

GROUP 32

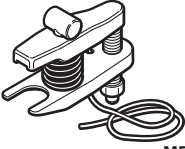
POWER PLANT
MOUNT

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SPECIAL TOOL

M1321000601304

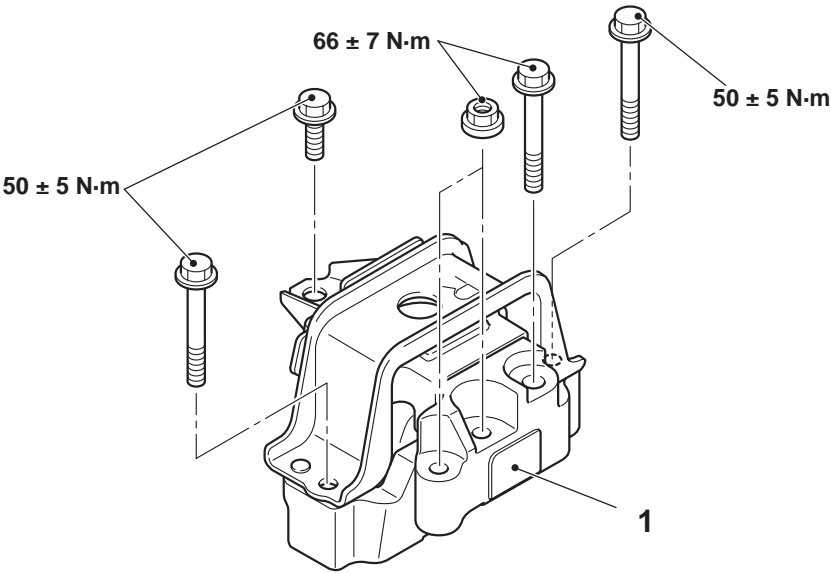
Tool	Number	Name	Use
 MB991897	MB991897 or MB992011	Ball joint remover	Knuckle and tie rod end ball joint disconnection <i>NOTE: Conventional steering linkage puller, MB991406, MB990635 or MB991113 can also be used</i>

ENGINE MOUNTING

REMOVAL AND INSTALLATION

M1321001103427

Pre-removal Operation <ul style="list-style-type: none">Engine Room Under Cover and Engine Room Side Cover (RH) Removal (Refer to GROUP 51 – Under Cover).	Post-installation Operation <ul style="list-style-type: none">Engine Room Under Cover and Engine Room Side Cover (RH) Installation (Refer to GROUP 51 – Under Cover).
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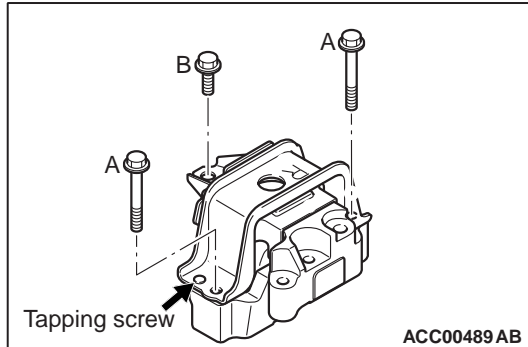
- Removal steps**
- >>A<< 1. Engine mounting bracket

INSTALLATION SERVICE POINTS

>>A<< ENGINE MOUNTING BRACKET INSTALLATION

⚠ CAUTION

Do not remove small tapping screw.



Tighten the engine mounting bracket mounting nuts by the following procedure.

Order	Mounting nuts	Tightening torque
1st	A	2.5 ± 2.5 N·m
2nd	B	50 ± 5 N·m
3rd	A	50 ± 5 N·m

