# HONDA PRELUDE

## DESCRIPTION

Clutch is a single plate, dry disc type. Clutch assembly consists of clutch disc, clutch cover and pressure plate assembly, and clutch release mechanism. Clutch release mechanism is hydraulic, consisting of a firewall mounted master cylinder and a slave cylinder mounted to clutch housing. Clutch release fork free play is adjustable.

## REMOVAL & INSTALLATION

### CLUTCH

**Removal**

**1)** Disconnect battery ground at transmission. Put gearshift in Neutral. Disconnect the following electrical wiring: both battery cables, starter wiring, water temperature sending unit, ignition timing thermosensor, back-up light switch and distributor.

**2)** Remove speedometer cable clip and cable without disassembling gear holder. Remove clutch slave cylinder with hydraulic line attached. Remove transmission side starter mount bolt and upper transmission mounting bolts.

**3)** Raise and support vehicle, and drain transmission fluid. Remove front wheels. Remove engine shields, remove nut and washer from each end of stabilizer bar, remove both brackets and stabilizer bar.

**4)** Disconnect right and left lower arm ball joints and tie rod end ball joints using ball joint remover. Turn each steering knuckle to its most outboard position.

**5)** With screwdriver, pry constant velocity joint out approximately 1/2" then pull axle out of transmission housing. Repeat this procedure on opposite side.

**6)** Disconnect shift lever torque rod from clutch housing. Remove bolt from shift lever clevis, and jack up engine. Remove front and rear torque rods, then rear torque rod brackets.

**7)** Remove engine damper bracket and engine damper from center beam. Remove rear engine mount and bracket. Place a block of wood between center beam and oil pan, lower jack and rest engine on center beam.

**8)** Remove engine side starter bolts and starter. Remove remaining transmission bolts, and pull transmission away from engine until mainshaft clears pressure plate. Lower transmission from vehicle.

**9)** Before removing clutch assembly, check diaphragm spring finger height. See Inspection. Loosen pressure bolts two turns at a time in a crisscross pattern. Lift off clutch assembly.

**Inspection**

**1)** Check diaphragm for wear at release bearing contact area by inserting alignment tool (07974-6890100). Measure clearance between tool and fingers of spring with feeler gauge. Maximum limit is .04" (1.0 mm).

**2)** The minmum depth from lining surface to rivet heads is .008" (.2 mm). Install clutch on input shaft and check runout. Maximum runout is .039" (1.0 mm).

**3)** Inspect pressure plate surface warpage with straightedge and feeler gauge. Maximum warpage is .006" (.15 mm).

**4)** Release bearing is packed in grease, DO NOT wash in solvent. Check bearing for excessive play by spinning it by hand.

**5)** Inspect flywheel for burns, cracks or scoring. Check flywheel runout with dial indicator. Maximum runout is .006" (.15 mm).

**Installation**

**1)** Ensure flywheel dowels align with pressure plate dowel holes. Use clutch disc alignment tool (07974-6890100) and tighten pressure plate bolts in a criss-cross pattern. Refill transmission with SAE 10W-40 oil.

**CAUTION: New 26 mm spring clips must be installed on both axle shafts.**

**2)** To install transmission, reverse removal procedure. When installing axle shafts in transmission, make sure that spring clips fully engage differential.

### CLUTCH MASTER CYLINDER

**Removal**

Separate clutch pedal operating rod from master cylinder push rod by removing through pin at clevis. Disconnect and plug hydraulic lines. Remove nuts mounting master cylinder to firewall. Ensure brake fluid does not spill on painted surfaces.

**Installation**

To install, reverse removal procedure and bleed hydraulic system.

### CLUTCH SLAVE CYLINDER

**Removal**

Disconnect hydraulic line from slave cylinder. Unhook return spring. Separate threaded rod from end of slave cylinder. Remove slave cylinder mounting bolts and take cylinder off clutch housing.

