

Read this before you do any electrical work on the car.

The VIGOR SRS includes a driver's side airbag, located in the steering wheel hub. In addition, the GS model has a front passenger's airbag located in the dashboard above the glove box. Information necessary to safely service the SRS is included in this Service Manual. Items marked with an asterisk (*) on the contents page include, or are located near, SRS components. Servicing, disassembling or replacing these items will require special precautions and tools, and should therefore be done by an authorized Acura dealer.

⚠ WARNING

- To avoid rendering the SRS inoperative, which could lead to personal injury or death in the event of a severe frontal collision, all maintenance must be performed by an authorized Acura dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, could lead to personal injury caused by unintentional activation of the airbag (s).
- All SRS electrical wiring harnesses are covered with yellow outer insulation. Related components are located in the steering column, center console, dash, and dashboard lower panel, and in the dashboard above the glove box. Do not use electrical test equipment on these circuits.

NOTE: The radio may have a coded theft protection circuit. Be sure to get the customer's code number before

- Disconnecting the battery.
- Removing the No. 39 (10 A) fuse in the under-hood fuse/relay box.
- Removing the radio.

After service, reconnect power to the radio and turn it on. When the word "CODE" is displayed, enter the customer's 5-digit code to restore radio operation.

Electrical

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*Read SRS precautions on page 23-330, then install the short connector (s) on the airbag (s) before working in these areas.

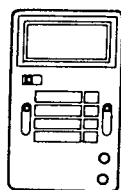


Special Tools

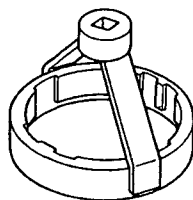
Ref. No.	Tool Number	Description	Qty.	Page Reference
①	KS-AHM-32-003	Digital Multimeter	1	23-329
②	07NAC-SR20100	Fuel Sender Wrench	1	23-140
③	07GAA-001000C	Antenna Nut Wrench	1	23-220
④*	07HAZ-SG00400	Deployment Tool	1	23-358
⑤**	07MAZ-SL00500	Test Harness A	1	23-339
⑥**	07MAZ-SP00500	Test Harness B	1	23-342
⑦*	07LAZ-SL40300	Test Harness C	1	23-343
⑧*	07LAZ-SL40400	Test Harness D	1	23-345

*: Included in SRS Tool Set 07MAZ-SM5000A

** : Included in SRS Tool Set 07MAZ-SL0010A



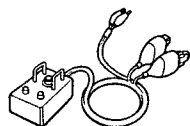
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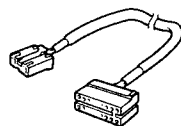
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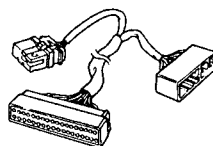
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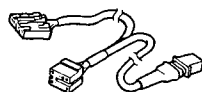
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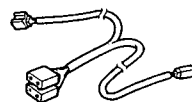
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Troubleshooting

Tips and Precautions

Before Troubleshooting

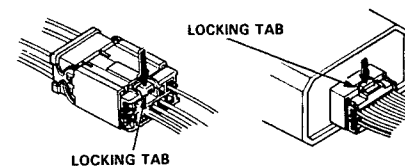
- Check applicable fuses in the appropriate fuse/relay box.
- Check the battery for damage, state of charge, and clean and tight connections.
- Check the alternator belt tension.

CAUTION:

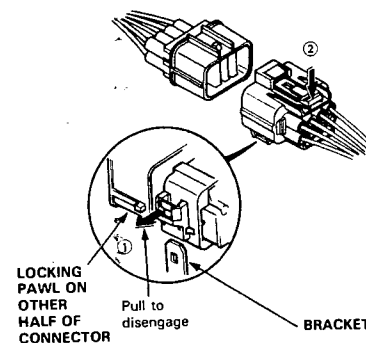
- Do not quick-charge a battery unless the battery ground cable has been disconnected. Otherwise you will damage the alternator diodes.
- Do not attempt to crank the engine with the battery ground cable loosely connected or you will severely damage the wiring.

Handling Connectors

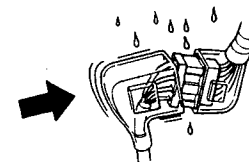
- Make sure the connectors are clean and have no loose wire terminals.
- Make sure multiple cavity connectors are packed with grease (except watertight connectors).
- All connectors have push-down release type locks.



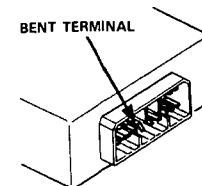
- Some connectors have a clip on their side used to attach them to a mount bracket on the body or on another component. This clip has a pull type lock.
- Some mounted connectors cannot be disconnected unless you first release the lock and remove the connector from its mount bracket.



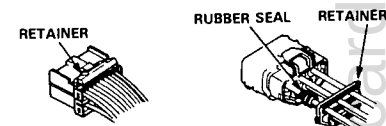
- Never try to disconnect connectors by pulling on their wires; pull on the connector halves instead.
- Always reinstall plastic covers.



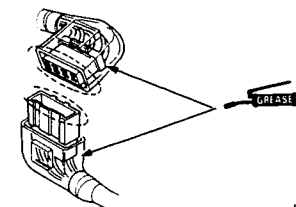
- Before connecting connectors, make sure the terminals are in place and not bent.



- Check for loose retainer and rubber seals.



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

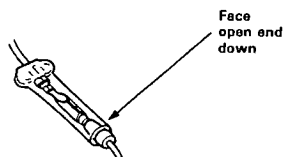


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Troubleshooting

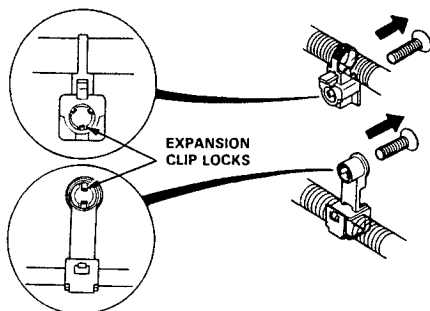
Tips and Precautions (cont'd)

- 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.

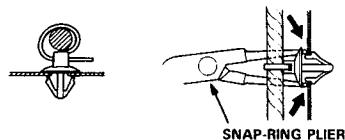


Handling Wires and Harnesses

- 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.

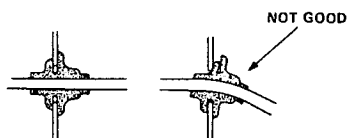


Slip pliers under the clip base and through the hole at an angle, then squeeze the expansion tabs to release the clip.



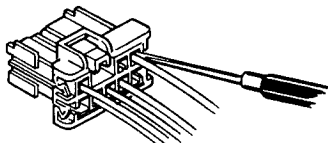
- After installing harness clips, make sure the harness doesn't interfere with any moving parts.
- Keep wire harnesses away from exhaust pipes and other hot parts, from sharp edges of brackets and holes, and from exposed screws and bolts.

- Seat grommets in their grooves properly.

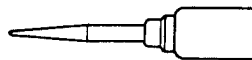


Testing and Repairs

- 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 a probe with a tapered tip.



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

Five-step Troubleshooting

1. Verify The Complaint

Turn on all the components in the problem circuit to verify the 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.

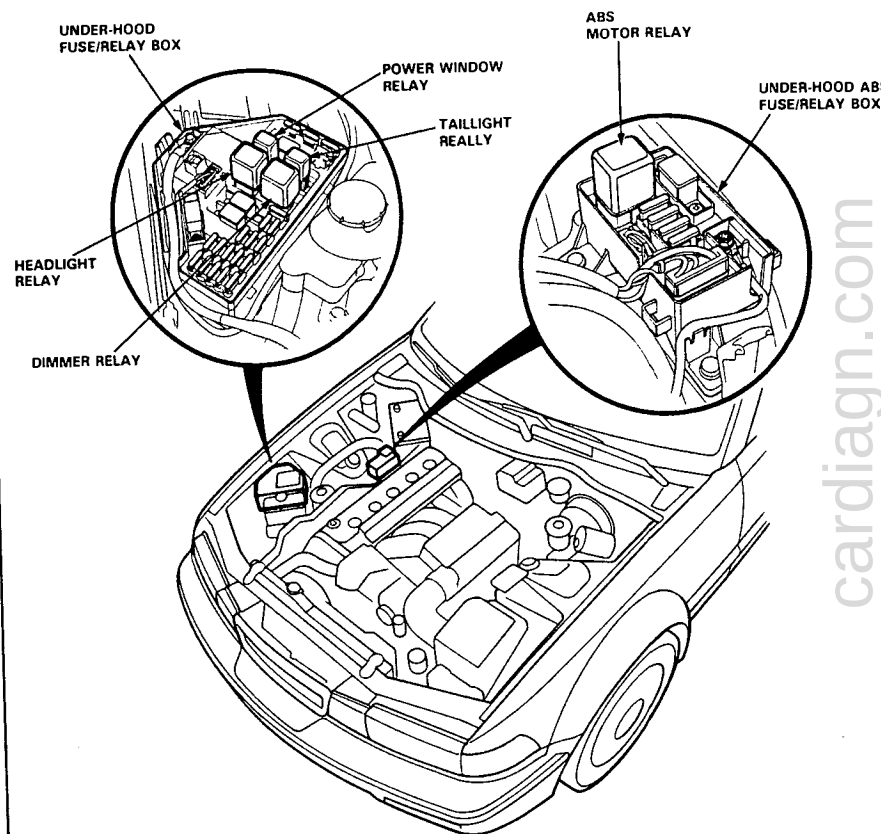
How to Use This Section

Schematic Symbols

BATTERY 	GROUND Ground terminal 		Component ground 	FUSE 	COIL, SOLENOID 	CIGARETTE LIGHTER 			
RESISTOR 	VARIABLE RESISTOR 	THERMISTOR 	IGNITION SWITCH 	BULB 	HEATER 				
MOTOR 	PUMP 	CIRCUIT BREAKER 	HORN 	DIODE 	SPEAKER, BUZZER 				
ANTENNA Mast 		Window 		TRANSISTOR (Tr) 					
RELAY (In normal position) Normally open relay 			Normally closed relay 						
CONDENSER 			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.						
SWITCH (In normal position) Normally open switch 							Normally closed switch 		
LIGHT EMITTING DIODE (LED) 									
CONNECTION Input 	Output 	CONNECTOR 		REED SWITCH 					

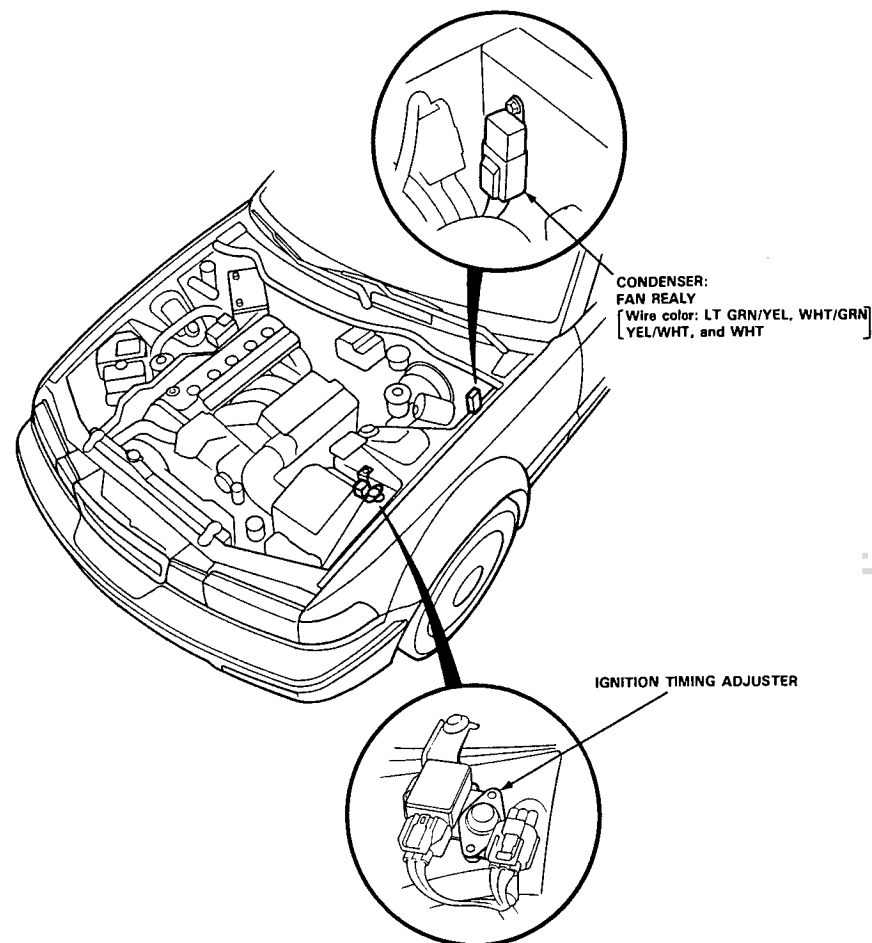
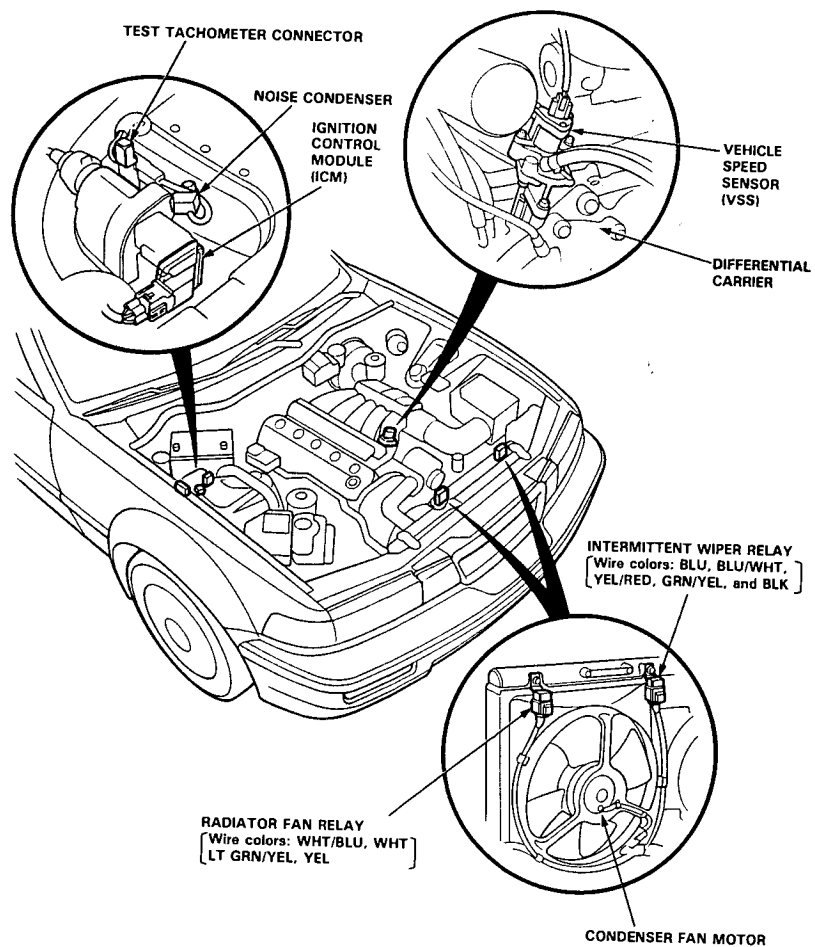
Relay and Control Unit Locations

Engine Compartment



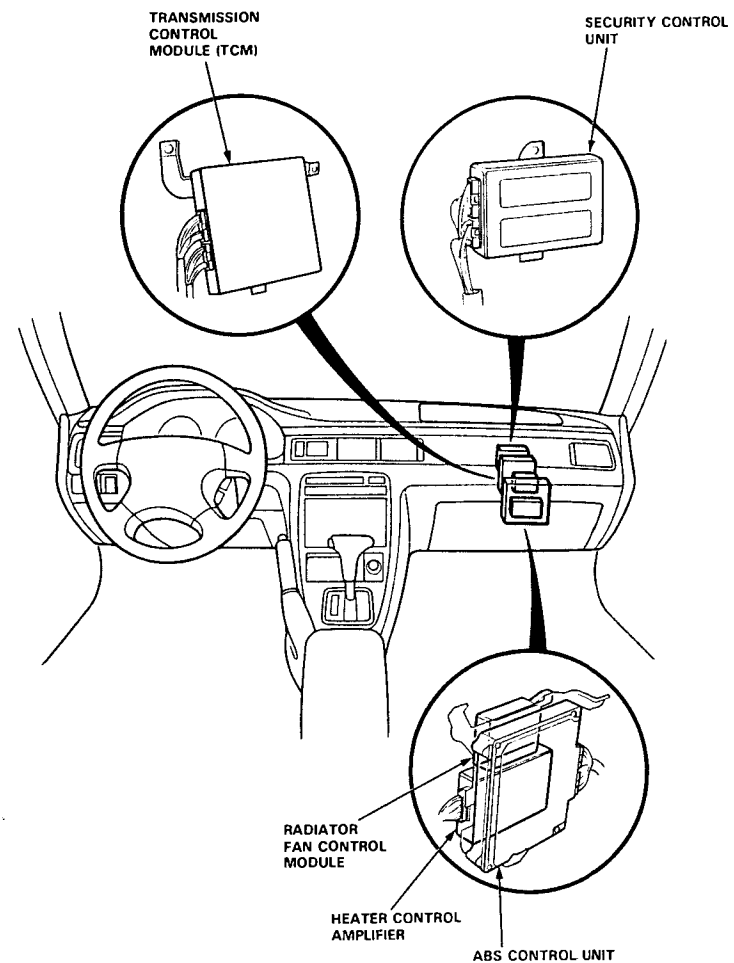
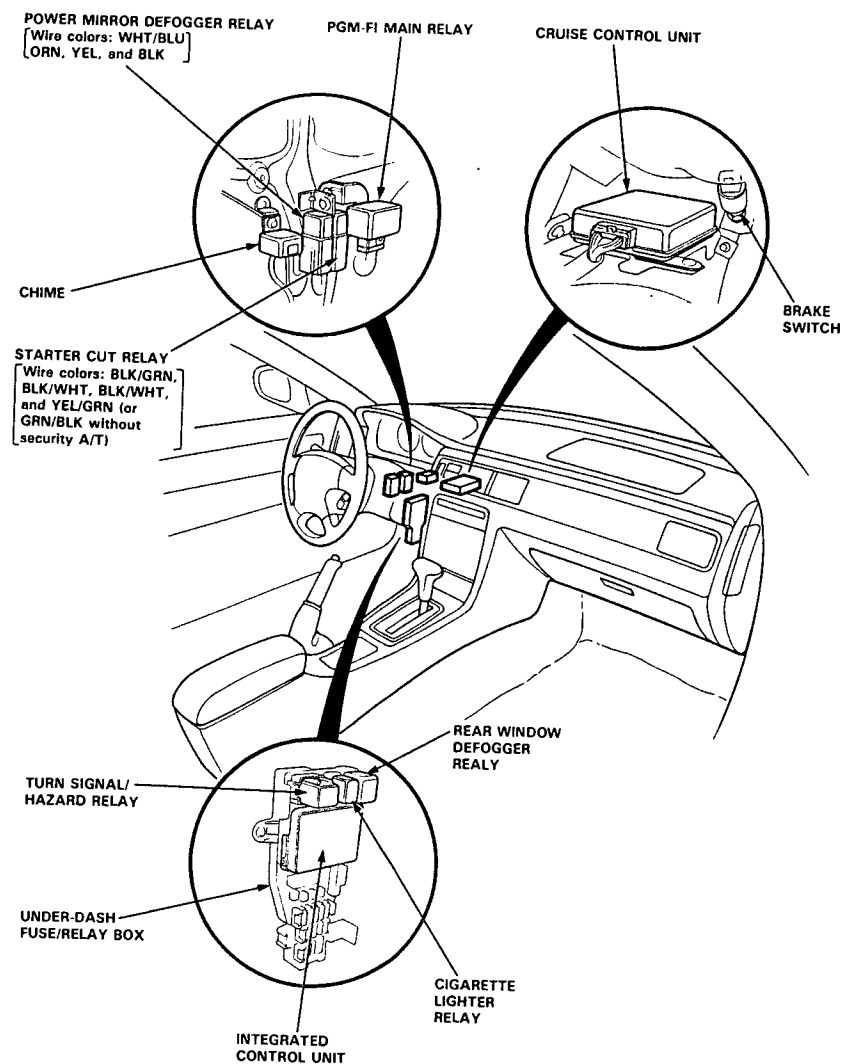
Relay and Control Unit Locations

Engine Compartment (cont'd)



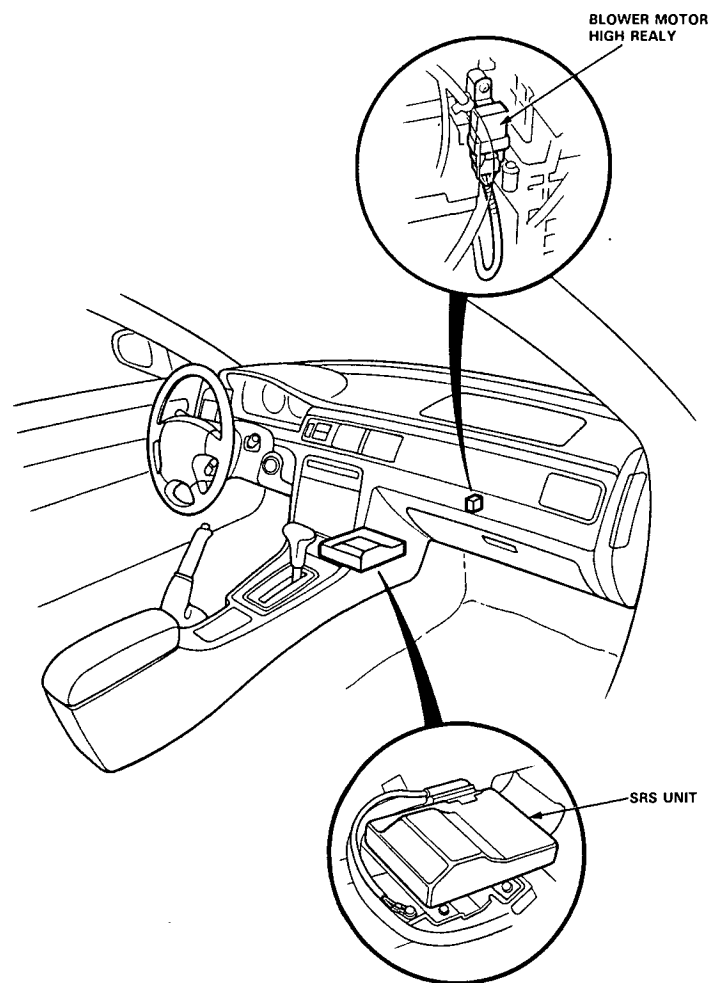
Relay and Control Unit Locations

Dashboard

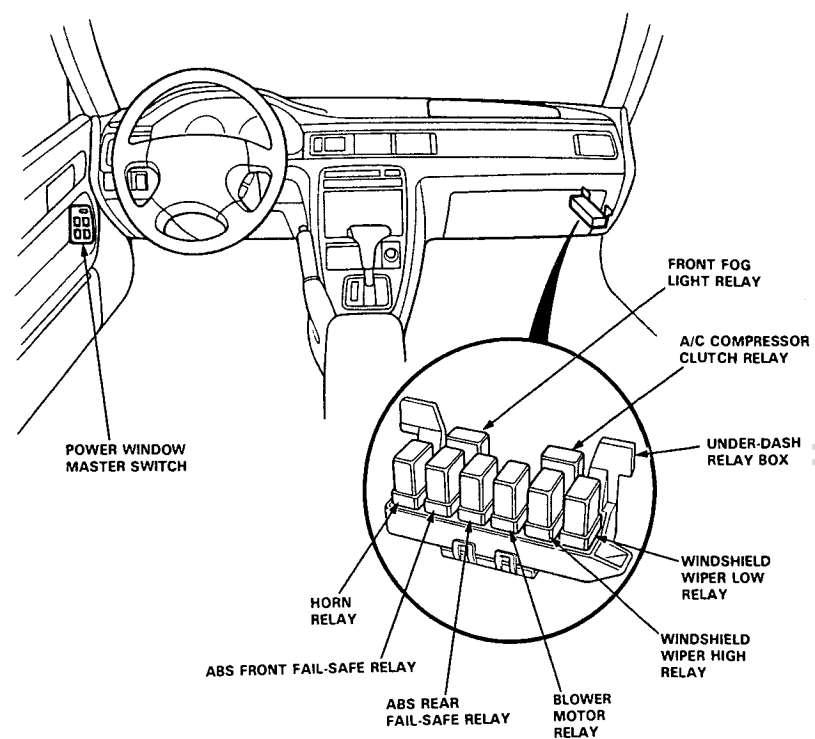


Relay and Control Unit Locations

Dashboard (cont'd)



23-12

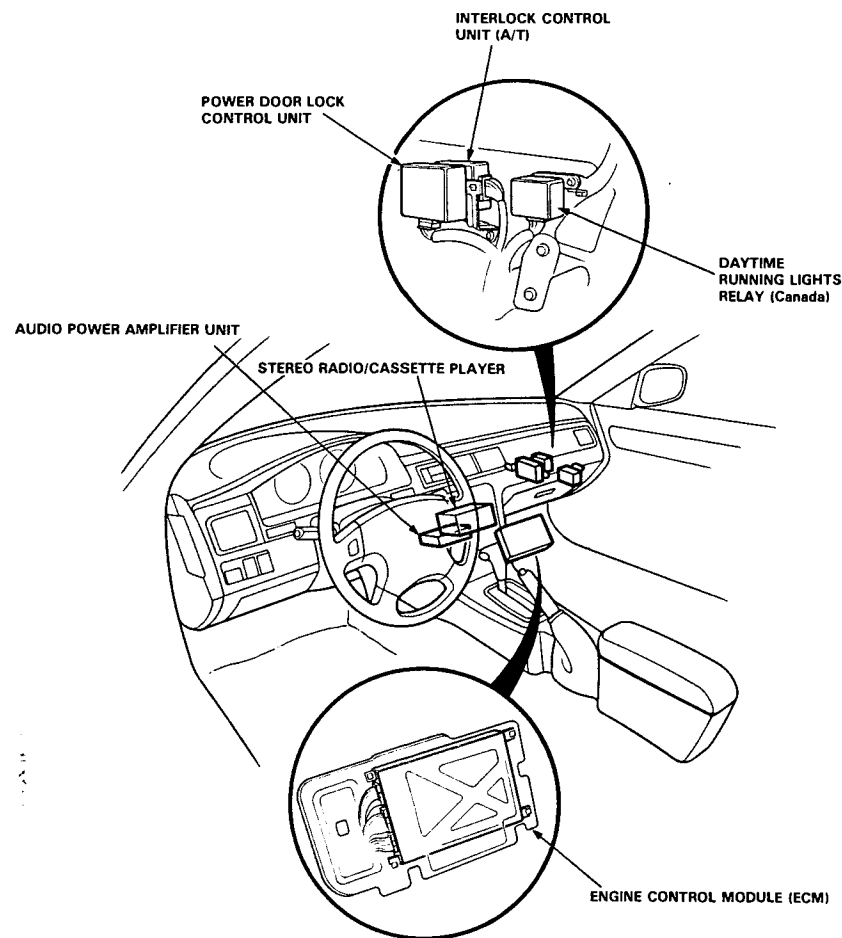


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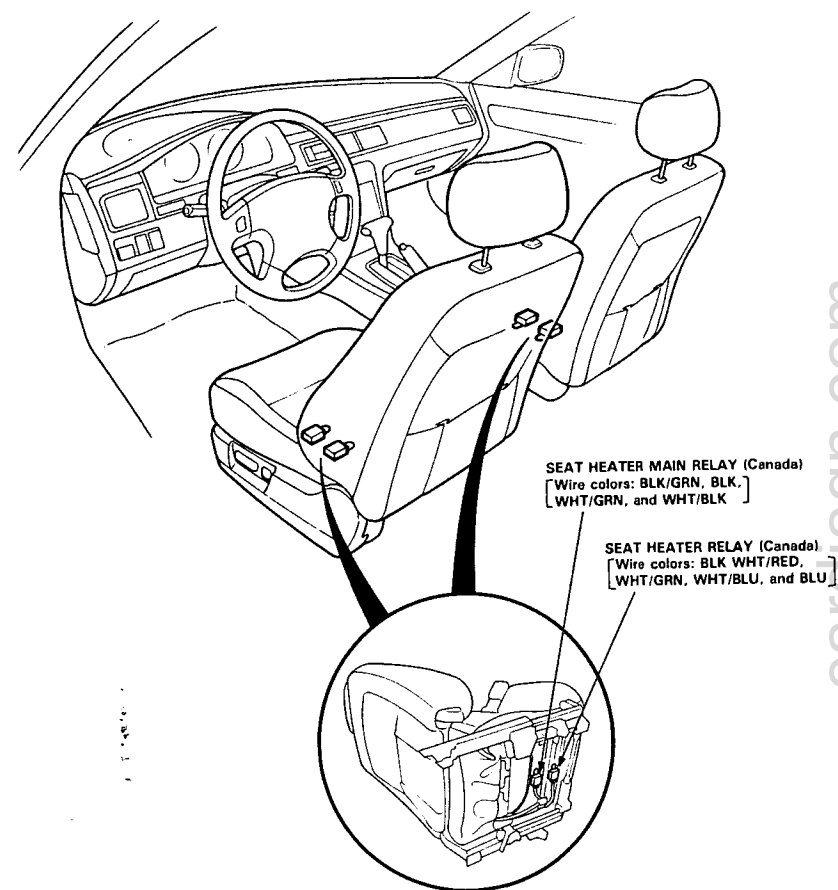
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Relay and Control Unit Locations

Dashboard (cont'd)

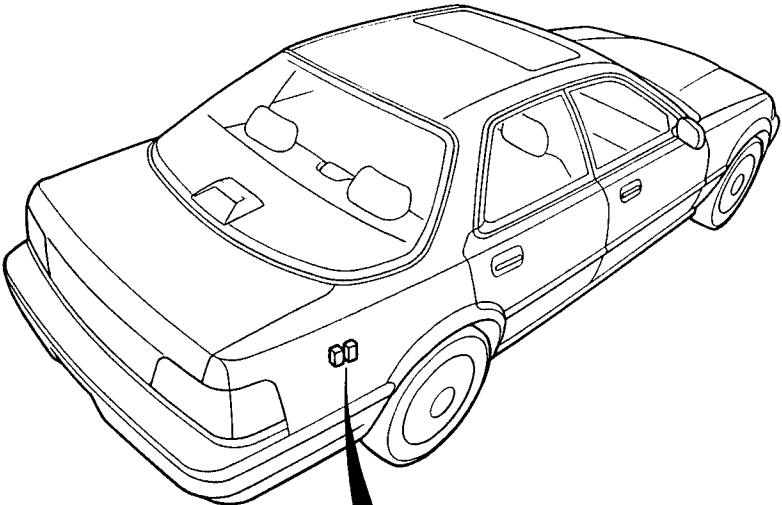


Seat



Relay and Control Unit Locations

Trunk



MOONROOF OPEN RELAY
[Wire colors: GRN, BLK,
GRN/YEL, GRN/YEL, and YEL/RED]

MOONROOF CLOSE RELAY
[Wire colors: GRN, BLK,
GRN/RED, GRN/RED, and YEL/RED]

Connector Identification and Wire Harness Routing



How to Identify Connectors:
Identification numbers have been assigned to all 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, Roof)
Starter cables		T1, T2, T3, and ⊕		
Battery ground cables		T4 G1 and ⊖		
Engine ground wires		T5 and T6 G2, G3, and G4		
Engine wire harness		C101 through C129 T101 and T102 G101		
A/T sub-harness		C151 through C156		
A/T gear position switch sub-harness		C161 through C162		
Back-up light sub-harness (M/T)		C171 through C172		
Main wire harness		C201 through C226 C301 through C329 G201, G301, and G302	C401 through C466 G401 and G402	C414 through C417
Rear wire harness				C501 through C532 G501 and G502
Dashboard wire harness			C601 through C626 G601	
Heater sub-harness			C651 through C659	
Driver's door wire harness				C701 through C713
Front passenger's door wire harness				C721 through C731
Left rear door wire harness				C716 through C719
Right rear door wire harness				C736 through C739
Driver's power seat wire harness				C741 through C749
Roof wire harness				C751 through C760
Fuel unit sub-harness				C761 through C763
Rear window defogger ground wire				C771 G771
SRS main harness				C801 through C807 G801

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Connector Identification and Wire Harness Routing

Starter Cables

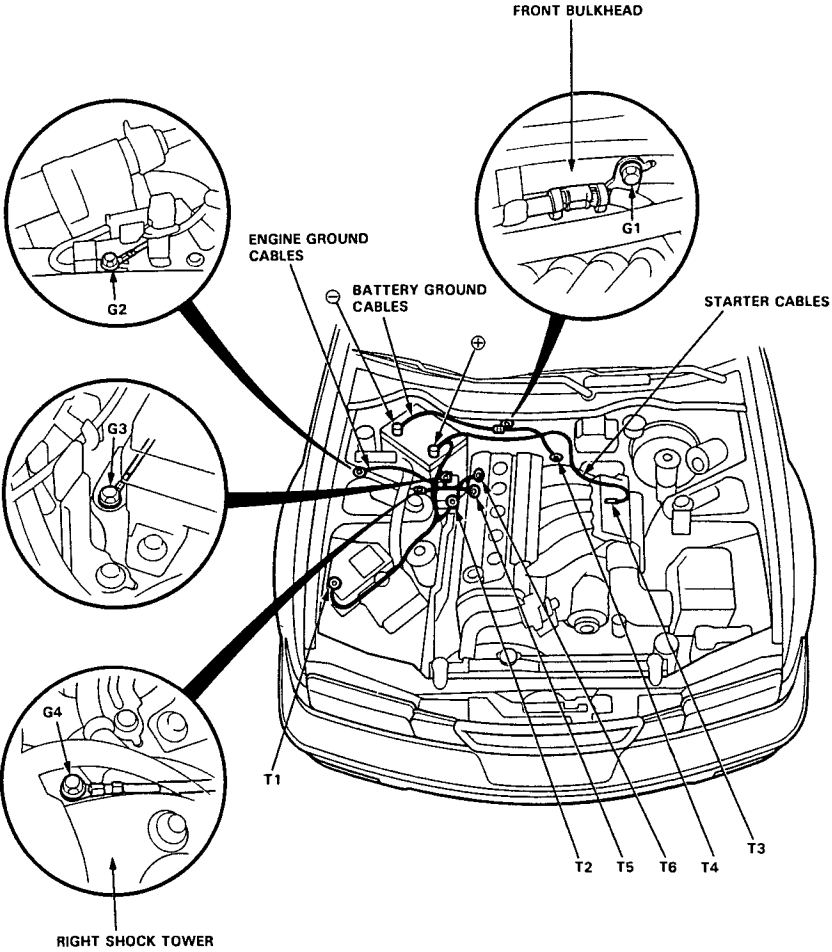
Connector or Terminal	Number of Cavities	Location	Connects to	Notes
T1		Right side of engine compartment	Under-hood fuse/relay box	
T2		Right side of engine compartment	Under-hood ABS fuse/relay box	
T3		Left side of engine compartment	Starter motor	
⊕		Battery	Battery positive terminal	

Battery Ground Cables

Connector or Terminal	Number of Cavities	Location	Connects to	Notes
T4		Clutch housing	Body ground, via battery ground cables	
G1		Right side of front bulkhead	Body ground, via battery ground cables	
⊖		Battery	Battery negative terminal	

Engine Ground Cables

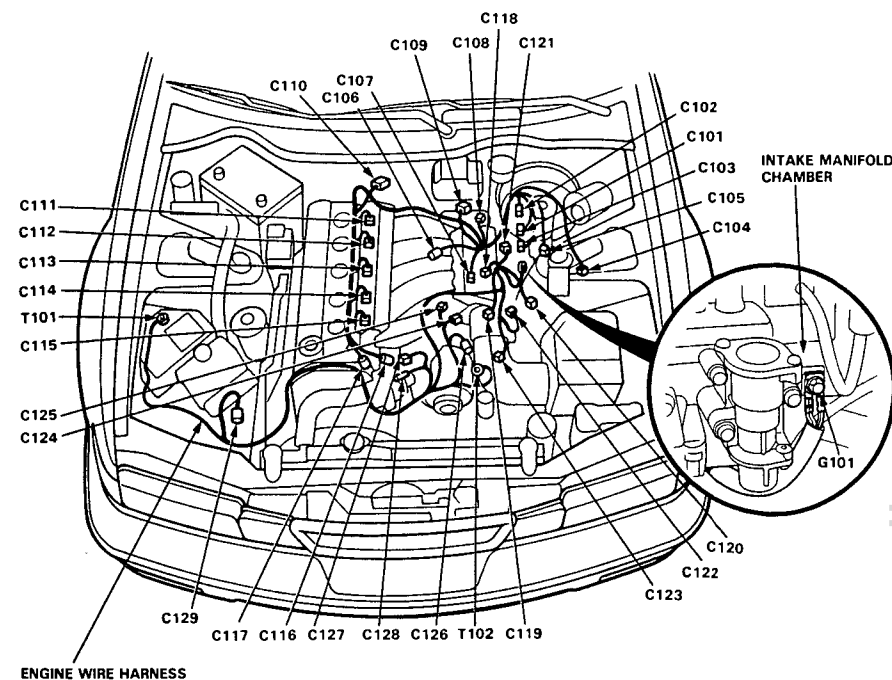
Connector or Terminal	Number of Cavities	Location	Connects to	Notes
T5		Right side of engine	Valve cover	
T6		Right side of engine	Valve cover	
G2		Right shock tower	Body ground, via engine ground cables	
G3		Right shock tower	Body ground, via engine ground cables	
G4		Right shock tower	Body ground, via engine ground cables	



Connector Identification and Wire Harness Routing

Engine Wire Harness

Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C101	14	Left side of engine compartment	Main wire harness (C307)	A/T
C102	14	Left side of engine compartment	Main wire harness (C306)	
C103	10	Left side of engine compartment	Main wire harness (C308)	
C104	6	Left side of engine compartment	Fuel injector resistor	
C105	1	Left side of engine compartment	Main wire harness (C309)	
C106	2	Middle of engine	Intake air bypass (IAB) control solenoid valve	
C107	1	Left side of engine compartment	Starter solenoid	M/T
C108	2	Engine compartment	Back-up light sub-harness (C171)	
C109	14	Engine compartment	A/T sub-harness (C151)	A/T
C110	3	Middle of engine compartment	EGR valve lift sensor	
C111	2	Middle of engine	No. 5 fuel injector	
C112	2	Middle of engine	No. 4 fuel injector	
C113	2	Middle of engine	No. 3 fuel injector	
C114	2	Middle of engine	No. 2 fuel injector	
C115	2	Middle of engine	No. 1 fuel injector	
C116	2	Middle of engine	Engine coolant temperature (ECT) switch B	
C117	6	Middle of engine	TDC/CKP/CYP sensor	
C118	1	Left side of engine compartment	Engine oil pressure switch	
C119	2	Left side of engine	Rear knock sensor (KS)	
C120	3	Left side of engine	Vehicle speed sensor (VSS)	
C121	2	Left side of engine compartment	EVAP purge control solenoid valve	
C122	2	Left side of engine compartment	Idle air control (IAC) valve	
C123	2	Left side of engine	Front knock sensor (KS)	
C124	2	Middle of engine	Throttle position (TP) sensor	
C125	2	Middle of engine	Intake air temperature (IAT) sensor	
C126	4	Middle of engine compartment	Alternator	
C127	2	Middle of engine	Engine coolant temperature (ECT) sensor	
C128	1	Middle of engine	Engine coolant temperature (ECT) sending unit	
C129	14	Right side of engine compartment	Main wire harness (C219)	
T101		Right side of engine compartment	Under-hood fuse/relay box	
T102		Middle of engine compartment	Alternator	
G101		Left side of engine	Engine ground, via engine wire harness	



Connector Identification and Wire Harness Routing

A/T Sub-harness

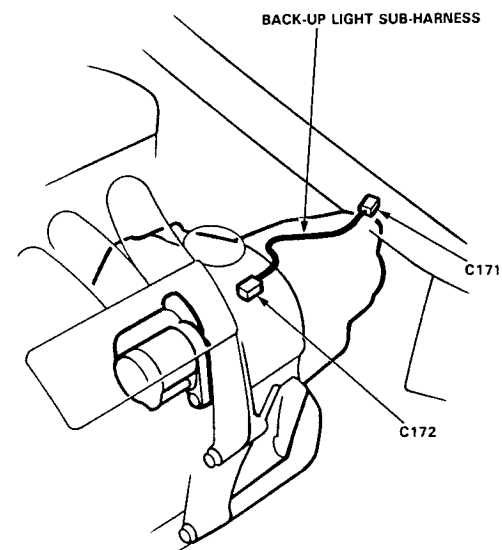
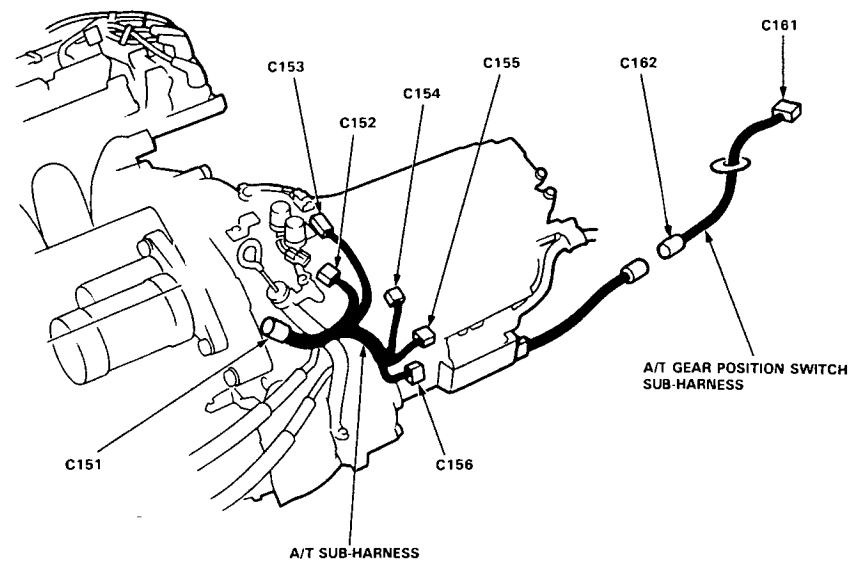
Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C151	14	Engine compartment	Engine wire harness (C109)	
C152	2	Automatic transmission	Lock-up control solenoid valve	
C153	2	Automatic transmission	Linear solenoid valve	
C154	2	Automatic transmission	Mainshaft speed sensor	
C155	2	Automatic transmission	Countershaft speed sensor	
C156	2	Automatic transmission	Shift control solenoid valve	

A/T Gear Position Switch Sub-harness

Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C161	12	Middle floor	Main wire harness (C411)	
C162	14	Automatic transmission	A/T gear position switch	

Back-up Light Sub-harness (M/T)

Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C171	2	Transmission housing	Engine wire harness (C108)	
C172	2	Transmission housing	Back-up light switch	

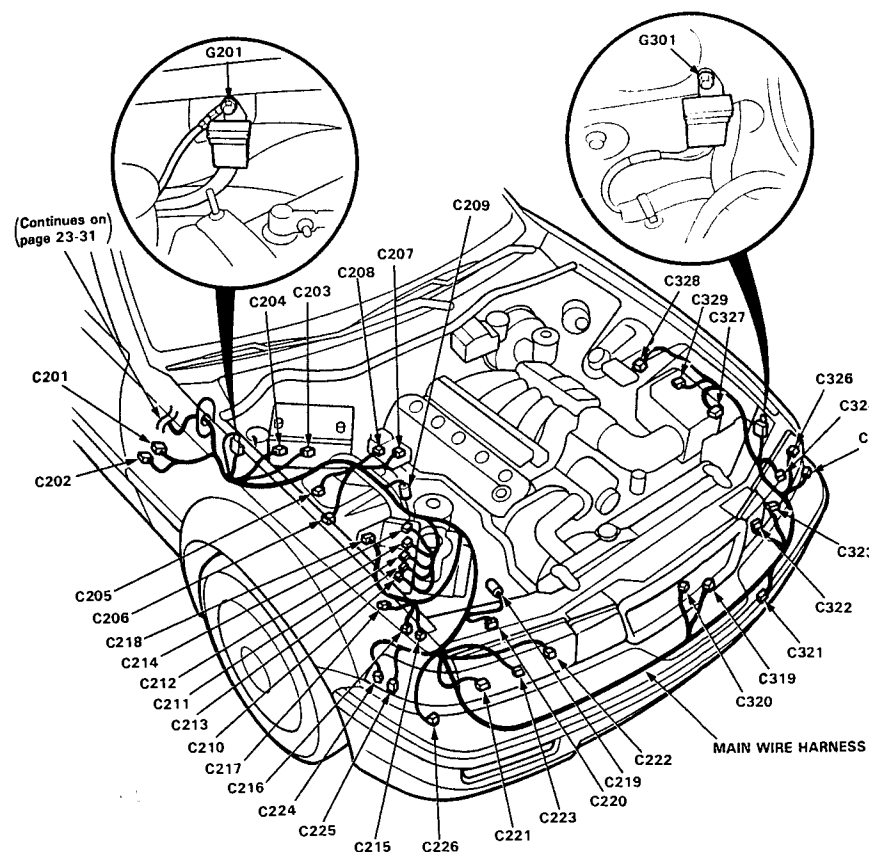


Connector Identification and Wire Harness Routing



Main Wire Harness (Right side of engine compartment branch)

Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C201	2	Behind right front wheelhouse	Windshield washer motor	
C202	4	Behind right front wheelhouse	Heated oxygen sensor (HO2S)	
C203	4	Right side of engine compartment	Ignition control module (ICM)	
C204	4	Right side of engine compartment	Ignition coil	
C205	2	Right side of engine compartment	Test tachometer connector	
C206	1	Right side of engine compartment	Noise condenser	
C207	4	Right side of engine compartment	Under-hood ABS fuse/relay box (C937)	
C208	3	Right side of engine compartment	Under-hood ABS fuse/relay box (C936)	
C209	2	Right side of engine compartment	Right front wheel speed sensor	ABS
C210	16	Right side of engine compartment	Under-hood fuse/relay box (C930)	
C211	10	Right side of engine compartment	Under-hood fuse/relay box (C928)	
C212	8	Right side of engine compartment	Under-hood fuse/relay box (C927)	
C213	7	Right side of engine compartment	Under-hood fuse/relay box (C929)	
C214	2	Right side of engine compartment	Under-hood fuse/relay box (C926)	
C215	10	Right side of engine compartment	ABS solenoids	
C216	2	Right side of engine compartment	ABS motor	
C217	2	Right side of engine compartment	ABS pressure switch	
C218	3	Right side of engine compartment	Under-hood fuse/relay box (C921)	
C219	14	Right side of engine compartment	Engine wire harness (C129)	
C220	4	Right side of engine compartment	Cruise control actuator	
C221	2	Behind right headlight	Right headlight (Low beam)	
C222	2	Behind right fog light	Right front fog light	
C223	2	Behind right headlight	Right headlight (High beam)	
C224	2	Behind right front side marker/parking light	Right front side marker light	
C225	2	Behind right front side marker/parking light	Right front parking light	
C226	2	Behind front bumper	Right front turn signal light	
C319	2	Middle of engine compartment	Low horn	
C320	2	Middle of engine compartment	Security hood switch	
C321	2	Behind front bumper	Left front turn signal light	
C322	2	Behind left fog light	Left front fog light	
C323	2	Behind left head light	Left headlight (High beam)	
C324	2	Left front corner of engine compartment	Left front side marker light	
C325	2	Left front corner of engine compartment	Left front parking light	
C326	2	Behind left headlight	Left headlight (Low beam)	
C327	2	Left side of engine compartment	High horn	
C328	3	Left side of engine compartment	Ignition timing adjuster	
C329	3	Left side of engine compartment	Manifold absolute pressure (MAP) sensor	
G201		Right side of engine compartment	Body ground, via main wire harness	
G301		Left side of engine compartment	Body ground, via main wire harness	

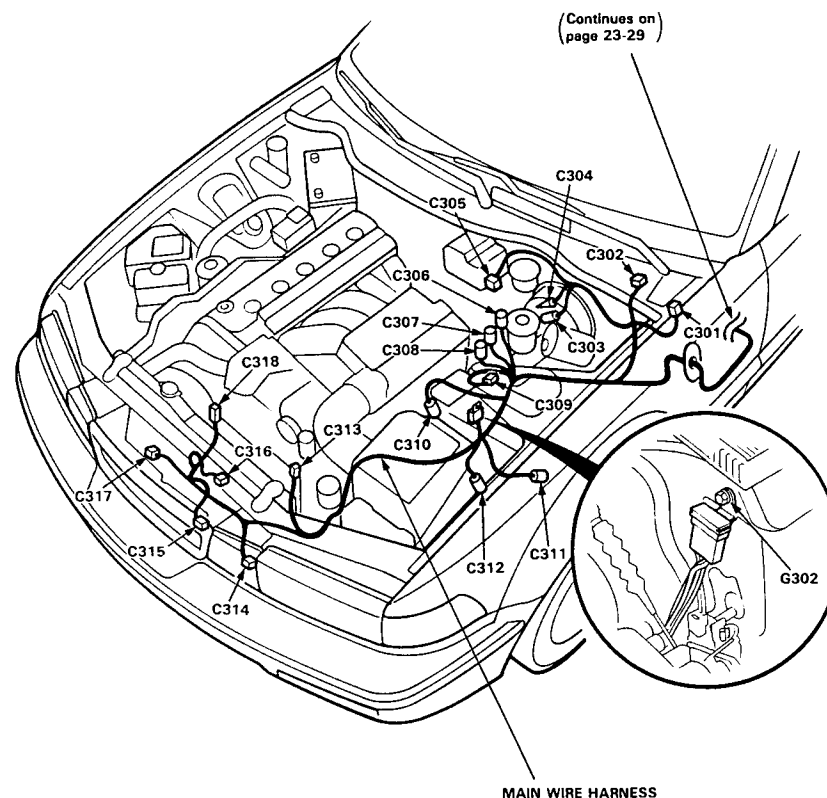


Connector Identification and Wire Harness Routing

Main Wire Harness (cont'd) (Left side of engine compartment branch)

NOTE: See page 23-24 for connectors C319 through C329 and G301.

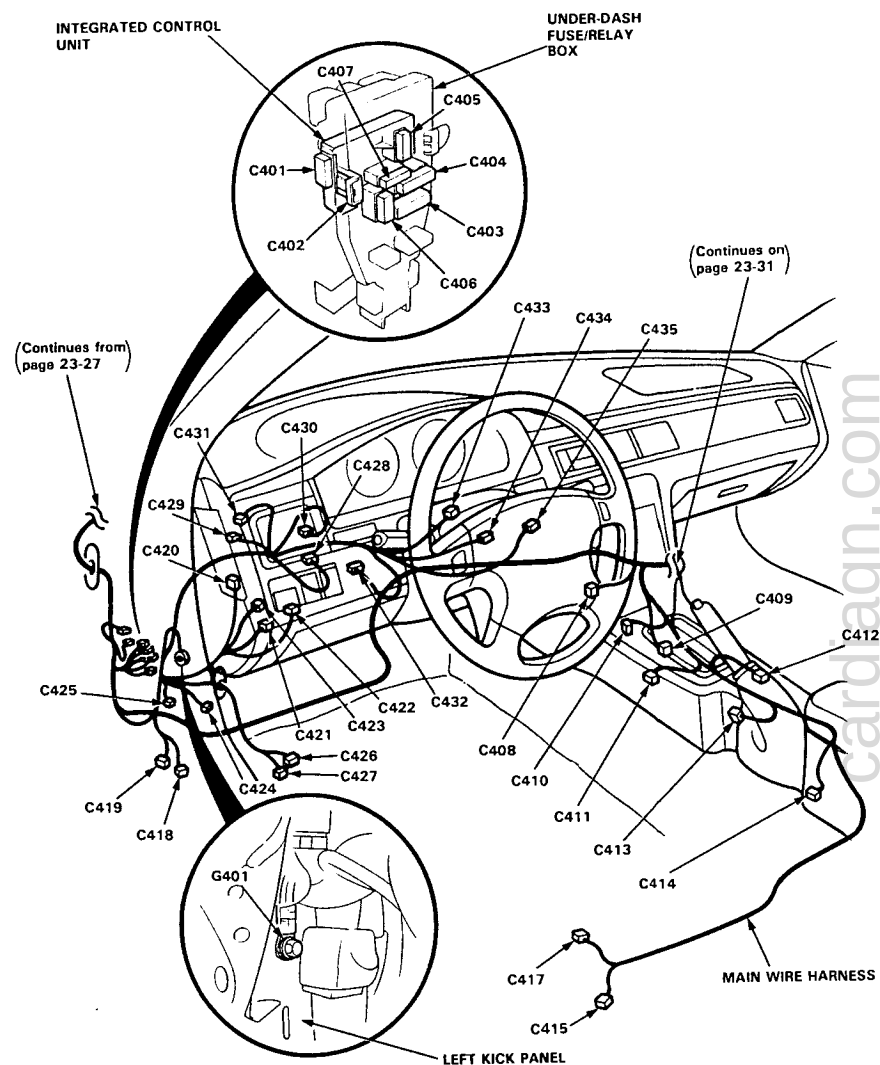
Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C301	4	Left side of engine compartment	Condenser fan relay	A/T
C302	5	Left side of engine compartment	Windshield wiper motor	
C303	1	Left side of engine compartment	Brake fluid level switch (+)	
C304	1	Left side of engine compartment	Brake fluid level switch (-)	
C305	4	Middle of engine compartment	EGR control solenoid valve and water valve solenoid	
C306	14	Left side of engine compartment	Engine wire harness (C102)	
C307	14	Left side of engine compartment	Engine wire harness (C101)	
C308	10	Left side of engine compartment	Engine wire harness (C103)	
C309	1	Left side of engine compartment	Engine wire harness (C105)	
C310	2	Left side of engine compartment	A/C pressure switch	
C311	2	Left side of engine compartment	Left front wheel sensor	
C312	2	Left side of engine compartment	A/C compressor clutch	ABS
C313	4	Middle of engine compartment	Radiator fan motor	
C314	2	Middle of engine compartment	Engine coolant temperature (ECT) switch A	
C315	2	Middle of engine compartment	Condenser fan motor	
C316	2	Middle of engine compartment	Power steering pressure (PSP) switch	
C317	2	Middle of engine compartment	Radiator fan motor	
C318	6	Middle of engine compartment	Intermittent wiper relay	
C319	2	Middle of engine compartment	Low horn	
C320	2	Middle of engine compartment	Security hood switch	
C321	2	Behind front bumper	Left front turn signal light	
C322	2	Behind left fog light	Left front fog light	
C323	2	Behind left headlight	Left headlight (High beam)	
C324	2	Left front corner of engine compartment	Left front side marker light	
C325	2	Left front corner of engine compartment	Left front parking light	
C326	2	Behind left headlight	Left headlight (Low beam)	
C327	2	Left side of engine compartment	High horn	
C328	3	Left side of engine compartment	Ignition timing adjuster	
C329	3	Left side of engine compartment	Manifold absolute pressure (MAP) sensor	
G301		Left side of engine compartment	Body ground, via main wire harness	
G302		Left side of engine compartment	Body ground, via main wire harness	



Connector Identification and Wire Harness Routing

Main Wire Harness (cont'd) (Left side of dash and floor branch)

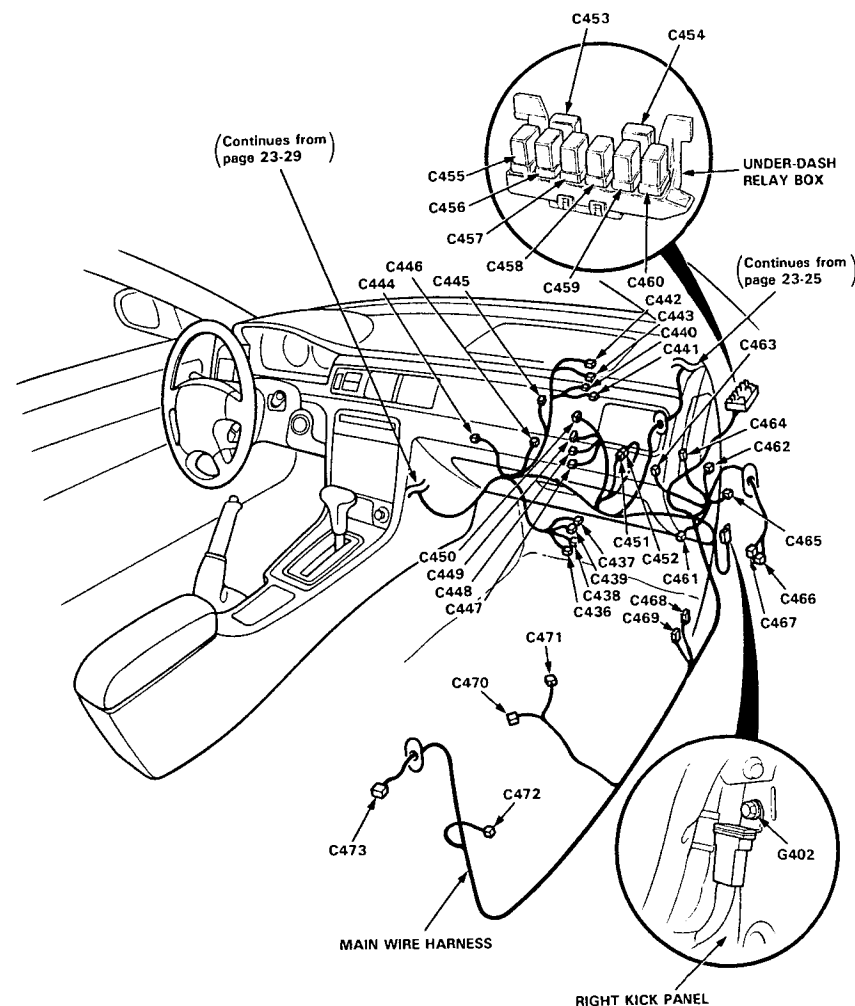
Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C401	16	Behind left kick panel	Integrated control unit	
C402		Behind left kick panel	No. 12 (7.5 A) auxiliary fuse holder	
C403	18	Behind left kick panel	Under-dash fuse/relay box (C914)	
C404	16	Behind left kick panel	Under-dash fuse/relay box (C913)	
C405	10	Behind left kick panel	Under-dash fuse/relay box (C910)	
C406	5	Behind left kick panel	Under-dash fuse/relay box (C912)	
C407	3	Behind left kick panel	Under-dash fuse/relay box (C911)	
C408		Under middle of dash	Junction connector	
C409	2	Under middle of dash	Service check connector	
C410	2	Under middle of dash	Dashboard wire harness (C619)	
C411	12	Under middle of dash	A/T gear position switch sub-harness (C161)	A/T
C412	2	Under middle of dash	Shift lock solenoid	A/T
C413	3	Under middle of dash	A/T gear position console light	A/T
C414	1	Middle floor	Parking brake switch	
C415	4	Left side of floor	Driver's power seat wire harness (C741)	USA
C415	8	Left side of floor	Driver's power seat wire harness (C741)	Canada
C417	2	Left side of floor	Driver's seat belt switch	
C418	18	Behind left kick panel	Rear wire harness (C504)	
C419	2	Behind left kick panel	Rear wire harness (C505)	
C420	7	Under left side of dash	PGM-FI main relay	
C421	4	Under left side of dash	Starter cut relay	
C422	2	Under left side of dash	Chime	
C423	4	Under left side of dash	Power mirror defogger relay	Canada
C424	4	Under left side of dash	SRS main harness (C802)	
C425		Under left side of dash	Junction connector	
C426	17	Driver's door area	Driver's door wire harness (C702)	
C427	15	Driver's door area	Driver's door wire harness (C701)	
C428	14	Under left side of dash	Cruise control unit	
C429	2	Under left side of dash	Clutch switch (Cruise control)	M/T
C430	4	Under left side of dash	Brake switch	
C431	2	Under left side of dash	Clutch interlock switch	M/T
C432	16	Under left side of dash	Dashboard wire harness (C603)	
C433	12	Under left side of dash	Combination light/turn signal switch	
C434	10	Under left side of dash	Windshield wiper/washer switch	
C435	8	Under left side of dash	Ignition switch	
G401		Behind left kick panel	Body ground, via main wire harness	



Connector Identification and Wire Harness Routing

Main Wire Harness (cont'd) (Right side of dash and floor branch)

Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C436	26	Under right side of dash	Engine control module (ECM)	
C437	22	Under right side of dash	Engine control module (ECM)	
C438	16	Under right side of dash	Engine control module (ECM)	
C439	12	Under right side of dash	Engine control module (ECM)	
C440	26	Under right side of dash	Transmission control module (TCM)	
C441	22	Under right side of dash	Transmission control module (TCM)	
C442	18	Under right side of dash	Security control unit	
C443	12	Under right side of dash	Security control unit	
C444	3	Under right side of dash	Heater sub-harness (C654)	
C445		Under right side of dash	Junction connector	
C446		Under right side of dash	Junction connector	
C447	18	Under right side of dash	ABS control unit	
C448	12	Under right side of dash	ABS control unit	
C449	14	Under right side of dash	Heater control amplifier	
C450	8	Under right side of dash	Radiator fan control module	
C451	16	Under right side of dash	C452 connector	
C452	16	Under right side of dash	C451 connector	
C453	4	Under-dash relay box	Front fog light relay	
C454	4	Under-dash relay box	A/C compressor clutch relay	
C455	4	Under-dash relay box	Horn relay	
C456	4	Under-dash relay box	ABS front fail-safe relay	
C457	4	Under-dash relay box	ABS rear fail-safe relay	
C458	4	Under-dash relay box	Blower motor relay	
C459	4	Under-dash relay box	Windshield wiper high relay	
C460	4	Under-dash relay box	Windshield wiper low relay	
C461		Under right side of dash	Junction connector	
C462	14	Under right side of dash	Daytime running lights control unit	Canada
C463	12	Under right side of dash	Power door lock control unit	A/T
C464	8	Under right side of dash	Interlock control unit	Optional
C465	3	Under right side of dash	Keyless power door lock system	
C466	17	Front passenger's door area	Front passenger's door wire harness (C722)	
C467	15	Front passenger's door area	Front passenger's door wire harness (C721)	
C468	20	Under right side of dash	Dashboard wire harness (C625)	A/T
C469	18	Under right side of dash	Dashboard wire harness (C626)	M/T
C470	10	Under right side of dash	Dashboard wire harness (C626)	
C471	6	Right side of floor	ABS inspection connector	
C472	3	Right side of floor	Front passenger's seat heater	Canada
C473	1	Right B-pillar area	Front passenger's door switch	
C473	8	Right rear door area	Right rear door wire harness (C736)	
G402		Behind right kick panel	Body ground, via main wire harness	

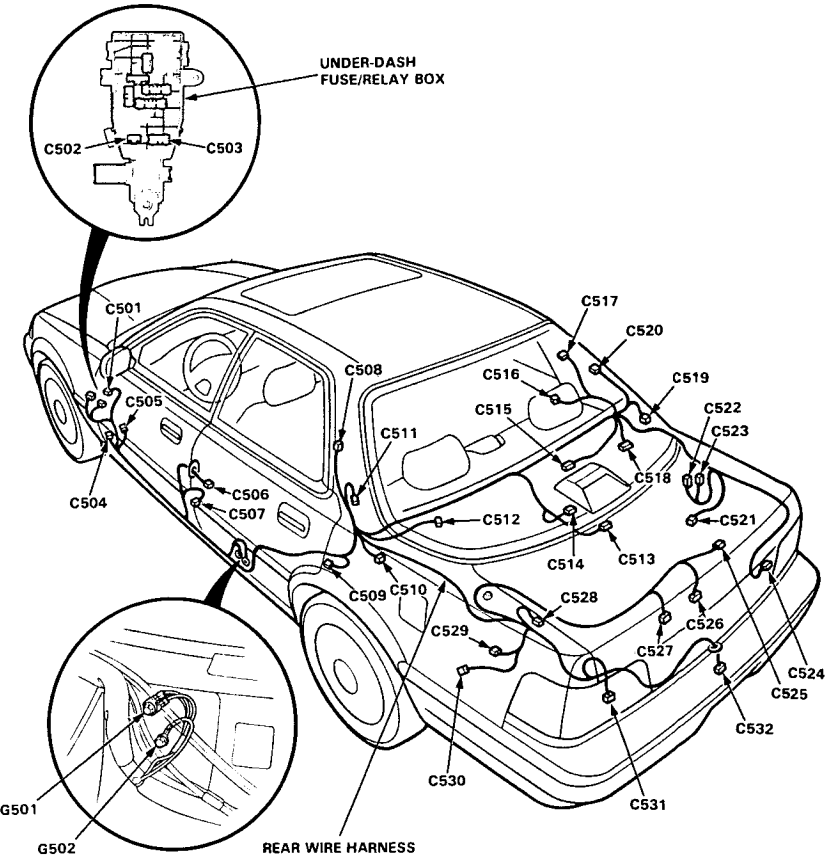


Connector Identification and Wire Harness Routing



Rear Wire Harness

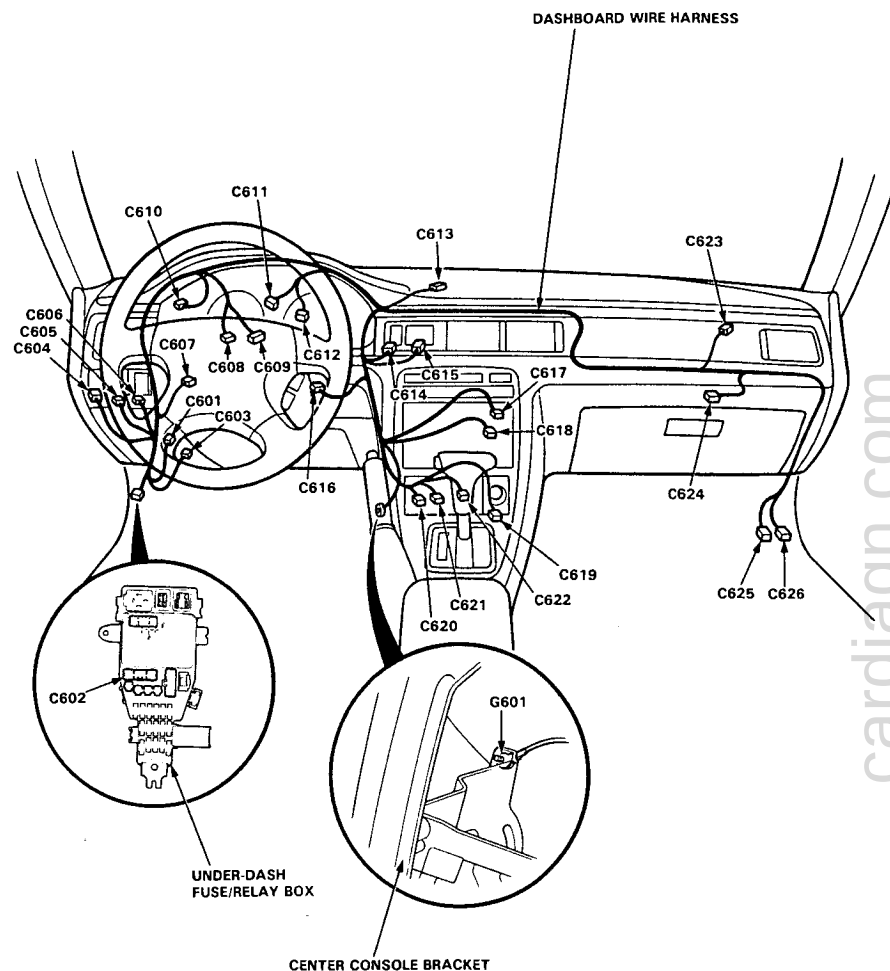
Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C501	20	Behind left kick panel	Dashboard wire harness (C601)	
C502	12	Behind left kick panel	Under-dash fuse/relay box (C916)	
C503	2	Behind left kick panel	Under-dash fuse/relay box (C915)	
C504	18	Behind left kick panel	Main wire harness (C418)	
C505	2	Behind left kick panel	Main wire harness (C419)	
C506	8	Left rear door area	Left rear door wire harness (C716)	
C507	1	Left B-pillar area	Driver's door switch	
C508	8	Left C-pillar area	Roof wire harness (C756)	
C509	1	Left quarter panel area	Left rear door switch	
C510		Left front trunk area	Junction connector	
C511	4	Left front trunk area	Cellular phone system	Optional
C512	2	Left side of rear shelf panel	Left rear speaker	
C513	2	Middle of rear shelf	Trunk light	
C514	2	Middle of rear shelf	High mount brake light	
C515	4	Middle of tank area	Fuel unit sub-harness (C761)	
C516	1	Right quarter panel area	Right rear door switch	
C517	2	Right C-pillar area	Roof wire harness (C758)	
C518	2	Right side of rear shelf	Right rear speaker	
C519	1	Right side of rear shelf	Noise condenser	
C520	1	Right C-pillar area	Rear window defogger	
C521	2	Right side of trunk area	Right rear wheel speed sensor	ABS
C522	6	Right side of trunk area	Moonroof open relay	
C523	6	Right side of trunk area	Moonroof close relay	
C524	8	Right side of trunk area	Right taillight	
C525	2	Middle of trunk area	Security trunk key cylinder switch	
C526	2	Middle of trunk area	Trunk latch switch	
C527	2	Middle of trunk area	Security trunk latch switch	
C528	8	Left side of trunk area	Trailer lighting connector	
C529	3	Left side of trunk area	Power antenna motor	
C530	2	Left side of trunk area	Left rear wheel sensor	ABS
C531	8	Left side of trunk area	Left taillight	
C532	4	Behind rear bumper	License light	
G501		Left side of rear floor	Body ground, via rear wire harness	
G502		Left side of rear floor	Body ground, via rear wire harness	



Connector Identification and Wire Harness Routing

Dashboard Wire Harness

Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C601	20	Under left side of dash	Rear wire harness (C501)	A/T
C602	18	Behind left kick panel	Under-dash fuse/relay box (C905)	
C603	16	Under left side of dash	Main wire harness (C432)	
C604	10	Behind instrument panel	Power mirror switch	
C605	3	Behind instrument panel	Dash lights brightness controller	
C606	5	Behind instrument panel	Moonroof switch	
C607	10	Behind instrument panel	Front fog light and cruise control main switches	
C608	10	Behind gauges	Gauge assembly	
C609	14	Behind gauges	Gauge assembly	
C610	2	Behind instrument panel	Left front tweeter	
C611	16	Behind gauges	Gauge assembly	(LS) (GS) (LS)
C612	10	Behind gauges	Gauge assembly	
C613	10	Behind instrument panel	Junction connector	
C614	10	Behind middle of dash	Hazard warning switch	
C615	4	Behind middle of dash	Clock	
C616	6	Behind instrument panel	Rear window defogger switch	
C617	14	Under middle of dash	Heater control panel	
C618	4	Under middle of dash	Cigarette lighter	
C619	2	Under middle of dash	Main wire harness (C410)	
C620	16	Under middle of dash	Stereo radio/cassette player	
C621	8	Under middle of dash	Stereo radio/cassette player	A/T
C622	5	Under middle of dash	Audio power amplifier unit	
C623	2	Under middle of dash	Stereo radio/cassette player	
C624	2	Behind instrument panel	Right front tweeter	M/T
C625	2	Behind glove box	Glove box light	
C626	20	Under right side of dash	Main wire harness (C468)	
C627	18	Under right side of dash	Main wire harness (C469)	A/T
C628	10	Under right side of dash	Main wire harness (C469)	
G601		Under middle of dash	Body ground, via dashboard wire harness	



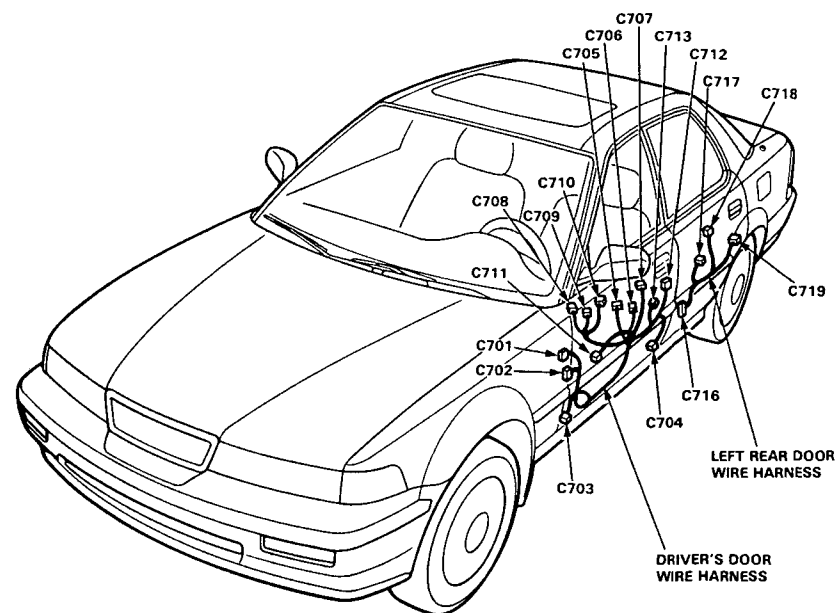
Connector Identification and Wire Harness Routing

Driver's Door Wire Harness

Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C701	15	Driver's door	Main wire harness (C427)	
C702	17	Driver's door	Main wire harness (C426)	
C703	2	Driver's door	Left front door speaker	
C704	2	Driver's door	Driver's door courtesy light	
C705	2	Driver's door	Power window master switch	
C706	16	Driver's door	Power window master switch	
C707	5	Driver's door	Driver's seat heater switch	Canada
C708	3	Driver's door	Left power mirror	
C709	2	Driver's door	Left power mirror defogger	Canada
C710	3	Driver's door	Driver's door lock switch	
C711	4	Driver's door	Driver's power window motor	
C712	2	Driver's door	Security indicator	
C713	8	Driver's door	Driver's door lock actuator (LS)	Canada
C713	4	Driver's door	Driver's door lock actuator (LS)	Canada

Left Rear Door Wire Harness

Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C716	8	Left rear door	Rear wire harness (C506)	
C717	2	Left rear door	Left rear power window motor	
C718	5	Left rear door	Left rear power window switch	
C719	4	Left rear door	Left rear door lock actuator	



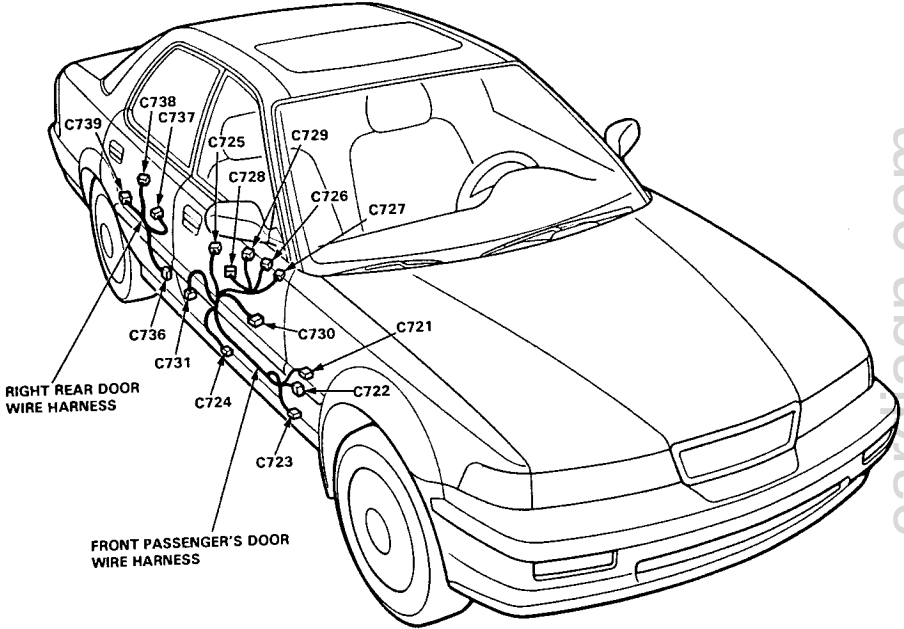
Connector Identification and Wire Harness Routing

Front Passenger's Door Wire Harness

Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C721	15	Front passenger's door	Main wire harness (C467)	
C722	17	Front passenger's door	Main wire harness (C466)	
C723	2	Front passenger's door	Right front door speaker	
C724	2	Front passenger's door	Front passenger's door courtesy light	
C725	5	Front passenger's door	Front passenger's seat heater switch	Canada
C726	2	Front passenger's door	Right power mirror defogger	Canada
C727	3	Front passenger's door	Right power mirror	
C728	5	Front passenger's door	Front passenger's power window switch	
C729	3	Front passenger's door	Front passenger's door lock switch	
C730	2	Front passenger's door	Front passenger's power window motor	
C731	8	Front passenger's door	Front passenger's door lock actuator	
C731	2	Front passenger's door	Front passenger's door lock actuator (LS)	Canada

Right Rear Door Wire Harness

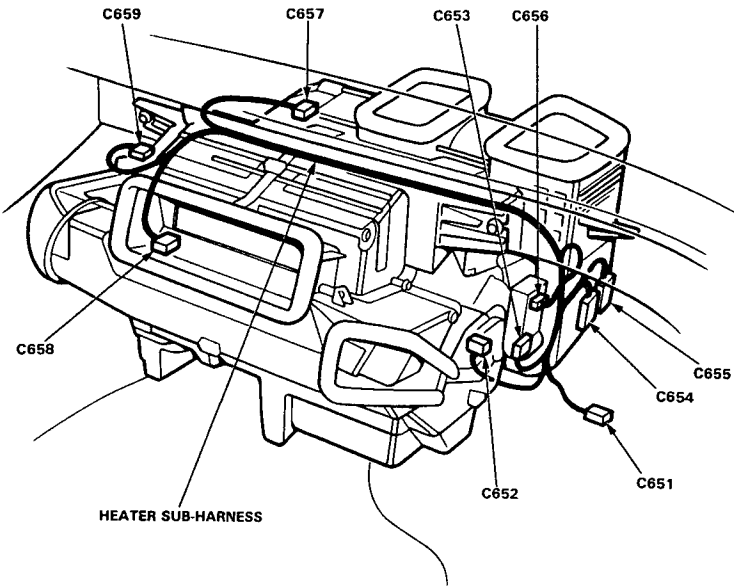
Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C736	8	Right rear door	Main wire harness (C473)	
C737	2	Right rear door	Right rear power window motor	
C738	5	Right rear door	Right rear power window switch	
C739	4	Right rear door	Right rear door lock actuator	



Connector Identification and Wire Harness Routing

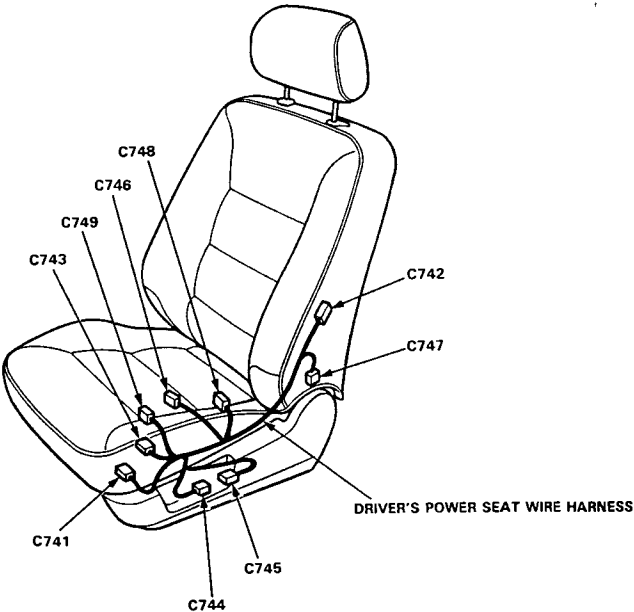
Heater Sub-harness

Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C651	22	Under right side of dash	Heater control amplifier	
C652	3	Under right side of dash	Power transistor	
C653	4	Under right side of dash	Blower motor high relay	
C654	3	Under right side of dash	Main wire harness (C444)	
C655	2	Under right side of dash	Blower motor	
C656	7	Under right side of dash	Air mixture control motor	
C657	7	Under left side of dash	Recirculation control motor	
C658	2	Under left side of dash	Evaporator temperature sensor	
C659	7	Under left side of dash	Mode control motor	



Driver's Power Seat Wire Harness

Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C741	4	Left side of floor	Main wire harness (C415)	USA
C741	8	Left side of floor	Main wire harness (C415)	Canada
C742	2	Driver's seat-back	Recline motor	
C743	2	Under driver's seat	Slide motor	
C744	6	Left side of driver's seat	Driver's power seat slide switch	
C745	6	Left side of driver's seat	Driver's power seat recline switch	
C746	4	Under driver's seat	Seat heater main relay	Canada
C747	2	Under driver's seat	Seat-back heater	Canada
C748	4	Under driver's seat	Seat cushion heater	Canada
C749	6	Under driver's seat	Seat heater relay	Canada



Connector Identification and Wire Harness Routing

Roof Wire Harness

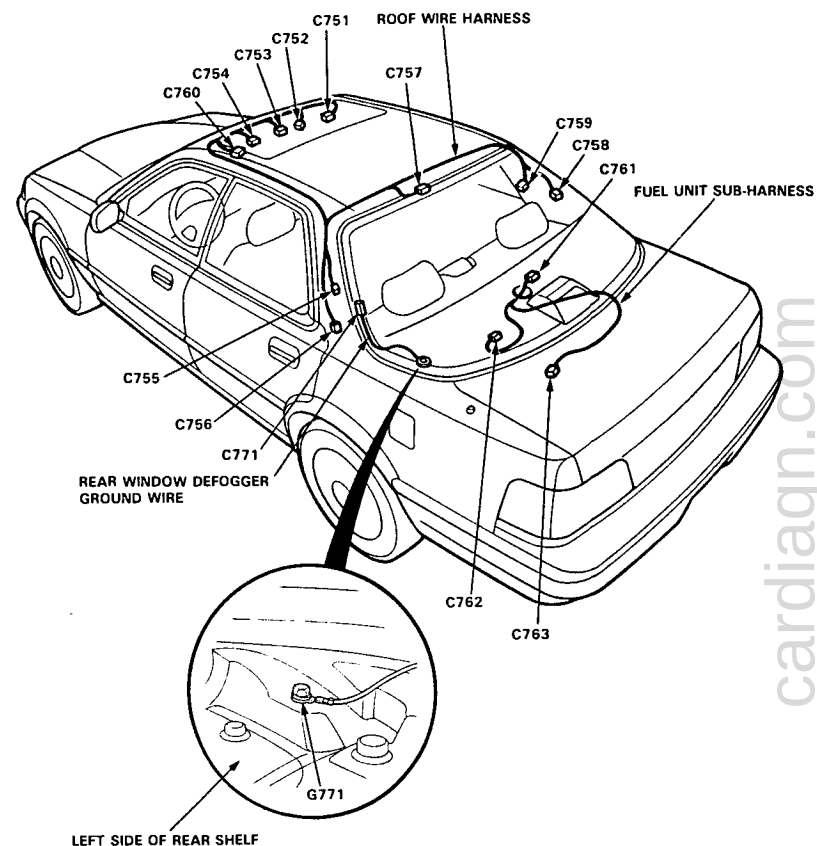
Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C751	1	Roof area	Front passenger's vanity mirror light	
C752	2	Roof area	Right overhead speaker	
C753	4	Roof area	Ceiling light	
C754	2	Roof area	Left overhead speaker	
C755	4	Left C-pillar area	Left rear reading light	
C756	8	Left C-pillar area	Rear wire harness (C508)	
C757	2	Roof area	Moonroof motor	
C758	2	Right C-pillar area	Rear wire harness (C517)	
C759	3	Right C-pillar area	Right rear reading light	
C760	1	Roof area	Driver's vanity mirror light	

Fuel Unit Sub-harness

Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C761	4	Fuel tank	Rear wire harness (C515)	
C762	3	Fuel tank	Fuel gauge sending unit	
C763	2	Fuel tank	Fuel pump (FP)	

Rear Window Defogger Ground Wire

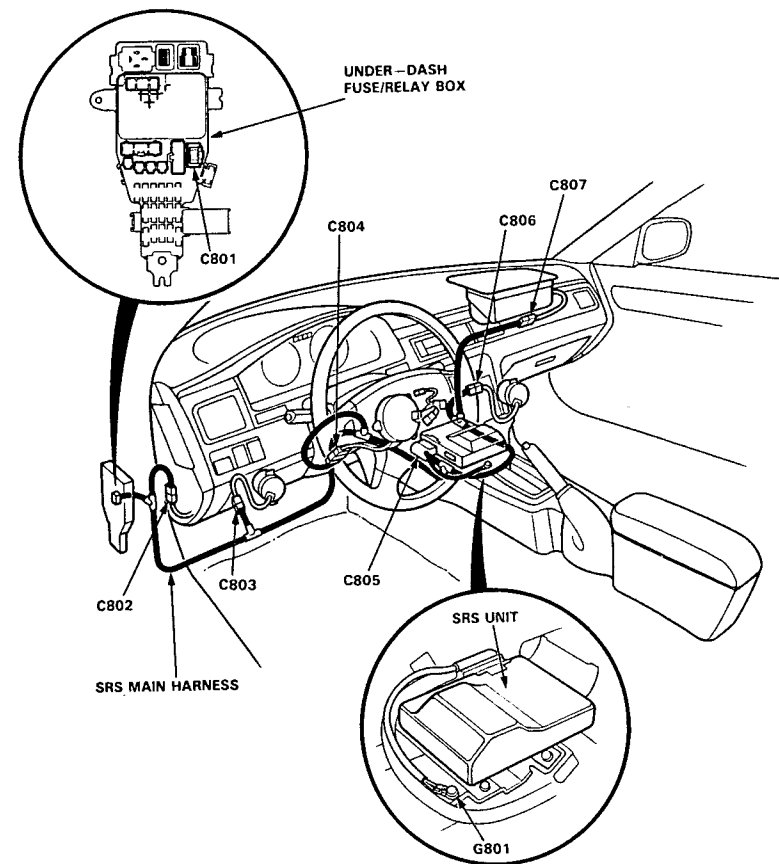
Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C771	1	Left C-pillar area	Rear window defogger	
G771		Left side of rear shelf	Body ground, via rear window defogger ground wire	



Connector Identification and Wire Harness Routing

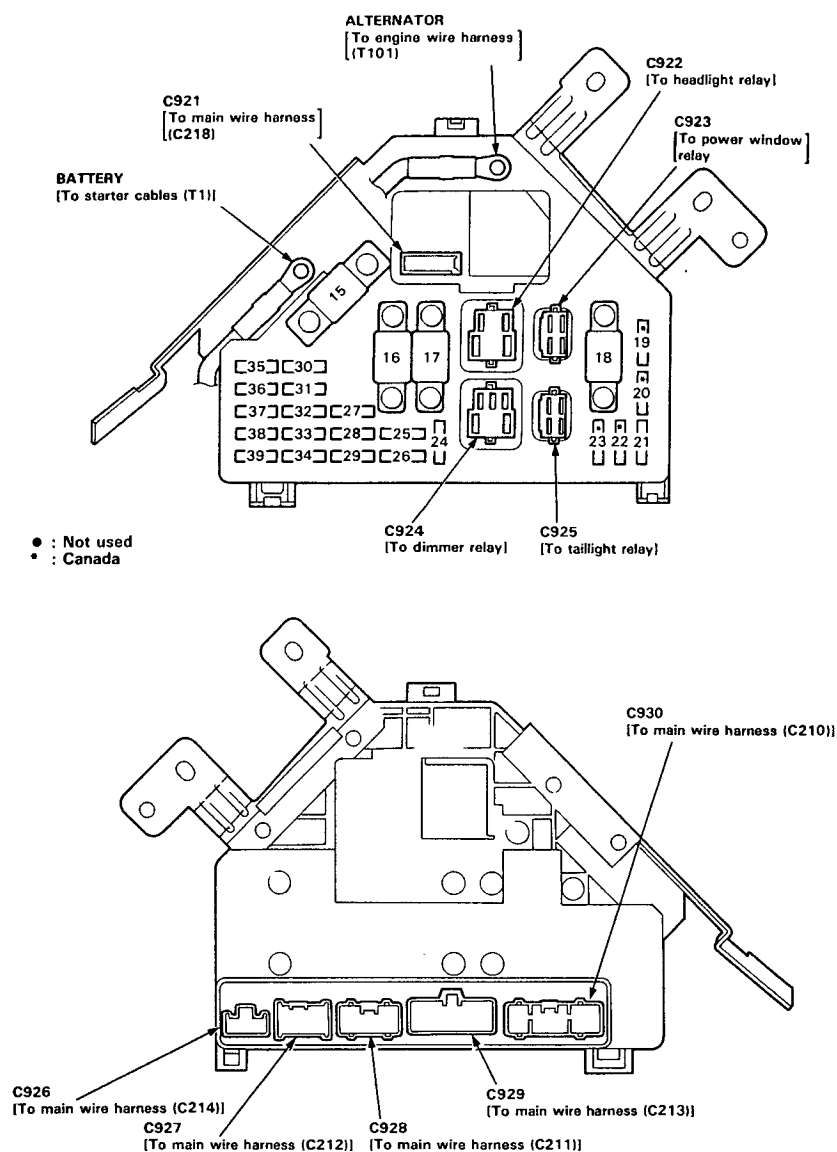
SRS Main Harness

Connector or Terminal	Number of Cavities	Location	Connects to	Notes
C801	2	Behind left kick panel	Under-dash fuse/relay box (C906)	
C802	4	Under left side of dash	Main wire harness (C424)	
C803	2	Under left side of dash	Left dash sensor	
C804	6	Under left side of dash	Cable reel	
C805	18	Middle of floor	SRS unit	
C806	2	Under right side of dash	Right dash sensor	
C807	3	Behind glove box	Passenger's airbag assembly	
G801		Middle of floor	Body ground, via SRS wire harness	



Fuses

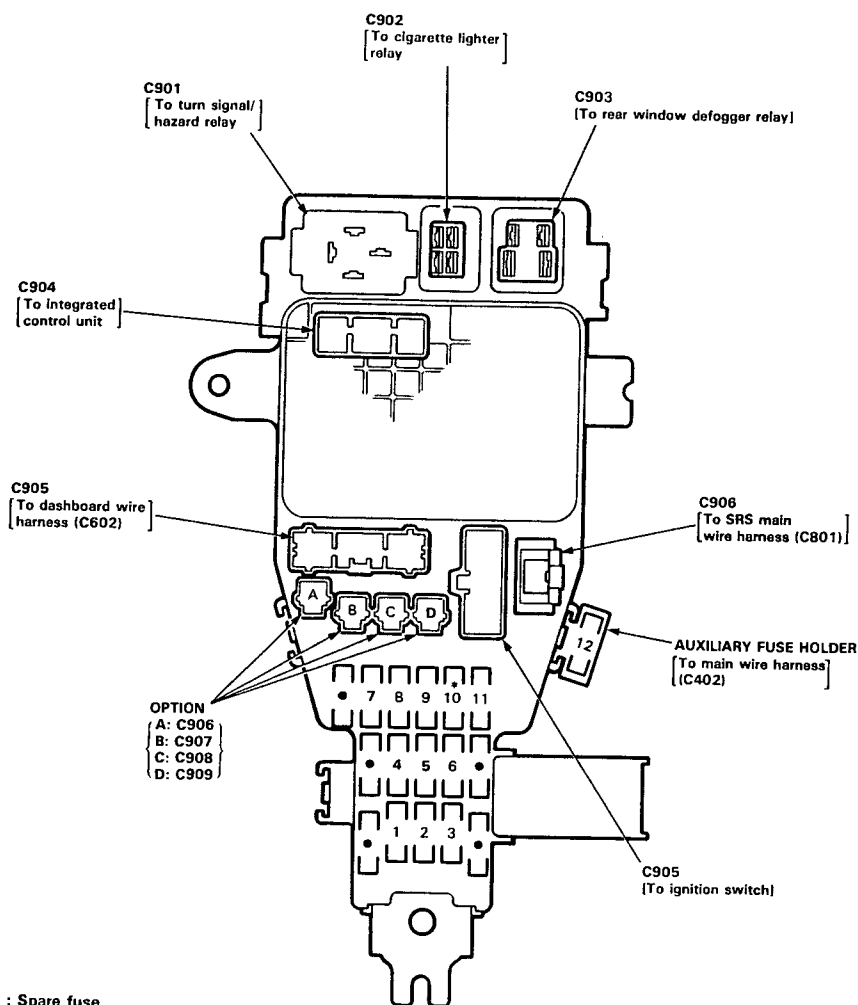
Under-hood Fuse/Relay Box



Fuse Number	Amps	Wire color	Component or circuit protected
15	100 A	—	Battery, Power distribution
16	40 A	YEL/GRN	Rear window defogger, Noise condenser
17	30 A	BLU/WHT	Blower motor
18	50 A	WHT	Ignition switch (BAT)
19	20 A	RED/YEL	Left headlight, Daytime running lights control unit (Canada)
20	20 A	RED/GRN	Right headlight, Daytime running lights control unit (Canada)
21	15 A	RED/GRN	Dash lights, Parking lights, Security control unit
22	15 A	WHT/BLK	Seat heater system (Canada)
23	—	—	Not used
24	20 A	YEL/BLK	Right rear power window motor
25	20 A	GRN/BLK	Left rear power window motor
26	20 A	BLU/BLK	Front passenger's power window motor
27	20 A	WHT/RED	Driver's power seat recline motor
28	20 A	WHT/YEL	Driver's power window motor, Power window control unit
29	30 A	GRN	Moonroof motor
30	20 A	WHT/YEL	Horns, Brake lights, Security control unit
31	20 A	WHT/GRN	Driver's power seat slide motor
32	20 A	WHT	Power door lock control unit
33	10 A	YEL/BLU	PGM-FI main relay
34	15 A	WHT	Condenser fan motor
35	10 A	WHT/GRN	Hazard warning lights, Turn signal/hazard relay
36	15 A	BLU/RED	Front fog lights
37	15 A	WHT/BLU	Ceiling light, Cigarette lighter, Power antenna motor, Power mirror defoggers, Integrated control unit
38	15 A	WHT	Radiator fan motor
39	10 A	WHT/GRN	ECM, Transmission control module (TCM), Clock, Radiator fan control module, Stereo radio/cassette player, Audio power amplifier unit

Fuses

Under-dash Fuse Box



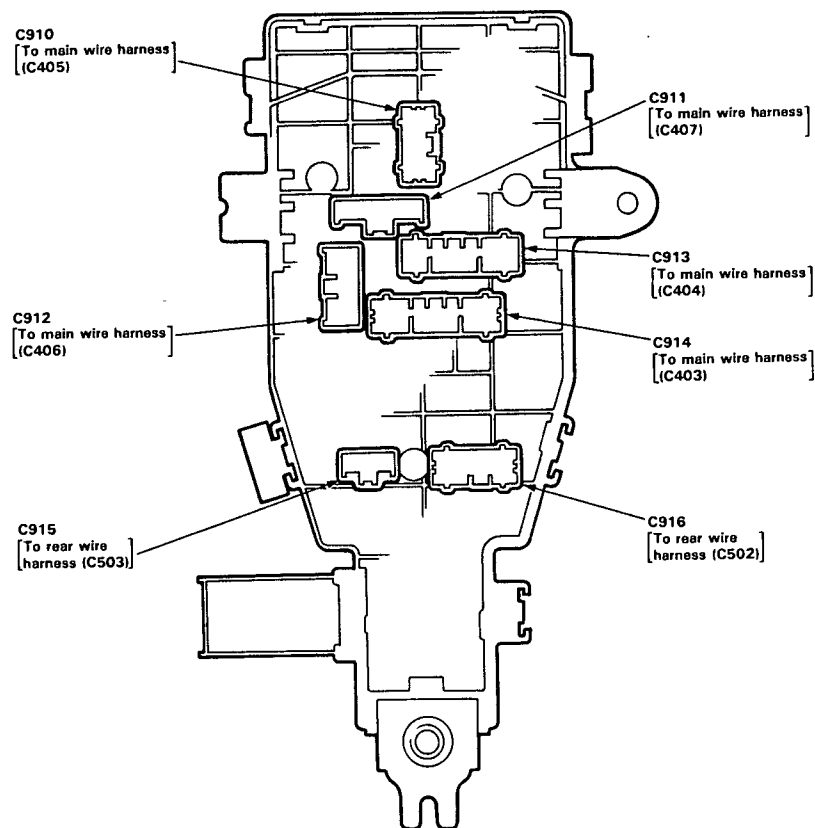
Fuse Number	Amps	Wire color	Component or circuit protected
1	10 A	YEL	Back-up lights, Gauge/indicator lights, Clock, Vehicle speed sensor (VSS)
		Internal connection	Integrated control unit
2	15 A	BLK/YEL	ECM, PGM-FI main relay, ELD unit, Alternator, Radiator fan control module, EGR control solenoid valve
		RED	SRS unit (VA)
3	10 A	PNK	SRS unit (VB)
4	7.5 A	BLK/RED	Cruise control system, Transmission control module (TCM), Security control unit
5	10 A	YEL/RED	Moonroof open relay, Moonroof close relay, Windshield wiper system, Shift lock solenoid (A/T)
6	30 A	GRN/BLK	Windshield wiper motor
7	7.5 A	BLK/YEL	Heater control amplifier, Heater control panel, Blower motor relay, Blower motor high relay, ABS control unit, ABS fail-safe relays, ABS motor relay
		Internal connection	Option B (IG2) connector
8	7.5 A	YEL/BLK	Power mirror actuators, Power mirror defogger relay (Canada), A/C compressor clutch, A/C compressor clutch relay, Radiator fan control module, Driver's seat heater main relay, Front passenger's seat heater main relay
9	7.5 A	BLU/RED	ECM, Gauge (Brake check circuit)
10	7.5 A	YEL/BLK	Daytime running lights control unit (Canada)
11	10 A	YEL/RED	Stereo radio/cassette player, Audio power amplifier unit
		Internal connection	Option A (ACC)connector, Cigarette lighter relay
*12	7.5 A	BLK/YEL	Turn signal/hazard relay

*: AUXILIARY FUSE HOLDER

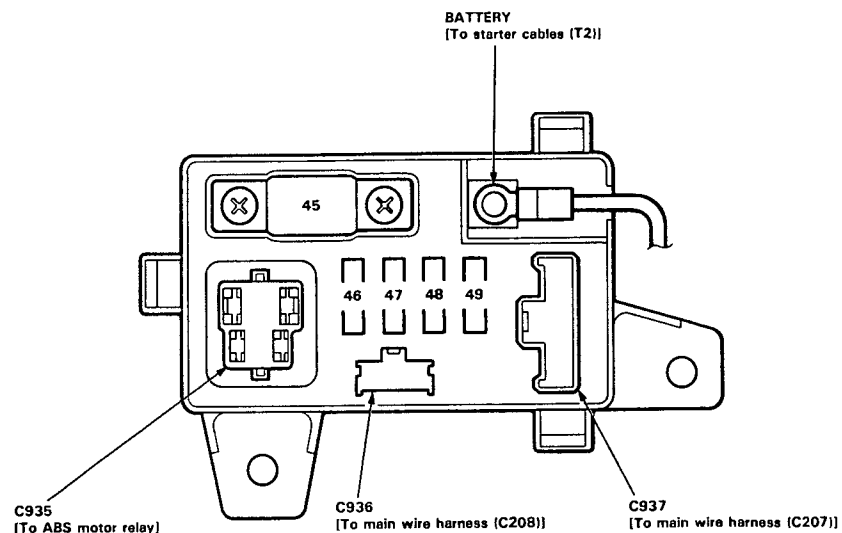
Fuses

Under-dash Fuse/Relay Box (cont'd)

NOTE: View from back side of the under-dash fuse/relay box.



