

SUSPENSION - FRONT

Article Text

1993 Honda Prelude

ARTICLE BEGINNING

1993 SUSPENSION

Honda - Front Suspension

Prelude

DESCRIPTION

Prelude uses an independent, double wish-bone, strut type suspension. The coil-over strut assembly is attached to the steering knuckle through the lower control arm. See Fig. 1. The steering knuckle is attached to upper and lower control arms by ball joints. A stabilizer bar and strut rod are attached to the lower control arm.

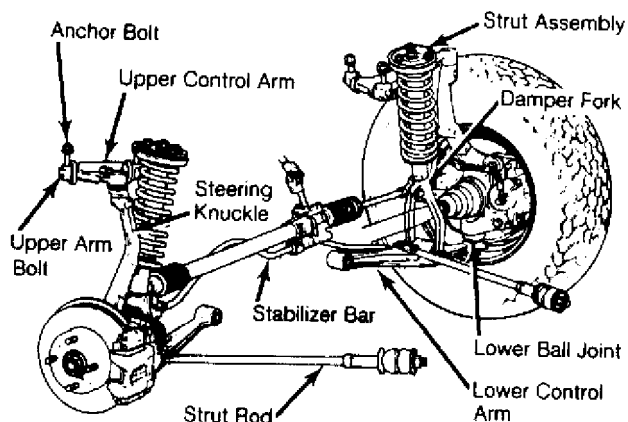


Fig. 1: Identifying Front Suspension Components (Typical)

Courtesy of American Honda Motor Co., Inc.

ADJUSTMENTS & INSPECTION

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

NOTE: See WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES article in WHEEL ALIGNMENT section.

WHEEL BEARING

Inspection

- 1) Wheel bearings require no adjustment. Bearings should be checked for excessive movement. Support vehicle, and remove wheel.
- 2) Install dial indicator with stem positioned on front hub surface. Move hub assembly inward. Note reading. Movement should be 0-.002" (0-.05 mm). If movement is not as specified, replace bearing. See WHEEL BEARING under REMOVAL & INSTALLATION.

REMOVAL & INSTALLATION

HUB & KNUCKLE ASSEMBLY

Removal

1) Loosen lug nuts with vehicle weight on tires. Pry lock tab away from spindle nut, and loosen nut. Raise and support vehicle. Remove lug nuts and spindle nut. Remove wheel assembly. Remove caliper assembly, and support it aside.

2) Remove brake disc retaining screws. Install two 8 x 12-mm bolts in brake disc, and tighten bolts to force brake disc from hub. Alternate tightening of bolts to prevent brake disc from binding on hub. Remove cotter pin and nut from tie rod end.

3) Using Ball Joint Remover (07MAC-SL00200), separate tie rod ball joint and lift tie rod end out of knuckle. Remove cotter pin from lower control arm ball joint, and loosen castle nut half length of joint threads. Using ball joint separator, separate lower ball joint from control arm.

4) Remove upper ball joint shield. See Fig. 2. Remove cotter pin and upper ball joint stud nut. Using ball joint remover, separate ball joint from steering knuckle. Remove steering hub/knuckle assembly from axle shaft.

