

GROUP 34

REAR SUSPENSION

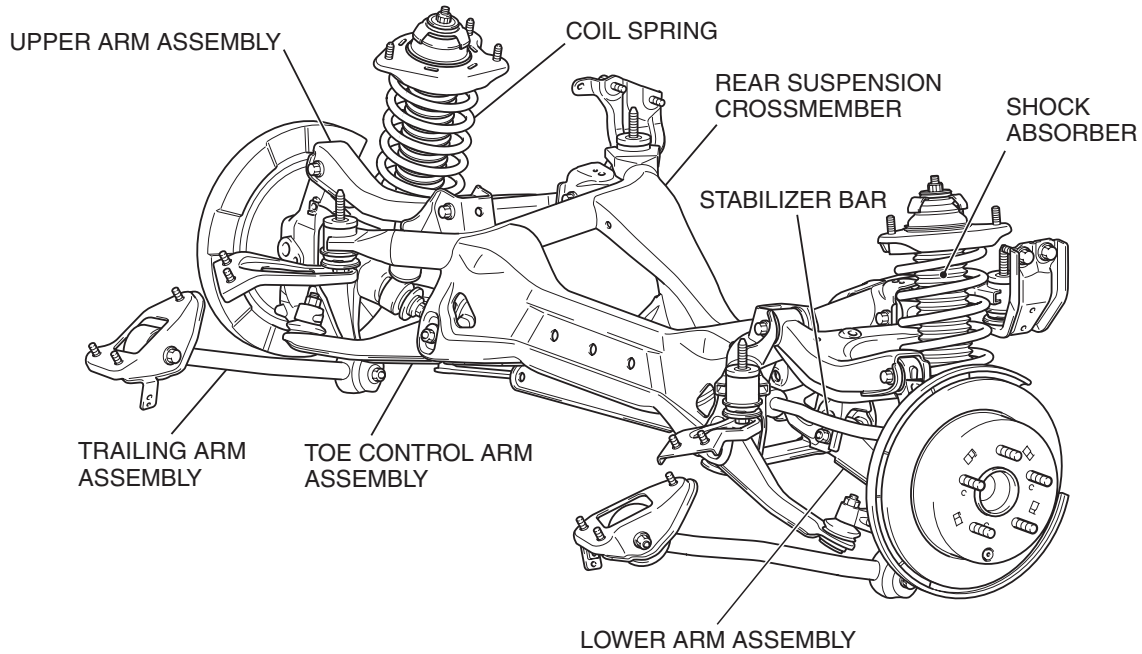
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GENERAL DESCRIPTION

M1341000100643

A low-mount multilink suspension system is used to reduce road noise, making the vehicle quieter by all suspension arms except a trailing arm connected to the crossmembers with an elastic structure.

CONSTRUCTION DIAGRAM

AC405701 AB

REAR SUSPENSION DIAGNOSIS

INTRODUCTION TO REAR SUSPENSION DIAGNOSIS

M1341013100245

If the rear suspension is faulty, the vehicle will not run straightforward or noise will occur. Incorrect wheel alignment, malfunction of shock absorber, stabilizer bar, coil spring, control arms or worn or out-of-balance will cause these problems.

REAR SUSPENSION DIAGNOSTIC TROUBLESHOOTING STRATEGY

M1341013200242

Use these steps to plan your diagnostic strategy. If you follow them thoroughly, you will be sure that you have exhausted most of the possible ways to find a rear suspension fault.

1. Gather information from the customer.

2. Verify that the condition described by the customer exists.

3. Find the malfunction by following the Symptom Chart.

4. Verify malfunction is eliminated.

SYMPTOM CHART

M1341013500276

| SYMPTOM | INSPECTION PROCEDURE | REFERENCE PAGE |
|---------------------------------|----------------------|----------------|
| Squeaks or other abnormal noise | 1 | P.34-3 |
| Poor ride | 2 | P.34-4 |
| Body tilting | 3 | P.34-4 |

SYMPTOM PROCEDURES

INSPECTION PROCEDURE 1: Squeaks or other Abnormal Noise

DIAGNOSIS

STEP 1. Check for loose rear suspension installation bolts and nuts.

Q: Are the rear suspension installation bolts and nuts loose?

YES : Retighten them, and then go to Step 5.

NO : Go to Step 2.

STEP 2. Check the condition of the shock absorbers (worn bushings).

Q: Are the shock absorbers (bushings) in good condition?

YES : Go to Step 3.

NO : Replace the faulty part, and then go to Step 5.

STEP 3. Check the upper arms and/or lower arms and/or toe control arms for deformity or damage.

Q: Are the upper arms and/or lower arms and/or toe control arms in good condition?

YES : Go to Step 4.

NO : Replace the faulty part, and then go to Step 5.

STEP 4. Check the trailing arms for deformity or damage.

Q: Are the trailing arms in good condition?

YES : Go to Step 5.

NO : Replace the faulty part, and then go to Step 5.

STEP 5. Retest the system.

Q: Is the malfunction eliminated?

YES : The procedure is complete.

NO : Return to Step 1.

INSPECTION PROCEDURE 2: Poor Ride

DIAGNOSIS

STEP 1. Check for excessive tire inflation pressure.

Refer to GROUP 31, On-vehicle Service –Tire Inflation Pressure Check P.31-7.

Q: Is the tire inflation pressure correct?

YES : Go to Step 2.

NO : Adjust the pressure, and then go to Step 4.

STEP 2. Check the condition of the shock absorbers (weak or broken springs).

Q: Are the shock absorbers in good condition?

YES : Go to Step 3.

NO : Replace the faulty part, and then go to Step 4.

STEP 3. Check the stabilizer bar and/or stabilizer bar links for deformity or damage.

Q: Are the stabilizer bar and/or stabilizer bar links deformed or damaged?

YES : Replace the faulty part, and then go to Step 4.

NO : Go to Step 4.

STEP 4. Retest the system.

Q: Is the malfunction eliminated?

YES : The procedure is complete.

NO : Return to Step 1.

INSPECTION PROCEDURE 3: Body Tilting

DIAGNOSIS

STEP 1. Check for weak or deteriorated bushings.

Q: Are the bushings in good condition?

YES : Go to Step 2.

NO : Replace the faulty part, and then go to Step 5.

STEP 2. Check for weak or broken coil springs.

Q: Are the coil springs in good condition?

YES : Go to Step 3.

NO : Replace the faulty part, and then go to Step 5.

STEP 3. Check the upper arms and/or lower arms and/or toe control arms for deformity or damage.

Q: Are the upper arms and/or lower arms and/or toe control arms deformed or damaged?

YES : Replace the faulty part, and then go to Step 5.

NO : Go to Step 4.

STEP 4. Check the trailing arms for deformity or damage.

Q: Are the trailing arms deformed or damaged?

YES : Replace the faulty part, and then go to Step 5.

NO : Go to Step 5.

STEP 5. Retest the system.

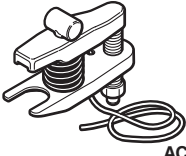
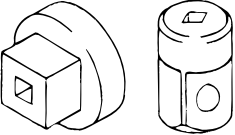
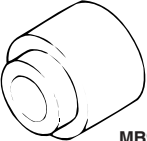
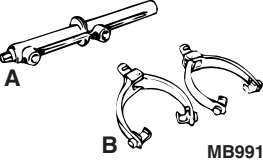
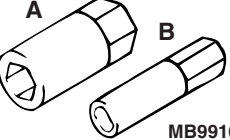
Q: Is the malfunction eliminated?

YES : The procedure is complete.

NO : Return to Step 1.

SPECIAL TOOLS

M1341000600563

| TOOL | TOOL NUMBER AND NAME | SUPERSESION | APPLICATION |
|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>AC106827</p> | <p>MB991897 Ball joint remover</p> | <p>MB991113-01, MB990635-01 or General service tool</p> | <p>Knuckle and toe control arm ball joint disconnection <i>NOTE: Steering linkage puller (MB990635 or MB991113) is also available to disconnect knuckle and tie rod end ball joint.</i></p> |
|  <p>MB990326</p> | <p>MB990326 Preload socket</p> | <p>General service tool</p> | <ul style="list-style-type: none"> • Toe control arm ball joint turning torque check • Stabilizer bar link ball joint breakaway torque check |
|  <p>MB990800</p> | <p>MB990800 Ball joint dust cover installer</p> | <p>MB990800-01 or General service tool</p> | <p>Toe control arm ball joint dust cover installation</p> |
|  <p>A B MB991237</p> | <p>A: MB991237 Spring compressor body B: MB991239 Arm set</p> | <p>MIT221369 or general service tool</p> | <p>Coil spring removal and installation <i>NOTE: Spring compressor set (MB991832) is also available to compress coil spring (refer to GROUP 33, Special Tools P.33-5).</i></p> |
|  <p>A B MB991680</p> | <p>MB991680 Wrench set A: MB991681 Wrench B: MB991682 Socket</p> | <p>—</p> | <p>Shock absorber disassembly and assembly</p> |

ON-VEHICLE SERVICE

REAR WHEEL ALIGNMENT CHECK AND ADJUSTMENT

M1341011000639

Measure wheel alignment with an alignment equipment on level ground.

