

GROUP 32

POWER PLANT MOUNT

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

- *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).*
- *Service or maintenance of any SRS component or SRS-related component must be performed only at an authorized MITSUBISHI dealer.*
- *MITSUBISHI dealer personnel must thoroughly review this manual, and especially its GROUP 52B - Supplemental Restraint System (SRS) before beginning any service or maintenance of any component of the SRS or any SRS-related component.*

NOTE

The SRS includes the following components: SRS air bag control unit, SRS warning light, front impact sensors, driver's and passenger's (front) air bag modules, knee air bag module, side-airbag module, curtain air bag module, side impact sensors, seat belt pre-tensioners, 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 (*).

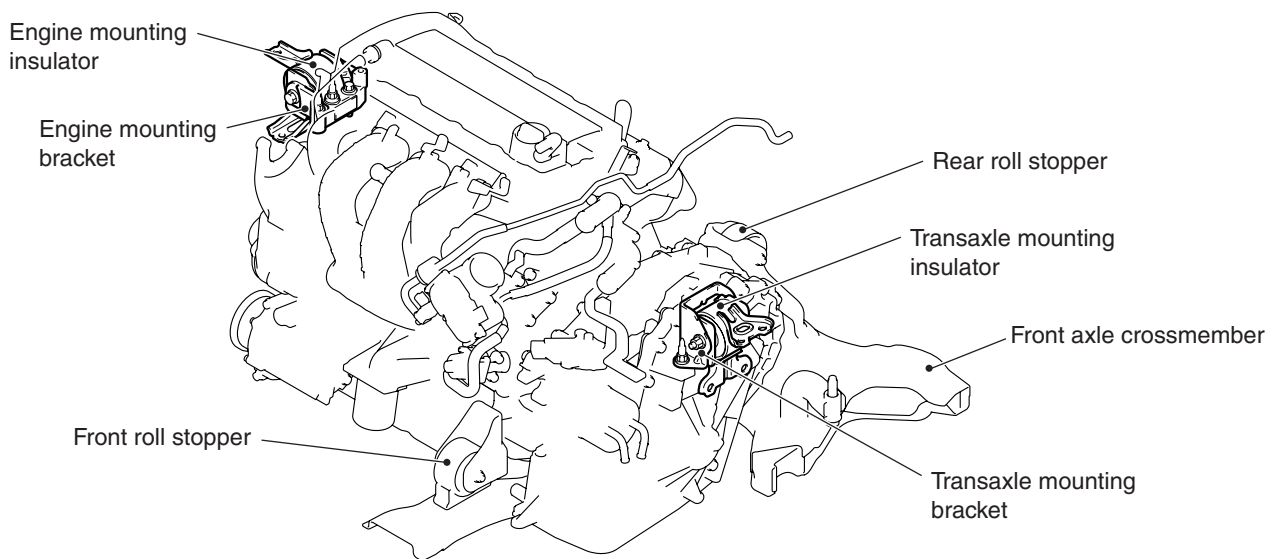
GENERAL INFORMATION

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To support the power plant, the inertial axis four-point mount system has been adopted. The system has the following features:

- For the engine and transaxle mounting insulator, the cylindrical liquid seal mount has been adopted. It reduces the idling vibration and acceleration noise, and improves riding comfort.
- For the engine mounting bracket, lightweight and high rigidity aluminum has been adopted to reduce acceleration noise.
- For the transaxle mounting bracket, lightweight and high rigidity sheet metal has been adopted to reduce the gear noise.
- For the front and rear roll stopper, insulators developed for CVT have been adopted. It reduces the idling vibration and acceleration/deceleration shock.
- A front axle crossmember has been adopted to improve steering ability.

