terminal.	Check actuator operation: The hatch lock actuator should lock [unlock].	• Faulty hatch lock actuator • An open in the wire
P17	YEL/BLK			

Door Lock Actuator Test

Driver's door:

1. Remove the driver's door panel (see page 20-4).
2. Disconnect the 2P connector from the actuator.



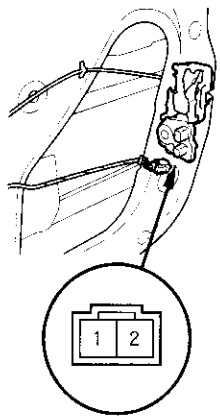
3. Check actuator operation by connecting power and ground according to the table. To prevent damage to the actuator, apply battery voltage only momentarily.

Terminal / Position	1	2
LOCK	⊖	⊖
UNLOCK	⊖	⊕

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

Passenger's door:

1. Remove the passenger's door panel (see page 20-4).
2. Disconnect the 2P connector from the actuator.



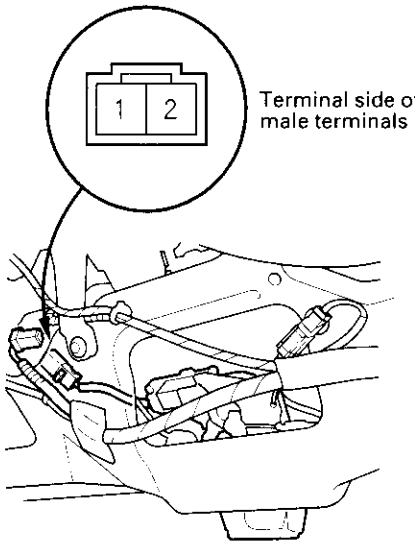
3. Check actuator operation by connecting power and ground according to the table. To prevent damage to the actuator, apply battery voltage only momentarily.

Terminal / Position	1	2
LOCK	⊕	⊖
UNLOCK	⊖	⊕

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

Hatch Lock Actuator Test

1. Open the hatch.
2. Remove the hatch lower trim panel (see page 20-53).
3. Disconnect the 2P connector from the hatch lock actuator.

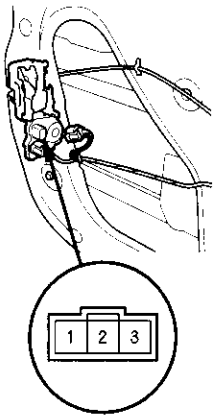


4. Check actuator operation by connecting power and ground according to the table. To prevent damage to the actuator, apply battery voltage only momentarily.

Terminal / Position	1	2
LOCK	⊖	⊕
UNLOCK	⊕	⊖

Door Lock Knob Switch Test

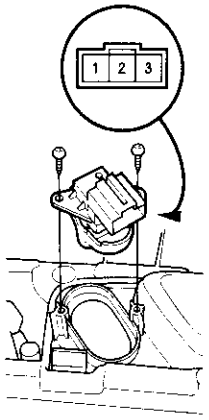
1. Remove the driver's door panel (see page 20-4).
2. Disconnect the 3P connector from the actuator.



3. Check for continuity between the No. 1 and No. 2 terminals.
   - There should be continuity when the door lock knob switch is in the LOCKED position.
   - There should be no continuity when the door lock knob switch is in the UNLOCKED position.
4. Check for continuity between the No. 2 and No. 3 terminals.
   - There should be continuity when the door lock knob switch is in the UNLOCKED position.
   - There should be no continuity when the door lock knob switch is in the LOCKED position.
5. If the continuity is not as specified, replace the door lock actuator.

Door Lock Switch Test

1. Remove the driver's door panel (see page 20-4).
2. Remove the two mounting screws and the door lock switch.

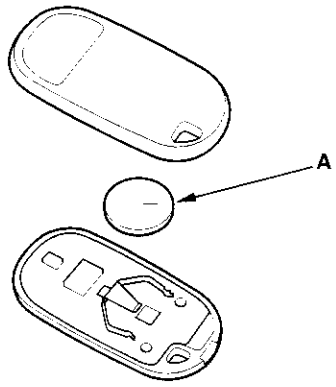


3. Check for continuity between the terminals.
   - There should be continuity between the No. 1 and No. 2 terminals when the door lock switch is in the LOCKED position.
   - There should be continuity between the No. 2 and No. 3 terminals when the door lock switch is in the UNLOCKED position.
4. If the continuity is not as specified, replace the door lock switch.

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 door with the transmitter.
- If you unlocked the doors with the transmitter, but do not open any of the doors within 30 seconds, the doors relock automatically.
- The doors do not lock or unlock with the transmitter if the ignition key is inserted in the ignition switch.

1. 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 2.
2. 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 3.
3. 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 4.



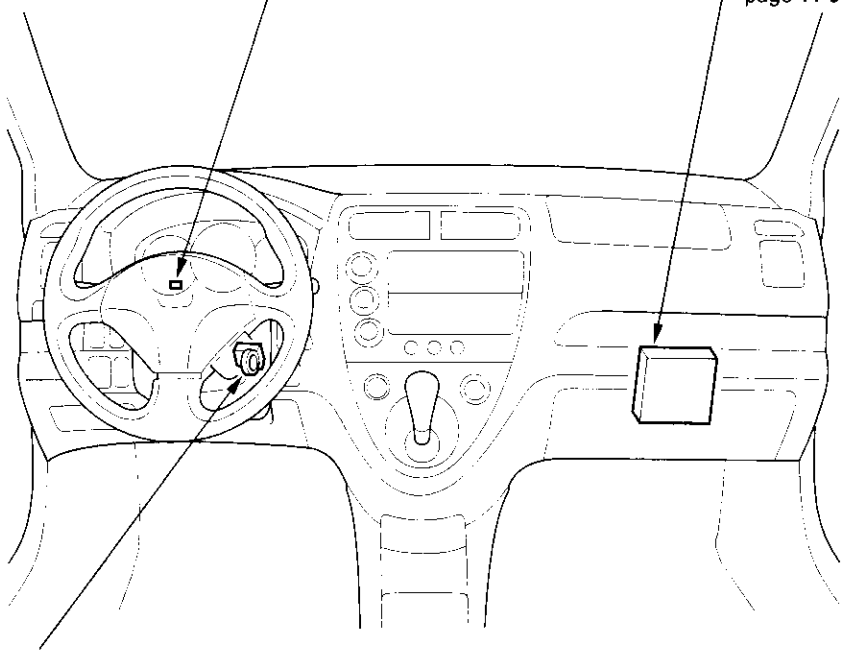
4. Reprogram the transmitter, then try to lock and unlock the doors.
   - If the doors lock and unlock, the transmitter is OK.
   - If the doors don't lock and unlock, replace the transmitter.