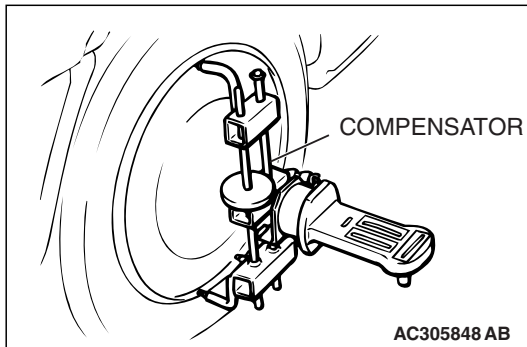
The rear suspension and tires should be serviced to the normal condition prior to wheel alignment measurement.

CAMBER

Standard value:

$-0^{\circ} 50' \pm 30'$ (Left/right deviation within 30')

NOTE: For vehicles with aluminum wheels, attach the camber/caster/kingpin gauge by using a compensator.



TOE-IN

Standard value: 3 ± 3 mm (0.12 ± 0.12 inch)

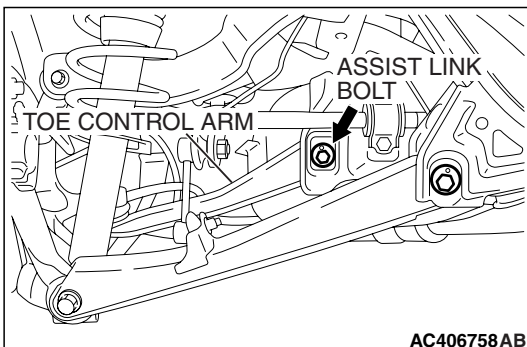
If camber and/or toe-in is not within the standard value, adjust by the following procedures.

⚠ CAUTION

- When adjusting the camber, tighten the lower arm assembly and the trailing arm assembly, not the toe control arm.
 - After adjusting the camber, be sure to adjust the toe.
1. Carry out camber adjustment by turning the assist link bolt.

NOTE:

- LH: Clockwise viewed from the rear → (-) camber
- RH: Clockwise viewed from the rear → (+) camber
- If either the camber or toe is adjusted, both should fluctuate. For the relationship between the two, refer to CAMBER AND TOE REFERENCE TABLE (Refer to [P.34-7](#)).



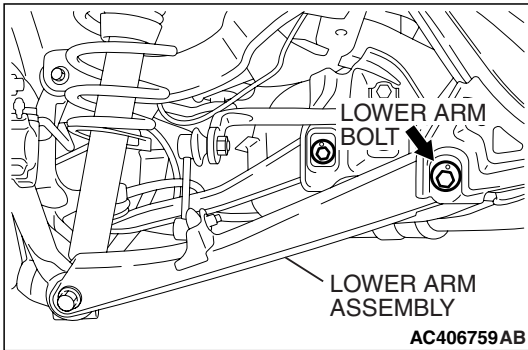
CAUTION

When adjusting the toe, tighten the toe control arm and the trailing arm assembly, not the lower arm assembly.

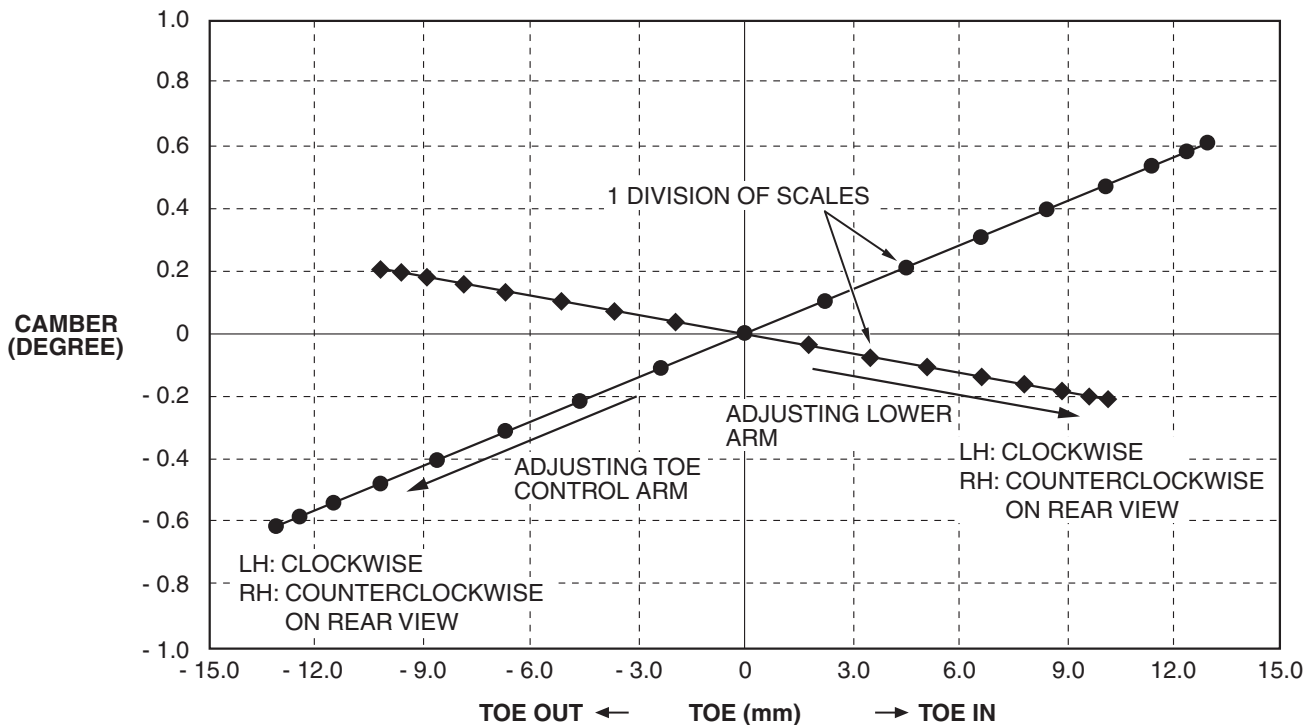
2. Carry out toe adjustment by turning the lower arm bolt.

NOTE:

- LH: Clockwise viewed from the rear → Toe-in
- RH: Clockwise viewed from the rear → Toe-out
- If either the camber or toe is adjusted, both should fluctuate. For the relationship between the two, refer to CAMBER AND TOE REFERENCE TABLE (Refer to P.34-7).



CAMBER AND TOE REFERENCE TABLE



LOWER ARM PILLOW BALL BUSHING END PLAY CHECK

M1341016900143

1. Raise the vehicle.
2. Remove the stabilizer bar link assembly from the lower arm assembly.
3. Move the lower arm up and down with your hands to check for excessive play in the axial direction of the pillow ball bushing. If there is excessive play, replace the knuckle assembly. (Refer to GROUP 27, Knuckle P.27-7).

4. After inspection, install the stabilizer bar link assembly to the lower arm assembly, and tighten the mounting nuts to 40 ± 5 N·m (30 ± 3 ft-lb).

TOE CONTROL ARM BALL JOINT END PLAY CHECK

M1341015800080

1. Raise the vehicle.
2. Move the toe control arm up and down with your hands to check for excessive play in the axial direction of the ball joint. If there is excessive play, replace the toe control arm assembly.

BALL JOINT DUST COVER INSPECTION

M1341012800296

Check the ball joint dust cover of the toe control arm assembly and the stabilizer bar link assembly as follows.

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

NOTE: Cracks or damage to the dust cover may cause damage to the ball joint.

