

EXPLANATION OF MANUAL CONTENTS

Indicates procedures to be performed before the work in that section is started, and procedures to be performed after the work in that section is finished.

Component Diagram
A diagram of the component parts is provided near the front of each section in order to give a reader a better understanding of the installed condition of component parts.

Indicates (by symbols) where lubrication is necessary.

Maintenance and Servicing Procedures
The numbers provided within the diagram indicate the sequence for maintenance and servicing procedures.






- Removal steps:
The part designation number corresponds to the number in the illustration to indicate removal steps.
- Disassembly steps:
The part designation number corresponds to the number in the illustration to indicate disassembly steps.
- Installation steps:
Specified in case installation is impossible in reverse order of removal steps. Omitted if installation is possible in reverse order of removal steps.
- Reassembly steps:
Specified in case reassembly is impossible in reverse order of disassembly steps. Omitted if reassembly is possible in reverse order of disassembly steps.

Classifications of Major Maintenance/Service Points
When there are major points relative to maintenance and servicing procedures (such as essential maintenance and service points, maintenance and service standard values, information regarding the use of special tools, etc.), these are arranged together as major maintenance and service points and explained in detail.

◀A▶ : Indicates that there are essential points for removal or disassembly.
▶A◀ : Indicates that there are essential points for installation or reassembly.

Symbols for Lubrication, Sealants and Adhesives

Information concerning the locations for lubrication and for application of sealants and adhesives is provided, by using symbols, in the diagram of component parts or on the page following the component parts page, and explained.

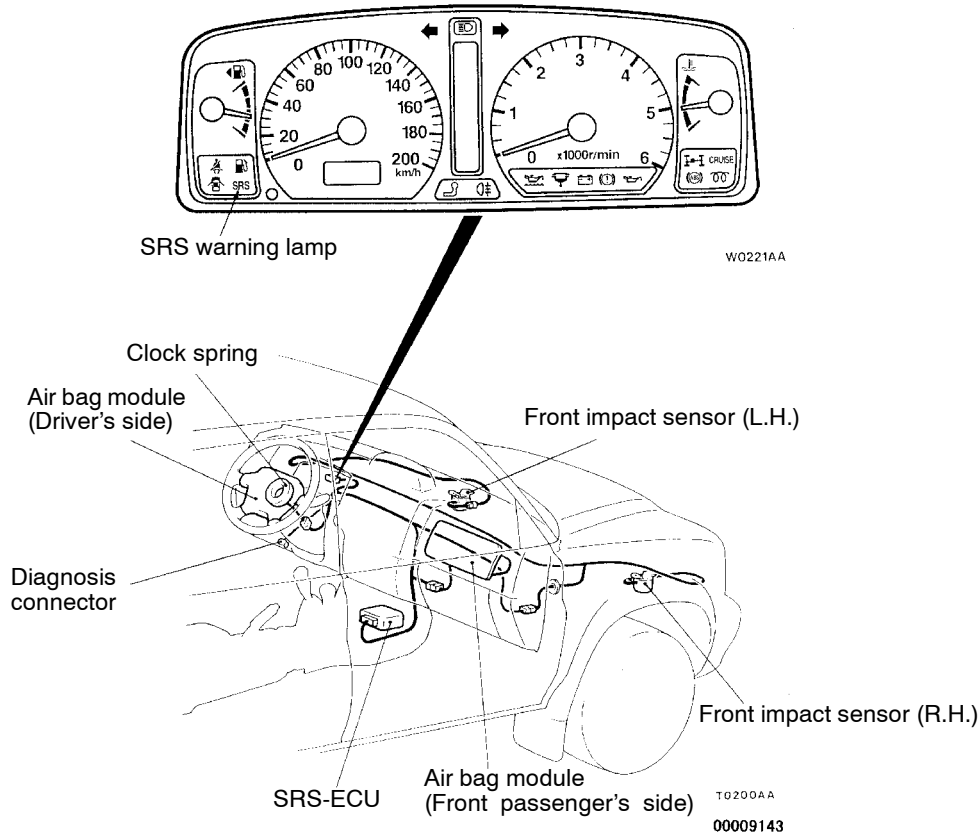
-  : Grease (multipurpose grease unless there is a brand or type specified)
-  : Sealant or adhesive
-  : Brake fluid or automatic transmission fluid
-  : Engine oil, gear oil or air conditioner compressor oil
-  : Adhesive tape or butyl rubber tape

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

00100590110

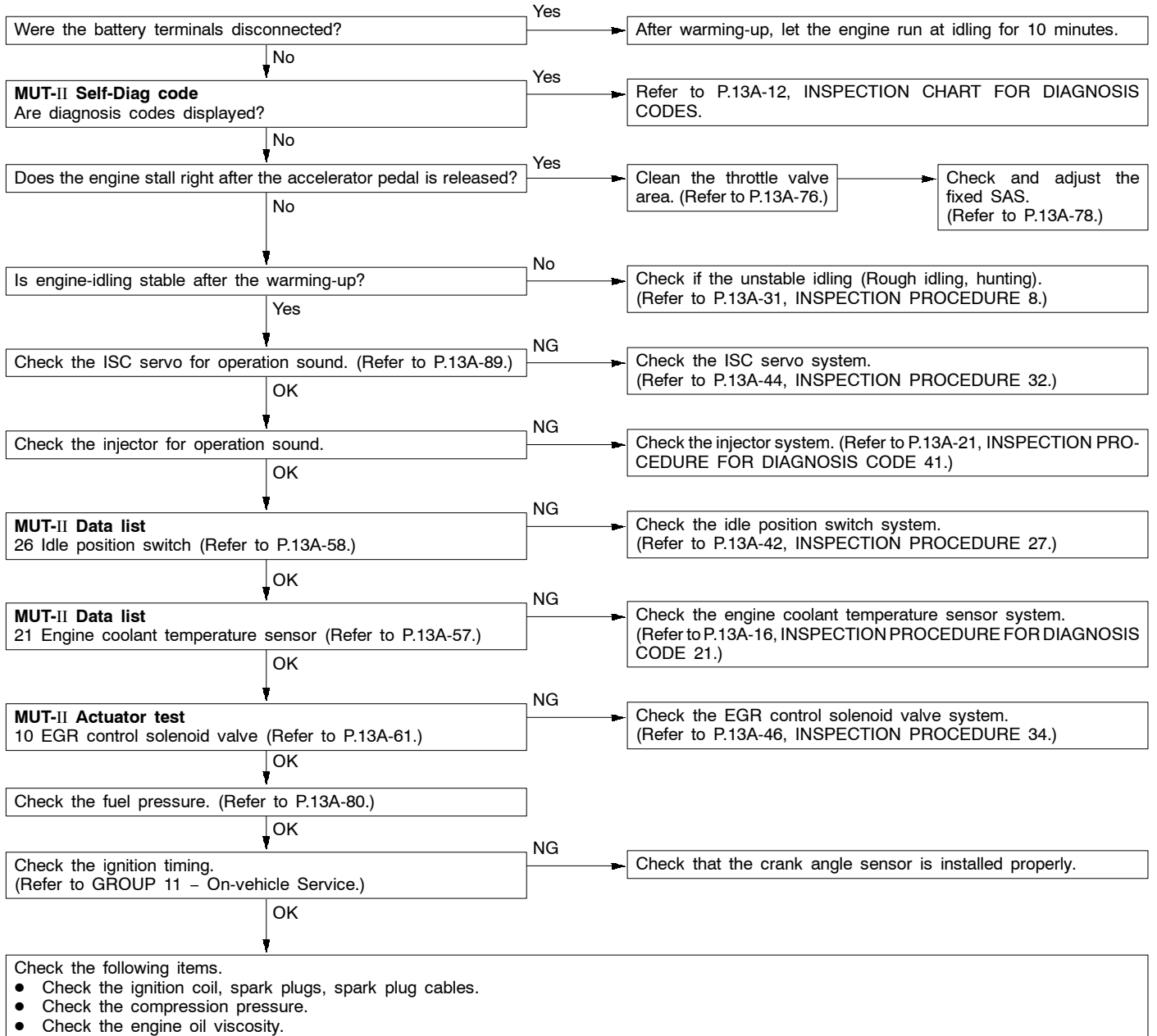
To improve safety, the SRS is available as optional part. The SRS consists of two air bag modules, SRS air bag control unit (SRS-ECU), front impact sensors, SRS warning lamp and clock spring. One air bag is located in the centre of the steering wheel and another above the glove box. Each air bag has a folded air bag and an inflator unit. The control unit under the floor console monitors the system and has a safing G-sensor and an analog G-sensor. The front impact sensors are installed in the fender

