

BRAKE SYSTEM

1992 Infiniti G20

1991-92 BRAKES
Infiniti - Disc
G20, M30, Q45

DESCRIPTION

All brake systems are hydraulically operated using a tandem master cylinder and vacuum power unit. Four-wheel disc brakes are standard equipment. Proportioning valve is an integral part of master cylinder.

BLEEDING BRAKE SYSTEM

BRAKE LINE BLEEDING SEQUENCE TABLE

Application	Sequence
G20	LR, RF, RR, LF
M30 & Q45	LR, RR, LF, RF, (1) Front ABS Actuator, (1) Rear ABS Actuator

(1) - On models equipped with ABS.

ADJUSTMENTS

BRAKE PEDAL HEIGHT

Check brake pedal free height ("H") and depressed height ("D") from melt sheet on floor panel to top of brake pedal pad. See Fig. 1. See BRAKE PEDAL HEIGHT table. To adjust brake pedal height, loosen lock nut and turn brake booster input rod. Tighten lock nut. Ensure rod tip stays inside input rod clevis.

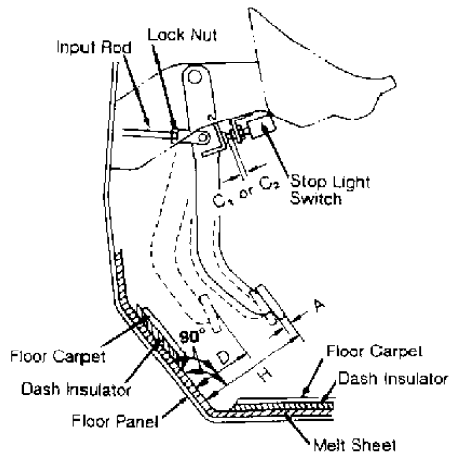


Fig. 1: Adjusting Brake Pedal
Courtesy of Nissan Motor Co., U.S.A.

BRAKE PEDAL HEIGHT TABLE

Application	In. (mm)
G20	
Free Height	
Automatic Transaxle	6.26-6.65 (159-169)
Manual Transaxle	5.94-6.34 (151-161)
Depressed Height (1)	
Automatic Transaxle	3.35 (85)
Manual Transaxle	3.15 (80)
M30	
Free Height	7.83-8.23 (199-209)
Depressed Height (1)	4.33 (110)
Q45	
Free Height	7.24-7.64 (184-194)
Depressed Height (1)	4.13-4.53 (105-115)

(1) - Under force of 110 lbs., with engine running.

BRAKE PEDAL FREE PLAY

Brake pedal free play ("A") should be .039-.118" (1-3 mm). See Fig. 1. Loosen lock nut, and adjust clearance "C(1)" and "C(2)" with stoplight and cruise disengage switch. Tighten lock nut. Ensure stoplights go off when brake pedal is released.

PARKING BRAKE SHOES

M30 & Q45

Remove adjuster hole plug. Ensure parking brake lever is released completely. Use screwdriver to turn down adjuster wheel until brake is locked. Back off adjuster wheel 7-8 clicks on M30 or 5-6 clicks on Q45. Install adjuster hole plug. Ensure parking brake shoes do not drag on drum when disc is rotated.

PARKING BRAKE CABLE

1) Lever should come up 7-9 notches on G20 or 8-9 notches on M30. On Q45, pedal should depress 3.54-4.13" (90-105 mm). Adjust cable as necessary.

2) To adjust parking brake warning light, bend parking brake warning light switch plate. Light should illuminate when lever is pulled up one notch on G20 or 2 notches on M30. On Q45, brake warning light should illuminate when parking brake pedal is depressed .79" (20 mm).

TESTING

POWER BRAKE UNIT

Operating Check

Depress brake pedal several times with engine off, ensuring pedal stroke does not change. Depress brake pedal and then start engine. If pedal goes down slightly, operation is normal. If pedal does not go down slightly, check for vacuum leak between vacuum source and booster.

Airtight Check

1) Start engine, and stop it after 1-2 minutes. Slowly depress brake pedal several times. If pedal goes further down first time and gradually rises after second or third time, booster is airtight.

2) Depress brake pedal while engine is running, and stop engine with pedal depressed. If pedal stroke does not change after holding pedal down 30 seconds, brake booster is airtight.

PROPORTIONING VALVE

1) Connect Pressure Gauge (KV991V0010) to bleeder screws on front and rear brakes. Bleed air from pressure gauge. Depress brake pedal and check pressure. On models with ABS, disconnect ABS actuator harness connectors.

2) If pressure is not within specifications, check for leaks. See BRAKE PRESSURE SPECIFICATIONS table. If no leaks are present, replace master cylinder.

