HONDA

Accord, Civic, Prelude

DESCRIPTION

Brake system is hydraulically-operated using a tandem master cylinder and vacuum brake unit. All models are equipped with single piston, floating-caliper, front disc brakes and leading/trailing rear drum brakes.

All models use dual-valve combination valves to prevent premature rear wheel lock-up. A brake warning light is mounted on the dash to indicate loss of brake fluid, uneven fluid pressure between brake systems, and parking brake engagement. Parking brake is cable-actuated at rear wheels.

ADJUSTMENT

REAR DRUM BRAKE SHOES

Rear brake shoes are self-adjusted by brake pedal action. No in-service adjustment is required.

PEDAL HEIGHT

1) Pedal height is measured from center of pedal pad to floorboard (without carpet). To adjust, loosen stop light switch lock nut and position switch out of way.

2) Loosen power unit push rod lock nut and rotate push rod until pedal height is 7.25" (184 mm). Tighten lock nut, reposition and adjust stop light switch.

STOP LIGHT SWITCH

1) Stop light switch is located under dash, above brake pedal. To adjust, turn switch until plunger is fully depressed (threaded end touching pedal arm pad).

2) Back off switch 1/2 turn and tighten lock nuts. Check that brake lights go off when pedal is released.

PARKING BRAKE

1) With rear brakes adjusted, raise and support rear of vehicle on safety stands.

2) Loosen equalizer nut (located between rear lower control arms) and pull brake lever up 1 notch. Tighten adjusting nut until rear wheels drag slightly.

3) Release brake lever. Rear wheels should rotate freely. Rear wheels should lock when lever is pulled 4-8 notches on Civic and 3-7 notches on Accord and Prelude.

BRAKE WARNING LIGHT

1) Brake warning light indicates parking brake is engaged and/or warns of low brake fluid level.

2) To adjust parking brake light operation, bend switch plate down until light comes on when parking brake lever is pulled 1 notch and goes out when lever is released (ignition on).

3) To check warning light operation, release parking brake lever and raise master cylinder reservoir cap (ignition on). Warning light should glow. If not, check switch and wire connector.

REMOVAL & INSTALLATION

FRONT DISC BRAKE PADS

Removal (Accord, Civic Hatchback, Sedan, & Prelude)

Raise and support vehicle. Remove tire and wheel. Remove lower caliper guide pin and pivot caliper body up out of way. Remove pads, pad shim and anti-rattle springs.

Installation

Install anti-rattle springs and pads. Install shim against outer pad. Loosen bleed screw, seat piston in caliper bore and tighten bleed screw. Rotate caliper body down and tighten lower caliper guide pin. Depress brake pedal several times to seat brake pads.

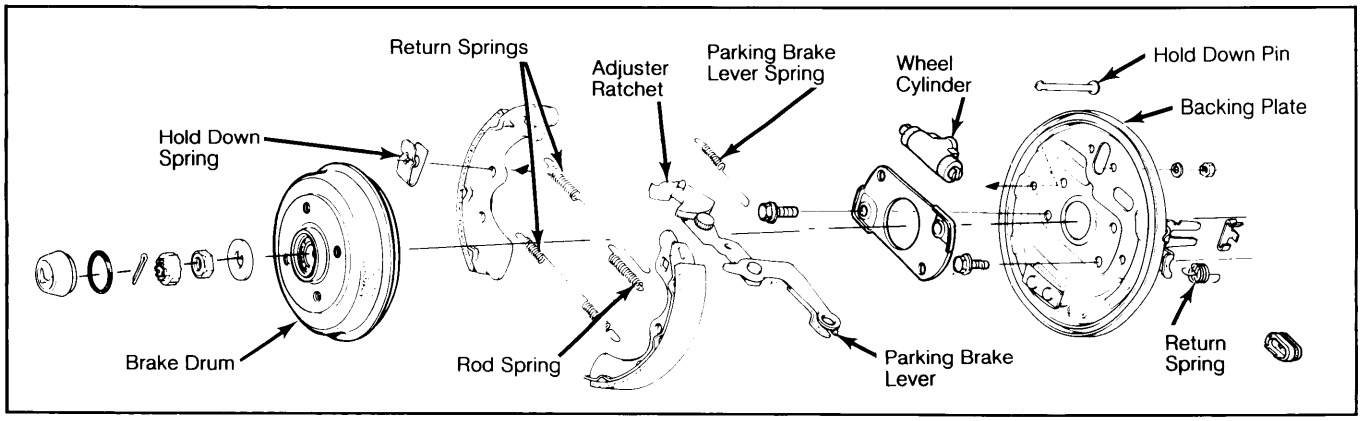
Removal (Civic Wagon)

