SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Click on the applicable bookmark to selected the required model year

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

CONTENTS

CAUTION

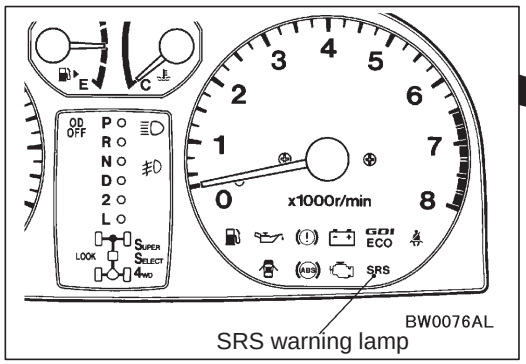
- **Carefully read and observe the information in the SERVICE PRECAUTIONS (P.52B-4.) prior to any service.**
- **For information concerning troubleshooting or maintenance, always observe the procedures in the Troubleshooting (P.52B-8.) section.**
- **If any SRS components are removed or replaced in connection with any service procedures, be sure to follow the procedures in the INDIVIDUAL COMPONENT SERVICE section (P.52B-30.) for the components involved.**
- **If you have any questions about the SRS, please contact your local distributor.**

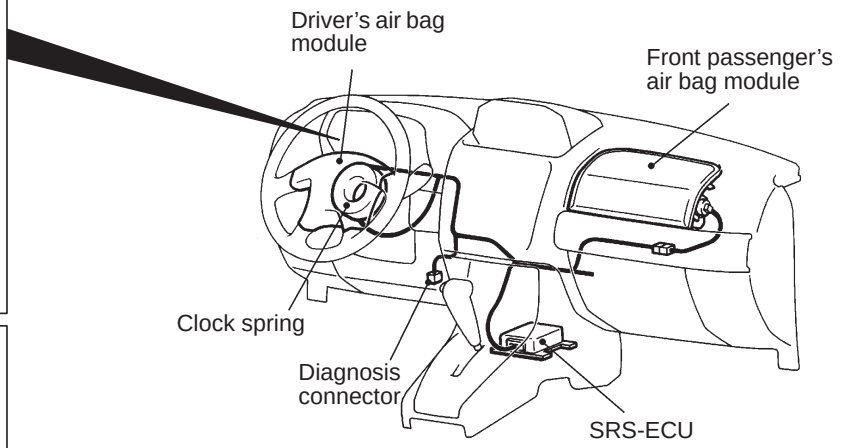
GENERAL INFORMATION

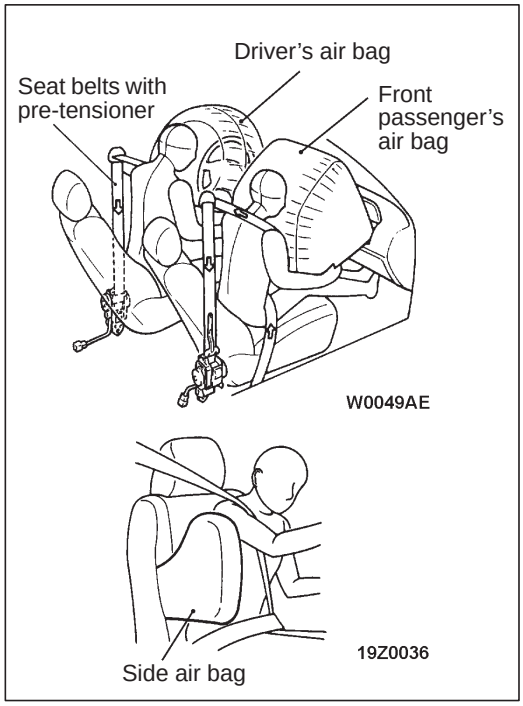
To improve safety, the SRS and seat belts with pre-tensioner are available as optional parts. These systems enhance collision safety by restraining the front passengers in case of an accident. The SRS works with the pre-tensioner simultaneously when a collision is detected.

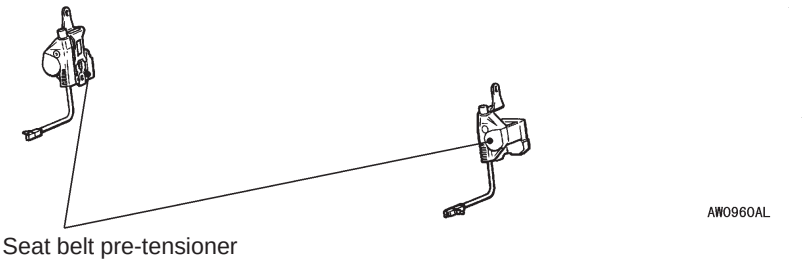
The SRS consists of four air bag modules, SRS air bag control unit (SRS-ECU), front impact sensors, side impact sensors, SRS warning lamp and clock spring. The air bags are located in the centre of the steering wheel, above the glove box, and built into the front seat back assemblies. Each air bag has a folded air bag and an inflator unit. The SRS-ECU under the floor console monitors the system and has a safing G sensor and an analog G sensor. The front impact sensors are installed on the front side member. The side impact sensor inside the quarter panels, inner monitors any shocks coming from the side of the vehicle. The warning lamp on the instrument panel indicates the operational status of the SRS. The clock spring is installed in the steering column.

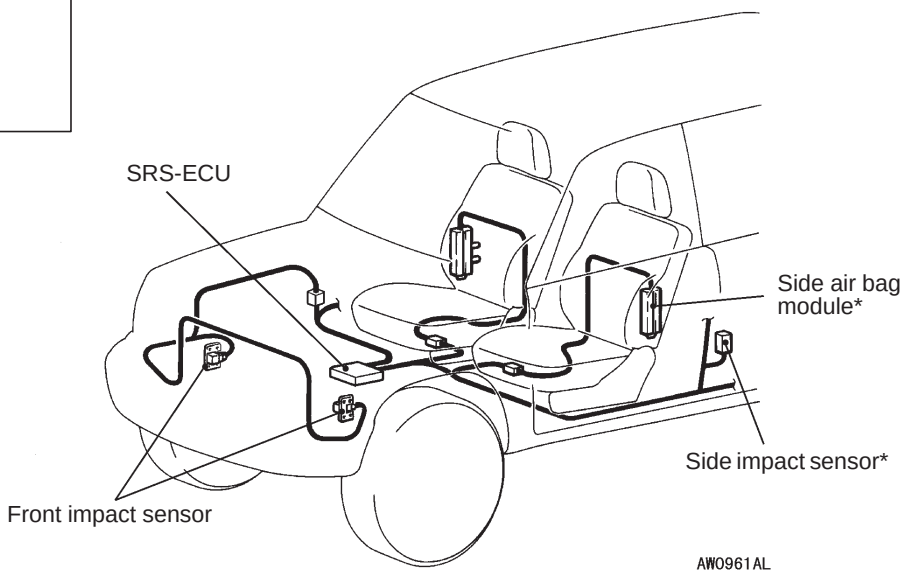
The SRS side air bag deploys if an impact received at the side of the vehicle is stronger than a certain set value, in order to protect the upper bodies of front seat passengers in the event of a collision. The seat belt pre-tensioner is built into the front seat belt retractor. Only authorized service personnel should do work on or around the SRS components and seat belt with pre-tensioner. Those service personnel should read this manual carefully before starting any such work. Extreme care must be used when servicing the SRS to avoid injury to the service personnel (by inadvertent deployment of the air bags or inadvertent operation of the seat belt with pre-tensioner) or the driver (by rendering the SRS or the seat belt with pre-tensioner inoperative).









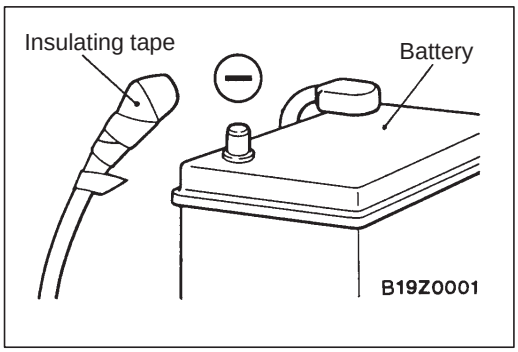


NOTE
*: Indicates the parts equipped on the right and left sides.

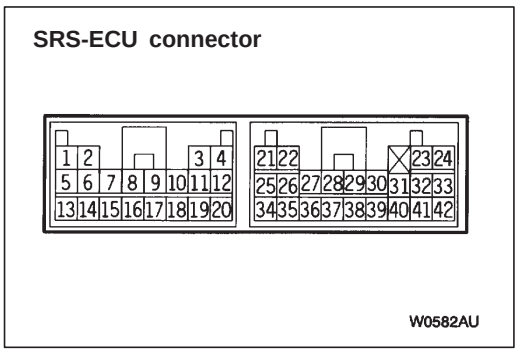
SRS SERVICE PRECAUTIONS

1. In order to avoid injury to yourself or others from accidental deployment of the air bag during servicing, read and carefully follow all the precautions and procedures described in this manual.
2. Do not use any electrical test equipment on or near SRS components, except those specified on P.52B-7.
3. **Never Attempt to Repair the Following Components:**
   - SRS air bag control unit (SRS-ECU)
   - Front impact sensor
   - Clock spring
   - Driver's and front passenger's air bag modules
   - Side air bag module
   - Side impact sensor
   - Seat belt with pre-tensioner

   NOTE
   If any of these components are diagnosed as faulty, they should only be replaced, in accordance with the INDIVIDUAL COMPONENTS SERVICE procedures in this manual. (Refer to P.52B-30.)



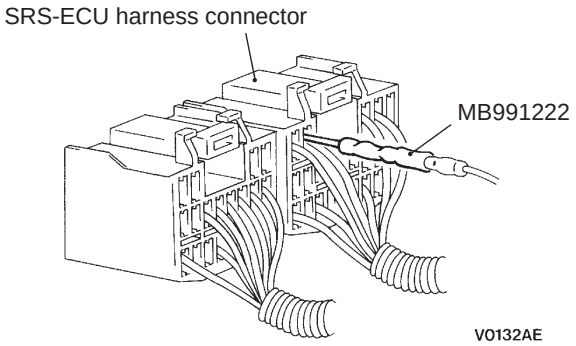
4. **After disconnecting the negative (–) battery cable, wait 60 seconds at least before any service and insulate the disconnected cable with tape. The SRS retain enough voltage to deploy the air bag for a short time even after disconnection of the battery. So, serious injury may result by accidental air bag deployment if a work is done on the SRS just after the disconnection of the battery.**



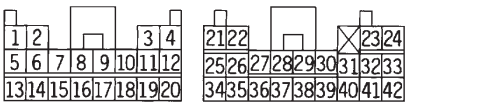
5. Do not attempt to repair the wiring harness connectors of the SRS. If the connector(s) are diagnosed as defective, replace the wiring harness(es). If the harness(es) are diagnosed as faulty, replace or repair the wiring harness(es) according to the following table.

SRS-ECU Terminal No.	Destination of harness	Corrective action
1, 2, 3, 4	Instrument panel wiring harness → Front wiring harness → Front impact sensor	Repair or replace each wiring harness.
7	Instrument panel wiring harness → Earth	
8	Instrument panel wiring harness → Combination meter (SRS warning lamp)	
9, 10	Instrument panel wiring harness → Front passenger's air bag module	
11, 12	Instrument panel wiring harness → Clock spring → Driver's air bag module	Repair or replace the dash wiring harness. Replace clock spring.
13	Instrument panel wiring harness → Junction block (fuse No.8)	Repair or replace each wiring harness.
16	Instrument panel wiring harness → Junction block (fuse No.6)	
20	Instrument panel wiring harness → Diagnosis connector	
21, 22	Body wiring harness → Side air bag module (L.H.)	
23, 24	Body wiring harness → Side air bag module (R.H.)	
27, 28	Body wiring harness → Seat belt with pre-tensioner (R.H.)	
29, 30	Body wiring harness → Seat belt with pre-tensioner (L.H.)	
34, 35, 36	Body wiring harness → Side impact sensor (L.H.)	
40, 41, 42	Body wiring harness → Side impact sensor (R.H.)	

6. Inspection of the SRS-ECU harness connector should be carried out by the following procedure.
   Insert the special tool (probe, MB991222, in the harness set) into connector from harness side (rear side), and connect the tester to this probe. If any tool than special is used, damage to the harness and other components will result. Furthermore, measurement should not be carried out by touching the probe directly against the terminals from the front of the connector. The terminals are plated to increase their conductivity, so that if they are touched directly by the probe, the plating may break, which will cause drops in reliability.



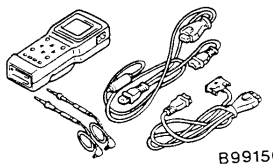
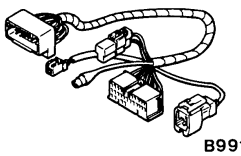
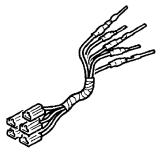
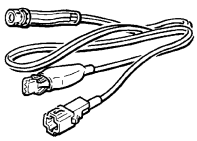
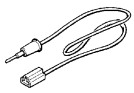
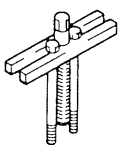
SRS-ECU harness connector (rear view)

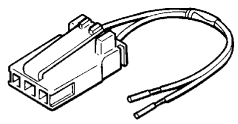
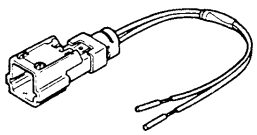
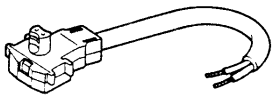


7. SRS components and seat belt with pre-tensioner should not be subjected to heat, so remove the front impact sensor, SRS-ECU, air bag module (driver's side and front passenger's side), clock spring, side impact sensors, front seat assemblies (side air bag module), and seat belts with pre-tensioner before drying or baking the vehicle after painting.
   - Front impact sensor, SRS-ECU, air bag module, clock spring, side impact sensor: 93°C or more
   - Seat belt with pre-tensioner: 90°C or more
8. Whenever you finish servicing the SRS, check warning lamp operation to make sure that the system functions properly. (Refer to P.52B-8.)
9. Make certain that the ignition switch is OFF when the MUT-II is connected or disconnected.
10. If you have any questions about the SRS, please contact your local distributor.

NOTE
SERIOUS INJURY CAN RESULT FROM UNINTENDED AIR BAG DEPLOYMENT, SO USE ONLY THE PROCEDURES AND EQUIPMENT SPECIFIED IN THIS MANUAL.

SPECIAL TOOLS

Tool	Number	Name	Use
 B991502	MB991502	MUT-II sub assembly	• Reading diagnosis codes • Erasing diagnosis code • Reading trouble period • Reading erase times
 B991613	MB991613	SRS check harness	Checking the SRS electrical circuitry
A  B  C  D  C991223	MB991223 A: MB991219 B: MB991220 C: MB991221 D: MB991222	Harness set A: Check harness B: LED harness C: LED harness adapter D: Probe	Checking the continuity and measuring the voltage at the SRS-ECU harness connector
 B990803	MB990803	Steering wheel puller	Steering wheel removal

Tool	Number	Name	Use
 R372530	MR372530	SRS air bag adapter harness	Deployment of driver's side air bag module inside the vehicle
 B686560	MB686560	SRS air bag adapter harness	Deployment of front passenger's side air bag module inside or outside the vehicle
 B628919	MR203491 or MB628919	SRS air bag adapter harness	Deployment of driver's side air bag module outside the vehicle

TEST EQUIPMENT

Tool	Name	Use
 13R0746	Digital multi-meter	Checking the SRS electrical circuitry Use a multi-meter for which the maximum test current is 2 mA or less at the minimum range of resistance measurement

TROUBLESHOOTING

STANDARD FLOW OF DIAGNOSTIC TROUBLESHOOTING

Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points.

DIAGNOSIS FUNCTION

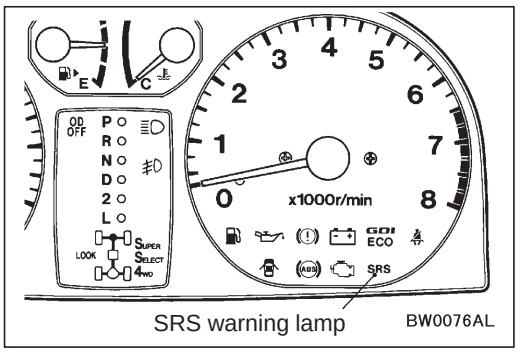
DIAGNOSIS CODES CHECK

Connect the MUT-II to the diagnosis connector (16-pin) under the instrument under cover, then check diagnosis codes.
(Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points.)

ERASING DIAGNOSIS CODE

Connect the MUT-II to the diagnosis connector and erase the diagnosis code.

Caution
Turn off the ignition switch before connecting or disconnecting the MUT-II.



SRS WARNING LAMP INSPECTION

1. Check to be sure that the SRS warning lamp illuminates when the ignition switch is in the ON position.
2. Check to be sure that it illuminates for approximately 7 seconds and then switches off.
3. If the above is not the cause, inspect the diagnosis codes.

INSPECTION CHART FOR DIAGNOSIS CODES

Inspect according to the inspection chart that is appropriate for the malfunction code.

Code No.	Diagnosis item	Reference page
11, 12, 13	Front impact sensor system	52B-10
14	Analog G-sensor system in the SRS-ECU	52B-11
15,16	Front impact safing G-sensor system inside SRS-ECU	52B-11
17	Side impact safing G-sensor system inside SRS-ECU	52B-11
21*2, 22*2, 61*2, 62*2	Driver's side air bag module (squib) system	52B-12
24*2, 25*2, 64*2, 65*2	Front passenger's side air bag module (squib) system	52B-13
26*2, 27*2, 66, 67	Driver's side pre-tensioner (squib) system	52B-14
28*2, 29*2, 68, 69	Front passenger's side pre-tensioner (squib) system	52B-15
31, 32	SRS-ECU capacitor system	52B-11
34*1	Connector lock system	52B-16
35	SRS-ECU (deployed air bag) system	52B-16

Code No.	Diagnosis item		Reference page
41*1	Power circuit system (fuse No.6 circuit)		52B-16
42*1	Power circuit system (fuse No.8 circuit)		52B-16
43*1	SRS warning lamp drive circuit system	Lamp does not illuminate.	52B-17
		Lamp does not switch off.	52B-17
44*1	SRS warning lamp drive circuit system		52B-17
45	Internal circuit system of non-volatile memory (EEPROM) inside SRS-ECU		52B-11
51, 52	Driver's side air bag module (squib ignition drive circuit) system		52B-11
54, 55	Front passenger's side air bag module (squib ignition drive circuit) system		52B-11
56, 57	Driver's side pre-tensioner (squib ignition drive circuit) system		52B-11
58, 59	Front passenger's side pre-tensioner (squib ignition drive circuit) system		52B-11
71*2, 72*2, 75, 76	Side air bag module (R.H.) (squib) system		52B-18
73, 74	Side air bag module (R.H.) (squib ignition drive circuit) system		52B-11
79, 93	Side impact sensor (L.H.) communication system		52B-19
81*2, 82*2, 85, 86	Side air bag module (L.H.) (squib) system		52B-19
83, 84	Side air bag module (L.H.) (squib ignition drive circuit) system		52B-11
89, 96	Side impact sensor (R.H.) communication system		52B-20
91*1	Side impact sensor (L.H.) power supply circuit system		52B-21
92	Side impact sensor (L.H.) system		52B-21
94*1	Side impact sensor (R.H.) power supply circuit system		52B-21
95	Side impact sensor (R.H.) system		52B-21

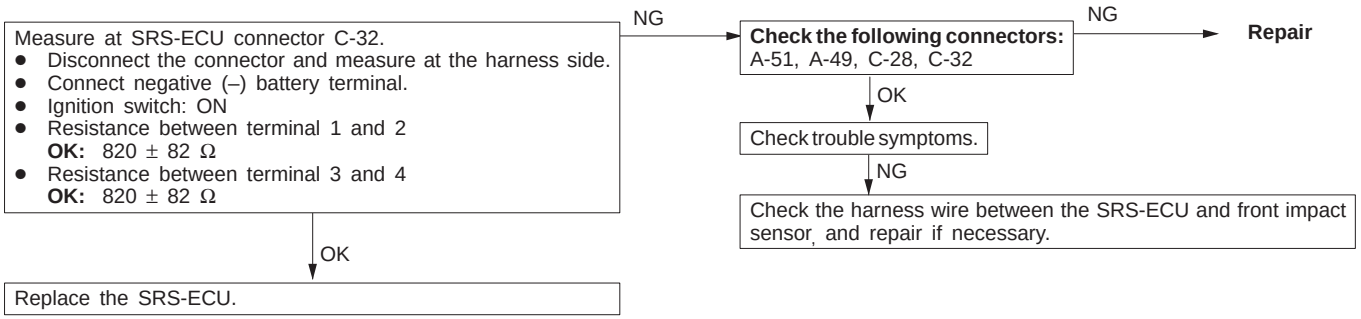
NOTE
(1) *1: If the vehicle condition returns to normal, the diagnosis code will be automatically erased, and the SRS warning lamp will return to normal.
(2) *2: If the trouble(s) are extinguished, the SRS warning lamp go out with diagnosis code history stored.
(3) If the vehicle has a discharged battery it will store the diagnosis codes 41 or 42. When these diagnosis codes are displayed, check the battery.

