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

Accord – Raise and support rear of vehicle. Release parking brake and make 2-3 brake applications. Turn brake adjuster on backing plate clockwise until wheel locks. Back off adjuster 2 clicks, rotate wheel; if brakes drag, back off 1 additional click.

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

PEDAL HEIGHT

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. 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

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). Back off switch ½ turn and tighten lock nuts. Check that brake lights go off when pedal is released.

PARKING BRAKE

With rear brakes adjusted, raise and support rear of vehicle on safety stands. Loosen equalizer nut (located between rear lower control arms) and pull brake lever up 1 notch. Tighten adjusting nut until rear wheels drag slightly. 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

Light indicates parking brake is engaged and also warns of low brake fluid level. To adjust light operation with parking brake applied, bend switch plate down until light comes on when brake lever is pulled 1 notch and goes out when lever is released (ignition on). 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 (Civic Hatchback & 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.

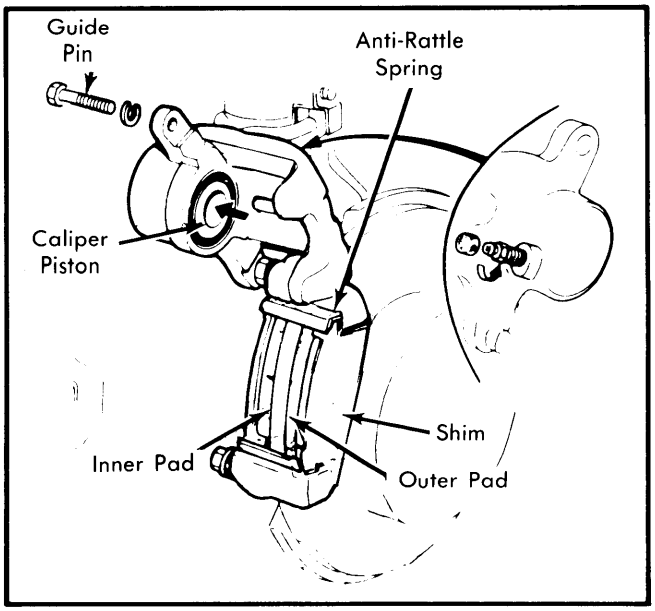

Fig. 1 Replacing Front Disc Brake Pads (Civic Hatchback and Prelude)

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 (Except Civic Hatchback & Prelude) – 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 by hydraulic line. Remove anti-rattle clips, pads and shim(s).

NOTE – *Shims for Accord must have high temperature grease (Dow Corning DC# 5 or equivalent) applied to red sides. Install red coated side against brake pad backing plate.*

Installation – Install anti-rattle clips and pads. Install shim(s); shim on Civic Station Wagon is installed at outer pad. Loosen bleed screw, seat piston in caliper bore and tighten bleed screw. Install caliper, guide plates and spring clips. Depress brake pedal several times to seat brake pads.

FRONT DISC BRAKE CALIPER

Removal – Raise and support vehicle; remove tire and wheel. Disconnect and plug hydraulic line at caliper. On Civic Hatchback and Prelude, remove caliper guide pins and remove caliper. On Civic Station Wagon and Accord, remove spring pins and guide plates, then remove caliper. Remove disc pads as previously described and remove caliper mounting bracket.

HONDA (Cont.)

Installation – To install, reverse removal procedure and bleed hydraulic system.

DISC BRAKE ROTOR

Removal (Accord) – With caliper assembly removed, remove cotter pin and spindle nut. Using a slide hammer with hub puller attachment, remove hub and rotor assembly. Remove hub-to-rotor bolts and separate rotor from hub.

NOTE – *Removal of hub requires replacement of spindle nut. Install new nut and stake into position.*

Installation – To install, reverse removal procedure, tighten hub-to-rotor bolts evenly and adjust wheel bearings. See *Wheel Bearing Adjustment in WHEEL ALIGNMENT Section.* Bleed hydraulic system if necessary.

Removal (Except Accord) – 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.

NOTE – *Upper and lower return springs are not interchangeable.*

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 precautions listed below for each model. Adjust and bleed brakes.

- Accord – Upper return spring has small loops and is installed between shoes with coils facing outward. Lower spring has larger loops and is installed with coils facing inward.
- 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.

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

Check Valve Replacement – 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. Repeat procedure on booster side of valve; valve should open. Replace defective valve and secure clamps.