Raise and support vehicle. Remove tire and wheel. Remove spring clips and guide plates. Remove caliper body and hang from frame with wire. DO NOT disconnect hydraulic line or allow caliper to hang from hydraulic line. Remove anti-rattle clips, pads and shims.

Installation

Install pads. Place shim against outside shoe. Loosen bleed screw and push in piston so that caliper will fit over rotor. Tighten screw. Install caliper on mount. Lubricate sliding surfaces of guide plates with silicon grease and install. Secure with spring pins. Depress brake pedal several times to seat pads.

Fig. 1: Exploded View of Civic and Prelude Rear Brake Assembly



Upper and lower return springs are not interchangeable.

HONDA (Cont.)

FRONT DISC BRAKE CALIPER

Removal

Raise and support vehicle. Remove tire and wheel. Disconnect and plug hydraulic line at caliper. On all models except wagon, remove caliper guide pins and remove caliper. On Civic Station Wagon, remove spring pins and guide plates and remove caliper. Remove disc pads and remove caliper mounting bracket.

Installation

To install, reverse removal procedure and bleed hydraulic system.

DISC BRAKE ROTOR

Removal (Except Prelude)

With caliper assembly removed, separate rotor from hub and remove rotor assembly.

Installation

To install, reverse removal procedure. Bleed hydraulic system if necessary.

Removal (Prelude)

With caliper assembly removed, remove rotor retaining screw. Install two M8 x 1.25 x 12 mm bolts in existing holes. Alternately turn bolts 2 turns (to prevent warpage) until disc can be removed from hub.

Installation

To install, reverse removal procedure, tighten retaining screw securely and bleed hydraulic system, if necessary.

REAR BRAKE DRUM

Removal

Raise and support vehicle and remove rear wheels. Remove bearing retaining cap and rear axle nut, then remove brake drum.

NOTE: If drum is difficult to remove, use slide hammer with hub puller attachment.

Installation

To install, reverse removal procedure and tighten axle nut.

REAR BRAKE SHOES

NOTE: All models use same basic brake design. Some minor variations may exist between systems.

Removal

With brake drum removed, remove retaining clips and pins and return springs (note original position of return springs). Disconnect brake shoes from parking brake lever assembly and remove brake shoes.

Installation

Apply light coat of grease to adjuster assembly, sliding surfaces of brake shoes and metal contact areas of backing plate. To install, reverse removal procedure, observing the following precautions. Adjust and bleed brakes.

- Civic & Prelude — Upper return spring is identified by single coil. Before installing brake drum, release brake adjuster ratchet with screwdriver. Mark engaged teeth. Install drum and spindle nut. Depress brake pedal, remove drum and ensure ratchet has moved and brakes have self-adjusted.

MASTER CYLINDER

Removal

Disconnect hydraulic lines at master cylinder, remove retaining nuts, and remove master cylinder from power brake unit.