INSPECTION PROCEDURE CLASSIFIED BY DIAGNOSIS CODE

Code No.11, 12 or 13 Front impact sensor system	Probable cause
These diagnostic trouble codes are output if there is abnormal resistance between the input terminals of the front impact sensors. The trouble causes for each diagnosis code No. are as follows.	● Malfunction of front impact sensor ● Malfunction of wiring harness of connectors ● Malfunction of SRS-ECU

Code No.	Trouble Symptom
11	● Short circuit in front impact sensor or harness ● Short circuit in front impact sensor harness leading to the vehicle body ground ● Short circuit in front impact sensor harness leading to the power supply
12	● Open circuit in either left or right front impact sensor or harness ● Short circuit in front impact sensor harness leading to the power supply
13	● Open circuit in both left or right front impact sensor or harness ● Short circuit in front impact sensor harness leading to the power supply

Front impact sensor check. (Refer to P.52B-33)



Code No.14, 15, 16, 17, 31, 32, 45, 51, 52, 54, 55, 56, 57, 58, 59, 73, 74, 83, 84 System inside SRS-ECU	Probable cause
These diagnostic trouble codes are output when a fault is detected in the SRS-ECU. The defective parts and trouble causes for each diagnosis code No. are as follows.	• Malfunction of SRS-ECU

Code No.	Defective parts	Trouble causes
14	Analog G-sensor	• Analog G-sensor is not operating • Analog G-sensor characteristics are abnormal • Analog G-sensor output is abnormal
15	Front impact safing G-sensor	• Short circuit in the safing G-sensor
16		• Open circuit in the safing G-sensor
17	Side impact safing G-sensor	• Safing G sensor is not operating • Safing G sensor characteristics are abnormal • Safing G sensor output is abnormal
31	Capacitor	• Voltage at the capacitor terminal is higher than the specified value for five seconds or more
32		• Voltage at the capacitor terminal is lower than the specified value for five seconds or more (this is not detected if diagnosis code No.41 or 42 indicating battery voltage drop has been output.)
45	Non-volatile memory (EEPROM)	• Non-volatile memory (EEPROM) is abnormal
51	Driver's side air bag module (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
52		• Open circuit in the squib ignition drive circuit
54	Front passenger's side air bag module (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
55		• Open circuit in the squib ignition drive circuit
56	Driver's side pre-tensioner (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
57		• Open circuit in the squib ignition drive circuit
58	Front passenger's side pre-tensioner (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
59		• Open circuit in the squib ignition drive circuit
73	Side air bag module (R.H.) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
74		• Open circuit in the squib ignition drive circuit
83	Side air bag module (R.H.) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
84		• Open circuit in the squib ignition drive circuit

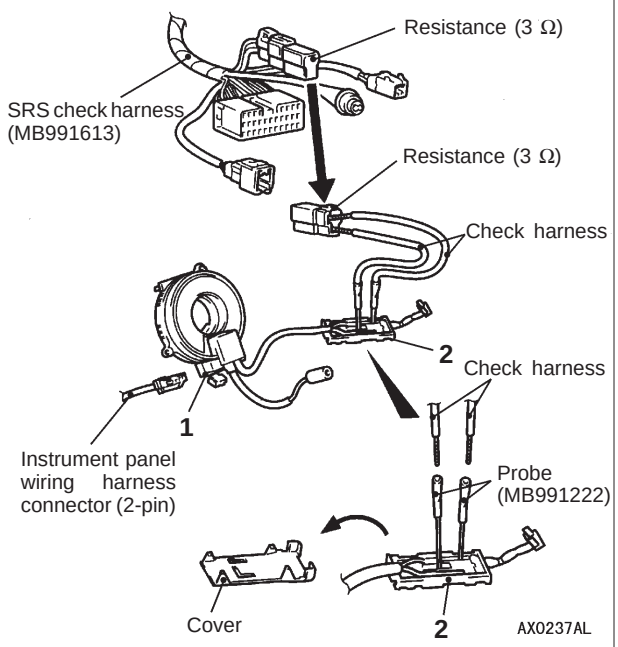
Replace the SRS-ECU.

Code No.21, 22, 61, 62 Driver's air bag module (squib) system	Probable cause
Abnormal resistance is present between input terminals of driver's air bag module (squib). See table below for what each code tells. However, once trouble is extinguished, SRS-warning lamp will go out. (Diagnosis code will remain stored)	• Malfunction of clock spring • Partially open as clock spring is not in neutral position • Defective wiring harnesses or connectors • Malfunction of driver's air bag module (squib) • Malfunction of SRS-ECU

Code No.	Trouble causes
21	• Short in driver's air bag module (squib) or harness short • Short in clock spring • Defective connector*
22	• Open in driver's side air bag module (squib) or open harness • Open in clock spring • Disconnected driver's air bag module (squib) connector • Partially open as clock spring is not in neutral position • Poor connector contact*
61	• Driver's air bag module (squib) harness shorted to power supply
62	• Driver's air bag module (squib) harness short to the earth

NOTE
*: The shorting bars, which short positive (+) and negative (–) wires to prevent the air bags from accidental deployment during the disconnection of the connector, are set in the squib circuit connectors. In a defective connector, the short-bar may be still working even after the connection of the connector.

Check clock spring. (Refer to P.52B-42.)
NG → **Replace**
NO



MUT-II Self-diag code
- Connect clock spring connector No.1 C-65 and the harness side connector (2-pin).
- Remove the cover from the No. 2 connector of the clock spring, and then insert the probes (MB991222) and connect check harness to the probe.

Caution
Never insert the probe directly to the terminals from the front of the connector.

- Disconnect the resistance connector from the SRS check harness (MB991613) and connect to the check harness.
- Connect the negative (–) battery terminal.
- Erase diagnosis code memory.

Is code Nos.21, 22, 61 or 62 displayed?

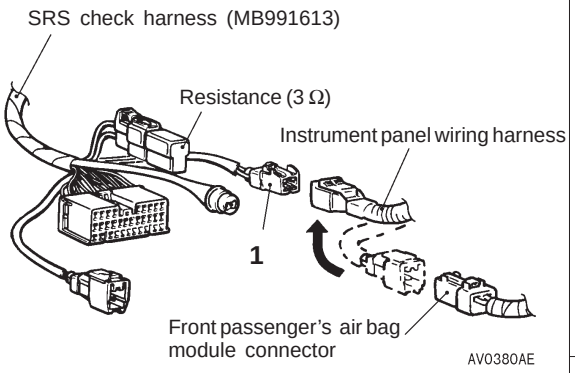
YES
Check the following connectors: C-32, C-65
OK
Check trouble symptoms.
NG
Check wiring harness between clock spring and SRS-ECU.
OK
Replace SRS-ECU.
NG
Repair
NG
Repair

NO
Replace driver's air bag module (squib).

Code No.24, 25, 64, 65 Front passenger's air bag module (squib) system	Probable cause
Abnormal resistance is present between input terminals of front passenger's air bag module (squib). See table below for what each code tells. However, once trouble is extinguished, SRS-warning lamp will go out. (Diagnosis code will remain stored)	• Defective wiring harnesses or connectors • Malfunction of front passenger's air bag module (squib) • Malfunction of SRS-ECU

Code No.	Trouble causes
24	• Short in front passenger's air bag module (squib) or short harness
25	• Open in front passenger's air bag module (squib) or open harness • Poor connector contact*
64	• Short-circuit in front passenger's air bag module (squib) harness to power supply
65	• Short-circuit in front passenger's air bag module (squib) harness to earth

NOTE
*: The shorting bars, which short positive (+) and negative (–) wires to prevent the air bags from accidental deployment during the disconnection of the connector, are set in the squib circuit connectors. In a defective connector, the short-bar may be still working even after the connection of the connector.



MUT-II Self-diag code
- Disconnect front passenger's air bag module connector C-15, and connect the harness side connector to SRS check harness (MB991613) connector No.1.
- Connect negative (–) battery terminal.
- Erase diagnosis code memory.

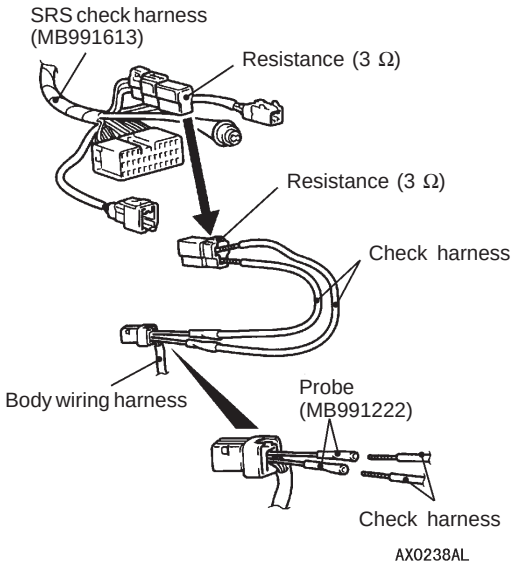
Is code Nos.24, 25, 64 or 65 output?

YES → **Check the following connectors:** C-15, C-32
- OK → Check trouble symptoms.
  - NG → **Repair**
- NG → Check wiring harness between the front passenger's air bag module and SRS-ECU.
  - OK → Replace SRS-ECU.
  - NG → **Repair**

NO → Replace the front passenger's air bag module (squib).

Code No.26, 27, 66 or 67 Driver's side pre-tensioner (squib) system	Probable cause
These diagnosis codes are output if there is abnormal resistance between the input terminals of the driver's side pre-tensioner (squib). The trouble causes for each diagnosis code No. are as follows.	• Malfunction of wiring harnesses or connectors • Malfunction of driver's side pre-tensioner (squib) • Malfunction of SRS-ECU

Code No.	Trouble causes
26	• Short in driver's side pre-tensioner (squib) or harness short
27	• Open circuit in driver's side pre-tensioner (squib) or open harness • Malfunction of connector contact
66	• Short in driver's side pre-tensioner (squib) harness leading to the power supply
67	• Short in driver's side pre-tensioner (squib) harness leading to the earth



MUT-II Self-diag code

- Disconnect the driver's side pre-tensioner connector D-41 <L.H. drive vehicles>, D-38 <R.H. drive vehicles>
- Insert the probe (MB991222) from the rear of the harness side connector and connect the check harness to the probe.

Caution
Never insert the probe directly to the terminals from the front of the connector.

- Disconnect the resistance connector from the SRS check harness (MB991613) and connect to the check harness.
- Connect the negative (–) battery terminal.
- Erase diagnosis code memory.

Is code No.26, 27, 66 or 67 displayed?

YES

Check the following connectors: D-36, D-41 <L.H. drive vehicles>, D-38 <R.H. drive vehicles>

OK

Check trouble symptoms.

NG

Check wiring harness between the driver's side pre-tensioner and SRS-ECU.

OK

Replace SRS-ECU.

NG

Repair

NG

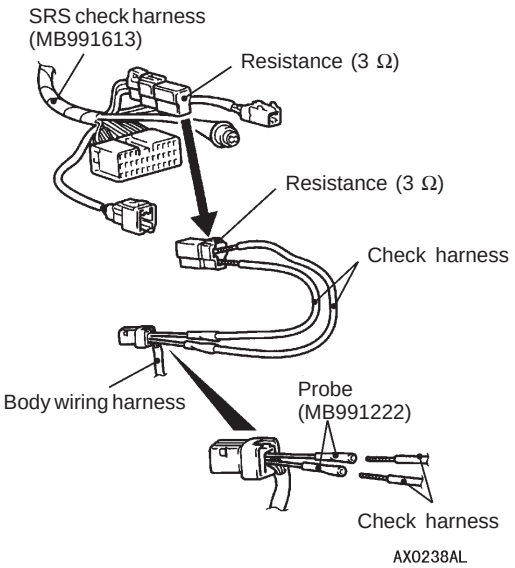
Repair

NO

Replace the driver's side pre-tensioner.

Code No.28, 29, 68 or 69 Front passenger's side pre-tensioner (squib) system	Probable cause
These diagnosis codes are output if there is abnormal resistance between the input terminals of the front passenger's side pre-tensioner (squib). The trouble causes for each diagnosis code No. are as follows.	• Malfunction of wiring harnesses or connectors • Malfunction of front passenger's side pre-tensioner (squib) • Malfunction of SRS-ECU

Code No.	Trouble causes
28	• Short in front passenger's side pre-tensioner (squib) or harness short
29	• Open circuit in front passenger's side pre-tensioner (squib) or open harness • Malfunction of connector contact
68	• Short in front passenger's side pre-tensioner (squib) harness leading to the power supply
69	• Short in front passenger's side pre-tensioner (squib) harness leading to the earth



MUT-II Self-diag code

- Disconnect the front passenger's side pre-tensioner connector D-38 <L.H. drive vehicles>, D-41 <R.H. drive vehicles>
- Insert the probe (MB991222) from the rear of the harness side connector and connect the check harness to the probe.

Caution
Never insert the probe directly to the terminals from the front of the connector.

- Disconnect the resistance connector from the SRS check harness (MB991613) and connect to the check harness.
- Connect the negative (–) battery terminal.
- Erase diagnosis code memory.

Is code No.28, 29, 68 or 69 displayed?

YES

Check the following connectors: D-36, D-38 <L.H. drive vehicles>, D-41 <R.H. drive vehicles>

OK → Check trouble symptoms.

NG → **Repair**

NG

Check wiring harness between the front passenger's side pre-tensioner and SRS-ECU.

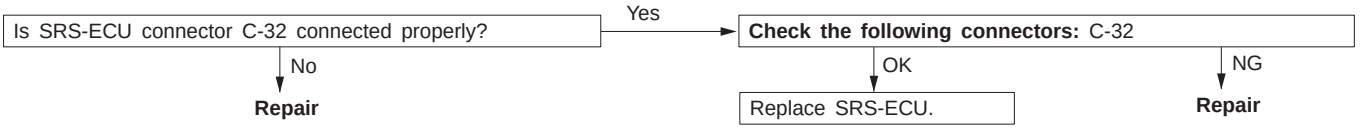
OK → Replace SRS-ECU.

NG → **Repair**

NO

Replace the front passenger's side pre-tensioner.

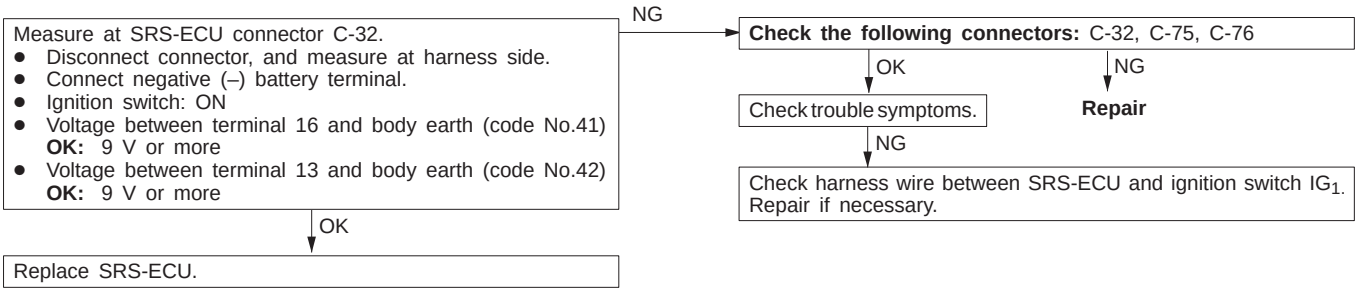
Code No.34 Connector lock system	Probable cause
SRS-ECU is poorly connected. However, when vehicle condition returns to normal, this code will be automatically erased, and the SRS warning lamp will go out.	• Defective connectors • Malfunction of SRS-ECU



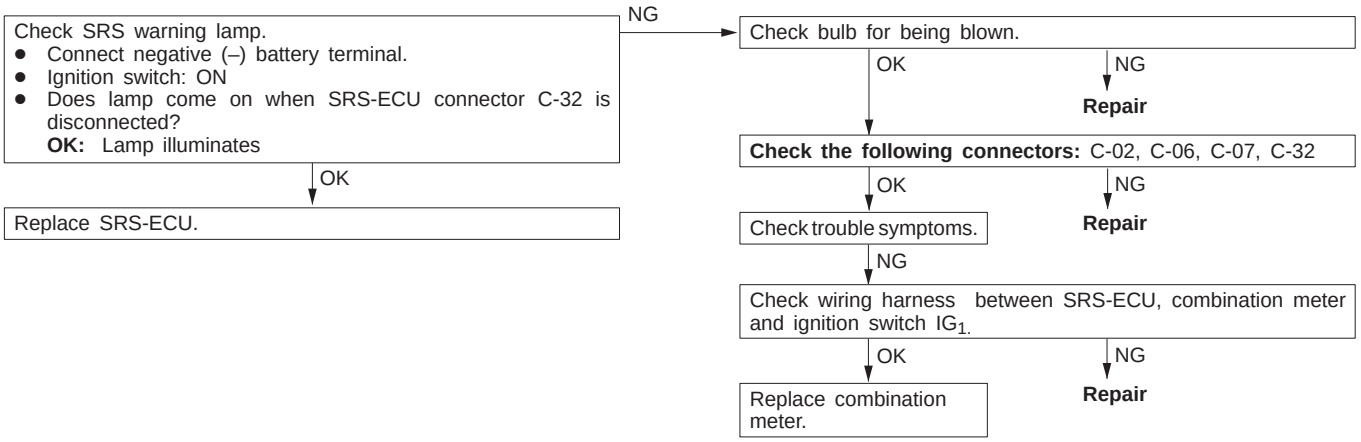
Code No.35 SRS-ECU (deployed air bag) system	Probable cause
This code is displayed after deployment of air bags. If displayed before deployment, the code indicates malfunction probably present in SRS-ECU.	• Malfunction of SRS-ECU

Replace the SRS-ECU.

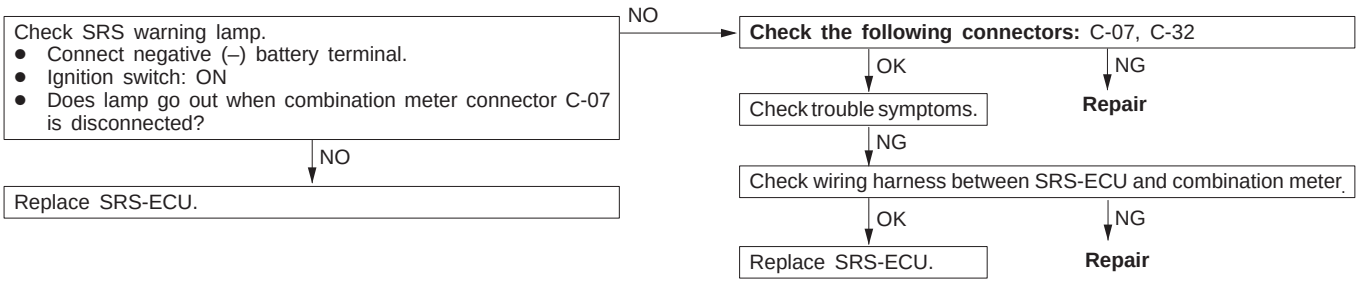
Code No.41 Power circuit system (fuse No.6 circuit) Code No.42 Power circuit system (fuse No.8 circuit)	Probable cause
Code No.41 is displayed if voltage between IG_1 terminal (SRS–ECU, terminal 12) and earth is lower than specified for five successive seconds or more. Code No.42 is displayed if voltage between IG_1 terminal (SRS–ECU, terminal 9) and earth is lower than specified for five successive seconds or more. However, once trouble is extinguished, these codes will be automatically erased, and SRS warning lamp will go out. If codes 41 and 42 are displayed together, check the battery first as vehicle may have discharged battery.	• Defective wiring harnesses or connectors • Malfunction of SRS-ECU



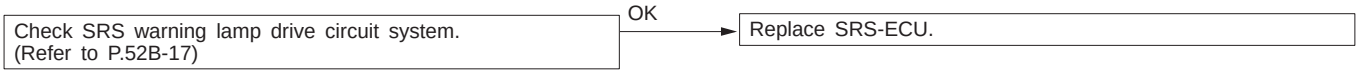
Code No.43 SRS warning lamp drive circuit system (Lamp does not come on)	Probable cause
Open circuit is present for 5 successive seconds or more in SRS warning lamp drive circuit. However, once trouble is extinguished, this code, if displayed due to open circuit, will be automatically erased.	• Defective wiring harnesses or connectors • Blown bulb • Malfunction of SRS-ECU • Malfunction of combination meter



Code No.43 SRS warning lamp drive circuit system (Lamp does not go out.)	Probable cause
Harness between SRS warning lamp and SRS-ECU is being shorted to earth. However, once trouble is extinguished, this code will be automatically erased, and SRS warning lamp will go out.	• Defective wiring harnesses or connectors • Malfunction of SRS-ECU • Malfunction of combination meter

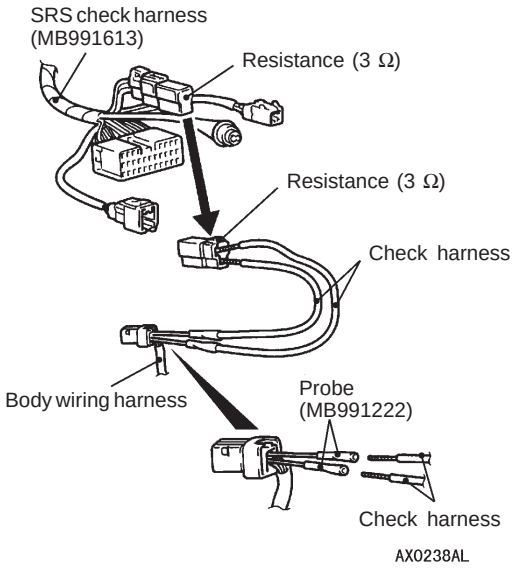


Code No.44 SRS warning lamp drive circuit system	Probable cause
Short is present in SRS warning lamp drive circuit, or output transistor in SRS-ECU is defective. However, once trouble is extinguished, this code will be automatically erased, and SRS warning lamp will go out.	• Defective wiring harnesses or connectors • Malfunction of SRS-ECU



Code No.71, 72, 75, 76 Side air bag module (R.H.) (squib) system	Probable cause
Abnormal resistance is present between input terminals of SRS-ECU for side air bag module (R.H.) (squib). See table below for what each code tells. However, as for code Nos. 71 and 72, once trouble is extinguished, SRS warning lamp will go out. (Diagnosis code will remain stored)	• Malfunction of wiring harnesses or connectors • Malfunction of side air bag module (R.H.) (squib) • Malfunction of SRS-ECU

Code No.	Trouble causes
71	• Short in side air bag module (R.H.) (squib) or harness short
72	• Open in side air bag module (R.H.) (squib) or open harness • Poor connector contact
75	• Side air bag module (R.H.) (squib) harness short to power supply
76	• Side air bag module (R.H.) (squib) harness short to earth



MUT-II Self-diag code

- Disconnect the side air bag module (R.H.) connector D-01
- Insert the probe (MB991222) from the rear of the harness side connector and connect the check harness to the probe.

