

Suspension

Special Tools	18-2	Front Damper	
Component Location		Removal	18-17
Index	18-3	Disassembly/Inspection	18-17
Wheel Alignment		Reassembly	18-19
Caster	18-4	Installation	18-19
Camber	18-5	Rear Suspension	
Front Toe Inspection/ Adjustment	18-5	Torque Specification	18-20
Rear Toe Inspection/ Adjustment	18-6	Hub Bearing Unit Replacement	18-21
Turning Angle Inspection/ Adjustment	18-6	Illustrated Index	18-24
Wheel Measurements		Removal	18-25
Bearing End Play	18-7	Lower/Upper Ball Joint Boot	
Runout	18-7	Replacement	18-28
Front Suspension		Rear Damper	
Torque Specification	18-8	Removal	18-28
Illustrated Index	18-9	Disassembly/Inspection	18-29
Knuckle/Hub Replacement	18-10	Reassembly	18-31
Lower/Upper Ball Joint Boot		Installation	18-31
Replacement	18-16	Disposal	18-32

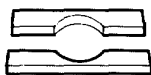


Special Tools

Ref. No.	Tool Number	Description	Qty	Page Reference
①	07GAE—SE00101	Spring Compressor	1	18-17,19,29,31
②	07GAF—SD40700	Hub Dis/Assembly Base	2	18-15
③	07GAF—SE00100	Hub Dis Assembly Tool	1	18-15
④	07GAG—SD40700	Ball Joint Boot Clip Guide	1	18-16,28
⑤	07MAC—SL00100	Ball Joint Remover, 32 mm	1	18-13,27
⑥	07MAC—SL00200	Ball Joint Remover, 28 mm	1	18-12,13,27
⑦	07MAE—SL00100	Suspension Mount Plate	1	18-17,19,29,31
⑧	07MAF—SP00100	Bearing Race Installer	1	18-15
⑨	07MGK—0010100	Wheel Alignment Gauge Attachment	1	18-4,5
⑩	07746—0010400	Attachment, 52 x 55 mm	1	18-16
⑪	07746—0010500	Attachment, 62 x 68 mm	1	18-15,16
⑫	07749—0010000	Driver	1	18-15
⑬	07965—SD90100	Support Base	1	18-15,16



①



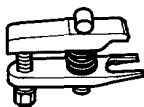
②



③



④



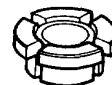
⑤ ⑥



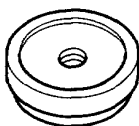
⑦



⑧



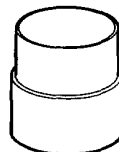
⑨



⑩ ⑪



⑫



⑬

Component Location

Index



⚠ WARNING The front and rear dampers contain nitrogen gas and oil under pressure. The pressure must be relieved before disposal to prevent explosion and possible injury when scrapping.

Rear Suspension:

REAR LOWER ARM B
Disassembly/Installation,
page 18-24

REAR UPPER ARM
Disassembly/Inspection,
page 18-24

REAR LOWER ARM A
Disassembly/Installation,
page 18-24

REAR DAMPER

- Removal, page 18-28
- Disassembly/Inspection, page 18-29
- Reassembly/Installation, page 18-31
- Disposal, page 18-32

HUB BEARING UNIT

- Replacement, page 18-21

RADIUS RODS

- Disassembly/Inspection, page 18-24

Front Suspension:

FRONT DAMPER

- Removal, page 18-17
- Disassembly/Inspection, page 18-17
- Reassembly, page 18-19
- Installation, page 18-19
- Disposal, page 18-32

FRONT UPPER ARM

- Removal, page 18-9

STABILIZER BAR
Removal, page 18-9

FRONT LOWER ARM
Removal, page 18-9

KNUCKLE/HUB

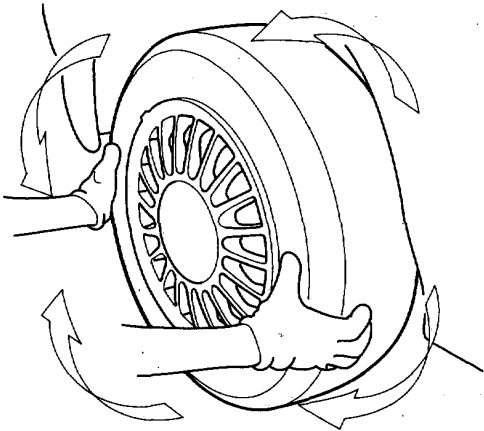
- Replacement, page 18-10
- Bearing Replacement, page 18-14

Wheel Alignment

Caster

NOTE: For proper inspection/adjustment of the wheel alignment, check and adjust the following before checking the alignment.

- Check that the suspension is not modified.
- Check the tire size and tire pressure.
- Check the runout of the wheels and tires.
- Check the suspension ball joints. (Hold a wheel with your hands and move it up and down and right and left to check for wobbling.)



Inspection

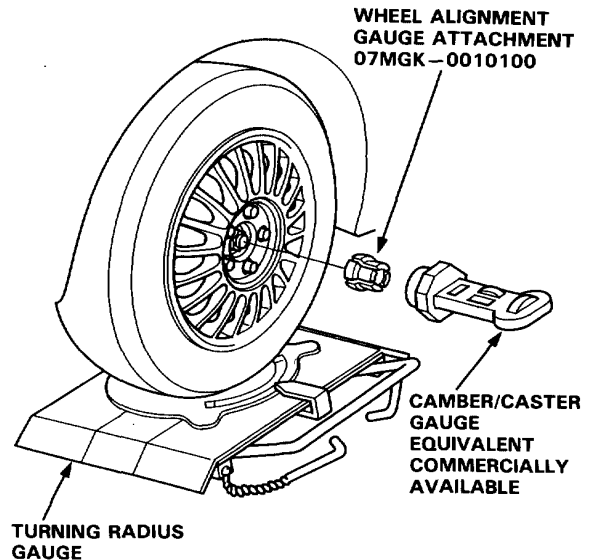
1. Check the tire pressure.
2. Check the steering wheel angle: If significantly off center, it may be necessary to remove the steering wheel and reposition it on the splines. Turn the steering wheel to the straight-ahead position.
3. Jack up the front of the car. Set the turning radius gauges beneath the front wheels, then lower the car.
4. Jack up the rear of the car. Place boards under the rear wheels the same thickness as the turning radius gauges, then lower the car.
5. Install the special tool on the wheels.

NOTE: Make sure the wheel hubs are clean and rust-free before installing the special tool.

6. Install a camber/caster gauge on the special tool. Apply the front brake and turn the wheel 20° inward.
7. Turn the adjust screw so that the bubble in the caster gauge is at 0°

8. Turn the wheel outward 20° and read the caster on the gauge with the bubble centered.

Caster Angle: $3^{\circ}45' \pm 1^{\circ}$
(KY Only: $3^{\circ}30' \pm 1^{\circ}$)



9. If out of specification, check for bent or damaged suspension components.



Camber

Inspection

1. Check the tire pressure.
2. Check the steering wheel angle. If significantly off center, it may be necessary to remove the steering wheel and reposition it on the splines. Turn the steering wheel to the straight-ahead position.

3. Install the special tool on the wheels.

NOTE: Make sure the wheel hubs are clean and rust-free before installing the special tool.

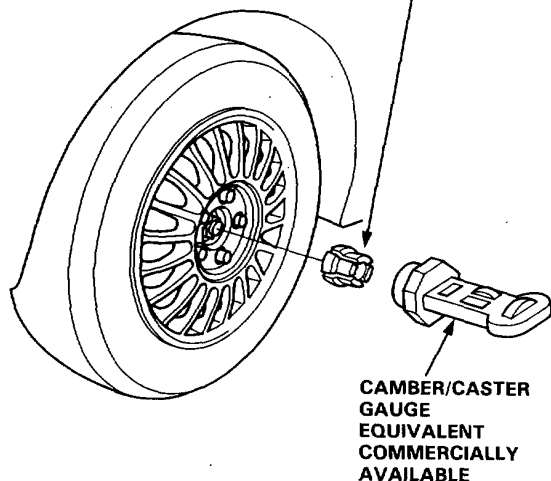
4. Read the camber on the gauge with the bubble centered.

Camber angle, Front: $0^{\circ}00' \pm 1^{\circ}$
(KY Only: $0^{\circ}15' \pm 1^{\circ}$)

Camber angle, Rear: $-0^{\circ}20' \pm 1^{\circ}$
(KY Only: $0^{\circ}5' \pm 1^{\circ}$)

NOTE: When measuring at the rear wheels, remove the hub cap and set the attachment on the hub end properly. Refer to page 18-21 for hub cap removal.

WHEEL ALIGNMENT GAUGE
ATTACHMENT
07MGK-0010100



5. If out of specification, check for bent or damaged suspension components.

Front Toe Inspection/ Adjustment

NOTE: Check the tire pressure before inspection.

1. Center steering wheel spokes.

NOTE: Measure difference in toe measurements with the wheels pointed straight ahead.

Front toe-out: 1 ± 2 mm

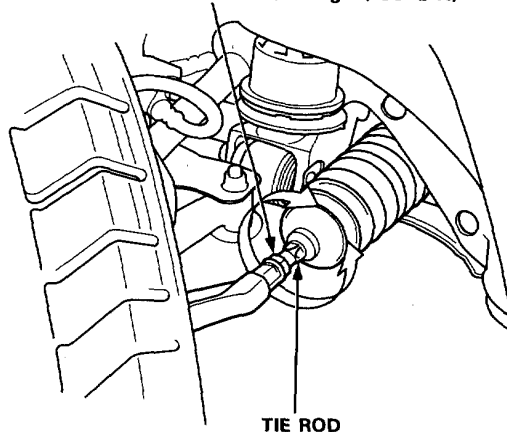
— If adjustment is required, go on to step 2.

— If no adjustment is required, remove alignment equipment.

2. Loosen the tie-rod locknuts and turn both tie-rods in the same direction until the front wheels are in straight ahead position.
3. Turn both tie-rods equally until the toe reading on the turning radius gauge is correct.
4. After adjusting, tighten the tie-rod locknuts.

NOTE: Reposition the tie-rod boot if twisted or displaced.

TIE-ROD LOCKNUT
45 N·m (4.5 kg-m, 33 lb-ft)



Wheel Alignment

Rear Toe Inspection/Adjustment

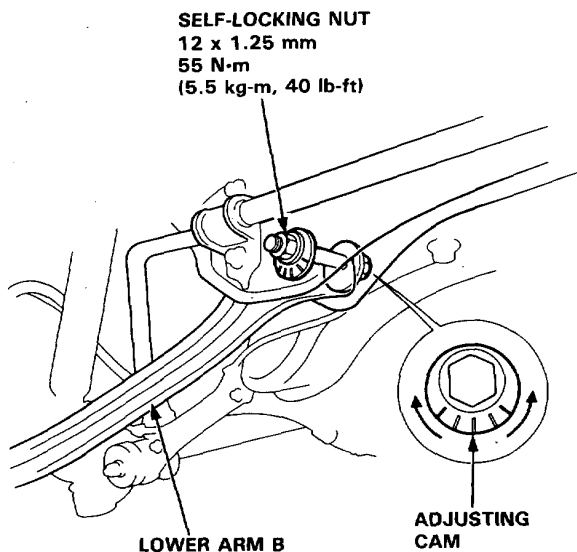
1. Release parking brake.

NOTE:

- Measure difference in toe measurements with the wheels pointed straight ahead.
- If the parking brake is engaged, you may get an incorrect reading.

Rear toe-in: 2 ± 2 mm

- If adjustment is required, go to step 2.
 - If no adjustment is required, remove alignment equipment.
2. Hold the adjusting bolt on the rear lower arm B and loosen the self-locking nut.
 3. Adjust the rear toe by turning the adjusting bolt until toe is correct.
 4. Install the self-locking nut and tighten while holding the adjusting bolt.



Turning Angle Inspection/Adjustment

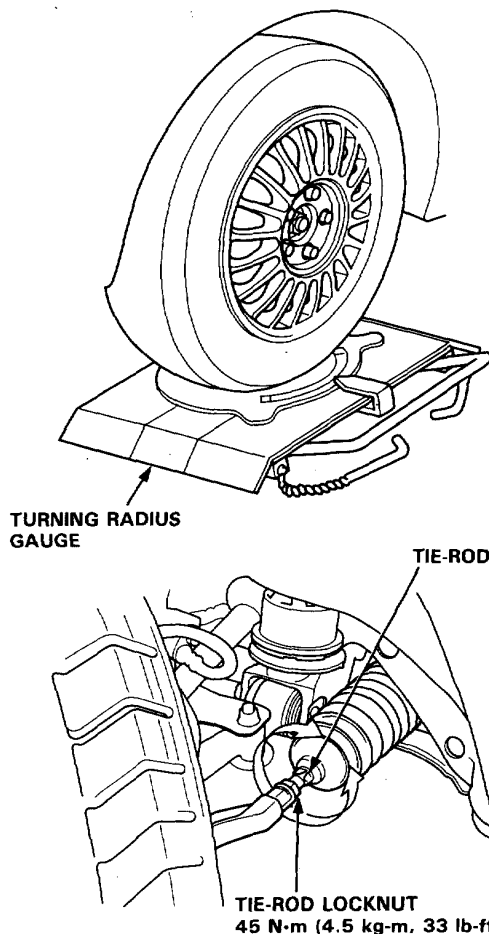
1. Jack up the front of the car. Set the turning radius gauges beneath the front wheels, then lower the car.
2. Jack up the rear of the car. Place boards under the rear wheels the same thickness as the turning radius gauges, then lower the car.
3. Turn the wheel right and left while applying the brake, and measure the turning angle of both wheels.

Turning angle:

Inward wheel: $44^\circ \pm 2^\circ$
(Outward wheel: 35°)

4. If the measurements are not within the specifications, adjust as required by turning the tie-rods.

NOTE: After adjusting, recheck the front wheel toe and readjust if necessary. Reposition the tie rod boot if twisted or displaced.



