INTERIOR

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

CONTENTS		12000035
	52A	

52B

NOTES

INTERIOR

CONTENTS

120002292

ADHESIVE 2	
SPECIAL TOOL 2	
INSTRUMENT PANEL*2	
TRIMS 7	
HEADLINING (PASTE TYPE)	
HEADLINING (MOULDED TYPE)	

SEAT	20
Front Seat	20
Second Seat (Bench Type)	22
Second Seat (Separate Type)	24
Third Seat	26
Heated Seat Switch	28
SEAT BELT	29
Front Seat Belt	29
Second Seat Belt	30
Third Seat Belt	31

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

ADHESIVE 120000361

Item	Specified adhesive
Headlining (Paste type)	3M Part No.EC-1368 or 3M ATD Part No.8080 or equivalent

SPECIAL TOOL

120000362

Tool	Number	Name	Use
	MB990784	Ornament remover	Removal of instrument panel, trim, etc.

INSTRUMENT PANEL

120002293

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
	Α	5×12		4
	В	5×16	_	
	С	5×20		100001
Tapping screw	D	4×10		Λ
	E	5×12	С19N000	
	F	5×16		
	G	5×35	Black	D19N0001
Washer assembled screw	Н	5×16		EVIII
	I	5×20	_	E19N0001
	J	5×16	_	F19N0001
Washer assembled bolt	K	6×16	— Д Д ШШВ	
washer assembled bolt	L	8×30		

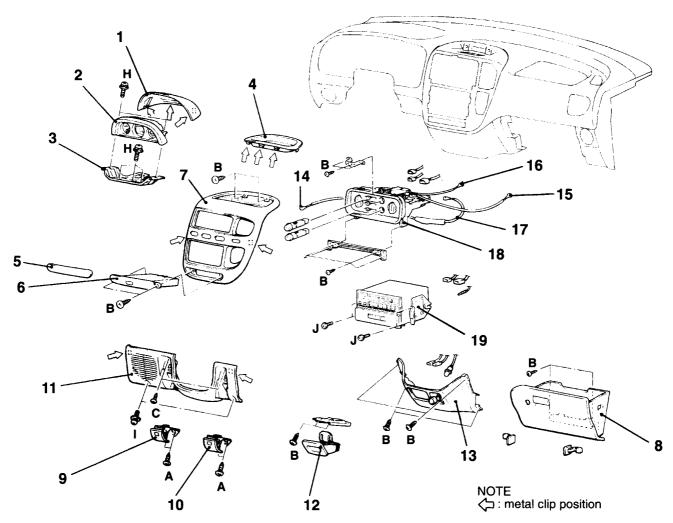
D = Thread diameter

L = Effective thread length

REMOVAL AND INSTALLATION

CAUTION: SRS

When removing and installing the computer cover from vehicles equipped with SRS, do not let it bump against the SRS diagnostic unit.

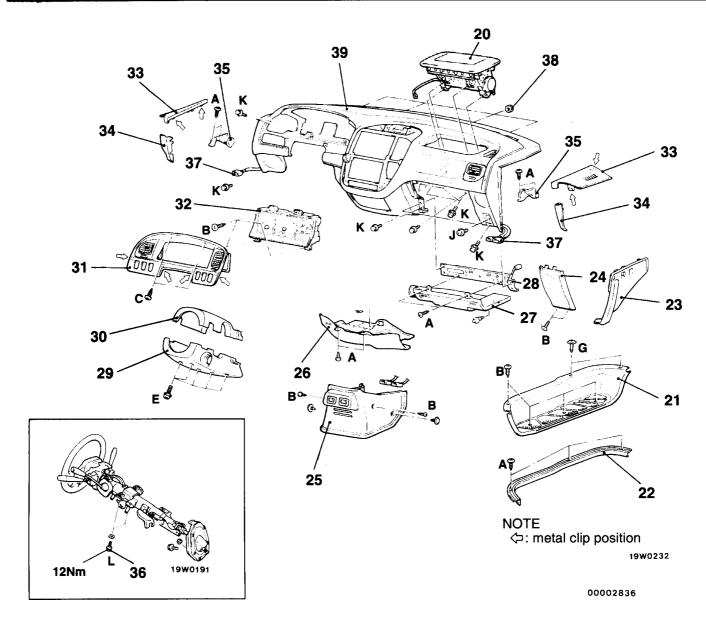


A19W0222

Removal steps

- 1. Multi-meter panel <4WD>
- 2. Multi-meter assembly <4WD>
- 3. Multi-meter bracket <4WD>
- 4. Instrument panel tray <2WD>
- Cover <Vehicles without cup holder assembly>
- 6. Cup holder assembly
- 7. Centre panel
- 8. Glove box
- 9. Hood lock release handle
- 10. Fuel lid lock release handle
- 11. Under cover

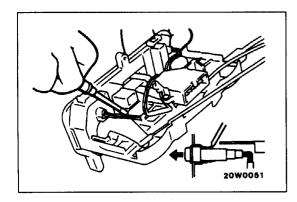
- 12. Ashtray assembly
- 13. Centre under cover
- ▶D◀ 14. Air outlet changeover damper cable connection
- ►C 15. Inside/outside air changeover damper cable connection
- ▶B 16. Air mix damper cable connection
- ►A 17. Cool air bypass damper cable connection
 - 18. Heater control assembly
 - 19. Radio and tape player



Removal steps

- 20. Air bag module <Vehicles with front passenger's air bag>
- 21. Front door step trim < Wagon and Panel van with full trim> (Refer to P.52A-9.)
- 22. Front door step upper plate <Except vehicles with full trim> (Refer to P.52A-7.)
- 23. Cowl side trim (R.H.)
- 24. Speaker garnish
- 25. Computer cover
- 26. Heater cover
- 27. Shower duct

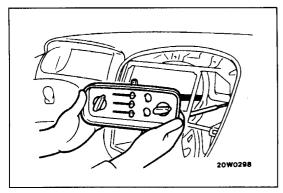
- 28. Glove box frame
- 29. Column cover, lower
- 30. Column cover, upper
- 31 Meter hood assembly
- 32. Combination meter
- 33. Instrument panel side trim
 34. Instrument panel side lower trim
- 35. Side defroster duct (B)
- 36. Steering column mounting bolt 37. Harness connector
- 38. Mounting nut
 - <Engine compartment side>
- 39. Instrument panel



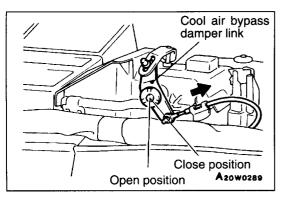
REMOVAL SERVICE POINT

◆A▶ HEATER CONTROL ASSEMBLY REMOVAL

- (1) Pull the heater control assembly out slightly from the instrument panel.
- (2) Push the upper tab to remove the A/C switch from the heater control assembly. Then pull the A/C switch forward slightly and disconnect the connector. <Vehicles with A/C>



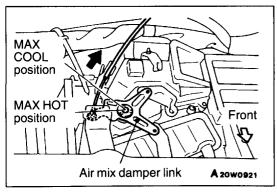
(3) Tilt the heater control assembly towards the passenger's seat to remove it. At this time, make sure that the air outlet changeover control cable doesn't recoil.



INSTALLATION SERVICE POINTS

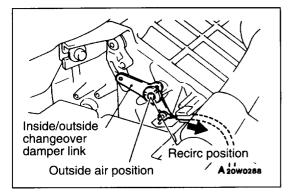
►A COOL AIR BYPASS DAMPER LEVER CABLE CONNECTION

- (1) Set the cool air bypass damper lever on the heater control assembly to the close position.
- (2) Set the cool air bypass damper lever at the bottom of the heater unit to the close position, and install the cable to the lever pin.
- (3) Pull the outer cable in the direction of the arrow so that there is no looseness, and then secure it with the clip.



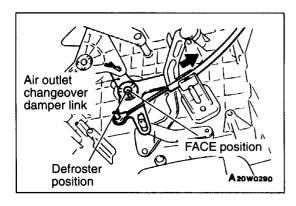
▶B■ AIR MIX DAMPER CABLE CONNECTION

- (1) Set the temperature control knob on the heater control assembly to the MAX HOT position.
- (2) Set the air mix damper lever at the bottom of the heater unit to the MAX HOT position, and install the cable to the lever pin.
- (3) Pull the outer cable in the direction of the arrow so that there is no looseness, and then secure it with the clip.



▶C◀INSIDE/OUTSIDE AIR CHANGEOVER DAMPER CABLE INSTALLATION

- (1) Set the inside/outside air changeover lever on the heater control assembly to the RECIRC position.
- (2) Set the inside/outside air changeover damper lever of the blower motor to the RECIRC position, and install the cable to the lever pin.
- (3) Pull the outer cable in the direction of the arrow so that there is no looseness, and then secure it with the clip.

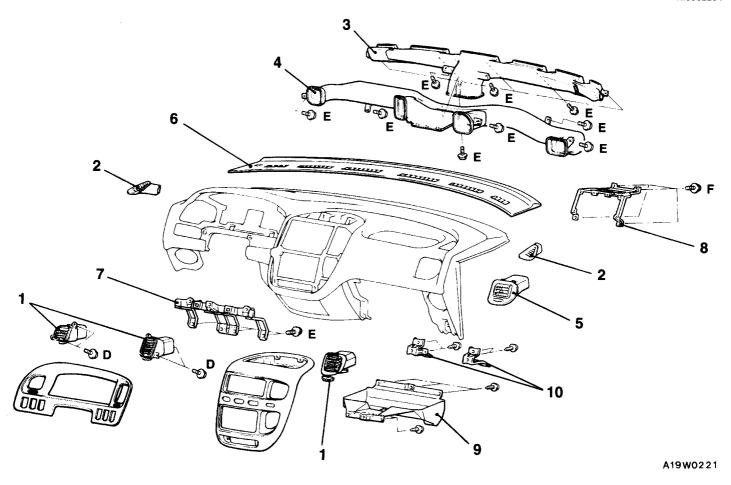


►D AIR OUTLET CHANGEOVER DAMPER CABLE INSTALLATION

- (1) Set the knob for the air outlet changeover on the heater control assembly to the Defroster position.
- (2) Set the air outlet changeover damper lever of the heater unit to the Defroster position and install the cable to the lever pin.
- (3) Pull the outer cable in the direction of the arrow so that there is no looseness, and then secure it with the clip.

DISASSEMBLY AND REASSEMBLY

120002294



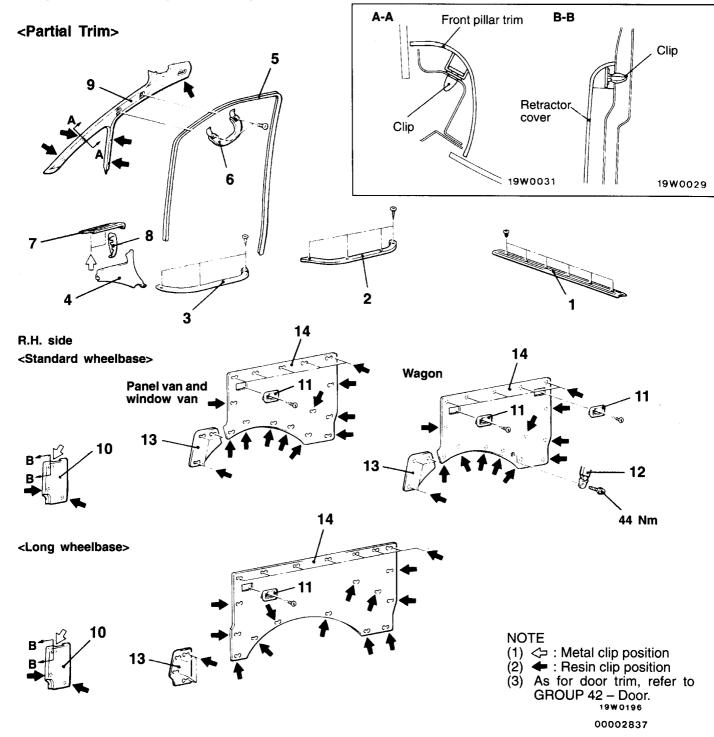
Disassembly steps

- 1. Air outlet
- 2. Side defroster duct (A)
- 3. Defroster nozzle
- 4. Distribution duct
- 5. Air outlet

- 6. Defroster garnish
- 7. Combination meter support
- 8. Instrument panel reinforcement
- 9. Air bag module support <Vehicles with front passenger's air bag>
- 10. Instrument panel support bracket

TRIMS 120002295

REMOVAL AND INSTALLATION



- 1. Tailgate step plate
- 2. Rear door step upper plate

Cowl side trim removal steps

- Front seat (Refer to P.52A-20.)
- 3. Front door step upper plate
- 4. Cowl side trim

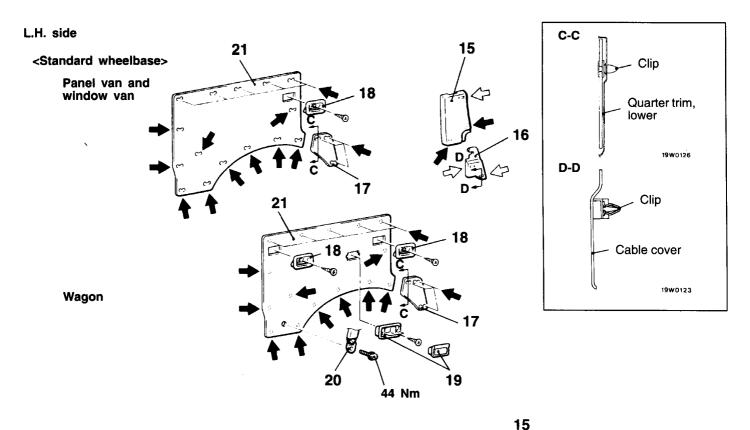
Front pillar trim removal

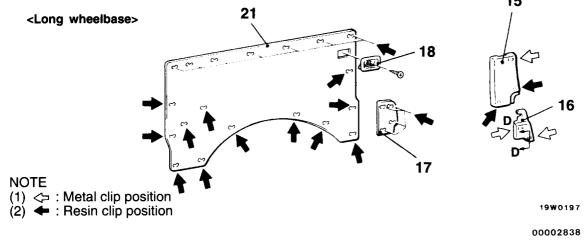
5. Front door opening weatherstrip, inner

- 6. Assist grip (passenger's side)
- 7. Instrument panel side trim
- 8. Instrument panel side lower trim
- 9. Front pillar trim

Retractor cover and quarter trim (R.H.) removal steps

- 10. Retractor cover (R.H.)
- 11. Belt guide12. Third seat belt
- 13. Quarter trim, lower (R.H.)
- 14. Quarter trim (R.H.)

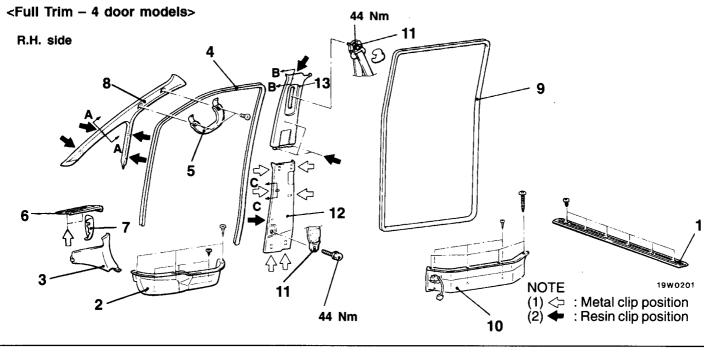


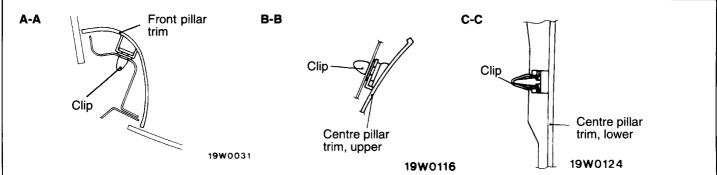


Retractor cover and quarter trim (L.H.) removal steps

- 15. Retractor cover (L.H.)
 Second seat <Window van and wag-on> (Refer to P.52A-22.)
- 16. Cable cover

- 17. Quarter trim, lower (L.H.)
- 18. Belt guide
- 19. Ashtray
- 20. Third seat belt
- 21. Quarter trim (L.H.)





