

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, 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 (*).

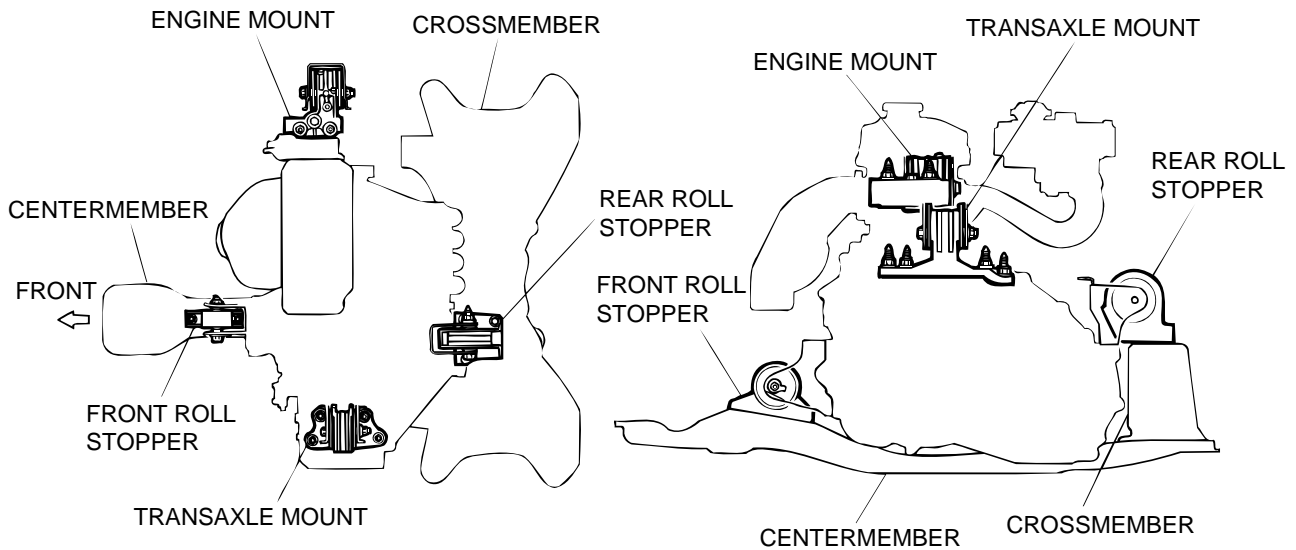
GENERAL DESCRIPTION

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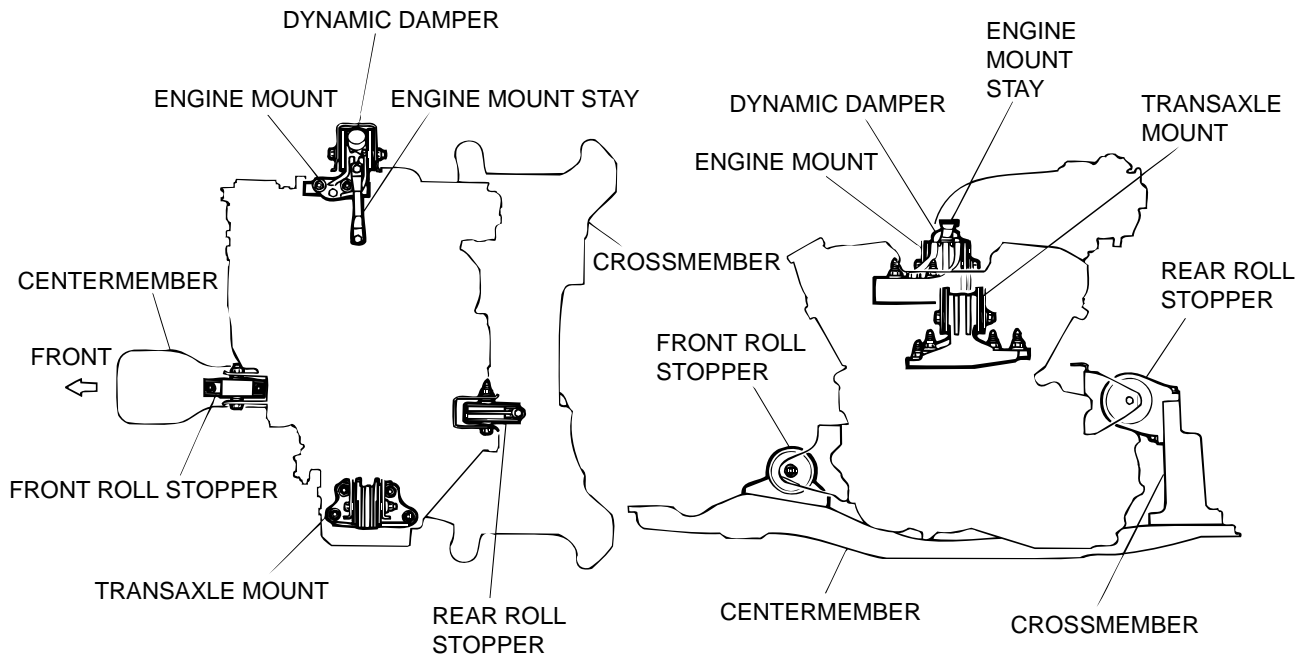
The engine-transaxle mount is of an inertial axis supporting type whose excellent features have already been proven in many Mitsubishi vehicles. The inertial axis supporting type mount supports the front upper part of the engine at the front and the rear upper part of the transaxle at the rear. This arrangement effectively suppresses the engine vibration.