UPPER ARM ASSEMBLY

REMOVAL AND INSTALLATION

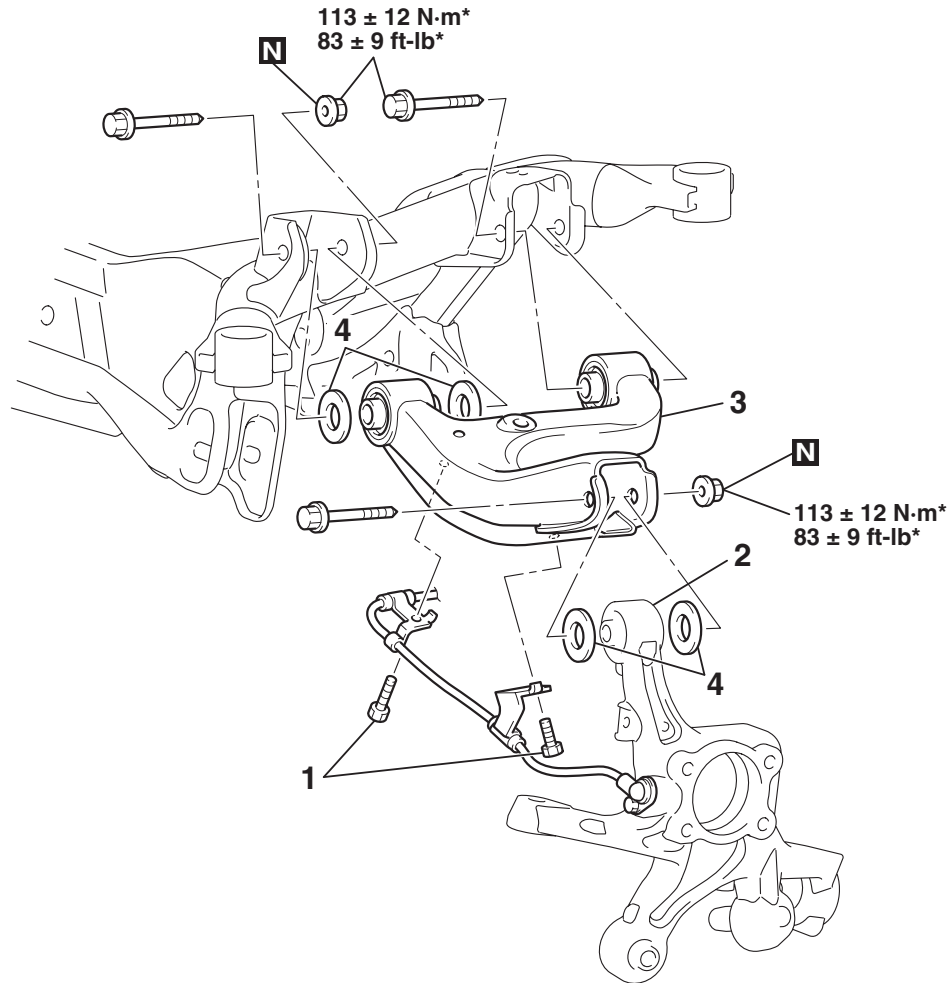
M1341003600313

CAUTION

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

Post-installation Operation

Rear Wheel Alignment Check and Adjustment (Refer to P.34-6).



AC305776AC

REMOVAL STEPS

1. ABS EQUIPMENT BOLT
<VEHICLES WITH ABS>
2. UPPER ARM ASSEMBLY AND
KNUCKLE CONNECTION

REMOVAL STEPS (Continued)

3. UPPER ARM ASSEMBLY
4. UPPER ARM STOPPER

INSPECTION

M1341003700194

- Check the bushings for wear and deterioration.
- Check the upper arm for bending or breakage.
- Check all bolts for condition and straightness.

LOWER ARM

REMOVAL AND INSTALLATION

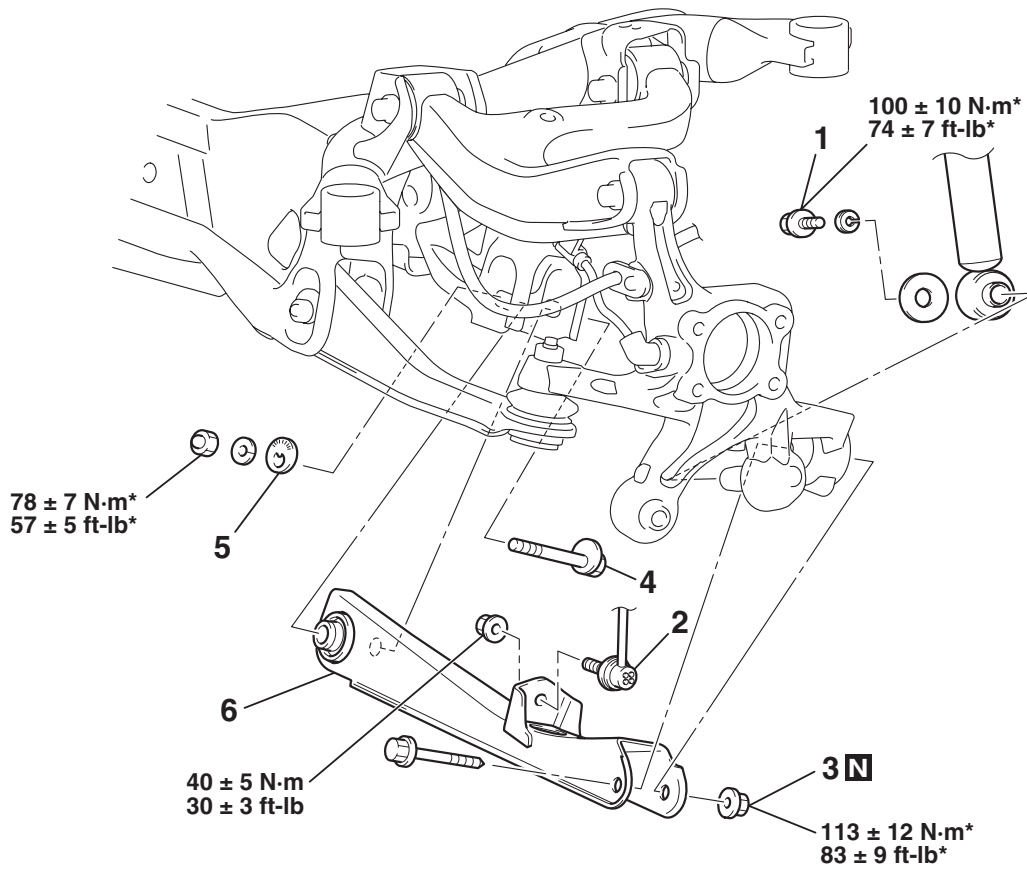
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CAUTION

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

Post-installation Operation

Rear Wheel Alignment Check and Adjustment (Refer to P.34-6).



AC405220 AD

REMOVAL STEPS

1. SHOCK ABSORBER ASSEMBLY AND KNUCKLE CONNECTION
2. LOWER ARM ASSEMBLY AND STABILIZER BAR LINK ASSEMBLY CONNECTION

<<A>>

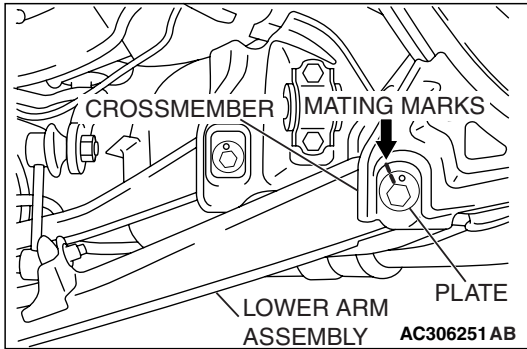
REMOVAL STEPS (Continued)

3. LOWER ARM ASSEMBLY AND KNUCKLE CONNECTION
4. LOWER ARM BOLT
5. LOWER ARM PLATE
6. LOWER ARM ASSEMBLY

REMOVAL SERVICE POINT

<<A>> LOWER ARM BOLT REMOVAL

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



INSPECTION

M1341006600055

- Check the bushings for wear and deterioration.
- Check the lower arm for bending or breakage.
- Check all bolts for condition and straightness.

TRAILING ARM

REMOVAL AND INSTALLATION

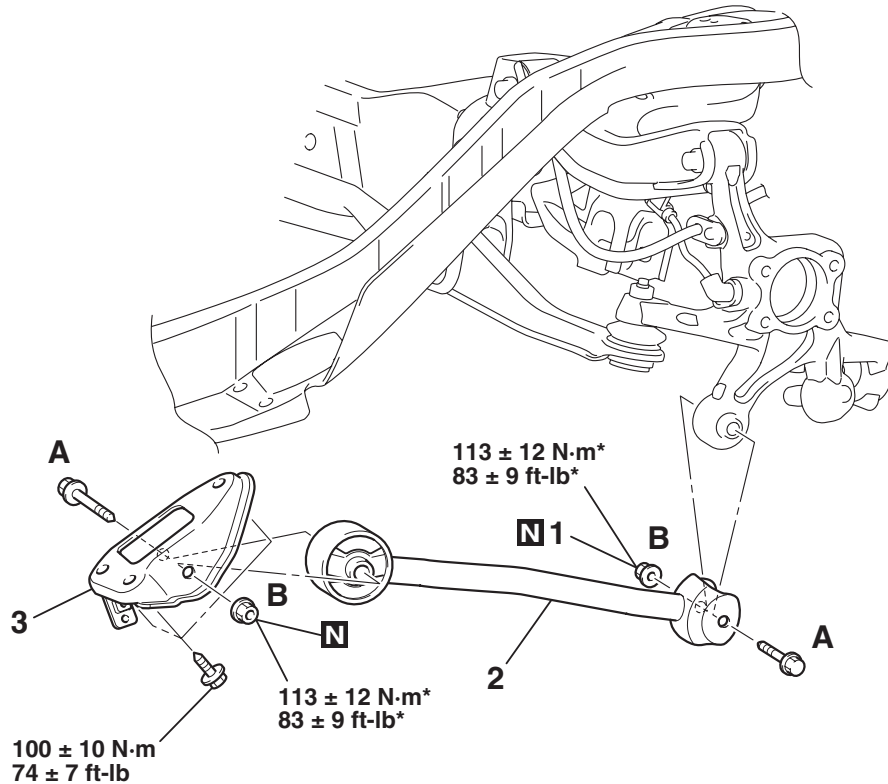
M1341002200679

CAUTION

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

Post-installation Operation

Rear Wheel Alignment Check and Adjustment (Refer to P.34-6).



