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-ECU, 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 (*).

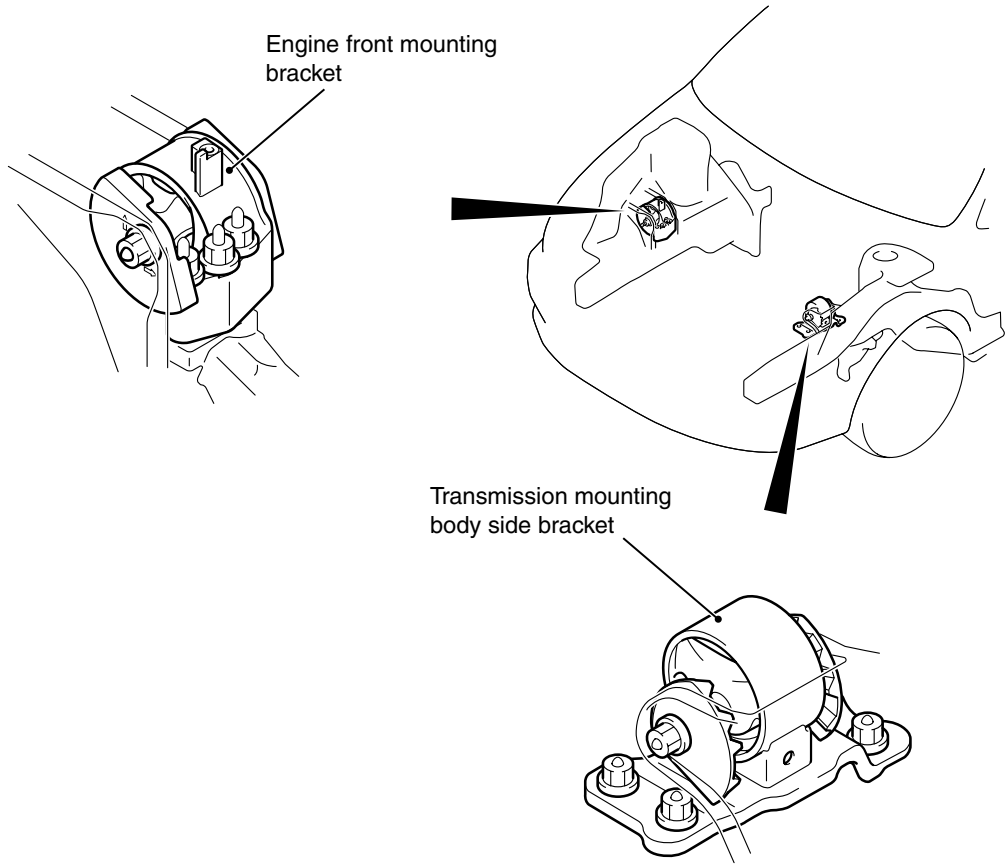
GENERAL INFORMATION

M1321000100436

Inertia principal axes system is incorporated into the engine mount system.

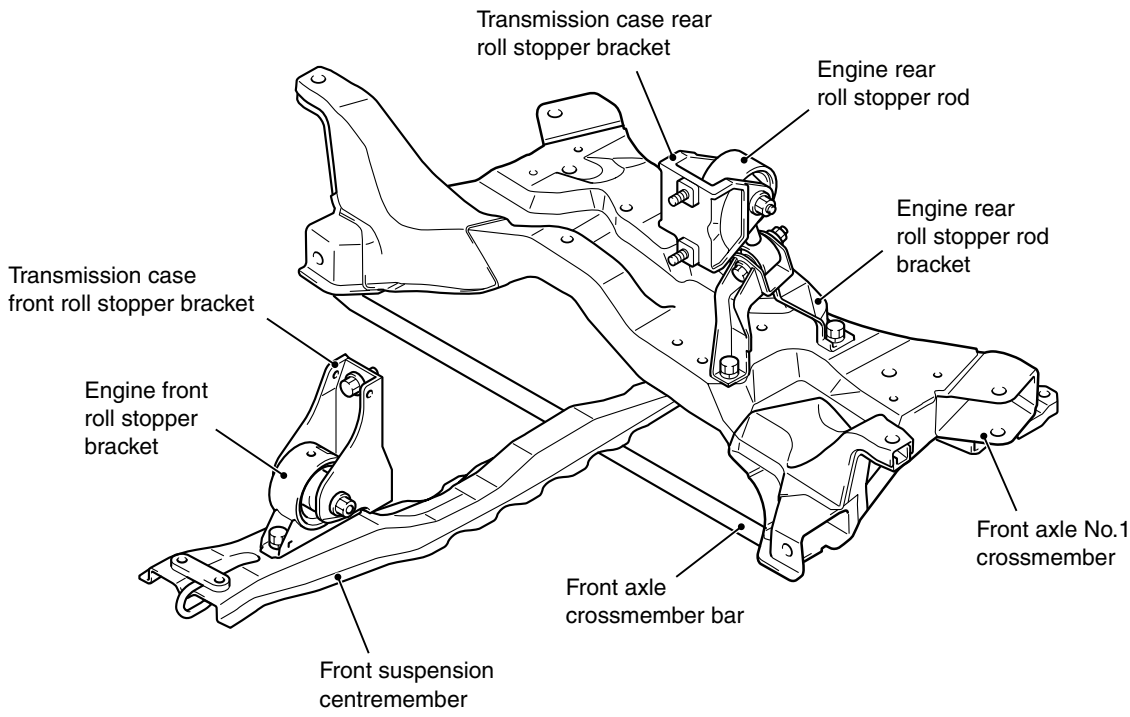
- The liquid-filled mount system have been adopted for engine mounting and transmission mounting to improve ride feeling by optimizing the insulator.
- Installation of roll stopper in the upper area has reduced engine rolling. Furthermore, enlargement of insulator diameter has reduced idle vibration.