CONSTRUCTION DIAGRAM

<2.4L ENGINE>



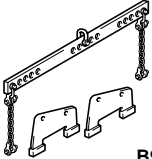
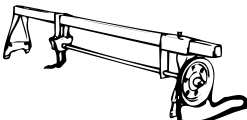
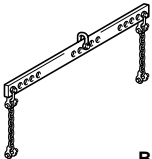
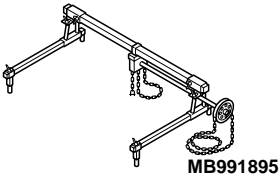
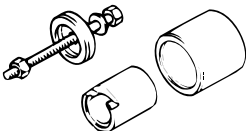
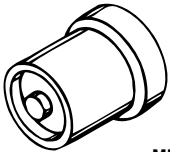
<3.0L ENGINE>



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SPECIAL TOOLS

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TOOL	TOOL NUMBER AND NAME	SUPERSESION	APPLICATION
 <p>B991453</p>	<p>MB991453 Engine hanger assembly</p>	<p>MZ203827-01</p>	<p>When an engine lifer is used: Supporting the engine assembly during remove and installation of the transaxle mounting</p>
 <p>MZ203827</p>	<p>GENERAL SERVICE TOOL MZ203827 Engine lifter</p>	<p>General service tool</p>	
 <p>B991454</p>	<p>MB991454 Engine hanger</p>	<p>MZ203827-01</p>	<p>When the engine hanger is used: Supporting the engine assembly during remove and installation of the transaxle mounting <i>NOTE: Special tool MB991454 is a part of engine hanger attachment set MB991453.</i></p>
 <p>MB991895</p>	<p>MB991895 Engine hanger</p>	<p>—</p>	
 <p>MB991045</p>	<p>MB991045 Bushing remover and installer</p>	<p>Tool not available</p>	<p>Driving out and press-fitting of crossmember bushings A and B</p>
 <p>MB990828</p>	<p>MB990828 Bushing remover and installer</p>	<p>Tool not available</p>	<p>Driving out and press-fitting of crossmember bushing C</p>

ENGINE MOUNTING

REMOVAL AND INSTALLATION

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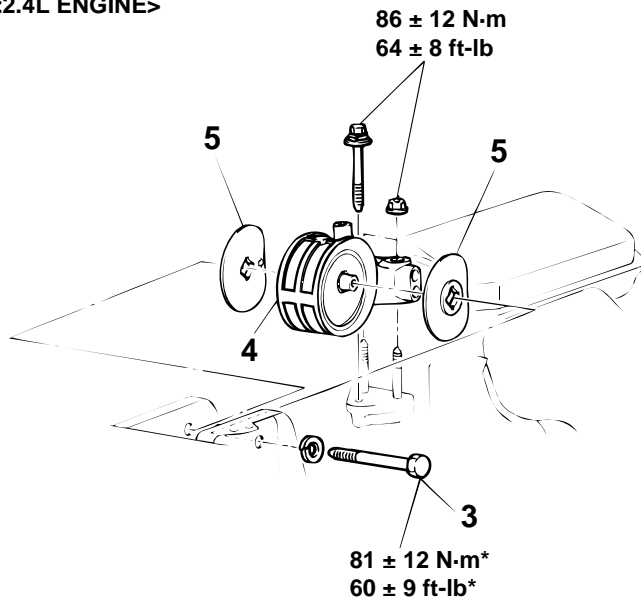
CAUTION

Mounting locations marked by * should be provisionally tightened, and then fully tightened after placing the vehicle horizontally and loading the full weight of the engine on the vehicle body.

