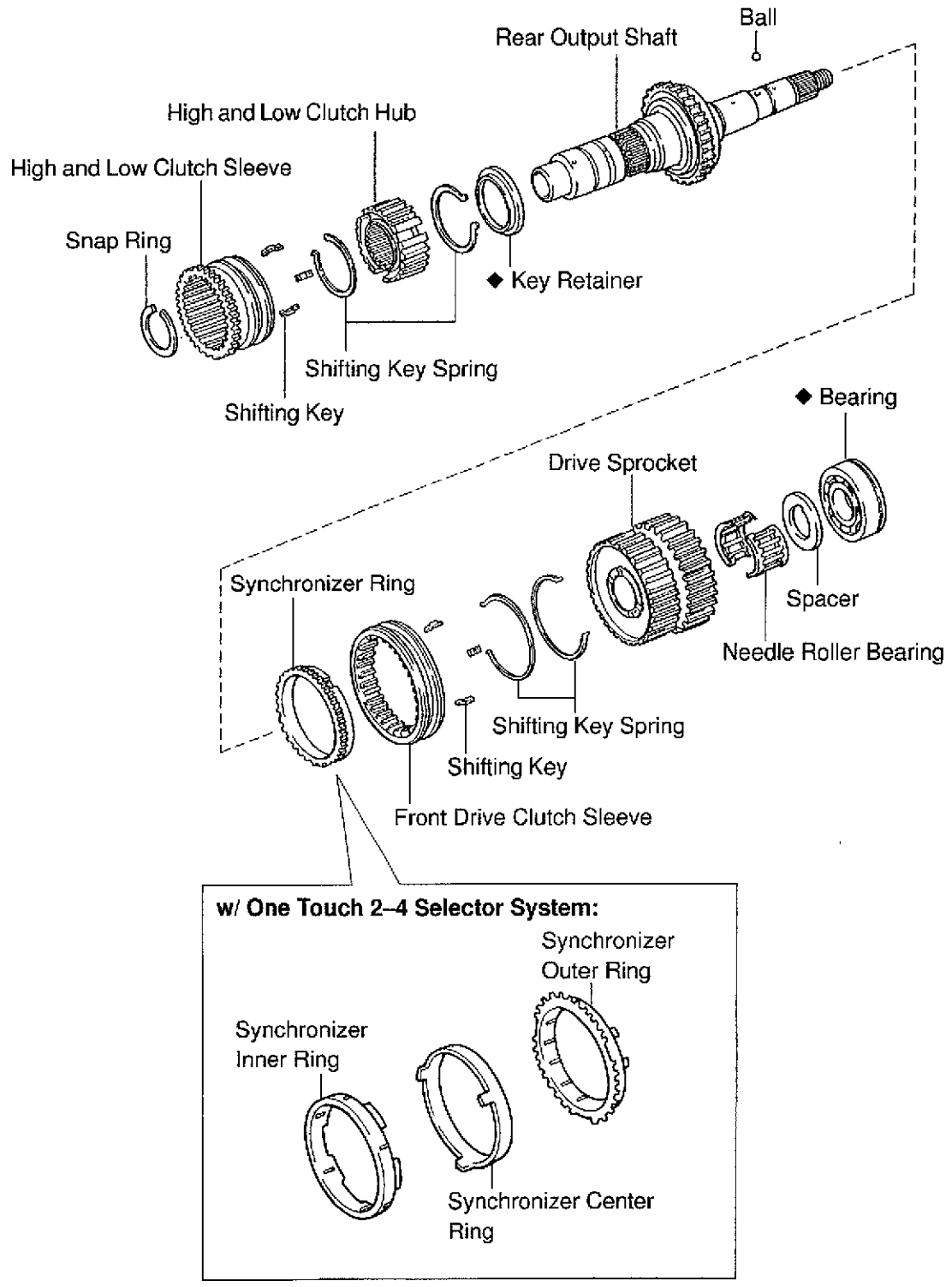
REAR OUTPUT SHAFT

COMPONENTS

TR08A-01

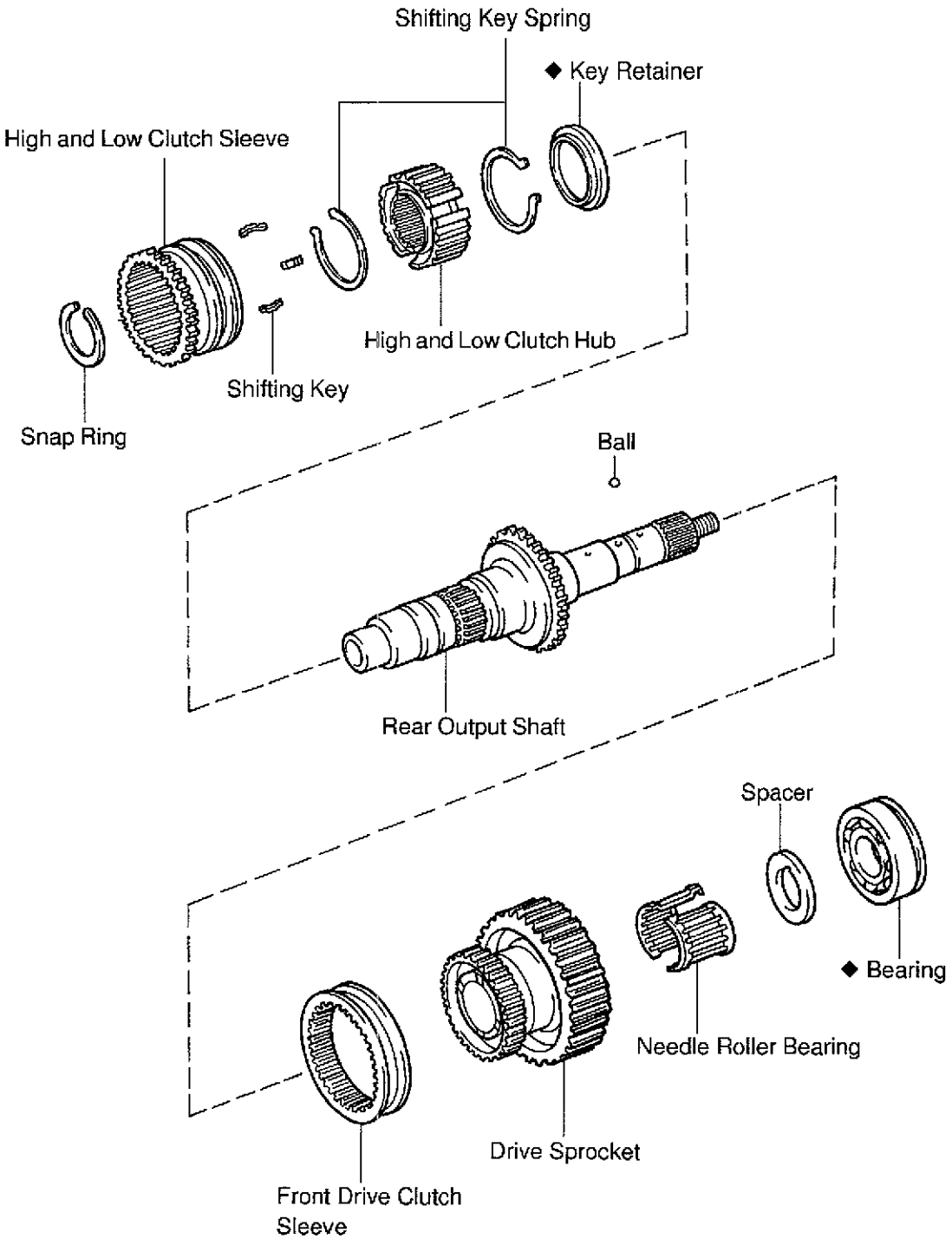
w/ A. D. D.:



◆ Non–reusable part

F03075

w/o A. D. D.:

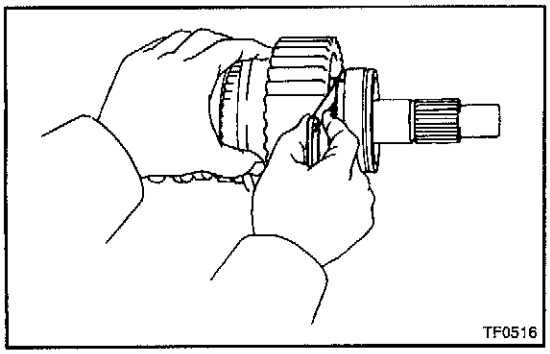


◆ Non–reusable part

F02970

TR03B–01

DISASSEMBLY

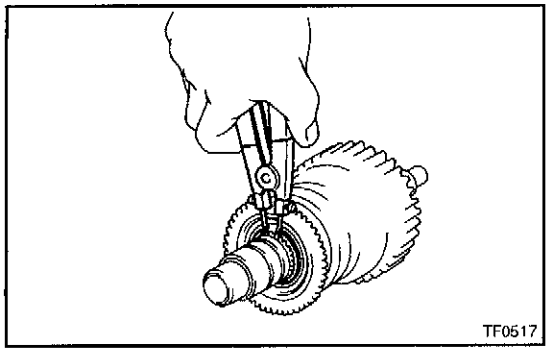

TF0516

1. INSPECT DRIVE SPROCKET THRUST CLEARANCE

Using a feeler gauge, measure the drive sprocket thrust clearance.

