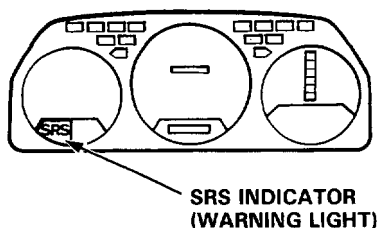


Supplemental Restraint System (SRS)

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 warning light in the instrument panel goes ON.



As a system check the warning light also comes on when the ignition is first turned to the II position. If the light goes off after approximately 6 seconds the system is OK.

If the warning 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

- When attaching any of the test harnesses, push the connectors straight-in until they are secure; do not bend connector pins.
- Always use the test harnesses. Do not use test probes directly on component connector pins or wires; you may damage them or the control unit.
- Always keep the short connector on the airbag connector when the harness is disconnected.

Failure warning troubleshooting

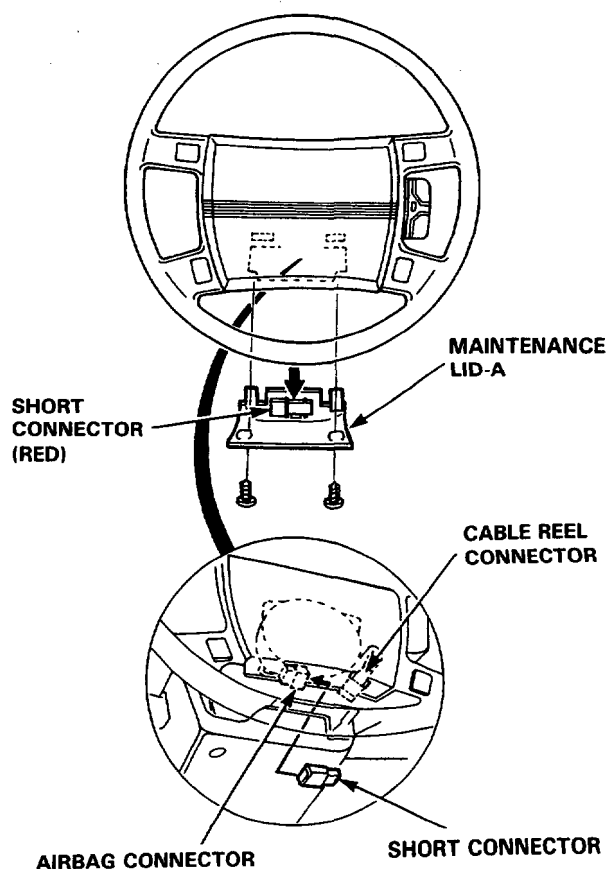
Possible conditions:

1. Warning light does not come on at all—see page 16-120.
2. Warning light stays on constantly—see page 16-122.
3. Warning light comes on in combination with a failure of another electrical system (brake warning, engine check warning light etc.). Check for damage/corrosion at the dash fuse box.

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 warning light indication goes away.

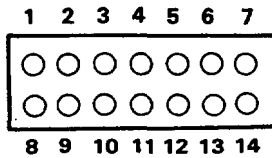
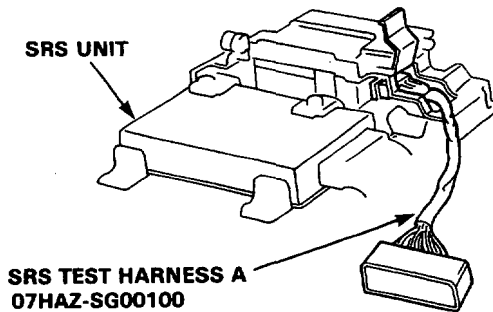
CAUTION : Disconnect both the negative and positive battery cables. Connect the short connector to the airbag assembly.



