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# INTERIOR AND SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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52109000057

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# INTERIOR

## CONTENTS

52109000095

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### WARNINGS REGARDING SERVICING OF SUPPLEMENTAL RESTRAINT SYSTEM (SRS) EQUIPPED VEHICLES

#### WARNING!

- (1) Improper service or maintenance of any component of the SRS, or any SRS-related component, can lead to personal injury or death to service personnel (from inadvertent firing of the air bag) or to the driver and passenger (from rendering the SRS inoperative).
- (2) Service or maintenance of any SRS component or SRS-related component must be performed only at an authorized MITSUBISHI dealer.
- (3) MITSUBISHI dealer personnel must thoroughly review this manual, and especially its GROUP 52B – Supplemental Restraint System (SRS) before beginning any service or maintenance of any component of the SRS or any SRS-related component.

#### NOTE

The SRS includes the following components: SRS-ECU, SRS warning lamp, air bag module, clock spring and interconnecting wiring. Other SRS-related components (that may have to be removed/installed in connection with SRS service or maintenance) are indicated in the table of contents by an asterisk (\*).


## SERVICE SPECIFICATIONS

52100030024

| Items   | Standard value            |           |
|---|---------------------------|-----------|
| Seatback heater resistance (between terminals)<br>$\Omega$ (When ambient temperature is 20°C)     | 6.84–7.92                 |           |
| Seat cushion heater resistance (between terminals)<br>$\Omega$ (When ambient temperature is 20°C) | Between terminals 1 and 2 | 0.38–0.44 |
|   | Between terminals 2 and 3 | 6.84–7.92 |
|   | Between terminals 1 and 3 | 6.46–7.48 |

## SPECIAL TOOL

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



| Tool  | Number   | Name             | Use                           |
|---|----------|------------------|-------------------------------|
|  | MB990784 | Ornament remover | Removal of switch, trim, etc. |

## INSTRUMENT PANEL

52100170030

### REMOVAL AND INSTALLATION

For installation of the instrument panel, the bolts and screws described below are used. They are indicated by symbols in the illustration.

| Name                  | Symbol | Size mm (D × L) | Colour | Shape  |
|-----------------------|--------|-----------------|--------|--|
| Tapping screw         | A      | 5 × 16          | Black  | <br>19Z0026 |
|                       | B      | 4.8 × 13        |        |  |
|                       | C      | 4.8 × 16        |        |  |
| Machine screw         | D      | 5 × 16          | –      | <br>19Z0025 |
| Washer assembled bolt | E      | 6 × 12          | –      | <br>19Z0005 |
| Gimlet bolt           | F      | 6 × 16          | –      | <br>19Z0012 |
| Flange bolt           | G      | 6 × 14.29       | –      | <br>19Z0024 |
|                       | H      | 6 × 16          |        |  |
|                       | I      | 5 × 16          |        |  |

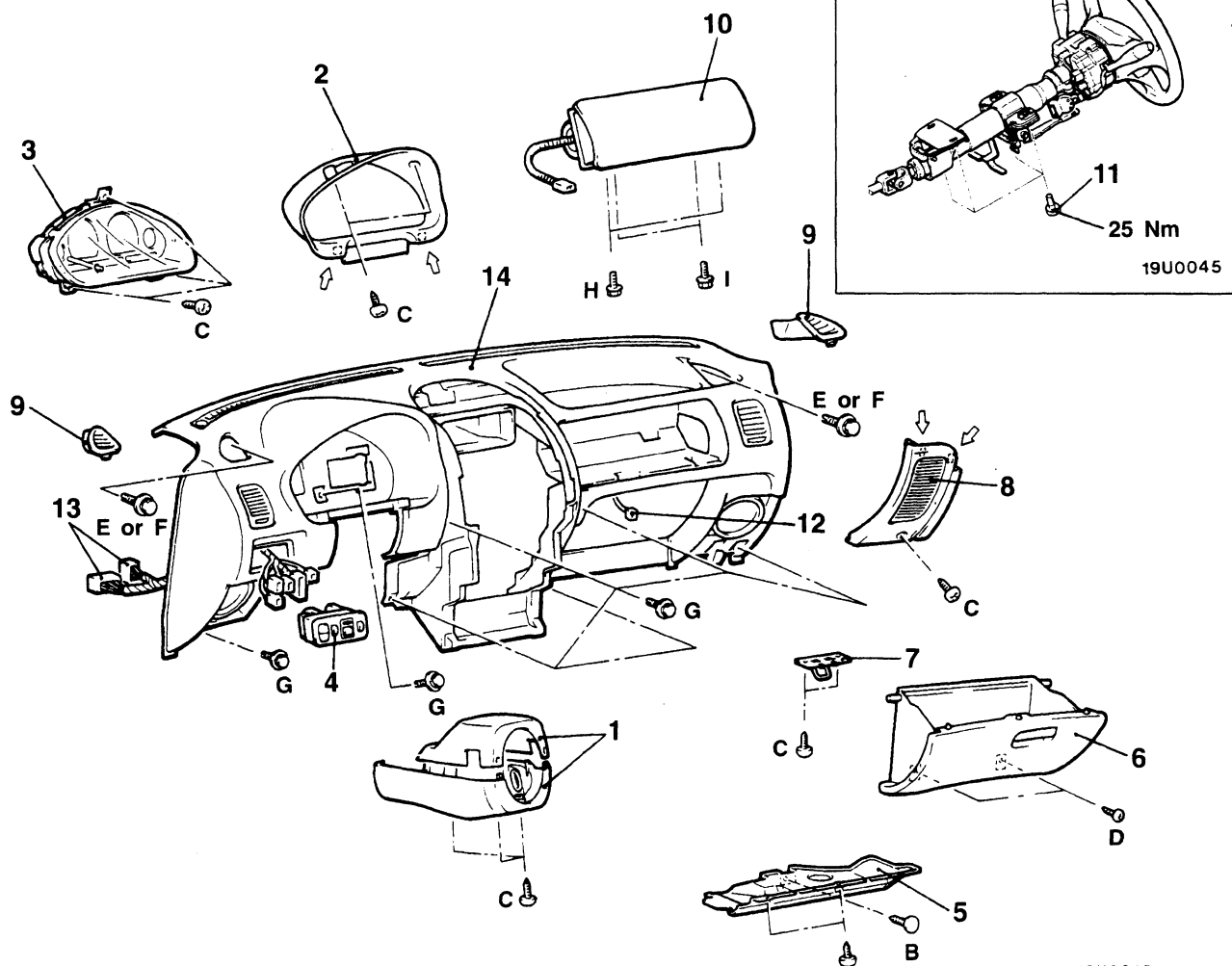
D = Thread diameter  
L = Effective thread length

**CAUTION: SRS**

- (1) When removing and installing the floor console (vehicles equipped with SRS), do not let it bump against the SRS-ECU.
- (2) For the passenger side air bag module removal/installation, always observe the service procedures of GROUP 52B – Air Bag Module and Clock Spring.

**Pre-removal and Post-installation Operation**

- Floor Console Assembly Removal and Installation (Refer to P.52A-6.)



**NOTE**

↔ : metal clip position

19U0048

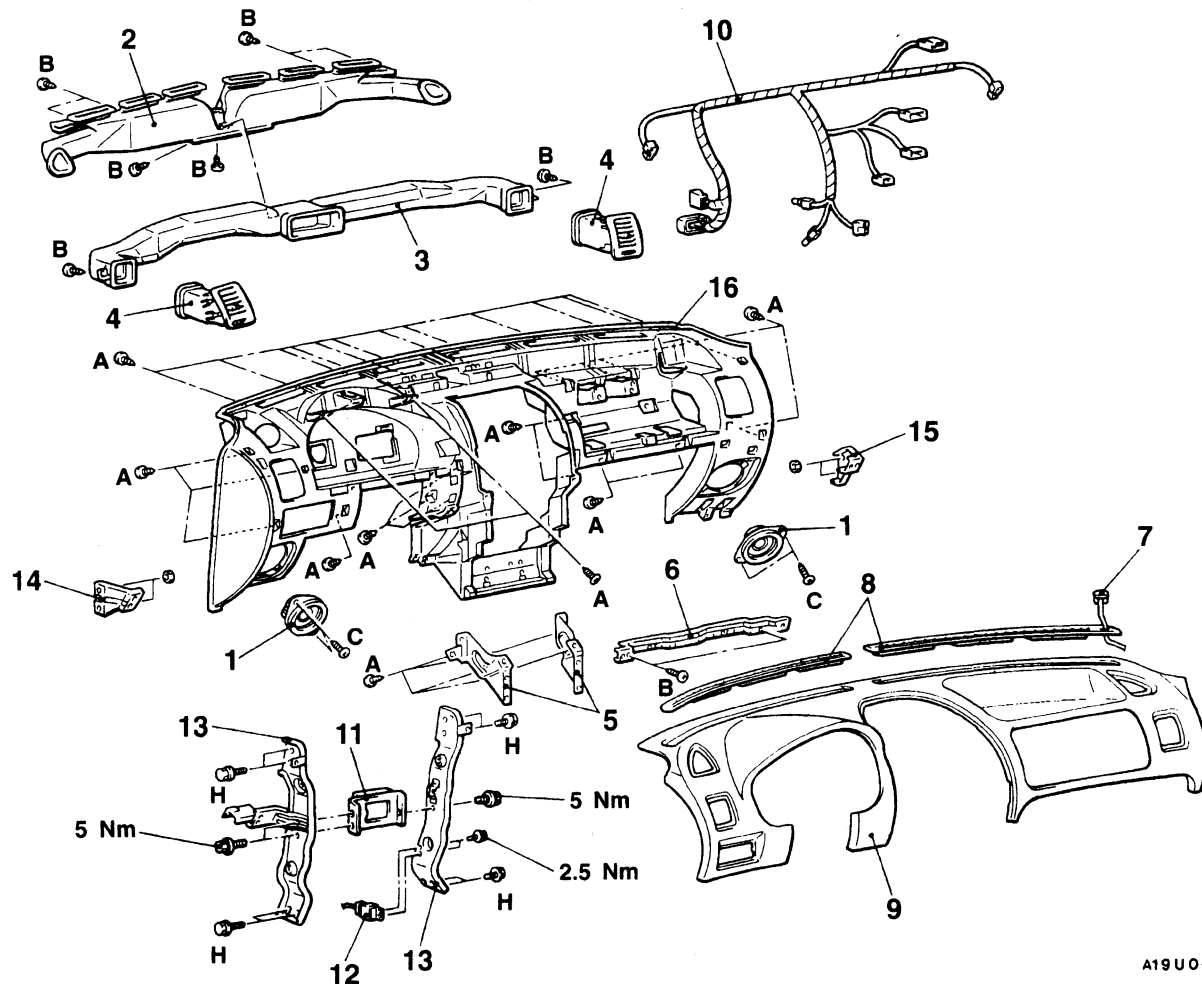
00003408

**Removal steps**

1. Column cover
2. Meter bezel
3. Combination meter
4. Instrument panel switch
5. Under cover
6. Glove box
7. Glove box striker
8. Corner panel
9. Side defroster grille
10. Front passenger's air bag module assembly
11. Steering column assembly installation bolts
12. Photo sensor connector
13. Harness connector
14. Instrument panel assembly

DISASSEMBLY AND REASSEMBLY

52100190043



Disassembly steps

1. Speaker
2. Defroster nozzle assembly
3. Distribution duct
4. Side air outlet assembly
5. Instrument panel reinforcement
6. Glove box frame
7. Photo sensor
8. Defroster garnish
9. Instrument pad
10. Instrument panel wiring harness
11. Auto-cruise control unit and bracket assembly
12. Engine control relay
13. Center reinforcement
14. Driver's side lower bracket
15. Passenger's side lower bracket
16. Instrument panel

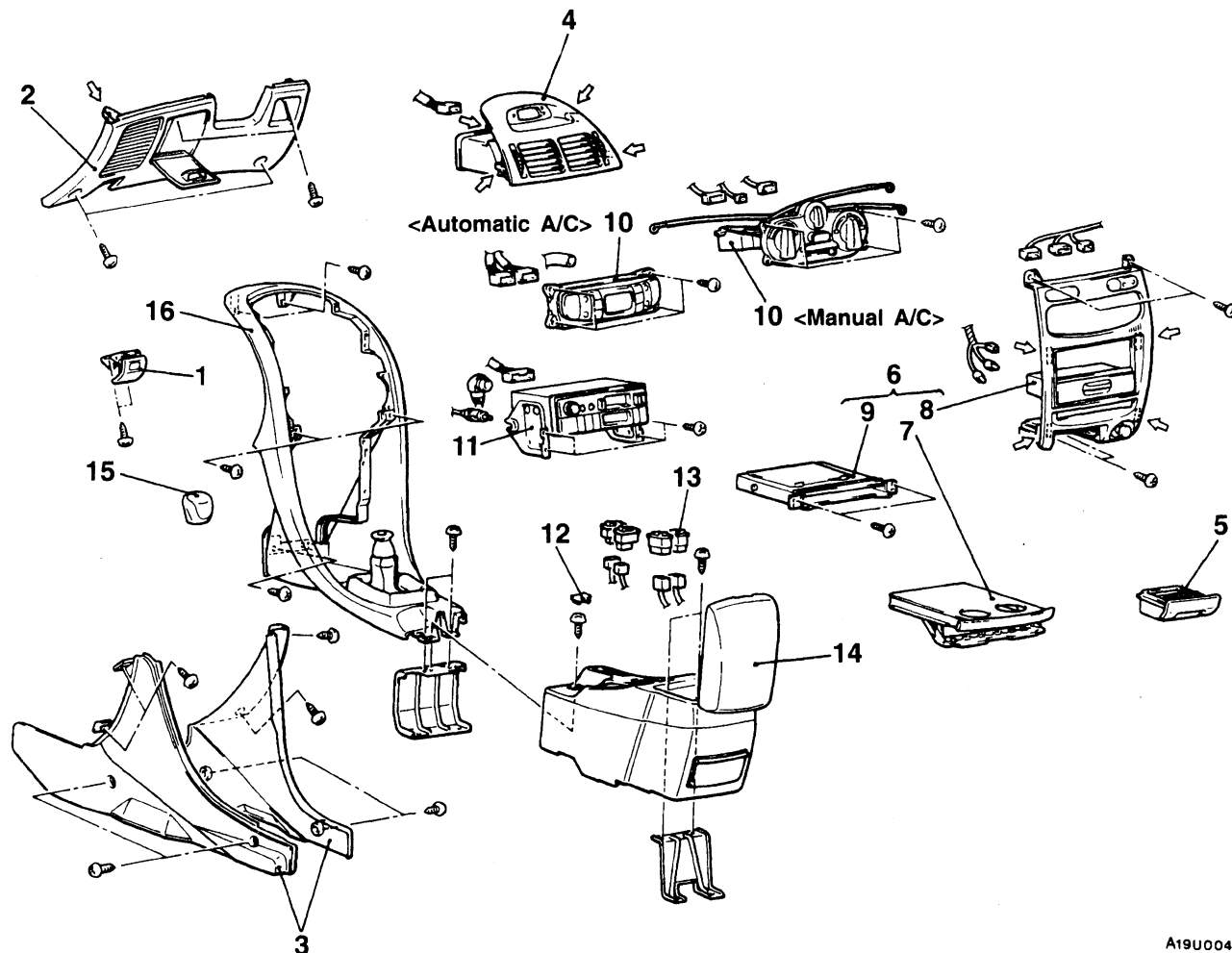
# FLOOR CONSOLE

52100220032

## REMOVAL AND INSTALLATION

### CAUTION: SRS

When removing and installing the floor console assembly from vehicles equipped with SRS, do not let it bump against the SRS-ECU or other components.



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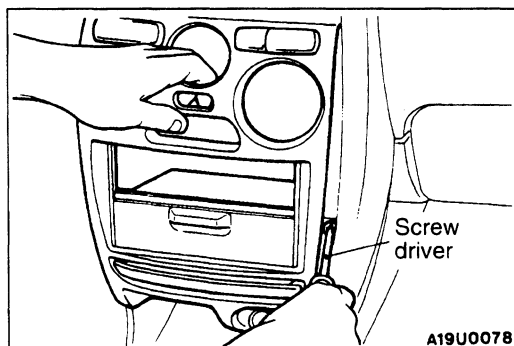
### NOTE

↔ : metal clip position

### Removal steps

1. Hood lock release handle
2. Instrument under cover
3. Console side cover
- ▶A◀ 4. Center air outlet assembly
- ◀A▶ 5. Ashtray
- ◀B▶ 6. Center console and cup holder assembly
7. Cup holder, inner
8. Center console panel
9. Cup holder, outer

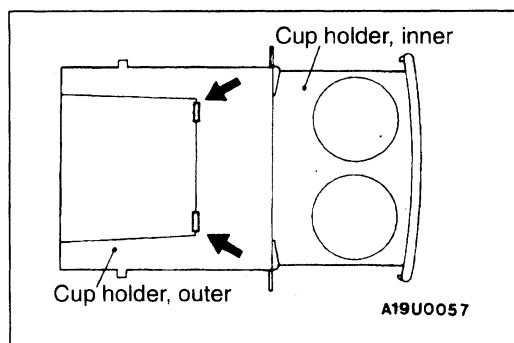
10. Heater control assembly
11. Radio and tape player
12. Console plug
13. Switch
14. Rear floor console assembly
15. Shift lever knob <M/T>
16. Front floor console assembly



## REMOVAL SERVICE POINTS

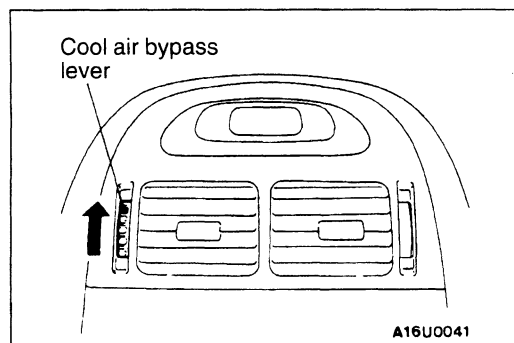
### ◀A▶ CENTER CONSOLE PANEL AND CUP HOLDER ASSEMBLY REMOVAL

1. After removing the center console mounting screws, pull the center console panel towards you to remove it together with the cup holder, inner.
2. Insert a screwdriver into the space as shown in the illustration to remove the center console panel and cup holder assembly.