AC405127 AB

REMOVAL STEPS

1. TRAILING ARM ASSEMBLY AND KNUCKLE CONNECTION

REMOVAL STEPS (Continued)

2. TRAILING ARM ASSEMBLY
3. TRAILING ARM BRACKET

NOTE: Bolt A and nut B are interchangeable.

INSPECTION

M1341002300201

- Check the bushings for wear and deterioration.
- Check the trailing arm for bending or breakage.
- Check all bolts for condition and straightness.

TOE CONTROL ARM

REMOVAL AND INSTALLATION

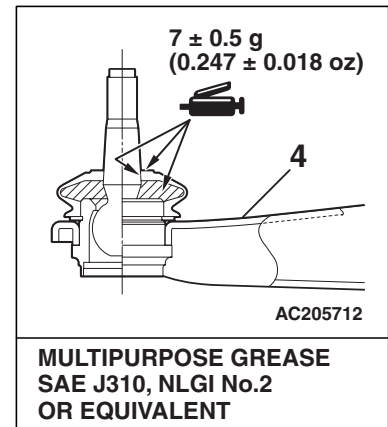
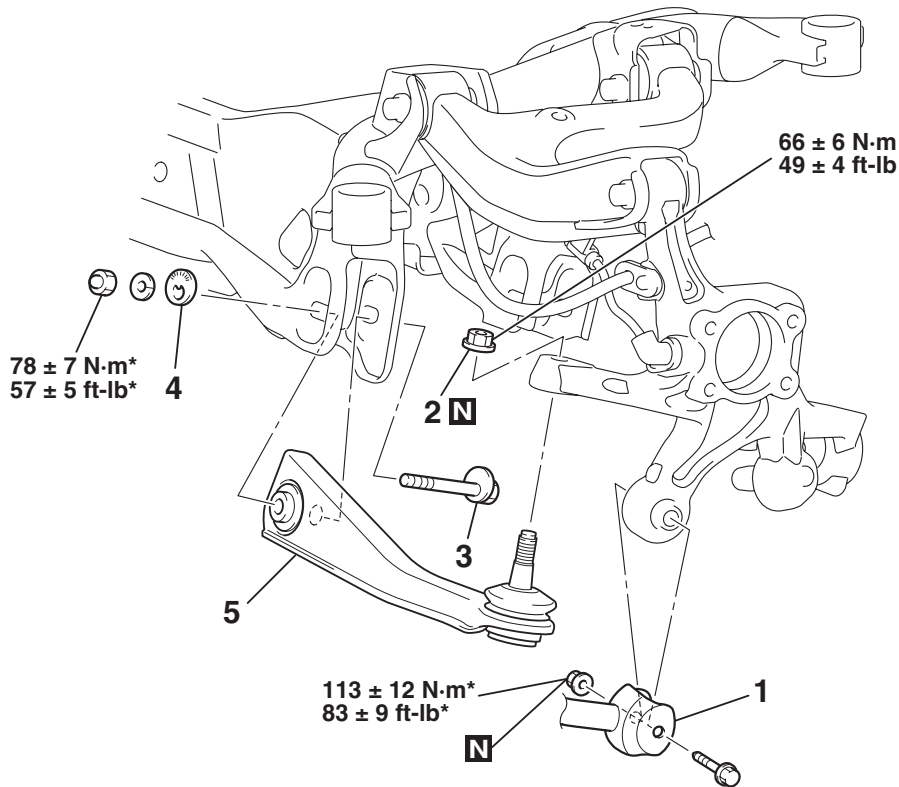
M1341016600067

CAUTION

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

Post-installation Operation

- Press the dust cover with your finger to check that there are no cracks or damage in the dust cover.
- Rear Wheel Alignment Check and Adjustment (Refer to P.34-6).



AC405189 AB

REMOVAL STEPS

- <<A>>
1. TRAILING ARM ASSEMBLY AND KNUCKLE CONNECTION
 2. TOE CONTROL ARM ASSEMBLY AND KNUCKLE CONNECTION
- <>
3. ASSIST LINK BOLT

REMOVAL STEPS (Continued)

4. ASSIST LINK PLATE
5. TOE CONTROL ARM ASSEMBLY

Required Special Tool:

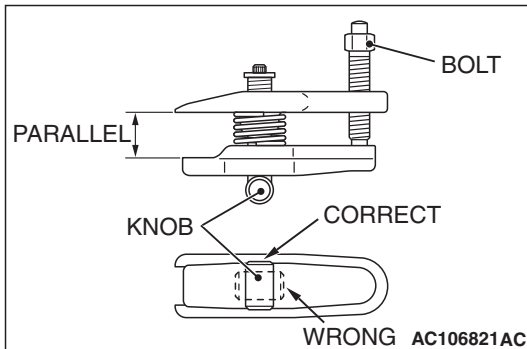
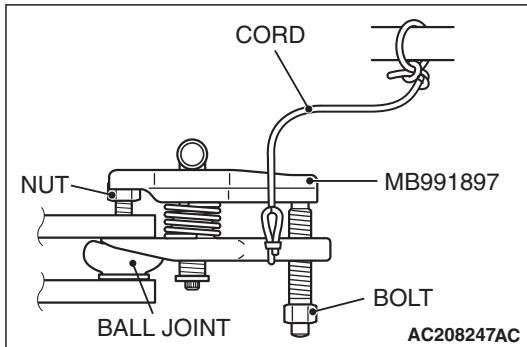
- MB991897: Ball Joint Remover

REMOVAL SERVICE POINTS

<<A>> TOE CONTROL ARM ASSEMBLY AND
KNUCKLE DISCONNECTION**⚠ CAUTION**

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

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



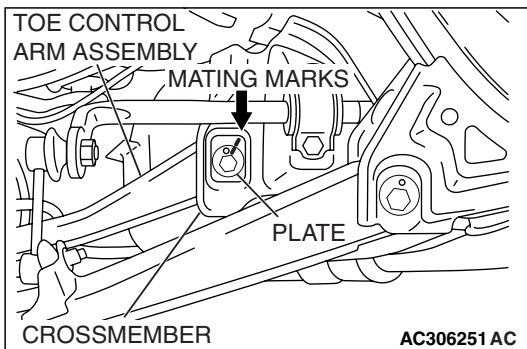
2. Turn the bolt and knob as necessary to make the jaws of the special tool MB991897 parallel, tighten the bolt by hand and confirm that the jaws are still parallel.

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 toe control arm assembly and the knuckle.

<> ASSIST LINK BOLT REMOVAL

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



INSPECTION

M1341016800061

- Check the bushings for wear and deterioration.
- Check the toe control arm for bending or breakage.
- Check all bolts for condition and straightness.

TOE CONTROL ARM BALL JOINT TURNING TORQUE CHECK

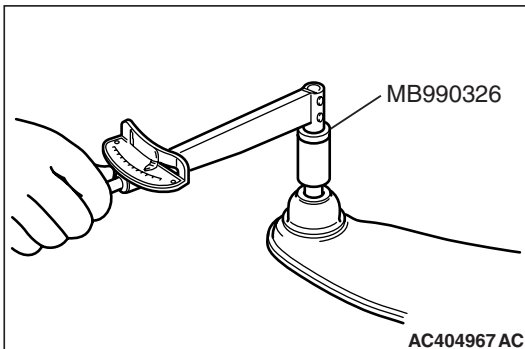
Required Special Tool:

- MB990326: Preload Socket

1. After shaking the ball joint stud several times, in order to make the ball joint turn smoothly, install the nut to the stud and use special tool MB990326 to measure the turning torque of the ball joint.

Standard value: 1.0 –2.6 N· m (8.9 –23 in-lb)

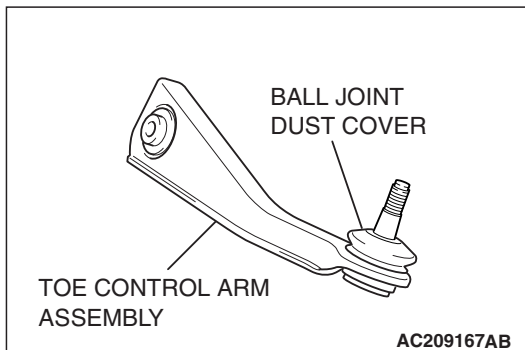
2. If the measured value exceeds the standard value, replace the toe control arm assembly.
3. If the measured value is lower than the standard value, check that the ball joint turns smoothly without excessive play. If so, it is possible to re-use that ball joint.



TOE CONTROL ARM BALL JOINT DUST COVER CHECK

1. Check the toe control arm ball joint dust cover for cracks or damage by pushing it with your 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 damage to the ball joint. When it is damaged during service work, replace the dust cover.