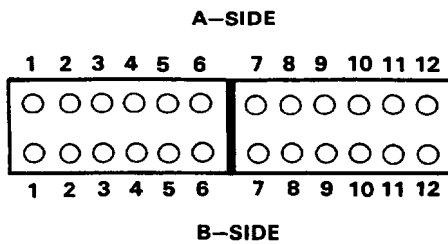
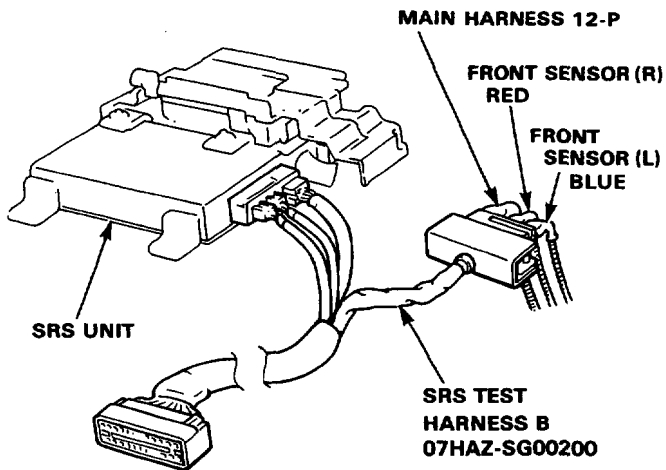


Test Harness Attachment:

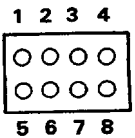
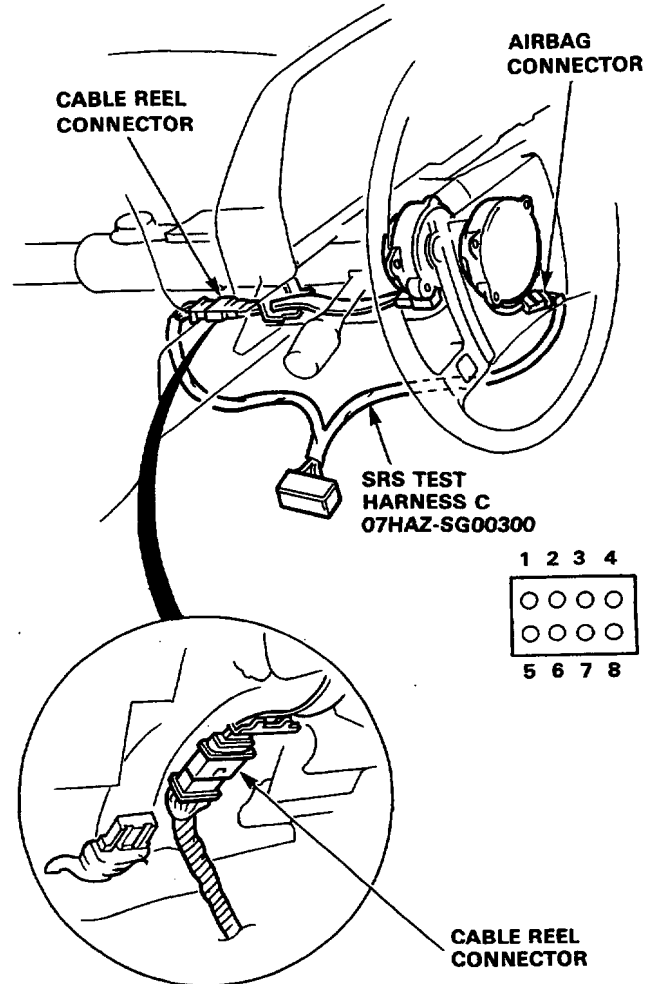
SRS test harness A.



SRS test harness B.



SRS test harness C.



(cont'd)

Supplemental Restraint System (SRS)

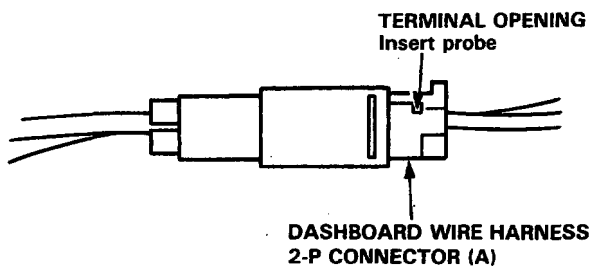
Troubleshooting (cont'd)

The SRS Indicator Does not Light

CAUTION:

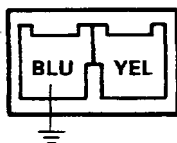
- Remove the positive and negative battery cables, then disconnect the cable reel harness from the airbag and connect the short connector to the airbag harness (See page 16-118).
- Use only the digital multimeter to check the system.