### ◀B▶ CUP HOLDER, INNER REMOVAL

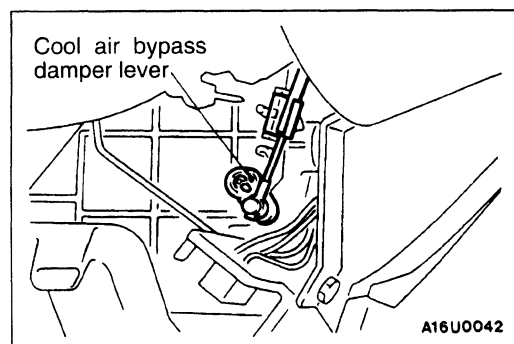
Push the cup holder, outer in the places shown in the illustration to remove the cup holder, inner.



## INSTALLATION SERVICE POINT

### ▶A◀ CENTER AIR OUTLET ASSEMBLY INSTALLATION

1. Turn the cool air bypass lever of the center air outlet assembly fully upward.
2. Turn the cool air bypass damper at the heater unit side fully downward, and install the cool air bypass lever cable.



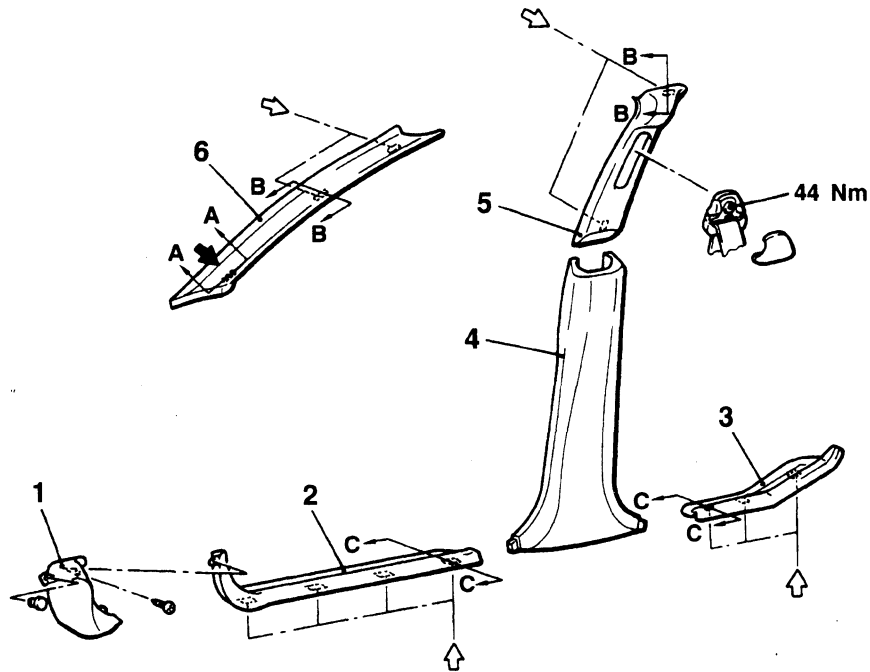
52A-8

INTERIOR – Trims

# TRIMS

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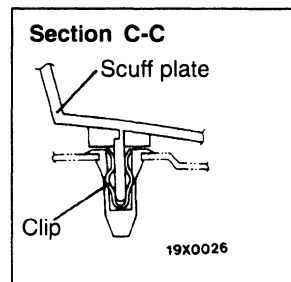
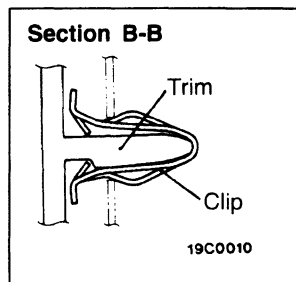
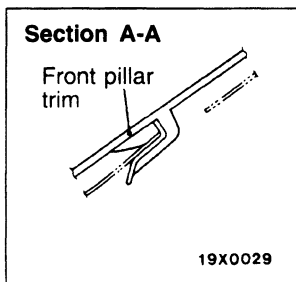
## REMOVAL AND INSTALLATION



19U0068

### NOTE

1. ⇨ : metal clip position
2. ⇦ : resin clip position

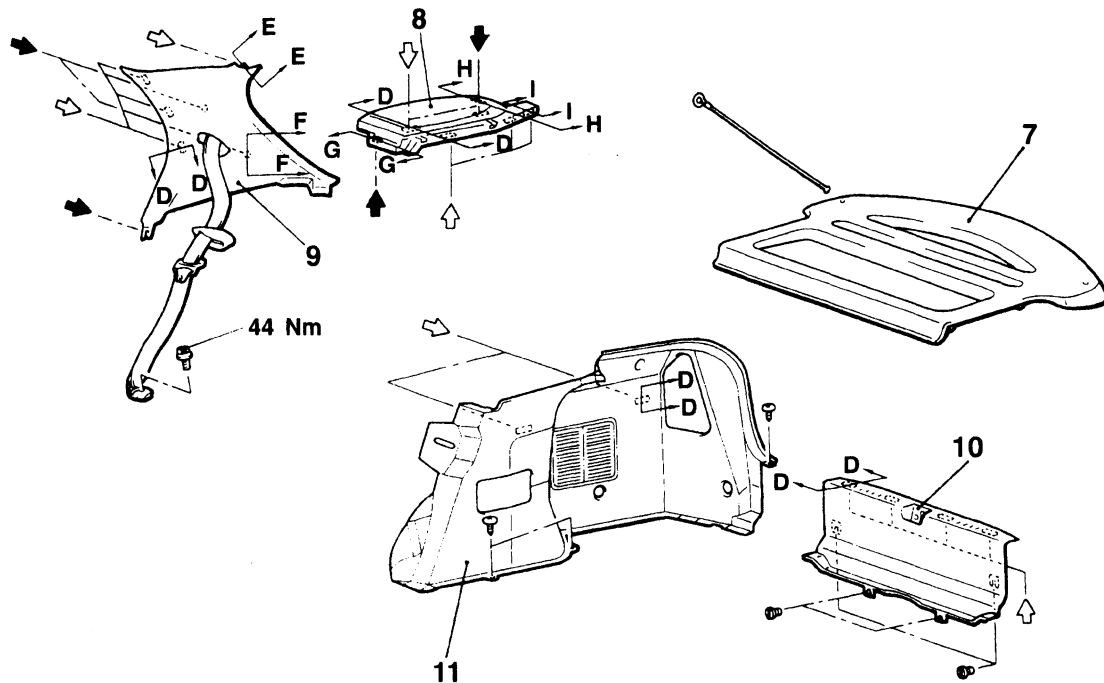


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1. Cowl side trim
2. Front scuff plate
3. Rear scuff plate

4. Center pillar lower trim
5. Center pillar upper trim
6. Front pillar trim

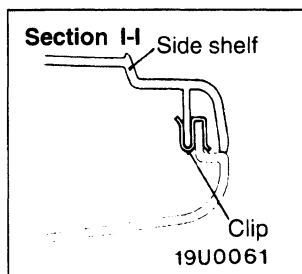
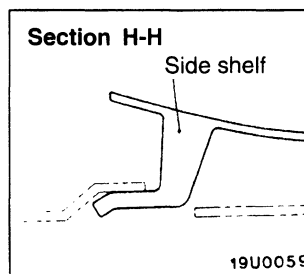
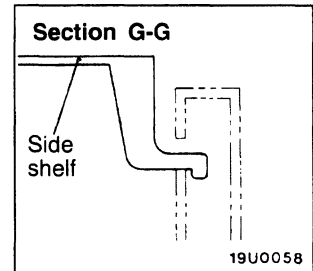
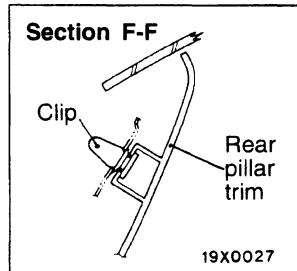
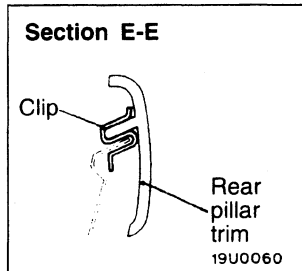
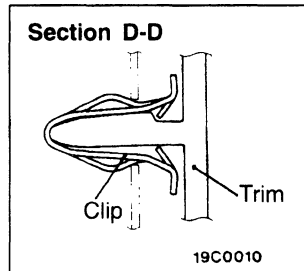




19U0067

NOTE

1. : metal clip position
2. : resin clip position



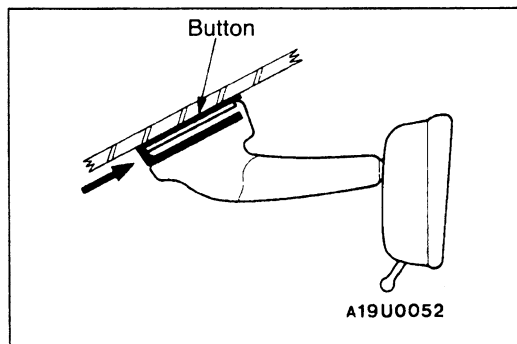
00003410

7. Center shelf
8. Side shelf
9. Rear pillar trim

10. Rear end trim
11. Rear side trim

## 52A-10

## INTERIOR – Inside Rear View Mirror/Seat



### INSIDE REAR VIEW MIRROR

52100270013

#### REMOVAL SERVICE POINT

Remove by pushing in the direction of the arrow in the illustration.

## SEAT

52200100018

### FRONT SEAT

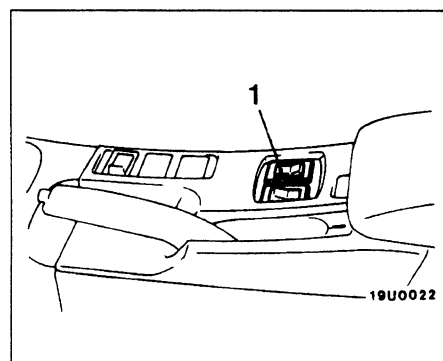
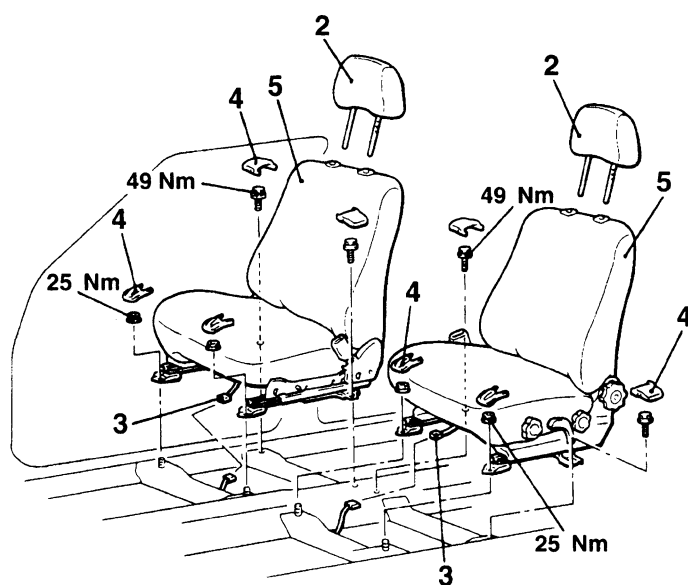
#### REMOVAL AND INSTALLATION

##### Pre-removal and Post-installation Operation

- Rear Floor Console Assembly Removal and Installation (Refer to P.52A-6).

##### CAUTION: SRS

When removing and installing the rear floor console (vehicles equipped with SRS), do not let it bump against the SRS-ECU.



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##### NOTE

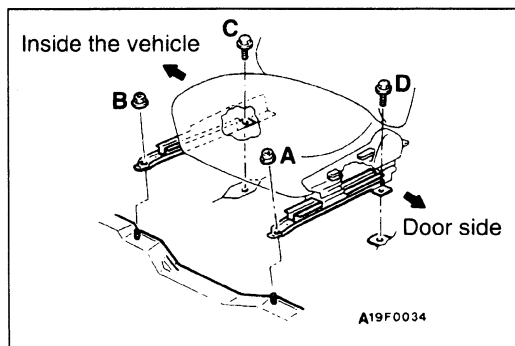
After provisionally tightening the seat assembly mounting nuts and bolts in every installation location, fully tighten them to the specified torque.

1. Heated seat switch  
<vehicles with heated seat>
2. Headrestraint

##### Front seat assembly removal steps

3. Harness connector  
<vehicles with heated seat>
4. Seat anchor cover
5. Front seat assembly

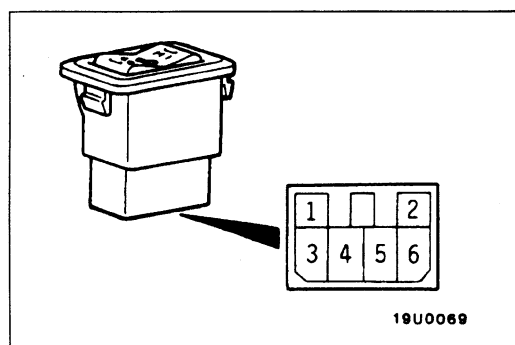




## INSTALLATION SERVICE POINT

### ►◄ FRONT SEAT ASSEMBLY INSTALLATION

Tighten the front seat mounting bolts in the order A, B, C, and D.



## INSPECTION

52200140027

### HEATED SEAT SWITCH CONTINUITY CHECK

| Switch position | Terminal No. |   |    |   |    |   |   |   |   |
|-----------------|--------------|---|----|---|----|---|---|---|---|
|                 | 1            | 4 | –  | 5 | –  | 6 | 2 | – | 3 |
| HI              | ○            | ○ | ↗↘ | ○ | ↗↘ | ○ |   |   |   |
|                 | ○            | ○ | ↗↘ | ○ | ↗↘ | ○ |   |   |   |
|                 | ○            | ○ | ↗↘ | ○ | ↗↘ | ○ |   |   |   |
| LO              |              | ○ | ↗↘ | ○ | ↗↘ | ○ | ○ | ○ | ○ |
|                 |              | ○ | ↗↘ | ○ | ↗↘ | ○ |   |   |   |
|                 |              | ○ | ↗↘ | ○ | ↗↘ | ○ |   |   |   |
| OFF             | ○            |   | ↗↘ | ○ |    |   |   |   |   |

#### NOTE

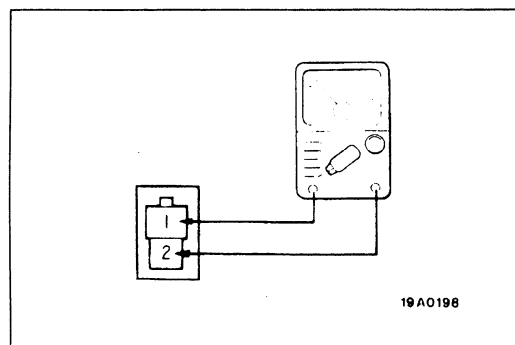
To inspect the diode, match the polarity of the circuit tester with the (+) (–) polarities in the table.

### SEATBACK HEATER CHECK

Measure the resistance between terminals.

**Standard value (When ambient temperature is 20°C):**

**Between terminals 6.84–7.92 Ω**



### SEAT CUSHION HEATER CHECK

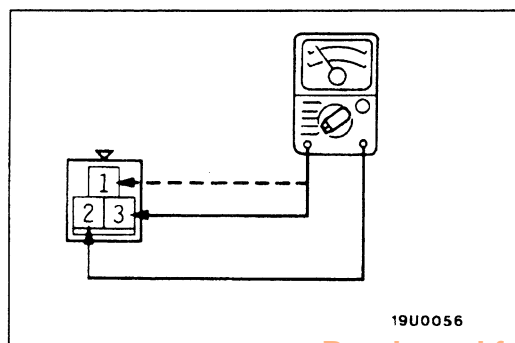
Measure the resistance between terminals.

**Standard value (When ambient temperature is 20°C):**

**Between terminals 1 and 2 0.38–0.44 Ω**

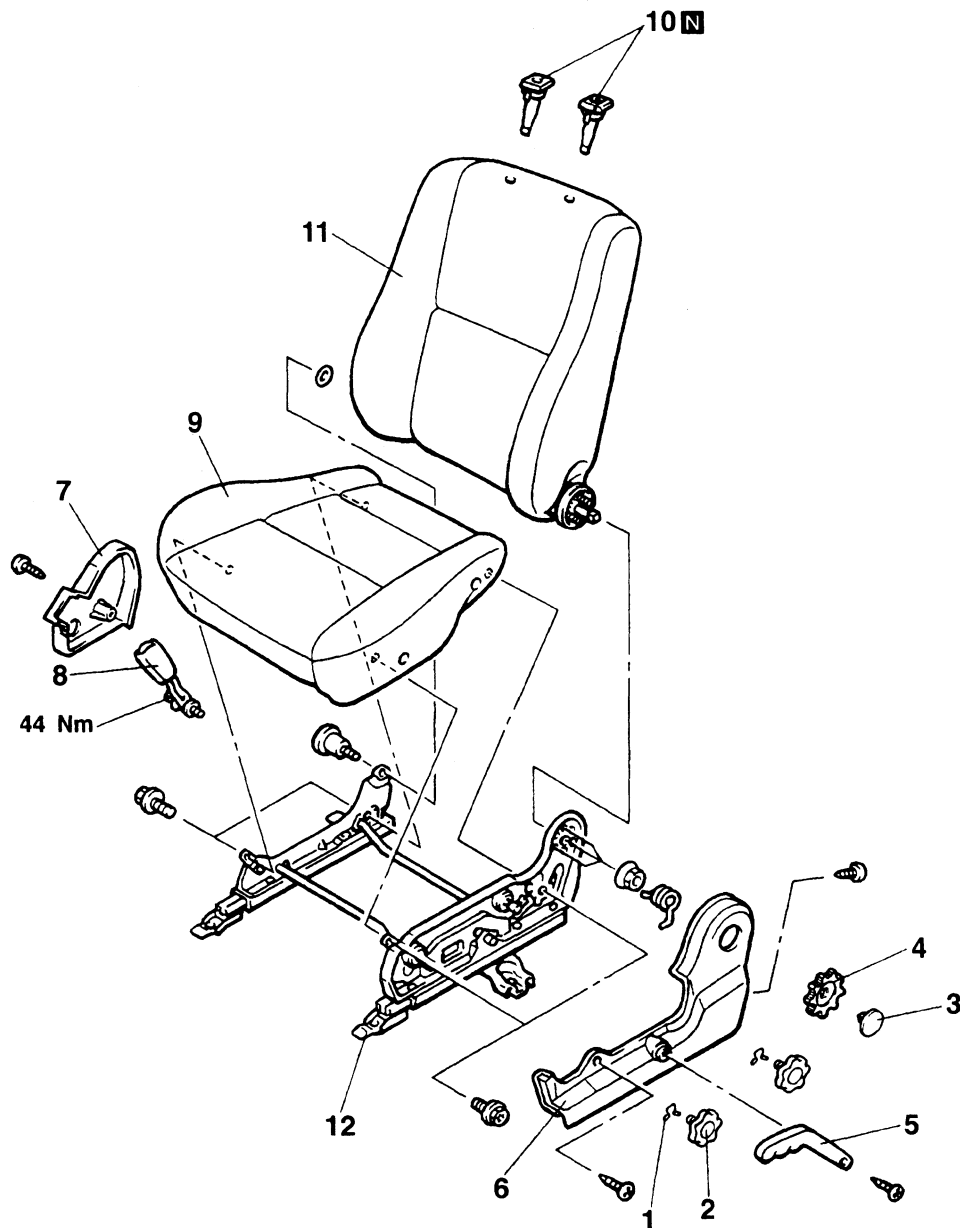
**Between terminals 2 and 3 6.84–7.92 Ω**

