# **BRAKES SEVICE A**

**CONTENTS** 

ND PARKING	
------------	--

BRAKE BOOSTER	22	Parking Brake Lever Stroke Check and Adjustment	9
BRAKE LINE	24	Parking Brake Switch Check	
BRAKE PEDAL	17	Valve Operation Check	
		SPECIAL TOOLS	5
FRONT DISC BRAKE	26		
FRONT DISC BRAKE CALIPER	27	SPECIFICATIONS	2
THORT DIOC BRAKE CALIFER	LI	General Specifications	2
MASTER CYLINDER	19	Lubricants	4
		Sealants and Adhesives	4
PARKING BRAKE CABLE	36	Service Specifications	3
PARKING BRAKE LEVER	35	Torque Specifications	4
REAR BRAKE SHOE	30	TROUBLESHOOTING	5
		Brake drag	
REAR BRAKE WHEEL CYLINDER	32	Groaning, clicking or rattling noise	
SERVICE ADJUSTMENT PROCEDURES	8	Improper braking power	
Bleeding		Improper parking brake function	
Blend Proportioning Valve Function Test		Increased pedal stroke	
Brake Booster Operating Test		Poor parking brake function	
Brake Drum Inside Diameter Check		Scraping or grinding noise	
		Squealing, groaning or chattering noise	
Brake Fluid Level Sensor Check	10	Squealing noise	
Brake Lining and Brake Drum Connection Check	16	Vehicle pulls to one side	
		verticle pulls to one side	
Brake Lining Thickness Check	16		
Brake Pad Inspection and Replacement			

Brake Pedal Inspection and Adjustment ...... 8

#### 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.

# **SPECIFICATIONS**

## **GENERAL SPECIFICATIONS**

NO5CA-

Items	Specifications
Master cylinder	
Type I.D. mm (in.)	Tandem type 23.81 (15/16)
Brake booster	
Type	Vacuum type
Effective dia. of power cylinder mm (in.)	
2.6L Engine	230 (9.0)
3.0L Engine	205 (8.0) + 230 (9.0)
Boosting ratio [Brake pedal depressing force]	
2.6L Engine	4.0
3.0L Engine	5.0
Front brakes	
Туре	AD-type disc
Disc O.D. mm (in.)	
2.6L Enigne	258 (10.2)
3.0L Enigne	277 (10.9)
Disc thickness mm (in.)	22 (.866)
Pad thickness mm (in.)	10.5 (.413)
Cylinder I.D. mm (in.)	57.15 (2.2499)
Clearance adjustment	Automatic
Rear brakes	
Type	Leading and trailing shoe type drum
Drum I.D. mm (in.)	254 (10.0)
Lining thickness mm (in.)	4.6 (.18)
Cylinder I.D. mm (in.)	22.22 (7/8)
Clearance adjustment	Automatic
Parking brakes	
Туре	Mechanical brake acting on rear wheels
Brake engagement	Lever type
Cable routing	V-type .

# **SERVICE SPECIFICATIONS**

NO5CB-

Items	Specifications
Standard Value	
Brake pedal height mm (in.)	191–196 (7.5–7.7)
Brake pedal free play mm (in.)	3-8(.1231)
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 (in.Hg)	3.3 (0.97) or less
Air-tightness test under load kPa (in.Hg)	3.3 (0.97) or less
Boosting function test MPa (psi)	
At 100 N (22 lbs.) foot force	2.45-3.92 (356-569)
At 300 N (66 lbs.) foot force	9.81–12.26 (1,422–1,778)
Non-boosting function test MPa (psi)	
At 100 N (22 lbs.) foot force	0.20 (28)
At 300 N (66 lbs.) foot force	1.67 (242)
Blend proportioning valve function test MPa (psi)	
2.6L Engine	
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)
3.0L Engine	
<2-door vehicles>	
At 6.0 MPa (853 psi) input pressure	3.325–3.725 (472.9–529.8)
At 11.0 MPa (1,565 psi) input pressure	5.480–6.080 (779.4–864.8)
<4-door vehicles>	
At 4.2 MPa (597psi) input pressure	4.000–4.400 (568.9–625.8)
At 9.7 MPa (1,377psi) input pressure	9.380-9.980(843.1-928.4)
Brake dragging force N (lbs.)	86 (19.0) or less
[Brake dragging torque] Nm (ft.lbs.)	[6 (4) or less]
Booster push rod to master cylinder piston clearance mm (in.)	0.1–0.5 (.004–.020)
Limit	
Pad thickness mm (in.)	2.0 (.079)
Disc thickness mm (in.)	20.4 (.803)
Brake disc runout mm (in.)	0.15 (.0059)
Lining thickness mm (in.)	1.0 (.039)
Drum I.D. mm (in.)	256.0 (10.079)

# **TORQUE SPECIFICATIONS**

NOSCC-

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	18–25	13–18
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 <b>–</b> 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
Guide pin bolt	40-50	29–36
Lock pin bolt	32–42	23–30
Wheel cylinder to backing plate	18–21	13–15

**LUBRICANTS** 

NOSCD-

Items	Specified lubricants .	Quantity
Brake fluid	DOT3	As required
Dust boot mounting groove in the caliper body	Repair kit grease (pink)	As required
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 (pink)	As required
Rotating portion of the shoe adjuster assembly	Brake grease SAE J310, NLGI No. 1	Small quantity

# **SEALANTS AND ADHESIVES**

NOSCE--

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

**TSB Revision** 

# SPECIAL TOOLS

NOSDA--

Tool	Number	Name	Use
	MB990620-01	Piston cap installer	Installation of rear wheel cylinder piston cap

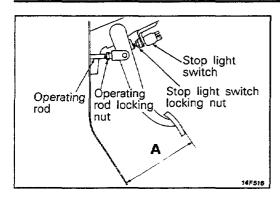
# **TROUBLESHOOTING**

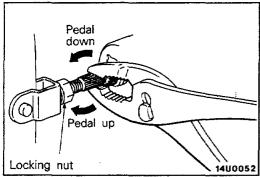
N05EAABa

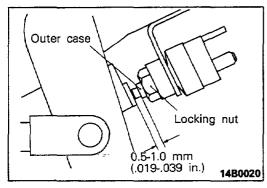
Symptom	Probable cause	Remedy
Vehicle pulls to one	Grease or oil on pad or lining surface	Replace
side when brakes are applied	Inadequate contact of pad or lining	Correct
	Auto adjuster malfunction	Adjust
	Drum eccentricity or uneven wear	Repair or replace as necessary
Improper braking	Low or deteriorated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