00002839

1. Tailgate step trim

Cowl side trim removal steps

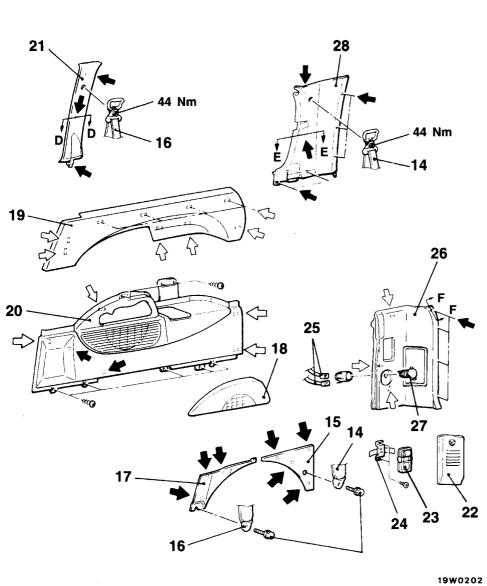
- Front seat (Refer to P.52A-20.)
- 2. Front door step trim
- 3. Cowl side trim

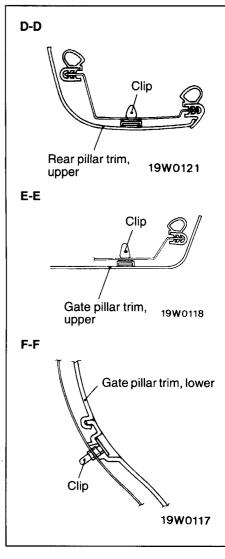
Front pillar trim removal steps

- 4. Front door opening weatherstrip, inner
- 5. Assist grip (R.H. side only)
- 6. Instrument panel side trim
- 7. Instrument panel side lower trim
- 8. Front pillar trim

Centre pillar trim removal steps

- 9. Rear door opening weatherstrip, inner
- 10. Rear door step trim
- 11. Front seat belt (R.H.)
- 12. Centre pillar trim, lower
- 13. Centre pillar trim, upper





NOTE

(1) <> : Metal clip position (2) - : Resin clip position

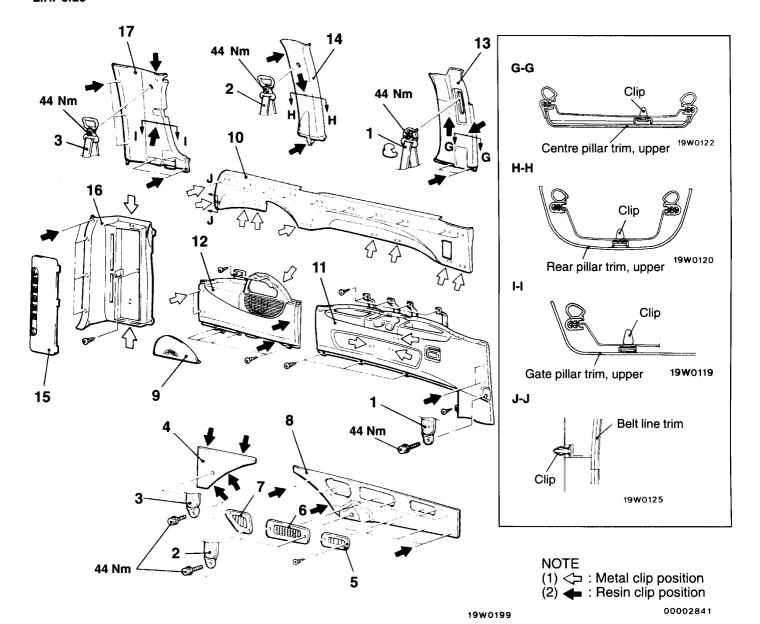
00002840

Quarter trim and pillar trim (R.H.) removal steps

- Second seat (R.H.) and third seat (R.H.) (Refer to P.52A-22, 24, 26)
- 14. Third seat belt (R.H.)
- 15. Quarter trim, lower, rear
- 16. Second seat belt (R.H.)
- 17. Quarter trim, lower, front
- 18. Speaker garnish19. Belt line trim
- 20. Quarter trim, upper

- 21. Rear pillar trim, upper 22. Jack lid
- 23. Inspection lamp
- 24. Inspection lamp bracket25. Harness connector
- 26. Gate pillar trim, lower
- 27. Accessory socket
- 28. Gate pillar trim, upper

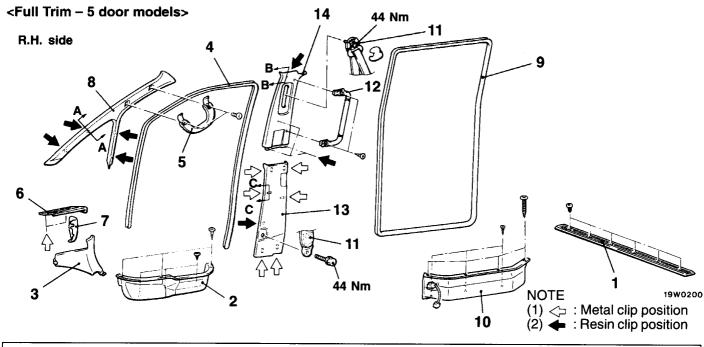
L.H. side

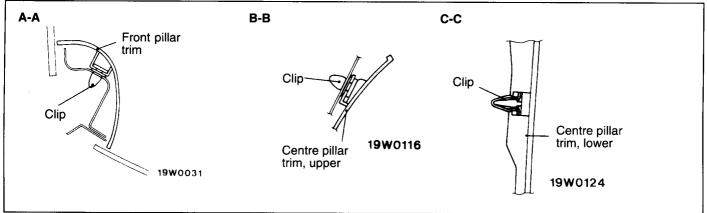


Rear side trim, quarter trim and pillar trim (L.H.) removal steps

- Second seat (L.H.) and third seat (L.H.) (Refer to P.52A-24, 26)
- 1. Front seat belt (L.H.)
- 2. Second seat belt (L.H.)
- 3. Third seat belt (L.H.)
- 4. Quarter trim, lower, rear
- 5. Foot grille A
- 6. Rear air inlet grille
- 7. Foot grille B
- 8. Rear side trim, lower

- Speaker garnish
 Belt line trim
- 11. Rear side trim, upper
- 12. Quarter trim, upper
- 13. Centre pillar trim, upper
- 14. Rear pillar trim, upper
- 15. Box lid
- 16. Gate pillar trim, lower
- 17. Gate pillar trim, upper





00002842

1. Tailgate step trim

Cowl side trim removal steps

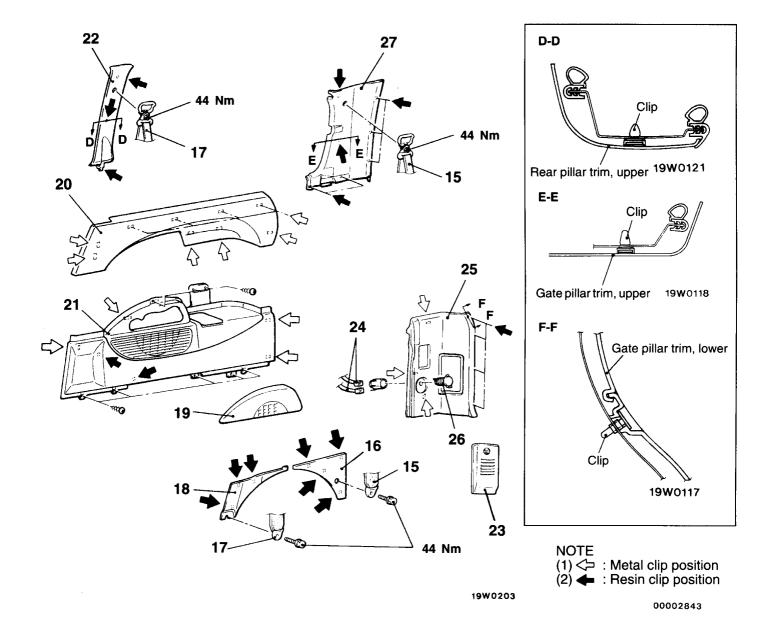
- Front seat (Refer to P.52A-20.)
- 2. Front door step trim
- 3. Cowl side trim

Front pillar trim removal steps

- 4. Front door opening weatherstrip, inner
- 5. Assist grip (R.H. side only)
- 6. Instrument panel side trim
- 7. Instrument panel side lower trim
- 8. Front pillar trim

Centre pillar trim removal steps

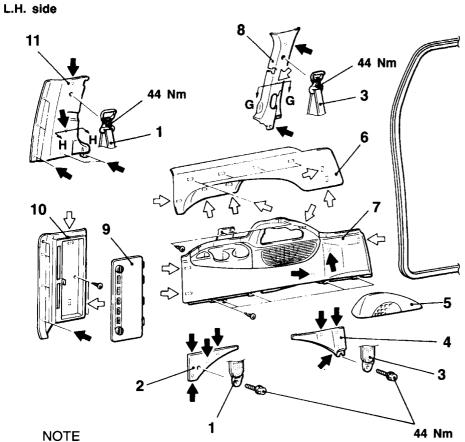
- Rear door opening weatherstrip, inner
- 10. Rear door step trim
- 11. Front seat belt (R.H.)
- 12. Rear door grip <4WD>
- 13. Centre pillar trim, lower
- 14. Centre pillar trim, upper

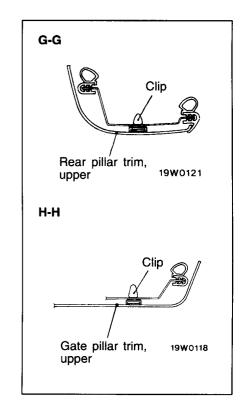


Quarter trim (R.H.) removal steps

- Second seat (R.H.) and third seat (R.H.) (Refer to P.52A-22, 26.)
- 15. Third seat belt (R.H.)
- 16. Quarter trim, lower, rear 17. Second seat belt (R.H.)
- 18. Quarter trim, lower, front
- 19. Speaker garnish 20. Belt line trim
- 21. Quarter trim, upper

- 22. Rear pillar trim, upper
- 23. Jack lid
- 24. Harness connector
- 25. Gate pillar trim, lower
- 26. Accessory socket <Wagon> 27. Gate pillar trim, upper





00002844

(1) <> : Metal clip position (2) - : Resin clip position

19W 0198

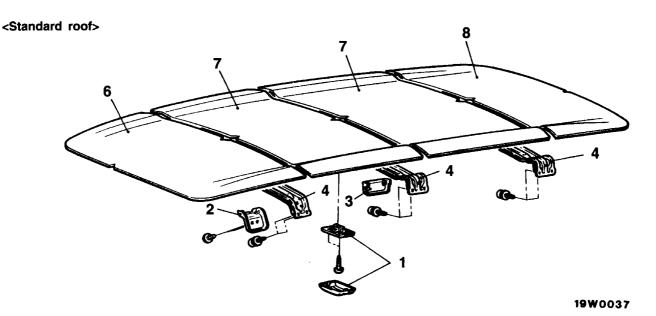
Quarter trim and pillar trim (L.H.) removal steps

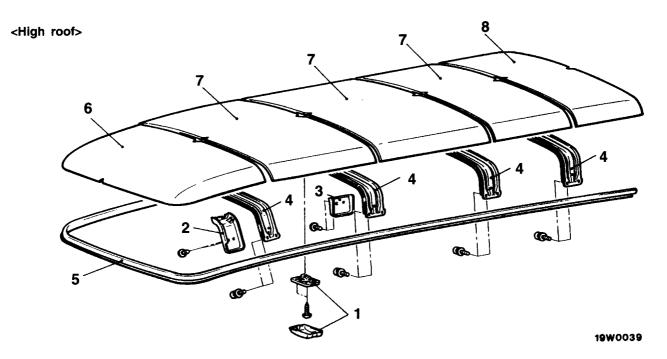
- Second seat (L.H.) and third seat (L.H.) (Refer to P.52A-22. 26.)
 1. Third seat belt (L.H.)
- 2. Quarter trim, lower, rear (L.H.)
- 3. Second seat belt (L.H.)
- 4. Quarter trim, lower, front
- 5. Speaker garnish

- 6. Belt line trim
- 7. Quarter trim, upper
- 8. Rear pillar trim, upper
- 9. Box lid
- 10. Gate pillar trim, lower
- 11. Gate pillar trim, upper

HEADLINING (PASTE TYPE) REMOVAL AND INSTALLATION

120000365

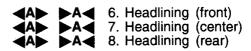




Removal steps

- 1. Room lamp assembly
- 2. Roof bow protector A
 3. Roof bow protector B
 4. Roof bow

- 5. Roof rail trim



00000697

REMOVAL SERVICE POINT

▲A▶ HEADLINING REMOVAL

- (1) Slowly peel the headlining away, beginning with the corner of the roof panel, while making sure that the sponge portion of the headlining is not left behind on the roof panel.
- (2) Thoroughly remove the drying sealer and sponge left behind on the roof panel, using a toluole solution, etc., while paying attention to prevent uneven headlining surface.

INSTALLATION SERVICE POINT

▶A HEADLINING INSTALLATION

- (1) Being careful to prevent wrinkles and slackness, bond the headlining.
- (2) Insert the edges securely into the roof panel flange, using a spatula, etc..

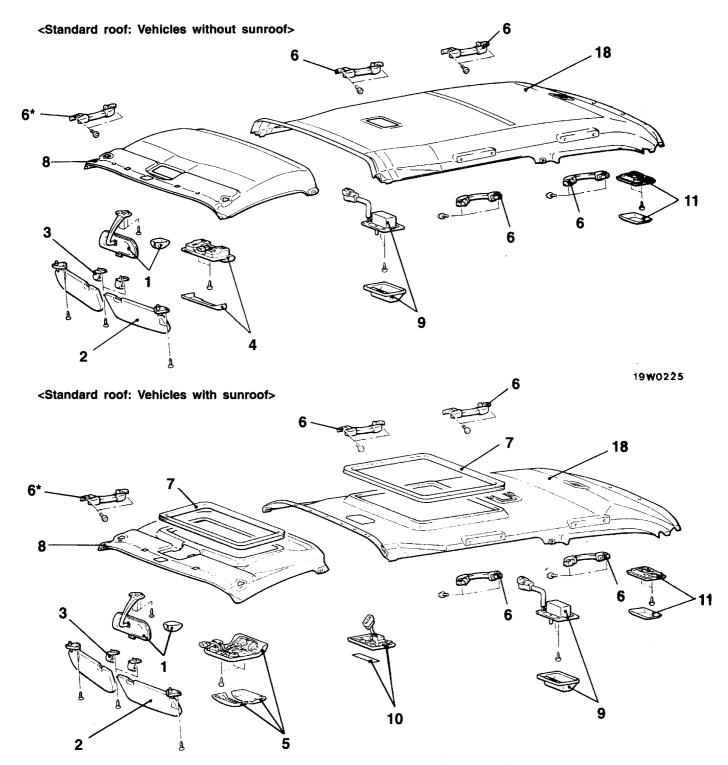
HEADLINING (MOULDED TYPE)

120902296

REMOVAL AND INSTALLATION

Pre-removal and Post-installation Operation <Headlining>

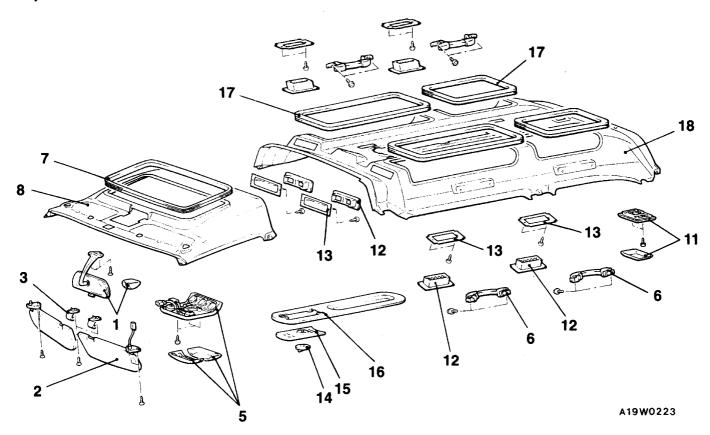
Front pillar trim, Centre pillar trim, Belt line trim, Quarter trim, upper, Rear side trim, upper, Rear pillar trim and Gate pillar trim Removal and Installation (Refer to P.52A-9, 12.)