shield panel. The warning lamp on the instrument panel indicates the operational status of the SRS. The clock spring is installed in the steering column. Only authorized service personnel should do work on or around the SRS components. Those service personnel should read this manual carefully before starting any such work. Extreme care must be used when servicing the SRS to avoid injury to the service personnel (by inadvertent deployment of the air bags) or the driver (by rendering the SRS inoperative).



INSPECTION PROCEDURE 11

When the engine is cold, it stalls at idling. (Die out)	Probable cause
In such cases as the above, the cause is probably that the air/fuel mixture is inappropriate when the engine is cold, or that the intake air volume is insufficient.	<ul style="list-style-type: none"> ● Malfunction of the ISC servo system ● Malfunction of the throttle body ● Malfunction of the injector system ● Malfunction of the ignition system



THROTTLE BODY

13100770460

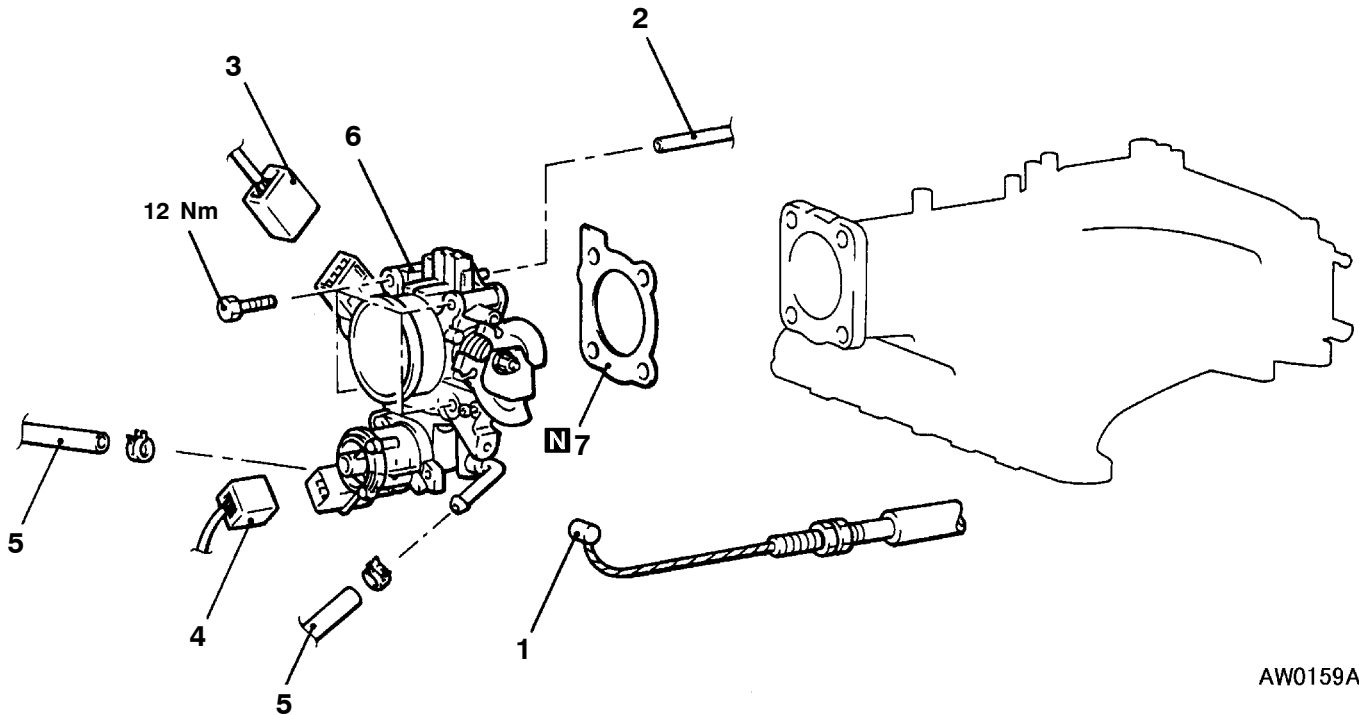
REMOVAL AND INSTALLATION

Pre-removal Operation

- Engine Coolant Draining (Refer to GROUP 14 – On-vehicle Service.)
- Air Cleaner Removal (Refer to GROUP 15 – Air Cleaner.)

Post-installation Operation

- Air Cleaner Installation (Refer to GROUP 15 – Air Cleaner.)
- Engine Coolant Refilling (Refer to GROUP 14 – On-vehicle Service.)
- Accelerator Cable Adjustment (Refer to GROUP 17 – On-vehicle Service.)

