BRAKES

SERVICE AND PARKING

CONTENTS

BRAKE BOOSTER **43**

BRAKE LINE **45**

BRAKE MASTER CYLINDER **38**

BRAKE PEDAL **35**

FRONT DISC BRAKES **47**

GENERAL INFORMATION **2**

PARKING BRAKE CABLE **68**

PARKING BRAKE LEVER **66**

REAR BRAKE LOCK-UP CONTROL SYSTEM **58**

REAR DISC BRAKES **52**

SERVICE ADJUSTMENT PROCEDURES **24**

- Bleeding 29
- Brake Booster Operating Tests 25
- Brake Fluid Level Sensor Check 24
- Brake Pedal Inspection and Adjustment 24
- G-sensor Installation Levelness Check 29
- Modulator Operating Test 28
- Pad Assembly Inspection and Replacement 29
- Parking Brake Lever Stroke Check 33
- Parking Brake Switch Check 34
- Proportioning Valve Function Test 27
- Rear Brake Lock-up Control System Function Check 27

SPECIAL TOOLS **18**

SPECIFICATIONS **14**

- General Specifications 14
- Lubricants 17
- Sealants and Adhesives 17
- Service Specifications 15
- Torque Specifications 16

TROUBLESHOOTING **19**

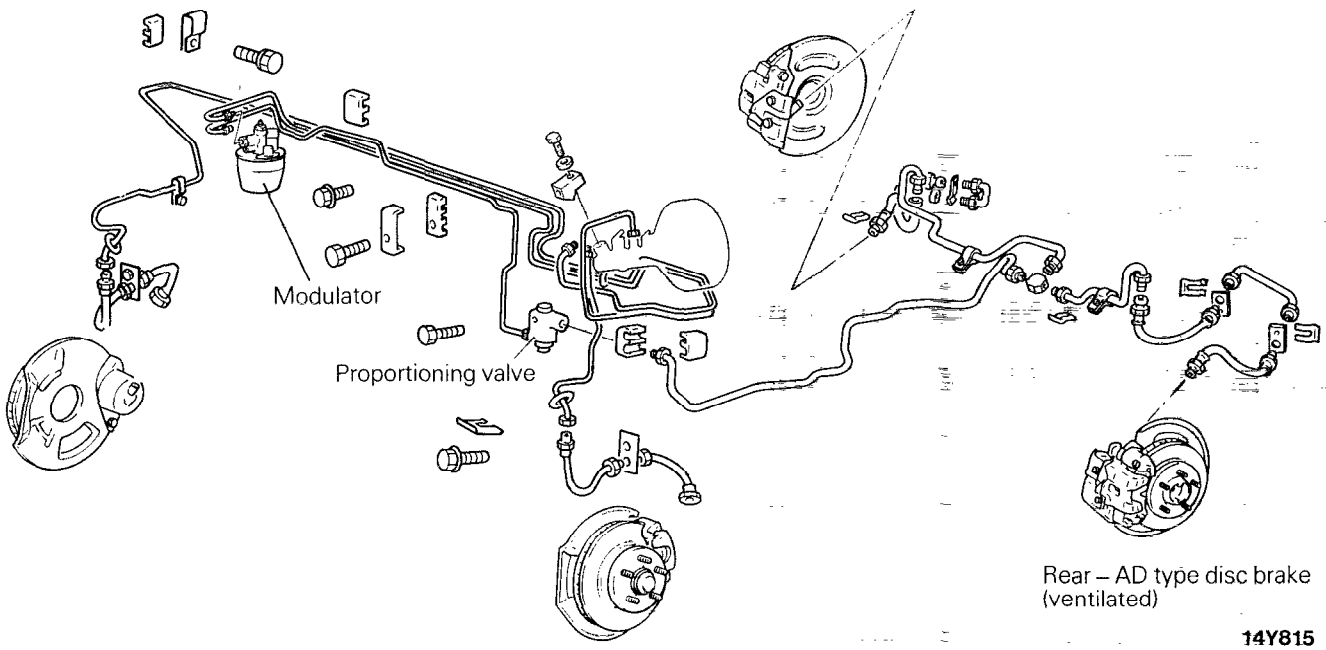
- Brake Drag
- Groaning, Clicking or Rattling Noise When Brakes Are Not Applied
- Increased Pedal Stroke (Reduced Pedal to Floorboard Clearance)
- Insufficient Braking Power
- Insufficient Parking Brake Function
- Rear Brake Lock-up Control System
- Scraping or Grinding Noise When Brakes Are Applied
- Squealing Noise When Brakes Are Not Applied
- Squealing, Groaning or Chattering Noise When Brakes Are Applied
- Vehicle Pulls to One Side When Brakes Are Applied

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 air-borne if dust is created during service operations. Breathing dust which contains asbestos fibers can cause serious bodily harm.

GENERAL INFORMATION

N05BA--

The service brakes on all four wheels (front and rear) are disc brakes (ventilated type) that feature outstanding braking effect and heat dissipation.
A brake booster is also added to reduce the force required for braking.
A proportioning valve is provided for improved stability during braking.

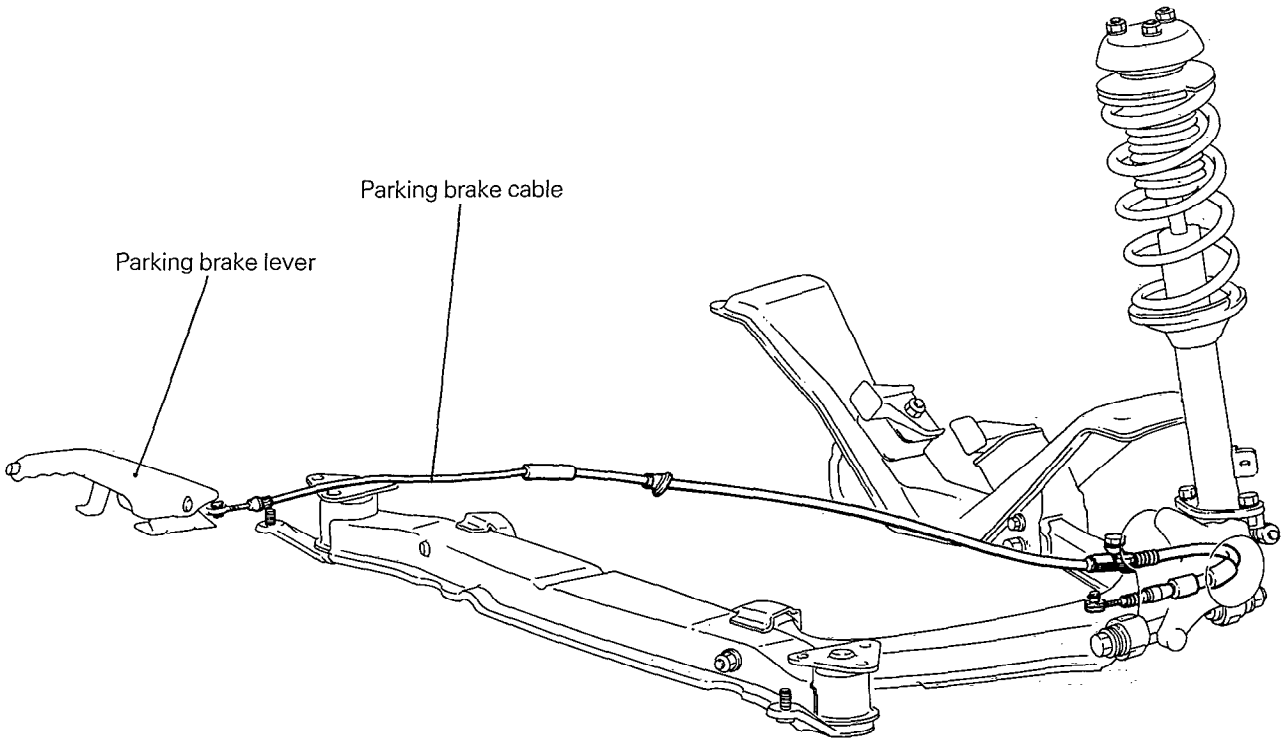


Front – FS17 type disc brake (ventilated)

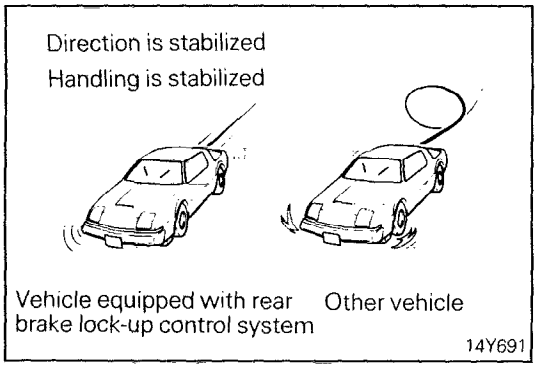
Rear – AD type disc brake (ventilated)

14Y815

The parking brake is a mechanical brake acting on rear wheels. The parking brake lever is installed offset toward the driver's seat so that it is easy to manipulate. The brake cable arrangement is V-type. The parking brake lever stroke is adjustable by means of the equalizer installed beneath the floor console.



14Y509



REAR BRAKE LOCK-UP CONTROL SYSTEM

SUMMARY

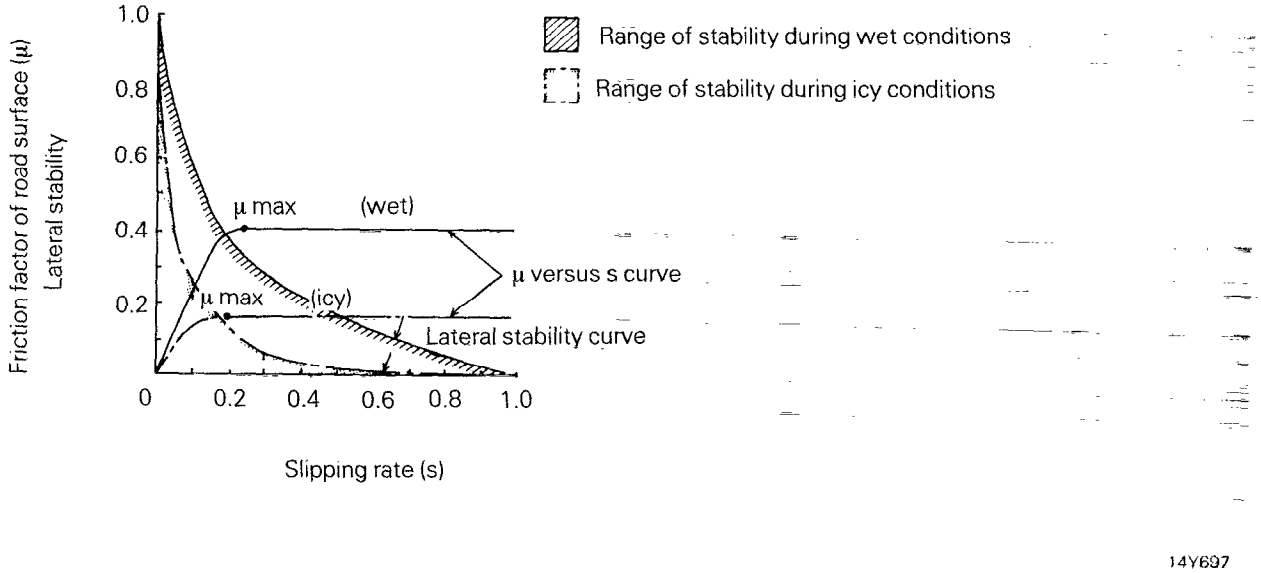
This system is an automatic brake control system designed to achieve maximum braking efficiency for quick stops on wet or icy road surfaces, and to reduce the possibility of the vehicle skidding. If the wheels become locked when the brakes are applied suddenly while driving on roads slippery with snow or rain, the braking efficiency will be drastically reduced, and in addition, the driver could possibly lose complete control of the vehicle. The rear brake lock-up control system is designed to reduce the possibility of these dangerous conditions occurring by automatically maintaining optimum control of braking in accordance with the road conditions. This system, however, is designed for rear wheel control only. If the front wheels become locked, the brakes will not be automatically controlled.

THE PRINCIPLES OF THE REAR BRAKE LOCK-UP CONTROL SYSTEM

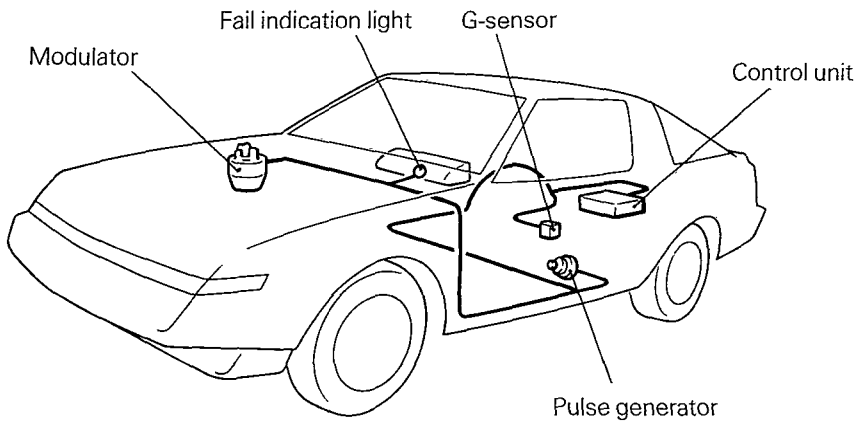
The rear brake lock-up control system is designed to control the physical characteristics of the relationship between the tires and the road surface (the friction factor between the tires and the road surface and the slipping rate of the tires*).
The illustration shows the basic curves of μ versus s** and of lateral stability.
From the illustration, it can clearly be seen that, by maintaining control in the area of μ max (the maximum friction factor), the braking distance can be reduced, and in addition, lateral stability can be maintained.
This rear brake lock-up control system has been designed to implement these principles in the braking function.

$$\text{* Slipping rate (s)} = \frac{\text{Speed of the vehicle} - \text{The speed of the wheels}}{\text{Speed of the vehicle}}$$

** The curve of μ versus s is determined by the relationship between the road surface friction factor and the slipping rate.



COMPONENTS



14Y692

The rear brake lock-up control system is composed of the following five units:

PULSE GENERATOR

Generates a rotation pulse in accordance with the speed of the rear wheels.

G-SENSOR

Generates a voltage in accordance with the reduction of the vehicle speed.

CONTROL UNIT

Controls each of the signals.

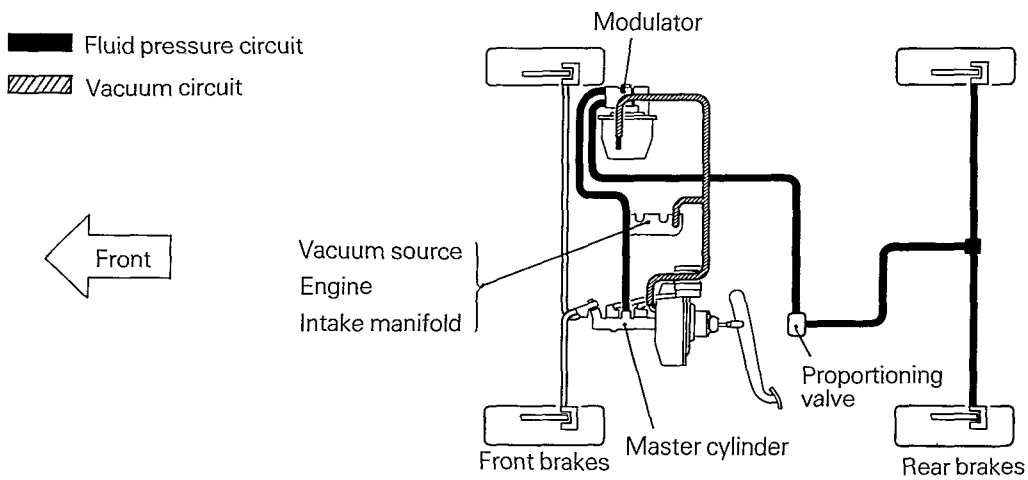
MODULATOR

Controls the pressure of the brake fluid.

FAIL INDICATION LIGHT

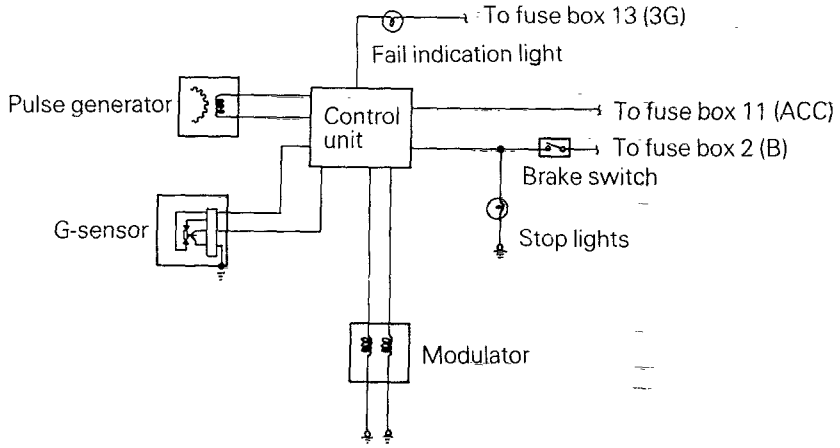
Illuminates in the event of a malfunction of the control unit.

DIAGRAM OF THE FLUID PRESSURE AND VACUUM CIRCUITS



14Y694

ELECTRIC CIRCUIT DIAGRAM



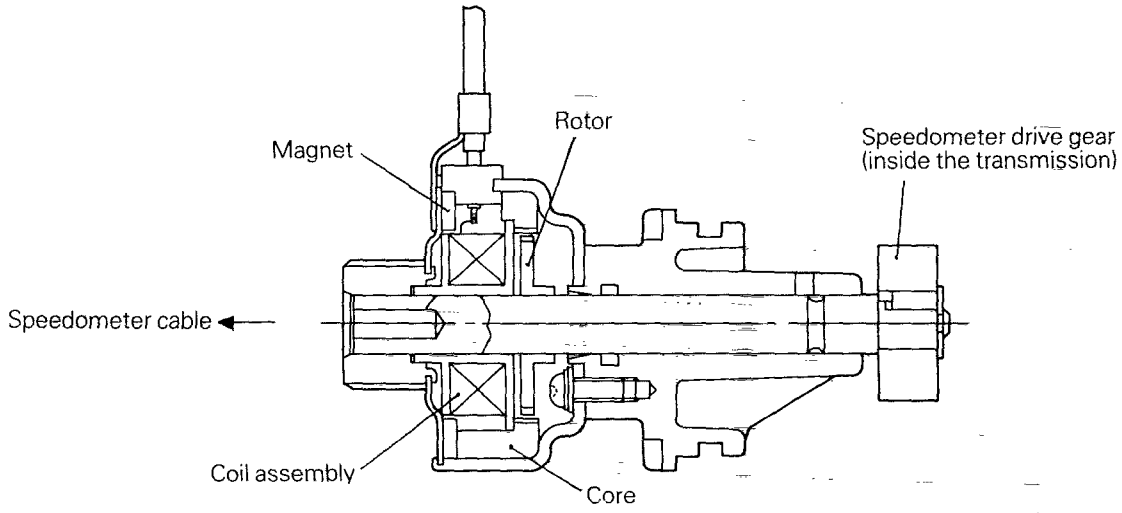
14Y706

OPERATION DESCRIPTION

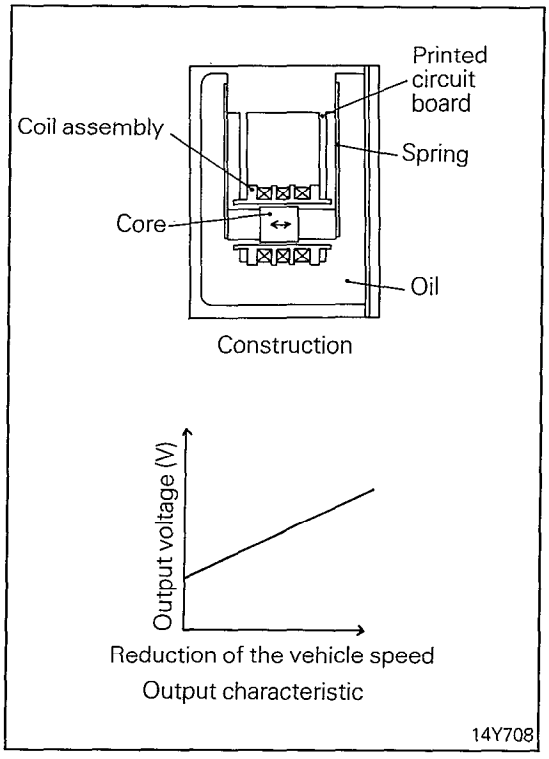
Pulse Generator (Detection of the Speed of the Wheels)

The pulse generator is composed of a permanent magnet, a coil and a rotor. It is installed at the speedometer exit port of the transmission. The rotor is rotated by the speedometer drive gear. The magnetic flux generated from the permanent magnet varies according to the rotation of the rotor, and an AC voltage is generated in the coil (Electromagnetic induction action). The AC voltage is proportionate to the rotating speed of the rotor, and the frequency varies. Accordingly, the speed of the wheels is detected by using the frequency variations of the AC voltage generated by the pulse generator.
The frequency of the generated voltage is the average value of the speeds of the left and right wheels.

Construction of the pulse generator

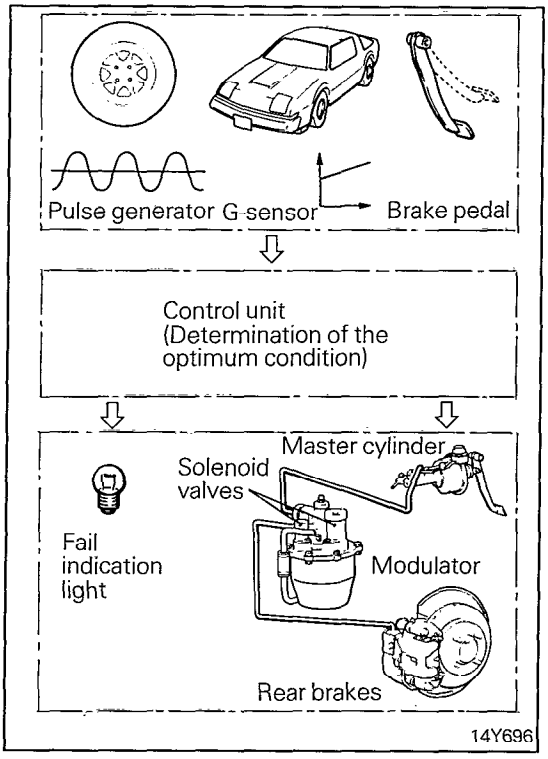


14Y709



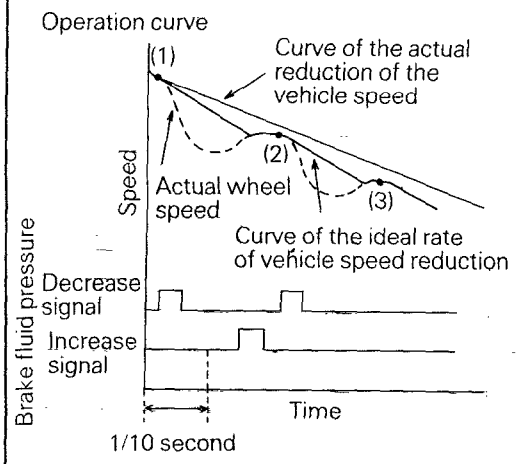
G-Sensor (Detection of the Reduction of the Vehicle Speed)

The G-sensor is composed of a differential transformer, a control circuit (in the form of a printed circuit board), etc. It is installed on the floor of the baggage compartment.
The core within the differential transformer is usually stationary at the center of the coil; however, when a reduction in speed is applied, the core moves and a voltage corresponding to the amount of displacement of the core is generated. In other words, the extent of the reduction in the vehicle speed is detected.



Control Unit (Signal Control)

The control unit is installed inside the baggage compartment. It receives the signals from the pulse generator, the G-sensor, and the brake switch (which is also used as the stop light switch), and transmits the brake fluid pressure control signal to the modulator. If there is a malfunction in either the control unit or the modulator (the solenoid valve section), or in the event of an open circuit, the condition is detected. The brake system is returned to conventional operation, and the fail indication light illuminates to warn the driver of the existence of a malfunction. In addition, if an open circuit occurs in the wiring of the control unit power supply, the G-sensor, the inside of the pulse generator, or the brake switch (input wiring), or if all the stop light bulbs burn out, the brake system is returned to conventional operation, and the fail indication light illuminates in the same way to warn the driver.
The signal to lower the brake fluid pressure of the rear brakes causes the modulator release valve (the valve used to lower the brake fluid pressure) to operate in the event that the amount of slipping of the tires on the road surface becomes greater than the specified value which is determined in accordance with the speed reduction of the wheels and also in the event that the speed reduction of the wheels becomes greater than the specified value in relationship to the reduction of the vehicle speed. Note that there is no lock-up control of the rear brakes when the speed of the vehicle is approximately 8 km/h (5 mph) or less.



The slope of the ideal rate of vehicle speed reduction is maintained at the optimum level by a constant feedback of the rate of speed reduction of the wheels.
[Points (1), (2) and (3) in the graph]

14Y705

OUTLINE OF OPERATION

The control unit determines the ideal vehicle speed reduction curve in accordance with the input signals from the G-sensor and the pulse generator. As shown in the operation curve, the ideal vehicle speed reduction and the actual speed reduction of the wheels are compared. If the actual speed reduction of the wheels is greater (if the rotation speed of the wheels is slowing down too rapidly), the brake fluid pressure for the rear brakes is decreased, the rate of speed reduction of the wheels is also decreased, and the ideal vehicle speed reduction rate is restored. On the other hand, if the actual speed reduction of the wheels is smaller (if the rotation speed of the wheels is slowing down too slowly), the brake fluid pressure for the rear brakes is increased, the rate of speed reduction of the wheels is also increased, and the ideal wheel speed reduction rate is restored. In this way, the wheels are controlled to maintain the ideal rate of speed reduction.

FAIL-SAFE FUNCTION

The fail-safe function causes the control unit to cease operation, the brake system to return to conventional operation, and the fail indication light to illuminate in the event that any of the following malfunctions occur in the rear brake lock-up control system:

1. The wiring of the solenoid valve used for vacuum control of the modulator becomes disconnected.
2. The wiring of the solenoid valve used for vacuum control of the modulator operates continuously for five seconds or longer.
3. The wiring of the brake switch becomes disconnected.
4. A problem occurs inside the pulse generator, or the wiring of the pulse generator becomes disconnected.
5. A problem occurs in the G-sensor, or the wiring of the G-sensor becomes disconnected.
6. The power supply line of the control unit becomes disconnected.
7. The wiring of the stop light becomes disconnected.

If the fail indication light illuminates, refer to the troubleshooting section.

CONTROL UNIT FUNCTION CHECK

Run the engine for five seconds or longer while the vehicle is not in motion. Next, set the ignition key to the "LOCK" position, depress the brake pedal, and then, while keeping the brake pedal depressed, set the ignition key back to the "ON" position. At this time, confirm that the operation sound of the modulator solenoid valve can be heard. If this sound can be heard, then the control unit is functioning normally.
In other words, self-diagnosis of the control unit is done by causing the release solenoid valve to operate.