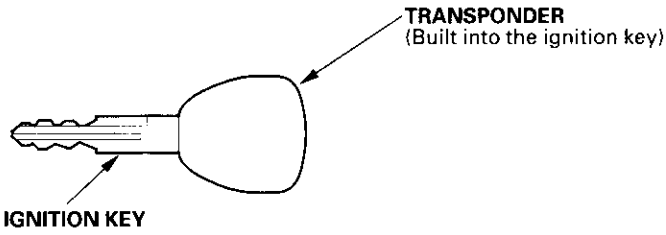
Transmitter Programming

Storing transmitter codes:
The codes of up to three transmitters can be stored in the keyless receiver unit memory. (If a fourth 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 and the hatch are closed.

1. Turn the ignition switch ON (II).
2. Within 1 to 4 sec., push the transmitter lock or unlock button with the transmitter aimed at the receiver in the multiplex control unit behind the driver's side of the dash.
3. Within 1 to 4 sec., turn the ignition switch OFF.
4. Within 1 to 4 sec., turn the ignition switch ON (II).
5. Within 1 to 4 sec., push the transmitter lock or unlock button with the transmitter aimed at the receiver in the multiplex control unit behind the driver's side of the dash.
6. Within 1 to 4 sec., turn the ignition switch OFF.
7. Within 4 sec., turn the ignition switch ON (II).
8. Within 1 to 4 sec., push the transmitter lock or unlock button with the transmitter aimed at the receiver in the mupltiplex control unit behind the driver's side of the dash.
9. Within 1 to 4 sec., turn the ignition switch OFF.
10. Within 4 sec., turn the ignition switch ON (II).
11. Within 1 to 4 sec., push the transmitter lock or unlock button with the transmitter aimed at the receiver in the multiplex control unit behind the driver's side of the dash.
12. Confirm you can hear the sound of the door lock actuators. Within 1 to 4 sec., push the transmitter lock or unlock button again.
13. Within 10 sec., aim the transmitters (up to two additional ones) whose codes you want to store at the receiver, and press the transmitter lock or unlock buttons.
    Confirm that you can hear the sound of the door lock actuators after each transmitter code is stored.
14. Turn the ignition switch OFF, and pull out the key.
15. Confirm proper operation of the transmitter.

Component Location Index

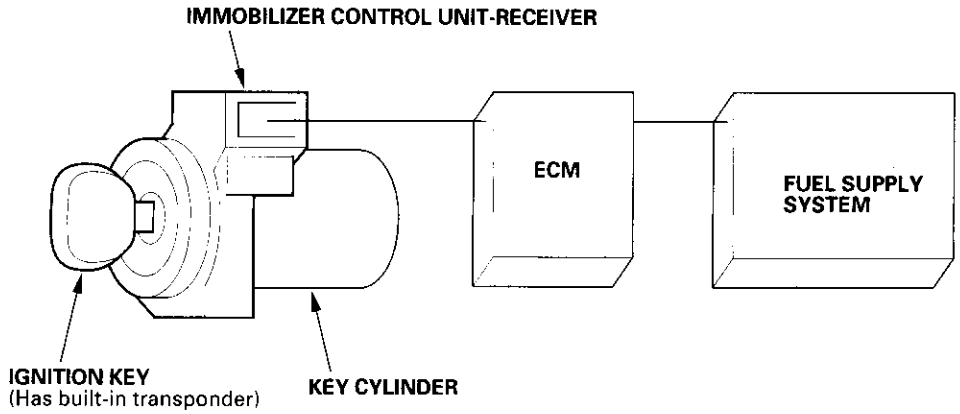




System Description

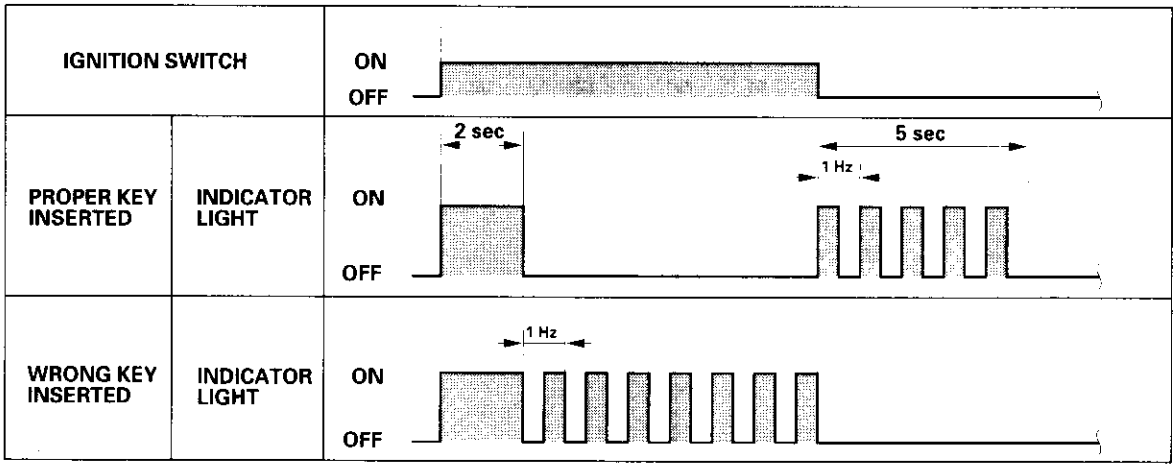
The vehicle is equipped with an immobilizer system that will disable the vehicle unless the proper ignition key is used. This system consists of a transponder located in the ignition key, an immobilizer control unit-receiver, an indicator light, and the ECM.