**Between terminals 1 and 3 6.46–7.48 Ω**



DISASSEMBLY AND REASSEMBLY

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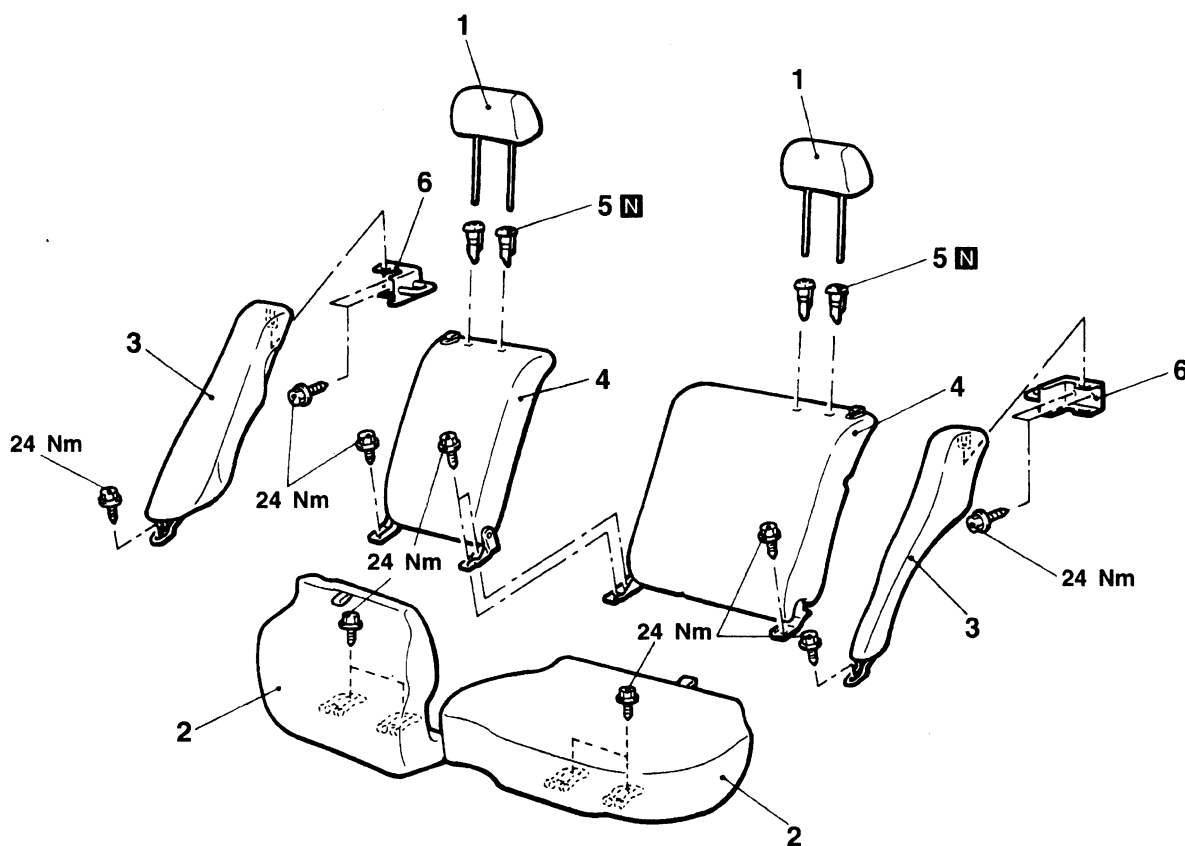
A19U0079

**Seat disassembly steps**

- |                                 |                            |
|---------------------------------|----------------------------|
| 1. Shaft snap ring              | 7. Front seat hinge cover  |
| 2. Height adjuster knob         | 8. Inner seat belt         |
| 3. Cap                          | 9. Seat cushion assembly   |
| 4. Reclining knob               | 10. Headrest guide         |
| 5. Seat adjuster lever          | 11. Seatback assembly      |
| 6. Front seat side shield cover | 12. Seat adjuster assembly |

**REAR SEAT  
REMOVAL AND INSTALLATION**

52200180036



A19U0066

**Removal steps**

1. Headrest
2. Seat cushion
3. Side seatback assembly

4. Rear seatback assembly
5. Headrest guide
6. Rear seat striker

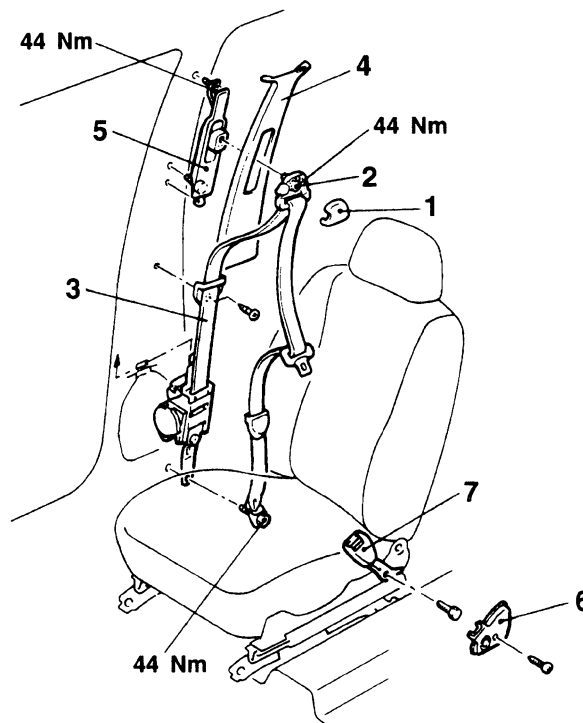
## SEAT BELT

52300130034

For removal and installation procedures for the seat belt with pre-tensioner, refer to GROUP 52B – Seat Belt with Pre-tensioner.

### FRONT SEAT BELT

#### REMOVAL AND INSTALLATION



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#### Outer seat belt removal steps

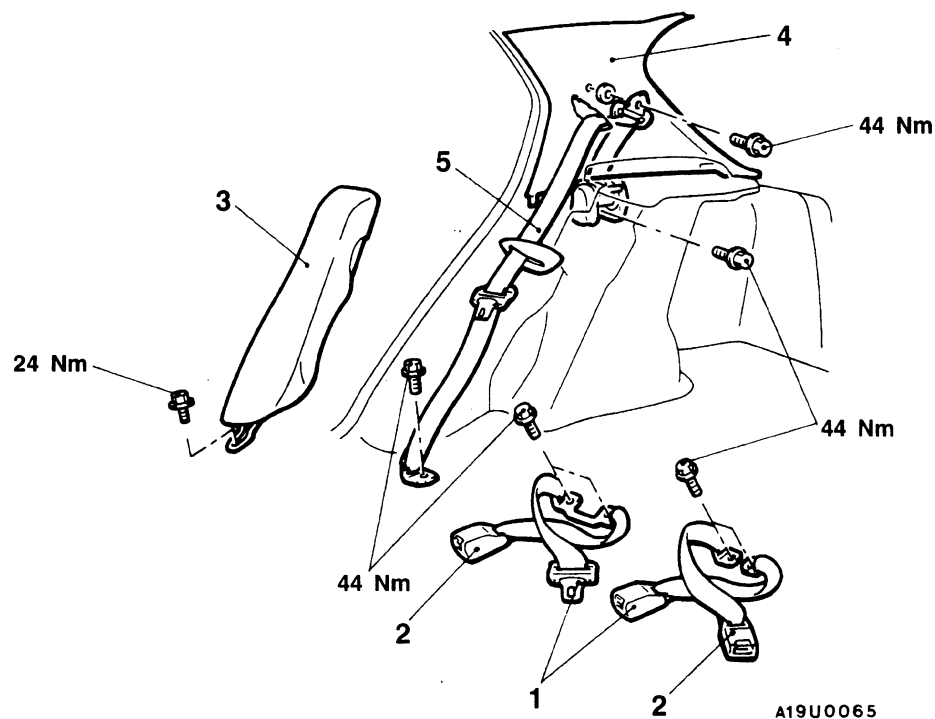
- Front scuff plate and rear scuff plate  
(Refer to P.52A-8.)
- Center pillar lower trim  
(Refer to P.52A-8.)
- 1. Sash guide cover
- 2. Sash guide
- 3. Outer seat belt
- 4. Center pillar upper trim  
(Refer to P.52A-8.)
- 5. Adjustable seat belt anchor

#### Inner seat belt removal steps

- Front seat assembly  
(Refer to P.52A-10.)
- 6. Front seat hinge cover
- 7. Inner seat belt

## REAR SEAT BELT REMOVAL AND INSTALLATION

52300160033



## Removal steps

- Rear seat cushion  
(Refer to P.52A-13.)
- 1. Inner, outer seat belt  
(center seat belt)
- 2. Inner seat belt
- 3. Side seatback assembly  
(Refer to P.52A-13.)
- 4. Rear pillar trim  
(Refer to P.52A-9.)
- 5. Outer seat belt

**NOTES**



# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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52409000049

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### CAUTION

- Carefully read and observe the information in the SERVICE PRECAUTIONS (P.52B-3.) prior to any service.
- For information concerning troubleshooting or maintenance, always observe the procedures in the Troubleshooting (P.52B-5.) 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-18.) for the components involved.
- If you have any questions about the SRS, please contact your local distributor.

## GENERAL INFORMATION

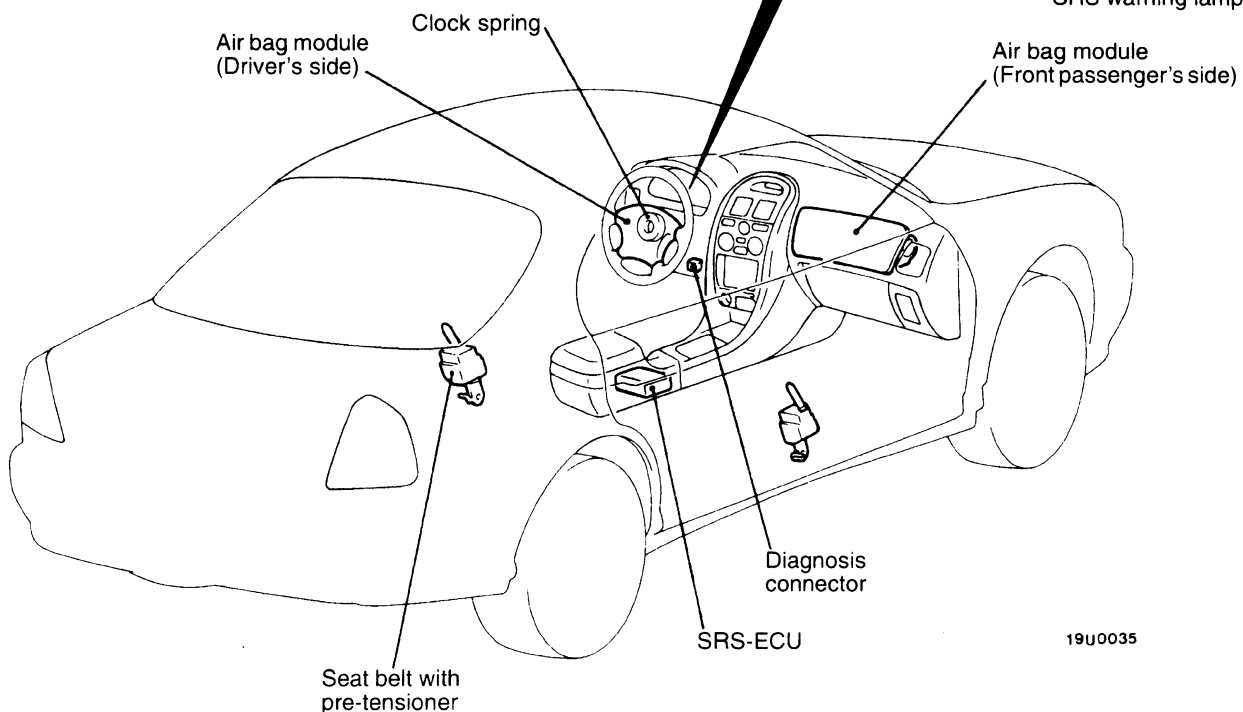
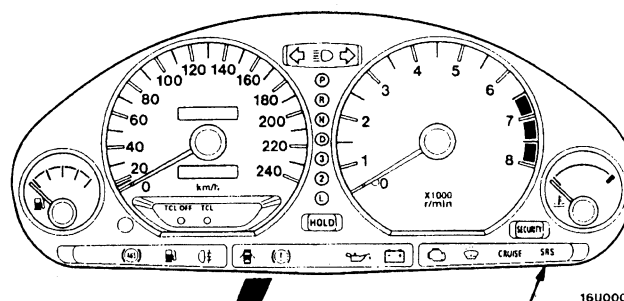
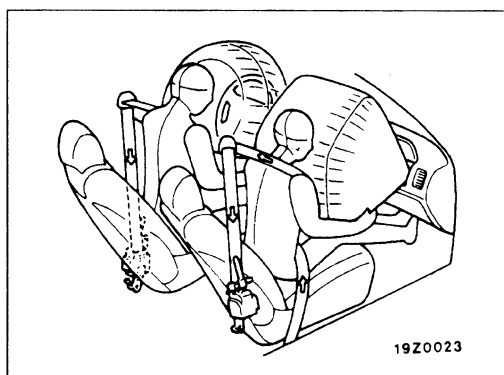
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To improve safety, the SRS and seat belts with pre-tensioner are available as optional parts. These systems enhance collision safety by restraining the front passengers in case of an accident. The SRS works with the pre-tensioner simultaneously when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

The SRS and seat belt tightening systems consist of two air bag modules, SRS air bag control unit (SRS-ECU), SRS warning lamp and clock spring, and seat belt pre-tensioner. One air bag is located in the centre of the steering wheel and another above the glove box. Each air bag has a folded air bag and an inflator unit. The control unit under

the floor console monitors the system and has a safing G sensor and an analog G sensor. The warning lamp on the instrument panel indicates the operational status of the SRS. The clock spring is installed in the steering column.

Only authorized service personnel should do work on or around the SRS components. 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 the driver (by rendering the SRS inoperative).



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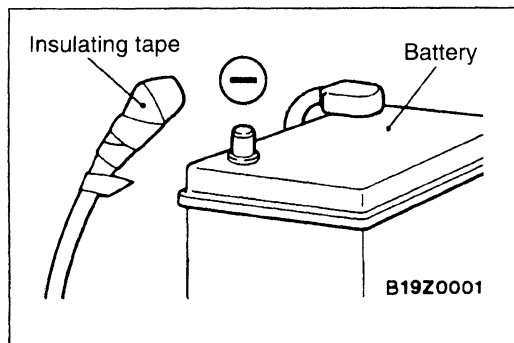
## SRS SERVICE PRECAUTIONS

52400030054

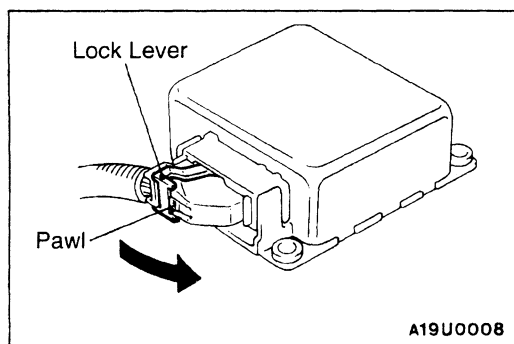
1. In order to avoid injury to yourself or others from accidental deployment of the air bag and accidental operation of the seat belt with pre-tensioner during servicing, read and carefully follow all the precautions and procedures described in this manual.
2. Do not use any electrical test equipment on or near SRS components, except those specified on P.52B-5.
3. **Never Attempt to Repair the Following Components:**
  - SRS air bag control unit (SRS-ECU)
  - Clock Spring
  - Air Bag Module (Driver's side or front passenger's side\*)
  - Seat belt with Pre-tensioner

### NOTE

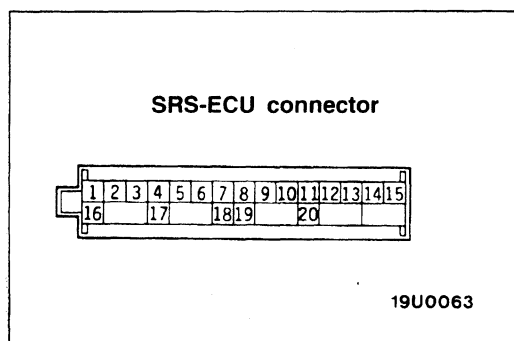
\*: Vehicles with front passenger's air bag  
If any of these components are diagnosed as faulty, they should only be replaced, in accordance with the **INDIVIDUAL COMPONENTS SERVICE** procedures in this manual, starting at page 52B-18.



4. After disconnecting the battery cable, wait 60 seconds or more before proceeding with the following work. The SRS system is designed to retain enough voltage to deploy the air bag for a short time even after the battery has been disconnected, so serious injury may result from unintended air bag deployment if work is done on the SRS system immediately after the battery cables are disconnected.



5. To disconnect the SRS-ECU connector, push the connector pawl to unlock the connector, and then turn the lock lever in the direction of the arrow.



6. Do not attempt to repair the wiring harness connectors of the SRS. If any of the connectors are diagnosed as faulty, replace the wiring harness. If the wires are diagnosed as faulty, replace or repair the wiring harness according to the following table.