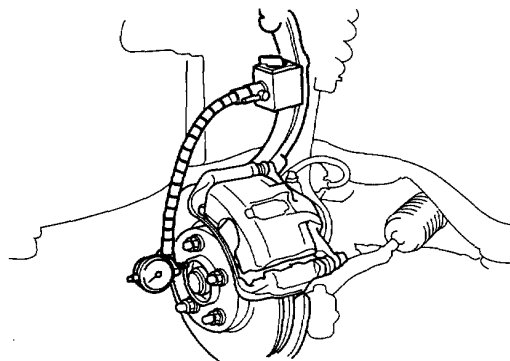


Wheel Measurements

Bearing End Play

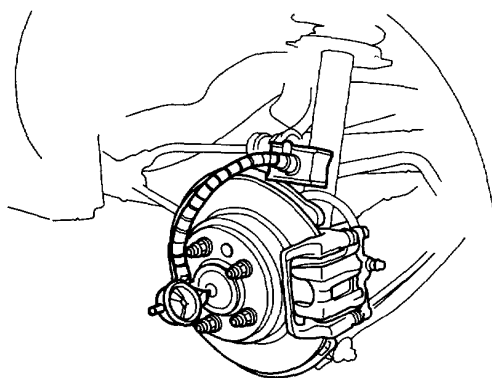
Front Wheel End Play

Standard: 0–0.05 mm (0–0.002 in)



Rear Wheel End Play

Standard: 0–0.05 mm (0–0.002 in)

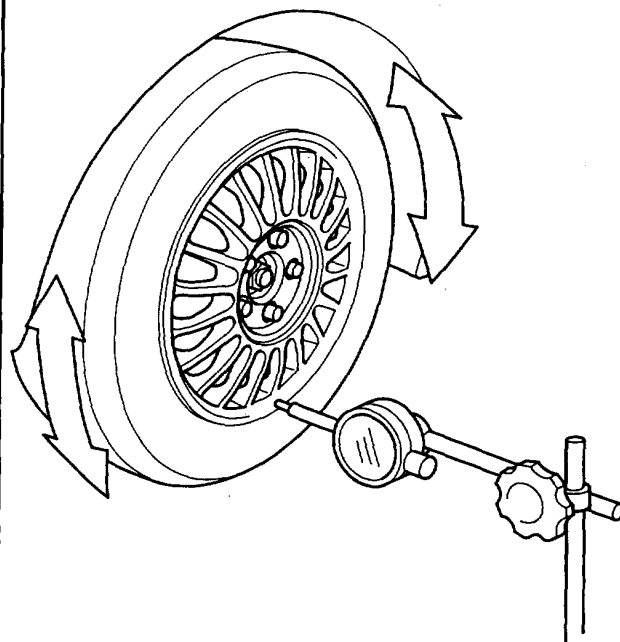


Runout

Front and Rear Wheel Radial Runout

Standard:

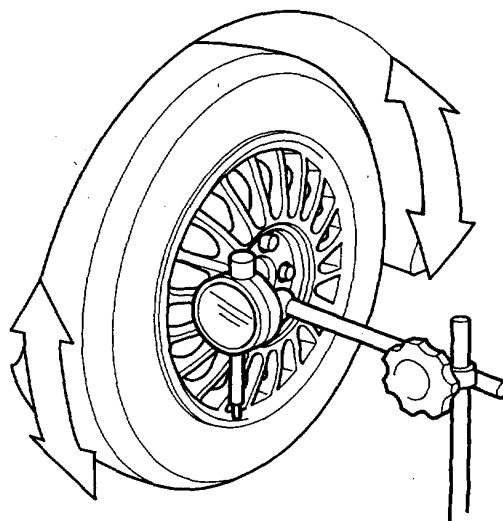
Aluminum Wheel: 0–0.7 mm (0–0.028 in)



Front and Rear Wheel Axial Runout

Standard:

Aluminum Wheel: 0–0.7 mm (0–0.028 in)



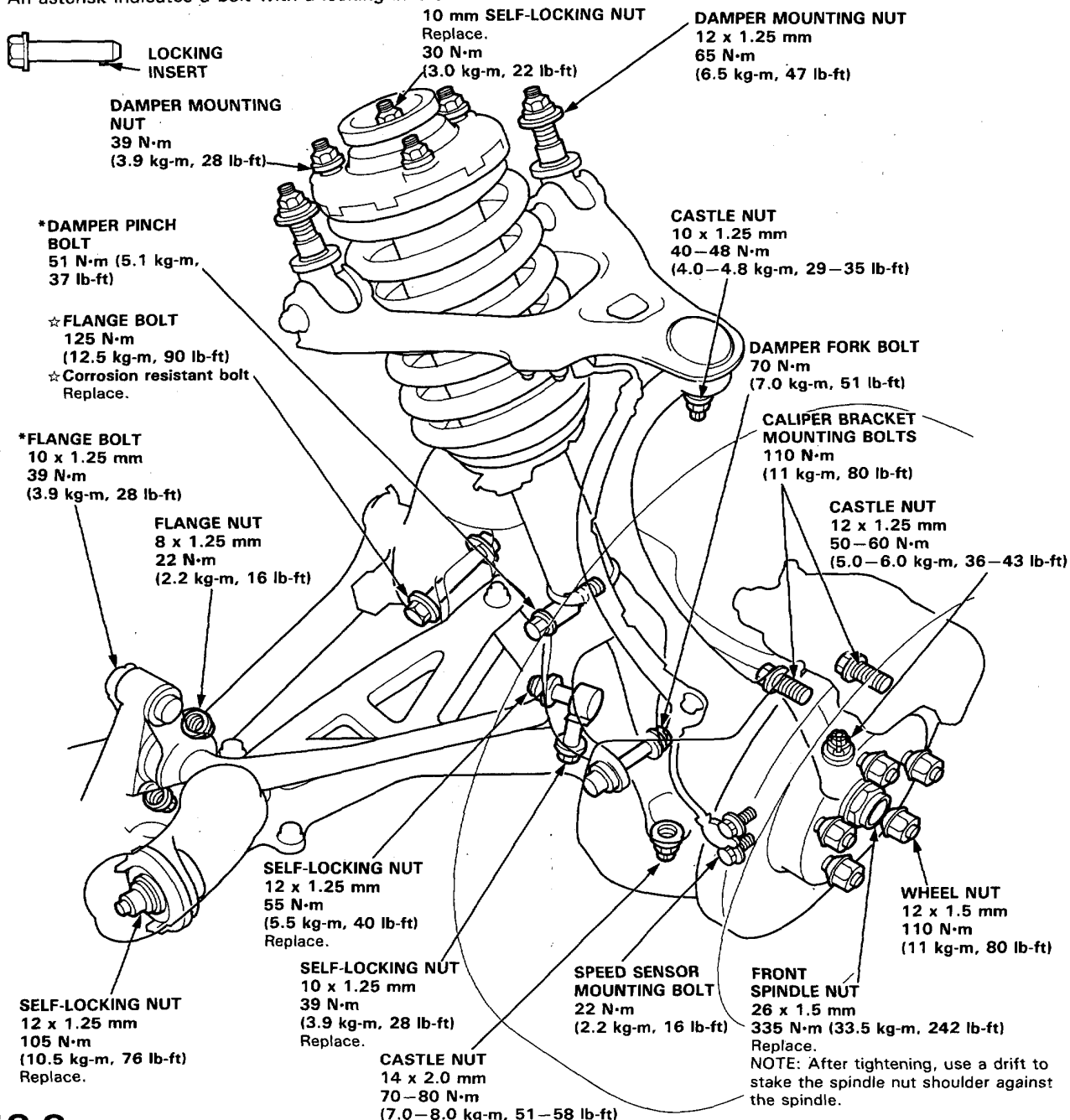
Front Suspension

Torque Specifications

CAUTION:

- Replace the self-locking nuts after removal.
- Replace the self-locking bolts if you can easily thread a non-self-locking nut past their nylon locking inserts. (It should require 1 N·m (0.1 kg-m, 0.7 lb-ft) of torque to turn the test nut on the bolt).
- The vehicle should be on the ground before any bolts or nuts connected to rubber mounts or bushings are tightened.
- Torque the castle nut to the lower torque specification, then tighten it only far enough to align the slot with the pin hole. Do not align the nut by loosening.

NOTE: Wipe off the grease before tightening the nut at the ball joint.
An asterisk indicates a bolt with a locking insert.



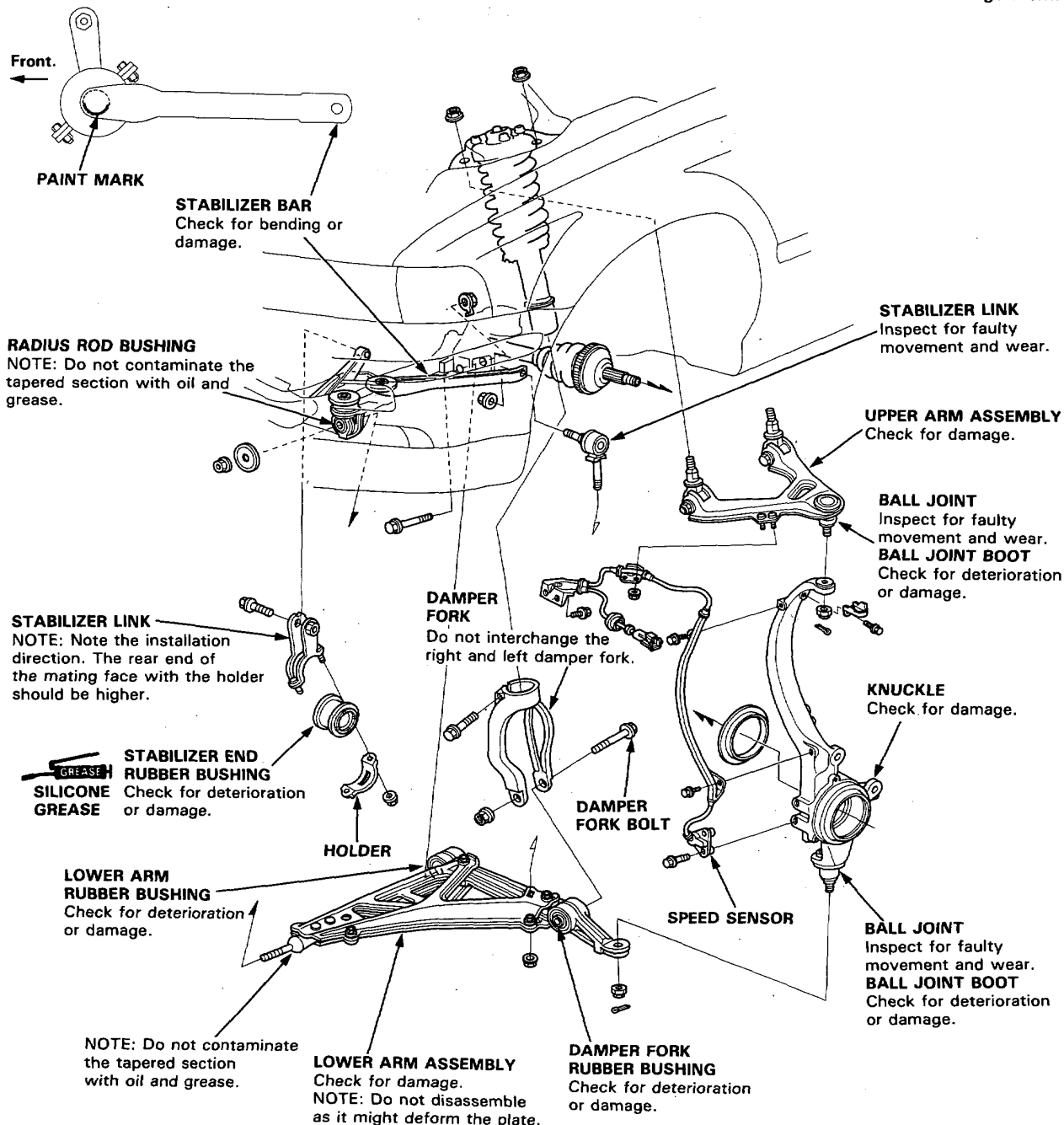


Illustrated Index

NOTE:

- Wipe off the grease before tightening the nut at the ball joint.
- Torque specifications, see page 18-8.
The right and left stabilizer springs are symmetrical. Install with the paint mark facing down.

- The right and left damper forks are symmetrical. The left damper fork is marked with "POL" while the right damper fork is marked with "POR". Do not interchange them.
- The right and left upper arms are symmetrical. The left upper arm is marked with "LPJ" while the right arm is marked with "RPJ". Do not interchange them.