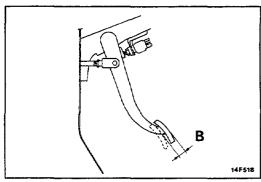
Symptom	Probable cause	Remedy
Brake drag	Incomplete release of parking brake	Correct
	Incorrect parking brake adjustment	Adjust
	Worn brake pedal return spring	Replace
	Broken rear drum brake shoe return spring	Replace
	Lack of lubrication in sliding parts	Lubricate
	Improper push rod to master cylinder clearance	Adjust
	Faulty master cylinder piston return spring	Replace
	Clogged master cylinder return port	Correct
Improper parking brake function	Worn brake lining	Replace
brake function	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
	Auto adjuster malfunction	Adjust
	Parking brake cable sticking	Replace
	Sticked wheel cylinder or caliper piston	Replace
Scraping or grinding	Worn brake linings	Replace
noise when brakes are applied	Caliper to wheel interference	Correct or replace
	Dust cover to drum interference	Correct or replace
	Bent brake backing plate	Correct or replace
	Cracked drums or brake disc	Correct or replace
Squealing, groaning or chattering noise	Disc brakes-missing or damaged brake pad outer shim	Replace
when brakes are applied	Brake drums and lining, discs and pads worn or scored	Correct or replace
	Improper lining parts	Correct or replace
	Disc brakes-burred or rusted calipers	Clean or deburr
	Dirty, greased, contaminated or glazed linings	Clean or replace
	Drum brakes-weak damaged or incorrect shoe hold-down springs, loose or damaged shoe hold-down pins and springs	Correct or replace
	Incorrect adjustment of brake pedal or booster push rod	Adjust -
~		<u> </u>

Symptom	Probable cause	Remedy
Squealing noise when brakes are not	Bent or warped backing plate causing interference with drum	Replace
applied	Improper machining of drum causing interference with backing plate or shoe	Replace drum
	Disc brakes-rusted, stuck	Lubricate or replace
	Worn, damaged or insufficiently lubricated wheel bearings Drum brakes-weak, damaged or incorrect shoe return spring	Lubricate or replace
	Loose or extra parts in brakes	Retighten
	Improper positioning of pads in caliper	Correct
	Improper installation of support mounting and caliper body	Correct
	Poor return of brake booster or master cylinder or wheel cylinder	Replace
19 19	Incorrect adjustment of brake pedal or booster push rod	Adjust
Groaning, clicking or rattling noise when	Stones or foreign material trapped inside wheel covers	Remove stones, etc.
brakes are not applied	Loose wheel nuts	Retighten
	Disc brakes-failure of shim	Replace
	Disc brakes-loose installation bolt	Retighten
	Worn, damaged or dry wheel bearings	Lubricate or replace
	Incorrect adjustment of brake pedal or booster push rod	Adjust
Poor parking brake function	Worn brake lining Poor condition of brake lining surface Parking brake cable sticking	Replace
	Auto-adjuster malfunction	_
	Excessive parking brake lever stroke	Adjust the parking brake lever stroke or check the parking brake cable arrangement









# SERVICE ADJUSTMENT PROCEDURES NOSFAAK BRAKE PEDAL INSPECTION AND ADJUSTMENT

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.)

- 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** 4

==:

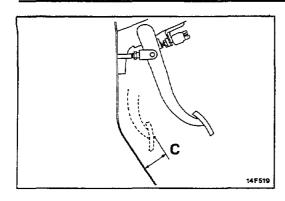
- (3) After turning the stop light switch until it contacts the pedal stop (until immediately before the brake pedal begins to move), turn the stop light switch back 1/2 to 1 revolution and secure with a lock nut.
- (4) Contact the stop light switch connector.
- (5) Ensure that the stop light does not come on without the brake pedal being pushed.

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 (B): 3-8 mm (.12-.31 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.

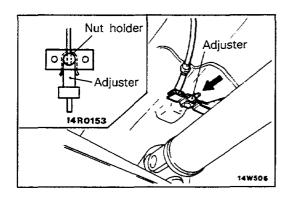
#### Standard value (C): 95 mm (3.74 in.) or more

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.

# PARKING BRAKE LEVER STROKE CHECK AND ADJUSTMENT NOSFER

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



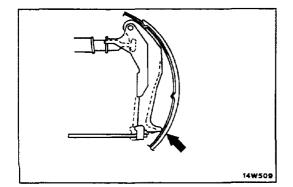
- 2. If the parking brake lever stroke is not within the standard value range, make adjustment by the following procedures:
  - (1) Loosen the adjuster to slacken the parking brake cable.
  - (2) Tighten the adjuster slightly, repeating pulling and releasing the parking brake lever, to adjust the brake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

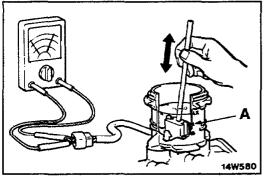


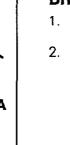
3. Return the parking brake lever, remove the brake drum, and check to ensure that the brake lever adjuster is touching the shoe.

#### 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.

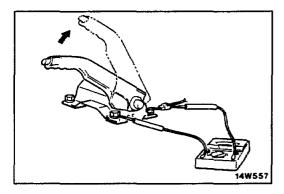
4. With the parking brake lever in the released position, turn the rear wheel to confirm that the rear brakes are not dragging.





#### BRAKE FLUID LEVEL SENSOR CHECK

- 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".

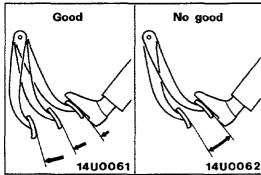


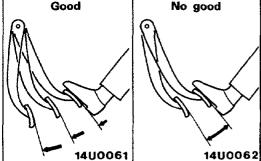
#### PARKING BRAKE SWITCH CHECK

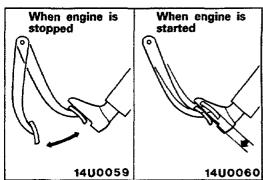
NOSEDA 4

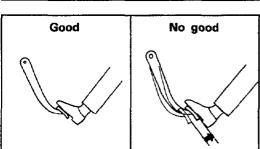
NOSECAD

- 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.









14W606

## BRAKE BOOSTER OPERATING TEST **TEST WITHOUT A TESTER**

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.

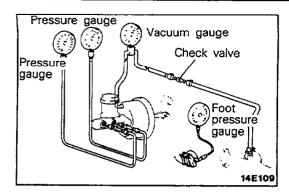
3. With the engine running, step on the brake pedal and then stop the engine.

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.

14W605



#### 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.5-12.)

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 (20.1 in.Hg). After stopping the engine, wait approximately 15 seconds, and then measure the decrease in vacuum.

#### Standard value: 3.3 kPa (0.97 in.Hg) 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 (20.1 in.Hg).
- (3) After stopping the engine, wait approximately 15 seconds, and then measure the decrease in vacuum.

#### Standard value: 3.3 kPa (0.97 in.Hg) 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 (20.1 in.Hg).
- (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 2.45-3.92 MPa (356-569 psi) At 300 N (66 lbs.) foot force 9.81-12.26 MPa (1,422-1,778 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 in.Hg).
- (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.)



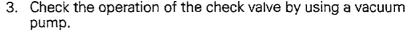
At 100 N (22 lbs.) foot force 0.20 MPa (28 psi) At 300 N (66 lbs.) foot force 1.67 MPa (242 psi)

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



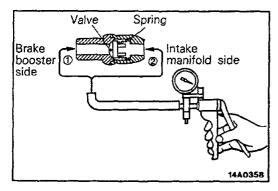
N05FNAC

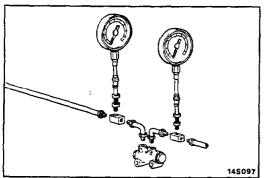
- 1. Remove the vacuum hose at the brake booster side.
- 2. Remove the check valve from the brake booster.



