SUSPENSION - FRONT 1994 SUSPENSION Acura Front

SUSPENSION - FRONT

1994 SUSPENSION Acura Front

DESCRIPTION

All models use independent wishbone MacPherson strut front suspension. Vertically mounted strut assembly is attached to lower control arm by a fork assembly. See $\underline{Fig. 1}$ and $\underline{Fig. 2}$. Steering knuckle is attached to upper and lower control arms by ball joints. A stabilizer bar and radius rod are attached to the lower control arm.

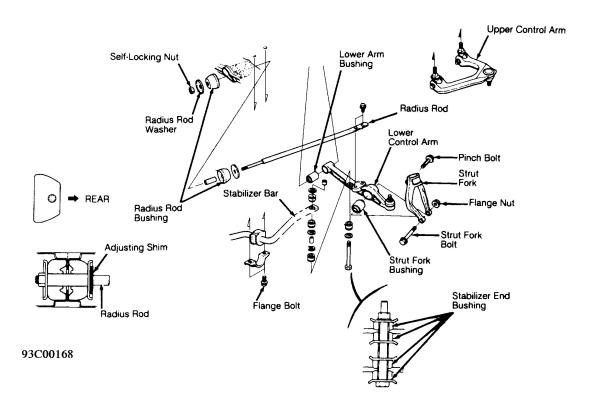


Fig. 1: Exploded View Of Front Suspension (1 Of 2) Courtesy of AMERICAN HONDA MOTOR CO., INC.

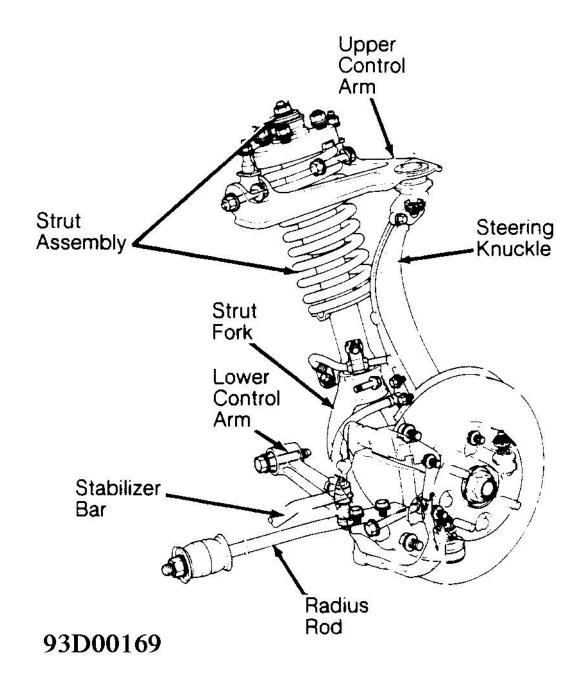


Fig. 2: Exploded View Of Front Suspension (2 Of 2) Courtesy of AMERICAN HONDA MOTOR CO., INC.

ADJUSTMENTS

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

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NOTE: See WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES article in the

WHEEL ALIGNMENT section.

WHEEL BEARINGS

Wheel bearings are not adjustable.

INSPECTION

BALL JOINT CHECKING

Information is not available from manufacturer.

REMOVAL & INSTALLATION

NOTE: Always grease new bushings with silicone grease before installation.

AIR BAG CAUTION

CAUTION: Use extreme care when working around Supplemental Restraint System (SRS) wiring and components at front fenderwells. All SRS wiring harnesses and connectors are color-coded Yellow. DO NOT damage this wiring.

HUB & KNUCKLE ASSEMBLY

Removal

- 1. Lift spindle nut locking tab. Remove nut. Loosen wheel nuts slightly. Raise and support front of vehicle. Remove wheel nuts and wheel.
- 2. Remove mounting bolt for brake hose bracket. Remove caliper mounting bolts, and wire caliper aside. Without disconnecting speed sensor wire, remove speed sensor wire bracket and speed sensor from knuckle.
- 3. Remove cotter pin from tie rod ball joint, and remove castle nut. Install a 12-mm hex nut flush with ball joint pin as a thread protector. Using Ball Joint Remover (07MAC-SL00200), break tie rod ball joint loose. Separate tie rod from knuckle.
- 4. Remove cotter pin from lower arm ball joint, and remove castle nut. Install a 14-mm hex nut flush with ball joint pin as a thread protector. Using Ball Joint Remover (07MAC-SL00100), break lower arm ball joint loose and separate ball joint and lower arm.
- 5. Remove knuckle protector. Remove cotter pin and upper ball joint castle nut. Install a 10-mm hex nut flush with ball joint pin as a thread protector. Using Ball Joint Remover (07MAC-SL00200), break ball joint loose and separate it from knuckle.
- 6. Pull knuckle outward, and separate drive shaft outboard joint from knuckle with a plastic mallet. Remove hub/knuckle assembly from vehicle.