Installation

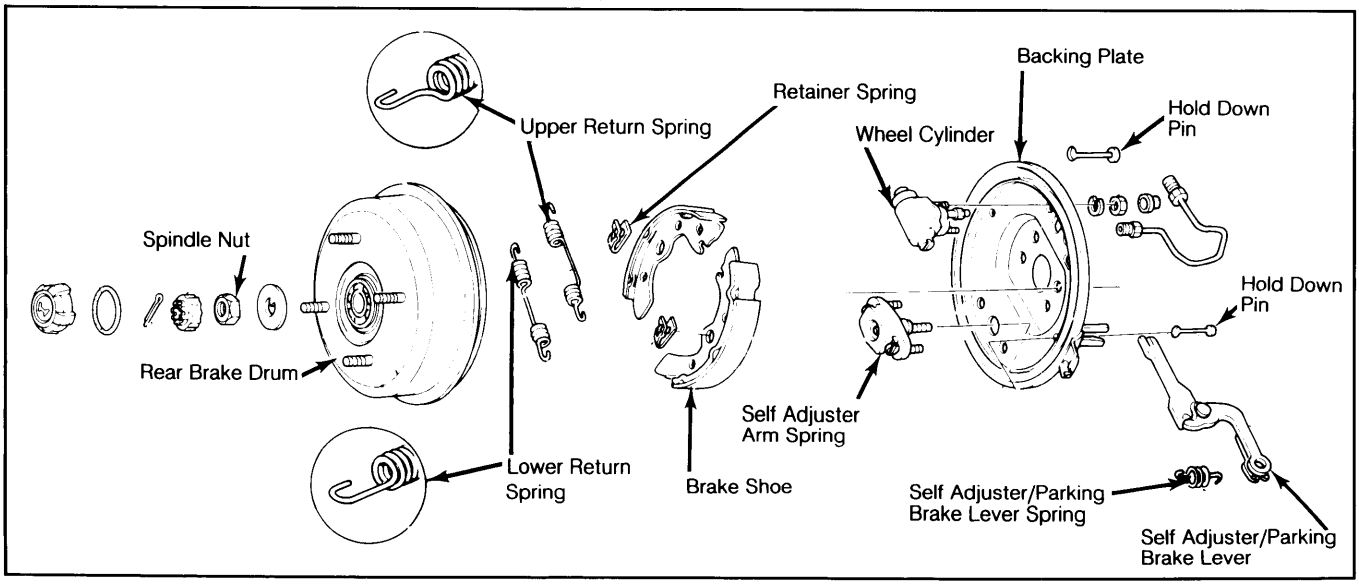
To install, reverse removal procedure and bleed hydraulic system.

POWER BRAKE UNIT

Removal

Disconnect vacuum hose at power brake unit, and hydraulic lines at master cylinder. Remove clevis pin retaining power brake unit push rod to brake pedal, and bolts attaching power unit to firewall, then remove power brake unit and master cylinder as an assembly.

Fig. 2: Exploded View of Accord Rear Brake Assembly



HONDA (Cont.)

Installation

To install, reverse removal procedure, tighten all bolts and bleed hydraulic system.

Check Valve Replacement

1) Check valve is located in vacuum line between brake unit and intake manifold. Before removal, test check valve. Disconnect valve from vacuum hose by removing clamps. Blow air through manifold side of valve; valve should not open.

2) Repeat procedure on booster side of valve; valve should open. Replace defective valve and secure clamps.