CONSTRUCTION DIAGRAM

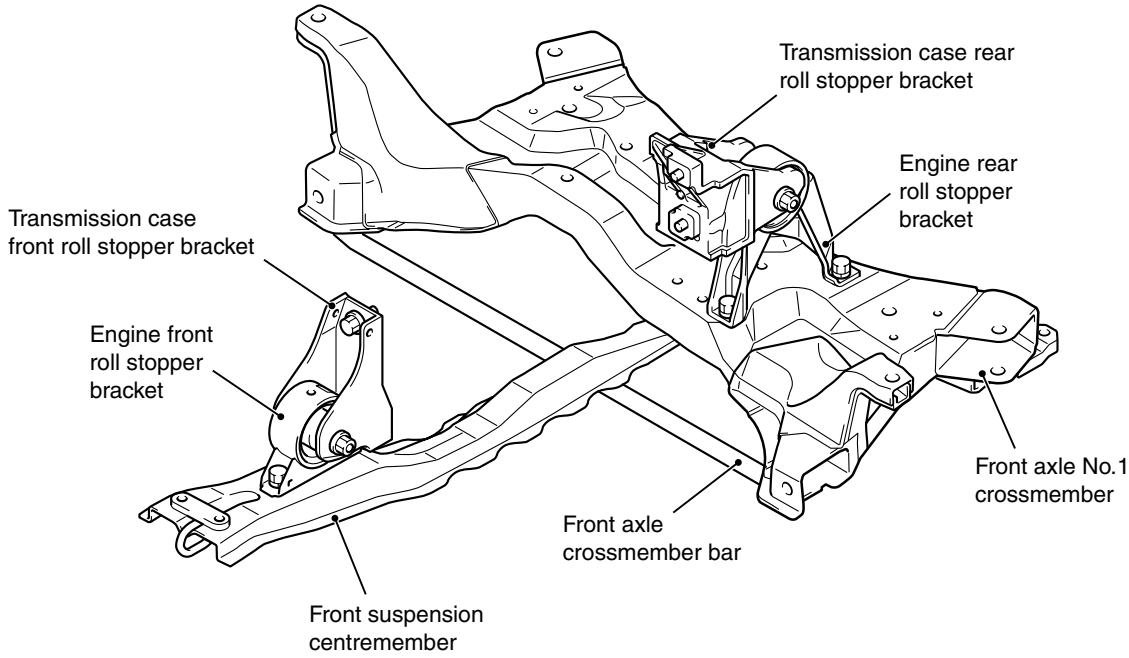


AC310393 AB

<L.H. drive vehicles>



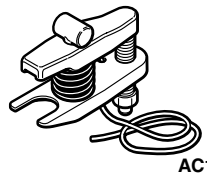
<R.H. drive vehicles>



AC310460AB

SPECIAL TOOL

M1321000600442

Tool	Number	Name	Use
 AC106827	MB991897	Ball joint remover	Knuckle and tie rod end ball joint disconnection *NOTE: Steering linkage puller (MB990635 or MB991113) is also available to disconnect knuckle and tie rod end ball joint.*

