
REAR SUSPENSION

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GENERAL INFORMATION

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The rear suspension is a multi-link suspension, which has been used for the previous models. The layout of each arm and the rigidity balance of each

bushing have been rationalized to provide both excellent steering stability and riding comfort.

COIL SPRING

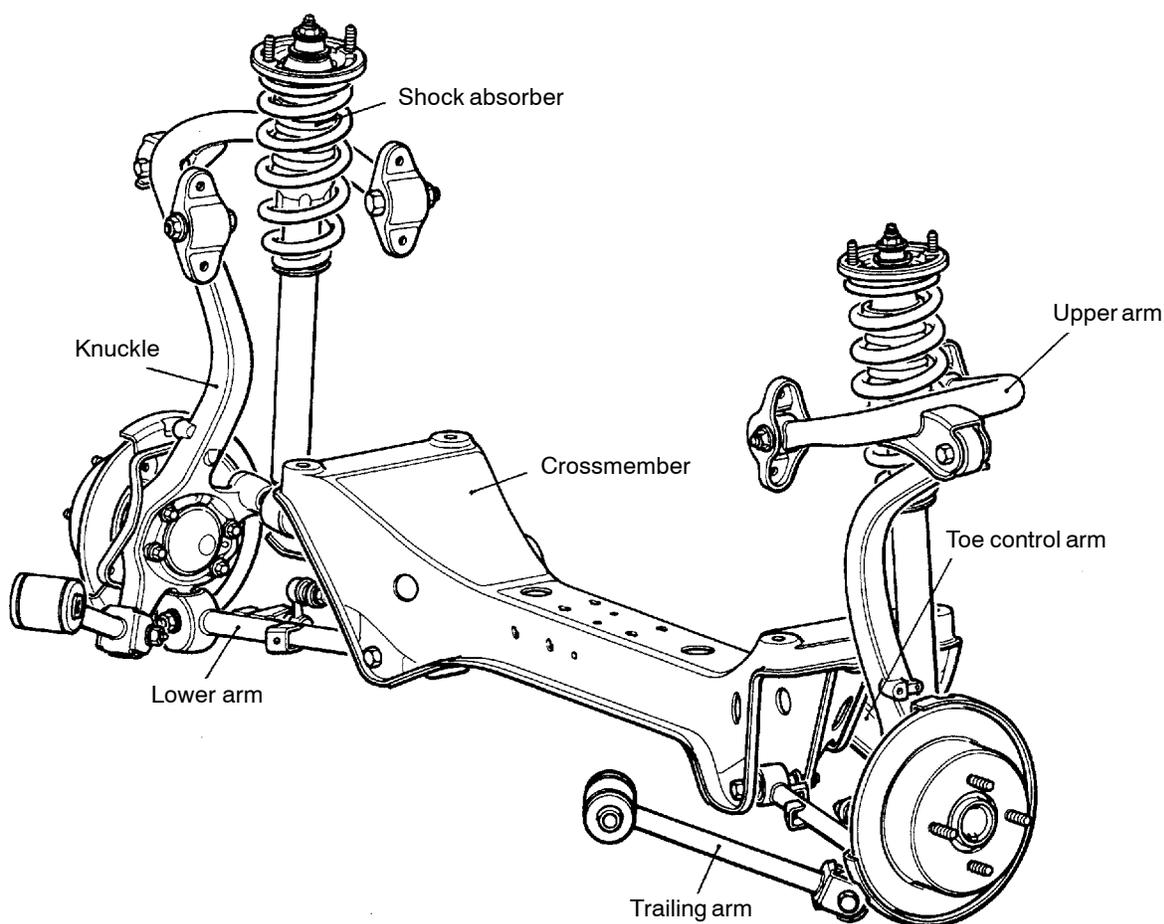
Items	Sedan	Wagon
Wire diameter × average diameter × free length mm	9 × 62 - 102 × 397, 9 × 94 - 102 × 330* ¹ , 9 - 10 × 63 - 103 × 386* ²	9 - 10 × 63 - 103 × 405, 10 × 95 - 103 × 321* ¹ , 10 - 11 × 64 - 104 × 383* ²

NOTE

*1: Self-leveling shock absorber

*2: Heavy-duty suspension

CONSTRUCTION DIAGRAM



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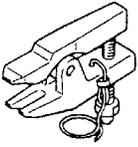
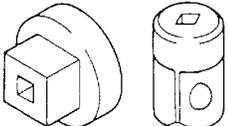
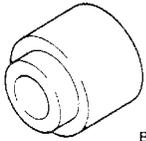
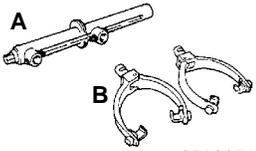
SERVICE SPECIFICATIONS

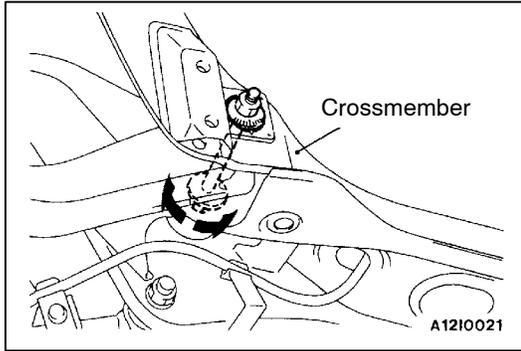
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Items		Specifications
Toe-in	At the centre of tyre tread mm	3 ± 3
	Toe-angle (per wheel)	0° 09' ± 09'
Camber		-1° 00' ± 30'
Dimension for positioning upper arm bracket mm		37.2 ± 2
Toe control arm ball joint turning torque Nm		1.0 - 2.6
Stabilizer link ball joint turning torque Nm		0.5 - 1.5