Installation

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

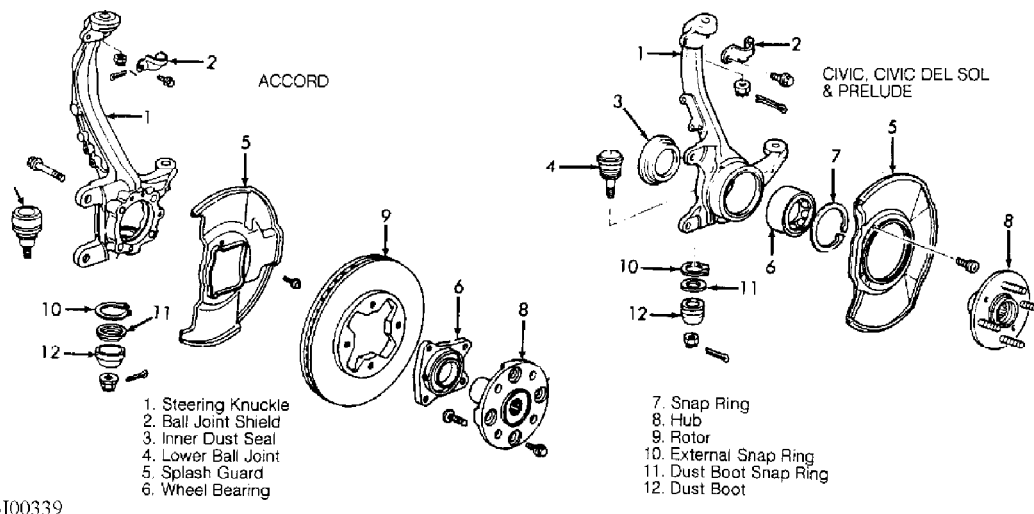


Fig. 2: Exploded View Of Steering Knuckle
Courtesy of American Honda Motor Co., Inc.

LOWER CONTROL ARM & BALL JOINT

Removal & Installation
Information is not available.

UPPER BALL JOINT

Removal & Installation
Information is not available.

UPPER CONTROL ARM

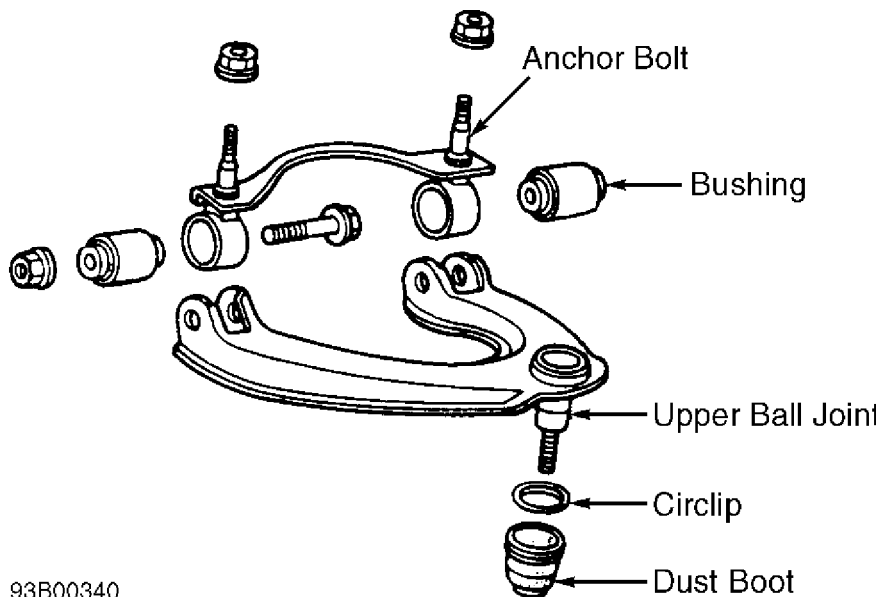
Inspection

Raise and support front of vehicle. Remove wheel assembly. Rock upper ball joint front to back. Upper control arm assembly must be replaced if play exists in bushings.

Removal

1) Raise and support front of vehicle. Remove wheel assembly. Remove cotter pin and nut from upper ball joint stud.

2) Using ball joint remover, separate upper ball joint from steering knuckle. Remove upper control arm anchor bolts-to-body retaining nuts. See Fig. 3. Remove upper control arm. Clamp each upper arm anchor bolt in a vise. Remove upper arm bushings.



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Fig. 3: Exploded View Of Upper Control Arm Assembly
Courtesy of American Honda Motor Co., Inc.

STRUT ASSEMBLY

Removal
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Raise and support front of vehicle. Remove wheel assembly and brake hose clamp from strut. Remove strut-to-fork self-locking pinch bolt and strut fork bolt. Remove strut fork assembly. Remove cap and nuts from top of strut. Remove strut assembly.

WARNING: Strut contains pressurized nitrogen gas. To dispose of properly, drill a 5/64" (2.0 mm) hole at base of strut. Always wear eye protection when drilling.

Disassembly

Using a spring compressor, compress spring slightly to remove spring tension. Hold strut rod using an Allen wrench and remove nut retaining spring seat and mounting base. Slowly release spring compressor and lift spring off. Disassemble strut assembly, noting relative position of assembled parts. See Fig. 4.