CONSTRUCTION DIAGRAM



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SPECIAL TOOLS

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Tool	Tool number and name	Supersession	Application
 MB990900	MB990900 or MB991164 Door adjusting wrench	MB990900-01	Removal and installation of transaxle mounting insulator
 MB991897	MB991897 or MB992011 Ball joint remover	MB991113-01, MB990635-01 or General service tool	Knuckle and tie rod end ball joint disconnection <i>NOTE: Conventional steering linkage puller, MB991406, MB990635 or MB991113 can also be used</i>

ENGINE MOUNTING

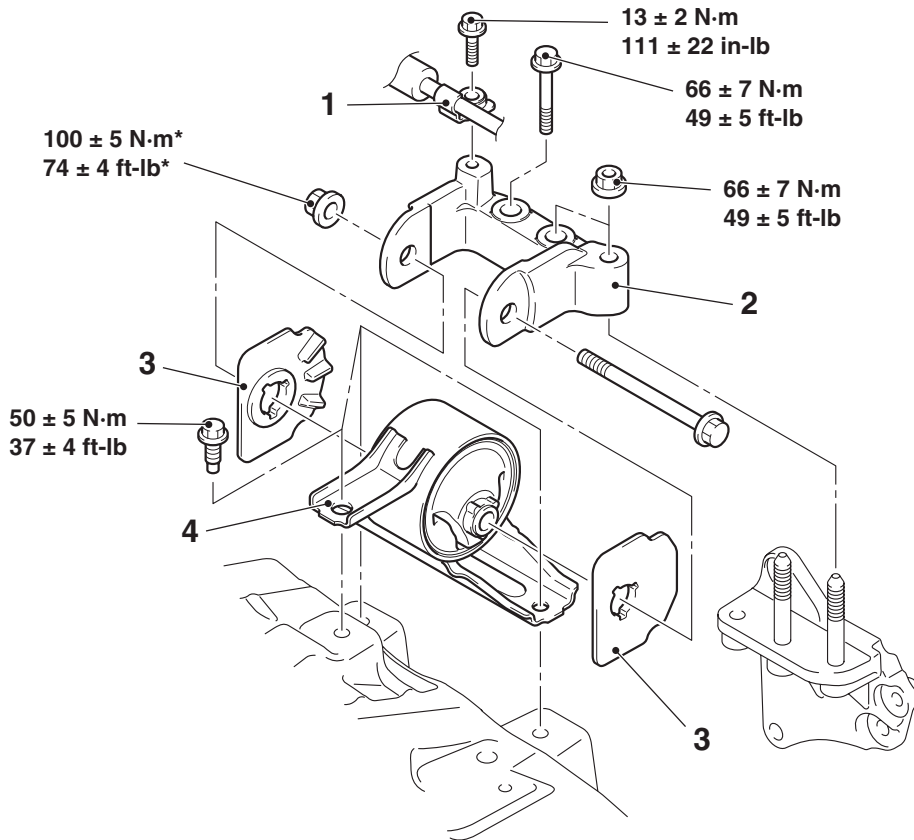
REMOVAL AND INSTALLATION

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CAUTION

The part indicated * mark should be temporarily tightened and then should be fully tightened with the engine weight applied on the vehicle body.

Pre-removal Operation	Post-installation Operation
<ul style="list-style-type: none"> Radiator Condenser Tank Removal (Refer to GROUP 14 – Radiator P.14-26). Power Steering Oil Pump Removal (Refer to GROUP 11A –Engine Assembly P.11A-74). Raise the Engine and Transaxle Assembly to the Position Where the Weight is not Applied to the Insulator. 	<ul style="list-style-type: none"> Power Steering Oil Pump Installation (Refer to GROUP 11A –Engine Assembly P.11A-74). Radiator Condenser Tank Installation (Refer to GROUP 14 –Radiator P.14-26).



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Removal steps

1. Power steering pressure hose clamp
2. Engine mounting bracket

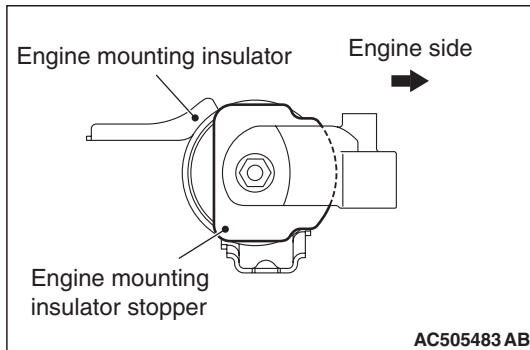
>>A<<

Removal steps (Continued)

3. Engine mounting insulator stopper
4. Engine mounting insulator

INSTALLATION SERVICE POINT**>>A<< ENGINE MOUNTING INSULATOR STOP-
PER INSTALLATION**

Install the engine mounting insulator stopper as shown in the figure.



