INTERIOR AND SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

CONTENTS

INTERIOR	52A
SUPPLEMENTAL RESTRAINT SYSTEM (SRS)	52B

INTERIOR

CONTENTS

SERVICE SPECIFICATIONS 3
SPECIAL TOOL 3
INSTRUMENT PANEL*3
TRIMS <space -="" drive="" l.h.="" runner="" vehicles=""></space>
TRIMS <space -="" drive<br="" r.h.="" runner="">vehicles> 12</space>
TRIMS <space wagon=""> 16</space>
INSIDE REAR VIEW MIRROR 18

FRONT SEAT*	18
REAR SEAT <space runner=""></space>	24
SECOND SEAT <space wagon=""></space>	27
THIRD SEAT <space wagon=""></space>	34
SEAT ADJUSTER AND STRIKER	37
SEAT BELT	39
Front Seat Belt	39
Rear Seat Belt < SPACE RUNNER>	40
Second Seat Belt and Third Seat Belt	
	41

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, side impact sensors 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

Items	Standard value	
Seat back heater resistance (between terminals) Ω $% = (When the term in the term in the term is the term in the term in the term is the term in the term in the term is the term is the term in the term in the term is the term in term in the term is the term is the term in term is the term is the term in term is the term in term is the term is the term in term is the term is the term is the term in term is the term is th$	6.84 - 7.92	
Seat cushion heater resistance (between terminals) Ω (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

Tool	Number	Name	Use
В990784	MB990784	Ornament remover	Removal of switch, trim, etc.

INSTRUMENT PANEL

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	5×12	-	
	b	5×20	-	
	с	4×12	-	1920022
	d	5×16	-	
	е	5×16	Black	1970004
	f	5×12	-	1 1920004
Washer-assembled screw	g	5×16	-	19ZOOO6
Washer-assembled bolt	h	6×16	Black	Almma
	i	6×16	-	Haptilities 1920005
	j	6×16	-	19Z0010

D = Thread diameter

L = Effective thread length

Caution: SRS

- 1. For the passenger side air bag module removal/installation, always observe the service procedures of GROUP 52B - Air Bag Module and Clock Spring.
- 2. Do not subject the SRS-ECU to any shocks when removing or installing the instrument panel.



Removal steps

- 1. Column cover
- 2. Metal bezel
- 3. Combination meter
- 4. Hood panel
- 5. Center hood
- 6. Fuse box lid
- 7. Hood lock release handle
- 8. Under cover assembly
- 9. Switch panel assembly
- 10. Driver's side upper cover
- Steering column mounting bolt (Refer to GROUP 37A - Steering
- Wheel and Shaft.) Shift knob (Refer to GROUP • 22/23 - Transmission Control.)
- 11. Shift lever cover assembly <A/T>
- 12. Console panel <M/T>

- 13. Shift lever cover <M/T>
- 14. Side console cover
- 15. Ashtray
- 16. Cup holder
- 17. Center console
- 18. Box
- 19. Center air outlet assembly
- 20. Radio and tape player
- 21. Heater control assembly
- (Refer to GROUP 55.)
- 22. Glove box
- 23. Instrument panel connector holder
- 24. Instrument panel side cover
- 25. Instrument panel assembly 26. Glove box frame
- 27. Lower frame

CLIP AND CLAW POSITIONS





DISASSEMBLY AND REASSEMBLY



Disassembly steps

- 1. Defroster duct
- 2. Center ventilation duct
- 3. Glove box striker
- Air bag module (front passenger's side)
 Center upper frame
 Meter connector holder

- 7. Instrument panel upper bracket

- 8. Side defroster grille
 9. Side air outlet assembly
 10. Front passenger's side upper cover
 11. Instrument panel
 12. Instrument panel bracket assembly
 13. Side cover bracket
 14. Glove box support bracket
 15. Stay

TRIMS <SPACE RUNNER - L.H. drive vehicles> **REMOVAL AND INSTALLATION**

<L.H.>



- Rear seat (Refer to GROUP 52A-24.) 1. Cowl side trim
- Front scuff plate
 Front pillar trim
- 4. Tonneau cover

- 5. Luggage tray lid
 6. Rear end Trim
 7. Accessory socket
 8. Quarter lower trim assembly
 9. Center pillar upper trim
 10. Rear pillar trim

NOTE

For the door trim, refer to GROUP 42.



- Rear seat (Refer to GROUP P.52A-24.)
 1. Cowl side trim
 2. Front scuff plate
 3. Rear scuff plate
 4. Front pillar trim
 5. Center pillar lower trim

NOTE

For the door trim, refer to GROUP 42.

- 6. Center pillar upper trim
 7. Slide door rail cover
 8. Tonneau cover
 9. Luggage tray lid
 10. Rear end Trim
 11. Quarter lower trim assembly
 12. Rear pillar trim

CLIP POSITIONS

<L.H.>



W0402AE 00009563





TRIMS <SPACE RUNNER - R.H. drive vehicles> **REMOVAL AND INSTALLATION**

<R.H.>



- Rear seat (Refer to GROUP 52A-24.) 1. Cowl side trim
- Front scuff plate
 Front pillar trim
- 4. Tonneau cover
- NOTE

For the door trim, refer to GROUP 42.

- 5. Luggage tray lid
 6. Rear end trim
 7. Quarter lower trim assembly
- 8. Center pillar upper trim 9. Rear pillar trim

<L.H.>



- Rear seat ٠ Rear seat (Refer to GROUP 52A-24.)
 1. Cowl side trim
 2. Front scuff plate
 3. Rear scuff plate
 4. Front pillar trim
 5. Center pillar lower trim
 6. Center pillar upper trim



- 7. Slide door rail cover
- 8. Tonneau cover

- 9. Luggage tray lid
 10. Rear end Trim
 11. Accessory socket
 12. Quarter lower trim assembly
 13. Rear pillar trim

CLIP POSITIONS

<R.H.>









TRIMS <SPACE WAGON>

REMOVAL AND INSTALLATION



- Third seat • Third seat (Refer to GROUP 52A-34.)
 1. Front scuff plate
 2. Rear scuff plate
 3. Cowl side trim
 4. Front pillar trim
 5. Conten pillar language

- 5. Center pillar lower trim
- 6. Center pillar upper trim
- 7. Assist grip

NOTE For the door trim, refer to GROUP 42.

- 8. Quarter upper trim
 9. Quarter armrest assembly
- 10. Tonneau cover
- 11. Lid12. Quarter lower trim assembly13. Accessory socket (R.H. only)14. Luggage tray lid15. Rear end trim

CLIP POSITIONS

V0803AE 00009567

Section A – A	Section B – B	Section C – C	Section D – D
Clip Trim V0810AE	Clip Trim W0444AE	Clip Trim V0813AE	Trim Clip V0814AE
Section E – E	Section F – F	Section G – G	Section H – H
Clip Trim V0815AE	Clip Clip W0445AE Trim	Clip V0817AE	Trim Clip V0818AE
Section I – I	Section J – J	Section K – K	Section L – L
Trim	Trim	Scuff plate Clip	Trim
V0819AE	V0820AE	V0821AE	V0822AE



INSIDE REAR VIEW MIRROR

REMOVAL SERVICE POINT

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

NOTE

- 1. The mirror spring fits firmly in the groove of the button that is attached to the glass.
- 2. The mirror breaking load is within 440 N.