When the key is inserted in the ignition switch and turned to the ON (II) position, the immobilizer control unit-receiver sends power to the transponder in the ignition key. The transponder then sends a coded signal back to the immobilizer control unit-receiver which then sends a coded signal to the ECM.



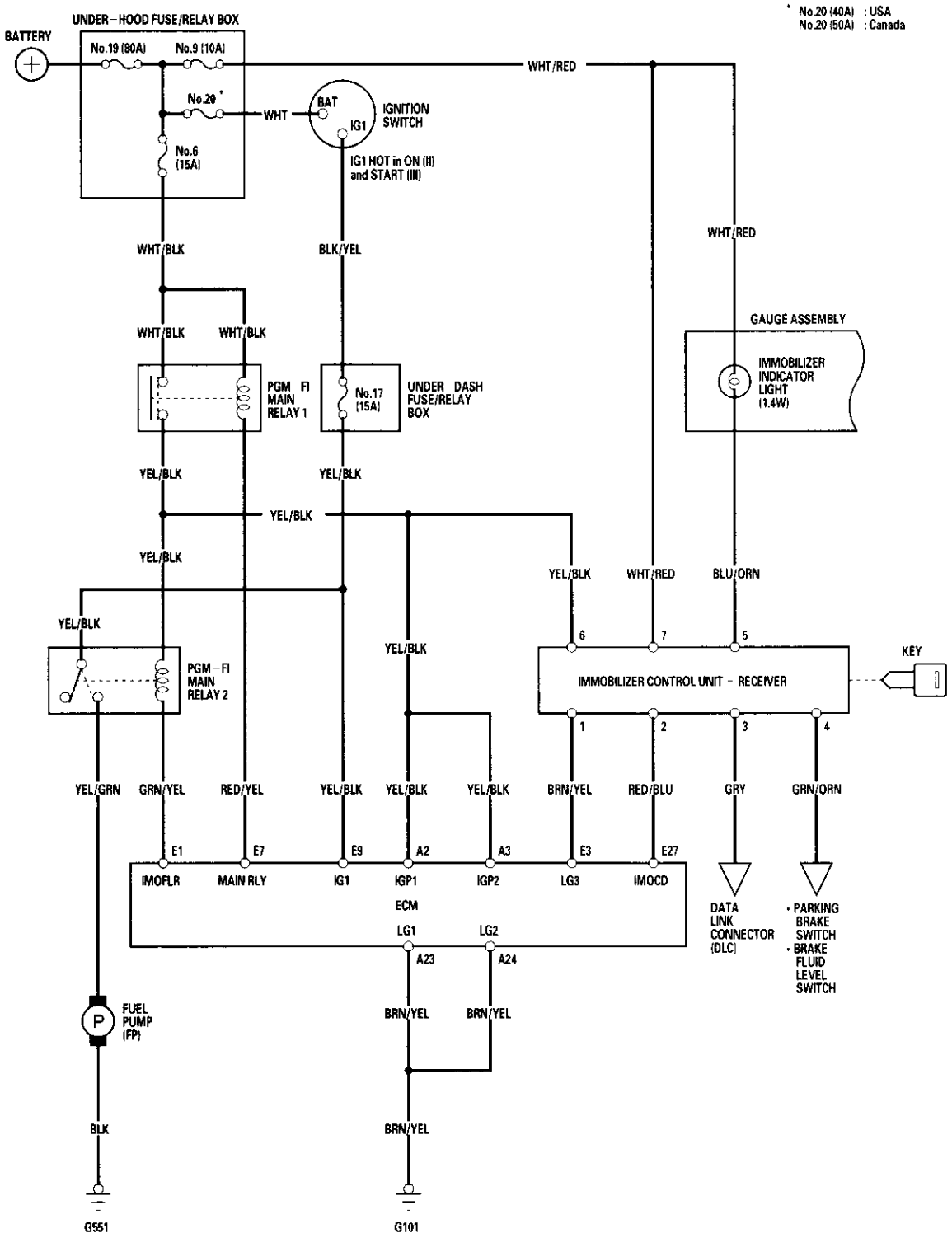
- If the proper key has been used, the immobilizer indicator light will come on for about 2 seconds, then go off.
- If the wrong key has been used or the code was not received or recognized by the unit, the indicator light will come on for about 2 seconds, then it will blink until the ignition switch is turned OFF.
- If the ignition switch is turned OFF, the indicator will blink for about 5 seconds to signal that the unit has reset correctly, then the indicator will go off.
- If the customer has lost his key, and cannot start the engine, contact Honda Customer Relations.

IMMOBILIZER INDICATOR LIGHT BLINKING PATTERN:



Immobilizer System

Circuit Diagram



Troubleshooting

Before troubleshooting the immobilizer system, troubleshoot any ECM Diagnostic Trouble Codes (DTCs) (see page 11-3), and make sure the ECM has no malfunction.

Note these items before troubleshooting:

- Due to the action of the immobilizer system, the engine takes slightly more time to start than on a vehicle without an immobilizer system.
- When the system is normal, and the proper key is inserted, the indicator light comes on for 2 seconds, then it will go off.
- If the indicator starts to blink after 2 seconds, or if the engine does not start, remove any other immobilizer keys or large key fobs on the key ring, then repeat the starting procedure.
  If the engine still does not start, continue with this procedure.

1. Turn the ignition switch ON (II) with proper key.

2. Check to see if the immobilizer indicator light comes on.

   Does the indicator light blink?

   YES—Disconnect the 7P connector from the immobilizer control unit-receiver, then go to step 9.

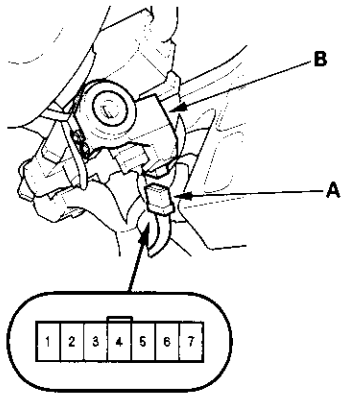
   NO—Check for these problems, then go to step 3.

