

SECTION 2C

FRONT SUSPENSION

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SPECIFICATIONS

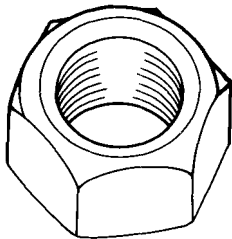
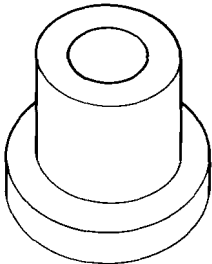
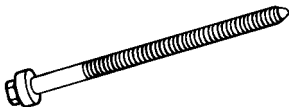
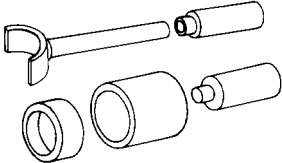
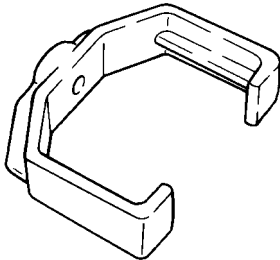
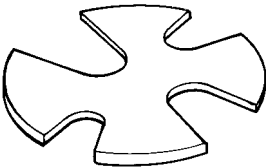
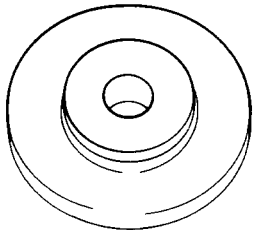
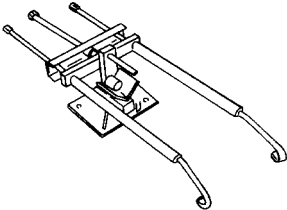
GENERAL SPECIFICATIONS

Application	Trim Height
Rocker Panel, Front to Ground	195 mm (7.7 in.)
Rocker Panel, Rear to Ground	191 mm (7.5 in.)


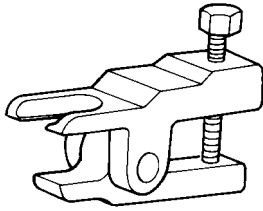
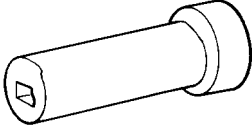
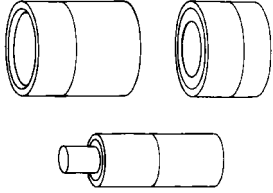
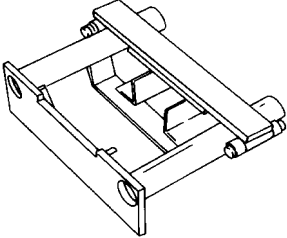
FASTENER TIGHTENING SPECIFICATIONS

Application	N•m	Lb-Ft	Lb-In
Ball Joint-to-Control Arm Nuts	65	48	-
Ball Joint-to-Knuckle/Strut Nut	70	52	-
Control Arm Front Mounting Bolt	140	103	-
Control Arm Rear Mounting Bolts	70	52	-
Drive Axle-to-Hub Caulking Nut (First Torque)	180	133	-
Drive Axle-to-Hub Caulking Nut (Last Torque)	50 + 60°	37 + 60°	-
Piston Rod Nut	55	41	-
Stabilizer Shaft-to-Body Clamp Bolt	40	30	-
Strut Assembly-to-Body Nuts	25	18	-
Strut Cartridge Closure Nut	200	148	-

SPECIAL TOOLS**SPECIAL TOOLS TABLE**

 A106C056	500-20 Hex Nut	 A106C055	J-37105-B-3 Hub Adapter
 A106C053	J-36661-2 Forcing Screw	 A106C029	KM-158 Remover/Installer
 A106C052	J-37105-B-1 Support Bridge	 A106C030	KM-307-B Removal Plate
 A106C054	J-37105-B-2 Bearing Adapter	 A106C031	KM-329-A Spring Compressor

SPECIAL TOOLS TABLE (Cont'd)

 <p>A106C062</p>	<p>J-42468 Front Strut Mount Nut Wrench</p>	 <p>A106C034</p>	<p>KM-507-B Ball Joint Remover</p>
 <p>A106C036</p>	<p>KM-331 Strut Cartridge Closure Nut Wrench</p>	 <p>A106C035</p>	<p>KM-508-A Remover/Installer</p>
 <p>A106C033</p>	<p>KM-465-A Front Spring Compressor</p>		

DIAGNOSIS

STRUT DAMPENER

A strut dampener is basically a shock absorber. However, strut dampeners are easier to extend and retract by hand than are shock absorbers. Strut dampeners are

used only on the front in most vehicles, including this vehicle. Shock absorbers are used on the rear wheels.

Struts Seem Weak

Checks	Action
Check the tire pressures.	Adjust the tire pressures to the specifications on the tire placard.
Check the load conditions under which the vehicle is normally driven.	Consult with the owner to confirm the owner's understanding of normal load conditions.
Check the compression and rebound effectiveness of the strut dampener.	Quickly push down and then lift up on the corner of the bumper nearest the strut dampener being tested. Compare the compression and rebound with those of a similar vehicle that has an acceptable ride quality. Replace the strut dampener, if needed.

Struts Are Noisy

Checks	Action
Check the mountings for looseness or damage.	Tighten the strut dampener. Replace the strut dampener, if needed.
Check the compression and rebound effectiveness of the strut dampener.	Quickly push down and then lift up on the corner of the bumper nearest the strut dampener being tested. Compare the compression and rebound with those of a similar vehicle that has an acceptable ride quality. Replace the strut dampener, if needed.

Leaks

Checks	Action
Check for a slight trace of fluid.	The strut dampener is OK.
Check the seal cover on the fully extended strut.	Replace the strut dampener.
Check for an excessive amount of fluid on the strut dampener.	Replace the strut dampener.

BALL JOINT AND KNUCKLE

Ball Joint Inspection

1. Raise the front of the vehicle to allow the front suspension to hang free.
2. Grasp the tire at the top and the bottom.
3. Move the top of the tire in an in-and-out motion.
4. Look for any horizontal movement of the knuckle relative to the control arm.
5. Ball joints must be replaced if the following conditions exist:
 - The joint is loose.
 - The ball seal is cut.
 - The ball stud is disconnected from the knuckle.

- The ball stud is loose at the knuckle.
- The ball stud can be twisted in its socket with finger pressure.

Ball Stud Inspection

Make sure to check the tightness of the ball stud in the knuckle boss during each inspection of the ball joint. One way to inspect the ball stud for wear is to shake the wheel and feel for movement of the stud end or the castellated nut at the knuckle boss.

Another way to inspect the ball stud for wear is to check the fastener torque at the castellated nut. A loose nut can indicate a stressed stud or a hole in the knuckle boss.

Worn or damaged ball joints and knuckles must be replaced.

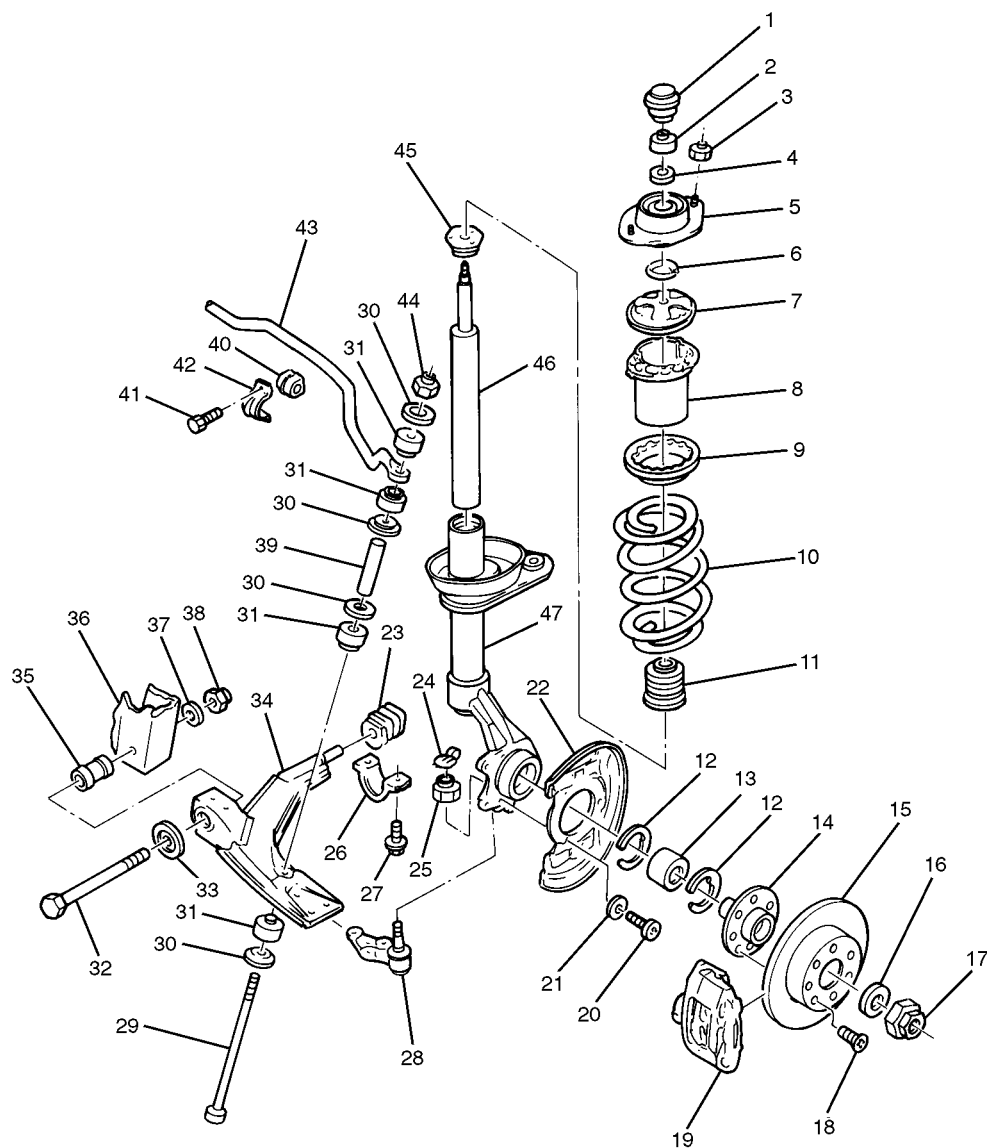
EXCESSIVE FRICTION CHECK

Use the following procedures in order to check excessive friction in the front suspension.

1. Enlist the help of another technician to lift up on the front bumper, raising the vehicle as high as possible.
2. Slowly release the bumper, allowing the vehicle to assume its normal trim height. See "General Specifications" in this section.
3. Measure the distance from the street level to the center of the bumper.
4. Push down on the bumper, release slowly, and allow the vehicle to assume its normal trim height.
5. Measure the distance from the street level to the center of the bumper.
6. The difference between the two measurements should be less than 12.7 mm (0.5 inch). If the difference exceeds this limit, inspect the control arms, the struts, and the ball joints for damage or wear.