TOE CONTROL ARM BALL JOINT DUST COVER REPLACEMENT

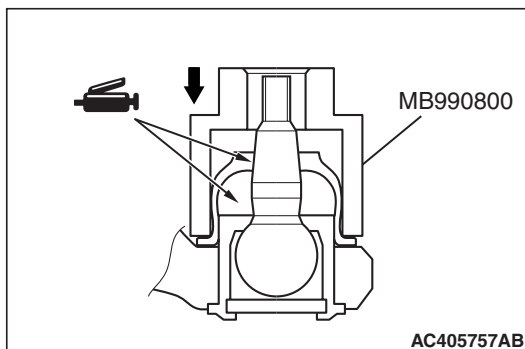
M1341010900394

Required Special Tool:

- MB990800: Ball Joint Remover and Installer

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

1. Remove the dust cover.
2. Fill the new dust cover with multipurpose grease and lubricate the lip [Amount of grease in the dust cover: approximately 7 g (0.247 oz)].
3. Using special tool MB990800, punch the dust cover until it contacts the snap ring.
4. Press the dust cover with your finger to check that there are no cracks or damage in the dust cover.



SHOCK ABSORBER ASSEMBLY**REMOVAL AND INSTALLATION**

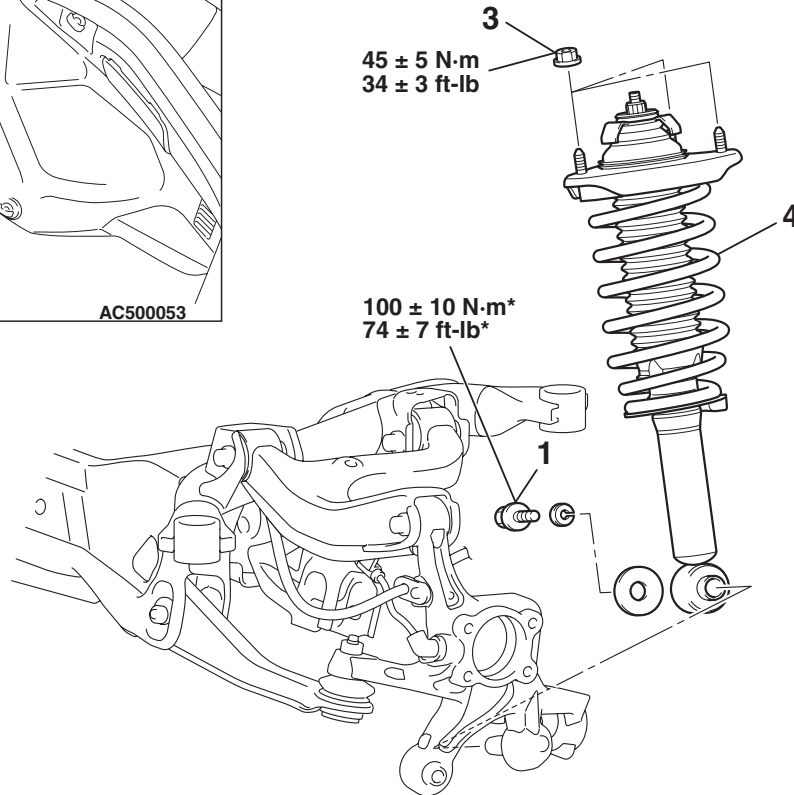
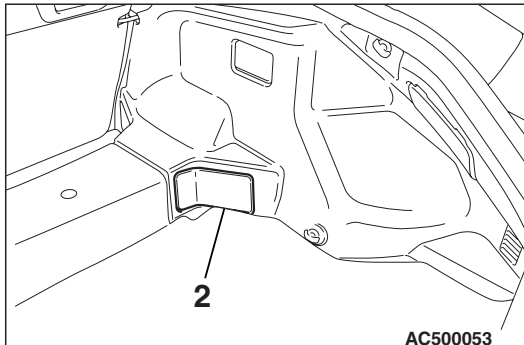
M1341002500476

CAUTION

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

Pre-removal and Post-installation Operation

Sub woofer speaker Removal and Installation (Refer to GROUP 54A, Speaker P.54A-227).



AC406765AB

REMOVAL STEPS

1. SHOCK ABSORBER ASSEMBLY AND KNUCKLE CONNECTION
2. STRUT SERVICE COVER

REMOVAL STEPS (Continued)

2. COIL SPRING NUT
3. SHOCK ABSORBER ASSEMBLY

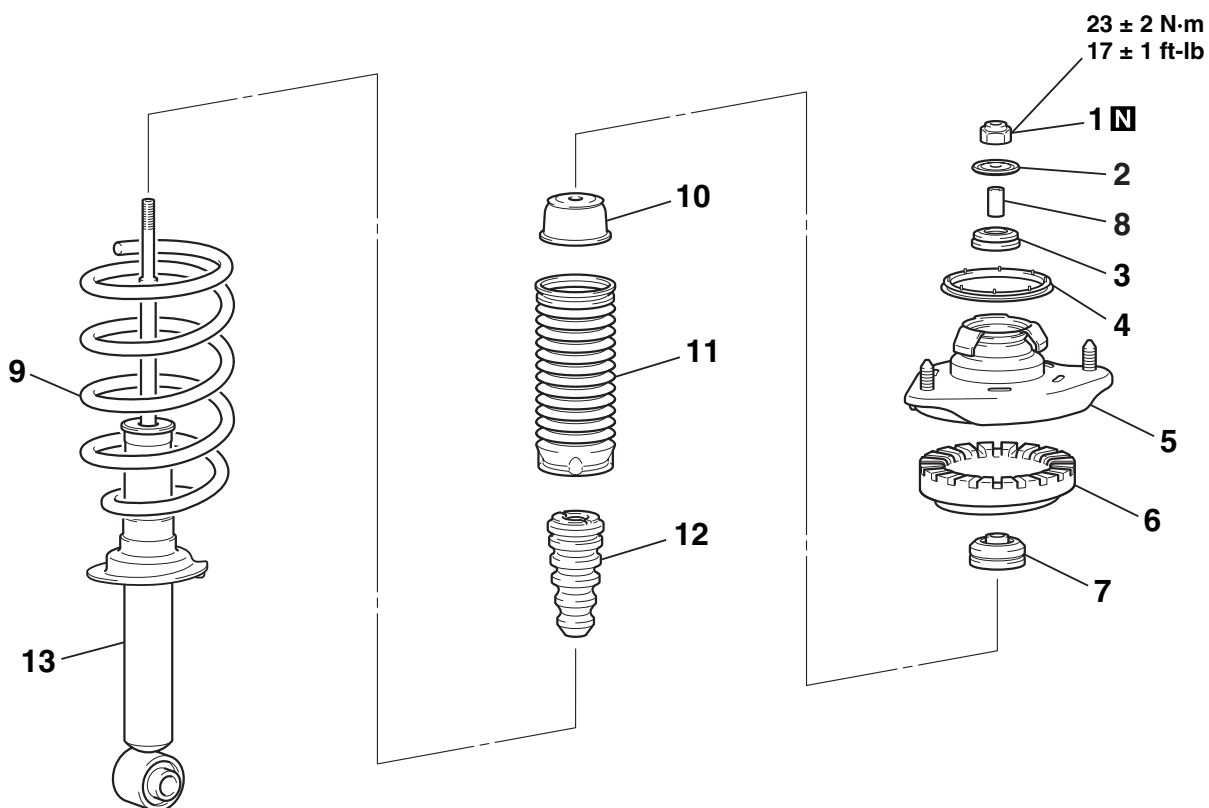
INSPECTION

M1341002600172

- Check the rubber parts for cracks and wear.
- Check the shock absorber for malfunctions, oil leakage, or abnormal noise.

DISASSEMBLY AND ASSEMBLY

M1341005300448



AC406141 AB

DISASSEMBLY STEPS

- <<A>> >>C<< 1. COIL SPRING NUT (SELF-LOCKING NUT)
2. COIL SPRING WASHER
3. COIL SPRING BUSHING
4. SHOCK ABSORBER GASKET
>>B<< 5. SHOCK ABSORBER BRACKET
6. SPRING UPPER PAD
7. COIL SPRING BUSHING
8. COIL SPRING COLLAR
>>A<< 9. COIL SPRING
10. SHOCK ABSORBER CUP

DISASSEMBLY STEPS (Continued)

11. SHOCK ABSORBER COVER
12. SHOCK ABSORBER DAMPER
13. SHOCK ABSORBER

Required Special Tools:

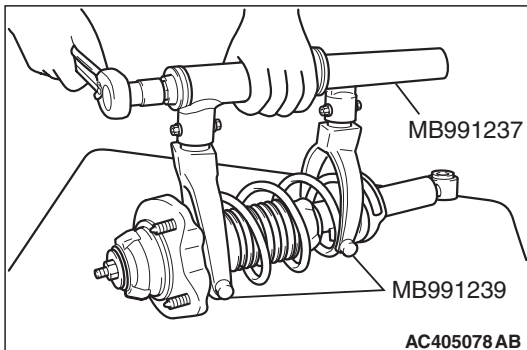
- MB991237: Spring Compressor Body
- MB991239: Arm Set
- MB991680: Wrench Set
 - MB991681: Wrench
 - MB991682: Socket

DISASSEMBLY SERVICE POINT

<<A>> COIL SPRING NUT (SELF-LOCKING NUT)
REMOVAL**⚠ CAUTION**

- To hold the coil spring securely, install special tools MB991237 and MB991239 evenly, and so that the space between both arms of the special tool will be maximum within the installation range.
- Do not use an impact wrench to tighten the bolt of special tool MB991237. The usage of impact wrench will break the special tool.