   - Blown No. 9 (10A) fuse in the under-hood fuse/relay box.■
   - An open in the wire between the gauge assembly and the immobilizer control unit-receiver.■
   - A faulty immobilizer indicator light.■
   - An open in the wire between the gauge assembly and the under-hood fuse/relay box.■

3. Remove the driver's dashboard lower cover (see page 20-59).

4. Remove the steering column lower cover (see page 17-9).

5. Disconnect the 7P connector (A) from the immobilizer control unit-receiver (B).



6. Check for voltage between the immobilizer control unit-receiver 7P connector No. 7 terminal and body ground.

   Is there battery voltage?

   YES—Go to step 7.

   NO—Check for these problems:

   - Blown No. 9 (10A) fuse in the under-hood fuse/relay box.■
   - An open in the WHT/RED wire.■

7. Check for voltage between the immobilizer control unit-receiver 7P connector No. 6 terminal and body ground with the ignition switch ON (II).

   Is there battery voltage?

   YES—Go to step 8.

   NO—Check for these problems:

   - Blown No. 6 (15A) fuse in the under-hood fuse/relay box.■
   - Faulty PGM-FI main relay 1.■
   - An open in the YEL/BLK wire.■

(cont'd)

Troubleshooting (cont'd)

8. Check for voltage between the immobilizer control unit-receiver 7P connector No. 6 terminal and No. 1 terminal.

   Is there battery voltage?

   YES—Go to step 12.

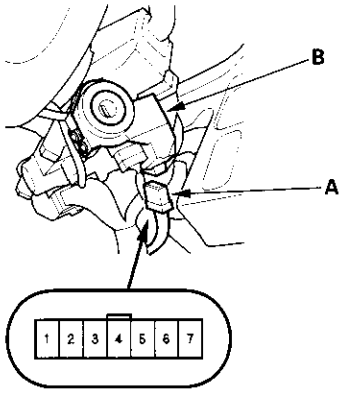
   NO—Check for these problems:

   - Open on the BRN/YEL wire. ■
   - Faulty ECM. ■

9. Remove the driver's dashboard lower cover (see page 20-59).

10. Remove the steering column lower cover (see page 17-9).

11. Disconnect the 7P connector (A) from the immobilizer control unit-receiver (B).



12. Check for continuity between the immobilizer control unit-receiver 7P connector No. 2 terminal and ECM terminal E27.

    Is there continuity?

    YES—Go to step 13.

    NO—Repair the open in the RED/BLU wire. ■

13. Reconnect the 7P connector to the immobilizer control unit-receiver.

14. Check for voltage between the immobilizer control unit-receiver 7P connector No. 4 terminal and body ground with the parking brake lever pulled, then released.

    Is there 1 V or less, then 5 V or more?

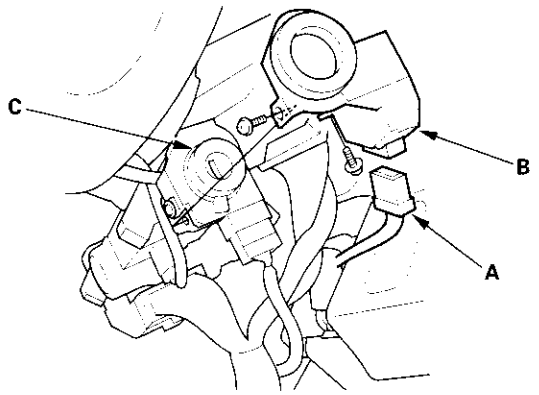
    YES—Replace the immobilizer control unit-receiver. After replacing the immobilizer control unit-receiver, rewrite the unit with a Honda PGM Tester. ■

    NO—Check for these problems:

    - Faulty parking brake switch or a poor body ground of the parking brake switch. ■
    - Repair short or open in the GRN/ORN wire. ■

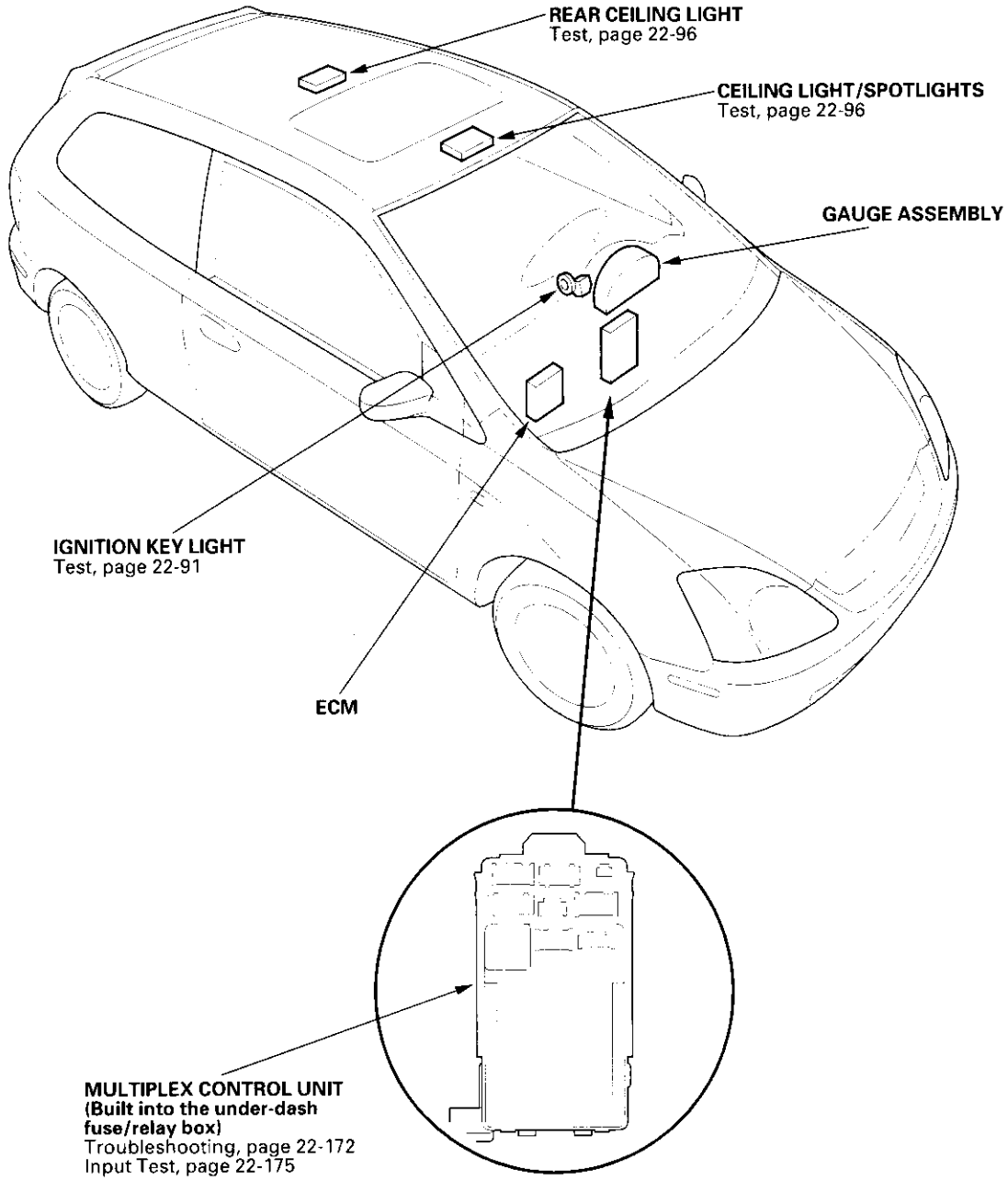
Immobilizer Control Unit-Receiver Replacement