TRANSAXLE MOUNTING

REMOVAL AND INSTALLATION

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CAUTION

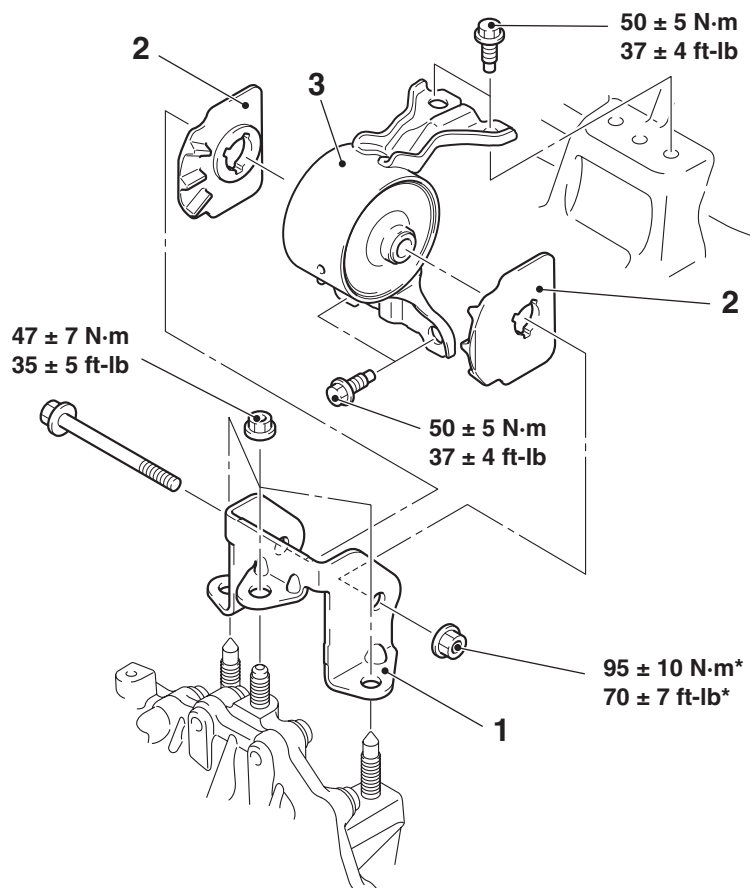
The part indicated * mark should be temporarily tightened and then should be fully tightened with the engine weight applied on the vehicle body.

Pre-removal operation

- Battery and Battery Tray Removal (Refer to GROUP 54A – Battery P.54A-8).
- Air Cleaner Assembly Removal (Refer to GROUP 15 –Air Cleaner P.15-4).
- Engine Control Module (ECM) Removal (Refer to GROUP 13A –Engine Control Module (ECM) P.13A-952).
- Raise the Engine and Transmission Assembly to the Position Where the Weight is not Applied to the Insulator.

Post-installation operation

- Engine Control Module (ECM) Installation (Refer to GROUP 13A –Engine Control Module (ECM) P.13A-952).
- Air Cleaner Assembly Installation (Refer to GROUP 15 – Air Cleaner P.15-4).
- Battery and Battery Tray Installation (Refer to GROUP 54A –Battery P.54A-8).



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Removal steps

1. Transaxle mounting bracket
- >>B<< 2. Transaxle mounting insulator stopper
- <<A>> >>A<< 3. Transaxle mounting insulator

Required Special Tool:

- MB990900 or MB991164: Door Adjusting Wrench

REMOVAL SERVICE POINT

<<A>> TRANSAXLE MOUNTING INSULATOR REMOVAL

To remove the mounting bolt on the lower side of the transaxle mounting insulator, use the special tool MB990900 or MB991164.