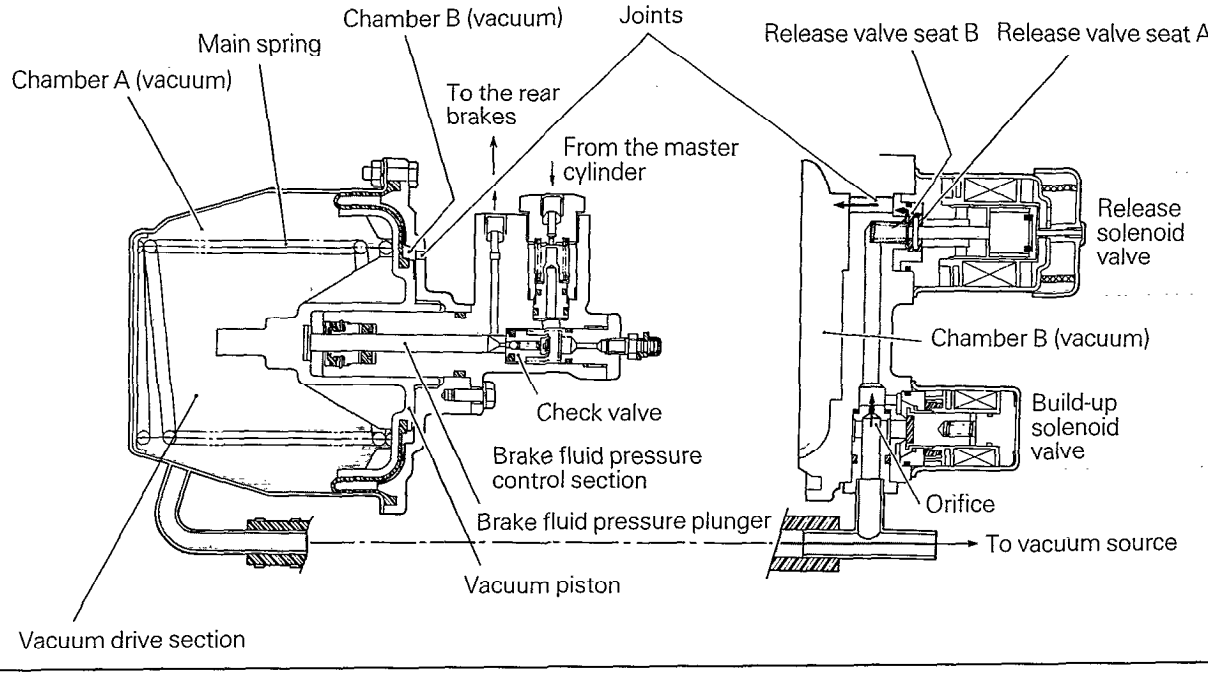
Modulator (Vacuum-servo Type Brake Fluid Pressure Control)

The modulator receives the control signal (electrical signal) from the control unit, and controls the brake fluid pressure for the rear brakes.
The modulator is composed of a brake fluid pressure control section to control the brake fluid pressure for the rear brakes, a vacuum drive section to drive the brake fluid pressure control section, and a solenoid valve to control the vacuum of the vacuum drive section.

OPERATION DESCRIPTION

Non-operating Condition

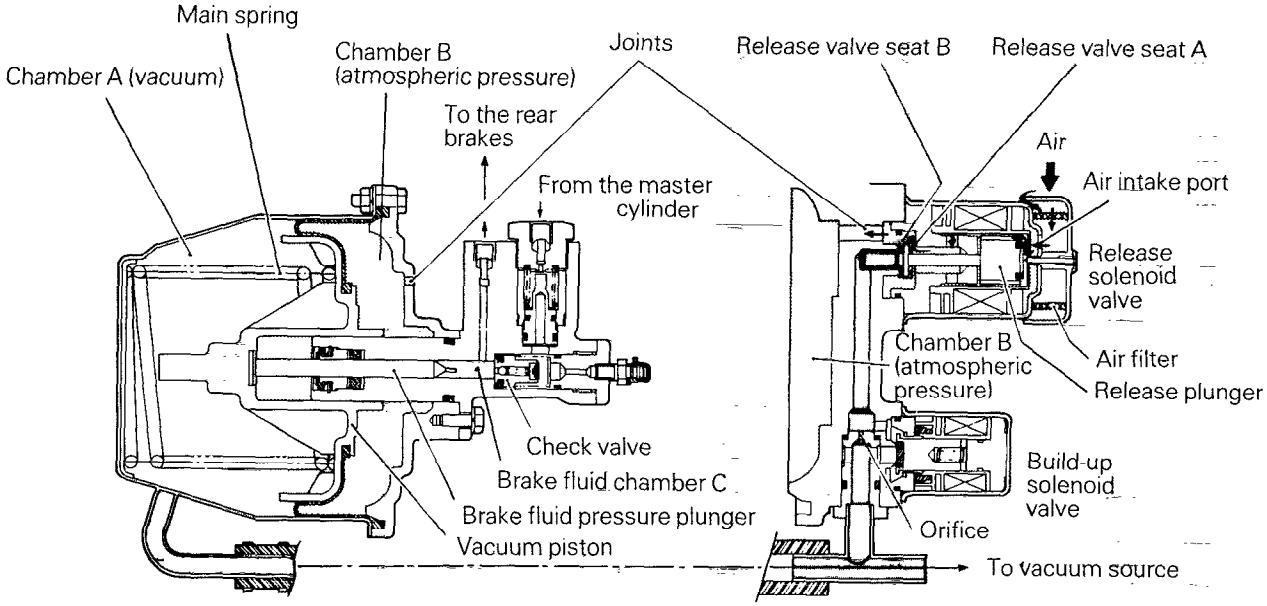
When the solenoid valves (the release solenoid valve and the build-up solenoid valve) are not in the operating condition, the pressures in compartments A and B become equal because of the opening of release seat B. For this reason, the brake fluid plunger is pressed to the right through the vacuum piston by the main spring, the check valve opens, and continuity exists for the master cylinder and the rear brake circuit.



14Y700

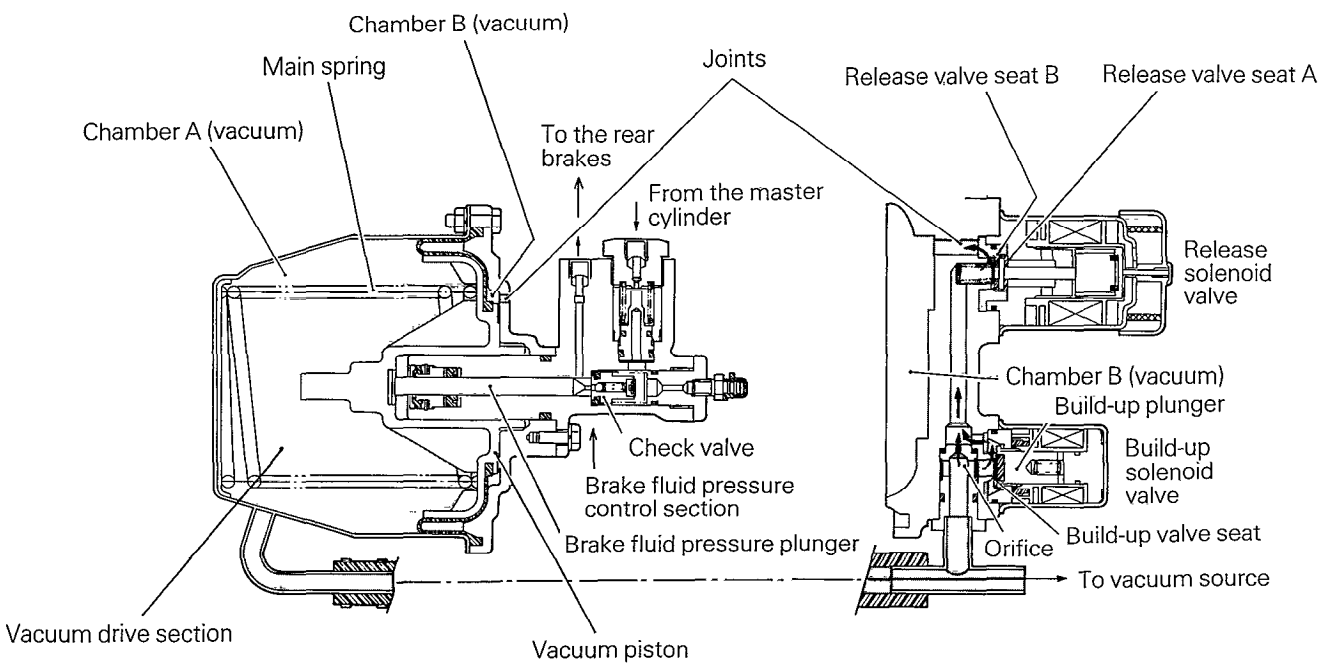
During Operation

1. Reduction of the brake fluid pressure for the rear brakes
If the signal for reduction of the brake fluid pressure is output from the control unit, the electric current will flow to the release solenoid valve, the release plunger will move to the left, release valve seat A will open, and, simultaneously, release valve seat B will close. Air will flow into chamber B through the air filter, to the air intake port, and to release valve seat A. When chamber B reaches atmospheric pressure, the pressure difference between chamber A (vacuum condition) and chamber B will cause the vacuum piston to move to the left, compressing the main spring. The brake fluid pressure plunger will move to the left simultaneously with the vacuum piston and close the check valve. When the check valve is closed, the flow of brake fluid from the master cylinder to the rear brakes is disrupted, and, at the same time, the brake fluid pressure is decreased because of the increase in the capacity of brake fluid in chamber C.

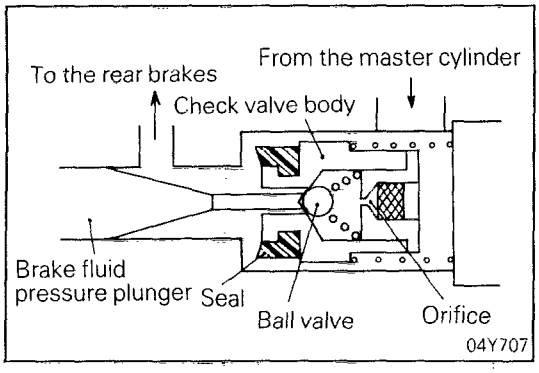


2. Slow restoration of the brake fluid pressure for the rear brakes to a normal level
   Once the brake fluid pressure to the rear brakes has been reduced, the brake fluid pressure reduction signal will cease to be output, the release solenoid valve will return to its non-operating condition, and the air intake to chamber B will be stopped. Because the atmospheric pressure of chamber B passes through the orifice, the pressure in chamber B will gradually change from atmospheric pressure to a vacuum, and, as a result, the pressure difference between chamber A and chamber B will gradually disappear. The brake fluid plunger will be pressed back to the right by the force of the main spring, the condition will be the same as when not operating, and the normal level of brake fluid pressure will be supplied to the rear brakes.
3. Quick restoration of the brake fluid pressure for the rear brakes to normal level
   The electric current will flow to the build-up solenoid valve, the build-up plunger will move to the right, and the build-up valve seat will open. Because the pressure reduction of chamber B is done through both the orifice and the build-up valve seat, the pressure of chamber A and chamber B will quickly equalize.

   NOTE
   If the brake fluid pressure is reduced too much and the level of wheel speed reduction becomes significantly lower than the desired level, the build-up solenoid valve will operate to rapidly achieve the desired level of speed reduction.



14Y699

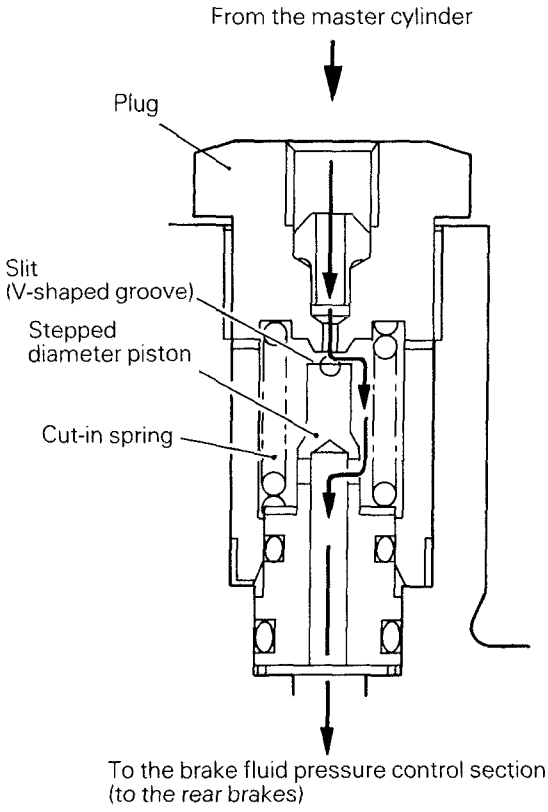


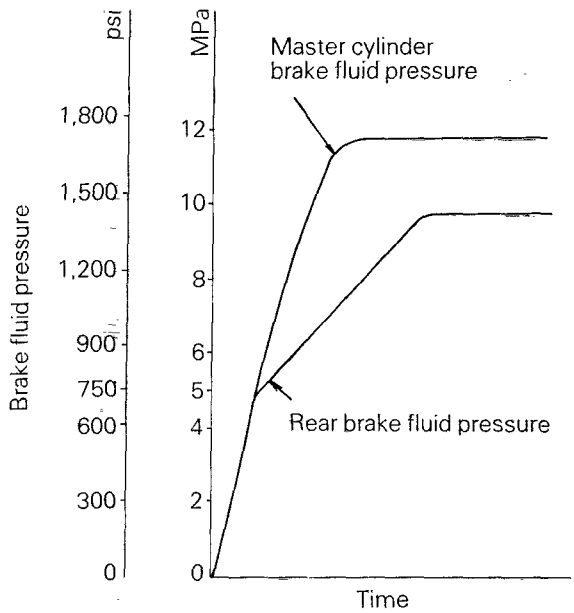
CHECK VALVE FUNCTIONS

1. When the brake fluid pressure for the rear brakes is to be decreased, the brake fluid pressure plunger moves to the left. At this time, the check valve body also moves to the left, the brake fluid line is closed by the seal and ball valve, and the rear brake fluid pressure is decreased.
2. When the brake fluid pressure for the rear brakes is to be restored to normal, a sudden increase in the brake fluid pressure is avoided as follows: The brake fluid pressure plunger moves to the right, pushing on the ball valve which opens the brake fluid line, allowing the brake fluid from the master cylinder to pass through the orifice and gradually flow to the rear brakes.

CHOKE VALVE FUNCTION

Extreme increase in the master cylinder brake fluid pressure will occur when the brake pedal is operated suddenly during quick stops etc. The choke valve prevents sudden increase in the rear brake fluid pressure to allow the system to correctly perform the control function even during sudden braking. The brake fluid flows freely to the rear brakes until the brake fluid pressure of the master cylinder reaches 4,903 kPa (711 psi), as shown in the graph.





14Y701
14Y703

When the brake fluid pressure reaches 4,903 kPa (711 psi), the stepped diameter piston will press the cut-in spring upward, and contact the plug. The brake fluid will pass only through the V-shaped groove, thus limiting the rate of increase of the brake fluid pressure to the rear brakes.

Fail Indication Light

If any malfunction occurs in the rear brake lock-up control system, a signal from the control unit will cause the fail indication light to illuminate to warn the driver of the malfunction. In addition, the light will illuminate for approximately three seconds when the ignition key is set to the "ON" position in order to provide confirmation that the light is connected and functioning properly.
If the light does not illuminate, there is a malfunction of the light or the light circuit.
If the light remains on, there is a malfunction of the rear brake lock-up control system.

Notes Regarding Handling

1. Because there is such a large number of transistor circuits, the system could be easily and instantly damaged if a terminal is improperly contacted during a check for a malfunction; handle with care.
2. Do not open the cover of the control unit to inspect the internal parts. The unit might easily be damaged if a part is mistakenly touched, or if dust or other foreign particles enter the unit.
3. The connections of the battery MUST NEVER be reversed. During replacement of the battery, be sure to set the ignition key to the "LOCK" position, and connect the new battery carefully so that there are no mistakes.
4. During removal and installation, be careful not to expose any of the components to any violent shaking or impacts. Special care must be observed in the handling of the G-sensor; however, all of the other components of the rear brake lock-up control system should also be handled with care.
5. When checking the system with a circuit tester, be careful not to mistakenly touch an adjacent terminal, or to connect the tester to the wrong terminal. If this occurs, the system could be easily and instantly damaged.
6. If the system is being checked during rainy weather, be careful not to allow water to get into any of the components.
7. The G-sensor is filled with a special oil. If it is opened, it can no longer be used.

SPECIFICATIONS

N05CA-

GENERAL SPECIFICATIONS

Items	Specifications
Master cylinder	
Type	Tandem type
I.D. mm (in.)	23.81 (.94)
Brake booster	
Type	Vacuum type
Effective dia. of power cylinder mm (in.)	230 (9.0)
Boosting ratio [Brake pedal depressing force]	4.63 [at 240 N (55 lbs.)]
Front brakes	
Type	FS17 type disc
Disc O.D. mm (in.)	276 (10.87)
Pad thickness mm (in.)	10.0 (.39)
Cylinder I.D. mm (in.)	57.2 (2.25)
Clearance adjustment	Automatic
Rear brakes	
Type	AD type disc
Disc O.D. mm (in.)	266 (10.47)
Pad thickness mm (in.)	8.5 (.33)
Cylinder I.D. mm (in.)	41.3 (1.63)
Clearance adjustment	Automatic
Proportioning valve	
Split point MPa (psi)	3.58 – 4.27 (519 – 619)
Rear brake lock-up control	
Modulator	
Type	Vacuum booster type
Pulse generator	
Type	Magnet coil type
Parking brake	
Type	Mechanical brake acting on rear wheels
Brake lever type	Lever type
Cable arrangement	V-type

SERVICE SPECIFICATIONS

N05CB--

Items	Specifications
Standard value	
Brake pedal height mm (in.)	177 – 183 (7.0 – 7.2)
Brake pedal free play mm (in.)	10 – 15 (.4 – .6)
Brake pedal to toeboard clearance mm (in.)	80 (3.1) or more
Booster push rod to master cylinder piston clearance mm (in.)	0.7 – 1.1 (.028 – .043)
Brake drag force (tangential force of wheel mounting bolts) N (lbs.) [Brake dragging torque Nm (ft.lbs.)]	70 (15.4) or less [4 (3) or less]
Modulator resistance Ω	
Release solenoid valve side	3.8 – 4.8
Build-up solenoid valve side	4.5 – 5.5
Pulse generator resistance Ω	600 – 800
G-sensor installation levelness	Within ±1°
G-sensor output voltage V	
At 0° inclination	1.1 – 1.5
At 90° inclination	4.6 – 5.0
Modulator fluid pressure kPa (psi)	
Split point fluid pressure	4,903 (711)
Set master cylinder fluid pressure	11,768 (1,707)
Max. cut fluid pressure	9,807 (1,422)
Brake booster operating test	
Air-tightness test with no load kPa (mmHg)	3.0 (25)
Air-tightness test under load kPa (mmHg)	3.0 (25)
Booster function test MPa (psi)	
At 100 N (22 lbs.) foot force	2.5 – 4.0 (355 – 570)
At 300 N (66 lbs.) foot force	6.0 – 8.0 (850 – 1,140)
Non-boosting function test MPa (psi)	
At 100 N (22 lbs.) foot force	0.2 (28) or less
At 300 N (66 lbs.) foot force	1.5 (213) or less
Proportioning valve split point MPa (psi)	3.58 – 4.27 (519 – 619)
Output pressure at proportioning valve input pressure of 6.86 MPa (996 psi) MPa (psi)	4.80 – 5.48 (696 – 795)
Parking brake lever stroke clicks	4 – 5
Limit	
Master cylinder to piston clearance mm (in.)	0.15 (.006)
Brake pad thickness mm (in.)	2.0 (.08)
Brake disc thickness mm (in.)	
Front	22.4 (.88)
Rear	16.4 (.65)
Brake disc runout mm (in.)	0.15 (.006)

TORQUE SPECIFICATIONS

N05CC-

Items	Nm	ft.lbs.
Brake pedal to pedal support	25 – 35	18 – 25
Brake booster to pedal support	8 – 12	6 – 9
Reservoir band	2.5 – 4.0	1.8 – 2.9
Check valve case	40 – 50	29 – 36
Check valve cap	25 – 35	18 – 25
Piston stopper	1.5 – 3.0	1.1 – 2.2
Master cylinder to brake booster	8 – 12	6 – 9
Fitting	15 – 18	11 – 13
Master cylinder to brake line connector	25 – 35	17 – 25
Brake line flare nut	13 – 17	9 – 12
Proportioning valve to body	5.5 – 8.5	4.0 – 6.0
Combination valve to body	8 – 12	6 – 9
Front disc brake hub to disc	35 – 40	25 – 29
Front disc brake dust cover	8 – 12	6 – 9
Front brake to knuckle	80 – 100	58 – 72
Slide pin	85 – 95	61 – 69
Rear axle housing to caliper support	40 – 50	29 – 36
Parking brake bracket to caliper body	40 – 55	29 – 40
Guide pin and lock pin	50 – 60	36 – 43
Bleeder screw	7 – 9	5 – 7
Bleeder cap	20 – 30	14 – 22
Hydraulic cylinder mounting bolts	5 – 10	4 – 7
Valve cap	30 – 40	22 – 29
Pulse generator clamp	10 – 13	7 – 9
Steering shaft to gear box	20 – 25	15 – 18
Steering column mounting special bolt	8 – 11	6 – 8
Front wheel bearing nut	20 → 0 → 5	14 → 0 → 4
Rear strut to axle housing	50 – 70	36 – 51
Drive shaft to axle housing	55 – 65	40 – 47
Axle shaft to axle housing	260 – 300	188 – 217
Lower arm shaft (bolt)	70 – 80	51 – 58
Lower arm to axle housing	15 – 20	11 – 14

LUBRICANTS

N05CD--

Items	Specified lubricants	Quantity
Brake pedal bushing and spacer	MOPAR Multi-mileage Lubricant Part No. 2525035 or equivalent	As required
Brake fluid	MOPAR Brake Fluid Part No. 2933249 or equivalent	As required
Lip of cylinder (Front brake assembly)	Repair kit grease (pink)	As required
Front brake caliper plug seat surface	Repair kit grease (pink)	As required
Front brake caliper slide pin hole	Repair kit grease (pink)	As required
Front brake slide pin	Repair kit grease (pink)	As required
Front brake bushing inner surface	Repair kit grease (pink)	As required
Opposing surfaces of front brake inner shims and pad side surfaces of inner and outer shims	Repair kit grease	As required
Rear brake dust boot fitting groove	Repair kit grease (orange)	As required
Rear brake contact surface of caliper body and spring washers	Repair kit grease (orange)	As required
Rear brake lever cap inner surface and lip of lever cap	Repair kit grease (orange)	As required
Rear brake guide pin and lock pin	Repair kit grease (orange)	As required
Parking brake lever bearing	Repair kit grease (orange)	As required
Rear brake caliper support guide pin and lock pin boot	Repair kit grease (orange)	As required
Dust seal of modulator	Repair kit grease (silicone grease)	As required
Clevis pin, bushing and ratchet plate	Multi-mileage Lubricant Part No. 2525035 or equivalent	As required

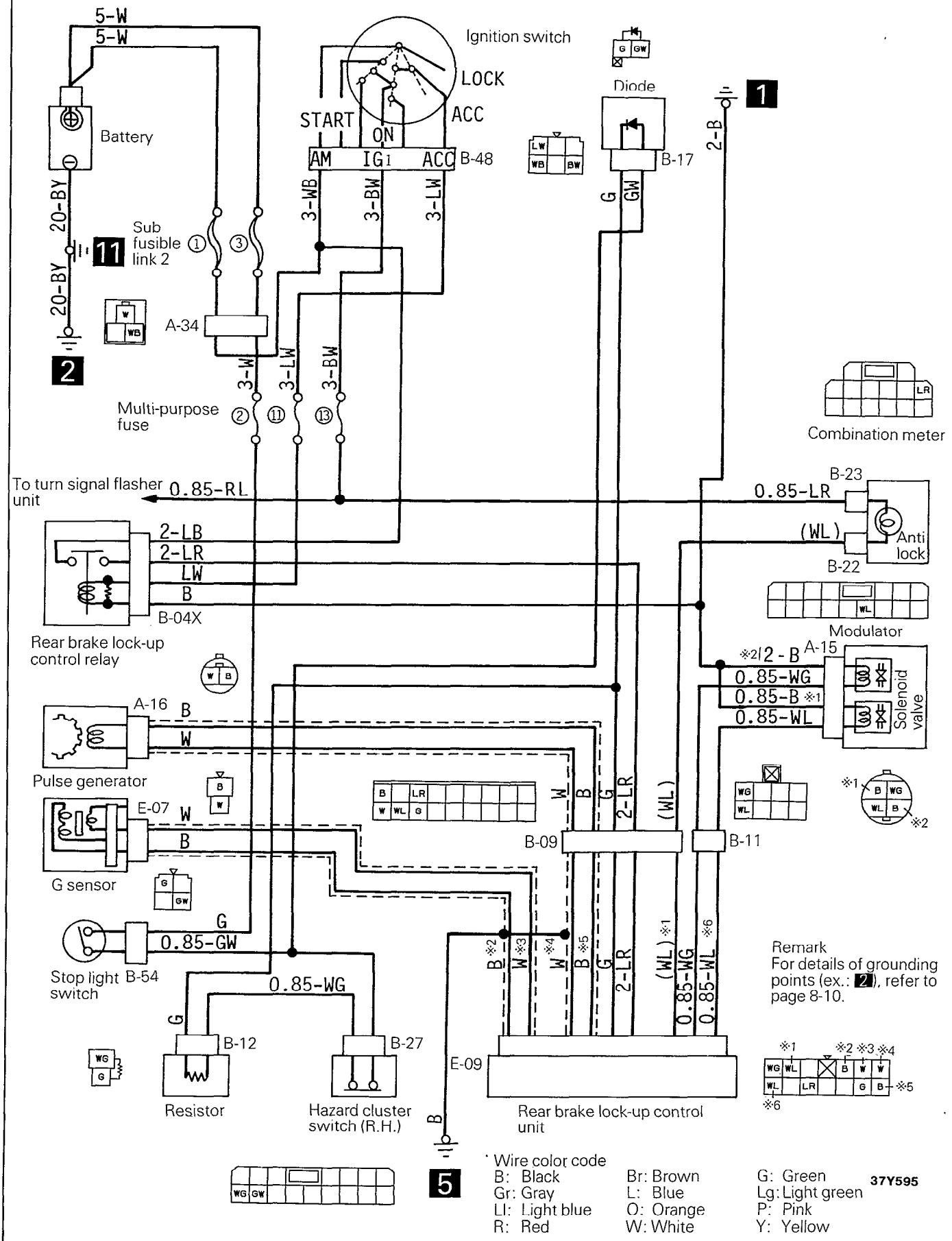
SEALANTS AND ADHESIVES

N05CE--

Items	Specified adhesives	Quantity
Front brake slide pin bushing lip section	Repair kit adhesive	As required

Symptom	Probable cause	Remedy
Insufficient parking brake function	Worn brake pad	Replace
	Excessive parking brake lever stroke	Adjust the parking brake lever stroke or check the parking brake cable routing
	Grease or oil on pad surface	Replace
	Auto adjuster malfunction	Adjust
	Parking brake cable sticking	Replace
	Stuck caliper piston	Replace
Scraping or grinding noise when brakes are applied	Worn brake pad	Replace
	Caliper to wheel interference	Correct or replace
	Cracked brake disc	Correct or replace
Squealing, groaning or chattering noise when brakes are applied	Disc brakes – missing or damaged brake pad anti-squeak shim	Replace
	Brake 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 pad	Clean or replace
	Incorrect adjustment of brake pedal or booster push-rod	Adjust
Squealing noise when brakes are not applied	Disc brakes – rusted, stuck	Lubricate or replace
	Loose or extra parts in brakes	Retighten
	Improper positioning of pads in caliper	Correct
	Improper installation of support mounting to caliper body	Correct
	Poor return of brake booster or master cylinder	Replace
	Incorrect adjustment of brake pedal or booster push-rod	Adjust
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
	Disc brakes – loose installation bolt	Retighten
	Incorrect adjustment of brake pedal or booster push-rod	Adjust