BRAKE PRESSURE SPECIFICATIONS TABLE

Application	psi (kg/cm ²)
G20	
Front Brake Pressure	853 (60)
Rear Brake Pressure	526-583 (37-41)
M30	
Front Brake Pressure	924 (65)
Rear Brake Pressure	597-654 (42-46)
Q45	
Front Brake Pressure	924 (65)
Rear Brake Pressure	739-796 (52-56)

BRAKE PADS WORN WARNING LIGHT - Q45

For testing of Brake Pads Worn warning light, see testing in appropriate INSTRUMENT PANEL article in ACCESSORIES/SAFETY EQUIP article.

REMOVAL & INSTALLATION

MASTER CYLINDER

Removal & Installation

Connect a vinyl tube to air bleeder valve. Drain brake fluid from each air bleeder valve, depressing brake pedal to empty fluid from master cylinder. Remove brake line flare nuts. Remove master cylinder mounting nuts. To install, reverse removal procedure.

BRAKE BOOSTER

Removal & Installation

Remove master cylinder. Remove clevis pin from booster input rod clevis. Remove brake booster mounting nuts. Remove booster assembly. To install, reverse removal procedure. Adjust brake pedal if necessary. See ADJUSTMENTS. Tighten mounting nuts. See TORQUE SPECIFICATIONS table at end of article.

FRONT & REAR DISC PADS

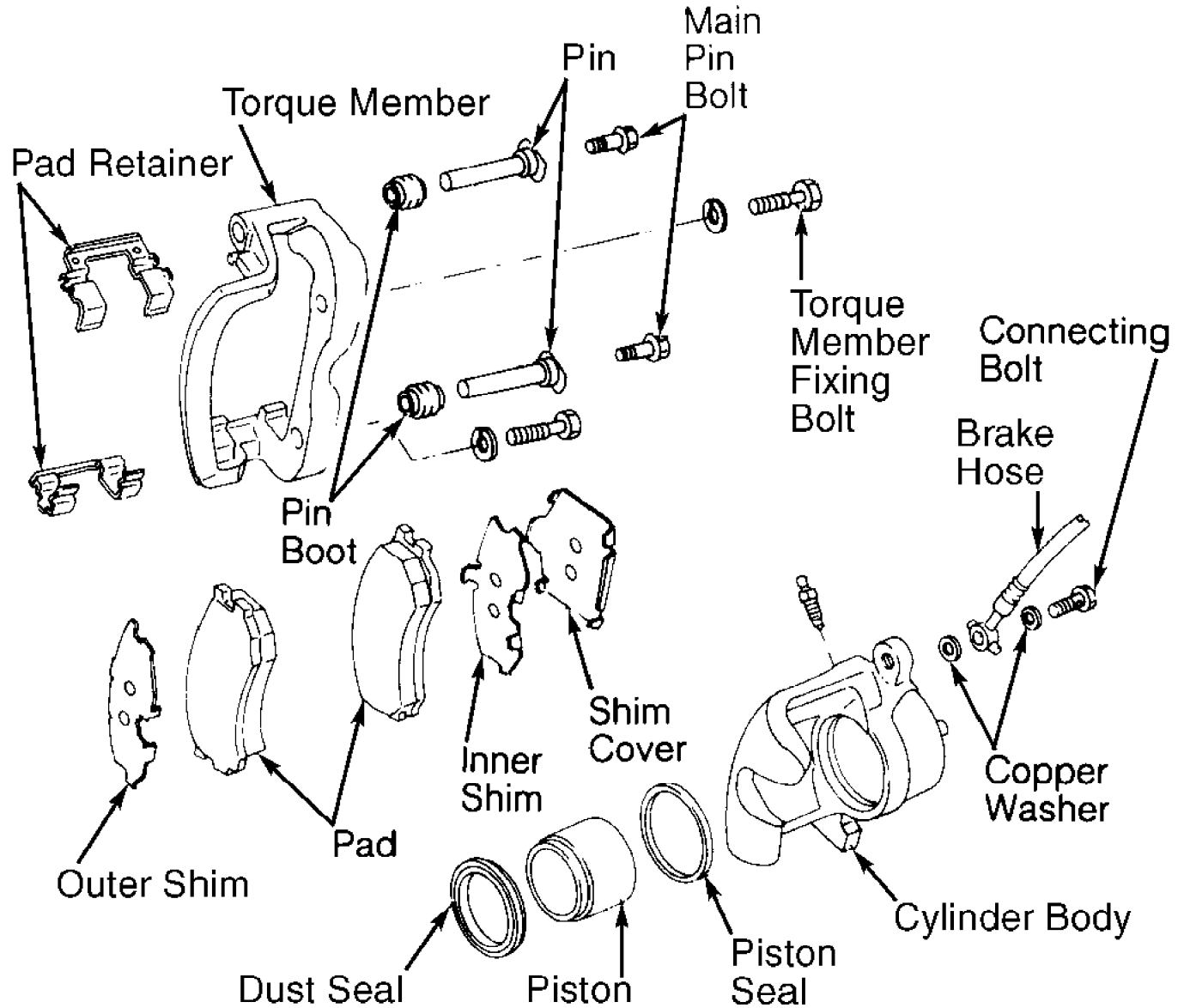
CAUTION: When cylinder body is open, DO NOT depress brake pedal or piston will pop out.