TRANSMISSION MOUNTING

REMOVAL AND INSTALLATION

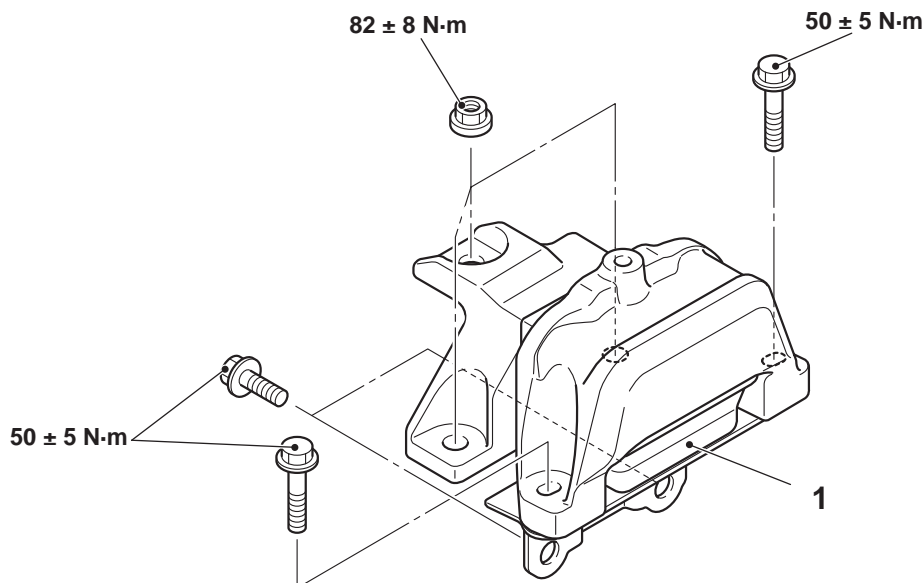
M1321001402823

Pre-removal Operation

- Battery and Battery Tray Removal (Refer to GROUP 54A – Battery).
- Air Cleaner Assembly Removal (Refer to GROUP 15 – Air Cleaner).
- Engine-ECU Removal (Refer to GROUP 13A – Engine-ECU).

Post-installation Operation

- Engine-ECU Installation (Refer to GROUP 13A – Engine-ECU).
- Air Cleaner Assembly Installation (Refer to GROUP 15 – Air Cleaner).
- Battery and Battery Tray Installation (Refer to GROUP 54A – Battery).



Removal steps

- <<A>> >>A<< 1. Transmission mounting bracket

REMOVAL SERVICE POINT

<<A>> TRANSMISSION MOUNTING
BRACKET REMOVAL

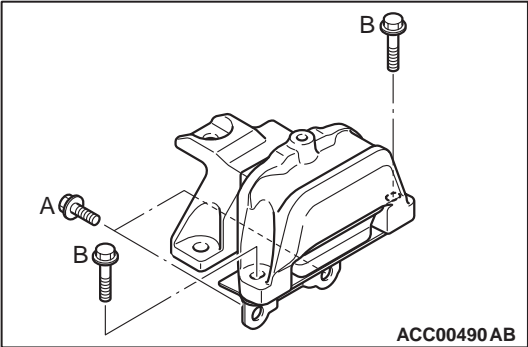
1. Place a garage jack against the transmission case with a piece of wood in between to support the engine and transmission assembly.
2. Operate a garage jack so that the transmission weight is not applied to the transmission mounting insulator, and remove the transmission mounting bracket.

INSTALLATION SERVICE POINTS

>>A<< TRANSMISSION MOUNTING
BRACKET INSTALLATION

CAUTION

Do not remove small tapping screw on the back side.