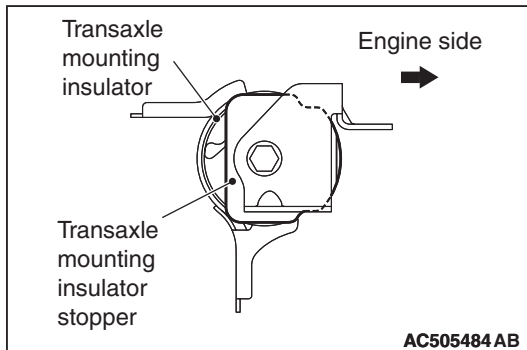
INSTALLATION SERVICE POINTS**>>A<< TRANSAXLE MOUNTING INSULATOR
INSTALLATION**

To install the mounting bolt on the lower side of the transaxle mounting insulator, use the special tool MB990900 or MB991164.

Tightening torque: 50 ± 5 N·m (37 ± 4 ft-lb)

**>>B<< TRANSAXLE MOUNTING INSULATOR
STOPPER INSTALLATION**

Install the transaxle mounting insulator stopper as shown in the figure.



ENGINE ROLL STOPPER AND CENTERMEMBER

REMOVAL AND INSTALLATION

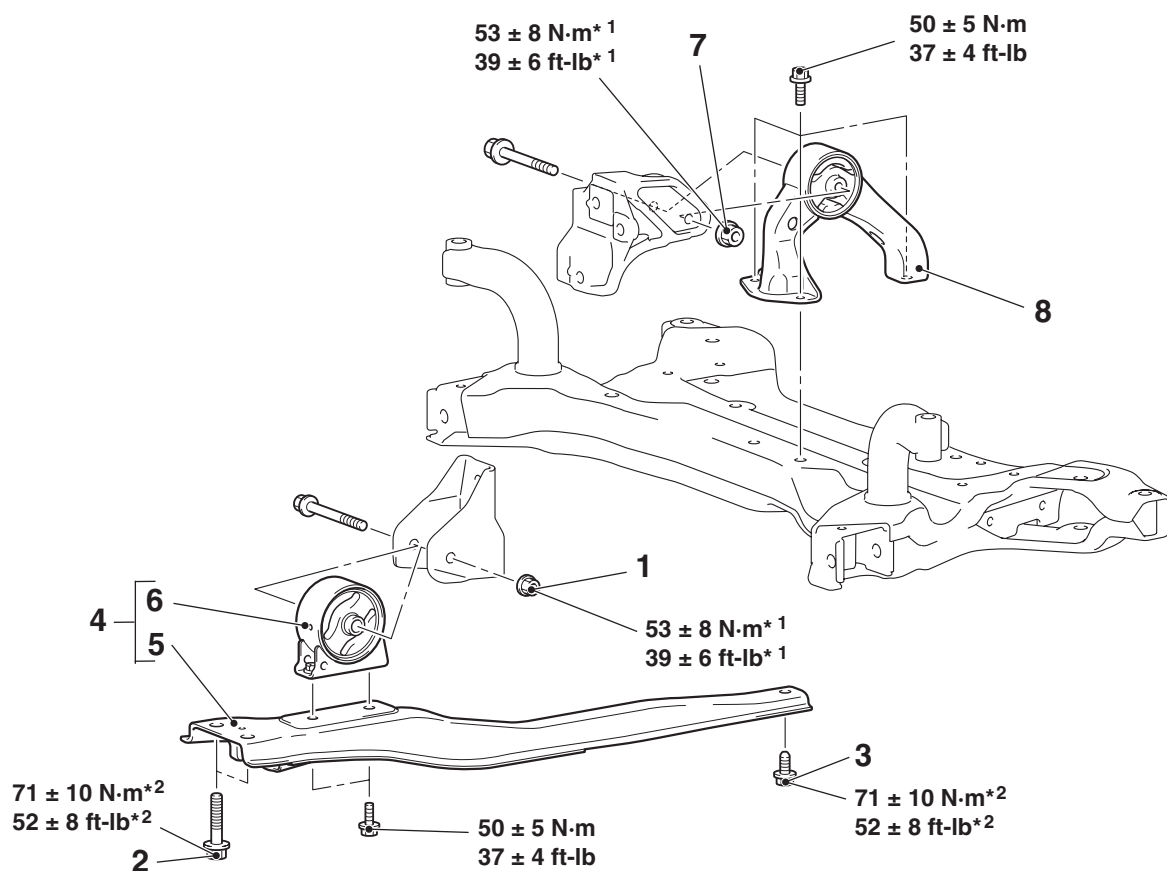
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CAUTION