52B-4

SRS – SRS Service Precautions

| Harness Connector<br>(No. of Terminal,<br>Colour) | SRS-ECU<br>Terminal No. | Destination of Harness   | Corrective Action   |
|---|-------------------------|--|---|
| 20 pins, orange                                   | 1                       | Body wiring harness → Earth  | Correct or replace<br>each wiring<br>harness                          |
|   | 10                      |  |   |
|   | 2*                      | Body wiring harness → Air bag module<br>(Front passenger's side)               |   |
|   | 3*                      |  |   |
|   | 4                       | Body wiring harness → Junction block (fuse No. 11)                             | Correct or replace<br>each wiring<br>harness. Replace<br>clock spring |
|   | 5                       | Body wiring harness → Clock spring → Air bag module<br>(Driver's side)         |   |
|   | 6                       |  |   |
|   | 7                       | Body wiring harness → Diagnosis connector                                      | Correct or replace<br>each wiring<br>harness                          |
|   | 8                       | Body wiring harness → Combination meter<br>(SRS warning lamp)                  |   |
|   | 9                       |  |   |
|   | 11                      | Body wiring harness → Junction block (fuse No. 4)                              |   |
|   | 12                      | Body wiring harness → Seat belt with pre-tensioner<br>(Front passenger's side) |   |
|   | 13                      |  |   |
|   | 14                      | Body wiring harness → Seat belt with pre-tensioner<br>(Driver's side)          |   |
|   | 15                      |  |   |
|   | 16–20                   | –  | –   |

NOTE

\*: Vehicles with front passenger's air bag.

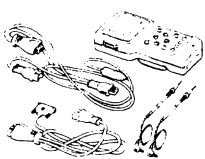
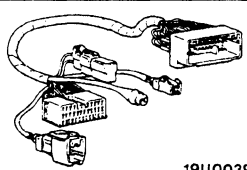
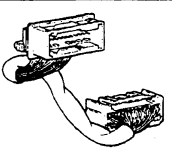
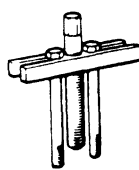
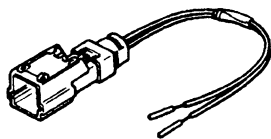
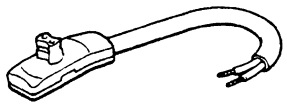
7. SRS components and seat belt with pre-tensioner should not be subjected to heat, so remove the SRS-ECU, air bag module, clock spring and seat belt with pre-tensioner before drying or baking the vehicle after painting.
  - SRS-ECU, air bag module, clock spring: 93°C or more
  - Seat belt with pre-tensioner: 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-6.)
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.

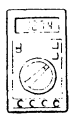
## SPECIAL TOOLS

52400070049

| Tool   | Number   | Name                          | Use  |
|--|----------|-------------------------------|--|
|               | MB991502 | MUT-II sub assembly           | <ul style="list-style-type: none"> <li>• Reading diagnosis codes</li> <li>• Erasing diagnosis code</li> <li>• Reading trouble period</li> <li>• Reading erase times</li> </ul>   |
| <br>19U0039   | MB991613 | SRS check harness             | Checking the SRS electrical circuitry  |
| <br>19U0038   | MB991623 | SRS adapter harness           |  |
|              | MB990803 | Steering wheel puller         | Steering wheel removal   |
|             | MB686560 | SRS air bag adapter harness A | <ul style="list-style-type: none"> <li>• Deployment of air bag modules and seat belt with pre-tensioner inside the vehicle</li> <li>• Deployment of air bag module (front passenger's side) outside the vehicle</li> </ul> |
| <br>19U0080 | MR172069 | SRS air bag adapter harness B | Deployment of air bag module (driver's side) outside the vehicle   |

## TEST EQUIPMENT

52400080035

| Tool   | Name                | Use  |
|--|---------------------|--|
| <br>13RD746 | Digital multi-meter | Checking the SRS electrical circuitry<br>Use a multi-meter for which the maximum test current is 2 mA or less at the minimum range of resistance measurement |

## TROUBLESHOOTING

52400090021

### STANDARD FLOW OF DIAGNOSTIC TROUBLESHOOTING

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

## 52B-6

## SRS – Troubleshooting

### DIAGNOSIS FUNCTION

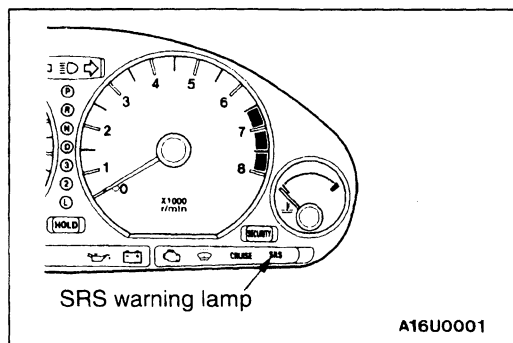
#### DIAGNOSIS CODES CHECK

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 CODES

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



#### “SRS” WARNING LAMP CHECK

Turn the ignition with the key “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-6.

### INSPECTION CHART FOR DIAGNOSIS CODES

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

| Code No.   | Diagnosis item  | Reference page           |
|------------|---|--------------------------|
| 14         | Analog G sensor system  | 52B-7                    |
| 15         | Safing G sensor system  | 52B-7                    |
| 21, 22     | Driver's side air bag module (squib) system   | 52B-7                    |
| 24*1, 25*1 | Front passenger's side air bag module (squib) system  | 52B-8                    |
| 26, 27     | Driver's side pre-tensioner (squib) system  | 52B-9                    |
| 28, 29     | Front passenger's side pre-tensioner (squib) system   | 52B-9                    |
| 31, 32     | SRS-ECU capacitor system  | 52B-10                   |
| 35         | SRS-ECU system (ignition of the air bag or activation of the seat belt pre-tensioner completed) | 52B-10                   |
| 41*2       | IG1 (A) power circuit system  | 52B-10                   |
| 42*2       | IG1 (B) power circuit system  | 53B-11                   |
| 43*2       | SRS warning lamp drive circuit system   | Lamp does not illuminate |
|            |   | Lamp does not switch off |
| 44*2       | SRS warning lamp drive circuit system   | 52B-13                   |

| Code No. | Diagnosis item  | Reference page |
|----------|---|----------------|
| 45       | SRS-ECU non-volatile memory (EEPROM) and A/D converter system         | 52B-13         |
| 51, 52   | Driver's side air bag module (squib ignition drive circuit) system    | 52B-14         |
| 54, 55   | Passenger's side air bag module (squib ignition drive circuit) system | 52B-14         |
| 56, 57   | Driver's side pre-tensioner (squib ignition drive circuit) system     | 52B-14         |
| 58, 59   | Passenger's side pre-tensioner (squib ignition drive circuit) system  | 52B-14         |

**NOTE**

- (1) \*1: Vehicles with front passenger's air bag.
- (2) \*2: This diagnosis code will be automatically cleared from memory and the SRS warning lamp will switch off when the system returns to normal.
- (3) If the vehicle has a discharged battery it will store the fault codes 41 or 42. When these diagnosis codes are displayed, check the battery.

**INSPECTION PROCEDURE CLASSIFIED BY DIAGNOSIS CODES**

| Code No. 14 Analog G sensor system   | Probable cause   |
|--|--|
| The SRS-ECU monitors the analog G sensor output and outputs this code when it detects a sensor failure, abnormal sensor characteristics or abnormal sensor output. | <ul style="list-style-type: none"> <li>Malfunction of SRS-ECU</li> </ul> |

Replace the SRS-ECU

| Code No. 15 Safing G sensor system  | Probable cause   |
|---|--|
| This code is output when there is a short-circuit between the terminals of the safing G sensor.<br>The cause of the problem is probably a short-circuit in the safing G sensor. | <ul style="list-style-type: none"> <li>Malfunction of SRS-ECU</li> </ul> |

Replace the SRS-ECU

| Code No. 21 or 22 Driver's side air bag module (squib) system   | Probable cause   |
|---|--|
| These diagnosis codes are output if there is abnormal resistance between the input terminals of the driver's side air bag module (squib).<br>The trouble causes for each code No. are as follows. (Refer to chart 1.) | <ul style="list-style-type: none"> <li>Malfunction of clock spring</li> <li>Malfunction of harnesses or connectors</li> <li>Malfunction of driver's side air bag module (squib)</li> <li>Malfunction of SRS-ECU</li> </ul> |

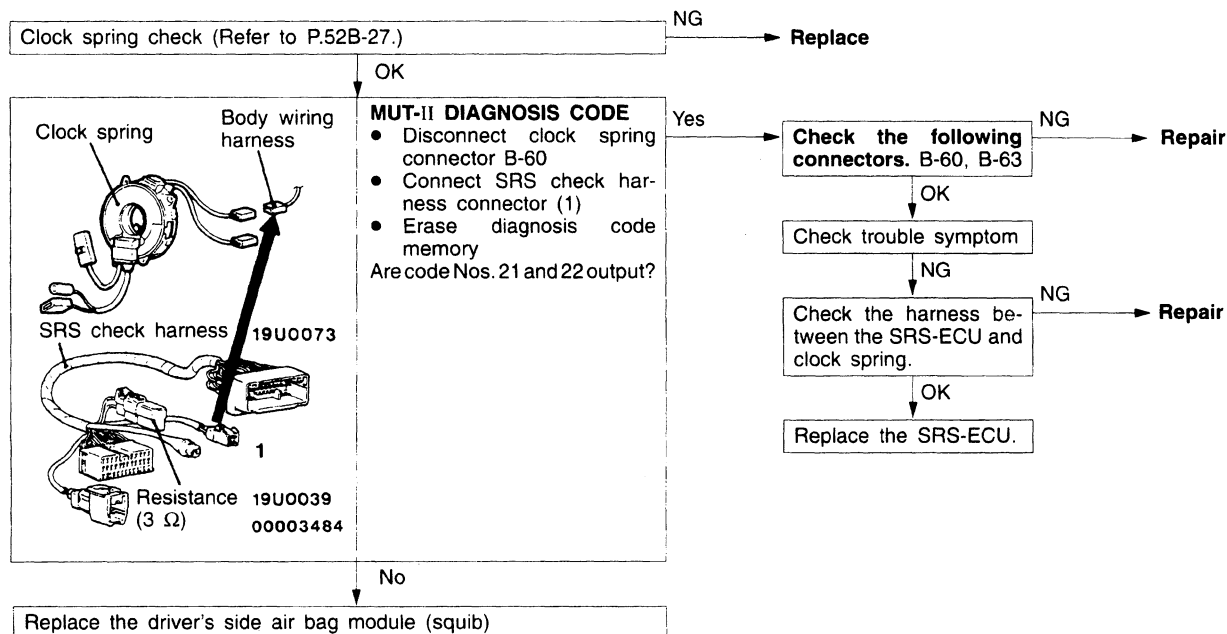
**Chart 1**

| Code No. | Trouble Symptom  |
|----------|--|
| 21       | <ul style="list-style-type: none"> <li>Short in driver's side air bag module (squib) or harness short</li> <li>Short in clock spring</li> </ul>  |
| 22       | <ul style="list-style-type: none"> <li>Open circuit in driver's side air bag module (squib) or open harness</li> <li>Open circuit in clock spring</li> <li>Malfunction of connector contact</li> </ul> |



52B-8

SRS – Troubleshooting



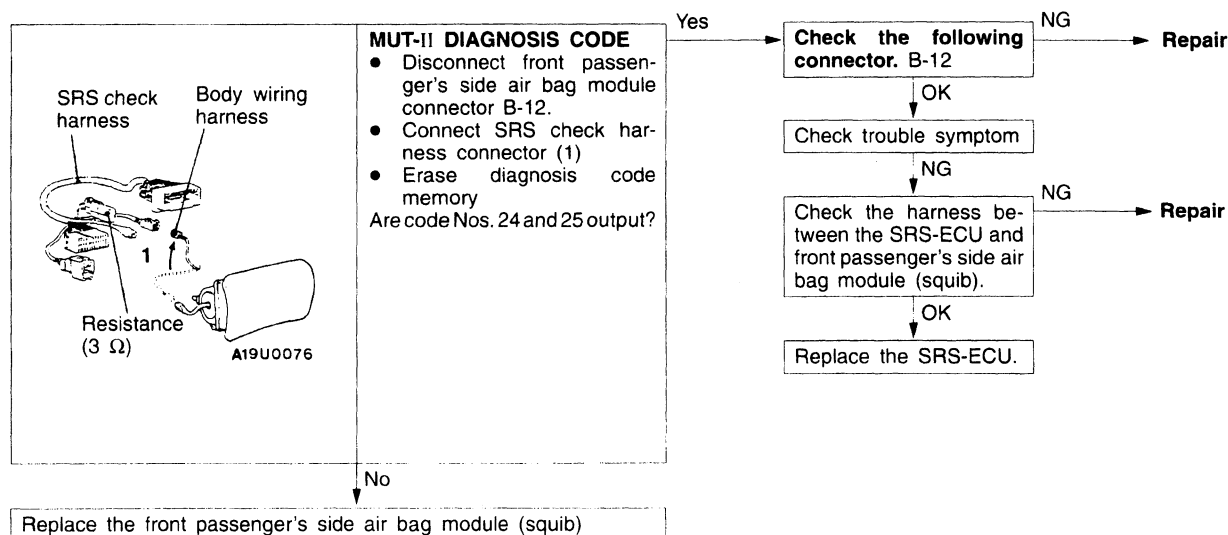
**Code No. 24 or 25 Front passenger's side air bag module (squib) system Probable cause**

These diagnosis codes are output if there is abnormal resistance between the input terminals of the front passenger's side air bag module (squib). The trouble causes for each code No. are as follows. (Refer to chart 1.)

- Malfunction of harness or connectors
- Malfunction of front passenger's side air bag module (squib)
- Malfunction of SRS-ECU

Chart 1

| Code No. | Trouble Symptom   |
|----------|---|
| 24       | <ul style="list-style-type: none"> <li>• Short in front passenger's side air bag module (squib) or harness short</li> </ul>   |
| 25       | <ul style="list-style-type: none"> <li>• Open circuit in front passenger's side air bag module (squib) or open harness</li> <li>• Malfunction of connector contact</li> </ul> |

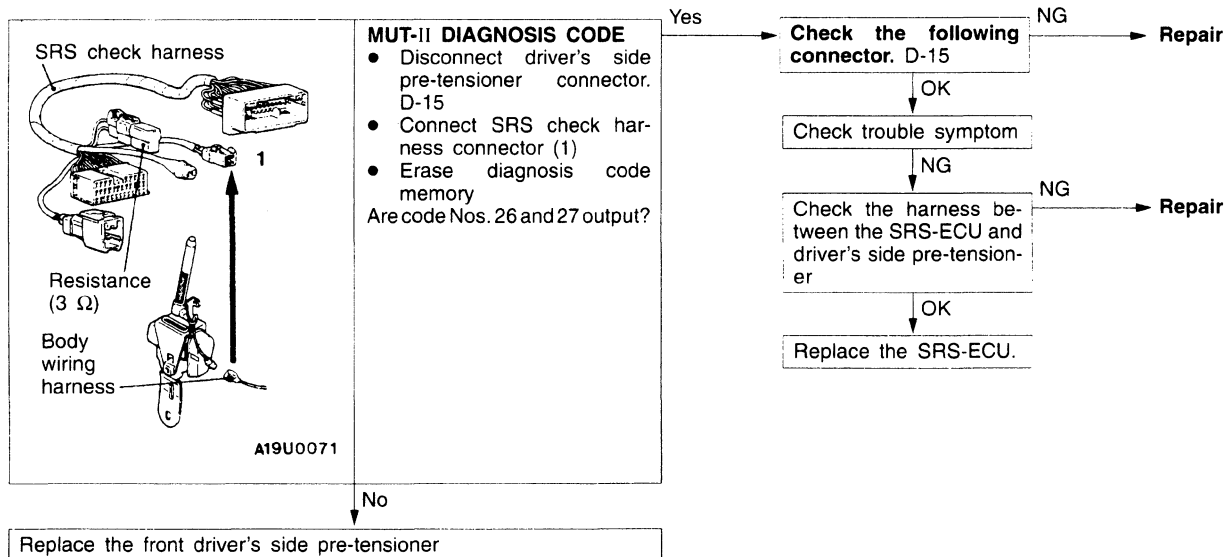




| Code No. 26 or 27 Driver's side pre-tensioner (squib) system   | Probable cause   |
|--|--|
| These diagnosis codes are output if there is abnormal resistance between the input terminals of the driver's side pre-tensioner (squib).<br>The trouble causes for each code No. are as follows. (Refer to chart 1.) | <ul style="list-style-type: none"> <li>• Malfunction of harnesses or connectors</li> <li>• Malfunction of driver's side pre-tensioner (squib)</li> <li>• Malfunction of SRS-ECU</li> </ul> |

**Chart 1**

| Code No. | Trouble Symptom   |
|----------|---|
| 26       | <ul style="list-style-type: none"> <li>• Short in driver's side pre-tensioner (squib) or harness short</li> </ul>   |
| 27       | <ul style="list-style-type: none"> <li>• Open circuit in driver's side pre-tensioner (squib) or open harness</li> <li>• Malfunction of connector contact</li> </ul> |



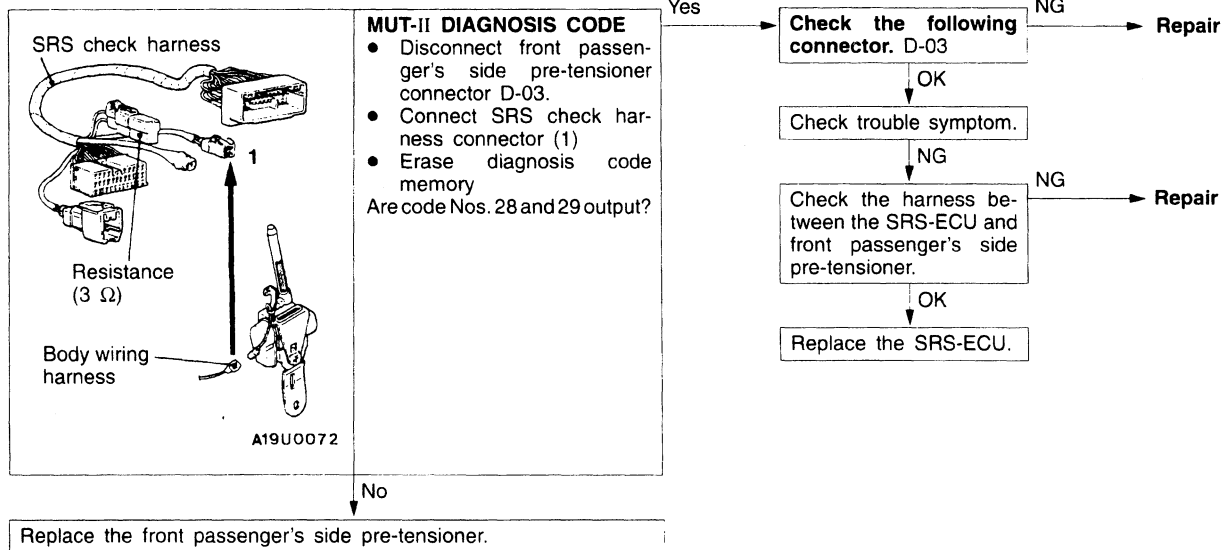
| Code No. 28 or 29 Front passenger's side pre-tensioner (squib) system   | Probable cause  |
|---|---|
| These diagnosis codes are output if there is abnormal resistance between the input terminals of the front passenger's side pre-tensioner (squib).<br>The trouble causes for each code No. are as follows. (Refer to chart 1.) | <ul style="list-style-type: none"> <li>• Malfunction of harnesses or connectors</li> <li>• Malfunction of front passenger's side pre-tensioner (squib)</li> <li>• Malfunction of SRS-ECU</li> </ul> |

**Chart 1**

| Code No. | Trouble Symptom  |
|----------|--|
| 28       | <ul style="list-style-type: none"> <li>• Short in front passenger's side pre-tensioner (squib) or harness short</li> </ul>   |
| 29       | <ul style="list-style-type: none"> <li>• Open circuit in front passenger's side pre-tensioner (squib) or open harness</li> <li>• Malfunction of connector contact</li> </ul> |

52B-10

SRS – Troubleshooting



**Code No. 31 or 32 SRS-ECU capacitor system**

These diagnosis codes are output if the voltage at the SRS-ECU capacitor terminals is higher (No. 31) or lower (No. 32) than the specified value for 5 seconds or more. However, if diagnosis code Nos. 41 and 42 are being output due to a drop in battery voltage, code No. 32 will not be detected.