Vacuum pump connection	Accept/reject criteria
Connection at the brake booster side ①	A negative pressure (vacu- um) is created and held.
Connection at the intake mainfold side ②	A negative pressure (vacuum) is not created.

# Check valve





# BLEND PROPORTIONING VALVE FUNCTION TEST

 Connect two pressure gauges, one each, to the input side and output side of blend proportioning valve. Bleed the system.

 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) or 4.2 MPa (597 psi) and 9.0 MPa (1,280 psi), 11.0 MPa (1,565 psi) or 9.7 MPa (1,377 psi).

#### Standard value:

2.6L Engine

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)

3.0L Engine

<2-door vehicles>

At 6.0 MPa (853 psi)

3.325-3.725 MPa (472.9-529.8 psi)

At 11.0 MPa (1,565 psi)

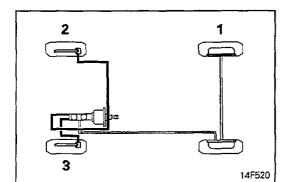
5,480-6,080 MPa (779.4-864.8 psi)

<4-door vehicles> At 4:2 MPa (597 psi) 4.000-4.400 MPa (568.9-625.8 psi) At 9.7 MPa (1,377 psi) 9.380-9.980 MPa (843.1-928.4 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**

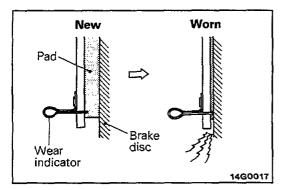
NOSEYARa

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

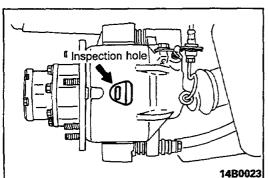
- 1. Use the specified brake fluid. Avoid using a mixture of the specified brake fluid and other fluid.
- 2. If brake fluid is exposed to the air, it will absorb moisture; as water is absorbed from the atmosphere, the boiling point of the brake fluid will decrease and the braking performance will be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



# BRAKE PAD INSPECTION AND REPLACEMENT

NOTE

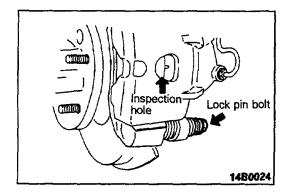
The brake pads have been equipped with wear indicators, so that when the brake pad thickness reaches 2 mm (.08 in.), the wear indicator touches the brake discs and produces a warning squeaking sound.

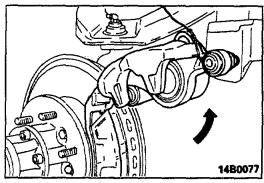


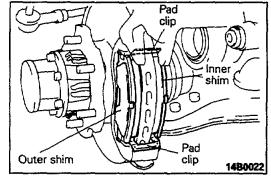
- 1. Jack up the vehicle to remove the front wheel.
- 2. Through the inspection hole in the caliper body, check the disc pad for wear.

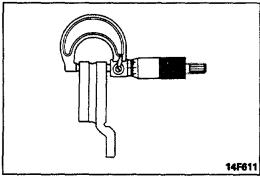
Limit: 2.0 mm (.079 in.)

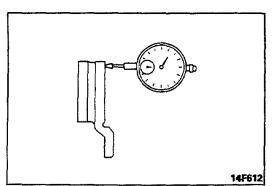
3. If the pad assemblies are worn beyond the limit, replace them as following procedure.











#### Caution

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

(1) Remove the lock pin bolt.

#### Caution

There is a coating of special grease on the lock pin. Be careful that this grease is not removed, and that dirt does not contaminate the grease on the pin.

(2) Lift up the caliper body by using the guide pin bolt as a fulcrum.

#### NOTE

Use wire or the like to suspend the caliper body.

(3) Remove the inner shim, the outer shim, the pad assemblies and pad clips from the support mounting.

- (4) Clean the disc surface to remove dirt and rust.
- (5) Measure the thickness of brake disc at four or more locations.

#### Limit: 20.4 mm (.803 in.)

Replace the brake disc if thickness below the limit is found at one or more locations. Where the disc develops uneven wear, grind it to the limit.

(6) Measure the runout of the brake disc at the edge of the brake disc circumference.

Limit: 0.15 mm (.0059 in.)

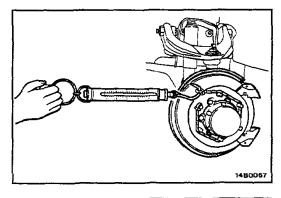
If the brake disc runout exceeds the limit, change the position at which it is tightened to the hub or adjust the tightening torque to be even.

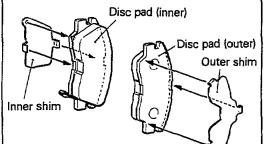
Check the runout again, and if it cannot be corrected, replace the brake disc.

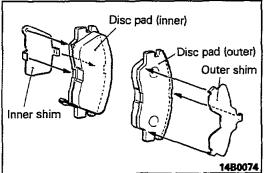
#### NOTE

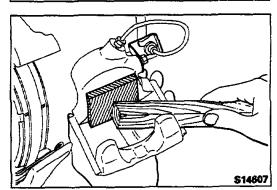
Before measuring the runout of the brake disc, check the play of the wheel bearing and, if necessary, correct it. Also, the disc surface should be cleaned to remove any dirt, grime or corrosion.

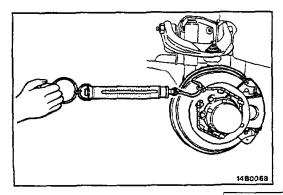
(7) To measure the pad dragging force, measure the hub rotational force with the pad removed, (Refer to step 11)











(8) Install the pad clip.

(9) Align the pins and holes of the inner and outer shim with those of the disc pad and install to the caliper support.

(10)Press the piston into the cylinder.

#### NOTE

Before performing this procedure, bleed off a little of the brake fluid from the reservoir; otherwise, fluid overflows the reservoir when the piston is pushed.

Before setting the tool, clean the piston.

Make sure that the piston boot is not dislocated from the piston.

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

① Start the engine and depress the brake pedal for 5 seconds.

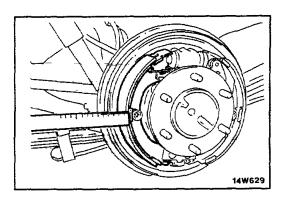
Turn engine off.

Retate the brake disc a few revolutions.

Use a spring scale as illustrated to measure the brake drag.

The difference between brake drag and rotational force (measured at the time of inspection) should not exceed the standard value.

Standard value: 86 N (19.0 lbs.) or less [Dragging torque: 6 Nm (4 ft.lbs.) or less] 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.