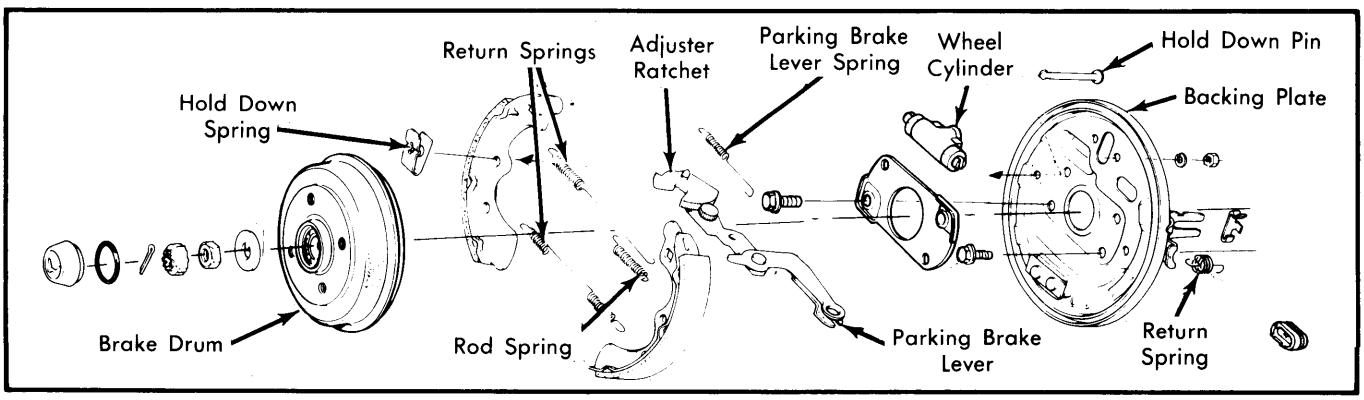

Fig. 2 Exploded View of Civic and Prelude Rear Brake

HONDA (Cont.)

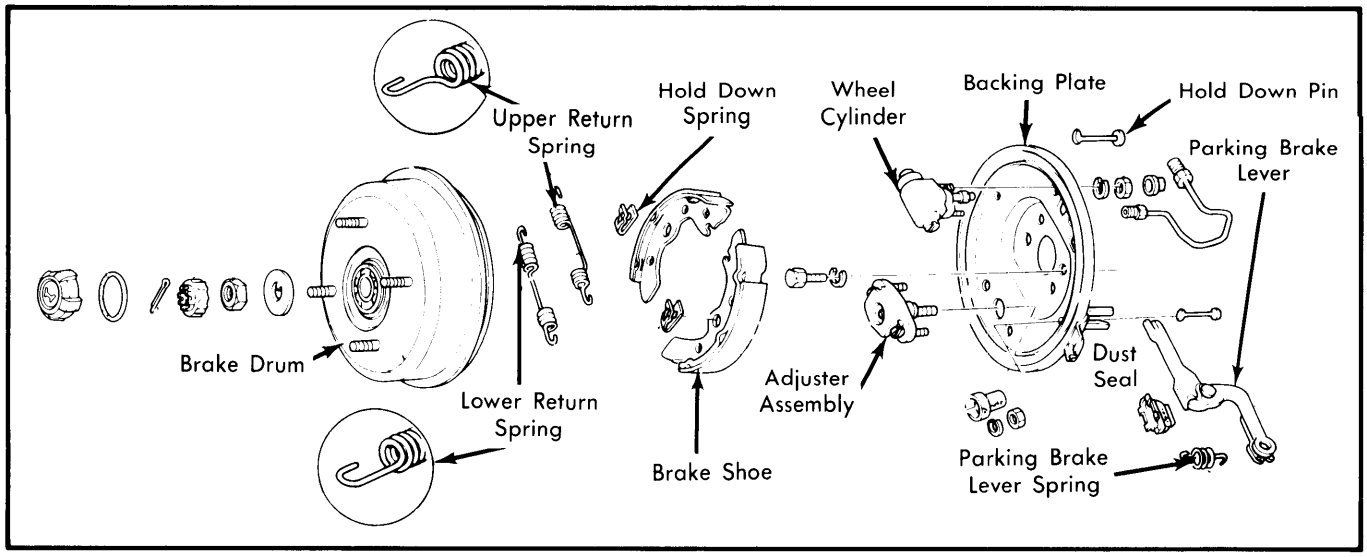

Fig. 3 Exploded View of Accord Rear Brake Assembly

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.