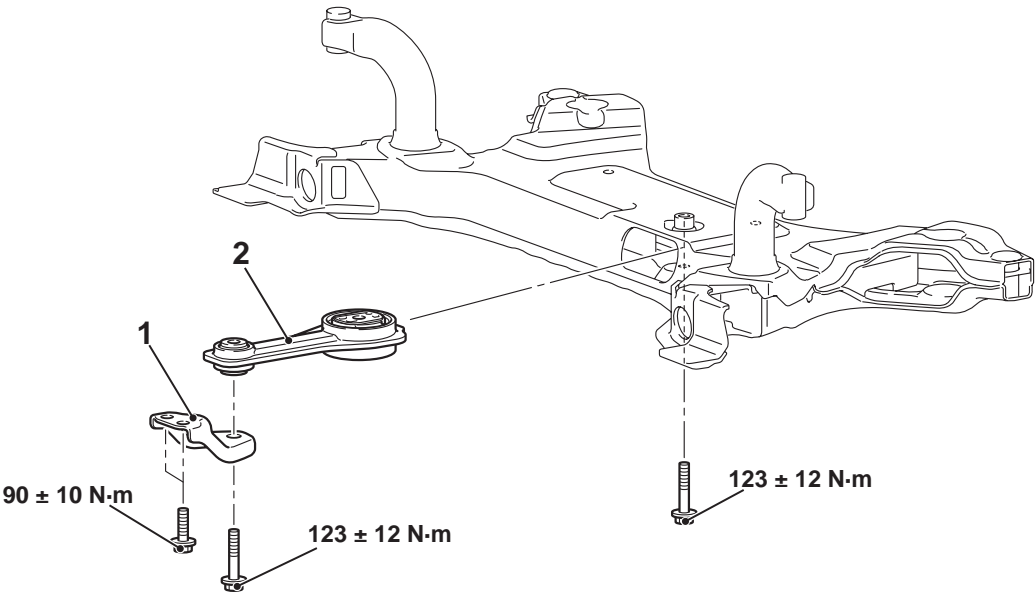
Tighten the transmission mounting bracket mounting nuts by the following procedure.

Order	Mounting nuts	Tightening torque
1st	A	2.5 ± 2.5 N·m
2nd	B	50 ± 5 N·m
3rd	A	50 ± 5 N·m

ENGINE ROLL STOPPER ROD

REMOVAL AND INSTALLATION

M1321004900229



Removal steps

1. Roll rod stay
2. Engine roll stopper rod assembly

CROSSMEMBER

REMOVAL AND INSTALLATION

M1321003202331

CAUTION

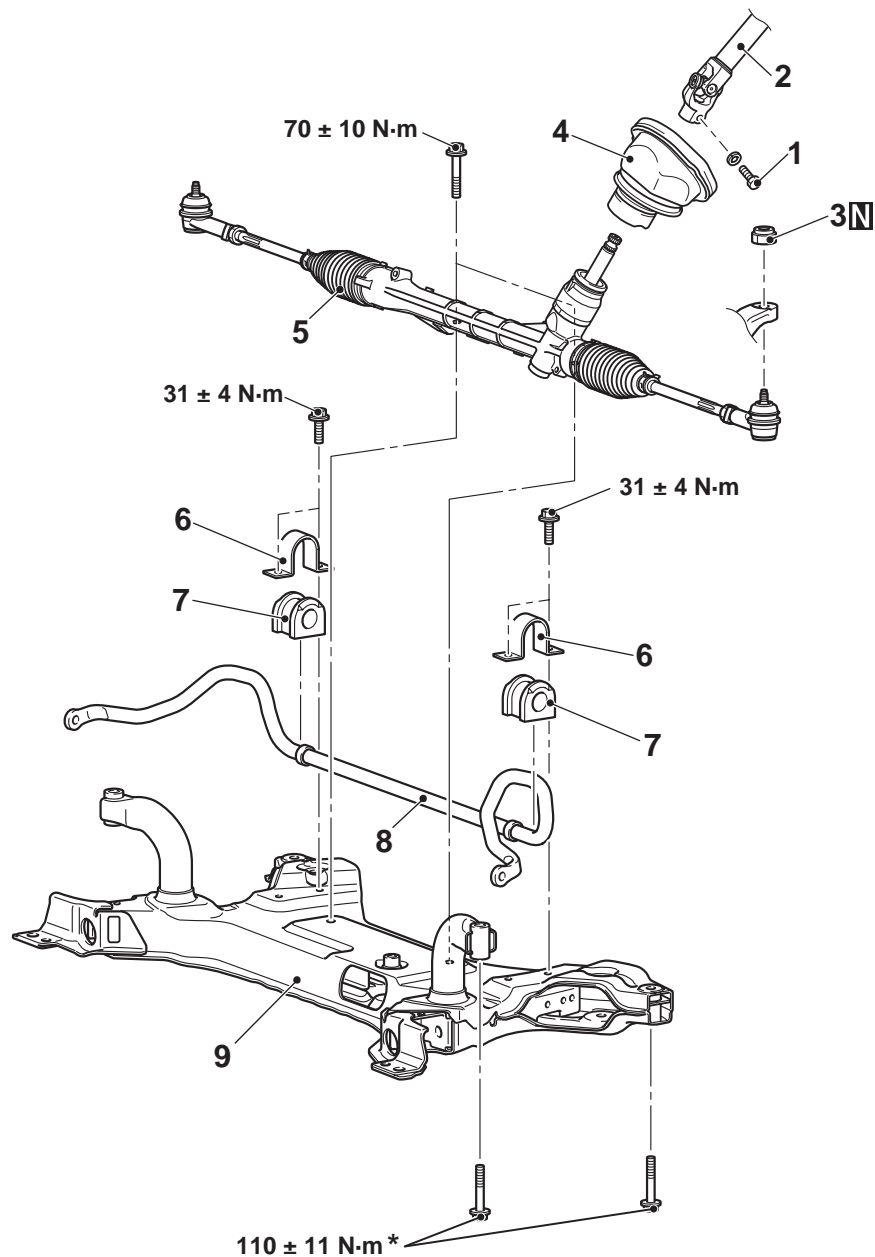
- Before removing the steering wheel assembly and driver's air bag module assembly, refer to GROUP 52B – Service Precautions and Air Bag Module(s) and Clock Spring . Position the steering wheel in the straight-ahead position, and remove the ignition key. If you fail to do this, clock spring for SRS may get damage not to operate the SRS (air bag), and it may cause the serious injury of the driver.
- The parts indicated by * 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 the installation, perform a calibration for the ASC-ECU to learn the steering wheel sensor neutral point. (Refer to GROUP 35C – On-vehicle Service, Steering Wheel Sensor Calibration).

