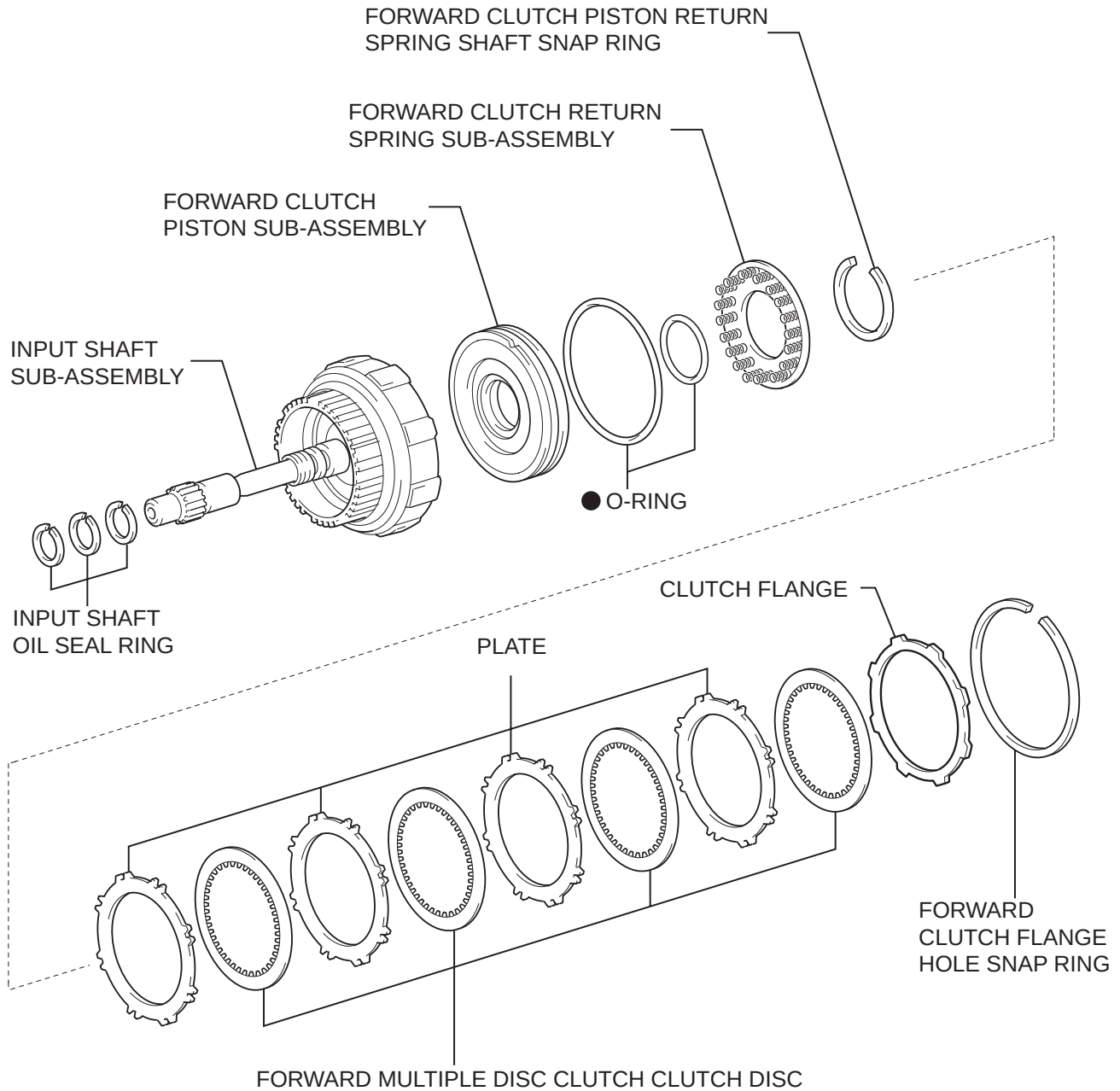


FORWARD CLUTCH

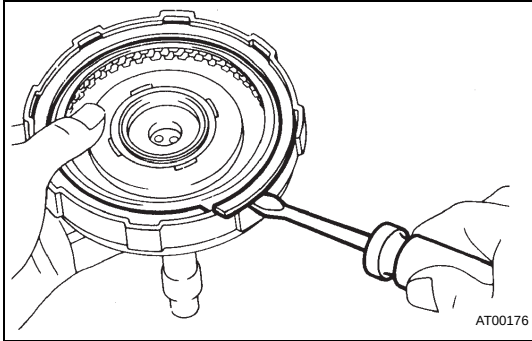
COMPONENTS



● Non-reusable part

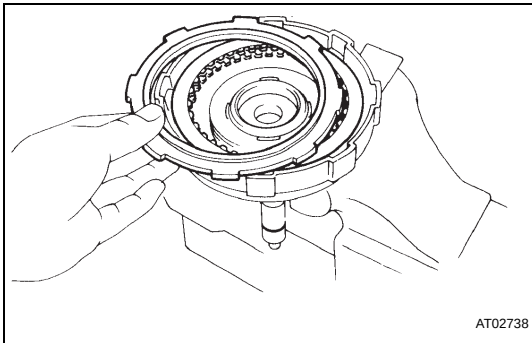
DISASSEMBLY

1. INSPECT PISTON STROKE OF FORWARD CLUTCH (See page AX-217)



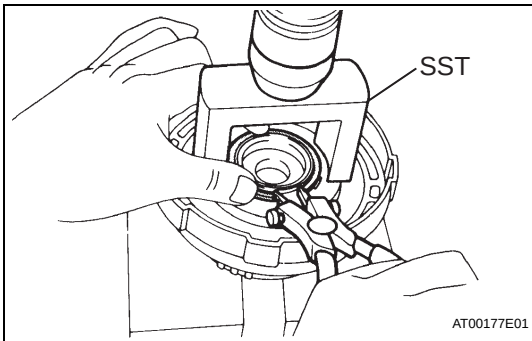
2. REMOVE FORWARD CLUTCH FLANGE HOLE SNAP RING

- (a) Using a screwdriver, remove the forward clutch flange hole snap ring from the input shaft sub-assembly.



3. REMOVE FORWARD MULTIPLE DISC CLUTCH CLUTCH DISC