1. Remove the driver's dashboard lower cover (see page 20-59).
2. Remove the steering column covers (see page 17-9).
3. Disconnect the 7P connector (A) from the immobilizer control unit-receiver (B).

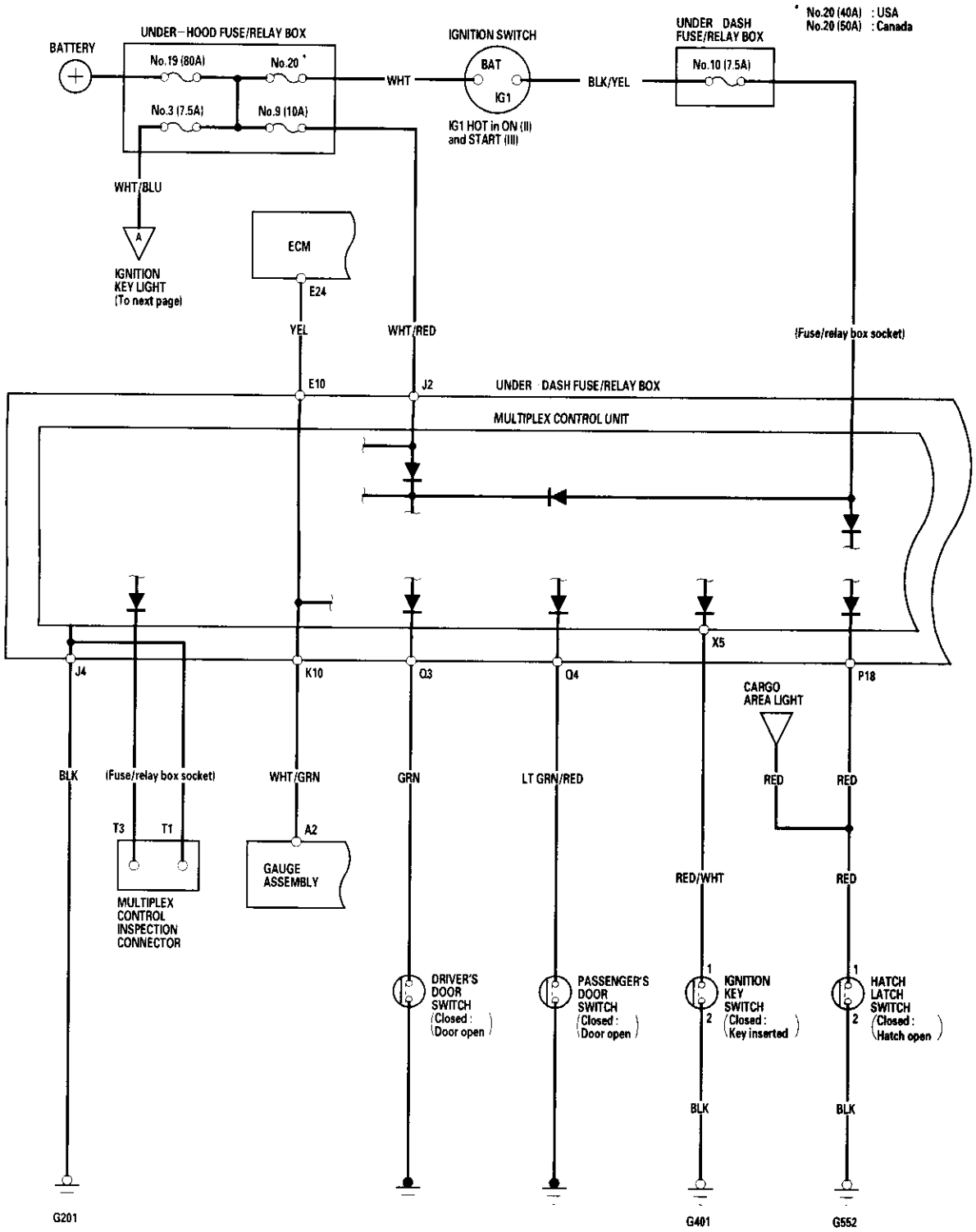


4. Remove the two screws and the immobilizer control unit-receiver from the ignition key cylinder (C).
5. Install the immobilizer control unit-receiver in the reverse order of removal.
6. After replacement, rewrite the unit with a Honda PGM Tester, then check the immobilizer system.