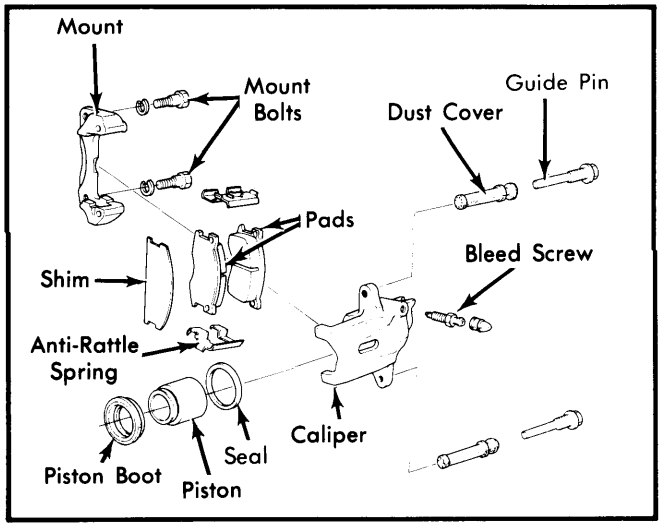

Fig. 4 Exploded View of Front Disc Brake Caliper (Civic Hatchback and Prelude)

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.

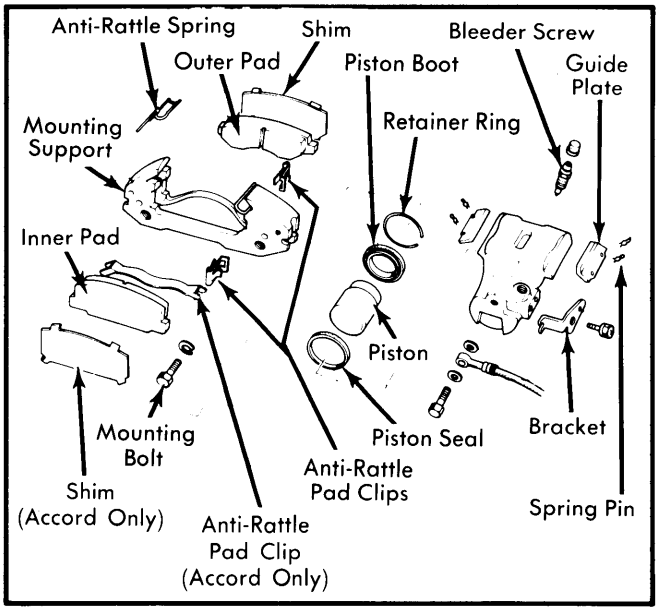

Fig. 5 Exploded View of Front Disc Brake Caliper (Accord Shown – Civic Station Wagon Similar)

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 and check for wear or damage, replace parts. Check cylinder bore-to-piston clearance; if clearance exceeds .005" (.13 mm) on Accord or .004" (.10 mm) on all other models, replace defective part.

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.*

HONDA (Cont.)

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 pressure air 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 suitable cup guide tool to compress secondary piston when installing snap ring.