ENGINE MOUNTING

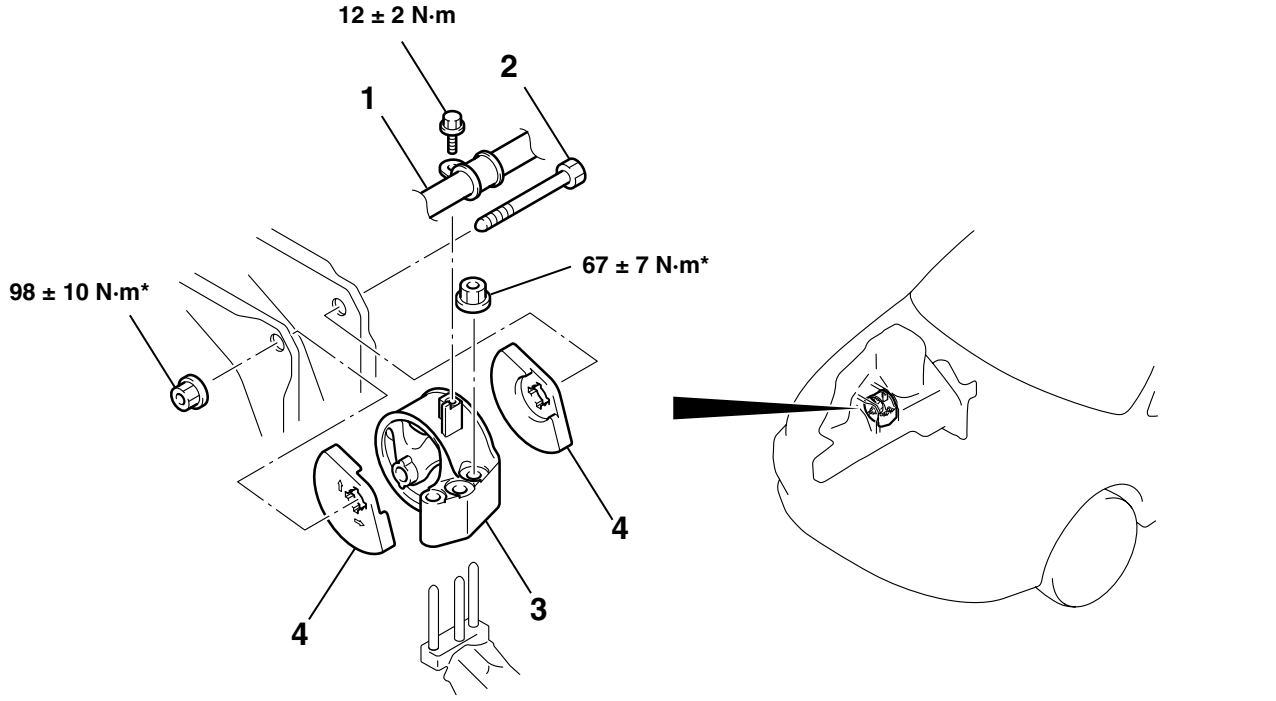
REMOVAL AND INSTALLATION

M1321001100600

⚠ 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	Post-installation Operation
• Under Cover Removal (Refer to GROUP 51, Front Bumper P.51-3). • Raise the engine and transmission assembly until its weight is not applied to the insulator, and support it securely.	• Under Cover Installation (Refer to GROUP 51, Front Bumper P.51-3).



AC210425 AB

Removal steps

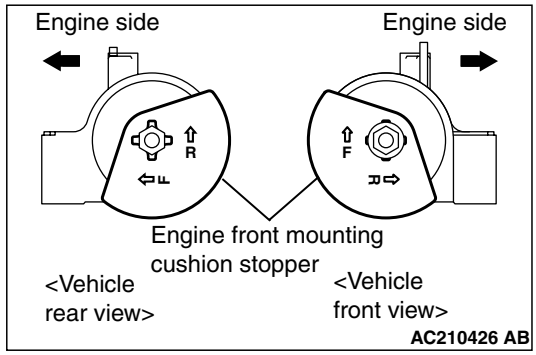
1. Power steering oil pressure hose
2. Engine mounting bolt

Removal steps (Continued)

3. Engine front mounting bracket
>>A<< 4. Engine front mounting cushion stoppers

INSTALLATION SERVICE POINT

>>A<< ENGINE FRONT MOUNTING CUSHION STOPPER INSTALLATION



Arrow marks on the engine front mounting cushion stopper should face the shown direction.

NOTE: . Disregard F and R stamped as a shared part.

INSPECTION

M1321001200232

- Check the engine front mounting insulator for cracks, separation or deformation.
- Check the engine front mounting cushion stoppers for deformation.

TRANSMISSION MOUNTING

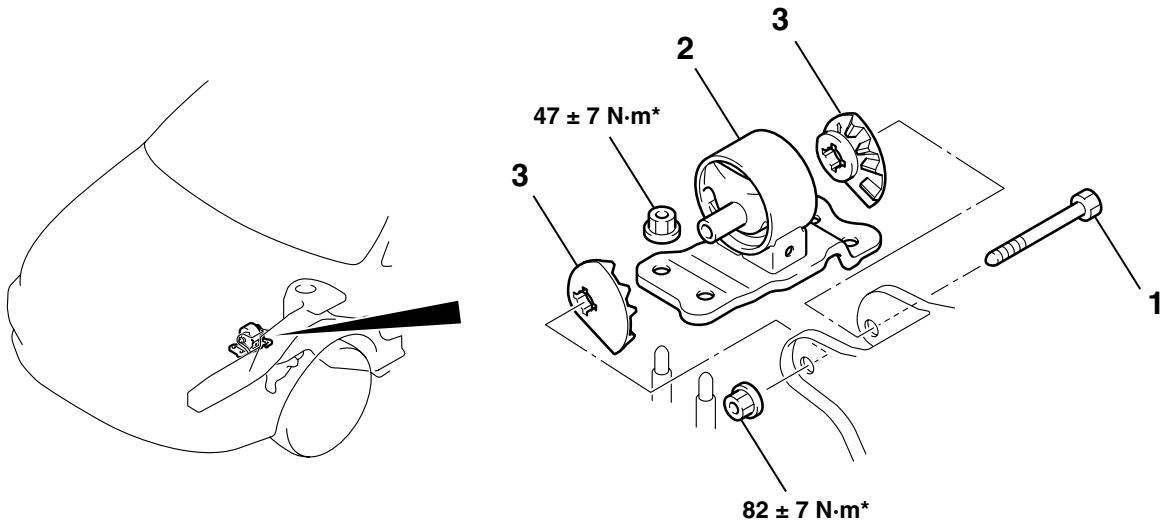
REMOVAL AND INSTALLATION

M1321001400515

⚠ 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	Post-installation Operation
• Under Cover Removal (Refer to GROUP 51, Front Bumper P.51-3). • Raise the engine and transmission assembly until its weight is not applied to the insulator, and support it securely. • Battery and Battery Tray Removal • Air Cleaner Removal (Refer to GROUP 15, Air Cleaner P.15-6). • Radiator Assembly Removal (Refer to GROUP 14, Radiator P.14-26). • Air Pipe C, Air By-pass Hose, Air Hose D Removal (Refer to GROUP 15, Intercooler P.15-7). • Rear Roll Stopper Removal (Refer to P.32-8).	• Rear Roll Stopper Installation (Refer to P.32-8). • Air Pipe C, Air By-pass Hose, Air Hose D Installation (Refer to GROUP 15, Intercooler P.15-7). • Radiator Assembly Installation (Refer to GROUP 14, Radiator P.14-26). • Air Cleaner Installation (Refer to GROUP 15, Air Cleaner P.15-6). • Battery and Battery Tray Installation • Under Cover Installation (Refer to GROUP 51, Front Bumper P.51-3).