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Installation

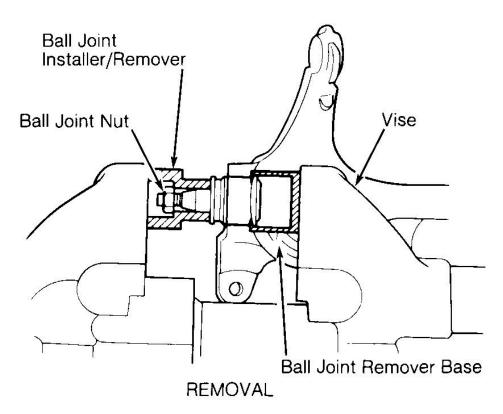
To install hub/knuckle assembly, reverse removal procedure. Tighten bolts and nuts to specification. Use NEW spindle nut, and stake it after tightening. See **TORQUE SPECIFICATIONS**.

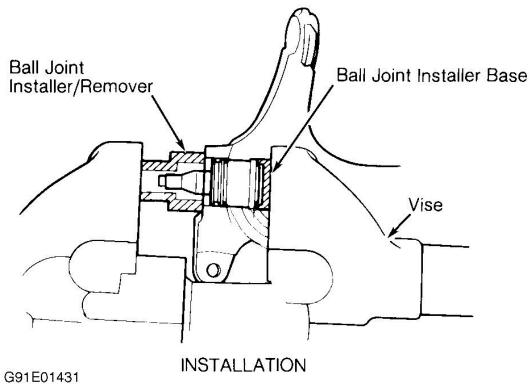
LOWER BALL JOINT

Removal

- 1. Remove steering knuckle. See <u>HUB & KNUCKLE ASSEMBLY</u>. Remove dust boot snap ring, dust boot, and ball joint snap ring.
- 2. Position Ball Joint Installer/Remover (07GAF-SD40330) so narrow end of tool fits over tapered end of ball joint shaft. Install and tighten ball joint nut. Position Ball Joint Removal Base (07GAF-SD40310) between ball joint housing and steering knuckle, and place assembly in vise. Press ball joint from knuckle. See **Fig. 3**.

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Fig. 3: Removing & Installing Lower Ball Joint (Typical) Courtesy of AMERICAN HONDA MOTOR CO., INC.

Installation

- 1. Position ball joint into steering knuckle. Position ball joint installer wide end on ball joint shaft. Position Ball Joint Installation Base (07GAF-SD40320) over end of ball joint. Press ball joint into knuckle. See **Fig. 3**.
- 2. Install ball joint snap ring and dust boot. Install dust boot clip with Boot Clip Guide (07GOG-SD40700). To complete installation, reverse removal procedure.

LOWER CONTROL ARM

Removal & Installation

See Fig. 1 and Fig. 2.

STABILIZER BAR

Removal & Installation

See Fig. 1 and Fig. 2.

STRUT ASSEMBLY

Removal

Raise and support front of vehicle. Remove wheel assembly and brake hose clamp from strut. Remove strut-to-fork pinch bolt and strut fork bolt. See $\underline{\textbf{Fig. 4}}$. Remove strut fork assembly. Remove cap and nuts from top of strut. Remove strut assembly.

NOTE: Struts and strut forks are not interchangeable from side to side.

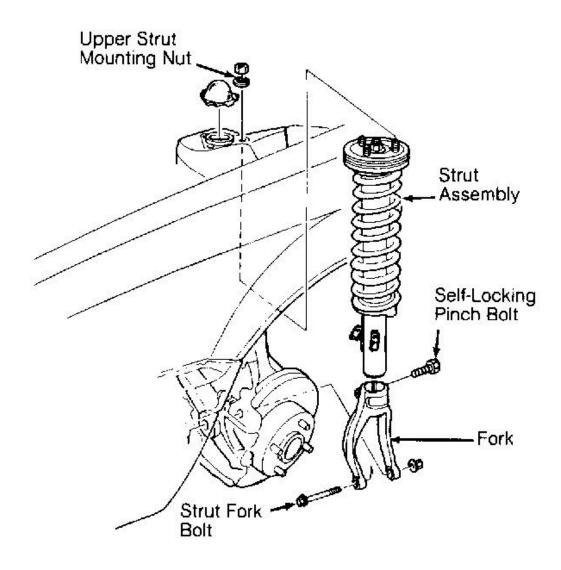


Fig. 4: Removing Strut & Fork Assembly (Typical) Courtesy of AMERICAN HONDA MOTOR CO., INC.