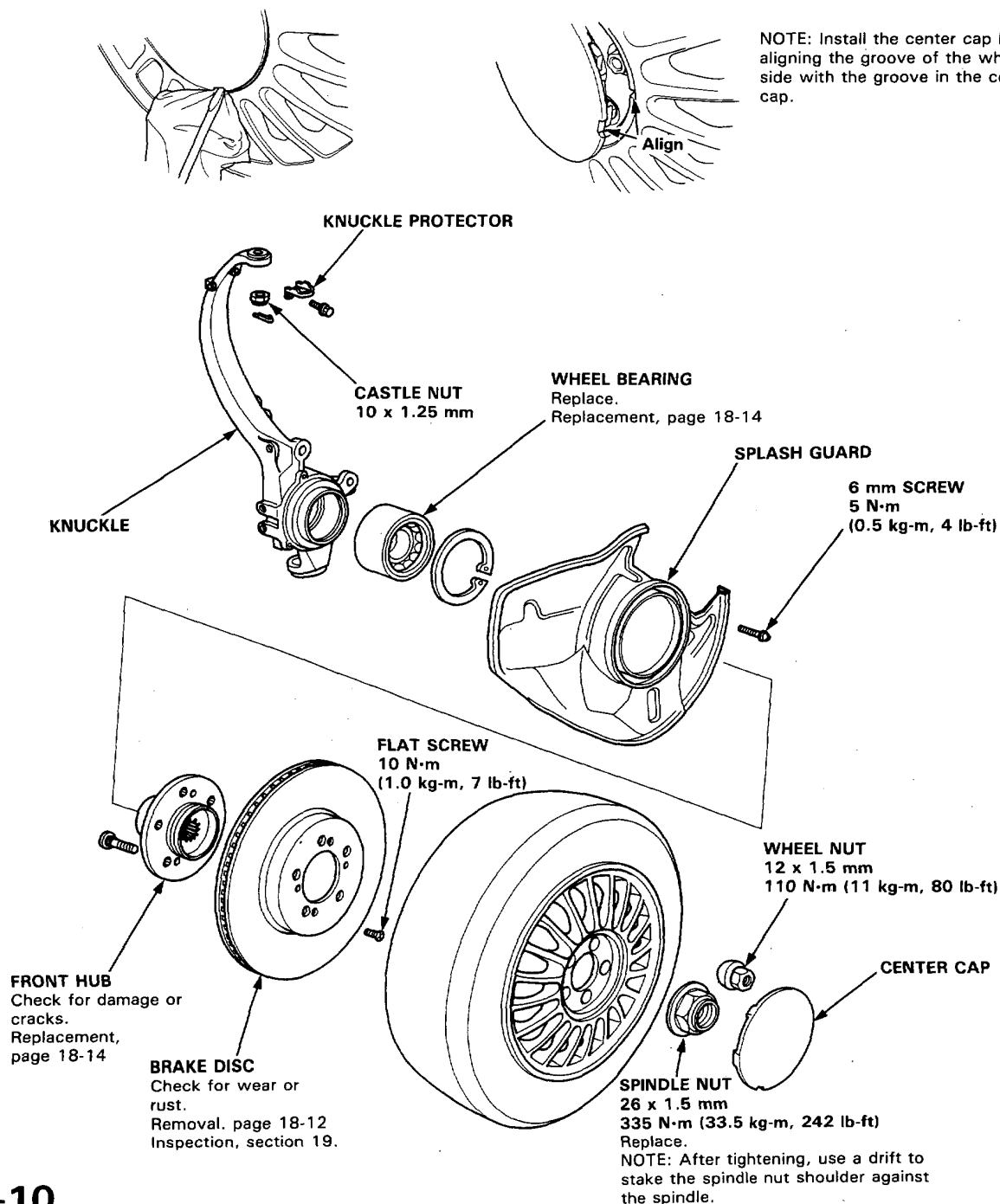
Front Suspension

Knuckle/Hub Replacement

NOTE:

- Use only genuine Honda aluminum wheel weights. Non-genuine aluminum wheel weights may corrode and damage aluminum wheels.
- Remove the center cap by prying it out with a flat screwdriver. Avoid damage to the cap by not allowing it to fall during removal.
- Before installing the wheel, clean the mating surface of the brake disc and inside of the wheel.

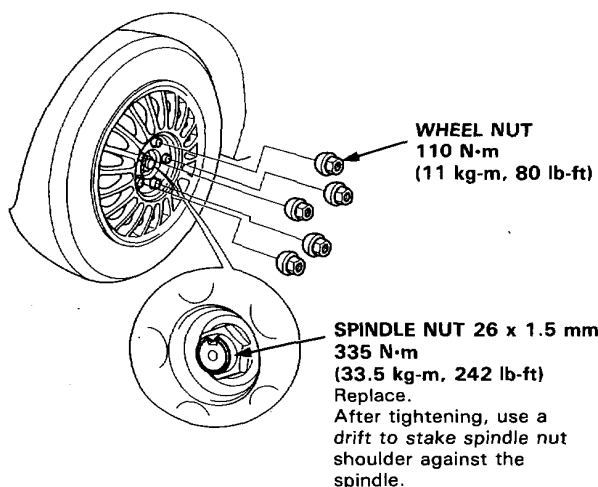
CAUTION: Use a rag at the point you are going to pry because aluminum alloy wheels can be easily damaged.



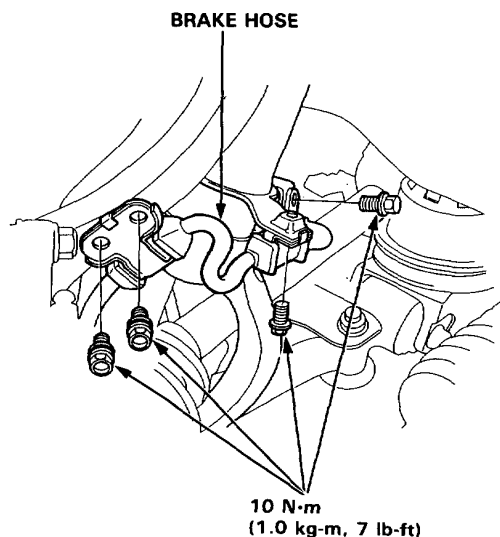


Knuckle/Hub Replacement

1. Pry the spindle nut stake away from the spindle, then loosen the nut.
2. Loosen the wheel nuts slightly.
3. Raise the front of car and support on safety stands in proper locations.
4. Remove the wheel nuts, wheel, and spindle nut.

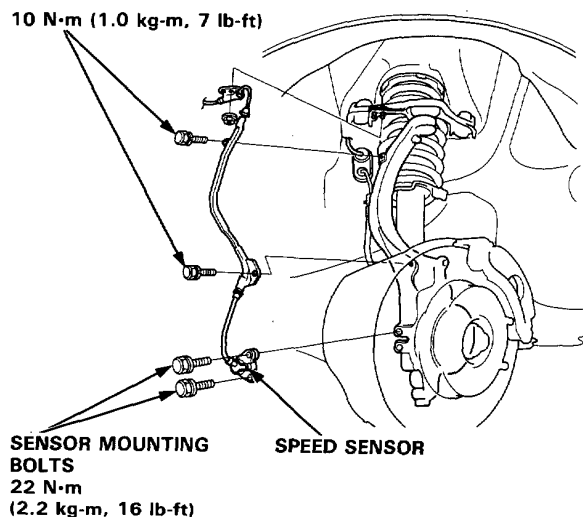


5. Remove the brake hose mounting bolts.



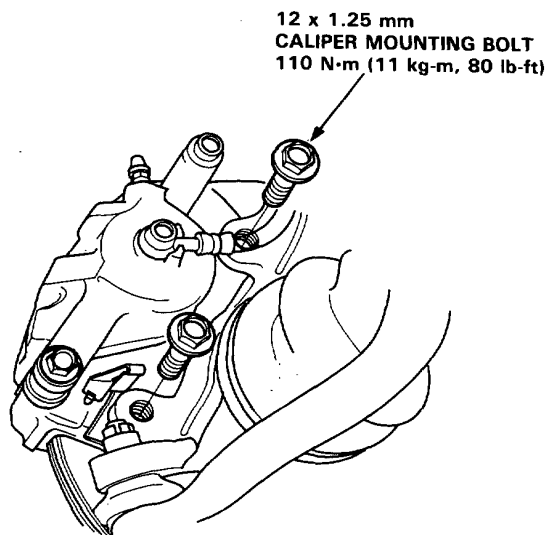
6. Remove the speed sensor from the knuckle and front lower arm, but do not disconnect it.

NOTE: Be careful when installing the sensors to avoid twisting wires.



7. Remove the caliper mounting bolts and hang the caliper assembly to one side.

CAUTION: To prevent accidental damage to the caliper assembly or brake hose, use a short piece of wire to hang the caliper assembly from the undercarriage.



(cont'd)

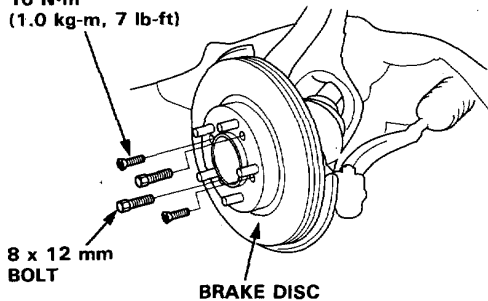
Front Suspension

Knuckle/Hub Replacement (cont'd)

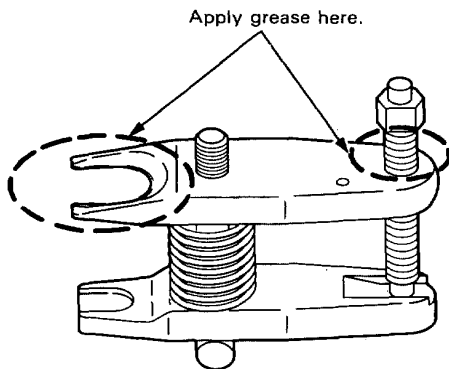
8. Remove the 6 mm brake disc retaining screws.
9. Screw two 8 x 12 mm bolts into the disc to push it away from the hub.

NOTE: Turn each bolt two turns at a time to prevent cocking the disc excessively.

10 N·m
(1.0 kg-m, 7 lb-ft)

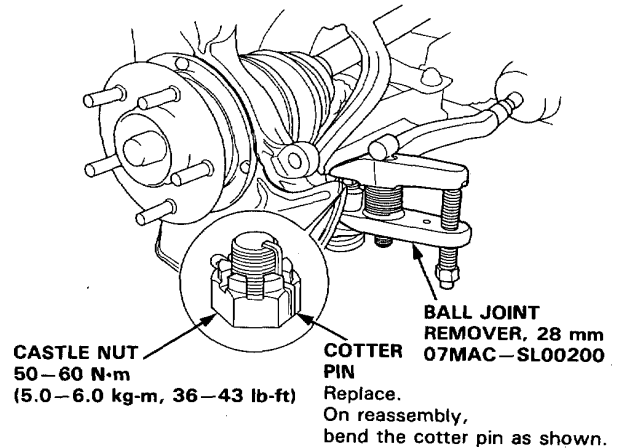


10. Clean any dirt or grease off the ball joint.
11. Remove the cotter pin from the ball joint castle nut and remove the nut.
12. Install a 12 mm hex nut on the ball joint. Be sure that the 12 mm hex nut is flush with the ball joint pin end to prevent damage to the threaded end of the ball joint.
13. Apply grease to the special tool on the areas shown. This will ease installation of the tool and prevent damage to the pressure bolt threads.

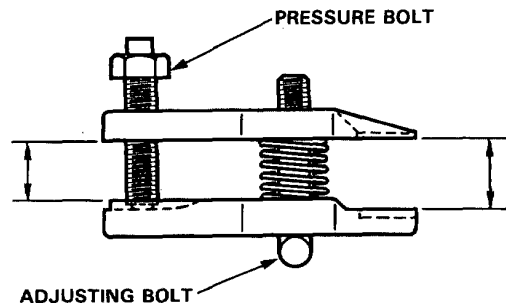


14. Install the special tool as shown. Insert the jaws carefully, making sure you do not damage the ball joint boot. Adjust the jaw spacing by turning the pressure bolt.

NOTE: If necessary, apply penetrating type lubricant to loosen the ball joint.



15. Once the tool is in place, turn the adjusting bolt as necessary to make the jaws parallel. Then hand-tighten the pressure bolt and re-check the jaws to make sure they are still parallel.



16. With a wrench, tighten the pressure bolt until the ball joint shaft pops loose from the steering arm.

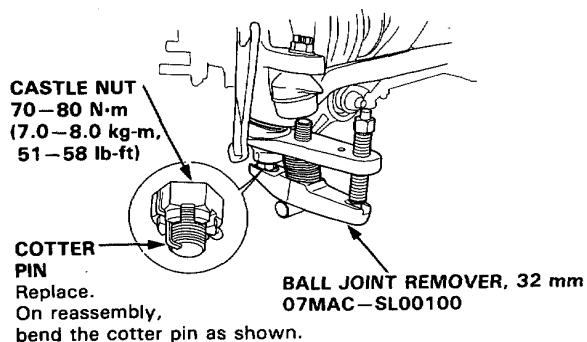
⚠ WARNING Wear eye protection. The ball joint can break loose suddenly and scatter dirt or other debris in your eyes.

17. Remove the tool, then remove the nut from the end of the ball joint and pull the ball joint out of the steering/suspension arm. Inspect the ball joint boot and replace it if damaged.



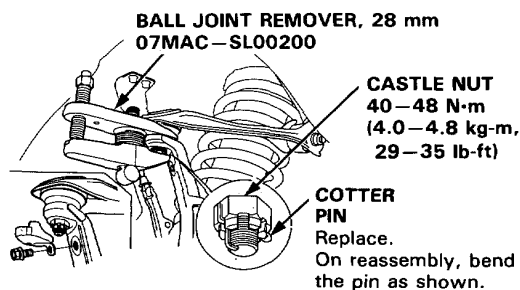
18. Remove the cotter pin and lower arm ball joint nut.
19. Install a 14 mm hex nut on the ball joint. Be sure that the 14 mm hex nut is flush with the ball joint pin end, or the threaded section of the ball joint pin might be damaged by the ball joint remover.
20. Use the ball joint remover, 32 mm (07MAC-SL00100) as shown on page 18-12 to separate the ball joint and lower arm.

NOTE: If necessary, apply penetrating type lubricant to loosen the ball joint.



21. Remove the cotter pin and the upper ball joint nut.
22. Install a 10 mm hex nut on the ball joint. Be sure that the 10 mm hex nut is flush with the ball joint pin end, or the threaded section of the ball joint pin might be damaged by the ball joint remover.
23. Use the ball joint remover, 28 mm (07MAC-SL00200) as shown on page 18-12 to separate the ball joint and knuckle.

NOTE: If necessary, apply penetrating type lubricant to loosen the ball joint.