NOTE
*: Indicates 4WD

19W0224 00002845

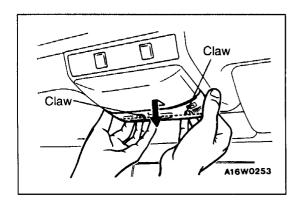
<Crystal lite roof>



Removal steps

- 1. Inside rear view mirror
- 2. Sunvisor assembly
- 3. Sunvisor holder
- 4. Front room lamp <Vehicles without sunroof>
- 5. Front room lamp <Vehicles with sunroof>
- 6. Assist grip7. Sunroof opening trim <Vehicles with sunroof>
- 8. Front headlining
- 9. Rear room lamp

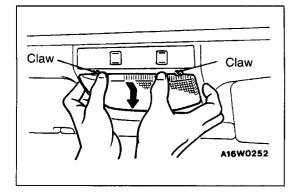
- 10. Sunroof switch <Vehicles with sunroof>
- 11. Cargo room lamp
 12. Air outlet grille <Crystal lite roof>
 13. Retainer <Crystal lite roof>
- 14. Dimmer switch knob <Crystal lite roof>
- 15. Switch panel <Crystal lite roof>
 16. Centre garnish <Crystal lite roof>
 17. Roof blind rail trim
- <Crystal lite roof>
- 18. Rear headlining



REMOVAL SERVICE POINT

▲A▶ FRONT ROOM LAMP ASSEMBLY REMOVAL

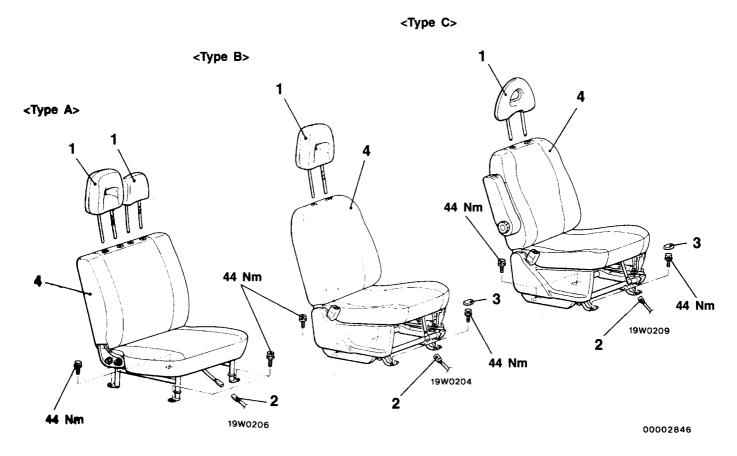
(1) While pushing the claws of the room lamp switch cover, pull the cover downwards to remove it.



(2) While pushing the claws of the room lamp lens, pull the lens downwards to remove it.

SEAT 120002297

FRONT SEAT REMOVAL AND INSTALLATION

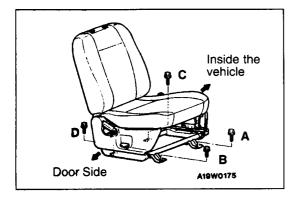


Removal steps

- 1. Headrestraint
- 2. Harness connector <Vehicles with heated seat>
- 3. Seat anchor cover



4. Front seat assembly



INSTALLATION SERVICE POINT

►A FRONT SEAT ASSEMBLY INSTALLATION

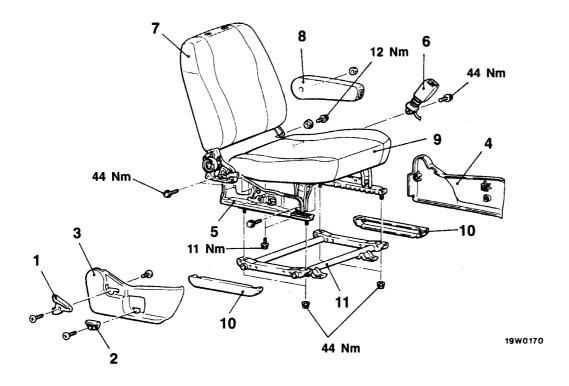
Tighten the front seat mounting bolts in the order A, B, C, and D.

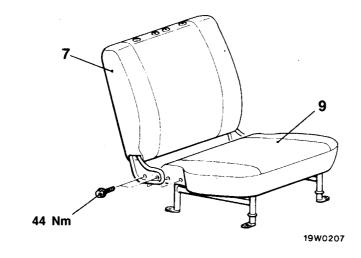
Caution

Do not slide the seat while tightening the bolts. If the above procedures are not observed, the seat adjusters at left and right will not be aligned properly with each other and a locking mechanism will be damaged.

DISASSEMBLY AND REASSEMBLY

120002298





00002847

Disassembly steps

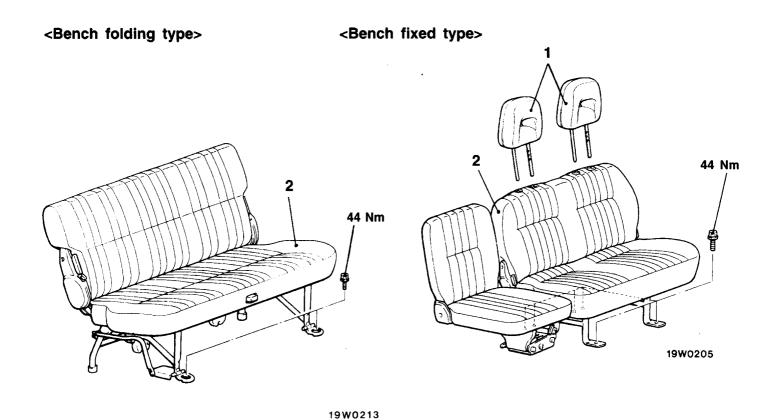
- 1. Reclining knob
 2. Seat adjuster knob
 3. Hinge cover, R.H.
 4. Hinge cover, L.H.
 5. Seat adjuster
 6. Inner seat belt
 7. Front seat back

- 8. Armrest
- 9. Front seat cushion
- 10. Stand cover
- 11. Stand assembly

SECOND SEAT (BENCH TYPE) REMOVAL AND INSTALLATION

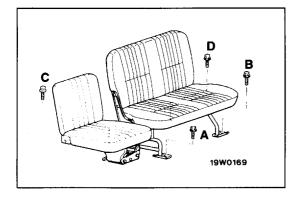
120002299

00002848



Removal steps

- 1. Headrestraint
- ►A 2. Second seat assembly

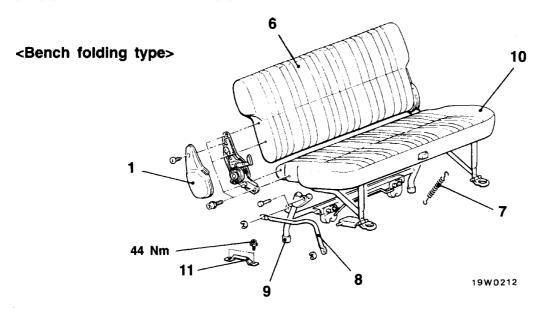


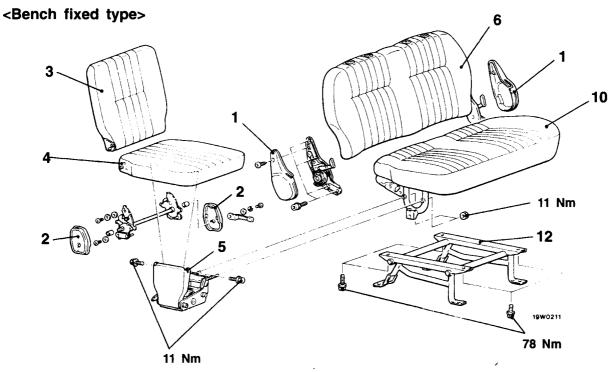
INSTALLATION SERVICE POINT ▶A SECOND SEAT ASSEMBLY INSTALLATION

Tighten the second seat mounting bolts in the order A, B, C, and D. (For All models)

DISASSEMBLY AND REASSEMBLY

120002300





00002849

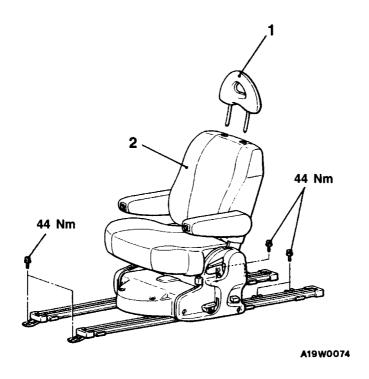
Disassembly steps

- 1. Reclining cover
- 2. Hinge cover <Bench fixed type>
- 3. Jump seat back <Bench fixed type>
- 4. Jump seat cushion
- <Bench fixed type>
 5. Jump seat link assembly <Bench fixed type>
- 6. Second seat back

- 7. Spring <Bench folding type>8. Shaft <Bench folding type>
- 9. Rear seat stay assembly
 <Bench folding type>
 10. Second seat cushion
- 11. Striker <Bench folding type>
- 12. Floor stay assembly <Bench fixed type>

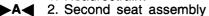
SECOND SEAT (SEPARATE TYPE) REMOVAL AND INSTALLATION

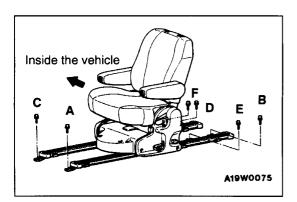
120000369



Removal steps

Headrestraint





INSTALLATION SERVICE POINT

►A SECOND SEAT ASSEMBLY INSTALLATION

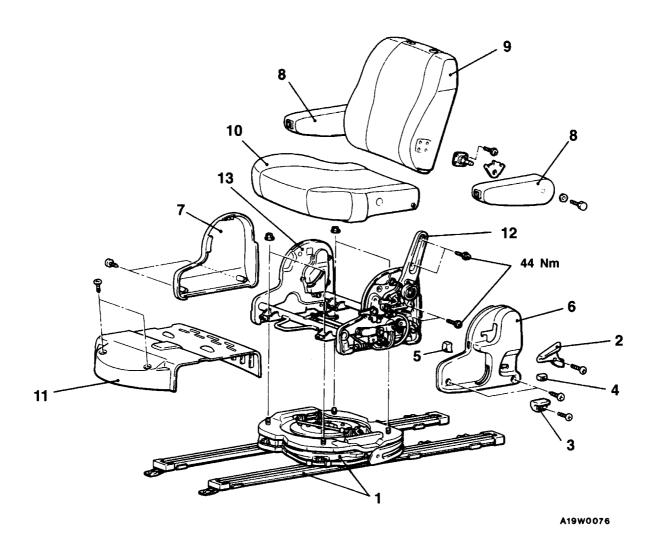
Tighten the second seat mounting bolts in the order A, B, C, D, E, and F.

Caution

Do not slide the seat while tightening the bolts. If the above procedures are not observed, the seat adjusters at left and right will not be aligned properly with each other and a locking mechanism will be damaged.

DISASSEMBLY AND REASSEMBLY

120002111



Removal steps

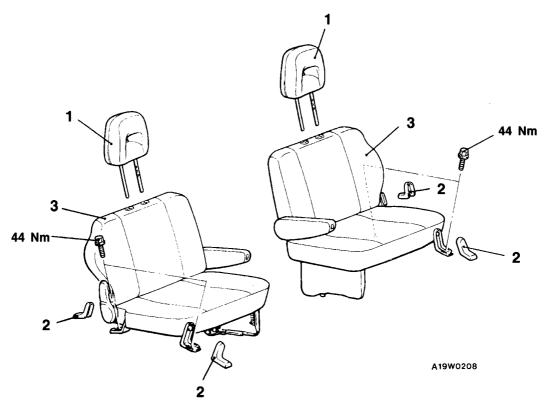
- 1. Swivel and rail assembly
 2. Reclining knob
 3. Seat adjuster lever
 4. Tip-up knob
 5. Swivel knob
 6. Shield cover, L.H.
 7. Shield cover, R.H.
 8. Armrest

- 9. Second seat back
- 10. Second seat cushion

- 11. Footrest cover
- 12. Reclining adjuster
 13. Inside cover

THIRD SEAT **REMOVAL AND INSTALLATION**

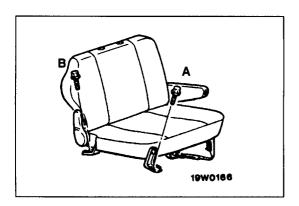
120002301



Removal steps

- 1. Headrestraint

2. Cover 3. Third seat assembly

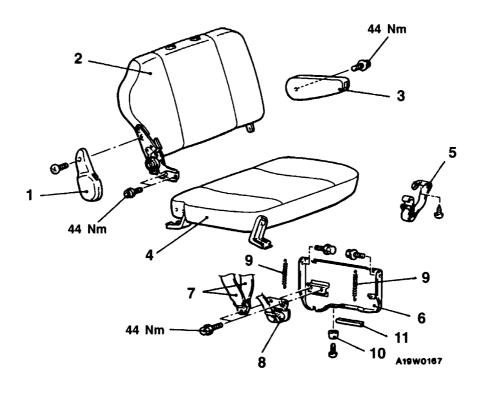


INSTALLATION SERVICE POINT ►A THIRD SEAT ASSEMBLY INSTALLATION

Tighten the third seat mounting bolts in the order A and B.

DISASSEMBLY AND REASSEMBLY

120002302



Removal steps

- Reclining adjuster cover
 Third seat back
 Armrest <Crystal lite roof>
 Third seat cushion
 Strap assembly
 Stay assembly
 Third seat belt

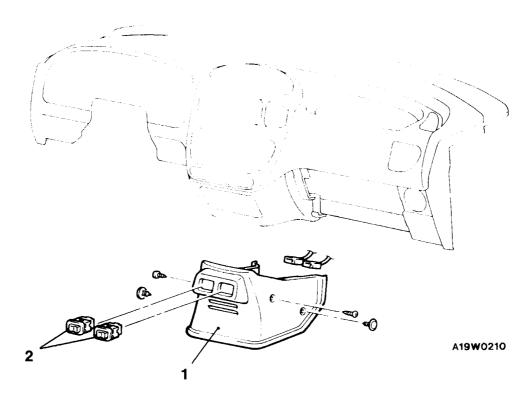
- 8. Latch assembly9. Spring10. Damper11. Trim

HEATED SEAT SWITCH REMOVAL AND INSTALLATION

120002303

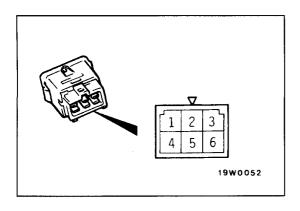
CAUTION: SRS

When removing and installing the computer cover from vehicles equipped with SRS, do not let it bump against the SRS diagnostic unit.



Removal steps

- 1. Computer cover
- 2. Heated seat switch

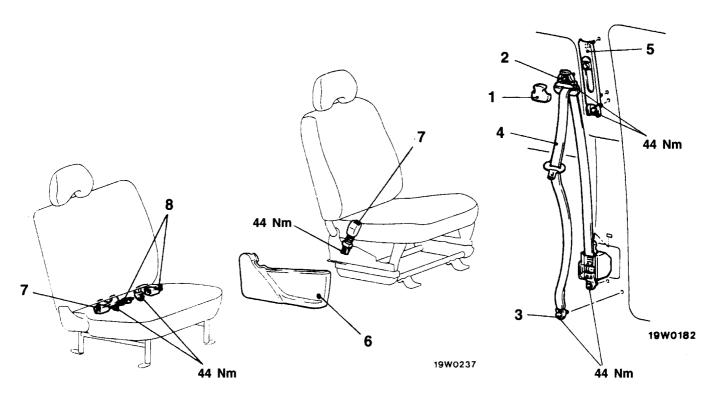


INSPECTION HEATED SEAT SWITCH CONTINUITY INSPECTION

Switch		Terminal No.				
position	1	2	5	6	3	4
HI	0-	-0	0-	-0		
OFF						D
LO		0—	-0		11	ND

SEAT BELT 120002304

FRONT SEAT BELT REMOVAL AND INSTALLATION



00002882

Outer seat belt removal steps

- 1. Sash guide cover
- 2. Sash guide
- 3. Anchor bolt
- Retractor cover <Partial trim> (Refer to P.52A-7.)
- Belt line trim <Full trim> (Refer to P.52A-11.)
- Rear side trim upper <Full trim> (Refer to P.52A-11.)
- Rear door grip <4WD>
 (Refer to P.52A-12.)
 Centre pillar trim, upper
- (Refer to P.52A-9, 12.)