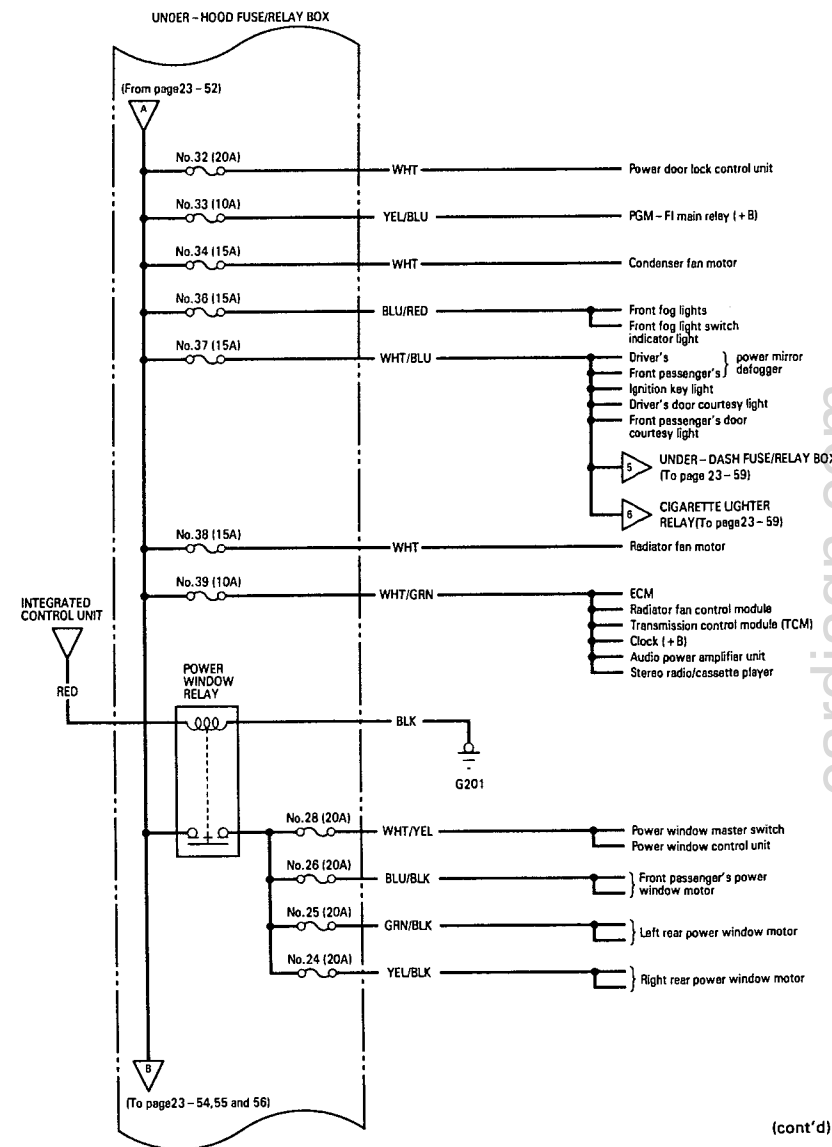
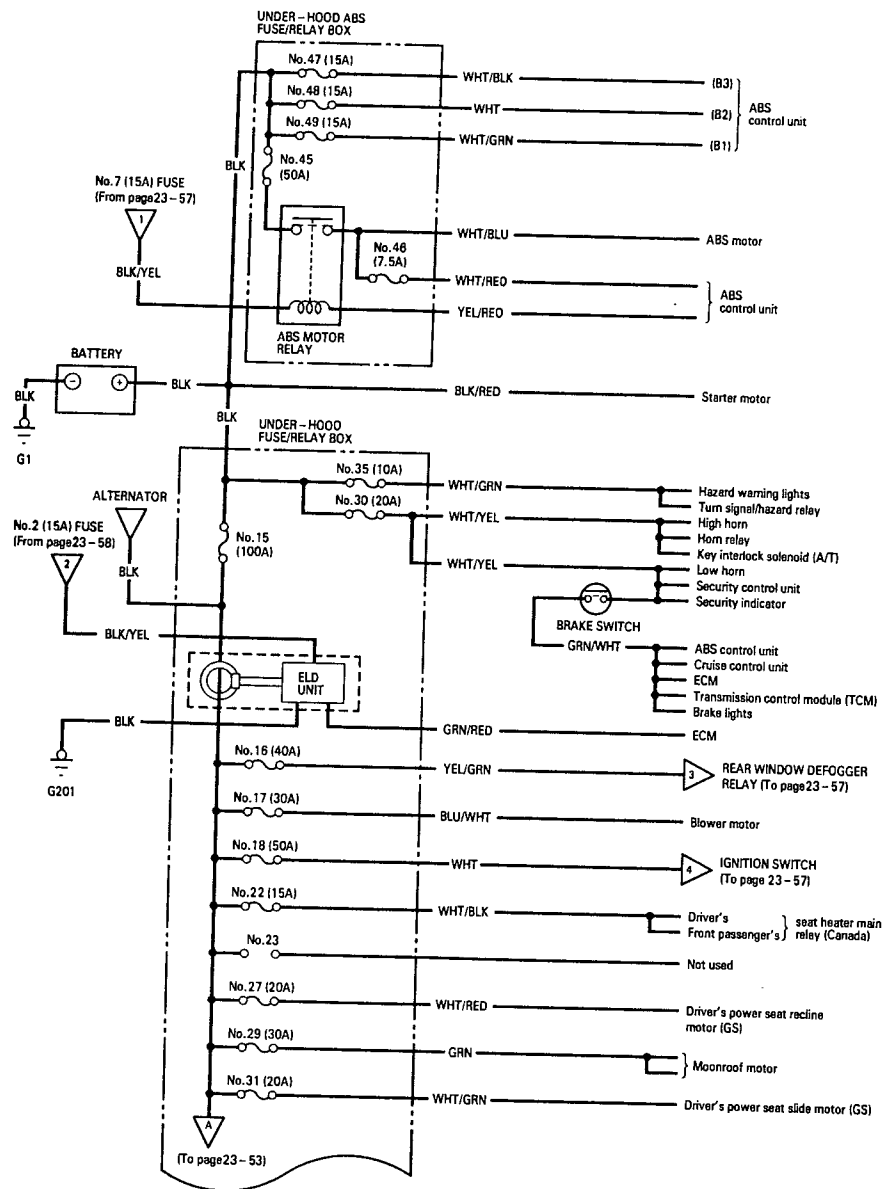
Under-hood ABS Fuse/Relay Box



Fuse Number	Amps	Wire color	Component or circuit protected
45	5.0 A	—	ABS motor relay (contacts)
46	7.5 A	WHT/RED	ABS control unit
47	1.5 A	WHT/BLK	ABS control unit (B3)
48	1.5 A	WHT	ABS control unit (B2)
49	1.5 A	WHT/GRN	ABS control unit (B1)

Fuse Number	Amps	Wire color	Component or circuit protected
45	5.0 A	—	ABS motor relay (contacts)
46	7.5 A	WHT/RED	ABS control unit
47	1.5 A	WHT/BLK	ABS control unit (B3)
48	1.5 A	WHT	ABS control unit (B2)
49	1.5 A	WHT/GRN	ABS control unit (B1)

Power Distribution Circuit Identification



(cont'd)

Circuit Identification (cont'd)

UNDER-HOOD FUSE/RELAY BOX

(From page 23 - 53)

HEADLIGHT RELAY

No. 20 (20A)

No. 19 (20A)

RED/GRN

RED/GRN

RED/GRN

RED/YEL

GRN/WHT

FRONT FOG LIGHT SWITCH

COMBINATION LIGHT SWITCH

LD

DIMMER

HI

PASSING

BLK

G401

G402

RED/BLU — Front fog light relay

FOG

OFF

BLK

G401

G402

BLU/RED

Security control unit

RED/WHT

Security control unit

RED/BLK

TAILLIGHT RELAY

No. 21 (15A)

RED/GRN

RED/WHT

RED/BLU

Right } front parking light

Left }

Right } taillight

Left }

Right } license plate light

Left }

Trailer lighting connector

Option C connector

Dash lights brightness controller

Dash lights

Glove box light

Heater control panel lights

A/C switch light

Integrated control unit

Lights (in dim mode)

for clock, A/T gear position

indicator, cruise control

indicator light.

Driver's

Front passenger's } vanity mirror light

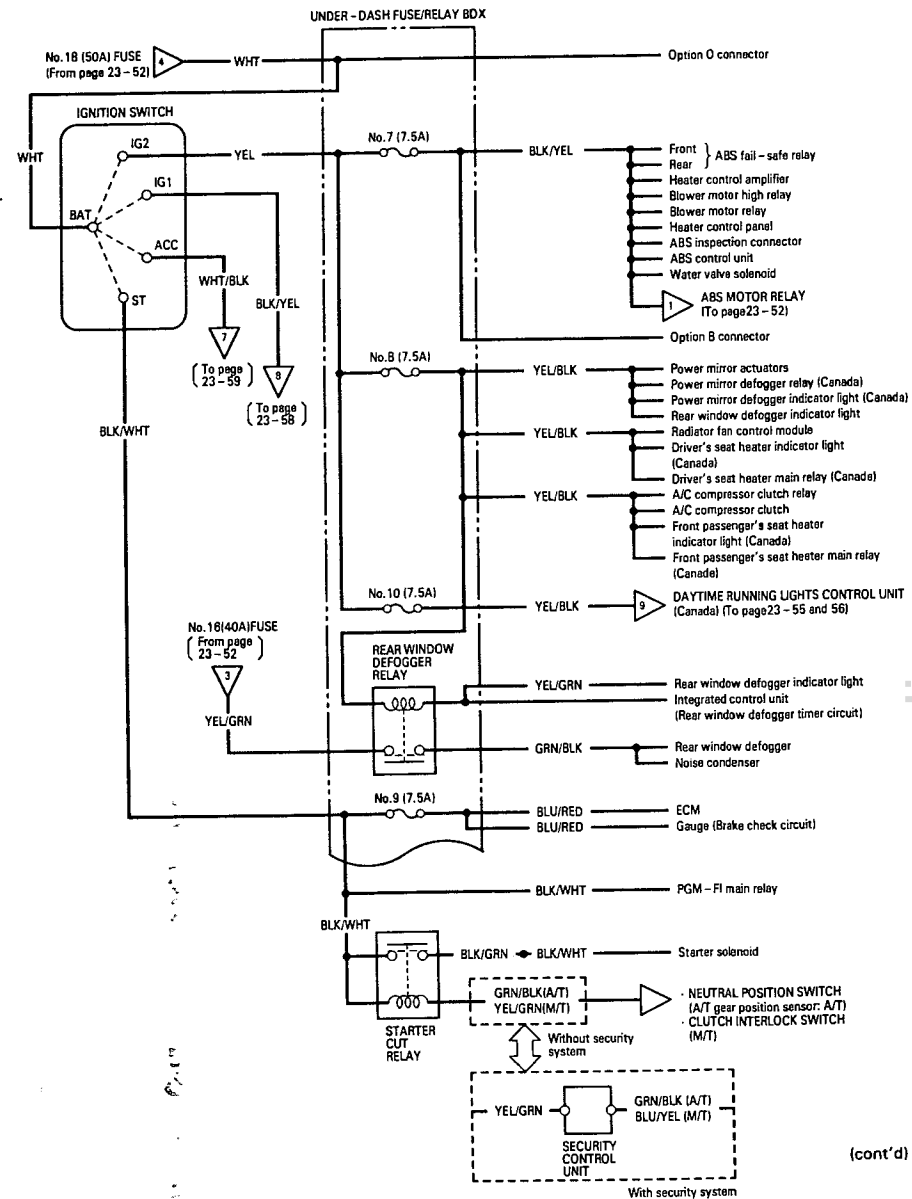
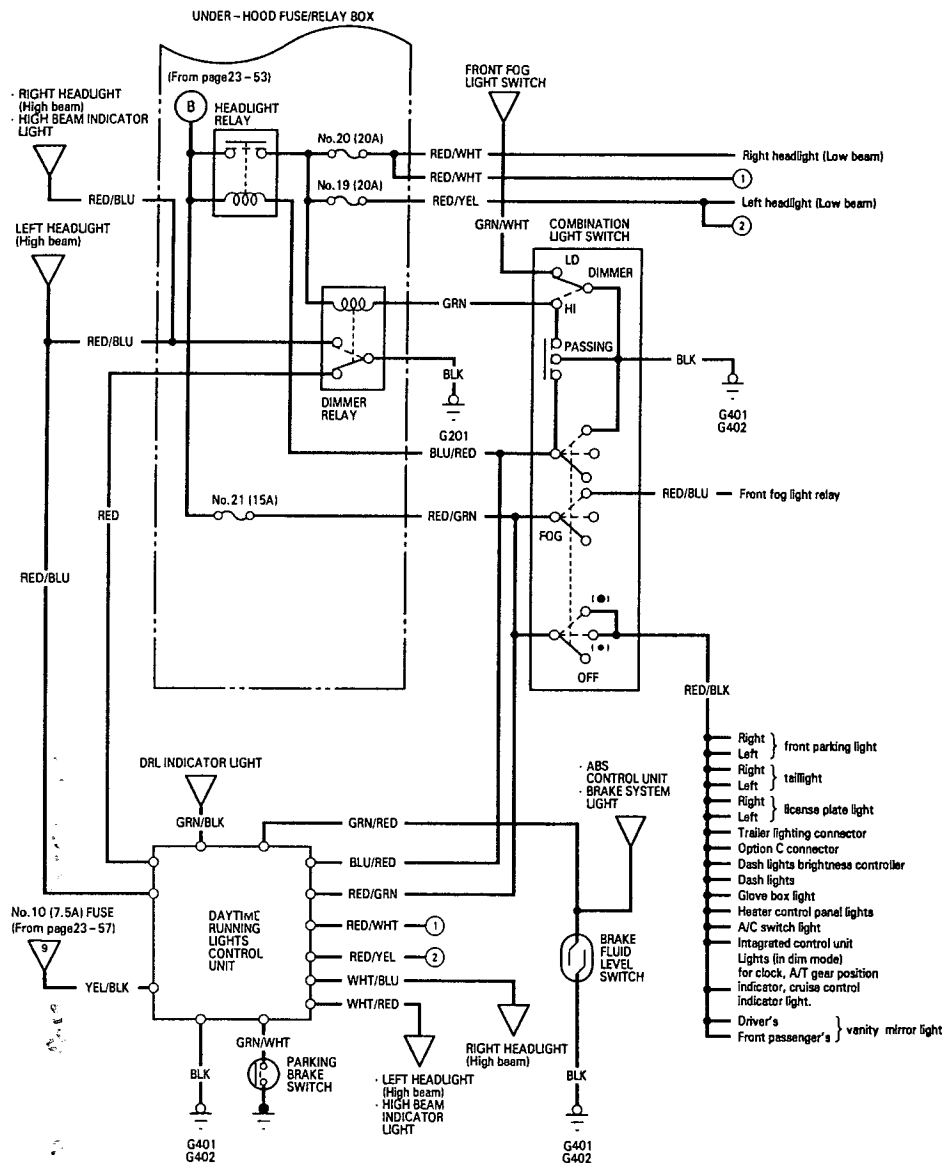
[illegible]

(cont'd)

Power Distribution

Circuit Identification (cont'd)

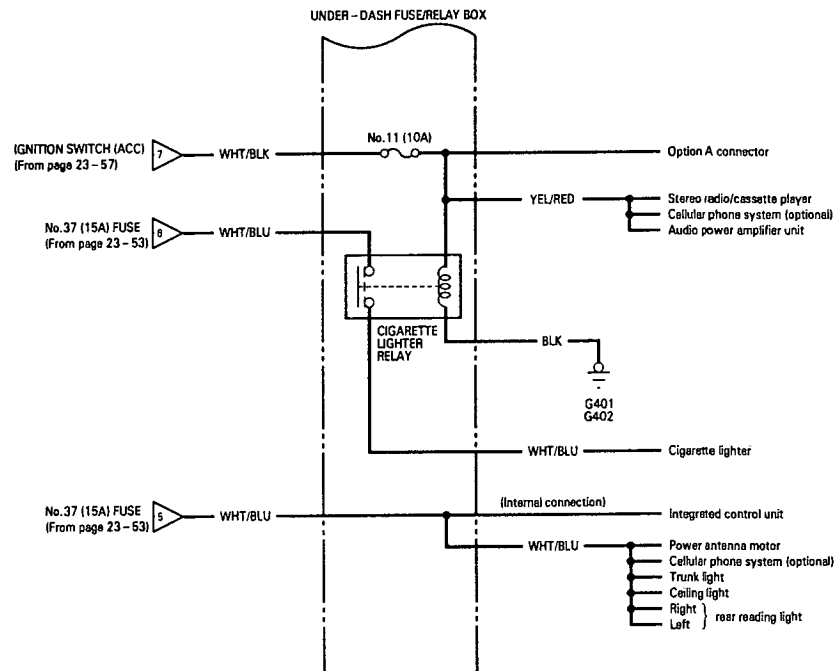
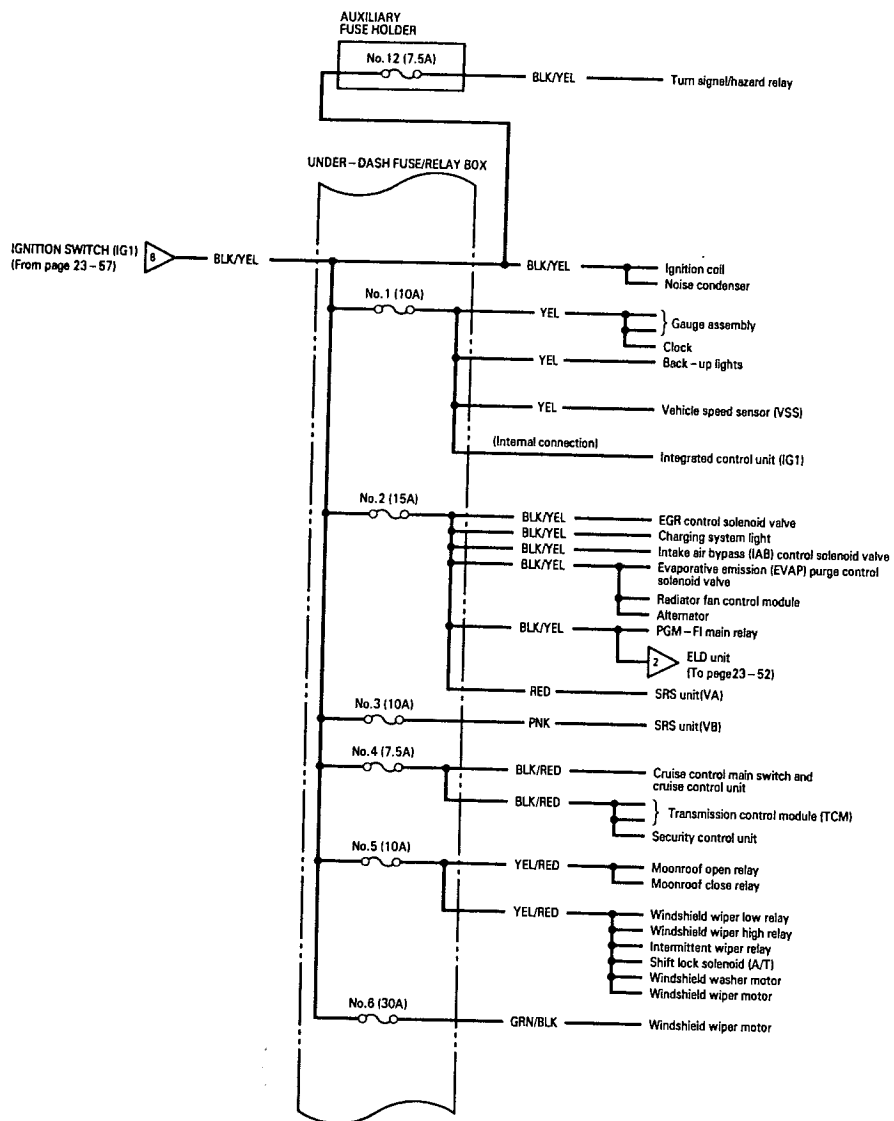
Canada (Without security system):



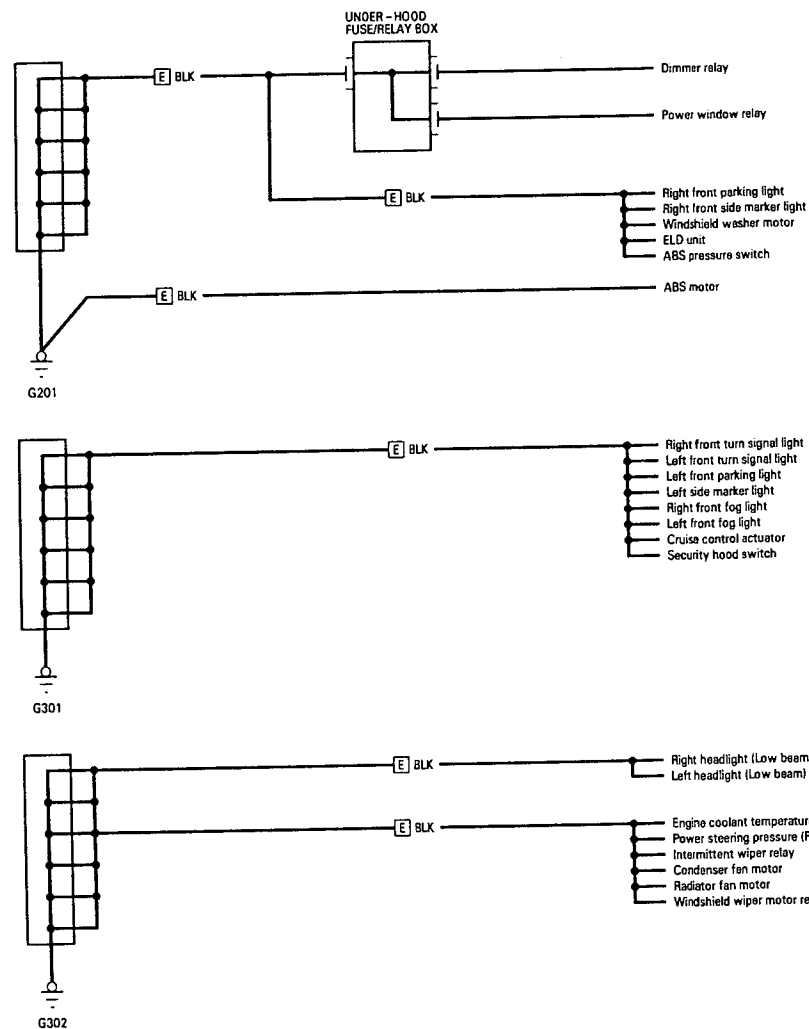
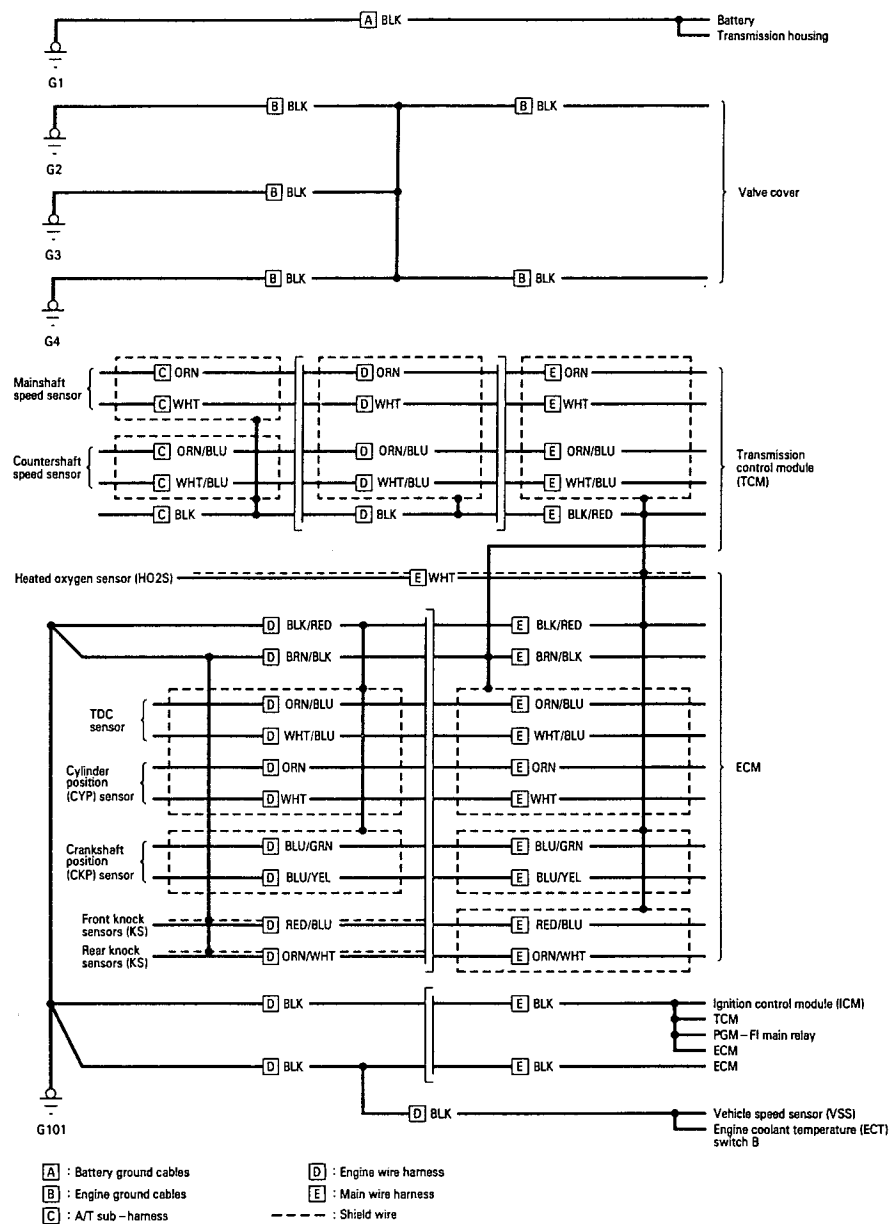
(cont'd)

Power Distribution

Circuit Identification (cont'd)



Ground Distribution Circuit Identification

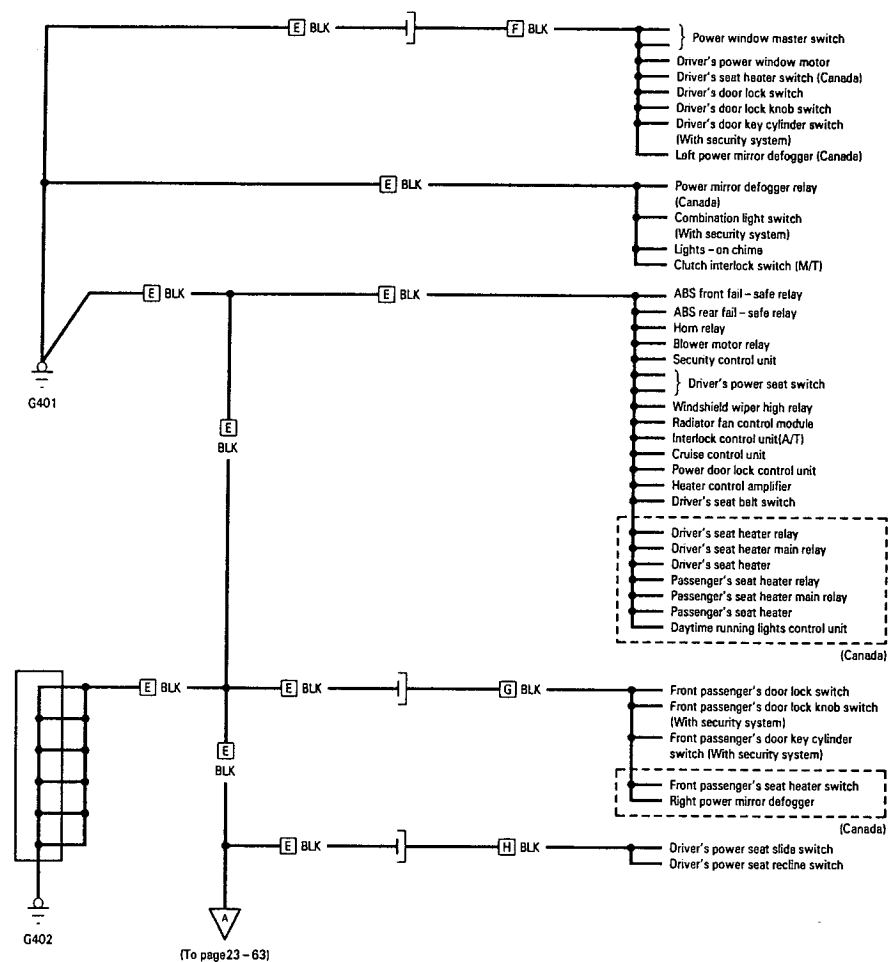


E : Main wire harness

(cont'd)

Ground Distribution

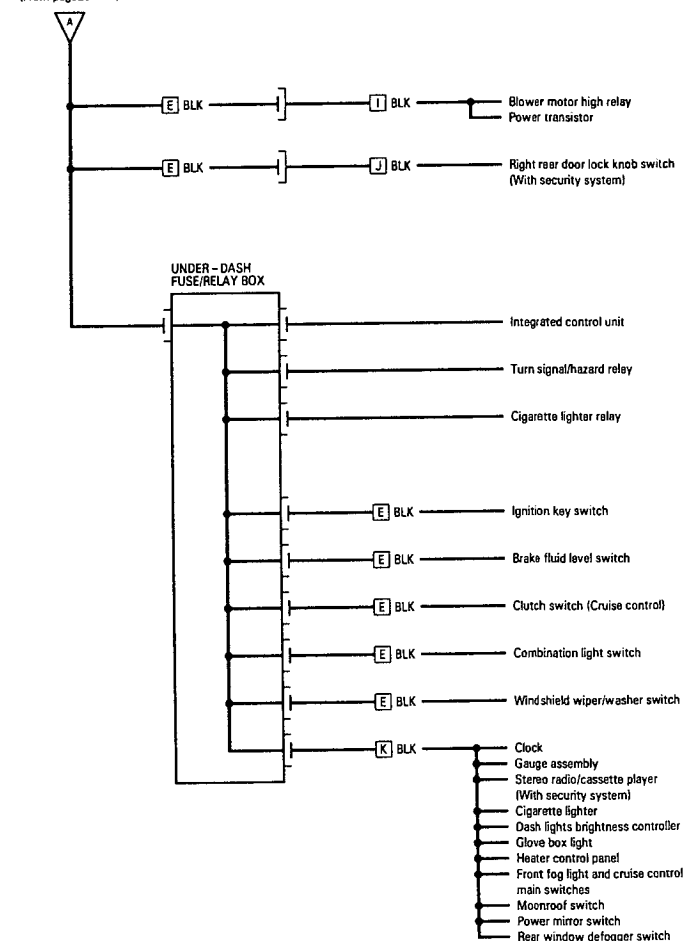
Circuit Identification (cont'd)



(To page 23-63)



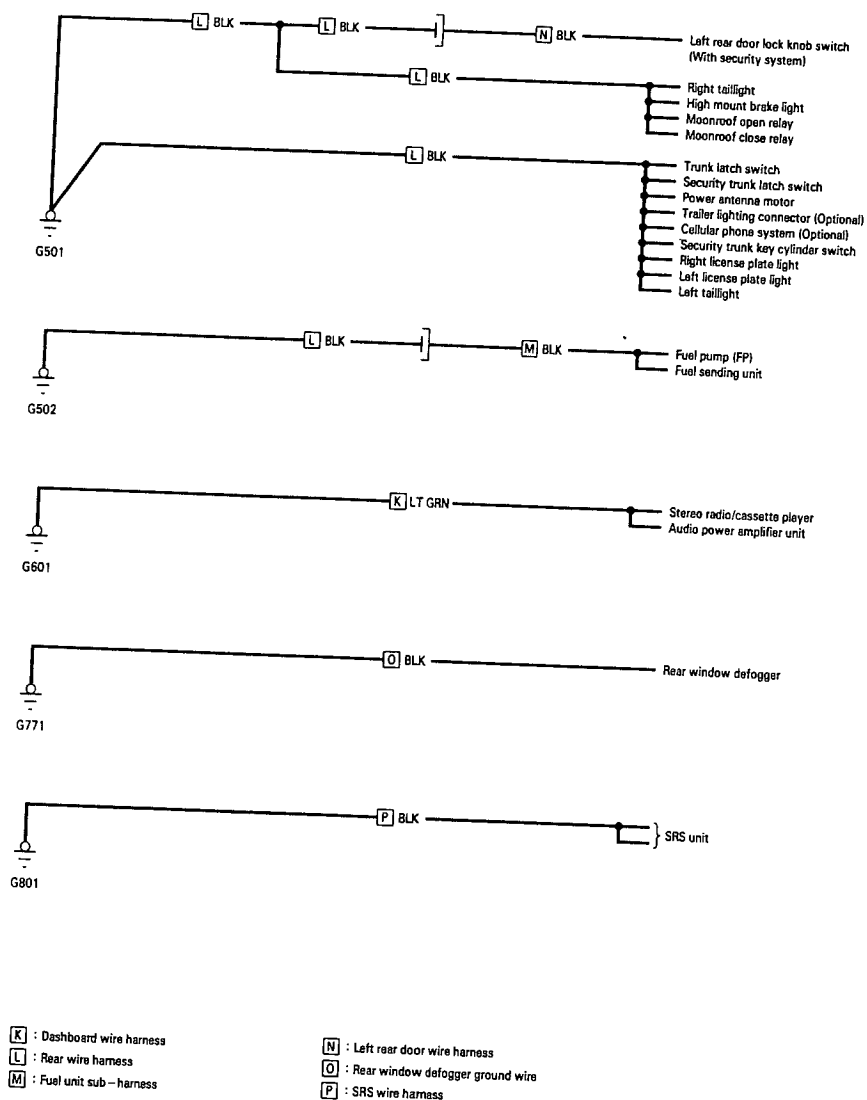
(From page 23-62)



(cont'd)

Ground Distribution

Circuit Identification (cont'd)

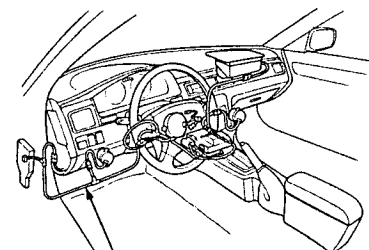


Under-dash Fuse/Relay Box

Removal/Installation

CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



SRS MAIN HARNESS
(Covered with yellow outer insulation)

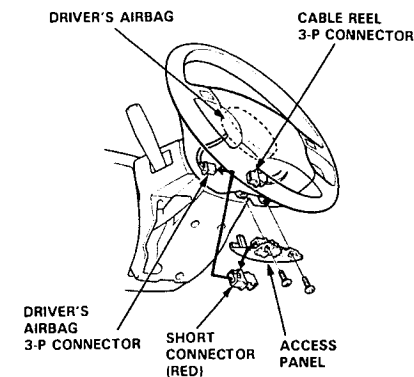
NOTE: The radio may have a coded theft protection circuit. Be sure to get the customer's code number before — Disconnecting the battery.

- Removing the No.39 (10 A) fuse in the under-hood fuse/relay box.
- Removing the radio.

After service, reconnect power to the radio and turn it on. When the word "CODE" is displayed, enter the customer's 5-digit code to restore radio operation.

1. Disconnect the battery negative cable, then disconnect the positive cable.
2. Remove the access panel from the steering wheel, then remove the short connector (RED).

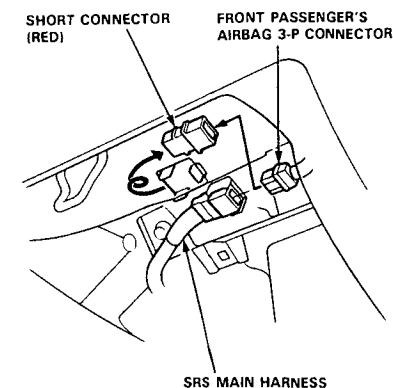
3. Disconnect the 3-P connector between the driver's airbag and cable reel.



4. Connect the short connector (RED) to the airbag side of the connector.

5. Remove the glove box.

6. Disconnect the 3-P connector between the front passenger's airbag and SRS main harness, and connect the short connector (RED) to the airbag side of the connector.

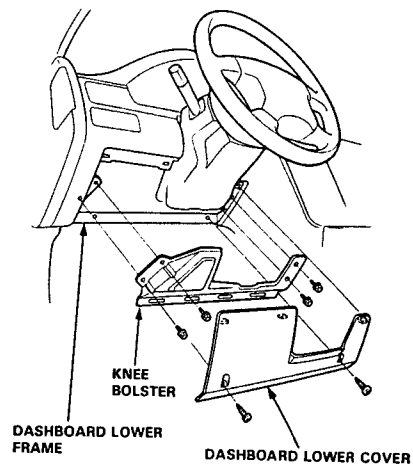


(cont'd)

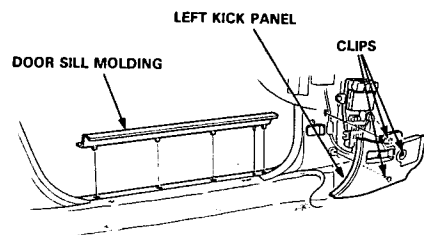
Under-dash Fuse/Relay Box

Removal/Installation (cont'd)

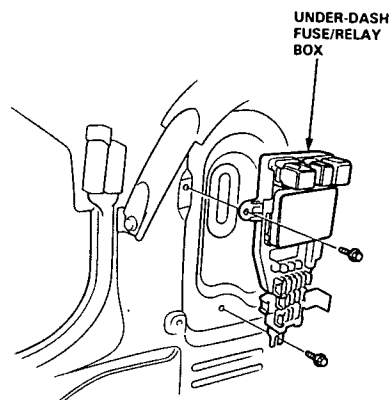
6. Remove the dashboard lower cover, knee bolster, and dashboard lower frame.



7. Remove the driver's foot rest (see section 20).
8. Remove the door sill molding and left kick panel.

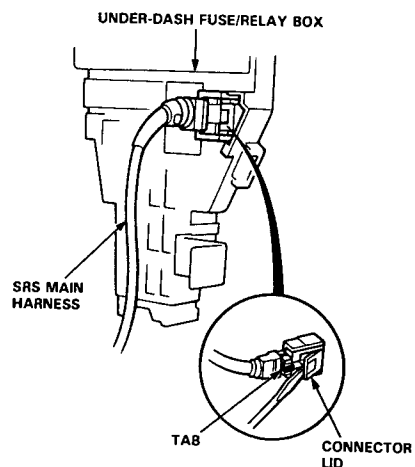


9. Remove the two mounting bolts and pull the under-dash fuse/relay box away from the left kick panel.



10. Disconnect the under-dash fuse/relay box connectors and take out the under-dash fuse/relay box.

NOTE: The SRS main harness connector is double-locked. To remove it, first lift the connector lid, then press the connector tab down and pull the connector out.

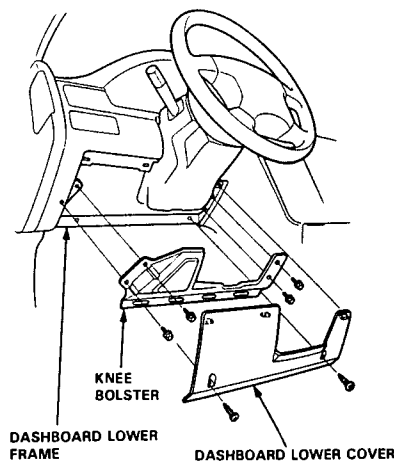


Installation:

1. Reconnect the connectors to the under-dash fuse/relay box.

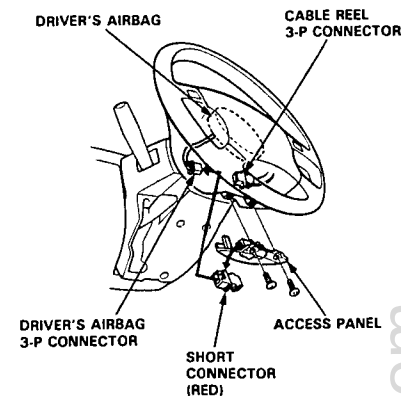
NOTE: To reinstall the SRS main harness connector, push it into position until it clicks, then close the connector lid.

2. Install the under-dash fuse/relay box.
3. Reinstall the dashboard lower frame, knee bolster and dashboard lower cover.



4. Disconnect the short connector (s) (RED) from the airbag(s).
5. Reconnect the airbag 2-P connector (s).

6. Attach the driver's airbag short connector (RED) to the access panel and reinstall the panel.



7. Reinstall the glove box.
8. Connect both the negative cable and positive cable to the battery.
9. Confirm that all systems work properly.

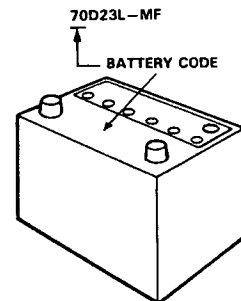
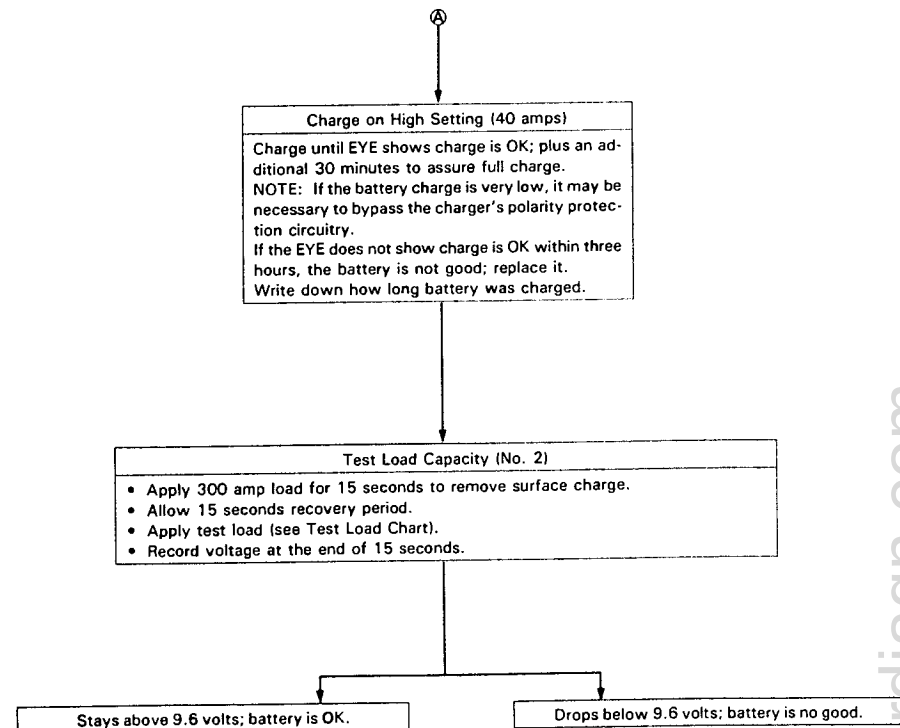
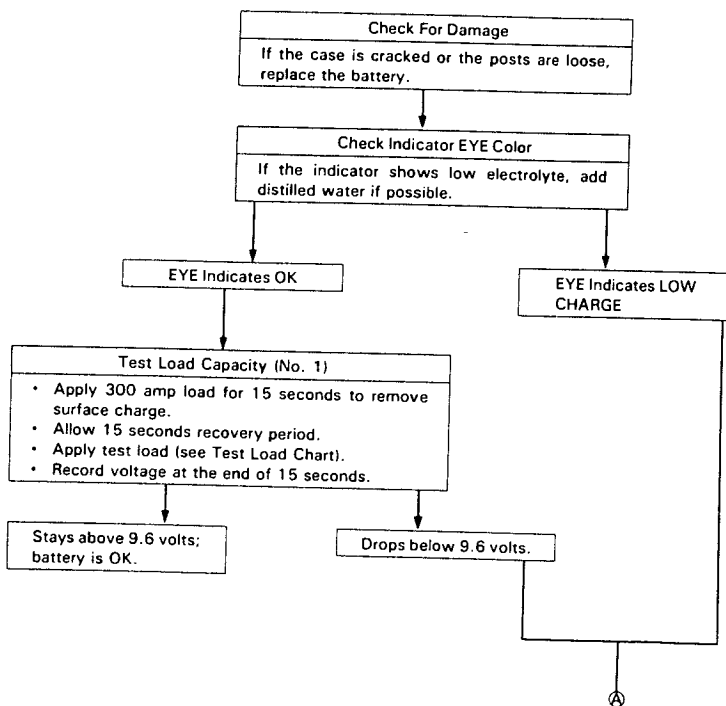
Battery

Test

⚠ WARNING

- Battery fluid (electrolyte) contains sulfuric acid. It may cause severe burns if it gets on your skin or in your eyes. Wear protective clothing and a face shield.
 - If electrolyte gets on your skin or clothes, rinse it off with water immediately.
 - If electrolyte gets in your eyes, flush it out by splashing water in your eyes for at least 15 minutes; call a physician immediately.
- A battery gives off hydrogen gas. If ignited, the hydrogen will explode and could crack the battery case and splatter acid on you. Keep sparks, flames, and cigarettes away from the battery.
- Overcharging will raise the temperature of the electrolyte. This may force electrolyte to spray out of the battery vents. Follow the charger manufacturer's instructions and charge the battery at a proper rate.

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:
To get accurate results, the temperature of the electrolyte must be between 70 °F (21 °C) and 100 °F (38 °C).



TEST LOAD CHART		
Use the test load or 1/2 the cold cranking amps (CCA) printed on the label on the top of the battery. If neither is indicated, use the information below:		
BATTERY CODE	COLD CRANKING AMPS (CCA)	LOAD (amps)
80	550	270
70	440	220
55	405	200

Power Relays

Relay Test

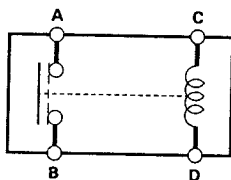
NOTE: See page 23-210 for turn signal/hazard relay input test and see page 23-280 for seat heater relay test.

1. Remove the power relay from its socket.
2. Check for continuity between the terminals.
 - There should be continuity between the C and D terminals

Normally Open-type:

- There should be continuity between the A and B terminals when power and ground are connected to the C and D terminals.
- There should be no continuity between the A and B terminals when power is disconnected.

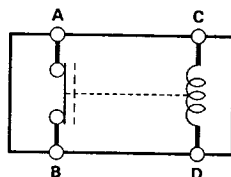
Terminal	A	B
Power (C-D)		
Disconnected		
Connected		



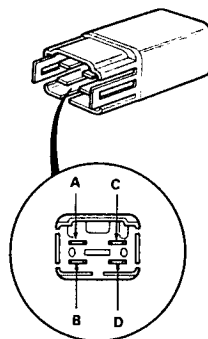
Normally Closed-type:
(Windshield wiper low relay)

- There should be no continuity between the A and B terminals when power and ground are connected to the C and D terminals.
- There should be continuity when power is disconnected.

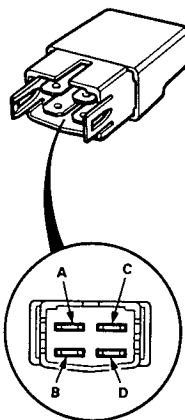
Terminal	A	B
Power (C-D)		
Disconnected		
Connected		



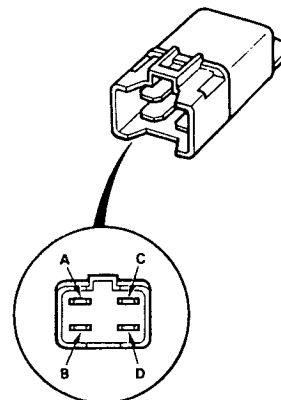
- Horn relay
- Cigarette lighter relay
- Power window relay
- ABS front fail-safe relay
- ABS rear fail-safe relay
- Blower motor relay
- Front fog light relay
- Taillight relay



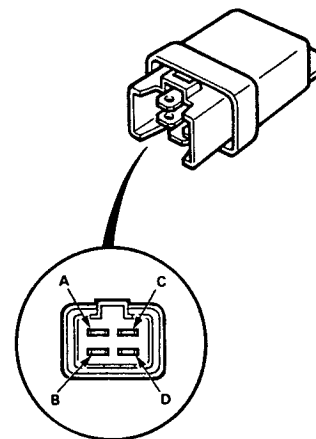
- A/C compressor clutch relay
- Windshield wiper low relay
- Windshield wiper high relay



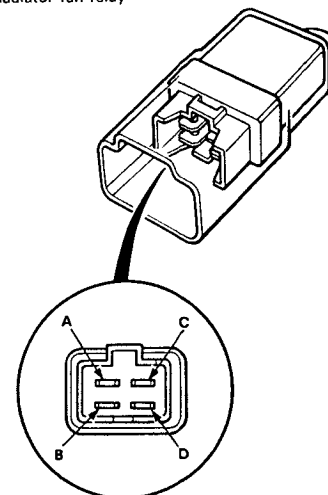
- Blower motor high relay



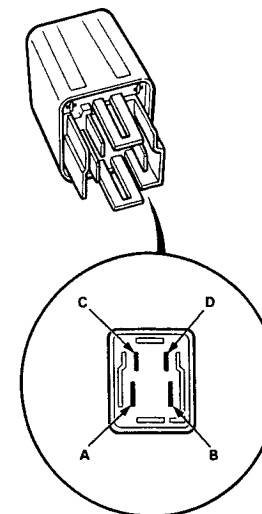
- Seat heater main relay
- Power mirror defogger relay
- Starter cut relay



- Condenser fan relay
- Radiator fan relay



- Headlight relay
- Rear window defogger relay
- ABS motor relay



(cont'd)

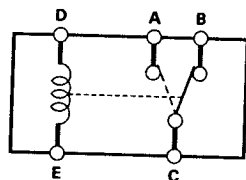
Power Relays

Relay Test (cont'd)

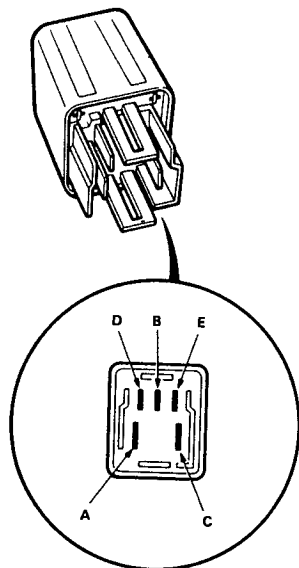
FIVE-TERMINAL type:

1. Remove the power relay from its socket.
2. Check for continuity between the terminals.
 - There should be continuity between the D and E terminals.
 - There should be continuity between the A and C terminals when power and ground are connected to the D and E terminals.
 - There should be continuity between the B and C terminals when power is disconnected.

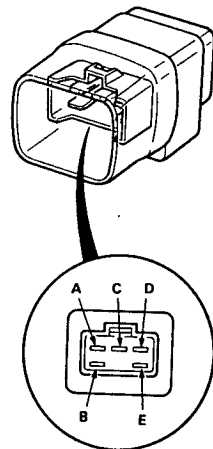
Terminal	A	B	C
Power (D-E)			
Disconnected		○	○
Connected	○		○



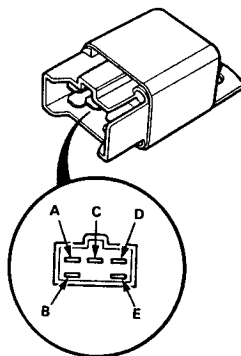
• Dimmer relay



• Intermittent wiper relay



- Moonroof open relay
- Moonroof close relay

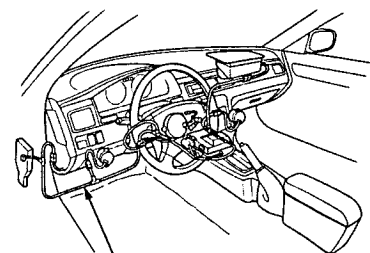


Ignition Switch

Test

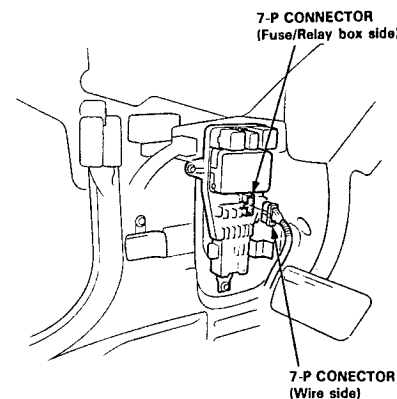
CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



SRS MAIN HARNESS
(Covered with yellow outer insulation)

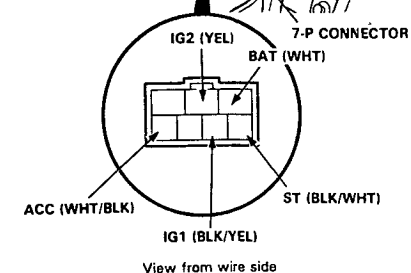
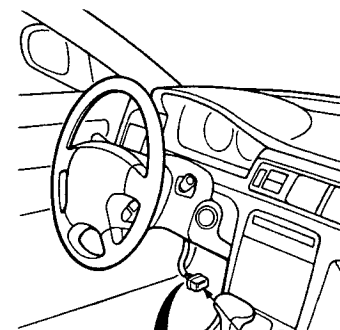
1. Remove the dashboard lower cover, left knee bolster and left kick panel.
2. Disconnect the 7-P connector from the under-dash fuse/relay box.



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

Terminal Position	WHT/BLK (ACC)	WHT (BAT)	BLK/YEL (IG1)	YEL (IG2)	BLK/WHT (ST)
0					
I	○	○			
II	○	○	○	○	
III		○	○		○

4. If the continuity checks do not agree with the table, replace the electrical switch.

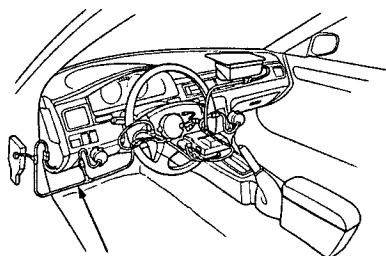


Ignition Switch

Electrical Switch Replacement

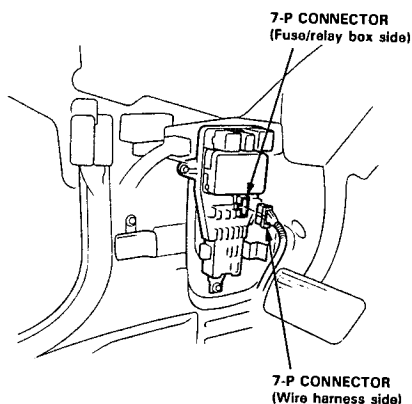
CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



SRS MAIN HARNESS
(Covered with yellow outer insulation)

1. Disconnect the battery negative cable, then disconnect the positive cable.
2. Remove the dashboard lower cover and knee bolster (see page 23-66).
3. Disconnect the 7-P connector from the under-dash fuse/relay box.

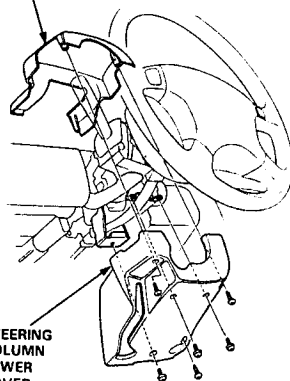


7-P CONNECTOR
(Fuse/relay box side)

7-P CONNECTOR
(Wire harness side)

4. Remove the steering column covers.

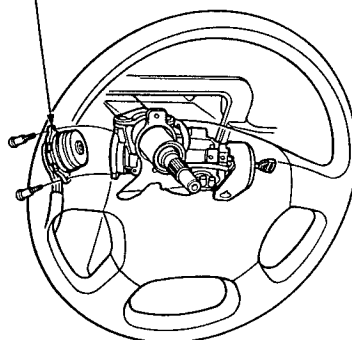
STEERING COLUMN
UPPER COVER



STEERING
COLUMN
LOWER
COVER

5. Insert the key and turn it to "0".
6. Remove the two screws and replace the electrical switch.

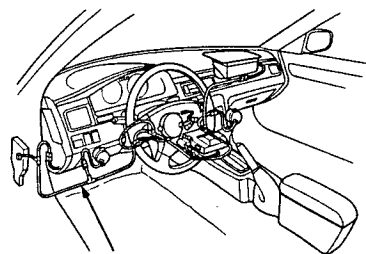
ELECTRICAL
SWITCH



Steering Lock Replacement

CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



SRS MAIN HARNESS
(Covered with outer insulation)

NOTE: The radio may have a coded theft protection circuit. Be sure to get the customer's code number before

- Disconnecting the battery.
- Removing the No.39 (10 A) fuse in the under-hood fuse/relay box.
- Removing the radio.

After service, reconnect power to the radio and turn it on. When the word "CODE" is displayed, enter the customer's 5-digit code to restore radio operation.

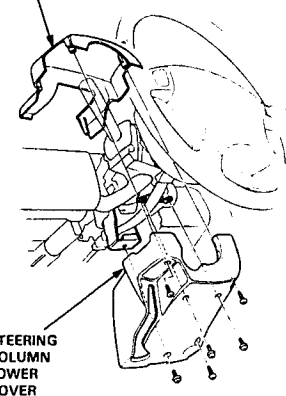
1. Disconnect the battery negative cable, then disconnect the positive cable.
2. Remove the dashboard lower cover and knee bolster (see page 23-66).

3. Disconnect the 7-P connector from the under-dash fuse/relay box.

4. Disconnect the 8-P connector (with A/T) from the main wire harness.

5. Remove the steering column covers.

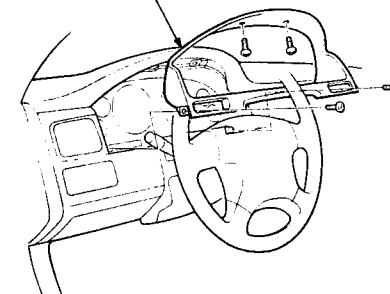
STEERING COLUMN
UPPER COVER



STEERING
COLUMN
LOWER
COVER

6. Remove the instrument panel.

INSTRUMENT PANEL



(cont'd)

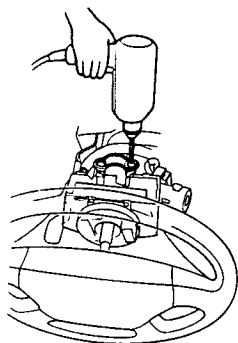
Ignition Switch

Steering Lock Replacement (cont'd)

7. Center punch each of the two shear bolts and drill their heads off with a 5 mm (3/16 in.) drill bit.

CAUTION: Do not damage the switch body when removing the shear bolts.

8. Remove the shear bolts from the switch body.

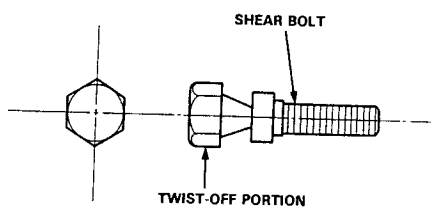


9. Install the new ignition switch without the key inserted.

10. Loosely tighten the new shear bolts.

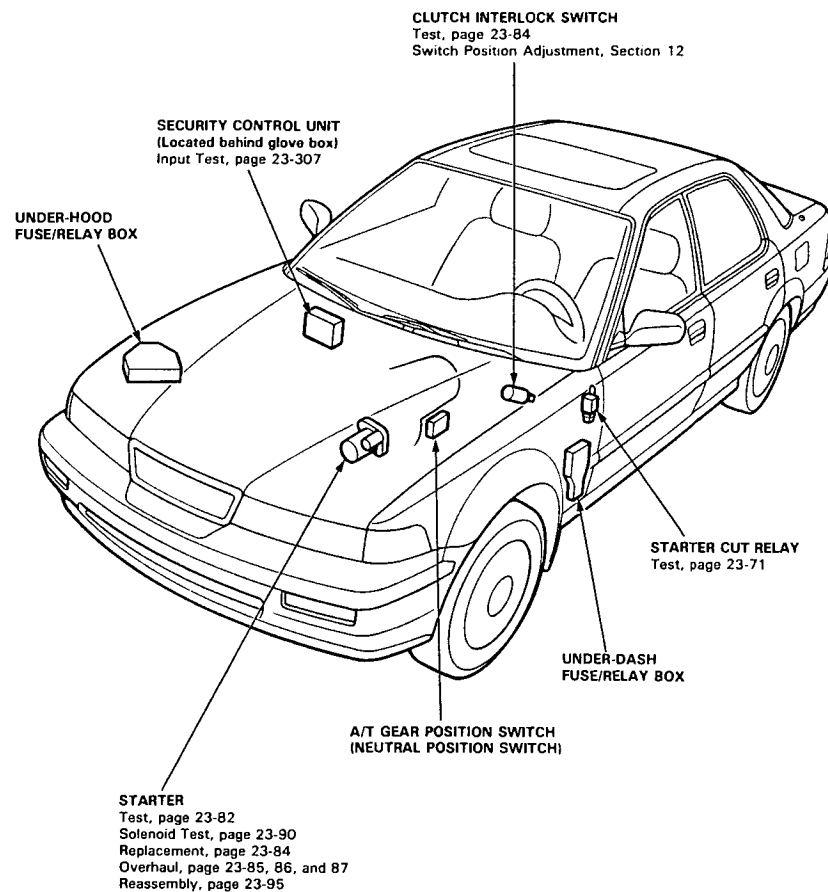
11. Insert the ignition key and check for proper operation of the steering wheel lock and that the ignition key turns freely.

12. Tighten the shear bolts until the hex heads twist off.



Starting System

Component Location Index



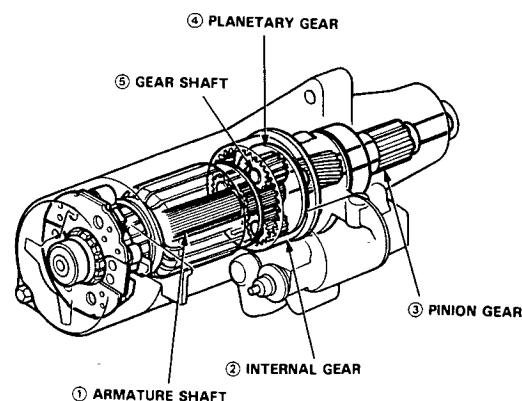
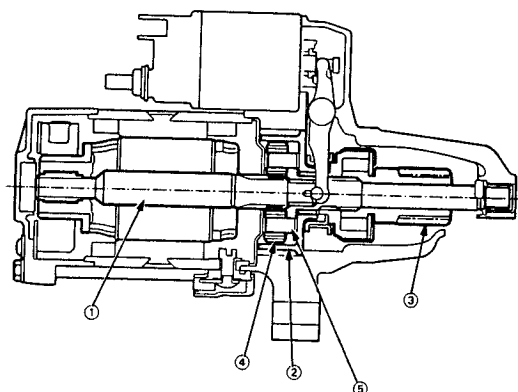
Starting System

Description

Planetary Gear Reduction Type:

One of three different gear reduction type starters may have originally been installed. In two of them, the reduction is done with a planetary gear mechanism.

The mechanism has an internal sun gear, three planetary gears, and an armature shaft. When the armature shaft rotates 4.38 turns, the pinion gear rotates one turn in the same direction and the output torque becomes 4.38 times greater than the motor torque.

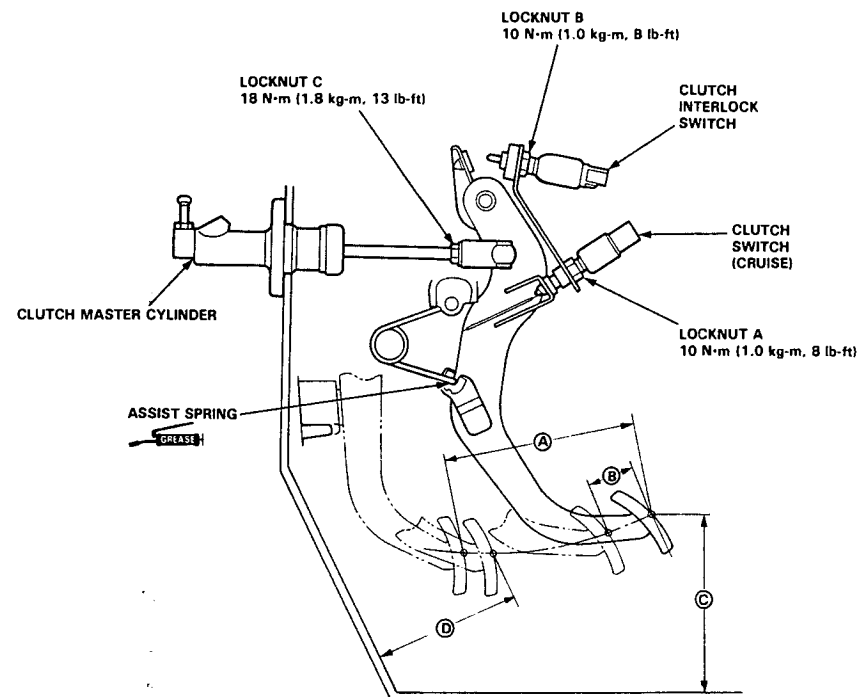


Starter Interlock System (M/T):

The starter interlock system prevents the engine from starting unless the clutch pedal is fully depressed.

The clutch interlock switch turns on at the position where the clutch disengages: 0.59-0.79 in (15-20 mm) from the fully depressed position.

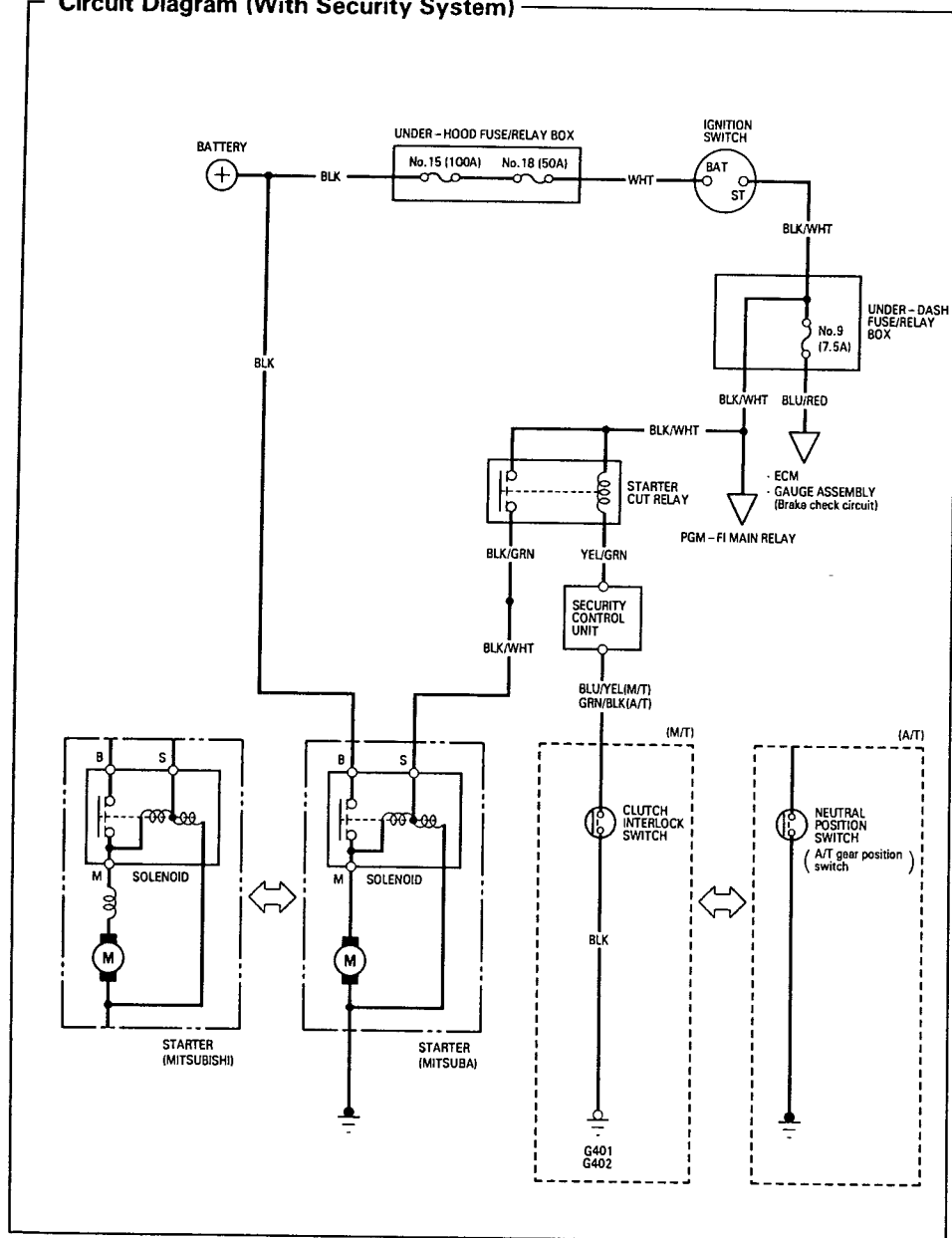
NOTE: Full stroke of clutch pedal is 5.51-5.59 in (140-150 mm) from the fully released position.



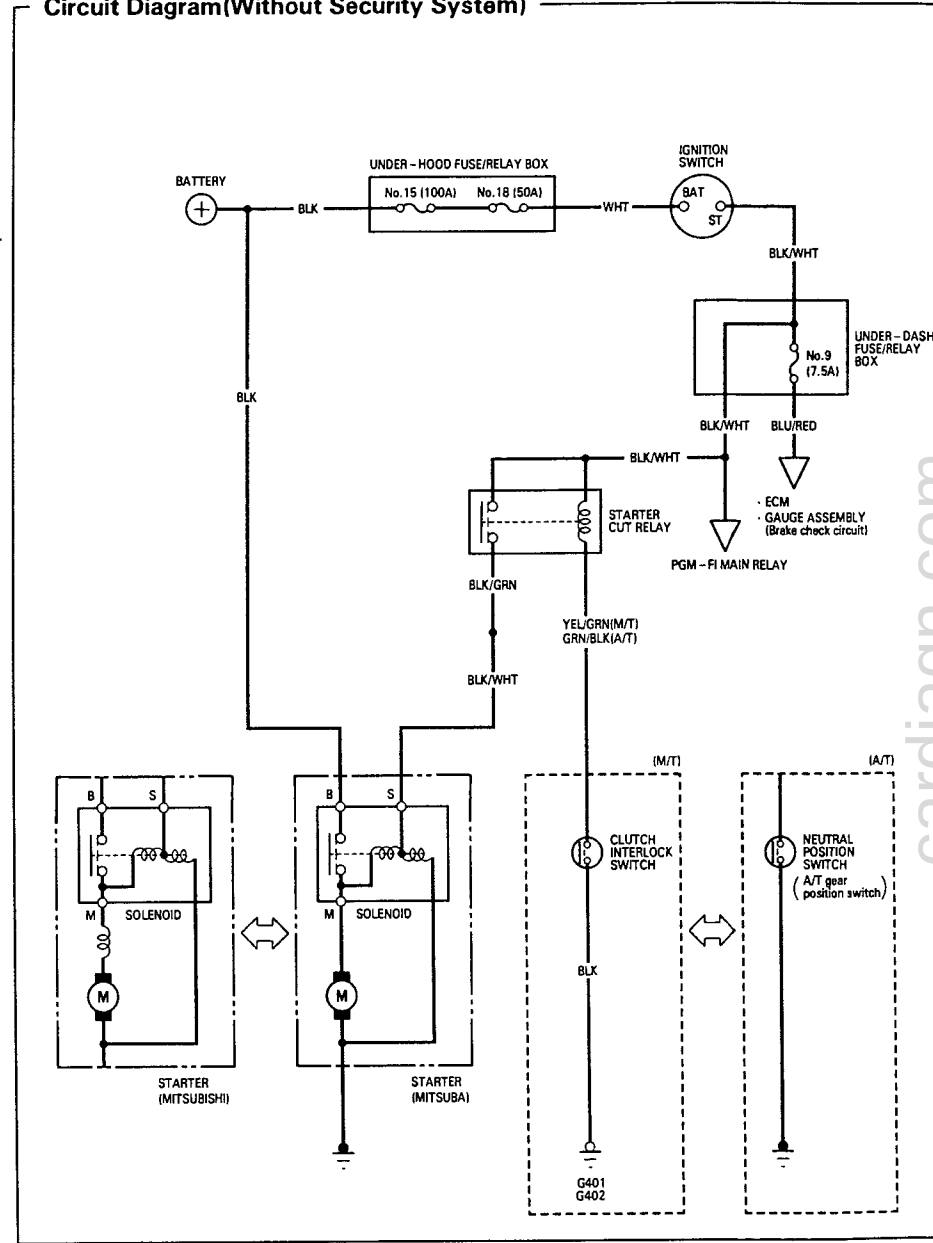
- Ⓐ (FULL STROKE): 5.51—5.91 in (140—150 mm)
- Ⓑ TOTAL PEDAL FREE PLAY: 0.59—0.79 in (15—20 mm) include the pedal play 0.04—0.28 in (1.0—7.0 mm)
- Ⓒ (PEDAL HEIGHT): 8.17 in (207.5 mm) to the floor panel.
- Ⓓ (PEDAL DISENGAGEMENT HEIGHT): 4.58 in (116.4 mm) minimum to the floor panel.

Starting System

Circuit Diagram (With Security System)



Circuit Diagram (Without Security System)



Starting System

Starter Test

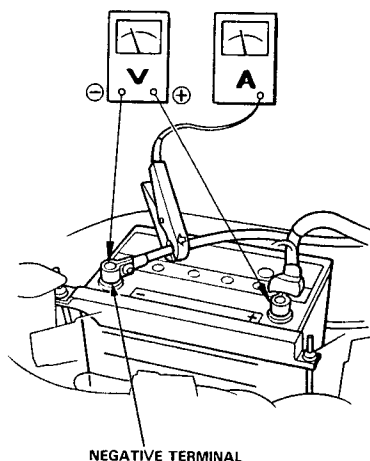
NOTE: The air temperature must be between 59 and 100 °F (15 and 38 °C) before testing.

Recommended Procedure:

- Use a starter system tester.
- Connect and operate the equipment in accordance with the manufacturer's instructions.
- Test and troubleshoot as described.

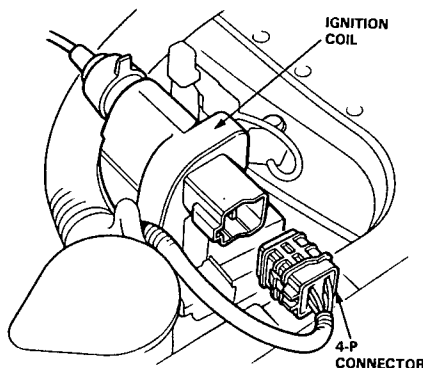
Alternate Procedure:

- Use the following equipment:
 - Ammeter, 0-400 A
 - Voltmeter, 0-20 V (accurate within 0.1 volt)
 - Tachometer, 0-1200 rpm
- Hook up voltmeter and ammeter as shown.



NOTE: After this test, or any subsequent repair, reset the ECM to clear any codes (see section 11).

1. Disconnect the 4-P connector from the ignition coil.

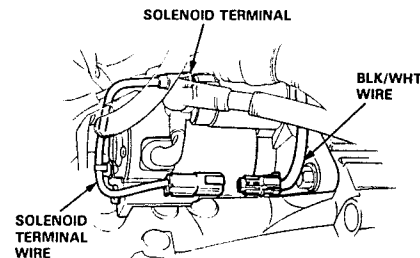


2. Check the starter engagement:

Press the clutch pedal all the way in (M/T), and turn the ignition switch to "Start". The starter should crank the engine.

NOTE: On cars equipped with manual transmission, the engine will not crank unless the clutch pedal is fully depressed.

- If the starter does not crank the engine, check the battery, battery positive cable, ground, and the wire connections for looseness and corrosion.
- Test again.
If the starter still does not crank the engine, bypass the ignition switch circuit as follows (make sure the transmission is in neutral):
Unplug the connector (BLK/WHT wire and solenoid terminal wire) from the starter. Connect a jumper wire from the battery positive (+) terminal to the solenoid terminal. The starter should crank the engine.



- If the starter still does not crank the engine, remove the starter and diagnose its internal problems.
- If the starter cranks the engine, check for an open in the BLK/WHT wire circuit between the starter and ignition switch, and connectors. Check the ignition switch.
On cars with automatic transmission, check the A/T gear position switch (neutral position switch) and connector.
On cars with manual transmission, check the starter cut relay, clutch interlock switch, and connectors.

NOTE: Check the No. 18 (50 A) fuse in the underhood fuse/relay box and the starter cut relay, and inspect the security alarm system.

3. Check for wear or damage:
The starter should crank the engine smoothly and steadily.

If the starter engages, but cranks the engine erratically, remove the starter motor. Inspect the starter, drive gear and flywheel ring gear for damage. Check the drive gear overrunning clutch for binding or slipping when the armature is rotated with the drive gear held. Replace the gears if damaged.

4. Check cranking voltage and current draw:
Voltage should be no less than 8.0 volts.
Current should be no more than 350 amperes for 1.6 KW Mitsuba, 400 amperes for 2.0 KW Mitsuba, and 2.0 KW Mitsubishi.

If voltage is too low, or current draw too high, check for:

- Fully charged battery.
- Open circuit in starter armature commutator segments.
- Starter armature dragging.
- Shorted armature winding.
- Excessive drag in engine.

5. Check cranking rpm:
Engine speed during cranking should be above 100 rpm.

If speed is too low, check for:

- Loose battery or starter terminals.
- Excessively worn starter brushes.
- Open circuit in commutator segments.
- Dirty or damaged helical spline or drive gear.
- Defective drive gear overrunning clutch.

6. Check the starter disengagement:
Press the clutch pedal all the way in (M/T), turn the ignition switch to "III" and release to "II". The starter drive gear should disengage from the flywheel ring gear.

If the drive gear hangs up on the flywheel ring gear, check for:

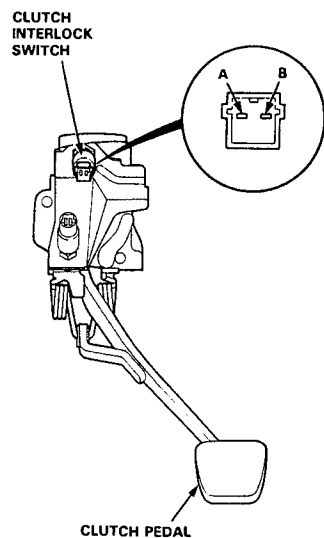
- Solenoid plunger and switch malfunction.
- Dirty drive gear assembly or damaged overrunning clutch.

Starting System

Clutch Interlock Switch Test

1. Remove the dashboard lower cover and knee bolster, then disconnect the 2-P connector from the clutch interlock switch.
2. Check for continuity between the terminals according to the table.

Terminal	A	B
Clutch Pedal		
RELEASED		
PUSHED	○	○



3. If necessary, replace the switch or adjust the switch position (see section 12).

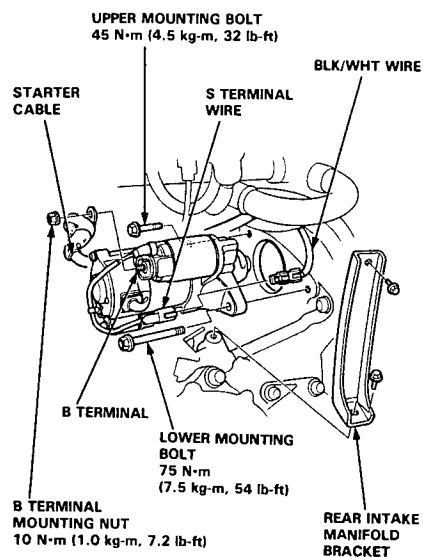
Starter Replacement

NOTE: The radio may have a coded theft protection circuit. Be sure to get the customer's code number before

- Disconnecting the battery.
- Removing the No. 39 (10 A) fuse in the under-hood fuse/relay box.
- Removing the radio.

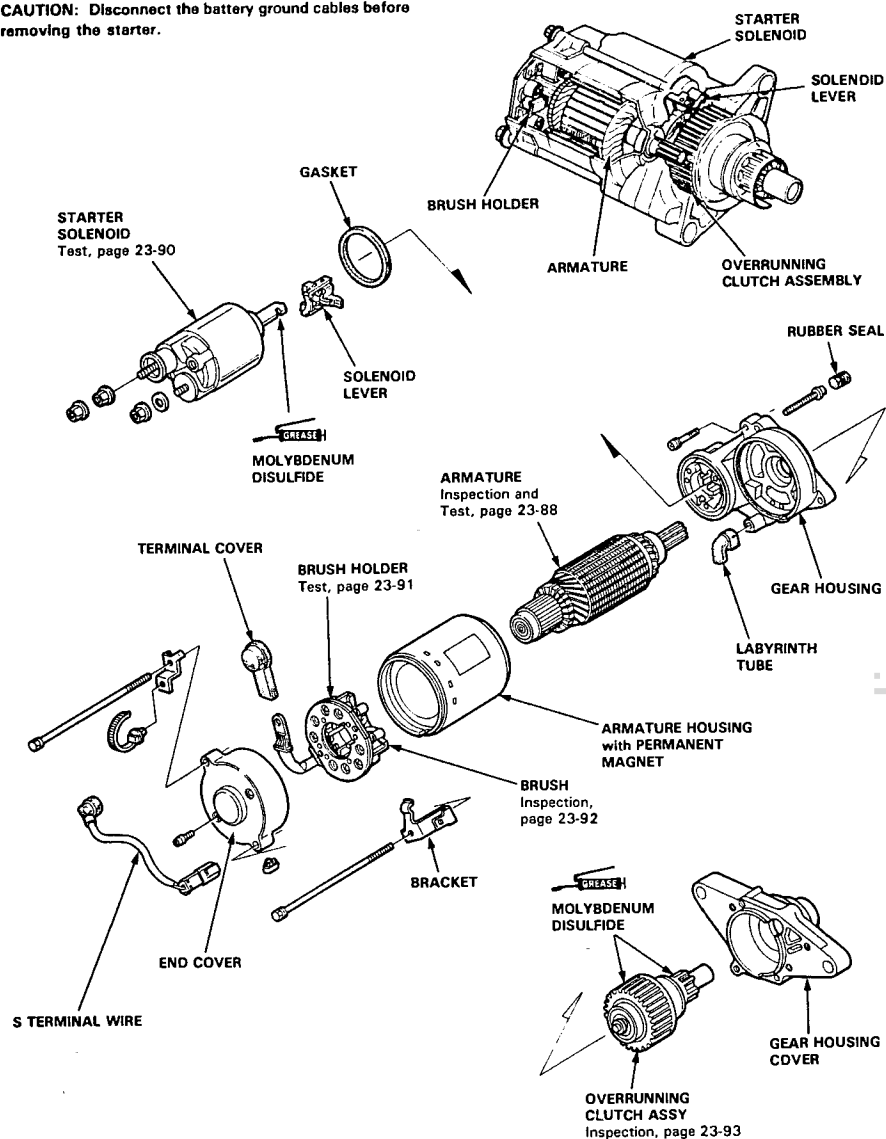
After service, reconnect power to the radio and turn it on. When the word "CODE" is displayed, enter the customer's 5-digit code to restore radio operation.

1. Disconnect the battery negative cable then disconnect the positive cable.
2. Remove the rear intake manifold bracket.
3. Disconnect the starter cable from the B terminal on the solenoid, then the BLK/WHT wire from the S terminal wire.
4. Remove the two bolts holding the starter, then remove the starter.



Starter Overhaul (Gear Reduction 1.6kw Mitsuba)

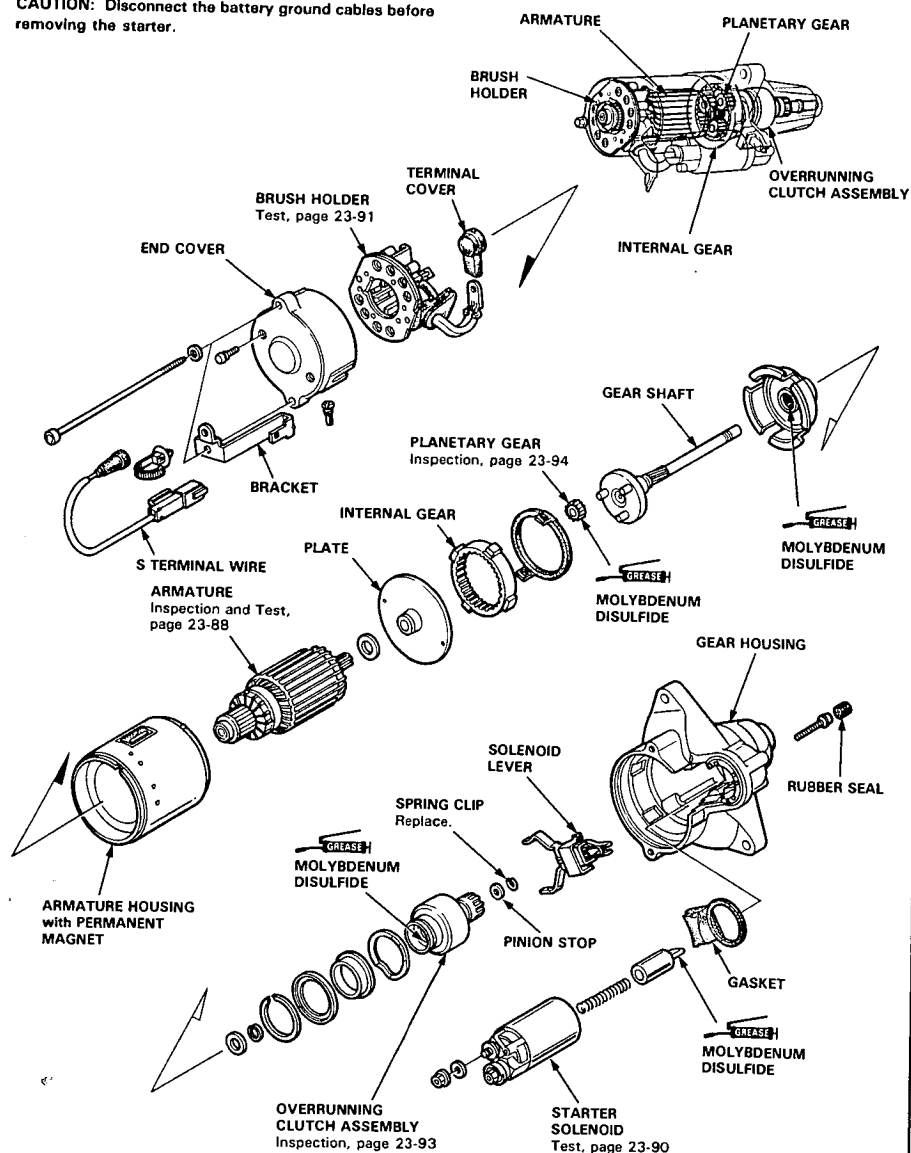
CAUTION: Disconnect the battery ground cables before removing the starter.



Starting System

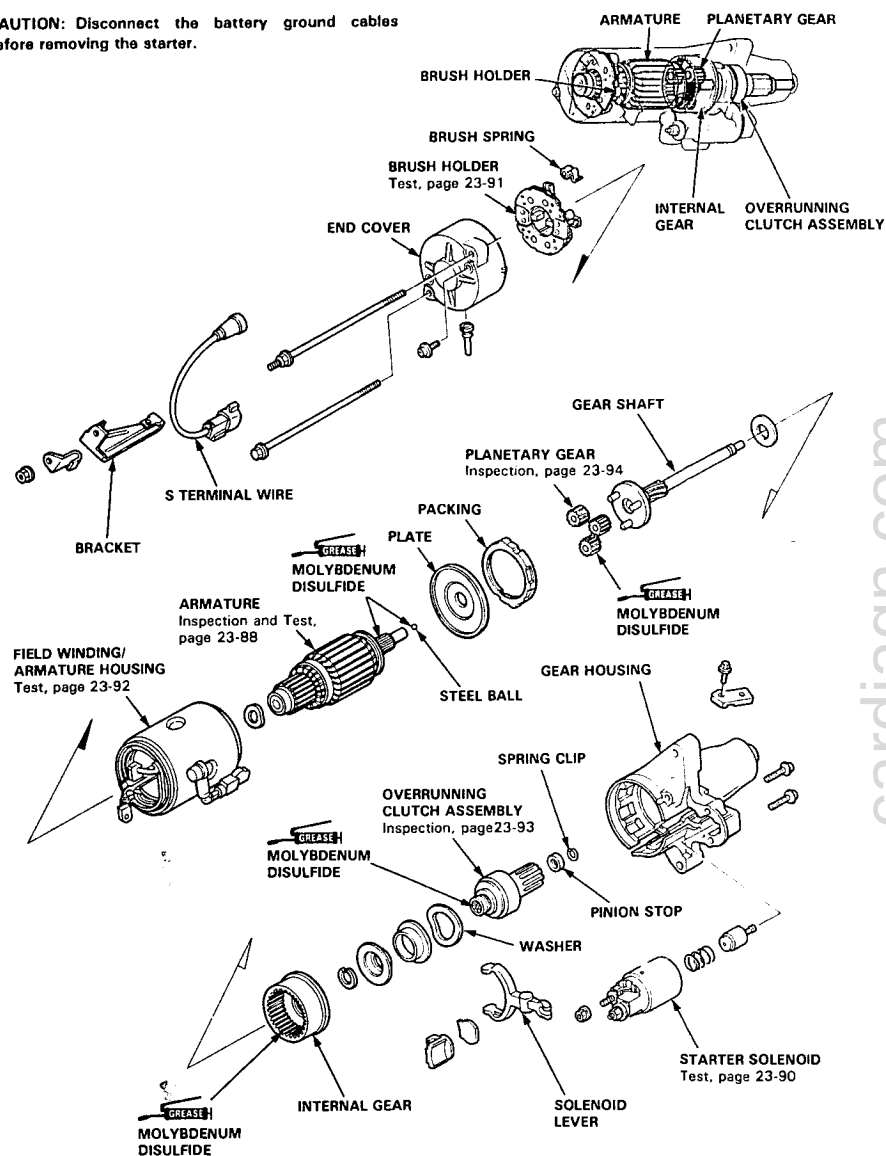
Starter Overhaul (Planetary Gear Reduction 2.0 kw Mitsuba)

CAUTION: Disconnect the battery ground cables before removing the starter.



Starter Overhaul (Planetary Gear Reduction 2.0 kw Mitsubishi)

CAUTION: Disconnect the battery ground cables before removing the starter.

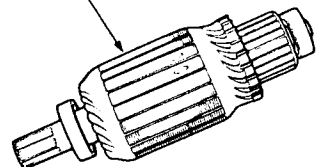


Starting System

Armature Inspection and Test

1. Inspect the armature for wear or damage due to contact with the field coil magnets.

Inspect for damage

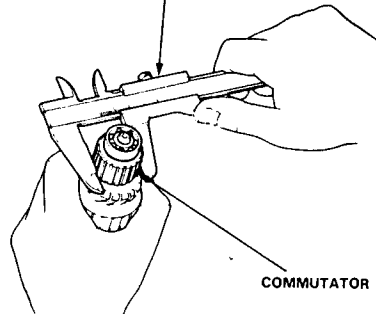


2. A dirty or burnt commutator surface may be resurfaced with emery cloth or a lathe within the following specifications.

Commutator Diameter

	Standard (NEW)	Service Limit
Mitsubishi (2.0 KW)	31.9–32.1 mm (1.256–1.263 in)	31.5 mm (1.24 in)
Mitsuba (2.0 KW)	32.0–32.1 mm (1.259–1.263 in)	31.5 mm (1.24 in)
Mituba (1.6 KW)	28.0–28.1 mm (1.102–1.106 in)	27.5 mm (1.083 in)

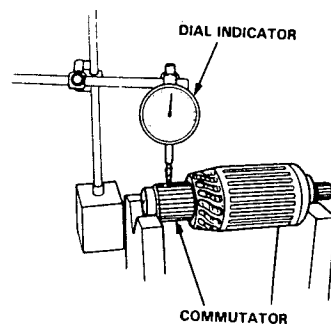
VERNIER CALIPER



COMMUTATOR

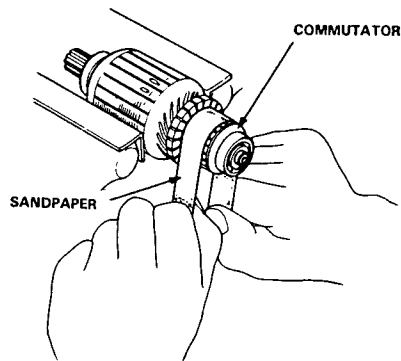
Commutator Runout

	Standard (NEW)	Service Limit
Mitsubishi (2.0 KW)	0–0.05 mm (0–0.002 in)	0.1 mm (0.004 in)
Mitsuba (2.0 KW)	0–0.02 mm (0–0.0008 in)	0.05 mm (0.002 in)
Mituba (1.6 KW)	0–0.02 mm (0–0.0008 in)	0.05 mm (0.002 in)



COMMUTATOR

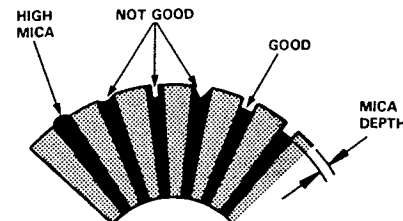
3. If the commutator runout and diameter are within limits, check the commutator for damage or for carbon dust or brass chips between the segments.
4. If the surface is dirty, recondition it with a # 500 or # 600 sandpaper.