FRONT SEAT

REMOVAL AND INSTALLATION

Caution: SRS

Before removal of the seat equipped with the side air bag module, refer to GROUP 52B - SRS Service Precautions and Air Bag Module.



- 1. Heated seat switch
- <Vehicles with heated seat>
- 2. Headrestraint

Front seat assembly removal steps

- 3. Front passenger's seat under tray
- 4. Seat anchor cover
- Side air bag module harness connector <Vehicles with SRS side air bag>
- 6. Heated seat harness connector <Vehicles with heated seat>
- A 7. Front seat assembly

NOTE

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

REMOVAL SERVICE POINT

NOTE

Remove the seat anchor covers A and B with a bar supplied with the vehicle.





SEAT ANCHOR COVER A

Insert the bar at the lower part of the seat anchor cover A. Push down the bar in the direction shown to disengage the claws and raise the cover to remove it.



SEAT ANCHOR COVER B

Insert the bar at the lower part of the seat anchor cover B and push down the bar in the direction shown to remove the cover.



INSTALLATION SERVICE POINT

►A FRONT SEAT ASSEMBLY INSTALLATION

Tighten the nut and bolt shown in the illustration with no load on the seat cushion.



INSPECTION HEATED SEAT SWITCH CONTINUITY CHECK



NOTE

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



SEAT BACK HEATER CHECK

Measure the resistance between terminals.

Standard value

(When ambient temperature is 20°C): 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

Caution:

Do not disassemble the front seat back assembly with built-in side air bag module.



Disassembly steps

- 1. Reclining adjuster knob
- 2. Reclining cover
- 3. Shield Čover
- 4. Height adjuster knob
- 5. Front seat cushion assembly
- 6. Front seat cushion cover and pad assembly
- 7. Front seat cushion frame
- 8. Seat heater cushion
- </br>

 <Vehicles with heated seat>

 9. Armrest cap
- 10. Spring
- 11. Bush
- 12. Armrest
- 12. Annie:
- 13. Bush
- 14. Armrest bracket

- 15. Front seat back assembly
- 16. Headrestraint guide
- 17. Front seat back cover and pad assembly
- Front seat back frame <Vehicles without SRS side air bag>
- 19. Seat heater back
- <Vehicles with heated seat>
- 20. Inner seat belt
- 21. Front seat inner cover
- 22. Outer leg cover
- 23. Inner leg cover
- 24. Heated sear harness <Vehicles with heated seat>
- 25. Seat adjuster assembly

DISASSEMBLY SERVICE POINTS

∢A▶ RECLINING COVER/SHIELD COVER REMOVAL

For the reclining cover, disengage the claws at section A - A, and then disengage the claw at section B - B. For the shield cover, disengage the claws at section C - C, and then disengage the claw at section D - D.





∢B**▶** HEADRESTRAINT GUIDE REMOVAL

REAR SEAT < SPACE RUNNER>

REMOVAL AND INSTALLATION



Removal steps

- Headrestraint
 Rear seat assembly

DISASSEMBLY AND REASSEMBLY



Disassembly steps

- 1. Striker cover
- 2. Rear seat unit cover A
- 3. Rear seat unit cover B
- 4. Reclining cover B
- 5. Reclining cover A
 - 6. Hinge cover
 - 7. Assist grip cable connection
- 8. Seat adjuster assembly
- 9. Rear seat back assembly

- 10. Assist grip lever 11. Assist grip cover 12. Assist grip cable
- 13. Fall down knob
- 14. Garnish
- 15. Headrestraint guide

- 16. Rear seat back cover and pad assembly
- 17. Rear seat back panel
- 18. Fall down cable connection
- 19. Reclining adjuster
- 20. Fall down cable
- 21. Rear seat back frame
- 22. Rear seat cushion assembly
- 23. Rear seat cushion bottom cover 24. Rear seat cushion cover and pad
- assembly
- 25. Rear seat cushion frame
- 26. Inner seat belt
- 27. Center seat belt

DISASSEMBLY SERVICE POINTS

- 1. Disengage the claws at section A A.
- 2. Disengage the clip at section B B.
- 3. Disengage the claw at section C C.



∢B**▶** HEADRESTRAINT GUIDE REMOVAL

REASSEMBLY SERVICE POINT A ASSIST GRIP CABLE INSTALLATION Turn the puts to adjust the cable as shown in the illustration

Turn the nuts to adjust the cable as shown in the illustration.

SECOND SEAT <SPACE WAGON> REMOVAL AND INSTALLATION

<Personal seat> 2 3 44 Nm 庐 44 Nm 44 Nm 3 44 Nm 2 q Ē 44 Nm 44 Nm ģ W0429AE 1 2 <Bench seat> 44 Nm 44 Nm 5

Headrestraint
 Second seat removal steps
 Second seat anchor cover

3. Second seat assembly

3

2

44 Nm

W0430AE 00009597

Ð

63

DISASSEMBLY AND REASSEMBLY

<Personal seat>

Disassembly steps

- 1. Inner cover A
- Reclining adjuster knob
 Shield cap
 Reclining cover A
 Shield cover

- 6. Reclining cover B
- 7. Reclining cover C
- 8. Hinge cover
- •C 9. Fall down cable connection
 - 10. Armrest cap 11. Spring
 - 12. Bush

(B)

- 13. Armrest

- 14. Bush
- 15. Armrest bracket
- 16. Second seat back assembly
- Headrestraint guide
 Fall down knob
- 19. Garnish
- 20. Second seat back cover and pad assembly
- 21. Second seat back panel
- 22. Second seat back frame
- 23. Fall down cable
- 24. Reclining adjuster
- 25. Inner cover B

- ►B◀ 26. Slide cable A connection
- **B** 27. Tip up cable connection 28. Link

 - 29. Slide lock plate30. Second seat cushion assembly31. Slide lever

 - 32. Tip up knob
 - 33. Garnish
 - 34. Second seat cushion cover and pad assembly

- 35. Second seat cushion bottom cover
- 36. Second seat cushion frame
- 37. Slide cable A
- 38. Tip up cable39. Upper slide cover40. Inner seat belt
- 41. Seat adjuster

<Bench seat>

Disassembly steps

- 1. Inner cover A
- Innier cover A
 Reclining adjuster knob
 Shield cap
 Reclining cover A
 Reclining cover B
 Reclining lever

- ►C 7. Fall down cable connection
 - 8. Hinge cover
 - 9. Hinge bracket
 - 10. Second seat back assembly
 - 11. Shaft

1B

C

- 12. Headrestraint guide 13. Fall down knob
- 14. Garnish
- 15. Second seat back cover and pad 15. Second seat back cover assembly16. Second seat back panel17. Second seat back frame

- 18. Fall down cable
- 19. Slide cable B connection
- 20. Reclining adjuster
- 21. Inner cover B

- ▶B◀ 23. Slide cable A connection
 ▶B◀ 24. Tip up cable connection
 - 25. Link

 - 26. Slide lock plate 27. Second seat cushion assembly
 - 28. Slide lever
 - 29. Tip up knob
 - 30. Garnish
 - 31. Second seat cushion bottom cover
 - 32. Second seat cushion cover and pad assembly

- 34. Slide cable
- 35. Tip up cable
- 36. Upper slide cover 37. Inner seat belt 38. Center seat belt

- A 39. Slide cable B
 - 40. Seat adjuster

DISASSEMBLY SERVICE POINTS

A RECLINING COVER A <PERSONAL SEAT> REMOVAL

- 1. Disengage the claws at section A A.
- 2. Disengage the clip at section B B.
- 3. Disengage the claw at section C C.