Caution
Never insert the probe directly to the terminals from the front of the connector.

- Disconnect the resistance connector from the SRS check harness (MB991613) and connect to the check harness.
- Connect the negative (–) battery terminal.
- Erase diagnosis code memory.

Is code No.71, 72, 75 or 77 displayed?

YES

Check the following connectors: D-01, D-36

OK

Check trouble symptoms.

NG

Check wiring harness between the side air bag module (R.H.) and SRS-ECU.

OK

Replace SRS-ECU.

NG

Repair

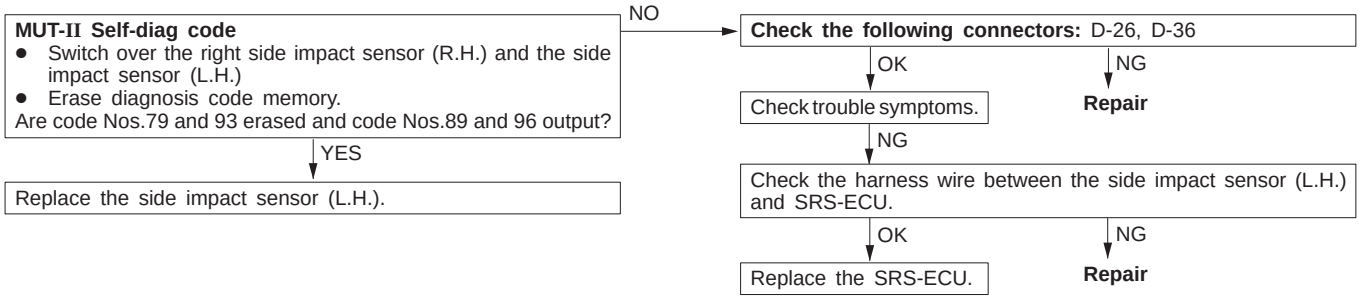
NG

Repair

NO

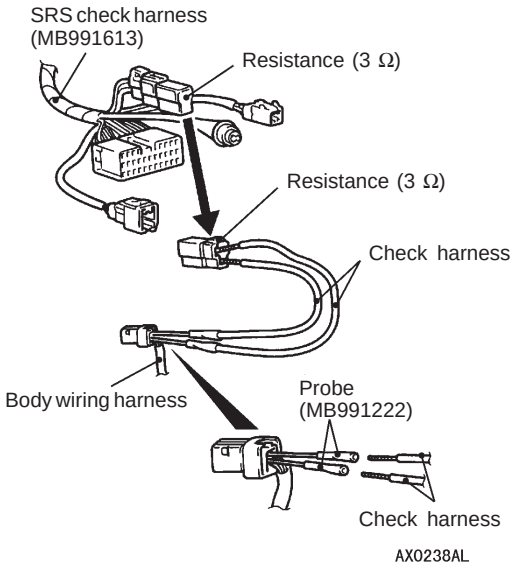
Replace the seat back assembly (R.H.)

Code No.79 or No.93 Side impact sensor (L.H.) communication system	Probable cause
These diagnosis code are output if communication between the side impact sensor (L.H.) and the SRS–ECU is not possible (code No.79) or abnormal (code No.93).	• Malfunction of wiring harnesses or connectors • Malfunction of side impact sensor (L.H.) • Malfunction of SRS-ECU



Code No.81, 82, 85, 86 Side air bag module (L.H.) (squib) system	Probable cause
Abnormal resistance is present between input terminals of SRS-ECU for side air bag module (L.H.) (squib). See table below for what each code tells. However, as for code Nos. 81 and 82, once trouble is extinguished, SRS warning lamp will go out. (Diagnosis code will remain stored)	• Defective wiring harnesses or connectors • Malfunction of side air bag module (L.H.) (squib) • Malfunction of SRS-ECU

Code No.	Trouble causes
81	• Short in side air bag module (L.H.) (squib) or harness short
82	• Open circuit in side air bag module (L.H.) (squib) or open harness • Poor connector contact
85	• Side air bag module (L.H.) (squib) harness short to power supply
86	• Side air bag module (L.H.) (squib) harness short to earth



MUT-II Self-diag code
- Disconnect the side air bag module (L.H.) connector D-32
- Insert the probe (MB991222) from the rear of the harness side connector and connect the check harness to the probe.

Caution
Never insert the probe directly to the terminals from the front of the connector.

- Disconnect the resistance connector from the SRS check harness (MB991613) and connect to the check harness.
- Connect the negative (–) battery terminal.
- Erase diagnosis code memory.

Is code No.81, 82, 85 or 86 displayed?

YES

Check the following connectors: D-32, D-36

OK

Check trouble symptoms.

NG

Check wiring harness between the side air bag module (L.H.) and SRS-ECU.

OK

Replace SRS-ECU.

NG

Repair

NG

Repair

NO

Replace the seat back assembly (L.H.)

Code No.89 or No.96 Side impact sensor (R.H.) communication system	Probable cause
These diagnosis codes are output if communication between the side impact sensor (R.H.) and the SRS–ECU is not possible (code No.89) or abnormal (code No.96)	• Malfunction of wiring harnesses or connectors • Malfunction of side impact sensor (R.H.) • Malfunction of SRS-ECU

MUT-II Self-diag code
- Switch over the side impact sensor (R.H.) and the side impact sensor (L.H.).
- Erase diagnosis code memory.

Are code Nos.89 and 96 erased and code Nos.79 and 93 output?

YES

Replace the side impact sensor (R.H.).

NO

Check the following connectors: D-10, D-36

OK

Check trouble symptoms.

NG

Repair

NG

Check the harness wire between the side impact sensor (L.H.) and SRS-ECU.

OK

Replace the SRS-ECU.

NG

Repair

Code No.91 Side impact sensor (L.H.) power supply circuit system	Probable cause
Power supply voltage of side impact sensor (L.H.) is lower than specified for five successive seconds or more. However, once trouble is extinguished, this code will be automatically erased, and SRS warning lamp will go out.	• Defective wiring harnesses or connectors • Malfunction of side impact sensor (L.H.) • Malfunction of SRS-ECU

Measure at side impact sensor (L.H.) connector D-26.
- Disconnect connector and measure at the harness side.
- Connect negative (–) battery terminal.
- Ignition switch: ON
- Voltage between terminal No.1 and body earth.
  OK: 9 V or more

NG → **Check the following connectors:** D-26, D-36
- OK → Check trouble symptoms.
  - NG → **Repair**
  - NG → Check harness wire between side impact sensor (L.H.) and SRS-ECU.
    - OK → Replace SRS-ECU.
    - NG → **Repair**

OK → Replace side impact sensor (L.H.).

Code No.92, 95 Side impact sensor system	Probable cause
Code No.92 is displayed when malfunction is present inside side impact sensor (L.H.). Code No.95 is displayed when malfunction is present inside side impact sensor (R.H.). See INSPECTION CHART 6, below, for what each code tells.	• Malfunction of side impact sensor (L.H.) (Code No.92) • Malfunction of side impact sensor (R.H.) (Code No.95)

Code No.	Defective parts	Trouble
92	Side impact analog G-sensor	• Not working • Having abnormal • Having abnormal output
95		

Replace side impact sensor (L.H.) (code No.92).
Replace side impact sensor (R.H.) (code No.95).

Code No.94 Side impact sensor (R.H.) power supply circuit system	Probable cause
Power supply voltage of side impact sensor (R.H.) is lower than specified for successive five seconds or more. However, once trouble is extinguished, this code will be automatically erased, and SRS warning lamp will go out.	• Defective wiring harnesses or connectors • Malfunction of side impact sensor (R.H.) • Malfunction of SRS-ECU

Measure at side impact sensor (R.H.) connector D-10.
- Disconnect connector and measure at harness side.
- Connect negative (–) battery terminal.
- Ignition switch: ON
- Voltage between terminal (1) and body earth
  OK: 9 V or more

NG → **Check following connectors:** C-10, D-31
- OK → Check trouble symptoms.
  - NG → **Repair**
  - NG → Check harness wire between side impact sensor (R.H.) and SRS-ECU.
    - OK → Replace SRS-ECU.
    - NG → **Repair**

OK → Replace side impact sensor (R.H.).

INSPECTION CHART FOR TROUBLE SYMPTOMS

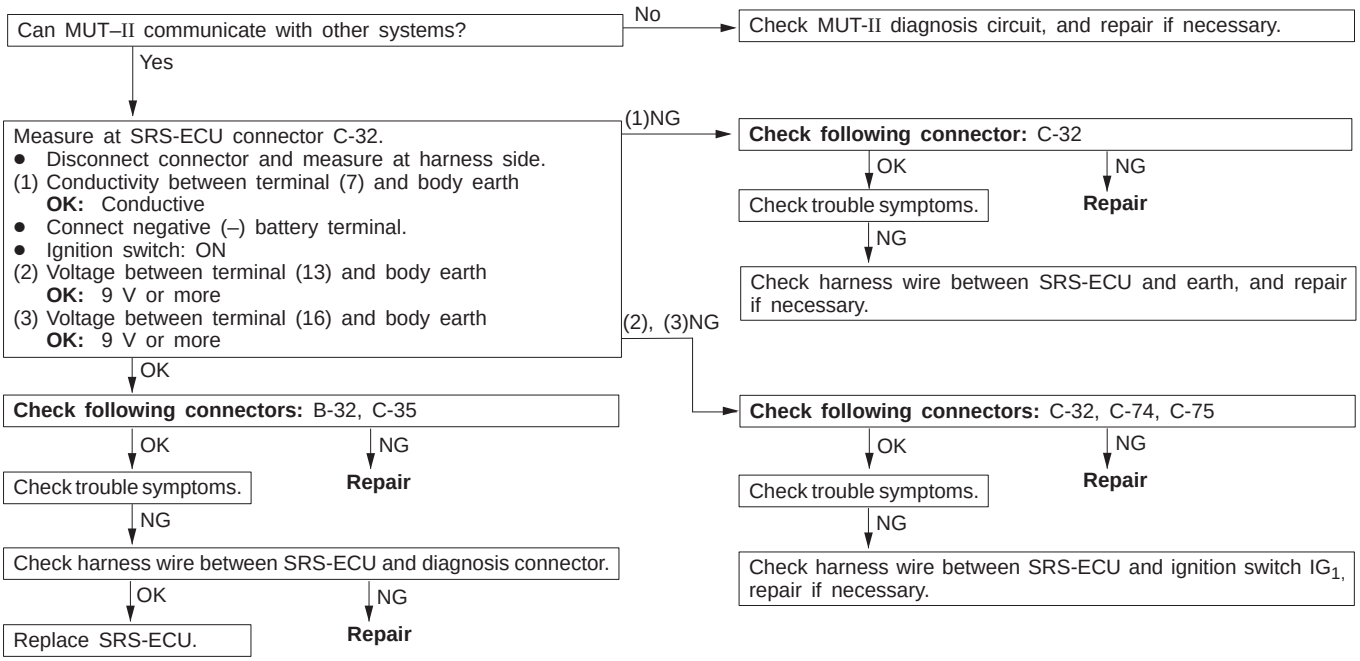
Get an understanding of the trouble symptoms and check according to the inspection procedure chart.

Trouble	Inspection procedure No(s).	Reference page
Communication with MUT-II is impossible.	1	52B-22
SRS warning lamp does not come on.	See diagnosis code No.43.	52B-17
SRS warning lamp does not go out.	See diagnosis code Nos.43, 44.	52B-17

INSPECTION PROCEDURE FOR TROUBLE SYMPTOMS

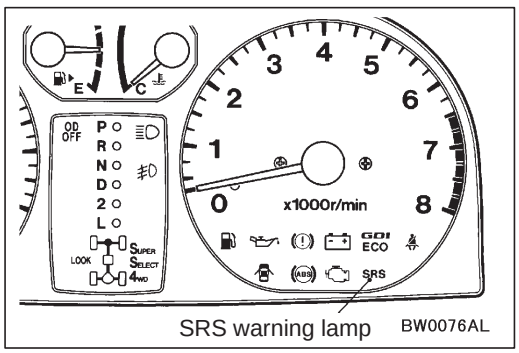
Inspection Procedure 1

Communication with MUT-II is impossible.	**Probable cause**
When communication with all systems is impossible, diagnosis circuit is suspected as faulty. When only communication with SRS air bags is impossible, open in diagnosis output circuit or power supply circuit including earth circuit may be present.	• Defective wiring harness(es) or connector(s) • Malfunction of SRS-ECU



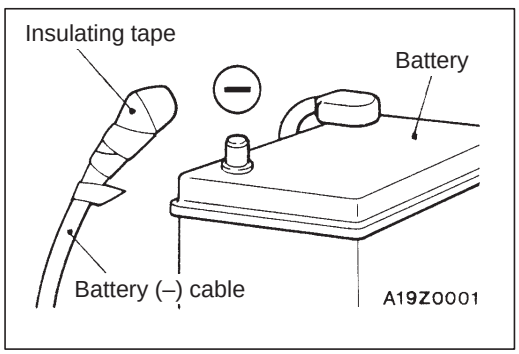
SRS MAINTENANCE

The SRS must be inspected by an authorized dealer 10 years after the date of vehicle registration.



SRS WARNING LAMP CHECK

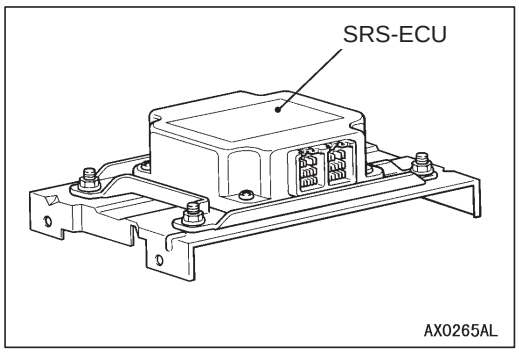
Turn the ignition switch to the “ON” position. Does the SRS warning lamp illuminate for about 7 seconds, turn off and then remain extinguished for at least 5 seconds? If yes, SRS system is functioning properly. If no, consult page 52B-8.



SRS COMPONENT VISUAL CHECK

Turn the ignition key to LOCK (OFF) position, disconnect the negative battery cable and tape the terminal.

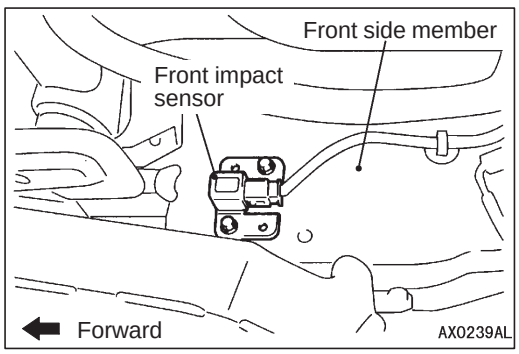
Caution
Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-4.)



SRS CONTROL UNIT (SRS-ECU)

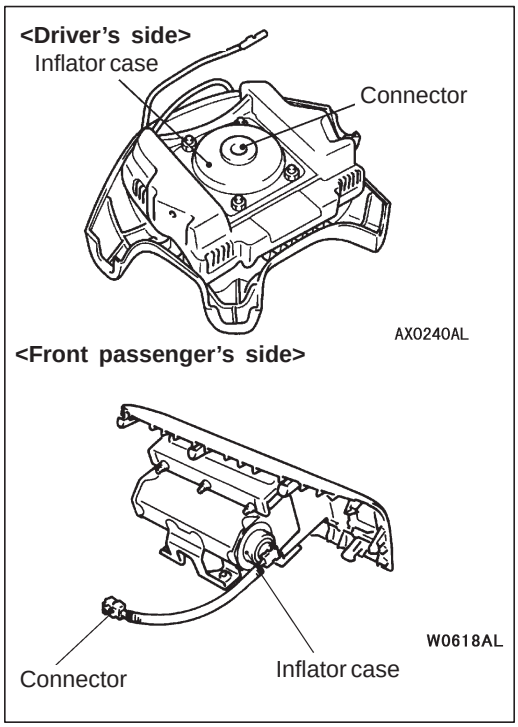
1. Check SRS-ECU case and brackets for dents, cracks, deformation or rust.

   Caution
   The SRS may not activate if the SRS-ECU is not installed properly, which could result in serious injury or death to the vehicle’s driver or front passenger.
2. Check connector for damage, and terminals for deformation or rust.
   Replace SRS-ECU if it fails visual check.
   (Refer to P.52B-34.)



FRONT IMPACT SENSORS

1. Check the front side member for deformation or rest.
2. Check the front impact sensor for dents, cracks, deformation or rust.
3. Check the sensor harnesses for binding, the connectors for damage, and the terminals for deformation.

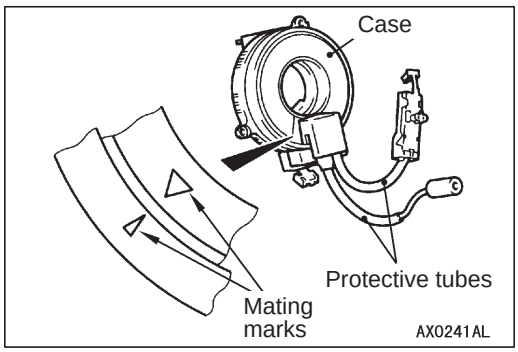


AIR BAG MODULES, STEERING WHEEL AND CLOCK SPRING

1. Remove the air bag modules, steering wheel and clock spring. (Refer to P.52B-36.)

   Caution
   The removed air bag modules should be stored in a clean, dry place with the cover face up.

2. Check cover for dents, cracks or deformation.
3. Check connector for damage, terminals deformities, and harness for binds.
4. Check air bag inflator case for dents, cracks or deformities.
5. Check harness and connectors for damage, and terminals for deformation.



6. Check clock spring connectors and protective tube for damage, and terminals for deformation.
7. Visually check the clock spring case for damage.
8. Align the mating marks of the clock spring and, after turning the vehicle's front wheels to straight-ahead position, install the clock spring to the column switch.

   Mating Mark Alignment

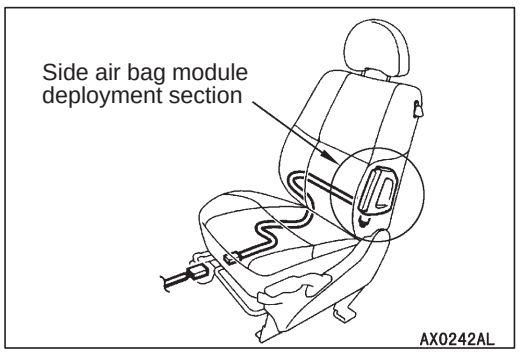
   Turn the clock spring clockwise fully, and then turn back it approx. 3 times counterclockwise to align the mating marks.