1. Reconnect the battery cables, then turn the ignition on and check all warning lights in the combination meter.
 - If they do light, go to step 2.
 - If they do not light, check the No. 13 (7.5 A) fuse in the dash fuse box.
2. When the BLU terminal of dashboard wire harness 2-P connector A is grounded, does the SRS indicator light with ignition switch ON?



NOTE: Leave the dashboard wire harness 2-P connector (A) connected.

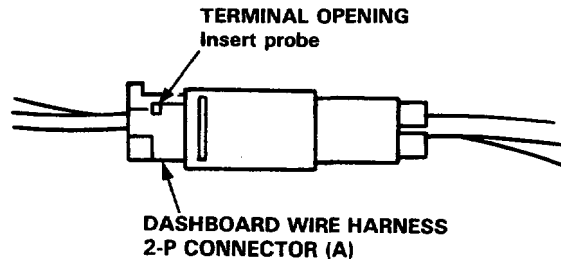
DASHBOARD WIRE HARNESS and SRS MAIN HARNESS 2-P Connector (A)



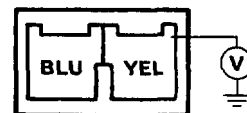
View from wire side

- If it does not light, go to step 3.
- If it does light, the SRS unit assembly is faulty.

3. Connect a voltmeter between the YEL terminal (2-P connector A) and body ground. Is battery voltage available at the YEL terminal with the ignition switch ON.



DASHBOARD WIRE HARNESS and SRS MAIN WIRE HARNESS 2-P CONNECTOR (A)



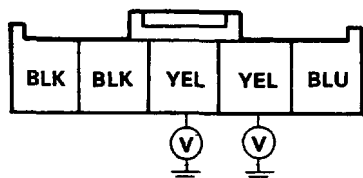
View from terminal side

- If battery voltage is available, go to step 4.
- If battery voltage is not available, open the YEL wire of the SRS main wire harness.



4. Remove the combination meter.
Connect a voltmeter between body ground and YEL terminals (separately) of the 5-P connector located on the rear of the meter. Is battery voltage available at each YEL terminal with ignition switch ON?

CONNECTOR (B) Dashboard wire harness

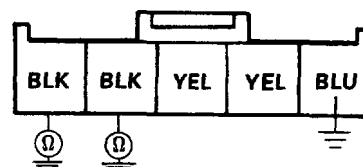


View from wire side

- If battery voltage is available, go to step 5.
- If battery voltage is not available, open the YEL wire of the dashboard wire harness.

5. Check for continuity between the body ground and BLK terminals (separately) of the 5-P connector located on the rear of the meter.

CONNECTOR (B) Instrument panel side



View from wire side

- If there should be continuity, SRS indicator is faulty.
- If there should be no continuity, check for;
 - open the BLK wires.
 - poor ground (G721 or G701).

(cont'd)

Supplemental Restraint System (SRS)

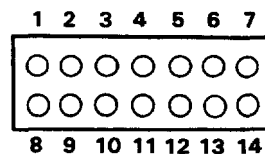
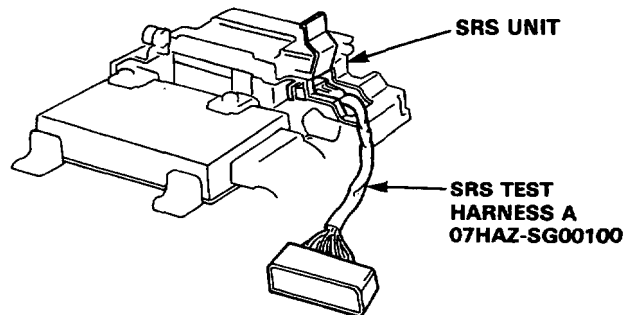
Troubleshooting (cont'd)

SRS Indicator Light Stays On Continuously

Connect test harness A to the SRS unit and check voltages (to ground) according to the chart below.

NOTE:

- Turn the Ignition switch ON.
- Voltages in the chart assume an original "battery voltage" of approximately 12V.
- A significantly discharged battery (less than 12V) will result in different and possibly false readings.
- Do not connect the short connector to the airbag connector when checking these voltages.



