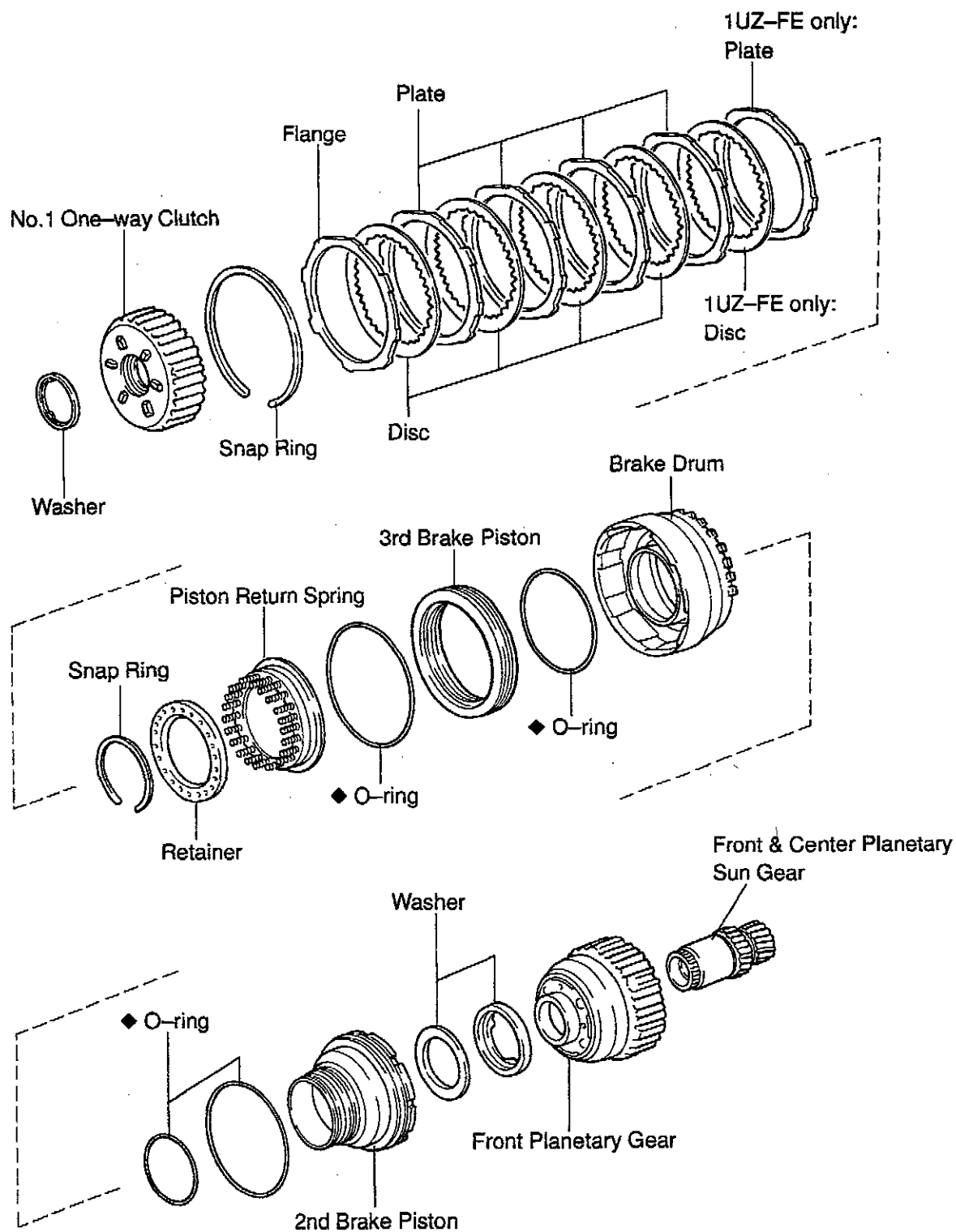


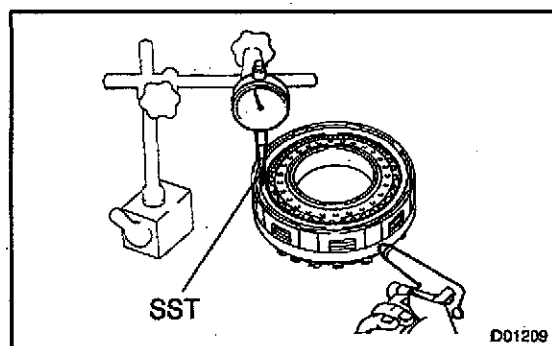
MULTIPLE DISC BRAKE COMPONENTS

AT04Z-01



◆ Non-reusable part

D01472



DISASSEMBLY

1. CHECK PISTON STROKE OF 3RD BRAKE PISTON

- (a) Using SST and a dial indicator, measure the 3rd brake piston stroke while applying and releasing compressed air (392 kPa, 4 kg/cm², 57 psi).