#### BRAKE LINING THICKNESS CHECK

NOSFIAA

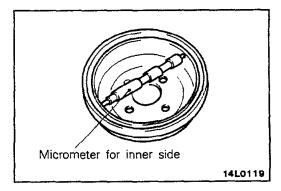
- 1. Remove the brake drum.
- 2. Measure the wear of the brake lining at the place worn the most.

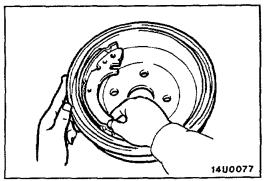
Limit: 1.0 mm (.04 in.)

Replace the shoe and lining assembly if brake lining thickness is less than the limit if it is not worn evenly. For information concerning the procedures for installation of the shoe and lining assembly, refer to P.5-30.

#### Caution

Whenever the shoe and lining assembly is replaced, replace both RH and LH assemblies as a set to prevent car from pulling to one side when braking. If there is a significant difference in the thicknesses of the shoe and lining assemblies on the left and right sides, check the sliding condition of the piston.





#### BRAKE DRUM INSIDE DIAMETER CHECK NOS

- 1. Remove the brake drum.
- 2. Measure the inside diameter of the hub and drum at two or more locations.

Limit: 256.0 mm (10.079 in.)

3. Replace brake drums and shoe and lining assembly when wear exceeds the limit value or is badly imbalaced.

# BRAKE LINING AND BRAKE DRUM CONNECTION CHECK

- 1. Remove the brake drum.
- 2. Remove the shoe and lining assembly (Refer to P.5-30)
- 3. Chalk inner surface of brake drum and rub with shoe and lining assembly.
- 4. Replace shoe and lining assembly or brake drums if very irregular contact area.

For information conerning the procedures for installation of the shoe and lining assembly, refer to P. 5-30.

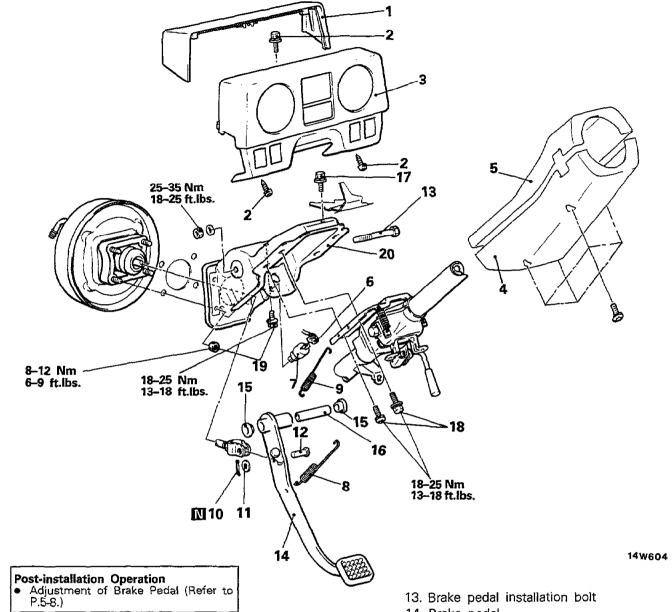
MOTE

Clean off chalk after check.

## **BRAKE PEDAL**

# REMOVAL AND INSTALLATION

N05GA-



#### Removal steps

- 1. Meter cover
- 2. Combination meter installation 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

- 14. Brake pedal
- 4 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

- Reverse the removal procedures to reinstall.
   Refer to "Service Points of Removal".
   Refer to "Service Points of Installation".
   Non-reusable parts

#### SERVICE POINTS OF REMOVAL

N05GBAB

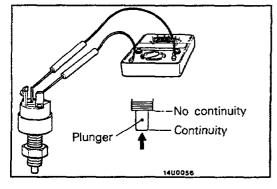
3. REMOVAL OF COMBINATION METER ASSEMBLY

Refer to GROUP 8 -Meter and Gauges.

#### **INSPECTION**

N05GCAD

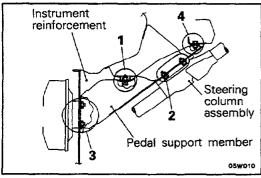
- Check the bushing for wear.
- Check the brake pedal for bend or twisting.
- Check the brake pedal return spring for damage.



#### **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.

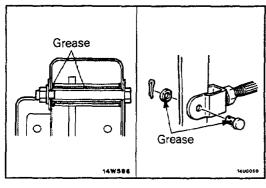


#### SERVICE POINTS OF INSTALLATION

N05GDAZ

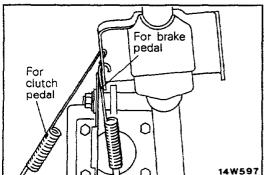
#### 20. INSTALLATION OF PEDAL SUPPORT MEMBER

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.



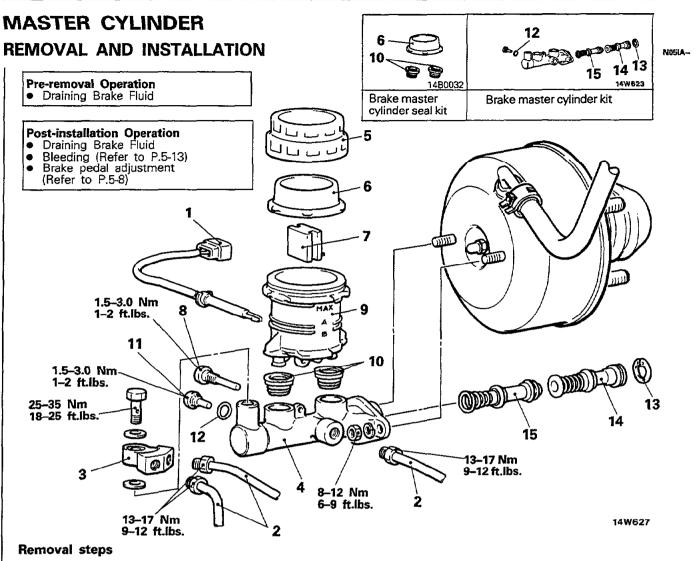
# 16. APPLICATION OF GREASE TO SPACER/15. BUSHING /12. CLEVIS PIN/11. WASHER

Apply the multipurpose grease to the contact surface shwon in the illustration.



#### 9. INSTALLATION OF RETURN SPRING OF CLUTCH PE-DAL/8. RETURN SPRING

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

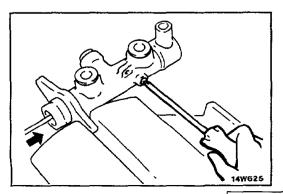


- 1. Connection of brake fluid level sensor connector
- 2. Connection of brake tube
- 3. Connector
- 4. Master cylinder
- 5. Reservoir cap
- 6. Diaphragm
  - 7. Oil reservoir float
  - 8. Reservoir installation screw
  - 9. Reservoir
  - 10. Reservoir seal

- 11. Piston stopper bolt
  - 12. Gasket
  - Adjustment of clearance between brake booster push rod and primary piston
- 13. Piston stopper ring
- ◆ 14. Primary piston assembly
- ◆ 15. Secondary piston assembly

#### NOTE

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

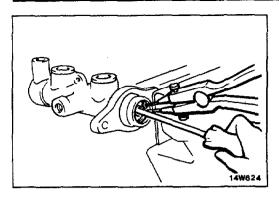


# SERVICE POINTS OF REMOVAL

NO5IBAH

#### 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.

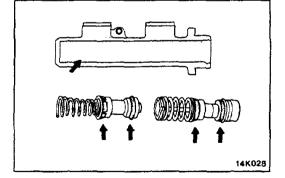
#### Caution

Do not disassemble the secondary piston assembly.