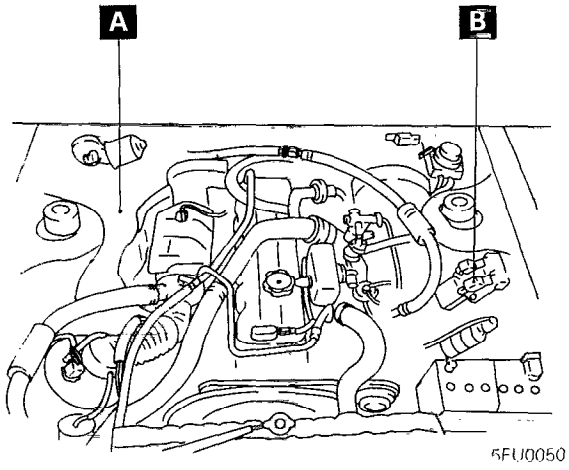
CIRCUIT DIAGRAM

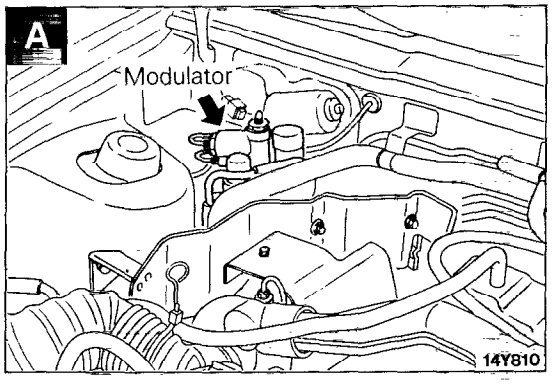


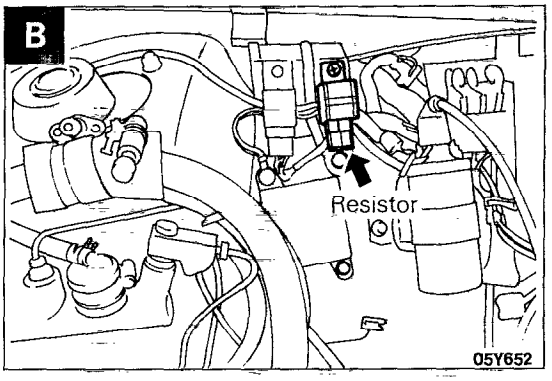
REAR BRAKE LOCK-UP CONTROL SYSTEM – CONTROL PARTS LAYOUT

Name	Symbol	Name	Symbol
G-sensor	F	Rear brake lock-up control relay	C
Modulator	A	Rear brake lock-up control unit	E
Pulse generator	D	Resistor	B

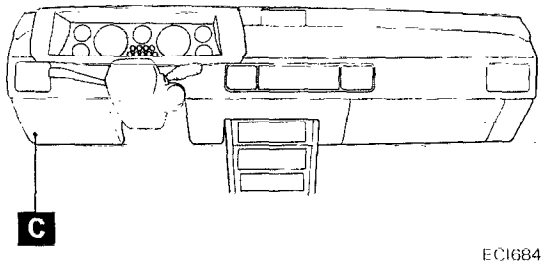
ENGINE COMPARTMENT

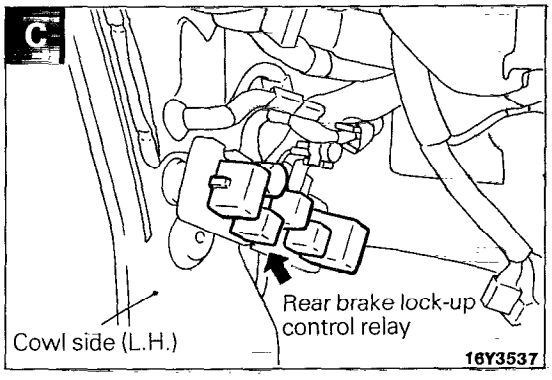




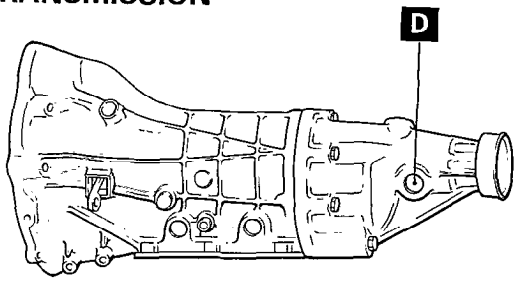


INSTRUMENT PANEL

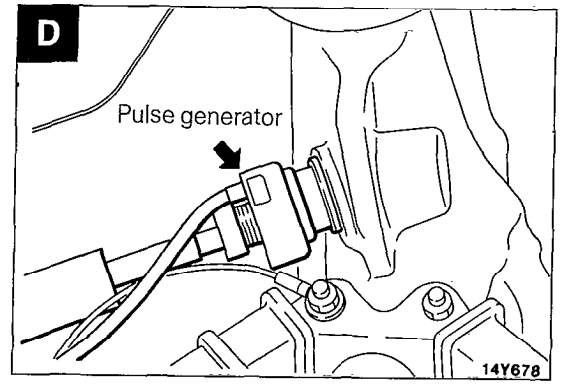




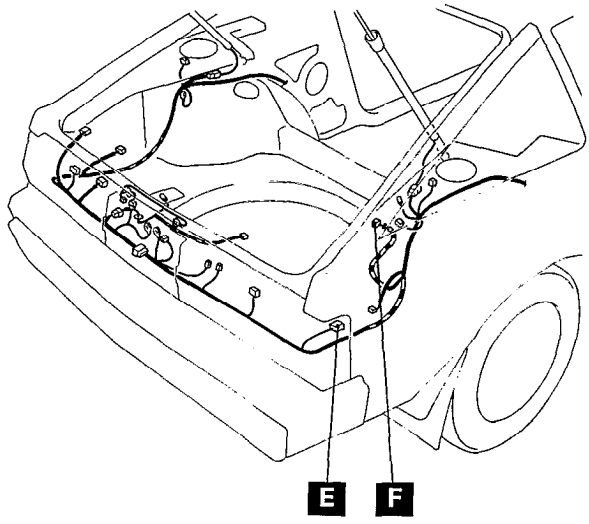
TRANSMISSION



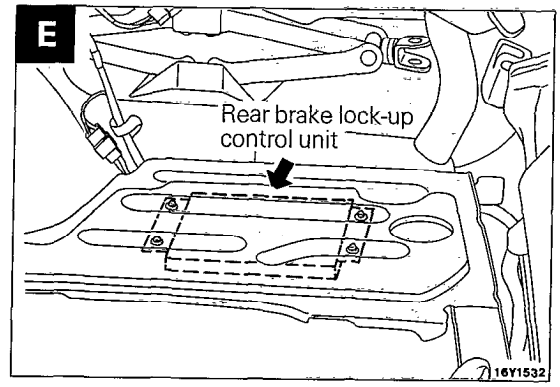
09Y665

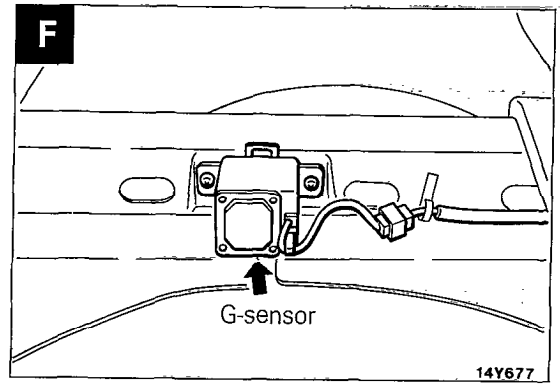


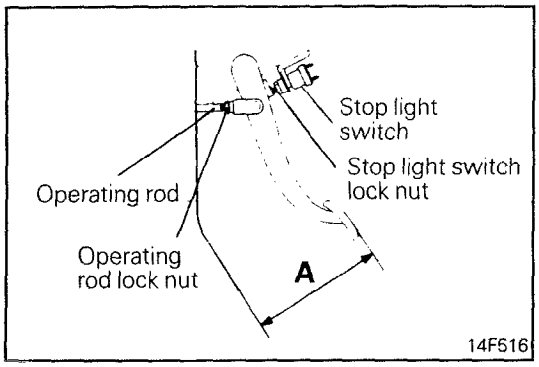
LUGGAGE COMPARTMENT

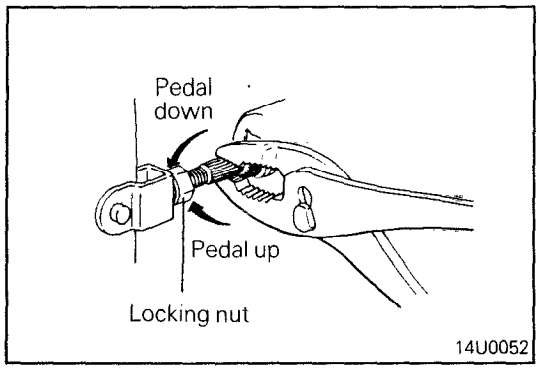


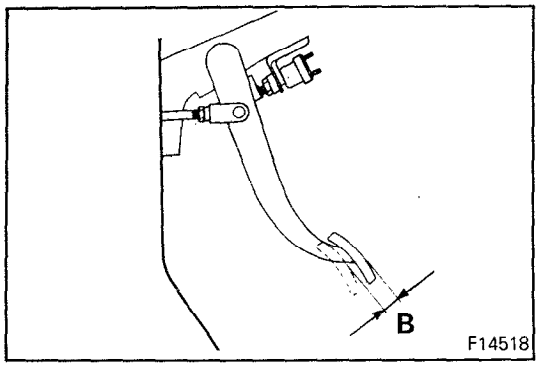
36Y559

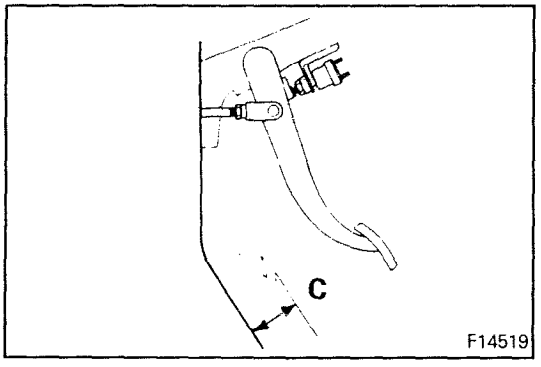


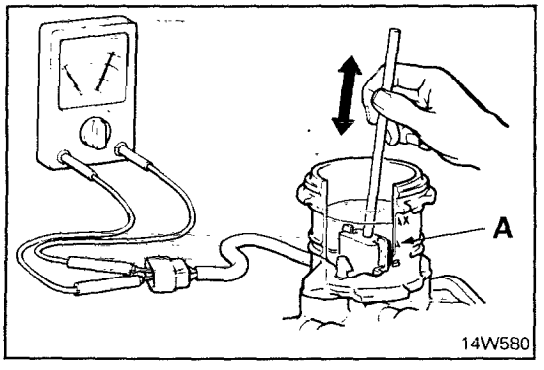












SERVICE ADJUSTMENT PROCEDURES

N05FAAJ

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): 177 – 183 mm (7.0 – 7.2 in.)

   (1) Disconnect the stop light switch and loosen the lock nut. Then, 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.

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): 10 – 15 mm (.4 – .6 in.)

   (1) If the free play is less than the standard value, check to make sure that normal clearance is maintained between the stop light switch and the pedal arm.
   (2) If the free play exceeds the standard value, large play between the clevis pin and brake pedal arm is suspected. Check and replace faulty parts if any.

3. Start the engine, depress the brake pedal with a force of approximately 500 N (110 lbs.), and measure the distance between the upper face of the brake pedal and the floor sheet.

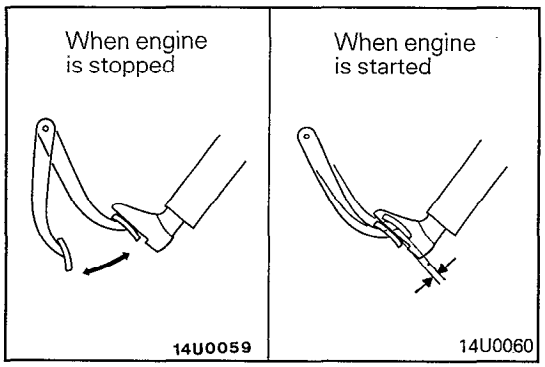
   Standard value (C): 80 mm (3.1 in.) or more

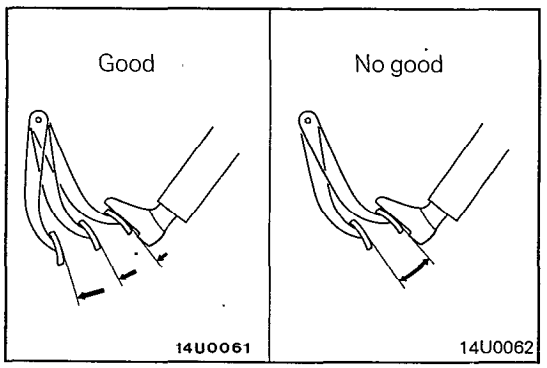
   If the clearance is smaller than the standard value, check for air trapped in the brake line or brake fluid leaks and repair as needed.

BRAKE FLUID LEVEL SENSOR CHECK

N05FBAD

1. Connect an ohmmeter to the brake fluid level sensor connector.
2. Move the float vertically to check continuity. The brake fluid level sensor is okay if it is confirmed that there is no continuity when the float top is above "A" and there is continuity when the float top is below "A".





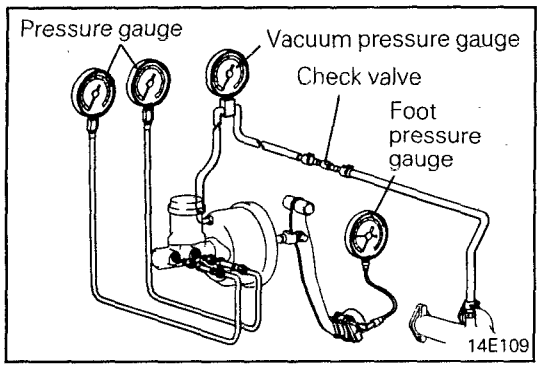
BRAKE BOOSTER OPERATING TESTS N05FCAG

TEST WITHOUT A TESTER

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

1. 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 defective.
2. 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.
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 USING SIMPLE TESTERS

Prior to the test, connect a vacuum gauge, pressure gauges and foot force gauge as shown in the illustration. Bleed the system.

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: 3.0 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: 3.0 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

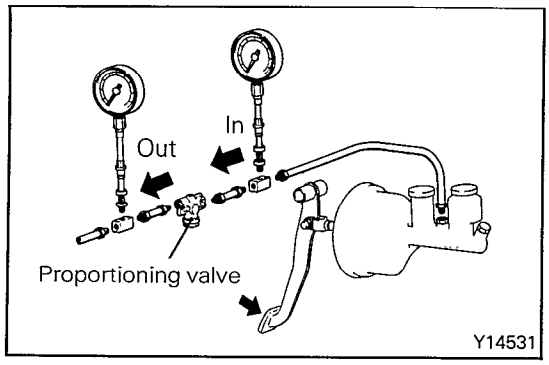
(1) Start the engine.
(2) Depress the brake pedal when the vacuum gauge reaches approximately 68 kPa (500 mmHg).
(3) Check to be sure that the brake fluid pressure is the standard value when the brake pedal is depressed at a foot force of 100 N (22 lbs.) and 300 N (66 lbs.).

Standard value:
At 100 N (22 lbs.) foot force
2.5 – 4.0 MPa (355 – 570 psi)
At 300 N (66 lbs.) foot force
6.8 – 8.0 MPa (850 – 1,140 psi)

Test 4 – Non-boosting Function Test

(1) Stop the engine.
(2) Depress the brake pedal several times.
(3) Confirm that the vacuum gauge indicates 0 kPa (0 mmHg).
(4) 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
0.2 MPa (28 psi) or less
At 300 N (66 lbs.) foot force
1.5 MPa (213 psi) or less



PROPORTIONING VALVE FUNCTION TEST N05FKAG

1. Connect two pressure gauges, one each to the input side and output side of the proportioning valve, as shown in the illustration.
2. With the brake pedal depressed, make the following measurements and check to be sure that the measured values are within the allowable range.
   (1) Output pressure begins to drop relative to input pressure (split point)

   Standard value: 3.58 – 4.27 MPa (519 – 619 psi)

   (2) Relationship between input pressure and output pressure

   Standard value:
   Rear brake lock-up control system at input pressure of 6.86 MPa (996 psi)
   4.80 – 5.48 MPa (696 – 795 psi)
3. If the measured pressures are not within the standard value, replace the proportioning valve.

REAR BRAKE LOCK-UP CONTROL SYSTEM FUNCTION CHECK N05FFAA

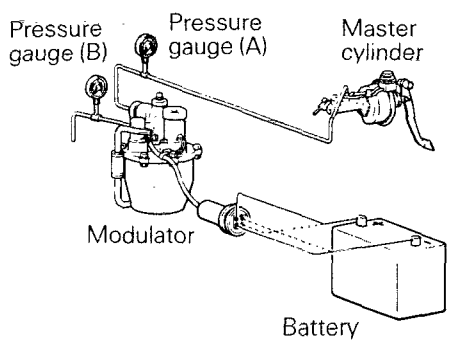
SELF-DIAGNOSIS CHECK

1. Operate the engine for five seconds or longer while the vehicle is not moving, turn the ignition key to the "LOCK" position, and then depress the brake pedal.
2. Turn the ignition key from the "LOCK" position to the "ON" position, and confirm that the sound of the modulator operating can be heard. If the operating sound can be heard, the solenoid valve is functioning properly.

   NOTE
   The sound of the modulator operating should be a dull clicking sound.

FUNCTION CHECK

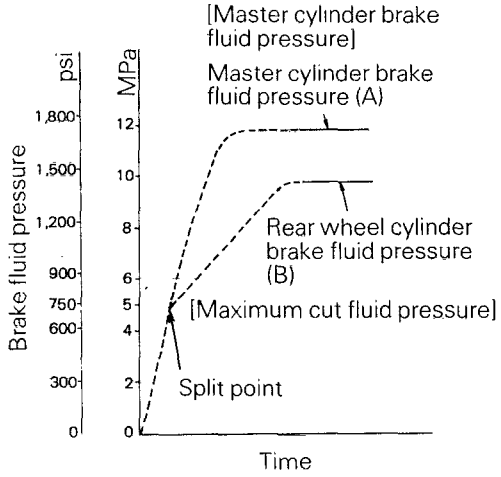
1. Raise the vehicle on a jack (the rear wheels should be completely off the ground), and then support the vehicle on rigid racks. Block the front wheels.
2. Warm up the engine, see the shift lever to the second gear position, depress the accelerator pedal, and maintain the speedometer reading at approximately 30 km/h (19 mph).
3. Keep the accelerator pedal depressed in the same position, and then depress the brake pedal suddenly.
4. The brakes will attempt to stop the rotation of the rear wheels; however, because the operation of the anti-skid brake system will cut off the supply of brake fluid pressure, the rotation of the rear wheels will be restored. This reduction and increase process should keep repeating itself.



—— Connections during operation of the release solenoid valve

- - - - - Connections during operation of the build-up solenoid valve

14Y688



14Y702

MODULATOR OPERATING TEST

N05FGAB

1. Connect pressure gauges [(A) and (B) with ranges of 0 to 15,000 kPa (0 to 2,100 psi) or more], one to the rear-brake exit point of the modulator, and the other between the master cylinder and the modulator.
2. Let the engine run at idling speed.
3. Hold the brake pedal at the point which will result in a reading of about 4,903 kPa (711 psi) on pressure gauge (B) connected to the rear-brake exit point of the modulator.
4. While watching pressure gauge (B), operate the release solenoid valve.
   The condition is normal if the reading suddenly drops almost to 0 kPa (0 psi).
5. While maintaining the condition in step 4, operate the build-up solenoid valve.
6. Then, while in the condition in step 5, stop the operation of the release solenoid valve while watching the pressure gauge.
   If the pressure suddenly rises to about 4,903 kPa (711 psi), the condition is normal.

   Standard value:

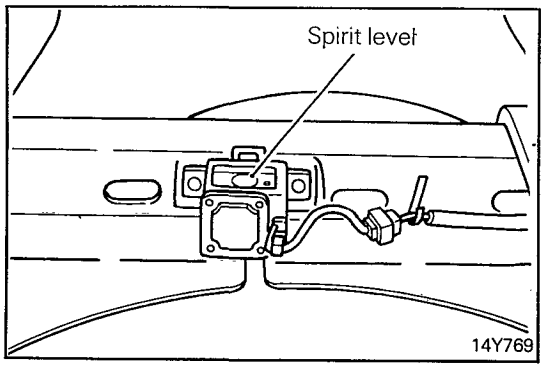
Split point fluid pressure	**4,903 kPa (711 psi)**

7. Repeat step 4 and then, with the build-up solenoid valve in the non-operating condition, stop the operation of the release solenoid valve while watching pressure gauge (B). If the pressure rises about one second later to about 4,900 kPa (710 psi), the condition is normal.
8. With both solenoid valves in the non-operating condition, increase the fluid pressure of the master cylinder, and check the relationship with the rear brake fluid pressure.

   NOTE
   Check to be sure that gauge (B) show a reading of 9,807 kPa (1,422 psi) when the brake pedal is depressed until gauge (A) shows a reading of 11,768 kPa (1,707 psi).
   If these values cannot be satisfied, replace the modulator.

   Standard value:

Set master cylinder fluid pressure	**11,768 kPa (1,707 psi)**
Max. cut fluid pressure	**9,807 kPa (1,422 psi)**

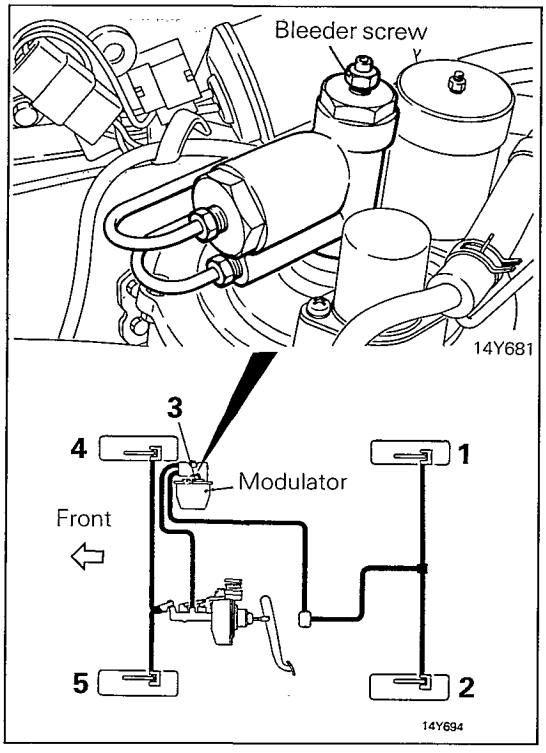


G-SENSOR INSTALLATION LEVELNESS CHECK

N05FHAB

1. Position the unladen vehicle on a level place.
2. Use a spirit level to measure levelness of the G-sensor in lateral and longitudinal directions and check to see that it is within the standard value range.

   Standard value: Within ±1°
3. If it is out of the standard value, use adequate shim to adjust to the standard value.



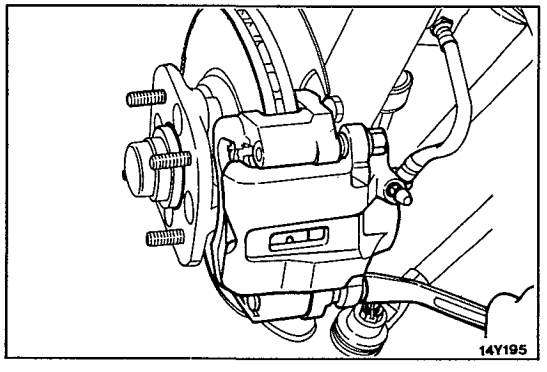
BLEEDING

N05FYAE

1. 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.
2. Bleed the brake system in the sequence shown in the illustration.
3. Purge air from the modulator before purging air from the front wheel cylinders.

   Specified brake fluid: MOPAR Brake Fluid Part No. 2933249 or equivalent

   Caution
   Use the specified brake fluid. Avoid using a mixture of the specified brake fluid and other fluid.
   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 qt.) or 0.5 lit. (0.53 qt.) brake fluid container.
   Firmly close the cap of the brake fluid container after use.



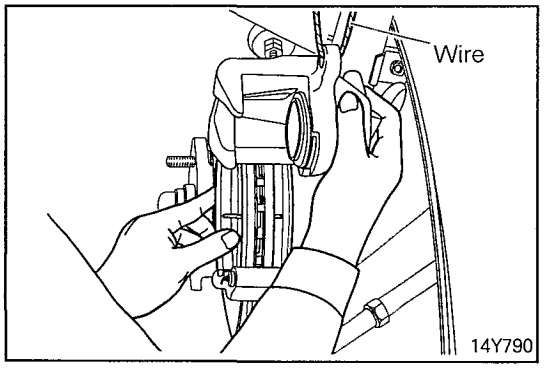
PAD ASSEMBLY INSPECTION AND REPLACEMENT

N05FZAG

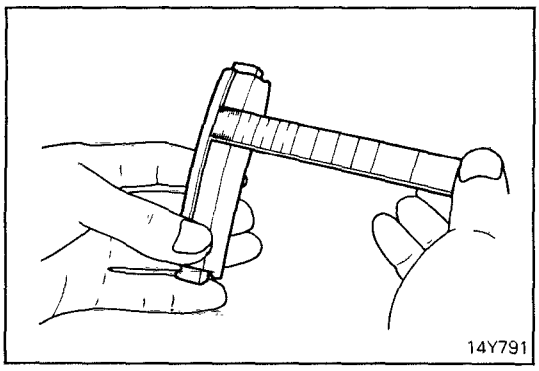
FRONT

(1) Remove the lower slide pin.

NOTE
The slide pin is coated with a special grease. Be careful to avoid wiping away this special grease or getting the slide pin dirty.



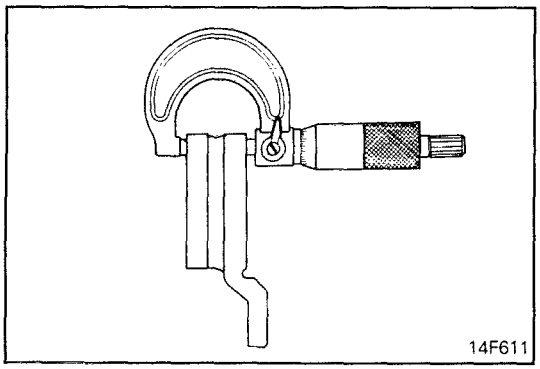
(2) Raise the caliper body and hold it in a raised position.
(3) Remove the pad retainers, outer shim, inner shim and pad assemblies from the caliper support.



(4) Measure thickness of the pad assembly at a portion where wear is severest.
(5) If the pad assemblies are worn beyond the limit, replace them.

Limit: 2.0 mm (.08 in.)

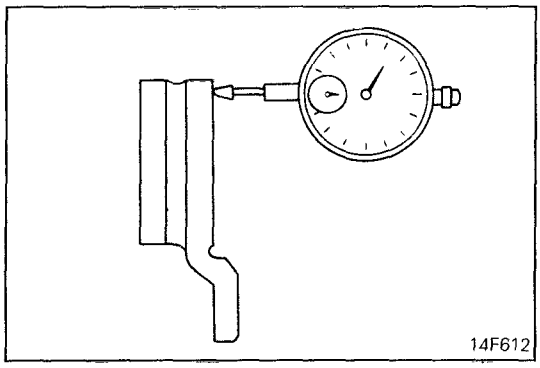
(6) Check pads for deformation, metal backing for damage, and oil on the linings.
Replace the pad assemblies if necessary.