SPECIAL TOOLS

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Tool	Number	Name	Use
 <p>B991113</p>	MB990635, MB991113 or MB991406	Steering linkage puller	Ball joint and knuckle disconnection
 <p>B990326</p>	MB990326	Preload socket	Ball joint continuous rotating check
 <p>B990800</p>	MB990800	Ball joint remover and installer	Ball joint dust cover installation
 <p>00003796</p>	A: MB991237 B: MB991239	A: Spring compressor body B: Arm set	Coil spring compression



ON-VEHICLE SERVICE

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WHEEL ALIGNMENT CHECK AND ADJUSTMENT

TOE-IN

Standard value:

At the centre of tyre tread 3 ± 3 mm

Toe angle (per wheel) $0^{\circ}09' \pm 09'$

Turn the toe control arm mounting bolts of the left and right toe control arms by equal amounts to adjust.

LH: Clockwise viewed from the rear → Toe-out

RH: Clockwise viewed from the rear → Toe-in

Furthermore, toe adjustment can be made at graduations of approximately 2.5 mm

CAMBER

Standard value: $-1^{\circ}00' \pm 30'$

NOTE

1. Camber is preset at the factory and can not be adjusted.
2. If camber is not within the standard value, check and replace bent or damaged parts.

BALL JOINT DUST COVER CHECK

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1. Check the dust cover for cracks or damage by pushing it with finger.
2. If the dust cover is cracked or damaged, replace the toe control arm assembly or stabilizer link.

NOTE

Cracks or damage of the dust cover may cause damage of the ball joint.

REAR SUSPENSION ASSEMBLY

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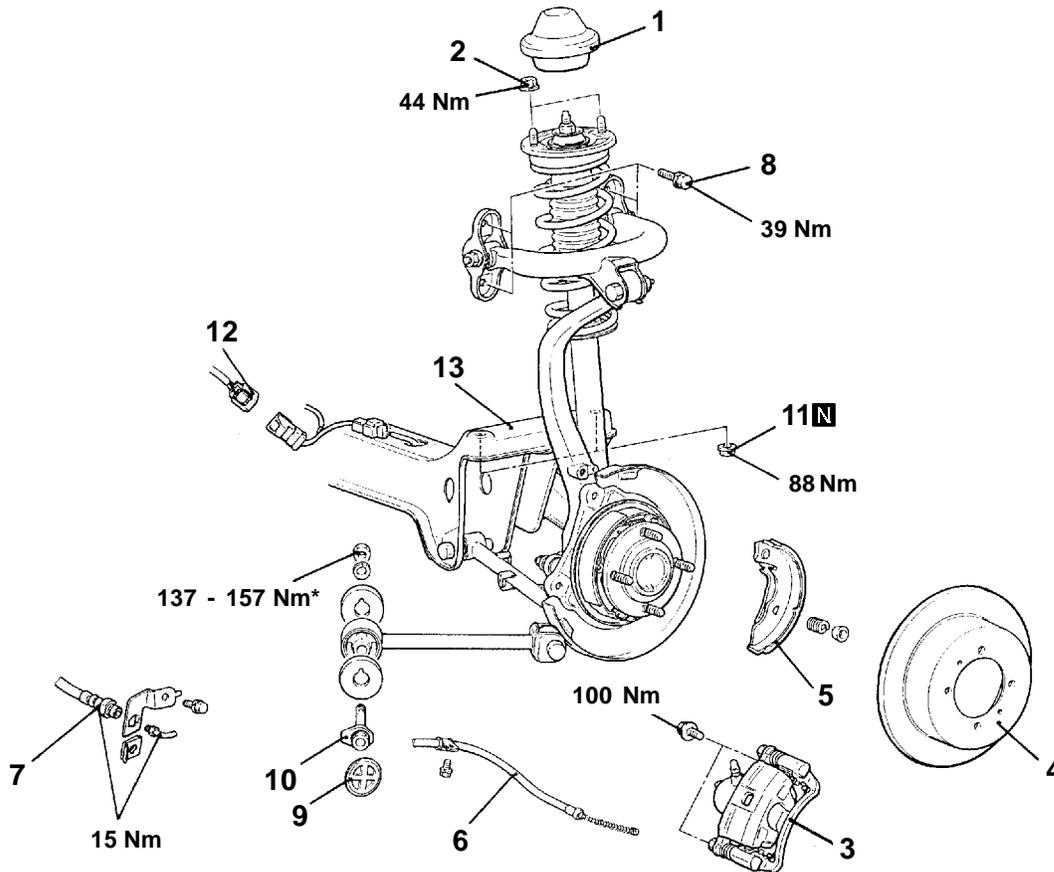
REMOVAL AND INSTALLATION

Pre-removal Operation

- Brake Fluid Draining <Vehicles with drum brake>
- Rear Seat Removal <Sedan> (Refer to GROUP 52A.)
- Retractor Trim Removal <Wagon> (Refer to GROUP 52A.)
- Center Exhaust Pipe Removal (Refer to GROUP 15.)