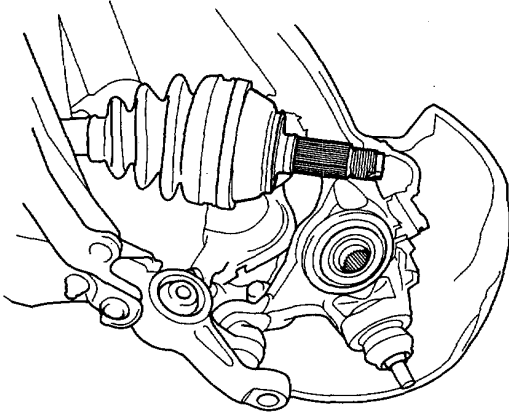


(cont'd)

Front Suspension

Knuckle/Hub Replacement (cont'd)

24. Pull the knuckle outward and remove the driveshaft outboard joint from the knuckle using a plastic hammer.



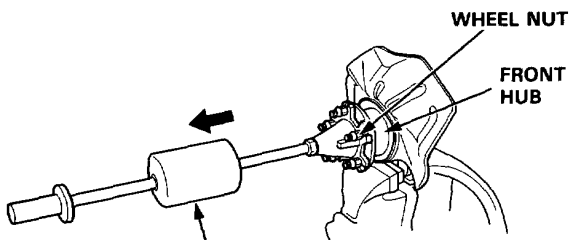
Wheel bearing Replacement:

NOTE: Replace the bearing with a new one after removal.

25. Carefully clamp the caliper bracket mount section of the knuckle in a vise with soft jaws.
26. Separate the hub from the knuckle using a commercially available hub puller.

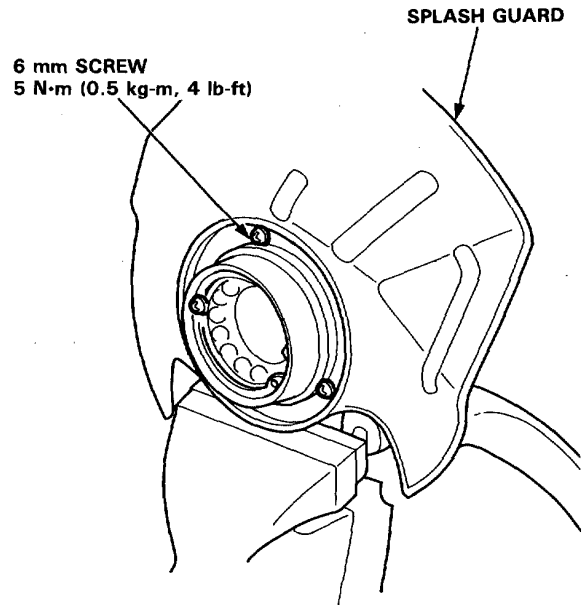
CAUTION:

- Hold the knuckle securely so it does not slip out of the vise from the impact.
- Take care not to distort the splash guard.

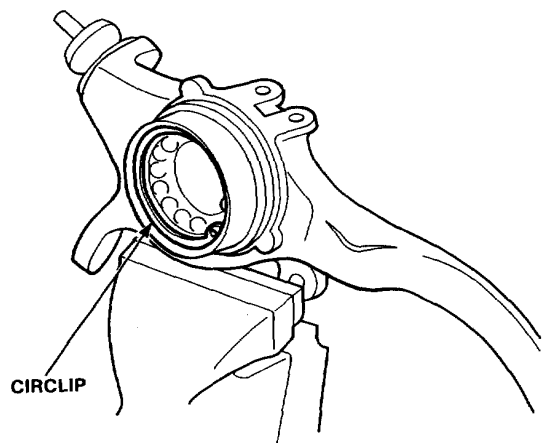


SNAP-ON:
T/N CJ123-1 Adapter Plate
T/N CJ105-4A Shaft Assembly
T/N CJ97-3 Remover Weight
or
Equivalent commercially available

27. Remove the splash guard.

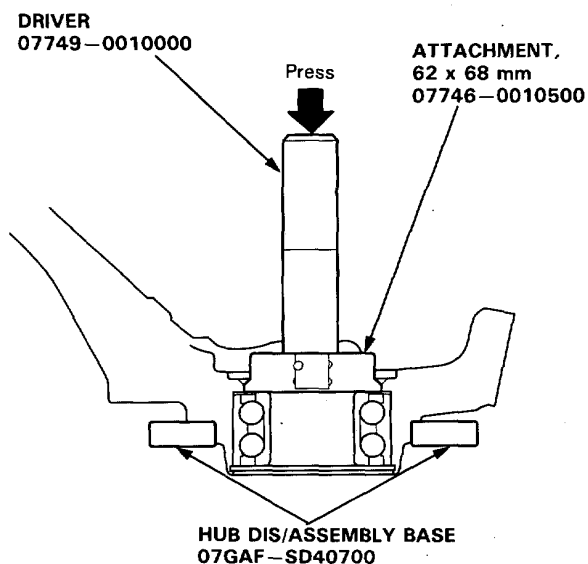


28. Remove the circlip from the knuckle.



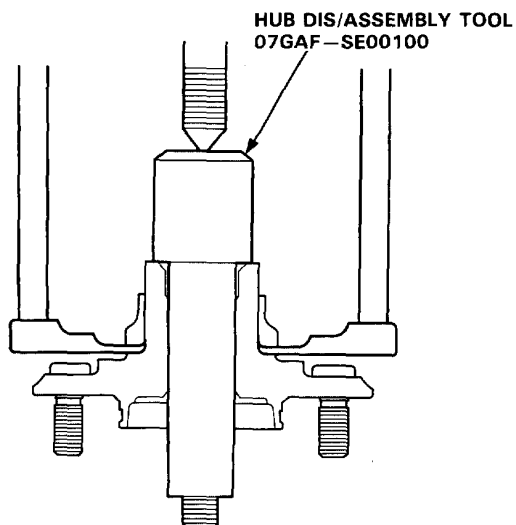


29. Press the wheel bearing out of the knuckle using a hydraulic press and the special tools shown below.



30. Remove the outboard bearing inner race from the hub using the special tools shown and a commercially available bearing separator.

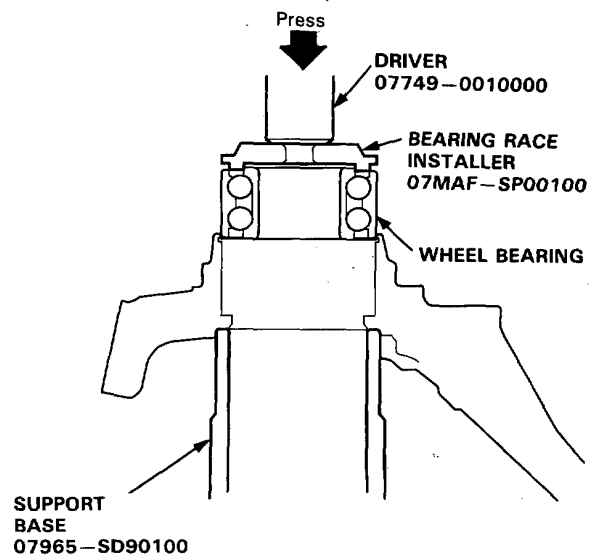
CAUTION: To prevent damage to the tool make sure the threads are fully engaged before pressing.



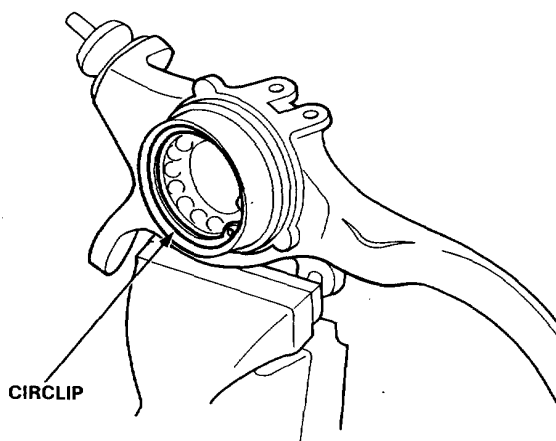
Bearing Separator:
SNAP-ON T/N CJ951
KENT MOORE T/N J-22912-01
or
Equivalent commercially
available

NOTE: Wash the knuckle and hub thoroughly in high flash point solvent before reassembly.

31. Press a new wheel bearing into the knuckle using a hydraulic press and the special tools shown below.



32. Install the circlip securely in the knuckle groove.

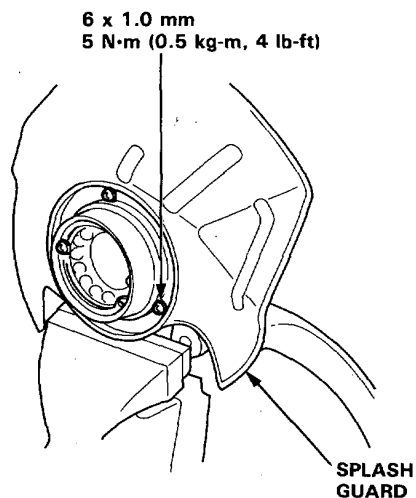


(cont'd)

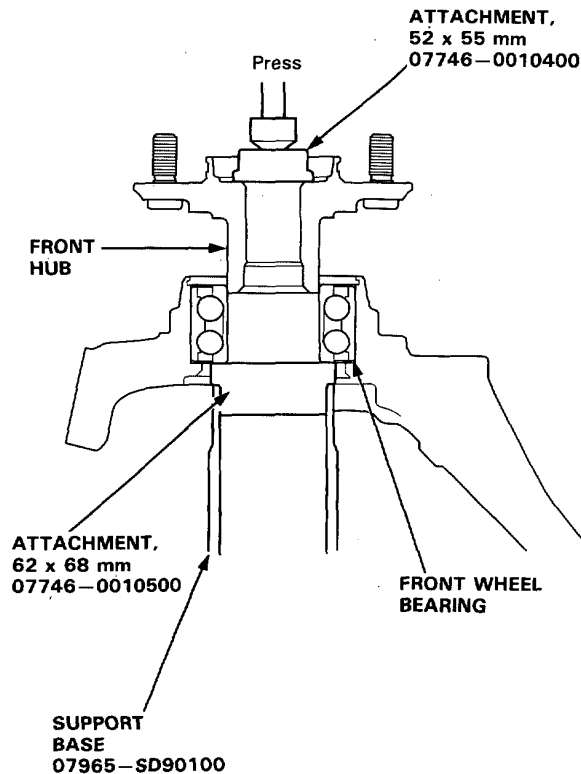
Front Suspension

Knuckle/Hub Replacement (cont'd)

33. Install the splash guard and tighten the screws.



34. Place the front hub in the special tool fixture, then set the knuckle in position and apply downward pressure with a hydraulic press.

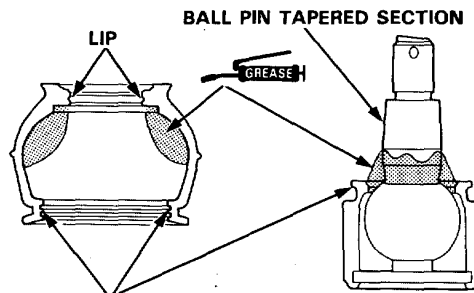


Ball Joint Boot Replacement

1. Remove the circlip and the boot.

CAUTION: Do not contaminate the boot installation section with grease.

2. Pack the interior of the boot and lip with grease.



BOOT INSTALLATION SECTION

3. Wipe the grease off the sliding surface of the ball pin and pack with fresh grease.

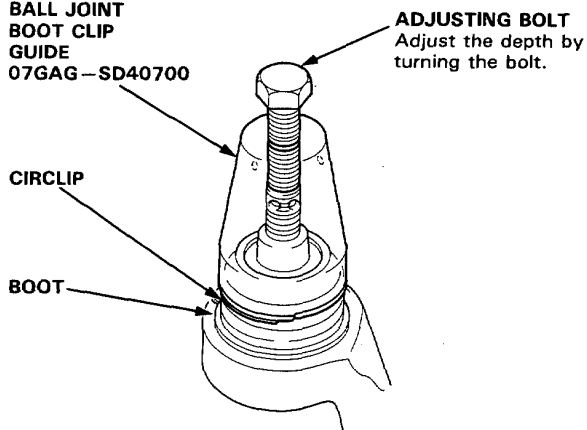
CAUTION:

- Keep grease off the boot installation section and the tapered section of the ball pin.
- Do not allow dust, dirt, or other foreign materials to enter the boot.

4. Install the boot in the groove of the boot installation section securely, then bleed air.

5. Adjust the special tool with the adjusting bolt until the end of the tool aligns with the groove on the boot. Slide the circlip over the tool and into position.

BALL JOINT
BOOT CLIP
GUIDE
07GAG-SD40700

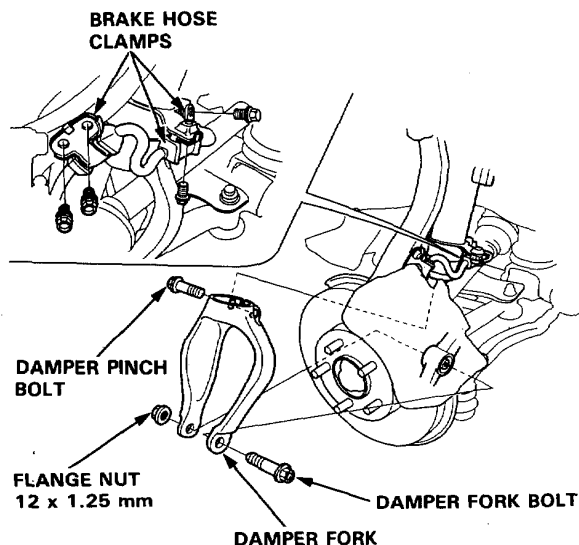


CAUTION: After installing the boot, check the ball pin tapered section for grease contamination and wipe it if necessary.



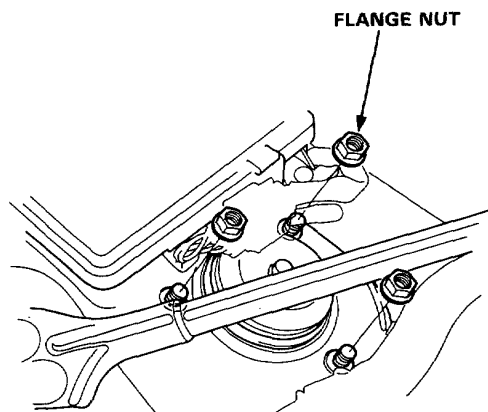
Damper Removal

1. Remove the brake hose clamps from the damper.
2. Remove the damper pinch bolt.
3. Remove the damper fork bolt and remove the damper fork.



