
GROUP 32

POWER PLANT MOUNT

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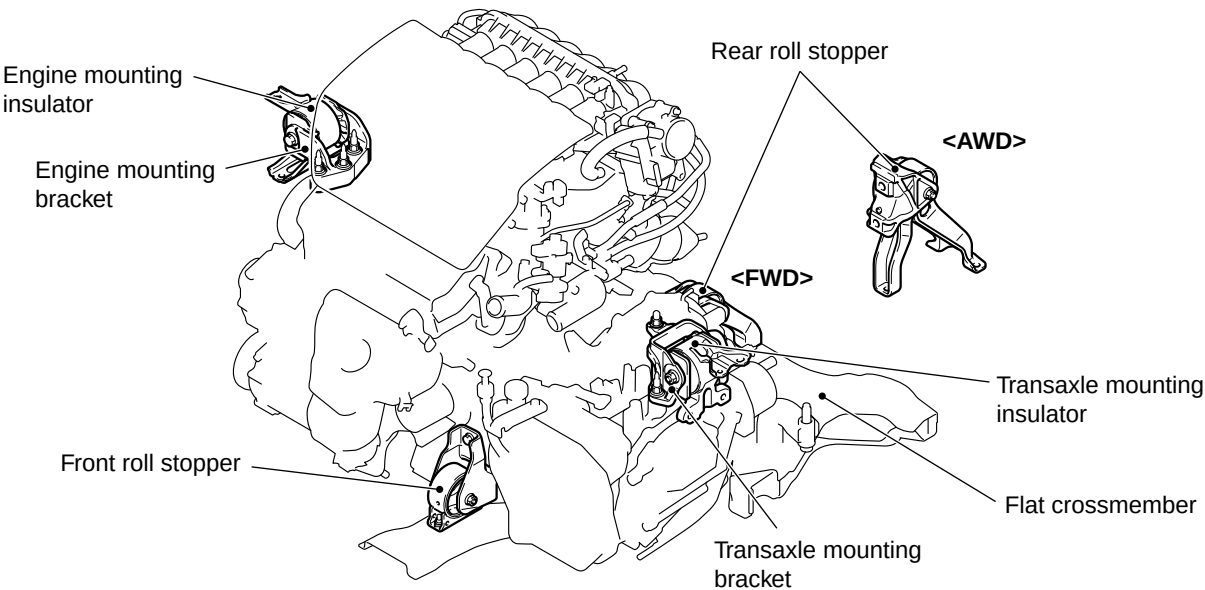
GENERAL INFORMATION

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For the power plant support, the inertial axis four-point mounting system is utilized, and the system has the following features.

- For the engine and transaxle mountings, the cylindrical liquid seal mountings are used. This reduces idling vibration and acceleration noise, and improves riding comfort.
- For the engine mounting bracket, light weight and high rigidity aluminum is used to reduce acceleration noise.
- For the transaxle mounting bracket, light weight and high rigidity sheet metal is used to reduce gear noise.
- For the front and rear roll stoppers, insulators developed for 6A/T are utilized. This reduces idling vibration and acceleration/deceleration shock.
- A flat crossmember improves steering ability.

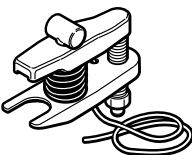
CONSTRUCTION DIAGRAM



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SPECIAL TOOL

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Tool	Tool number and name	Supersession	Application
 YB991897AA00	MB991897 or MB992011 Ball joint remover	MB991113-01, MB990635-01 or General service tool	Knuckle and tie rod end ball joint disconnection <i>NOTE: Steering linkage puller (MB990635 or MB991113) is also used to disconnect the knuckle and tie rod end ball joint.</i>

ENGINE MOUNTING

REMOVAL AND INSTALLATION

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CAUTION

∗: Indicates parts which should be initially tightened, and then fully tightened after placing

