

BRAKES

SERVICE AND PARKING

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N05AA--

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		Squealing, groaning or chattering noise	
		Squealing noise	
		Vehicle pulls to one side	

CAUTION

When servicing brake assemblies or components, do not create dust by sanding, grinding, or by cleaning brake parts with a dry brush or with compressed air.
A WATER DAMPENED CLOTH SHOULD BE USED. Many brake components contain asbestos fibers which can become airborne if dust is created during service operations.
 Breathing dust which contains asbestos fibers can cause serious bodily harm.

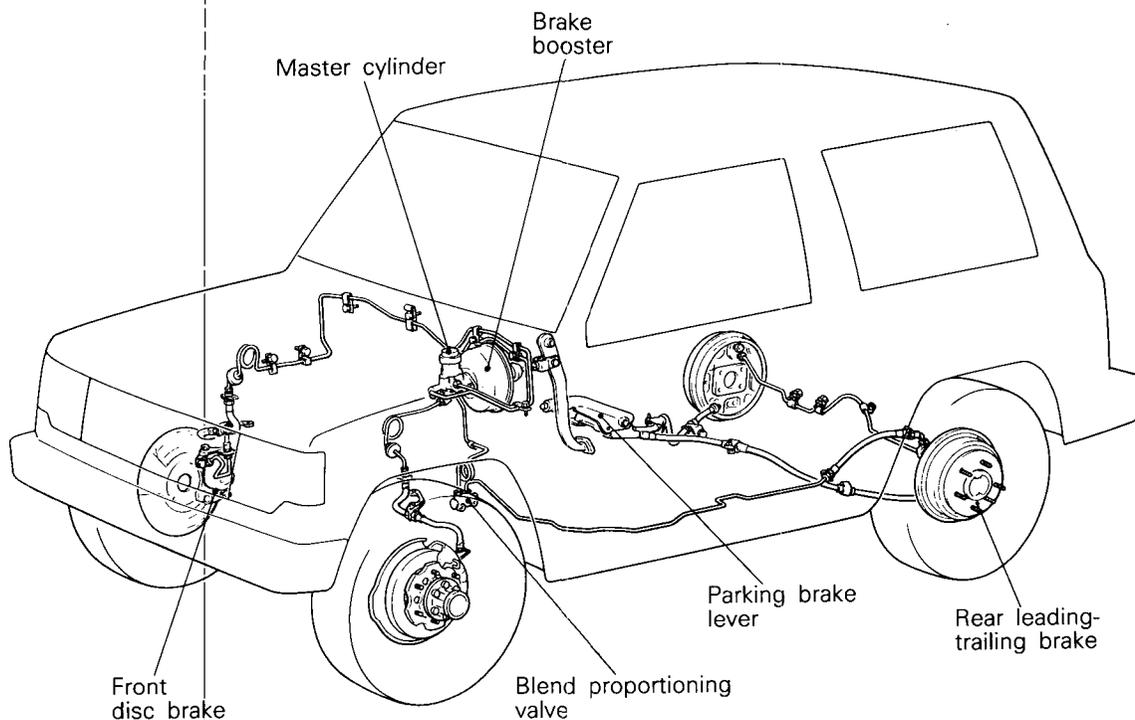
GENERAL INFORMATION

N05BA--

SERVICE BRAKE

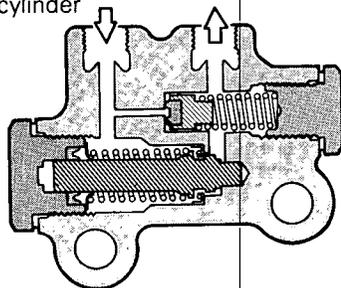
For high reliability and stopping force, the brake system comprises ventilated disc brakes for the front wheels and leading-trailing drum brakes with automatic adjuster for the rear wheels. A brake booster is also added to reduce the force required for braking.

Braking stability is improved by the adoption of the blend-proportioning valve.



14W614

From master cylinder To rear brake cylinder



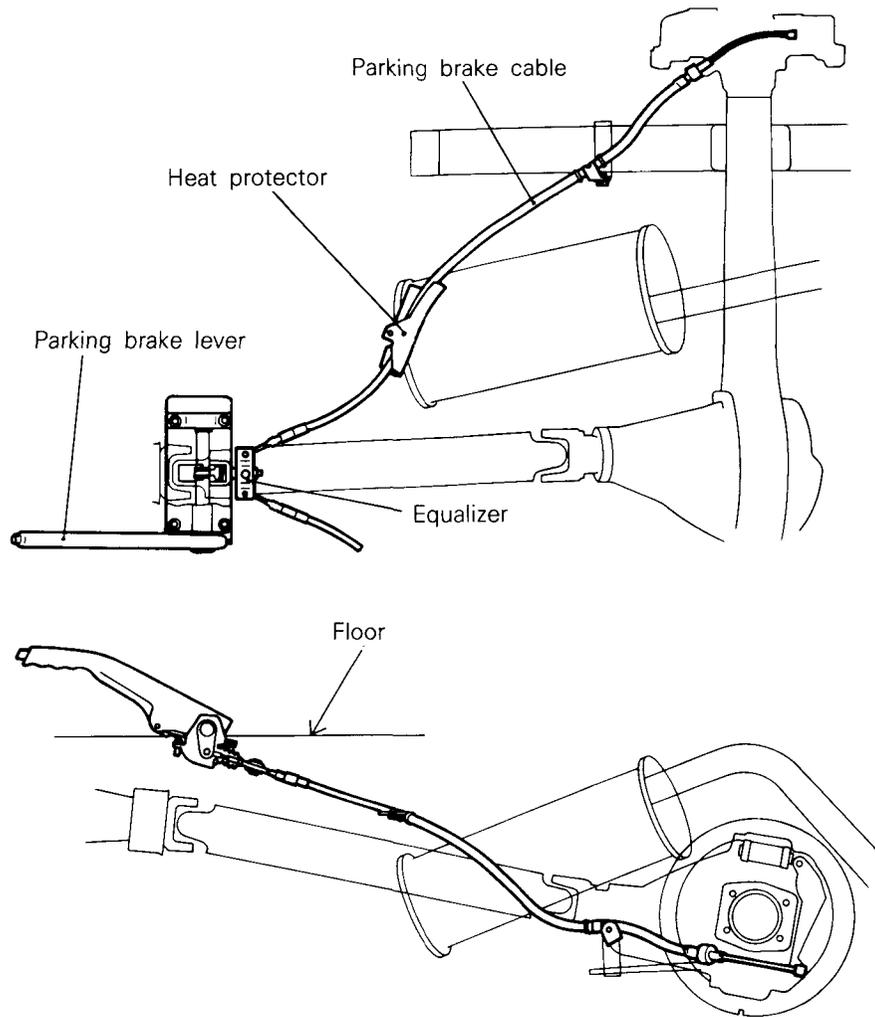
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BLENDE PROPORTIONING VALVE

The blend proportioning valve serves to improve efficiency within normal braking range by distributing braking force most effectively to the front and rear wheels and also to increase braking force to the rear wheels by releasing decompressing effect if a large braking force is required also for the rear wheels as when the vehicle is loaded or when the front brake should burst.

PARKING BRAKE

The parking brake is the mechanical type (internal-expansion type). The parking brake lever is located to the driver's side of the center of the floor's back bone for easier operational access. The brake cable is the V-type, and the parking brake lever stroke adjustment is made by the equalizer at the lower part of the floor.



14W559

SPECIFICATIONS

GENERAL SPECIFICATIONS

N05CA--

Items	Specifications
Master cylinder Type I.D. mm (in.)	Tandem type 22.22 (7/8)
Brake booster Type Effective dia. of power cylinder mm (in.) Boosting ratio [Brake pedal depressing force]	Vacuum type 203.2 (8.0) 4.0
Front brakes Type Disc O.D. mm (in.) Disc thickness mm (in.) Pad thickness mm (in.) Cylinder I.D. mm (in.) Clearance adjustment	F-type disc 255 (10.0) 20 (.79) 10.5 (.413) 53.97 (2.1248) Automatic
Rear brakes Type Drum I.D. mm (in.) Lining thickness mm (in.) Cylinder I.D. mm (in.) Clearance adjustment	Leading and trailing shoe type drum 254 (10.0) 4.6 (.18) 20.64 (13/16) Automatic
Parking brakes Type Brake engagement Cable routing	Mechanical brake acting on rear wheels Lever type V-type

SERVICE SPECIFICATIONS

N05CB--

Items	Specifications
Standard Value	
Brake pedal height mm (in.)	191-196 (7.5-7.7)
Stop light switch outer case to pedal arm clearance mm (in.)	0.5-1.0 (.020-.039)
Brake pedal free play mm (in.)	10-15 (.39-.59)
Brake pedal to firewall clearance mm (in.)	95 (3.74) or more
Parking brake lever stroke	4-6 clicks
Brake booster operating test	
Air-tightness test with no load kPa (mmHg)	3.3 (25) or less
Air-tightness test under load kPa (mmHg)	3.3 (25) or less
Boosting function test MPa (psi)	
At 100 N (22 lbs.) foot force	3.0-4.0 (427-570)
At 300 N (66 lbs.) foot force	6.5-8.0 (925-1138)
Non-boosting function test MPa (psi)	
At 100 N (22 lbs.) foot force	0.2 (28)
At 300 N (66 lbs.) foot force	0.4 (57)
Blend proportioning valve function test MPa (psi)	
At 6.0 MPa (853 psi) input pressure	3.325-3.725 (472.9-529.8)
At 9.0 MPa (1,280 psi) input pressure	4.725-5.325 (672.0-757.4)
Brake dragging force N (lbs.)	57 (13.1) or less
[Brake dragging torque] Nm (ft.lbs.)	[4 (3) or less]
Booster push rod to master cylinder piston clearance mm (in.)	0.1-0.5 (.004-.020)
Limit	
Pad thickness mm (in.)	1.0 (.039)
Disc thickness mm (in.)	18.4 (.724)
Brake disc runout mm (in.)	0.15 (.0059)
Master cylinder body to piston clearance mm (in.)	0.15 (.0059)
Lining thickness mm (in.)	1.0 (.039)
Drum I.D. mm (in.)	256.0 (10.079)
Wheel cylinder body to piston clearance mm (in.)	0.15 (.0059)

TORQUE SPECIFICATIONS

N05CC--

Items	Nm	ft.lbs.
Brake booster to pedal support member	8–12	6–9
Brake pedal shaft	25–35	18–25
Pedal support member installation bolt	8–12	6–9
Steering column assembly installation bolt	18–25	13–18
Reservoir stopper bolt	1.5–3.0	1–2
Piston stopper	1.5–3.0	1–2
Master cylinder to brake booster	8–12	6–9
Fitting	15–18	11–13
Master cylinder to brake line connector	25–35	18–25
Brake line flare nut	13–17	9–12
Bleeder screw	7–9	5–7
Mounting support to knuckle	80–100	58–72
Wheel cylinder to backing plate	18–21	13–15

LUBRICANTS

N05CD--

Items	Specified lubricant	Quantity
Brake fluid	DOT 3	As required
Brake pedal bushing and spacer	Chassis grease SAE J310, NLGI No. 0	Small quantity
Clevis pin and washer	Wheel bearing grease SAE J310, NLGI No. 2	Small quantity
Dust boot mounting groove in the caliper body	Repair kit grease (orange)	As required
Plug plate and stopper plug	Brake grease SAE J310, NLGI No. 1	Small quantity
Contacting surfaces at the shoe assemblies and backing plate	Brake grease SAE J310, NLGI No. 1	Small quantity
Rear brake piston and wheel cylinder	Repair kit grease (orange)	As required
Rotating portion of the shoe adjuster assembly	Brake grease SAE J310, NLGI No. 1	Small quantity
Clevis pin, bushing and ratchet plate	Chassis grease SAE J310, NLGI No. 0	As required

SEALANTS AND ADHESIVES

N05CE--

Items	Specified sealants and adhesives	Quantity
Thread part of fitting	3M ART Part No. 8663, 8661 or equivalent	As required
Shoe hold-down pin	3M Sealant Part No. 8634 or equivalent	As required
Rear wheel cylinder	3M Sealant Part No. 8634 or equivalent	As required
Both sides of the sealer	3M ART Part No. 8661 or equivalent	As required

SPECIAL TOOLS

N05DA--

Tool (Number and name)	Use
MB990620-01 Piston cap installer 	Installation of rear wheel cylinder piston cap

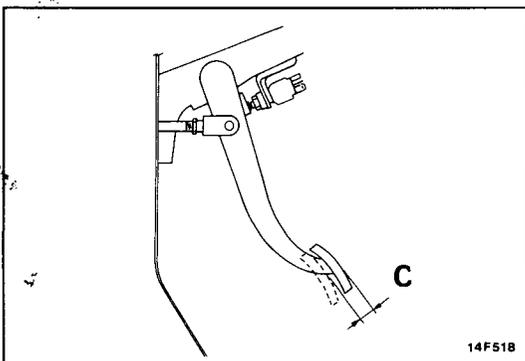
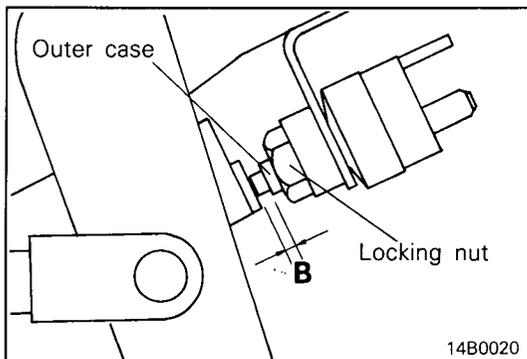
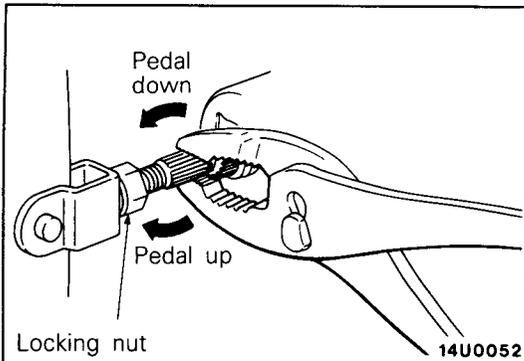
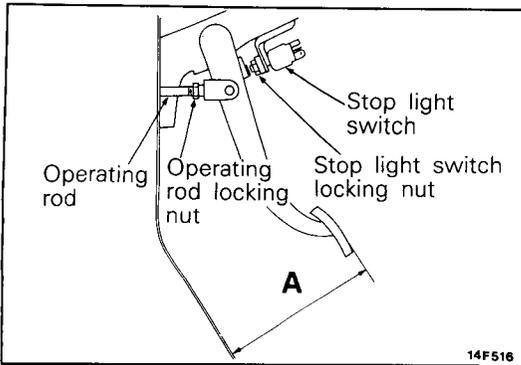
TROUBLESHOOTING

N05EAAB

Symptom	Probable cause	Remedy	Reference page
Vehicle pulls to one side when brakes are applied	Grease or oil on pad or lining surface	Replace	5-15
	Inadequate contact of pad or lining	Correct	5-15, 34
	Auto adjuster malfunction	Adjust	–
	Drum eccentricity or uneven wear	Repair or replace as necessary	5-33
Improper braking power	Low or deteriorated brake fluid	Replenish or change	–
	Air in brake system	Bleed air	5-14
	Overheated brake rotor due to dragging of pad or lining	Correct	–
	Grease or oil on pad surface	Replace	5-15
	Inadequate contact of pad or lining	Correct	5-15, 34
	Brake booster malfunction	Replace	5-25
	Auto adjuster malfunction	Adjust	–
	Clogged brake line	Correct	–
Increased pedal stroke (Reduced pedal to firewall clearance)	Air in brake system	Bleed air	5-14
	Worn lining or pad	Replace	5-15, 34
	Broken vacuum hose	Replace	5-25
	Brake fluid leaks	Correct	5-27
	Auto adjuster malfunction	Adjust	–
	Excessive push rod to master cylinder clearance	Adjust	5-23
	Faulty master cylinder	Replace	5-21

Symptom	Probable cause	Remedy	Reference page
Brake drag	Incomplete release of parking brake	Correct	–
	Incorrect parking brake adjustment	Adjust	–
	Worn brake pedal return spring	Replace	5-18
	Broken rear drum brake shoe return spring	Replace	5-33
	Lack of lubrication in sliding parts	Lubricate	5-35
	Improper push rod to master cylinder clearance	Adjust	5-23
	Faulty master cylinder piston return spring	Replace	5-21
	Clogged master cylinder return port	Correct	5-21
Improper parking brake function	Worn brake lining	Replace	5-33
	Excessive parking brake lever stroke	Adjust the parking brake lever stroke or check the parking brake cable routing	–
	Grease or oil on lining surface	Replace	5-15, 34
	Auto adjuster malfunction	Adjust	–
	Parking brake cable sticking	Replace	5-40
	Sticked wheel cylinder or caliper piston	Replace	5-29, 36
Scraping or grinding noise when brakes are applied	Worn brake linings	Replace	5-15, 34
	Caliper to wheel interference	Correct or replace	5-29
	Dust cover to drum interference	Correct or replace	5-33
	Bent brake backing plate	Correct or replace	5-33
	Cracked drums or brake disc	Correct or replace	5-29, 33
Squealing, groaning or chattering noise when brakes are applied	Disc brakes-missing or damaged brake pad outer shim	Replace	5-15
	Brake drums and lining, discs and pads worn or scored	Correct or replace	5-15, 34
	Improper lining parts	Correct or replace	5-29, 33
	Disc brakes-burred or rusted calipers	Clean or deburr	5-29
	Dirty, greased, contaminated or glazed linings	Clean or replace	5-29, 33
	Drum brakes-weak damaged or incorrect shoe hold-down springs, loose or damaged shoe hold-down pins and springs	Correct or replace	5-33
	Incorrect adjustment of brake pedal or booster push rod	Adjust	5-10

Symptom	Probable cause	Remedy	Reference page
Squealing noise when brakes are not applied	Bent or warped backing plate causing interference with drum	Replace	5-33
	Improper machining of drum causing interference with backing plate or shoe	Replace drum	5-33
	Disc brakes-rusted, stuck	Lubricate or replace	5-29
	Worn, damaged or insufficiently lubricated wheel bearings Drum brakes-weak, damaged or incorrect shoe return spring	Lubricate or replace	5-33
	Loose or extra parts in brakes	Retighten	–
	Improper positioning of pads in caliper	Correct	5-29
	Improper installation of support mounting and caliper body	Correct	5-29
	Poor return of brake booster or master cylinder or wheel cylinder	Replace	5-21, 25
	Incorrect adjustment of brake pedal or booster push rod	Adjust	5-10, 23
Groaning, clicking or rattling noise when brakes are not applied	Stones or foreign material trapped inside wheel covers	Remove stones, etc.	–
	Loose wheel nuts	Retighten	–
	Disc brakes-failure of shim	Replace	5-15
	Disc brakes-loose installation bolt	Retighten	5-29
	Worn, damaged or dry wheel bearings	Lubricate or replace	–
	Incorrect adjustment of brake pedal or booster push rod	Adjust	5-10, 23
Poor parking brake function	Worn brake lining Poor condition of brake lining surface Parking brake cable sticking	Replace	5-33, 40
	Auto-adjuster malfunction	–	–
	Excessive parking brake lever stroke	Adjust the parking brake lever stroke or check the parking brake cable arrangement	5-39



SERVICE ADJUSTMENT PROCEDURES

N05FAAA

INSPECTION AND ADJUSTMENT OF BRAKE PEDAL

1. Measure the brake pedal height as illustrated. If the brake pedal height is not within the standard value, adjust as follows.

