

HONDA

Civic

DESCRIPTION

Brake system is hydraulically actuated, using a tandem master cylinder and a Unipower brake booster unit. Front brakes are dual piston floating caliper disc type, and rear brakes are leading-trailing shoe/drum type, actuated by a dual piston wheel cylinder. Parking brake is cable and lever actuated, acting on shoes of rear brake assemblies.

ADJUSTMENT

PEDAL FREE PLAY

Brake pedal free play is distance pedal travels from pedal stop (brake light switch) until push rod contacts vacuum booster which actuates master cylinder. Adjust free play to .039-.196", measured at pedal pad, by adjusting brake light switch.

FRONT DISC BRAKE PADS

Front disc brakes are self-adjusting, therefore, no adjustment in service is required.

REAR BRAKE SHOES

With parking brake released, depress brake pedal two or three times and release. Turn adjuster on backing plate clockwise until wheel no longer turns. Back off adjuster two clicks and ensure wheel rotates freely. If brakes are dragging, back off one additional click.

PARKING BRAKE

With rear wheel brakes adjusted, pull parking brake lever and check operation. Rear wheels should be locked when lever is pulled one to five notches on ratchet. Adjustment is made by adjusting nut at equalizer between lower control arms.

HYDRAULIC SYSTEM BLEEDING

Attach a bleed tube to wheel cylinder bleeder screw and immerse opposite end of tube in a container partially filled with brake fluid. Open bleeder screw, pump brake pedal, and continue operation until air bubbles are no longer seen in dis-

charged fluid. Close bleeder screw and refill master cylinder reservoir. Repeat procedure on remaining brake lines until all air is bled from system. Bleeding sequence is left-rear, right-front, left-front, and right-rear.

REMOVAL & INSTALLATION

FRONT DISC BRAKE PADS

Removal — Raise and support front of vehicle and remove front wheels. Remove pin retaining clip, retaining pins, and springs. *NOTE* — *Springs are not interchangeable; mark for reassembly reference.* Remove disc pads.

Installation — Clean exposed portions of caliper pistons and cavity. Install disc pads, springs, pins and retainer by reversing removal procedure.

FRONT DISC BRAKE CALIPER

Removal — Raise and support front of vehicle and remove front wheels. Disconnect hydraulic line at caliper, remove bolts retaining caliper to steering knuckle, and remove caliper assembly.

Installation — Reverse removal procedure and bleed hydraulic system.

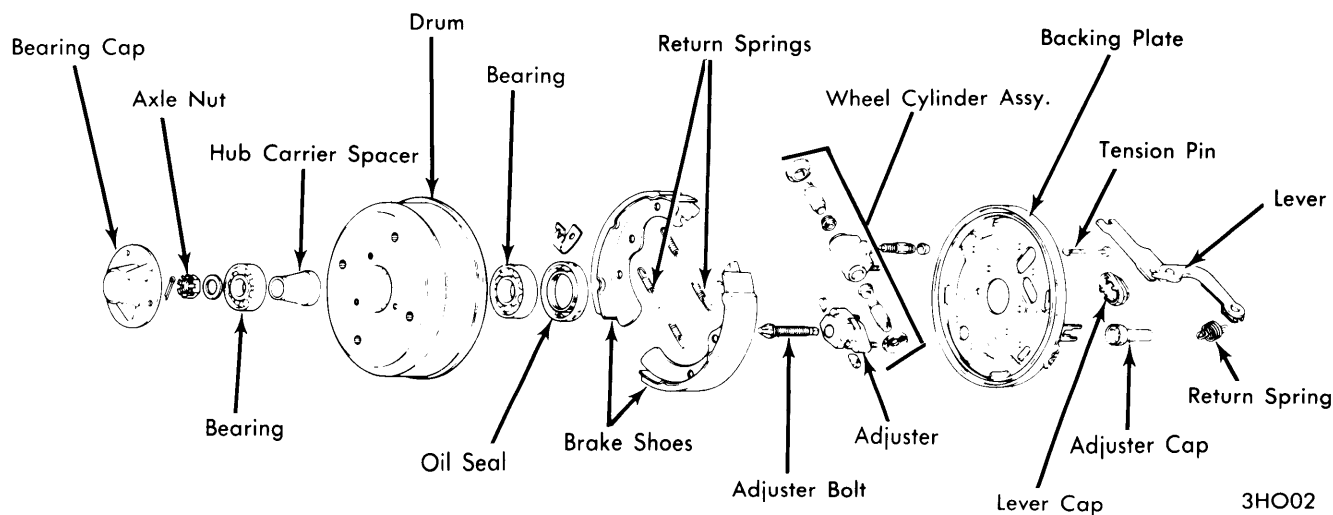
FRONT DISC BRAKE ROTOR

Removal — Raise and support front of vehicle and remove front wheels. Remove spindle nut and caliper assembly. *NOTE* — *Do not allow caliper to hang by brake line.* Using a slide hammer with a hub puller attachment, remove hub and rotor assembly. Remove bolts attaching rotor to hub, then separate rotor.