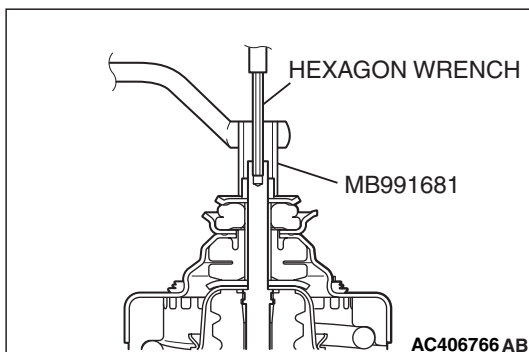
1. Use special tools MB991237 and MB991239 to compress the coil spring.

**⚠ WARNING**

Do not use an impact wrench to remove the coil spring nut (self-locking nut).

- **Vibration of the impact wrench will cause special tools MB991237 and MB991239 to slip and cause personal injury.**
- **Vibration of the impact wrench will cause the valve inside the shock absorber to drop out.**

Use a hexagon wrench and a pipe to secure the piston rod, and then remove the coil spring nut (self-locking nut) using special tool MB991681.



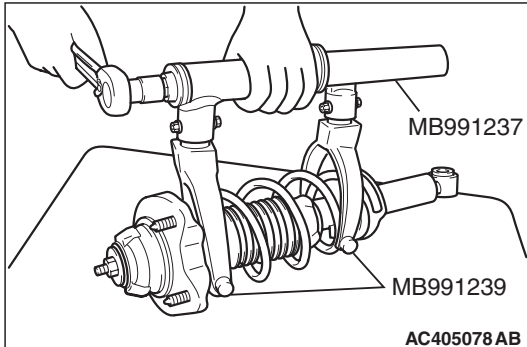
ASSEMBLY SERVICE POINTS

>>A<< COIL SPRING INSTALLATION

⚠ CAUTION

Do not use an impact wrench to tighten the bolt of special tool MB991237. It will break the special tool.

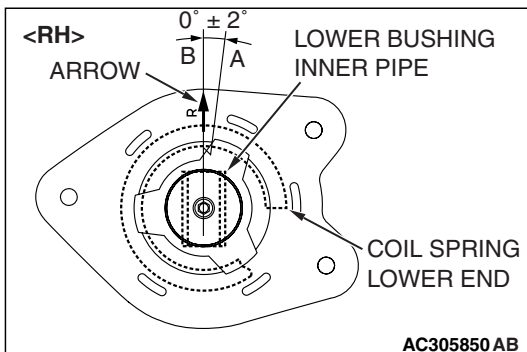
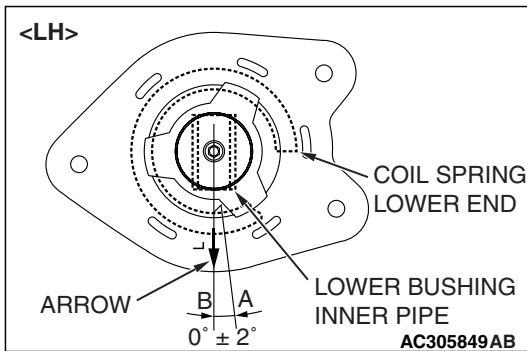
1. Use special tools MB991237 and MB991239 to compress the coil spring, and install it to the spring seat of the shock absorber.
2. Align the end of the coil spring with the stepped section of the spring seat of the shock absorber.



>>B<< SHOCK ABSORBER INSULATOR INSTALLATION

Install the shock absorber insulator as follows.

1. Position the coil spring lower end as shown.
2. Position a center line (A) of the shock absorber lower bushing inner pipe as shown from the arrow (B) on the shock absorber insulator.

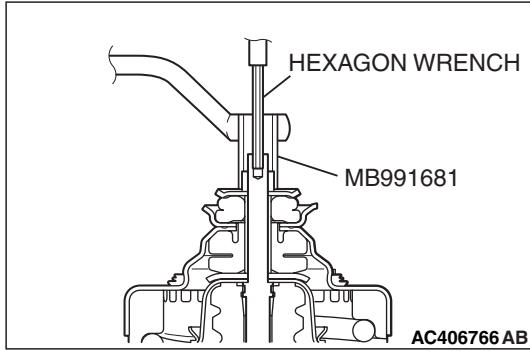


>>C<< COIL SPRING NUT (SELF-LOCKING NUT) INSTALLATION

1. Temporarily tighten the coil spring nut (self-locking nut).

⚠ CAUTION

Do not use an impact wrench to tighten the bolt of special tool MB991237. It will break the special tool. Vibration of the impact wrench will cause the valve inside the shock absorber to drop out.



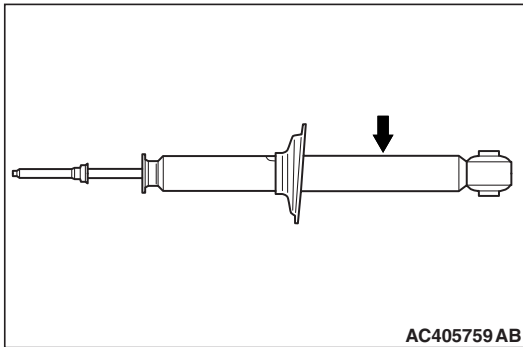
2. Remove special tools MB991237 and MB991239.
Using special tool MB991681, a hexagon wrench and a pipe, tighten the coil spring nut (self-locking nut) to 23 ± 2 N·m (17 ± 1 ft-lb).

SHOCK ABSORBER DISPOSAL

⚠ WARNING

Wear goggles when drilling to protect your eyes from flying metal debris.

The gas must be discharged from the shock absorber before discarding it. Place the shock absorber horizontally with its piston rod extended. Then drill a hole of approximately 3 mm (0.12 inch) in diameter at the location shown in the illustration and discharge the gas.



INSPECTION

M1341002800024

- Check the rubber parts for damage or deterioration.
- Check the coil spring for deformation, deterioration or damage.
- Check the shock absorber for deformation.

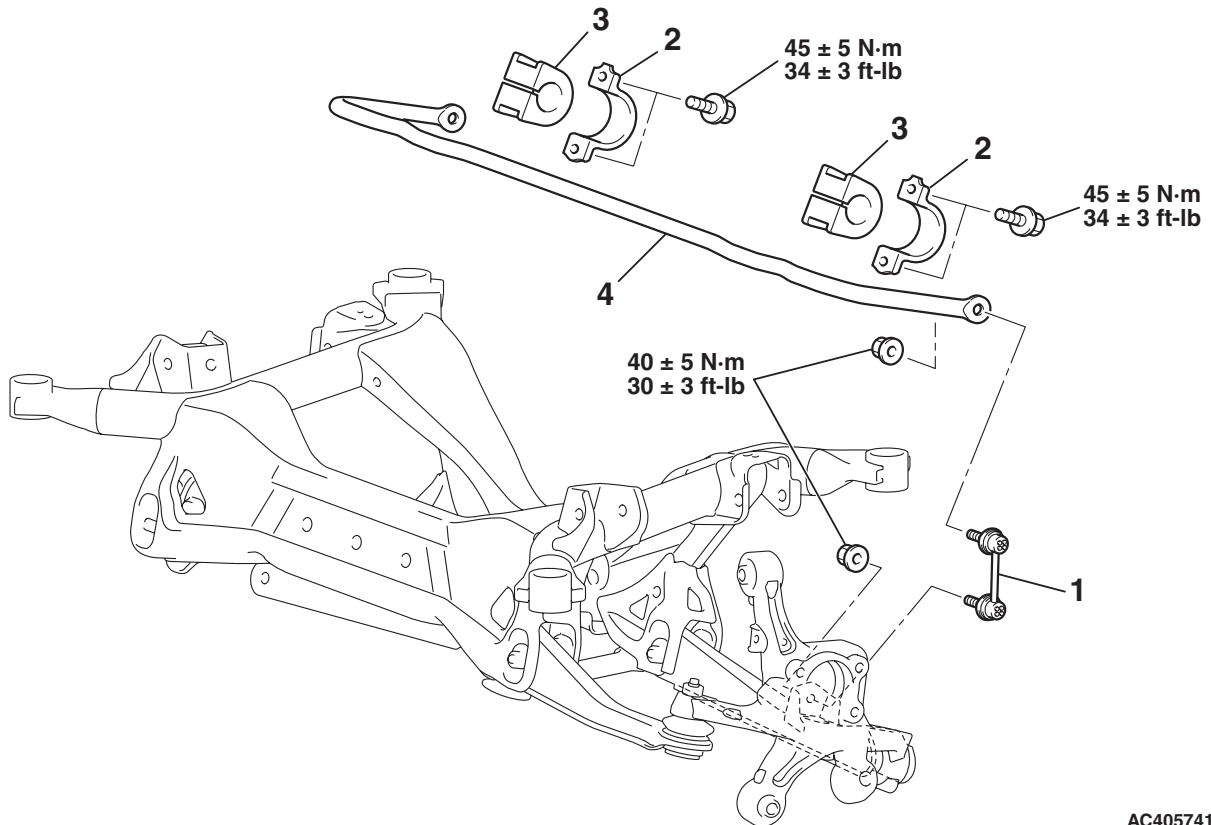
STABILIZER BAR

REMOVAL AND INSTALLATION

M1341003000388

Post-installation Operation

Press the dust cover with your finger to check that there are no cracks or damage in the dust cover.