Standard value (A) : 191–196 mm (7.5–7.7 in.)

- (1) Disconnect the stop light switch connector, and then loosen the stop light switch locking nut. Move the stop light switch to a position where it does not contact the brake pedal arm.
- (2) Adjust the brake pedal height by turning the operating rod with pliers (with the operating rod locking nut loosened), until the correct brake pedal height is obtained.

- (3) Adjust the stop light switch until the dimension between the outer case of the stop light switch and the brake pedal arm reaches the standard value, and then lock the switch in place with locking nut.

Standard value (B) : 0.5–1.0 mm (.020–.039 in.)

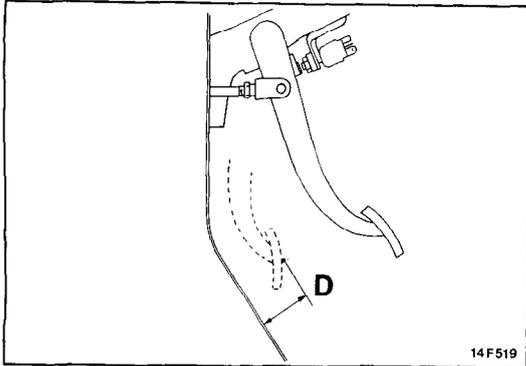
- (4) Connect the stop light switch connector.

2. While the engine is stopped, depress the brake pedal two or three times. After thus eliminating the vacuum in the brake booster, press the pedal down by hand, and confirm that the amount of movement before resistance is met (the free play) is within the standard value range.

Standard value (C) : 10–15 mm (.39–.59 in.)

If the free play is less than the standard value, confirm that the clearance between the outer case of the stop light switch and brake pedal is within the standard value.

If the free play exceeds the standard value, the clearance between the clevis pin and the brake pedal arm might be excessive. Check and replace the faulty parts if necessary.



3. Start the engine, depress the brake pedal with approximately 500N (110 lbs.) of force, and measure the clearance between the brake pedal and the firewall.

Standard value (D) : 95 mm (3.74 in.) or more

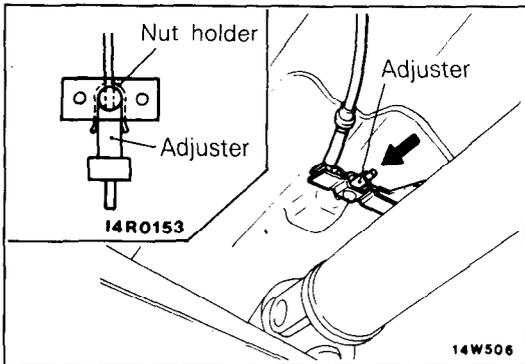
If the clearance is less than the standard value, check for air in the brake line or brake fluid leakage, and check the brakes themselves (for excessive shoe clearance caused by a malfunction of the automatic adjuster mechanism), and repair where necessary.

CHECKING AND ADJUSTMENT OF PARKING BRAKE LEVER STROKE

N05FEAB

1. Pull the parking brake lever with a force of approx. 200N (45 lbs.), and count the number of clicks.

Standard value : 4-6 clicks



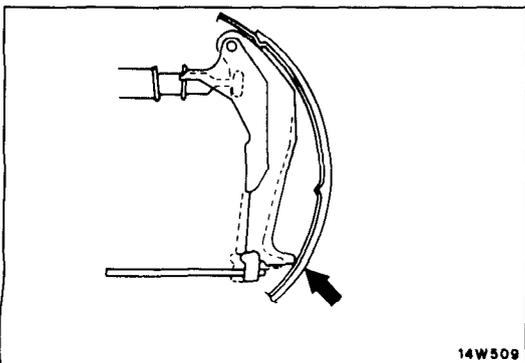
2. If the parking brake lever stroke is not within the standard value range, make adjustment by the following procedures:
 - (1) Loosen the adjuster to slacken the parking brake cable.
 - (2) Tighten the adjuster slightly, repeating pulling and releasing the parking brake lever, to adjust the brake shoe clearance.
 - (3) Tighten the adjuster until the parking brake lever stroke is the standard value.

NOTE

After adjustment, be sure that the adjuster is secured with the nut holder.

Caution

If the number of brake lever clicks engaged is less than the standard value, the cable has been pulled excessively, and failure of the automatic adjuster mechanism will result. Be sure to adjust it to within the standard value.

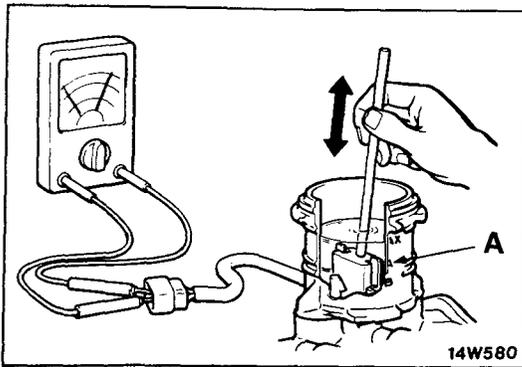


3. Return the parking brake lever, remove the brake drum, and check to ensure that the brake lever adjuster is touching the shoe.

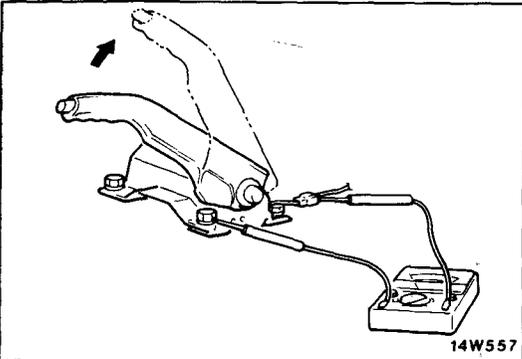
Caution

If the parking brake cable is pulled too far, the adjuster lever does not fit the adjuster, resulting in faulty operation of the brake shoe adjuster.

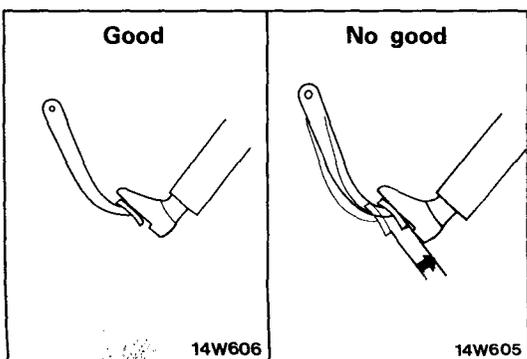
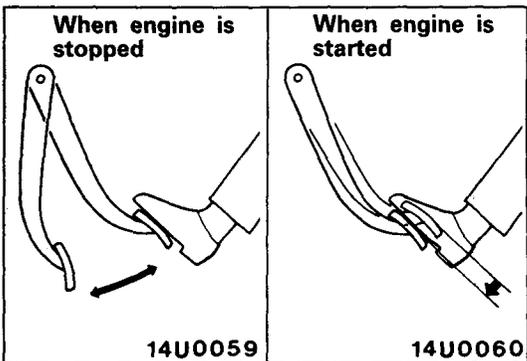
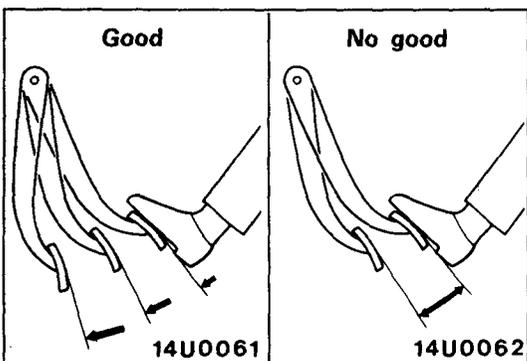
4. With the parking brake lever in the released position, turn the rear wheel to confirm that the rear brakes are not dragging.

**CHECKING BRAKE FLUID LEVEL SENSOR** N05FBAA

1. Connect an ohmmeter to the connector of the brake fluid level sensor.
2. Move the float from top to bottom and check for continuity. The brake fluid level sensor is in good condition if there is no continuity when the float surface is above "A", and if there is continuity when the float surface is below "A".

**CHECKING PARKING BRAKE SWITCH** N05FDAA

1. Remove the floor console.
2. Disconnect the parking brake switch connector, and then connect an ohmmeter between parking brake switch terminal and the mounting bolt.
3. If there is continuity when the parking brake is pulled, and there is no continuity when it is released, the parking brake switch is good condition.

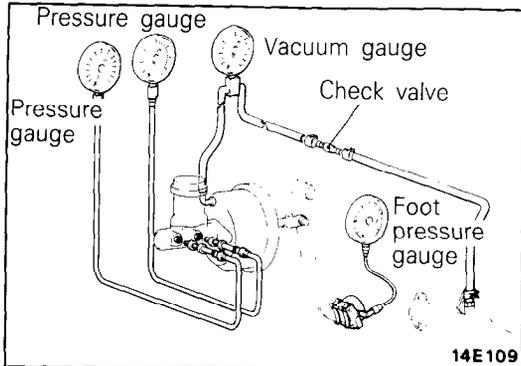
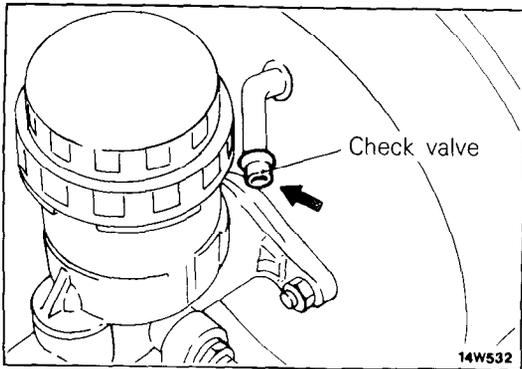
**BRAKE BOOSTER OPERATING TEST** N05FCAD

For simple checking of the brake booster operation, carry out the following tests:

1. Run the engine for one or two minutes, and then stop it. Step on the brake pedal several times with normal pressure. If the pedal depress fully the first time but gradually becomes higher when depressed succeeding times, the booster is operating properly. If the pedal height remains unchanged, the booster is faulty.
2. With the engine stopped, step on the brake pedal several times with the same foot pressure to make sure that the pedal height will not change. Then step on the brake pedal and start the engine. If the pedal moves downward slightly, the booster is in good condition. If there is no change, the booster is faulty.
3. With the engine running, step on the brake pedal and then stop the engine. Hold the pedal depressed for 30 seconds. If the pedal height does not change, the booster is in good condition, if the pedal rises, the booster is faulty.

If the above three tests are okay, the booster performance can be determined as good.

If one of the above three tests is not okay at last, the check valve, vacuum hose, or booster will be faulty.



TEST WITH A SIMPLE TESTER

Prior to the test, remove the check valve from the brake booster and check the check valve for operation. (Refer to P.5-26.)

With the check valve removed, make connections as shown, using another check valve (MB238892, etc.), vacuum gauge, pressure gauges and foot pressure gauge, bleed the pressure gauges, and proceed as follows:

Test 1 – Air-tightness Test with No Load

- (1) Start the engine.
- (2) Stop the engine when the vacuum gauge reaches approximately 68 kPa (500 mmHg).
After stopping the engine, wait approximately 15 seconds, and then measure the decrease in vacuum.

Standard value : 3.3 kPa (25 mmHg) or less

- (3) If the vacuum decrease exceeds the standard value, check the vacuum hoses, and the brake booster, and make any necessary corrections.

Test 2 – Air-tightness Test Under Load

- (1) Start the engine.
- (2) Depress the brake pedal at a force of approximately 200 N (44 lbs.).
Stop the engine when the vacuum gauge reaches approximately 68 kPa (500 mmHg).
- (3) After stopping the engine, wait approximately 15 seconds, and then measure the decrease in vacuum.

Standard value : 3.3 kPa (25 mmHg) or less

- (4) If the vacuum decrease exceeds the standard value, check the check valve, the vacuum hoses, and the brake booster, and make any necessary corrections.

Test 3 – Boosting Function Test

- (1) Start the engine.
- (2) Depress the brake pedal when the vacuum gauge reaches approximately 68 kPa (500 mmHg).
- (3) Check to be sure that the brake fluid pressure is the standard value when the brake pedal is depressed at a foot force of 100 N (22 lbs.) and 300 N (66 lbs.)

Standard value : .

At 100 N (22 lbs.) foot force

3.0–4.0 MPa (427–570 psi)

At 300 N (66 lbs.) foot force

6.5–8.0 MPa (925–1,138 psi)

- (4) If the output fluid pressure agrees with the standard value, the brake booster is functioning properly.

Test 4 – Non-boosting Function Test

- (1) Stop the engine.
- (2) Confirm that the vacuum gauge indicates 0 kPa (0 mmHg).
- (3) Check to be sure that the brake fluid pressure is the standard value when the brake pedal is depressed at a foot force of 100N (22 lbs.) and 300N (66 lbs.)

Standard value :

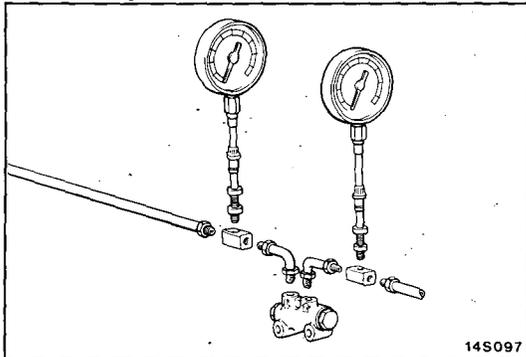
At 100 N (22 lbs.) foot force

0.2 MPa (28 psi)

At 300 N (66 lbs.) foot force

0.4 MPa (57 psi)

- (4) If the output fluid pressure agrees with the standard value the brake booster is functioning properly.

**BLEND PROPORTIONING VALVE FUNCTION TEST**

N05FKAB

1. Connect two pressure gauges, one each, to the input side and output side of blend proportioning valve. Bleed the system.
2. Gradually depress the brake pedal and check to be sure that the fluid pressure at the output side is the standard value when the fluid pressure at the input side is 6.0 MPa (853 psi) and 9.0 MPa (1,280 psi).

Standard value :

At 6.0 MPa (853 psi)

3.325–3.725 MPa

(472.9–529.8 psi)

At 9.0 MPa (1,280 psi)

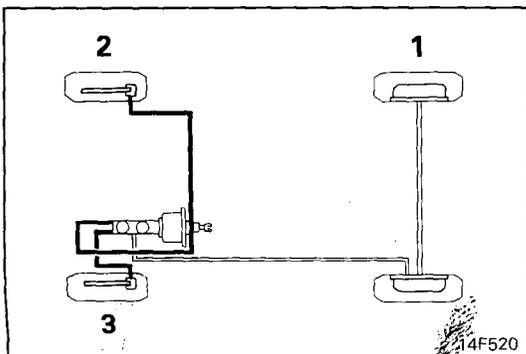
4.725–5.325 MPa

(672.0–757.4 psi)

3. If the measured pressures are not within the permissible ranges, replace the blend proportioning valve.

Caution

Do not disassemble the B.P.V. since its performance depends on preset load of the spring.