- (a) Remove the clutch flange, 4 forward multiple disc clutch discs and 4 plates from the input shaft sub-assembly.

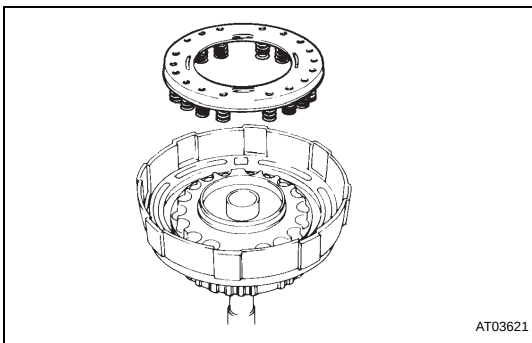


4. REMOVE FORWARD CLUTCH PISTON RETURN SPRING SHAFT SNAP RING

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

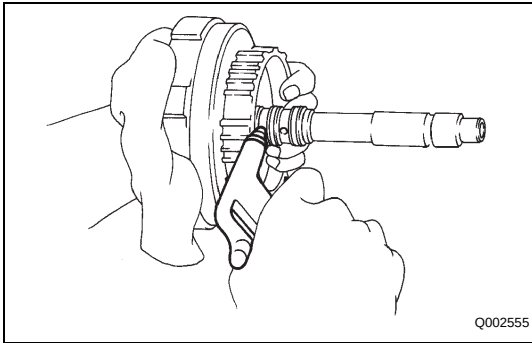
SST 09350-32014 (09351-32070)

- (b) Using snap ring pliers, remove the forward clutch piston return spring shaft snap ring from the input shaft sub-assembly.



