Front Suspension

HONDA

Accord, Civic, Prelude

DESCRIPTION

Honda uses a strut type front suspension. consisting of a vertically-mounted MacPherson type strut assembly. The strut assembly is mounted to the body at the top by means of a thrust bearing. The lower end of the suspension strut is connected to the steering knuckle, which is mounted to the lower control arm by means of a ball joint.

The strut assembly consists of a shock absorber built into strut tube, and a coil spring mounted to the outside, upper portion of the strut tube. A stabilizer bar is attached to the lower control arms. On Accord models, radius rods are attached to the lower control arms.

ADJUSTMENT

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

See Wheel Alignment Specifications & Procedures in WHEEL ALIGNMENT section.

WHEEL BEARING

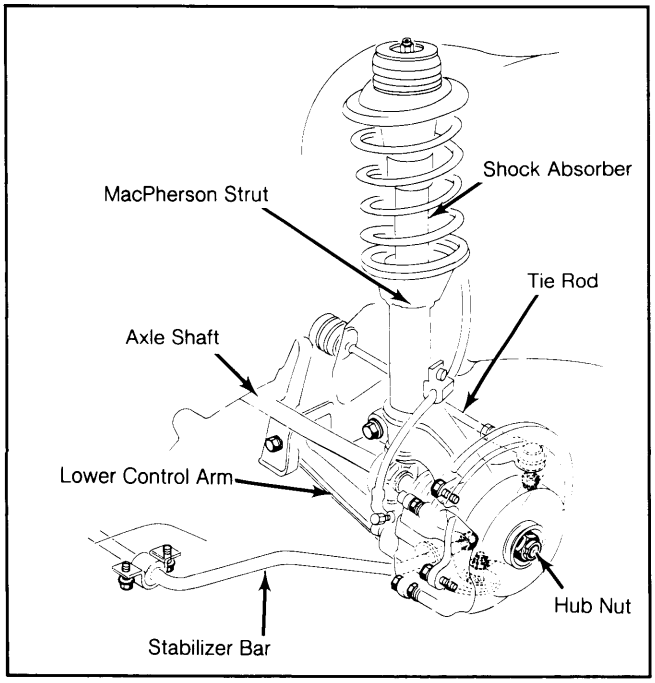
Wheel bearings are not adjustable.

BALL JOINT CHECKING

1) Raise and support vehicle with safety stands. Attach dial indicator to lower control arm with indicator tip on steering knuckle near ball joint. Place pry bar between lower control arm and steering knuckle.

2) Push on pry bar, and observe movement on dial indicator. Movement should not exceed .02" (.5 mm). Ball joint and control arm are serviceable as an assembly only. If ball joint exceeds limit, replace control arm.

Fig. 1: Assembled View of Civic & Prelude Suspension



Accord front suspension is similar.

REMOVAL & INSTALLATION

WHEEL BEARING

Removal

1) Pry nut lock tab away from spindle, loosen hub nut. Raise vehicle, and support with saftey stands. Remove wheel assembly and hub nut. Remove caliper, and support out of the way.

2) Screw 2 bolts into disc to push it away from hub. Turn each screw 2 turns at a time to prevent cocking disc. Remove splash guard and snap ring. Remove inboard bearing.

3) Flip knuckle over, and remove inboard dust seal, inboard bearing, and inner race. Press bearing outer race out of knuckle.

4) Remove outboard bearing inner race from hub using bearing puller. Remove outboard dust seal from hub. Wash knuckle and hub throughly before reassembly.

Installation

1) Press bearing outer race into knuckle. Pressure required must not exceed 5000 lbs. (22240 N). Pack bearings, and coat races with grease before installing bearings. Install outer bearing and its inner race in knuckle.

2) Install snap ring securely in groove of knuckle. Pack grease in groove and around sealing lip of outboard dust seal. Drive outboard dust seal into knuckle, until flush with knuckle surface.

3) Install splash guard, turn knuckle upside down, and install inboard ball bearing and its inner race. Place front hub in tool fixture, and set knuckle in position. Apply downward pressure with hydraulic press. Maximum press load is 4000 lbs. (17792 N).

4) Pack grease in groove and around sealing lip of inboard dust seal. Drive inboard dust seal into knuckle. Reverse removal procedures to complete installation.

STEERING KNUCKLE

Removal

1) Raise vehicle and support with safety stands. Remove wheel assembly. Remove hub nut. Remove brake caliper without disconnecting hydraulic line, and support out of the way.