AC210427AB

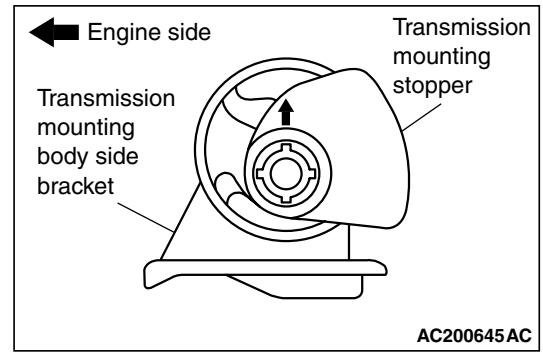
Removal steps

1. Transmission mounting bolt
2. Transmission mounting body side bracket

>>A<< 3. Transmission mounting stopper

INSTALLATION SERVICE POINT

>>A<< TRANSMISSION MOUNTING STOPPER INSTALLATION



AC200645AC

Install the transmission mounting stopper so that its arrow points upward.

INSPECTION

M1321001500200

- Check the transmission mounting insulator for cracks, separation or deformation.
- Check the transmission mounting stoppers for deformation.

ENGINE ROLL STOPPER, CENTREMEMBER

REMOVAL AND INSTALLATION

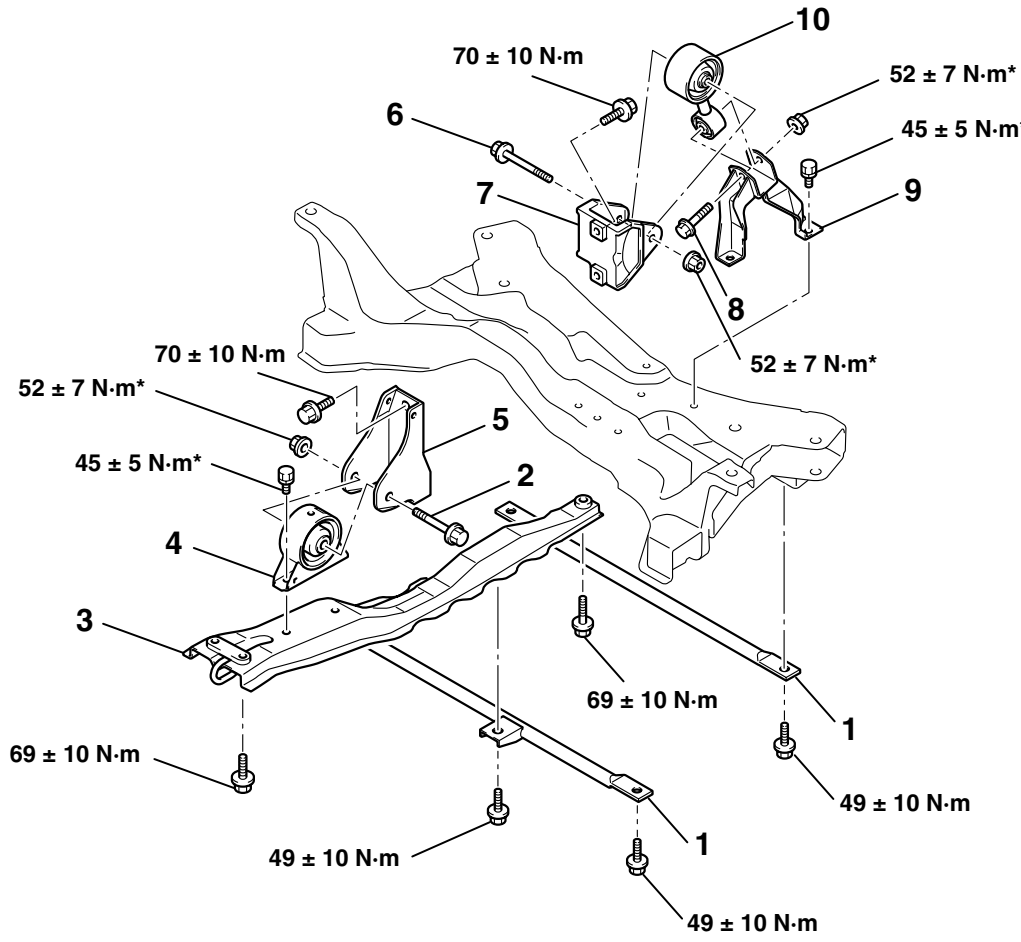
M1321002300362

<LH DRIVE VEHICLES>

⚠ 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	Post-installation Operation
• Under Cover Removal (Refer to GROUP 51, Front Bumper P.51-3).	• Under Cover Installation (Refer to GROUP 51, Front Bumper P.51-3).