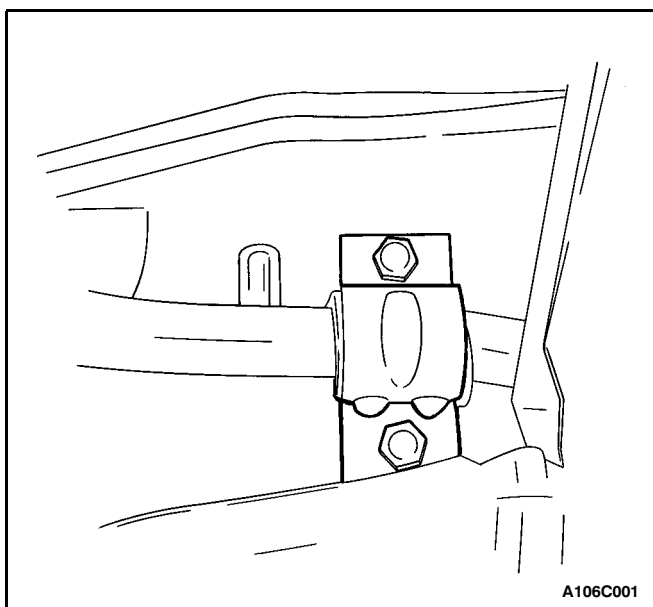
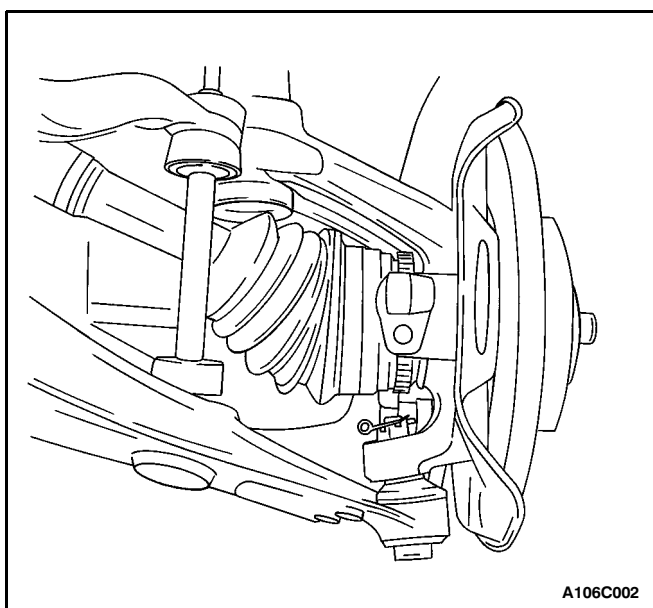
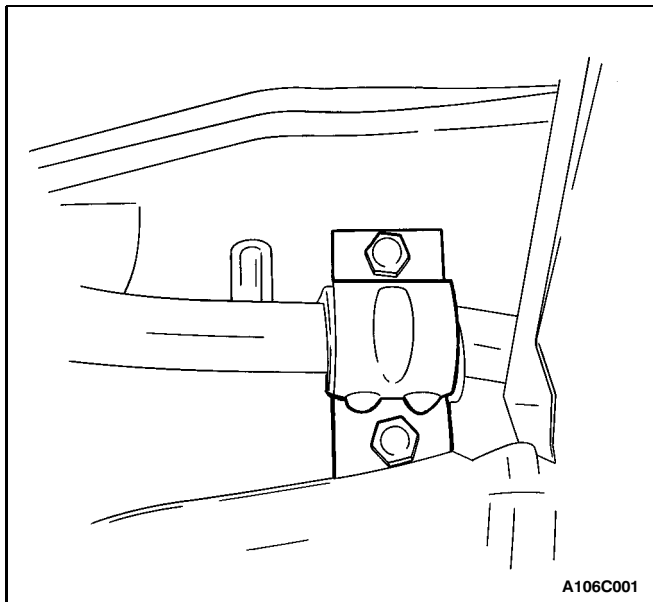
COMPONENT LOCATOR

FRONT SUSPENSION



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- | | |
|---|---|
| 1 Upper Bearing Dust Cover | 26 Lower Control Arm Rear Bushing Mounting Bracket |
| 2 Piston Nut | 27 Lower Control Arm Rear Bushing Mounting Bracket Bolt |
| 3 Strut Assembly-to-Body Nut | 28 Lower Ball Joint |
| 4 Piston Nut Washer | 29 Front Stabilizer Shaft Link Assembly Bolt |
| 5 Upper Strut Mount Bearing | 30 Front Stabilizer Shaft Link Grommet Washer |
| 6 Bearing Support Washer | 31 Front Stabilizer Shaft Link Grommet |
| 7 Plastic Mount | 32 Lower Control Arm Front Mounting Bracket Bolt |
| 8 Strut Shield | 33 Lower Control Arm Front Mounting Bracket Bolt Washer |
| 9 Upper Spring Insulator Ring | 34 Lower Control Arm |
| 10 Coil Spring | 35 Lower Control Arm Front Bushing |
| 11 Strut Bumper | 36 Vehicle Body |
| 12 Snap Ring | 37 Lower Control Arm Front Mounting Bracket Nut Washer |
| 13 Front Wheel Bearing | 38 Lower Control Arm Front Mounting Bracket Nut |
| 14 Front Wheel Hub | 39 Front Stabilizer Shaft Link Assembly Spacer |
| 15 Rotor | 40 Front Stabilizer Shaft Insulator |
| 16 Drive Axle-to-Hub Nut Lock Washer | 41 Front Stabilizer Shaft Clamp Bolt |
| 17 Drive Axle-to-Hub Caulking Nut | 42 Front Stabilizer Shaft Clamp |
| 18 Detent Screw | 43 Front Stabilizer Shaft |
| 19 Front Brake Caliper | 44 Front Stabilizer Shaft Link Assembly Nut |
| 20 Brake Shield Attachment Screw | 45 Strut Cartridge Closure Nut |
| 21 Brake Shield Attachment Screw Washer | 46 Strut Cartridge |
| 22 Brake Shield | 47 Knuckle and Support Tube |
| 23 Lower Control Arm Rear Bushing | |
| 24 Lower Ball Joint Cotter Pin | |
| 25 Lower Ball Joint Nut | |
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MAINTENANCE AND REPAIR

ON-VEHICLE SERVICE

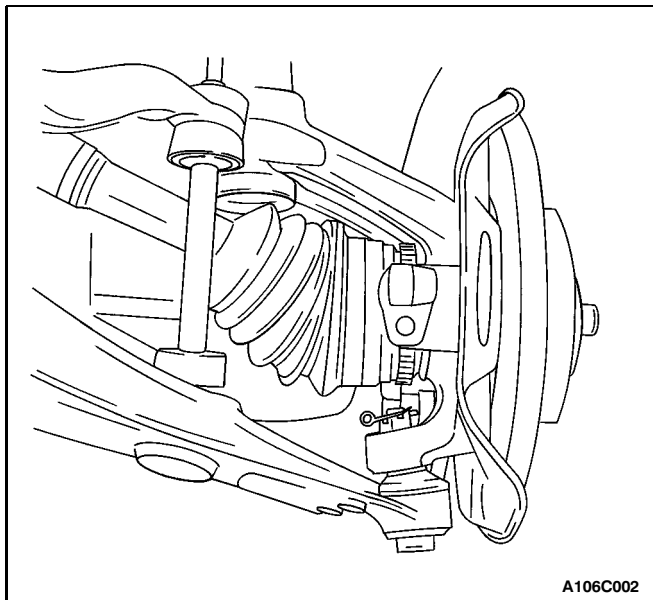
STABILIZER SHAFT AND INSULATORS

Removal Procedure

1. Lift and suitably support the vehicle, allowing the front suspension to hang free.
2. Remove the front wheel. Refer to Section 2E, Tires and Wheels.
3. Remove the stabilizer shaft-to-body clamp bolts, the stabilizer shaft clamps, and the insulators from the vehicle.
4. Disconnect the stabilizer shaft from the lower control arm by removing the stabilizer shaft link assembly.

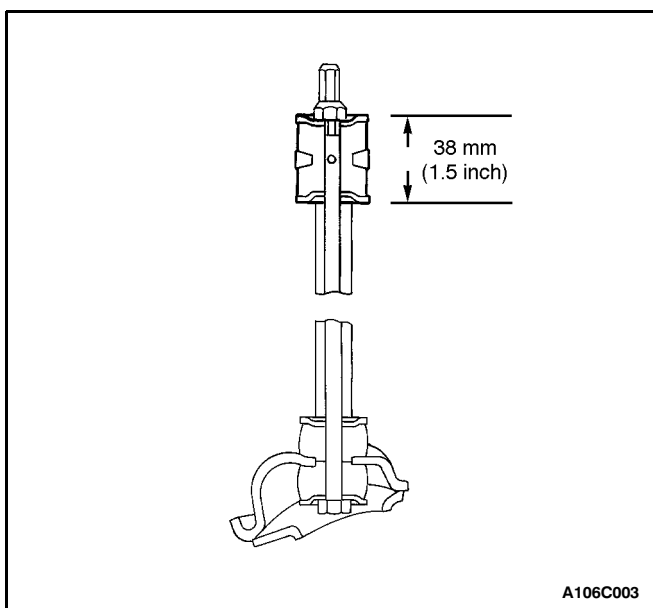
Installation Procedure

1. Install the stabilizer shaft into the vehicle.
2. Install the stabilizer shaft clamp insulators, the stabilizer shaft clamps, and the stabilizer shaft-to-body clamp bolts. Do not tighten the bolts.



A106C002

3. Connect the stabilizer shaft to the lower control arm with the stabilizer shaft link assembly.



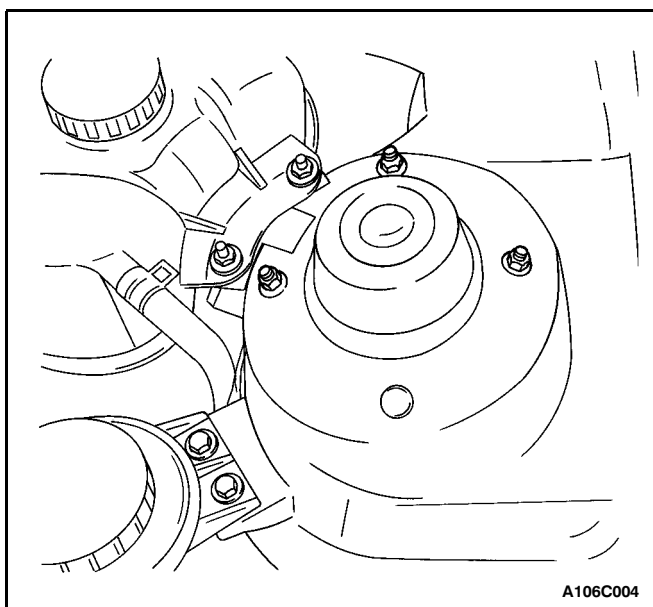
A106C003

4. Make certain the stabilizer shaft is centered side-to-side.

Tighten

Tighten the stabilizer shaft-to-body clamp bolt to 40 N·m (30 lb-ft).

5. Connect the stabilizer shaft to the control arm with a new self-locking nut.
6. Tighten the self-locking nut to achieve 38 mm (1.5 inch) between the self-locking nut and the control arm spacer.
7. Install the wheel. Refer to Section 2E, Tires and Wheels.
8. Lower the vehicle.