◆B▶ SHIELD COVER <PERSONAL SEAT>/RECLINING COVER A <BENCH SEAT> REMOVAL

- 1. Disengage the claws at section A A.
- 2. Disengage the clip at section B B.
- 3. Disengage the claws at section C C.

Nut

Cable

AW0061AE

◄C► HEADRESTRAINT GUIDE REMOVAL

REASSEMBLY SERVICE POINTS ►A◀SLIDE CABLE B <BENCH SEAT> INSTALLATION Turn the nuts to adjust the cable as shown in the illustration.

Nut Cable Cable 10 mm 10 mm AW0062AE

2 mm

►B TIP UP CABLE/SLIDE CABLE A INSTALLATION

Turn the nuts to adjust the cable as shown in the illustration.

►C FALL DOWN CABLE INSTALLATION

Install the fall down cable so that the seat frame is engaged with the center groove of the resin cap fitted at the cable end.

THIRD SEAT < SPACE WAGON> **REMOVAL AND INSTALLATION**

Removal steps

- Headrestraint
 Third seat assembly

DISASSEMBLY AND REASSEMBLY

Disassembly steps

- 1. Striker cover
- 2. Third seat unit cover A
- 3. Rear seat unit cover B
- 4. Reclining adjuster knob
- 5. Shield cap
- 6. Reclining cover
- 7. Hinge cover8. Assist grip cable connection9. Third seat back assembly

 - 10. Assist grip lever 11. Assist grip cover 12. Assist grip cable

 - 13. Headrestraint guide

1BÞ

14. Third seat back cover and pad assembly

V0764AE 00007289

- 15. Third seat back panel
- 16. Third seat back frame
- 17. Reclining adjuster inner cover
- 18. Reclining adjuster
- 19. Third seat cushion assembly
- 20. Third seat cushion bottom cover
- 21. Third seat cushion cover and pad assembly
- 22. Third seat cushion frame
- 23. Inner seat belt
- 24. Seat adjuster

DISASSEMBLY SERVICE POINTS

- 1. Disengage the claws at section A A.
- 2. Disengage the clip at section B B.
- 3. Disengage the claw at section C C.

∢B**▶** HEADRESTRAINT GUIDE REMOVAL

DISASSEMBLY SERVICE POINT ►A ASSIST GRIP CABLE INSTALLATION Turn the nuts to adjust the cable as shown in the illustration.
SEAT ADJUSTER AND STRIKER

REMOVAL AND INSTALLATION

.

Pre-removal and Post-Installation Operation

- Rear Seat Assembly Removal and Installation <SPACE RUNNER> (Refer to P.52A-24)
- Second Seat Assembly Removal and Installation
- <SPACE WAGON >(Refer to P.52A-27)
- Third Seat Assembly Removal and Installation <SPACE WAGON >(Refer to P.52A-34)



REMOVAL SERVICE POINTS





◄B STRIKER COVER REMOVAL

SEAT BELT

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**



Outer seat belt removal steps

- Quarter lower trim assembly and center pillar lower trim <SPACE RUNNER> (Refer to P.52A-8, 9, 12, 13.)
- Front scuff plate, rear scuff plate and center pillar lower trim <SPACE WAGON'> (Refer to P.52A-16.)
- 1. Sash guide cover
- 2. Sash cover
- 3. Outer seat belt
- 4. Center pillar upper trim (Refer to P.52A-8, 9, 12, 13, 16.) 5. Adjustable shoulder belt anchor

Inner seat belt removal steps

- Front seat assembly •
- (Refer to P.52A-18) Shield cover
- (Refer to P.52A-22.)
- 6. Inner seat belt

REAR SEAT BELT<SPACE RUNNER> REMOVAL AND INSTALLATION

Pre-removal and Post-installation Operation Quarter Lower Trim Removal and Installation (Refer to P.52A-8, 9, 12, 13.)



Removal steps

1. Sash guide cover 2. Outer seat belt

NOTE

For the inner seat belt and center seat belt, refer to P.52A-25.

SECOND SEAT BELT AND THIRD SEAT BELT <SPACE WAGON> **REMOVAL AND INSTALLATION**



Second seat belt removal steps

- Quarter lower trim assembly (Refer to P.52A-16.)
- 1. Sash guide cover
- 2. Outer seat belt
- 3. Quarter upper trim (Refer to P.52A-16.)
- 4. Àdjustable shoulder belt anchor
- 5. Inner/outer seat belt
- (for center seat) <bench seat>
6. Inner seat belt (for side seats) <bench seat>

- Shield cover <personal seat> (Refer to P.52A-28.)
- 7. Inner seat belt <personal seat>

Third seat belt removal steps

- Quarter lower trim assembly (Refer to P.52A-16.) 1. Sash guide cover 2. Outer seat belt

- 3. Quarter upper trim (Refer to P.52A-16.)
- 8. Inner seat belt (Refer to P.52A-35.)

NOTES

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

CONTENTS

52409000292

GENERAL INFORMATION	31
SPECIAL TOOLS	CK 33
TEST EQUIPMENT	41
TROUBLESHOOTING	NER 43
SRS MAINTENANCE	BELT
POST-COLLISION DIAGNOSIS	45
INDIVIDUAL COMPONENT SERVICE 29 Undeployed Air Bag Module and Pre-tensioner Disposal	Seat Belt 45
WARNING/CAUTION LABELS	erated Seat Belt s 58

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-29.) 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), 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 side impact sensor inside the center pillar monitors any shocks coming from the side of the vehicle. The warning lamp on the instrument panel indicates 52400010461

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).



SRS SERVICE PRECAUTIONS

- 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-7.
- 3. Never Attempt to Repair the Following Components:
 - SRS air bag control unit (SRS-ECU)
 - Clock spring

52400030443

- Front air bag module (Driver's side or front passenger's side)
- 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 COM-PONENTS SERVICE procedures in this manual, starting at page 52B-29.



- 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. 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.