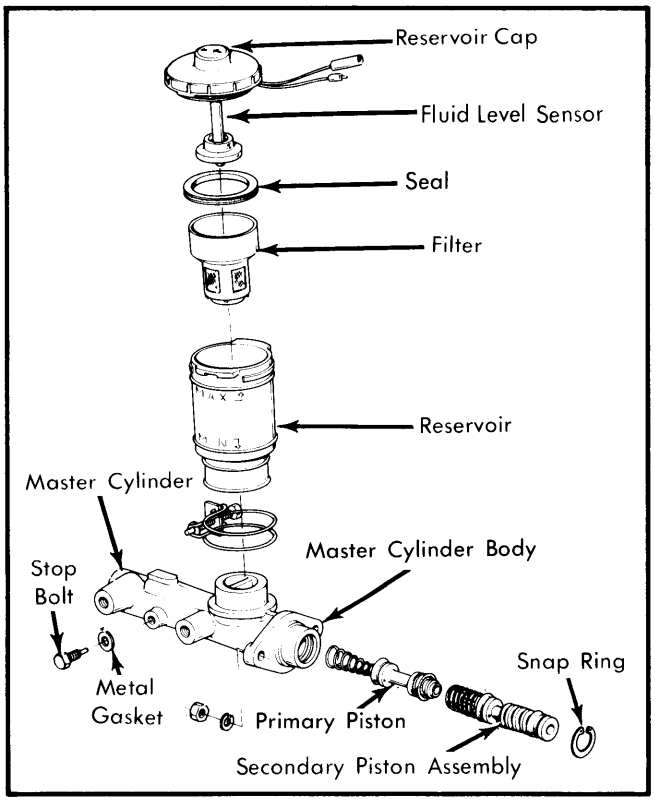

Fig. 6 Exploded View of Master Cylinder

POWER BRAKE UNIT

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

Disassembly – 1) Remove master cylinder, but leave retaining plate attached to front housing. Remove spring clip and retaining tab (except Accord), then remove push rod from master cylinder.

CAUTION – *Housing assemblies are spring loaded.*

2) Place power brake unit in vise with rear housing upward. Index housing shells. Remove retaining bolts (Accord only). Install power brake unit remover (079676340000) and separate housings by turning counterclockwise. Remove reaction cover, reaction ring and plates.

3) Pry bushing retainer out of rear housing, then remove bushing and piston seal. Remove snap ring from push rod. Remove push rod and boot, then separate boot from push rod.

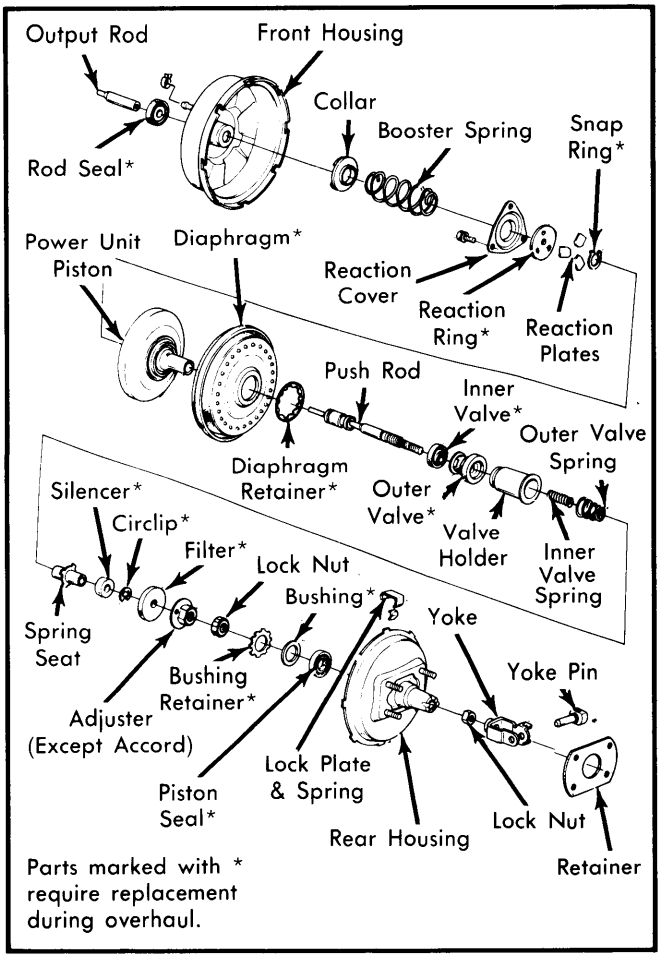

Fig. 7 Exploded View of Power Brake Unit (Civic and Prelude Shown – Accord Similar)

4) Remove valve holder assembly from power unit piston. Remove valve holder circlip and disassemble valves. Remove diaphragm retainer, then remove diaphragm from power unit piston. Remove rod seal from front housing.

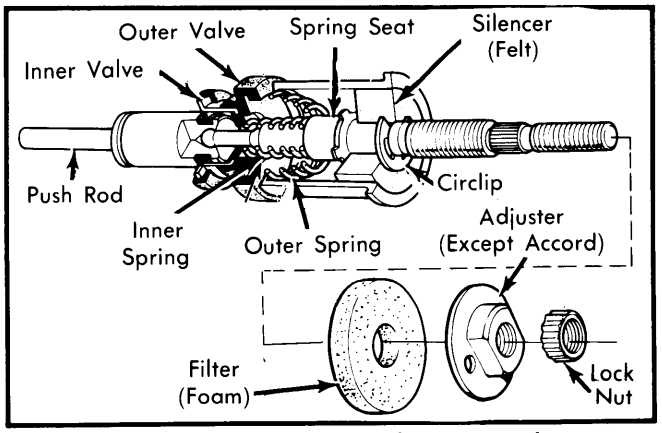

Fig. 8 Exploded View of Power Brake Valve Holder Assembly

HONDA (Cont.)