4. Remove the damper by removing the three flange nuts.

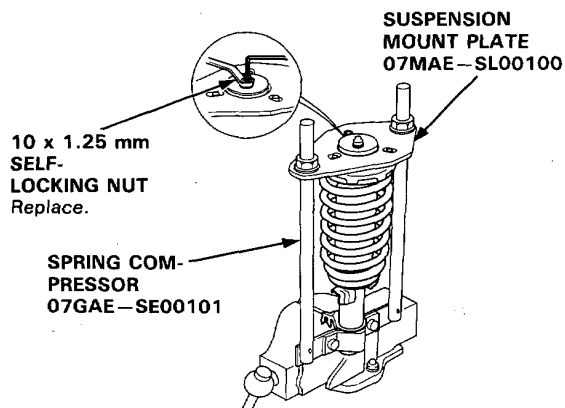
NOTE: Mark the right and left dampers or store them separately. Do not confuse them on installation.



Damper Disassembly/Inspection

1. Compress the damper spring with the spring compressor according to the manufacturer's instructions, then remove the self-locking nut.

CAUTION: Do not compress the spring more than necessary to remove the nut.

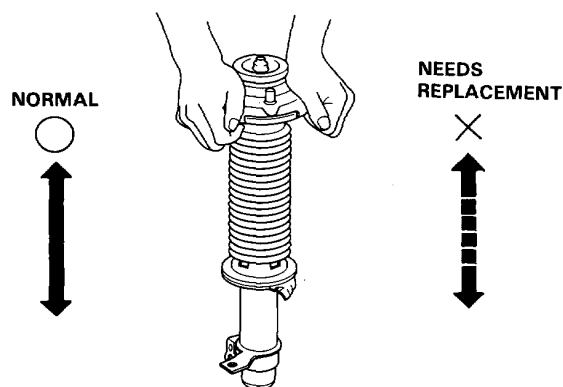


2. Remove the spring compressor, then disassemble the damper as shown on the next page.

Inspection:

1. Reassemble all parts, except the spring.
2. Push on the damper assembly as shown.
3. Check for smooth operation through a full stroke, both compression and extension.

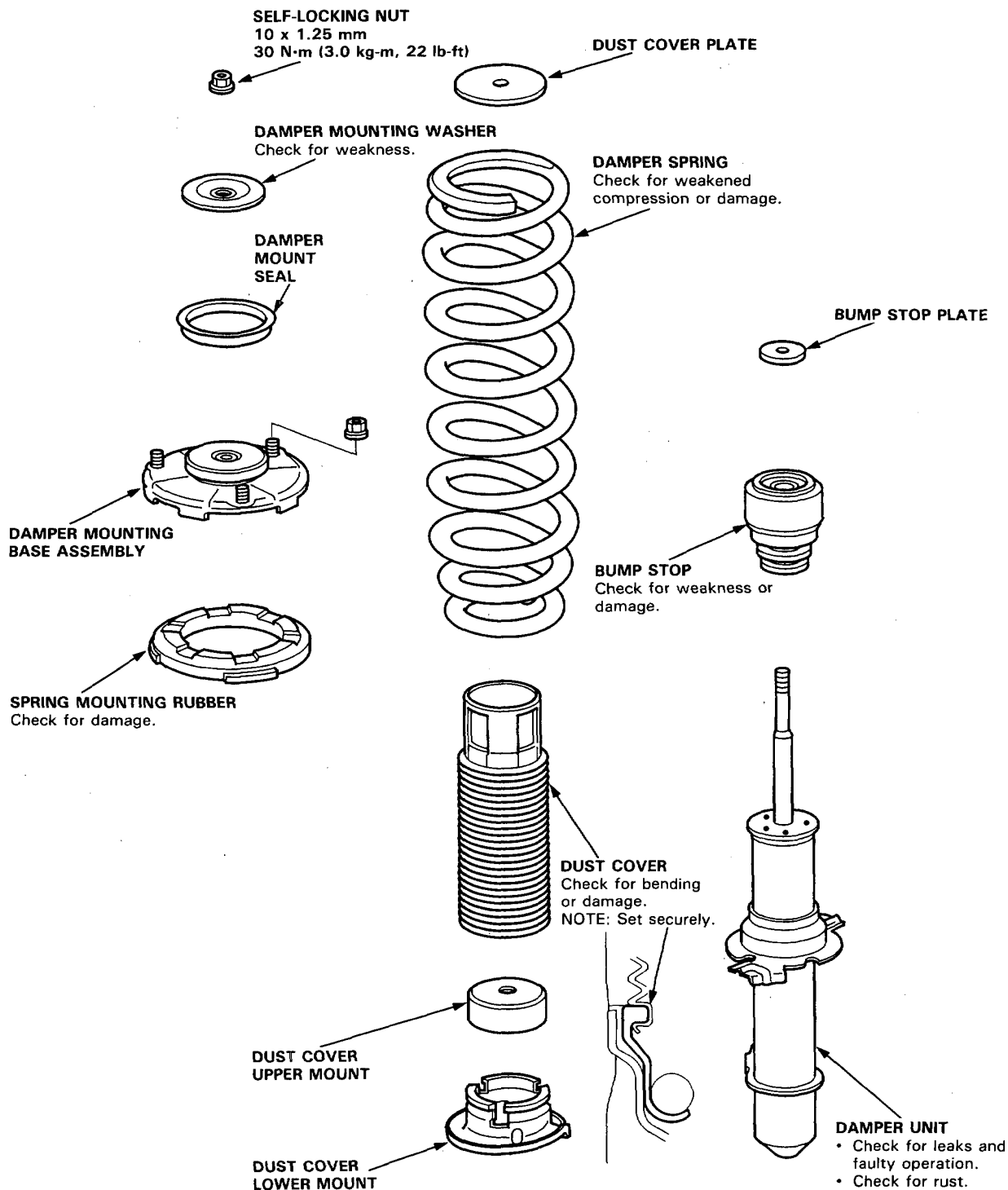
NOTE: The damper should move smoothly. If it does not (no compression or no extension), then gas is leaking and the damper should be replaced.



4. Check for oil leaks, abnormal noises or binding during these tests.

Front Suspension

Inspection

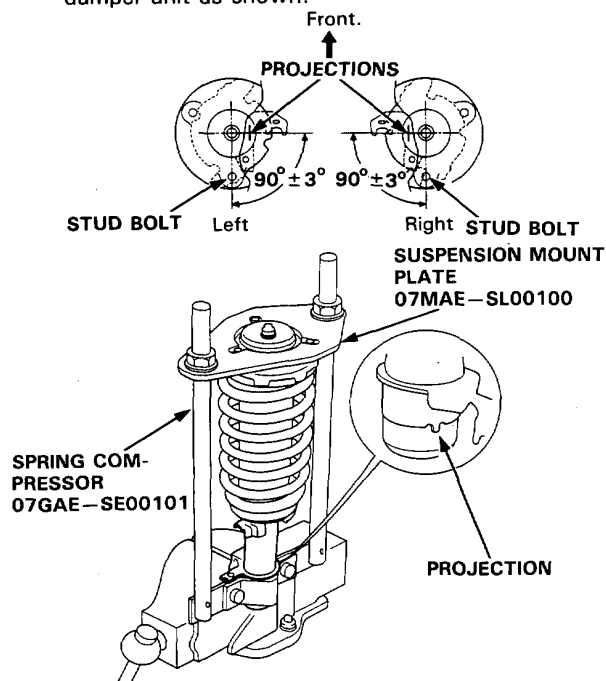


NOTE: Mark the right and left dampers or store them separately. Do not confuse them on installation.

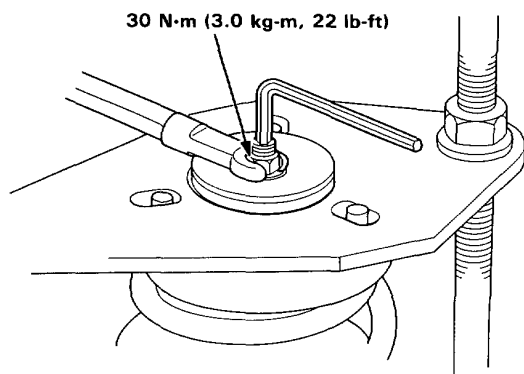


Damper Reassembly

1. Install the damper unit, dust cover lower mount, damper spring, bump stop, bump stop plate, dust cover, dust cover upper mount, dust cover plate, and spring mounting rubber on the spring compressor.
2. Install the damper mounting base assembly on the damper unit as shown.

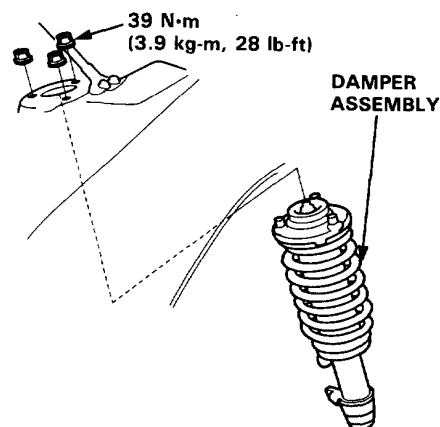


3. Compress the damper spring.
4. Install the damper mount washer and a new 10 mm self-locking nut.
5. Hold the damper shaft and tighten the 10 mm self-locking nut.



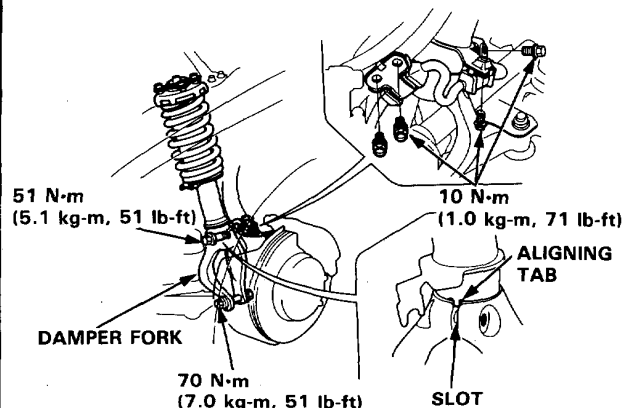
Damper Installation

1. Loosely install the damper on the frame with the aligning tab facing inside.



2. Install the damper fork on the driveshaft and lower arm. Install the damper in the damper fork so the aligning tab is aligned with the slot in the damper fork.
3. Hand tighten the bolts and nuts.
4. Raise the knuckle with a floor jack until the car just lifts off the safety stand.

NOTE: The bolts and nuts should be tightened with the vehicle's weight on the damper.



5. Tighten the damper pinch bolt.
6. Secure the damper fork bolt with a new 12 mm nut.
7. Secure the damper assembly to the frame with the flange nuts.
8. Install the brake hose clamps.

Rear Suspension

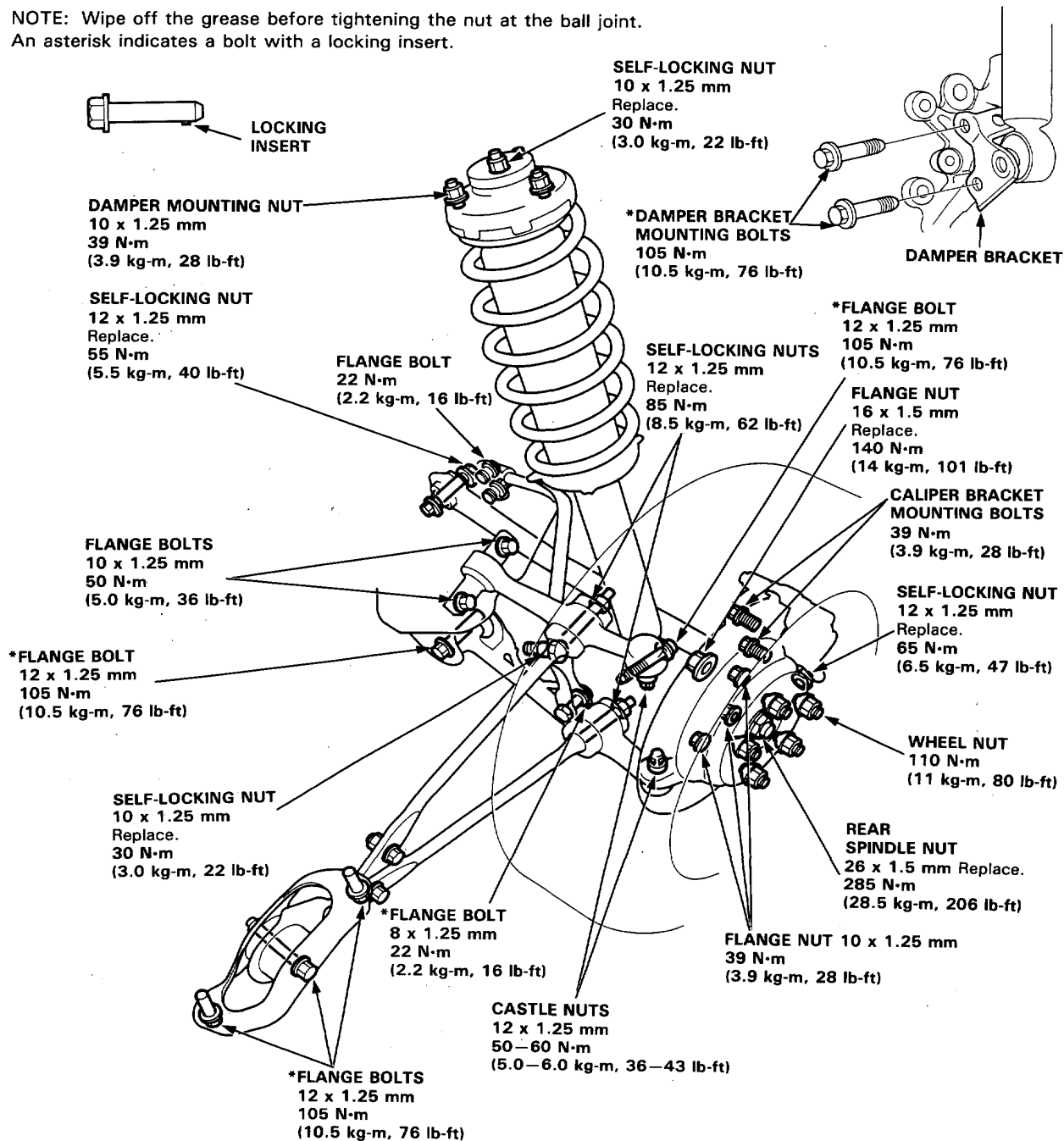
Torque Specifications

CAUTION:

- Replace the self-locking nuts after removal.
- Replace the self-locking bolts if you can easily thread a non-self-locking nut past their nylon locking inserts. (It should require 1 N·m (0.1 kg-m, 0.7 lb-ft) of torque to turn the test nut on the bolt).
- The vehicle should be on the ground before any bolts or nuts connected to rubber mounts or bushings are tightened.
- Torque the castle nut to the lower torque specification, then tighten it only far enough to align the slot with the pin hole. Do not align the nut by loosening.