COMMUTATOR

SANDPAPER

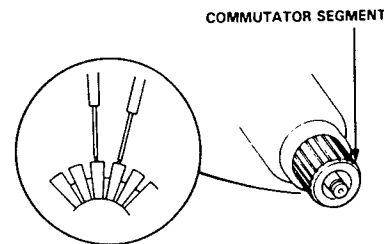
5. Check for mica depth. If necessary, undercut mica with a hacksaw blade to achieve proper depth.



Commutator Mica Depth

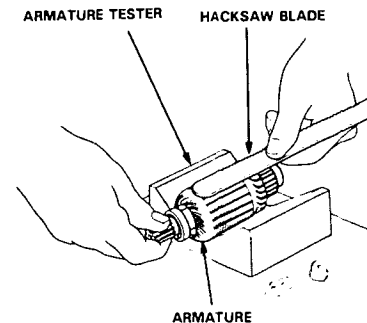
	Standard (NEW)	Service Limit
Mitsubishi (2.0 KW)	0.5–0.8 mm (0.02–0.03 in)	0.02 mm (0.008 in)
Mitsuba (2.0 KW)	0.4–0.5 mm (0.016–0.02 in)	0.15 mm (0.006 in)
Mitsuba (1.6 KW)	0.4–0.5 mm (0.016–0.02 in)	0.15 mm (0.006 in)

6. Check for continuity between each segment of the commutator. If an open circuit exists between any segments, replace the armature.



COMMUTATOR SEGMENT

7. Place the armature on an armature tester. Hold a hacksaw blade on the armature core.



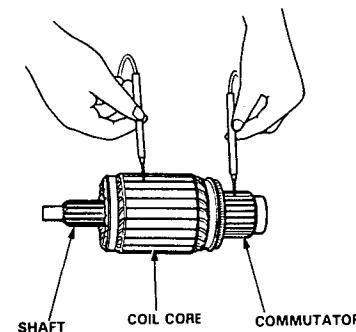
ARMATURE TESTER

HACKSAW BLADE

ARMATURE

If the blade is attracted to the core or vibrates while the core is turned, the armature is shorted. Replace the armature.

8. Check with an ohmmeter that no continuity exists between the commutator and armature coil core, and between the commutator and armature shaft. If continuity exists, replace the armature.



SHAFT

COIL CORE

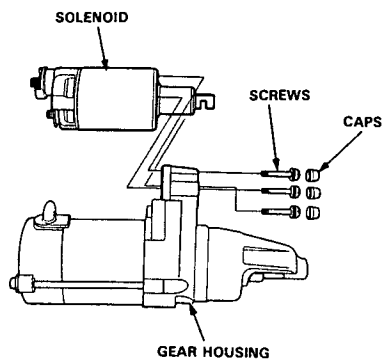
COMMUTATOR

Starting System

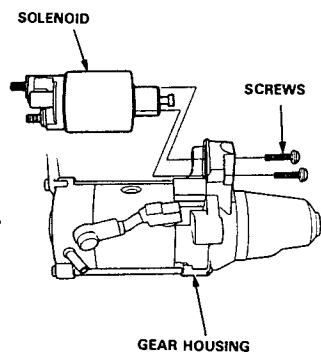
Starter Solenoid Test

1. Remove the starter solenoid from the gear housing.

Mitsuba type:

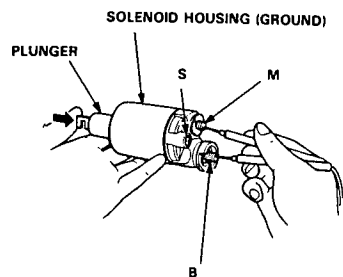


Mitsubishi type:

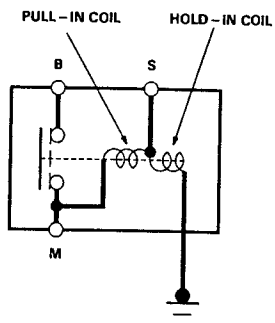


2. Check for continuity between the terminals in each solenoid plunger position according to the table.

Terminal	B	M	S	Ground
Position				
RELEASED		○	○	○
PUSHED	○	○	○	○



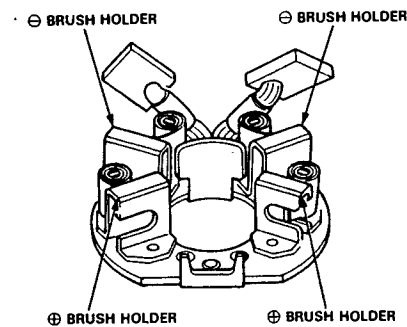
NOTE: The illustration shows Mitsuba type.



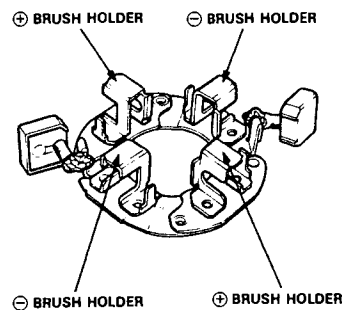
Starter Brush Holder Test

1. Check that there is no continuity between the ⊕ and ⊖ brush holders. If continuity exists, replace the brush holder assembly.

Mitsuba:

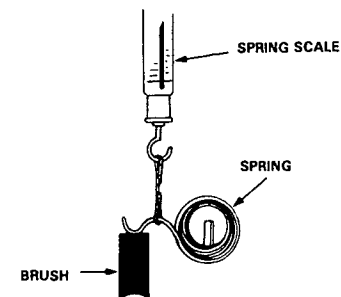


Mitsubishi:



2. Insert the brush into the brush holder, and bring the brush into contact with the commutator, then attach a spring scale to the spring. Measure the spring tension at the moment the spring lifts off the brush.

	Spring Tension
Mitsubishi (2.0 KW)	29.7-36.3 N (2.97-3.63 Kg, 6.55-8.00 lbs)
Mitsuba (2.0 KW)	17-19 N (1.70-1.90 Kg, 3.75-4.19 lbs)
Mitsuba (1.6 KW)	16-18 N (1.60-1.80 Kg, 3.57-3.97 lbs)



Starting System

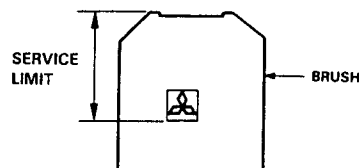
Starter Brush Inspection

Measure the brush length. If it is not within the service limit, replace the armature housing and brush holder assembly.

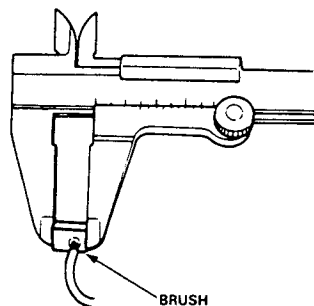
Brush Length

	Standard (New)	Service Limit
Mitsubishi (2.0 KW)	18.0 mm (0.71 in)	11.0 mm (0.43 in)
Mitsuba (2.0 KW)	16.8-17.2 mm (0.66-0.68 in)	11.0 mm (0.43 in)
Mitsuba (1.6 KW)	15.8-16.2 mm (0.62-0.64 in)	11.0 mm (0.43 in)

Mitsubishi:



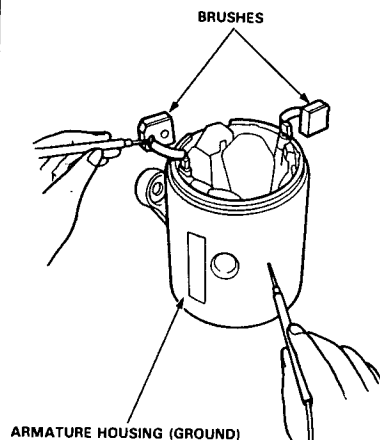
Mitsuba:



NOTE: To seat new brushes after installing them in their holders, slip a strip of # 500 or # 600 sandpaper, with the grit side up, over the commutator and smoothly rotate the armature. The contact surface of the brushes will be sanded to the same contour as the commutator.

Starter Field Winding Test (Mitsubishi)

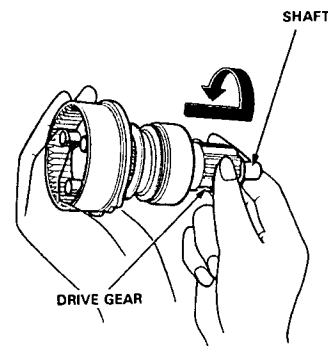
1. Check for continuity between the brushes. If there's no continuity, replace the armature housing.
2. Check for continuity between each brush and the armature housing (ground). If continuity exists, replace the armature housing.



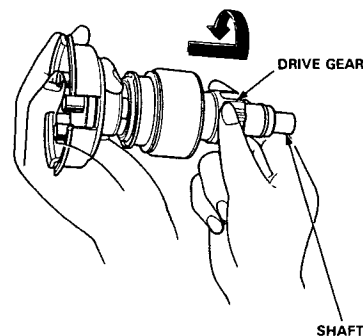
Overrunning Clutch Inspection

1. Slide the overrunning clutch along the shaft. Does it move freely? If not, replace it.
2. Rotate the overrunning clutch both ways. Does it lock in one direction and rotate smoothly in reverse? If it does not lock in either direction or it locks in both directions, replace it.

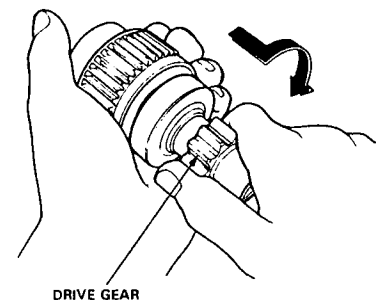
Mitsubishi (2.0 KW):



Mitsuba (2.0 KW):



Mitsuba (1.6 KW):



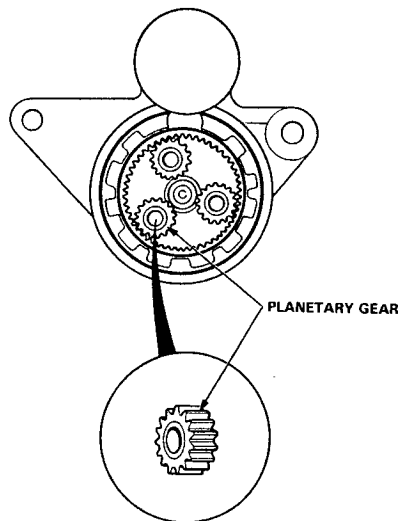
3. If the starter drive gear is worn or damaged, replace the overrunning clutch assembly; the gear is not available separately.
4. Check the condition of the flywheel or torque converter ring gear if the starter drive gear teeth are damaged.



Starting System

Planetary Gear Inspection

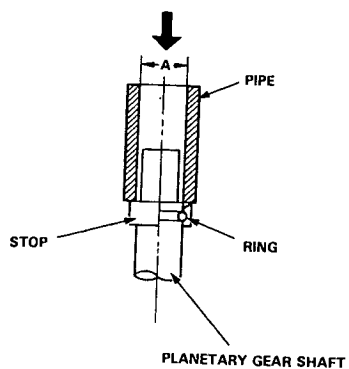
1. Check the planetary gear for wear and damage.
2. If the planetary gear is worn or damaged, check the condition of the armature shaft gear and internal gear.



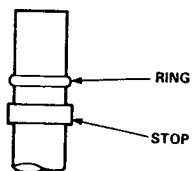
Overrunning Clutch Removal

1. Put the end of a pipe with an inner diameter of 13 mm (0.51 in) against the stop and strike the pipe to dismount the stop from the ring.

A: 13 mm (0.51 in)



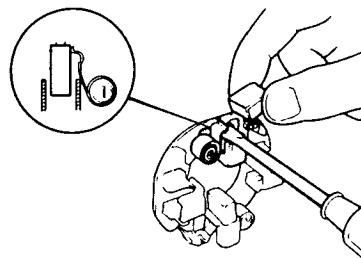
2. Remove the ring, then pull the stop and overrunning clutch off the shaft.



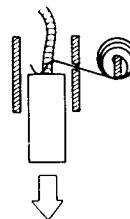
Starter Reassembly

Reassemble the starter in the reverse order of disassembly.

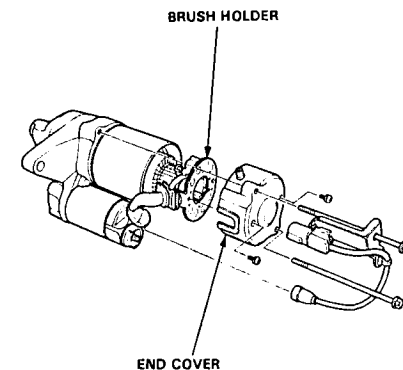
1. Pry back each brush spring with a screwdriver, then position the brush about halfway out of its holder, and release the spring to hold it there.



2. Install the armature in the housing. Next pry back each brush spring again and push the brush down until it seats against the commutator, then release the spring against the end of the brush.



3. Install the end cover on the brush holder.



Starting System

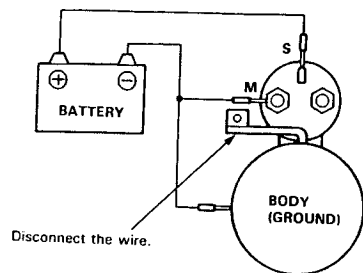
Performance Test

NOTE: Before starting the following checks, disconnect the wire from terminal M, and make a connection as described below using as heavy a wire as possible (preferably equivalent to the wire used for the car).

Pull-in Coil Test:

Connect the battery as shown. If the pinion protrudes, it is working properly.

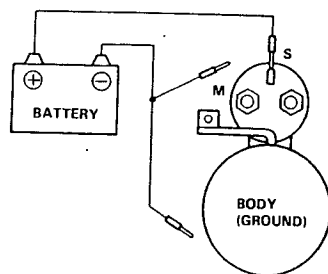
NOTE: Do not leave the battery connected for more than 10 seconds.



Retracting Test:

Disconnect the battery from the body. If the pinion retracts immediately, it is working properly.

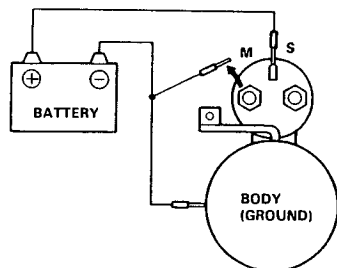
NOTE: Do not leave the battery connected for more than 10 seconds.



Hold-in Coil Test:

Disconnect the battery from the M terminal. If the pinion does not snap back, the hold-in coil is working properly.

NOTE: Do not leave the battery connected for more than 10 seconds.



Pinion Gap Check:

1. Disconnect the wire from terminal M.

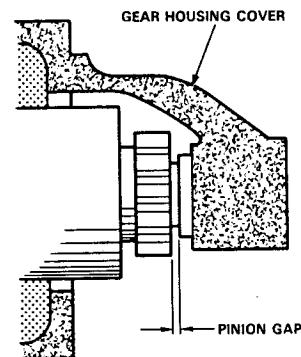
2. When the battery is connected between terminals S and M, the pinion protrudes and stops. Keep the pinion in this position and measure the gap between the pinion and the pinion stop.

NOTE: Do not leave the battery connected for more than 10 seconds.

Specification:

Pinion Gap: 0.5–2 mm (0.02–0.08 in)

3. If the pinion gap is out of the specified range, adjust the gap by increasing or decreasing the number of washers between the solenoid and the gear housing. When the number of washers is increased, the gap becomes smaller.



Starter No-load Test:

1. Clamp the starter firmly in a vise.

2. Connect the starter to the battery as shown in the diagram below and confirm that the motor starts and keeps rotating.

3. If the electric current and motor speed meet the specifications when the battery voltage is at 11 V, the starter is working properly.

Specifications:

Mitsubishi

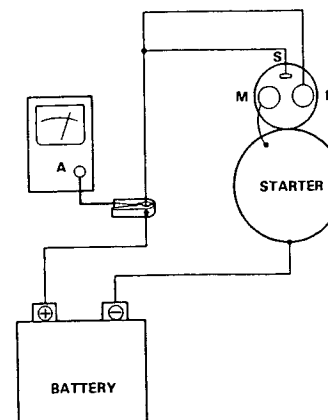
(2.0 KW): 140 A or less (Electric current),
3,800 rpm or more (Motor speed)

Mitsuba

(2.0 KW): 90 A or less (Electric current),
2,200 rpm or more (Motor speed)

Mitsuba

(1.6 KW): 80 A or less (Electric current),
2,600 rpm or more (Motor speed)

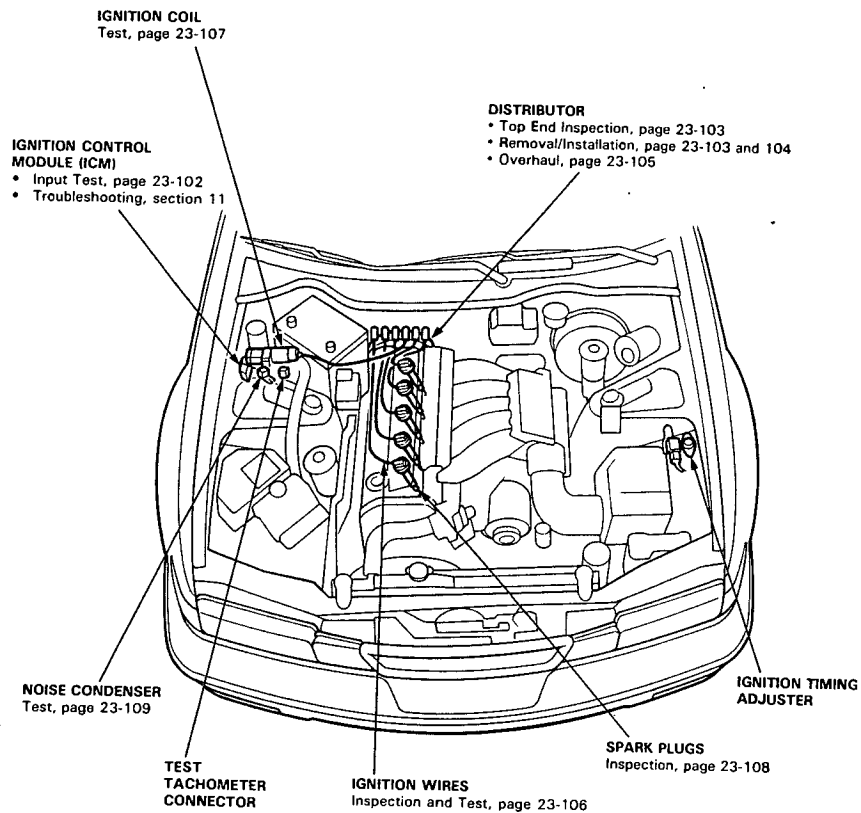


Ignition System

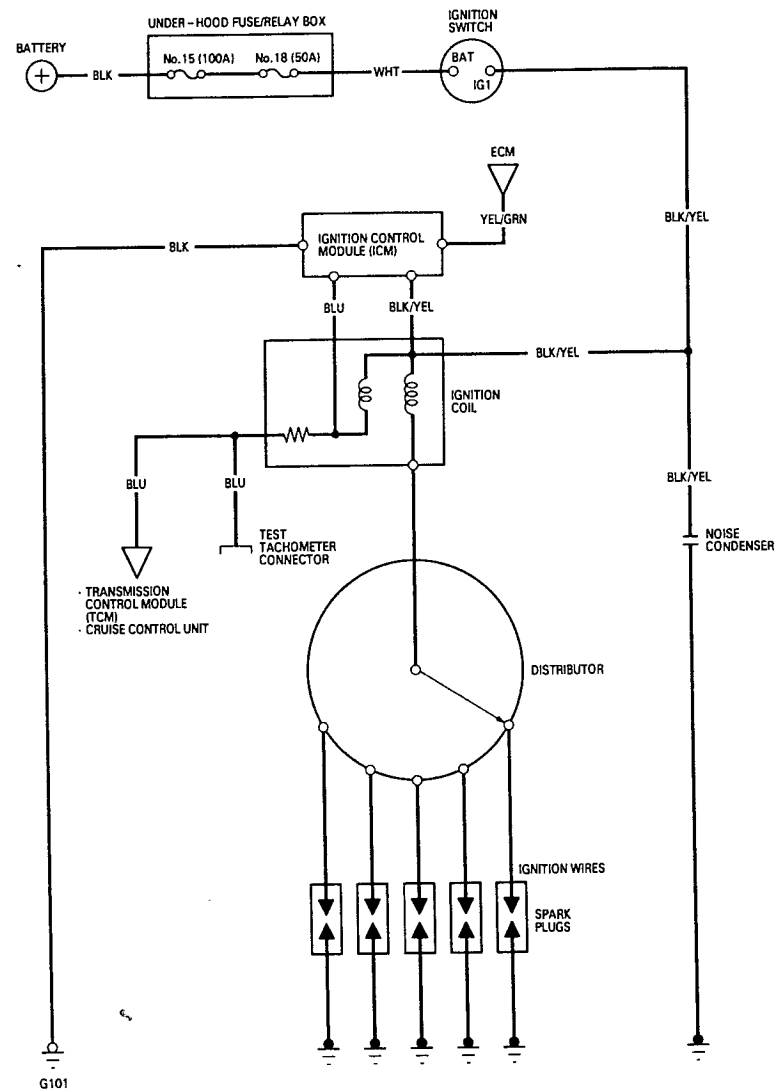
Component Location Index

IGNITION TIMING CONTROL SYSTEM

- Troubleshooting, section 11
- Inspection and setting page 23-100



Circuit Diagram

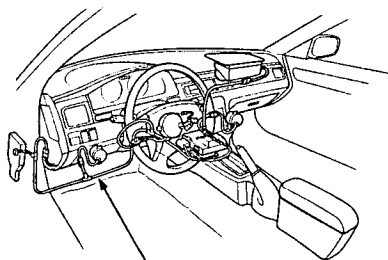


Ignition System

Ignition Timing Inspection and setting

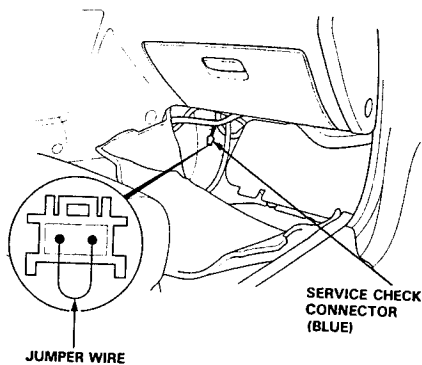
CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



SRS MAIN HARNESS
(Covered with yellow outer insulation)

1. Start the engine and allow it to warm up (the radiator fan comes on).
2. Pull out the service check connector (BLU) located under the middle of the dash. Connect the WHT/GRN and BRN terminals with a jumper wire.

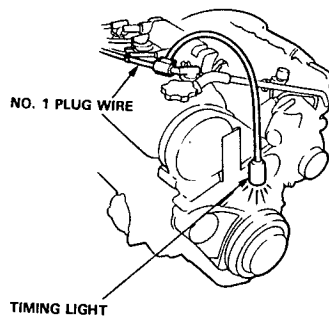


JUMPER WIRE

3. Check the idle speed (see page 23-101).

NOTE: Adjust the idle speed, if necessary, by turning the idle adjusting screw (see section 11).

4. Connect a timing light to the No. 1 ignition wire; while the engine idles, point the light toward the pointer on the timing belt cover.



NO. 1 PLUG WIRE

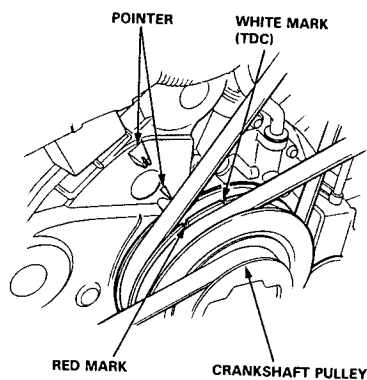
TIMING LIGHT

5. Inspect ignition timing at idle speed.

Ignition Timing: $15^\circ \pm 2^\circ$ BTDC (RED)

- Manual Transmission (at 700 ± 50 rpm in neutral)
- Automatic Transmission (at 700 ± 50 rpm in **N** or **P**)

NOTE: All electrical systems should be turned off.



POINTER

WHITE MARK
(TDC)

RED MARK

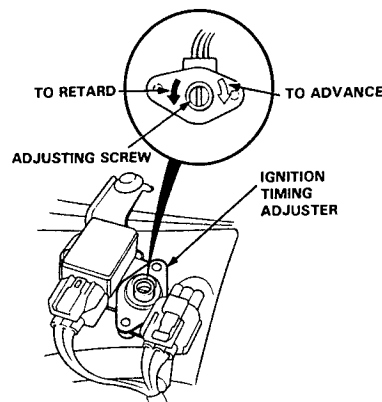
CRANKSHAFT PULLEY

6. If it is necessary to adjust the ignition timing, remove the ignition timing adjuster.

- Drill the two rivets off with a 5 mm (3/16 in) drill bit, then separate the cover from the adjuster.

CAUTION: Do not damage the adjuster when removing the rivets.

7. Adjust the ignition timing by turning the adjusting screw on the ignition timing adjuster.



TO RETARD

TO ADVANCE

ADJUSTING SCREW

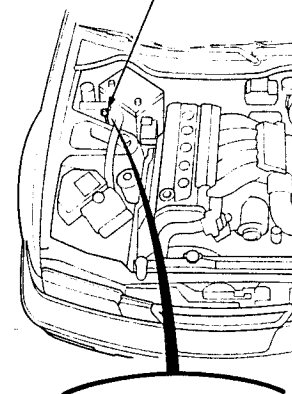
IGNITION
TIMING
ADJUSTER

8. Remove the jumper wire from the service check connector.
9. After adjusting, reinstall the cover on the ignition timing adjuster with new rivets.

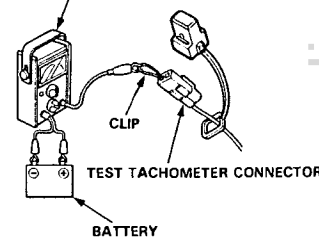
Idle Speed Inspection

1. Start the engine and allow it to warm up (the radiator fan comes on).
2. Connect a tachometer to the test tachometer connector.

TEST TACHOMETER CONNECTOR



TACHOMETER



BATTERY

Idle speed:

M/T: 700 ± 50 rpm in neutral

A/T: 700 ± 50 rpm in **N** or **P**

NOTE: All electrical systems should be turned off.

3. Adjust the idle speed, if necessary (see section 11).

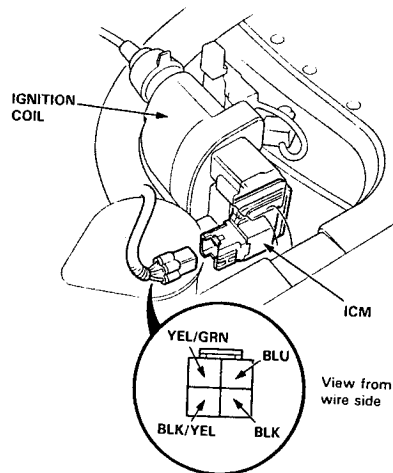
Ignition System

Ignition Control Module (ICM) Input Test

NOTE:

- See section 11 when the malfunction indicator lamp (MIL) blinks.
- Perform an input test on the ignition control module (ICM) after finishing the fundamental tests for the ignition system and fuel emission system.
- The tachometer should operate normally.

Disconnect the 4-P connector from the ICM. Make the following input tests at the connector terminals. If all tests prove OK, yet the system still fails to work, replace the ICM.



1. Check for continuity between the BLK wire and body ground.

- If there is continuity, go to step 2.
- If there is no continuity, check for:
 - An open in the BLK wire.
 - Disconnected terminals.
 - Poor ground (G101).

2. With the ignition switch ON, there should be battery voltage between the BLK/YEL wire and BLK wire.

- If there is battery voltage, go to step 3.
- If there is no voltage, check for:
 - An open in the BLK/YEL wire.
 - Disconnected terminals.
 - Ignition coil test (see page 23-107).

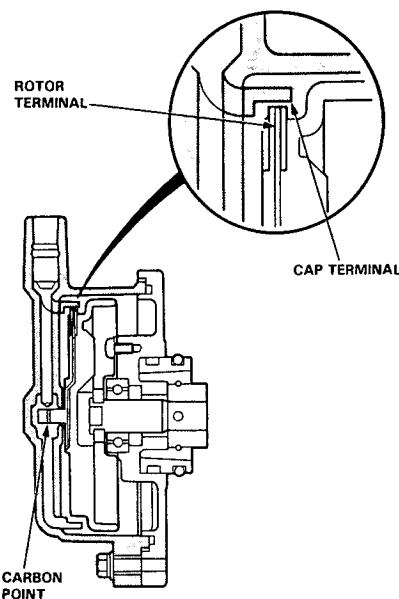
3. With the ignition switch ON, there should be battery voltage between the BLU wire and BLK wire.

- If there is no voltage, Check for:
 - An open in the BLU wire between the ignition coil and ICM.
 - Ignition coil test (see page 23-107).



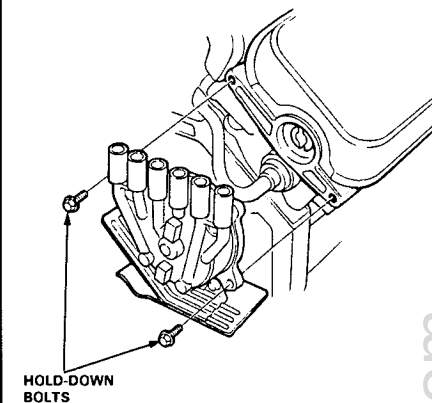
Distributor Top End Inspection

1. Check for rough or pitted rotor and cap terminals.
2. Scrape or file off the carbon deposits. Smooth the rotor terminal with an oil stone or # 600 sandpaper if rough.
3. Check the distributor cap for cracks, wear, and damage. If necessary, clean or replace it.



Distributor Removal

1. Disconnect the ignition wires from the distributor cap.



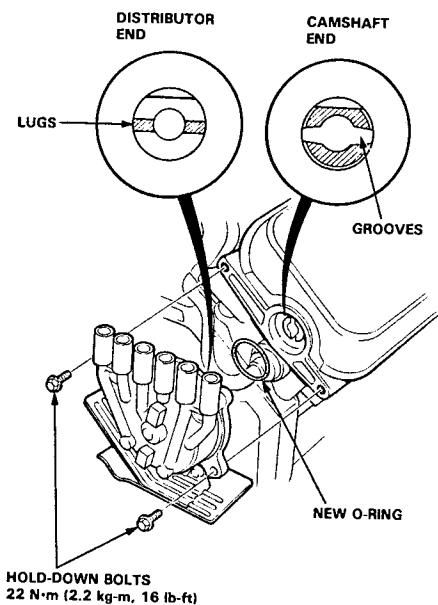
2. Remove the distributor hold-down bolts, then remove the distributor from the cylinder head.

Ignition System

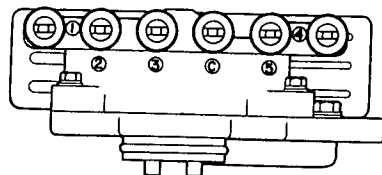
Distributor Installation

1. Coat a new O-ring with engine oil then install it.
2. Slip the distributor into position.

NOTE: The lugs on the end of the distributor and its mating grooves in the camshaft end are both off-set to eliminate the possibility of installing the distributor 180° out of time.

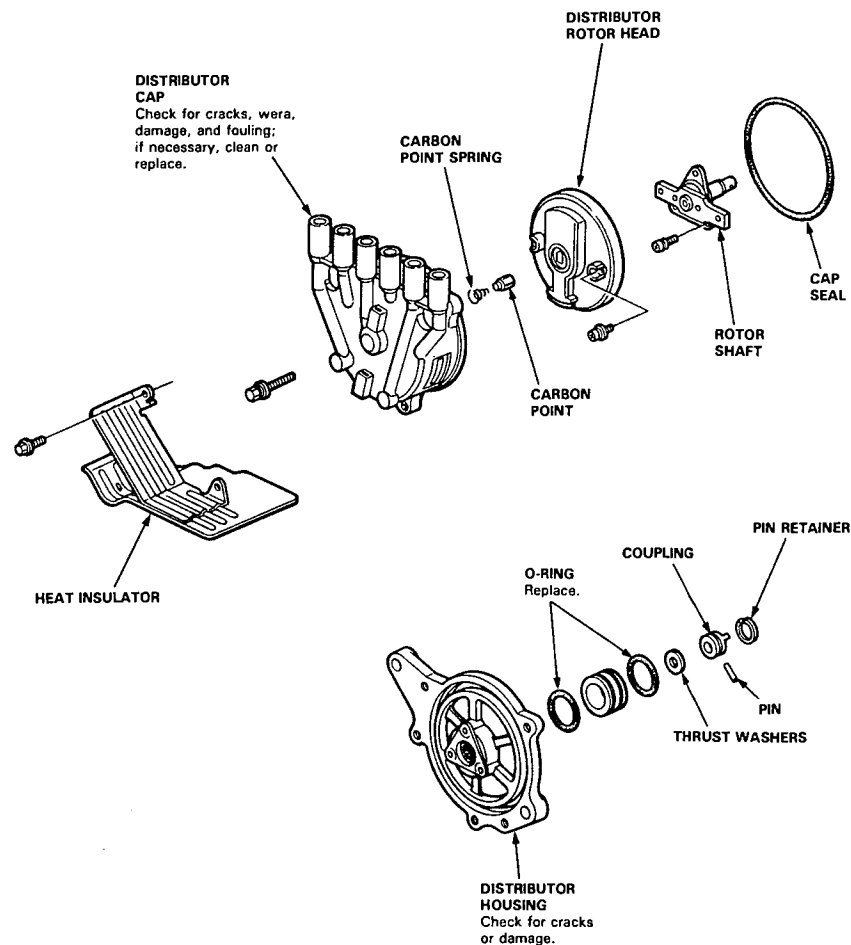


4. Connect the ignition wires and ignition coil wire as shown.



5. Set the timing with a timing light as shown on page 23-100.
6. After adjusting, tighten the hold-down bolts.

Distributor Overhaul

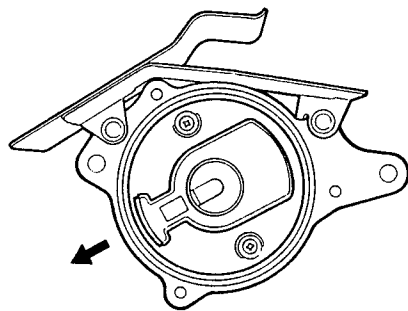


Ignition System

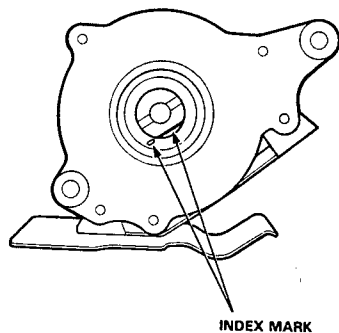
Distributor Reassembly

Reassemble the distributor shaft and housing in the reverse order of disassembly.

1. Install the rotor, then turn it so that it faces in the direction shown (toward the No. 1 cylinder).



2. Slip the thrust washer and coupling onto the shaft.
3. Check that the rotor is still pointing toward the No. 1 cylinder, then align the index mark on the housing with the index mark on the coupling.

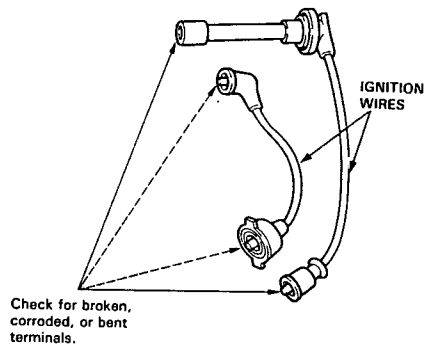


4. Drive in the pin and secure it with the pin retainer.

Ignition Wire Inspection and Test

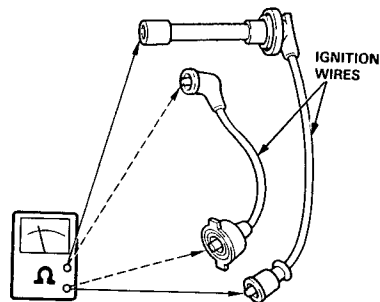
CAUTION: Carefully remove the ignition wires by pulling on the rubber boots. Do not bend the wires; you might break them inside.

1. Check the condition of the ignition wire terminals. If any terminal is corroded, clean it, and if it is broken or distorted, replace the wire.



2. Connect ohmmeter probes and measure resistance.

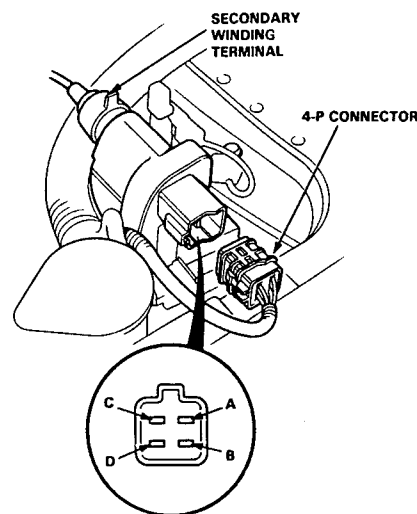
Ignition Wire Resistance:
25 k Ω max. at 70 °F (20 °C)



3. If resistance exceeds 25 k Ω , replace the ignition wire.

Ignition Coil Test

1. Turn the ignition switch OFF.
2. Disconnect the 4-P connector and ignition coil wire.



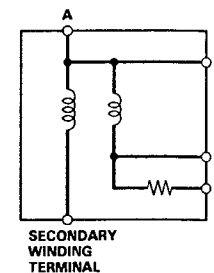
3. Using an ohmmeter, measure resistance between the terminals. Replace the coil if the resistance is not within specifications.

NOTE: Resistance will vary with the coil temperature; specifications are at 68 °F (20 °C).

Primary Winding Resistance
(Between the A and D terminals):
0.3–0.5 ohms

Secondary Winding Resistance
(Between the A and secondary winding terminals):
10.8–16.2 k Ω

Resistance between the B and D terminals:
2.0–2.3 k Ω



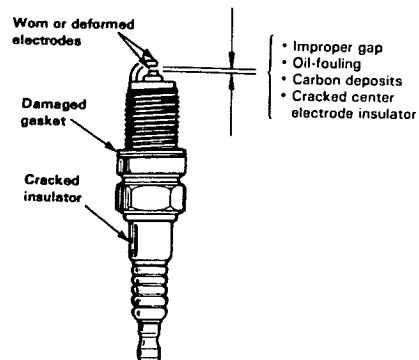
3. Check for continuity between the A and C terminals.

• Replace the coil if there is no continuity.

Ignition System

Spark Plug Inspection

1. Inspect the electrodes and ceramic insulator for:



Burned or worn electrodes may be caused by:

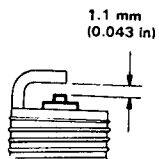
- Advanced ignition timing
- Loose spark plug
- Plug heat range too hot
- Insufficient cooling

Fouled plug may be caused by:

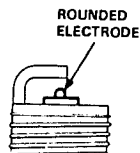
- Retarded ignition timing
- Oil in combustion chamber
- Incorrect spark plug gap
- Plug heat range too cold
- Excessive idling/low speed running
- Clogged air cleaner element
- Deteriorated ignition coil or ignition wires

2. Adjust the gap with a suitable gapping tool.

Electrode Gap: 1.1 mm (0.043 in)



3. Replace the plug if the center electrode is rounded as shown below:



NOTE: Do not use spark plugs other than those listed below; these plugs are a new type (ISO standard).



These marks are sealed on the air cleaner cover.

Spark Plug:

BKR5E-N11 (NGK)	For all normal driving.
K16PR-L11 (Nippondenso)	
BKR6E-N11 (NGK)	For hot climates or continuous high speed driving.
K20PR-L11 (Nippondenso)	

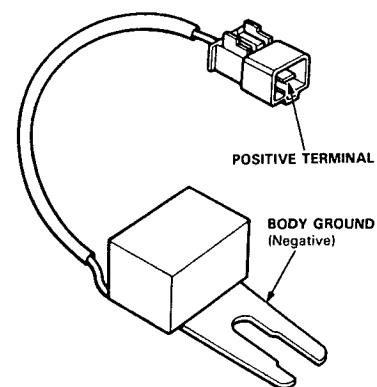
4. Screw the plugs into the cylinder head finger-tight, then torque them to 18 Nm (1.8 kg-m, 13 lb-ft).

NOTE: Apply a small quantity of anti-seize compound to the plug threads before installing.

Noise Condenser Capacity Test

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

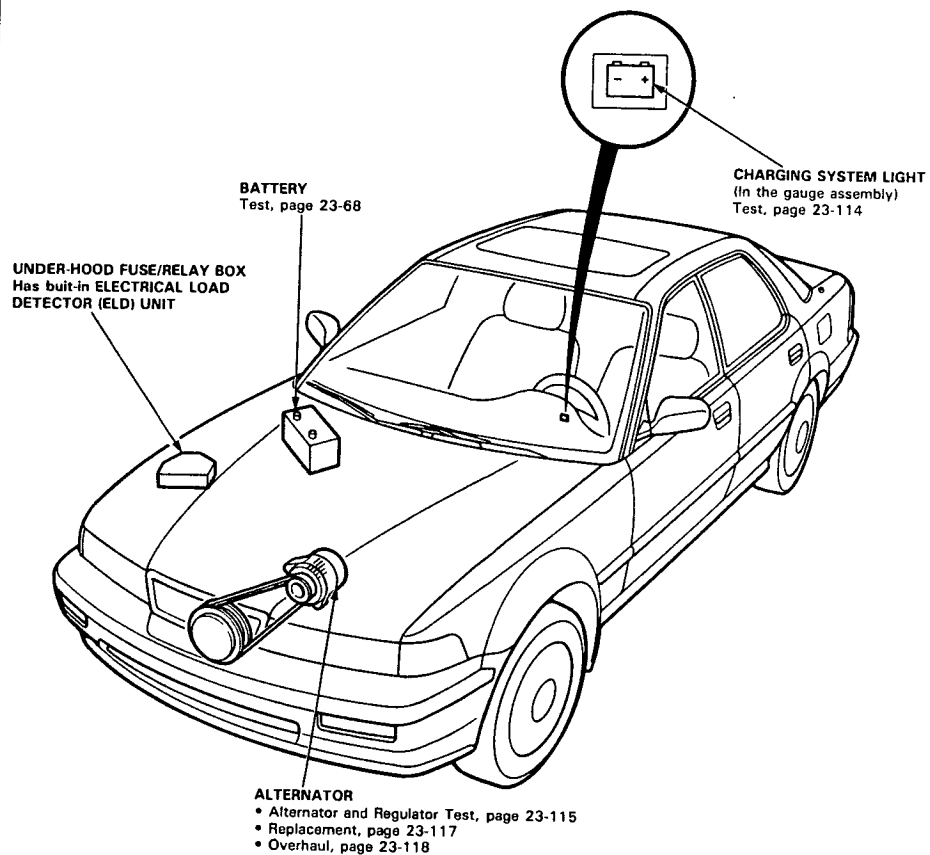
Condenser capacity: 0.47 ± 0.09 microfarads (μF)



NOTE: The noise condenser is intended to reduce ignition noise. However, condenser failure may cause the engine to stop running.

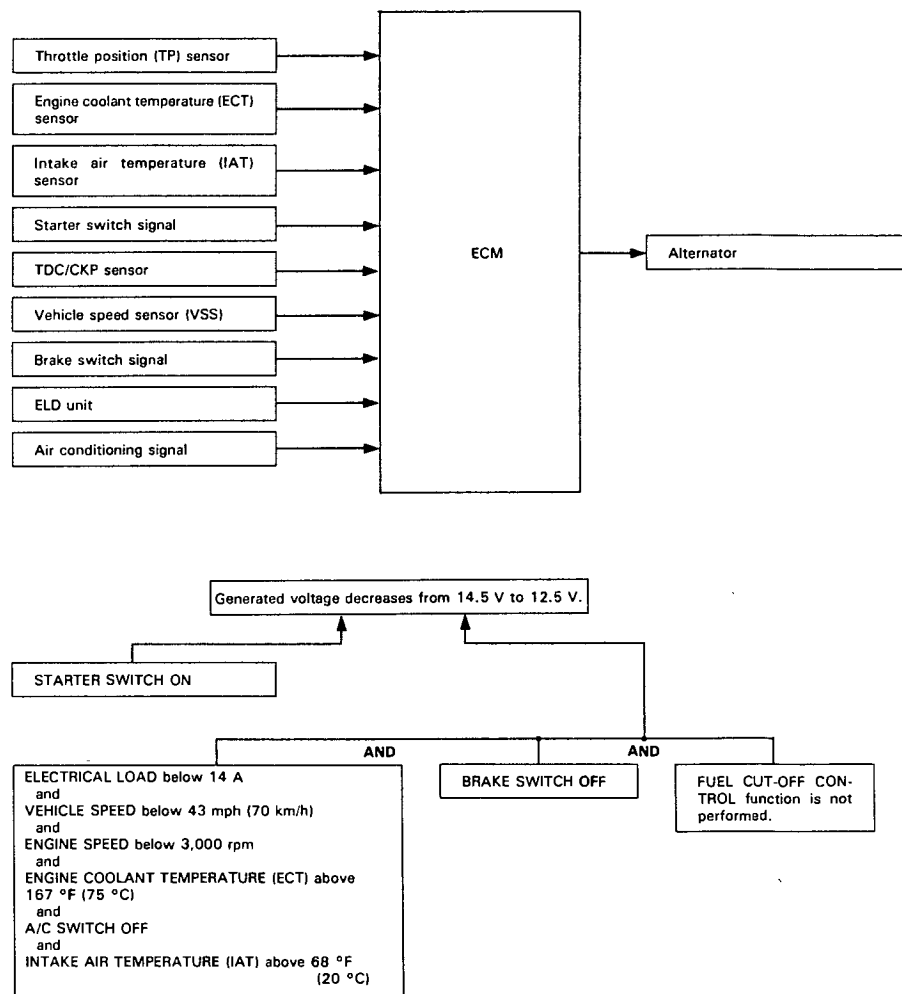
2. If not within the specifications, replace the noise condenser.

Component Location Index



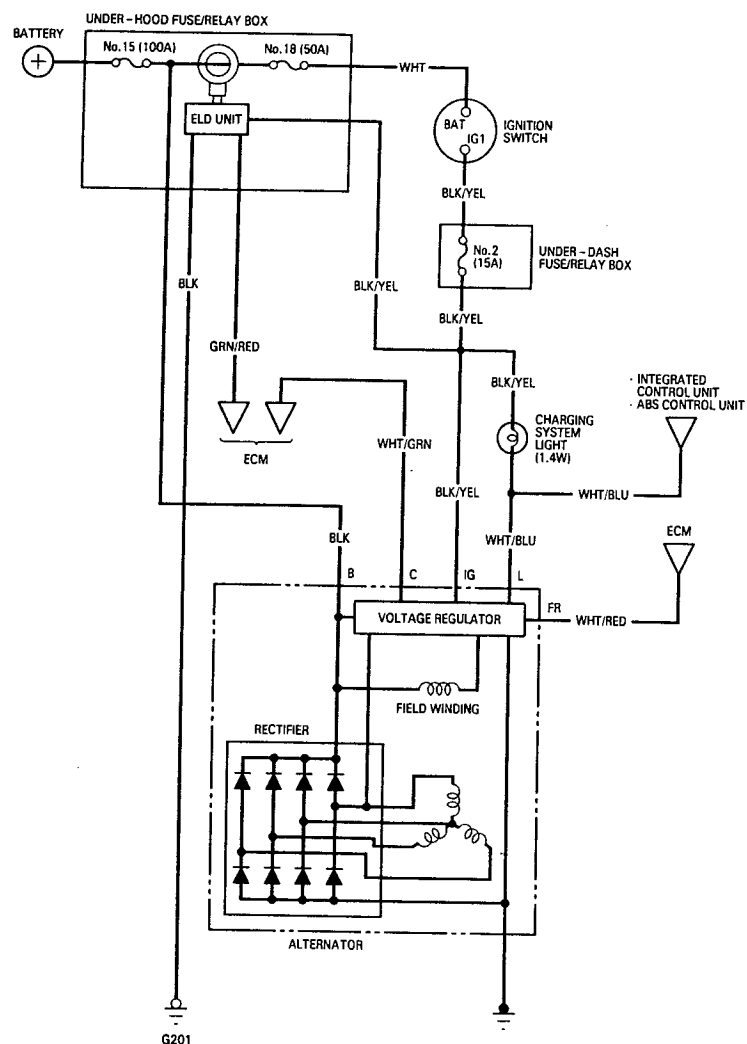
Description

To improve fuel economy, the alternator control system within the ECM changes the voltage generated at the alternator in accordance with driving conditions.



Charging System

Circuit Diagram



Troubleshooting

If the charging system light is on, or the battery is dead or low, perform the following tests in the order listed below:

1. Battery Test (see page 23-68)
2. Charging System Light Test
3. Alternator/Regulator Test

Charging System Light Test

Turn the ignition switch on.

Does the charging system light come on? NO (To page 23-114)

YES

Start the engine.

Does the charging system light go off? YES Charging system light circuit is OK.

NO

Turn the ignition switch off.

Disconnect the 4-P connector from the alternator.

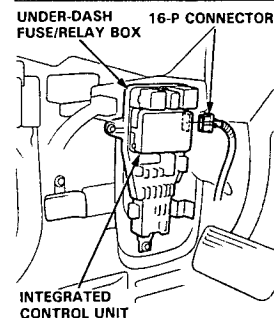
Turn the ignition switch on.

Does the charging system light come on? YES

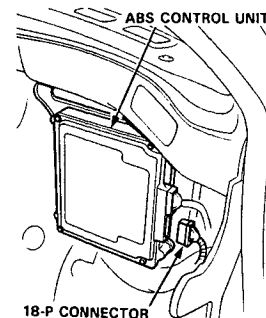
NO

Perform alternator/regulator test (see page 23-115).

Remove the 18-P connector from the ABS control unit and the 16-P connector from the integrated control unit. If the charging system light stays on, repair the short to ground in the WHT/BLU wire.



NOTE: After this test or related repairs, reconnect the control unit connectors, then reset the engine control module (ECM) to clear any codes.

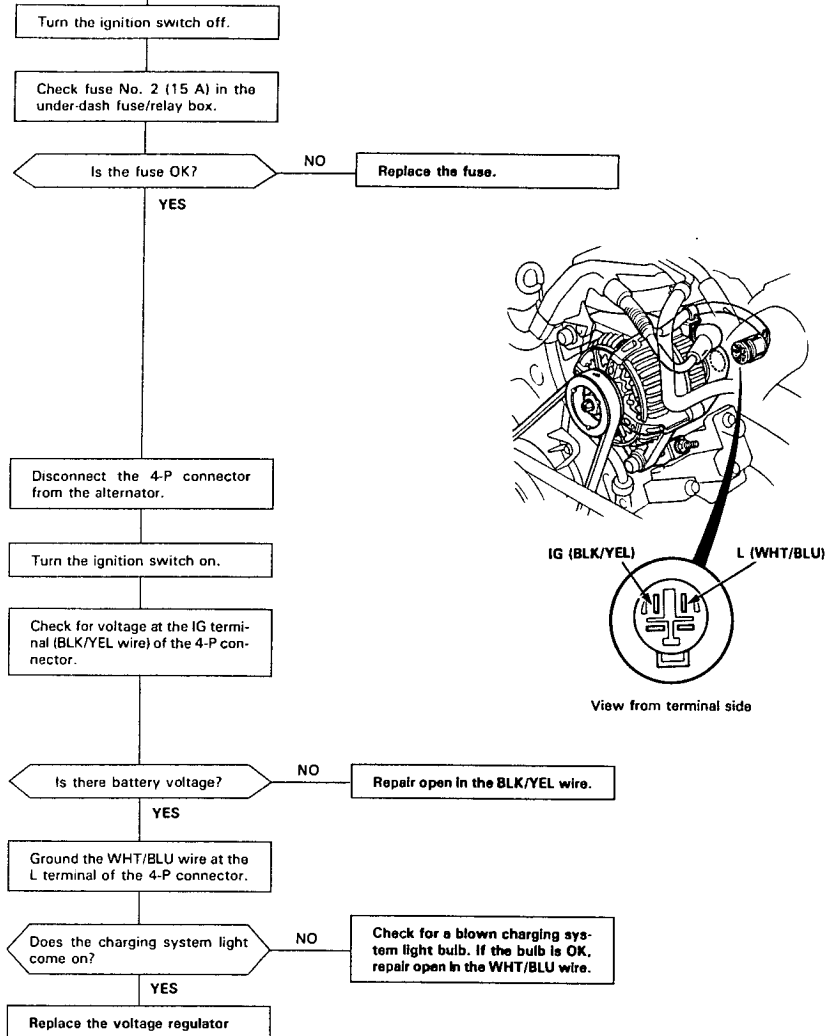


(cont'd)

Charging System

Troubleshooting (cont'd)

(From page 23-113)



23-114

Alternator/Regulator Test

NOTE: Make sure the battery is sufficiently charged (see page 23-68).

Connect the Sun VAT-40 (or equivalent test equipment) and turn the selector switch to position 1 (starting).

Start the engine and let it idle until it reaches normal operating temperature (the radiator fan comes on).

Raise the engine speed to 2000 rpm and hold it there.

Is the voltage over 15.1V?

NO

Release the accelerator pedal and let the engine idle.

Make sure all accessories are turned off. Turn the selector switch to position 2 (charging).

Remove the inductive pick-up and zero the ammeter.

Place the inductive pick-up over the B terminal wire of the alternator so that the arrow points away from the alternator.

Raise the engine speed to 2000 rpm and hold it there.

Is the voltage less than 13.9V?

NO

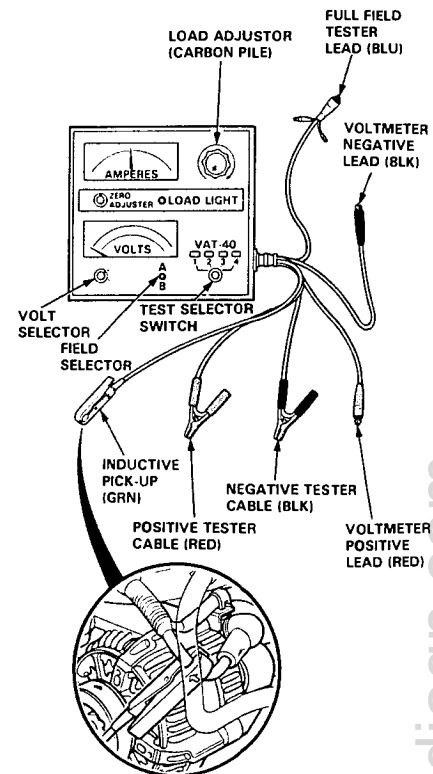
(To page 23-116)

YES

Replace the voltage regulator.

YES

Test the battery (see page 23-68).

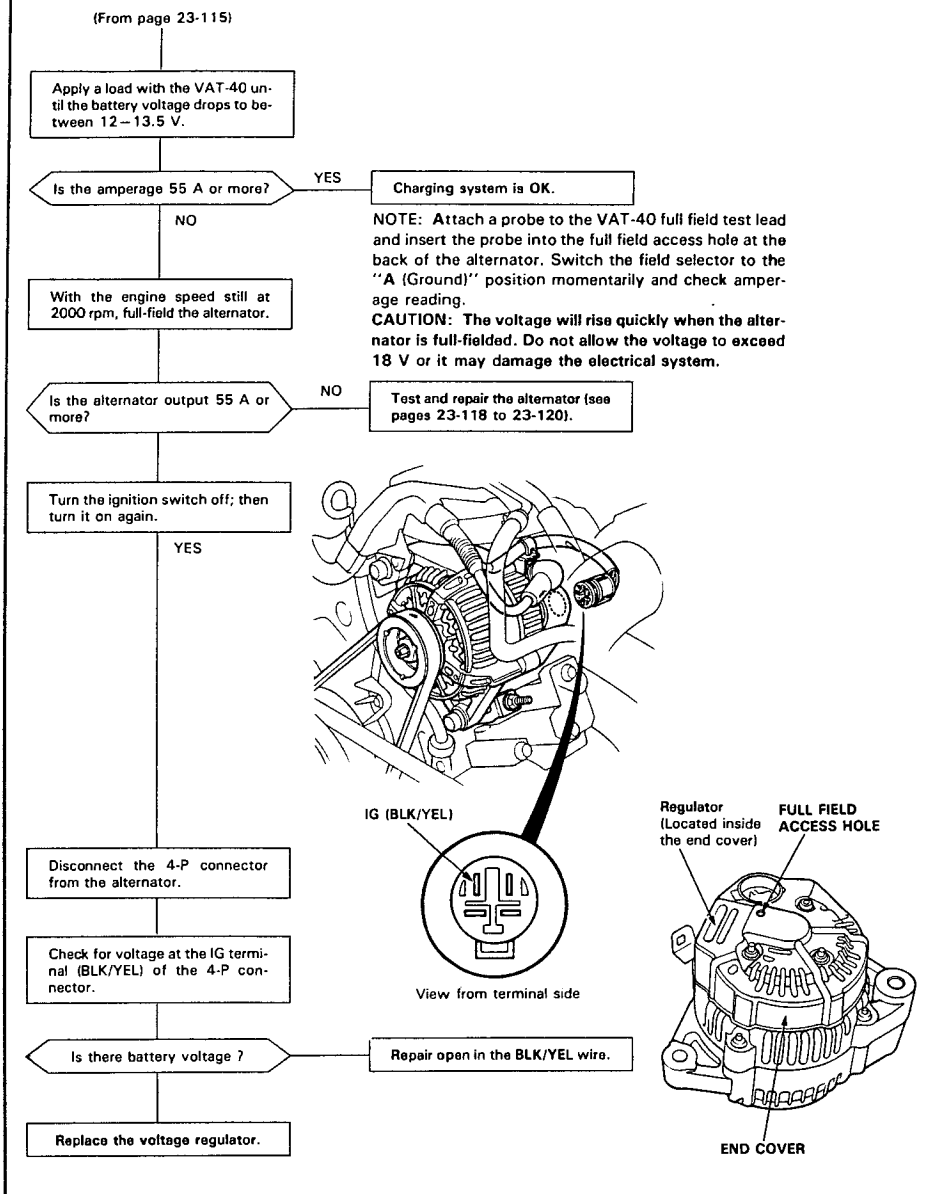


23-115

(cont'd)

Charging System

Troubleshooting (cont'd)



23-116

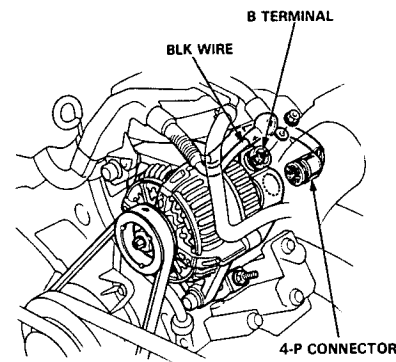
Alternator Replacement

NOTE: The radio may have a coded theft protection circuit. Be sure to get the customer's code number before

- Disconnecting the battery.
- Removing the No.39 (10 A) fuse in the under-hood fuse/relay box.
- Removing the radio.

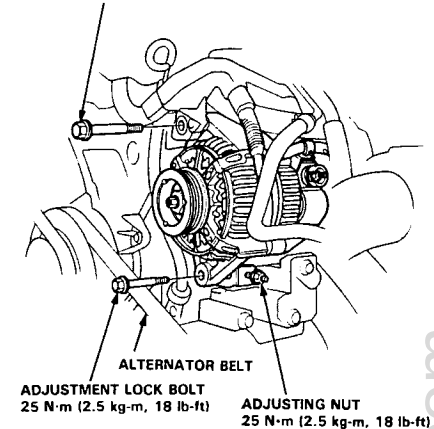
After service, reconnect power to the radio and turn it on. When the word "CODE" is displayed, enter the customer's 5-digit code to restore radio operation.

1. Disconnect both the negative cable and positive cable from the battery.
2. Disconnect the 4-P connector, then remove the terminal nut and the BLK wire from the B terminal.



3. Loosen the adjustment lock bolt and adjusting nut, then remove the belt from the pulley.

MOUNTING BOLT
45 N·m (4.5 kg-m, 33 lb-ft)



4. Remove the mounting bolt and the adjustment lock bolt. Then lift out the alternator.
5. Install the alternator in the reverse order of removal, then adjust belt tension (see pages 23-121, and 122).

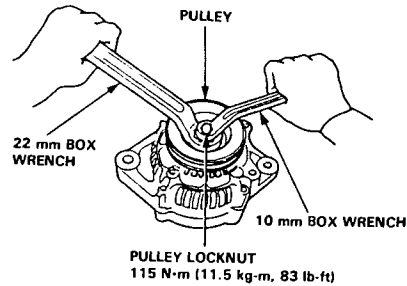
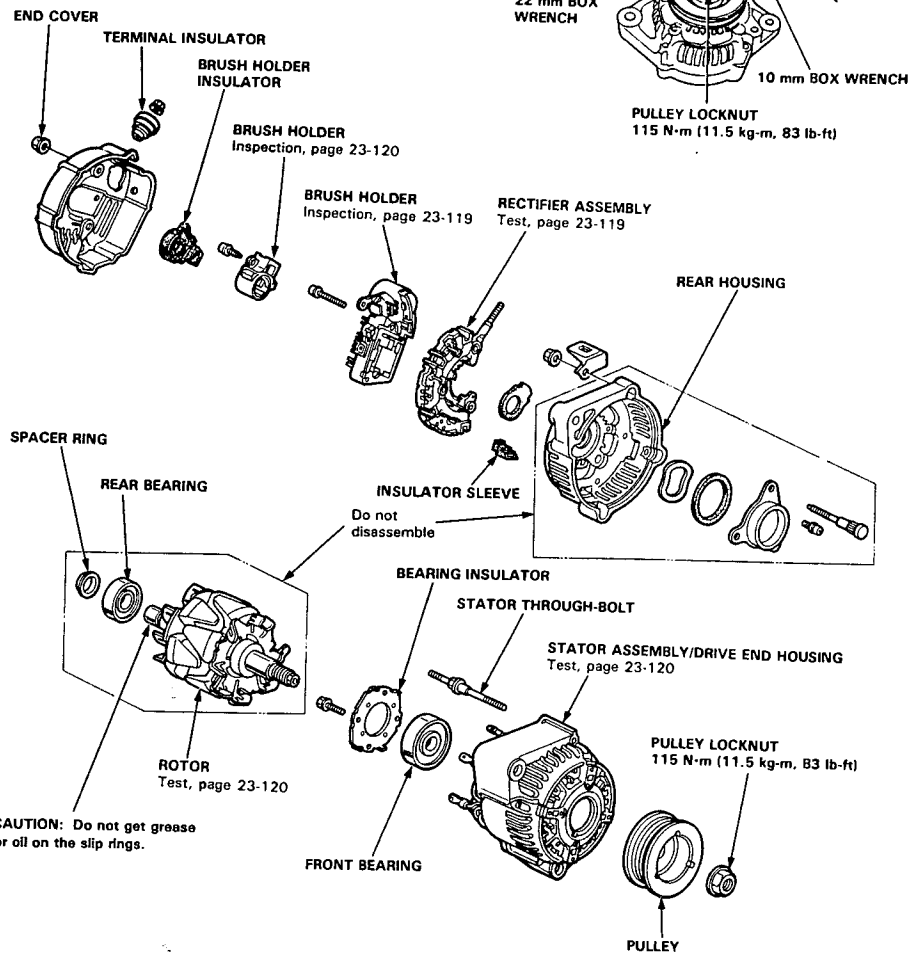
23-117

Charging System

Alternator Overhaul

NOTE: Only if the front bearing needs replacement, is it necessary to separate the pulley, drive end housing, and rotor.

To loosen the pulley locknut, use 10 mm and 22 mm wrenches. If necessary, use an impact wrench.

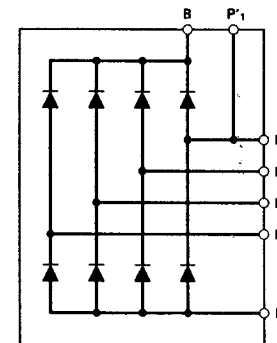
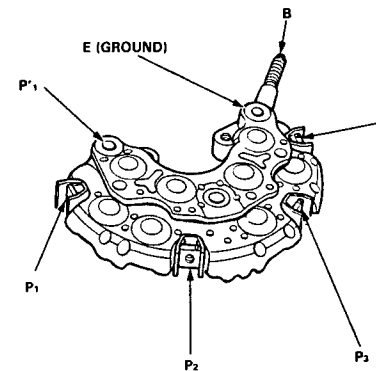


Rectifier Test

NOTE:

- The diodes are designed to allow current to pass in one direction while blocking it in the opposite direction. Each diode must be tested for continuity in both directions. Since the alternator rectifier is made up of eight diodes (four pairs), there are a total of 16 checks.
- Use an ohmmeter capable of checking diodes.

- Check for continuity in each direction between the B and P terminals, and between the E (ground) and P terminals of each diode pair. All diodes should have continuity in only one direction.

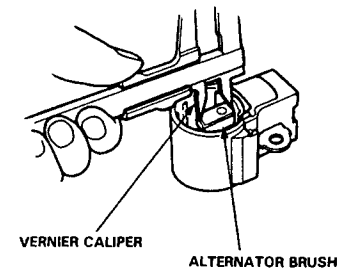


- If any of the eight diodes tests bad, replace the rectifier assembly (diodes are not available separately).

Alternator Brush Inspection

- Remove the end cover, then take out the brush holder by removing its two screws.
- Measure the length of the brushes with a vernier caliper.

Alternator Brush Length:
Standard: 10.5 mm (0.41 in)
Service Limit: 1.5 mm (0.06 in)

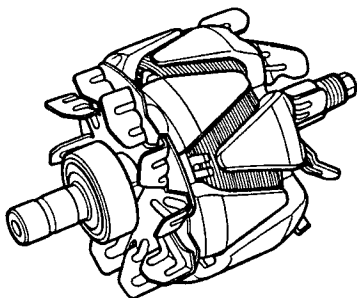


- If the brushes are less than the service limit, replace the brush holder assembly.

Charging System

Rotor Slip Ring Test

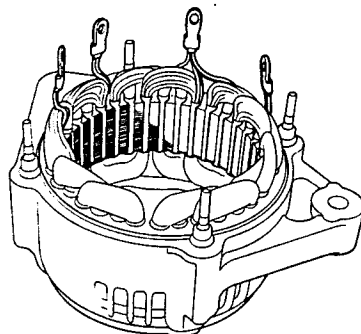
1. Check that there is continuity between the slip rings.
2. Check that there is no continuity between the slip rings and the rotor or rotor shaft.



3. If the rotor fails either continuity check, replace it.

Stator Test

1. Check that there is continuity between each pair of leads.
2. Check that there is no continuity between each lead and the coil core.



3. If the coil fails either continuity check, replace the stator.

Alternator Belt Adjustment

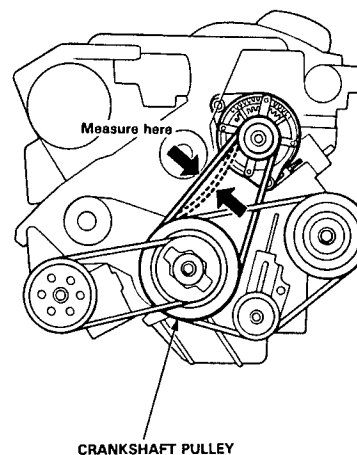
Deflection method:

Apply a force of 100 N (10 kg, 22 lbs) and measure the deflection between the alternator and crankshaft pulley.

Deflection: 7.5–9.5 mm (0.30–0.37 in)

NOTE:

- On a brand new belt (one that has been run for less than five minutes), the deflection should be 5–7 mm (0.20–0.28 in) when first measured.
- If there are cracks or any damage evident in the belt, replace it with a new one.



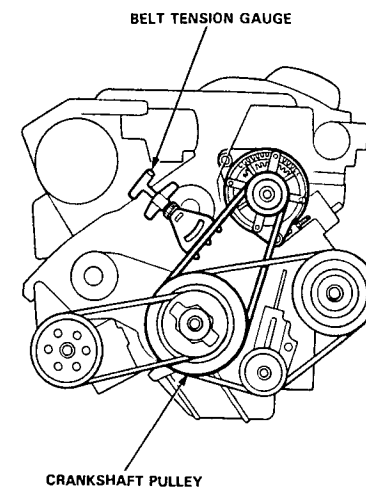
Tension gauge method:

Attach the belt tension gauge to the belt and measure the tension. Follow the gauge manufacturer's instructions.

Tension: 350–500 N (35–50 kg, 77–110 lbs)

NOTE:

- On a brand new belt (one that has been run for less than five minutes), the tension should be 700–900 N (70–90 kg, 154–198 lbs) when first measured.
- If there are cracks or any damage evident in the belt, replace it with a new one.



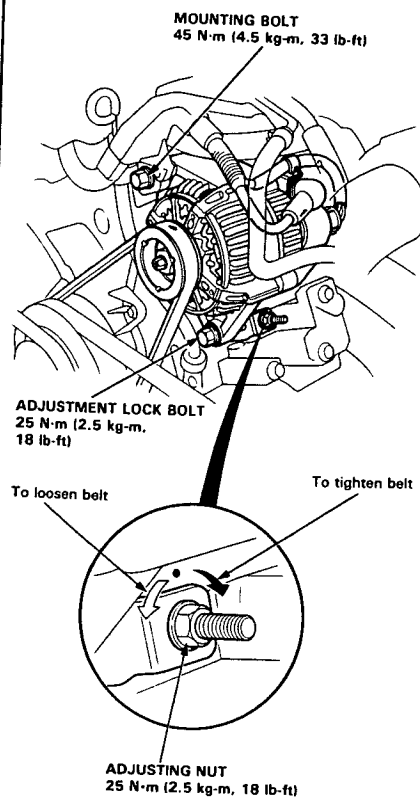
(cont'd)

Charging System

Alternator Belt Inspection (cont'd)

If adjustment is necessary:

1. Loosen the mounting bolt and the adjusting lock bolt.
2. Move the alternator by turning the adjusting nut to obtain the proper belt tension, then retighten the bolts.

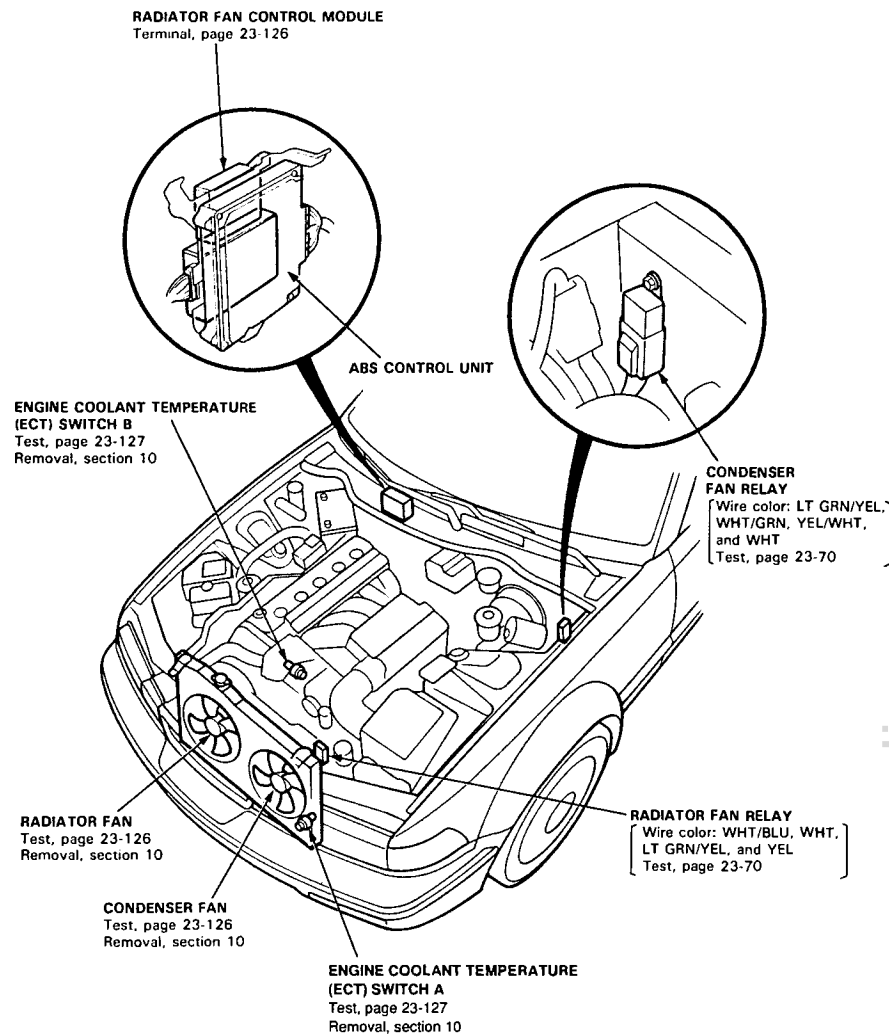


3. Recheck the deflection or tension of the belt.

23-122

Radiator and Condenser Fan Controls

Component Location Index



Description:

Radiator Fan Control System

When the engine coolant temperature (ECT) is above approximately 223°F (106°C) after the engine has stopped, the radiator fan will run for about 15 minutes.

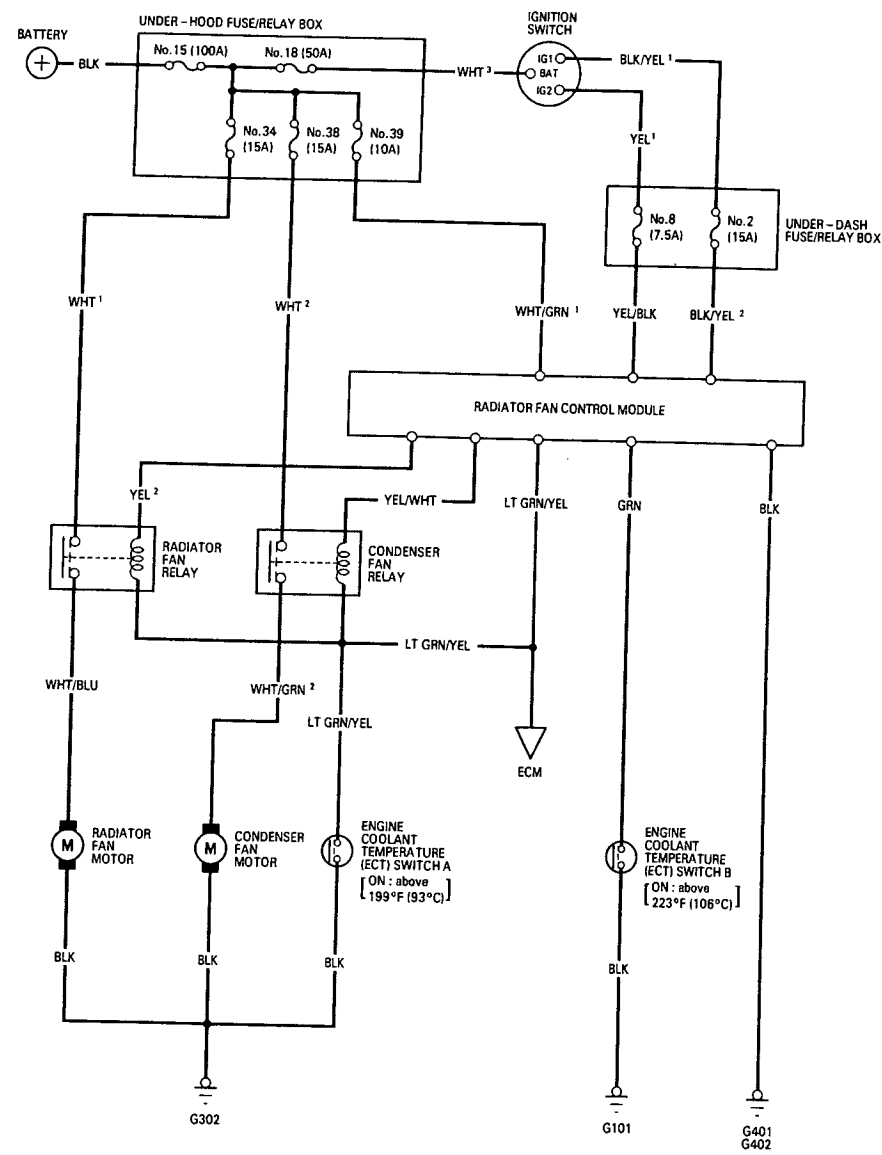
The engine coolant temperature (ECT) switch B is located behind the water outlet cover, and the radiator fan control module is located under the right side of the dash.

23-123

Radiator and Condenser Fan Controls

Circuit Diagram

NOTE: Different wires with the same color have been given a number suffix to distinguish them (for example, WHT¹ and WHT² are not the same).



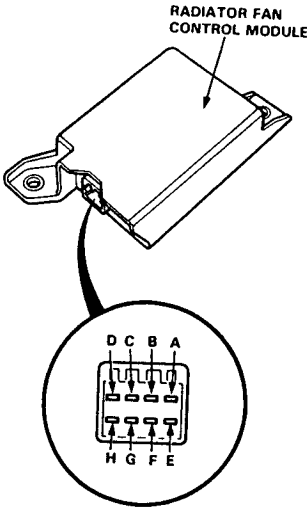
Troubleshooting

NOTE: The numbers in the table show the troubleshooting sequence.

Item to be inspected		Blown No. 34 (15 A) or No. 38 (15 A) fuse (in the under-hood fuse/relay box)	Blown No. 39 (10 A) fuse (in the under-hood fuse/relay box)	Blown No. 2 (15 A) fuse (in the under-hood fuse/relay box)	Blown No. 8 (7.5 A) fuse (in the under-hood fuse/relay box)	Radiator fan or condenser fan relay	Radiator fan or condenser fan motor	Engine coolant temperature (ECT) switch A	Engine coolant temperature (ECT) switch B	Faulty radiator fan control module	A/C system	Poor ground	Open circuit, loose or disconnected terminals
Symptom													
Only one fan operates (with engine and A/C ON).		1				2	3					G302	WHT ¹ , WHT ² , WHT/BLU, WHT/GRN, YEL ² , YEL/WHT or LT GRN/YEL
Fans do not rotate.	Under all conditions.				1			2	3			G302 G401 G402	YEL/BLK, LT GRN/YEL or YEL ¹
	A/C ON										1		
Radiator fan control module fails to function properly.			1	2					3	4		G101 G401 G402	GRN, YEL ² , WHT/GRN ² or BLK/YEL ²

Radiator and Condenser Fan Controls

Radiator Fan Control Module
Terminals

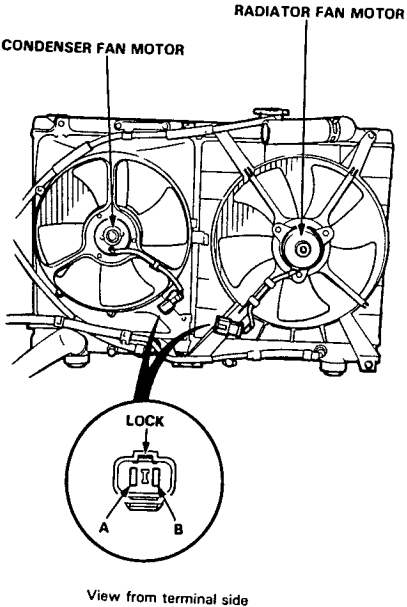


NOTE: See A/C section 22 for input test.

Terminal	Wire	Connects to
A	BLK	Ground (G401, G402)
B	YEL/WHT	Condenser fan relay (coil +)
C	YEL/BLK	Power supply (For radiator fan and condenser fan relays by way of radiator fan control module with ignition switch ON)
D	YEL	Radiator fan relay (coil +)
E	LT GRN/YEL	Radiator fan and condenser fan relays (coil -)
F	BLK/YEL	IG1 (Radiator fan control module reset signal)
G	WHT/GRN	Power supply (For radiator fan control module with ignition switch OFF)
H	GRN	Engine coolant temperature (ECT) switch B

Fan Motor Test

1. Disconnect the 2-P connector from each fan motor.
2. Test the motor operation by connecting battery power to the A terminal, and ground to the B terminal.
3. If the fan motor fails to run or does not run smoothly, replace it.



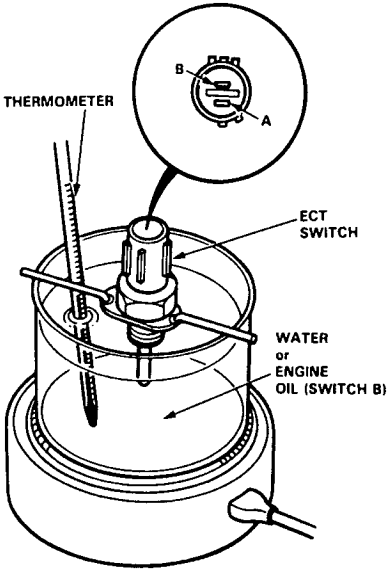
View from terminal side

Engine Coolant Temperature (ECT) Switch Test

NOTE: Bleed air from the cooling system after installing the engine coolant temperature (ECT) switch (see section 10).

1. Remove ECT switch B from the thermostat housing, or ECT switch A from radiator lower tank.
2. Suspend the ECT switch in a container of coolant as shown.

NOTE: The illustration shows ECT switch A.



3. Heat the coolant and check coolant temperature with a thermometer.
4. Measure the resistance between the A and B terminals according to the table.

Terminal		A	B
Temperature			
Switch A	Above 90–96°C (194–205°F)	○	○
	Below 86–91°C (187–196°F)		
Switch B	Above 103–109°C (217–228°F)	○	○
	Below 97–102°C (207–216°F)		

NOTE: After completing the inspection, remove all traces of engine oil from ECT switch B.

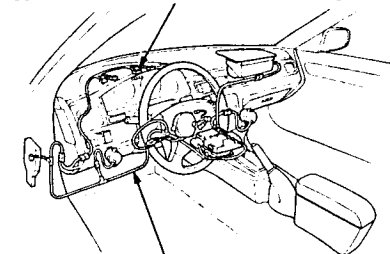
Gauge Assembly

Gauge/Indicator/Terminal Location Index

CAUTION:

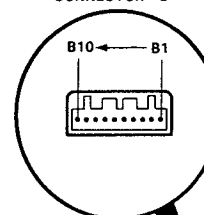
- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

CONNECTOR "C" (Carries the SRS indicator signal)



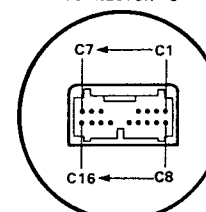
SRS MAIN HARNESS
(Covered with yellow outer insulation)

CONNECTOR "B"

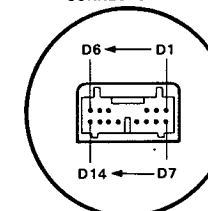


SAFETY INDICATOR
SYSTEM
See page 23-151

CONNECTOR "C"

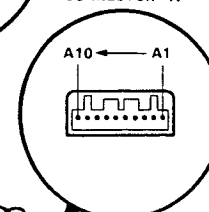


CONNECTOR "D"



A/T GEAR POSITION
INDICATOR SYSTEM
See page 23-158

CONNECTOR "A"



FUEL GAUGE:
• Gauge Test, page 23-139
• Sending Unit Test, page 23-140

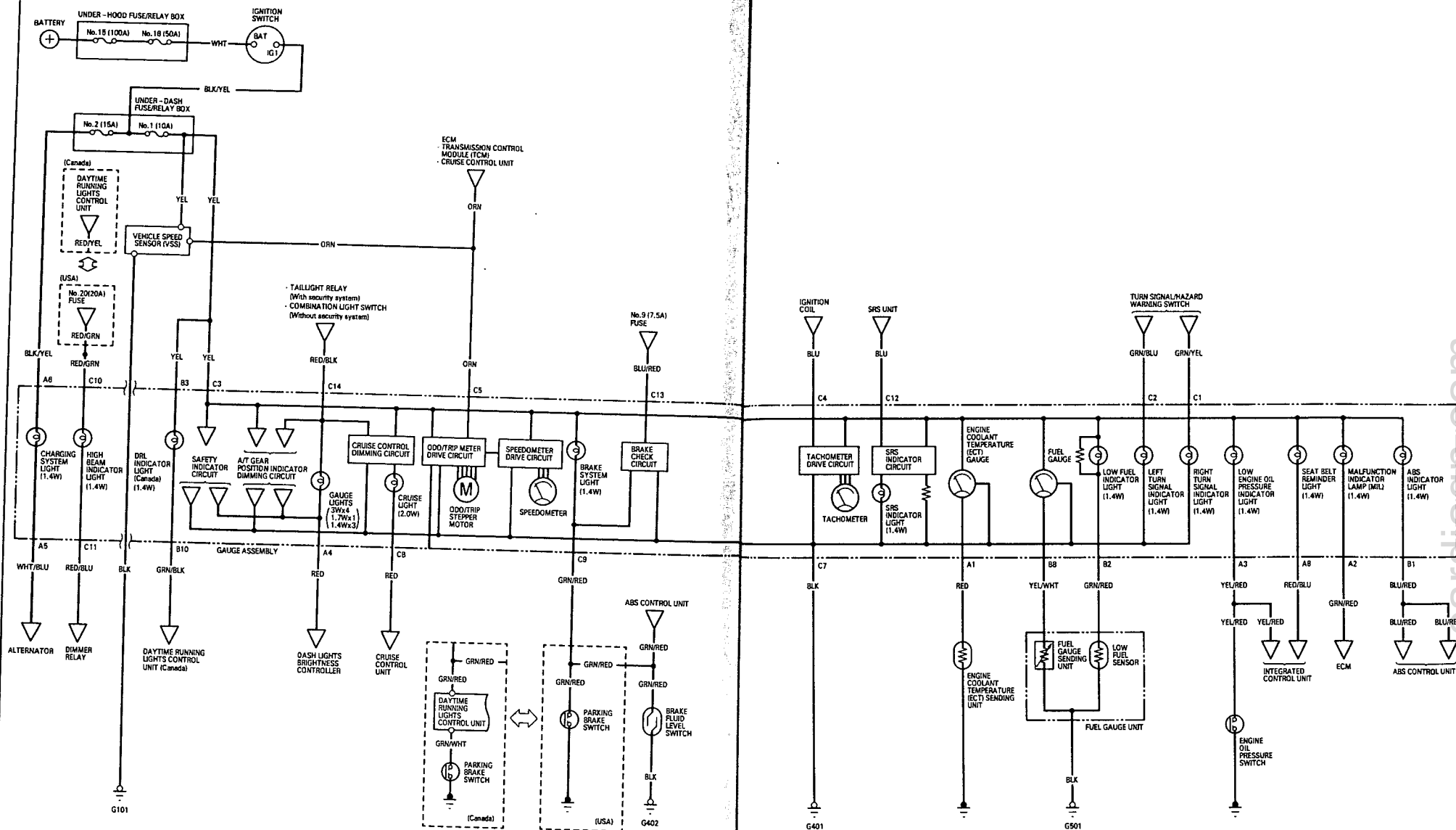
SPEEDOMETER:
Indicates (60 mph at 1026 rpm) or
(60 km/h at 637 rpm) of the
vehicle speed sensor (VSS).

TACHOMETER:
Indicates 100 rpm at
250 pulses per minute
of the ignition control
module (ICM)

ENGINE COOLANT TEMPERATURE (ECT) GAUGE:
• Gauge Test, page 23-141
• Sender Test, page 23-141

Gauge Assembly

Circuit Diagram



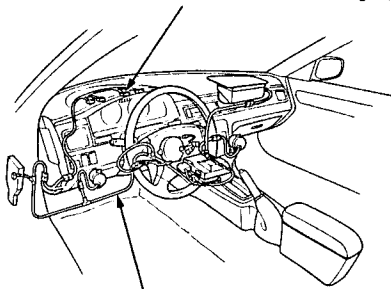
Gauge Assembly

Removal

CAUTION:

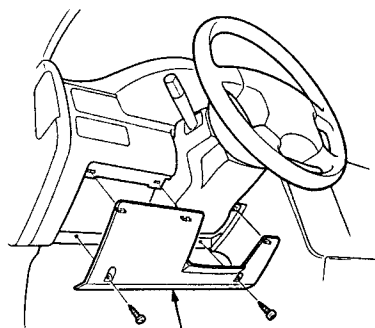
- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

CONNECTOR "C" (Carries the SRS indicator signal)



SRS MAIN HARNESS
(Covered with yellow outer insulation)

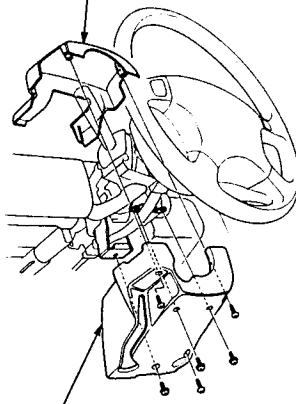
1. Remove the dashboard lower cover.



DASHBOARD LOWER COVER

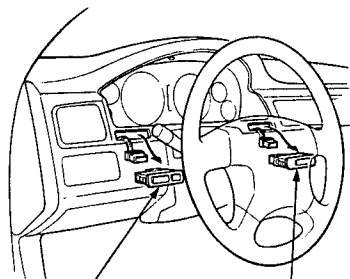
2. Remove the upper and lower column covers.

UPPER COLUMN COVER



LOWER COLUMN COVER

3. Carefully pry the switches out of the instrument panel.

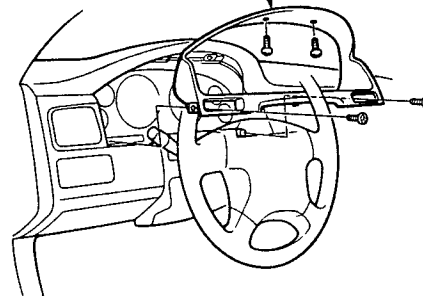


FRONT FOG LIGHT AND
CRUISE CONTROL
MAIN SWITCHES

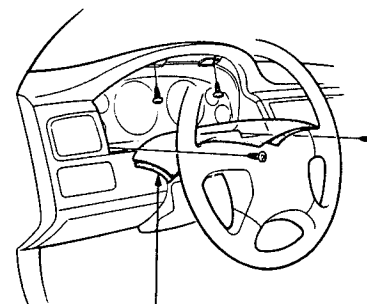
REAR WINDOW
DEFOGGER SWITCH

4. Remove the four screws, then remove the instrument panel from the dashboard.

INSTRUMENT PANEL

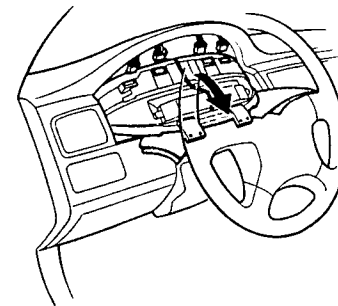


5. Place a protective cloth over the combination light switch to prevent scratching the gauge assembly. Remove the four screws from the gauge assembly, and pull the gauge assembly out.

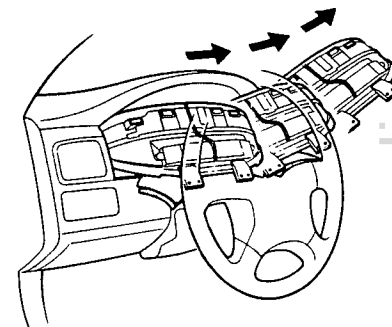


PROTECTIVE CLOTH

6. Disconnect the connectors from the gauge assembly.



7. Take out the gauge assembly as shown.



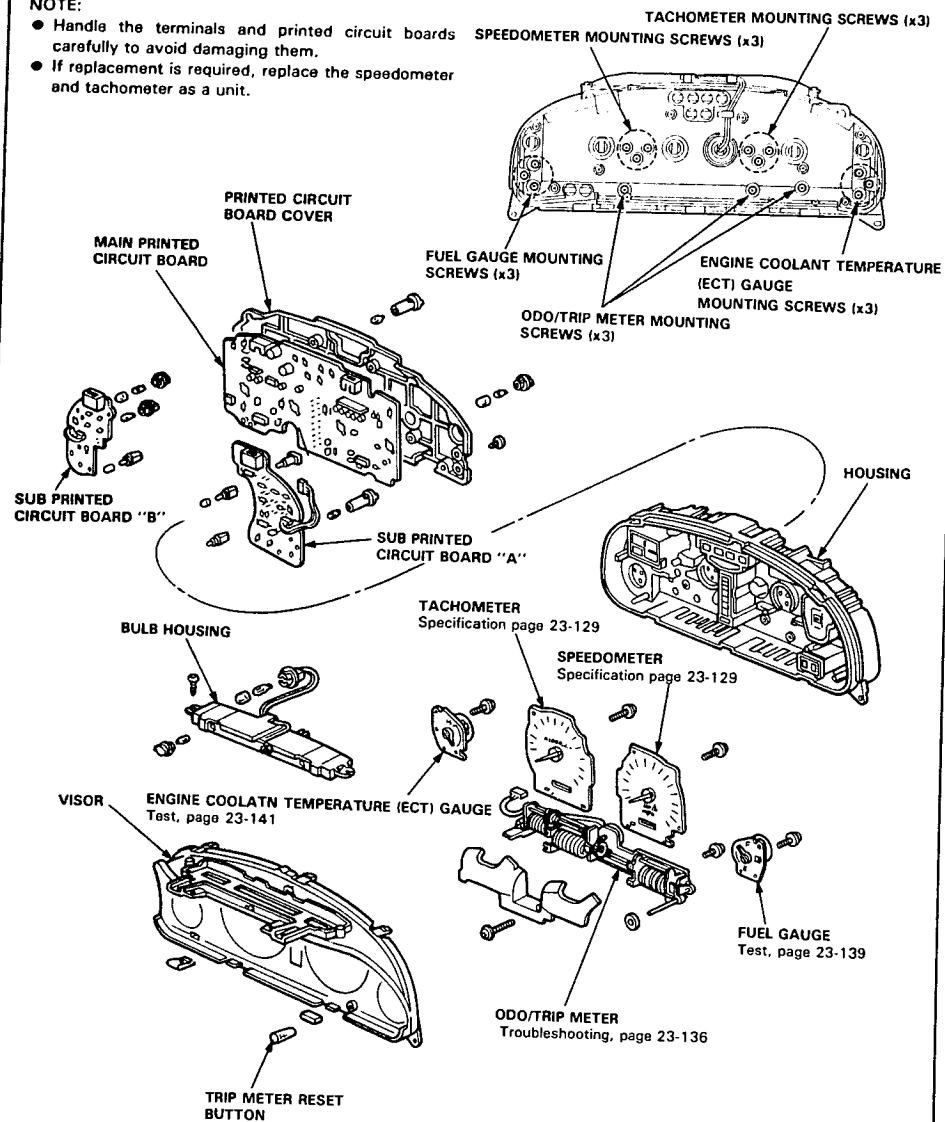
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Gauge Assembly

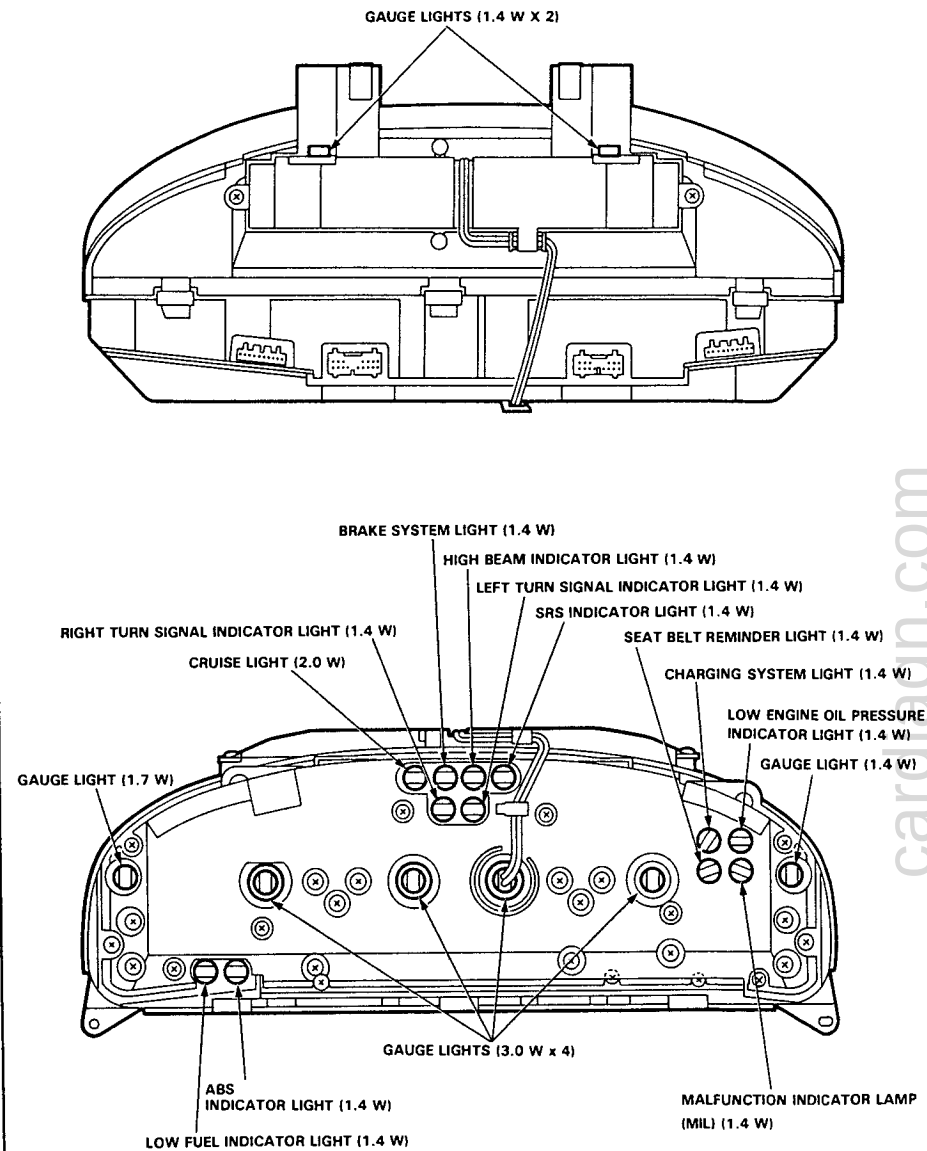
Disassembly

NOTE:

- Handle the terminals and printed circuit boards carefully to avoid damaging them.
- If replacement is required, replace the speedometer and tachometer as a unit.