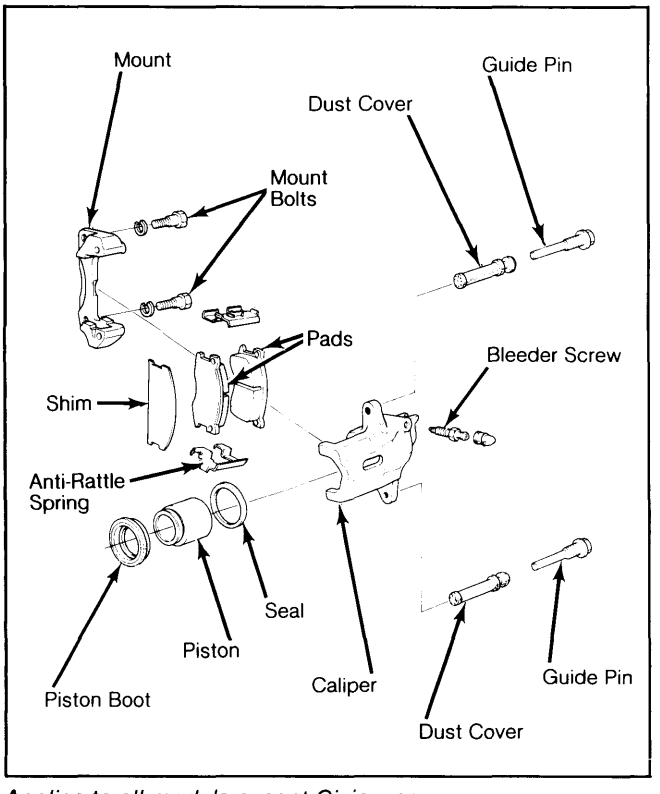
OVERHAUL

DISC BRAKE CALIPER

Disassembly

Remove retaining ring (if equipped), then remove piston boot. Place rags in front of piston and force piston out of caliper bore by applying light (30 psi) air pressure to brake fluid inlet port. Remove piston seal without damaging cylinder bore.

Fig. 3: Exploded View of Front Disc Brake Caliper



Applies to all models except Civic wagon.

Cleaning & Inspection

Clean all parts in brake fluid and check for wear or damage. Check cylinder bore and pistons; replace if scratched or scored. Replace all rubber components during overhaul.

Reassembly

Apply brake fluid to caliper bore, piston surface and piston seal. Reverse disassembly procedure and make sure seals and boots are properly installed.

Fig. 4: Exploded View of Front Disc Brake Caliper

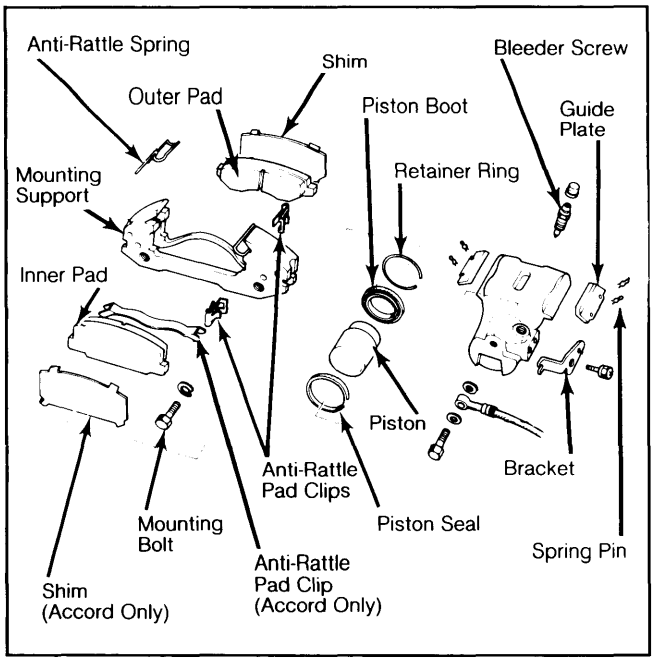


Illustration applies to Civic Station Wagon.

REAR WHEEL CYLINDER

Disassembly

Remove dust seals and pistons. Remove cylinder cups from pistons. If necessary, remove bleeder screw.

Cleaning & Inspection

Clean all parts in brake fluid. Check for wear or damage. Replace any defective parts.

Reassembly

Coat cylinder bore, pistons and cups with brake fluid. Reverse disassembly procedure and install parts in cylinder bore. Install dust covers securely in cylinder body grooves.

NOTE: Lips of piston cups must face center of cylinder.

MASTER CYLINDER

Disassembly

1) Remove reservoir cap assembly and drain brake fluid. Loosen retaining clamp and remove reservoir. Remove snap ring and stop bolt. Cover open end of master cylinder with a clean rag.