(7) Measure pad assembly sliding section of brake disc at four or more points.

Limit: 22.4 mm (.88 in.)

(8) Replace the brake disc if the brake disc thickness is smaller than specified limit even at one point.



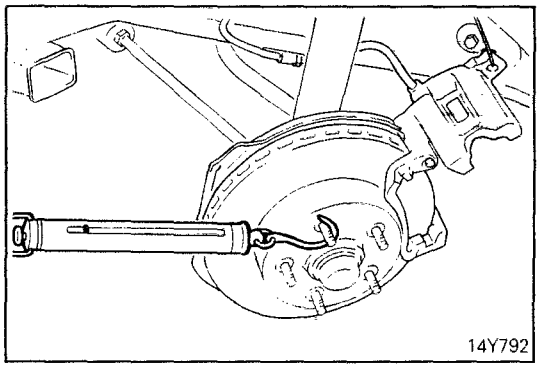
(9) Measure the brake disc runout at its peripheral end face.

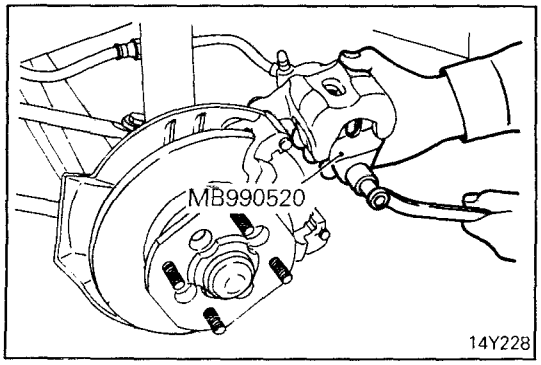
Limit: 0.15 mm (.006 in.)

(10) If the brake disc runout exceeds the limit, change its position on the hub and/or retorque evenly.
(11) Check the runout again. If it cannot be corrected, replace the brake disc. Do not resurface it.

NOTE
Before measurement of brake disc runout, check wheel bearing for play and correct if necessary. Also clean the disc surface to remove dirt and rust before runout measurement.

(12) To determine the dragging force of the pad, measure the rotational force of the hub with the pad removed.

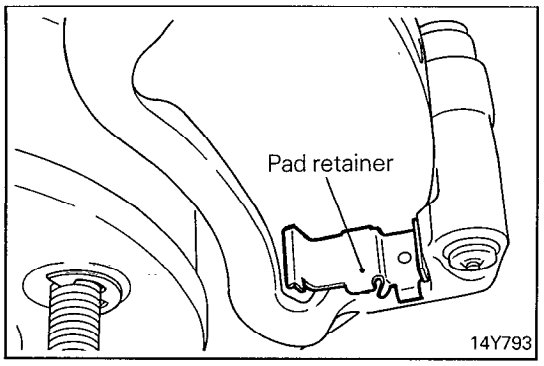




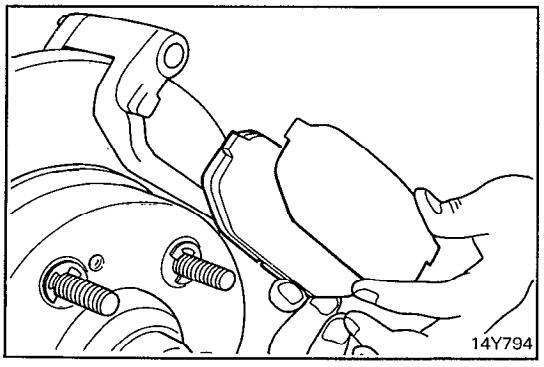
(13) Push in the piston by using the special tool.

NOTE
Be sure that the dust boot does not protrude from the end of the piston.

If the reservoir is full of brake fluid, pushing in of the piston will cause overflow of fluid from the reservoir. Drain somewhat, therefore, before operation.
Before setting the special tool, clean the piston.

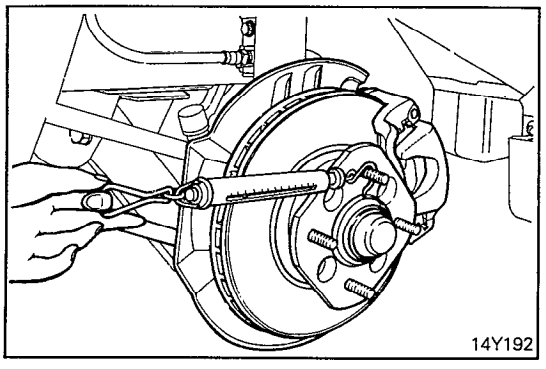


(14)Install the pad retainer to the caliper support.



(15)Install the inner and outer shims to the pad assembly.
(16)Install the assemblies to the caliper support.

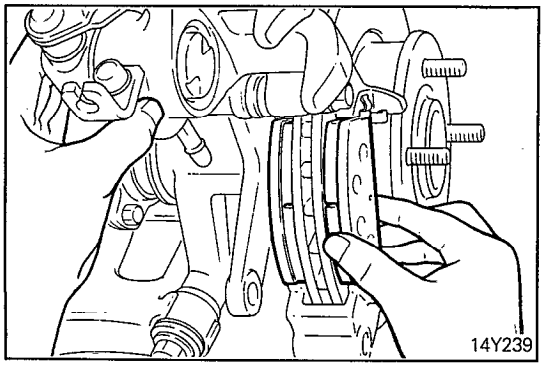
Caution
The pad assemblies should be replaced as sets (inner and outer) for both the left and right wheels at the same time.



(17)Mount the caliper body to the caliper support.
(18)Measure the brake dragging torque by starting the engine, maintaining the brake pedal in the depressed position for approximately 5 seconds while the vehicle is not moving, and then rotating the disc ten revolutions in the forward direction and using a spring balance to measure the brake drag in the forward direction.

Standard value: 70 N (15.4 lbs.) or less
[Brake dragging torque: 4 Nm (3.0 ft.lbs.) or less]

(19)If the difference between the value measured while the brake pads are mounted and that obtained while they are removed exceeds the standard value, disassemble the caliper assembly, and check for dirt and/or corrosion on the sliding part of the piston, and also for deterioration of the piston seal.

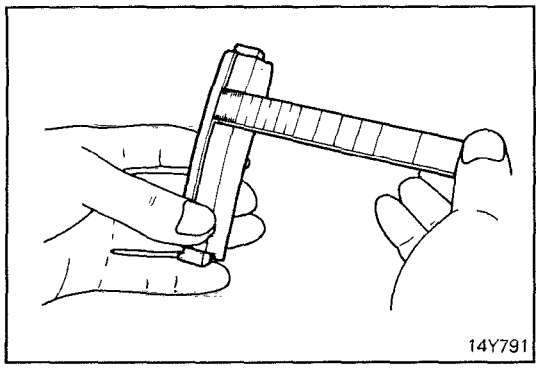


REAR

(1) Disconnect the parking brake cable.
(2) Remove the lock pin.

NOTE
The lock pin is coated with a special grease. Be careful to avoid wiping off this grease or getting the lock pin dirty.

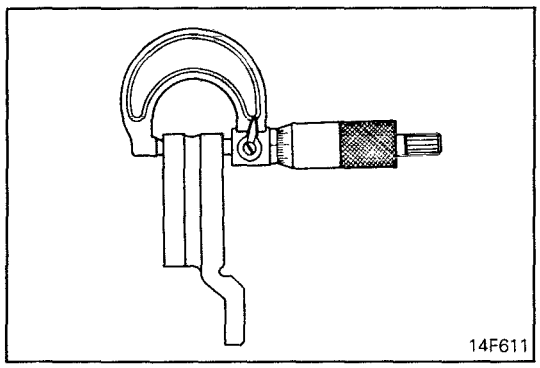
(3) Raise the caliper body and hold it in a raised position.
(4) Remove the pad clips, shim and pad assemblies from the caliper support.



(5) Measure thickness of the pad assembly at a portion where wear is severest.
(6) If the pad assemblies are worn beyond the limit, replace them.

Limit: 2.0 mm (.08 in.)

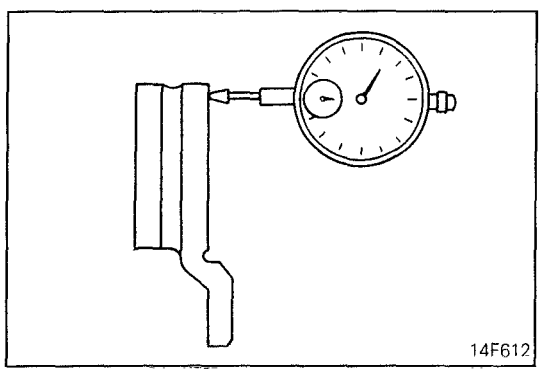
(7) Check pads for deformation, metal backing for damage, and oil on the linings.
Replace the pad assemblies if necessary.



(8) Measure pad assembly sliding section of brake disc at four or more points.

Limit: 16.4 mm (.65 in.)

(9) Replace the brake disc if the brake disc thickness is smaller than specified limit even at one point.



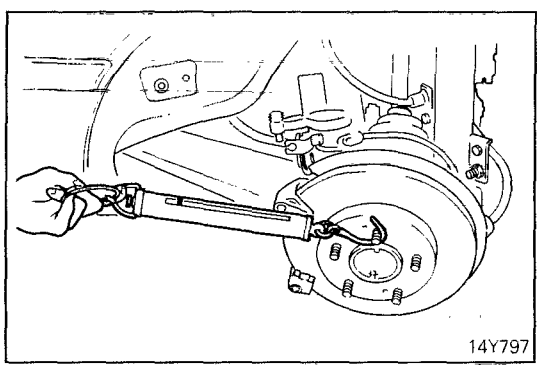
(10) Measure the brake disc runout at its peripheral end face.

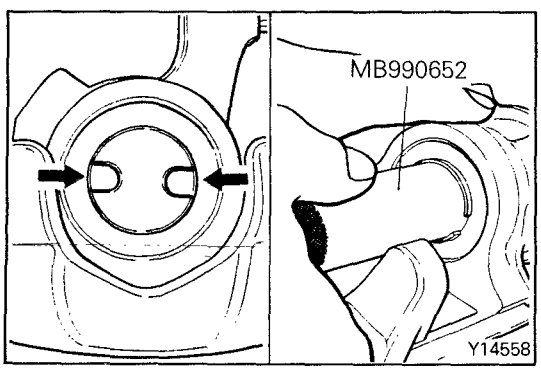
Limit: 0.15 mm (.006 in.)

(11) If the brake disc runout exceeds the limit, change its position on the hub and/or retorque evenly.
(12) Check the runout again. If it cannot be corrected, replace the brake disc. Do not resurface it.

NOTE
Before measurement of brake disc runout, check wheel bearing for play and correct if necessary. Also clean the disc surface to remove dirt and rust before runout measurement.

(13) To determine the dragging force of the pad, measure the rotational force of the hub with the pad removed.

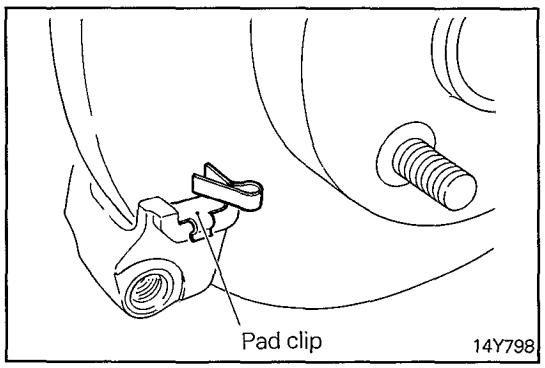




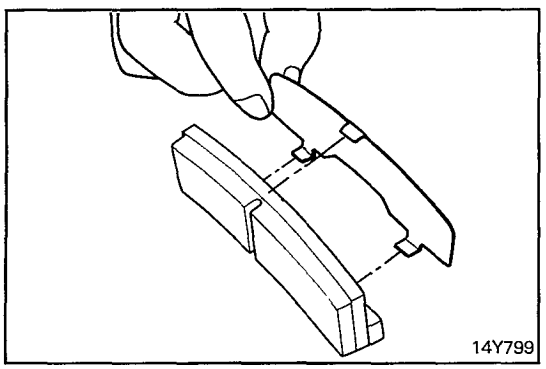
(14) Screw in the piston by using the special tool and then install the caliper body.

NOTE
At this point, set the piston stopper grooves, as shown by the arrow in the illustration, so that they will interlock with the projections on the rear of the pad assembly.

If the reservoir is full of brake fluid, pushing in of the piston will cause overflow of fluid from the reservoir. Drain somewhat, therefore, before operation.
Before setting the special tool, clean the piston.



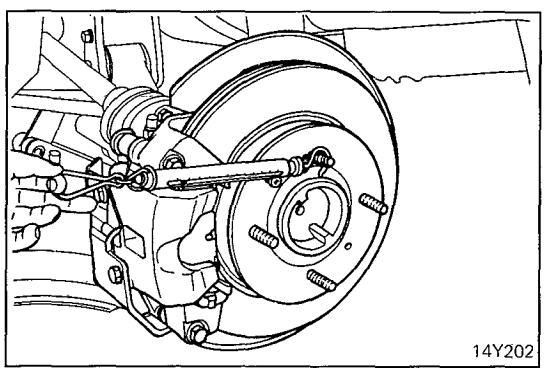
(15)Install the pad clip to the caliper support.



(16)Install with shim pawl engaged with the pad assembly as illustrated.
(17)Install the pad assemblies to the caliper support.

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

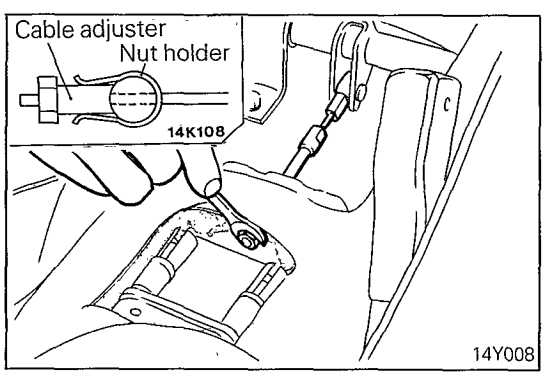
(18)Lower the caliper body, and install the lower lock pin.



(19)Measure the brake drag by starting the engine, maintaining the brake pedal in the depressed position for approximately 5 seconds while the vehicle is not moving, and then rotating the disc ten revolutions in the forward direction and using a spring balance to measure the brake drag in the forward direction.

Standard value: 70 N (15.4 lbs.) or less
[Brake dragging torque 4 Nm (3.0 ft.lbs.) or less]

(20)If the difference between the measured value obtained while the brake pads are mounted and that obtained while they are removed exceeds the standard value, disassemble the piston, and check for dirt and/or corrosion on the sliding part of the piston, and also for deterioration of the piston seal.



PARKING BRAKE LEVER STROKE CHECK N05FEAD

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

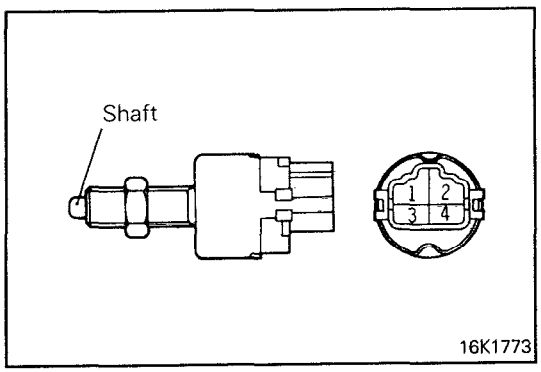
   Standard value: 4 – 5 clicks

2. If the parking brake lever stroke exceeds the standard value, adjust it by turning the cable adjuster.

SERVICE POINT OF REMOVAL N05GBAE

12. REMOVAL OF STEERING COLUMN ASSEMBLY

Refer to GROUP 19 STEERING – POWER.



INSPECTION N05GCAF

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

STOP LIGHT SWITCH

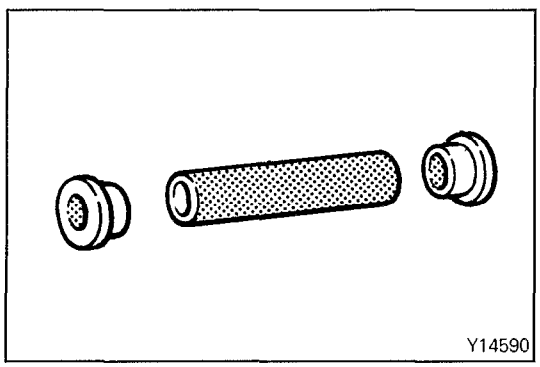
Operate the switch and check for continuity between the terminals.

Shaft dimension mm (in.) / Circuit	Terminal	Free 5.8–6.8 (.23–.27) Full stroke	3.4–5.0 (.13–.20)	3–5 (.12–.20)
Stop light	2 – 3	Continuity		No continuity
Speed control	1 – 4	No continuity	Continuity	

SERVICE POINTS OF INSTALLATION N05GDAT

12. INSTALLATION OF STEERING COLUMN ASSEMBLY

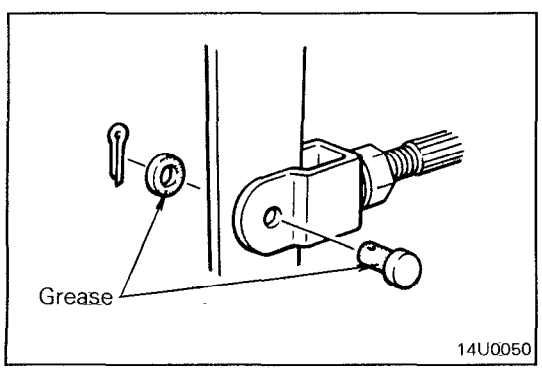
Refer to GROUP 19 STEERING – POWER.



9. APPLICATION OF GREASE TO SPACER / 8. BUSHINGS

Apply the specified grease to the bushing and the spacer.

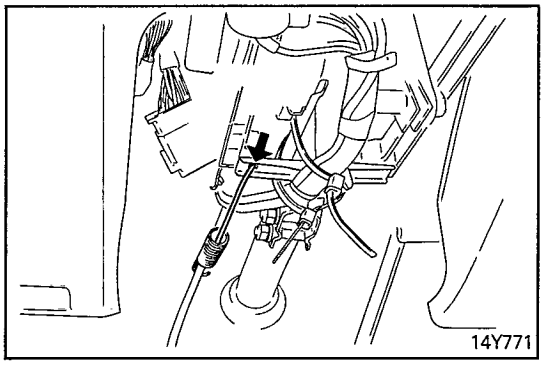
Specified grease: MOPAR Multi-mileage Lubricant Part No. 2525035 or equivalent



5. APPLICATION OF GREASE TO CLEVIS PIN / 4. WASHER

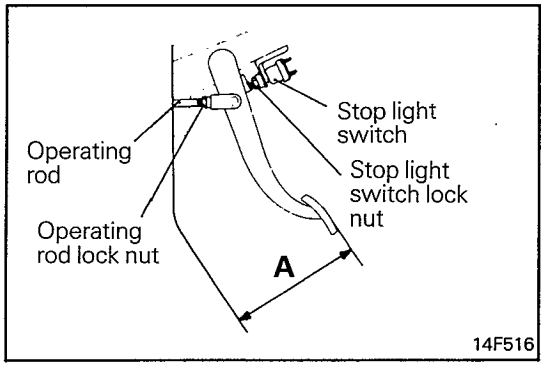
Apply specified grease to clevis pin and washer and insert a clevis pin and bend the cotter pin tightly.

Specified grease: MOPAR Multi-mileage Lubricant Part No. 2525035 or equivalent



2. INSTALLATION OF RETURN SPRING

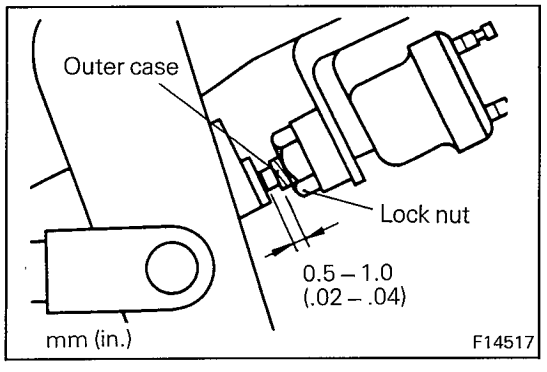
Install the return spring at illustrated position.



1. ADJUSTMENT OF STOP LIGHT SWITCH

(1) Temporarily install the stop light switch.
(2) Turn the operating rod until the brake pedal height becomes the standard value.

Standard value (A): 177 – 183 mm (7.0 – 7.2 in.)



(3) Screw in the stop light switch until it contacts the brake pedal stopper (just before the brake pedal starts to move), back it off one turn, and secure it with the lock nut.
(4) Connect the stop light switch connector.
(5) Check that the stop light does not come on unless the brake pedal is depressed.

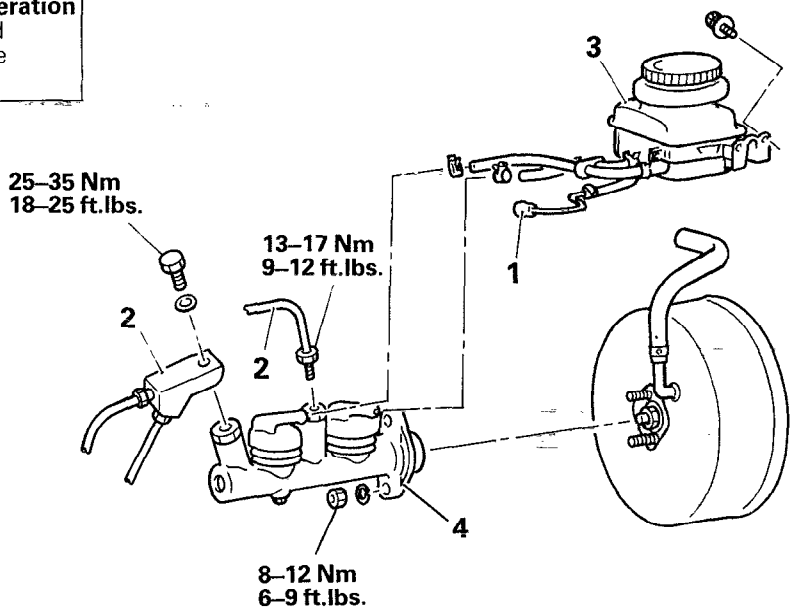
BRAKE MASTER CYLINDER

N05IA--

REMOVAL AND INSTALLATION

Pre-removal Operation
- Draining Brake Fluid

Post-installation Operation
- Refilling Brake Fluid
- Bleeding Brake Line (Refer to P.5-29.)

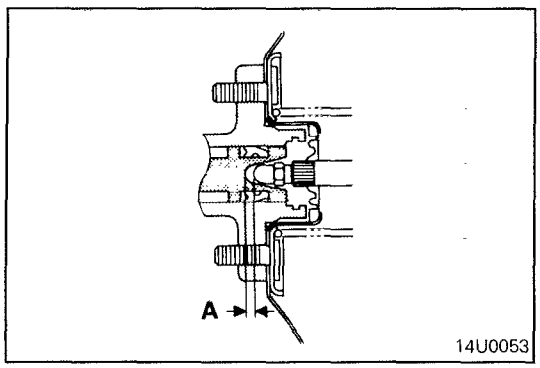


Removal steps

1. Brake fluid level sensor connection
2. Brake tube
3. Brake fluid reservoir assembly
- ◆◆ 4. Brake master cylinder assembly

NOTE
(1) Reverse the removal procedures to reinstall.
(2) ◆◆: Refer to "Service Points of Installation".

14Y772

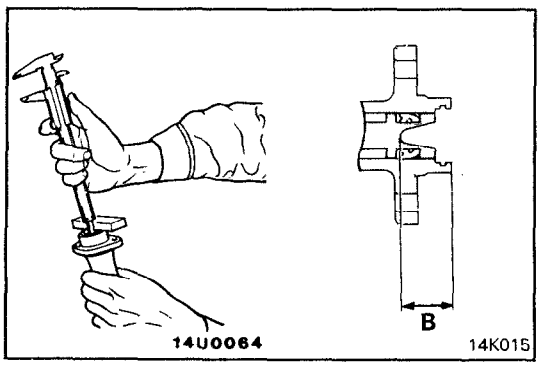


SERVICE POINT OF INSTALLATION

N05IDAK

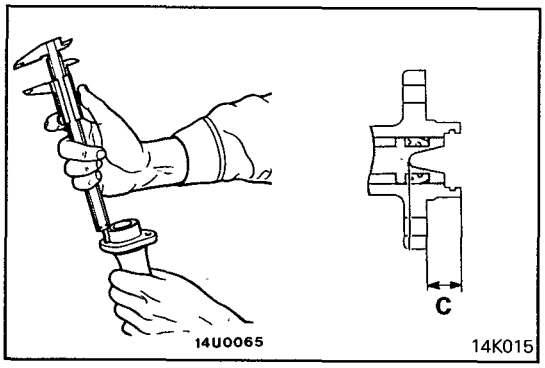
4. INSTALLATION OF BRAKE MASTER CYLINDER ASSEMBLY

Measure the clearance (A) between the brake booster push rod and the primary piston by using the following procedure:

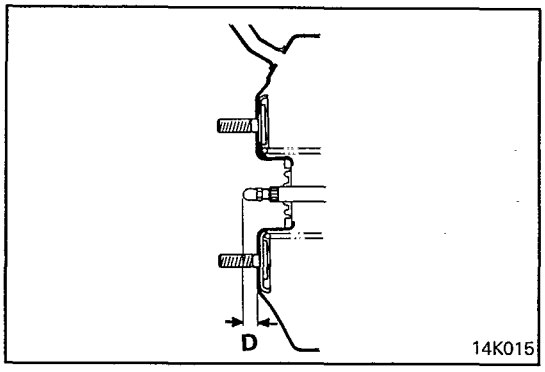


(1) Measure master cylinder end to piston dimension (B).

NOTE
Measure with a straightedge applied to the master cylinder end face and determine dimension (B) by subtracting the straightedge thickness from reading.

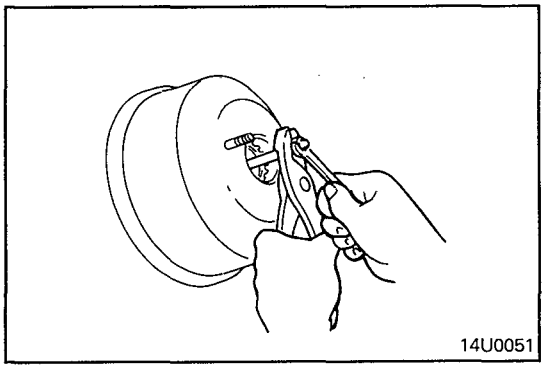


(2) Measure master cylinder's brake booster mounting surface to end face dimension (C).



(3) Measure brake booster's master cylinder mounting surface to push rod end dimension (D).
(4) From values obtained in (1), (2) and (3), determine brake booster push rod to primary piston clearance (A).