Bulb Locations



Speedometer/Trip Meter/Odometer

Troubleshooting

NOTE: The numbers in the table show the troubleshooting sequence.

Symptom	Item to be inspected					
	Blown No. 1 (10 A) fuse (in the under-dash fuse/relay box)	Speedometer	Odo/Trip meter	Printed circuit board	Vehicle speed sensor (VSS) input test	VSS test flowchart
Odometer and trip meter work, but speedometer does not.		1		2		
Speedometer works, but odometer and trip meter do not.			1	2		
Speedometer, odometer, and trip meter do not work.	1				2	3

NOTE: VSS ground is via ECM (G101).

VSS Input Test (At harness side of 3-P connector)

No.	Wire	Test Condition	Test: Desired result	Possible cause if result is not obtained
1	BLK	Under all conditions	Check for continuity to ground: There should be continuity.	• An open in the wire. • Poor ground (G101).
2	YEL	Ignition switch ON	Check for voltage to ground: There should be battery voltage.	• Blown No. 1 (10 A) fuse. • Short to ground.
3	ORN	Ignition switch ON	Check for voltage to ground: There should be about 5 V.	• Short to ground. • An open in the wire.

NOTE: A short to ground in the ORN wire can be caused by a short in any component connected to it.

VSS Test

Speedometer does not work.

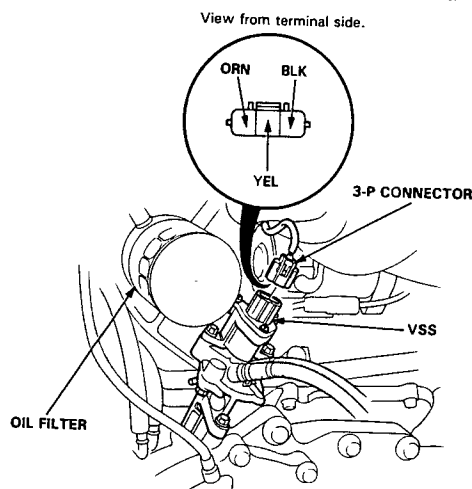
Inspect No. 1 (10 A) fuse in the under-dash fuse/relay box before testing.

Disconnect the 3-P connector at the VSS.

Turn the ignition switch ON.

Measure voltage between the YEL wire terminal and the BLK wire terminal in the harness side of the 3-P connector.

(To next page)



(From previous page)

Is there battery voltage?

NO

Check for continuity between the BLK terminal and body ground.

YES

Measure voltage between the ORN and the BLK wire terminals.

Is there continuity?

NO

Repair open between VSS and ground G101 via ECM.

YES

Repair open in the YEL wire, between VSS and under-dash fuse/relay box.

Is there about 5 V?

NO

YES

Reconnect the 3-P connector to the VSS.

Raise the front of the car and support it with safety stands.

Repair open in the ORN wire or short to body ground.

Touch a probe to the ORN wire and connect it to body ground through a voltmeter.

Put the car in neutral with the ignition switch ON.

Slowly rotate one wheel with the other wheel blocked.

Does voltage pulse from 0 to about 5V?

NO

Replace the VSS (see page 23-138).

YES

Disconnect the 13-P connector at the speedometer.

Touch a probe to the ORN wire and connect it to body ground through a voltmeter.

Slowly rotate one wheel with the other wheel blocked.

Does the meter indicate pulsing voltage?

NO

Repair open in the ORN wire between the VSS and the speedometer.

YES

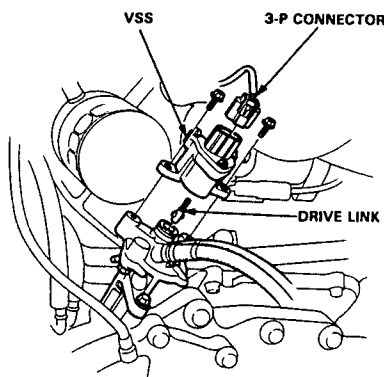
Replace the speedometer.

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Vehicle Speed Sensor (VSS)

Replacement

1. Disconnect the 3-P connector from the vehicle speed sensor (VSS).
2. Remove the mounting bolts, then remove the VSS.



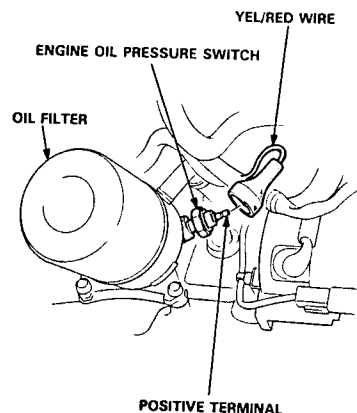
3. Install in the reverse order of removal.

NOTE: The VSS drive link is a very small part; be careful not to lose it.

Warning System

Engine Oil Pressure Switch Test

1. Remove the YEL/RED wire from the engine oil pressure switch.

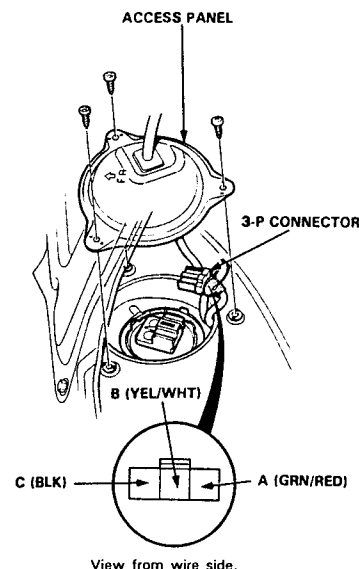


2. Check for continuity between the positive terminal and the engine (ground) with the ignition switch OFF.
 - If there is continuity, go on to step 3.
 - If there is no continuity, replace the switch.
3. Check for continuity again, this time with the engine running.
 - If there is no continuity, the switch is OK.
 - If there is continuity, do not replace the switch; first check other possible causes in step 4.
4. Make sure engine oil level is OK, then check engine oil pressure (see section 8).
 - If engine oil pressure is OK, replace the switch.
 - If engine oil pressure is low, remove, inspect, and, if necessary, replace the engine oil pump (see section 8).

Gauge Test

NOTE: Refer to page 23-131 for the fuel gauge system circuit.

1. Check the No. 1 (10 A) fuse in the under-dash fuse/relay box before testing.
2. Remove the access panel from the floor.
3. Disconnect the 3-P connector from the fuel gauge sending unit.



4. Connect the voltmeter positive probe to the B (YEL/WHT) terminal and the negative probe to the C (BLK) terminal, then turn the ignition switch ON. There should be between 5 and 8 V.

- If the voltage is as specified, go to step 5.
- If the voltage is not as specified, check for:
 - An open in the YEL, YEL/WHT or BLK wire.
 - Poor ground (G501).

5. Turn the ignition switch OFF. Attach a jumper wire between the B (YEL/WHT) and C (BLK) terminals, then turn the ignition switch ON. Check that the pointer of the fuel gauge starts moving toward the "F" mark.

CAUTION: Turn the ignition switch OFF before the pointer reaches "F" on the gauge dial. Failure to do so may damage the fuel gauge.

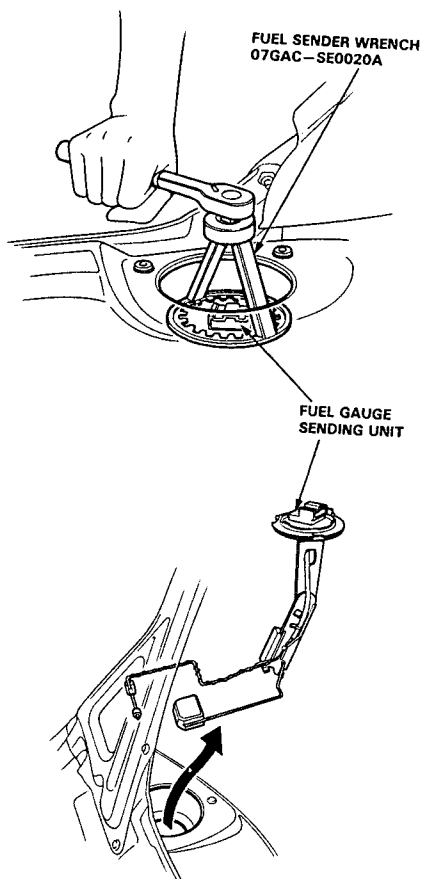
NOTE: The fuel gauge is a bobbin (cross-coil) type, hence the fuel level is continuously indicated even when the ignition switch is OFF, and the pointer moves more slowly than that of a bimetal type.

- If the pointer of the fuel gauge does not move at all, replace the gauge.
- If the gauge is OK, inspect the fuel gauge sending unit.

Sending Unit Test

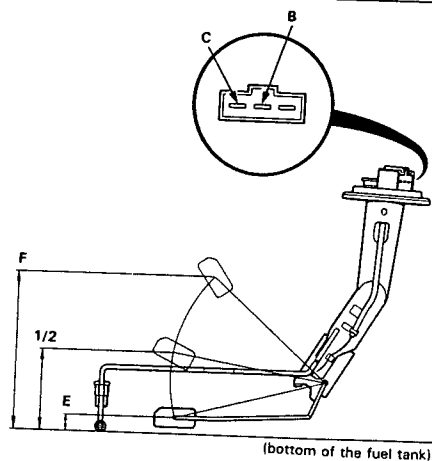
WARNING Do not smoke while working on the fuel system. Keep open flames away from your work area.

1. Remove the access panel from the floor.
2. With the ignition switch OFF, disconnect the 3-P connector from the fuel gauge sending unit.
3. Remove the fuel gauge sending unit.



4. Measure the resistance between the B and C terminals at E (EMPTY), 1/2 (HALF FULL) and F (FULL) by moving the float.

Float Position	E	1/2	F
Length	18.7 mm (0.74 in)	80.7 mm (3.18 in)	152.8 mm (6.02 in)
Resistance (Ω)	105-110	25.5-39.5	2-5



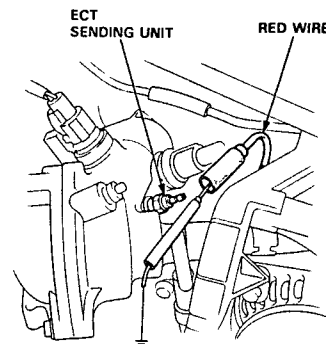
5. If unable to obtain the above readings, replace the fuel gauge sending unit.

Engine Coolant Temperature (ECT) Gauge

Gauge Test

NOTE: Refer to page 23-131 for the wiring description of the engine coolant temperature (ECT) gauge circuit diagram.

1. Check the No. 15 (10 A) fuse in the under-dash fuse/relay box before testing.
2. Make sure the ignition switch is OFF, then disconnect the RED wire from the ECT gauge sending unit and ground it with a jumper wire.



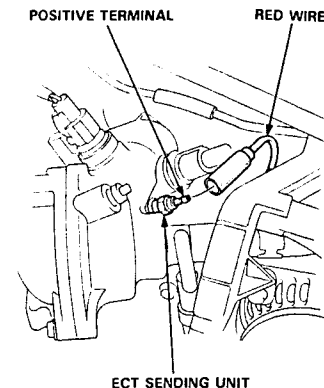
3. Turn the ignition switch ON. Check that the pointer of the ECT gauge starts moving toward the "H" mark.

CAUTION: Turn the ignition switch OFF before the pointer reaches "H" on the gauge dial. Failure to do so may damage the gauge.

- If the pointer of the gauge does not move at all, check for an open in the YEL or RED wire. If the wires are OK, replace the ECT gauge.
- If the ECT gauge works, test the ECT sending unit.

ECT Sending Unit Test

1. Disconnect the RED wire from the ECT sending unit.
2. With the engine cold, use an ohmmeter to measure resistance between the positive terminal and the engine (ground).



3. Check the temperature of the coolant.
4. Run the engine and measure the change in resistance with the engine at operating temperature (the radiator fan comes on).

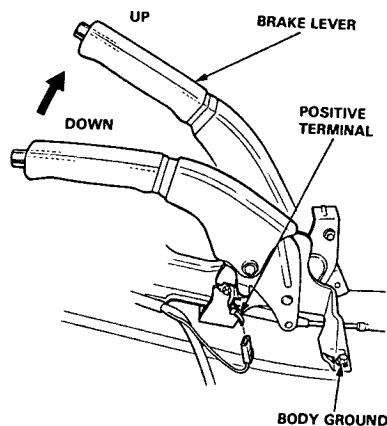
Temperature	133 °F (56 °C) (Engine cold)	185 °F (85 °C) - 212 °F (100 °C)
Resistance (Ω)	142	49-32

5. If the obtained readings are substantially different from the specifications above, replace the sending unit.

Brake Warning System

Parking Brake Switch Test

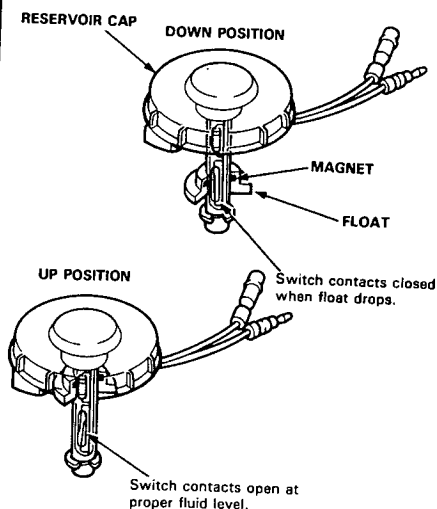
1. Remove the floor console and disconnect the connector from the switch.
2. There should be continuity between the positive terminal and body ground with the brake lever up. There should be no continuity with the brake lever down.



NOTE (Canada):
If the parking brake switch is OK, but the brake warning system does not function, perform the input test for the daytime running lights control unit (see page 23-180).

Brake Fluid Level Switch Test

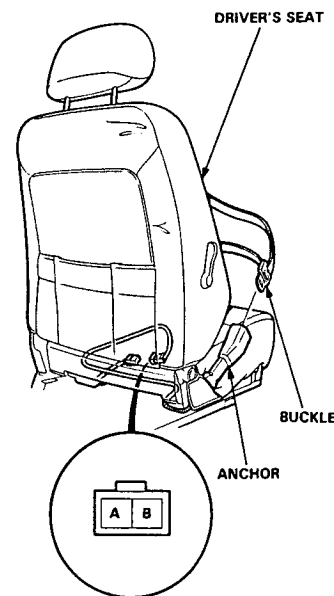
1. Remove the reservoir cap. Check that the float moves up and down freely; if it doesn't, replace the reservoir cap assembly.
2. Check for continuity between the terminals with the float up and down. There should be continuity with the float down and no continuity with the float up. Replace the reservoir cap assembly if necessary.



Seat Belt Reminder

Seat Belt Switch Test

1. Slide the driver's seat forward, then disconnect the 2-P connector from the seat belt switch.
2. There should be continuity between the A and B terminals when the driver's seat belt is not buckled. There should be no continuity when the driver's seat belt is buckled.



Low Fuel Indicator

Indicator Light Test

NOTE: Refer to page 23-131 for the wiring description of the low fuel indicator circuit.

1. Park car on level ground.

WARNING Do not smoke while working on the fuel system. Keep open flames away from your work area. Drain fuel only into an approved container.

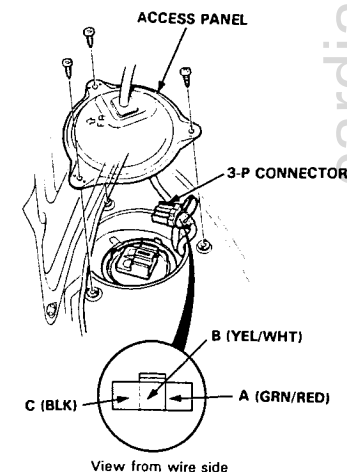
2. Drain fuel tank into an approved container. Then install the drain bolt with a new washer.
3. Add less than 8.5ℓ (2.2 U.S.Gal, 1.8 Imp.Gal) of fuel and turn the ignition switch on. The low fuel indicator light should come on within four minutes.
4. Then add approx. 4ℓ (1.1 U.S.Gal, 0.9 Imp.Gal) of fuel.

- The light should go out within four minutes.

- If the light did not come on in step 3, remove the access panel and disconnect the 3-P connector from the fuel gauge sending unit. Connect the A (GRN/RED) terminal to the C (BLK) terminal with a jumper wire.

— If the light comes on, the problem is either the sending unit or its ground.

— If the light does not come on, the problem is an open in the GRN/RED wire to the gauge assembly, no power to the gauge, or a blown bulb.

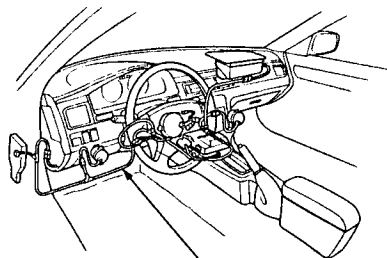


Interlock System

Component Location Index

CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



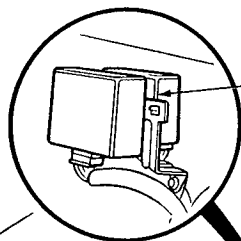
SRS MAIN HARNESS
(Covered with yellow outer insulation)

A/T GEAR POSITION INDICATOR

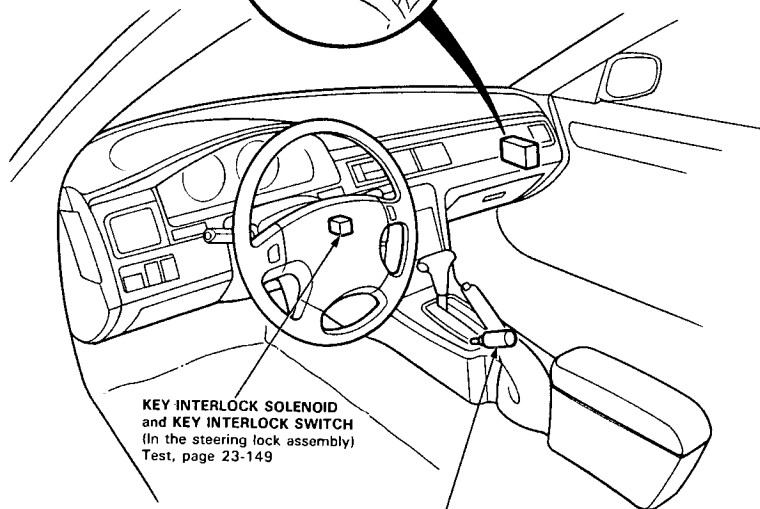
See page 23-158

A/T GEAR POSITION SWITCH

Test, page 23-162



INTERLOCK CONTROL UNIT
Input Test, page 23-148



KEY INTERLOCK SOLENOID and KEY INTERLOCK SWITCH
(In the steering lock assembly)
Test, page 23-149

SHIFT LOCK SOLENOID
Test/Replacement, page 23-150

Description

The car is equipped with the following devices to prevent inadvertent shifting:

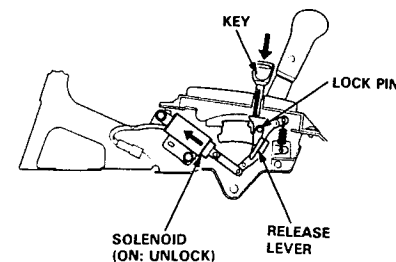
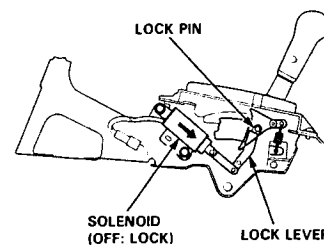
- A/T shift lever with shift lock
- Key cylinder with interlocked ignition key

Shift Lock System:

The shift lock system prevents the shift lever from moving to **R** or **D4** from the **P** position unless the brake pedal is depressed and the accelerator is in its rest position.

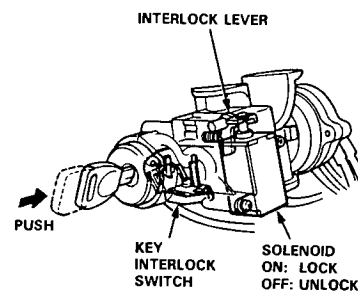
NOTE:

- The shift lever cannot be shifted when the brake pedal and the accelerator are depressed on at the same time.
- In case of system malfunction, the shift lever can be released by pushing a key into the release slot near the shift lever.

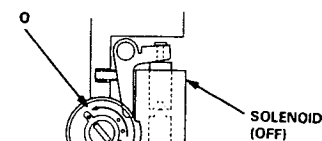


Key Interlock System:

The ignition key cannot be removed from the ignition switch unless the shift lever is in the **P** position. If the key is inserted when the shift lever is in any position other than **P**, a solenoid is activated, making it impossible for the key to be removed until the shift lever is moved to the **P** position.

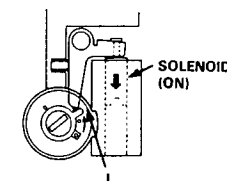


The shift lever is the **P** position.



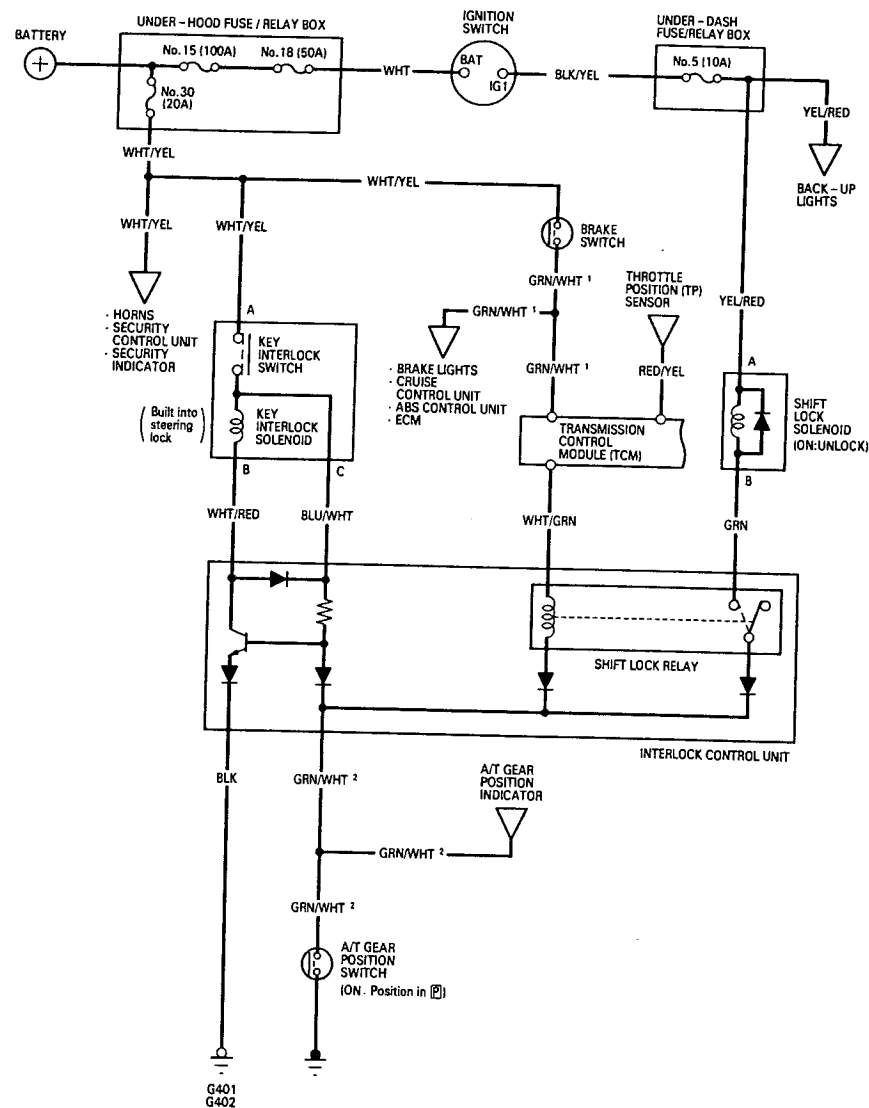
KEY CYLINDER

The shift lever is in any position except **P**.



Interlock System

Circuit Diagram



Control Unit Input Test

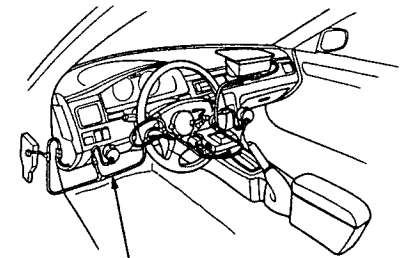
CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

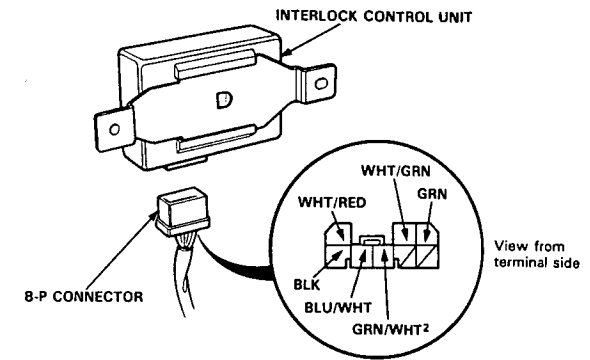
Disconnect the 8-P connector from the control unit. Inspect the connector terminals to be sure they are all making good contact.

- If the terminals are bent, loose, or corroded, repair them as necessary, and recheck the system.
- If the terminals look OK, make the following input tests at the connector terminals.
 - 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.

NOTE: If the shift lock solenoid clicks when the ignition switch is ON and the brake pedal is pushed (the shift lever is in the **P** position), the shift lock system is electronically normal. If the shift lever can not be shifted from **P** position, see section 14.



SRS MAIN HARNESS
(Covered with yellow outer insulation)



(cont'd)

Interlock System

Control Unit Input Test (cont'd)

Shift Lock System:

No.	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
1	WHT/GRN	Ignition switch ON. Brake pedal pushed.	Check for voltage to ground: There should be battery voltage.	• Blown No. 30 (20 A) fuse (in the under-hood fuse/relay box). • Faulty brake switch. • Faulty throttle position (TP) sensor. • Faulty transmission control module (TCM). • An open in the wire.
		Ignition switch ON. Step on the brake pedal and the accelerator at the same time.	Check for voltage to ground: There should not be battery voltage.	
2	GRN/WHT ²	Shift lever position in P .	Check for continuity to ground: There should be continuity.	• Faulty A/T gear position switch. • Poor ground. • An open in the wire.
3	GRN	Ignition switch ON.	Check for voltage to ground: There should be battery voltage.	• Blown No. 5 (10 A) fuse (in the under-dash fuse/relay box). • Faulty shift lock solenoid. • An open in the wire.

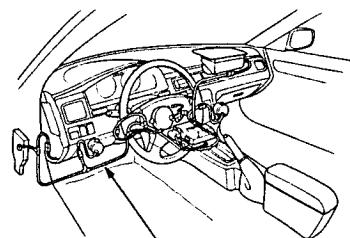
Key Interlock System:

No.	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 continuity.	• Poor ground (G401, G402). • An open in the wire.
2	GRN/WHT ²	Shift lever position in P .	Check for continuity to ground: There should be continuity.	• Faulty A/T gear position switch. • Poor ground. • An open in the wire.
3	WHT/RED	Ignition switch turned to ACC and the key pushed in.	Check for voltage to ground: There should be battery voltage.	• Blown No. 30 (20 A) fuse (in the under-hood fuse/relay box). • Faulty steering lock assembly (key interlock solenoid). • An open in the wire.
4	BLU/WHT	Ignition switch turned to ACC and the key pushed in.	Check for voltage to ground: There should be battery voltage.	• Blown No. 30 (20 A) fuse (in the under-hood fuse/relay box). • Faulty steering lock assembly (key interlock solenoid). • An open in the wire.

Key Interlock Solenoid Test

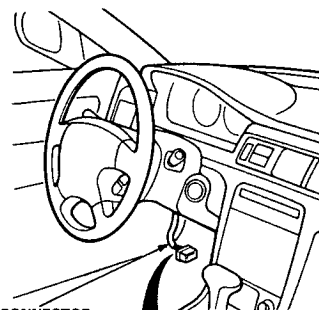
CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

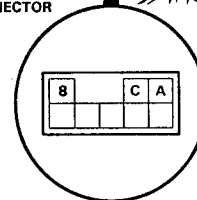


SRS MAIN HARNESS
(Covered with yellow outer insulation)

1. Remove the dashboard lower cover.
2. Remove the knee bolster.
3. Disconnect the 8-P connector from the main wire harness.



8-P CONNECTOR



View from wire side

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

Terminal		A	B	C
Position				
Ignition switch ACC	Key pushed in.	○	○	○
	Key released. *		○	○

* : 15 - 20 ohms

5. Check that the key cannot be removed when battery power and ground are connected to the A and B terminals.

- If the key can not be removed, the key interlock solenoid is OK.
- If the key can be removed, replace the steering lock assembly (key interlock solenoid is not available separately).

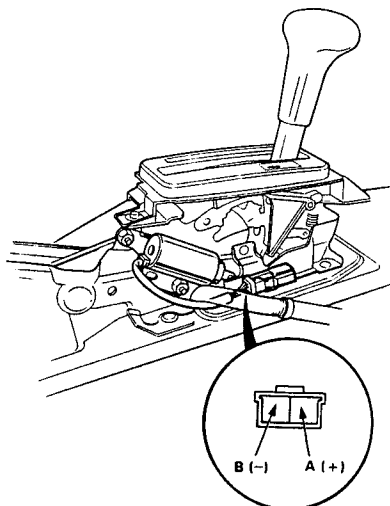
Interlock System

Shift Lock Solenoid Test/Replacement

1. Remove the console, then disconnect the 2-P connector of the shift lock solenoid from the main wire harness.

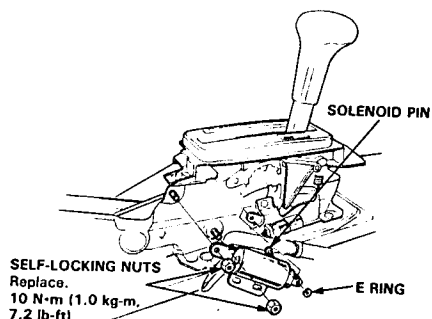
NOTE: Do not connect power to the B (-) terminal (reverse polarity) or you will damage the diode inside the solenoid.

2. Connect battery power to the A terminal, ground the B terminal momentarily, and check solenoid operation.



View from wire side

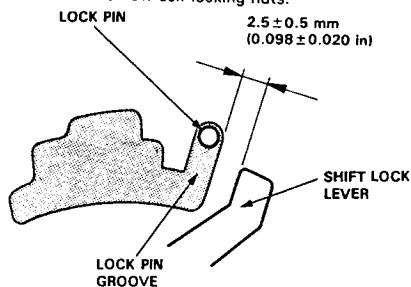
- If the solenoid does not operate, replace it as described in steps 3, 4, and 5.
 - If the solenoid does operate, check and, if necessary, adjust its two positions as shown in step 5.
3. Remove the E-ring and the solenoid pin.
 4. Remove the self-locking nuts and shift lock solenoid, then install the new solenoid in the reverse order of removal.



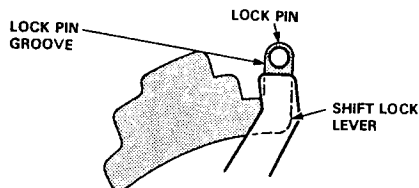
5. Check and, if necessary, adjust the solenoid's position.

- When the shift lock solenoid is ON, check that there is a clearance of 2.5 ± 0.5 mm (0.098 ± 0.020 in) between the top rear corner of the shift lock lever and the lock pin groove, then tighten the self-locking nuts.

NOTE: Use new self-locking nuts.



- When the shift lock solenoid is OFF, make sure that the lock pin is blocked by the shift lock lever.



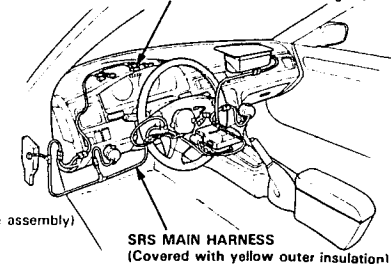
Safety Indicator

Component Location Index

CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

CONNECTOR "C" (Carries the SRS indicator signal)



SRS MAIN HARNESS
(Covered with yellow outer insulation)

SAFETY INDICATOR (In the gauge assembly)

- Removal, page 23-134
- Troubleshooting, page 23-156
- Input Test, page 23-154

DRL INDICATOR LIGHT (Canada)
Circuit Diagram, page 23-130

FRONT PASSENGER'S DOOR SWITCH
Test, page 23-197

RIGHT REAR DOOR SWITCH
Test, page 23-197

HIGH MOUNT BRAKE LIGHT
Replacement, page 23-203

RIGHT BRAKE LIGHT
FAILURE SENSOR
Test, page 23-157

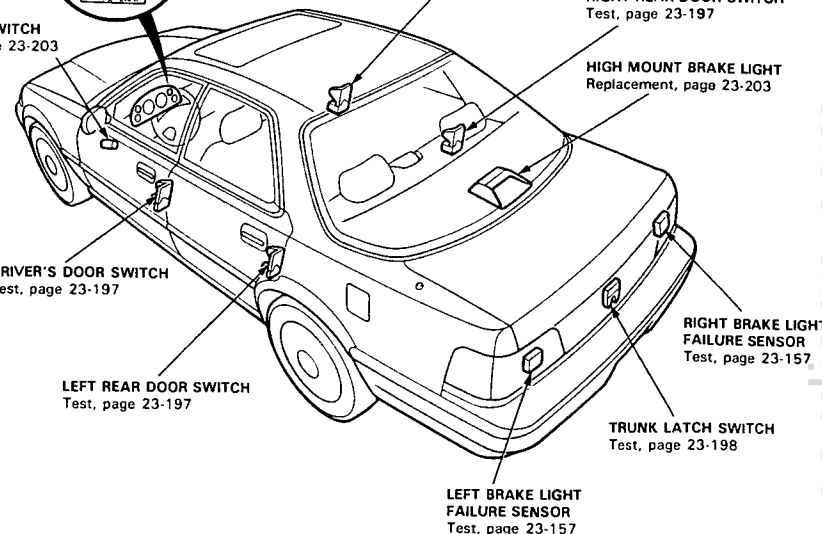
TRUNK LATCH SWITCH
Test, page 23-198

LEFT BRAKE LIGHT
FAILURE SENSOR
Test, page 23-157

BRAKE SWITCH
Test, page 23-203

DRIVER'S DOOR SWITCH
Test, page 23-197

LEFT REAR DOOR SWITCH
Test, page 23-197



Description

Safety Indicator System:

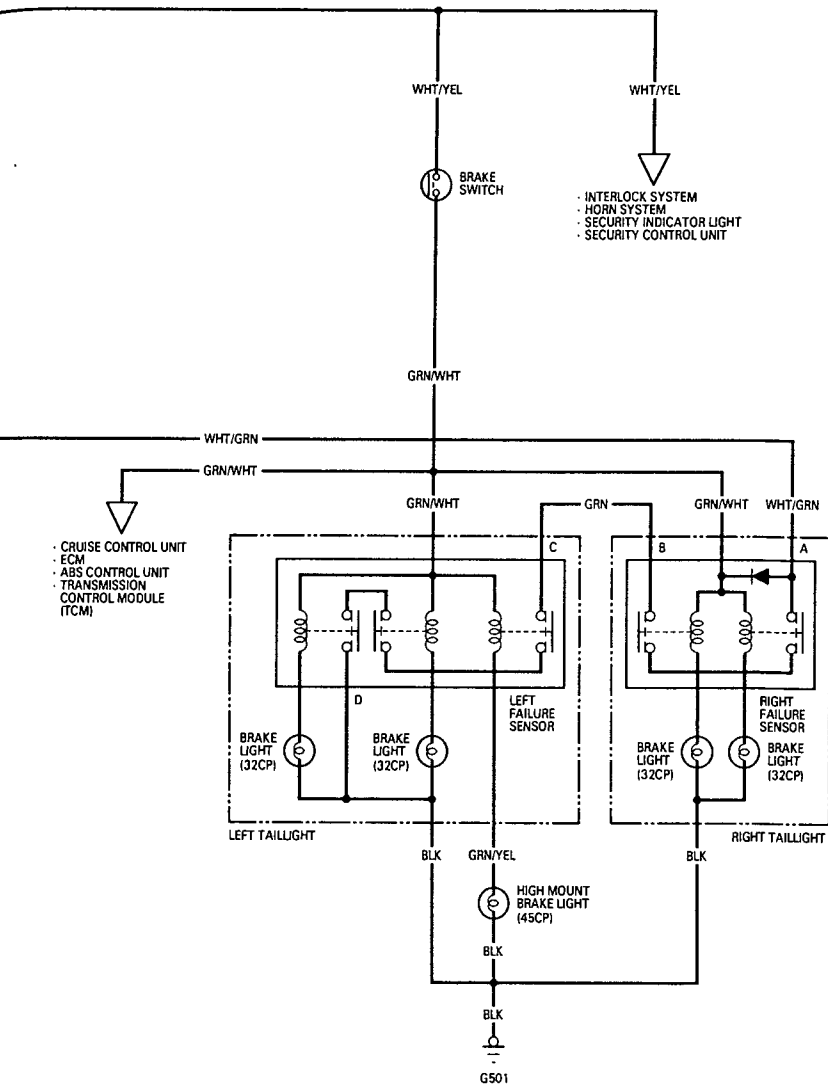
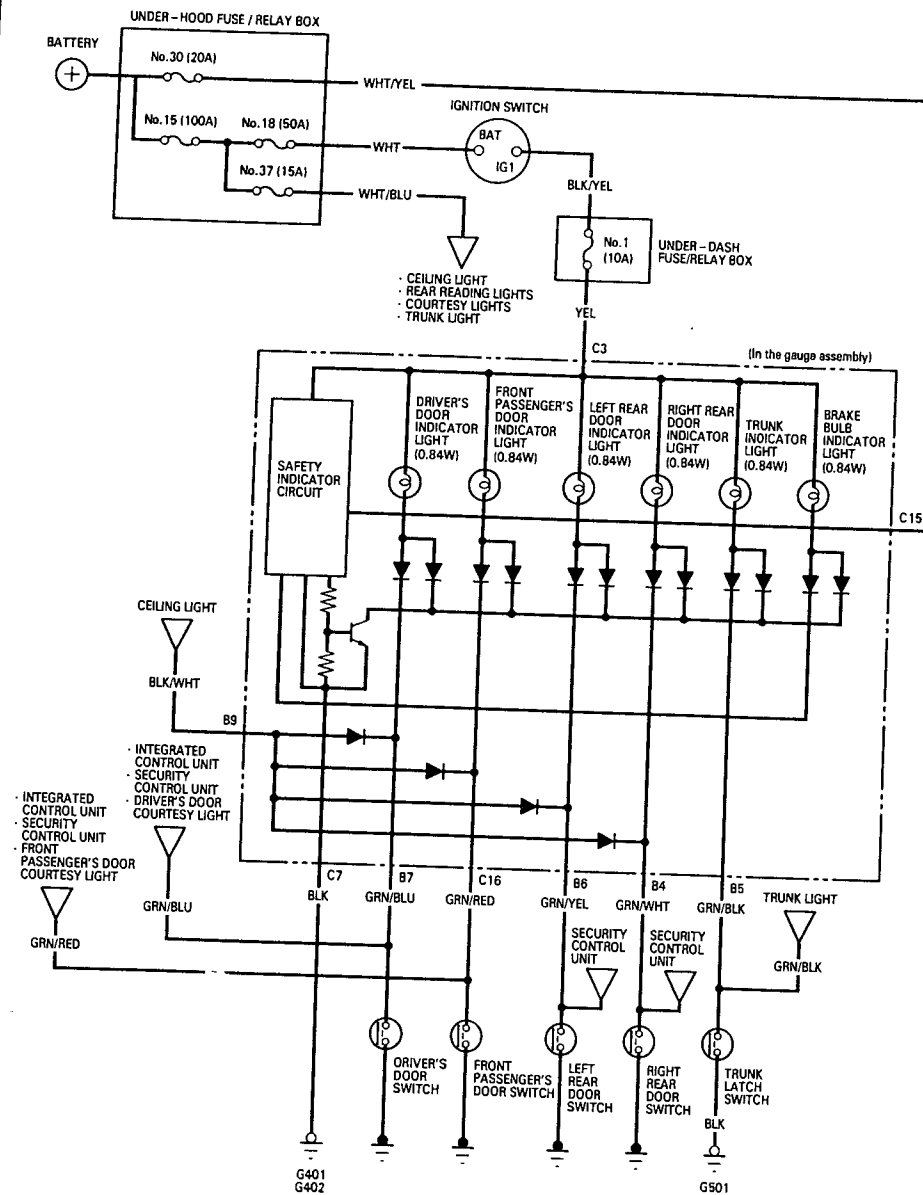
Bulbs are used to indicate when the trunk lid or a door is not fully closed, or when a brake light is faulty. The bulbs will remain ON for about two seconds after the ignition switch has been turned ON to show that the system circuit is functioning.

Brake Light Bulb Failure Indicator:

If all brake light bulbs are OK, the indicator light stays off because the WHT/GRN wire is constantly being grounded by the two brake light failure sensors connected in series. With the brake light off, the ground is provided through the diode, the failure sensor relay coil and the bulb filaments to ground. With the brake light on, all five relays (three in the left sensor, two in the right sensor), connected in series, supply ground. If any of the four bulbs are not working, the chain is broken and the WHT/GRN wire is not being grounded. The indicator light comes on.

Safety Indicator

Circuit Diagram



cardiagn.com

Indicator Input Test

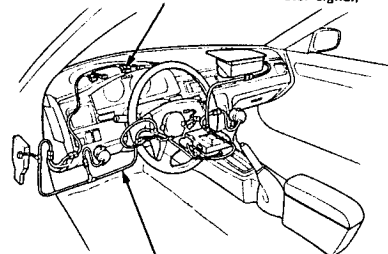
CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

Remove the gauge assembly from the dashboard (see page 23-132), and disconnect the 10-P and 16-P connectors from the gauge assembly. Inspect the connector terminals to be sure they are all making good contact.

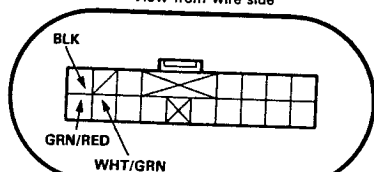
- If the terminals are bent, loose, or corroded, repair them as necessary, and recheck the system.
- If the terminals look OK, make the following input tests at the connector terminals.
 - If any test indicates a problem, find and correct the cause, then recheck the system.
 - If all the input tests prove OK, the control unit must be faulty; replace it.

CONNECTOR "C" (Carries the SRS indicator signal)



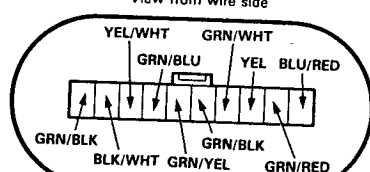
SRS MAIN HARNESS
(Covered with yellow outer insulation)

View from wire side

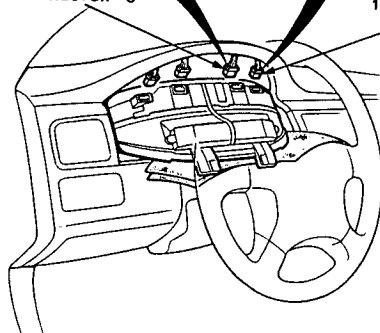


16-P CONNECTOR "C"

View from wire side



10-P CONNECTOR "B"



No.	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
1	BLK	Under all conditions.	Check for continuity to ground: There should be continuity.	• Poor ground (G401). • An open in the wire.
2	YEL	Ignition switch ON.	Check for voltage to ground: There should be battery voltage.	• Blown No. 1 (10 A) fuse (in the under-dash fuse/relay box). • An open in the wire.
3	WHT/GRN	Brake pedal pushed.	Check for continuity to ground: There should be less than 200 ohms with the pedal pushed.	• Blown No. 30 (20 A) fuse (in the under-hood fuse/relay box). • Faulty brake switch. • Blown brake light bulbs. • Faulty brake light failure sensors. • Poor ground (G501). • An open in the wire.
4	GRN/BLK	Trunk lid opened.	Check for continuity to ground: There should be continuity. NOTE: Before testing, remove No. 37 (15 A) fuse in the under-hood fuse/relay box.	• Faulty trunk latch switch. • An open in the wire.
5	BLK/WHT	Ceiling light switch in MIDDLE position.	Connect to ground: ceiling light should come on.	• Blown No. 37 (15 A) fuse (in the under-hood fuse/relay box). • Faulty ceiling light. • An open in the wire.
6	GRN/BLU	Driver's door opened.	Check for continuity to ground: There should be continuity. NOTE: Before testing, remove No. 37 (15 A) fuse in the under-hood fuse/relay box.	• Faulty door switch. • An open in the wire.
	GRN/RED	Front passenger's door opened.		
	GRN/YEL	Left Rear door opened.		
	GRN/WHT	Right door opened.		

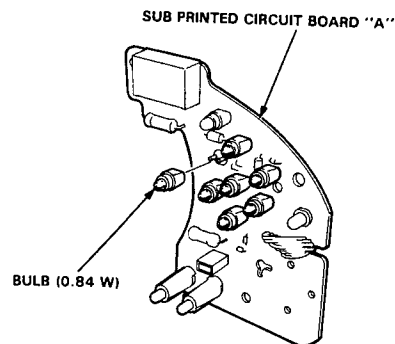
Troubleshooting

NOTE: The numbers in the table show the troubleshooting sequence.

Item to be inspected	Blown No. 1 (10 A) fuse (in the under-dash fuse/relay box)	Blown No. 37 (15 A) fuse (in the under-hood fuse/relay box)	Safety indicator input test	Blown bulb	Brake light failure sensor	Door switch	Trunk latch switch	Poor ground	Open circuit, loose or disconnected terminals
Symptom									
No indicators operate.	1		2					G401 G402	YEL
Indicator panel illumination not lit with combination light switch ON.				1					RED/BLK or RED
Indicator lights do not come on when ignition switch is turned to ON.			1						
Door indicator lights do not come on with doors opened.			2		1				GRN/BLU GRN/RED GRN/YEL or GRN/WHT
Trunk indicator light does not come on with trunk lid opened.		1	3			2			GRN/BLK
Brake Indicator light does not come on with blown brake light bulb.			1						WHT/GRN or GRN
Brake Indicator light remains on with good brake light bulbs.			2	1				G501	

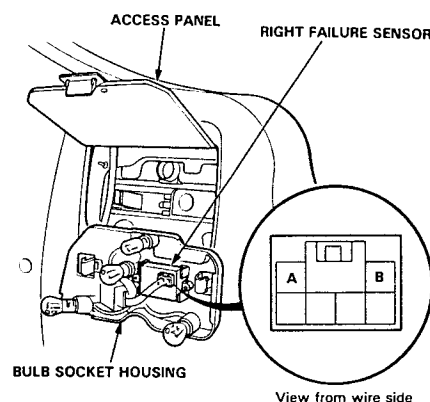
Bulb Replacement

Remove the sub printed circuit board "A" from the housing (see page 23-134).



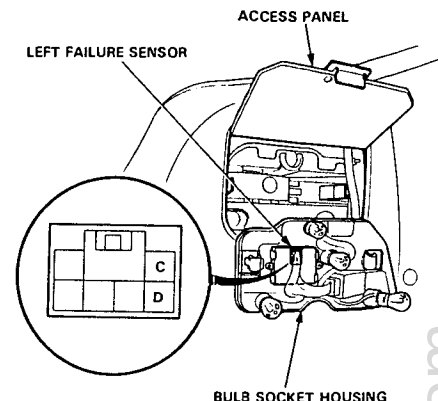
Brake Light Failure Sensor Test

- First make sure the brake lights come on when the brake pedal is pressed.
 - If all the brake lights come on, go to step 2.
 - If one of the brake lights does not come on, check whether the bulb is blown. If the bulb is OK, go to step 2.
 - If none of the brake lights come on, check the brake light circuit (see page 23-153).
- Open the trunk lid and the taillight access panel to the right taillight. Remove the bulb socket housing. Watch the **BRAKE LAMP** light in the safety indicator when the A (WHT/GRN) wire of the 6-P connector is grounded and the ignition switch is turned from OFF to ON.



- If the **BRAKE LAMP** light comes on and stays on, check for an open in the A (WHT/GRN) wire between the safety indicator and the right failure sensor.
 - If the **BRAKE LAMP** light does not stay on, go to step 3.
- Watch the **BRAKE LAMP** light when the ignition switch is turned from OFF to ON with the B (GRN) wire of the 6-P connector grounded and the brake pedal pressed.
 - If the **BRAKE LAMP** light comes on and stays on, replace the right failure sensor.
 - If the **BRAKE LAMP** light does not stay on, go to step 4.

- Open the taillight access panel to the left taillight. Remove the bulb socket housing. Watch the **BRAKE LAMP** light when the ignition switch is turned from OFF to ON with the C (GRN) wire of the 6-P connector grounded and the brake pedal pressed.



- If the **BRAKE LAMP** light comes on and stays on, there is an open in the C (GRN) wire between the left failure sensor and the right failure sensor.
 - If the **BRAKE LAMP** light does not stay on, go to step 5.
- Watch the **BRAKE LAMP** light when the ignition switch is turned from OFF to ON with the D (BLK) wire of the 6-P connector grounded and the brake pedal pressed.
 - If the **BRAKE LAMP** light comes on and stays on, replace the left failure sensor.
 - If the **BRAKE LAMP** light does not stay on, check for an open in the D (BLK) wire between the left failure sensor and ground, and check for a poor ground at G501.

Component Location Index

CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

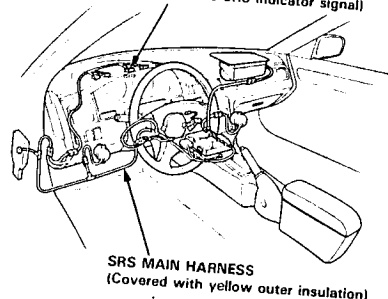
GAUGE ASSEMBLY

- Removal, page 23-132
- Disassembly, page 23-134

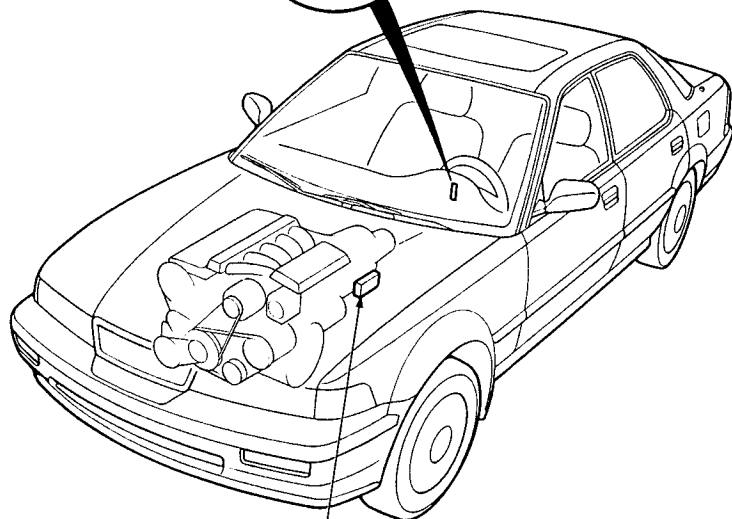
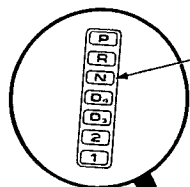
INTERLOCK SYSTEM

See page, 23-145

CONNECTOR "C" (Carries the SRS indicator signal)

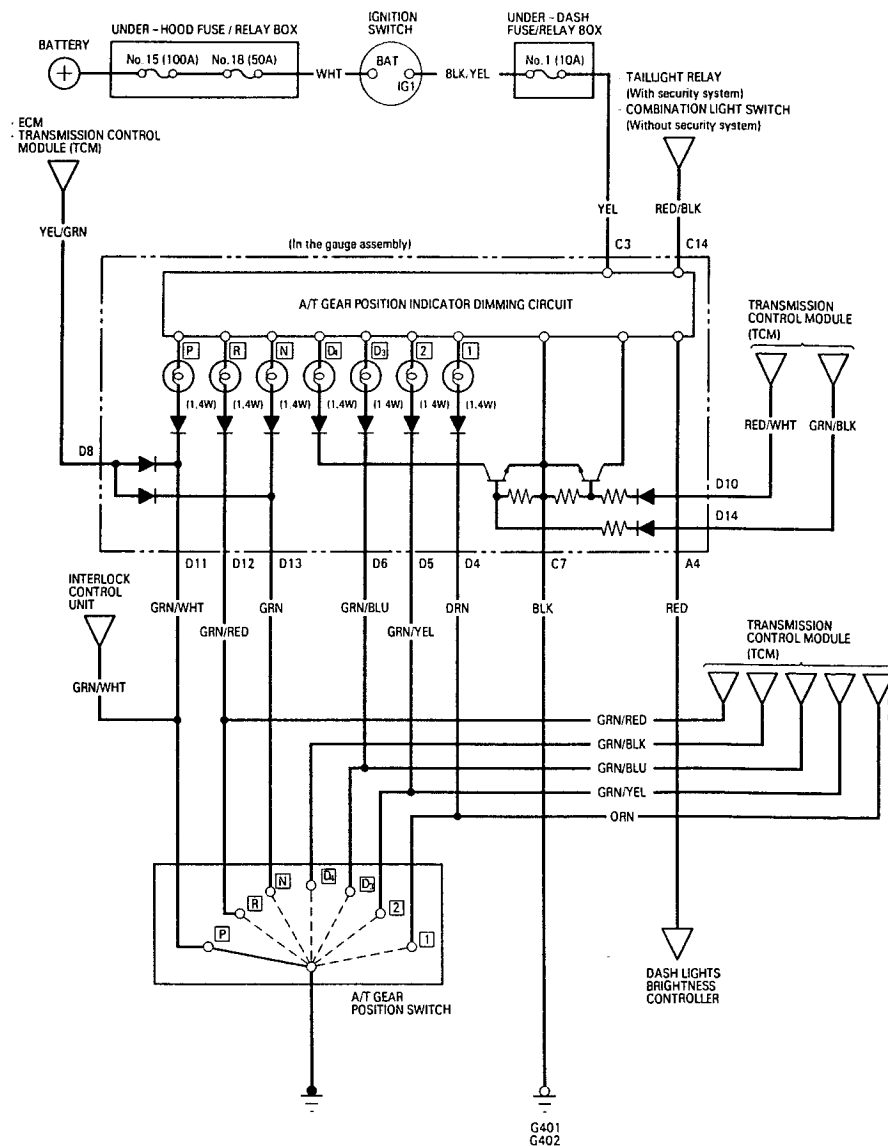


A/T GEAR POSITION
INDICATOR
Input Test, page 23-160



A/T GEAR POSITION SWITCH
• Test, page 23-162
• Replacement, Section 14

Circuit Diagram



Indicator Input Test

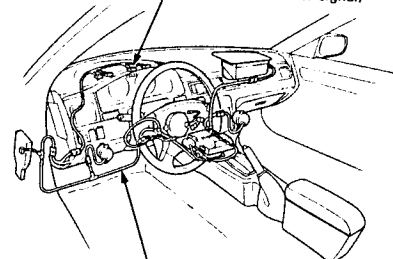
CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

Pry the gauge assembly out of from the dashboard (see page 23-132), and disconnect the 14-P connector from the gauge assembly. Inspect the connector terminals to be sure they are all making good contact.

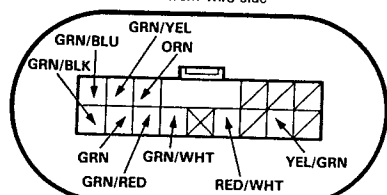
- If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
- If the terminals look OK, make the following input tests at the connector terminals.
- If any test indicates a problem, find and correct the cause, then recheck the system.
- If all the input tests prove OK, the gauge assembly must be faulty; replace it.

CONNECTOR "C" (Carries the SRS indicator signal)

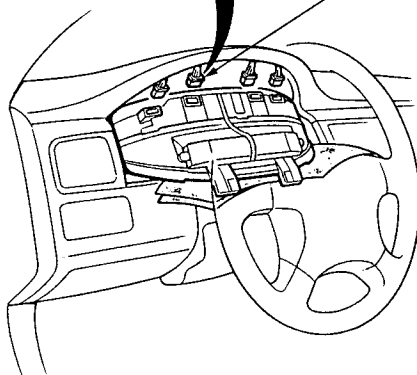


SRS MAIN HARNESS
(Covered with yellow outer insulation)

View from wire side



14-P CONNECTOR "D"



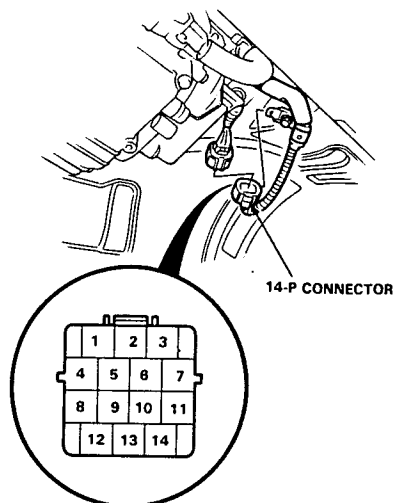
No.	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
1	BLK	Under all conditions.	Check for continuity to ground: There should be continuity.	• Poor ground (G401, G402). • An open in the wire.
2	YEL	Ignition switch ON.	Check for voltage to ground: There should be battery voltage.	• Blown No.1 (10 A) fuse (in the under-dash fuse/relay box). • An open in the wire.
3	GRN/WHT	Shift lever position in P .	Check for continuity to ground: There should be continuity. NOTE: There should be no continuity in any other position.	• Faulty A/T gear position switch. • Poor ground. • An open in the wire.
	GRN/RED	Shift lever position in R .		
	GRN	Shift lever position in N .		
	GRN/BLU	Shift lever position in D3 .		
	GRN/YEL	Shift lever position in 2 .		
	ORN	Shift lever position in 1 .		
4	GRN/BLK	Ignition switch ON and shift lever position in D4 .	Check for voltage to ground: There should be battery voltage.	• Faulty A/T gear position switch. • Faulty Transmission control module (TCM) • Poor ground. • An open in the wire.
5	RED/BLK and RED	Combination light switch ON and dash lights brightness control dial on full bright.	Check for voltage between RED/BLK and RED terminals: There should be battery voltage.	• Faulty dash lights brightness control system. • An open in the wire.
6	GRN/BLK	Ignition switch ON and shift lever in any position except D4 .	Check for voltage to ground: There should be less than 1 V for two seconds after the ignition switch is turned ON and more than battery voltage two seconds later.	• Faulty Transmission control module (TCM). • An open in the wire.
7	RED/WHT	Ignition switch ON and shift lever in any position except D4 .	Check for voltage to ground: There should be less than 1 V for two seconds after the ignition switch is turned ON and more than 5 V two seconds later.	• Faulty Transmission control module (TCM). • An open in the wire.
8	YEL/GRN	Ignition switch ON.	Check for voltage to ground: There should be more than 5 V.	• Faulty Transmission control module (TCM) or ECM. • An open in the wire.

A/T Gear Position Indicator

A/T Gear Position Switch Test

1. Raise the car and remove the transmission splash shield (see section 14).
2. Disconnect the 14-P connector from the A/T gear position switch.
3. Check for continuity between the terminals in each switch position according to the table.

- Move the shift lever back and forth without touching the push button at each switch position, and check for continuity within the range of free play of the shift lever.
- If there's no continuity within the range of free play, adjust the position of the A/T gear position switch (see section 14)



View from terminal side

A/T Gear Position Switch

Back - up
Light Switch Neutral
Position Switch

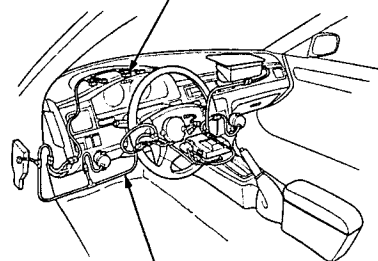
Terminal Position	Body Ground	6	7	8	9	11	5	4	2	12	14	Body Ground	10
1	○				○								
2	○			○		○							
D3	○		○			○							
D4	○	○				○							
N	○						○					○	○
R	○							○		○	○		
P	○								○			○	○

Bulb Replacement

CAUTION:

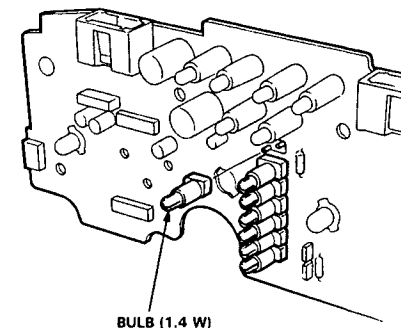
- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

CONNECTOR "C" (Carries the SRS indicator signal)



SRS MAIN HARNESS
(Covered with yellow outer insulation)

3. Remove the bulb.



4. Installation is in the reverse order of removal.

1. Remove the gauge assembly (see page 23-132).
2. Disassemble the gauge assembly (see page 23-134).

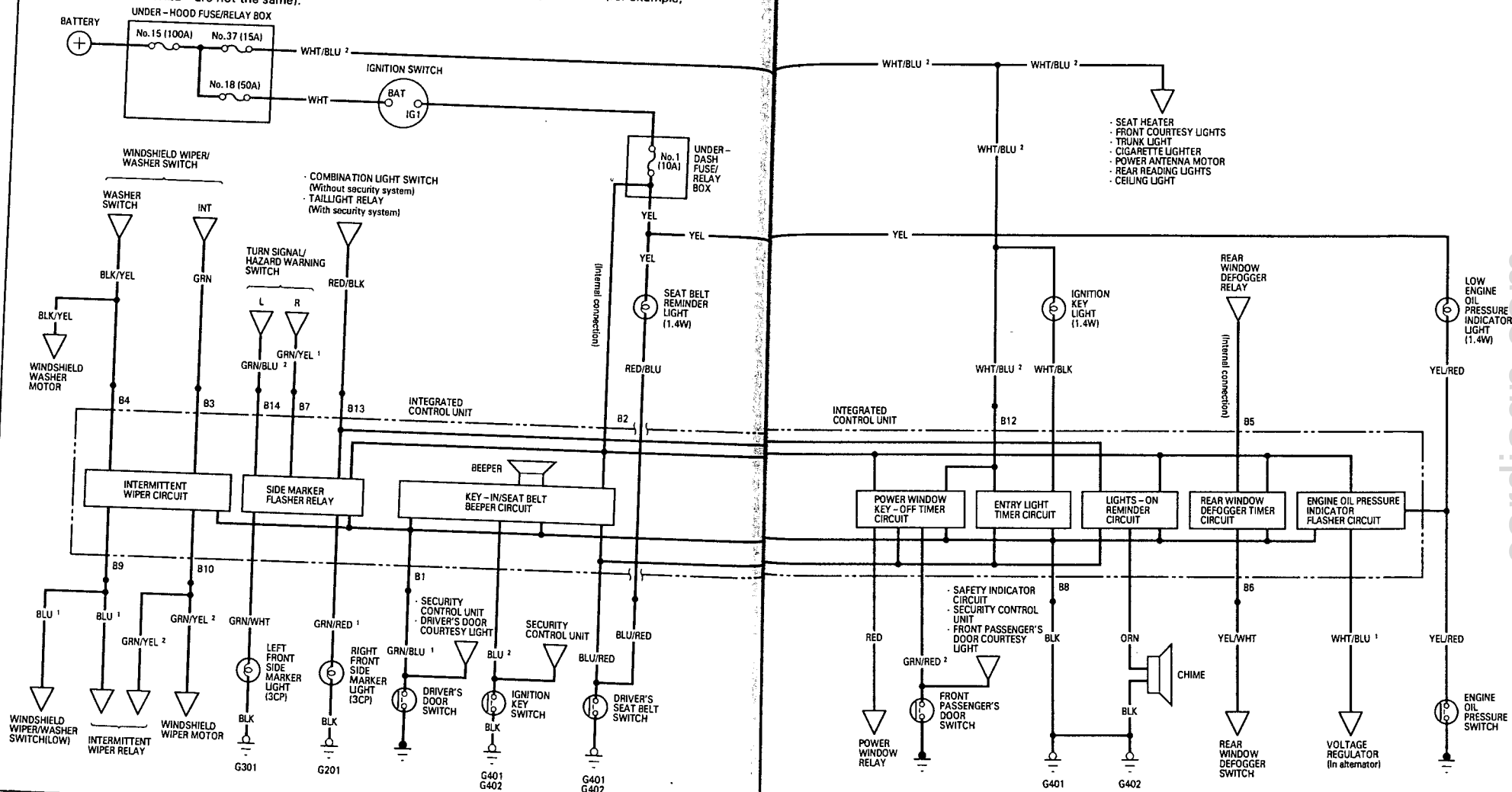
Integrated Control Unit

Circuit Diagram

Description

The integrated control unit located on the left kick panel, integrates the functions of the seat belt reminder, key - in warning, side marker light flasher, wiper/washer circuit, lights - on reminder circuit, rear window defogger timer circuit, entry light timer circuit, power window key - off timer circuit, and oil pressure indicator flasher circuit onto one circuit board, sharing common circuit functions.

NOTE: Different wires with the same color have been given a number suffix to distinguish them (for example, GRN/RED¹ and GRN/RED² are not the same).

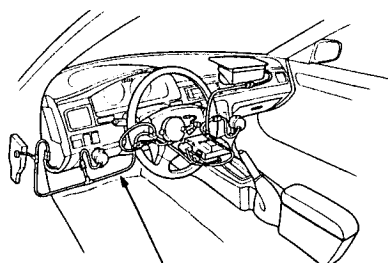


Input Test

CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

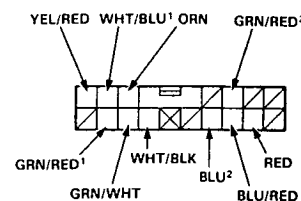
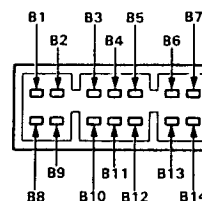
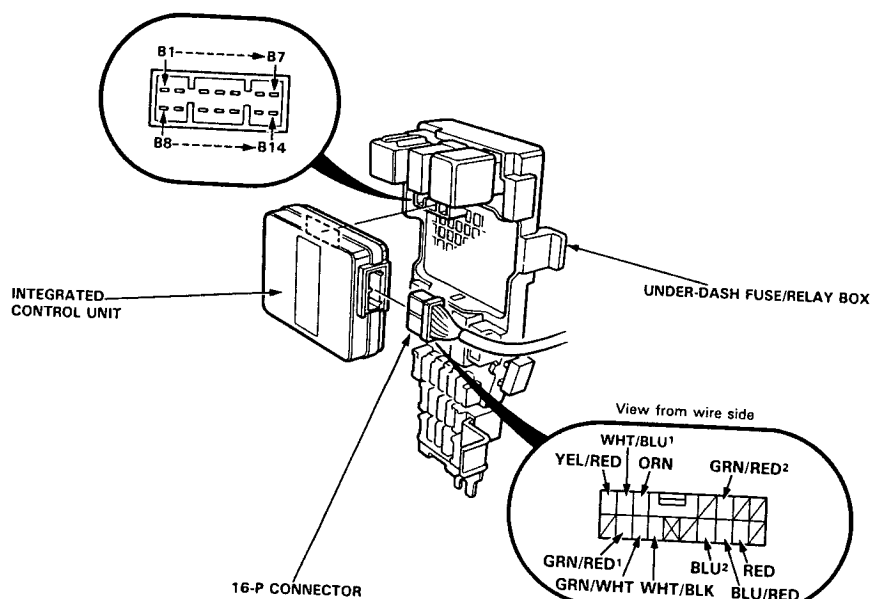
Remove the left side kick panel cover, then disconnect the 16-P connector from the integrated control unit. Remove the integrated control unit from the under-dash fuse/relay box.



SRS MAIN HARNESS
(Covered with yellow outer insulation)

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, make the following input tests at the connector terminals.
- 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.



Intermittent Wiper System:

No.	Terminal	Test condition	Test: Desired result	Possible cause if result is not obtained
1	B8	Under all conditions.	Check for continuity to ground: There should be continuity.	• Poor ground (G401, G402). • An open in the wire.
2	B9	Wiper switch at LOW.	Check for continuity to ground: There should be continuity.	• Faulty wiper switch. • An open in the wire. • Poor ground (G401, G402).
3	B3	Ignition switch ON and wiper switch at INT.	Check for voltage to ground: There should be battery voltage.	• Blown No. 1 (10 A) fuse (in the under-dash fuse/relay box). • An open in the wire.
4	B4	Ignition switch ON and washer switch ON.	Check for voltage to ground: There should be battery voltage.	• Blown No. 5 (10 A) fuse (in the under-dash fuse/relay box). • Faulty washer switch. • An open in the wire.
5	B10	Ignition switch ON.	Check for voltage to ground: There should be battery voltage.	• Blown No. 6 (30 A) fuse (in the under-dash fuse/relay box). • An open in the wire.

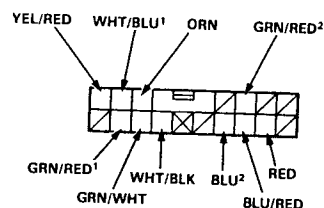
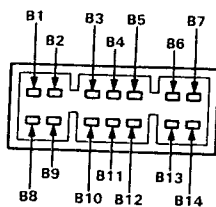
Side Marker Light Flasher System:

No.	Terminal	Test condition	Test: Desired result	Possible cause if result is not obtained
1	B8	Under all conditions.	Check for continuity to ground: There should be continuity.	• Poor ground (G401, G402). • An open in the wire.
2	B2	Ignition switch ON.	Check for voltage to ground: There should be battery voltage.	• Blown No. 1 (10 A) fuse (in the under-dash fuse/relay box). • An open in the wire.
3	B13	Combination light switch ON.	Check for voltage to ground: There should be battery voltage.	• Blown No. 21 (20 A) fuse (in the under-hood fuse/relay box). • Faulty combination light switch (without security system). • Faulty taillight relay (with security system). • An open in the wire.
4	B14	Ignition switch ON and turn signal switch in left turn position.	Check for voltage to ground: There should be 0-12-0-12 repeatedly.	• Blown No. 1 (10 A) fuse (in the under-dash fuse/relay box). • Faulty turn signal system. • An open in the wire.
5	B7	Ignition switch ON and turn signal switch in right turn position.		
6	GRN/WHT	Connect the B2 terminal to the GRN/WHT (or GRN/RED1) terminal.	Check front side marker light operation: Left (or Right) front side marker light should come on as the battery is connected.	• Blown bulb • Poor ground G301 (or G201). • An open in the wire.
7	GRN/RED1			

(cont'd)

Integrated Control Unit

Input Test (cont'd)



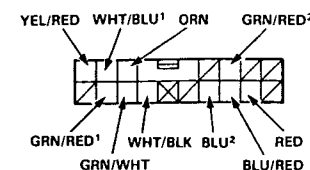
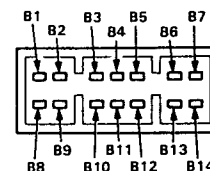
View from wire side

Seat Belt Reminder and Key-in Warning System:

No.	Terminal	Test condition	Test: Desired result	Possible cause if result is not obtained
1	B8	Under all conditions.	Check for continuity to ground: There should be continuity.	- Poor ground (G401, G402). - An open in the wire.
2	B2	Ignition switch ON.	Check for voltage to ground: There should be battery voltage.	- Blown No.1 (10 A) fuse (in the under-dash fuse/relay box). - Blown bulb. - An open in the wire.
3	B1	Driver's door opened.	Check for voltage to ground: There should be 1 V or less.	- Faulty driver's door switch. - An open in the wire
4	BLU²	Ignition key is inserted into the ignition switch.	Check for voltage to ground: There should be 1 V or less.	- Faulty ignition key switch. - An open in the wire. - Poor ground (G401, G402).
5	BLU/RED	Driver's seat belt is not buckled.	Check for voltage to ground: There should be battery voltage.	- Faulty seat belt switch. - Poor ground (G401, G402). - An open in the wire.

Power Window Key-off Timer System:

No.	Terminal	Test condition	Test: Desired result	Possible cause if result is not obtained
1	B8	Under all conditions.	Check for continuity to ground: There should be continuity.	Poor ground (G401, G402).
2	B1	Ignition switch ON and the driver's door closed.	Check for voltage to ground: There should be battery voltage.	- Blown No.1 (10 A) fuse (in the under-dash fuse/relay box). - An open in the wire.
3	B12	Under all conditions.	Check for voltage to ground: There should be battery voltage.	- Blown No.37 (15 A) fuse (in the under-hood fuse/relay box). - An open in the wire
4	GRN/RED²	Front passenger's door opened.	Check for voltage to ground: There should be 1 V or less.	- Faulty door switch. - An open in the wire.
5	RED	Connect the B12 terminal to the RED terminal.	Check window operation: Power windows should operate as the switch is turned.	- Faulty power window relay. - Poor ground (G201). - An open in the wire.



View from wire side

Entry Light Timer System

No.	Terminal	Test condition	Test: Desired result	Possible cause if result is not obtained
1	B8	Under all conditions.	Check for continuity to ground: There should be continuity.	- Poor ground (G401, G402). - An open in the wire.
2	B12	Under all conditions.	Check for voltage to ground: There should be battery voltage.	- Blown No.37 (15 A) fuse (in the under-hood fuse/relay box). - An open in the wire.
3	WHT/BLK	Under all conditions.	Attach to ground: Ignition key light should come on.	- Blown bulb. - An open in the wire
4	B1	Driver's door opened.	Check for voltage to ground: There should be 1 V or less.	- Faulty driver's door switch. - An open in the wire. - Poor ground (G401, G402).

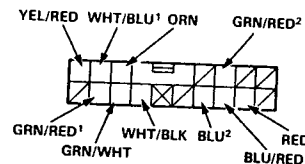
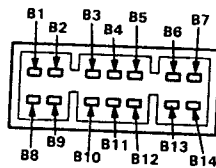
Light-on Reminder System:

No.	Terminal	Test condition	Test: Desired result	Possible cause if result is not obtained
1	B8	Under all conditions.	Check for continuity to ground: There should be continuity.	- Poor ground (G401, G402). - An open in the wire.
2	B13	Cabination light switch ON.	Check for voltage to ground: There should be battery voltage.	- Blown No. 21 (20 A) fuse (in the under-hood fuse/relay box). - Faulty combination light switch (Without security system). - Faulty taillight relay (With security system). - An open in the wire.
3	B2	Ignition switch ON.	Check for voltage to ground: There should be battery voltage.	- Blown No.1 (10 A) fuse (in the under-dash fuse/relay box). - An open in the wire.
4	B1	Driver's door opened.	Check for voltage to ground: There should be 1 V or less.	- Faulty driver's door switch. - An open in the wire. - Poor ground (G401, G402)
5	ORN	Ignition switch ON and connect the B2 terminal to the ORN terminal.	Check chime operation: Chime should ring each time the battery is connected.	- Faulty chime. - An open in the wire.

(cont'd)

Integrated Control Unit

Input Test (cont'd)



View from wire side

Rear Window Defogger Timer Circuit:

No.	Terminal	Test condition	Test: Desired result	Possible cause if result is not obtained
1	B8	Under all conditions.	Check for continuity to ground: There should be continuity.	- Poor ground (G401, G402). - An open in the wire.
2	B6	Defogger switch pushed.	Check for continuity to ground: There should be continuity as the switch is pushed.	- Faulty defogger switch. - Poor ground (G401, G402). - An open in the wire.
3	B5	Ignition switch ON.	Attach to ground: Rear window defogger should work and the defogger switch indicator light should come on.	- Blown No. 8 (7.5 A) fuse (in the under-dash fuse/relay box). - Faulty defogger relay. - Blown bulb. - An open in the wire.
4	B2	Ignition switch ON.	Check for voltage to ground: There should be battery voltage.	- Blown No. 1 (10 A) fuse (in the under-dash fuse/relay box). - An open in the wire.

Oil Pressure Indicator Flasher System:

No.	Terminal	Test condition	Test: Desired result	Possible cause if result is not obtained
1	B8	Under all conditions.	Check for continuity to ground: There should be continuity.	- Poor ground (G401, G402). - An open in the wire.
2	B12	Ignition switch ON.	Check for voltage to ground: There should be battery voltage.	- Blown No. 1 (10 A) fuse (in the under-dash fuse/relay box). - An open in the wire.
3	WHT/BLU¹	Engine running.	Check for voltage to ground: There should be 1 V or less.	- Faulty charging system. - An open in the wire.
4	YEL/RED	Ignition switch OFF.	Check for continuity to ground: There should be continuity.	- Faulty oil pressure switch. - An open in the wire.
		Ignition switch ON.	Check light operation. If the light does not come on, attach the YEL/RED terminal to ground: Light should come on as the ignition switch is turned ON.	- Blown bulb. - An open in the wire.
		Start the engine.	Check for voltage to ground: There should be battery voltage.	- Insufficient oil. - Improper lubrication. - Faulty oil pressure switch.

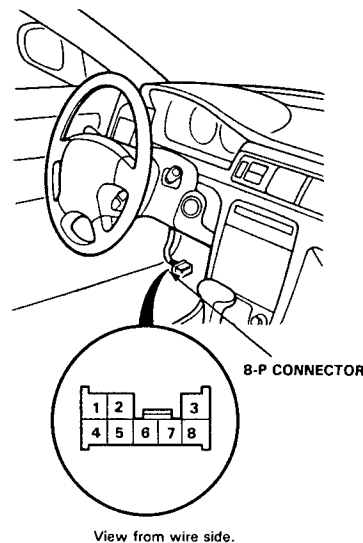
Key-in Reminder

Ignition Key Switch Test

NOTE: Refer to page 23-164 for a wiring description of the key-in beeper circuit diagram, and page 23-168 for the input test of the beeper circuit.

When the ignition key is not removed, the key-in beeper in the integrated control unit senses ground through the closed ignition key switch. When you open the driver's door, the beeper circuit senses ground through the closed door switch. With ground at the "BLU²" and "B1" terminals, the beeper sounds.

1. Remove the dashboard lower cover and knee bolster (see page 23-66).
2. Disconnect the 8-P connector from the main wire harness.



View from wire side.

3. There should be continuity between the No. 7 and No. 8 terminals when the ignition key is inserted in to the ignition key cylinder. There should be no continuity with the ignition key removed.

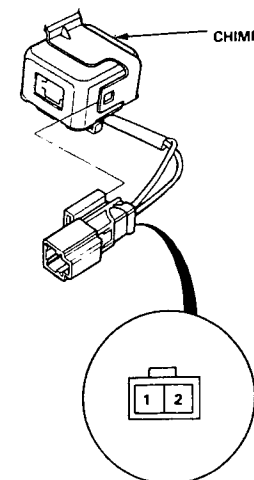
Lights-on Reminder

Chime Test

NOTE: Refer to page 23-165 for wiring description of the lights-on reminder circuit diagram, and page 23-169 for the input test of the circuit.

When the ignition key is turned to "O" position and removed, with the lights on, voltage is applied to the reminder circuit in the integrated control unit. When you open the driver's door, the circuit senses ground through the closed door switch. With voltage at the "B13" terminal, ground at the "B1" terminal and no voltage at the "B2" terminal, the chime is activated to remind the driver to turn off the lights.

1. Remove the dashboard lower cover and knee bolster (see page 23-66).
2. Disconnect the 2-P connector from the main wire harness.



3. Test the chime operation by connecting battery power to No. 1 terminal, grounding No. 2 terminal, and cycling the power on-off repeatedly.
4. If the chime fails to sound every time power is cycled, replace it.

Read this before you do any electrical work on the car.

The VIGOR SRS includes a driver's side airbag, located in the steering wheel hub. In addition, the GS model has a front passenger's airbag located in the dashboard above the glove box. Information necessary to safely service the SRS is included in this Service Manual. Items marked with an asterisk (*) on the contents page include, or are located near, SRS components. Servicing, disassembling or replacing these items will require special precautions and tools, and should therefore be done by an authorized Acura dealer.

⚠ WARNING

- To avoid rendering the SRS inoperative, which could lead to personal injury or death in the event of a severe frontal collision, all maintenance must be performed by an authorized Acura dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, could lead to personal injury caused by unintentional activation of the airbag (s).
- All SRS electrical wiring harnesses are covered with yellow outer insulation. Related components are located in the steering column, center console, dash, and dashboard lower panel, and in the dashboard above the glove box. Do not use electrical test equipment on these circuits.

NOTE: The radio may have a coded theft protection circuit. Be sure to get the customer's code number before

- Disconnecting the battery.
- Removing the No. 39 (10 A) fuse in the under-hood fuse/relay box.
- Removing the radio.

After service, reconnect power to the radio and turn it on. When the word "CODE" is displayed, enter the customer's 5-digit code to restore radio operation.

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*Read SRS precautions on page 23-330, then install the short connector (s) on the airbag (s) before working in these areas.

Section 23

Part 2

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sect. 23 - Electrical

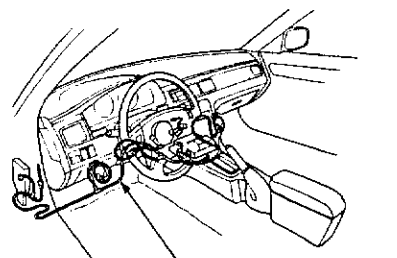


Lighting System

Component Location Index

CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

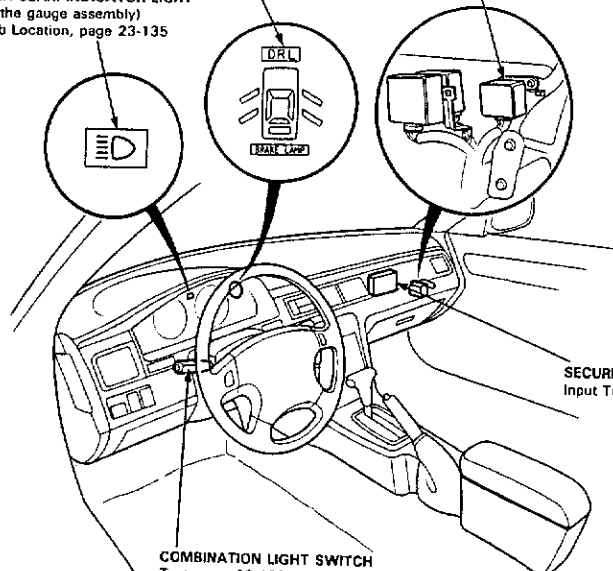


SRS MAIN HARNESS
(Covered with yellow outer insulation)

DRL INDICATOR LIGHT (Canada)
(In the gauge assembly)
Circuit Diagram, page 23-130

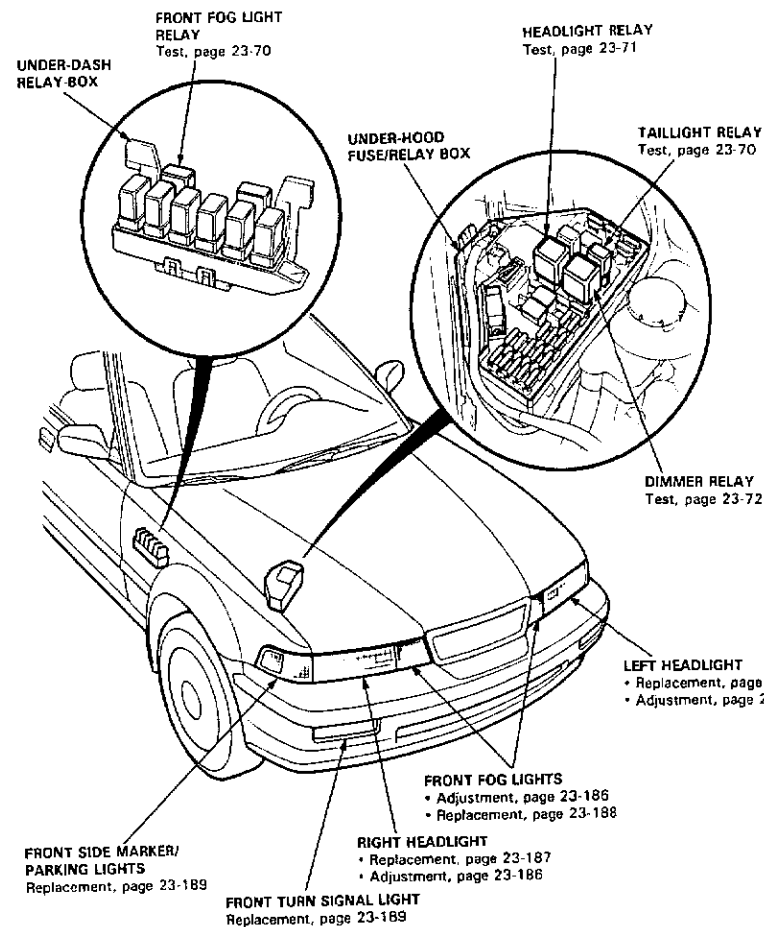
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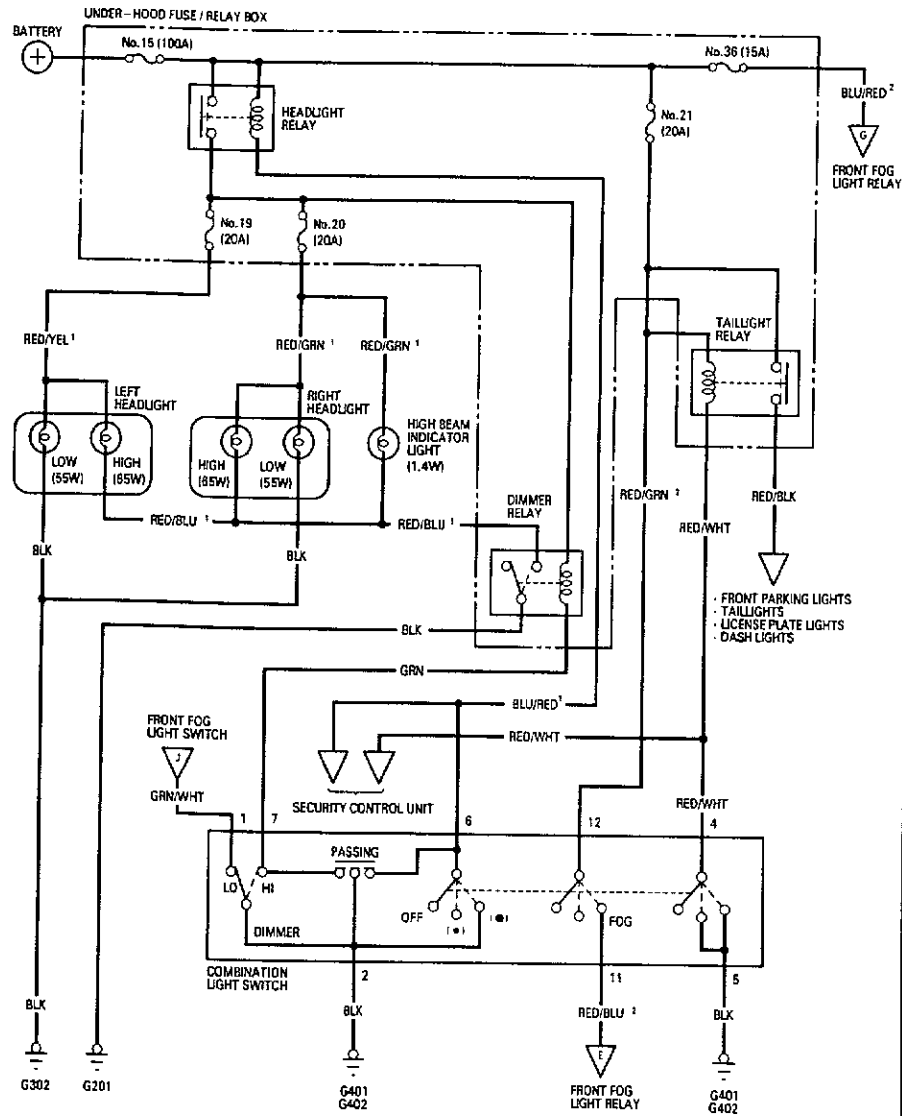
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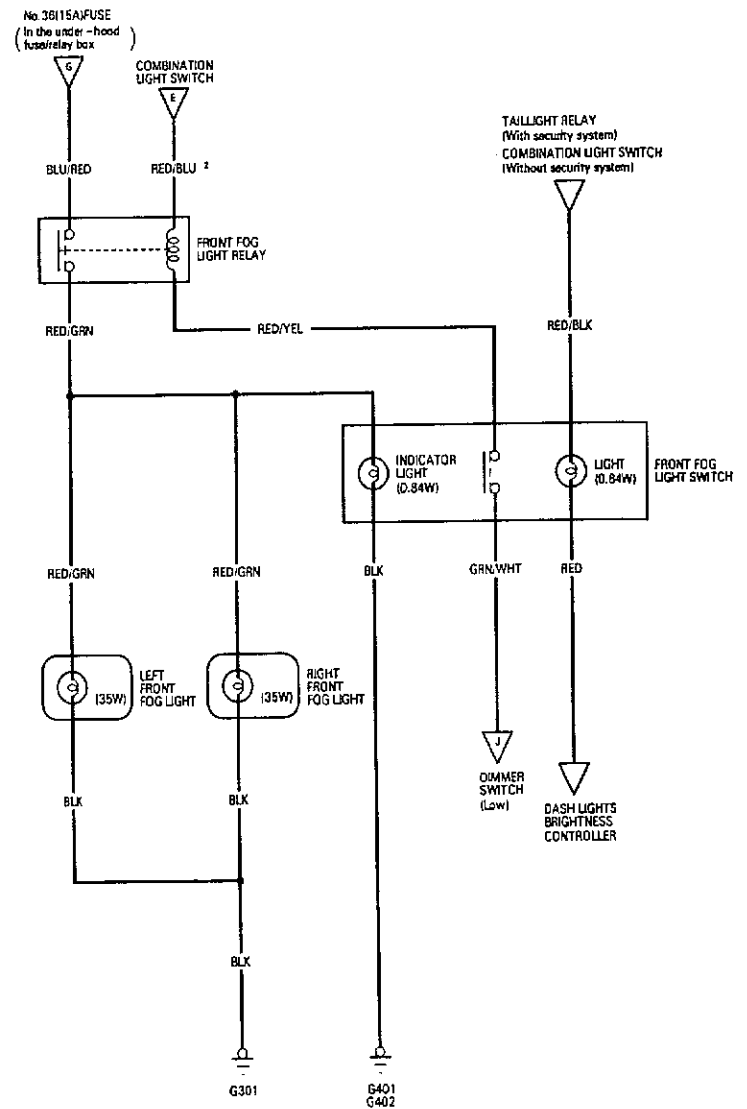
Lighting System

Circuit Diagram (USA)

NOTE: Different wires with the same color have been given a number suffix to distinguish them (for example, RED/BLU¹ and RED/BLU² are not the same).