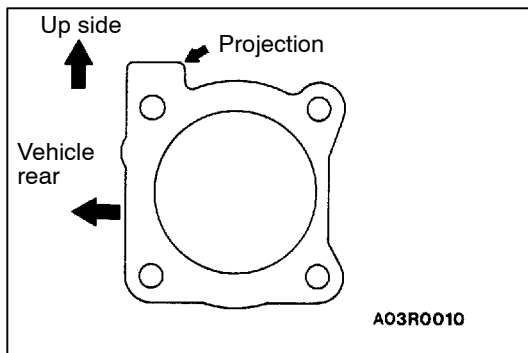


AW0159AA

Removal steps

1. Accelerator cable connection
2. Vacuum hose connection
3. Throttle position sensor connector
4. Idle speed control servo connector

5. Heater hose connector
6. Throttle body
7. Throttle body gasket



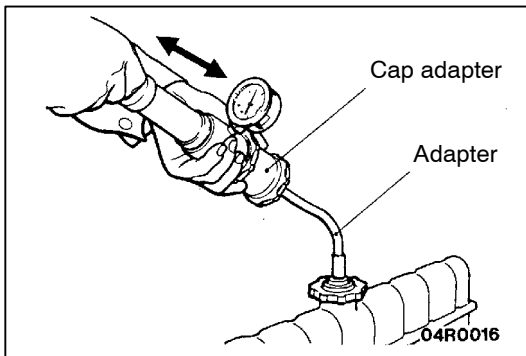
INSTALLATION SERVICE POINT

▶A◀ THROTTLE BODY GASKET INSTALLATION

Install the throttle body gasket as shown in the illustration.

Caution

Poor idling etc. may result if the throttle body gasket is installed incorrectly.



ON-VEHICLE SERVICE

14100100167

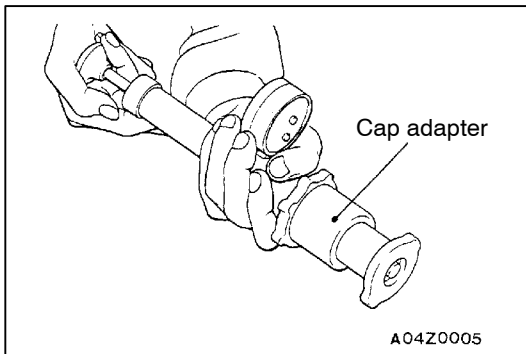
ENGINE COOLANT LEAK CHECKING

1. Confirm that the coolant level is up to the filler neck. Install a radiator cap tester and apply 160 kPa pressure, and then check for leakage from the radiator hose or connections.

Caution

- (1) Be sure to completely clean away any moisture from the places checked.
- (2) When the tester is taken out, be careful not to spill any coolant from it.
- (3) Be careful, when installing and removing the tester and when testing, not to deform the filler neck of the radiator.

2. If there is leakage, repair or replace the appropriate part.



RADIATOR CAP VALVE OPENING PRESSURE CHECK

14100130203

1. Use a cap adapter to attach the cap to the tester.
2. Increase the pressure until the indicator of the gauge stops moving.

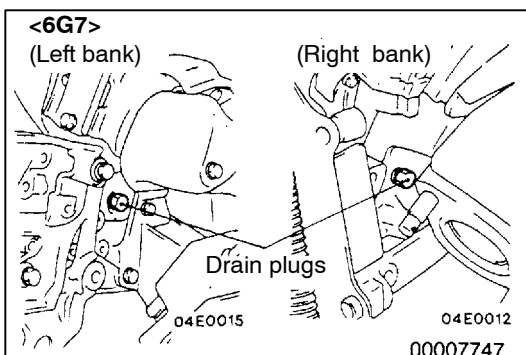
Limit: 64 kPa

Standard value: 74 – 103 kPa

3. Replace the radiator cap if the reading does not remain at or above the limit.

NOTE

Be sure that the cap is clean before testing, since rust or other foreign material on the cap seal will cause an improper indication.



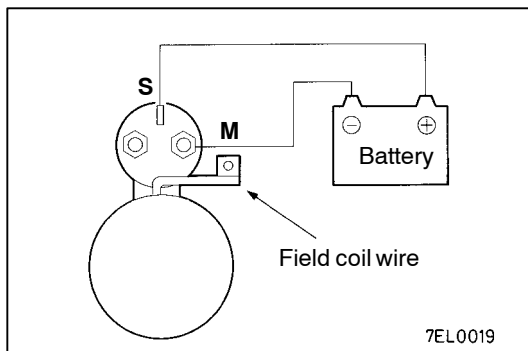
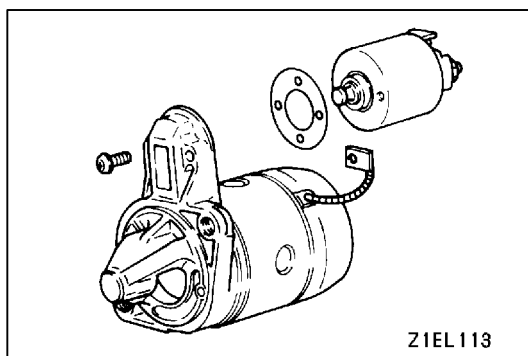
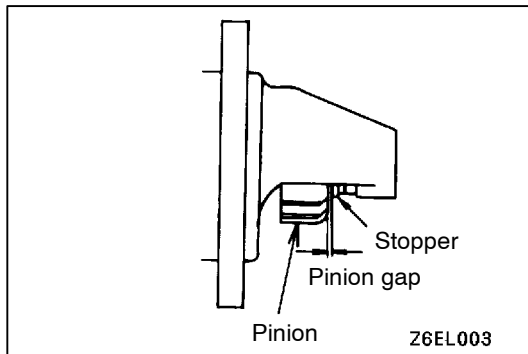
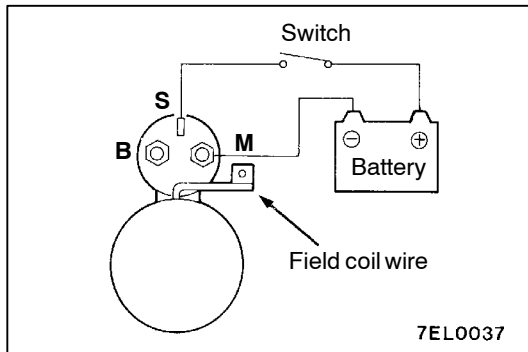
ENGINE COOLANT REPLACEMENT

14100120354

1. Drain the engine coolant by removing the drain plug and then the radiator cap.
2. Remove the cylinder block drain plug from the cylinder block to drain the engine coolant.
3. Remove the reserve tank to drain the engine coolant.
4. When the engine coolant has drained, pour in water from the radiator cap to clean the engine coolant line.

SERVICE SPECIFICATIONS

Items	Standard value	Limit
Pinion gap mm	0.5 – 2.0	–
Commutator outer diameter mm	29.4	28.8
Commutator runout mm	–	0.05
Commutator undercut mm	0.5	0.2



STARTER MOTOR

16200110327

INSPECTION

PINION GAP ADJUSTMENT

1. Disconnect field coil wire from M-terminal of magnetic switch.
2. Connect a 12V battery between S-terminal and M-terminal.
3. Set switch to "ON", and pinion will move out.

Caution

This test must be performed quickly (in less than 10 seconds) to prevent coil from burning.

4. Check pinion to stopper clearance (pinion gap) with a thickness gauge.

Standard value: 0.5 – 2.0 mm

5. If pinion gap is out of specification, adjust by adding or removing gaskets between magnetic switch and front bracket.