Post-installation Operation

- Center Exhaust Pipe Installation (Refer to GROUP 15.)
- Retractor Trim Installation <Wagon> (Refer to GROUP 52A.)
- Rear Seat Installation <Sedan> (Refer to GROUP 52A.)
- Parking Brake Lever Stroke Check (Refer to GROUP 36 - On-vehicle Service.)
- Brake Line bleeding <Vehicles with drum brake> (Refer to GROUP 35A - On-vehicle Service.)
- Wheel Alignment Check and Adjustment (Refer to P.34-4.)



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Removal steps



1. Cap
2. Shock absorber mounting nuts
3. Brake caliper assembly
4. Brake disc or brake drum
5. Shoe and lining assembly (Refer to GROUP 36 - Parking Brake Drum.)
6. Parking brake cable connection (Refer to GROUP 36.)
7. Brake hose connection <Vehicles with drum brake>
8. Upper arm mounting bolts



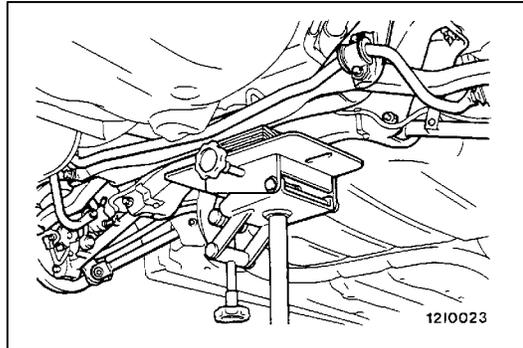
9. Grommet
10. Trailing arm mounting bolt
11. Crossmember mounting nuts
12. Rear wheel speed sensor connector connection <Vehicles with ABS>
13. Rear suspension assembly

Caution

*: Indicates parts which should be temporarily tightened, and then fully tightened with the vehicles on the ground in the unladen condition.

REMOVAL SERVICE POINT**◀A▶ BRAKE CALIPER ASSEMBLY REMOVAL**

Secure the removed caliper assembly with wire, so that it does not fall.

**◀B▶ CROSSMEMBER MOUNTING NUT REMOVAL**

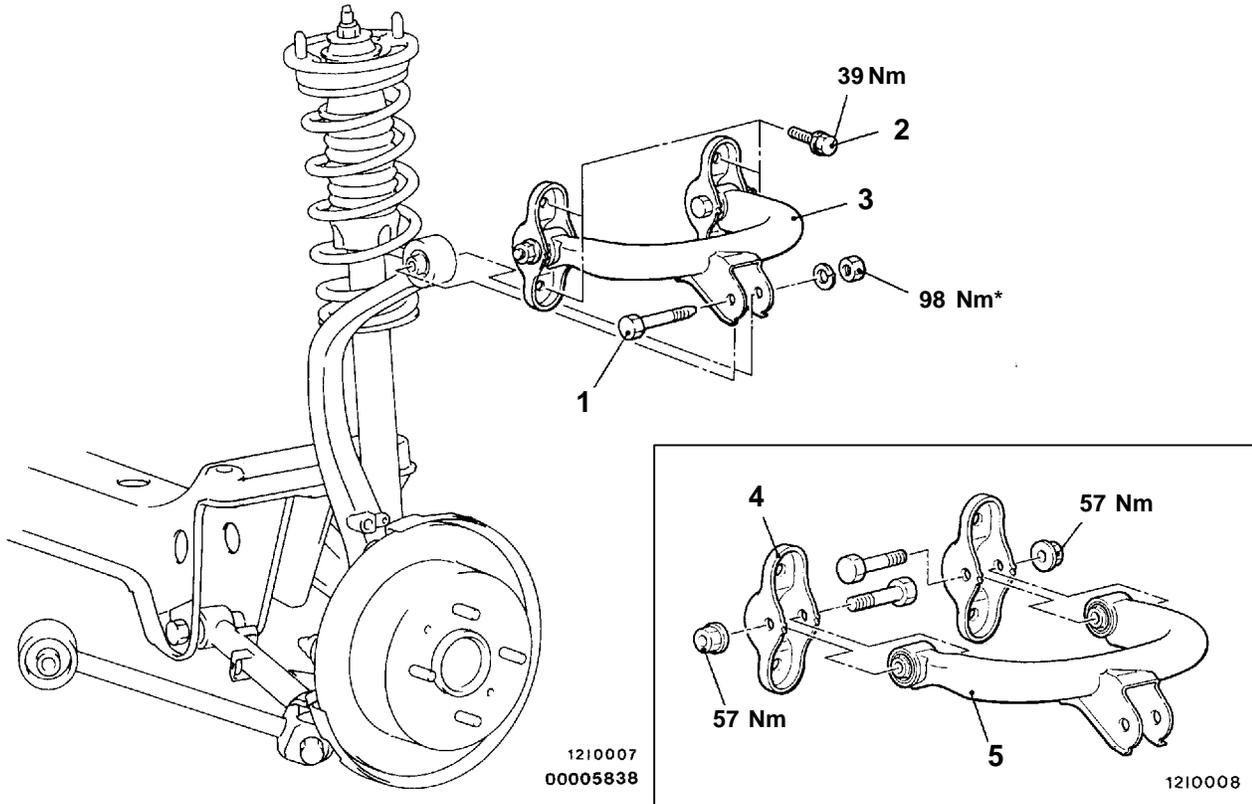
Hold the crossmember with a garage jack or transmission jack to remove a crossmember mounting nut.

UPPER ARM ASSEMBLY

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REMOVAL AND INSTALLATION

Post-installation Operation
 Wheel Alignment Check and Adjustment
 (Refer to P.34-4.)