#### INSPECTION

NOSICA A

- 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.



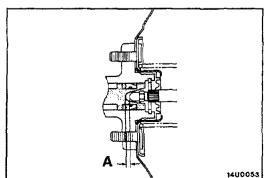
# SERVICE POINTS OF INSTALLATION

N05IDAQ

#### 15. APPLICATION OF BRAKE FLUID TO SECONDARY PI-STON ASSEMBLY/14. PRIMARY PISTON ASSEMBLY

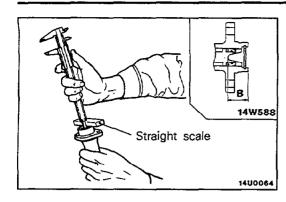
Apply the specified brake fluid sufficiently to the inner surface of the master cylinder body and to the entire periphery of the secondary and primary pistons.

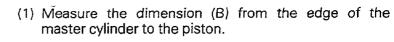
Specified brake fluid: DOT 3



#### ADJUSTMENT OF CLEARANCE BETWEEN BRAKE BOOSTER PUSH ROD AND PRIMARY PISTON

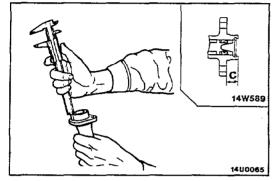
Check and adjust the clearance (A) between the brake booster push rod and the primary piston by following the steps below.



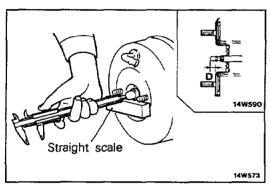


#### NOTE

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.



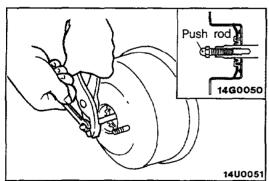
(2) Obtain the dimension (C) from the master cylinder's brake booster installation surface to the edge.



(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.)

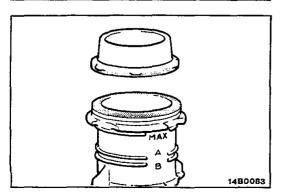
(5) If the clearance is not within the standard value range, adjust by changing the push rod length by turning the screw of the push rod.

# Caution Improper clearance may cause excessive brake drag.



Apply the specified brake fluid to the contact surface shown in the illustration.

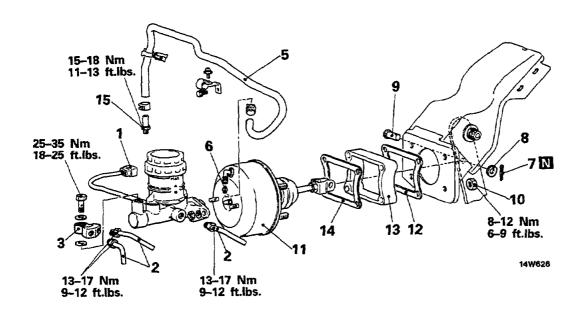
Specified brake fluid: DOT 3



## **BRAKE BOOSTER**

#### REMOVAL AND INSTALLATION

NOSJA.



#### Removal steps

- 1. Connection of brake fluid level sensor connector
- 2. Connection of brake tube
- 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
    - Spacer
    - 14. Sealer
  - 15. Fitting

#### Pre-removal Operation

Draining of Brake Fluid

#### Post-installation Operation

- Supplying Brake Fluid Bleeding (Refer to P.5-13.)
- Adjustment of Brake Pedal (Refer to

#### NOTE

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

# SERVICE POINTS OF REMOVAL

N05JBAD

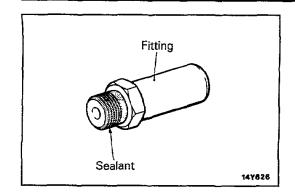
==::

#### 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.

**TSB Revision** 

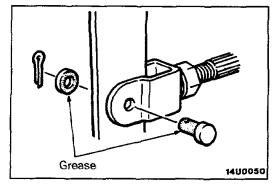


# SERVICE POINTS OF INSTALLATION 15. INSTALLATION OF FITTING

N05JDAG

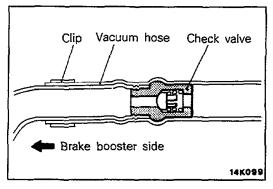
When installing the fitting, apply the specified sealant to its threaded portion.

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



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

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



#### 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

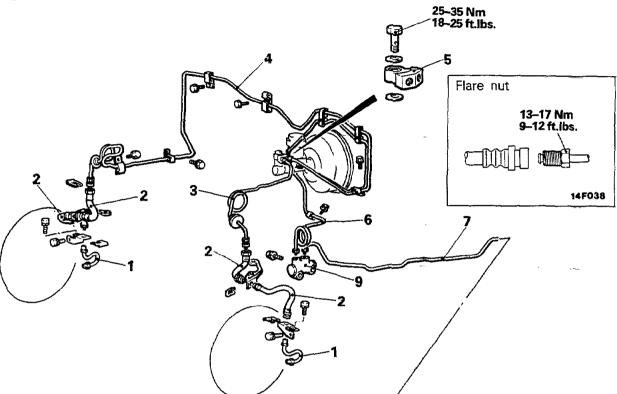
Refer to P.5-20.

# **BRAKE LINE**

## **REMOVAL AND INSTALLATION**

NO5KA-

<2.6L Engine>

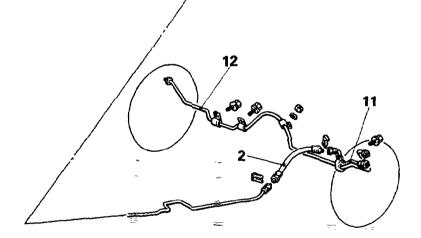


# Pre-removal Operation Draining of Brake Fluid

#### Post-installation Operation

- Supplying Brake Fluid Bleeding (Refer to P.5-13.)
  - 1. Brake tube
- 2. Brake hoses
  - 3. Brake tube (front, L.H.)
  - 4. Brake tube (front, R.H.)
  - 5. Connector
  - 6. Brake tube (A)
  - 7. Brake tube (main)
- 9. Blend proportioning valve
  - 11. Brake tube (rear, L.H.)

  - 12. Brake tube (rear, R.H.)