**Probable cause**

- Malfunction of SRS-ECU

Replace the SRS-ECU.

**Code No. 35 SRS-ECU system (ignition of the air bag or activation of the seat belt pre-tensioner completed)**

This code is output after the air bag has been deployed and after the seat belt pre-tensioner has operated. If it is output before the air bag has been deployed or before the seat belt pre-tensioner has operated, there is probably a malfunction inside the SRS-ECU.

**Probable cause**

- Malfunction of SRS-ECU

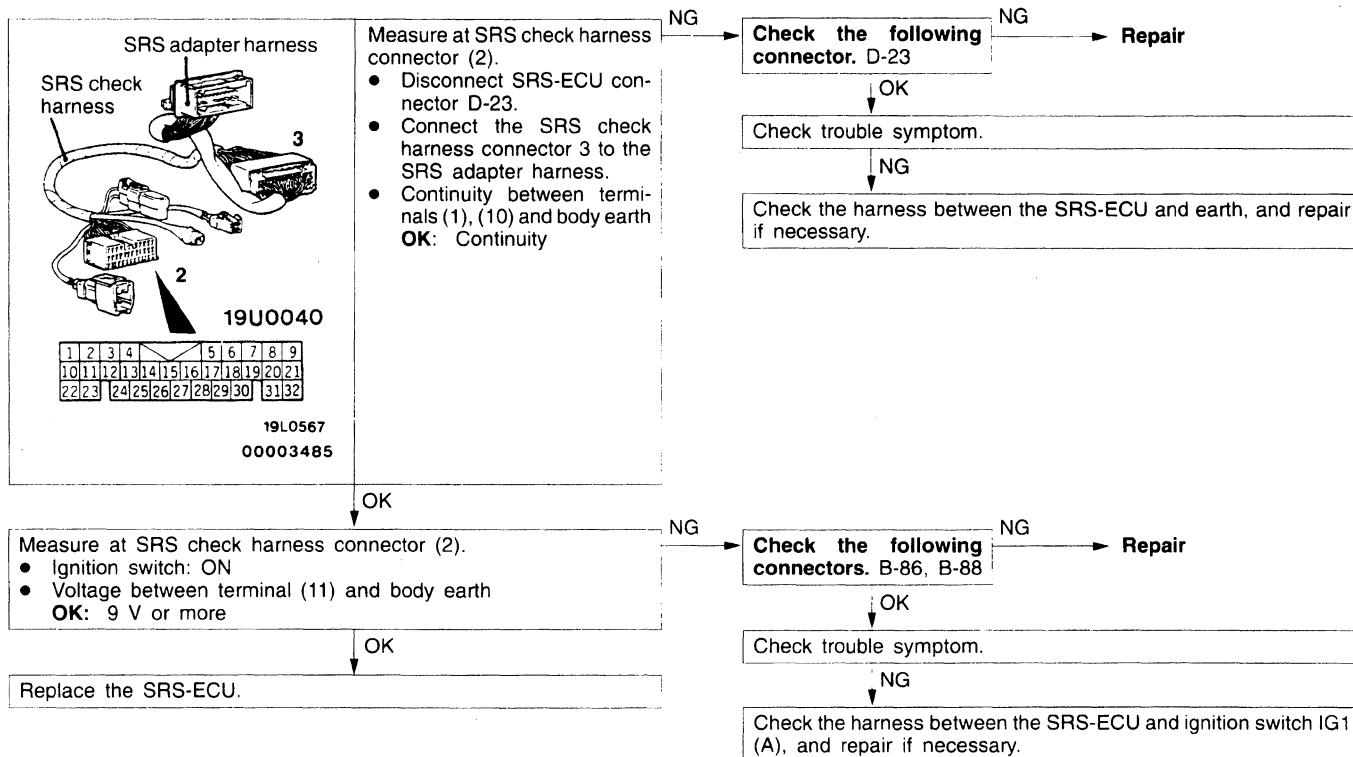
Replace the SRS-ECU.

**Code No. 41 IG<sub>1</sub> (A) power circuit system**

This diagnosis code is output if the voltage between the IG<sub>1</sub> (A) terminal [SRS-ECU connector terminal (11)] and the earth is lower than the specified value for a continuous period of 5 seconds or more. However, if the vehicle conditions returns to normal diagnosis code No. 41 will be automatically erased, and the SRS warning lamp will switch off.

**Probable cause**

- Malfunction of harnesses or connectors
- Malfunction of SRS-ECU

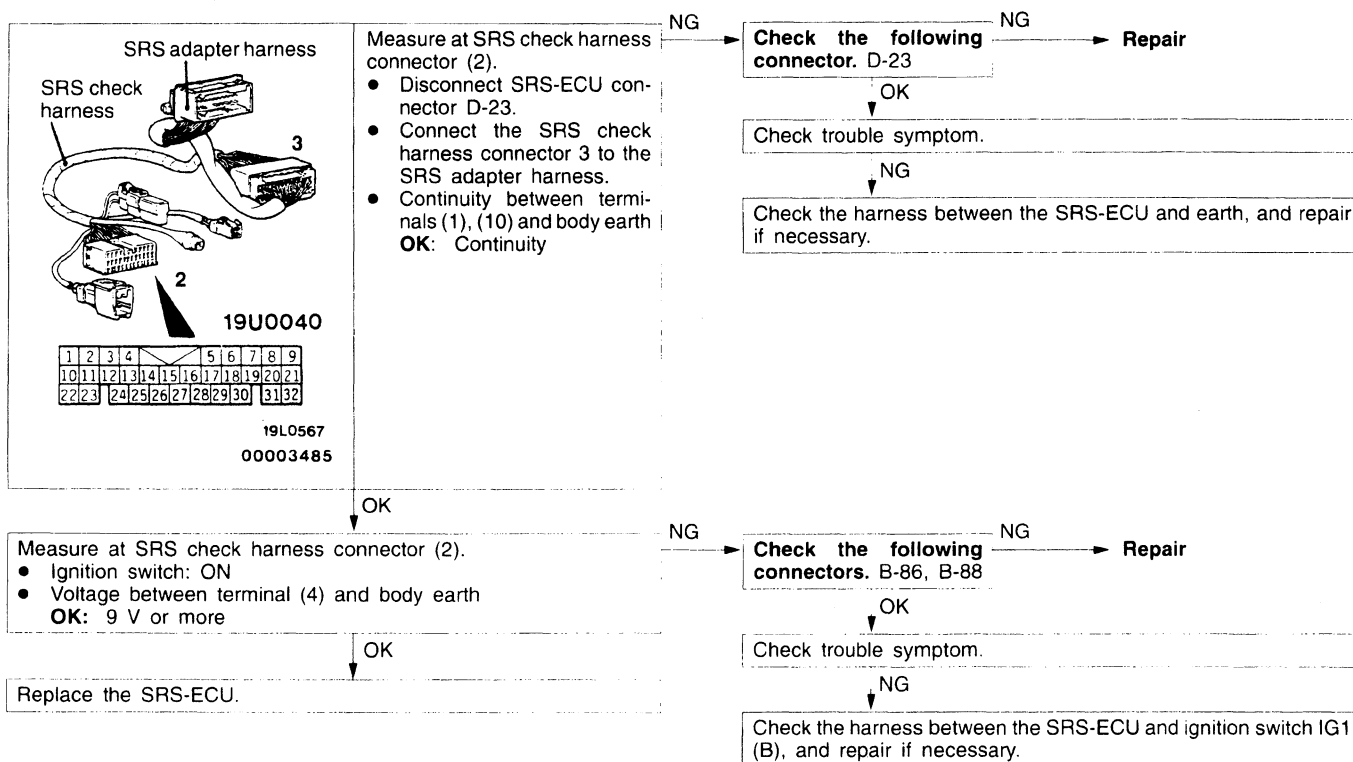


### Code No. 42 IG<sub>1</sub> (B) power circuit system

### Probable cause

This diagnosis code is output if the voltage between the IG<sub>1</sub> (B) terminal [SRS-ECU connector terminal (4)] and the earth is lower than the specified value for a continuous period of 5 seconds or more. However, if the vehicle condition returns to normal, diagnosis code No. 42 will be automatically erased, and SRS warning lamp will switch off.

- Malfunction of harnesses or connectors
- Malfunction of SRS-ECU

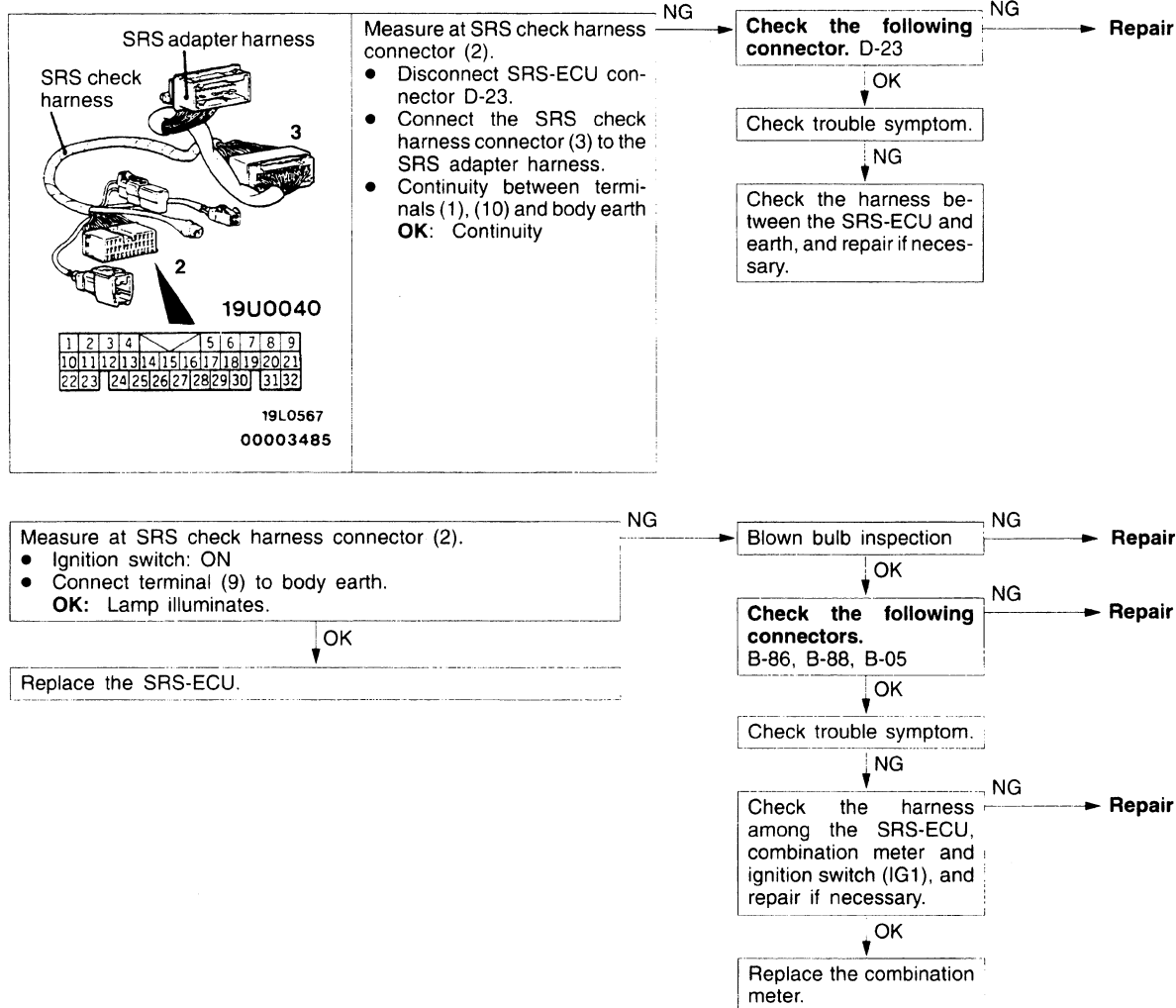


**Code No. 43 SRS warning lamp drive circuit system (Lamp does not illuminate.)** **Probable cause**

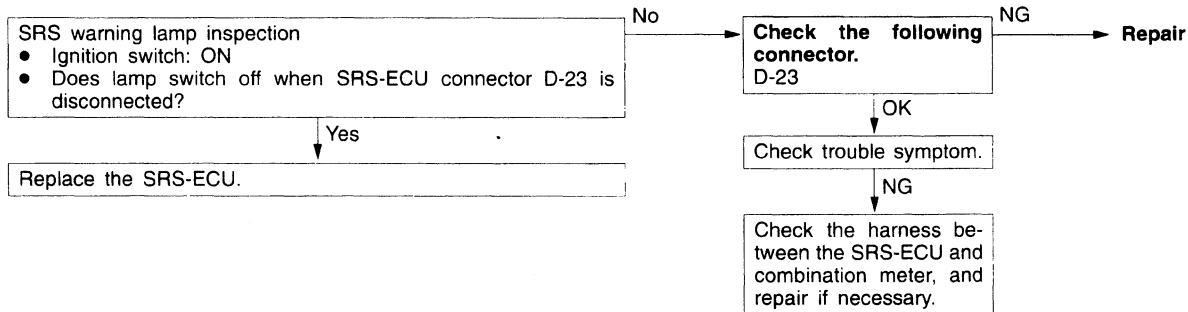
This diagnosis code is output when an open circuit occurs for a continuous period of 5 seconds while the SRS-ECU is monitoring the SRS warning lamp and the lamp is OFF (transistor OFF).

However, if this code is output due to an open circuit, if the vehicle condition returns to normal, this diagnosis code No. 43 will be automatically erased, and the SRS warning lamp will return to normal.

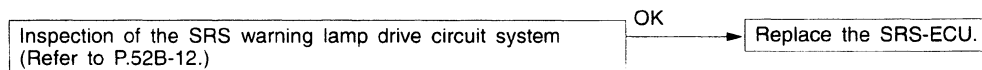
- Malfunction of harnesses or connectors
- Blown bulb
- Malfunction of SRS-ECU
- Malfunction of combination meter



| Code No. 43 SRS warning lamp drive circuit system (Lamp does not switch off.)   | Probable cause   |
|---|--|
| This diagnosis code is output when a short to earth occurs in the harness between the lamp and the SRS-ECU while the SRS-ECU is monitoring the SRS warning lamp and the lamp is ON. | <ul style="list-style-type: none"> <li>• Malfunction of harness or connectors</li> <li>• Malfunction of SRS-ECU</li> </ul> |



| Code No. 44 SRS warning lamp drive circuit system  | Probable cause   |
|--|--|
| This diagnosis code is output when a short occurs in the lamp drive circuit or a malfunction of the output transistor inside the SRS-ECU is detected while the SRS-ECU is monitoring the SRS warning lamp drive circuit. | <ul style="list-style-type: none"> <li>• Malfunction of harnesses or connectors</li> <li>• Malfunction of SRS-ECU</li> </ul> |



| Code No. 45 SRS-ECU non-volatile memory (EEPROM) and A/D converter system   | Probable cause   |
|---|--|
| This diagnosis code is output if there is a malfunction in the SRS-ECU non-volatile memory (EEPROM) or A/D converter. | <ul style="list-style-type: none"> <li>• Malfunction of SRS-ECU</li> </ul> |

Replace the SRS-ECU.

52B-14

SRS – Troubleshooting

| Code No. 51 or 52 Driver's side air bag module (squib ignition drive circuit) system  | Probable cause   |
|---|--|
| These codes are output when there is a short-circuit (code No. 51) or open circuit (code No. 52) in the squib ignition drive circuit. | <ul style="list-style-type: none"> <li>• Malfunction of SRS-ECU</li> </ul> |

Replace the SRS-ECU.

| Code No. 54 or 55 Passenger's side air bag module (squib ignition drive circuit) system   | Probable cause   |
|---|--|
| These codes are output when there is a short-circuit (code No. 54) or open circuit (code No. 55) in the squib ignition drive circuit. | <ul style="list-style-type: none"> <li>• Malfunction of SRS-ECU</li> </ul> |

Replace the SRS-ECU.

| Code No. 56 or 57 Driver's side pre-tensioner (squib ignition drive circuit) system   | Probable cause   |
|---|--|
| These codes are output when there is a short-circuit (code No. 56) or open circuit (code No. 57) in the squib ignition drive circuit. | <ul style="list-style-type: none"> <li>• Malfunction of SRS-ECU</li> </ul> |

Replace the SRS-ECU.

| Code No. 58 or 59 Passenger's side pre-tensioner (squib ignition drive circuit) system  | Probable cause   |
|---|--|
| These codes are output when there is a short-circuit (code No. 58) or open circuit (code No. 59) in the squib ignition drive circuit. | <ul style="list-style-type: none"> <li>• Malfunction of SRS-ECU</li> </ul> |

Replace the SRS-ECU.