SST 09350-30020 (09350-06120)

If the stroke is non-standard, inspect the disc.

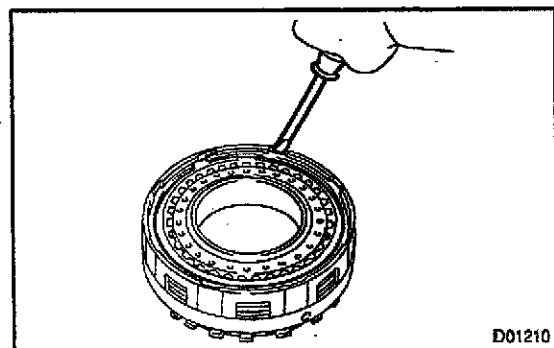
Piston stroke:

1UZ-FE: 0.70 – 1.00 mm (0.028 – 0.039 in.)

2JZ-GE: 0.56 – 0.86 mm (0.022 – 0.036 in.)

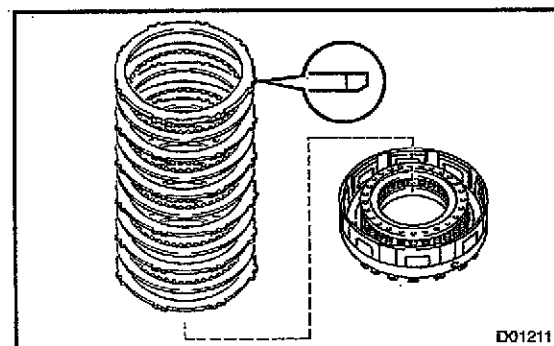
NOTICE:

Do not applying compressed air into the 2nd brake hole.



2. REMOVE FLANGE, PLATE AND DISC

- (a) Using a screwdriver, remove the snap ring from the brake drum.

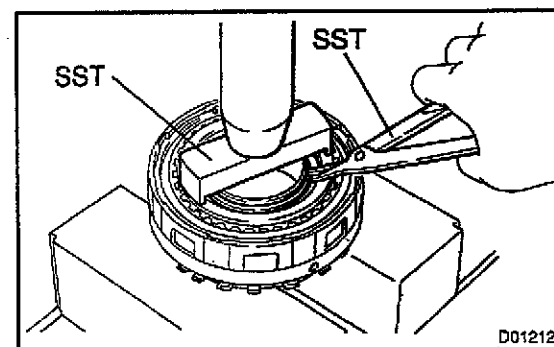


- (b) Remove the flange, plates and discs.

HINT:

1UZ-FE: 5 plates and 5 discs

2JZ-GE: 4 plates and 4 discs



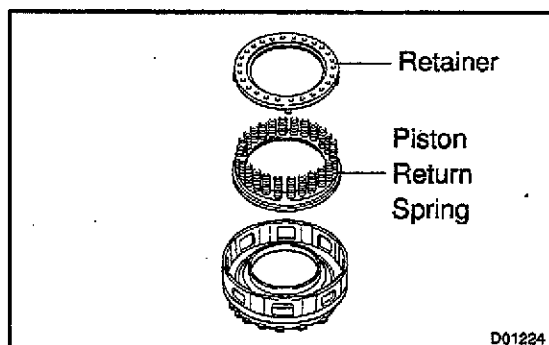
3. REMOVE PISTON RETURN SPRING

- (a) Place SST on the spring retainer and compress the return spring with a press.

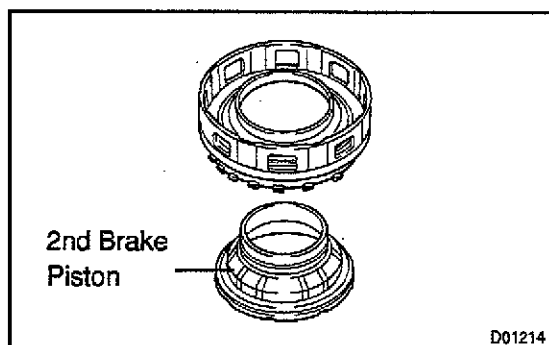
SST 09350-32014 (09350-32040)

- (b) Using SST, remove the snap ring.