Terminal No.	3	4	5	6	7	8	9	10	11	12	13	14
Failure mode												
Normal	0-2V	0-2V	0-2V	10-14V	10-14V	4-5.5V	5.1-6.9V	10-14V	0-2V	0-2V	5.1-6.9V	9-14V
A: One cowl sensor open	0-2	0-2	4-5.5	0-8	10-14	4-5.5	3-5	10-14	0-2	0-2	3-5	9-14
B: Both cowl sensor open, or short in one or both front sensors	0-2	0-2	4-5.5	0-8	10-14	4-5.5	0-2	10-14	0-2	0-2	0-2	9-14
C: One or both cowl sensors short or both front sensors open	0-2	0-2	4-5.5	0-8	10-14	4-5.5	10-14	10-14	0-2	0-2	10-14	9-14
D: One front sensor open	0-2	0-2	4-5.5	0-8	10-14	4-5.5	7-9	10-14	0-2	0-2	7-9	9-14
E: Inflator or cable reel open	4-5.5	0-2	0-2	0-8	10-14	4-5.5	10-14	10-14	0-2	0-2	0-2	9-14
F: SRS fuse (NO. 10) open	0-2	0-2	0-2	0-8	0-2	0-1	5.1-6.9	0-2	0-2	0-2	5.1-6.9	9-14
G: SRS Unit ground and SRS unit mounting bolts (GND) open	7-16	7-16	7-16	0-8	7-16	7-16	7-16	7-16	7-16	7-16	7-16	7-16
H: Starter signal abnormal	0-2	0-2	0-2	0-8	10-14	4-5.5	5.1-6.9	10-14	0-2	4-5.5	5.1-6.9	9-14

- If output signal is not in accordance with the chart, first check the contact condition of each connector and terminal of the SRS system.
- If contact condition is OK, substitute a known-good control unit and perform troubleshooting again.



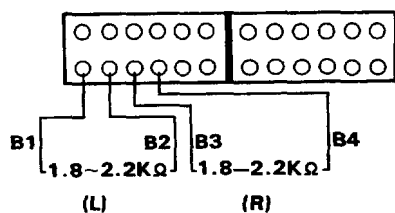
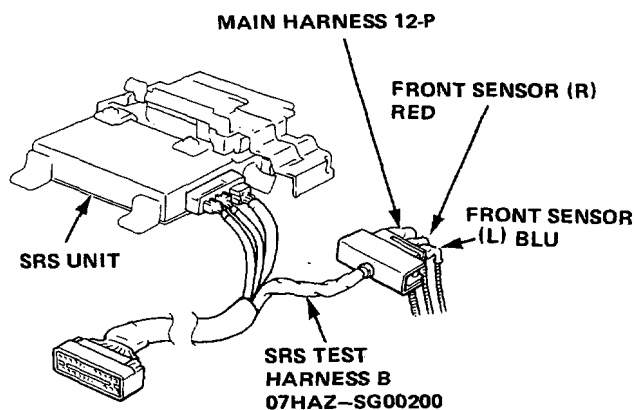
Mode A: One cowl sensor open.

SRS unit faulty; substitute known good SRS unit and recheck the voltages according to the chart on page 16-122.

Mode B: Both cowl sensors open or a short in one or both front sensors.

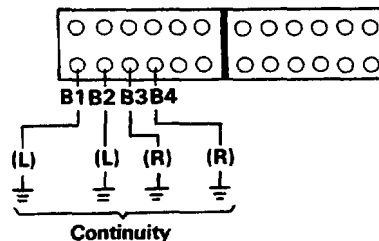
CAUTION: Disconnect both the negative and positive battery cables. Connect the short connector to the airbag assembly (see page 16-118).

1. Connect the SRS test harness B to the front sensor connectors; check the resistance between left front sensor terminals B1 and B2, and between right front sensor terminals B3 and B4.



- If resistance is more than 1.8-2.2KΩ for either sensor, go to step 2.
- If resistance is less than 1.8-2.2KΩ, the respective front sensor is faulty; replace the front sensor and recheck the voltages according to the chart on page 16-122.

2. Check to make sure there is no continuity between body ground and each terminal of both front sensors.



- If there is no continuity, the SRS unit is faulty, substitute a known good SRS unit and recheck the voltages according to the chart on page 16-122.
- If there is continuity, at any of the terminals, that front sensor is faulty; replace sensor and recheck the voltages according to the chart on page 16-122.