Installation — Reverse removal procedure, tighten rotor-to-hub bolts evenly, and bleed hydraulic system if necessary.

REAR BRAKE DRUM

Removal — Raise and support rear of 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 a slide hammer with a hub puller attachment.*



REAR BRAKE ASSEMBLY

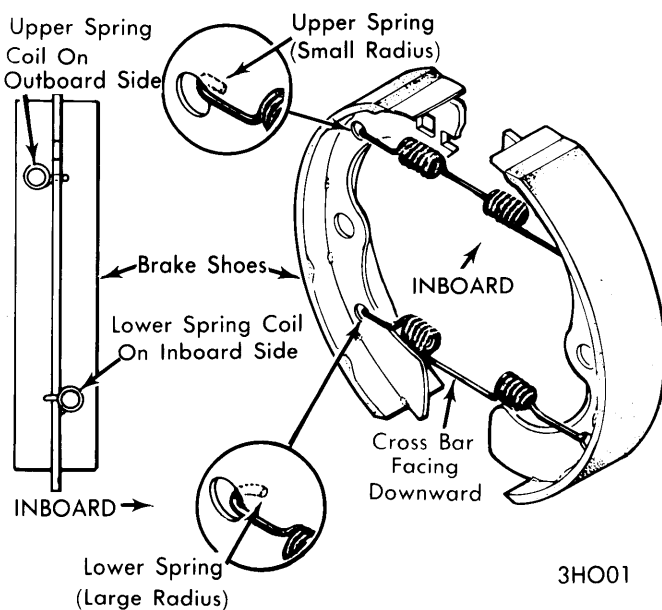
HONDA (Cont.)

Installation — Reverse removal procedure and tighten axle nut.

REAR BRAKE SHOES

Removal — With rear brake drum removed, remove tension pin clips and brake shoe return springs, and remove brake shoes.

Installation — Reverse removal procedure and note the following: Upper and lower brake shoe return springs are not interchangeable. Upper spring is identified by having a tight radiused bend on each end, and is designed so that spring coils are located on outside of shoes when installed. Lower spring has a large radiused bend at each end, and is designed so that coils are located on inboard side of shoes when installed. See illustration.



RETURN SPRING INSTALLATION

REAR BRAKE WHEEL CYLINDER

Removal — With rear brake drum and brake shoes removed, disconnect hydraulic line from wheel cylinder at rear of backing plate. Remove retaining nuts and wheel cylinder assembly.

Installation — Reverse removal procedure, tighten retaining nuts, and bleed hydraulic system.

MASTER CYLINDER

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

Installation — 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.

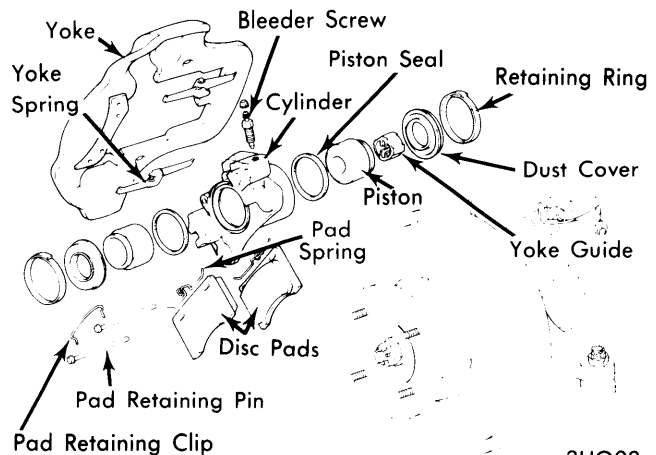
Installation — Reverse removal procedure, tighten all nuts and bolts, and bleed hydraulic system.

OVERHAUL

FRONT DISC BRAKE CALIPER

Disassembly — With disc pads removed, push yoke toward inboard side of cylinder until free, then separate yoke and cylinder. Pry off cylinder dust cover retaining rings and remove dust covers. Apply compressed air to cylinder inlet port and remove pistons. Remove piston seals from cylinder bore.