- Centre pillar trim, lower (Refer to P.52A-9, 12.)
- 4. Outer seat belt
- 5. Adjustable seat belt anchor

Inner seat belt removal steps

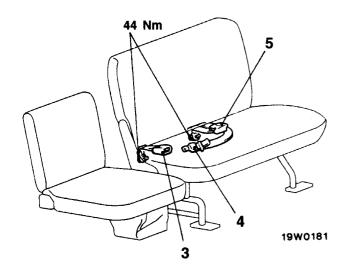
- Front seat assembly (Refer to P.52A-20.)
- 6. Hinge cover
- 7. Inner seat belt

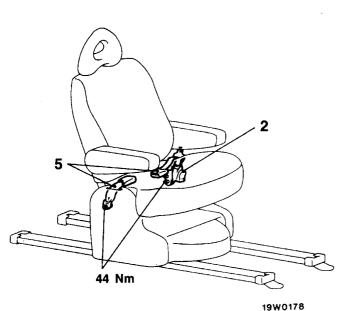
Lap belt removal

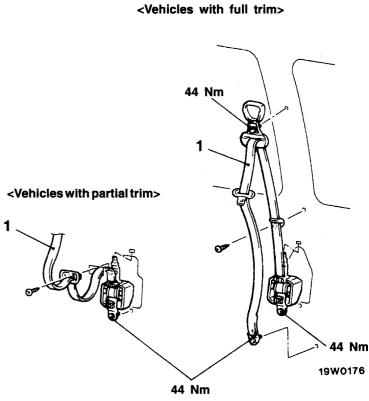
8. Lap belt

SECOND SEAT BELT **REMOVAL AND INSTALLATION**

120002305







00002850

Outer seat belt removal steps

- Quarter trim <partial trim>
- (Refer to P.52A-7, 8.) Belt line trim <full trim> (Refer to P.52A-10, 11, 13, 14.)
- Quarter trim, upper <full trim> (Refer to P.52A-10, 11, 13, 14.)
- 1. Outer seat belt

Rear seat belt and centre seat belt removal steps

- 2. Rear seat belt
- 3. Centre inner seat belt
- 4. Centre outer seat belt

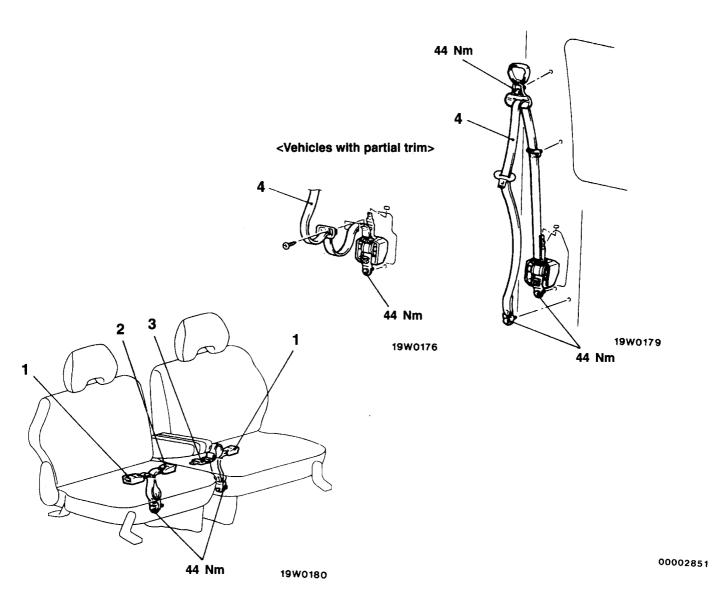
Inner seat belt removal

5. Inner seat belt

THIRD SEAT BELT **REMOVAL AND INSTALLATION**

120002306

<Vehicles with full trim>



- 1. Inner seat belt
- 2. Centre inner seat belt
- 3. Centre outer seat belt

Outer seat belt removal steps

- Gate pillar trim, lower <full trim>
- (Refer to P.52A-10, 11, 13, 14.)

 Quarter trim <partial trim>
 (Refer to P.52A-7, 8.)

 4. Outer seat belt

120002291

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

CONTENTS

SERVICE PRECAUTIONS 2	FRONT IMPACT SENSORS 32
SERVICE SPECIFICATIONS 4	SRS DIAGNOSIS UNIT (SDU) 34
SPECIAL TOOLS4	AIR BAG MODULE AND CLOCK SPRING
TEST EQUIPMENT 5	
TROUBLESHOOTING 5	AIR BAG MODULE DISPOSAL PROCEDURES43
POST-COLLISION DIAGNOSIS 28	Undeployed Air Bag Module Disposal 43
	Deployed Air Bag Module Disposal Procedures
INDIVIDUAL COMPONENT SERVICE 31	
WARNING/CAUTION LABELS 31	SENSOR CABLE INSTALLATION PROCEDURES50

FRONT IMPACT SENSORS 32
SRS DIAGNOSIS UNIT (SDU) 34
AIR BAG MODULE AND CLOCK SPRING
AIR BAG MODULE DISPOSAL PROCEDURES
Undeployed Air Bag Module Disposal 43
Deployed Air Bag Module Disposal Procedures
Procedures 48

CAUTION

- Carefully read and observe the information in the SERVICE PRECAUTIONS (P.52B-2.) prior to any service.
- For information concerning troubleshooting or maintenance, always observe the procedures in the Troubleshooting (P.52B-5.) section.
- If any SRS components are removed or replaced in connection with any service procedures, be sure to follow the procedures in the INDIVIDUAL COMPONENT SERVICE section (P.52B-31.) for the components involved.
- If you have any questions about the SRS, please contact your local distributor.

SERVICE PRECAUTIONS

120002280

- In order to avoid injury to yourself or others from accidental deployment of the air bag during servicing, read and carefully follow all the precautions and procedures described in this manual.
- 2. Do not use any electrical test equipment on or near SRS components, except those specified on P.52B-5.
- 3. Never Attempt to Repair the Following Components:
 - Front Impact Sensors
 - SRS Diagnosis Unit (SDU)

- Clock Spring
- Air Bag Module (Driver's side or front passenger's side*)

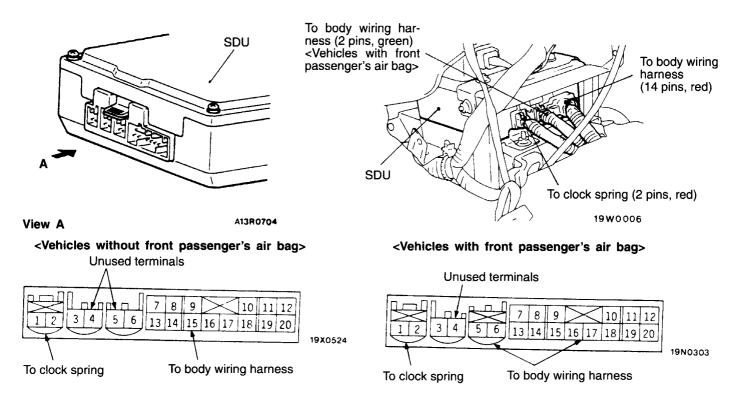
NOTE

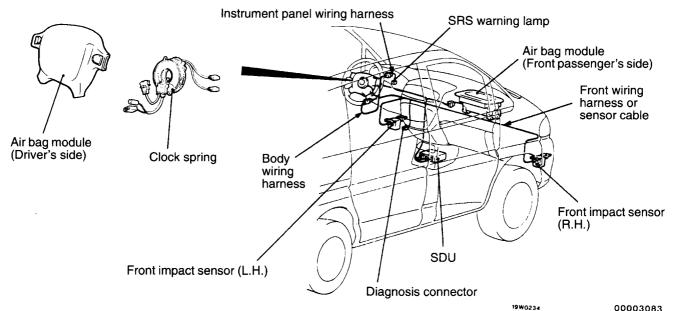
- *: Vehicles with passenger's air bag
- 4. Do not attempt to repair the wiring harness connectors of the SRS. If any of the connectors are diagnosed as faulty, replace the wiring harness. If the wires are diagnosed as faulty, replace or repair the wiring harness according to the following table.

Harness connector (No. of terminals, colour)	SDU terminal No.	Destination of harness	Corrective action	
2 pins, red	1, 2	Body wiring harness → Clock spring	Replace clock spring	
_	3, 4	-	_	
2 pins, green	5* ¹ , 6* ¹	Body wiring harness → Air bag module (Front passenger's side)	Carrect or re- place each wiring harness	
	7, 8	-	_	
	9	Body wiring harness→ Diagnosis connector		
	10	Body wiring harness → Control wiring harness → Body wiring harness → Ignition switch (ST)	Correct or replace each wiring harness	
	11	Body wiring harness → Instrument panel wiring harness → Junction block (fuse No.4)		
	12	Body wiring harness → Junction block (fuse No.8)		
	13, 14	Body wiring harness → Instrument panel wiring harness → Combination meter (SRS warning lamp)		
14 pins, red	15	Body wiring harness → Front wiring harness → Front impact sensor (+)(R.H.)		
·	16	Body wiring harness → Front wiring harness → Front impact sensor (+)(L.H.)	Sensor cable*2	
	17	Body wiring harness → Front wiring harness → Front impact sensor (–)(L.H.)	cedures (Refer to P.52B-50.)	
	18	Body wiring harness → Front wiring harness → Front impact sensor (–)(R.H.)		
	19, 20	Body wiring harness → Earth	Correct or re- place each wiring harness	

NOTE

- (1) *1: Vehicles with front passenger's air bag
- (2) The sensor cable marked with*2 is available as service part.





- 5. 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.
- SRS components should not be subjected to heat over 93°C, so remove the front impact sensors, SRS diagnosis unit, air bag module and clock spring before drying or baking the vehicle after painting.
- Whenever you finish servicing the SRS, erase the diagnosis codes and check the SRS warning lamp operation to make sure that the system functions properly. (Refer to P.52B-5.)

SERVICE SPECIFICATIONS

120000236

Items	Standard value
Front impact sensor resistance Ω	2,000 ± 20
Clock spring resistance Ω	Less than 0.4

SPECIAL TOOLS

120002281

Tool	Number	Name	Use
Lexoece Lexoece	MB991502	MUT-II sub assembly	 Reading diagnosis codes Erasing diagnosis code Reading trouble period Reading erase times
16X0607	_	ROM pack	
	MB991349 <vehicles with-<br="">out front pas- senger's air bag></vehicles>	SRS Check harness	Checking the SRS electrical circuitry
	MB991530 <vehicles with<br="">front passen- ger's air bag></vehicles>		
	MB990803	Steering wheel puller	Removal of steering wheel
	MB686560	SRS air bag adapt- er harness A	Deployment of air bag module inside the vehicle
	MB628919	SRS air bag adapter harness B	Deployment of air bag module outside the vehicle

TEST EQUIPMENT

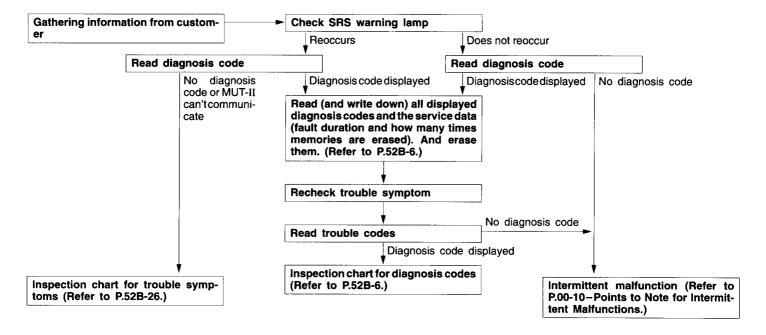
120000238

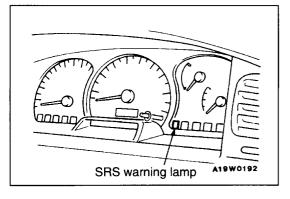
Tool	Name	Use
1380746	Digital multi-meter	Checking the SRS electrical circuitry Use a multi-meter for which the maximum test current is 2 mA or less at the minimum range of resistance measurement

TROUBLESHOOTING

120002282

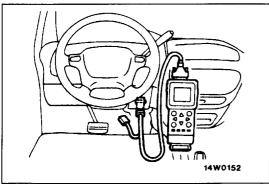
1. STANDARD FLOW OF DIAGNOSTIC TROUBLESHOOTING





2. "SRS" WARNING LAMP CHECK

Turn the ignition with the key "ON" position. Does the "SRS" warning lamp illuminate for about 7 seconds, turn OFF and then remain extinguished for at least 45 seconds? If yes, SRS system is functioning properly. If no, consult page 52B-6.



3. DIAGNOSIS CODE READING

- (1) Connect the MUT-II to the diagnois connector located at the relay box.
- (2) Read the service date (fault duration and how many times memories are erased) using the MUT-II.

NOTE

- Maximum stored period: 9999 minutes (approximately 7 days)
- 2. Maximum number of times to be stored: 250

4. DIAGNOSIS CODE ERASING METHOD

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

5. INSPECTION CHART FOR DIAGNOSIS CODES

Code No.	Diagnosis item	Reference page
11, 12, 13	Front impact sensor system	P.52B-7
21, 22	Air bag module (squib) system	P.52B-9
24* ¹		D 50 44
25* ¹	Front passenger's side air bag module (squib)	P.52-11
31, 32	SDU capacitor system	P.52B-13
33* ²	Cranking signal system	P.52B-14
34*2	Connector lock system	P.52B-16
41* ²	IG ₁ (A) power circuit system	P.52B-17
42* ²	IG ₁ (B) power circuit system	P.52B-19
43	SRS warning lamp drive circuit system Lamp does not illuminate*2	P.52B-21
40	SRS warning lamp drive circuit system Lamp does not switch off	P.52B-23
44	SRS warning lamp drive circuit system	P.52B-24
45	SDU non-volatile memory (EEPROM) and A/D converter system	P.52B-25

NOTE

(1) *1: Vehicles with front passenger's air bag.
(2) If the vehicle condition returns to normal, the diagnosis code with *2 mark will be automatically erased, and the SRS warning lamp will return to normal. If the vehicle has a discharged battery, it will store the fault codes 41 or 42. When these diagnosis

coded are displayed, check the battery.

6. INSPECTION PROCEDURE CLASSIFIED BY DIAGNOSTIC TROUBLE

Code No.11, 12 or 13 Front impact sensor system	Probable cause	
 [Comment] (1) These diagnosis codes are output if there is abnormal resistance between the input terminals of the front impact sensor. The trouble causes for each code No. are as follows. (Refer to the chart 1.) (2) Diagnosis codes 11, 12 and 13 are sometimes generated in combination with malfunction codes relating to the air bag module (squib) (code Nos. 21 and 22), but sometimes only one may be output instead of both being memorized. Because of this, the air bag module should also be inspected at the same time. The relationships between the codes are as follows. (Refer to the chart 2.) 	 Malfunction of front impact sensor Malfunction of harnesses of connectors Malfunction of SDU 	

CHART 1

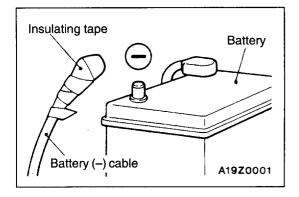
Code No.	Trouble Symptom		
11	 Short in front impact sensor or harness short Short in front impact sensor or air bag module (squib) harnesses leading to the vehicle body earth Short in front impact sensor or air bag module (squib) harnesses leading to the power supply 		
12	 Open circuit in either left or right front impact sensor open harness Short in front impact sensor or air bag module (squib) harnesses leading to the power supply 		
13	 Open circuit in both left and right front impact sensors or open harness Short in front impact sensor or air bag module (squib) harnesses leading to the power supply 		

CHART 2

Item			Front impact sensor		
		Short	Open circuit (1 sensor)	Open circuit (2 sensors)	
	Short	11 or 21	12 or 21	13 or 21	
Air bag module (driver's side squib)	Open circuit	11 or 22	12 or 22	13 or 22	
Air bag module (front passenger's side squib)*	Short	11 or 24	12 or 24	13 or 24	
	Open circuit	11 or 25	12 or 25	13 or 25	

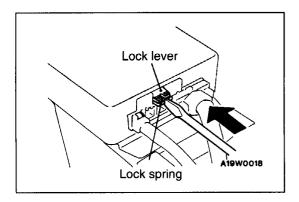
NOTE

*: Vhicles with front passenger's air bag.

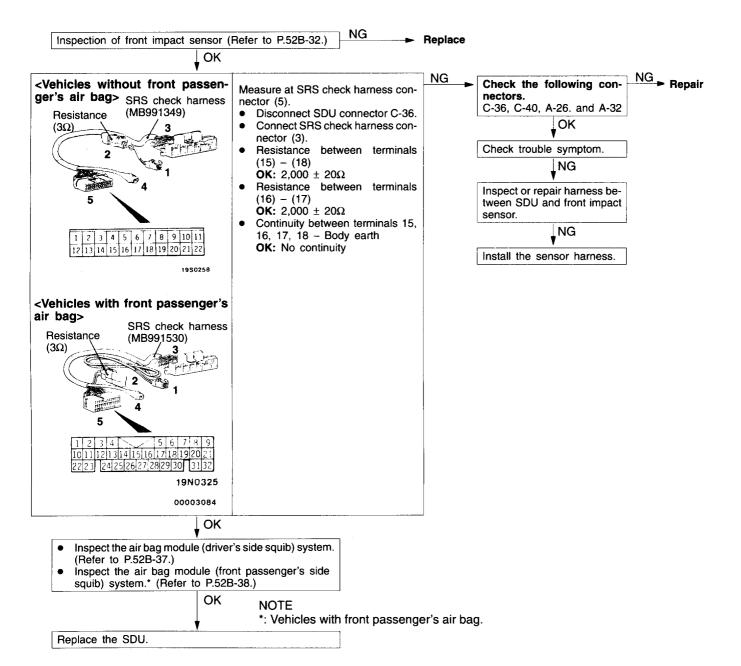


Caution

1. Turn the ignition key to the "LOCK" position, disconnect the negative battery cable and tape the terminal. Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-3, No.5.)