**BLEEDING**

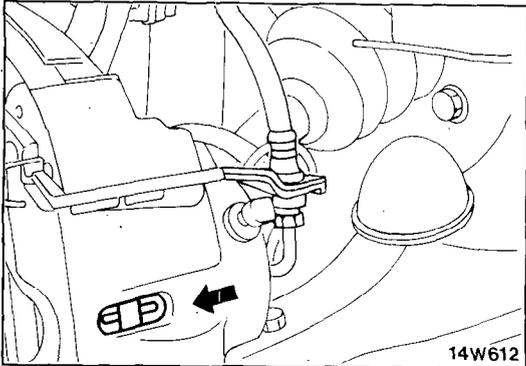
N05FYBa

The brake hydraulic system should be bled whenever the brake tube, brake hose, master cylinder or wheel cylinder has been removed or whenever the brake pedal feels spongy when depressed. Bleed the brake system in the sequence shown in the illustration.

Specified brake fluid : DOT 3

Caution

1. Use the specified brake fluid. Avoid using a mixture of the specified brake fluid and other fluid.
2. If brake fluid is exposed to the air, it will absorb moisture; as water is absorbed from the atmosphere, the boiling point of the brake fluid will decrease and the braking performance will be seriously impaired. For this reason, use a hermetically sealed 1 lit. (1.06 U.S.qt., 0.88 Imp.qt.) or 0.5 lit. (0.52 U.S.qt., 0.44 Imp.qt.) brake fluid container.
3. Firmly close the cap of the brake fluid container after use.



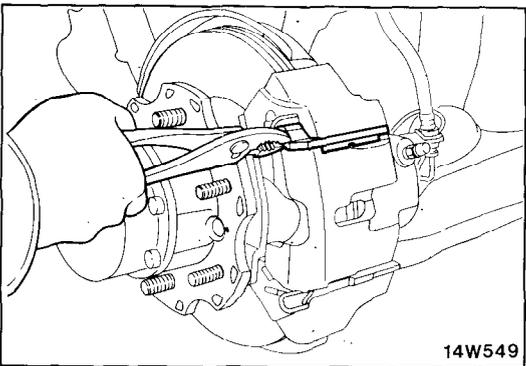
INSPECTION AND REPLACEMENT OF BRAKE PAD

N05FZAC

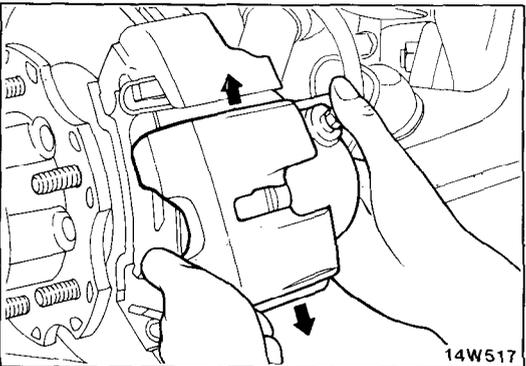
1. Check the wear condition of the brake pads through the inspection hole in the caliper body.

Limit : 1.0 mm (.039 in.)

2. If the pad assemblies are worn beyond the limit, replace them as following procedure.



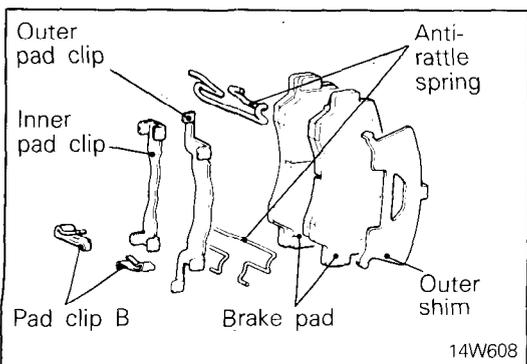
- (1) Pull out the spigot pins.
- (2) Use pliers to pull the stopper plug out to the side.



- (3) Remove the caliper assembly by moving it upward or downward at an angle.

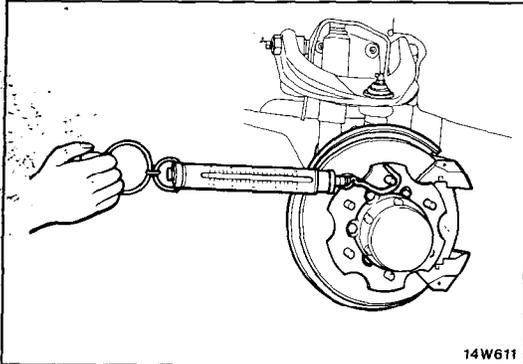
NOTE

Hold the front brake assembly by suspending it with wires or other suitable means in such a manner that the brake hose is not twisted.

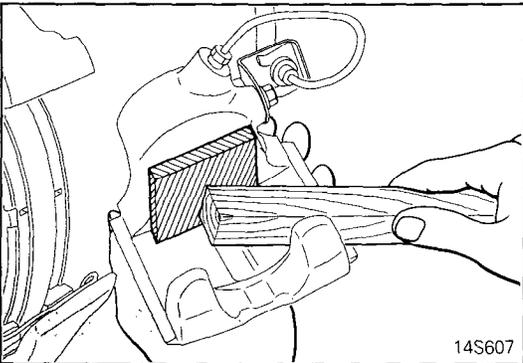


- (4) Remove the pad assemblies, outer shim, pad clips, anti-rattle springs from the mounting support.

- (5) Check the brake disc thickness. (Refer to P.5-31.)
 (6) Check the brake disc runout. (Refer to P.5-32.)



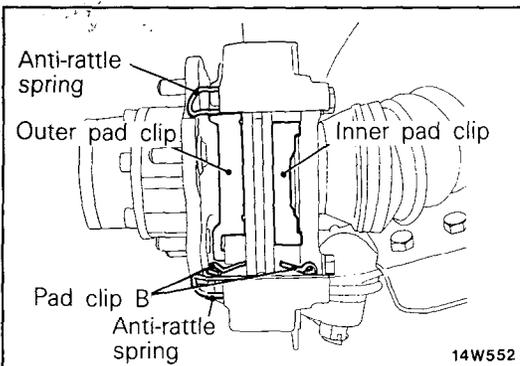
- (7) Measure the rotational force of the hub, with the pad removed so as to measure the pad dragging force after installation.



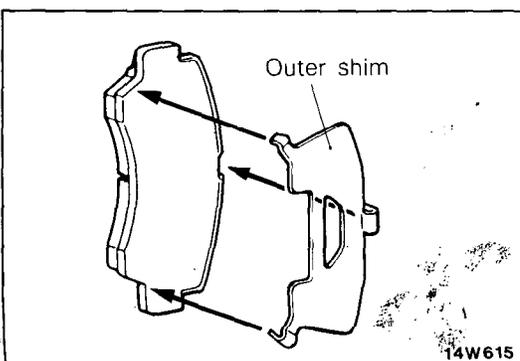
- (8) Clean the exposed part of the piston. Then, gently push the piston into the original position, taking care to push it straight.

Caution

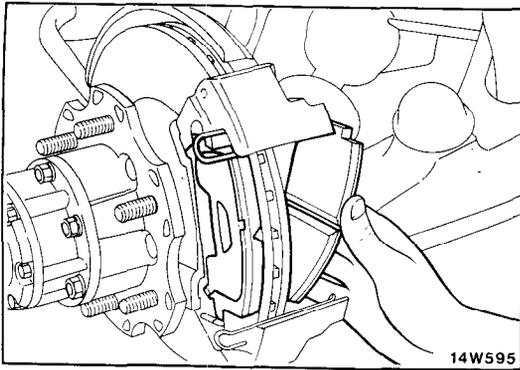
If it is hard to push the piston with the hammer handle, loosen the bleeder screw, and the piston will go in easily. After the piston has been set in this manner, be sure to bleed the system. (Refer to P.5-14.)



- (9) Install new anti-rattle springs to the mounting support.
 (10) Install new pad clips to the mounting support.



- (11) Attach the tabs of the new outer shim to the outer brake pad at three places, and install the outer shim to the brake pad.

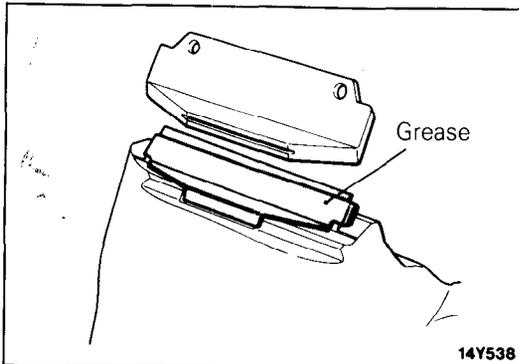


14W595

- (12) Install the new pad assemblies to the mounting support.

Caution

The pad assemblies should be replaced as sets (inner and outer) for both the left and right wheels at the same time.

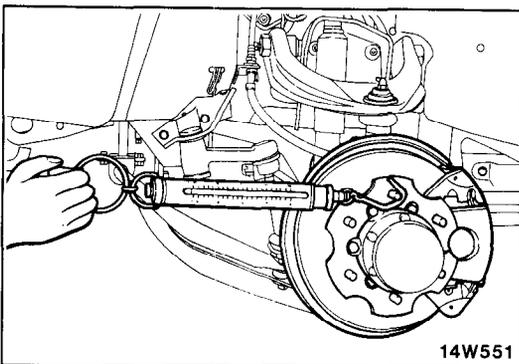


14Y538

- (13) Apply a thin coat of specified grease to the plug plate and stopper plug contact surface.

Specified grease : Brake grease SAE J310, NLGI No. 1

- (14) Install the caliper assembly.



14W551

- (15) Use the following procedure to measure the brake dragging force:

- ① Start the engine and depress the brake pedal for 5 seconds.
- ② Turn engine off.
- ③ Rotate the brake disc a few revolutions.
- ④ Use a spring scale as illustrated to measure the brake drag.
- ⑤ The difference between brake drag and rotational force (measured at the time of inspection) should not exceed the standard value.

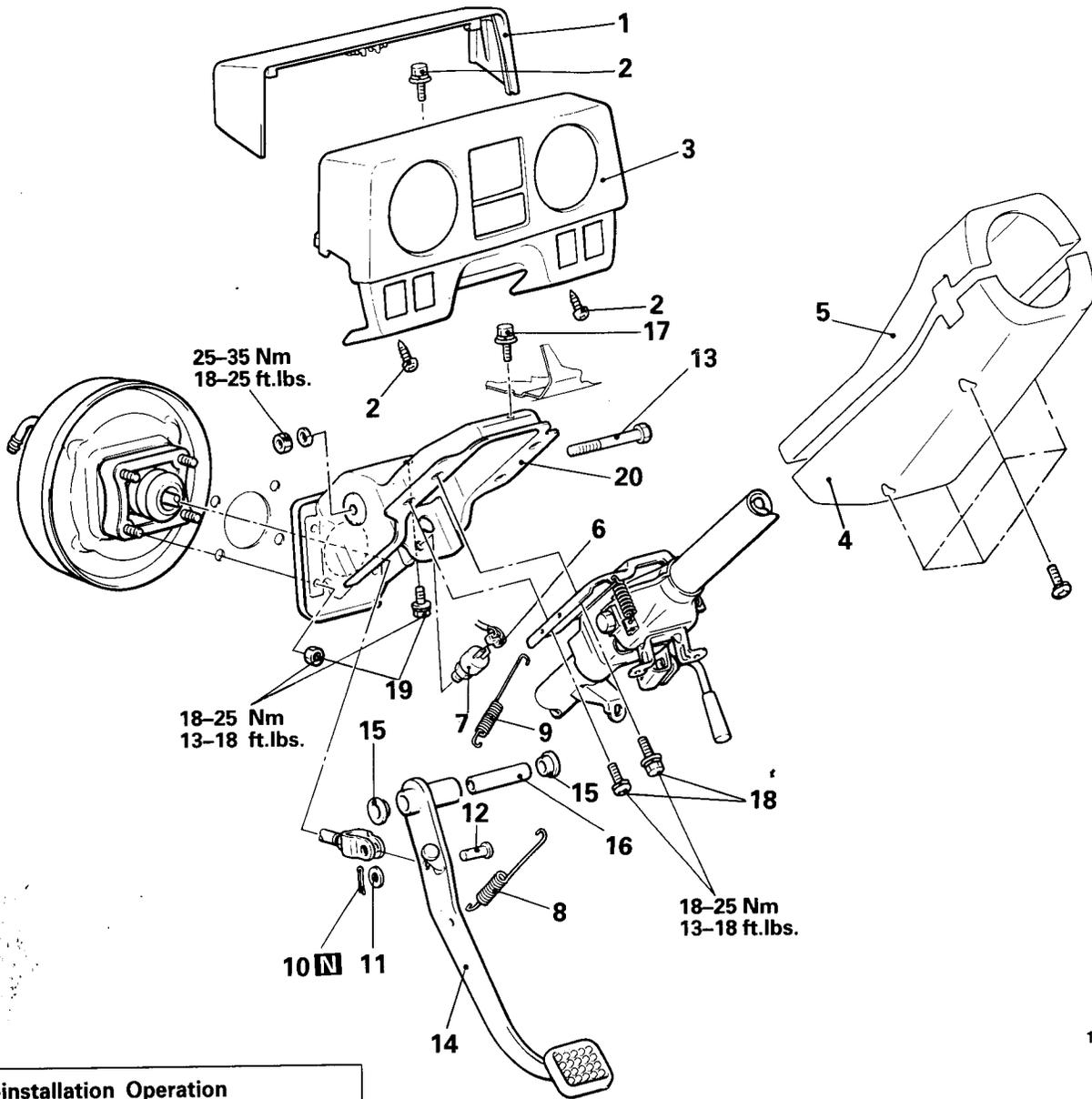
Standard value : 57 N (13.1 lbs.) or less [Dragging torque : 4 Nm (3 ft.lbs.) or less]

- ⑥ If the difference exceeds the standard value, remove the caliper body and disassemble it. Check the piston and seal for deterioration, corrosion, dirt or scoring. (Refer to P.5-29.)

BRAKE PEDAL

REMOVAL AND INSTALLATION

N05GA--



Post-installation Operation
 • Adjustment of Brake Pedal (Refer to P.5-10.)

Removal steps

- 1. Meter cover
- 2. Combination meter installation bolt and screw
- ↔ 3. Combination meter assembly
- 4. Lower column cover
- 5. Upper column cover
- 6. Stop light switch connector connection
- 7. Stop light switch
- ↔ 8. Return spring
- ↔ 9. Return spring of clutch pedal
- 10. Cotter pin
- ↔ 11. Washer
- ↔ 12. Clevis pin

- 13. Brake pedal installation bolt
- 14. Brake pedal
- ↔ 15. Bushing
- ↔ 16. Spacer
- 17. Pedal support member installation bolt (under the combination meter)
- 18. Pedal support member installation bolt (fastened together with the steering column assembly)
- 19. Pedal support member installation bolt and nut
- ↔ 20. Pedal support member

NOTE

- (1) Reverse the removal procedures to reinstall.
- (2) ↔ : Refer to "Service Points of Removal".
- (3) ↔ : Refer to "Service Points of Installation".
- (4) **N** : Non-reusable parts

14W604

SERVICE POINTS OF REMOVAL

N05GBAB

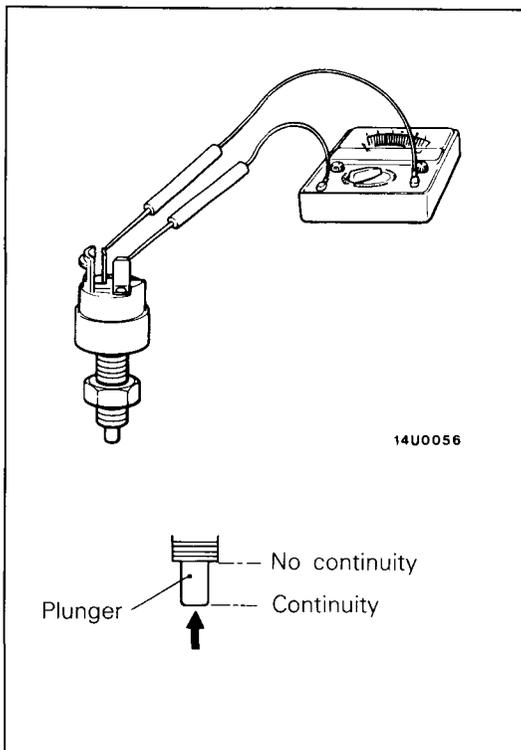
3. REMOVAL OF COMBINATION METER ASSEMBLY

Refer to GROUP 8 ELECTRICAL-Meter and Gauges.

INSPECTION

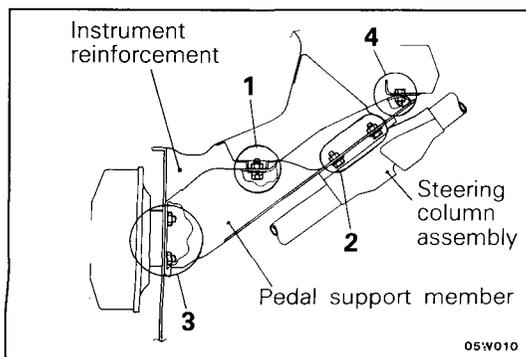
N05GCAD

- Check the bushing for wear.
- Check the brake pedal for bend or twisting.
- Check the brake pedal return spring for damage.