- The part indicated by the *1 mark should be temporarily tightened, and then fully tightened with the engine and transaxle assembly weight applied on the vehicle body.
- The parts indicated by the *2 are the bolts with friction coefficient stabilizer. In removal, ensure there is no damage, clean dust and soiling from bearing and thread surfaces, and tighten them to the specified torque.

Pre-removal and post-installation operation

- Engine Room Under Cover Front Removal and Installation (Refer to GROUP 51 –Under Cover P.51-16).



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Front roll stopper and centermember removal steps

1. Flange nut
2. Centermember and body connection
3. Centermember and front axle crossmember connection
4. Centermember and front roll stopper assembly

Front roll stopper and centermember removal steps

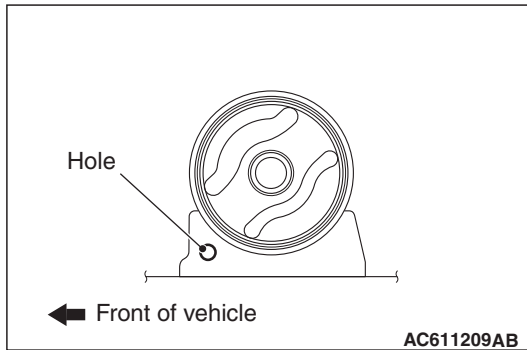
- >>A<<
5. Centermember
 6. Front roll stopper

Rear roll stopper removal steps

- Backbone Brace (Refer to GROUP 15 - Exhaust Pipe and Main Muffler P.15-12).
- 7. Flange nut
- 8. Rear roll stopper

INSTALLATION SERVICE POINT**>>A<< FRONT ROLL STOPPER INSTALLATION**

Install the front roll stopper so that the hole faces toward the vehicle front.