MAGNETIC SWITCH PULL-IN TEST

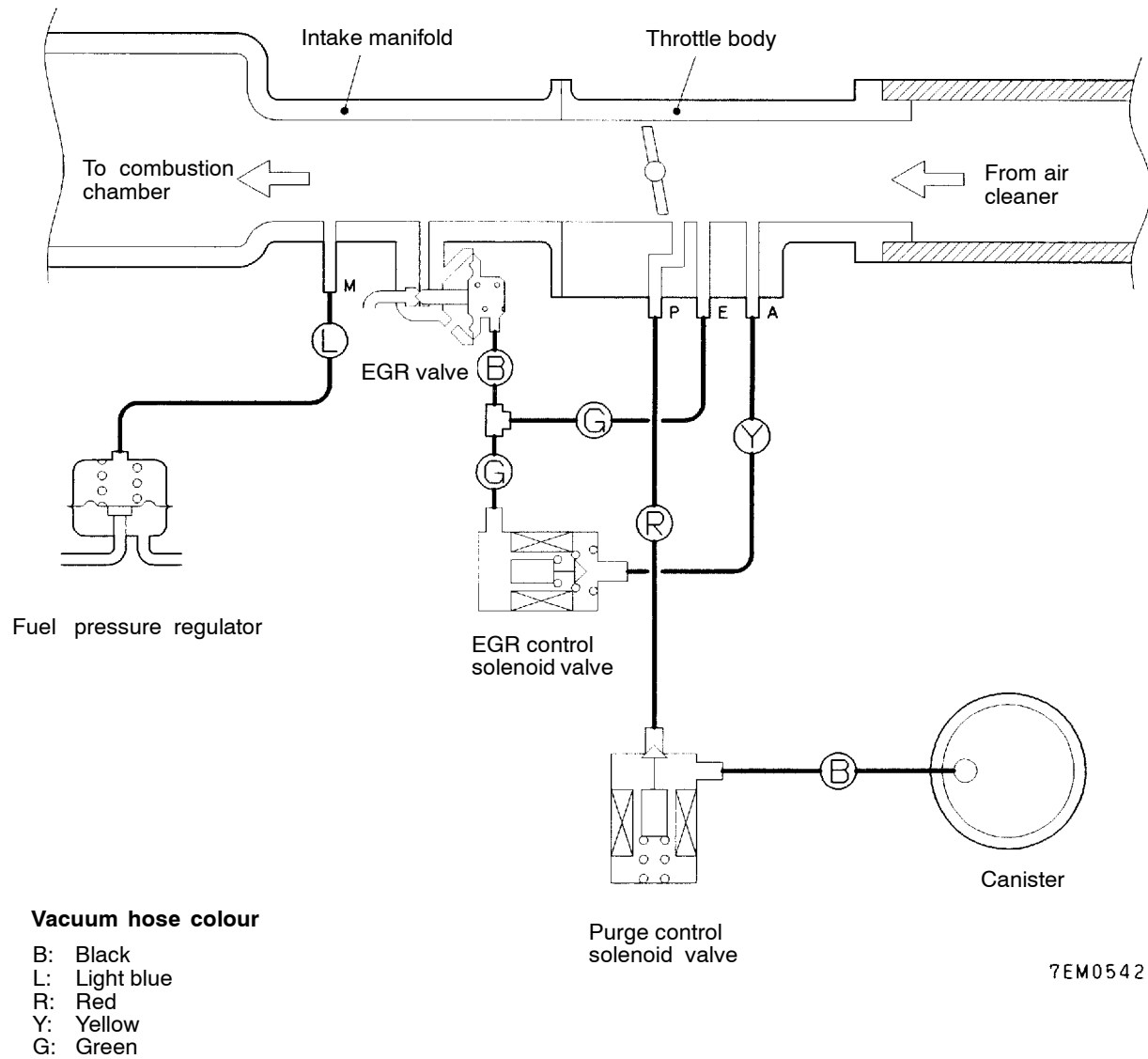
1. Disconnect field coil wire from M-terminal of magnetic switch.
2. Connect a 12V battery between S-terminal and M-terminal.

Caution

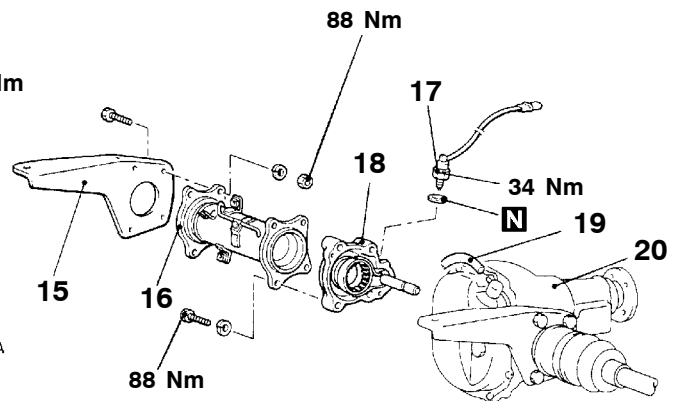
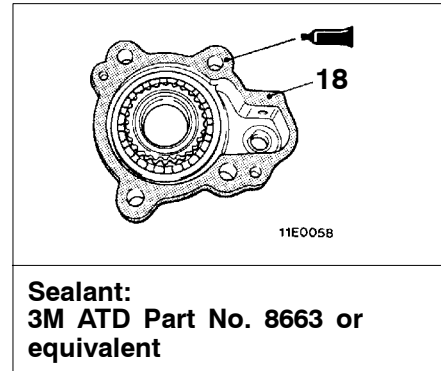
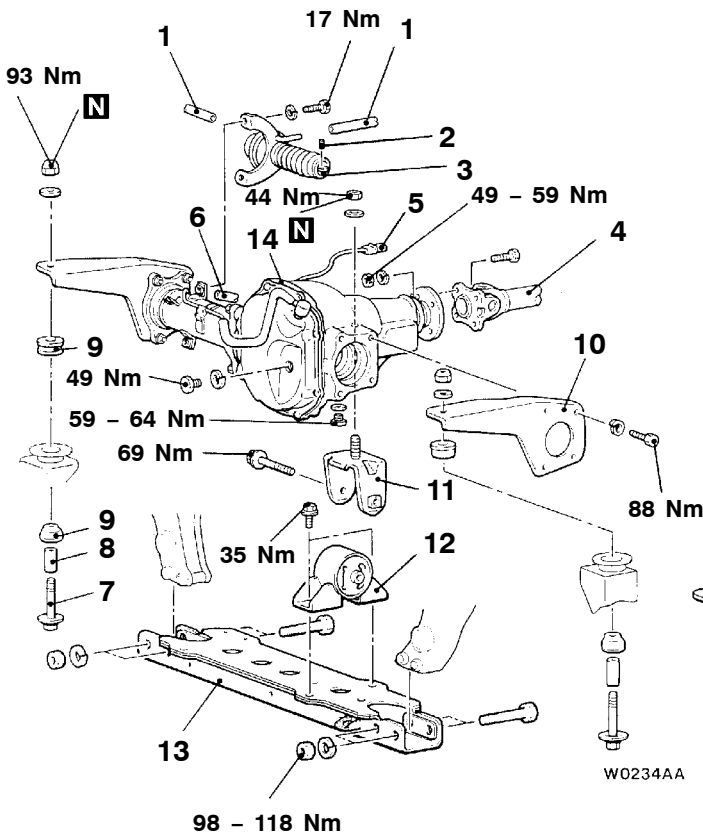
This test must be performed quickly (in less than 10 seconds) to prevent coil from burning.