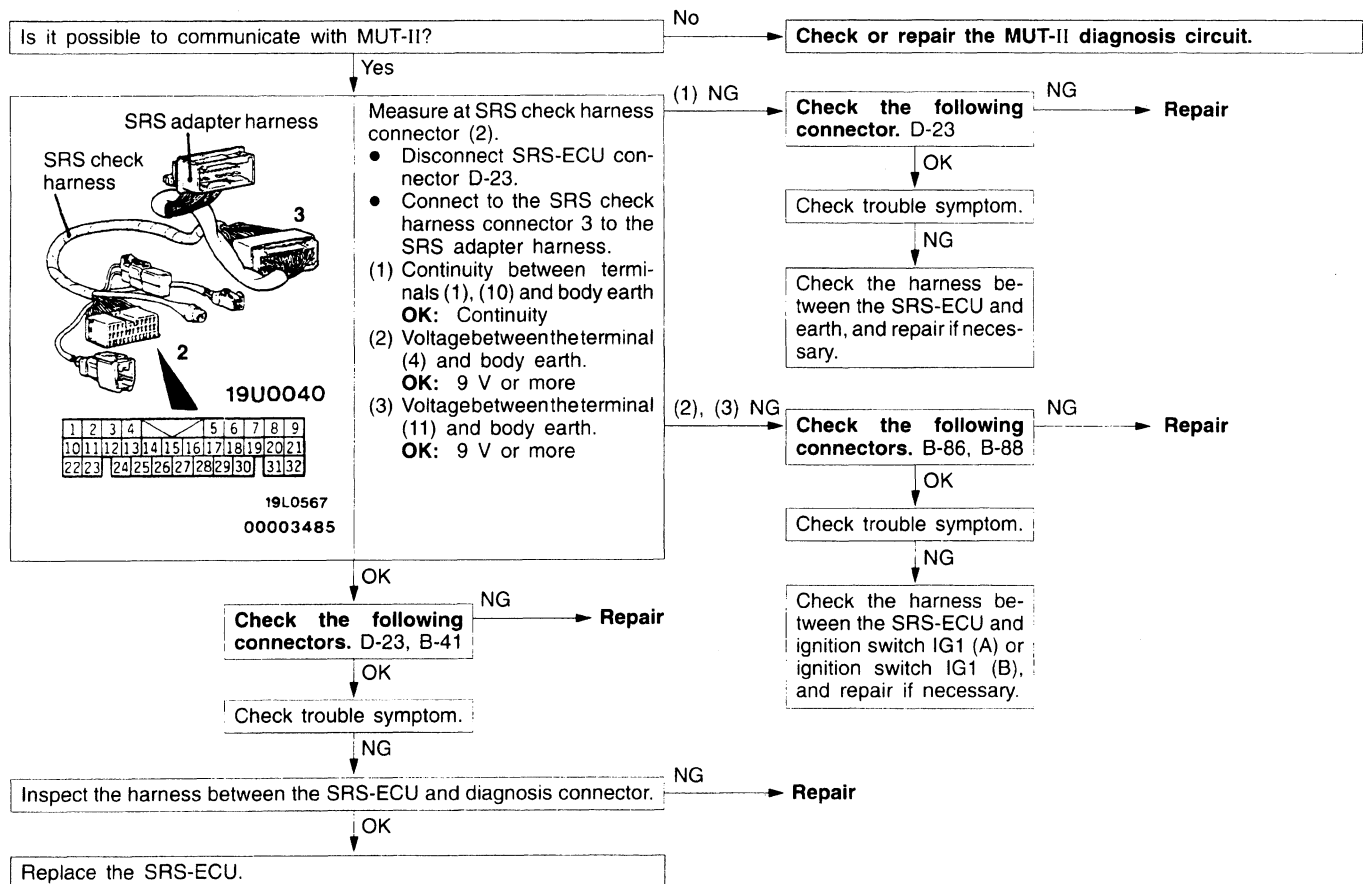
# INSPECTION CHART FOR TROUBLE SYMPTOMS

| Trouble symptom                            | Inspection Procedure No.        | Reference page |
|--|---------------------------------|----------------|
| Communication with MUT-II is not possible. | 1                               | P.52B-15       |
| SRS warning lamp does not illuminate.      | Refer to diagnosis code No. 43. | P.52B-12       |
| SRS warning lamp is still on               |                                 | P.52B-13       |

## INSPECTION PROCEDURE FOR TROUBLE SYMPTOMS

### Inspection procedure 1

| Communication with MUT-II is not possible.   | Probable cause   |
|--|--|
| <p>If communication with all system is not possible, the cause is probably diagnosis circuit malfunction.</p> <p>If communication is not possible with the SRS only, the cause is probably an open circuit in the diagnosis output circuit of the SRS-ECU or in the power circuit (including earth circuit).</p> | <ul style="list-style-type: none"> <li>Malfunction of harnesses or connectors</li> <li>Malfunction of harness</li> </ul> |





## POST-COLLISION DIAGNOSIS

52400110048

To inspect and service the SRS after a collision (whether or not the air bags have deployed), perform the following steps.

### SRS-ECU MEMORY CHECK

1. Connect the MUT-II to the diagnosis connector (16-pin).

#### Caution

**Make certain that the ignition switch is OFF when the MUT-II is connected or disconnected.**

2. Read (and write down) all displayed diagnosis codes. (Refer to P.52B-6.)

#### NOTE

If the battery power supply has been disconnected or disrupted by the collision, the MUT-II cannot communicate with the SRS-ECU. Inspect and, if necessary, repair the body wiring harness before proceeding further.

3. Read the service data (fault duration and how many times memories are erased) using the MUT-II.

#### NOTE

1. Maximum stored period: 9999 minutes (approximately 7 days)
  2. Maximum number of times to be stored: 250
4. Erase the diagnosis codes and after waiting 5 seconds or more read (and write down) all displayed diagnosis codes. (Refer to P.52B-6.)

## REPAIR PROCEDURE

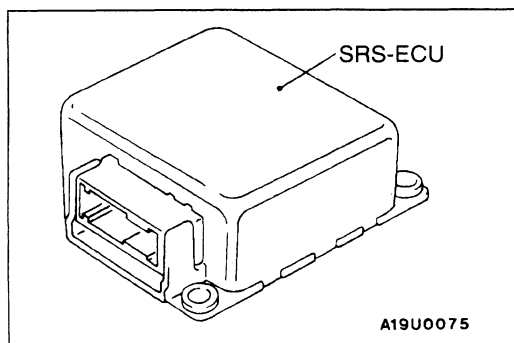
### WHEN AIR BAG DEPLOYS OR SEAT BELT PRE-TENSIONER OPERATES IN A COLLISION.

1. Replace the following parts with new ones.
  - SRS-ECU (Refer to P.52B-20.)
  - Air bag module (Refer to P.52B-22.)
  - Seat belt with pre-tensioner (Refer to P.52B-28.)
2. Check the following parts and replace if there are any malfunctions.
  - Clock spring (Refer to P.52B-22.)
  - 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.)



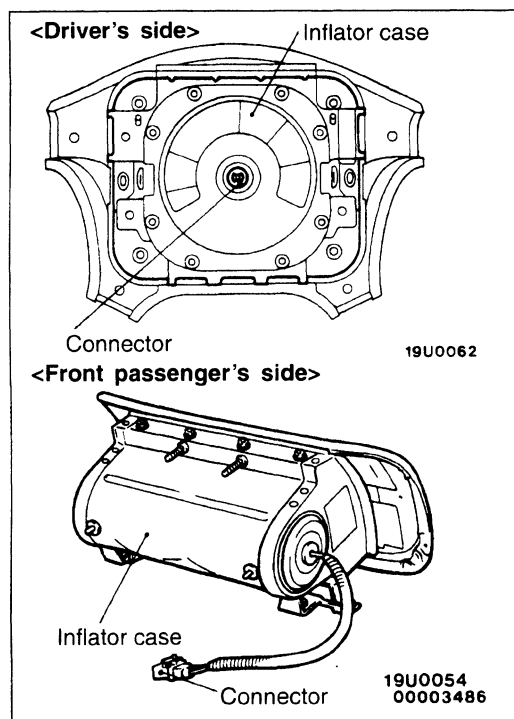
### WHEN AIR BAG OR SEAT BELT PRE-TENSIONER DOES NOT DEPLOY IN LOW-SPEED COLLISION.

Check the SRS components and seat belt with pre-tensioner. If the SRS components and seat belt with pre-tensioner are showing any visible damage such as dents, cracks, or deformation, replace them with new ones. Concerning parts removed for inspection, replacement with new parts and cautionary points for working, refer to appropriate INDIVIDUAL COMPONENT SERVICE, P. 52B-18.



### SRS-ECU

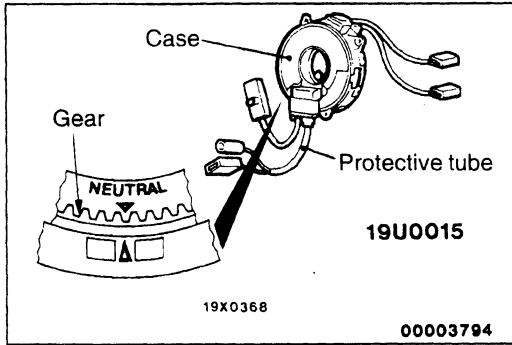
1. Check SRS-ECU case and brackets for dents, cracks or deformation.
2. Check connectors for damage, and terminals for deformation.



### Air bag modules

1. Check pad cover for dents, cracks or deformation.
2. Check connector for damage, terminals deformities, and harness for binds.
3. Check air bag inflator case for dents, cracks or deformities.
4. Install air bag module to steering wheel to check fit or alignment with the wheel.

## 52B-18 SRS – Post-collision Diagnosis/Individual Component Service



### Clock spring

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

### 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.

### Harness connector (body wiring harness)

Check harnesses for binding, connectors for damage, poor connection, and terminals for deformation. (Refer to P.52B-4.)

### Seatbelt with pre-tensioner

1. Check the seatbelt for damage or deformation.
2. Check the pre-tensioner cylinder for denting, cracks or deformation.
3. Check that the unit is installed correctly to the vehicle body.

## INDIVIDUAL COMPONENT SERVICE

52400290049

If the SRS components and seatbelt with pre-tensioner are to be removed or replaced as a result of maintenance, troubleshooting, etc., follow each procedure (P.52B-20 – P.52B-30.)

### Caution

1. SRS components and seatbelt with pre-tensioner should not be subjected to heat, so remove the SRS-ECU, air bag module, clock spring and seatbelt with pre-tensioner before drying or baking the vehicle after painting.
  - SRS-ECU, Air bag module, clock spring: 93°C or more
  - Seatbelt with pre-tensioner: 90°C or moreRecheck SRS system operability after re-installing them.
2. If the SRS components and seatbelt 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.

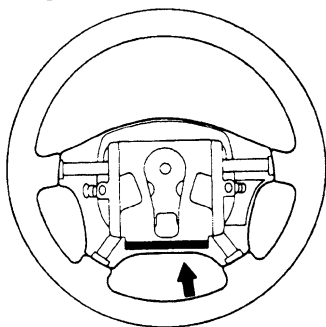
## WARNING/CAUTION LABELS

52400300025

A number of caution labels relating to the SRS and seatbelt with pre-tensioner are found in the vehicle, as shown in the following illustration. Follow

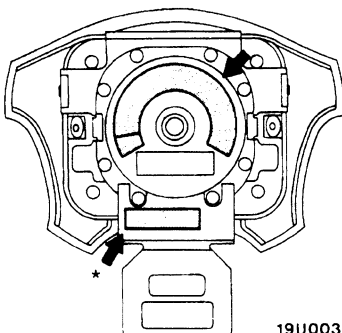
label instructions when servicing SRS and seatbelt pre-tensioner. If labels are dirty or damaged, replace them with new ones.

Steering wheel



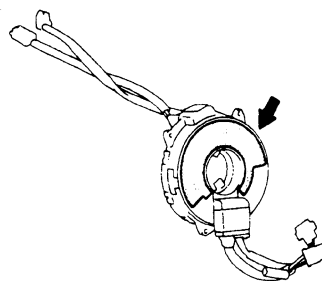
19U0034

Air bag module (driver's side)



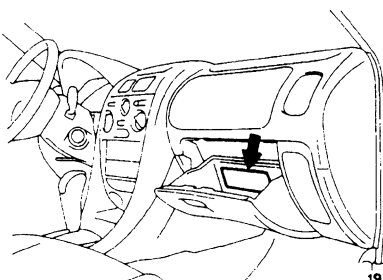
19U0033

Clock spring



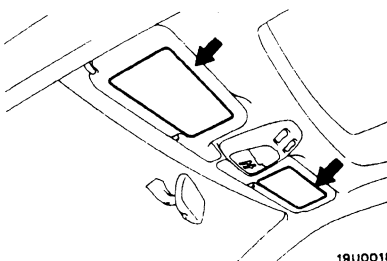
19X0015

Glove box



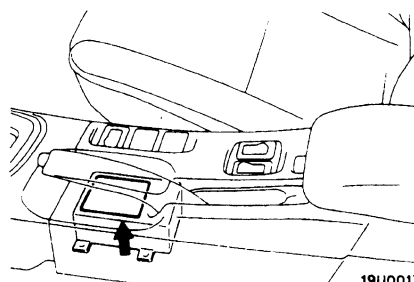
19U0016

Sun visor



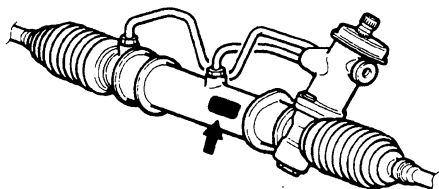
19U0018

SRS-ECU



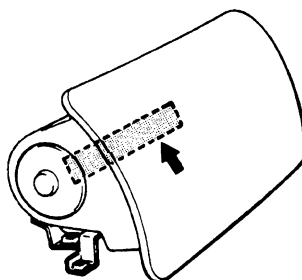
19U0017

Steering gear and linkage



19U0036

Air bag module (front passenger's side)



19U0032

Seatbelt pre-tensioner



19U0031

00003487

### NOTE

\*: If a new part is installed.

## SRS AIR BAG CONTROL UNIT (SRS-ECU)

52400210045

### 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-3.)
2. Never attempt to disassemble or repair the SRS-ECU. If faulty, replace it.
3. Do not drop or subject the SRS-ECU to impact or vibration.

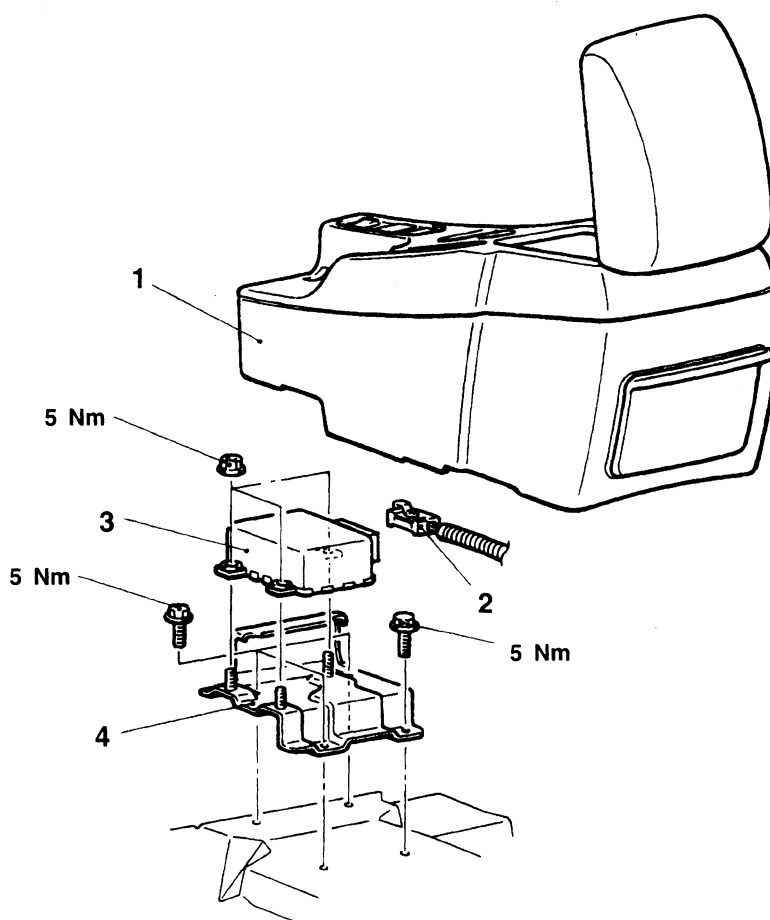
If denting, cracking, deformation, or rust are discovered in the SRS-ECU, replace it with a new SRS-ECU. Discard the old one.

4. After deployment of an air bag, 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-5.

## REMOVAL AND INSTALLATION

### Pre-removal Operation

- Turn the ignition key to the "LOCK" position.

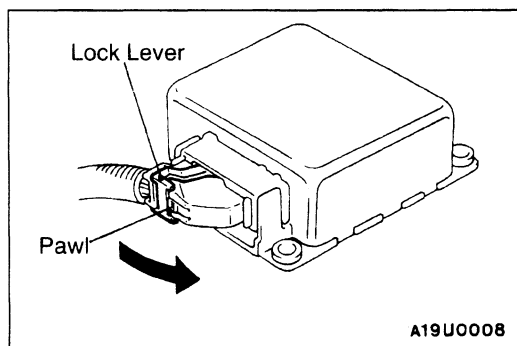


A19U0051

### Removal steps

- C◄
- Post-installation inspection
  - Negative (–) battery cable connection
  - 1. Rear floor console assembly (Refer to GROUP 52A – Floor Console.)

- ◄A► ◄B►
- 2. Harness connector
  - 3. SRS-ECU
  - 4. Bracket



## REMOVAL SERVICE POINT

### ◀A▶ HARNESS CONNECTOR DISCONNECTION

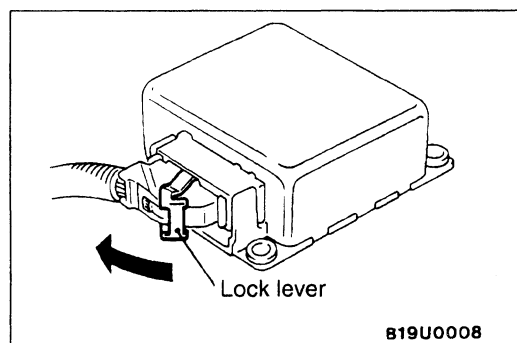
Push the connector pawl to unlock the connector, and then turn the lock lever in the direction of the arrow to disconnect the connector.