(cont'd)

Supplemental Restraint System (SRS)

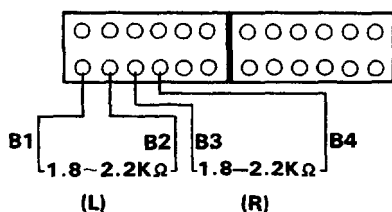
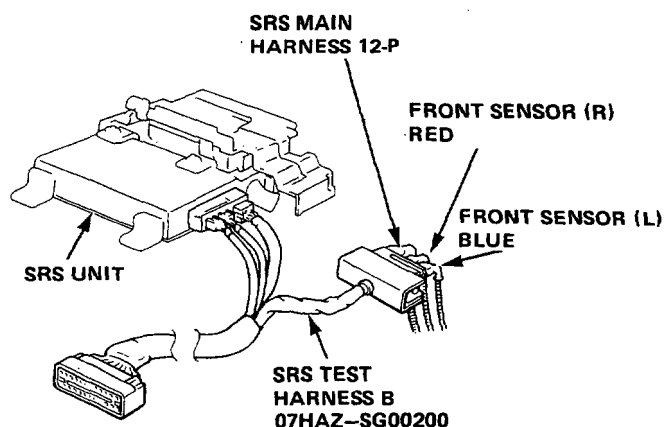
Troubleshooting (Cont'd)

Mode C: One or both cowl sensors short or both front sensors open.

Mode D: One front sensor open.

CAUTION : Disconnect both the negative and positive battery cables. Connect the short connector to the airbag assembly (see page 16-118).

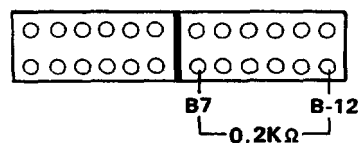
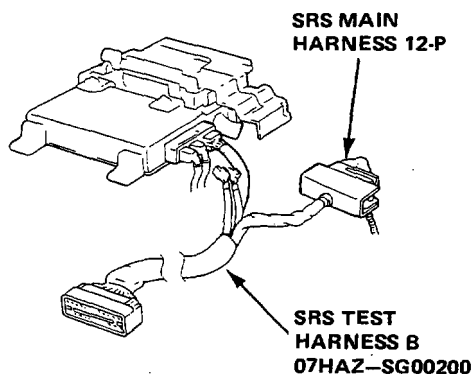
1. Connect the SRS test harness B to the front sensor connectors. Check the resistance between left front sensor terminals B1 and B2, and between right front sensor terminals B3 and B4.



- If more than 2.3KΩ, the respective front sensor is faulty (mode D) or both front sensors are faulty (mode C): replace and recheck the voltages according to the chart on page 16-122.
- If less than 1.8KΩ, the SRS unit is faulty; substitute a known-good SRS unit and recheck the voltages according to the chart on page 16-122.

Mode E: Airbag inflator or cable reel open.

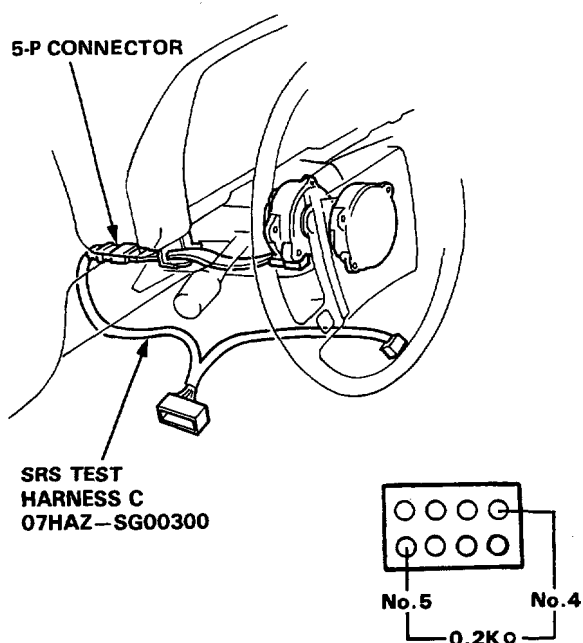
1. Disconnect the main harness 12-P connector. Connect the SRS test harness B only to the main harness side 12-P connector. Measure the resistance between the B7 and B12 terminals.