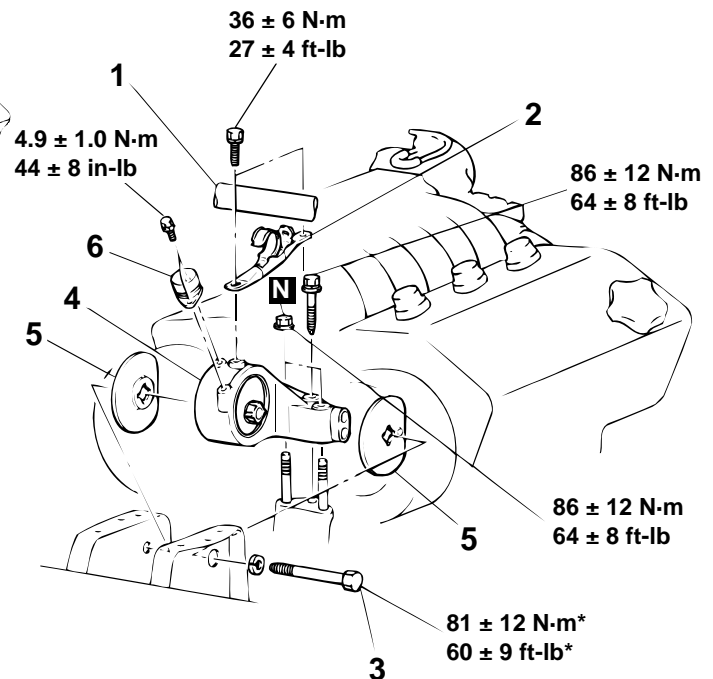
Pre-removal and Post-installation Operation

- Jack Up the Engine and Transmission Assembly Until There is no Weight on the Engine Mount Bracket Insulator.
- Reserve Tank Removal and Installation (Refer to GROUP 14, Radiator P.14-21 .)

<2.4L ENGINE>



<3.0L ENGINE>



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REMOVAL STEPS

1. SUCTION HOSE <3.0L ENGINE>
2. ENGINE MOUNT STAY <3.0L ENGINE>
3. ENGINE MOUNT INSULATOR MOUNTING BOLT

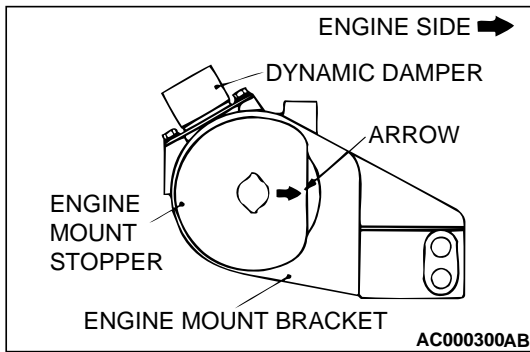
REMOVAL STEPS (Continued)

- >>A<<
4. ENGINE MOUNT BRACKET
 5. ENGINE MOUNT STOPPER
 6. DYNAMIC DAMPER <3.0L ENGINE>

INSTALLATION SERVICE POINT

>>A<< ENGINE MOUNT STOPPER INSTALLATION

Clamp the engine mount stopper so that the arrow points in the direction as shown in the diagram.



INSPECTION

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- Check the insulators for cracks, separation or deformation.
- Check the front insulator stoppers for deformation.

TRANSAXLE MOUNTING**REMOVAL AND INSTALLATION**

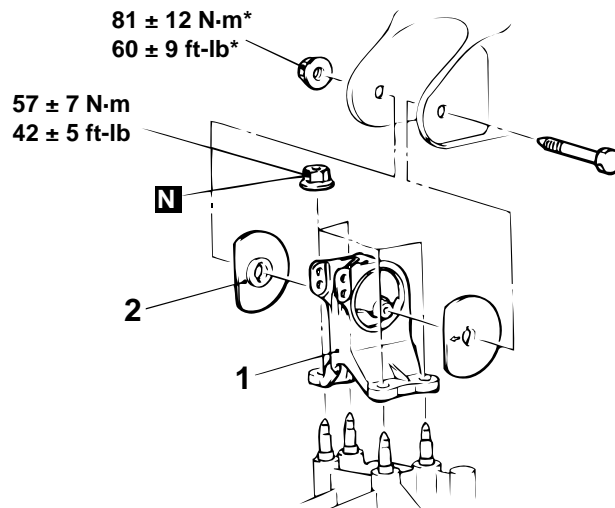
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CAUTION

Mounting locations marked by * should be provisionally tightened, and then fully tightened after placing the vehicle horizontally and loading the full weight of the engine on the vehicle body.