AC210447AB

Front roll stopper bracket and centremember removal steps

1. Front axle crossmember bars
2. Engine front roll stopper bracket bolt
3. Front suspension centremember

>>A<< 4. Engine front roll stopper bracket

5. Transmission case front roll stopper bracket

Rear roll stopper rod removal steps

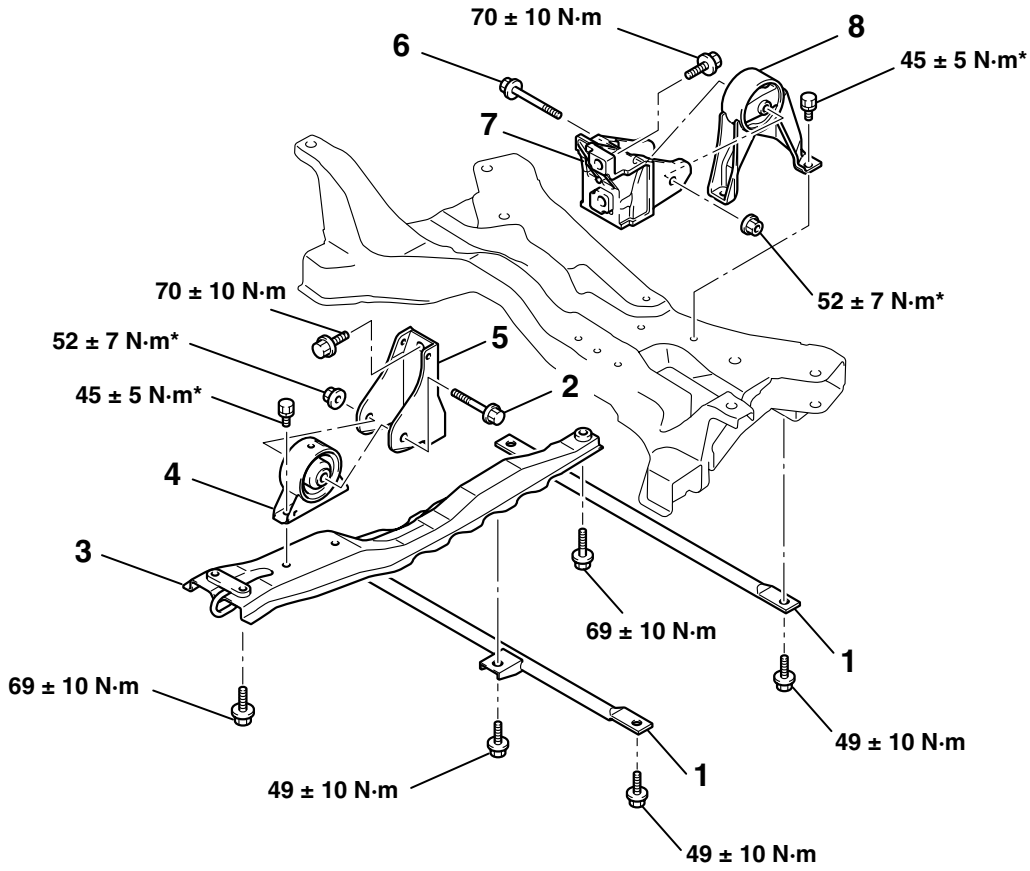
6. Engine rear roll stopper rod bolt
7. Transmission case rear roll stopper bracket
8. Engine rear roll stopper rod bolt
9. Engine rear roll stopper rod bracket
10. Engine rear roll stopper rod

<RH DRIVE VEHICLES>

⚠ 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	Post-installation Operation
• Under Cover Removal (Refer to GROUP 51, Front Bumper P.51-3).	• Under Cover Installation (Refer to GROUP 51, Front Bumper P.51-3).



AC310765 AB

Front roll stopper bracket and centremember removal steps

1. Front axle crossmember bars
2. Engine front roll stopper bracket bolt
3. Front suspension centremember

>>A<< 4. Engine front roll stopper bracket

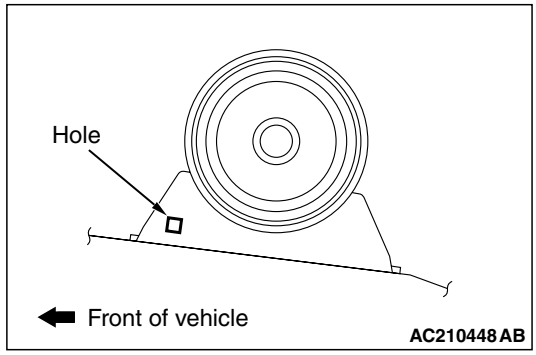
5. Transmission case front roll stopper bracket

Rear roll stopper rod removal steps

6. Engine rear roll stopper bolt
7. Transmission case rear roll stopper bracket
8. Engine rear roll stopper bracket

INSTALLATION SERVICE POINT

>>A<< ENGINE FRONT ROLL STOPPER BRACKET INSTALLATION



Install the front roll stopper so that its hole points towards the front side of the vehicle.

INSPECTION

M1321002400080

- Check the engine roll stopper insulators for cracks, separation or deformation.