SST 09350-30020 (09350-07070)

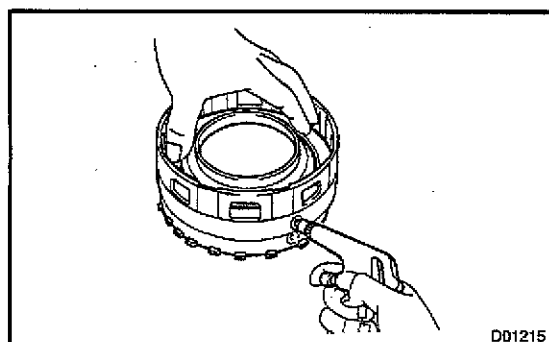


- (c) Remove the retainer and piston return spring.

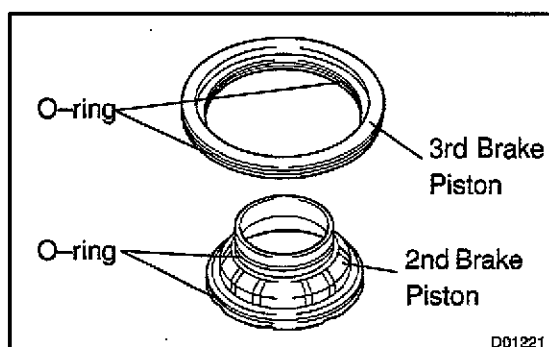


4. REMOVE 3RD AND 2ND BRAKE PISTON

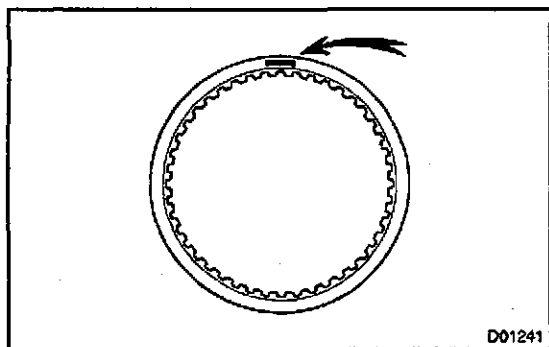
- (a) Push the 2nd brake piston down with fingers to remove.



- (b) Hold the 3rd brake piston so that it does not slant, and apply compressed air (392 kPa, 4 kg/cm², 57 psi) into the passage to remove the 3rd brake piston.



- (c) Remove the 4 O-rings from the 3rd and 2nd brake pistons.



D01241

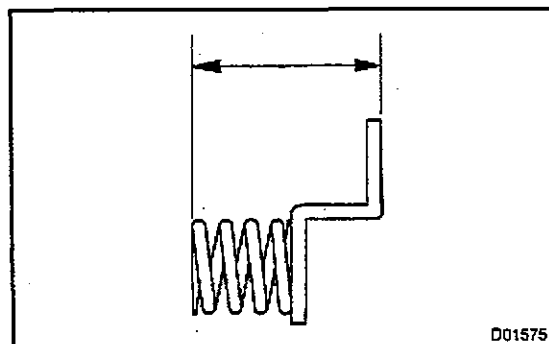
INSPECTION

1. INSPECT DISC AND FLANGE

Check to see if the sliding surface of the disc, plate and flange are worn or burnt. If necessary, replace them.

HINT:

- If the lining of the disc is peeling off or discolored, or even if a part of the printed numbers is defaced, replace all discs.
- Before assembling new discs, soak them in ATF for at least 15 minutes.

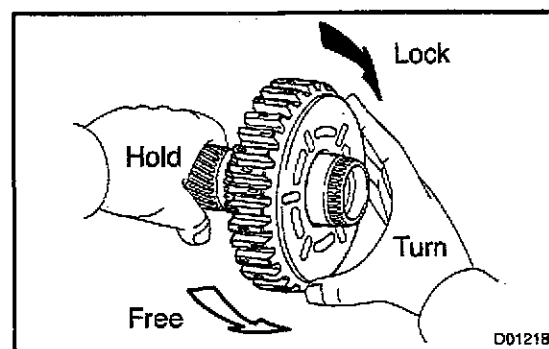


D01575

2. CHECK PISTON RETURN SPRING

Measure the free length of the spring together with the spring seat.