Pre-removal and Post-installation Operation

- Air Cleaner Assembly Removal and Installation (Refer to GROUP 15, Air Cleaner P.15-6 .)
- Battery and Battery Tray Removal and Installation (Refer to GROUP 54A, Battery P.54A-8 .)
- Centermember Removal and Installation (Refer to P.32-8.)
- Transaxle and Rear Roll Stopper Connecting Bolt Removal and Installation (Refer to P.32-8.)
- Rear Roll Stopper Bracket Removal and Installation <2.4L Engine-M/T> (Refer to GROUP 22B, Transaxle P.22B-8 .), <2.4L Engine-A/T> (Refer to GROUP 23B, Transaxle P.23B-10 .)



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<<A>>

REMOVAL STEPS

1. TRANSAXLE MOUNT BRACKET

>>A<<

REMOVAL STEPS (Continued)

2. TRANSAXLE MOUNT STOPPER

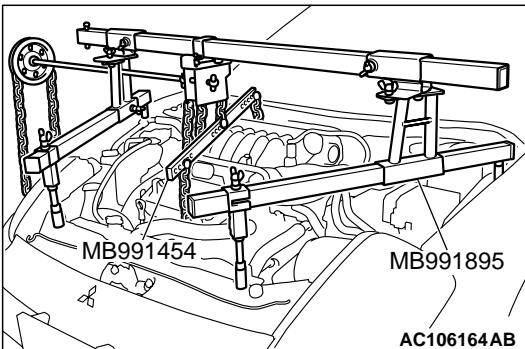
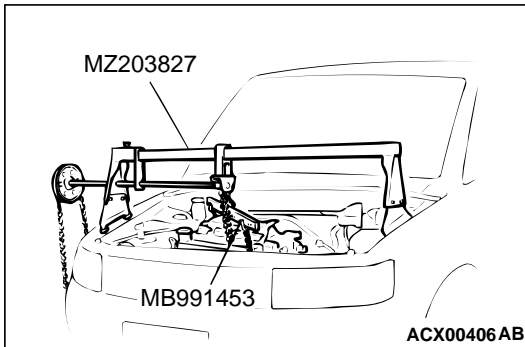
Required Special Tools:

- MB991453: Engine Hanger Assembly
- MZ203827: Engine Lifter
- MB991454: Engine Hanger
- MB991895: Engine Lifter

REMOVAL SERVICE POINT

<<A>> TRANSAXLE MOUNT BRACKET REMOVAL

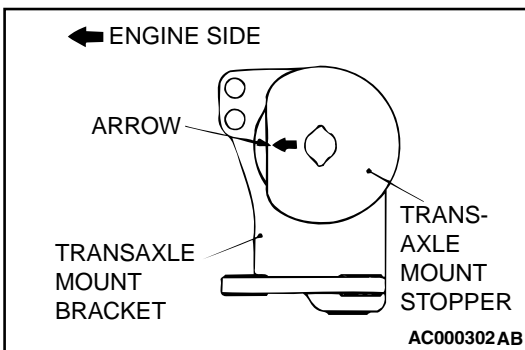
1. When the engine lifter is used
Install special tools MB991453 and MZ203827 to the vehicle body to support the engine and transaxle assembly.
2. When the engine hanger is used
Install special tools MB991895 and MB991454 to the vehicle body to support the engine and transaxle assembly.
3. Remove the centermember and rear roll stopper bracket.
4. Remove the bolt and nut of the transaxle mount bracket.
5. After lowering the engine and transaxle assembly, remove the transaxle mount bracket.



INSTALLATION SERVICE POINT

>>A<< TRANSAXLE MOUNT STOPPER INSTALLATION

Clamp the transaxle mount stopper so that the arrow points in the direction as shown in the diagram.