Removal & Installation

1) Remove master cylinder reservoir cap. On Q45, remove brake

pad wear sensor and bracket. On all models, remove pin bolt. Swing piston housing up. Remove pad retainers, shims and pads. See Fig. 2, 3, 4, 5, 6 or 7.

2) To install, reverse removal procedure. On Q45, replace brake pad sensor when brake pads are replaced. Ensure diagnostic information display does not indicate brake replacement by performing road test.



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Fig. 2: Exploded View of Front Brakes (G20)
 Courtesy of Nissan Motor Co., U.S.A.

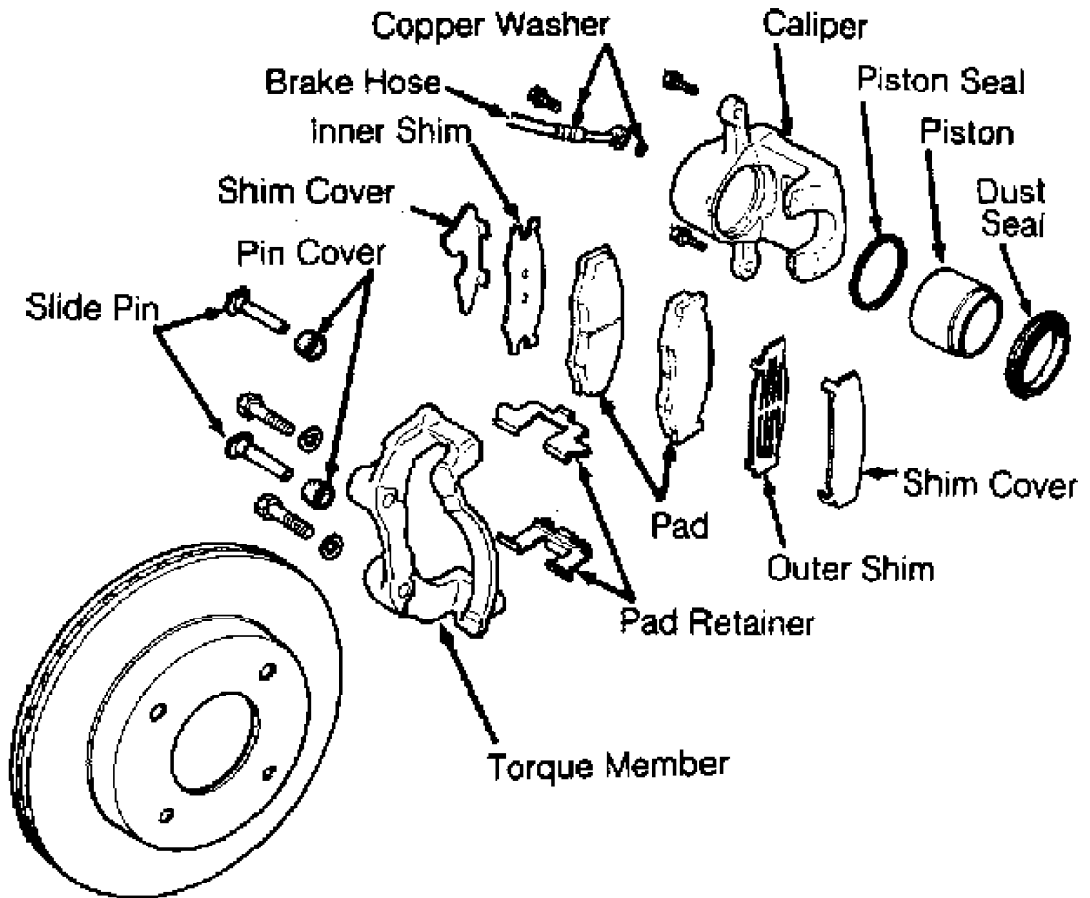
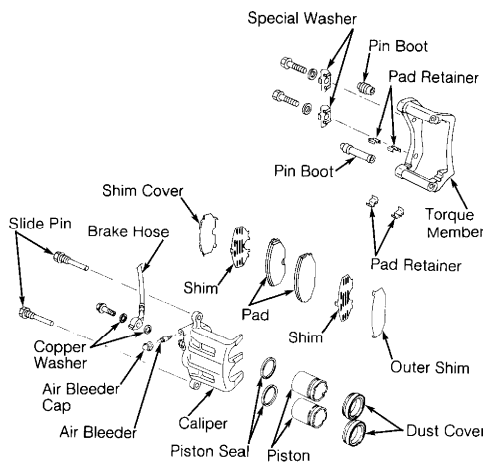


Fig. 3: Exploded View of Front Brakes (M30)
 Courtesy of Nissan Motor Co., U.S.A.