A106C004

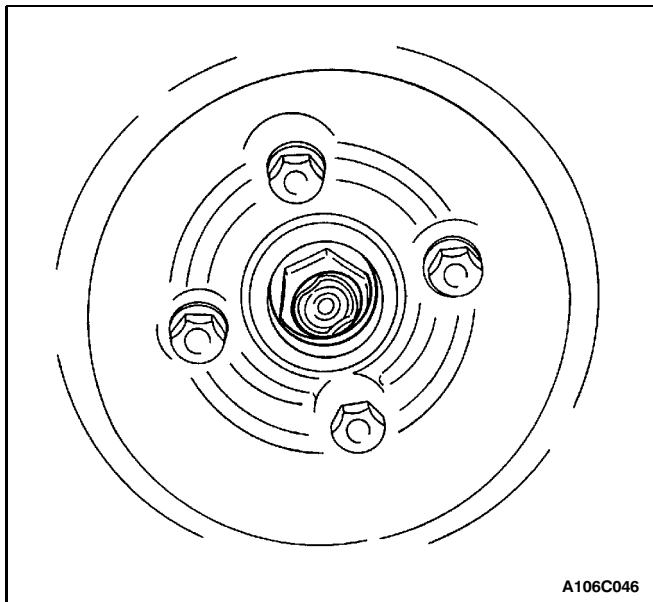
KNUCKLE/STRUT ASSEMBLY

Tools Required

KM-507-B Ball Joint Remover

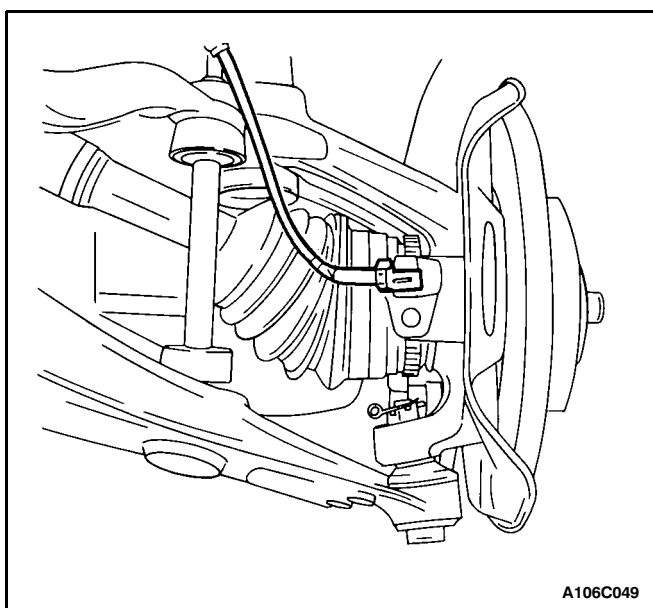
Removal Procedure

1. Loosen the nuts that attach the top of the strut assembly to the vehicle.



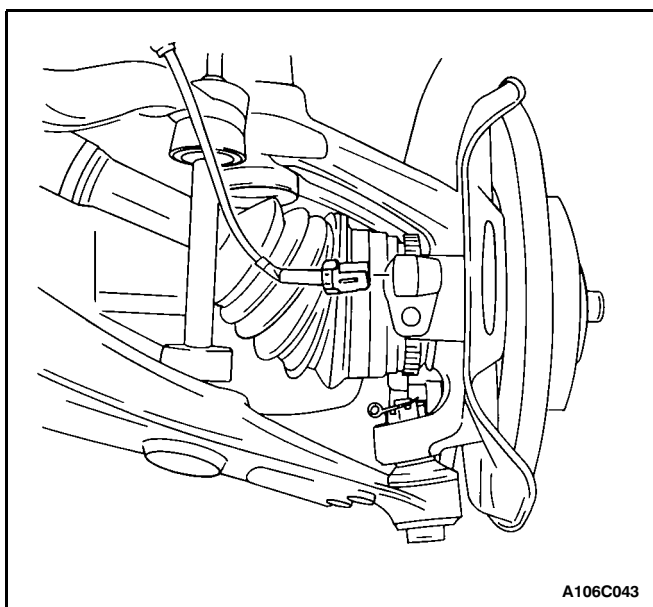
A106C046

2. Uncrimp the caulking nut sleeve and remove the caulking nut and the washer.



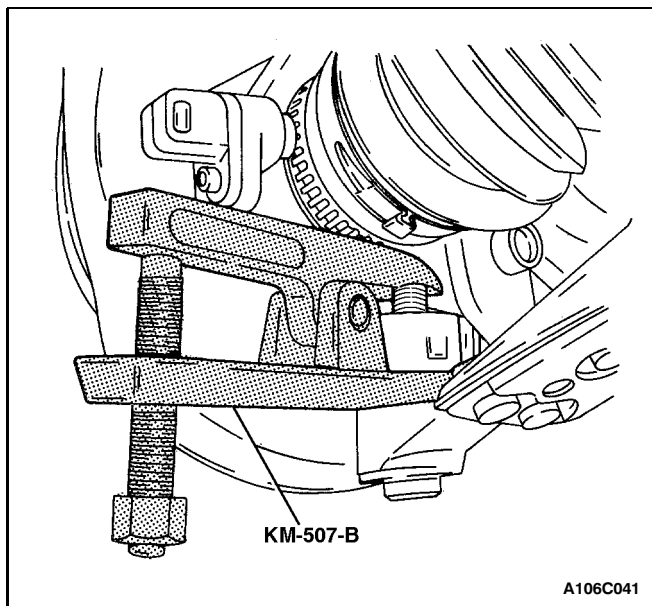
A106C049

3. Raise and suitably support the vehicle.
4. Place the jackstands under the frame of the vehicle.
5. Lower the vehicle slightly so the weight of the vehicle rests on the jackstands and not on the control arms.
6. Remove the wheel. Refer to Section 2E, Tires and Wheels.
7. Disconnect the brake caliper from the knuckle/strut assembly and support the caliper. Do not hang the caliper from the hydraulic brake hose. Refer to Section 4D, Front Disc Brakes.
8. Disconnect the ABS speed sensor electrical connector, if applicable.



A106C043

9. Remove the ball joint cotter pin by lifting up on the rear of the clip and using the two loops on the front of the clip to pull the clip out.
10. Remove the ball joint-to-knuckle-strut nut.



Notice: Failure to use the recommended tool for separating the ball joint from the steering knuckle assembly may damage the ball joint and seal.

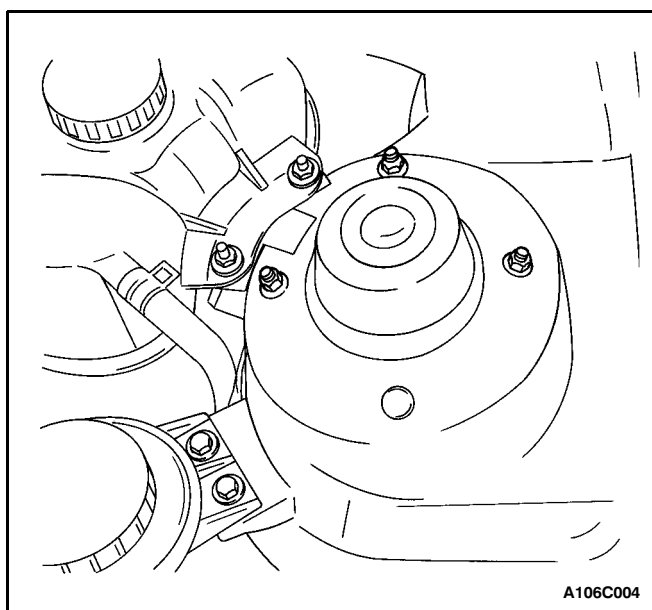
11. Separate the steering knuckle assembly from the ball joint using the ball joint remover KM-507-B.
12. Remove the outer tie rod from the steering knuckle assembly. Refer to Section 6C, Power Steering Gear [Includes Rack & Pinion Gear] or Section 6D, Manual Steering Gear [Includes Rack & Pinion Gear].

Notice: Take care to prevent the axle joints from being overextended. When either end of the shaft is disconnected, the joint can become overextended. This overextension can cause the internal components to separate. This separation can cause joint failure. Use drive axle joint seal protectors during any service on or near the drive axles. Failure to use joint seal protectors can damage the interior joint seal and cause joint failure.

13. Push the drive axle shaft from the front wheel hub.
14. Support the drive axle.
15. Lower the vehicle in order to gain access to the strut-to-body nuts and the washers.

Notice: Chipping or scratching the spring coating when handling the front suspension coil spring can cause the spring to fail.

16. Remove the strut assembly-to-body nuts.
17. Remove the strut assembly from the vehicle.



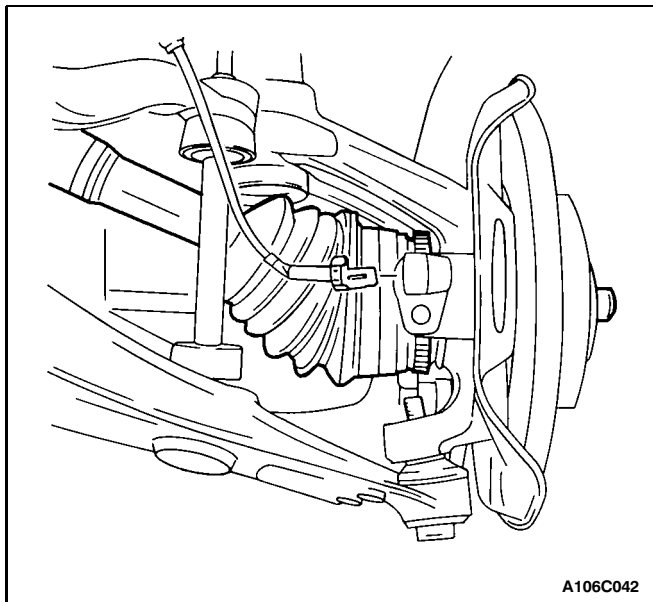
Installation Procedure

Notice: Chipping or scratching the spring coating when handling the front suspension coil spring can cause the spring to fail.

1. Install the strut assembly into the vehicle with the strut assembly-to-body nuts.

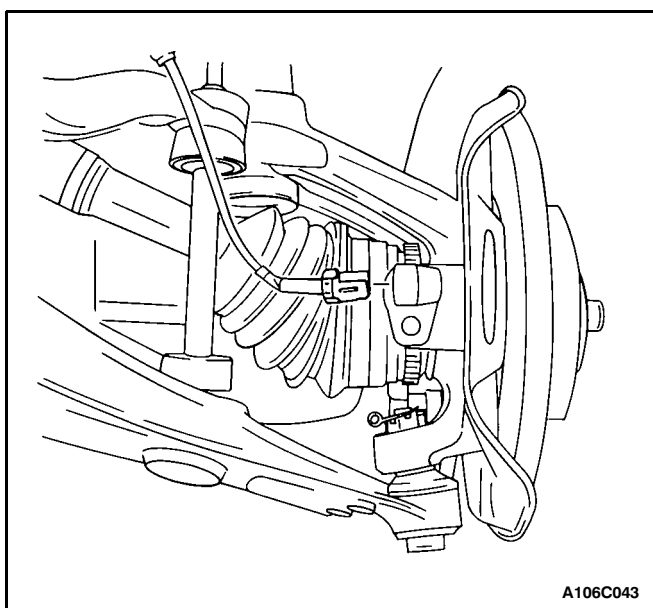
Tighten

Tighten the strut assembly-to-body nuts to 25 N•m (18 lb-ft).