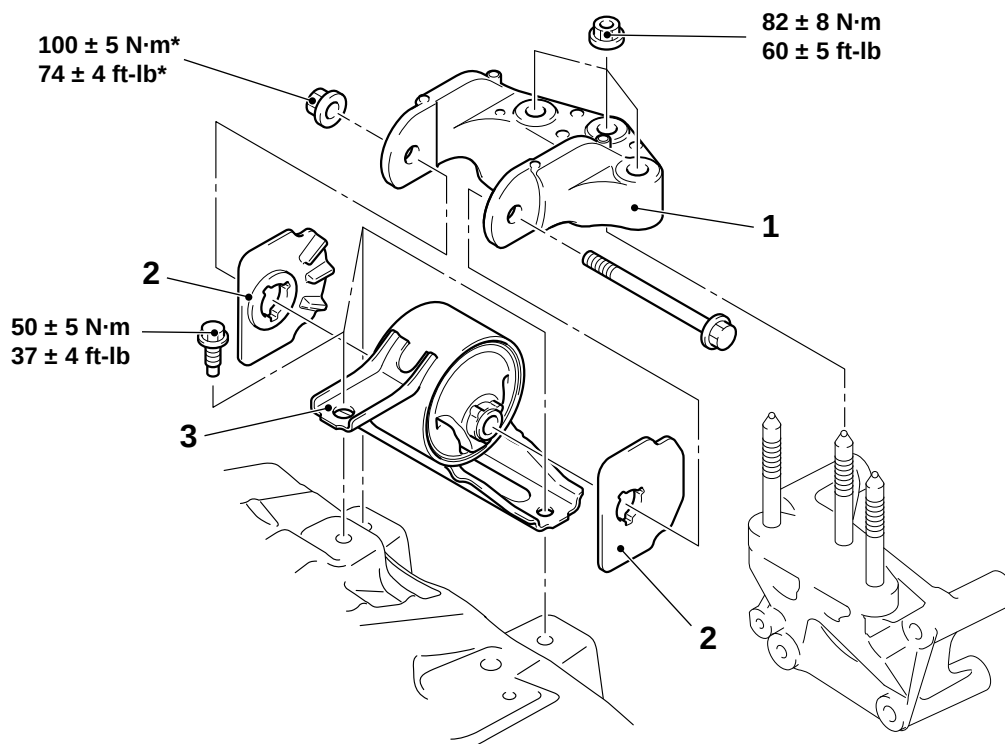
the vehicle horizontally and loading the full weight of the engine on the vehicle body.

Pre-removal operation

- Radiator Condenser Tank Removal (Refer to GROUP 14, Radiator P.14-27).
- Power Steering Oil Pump Assembly Removal (Refer to GROUP 37, Power Steering Oil Pump Assembly P.37-34).
- Raise the engine and transaxle assembly until its weight is not applied to the insulator, and support it securely.

Post-installation operation

- Power Steering Oil Pump Assembly Installation (Refer to GROUP 37, Power Steering Oil Pump Assembly P.37-34).
- Radiator Condenser Tank Installation (Refer to GROUP 14, Radiator P.14-27).



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Removal steps

1. Engine mounting bracket
2. Engine mounting insulator stopper

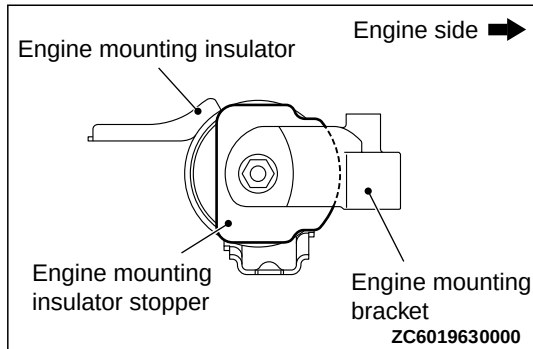
Removal steps

3. Engine mounting insulator

INSTALLATION SERVICE POINT

>>A<< ENGINE MOUNTING INSULATOR STOPPER
INSTALLATION

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



TRANSAXLE (TRANSMISSION) MOUNTING

REMOVAL AND INSTALLATION

CAUTION

*: Indicates parts which should be initially tightened, and then fully tightened after placing