ENGINE ROLL STOPPER AND CENTERMEMBER

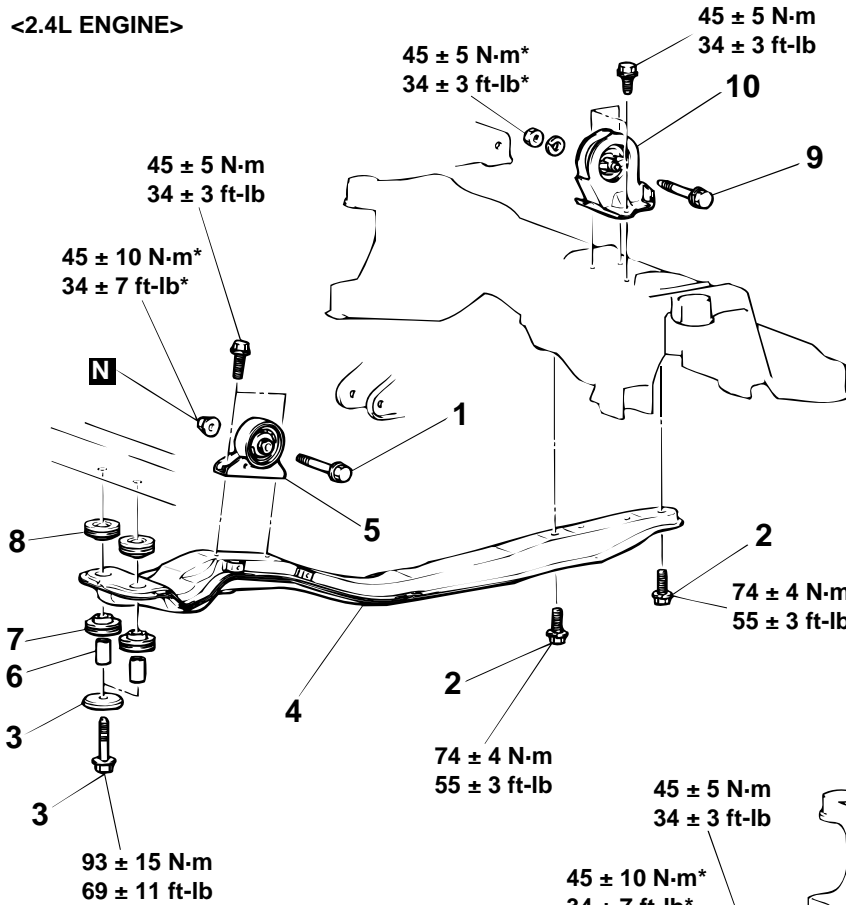
REMOVAL AND INSTALLATION

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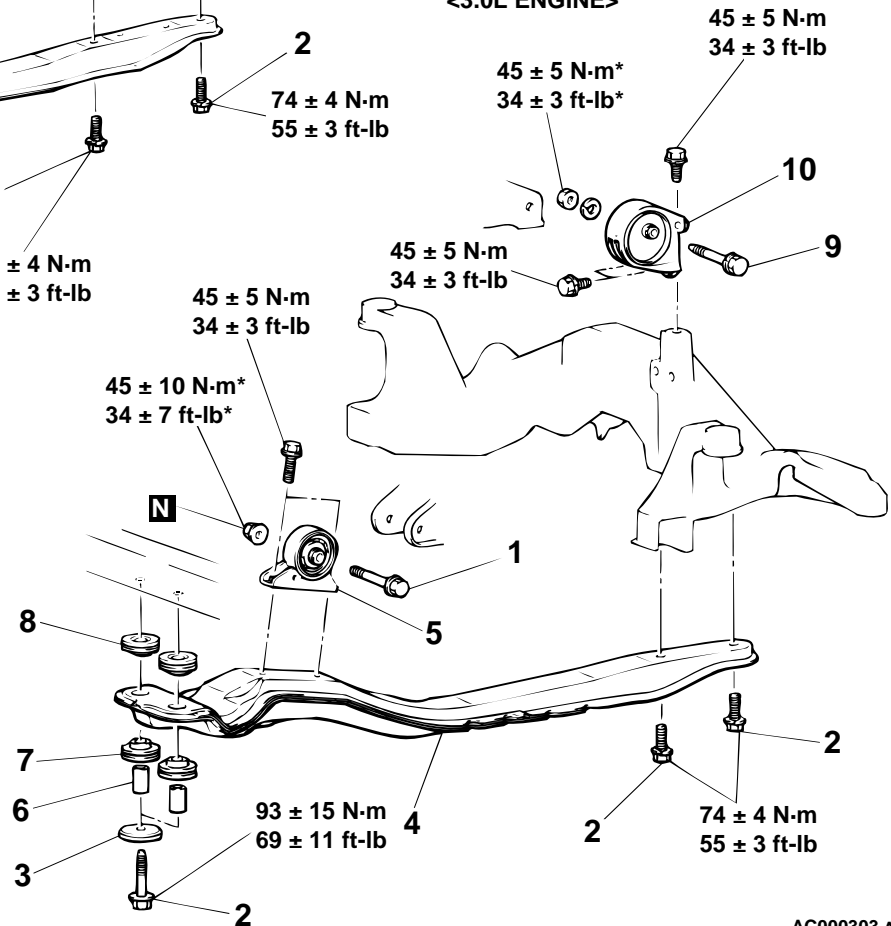
CAUTION

Mounting locations marked by * should be provisionally tightened, and then fully tightened after placing the vehicle horizontally and loading the full weight of the engine on the vehicle body.