## INSTALLATION SERVICE POINTS

### ▶A◀ SRS-ECU INSTALLATION

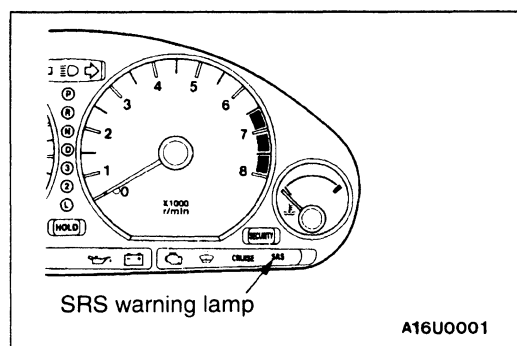
#### Caution

The SRS may not activate if SRS-ECU is not installed properly, which could result in serious injury or death to the vehicle's driver or front passenger.



### ▶B◀ HARNESS CONNECTOR CONNECTION

Connect the harness-side connector securely to the SRS-ECU connector, and then turn the lock lever in the direction of the arrow to lock the connector.



### ▶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 is functioning properly.  
If no, consult page 52B-6.

### INSPECTION

52400220031

- Check the SRS-ECU and brackets for dents, cracks or deformation.
- Check connectors and lock lever for damage, and terminals for deformation.

#### Caution

**If a dent, crack, deformation or rust is discovered, replace the SRS-ECU with a new one.**

#### NOTE

For checking of the SRS-ECU other than described above, refer to the section concerning troubleshooting. (Refer to P.52B- 5.)

## AIR BAG MODULES AND CLOCK SPRING

52400240044

#### Caution

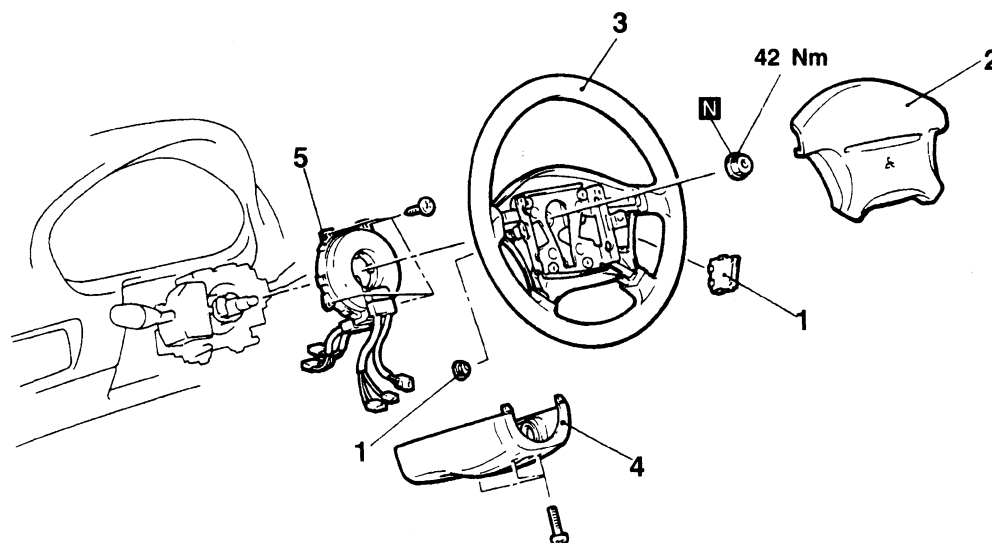
1. Disconnect the battery (–) terminal and wait for 60 seconds or more before starting work. Furthermore, the disconnected battery terminal should be covered with tape to insulate it. (Refer to P.52B-3.)
2. Never attempt to disassemble or repair the air bag modules or clock spring. If faulty, replace it.
3. Do not drop the air bag modules or clock spring or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.
4. The air bag modules should be stored on a flat surface and placed so that the pad surface is facing upward. Do not place anything on top of it.
5. Do not expose the air bag modules to temperatures over 93°C.
6. After deployment of an air bag, replace the clock spring with a new one.
7. Wear gloves and safety glasses when handling air bags that have already deployed.
8. An undeployed air bag module should only be disposed of in accordance with the procedures (Refer to P.52B-31.)

## REMOVAL AND INSTALLATION

### <Air bag module (driver's side), clock spring>

#### Pre-removal Operation

- After setting the steering wheel and the front wheels to the straight ahead position, remove the ignition key.



A19U0070

#### Air bag module removal steps

- E◄
- Post-installation inspection
  - Negative (-) battery cable connection
1. Cap
- ◄A► ►D◄
- A◄
2. Air bag module
- Pre-installation inspection

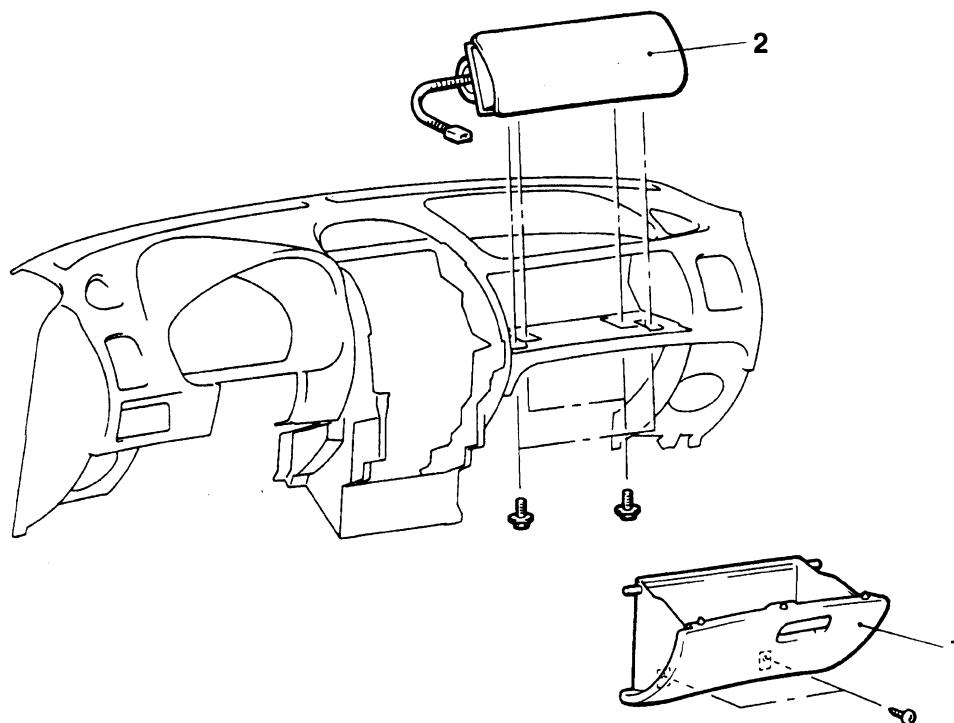
#### Clock spring removal steps

- E◄
- Post-installation inspection
  - Negative (-) battery cable connection
1. Cap
- ◄A► ►D◄
- ◄B► ►C◄
2. Air bag module
3. Steering wheel
4. Column cover lower
5. Clock spring
- ◄C► ►B◄
- A◄
- Pre-installation inspection

52B-24

SRS – Air Bag Modules and Clock Spring

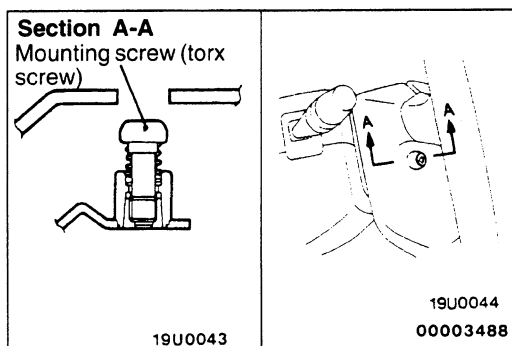
<Air bag module (front passenger's side)>



A19U0047

#### Air bag module removal steps

- ▶E◀ • Post-installation inspection
- Negative (–) battery cable connection
- 1. Glove box
- 2. Air bag module
- ▶A◀ • Pre-installation inspection



#### REMOVAL SERVICE POINTS

##### ◀A▶ AIR BAG MODULE REMOVAL (DRIVER'S SIDE)

Remove the air bag module mounting screw (torx screw) from the side of the steering wheel.

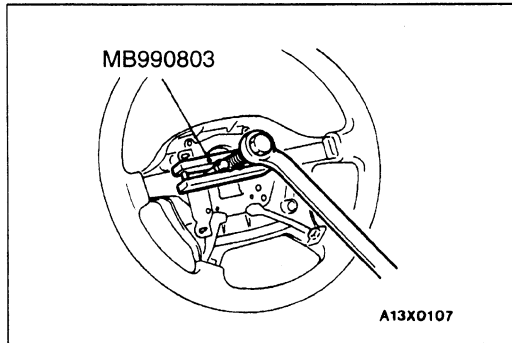
##### NOTE

Do not remove the air bag module mounting screw (torx screw) from the sleeve.

##### Caution

1. When disconnect the air bag module-clock spring connector, take care not to apply excessive force to it.
2. The removed air bag module should be stored in a clean, dry place with the pad cover face 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▶ AIR BAG MODULE REMOVAL (FRONT PASSENGER'S SIDE)

##### Caution

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

### INSTALLATION SERVICE POINTS

#### ▶A◀ PRE-INSTALLATION INSPECTION

1. When installing the new air bag modules and clock spring, refer to "INSPECTION".

##### Caution

Dispose of air bag modules only according to the specified procedure. (Refer to P.52B-31.)

2. Connect the battery (–) terminal.

3. Connect the MUT-II to the diagnosis connector.

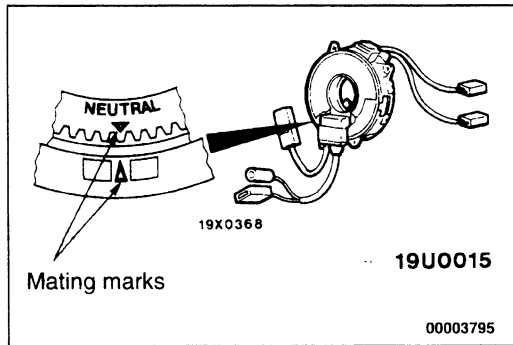
##### Caution

Make certain that the ignition switch is OFF when the MUT-II is connected or disconnected.

4. Turn the ignition key to the "ON" position.
5. Conduct self-diagnosis using the MUT-II to ensure entire SRS operates properly, except open circuit of air bag modules.
6. Turn the ignition key to the "LOCK" 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-3, No. 4.)



### ►B◄ CLOCK SPRING INSTALLATION

Align the mating mark and “NEUTRAL” position indicator of the clock spring, and, after turning the front wheels to the straight-ahead position, install the clock spring to the column switch.

#### 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.

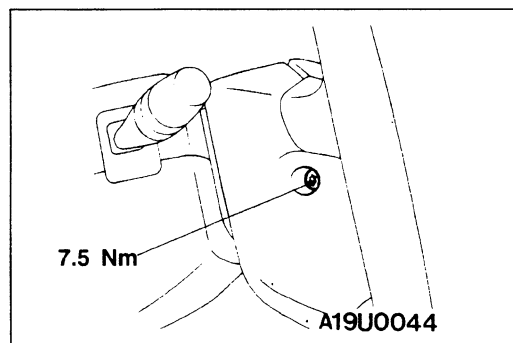
### ►C◄ STEERING WHEEL INSTALLATION

1. Before installation the steering wheel, be sure to first turn the vehicle’s front wheels to the straight-ahead position and align the mating marks of the clock spring.

#### Caution

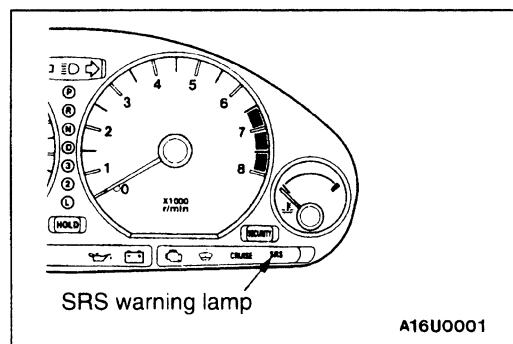
Be sure when installing the steering wheel, that the harness of the clock spring does not become caught or tangled.

2. After clamping, turn the steering wheel all the way in both directions to confirm that steering is normal.



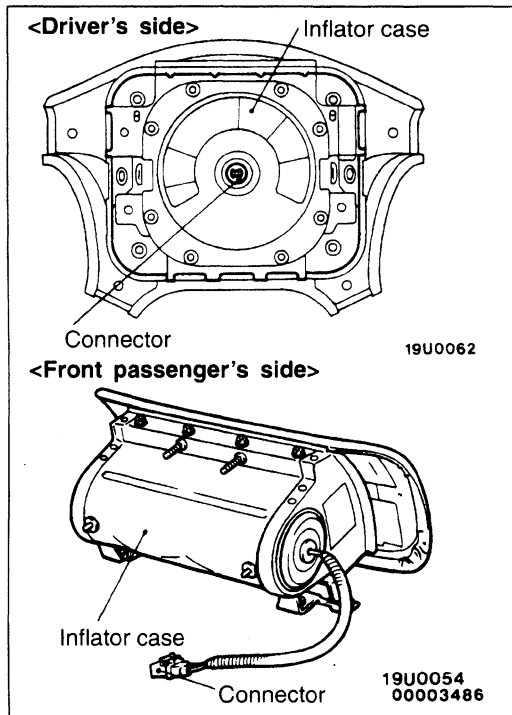
### ►D◄ AIR BAG MODULE INSTALLATION

1. Securely connect the air bag module connector.
2. Tighten the air bag module mounting screw to the specified torque.



### ►E◄ 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-6.



## INSPECTION

52400250030

### AIR BAG MODULES CHECK

If any improper part is found during the following inspection, replace the air bag modules with a new one.

Dispose the old one according to the specified procedure. (Refer to P.52B-31.)

#### Caution

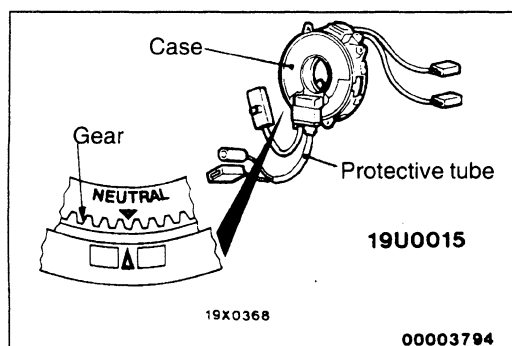
**Never attempt to measure the circuit resistance of the air bag modules (squib) even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bags deployment will result in serious personal injury.**

1. Check pad cover for dents, cracks or deformation.
2. Check connectors for damage, terminals for deformation, and harness for binds.
3. Check air bag inflator case for dents, cracks or deformation.
4. Install the air bag module to steering wheel to check fit or alignment with the wheel.

#### Caution

**If dents, cracks, deformation, or rust are discovered in the air bag module, replace it with a new one.**

**Dispose of the old one according to the specified procedure. (Refer to P.52B-31.)**



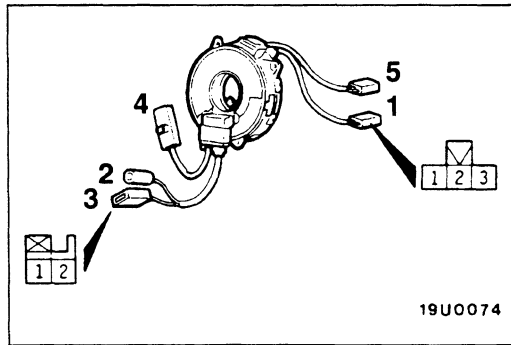
### CLOCK SPRING CHECK

52400250047

If, as result of following checks, even one abnormal point is discovered, replace the clock spring with a new one.

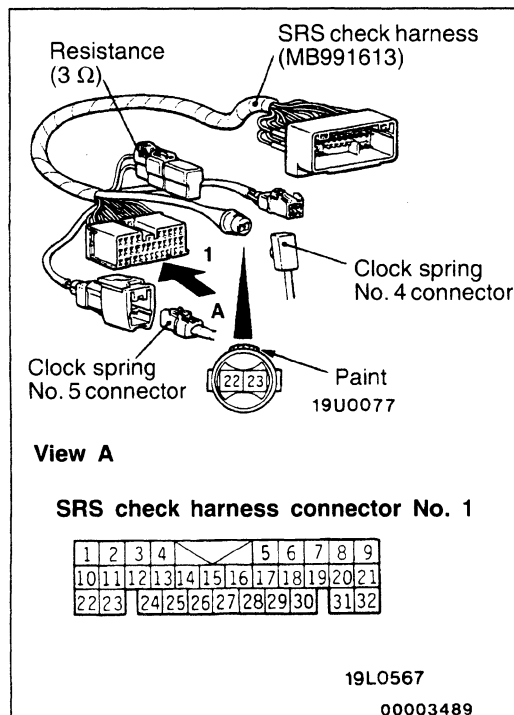
1. Check connectors and protective tube for damage, and terminals for deformation.
2. Visually check the case and the gears for damage.

## 52B-28 SRS – Air Bag Modules and Clock Spring/Seat Belt with Pre-tensioner



3. Check for continuity between the No. 1 connector of the clock spring and connectors No. 2 and 3.

| Connector No.                | 1 |   |   | 2 | 3 |   |
|------------------------------|---|---|---|---|---|---|
| Terminal No.                 | 1 | 2 | 3 | 1 | 1 | 2 |
| Continuity between terminals |   |   |   |   |   |   |



4. Joint the No. 4 and 5 connectors of the clock spring to the connector of the SRS Check Harness.
5. Check for continuity between terminal 22 and terminal 25, and terminal 23 and terminal 24, of SRS Check Harness connector No. 1 using a digital multi-meter.

## SEAT BELT WITH PRE-TENSIONER

52400410018

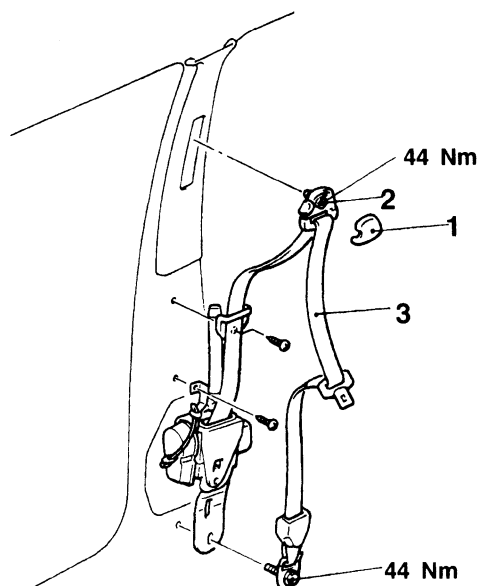
### Caution

1. Disconnect the battery (–) terminal and cover with tape to insulate it and wait for 60 seconds or more before starting work. (Refer to P.52B-3.)
2. Never attempt to disassemble or repair the seat belt with pre-tensioner. If faulty, replace it.
3. Do not drop the seat belt with pre-tensioner or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.
4. Do not place anything on top of the seat belt pre-tensioner.
5. Do not expose the seat belt with pre-tensioner to temperatures over 90°C.
6. After operating the seat belt pre-tensioner, replace the seat belt pre-tensioner with a new part.
7. Gloves and protective goggles should be worn when handling a pre-tensioner once it has been used.
8. 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-31.)