**CHECKING STOP LIGHT SWITCH**

Connect an ohmmeter to the connector of the stop light switch, and then check for continuity when the plunger of the stop light switch is pressed in and when it is released outward.

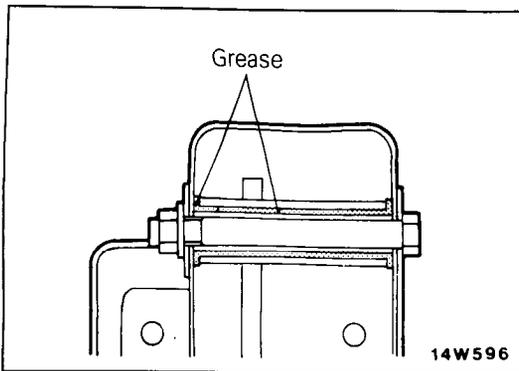
The stop light switch is in good condition if there is no continuity when the plunger is pressed in, and if there is continuity when the plunger is released outward.

**SERVICE POINTS OF INSTALLATION**

N05GDAG

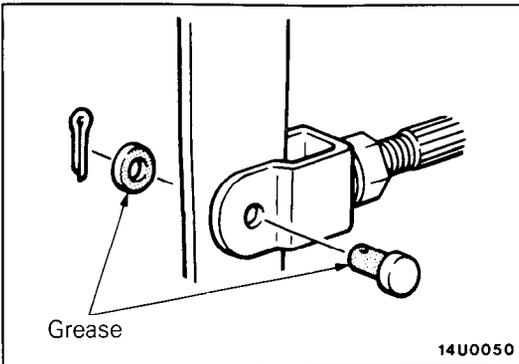
20. INSTALLATION OF PEDAL SUPPORT MEMBER

After temporarily fastening the installation bolts and nuts of the pedal support member, tighten them in the sequence shown by the numbers in the figure.

**16. APPLICATION OF GREASE TO SPACER/15. BUSHING**

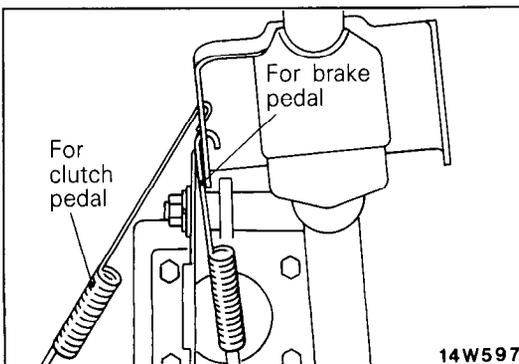
Apply the specified grease to the outer surface of the spacer and the inner surface of the bushing.

Specified grease : Chassis grease SAE J310, NLGI No. 0

**12. APPLICATION OF GREASE TO CLEVIS PIN/11. WASHER**

After applying the specified grease to the clevis pin and washer, insert a clevis pin and bend the cotter pin tightly.

Specified grease : Wheel bearing grease SAE J310, NLGI No. 2

**9. INSTALLATION OF RETURN SPRING OF CLUTCH PEDAL/8. RETURN SPRING**

Install the return spring to the position as shown in the figure.

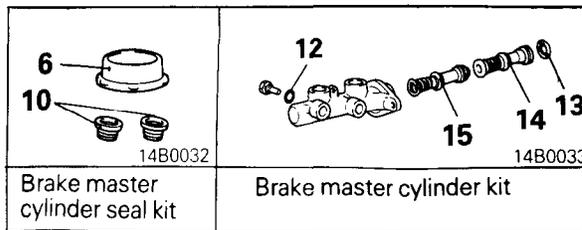
MASTER CYLINDER REMOVAL AND INSTALLATION

Pre-removal Operation

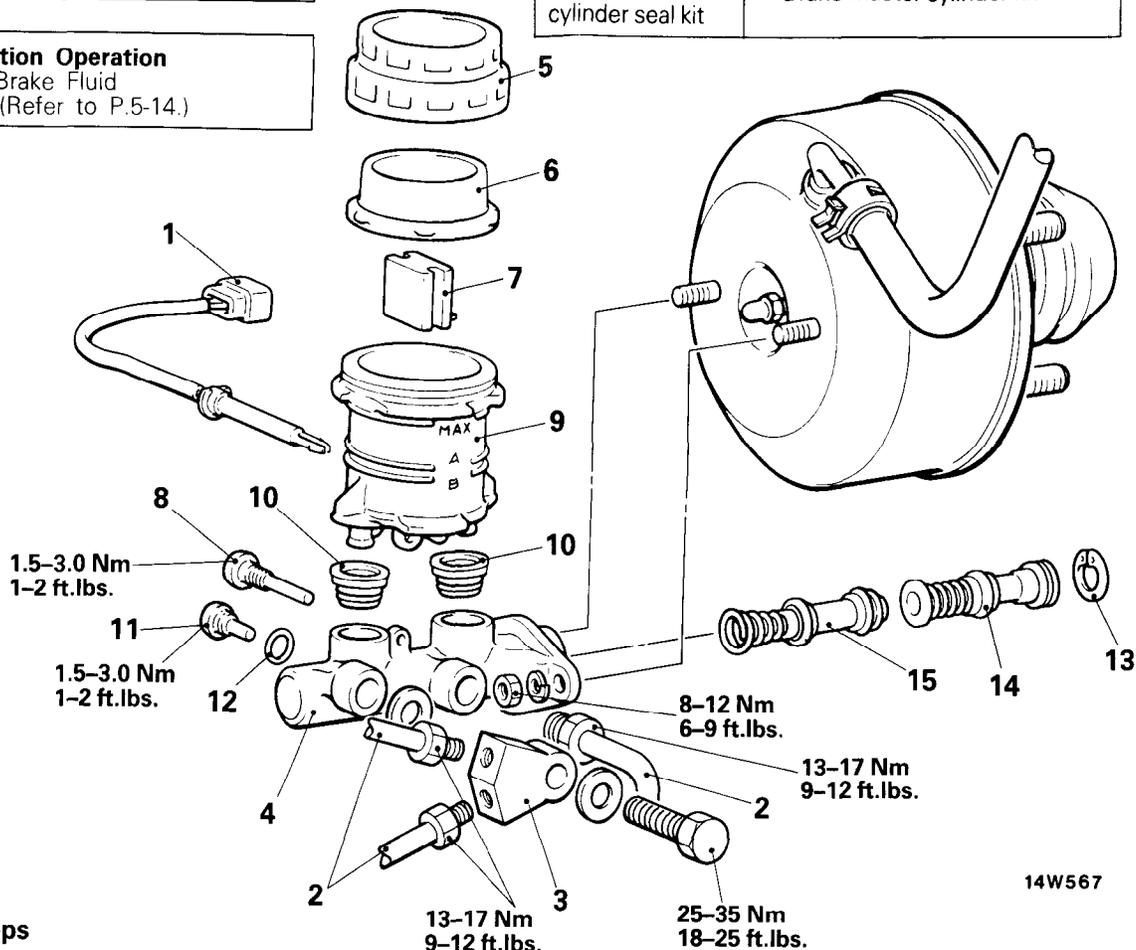
- Draining Brake Fluid

Post-installation Operation

- Draining Brake Fluid
- Bleeding (Refer to P.5-14.)



N051A--



Removal steps

- | | | |
|---|------|---|
| 1. Connection of brake fluid level sensor connector | ↔ | 11. Piston stopper bolt |
| 2. Connection of brake tube | | 12. Gasket |
| 3. Connector | ↔↔ | Adjustment of clearance between brake booster push rod and primary piston |
| 4. Master cylinder | ↔↔ | 13. Piston stopper ring |
| 5. Reservoir cap | ↔↔↔↔ | 14. Primary piston assembly |
| 6. Diaphragm | ↔↔↔↔ | 15. Secondary piston assembly |
| 7. Oil reservoir float | | |
| 8. Reservoir installation screw | | |
| 9. Reservoir | | |
| 10. Reservoir seal | | |

NOTE

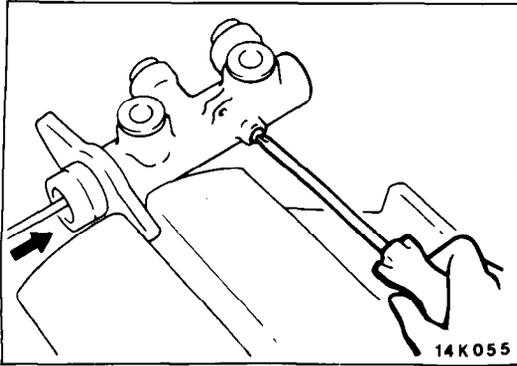
- (1) Reverse the removal procedures to reinstall.
- (2) ↔ : Refer to "Service Points of Removal".
- (3) ↔↔ : Refer to "Service Points of Installation".

SERVICE POINTS OF REMOVAL

N051BAD

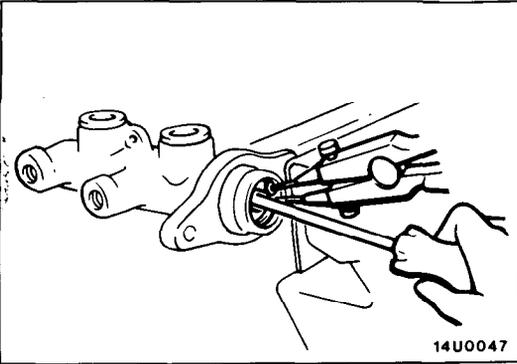
9. REMOVAL OF RESERVOIR

When removing the reservoir, pull it out straight upward.



11. REMOVAL OF PISTON STOPPER BOLT

Remove the piston stopper bolt while depressing the piston.



13. REMOVAL OF PISTON STOPPER RING

Remove the piston stopper ring while depressing the piston.

14. REMOVAL OF PRIMARY PISTON ASSEMBLY

Caution

Do not disassemble the primary piston assembly.

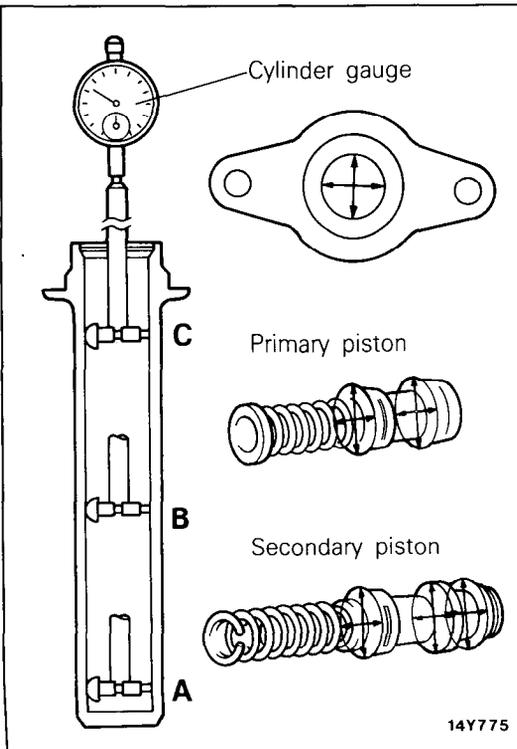
15. REMOVAL OF SECONDARY PISTON ASSEMBLY

NOTE

If the secondary piston is difficult to remove, apply compressed air gradually from the secondary side outlet port of the master cylinder, and then remove the secondary piston from the cylinder.

Caution

Do not disassemble the secondary piston assembly.



INSPECTION

N05ICAA

- Check the inner surface of master cylinder body for rust or scars.
- Check the primary and secondary pistons for rust, scouring, wear, damage or deterioration.
- Check the diaphragm for cracks or deterioration.

CLEARANCE BETWEEN MASTER CYLINDER INNER DIAMETER AND PISTON OUTER DIAMETER

N05ICBC

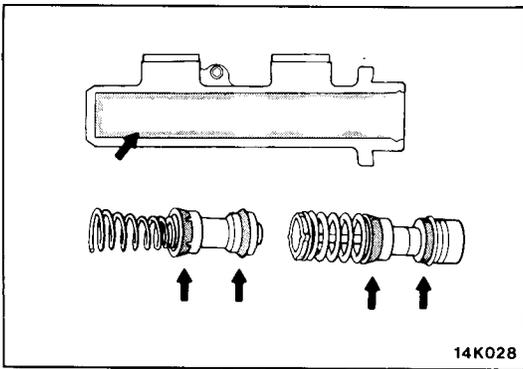
- (1) Measure approximately three positions of the master cylinder inner diameter [bottom (A), middle (B) and top (C)] by using a cylinder gauge.
- (2) Measure O.D. of pistons at illustrated location using a micrometer.

NOTE

Measure the inner diameter of master cylinder at the two places described above and at D and E shown in the illustration.

- (3) If the difference between these inner diameters and the piston outer diameter exceeds the limit, replace the master cylinder and the piston assembly as set.

Limit : 0.15 mm (.0059 in.)



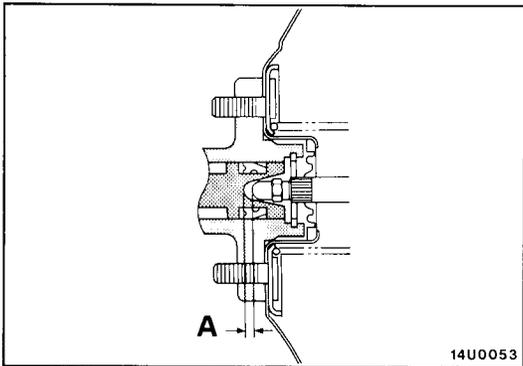
SERVICE POINTS OF INSTALLATION

N05IDAH

15. APPLICATION OF BRAKE FLUID TO SECONDARY PISTON ASSEMBLY/14. PRIMARY PISTON ASSEMBLY

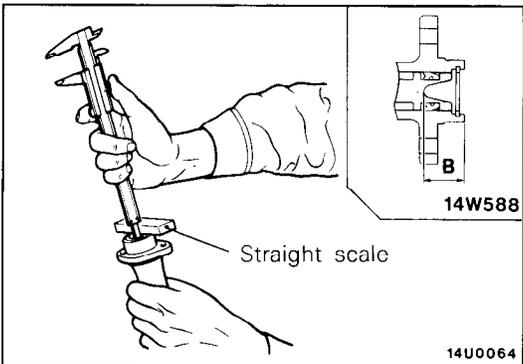
Apply the specified brake fluid sufficiently to the inner surface of the master cylinder body and to the entire periphery of the secondary and primary pistons.

Specified brake fluid : DOT 3



● **ADJUSTMENT OF CLEARANCE BETWEEN BRAKE BOOSTER PUSH ROD AND PRIMARY PISTON**

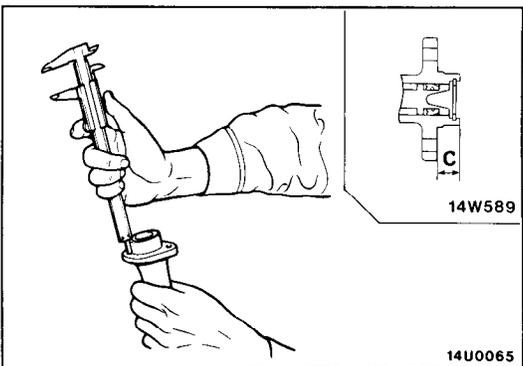
Check and adjust the clearance (A) between the brake booster push rod and the primary piston by following the steps below.



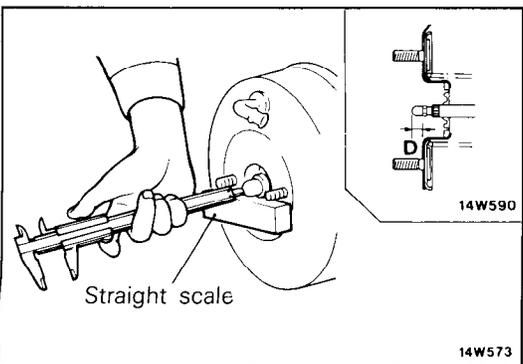
- (1) Measure the dimension (B) from the edge of the master cylinder to the piston.

NOTE

Obtain the dimension (B) by first placing a straight scale against the edge of the master cylinder, and then measuring and subtracting the thickness of the straight scale.



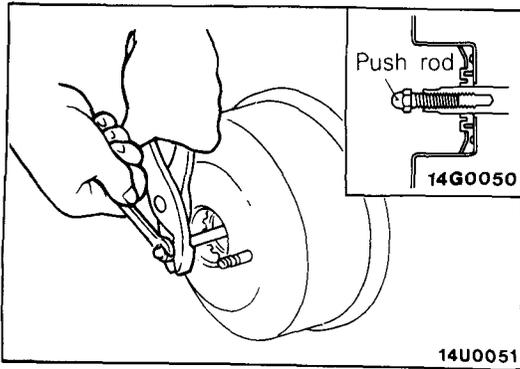
- (2) Obtain the dimension (C) from the master cylinder's brake booster installation surface to the edge.



- (3) Measure the dimension (D) from the brake booster's master cylinder installation surface to the end of the push rod.

NOTE

Obtain the dimension (D) by first placing a straight scale against the edge of the brake booster, and then measuring and subtracting the thickness of the straight scale.



