

## GENERAL INFORMATION

The clutch is a dry single-disc, diaphragm type; hydraulic pressure is used for the clutch control.

## GENERAL SPECIFICATIONS

Items	F5M42–4G94
Clutch operating method	Hydraulic type
Clutch disc type	Single dry disc type
Clutch disc size O.D. x I.D. mm	215 x 140
Clutch cover type	Diaphragm spring type
Clutch cover setting load N	4510

## SERVICE SPECIFICATIONS

Items	Standard value
Clutch pedal height mm	167.1 – 171.1
Clutch pedal clevis pin play mm	1 – 3
Clutch pedal free play mm	4 – 13
Distance between the clutch pedal and the toeboard when the clutch is disengaged mm	109.4 or more
Clutch disc facing rivet sink mm	0.3
Diaphragm spring end height difference mm	0.5

## TORQUE SPECIFICATIONS

Items	Specified torque
Clutch fluid line bracket Nm	18
Clutch release cylinder air bleeder Nm	11
Clutch release cylinder mounting bolt Nm	10
Clutch tube flare nut Nm	15

## LUBRICANTS

Items	Specified lubricants	Quantity
Clutch fluid	Brake fluid DOT3 or DOT4	As required
Push rod assembly	Rubber grease	
Boot		
Piston and piston cup outer surface	Brake fluid DOT3 or DOT4	
Release cylinder inner surface		

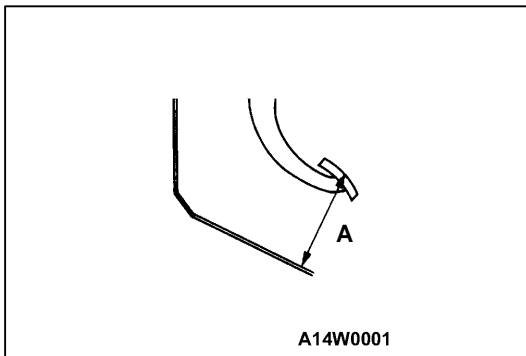
## ON-VEHICLE SERVICE

## CLUTCH PEDAL INSPECTION AND ADJUSTMENT

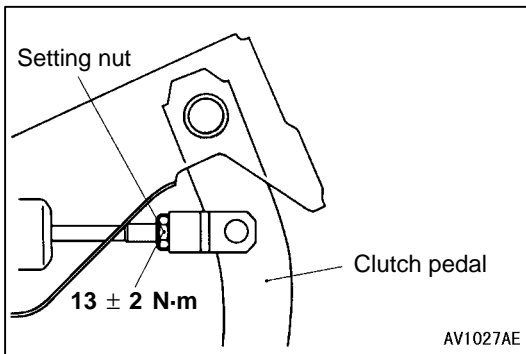
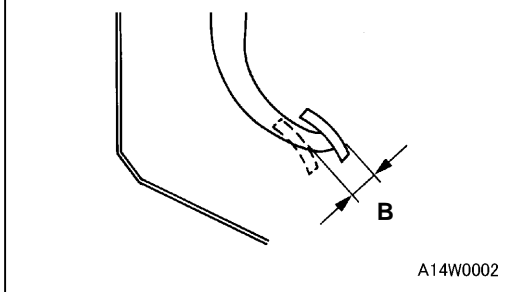
1. Turn up the carpet, etc. under the clutch pedal.
2. Measure the clutch pedal height and the clutch pedal clevis pin play.

**Standard value (A):** 167.1 – 171.1 mm

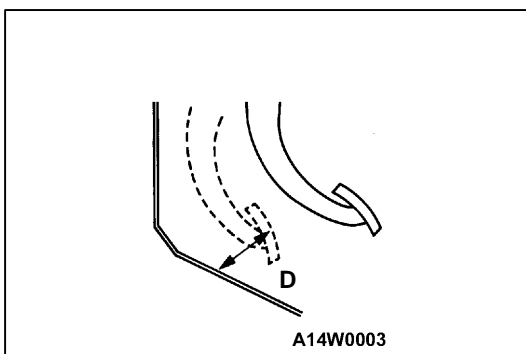
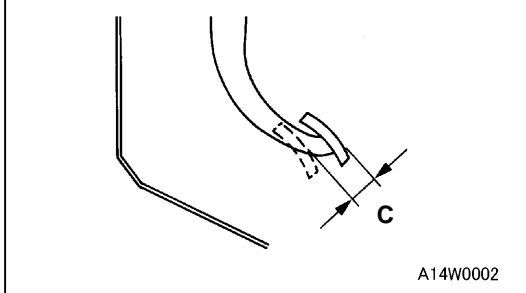
**Standard value (B):** 1 – 3 mm



Clutch pedal clevis pin play



Clutch pedal clevis pin play



3. If the height of the clutch pedal is outside the standard value, loosen the setting nut to adjust the pedal height to the standard value.