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 Fig. 4: Exploded View of Front Brakes (Q45)
 Courtesy of Nissan Motor Co., U.S.A.

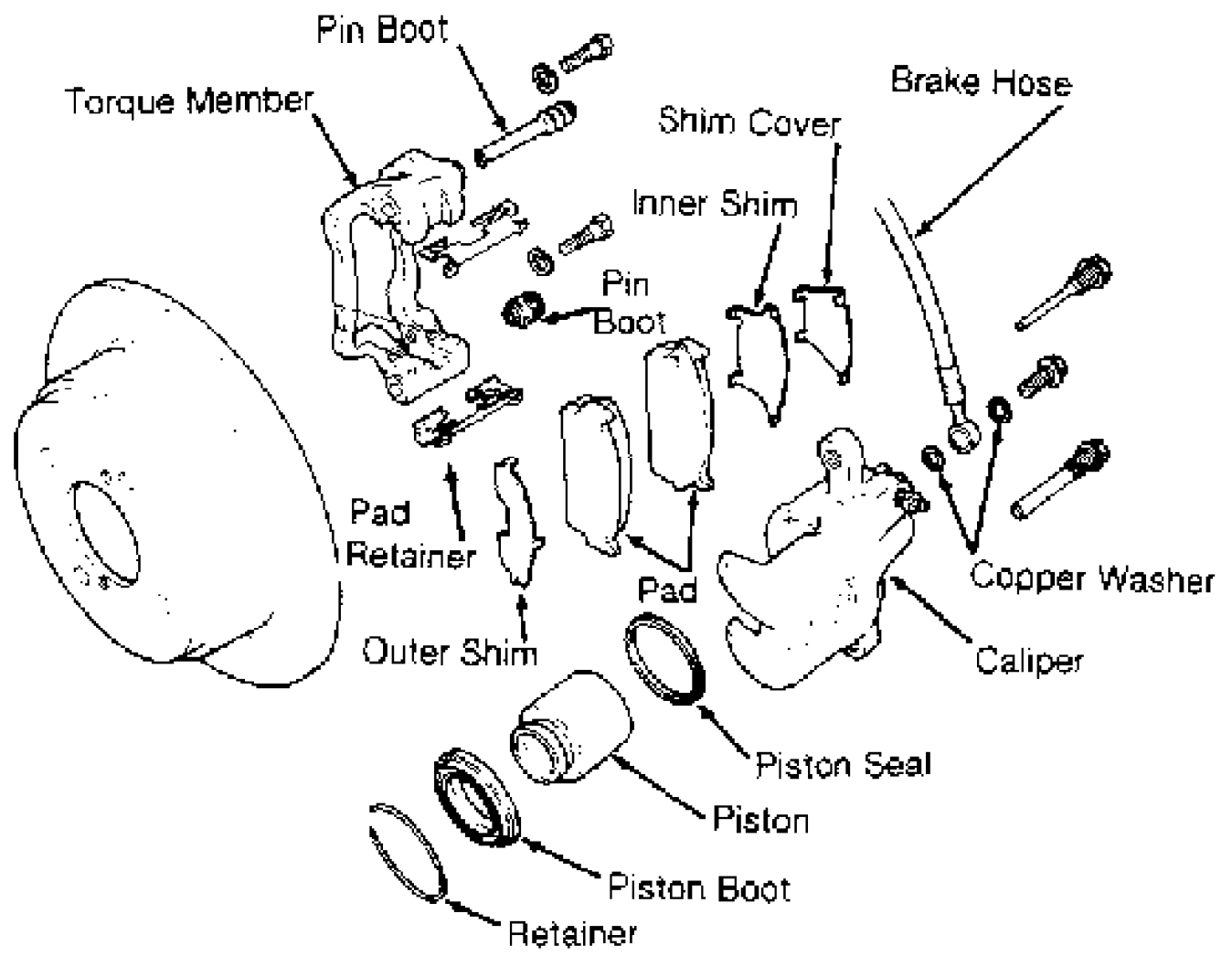