Standard value: 0.7 – 1.1 mm (.028 – .043 in.)
[A = B – C – D]

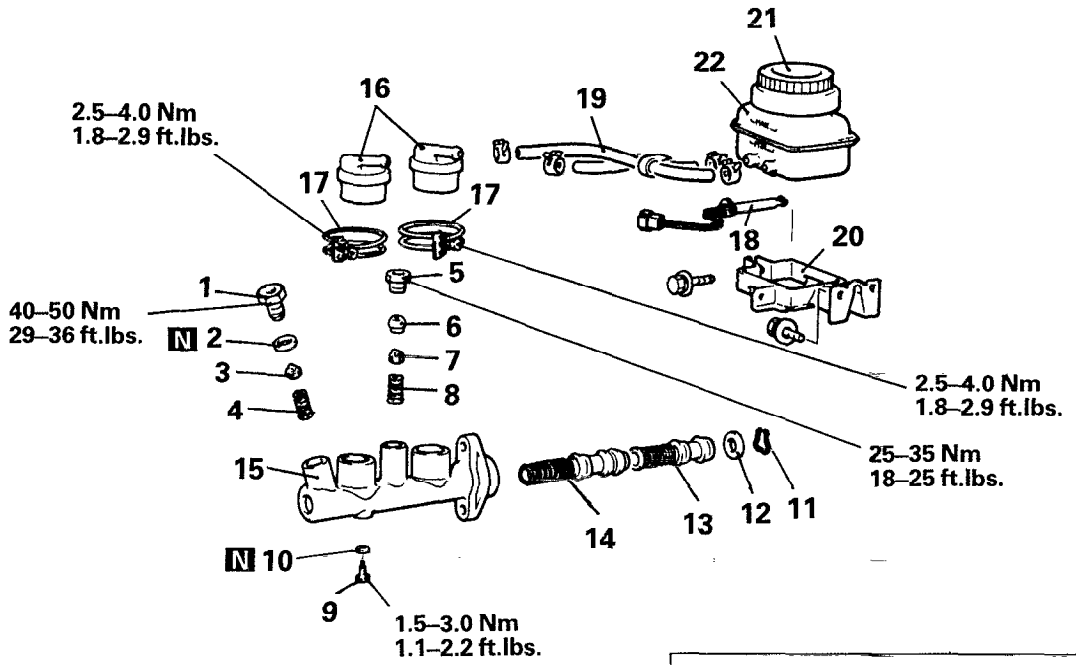


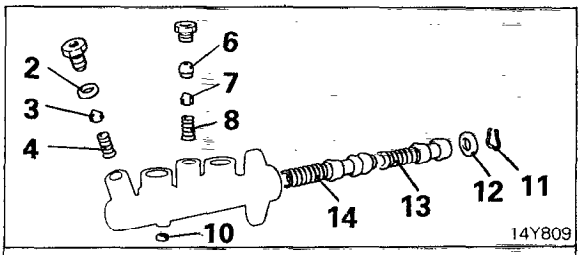
(5) If the clearance is not within the standard value range, adjust by changing the push rod length by turning the screw of the push rod.

Caution
Insufficient clearance may cause excessive brake drag.

DISASSEMBLY AND REASSEMBLY

N05HAAB





Brake master cylinder kit

Brake master cylinder disassembly steps

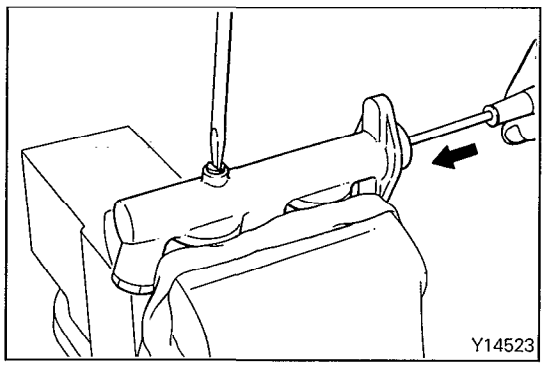
1. Check valve case
2. Gasket
3. Check valve
4. Check valve spring
5. Check valve cap
6. Tube seat
7. Check valve
8. Check valve spring
◆◆ 9. Secondary piston stopper
10. Gasket
◆◆ 11. Piston stopper ring
12. Piston stopper plate
◆◆ ◆◆ 13. Primary piston
◆◆ ◆◆ 14. Secondary piston
◆◆ 15. Brake master cylinder body

Brake fluid reservoir disassembly steps

◆◆ 16. Nipple
17. Reservoir band
18. Brake fluid level sensor switch
19. Reservoir hoses
20. Reservoir bracket
◆◆ 21. Reservoir cap
22. Reservoir tank

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*

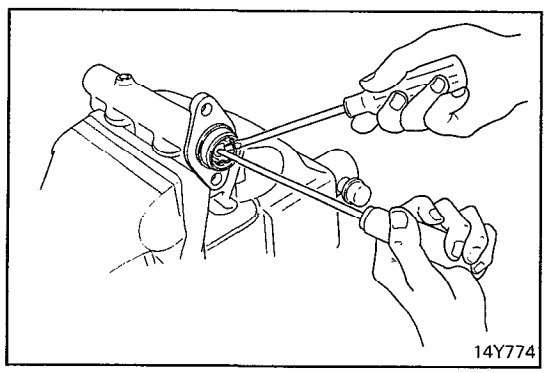
14Y561



SERVICE POINTS OF DISASSEMBLY N05HBAB

9. REMOVAL OF SECONDARY PISTON STOPPER

Remove the secondary piston stopper while pushing the piston.



11. REMOVAL OF PISTON STOPPER RING

Remove the piston stopper ring while pushing the piston.

13. CAUTION OF PRIMARY PISTON

Caution
Do not disassemble the primary pistons.

14. REMOVAL OF SECONDARY PISTON

NOTE
If the secondary piston is hard to remove, slowly apply compressed air from the secondary side outlet port of the master cylinder.

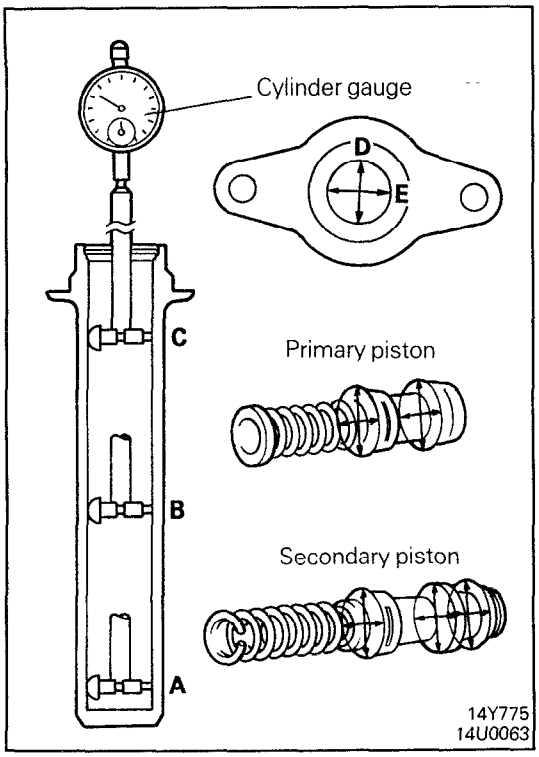
Caution
Do not disassemble the secondary piston.

16. REMOVAL OF NIPPLE

When removing the nipple, lift it straight up.

INSPECTION N05HDAA

- Check the check valve and check valve spring for weakness.
- Check the gasket and tube seat for damage.
- Check the master cylinder body for rust and scars of inner surface.
- Check the primary and secondary pistons for rust, scars, wear and deformation.
- Check the piston cup for damage.
- Check the primary and secondary pistons for weakness of springs.



CLEARANCE BETWEEN MASTER CYLINDER INNER DIAMETER AND PISTON OUTER DIAMETER

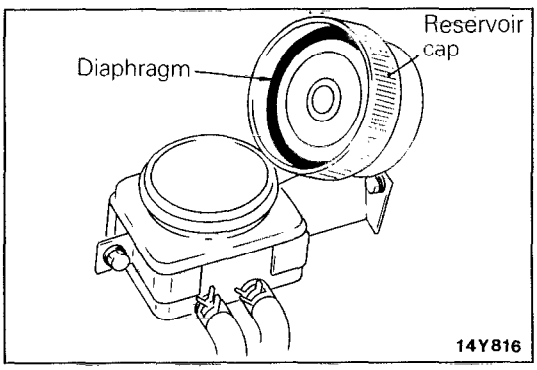
(1) Measure approximately three positions of the master cylinder inner diameter [bottom (A), middle (B) and top (C)] by using a cylinder gauge.

(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 (.006 in.)

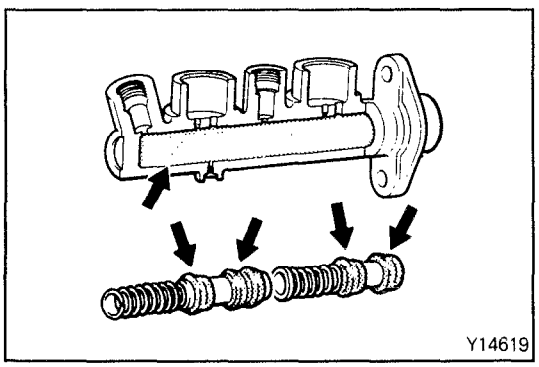


SERVICE POINTS OF REASSEMBLY N05HCAH

21. APPLICATION OF BRAKE FLUID TO RESERVOIR CAP DIAPHRAGM SURFACE

Apply specified brake fluid to the diaphragm surface of the reservoir cap and tighten the cap, taking care not to distort the diaphragm.

Specified brake fluid: MOPAR Brake Fluid Part No. 2933249 or equivalent



15. APPLICATION OF BRAKE MASTER CYLINDER BODY TO BRAKE FLUID / 14. SECONDARY PISTON / 13. PRIMARY PISTON

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: MOPAR Brake Fluid Part No. 2933249 or equivalent

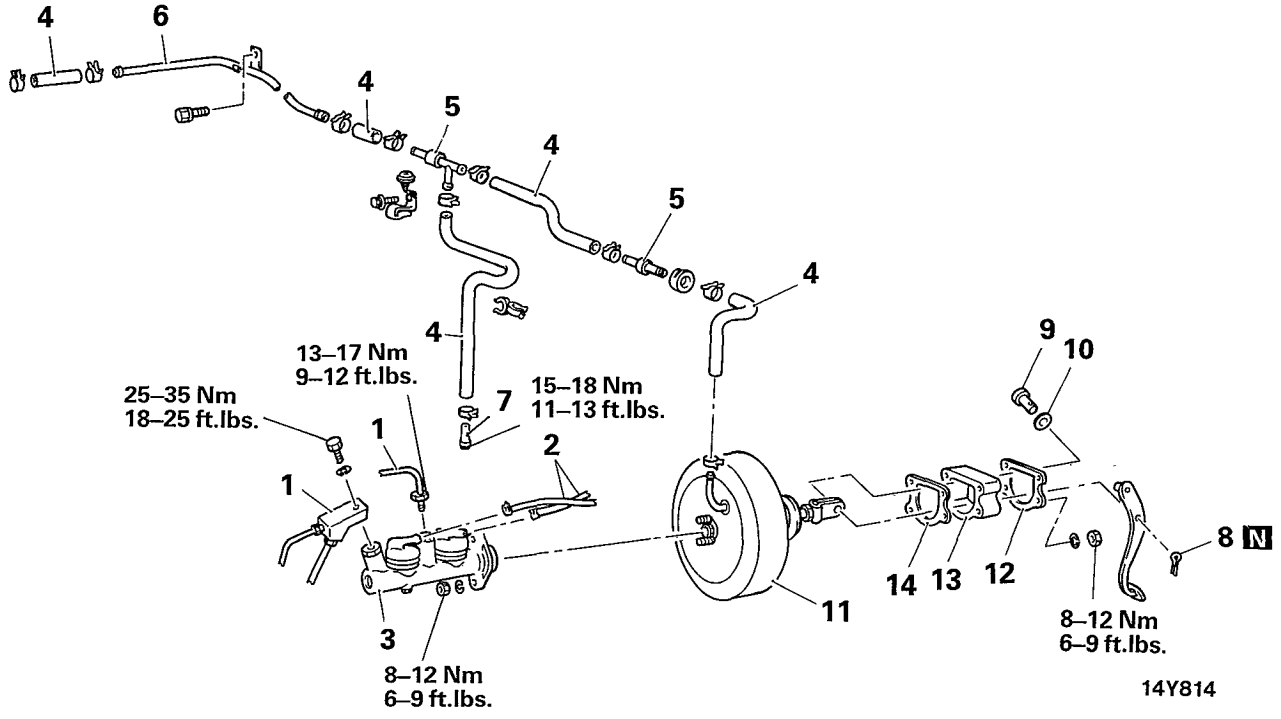
BRAKE BOOSTER

N05JA--

REMOVAL AND INSTALLATION

Pre-removal Operation
- Draining Brake Fluid

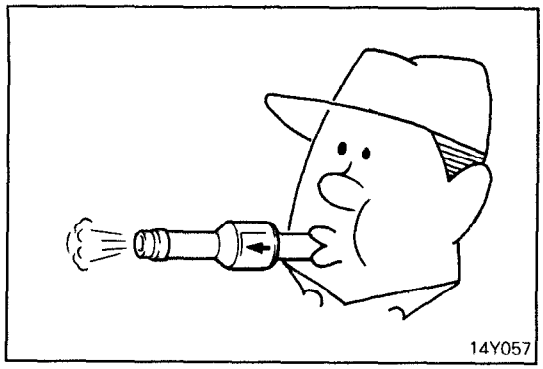
Post-installation Operation
- Refilling Brake Fluid
- Bleeding Brake Line (Refer to P.5-29.)



Removal steps

1. Brake tube
2. Reservoir hose
3. ◆◆ Brake master cylinder
4. ◆◆ Vacuum hose
5. ◆◆ Check valve
6. Vacuum pipe
7. ◆◆ Fitting
8. Cotter pin
9. ◆◆ Clevis pin
10. ◆◆ Washer
11. Brake booster
12. Sealer
13. Spacer
14. Sealer

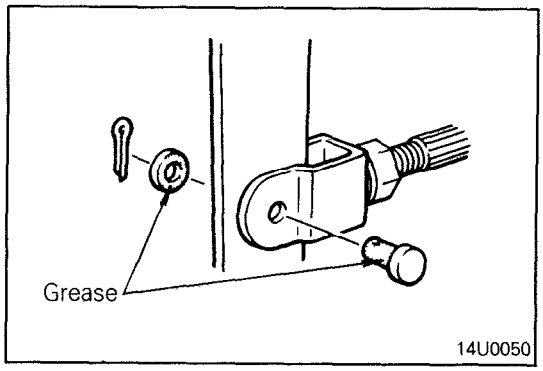
NOTE
(1) Reverse the removal procedures to reinstall.
(2) ◆◆: Refer to "Service Points of Installation".
(3) N: Non-reusable parts


14Y057

INSPECTION N05JCAD

Check the check valve operation as follows.

- 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.



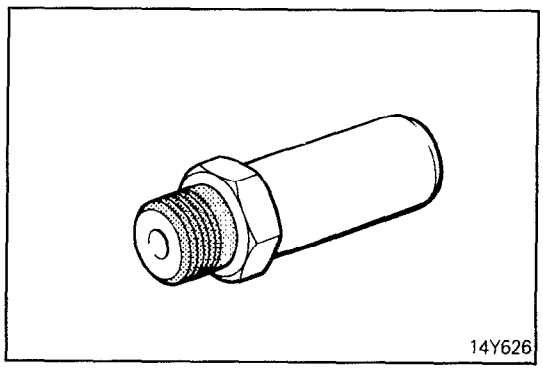
14U0050

SERVICE POINTS OF INSTALLATION N05JDAK

10. APPLICATION OF GREASE TO WASHER / 9. CLEVIS PIN

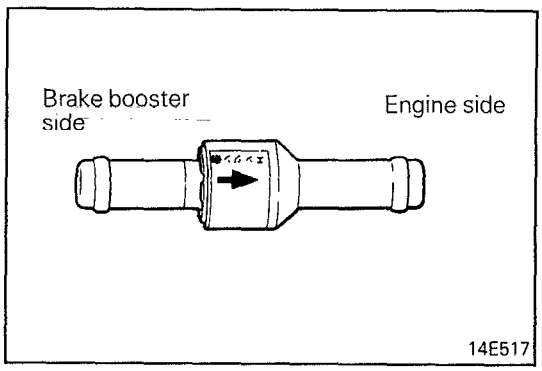
Apply specified grease to clevis pin and washer. Then insert clevis pin and bend the cotter pin tightly.

Specified grease: MOPAR Multi-mileage Lubricant Part No. 2525035 or equivalent


14Y626

7. APPLICATION OF SEALANT TO FITTING

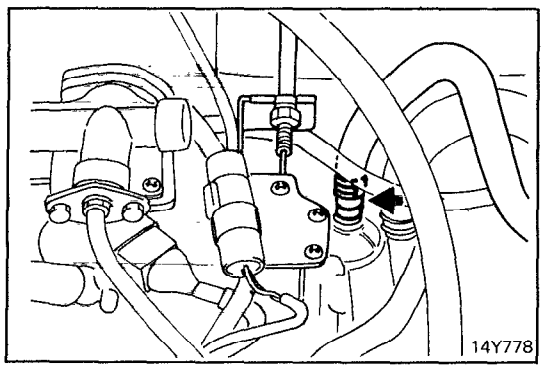
When installing the fitting, apply the semi-drying sealant to its threaded portion.



14E517

5. INSTALLATION OF CHECK VALVE

Install the check valve, noting the direction of installation.


14Y778

4. INSTALLATION OF VACUUM HOSE

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

NOTE
Insert the vacuum hose until it is seated on the fitting flange.

3. INSTALLATION OF BRAKE MASTER CYLINDER

Check the booster push rod to brake master cylinder piston clearance.

Standard value: 0.7 – 1.1 mm (.028 – .043 in.)

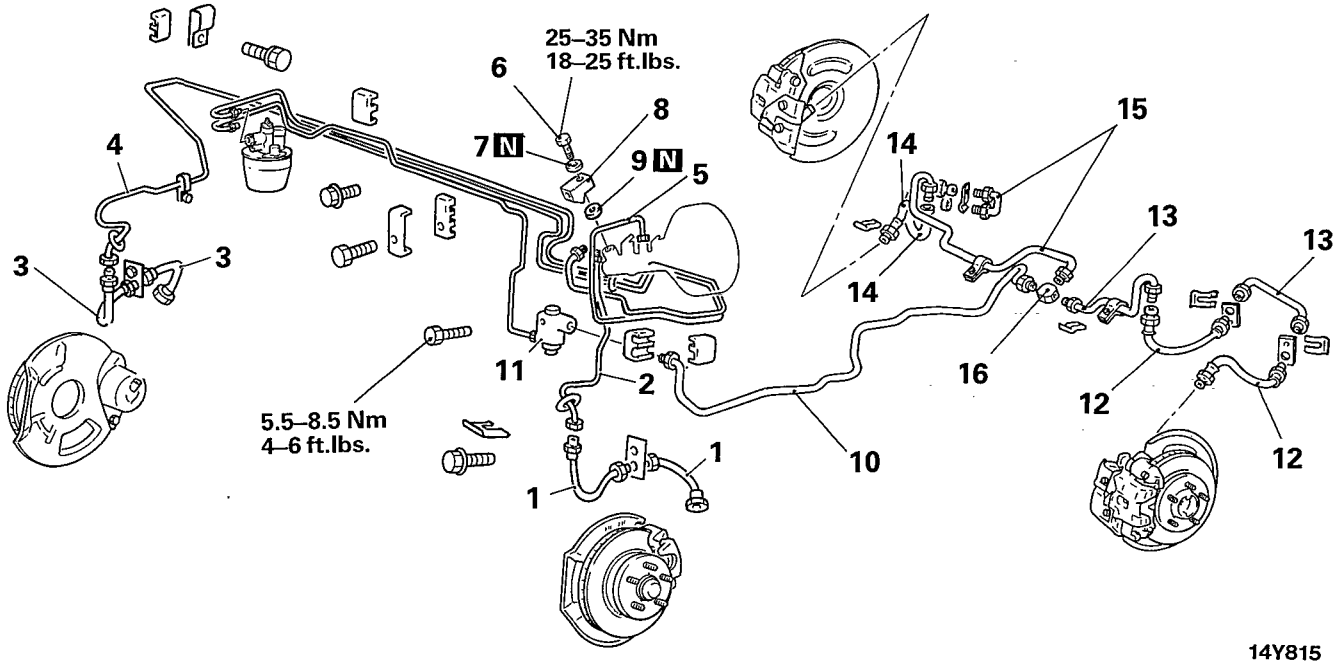
BRAKE LINE

N05KA--

REMOVAL AND INSTALLATION

Pre-removal Operation
- Draining Brake Fluid

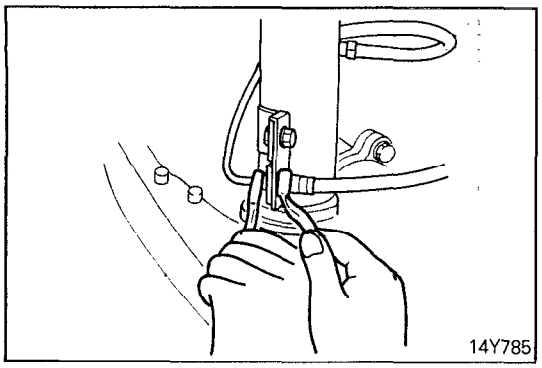
Post-installation Operation
- Refilling Brake Fluid
- Bleeding Brake Line (Refer to P.5-29.)

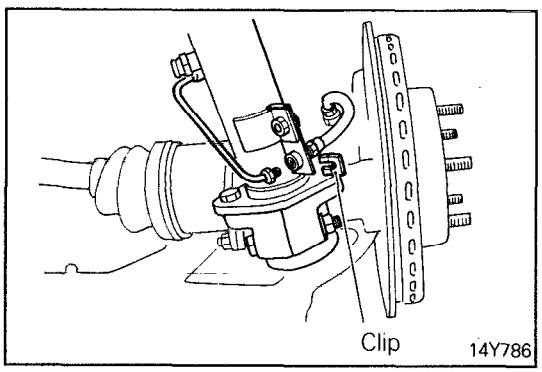


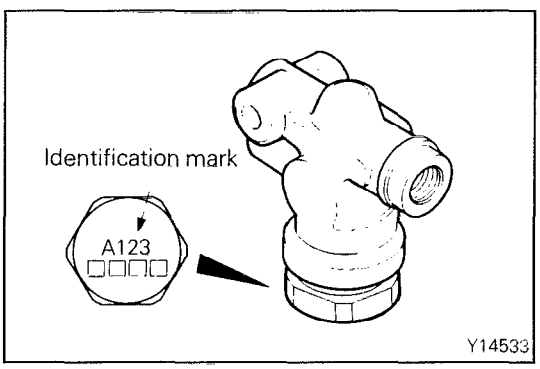
14Y815

◆▸ ▸◆ 1. Front brake hoses (L.H.)
2. Front brake tube (L.H.)
◆▸ ▸◆ 3. Front brake hoses (R.H.)
4. Front brake tube (R.H.)
5. Front brake tube
6. Connector attaching bolt
7. Gasket
8. Connector
9. Gasket
10. Pipe
◆▸ 11. Proportioning valve
◆▸ ▸◆ 12. Rear brake hoses (L.H.)
13. Rear brake tube (L.H.)
◆▸ ▸◆ 14. Rear brake hoses (R.H.)
15. Rear brake tube (R.H.)
16. 3-way connector

NOTE
(1) Brake hose flare nut tightening torque is 13 – 17 Nm (9 – 12 ft.lbs.).
(2) ◆▸: Refer to "Service Points of Removal".
(3) ▸◆: Refer to "Service Points of Installation".
(4) N: Non-reusable parts







SERVICE POINTS OF REMOVAL N05KBAJ

1. REMOVAL OF FRONT BRAKE HOSES (L.H.) / 3. FRONT BRAKE HOSES (R.H.) / 12. REAR BRAKE HOSES (L.H.) / 14. REAR BRAKE HOSES (R.H.)

For disconnection of brake tube and brake hose, proceed as follows:

(1) Drain brake fluid from the bleeder plug of each brake.
(2) While holding the nut on the brake hose side, loosen the brake tube flare nut.
(3) Pull out the brake hose clip and remove the brake hose from the bracket.

11. CAUTION OF PROPORTIONING VALVE

Caution

1. **Do not disassemble the proportioning valve because its performance depends on the set load of the spring.**
2. **Use the proportioning valve bearing marked A123.**

INSPECTION N05KCAD

- Check the brake tubes for cracks, breakage or corrosion.
- Check the brake hoses for cracks, damage, leakage or ooze.
- Check the brake tube flare nuts for damage or leakage.

SERVICE POINTS OF INSTALLATION N05KDAE

14. INSTALLATION OF REAR BRAKE HOSES (R.H.) / 12. REAR BRAKE HOSES (L.H.) / 3. FRONT BRAKE HOSES (R.H.) / 1. FRONT BRAKE HOSES (L.H.)

Install the brake hoses without twisting them.

NOTE
Make sure that the hoses are not in contact with the edge, welding beads or moving parts.

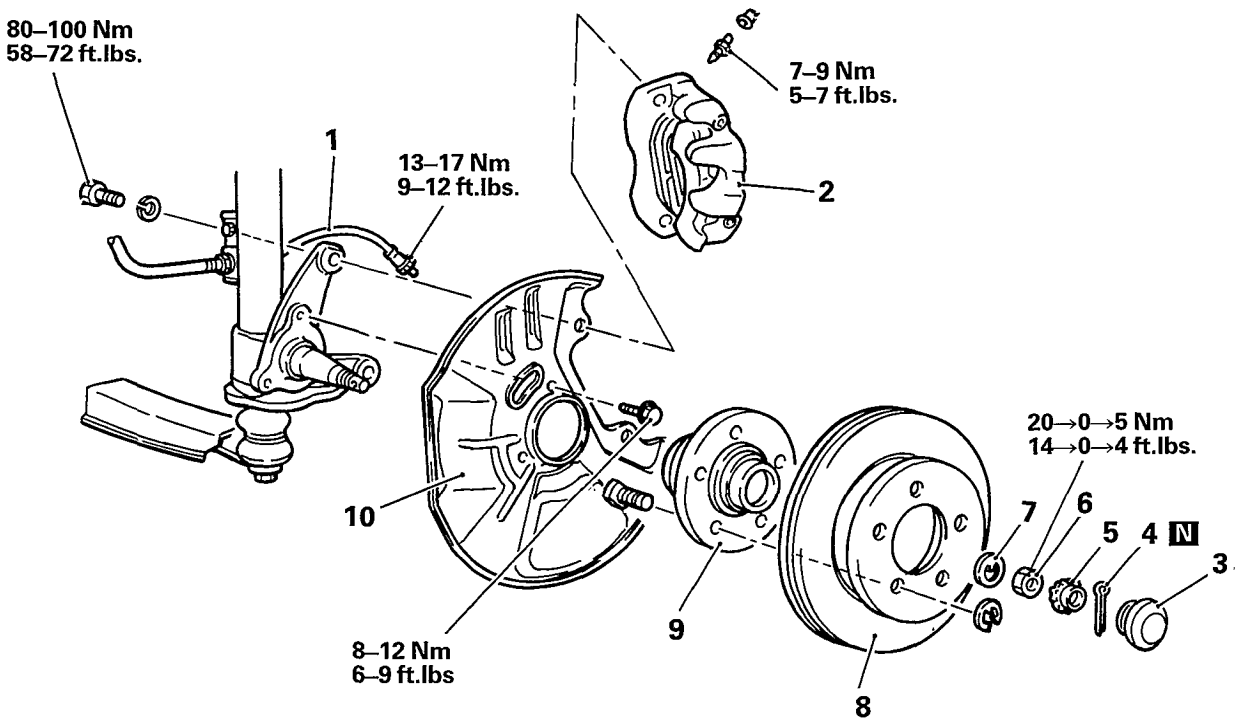
FRONT DISC BRAKES

N05LA--

REMOVAL AND INSTALLATION

Pre-removal Operation
- Draining Brake Fluid

Post-installation Operation
- Refilling Brake Fluid
- Bleeding Brake Line (Refer to P.5-29.)