A106C042

2. Connect the drive axle to the front wheel hub.



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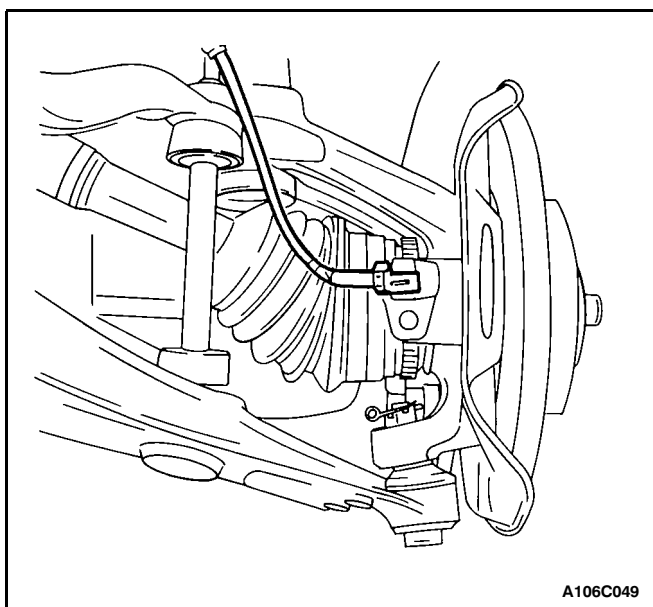
3. Connect the outer tie rod to the steering knuckle assembly. Refer to Section 6C, Power Steering Gear [Includes Rack & Pinion Gear] or Section 6D, Manual Steering Gear [Includes Rack & Pinion Gear].

4. Connect the ball joint to the steering knuckle assembly.

5. Install the ball joint-to-knuckle/strut nut and the ball joint cotter pin.

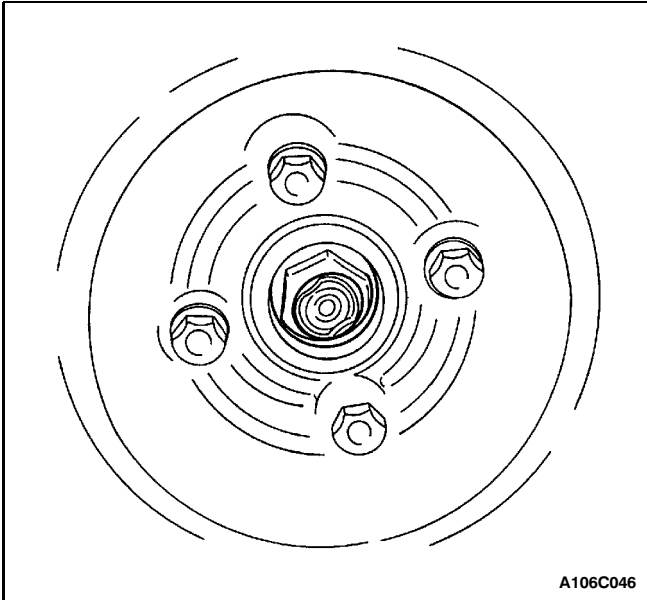
Tighten

Tighten the ball joint-to-knuckle/strut nut to 70 N·m (52 lb-ft).



A106C049

6. Connect the ABS speed sensor electrical connector, if applicable.

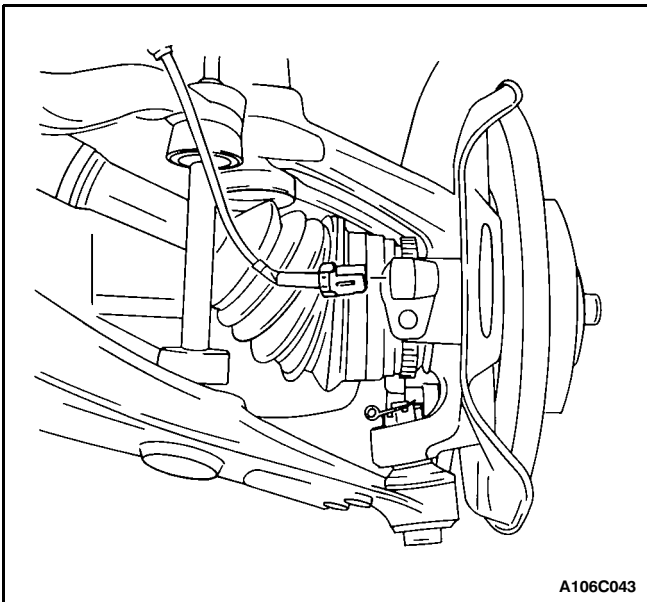


7. Connect the brake caliper to the knuckle/strut assembly. Refer to Section 4D, Front Disc Brakes.
8. Install the wheel. Refer to Section 2E, Tires and Wheels.
9. Install a new drive axle-to-hub caulking nut.

Tighten

Tighten the drive axle-to-hub caulking nut to 180 N·m (133 lb-ft). Loosen the nut and retighten the nut to 50 N·m (37 lb-ft). Then tighten the nut an additional 60 degrees.

10. Crimp the caulking nut sleeve onto the drive axle shaft.



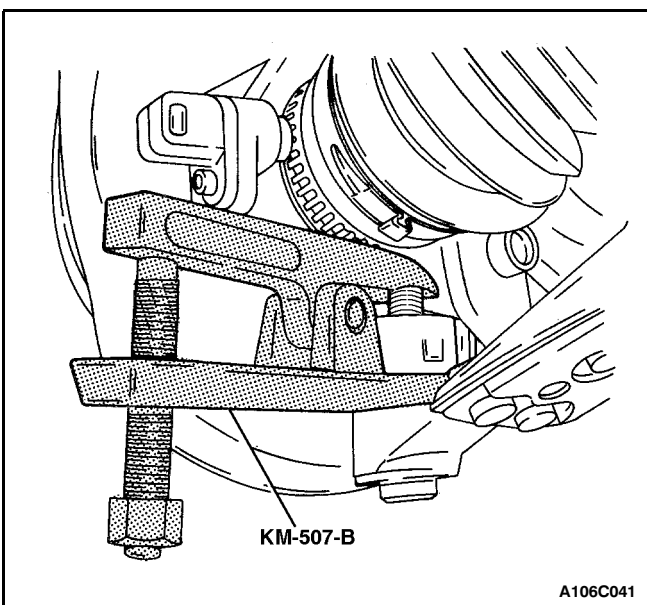
CONTROL ARM

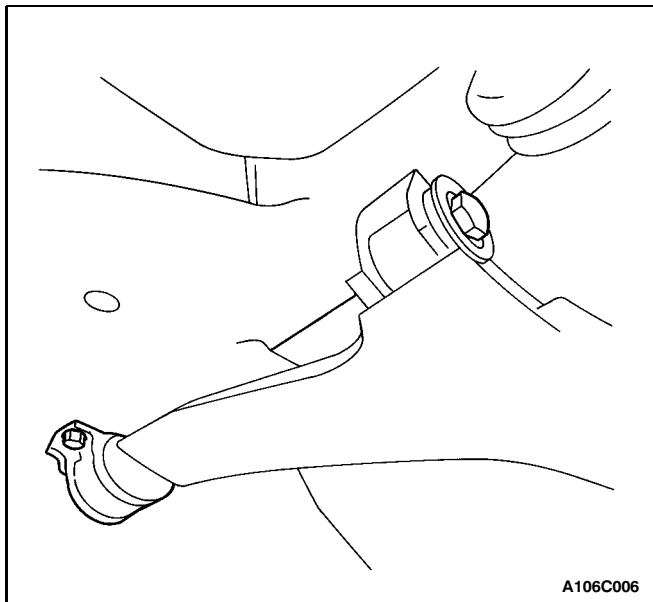
Tools Required

KM-507-B Ball Joint Remover

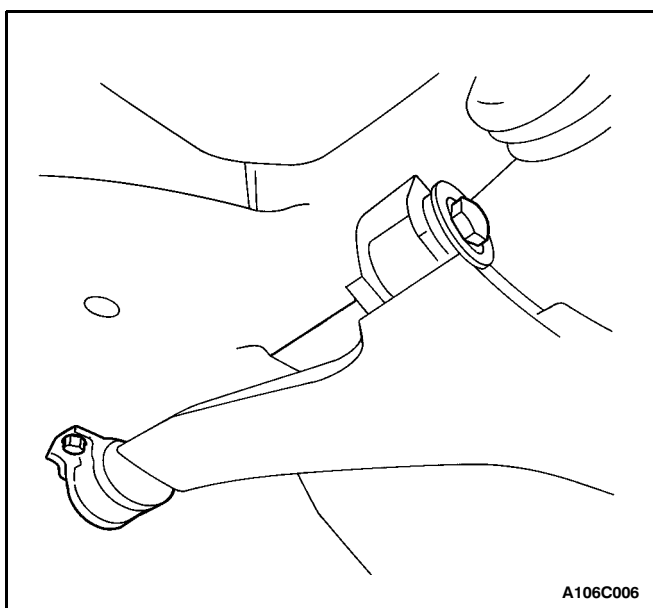
Removal Procedure

1. Raise and suitably support the vehicle.
2. Place the jackstands under the frame of the vehicle.
3. Lower the vehicle slightly so the weight of the vehicle rests on the jackstands and not on the control arms.
4. Remove the wheel. Refer to Section 2E, Tires and Wheels.
5. Disconnect the stabilizer shaft from the control arm by removing the control arm link bolt assembly. Refer to "Stabilizer Shaft and Insulators" in this section.
6. Remove the retaining clip and the ball joint-to-knuckle/strut nut from the ball joint.
7. Disconnect the ball joint from the steering knuckle using the ball joint remover KM-507-B.





8. Remove the control arm front mounting bolt.
9. Remove the control arm rear mounting bolts and the bracket.
10. Remove the control arm from the vehicle.



Installation Procedure

1. Install the control arm onto the vehicle.
2. Connect the front of the control arm to the body of the vehicle with the front mounting bolt and the washer.
3. Apply a thread sealer to the control arm rear mounting bolts.
4. Connect the rear of the control arm to the body of the vehicle with the rear mounting bracket and bolts.

Important: Do not tighten the control arm bolts at this point.

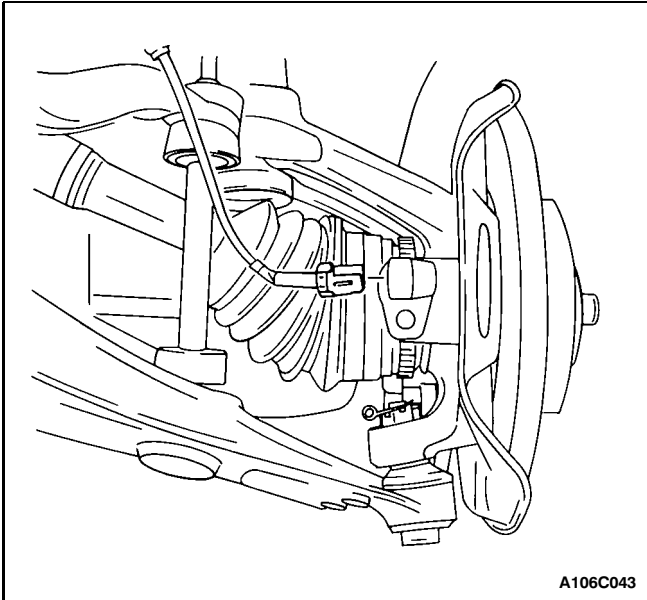
Notice: Use a new self-locking nut to install the control arm link bolt assembly. Failure to do so will allow the normal vibration of the vehicle to loosen the nut and damage the vehicle.