**Installation**

To install, reverse removal procedure and bleed hydraulic system.

### CLUTCH RELEASE FORK AND BEARING

**Removal**

**1)** With transmission removed, separate slave cylinder push rod from release fork. Remove boot and carefully remove fork retainer clip.

**2)** Pull fork through clutch housing from inside. Remove bearing retainer clip and pull bearing assembly from sleeve.

**3)** If worn, bearing may be driven from holder and a new bearing installed using driver (7949-6110000) and attachment (07974-6890300). Radiused shoulder of bearing inner race must go on holder first.

**Installation**

Coat all contact areas lightly with grease. Attach bearing and holder to fork with retainer clips. Install fork and sliding bearing assembly onto sleeve. Ensure that fork snaps onto pivot bolt and install boot. Move release fork back and forth to check for freedom of movement.

## OVERHAUL

### MASTER CYLINDER

**Disassembly**

**1)** Remove boot and take off snap ring. Cover open end of cylinder with a shop rag and force piston out with compressed air. Bend spring retainer tabs and

# HONDA PRELUDE (Cont.)

separate piston, cups, retainer, return spring and valve assembly.

**2)** Clean all parts with brake fluid and check for wear or damage. If cylinder bore-to-piston clearance exceeds .006" (.15 mm), replace defective part.

**Reassembly**

Replace all rubber parts during overhaul. Reassemble by reversing disassembly procedure. Rotate piston during installation.

***Fig. 1: Exploded View of Master Cylinder***

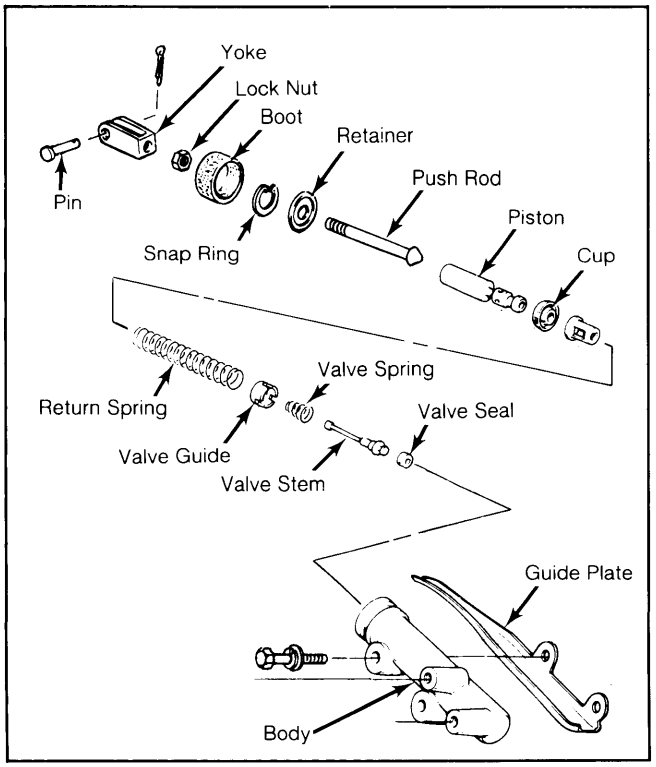
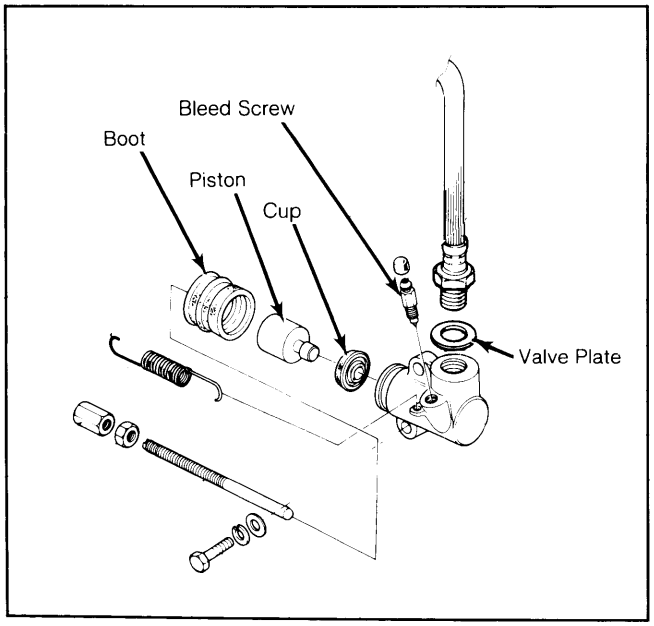