Removal steps

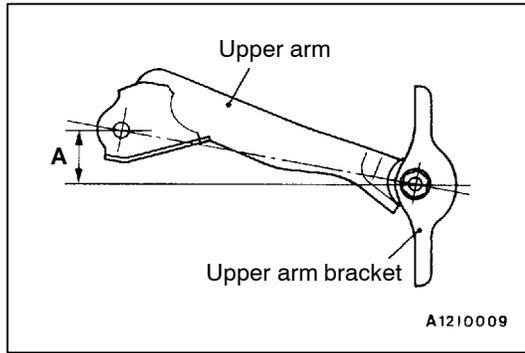
1. Upper arm and knuckle connecting bolt
2. Upper arm assembly mounting bolts
3. Upper arm assembly
4. Upper arm bracket



5. Upper arm

Caution

*: Indicates parts which should be temporarily tightened, and then fully tightened with the vehicles on the ground in the unladen condition.



INSTALLATION SERVICE POINT

▶A◀ UPPER ARM BRACKET INSTALLATION

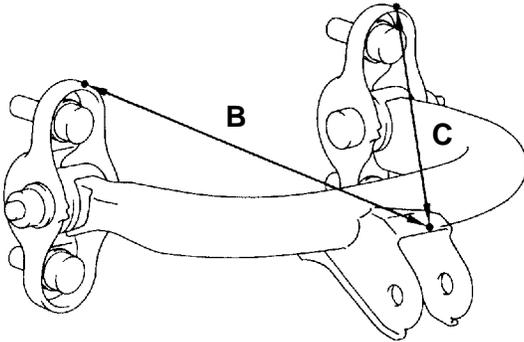
Install the upper arm bracket that the dimension shown in the illustration is at the standard value.

Standard value (A): 37.2 ± 2 mm

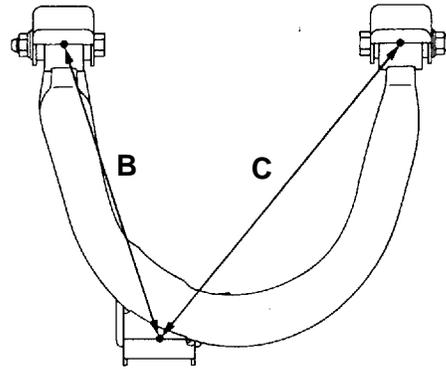
NOTE

Refer to distances B and C shown in the illustration to check the installation angle of the upper arm bracket.

B: 220.1 mm
C: 274.4 mm



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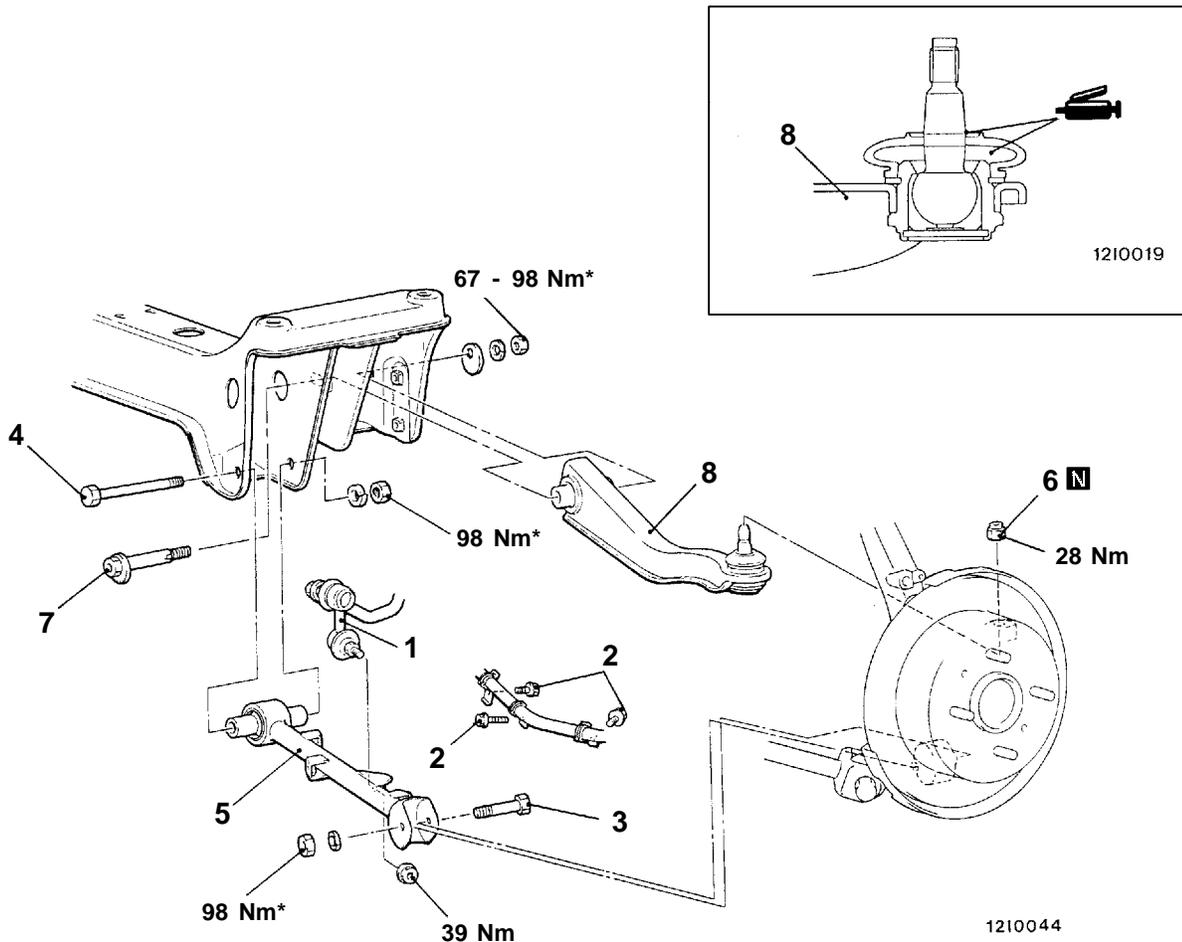
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LOWER ARM AND TOE CONTROL ARM ASSEMBLIES