14W621

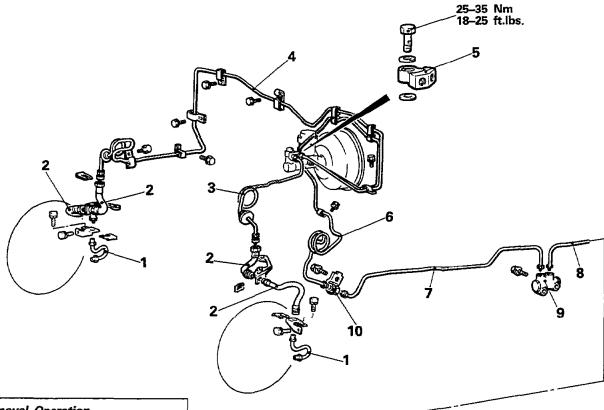
1

NOTE

Refer to "Service Points of Removal".

Refer to "Service Points of Installation".

#### <3.0L Engine>



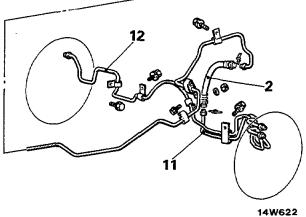
Pre-removal Operation
• Draining of Brake Fluid

# Post-installation Operation ■ Supplying Brake Fluid ■ Bleeding (Refer to P.5-13.)



- 1. Brake tube
- 2. Brake hoses
- 3. Brake tube (front, L.H.)
- 4. Brake tube (front, R.H.)
- 5. Connector

- 6. Brake tube (A)
  7. Brake tube (main)
  8. Brake tube (main, rear)
  9. Blend proportioning valve
- 10. Connector assembly
  - 11. Brake tube (rear, L.H.)
  - 12. Brake tube (rear, R.H.)



NOTE

Refer to "Service Points of Removal". Refer to "Service Points of Installation".

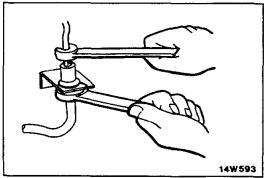


# SERVICE POINTS OF REMOVAL

N05KBAL

#### 2. REMOVAL OF BRAKE HOSE

Holding the nut at the brake hose side, loosen the flare nut of the brake tube.



**TSB Revision** 

#### 9. REMOVAL OF BLEND PROPORTIONING VALVE

#### Caution

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

#### INSPECTION

NOSKCAB

- 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

NOSKDAB

#### 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.

HOSLA--

# FRONT DISC BRAKE **REMOVAL AND INSTALLATION**

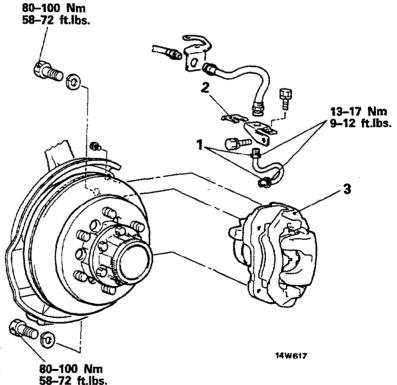
#### Pre-removal Operation Draining of Brake Fluid

#### Post-installation Operation

- Supplying brake fluid Bleeding (Refer to P.5-13.)
  - 1. Flare nut of brake tube
- 4 3. Front disc brake assembly

#### NOTE

- Reverse the removal procedures to reinstall.
- ▶ ★ : Refer to "Service Points of Installa-
- (3) For removal of the brake disc and the dust cover, refer to GROUP 2-Hub and Knuckle.



#### **SERVICE POINTS OF INSTALLATION**

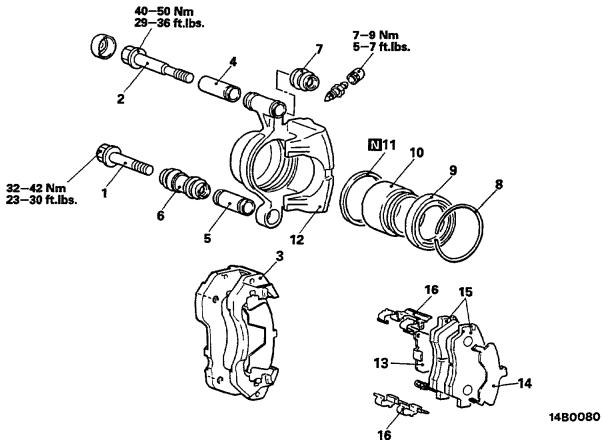
MOSI BAC

#### 3. INSTALLATION OF FRONT DISC BRAKE ASSEMBLY

Push the pad open to the outside and install the front disc brake assembly to the knuckle.

# FRONT DISC BRAKE CALIPER **DISASSEMBLY AND REASSEMBLY**

NOSLE--

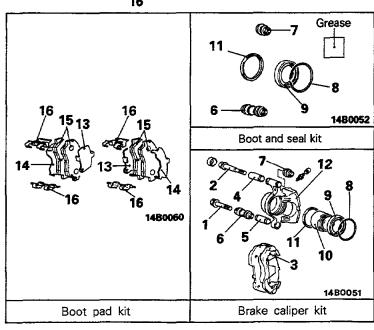


## Caliper disassembly steps

- 1. Lock pin bolt
- 2. Guide pin bolt
- 3. Caliper support
- 4. Guide pin sleeve ▶ ◆ 5. Lock pin sleeve
- ◆◆ 6. Lock pin boot
- ◆ 7. Guide pin boot
- 8. Boot ring
- ▶ 9. Piston boot
- **♦♦♦**10. Piston
- ◆◆◆◆11. Piston seal

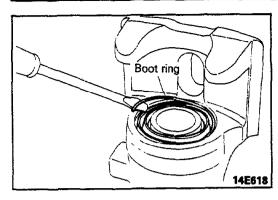
#### Disc pad disassembly steps

- 1. Lock pin bolt
- 3. Caliper support
- 12. Caliper body
- 13. Inner shim
- 14. Outer shim
- 15. Disc pad
- 16. Pad clip



#### 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

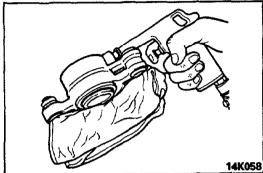


### SERVICE POINTS OF DISASSEMBLY

N05IFACa

#### 8. REMOVAL OF BOOT RING

Using a screwdriver, remove the boot ring.



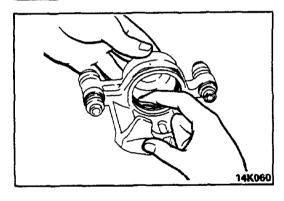
#### 9. REMOVAL OF PISTON BOOT /10. PISTON

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

#### Caution

By no means should the caliper be held in hand when this procedure is being done.

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

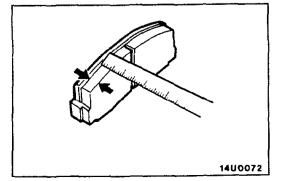
Never use a screwdriver or similar tools, because doing so could damage the cylinder surface.

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

#### **INSPECTION**

N05LGAF

- 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 caliper support for cracks.



#### **CHECKING BRAKE PAD THICKNESS**

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

Limit: 2.0 mm (.079 in.)