   Caution
   If the clock spring's mating mark is not properly aligned, the steering wheel may not be completely rotational during a turn, or the flat cable within the clock spring may be severed, obstructing normal operation of the SRS and possibly leading to serious injury to the vehicle's driver or front passenger.

9. Install the steering column covers, steering wheel and the air bag module.
10. Check steering wheel for noise, binds of difficult operation.

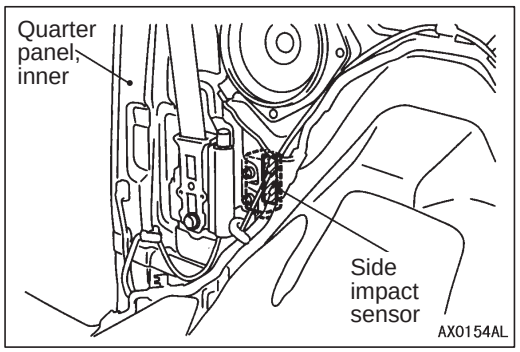
11. Check steering wheel for excessive free play.
    REPLACE ANY VISUALLY INSPECTED PART IF IT FAILS THAT INSPECTION. (Refer to P.52B-41.)

Caution
The SRS may not activate if any of the above components is not installed properly, which could result in serious injury or death to the vehicle's driver or front passenger.



FRONT SEAT BACK ASSEMBLY (SIDE AIR BAG MODULE)

1. Check that there is no abnormality in the seat air bag module deployment section.
2. Check that there is no connector damage, bent terminals or clamping of the harness.



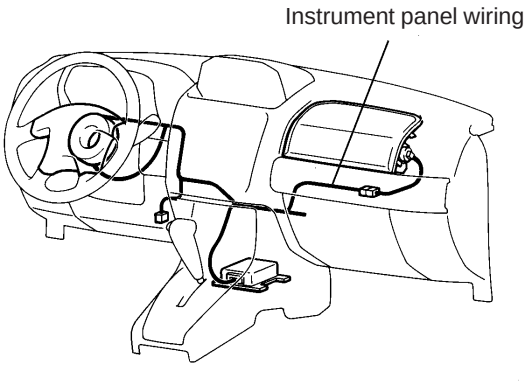
SIDE IMPACT SENSORS

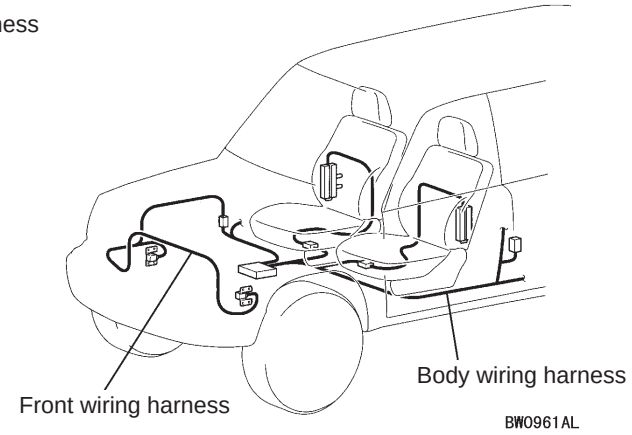
1. Check that there is no bending or corrosion in the quarter panel, inner.
2. Check that there is no denting, breakage, bending or corrosion of the side impact sensor.
3. Check that there is no clamping of the harness, connector damage or bent terminals.

NOTE
The illustration at left shows the side impact sensor (R.H.). The position of the side impact sensor (L.H.) is symmetrical to this.

Caution
The SRS may not activate if the side impact sensors are not installed properly, which could result in serious injury or death to the vehicle's driver or front passenger.

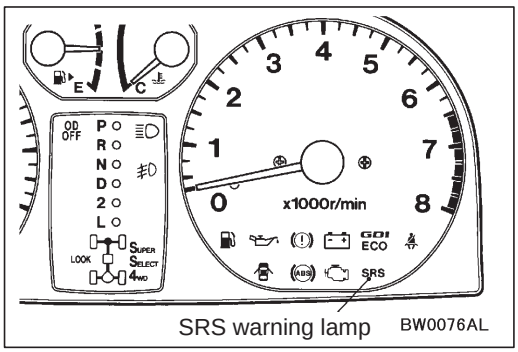
INSTRUMENT PANEL WIRING HARNESS/FRONT WIRING HARNESS/ASSIST WIRING HARNESS/BODY WIRING HARNESS





1. Check connector for poor connection.
2. Check harnesses for binds, connectors for damage, and terminals for deformation.
   REPLACE ANY CONNECTORS OR HARNESS THAT FAIL THE VISUAL INSPECTION. (Refer to P.52B-4.)

Caution
The SRS may not activate if SRS harnesses or connectors are damaged or improperly connected, which could result in serious injury or death to the vehicle's driver or front passenger.



POST-INSTALLATION INSPECTION

Reconnect the negative battery terminal. Turn the ignition switch to the "ON" position. Does the SRS warning lamp illuminate for about 7 seconds, turn off and then remain extinguished for at least 5 seconds? If yes, SRS system is functioning properly. If no, consult page 52B-8.

POST-COLLISION DIAGNOSIS

Whether or not the air bags have deployed, check and service the vehicle after collision as follows:

SRS-ECU MEMORY CHECK

1. Connect the MUT-II to the diagnosis connector. (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points.)

   Caution
   Refer to that the ignition switch is LOCK (OFF) when connecting or disconnecting MUT-II.

2. Read (and write down) all displayed diagnosis codes. (Refer to P.52B-8.)

   NOTE
   If battery power supply has been shut down by the collision, the MUT-II cannot communicate with the SRS-ECU. Check and, repair if necessary, the instrument panel wiring harness before the next job.

3. Use the the MUT-II to read the data list (how long trouble(s) have continued and how often memory have been erased).

Data list

No	Service Data Item	Applicability
92	Number indication how often the memory is cleared.	Maximum time to be stored: 250
93	How long problem have lasted (How long it takes from the occurrence of the problem till the first air bag squib igniting signal)	Maximum time to be stored: 9,999 minutes (approximately 7 days)
94	How long problem(s) have lasted (How long it takes from the first air bag squib igniting signal till now.)	

4. Erase the diagnosis codes and after waiting 5 seconds or more read (and write down) all displayed diagnosis codes. (Refer to P.52B-8.)

REPAIR PROCEDURE

WHEN AIR BAGS (DRIVER'S SIDE AND FRONT PASSENGER'S SIDE) DEPLOY OR SEAT BELT PRE-TENSIONER OPERATES IN A COLLISION.

1. Replace the following parts with new ones.
   - SRS-ECU (Refer to P.52B-34.)
   - Driver's side air bag module (Refer to P.52B-36.)
   - Front passenger's side air bag module (Refer to P.52B-36.)
   - Front impact sensor (Refer to P.52B-32.)
   - Seat belt with pre-tensioner (Refer to P.52B-44.)

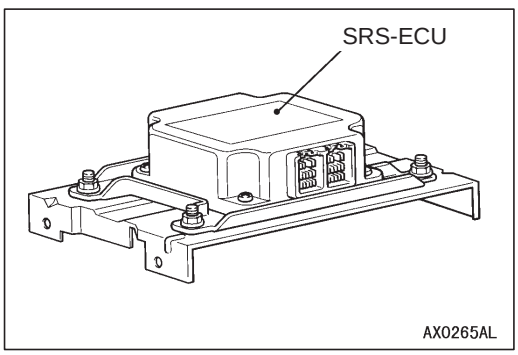
2. Check the following parts and replace if there are any malfunctions.
   - Clock spring (Refer to P.52B-36.)
   - Steering wheel, steering column and intermediate joint
     (1) Check wiring harness (built into steering wheel) and connectors for damage, and terminals for deformation.
     (2) Install air bag module to check fit or alignment with steering wheel.
     (3) Check steering wheel for noise, binds or difficult operation and excessive free play.
3. Check harnesses for binding, connectors for damage, poor connections, and terminals for deformation. (Refer to P.52B-4.)

DEPLOYED SIDE AIR BAGS

1. Replace the following parts with new ones:
   - SRS-ECU (Refer to P.52B-34.)
   - Side impact sensors (Refer to P.52B-46.)
   - Front seat back assemblies (Refer to P.52B-36.)
2. Check harnesses for binding, connectors for damage, poor connections, and terminals for deformation. (Refer to P.52B-4.)

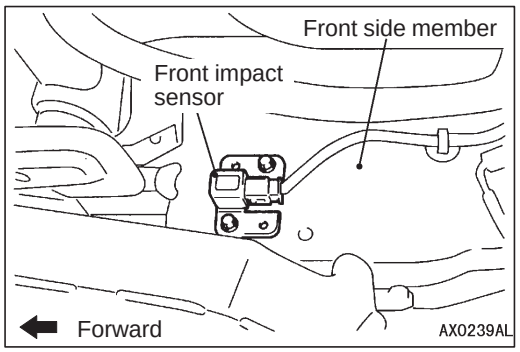
UNDEPLOYED AIR BAGS IN LOW-SPEED COLLISION

Check the SRS components. If visible damage such as dents, cracks, or deformation are found on the SRS components, replace them with new ones. Concerning parts removed for inspection, replacement with new parts and cautions in working, refer to INDIVIDUAL COMPONENT SERVICE, P.52B-30.



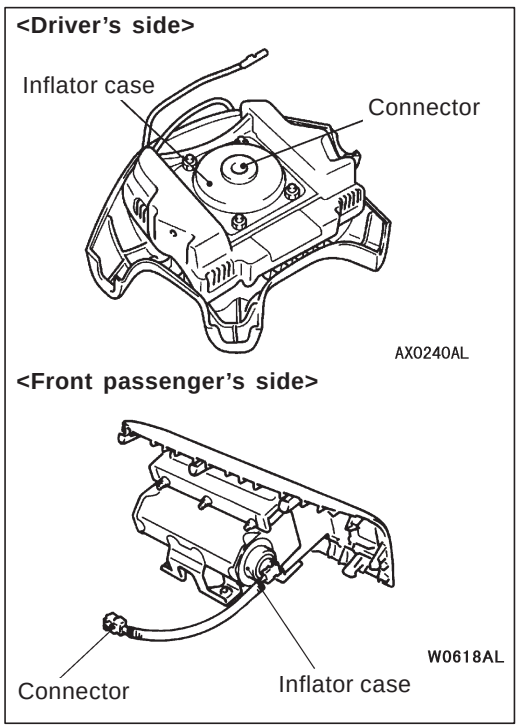
SRS-ECU

1. Check the SRS-ECU case and bracket for dents, cracks or deformation.
2. Check the connector for damage, and terminals for deformation.
3. Check the SRS-ECU and bracket for proper installation.



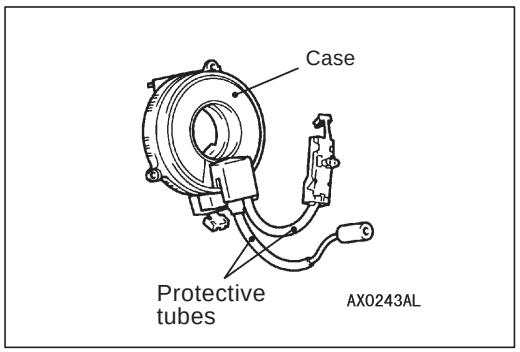
FRONT IMPACT SENSORS

1. Check the front side member for deformation or rest.
2. Check the front impact sensor for dents, cracks, deformation or rust.
3. Check the sensor harnesses for binding, the connectors for damage, and the terminals for deformation.



Driver's and passenger's air bag modules

1. Check the covers for dents, cracks or deformation.
2. Check the connectors for damage, the terminals deformities, and the harness for binds.
3. Check the air bag inflator cases for dents, cracks or deformities.
4. Check the air bag modules for proper installation.



Clock spring

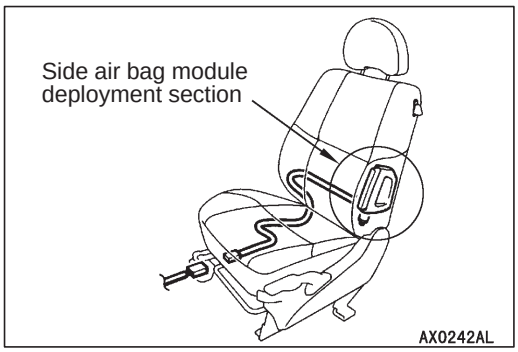
1. Check the clock spring connectors and protective tubes for damage, and terminals for deformation.
2. Visually check the case for damage.

Steering wheel, steering column and intermediate joint

1. Check the driver's air bag module for proper installation to the steering wheel.
2. Check the steering wheel for noise, binds or difficult operation and excessive free play.

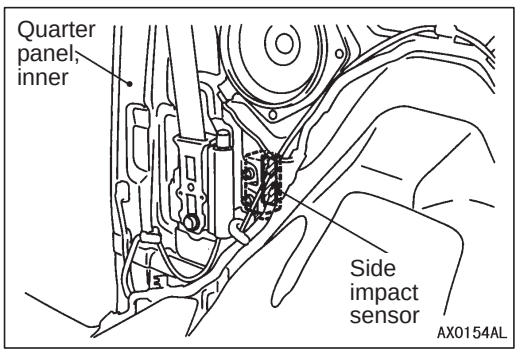
Harness connector (Instrument panel wiring harness)

Check the harness for binds, the connector for damage and the terminals for deformation. (Refer to P.52B-4.)



Front seat back assembly (side air bag module)

1. Check the side air bag module deployment section in the seat for dents and deformation.
2. Check the harness for binds, the connector for damage and the terminals for deformation.



Side impact sensor

1. Check the quarter panel, inner for deformation or rust.
2. Check the side impact sensors for dents, cracks, deformation and rust.
3. Check the connector for damage and the terminals for deformation.

NOTE
The figures show side impact sensors (L.H.).

Harness connector (Instrument panel wiring harness and side air bag wiring harness)

Check the harness for binds, the connector for damage and the terminals for deformation. (Refer to P.52B-4.)

Seat belt with pre-tensioner

1. Check the seat belt for damage or deformation.
2. Check the pre-tensioner for cracks or deformation.
3. Check that the unit is installed correctly to the vehicle body.

INDIVIDUAL COMPONENT SERVICE

If the SRS components and seat belt with pre-tensioner are to be removed or replaced as a result of maintenance, troubleshooting, etc., follow each procedure (P.52B-32 – P.52B-47.)

Caution

1. SRS components and seat belt with pre-tensioner should not be subjected to heat, so remove the front impact sensor, SRS-ECU, air bag modules (driver's side and front passenger's side), front seat assemblies (side air bag module), clock spring, side impact sensors and seat belts with pre-tensioner before drying or baking the vehicle after painting.
- **Front impact sensor, SRS-ECU, Air bag module, clock spring, side impact sensor: 93°C or more**
- **Seat belt with pre-tensioner: 90°C or more**

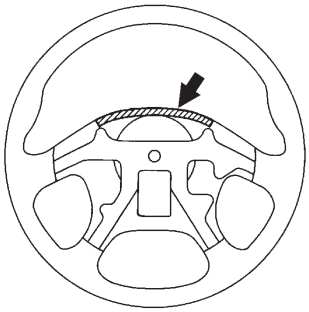
Recheck SRS system operability after re-installing them.

2. If the SRS components and seat belts with pre-tensioner are removed for the purpose of check, sheet metal repair, painting, etc., they should be stored in a clean, dry place until they are reinstalled.

WARNING/CAUTION LABELS

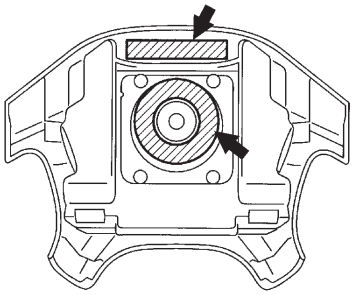
Caution labels on the SRS are attached in the vehicle as shown. Follow label instructions when servicing the SRS. If the label(s) are dirty or damaged, replace with new one(s).

Steering wheel



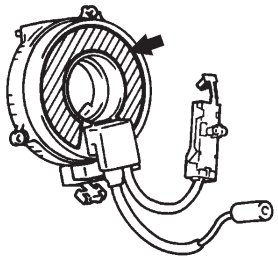
BW0968AL

Driver's air bag module



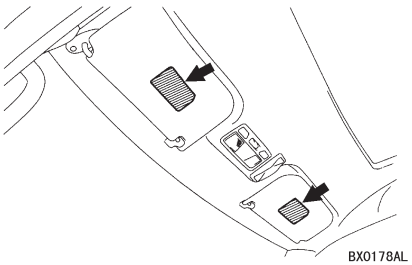
BW0969AL

Clock spring



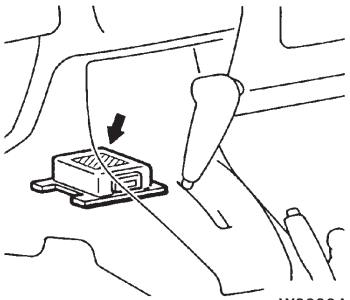
BW0965AL

Sun visor



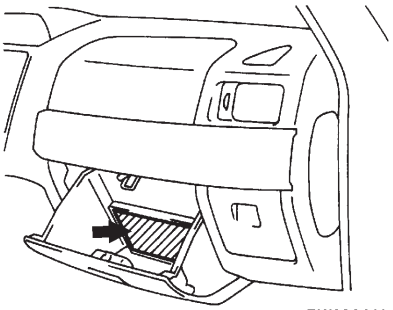
BX0178AL

SRS-ECU



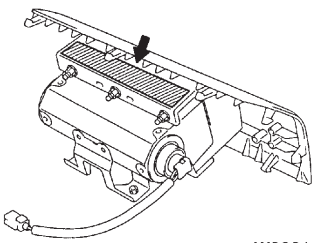
W0202AL

Glove box



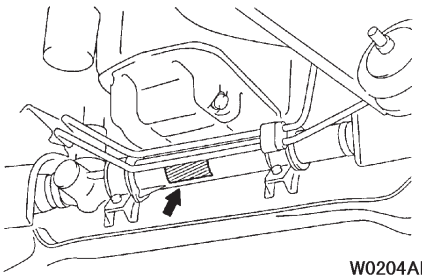
BW0964AL

Front passenger's air bag module



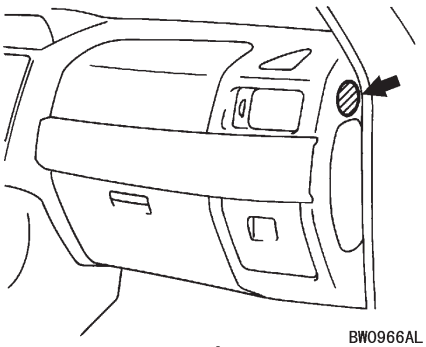
W0201AL

Steering gear box



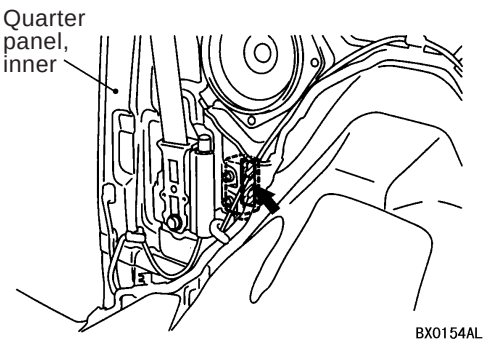
W0204AL

Instrument panel



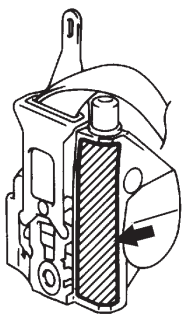
BW0966AL

Side impact sensor



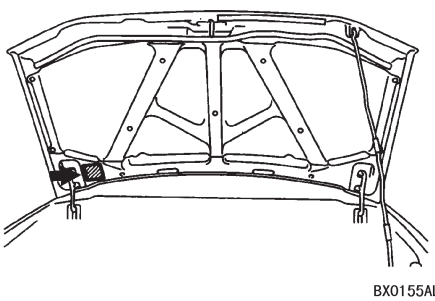
BX0154AL

Seat belt with pre-tensioner



BW0967AL

Hood



BX0155AL

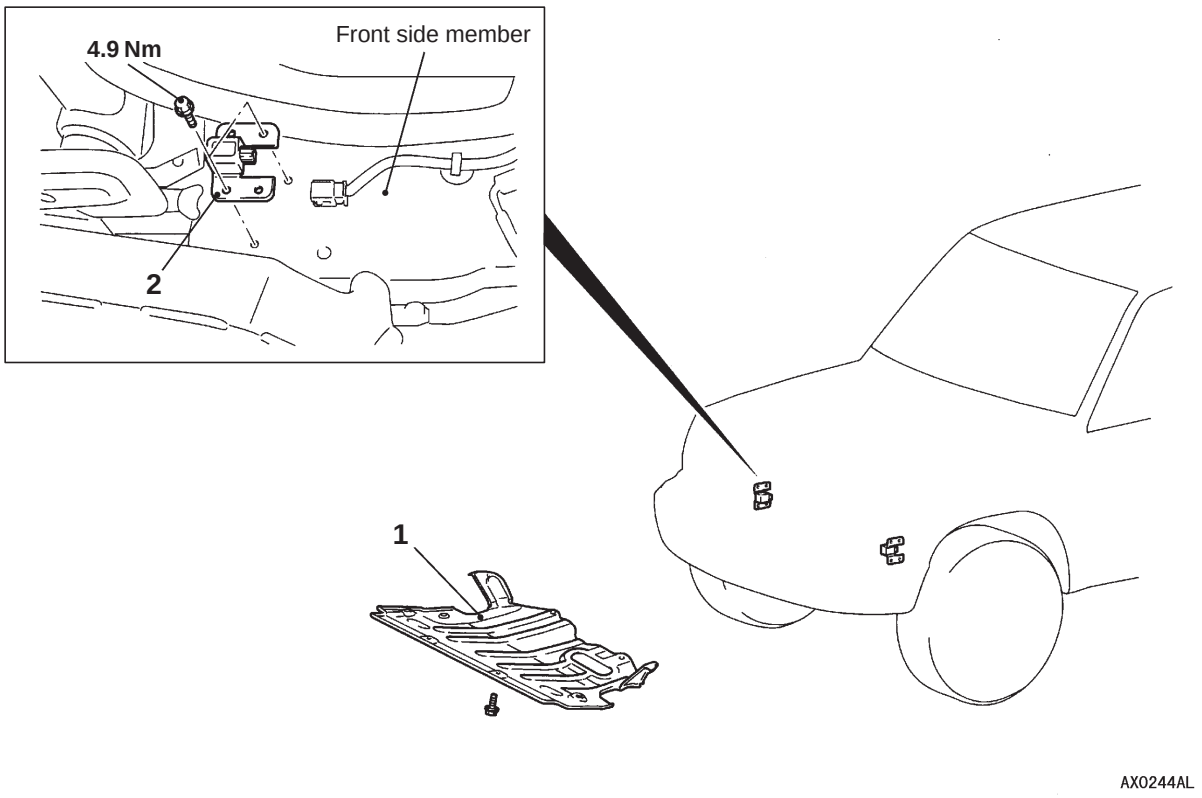
FRONT IMPACT SENSORS

Caution

1. **Disconnect the battery (–) terminal and wait for 60 seconds or more before starting work. Furthermore, the disconnected battery terminal should be covered with tape to insulate it. (Refer to P.52B-4.)**
2. **Never attempt to disassemble or repair the front impact sensor. If faulty, replace it.**
3. **Do not drop or subject the front impact sensor to impact or vibration. If denting, cracking, deformation, or rust are discovered in the front impact sensor, replace it with a new front impact sensor. Discard the old one.**
4. **After deployment of an air bag, replace the front impact sensor with a new one.**

REMOVAL AND INSTALLATION

Pre-removal Operation
- Turn Ignition Key to LOCK (OFF) position.
- Disconnect the Negative (–) Battery Terminal.