REMOVAL AND INSTALLATION

Post-installation Operation

- Check the Dust Cover for Cracks or Damage by Pushing it with Finger
- Wheel Alignment Check and Adjustment (Refer to P.34-4.)



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Lower arm assembly removal steps

1. Stabilizer link connection
2. Wheel speed sensor mounting bolts
3. Lower arm assembly and knuckle connecting bolt
4. Lower arm assembly mounting bolt
5. Lower arm assembly

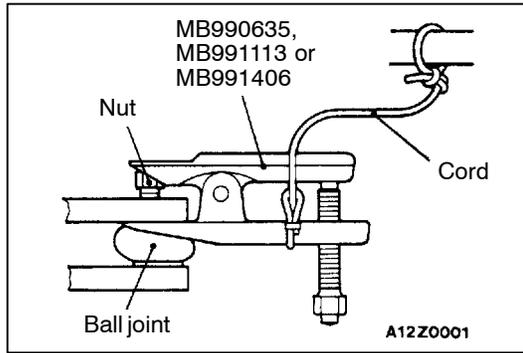


Toe control arm assembly removal steps

6. Toe control arm and knuckle connection
7. Toe control arm assembly mounting bolt
8. Toe control arm assembly

Caution

*: Indicates parts which should be temporarily tightened, and then fully tightened with the vehicles on the ground in the unladen condition.

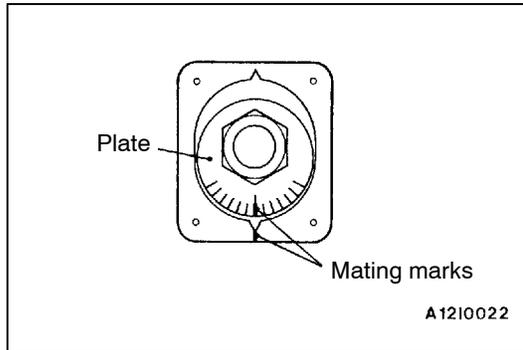


REMOVAL SERVICE POINTS

◀A▶ TOE CONTROL ARM AND KNUCKLE DISCONNECTION

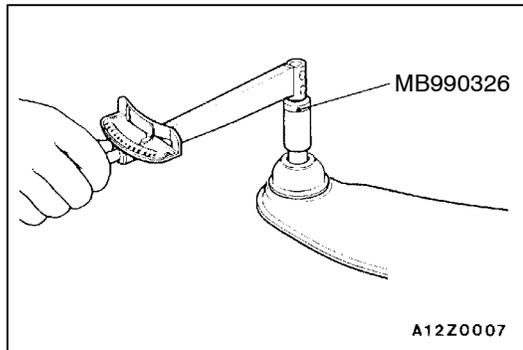
Caution

1. Use the special tool to loosen the nut only; do not removal it from the ball joint.
2. Tie the special tool with a cord not to let it fall off.



◀B▶ TOE CONTROL ARM ASSEMBLY MOUNTING BOLT REMOVAL

Place mating marks on the crossmember and the plate before removing the bolt.



INSPECTION

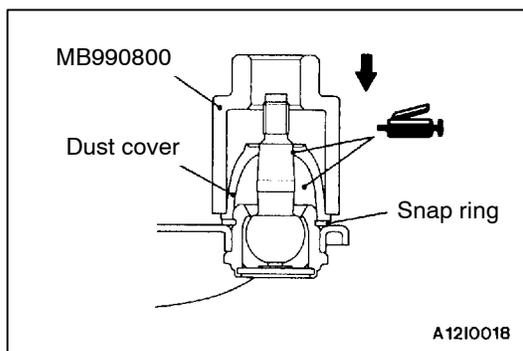
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TOE CONTROL ARM BALL JOINT TURNING TORQUE CHECK

1. After shaking the ball joint stud several times, install the nut to the stud and use the special tool to measure the turning torque of the ball joint.

Standard value: 1.0 - 2.6 Nm

2. When the measured value exceeds the standard value, replace the toe control arm assembly.
3. When the measured value is lower than the standard value, check that the ball joint turns smoothly without excessive play. If so, it is possible to use that ball joint.



TOE CONTROL ARM BALL JOINT DUST COVER CHECK

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1. Check the dust cover for cracks or damage by pushing it with finger.
2. If the dust cover is cracked or damaged, replace the toe control arm assembly.

NOTE

Cracks or damage of the dust cover may cause damaged of the ball joint. When it is damaged during service work, replace the dust cover.