Cleaning & Inspection — Clean and dry all parts and inspect for wear or damage. Check disc pad lining thickness; if less than .060", replace. Check clearance between cylinder bore and piston; if greater than .005", replace piston or cylinder assembly as required. *NOTE* — Manufacturer recommends replacing piston seals whenever cylinder has been disassembled.



FRONT DISC BRAKE ASSEMBLY

Reassembly — 1) Install piston seals into grooves in cylinder. Lubricate pistons with brake fluid and install into cylinder. Install yoke guide into inboard piston. Hold yoke with retaining pin bracket facing up, and install yoke springs so long thin portion of spring is on upper side.

2) Hold yoke with retaining pin bracket facing up and to left. Place cylinder so that inlet port is facing up and to right. Slide yoke over cylinder. When yoke springs contact cylinder sliding surface, push down firmly and slide yoke to left until securely engaged with cylinder. Install disc pads, springs, pins and retainer.

REAR WHEEL CYLINDER

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

Cleaning & Inspection — Clean and dry all parts and inspect for wear or damage; replace parts as necessary. Check cylinder bore-to-piston clearance; if clearance exceeds .005", replace piston or cylinder as necessary.

Reassembly — Coat cylinder walls, pistons, and cups with brake fluid and install into cylinder bore. *NOTE* — Install cups on pistons so that lips of cups face center of cylinder. Install dust covers making sure lips engage grooves on cylinder body.

HONDA (Cont.)

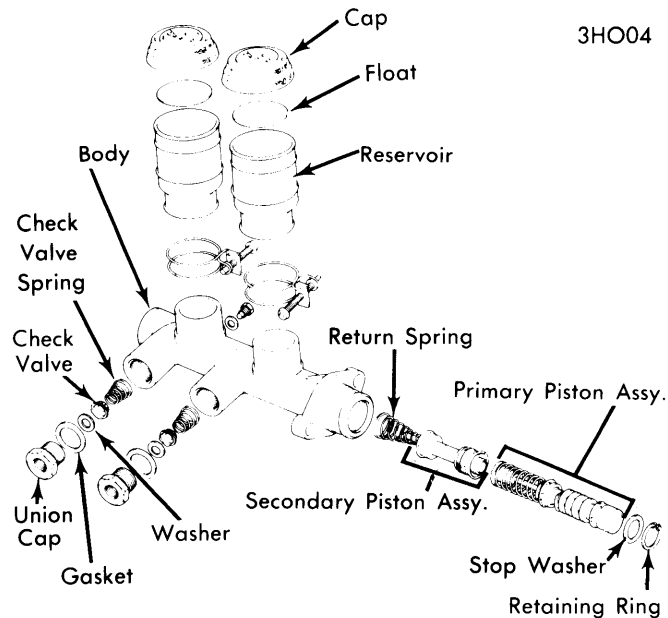
MASTER CYLINDER

Disassembly — Remove reservoir caps and floats and drain brake fluid. Loosen retaining clamps and remove reservoirs. Remove primary piston stop bolt, retaining clip, and washer, then remove primary piston. Hold a finger over stop bolt hole, apply compressed air to secondary outlet, and remove secondary piston. Remove two union caps, washers, check valves, and springs.

Cleaning & Inspection — Clean and dry all parts and inspect for wear or damage. Check clearance between master cylinder bore and pistons; if greater than .005", replace pistons or cylinder assembly as required. Check for clogged orifices in pistons and cylinder. *NOTE* — *Manufacturer recommends replacing piston cups and check valves whenever cylinder has been disassembled.*

Reassembly — Reverse disassembly procedure and note the following: Coat all parts with brake fluid when assembling. When installing pistons, push in while rotating to prevent damaging cups.

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MASTER CYLINDER ASSEMBLY

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Caliper Mounting Bolts	36-43 (4.9-5.9)
Front Backing Plate Bolts	14-18 (1.9-2.5)
Front Spindle Nut	87-130 (12.0-17.9)
Rear Wheel Bearing Cap Bolts	3-5 (.41-.69)
Rear Backing Plate Bolts	14-18 (1.9-2.5)
Hydraulic Lines	9-11 (1.2-1.5)
Master Cylinder	
Mounting Nuts	11-14 (1.5-1.9)
Union Caps	42-86 (5.8-11.9)
Stop Bolt	7-8 (.97-1.1)

DISC BRAKE ROTOR SPECIFICATIONS

Application	Disc Diameter In. (mm)	Lateral Runout In. (mm)	Parallelism In. (mm)	Original Thickness In. (mm)	Minimum Refinish Thickness In. (mm)	Discard Thickness In. (mm)
Civic006 (.152)	.0028 (.071)	.378 (9.60)	.354 (9.06)	①

① — More than minimum refinish thickness.