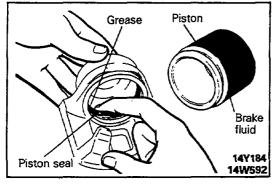
If the pad assemblies are worn beyond the limit, replace them.

## SERVICE POINTS OF REASSEMBLY 11. INSTALLATION OF PISTON SEAL

MOST HAF

#### NOTE

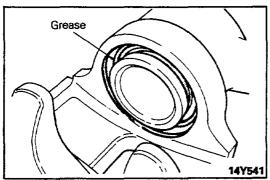
The piston seal is already packed and coated with the specified grease; do not wipe it away.



#### 10. APPLICATION OF BRAKE FLUID TO PISTON

Apply brake fluid to 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 (pink)

# 7. APPLICATION OF GREASE TO GUIDE PIN BOOT/6. LOCK PIN BOOT/5. LOCK PIN SLEEVE/4. GUIDE PIN SLEEVE

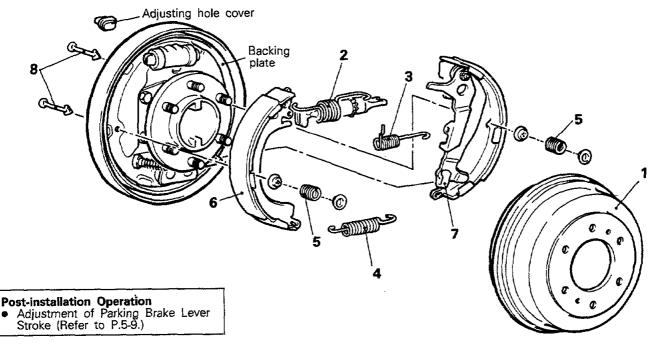
Apply specified grease to the outer surfaces of guide pin sleeve and lock pin sleeve and the caliper body contacting surfaces of lock pin boot and guide pin boot.

Specified grease: Repair kit grease (pink)

# REAR BRAKE SHOE

# REMOVAL AND INSTALLATION

NOSUA-



#### Removal steps

Brake drum

2. Shoe return spring with brake shoe adjuster

3. Adjusting spring

4. Shoe retainer spring

Shoe hold-down spring

6. Shoe and lining assembly

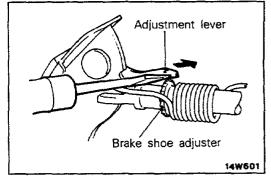
7. Shoe and lever assembly

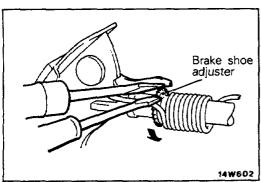
8. Shoe hold-down pin

#### NOTE

Reverse the removal procedures to reinstall.

Refer to "Service Points of Removal". Refer to "Service Points of Installation".





# SERVICE POINTS OF REMOVAL

NOSUBAR

14W599

#### 1. REMOVAL OF BRAKE DRUM

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

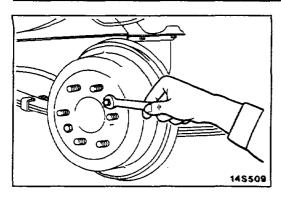
(1) When using the brake shoe adjuster.

① Remove the adjusting hole cover at the rear side of the backing plate.

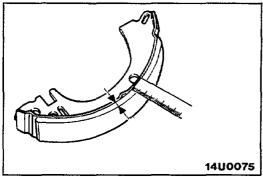
2 Insert a screwdriver into the adjustment hole and use it to separate the adjustment lever from the brake shoe adjuster.

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.

**TSB Revision** 



(2) When using the bolts. Screw the bolts (M8  $\times$  1.25) in the threaded holes provided in the drum flange surface.



## INSPECTION

N05UCAJ

#### **CHECKING BRAKE LINING THICKNESS**

 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.

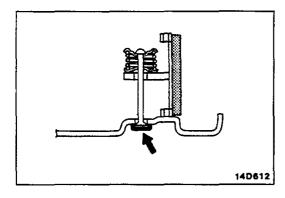
#### NOTE

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

#### CHECKING BRAKE DRUM INSIDE DIAMETER

Refer to P.5-16.

CHECKING BRAKE LINING AND BRAKE DRUM CONTACT Refer to P.5-16.



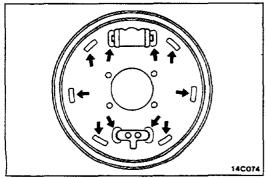
#### SERVICE POINTS OF INSTALLATION

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.

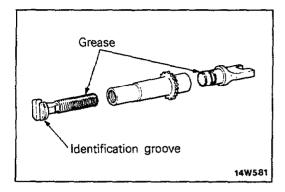
Specified sealant: 3M Sealant Part No. 8634 or equivalent

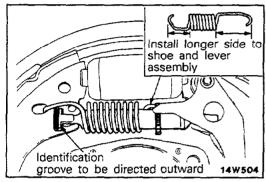


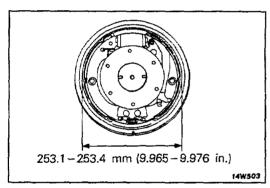
7. APPLICATION OF SEALANT TO SHOE AND LEVER ASSEMBLY/6. SHOE AND LINING ASSEMBLY

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







#### 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.

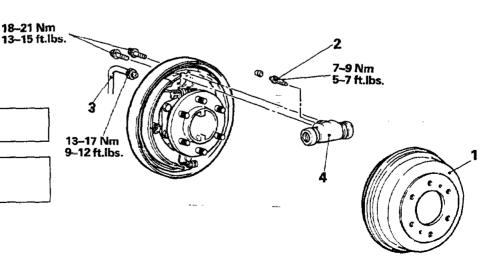
#### NOTE

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

# REAR BRAKE WHEEL CYLINDER

#### **REMOVAL AND INSTALLATION**

NO5VA-



Pre-removal Operation Draining of Brake Fluid

#### Post-installation Operation

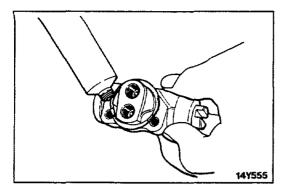
Supplying Brake Fluid Bleeding (Refer to P.5-13.)

#### Removal steps

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

NOTE (1) Reverse the removal procedures to reinstall.

◆ ★ : Refer to "Service Points of Installation".