 To unlock the SDU connector, place a flat-tipped screwdriver against the lock spring at the lock lever notch and push the spring toward the unit. In this case, do not force the lock lever up.



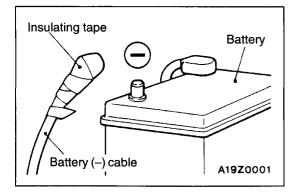
Code No.21 or 22 Air bag module (drive's side squib) system	Probable cause
 [Comment] (1) These diagnosis codes are output if there is abnormal resistance between the input terminals of the air bag module (driver's side squib). The trouble causes for each code No. are as follows. (Refer to chart 1.) (2) Diagnosis codes 21 and 22 are sometimes generated in combination with malfunction codes relating to the front impact sensor (code Nos. 11, 12 and 13), but sometimes only one may be output instead of both being memorized. Because of this, the front impact sensor should also be inspected at the same time. The relationships between the codes are as follows. (Refer to chart 2.) 	 Malfunction of clock spring Malfunction of harnesses or connectors Malfunction of air bag module (driver's side squib) Malfunction of SDU

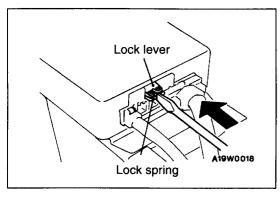
Chart 1

Code No.	Trouble Symptom
21	 Short in air bag module (driver's side squib) or harness short Short in clock spring Short in air bag module (driver's side squib) or front impact sensor harnesses leading to the power supply
22	 Open circuit in air bag module (driver's side squib) or open harness Open circuit in clock spring Malfunction of connector contact Short in air bag module (driver's side squib) or front impact sensor harnesses leading to the power supply

Chart 2

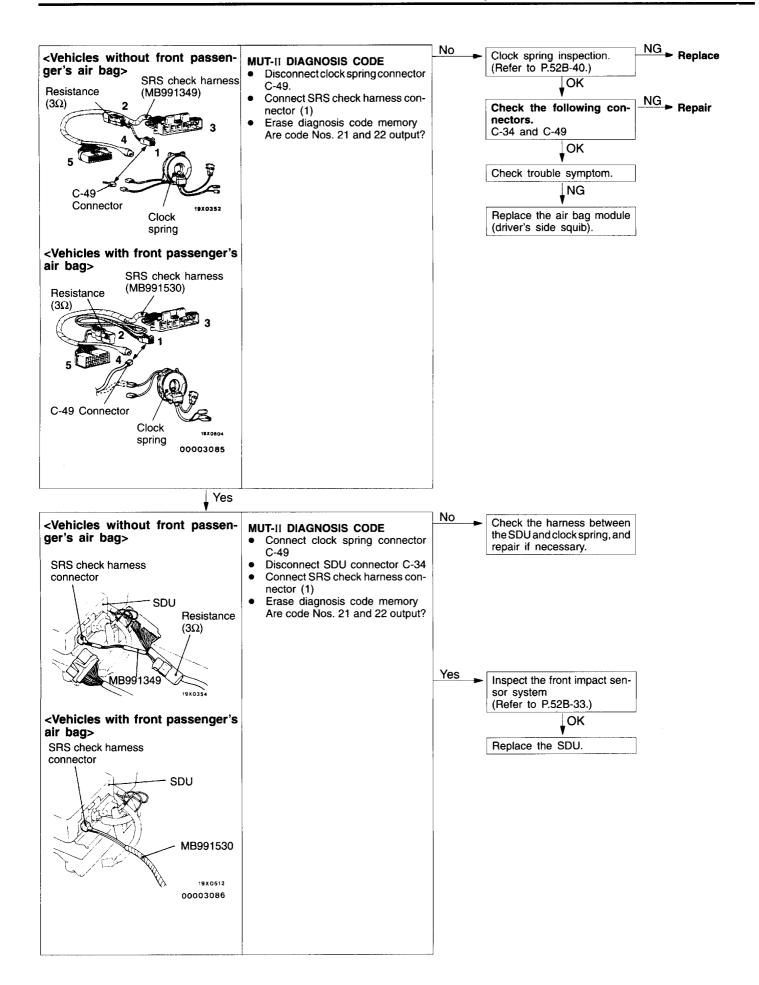
		Front impact sensor		
ltem		Short	Open circuit (1 sensor)	Open circuit (2 sensors)
Air has madula (driver's aide aguith)	Short	11 or 21	12 or 21	13 or 21
Air bag module (driver's side squib)	Open circuit	11 or 22	12 or 22	13 or 22





Caution

- 1. After the ignition switch has been placed at the LOCK position and the negative (–) terminal of the battery has been disconnected, wait for more than 60 seconds before starting work. Wind a tape around the disconnected (–) terminal for insulation. (Refer to P.52B-3, No.5)
- Do not attempt to measure the air bag module (squib) circuit resistance. Use of a tester in measuring the circuit resistance will supply current to the squib, or erroneous deployment due to static electricity could cause serious injury.
- 3. To unlock the SDU connector, place a flat-tipped screwdriver against the lock spring at the lock lever notch and push the spring toward the unit. In this case, do not force the lock lever up.



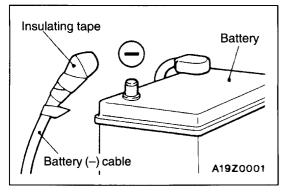
Code No. 24 or 25 Air bag module (front passenger's side squib) system <vehicles air="" bag="" front="" passenger's="" with=""></vehicles>	Probable cause	
 [Comment] (1) These diagnosis codes are output if there is abnormal resistance between the input terminals of the air bag module (front passenger's side squib). The trouble causes for each code No. are as follows. (2) Diagnosis codes 24 and 25 are sometimes generated in combination with malfunction codes relating to the front impact sensor (code Nos. 11, 12 and 13), but sometimes only one may be output instead of both being memorised. Because of this, the front impact sensor should also be inspected at the same time. The relationships between the codes are as follows. 	 Malfunction of harnesses or connectors Malfunction of air bag module (front passenger's side squib) Malfunction of SDU 	

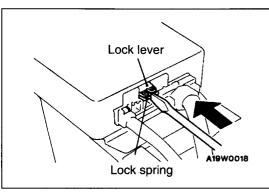
Chart 1

Code No.	Trouble Symptom		
24	 Short in air bag module (front passenger's side squib) or harness short. Short in air bag module (front passenger's side squib) or front impact sensor harnesses leading to the power supply 		
25	 Open circuit in air bag module (front passenger's side squib) or open harness Malfucntion of connector contact Short in air bag module (front passenger's side squib) or front impact sensor harnesses leading to the power supply 		

Chart 2

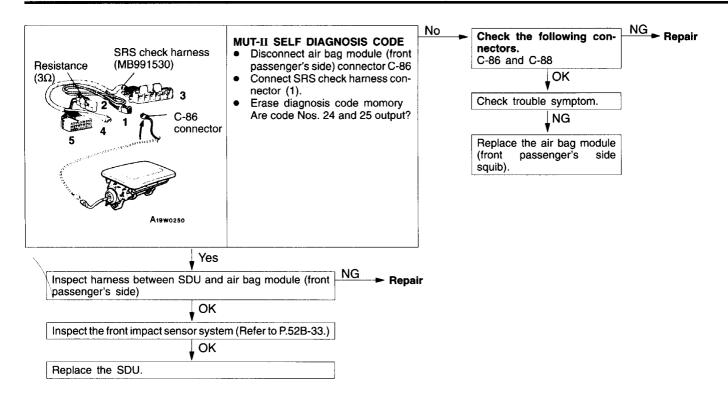
Item			Front impact sensor		
		Short	Open circuit (1 sensor)	Open circuit (2 sensors)	
Air hag madula (front nagaangar's aide aguib)	Short	11 or 24	12 or 24	13 or 24	
Air bag module (front passenger's side squib)	Open circuit	11 or 25	12 or 25	13 or 25	



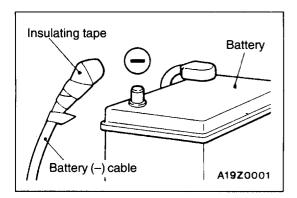


Caution

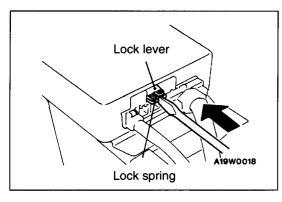
- After the ignition switch has been placed at the LOCK position and the negative (-) terminal of the battery has been disconnected, wait for more than 60 seconds before starting work. Wind a tape around the disconnected (-) terminal for insulation. (Refer to P.52B-3, No.5)
- 2. Do not attempt to measure the air bag module (squib) circuit resistance. Use of a tester in measuring the circuit resistance will supply current to the squib, or erroneous deployment due to static electricity could cause serious injury.
- 3. To unlock the SDU connector, place a flat-tipped screwdriver against the lock spring at the lock lever notch and push the spring toward the unit. In this case, do not force the lock lever up.



Code No.31 or 32 SDU capacitor system	Probable cause
[Comment] These diagnosis codes are output if the voltage at the SDU capacitor terminals is higher (No.31) or lower (No.32) than the specified value for 5 seconds or more. However, if diagnosis code Nos. 41 and 42 are being output due to a drop in battery voltage, code No.32 will not be detected.	Malfunction of front impact sensor Malfunction of SDU



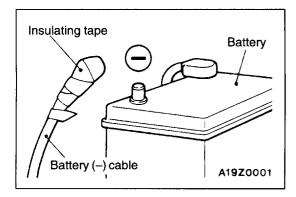
1. Turn the ignition key to the "LOCK" position, disconnect the negative battery cable and tape the terminal. Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-3, No.5)



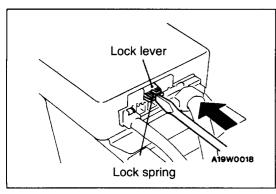
2. To unlock the SDU connector, place a flat-tipped screwdriver against the lock spring at the lock lever notch and push the spring toward the unit. In this case, do not force the lock lever up.

The capacitor inside the SDU is probably defective, so replace the SDU. However, code No.32 could also be a result of a short in the front impact sensor, so inspection of the front impact sensor system should also be carried out. (Refer to P.52B-7.)

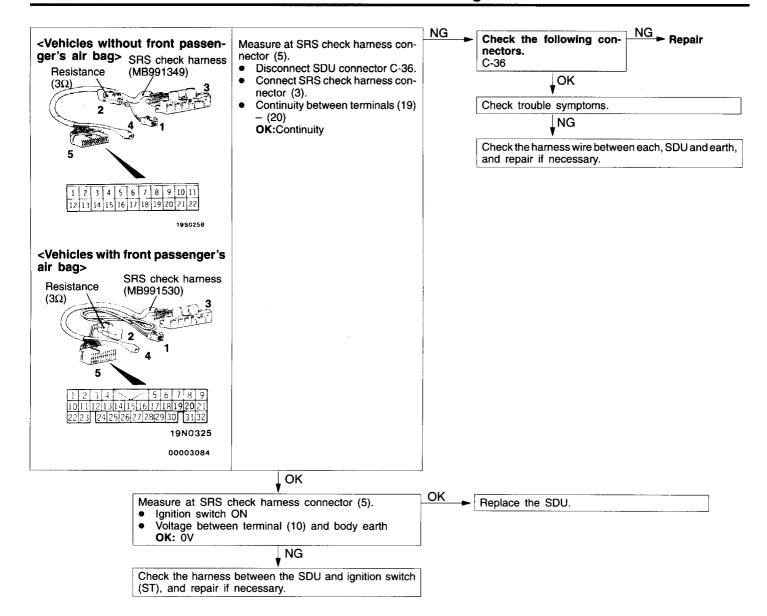
Code No.33 Cranking signal system	Probable cause
[Comment] The cranking signal is provided in order to prevent mistaken detection of power supply voltage drops at the IG1 terminal during cranking. This diagnosis code is output if the cranking signal is output for a continuous period of 45 seconds or more (cranking signal harness is shorted to the power supply). However, if the vehicle condition returns to normal (except when cranking), diagnosis code No.33 will be automatically erased, and the SRS warning lamp will switch off.	Malfunction of harnesses of connectors Malfunction of SDU



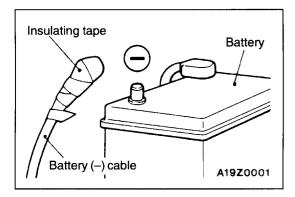
1. Turn the ignition key to the "LOCK" position, disconnect the negative battery cable and tape the terminal. Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-3, No.5.)



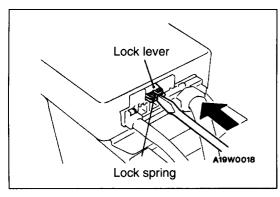
2. To unlock the SDU connector, place a flat-tipped screwdriver against the lock spring at the lock lever notch and push the spring toward the unit. In this case, do not force the lock lever up.



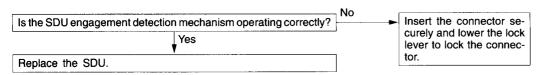
Code No.34 Connector lock system	Probable cause
[Comment] This diagnosis code is output if the double lock shorting bar of the SDU connector is detected to be open. However, if the vehicle condition returns to normal, diagnosis code No.34 will be automatically erased, and the SRS warning lamp will switch off.	Malfunction of connectors Malfunction of SDU



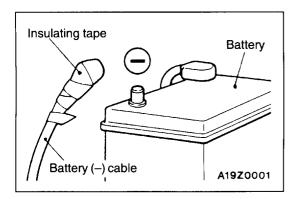
1. Turn the ignition key to the "LOCK" position, disconnect the negative battery cable and tape the terminal. Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-3, No.5.)



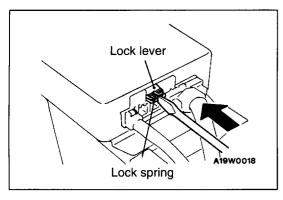
2. To unlock the SDU connector, place a flat-tipped screwdriver against the lock spring at the lock lever notch and push the spring toward the unit. In this case, do not force the lock lever up.



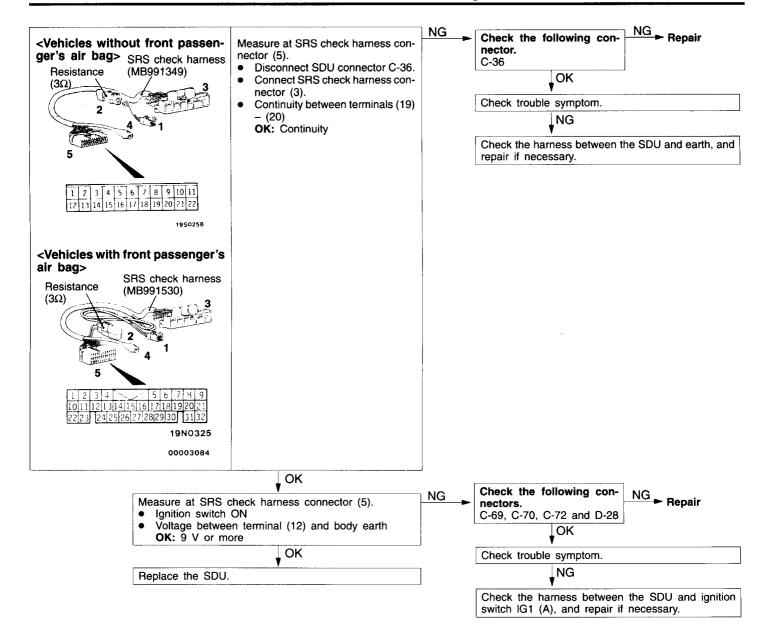
Code No.41 IG ₁ (A) power circuit system	Probable cause
[Comment] This diagnosis code is output if the voltage between the IG ₁ (A) terminal and the earth is lower than the specified value for a continuous period of 5 seconds or more. However, if the vehicle condition returns to normal, diagnosis code No.41 will be automatically erased, and the SRS warining lamp will switch off.	Malfunction of harnesses or connectors Malfunction of SDU



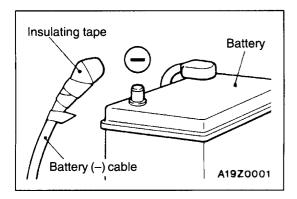
1. Turn the ignition key to the "LOCK" position, disconnect the negative battery cable and tape the terminal. Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-3, No.5.)