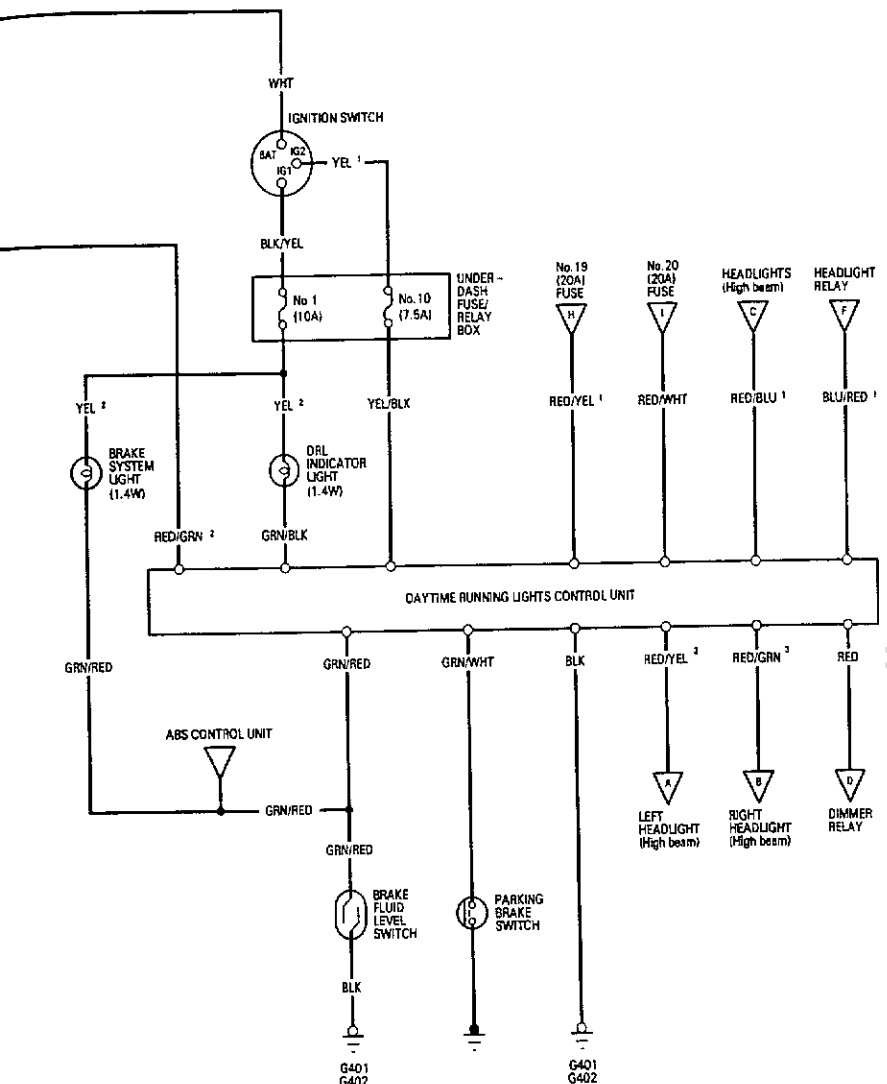
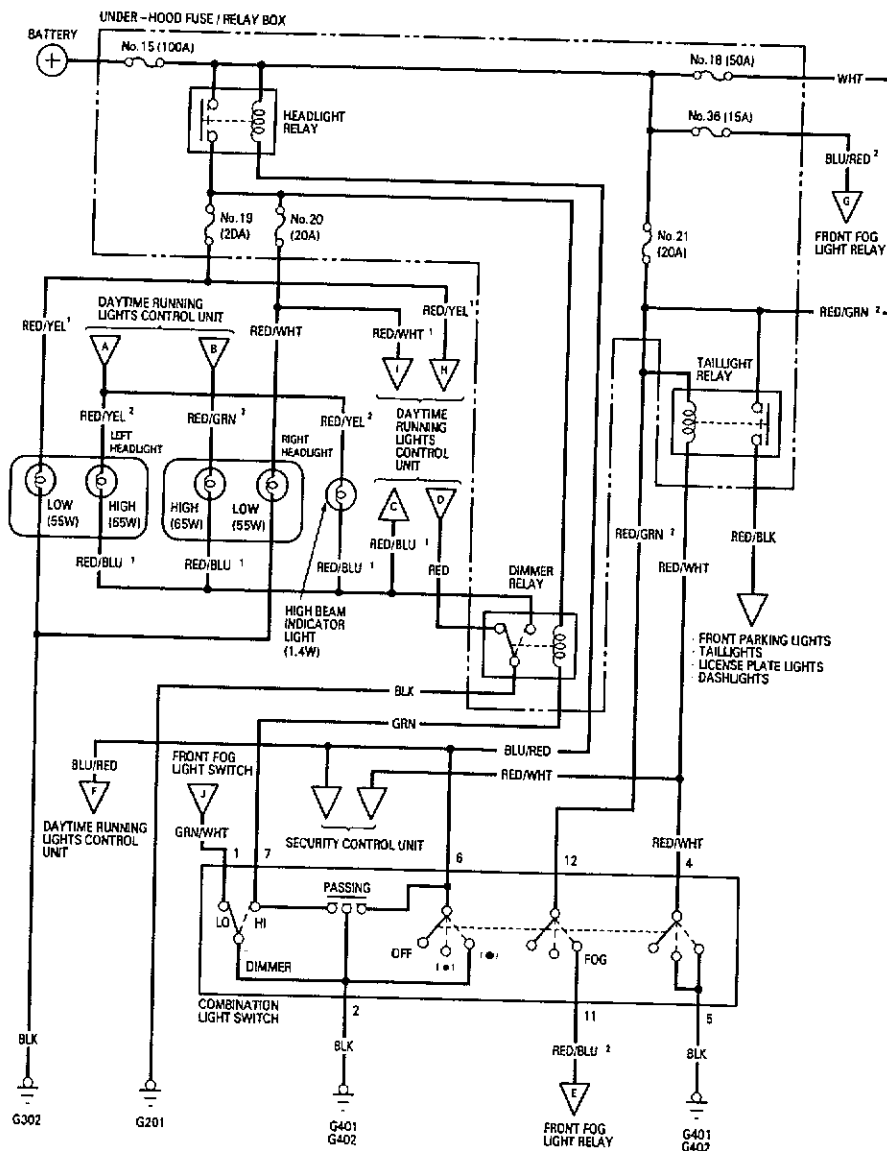
- Circuit Diagram (Front Fog Light)



Lighting System

Circuit Diagram (Canada: With Security System)

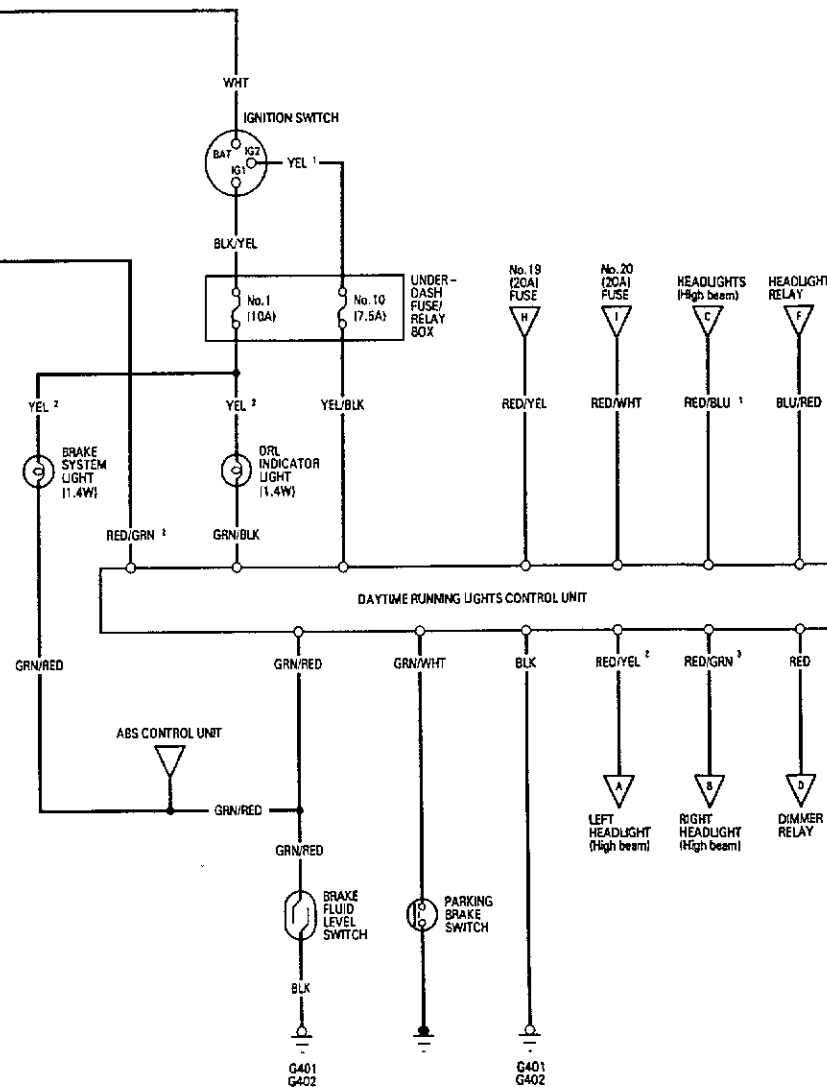
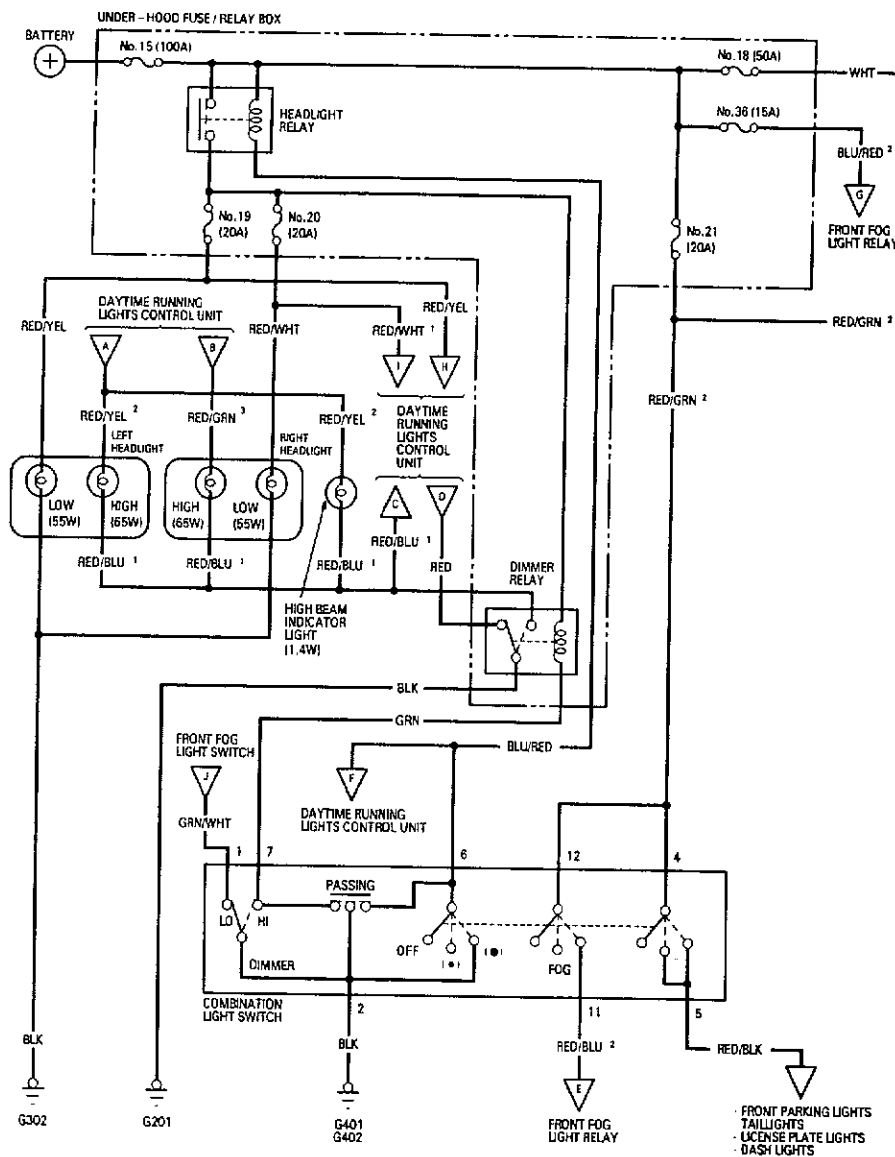
NOTE: Different wires with the same color have been given a number suffix to distinguish them (for example, RED/BLU¹ and RED/BLU² are not the same).



Lighting System

Circuit Diagram (Canada: Without Security System)

NOTE: Different wires with the same color have been given a number suffix to distinguish them (for example, RED/BLU¹ and RED/BLU² are not the same).

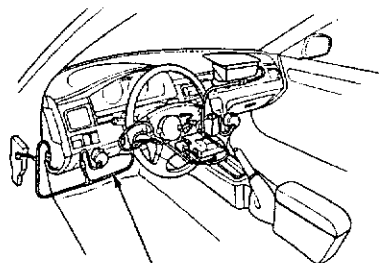


Lighting System

Daytime Running Lights Control Unit Input Test (Canada)

CAUTION:

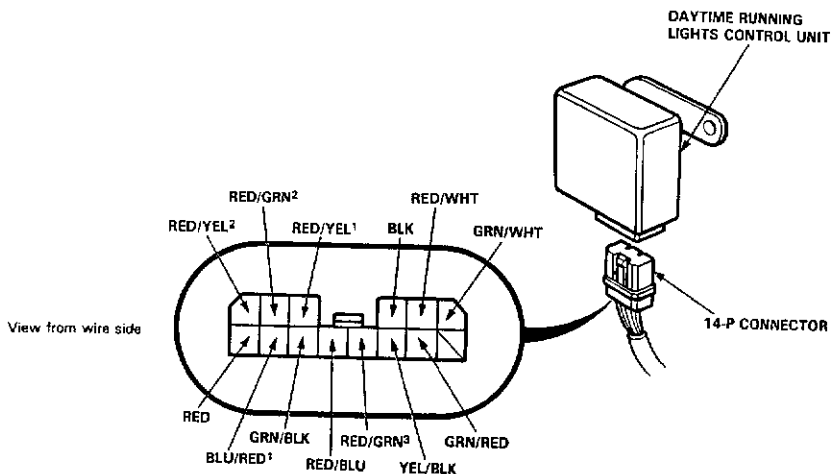
- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



SRS MAIN HARNESS
(Covered with yellow outer insulation)

1. Remove the glove box and right kick panel cover (see section 20).
2. Disconnect the 14-P connector from the daytime running lights control unit.
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, make the following input tests at the connector terminals.
 - 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.



No.	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
1	BLK	Under all conditions.	Check for continuity to ground. There should be continuity.	• Poor ground (G401). • An open in the wire.
2	RED/GRN²	Under all conditions.	Check for voltage to ground. There should be battery voltage.	• Blown No. 21 (20 A) fuse (in the under-hood fuse/relay box). • An open in the wire.
3	BLU/RED¹	Under all conditions.	Check for voltage to ground. There should be battery voltage.	• Faulty headlight relay. • An open in the wire.
4	RED	Combination light switch "OFF".	Check for continuity to ground. There should be continuity.	• Poor ground (G201). • Faulty dimmer relay. • An open in the wire.
5	GRN/WHT	Parking brakes switch "ON" (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.
6	YEL/BLK	Ignition switch ON.	Check for voltage to ground. There should be battery voltage.	• Blown No. 10 (7.5 A) fuse (in the under-dash fuse/relay box). • An open in the wire.
7	GRN/BLK	Ignition switch ON.	Connect to ground: DRL indicator light should come on.	• Blown No. 1 (10 A) fuse (in the under-dash fuse/relay box). • Blown bulb. • An open in the wire.
8	GRN/RED	Ignition switch ON.	Connect to ground: Brake system light should come on.	• Blown NO. 1 (10 A) fuse (in the under-dash fuse/relay box). • Blown bulb. • An open in the wire.
9	RED/YEL² RED/GRN³ RED/BLU¹	Under all conditions.	Check for continuity between the terminals. There should be continuity.	• Blown bulb. • An open in the wire.
10	RED/YEL¹ RED/WHT	Combination light switch "•" position.	Check for voltage to ground. There should be battery voltage.	• Blown No. 19 (20 A) fuse (in the under-hood fuse/relay box). • An open in the wire. • Blown No. 20 (20 A) fuse (in the under-hood fuse/relay box). • An open in the wire.

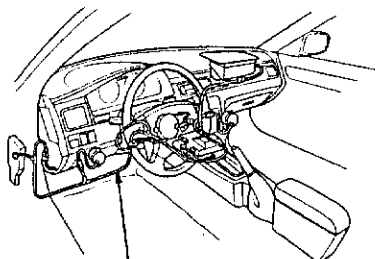
Lighting System

Combination Light/Turn Signal Switch Test

CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

1. Remove the dashboard lower cover.
2. Remove the knee bolster and dashboard lower frame.
3. Disconnect the 12-P connector from the main wire harness.
4. Check for continuity between the terminals in each switch position according to the table.

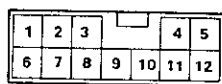


SRS MAIN HARNESS
(Covered with yellow outer insulation)

COMBINATION LIGHT/
TURN SIGNAL
SWITCH

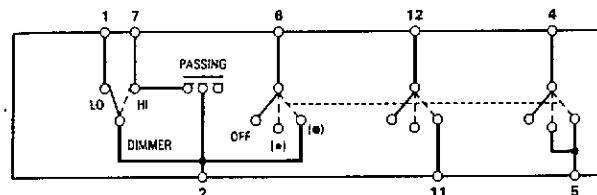
12-P CONNECTOR
(Main wire harness side)

12-P CONNECTOR (Switch side)



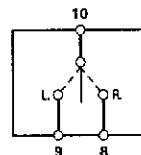
View from wire side

Combination Light Switch:



Terminal		1	2	4	5	8	7	11	12
Position									
Lighting Switch	OFF	○	○						
	•			○	○				
	•			○	○				
Dimmer Switch	LOW	○	○						
	HIGH		○				○		
	PASSING								
Passing Switch	OFF								
	ON		○			○	○		

Turn Signal Switch:



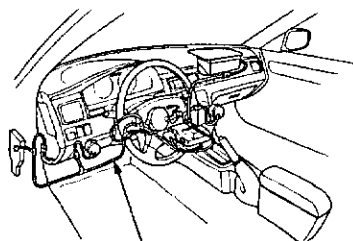
Terminal		8	9	10
Position				
RIGHT		○		○
NEUTRAL				
LEFT			○	○

Lighting System

Combination Light Switch Replacement

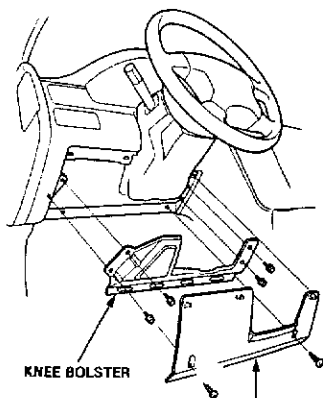
CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



SRS MAIN HARNESS
(Covered with yellow outer insulation)

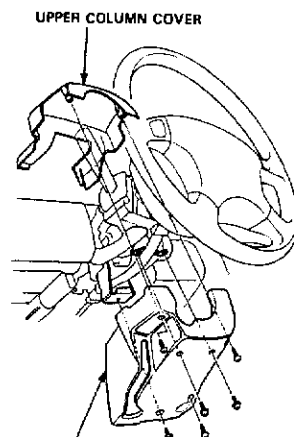
1. Remove the dashboard lower cover and knee bolster.



KNEE BOLSTER

DASHBOARD LOWER COVER

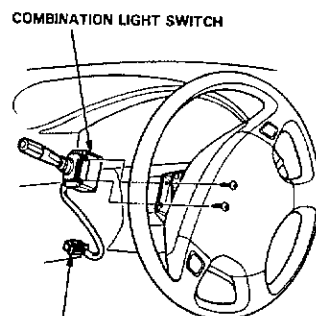
2. Remove the steering column covers.



UPPER COLUMN COVER

LOWER COLUMN COVER

3. Disconnect the 12-P connector from the combination light switch, then remove the two screws and the switch.



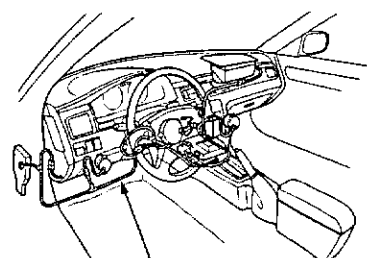
COMBINATION LIGHT SWITCH

12-P CONNECTOR

Front Fog Light Switch Test

CAUTION:

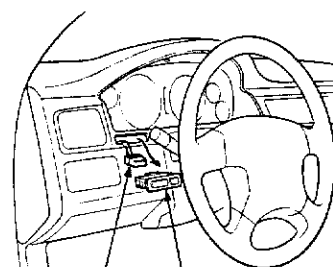
- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



SRS MAIN HARNESS
(Covered with yellow outer insulation)

1. Remove the front fog light switch.

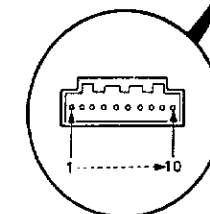
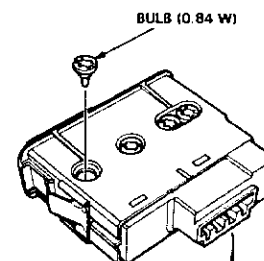
NOTE: Be careful not to damage the front fog light switch and instrument panel.



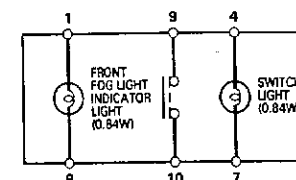
10-P CONNECTOR

FRONT FOG LIGHT SWITCH

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



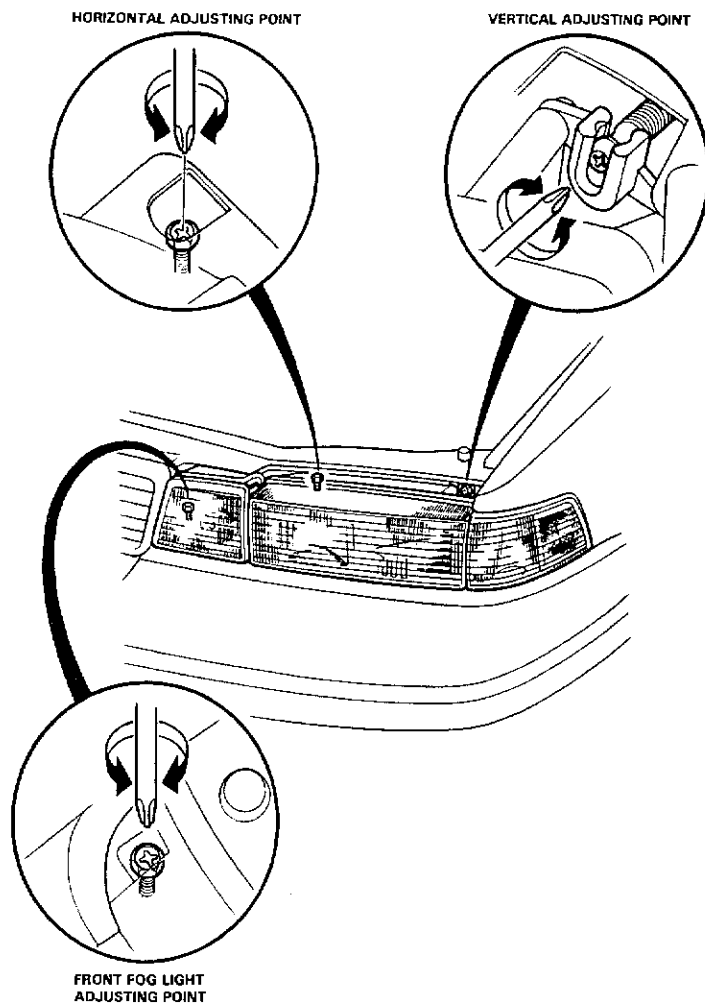
Terminal Position	9	10	1	4	7	8
OFF			○		○	○
ON	○	○		○	○	



Headlights/Front Fog Lights

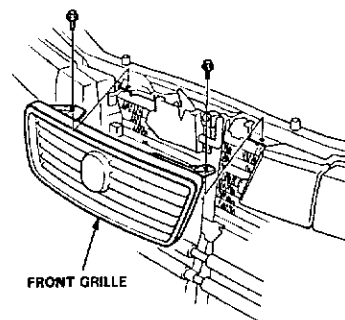
Adjustment

Adjust the headlights and front fog lights to local requirements.

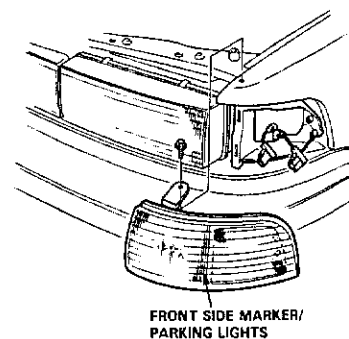


Headlight Replacement

1. Remove the front grille.

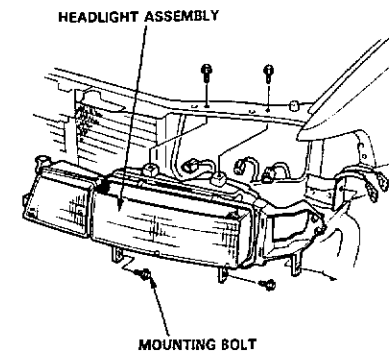


2. Remove the front side marker/parking lights.



3. Remove the front bumper (see section 20).

4. Remove the five headlight mounting bolts then pull out the headlight and disconnect the connectors from it.



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

cardiagn.com

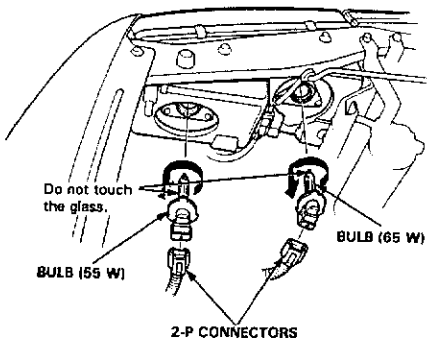
Headlights/Front Fog Lights

Headlight Bulb Replacement

CAUTION:

- Halogen headlights can become very hot in use; do not touch them or the attaching hardware immediately after they have been turned off.
- Do not try to replace or clean the headlights with the lights on.

1. Disconnect the 2-P connectors from each bulb.
2. Turn each bulb assembly to open position, then remove it.

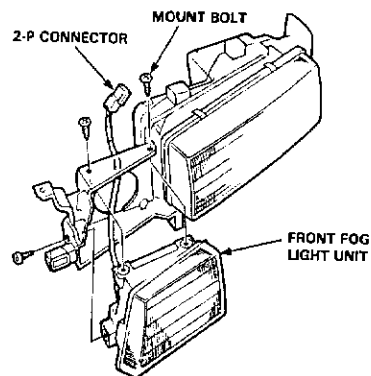


Front Fog Light Replacement

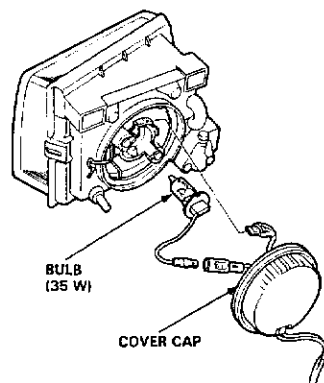
CAUTION:

- Front fog lights can become very hot in use; do not touch them or the attaching hardware immediately after they have been turned off.
- Do not try to replace or clean the front fog lights with the lights on.

1. Remove the front grille (see page 23-187).
2. Remove the three mount bolts, then pull out the front fog light assembly from the headlight.



3. Disconnect the 2-P connector.
4. Remove the cover cap, then replace the bulb.

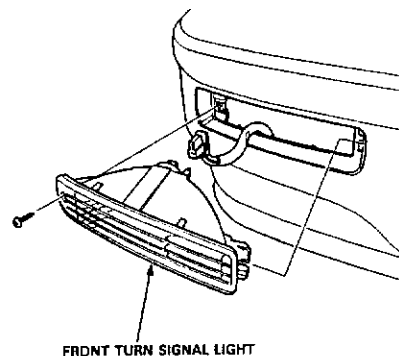


5. After replacement, adjust the front fog lights to local requirements

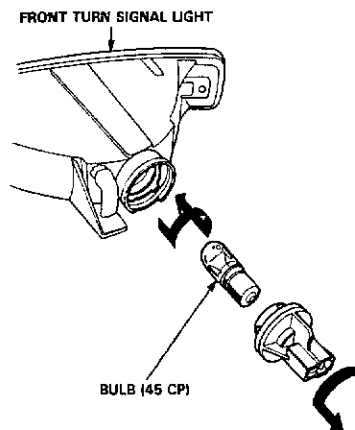
Front Turn Signal Lights

Replacement

1. Remove the screw and pull the light assembly out of the front bumper.



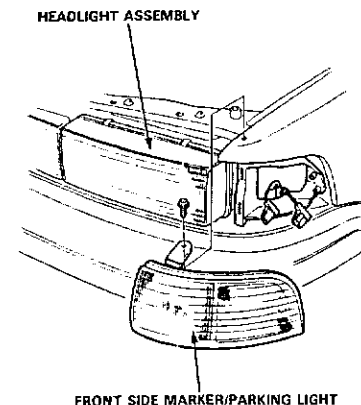
2. Turn the bulb socket 45° counterclockwise to remove it from the housing.



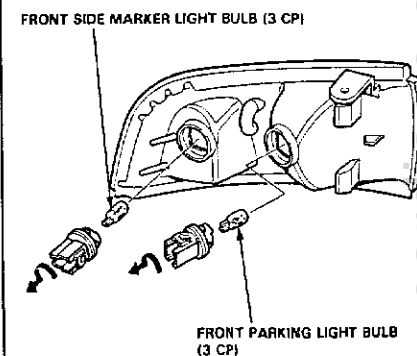
Parking Lights

Replacement

1. Remove the screw and separate the front side marker/parking lights from the headlight



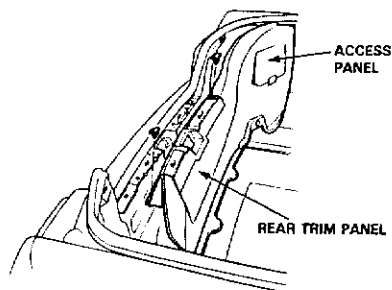
2. Turn the bulb socket 45° counterclockwise to remove it from the housing.



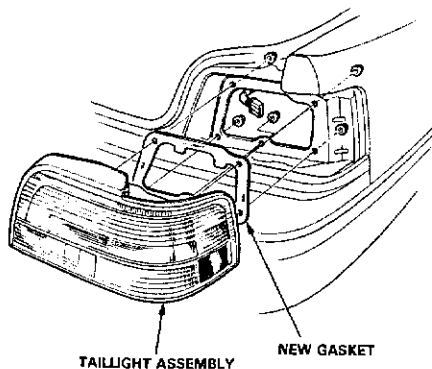
Taillights

Replacement

1. Open the trunk lid and remove the rear trim panel.



2. Disconnect the 8-P connector from the taillight assembly.
3. Remove the five mount nuts, then pull out the taillight assembly.

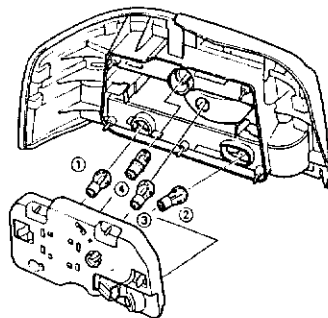


NOTE:

- Inspect the gasket; replace if it is distorted or stays compressed.
- After installation, run water over the taillights to make sure they do not leak.

Bulb Replacement

1. Open the trunk lid and remove the access panel.
2. Remove the bulb from the bulb housing.

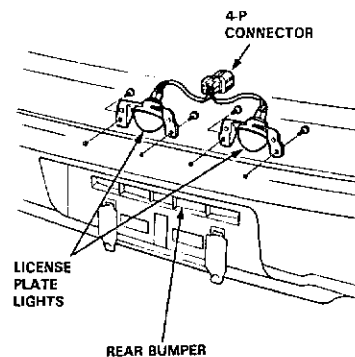


- ①: BRAKE LIGHT/TAILLIGHT BULB (32 CP/3 CP)
- ②: BRAKE LIGHT/TAILLIGHT BULB (32 CP/3 CP)
- ③: BACK-UP LIGHT BULB (32 CP)
- ④: TURN SIGNAL LIGHT BULB (45 CP)

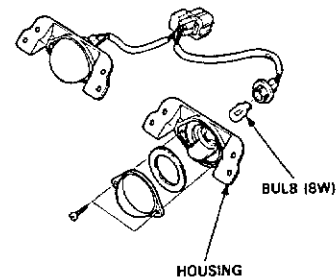
License Plate Lights

Replacement

1. Remove the four screws and disconnect the 4-P connector.



2. Turn the bulb socket 45° counterclockwise to remove it from the housing.



3. If necessary, separate the lens from the housing by removing the two screws.

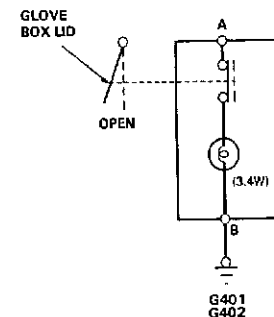
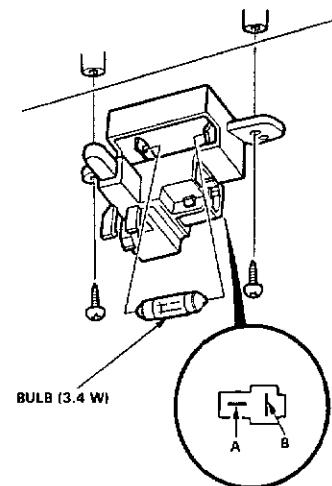
Glove Box Light

Test

1. Open the glove box and disconnect the 2-P connector.

NOTE: If necessary, remove the glove box.

2. There should be continuity between the A and B terminals with a bulb installed. There should be no continuity when the switch is pushed.

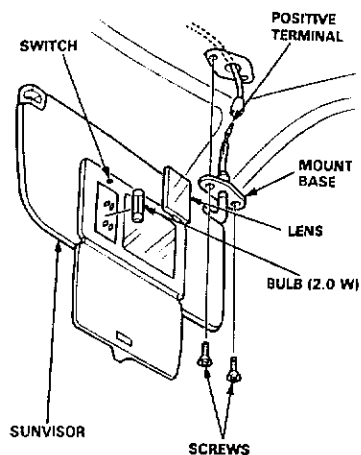


Vanity Mirror Lights

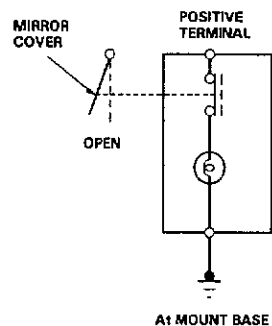
Test

1. Remove the two screws from the sunvisor bracket.
2. Disconnect the connector and remove the sunvisor.

NOTE: Passenger's vanity mirror is shown, driver's vanity mirror is similar.

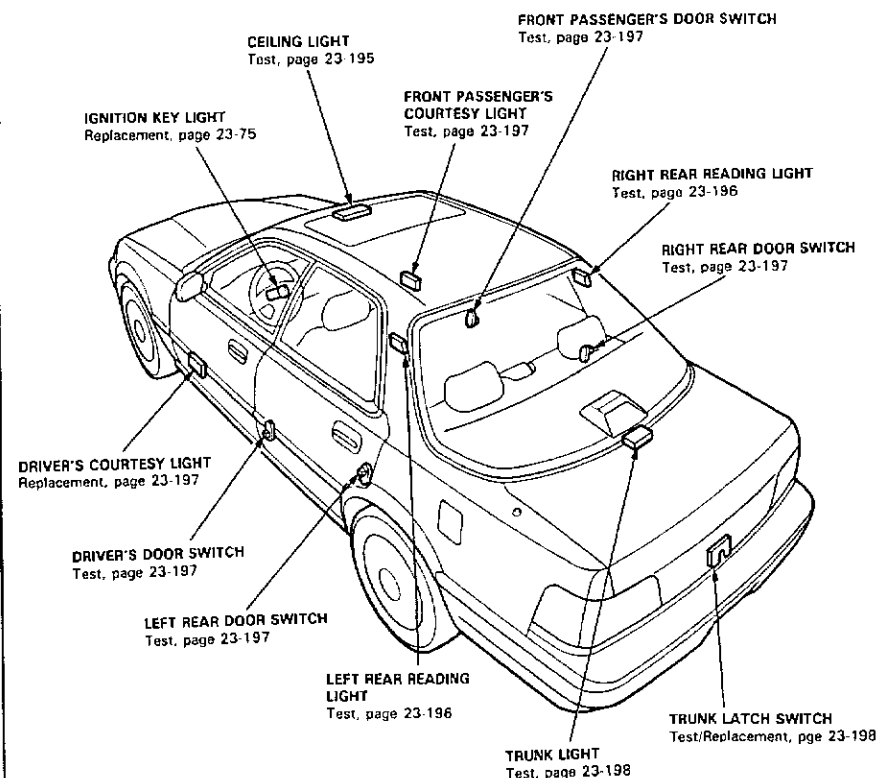


3. There should be continuity between the positive terminal and mount base (ground) with the mirror cover open and bulb installed. There should be no continuity when the mirror cover is closed.
4. If necessary, pry off the lens and replace the bulb.

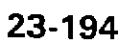


Ceiling/Reading/Courtesy/Trunk Lights

Component Location Index



Circuit Diagram

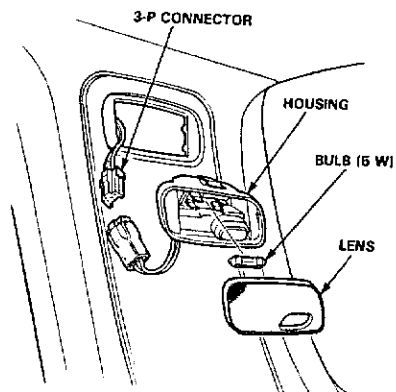


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Ceiling/Reading/Courtesy/Trunk Lights

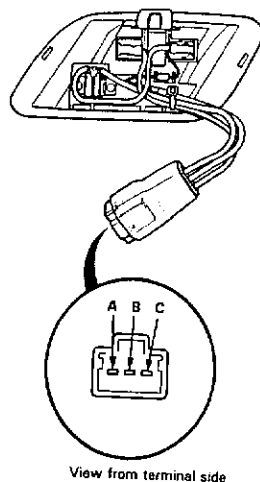
Rear Reading Light Test/Replacement

1. Turn the front ceiling light switch OFF.
 2. Pry out the rear reading light.
- NOTE: Be careful not to damage the C-pillar trim panel.
3. Disconnect the 3-P connector from the housing.

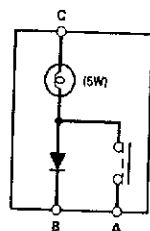


4. Check for continuity between the terminals in each switch position according to the table.

Terminal Position	C		A		B
OFF	○	○	○	→	○
ON	○	○	○	→	○



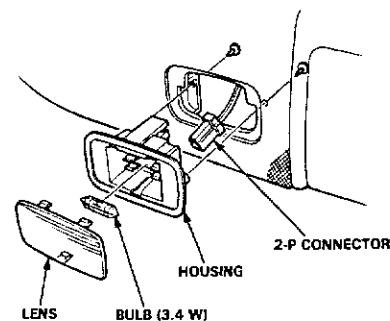
From No.37 (15A) FUSE
(Under - hood fuse/relay box)



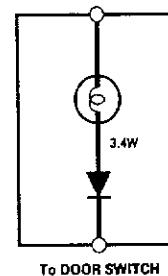
Courtesy Lights Replacement

NOTE: The bulb or lens alone can be replaced without removing the door panel.

1. To replace the entire light, remove the door panel (see section 20).
2. Remove the two screws and the retainer plate, and remove the light housing from the door panel.
3. Disconnect the 2-P connector and remove the light.

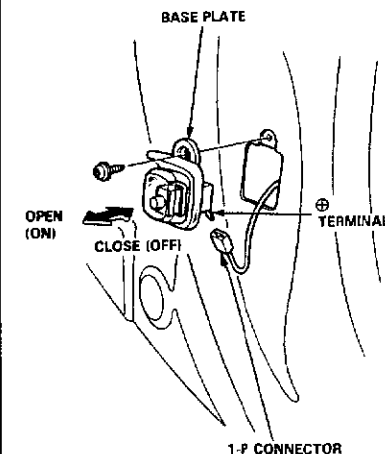


From No.37 (15A) FUSE
(Under - hood fuse/relay box)



Door Switch Test

1. Remove the screw, and pull the switch out.
2. Disconnect the 1-P connector and remove the switch.

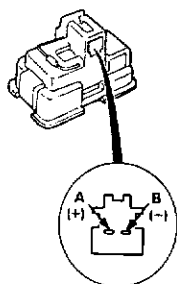
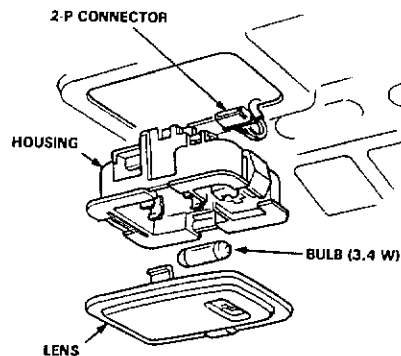


3. Check for continuity between the terminals in each switch position according to the table.

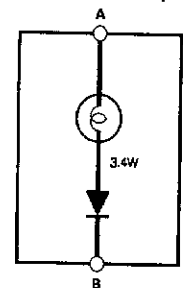
Terminal Position	⊕ TERMINAL	BASE PLATE
CLOSE		
OPEN	○	○

Trunk Light Test/Replacement

1. Pry off the trunk light lens from the housing.
2. Pry out the light assembly.
3. Disconnect the 2-P connector from the housing.
4. Make sure that the bulb is OK. Check for continuity between A (+) and B (-) terminals.



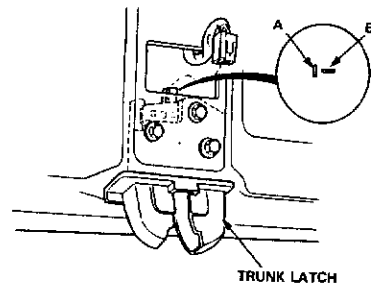
From No.37 (15A) FUSE
(Under - hood fuse/relay box)



To TRUNK LATCH SWITCH

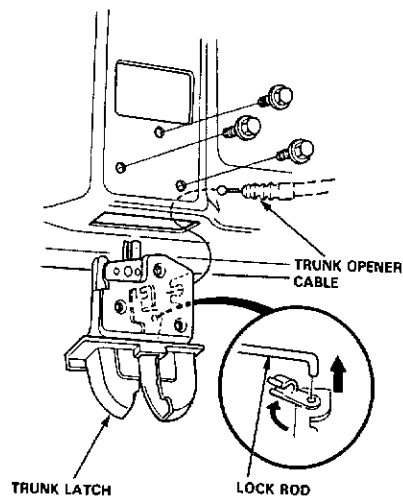
Latch Switch Test/Replacement

1. Open the trunk lid and remove the trunk rear trim panel.
2. Disconnect the 2-P connector from the trunk latch.
3. Check for continuity between the terminals in each switch position according to the table.



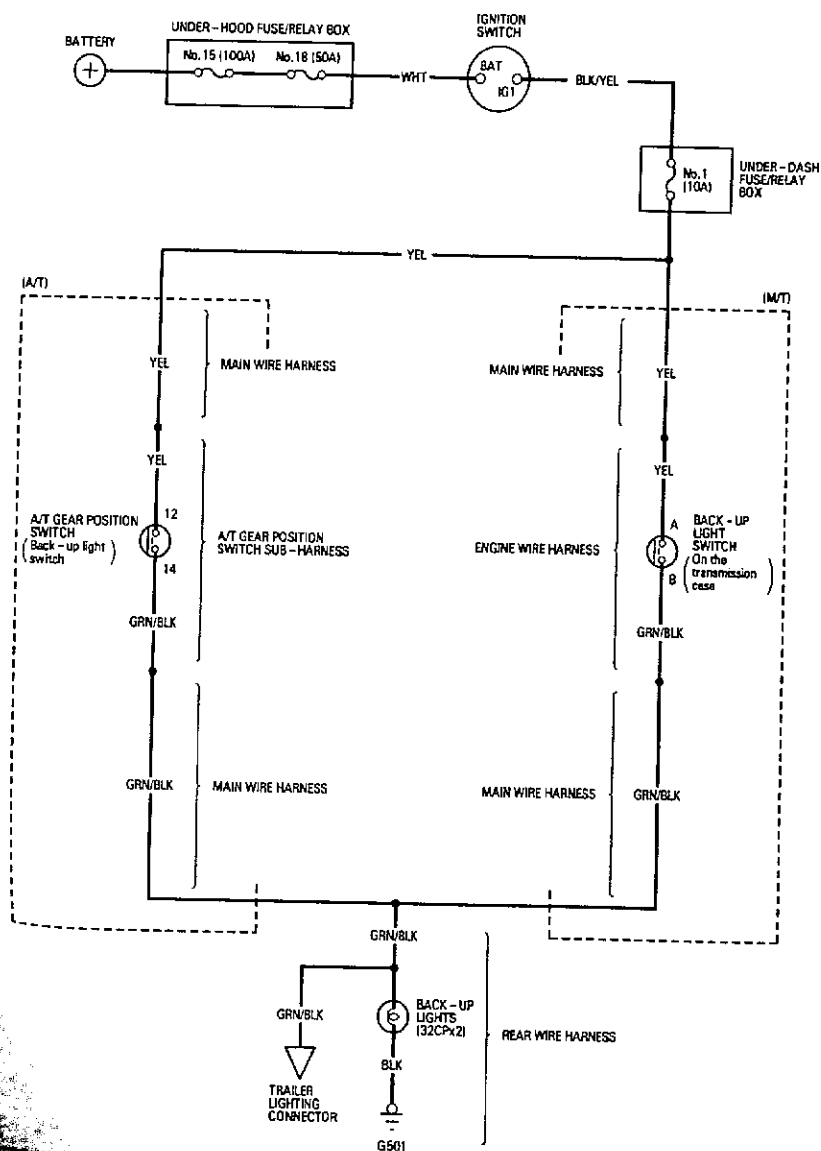
Terminal	A	B
Position		
OPEN	○	○
CLOSE		

4. If necessary, remove the three bolts from the trunk lid, then remove the trunk latch assembly. The switch cannot be replaced separately.



Back - up Lights

Circuit Diagram

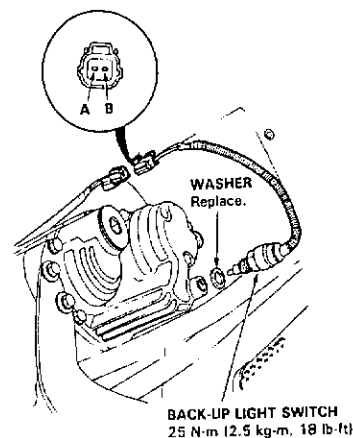


Test

Manual Transmission:

NOTE: Check the No. 1 (10A) fuse in the under-dash fuse/relay box before testing.

1. Test the back-up light switch by placing the shift lever in reverse and turning the ignition switch to ON.
2. If the back-up lights do not go on, check the back-up light bulbs in the taillight assembly.
3. If the fuse and bulbs are OK, disconnect the connector from the back-up light switch.



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

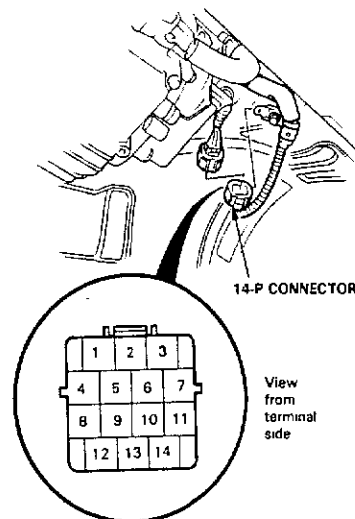
Terminal	A	B
Position		
REVERSE	○	○
ALL EXCEPT REVERSE		

- If there is no continuity, replace the back-up light switch.
- If there is continuity, but the back-up lights do not go on, check for:
 - Poor ground (G501).
 - An open in the YEL or GRN/BLK wire.

Automatic Transmission:

NOTE: Check the No. 1 (10A) fuse in the under-dash fuse/relay box before testing.

1. Test the back-up light switch by shifting the shift lever to **R** and turning the ignition switch ON (III).
2. If the back-up lights do not go on, check the back-up light bulbs in the taillight assembly.
3. If the fuse and bulbs are OK, disconnect the 14-P connector from the A/T gear position switch (back-up light switch).

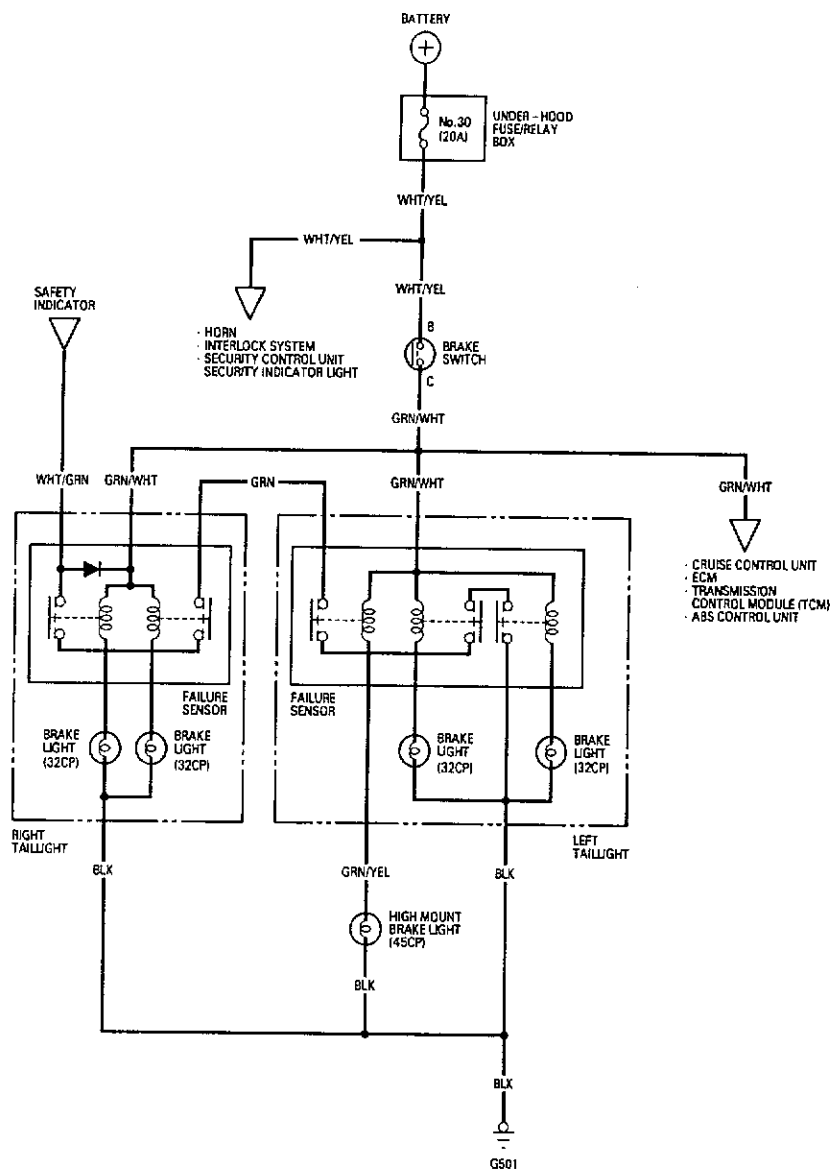


4. Check for continuity between the No. 12 and No. 14 terminals. Move the lever back and forth at the **R** position without touching the push button, and check for continuity within the range of free play of the shift lever.

- If there is no continuity within the range of free play, adjust the A/T gear position switch (see section 14).
- If there is continuity, but the back-up lights do not go on, check for:
 - Poor ground (G501).
 - An open in the YEL or GRN/BLK wire.

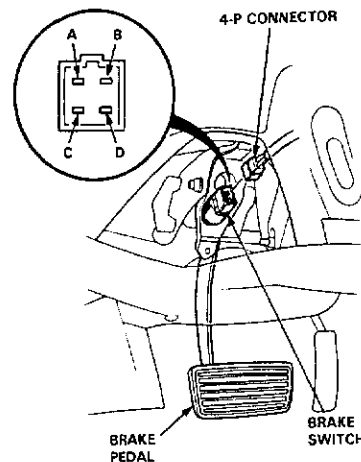
Brake/High Mount Brake Light

Circuit Diagram



Brake Switch Test

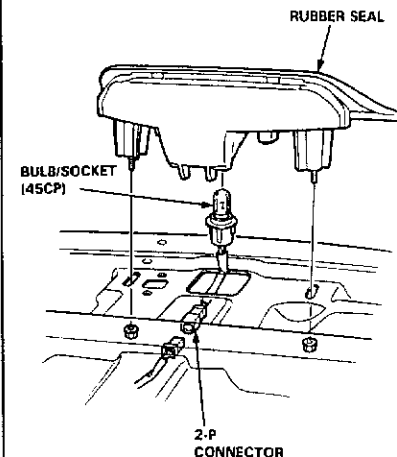
1. If the brake lights do not go on, check the No.30 (20A) fuse in the under hood fuse/relay box, and the brake light bulbs in the taillight assembly and high mount brake light.
2. If the fuse and bulbs are OK, disconnect the 4-P connector from the brake switch



3. Check for continuity between the B and C terminals. There should be continuity with the brake pedal pushed.
 - If there is no continuity, replace the brake switch or adjust pedal height (see section 19).
 - If there is continuity, but the brake lights do not go on, inspect for:
 - Poor ground (G501).
 - An open in the WHT/GRN or GRN/WHT wire.
 - Faulty brake light failure sensors (see page 23-157).

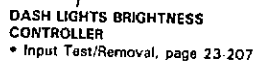
High Mount Brake Light Replacement

1. Remove the rear shelf panel (see section 20)
2. Open the trunk lid and disconnect the 2 P connector from the high mount brake light
3. Remove the two nuts, then remove the high mount brake light from the rear shelf.



4. Install the high mount brake light in the reverse order of removal. Clean the rear window glass before installing the light. Make sure the rubber seal on the light is touching the glass all the way around.

Component Location Index



COMBINATION LIGHT SWITCH
Test, page 23-182
Replacement, page 23-184



No. 21 (20 A)
FUSE
(In the under-hood
fuse/relay box)

BATTERY

UNDER-HOOD FUSE/RELAY BOX

No. 15 (100A) No. 21 (20A)

RED/GRN

RED/WHF

COMBINATION LIGHT SWITCH
SECURITY CONTROL UNIT

TAILLIGHT RELAY

RED/BLK

RED/BLK

DASH LIGHTS BRIGHTNESS CONTROLLER

CONTROL CIRCUIT

LIGHT (1.14W)

RED

BLK

GAUGE LIGHTS (1.4Wx3, 1.7Wx1, 3.0Wx4)

A/T GEAR POSITION CONSOLE LIGHT (1.4W)

A/T GEAR POSITION INDICATOR DIMMING CIRCUIT

REAR WINDOW DEFOGGER SWITCH LIGHT (0.84W)

HAZARD WARNING SWITCH LIGHT (0.84W)

CIGARETTE LIGHTER LIGHT (1.4W)

POWER MIRROR SWITCH LIGHT (0.91W)

MOONROOF SWITCH LIGHT (0.91W)

CRUISE MAIN SWITCH LIGHT (0.84W)

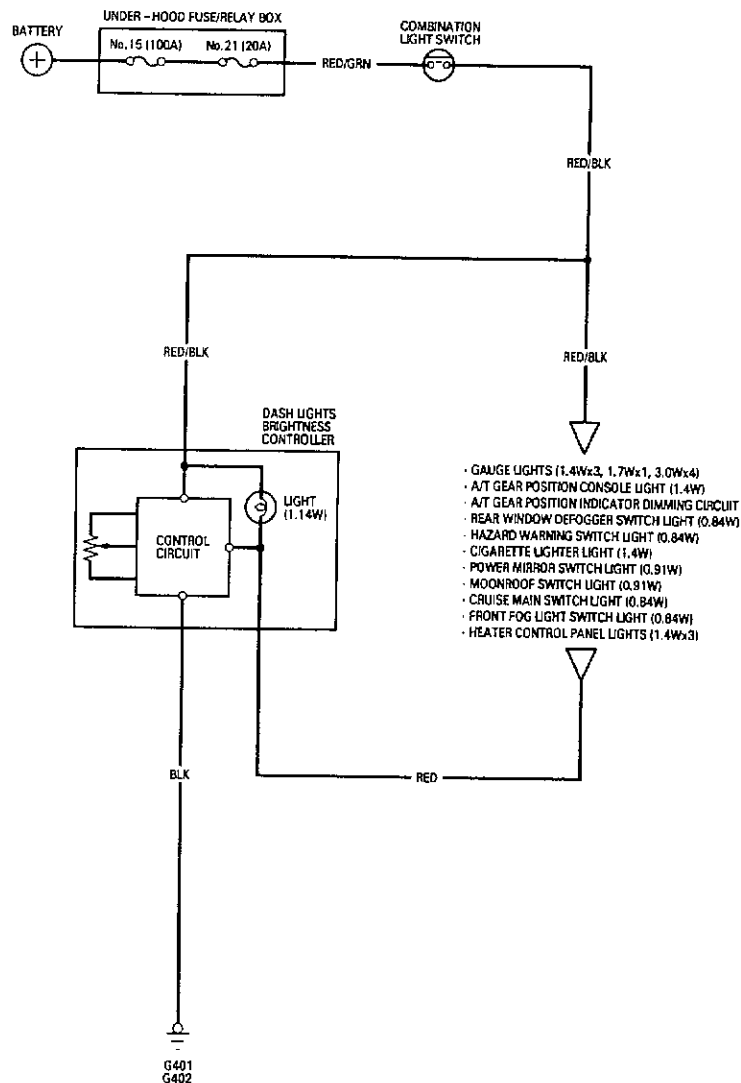
FRONT FOG LIGHT SWITCH LIGHT (0.84W)

HEATER CONTROL PANEL LIGHTS (1.4Wx3)

G401
G402

Dash Lights Brightness Controller

Circuit Diagram (Without Security System)

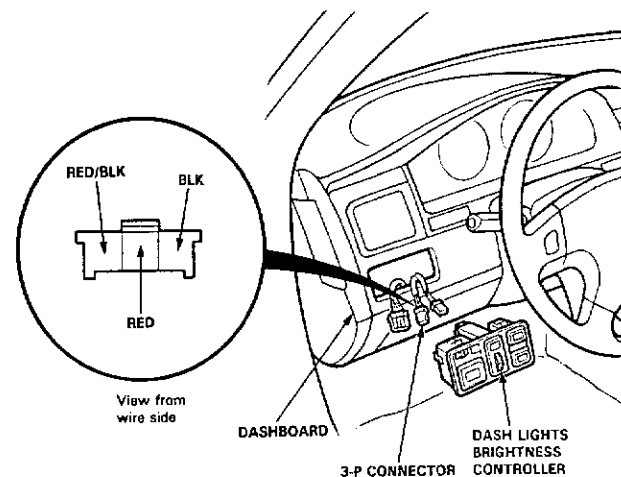


Controller Input Test

NOTE: The control unit is built into the dash lights brightness controller.

Carefully pry the controller out of the dashboard, then disconnect the 3-P connector from the controller. Inspect the connector terminals to be sure they are all making good contact.

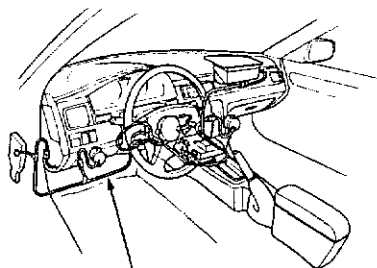
- If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
- If the terminals look OK, make the following input tests at the connector.
 - If any test indicates a problem, find and correct the cause, then recheck the system.
 - If all the input tests prove OK, the controller must be faulty; replace it.



No.	Terminal	Test condition	Test: Desired result	Possible cause if result is not obtained
1	BLK	Under all conditions.	Check for continuity to ground: There should be continuity.	• Poor ground (G401, G402) • An open in the wire.
2	RED/BLK	Combination light switch ON.	Check for voltage to ground: There should be battery voltage.	• Blown No. 21 (20 A) fuse (in the under-hood fuse/relay box). • Faulty combination light switch. • Faulty taillight relay. • An open in the wire.
3	RED	Combination light switch ON.	Connect to ground: Dash lights should come on full bright.	• An open in the wire.

Component Location Index

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



TURN SIGNAL INDICATOR LIGHTS
(In the gauge assembly)
Bulb Locations, page 23-135

SFS MAIN HARNESS
(Covered with yellow outer insulation)

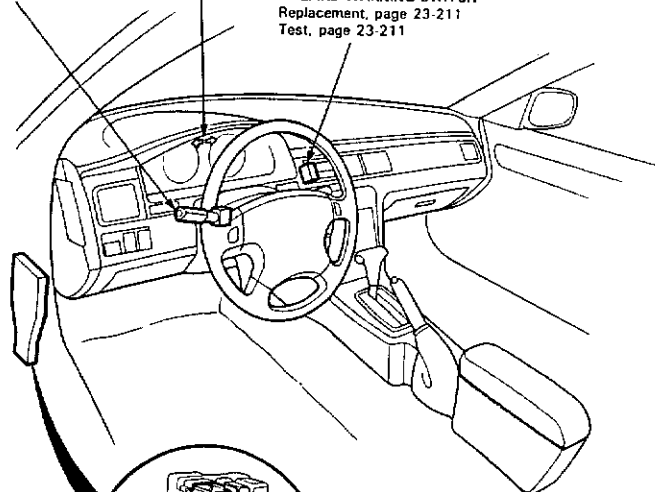
COMBINATION LIGHT/TURN SIGNAL SWITCH
Test, page 23-182

Replacement, page 23-184

HAZARD WARNING SWITCH

Replacement, page 23-211

Test, page 23-211



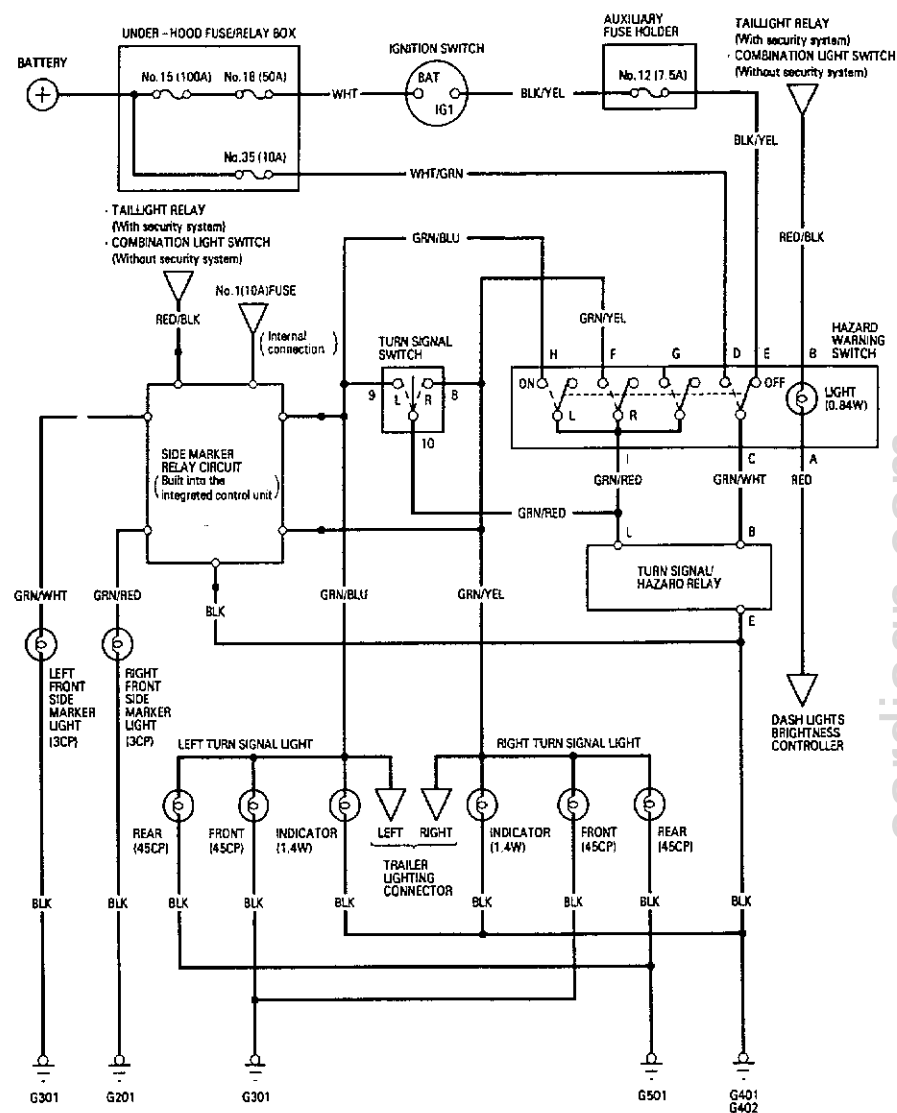
- SIDE MARKER FLASHER CIRCUIT
(Built into the integrated control unit)
Input Test, page 23-167

TURN SIGNAL/HAZARD
RELAY
Index Test, page 23-210

AUXILIARY FUSE HOLDER

UNDER-DASH FUSE/RELAY BOX

Circuit Diagram



Side Marker/Turn Signal/Hazard Flasher System

Turn Signal/Hazard Relay Input Test

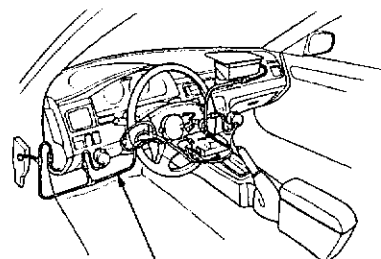
CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

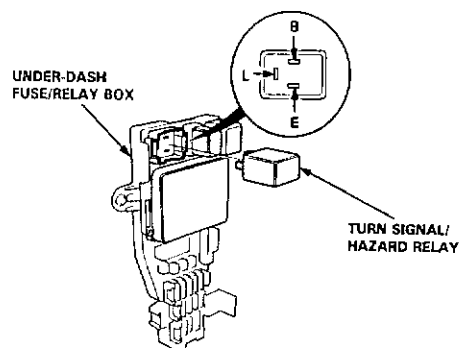
Remove the turn signal/hazard relay from the under-dash fuse/relay box.

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, make the following 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 turn signal/hazard relay must be faulty; replace it.



SRS MAIN HARNESS
(Covered with yellow outer insulation)



UNDER-DASH
FUSE/RELAY BOX

TURN SIGNAL/
HAZARD RELAY

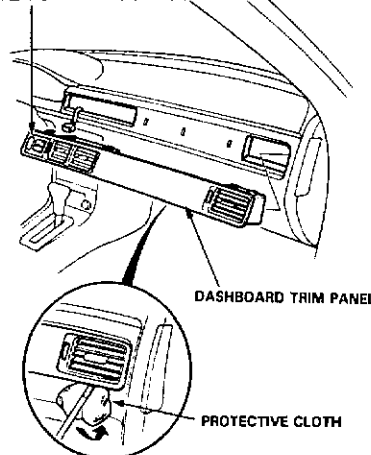
No.	Terminal	Test condition	Test: Desired result	Possible cause if result is not obtained
1	E	Under all conditions.	Check for continuity to ground: There should be continuity.	• Poor ground (G401, G402) • An open in the wire.
2	B	Ignition switch ON.	Check for voltage to ground: There should be battery voltage.	• Blown No.12 (7.5 A) fuse (in the auxiliary fuse holder). • An open in the wire. • Faulty hazard warning switch.
		Hazard warning switch ON	Check for voltage to ground: There should be battery voltage.	• Blown No.35 (10 A) fuse (in the under-hood fuse/relay box). • An open in the wire. • Faulty hazard warning switch.
3	L	Hazard warning switch ON and connect the B terminal to the L terminal.	Hazard lights should come on.	• Poor ground (G201, G301, G401, G402, G501). • Faulty hazard warning switch. • Faulty side marker relay circuit. • An open in the wire.
		Ignition switch ON and turn signal switch in Right or Left and connect the B terminal to the L terminal.	Right or Left turn signal lights should come on.	• Faulty turn signal switch.

Hazard Warning Switch Replacement

CAUTION: Be careful not to damage the dashboard and dashboard trim panel.

1. Carefully pry out the dashboard trim panel.
2. Disconnect the connectors.

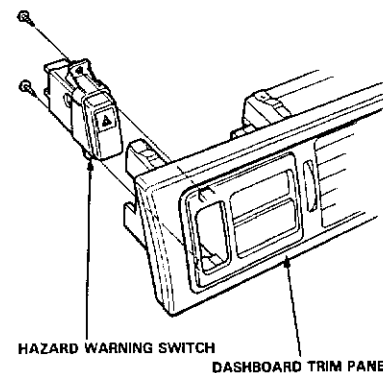
HAZARD WARNING SWITCH



DASHBOARD TRIM PANEL

PROTECTIVE CLOTH

3. Remove the hazard warning switch from the dashboard trim panel.



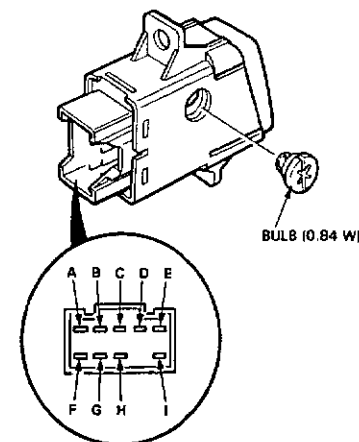
HAZARD WARNING SWITCH

DASHBOARD TRIM PANEL

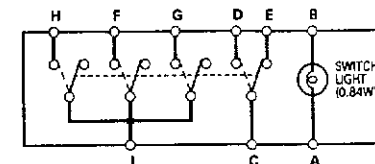
4. Install in the reverse order of removal.

Hazard Warning Switch Test

1. Remove the hazard warning switch from the dashboard trim panel.
2. Check for continuity between the terminals in each switch position according to the table.



BULB (0.84 W)



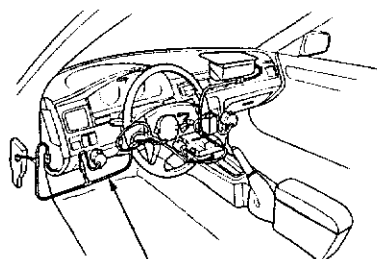
Terminal Position	A	B	C	D	E	F	G	H	I
OFF	○	○	○	○	○	○	○	○	○
ON	○	○	○	○	○	○	○	○	○

Stereo Sound System

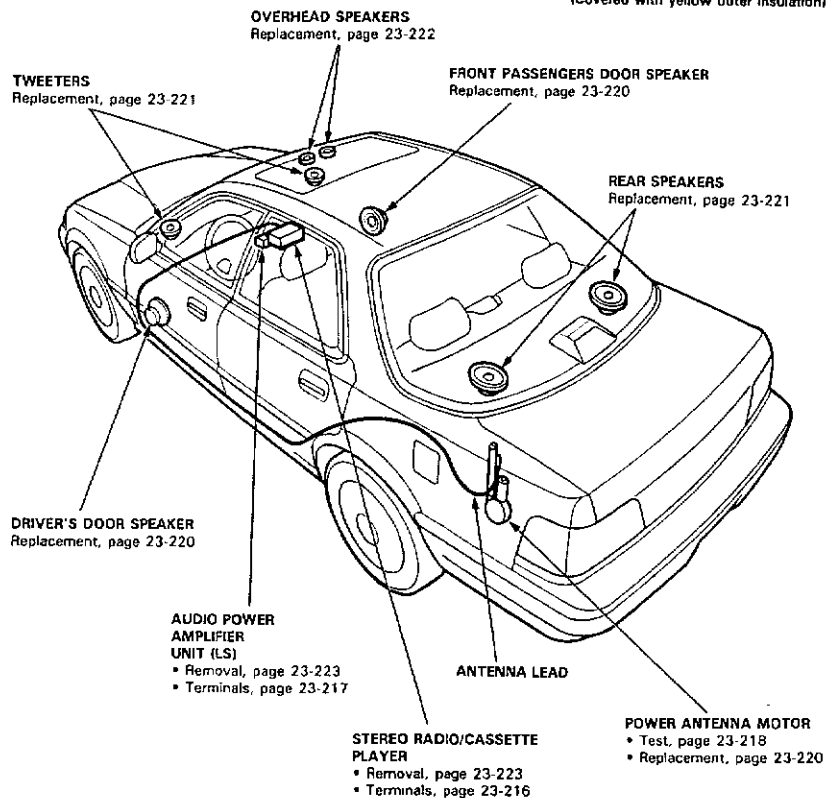
Component Location Index

CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



SRS MAIN HARNESS
(Covered with yellow outer insulation)



Description

DSP System (GS):

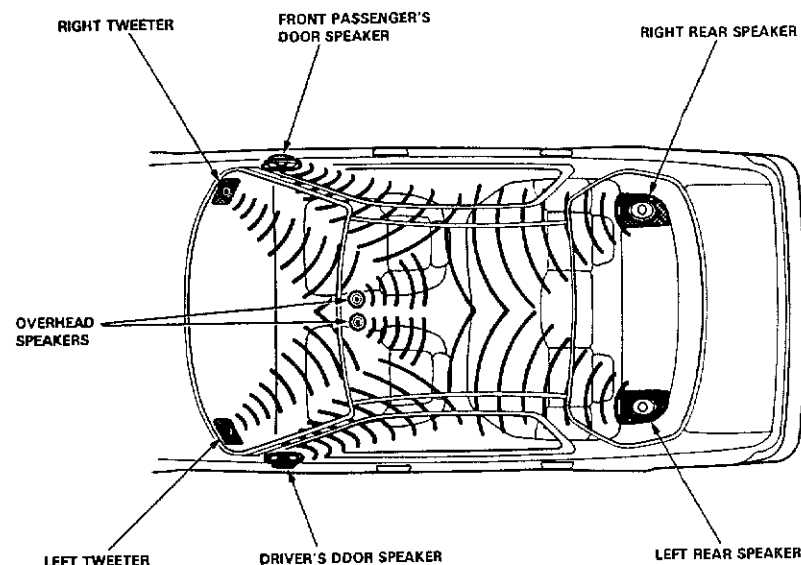
The Digital Signal Processor (DSP) enables you to vary the acoustics in the car according to the style of music you want to listen to. As a result, the sound quality will be improved to such an extent that you'll think you're in a concert hall instead of a car.

During a performance of live music the listener not only hears direct sound, but also reflected sound from the walls and ceiling. This reflected sound and the delay between it and the direct sound reaching the ears, are what gives a live performance greater depth.

As opposed to a conventional car audio system, giving only direct sound with almost no reflection or echo, the DSP reproduces the combination of direct and reflected sound through eight speakers by delaying or reverberating some portions of the source signal.

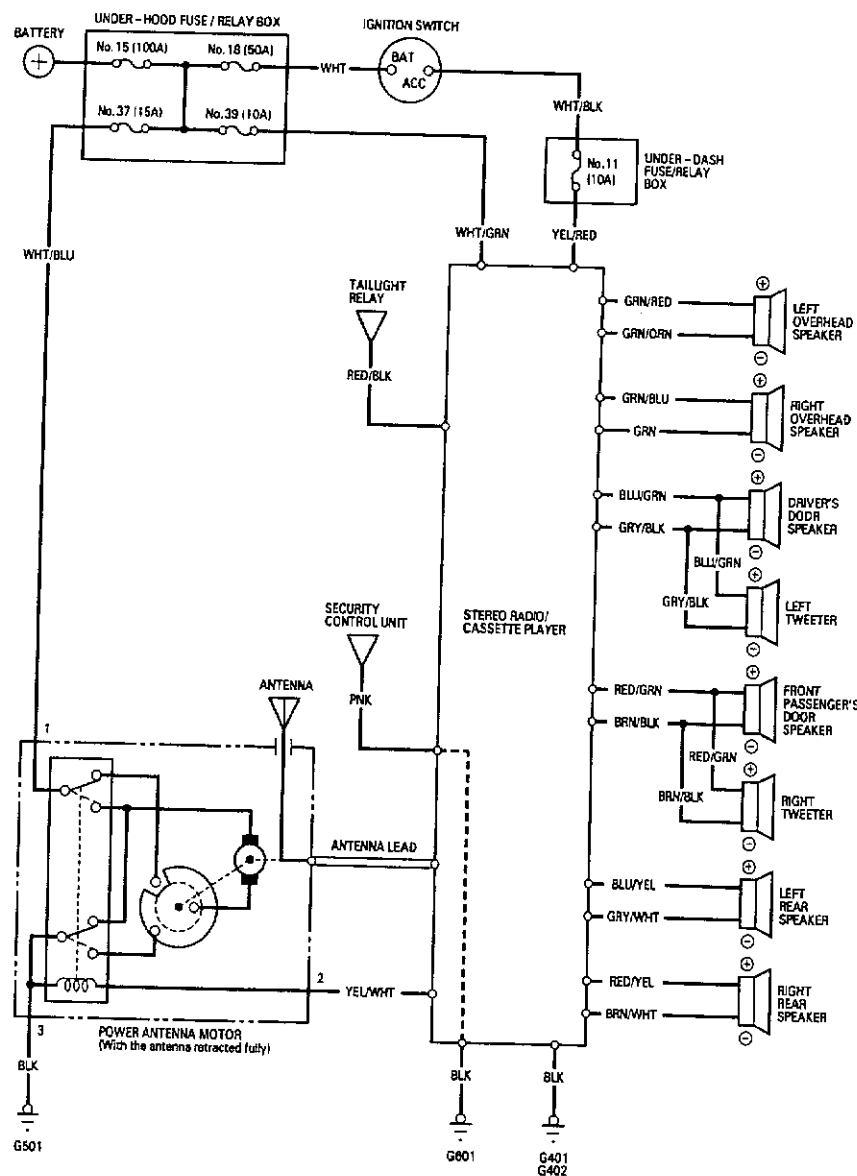
In order to achieve the most suitable acoustics for the style of music you're listening to, select the DSP mode recommended in the table.

Style of music	Jazz	Pop	Rock-Classical	Rock	Classical	Easy Listening
DSP mode	1 CLUB	2 STUDIO	3 HALL	4 ARENA	5 CATHDRL	6 DEN

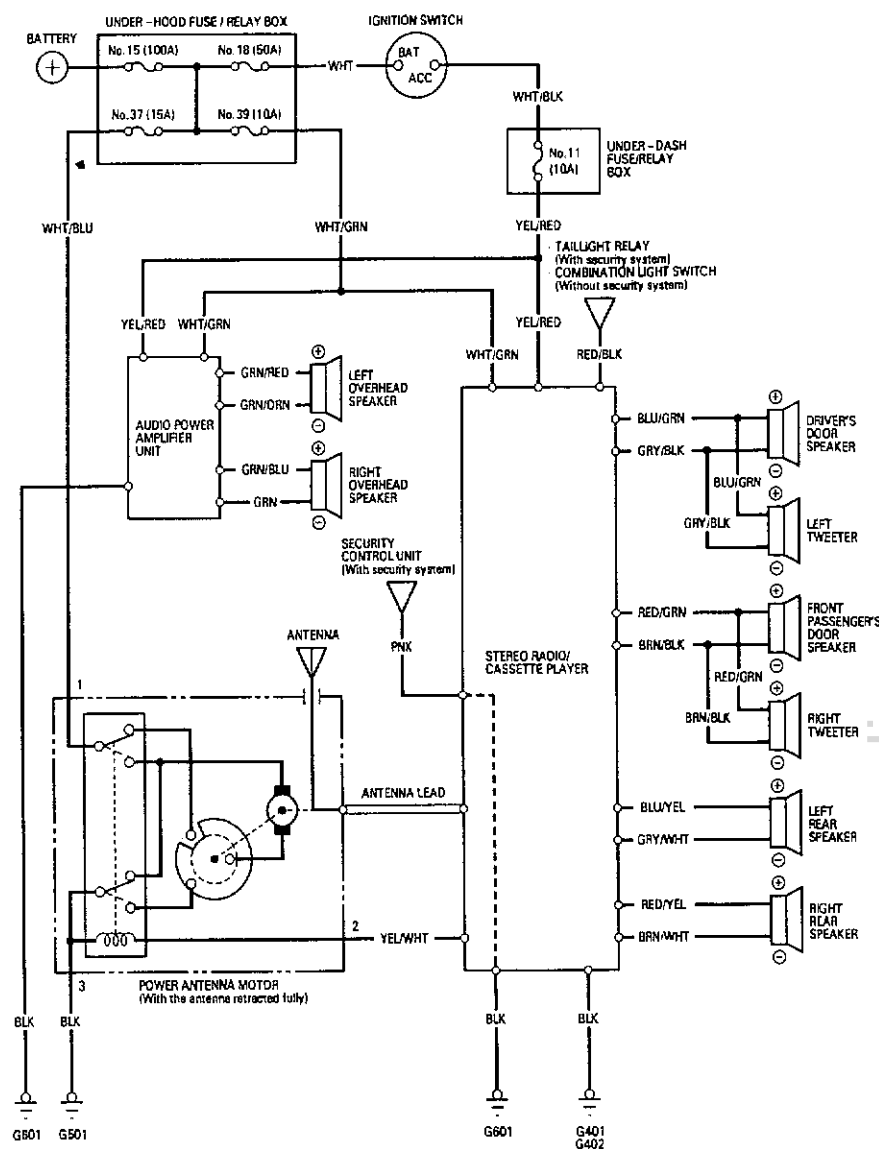


Stereo Sound System

Circuit Diagram (GS)



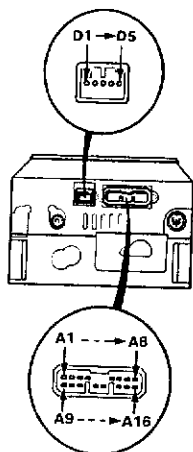
Circuit Diagram (LS)



Stereo Sound System

Stereo Radio/Cassette Player Terminals

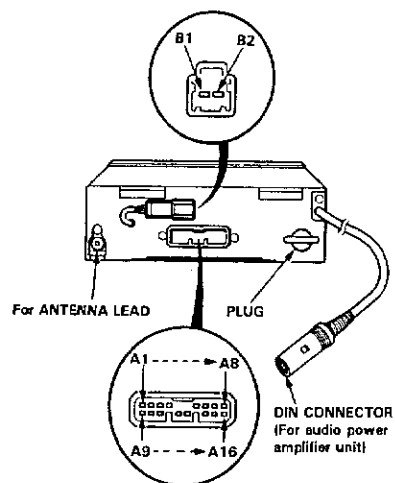
GS:



Terminal	Wire	Destination
A1	RED/GRN	Front passenger's door speaker ⊕
A2	BLU/GRN	Driver's door speaker ⊕
A3	RED/BLK	Lights on signal
A4	WHT/GRN	Constant power (Tuning memory)
A5	YEL/RED	ACC (Main stereo power supply)
A6	YEL/WHT	Radio switched power (To antenna)
A7	BLU/YEL	Left rear speaker ⊕
A8	RED/YEL	Right rear speaker ⊕
A9	BRN/BLK	Front passenger's door speaker ⊖
A10	GRY/BLK	Driver's door speaker ⊖
A11	—	(not used)
A12	PNK	Security (IN)
A13	BLK	Security ground (G601)
A14	BLK	Ground (G401, G402)
A15	GRY/WHT	Left rear speaker ⊖
A16	BRN/WHT	Right rear speaker ⊖

Terminal	Wire	Destination
D1	GRN	Right overhead speaker ⊖
D2	GRN/BLU	Right overhead speaker ⊕
D3	GRN/ORN	Left overhead speaker ⊖
D4	GRN/RED	Left overhead speaker ⊕
D5	—	(not used)

LS:

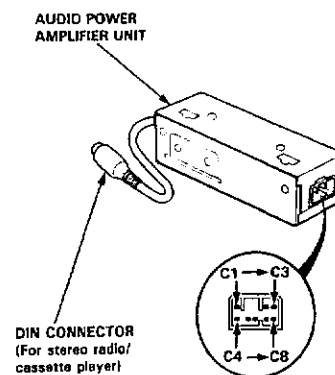


Terminal	Wire	Destination
A1	RED/GRN	Front passenger's door speaker ⊕
A2	BLU/GRN	Driver's door speaker ⊕
A3	RED/BLK	Lights on signal
A4	WHT/GRN	Constant power (Tuning memory)
A5	YEL/RED	ACC (Main stereo power supply)
A6	YEL/WHT	Radio switched power (To antenna)
A7	BLU/YEL	Left rear speaker ⊕
A8	RED/YEL	Right rear speaker ⊕
A9	BRN/BLK	Front passenger's door speaker ⊖
A10	GRY/BLK	Driver's door speaker ⊖
A11	—	(not used)
A12	—	(not used)
A13	—	(not used)
A14	BLK	Ground (G401, G402)
A15	GRY/WHT	Left rear speaker ⊖
A16	BRN/WHT	Right rear speaker ⊖

Terminal	Wire	Destination
B1	PNK	Security (IN)
B2	BLK	Security ground (G601)

Audio Power Amplifier Terminals

LS:



Terminal	Wire	Destination
C1	WHT/GRN	Constant power
C2	GRN/BLU	Right overhead speaker ⊕
C3	GRN/RED	Left overhead speaker ⊖
C4	YEL/RED	ACC
C5	—	(not used)
C6	BLK	Ground (G601)
C7	GRN	Right overhead speaker ⊖
C8	GRN/ORN	Left overhead speaker ⊕

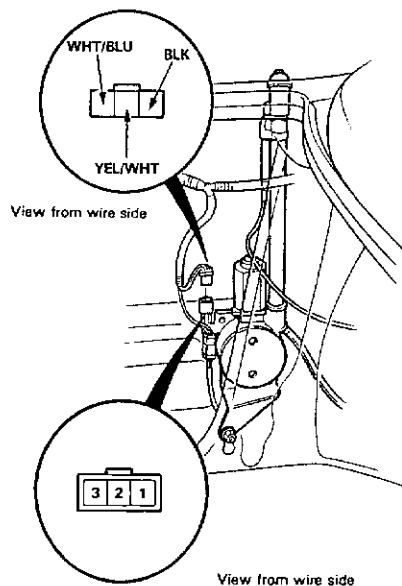
Stereo Sound System

Power Antenna Motor Test

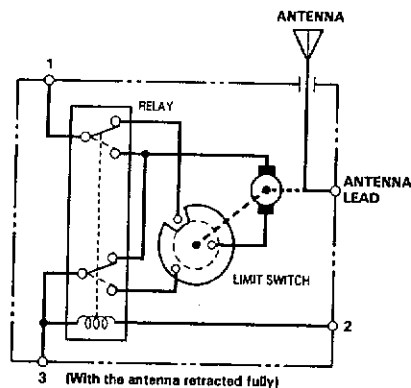
1. Remove the trunk side trim panel.
2. Disconnect the 3-P connector from the motor and remove the connector from its clamp.
3. First check power to the motor at the connector terminals:
 - There should be battery voltage between the WHT/BLU (+) and BLK (-) terminals all the time
 - There should be battery voltage between the YEL/WHT (+) and BLK (-) terminals only with the ignition and radio switched ON.
4. Test motor operation:

EXTEND: Connect battery power to the No.1 and No.2 terminals and ground the No.3 terminal.

RETRACT: Then disconnect power from the No.2 terminal.



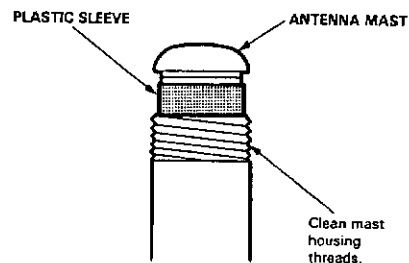
5. If the motor fails to run or does not run smoothly, replace it.



Sticking Antenna:

The antenna sticks in either the up or down position.

1. Using the antenna wrench, remove the antenna nut, spacer, and bushing (see page 23-219).
2. Clean the antenna mast housing threads and reinstall the spacer and bushing.



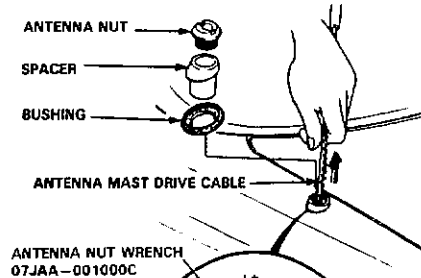
3. Use the antenna nut wrench and tighten the antenna nut to 2.3N-m (0.23kg-m, 1.7lb-ft). If you overtightened the nut, the antenna may stick. If sticking occurs, back the nut off a little, then turn the radio on and off to raise and lower the antenna again. Repeat until the antenna moves freely.

Antenna Mast Replacement

Removal

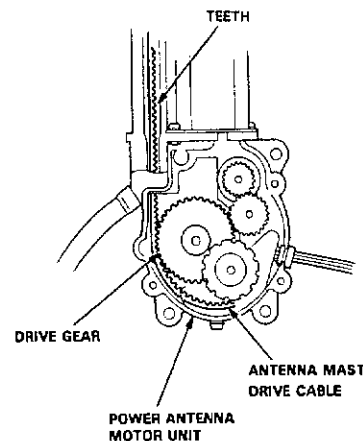
NOTE: The antenna mast alone can be replaced without having to remove the power antenna motor.

1. Remove the antenna nut, spacer and bushing.
2. Carefully withdraw the antenna mast while extending it by turning the radio switch ON.



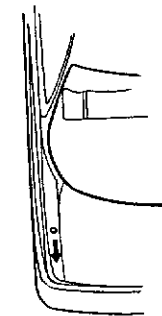
ANTENNA NUT WRENCH
07JAA-001000C

ANTENNA NUT
2.3 N-m (0.23 kg-m, 20 lb-ft)



Installation

1. Hold the antenna so the teeth on the drive cable face in the direction shown, then insert the cable into the antenna housing.



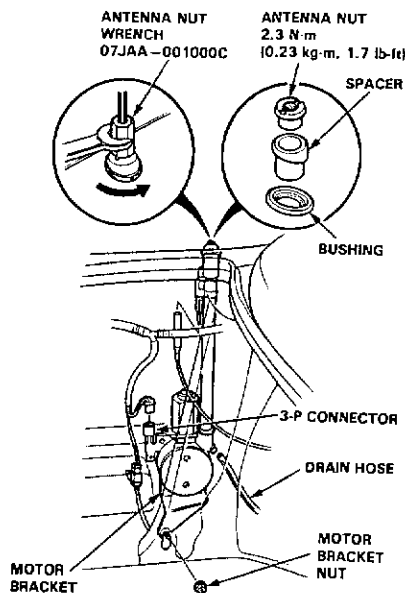
Direction of the teeth

2. Check for engagement of the cable teeth with the drive gear by carefully moving the cable up and down.
3. Turn the radio switch "OFF", and let the motor pull the drive cable into the antenna housing.
4. Clean the antenna housing threads then insert the antenna into the housing. Install the bushing spacer, and install and tighten the antenna nut to 2.3 N-m (0.23 kg-m, 1.7 lb-ft).
5. Check that the antenna mast retracts and extends fully when the radio switch is turned ON and OFF repeatedly. If you overtightened the nut, the antenna may stick. If sticking occurs, back the nut off a little, then raise and lower the antenna again. Repeat until the antenna moves freely.

Stereo Sound System

Power Antenna Motor Replacement

1. Remove the trunk side trim panel.
2. Disconnect the 3-P connector and antenna lead from the motor, then remove the antenna nut and motor bracket nut.

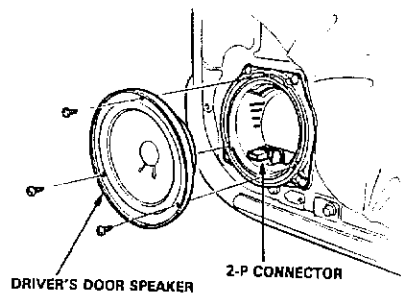


3. Remove the motor and antenna as an assembly.
4. Install in the reverse order of removal.

NOTE: Tighten the antenna nut, then tighten the motor bracket nut.

Door Speaker Replacement

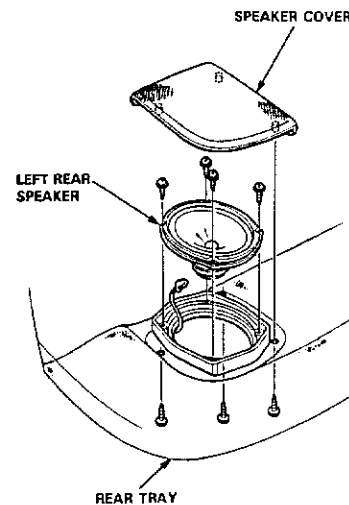
1. Remove the door panel.
2. Remove the three screws, then disconnect the 2-P connector from the speaker.



3. Install in the reverse order of removal.

Rear Speaker Replacement

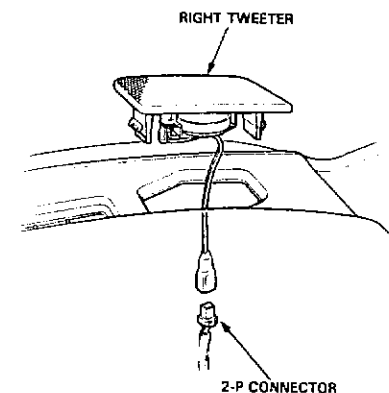
1. Remove the three screws from the trunk side, then remove the speaker cover.
2. Remove the four screws, then disconnect the connector from the speaker and remove the speaker.



3. Install in the reverse order of removal.

Tweeter Replacement

1. Carefully pry the tweeter out of the dashboard, then disconnect the 2-P connector from the speaker.

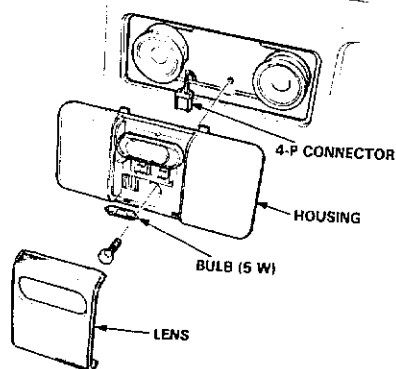


2. Install in the reverse order of removal.

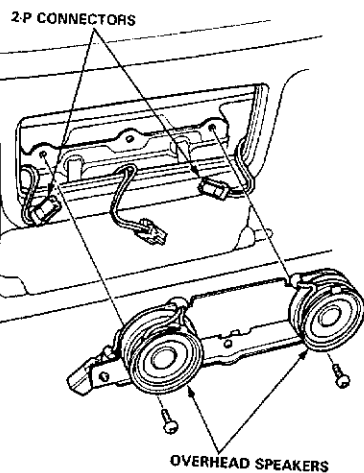
cardiagn.com

Overhead Speaker Replacement

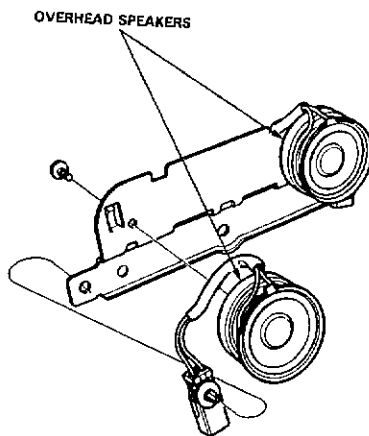
1. Turn the ceiling light switch OFF.
2. Pry off the lens.
3. Remove the bolt and the housing.
4. Disconnect the 4 P connector from the housing.



5. Remove the two screws, then disconnect the 2-P connectors from the wire harness.



6. Disconnect the wires from the overhead speaker, then remove the screw.

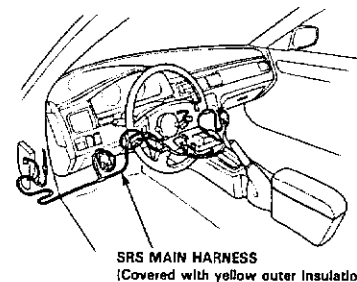


7. Install in the reverse order of removal.

Unit Removal

CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



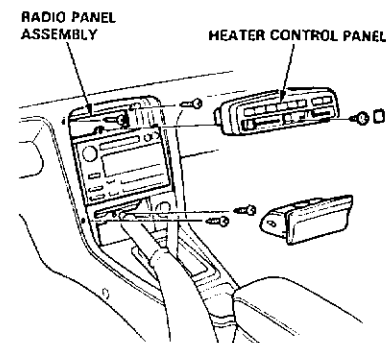
NOTE: The radio may have a coded theft protection circuit. Be sure to get the customer's code number before

- Disconnecting the battery.
- Removing the No. 39 (10 A) fuse in the under-hood fuse/relay box.
- Removing the radio.

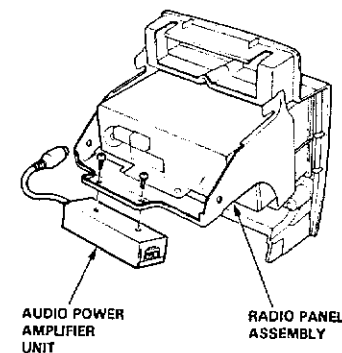
After service, reconnect power to the radio and turn it on. When the word "CODE" is displayed, enter the customer's 5-digit code to restore radio operation.

1. Remove the center console (see section 20).

2. Remove the heater control panel and the ashtray, then remove the four screws.



3. Disconnect the connectors and antenna lead, then take out the radio panel assembly.
4. Remove the two screws, then disconnect the audio power amplifier unit (LS).