SRS-ECU Terminal No.	Destination of harness	Corrective action	
3	Instrument panel wiring harness \rightarrow Earth	Correct or replace each wiring harness.	
4	Instrument panel wiring harness \rightarrow Combination meter (SRS warning lamp)		
5, 6	Instrument panel wiring harness → Air bag module (Front passenger's side)		
7, 8	Instrument panel wiring harness → Clock spring	Correct or replace the dash wiring harness. Replace the clock spring.	
9	Instrument panel wiring harness \rightarrow Junction block (fuse No.8)	Correct or replace each wiring	
12	Instrument panel wiring harness \rightarrow Junction block (fuse No.6)	narness.	
16	Instrument panel wiring harness \rightarrow Diagnosis connector		
21, 22	Side air bag wiring harness \rightarrow Side air bag module (L.H.)		
23, 24	Side air bag wiring harness \rightarrow Side air bag module (R.H.)		
27, 28	Assist wiring harness \rightarrow Seat belt with pre-tensioner (Front passenger's side)		
29, 30	Floor wiring harness \rightarrow Seat belt with pre-tensioner (Driver's side)		
34, 36	Side air bag wiring harness \rightarrow Floor wiring harness <l.h. drive="" vehicles="">, Assist wiring harness <r.h. drive="" vehicles=""> \rightarrow Side impact sensor (L.H.)</r.h.></l.h.>		
40, 42	Side air bag wiring harness \rightarrow Assist wiring harness <l.h. drive="" vehicles="">, Floor wiring harness <r.h. drive="" vehicles=""> \rightarrow Side impact sensor (R.H.)</r.h.></l.h.>		

6. Inspection of the SRS-ECU harness connector should be carried out by the following procedure. Insert the special tool (narrow probe in the harness set) into connector from harness side (rear side), and connect the tester to this probe. If any to other than the special tool is used, it may cause damage to the harness and other components. 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







V0139AE 00007167

- 7. SRS components and seat belt with pre-tensioner should not be subjected to heat, so remove the 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.
 - 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 C C C C C C C C C C C C C C C C C	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
В990803	MB990803	Steering wheel puller	Steering wheel removal

SRS - Special Tools/Test Equipment

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, side air bag module and seat belt pre-tensioner inside or outside the vehicle
	MR203491 or MB628919	SRS air bag adapter harness	Deployment of driver's side air bag module outside the vehicle
B628919			

TEST EQUIPMENT

Tool	Name	Use
	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

52400430113

- 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

52400330420

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

Code No.	Diagnosis item	Reference page
14	Analog G-sensor system in the SRS-ECU	52B-10
15,16	Front impact safing G-sensor system inside SRS-ECU	52B-10
17	Side impact safing G-sensor system inside SRS-ECU	52B-10
21, 22, 61, 62	Driver's side air bag module (squib) system	52B-11
24, 25, 64, 65	Front passenger's side air bag module (squib) system	52B-12
31, 32	SRS-ECU capacitor system	52B-10
34*	SRS-ECU capacitor system	52B-12
35	SRS-ECU (deployed air bag) system	52B-13
41*	Power circuit system (fuse No.6 circuit)	52B-13
42*	Power circuit system (fuse No.8 circuit)	52B-13

52400310097

Code No.	Diagnosis item		Reference page
43	SRS warning lamp drive circuit	Lamp does not illuminate.*	52B-14
	System	Lamp does not switch off.	52B-14
44*	SRS warning lamp drive circuit system		52B-14
45	Internal circuit system of non-volatile m	nemory (EEPROM) inside SRS-ECU	52B-10
52	Driver's side air bag module (squib ign	ition drive circuit) system	52B-10
55	Front passenger's side air bag module	(squib ignition drive circuit) system	52B-10
57	Driver's side pre-tensioner (squib igniti	on drive circuit) system	52B-10
59	Front passenger's side pre-tensioner (squib ignition drive circuit) system		52B-10
66, 67	Driver's side pre-tensioner (squib) system		52B-15
68, 69	Front passenger's side pre-tensioner (squib) system		52B-16
71, 72, 75, 76	Side air bag module (L.H.) (squib) system		52B-17
74	Side air bag module (L.H.) (squib ignition drive circuit) system		52B-10
81, 82, 85, 86	Side air bag module (R.H.) (squib) system		52B-18
84	Side air bag module (R.H.) (squib ignition drive circuit) system		52B-10
91*	Side impact sensor (L.H.) power supply circuit system		52B-19
92	Side impact sensor (L.H.) system		52B-19
93	Side impact sensor (L.H.) communication system		52B-19
94*	Side impact sensor (R.H.) power suppl	ly circuit system	52B-20
95	Side impact sensor (R.H.) system		52B-19
96	Side impact sensor (R.H.) communicat	tion system	52B-20

NOTE

*: If the vehicle condition returns to normal, the diagnosis code will be automatically erased, and the SRS warning lamp will return to normal.
 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.14, 15, 16, 17, 31, 32, 45, 52, 55, 57, 59, 74, 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
52	Driver's side air bag module (squib ignition drive circuit)	Open circuit in the squib ignition drive circuit
55	Front passenger's side air bag module (squib ignition drive circuit)	Open circuit in the squib ignition drive circuit
57	Driver's side pre-tensioner (squib ignition drive circuit)	Open circuit in the squib ignition drive circuit
59	Front passenger's side pre- tensioner (squib ignition drive circuit)	Open circuit in the squib ignition drive circuit
74	Side air bag module (L.H.) (squib ignition drive circuit)	Open circuit in the squib ignition drive circuit
84	Side air bag module (R.H.) (squib ignition drive circuit)	Open circuit in the squib ignition drive circuit

Replace the SRS-ECU.

Code No.21, 22, 61 or 62 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). The trouble causes for each diagnosis code No. are as follows.	 Malfunction of clock spring Partial disconnection due to incorrect clock spring neutral position Malfunction of wiring harnesses or connectors Malfunction of driver's side air bag module (squib) Malfunction of SRS-ECU

Code No.	Trouble causes
21	 Short in driver's side air bag module (squib) or harness short Short in clock spring
22	 Open circuit in driver's side air bag module (squib) or open harness Open circuit in clock spring Disconnected driver's side air bag module (squib) connector Partial disconnection due to incorrect clock spring neutral position Malfunction of connector contact
61	• Short in driver's side air bag module (squib) harness leading to the power supply
62	• Short in driver's side air bag module (squib) harness leading to the earth



Code No.24, 25, 64 or 65 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 passengers side air bag module (squib). The trouble causes for each diagnosis code No. are as follows.	 Malfunction of wiring harnesses or connectors Malfunction of front passenger's side air bag module (squib) Malfunction of SRS-ECU

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



Code No.34 Connector lock system	Probable cause
This diagnosis code is output if a poor connection of the SRS-ECU is detected. However, if the vehicle condition returns to normal, diagnosis code No.34 will be automatically erased, and the SRS warning lamp will switch off.	Malfunction of connectorsMalfunction of SRS-ECU

Check the following connectors: B-18, B-16		NG ► Repair
	ОК	
Replace the SRS-ECU.		

Code No.35 SRS-ECU (deployed air bag) system	Probable cause	
This diagnosis code is output after the air bag deploys. If this code is output before the air bag has deployed, the cause is probably a malfunction inside the SRS-ECU.	Malfunction of SRS-ECU	

Replace the SRS-ECU.

Code No.41 Power circuit system (fuse No.6 circuit)	Probable cause
Code No.42 Power circuit system (fuse No.8 circuit)	
Code No.41 is output if the voltage between the IG_1 terminal (SRS-ECU, terminal 21) and the earth is lower than the specified value for a continuous period of 5 seconds or more. Code No.42 is output if the voltage between the IG_1 terminal (SRS-ECU, terminal 9) and the earth is lower than the specified value for a continuous period of 5 seconds or more. Automatically erased, and the SRS warning lamp will switch off. If the vehicle has a discharged battery it will store the fault codes 41 and 42. When these diagnosis codes are displayed, check the battery.	 Malfunction of wiring harnesses or connectors Malfunction of SRS-ECU

	- NG	
Measure at SRS-ECU connector B-18.	Check the following connectors: B-18, B-89, B-91	
• Disconnect the connector, and measure at the harness side connector.	OK NG	
Connect the battery (-) terminal.	Check trouble symptoms. Repair	
• Ignition switch: ON		
• Voltage between terminal 12 and body earth (code No.41)		
 Voltage between terminal 9 and body earth (code No.42) OK: 9 V or more 	Check the harness wire between the SRS-ECU and ignition switch $\mathrm{IG}_{1,}$ and repair if necessary.	
ок	1	
Replace the SRS-ECU.		