CROSSMEMBER

REMOVAL AND INSTALLATION

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CAUTION

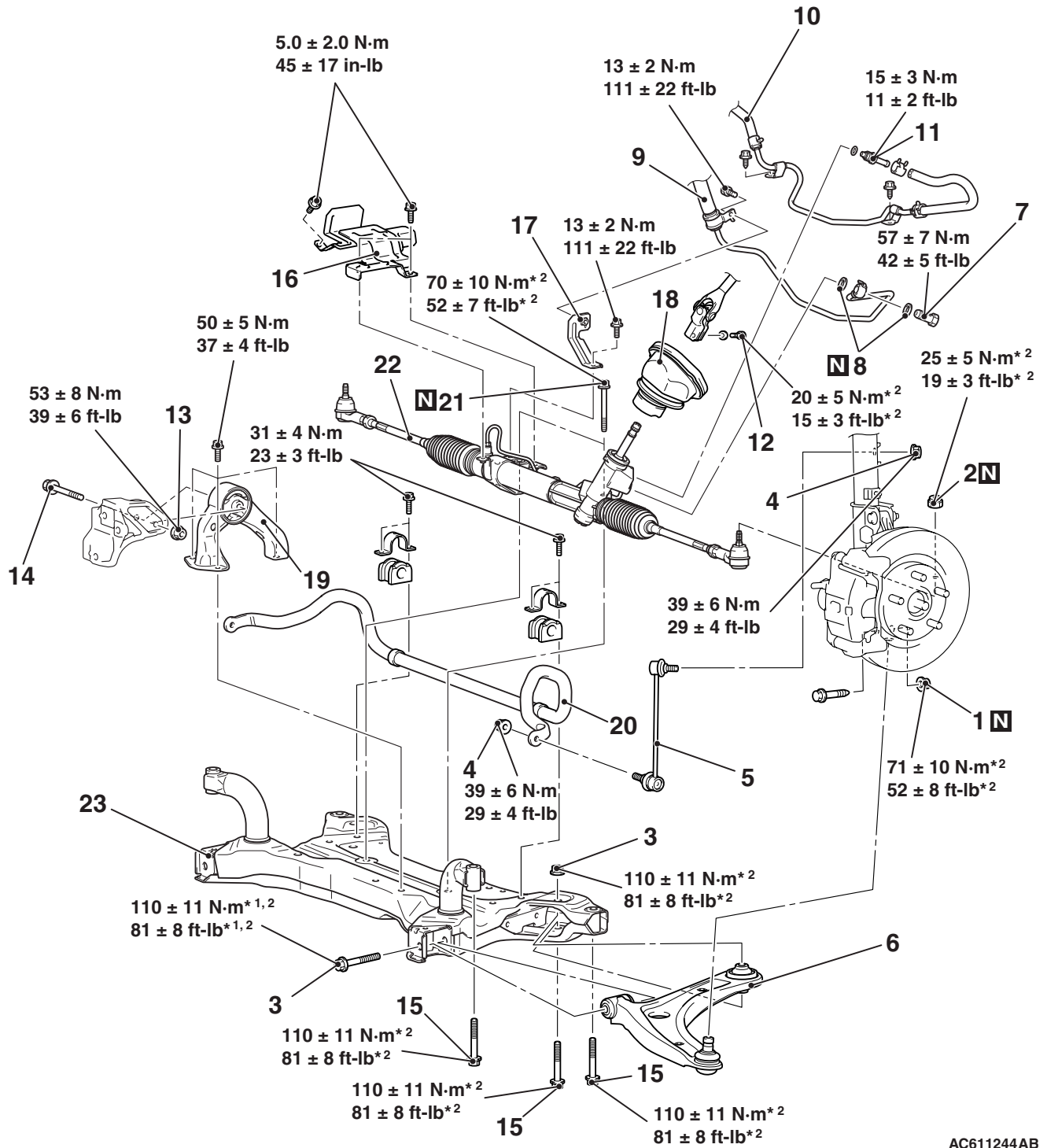
- Before removing the steering wheel and air bag module assembly, always refer to GROUP 52B – Service Precautions and Driver’s, Front Passenger’s Air Bag Module and Clock Spring (P.52B-367). Also, set the front wheels so that they are facing straight forward, and remove the ignition key. If you fail to do this, the SRS clock spring will be damaged, causing the SRS air bag to be inoperative resulting in serious injury.
- The part indicated by *¹ should be temporarily tightened, and then fully tightened with the vehicle standing on the earth and the curb weight condition.
- The parts indicated by *² are the bolts/nuts with friction coefficient stabilizer. In removal, ensure there is no damage, clean dust and soiling from the bearing and thread surfaces, and tighten them to the specified torque.

Pre-removal operation

- Steering Wheel and Air Bag Module Assembly Removal (Refer to GROUP 37 –Steering Wheel P.37-21).
- Centremember Removal (Refer to P.32-7).
- Power Steering Fluid Draining (Refer to GROUP 37 – On-vehicle Service, Power Steering Fluid Replacement P.37-17).

Post-installation operation

- Centremember Removal (Refer to P.32-7).
- Clock Spring Centring (Refer to GROUP 52B –Driver’s, Front Passenger’s Air Bag Modules and Clock Spring P.52B-367).
- Steering Wheel and Air Bag Module Assembly Installation (Refer to GROUP 37 –Steering Wheel P.37-21).
- Power Steering Fluid Air Bleeding (Refer to GROUP 37 – On-vehicle Service, Power Steering System Air Bleeding P.37-17).
- Using Your Fingers, Press The Ball Joint Dust Cover To Check for A Crack or Samage.
- Steering Wheel Straight-ahead Position Check
- Front Wheel Alignment Check and Adjustment (Refer to GROUP 33 –On-vehicle Service –Front Wheel Alignment Check and Adjustment P.33-8).