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) Apply silicone grease to rod seal lip and piston. Reverse disassembly and note the following: Ensure rod seal is fully seated and "O" ring is not twisted. Install reaction plate with curved sides up. Ensure diaphragm is properly seated.

2) Before installing valve assembly, coat inner valve with silicone grease. Assemble valve assembly as shown in *Fig. 8*. Install new diaphragm and retainer. Apply silicone grease to inner and outer surfaces of piston tube, then press valve holder assembly into piston tube.

3) Before installing master cylinder to power brake unit, check master cylinder-to-push rod clearance. Place rod bolt adjustment gauge *(Fig. 9)* on master cylinder open end with knurled knob up.

4) Turn screw until it just contacts piston. Remove gauge from master cylinder and place on power brake unit with knurled knob down. Without moving adjusting screw position, measure clearance between adjusting screw end and booster push rod. Clearance should be .004-.020" (.1-.6 mm) on Accord and 0-.016" (0-.4 mm) on all other models. If not, remove adjusting bolt, loosen lock nut and turn adjusting bolt to correct specification (Accord). On Civic and Prelude, set clearance by loosening star lock nut and turning adjuster.

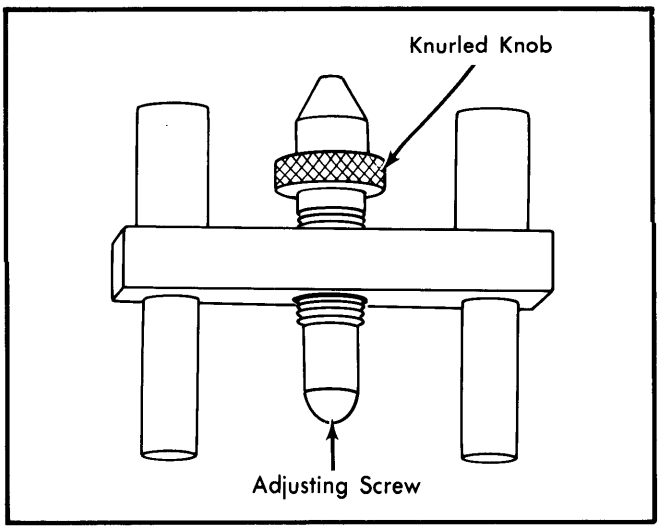

Fig. 9 Push Rod Adjustment Gauge

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Hub-to-Rotor Bolts (Accord)	40 (5.5)
Caliper Mounting Bracket (All)	56 (7.7)
Caliper Guide Pin Bolts	
Civic Hatchback	20 (2.8)
Prelude	13 (1.8)

DISC BRAKE SPECIFICATIONS

Application	Caliper Bore Diameter In. (mm)	Lateral Runout In. (mm)	Parallelism In. (mm)	Original Thickness In. (mm)	Minimum Refinish Thickness In. (mm)	Discard Thickness In. (mm)
Accord & Prelude	.....	.006 (.15)	.0006 (.015)	47 (12)	.....	.39 (10)
Civic						
Hatchback	.....	.006 (.15)	.0006 (.015)	.43 (11)	.....	.35 (9)
Station Wagon	.....	.006 (.15)	.0006 (.015)	.47 (12)	.....	.39 (10)

DRUM BRAKE SPECIFICATIONS

Application	Wheel Cyl. Bore Diameter In. (mm)	Drum Diameter In. (mm)	Original Diameter In. (mm)	Maximum Refinish Diameter In. (mm)	Discard Diameter In. (mm)
Accord & Prelude	.....	7.09 (180)	7.09 (180)	7.13① (181)	.....
Civic					.....
Hatchback	.....	7.09 (180)	7.09 (180)	7.13① (181)	
Station Wagon	.....	7.87 (200)	7.87 (200)	7.91① (201)	.....

① – If maximum refinish diameter disagrees with specification stamped on drum; use stamped specification.