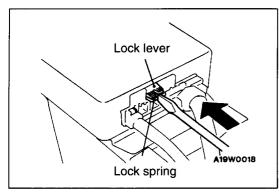
2. To unlock the SDU connector, place a flat-tipped screwdriver against the lock lever notch and push the spring toward the unit. In this case, do not force the lock lever up.



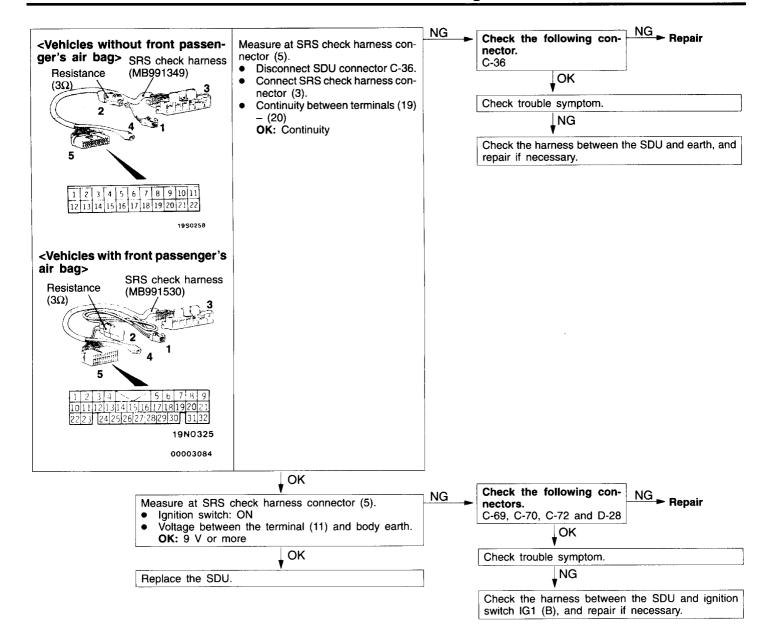
Code No.42 IG ₁ (B) power circuit system	Probable cause
[Comment] This diagnosis code is output if the voltage between the IG ₁ (B) terminal and the earth is lower than the specified value for a continuous period of 5 seconds or more. However, if the vehicle condition returns to normal, diagnosis code No.41 will be automatically erased, and the SRS warning lamp will switch off.	Malfunction of harnesses or connectors



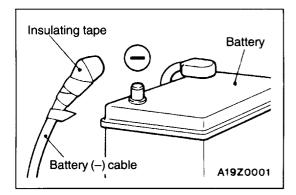
1. Turn the ignition key to the "LOCK" position, disconnect the negative battery cable and tape the terminal. Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-3, No.5.)



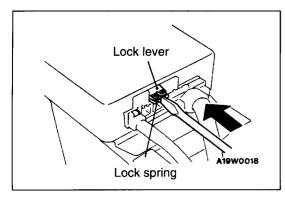
2. To unlock the SDU connecter, place a flat-tipped screwdriver against the lock spring at the lock lever notch and push the spring toward the unit. In this case, do not force the lock lever up.



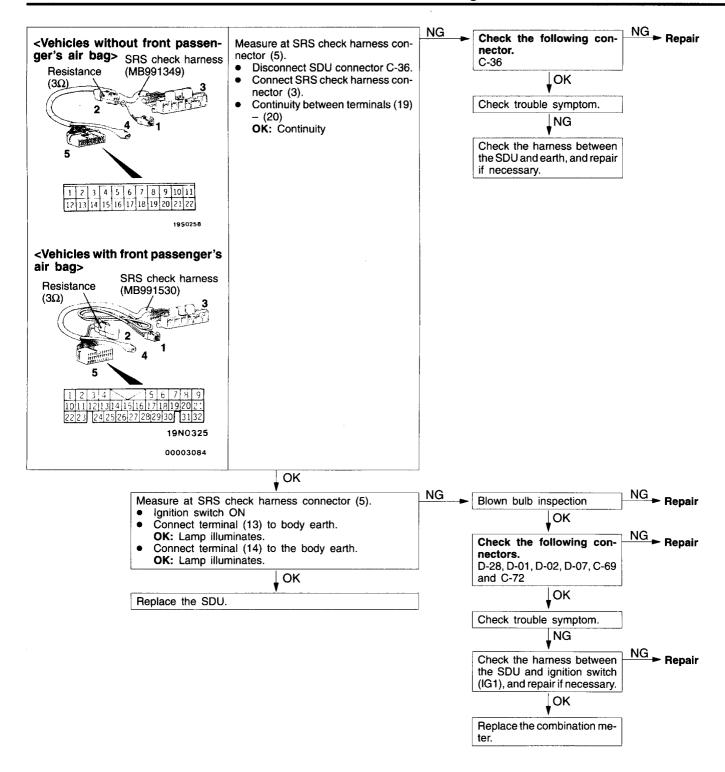
Code No.43 SRS warning lamp drive circuit system (Lamp does not illuminate.)	Probable cause
[Comment] This diagnosis code is output when an open circuit occurs for a continuous period of 5 seconds while the SDU is monitoring the SRS warning lamp and the lamp is OFF (transistor OFF). However, if this code is output due to an open circuit, if the vehicle condition returns to normal, this diagnosis code No.43 will be automatically erased, and the SRS warning lamp will return to normal.	Malfunction of harnesses or connectors Blown bulb Malfunction of SDU Malfunction of combination meter



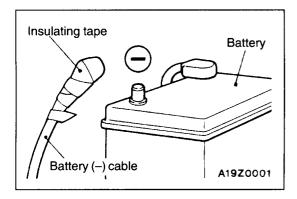
1. Turn the ignition key to the "LOCk" position, disconnect the negative battery cable and tape the terminal. Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-3, No.5.)



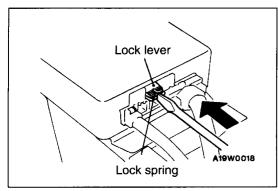
2. To unlock the SDU connector, place a flat-tipped screwdriver against the lock spring at the lock lever notch and push the spring toward the unit. In this case, do not force the lock lever up.



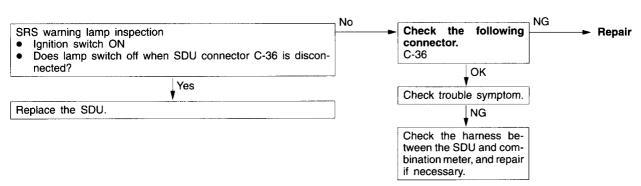
Code No.43 SRS warning lamp drive circuit system (Lamp does not switch off.)	Probable cause
[Comment] This diagnosis code is output when a short to earth occurs in the harness between the lamp and the SDU while the SDU is monitoring the SRS warning lamp and the lamp is ON.	Malfunction of harnesses or connectors Malfunction of SDU



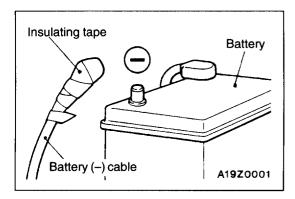
1. Turn the ignition key to the "LOCK" position, disconnect the negative battery cable and tape the terminal. Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-3, No.5.)



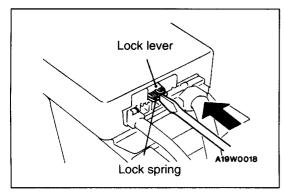
2. To unlock the SDU connector, place a flat-tipped screwdriver against the lock spring at the lock lever notch and push the spring toward the unit. In this case, do not force the lock lever up.



Code No.44 SRS warning lamp drive circuit system	Probable cause
[Comment] This diagnosis code is output when a short occurs in the lamp drive circuit or a malfunction of the output transistor inside the SDU is detected while the SDU is monitoring the SRS warning lamp drive circuit.	Malfunction of harnesses or connectors Malfunction of SDU



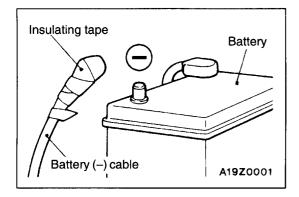
Turn the ignition key to the "LOCK" position, disconnect the negative battery cable and tape the terminal.
 Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-3, No.5).



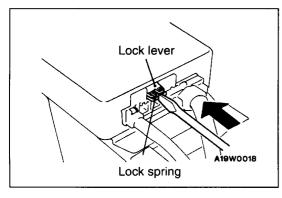
2. To unlock the SDU connector, place a flat-tipped screwdriver against the lock spring at the lock lever notch and push the spring toward the unit. In this case, do not force the lock lever up.

If the results of inspection of the SRS warning lamp drive circuit system (refer to P.52B-21) are normal, the transistor inside the SDU is probably defective, so replace the SDU.

Code No.45 SDU non-volatile memory (EEPROM) and A/D converter system	Probable cause
[Comment] This diagnosis code is output if there is a malfunction in the SDU non-volatile memory (EEPROM) or A/D converter.	Malfunction of SDU



1. Turn the ignition key to the "LOCK" position, disconnect the negative battery cable and tape the terminal. Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-3, No.5.)



2. To unlock the SDU connector, place a flat-tipped screwdriver against the lock spring at the lock lever notch and push the spring toward the unit. In this case, do not force the lock lever up.

The SDU non-volatile memory (EEPROM) or A/D converter is probably defective, so replace the SDU.

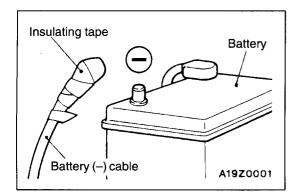
7. INSPECTION CHART FOR TROUBLE SYMPTOMS

Trouble symptom	Inspection procedure No.	Reference page
Communication with MUT-II is not possible.	1	P.52B-26
SRS warning lamp does not illuminate.	Refer to diagnosis code No.43.	P.52B-21
SRS warning lamp is still on		P.52B-23

8. INSPECTION PROCEDURE FOR TROUBLE SYMPTOMS

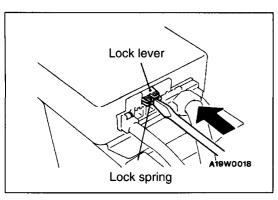
Inspection procedure 1

Communication with MUT-II is not possible.	Probable cause
[Comment] If communication with all system is not possible, the cause is probably diagnosis circuit malfunction. 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 harnesses or connectors

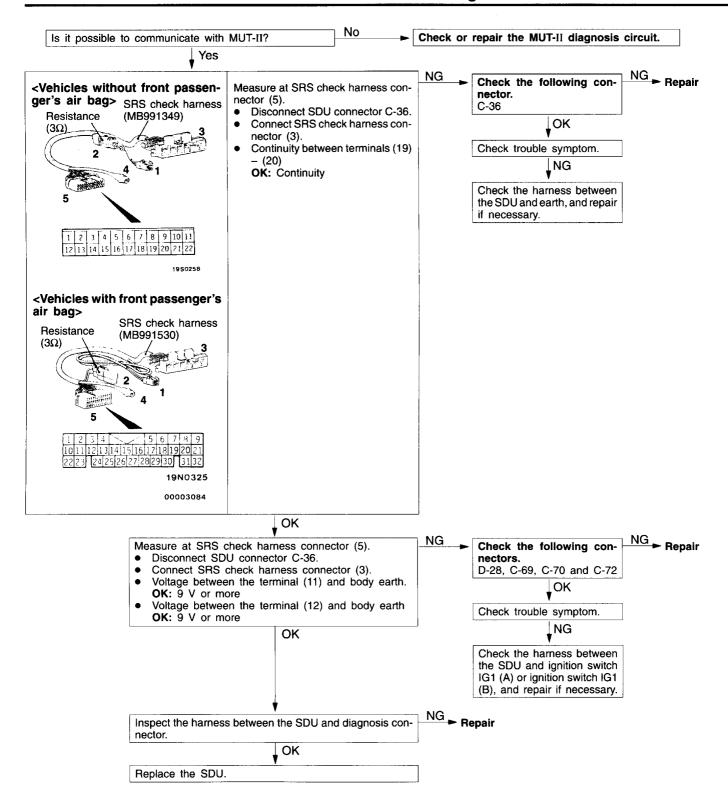


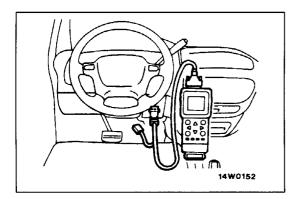
Caution

1. Turn the ignition key to the "LOCK" position, disconnect the negative battery cable and tape the terminal. Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-3, No.5.)



2. To unlock the SDU connector, place a flat-tipped screwdriver against the lock spring at the lock lever notch and push the spring toward the unit. In this case, do not force the lock lever up.





POST-COLLISION DIAGNOSIS

120002283

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

SRS DIAGNOSIS UNIT MEMORY CHECK

1. Connect the MUT-II to the diagnosis connector located at the relay box.

Caution

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

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

NOTE

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

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

NOTE

- (1) Maximum stored period: 9999 minutes (approximately 7 days)
- (2) Maximum number or times to be stored: 250
- 4. Erase the diagnosis codes and after waiting 45 seconds or more read (and write down) all displayed diagnosis codes. (Refer to P.52B-6.)

REPAIR PROCEDURE

WHEN AIR BAG DEPLOYS IN A COLLISION.

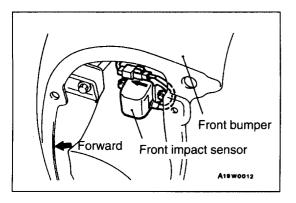
- 1. Replace the following parts with new ones.
 - Front impact sensors (Refer to P.52B-32.)
 - SRS diagnosis unit (SDU)(Refer to P.52B-34.)
 - Air bag module (Refer to P.52B-37.)
- 2. Check the following parts and replace if there are any malfunctions.
 - Clock spring (Refer to P.52B-37.)
 - Steering wheel, steering column and intermediate ioint
 - (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-2.)

WHEN AIR BAG DOES NOT DEPLOY IN LOW-SPEED COLLISION.

Check the SRS components.

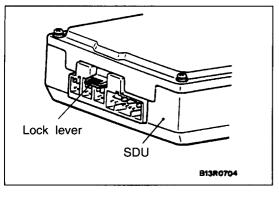
If the SRS components are showing any visible damage such as dents, crancks, or deformation, replace them with new ones.

Concerning parts removed for inspection, replacement with new parts and cautionary points for working, refer to appropriate INDIVIDUAL COMPONENT SERVICE, P.52B-31.



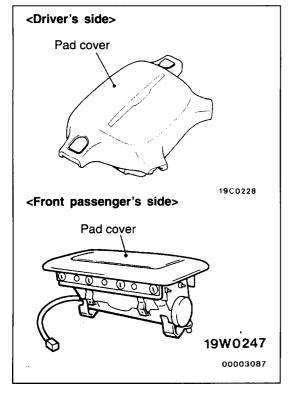
Front impact sensors

- 1. Check headlamp support panel for deformation or rust.
- 2. Check front impact sensor for dents, cracks, deformation or rust.
- 3. Check sensor harnesses for binds, connectors for damage, and terminals for deformation.



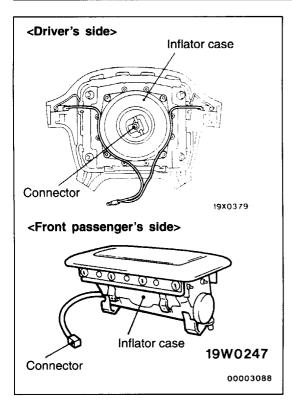
SRS diagnosis unit (SDU)

- Check SDU case and brackets for dents, cracks or deformation.
- 2. Check connectors and lock lever for damage, and terminals for deformation.

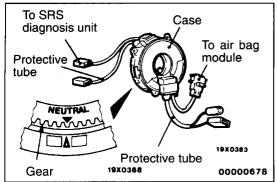


Air bag modules

1. Check pad cover for dents, cracks or deformation.



- 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.



Clock spring

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

Steering wheel, steering column and intermediate joint

- 1. Check wiring harness (built into steering wheel) and connectors for damage, and terminals for deformation.
- 2. Install air bag module to check fit or alignment with steering wheel.
- 3. Check steering wheel for noise, binds or difficult operation and excessive free play.

Harness connector (body and front wiring harness)

Check harnesses for binding, connectors for damage, poor connections, and terminals for deformation. (Refer to P.52B-2.)

INDIVIDUAL COMPONENT SERVICE

120002284

If the SRS components are to be removed, follow each procedure. (P.52B-32 - P.52B-42.)