3. If pinion moves out, then pull-in coil is good. If it doesn't, replace magnetic switch.

VACUUM CIRCUIT DIAGRAM



<4D5>



11V0088
00009262

Removal steps

- ▶C◀ 1. Vacuum hose connection
- 2. Pin
- 3. Actuator assembly
- ◀A▶ ▶B◀ 4. Front propeller shaft connection
- 5. Freewheel engage switch connection
- 6. Vacuum hose connection
 - Support the differential by a transmission jack.
- 7. Pin
- 8. Spacer
- 9. Differential mounting cushion
- 10. Differential mounting bracket <L.H.>
- 11. Differential support bracket
- 12. Differential mount insulator assembly
- 13. Front suspension crossmember
- 14. Front differential, housing tube and differential mounting bracket <R.H.>
- 15. Differential mounting bracket <R.H.>
- 16. Housing tube
- 17. Freewheel engage switch
- ▶A◀ 18. Freewheel clutch assembly
 - Clutch gear bearing axial play inspection.
- 19. Vacuum hose connection
- 20. Front differential carrier assembly

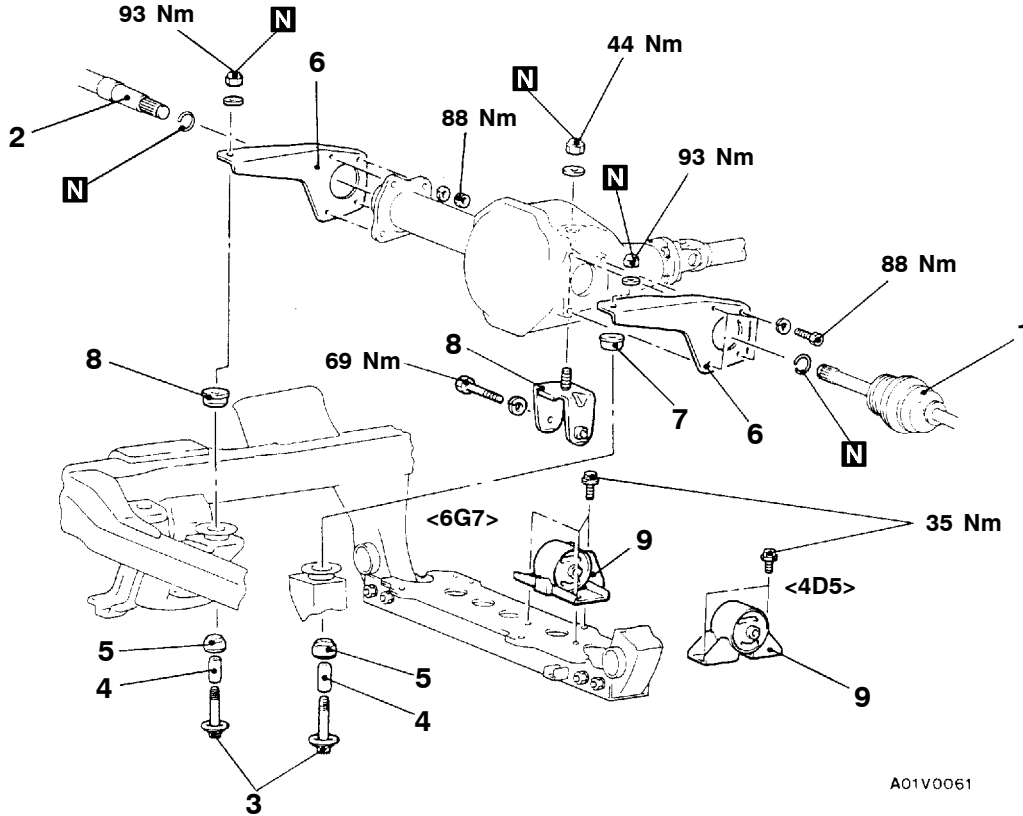
FRONT DIFFERENTIAL MOUNTING

32100170100

REMOVAL AND INSTALLATION

Pre-removal and Post-installation Operation

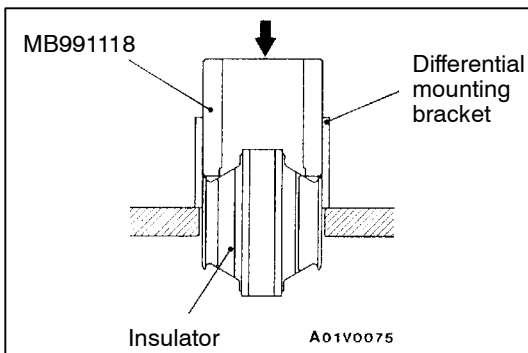
- Under Skid Plate and Under Cover Removal and Installation



Removal steps

- Hold the front differential with a transmission jack.
1. Drive shaft (Refer to Group 26 – drive shaft.)
 2. Inner shaft (Refer to Group 26 – inner shaft.)
 3. Pin

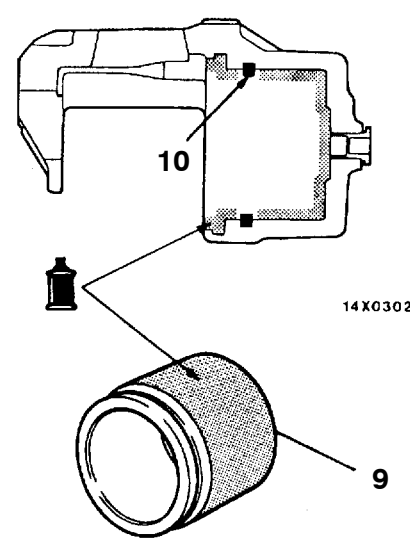
4. Spacer
5. Differential mounting rubber B
6. Differential mounting bracket
7. Differential mounting rubber A
8. Differential support bracket
9. Differential mounting bracket