Pre-removal operation

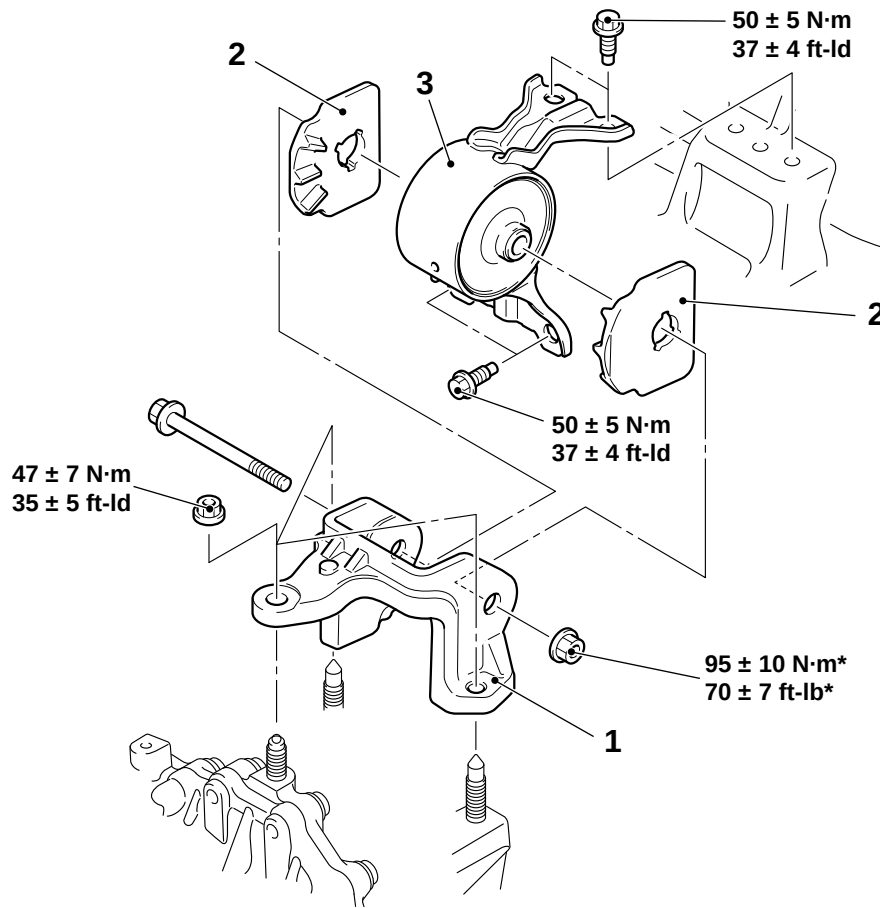
- Battery and Battery Tray Removal
- Air Cleaner Assembly Removal (Refer to GROUP 15, Air Cleaner P.15-6).
- Engine Control Module (ECM) Removal [Refer to GROUP 13Aa, Engine Control Module (ECM) P.13Aa-37].
- Raise the engine and transaxle assembly until its weight is not applied to the insulator, and support it securely.

the vehicle horizontally and loading the full weight of the transaxle on the vehicle body.