- If resistance is more than 0.2KΩ, go to step 2.
- If resistance is less than 0.2KΩ, the SRS unit is faulty; substitute a known good SRS unit and recheck the voltages according to the chart on page 16-122.

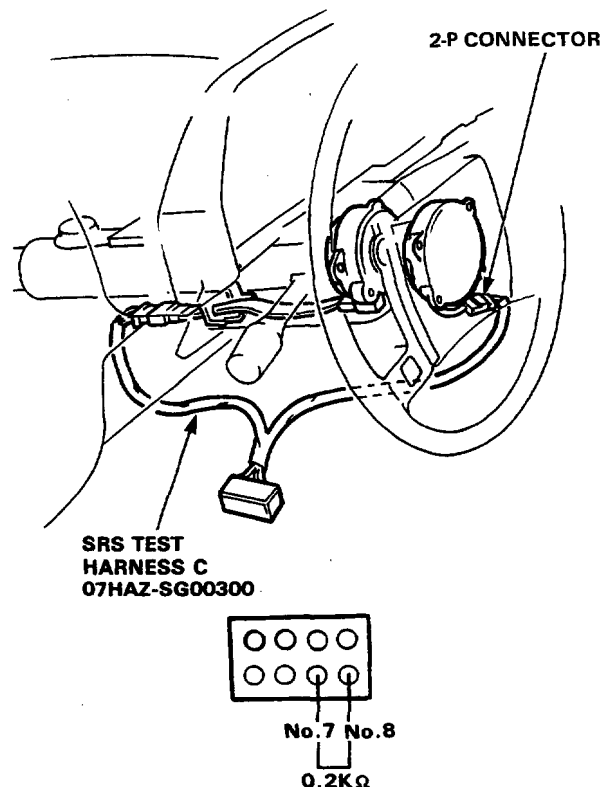


2. Disconnect the cable reel harness and main harness 5-P connector, and connect the SRS test harness C only to the cable reel harness side 5-P connector. Measure the resistance between terminals No.4 and No.5.



- If resistance is more than 0.2KΩ, go to step 3.
- If resistance is less than 0.2KΩ, the SRS main harness is faulty: replace the SRS main harness and recheck the voltages according to the chart on page 16-122.

3. Disconnect the airbag assembly and cable reel harness 2-P connector, and connect SRS test harness C to the airbag assembly harness's 2-P connector. Measure the resistance between terminals No. 7 and No.8.



- If resistance is less than 0.2KΩ, the cable reel is faulty: replace the cable reel and recheck the voltages according to the chart on page 16-122.
- If resistance is more than 0.2KΩ, the inflator is faulty: replace the airbag assembly and recheck the voltages according to the chart on page 16-122.

(cont'd)

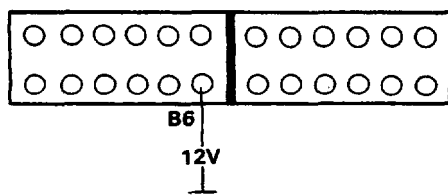
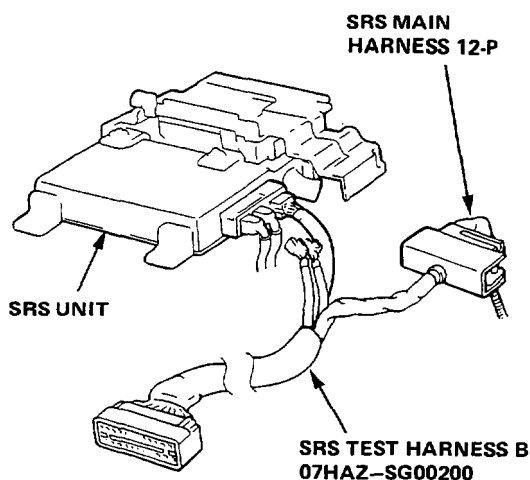
Supplemental Restraint System (SRS)

Troubleshooting (Cont'd)

Mode F: SRS fuse open.