Pre-removal Operation

- Steering Wheel and Air Bag Module Assembly Removal (Refer to GROUP 37B – Steering Wheel).
- Footrest Removal.
- Electric Power Steering-ECU Connector Removal (Refer to GROUP 37B – Electric Power Steering Control Unit).
- Cowl Side Trim (LH, RH) Removal (Refer to GROUP 52A – Interior Trim).
- Steering Shaft Cover Removal (Refer to GROUP 37B – Steering Shaft).
- Engine Room Under Cover A, B and Engine Room Side Cover Removal (Refer to GROUP 51 – Under Cover).
- Lower Arm Assembly Removal (Refer to GROUP 33 – Lower Arm).

Post-installation Operation

- Using Your Fingers, Press The Tie-rod End Ball Joint Dust Cover To Check for a Crack or Damage (Refer to GROUP 37B – On-vehicle Service, Ball Joint Dust Cover Inspection).
- Using Your Fingers, Press The Stabilizer Link Ball Joint Dust Cover To Check for a Crack or Damage (Refer to GROUP 33 – On-vehicle Service, Lower Arm Ball Joint Dust Cover Inspection).
- Lower Arm Assembly Installation (Refer to GROUP 33 – Lower Arm).
- Engine Room Under Cover and Engine Room Side Cover A, B and Installation (Refer to GROUP 51 – Under Cover).
- Electric Power Steering-ECU Connector Installation (Refer to GROUP 37B – Electric Power Steering Control Unit).
- Cowl Side Trim (LH, RH) Installation (Refer to GROUP 52A – Interior Trim).
- Steering Shaft Cover Installation (Refer to GROUP 37B – Steering Shaft).
- Footrest Installation.
- Clock Spring Centring (Refer to GROUP 52B – Driver's Air Bag Module).
- Steering Wheel and Air Bag Module Assembly Installation (Refer to GROUP 37B – Steering Wheel).