2) Place finger over stop bolt hole and secondary outlet port. Remove pistons by applying low air pressure to primary port. Piston assemblies must be replaced as complete units if disassembled.

Cleaning & Inspection

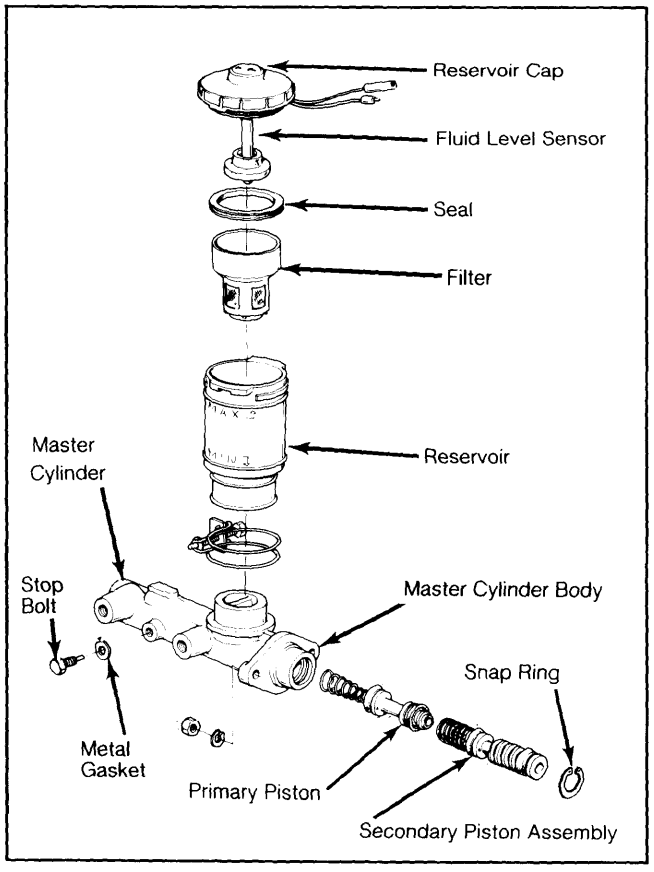
Clean all parts in brake fluid and check for wear or damage. Check master cylinder bore-to-piston clearance. If clearance exceeds .006" (.15 mm), replace defective part.

Reassembly

Coat all parts with brake fluid and reverse disassembly procedure. Rotate pistons while pushing into cylinder bore. Use cup guide tool to compress secondary piston when installing snap ring.

HONDA (Cont.)

Fig. 5: Exploded View of Master Cylinder



POWER BRAKE UNIT

NOTE: Power brake units vary among models; overhaul procedures are the same for all models.

Disassembly

1) Scribe an index mark across front and rear booster housings for reassembly reference. Remove lock spring and plate (except Accord). Remove master cylinder and output rod. To remove rear housing on Civic and Prelude, reinstall master cylinder mount nuts with lock nuts behind them.