TOE CONTROL ARM BALL JOINT DUST COVER REPLACEMENT

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Only when the dust cover is damaged accidentally during service work, replace the dust cover as follows:

1. Remove the dust cover.
2. Apply multipurpose grease to inside and lip of the dust cover.
3. Using the special tool, press the dust cover until it contacts the snap ring.
4. Check the dust cover for cracks or damage by pushing it with finger.

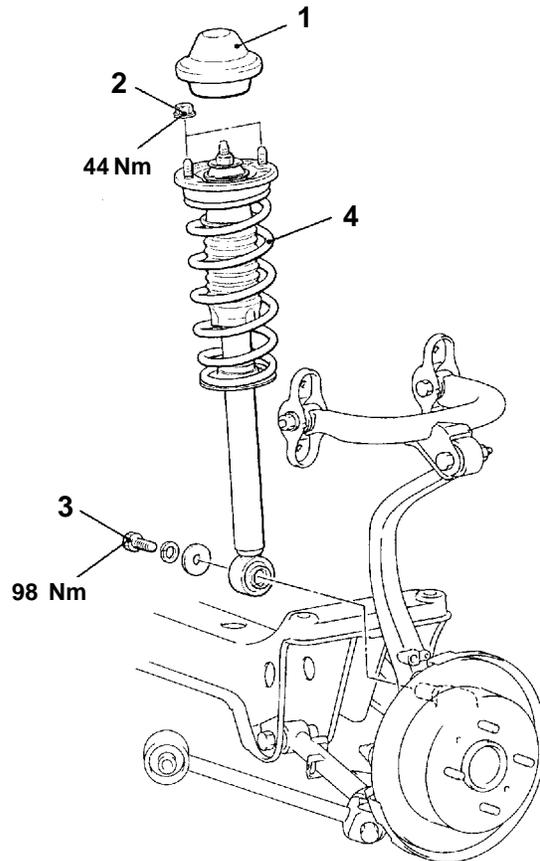
SHOCK ABSORBER ASSEMBLY

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REMOVAL AND INSTALLATION

Pre-removal and Post-installation Operation

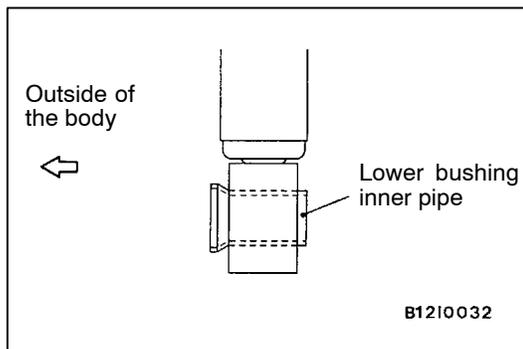
- Rear Seat Removal and Installation <Sedan> (Refer to GROUP 52A.)
- Retractor Trim Removal and Installation <Wagon> (Refer to GROUP 52A.)



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Removal steps

1. Cap
2. Shock absorber mounting nuts
3. Bolt
4. Shock absorber assembly



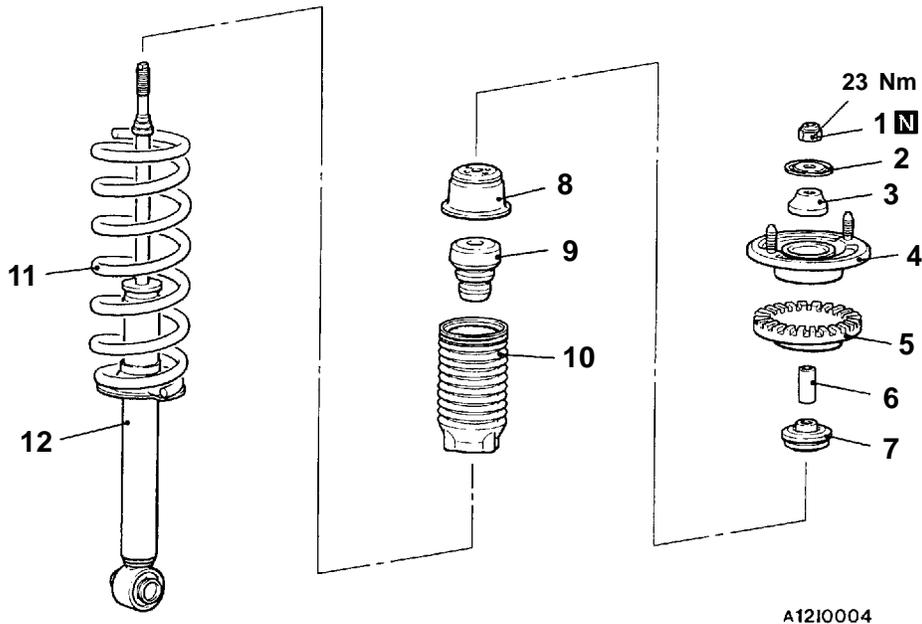
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INSTALLATION SERVICE POINT