NOTE: Wipe off the grease before tightening the nut at the ball joint.

An asterisk indicates a bolt with a locking insert.



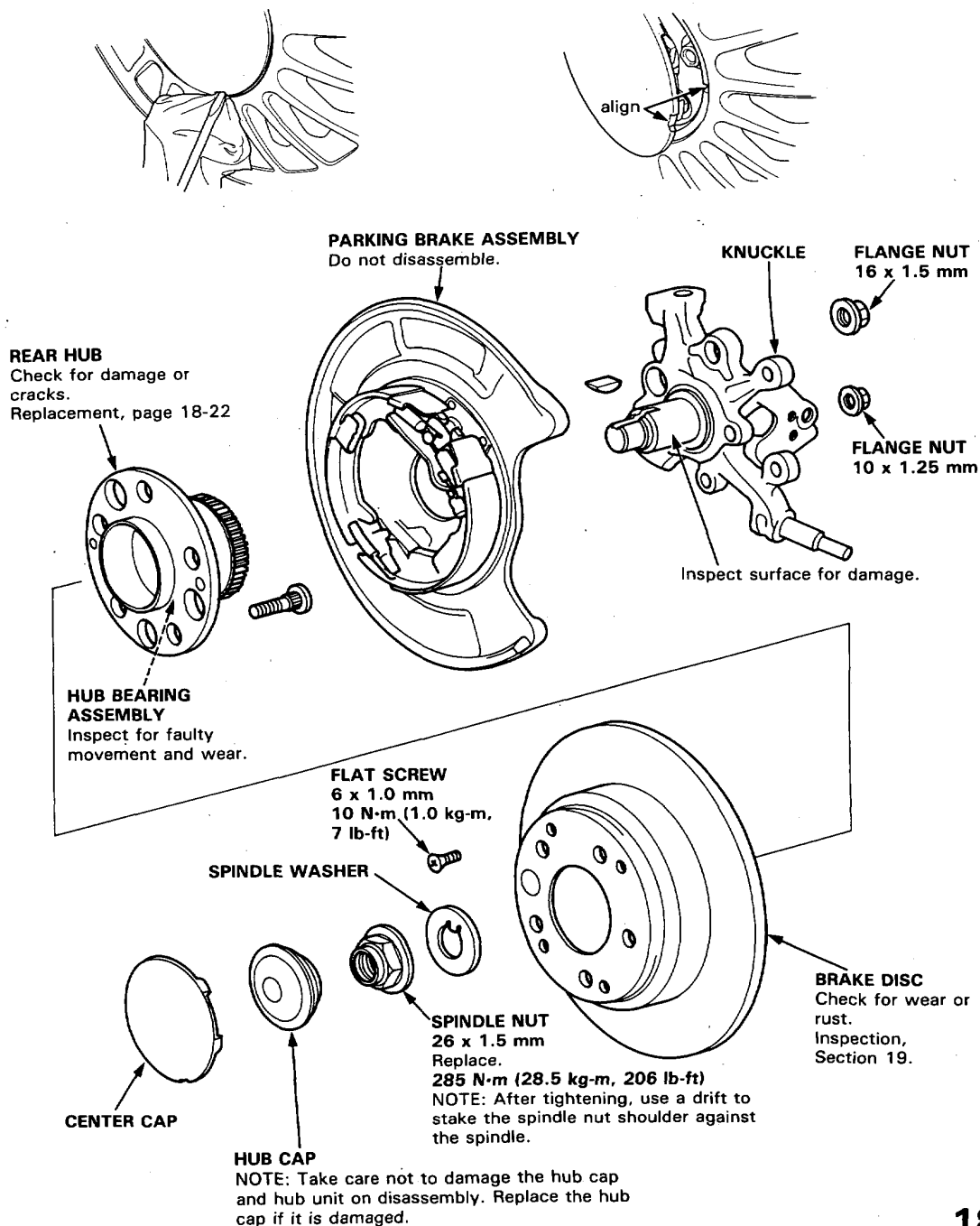


Hub Bearing Unit Replacement

NOTE:

- Use only genuine Honda aluminum wheel weights. Non-genuine aluminum wheel weights may corrode and damage aluminum wheels.
- Remove the center cap by prying it out with a flat screwdriver. Avoid damage to the cap by not allowing it to fall during removal.
- Before installing the wheel, clean the mating surfaces of the brake disc and inside of the wheel.
- Install the center cap by aligning the groove of the wheel side with the groove in the center cap.

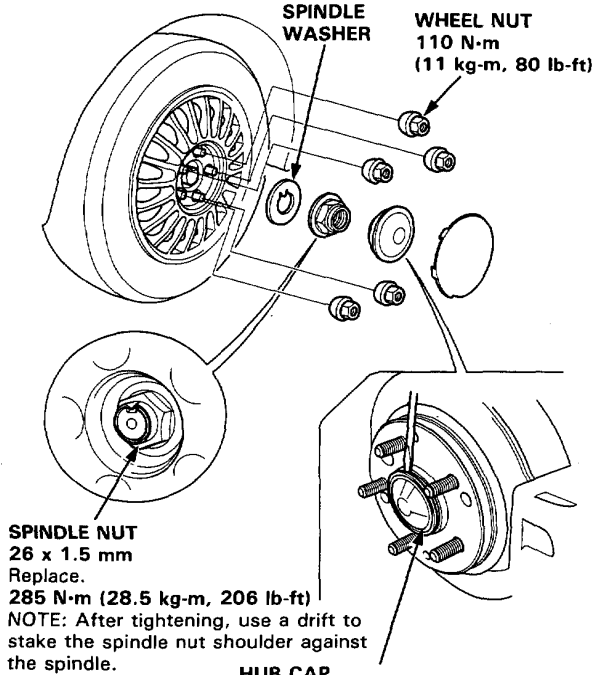
CAUTION: Use a rag at the point you are going to pry, because aluminum alloy wheels can be easily damaged.



Rear Suspension

Hub Bearing Unit Replacement

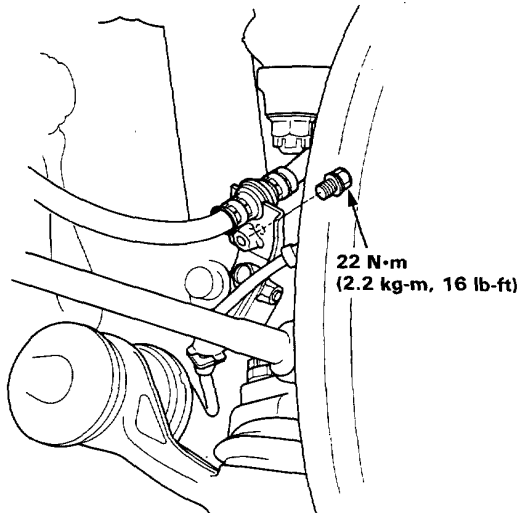
1. Raise the rear of car and support it with safety stands in proper locations.
2. Remove the rear wheel.
3. Remove the hub cap, then pry the spindle nut lock tab away from the spindle and loosen the nut.



HUB CAP

NOTE: Take care not to damage the hub cap and hub unit on disassembly.
Replace the hub cap if it is damaged.

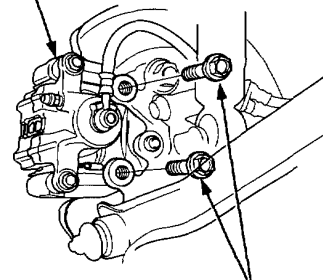
4. Remove the brake hose mounting bolt.



5. Remove the caliper bracket mounting bolts and hang the caliper assembly to one side.

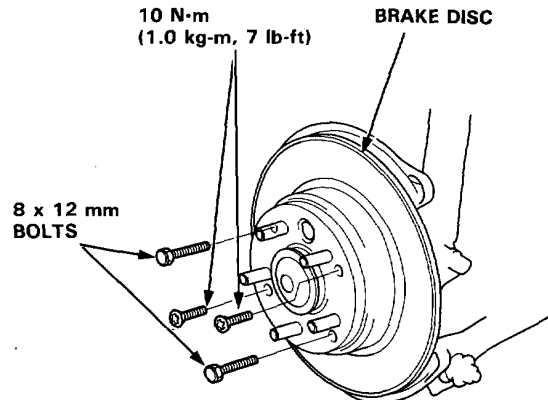
CAUTION: To prevent accidental damage to the caliper assembly or brake hose, use a short piece of wire to hang the caliper assembly from the undercarriage.

CALIPER ASSEMBLY



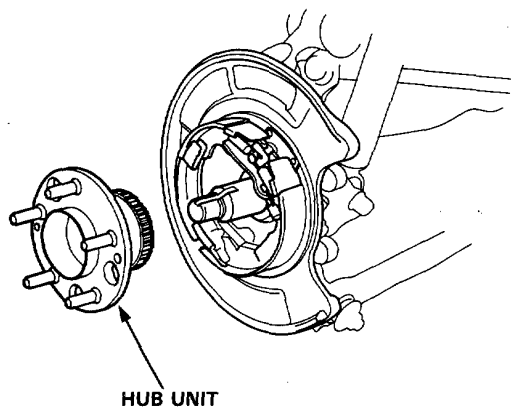
6. Remove the 6 mm brake disc retaining screws.
7. Screw two 8 x 12 mm bolts into the disc to push it away from the hub. Remove the brake disc.

NOTE: Turn each bolt two turns at a time to prevent cocking the disc excessively.





8. Remove the hub unit from the knuckle.



NOTE: Wash the bearing and spindle thoroughly in high flash point solvent before reassembly.

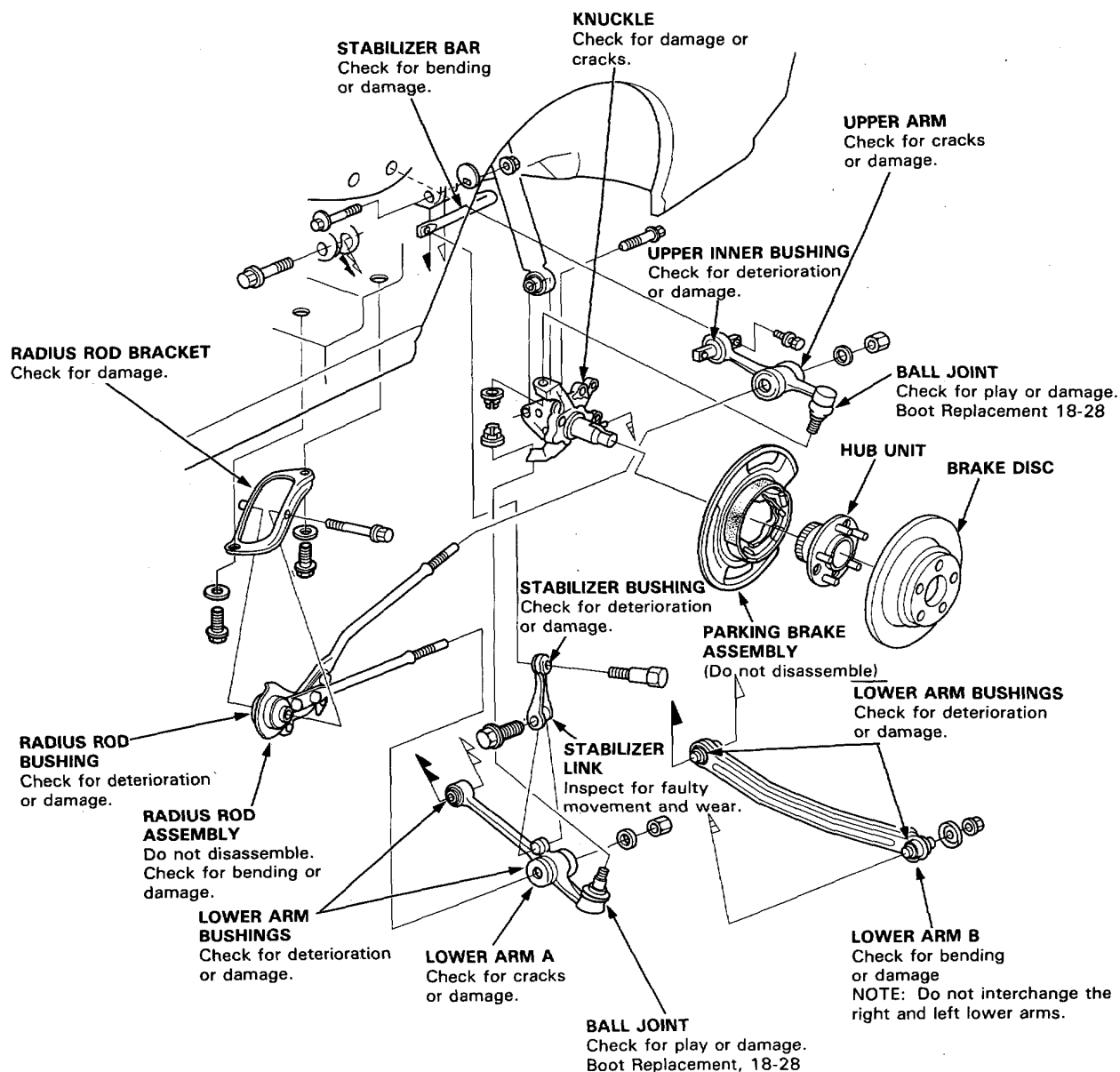
9. *Install in reverse order of removal.*
Tighten the new spindle nut to specified torque, then stake the spindle nut shoulder against the spindle.