52B-14

Code No.43 SRS warning lamp drive circuit syste (Lamp does not illuminate.)	em Probable cause
This diagnosis code is output when an open circuit occurs for a contin of 5 seconds while the SRS-ECU in monitoring the SRS warning lamp a is OFF (transistor OFF). However, if this code is output due to an open circuit, if the vehicle cond to normal, this diagnosis code No.43 will be automatically erased, and the s lamp will return to normal.	 Malfunction of wiring harnesses or connectors Blown bulb Malfunction of SRS-ECU Malfunction of combination meter
Measure at SRS-ECU connector B-18.	Blown bulb inspection
Disconnect the connector, and measure at the harness side connector.	OK NG
• Connect the battery (-) terminal.	Repair
 Ignition switch: ON Connect terminal 4 to the body earth. 	Check the following connectors: B-18 B-02 B-01 B-01
OK: Lamp illuminates	
OK	
Replace the SRS-ECU.	Check trouble symptoms.
	y NG
	Check the harness wire between the SRS-ECU, combination meter and ignition switch IG ₁ .
	OK NG
	Replace the combination Repair meter.
Code No.43 SRS warning lamp drive circuit syste (Lamp does not switch off.)	em Probable cause
the lamp and the SRS-ECU while SRS-ECU is monitoring the SRS w and the lamp is ON.	 Malfunction of SRS-ECU Malfunction of combination meter
SRS warning lamp inspection	Check the following connectors: B-18, B-02
Connect the battery (-) terminal.	OK
Does lamp switch off when SRS-ECU connector B-18 is	Check trouble symptoms. Repair
disconnected?	NG
YES	Check the harness wire between the SBS-FCU and combination
Replace the SRS-ECU.	meter
	OK NG
	Replace the combination Repair
	meter.
Code No.44 SRS warning lamp drive circuit systemeters	
0 1 <i>,</i>	em Probable cause

	OK	
Check the SRS warning lamp drive circuit system.		Replace the SRS-ECU.
(Refer to P.52B-14)		

52B-15

Code No.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
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



52B-16

Code No.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
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



Code No.71, 72, 75 or 76 Side air bag module (L.H.) (squib) system	Probable cause		
These diagnosis codes are output if the resistance value between the side air bag module (L.H.) (squib) input terminals of the SRS-ECU is abnormal. The problems which cause these codes to be output are as follows.	 Malfunction of wiring harnesses or connectors Malfunction of side air bag module (L.H.) (squib) Malfunction of SRS-ECU 		

Code No.	Trouble causes
71	• Short in side air bag module (L.H.) (squib) or harness short
72	 Open circuit in side air bag module (L.H.) (squib) or open harness Malfunction of connector contact
75	• Short in side air bag module (L.H.) (squib) harness leading to the power supply
76	• Short in side air bag module (L.H.) (squib) harness leading to the earth



Code No.81, 82, 85 or 86 Side air bag module (R.H.) (squib) system	Probable cause	
These diagnosis codes are output if the resistance value between the side air bag module (R.H.) (squib) input terminals of the SRS-ECU is abnormal. The problems which cause these codes to be output are as follows.	 Malfunction of wiring harnesses or connectors Malfunction of side air bag module (R.H.) (squib) Malfunction of SRS-ECU 	

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



Code No.91 Side impact sensor (L.H.) power s system	supply circut	Probable cause	e
This diagnosis code is output if the power supply voltage of the side impact sensor (L.H.) drops below the rated value for a continuous period of 5 seconds or more. However, code No.91 will be automatically cleared and the SRS warning lamp will switch off if the condition returns normal.		 Malfunction of wiring harnesses or connectors Malfunction of side impact sensor (L.H.) Malfunction of SRS-ECU 	
 Measure at side impact sensor (L.H.) connector C-21*1, C-20*2. Disconnect the connector, and measure at the harness side connector. Connect the battery (-) terminal. Ignition switch: ON Voltage between terminal 1 and body earth 	NG Check	the following connec OK trouble symptoms.	ng Repair
OK: 9 V or more	Check and SI	the harness wire betw RS-ECU.	een the side impact sensor (L.H.)
Replace the side impact sensor (L.H.).		ок	NG
	Replac	e the SRS-ECU.	Repair

NOTE

*1: L.H. drive vehicles *2: R.H. drive vehicles

Code No.92, 95 Side impact sensor system	Probable cause
Code No.92 is output when a fault is detected in the side impact sensor (L.H.). Code No.95 is output when a fault is detected in the side impact sensor (R.H.). The defective parts and trouble causes for each diagnosis code No. are as follows.	 Malfunction of side impact sensor (L.H.) (Code No.92) Malfunction of side impact sensor (R.H.) (Code No.95)

Replace the SRS-ECU.

Code No.	Defective parts	Trouble causes	
92	Analog G-sensor	 Analog G-sensor is not operating Analog G-sensor characteristics are abnormal 	
95		 Analog G-sensor output is abnormal 	

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

Code No.93 Side impact sensor (L.H.) communication system	Probable cause		
This diagnosis code is output if communication between the side impact sensor (L.H.) and the SRS-ECU is abnormal	 Malfunction of wiring harnesses or connectors Malfunction of side impact sensor (L.H.) Malfunction of SRS-ECU 		

	_ NO _					
MUT-II Self-diag code		Check the fe	ollowing con	nectors: C-2	21*1, C-20*2, C-2	5, B-16
• Replace the side impact sensor (L.H.) with the side impact sensor (R.H.) and then install them.			ок		NG	
Connect the battery (-) terminal.	[[Check trouble symptoms.		Re	Repair	
Erase diagnosis code memory.	L					
Will the code No.93 disappear and show No.96?			NG			
YES		Check the ha	arness wire b	etween the	side impact sens	or (L.H.)
Replacement the side impact sensor (L.H.).	ן נ				NO	
· · · · · · · · · · · · · · · · · · ·			UK		NG	
NOTE	[Replace the	SRS-ECU.	Re	pair	

*1: L.H. drive vehicles *2: R.H. drive vehicles

Code No.94 Side impact sensor (R.H.) power supply circut system		Probable cause		
This diagnosis code is output if the power supply voltage of the side impact sensor (R.H.) drops below the rated value for a continuous period of 5 seconds or more. However, code No.94 will be automatically cleared and the SRS warning lamp will switch off if the condition returns normal.		 Malfunction of wiring harnesses or connectors Malfunction of side impact sensor (R.H.) Malfunction of SRS-ECU 		S
 Measure at side impact sensor (R.H.) connector C-01*1, C-32*2. Disconnect the connector, and measure at the harness side connector. Connect the battery (-) terminal. Ignition switch: ON Voltage between terminal 1 and body earth OK: 9 V or more 	JG ► Check Check	k the following connect OK trouble symptoms.	eors: C-01*1, C-32*2, C-33	, B-16

ок

Replace the SRS-ECU.