CAUTION : Disconnect both the negative and positive battery cables. Connect the short connector to the airbag assembly (see page 16-118).

1. Check the SRS fuse (10 A) in the fuse holder.
 - If SRS fuse (10 A) is OK, go to step 2.
 - If blown, replace the SRS fuse (10 A) and recheck the voltages according to the chart on page 16-122.
2. Reconnect the battery cables, then connect the SRS test harness B to the main harness's 12-P connector. Measure the voltage between the B6 terminal and body ground (with ignition switch ON).

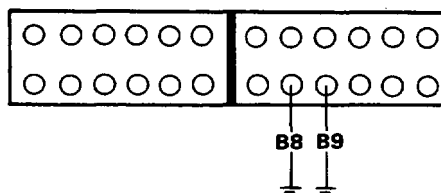
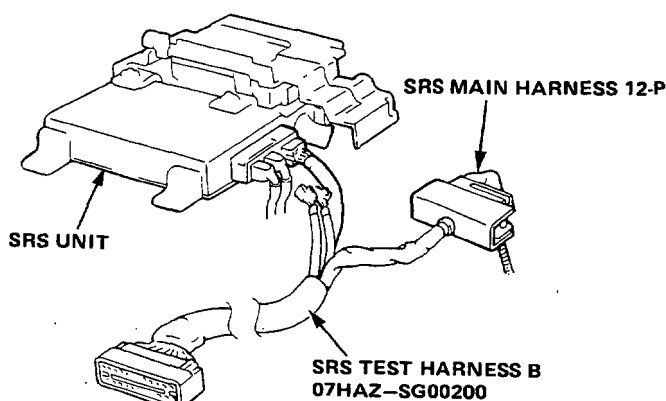


- If there is battery voltage, the SRS unit is faulty; replace and recheck the voltages according to the chart on page 16-122.
- If less than battery voltage, the main harness is faulty; replace the SRS main wire harness and recheck the voltages according to the chart on page 16-122.

Mode G: SRS Unit ground and component ground open.

CAUTION : Disconnect both the negative and positive battery cables. Connect the short connector to the airbag assembly (see page 16-118).

1. Connect the SRS test harness B to the main harness's 12-P connector. Check for continuity between the B8, B9 terminal and ground.



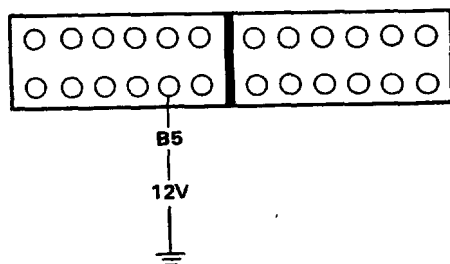
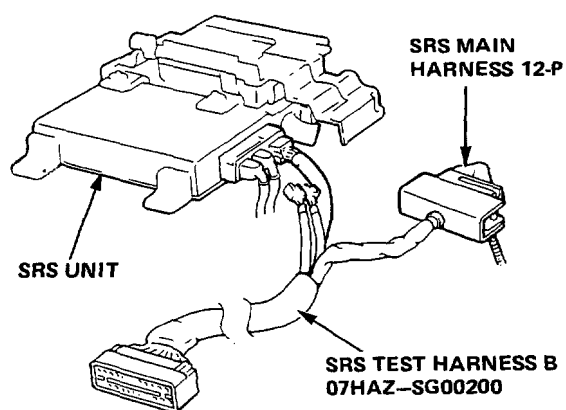
- If there is continuity, the SRS unit is faulty; replace and recheck the voltages according to the chart on page 16-122.
- If there is no continuity, SRS unit ground the control unit component grounds or the main harness is faulty; check the ground (Check wire and control unit mount bolts.) and, if necessary, replace the main harness and recheck the voltages according to the chart on page 16-122.



Mode H: Starter signal abnormal.

CAUTION : Disconnect both the negative and positive battery cables. Connect the short connector to the airbag assembly (see page 16-118).

1. Reconnect the battery cables, then connect the SRS test harness B to the main harness 12-P connector. Check for battery voltage at the B5 terminal (with ignition switch ON.)



- If there is no voltage, the SRS unit is faulty; replace and recheck the voltages according to the chart on page 16-122.
- If there is battery voltage, there is a starter signal short.