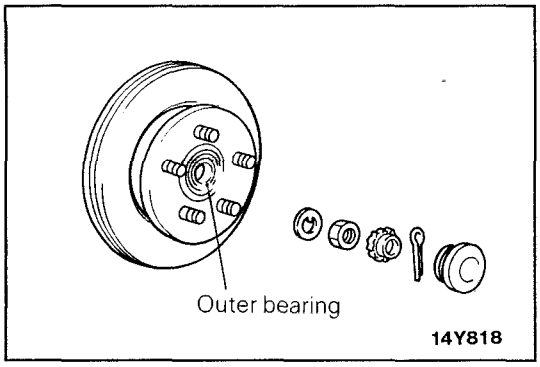


Removal steps

- ◆◆ 1. Brake hose
- 2. Front brake assembly
- 3. Hub cap
- ◆◆ 4. Cotter pin
- ◆◆ 5. Lock cap
- ◆◆ Adjustment of wheel bearing
- 6. Nut
- 7. Washer
- ◆◆ 8. Brake disc
- ◆◆ 9. Front axle hub
- 10. Dust cover

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*

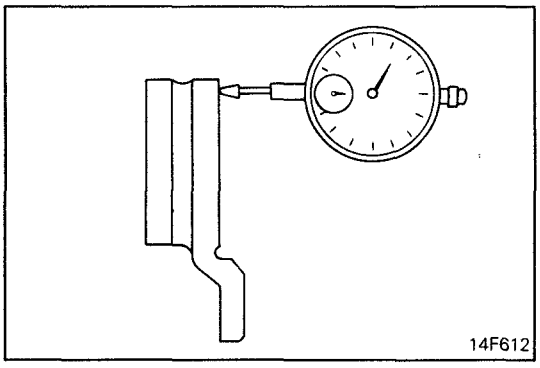
11Y787



SERVICE POINT OF REMOVAL N05LBCB

9. REMOVAL OF FRONT AXLE HUB

Do not drop the outer bearing when removing the hub.



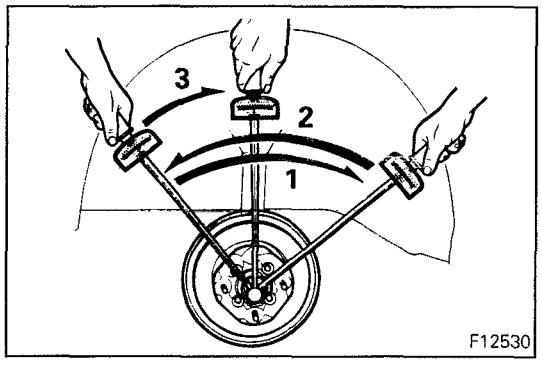
SERVICE POINTS OF INSTALLATION N05LDCC

8. INSTALLATION OF BRAKE DISC

(1) Confirm that there is no rust or foreign matter on the contact surfaces of the brake disc and the front hub before installation.
(2) Install the front hub assembly and measure the brake disc runout with a dial indicator.

Limit: 0.15 mm (.006 in.)

(3) If the brake disc runout exceeds the limit, shift the phase of the front hub and brake disc, reinstall the front hub assembly and measure the brake disc runout again.
(4) Until the brake disc runout is within the limit, shift the phase by 90°, 180° and 270° in that order.
(5) If the brake disc runout within the limit is not obtained by the above-mentioned procedure, measure the brake disc runout and the front hub runout separately and replace the part showing the larger runout.



• ADJUSTMENT OF WHEEL BEARING

Tighten the nut by the following procedures.

(1) Tighten to 20 Nm (14 ft.lbs.)
↓
(2) Loosen to 0 Nm (0 ft.lbs.)
↓
(3) Retighten to 5 Nm (4 ft.lbs.)

5. INSTALLATION OF LOCK CAP / 4. COTTER PIN

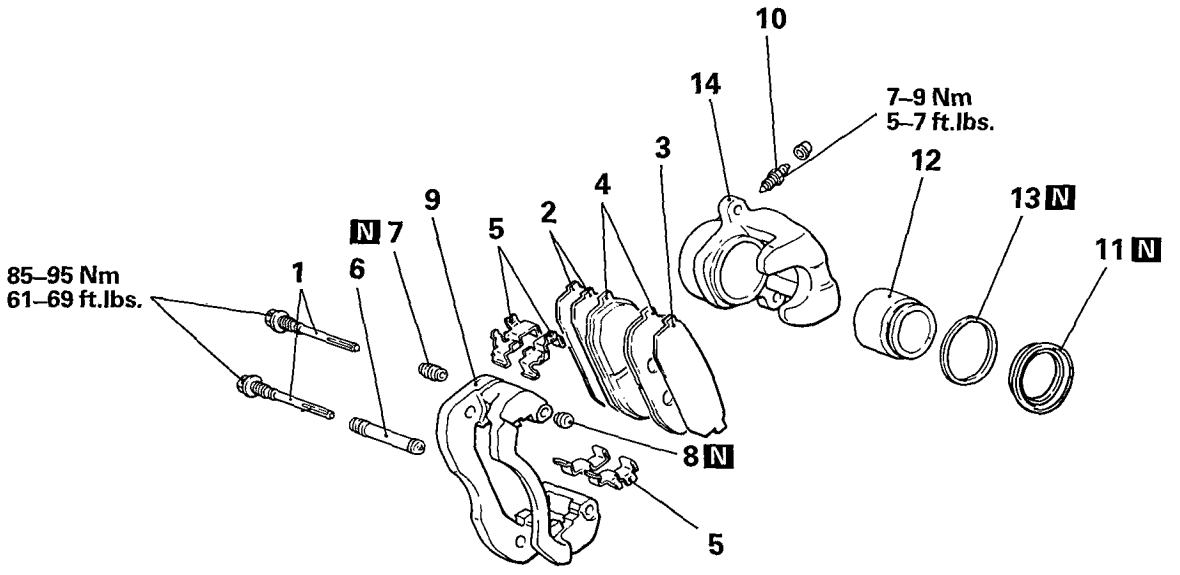
Fit the lock cap and cotter pin. If the position of the cotter pin is not matched with the holes of the lock cap, back off the nut by 15° at maximum.

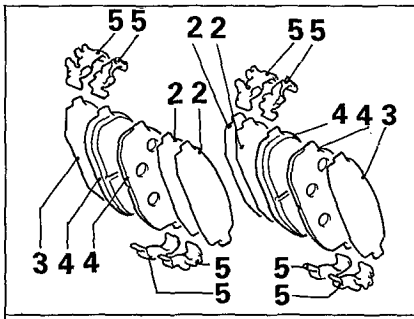
1. INSTALLATION OF BRAKE HOSE

After the brake hose is installed, make the following operation.
(1) Bleed the hydraulic system.
(2) Check the brake dragging torque. (Refer to P.5-31.)

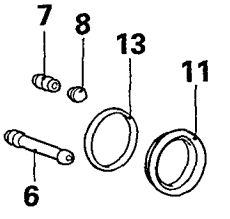
DISASSEMBLY AND REASSEMBLY

N05LE- -





Brake pad kit



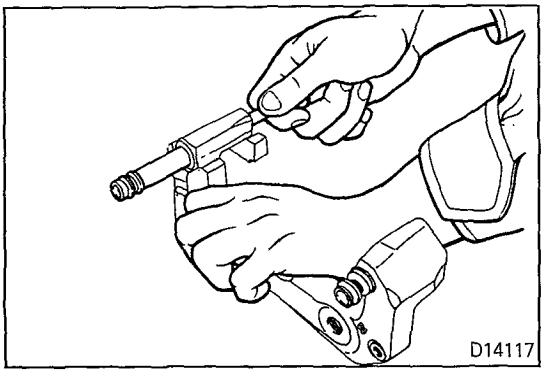
Seal and boot kit

Disassembly steps

- ➡◀ 1. Slide pin
- 2. Inner shim
- 3. Outer shim
- 4. Pad assembly
- 5. Pad retainer
- ◀▶ ➡◀ 6. Bushing
- ➡◀ 7. Pin boot
- ➡◀ 8. Cap
- 9. Caliper support
- 10. Bleeder screw
- ➡◀ 11. Dust cover
- ◀▶ ➡◀ 12. Piston
- ◀▶ ➡◀ 13. Piston seal
- 14. Caliper 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

14Y313

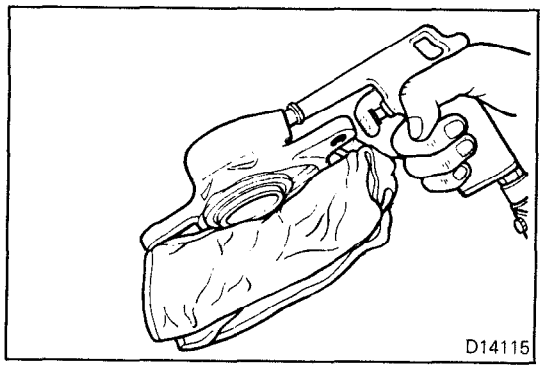


SERVICE POINTS OF DISASSEMBLY

N05LFCA

6. REMOVAL OF BUSHING

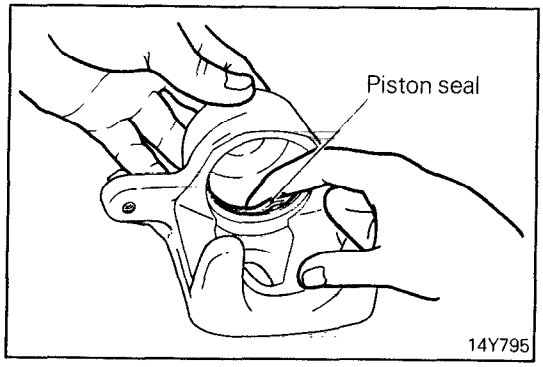
Push out the bushing from the caliper support by using the slide pin.



12. REMOVAL OF PISTON

Remove the piston 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.



13. REMOVAL OF PISTON SEAL

Remove the piston seal.

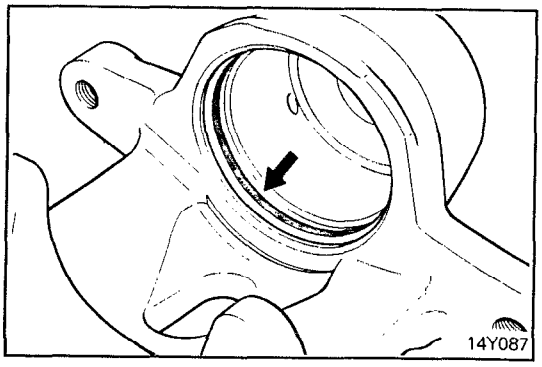
Caution
Be careful not to damage the caliper bore.

INSPECTION N05LGCA

CALIPER ASSEMBLY

- Check the caliper support for cracks.
- Check the caliper body for cracks and cylinder for rust.
- Check the piston for rust.

Caution
The bushing, pin boot, cap, dust boot and piston seal must all be replaced with new parts.



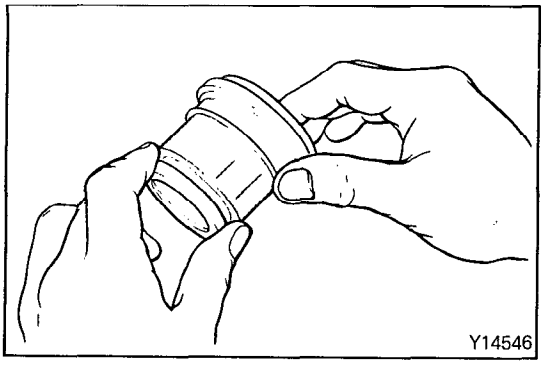
SERVICE POINTS OF REASSEMBLY N05LHCA

13. APPLICATION OF GREASE TO PISTON SEAL

(1) Apply the specified brake fluid to the cylinder walls.
Specified brake fluid: MOPAR Brake Fluid Part No. 2933249 or equivalent

(2) Fit a new piston seal into the cylinder.
NOTE
The piston seal in the repair kit is coated with special grease. Be careful not to wipe off this grease.

(3) Apply the specified grease to the lip of the cylinder.
Specified grease: Repair kit grease (pink)

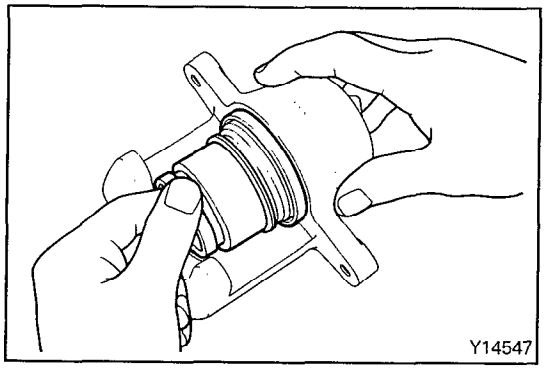


12. INSTALLATION OF PISTON / 11. DUST COVER

(1) Apply the specified brake fluid to the external surface of the piston.

Specified brake fluid: MOPAR Brake Fluid Part No. 2933249 or equivalent

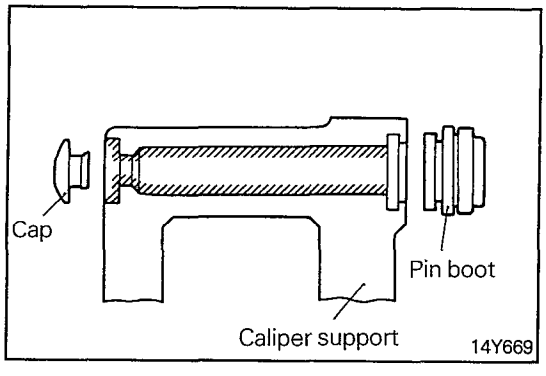
(2) Install a new dust boot onto the piston end as shown in the illustration.



(3) Fit the forward end of the dust boot into the caliper body groove and gently insert the piston into the cylinder by hand.

NOTE
Take care not to twist the piston.

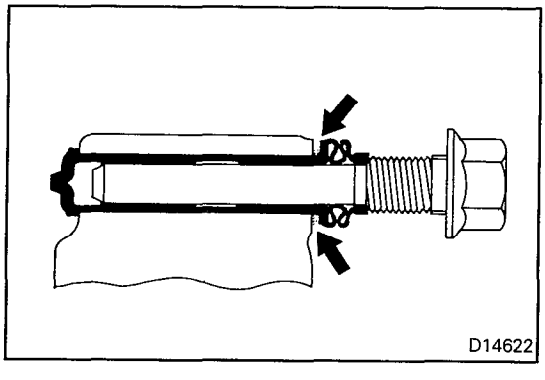
(4) Make certain that the end of the dust boot is fitted into the piston groove.



8. APPLICATION OF GREASE TO CAP / 7. PIN BOOT

Apply the specified grease to the contact surface of the slide pin, the seat surface of the cap of the caliper support, and the inside surface of the pin boot.

Specified grease: Repair kit grease (pink)



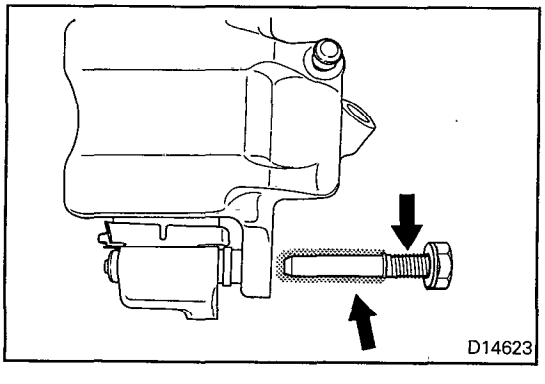
6. APPLICATION OF GREASE TO BUSHING

(1) Apply the specified grease to the inside surface of the bushing.

Specified grease: Repair kit grease (pink)

(2) Apply the specified adhesive furnished in the repair kit to the lip of a new bushing, and insert the bushing into the caliper support by using the slide pin.

Specified adhesive: Repair kit adhesive



1. APPLICATION OF GREASE TO SLIDE PIN

(1) Apply the specified brake fluid to the threaded portion of the slide pin.

Specified brake fluid: MOPAR Brake Fluid Part No. 2933249 or equivalent

(2) Apply a thin coat of the specified grease to the slide pin, and then install the caliper body to the caliper support.

Specified grease: Repair kit grease (pink)

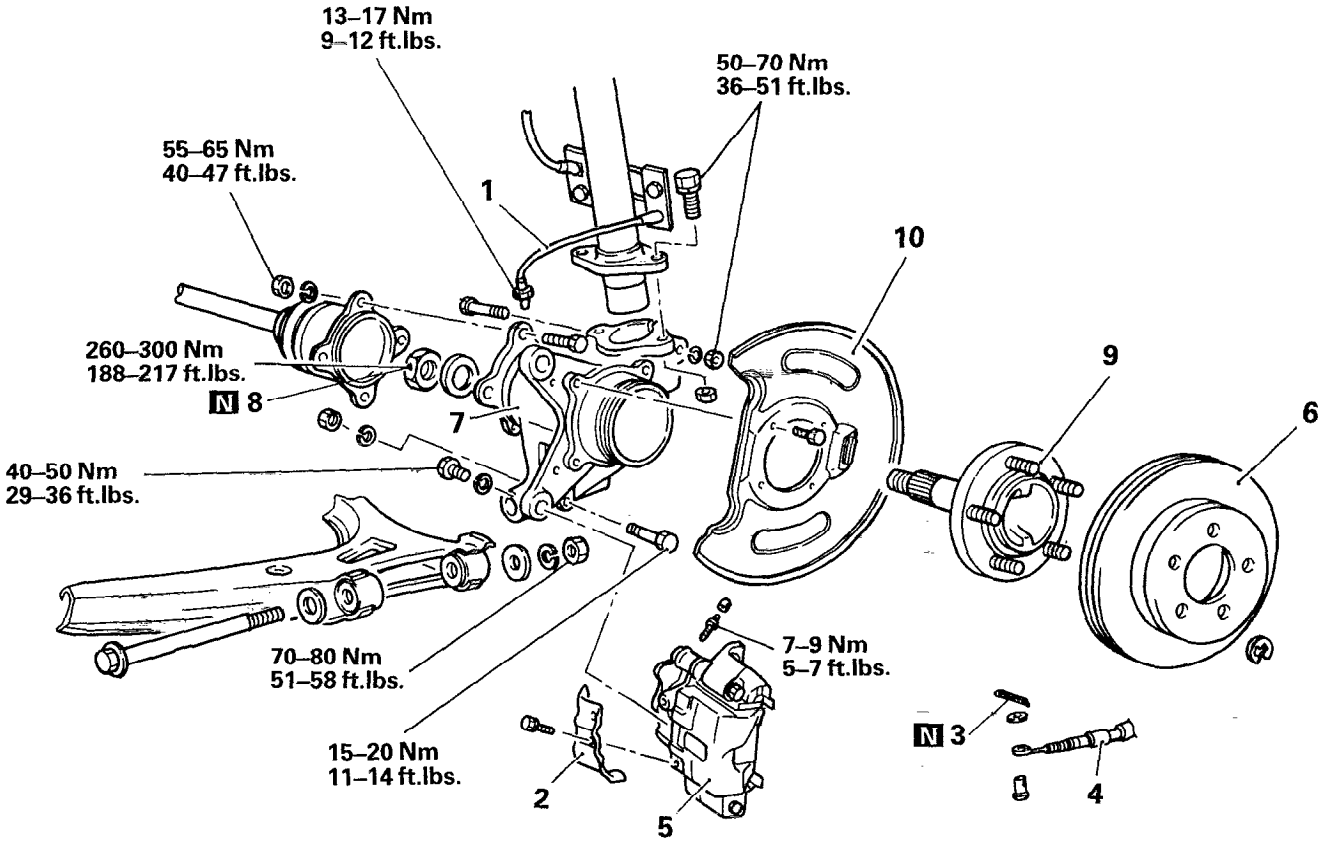
REAR DISC BRAKES

N05MA--

REMOVAL AND INSTALLATION

Pre-removal Operation
- Draining Brake Fluid

Post-installation Operation
- Refilling Brake Fluid
- Bleeding Brake Line (Refer to P.5-29.)

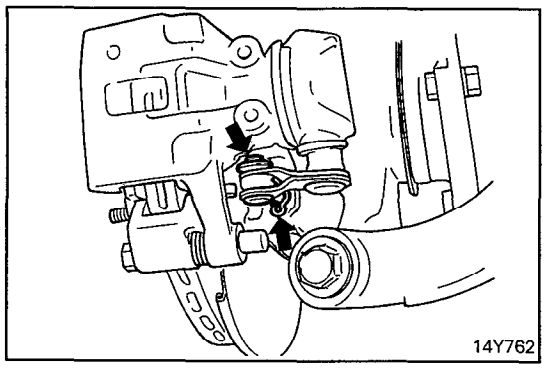


Removal steps

- ◆◆ 1. Brake hose
- 2. Dust cover
- 3. Cotter pin
- ◆◆ 4. Parking brake cable
- 5. Rear brake assembly
- ◆◆ 6. Brake disc
- ◆◆ ◆◆ 7. Axle housing
- ◆◆ ◆◆ 8. Nut
- ◆◆ ◆◆ 9. Axle shaft
- 10. Dust cover

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

14Y796



SERVICE POINTS OF REMOVAL N05MBAB

4. REMOVAL OF PARKING BRAKE CABLE

Disconnect the parking brake cable from the rear brake assembly.

7. REMOVAL OF AXLE HOUSING / 8. NUT / 9. AXLE SHAFT

Refer to GROUP 3 REAR AXLE – Axle Shaft.

SERVICE POINTS OF INSTALLATION N05MCAB

9. INSTALLATION OF AXLE SHAFT / 8. NUT / 7. AXLE HOUSING

Refer to GROUP 3 REAR AXLE – Axle Shaft.

6. INSTALLATION OF BRAKE DISC

(1) Install the brake disc and measure the brake disc runout with a dial indicator. (Refer to P.5-32.)
(2) If the brake disc runout exceeds the limit, shift the phase of the axle shaft and brake disc, reinstall the brake disc and measure the brake disc runout again. Shift the phase to 90°, 180° and 270°, in that order, until the brake disc runout is within the limit.
(3) If the brake disc runout within the limit is not obtained by the above-mentioned procedure, measure the brake disc runout and the axle shaft runout separately and replace the part showing the larger runout.

1. INSTALLATION OF BRAKE HOSE

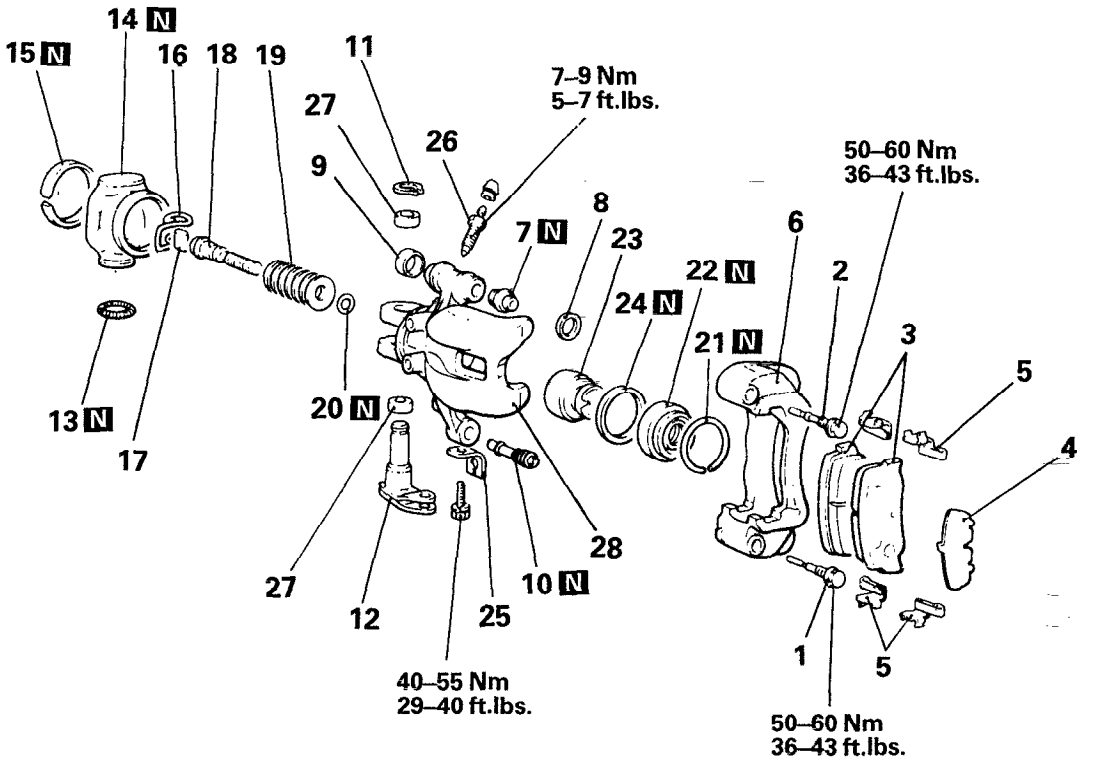
After installation of the brake hose, perform the following operations.

(1) Bleed the hydraulic system.
(2) Check the brake dragging torque. (Refer to P.5-33.)

REAR DISC BRAKES

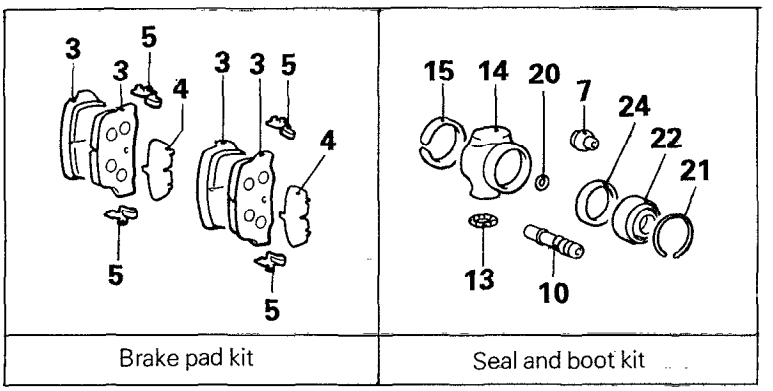
N05NA--

DISASSEMBLY AND REASSEMBLY



Disassembly steps

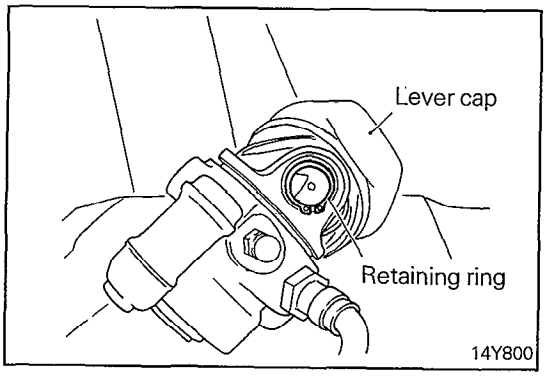
- ◆◆ 1. Lock pin
- ◆◆ 2. Guide pin
- 3. Pad assembly
- 4. Shim
- 5. Pad clip
- ◆◆ 6. Caliper support
- ◆◆ 7. Guide pin boot
- 8. Boot retainer
- 9. Lid
- ◆◆ 10. Lock pin boot
- ◆◆ 11. Retaining ring
- ◆◆ 12. Parking lever assembly
- 13. Garter spring
- ◆◆ 14. Lever cap
- 15. Cap ring
- 16. Return spring
- 17. Connecting link
- ◆◆ ◆◆ 18. Spindle
- ◆◆ 19. Spring washer
- ◆◆ 20. Spindle seal
- 21. Boot ring
- ◆◆ 22. Dust boot
- ◆◆ ◆◆ 23. Piston
- ◆◆ ◆◆ 24. Piston seal
- 25. Parking cable bracket
- 26. Bleeder screw
- ◆◆ ◆◆ 27. Bearing
- ◆◆ 28. Caliper body



Brake pad kit | Seal and boot kit

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

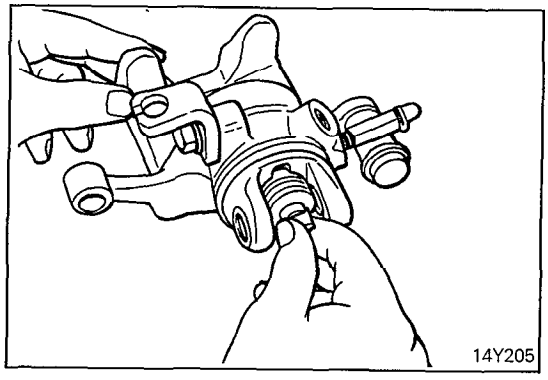
14Y242



SERVICE POINTS OF DISASSEMBLY N05NBAB

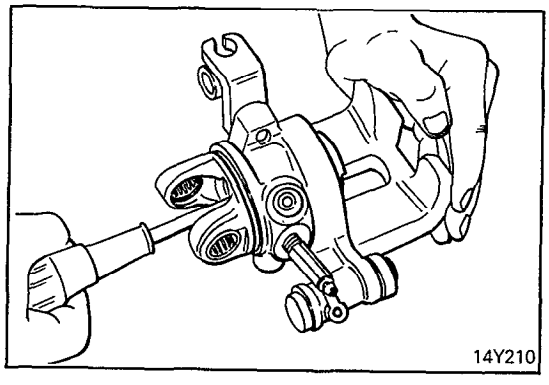
11. REMOVAL OF RETAINING RING

To remove the retaining ring, disengage the cap ring from the lever cap groove and slide the lever cap away.