Rear Suspension

Illustrated Index

NOTE:

- Wipe off the grease before tightening the nut at the ball joint.
- Torque specifications, see page 18-19.
- Make sure the toe adjuster cams on lower arm B are installed in the same direction.
- The right and left lower arm B are symmetrical. Install so the paint mark of "SPO R UP!" and "SPO L UP!" point to the front.
- "L" is stamped on the left lower arm A and "R" on the right lower arm A.
- The left upper arm is stamped with "POL" while the right upper arm is stamped with "POR."

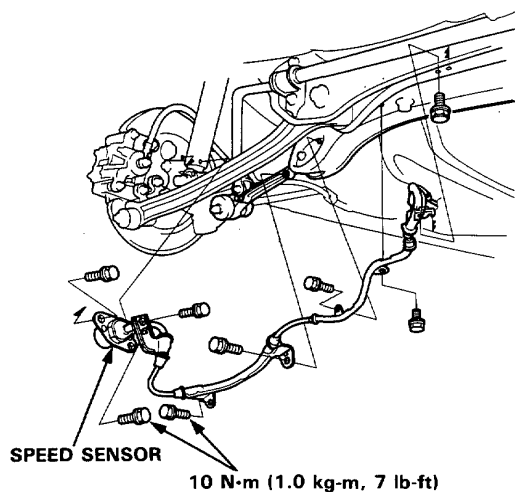




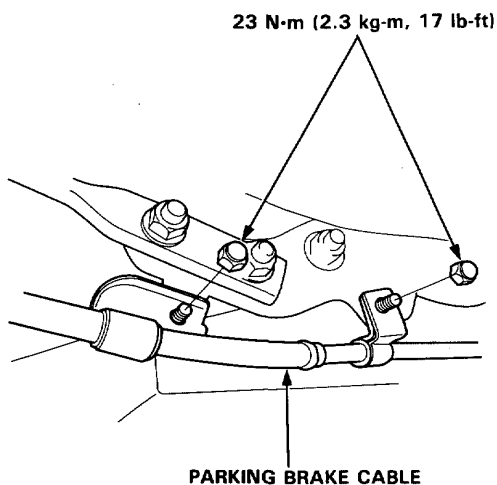
Knuckle/Upper Arm/Lower Arm/Radius Rods Removal

1. Remove the rear wheel and bearing unit assembly (page 18-22).
2. Remove the speed sensor from the knuckle and rear lower arm, but do not disconnect it.

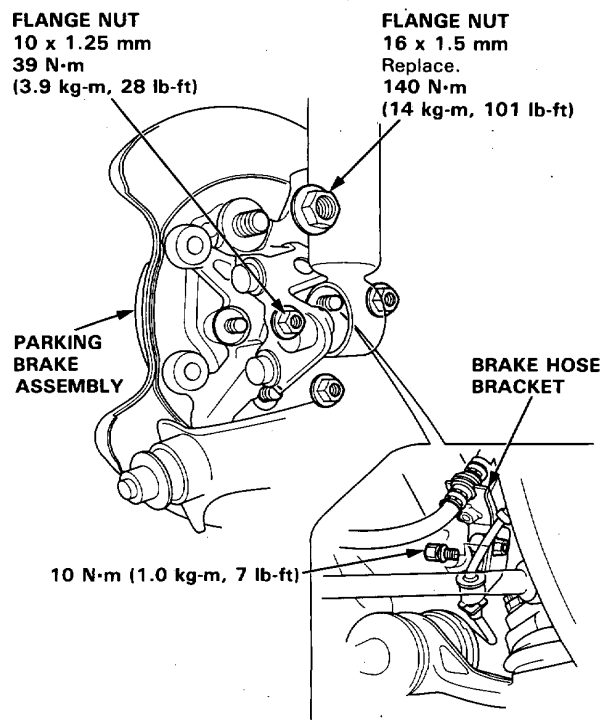
NOTE: Be careful when installing the sensors to avoid twisting wires.



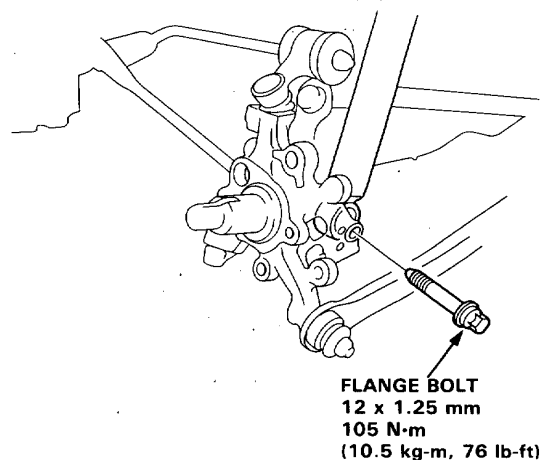
3. Remove the parking brake cable brackets.



4. Remove the brake hose bracket from the knuckle.
5. Remove the parking brake assembly.



6. Separate the damper and knuckle by removing the damper mounting bolt.



CAUTION: Install the damper assembly on the damper bracket with care not to allow the speed sensor wire to get caught between the damper and the bracket.

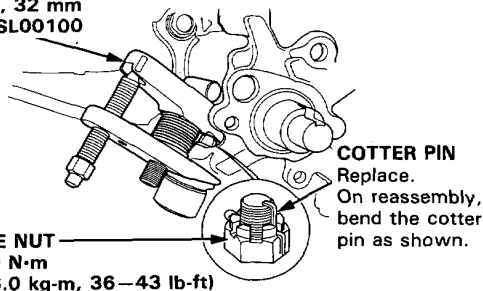
(cont'd)

Rear Suspension

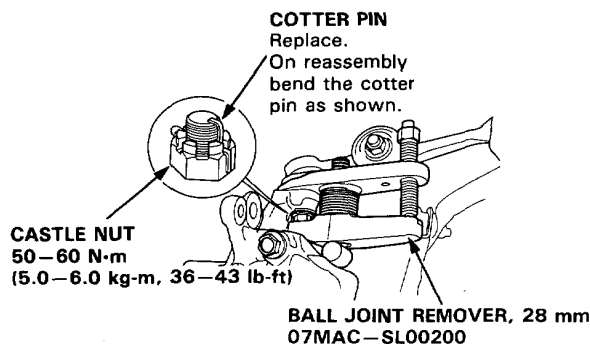
Knuckle/Upper Arm/Lower Arm/Radius Rods Removal (cont'd)

7. Remove the cotter pin from the castle nut of the lower arm ball joint and remove the nut.
8. Install a 12 mm hex nut on the ball joint. Be sure that the 12 mm hex nut is flush with the ball joint pin end, or the threaded section of the ball joint pin might be damaged by the ball joint remover.
9. Use the ball joint remover, 32 mm (07MAC-SL00100) as shown on page 18-12 to separate the lower arm and knuckle.

BALL JOINT REMOVER, 32 mm
07MAC-SL00100

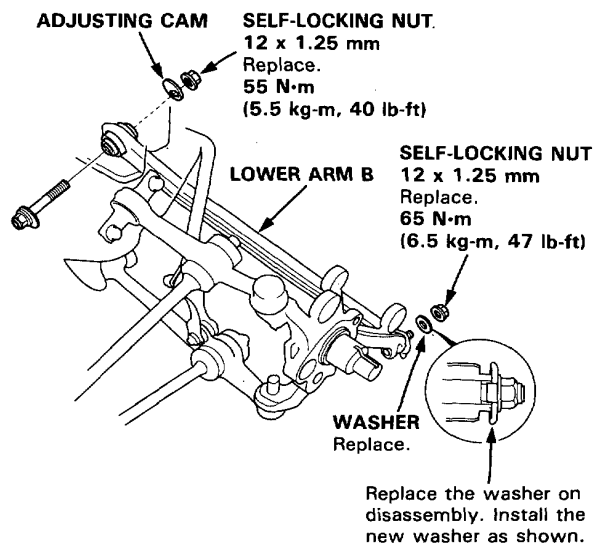


10. Remove the cotter pin from the castle nut of the upper arm ball joint and remove the nut.
11. Install a 12 mm hex nut on the ball joint. Be sure that the 12 mm hex nut is flush with the ball joint pin end, or the threaded section of the ball joint pin might be damaged by the ball joint remover.
12. Use the ball joint remover, 28 mm (07MAC-SL00200) as shown on page 18-12 to separate the upper arm and knuckle.



13. Remove the lower arm B.

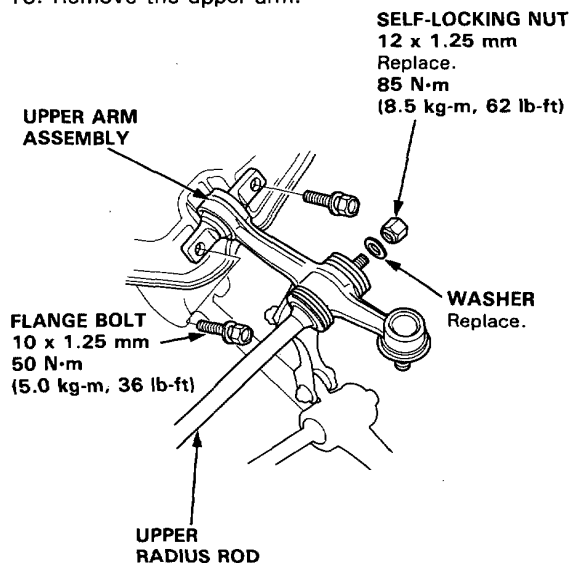
14. Remove the rear knuckle.



NOTE: Install the lower arm B with the paint mark of "L UP" or "R UP" toward the front.

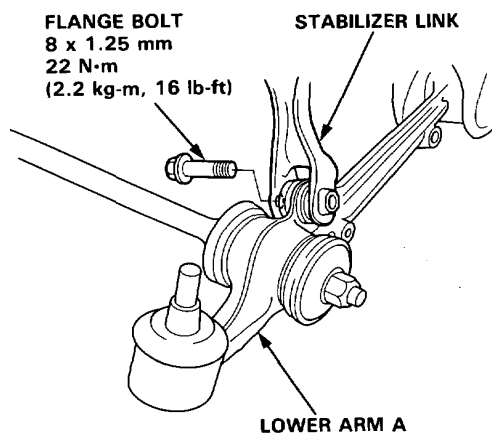
15. Remove the upper radius rod nut.

16. Remove the upper arm.



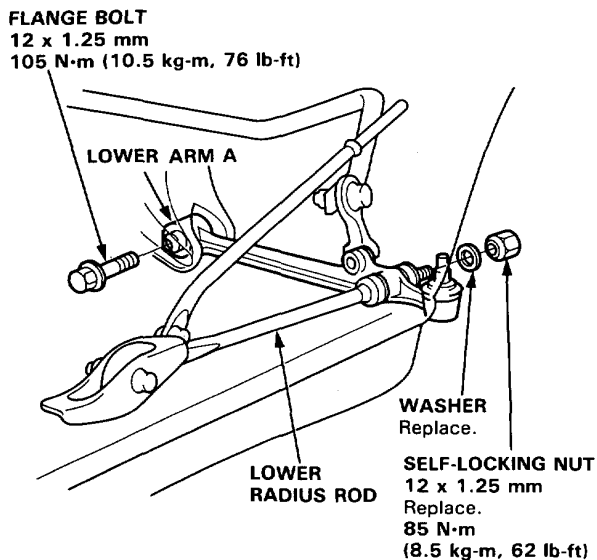


17. Remove the stabilizer link from the lower arm A.

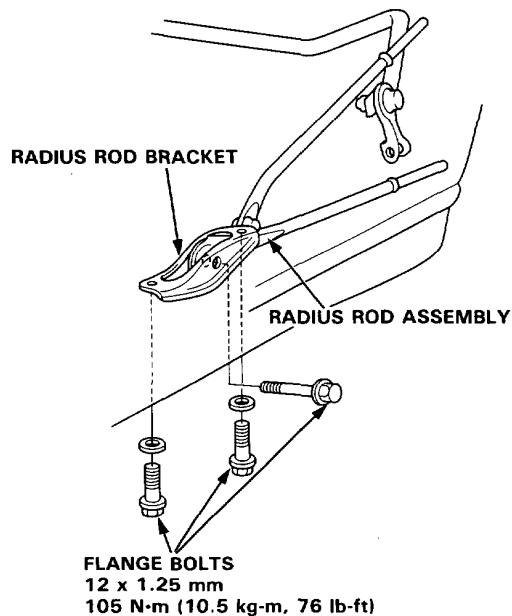


18. Remove the lower radius rod nut.

19. Remove the lower arm A.



20. Remove the radius rod assembly.



21. Remove the radius rod bracket from the trailing arm bushing.

NOTE:

- Do not disassemble the radius rod assembly.
- Check the bushing for cracks, damage, and/or deformation. Replace the radius rods only as a complete assembly.

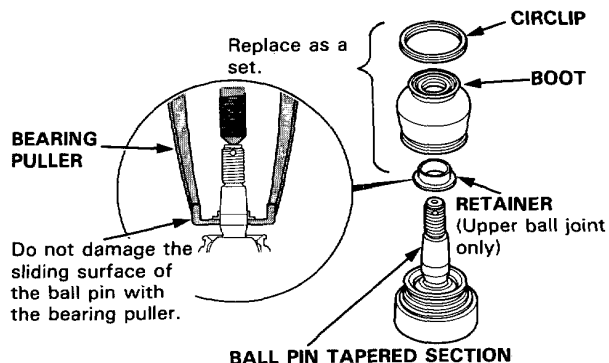
Rear Suspension

Ball Joint Boot Replacement

1. Remove the circlip and the boot.
2. Remove the retainer (upper ball joint only).

CAUTION: Do not contaminate the boot installation section with grease.