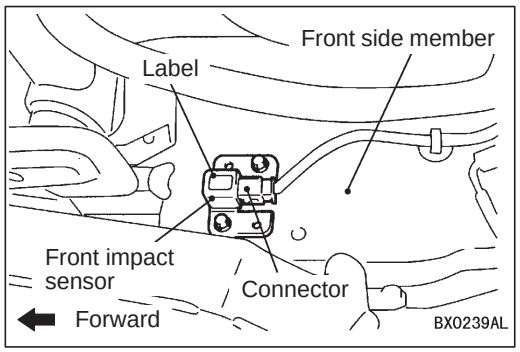
Removal steps
1. Under cover
2. Front impact sensor

Installation steps
- ▶A◀ Pre-installation inspection
- ▶B◀ 2. Front impact sensor
- 1. Under cover
- Negative (–) battery cable connection
- ▶C◀ Post-installation inspection

INSTALLATION SERVICE POINTS

▶A◀ PRE-INSTALLATION INSPECTION

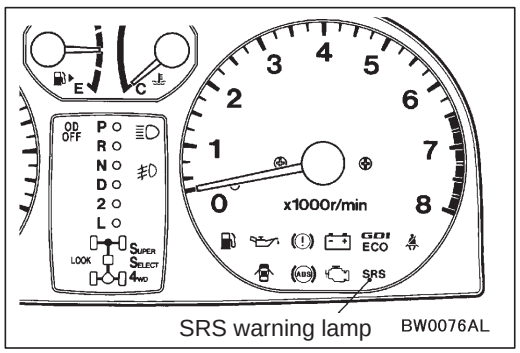
To mount the new front impact sensor, visually check it and measure the resistance between the terminals. (Refer to the previous item “INSPECTION”)



▶B◀FRONT IMPACT SENSOR INSTALLATION

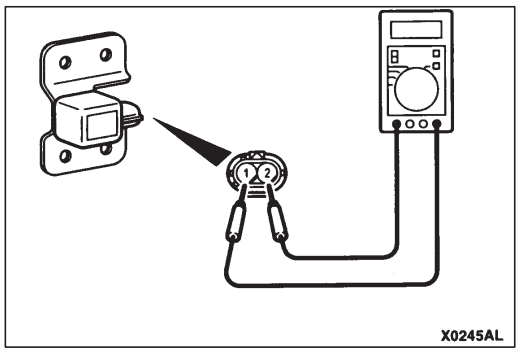
1. Securely connect the connector.
2. Position the front impact sensor facing toward the front of the vehicle as shown by the arrow on the label, and install it securely.

Caution
The SRS may not activate properly if a front impact sensor is not installed properly, which could result in serious injury or death to the vehicle's driver.



▶C◀ POST-INSTALLATION INSPECTION

1. Reconnect the negative battery terminal.
2. Turn the ignition key to the "ON" position.
3. Does the "SRS" warning lamp illuminate for about 7 seconds, and then remain extinguished for at least 5 seconds after turning OFF?
4. If yes, SRS system if functioning properly.
   If no, consult page 52B-8.



INSPECTION

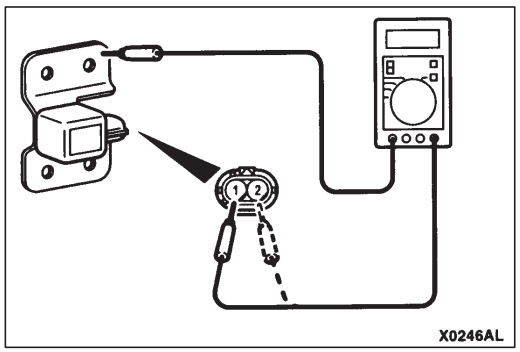
1. Check the front impact sensor for dents, cracks, deformation or rust.

   Caution
   If a dent, crack, deformation or rust is detected, replace with a new sensor.

2. Measure the resistance between terminals and check whether it is within the standard value.

   Standard value: 820 ± 82 Ω

   Caution
   Always replace the sensor with a new one if the resistance is not within the standard value.



3. Check front side member for deformation or rust.
4. Check the continuity between the terminal and bracket. If there is a continuity, the insulation is malfunctioned, and replace the sensor with a new one.

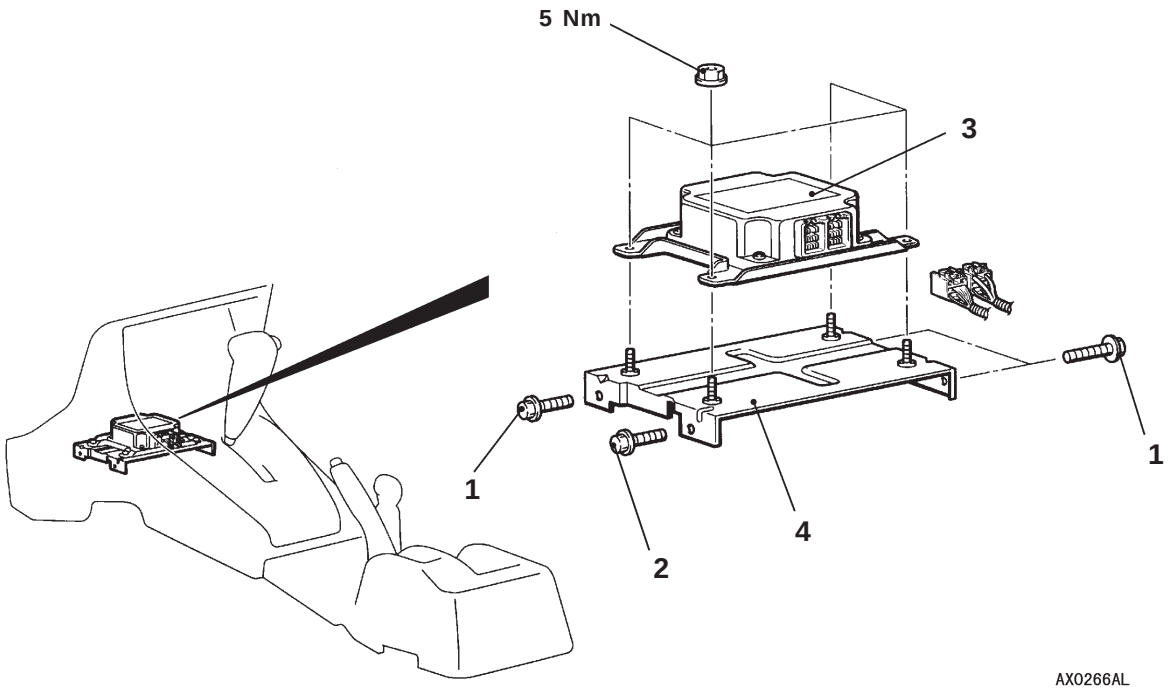
SRS AIR BAG CONTROL UNIT (SRS-ECU)

Caution

1. **Disconnect the negative (–) battery terminal and wait for 60 seconds or more before starting work. Also, the disconnected battery terminal should be insulated with tape. (Refer to P.52B-4.)**
2. **Never attempt to disassemble or repair the SRS-ECU. If faulty, just replace with a new one.**
3. **Do not drop or subject the SRS-ECU to impact or vibration.**
   If denting, cracking, deformation, or rust are found in the SRS-ECU, replace it with a new one. Discard the old one.
4. **After deployment of the air bags, replace the SRS-ECU with a new one.**
5. **Never use an ohmmeter on or near the SRS-ECU, and use only the special test equipment described on P.52B-7.**

REMOVAL AND INSTALLATION

Pre-removal Operation
- Turn Ignition Key to LOCK (OFF) Position.
- Disconnect the Negative (–) Battery Terminal.



Removal steps
- Floor console (Refer to GROUP 52A.)

1. Bracket mounting bolts
2. Bracket mounting bolt (Earth bolt)
3. SRS-ECU
4. SRS-ECU bracket

Installation steps

4. SRS-ECU bracket

▶A◀ 3. SRS-ECU

▶B◀ 2. Bracket mounting bolt (Earth bolt)

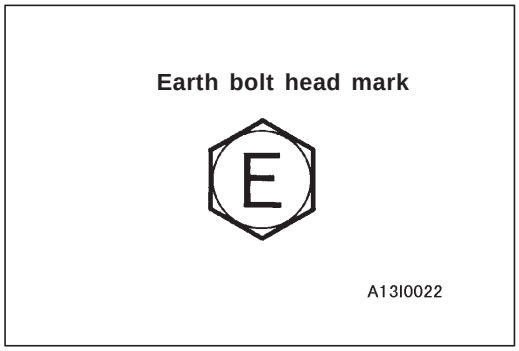
1. Bracket mounting bolt
- Floor console (Refer to GROUP 52A.)
- Negative (–) battery cable connection

▶C◀ • Post-installation inspection

INSTALLATION SERVICE POINTS

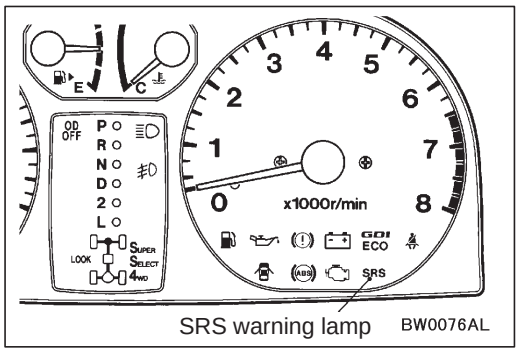
▶A◀ SRS-ECU INSTALLATION

Caution
Be sure to install the SRS-ECU properly. Otherwise, the SRS air bags do not activate, which results in serious injury or death of vehicle's occupants.



▶B◀ BRACKET MOUNTING BOLT (EARTH BOLT) INSTALLATION

Before installation, Refer to that the bolt is stamped mark "E" on the head.



▶C◀ POST-INSTALLATION CHECK

1. Turn the ignition switch to ON.
2. Does the SRS warning lamp illuminate for about 7 seconds and then go out for more than 5 seconds?
3. Yes: The SRS warning lamp is working properly
   No: Go to Troubleshooting. (Refer to P.52B-8.)

INSPECTION

1. Check the SRS-ECU and brackets for dents, cracks or deformation.
2. Check connector for damage, and terminals for deformation.

Caution
If a dent, crack, deformation or rust are present, replace the SRS-ECU with a new one.

NOTE
To check the SRS-ECU in other items than described above, go to Troubleshooting. (Refer to P.52B-8.)

AIR BAG MODULES AND CLOCK SPRING

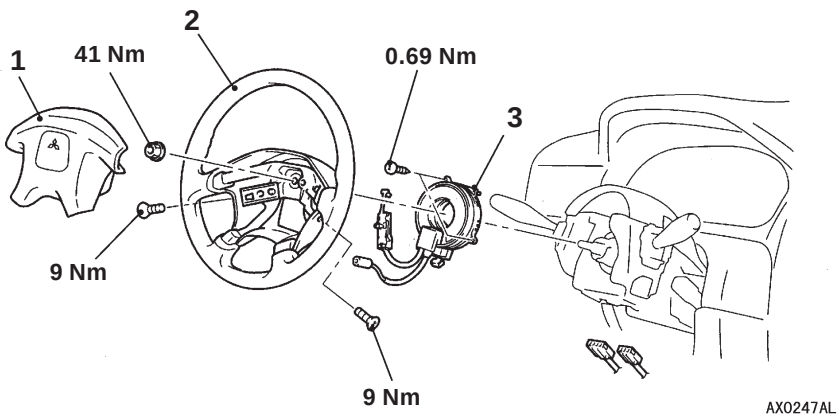
Caution

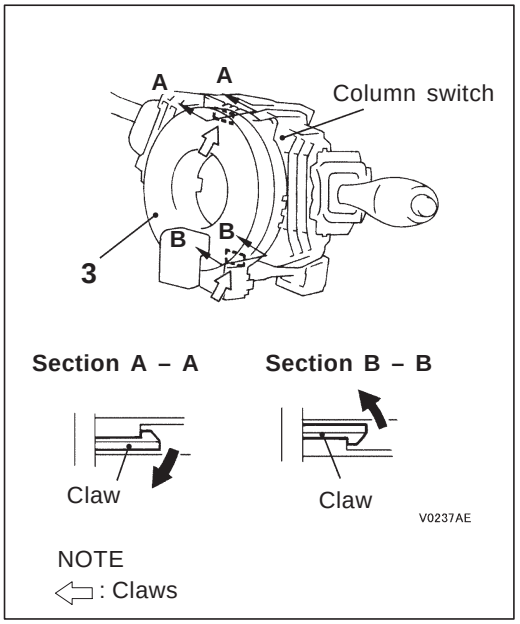
1. **Disconnect the negative (–) battery terminal and wait for 60 seconds or more before starting work. Also, the disconnected battery terminal should be insulated with tape. (Refer to P.52B-4.)**
2. **Never attempt to disassemble or repair the air bag modules and clock spring.**
   If faulty, just replace with new one(s).
3. **Do not drop the air bag modules or clock spring or allow contact with water, grease or oil.**
   Replace if a dent, crack, deformation or rust are present.
4. **Store the air bag modules on a flat surface with the deployment surface facing up.**
   Do not place anything on top of them.
5. **Do not store the air bag modules in a place more than 93°C.**
6. **When the driver's and front passenger's air bags have been deployed, replace the driver's and passenger's air bag modules with new ones.**
7. **Put on gloves and safety glasses when handling deployed air bags.**
8. **When discarding the undeployed air bag module(s), be sure to deploy the air bag(s) in advance as specified in the service procedure.**
   (Refer to to P.52B-48.)

REMOVAL AND INSTALLATION

<Driver's air bag module, clock spring>

Pre-removal Operation
- Put Steering Wheel and Front Wheels in Straight-ahead Position. Remove Ignition Key.
- Disconnect the Negative (–) Battery Terminal.





Driver's air bag module removal steps

◀A▶ 1. Driver's air bag module
◀B▶ 2. Steering wheel

Clock spring removal steps

◀A▶ 1. Drive's air bag module
◀B▶ 2. Steering wheel
- Lower column cover

◀C▶ 3. Clock spring

Driver's air bag module installation steps

▶A◀ • Pre-installation inspection
▶C◀ 2. Steering wheel
1. Driver's air bag module
- Negative (–) battery cable connection

▶D◀ • Post-installation check

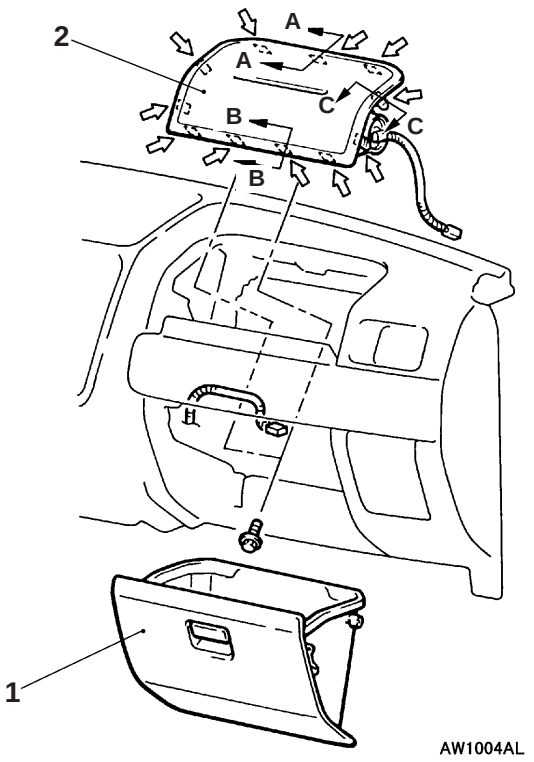
Clock spring installation steps

▶A◀ • Pre-installation check
▶B◀ 3. Clock spring
- Lower column cover

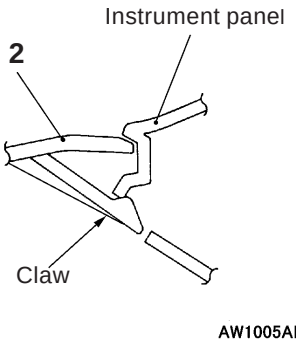
▶C◀ 2. Steering wheel
1. Driver's air bag module
- Negative (–) battery cable connection

▶D◀ • Post-installation inspection

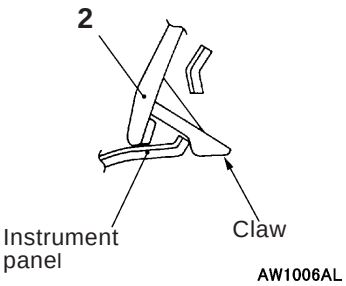
<Front passenger's air bag module>



Sections A – A and C – C



Section B – B



NOTE

⇦ : Claws

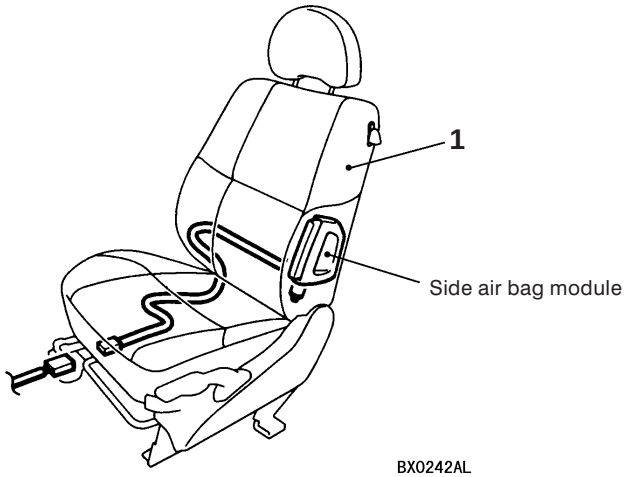
Removal steps

1. Glove box
◀D▶ 2. Passenger's air bag module

Installation steps

▶A◀ ● Pre-installation inspection
2. Passenger's air bag module
1. Glove box
● Negative (–) battery cable connection
▶D◀ ● Post-installation inspection

<Front seat back assembly with side air bag module (Vehicles with side air bag)>

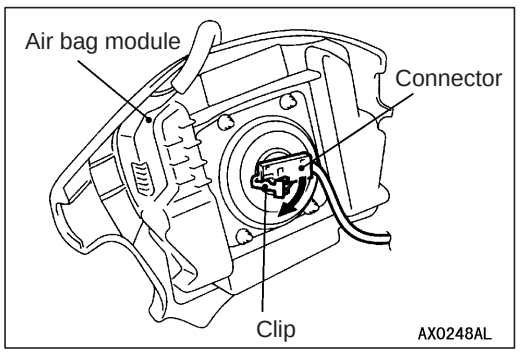


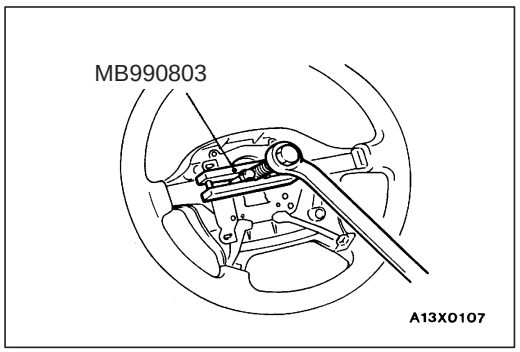
Removal

◀E▶ 1. Front seat back assembly

Installation steps

▶A◀ ● Pre-installation inspection
1. Front seat back assembly
● Negative (–) battery cable connection
▶D◀ ● Post-installation inspection





REMOVAL SERVICE POINTS

◀A▶ DRIVER'S AIR BAG MODULE REMOVAL

After removing the clip shown in the illustration, disconnect the connector.