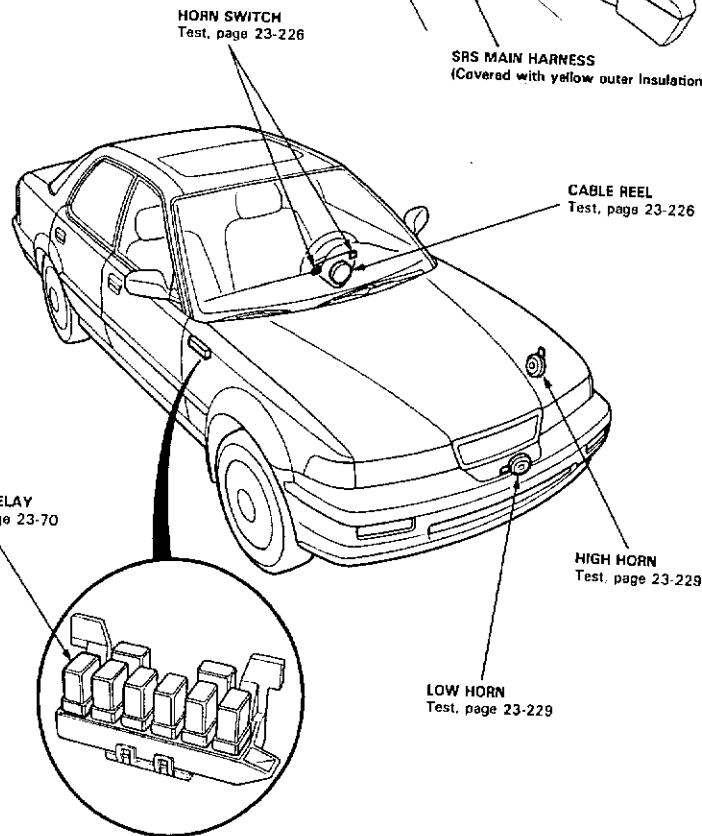
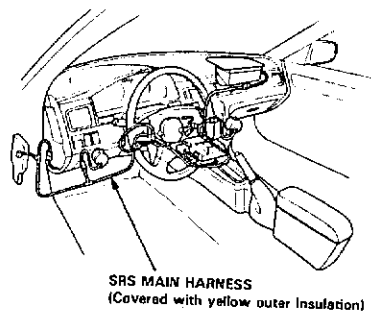


5. Install in the reverse order of removal.

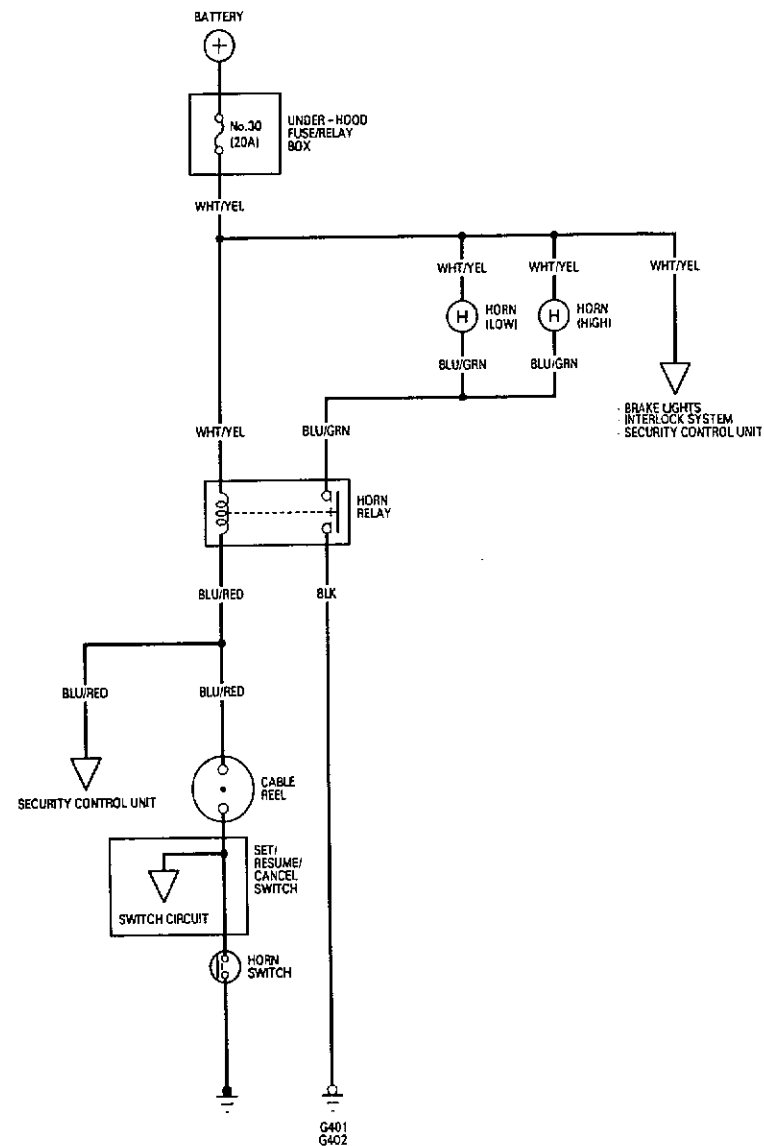
Component Location Index

CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



Circuit Diagram



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Horns

Switch Test

CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

NOTE: The radio may have a coded theft protection circuit. Be sure to get the customer's code number before

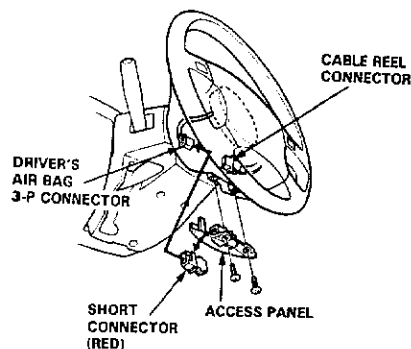
- Disconnecting the battery.
- Removing the No. 39 (10 A) fuse in the under-hood fuse/relay box.
- Removing the radio.

After service, reconnect power to the radio and turn it on. When the word "CODE" is displayed, enter the customer's 5-digit code to restore radio operation.

1. Disconnect the battery negative cable, then disconnect the positive cable.
2. Install short connectors on the airbag (s):

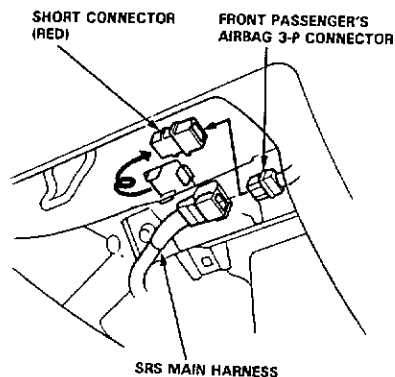
Driver's side:

- Remove the access panel from the steering wheel, then remove the short connector (RED) from the panel.
- Disconnect the connector between the driver's airbag and cable reel, then install the short connector (RED) on the airbag side of the connector.



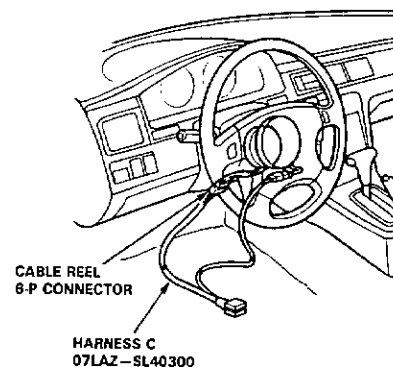
Passenger's side:

- Remove the glove box.

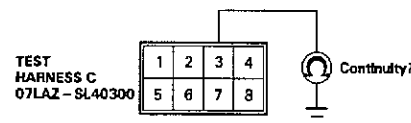


- Disconnect the connector between the front passenger's airbag and the SRS main harness, then install the short connector (RED) on the airbag side of the connector.

3. Disconnect the cable reel and the SRS main harness 6-P connector, and connect Test Harness C only to the cable reel side of the connector.

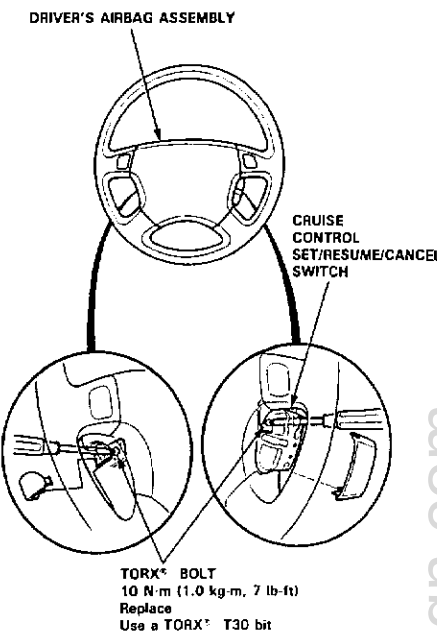


4. Check for continuity between the No. 3 terminal and body ground with the horn switch pressed. There should be continuity.



- If there is continuity, the horn switch is OK.
- If there is no continuity, go to step 5.

5. Remove the two TORX® bolts using a TORX® T30 bit, then remove the driver's airbag assembly.

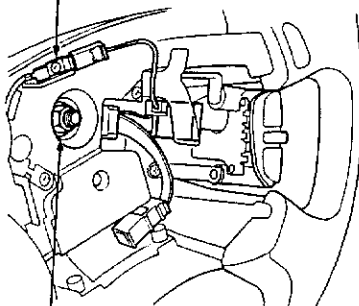


(cont'd)

Switch Test (cont'd)

6. Check for continuity between the horn positive terminal and the steering column shaft with the horn switch pressed. There should be continuity.

POSITIVE TERMINAL

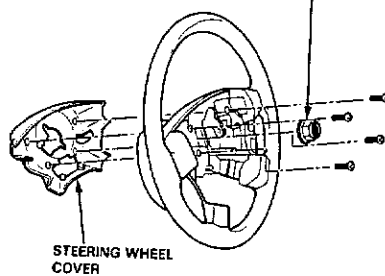


STEERING COLUMN SHAFT

- If there is continuity.
 - Test the set/resume/cancel switch (see page 23-299).
 - If the switch is OK, replace the cable reel.

- If there is no continuity, remove the nut and four screws. Then remove the steering wheel. Remove the cover from the back of the steering wheel and replace the horn switch.

STEERING WHEEL NUT
50 N·m (5.0 kg·m, 30 lb·ft)
Replace



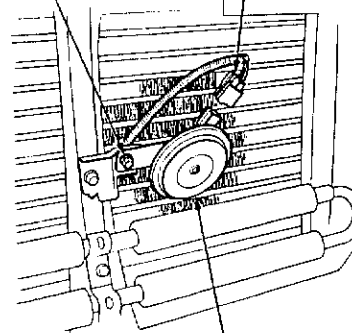
7. Reinstall the steering wheel (see section 17).

Horn Test

1. Disconnect the 2-P connector from the horn.
2. Remove the low and high horns.

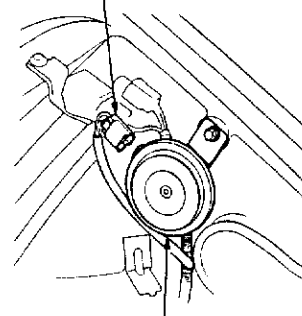
MOUNTING BOLT

2-P CONNECTOR



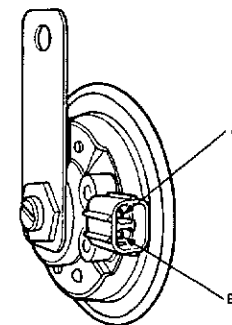
LOW HORN

2-P CONNECTOR



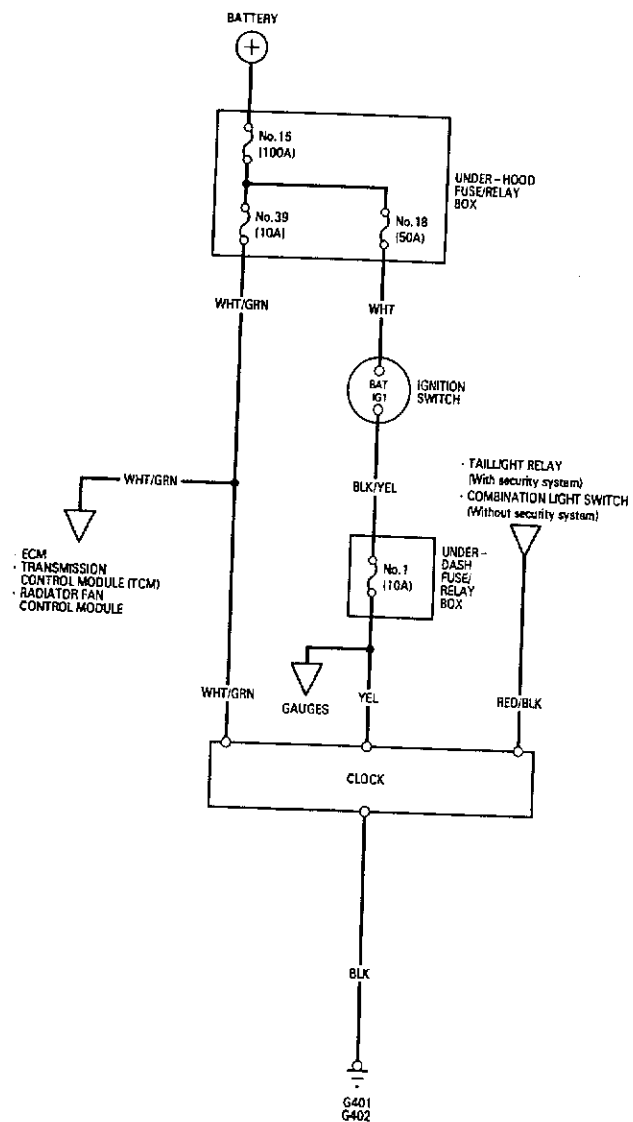
HIGH HORN
(SECURITY HORN)

3. Test the horn by connecting battery power to one terminal and grounding the other. The horn should sound.



4. Replace the horn if it fails to sound.

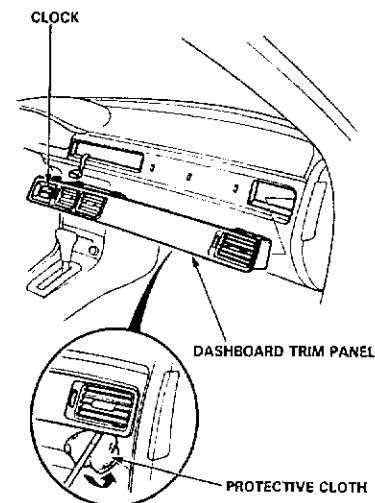
Circuit Diagram



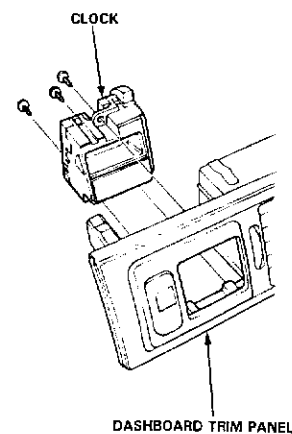
Replacement

CAUTION: Be careful not to damage the dashboard and dashboard trim panel.

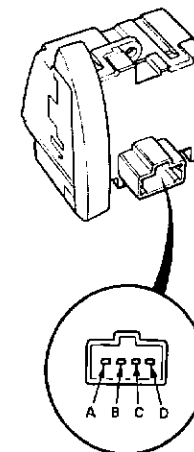
1. Pry out the dashboard trim panel.



2. Remove the clock from the dashboard trim panel.



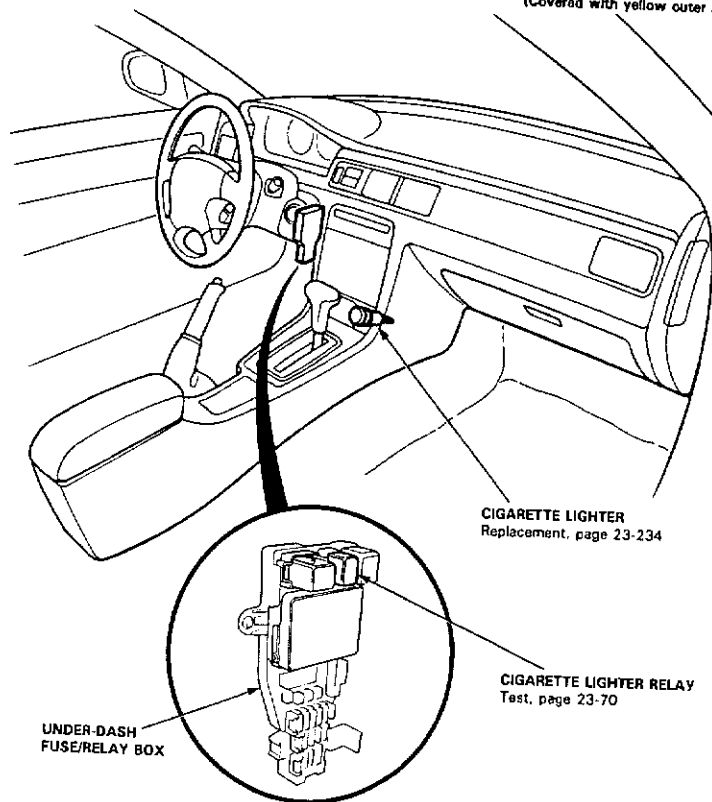
Terminals



Terminal	Wire	Destination
A	WHT/GRN	Constant power (Time memory)
B	YEL	IG1 (Main clock power supply)
C	RED/BLK	Lights-on signal
D	BLK	Ground

Component Location Index

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



BATTERY

UNDER - HOOD FUSE/RELAY BOX

No. 15 (100A) No. 18 (50A)

IGNITION SWITCH

BAT ACC

UNDER - DASH FUSE/RELAY BOX

No. 11 (10A)

CIGARETTE LIGHTER RELAY

STEREO RADIO/ CASSETTE PLAYER

YEL/RED

POWER ANTENNA MOTOR

CEILING LIGHT

COURTESY LIGHTS

TRUNK LIGHT

REAR READING LIGHTS

TAILLIGHT RELAY
(With security system)
COMBINATION LIGHT SWITCH
(Without security system)

CIGARETTE LIGHTER

ASHTRAY LIGHT (1.4W)

LIGHT (1.4W)

DASH LIGHTS BRIGHTNESS CONTROLLER

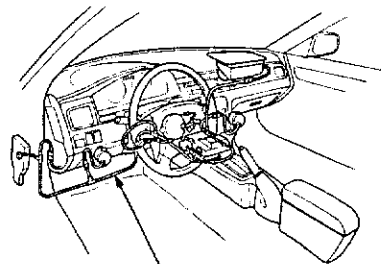
G401 G402

Cigarette Lighter

Replacement

CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



SRS MAIN HARNESS
(Covered with yellow outer insulation)

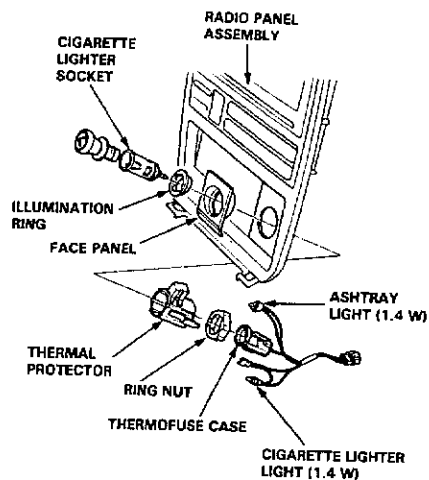
NOTE: The radio may have a coded theft protection circuit. Be sure to get the customer's code number before

- Disconnecting the battery.
- Removing the No. 39 (10 A) fuse in the under-hood fuse/relay box.
- Removing the radio.

After service, reconnect power to the radio and turn it on. When the word "CODE" is displayed, enter the customer's 5-digit code to restore radio operation.

1. Remove the center console (see section 20).
2. Remove the heater control panel and radio panel assembly (see page 23-223).

3. Disconnect the thermofuse case from the socket end.



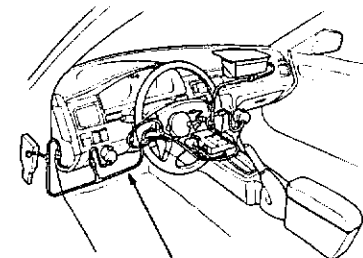
4. Remove the ring nut and separate the cigarette lighter socket from the thermal protector.
5. When installing the cigarette lighter, align each lug on the face panel, illumination ring and cigarette lighter socket with the groove in the hole, then position the bulb housing on the thermal protector between the stops in the radio panel.
6. Make sure that the ground wire, bulb socket and thermo fuse case are seated against the cigarette lighter assembly.

Rear Window Defogger

Component Location Index

CAUTION:

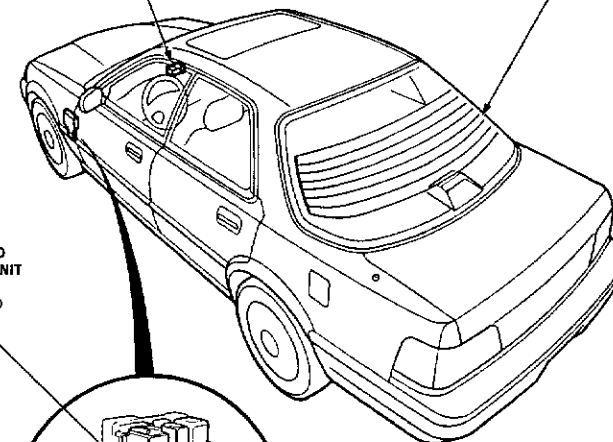
- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



SRS MAIN HARNESS
(Covered with yellow outer insulation)

DEFOGGER SWITCH
Removal, page 23-239
Test, page 23-239

REAR WINDOW DEFOGGER
Function Test, page 23-238



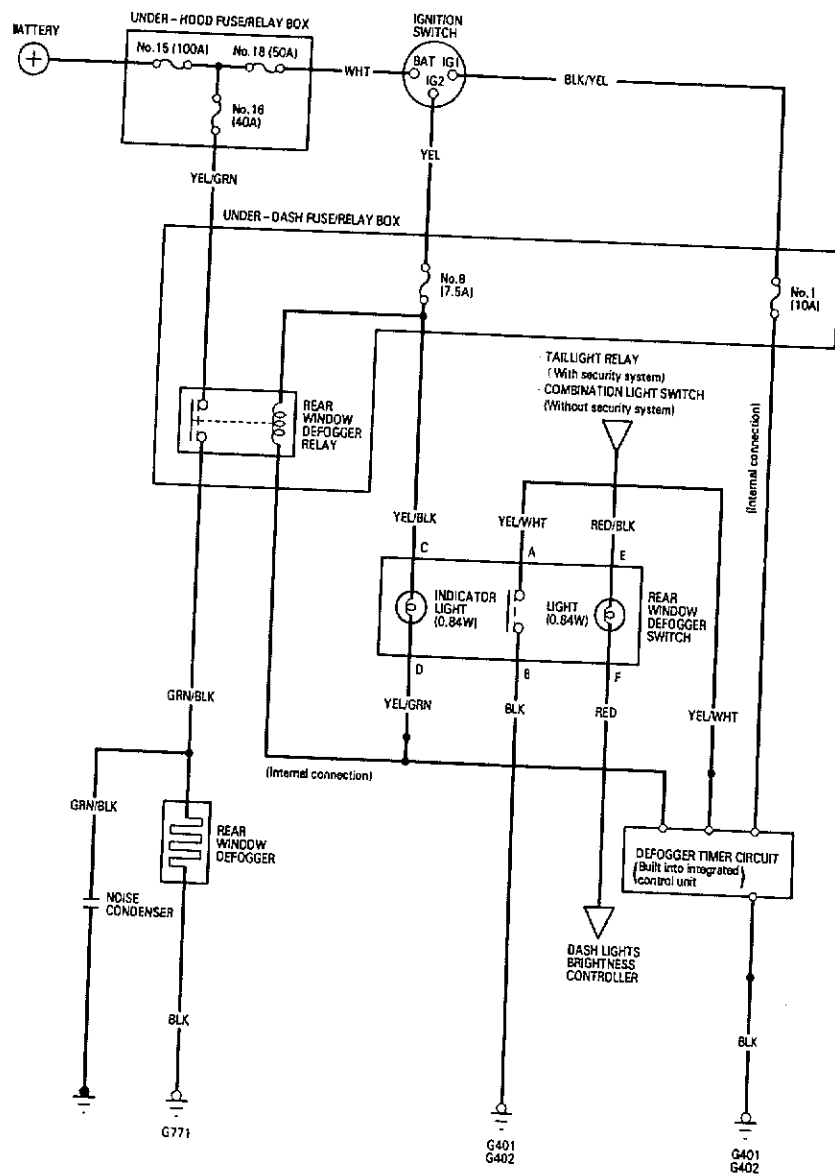
INTEGRATED CONTROL UNIT
Input Test,
page 23-170

REAR WINDOW DEFOGGER RELAY
Test, page 23-71

UNDER-DASH FUSE/RELAY/BOX

Rear Window Defogger

Circuit Diagram



Troubleshooting

NOTE: The numbers in the table show the troubleshooting sequence.

Item to be inspected	Blown indicator light bulb	Blown No. 8 (7.5 A) fuse (in the under-dash fuse/relay box)	Defogger timer circuit input (in the integrated control unit)	Blown No. 1 (10 A) fuse (in the under-dash fuse/relay box)	Blown No. 16 (40 A) fuse (in the under-hood fuse/relay box)	Function test	Defogger relay	Defogger switch	Poor ground	Open circuit wires, loose or disconnected terminals
Defogger works, but indicator light does not go on.	1									YEL/BLK
Defogger does not work and indicator light does not go on.		1	3	2			4	G401 G402		YEL, YEL/WHT or YEL/BLK
Defogger does not work, but indicator light goes on.					1	3	2	4	G771	YEL/WHT, YEL/BLK
Defogger-on time is too long or too short (normal operation time is 25 minutes).			1							YEL/WHT or BLK

Rear Window Defogger

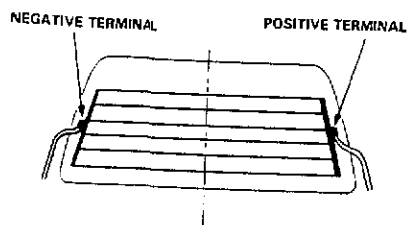
Function Test

CAUTION: Be careful not to scratch or damage the defogger wires with the tester probe.

1. Check for voltage between the positive terminal and body ground with the ignition switch and the defogger switch ON. There should be battery voltage.

- If there is no voltage, check for:
 - Faulty defogger relay.
 - Faulty defogger switch.
 - Faulty integrated control unit.
 - An open in the GRN/BLK wire.

- If there is battery voltage, go to step 2.



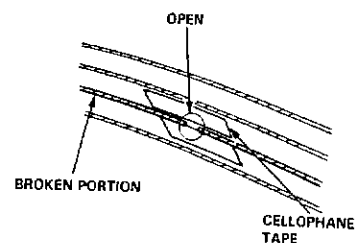
2. Check for continuity between the negative terminal and body ground. If no continuity, check for an open in the defogger ground wire.
3. Touch the voltmeter positive probe to the halfway point on each defogger wire, and the negative probe to the negative terminal. There should be approximately 6V with the ignition switch and the defogger switch ON.

- If the voltage is as specified, the defogger wire is OK.
- If there is battery voltage, the defogger wire is broken on the negative side.
- If there is no voltage, the defogger wire is broken on the positive side.

Defogger Wire Repair

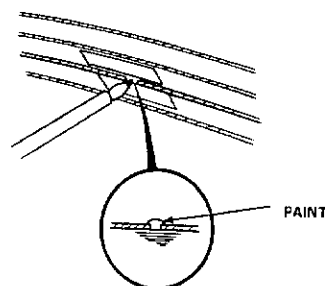
NOTE: To make an effective repair, the broken section must be no longer than 25 mm (1.0 in).

1. Lightly rub the area around the break with fine steel wool, then clean it with alcohol.
2. Carefully mask above and below the broken portion of the defogger wire with cellophane tape.



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

NOTE: Thoroughly mix the paint before use.

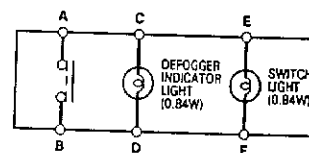
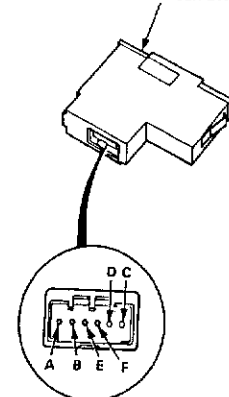


4. Check for proper operation with a voltmeter (half of battery voltage at the halfway-point).
5. Apply a second coat of paint in the same way. Let it dry for three hours before removing the tape.

Switch Test

1. Remove the rear window defogger switch.
2. Check for continuity between the terminal in each switch position according to the table.

REAR WINDOW DEFOGGER SWITCH

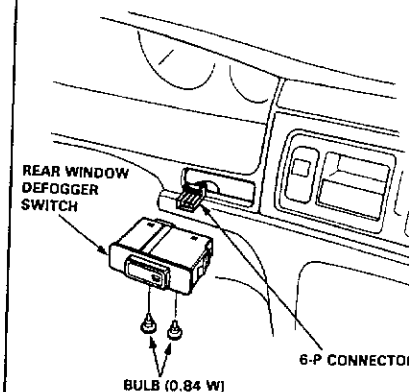


Terminal	A	B	C	D	E	F
Position						
PUSHED	○	○				
RELEASED			○	○	○	○

Switch Removal

NOTE: Be careful not to damage the instrument panel.

1. Carefully pry the switch out of the instrument panel.
2. Disconnect the 6-P connector from the switch.

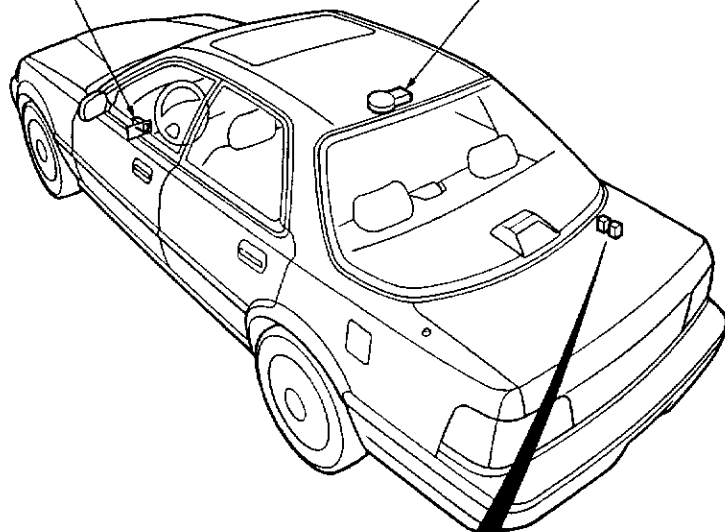


3. Turn the socket 45° counterclockwise to remove either bulb.

Component Location Index

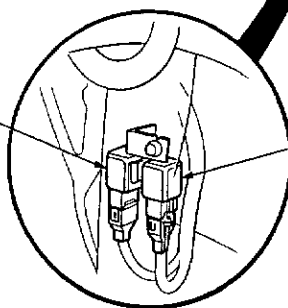
MOONROOF SWITCH
Removal, page 23-243
Test, page 23-244

MOONROOF MOTOR
Test, page 23-244
Replacement, section 20

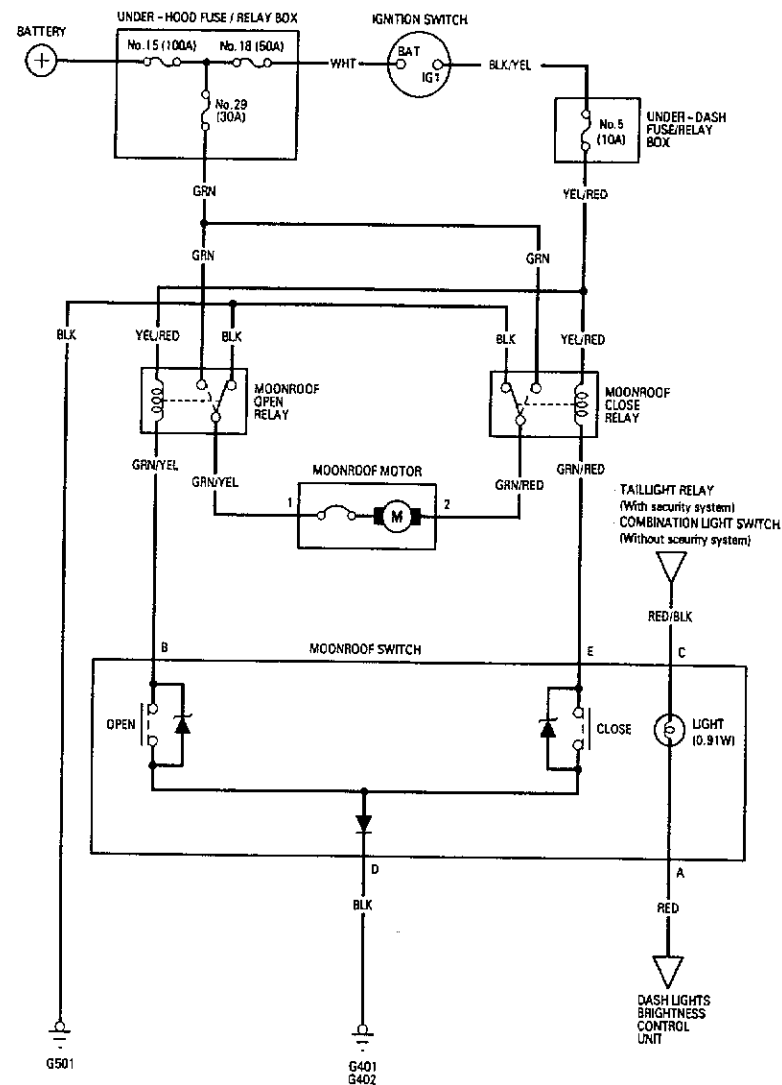


MOONROOF OPEN RELAY
Wire colors: YEL/RED, GRN/YEL
GRN/YEL, GRN and BLK
Test, page 23-72

MOONROOF CLOSE RELAY
Wire colors: YEL/RED, GRN/RED
GRN/RED, GRN and BLK
Test, page 23-72



Circuit Diagram



Troubleshooting

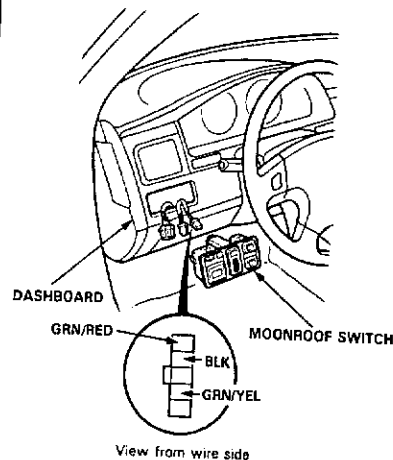
NOTE The numbers in the table show the troubleshooting sequence.

Symptom	Item to be inspected	Clutch out of adjustment, foreign matter stuck between guide rail, moonroof, or outer cable not attached properly.	Blown No. 29 (30 A) fuse (In the under-hood fuse/relay box)	Blown No. 5 (10 A) fuse (In the under-dash fuse/relay box)	Function Test	Open relay	Close relay	Moonroof motor	Moonroof switch	Poor ground	Open circuit in wires, loose or disconnected terminals
Moonroof does not move, but motor turns.		1									
Moonroof does not move and motor does not turn (moonroof can be moved with moonroof wrench).	With either switch.		1	2	3			5	4	G401 G402 G501	GRN, YEL/RED, GRN/YEL or GRN/RED
	With OPEN switch.					1	2		3		GRN/YEL or GRN/RED
	With CLOSE switch.					2	1		3		GRN/RED or GRN/YEL

Function Test

NOTE: Be careful not to damage the switch and the dashboard panel.

1. Carefully pry out the switches from the dashboard.
2. Disconnect the connectors from the switches.



3. Connect the GRN/YEL terminal to body ground with a jumper wire, then turn on the ignition switch. The moonroof should open.

- If the moonroof opens, check the switch.
- If not, check for an open in the GRN/YEL wire.

4. Connect the GRN/RED terminal to body ground with a jumper wire, then turn on the ignition switch. The moonroof should close.

- If the moonroof closes, check the switch.
- If not, check for open in the GRN/RED wire.

5. Check for continuity to body ground on the BLK wire. There should be continuity.

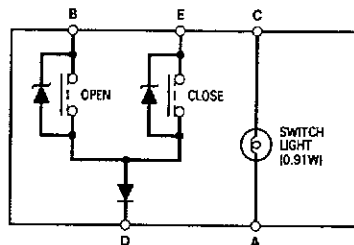
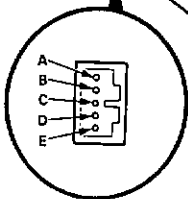
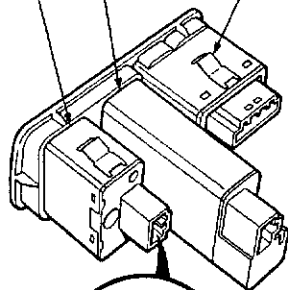
- If there is continuity, check the switch.
- If there is no continuity, check for open in the BLK wire.

Moonroof

Switch Test

1. Carefully remove the switches from the dashboard.
2. Check for continuity between the terminals in each switch position according to the table.

MOONROOF SWITCH
DASH LIGHTS BRIGHTNESS CONTROLLER
POWER MIRROR SWITCH

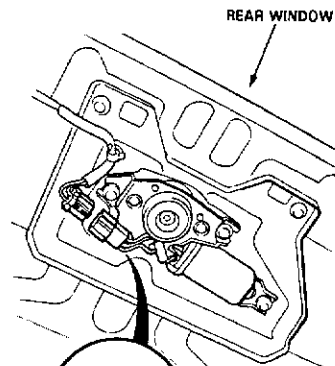


Terminal	B	D	E	A	C
Position					
OFF					
OPEN	○	→	○	○	○
CLOSE			○	←	○

Motor Test

1. Remove the headliner.
2. Disconnect the 2-P connector from the moonroof motor.
3. Test motor operation by connecting battery power to the No. 1 and No. 2 terminals. Test the motor in each direction, by switching the leads.
4. If the motor does not run, replace it.

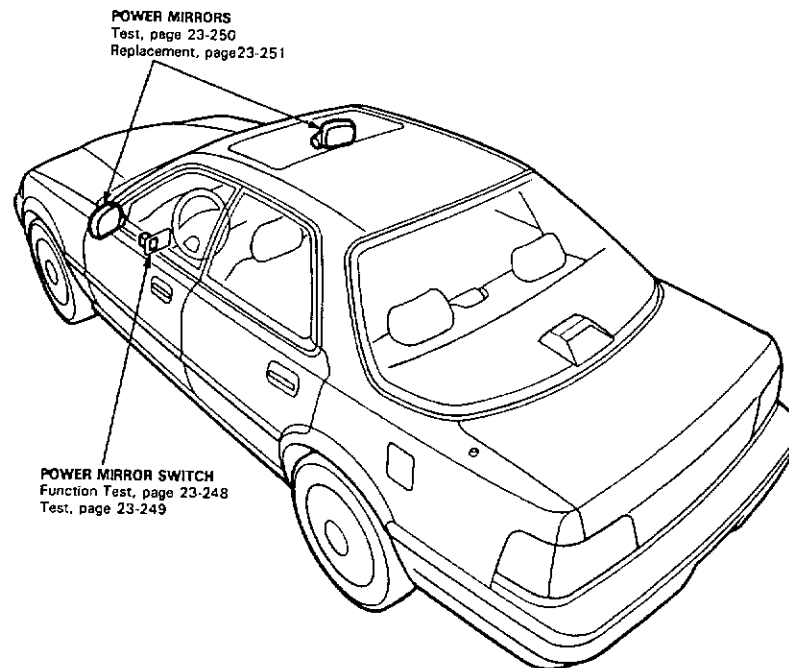
NOTE: See closing force check in section 20 for motor clutch test.



View from wire side

Power Mirrors

Component Location Index

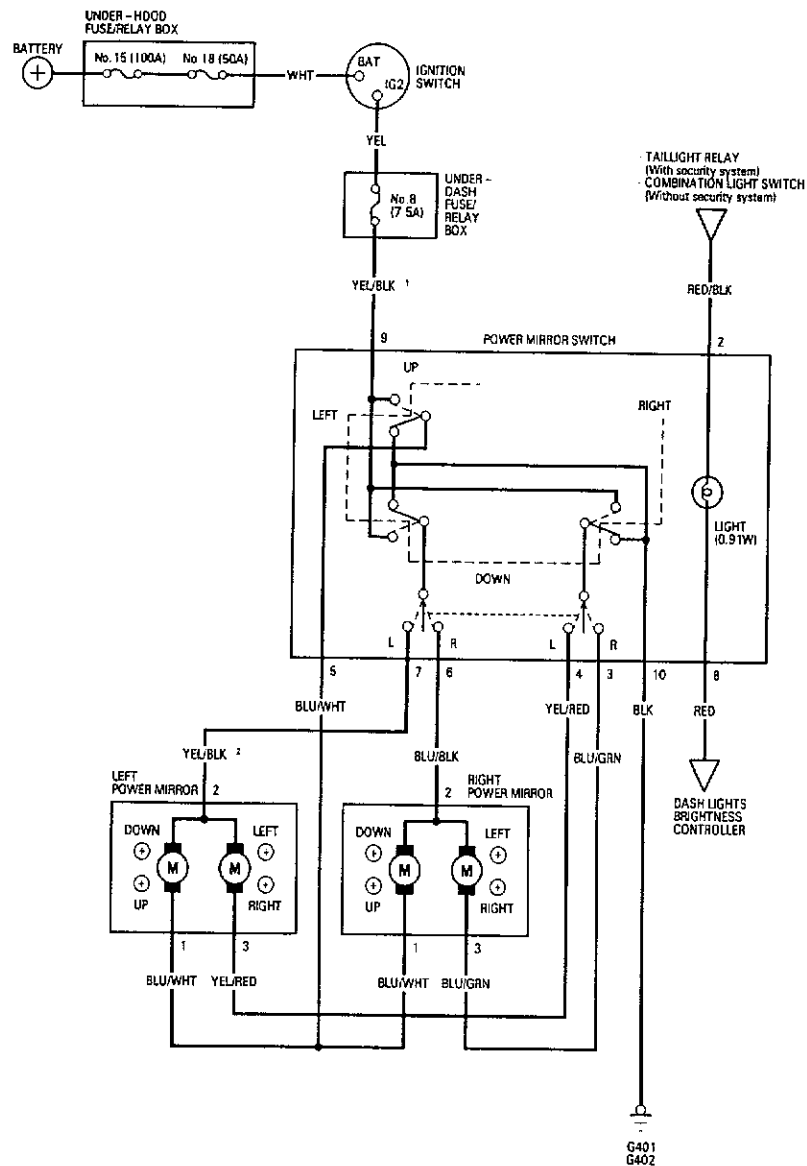


POWER MIRRORS
Test, page 23-250
Replacement, page 23-251

POWER MIRROR SWITCH
Function Test, page 23-248
Test, page 23-249

Power Mirrors

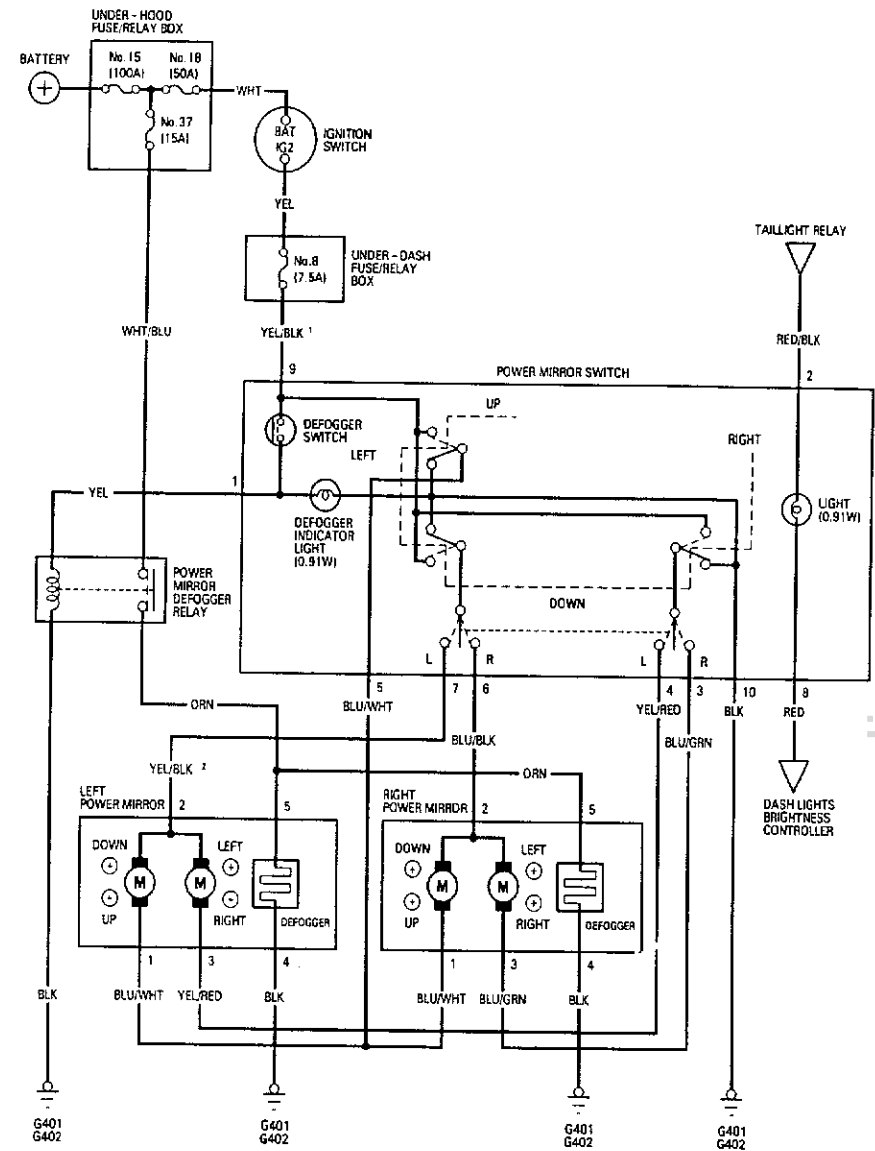
Circuit Diagram (Without Defogger)



Circuit Diagram (With Defogger)

POWER MIRROR DEFOGGER RELAY

Test, page 23-71

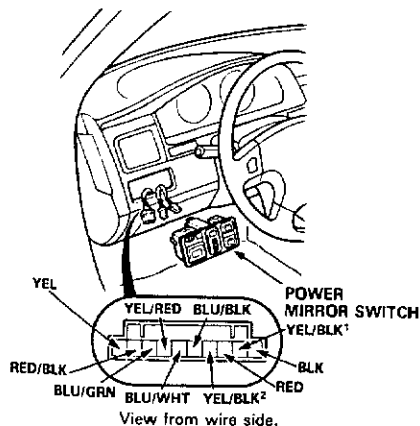


Power Mirrors

Function Test

NOTE: Be careful not to damage the switches and the dashboard.

1. Carefully pry out the switches from the dashboard.
2. Disconnect the connectors from the switches.



Mirror Test

One or both inoperative:

1. Check for voltage between the YEL/BLK¹ terminal and body ground with the ignition switch ON. There should be battery voltage.
 - If there is no voltage, check for:
 - Blown No 8 (7.5A) fuse in the under-dash fuse/relay box.
 - An open in the BLK/YEL wire.
 - If there is battery voltage, go to step 2.
2. Check for continuity between the BLK terminal and body ground. There should be continuity.
 - If there is no continuity, check for:
 - An open in the BLK wire.
 - Poor ground (G401, G402).

Left mirror inoperative:

Connect the YEL/BLK¹ terminal of the 10-P connector to the YEL/BLK² terminal and the BLU/WHT (or YEL/RED) terminal to body ground with jumper wires. The left mirror should tilt down (or swing left) when the ignition switch is turned ON.

- If the mirror does not tilt down (or does not swing left), remove the left door panel and check for an open in the BLU/WHT (or YEL/RED) wire between the left power mirror and the switch.

If the wire is OK, check the left power mirror motor.

- If the mirror neither tilts down nor swings left, repair the YEL/BLK² wire.
- If the mirror operates properly, check the mirror switch.

Right mirror inoperative:

Connect the YEL/BLK¹ terminal of the 10-P connector to the BLU/BLK terminal and the BLU/WHT (or BLU/GRN) terminal to body ground with jumper wires. The right mirror should tilt down (or swing left) when the ignition switch is turned ON.

- If the mirror does not tilt down (or does not swing left), remove the right door panel and check for an open in the BLU/WHT (or BLU/GRN) wire between the right power mirror and the switch.
- If the wire is OK, check the right power mirror motor.
- If the mirror neither tilts down nor swings left, repair the BLU/BLK wire.
- If the mirror operates properly, check the mirror switch.

Defogger test (With defogger)

1. Connect the YEL/BLK¹ with the YEL terminal of the switch and the YEL terminal of the relay with the BLK terminal by jumper wires. There should be battery voltage when the ignition switch is turned ON.
 - If there is no voltage, check for:
 - An open in the YEL wire.
 - Poor ground (G401, G402).
 - If there is voltage, go to step 2.
2. Connect the WHT/BLU and ORN terminals of the relay with a jumper wire and check for voltage between the WHT/BLU terminal and body ground. There should be battery voltage and both mirrors should warm up with the ignition and defogger switches turned ON.
 - If there is no voltage or neither warms up, check for:
 - An open in the WHT/YEL and ORN wires.
 - Blown No. 37 (15A) in the under-hood fuse/relay box.
 - Poor ground (G401, G402).
 - If only one fails to warm up, check its defogger.
 - If both fail to warm up, check the defogger switch and defogger relay.

Switch Test

1. Remove the switch as described in function test (see page 23-248).
2. Check for continuity between the terminals in each switch position according to the table.

Mirror Switch

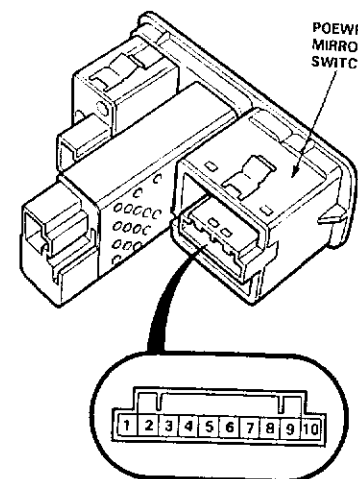
Terminal Position	9	10	5	4	7	3	6
OFF							
UP							
DOWN							
LEFT							
RIGHT							
OFF							
UP							
DOWN							
LEFT							
RIGHT							

Defogger Switch (With Defogger)

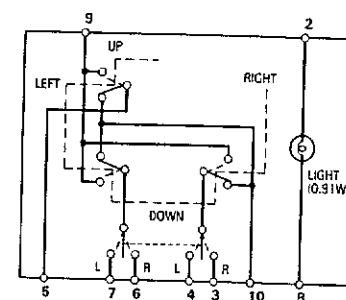
Terminal Position	9	1	10
ON			
OFF			

Switch Light

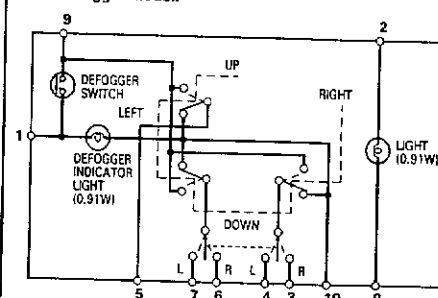
Terminal Position	2	8
ON/OFF		



Without defogger model:



With defogger model:



Power Mirrors

Door Mirror Test

1. Remove the cover panel, then disconnect the 3-P connector and 2-P connector (with defogger) from the power mirror actuator.
2. Check actuator operation by connecting power and ground according to the table.

TILT:

Terminal Position	1	2
UP	+	-
DOWN	-	+

SWING:

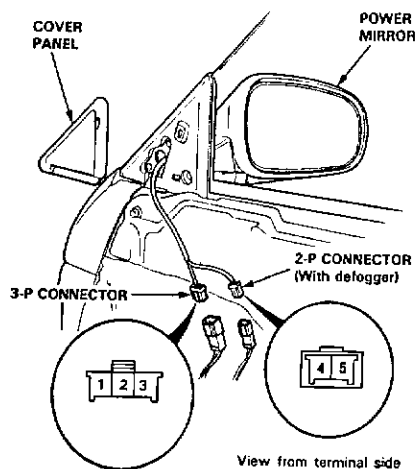
Terminal Position	2	3
LEFT	+	-
RIGHT	-	+

3. Check for continuity between the terminals according to the table.

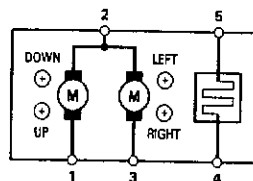
With defogger model:

Terminal Position	4	5
ON	○	○

4. If the mirror fails to operate properly, replace it.

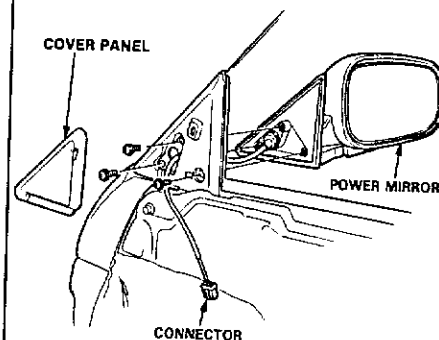


View from terminal side

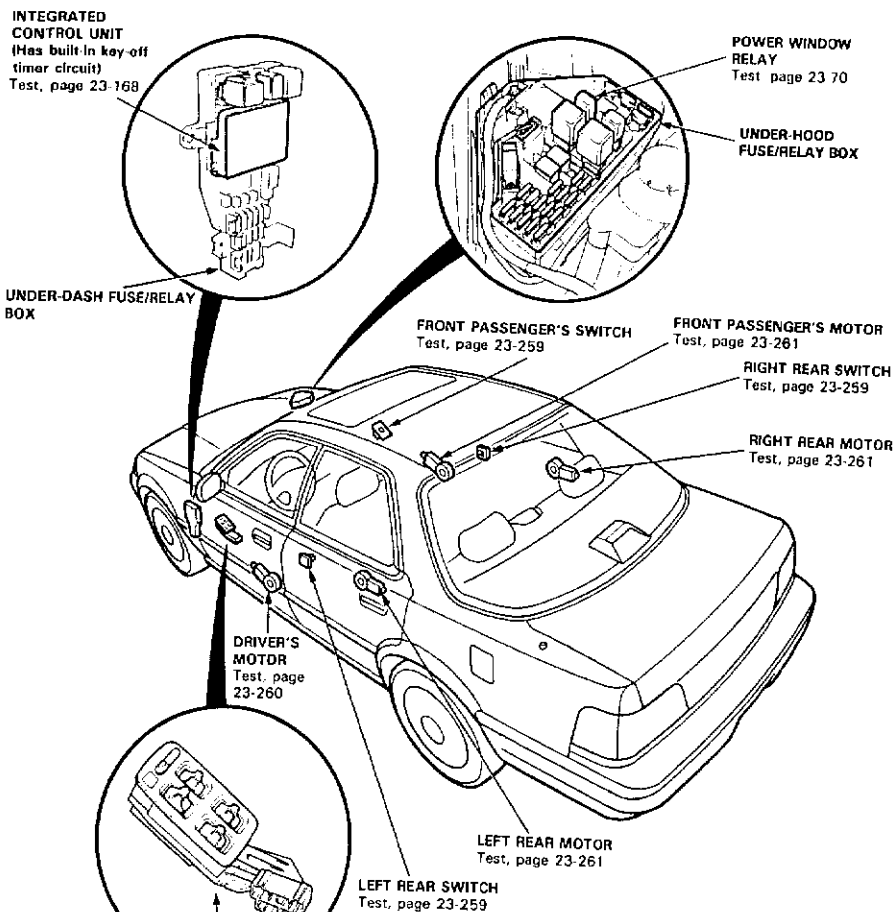


Power Mirror Replacement

1. Carefully pry out the cover panel with a flat tip screwdriver.
2. Remove the door panel.
3. Disconnect the 3-P connector and 2-P connector (with defogger) from the mirror.
4. While holding the mirror with one hand, remove its mounting screws with the other.



Component Location Index



Description

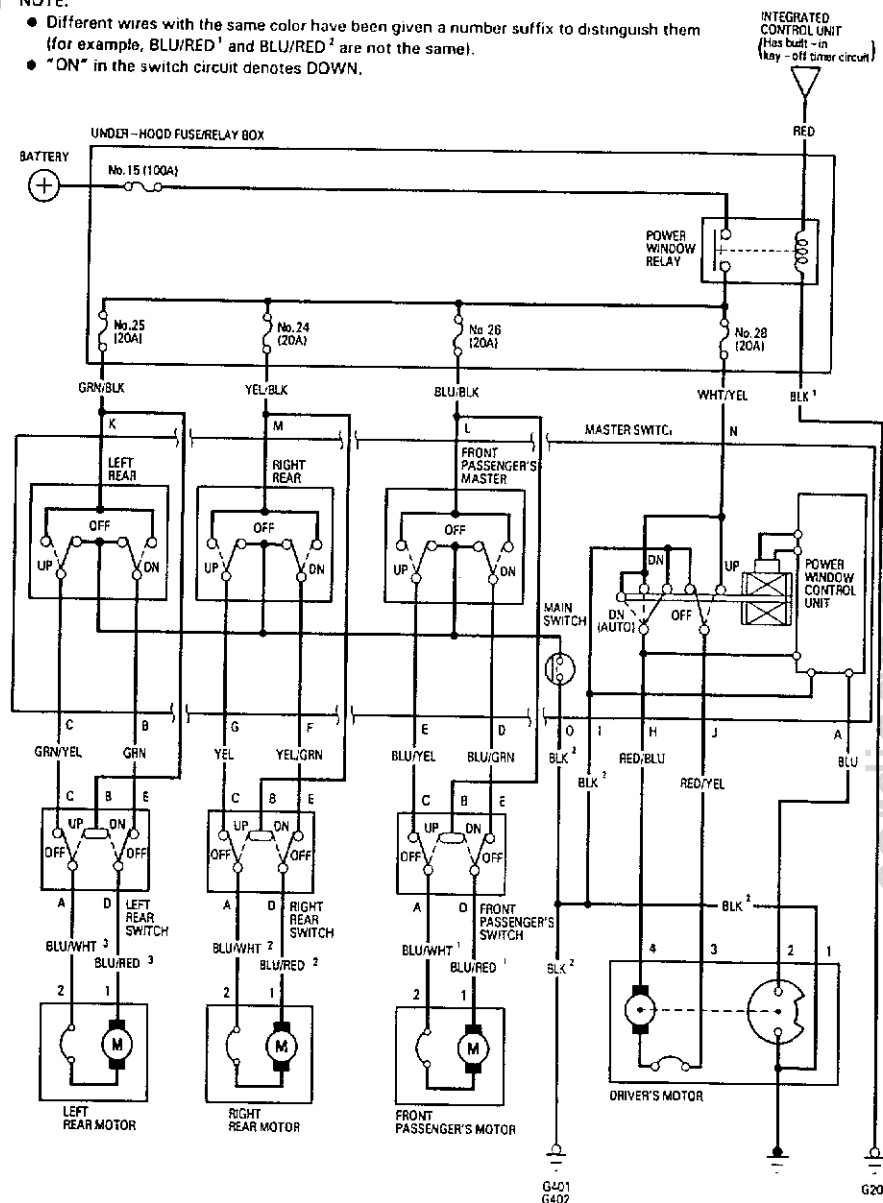
Power Window Key-off Timer Operation:

The power windows can still be operated for about 10 minutes after the ignition switch is turned from the "II" to the "I" or "O" position, as long as neither of the front doors has been opened. This provides a convenience to parked occupants while offering a degree of security against unwanted or accidental window operation.

Circuit Diagram

NOTE:

- Different wires with the same color have been given a number suffix to distinguish them (for example, BLU/RED¹ and BLU/RED² are not the same).
- "ON" in the switch circuit denotes DOWN.



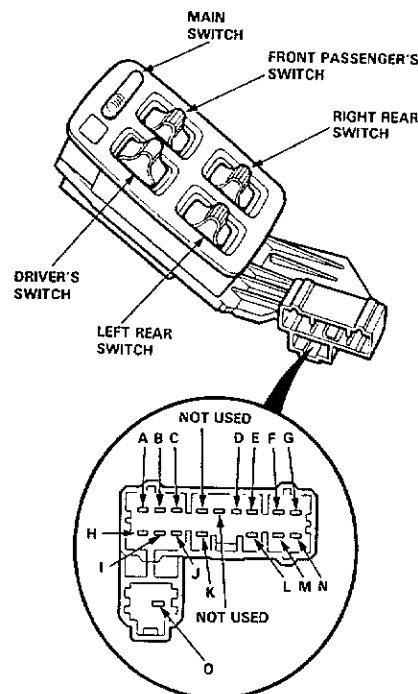
Troubleshooting

NOTE: The numbers in the table show the troubleshooting sequence.

Symptom		Item to be inspected																								
		Blown No. 15 (100 A) fuse (In the under-hood fuse/relay box)			Blown No. 37 (115 A) fuse (In the under-hood fuse/relay box)			Power window relay	Blown No. 28 (20 A) fuse In the under-hood fuse/relay box		Blown No. 26 (20 A) fuse In the under-hood fuse/relay box		Blown No. 24 (20 A) fuse In the under-hood fuse/relay box		Blown No. 25 (20 A) fuse In the under-hood fuse/relay box	Power window master switch	Passenger's switch	Driver's motor	Pulsar (In driver's motor)	Passenger's motor	Window regulator	Power window master switch input	Door switches	Key-off timer circuit (In the integrated control unit)	Poor ground	Open circuit wires, loose or disconnected terminals
All windows do not work.		1	2	3				1									2			3	4			4	G201 G401 G402	RED
Driver's window does not work.																									G401 G402	WHT/YEL
Driver's window does not work in AUTO.														1				2			3					BLU
Passenger's windows do not work.	Front Passenger's								1					2	3					4	5					BLU/BLK
	Left rear											1	2	3						4	5					GRN/BLK
	Right rear										1		2	3						4	5					YEL/BLK
All windows do not operate within 10 minutes after the ignition switch is OFF.			1																				2	3		

Power Window Master Switch Test

1. Remove the switch from the driver's door panel
2. Check for continuity between the terminals in each switch position according to the tables.



Driver's Switch

Terminal Position	N	J	I	H
OFF		○	○	○
UP	○			○
DOWN	○	○		
DOWN (AUTO)	○	○		

Front Passenger's Switch

Terminal		D	E	L	O
Position	Main Switch				
OFF	ON				
	OFF				
UP	ON				
	OFF				
DOWN	ON				
	OFF				

Right Rear Switch

Terminal		F	G	M	D
Position	Main Switch				
OFF	ON				
	OFF				
UP	ON				
	OFF				
DOWN	ON				
	OFF				

Left Rear Switch

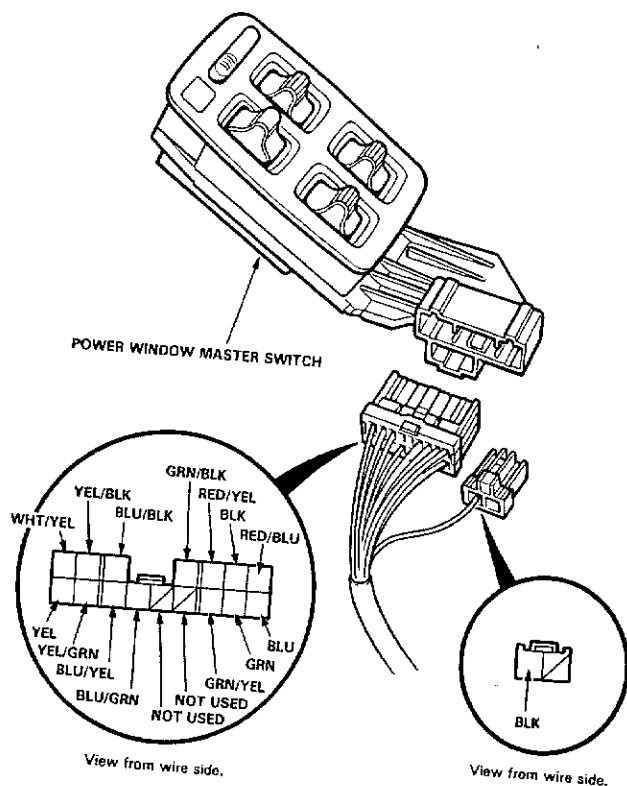
Terminal		B	C	K	O
Position	Main Switch				
OFF	ON				
	OFF				
UP	ON				
	OFF				
DOWN	ON				
	OFF				

Master Switch Input Test

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

1. Remove the driver's door panel and disconnect the 16 P and 2-P connectors from the power window master switch. 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, make the following 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 switch must be faulty; replace it.



No.	Terminal	Test condition	Test: Desired result	Possible cause if result is not obtained
1	BLK ²	Under all conditions.	Check for continuity to ground. There should be continuity.	• Poor ground (G401, G402) • An open in the wire.
2	WHT/YEL	Ignition switch ON.	Check for voltage to ground. There should be battery voltage.	• Blown No. 24, 25, 26 or 28 (20 A) fuse (in the under-hood fuse/relay box). • Faulty power window relay • An open in the wire.
	BLU/BLK			
	YEL/BLK			
	GRN/BLK			
3	RED/BLU and RED/YEL	Connect the WHT/YEL terminal to the RED/BLU terminal, and the RED/YEL terminal to the BLK ² terminal, then turn the ignition switch ON.	Check the driver's motor operation: It should run.	• Faulty driver's motor. • An open in the wire.
4	BLU/YEL and BLU/GRN	Connect the BLU/BLK terminal to the BLU/YEL terminal, and the BLU/GRN terminal to the BLK ² terminal, then turn the ignition switch ON.	Check the front passenger's motor operation: It should run.	• Faulty front passenger's motor. • Faulty front passenger's switch. • An open in the wire.
5	YEL and YEL/GRN	Connect the YEL/BLK terminal to the YEL/GRN terminal, and the YEL terminal to the BLK ² terminal, then turn the ignition switch ON.	Check the right rear motor operation: It should run (the window moves down).	• Faulty right rear motor. • Faulty right switch • An open in the wire.
6	GRN/YEL and GRN	Connect the GRN/BLK terminal to the GRN terminal, and the GRN/YEL terminal to the BLK ² terminal, then turn the ignition switch ON.	Check the left rear motor operation: It should run (the window moves down).	• Faulty left rear motor. • Faulty left rear switch. • An open in the wire.
7	BLU and BLK ²	Connect the WHT/YEL terminal to the RED/YEL terminal, and the BLK ² terminal to the RED/BLU terminal, then turn the ignition switch ON.	Check for resistance between the BLU and BLK ² terminals: Between 20-50 ohms should be indicated as the driver's motor runs.	• Faulty pulser. • Faulty driver's motor. • An open in the wire.

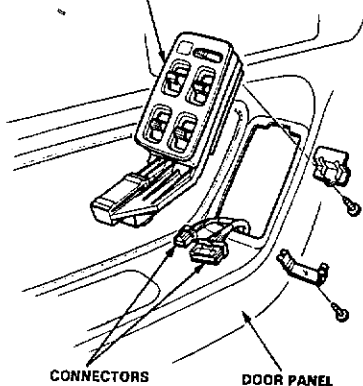


Power Windows

Master Switch Replacement

1. Remove the driver's door panel, and disconnect all connectors.
2. Remove the power window master switch from the door panel by unscrewing the mounting screws.

POWER WINDOW MASTER SWITCH



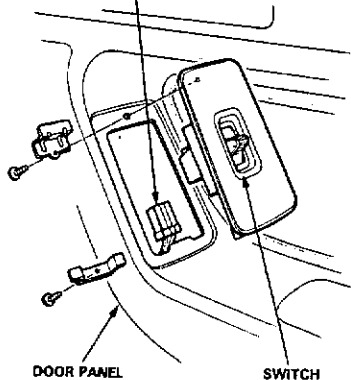
3. Install in the reverse order of removal.

Passenger's Switch Replacement

1. Remove the door panel and disconnect the 5-P connector.
2. Remove the switch from the door panel by removing the mounting screw.

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

5-P CONNECTOR

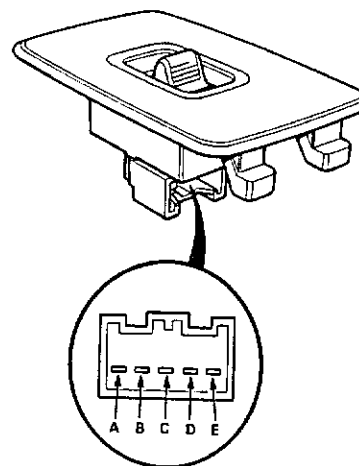


3. Install in the reverse order of removal.

Passenger's Switch Test

1. Remove the door panel, and disconnect all connectors.
2. Remove the switch from the door panel by unscrewing the mounting screw.
3. Check for continuity between the terminals in each switch position according to the table.

NOTE: The front passenger's switch is shown. The rear switches are similar.



Position	Terminal				
	B	E	C	D	A
UP	○		○	○	○
OFF		○		○	○
DOWN	○		○	○	○

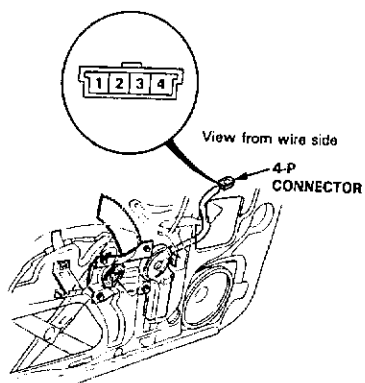
Power Windows

Driver's Motor Test

Motor Test:

1. Remove the door panel.
2. Disconnect the 4-P connector from the driver's door wire harness.
3. Check motor operation by connecting power and ground according to the table.

Terminal Position	1	2
UP	⊕	⊖
DOWN	⊖	⊕

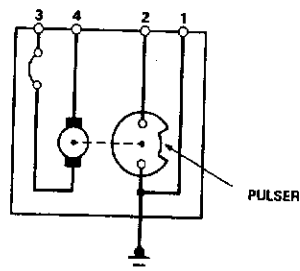


4. If the motor does not run, replace it.

Pulser Test:

Connect the test leads of an analog ohmmeter to the No. 1 and No. 2 terminals and check for needle movement while running the motor by applying battery voltage to the No. 3 and No. 4 terminals.

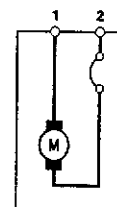
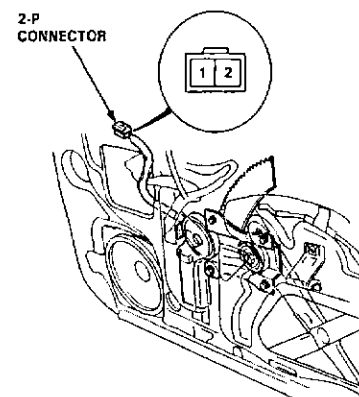
The analog ohmmeter needle should move back and forth alternately.



Passenger's Motor Test

1. Remove the door panel.
2. Disconnect the 2-P connector from the motor.
3. Check motor operation by connecting power and ground according to the table.

Terminal Position	1	2
UP	⊖	⊕
DOWN	⊕	⊖



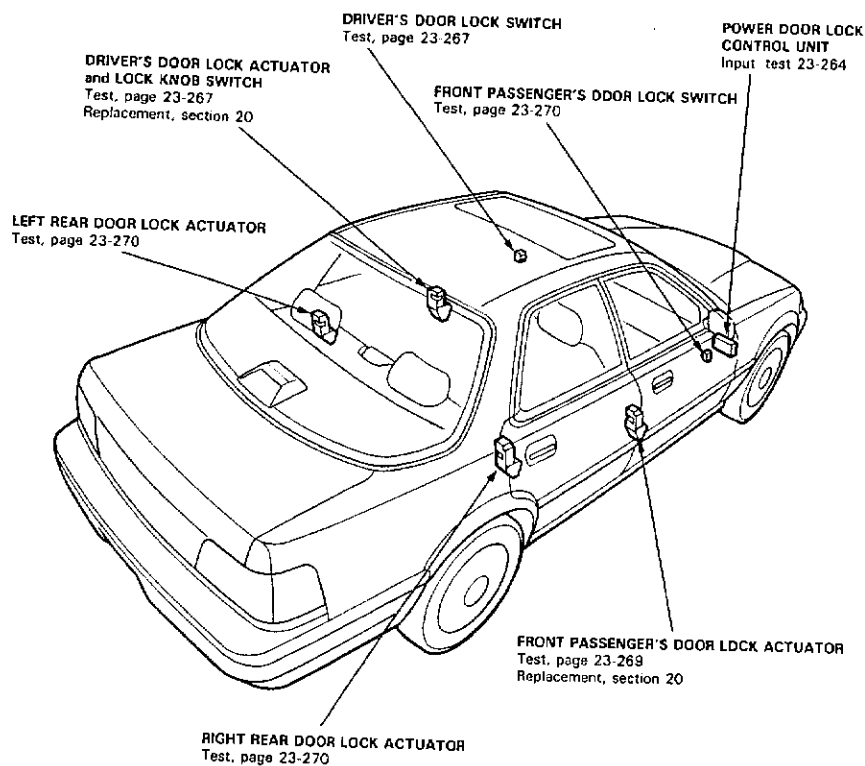
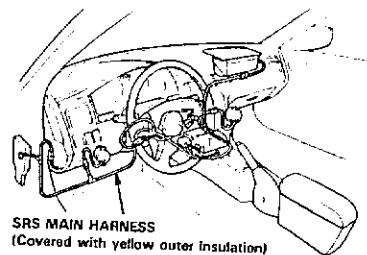
4. If the motor does not run, replace it.

POWER DOOR LOCKS

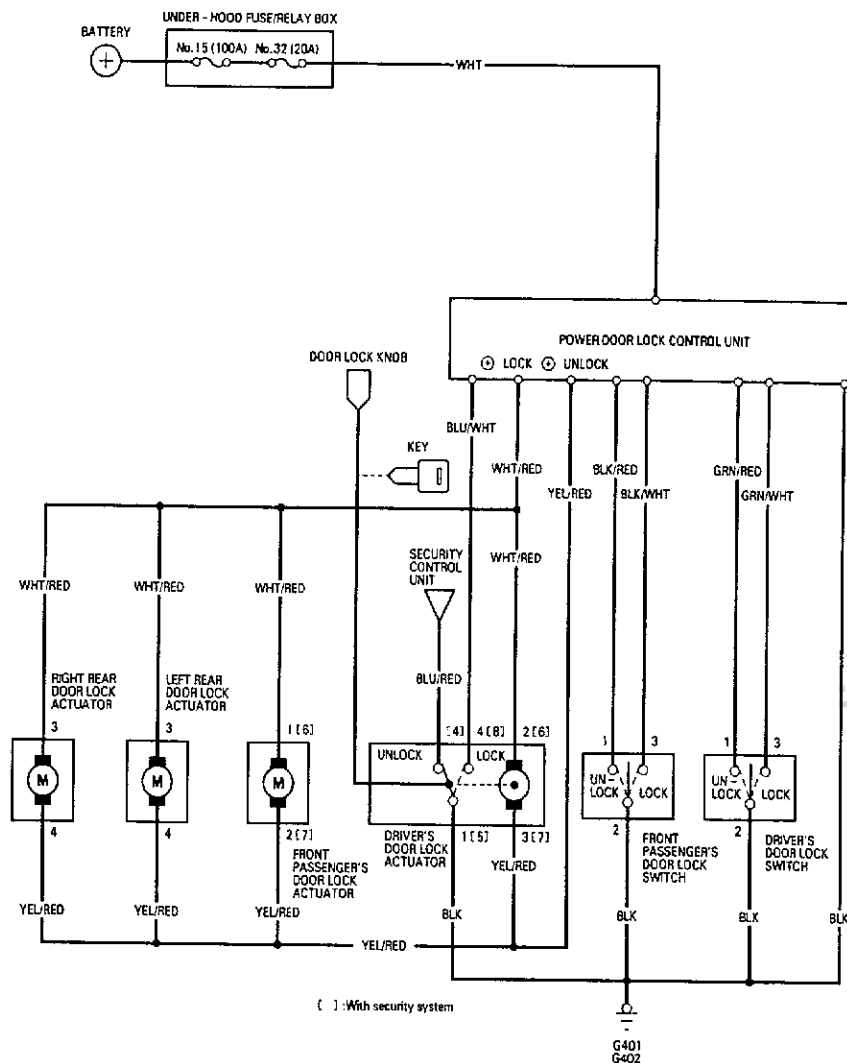
Component Location Index

CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



Circuit Diagram



Power Door Locks

Control Unit Input Test

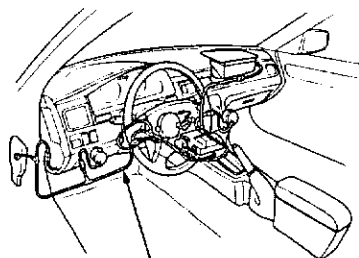
CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

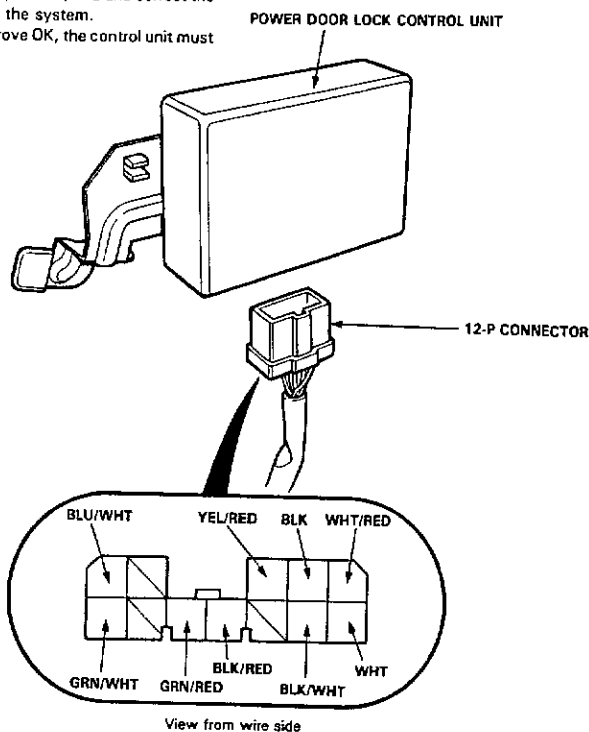
Remove the glove box, then disconnect the 12-P connector from the control unit.

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, make the following 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.



SRS MAIN HARNESS
(Covered with yellow outer insulation)



No.	Terminal	Test condition	Test: Desired result	Possible cause if result is not obtained
1	BLK	Under all conditions.	Check for continuity to ground: There should be continuity.	• Poor ground (G401, G402) • An open in the wire.
2	WHT	Under all conditions.	Check for voltage to ground: There should be continuity.	• Blown No. 32 (20 A) fuse (in the under-hood fuse/relay box). • An open in the wire.
3	GRN/WHT	Move the driver's power door lock switch from the neutral position to LOCK.	Check for voltage to ground: There should be less than 1V.	• Faulty driver's power door lock switch. • Poor ground (G401, G402). • An open in the wire. • Short to ground. • Faulty control unit.
4	GRN/RED	Move the driver's power door lock switch from the neutral position to UNLOCK.		
5	BLK/RED	Move the front passenger's power door lock switch from the neutral position to LOCK.	Check for voltage to ground: There should be less than 1V.	• Faulty front passenger's power door lock switch. • Poor ground (G401, G402). • An open in the wire. • Short to ground. • Faulty control unit.
6	BLK/RED	Move the front passenger's power door lock switch from the neutral position to UNLOCK.		
7	BLU/WHT	Driver's door lock knob in LOCK.	Check for voltage to ground: There should be less than 1V.	• Faulty driver's door actuator. • Poor ground (G401, G402) • An open in the wire.
		Driver's door lock knob in UNLOCK.	Check for voltage to ground: There should be battery voltage.	• Faulty driver's door actuator. • Short to ground. • Faulty control unit.
8	WHT/RED or YEL/RED	Connect the WHT terminal to the WHT/RED terminal, and the YEL/RED terminal to the BLK terminal momentarily.	Check door lock operation: All doors should lock as the battery is connected momentarily.	• Faulty passenger's door actuator. • Faulty driver's door actuator. • An open in the wire.
		Connect the WHT terminal to the YEL/RED terminal, and the WHT/RED terminal to the BLK terminal momentarily.	Check door unlock operation: All doors should unlock as the battery is connected momentarily.	

CAUTION: To prevent damage to the motor, apply battery voltage momentarily.

Power Door Locks

Troubleshooting

NOTE: The numbers in the table show the troubleshooting sequence.

Symptom	Item to be inspected									
	Blown No. 32 (20 A) fuse (in the under-hood fuse/relay box)	Door lock knob switch (in the driver's door actuator)	Control unit input	Passenger's door actuator	Disconnected or obstructed door lock rod/linkage	Driver's power door lock switch	Passenger's power door lock switch	Poor ground	Open circuit wires, loose or disconnected terminals	
Power door lock system does not work at all.	1		2					G401 G402	WHT	
Doors do not lock with driver's door lock knob switch.	All doors.				1					
	All passenger's doors.	1	2	3		4		G401 G402	BLU/WHT, YEL/RED or WHT/RED	
	One or more doors.				1				YEL/RED or WHT/RED	
Doors do not lock or unlock with driver's power door lock switch.	All doors.	1		3		4	2	G401 G402	GRN/RED, GRN/WHT YEL/RED or WHT/RED	
	One or more doors.				1				YEL/RED or WHT/RED	
Doors do not lock or unlock with front passenger's power door lock switch.	All doors.	1		3		4	2	G401 G402	BLK/RED, BLK/WHT, YEL/RED or WHT/RED	
	One or more doors.				1				YEL/RED or WHT/RED	

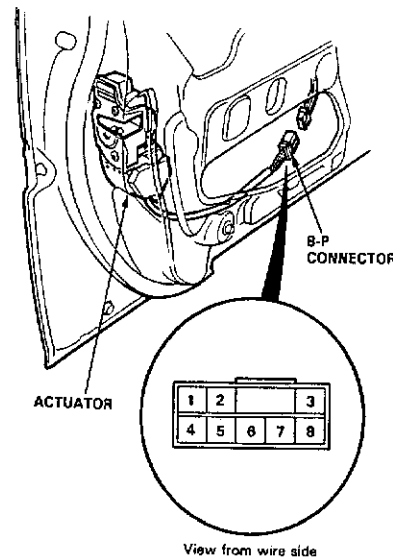
CAUTION: To prevent damage to the motor, apply battery voltage momentarily.

Driver's Door Actuator Test (With Security System)

1. Remove the door panel.
2. Disconnect the 8-P connector from the actuator.
3. Check actuator operation by connecting power and ground according to the table.

Terminal Position	6	7
LOCK	⊕	⊖
UNLOCK	⊖	⊕

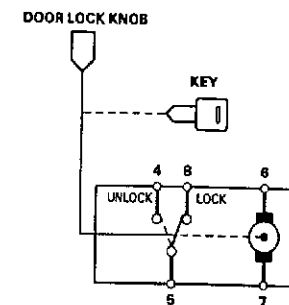
CAUTION: To prevent damage to the motor, only apply battery voltage momentarily.



4. If the actuator fails to operate properly, replace it.

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

Terminal Position	8	5	4
LOCK	○	○	
UNLOCK		○	○



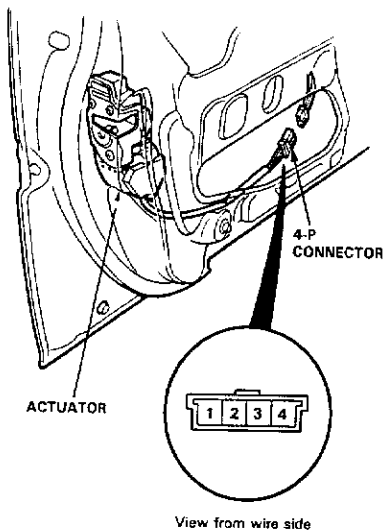
Power Door Locks

Driver's Door Actuator (Without Security System)

1. Remove the door panel.
2. Disconnect the 4-P connector from the actuator.
3. Check actuator operation by connecting power and ground according to the table.

Terminal Position	2	3
LOCK	⊕	⊖
UNLOCK	⊖	⊕

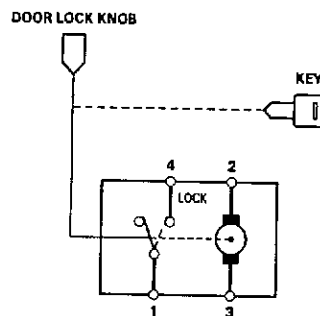
CAUTION: To prevent damage to the motor, only apply battery voltage momentarily.



4. If the actuator fails to operate properly, replace it.

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

Terminal Position	1	4
LOCK	○	○
UNLOCK		



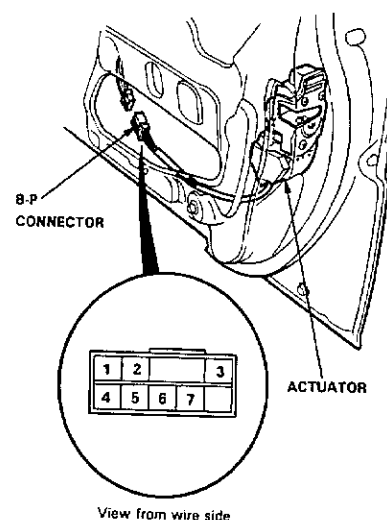
Front Passenger's Door Actuator Test

With Security System:

1. Remove the door panel.
2. Disconnect the 8-P connector from the actuator.
3. Check actuator operation by connecting power and ground according to the table.

Terminal Position	6	7
LOCK	⊕	⊖
UNLOCK	⊖	⊕

CAUTION: To prevent damage to the motor, only apply battery voltage momentarily.



4. If the actuator fails to operate properly, replace it.

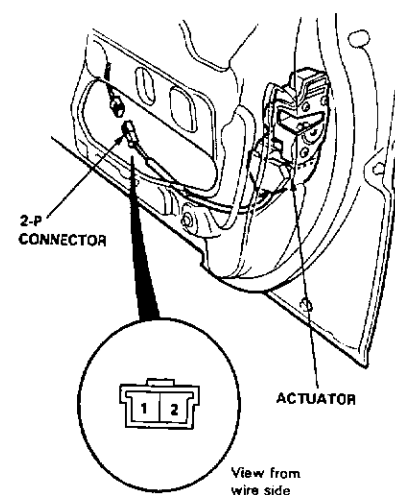
Without Security System:

1. Remove the door panel.
2. Disconnect the 2-P connector from the actuator.
3. Check actuator operation by connecting power and ground according to the table.

Terminal Position	1	2
LOCK	⊕	⊖
UNLOCK	⊖	⊕

CAUTION: To prevent damage to the motor, apply battery voltage momentarily.

NOTE: Right front actuator shown, rear actuators similar.



4. If the actuator fails to operate properly, replace it.

Power Door Locks

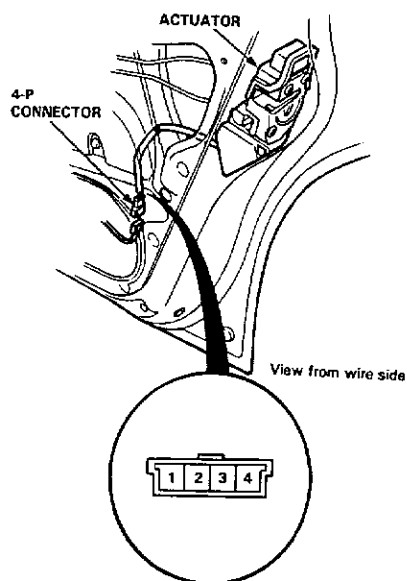
Rear Door Lock Actuator Test

1. Remove the door panel.
2. Disconnect the 4-P connector from the actuator.
3. Check actuator operation by connecting power and ground according to the table.

Terminal Position	3	4
LOCK	⊕	⊖
UNLOCK	⊖	⊕

CAUTION: To prevent damage to the motor, only apply battery voltage momentarily.

NOTE: The illustration shows right rear door.

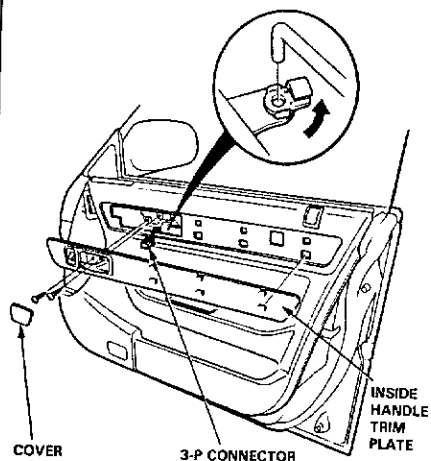


4. If the actuator fails to operate properly, replace it.

Door Lock Switch Test

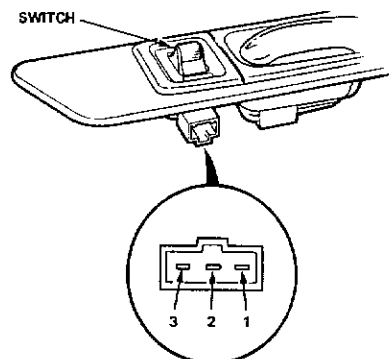
1. Remove the inside handle trim plate with switch.

NOTE: The illustration shows front passenger's door.



2. Disconnect the 3-P connector of the switch.
3. Check for continuity between the terminals in each switch position according to the table.

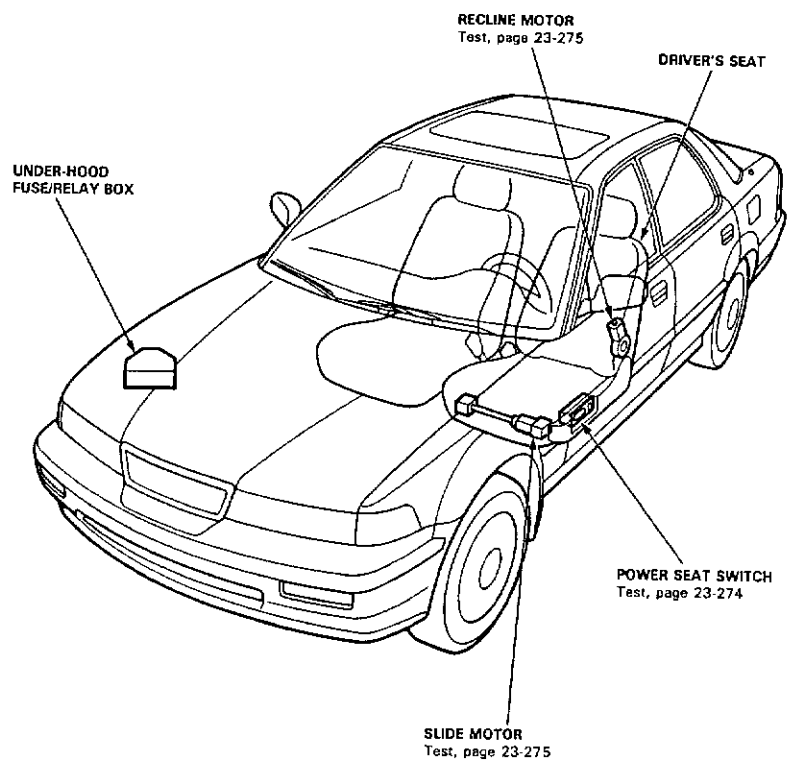
Terminal Position	3	2	1
UNLOCK		○	○
OFF			
LOCK	○	○	



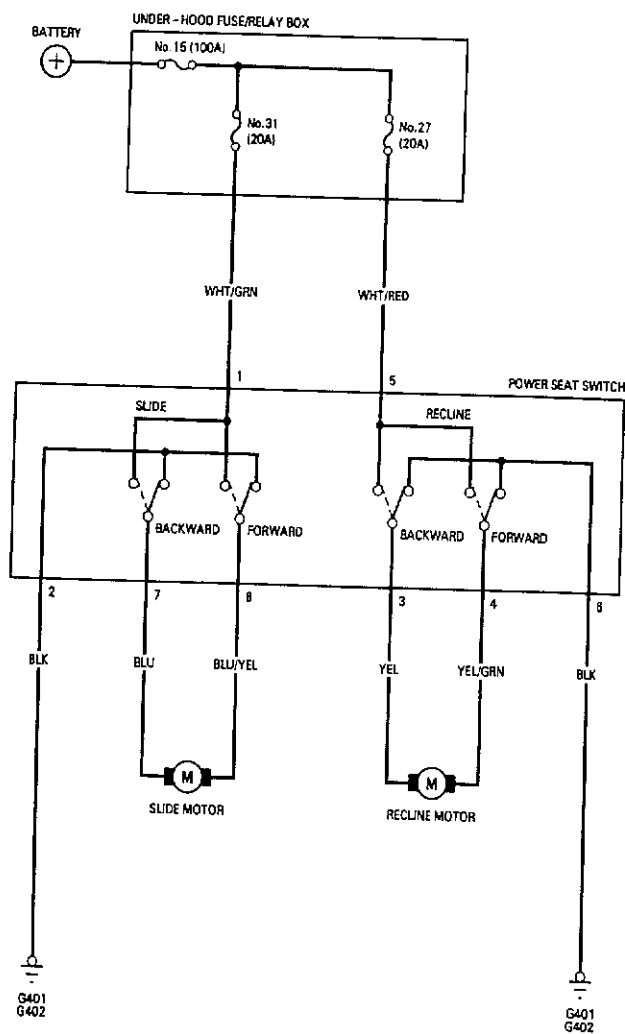
cardiagn.com

Power Seats

Component Location Index



Circuit Diagram



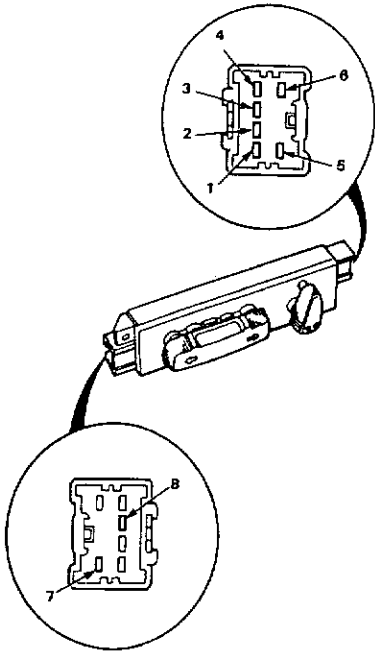
Power Seats

Seat Switch Test

CAUTION: Be careful not to damage the seats, the interior trim or the body.

- 1. Remove the two screws, then remove the power seat switch from the power seat.
- 2. Disconnect the 6-P connectors from each switch.
- 3. Check for continuity between the terminals in each switch position according to the table.

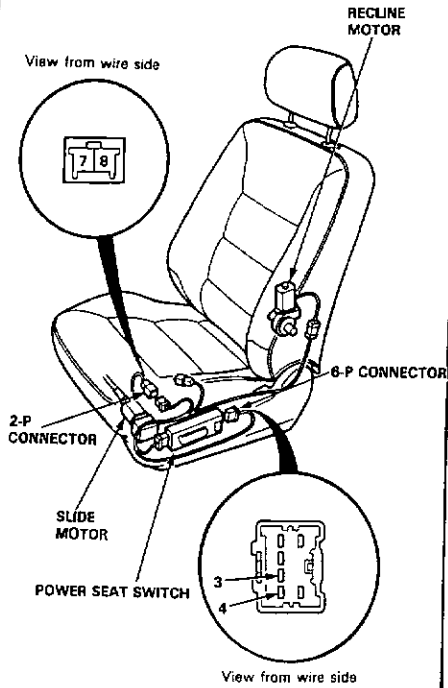
Terminal		1	2	3	4	5	6	7	8
Position									
SLIDE	FORWARD	○							○
	NEUTRAL		○						○
	BACKWARD	○							○
RECLINE	FORWARD				○	○			
	NEUTRAL			○	○		○		
	BACKWARD			○	○				



Motor Test

CAUTION: Be careful not to damage the seats, the interior trim or the body.

- 1. Remove the power seat, then disconnect the 2-P connector from the slide motor.
- 2. Remove the two screws, then remove the power seat switch from the power seat.
- 3. Disconnect the 6-P connector from the recline switch.



- 4. Check motor operation by connecting power and ground according to the table.

CAUTION: When the motor stops running, disconnect a battery terminal immediately.

SLIDE MOTOR:

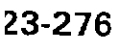
Terminal Position	7	8
FORWARD	⊖	⊕
BACKWARD	⊕	⊖

RECLINE MOTOR:

Terminal Position	3	4
FORWARD	⊖	⊕
BACKWARD	⊕	⊖

NOTE: When a motor does not run, reverse the battery terminal connection. If the motor still does not run, the motor or the wire harness is defective. For replacing the motor see section 20.

- Component Location Index



BREAKER : OFF above 122°F (50°C)/ON above 86°F (30°C)
THERMOSTAT : OFF above 104°F (40°C)/ON above 88°F (20°C)

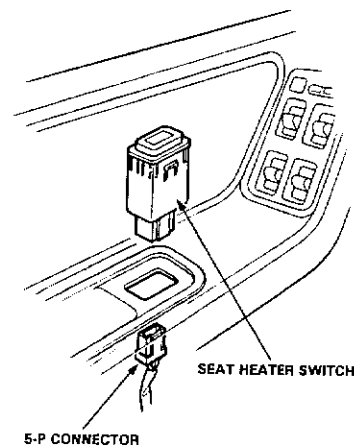
Troubleshooting

NOTE: The numbers in the table show the troubleshooting sequence.