Caution

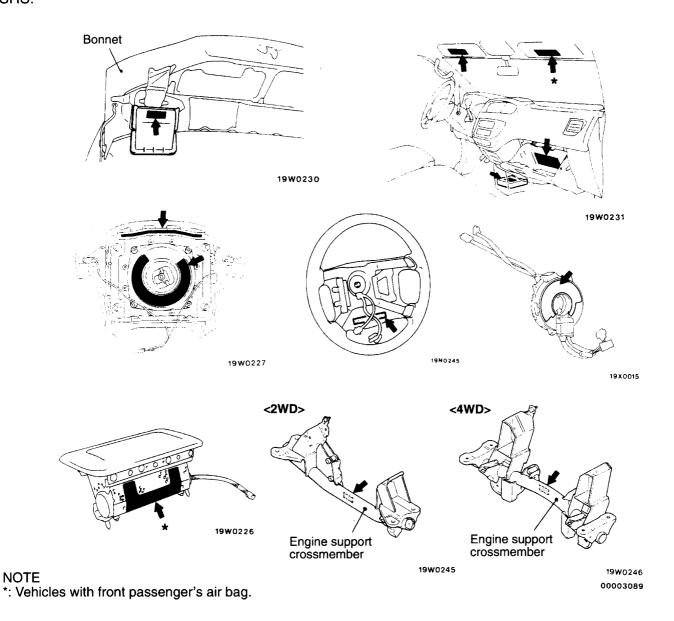
- 1. SRS components should not be subjected to heat over 93°C, so remove the front impact sensors, SRS diagnosis unit and air bag module and clock spring before drying or baking the vehicle after painting.
- 2. If the SRS components are removed for the purpose of check, sheet metal repair, painting, etc., they should be stored in a clean, dry place until they are reinstalled.

WARNING/CAUTION LABELS

120002285

A number of caution labels relating to the SRS are found in the vehicle, as shown in the following illustration. Follow label instructions when servicing SRS.

If labels are dirty or damaged, replace them with new ones.



FRONT IMPACT SENSORS

120002286

Caution

- 1. Never repair or disassemble a front impact sensor. If faulty, replace it.
- 2. Handle the front impact sensors very carefully, taking care not to drop them or other-

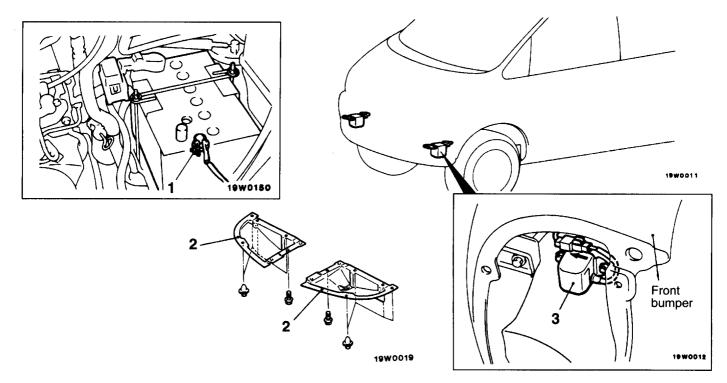
wise subject them to impact. If a sensor is seen to be dented, cracked, deformed or rusted, replace it with a new one.

3. Replace sensors with new ones after the air bag has deployed.

REMOVAL AND INSTALLATION

Pre-removal Operation

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



00000680

Removal steps



- Post-installation inspection
- 1. Negative (-) Battery cable connection
- 2. Under panel side cover (Refer to GROUP 42 Under cover.)

▶B 3. Front impact sensor▶A • Pre-installation inspection

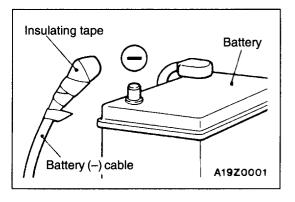
REMOVAL SERVICE POINT

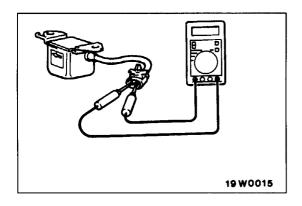


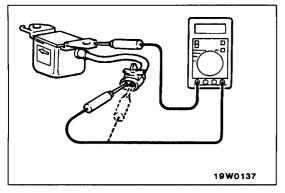
Disconnect the negative battery cable from the battery and tape the terminal.

Caution

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-3, No.5.)







INSPECTION

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

Caution

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

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

Standard value: 2,000 \pm 20 Ω

Caution

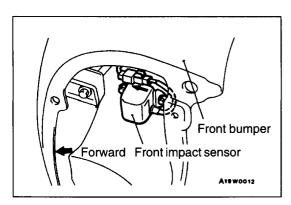
Always replace the sensor with a new one if the resistance is not within the standard value.

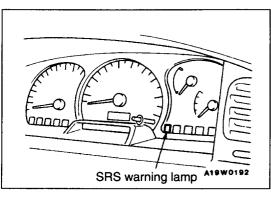
- 3. Check headlamp support panel for deformation or rust.
- 4. Check the continuity between the terminal and bracket. If there is a continuity, the insulation is malfunctioned, and replace the sensor with a new one.

INSTALLATION SERVICE POINTS

▶A PRE-INSTALLATION INSPECTION

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





▶B FRONT IMPACT SENSOR INSTALLATION

- (1) Securely connect the connector.
- (2) Set the front impact sensor toward the front of the vehicle as shown by the arrow in the illustration, and install it securely.

Caution

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

▶C POST-INSTALLATION INSPECTION

- (1) Reconnect the negative battery terminal.
- (2) Turn the ignition key to the "ON" position.
- (3) Does the "SRS" warning lamp illuminate for about 7 seconds, and then remain extinguished for at least 45 seconds after turning OFF?
- (4) If yes, SRS system is functioning properly. If no, consult page 52B-6.

SRS DIAGNOSIS UNIT (SDU)

Caution

- Never attempt to disassemble or repair the SDU. If faulty, replace it.
- 2. Do not drop or subject the SDU to impact or vibration.
 - If denting, cracking, deformation, or rust are discovered in the SDU, replace it with a new SDU. Discard the old one.

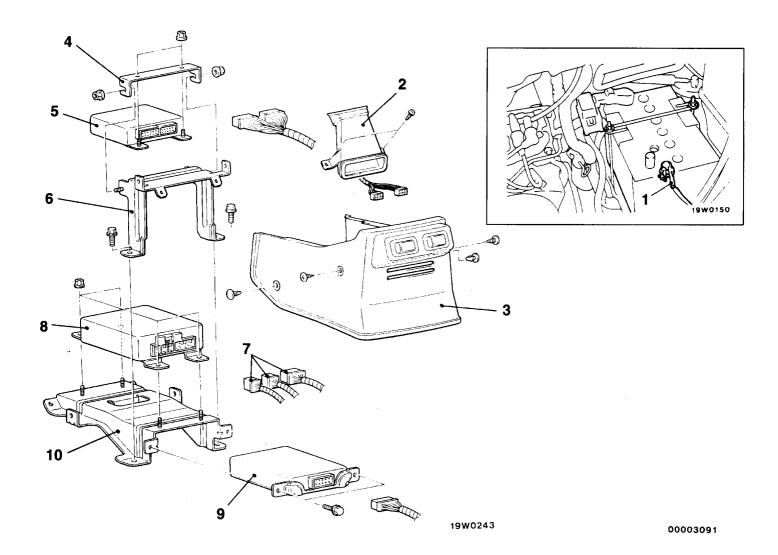
REMOVAL AND INSTALLATION

Pre-removal Operation

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

120002287

- 3. After deployment of an air bag, replace the SDU with a new one.
- 4. Never use an ohmmeter on or near the SDU, and use only the special test equipment described on P.52B-5



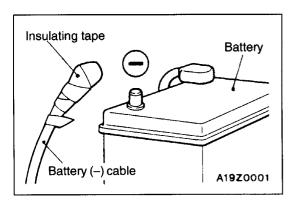
Removal steps

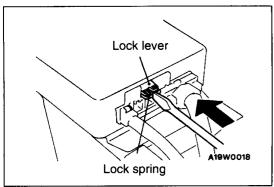


- Post-installation inspection
- Negative (-) battery cable connection
- 2. Foot distribution rear duct
- 3. Computer cover
- 4. ABS bracket
- 5. ABS ECU



- 6. Rear ABS bracket
- 7. Harness connector
- 8. SRS diagnosis unit (SDU)
- 9. A/T ECU
- 10. SRS diagnosis unit (SDU) bracket





REMOVAL SERVICE POINTS

▲A▶ NEGATIVE (-) BATTERY CABLE DISCONNECTION

Disconnect the negative battery cable from the battery and tape the terminal.

Caution

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-3. No.5.)

▲B▶ HARNESS CONNECTOR DISCONNECTION

(1) To unlock the SDU connector, place a flat-tipped screwdriver against the lock spring at the lock lever notch and push the spring toward the unit.

Caution

Do not use excessive force to raise the lock lever.

(2) While pushing the locks of each connector downwards, remove each connector from the SDU.

Caution

Because a double lock mechanism is employed for the SDU connectors, be careful not to exert undue force to remove the connectors, as this will damage them.

INSPECTION

 Check the SDU case and brackets for dents, cracks or deformation.

Caution

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

NOTE

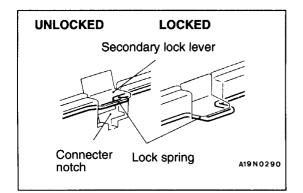
For checking of the SDU other than described above, refer to the section concerning troubleshooting. (Refer to P.52B-5.)

INSTALLATION SERVICE POINTS

►A SRS DIAGNOSIS UNIT (SDU) INSTALLATION

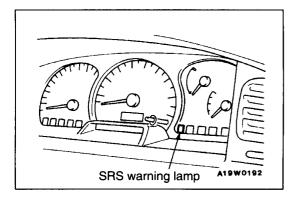
Caution

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



▶B HARNESS CONNECTOR CONNECTION

After connecting each harness connector securely and correctly to the SDU, be sure to press down the lock lever of the SDU.



▶C POST-INSTALLATION INSPECTION

- (1) Reconnect the negative battery terminal.
- (2) Turn the ignition key to the "ON" position.
- (3) Does the "SRS" warning lamp illuminate for about 7 seconds, and then remain extinguished for at least 45 seconds after turning OFF?
- (4) If yes, SRS system is functioning properly. If no, consult page 52B-6.

AIR BAG MODULES AND CLOCK SPRING

120002288

Caution

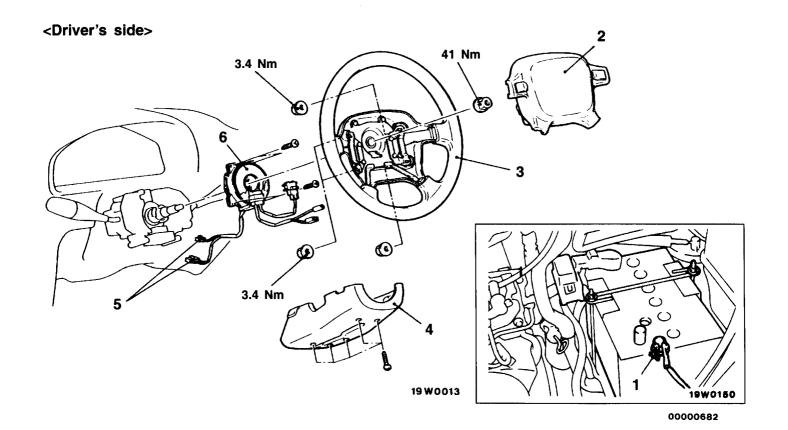
- 1. Never attempt to disassemble or repair the air bag modules or clock spring. If faulty, replace it.
- 2. Do not drop the air bag modules or clock spring or allow contact with water, grease or oil.
 - Replace it with a new one if a dent, crack, deformation or rust is detected.
- 3. The air bag modules 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.
- 4. Do not expose the air bag modules to temperatures over 93°C.
- 5. After deployment of an air bags, replace the clock spring with a new one.
- 6. Wear gloves and safety glasses when handling air bags that have already deployed.
- 7. An undeployed air bag modules should only be disposed of in accordance with the procedures (Refer to P.52B-43).

REMOVAL AND INSTALLATION

Pre-removal Operation

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



Air bag module removal steps



Post-installation inspection

Negative (-) battery cable connection



2. Air bag module

Pre-installation inspection

Clock spring removal steps

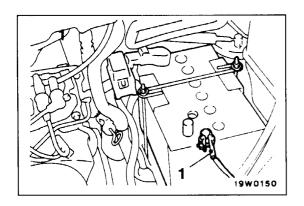
- Post-installation inspection
- Negative (-) battery cable connection
- 2. Air bag module ▶C◀
 - 3. Steering wheel
 - 4. Column cover, lower
 - 5. Clock spring and body wiring harness connection

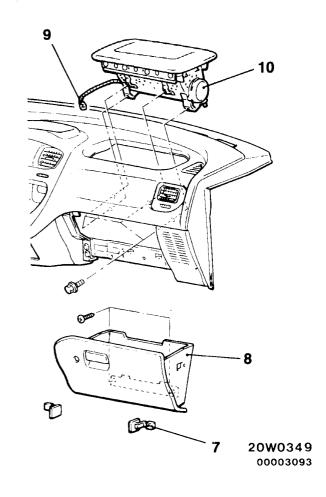


Clock spring

Pre-installation inspection

<Front passenger's side>

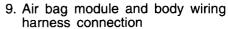




Air bag module removal steps



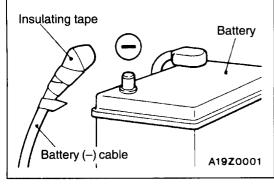
- Post-installation inspection
- Negative (-) battery cable connection
- 7. Stopper
- 8. Glove box





►A⊲

Pre-installation inspection



REMOVAL SERVICE POINTS

▲A NEGATIVE (-) BATTERY CABLE DISCONNECTION

Disconnect the negative battery cable from the battery and tape the terminal.

Caution

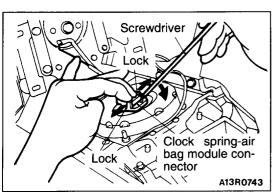
Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-3, No.5.)

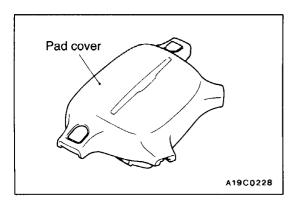
◆B AIR BAG MODULE REMOVAL (DRIVER'S SIDE)

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

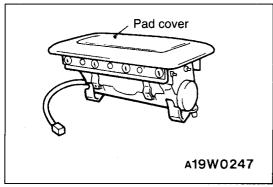
Caution

 When disconnecting the air bag module-clock spring connector, take care not to apply excessive force to it.





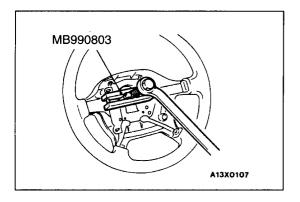
2. The removed air bag module should be stored in a clean, dry place with the pad cover face up.



◆B▶ AIR BAG MODULE REMOVAL (FRONT PASSENGER'S SIDE)

Caution

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

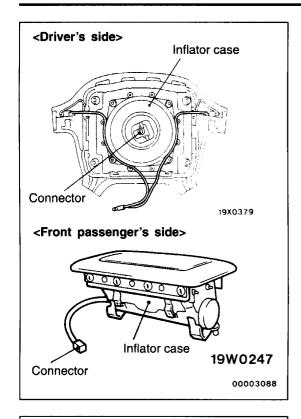


◄C► STEERING WHEEL REMOVAL

◆D▶ CLOCK SPRING REMOVAL

Caution

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



INSPECTION

AIR BAG MODULES

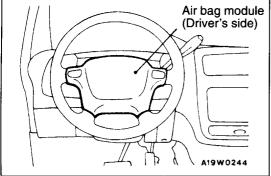
If any improper part is found during the following inspection, replace the air bag modules with a new one. Dispose of the old one according to the specified procedure.

(Refer to P.52B-43.)

Caution

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

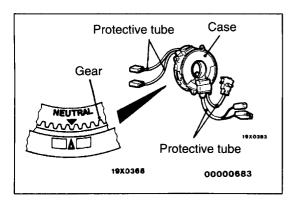
- (1) Check pad cover for dents, cracks or deformation.
- (2) Check connectors for damage, terminals for deformation, and harness for binds.
- (3) Check air bag inflator case for dents, cracks or deformation.



(4) Install the air bag module to steering wheel to check fit or alignment with the wheel.

Caution

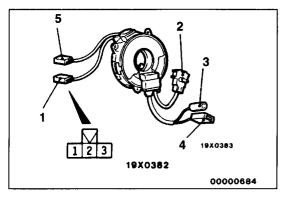
If dents, cracks, deformation, or rust are discovered in the air bag module, replace it with a new one. Dispose of the old one according to the specified procedure. (Refer to P.52B-43.)