AC405741 AB

REMOVAL STEPS

1. STABILIZER BAR LINK ASSEMBLY
2. STABILIZER BAR BRACKET

REMOVAL STEPS (Continued)

3. STABILIZER BUSHING
4. STABILIZER BAR

INSPECTION

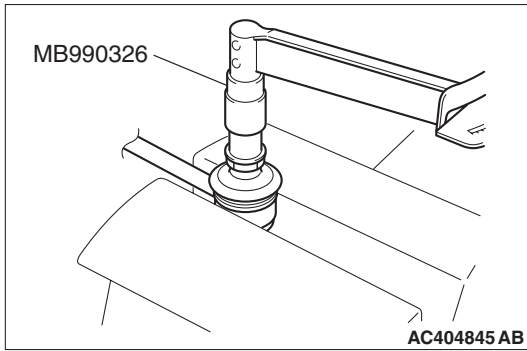
M1341001400421

- Check the stabilizer bushings for wear and deterioration.
- Check the stabilizer bar for deterioration or damage.
- Check all bolts for condition and straightness.

STABILIZER BAR LINK BALL JOINT BREAKAWAY TORQUE CHECK

Required Special Tool:

- MB990326: Preload Socket



1. After shaking the ball joint stud several times, install the nut to the stud and use special tool MB990326 to measure the breakaway torque of the ball joint.

Standard value: 3.4 – 9.0 N·m (30 –80 in-lb)

2. When the measured value exceeds the standard value, replace the stabilizer bar link 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 re-use that ball joint.

STABILIZER BAR LINK BALL JOINT DUST COVER CHECK

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

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

REAR SUSPENSION CROSSMEMBER

REMOVAL AND INSTALLATION

M1341006800316

CAUTION

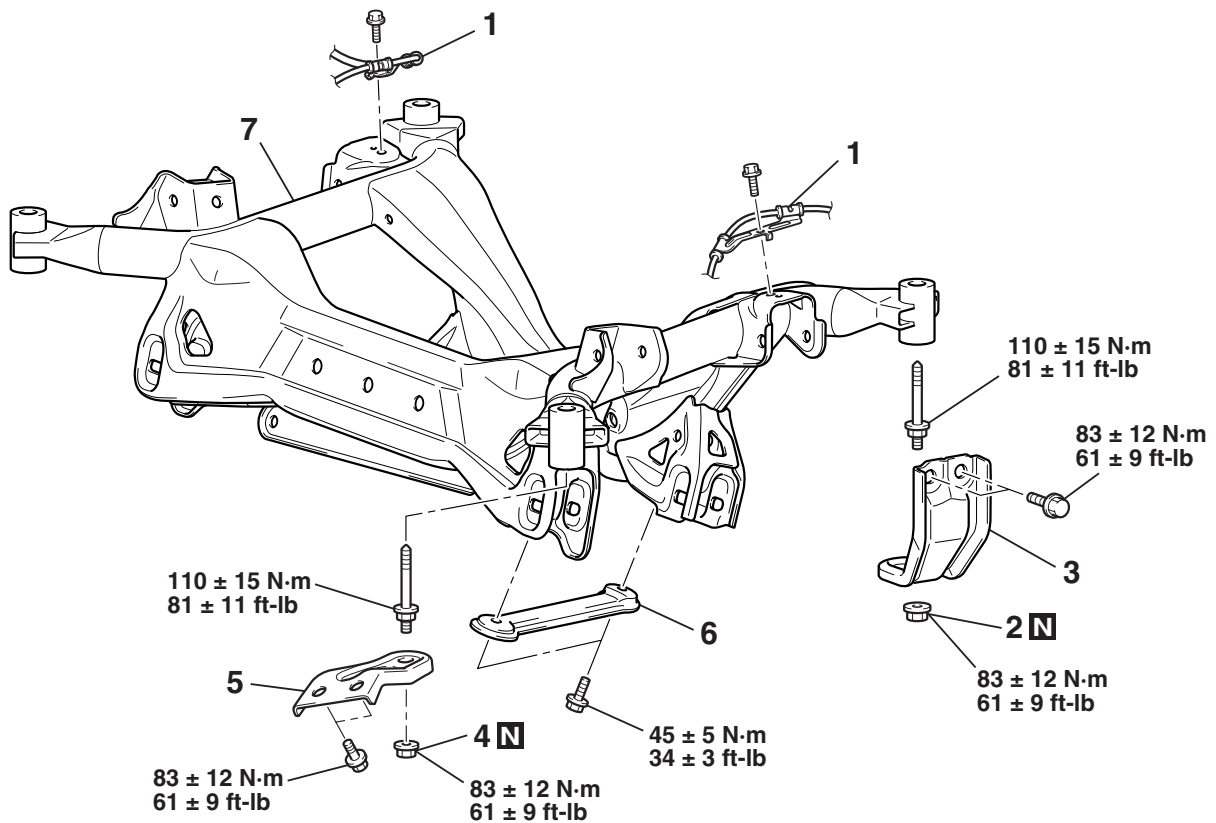
For vehicles with ABS, be careful when handling the pole piece at the tip of the wheel speed sensor so as not to damage it by striking against other parts.

Pre-removal Operation

Main Muffler, Center Exhaust Pipe Removal (Refer to GROUP 15, Exhaust pipe and Main Muffler <2.4L ENGINE>P.15-23, <3.8L ENGINE>P.15-24)..

Post-installation Operation

- Rear Splash Shield Installation (Refer to GROUP 51, Rear Bumper Assembly P.51-4).
- Main Muffler, Center Exhaust Pipe Installation (Refer to GROUP 15, Exhaust pipe and Main Muffler <2.4L ENGINE>P.15-23, <3.8L ENGINE>P.15-24).
- Rear Wheel Alignment Check and Adjustment (Refer to P.34-6).



AC405702 AB

REMOVAL STEPS

- STABILIZER BAR LINK ASSEMBLY (REFER TO P.34-21).
- LOWER ARM ASSEMBLY (REFER TO P.34-10).
- <<A>> • UPPER ARM ASSEMBLY (REFER TO P.34-9).
- <> • TOE CONTROL ARM ASSEMBLY (REFER TO P.34-13).
- STABILIZER BAR (REFER TO P.34-21).

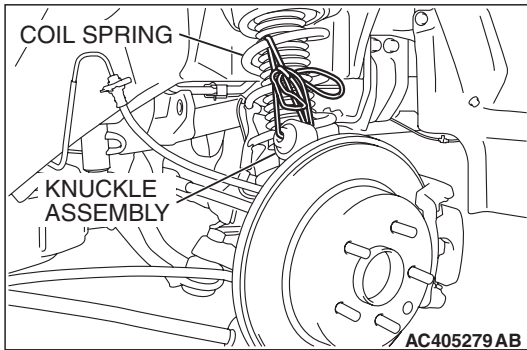
REMOVAL STEPS (Continued)

1. SPEED SENSOR HARNESS CLAMP
- >>C<< 2. CROSSMEMBER NUT
- <<C>> >>C<< 3. CROSSMEMBER STAY
- >>B<< 4. CROSSMEMBER NUT
- <<D>> >>B<< 5. CROSSMEMBER BRACKET
- >>A<< 6. CROSSMEMBER STAY
7. REAR SUSPENSION CROSSMEMBER

REMOVAL SERVICE POINTS

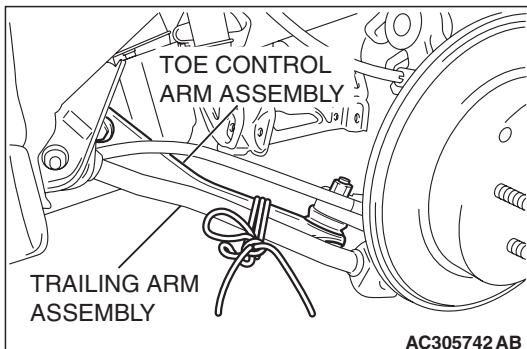
<<A>> UPPER ARM ASSEMBLY REMOVAL

Secure the knuckle assembly by a cord as shown to avoid load on the brake hose.