5. Install the stabilizer shaft link bolt assembly. Refer to "Stabilizer Shaft and Insulators" in this section.
6. Connect the ball joint to the steering knuckle.
7. Tighten the ball joint-to-knuckle/strut nut.

Tighten

Tighten the ball joint-to-knuckle/strut nut to 70 N•m (52 lb-ft).

8. Connect the retaining clip to the ball joint stud.
9. Install the wheel. Refer to Section 2E, Tires and Wheels.
10. Raise the vehicle.
11. Place the jackstands under the control arms.
12. Lower the vehicle.



Important: The control arms must support the weight of the vehicle while the control arm mounting bolts are being tightened.

13. Tighten the control arm rear mounting bolts.

Tighten

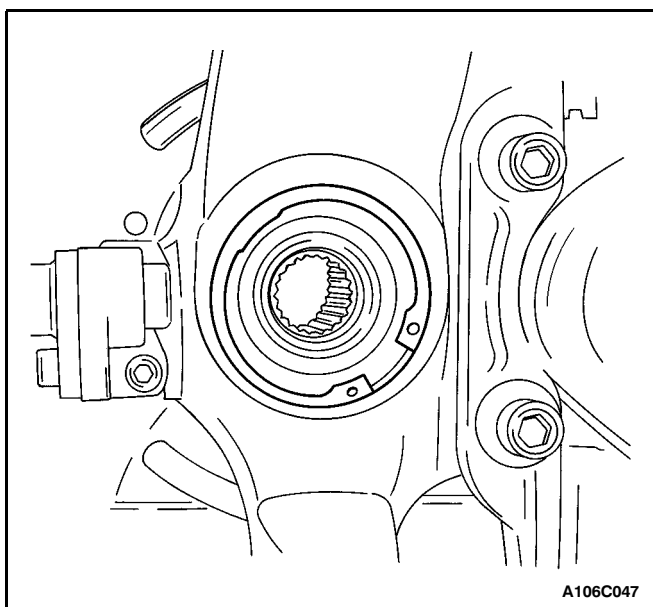
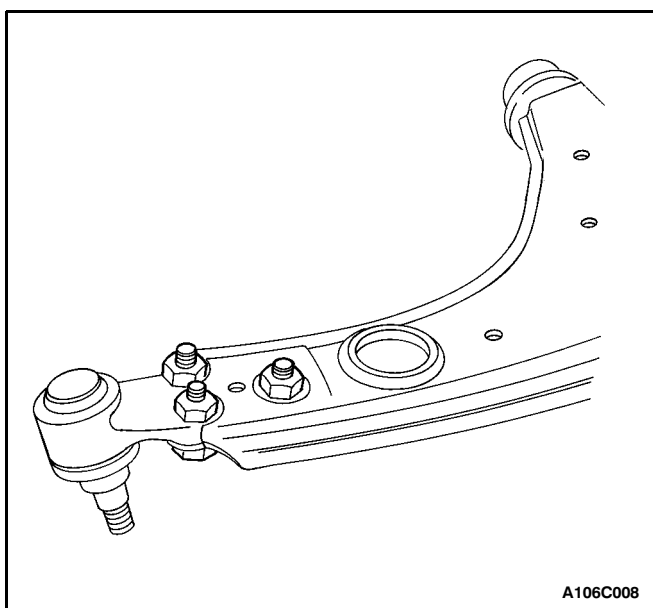
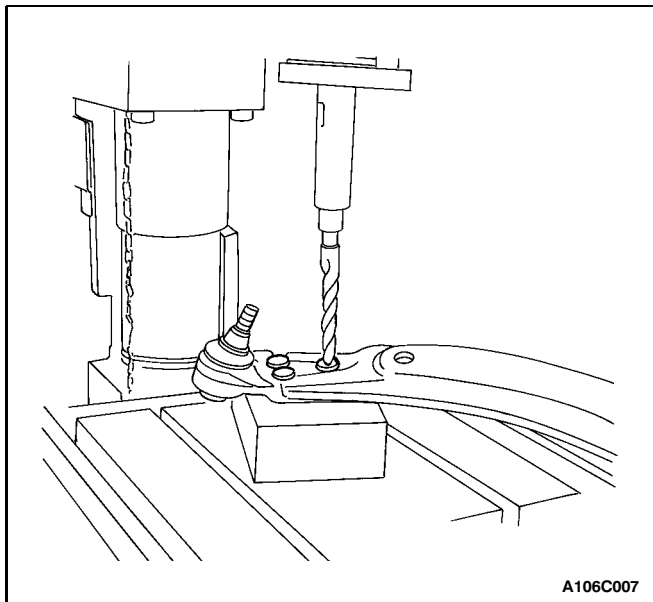
Tighten the control arm rear mounting bolts to 70 N•m (52 lb-ft).

14. Tighten the control arm front mounting bolt.

Tighten

Tighten the control arm front mounting bolt to 140 N•m (103 lb-ft).

15. Raise the vehicle.
16. Remove the jackstands.
17. Lower the vehicle.



UNIT REPAIR

BALL JOINT

Disassembly Procedure

1. Raise and suitably support the vehicle.
2. Place the jackstands under the frame of the vehicle and lower the vehicle slightly so the weight of the vehicle rests on the jackstands and not on the control arms.
3. Remove the wheel. Refer to Section 2E, Tires and Wheels.
4. Remove the control arm. Refer to "Control Arm" in this section.
5. Drill off the heads of the rivets with a 12 mm (0.47-inch) drill bit.
6. Punch out the rivets with a drift.

Assembly Procedure

1. Connect the ball joint to the control arm by inserting the ball joint bolts.
2. Install the nuts to secure the bolts from below the control arm.

Tighten

Tighten the ball joint-to-control arm nuts to 65 N•m (48 lb-ft).

3. Install the control arm. Refer to "Control Arm" in this section.

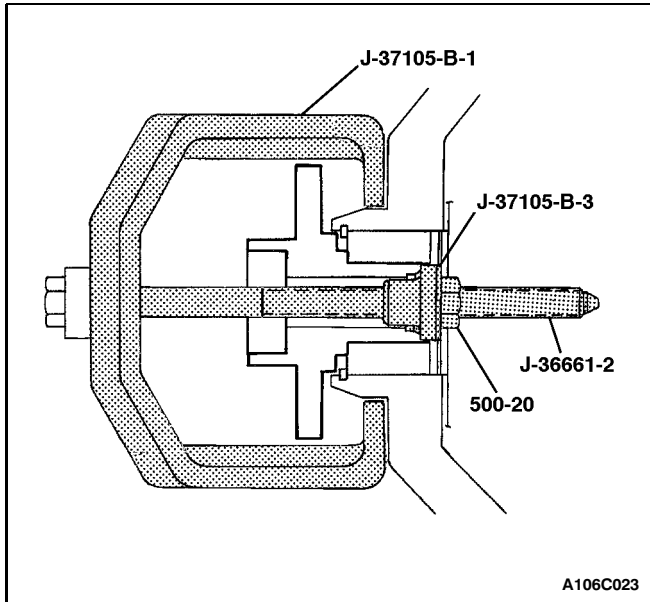
HUB AND BEARING

Tools Required

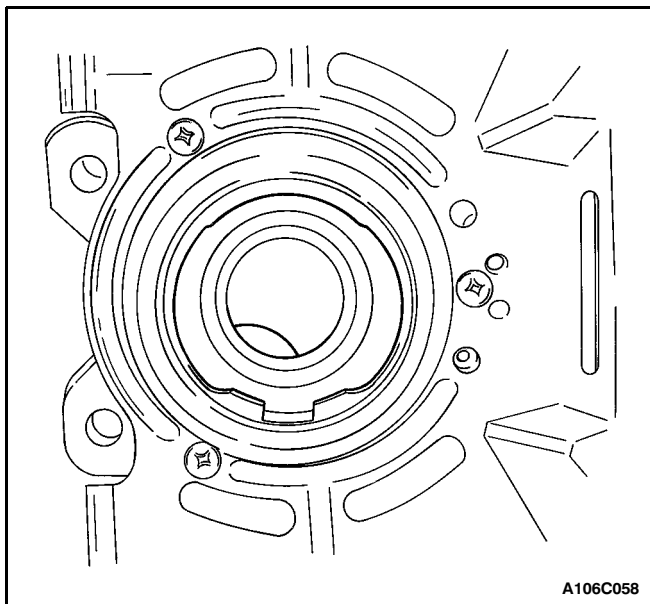
- 500-20 Hex Nut
- J-36661-2 Forcing Screw
- J-37105-B-1 Support Bridge
- J-37105-B-2 Bearing Adapter
- J-37105-B-3 Hub Adapter

Disassembly Procedure

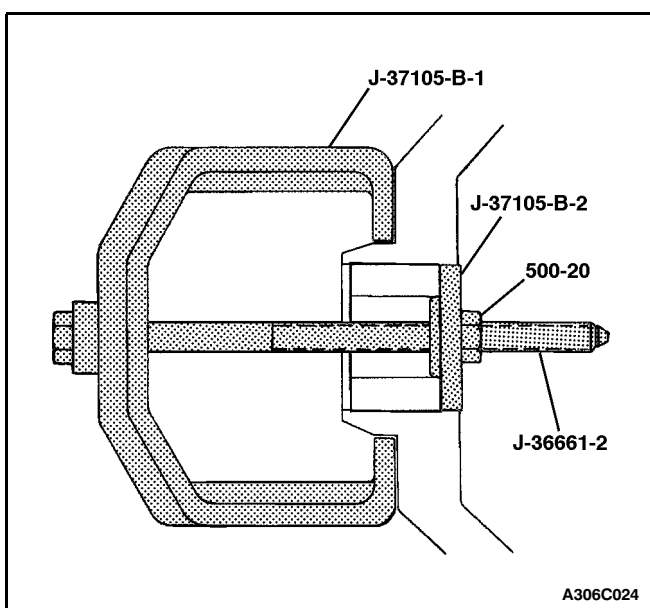
1. Remove the drive axle from the front wheel hub. Refer to "Knuckle/Strut Assembly" in this section.
2. Remove the inner snap ring.



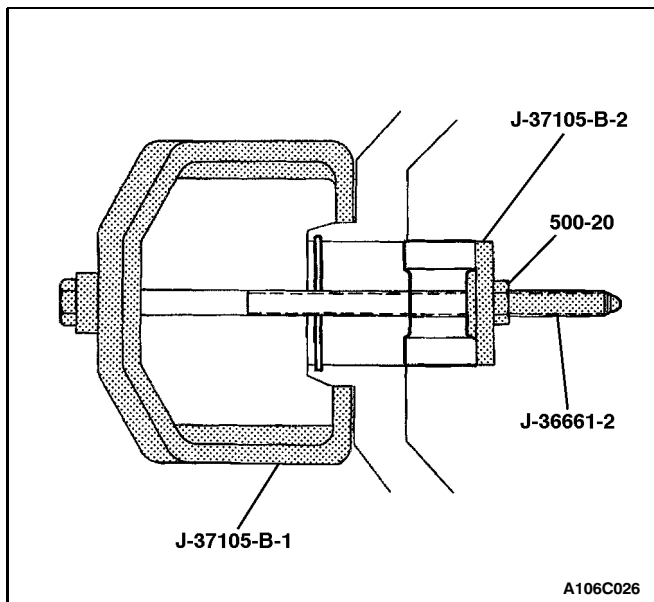
3. Remove the wheel hub with the support bridge J-37105-B-1, the hub adapter J-37105-B-3, the hex nut 500-20, and the forcing screw J-36661-2.