#### SERVICE POINTS OF INSTALLATION

MOSVDAE

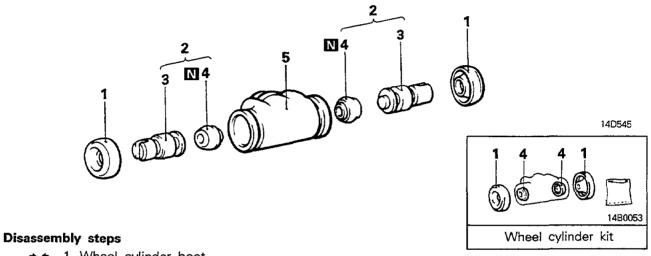
#### 4. APPLICATION OF SEALANT TO WHEEL CYLINDER **ASSEMBLY**

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

#### DISASSEMBLY AND REASSEMBLY

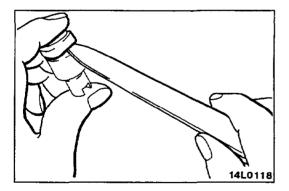
NOSVE-



- 1. Wheel cylinder boot
  - 2. Piston assembly
- 3. Piston
  - 4. Piston cup
    - 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".
- Non-reusable parts Ν



#### SERVICE POINTS OF DISASSEMBLY

N05VFAB

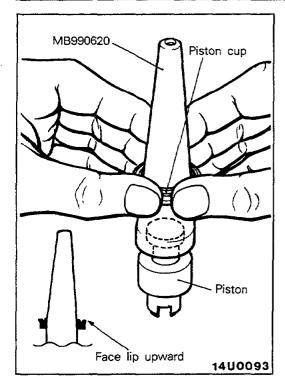
When disassembling the wheel cyinders, disassemble both sides (left and right) as a set.

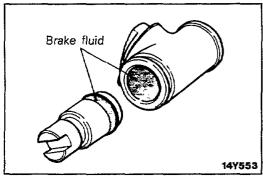
#### 4. REMOVAL OF PISTON CUPS

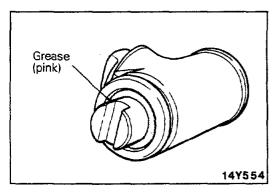
Remove the piston cup, being careful not to damage the piston.

#### INSPECTION

Check the piston and wheel cylinder walls for rust or damage, and if there is any abnormality, replace the entire wheel cylinder assembly.







#### SERVICE POINTS OF REASSEMBLY

N05VHAD

#### 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

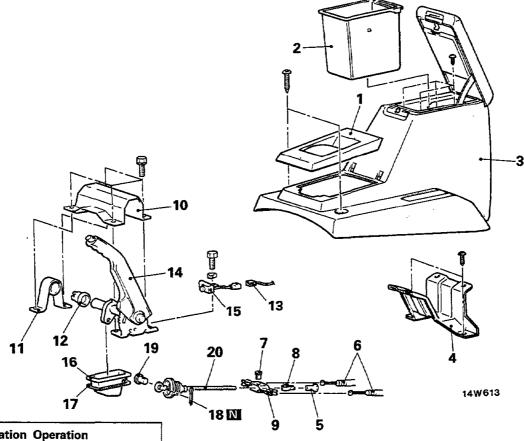
#### 1. APPLICATION OF GREASE TO WHEEL CYLINDER BOOT

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

Specified grease: Repair kit grease (pink)

# PARKING BRAKE LEVER **REMOVAL AND INSTALLATION**

NO5WA-



Post-installation Operation

Adjustment of Parking Brake Lever Stroke (Refer to P.5-9.)

#### 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

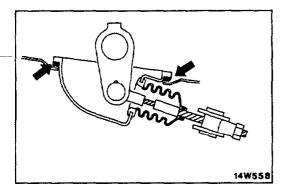
- ◆ 12. Parking lever bushing
  - 13. Connection of parking brake switch con-
- 14. Parking brake lever assembly
  - 15. Parking brake switch
- 16. Cover
  - 17. Sealer
  - 18. Cotter pin
  - 19. Clevis pin
  - 20. Parking brake cable

#### NOTE

#### INSPECTION

N05WCAA

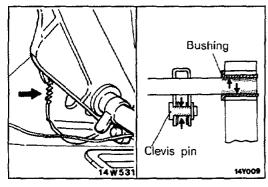
Check the brake lever ratchet for wear.



# SERVICE POINTS OF INSTALLATION 16. APPLICATION OF SEALANT TO COVER

N05WDAB

Apply a coat of the semi-drying sealant to the both sides of the sealer.

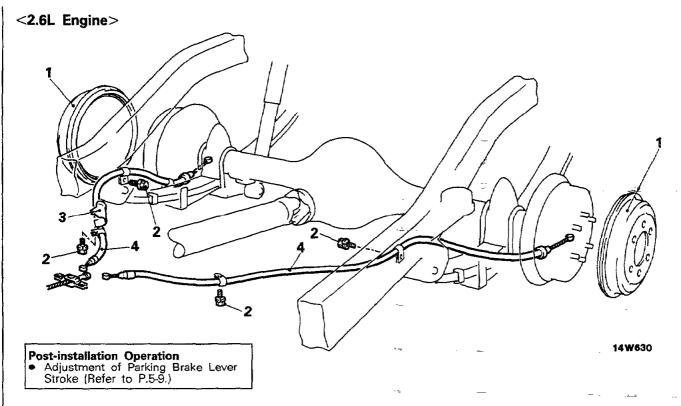


#### 14. APPLICATION OF GREASE TO PARKING BRAKE LEVER **ASSEMBLY/12. PARKING LEVER BUSHING**

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

# PARKING BRAKE CABLE REMOVAL AND INSTALLATION

NOSXA-



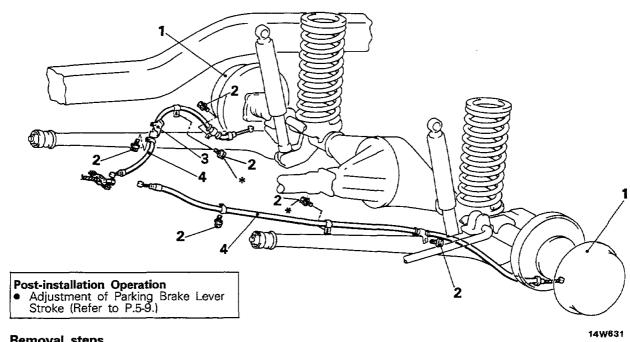
#### Removal steps

- 1. Brake drum
- 2. Bolt
- 3. Parking cable heat protector

4. Parking brake cables

- NOTE
- (1) Reverse the removal procedures to reinstall.
- ♣ : Refer to "Service Points of Removal".
   ♦ : Refer to "Service Points of Installation".





Removal steps

- 1. Brake drum
- Bolt
- 3. Parking cable heat protector <2-door vehicles>
- 4. Parking brake cables

#### NOTE

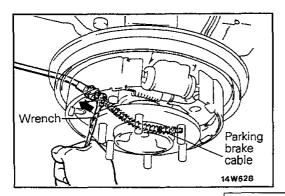
- (1) Reverse the removal procedures to reinstall.
- : Refer to "Service Points of Removal".
  : Refer to "Service Points of Installation".
- The \* symbol indicates applicability to 4-door vehicles.

#### SERVICE POINTS OF REMOVAL

N05XBAC

#### 4. REMOVAL OF PARKING BRAKE CABLE

(1) Disconnect the cable end of the parking brake cable from brake shoe assembly.



(2) 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.

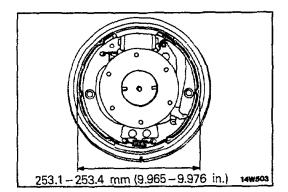
#### NOTE

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

#### INSPECTION

NO5XCAA

• 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.