**Caution**

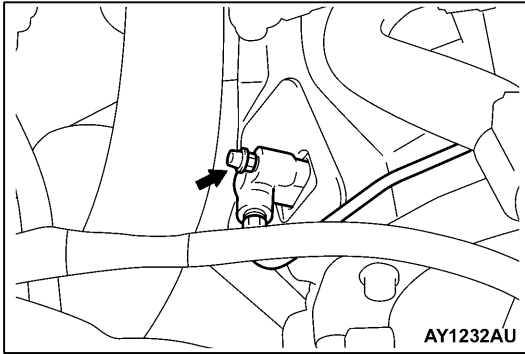
**Do not push in the master cylinder push rod at this time, otherwise the clutch will not operate properly.**

4. After completing the adjustments, confirm that the clutch pedal free play (measured at the face of the pedal pad) and the distance between the clutch pedal (the face of the pedal pad) and the clutch pedal stopper or toeboard when the clutch is disengaged are within the standard value ranges.

**Standard value (C):** 4 – 13 mm

**Standard value (D):**  
109.4 mm or more

5. If the clutch pedal free play and the distance between the clutch pedal and the clutch pedal stopper or toeboard when the clutch is disengaged do not agree with the standard values, it is probably the result of either air in the hydraulic system or a faulty master cylinder, clutch cylinder or clutch. Bleed the air, or disassemble and inspect the master cylinder, clutch cylinder or clutch.
6. Turn back the carpet, etc.



### BLEEDING

**Specified fluid: Brake fluid DOT 3 or DOT 4**

#### Caution

**Use the specified brake fluid. Avoid using a mixture of the specified fluid and other fluid.**

1. Connect a hose with a bottle to the bleed nipple.
2. Open the bleed nipple.
3. Depress the clutch pedal slowly. Repeat until only brake fluid and no air comes out.

#### Caution

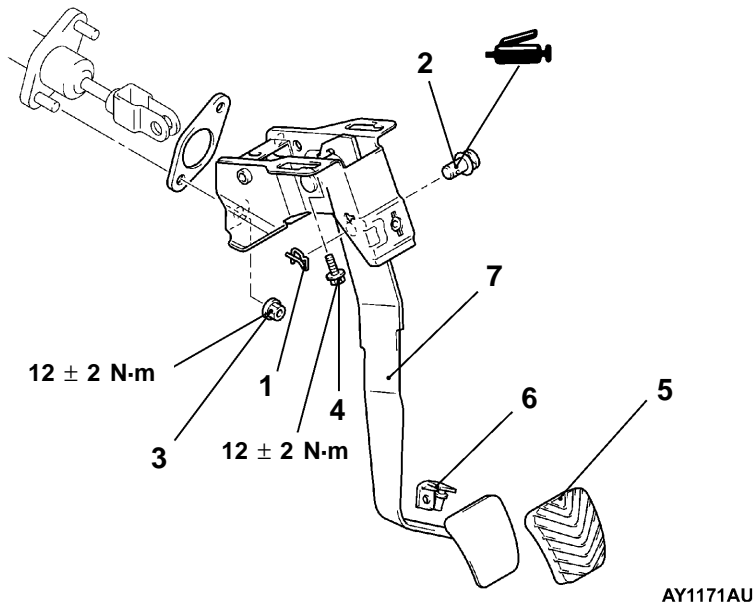
**For bleeding, never carry out pumping operation of the clutch pedal. This may cause an oil leak at the seal with the excessive fluid charged into the clutch cylinder by pumping.**

4. Check that the brake fluid reservoir level is between “MAX” and “MIN” marks.

# CLUTCH PEDAL

## REMOVAL AND INSTALLATION

Post-installation Operation  
[Clutch Pedal Adjustment](#)



### Removal steps

- [Instrument panel under cover](#)