4. Remove the brake shield. Refer to Section 4D, Front Disc Brakes.
5. Remove the outer snap ring.

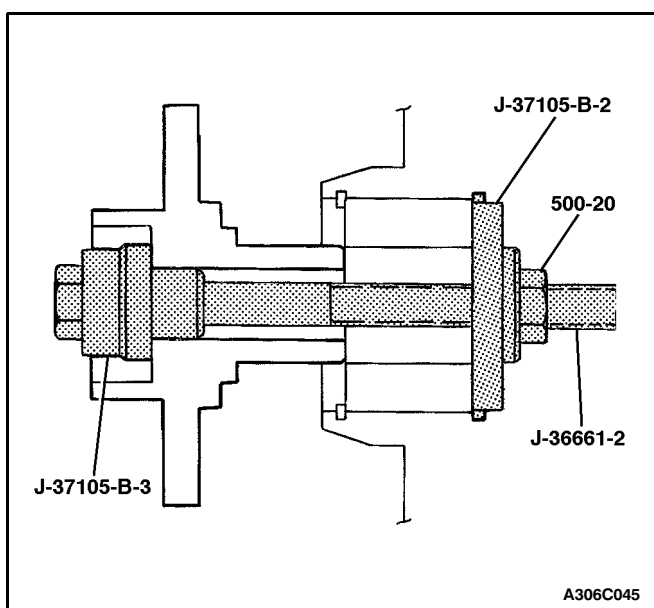


6. Remove the wheel bearing with the support bridge J-37105-B-1, the bearing adapter J-37105-B-2, the hex nut 500-20, and the forcing screw J-36661-2.
7. Clean the bore of the knuckle.

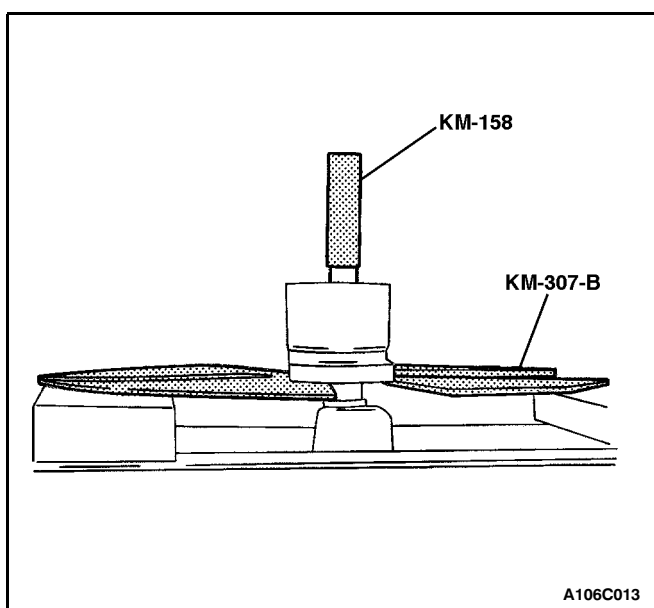


Assembly Procedure

1. Install the outer snap ring and push the wheel bearing into place with the support bridge J-37105-B-1, the bearing adapter J-37105-B-2, the hex nut 500-20, and the forcing screw J-36661-2.



2. Install the brake shield. Refer to Section 4D, Front Disc Brakes.
3. Install the inner snap ring and push the wheel hub into place with the hub adapter J-37105-B-3, the bearing adapter J-37105-B-2, the hex nut 500-20, and the forcing screw J-36661-2.
4. Install the drive axle into the front wheel hub. Refer to "Knuckle/Strut Assembly" in this section.



CONTROL ARM BUSHINGS

Tools Required

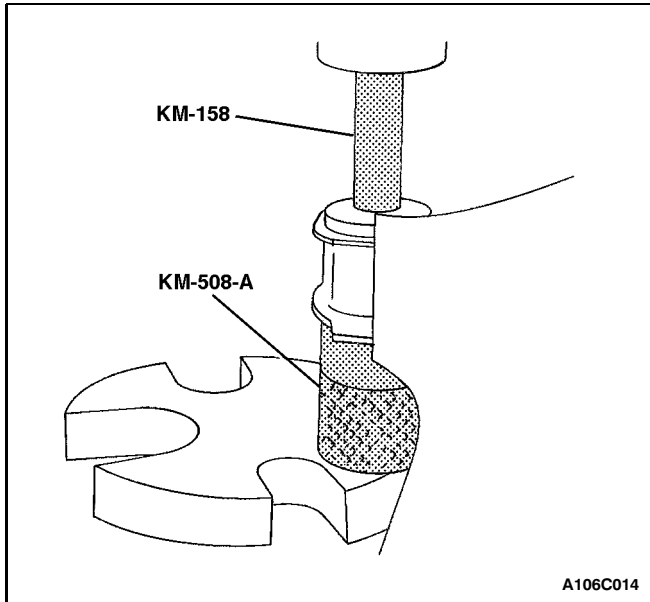
KM-508-A Remover/Installer

KM-158 Remover/Installer

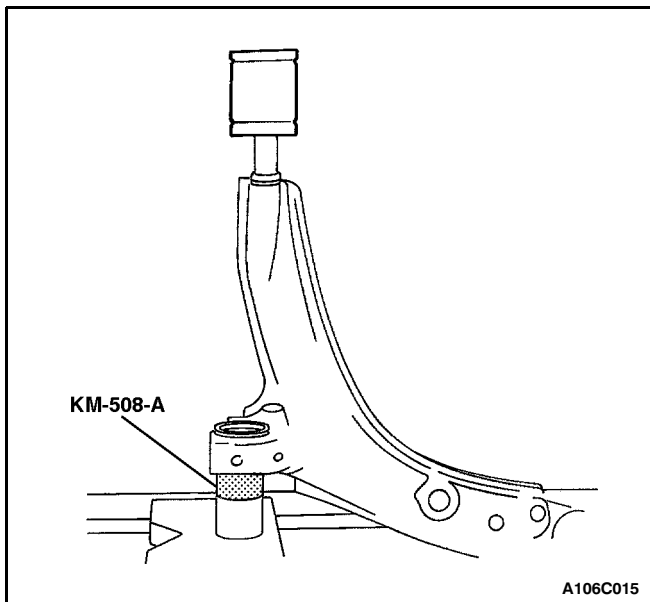
KM-307-B Removal Plate

Disassembly Procedure

1. Remove the control arm. Refer to "Control Arm" in this section.
2. Press off the rear bushing using a press, the remover/installer KM-158, and the removal plate KM-307-B.

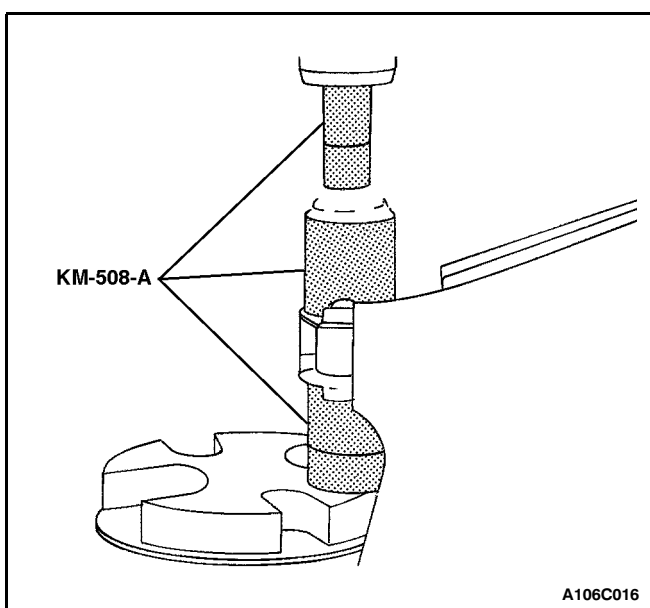


3. Press out the front bushing using the remover/installer KM-508-A, and the remover/installer KM-158.

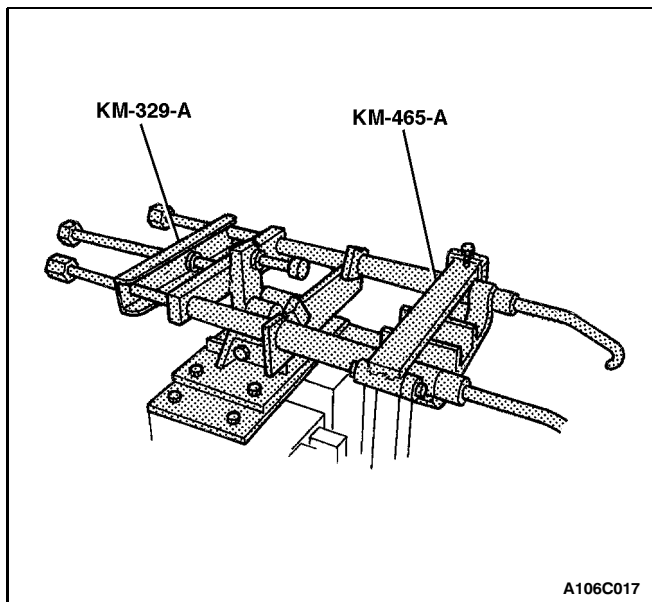


Assembly Procedure

1. Coat the control arm rear shaft with a multipurpose lubricant. Refer to Section 0B, General Information.
2. Press the rear bushing onto the shaft. The flat of the bushing must be on the top side, the same as the ball joint. Use the remover/installer KM-508-A to support the control arm.



3. Coat the outside of the front bushing and the inside of the lower control arm with a multipurpose lubricant. Refer to Section 0B, General Information.
4. Press the new bushing into the control arm from the back to the front, using the remover/installer KM-508-A.
5. Center the bushing.
6. Install the control arm. Refer to "Control Arm" in this section.



FRONT SPRING/STRUT CARTRIDGE

Tools Required

J-42468 Front Strut Mount Nut Wrench

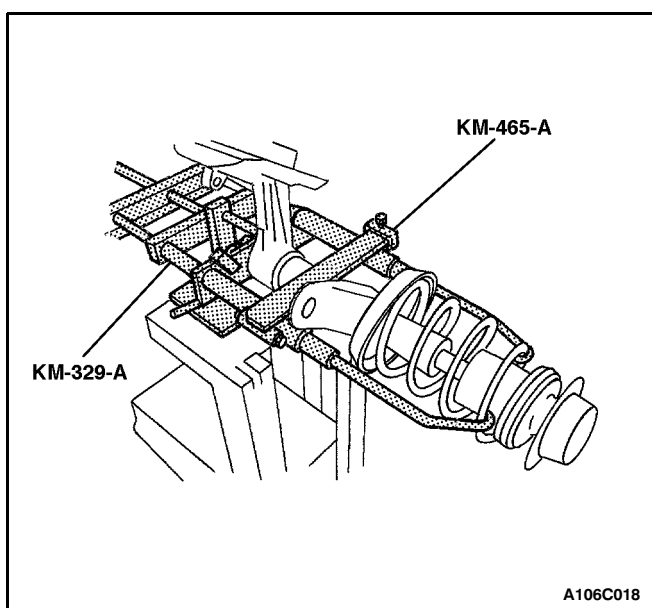
KM-329-A Spring Compressor

KM-331 Strut Cartridge Closure Nut Wrench

KM-465-A Front Spring Compressor

Disassembly Procedure

1. Mount the front spring compressor KM-465-A and the spring compressor KM-329-A on a mounting trestle, a workbench, or any other suitable surface.