Caution

1. The air bag module must not be measured with such equipment as an ohmmeter, nor disassembled.
2. The removed air bag module should be stored in a clean, dry place with the deployment surface facing up.

◀B▶ STEERING WHEEL REMOVAL

Caution

Do not hammer on the steering wheel. Doing so may damage the collapsible column mechanism.

◀C▶ CLOCK SPRING REMOVAL

Caution

The removed clock spring should be stored in a clean, dry place.

◀D▶PASSENGER'S AIR BAG MODULE REMOVAL

Caution
The removed air bag module should be stored in a clean, dry place with the deployment surface facing up.

◀E▶FRONT SEAT BACK ASSEMBLY REMOVAL

Refer to GROUP 52A – Seat.

Caution
1. **When the side air bag module is required replacing, replace the front seat back assembly.**
2. **The removed front seat back assembly should be stored in clean, dry place with its back touching the ground.**

INSTALLATION SERVICE POINTS

▶A◀ PRE-INSTALLATION INSPECTION

1. Even new air bag modules and a clock spring require inspection before installation. (Refer to P.52B-41.)

   Caution
   When discarding the air bag module or seat back assembly, deploy the air bag as specified in the service procedure. (Refer to P.52B-48.)

2. Connect the negative (–) battery terminal.
3. Connect the MUT-II to the diagnosis connector (16-pin).

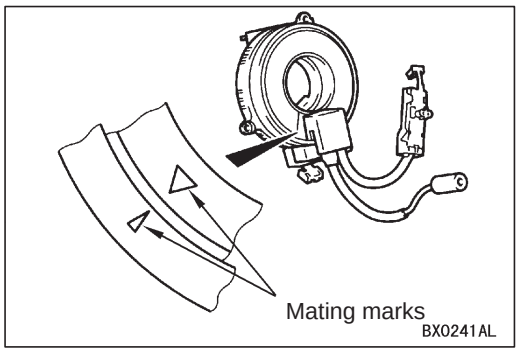
   Caution
   Turn the ignition switch to LOOK (OFF) position when connecting and disconnecting the MUT-II.

4. Turn the ignition switch to ON.
5. Read a diagnostic code to Refer to that the SRS is operating properly except an open in the air bag module circuit.
6. Turn the ignition switch to LOCK (OFF) position. Disconnect the negative (–) battery cable and insulate with tape.

   Caution
   Wait at least 60 seconds after the disconnection of the battery cable before any further job. (Refer to P.52B-4.)

▶B◀ CLOCK SPRING INSTALLATION

Align the mating marks on the clock spring as mentioned in the next step. Then, after putting the front wheels in straight-ahead position, install the clock spring to the column switch.



Clock Spring Centring

Fully turn the clock spring clockwise and then turn it back about 3 times counterclockwise to align the mating marks.

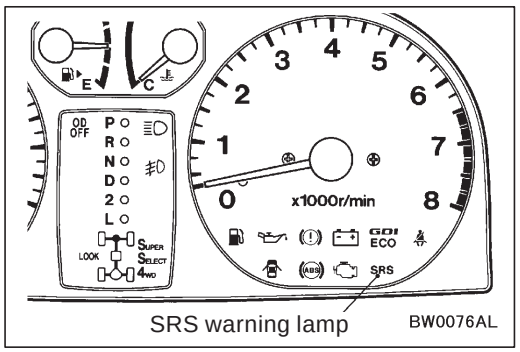
Caution
Unless the mating marks are properly aligned, the steering wheel gets stuck amid a turn or the flat cable in the clock spring is cut. These hinder the SRS air bag from proper operation, resulting in serious injury to the vehicle's driver.

▶C◀ STEERING WHEEL INSTALLATION

1. Refer to first that the clock spring has been centred properly. Then, install the steering wheel.

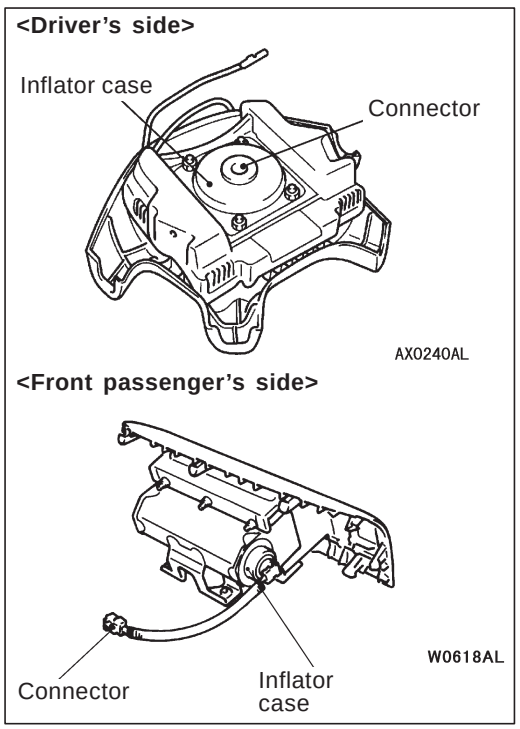
   Caution
   Be sure, when installing the steering wheel, not to have the clock spring harness caught or tangled.

2. After the installation, check the steering wheel for proper operation by turning it fully right and left.



▶D◀ POST-INSTALLATION CHECK

1. Lightly turn the steering wheel right and left to Refer to that noise and malfunction are not present.
2. Turn the ignition switch to "ON".
3. Does the SRS warning lamp illuminate for about 7 seconds and then go out for 5 seconds or more?
4. Yes: The SRS is working properly.
   No: Go to Troubleshooting (Refer to P.52-8.)



INSPECTION

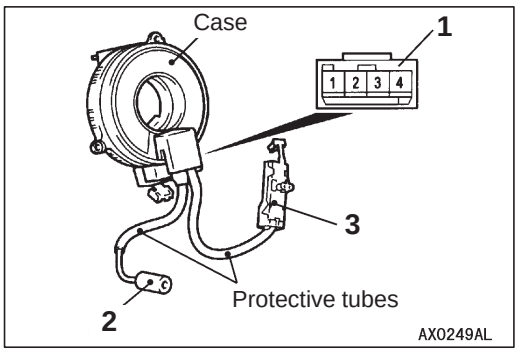
DRIVER'S AND PASSENGER'S AIR BAG MODULE INSPECTION

If any malfunction is found in the following inspection, replace the air bag module(s) with new one(s).
Discard the old one(s) after deployment as specified in the service procedure. (Refer to P.52B-48.)

Caution
Never measure circuit resistance in the air bag modules (squib) even with the specified tester. Measuring the circuit resistance with a tester causes accidental air bag deployment due to current that flows or static, resulting in serious personal injury.

1. Check the cover for dents, cracks or deformation.
2. Check the connectors for damage, terminals for deformation, and harness for binds.
3. Check the air bag inflator cases for dents, cracks or deformation.
4. Install the driver's air bag module to the steering wheel and check fit or alignment with the steering wheel.
5. Install the front passenger's air bag module to instrument panel and crossmember and check fit and alignment.

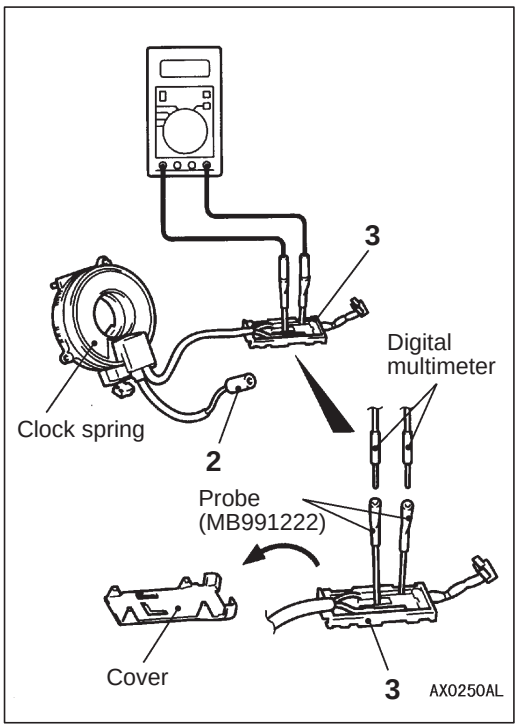
Caution
If dents, cracks, deformation, or rust are present in the air bag module(s), replace with new one(s). Discard the old one(s) as specified in the service procedure. (Refer to P.52B-48.)



CLOCK SPRING CHECK

If any malfunction is found in the following inspections, replace the clock spring with a new one.

1. Check the connectors and protective tubes for damage, and terminals for deformation.
2. Visually check the case for damage.
3. Refer to that the clock spring has continuity between connector No.2 and terminal No.4 of connector No.1.

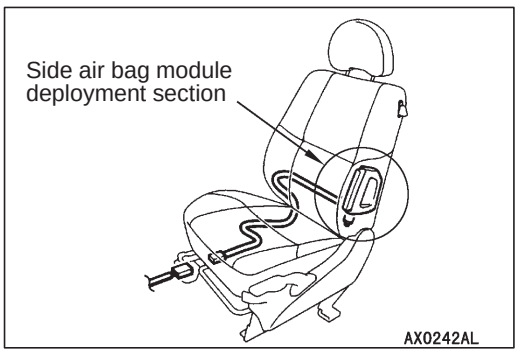


4. Remove the cover from the No. 3 connector of the clock spring, and then insert the probes (MB991222).

   Caution
   The probe must not be inserted directly to the terminals from the front of the connector.

5. Connect a digital multimeter to the probe (MB991222), as shown, to check that.

   Standard value: 0.62 ± 0.12 Ω



FRONT SEAT BACK ASSEMBLY WITH SIDE AIR BAG MODULE

If any malfunction is found in the following inspections, replace the front seat back assembly.
To discard the removed front seat back assembly, deploy the side air bag first as specified in the service procedure. (Refer to P.52B-48.)

Caution
Never measure circuit resistance in the air bag modules (squib) even with the specified tester. Measuring the circuit resistance with a tester causes accidental air bag deployment due to current that flows or static, resulting in serious personal injury.

1. Check the side air bag module deployment section for dents and deformation.
2. Check the harness and connector for damage and the terminals for deformation.

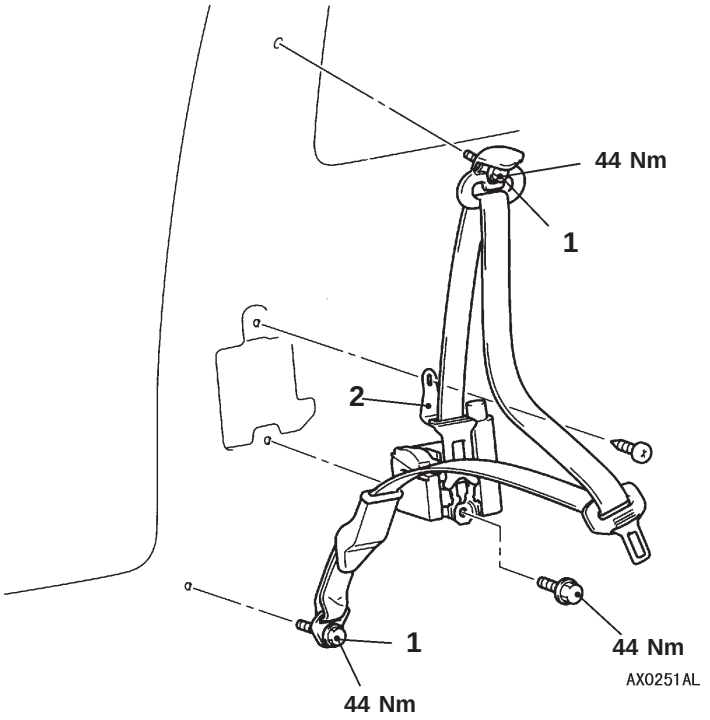
SEAT BELT WITH PRE-TENSIONER

Caution

1. **Never attempt to disassemble or repair the seat belt with pre-tensioner. If faulty, replace it.**
2. **Be extremely careful when handling the seat belt with pre-tensioner. Do not subject it to shocks, drop it, bring it close to strong magnets or allow contact with water, grease or oil. Always replace it with a new part if any dents, cracks or deformation is found.**
3. **Do not place anything on top of the seat belt pre-tensioner.**
4. **Do not expose the seat belt with pre-tensioner to temperatures over 90°C.**
5. **After operating the seat belt pre-tensioner, replace the seat belt pre-tensioner with a new part.**
6. **Gloves and protective goggles should be worn when handling a pre-tensioner once it has been used.**
7. **If disposing of a seat belt with pre-tensioner which has not yet been used, its pre-tensioner should be operated first before disposal. (Refer to P.52B-48.)**

REMOVAL AND INSTALLATION

Pre-removal and Post-installation Operation
- Turn Ignition Key to LOCK (OFF) Position
- Disconnect the Negative (–) Battery Terminal.



Removal steps

1. Outer seat belt connection
- Quarter Trim (Refer to GROUP 52A.)
2. Seat belt with pre-tensioner

Installation steps

▶A◀ - Post-installation inspection
2. Seat belt with pre-tensioner
- Quarter Trim (Refer to GROUP 52A.)
1. Outer seat belt connection
- Negative (–) battery cable connection

▶B◀ - Pre-installation inspection

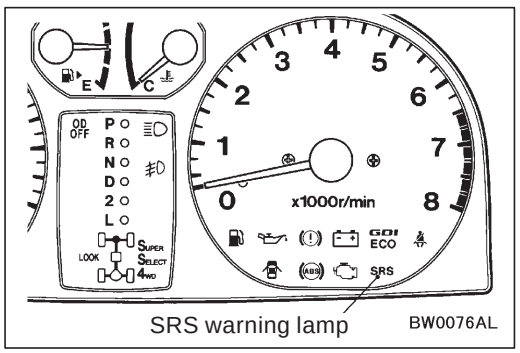
NOTE
The figure shows the seat belt with pre-tensioner (R.H.)

INSTALLATION SERVICE POINTS

▶A◀ PRE-INSTALLATION INSPECTION

When installing a new seat belt with pre-tensioner refer to “INSPECTION”.

Caution
Disposal of the pre-tensioner must be carried out as stated in the procedure. (Refer to P.52B-48.)



▶B◀ POST-INSTALLATION INSPECTION

1. Reconnect the negative battery terminal.
2. Turn the ignition key to the “ON” position.
3. Does the “SRS” warning lamp illuminate for about 7 seconds, and then remain extinguished for at least 5 seconds after turning OFF?
4. If yes, SRS system is functioning properly. If no, consult page 52B-8.

INSPECTION

SEAT BELT WITH PRE-TENSIONER CHECK

If any part is found to be faulty during the inspection, it must be replaced with a new one.
Dispose of the old one according to the specified procedure. (Refer to P.52B-48.)

- Check seat belt pre-tensioner for dents, cracks or deformation.

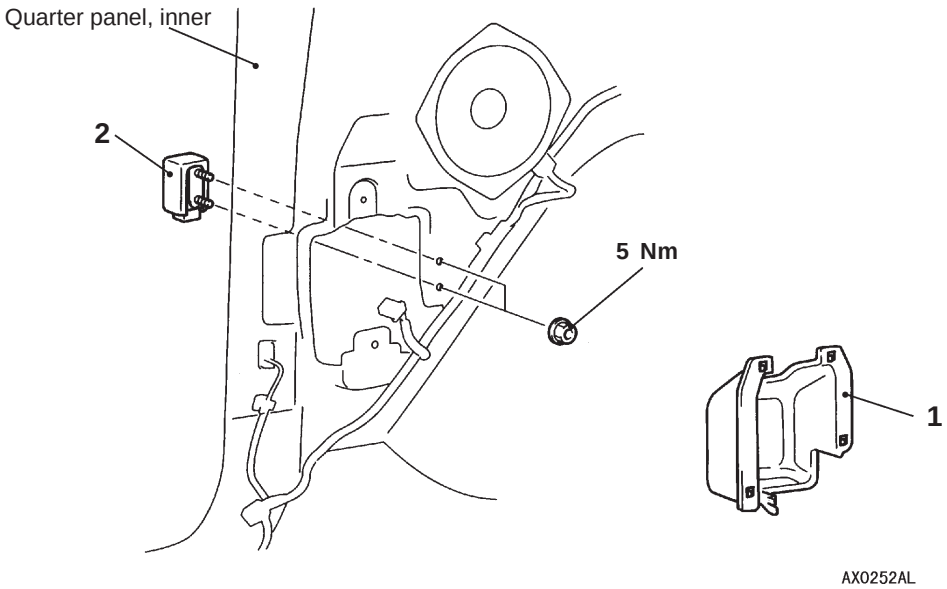
SIDE IMPACT SENSOR

Caution

1. **Disconnect the negative (–) battery terminal and wait for 60 seconds or more before starting work. Also, the disconnected battery terminal should be insulated with tape. (Refer to P.52B-4.)**
2. **Never attempt to disassemble or repair the side impact sensors. If faulty, just replace with new ones.**
3. **Do not drop or subject the side impact sensors to impact or vibration. If denting, cracking, deformation, or rust are found in the side impact sensors, replace it with new ones. Discard the old ones.**
4. **After deployment of the air bags, replace the side impact sensors with new ones.**
5. **Never use an ohmmeter on or near the side impact sensors, and use only the special test equipment described on P.52B-7.**

REMOVAL AND INSTALLATION

Pre-removal Operation
- Turn Ignition Switch to LOCK (OFF) Position.
- Disconnect the Negative (–) Battery Terminal.



Removal steps
- Front seat belt (Refer to GROUP 52A.)

1. Front noise protector
2. Side impact sensor

Installation steps

▶A◀
- Pre-installation inspection

▶B◀

2. Side impact sensor

1. Front noise protector
- Front seat belt (Refer to GROUP 52A.)
- Negative (–) battery cable connection

▶C◀
- Post-installation inspection

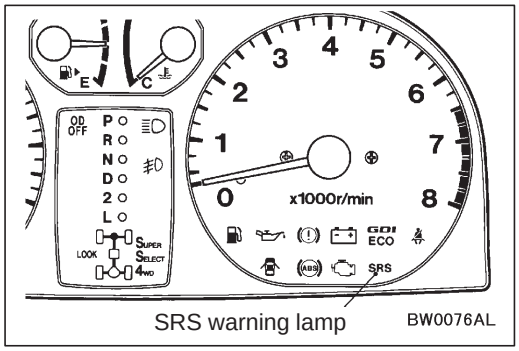
NOTE
The figure shows the side impact sensor (R.H.).

▶A◀ PRE-INSTALLATION INSPECTION

Even new side impact sensor requires inspection before installation. (Refer to Inspection.)

▶B◀ SIDE IMPACT SENSOR INSTALLATION

Caution
The side impact sensor, unless properly installed, does not operate properly, thereby resulting in serious injury or death of the vehicle's occupants.



▶C◀ POST-INSTALLATION INSPECTION

1. Turn the ignition switch to ON.
2. Does the SRS warning lamp illuminate for about 7 seconds and go off for 5 seconds or more?
3. YES: The system is working properly.
   NO: Go to Troubleshooting. (Refer to P.52B-8.)

INSPECTION

If any malfunction is found in the following inspections, replace the side impact sensor(s) with new one(s).

1. Check the side impact sensors for dents, cracks, deformation and rust.
2. Check the connector for damage and the terminals for deformation.
3. Check the center pillar or quarter panel, inner for deformation and rust.