NG

Repair

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

NOTE

*1: L.H. drive vehicles *2: R.H. drive vehicles

Code No.96 Side impact sensor (R.H.) communication system	Probable cause		
This diagnosis code is output if communication between the side impact sensor (R.H.) and the SRS-ECU is abnormal	 Malfunction of wiring harnesses or connectors Malfunction of side impact sensor (R.H.) Malfunction of SRS-ECU 		

	- NO		
MUT-II Self-diag code	Check the following connectors: C-01*1, C-32*2, C-33, B-16		
• Replace the side impact sensor (R.H.) with the side impact sensor (L.H.) and then install them.	OK NG		
Connect the battery (-) terminal.	Check trouble symptoms. Repair		
 Erase diagnosis code memory. Will the code No.96 disappear and show No.93? 	NG		
YES	Check the harness wire between the side impact sensor (R.H.) and SRS-ECU.		
Replacement the side impact sensor (R.H.).	OK NG		
NOTE	Replace the SRS-ECU. Repair		

*1: L.H. drive vehicles *2: R.H. drive vehicles

INSPECTION CHART FOR TROUBLE SYMPTOMS

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

Trouble symptom		Inspection procedure No.	Reference page
Communication with MUT-II is not possible.	Communication with all systems is not possible.	1	52B-21
	Communication is not possible with SRS only.	2	52B-21
When the ignition key is turned to "ON" (engine stopped), the SRS warning lamp does not illuminate.		Refer to diagnosis code No.43.	52B-14
After the ignition switch is still on after approxim	is turned to ON, the SRS warning lamp ately 7 seconds have passed.	Refer to diagnosis code No.43, 44.	52B-14

INSPECTION PROCEDURE FOR TROUBLE SYMPTOMS

Inspection Procedure 1

Communication with MUT-II is not possible. (Communica- tion with all systems is not possible.)	Probable cause	
The cause is probably a power supply system (including earth circuit) of the diagnosis line.	Malfunction of connectorsMalfunction of wiring harness	

Refer to GROUP 13A - Troubleshooting.

Inspection Procedure 2

Communication with MUT-II is not possible. (Communication is not possible with SRS only.)	Probable cause	
If communication is not possible with the SRS only, the cause is probably an open circuit in the diagnosis output circuit of the SRS or in the power circuit (including earth circuit).	 Malfunction of wiring harnesses or connectors Malfunction of SRS-ECU 	

	NG			
Measure at SRS-ECU connector B-18.	-	Check the following con	nectors: B-18, B-90, B-91	
• Disconnect the connector, and measure at the harness side		OK	NG	
 Connect the battery (-) terminal. Ignition switch: ON 		Check trouble symptoms.	Repair	
Voltage between terminal 9 and body earth		ING		
 OK: 9 V or more Voltage between terminal 12 and body earth OK: 9 V or more 		Check the harness wire between the SRS-ECU and ignition switch IG_1 , and repair if necessary.		
ок	1			
Check the following connectors: D-25, B-18]			
OK NG				
Check trouble symptoms. Repair				
NG				
Check the harness wire between the SRS-ECU and diagnosis				
]			
I ING				
Replace the SRS-ECU. Repair				

SRS MAINTENANCE

52400390350

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 switch 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-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.

 Check connector for damage, and terminals for deformation or rust. Replace SRS-ECU if it fails visual check.

(Refer to P.52B-31.)





AIR BAG MODULES, STEERING WHEEL AND CLOCK SPRING

1. Remove the air bag modules, steering wheel and clock spring. (Refer to P.52B-33.)

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 turns 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.

Air bag module deployment section

11. Check steering wheel for excessive free play. REPLACE ANY VISUALLY INSPECTED PART IF IT FAILS THAT INSPECTION. (Refer to P.52B-33.)

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.

Center pillar Front of vehicle

SIDE IMPACT SENSORS

- 1. Check that there is no bending or corrosion in the center pillar.
- 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/FLOOR WIRING HARNESS/ASSIST WIRING HARNESS/SIDE AIR BAG 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 52400110505

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-8.)

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

Sandias Data Itam	Appliachility
Service Data item	Applicability
How long a problem has lasted (How long it takes from the occurrence of the problem till the first air bag squib igniting signal or from the first air bag squib igniting signal till now.)	Maximum time to be stored: 9999 minutes (approximately 7 days)
Number indicating how often the memory is cleared	Maximum time to be stored: 250
	How long a problem has lasted (How long it takes from the occurrence of the problem till the first air bag squib igniting signal or from the first air bag squib igniting signal till now.) Number indicating how often the memory is cleared

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.)

Data list

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-31.)
 - Driver's side air bag module (Refer to P.52B-33.)
 - Front passenger's side air bag module (Refer to P.52B-33.)
 - Seat belt with pre-tensioner (Refer to P.52B-43.)
- 2. Check the following parts and replace if there are any malfunctions.
 - Clock spring (Refer to P.52B-33.)
 - 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-25.)

WHEN SIDE 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-31.)
 - Side impact sensor (Refer to P.52B-41.)
 - Front seat back assembly (Refer to P.52B-33.)
 - Seat belt with pre-tensioner (Refer to P.52B-43.)
- 2. Check harnesses for binding, connectors for damage, poor connections, and terminals for deformation. (Refer to P.52B-25.)

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-29.





Air bag module deployment section



SRS-ECU

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

Air bag modules

- 1. Check 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.

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.

Clock spring

- 1. Check 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 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.

Side impact sensor

- 1. Check that there is no bending or corrosion in the center pillar.
- 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.

Harness connector

(Instrument panel wiring harness, Side air bag wiring harness, Floor wiring harness, Assist wiring harness)

Check harnesses for binding, connectors for damage, poor connection, and terminals for deformation. (Refer to P.52B-25.)

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.

52400290445

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-31 - P.52B-45.)

Caution

- SRS components and seat belt with pre-tensioner should not be subjected to heat, so remove the 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.
 - 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.



Steering wheel

Driver's side air bag module

WARNING/CAUTION LABELS

A number of caution labels relating to the SRS and seat belt with pre-tensioner are found in the vehicle, as shown in the following illustration. Follow label instructions when servicing SRS and seat belt pre-tensioner. If labels are dirty or damaged, replace them with new ones.

Clock spring





Θ

1910034

V0127AE



Sun visor



SRS-ECU

Glove box

Œ 000 W0056AE

Front passenger's side air bag module



V0141AE

Side air bag module (driver's and front passenger's seat)

NOTE



*: Vehicles with front passenger's air bag or SRS side air bags



Side impact sensor

Steering gear box



Seat belt with pre-tensioner



W0058AE 00009240
3.

SRS AIR BAG CONTROL UNIT (SRS-ECU)

52400210359

Do not drop or subject the SRS-ECU to

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

5. Never use an ohmmeter on or near the SRS-ECU, and use only the special test

equipment described on P.52B-7.

impact or vibration.

SRS-ECU with a new one.

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 SRS-ECU. If faulty, replace it.
- **REMOVAL AND INSTALLATION**



AW0129AE

Removal steps

- ►B◀ Post-installation inspection
 - Negative (-) battery cable connection
 - Side console cover (Refer to GROUP 52A - Instrument panel.)



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.



- 1. Reconnect the negative battery terminal.
- 2. Turn the ignition switch 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

52400220253

- Check the SRS-ECU and brackets for dents, cracks or deformation.
- Check connector 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-8.)