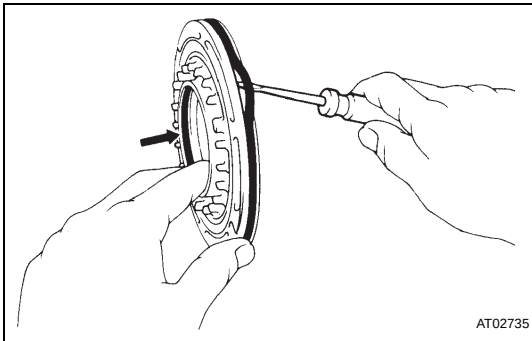
5. REMOVE FORWARD CLUTCH RETURN SPRING SUB-ASSEMBLY

- (a) Remove the forward clutch return spring sub-assembly from the input shaft sub-assembly.

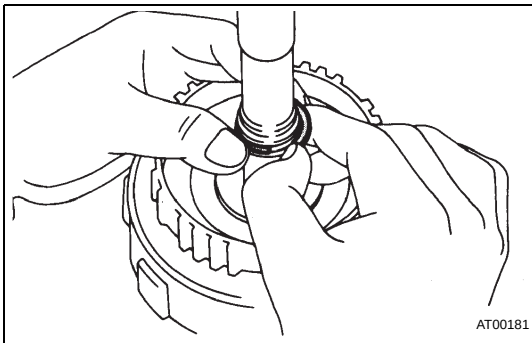


6. REMOVE FORWARD CLUTCH PISTON SUB-ASSEMBLY

- (a) Apply compressed air into the oil passage to remove the forward clutch piston sub-assembly. If the forward clutch piston sub-assembly does not come out, use needle-nose pliers to remove it.



- (b) Using a screwdriver, remove the 2 O-rings from the forward clutch piston sub-assembly.

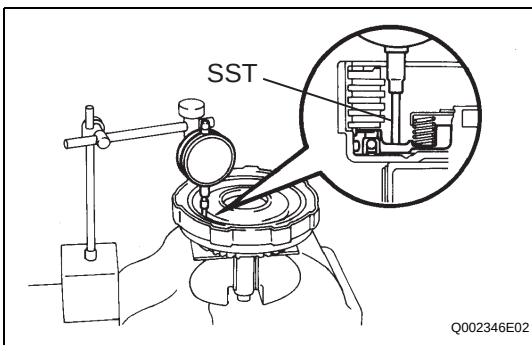


7. REMOVE INPUT SHAFT OIL SEAL RING

- (a) Remove the 3 input shaft oil seal rings from the input shaft sub-assembly.

8. INSPECT FORWARD CLUTCH PISTON SUB-ASSEMBLY (See page AX-218)

9. INSPECT FORWARD MULTIPLE DISC CLUTCH CLUTCH DISC (See page AX-218)



INSPECTION

1. INSPECT PISTON STROKE OF FORWARD CLUTCH

- (a) Using a dial indicator (long type pick or SST), measure the forward clutch piston stroke while applying and releasing compressed air (392 to 785 kPa, 4 to 8 kgf*cm², 57 to 114 psi).

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Piston stroke:

1.41 to 1.81 mm (0.0555 to 0.0713 in.)

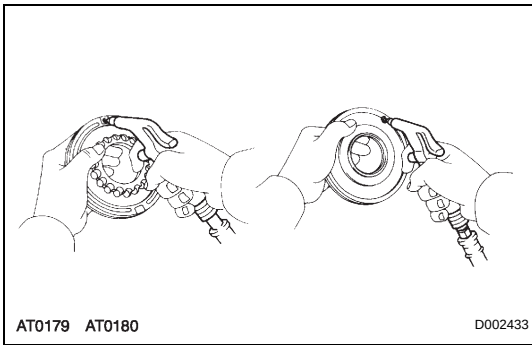
If the piston stroke is non-standard, select another flange.