***Fig. 2: Exploded View of Slave Cylinder***




### CLUTCH SLAVE CYLINDER

**Disassembly**

**1)** Remove push rod and dust boot. Cover open end of cylinder with a shop rag and force piston out with compressed air. Remove piston cup and bleed screw.

**2)** Clean all parts in brake fluid and check for wear or damage. If cylinder bore-to-piston clearance exceeds .006" (.15 mm), replace defective part.

**Reassembly**

Replace all rubber parts during overhaul and coat all parts with brake fluid prior to reassembly. To reassemble, reverse disassembly procedure and insert piston with rotating motion.

## ADJUSTMENT

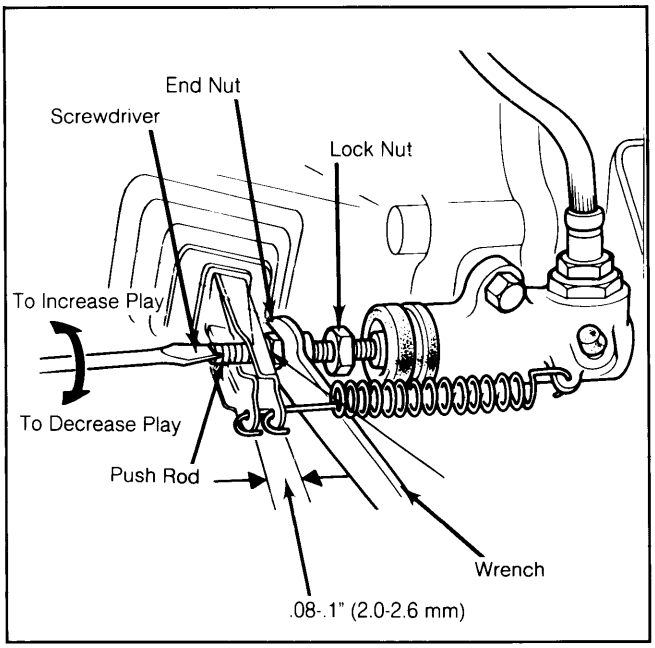
### CLUTCH PEDAL HEIGHT AND FREE PLAY

**1)** Adjust clutch pedal height to 7.24" (184 mm) from floor by rotating pedal stop bolt in direction necessary to achieve specified height.

**2)** Free play is adjusted at the push rod end of the slave cylinder and master cylinder. Loosen lock nut on master cylinder push rod and turn rod until pedal free play is 3/8-1 1/8" (10-30 mm).

**3)** Free play at the release fork is 5/64-7/64" (2.0-2.6 mm). Loosen lock nut on push rod and hold adjusting nut while turning push rod. Tighten all lock nuts after adjustment. *See Fig. 3.*

***Fig. 3: Adjusting Clutch Release Fork***




*Tighten lock nut after adjustment.*

***TIGHTENING SPECIFICATIONS***

| Application | Ft. Lbs. (N.m) |
|---|---|
| Flywheel-to-Crankshaft Bolts | 80 (109) |
| Pressure Plate-to-Flywheel | 19 (26) |
| Front and Rear Torque Rod Bolts | 54 (73) |