<2.4L ENGINE>



<3.0L ENGINE>



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**FRONT ROLL STOPPER,
CENTERMEMBER REMOVAL
STEPS**

1. TRANSAXLE AND FRONT ROLL STOPPER CONNECTING BOLT
2. CENTERMEMBER MOUNTING BOLTS
3. STOPPER
4. CENTERMEMBER
- >>A<< 5. FRONT ROLL STOPPER
6. COLLAR

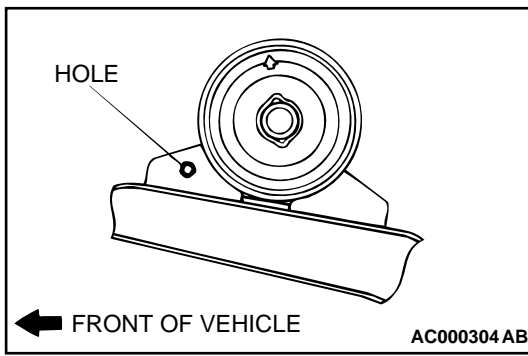
**FRONT ROLL STOPPER,
CENTERMEMBER REMOVAL
STEPS (Continued)**

7. BUSHING (LOWER)
8. BUSHING (UPPER)
- REAR ROLL STOPPER
REMOVAL STEPS**
9. TRANSAXLE AND REAR ROLL STOPPER CONNECTING BOLT
10. REAR ROLL STOPPER

INSTALLATION SERVICE POINT

>>A<< FRONT ROLL STOPPER INSTALLATION

Install so that the hole in the front roll stopper is facing towards the front of the vehicle.



CROSSMEMBER

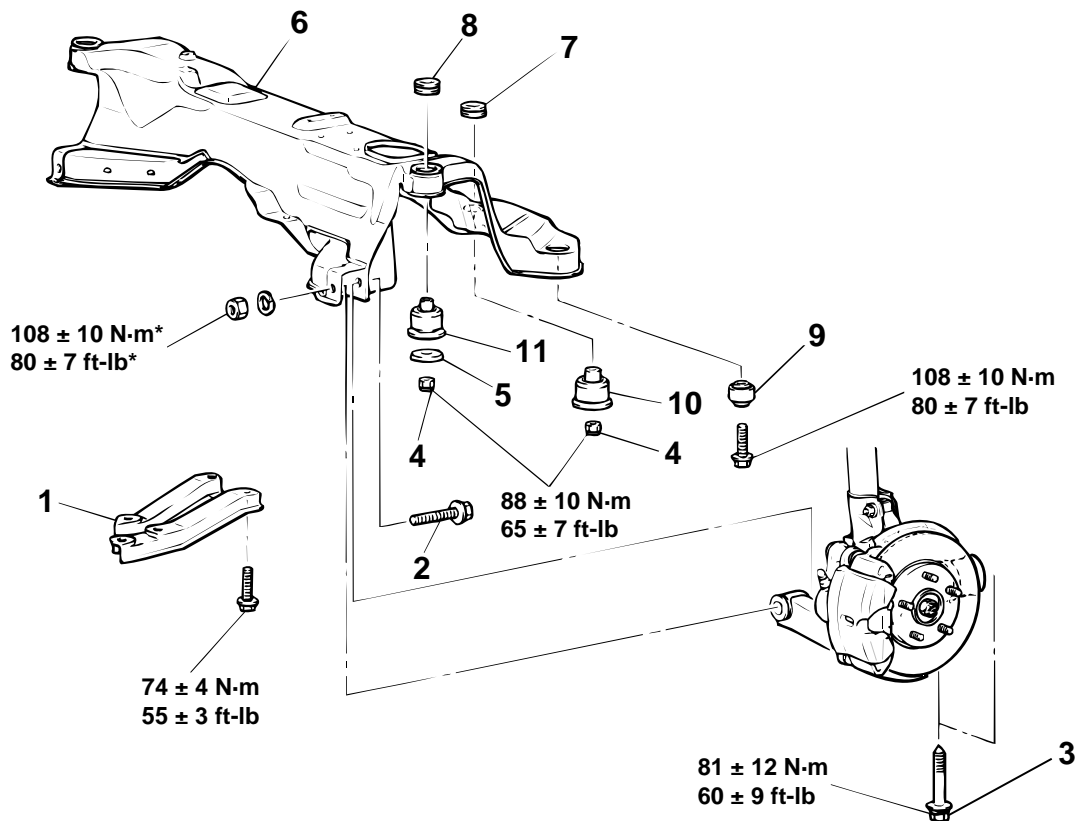
REMOVAL AND INSTALLATION

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CAUTION

- * : Indicates parts which should be temporarily tightened, and then fully tightened with the vehicle on the ground in the unladen condition.
- For vehicles with SRS, before removal of steering gear box, refer to GROUP 52B, center the front wheels and remove the ignition key. Failure to do so may damage the SRS clock spring and render the SRS system inoperative, risking serious injury.