FRONT DIFFERENTIAL MOUNTING INSULATOR REPLACEMENT

1. Use special tool to press-fit and remove the insulator.

LUBRICATION POINTS



10

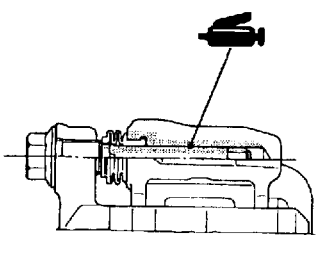
14X0302

9

14X0301

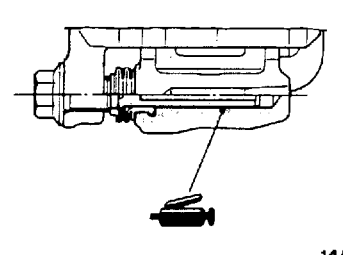
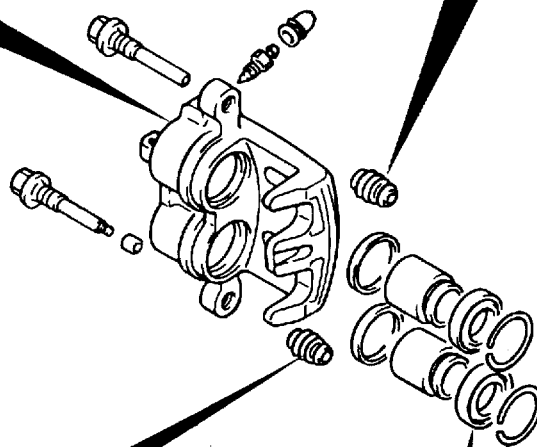
Caution
The piston seal inside the seal and boot kit is coated with a special grease, so do not wipe this grease off.

Brake fluid: DOT3 or DOT4



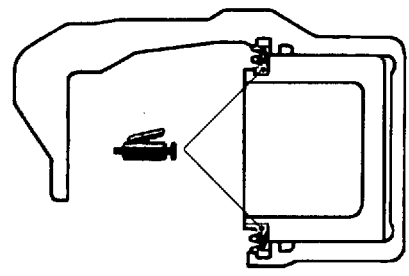
14W0046

Grease: Repair kit grease



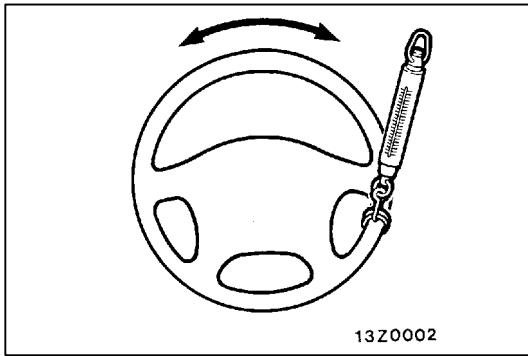
14A0541

Grease: Repair kit grease



14L0128

Grease: Repair kit grease



ON-VEHICLE SERVICE

37100090043

STEERING WHEEL FREE PLAY CHECK

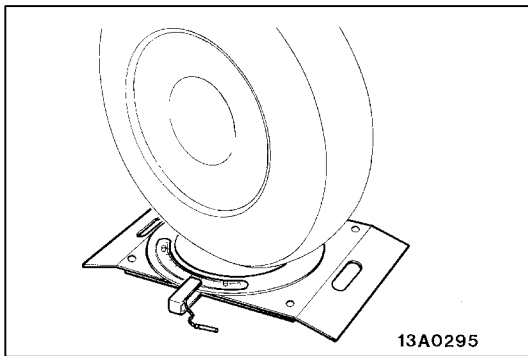
1. With engine running (hydraulic operation), set front wheels straight ahead.
2. Measure the play on steering wheel circumference before wheels start to move when slightly moving steering wheel in both directions.

Limit: 50 mm

3. When play exceeds the limit, check for play on steering shaft connection and steering linkage. Correct or replace.
4. If the free play still exceeds the limit value, set steering wheel straight ahead with engine stopped. Load 5 N towards steering wheel circumference and check play.

Standard value (steering wheel play with engine stopped): 10 mm or less

If the play exceeds the standard value, check the steering gear backlash and ball joint axial play.



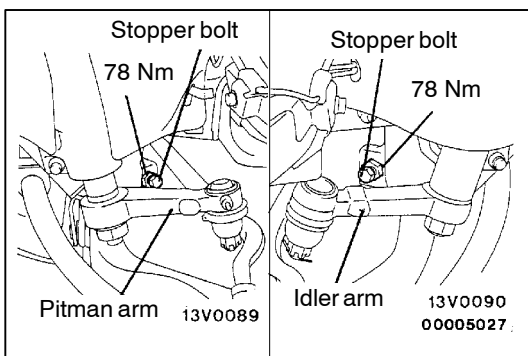
STEERING ANGLE CHECK

37100100029

1. Place the front wheel on a turning radius gauge and measure the steering angle.

Standard value:

Items	Specifications
Inside wheel	29° 40' – 32° 40'
Outside wheel	29° 30'



2. If the steering angle is outside the standard value after checking the toe-in (refer to GROUP 33A – On-vehicle Service), adjust the steering angle with the stopper bolt.

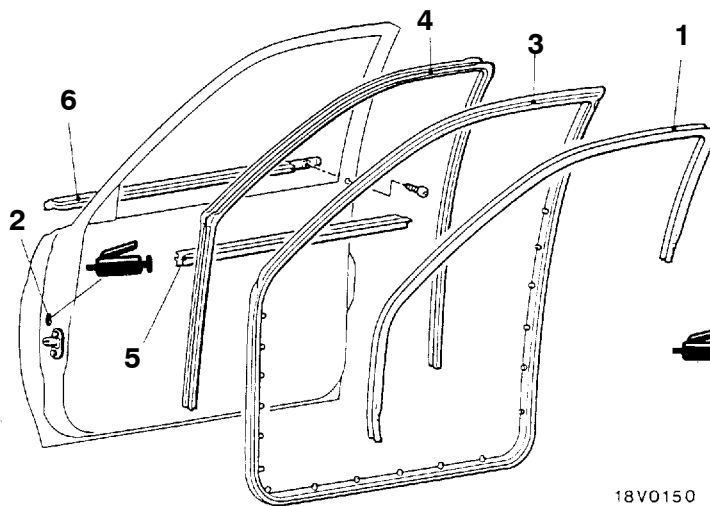
WINDOW GLASS RUNCHANNEL AND DOOR OPENING WEATHERSTRIP

42300310231

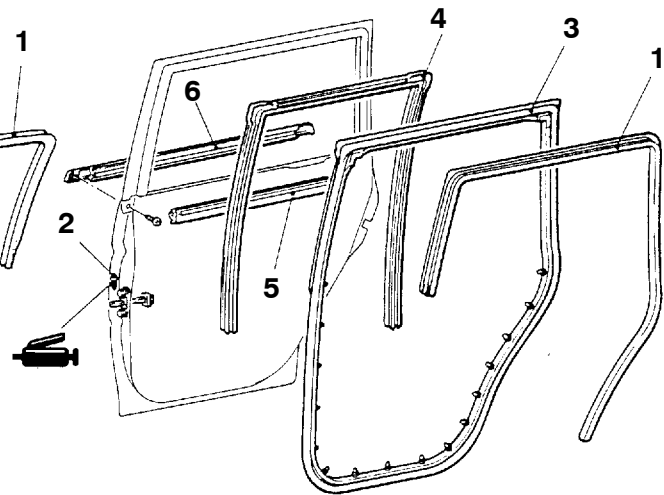
REMOVAL AND INSTALLATION

Front door

Rear door



18V0150



18V0138

00007529

Door inner opening weatherstrip removal steps

- Front scuff plate, rear scuff plate, centre pillar lower trim and cowl side trim (Refer to Group 52A – Trims.)
1. Door inner opening weatherstrip