HINT:

There are 5 different thickness for the flange.

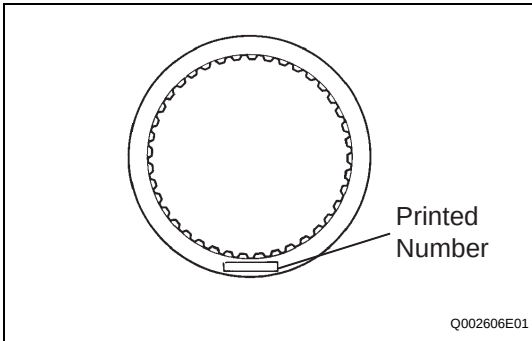
Flange thickness: mm (in.)

Thickness	Thickness
3.00 (0.1181)	3.80 (0.1496)
3.20 (0.1260)	4.00 (0.1575)
3.40 (0.1338)	4.20 (0.1654)
3.60 (0.1417)	4.40 (0.1732)



2. INSPECT FORWARD CLUTCH PISTON SUB-ASSEMBLY

- Check that the check ball is free by shaking the forward clutch piston sub-assembly.
- Check that the valve does not leak by applying low-pressure compressed air.



3. INSPECT FORWARD MULTIPLE DISC CLUTCH CLUTCH DISC

- Check if the sliding surfaces of the discs, plates and flanges 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 are defaced, replace all discs.
- Before assembling new discs, soak them in ATF for at least 15 minutes.

REASSEMBLY

1. INSTALL INPUT SHAFT OIL SEAL RING

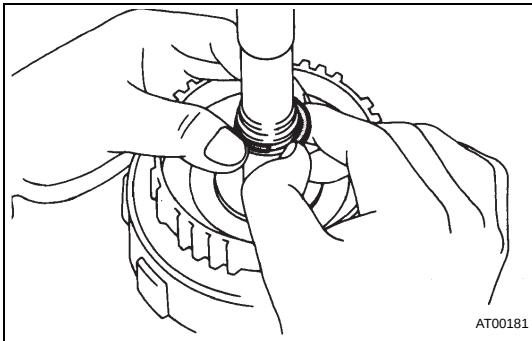
- Install the 3 input shaft oil seal rings to the input shaft sub-assembly.

NOTICE:

Do not spread the ring ends more than necessary.

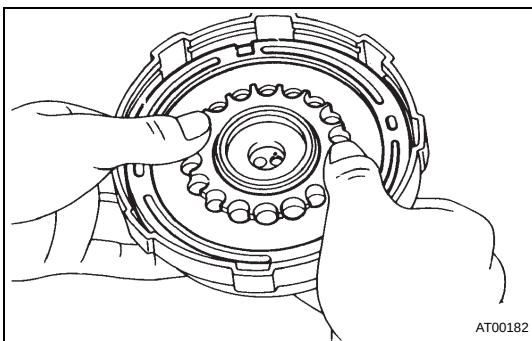
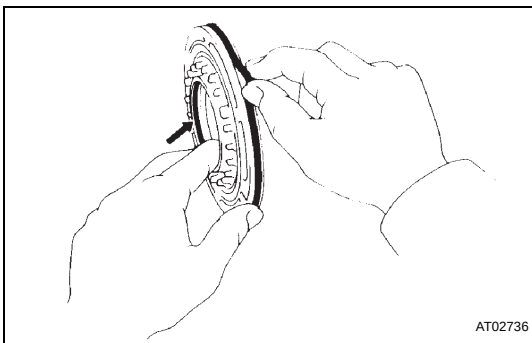
HINT:

After installing the input shaft oil seal rings, check that they move smoothly.