NOTE
For other inspections than described above, go to Troubleshooting. (P.52B-8.)

AIR BAG MODULE AND SEAT BELT PRE-TENSIONER DISPOSAL PROCEDURES

Before disposing of a vehicle which is equipped with air bags or seat belts with pre-tensioner, or when disposing of the air bags or seat belt pre-tensioner themselves, the following procedures must be used to deploy the air bags or operate the seat belt pre-tensioners before disposal.

UNDEPLOYED AIR BAG MODULE AND SEAT BELT PRE-TENSIONER DISPOSAL

Caution

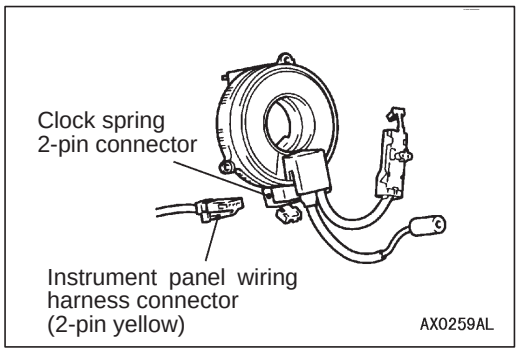
1. **If the vehicle is to be scrapped or otherwise disposed of, deploy the air bags inside the vehicle, and operate the seat belt pre-tensioners outside the vehicle. If the vehicle will continue to be operated and only the air bag modules and seat belt pre-tensioner are to be disposed of, deploy the air bags and operate the seat belt pre-tensioners outside the vehicle.**
2. **Since a large amount of smoke is produced when the air bag are deployed or the seat belt pre-tensioner is operated, avoid residential areas whenever possible.**
3. **Since there is a loud noise when the air bags are deployed and when the seat belt pre-tensioners are operated, avoid residential areas whenever possible. If anyone is nearby, give warning of the impending noise.**
4. **Suitable ear protection should be worn by personnel performing these procedures or by people in the immediate area.**

DEPLOYMENT INSIDE THE VEHICLE

1. Move the vehicle to an isolated spot.
2. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

   Caution
   Wait at least 60 seconds after disconnecting the battery cables before doing any further work.
   (Refer to P.52B-4.)

3. Deploy each air bag module as specified in the service procedures that follows.

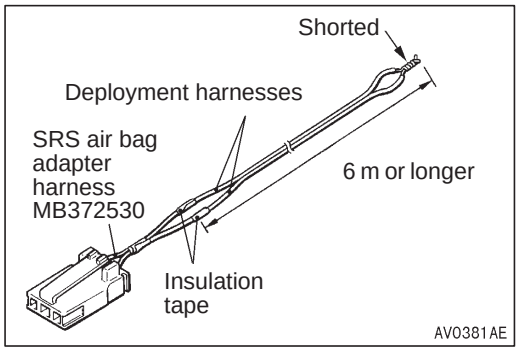


Driver's air bag module

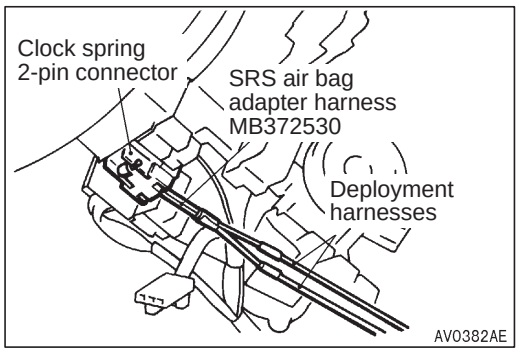
(1) Remove the steering column cover, lower.
(Refer to GROUP 52A – Instrument Panel.)

(2) Disconnect the clock spring 2-pin connector and instrument panel wiring harness connector (2-pin, yellow).

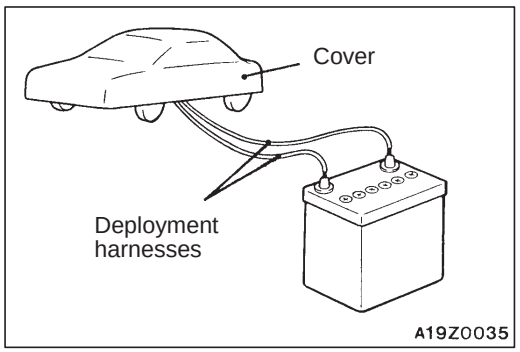
NOTE
Once disconnected from the instrument panel wiring harness, both electrodes of the clock spring connector short automatically. This prevents the driver's air bag from accidental deployment caused by static, etc.



(3) Connect deployment harnesses longer than 6 m to each SRS air bag adapter harness and insulate the connections with plastic tape.
Also, connect the deployment harnesses in the other ends to short, thereby preventing the driver's air bag from accidental deployment caused by static etc.



(4) Connect the SRS air bag adapter harness to the clock spring 2-pin connector and route the deployment harnesses out of the vehicle.



(5) Close all the doors with the windows fully closed and put a cover over the vehicle to minimize report.

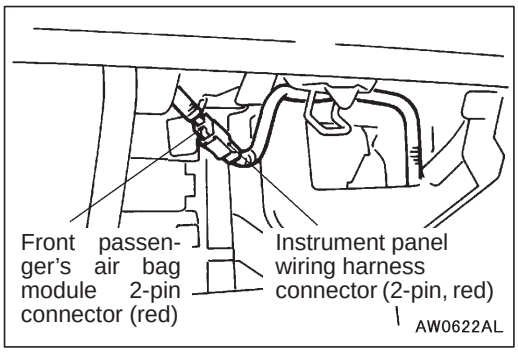
Caution
The cover is required as the glass, if already damaged, may break.

(6) Separate the deployment harnesses as far from the vehicle as possible and connect to the terminals of the battery removed from the vehicle. Then deploy.

Caution
1) Before deploying the air bag, see that no one is in and near the vehicle. Also, put on safety glasses.
2) The deployment makes the inflator of the driver's air bag very hot. Before handling the inflator, wait more than 30 minutes for cooling.
3) If the air bag module fails to deploy although the procedure is respected, do not go near the module. Contact your local distributor.

(7) After deployment of the driver's air bag module, discard as specified in the procedure (Refer to P.52B-60).

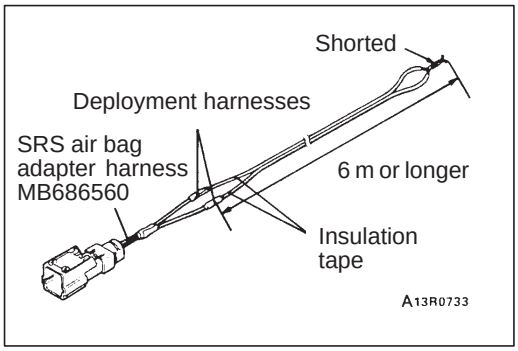
Front passenger's air bag module



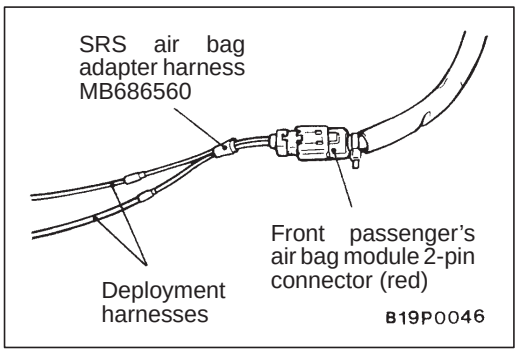
(1) Remove the glove box.
(Refer to GROUP 52A – Instrument Panel.)

(2) Disconnect the front passenger's air bag module 2-pin connector (red) and instrument panel wiring harness connector (2-pin, red).

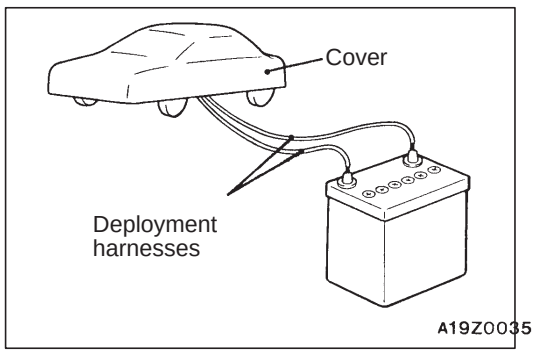
NOTE
Once disconnected from the instrument panel wiring harness, both electrodes of the front passenger's air bag module short automatically. This prevents the front passenger air bag from accidental deployment caused by static, etc.



(3) Connect deployment harnesses longer than 6 m to each SRS air bag adapter harness and insulate the connections with plastic tape.
Also, connect the deployment harnesses in the other ends to short, thereby preventing the front passenger's air bag from accidental deployment caused by static etc.



(4) Connect the SRS air bag adapter harness to the front passenger's air bag module 2-pin connector and route the deployment harnesses out of the vehicle.



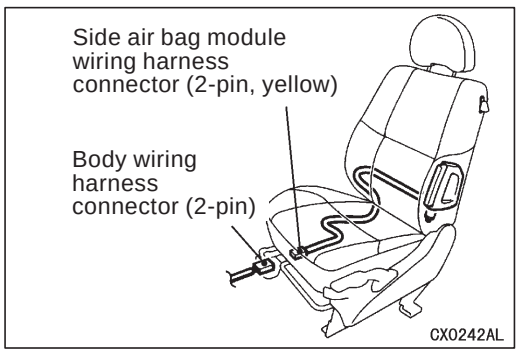
(5) Close all the doors with the windows fully closed and put a cover over the vehicle to minimize report.

Caution
The cover is required as the glass, if already damaged, may break.

(6) Separate the deployment harnesses as far from the vehicle as possible and connect to the terminals of the battery removed from the vehicle. Then deploy.

Caution
1) Before deploying the air bag, see that no one is in and near the vehicle. Also, put on safety glasses.
2) The deployment makes the inflator of the front passenger's air bag very hot. Before handling the inflator, wait more than 30 minutes for cooling.
3) If the air bag module fails to deploy although the procedure is respected, do not go near the module. Contact your local distributor.

(7) After deployment of the front passenger's air bag module, discard as specified in the procedure (Refer to P.52B-60).

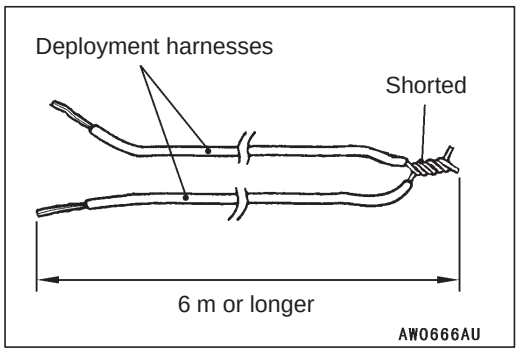


Side air bag module

(1) Disconnect the side air bag module wiring harness connector (2-pin, yellow) and body wiring harness connector (2-pin).

Caution
The side air bag modules both in the driver's and passenger's sides should be deployed.

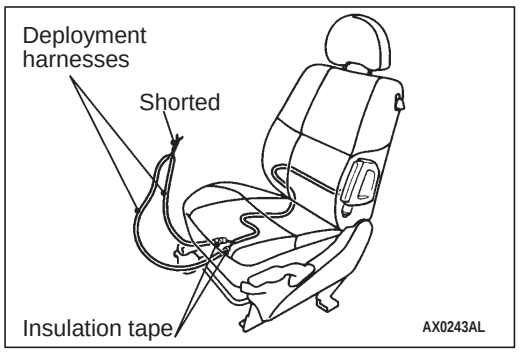
NOTE
Once disconnected from the side air bag wiring harness, both electrode of the side air bag module connector short automatically. This prevents the side air bag from accidental deployment caused by static etc.



(2) Prepare two wires longer than 6 m for deployment and connect the terminals in one end to short-circuit. This is to prevent accidental deployment caused by static etc.

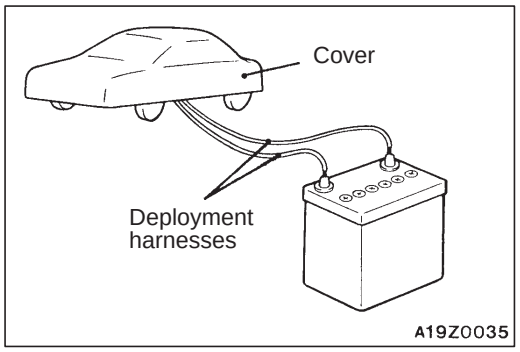
(3) Touch the vehicle's body with bare hands to discharge static in you.

Caution
Never fail to do Step (3) in order to prevent accidental deployment caused by static.



(4) Using pliers, cut the side air bag module connector from the harnesses. Connect the deployment harnesses to each harness that has been cut and insulate the connections with plastic tape.

(5) Route the deployment harnesses out of the vehicle.



(6) Close all the doors with the windows fully closed and put a cover over the vehicle to minimize report.

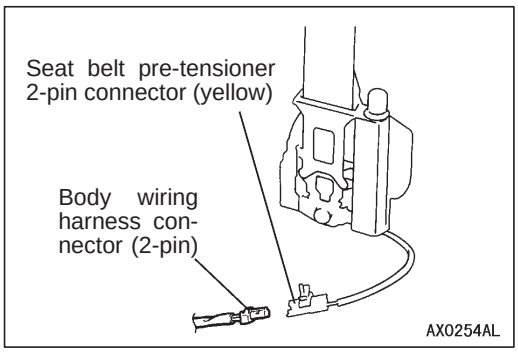
Caution
The cover is required as the glass, if already damaged, may break.

(7) Disconnect the deployment wires as far from the vehicle as possible and connect the wires to the terminals of the battery removed from the vehicle. Deploy the side air bag module.

Caution

1) Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.
2) The deployment of the side air bag makes the inflator very hot. Before handling the inflator, wait more than 30 minutes for cooling.
3) If the air bag module fails to deploy when the procedures above are followed, do not go near the module. Contact your local distributor.

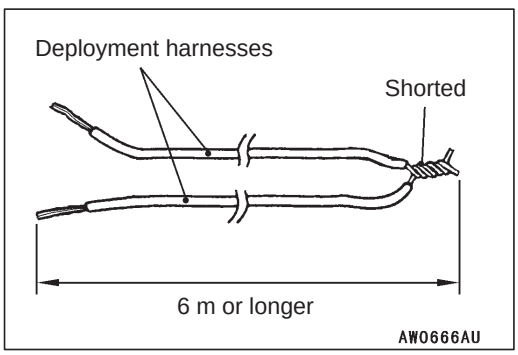
(8) Remove the deployed side air bag module from the seat back assembly and discard as specified in the procedure (Refer to P.52B-60).



Seat belt pre-tensioner

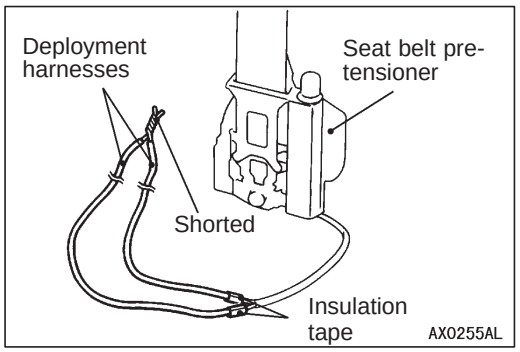
(1) Remove the quarter trim. (Refer to GROUP 52A)
(2) Remove the connection between the seat belt pre-tensioner 2-pin connector (yellow) and the body wiring harness connector (2-pin).

NOTE
If the seat belt pre-tensioner connector is disconnected from the body wiring harness, both electrodes of the seat belt pre-tensioner connector will be automatically shorted to prevent unintended operation of the seat belt pre-tensioner due to static electricity, etc.

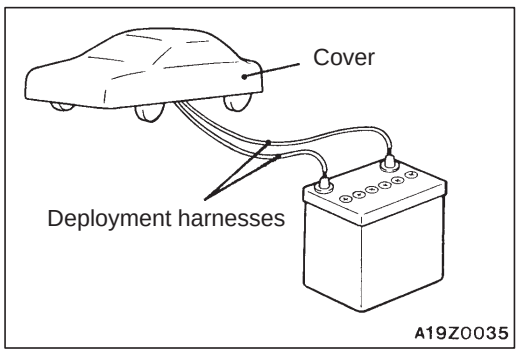


(3) Prepare two wires longer than 6 m for deployment and connect the terminals in one end to short-circuit. This is to prevent accidental operation caused by static etc.
(4) Touch the vehicle's body with bare hands to discharge static in you.

Caution
Never fail to do Step (3) in order to prevent accidental operation caused by static.



(5) Using pliers, cut the seat belt pre-tensioner connector from the harnesses. Connect the deployment harnesses to each harness that has been cut and insulate the connections with plastic tape.
(6) Route the deployment harness out of the vehicle.



(7) Fully close all door windows, close the doors and place a cover over the vehicle to minimize the amount of noise.

Caution
If the glass is damaged, it may break, so the car must be covered.

(8) Disconnect the deployment harnesses as far from the vehicle as possible and connect the wires to the terminals of the battery removed from the vehicle. Operate the seat belt pre-tensioner.

Caution
1) Before operating the seat belt pre-tensioner in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.
2) The operation of the seat belt pre-tensioner makes the inflator very hot. Before handling the inflator, wait more than 30 minutes for cooling.
3) If the seat belt pre-tensioner fails to operate when the procedures above are followed, do not go near the seat belt pre-tensioner. Contact your local distributor.

(9) After operation of the seat belt pre-tensioner, discard as specified in the procedure (Refer to P.52B-60).

DEPLOYMENT OUTSIDE THE VEHICLE

Caution

1. **This should be carried out in a wide, flat area at least 6 m away from obstacles and other people.**
2. **Do not deploy outside if wind is high. Even in a soft wind, ignite to windward of the air bag modules, front seat back assembly with side air bag module or seat belt pre-tensioner.**

1. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

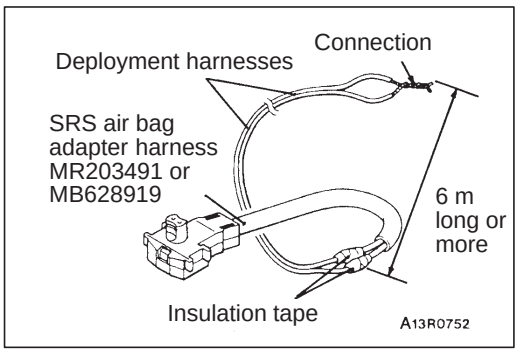
   Caution
   Wait at least 60 seconds after disconnecting the battery cables before doing any further work. (Refer to P.52B-4.)

2. Deploy each air bag module, seat belt pre-tensioner in the following procedures.

Driver's air bag module

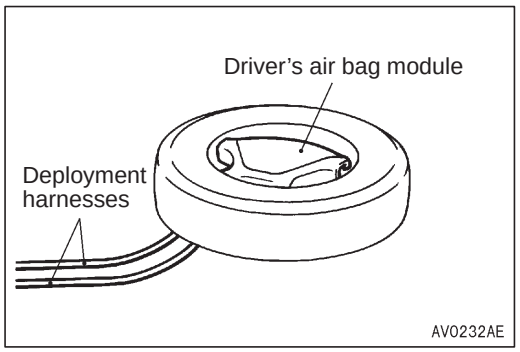
(1) Remove the driver's air bag module from the vehicle. (Refer to P.52B-36.)

Caution
The driver's air bag module should be stored on a flat surface and placed so that the air bag deployment surfaces are facing upward. Do not place anything on top of them.



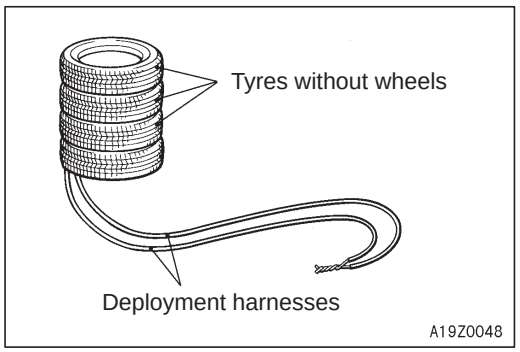
(2) Connect two wires, each six meters or longer, to the two leads of SRS air bag adapter harness and cover the connections with insulation tape. The other ends of the two wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the driver's air bag.

(3) Install a nut to the bolt behind the driver's air bag module and tie thick wire for securing to the wheel.

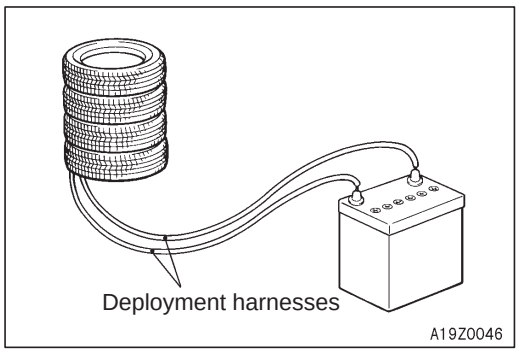


(4) Take the SRS air bag adapter harness that is connected to the wires, pass it beneath the old tyre wheel assembly, and connect it to the drive's air bag module.
(5) With the driver's air bag module upwards, place it in the wheel of old tyre and secure with the wire tied to the bolt.