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Post-installation operation

- Engine Control Module (ECM) Installation [Refer to GROUP 13Aa, Engine Control Module (ECM) P.13Aa-37].
- Air Cleaner Assembly Installation (Refer to GROUP 15, Air Cleaner P.15-6).
- Battery and Battery Tray Installation



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Removal steps

1. Transaxle mounting bracket
Transfer assembly <AWD> (Refer to GROUP 23A, Transfer Assembly P. 23A-176).

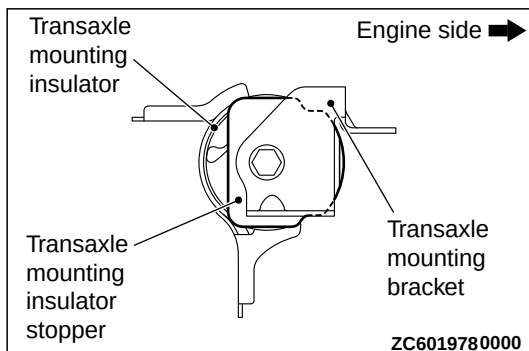
Removal steps

- >>A<<
2. Transaxle mounting insulator stopper
 3. Transaxle mounting insulator

INSTALLATION SERVICE POINT

>>A<< TRANSAXLE MOUNTING INSULATOR STOPPER INSTALLATION

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



ENGINE ROLL STOPPER AND CENTERMEMBER

REMOVAL AND INSTALLATION

CAUTION

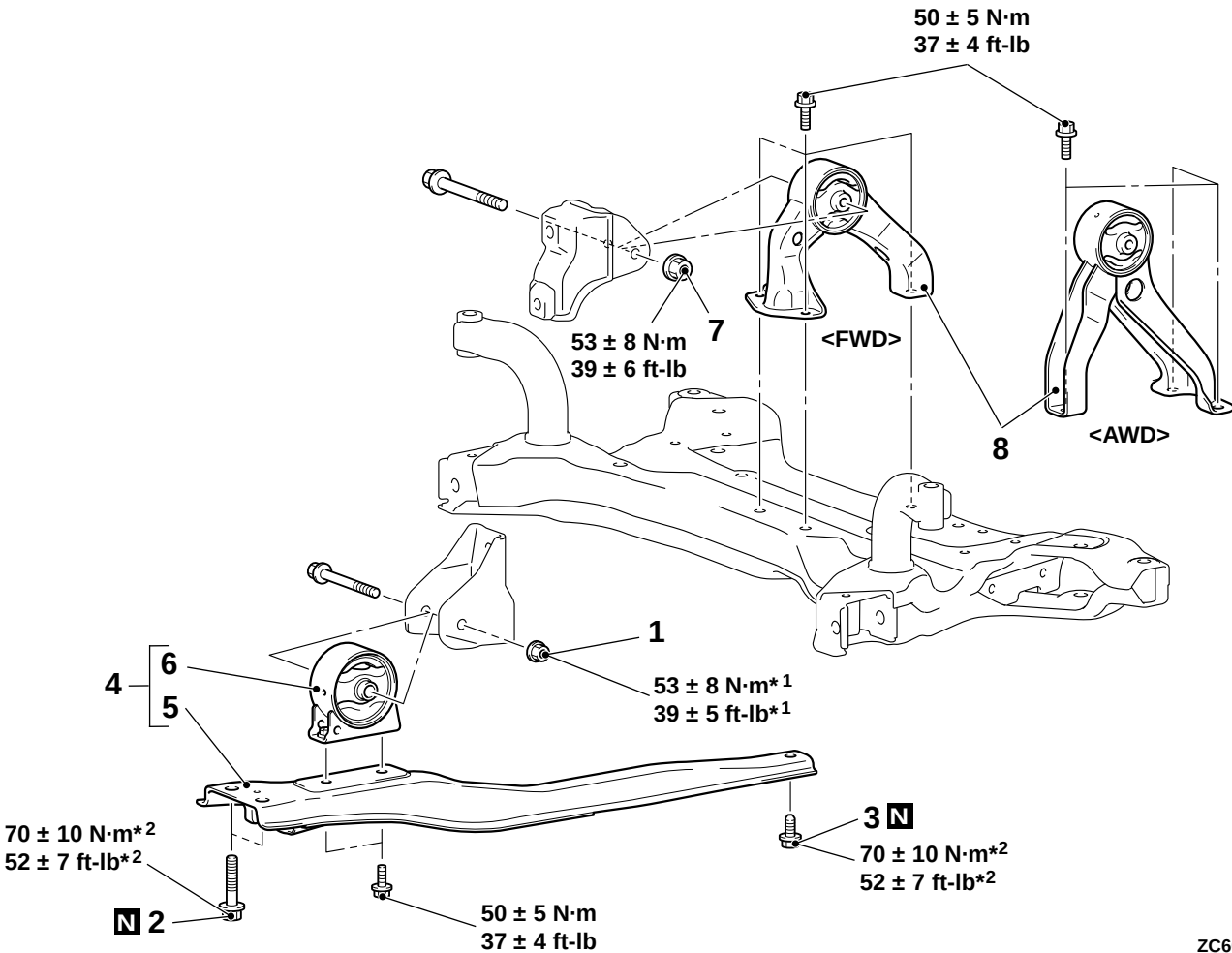
*1: Indicates parts which should be initially tightened, and then fully tightened after placing the vehicle horizontally and loading the full weight of the engine and transaxle assembly on the vehicle body.