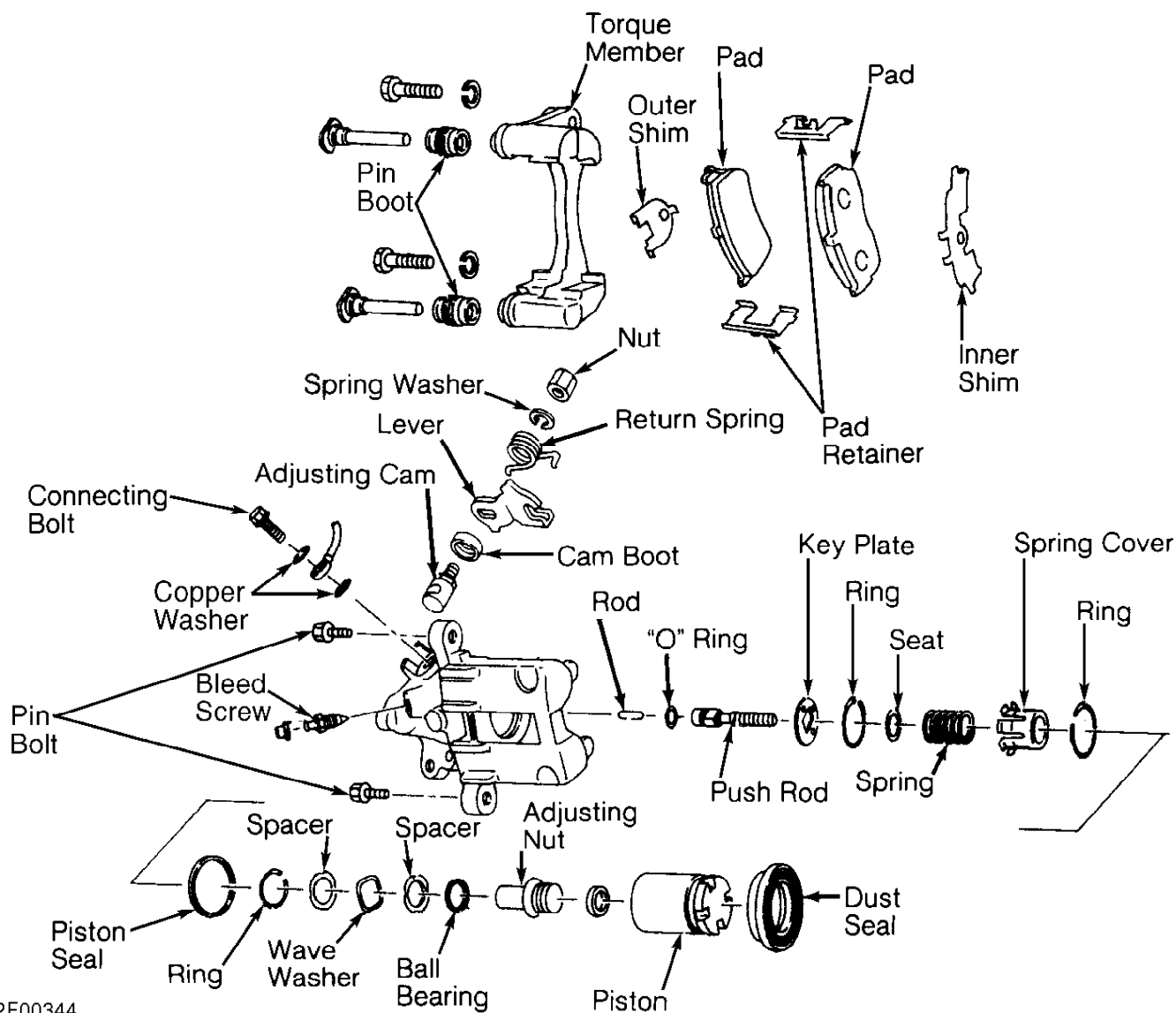
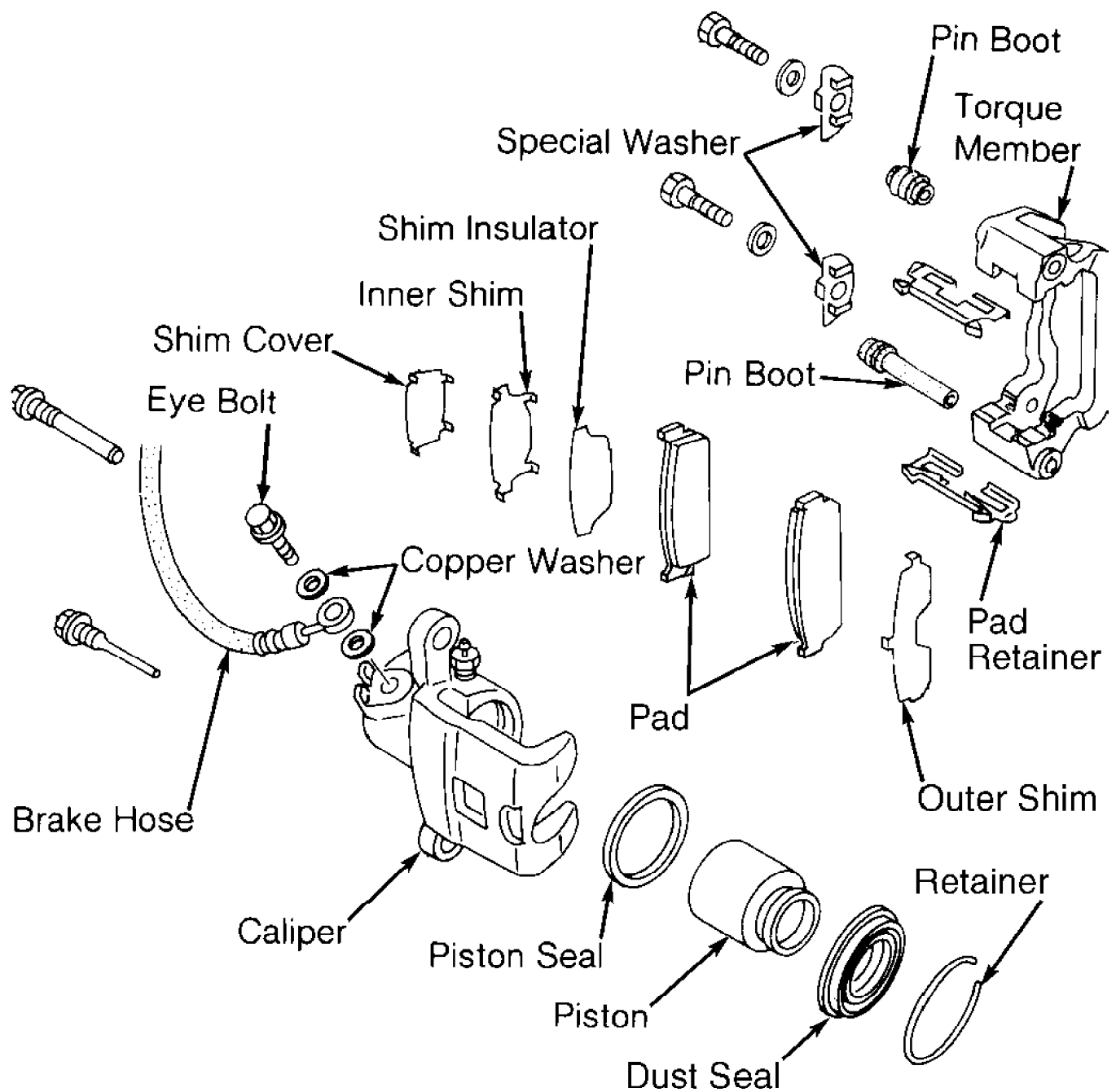