## REMOVAL AND INSTALLATION

### Pre-removal and Post-installation Operation

- Center Pillar Lower Trim Removal and Installation  
(Refer to GROUP 52A.)



A19U0049

### Removal steps

- B◄
  - Post-installation inspection
  - Negative (-) battery cable connection
- 1. Sash guide cover
- 2. Sash guide
- 3. Seat belt with pre-tensioner
- A◄
  - Pre-installation inspection

## 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-31.)**

- Connect the battery (-) terminal.

3. Connect the MUT-II to the diagnosis connector.

**Caution**

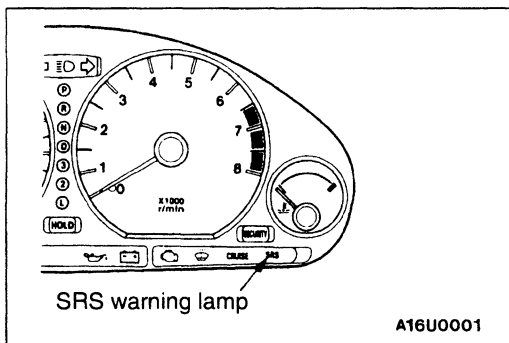
**Make certain that the ignition switch is OFF when the MUT-II is connected or disconnected.**

4. Turn the ignition key to the "ON" position.
5. Conduct self-diagnosis using the MUT-II to ensure entire SRS operates properly, except open circuit of seatbelt with pre-tensioner.

6. Turn the ignition key to the "LOCK" 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 P52B-3, No. 4.)**



**►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, refer to page 52B-6.

**INSPECTION**

52400420011

**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-31.)

**Caution**

**Never attempt to measure the circuit resistance of the seat belt-tensioner even if you are using the specified tester. If the circuit resistance is measured with a tester, the seat belt pre-tensioner may accidentally operate, which could result in serious personal injury.**

1. Check seat belt pre-tensioner for dents, cracks or deformation.
2. Check connectors for damage, terminals for deformation, and harness for binds.

## **AIR BAG MODULE AND SEAT BELT PRE-TENSIONER DISPOSAL PROCEDURES**

52400120041

Before disposing of a vehicle which is equipped with air bag or seat belts with pre-tensioner, or when disposing of the air bags or seat belt

pre-tensioner themselves, follow the 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 and operate the seat belt pre-tensioners inside 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**

#### **(when disposing of a vehicle)**

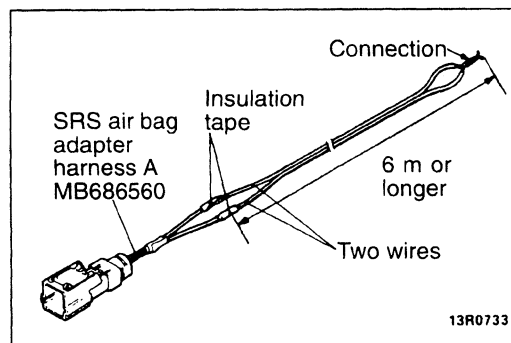
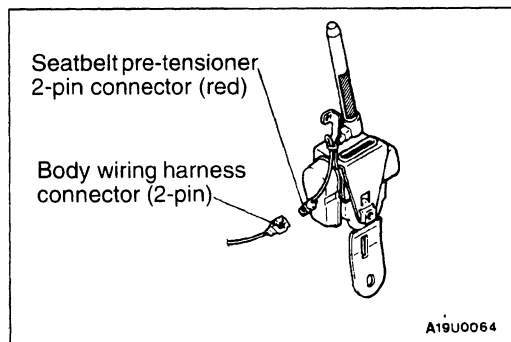
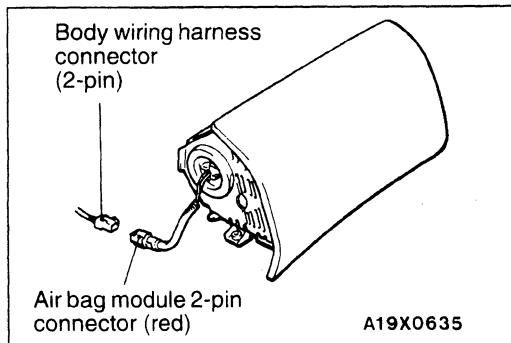
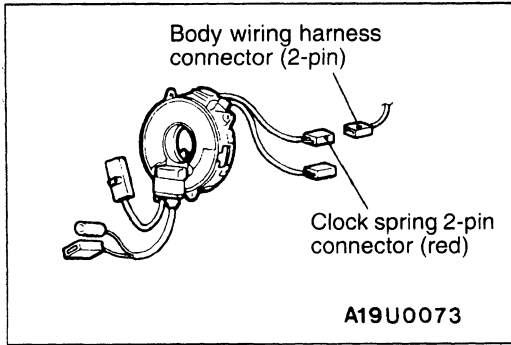
- (1) Open all windows and doors of the vehicle. Move the vehicle to an isolated spot.
- (2) Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

#### **Caution**

Wait at least 60 seconds after disconnecting the battery cables before doing any further work. (Refer to P.52B-3.)



## 52B-32 SRS – Air Bag Module and Seat Belt Pre-tensioner Disposal Procedures



- (3) To deploy the air bag module (driver's side):
1. Remove the steering column cover lower.
  2. Remove the connection between the clock spring 2-pin connector (red) and the body wiring harness connector.

### NOTE

If the clock spring connector is disconnected from the body wiring harness, both electrodes of the clock spring connector will be automatically shorted to prevent unintended deployment of the air bag due to static electricity, etc.

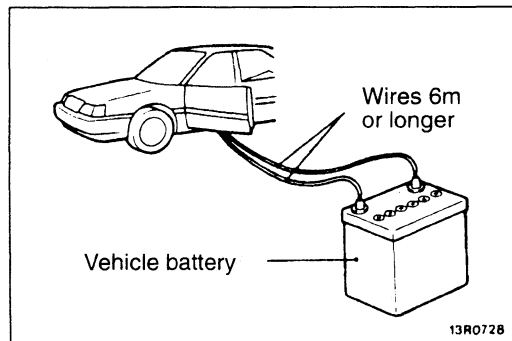
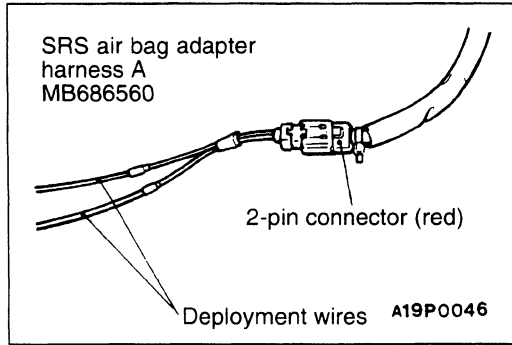
- (4) To deploy the air bag module (front passenger's side):
1. Remove the glove box. (Refer to P.52B-24.)
  2. Remove the connection between the air bag module (front passenger's side) connector (red 2-pin) and the body wiring harness connector.

- (5) To operate the seat belt pre-tensioner:
1. Remove the center pillar lower trim. (Refer to GROUP 52A).
  2. Remove the connection between the seatbelt pre-tensioner connector (red 2-pin) and the body wiring harness connector.

- (6) Connect two wires, each six meters or longer, to the two leads of SRS air bag adapter harness A 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 air bag.



**SRS – Air Bag Module and Seat Belt Pre-tensioner Disposal Procedures 52B-33**



- (7) Connect the block spring, air bag module (front passenger's side) or seat belt pre-tensioner 2-pin connector (red) to SRS air bag adapter harness A and pass the deployment wires out of the vehicle.
- (8) At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag or to operate the seat belt pre-tensioner.

**Caution**

1. Before deploying the air bag or 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 inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module and Seat Belt Pre-tensioner Disposal Procedures (P.52B-38.) for post-deployment handling instructions.
  3. If the air bag module fails to deploy or the seat belt pre-tensioner fails to operate when the procedures above are followed, do not go near the module or the seat belt pre-tensioner. Contact your local distributor.
- (9) After deployment or operation, dispose of air bag module or seatbelt pre-tensioner according to the Deployed Air Bag Module and Seat Belt Pre-tensioner Disposal Procedures. (Refer to P.52B-38.)

## 52B-34 SRS – Air Bag Module and Seat Belt Pre-tensioner Disposal Procedures

### 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 perform deployment outside, if a strong wind is blowing, and if there is even a slight breeze, the air bag module should be placed and deployed downwind from the battery.
- (1) Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

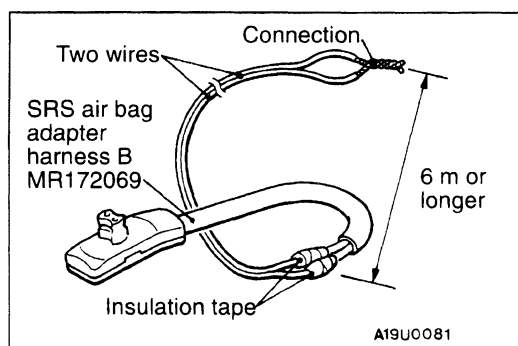
#### Caution

Wait at least 60 seconds after disconnecting the battery cables before doing any further work. (Refer to P.52B-3.).

- (2) Remove the air bag module and seat belt with pre-tensioner for the vehicle. (Refer to P.52B-22, 28.).

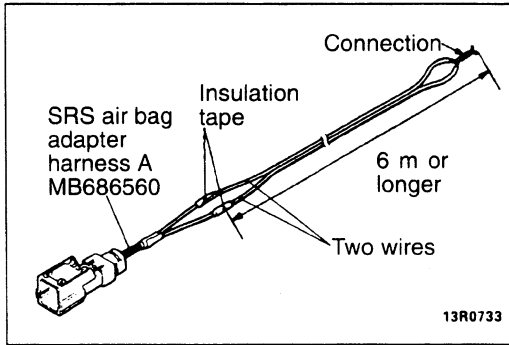
#### Caution

The air bag module should be stored on a flat surface and placed so that the pad cover face up. Do not place anything on top of it.



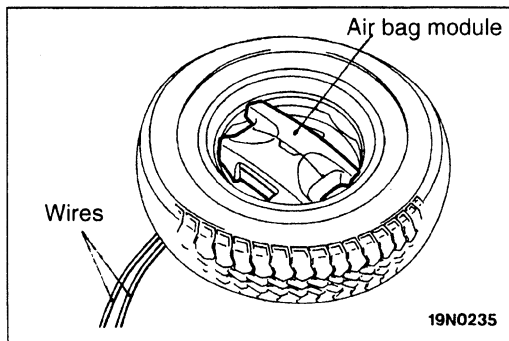
- (3) When deploying the driver's side air bag module: Connect two wires, each six meters or longer, to the two leads of SRS air bag adapter harness B, and cover the connections with insulation tape. The other ends of the two wires should be connected to each other (short-circuited), to prevent sudden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

SRS – Air Bag Module and Seat Belt Pre-tensioner Disposal Procedures 52B-35



When deploying the passenger's side air bag module or operating the seat belt pre-tensioner:

Connect two wires, each six meters or longer, to the two leads of SRS air bag adapter harness A, 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 air bag module or operation of the seat belt pre-tensioner.



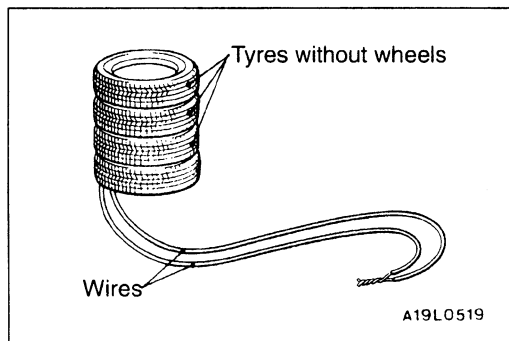
- (4) Set the Air Bag Modules or Seat Belt Pre-tensioner as follows:

<Air Bag Module (driver's side)>

1. Take the SRS air bag adapter harness B that is connected to the wires, pass it beneath the old tyre wheel assembly, and connect it to the air bag module.
2. Pass the thick wire through the air bag module mounting hole, and then secure the air bag module to an old tyre with a wheel in it so that the pad on the module is facing upwards.

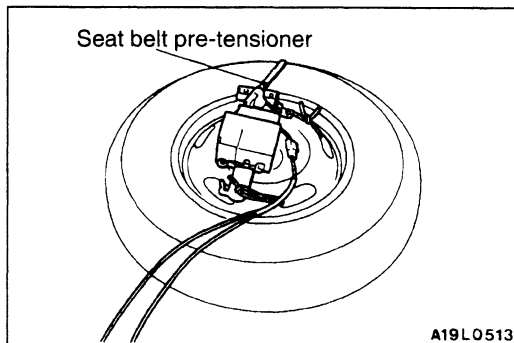
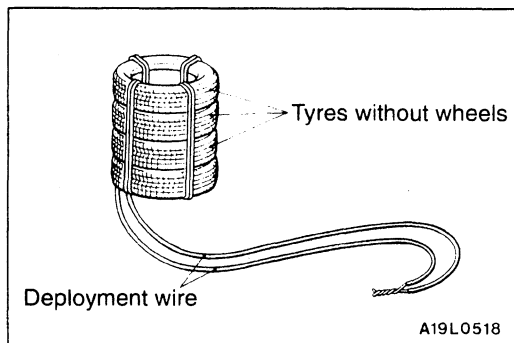
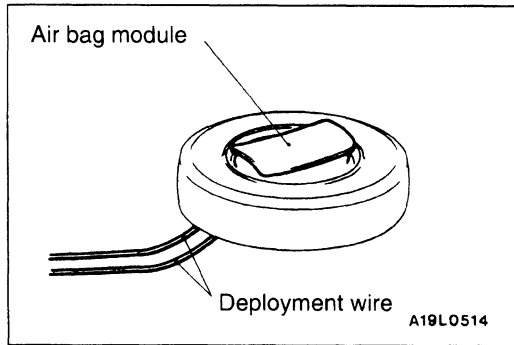
**Caution**

**Leave some space below the wheel for the adaptor harness. If there is no space, the reaction when the air bag deploys could damage the adaptor harness.**



3. Place three old tyres with no wheels on top of the tyre secured to the air bag module.

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### <Air Bag Module (front passenger's side)>

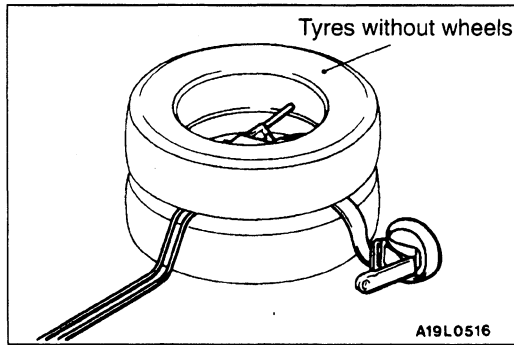
1. Connect the deployment wires to the SRS air bag adaptor harness A, pass it beneath the tyre, and wheel assembly, and connect it to the air bag module.
2. Pass the thick wires into the hole of the air bag module bracket, and secure it to the wheel of the old tyre with wheel (4 locations), with the air bag facing upwards.

### Caution

1. Leave some space below the wheel for the deployment wires.  
If there is no space, the reaction of the air bag deployment could result in damage of the adaptor harness.
2. While deployment takes place, do not have the connector of the SRS air bag adaptor harness A inserted between the tyres.
3. Place four old tyres, without wheels, on top of the tyre secured to the air bag module, and secure all tyres with ropes (4 locations).

### <Seat Belt Pre-tensioner>

1. Connect SRS air bag adapter harness A (with the deployment harness connected) to the seat belt pre-tensioner from the top of the old tyre with the wheel in it.
2. Pass the wires through the hole on the seat belt retractor bracket and secure them to the front (raised part) of the wheel on two places.

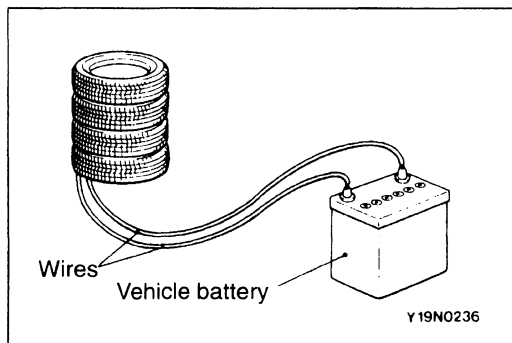


**Caution**

1. The deployment harness should be left with some slack. If it is too tight, the adapter harness may become damaged during deployment.
2. The connector of the SRS air bag adapter harness A should be placed so that it is not clamped by the tyres during deployment or operation.
3. Pull the seat belt out the outside of the tyre, and then place one tyre without a wheel inside on top of the existing tyre.

**NOTE**

The cylinder of the seat belt pre-tensioner should be placed inside the cavity of top tyre.



- (5) At a location as far away from the air bag module or seat belt pre-tensioner as possible, and from a shielded position, disconnect the two connected wires from each other and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag or to operate the seat belt pre-tensioner.

**Caution**

1. Before deployment, check carefully to be sure that no one is nearby.
  2. The inflator will be quite hot immediately following deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although the gas resulting from air bag deployment is not poisonous, it should not be inhaled. Refer to the Deployed Air Bag Module and Seat Belt Pre-tensioner Disposal Procedures below for post-deployment handling instructions.
  3. If the air bag fails to deploy or seat belt pre-tensioner fails to operate when the procedures above are followed, do not go near the module or the seat belt pre-tensioner. Contact your local distributor.
- (6) After deployment or operation, dispose of the air bag module or seat belt pre-tensioner according to the Deployed Air Bag Module and Seat Belt Pre-tensioner Disposal Procedures.

## 52B-38 SRS – Air Bag Module and Seat Belt Pre-tensioner Disposal Procedures

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

After deployment, 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. 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.