<p>Pre-removal Operation</p> <ul style="list-style-type: none"> Power Steering Fluid Draining (Refer to GROUP 37A, On-vehicle Service – Fluid Replacement P.37A-17 .) Centermember Removal (Refer to P.32-8.) Front Exhaust Pipe Removal (Refer to GROUP 15, Exhaust pipe and Main Muffler P.15-21 <2.4L Engine>, P.15-22 <3.0L Engine>.) Stabilizer Bar Removal (Refer to GROUP 33A, Stabilizer Bar P.33A-16 .) Rear Roll Stopper Removal (Refer to P.32-8.) 	<p>Post-installation Operation</p> <ul style="list-style-type: none"> Rear Roll Stopper Installation (Refer to P.32-8.) Stabilizer Bar Installation (Refer to GROUP 33A, Stabilizer Bar P.33A-16 .) Front Exhaust Pipe Installation (Refer to GROUP 15, Exhaust Pipe and Main Muffler P.15-21 <2.4L Engine>, P.15-22 <3.0L Engine>.) Centermember Installation (Refer to P.32-8.) Power Steering Fluid Supplying and Bleeding (Refer to GROUP 37A, On-vehicle Service – Fluid Replacement P.37A-17.) Steering Wheel Straight Ahead Position Checking.) Wheel Alignment Check and Adjustment (Refer to GROUP 33A, On-vehicle Service – Front Wheel Alignment Check and Adjustment P.33A-6.)
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- REMOVAL STEPS**
1. STAY <2.4L ENGINE>
 2. LOWER ARM AND CROSSMEMBER CONNECTION
 3. LOWER ARM MOUNT BOLT

- REMOVAL STEPS (Continued)**
- POWER STEERING GEAR BOX (REFER TO GROUP 37A, POWER STEERING GEAR BOX P.37A-25 .)

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REMOVAL STEPS (Continued)

4. CROSSMEMBER MOUNTING NUT
5. LOWER PLATE
6. CROSSMEMBER
7. STOPPER A

REMOVAL STEPS (Continued)

8. STOPPER B
9. BUSHING C
10. BUSHING A
11. BUSHING B

CROSSMEMBER BUSHING REPLACEMENT

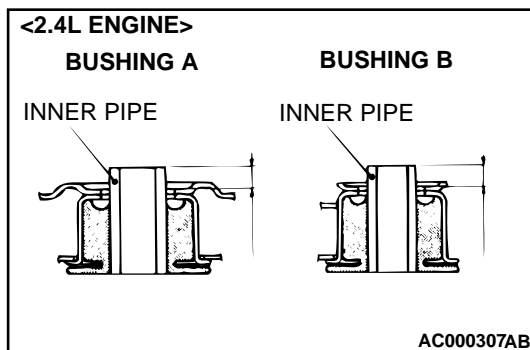
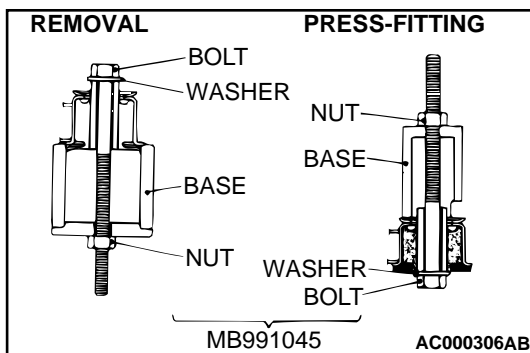
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Required Special Tools:

- MB990828: Bushing Remover and Installer
- MB991045: Bushing Remover and Installer

Crossmember Bushings A and B

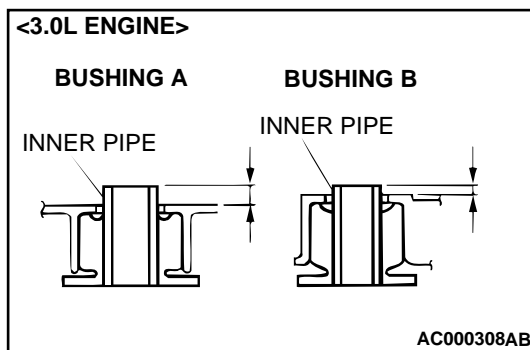
1. Apply soapy water to the contact surface of the bushing when press-fitted the bushing.