- (4) Obtain the clearance (A) between the brake booster push rod and the primary piston from the values obtained in (1), (2) and (3) previously.

Standard value : 0.1–0.5 mm (.004–.020 in.)

- (5) If the clearance is not within the standard value range, adjust by changing the push rod length by turning the screw of the push rod.

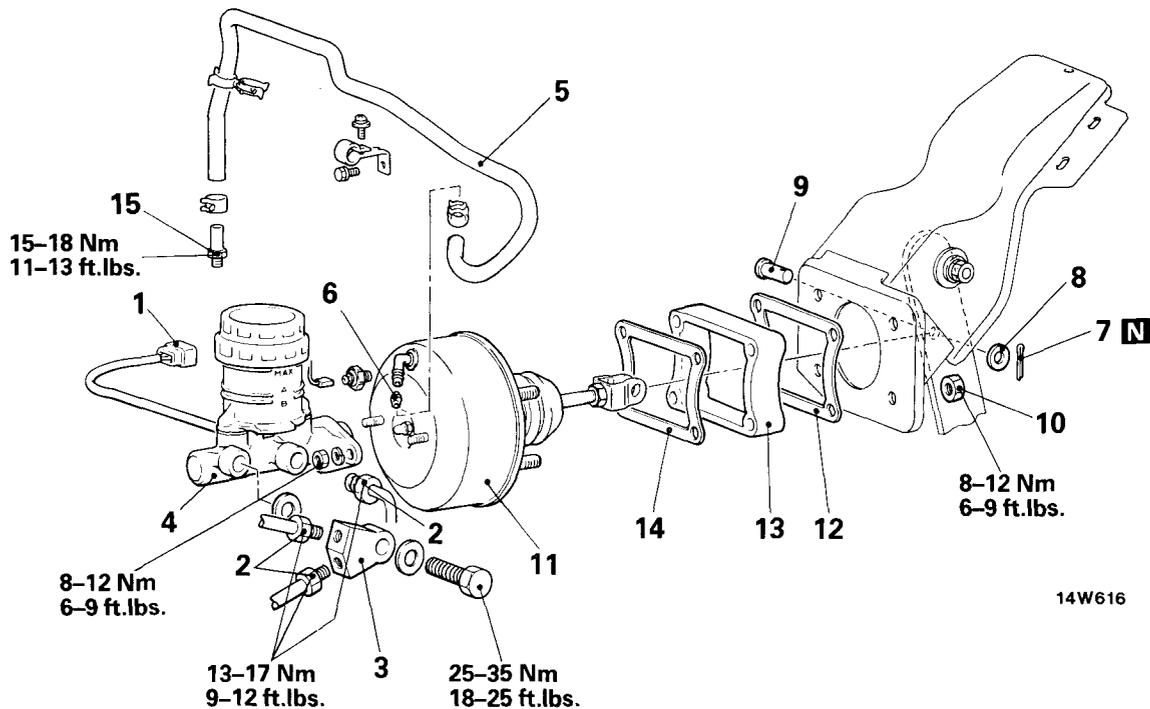
Caution

Improper clearance may cause excessive brake drag.

BRAKE BOOSTER

REMOVAL AND INSTALLATION

N05JA--



14W616

Removal steps

1. Connection of brake fluid level sensor connector
2. Connection of brake tube
3. Connector
4. Master cylinder assembly
- ◆◆ Adjustment of clearance between brake booster push rod and primary piston
- ◆◆◆◆ 5. Vacuum hose
6. Check valve
7. Cotter pin
- ◆◆ 8. Washer
- ◆◆ 9. Clevis pin
10. Brake booster installation nuts
11. Brake booster
12. Sealer
13. Spacer
14. Sealer
- ◆◆ 15. Fitting

Pre-removal Operation

- Draining of Brake Fluid

Post-installation Operation

- Supplying Brake Fluid
- Bleeding (Refer to P.5-14.)
- Adjustment of Brake Pedal (Refer to P.5-10.)

NOTE

- (1) Reverse the removal procedures to reinstall.
- (2) ◆◆ : Refer to "Service Points of Removal".
- (3) ◆◆◆◆ : Refer to "Service Points of Installation".
- (4) □ : Non-reusable parts

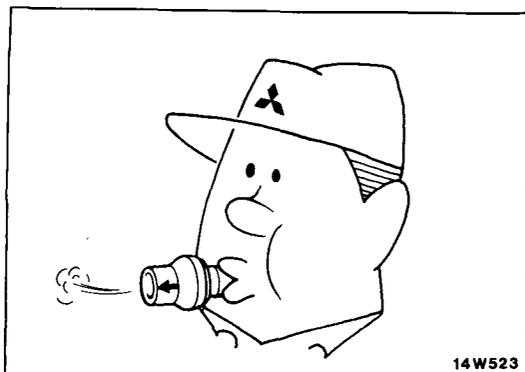
SERVICE POINTS OF REMOVAL

N05JBAD

5 . REMOVAL OF VACUUM HOSE

Caution

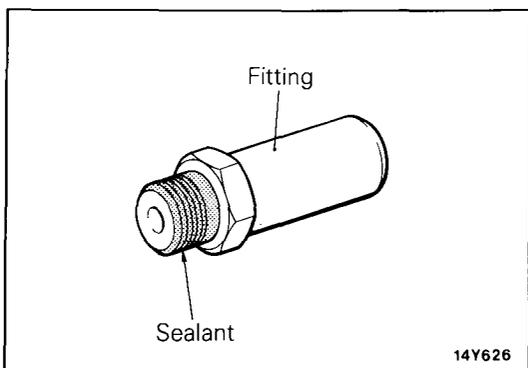
1. When removing the vacuum hose from the brake booster, pull it out straight.
2. The check valve installed on the brake booster will be damaged if the vacuum hose is forced up and down or to the left and right.

**INSPECTION**

N05JCAB

CHECKING CHECK VALVE

Blow into the check valve. If the air passes through when you blow from the booster side, but not when you blow from the engine side, the check valve is functioning properly.

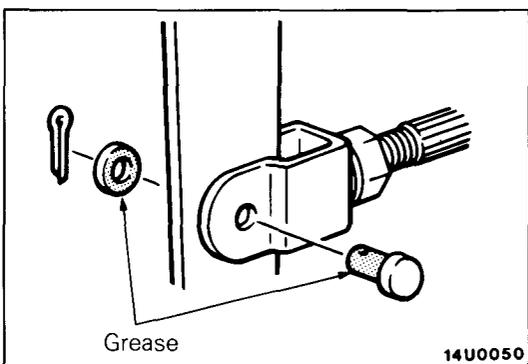
**SERVICE POINTS OF INSTALLATION**

N05JDAG

15. INSTALLATION OF FITTING

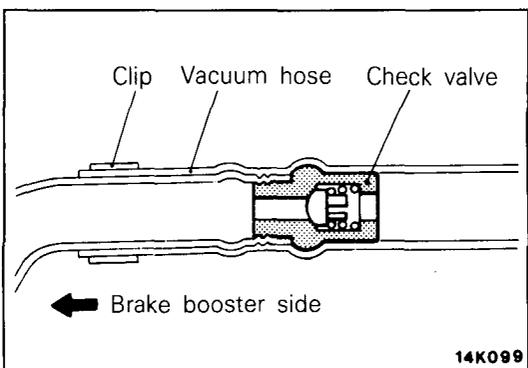
When installing the fitting, apply the specified sealant to its threaded portion.

Specified sealant : 3M ART Part No. 8663, 8661 or equivalent

**9. APPLICATION OF GREASE TO CLEVIS PIN/8. WASHER**

After applying the specified grease to the clevis pin and washer, insert a clevis pin and bend the split pin tightly.

Specified grease : Wheel bearing grease SAE J310, NLGI No. 2

**5. INSTALLATION OF VACUUM HOSE**

Fasten the vacuum hose securely to prevent air leaks from the connections.

NOTE

When the hose clip on the brake booster side is installed, fix it on the brake booster pipe and do not bring it into contact with the check valve.

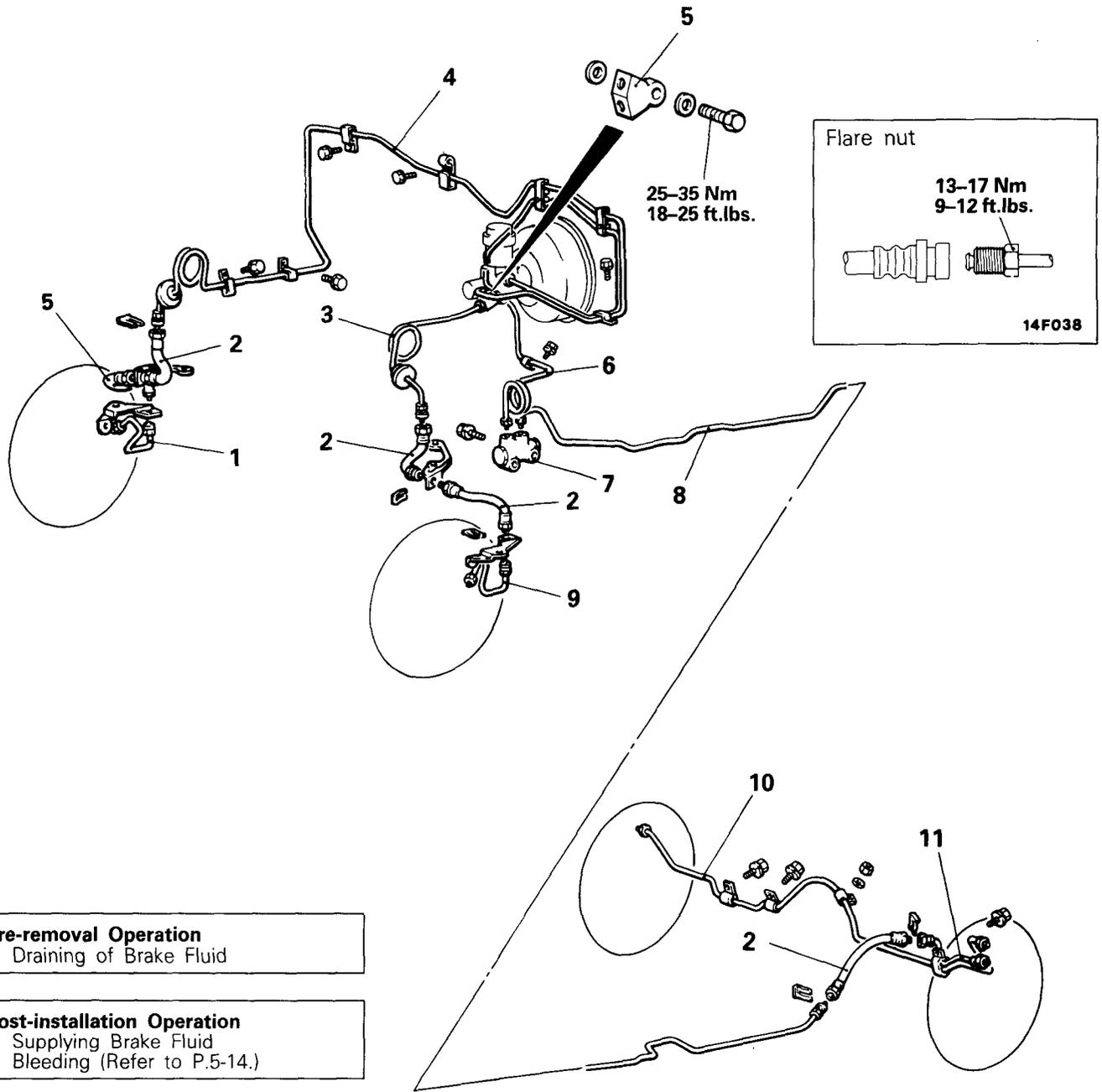
- **ADJUSTMENT OF CLEARANCE BETWEEN BRAKE BOOSTER PUSH ROD AND PRIMARY PISTON**

Refer to P.5-23.

BRAKE LINE

REMOVAL AND INSTALLATION

N05KA-



Pre-removal Operation
 ● Draining of Brake Fluid

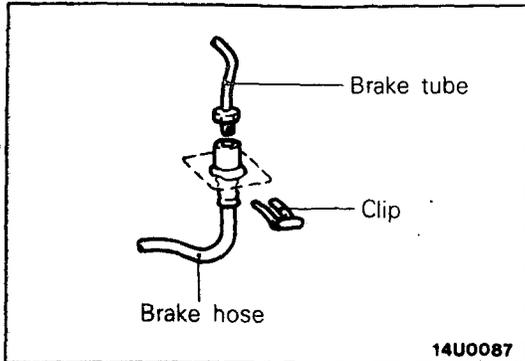
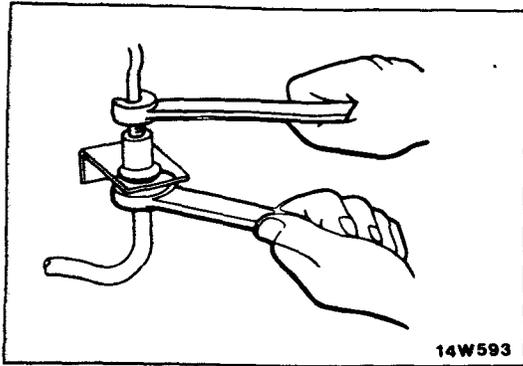
Post-installation Operation
 ● Supplying Brake Fluid
 ● Bleeding (Refer to P.5-14.)

Removal steps

- 1. Brake tube (R.H.)
- ◄◄ 2. Brake hoses
- 3. Brake tube (front, L.H.)
- 4. Brake tube (front, R.H.)
- 5. Connector
- 6. Brake tube (A)
- ◄◄ 7. Blend proportioning valve
- 8. Brake tube (main)
- 9. Brake tube (L.H.)
- 10. Brake tube (rear, R.H.)
- 11. Brake tube (rear, L.H.)

NOTE
 (1) ◄◄ : Refer to "Service Points of Removal".
 (2) ◄◄ : Refer to "Service Points of Installation".

14W578



SERVICE POINTS OF REMOVAL

N05KBAD

2. REMOVAL OF BRAKE HOSE

- (1) Holding the nut at the brake hose side, loosen the flare nut of the brake tube.

- (2) Pull off the brake hose clip and remove the brake hose from the bracket.

7. REMOVAL OF BLEND PROPORTIONING VALVE

Caution

Do not disassemble the B.P.V. since its performance depends on preset load of the spring.

INSPECTION

N05KCAB

- Check the brake tubes for cracks, crimps and corrosion.
- Check the brake hoses for cracks, damage and leakage.
- Check the brake tube flare nuts for damage and leakage.

SERVICE POINTS OF INSTALLATION

N05KDAB

2. INSTALLATION OF BRAKE HOSE

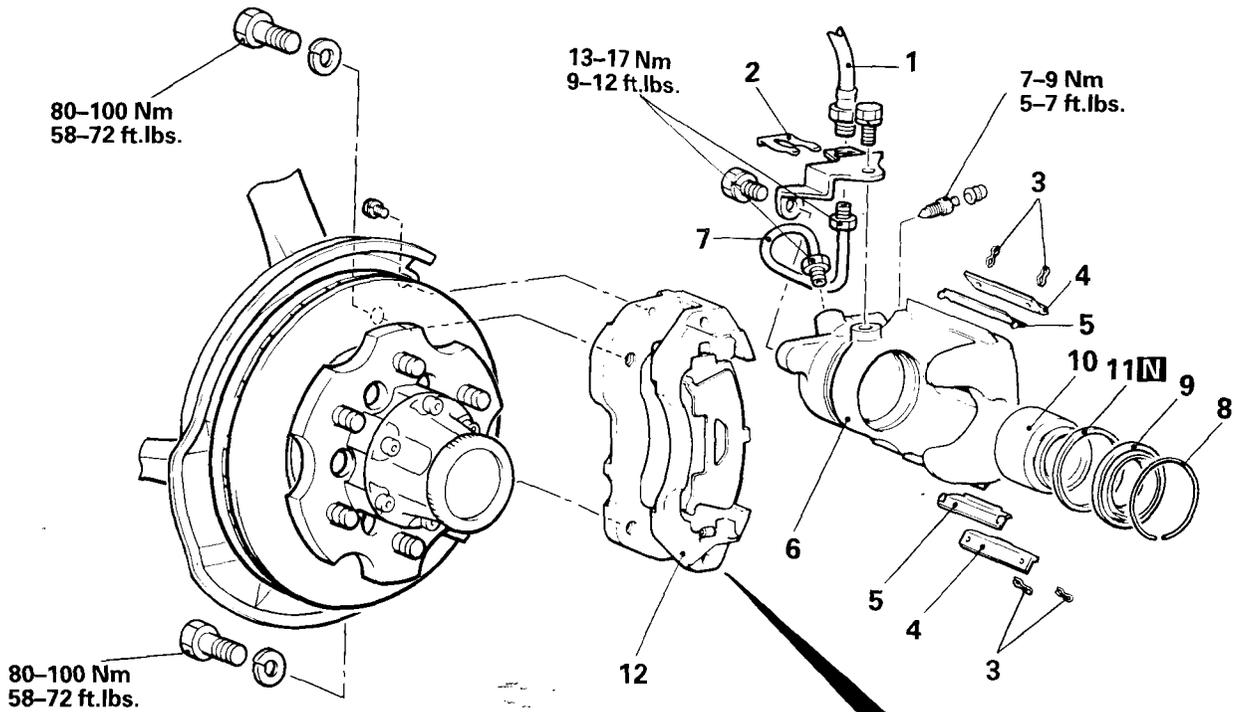
Install the brake hoses without twisting them.