Component Location Index

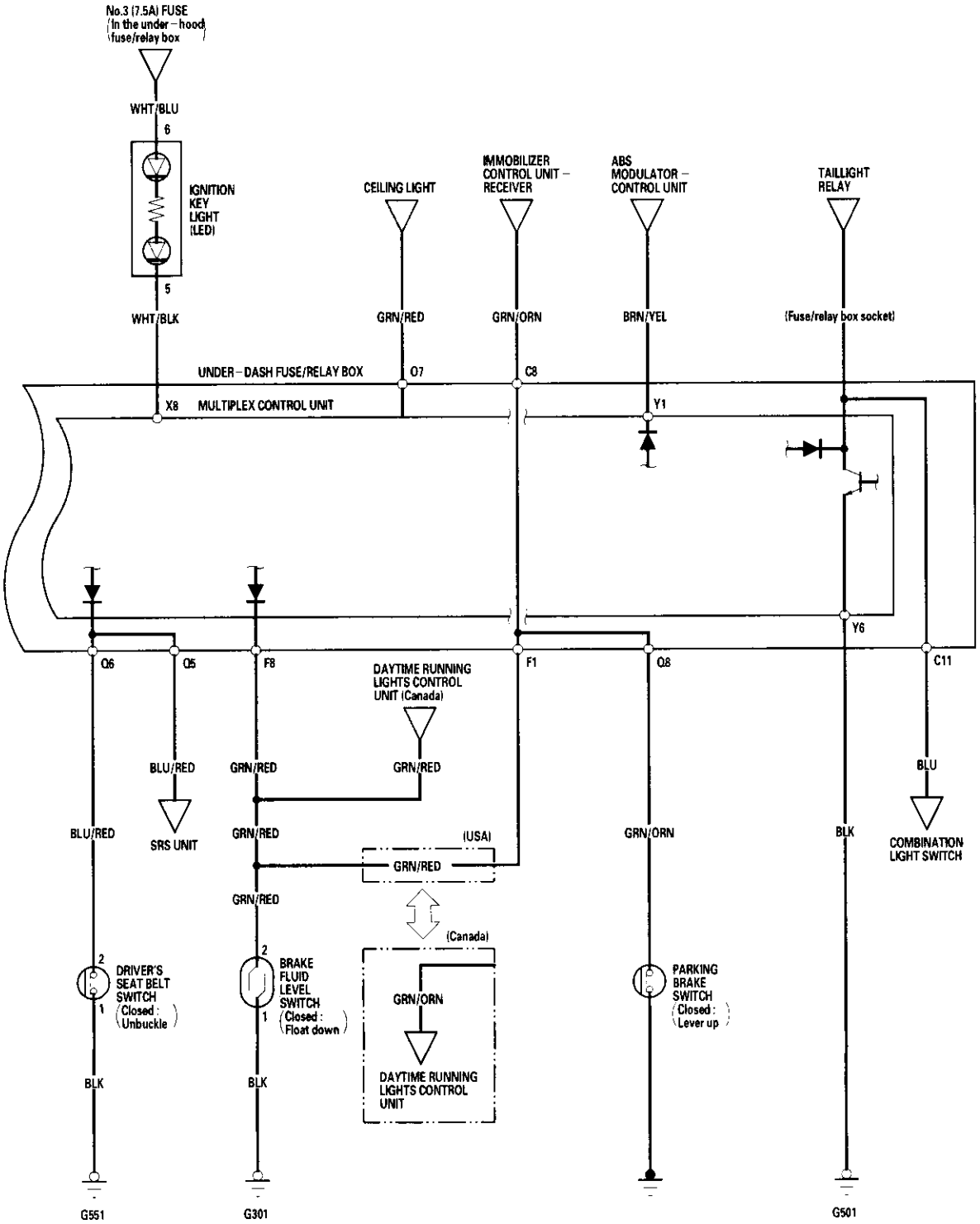


Circuit Diagram



(cont'd)

Circuit Diagram (cont'd)



System Descriptions

The Multiplex Control System has four internal functions:
- Multiplexing (send multiple signals over shared wires)
- Wake up/sleep (runs at full power only on demand to reduce battery draw)
- Fail-safe (fixes or ignores faulty signals)
- Self-diagnosis (Mode 1 for the system, Mode 2 for input lines)

The system controls the function of these circuits:
- Entry light control (ignition key light and ceiling light)
- Wiper/washer intermittent wipe and park functions
- Keyless/power door lock
- Meter assembly, temperature gauge, and indicator lights
- HVAC (compressor and fan control)
- Key-in reminder
- Headlight reminder
- Seatbelt reminder

Multiplex Communication

To reduce the number of wire harnesses, digital signals are sent via shared multiplex communication lines rather than sending normal electrical signals through individual wires.
- The input signals from each switch are converted to digital signals at the central processing unit (CPU).
- The digital signals are sent from the transmitting unit to the receiving unit as serial signals.
- The transmitted signal is converted to a switch signal at the receiving unit, and it operates the related component or monitors a switch.
- There are exclusive communication lines between the ECM, the gauge assembly, and the under-dash fuse/relay box.

Wake-up and Sleep

The multiplex 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 multiplex control unit 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 or front passenger's door is opened, then closed, there is about a 10 second delay before the control unit goes from the wake-up mode to the sleep mode.
- If any door is open, the sleep mode will not function.
- If a key is in the ignition switch, the sleep mode will not function.
- When in sleep mode, the draw is reduced from 70—80 mA to less than 10 mA.

Fail-safe

To prevent improper operation, the multiplex control system 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 any CPU malfunction, and a software fail-safe function that ignores the signal from the malfunctioning control unit and allows the system to operate normally.