CROSSMEMBER

REMOVAL AND INSTALLATION

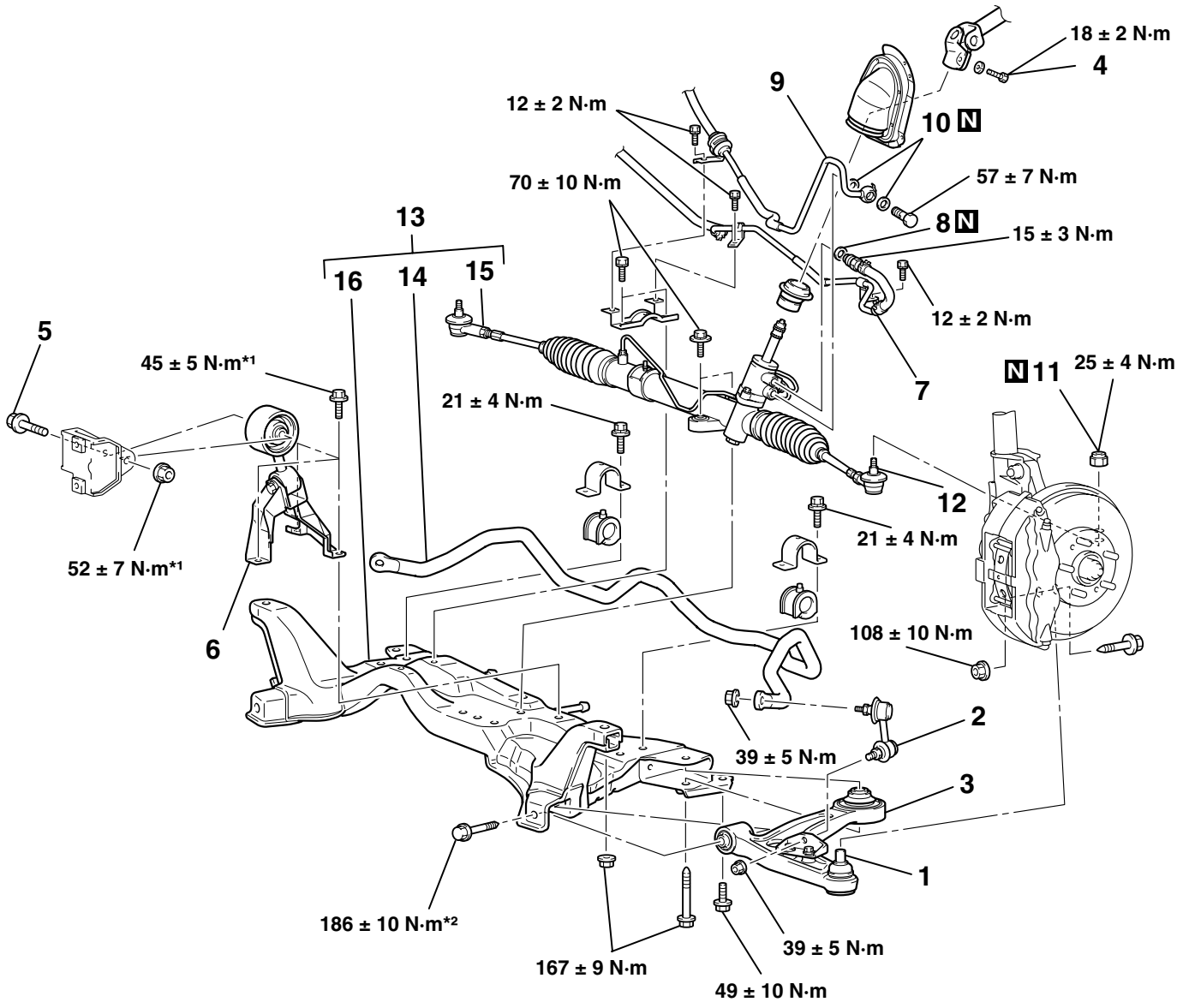
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<LH drive vehicles>

⚠ CAUTION

- **Before removing the steering wheel and air bag module assembly, always refer to GROUP 52B - Service Precautions, Air bag Module and Clock Spring. 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 and serious injury.**
- ***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 on the vehicle body.**
- ***2: Indicates parts which should be temporarily tightened, and then fully tightened with the vehicle on the ground in the unladen condition.**
- **If the vehicle is equipped with the Brembo™ disc brake, during maintenance, take care not to contact the parts or tools to the caliper because the paint of caliper will be scratched.**

Pre-removal and Post-installation Operation	Pre-removal and Post-installation Operation
• Under Cover Removal (Refer to GROUP 51, Front Bumper P.51-3). • Front Axle Crossmember Bar, Front Suspension Centremember Removal (Refer to P.32-8). • Front Exhaust Pipe Removal (Refer to GROUP 15, Exhaust Pipe and Main Muffler P.15-19). • Steering Wheel Air Bag Module Assembly Removal (Refer to GROUP 37A, Steering Wheel P.37-15). • Power Steering Fluid Draining (Refer to GROUP 37A, On-vehicle Service – Fluid Replacement P.37-11).	• Front Exhaust Pipe Installation (Refer to GROUP 15, Exhaust Pipe and Main Muffler P.15-19). • Front Axle Crossmember Bar, Front Suspension Centremember Installation (Refer to P.32-8). • Steering Wheel Air Bag Module Assembly Installation (Refer to GROUP 37A, Steering Wheel P.37-15). • Power Steering Fluid Supplying (Refer to GROUP 37A, On-vehicle Service – Fluid Replacement P.37-11). • Power Steering Fluid Line Bleeding (Refer to GROUP 37A, On-vehicle Service – Power Steering System Air Bleeding P.37-12). • Press the dust cover with a finger to check whether the dust cover cracked or damaged. • Checking Steering Wheel Position with Wheels Straight Ahead. • Front Wheel Alignment Check and Adjustment (Refer to GROUP 37A, On-vehicle Service – Steering Angle Check P.37-9). • Under Cover Installation (Refer to GROUP 51, Front Bumper P.51-3).