2) Using 2 bolts install into threaded holes in brake rotor until rotor is pulled off hub. Remove cotter pin from tie rod end. Remove tie rod ball joint using ball joint remover, and lift tie rod off of knuckle.

3) Remove cotter pin from lower arm ball joint, and remove castle nut. Remove lower control ball joint, and pull control arm down until ball joint is clear of knuckle.

4) Remove shock absorber pinch bolts. Using a soft mallet, tap knuckle down until it comes off shock absorber. Pull knuckle/hub assembly off axle. Remove hub from knuckle using driver and press.

Installation

To install, reverse removal procedures. Use new hub nut, and stake after torquing.

STRUT ASSEMBLY

Removal

Remove wheel, hub, and steering knuckle as previously described. Remove nuts retaining upper end of strut to body, and remove strut.

Front Suspension

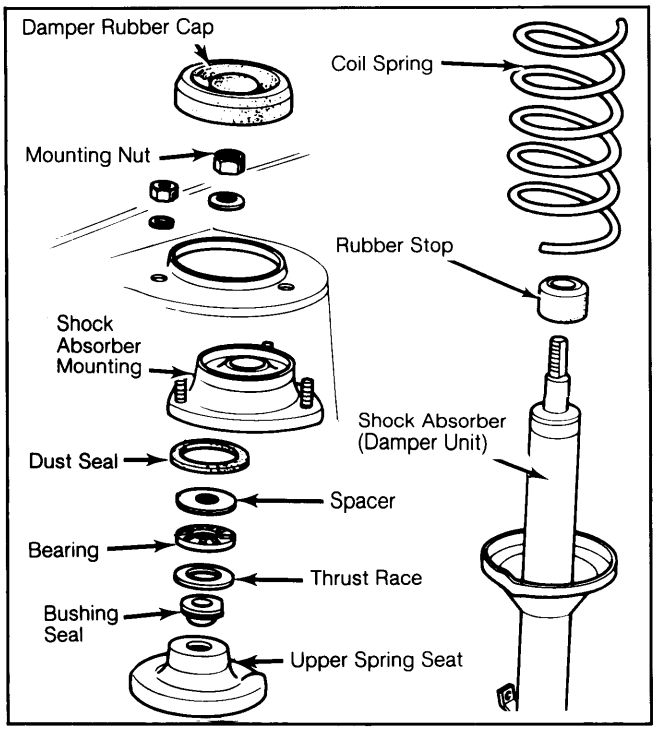
HONDA (Cont.)

Disassembly

1) Using spring compressor, compress coil spring to relieve tension from upper shock absorber retaining nut.

2) Remove nut, seals, spacers, and bearings (noting arrangement), beneath upper mounting plate. Slowly remove pressure from spring, and lift spring off. Remove shock absorber, and replace (if necessary).

Fig. 2: Exploded View of Prelude Strut Assembly



Accord & Civic models are similar.

Reassembly

Reverse disassembly procedure. Coat both sides of needle bearing with grease. Check all components for signs of seepage, and correct as needed.

Installation

To install, reverse removal procedure. Make sure slot in steering knuckle is engaged in tab on shock (strut) housing before seating it into steering knuckle.

LOWER CONTROL ARM

Removal

1) Raise vehicle and support with saftey stands. Remove wheel assembly. Disconnect lower ball joint from steering knuckle, using ball joint removal tool.

2) Disconnect stabilizer bar retaining bolts and nuts from control arm (it may be necessary to loosen front stabilizer retaining brackets). Remove lower control arm pivot bolt, and remove control arm.

Installation

To install, reverse removal procedure.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (N.m)
Wheel Hub Nut	108 (147)
Ball Joint	
Accord	47 (65)
Prelude	33 (45)
Civic	25 (34)
Control Arm-to-Crossmember	
Accord	47 (64)
Civic & Prelude	40 (54)
Strut-to-Knuckle	
Accord & Prelude	47 (64)
Civic	36 (49)
Strut-to-Body	
Accord (3 Bolts)	22 (30)
Civic & Prelude (1 Bolt)	33 (45)
Stabilizer-to-Control Arm	
Accord	16 (22)
Civic & Prelude	32 (44)
Stabilizer-to-Body	
Accord	16 (22)
Civic	37 (50)
Prelude	30 (41)
Tie Rod End-to-Knuckle	32 (44)
Radius Rod-to-Control Arm	
Accord	40 (54)