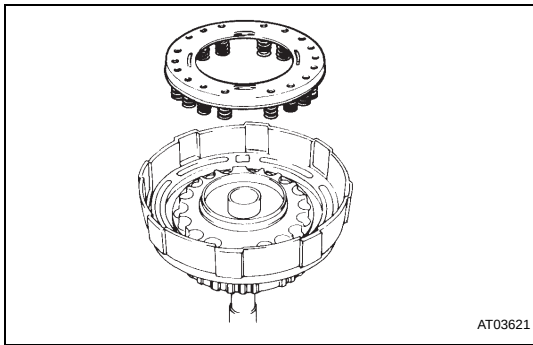


2. INSTALL FORWARD CLUTCH PISTON SUB-ASSEMBLY

- Install 2 new O-rings to the forward clutch piston sub-assembly.

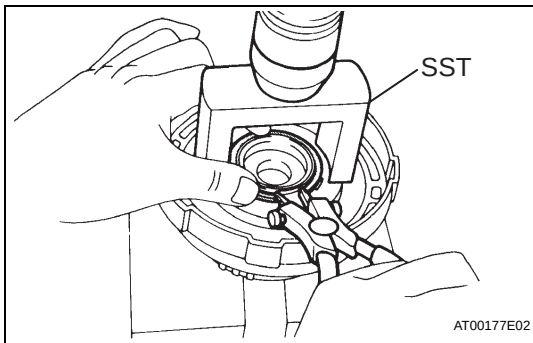


- Coat the O-rings with ATF and press the forward clutch piston sub-assembly into the input shaft sub-assembly with the cup side up, being careful not to damage the O-ring.



3. INSTALL FORWARD CLUTCH RETURN SPRING SUB-ASSEMBLY

- (a) Install the forward clutch return spring sub-assembly to the input shaft sub-assembly.



4. INSTALL FORWARD CLUTCH PISTON RETURN SPRING SHAFT SNAP RING

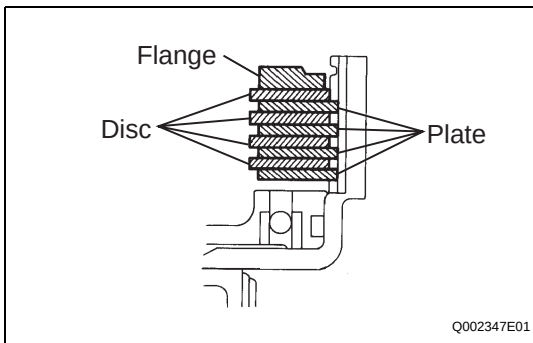
- (a) Place SST on the forward clutch return spring sub-assembly, and compress the forward clutch return spring sub-assembly with press.

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- (b) Using snap ring pliers, install the forward clutch piston return spring shaft snap ring to the input shaft sub-assembly.

HINT:

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



5. INSTALL FORWARD MULTIPLE DISC CLUTCH CLUTCH DISC

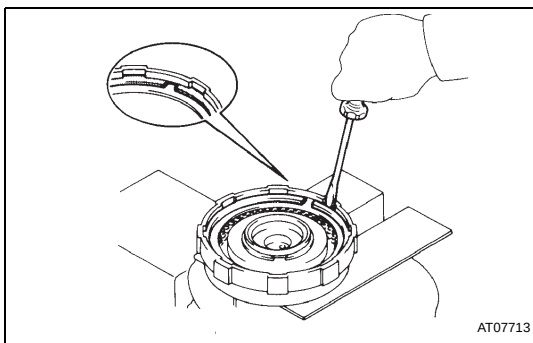
- (a) Install the 4 plates and 4 forward multiple disc clutch discs in order to the input shaft sub-assembly.

Install in order:

P = Plate D = Disc F = Flange

P - D - P - D - P - D - P - D - F

- (b) Install the clutch flange with the flat side facing downward.



6. INSTALL FORWARD CLUTCH FLANGE HOLE SNAP RING

- (a) Using a screwdriver, install the forward clutch flange hole snap ring to the input shaft sub-assembly.
- (b) Check that the end gap of forward clutch flange hole snap ring is not aligned with one of the cutouts.

7. INSPECT PISTON STROKE OF FORWARD CLUTCH (See page [AX-217](#))