Troubleshooting

Mode 1 Tset

1. Remove the driver's dashboard lower cover (see page 20-59).

2. Check the No. 9 (10A) fuse in the under-hood fuse/relay box and the No. 10 (7.5A) 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.■

3. Turn the ignition switch ON (II).If the driver's seatbelt is unbuckled the seat belt reminder will chime 6 times.

4. Set the ceiling light to the center position and close all the doors.

5. Connect the special tool to the multiplex inspection connector.

6. After about 5 seconds the spotlight and ceiling light should come on for 2 seconds, go out, then blink on for 0.2 second to show the system is now in mode 1.

   Did the spotlight and ceiling light indicate mode 1?

   YES—Go to step 8.

   NO—Go to step 7.

7. Check for continuity between terminal 4 of the under-dash fuse/relay box connector J and body ground.

   Is there continuity?

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

   NO—Repair the open in the wire.If the wire is ok, repair G301.■

8. If ther are any DTCs present, the spotlight and ceiling light will blink to indicate the DTC(s). If more than one DTC is present, the DTCs will be displayed in ascending order, If there are no DTCs the spotlight and ceiling light will not blink again after the mode 1 indication.

   Are there any DTCs?

   YES—Go to step 9.

   NO—Go to the Mode 2 test.

9. Troubleshoot the DTC(s) in the order indicated using the following charts.

   If a faulty control unit is suspected, substitute it with a known food part and recheck for DTCs,

   - If the DTC(s) is still present, go to the next step listed for the DTC.
   - If the DTC(s) is no longer present replace the original part.

Individual DTCs

Multiplex DTC	Probable Cause
1	The multiplex control unit cannot receive signals from the gauge assembly.
	1. Faulty power or ground to the gauge assembly
	2. Faulty gauge assembly
	3. Faulty under-dash fuse/relay box
2	The multiplex control unit cannot receive signals from the ECM
	1. Faulty power or ground to the ECM
	2. Faulty ECM
	3. Faulty under-dash fuse/relay box
3	Internal failure of the multiplex control unit
	1. Faulty under-dash fuse/relay box
5	The gauge assembly cannot receive signals from the multiplex control unit and the ECM
	1. Faulty power or ground to the gauge assembly
	2. Faulty gauge assembly
6	The ECM cannot receive signals from multiplex control unit and the gauge assembly
	1. Faulty power or ground to the ECM
	2. Faulty ECM*

*Before replacing a Faulty ECM/PCM make sure it has the latest software revision. Update if necessary before swapping or replacing.

Multiplex DTCs

Multiplex DTC	Probable Cause
1, 2 and 3 & ECM DTC P0600 Simultaneously	Short to ground on one of the communication wires.
	1. Short to ground on the YEL wire between the PCM terminal E24 and the under-dash fuse/relay box terminal E10
	2. Short to ground on the WHT/GRN wire between the Gauge assembly terminal A2 and under-dash fuse/relay box terminal K10
1 and 6 Simultaneously	Open in the communication wire
	1. Open in WHT/GRN wire between the under-dash fuse/relay box terminal K10 and the Gauge assembly terminal A2
2 and 5 Simultaneously	Open in the communication wire
	1. Open in the YEL wire between the under-dash fuse/relay box terminal E10 and ECM terminal E24

(cont'd)

Troubleshooting (cont'd)

Made 2 Test

1. From Mode 1, disconnect the special tool from the multiplex inspection connector for 5 to 10 seconds, and then reconnect it.

2. The spotlight and ceiling light should come on for 2 seconds, go out, then blink twice, 0.2 seconds each time. The system is now in mode 2.

3. Operate the switches listed below: If the circuit is ok, the spotlight and ceiling light will blink once. If the circuit is faulty, the lights will not blink.
   Tip: Operate the switches most closely related to the problem you are diagnosing is a quick way of testing the circuits integrity.

switch	lights blinks when:
Windshield washer switch	washer switch pulled
Windshield wiper switch	Switch in the INT pos.
Driver's door switch	As door is opened
passenger's door switch	As door is opened
Hatch latch switch	As hatch is 0pened
Parking brake switch	As parking brake applied
Driver's door lock switch	Pushed to lock and unlock
Driver's lock knob switch	Knob in unlock or lock position
A/C switch	A/C switch ON and blower switch ON
Headlight switch	switched to the PARK position
Brake pedal position switch	Brake pedal pressed

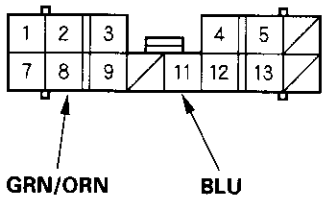
4. If all inputs were confirmed, or multiple circuits failed at the same time in mode 2, go to the multiplex sleep mode test. If a single switch fails in mode 2, troubleshoot its circuit.

Multiplex Control Unit Input Test

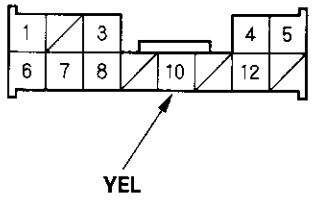
1. Remove the driver's dashboard lower cover (see page 20-59).
2. Disconnect the under-dash fuse/relay box connectors C, E, F, J, K, O, P, Q, X and Y.

NOTE: All connectors are wire side of female terminals.

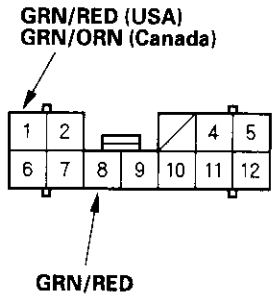
CONNECTOR C (14P)



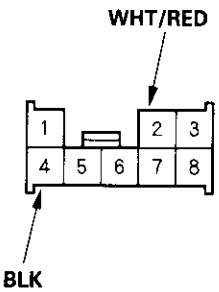
CONNECTOR E (13P)



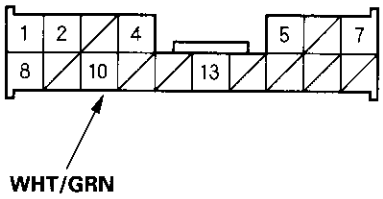
CONNECTOR F (12P)