1. Snap pin
2. Clevis pin
3. Clutch master cylinder mounting nut

4. Master cylinder member mounting bolt
5. Pedal pad
6. Pedal stopper
7. Clutch pedal assembly

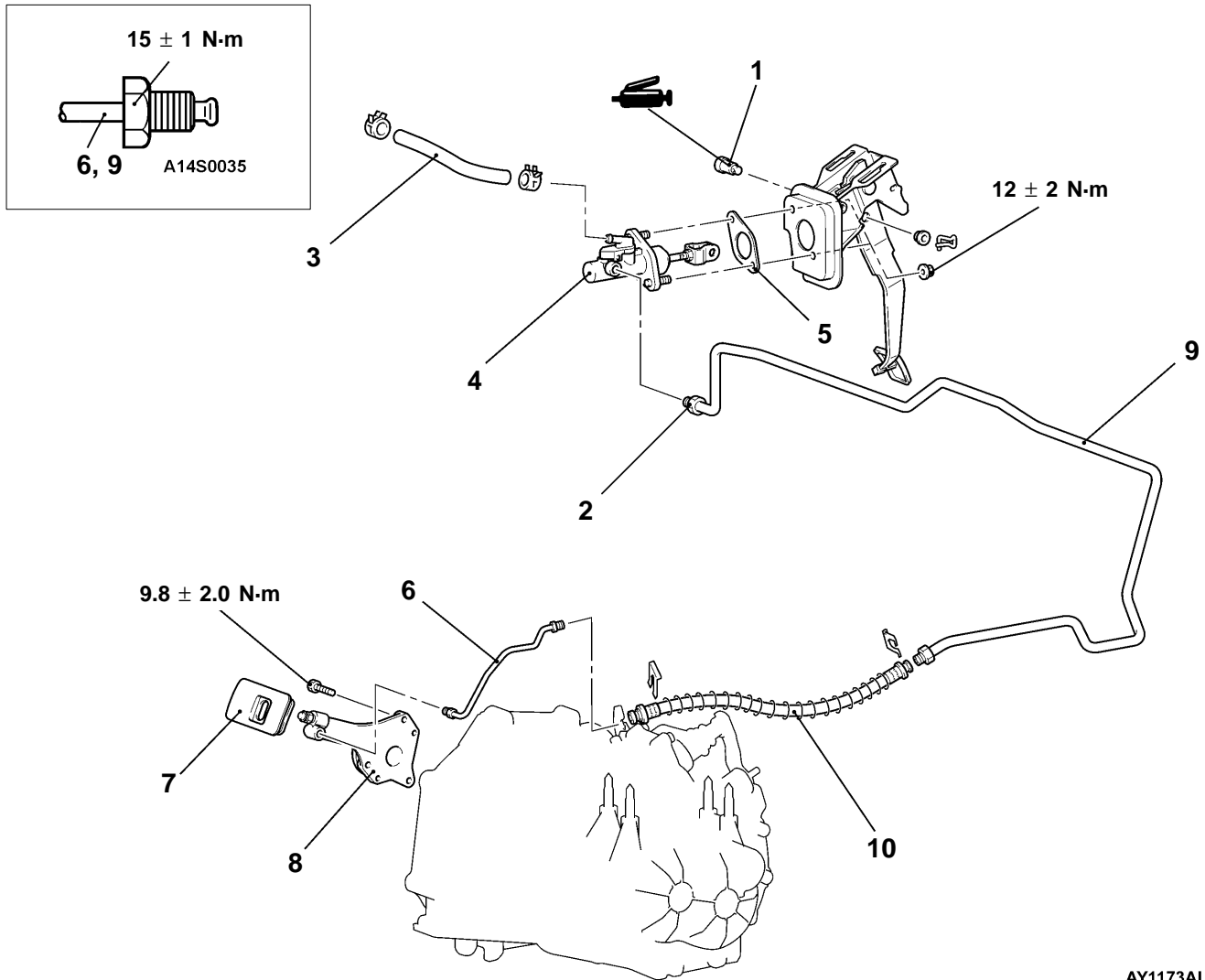
# CLUTCH CONTROL

## REMOVAL AND INSTALLATION

**Pre-removal Operation**  
Clutch Fluid Draining

**Post-installation Operation**

- Clutch Fluid Supplying
- [Clutch Line Bleeding](#)
- [Clutch Pedal Adjustment](#)



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### Clutch master cylinder removal steps