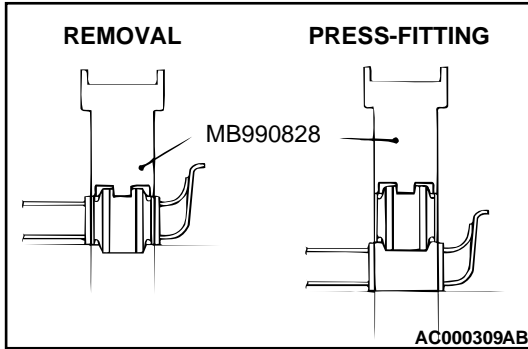


2. The bushing should be press-fitted so that the inner pipe projection is at the standard length.

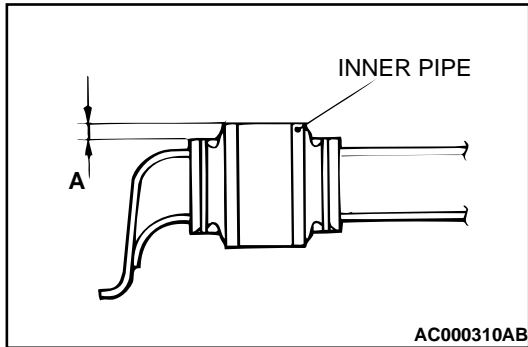
Standard values

- <2.4L ENGINE>
 - Bushing A: 9.0 ± 1.0 mm (0.35 ± 0.04 inch)
 - Bushing B: 4.0 ± 1.0 mm (0.16 ± 0.04 inch)
- <3.0L ENGINE>
 - Bushing A, B: 9.0 ± 1.0 mm (0.35 ± 0.04 inch)



Crossmember Bushing C

1. Use special tool MB990828 to drive out and press-fit the crossmember bushing C.



2. The bushing should be press-fitted so that the inner pipe projection is at the standard length.

Standard value (A): 4.0 ± 0.5 mm (0.16 ± 0.02 inch)

SPECIFICATIONS**FASTENER TIGHTENING SPECIFICATIONS**

M1321004100182

ITEMS	SPECIFICATIONS
Centermember front mounting bolt	93 ± 15 N·m (69 ± 11 ft-lb)
Centermember rear mounting bolt	74 ± 4 N·m (55 ± 3 ft-lb)
Crossmember and stay connecting bolt <2.4L ENGINE>	74 ± 4 N·m (55 ± 3 ft-lb)
Crossmember mounting bolt	108 ± 10 N·m (80 ± 7 ft-lb)
Crossmember mounting nut	88 ± 10 N·m (65 ± 7 ft-lb)
Dynamic damper bolt <3.0L ENGINE>	4.9 ± 1.0 N·m (44 ± 8 in-lb)
Engine mount bracket bolt	86 ± 12 N·m (64 ± 8 ft-lb)
Engine mount bracket nut	86 ± 12 N·m (64 ± 8 ft-lb)
Engine mount insulator mounting bolt	81 ± 12 N·m (60 ± 9 ft-lb)
Engine mount stay bolt <3.0L ENGINE>	35 ± 5 N·m (26 ± 4 ft-lb)
Lower arm and crossmember connecting nut	108 ± 10 N·m (80 ± 7 ft-lb)
Lower arm mount bolt	81 ± 12 N·m (60 ± 9 ft-lb)
Transaxle and front roll stopper connecting bolt	45 ± 5 N·m (34 ± 3 ft-lb)
Transaxle and front roll stopper connecting nut	45 ± 10 N·m (34 ± 7 ft-lb)
Transaxle and rear roll stopper connecting bolt	45 ± 5 N·m (34 ± 3 ft-lb)
Transaxle and rear roll stopper connecting nut	45 ± 5 N·m (34 ± 3 ft-lb)
Transaxle mount bracket nut	57 ± 7 N·m (42 ± 5 ft-lb)
Transaxle mount insulator mounting nut	81 ± 12 N·m (60 ± 9 ft-lb)

SERVICE SPECIFICATION

M1321000300173

ITEMS		STANDARD VALUE	
Inner pipe projection mm (in)	Bushing A	9.0 ± 1.0 (0.35 ± 0.04)	
	Bushing B	2.4L ENGINE	4.0 ± 1.0 (0.16 ± 0.04)
		3.0L ENGINE	9.0 ± 1.0 (0.35 ± 0.04)
	Bushing C	4.0 ± 0.5 (0.16 ± 0.02)	

NOTES