Item to be inspected		Blown No. 22 (15 A) fuse (in the under-hood fuse/relay box)	Blown No. 8 (7.5 A) fuse (in the under-hood fuse/relay box)	Blown indicator light bulb	Seat heater switch	Seat heater	Thermostat (in the seat cushion heater)	Seat heater main relay input	Seat heater relay	Poor ground	Open circuit wires, loose or disconnected terminals
Symptom											
Seat heaters work, but indicator light does not go on.				1						G401 G402	
Seat heaters do not work and indicator light does not go on.		1			3			2		G401 G402	WHT/BLK or YEL/BLK
Seat heaters do not work, but indicator light goes on.	Driver's seat						3	1	2	G401 G402	BLK/GRN, WHT/GRN
	Front passenger's seat						3	1	2	G304	WHT/RED, WHT/BLU, BLU
Seat cushion heater or seat-back heater does not work, but indicator light goes on.					1						

Switch Removal

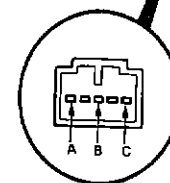
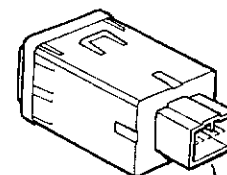
1. Pry out the switch from the armrest.
2. Disconnect the 5-P connector to remove the switch.



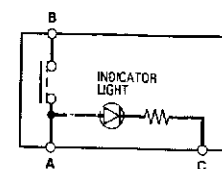
Switch Test

1. Pry out the seat heater switch from the armrest.
2. Check for continuity between the terminals according to the table.

Terminal Position	A	B	C
ON	○	○	○
OFF			



View from terminal side

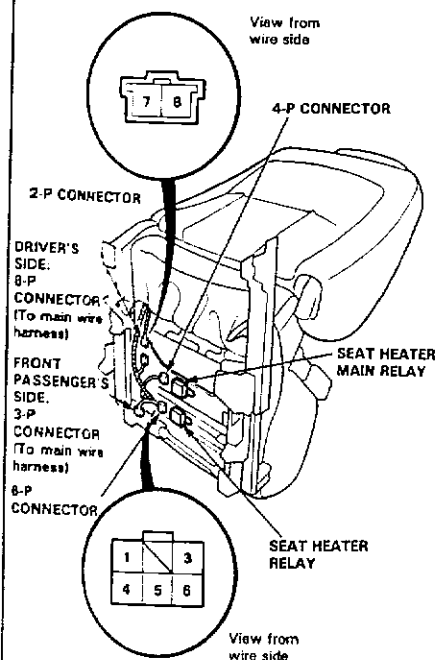


Seat Heaters (Canada)

Heater Test

1. Disconnect the 6-P connector and 2-P connector as shown below.

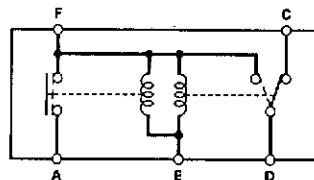
NOTE Driver's seat is shown. Front passenger's seat is similar.



2. Check for continuity between the No. 1 and No. 5 terminals; between the No. 7 and No. 8 terminals (R x 10³ scale). There should be continuity.

Heater Relay Test

1. Remove the driver's seat, then remove the relay from the bottom of the seat.
2. There should be continuity between the F and A terminals and between the C and D terminals when the battery is connected across the F and E terminals. There should be continuity between the F and D terminals when the battery is disconnected.

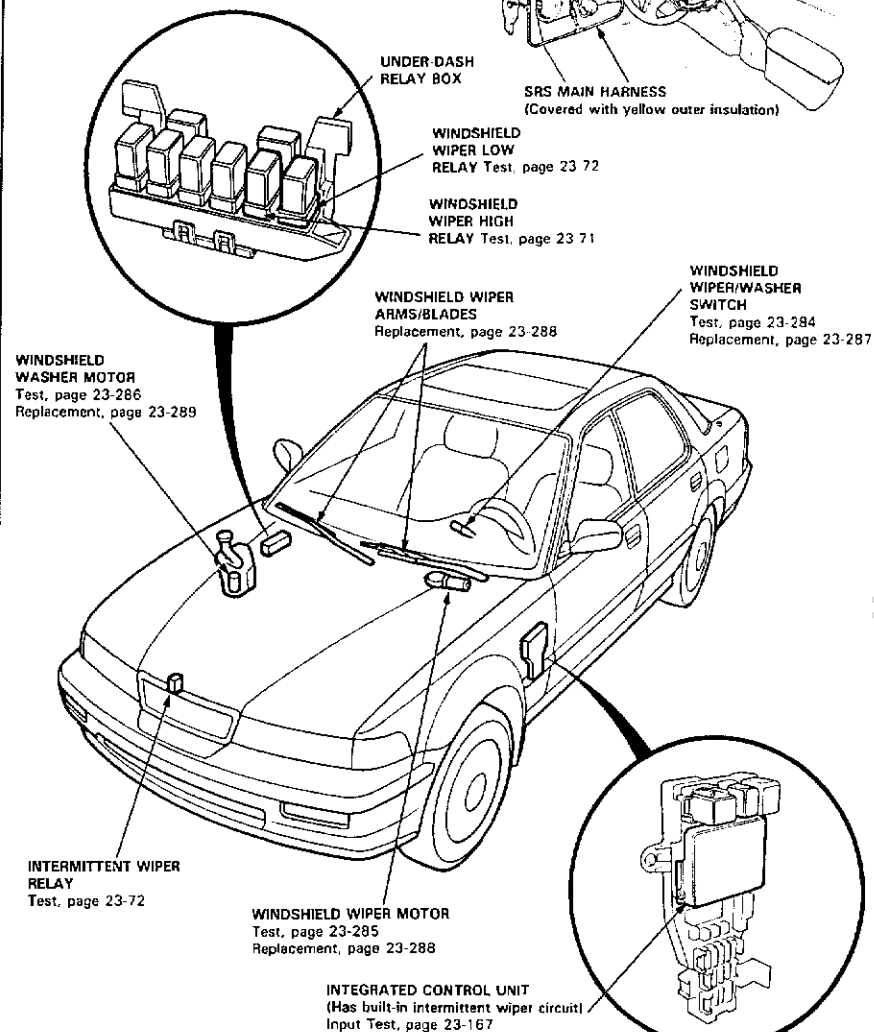


Wiper/Washer

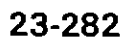
Component Location Index

CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



Circuit Diagram



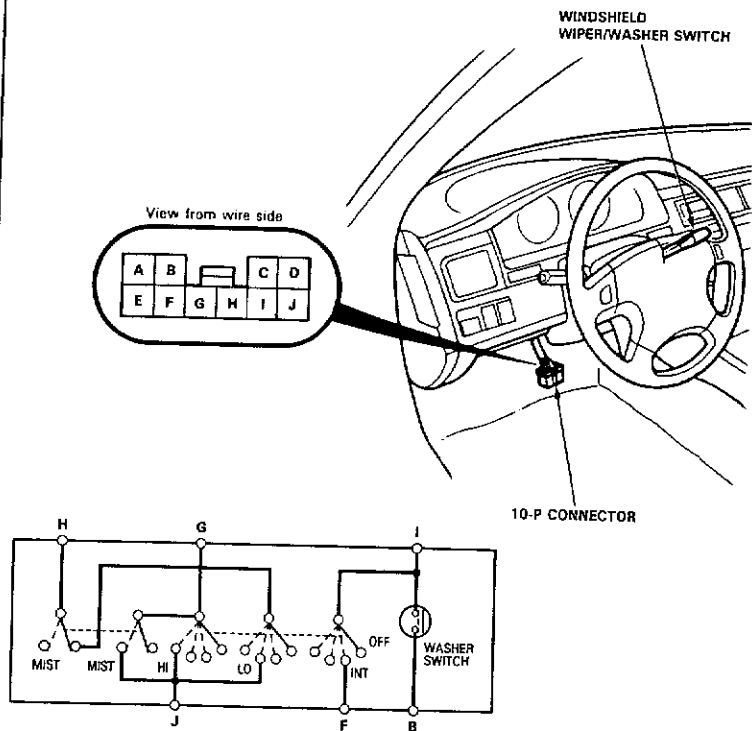
NOTE: The numbers in the table show the troubleshooting sequence.

23-283

Wiper/Washer

Windshield Wiper/Washer Switch Test

- 1 Remove the dashboard lower panel (see section 20).
- 2 Disconnect the 10-P connector from the floor wire harness.
- 3 Check for continuity between the terminals in each switch position according to the table.



Terminal	A	B	C	D	E	F	G	H	I	J
Position										
INT										
LO										
HI										
Mist switch "ON"										
Washer switch "ON"										

Windshield Wiper Motor Test

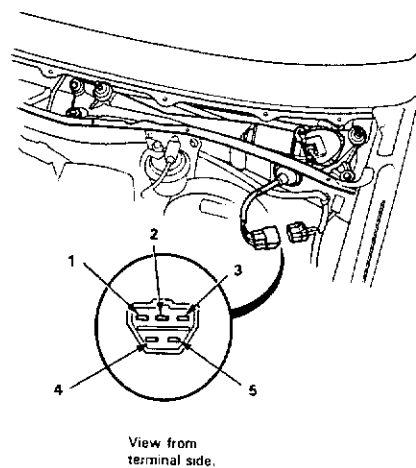
- 1 Open the hood and remove the cap nuts and the wiper arms (see page 23-288).
NOTE: Carefully remove the wiper arms so that they do not touch the hood.

- 2 Remove the hood seal and air scoop by prying out their trim clips.
- 3 Disconnect the 5-P connector from the windshield wiper motor.

- 4 Test the motor:

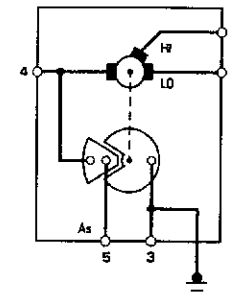
LOW SPEED: Connect battery power to the No.4 terminal and ground to the No.2 terminal.

HIGH SPEED: Connect battery power to the No.4 terminal and ground to the No.1 terminal.



- 5 If the motor fails to run smoothly, replace it.

- 6 Connect an analog voltmeter between the No.5 and the No.3 terminals. Run the motor at low or high speed.



NOTE: As (Automatic stop)

The voltmeter should indicate 0V to more than 4V alternately.

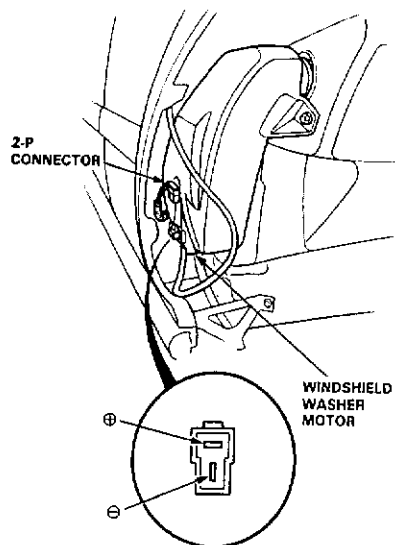
NOTE:

- Use an analog tester.
- Use on the car battery

Wiper/Washer

Windshield Washer Motor Test

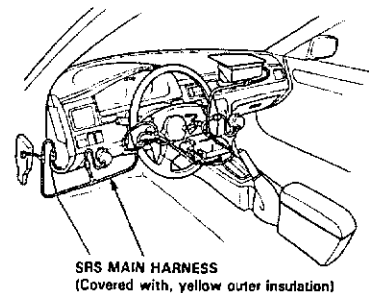
1. Remove the inner fender.
 2. Disconnect the 2-P connector from the washer motor.
 3. Test the washer motor operation by connecting battery power to the $\oplus$ terminal and ground to the $\ominus$ terminal.
- If the motor fails to run smoothly, replace it.
 - If the motor runs smoothly, but little or no washer fluid is pumped, check for a disconnected or blocked washer hose, or a clogged pump outlet in the motor.



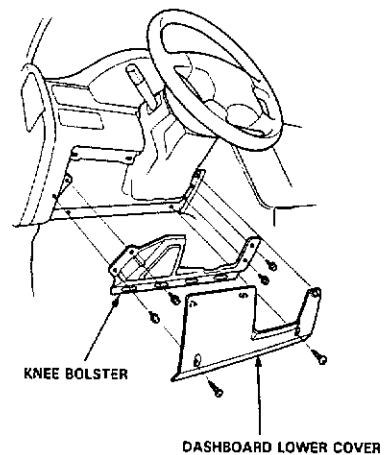
Windshield Wiper/Washer Switch Replacement

CAUTION:

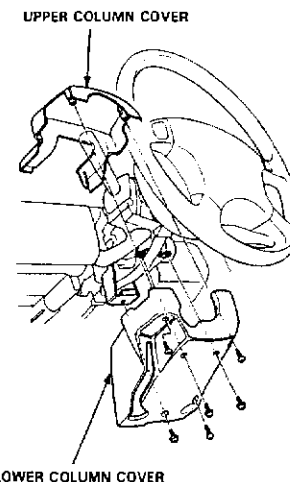
- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



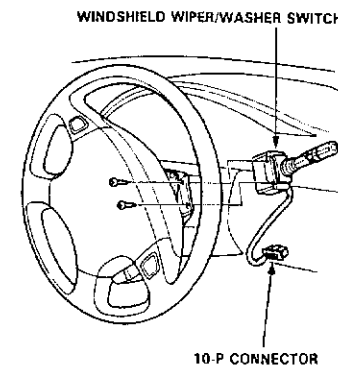
1. Remove the dashboard lower cover and knee bolster.



2. Remove the steering column covers.



3. Disconnect the 10-P connector, then remove the windshield wiper/washer switch.



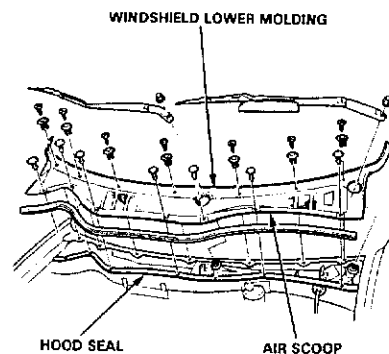
Wiper/Washer

Windshield Wiper Motor Replacement

1. Open the hood and remove the cap nuts and the wiper arms.

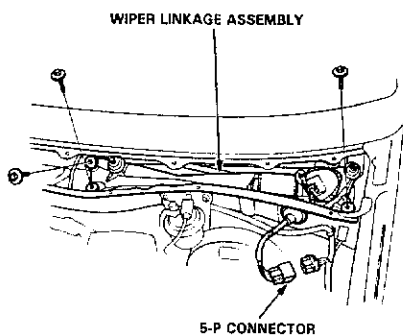
NOTE: Carefully remove the wiper arms so that they do not touch the hood.

2. Remove the windshield lower molding, hood seal and air scoop by prying off the trim clips and removing the screws.

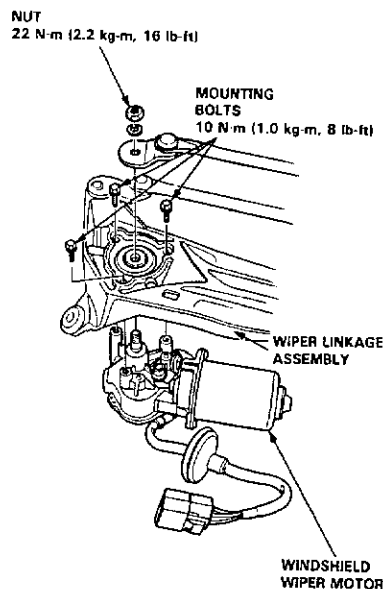


3. Disconnect the 5-P connector from the wiper motor, then remove the wiper harness from the wiper linkage.

4. Remove the wiper linkage assembly by removing the three mounting bolts.



5. Remove the three mounting bolts and nut from the wiper linkage to remove the windshield wiper motor.



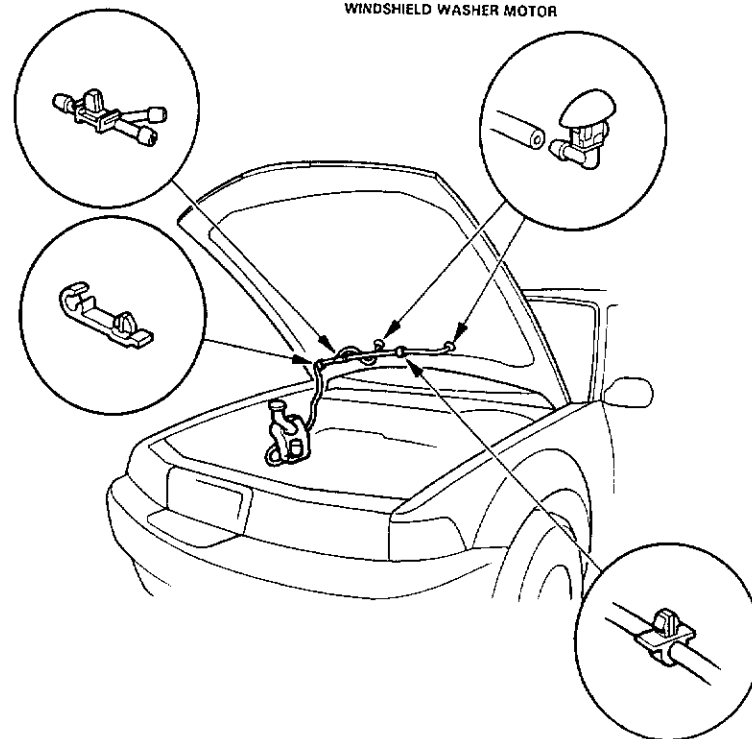
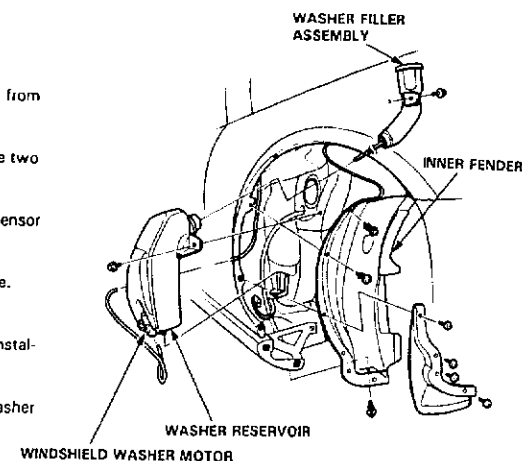
6. Install the windshield wiper motor in the reverse order of removal.

Washer Replacement

1. Remove the washer filler assembly.
2. Remove the inner fender.
3. Disconnect the hose and the 2-P connectors from the washer motor.
4. Remove the washer reservoir by removing the two mounting bolts.
5. Remove the washer motor and washer level sensor from the washer reservoir.
6. Remove the washer nozzles and washer hose.

NOTE:

- Take care not to pinch the hoses during reinstallation.
- Install the grommets firmly.
- After installation, adjust the aim of the washer nozzles.

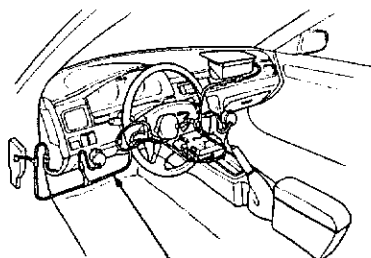


Cruise Control

Component Location Index

CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



SRS MAIN HARNESS
(Covered with yellow outer insulation)

MAIN SWITCH

- Test, page 23-298
- Replacement, page 23-298

CRUISE LIGHT

(In the gauge assembly)

SET/RESUME/CANCEL SWITCH

- Test, page 23-299
- Replacement, page 23-299

CLUTCH SWITCH (M/T)

Test, page 23-301

BRAKE SWITCH

Test, page 23-301

CRUISE CONTROL UNIT

Input Test, page 23-296

ACTUATOR

- Test, page 23-302
- Cable Adjustment, page 23-302

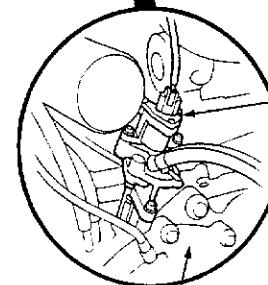
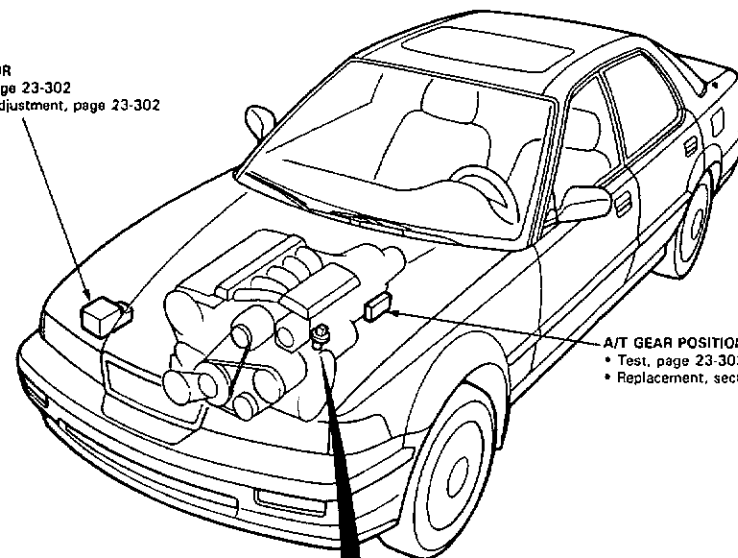
A/T GEAR POSITION SWITCH

- Test, page 23-303
- Replacement, section 14

VEHICLE SPEED SENSOR (VSS)

- Test, page 23-136

DIFFERENTIAL CARRIER



Description

The cruise control system uses mechanically and electrically operated devices to maintain vehicle speed at a setting selected by the driver.

The cruise control unit receives command signals from the cruise control main switch and the cruise control set/resume/cancel switch. It receives information about operating conditions from the brake switch, ECM, vehicle speed sensor (VSS), clutch switch (with manual transmission), or the A/T gear position switch (with automatic transmission). The cruise control unit sends operational signals to the devices that regulate the throttle position. The throttle position maintains the selected vehicle speed. Essentially, the control unit compares the actual speed of the vehicle to the selected speed. Then, the control unit uses the result of that comparison to open or close the throttle.

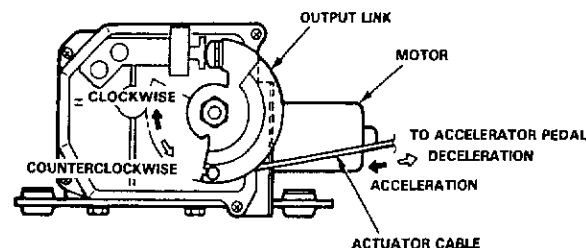
The brake switch releases the system's control of the throttle at the instant the driver depresses the brake pedal. The switch sends an electronic signal to the control unit when the brake pedal is depressed; the control unit responds by allowing the throttle to close. The clutch switch (manual transmission) or the A/T gear position switch (automatic transmission) sends a disengage signal input to the control unit that also allows the throttle to close.

Operation:

The cruise control system will set and automatically maintain any speed above 25 mph (40 km/h). To set, make sure that the main switch is in the "ON" position. After reaching the desired speed, press the set switch. The cruise control unit will receive a set signal input and, in turn, will actuate the cruise control actuator. When the set switch is depressed and the cruise control system is on, the "cruise light", an indicator in the gauge assembly, will light up. You can cancel the cruise control system by depressing the cancel switch or by pushing the main switch to "OFF". This removes power to the control unit and erases the set speed from memory. If the system is disengaged temporarily by the brake switch, clutch switch, or the A/T gear position switch and vehicle speed is still above 25 mph (40 km/h), press the resume switch. With the resume switch depressed and the set memory retained, the vehicle automatically returns to the previous set speed.

For gradual acceleration without depressing the accelerator pedal, push the resume switch down and hold it there until the desired speed is reached. This will send an acceleration signal input to the control unit. When the switch is released, the system will be reprogrammed for the new speed. To slow the vehicle down, depress the set switch. This will send a deceleration signal input to the control unit, causing the vehicle to coast until the desired speed is reached. When the desired speed is reached, release the set switch. This will reprogram the system for the new speed.

The electrically operated actuator controls the throttle position in the same way as a vacuum operated actuator. The magnetic clutch is part of the safety system and controls acceleration/deceleration.

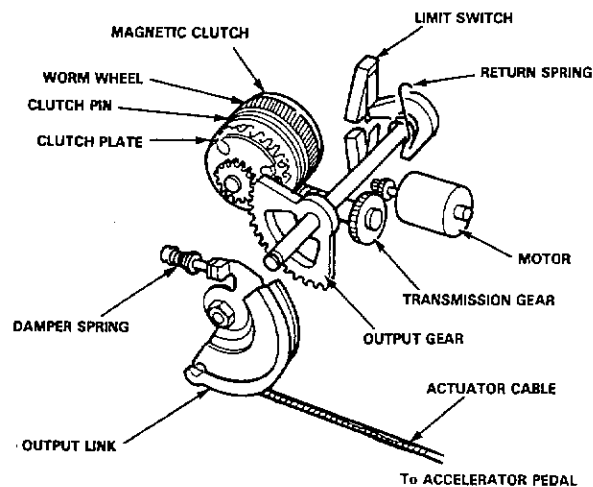


Acceleration

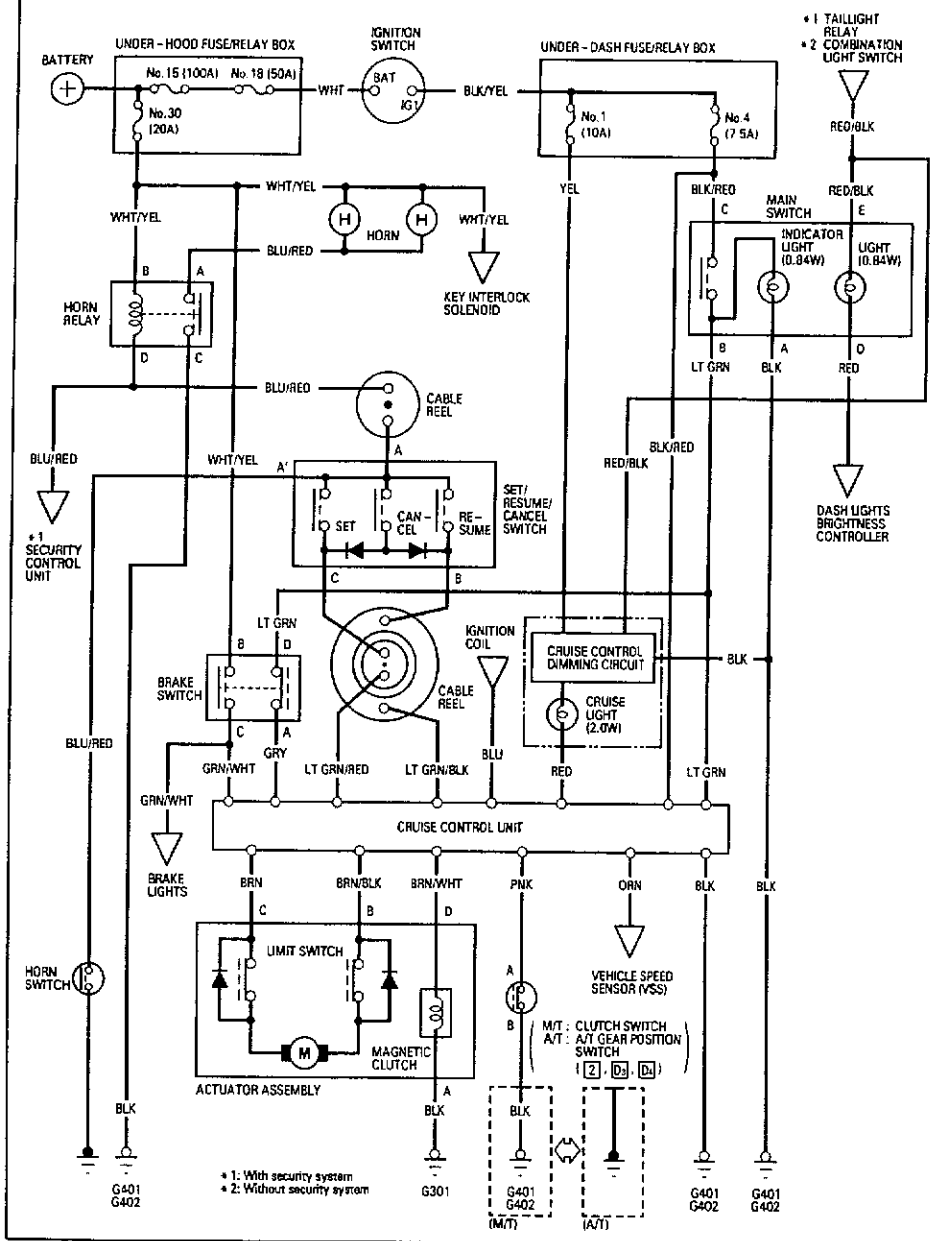
Due to the rotation of the motor output shaft, power is transmitted to the magnetic clutch by the transmission gear and the worm wheel. The magnetic clutch is rotated and magnetized. It attracts the clutch plate and the output gear. The output link rotates clockwise, then the actuator cable opens the throttle, and the car accelerates.

Deceleration

The motor output shaft rotates in reverse direction of acceleration, then, in the same way, the power is transmitted to the output link. The output link rotates counterclockwise, then the actuator cable closes the throttle, and the car decelerates.



Circuit Diagram



Troubleshooting

NOTE:

- The numbers in the table show the troubleshooting sequence.
- Before troubleshooting
 - Check the No. 1 (10A) and the No. 4 (7.5A) fuses in the under-dash fuse/relay box, and the No. 15 (100A), No. 18 (50A), and the No. 30 (20A) fuses in the under-hood fuse/relay box.
 - Check that the horn sound.
 - Check the tachometer to see if it works properly.

Item to be inspected.	Main switch	SET/RESUME/CANCEL switch	Brake switch and mounting	Clutch switch and mounting (M/T)	A/T gear position switch (A/T)	Vehicle speed sensor (VSS)	Dimming circuit in gauges	Actuator and cable deflection	Control unit	Poor ground	Open circuit in wires, loose or disconnected terminals
Cruise control can not be set.	2	3	4	5					1	G401, G402	BLU/RED, LT GRN/RED, BLU, BLK/RED, LT GRN, GRY, ORN, BRN, BRN/BLK, BRN/WHT or PNK
Cruise control can be set, but indicator light does not go on.							2		1	G401, G402	YEL or RED
Cruise speed noticeably higher or lower than what was set.						1		2	3		
Excessive overshooting and/or undershooting when trying to set speed.						2		1	3		
Steady speed not held even on a flat road with cruise control set.						1		2	3		
Car does not decelerate or accelerate accordingly when SET or RESUME button is pushed.		1							2		LT GRN/BLK, LT GRN/RED
Set speed not cancelled when clutch pedal is pushed (M/T).				1					2		
Set speed not cancelled when shift lever is moved to N (A/T).					1				2		
Set speed not cancelled when brake pedal is pushed.			1						2		
Set speed not cancelled when main switch is pushed OFF.	1								2		
Set speed not resumed when RESUME button is pushed (with main switch on, but set speed temporarily cancelled).		1							2		LT GRN/BLK, LT GRN/RED

Cruise Control

Control Unit Input Test

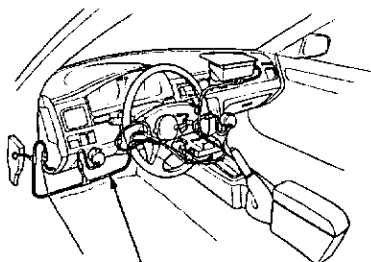
CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

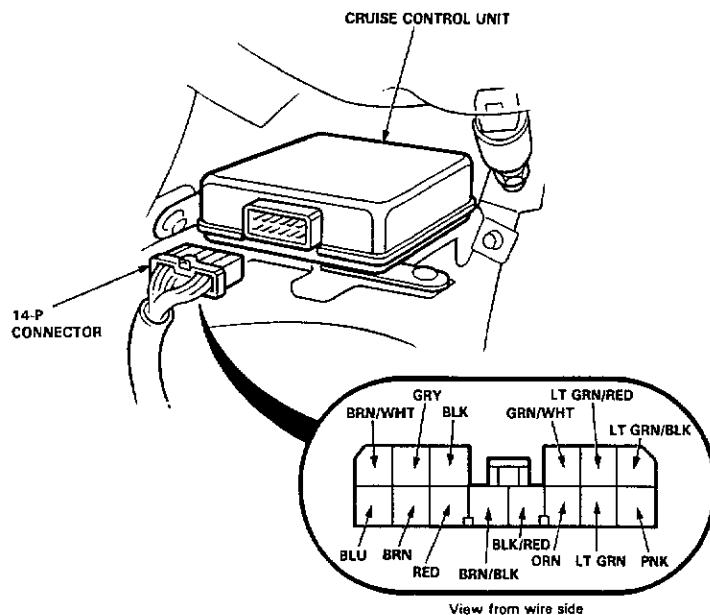
Disconnect the 14-P connector from the control unit. Make the following tests at connector terminals.

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, make the following input tests at the connector terminals.
 - 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.



SRS MAIN HARNESS
(Covered with yellow outer insulation)



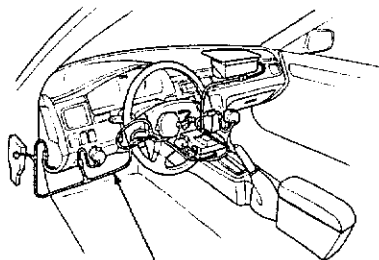
View from wire side

No.	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
1	BLK	Under all conditions.	Check for continuity to ground: There should be continuity.	• Poor Ground (G401, G402) • An open in the wire.
2	LT GRN	Ignition switch ON and main switch ON.	Check for voltage to ground: There should be battery voltage.	• Blown No. 4 (7.5 A) fuse (in the under-dash fuse/relay box). • Faulty main switch • An open in the wire.
3	LT GRN/BLK	RESUME button pushed.	Check for voltage to ground: There should be battery voltage.	• Blown No. 30 (20 A) fuse (in the under-hood fuse/relay box). • Faulty SET/RESUME/CANCEL switch. • Faulty horn relay. • Faulty cable reel. • An open in the wire.
4	LT GRN/RED	SET button pushed.		
5	PNK	M/T: Clutch pedal released A/T: Shift lever in [2], [D3], or [D4].	Check for continuity to ground: There should be continuity. NOTE: There should be no continuity when the clutch pedal is released or when the A/T shift lever is in other positions.	• Faulty or misadjusted clutch switch (M/T). • Faulty A/T gear position switch. • Poor ground (G401, G402). • An open in the wire.
6	BLU	Start the engine.	Check for voltage to ground: There should be battery voltage.	• Faulty ignition system or ECM. • An open in the wire.
7	ORN	Ignition switch ON and main switch ON. Raise the front of the car, rotate one wheel slowly.	Check for voltage between the ORN ⊕ and BLK ⊖ terminals: should be 0-5-0-5 V repeatedly.	• Faulty vehicle speed sensor (VSS) • An open in the wire. • Poor ground (G101).
8	GRY	Ignition switch ON, main switch ON and brake pedal pushed, then released.	Check for voltage to ground: There should 0 V with the pedal pushed and battery voltage with the pedal released.	• Faulty brake switch. • An open in the wire.
9	GRN/WHT	Brake pedal pushed, then released.	Check for voltage to ground: There should be battery voltage with the pedal pushed, and 0 V with the pedal released.	• Faulty brake switch. • An open in the wire.
10	RED	Ignition switch ON.	Connect to ground: Cruise indicator in the gauge assembly comes on.	• Blown bulb. • Blown No. 1 (10 A) fuse (in the under-dash fuse/relay box). • Faulty dimming circuit in the gauge assembly. • An open in the wire.
11	BRN	Connect the battery power to the BRN/WHT terminal and ground to the BRN/BLK terminal.	Check the operation of the actuator motor: You should be able to hear the motor.	• Faulty actuator. • An open in the wire.
12	BRN/BLK			
13	BRN/WHT	Connect the battery power to the BRN terminal.	Check the operation of the magnetic clutch: Clutch should click and output link should be locked.	• Faulty actuator. • Poor ground (G301). • An open in the wire.
14	BLK/RED	Ignition switch ON.	Check for voltage to ground: There should be battery voltage.	• Blown No. 4 (7.5 A) fuse (in the under-dash fuse/relay box). • An open in the wire.

Main Switch Test

CAUTION:

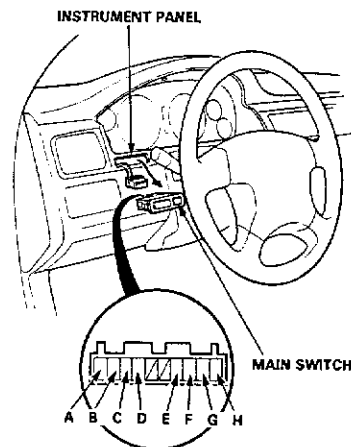
- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



SRS MAIN HARNESS
(Covered with yellow outer insulation)

NOTE: Be careful not to damage the main switch and the instrument panel.

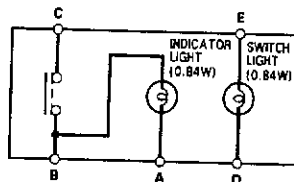
1. Carefully pry out the main switch from the instrument panel and disconnect the connector.



MAIN SWITCH

2. Check for continuity between the terminal in each switch position according to the table.

Terminal Position	C	B	A	E	D
OFF		○	○	○	○
ON	○	○	○	○	○

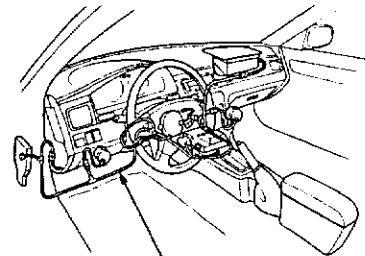


- If there is no continuity, replace the switch.

Set/Resume/Cancel Switch Test

CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



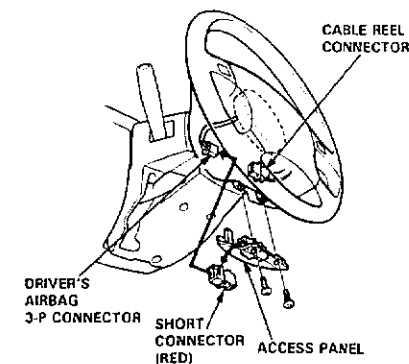
SRS MAIN HARNESS
(Covered with yellow outer insulation)

NOTE: The radio may have a coded theft protection circuit. Be sure to get the customer's code number before

- Disconnecting the battery.
- Removing the No. 39 (10 A) fuse in the under-hood fuse/relay box.
- Removing the radio.

After service, reconnect power to the radio and turn it on. When the word "CODE" is displayed, enter the customer's 5-digit code to restore radio operation.

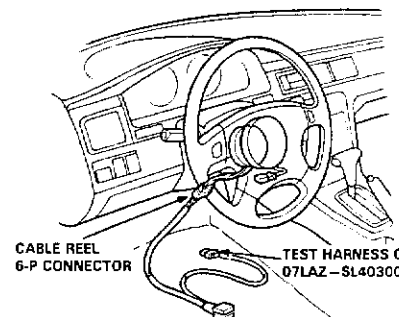
1. Disconnect the battery negative cable, and then positive cable.
2. Remove the access panel from the steering wheel, then remove the short connector (RED) from the panel.



3. Disconnect the connector between the airbag and cable reel, then install the short connector (RED) on the airbag(s).

4. Remove the dashboard lower cover.

5. Disconnect the cable reel 6-P connector from the SRS main harness, then connect Test Harness C only to the cable reel.



(cont'd)

Cruise Control

Set/Resume/Cancel Switch Test (cont'd)

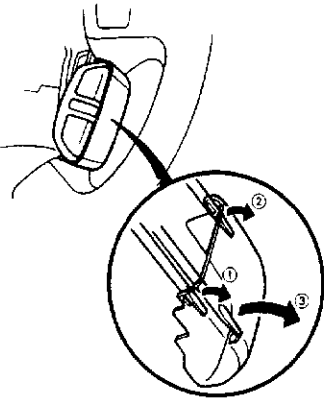
6. Check for continuity between the terminals of Test Harness C in each switch position according to the table.

Terminal Position	3	2	1
SET (ON)			
RESUME (ON)			
CANCEL (ON)			

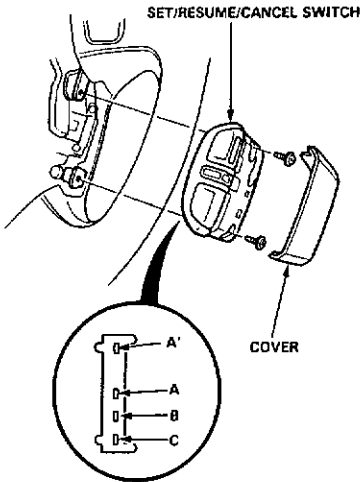
TEST HARNESS C
07LAZ - SL40300

1	2	3	4
5	6	7	8

- If there is continuity, and it matches the table, the switch is OK.
 - If there is no continuity in one or both positions, go to step 7.
7. Remove the cover carefully by prying between the cover and the switch in the sequence shown:



8. Remove the two screws and remove the switch.



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

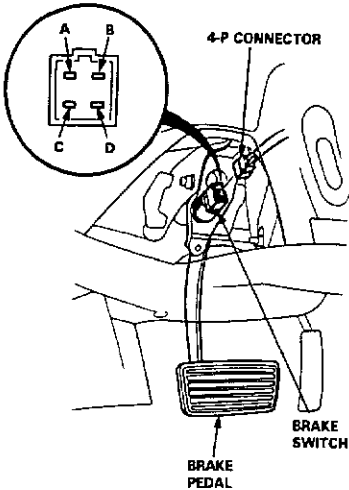
Terminal Position	A or A'	B	C
SET (ON)			
RESUME (ON)			
CANCEL (ON)			

- If there is no continuity in one or both positions, replace the switch.
- If there is continuity and it matches the table, replace the cable reel.

Brake Switch Test

1. Disconnect the 4-P connector from the brake switch.
2. Check for continuity between the terminals according to the table.

Terminal	A	B	C	D
Brake pedal				
RELEASED				
PUSHED				

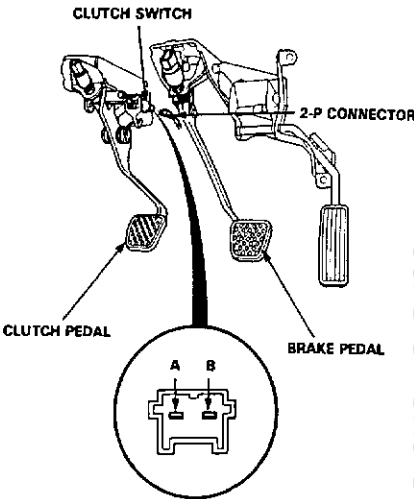


3. If necessary, replace the switch or adjust pedal height (see section 12).

Clutch Switch Test (M/T)

1. Disconnect the 2-P connector from the switch.
2. Check for continuity between the terminals according to the table.

Terminal	A	B
Clutch pedal		
RELEASED		
PUSHED		

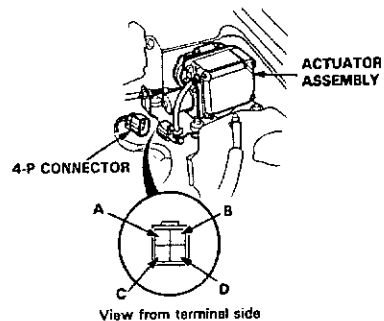


3. If necessary, replace the switch or adjust pedal height (see section 12).

Cruise Control

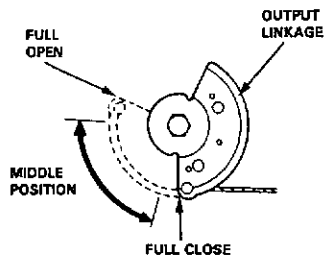
Actuator Assembly Test

1. Disconnect the 4-P connector from the actuator.
2. Check the output linkage for smooth movement.
3. Connect battery power to the D terminal and ground to the A terminal.
4. Check for a clicking sound from the magnetic clutch. The output linkage should be locked.
5. If the output linkage is not locked, replace the actuator assembly.



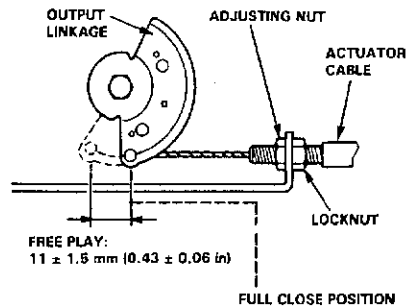
6. Check the operation of the actuator motor in each output linkage position according to the table. You should be able to hear the motor.

Battery polarities		Output linkage position		
⊕	⊖	FULL CLOSE	MIDDLE POSITION	FULL OPEN
C Terminal	B Terminal	The motor runs	The motor runs	The motor stops
B Terminal	C Terminal	The motor stops	The motor runs	The motor runs



Actuator Cable Adjustment

1. Check that the actuator cable operates smoothly with no binding or sticking.
2. Start the engine and warm it up to normal operating temperature (the radiator fan comes on twice).
3. Measure now for the output linkage moves from the fully closed position before. Free play should be 11 ± 1.5 mm (0.43 ± 0.06 in).



4. If the free play is not within specs, loosen the locknut and turn the adjusting nut as required.

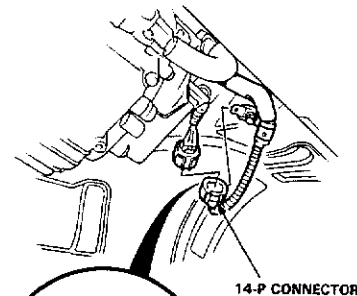
NOTE: If necessary, check the throttle control system (see section 11), then recheck the output linkage free play.

5. Retighten the locknut and recheck the free play.

A/T Gear Position Switch Test

1. Disconnect the 14-P connector from the A/T gear position switch.
2. Check for continuity between the terminals in each position according to the table and confirm that there is continuity only in position **2**, **D3**, and **D4**.

Terminal Position	Body Ground	11
1		
2	○	○
D1	○	○
D2	○	○
N		
R		
P		



View from terminal side

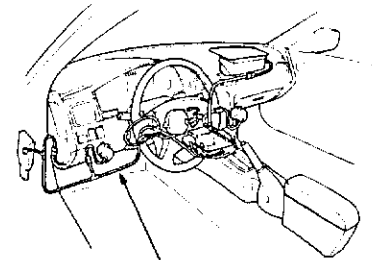
3. If necessary, replace the A/T gear position switch.

Security Alarm System

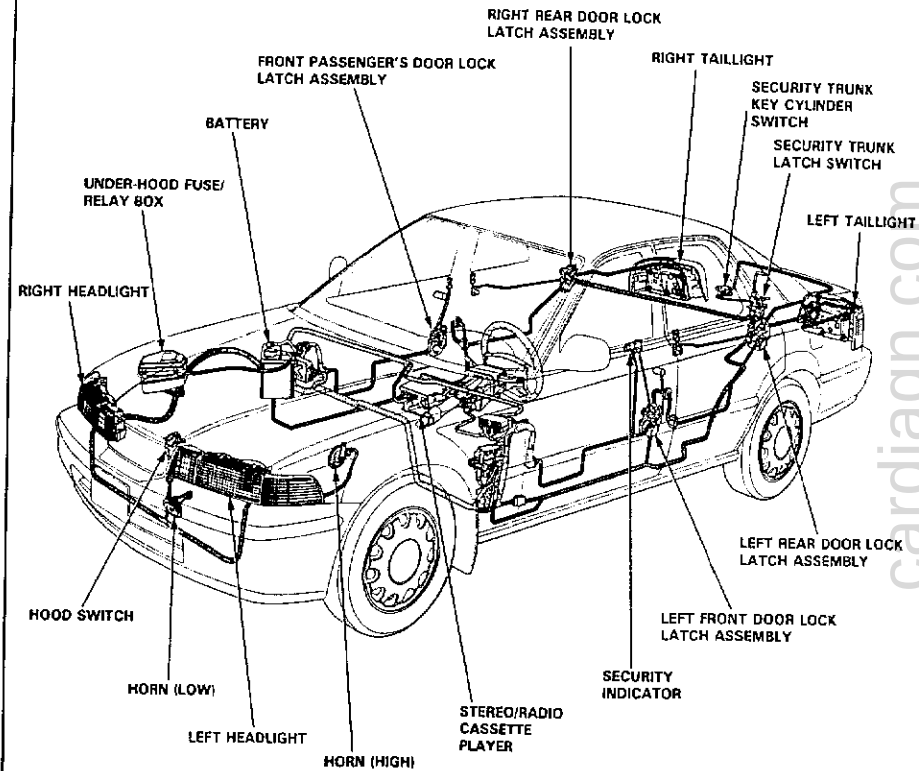
Wiring Locations

CAUTION:

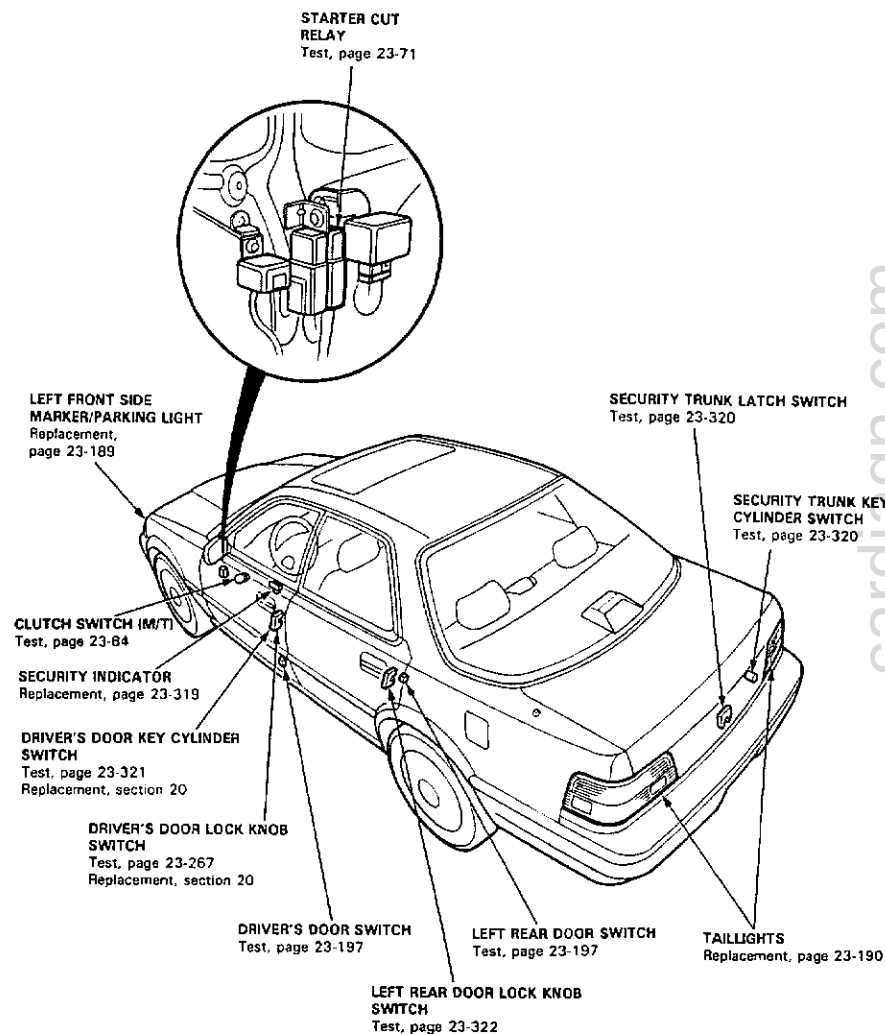
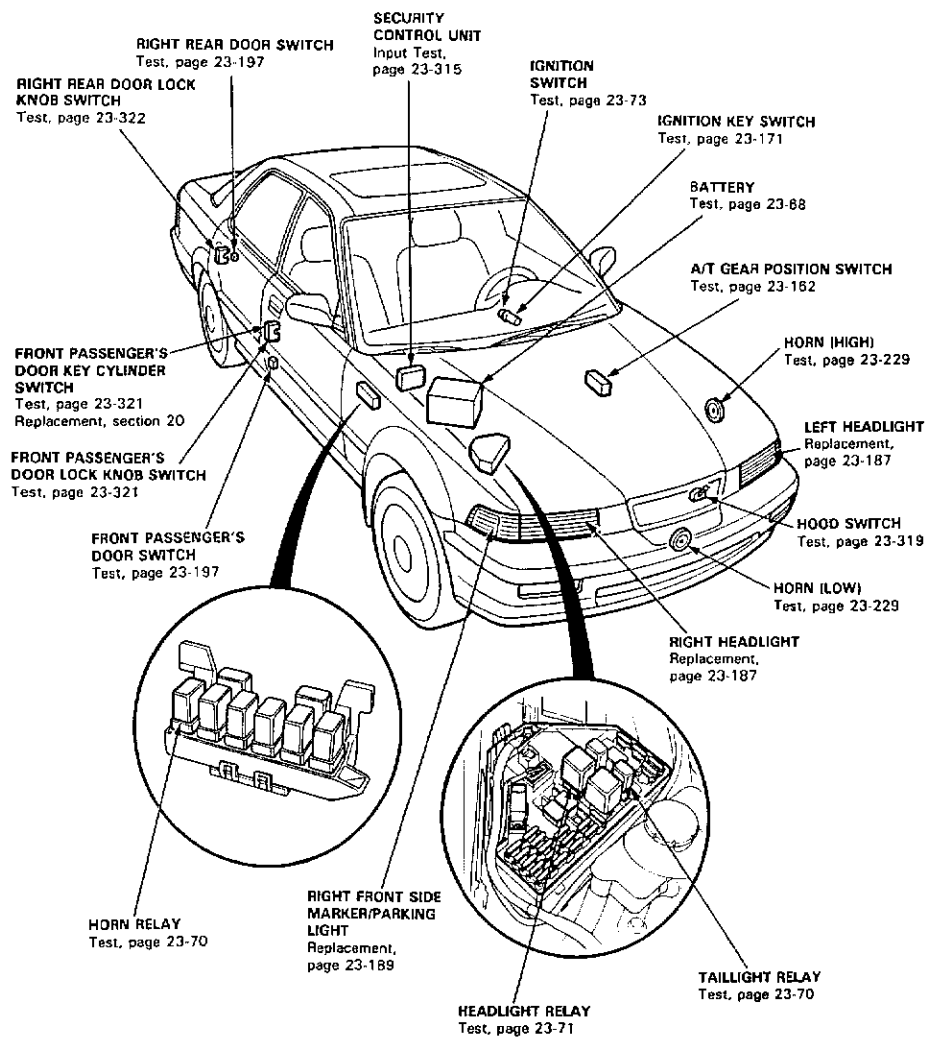
- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



SRS MAIN HARNESS
(Covered with yellow outer insulation)



Security Alarm System Component Location Index



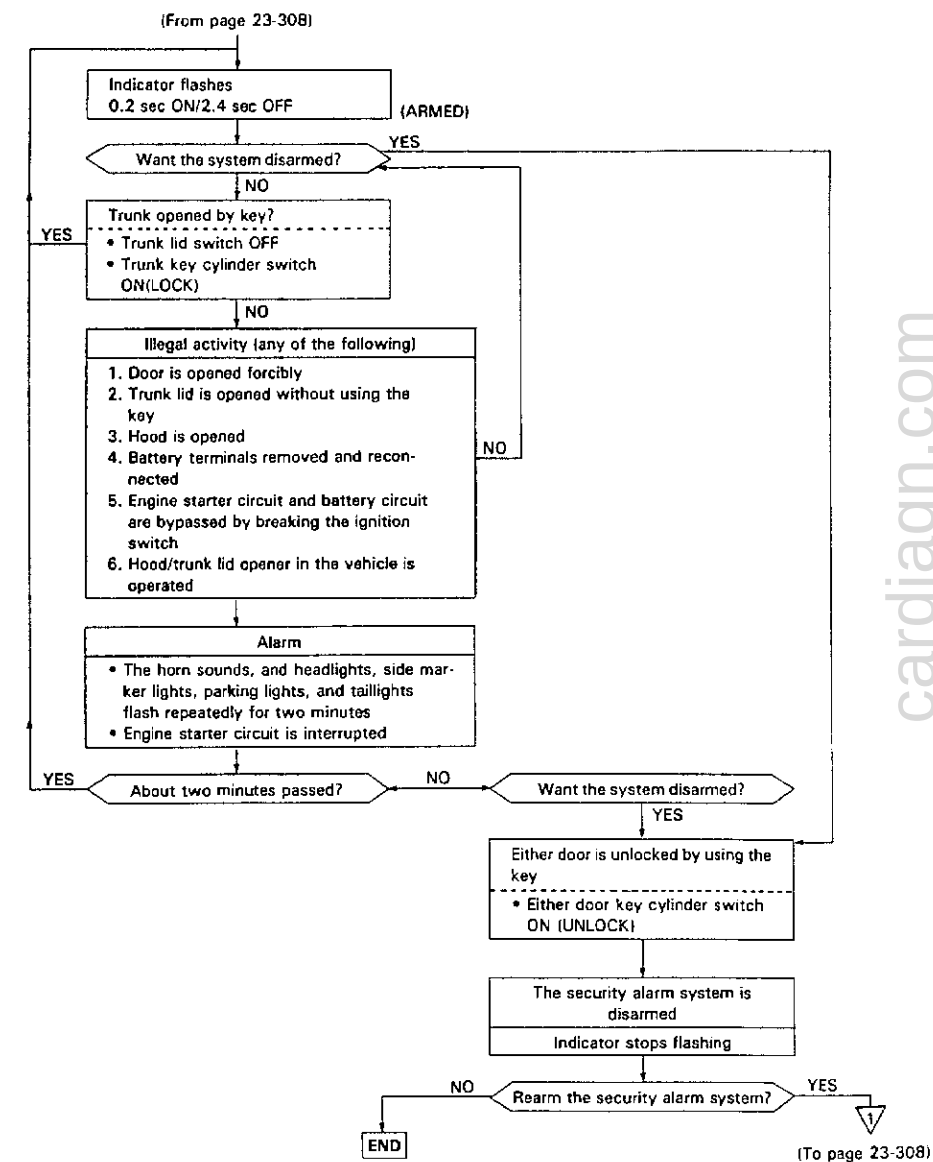
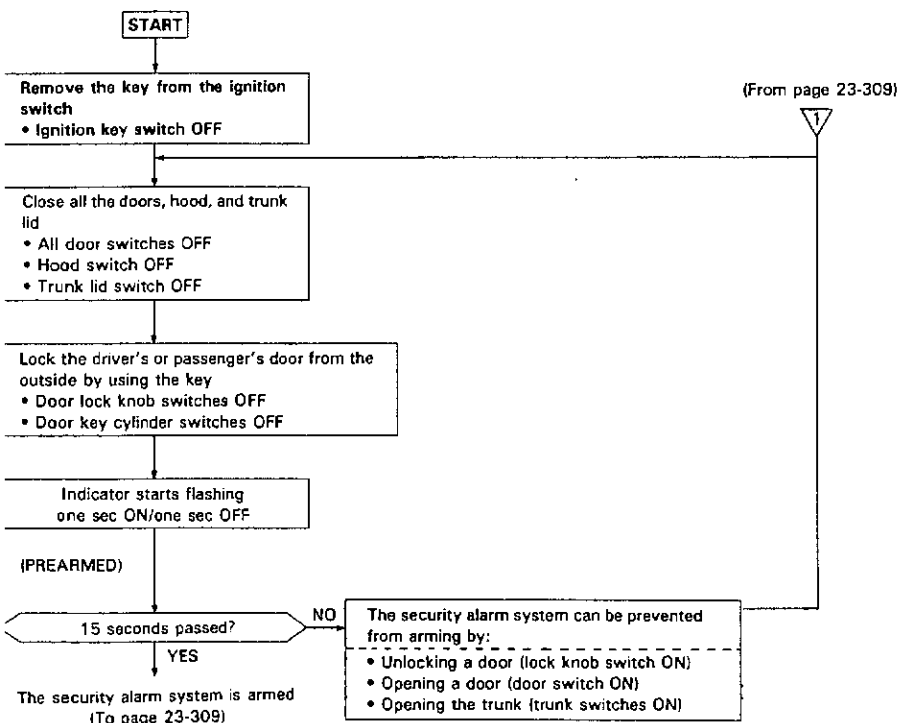
Security Alarm System

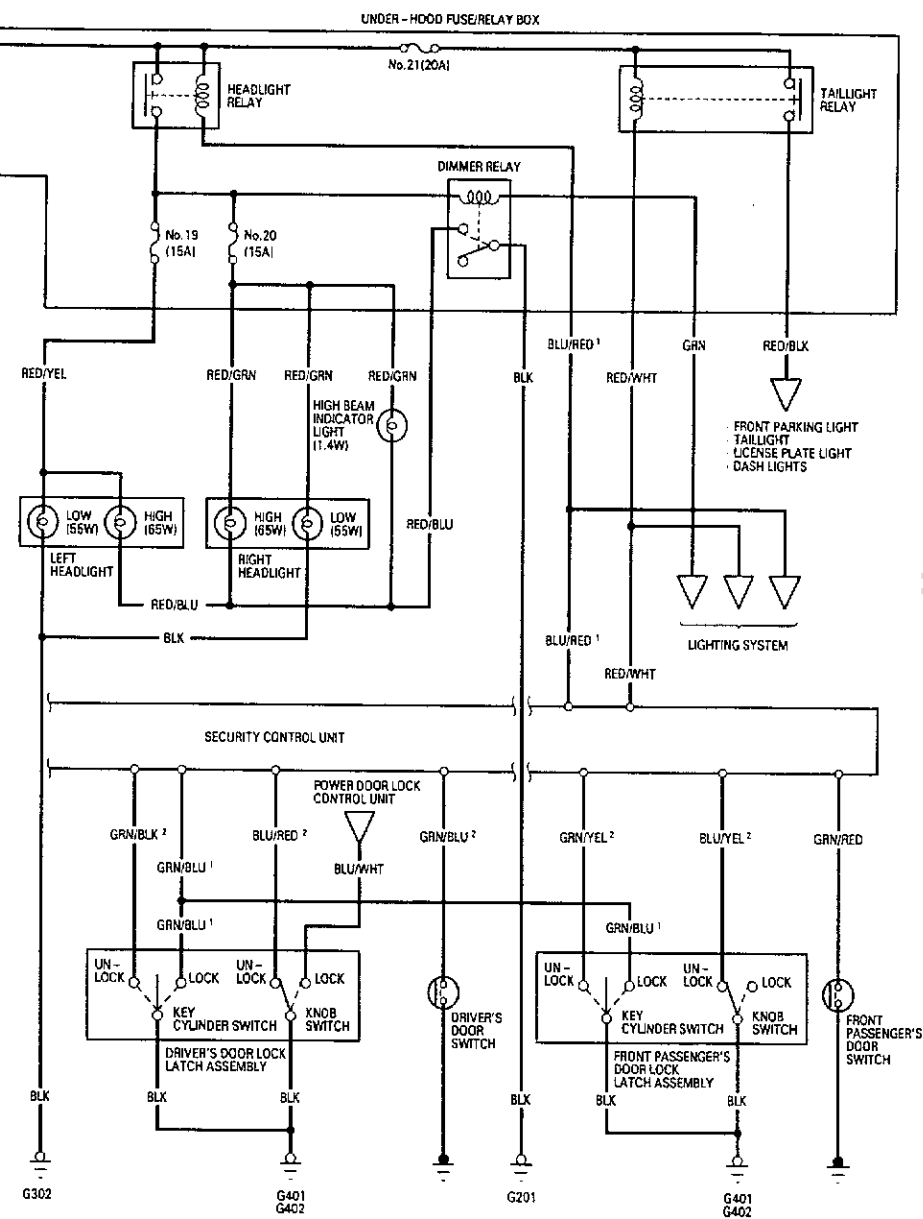
Description

This system is activated automatically 15 seconds after everything has been closed and locked. The security alarm system indicator light located on the driver's side door panel will flash after the doors are properly locked. If any of the following conditions occur, the horns will sound, the headlights will flash, and the side marker lights, parking lights and taillights will flash for about two minutes, or until the system is disarmed by unlocking either door from the outside with the key.

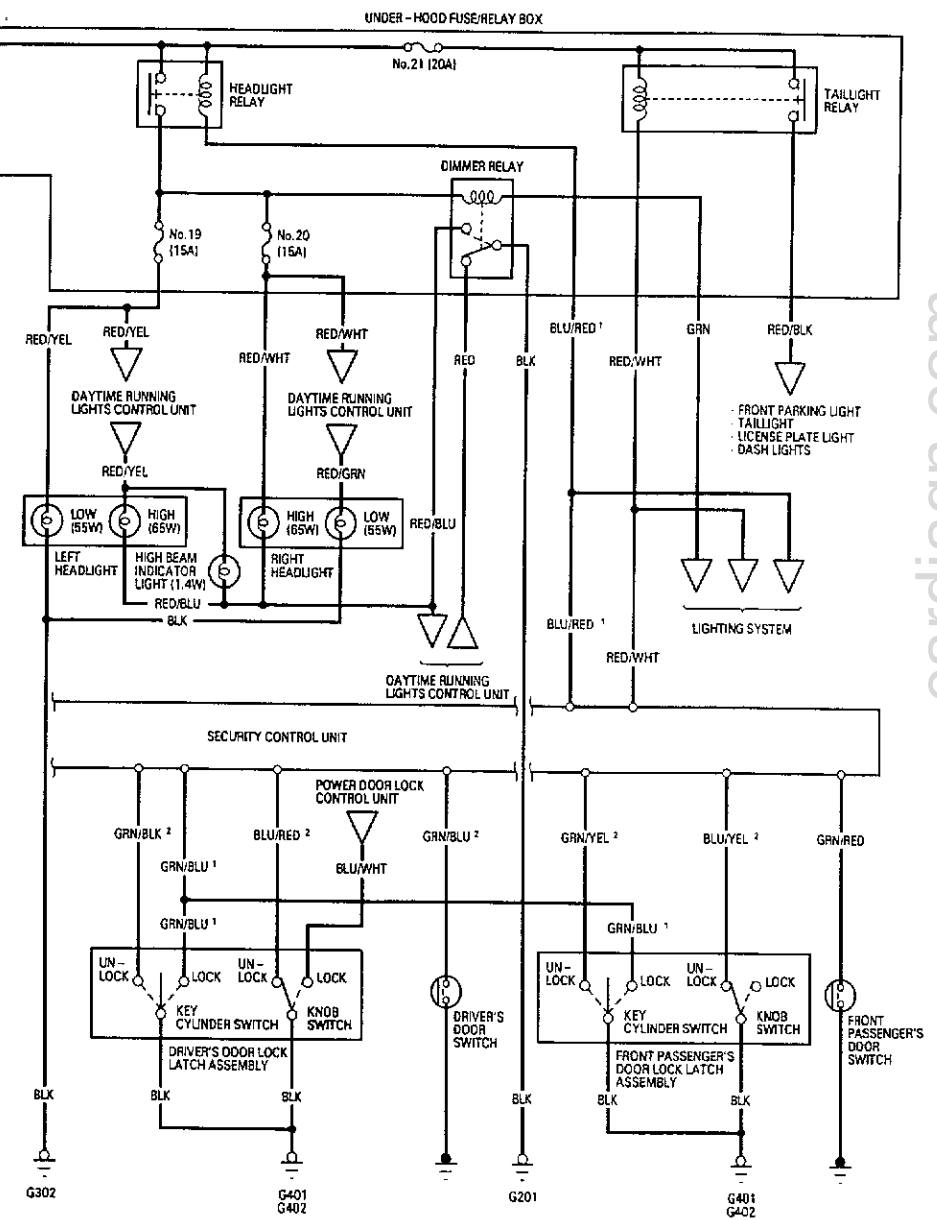
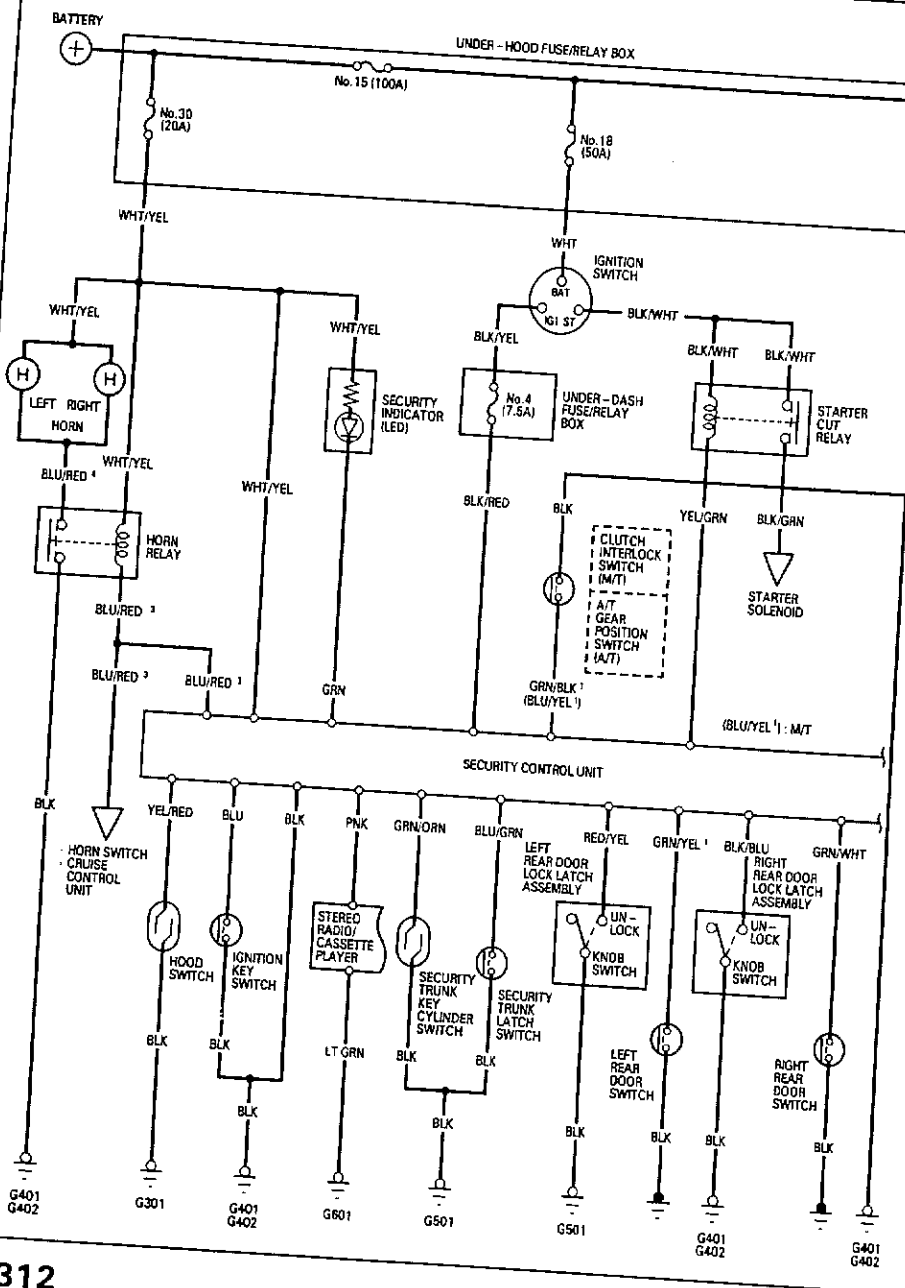
- ① Door is opened forcibly.
- ② Trunk lid is opened without using the key.
- ③ Hood is opened.
- ④ Battery terminals are removed and reconnected
- ⑤ Engine starter circuit and battery circuit are bypassed by breaking the ignition switch.
- ⑥ Hood/trunk lid opener in the vehicle is operated.

Flowchart of the security alarm system operation:





Security Alarm System Circuit Diagram (Canada)



Security Alarm System

Troubleshooting

NOTE: The numbers in the table show the troubleshooting sequence.

Symptom	Item to be inspected		Blown No. 30 (20 A) fuse	Blown No. 4 (7.5 A) fuse	Faulty indicator light (LED)	Horn circuit	Starting system	A/T: A/T gear position switch M/T: Clutch interlock switch	Lighting system	Door key switch	Ignition key switch	Security trunk key cylinder switch	Security trunk latch switch	Hood switch	Door switch	Security control unit input	Poor ground	Open circuit in wires, loose or disconnected terminals
Security alarm can't be set (and indicator light does not flash).			1	2	3						4						G401 G402	WHT/YEL, BLK/RED GRN, or BLU
Starting system does not operate.							1	2								3	G401 G402	BLK/WHT, *GRN/BLK ¹ , YEL/GRN or *BLU/YEL ¹
Security alarm can be set, but alarm does not operate when the trunk, hood or either door is unlocked without the key.	Horn alarm		1			2										3		WHT/YEL, BLU/RED ³ , or BLU/GRN
	Headlight alarm								1							2		BLU/RED ¹ or RED/WHT
	Both alarms															1		
Alarm not cancelled when the door is opened with the key.									1							2	G401 G402	BLU/RED ¹ , GRN/YEL ² , GRN/BLK ² , or BLU/RED ³
Alarm not cancelled when the key is inserted in the ignition switch.				1						2						3		BLK/RED or BLU
Alarm not cancelled when the trunk lid is opened with the key.											1	2				3	G501	GRN/ORN or BLU/GRN
Alarm does not operate when the hood is opened.												1				2	G301	YEL/RED
Alarm does not operate when the door is opened.															1	2	G401 G402	GRN/YEL ¹ , GRN/WHT, GRN/BLU ² or GRN/RED

A/T
1: M/T

Control Unit Input Test

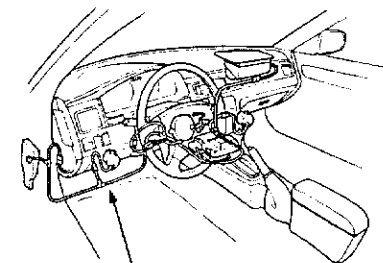
CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector (s) on the airbag (s).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

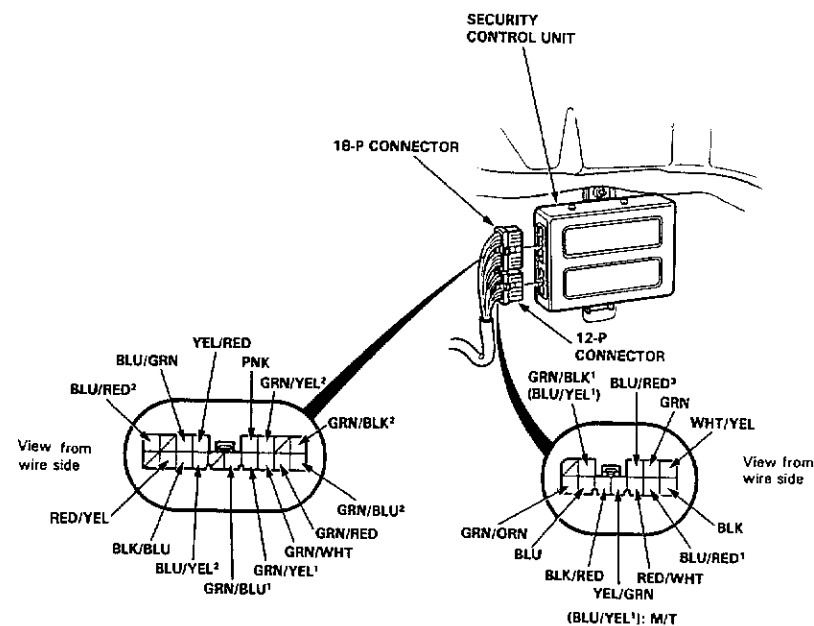
Remove the glove box. Disconnect the 12-P and 18-P connectors from the security control unit. Inspect the connector terminals to be sure they are all making good contact.

- If the terminals are bent, loose, or corroded, repair them as necessary, and recheck the system.
- If the terminals look OK, make the following input tests at the connector terminals.
 - 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.

NOTE: Remove the No.37 (15 A) fuse from the under-hood fuse/relay box.



SRS MAIN HARNESS
(Covered with yellow outer insulation)



(cont'd)

Security Alarm System

Control Unit Input Test (cont'd)

No.	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
1	BLK	Under all conditions.	Check for continuity to ground: There should have continuity.	• Poor ground (G401, G402). • An open in the wire.
2	WHT/YEL	Under all conditions.	Check for voltage to ground: There should be battery voltage.	• Blown No. 30 (20 A) fuse (in the under-hood fuse/relay box). • An open in the wire.
3	GRN	Ignition switch ON.	Connect to ground: Security indicator should come on.	• Blown No. 30 (20 A) fuse (in the under-hood fuse/relay box). • Faulty security indicator. • An open in the wire.
4	BLK/RED	Ignition switch ON.	Check for voltage to ground: There should be battery voltage.	• Blown No. 4 (7.5 A) fuse (in the under-dash fuse/relay box). • An open in the wire.
5	YEL/GRN	Ignition switch at START.	Check for voltage to ground: There should be battery voltage.	• Faulty starter cut relay. • An open in the wire.
6	BLU/RED ³	Under all conditions.	Connect to ground: All horns should sound.	• Blown No. 30 (20 A) fuse (in the under-hood fuse/relay box). • Faulty horn relay. • Either horn faulty. • Poor ground (G401, G402) • An open in the wire.
7	BLU/RED ¹	Under all conditions.	Connect to ground: Headlights should come on.	• Faulty headlight relay. • Faulty headlight system. • An open in the wire.
8	RED/WHT	Under all conditions.	Connect to ground: taillights should come on.	• Faulty taillight relay. • Faulty taillight system. • An open in the wire.



No.	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
9	GRN/BLK (BLU/YEL ²)	Ignition switch On and; (M/T): clutch pedal pushed (A/T): A/T gear position P .	Check for continuity to ground: There should be continuity.	• Faulty clutch interlock switch (M/T). • Faulty A/T gear position switch (A/T). • An open in the wire.
10	YEL/RED	Hood open.	Check for continuity to ground: There should be continuity.	• Faulty hood switch (Misadjusted hood switch). • Poor ground (G301). • An open in the wire.
		Hood closed.	Check for continuity to ground: There should be no continuity.	
11	BLU	Ignition key is inserted into the ignition switch.	Check for continuity to ground: There should be continuity.	• Faulty ignition key switch. • Poor ground (G401, G402). • An open in the wire.
		Ignition key is removed from the ignition switch.	Check for continuity to ground: There should be no continuity.	
12	PNK	Under all conditions.	Check for continuity to ground: There should be continuity.	• Poor ground (G601). • An open in the wire.
13	GRN/ORN	Trunk key in UNLOCK.	Check for continuity to ground: There should be continuity.	• Faulty security trunk key cylinder switch. • Poor ground (G501). • An open in the wire.
		Trunk key in neutral position.	Check for continuity to ground: There should be no continuity.	
14	BLU/GRN	Trunk lid open.	Check for continuity to ground: There should be continuity.	• Faulty security trunk latch switch. (Misadjusted security trunk latch switch). • Poor ground (G501). • An open in the wire.
		Trunk lid closed.	Check for continuity to ground: There should be no continuity.	

(BLU/YEL¹): M/T

(cont'd)

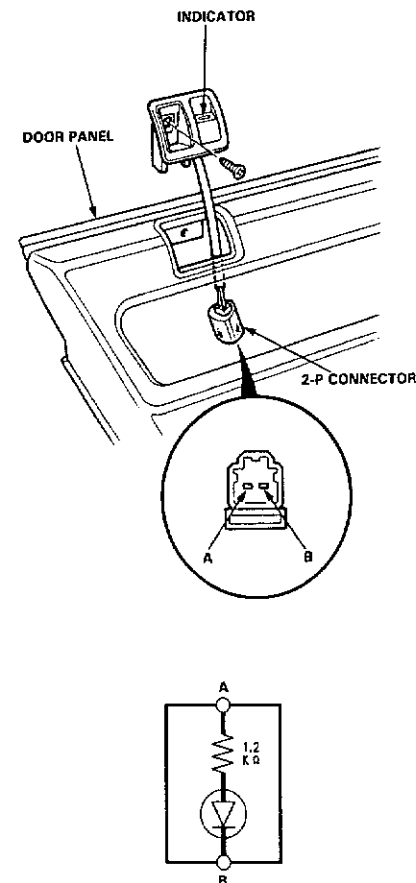
Security Alarm System

Control Unit Input Test (cont'd)

No.	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
15	GRN/BLU ²	Driver's door opened.	Check for continuity to ground: When the door is opened, there should be continuity, and when the door is closed, there should be no continuity.	- Faulty driver's door or front passenger's door switches. - An open in the wire.
		Driver's door closed.		
16	GRN/RED	Front passenger's front door opened.	Check for continuity to ground: When the door is opened, there should be continuity, and when the door is closed, there should be no continuity.	- Faulty driver's door or front passenger's door switches. - An open in the wire.
		Front passenger's door closed.		
17	GRN/YEL ¹	Left rear door opened.	Check for continuity to ground: When the door is opened, there should be continuity, and when the door is closed, there should be no continuity.	- Faulty left rear door or right rear door switches. - An open in the wire.
		Left rear door closed.		
18	GRN/WHT	Right rear door opened.	Check for continuity to ground: When the door is opened, there should be continuity, and when the door is closed, there should be no continuity.	- Faulty left rear door or right rear door switches. - An open in the wire.
		Right rear door closed.		
19	GRN/BLK ²	Driver's door key in UNLOCK.	Check for continuity to ground: There should be continuity.	- Faulty driver's door or front passenger's door key switches. - Poor ground (G401, G402) - An open in the wire.
20	GRN/TEL ²	Front passenger's front door key in UNLOCK.	Check for continuity to ground: There should be continuity.	- Faulty driver's door or front passenger's door key switches. - Poor ground (G401, G402) - An open in the wire.
21	GRN/BLU ¹	Driver's door key in LOCK.	Check for continuity to ground: There should be continuity, as the door keylock is turned in LOCK.	- Faulty driver's door or front passenger's door key switches. - Poor ground (G401, G402) - An open in the wire.
		Front passenger's front door key in LOCK.	Check for continuity to ground: There should be continuity.	- Faulty driver's door or front passenger's door key switches. - Poor ground (G401, G402) - An open in the wire.
22	BLU/RED ²	Driver's door lock knob in UNLOCK.	Check for continuity to ground: There should be continuity.	- Faulty driver's door lock knob switch (Built in the actuator). - Poor ground (G401, G402) - An open in the wire.
23	BLU/YEL ²	Front passenger's front door lock knob in UNLOCK.	Check for continuity to ground: There should be continuity.	- Faulty front passenger's door lock knob switch (Built in the actuator). - Poor ground (G401, G402) - An open in the wire.
24	RED/YEL	Left rear door lock knob in UNLOCK.	Check for continuity to ground: There should be continuity.	- Faulty left rear door lock knob switch (Built in the actuator). - Poor ground (G501). - An open in the wire.
25	BLK/BLU	Right rear door lock knob in UNLOCK.	Check for continuity to ground: There should be continuity.	- Faulty right rear door lock knob switch (Built in the actuator). - Poor ground (G401, G402). - An open in the wire.

Security Indicator Test/Replacement

1. Remove the door panel (see section 20).
2. Remove the screw from the security indicator.
3. Remove the security indicator from the door panel.

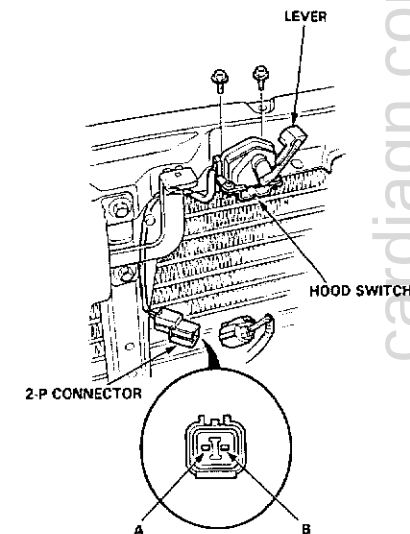


4. Test the security indicator by connecting battery power to the A terminal, and ground to the B terminal.
5. If the security indicator does not come on, replace it.

Hood Switch Test/Replacement

1. Open the hood.
2. Disconnect the 2-P connector from the hood switch.
3. Check for continuity between the terminals in each switch position according to the table.

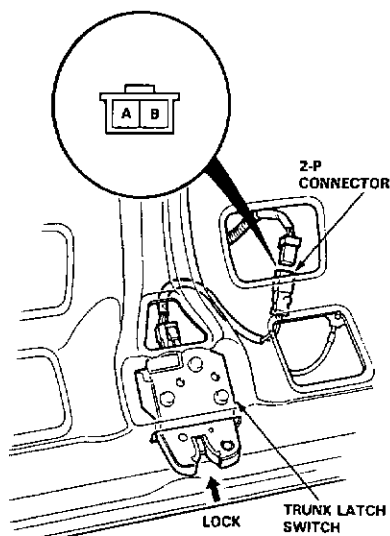
Terminal	A	B
Position		
Hood open (Lever released)	○	○
Hood closed (Lever pushed down)		



Security Alarm System

Security Trunk Latch Switch Test

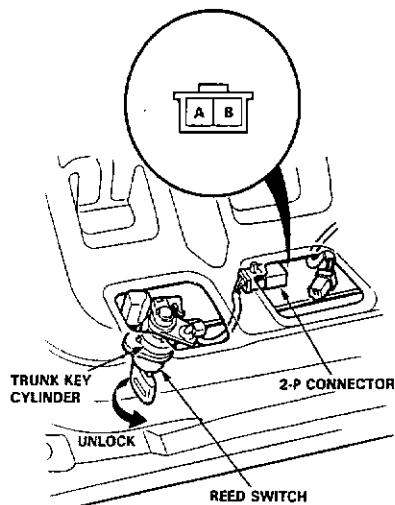
1. Open the trunk lid and remove the trunk rear trim panel.
2. Disconnect the 2-P connector from the security trunk latch switch.
3. There should be continuity between the A and B terminals with the trunk lid opened.



4. There should be no continuity with the trunk latch in Lock (trunk lid closed) position.

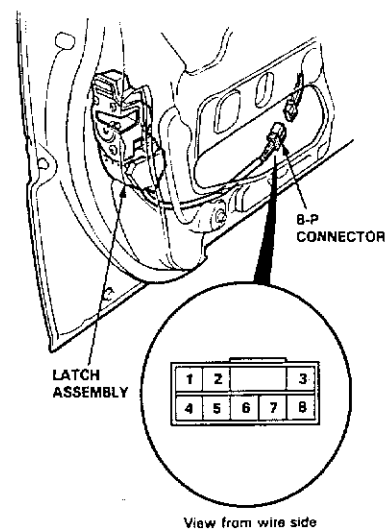
Security Trunk Key Cylinder Switch Test

1. Open the trunk lid and remove the trunk rear trim panel.
2. Disconnect the 2-P connector from the security trunk key cylinder switch.
3. There should be continuity between the A and B terminals when the trunk keylock is turned to UNLOCK with the key. There should be no continuity when the keylock is released.



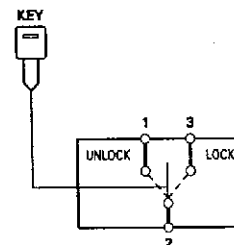
Door Key Cylinder Switch Test

1. Remove the door panel.
2. Disconnect the 8-P connector from the latch assembly.



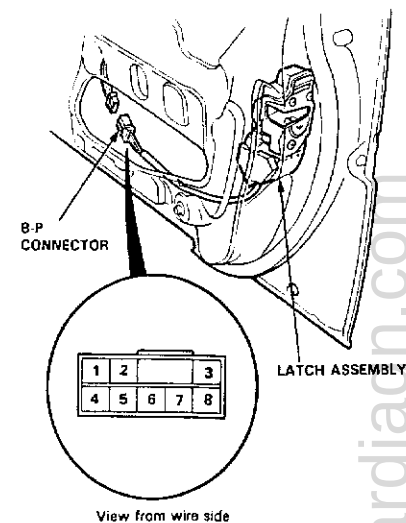
3. Check for continuity between the terminals in each switch position according to the table.

Terminal	1	2	3
Position			
LOCK (Driver's door only)		○	○
UNLOCK	○	○	



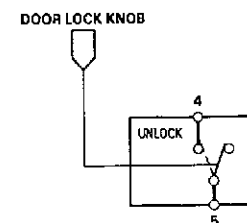
Front Passenger's Door Lock Knob Switch Test

1. Remove the door panel.
2. Disconnect the 8-P connector from the latch assembly.



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

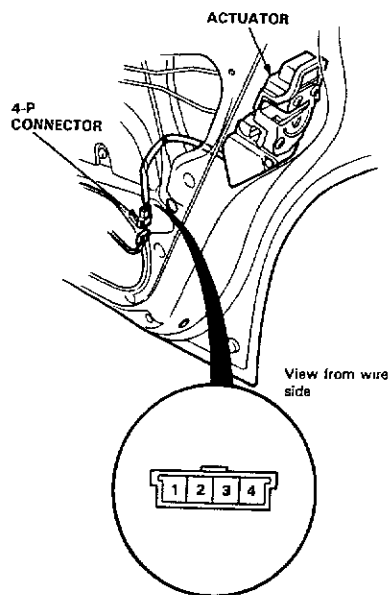
Terminal	4	5
Position		
LOCK		
UNLOCK	○	○



Security Alarm System

Rear Door Lock Knob Switch Test

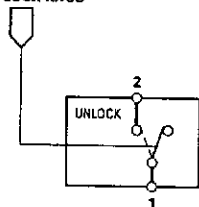
1. Remove the door panel.
2. Disconnect the 4-P connector from the actuator.



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

Terminal Position	1	2
LOCK		
UNLOCK		

DOOR LOCK KNOB

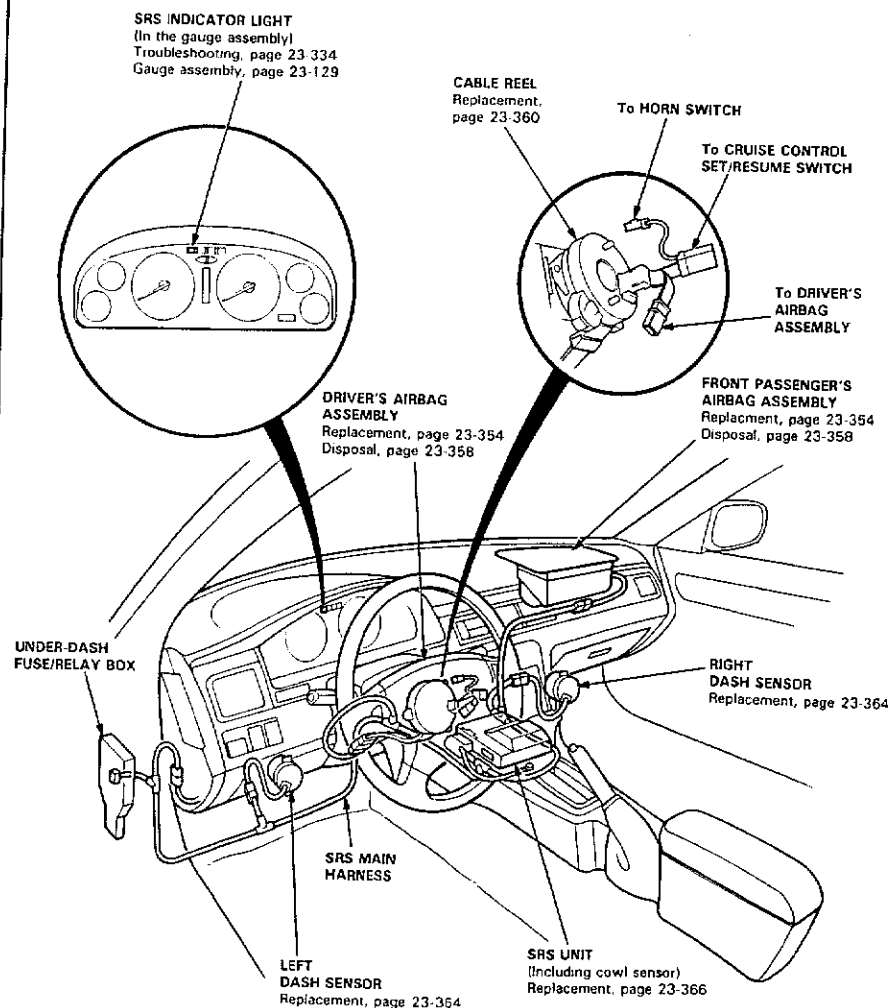


Supplemental Restraint System (SRS)

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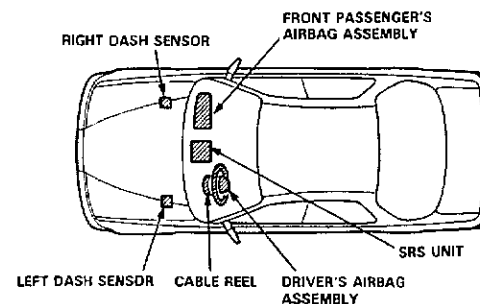
Supplemental Restraint System (SRS)

Component Location Index



Description

The SRS is a safety device which, when used in conjunction with the seat belt, is designed to help protect the driver (and front passenger) in a frontal impact exceeding a certain set limit. The system consists of left and right dash sensors, the SRS unit (includes cowl sensor), the cable reel, driver's airbag and front passenger's airbag (GS model).



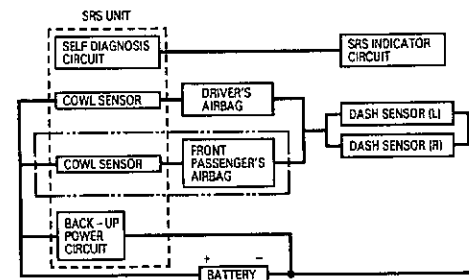
Operation

As shown in the diagram below, the left and right dash sensors are connected in parallel. The parallel set of sensors is connected in series to each airbag inflator circuit and the car battery. In addition, a back-up power circuit is connected in parallel with the car battery. The back-up power circuit and the cowl sensor are located inside the SRS unit.

For the SRS to operate:

- (1) One or both cowl sensor contacts and one or both dash sensors must activate.
- (2) Electrical energy must be supplied to the airbag inflator by the battery, or by the back-up power circuit if the battery voltage is too low.
- (3) The inflator charge must ignite and deploy the airbag.

It takes about 0.1 second from the beginning of the airbag deployment until it is completely deflated (frontal collision against a fixed wall at a speed of 30 mph [50 km/h]).