Fig. 5: Exploded View of Rear Brakes (M30)
 Courtesy of Nissan Motor Co., U.S.A.



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Fig. 6: Exploded View of Rear Brakes (G20)
 Courtesy of Nissan Motor Co., U.S.A.



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Fig. 7: Exploded View of Rear Brakes (Q45)
 Courtesy of Nissan Motor Co., U.S.A.

PARKING BRAKE SHOES

Removal & Installation (M30 & Q45)

1) Remove rear disc mounting bolts. Remove disc rotor. If rotor is difficult to remove, install 2 bolts in face of parking brake drum. Twist screws in until rotor comes off. Remove brake shoe retainers, and pull shoes outward.

2) Remove return springs. See Fig. 8 or 9. Remove adjuster and strut. Disconnect parking brake cable from toggle lever. Remove

retainer ring. Separate toggle lever and brake shoe. Before installation, apply grease to brake shoe contact area of backing plate. To install, reverse removal procedure.

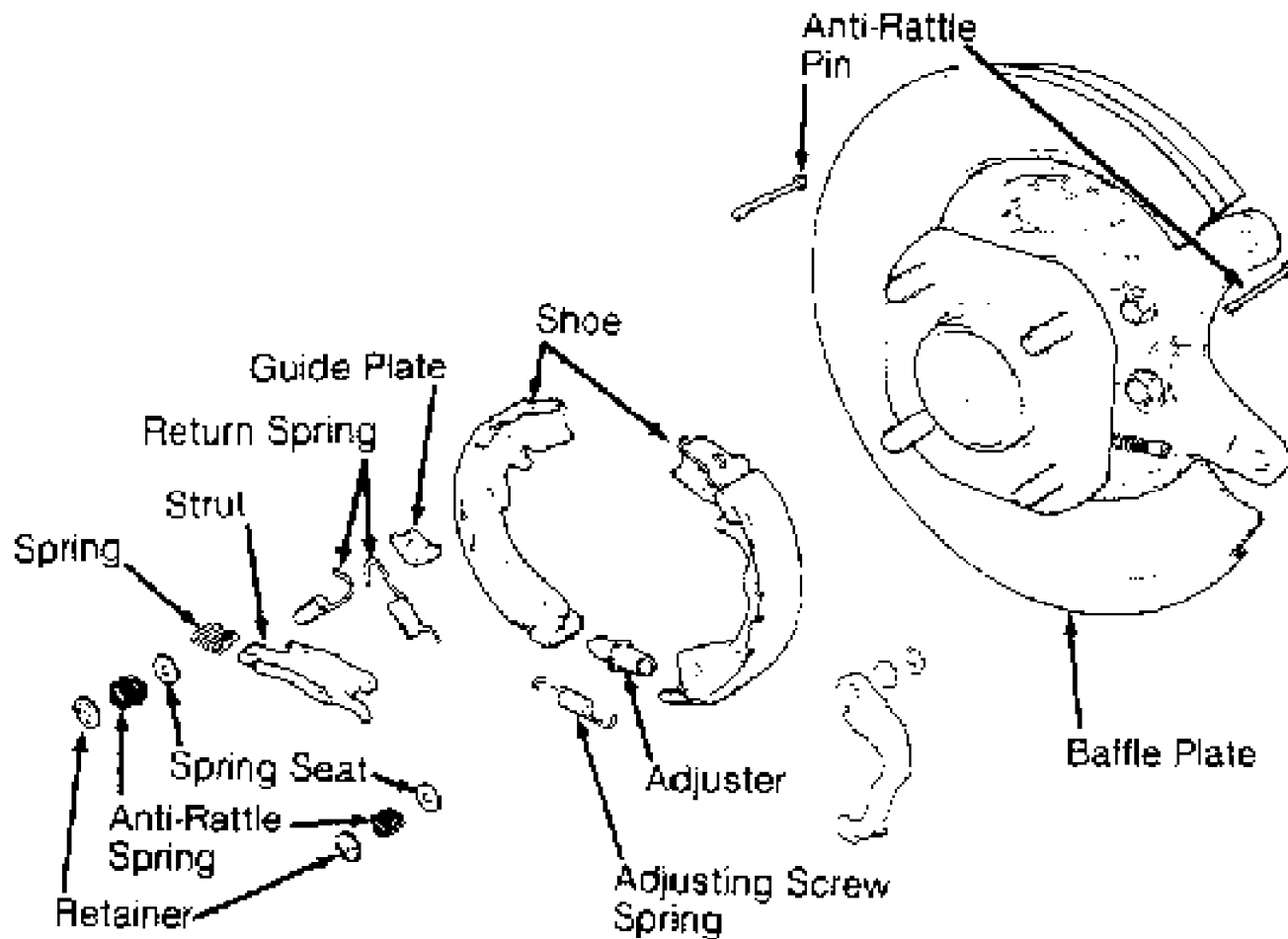
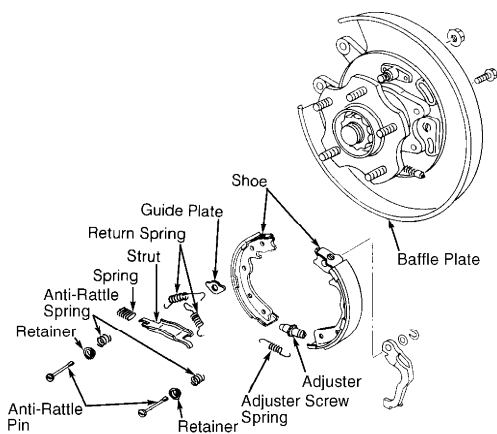


Fig. 8: Exploded View of Parking Brake Shoe Assembly (M30)
 Courtesy of Nissan Motor Co., U.S.A.



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 Fig. 9: Exploded View of Parking Brake Shoe Assembly (Q45)
 Courtesy of Nissan Motor Co., U.S.A.

OVERHAUL

MASTER CYLINDER

Disassembly & Reassembly

Remove valve stopper while lightly pushing primary piston into cylinder. Bend claws of stopper cap outward. Remove piston assemblies. If secondary piston assembly is difficult to remove, gradually apply compressed air through fluid outlet. Remove reservoir tank. Replace parts as necessary. To reassemble, reverse disassembly procedure. See Fig. 10.