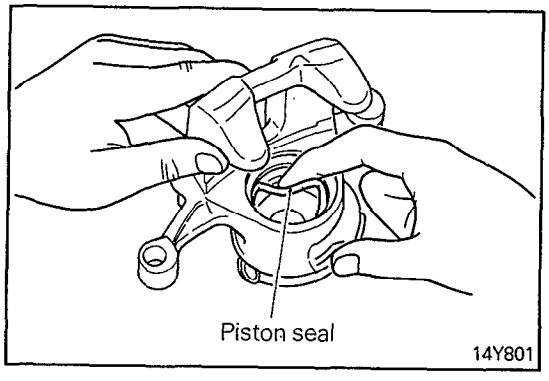
18. REMOVAL OF SPINDLE

Remove the spindle by unscrewing it.



23. REMOVAL OF PISTON

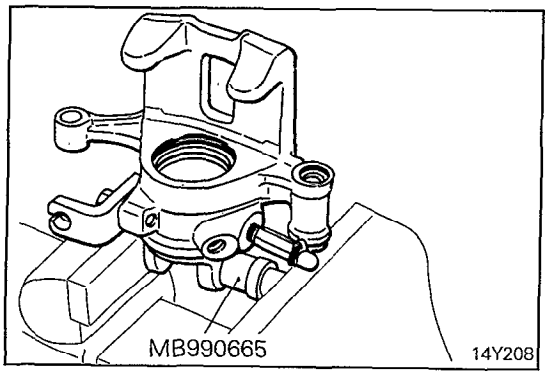
Push out the piston from the caliper body.



24. REMOVAL OF PISTON SEAL

Remove the piston seal.

Caution
Be careful not to damage the caliper bore.



27. REMOVAL OF BEARING

Press out the bearings by using the special tool.

INSPECTION

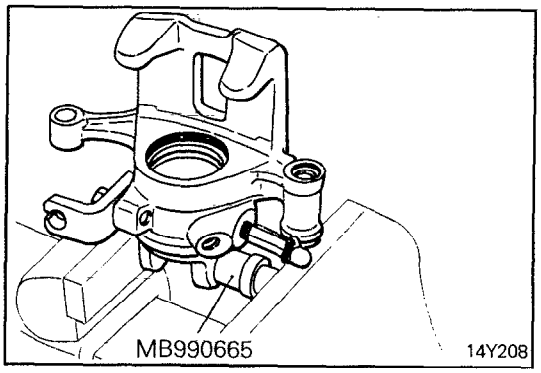
N05NCAB

- Check the connecting link and spindle for wear and damage.
- Check the caliper body for cracks and rust.
- Check the parking lever assembly for rust.
- Check the bearing for wear and rust.
- Check the piston for rust.

Caution
The guide pin boot, lock pin boot, garter spring, cap ring, lever cap, spindle seal, boot ring, dust boot and piston seal must all be replaced with new parts.

SERVICE POINTS OF REASSEMBLY

N05NDAB



28. INSTALLATION OF CALIPER BODY

Clean the caliper body bore with trichloroethylene, alcohol or brake fluid.

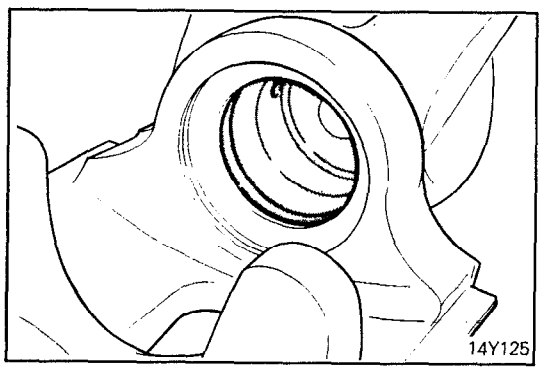
27. INSTALLATION OF BEARING

(1) Apply the specified grease to the bearing.

Specified grease: Repair kit grease (orange)

(2) Press in the bearings by using the special tool until it becomes flush with the caliper body.

NOTE
Insert the bearings so that the depressed marks on the bearings face outward.

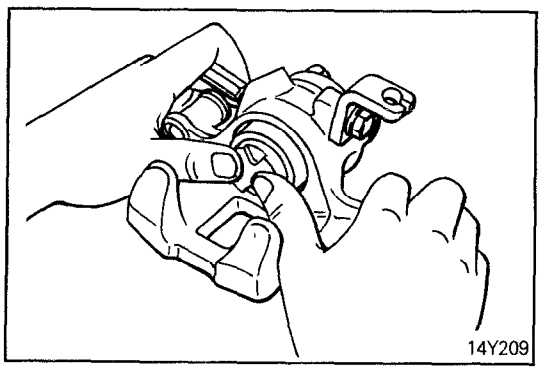


24. INSTALLATION OF PISTON SEAL

(1) Apply the specified brake fluid to the piston seal and inside surface of the cylinder.

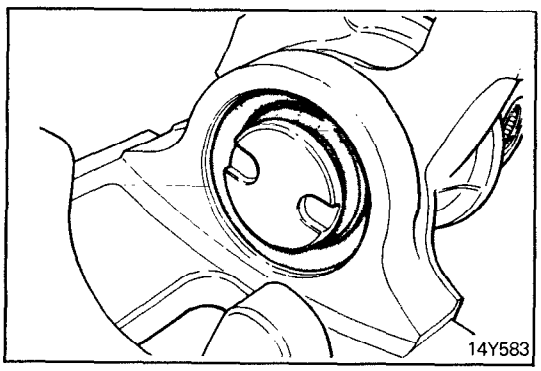
Specified brake fluid: MOPAR Brake Fluid Part No. 2933249 or equivalent

(2) Fit a piston seal into the cylinder.



23. INSTALLATION OF PISTON

Gently insert the piston assembly into the cylinder by hand, being careful not to twist the piston assembly.

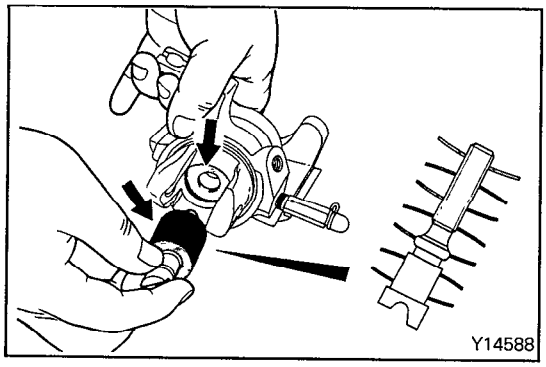


22. APPLICATION OF GREASE TO DUST BOOT

(1) Apply the specified grease to the dust boot fitting groove in the caliper body.

Specified grease: Repair kit grease (orange)

(2) Install a new dust boot and boot ring.



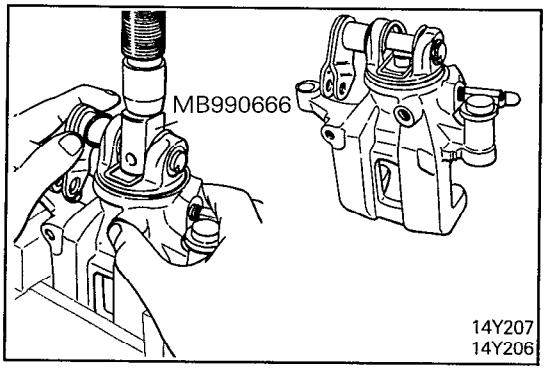
20. INSTALLATION OF SPINDLE SEAL / 19. SPRING WASHER / 18. SPINDLE

(1) Apply the specified brake fluid to the spindle seal.

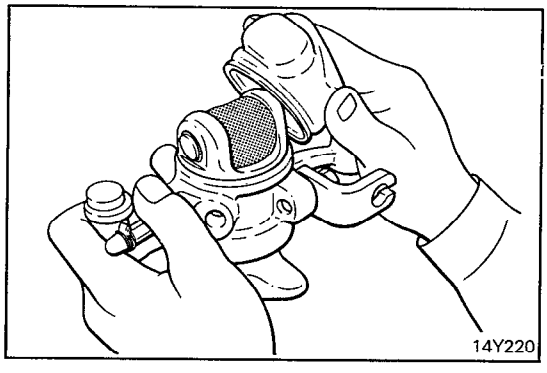
Specified brake fluid: MOPAR Brake Fluid Part No. 2933249 or equivalent

(2) Paying attention to the proper direction of installation, install the spring washers onto the spindle.
(3) Apply the specified grease to the contact surface of the caliper body and spring washers.

Specified grease: Repair kit grease (orange)



(4) Carefully screw the spindle into the caliper body until it rotates freely.
(5) Using the special tool, push the spring washers, and screw the spindle in with a screwdriver or other suitable tool.
(6) Set the connecting link and return spring on the spindle.



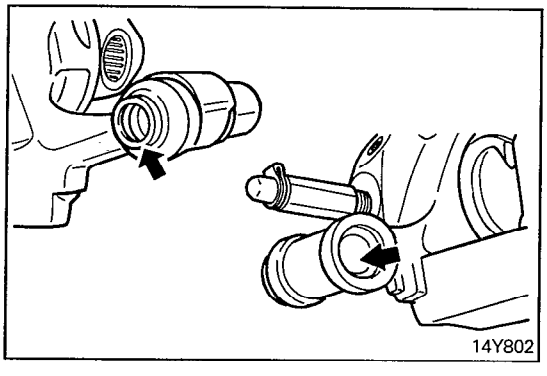
14. INSTALLATION OF LEVER CAP / 12. PARKING LEVER ASSEMBLY

(1) Install the lever cap to the parking lever assembly, and then insert them in the caliper body.
(2) Hold the parking lever assembly with the retaining ring.
(3) Apply plenty of the specified grease to the lever cap as well as to the lip section.

Specified grease: Repair kit grease (orange)

NOTE
Apply grease amply to the contact and sliding surfaces of spindle, connecting link and spring washer, etc.

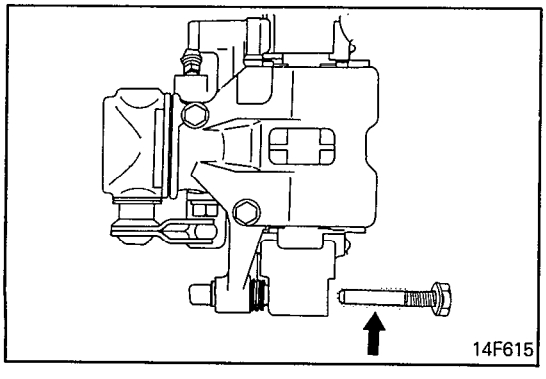
(4) Install the lever cap to the caliper body assembly.



10. APPLICATION OF GREASE TO LOCK PIN BOOT / 7. GUIDE PIN BOOT / 6. CALIPER SUPPORT

Apply specified grease to lock pin, boot inside, guide pin boot mounting surface and caliper support and guide pin contact surface.

Specified grease: Repair kit grease (orange)



2. APPLICATION OF GREASE TO GUIDE PIN / 1. LOCK PIN

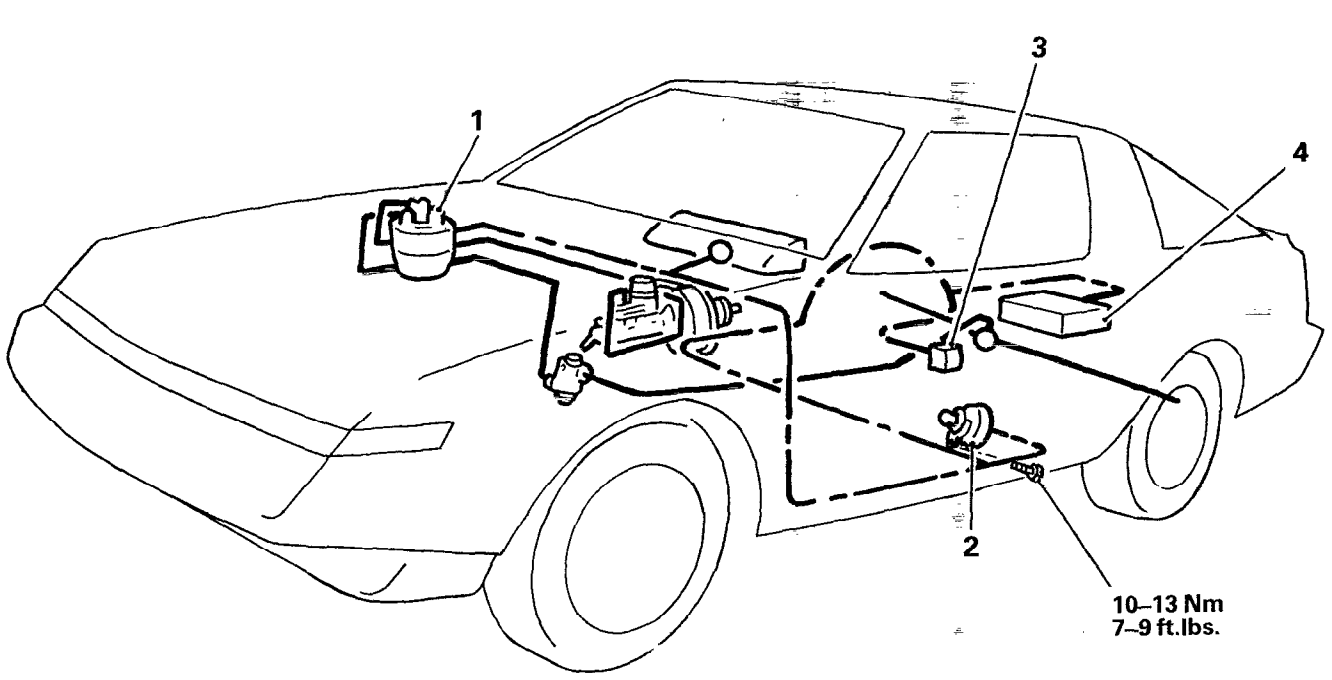
Apply a thin coat of specified grease to the guide pin and lock pin, and then install the caliper body to the caliper support.

Specified grease: Repair kit grease (orange)

REAR BRAKE LOCK-UP CONTROL SYSTEM

N05OA--

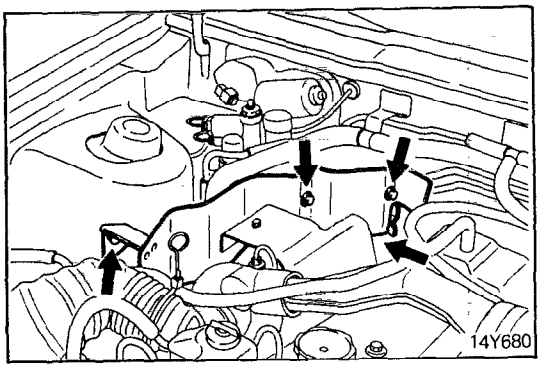
REMOVAL AND INSTALLATION

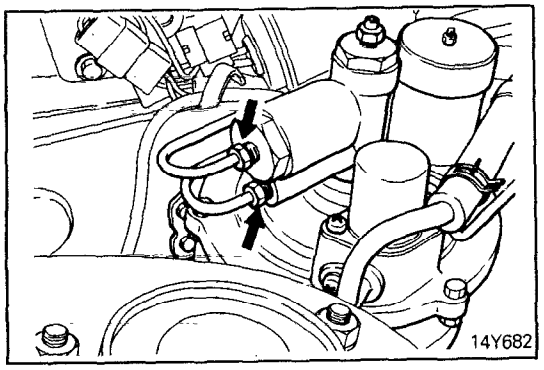


◆◆ 1. Modulator
◆◆ ▶◀ 2. Pulse generator
◆◆ ▶◀ 3. G-sensor
◆◆ 4. Control unit

NOTE
(1) ◆◆: Refer to "Service Points of Removal".
(2) ▶◀: Refer to "Service Points of Installation".

14Y803



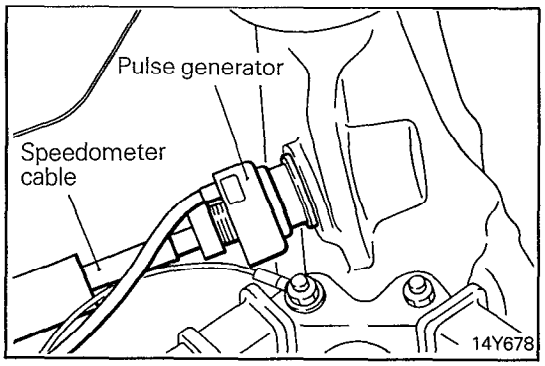


SERVICE POINTS OF REMOVAL

N05OBAA

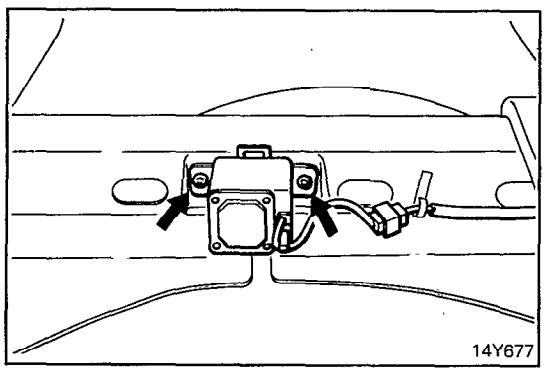
1. REMOVAL OF MODULATOR

Remove the modulator as described below:
(1) Remove the heat protector.
(2) Remove the vacuum hose, the brake tube, and the connector for the solenoid valves.
(3) Remove the modulator bracket from the toeboard, and then remove the modulator.



2. REMOVAL OF PULSE GENERATOR

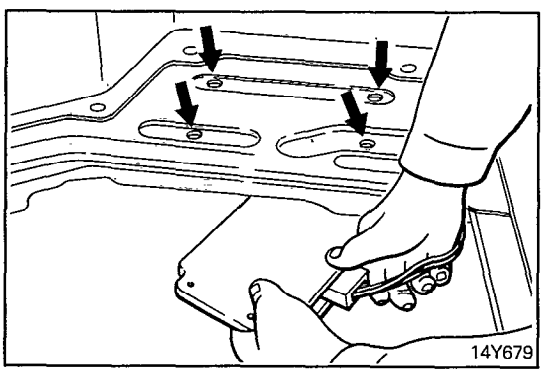
After disconnecting the speedometer cable at the pulse generator side, remove the pulse generator.



3. REMOVAL OF G-SENSOR

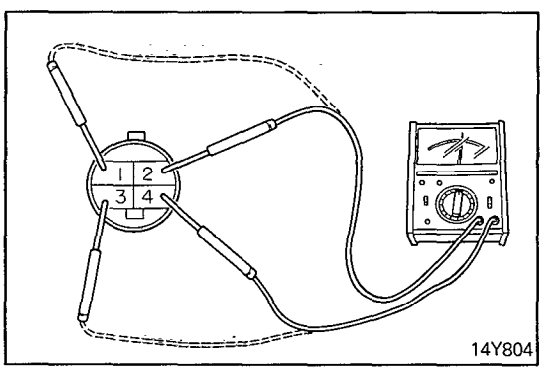
Remove the G-sensor from its position on the baggage compartment floor.

Caution
When removing the G-sensor, be careful not to subject it to any impact or violent shaking.



4. REMOVAL OF CONTROL UNIT

Remove the control unit from beneath the high floor side panel on the right side of the baggage compartment.

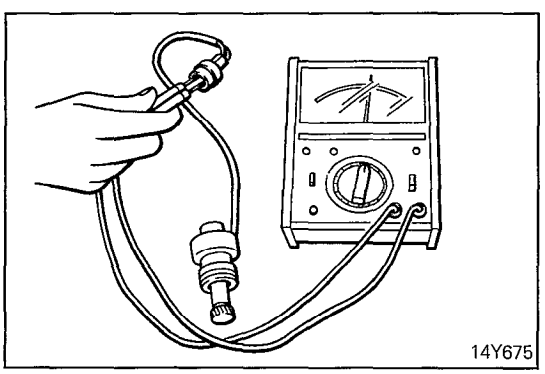


INSPECTION N05OCAB

MODULATOR

Measure the resistance value between the terminals with an ohmmeter.

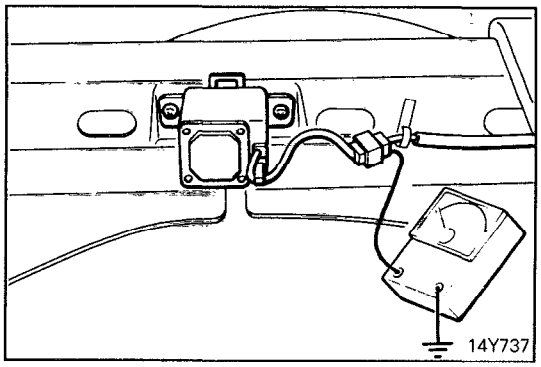
Standard value:
Between terminals 1 – 3 (release solenoid valve)
3.8 – 4.8 Ω
Between terminals 2 – 4 (build-up solenoid valve)
4.5 – 5.5 Ω



PULSE GENERATOR

Measure the resistance value between the terminals with an ohmmeter.

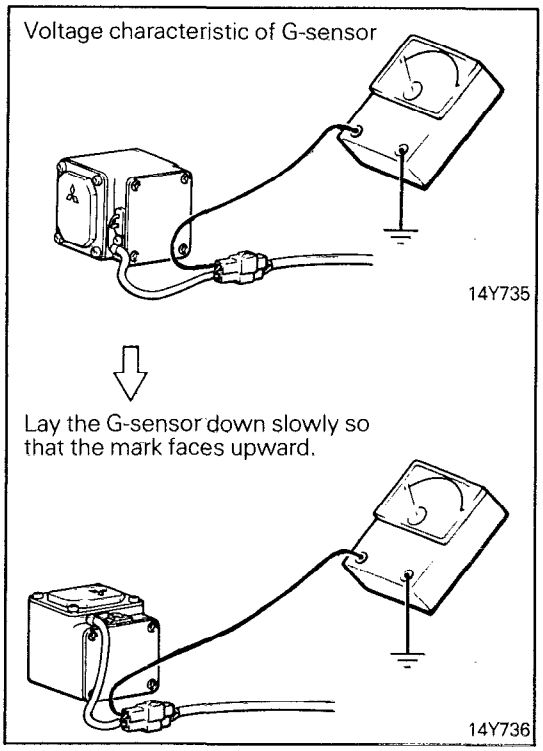
Standard value: 600 – 800 Ω



G-SENSOR

Measure the voltage of the G-sensor when it is laid down in accordance with the following procedure.

(1) Check voltage across R wire of G-sensor and ground for 7.0 to 7.5 V. Voltage other than 7.0 to 7.5 V indicates faulty control unit.



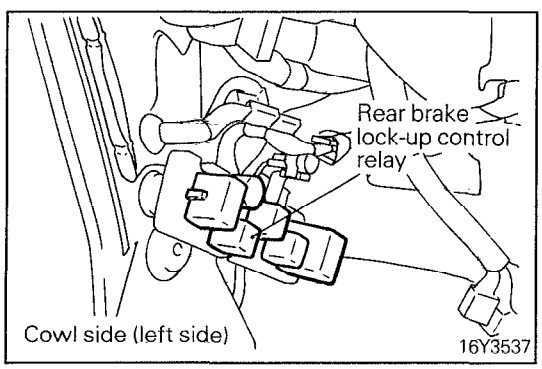
(2) Remove G-sensor and ground to vehicle body by wire.
(3) Measure voltage across G wire of G-sensor and ground.

Standard value: 1.1 – 1.5 V

(4) Turn G-sensor with mark upward. Measure voltage across G wire of G-sensor and ground.

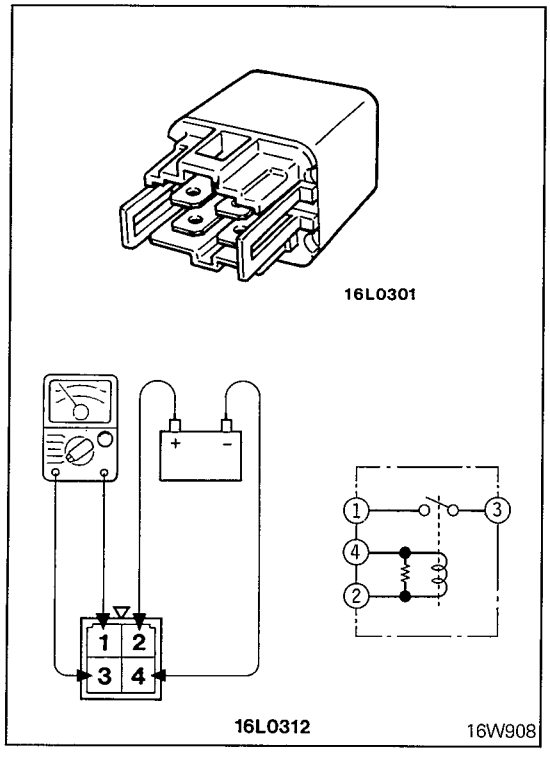
Standard value: 4.6 – 5.0 V

If the voltage is out of standard value, replace the G-sensor.



REAR BRAKE LOCK-UP CONTROL RELAY

(1) Remove the rear brake lock-up control relay.



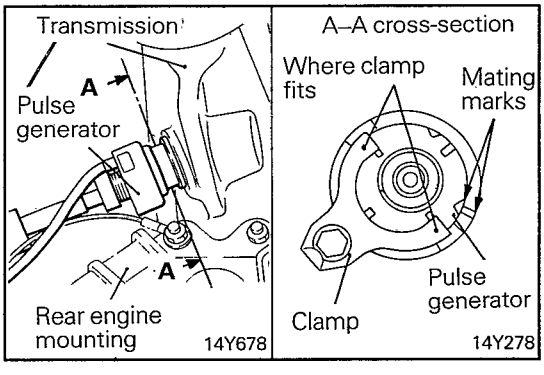
(2) Check continuity between terminals when the battery voltage is applied to the terminal 2 and the terminal 4 is grounded.

Voltage applied	Terminals 1 – 3	Conductive
Voltage not applied	Terminals 1 – 3	Non-conductive
	Terminals 2 – 4	Conductive

SERVICE POINTS OF INSTALLATION N05ODAA

3. INSTALLATION OF G-SENSOR

Install the G-sensor while using a level to be sure that it is perfectly horizontal.