Pre-removal and post-installation operation

* Engine Room Under Cover Front Removal and Installation (Refer to GROUP 51A, Under Cover P.51A-18).

*2: Indicates parts 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.

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Front roll stopper and centermember removal steps

1. Flange nut
2. Centermember and body connection
3. Centermember and crossmember connection

Front roll stopper and centermember removal steps

4. Front roll stopper and centermember assembly
5. Centermember
6. Front roll stopper

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Rear roll stopper removal steps

7. Flange nut
 - Transfer assembly <AWD> (Refer to GROUP 23A, Transfer Assembly P. 23A-176).

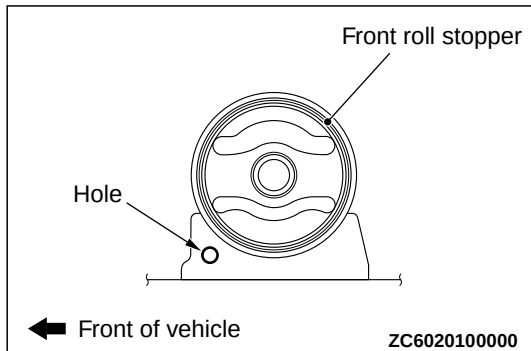
Rear roll stopper removal steps

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 (P.52B-28), Air Bag Module and Clock Spring (P.52B-329). 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.
- As for vehicles with headlight automatic levelling system, disconnect the front height sensor from the lower arm before operation to prevent damages to the front height sensor. (Refer to GROUP 54Ac, Headlight Automatic Leveling System - Height Sensor P.54Ac-179).