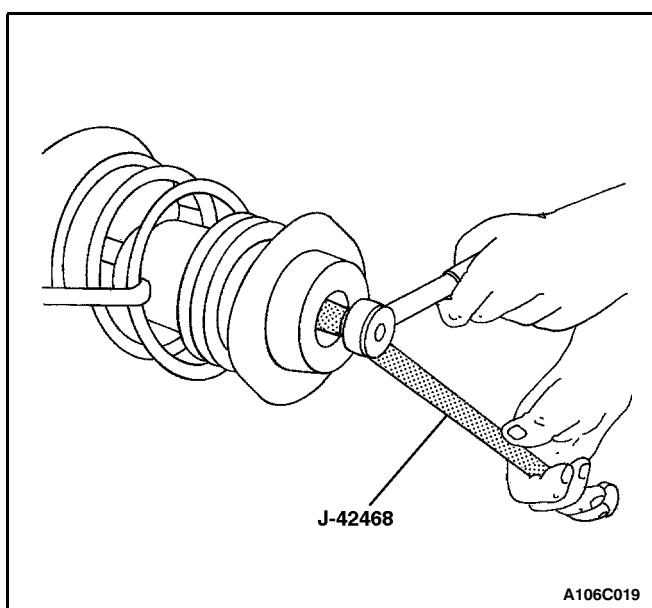
2. Raise and suitably support the vehicle.

3. Remove the wheel. Refer to Section 2E, Tires and Wheels.

4. Remove the strut assembly. Refer to "Knuckle/Strut Assembly" in this section.

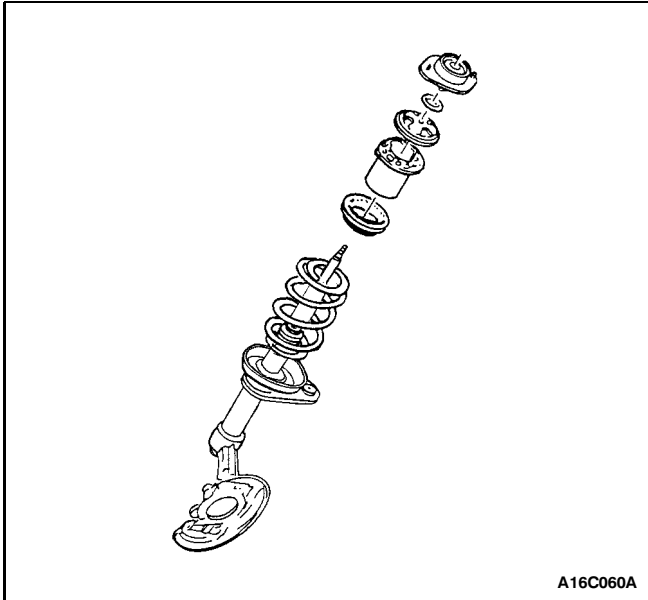
5. Fasten the strut assembly to the spring compressor. Make sure the hooks are seated on the strut spring properly.

6. Compress the front spring with the front spring compressor KM-465-A and the spring compressor KM-329-A.

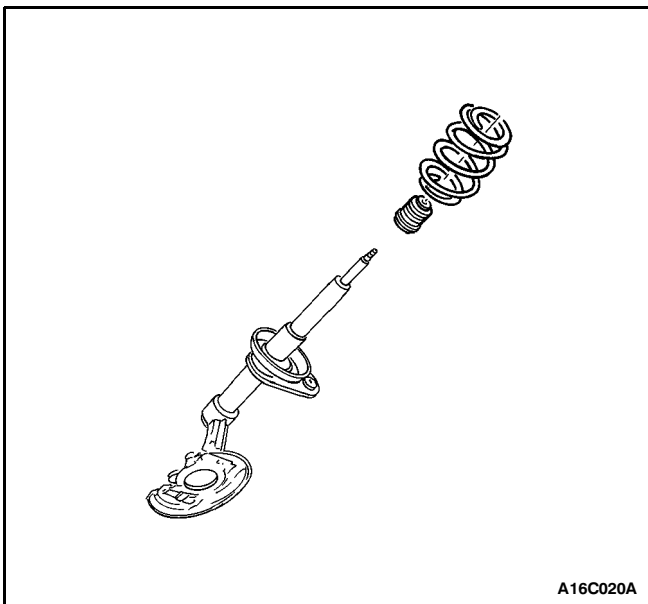


7. Remove the dust cover from the support bearing assembly.

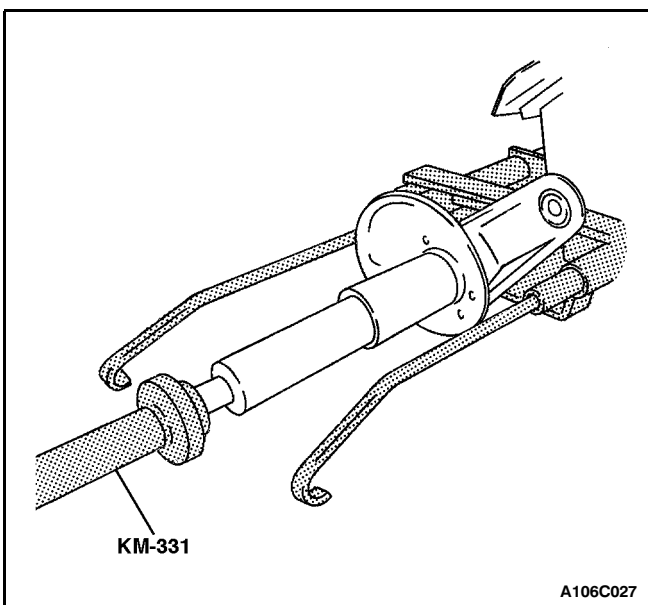
8. Use an open end wrench to hold the threaded piston rod while removing the piston rod nut with the front strut mount nut wrench J-42468. Remove the washer.



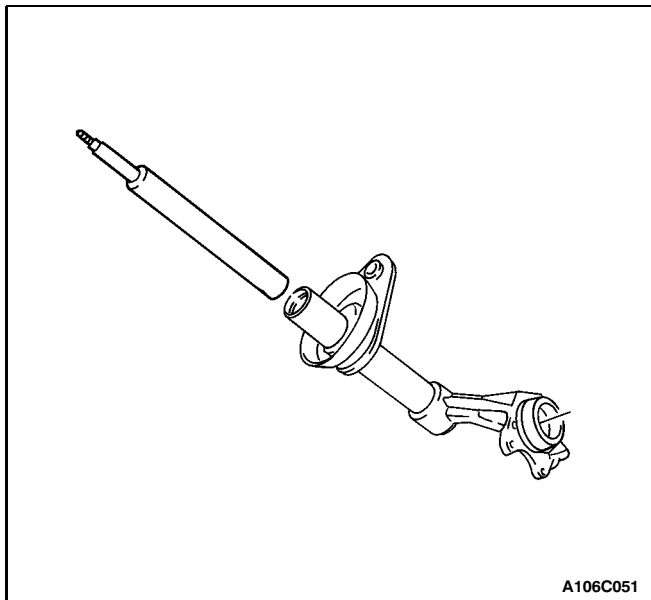
9. Remove the support bearing, the washer, the plastic mount, the shield, and the upper insulator.



10. Release the spring compressor.
11. Remove the spring and the bumper.

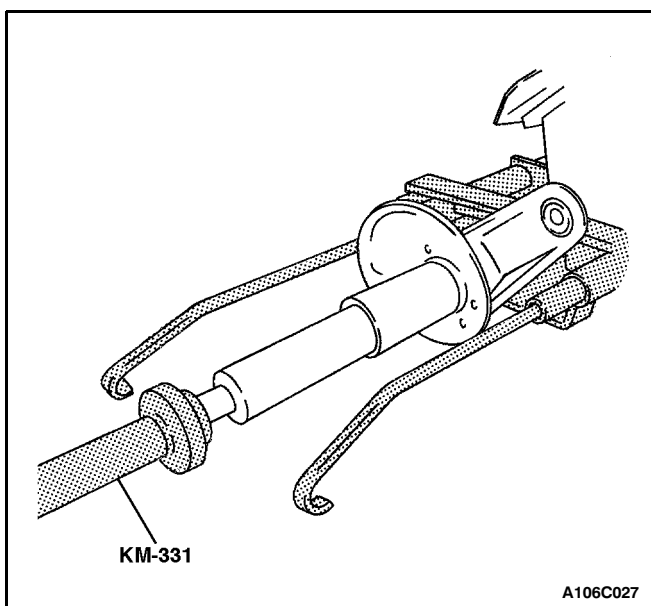


12. Remove the strut cartridge closure nut with the strut cartridge closure nut wrench KM-331. This nut is under high torque.



13. Remove the strut cartridge.

14. Clean the threaded area of the strut opening.



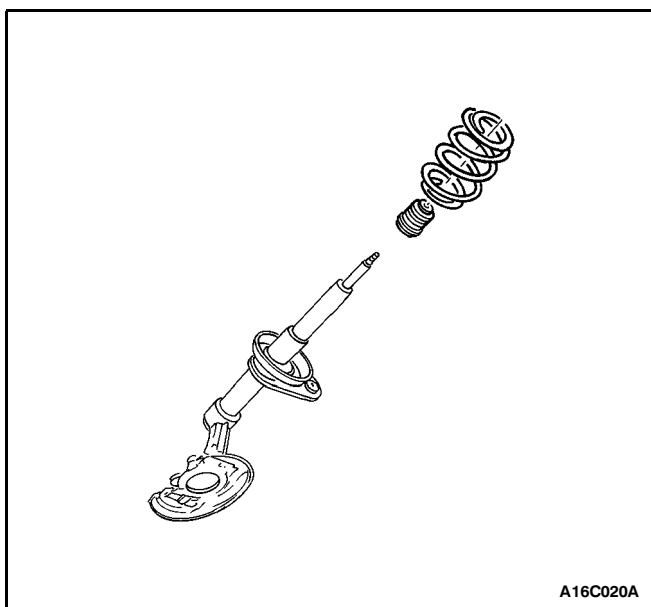
Assembly Procedure

1. Install the strut cartridge and secure it with the strut cartridge closure nut using the strut cartridge closure nut wrench KM-331.

Important: Use a new strut cartridge closure nut. The new nut is coated in wax. Do not wipe off the wax. It is both a lubricant and a corrosion preventative.

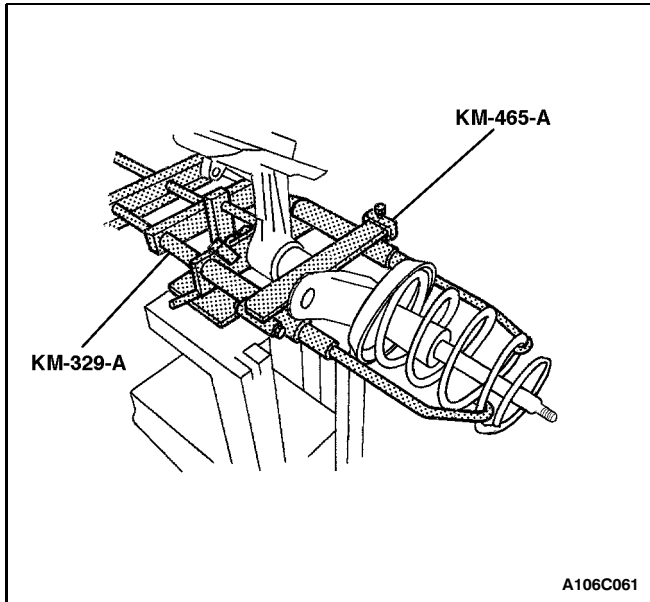
Tighten

Tighten the strut cartridge closure nut to 200 N•m (148 lb-ft).