Caution
Slack the deployment harnesses below the wheel. If deployment harnesses are tight, the reaction when the air bag deploys could damage the adaptor harness.



(6) Place three old tyres without wheels on top of the tyre secured to the driver's air bag module.



(7) Disconnect the deployment harnesses as far from the driver's air bag module as possible and connect the wires to the terminals of the battery removed from the vehicle. Then deploy.

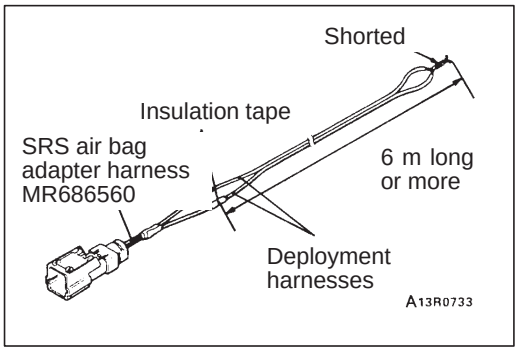
Caution
1) Before the deployment, be sure that no one is near the driver's air bag module.
2) The deployment of the driver's air bag makes the inflator very hot. Before handling the inflator, wait more than 30 minutes for cooling.
3) If the driver's air bag module fails to deploy when the procedures above are followed, do not go near the module. Contact your local distributor.

(8) After deployment of the driver's air bag module, discard as specified in the procedure (Refer to P.52B-60).

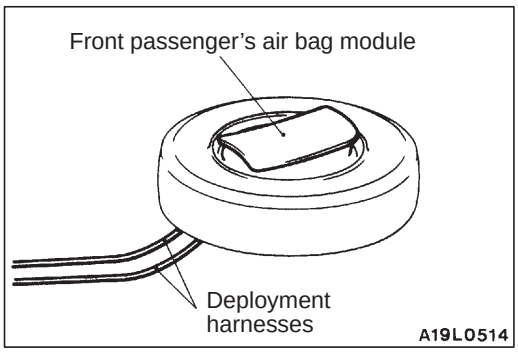
Front passenger's air bag module

(1) Remove the front passenger's air bag module from the vehicle. (Refer to P.52B-36.)

Caution
Once disconnected, both electrodes of the front passenger's air bag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of the accidental deployment, store the air bag module on flat place with deployment surface facing up. Also, do not put anything on it.

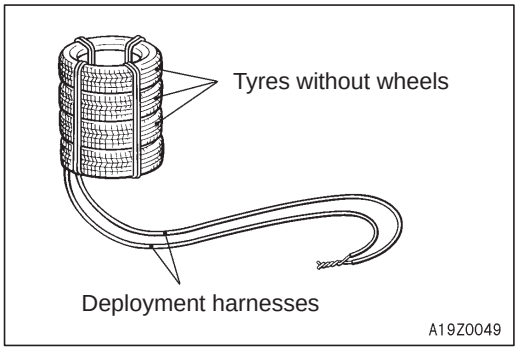


(2) Connect deployment wires 6 m or longer with the SRS air bag adapter harness respectively. Insulate the connection with tape.
Also, connect the other ends of the deployment harness each other to short, thereby preventing the front passenger's air bag from accidental deployment caused by static etc.



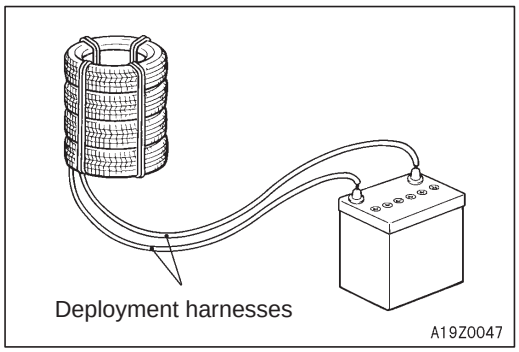
(3) Route the SRS air bag adapter harness with the deployment harnesses beneath an old tyre and wheel assembly. Then, connect the harnesses to the front passenger's air bag module.
(4) Route a thick wire through the holes in the front passenger's air bag module bracket. With the deployment surface facing up, secure the front passenger's air bag module to the old tyre and wheel assembly.

Caution
1) The deployment harnesses must not be tight below the wheel. Otherwise, the adapter harness could get damaged at deployment.
2) Place the connector of the SRS air bag adapter harness so that it is not clamped by the tyre at deployment.



(5) Put three old tyres without wheels on the tyre secured to the front passenger's air bag module. Secure all the tyres with ropes (4 locations).

NOTE
The tyres must be bound because the passenger's air bag inflates more than the driver's air bag.



(6) Disconnect the deployment harnesses as far from the front passenger's air bag module as possible and connect the harnesses to the battery removed from the vehicle.

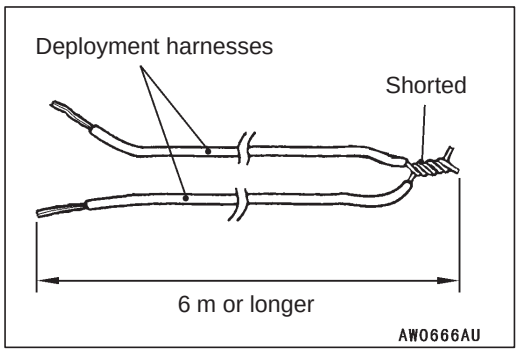
Caution
1) Before the deployment, see that no one is near the front passenger's air bag module.
2) The deployment makes the inflator of the front passenger's air bag very hot. Before handling the inflator, wait more than 30 minutes for cooling.
3) If the front passenger's air bag module fails to deploy although the procedure is respected, do not go near the module. Contact your local distributor.

(7) After deployment of the front passenger's air bag module, discard as specified in the procedure (Refer to P.52B-60).

Side air bag module

(1) Remove the front seat back assembly with side air bag module from the vehicle. (Refer to P.52B-36.)

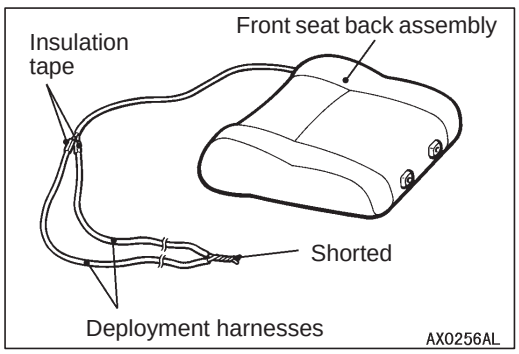
Caution
Once disconnected, both electrodes of the side air bag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of the accidental deployment, store the air bag module on flat place with deployment surface facing up. Also, do not put anything on it.



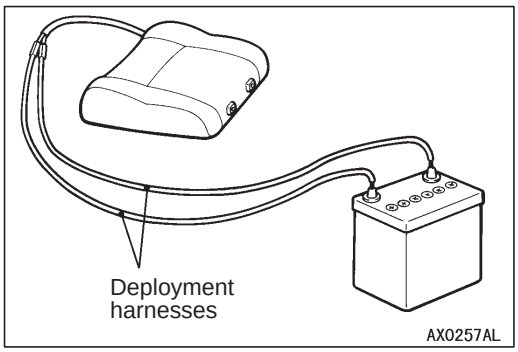
(2) Prepare two wires longer than 6 m for deployment and connect the terminals in one end to short-circuit. This is to prevent accidental deployment caused by static etc.

(3) Touch the vehicle's body with bare hands to discharge static in you.

Caution
Never fail to do Step (3) in order to prevent accidental deployment caused by static.



(4) Using pliers, cut the side air bag module connector from the harnesses. Connect the deployment harnesses to each harness that has been cut and insulate the connections with plastic tape.



(5) Disconnect the deployment harnesses as far from the front seat back assembly possible and connect the harnesses to the battery removed from the vehicle. Then, deploy.

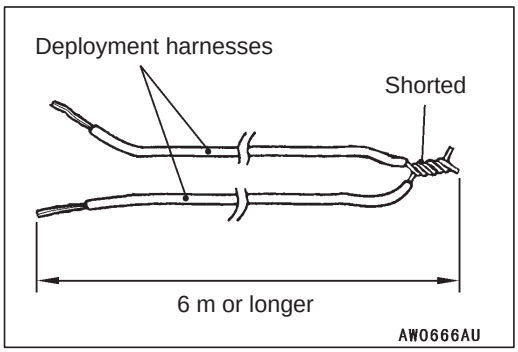
Caution
1) Before the deployment, see that no one is near the front seat back assembly.
2) The deployment makes the inflator of the side air bag very hot. Before handling the inflator, wait more than 30 minutes for cooling.
3) If the side air bag module fails to deploy although the procedure is respected, do not go near the module. Contact your local distributor.

(6) Remove the deployed side air bag module from the seat back assembly and discard as specified in the procedure (Refer to P.52B-60.).

Seat belt pre-tensioner

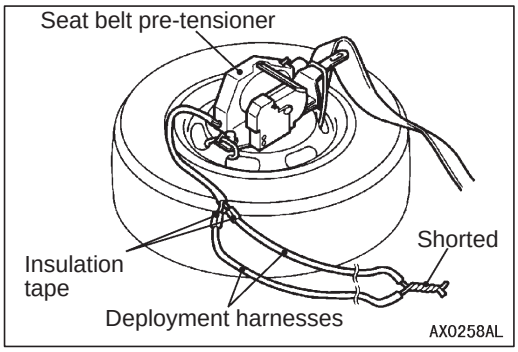
(1) Remove the seat belt pre-tensioner from the vehicle. (Refer to P.52B-44.)

Caution
The seat belt pre-tensioner should be stored on a flat surface and placed so that the air bag operation surfaces are facing upward. Do not place anything on top of them.

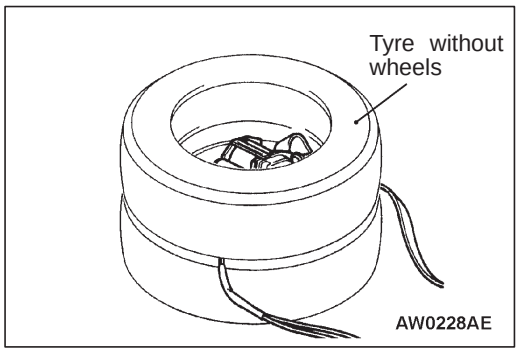


(2) Prepare two wires longer than 6 m for deployment and connect the terminals in one end to short-circuit. This is to prevent accidental operation caused by static etc.
(3) Touch the vehicle's body with bare hands to discharge static in you.

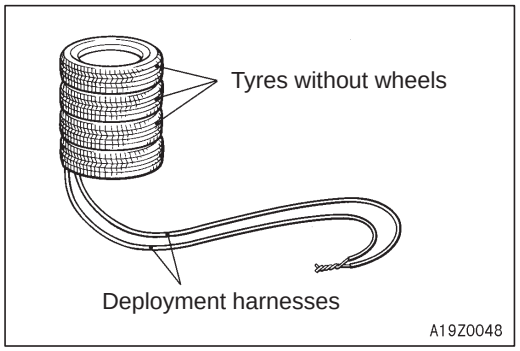
Caution
Never fail to do Step (3) in order to prevent accidental operation caused by static.



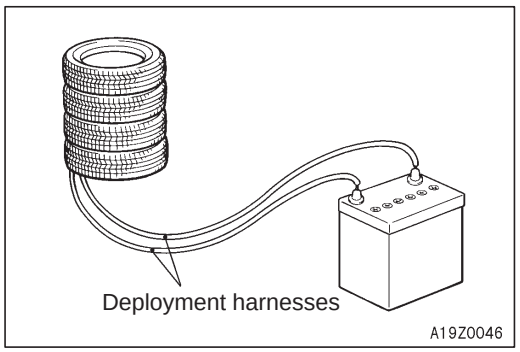
(4) Using pliers, cut the seat belt pre-tensioner connector from the harnesses. Connect the deployment harnesses to each harness that has been cut and insulate the connections with plastic tape.
(5) Pass the wires through the hole on the seat belt retractor bracket and secure them to the front (raised part) of the old tyre wheel assembly on two places.



Caution
Pull the seat belt out the outside of the tyre, and then place one tyre without a wheel on top of the existing tyre.



(6) Place three old tyres without wheels on top of the tyre secured to the seat belt pre-tensioner.



(7) Disconnect the deployment harnesses as far from the seat belt pre-tensioner as possible and connect the wires to the terminals of the battery removed from the vehicle, and operate.

Caution
1) Before the operation, be sure that no one is near the seat belt pre-tensioner.
2) The operation of the seat belt pre-tensioner makes itself very hot. Before handling the seat belt pre-tensioner, wait more than 30 minutes for cooling.
3) If the seat belt pre-tensioner fails to deploy when the procedures above are followed, do not go near the seat belt pre-tensioner. Contact your local distributor.

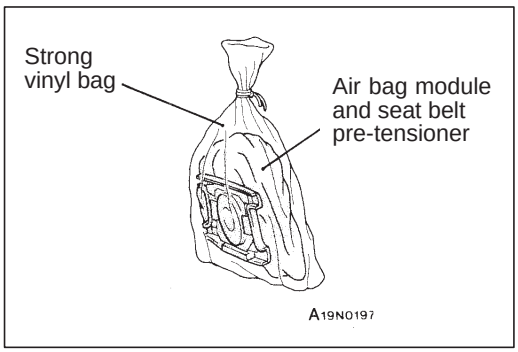
(8) After operation of the seat belt pre-tensioner, discard as specified in the procedure (Refer to P.52B-60).

DEPLOYED AIR BAG MODULE OR OPERATED SEAT BELT PRE-TENSIONER DISPOSAL PROCEDURES

After deployment or operation, the air bag module and the seat belt pre-tensioner should be disposed of in the same manner as any other scrap parts, adhering to local laws and/or legislation that may be in force except that the following points should be carefully noted during disposal.

1. The inflator will be quite hot immediately following deployment, so wait at least 30 minutes to allow it cool before attempting to handle it.
2. Do not put water or oil on the air bag after deployment or on the seat belt pre-tensioner after operation.
3. There may be, adhered to the deployed air bag module or the operated seat belt pre-tensioner, material that could irritate the eye and/or skin, so wear gloves and safety glasses when handling a deployed air bag module or a operated seat belt pre-tensioner.

   Caution
   If after following these precautions, any material does get into the eyes or on the skin, immediately rinse the affected area with a large amount of clean water. If any irritation develops, seek medical attention.



4. Tightly seal the air bag module and seat belt pre-tensioner in a strong vinyl bag for disposal.
5. Be sure to always wash your hands after completing this operation.

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

CONTENTS

CAUTION

- **Carefully read and observe the information in the SERVICE PRECAUTIONS (Refer to '00 PAJERO PININ Workshop Manual <Pub.No.CKRE00E1> P.52B-4.) prior to any service.**
- **For information concerning troubleshooting or maintenance, always observe the procedures in the Troubleshooting (Refer to '00 PAJERO PININ Workshop Manual <Pub.No.CKRE00E1> P.52B-8.) section.**
- **If any SRS components are removed or replaced in connection with any service procedures, be sure to follow the procedures in the INDIVIDUAL COMPONENT SERVICE section (Refer to '00 PAJERO PININ Workshop Manual <Pub.No.CKRE00E1> P.52B-30.) for the components involved.**
- **If you have any questions about the SRS, please contact your local distributor.**

GENERAL

OUTLINE OF CHANGE

- Due to the introduction of 5-door models, the removal and installation procedures for seat belt with pre-tensioner and side impact sensor have been added. The other items are the same as before.

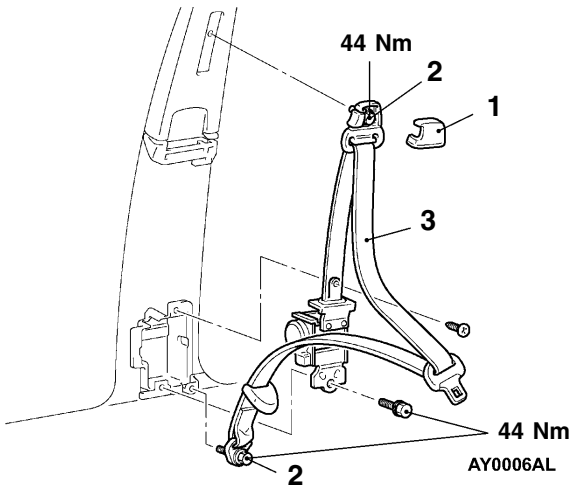
SEAT BELT WITH PRE-TENSIONER

Caution

1. **Never attempt to disassemble or repair the seat belt with pre-tensioner. If faulty, replace it.**
2. **Be extremely careful when handling the seat belt with pre-tensioner. Do not subject it to shocks, drop it, bring it close to strong magnets or allow contact with water, grease or oil. Always replace it with a new part if any dents, cracks or deformation is found.**
3. **Do not place anything on top of the seat belt pre-tensioner.**
4. **Do not expose the seat belt with pre-tensioner to temperatures over 90°C.**
5. **After operating the seat belt pre-tensioner, replace the seat belt pre-tensioner with a new part.**
6. **Gloves and protective goggles should be worn when handling a pre-tensioner once it has been used.**
7. **If disposing of a seat belt with pre-tensioner which has not yet been used, its pre-tensioner should be operated first before disposal. (Refer to '00 PAJERO PININ Workshop Manual <Pub. No. CKRE00E1> P.52B-48.)**

REMOVAL AND INSTALLATION

Pre-removal and Post-installation Operation
- Turn Ignition Key to LOCK (OFF) Position
- Disconnect the Negative (–) Battery Terminal.



Removal steps

1. Sash guide cover
2. Outer seat belt connection
- Center pillar lower trim (Refer to P.52A-1.)
3. Seat belt with pre-tensioner

Installation steps

▶A◀ - Post-installation inspection
3. Seat belt with pre-tensioner
- Center pillar lower trim (Refer to P.52A–1.)
2. Outer seat belt connection
1. Sash guide cover
- Negative (–) battery cable connection

▶B◀ - Pre-installation inspection

NOTE
The figure shows the seat belt with pre-tensioner (R.H.).
For service points, refer to Basic Manual.

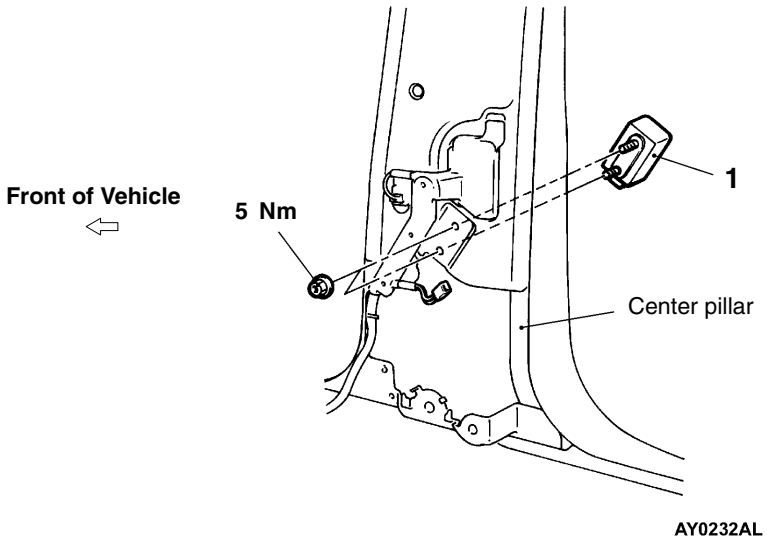
SIDE IMPACT SENSOR

Caution

1. **Disconnect the negative (–) battery terminal and wait for 60 seconds or more before starting work. Also, the disconnected battery terminal should be insulated with tape. (Refer to '00 PAJERO PININ Workshop Manual <Pub. No. CKRE00E1> P.52B-4.)**
2. **Never attempt to disassemble or repair the side impact sensors. If faulty, just replace with new ones.**
3. **Do not drop or subject the side impact sensors to impact or vibration. If denting, cracking, deformation, or rust are found in the side impact sensors, replace it with new ones. Discard the old ones.**
4. **After deployment of the air bags, replace the side impact sensors with new ones.**
5. **Never use an ohmmeter on or near the side impact sensors, and use only the special test equipment described on '00 PAJERO PININ Workshop Manual <Pub. No. CKRE00E1> P.52B-7.**

REMOVAL AND INSTALLATION

Pre-removal Operation
- Turn Ignition Switch to LOCK (OFF) Position.
- Disconnect the Negative (–) Battery Terminal.



Removal steps
- Front seat belt (Refer to GROUP 52A.)

1. Side impact sensor

Installation steps

▶A◀ • Pre-installation inspection
▶B◀ 1. Side impact sensor
- Front seat belt (Refer to GROUP 52A.)
- Negative (–) battery cable connection

▶C◀ • Post-installation inspection

NOTE
The figure shows the side impact sensor (R.H.). For service points, refer to Basic Manual.