Door outer opening weatherstrip removal steps

2. Spring pin
3. Door outer opening weatherstrip

Window glass runchannel removal

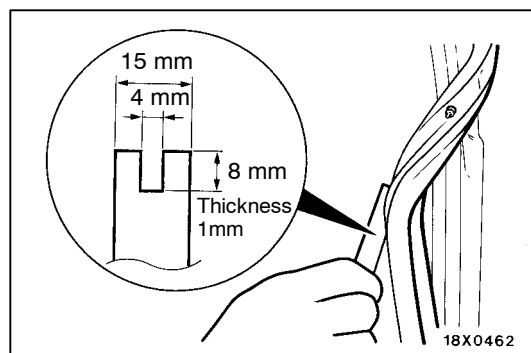
4. Window glass runchannel

Door beltline inner weatherstrip removal steps

- Door trim (Refer to P.42-32.)
5. Door beltline inner weatherstrip

Door beltline outer weatherstrip removal steps

- Door mirror (Refer to Group 51 – Door Mirror.)
6. Door beltline outer weatherstrip



18X0462

REMOVAL SERVICE POINT

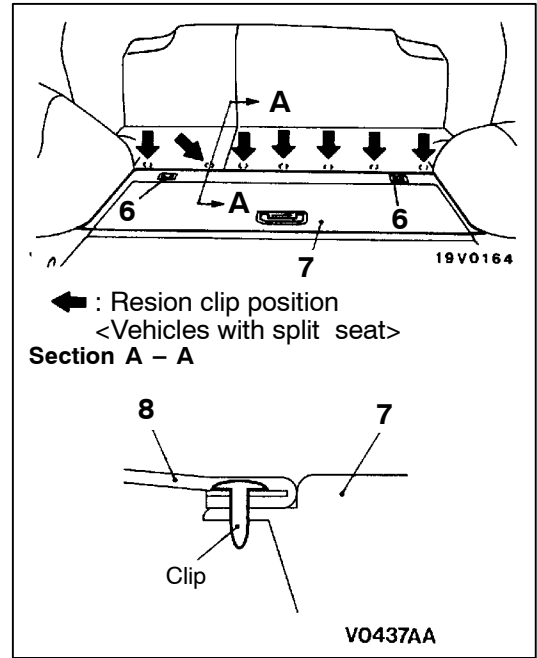
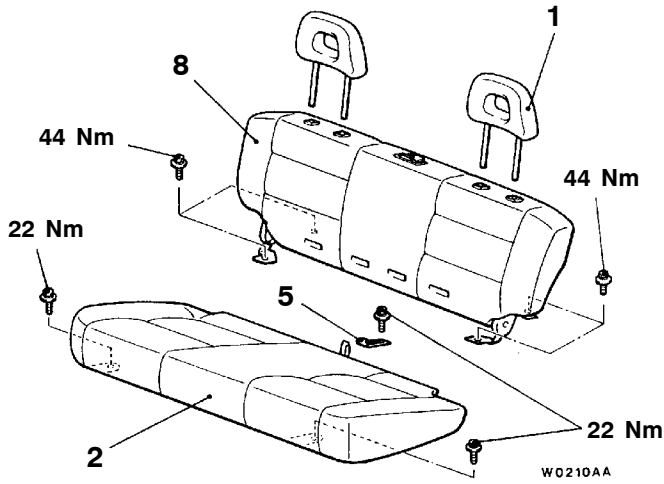
◀A▶ DOOR OUTER OPENING WEATHERSTRIP REMOVAL

Make a tool as shown in the illustration to remove the door opening weatherstrip.

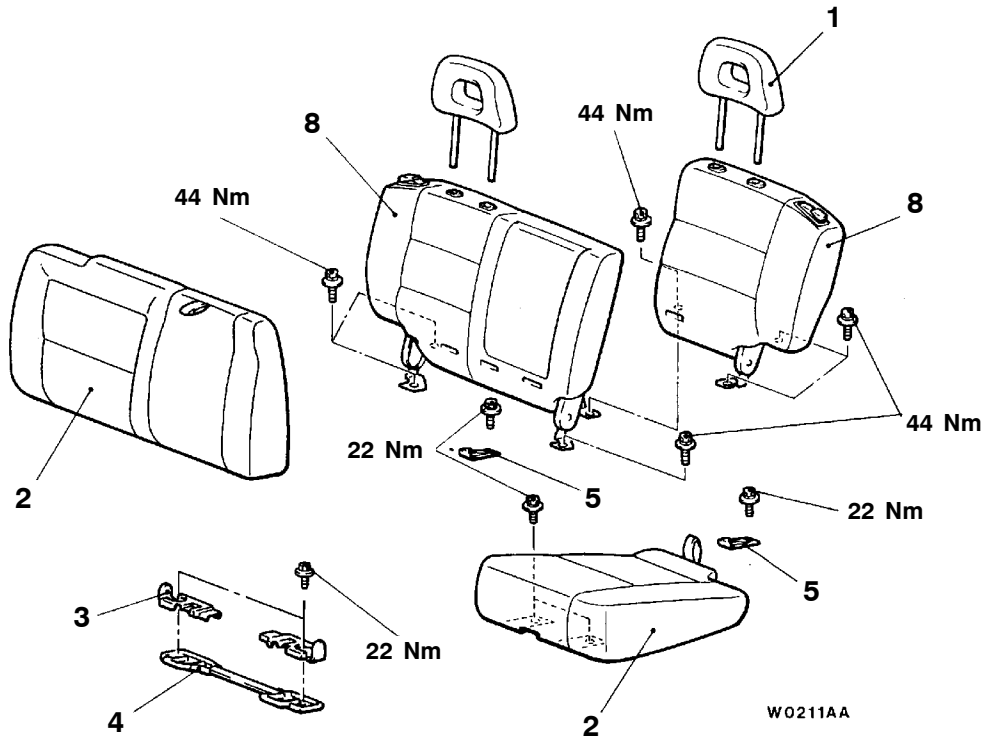
REAR SEAT

REMOVAL AND INSTALLATION

<Bench seat>



<Split seat>



1. Head restraint

Rear seat removal steps

- 2. Rear seat cushion assembly
- 3. Striker cover

4. Striker assembly

- 5. Catch
- 6. Parcel hook
- 7. Luggage floor box, front
- 8. Rear seatback assembly

00009139

SRS AIR BAG CONTROL UNIT (SRS-ECU)

52400210281

Caution

1. Disconnect the battery (-) terminal and wait for 60 seconds or more before starting work. Furthermore, the disconnected battery terminal should be covered with tape to insulate it. (Refer to P.52B-3.)
2. Never attempt to disassemble or repair the SRS-ECU. If faulty, replace it.
3. Do not drop or subject the SRS-ECU to impact or vibration.