Pre-removal operation

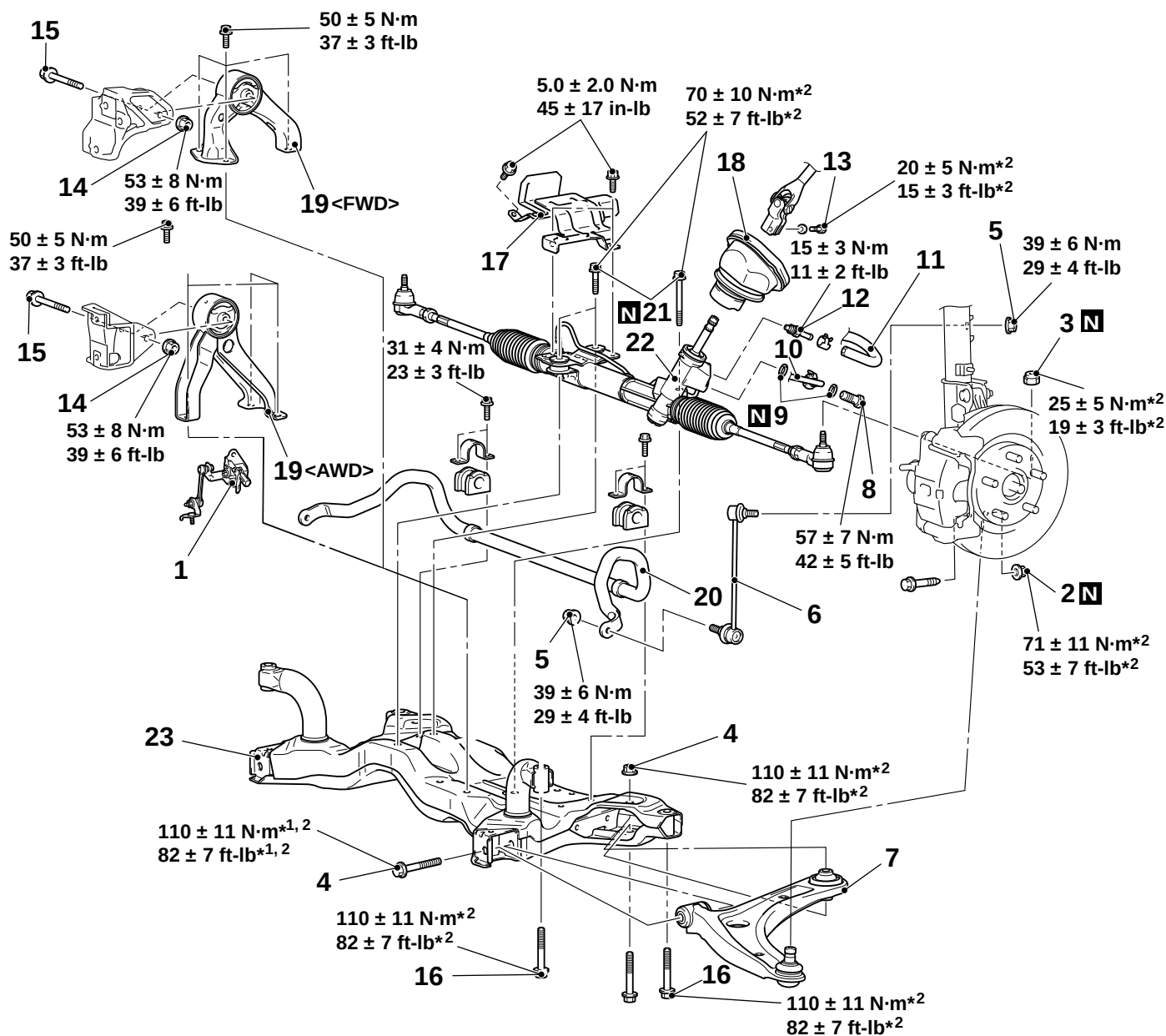
- Front and Center Exhaust Pipe Removal (Refer to GROUP 15, Exhaust Pipe and Main Muffler P.15-16).
- Centermember Removal (Refer to P.32-6).
- Steering Wheel Air Bag Module Assembly Removal (Refer to GROUP 37, Steering Wheel P.37-20).
- Power steering fluid drain (Refer to GROUP 37, On-vehicle Service - Fluid Replacement P.37-17).

- *1: Indicates parts which should be initially tightened, and then fully tightened with the vehicle on the ground in the unladen condition.
- *2: Indicates parts 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.
- After wheel alignment adjustment, carry out calibration to make ASC-ECU learn the neutral point of the steering wheel sensor (Refer to GROUP 35C, On-vehicle Service - Steering Wheel Sensor Calibration P.35C-192).

Post-installation operation

- Centermember Installation (Refer to P.32-6).
- Front and Center Exhaust Pipe Installation (Refer to GROUP 15, Exhaust Pipe and Main Muffler P.15-16).
- Clock Spring Centering (Refer to GROUP 52B, Air Bag Modules and Clock Spring P.52B-329).
- Steering Wheel Air Bag Module Assembly Installation (Refer to GROUP 37, Steering Wheel P.37-20).
- Power Steering Fluid Refilling and Bleeding (Refer to GROUP 37, On-vehicle Service - Fluid Replacement P.37-17).