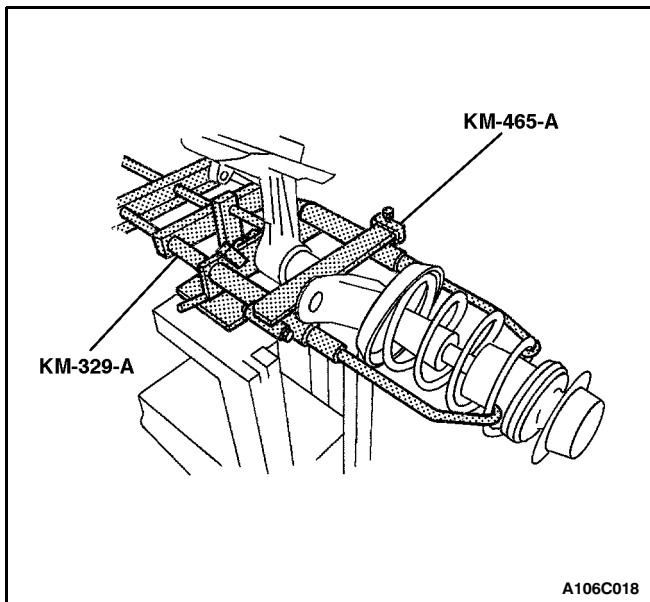


2. Lubricate the upper strut mount bearing with multipurpose grease. Refer to Section 0B, General Information.

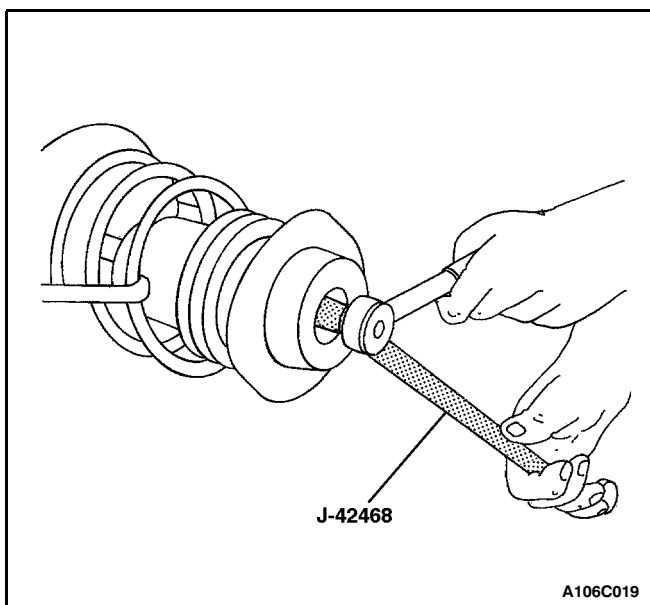
3. Install the bumper and the spring.



4. Compress the front spring with the front spring compressor KM-465-A and the spring compressor KM-329-A.



5. Install the upper insulator, the shield, the plastic mount, the washer, and the support bearing.



6. Tighten the piston rod nut using the front strut mount nut wrench J-42468.

Tighten

Tighten the piston rod nut to 55 N•m (41 lb-ft).

7. Remove the strut assembly from the spring compressor and install the strut assembly onto the vehicle. Refer to "Knuckle/Strut Assembly" in this section.
8. Install the wheel. Refer to Section 2E, Tires and Wheels.
9. Lower the vehicle.

SUPPORT BEARING

Tools Required

J-42468 Front Strut Mount Nut Wrench

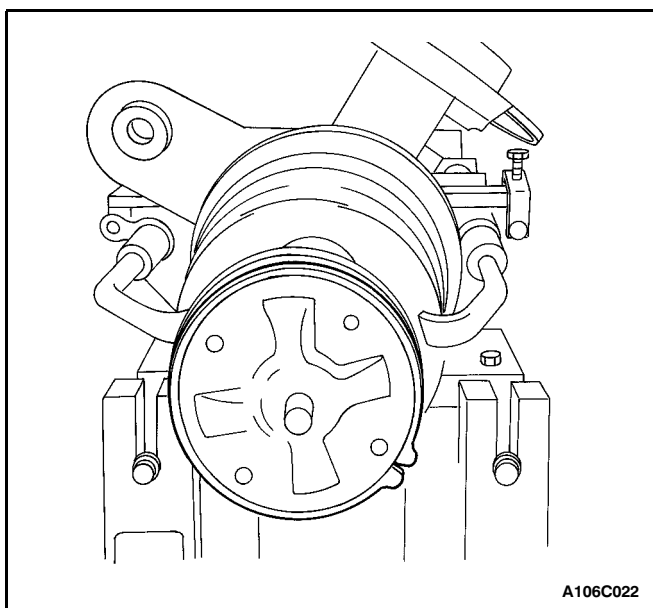
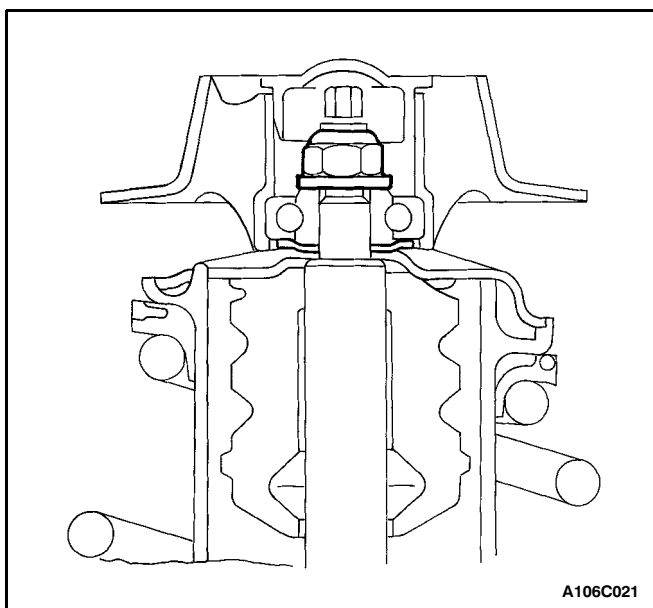
Disassembly Procedure

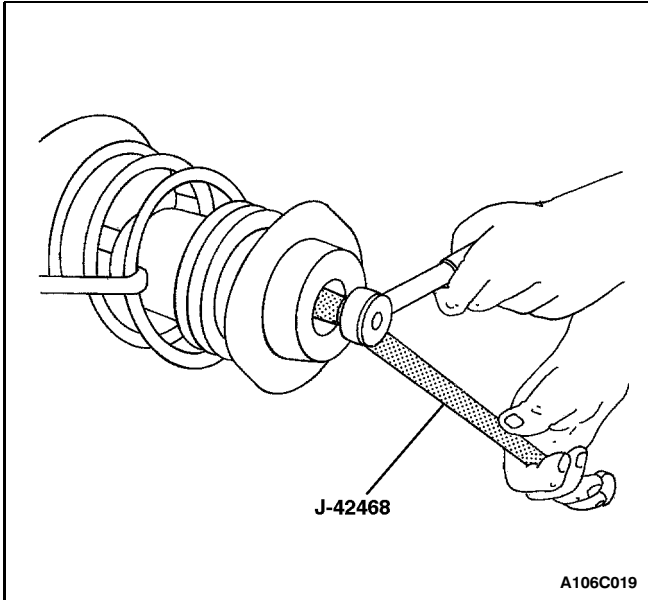
1. Raise and suitably support the vehicle.
2. Remove the wheel. Refer to Section 2E, Tires and Wheels.
3. Remove the strut assembly. Refer to "Knuckle/Strut Assembly" in this section.
4. Compress the spring and remove the support bearing. Refer to "Front Spring/Strut Cartridge" in this section.

Important: The support bearing is only supplied as an assembly with the ball bearing. This assembly cannot be further disassembled.

Assembly Procedure

1. Lubricate the support bearing assembly with a multi-purpose grease. Refer to Section 0B, General Information.
2. Push the support bearing assembly onto the piston rod. Make sure that the metal washer with the raised edge is below the bearing and that the thrust washer is on top of the bearing.
3. Use the lug on the plastic front spring mount as an installation guide. When looking in the direction of travel, the lug should point forward on the spring strut for the left side of the vehicle, and backward for the right side of the vehicle.





4. Tighten the piston rod nut using the front strut mount nut wrench J-42468.

Tighten

Tighten the piston rod nut to 55 N•m (41 lb-ft).

5. Remove the strut assembly from the spring compressor. Refer to "Knuckle/Strut Assembly" in this section.
6. Install the strut assembly onto the vehicle. Refer to "Knuckle/Strut Assembly" in this section.
7. Install the wheel. Refer to Section 2E, Tires and Wheels.
8. Lower the vehicle.

KNUCKLE

Disassembly Procedure

1. Raise and suitably support the vehicle.
2. Remove the knuckle/strut assembly from the vehicle. Refer to "Knuckle/Strut Assembly" in this section.
3. Remove the wheel hub and the wheel bearing. Refer to "Hub and Bearing" in this section.
4. Remove the spring and the strut cartridge. Refer to "Front Spring/Strut Cartridge" in this section.

Assembly Procedure

1. Install the strut cartridge and the spring. Refer to "Front Spring/Strut Cartridge" in this section.
2. Install the wheel bearing and hub. Refer to "Hub and Bearing" in this section.
3. Install the knuckle/strut assembly. Refer to "Knuckle/Strut Assembly" in this section.
4. Lower the vehicle.

GENERAL DESCRIPTION AND SYSTEM OPERATION

FRONT SUSPENSION (SOHC ENGINE)

The front suspension for this vehicle is a combination knuckle/strut and spring design.

The control arms pivot from the body. The lower control arm pivots use rubber bushings. The upper end of the strut is isolated by a rubber mount and contains a bearing to allow the wheel to turn.

The lower end of the steering knuckle pivots on a ball joint bolted to the control arm. The ball joint is fastened to the steering knuckle with a nut, and to the lower control arm with rivets.

When servicing the control arm-to-body attachment and the stabilizer shaft-to-body insulators, make sure the attaching bolts are loose until the control arms are moved to the trim height, which is curb height. Trim height is the normal position to which the control arms move when the vehicle is sitting on the ground. Refer to "General Specifications" in this section.

FRONT SUSPENSION (DOHC ENGINE)

The front suspension for this vehicle is a combination knuckle/strut and spring design.

The control arms pivot from the body. The lower control arm pivots use rubber bushings. The upper end of the strut is isolated by a rubber mount and contains a bearing to allow the wheel to turn.

The lower end of the steering knuckle pivots on a ball joint bolted to the control arm. The ball joint is fastened to the steering knuckle with a nut, and to the lower control arm with rivets.

When servicing the control arm-to-body attachment and the stabilizer shaft-to-body insulators, make sure that the attaching bolts are loose until the control arms are moved to the trim height, which is curb height. Trim height is the normal position to which the control arms move when the vehicle is sitting on the ground. Refer to "General Specifications" in this section.

The springs in Front Suspension (DOHC engine) are stronger and the shocks are heavier than are the springs and shocks in Front Suspension (SOHC engine).