3. Pack the interior of the boot and lip with grease.

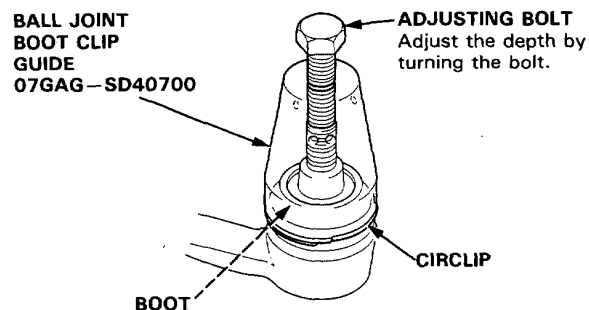


4. Wipe the grease off the sliding surface of the ball pin and pack with fresh grease and install the retainer (Upper ball joint only).

CAUTION:

- Keep grease off the boot installation section and the tapered section of the ball pin.
- Do not allow dust, dirt, or other foreign materials to enter the boot.

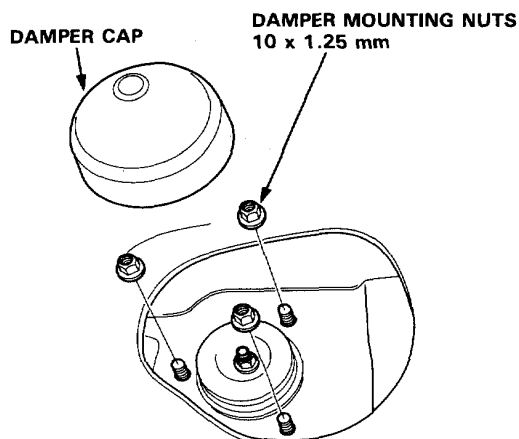
5. Install the boot in the groove of the boot installation section securely, then bleed air.
6. Adjust the special tool with the adjusting bolt until the end of the tool aligns with the groove on the boot. Slide the circlip over the tool and into position.



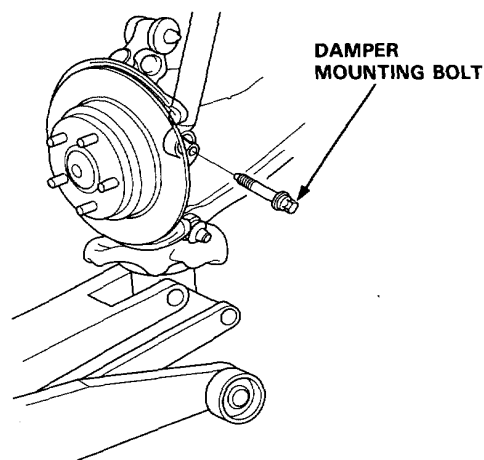
CAUTION: After installing the boot, check the ball pin tapered section for grease contamination and wipe it if necessary.

Damper Removal

1. Jack up the rear of car and support on safety stands in proper locations.
2. Remove the rear speaker and damper cap.
3. Use a floor jack to compress the damper slightly.
4. Remove the damper mounting nuts.



5. Remove the damper mounting bolt.
6. Lower the rear suspension and remove the damper assembly.



NOTE: Mark the right and left dampers or store them separately so they can be reinstalled on the proper sides.

Rear Suspension



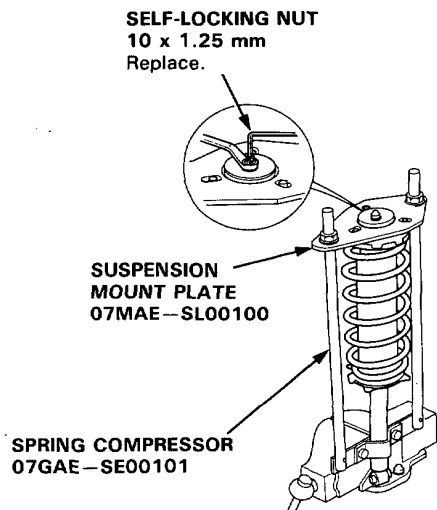
Damper Disassembly/Inspection

Disassembly:

1. Compress the damper spring with the spring compressor according to the manufacturer's instructions.

CAUTION: Do not compress the spring more than necessary to remove the 10 mm self-locking nut.

2. Remove the 10 mm self-locking nut from the damper assembly.

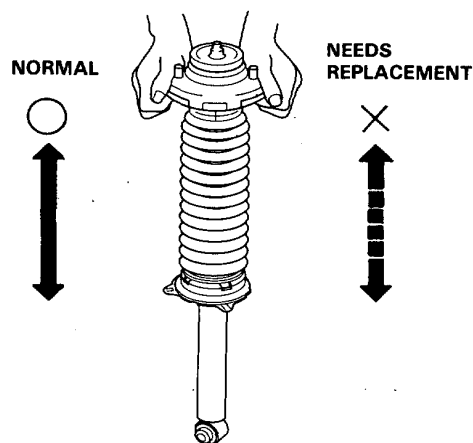


3. Remove the spring compressor and disassemble the damper as shown on page 18-30.

Inspection:

1. Reassemble all parts, except the spring.
2. Push on the damper assembly as shown.
3. Check for smooth operation through a full stroke, both compression and extension.

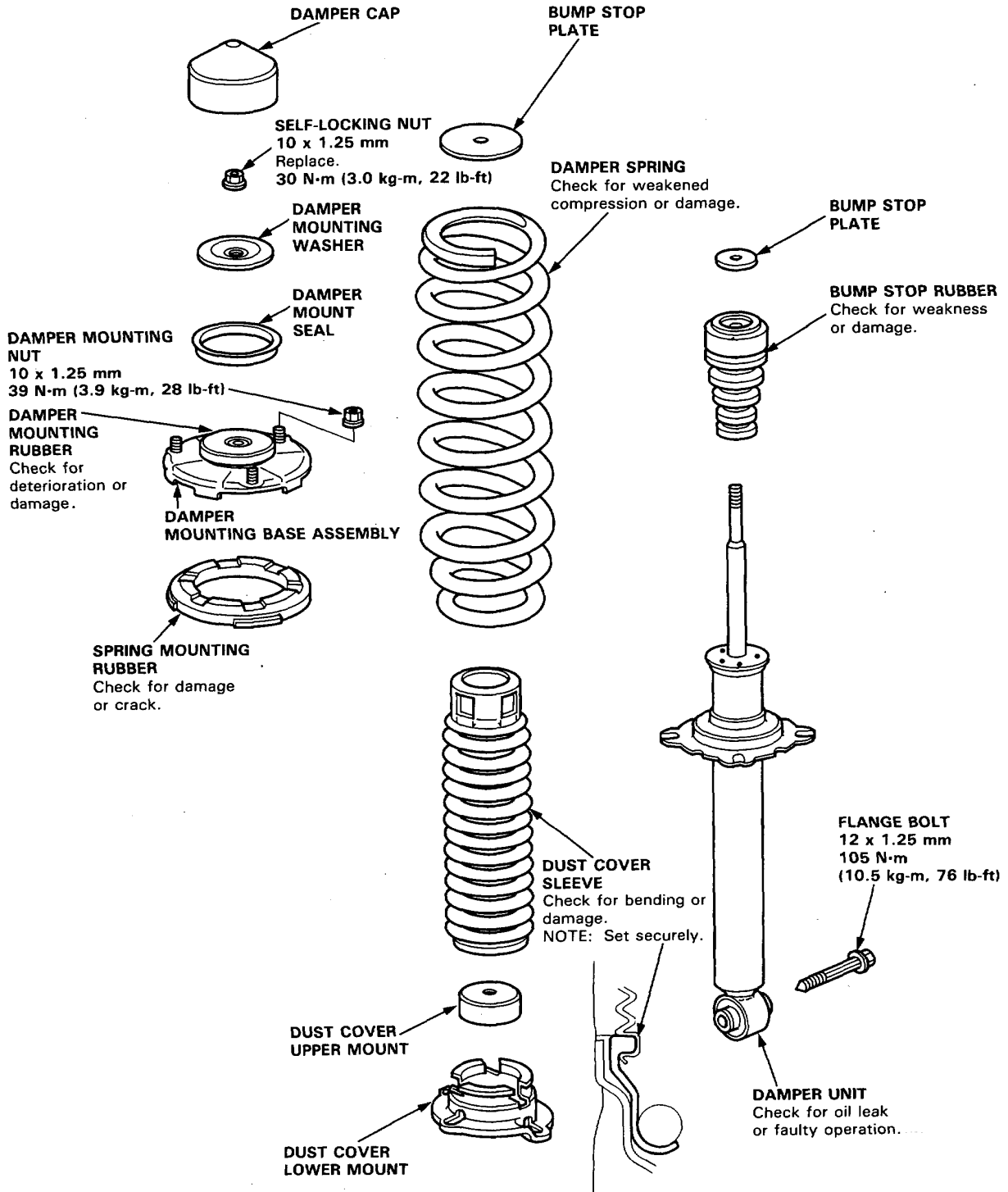
NOTE: The damper should move smoothly. If it does not (no compression or no extension), then gas is leaking and the damper should be replaced.



4. Check for oil leaks, abnormal noises or binding during these tests.

Rear Suspension

Inspection



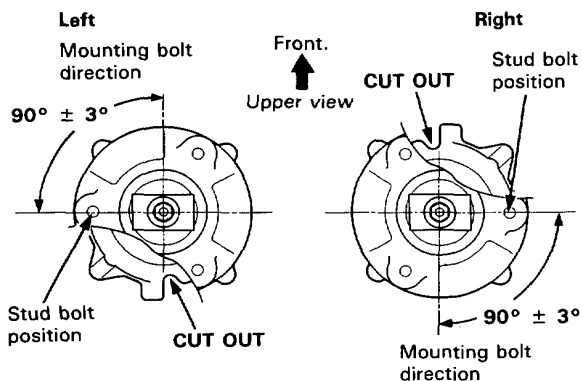
NOTE: Mark the right and left dampers or store them separately so they are reinstalled on the proper sides.



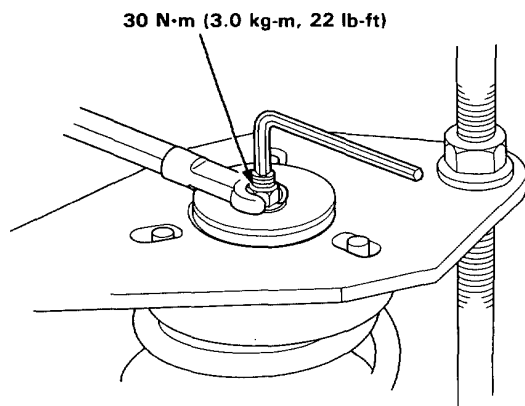
Damper Reassembly

1. Install the damper unit on a spring compressor.
2. Install the spring seat rubber, bump stop, bump stop plate, dust cover sleeve, damper spring, bump stop plate, rubber and damper mounting base on the damper unit.

CAUTION: Install the damper mounting base so that the angle of the stud bolts is as shown.



3. Install the upper plate of the spring compressor.
4. Install the damper mounting rubber and damper mounting washer, and loosely install a new 10 mm self-locking nut.
5. Hold the damper shaft and tighten the 10 mm self-locking nut.



TOOLS:
SPRING COMPRESSOR 07GAE-SE00101
SUSPENSION MOUNT PLATE 07MAE-SL00100

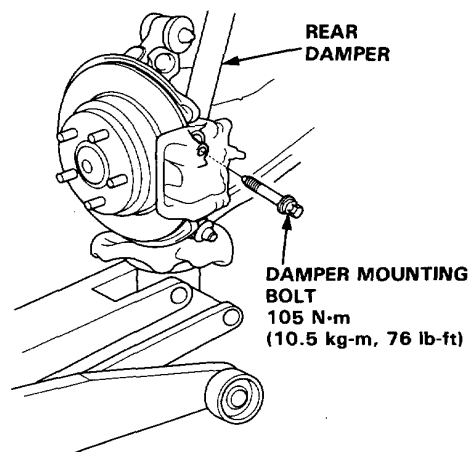
Damper Installation

1. Lower the rear suspension and set the damper assembly in its original position.
2. Loosely install the damper mounting bolt.
3. Raise the rear suspension with a floor jack until the weight of the car is on the damper.

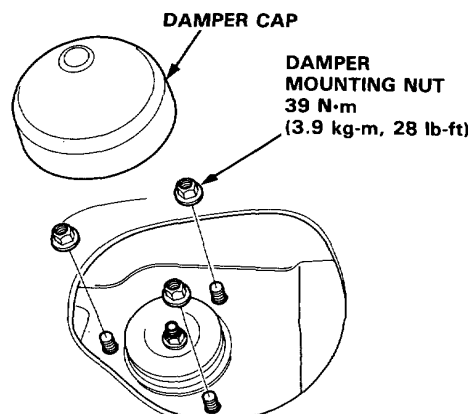
NOTE:

- The damper mounting bolts should be tightened with the damper under vehicle load.
- Do not interchange the right and left dampers.

CAUTION: Install the damper assembly on the damper bracket with care not to allow the speed sensor wire to get caught between the damper and the bracket.



4. Install and tighten the damper mounting nuts.
5. Tighten the damper mounting bolt.
6. Install the damper cap and rear speaker.



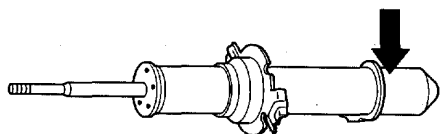
Damper Disposal

⚠ WARNING The dampers contain nitrogen gas and oil under pressure.

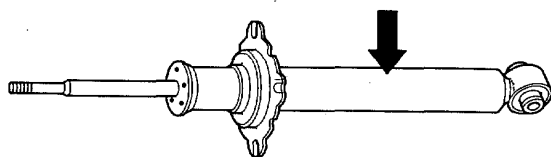
The pressure must be relieved before disposal to prevent explosion and possible injury when scrapping.

Place the damper on a level surface with its rod extended and drill a hole of 2–3 mm (0.078–0.118 in) diameter in the body to release the gas.

Front Damper



Rear Damper



⚠ WARNING Always wear eye protection to avoid getting metal shavings in your eyes when the damper pressure is relieved.