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Removal steps

1. Self-lock nut (Lower arm and knuckle connection)
2. Self-lock nut (Tie-rod end and knuckle connection)
3. Lower arm and crossmember mounting bolts and nuts
4. Stabilizer link mounting nuts
5. Stabilizer link assembly
6. Lower arm assembly
7. Eye bolt
8. Gasket

Removal steps (Continued)

9. Pressure hose connection
10. Return hose connection
11. Return tube assembly
 - Footrest joint cover removal
12. Steering gear and joint connecting bolt
13. Flanged nut
14. Rear roll stopper centre bolt
15. Front axle crossmember and body connection
 - Front axle crossmember assembly

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Removal steps (Continued)

- >>A<<
16. Heat protector
 17. Power steering oil line bracket
 18. Joint cover grommet
 19. Rear roll stopper
 20. Stabilizer bar
 21. Steering gear and linkage mounting bolt

Removal steps (Continued)

22. Steering gear and linkage
23. Front axle crossmember

Required Special Tool:

- MB991897 or MB992011: Ball Joint Remover

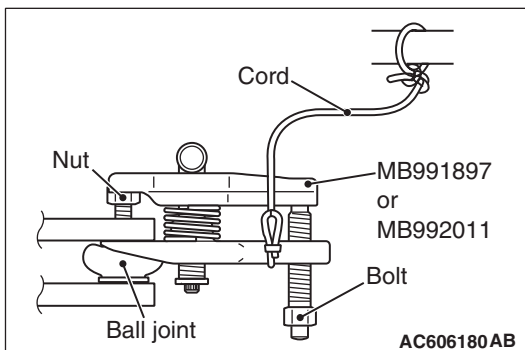
REMOVAL SERVICE POINTS

<<A>> TIE-ROD END AND KNUCKLE DISCONNECTION

⚠ CAUTION

- Do not remove the nut from the ball joint, but only loosen it, and use the special tool.
- To prevent the special tool from dropping off, suspend it with a cord.

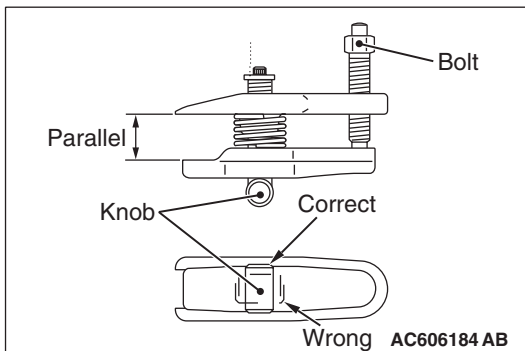
1. Install special tool MB991897 or MB992011 as shown in the figure.



2. Turn the bolt and knob to make the special tool jaws parallel, then hand-tighten the bolt. After tightening, check that the jaws are still parallel.

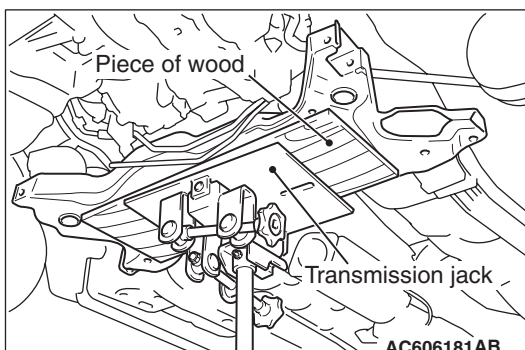
NOTE: To adjust the special tool jaws to be parallel, set the knob as shown in the figure so that it functions as a fulcrum of the jaws.

3. Turn the bolt and disconnect the tie-rod end from the steering knuckle.



<> FRONT AXLE CROSSMEMBER ASSEMBLY REMOVAL

1. Jack up and support the front axle crossmember, remove the front axle crossmember mounting bolt.
2. Check the hoses and harnesses for roughness, and then remove the front axle crossmember assembly with the rear roll stopper and the steering gear and linkage installed.



INSTALLATION SERVICE POINT**>>A<< JOINT COVER GROMMET INSTALLATION**

Install the joint cover grommet to the steering gear and linkage by aligning the mating marks as shown in the figure.