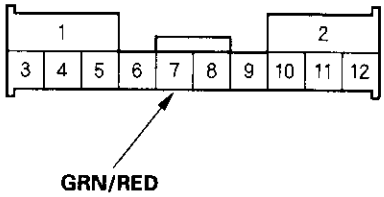
CONNECTOR J (8P)



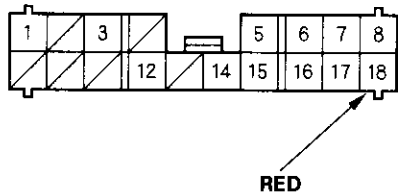
CONNECTOR K (17P)



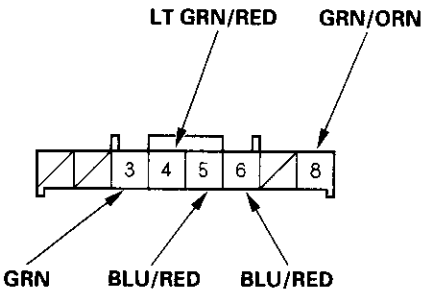
CONNECTOR O (12P)



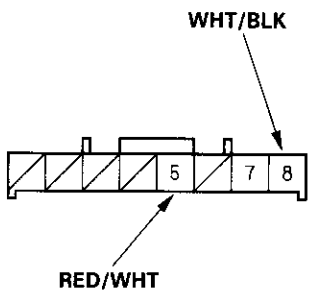
CONNECTOR P (18P)



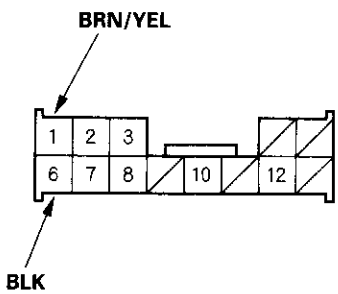
CONNECTOR Q (8P)



CONNECTOR X (8P)



CONNECTOR Y (13P)



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Multiplex Control Unit 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.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
J4	BLK	Under all conditions	Check for voltage to ground: There should be 1V or less.	• Poor ground (G201) • An open in the wire
Y6	BLK	Under all conditions	Check for voltage to ground: There should be 1 V or less.	• Poor ground (G501) • An open in the wire
Y1	BRN/YEL	Parking brake lever down, turn the ignition switch ON (II)	Check for voltage to ground: There should be battery voltage while the Brake system indicator is on for the buld check.	• An open in the wire • Short to ground • Faulty ABS modulator-control unit
			Check for voltage to ground: There should be 1 V or less when the Brake system.	
J2	WHT/RED	Under all conditions	Check for voltage to ground: There should be battery voltage.	• Blown No. 9 (10A) fuse in the under-hood fuse/relay box • An open in the wire

4. Reconnect the connectors to the under-dash fuse/relay box, and make sure these input tests at the appropriate connectors on the under-dash fuse/relay box.

   - If any test indicates a problem, find and correct the cause, then recheck the system.
   - If all the input tests prove OK, the multiplex control unit must be faulty. Replace the under-dash fuse/relay box assembly.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
Q3	GRN	Driver's door open	Check for voltage to ground: There should be 1 V or less.	• 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
Q4	LT GRN/RED	Passenger's door open	Check for voltage to ground: There should be 1 V or less.	• Faulty passenger's door switch • An open in the wire
		Passenger's door closed	Check for voltage to ground: There should be 5 V or more.	• Faulty passenger's door switch • Short to ground
Q8	GRN/ORN	Parking brake lever up	Check for voltage to ground: There should be 1 V or less.	• Faulty parking brake switch • An open in the wire
C8 F1 F8	GRN/ORN GRN/RED (USA) GRN/ORN (Canada) GRN/RED	Parking brake lever down	Check for voltage to ground: There should be 5 V or more.	• Faulty parking brake switch • Short to ground
Q5	BLU/RED	Ignition switch ON (II), driver's seat belt is unbuckled.	Check for voltage to ground: There should be 1 V or less.	• Faulty driver's seat belt switch • Poor ground (G551) • An open in the wire
Q6	BLU/RED	Ignition switch ON (II), driver's seat belt is buckled.	Check for voltage to ground: There should be 6 V or more.	• Faulty driver's seat belt switch • Short to ground
P18	RED	Hatch open	Check for voltage to ground: There should be 1 V or less.	• Faulty hatch latch switch • Poor ground (G552) • An open in the wire
		Hatch closed	Check for voltage to ground: There should be 5 V or more.	• Faulty hatch latch switch • Short to ground
X5	RED/WHT	Ignition key in the ignition switch	Check for voltage to ground: There should be 1 V or less.	• Faulty ignition key switch • Poor ground (G401) • An open in the wire
		Ignition key out of the ignition switch	Check for voltage to ground: There should be 5 V or more.	• Faulty ignition key switch • Short to ground

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
X8	WHT/BLK	Under all conditions	Attach to ground: The ignition key light should come on.	• Blown No. 3 (7.5A) fuse in the under-hood fuse/relay box • Blown LED • An open in the wire
O7	GRN/RED	Ceiling light switch in the middle position, all doors closed	Attach to ground: The ceiling light, spotlights should come on.	• Blown No. 3 (7.5A) fuse in the under-hood fuse/relay box • Faulty ceiling light • An open in the wire
C11	BLU	Under all conditions	Attach to ground: Dash lights should come on.	• Blown No. 2 (15A) fuse in the under-hood fuse/relay box • Faulty taillight relay • An open in the wire
F8	GRN/RED	Brake fluid reservoir float in down position (brake fluid removed)	Check for voltage to ground: There should be less than 1 V.	• Faulty brake fluid level switch • An open in the wire
		Brake fluid reservoir float in up position (brake fluid at full level)	Check for voltage to ground: There should be 5 V or more.	• Faulty brake fluid level switch • Short to ground
E10	YEL	Under all conditions	Check for voltage to ground: There should be battery voltage in the sleep mode and 3—7 volts when awake.	• An open or short in the wire
K10	WHT/GRN	Under all conditions	Check for voltage to ground: There should be battery voltage in the sleep mode and 3—7 volts when awake.	• An open or short in the wire