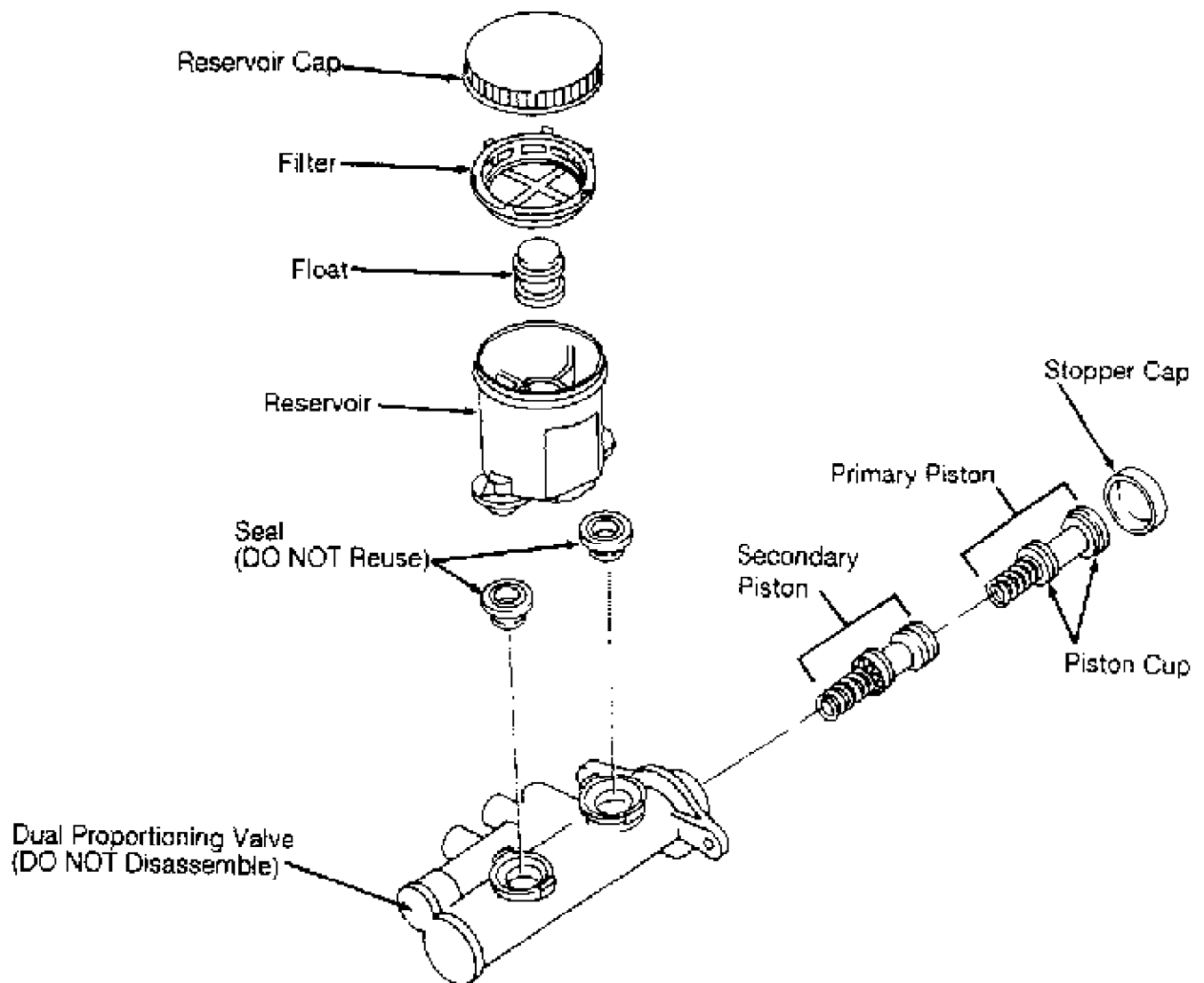


Fig. 10: Exploded View of Master Cylinder
Courtesy of Nissan Motor Co., U.S.A.

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS TABLE

Application

Ft. Lbs. (N.m)

Brake Hose	12-15	(16-20)
Brake Pedal Arm	12-16	(16-22)
Flare Nut	11-13	(15-18)
Front Torque Member	53-72	(72-97)
Front Caliper		
G20 & M30	16-23	(22-31)
Q45	61-69	(83-93)
Rear Caliper		
G20	16-23	(22-31)
M30 & Q45	23-30	(31-41)
Rear Torque Member		
G20	25-31	(34-42)
M30 & Q45	28-38	(38-52)

INCH Lbs. N.m)

Booster Mount Nut	71-97	(8-11)
Brake Pedal Bracket	71-97	(8-11)
Cruise Disengage Switch	106-133	(12-15)
Parking Brake Cable Nut/Bolt	71-97	(8-11)
Stoplight Switch	106-133	(12-15)

DISC BRAKE SPECIFICATIONS

DISC BRAKE SPECIFICATIONS

Application	In. (mm)
Booster Output Rod Length404-.414 (10.275-10.525)
Disc Runout0028 (.070)
Front Rotor Minimum Thickness	
G20 & M30787 (20)
Q45	1.024 (26)
Pad Wear Limit079 (2.0)
Park Brake Lining Limit059 (1.5)
Rear Rotor Minimum Thickness	
G20 & Q45315 (8.0)
M30354 (9.0)