1. Clevis pin assembly
2. Clutch pipe connection
3. Reservoir hose
4. Clutch master cylinder
5. Sealer

### Clutch cylinder removal steps

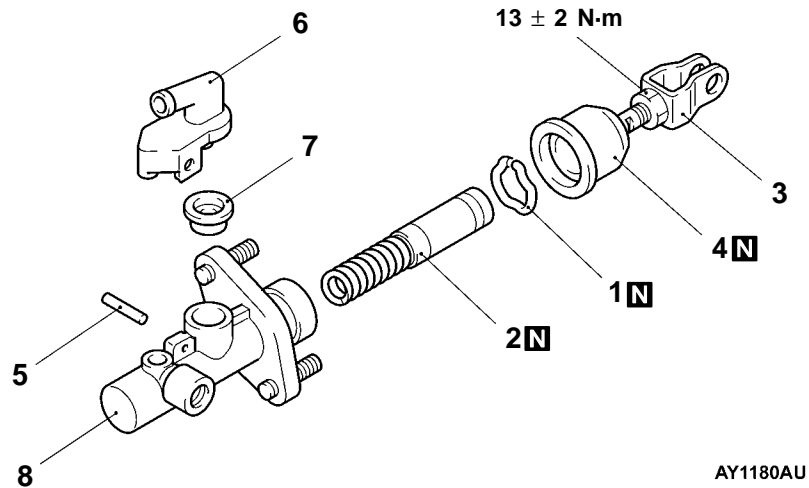
6. Clutch pipe
7. Boot
- [Manual transmission](#)
8. Clutch cylinder

### Clutch line removal steps

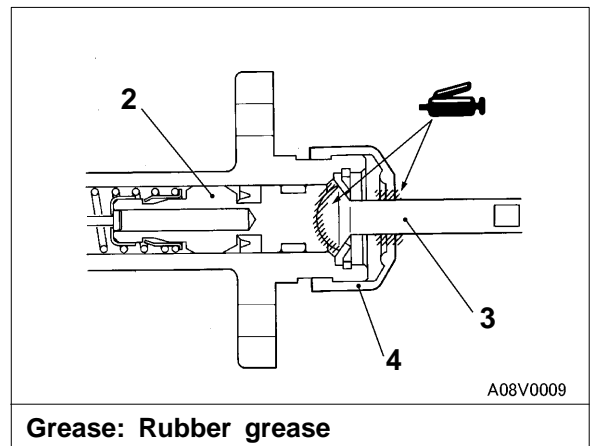
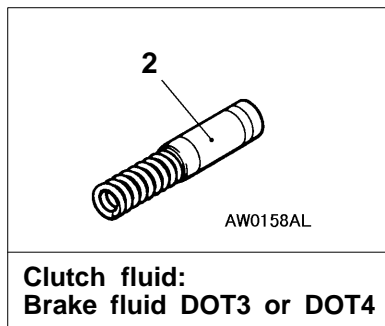
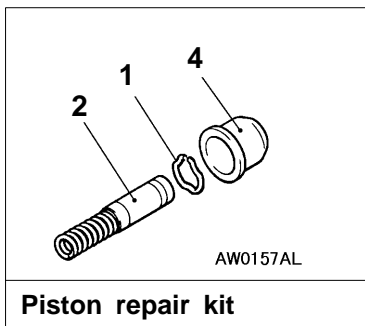
9. Clutch pipe
10. Clutch hose

## DISASSEMBLY AND REASSEMBLY CLUTCH MASTER CYLINDER

**Caution**  
Do not disassemble piston assembly.



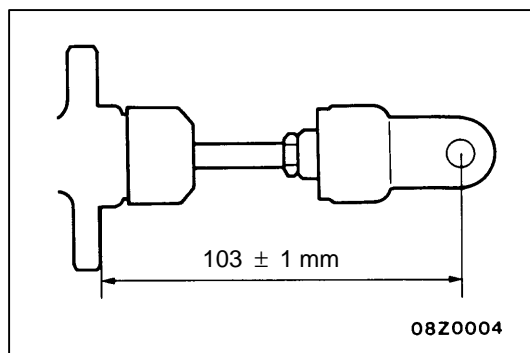
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### Disassembly steps