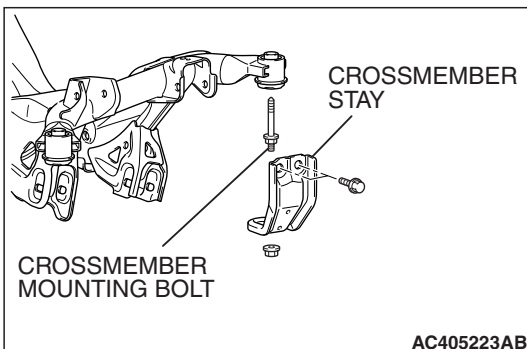
<> TOE CONTROL ARM ASSEMBLY REMOVAL

Disconnect the toe control arm only from its rear suspension crossmember side, and use a cord to tie it to the trailing arm assembly as shown.



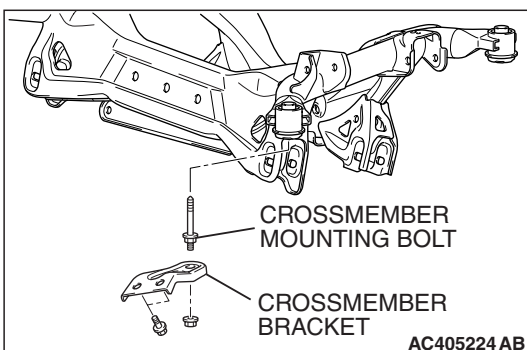
<<C>> CROSSMEMBER STAY REMOVAL

The crossmember mounting bolts need not be unscrewed when the crossmember stay is replaced. However, the bolts may be loosened while the crossmember stay is removed. It is recommended that you retighten the bolts to 110 ± 15 N·m (81 ± 11 ft-lb).



<<D>> CROSSMEMBER BRACKET REMOVAL

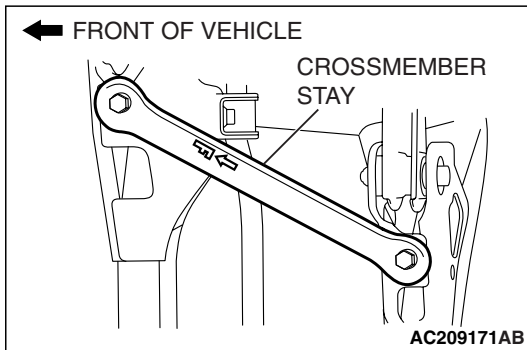
The crossmember mounting bolts need not be unscrewed when the crossmember bracket is replaced. However, the bolts may be loosened while the crossmember bracket is removed. It is recommended that you retighten the bolts to 110 ± 15 N·m (81 ± 11 ft-lb).



INSTALLATION SERVICE POINTS

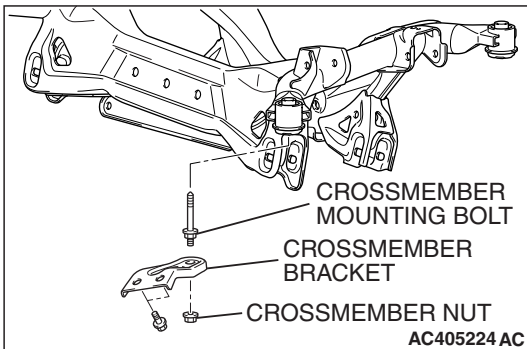
>>A<< CROSSMEMBER STAY INSTALLATION

Install the crossmember stay with its arrow facing the front of vehicle.



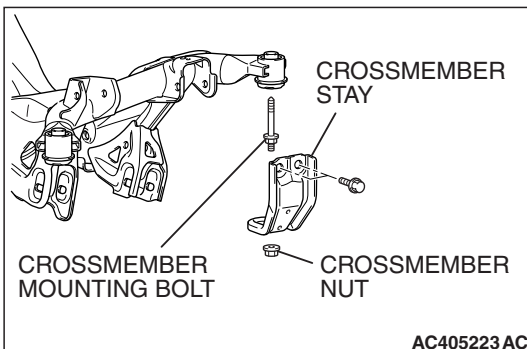
>>B<< CROSSMEMBER BRACKET/CROSSMEMBER NUT INSTALLATION

Ensure that the crossmember mounting bolts have been tightened to 110 ± 15 N·m (81 ± 11 ft-lb), and then install the crossmember bracket with the crossmember nut.



>>C<< CROSSMEMBER STAY/CROSSMEMBER NUT INSTALLATION

Ensure that the crossmember mounting bolts have been tightened to 110 ± 15 N·m (81 ± 11 ft-lb), and then install the crossmember stay with the crossmember nut.



INSPECTION

M1341006900089

- Check the crossmember for cracks or deformation.
- Check all bolts for condition and straightness.

SPECIFICATIONS**FASTENER TIGHTENING SPECIFICATIONS**

M1341012700352

| ITEM | SPECIFICATION |
|----------------------------------------------------------------------|-------------------------------|
| Lower arm assembly | |
| Lower arm assembly to crossmember nut | 78 ± 7 N· m (57 ± 5 ft-lb) |
| Lower arm assembly to knuckle nut (self-locking nut) | 113 ± 12 N· m (83 ± 9 ft-lb) |
| Lower arm assembly to stabilizer bar link assembly nut | 40 ± 5 N· m (30 ± 3 ft-lb) |
| Shock absorber assembly to knuckle bolt | 100 ± 10 N· m (74 ± 7 ft-lb) |
| Rear suspension crossmember | |
| Crossmember bracket mounting bolt and nut (self-locking nut) | 83 ± 12 N· m (61 ± 9 ft-lb) |
| Crossmember stay (front) mounting bolt | 45 ± 5 N· m (34 ± 3 ft-lb) |
| Crossmember stay (rear) mounting bolt and nut (self-locking nut) | 83 ± 12 N· m (61 ± 9 ft-lb) |
| Rear suspension crossmember to body bolt | 110 ± 15 N· m (81 ± 11 ft-lb) |
| Shock absorber assembly | |
| Shock absorber assembly to body nut | 45 ± 5 N· m (34 ± 3 ft-lb) |
| Shock absorber self-locking nut (coil spring nut) | 23 ± 2 N· m (17 ± 1 ft-lb) |
| Stabilizer bar | |
| Stabilizer bar link assembly nut | 40 ± 5 N· m (30 ± 3 ft-lb) |
| Stabilizer bracket bolt | 45 ± 5 N· m (34 ± 3 ft-lb) |
| Toe control arm assembly | |
| Toe control arm assembly to crossmember nut | 78 ± 7 N· m (57 ± 5 ft-lb) |
| Toe control arm assembly to knuckle nut (self-locking nut) | 66 ± 6 N· m (49 ± 4 ft-lb) |
| Trailing arm assembly to knuckle nut (self-locking nut) | 113 ± 12 N· m (83 ± 9 ft-lb) |
| Trailing arm assembly | |
| Trailing arm assembly to trailing arm bracket nut (self-locking nut) | 113 ± 12 N· m (83 ± 9 ft-lb) |
| Trailing arm bracket to body bolt | 100 ± 10 N· m (74 ± 7 ft-lb) |
| Upper arm assembly | |
| Upper arm assembly to crossmember bolt and nut (self-locking nut) | 113 ± 12 N· m (83 ± 9 ft-lb) |
| Upper arm assembly to knuckle nut (self-locking nut) | 113 ± 12 N· m (83 ± 9 ft-lb) |

GENERAL SPECIFICATIONS

M1341000200361

COIL SPRING

| ITEM | SPECIFICATION |
|--------------------------|----------------------------|
| Wire diameter mm (in) | 11.8 (0.46) |
| Average diameter mm (in) | 85.8 – 112.2 (3.38 – 4.42) |
| Free length mm (in) | 330 (13.0) |

SERVICE SPECIFICATIONS

M1341000300636

| ITEM | STANDARD VALUE |
|--------------------------------------------------------------|--------------------------------------------------------------|
| Camber | -0° 50' ± 30' (Difference between right and left within 30') |
| Toe-in mm (in) | 3 ± 3 (0.12 ± 0.12) |
| Toe control arm ball joint turning torque N· m (in-lb) | 1.0 – 2.6 (8.9 – 23) |
| Stabilizer bar link ball joint breakaway torque N· m (in-lb) | 3.4 – 9.0 (30 – 80) |

LUBRICANT

M1341000400183

| ITEM | SPECIFIED LUBRICANT | QUANTITY |
|-----------------------------------------------------------|-------------------------------------------------------|------------------------------|
| Toe control arm ball joint (lip and inside of dust cover) | Multipurpose grease SAE J310, NLGI No.2 or equivalent | 7 ± 0.5 g (0.247 ± 0.018 oz) |

NOTES