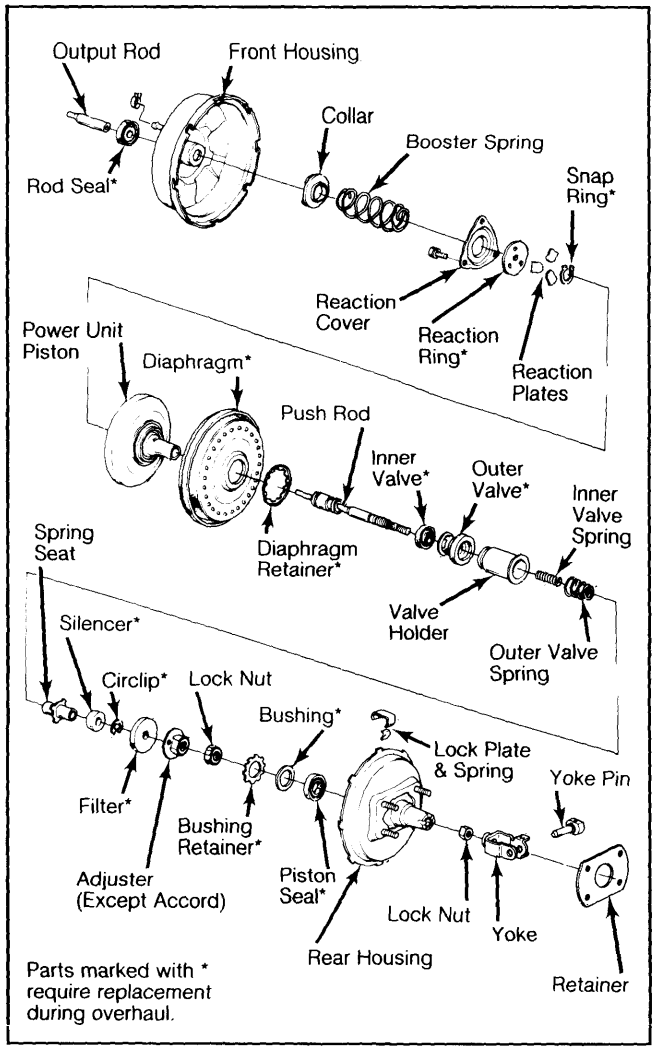
CAUTION: Housing assembly is spring-loaded. Press down on handles while turning.

2) Tighten nuts against each other on studs. Clamp power brake unit in vise by tightening vise against locked nuts on studs. Attach booster handles (07967-6340000) to rear housing with 4 nuts. Turn rear housing counterclockwise until locking tabs are free of slots on front housing.

3) To remove rear housing on Accord, carefully remove retaining E-clips while holding housing. On all models, remove reaction cover, reaction ring, and reaction plates. Pry bushing retainer out of rear housing. Remove bushing and piston seal. Remove snap ring from push rod. Remove valve holder assembly from piston.

4) Remove circlip from valve holder assembly and disassemble valves. Pry off diaphragm retainer. Remove diaphragm from piston. Remove rod seal from front housing.

Fig. 6: Exploded View of Power Brake Unit



Civic and Prelude models are shown — Accord similar.

Cleaning & Inspection

Clean all parts in alcohol and dry with compressed air. Check all parts for wear or damage. Check booster piston for cracks or deformation. Replace all parts as indicated in illustration during overhaul.

Reassembly

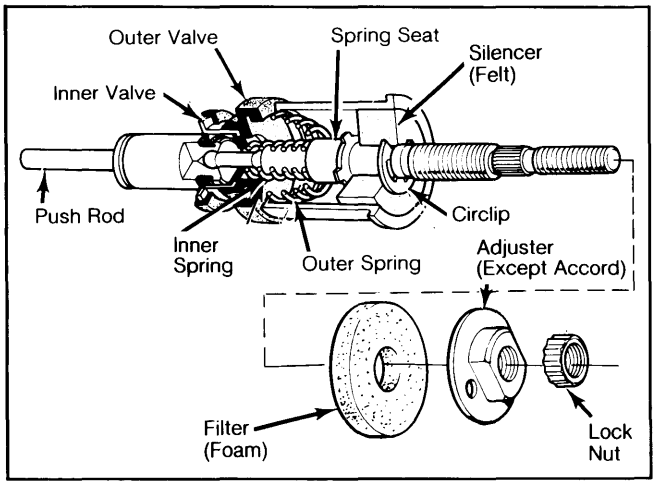
1) Seat inner valve in groove of push rod and lubricate with silicon grease. Install outer valve on holder. Install push rod through valve holder and seat metal end of outer valve in groove of inner valve. Install inner and outer valve springs, spring seat, and felt silencer into valve holder and secure with circlip.

2) Slip filter over end of push rod. Thread adjuster and lock nut onto shaft but do not tighten. Slip new diaphragm over piston and drive retaining ring into place. Apply silicon grease to inner and outer surfaces of piston tube. Press valve holder in power unit piston tube.