- Using your fingers, press the ball joint dust cover to check for a crack or damage.
- 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.33-7).



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Removal steps

1. Front height sensor
2. Self-lock nut (Lower arm and knuckle connection)
3. Self-lock nut (Tie-rod end and knuckle connection)
4. Lower arm and crossmember mounting bolts and nuts
5. Stabilizer link mounting nuts

Removal steps

6. Stabilizer link assembly
7. Lower arm assembly
8. Eye bolt
9. Gasket
10. Pressure hose connection
11. Return hose connection
12. Return tube assembly

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Removal steps

- Footrest joint cover removal
- 13. Steering gear and joint connecting bolt
- 14. Flanged nut
- 15. Rear roll stopper center bolt
- 16. Crossmember and body connection
- Crossmember assembly
- 17. Heat protector

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Removal steps

- >>A<< 18. Joint cover grommet
- 19. Rear roll stopper
- 20. Stabilizer bar
- 21. Steering gear and linkage mounting bolt
- 22. Steering gear and linkage
- 23. Crossmember

Required Special Tool:

•MB991897 or MB992011: Ball Joint Remover

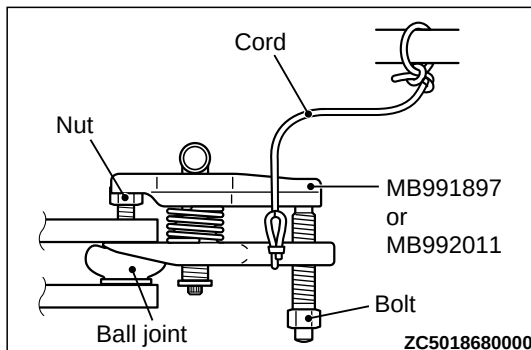
REMOVAL SERVICE POINTS

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

⚠ CAUTION

- Loosen the self-locking nut from the ball joint, but do not remove here. Use the special tool.
- To prevent the special tool from dropping off, suspend it with a rope.

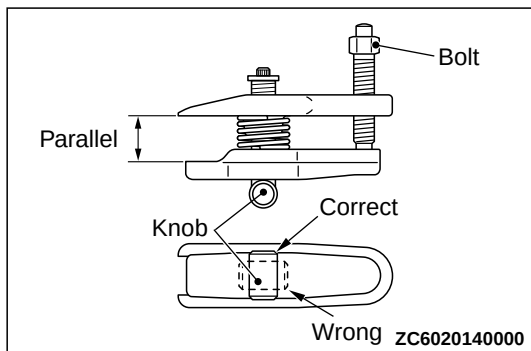
1. Install the special tool MB991897 or MB992011 as shown in the figure.



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.

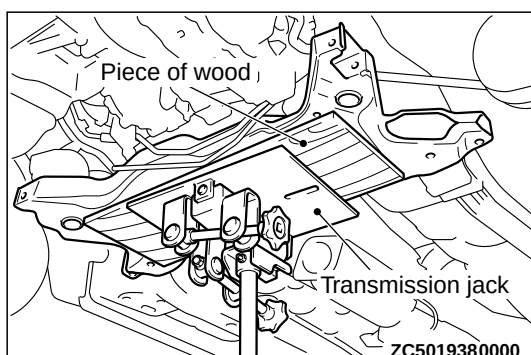
NOTE: To adjust the special tool jaws to be parallel, set the knob as shown in the figure so that it functions as a fulcrum of the jaws.

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



<> CROSSMEMBER ASSEMBLY REMOVAL

1. Jack up and support the crossmember, and remove it.
2. Check the hoses and harnesses for roughness, and then remove the 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.