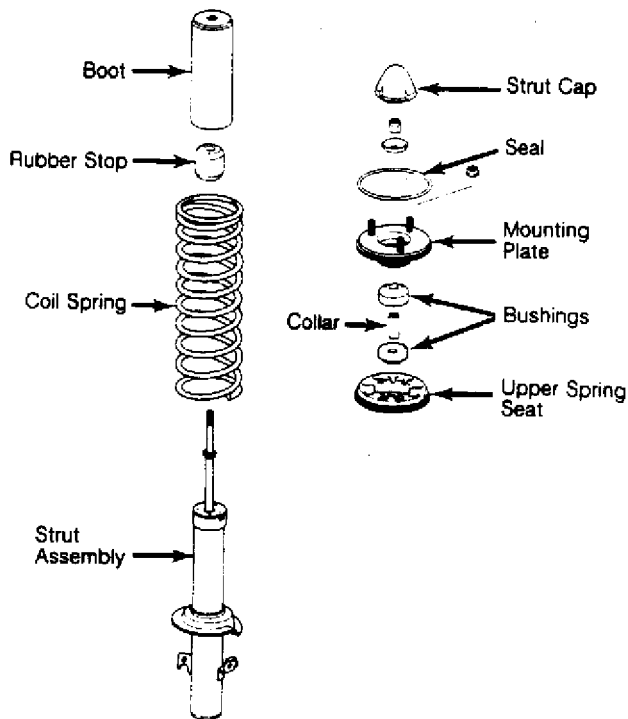


Fig. 4: Exploded View Of Strut Assembly (Typical)
Courtesy of American Honda Motor Co., Inc.

Check parts for cracks, deterioration and 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 on 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 off safety stands.

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

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

WHEEL BEARING

Removal

1) Remove steering knuckle. See HUB & KNUCKLE ASSEMBLY. Remove splash guard. Using Front Hub Remover/Installer (07GAF-SE0100), press hub from steering knuckle. Remove bearing retaining snap ring and knuckle ring from knuckle. Press bearing out of knuckle.

2) Using bearing puller, remove outboard bearing from hub. Clean knuckle and hub thoroughly before reassembly.

Installation

Press new bearing into knuckle. DO NOT exceed 4000 lbs. (1814 kg) pressure. Install snap ring in knuckle groove. Install splash guard, and invert knuckle. Using press, install knuckle/bearing assembly onto hub. See Fig. 5. DO NOT exceed 4000 lbs. (1814 kg) pressure. To complete installation, reverse removal procedure.

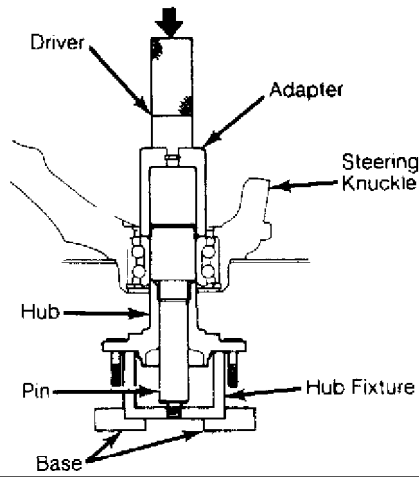


Fig. 5: Pressing Knuckle/Bearing Assembly Onto Hub
 Courtesy of American Honda Motor Co., Inc.

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS TABLE

AA	
Application	Ft. Lbs. (N.m)
Ball Joint Nut	
Lower	37-44 (50-60)
Upper	40-48 (30-35)
Brake Caliper Mounting Bolt	81 (110)
Lower Control Arm Pivot Bolt	40 (54)
Spindle Nut	184 (250)
Stabilizer Bar Mounting Bolts	16 (22)
Strut Assembly Shaft Nut	22 (30)
Strut Fork Pinch Bolt	33 (45)
Strut Fork-To-Control Arm Nut	48 (65)
Tie Rod Lock Nut	32 (44)
Upper Control Arm Anchor Bolt Nut	48 (65)
Upper Control Arm Bushing Bolt (2)	22 (30)
Upper Strut Mounting Nut	29 (39)
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	INCH Lbs. (N.m)
Ball Joint Shield Bolt	89 (10.0)
Brake Line Clamp Bolt	89 (10)
AA	

END OF ARTICLE