3) Apply silicon grease to piston seal. Install piston seal. Install bushing in rear housing and drive retainer in until seal bottoms. Slip diaphragm/piston assembly into rear housing. Install snap ring in groove of push rod. Install reaction plates, reaction ring and reaction cover.

HONDA (Cont.)

Fig. 7: Exploded View of Power Brake Valve Holder Assembly



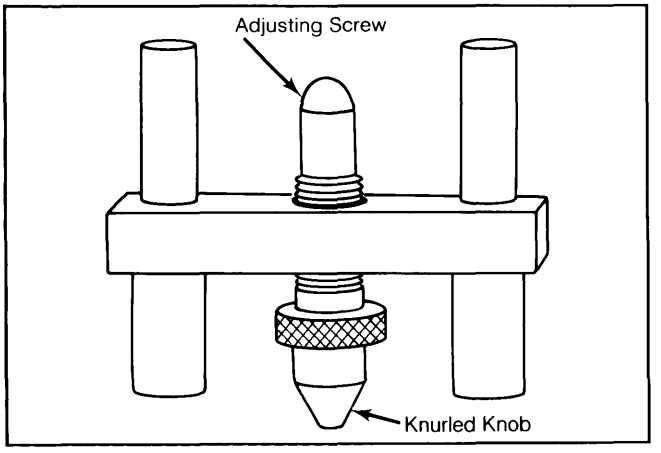
NOTE: Install reaction plates with rounded portion facing reaction ring. Install reaction ring with rubber end facing plates. Apply silicone grease to plates.

4) Apply silicone grease to sealing lip and in groove of rod seal. Install new rod seal in front housing. To complete reassembly, reverse removal procedure. Before installing master cylinder to power brake unit, check master cylinder to push rod clearance. Place rod bolt adjusting gauge (67975-6570000) on master cylinder open end with knurled knob up.

5) Turn screw until it touches piston. Remove gauge from master cylinder and place on power brake unit with knurled knob down. Without moving adjusting screw position, measure distance between adjusting screw end and booster push rod. Clearance should be .004-.020" (.1-.6 mm) on Accord and .008-.016" (.2-.4 mm) on all others.

6) If clearance is not to specification, adjust on Accord by removing adjusting bolt, loosening lock nut and turning adjusting bolt to correct specification. On Civic and Prelude, set clearance by loosening star lock nut and turning adjuster.

Fig. 8: Push Rod Adjustment Gauge



Place on power unit knurled knob down.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (N.m)
Caliper Mounting Bracket	56 (76)
Caliper Guide Pin Bolts	
Accord	20 (27)
Civic Hatchback	20 (27)
Civic Sedan	36 (50)
Prelude	13 (18)

DISC BRAKE ROTOR SPECIFICATIONS

Application	Disc Diameter In. (mm)	Lateral Runout In. (mm)	Parallelism In. (mm)	Original Thickness In. (mm)	Min. Refinish Thickness In. (mm)	Discard Thickness In. (mm)
Accord	.....	.006 (.15)	.0006 (.015)	.67 (17)	.60 (15)	.....
Civic						
Hatchback	.....	.006 (.15)	.0006 (.015)	.43 (11)	.35 (9)	.....
Station Wagon & Sedan	.....	.006 (.15)	.0006 (.015)	.47 (12)	.41 (10)	.....
Prelude	.....	.006 (.15)	.0006 (.015)	.47 (12)	.41 (10)	.....

DRUM BRAKE SPECIFICATIONS

Application	Drum Diam. In. (mm)	Drum Width In. (mm)	Max. Drum Refinish Diam. In. (mm)	Brake Cyl. Diam. In. (mm)	Master Cyl. Diam. In. (mm)
Civic Wagon	7.87 (200)	.....	7.91 [1] (201)	.....	.....
All Other Models	7.08 (180)	.....	7.13 [1] (181)	.....	.....

[1] — If maximum refinish diameter disagrees with specification stamped on drum, use stamped specification.