AC210547 AB

Removal steps

1. Lower arm and knuckle connection
2. Stabilizer link

<<A>>

3. Lower arm assembly
4. Steering shaft assembly and gear box connecting bolt
5. Engine rear roll stopper rod bolt
6. Engine rear roll stopper rod and bracket assembly
7. Return hose and return pipe
8. O-ring

Removal steps (Continued)

9. Pressure hose connection
10. Gaskets
11. Self-locking nut

<<B>>

12. Tie rod end and knuckle connection

<<C>>

13. Front axle No.1 crossmember assembly

>>A<<

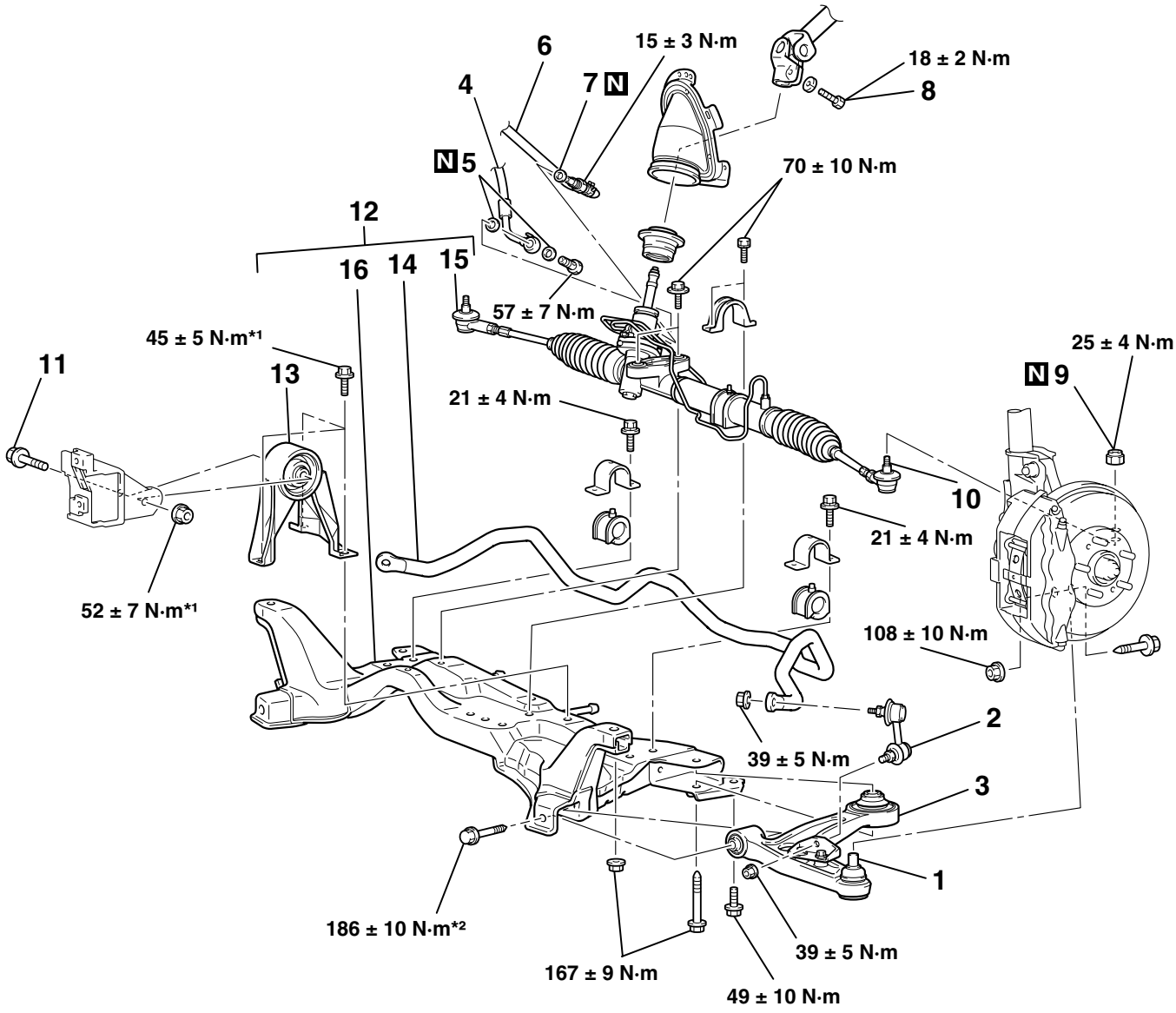
14. Stabilizer bar
15. Steering gear and linkage
16. Front axle No.1 crossmember

<RH drive vehicles>

⚠ CAUTION

- **Before removing the steering wheel and air bag module assembly, always refer to GROUP 52B - Service Precautions, Air bag Module and Clock Spring. 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 and serious injury.**
- ***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 on the vehicle body.**
- ***2: Indicates parts which should be temporarily tightened, and then fully tightened with the vehicle on the ground in the unladen condition.**
- **If the vehicle is equipped with the Brembo™ disc brake, during maintenance, take care not to contact the parts or tools to the caliper because the paint of caliper will be scratched.**

Pre-removal and Post-installation Operation	Pre-removal and Post-installation Operation
• Under Cover Removal (Refer to GROUP 51, Front Bumper P.51-3). • Front Axle Crossmember Bar, Front Suspension Centremember Removal (Refer to P.32-8). • Front Exhaust Pipe Removal (Refer to GROUP 15, Exhaust Pipe and Main Muffler P.15-19). • Steering Wheel Air Bag Module Assembly Removal (Refer to GROUP 37A, Steering Wheel P.37-15). • Power Steering Fluid Draining (Refer to GROUP 37A, On-vehicle Service – Fluid Replacement P.37-11).	• Front Exhaust Pipe Installation (Refer to GROUP 15, Exhaust Pipe and Main Muffler P.15-19). • Front Axle Crossmember Bar, Front Suspension Centremember Installation (Refer to P.32-8). • Steering Wheel Air Bag Module Assembly Installation (Refer to GROUP 37A, Steering Wheel P.37-15). • Power Steering Fluid Supplying (Refer to GROUP 37A, On-vehicle Service – Fluid Replacement P.37-11). • Power Steering Fluid Line Bleeding (Refer to GROUP 37A, On-vehicle Service – Power Steering System Air Bleeding P.37-12). • Press the dust cover with a finger to check whether the dust cover cracked or damaged. • Checking Steering Wheel Position with Wheels Straight Ahead. • Front Wheel Alignment Check and Adjustment (Refer to GROUP 37A, On-vehicle Service – Steering Angle Check P.37-9). • Under Cover Installation (Refer to GROUP 51, Front Bumper P.51-3).