NOTE

When installing, check to be sure the brake hose does not contact edges, weld beads or moving parts.

FRONT DISC BRAKE CALIPER REMOVAL AND INSTALLATION

N05LA-



Pre-removal Operation
 ● Draining of Brake Fluid

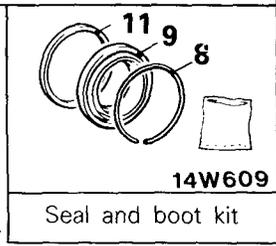
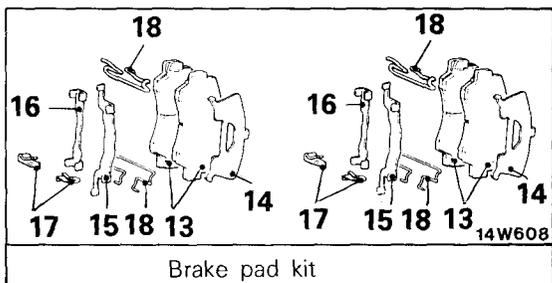
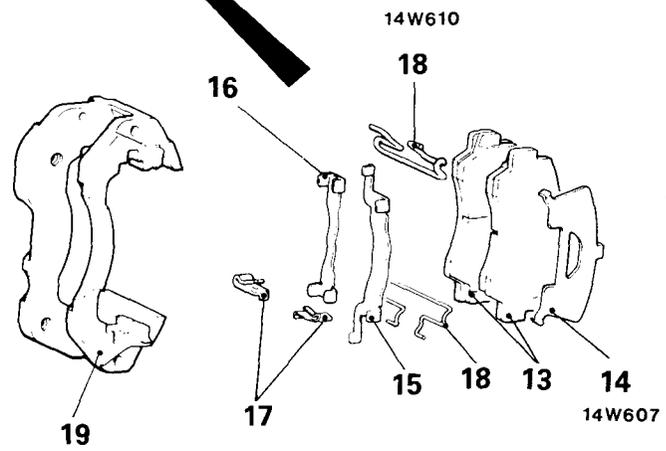
Post-installation Operation
 ● Supplying brake fluid
 ● Bleeding (Refer to P.5-14.)

Disc brake caliper removal steps

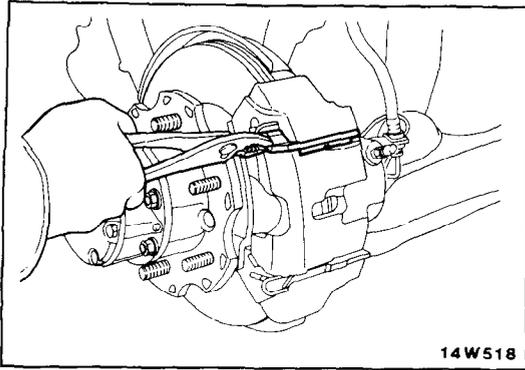
- ↔ ↔ 1. Connection of brake hose
- ↔ 2. Clip
- ↔ 3. Spigot pin
- ↔ ↔ 4. Stopper plug
- ↔ ↔ 5. Plug plate
- ↔ 6. Caliper assembly
- ↔ 7. Brake tube
- ↔ 8. Boot ring
- ↔ ↔ 9. Piston boot
- ↔ ↔ 10. Piston
- ↔ ↔ 11. Piston seal
- ↔ 12. Mounting support and brake pad assembly

Brake pad removal steps

- ↔ 3. Spigot pin
- ↔ ↔ 4. Stopper plug
- ↔ ↔ 5. Plug plate
- ↔ ↔ 13. Pad assembly
- ↔ 14. Outer shim
- ↔ 15. Outer pad clip
- ↔ 16. Inner pad clip
- ↔ 17. Pad clip B
- ↔ 18. Anti-rattle spring
- ↔ 19. Mounting support



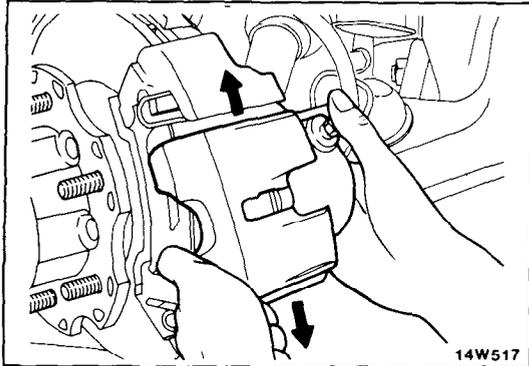
NOTE
 (1) Reverse the removal procedures to reinstall.
 (2) ↔ : Refer to "Service Points of Removal".
 (3) ↔ : Refer to "Service Points of Installation".
 (4) N : Non-reusable part

**SERVICE POINTS OF REMOVAL****1. DISCONNECTION OF BRAKE HOSE**

Refer to P.5-28.

4. REMOVAL OF STOPPER PLUG

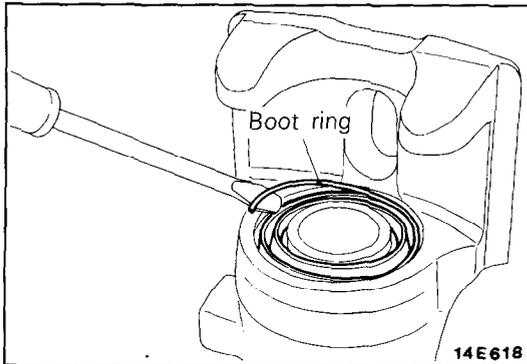
Pull the stopper plug out to the side by using pliers.

**6. REMOVAL OF CALIPER ASSEMBLY**

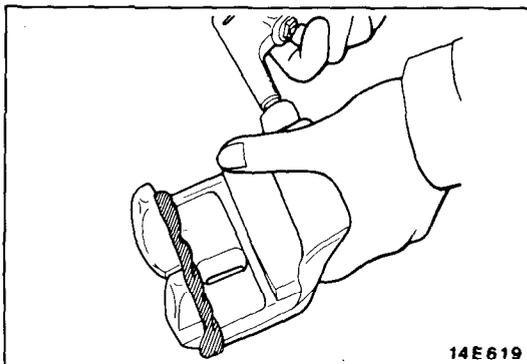
Remove the caliper assembly by moving it upward or downward at an angle.

NOTE

Hold the front brake assembly by suspending it with wires or other suitable means in such a manner that the brake hose is not twisted.

**8. REMOVAL OF BOOT RING**

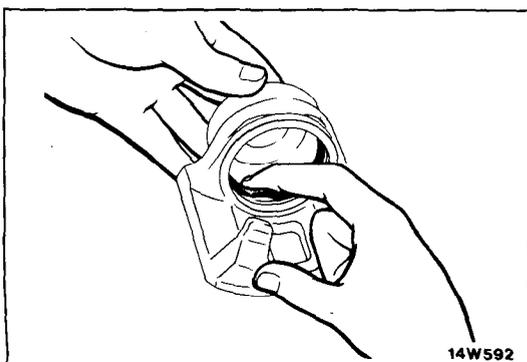
Remove the boot ring by using a screwdriver.

**9. REMOVAL OF PISTON BOOT/10. PISTON**

Remove the piston and piston boot by applying compressed air through the brake hose fitting hole.

Caution

Place a piece of cloth in front of the piston, and slowly increase the force of the compressed air to prevent the piston from springing out abruptly.

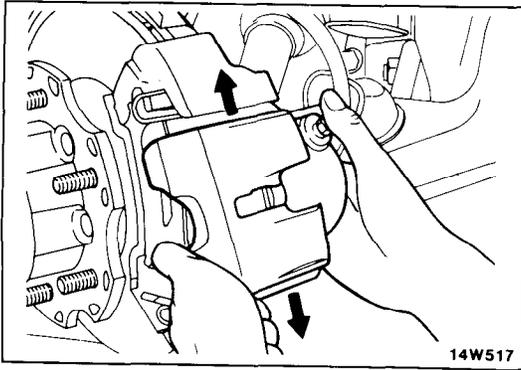
**11. REMOVAL OF PISTON SEAL**

(1) Remove the piston seal from the cylinder by hand.

Caution

Never use a screwdriver or similar tools, because doing so could damage the cylinder surface.

(2) Clean the caliper bore with trichloroethylene, alcohol or brake fluid.

**13. REMOVAL OF PAD ASSEMBLY**

- (1) Remove the caliper assembly by moving it upward or downward at an angle.

NOTE

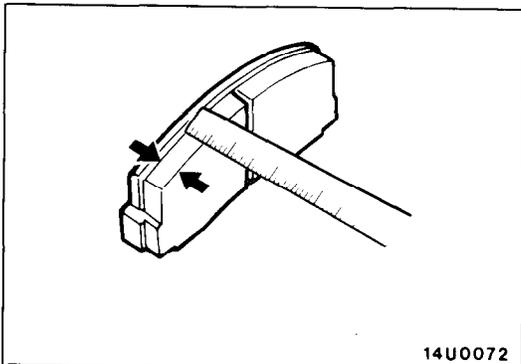
Hold the front brake assembly by suspending it with wires or other suitable means in such a manner that the brake hose is not twisted.

- (2) Remove the brake pad assembly.

INSPECTION

N05LCAB

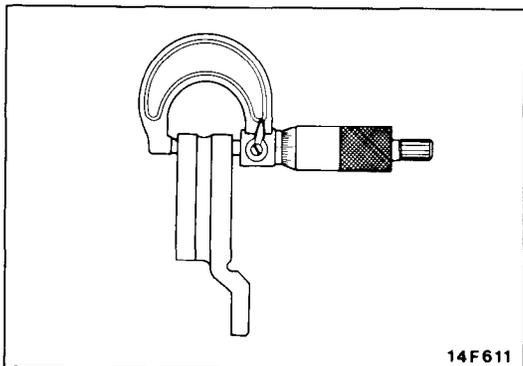
- Check the piston for rust.
- Check the cylinder portion of caliper body for cracks or rust.
- Check the piston seal for wear and deterioration.
- Check the piston boot for cracks and deterioration.
- Check the mounting support for cracks.
- Check pads for deformation, metal backing for damage, and oil on the linings.

**CHECKING BRAKE PAD THICKNESS**

Measure the thickness of the pad assembly at the place where wear is the greatest.

Limit : 1.0 mm (.039 in.)

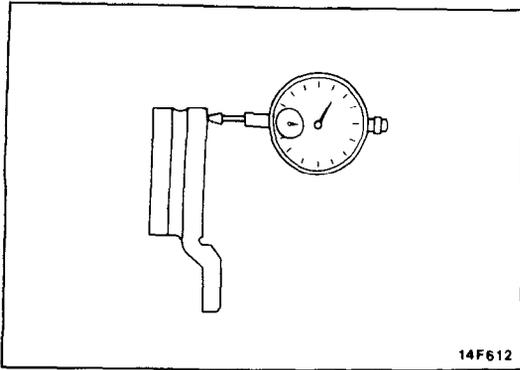
If the pad assemblies are worn beyond the limit, replace them.

**CHECKING BRAKE DISC THICKNESS**

- (1) Clean the brake disc surface to remove dirt and rust.
- (2) Measure the thickness of the brake disc at least four places on the sliding surface of the brake disc and the pad.

Limit : 18.4 mm (.724 in.)

If the thickness of the brake disc is less than the limit (even at only one location) or there is wear, replace the brake disc. (for removal of the brake disc, refer to GROUP 2 FRONT SUSPENSION-Axle Hub and Free-Wheeling Hub.)

**CHECKING BRAKE DISC RUNOUT**

Measure the runout of the brake disc at the edge of the brake disc circumference.

Limit : 0.15 mm (.0059 in.)

If the brake disc runout exceeds the limit, change its position on the hub and/or retorque evenly.

Check the runout again, and if it cannot be corrected, replace the brake disc. Do not resurface it. (for removal of the brake disc, refer to GROUP 2 FRONT SUSPENSION-Axle Hub and Free-Wheeling Hub.)

NOTE

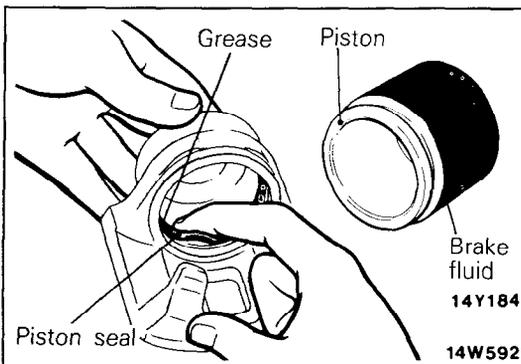
Before measuring the runout of the brake disc, check the play of the wheel bearing and, if necessary, correct it:

SERVICE POINTS OF INSTALLATION

N05LDCB

13. INSTALLATION OF PAD ASSEMBLY

Refer to P.5-15.

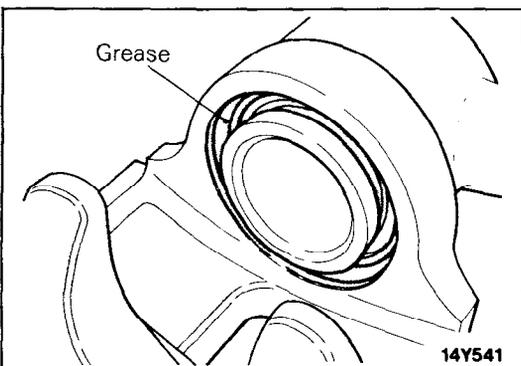
**11. INSTALLATION OF PISTON SEAL**

The piston seal is already packed and coated with the specified grease; do not wipe it away.

10. APPLICATION OF BRAKE FLUID TO PISTON

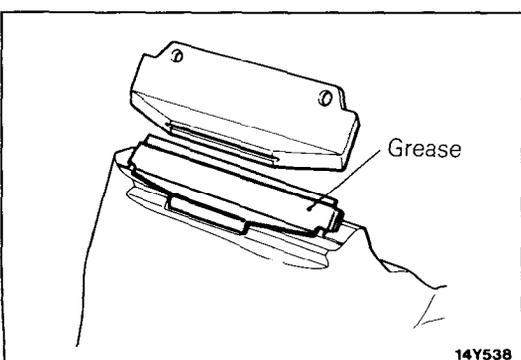
Apply brake fluid to the outside surface of the piston and slowly insert the piston by hand, while using care not to twist it.

Specified brake fluid : DOT 3

**9. APPLICATION OF GREASE TO PISTON BOOT**

Apply the specified grease to the piston boot mounting groove in the caliper body.

Specified grease : Repair kit grease (orange)

**5. APPLICATION OF GREASE TO PLUG PLATE/4. STOPPER PLUG**

Apply a thin coat of the specified grease to the plug plate and stopper plug contact surface.

Specified grease : Brake grease SAE J310, NLGI No. 1

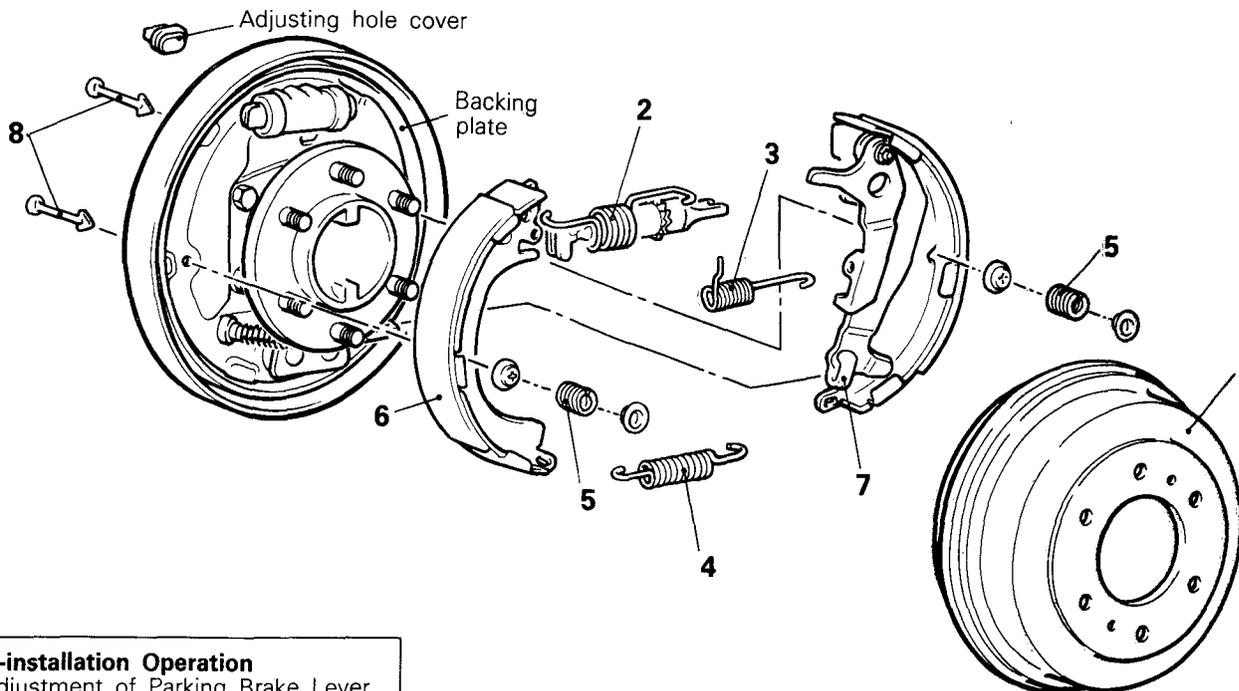
1. CONNECTION OF BRAKE HOSE

Refer to P.5-28.