2. INSTALLATION OF PULSE GENERATOR

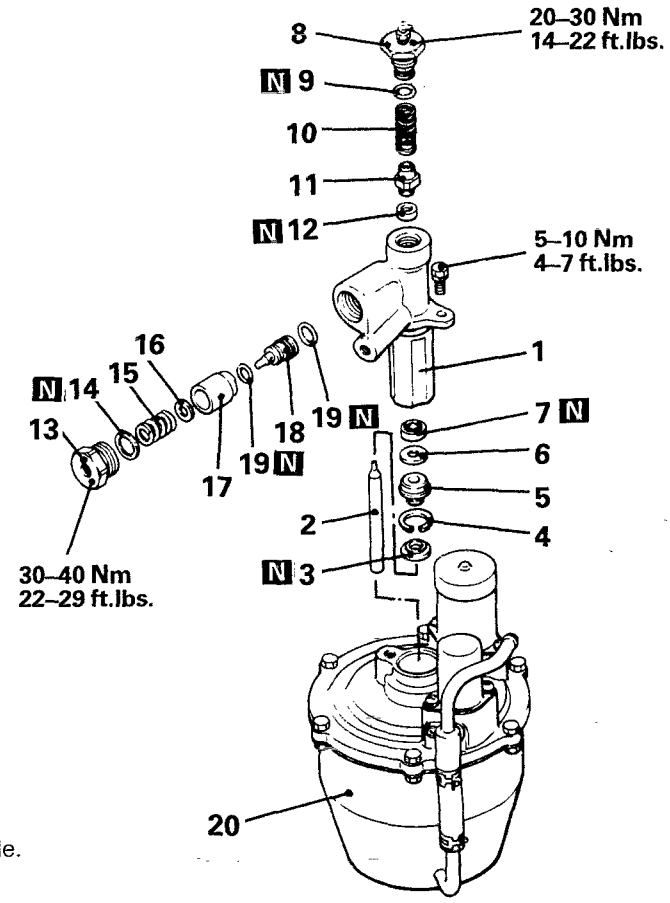
(1) Align the mating marks of the pulse generator and the transmission.
(2) Securely fit the clamp in the grooves in the pulse generator body.

DISASSEMBLY AND REASSEMBLY

N05OEAA

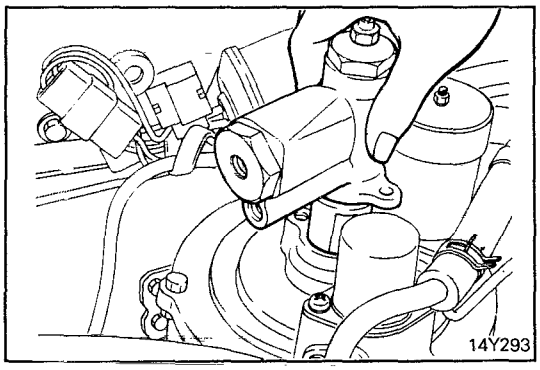
Disassembly steps

- ◆◆ 1. Hydraulic cylinder
- ◆◆ 2. Plunger
- ◆◆ ▶◀ 3. Dust seal
- ◆◆ ▶◀ 4. Snap ring
- ▶◀ 5. Cup retainer
- 6. Back-up ring
- ◆◆ ▶◀ 7. Seal cup
- ◆◆ 8. Bleeder cap
- ◆◆ ▶◀ 9. O-ring
- 10. Check valve piston spring
- 11. Check valve piston
- ▶◀ 12. Check valve seal
- ▶◀ 13. Valve cap
- 14. Gasket
- 15. Choke valve spring
- 16. Spring seal
- ◆◆ ▶◀ 17. Bushing
- ◆◆ ▶◀ 18. Choke valve piston
- ◆◆ ▶◀ 19. O-ring
- 20. Vacuum cylinder assembly



14Y292

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



14Y293

SERVICE POINTS OF DISASSEMBLY

N05OFAA

1. REMOVAL OF HYDRAULIC CYLINDER

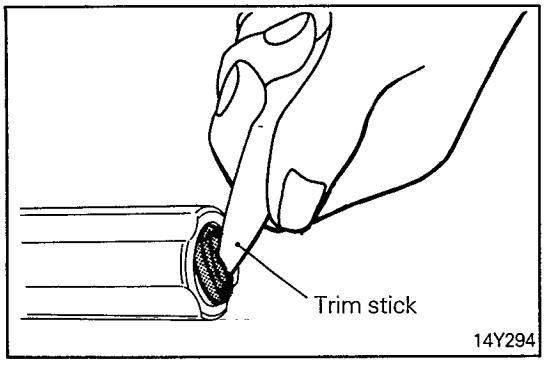
Remove the hydraulic cylinder assembly from the modulator by pulling out straight.

NOTE
After removal of the hydraulic cylinder, be sure to prevent dust and dirt from entering the vacuum cylinder assembly.

2. REMOVAL OF PLUNGER

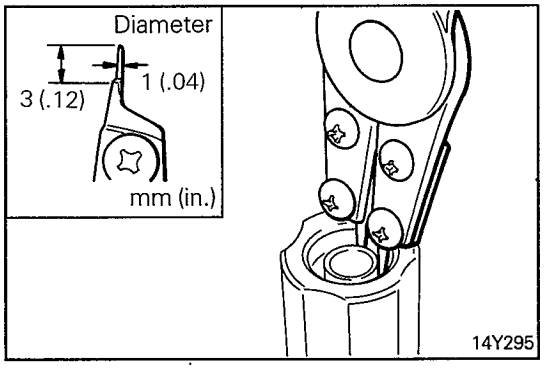
Pull out the plunger from the hydraulic cylinder assembly.

NOTE
When pulling out the plunger, do not damage the plunger surface.



3. REMOVAL OF DUST SEAL

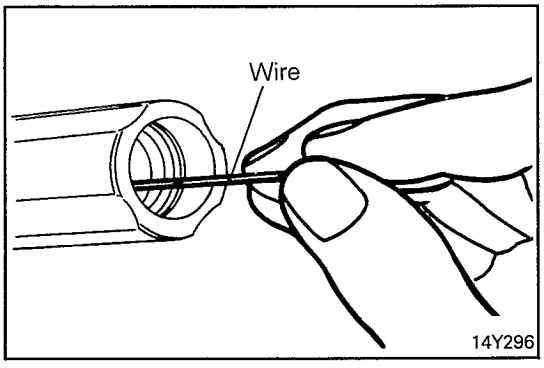
Use trim stick to remove the dust seal.



4. REMOVAL OF SNAP RING

Finish the ends of snap ring pliers as shown and use the pliers to remove the snap ring.

NOTE
Do not damage the inner surface of the hydraulic cylinder.



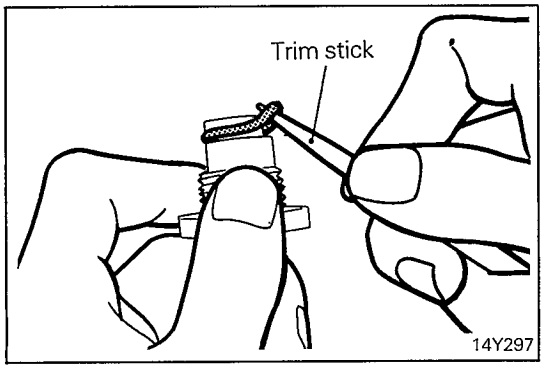
7. REMOVAL OF SEAL CUP

Remove the seal cup from the hydraulic cylinder with a wire having an L-shaped end.

8. REMOVAL OF BLEEDER CAP

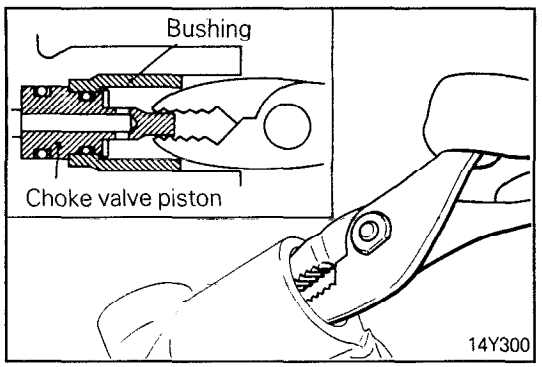
Hold the hydraulic cylinder in a vice and remove the bleeder cap.

NOTE
When the hydraulic cylinder is held in a vice, be sure to hold the portion painted black.



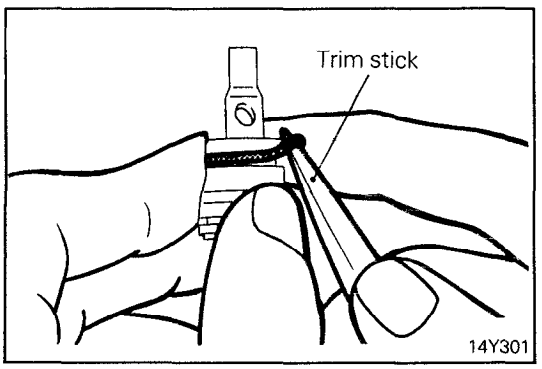
9. REMOVAL OF O-RING

Use trim stick to remove O-ring from the bleeder cap.



17. REMOVAL OF BUSHING / 18. CHOKE VALVE PISTON

(1) Hold the end of choke valve piston with a long-nosed pliers or the like and remove the choke valve piston and bushing at the same time from the hydraulic cylinder.
(2) Push the choke valve piston out with fingers to remove it from the bushing.

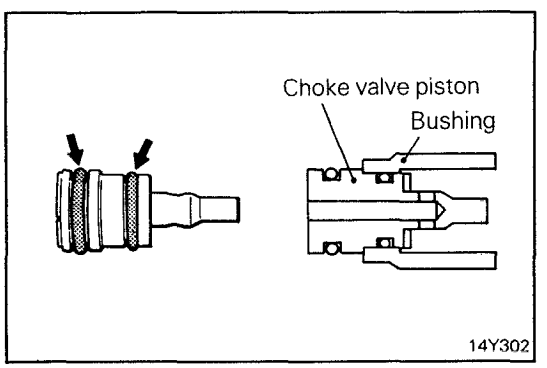


19. REMOVAL OF O-RING

Remove O-ring from the choke valve piston with the trim stick.

INSPECTION N05OGAA

- Check the each valve spring for weakness.
- Check the hydraulic cylinder for rust and scars on inside surface.
- Check the check valve piston and choke valve piston for rust, scars, wear and weakness.



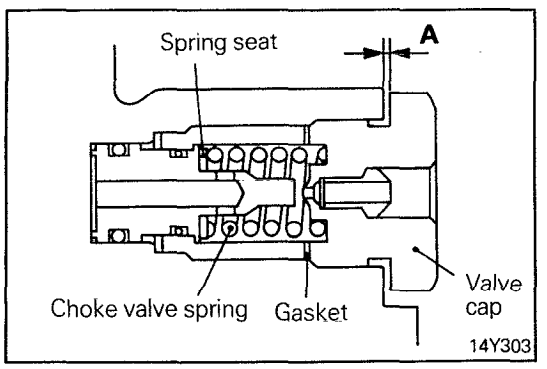
SERVICE POINTS OF REASSEMBLY N05OHAD

19. INSTALLATION OF O-RING / 18. CHOKE VALVE PISTON / 17. BUSHING

(1) Coat O-ring with specified brake fluid and install it to the choke valve piston.

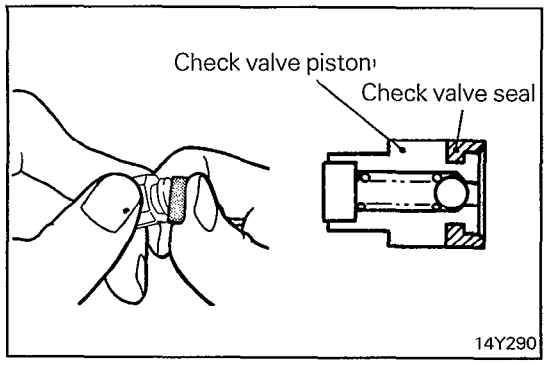
Specified brake fluid: MOPAR Brake Fluid Part No. 2933249 or equivalent

(2) Assemble the choke valve piston to the bushing before installing it to the hydraulic cylinder.



13. INSTALLATION OF VALVE CAP

After tightening the valve cap, clearance (A) of 0.5 to 1.0 mm (.02 to .04 in.) must be left.

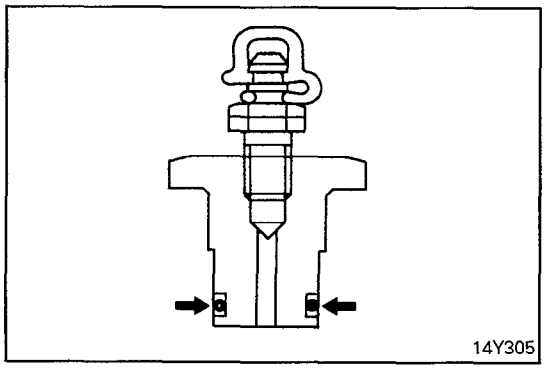


12. INSTALLATION OF CHECK VALVE SEAL

After coating the check valve seal with specified brake fluid, install with its larger inner diameter end towards outside.

Specified brake fluid: MOPAR Brake Fluid Part No. 2933249 or equivalent

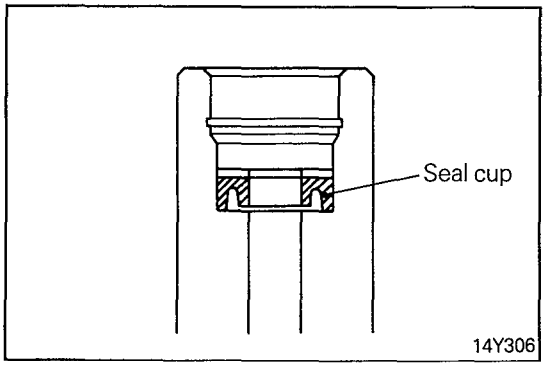
Caution
If the check valve seal is installed in the reverse direction, the brake will become inoperative.



9. APPLICATION OF FLUID TO O-RING

Coat O-ring with specified brake fluid and install it to the bleeder cap.

Specified brake fluid: MOPAR Brake Fluid Part No. 2933249 or equivalent



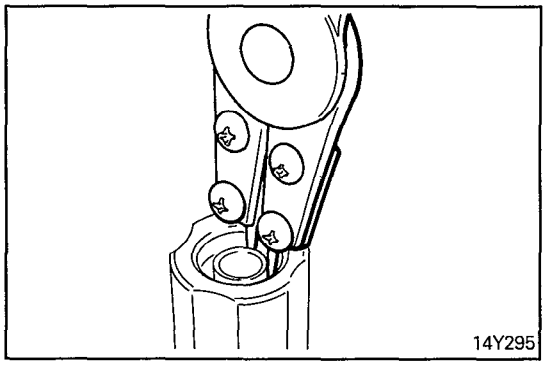
7. APPLICATION OF FLUID TO SEAL CUP

Coat the seal cup with rust preventive agent and install it with its concave side directed towards the hydraulic cylinder.

Specified brake fluid: MOPAR Brake Fluid Part No. 2933249 or equivalent

5. INSTALLATION OF CUP RETAINER

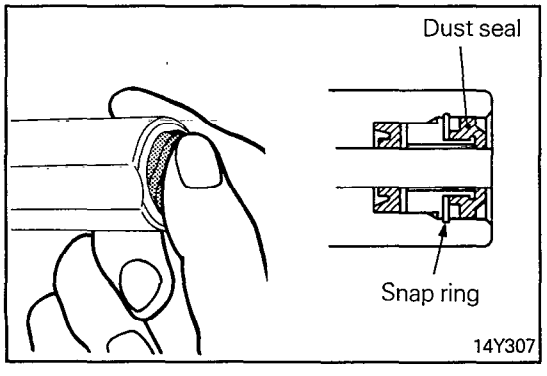
Install the cup retainer, with its large outer diameter end on the hydraulic cylinder side.



4. INSTALLATION OF SNAP RING

Fit the snap ring securely in the snap ring groove.

NOTE
After installation of the snap ring, hold the cup retainer lightly with a long-nosed pliers and pull it to make sure that the snap ring is positively installed.



3. INSTALLATION OF DUST SEAL

(1) Apply the specified grease to the dust seal.

Specified grease: Repair kit grease (silicone grease)

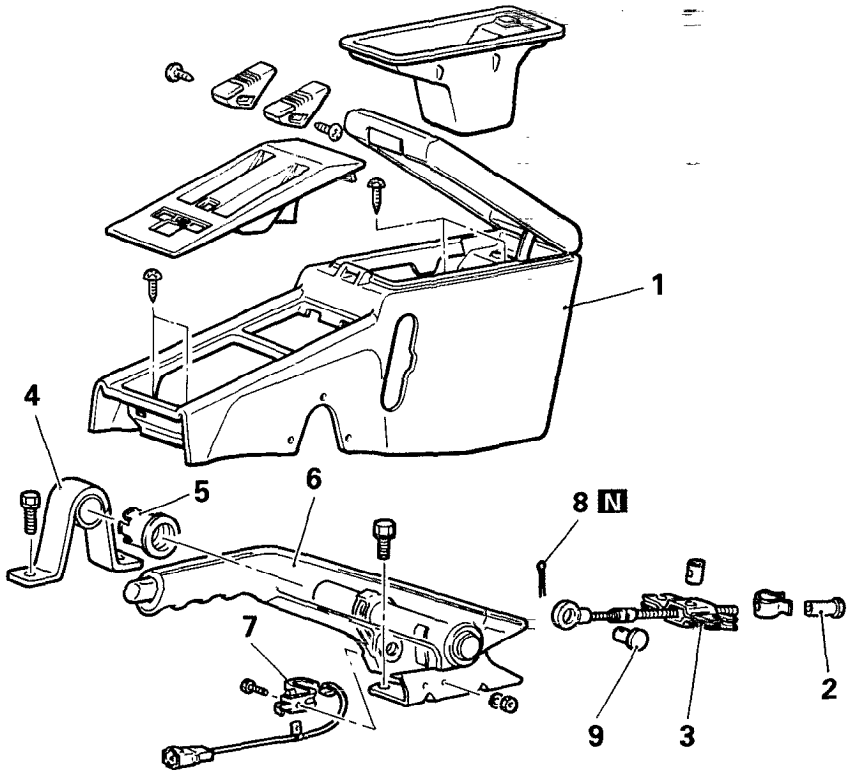
(2) While holding it with fingers, install it to each of the cup retainer and hydraulic cylinder.

Caution
Do not force the periphery of the dust seal inward, because a specified clearance is provided between dust seal and snap ring.

PARKING BRAKE LEVER

N05WA--

REMOVAL AND INSTALLATION



14Y812

Removal steps

◆◆ ▶◀ 1. Rear floor console
▶◀ Adjustment of parking brake lever stroke
2. Adjuster
3. Equalizer
4. Stay
▶◀ 5. Bushing
▶◀ 6. Parking brake lever
7. Parking brake switch
8. Cotter pin
▶◀ 9. Clevis pin

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

SERVICE POINT OF REMOVAL

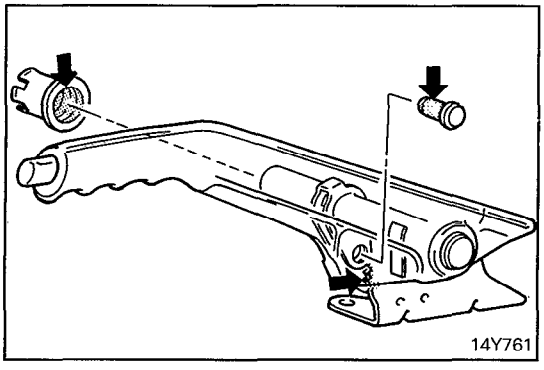
N05WBAA

1. REMOVAL OF REAR FLOOR CONSOLE

Refer to GROUP 23 BODY – Floor Console.

INSPECTION N05WCAB

- Check the bushing for wear.
- Check the parking brake switch for malfunction.
- Check the parking brake lever ratchet for wear.



SERVICE POINTS OF INSTALLATION N05WDAC

9. APPLICATION OF GREASE TO CLEVIS PIN / 6. PARKING BRAKE LEVER / 5. BUSHING

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

Specified grease: MOPAR Multi-mileage Lubricant Part No. 2525035 or equivalent

- **ADJUSTMENT OF PARKING BRAKE LEVER STROKE**

Adjust the adjuster to make sure that the number of clicks is within specification when the lever is pulled with 200 N (45 lbs.) force. (Refer to P.5-33.)

Standard value: 4 – 5 clicks

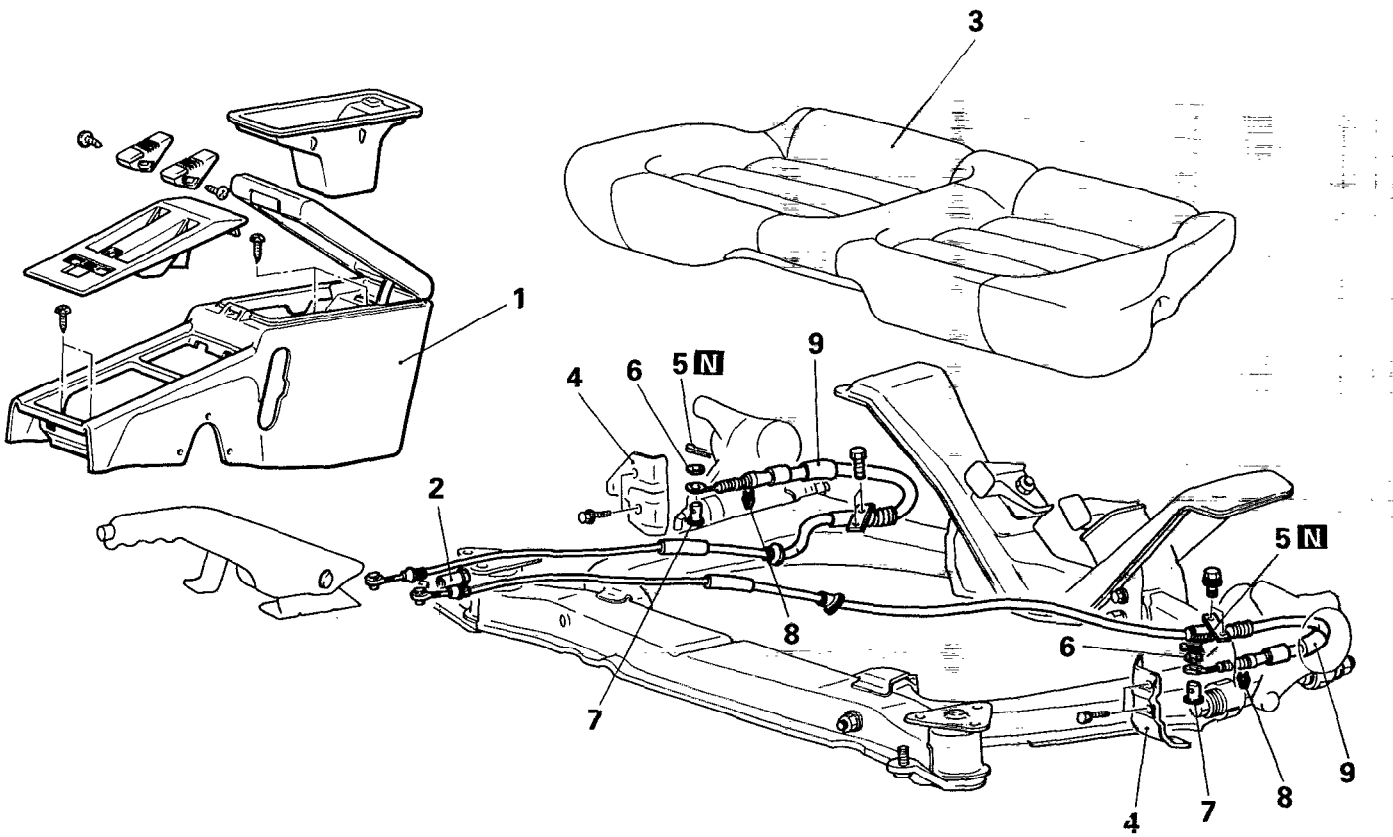
1. INSTALLATION OF REAR FLOOR CONSOLE

Refer to GROUP 23 BODY – Floor Console.

PARKING BRAKE CABLE

N05XA--

REMOVAL AND INSTALLATION



Removal steps

◆◆ ▶◀ 1. Rear floor console
▶◀ Adjustment of parking brake lever stroke
2. Adjuster
◆◆ 3. Rear seat cushion
4. Dust cover
◆◆ 5. Cotter pin
◆◆ 6. Washer
◆◆ 7. Clevis pin
◆◆ 8. Clip
◆◆ ▶◀ 9. Parking brake cable

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

SERVICE POINTS OF REMOVAL

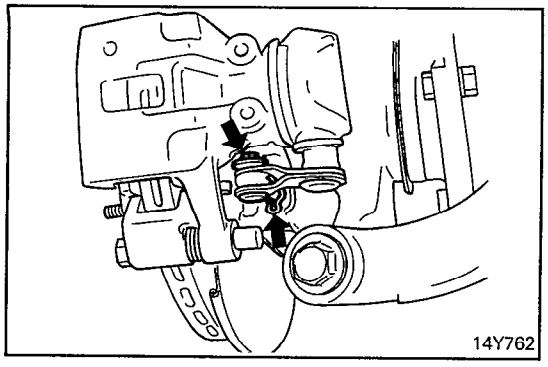
N05XBAB

1. REMOVAL OF REAR FLOOR CONSOLE

Refer to GROUP 23 BODY – Floor Console.

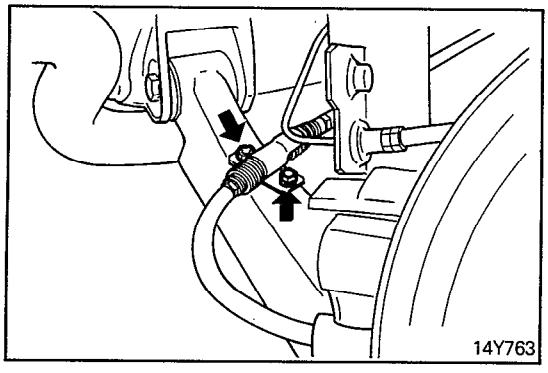
3. REMOVAL OF REAR SEAT CUSHION

Refer to GROUP 23 BODY – Seat.



5. REMOVAL OF COTTER PIN / 6. WASHER / 7. CLEVIS PIN / 8. CLIP

(1) Remove the cotter pin, clevis pin and washer.
(2) Remove the clip by pulling downward, and remove the parking brake cable out of the groove in the brake body.

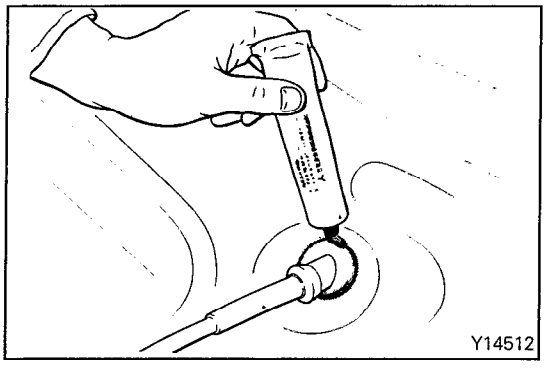


9. REMOVAL OF PARKING BRAKE CABLE

(1) Remove the parking brake cable mounting bracket from the lower control arm.
(2) Pull the parking brake cable out of the vehicle.

INSPECTION N05XCAB

Check the parking brake cable for damage and operation.



SERVICE POINTS OF INSTALLATION N05XDAB

9. APPLICATION OF SEALANT TO PARKING BRAKE CABLE

Apply drying sealant to the grommet and body panel contact surface.

- **ADJUSTMENT OF PARKING BRAKE LEVER STROKE**

Adjust the adjuster to make sure that the number of clicks is within specification when the lever is pulled with 200 N (45 lbs.) force. (Refer to P.5-33.)

Standard value: 4 – 5 clicks

1. INSTALLATION OF REAR FLOOR CONSOLE

Refer to GROUP 23 BODY – Floor Console.