AIR BAG MODULES AND CLOCK SPRING

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 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. When the driver's side and front passenger's side air bags have been deployed, the air bag modules (driver's side and front passenger's side) should be replaced with new modules. When a side air bag has been deployed, the front seat back assembly (driver's seat or passenger's seat) should be replaced with a new assembly.
- 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-45.)

REMOVAL AND INSTALLATION

<Driver's side Air bag module, clock spring>

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

<SPACE RUNNER>



Air bag module removal steps

- Post-installation inspection
- Negative (-) battery cable connection 1. Driver's side air bag module

 - Pre-installation inspection

Clock spring removal steps

- Post-installation inspection •
 - Negative (-) battery cable connection
 Driver's side air bag module
- 2. Steering wheel
 - Column cover (Refer to GROUP 52A Instrument Panel.)
 - 3. Clock spring
 - Pre-installation inspection

<Front passenger's side air bag module, front seat back assembly with side air bag module>



- 1. Front passenger's side air bag module
- A Pre-installation inspection





REMOVAL SERVICE POINTS

A DRIVER'S SIDE AIR BAG MODULE REMOVAL

 Remove the air bag module mounting screws (torx screws) at the sides of the steering wheel. <SPACE WAGON> NOTE

Do not remove the screws from the holders. <SPACE WAGON>

2. When disconnecting the connector of the clock spring from the air bag module, press the air bag's lock towards the outer side to spread it open. Use a flat-tipped screwdriver, as shown in the figure at the left, to pry so as to remove the connector gently.

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.

CLOCK SPRING REMOVAL

Caution

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





FRONT PASSENGER'S SIDE AIR BAG MODULE REMOVAL

Pry out B shown with a flat-tipped screwdriver to disengage the 12 claws.

Caution

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

▲E►FRONT SEAT BACK ASSEMBLY REMOVAL

Refer to GROUP 52A - Seat. Caution

- 1. The side air bag module only can not be replaced. Replace the front seat back assembly.
- 2. Store the removed front seat back assembly in a clean, dry place with its back contacting the ground.

INSTALLATION SERVICE POINTS

►A PRE-INSTALLATION INSPECTION

1. Even if new air bag module, clock spring and front seat back assembly are installed, it is necessary to check before installation. (Refer to P.52B-39.)

Caution

Deploy the air bags in the specified procedures when the air bag modules or front seat back assembly are discarded. (Refer to P.52B-45.)

- 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- $\!\rm II$ is connected or disconnected.

- 4. Turn the ignition switch 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 switch 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-4.)

► B CLOCK SPRING INSTALLATION

Align the mating marks of the clock spring and, after turning the front wheels to the 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 turns counterclockwise to align the mating marks.

Caution

If the clock spring's mating marks are 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 of 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 DRIVER'S SIDE AIR BAG MODULE INSTALLATION<SPACEWAGON>

- 1. Connect the air bag module connector securely.
- 2. Tighten the air bag module mounting screws.







► ■ POST-INSTALLATION INSPECTION

- 1. Turn the steering wheel right and left lightly to see its smooth operation, being free from abnormal noise. (Driver's side air bag module, clock spring)
- 2. Reconnect the negative battery terminal.
- 3. Turn the ignition switch to the "ON" position.
- 4. Does the "SRS" warning lamp illuminate for about 7 seconds, and then remain extinguished for at least 5 seconds after turning OFF?
- 5. If yes, SRS system is functioning properly. If no, consult page 52B-8.

INSPECTION

52400250412

DRIVER'S SIDE AIR BAG MODULE/FRONT PASSENGER'S SIDE AIR BAG MODULE CHECK

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

Dispose the old one according to the specified procedure. (Refer to P.52B-45.)

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 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 (driver's side) to steering wheel to check fit or alignment with the wheel.
- 5. Install the air bag module (front passenger's side) to the instrument panel and crossmember and check fit and alignment.

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-45.)



Side air bag module deployment section

CLOCK SPRING CHECK

- 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 tubes for damage, and terminals for deformation.
- 2. Visually check the case for damage.
- 3. Check that there is continuity between connector No.2 and terminal No.4 of connector No.1 of the clock spring.
- 4. Align the paint mark of the SRS check harness connector No.1 with the notch in clock spring connector No.3 to connect the connectors Nos.1 and 3.
- 5. Check continuity between the terminals 22 and 23 of the SRS check harness connector No.2.

Front seat back assembly with side air bag module

Replace the front seat back assembly if any one malfunction is found in the following inspections.

Discard the removed front seat back assembly after deploying the side air bag in the specified procedure. (Refer to P.52B-45.)

Caution

AV0233AE

Never measure circuit resistance of the side air bag module (squib) even with a specified tester.

Measuring the circuit resistance with a tester causes current or static electricity to flow to the squib, resulting in serious personal injury.

- 1. Dents or deformation of side air bag module
- 2. Damaged harnesses or connectors and deformed terminals

SIDE IMPACT SENSOR

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 side impact sensor. If faulty, replace it.

REMOVAL AND INSTALLATION

Pre-removal Operation Turn the ignition key to the "LOCK" position.

- 3. Do not drop or subject the side impact sensor to impact or vibration. If denting, cracking, deformation, or rust are discovered in the side impact sensor, replace it with a new side impact sensor. Discard the old one.
- 4. After deployment of an air bag, replace the side impact sensor with a new one.



Removal steps

- ►C Post-installation inspection
 - Negative (-) battery cable connection
 - Seat belt with pre-tensioner (Refer to P.52B-43.)
 - 1. Front seat belt cover
- **B4** 2. Side impact sensor



AV0155AE

NOTE

0

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

INSTALLATION SERVICE POINTS

►A PRE-INSTALLATION INSPECTION

Even if new side impact sensors are installed, it is necessary to check before installation. (Refer to INSPECTION.K

Center pillar



►B SIDE IMPACT SENSOR INSTALLATION

Securely connect the connector.

Caution

If the side impact sensor is not installed securely and correctly, the side air bag may not operate normally.

►C POST-INSTALLATION INSPECTION

- 1. Reconnect the negative battery terminal.
- 2. Turn the ignition switch 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

52400470054

SIDE IMPACT SENSOR CHECK

- 1. Check the side impact sensor and bracket for dents, cracks or deformation.
- 2. Check connector for damage, and terminals for deformation.
- 3. Check that there is no bending or corrosion in the center pillar.

Caution

If a dent, crack, deformation or rust is discovered, replace the side impact sensor with a new one.

NOTE

For checking of the side impact sensor other than described above, refer to the section concerning troubleshooting. (Refer to P.52B-8.)

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.

REMOVAL AND INSTALLATION

Pre-removal and Post-installation Operation Center Pillar Lower Trim Removal and Installation (Refer to GROUP 52A.)

- 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-45.)

44 Nm 44 Nm 1 2 44 Nm 44 Nm 44 Nm

Removal steps

- ►B◀ Post-installation inspection
 - Negative (-) battery cable connection
 - 1. Sash guide cover



2. Seat belt with pre-tensionerPre-installation inspection

AW0225AF

INSTALLATION SERVICE POINTS

►A PRE-INSTALLATION INSPECTION

1. 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-42.)

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



► B POST-INSTALLATION INSPECTION

- 1. Reconnect the negative battery terminal.
- 2. Turn the ignition switch 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

52400420073

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.