▶◀ SHOCK ABSORBER ASSEMBLY INSTALLATION

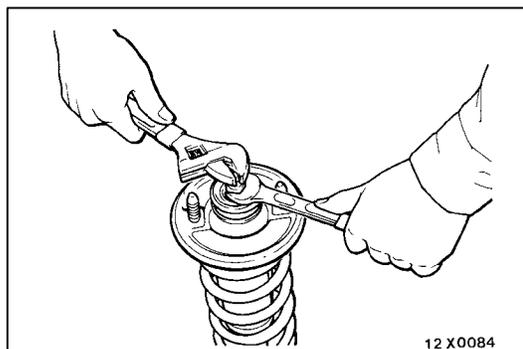
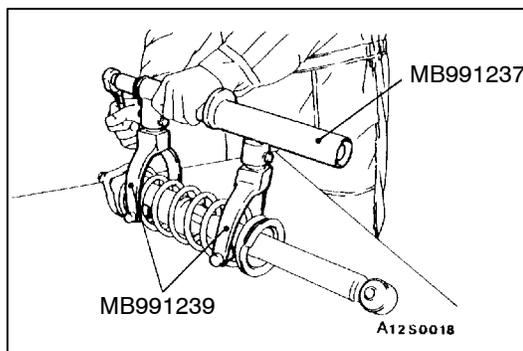
Install the shock absorber so that the larger diameter side of the lower bushing inner pipe faces toward the outside of the vehicle.

DISASSEMBLY AND REASSEMBLY

**Disassembly steps**

- ◀A▶ ▶C▶ 1. Self-locking nut
2. Washer
3. Upper bushing A
▶B▶ 4. Upper bracket assembly
5. Upper spring pad
6. Collar

7. Upper bushing B
8. Cup assembly
9. Bump rubber
10. Dust cover
▶A▶ 11. Coil spring
12. Shock absorber assembly

**DISASSEMBLY SERVICE POINT****◀A▶ SELF-LOCKING NUT REMOVAL**

1. Use the special tools to compress the coil spring.

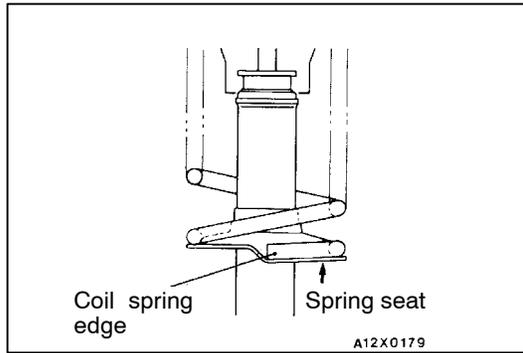
Caution

- (1) Install the special tools evenly, and so that the maximum length will be attained within the installation range.
- (2) Do not use an impact wrench to tighten the special tool bolt.

2. While holding the piston rod, remove the self-locking nut.

Caution

Do not use an impact wrench.



REASSEMBLY SERVICE POINTS

►A◄ COIL SPRING INSTALLATION

1. Install the special tool in the same manner as for removal, and compress the coil spring to install the shock absorber.

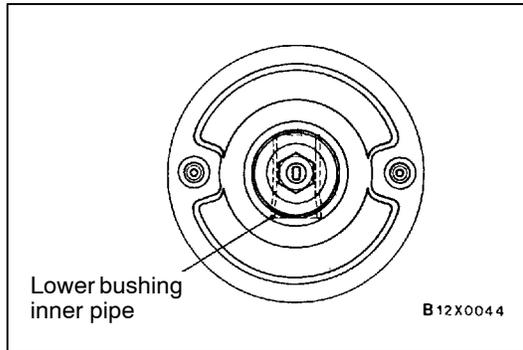
Caution

Do not use an impact wrench to tighten the special tool bolt.

2. Align the edge of the coil spring to the stepped part of the shock absorber spring seat.

►B◄ UPPER BRACKET ASSEMBLY INSTALLATION

Install the upper bracket assembly so that the lower bushing inner pipe of the shock absorber is at the shown position.



►C◄ SELF-LOCKING NUT INSTALLATION

1. Temporarily tighten the self-locking nut.
2. Remove the special tools (MB991237, MB991239), and tighten the self-locking nut to the specified torque.

Caution

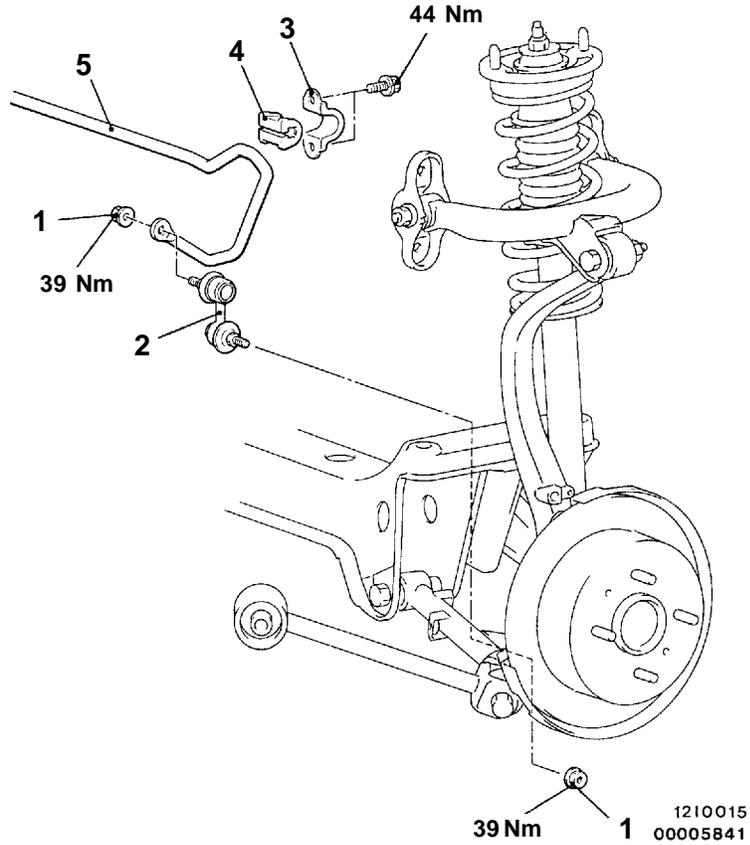
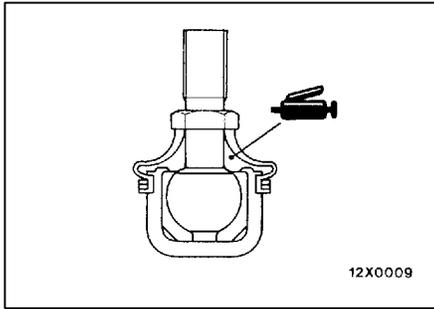
Do not use an impact wrench.