REAR BRAKE SHOE

REMOVAL AND INSTALLATION

N05UA-



Post-installation Operation

- Adjustment of Parking Brake Lever Stroke (Refer to P.5-11.)

14W599

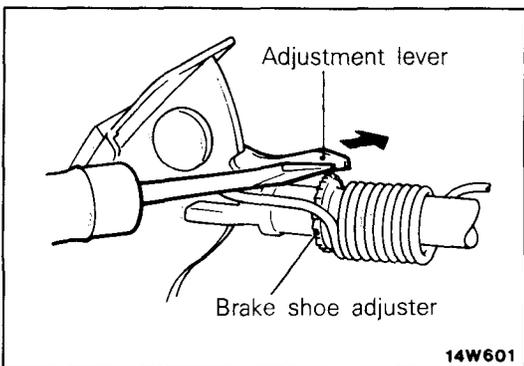
Removal steps

- ◄► 1. Brake drum
- ◆◆ 2. Shoe return spring with brake shoe adjuster
- 3. Adjusting spring
- 4. Shoe retainer spring
- 5. Shoe hold-down spring

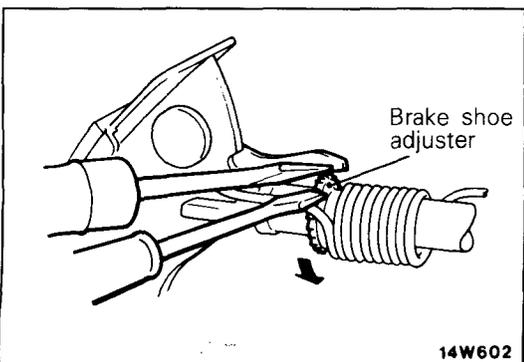
- ◆◆ 6. Shoe and lining assembly
- ◆◆ 7. Shoe and lever assembly
- ◆◆ 8. Shoe hold-down pin

NOTE

- (1) Reverse the removal procedures to reinstall.
- (2) ◄► : Refer to "Service Points of Removal".
- (3) ◆◆ : Refer to "Service Points of Installation".



14W601



14W602

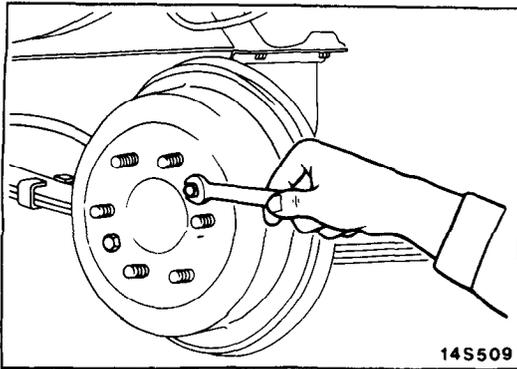
SERVICE POINTS OF REMOVAL

N05UBAB

1. REMOVAL OF BRAKE DRUM

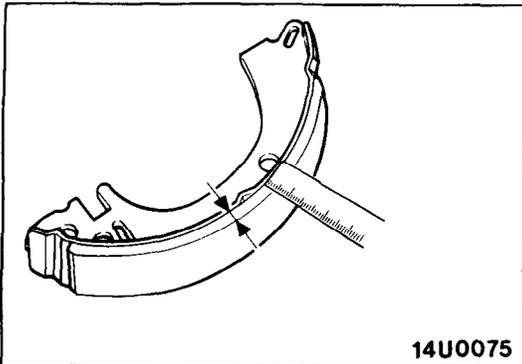
If the brake drum is difficult to remove, follow either of the steps described below.

- (1) When using the brake shoe adjuster.
 - ① Remove the adjusting hole cover at the rear side of the backing plate.
 - ② Insert a screwdriver into the adjustment hole and use it to separate the adjustment lever from the brake shoe adjuster.
 - ③ Insert another screwdriver into the adjustment hole and use it to turn the brake shoe adjuster in the direction of the arrow so as to compress the brake shoe.



14S509

- (2) When using the bolts.
Screw the bolts (M8 × 1.25) in the threaded holes provided in the drum flange surface.



14U0075

INSPECTION

N05UCAD

CHECKING BRAKE LINING THICKNESS

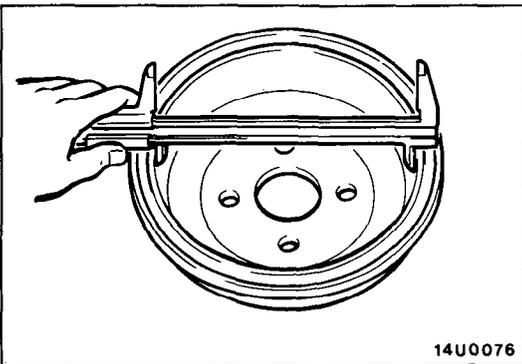
- (1) Measure the wear of the brake lining at the place worn the most.

Limit : 1.0 mm (.039 in.)

- (2) If the thickness of the brake lining is the limit value or below, or if there is noticeable abnormal wear, replace the shoe assembly.

NOTE

In order to prevent one-sided braking, replace both the left and right shoe assemblies as a set.



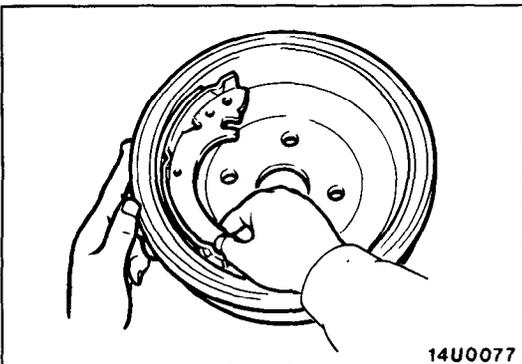
14U0076

CHECKING BRAKE DRUM INSIDE DIAMETER

- (1) Measure the inside diameter of the drum at more than two positions by using a caliper gage.

Limit : 256.0 mm (10.079 in.)

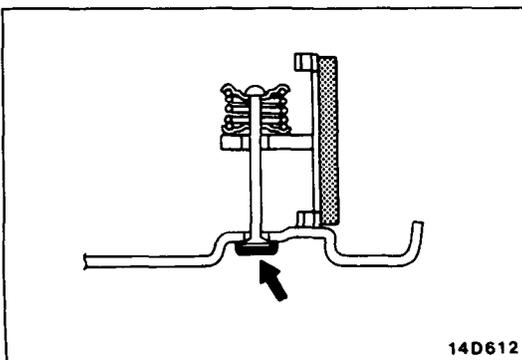
- (2) If the internal diameter of the brake drum is the limit value or more, or if there is noticeable abnormal wear, replace the brake drum.



14U0077

CHECKING BRAKE LINING AND BRAKE DRUM CONTACT

- (1) Apply chalk powder to the inner surface of the brake drum and turn the brake drum so that it rubs against the shoe assembly.
- (2) If places of noticeably poor contact are discovered, replace the shoe assembly and/or brake drum.



14D612

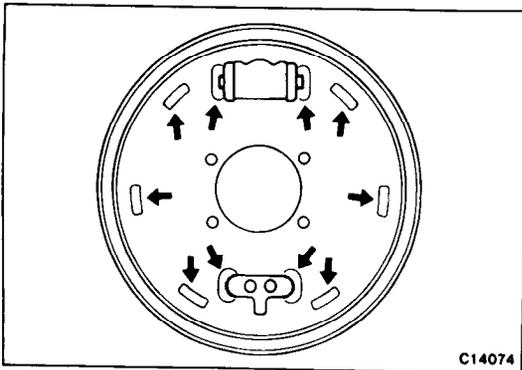
SERVICE POINTS OF INSTALLATION

N05UDAH

8. APPLICATION OF GREASE TO SHOE HOLD-DOWN PIN

Apply the specified sealant to the shoe hold-down pin inserting portion of the backing plate.

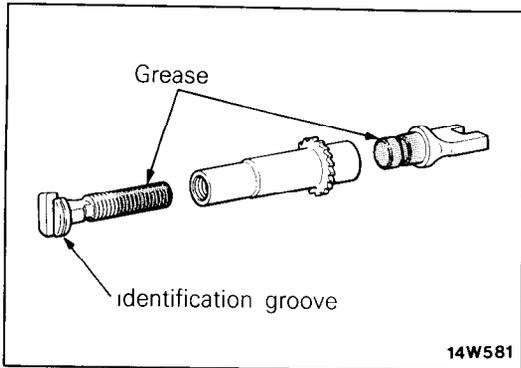
Specified sealant : 3M Sealant Part No. 8634 or equivalent



7. APPLICATION OF SEALANT TO SHOE AND LEVER ASSEMBLY/6. SHOE AND LINING ASSEMBLY

Apply the specified grease to the contacting surfaces of the shoes and backing plate, anchor plate and wheel cylinder piston ends.

**Specified grease : Brake grease SAE J310, NLGI No. 1
lent**



2. INSTALLATION OF SHOE RETURN SPRING WITH BRAKE SHOE ADJUSTER

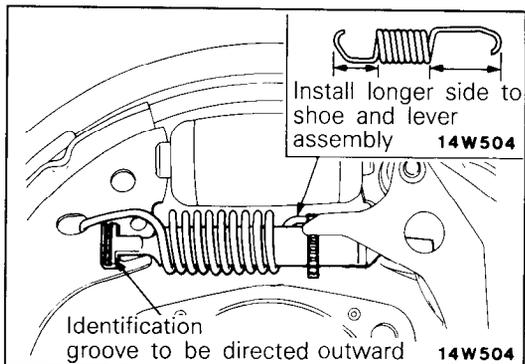
(1) Apply the specified grease to the thread portion of the adjuster.

**Specified grease : Brake grease SAE J310, NLGI
No. 1**

(2) Install the R.H. thread brake adjuster to the L.H. side brake, and L.H. thread brake adjuster to the R.H. side brake.

(3) Install the brake shoe adjuster, so that the identification grooves face outward.

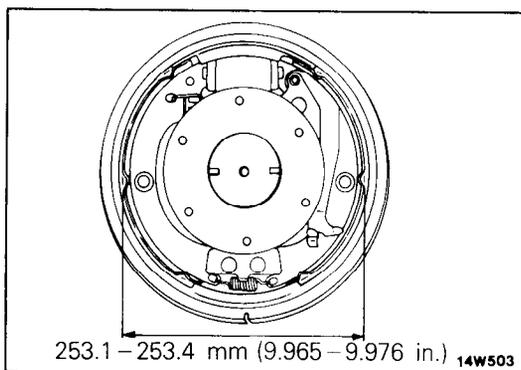
(4) Attach the longer end of the shoe return spring to the shoe and lever assembly.



(5) Turn the brake shoe adjuster to adjust the outside diameter of brake shoe as illustrated.

NOTE

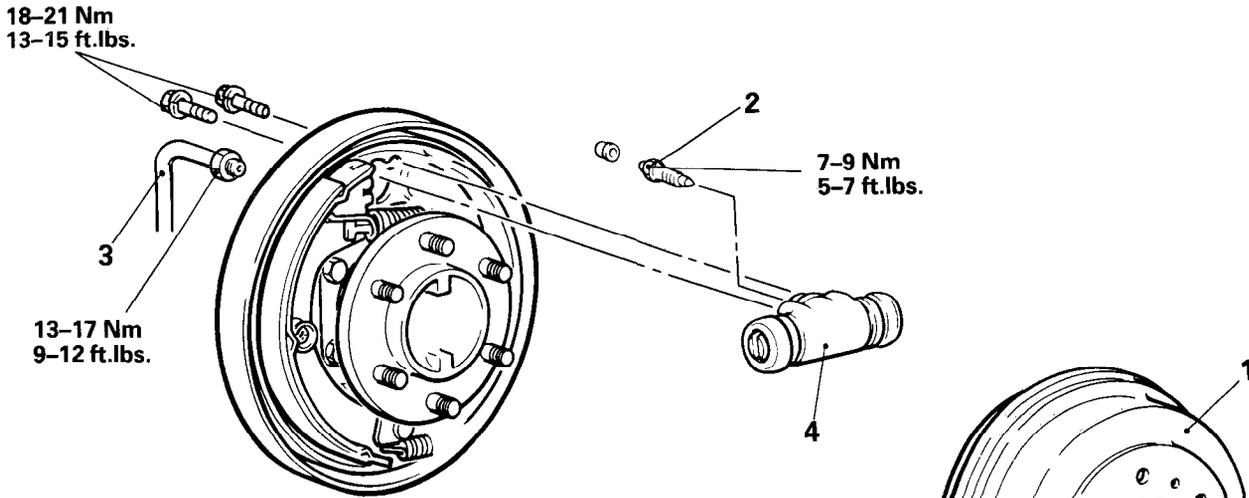
Adjusting the outside diameter of brake shoe as illustrated will facilitate adjustment of the shoe clearance.



REAR BRAKE WHEEL CYLINDER

REMOVAL AND INSTALLATION

N05VA--



Pre-removal Operation

- Draining of Brake Fluid

Post-installation Operation

- Supplying Brake Fluid
- Bleeding (Refer to P.5-14.)

Removal steps

- ◄► 1. Brake drum
- 2. Bleeder screw
- 3. Brake tube
- 4. Wheel cylinder assembly

NOTE

- (1) Reverse the removal procedures to reinstall.
- (2) ◄► : Refer to "Service Points of Removal".
- (3) ►► : Refer to "Service Points of Installation".

14W600

SERVICE POINTS OF REMOVAL

N05VBAB

1. REMOVAL OF BRAKE DRUM

Refer to P.5-33.

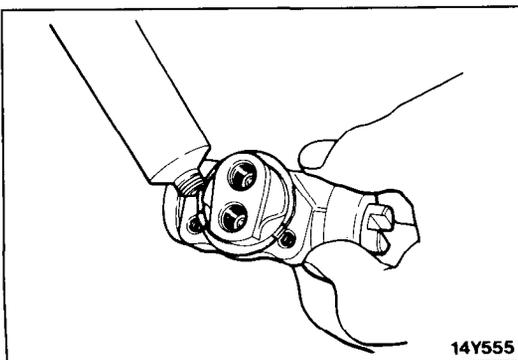
SERVICE POINTS OF INSTALLATION

N05VDAE

4. APPLICATION OF SEALANT TO WHEEL CYLINDER ASSEMBLY

Apply the specified sealant to the wheel cylinder assembly fitting surface before installation to the backing plate.

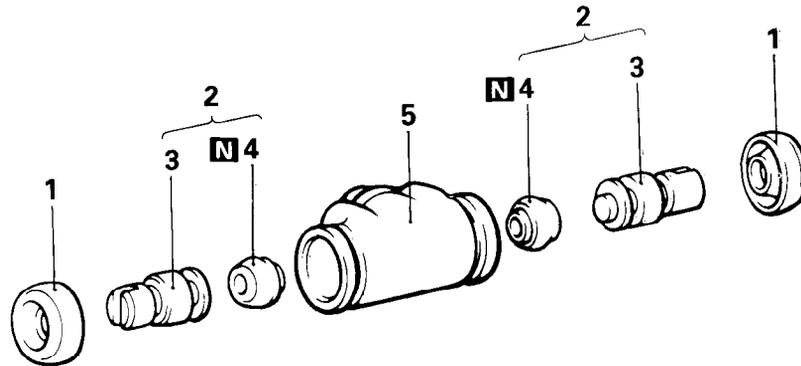
Specified sealant : 3M Sealant Part No. 8634 or equivalent



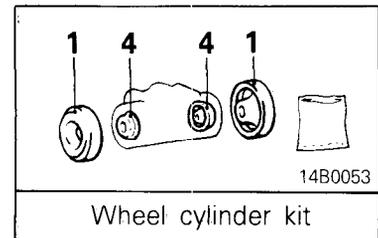
14Y555

DISASSEMBLY AND REASSEMBLY

N05VE--



14D545

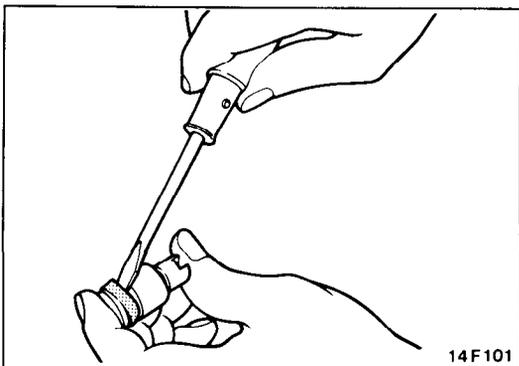


Disassembly steps

- ➡➡ 1. Wheel cylinder boot
- ➡➡ 2. Piston assembly
- ➡➡ 3. Piston
- ↔↔ 4. Piston cup
- ➡➡ 5. Wheel cylinder body

NOTE

- (1) Reverse the disassembly procedures to reassemble.
- (2) ↔↔ : Refer to "Service Points of Disassembly".
- (3) ➡➡ : Refer to "Service Points of Reassembly".
- (4) **N** : Non-reusable parts



SERVICE POINT OF DISASSEMBLY

N05VFAB

4. REMOVAL OF PISTON CUP

Remove the piston cup from the piston by using a screwdriver.