AC310965AB

Removal steps

1. Lower arm and knuckle connection
2. Stabilizer link

<<A>>

3. Lower arm assembly
4. Pressure hose connection
5. Gaskets
6. Return hose and return pipe
7. O-ring
8. Steering shaft assembly and gear box connecting bolt
9. Self-locking nut

Removal steps (Continued)

<<B>>

10. Tie rod end and knuckle connection
11. Engine rear roll stopper bolt

<<C>>

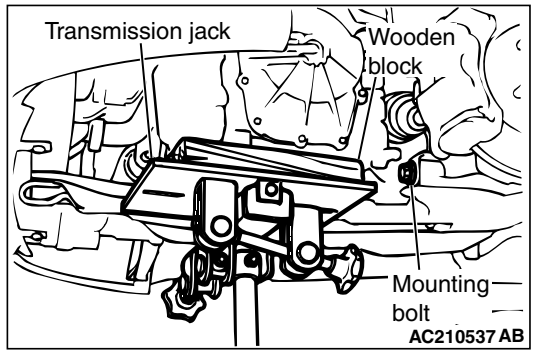
12. Front axle No.1 crossmember assembly
13. Engine rear roll stopper bracket

>>A<<

14. Stabilizer bar
15. Steering gear and linkage
16. Front axle No.1 crossmember

REMOVAL SERVICE POINTS

<<A>> LOWER ARM ASSEMBLY REMOVAL

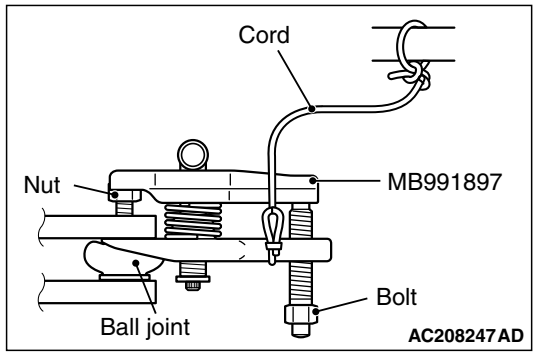


Lift the transmission with a transmission jack, and then withdraw the front mounting bolt on the left lower arm assembly.

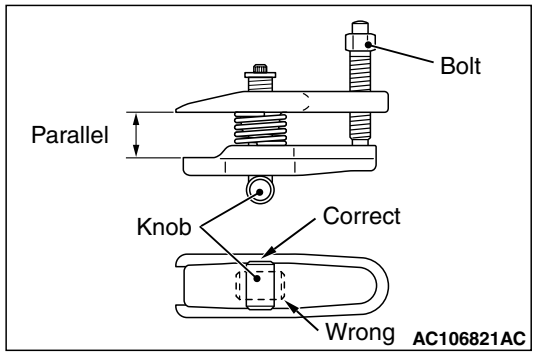
<<B>> TIE ROD END AND KNUCKLE DISCONNECTION

⚠ CAUTION

- **Do not remove the nut from ball joint. Loosen it and use special tool ball joint remover (MB991897) to avoid possible damage to ball joint threads.**
- **Hang the special tool with cord to prevent it from falling.**



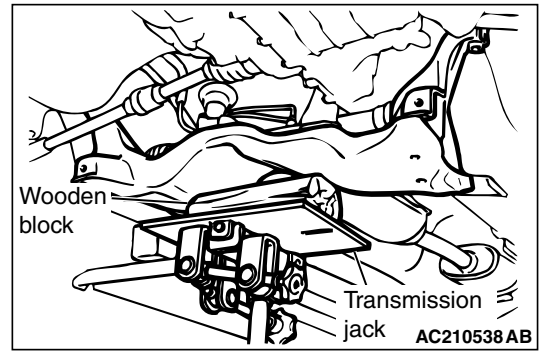
1. Install the special tool as shown in the figure.



2. Turn the bolt and knob as necessary to make the jaws of the special tool parallel, tighten the bolt by hand and confirm that the jaws are still parallel.

   NOTE: When adjusting the jaws in parallel, make sure the knob is in the position shown in the figure.
3. Tighten the bolt with a wrench to disconnect the tie rod end.

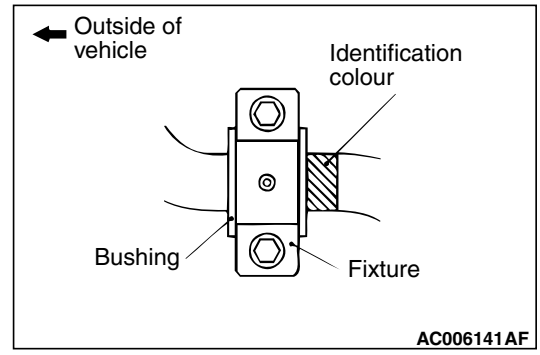
<<C>> FRONT AXLE NO.1 CROSSMEMBER ASSEMBLY REMOVAL



Retain the crossmember with a transmission jack, and then remove the crossmember mounting bolt.

INSTALLATION SERVICE POINT

>>A<< STABILIZER BAR INSTALLATION



Align the identification colour on the left side of the stabilizer bar with the right end of the bushing.

INSPECTION

M1321003300246

- Check the front axle No.1 crossmember for cracks or damage.

NOTES