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Removal steps

1. Steering column bolt
2. Steering column shaft assembly and steering gear and linkage assembly connection
3. Self-locking nut (Tie-rod end and knuckle connection)
- Front floor backbone brace and front end side panel (Refer to GROUP 42A – Loose Panel)

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>>C<<

>>B<<

>>A<<

Removal steps (Continued)

- Crossmember assembly
- 4. Joint cover grommet
- 5. Steering gear and linkage assembly
- 6. Stabilizer bar bracket
- 7. Stabilizer bushing
- 8. Stabilizer bar
- 9. Front axle crossmember

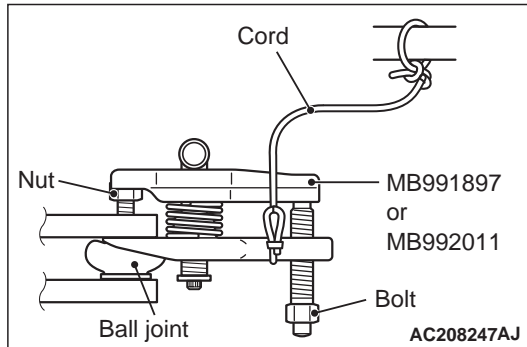
<<A>>

REMOVAL SERVICE POINTS

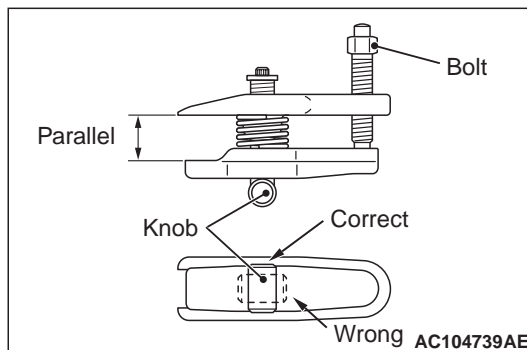
<<A>> SELF-LOCK NUT (TIE-ROD END AND KNUCKLE CONNECTION) REMOVAL

⚠ CAUTION

- Do not remove the self-lock 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.

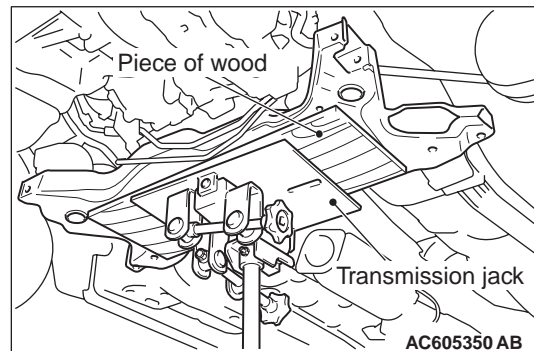


1. Install the special tool ball joint remover (MB991897 or MB992011) as shown in the figure.



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.

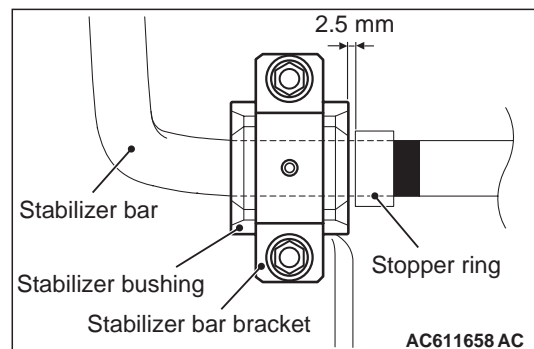
<> CROSSMEMBER ASSEMBLY REMOVAL



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 rod assembly and the steering gear and linkage installed.

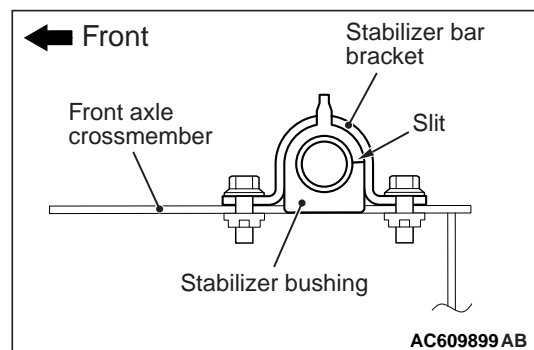
INSTALLATION SERVICE POINTS

>>A<< STABILIZER BAR INSTALLATION



Install the stabilizer bar as shown in the figure.

>>B<< STABILIZER BUSHING INSTALLATION



Install the stabilizer bushing as shown in the figure.

**>>C<< 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.