STABILIZER BAR

REMOVAL AND INSTALLATION

Post-installation Operation

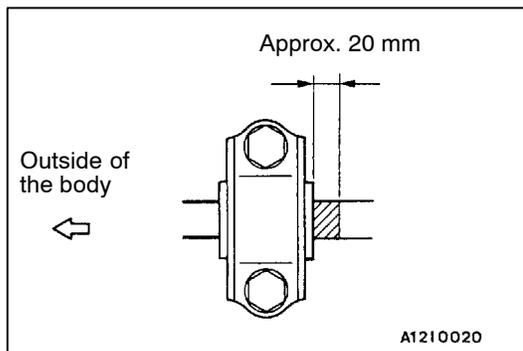
Check the Dust Cover for Cracks or Damage by Pushing it with Finger.



Removal steps

- ▶◀ 1. Stabilizer link mounting nuts
- ▶◀ 2. Stabilizer link
- ▶◀ 3. Stabilizer bar bracket

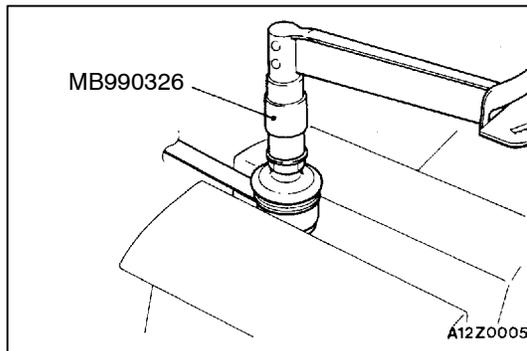
- ▶◀ 4. Bushing
- ▶◀ 5. Stabilizer bar



INSTALLATION SERVICE POINT

▶◀ STABILIZER BAR/BUSHING/STABILIZER BAR BRACKET INSTALLATION

Position the stabilizer bar identification mark to the left side. Adjust the identification mark position as shown in the figure, and tighten the stabilizer bar bracket mounting bolt.



INSPECTION

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STABILIZER LINK BALL JOINT TURNING TORQUE CHECK

1. After shaking the ball joint stud several times, install the nut to the stud and use the special tool to measure the turning torque of the ball joint.

Standard value: 0.5 - 1.5 Nm

2. When the measured value exceeds the standard value, replace the stabilizer link.
3. When the measured value is lower than the standard value, check that the ball joint turns smoothly without excessive play. If so, it is possible to use that ball joint.

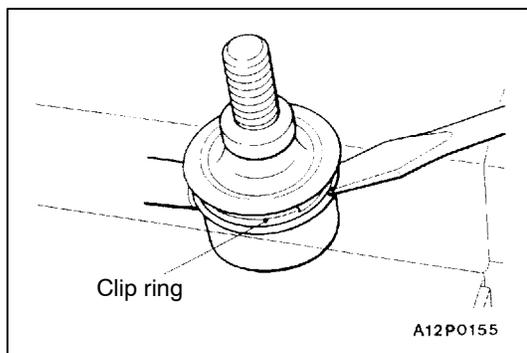
STABILIZER LINK BALL JOINT DUST COVER CHECK

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1. Check the dust cover for cracks or damage by pushing it with finger.
2. If the dust cover is cracked or damaged, replace the stabilizer link.

NOTE

Cracks or damage of the dust cover may cause damage of the ball joint. When it is damaged during service work, replace the dust cover.

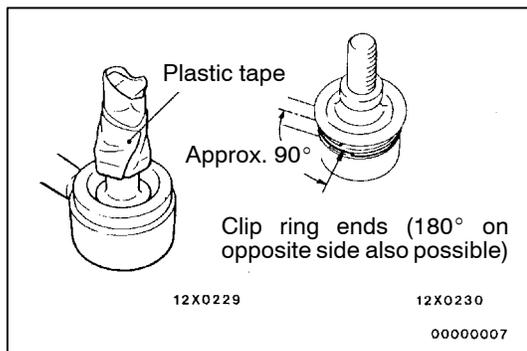


STABILIZER LINK BALL JOINT DUST COVER REPLACEMENT

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Only when the dust cover is damaged accidentally during service work, replace the dust cover as follows:

1. Remove the clip ring and the dust cover.
2. Apply multipurpose grease to the lip and inside of the dust cover.



3. Use plastic tape on the stabilizer link threads as shown in the illustration, and then install the dust cover to the stabilizer link.
4. Secure the dust cover with the clip ring. When installing the clip ring, align the ends at a 90° angle from the axis of the stabilizer link.
5. Check the dust cover for cracks or damage by pushing it with finger.

NOTES