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

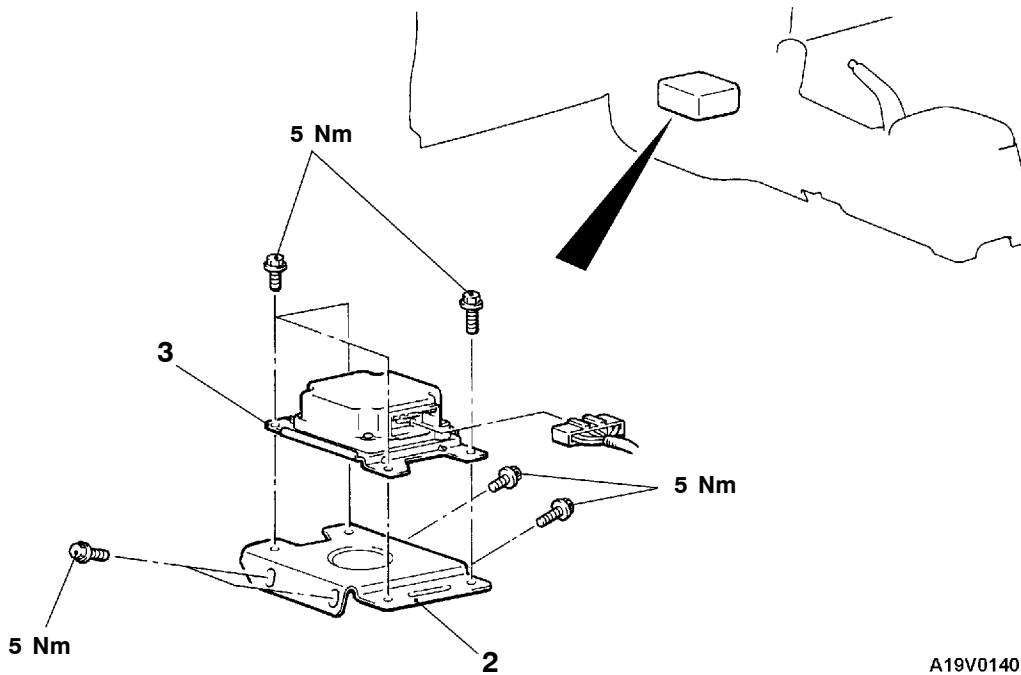
REMOVAL AND INSTALLATION

Pre-removal Operation

- Turn the ignition key to the LOCK position.
- Floor Console Removal (Refer to GROUP 52A – Floor Console.)

Post-installation Operation

- Floor Console Installation (Refer to GROUP 52A – Floor Console.)



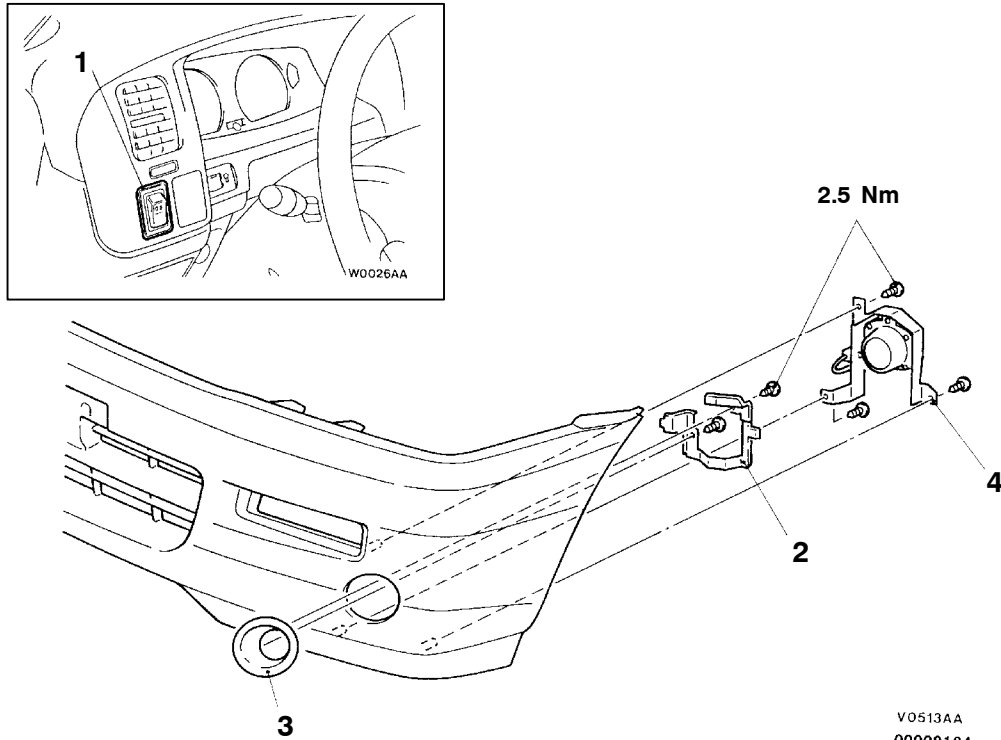
- Removal steps**
- ▶B◀ • Post-installation inspection
 - Negative (-) battery cable connection
 - 1. SRS-ECU bracket

▶A◀ 2. SRS-ECU

FRONT FOG LAMP

54200150246

REMOVAL AND INSTALLATION



1. Fog lamp switch

Fog lamp removal steps

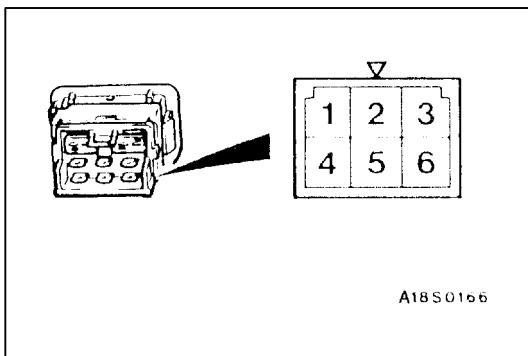
- Front bumper (Refer to GROUP 51.)

2. Fog lamp bracket

3. Fog lamp bezel

4. Fog lamp

V0513AA
00009164



INSPECTION

54200740115

FOG LAMP SWITCH CONTINUITY CHECK

Switch position	Terminal No.						
	1	2	3	IND	4	5	6
OFF			○	⊕			○
ON	○	○	○	⊕	○	○	○