INSPECTION

N05VGAB

- Check the piston and wheel cylinder walls for rust or damage.

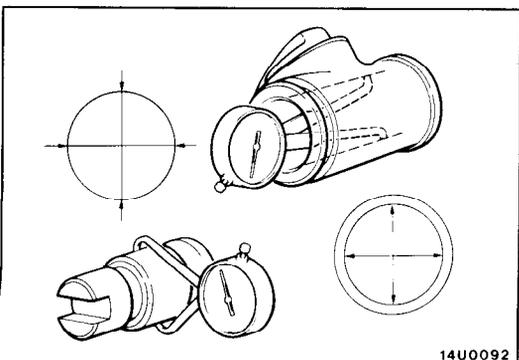
CHECKING CYLINDER AND PISTON CLEARANCE

Measure in two perpendicular directions to figure the clearance between the wheel cylinder inner diameter (max. value) and the piston outer diameter (min. value).

Limit : 0.15 mm (.0059 in.)

NOTE

If the difference is more than the limit, replace the piston and wheel cylinder as an assembly.



SERVICE POINTS OF REASSEMBLY

4. INSTALLATION OF PISTON CUP

- (1) Wash the inner surface of the wheel cylinder and outer surface of the piston with trichloroethylene, alcohol or brake fluid.
- (2) Apply the specified brake fluid to the entire surface of the piston cups and to the external periphery of the special tool.

Specified brake fluid : DOT 3

Caution

Use a repair kit to replace the piston cup and wheel cylinder boot.

- (3) Attach the special tool to the piston, fit the piston cup onto the special tool with the lips of the piston cup directed upward, and push down (with finger tips) to let it slide along the outer surface of the special tool until it fits into position.

Caution

When pushing down the piston cup, push uniformly and slowly with both hands, without stopping, so that deformation or turning over will not result.

2. APPLICATION OF BRAKE FLUID TO PISTON ASSEMBLY

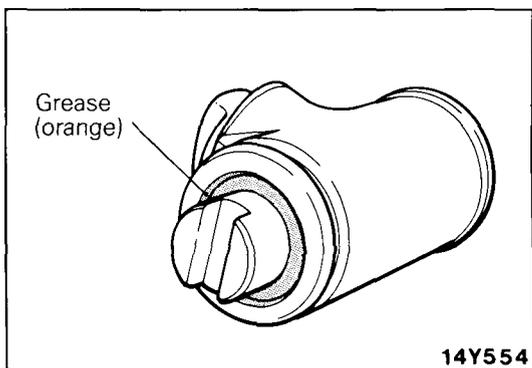
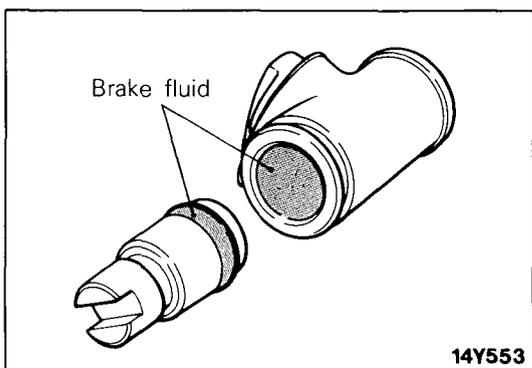
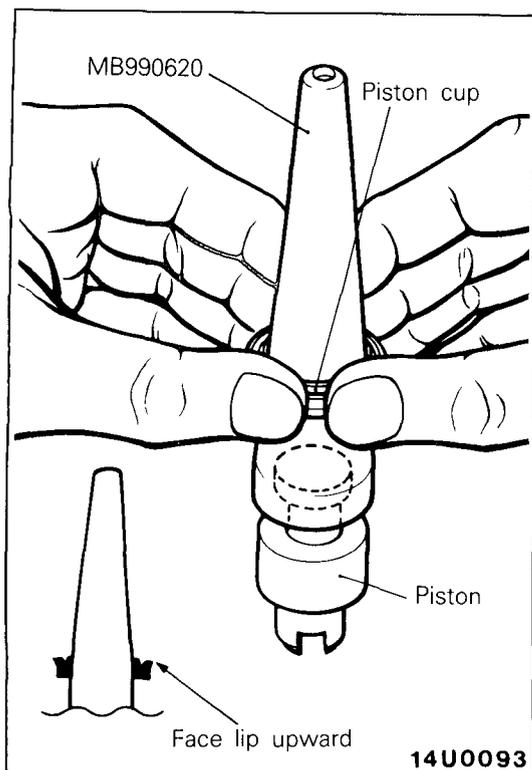
Apply the specified brake fluid to the inner surface of the wheel cylinder and to the entire periphery of the piston cups, and install the piston assemblies.

Specified brake fluid : DOT 3

1. APPLICATION OF GREASE TO WHEEL CYLINDER BOOT

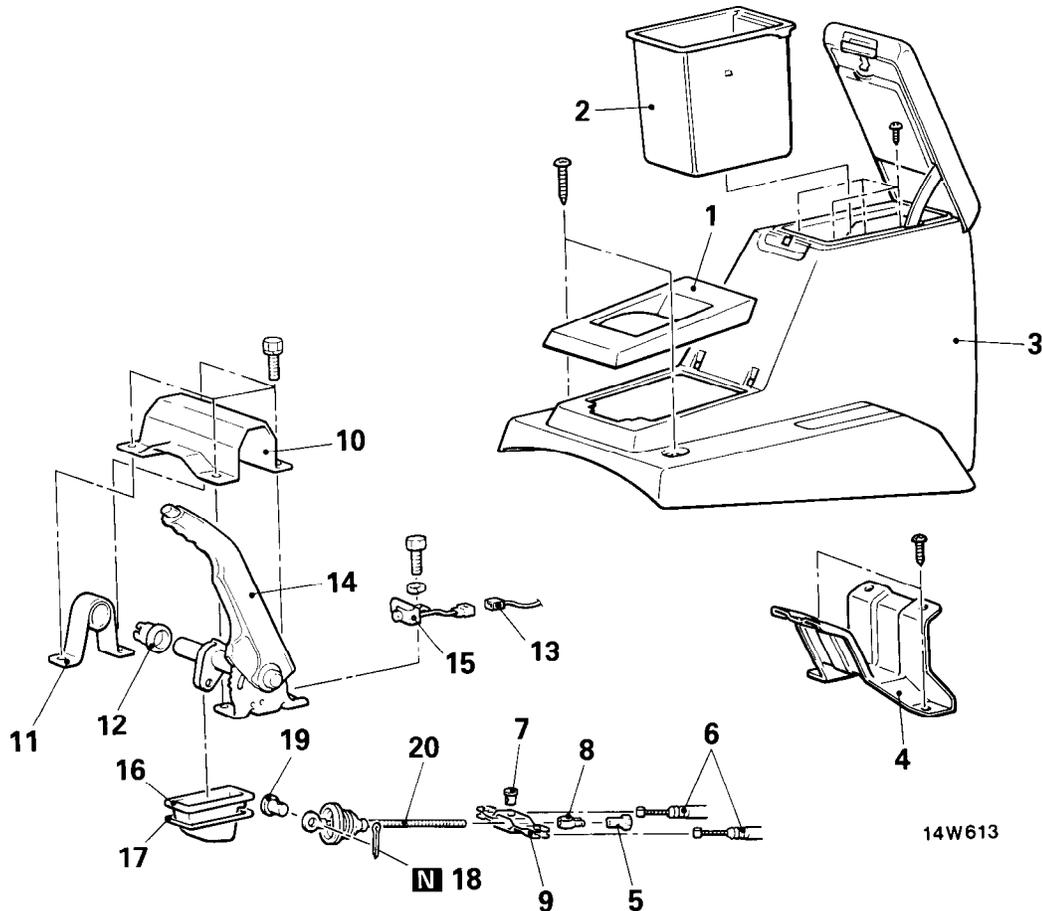
Apply the specified grease to the piston and the wheel cylinder, and install the boot.

Specified grease : Repair kit grease (orange)



**PARKING BRAKE LEVER
REMOVAL AND INSTALLATION**

N05WA--



Post-installation Operation

- Adjustment of Parking Brake Lever Stroke (Refer to P.5-11.)

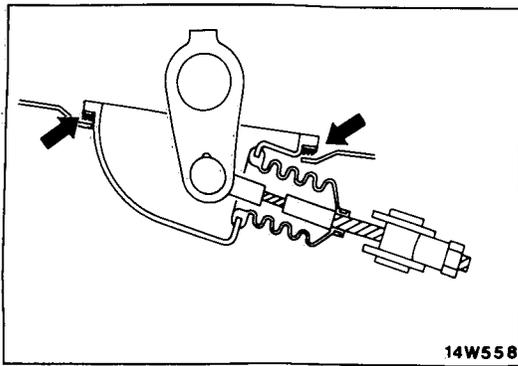
Removal steps

1. Rear console panel
2. Inner box
3. Floor console assembly
4. Floor console bracket
5. Cable adjuster
6. Connection of parking brake cables
7. Lever pin
8. Nut holder
9. Cable equalizer
10. Parking brake shaft cover
11. Parking lever stay

- ◆◆ 12. Parking lever bushing
- ◆◆ 13. Connection of parking brake switch connector
- ◆◆ 14. Parking brake lever assembly
- ◆◆ 15. Parking brake switch
- ◆◆ 16. Cover
- ◆◆ 17. Sealer
- ◆◆ 18. Cotter pin
- ◆◆ 19. Clevis pin
- ◆◆ 20. Parking brake cable

NOTE

- (1) Reverse the removal procedures to reinstall.
- (2) ◆◆ : Refer to "Service Points of Installation".
- (3) **N** : Non-reusable parts



INSPECTION

N05WCAA

- Check the brake lever ratchet for wear.

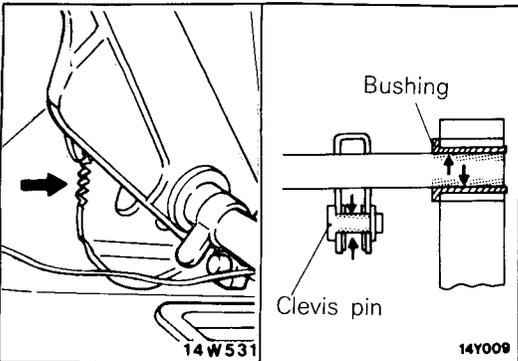
SERVICE POINTS OF INSTALLATION

N05WDAB

16. APPLICATION OF SEALANT TO COVER

Apply a coat of the specified sealant to the both side of the sealer.

Specified sealant : 3M ART Part No. 8661 or equivalent



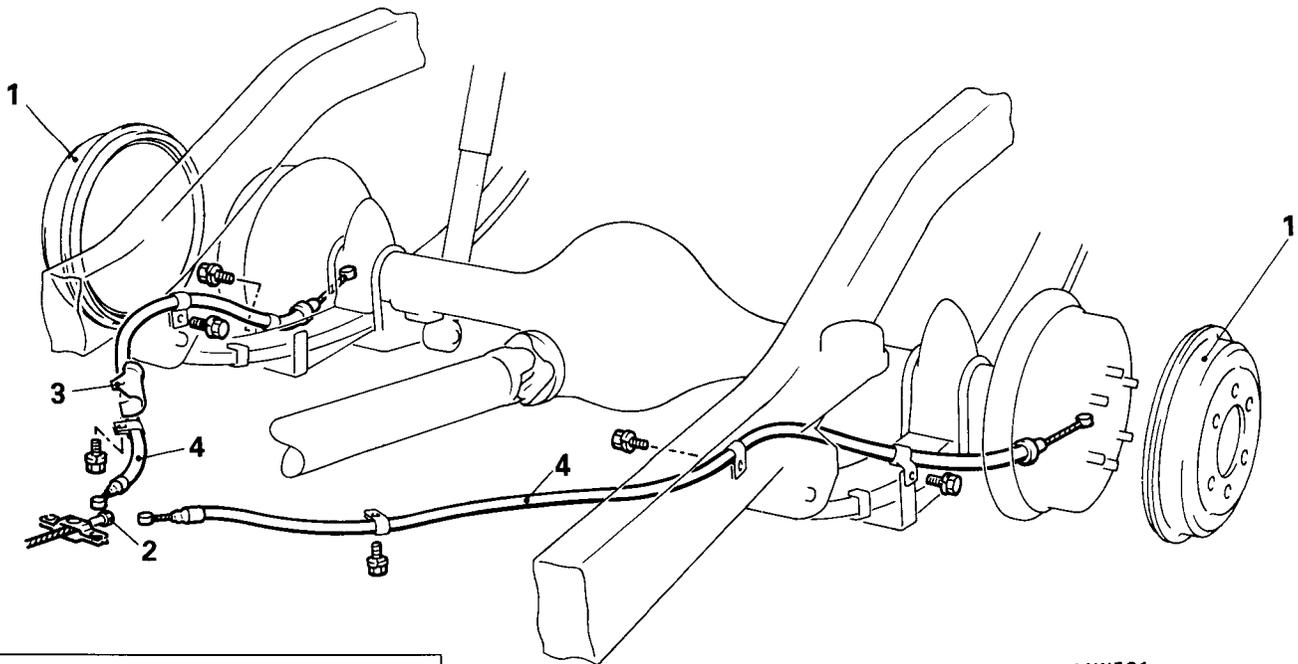
14. APPLICATION OF GREASE TO PARKING BRAKE LEVER ASSEMBLY/12. PARKING LEVER BUSHING

Apply the specified grease to the clevis pin, bushing and ratchet plate.

Specified grease : Chassis grease SAE J310, NLGI No. 0

PARKING BRAKE CABLE REMOVAL AND INSTALLATION

N05XA--



14W561

Post-installation Operation
 • Adjustment of Parking Brake Lever Stroke (Refer to P.5-11.)

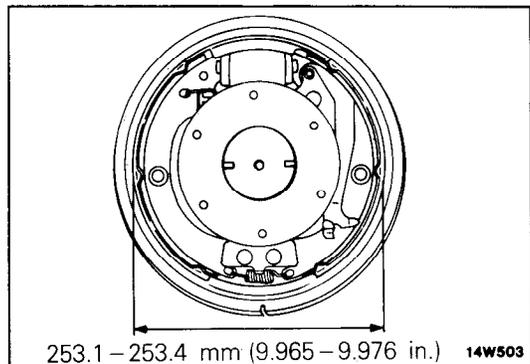
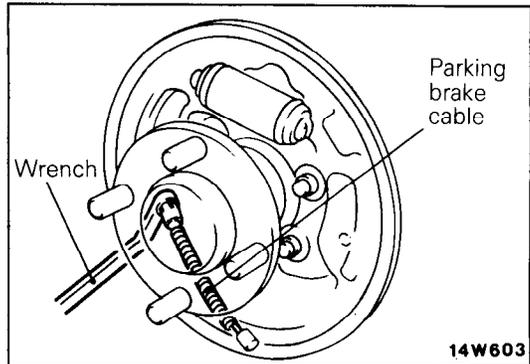
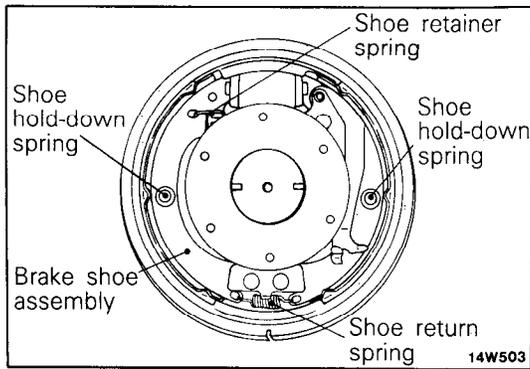
Removal steps

1. Brake drum
2. Cable adjuster
3. Parking cable heat protector
4. Parking brake cables



NOTE

- (1) Reverse the removal procedures to reinstall.
- (2) : Refer to "Service Points of Removal".
- (3) : Refer to "Service Points of Installation".

**SERVICE POINTS OF REMOVAL**

N05XBAA

4. REMOVAL OF PARKING BRAKE CABLE

- (1) Remove the shoe return spring, shoe retainer spring and shoe hold-down pin and remove the brake shoe assembly.
- (2) Disconnect the cable end of the parking brake cable from brake shoe assembly.

- (3) Pass the parking brake cable through an offset box-end wrench (12 mm) and push the wrench further on the parking brake cable until it reaches the stopper part. In that condition, pull the parking brake cable out from the rear side of the backing plate.

NOTE

Push the offset box-end wrench until the tab of the stopper is pushed in.

INSPECTION

N05XCAA

- Check the parking brake cable for operation or damage.

SERVICE POINTS OF INSTALLATION

N05XDAA

4. INSTALLATION OF PARKING BRAKE CABLE

- (1) Install the cable end to the brake shoe assembly.
- (2) Install the brake shoe assembly.
- (3) Turn the brake shoe adjuster to adjust the outside diameter of brake shoe as shown in the illustration.

NOTE

Adjusting the outside diameter of brake shoe as shown in the illustration will facilitate adjustment of the shoe clearance.