Caution

Never attempt to measure the circuit resistance of the seat belt pre-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, and terminals for deformation, and harness for binds.

AIR BAG MODULE AND SEAT BELT PRE-TENSIONER DISPOSAL PROCEDURES 52400120461

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

- 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

- 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 and seat belt pre-tensioner in the following procedures.







Driver's side air bag module

- (1) Remove the steering column cover lower.
- (2) Remove the connection between the clock spring 2-pin connector (red) and the instrument panel wiring harness connector (2-pin yellow).

NOTE

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

- (3) 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 side air bag.
- (4) Connect the SRS air bag adapter harness to the clock spring 2-pin connector and pull the deployment wires out of the vehicle.



(5) 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.

(6) 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 driver's 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 driver's side air bag makes the inflator very hot. Before handling the insulator, 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.
- (7) After deployment, dispose of air bag module according to the Deployed Air Bag Module and Seat Belt Pre-tensioner Disposal Procedures. (Refer to P.52B-58.)



Front passenger's side air bag module

- (1) Remove the glove box. (Refer to GROUP 52A Instrument panel.)
- (2) Remove the connection between the front passenger's side air bag module 2-pin connector (red) and the instrument panel wiring harness connector (2-pin).

NOTE

If the front passenger's side air bag module connector is disconnected from the instrument panel wiring harness, both electrodes of the front passenger's side air bag module connector will be automatically shorted to prevent unintended deployment of the front passenger's side air bag due to static electricity, etc.





- (3) 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 front passenger's side air bag.
- (4) Connect the SRS air bag adapter harness to the front passenger's side air bag module 2-pin connector (red) and pull the deployment wires out of the vehicle.

(5) 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.

(6) 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 front passenger's side air bag module.

- 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 front passenger's 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.
- (7) After deployment, dispose of air bag module according to the Deployed Air Bag Module and Seat Belt Pre-tensioner Disposal Procedures. (Refer to P.52B-58.)



Side air bag module

(1) Remove the connection between the side air bag module 2-pin connector (red) and the side air bag wiring harness connector (2-pin).

Caution

The side air bag modules for both the driver's side and passenger's side should be deployed. NOTE

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







- (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 side air bag.
- (3) Connect the side air bag module 2-pin connector (red) to SRS air bag adapter harness and pass the deployment wires out of the vehicle.

(4) 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.

(5) 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.
- (6) After deployment, dispose of air bag module according to the Deployed Air Bag Module and Seat Belt Pre-tensioner Disposal Procedures. (Refer to P.52B-58.)

Seat belt pre-tensioner 2-pin connector (red) Floor or assist wiring harness connector (2-pin)

Seat belt pre-tensioner

- (1) Remove the center pillar lower trim. (Refer to GROUP 52A)
- (2) <Driver's side>

Remove the connection between the seat belt pre-tensioner 2-pin connector (red) and the floor wiring harness connector (2-pin).

<Front passenger's side>

Remove the connection between the seat belt pre-tensioner 2-pin connector (red) and the assist wiring harness connector (2-pin).

NOTE

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



(3) 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 seat belt pre-tensioner.





(4) Connect the seat belt 2-pin connector (red) to SRS air bag adapter harness and pass the deployment wires out of the vehicle.

(5) 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.

(6) 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 seat belt pre-tensioner.

- 1) Before deploying 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.
- The deployment 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 deploy when the procedures above are followed, do not go near the seat belt pre-tensioner. Contact your local distributor.
- (7) After deployment, dispose of seat belt pre-tensioner according to the Deployed Air Bag Module and Seat Belt Pre-tensioner Disposal Procedures. (Refer to P.52B-58.)

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 side air bag module

(1) Remove the driver's side air bag module from the vehicle. (Refer to P.52B-33.)

Caution

The driver's side 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 side air bag.
- (3) Install a nut to the bolt behind the driver's side 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 side air bag module.
- (5) With the driver's side 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 wires below the wheel. If deployment wires 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 side air bag module.





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

- 1) Before the deployment, be sure that no one is near the driver's side air bag module.
- 2) The deployment of the driver's side air bag makes the inflator very hot. Before handling the inflator, wait more than 30 minutes for cooling.
- If the driver's side 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, dispose of air bag module according to the Deployed Air Bag Module and Seat Belt Pre-tensioner Disposal Procedures. (Refer to P.52B-58.)

Front passenger's side air bag module

(1) Remove the front passenger's side air bag module from the vehicle. (Refer to P.52B-33.)

Caution

The front passenger's side 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 front passenger's side air bag.
- (3) 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 front passenger's side air bag module.
- (4) Pass thick wire through the holes in the front passenger's side air bag module bracket. With the deployment side upwards, secure the front passenger's side air bag module to the wheel of the old tyre.

- 1) Slack the deployment wires below the wheel. If deployment wires are tight, the reaction when the air bag deploys could damage the adaptor harness.
- The connector of the SRS air bag adapter harness should be placed so that it is not clamped by the tyres during deployment or operation.
- (5) Place three old tyres, without wheels, on top of the tyre secured to the front passenger's side air bag module, and secure all tyres with ropes (4 locations).









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

Caution

- 1) Before the deployment, be sure that no one is near the front passenger's side air bag module.
- 2) The deployment of the front passenger's side air bag makes the inflator very hot. Before handling the inflator, wait more than 30 minutes for cooling.
- If the front passenger's side air bag module fails to deploy when the procedures above are followed, do not go near the module. Contact your local distributor.
- (7) After deployment, dispose of air bag module according to the Deployed Air Bag Module and Seat Belt Pre-tensioner Disposal Procedures. (Refer to P.52B-58.)

Side air bag module

(1) Remove the front seat back assembly with the side air bag from the vehicle. (Refer to P.52B- 33.)

Caution

The side 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 side air bag.
- (3) Place the front seat back assembly so that its back contacts the ground.
- (4) Connect the SRS air bag adapter harness connected with the deployment wires to the side air bag module connector.







(5) Disconnect the deployment wires as far from the front seat back assembly 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 front seat back assembly.
- 2) The deployment of the side air bag makes the inflator very hot. Before handling the inflator, wait more than 30 minutes for cooling.
- If the side air bag module fails to deploy when the procedures above are followed, do not go near the module. Contact your local distributor.
- (6) After deployment, dispose of air bag module according to the Deployed Air Bag Module and Seat Belt Pre-tensioner Disposal Procedures. (Refer to P.52B-58.)

Seat belt pre-tensioner

(1) Remove the seat belt pre-tensioner from the vehicle. (Refer to P.52B-43.)

Caution

The seat belt pre-tensioner 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 seat belt pre-tensioner.
- (3) 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 seat belt pre-tensioner.
- (4) 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) Slack the deployment wires below the wheel. If deployment wires are tight, the reaction when the seat belt pre-tensioner deploys could damage the adaptor harness.
- The connector of the SRS air bag adapter harness 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 on top of the existing tyre.

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



Deployment wires

Tyres without wheels

A19Z0048

(6) Disconnect the deployment wires 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 deploy.

- 1) Before the deployment, be sure that no one is near the seat belt pre-tensioner.
- 2) The deployment 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.
- (7) After deployment, dispose of seat belt pre-tensioner according to the Deployed Air Bag Module and Seat Belt Pre-tensioner Disposal Procedures. (Refer to P.52B-58.)

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.