Disassembly

Using a spring compressor, compress spring slightly to remove spring tension. Hold strut rod with Allen wrench and remove spring seat nut. Slowly release spring compressor. Remove spring. Disassemble strut, noting relative position of parts. See **Fig. 5**.

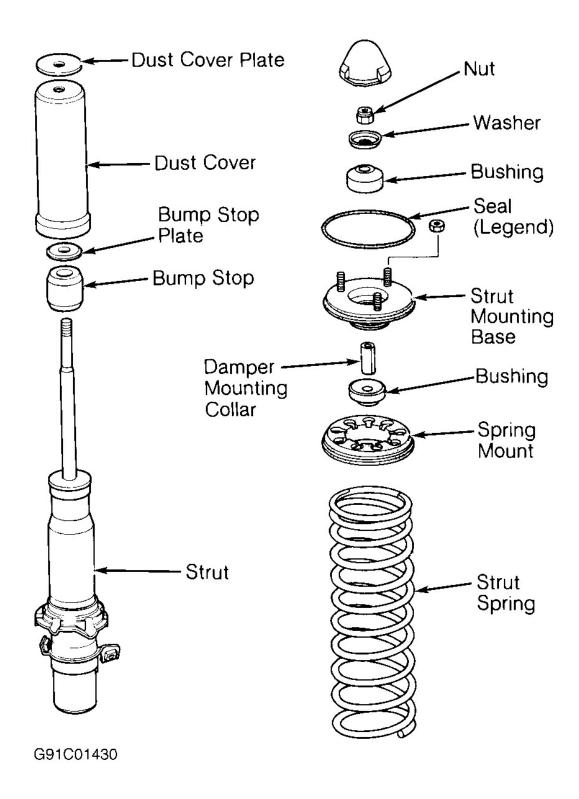


Fig. 5: Exploded View Of Strut Assembly (Typical)

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Reassembly

Inspect parts for cracks, deterioration, or damage. Check shock absorber for leaks and improper operation. Replace strut if resistance is weak, uneven, or jerky when strut is compressed. Replace worn or damaged parts. Position mounting base with one stud aligned with tab on strut housing. To complete reassembly, reverse disassembly procedure.

Installation

1. Install strut fork onto lower control arm. Position strut assembly so tab on strut housing aligns with slot in fork. Align upper strut studs with strut tower holes. Place jack under knuckle, and raise it until vehicle just lifts from safety stand.

NOTE: Strut mount base nuts must be tightened with strut under vehicle weight.

2. Install upper strut mount nuts. Tighten strut assembly while strut is under load. Reverse removal procedure to complete installation. Tighten retaining nuts and bolts to specification. See **TORQUE SPECIFICATIONS**.

UPPER CONTROL ARM

Inspection

Raise and support front of vehicle. Remove wheel assembly. Rock upper ball joint front to back. Replace upper arm bushings if any play exists.

Removal & Installation

See Fig. 1 and Fig. 2.

WHEEL BEARING

Removal & Installation

- 1. Remove steering knuckle. See <u>HUB & KNUCKLE ASSEMBLY</u>. Remove knuckle from hub unit. Separate hub unit from brake disk. Using Hub Disassembly Driver (07GAF-SE00100) and Hub Disassembly Base (07GAF-SD40700), press front hub from wheel bearing.
- 2. Using bearing separator, Hub Disassembly Driver (07GAF-SE00100), and Support Base (07965-SD90100), press out bearing race. Clean knuckle and hub thoroughly before reassembly. To install, reverse removal procedure, using Driver (07749-0010000), Hub Assembly Guide (07GAF-0SE00200), Hub Driver (07GAF-SE00100), Support Base (07965-SD90100), and a hydraulic press.

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS

Application	Ft. Lbs. (N.m)
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Brake Caliper Bolt	81 (110)
Lower Ball Joint-To-Knuckle Nut	37-44 (50-60)
Radius Arm Nut	32 (44)
Radius Arm-To-Control Arm Bolt	77 (105)
Spindle Nut	184 (250)
Splash Guard Bolt	(1)
Stabilizer Bar-To-Control Arm Nut	14 (19)
Steering Knuckle Protector Bolt	(1)
Strut Fork Pinch Bolt	32 (44)
Strut Fork-To-Control Arm Nut	48 (65)
Strut Mounting Base Nut	29 (39)
Strut Mounting Nut	29 (39)
Tie Rod End-To-Knuckle Nut	37-44 (50-60)
Upper Ball Joint-To-Knuckle Nut	30-35 (40-48)
Upper Control Arm Anchor Bolt Nut	48 (65)
Upper Control Arm Nut	22 (30)
Wheel Lug Nut	81 (110)
(1) Tighten to 88 INCH lbs. (10 N.m).	