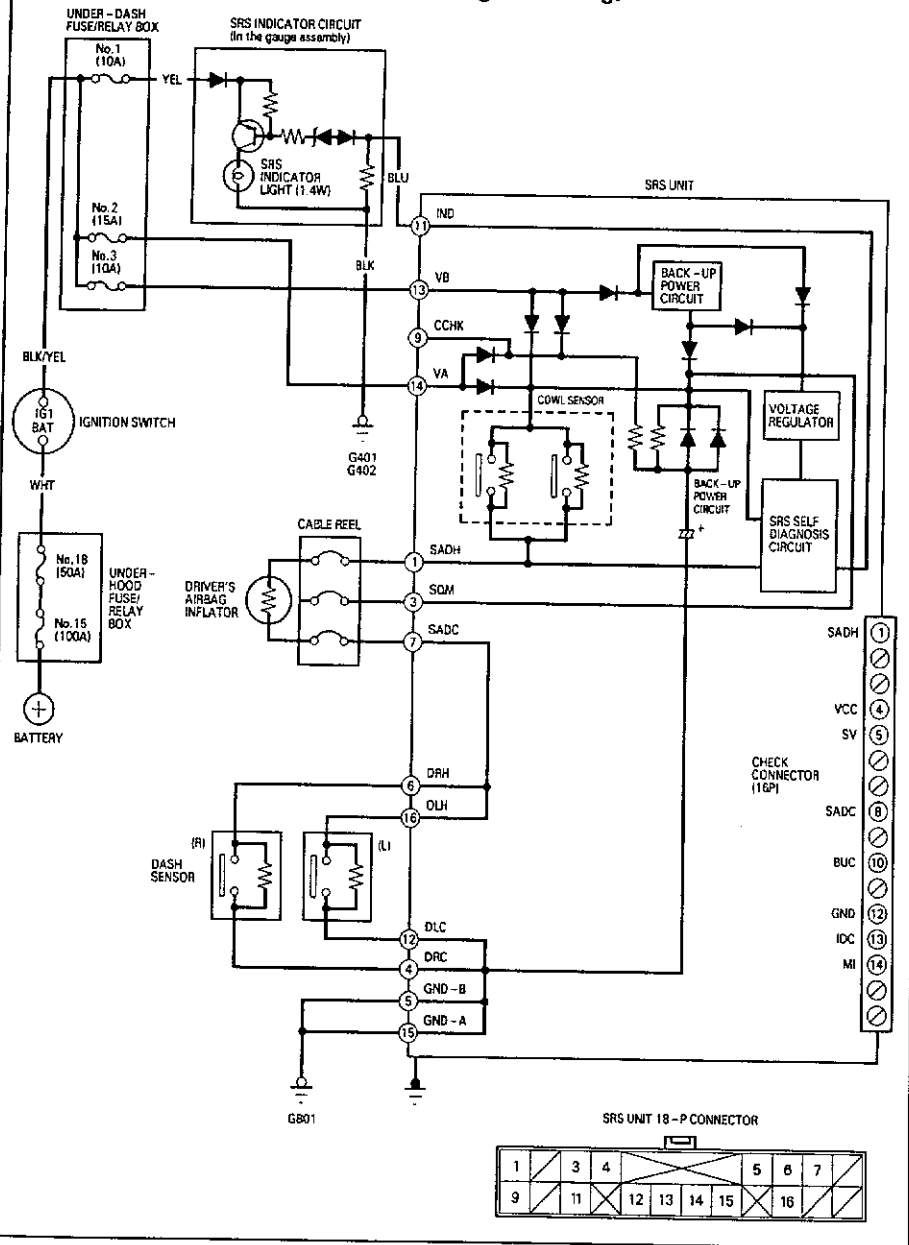


Self-diagnosis system

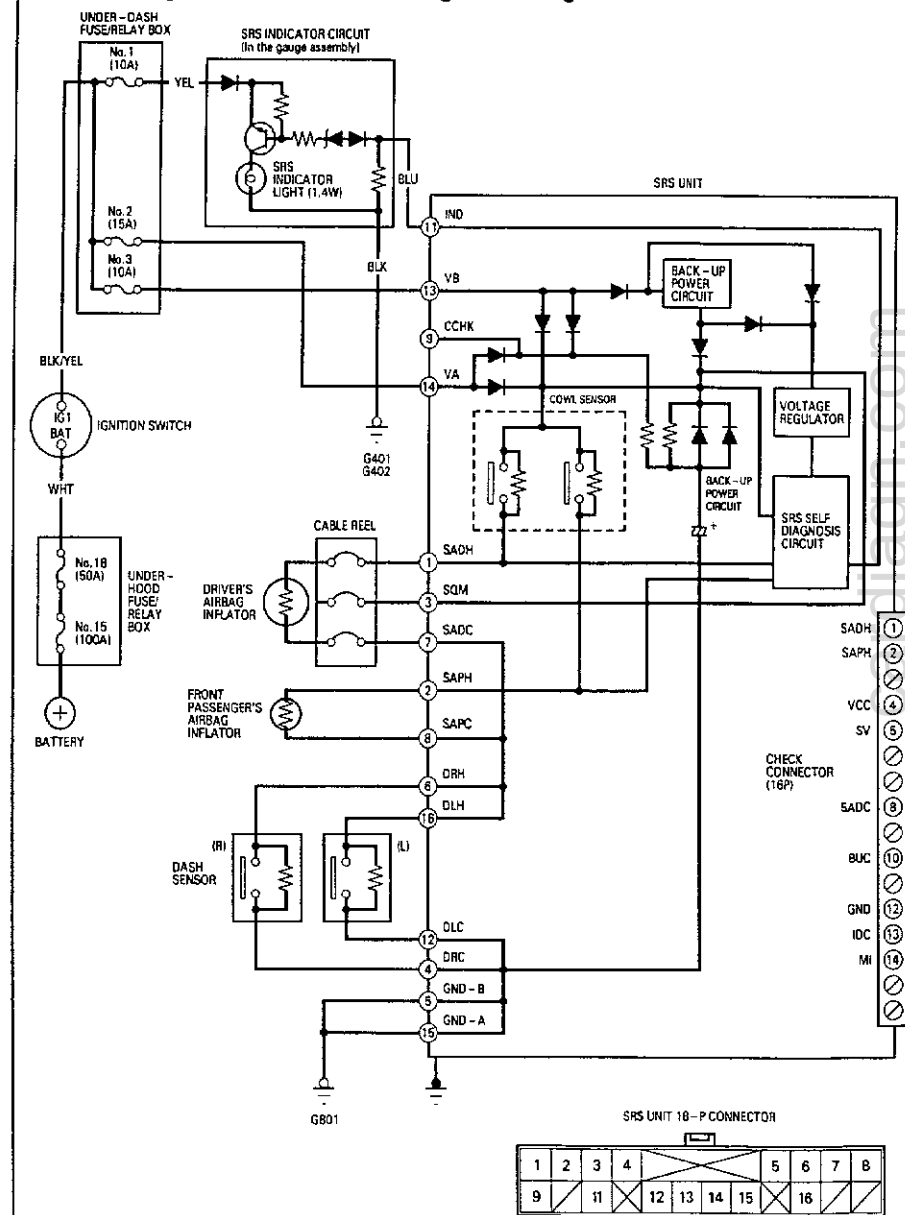
A self-diagnosis circuit is built into the SRS unit; when the ignition switch is turned ON, the SRS indicator light comes on and goes off after about six seconds if the system is operating normally. If the light does not come on, or does not go off after six seconds, or if it comes on while driving, it indicates an abnormality in the system. The system must be inspected and repaired as soon as possible.

Supplemental Restraint System (SRS)

Circuit Diagram (Without Front Passenger's Airbag)



Circuit Diagram (With Front Passenger's Airbag)



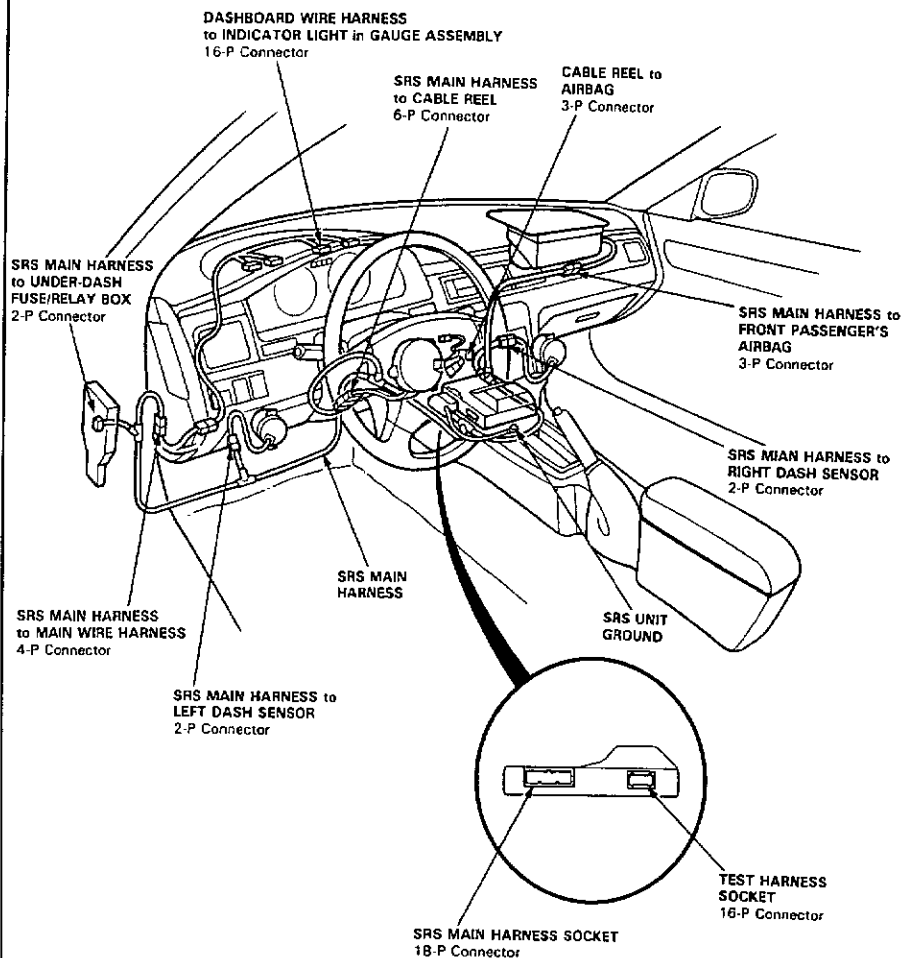
Supplemental Restraint System (SRS)

Wiring Locations

CAUTION: Make sure all SRS ground locations are clean and grounds are securely attached.

NOTE:

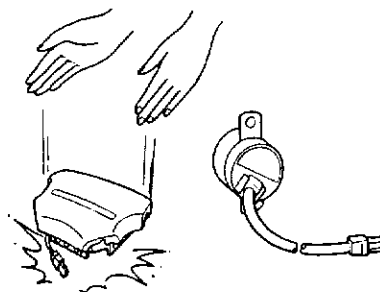
- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



General Precautions

- Carefully inspect any SRS part before you install it. Do not install any part that shows signs of being dropped or improperly handled, such as dents, cracks or deformation:

- Airbag assembly (driver's and front passenger's).
- Dash sensors.
- Cable reel.
- SRS unit.



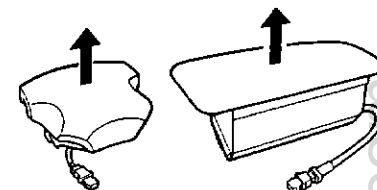
- Use only a digital multimeter (KS-AHM-32-003) to check the system. Using an analog circuit tester may cause an accidental deployment and possible injury.
- Do not install used SRS parts from another car. When making SRS repairs, use only new parts.
- Except when performing electrical inspections, always disconnect both the negative cable and positive cable at the battery before beginning work.
- Replacement of the combination light and wiper/washer switches and cruise control switch can be done without removing the steering wheel:
 - Combination light and wiper/washer switch replacement (see page 23-184).
 - Cruise control switch replacement (see page 23-300).

Airbag Handling and Storage

Do not try to disassemble the airbag assembly. It has no serviceable parts. Once an airbag has been operated (deployed), it cannot be repaired or reused.

For temporary storage of the airbag assembly during service, please observe the following precautions:

- Store the removed airbag assembly with the pad surface up.



WARNING If the airbag is improperly stored face down, accidental deployment could propel the unit with enough force to cause serious injury.

- Store the removed airbag assembly on a secure flat surface away from any high heat source (exceeding 212°F/100°C) and free of any oil, grease, detergent or water.

CAUTION: Improper handling or storage can internally damage the airbag assembly, making it inoperative.

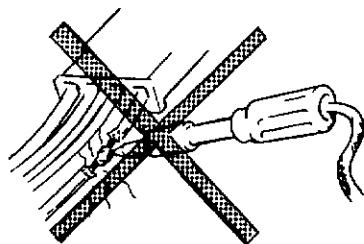
If you suspect the airbag assembly has been damaged, install a new unit and refer to the Deployment/Disposal Procedures for disposing of the damaged airbag.

Supplemental Restraint System(SRS)

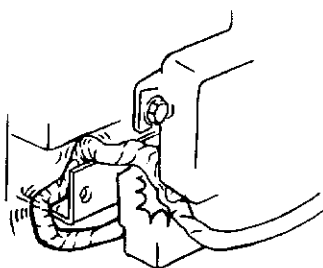
Wiring Precautions

- Never attempt to modify, splice or repair SRS wiring.

NOTE: SRS wiring can be identified by special yellow outer protective covering.



- Be sure to install the harness wires so that they are not pinched or interfering with other car parts.



- Make sure all SRS ground locations are clean and grounds are securely fastened for optimum metal-to-metal contact. Poor grounding can cause intermittent problems that are difficult to diagnose.

Installing the short connector

WARNING To avoid accidental deployment and possible injury, always install the protective short connector(s) on the driver's and passenger's airbag connector(s) before working near any SRS wiring.

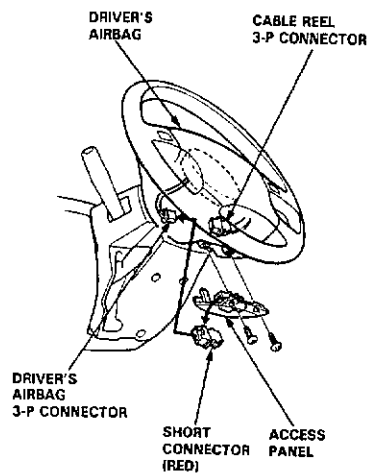
NOTE: The radio may have a 5-digit coded theft protection circuit. Be sure to get the customer's code number before disconnecting the battery.

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

2. Install the short connector(s) (RED):

Driver's Side:

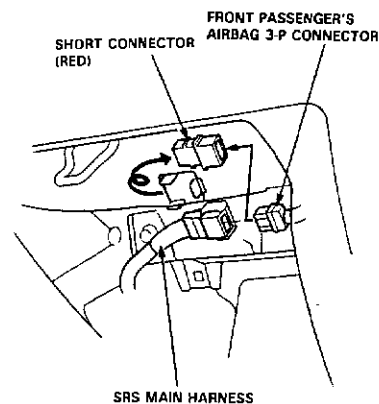
- Remove the access panel from the steering wheel, then remove the short connector (RED) from the panel.



- Disconnect the 3-P connector between the driver's airbag and cable reel, then install the short connector (RED) on the airbag side of the connector.

Front Passenger's Side:

- Remove the glove box, then remove the short connector (RED) from the holder.

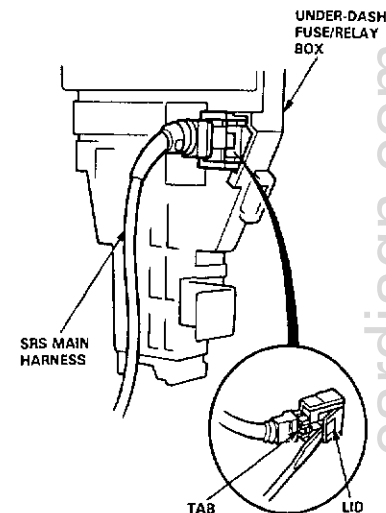


- Disconnect the 3-P connector between the front passenger's airbag and SRS main harness, then install the short connector (RED) on the airbag side of the connector.

Disconnecting the SRS Connector at the Under-dash Fuse/Relay Box

CAUTION: Avoid breaking the connector; it's double-locked.

1. First lift the connector lid with a thin screwdriver, then press the connector tab down and pull the connector out.



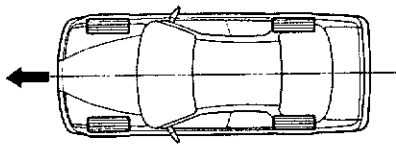
2. To reinstall the connector, push it into position until it clicks, then close its lid.

Supplemental Restraint System (SRS)

Steering-related Precautions

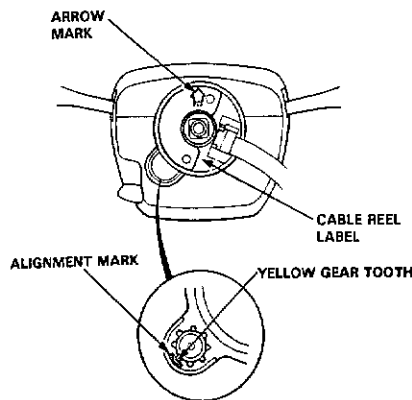
Steering Wheel and Cable Reel Alignment

NOTE: To avoid misalignment of the steering wheel or airbag on reassembly, make sure the wheels are turned straight ahead before removing the steering wheel.



Rotate the cable reel clockwise until it stops. Then rotate it counterclockwise (approximately two turns) until:

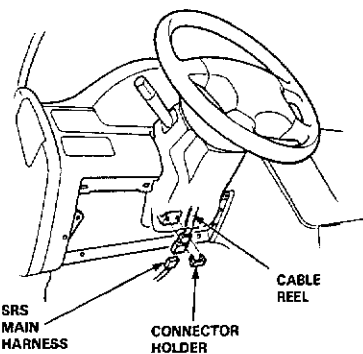
- The yellow gear tooth lines up with the alignment mark on the cover.
- The arrow mark on the cable reel label points straight up.



Steering Column Removal

CAUTION:

- Before removing the steering column, first disconnect the connector between the cable reel and the SRS main harness.
- If the steering column is going to be removed without dismantling the steering wheel, lock the steering by turning the ignition key to 0-LOCK position or remove the key from the ignition so that the steering wheel will not turn.



Do not replace the original steering wheel with any other design, since it will make it impossible to properly install the airbag (only use genuine Honda replacement parts).

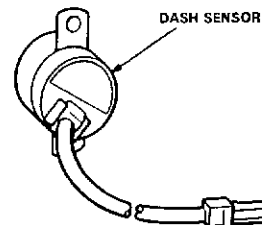
After reassembly confirm that the wheels are still turned straight ahead and that the steering wheel spoke angle is correct. If minor spoke angle adjustment is necessary, do so only by adjusting the tie-rods, not by removing and repositioning the steering wheel.

Sensor Inspection

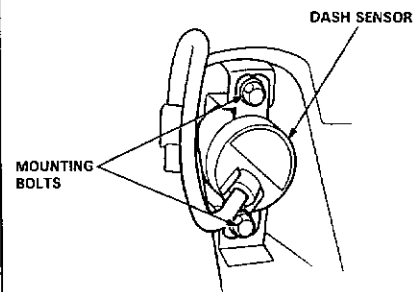
CAUTION: Take extra care when painting or doing body work in the area below the dashboard. Avoid direct exposure of the sensors or wiring to heat guns, welding, or spraying equipment.

WARNING

- Disconnect both the negative and positive battery cables.
- Install the short connector(s) before working below the dashboard or near the dash sensors.
- After any degree of frontal body damage, inspect both dash sensors. Replace a sensor if it is dented, cracked, or deformed.



- Be sure the sensors are installed securely.



Inspection After Deployment

After a collision in which the airbags were deployed, inspect the following:

1. Inspect the dash sensors for physical damage. If the sensors are damaged, replace them.
2. Inspect all the SRS wire harnesses. Replace, don't repair, any damaged harnesses.
3. Inspect the cable reel for heat damage. If there is any damage, replace the cable reel.
4. After the car is completely repaired, turn the ignition switch on. If the SRS indicator light comes on for about six seconds and then goes off, the SRS system is OK. If the indicator light does not function properly, go to SRS Troubleshooting.

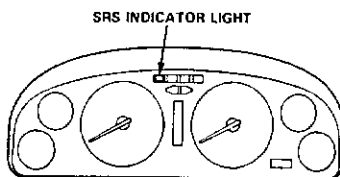


Supplemental Restraint System (SRS)

Troubleshooting

Self-diagnosis Function

The SRS unit includes a self-diagnosis function. If there is a failure in the sensors, SRS unit, inflator, or their circuits, the SRS indicator light in the gauge assembly goes ON.



As a system check, the SRS indicator light also comes on when the ignition is first turned to the II position. If the light goes off after approximately six seconds, the system is OK.

If the SRS indicator light remains on (or fails to come on in the system check mode), one of the SRS components (or the wiring/connectors in between) is faulty.

Troubleshooting Precautions

- Always use the test harness. Do not use test probes directly on component connector terminals or wires; you may damage them or the SRS unit.
- When connecting any of the test harnesses to the system, push the connectors straight-in; do not bend the connector terminals.
- Before disconnecting any part of the SRS wire harness, install the short connector (RED) on the driver's airbag. On cars equipped with a front passenger's airbag, install short connectors on the driver's airbag and the front passenger's airbag.

SRS Indicator Light Troubleshooting

Possible conditions:

1. SRS indicator light does not come on at all—see page 23-336.
2. SRS indicator light stays on constantly—see page 23-340.
3. SRS indicator light comes on in combination with a failure of another electrical system (brake system light, malfunction indicator lamp etc.). Check for damage/corrosion at the under-dash fuse/relay box connector.

NOTE:

- Before starting the applicable troubleshooting, check the condition of all SRS connectors and ground points.
- If the fault is not found after completing the applicable troubleshooting, substitute a known-good SRS unit and check whether the indicator light goes off.

Short Connector Installation

WARNING To avoid accidental deployment and possible injury, always install the protective short connector on the driver's airbag connector and, on cars equipped with front passenger's airbag, install protective short connectors on the driver's and front passenger's airbag before working near any SRS wiring.

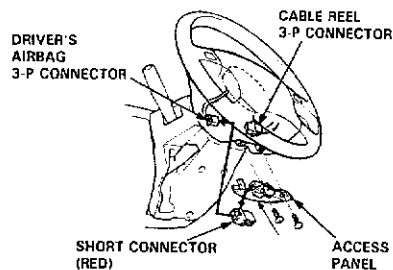
NOTE: The radio may have a 5-digit coded theft protection circuit. Be sure to get the customer's code number before disconnecting the battery.

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

2. Install the short connector(s):

Driver's Side:

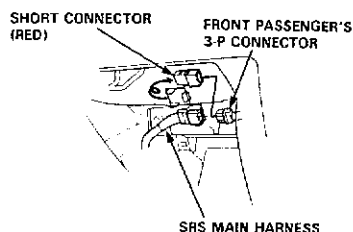
- Remove the access panel from the steering wheel, then remove the short connector (RED) from the panel.



- Disconnect the connector between the driver's airbag and cable reel, then install the short connector (RED) on the airbag side of the connector.

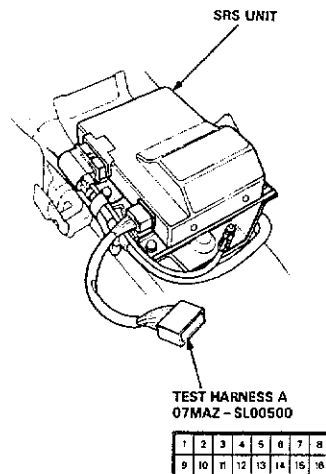
Front Passenger's Side (GS model):

- Remove the glove box.
- Disconnect the connector between the front passenger's airbag and SRS main harness, then install the short connector (RED) on the airbag side of the connector.

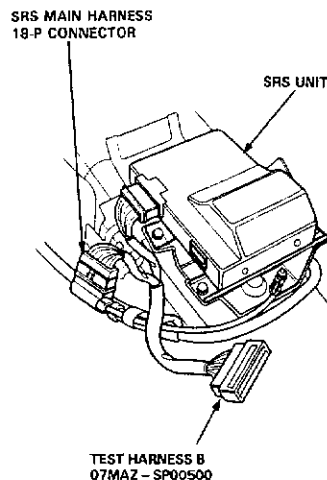


Test Harnesses and Attachment Points

Test Harness A

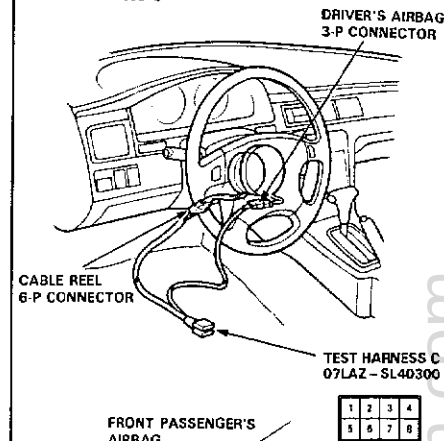


Test Harness B

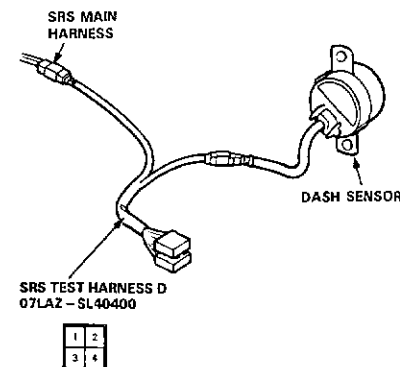


ROW A (SRS UNIT END)																	
A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
B	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
ROW B (WIRE HARNESS END)																	

Test Harness C



Test Harness D



SRS

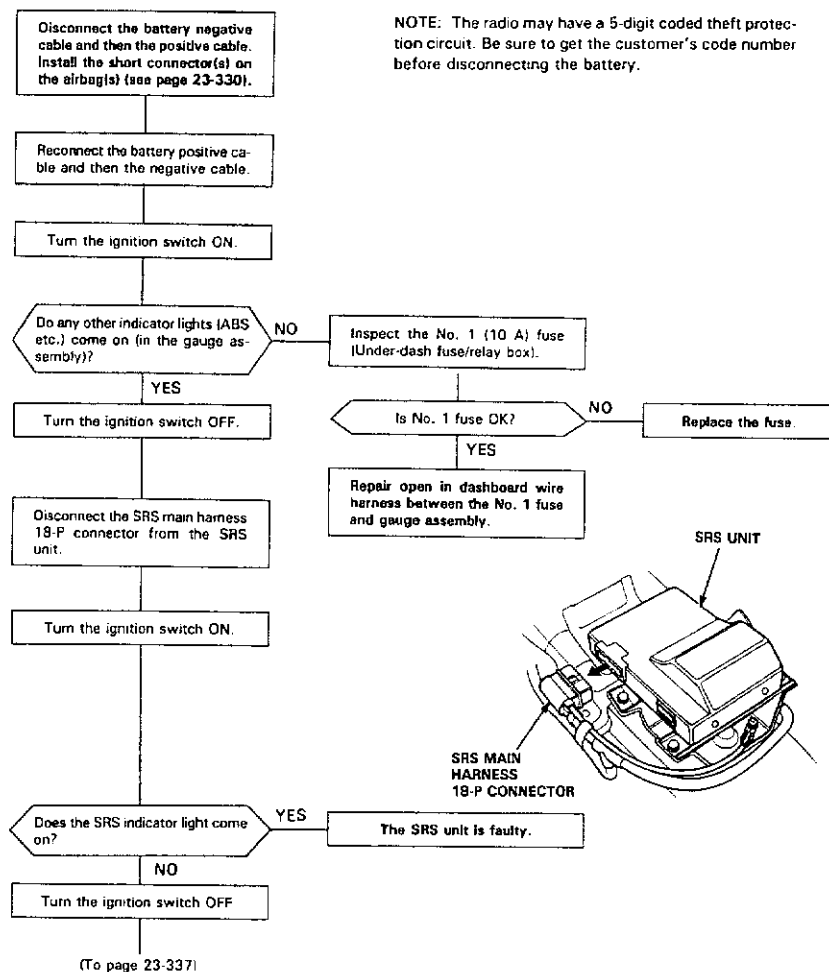
Supplemental Restraint System (SRS)

Troubleshooting

The SRS Indicator Does Not Light

CAUTION:

- Use only a digital multimeter (KS-AHM-32-003) to check the system.



(From page 23-336)

Disconnect the SRS main harness 4-P connector from the main wire harness.

Turn the ignition switch ON.

Is SRS indicator light ON?

YES

The SRS main harness is faulty.

NO

Turn the ignition switch OFF.

Remove the gauge assembly, then inspect the SRS indicator light bulb.

Is the SRS indicator light bulb OK?

NO

Replace the indicator light bulb.

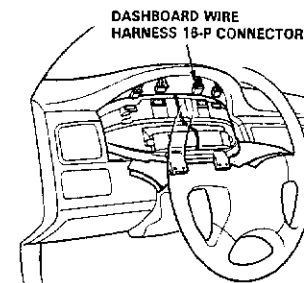
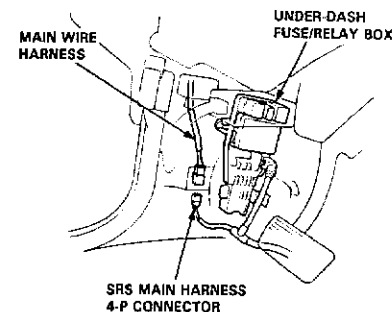
YES

Connect a voltmeter between the No. 12 terminal of the 18-P connector and body ground.

Turn the ignition switch ON.

Measure the voltage between the No. 12 terminal and body ground.

(To page 23-338)



1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16					

View from terminal side

BLU

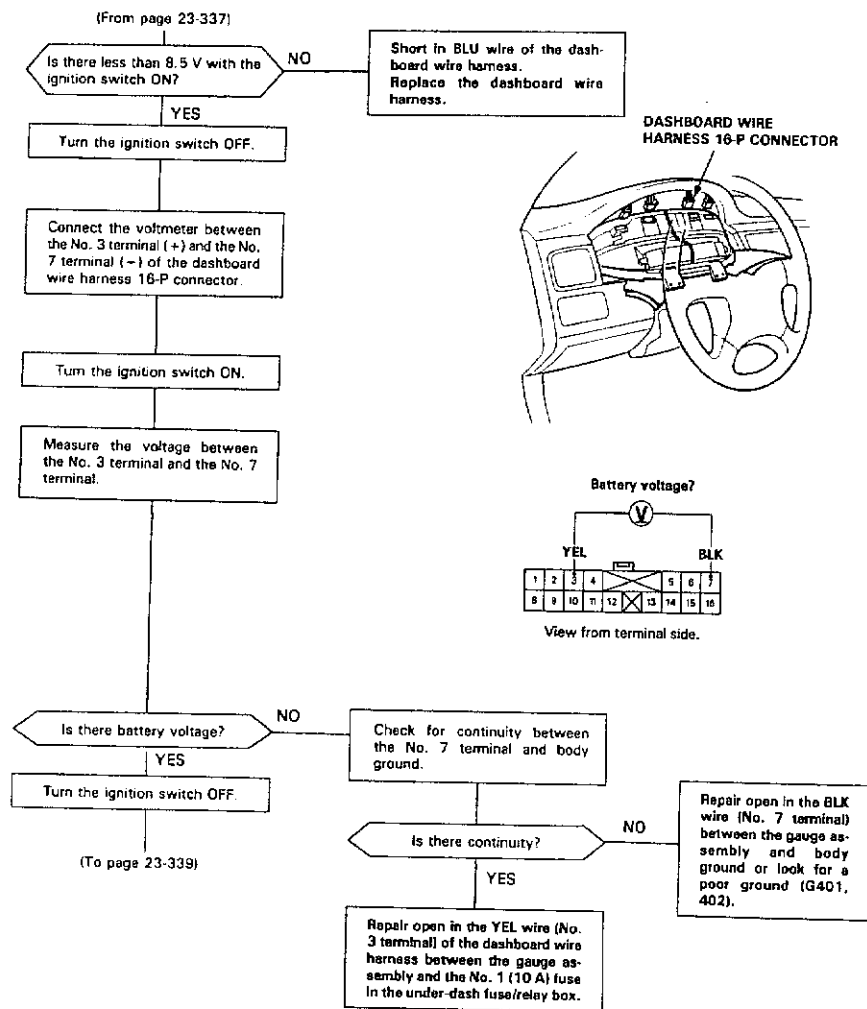


Less than 8.5V?

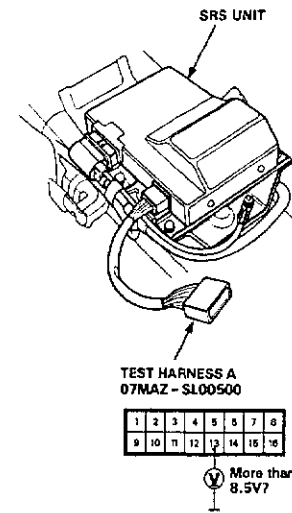
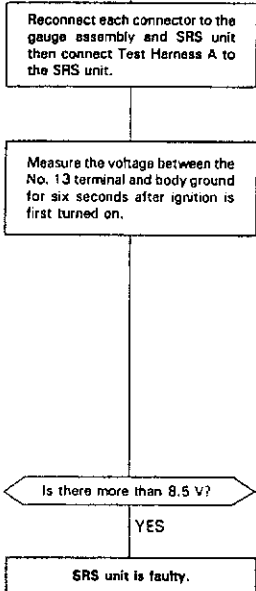
(cont'd)

Supplemental Restraint System (SRS)

Troubleshooting (cont'd)



(From page 23-338)



cardiagn.com

(cont'd)

Supplemental Restraint System (SRS)

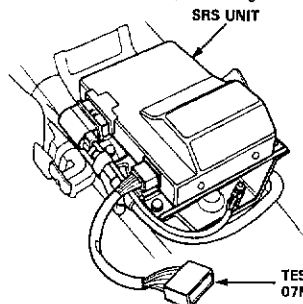
- Troubleshooting (cont'd)

SRS Indicator Light Stays on Continuously

1. Make a photocopy of this page (without front passenger's airbag), or the next page (with front passenger's airbag).
2. Connect Test Harness A (07MAZ-SL00500) to the SRS unit as shown.
3. Turn the ignition switch ON.
 - Voltages in the chart assume the car's "battery voltage" is about 12 volts. Less than 12 volts will result in different or possibly false readings.
 - Do not disconnect the airbag from the circuit when checking SRS unit voltages.
4. First, check for voltage between Test Connector Terminal No. 12 and ground.
 - If voltage is indicated, there is a poor ground (see page 23-353).
 - Continue with checking all the other terminals if no voltage is indicated.
5. Record your voltage readings, for each terminal, in the row of blank boxes near the top of the chart.

6. Compare each reading with the voltage ranges listed in the column below it. If the reading is within a range, circle that range.

- If you circled all the Failure Mode ranges across any row, check the car for the Probable Failure Mode listed at the end of the row. (Refer to the letter for that Mode on the following pages).
- If you did not circle all the ranges across any row, replace the SRS unit with a known-good unit, and retest.
 - If all your voltage readings are now Normal, replace the SRS unit.
 - If your voltage readings are still not normal but they don't fit within a complete row of Failure Mode ranges, check the condition of the terminals in each of the SRS connectors shown in the system diagram on page 23-328.



Without Front Passenger's Airbag:

NOTE: Do not disconnect the airbag when checking SRS unit voltages.

Test Harness Terminal	1 SADI	2 SAPH	4 VCC	5 SV	8 SADC	10 BUC1	12 GND	13 IDC	14 M1	Probable Failure Mode
Normal Voltage	5.2 -7.3	5.5 -7.2	4.5 -5.5	12.0 -14.3	5.6 -7.3	11.5 -14.5	0	8.5 -13.6	11.2 -14.6	
Your Voltage Reading										
Failure Mode Voltage	3.7 -4.8	3.7 -4.8	4.5 -5.5	12.0 -14.3	3.7 -4.9	11.5 -14.5	0	2.0 -8.5	11.2 -14.6	A Open in one cowl sensor contact.
	0	0	4.5 -5.5	12.0 -14.3	0	11.5 -14.5	0	2.0 -8.5	11.2 -14.6	B • Open in both cowl sensor contacts. • Short in one dash sensor • Short to driver's or passenger's airbag inflator (body ground).
	11.2 -14.6	11.2 -14.6	4.5 -5.5	12.0 -14.3	11.2 -14.6	11.5 -14.5	0	2.0 -8.5	11.2 -14.6	C Short in cowl sensor or open in both dash sensors.
	7.4 -9.6	7.4 -9.6	4.5 -5.5	12.0 -14.3	7.4 -9.7	11.5 -14.5	0	2.0 -8.5	11.2 -14.6	D Open in one dash sensor.
	11.2 -14.6	3.7 -4.8	4.5 -5.5	12.0 -14.3	3.7 -4.9	11.5 -14.5	0	2.0 -8.5	11.2 -14.6	E Open in driver's airbag inflator or cable reel.
	3.7 -4.8	11.2 -14.6	4.5 -5.5	12.0 -14.3	3.7 -4.9	11.5 -14.5	0	2.0 -8.5	11.2 -14.6	F Open in front passenger's airbag inflator.
	11.2 -14.6	11.2 -14.6	4.5 -5.5	12.0 -14.3	0	11.5 -14.5	0	2.0 -8.5	11.2 -14.6	G Open in driver's and passenger's airbag inflator.
	5.5 -7.2	5.5 -7.2	0	0	5.6 -7.3	11.2 -14.5	0	2.0 -8.5	11.2 -14.6	H Blown SRS fuse (No. 3) or open in the wire.
	5.5 -7.2	5.5 -7.2	4.5 -5.5	12.0 -14.3	5.6 -7.3	11.5 -14.5	0	0 (8.5 -13.6)	11.2 -14.6	I Short (or open) in SRS indicator wire harness.



With Front Passenger's Airbag:

NOTE: Do not disconnect the airbags when checking SRS unit voltages.

Test Harness Terminal	1 SADI	2 SAPH	4 VCC	5 SV	8 SADC	10 BUC1	12 GND	13 IDC	14 M1	Probable Failure Mode
Normal Voltage	5.5 -7.2	5.5 -7.2	4.5 -5.5	12.0 -14.3	5.6 -7.3	11.5 -14.5	0	8.5 -13.6	11.2 -14.6	
Your Voltage Reading										
Failure Mode Voltage	3.7 -4.8	3.7 -4.8	4.5 -5.5	12.0 -14.3	3.7 -4.9	11.5 -14.5	0	2.0 -8.5	11.2 -14.6	A Open in one cowl sensor contact.
	0	0	4.5 -5.5	12.0 -14.3	0	11.5 -14.5	0	2.0 -8.5	11.2 -14.6	B • Open in both cowl sensor contacts. • Short in one dash sensor • Short to driver's or passenger's airbag inflator (body ground).
	11.2 -14.6	11.2 -14.6	4.5 -5.5	12.0 -14.3	11.2 -14.6	11.5 -14.5	0	2.0 -8.5	11.2 -14.6	C Short in cowl sensor or open in both dash sensors.
	7.4 -9.6	7.4 -9.6	4.5 -5.5	12.0 -14.3	7.4 -9.7	11.5 -14.5	0	2.0 -8.5	11.2 -14.6	D Open in one dash sensor.
	11.2 -14.6	3.7 -4.8	4.5 -5.5	12.0 -14.3	3.7 -4.9	11.5 -14.5	0	2.0 -8.5	11.2 -14.6	E Open in driver's airbag inflator or cable reel.
	3.7 -4.8	11.2 -14.6	4.5 -5.5	12.0 -14.3	3.7 -4.9	11.5 -14.5	0	2.0 -8.5	11.2 -14.6	F Open in front passenger's airbag inflator.
	11.2 -14.6	11.2 -14.6	4.5 -5.5	12.0 -14.3	0	11.5 -14.5	0	2.0 -8.5	11.2 -14.6	G Open in driver's and passenger's airbag inflator.
	5.5 -7.2	5.5 -7.2	0	0	5.6 -7.3	11.2 -14.5	0	2.0 -8.5	11.2 -14.6	H Blown SRS fuse (No. 3) or open in the wire.
	5.5 -7.2	5.5 -7.2	4.5 -5.5	12.0 -14.3	5.6 -7.3	11.5 -14.5	0	0 (8.5 -13.6)	11.2 -14.6	I Short (or open) in SRS indicator wire harness.

(cont'd)

Supplemental Restraint System (SRS)

Troubleshooting (cont'd)

Mode A: Open in one cowl sensor contact.

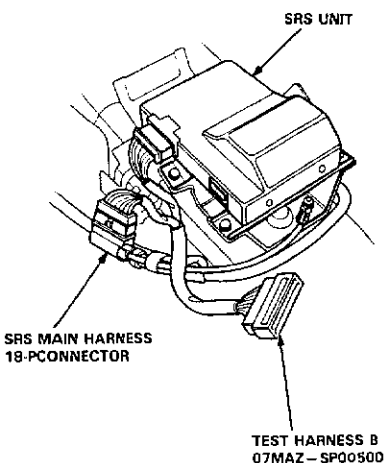
- The SRS unit is faulty. Substitute a known-good SRS unit and recheck the voltages according to the chart on page 23-340.

Mode B:

- Short to driver's or passenger's airbag inflator (body ground).
- Short in dash sensor.
- Open in both cowl sensor contacts.

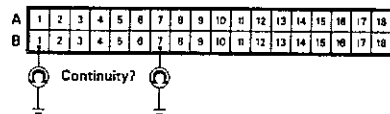
NOTE: The radio may have a 5-digit coded theft protection circuit. Be sure to get the customer's code number before disconnecting the battery cables.

- Before disconnecting any part of the SRS wire harness, install the short connector(s) (RED) on the airbag(s) (see page 23-330).
- Connect Test Harness B (07MAZ-SP00500) between the SRS unit and SRS main harness 18-P connector.



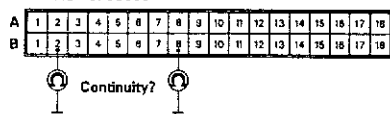
- Reconnect the driver's airbag connector, then check continuity between the B1 terminal and body ground, and between the B7 terminal and body ground.

TEST HARNESS B
07MAZ-SP00500



- If there is continuity at either terminal, go to step 6.
 - If there is no continuity at either terminal:
 - Without front passenger's airbag, go to step 5.
 - With front passenger's airbag, go to step 4.
- Reconnect the front passenger's airbag connector, then check continuity between the B2 terminal and body ground, and between the B8 terminal and body ground.

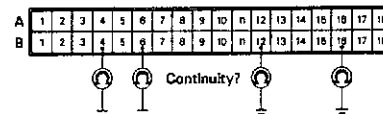
TEST HARNESS B
07MAZ-SP00500



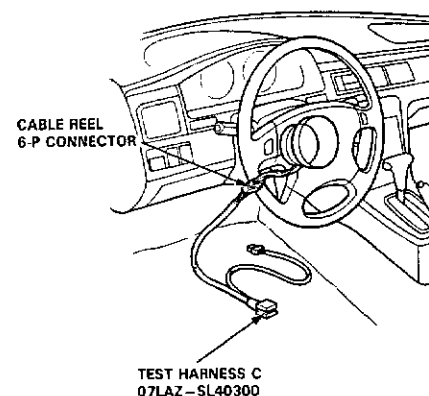
- If there is continuity at either terminal, go to step 10.
- If there is no continuity at either terminal, go to step 5.

- Check continuity between body ground and each terminal of both dash sensors.

TEST HARNESS B
07MAZ-SP00500

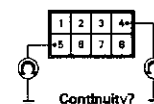


- If there is continuity at any of the terminals, go to step 12.
 - If there is no continuity at any terminal, go to step 13.
- Disconnect the cable reel 6-P connector from the SRS main harness, then connect Test Harness C (07LAZ-SL40300) only to the cable reel side of the 6-P connector.



- Check continuity between the No.4 terminal and body ground, and between the No.5 terminal and body ground.

TEST HARNESS C
07LAZ-SL40300



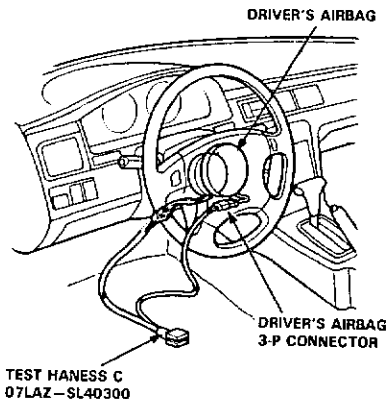
- If there is continuity at either terminal, go to step 8.
- If there is no continuity at either terminal, the SRS main harness is faulty. Replace it and recheck the voltages according to the chart on page 23-340.

(cont'd)

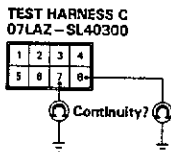
Supplemental Restraint System (SRS)

Troubleshooting (cont'd)

8. Disconnect the driver's airbag 3-P connector from the cable reel, then connect Test Harness C (07LAZ-SL40300) to the driver's airbag 3-P connector.

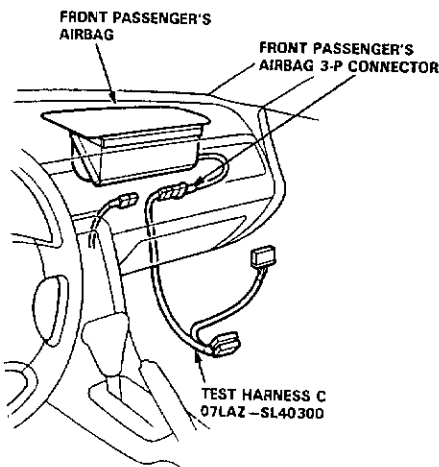


9. Check continuity between the No.7 terminal and body ground, and between the No.8 terminal and body ground.

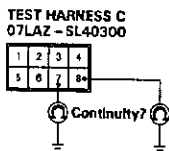


- If there is continuity at either terminal, the driver's airbag inflator is faulty. Replace it and recheck the voltages according to the chart on page 23-340.
- If there is no continuity at either terminal, the cable reel is faulty. Replace it and recheck the voltages according to the chart on page 23-340.

10. Disconnect the front passenger's airbag 3-P connector from the SRS main harness, then connect Test Harness C (07LAZ-SL40300) to the airbag side of the connector.

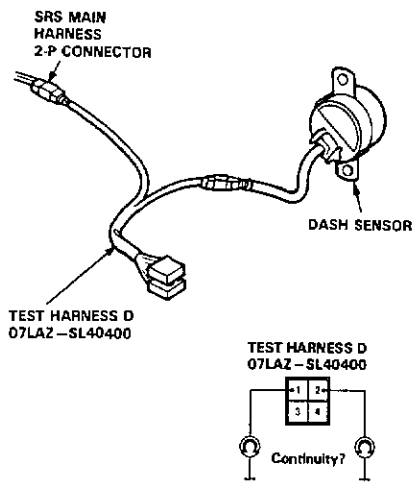


11. Check continuity between the No.7 terminal and body ground, and between the No.8 terminal and body ground.



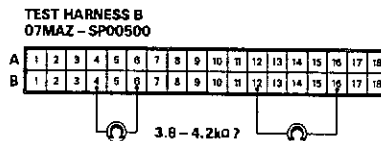
- If there is continuity at either terminal, the front passenger's airbag inflator is faulty. Replace it and recheck the voltages according to the chart on page 23-340.
- If there is no continuity at either terminal, the SRS main harness is faulty. Replace it and recheck the voltages according to the chart on page 23-340.

12. Connect Test Harness D (07LAZ-SL40400) between the dash sensor and SRS main harness 2-P connector. Check continuity between the No.1 terminal and body ground, and between the No.2 terminal and body ground.



- If there is continuity at either terminal, the dash sensor is faulty. Replace it and recheck the chart on page 23-340.
- If there is no continuity at either terminal, the SRS main harness is faulty. Replace it and recheck the voltages according to the chart on page 23-340.

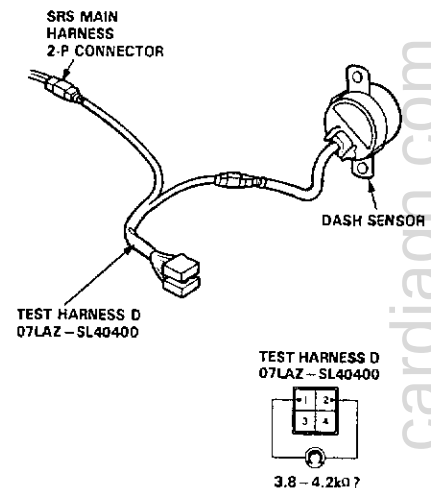
13. Check the resistance between the left dash sensor terminals B12 and B16, and between the right dash sensor terminals B4 and B6.



- If resistance is 3.8 - 4.2 kΩ for both sensors, the SRS unit is faulty. Substitute a know-good SRS unit and recheck the voltages according to the chart on page 23-340.

- If resistance is less than 3.8 kΩ for either sensor, go to step 14.

14. Connect Test Harness D (07LAZ-SL40400) between the dash sensor and SRS main harness 2-P connector. Check the resistance between the No.1 terminal and No.2 terminal.



- If resistance is 3.8 - 4.2 kΩ, the SRS main harness is faulty. Replace it and recheck the voltages according to the chart on page 23-340.
- If resistance is less than 3.8 kΩ, the dash sensor is faulty. Replace it and recheck the voltages according to the chart on page 23-340.



(cont'd)

Supplemental Restraint System (SRS)

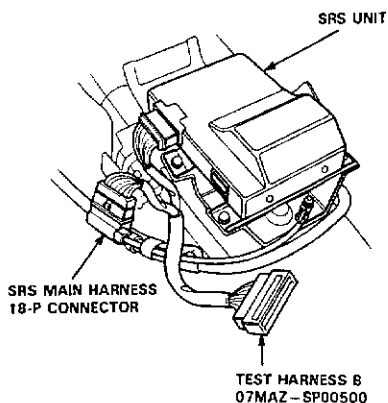
Troubleshooting (cont'd)

Mode C: Short in cowl sensor, or open in both dash sensors.

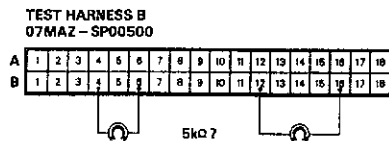
Mode D: Open in one dash sensor.

NOTE: The radio may have a 5-digit coded theft protection circuit. Be sure to get the customer's code number before disconnecting the battery cables.

1. Disconnect the battery negative cable and then the positive cable. Install the short connector(s) on the airbag(s) (see page 23-330).
2. Connect Test Harness B (07MAZ-SP00500) between the SRS unit and SRS main harness 18-P connector.

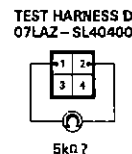
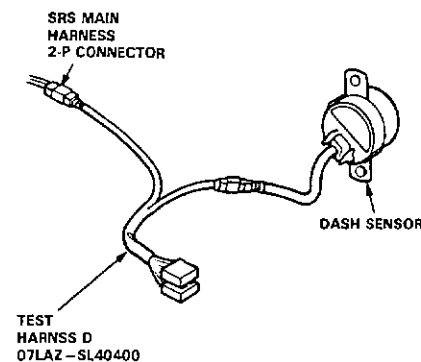


3. Check the resistance between the left dash sensor terminals B12 and B16, and between the right dash sensor terminals B4 and B6.



- If resistance is more than 5 kΩ for either sets of terminals, go to step 4.
- If resistance is less than 5 kΩ for both sets of terminal, the SRS unit is faulty. Substitute a known-good SRS unit and recheck the voltages according to the chart on page 23-340.

3. Connect Test Harness D (07LAZ-SL40400) between the dash sensor and SRS main harness 2-P connector. Check the resistance between the No. 1 terminal and No. 2 terminal.

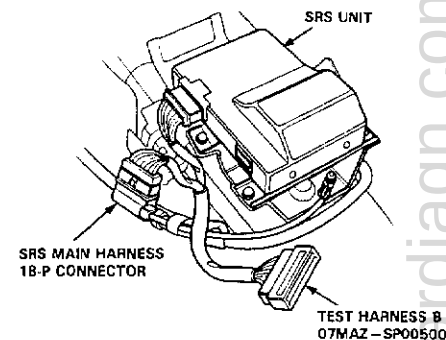


- If resistance is more than 5 kΩ, the dash sensor is faulty. Replace it and recheck the voltages according to the chart on page 23-340.
- If resistance is less than 5 kΩ, the SRS main harness is faulty. Replace the SRS main harness and recheck the voltages according to the chart on page 23-340.

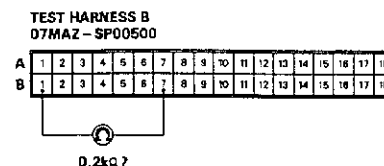
Mode E: Open in driver's airbag inflator or cable reel.

NOTE: The radio may have a 5-digit coded theft protection circuit. Be sure to get the customer's code number before disconnecting the battery cables.

1. Before disconnecting any part of the SRS wire harness, install the short connector(s) (RED) on the airbag(s) (see page 23-330).
2. Connect Test Harness B (07MAZ-SP00500) between the SRS unit and SRS main harness 18-P connector.



3. Reconnect the driver's airbag connector, check the resistance between the B1 and the B7 terminals.



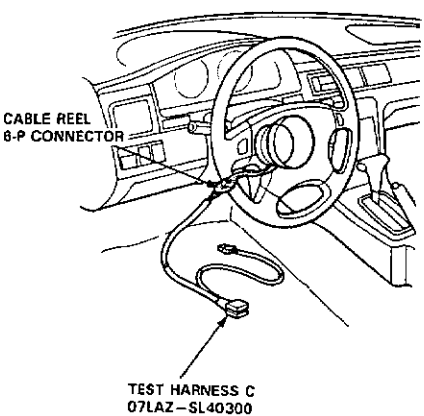
- If resistance is more than 0.2 kΩ, go to step 4.
- If resistance is less than 0.2 kΩ, the SRS unit is faulty. Substitute a known-good SRS unit and recheck the voltages according to the chart on page 23-340.

(cont'd)

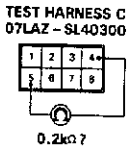
Supplemental Restraint System (SRS)

Troubleshooting (cont'd)

4. Disconnect the cable reel 6-P connector from the SRS main harness, then connect Test Harness C (07LAZ-SL40300) only to the cable reel side of the connector.

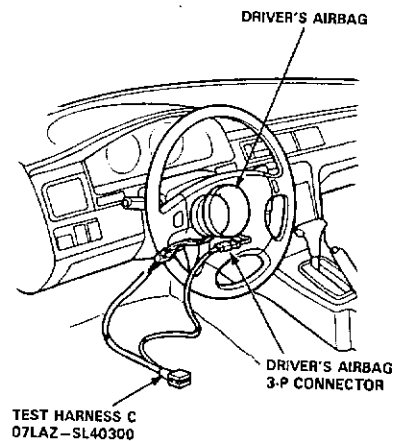


5. Measure the resistance between the No. 4 terminal and the No. 5 terminal.

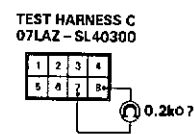


- If resistance is more than 0.2 kΩ, go to step 6.
- If resistance is less than 0.2 kΩ, the SRS main harness is faulty. Replace it and recheck the voltages according to the chart on page 23-340.

6. Disconnect the driver's airbag 3-P connector from the cable reel harness, then connect Test Harness C (07LAZ-SL40300) to the driver's airbag 3-P connector.



7. Measure the resistance between the No. 7 terminal and the No. 8 terminal.

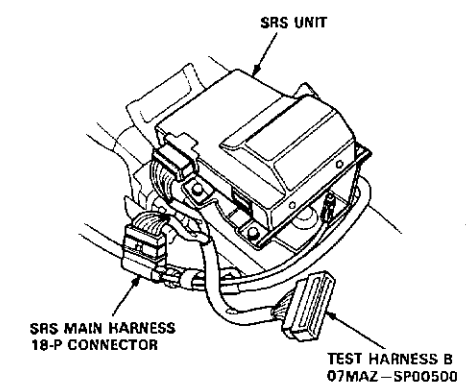


- If resistance is more than 0.2 kΩ, the driver's airbag inflator is faulty. Replace the airbag assembly and recheck the voltages according to the chart on page 23-340.
- If resistance is less than 0.2 kΩ, the cable reel is faulty. Replace it and recheck the voltages according to the chart on page 23-340.

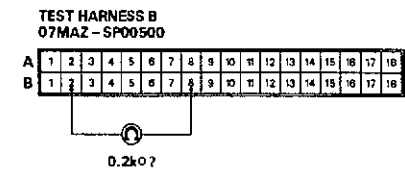
Mode F: Open in front passenger's airbag inflator.

NOTE: The radio may have a 5-digit coded theft protection circuit. Be sure to get the customer's code number before disconnecting the battery cables.

1. Before disconnecting any part of the SRS wire harness, install the short connector(s) (RED) on the airbag(s) (see page 23-330).
2. Connect Test Harness B (07MAZ-SP00500) between the SRS unit and SRS main harness 18-P connector.

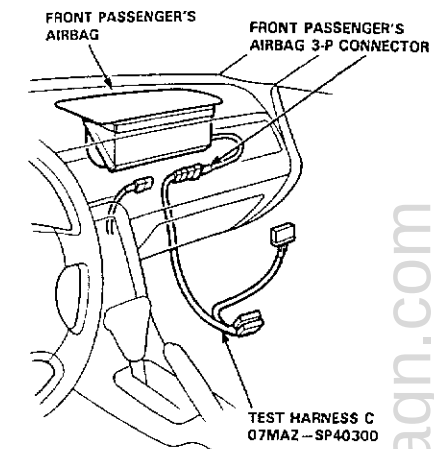


3. Reconnect the front passenger's airbag connector, then measure the resistance between the B2 terminal and B8 terminal.

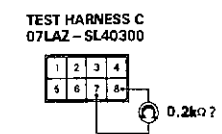


- If resistance is more than 0.2 kΩ, go to step 4.
- If resistance is less than 0.2 kΩ, the SRS unit is faulty. Substitute a known-good SRS unit and recheck the voltages according to the chart on page 23-340.

4. Disconnect the front passenger's airbag 3-P connector from the SRS main harness, then connect Test Harness C (07LAZ-SL40300) to the front passenger's airbag side of the connector.



5. Measure the resistance between the No. 7 terminal and the No. 8 terminal.



- If resistance is more than 0.2 kΩ, the front passenger's airbag inflator is faulty. Replace the front passenger's airbag assembly and recheck the voltages according to the chart on page 23-340.
- If resistance is less than 0.2 kΩ, the cable reel is faulty. Replace the cable reel and recheck the voltages according to the chart on page 23-340.

Supplemental Restraint System (SRS)

Troubleshooting (cont'd)



Mode H: Blown SRS No. 3 fuse, or open in the wire.

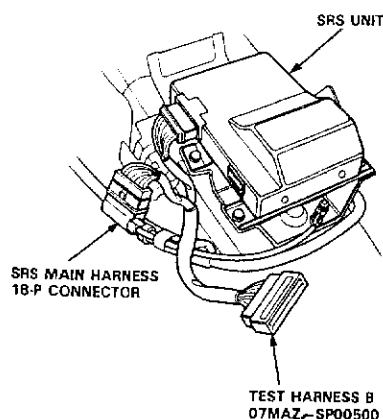
NOTE: The radio may have a 5-digit coded theft protection circuit. Be sure to get the customer's code number before disconnecting the battery cables.

1. Check the SRS No. 3 (10 A) fuse in the under-dash fuse/relay box. If it's OK, go on to step 2. If it's blown, replace it with a new 10 A fuse, then turn the ignition switch ON.

- If fuse doesn't blow, go on to step 2.
- If the fuse blows, troubleshoot as necessary to find the short.

2. Before disconnecting any part of the SRS wire harness, install the short connector(s) (RED) on the air-bag(s) (see page 23-330).

3. Connect Test Harness B (07MAZ-SP00500) between the SRS unit and SRS main harness 18-P connector.



4. Reconnect the positive and negative cables to the battery.
5. Measure the voltage between the B13 terminal and body ground with the ignition switch ON.

**TEST HARNESS B
07MAZ-SP00500**

A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
B	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

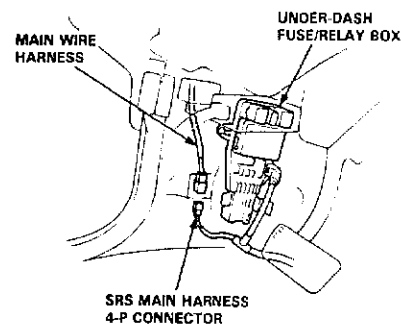
Battery voltage?

- If there is battery voltage, the SRS unit is faulty. Replace it and recheck the voltages according to the chart on page 23-340.
- If less than battery voltage, the SRS main harness is faulty. Replace it and recheck the voltages according to the chart on page 23-340.

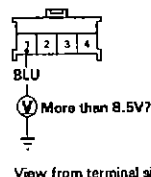
Mode I: Short or open in SRS indicator wire harness.

NOTE: The radio may have a 5-digit coded theft protection circuit. Be sure to get the customer's code number before disconnecting the battery cables.

1. Disconnect the SRS main harness 4-P connector from the main wire harness.



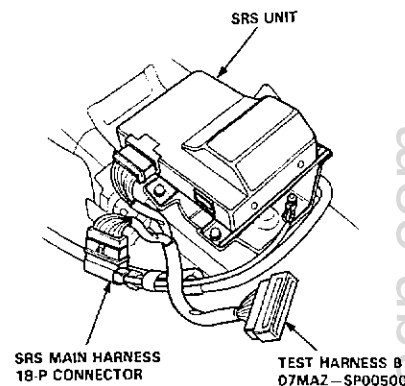
2. Turn the ignition switch ON and wait for six seconds. Measure the voltage between the No. 1 terminal and body ground on the SRS main harness 4-P connector side.



- If voltage is more than 8.5 V, go to step 8.
- If voltage is less than 8.5 V, go to step 3.

3. Before disconnecting any part of the SRS wire harness, install the short connector(s) (RED) on the air-bag(s) (see page 23-330).

4. Connect Test Harness B (07MAZ-SP00500) between the SRS unit and SRS main harness 18-P connector.



5. Reconnect the battery positive cable and negative cable.
6. Check for continuity between the B11 terminal and body ground.

**TEST HARNESS B
07MAZ-SP00500**

A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
B	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

Continuity?

- If there is continuity, the SRS main harness is shorted. Replace the SRS main harness and recheck the voltages according to the chart on page 23-340.
- If there is no continuity, go to step 7.

(cont'd)

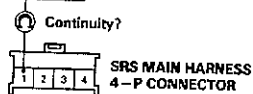
Supplemental Restraint System (SRS)

Troubleshooting (cont'd)

7. Check for continuity between the B11 terminal of Test Harness B (07MAZ-SP00500) and the No. 1 terminal of the SRS main harness 4-P connector.

TEST HARNESS B
07MAZ-SP00500

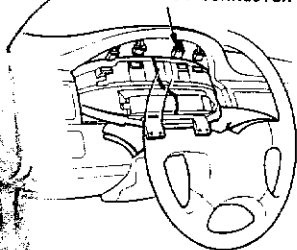
A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
B	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18



- If there is continuity, the SRS unit is faulty. Replace it and recheck the voltages according to the chart on page 23-340.
- If there is no continuity, there is an open in the SRS main harness. Replace the SRS main harness and recheck the voltages according to the chart on page 23-340.

8. Reconnect the SRS main harness 4-P connector to the main wire harness. Disconnect the dashboard wire harness 16-P connector from the gauge assembly.

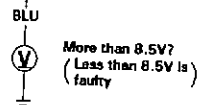
DASHBOARD WIRE
HARNESS 16-P CONNECTOR



9. Turn the ignition switch ON and wait for six seconds. Measure the voltage between the No. 12 terminal and body ground.

DASHBOARD WIRE HARNESS
16-P CONNECTOR

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21



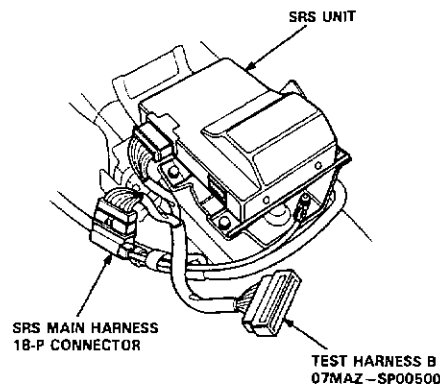
View from terminal side.

- If voltage is more than 8.5 V, the SRS indicator circuit is faulty (in the gauge assembly). Replace the SRS indicator assembly and recheck the voltages according to the chart on page 23-340.
- If voltage is less than 8.5 V, the dashboard wire harness (or the main wire harness) is faulty. Replace it and recheck the voltages according to the chart on page 23-340.

Poor ground at SRS unit or unit mounting bolts.

NOTE: The radio may have a 5-digit coded theft protection circuit. Be sure to get the customer's code number before disconnecting the battery cables.

1. Before disconnecting any part of the SRS wire harness, install the short connector(s) (RED) on the air-bag(s) (see page 23-330).
2. Connect Test Harness B (07MAZ-SP00500) between the SRS unit and SRS main harness 18-P connector.



3. Check for continuity between the B5 terminal and body ground, and the B15 terminal and body ground.

TEST HARNESS B
07MAZ-SP00500

A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
B	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

Continuity?

Supplemental Restraint System (SRS)

Airbag Assembly Replacement

WARNING Store a removed airbag assembly with the pad surface up. If the airbag is improperly stored face down, accidental deployment could propel the unit with enough force to cause serious injury.

CAUTION:

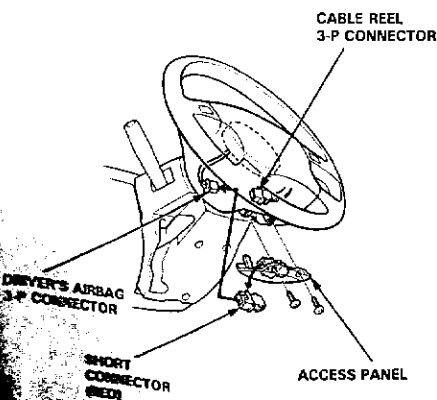
- Do not install used SRS parts from another car. When repairing as SRS, use only new parts.
- Carefully inspect the airbag assembly before install it. Do not install an airbag assembly that shows signs of being dropped or improperly handled, such as dents, cracks or deformation.
- Always keep the short connector(s) (RED) on the airbag(s) when the harness is disconnected.
- Do not disassemble or tamper with the airbag assembly.

NOTE: The radio may have a 5-digit coded theft protection circuit. Be sure to get the customer's code number before disconnecting the battery cables.

1. Disconnect the battery negative cable, then disconnect the positive cable.
2. Install the short connector(s) (RED) on the airbag side of the connector(s):

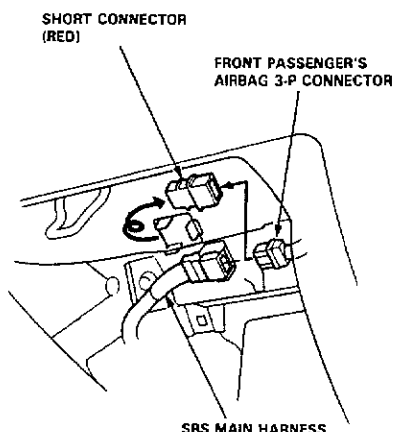
Driver's Side:

- Remove the glove box.
- Disconnect the 3-P connector between the driver's airbag and cable reel, then install the short connector (RED) on the airbag side of the connector.



Front Passenger's Side:

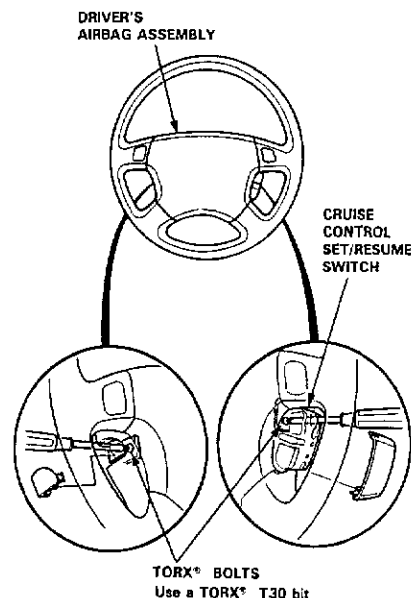
- Remove the glove box.
- Disconnect the 3-P connector between the front passenger's airbag and SRS main harness, then install the short connector (RED) on the airbag side of the connector.



3. Remove the airbag(s).

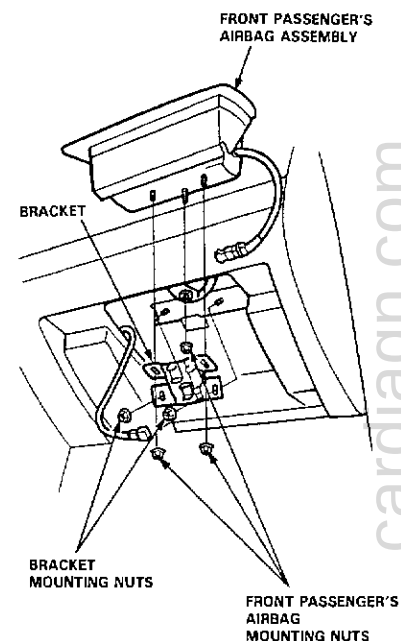
Driver's Side:

- Remove the two TORX® bolts using a TORX® T30 bit, then remove the driver's airbag assembly.



Front Passenger's Side:

- Remove the glove box, then remove the four mounting nuts from the bracket.
- Remove the bracket and one mounting nut from the front passenger's airbag assembly.



- Carefully lift the front passenger's airbag assembly out of the dashboard.

(cont'd)

Supplemental Restraint System (SRS)

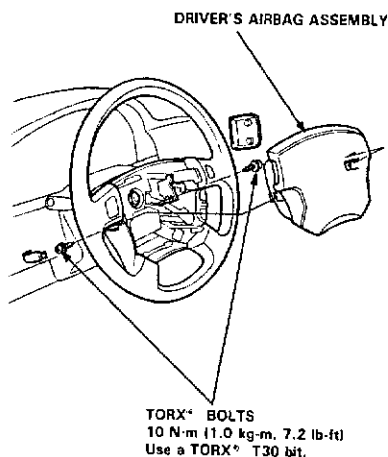
- Airbag Assembly Replacement (cont'd)



CAUTION: Be sure to install the SRS wiring so that it is not pinched or interfering with other car parts.

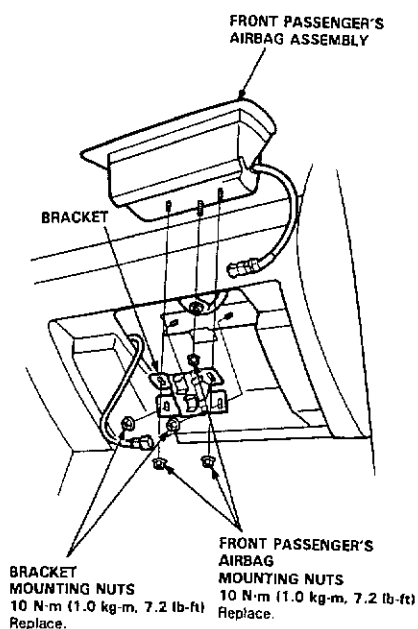
4. Install the new airbag(s).

Driver's Side: Place the driver's airbag assembly in the steering wheel, and secure it with new TORX® bolts.



Front Passenger's Side:

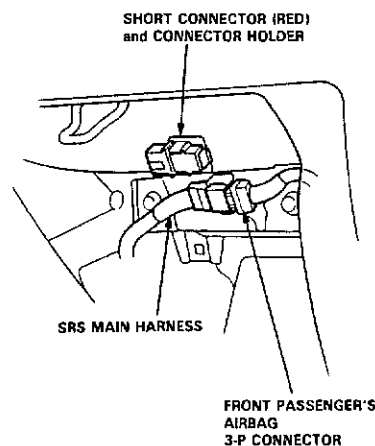
- Place the front passenger's airbag assembly in the dashboard.
- Press the airbag assembly downwards and turn the adjusting nuts until they touch the lower part of the airbag assembly.
- Tighten the middle airbag mounting nut, then install the bracket and four mounting nuts.
- Tighten the two outer airbag mounting nuts, then tighten the two bracket mounting nuts.



5. Remove and properly store the short connector(s), then reconnect the airbag connector(s).

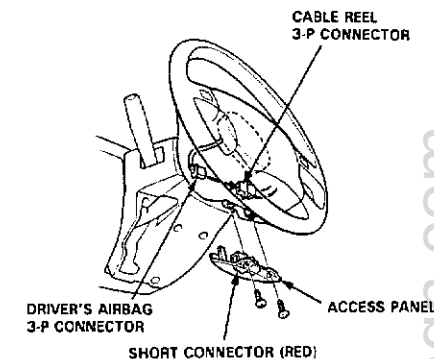
Front passenger's Side:

- Attach the short connector (RED) to the connector holder, then reinstall the glove box.



Driver's Side:

- Remove the short connector (RED) from the driver's airbag connector, then connect the airbag 3-P connector to the cable reel 3-P connector.
- Attach the short connector (RED) to the access panel, then reinstall the panel on the steering wheel.



6. Connect the battery positive cable, then the negative cable.
7. After installing the airbag assembly, confirm proper system operation:
 - Turn the ignition ON (II): The instrument panel SRS indicator light should go on for about six seconds and then go off.
 - Make sure both horn buttons work.
 - Take a test drive and make sure the cruise control set/resume switch works.
8. Enter the code number to restore radio operation (see page 23-223).

Supplemental Restraint System (SRS)

- Airbag Assembly Disposal

Before scrapping any airbag(s) (including one in a whole car to be scrapped) the airbag must be deployed. If the car is still within the warranty period, before you deploy the airbag, the Acura District Service Manager must give approval and/or special instructions.

Only after an airbag has been deployed (as the result of vehicle collision, for example) it can be scrapped. If the airbag(s) appears intact (not deployed) treat it with extreme caution.

Follow this procedure:

Deploying the Airbag(s): In-Car

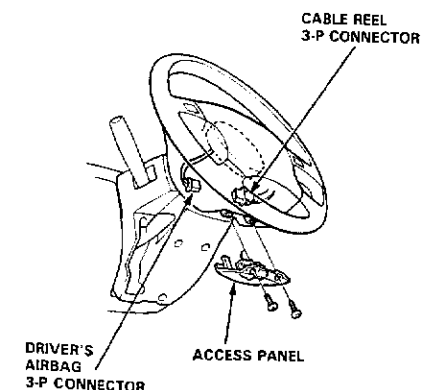
NOTE: If an SRS car is to be entirely scrapped, its airbag(s) should be deployed while still in the car. The airbag(s) should not be considered as salvageable part and should never be installed in another car.

WARNING Confirm that the airbag assembly is securely mounted; otherwise severe personal injury could result during deployment.

1. Disconnect both the negative cable and positive cable from the battery.
2. Confirm that the special tool is functioning properly by following the check procedure on the label of the tool set box, or on page 23-359

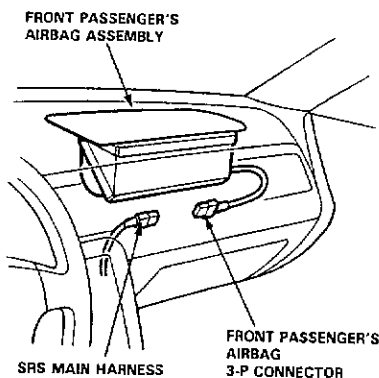
Driver's Airbag:

3. Remove the access panel, then disconnect the 3-P connector between the driver's airbag and cable reel.

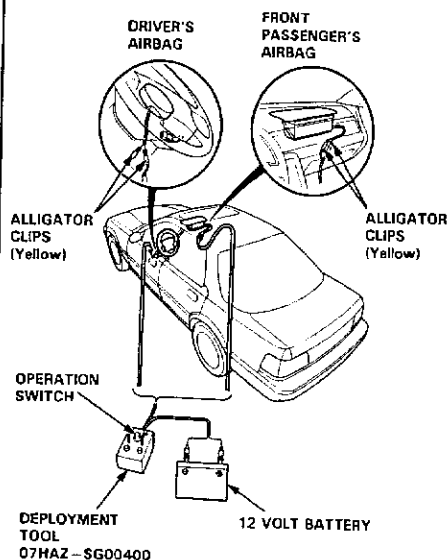


Front Passenger's Airbag:

4. Remove the glove box, then disconnect the 3-P connector between the front passenger's airbag and SRS main harness.



5. Cut off the airbag connector, strip the ends of the airbag, wires, and connect the special tool alligator clips to the bare wires. Place the special tool approximately thirty feet (10 m) away from the airbag.



6. Connect a 12 volt battery to the tool:

- If the green light on the tool goes on, the airbag igniter circuit is defective and cannot deploy the bag. Go to Damaged Airbag Special Procedure.
- If the red light on the tool goes on, the airbag is ready to be deployed.

7. Push the tool's deployment switch. The airbag should deploy (deployment is both highly audible and visible - a loud noise and rapid inflation of the bag, followed by slow deflation).

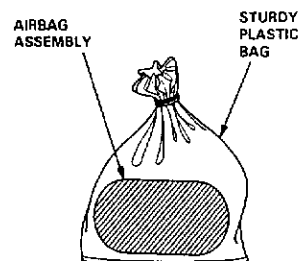
- If audible/visible deployment happens and the green light on the tool goes on, continue with this procedure.
- If the airbag doesn't deploy, yet the green light goes ON, its igniter is defective. Go to Damaged Airbag Special Procedure.

WARNING During deployment, the airbag assembly can become hot enough to burn you. Wait thirty minutes after deployment before touching the assembly.

8. Dispose of the complete airbag assembly. No part of it can be reused. Place it in a sturdy plastic bag and seal it securely.

CAUTION:

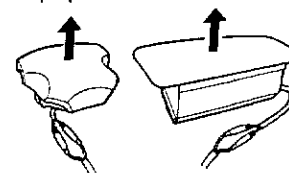
- Wear a face shield and gloves when handling a deployed airbag.
- Wash your hands and rinse them well with water after handling a deployed airbag.



Deploying the Airbag: Out-of-car.

NOTE: If an intact airbag assembly has been removed from a scrapped car or has been found defective or damaged during transit, storage, or service, it should be deployed as follows:

WARNING Position the airbag assembly face up, outdoors on flat ground at least thirty feet (10 m) from any obstacles or people.



1. Confirm that the special tool is functioning properly by following the check procedure on this page or on the tool box label.
2. Remove the short connector from the airbag connector.
3. Follow steps 5, 6, 7 and 8 of the in-car deployment procedure.

Damaged Airbag Special Procedure.

WARNING If an airbag cannot be deployed, it should not be treated as normal scrap; it should still be considered a potentially explosive device that can cause serious injury.

1. If installed in a car, follow the removal procedure on page 23-354.
2. In all cases, make sure a short connector is properly installed on the airbag connector.
3. Package the airbag in exactly the same packaging that the new replacement part came in.
4. Mark the outside of the box "DAMAGED AIRBAG NOT DEPLOYED" so it does not get confused with your parts stock.
5. Contact your Acura District Service Manager for how and where to return it for disposal.

Deployment Tool: Check Procedure.

1. Connect the yellow clips to both switch protector handles on the tool; connect the tool to a battery.
2. Push the operation switch: green means tool is OK; red means tool is faulty.
3. Disconnect the battery and the yellow clips.

Supplemental Restraint System (SRS)

Cable Reel Replacement

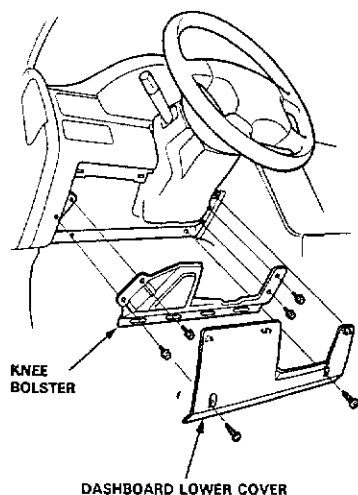
WARNING Store a removed airbag assembly with the pad surface up. If the airbag is improperly stored face down, accidental deployment could propel the unit with enough force to cause serious injury.

CAUTION:

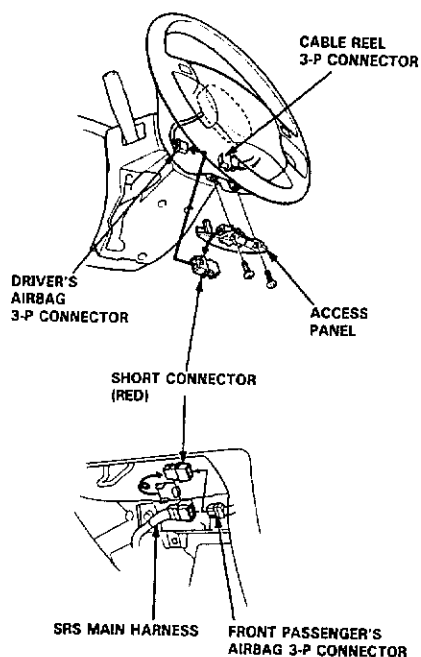
- Carefully inspect the airbag assembly before installing it. Do not install an airbag assembly that shows signs of being dropped or improperly handled, such as dents, cracks or deformation.
- Always keep the short connector(s) on the airbag(s) when the harness is disconnected.
- Do not disassemble or tamper with any airbag assembly.

NOTE: The radio may have a 5-digit coded theft protection circuit. Be sure to get the customer's code number before disconnecting the battery cable.

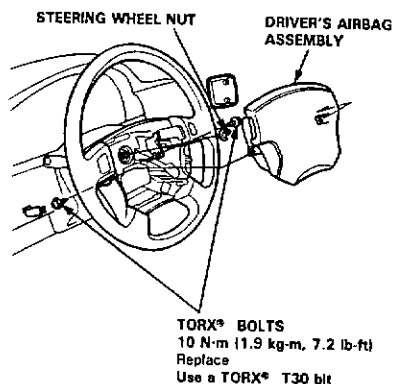
1. Disconnect the battery negative cable and then the positive cable.
2. Make sure the wheels are facing straight ahead.
3. Remove the dashboard lower cover and knee bolster.



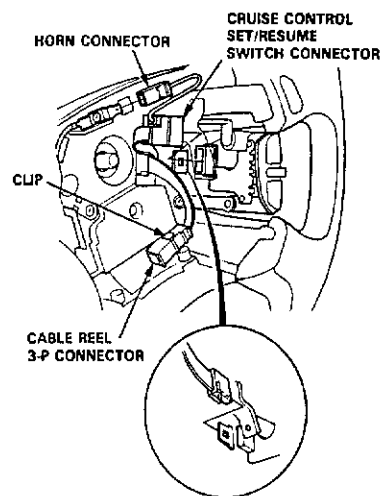
4. Install the short connector(s) on the airbag(s).



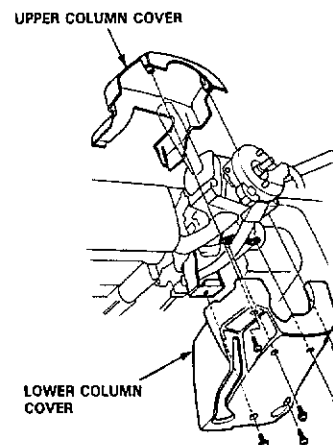
5. Remove the driver's airbag assembly from the steering wheel (two T30 TORX® bolts), then remove the steering wheel nut.



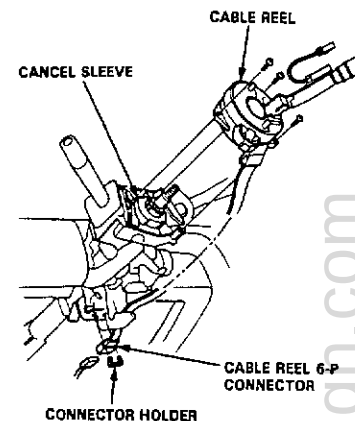
6. Disconnect the connectors from the horn and cruise control set/resume switch connectors, then remove the cable reel 3-P connector from its clip.



7. Remove the steering wheel from the column.
8. Remove the upper and lower column covers.



9. Disconnect the 6-P connector between the cable reel and SRS main harness, then remove the connector holder from the steering column.



10. Remove the cable reel from the column.



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(cont'd)

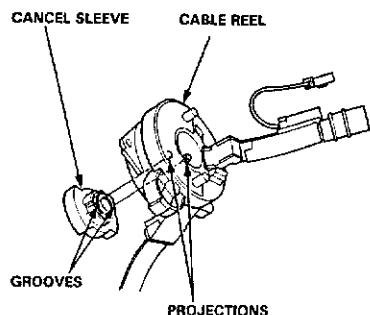
Supplemental Restraint System (SRS)

Cable Reel Replacement (cont'd)

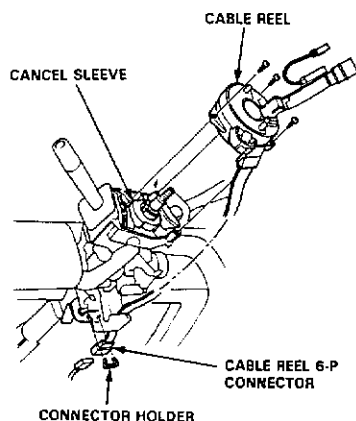
CAUTION:

- Before installing the steering wheel, the front wheels should be aligned straight ahead.
- Be sure to install the harness wires so that they are not pinched or interfering with other car parts.
- After reassembly, confirm that the wheels are still straight ahead and that the steering wheel spoke angle is correct (road test). If minor spoke angle adjustment is necessary, do so only by adjusting the tie-rods, not by removing and repositioning the steering wheel.

11. Align the cancel sleeve grooves with the cable reel projections.



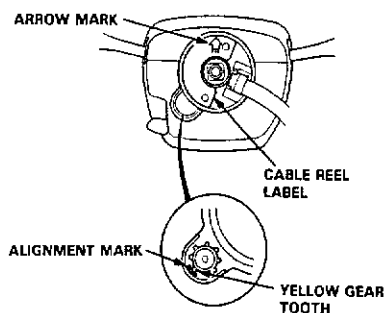
12. Carefully install the cable reel on the steering column shaft. Then attach the 6-P connector holder to the steering column.



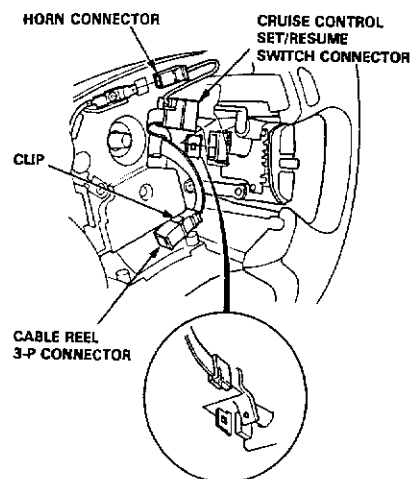
13. Install the steering column upper and lower covers.

14. Center the cable reel. Do this by first rotating the cable reel clockwise until it stops. Then rotate it counterclockwise (approximately two turns) until:

- The yellow gear tooth lines up with the alignment mark on the cover.
- The arrow mark on the cable reel label points straight up.

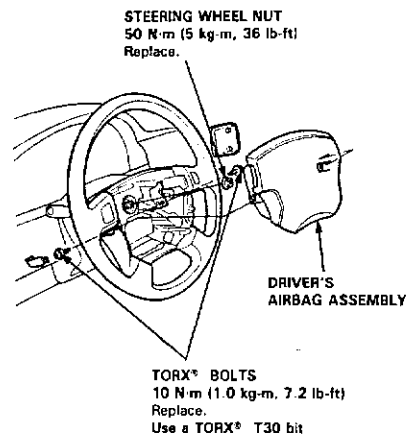


15. Install the steering wheel and attach the cable reel 3-P connector to the clip.



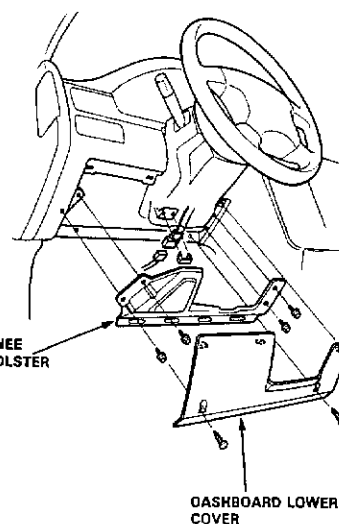
16. Connect the horn connector and cruise control set/resume switch connector.

17. Install the steering wheel nut.



18. Install the driver's airbag assembly.

19. Connect the cable reel 6-P connector to the SRS main harness, then install the knee bolster, and dashboard lower cover.

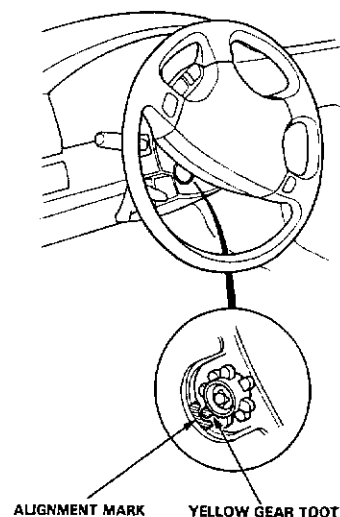


20. Remove and properly store the short connector(s) (RED), then reconnect the airbag connector(s) (and reinstall the access panel).

21. Reconnect the battery positive cable, then the negative cable.

22. After installing the cable reel, confirm proper system operation:

- Turn the ignition ON (II); the instrument panel SRS indicator light should go on for about six seconds and then go off.
- Make sure both horn buttons work.
- Make sure the headlight and wiper switches work.
- Go for a test drive and make sure the cruise control set/resume switch work.
- Rotate the steering wheel counterclockwise to make sure the yellow gear tooth lines up with the alignment mark on the cover.



23. Enter the code number to restore radio operation (see page 23-223).

Supplemental Restraint System (SRS)

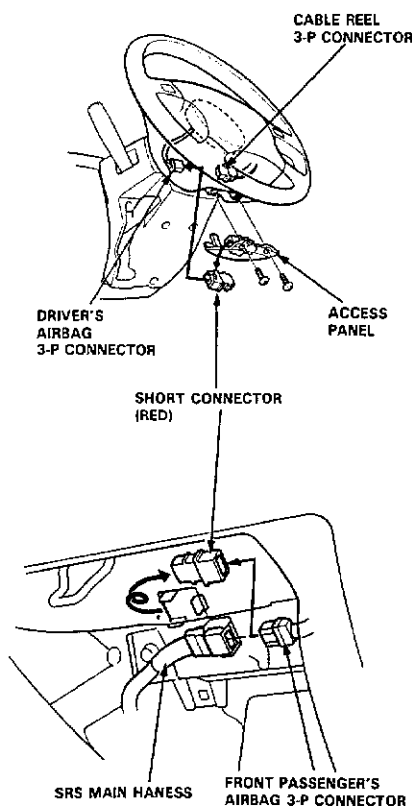
Dash Sensor Replacement

CAUTION:

- Do not damage the sensor wiring.
- Do not install used SRS parts from another car.
- When repairing an SRS, use only new parts.
- Replace a sensor if it is dented, cracked, or deformed.

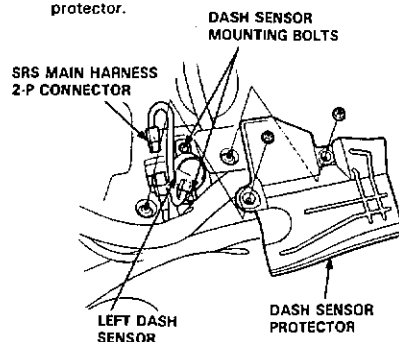
NOTE: The radio may have a 5-digit coded theft protection circuit. Be sure to get the customer's code number before disconnecting the battery cable.

- Disconnect the battery negative cable, then the positive cable.
- Install the short connector(s) on the airbag(s).



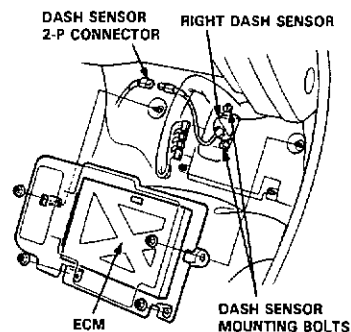
3. Left Dash Sensor:

Remove the footrest and left door sill molding, then pull the carpet back, and remove the dash sensor protector.

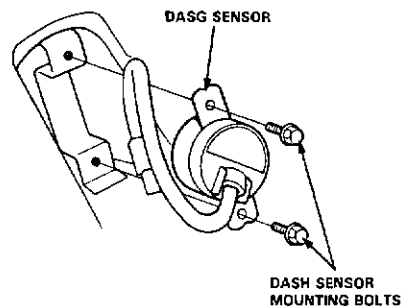


4. Right Dash Sensor:

Remove the right door sill molding and pull back the carpet. Remove the ECM.



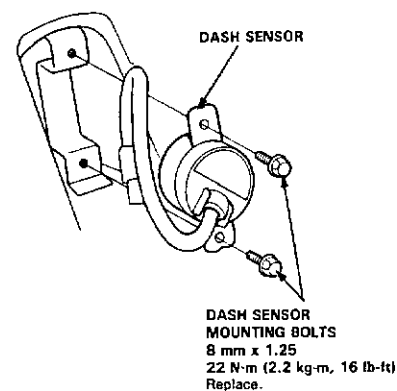
- Remove the two mounting bolts, then remove the left or right dash sensor.



CAUTION:

- Be sure to install the harness wires so they are not pinched or interfering with other car parts.
- Carefully inspect the new dash sensor(s) for signs of being dropped or improperly handled, such as dents, cracks or deformation.
- For the SRS to function properly, the right and left sensors must be installed on the proper sides.

- Install the sensor securely.



- Remove and properly store the short connector(s) (RED), then reconnect the airbag connector(s). Reinstall the access panel and glove box.

- Reconnect the battery positive cable, then the negative cable.

- After installing the dash sensor, confirm proper system operation: Turn the ignition ON (II); the instrument panel SRS indicator light should go on for about six seconds and then go off.

- Enter the code number to restore radio operation (see page 23-223).



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Supplemental Restraint System (SRS)

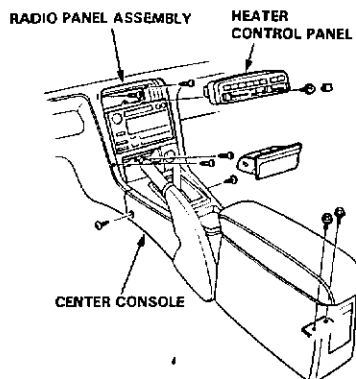
SRS Unit Replacement

CAUTION:

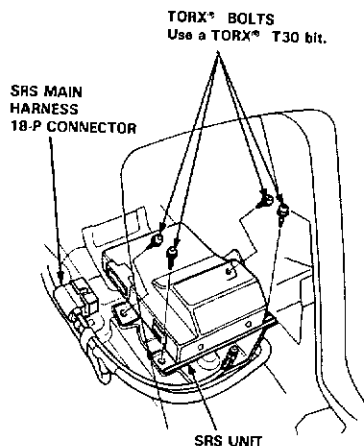
- Before disconnecting any part of the SRS wire harness, install the short connector(s) (RED) on the airbag(s).
- Do not damage the SRS unit terminals or connectors.
- Do not disassemble the SRS unit; it has no serviceable parts.
- Store the SRS unit in a clean, dry area.
- Do not use any SRS unit which has been subjected to water damage or shows signs of being dropped or improperly handled, such as dents, cracks or deformation.

NOTE: The radio may have a 5-digit coded theft protection circuit. Be sure to get the customer's code number before disconnecting the battery cable.

1. Disconnect the battery negative cable, then the positive cable.
2. Install the short connector(s) on the airbag(s) (see page 23-330).
3. Remove the center console.
4. Remove the heater control panel and radio panel assembly.



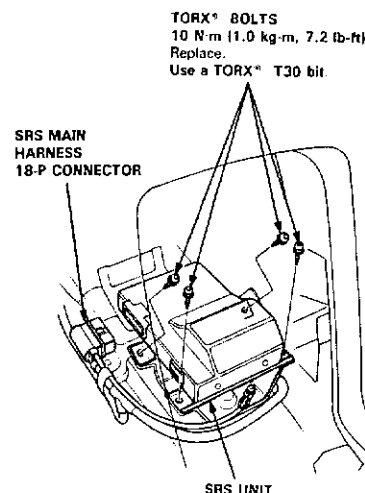
5. Disconnect the SRS main harness 18-P connector from the SRS unit.



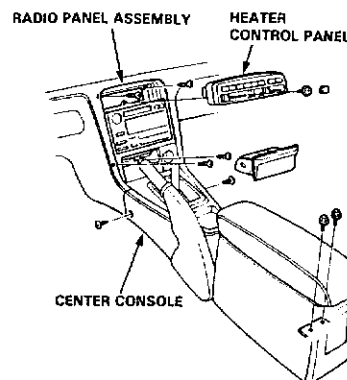
6. Remove the four SRS unit TORX® bolts, then pull the SRS unit out of the dashboard.

CAUTION: Be sure to install the SRS wiring so that it is not pinched or interfering with other car parts.

7. Install the new SRS unit.



8. Connect the SRS main harness 18-P connector to the SRS unit; push it into position until it clicks.
9. Install the radio panel assembly and heater control panel, then install the center console.



10. Remove and properly store the short connector(s), then reconnect the airbag connector(s). Reinstall the access panel and glove box.

11. Reconnect the battery positive cable, then the negative cable.

12. After installing the SRS unit, confirm proper system operation:

- Turn the ignition ON (II); the instrument panel SRS light should go on for about six seconds and then go off.
- Make sure the climate control system work.
- Make sure the cigarette lighter work.

13. Enter the code number to restore radio operation (see page 23-223).

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