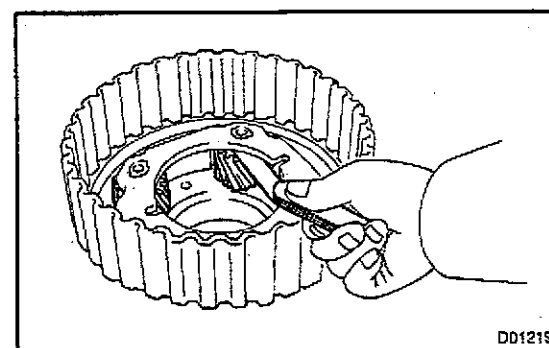
Standard free length: 36.8 mm (1.449 in.)



D01218

3. CHECK OPERATION OF ONE-WAY CLUTCH

Hold the front & center planetary sun gear and turn the hub. The hub must be able to turn freely clockwise and locks counter-clockwise.



D01219

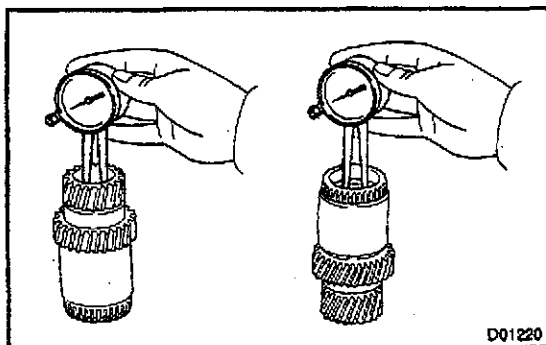
4. MEASURE PLANETARY PINION GEAR THRUST CLEARANCE

Using a feeler gauge, measure the planetary pinion gear thrust clearance.

Standard clearance: 0.2 – 0.6 mm (0.008 – 0.024 in.)

Maximum clearance: 1.0 mm (0.039 in.)

If the clearance is greater than the maximum, replace the planetary gear assembly.

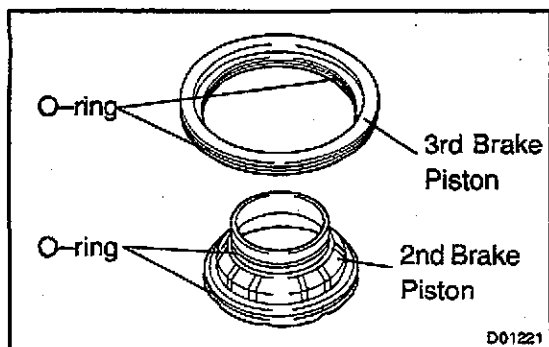


5. CHECK FRONT & CENTER PLANETARY SUN GEAR BUSHING

Using a dial indicator, measure the inside diameter of the planetary sun gear bushing.

Maximum inside diameter: 24.79 mm (0.976 in.)

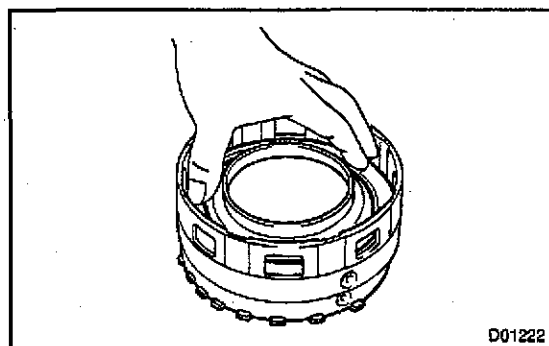
If the inside diameter is greater than the maximum, replace the planetary sun gear.