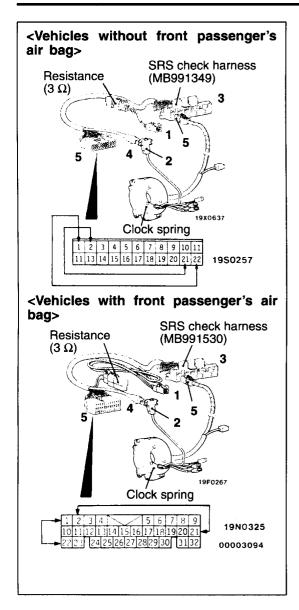
CLOCK SPRING

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

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



(3) Check for continuity between the terminal 3 of the No.1 connector and the No.3 connector.



- (4) Joint the No.5 connector of the clock spring to the No.3 connector of the SRS Check Harness.
- (5) Joint the No.2 connector of the clock spring to the No.4 connector of the SRS Check Harness.
- (6) Check for continuity between terminal 1 and terminal 22, and terminal 2 and terminal 21, of SRS Check Harness connector No.5 using a digital multi-meter.

Standard value: Less than 0.4 Ω

INSTALLATION SERVICE POINTS

▶A PRE-INSTALLATION INSPECTION

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

Caution

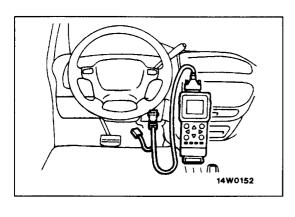
Dispose of air bag modules only according to the specified procedure. (Refer to P.52B-43.)

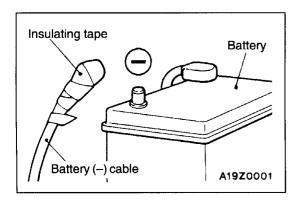
- (2) Connect the battery (-) terminal.
- (3) Connect the MUT-II to the diagnosis connector located at the relay box.

Caution

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

- (4) Turn the ignition key to the "ON" position.
- (5) Conduct self-diagnosis using the MUT-II to ensure entire SRS operates properly, except open circuit of air bag modules (Diagnosis code No.22).(Refer to P.52B-9.)

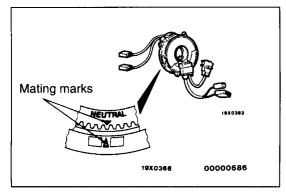




(6) Turn the ignition key to the "LOCK" position, disconnect the negative battery cable and tape the terminal.

Caution

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-3, No.5.)



▶B■ CLOCK SPRING INSTALLATION

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

Caution

If the clock spring's mating mark is not properly aligned, the steering wheel may not be completely rotational, or the 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.

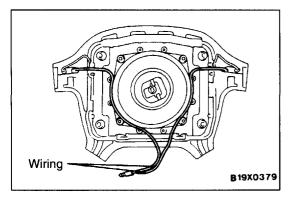
▶C STEERING WHEEL INSTALLATION

(1) Install the steering wheel.

Caution

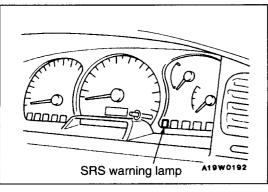
Be sure when installing the steering wheel, that the harness of the clock spring does not become caught or tangled.

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



▶D**■** AIR BAG MODULE INSTALLATION

Install the air bag module, taking care that no wiring is caught by it.



▶E POST-INSTALLATION INSPECTION

- (1) After installing the clock spring, the steering wheel, the column covers and the air bag module, check steering wheel for noise, binds or difficult operation.
- (2) Reconnect the negative battery terminal. Turn the ignition key to the "ON" position. Does the "SRS" warning lamp illuminate for about 7 seconds, and then remain extinguished for at least 45 seconds after turning OFF? If yes, SRS system is functioning properly. If no, consult page 52B-6.

AIR BAG MODULE DISPOSAL PROCEDURES

120002289

Before either disposing of a vehicle equipped with air bags, or prior to disposing of the air bag modules,

be sure to first follow the procedures described below to deploy the air bags.

UNDEPLOYED AIR BAG MODULE DISPOSAL

Caution

- If the vehicle is to be scrapped, or otherwise disposed of, deploy the air bags inside the vehicle. If the vehicle will continue to be operated and only the air bag modules are to be disposed of, deploy the air bags outside the vehicle.
- 2. Since a large amount of smoke is produced when the air bags are deployed, select a well-ventilated site. Moreover, never attempt the test near a smoke sensor.
- 3. Since there is a loud noise when the air bags are deployed, avoid residential areas whenever possible. If anyone is nearby, give warning of the impending noise.
- 4. Suitable ear protection should be worn by personnel performing these procedures or by people in the immediate area.

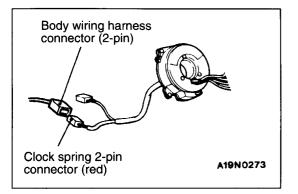
DEPLOYMENT INSIDE THE VEHICLE

(when disposing of a vehicle)

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

Caution

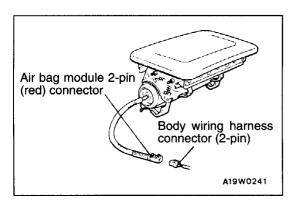
Wait at least 60 seconds after disconnecting the battery cables before doing any further work. (Refer to P.52B-3, No.5.)



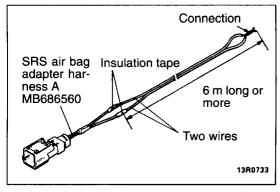
- (3) To deploy the air bag module (driver's side)
- a. Remove the steering column cover, lower.
- b. Remove the connection between the clock spring 2-pin connector (red) and the body wiring harness connector.

NOTE

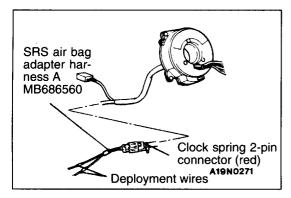
If the clock spring connector is disconnected from the body wiring harness, both electrodes of the clock spring connector will be automatically shorted to prevent unintended deployment of the air bag due to static electricity, etc.



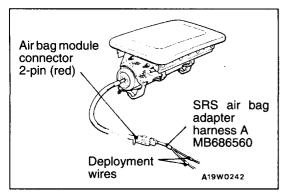
- (4) To deploy the air bag module (front passenger's side):
 - 1. Remove the glove box. (Refer to P.52B-38.)
 - 2. Remove the connection between the air bag module (front passenger's side) connector (red 2-pin) and the body wiring harness connector.



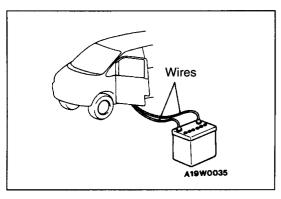
(5) Connect two wires, each six meters long or more, to the two leads of SRS air bag adapter harness A and cover the connections with insulation tape. The other ends of the two wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag.



(6) Connect the clock spring 2-pin connector (red) to SRS air bag adapter harness A and pass the deployment wires out of the vehicle.



(7) To deploy the air bag module (front passenger's side): Connect the air bag module (front passenger's side) 2-pin connector (red) to SRS air bag adapter harness A and pass the deployment wires out of the vehicles.



(8) At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (removed from the vehicle) to deploy the air bag.

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.
- 2. The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it.
- 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.
- (9) Dispose of the air bag module after deployment according to the Deployed Air Bag Module Disposal Procedures. (Refer to P.52B-48.)

DEPLOYMENT OUTSIDE THE VEHICLE

Caution

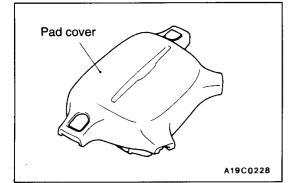
- 1. Should be carried out in a wide, flat area at least 6 m away from obstacles and other people.
- 2. Do not perform deployment outside, if a strong wind is blowing, and if there is even a slight breeze, the air bag module should be placed and deployed downwind from the battery.

To deploy the air bag module (driver's side)

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

Caution

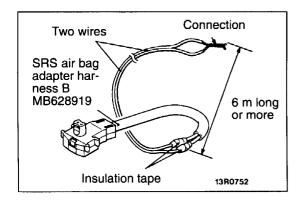
Wait at last 60 seconds after disconnecting the battery cables before doing any further work. (Refer to P.52B-3, No.5.)



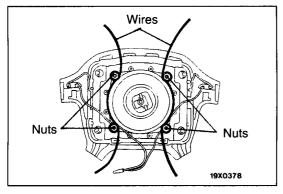
(2) Remove the air bag module from the vehicle. (Refer to P.52B-37.)

Caution

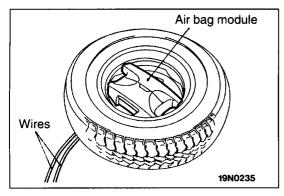
The air bag module should be stored on a flat surface and placed so that the pad cover face up. Do not place anything on top of it.



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



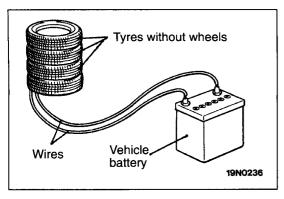
- (4) Install nuts that are no longer needed to the four bolts on the rear side of the air bag module, and tie on some thick wire to secure to the wheel.
- (5) Take the SRS air bag adaptor harness B that is connected to the wires, pass it beneath the tyre attached to a wheel, and connect it to the air bag module.



(6) Insert the air bag module into the wheel, and secure it with the wires that are tied to the bolts, with the air bag facing upward.

Caution

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



- (7) Place three old tyres with no wheels on top of the tyre secured to the air bag module.
- (8) At a location as far away from the air bag module as possible, and from a shielded position, if possible, disconnect the two connected wires from each other and connect them to the terminals of the battery (removed from the vehicle) to deploy the air bag.

Caution

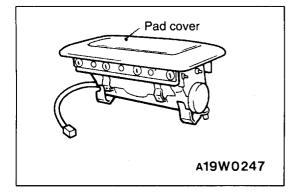
- 1. Before deployment, check carefully to be sure that no one is nearby.
- 2. The inflator will be quite hot immediately following deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it.
- 3. If the air bag module fails to deploy when the procedures above are followed, do not go near the module. Contact your local distributor.
- (9) Dispose of the air bag module after deployment according to the Deployed Air Bag Module Disposal Procedures.

To deploy the air bag module (front passenger's side):

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

Caution

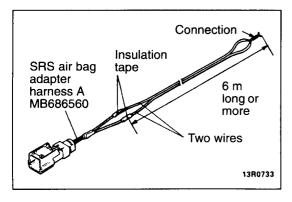
Wait at least 60 seconds after disconnecting the battery cables before doing any further work. (Refer to P.52B-3, No. 5)



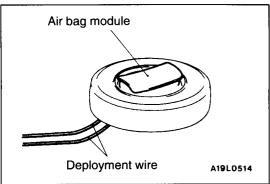
(2) Remove the air bag module for the vehicle. (Refer to P.52B-38.)

Caution

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



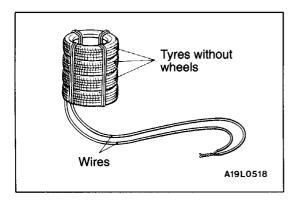
(3) Connect two wires, each six meters long or more, to the two leads of SRS air bag adapter harness A, and cover the connections with insulation tape. The other ends of the two wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag.



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

Caution

- 1. Leave some space below the wheel for the deployment wires.
 - If there is no space, the reaction of the air bag deployment could result in damage of the adaptor harness.
- 2. While deployment takes place, do not have the connector of the SRS air bag adaptor harness A inserted between the tyres.



(6) Place three old tyres with no wheels on top of the tyre secured to the air bag module, and secure all tyres with ropes (4 locations).

(7) At a location as far away from the air bag module as possible, and from a shielded position, if possible, disconnect the two connected wires from each other and connect them to the two terminals of the battery (removed from the vehicles) to deploy the air bag.

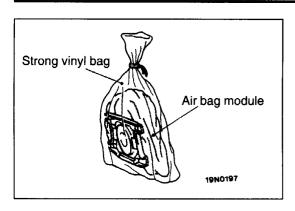
Caution

- 1. Before deployment, check carefully to be sure that no one is nearby.
- 2. The inflator will be quite hot immediately following deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module Disposal Procedures (as shown below) for postdeployment handling instructions.
- 3. If the air bag module fails to deploy when the procedures above are followed, do not go near the module. Contact your local distributor.
- (8) Dispose of the air bag module after deployment according to the Deployed Air Bag Module Disposal Procedures.

DEPLOYED AIR BAG MODULE DISPOSAL PROCEDURES

After deployment, the air bag module should be disposed of in the same manner as any other scrap parts, 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 to cool before attempting to handle it.
- (2) Do not put water or oil on the air bag after deployment.
- (3) There may be, adhered to the deployed air bag module, material that could irritate the eyes and/or skin, so wear gloves and safety glasses when handing a deployed air bag module. IF DESPITE THESE PRECAUTIONS, THE 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 in a strong vinyl bag for disposal.
- (5) Be sure to always wash your hands after completing this operation.

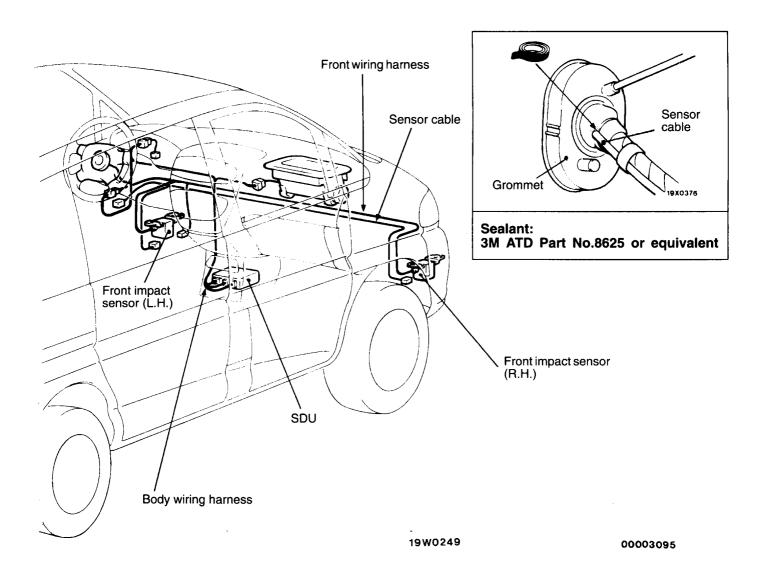
SENSOR CABLE INSTALLATION PROCEDURES

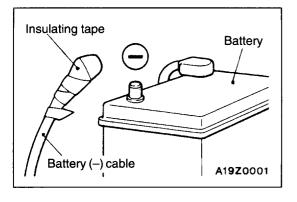
120002290

If there is a malfunction in the front wiring harness between the front impact sensor and body wiring harness, install the sensor cable. (Refer to P.52B-2.)

Pre-removal and Post-installation Operation

- Front Fender Panel Removal and Installation (Refer to GROUP 42 – Fender.)
- Front Bumper Removal and Installation (Refer to GROUP 51 – Bumper.)

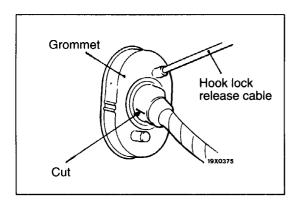




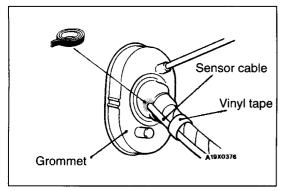
(1) Disconnect the negative battery cable and tape the terminal.

Caution

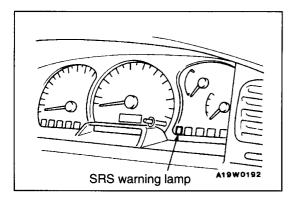
Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-3, No.5.)



(2) Make a cut in the grommet in the place shown in the illustration, and pass the sensor cable through the cut.



- (3) Run the sensor cable along the front wiring harness, and then secure the cable to the harness with insulation tape.
- (4) Apply the specified sealant to the grommet cut portion.



(5) Connect the sensor cable to the impact sensor and to the body wiring harness.

POST-INSTALLATION INSPECTION

- (1) Reconnect the negative battery terminal.
- (2) Turn the ignition key to the "ON" position.
- (3) Does the "SRS" warning lamp illuminate for about 7 seconds, and then remain extinguished for at least 45 seconds after turning OFF?
- (4) If yes, SRS system is functioning properly. If no, consult page 52B-6.