1. Piston stopper ring
2. Piston assembly
3. Push rod assembly
4. Boot

5. Spring pin
6. Reservoir tank
7. Seal
8. Master cylinder body



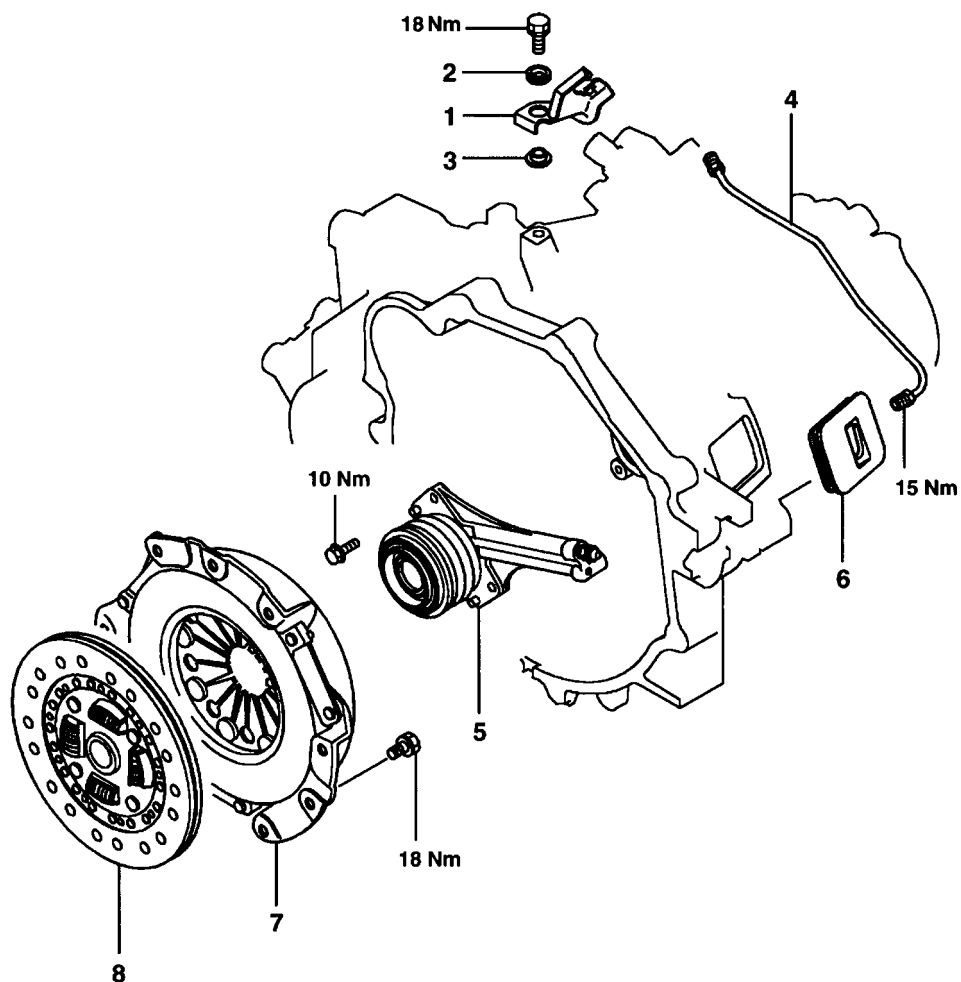
### INSTALLATION SERVICE POINT

#### ►A◄ PUSH ROD ASSEMBLY INSTALLATION

Set the length of the push rod assembly to the shown dimension to make the adjustment of clutch pedal easier.

# CLUTCH

## REMOVAL AND INSTALLATION



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### Removal steps

1. Clutch fluid line bracket
2. Insulator
3. Washer
4. Clutch tube
5. Clutch release concentric cylinder assembly
6. Clutch release fork boot
7. Clutch cover
8. Clutch disc

### INSPECTION

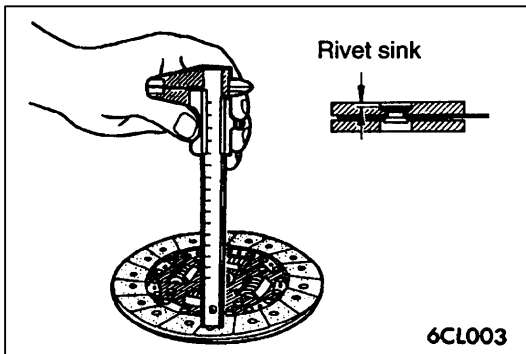
#### CLUTCH COVER

Check the diaphragm spring end for wear and uneven height. Replace if wear is evident or height difference exceeds the limit.

**Limit: 0.5 mm**

Check the pressure plate surface for wear, cracks and discoloration.

Check the rivets of the strap plates for looseness. If loose, replace the clutch cover.



#### CLUTCH DISC

##### Caution

**Don't clean the clutch disc in a cleaning fluid.**

Check the facing for loose rivets, uneven contact, evidence of seizure, or deposited oils and greases. If defective, replace the clutch disc.

Measure the rivet sink and replace the clutch disc if it is out of specification.

**Limit: 0.3 mm**

Check the torsion spring for looseness and damage. If defective, replace the clutch disc.

Combine the clutch disc with the input shaft and check for sliding condition and play in the rotating direction. If poor sliding condition is evident, clean, reassemble, and recheck. If excessive looseness is evident, replace the clutch disc and/or input shaft.

#### CLUTCH RELEASE BEARING

##### Caution

**Release bearing is packed with grease. Therefore, do not wash it in a cleaning fluid and the like.**

Check for seizure, damage, noise or improper rotation.

Check for wear on the surface which contacts with the diaphragm spring.

If abnormally worn, replace.