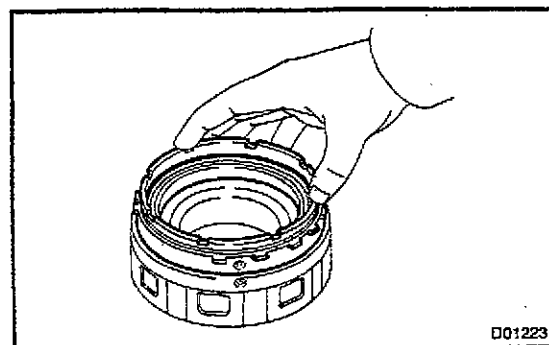
REASSEMBLY

1. INSTALL 3RD & 2ND PISTON

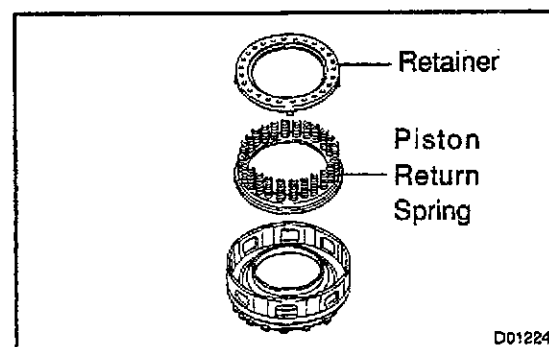
- (a) Coat 4 new O-rings with ATF and install them on 3rd and 2nd brake pistons.



- (b) Being careful not to damage the O-rings, press the 3rd brake piston into the brake drum with both hands.

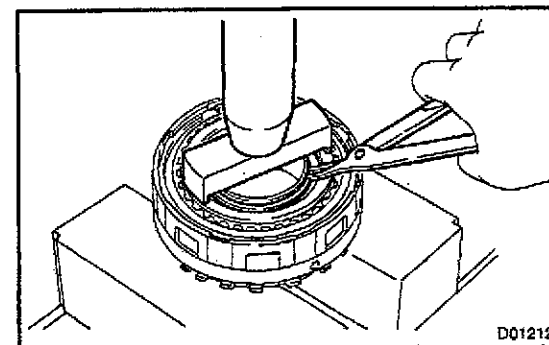


- (c) Being careful not to damage the O-rings, press the 2nd brake piston into the brake drum with both hands.



2. INSTALL PISTON RETURN SPRING

- (a) Install the piston return spring.
- (b) Install the piston retainer.



- (c) Place SST on the spring retainer, and compress the return spring with a press.

SST 09350-32014 (09350-32040)

- (d) Using SST, install the snap ring.

SST 09350-30020 (09350-07070)

NOTICE:

Be sure the end gap of the snap ring is not aligned with the spring retainer claw.



- (a) Install the plates and discs.

HINT:

1UZ-FE: 5 plates and 5 discs

2JZ-GE: 4 plates and 4 discs

Install in order: P = Plate, D = Disc

1UZ-FE: P-D-P-D-P-D-P-D-P-D

2JZ-GE: P-D-P-D-P-D-P-D

- (b) Install the flange, with the Facing its bevelled part down ward.

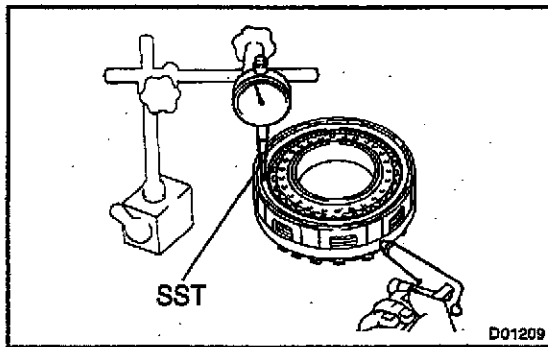
HINT:

Assemble the flange to the brake drum with facing a carved mark on the flange upward.



NOTICE:

Be sure the end gap of the snap ring is not aligned with cutout portion of the brake drum.



4. CHECK PISTON STROKE OF 3RD BRAKE PISTON

Using SST and a dial indicator, measure the 3rd piston stroke while applying and releasing compressed air (392 kPa, 4 kgf/cm², 57 psi).

SST 09350-30020 (09350-06120)

Piston stroke:

1UZ-FE: 0.70 – 1.00 mm (0.028 – 0.039 in.)

2JZ-GE: 0.56 – 0.86 mm (0.022 – 0.036 in.)

NOTICE:

Do not applying compressed air into the 2nd brake piston hole.

If the piston stroke is less than the limit of piston stroke, parts may have been assembled incorrectly, so check and reassemble again.

If the clearance is non-standard, select another flange.

HINT:

There are 6 different flanges in thickness.

Flange thickness: mm (in.)

No.	Thickness	No.	Thickness
36	3.6 (0.142)	39	3.9 (0.154)
37	3.7 (0.146)	40	4.0 (0.157)
38	3.8 (0.150)	41	4.1 (0.161)