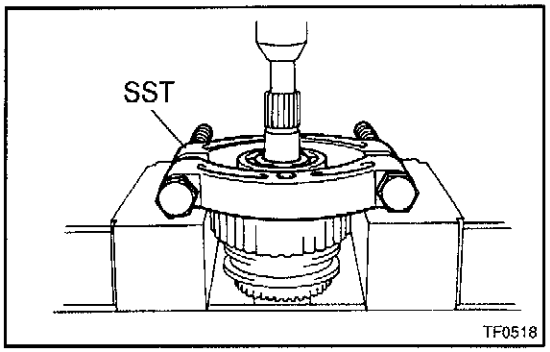
Standard clearance:
0.10 – 0.25 mm (0.0039 – 0.0098 in.)
Maximum clearance: 0.25 mm (0.0098 in.)

If the clearance exceeds the maximum, replace the drive sprocket.


TF0517

2. REMOVE HIGH AND LOW CLUTCH SLEEVE ASSEMBLY

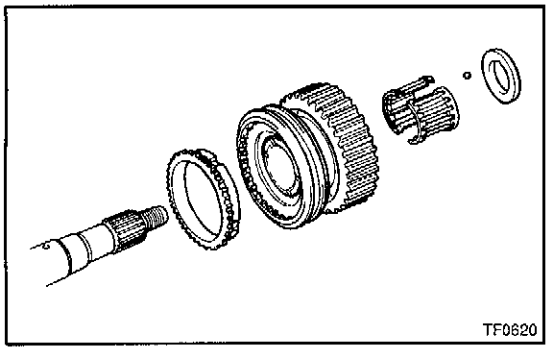
(a) Using a snap ring expander, remove the snap ring.
(b) Remove the clutch sleeve and 3 shifting keys.
(c) Using a press, remove the clutch hub, 2 key springs and key retainer.



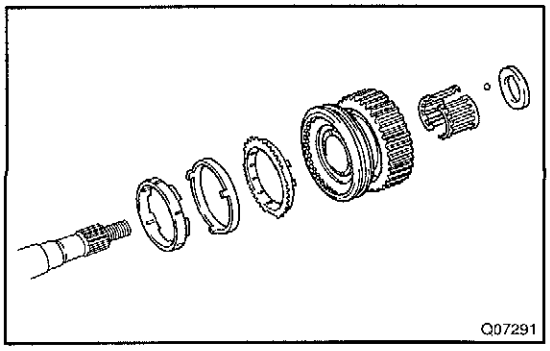
TF0518

3. w/ A.D.D.:
REMOVE REAR BEARING, SPACER AND DRIVE SPROCKET WITH FRONT DRIVE CLUTCH SLEEVE ASSEMBLY

(a) Using SST and a press, remove the bearing.
SST 09950–00020

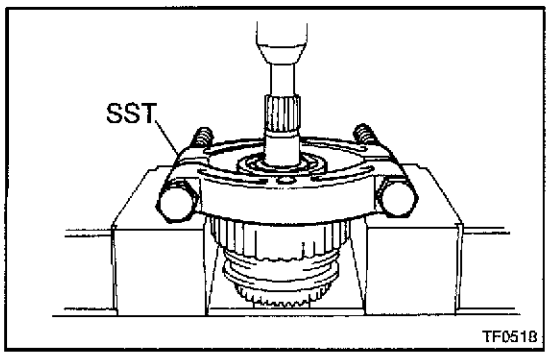

TF0620

(b) w/o One Touch 2–4 Selector System:
Remove these parts:
- Spacer and ball
- Drive sprocket with front drive clutch sleeve assembly
- Needle roller bearing
- Synchronizer ring


Q07291

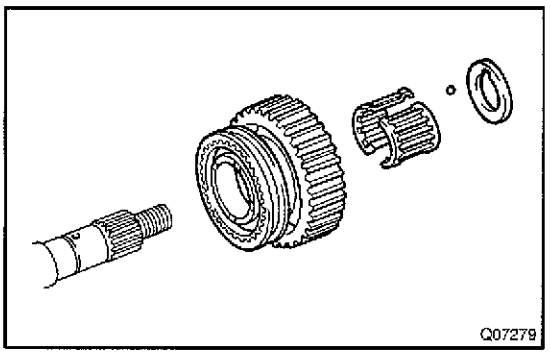
(c) w/ One Touch 2–4 Selector System:
Remove these parts:
- Spacer and ball
- Drive sprocket with front drive clutch sleeve assembly
- Needle roller bearing
- Synchronizer outer ring, center ring and inner ring

(d) Remove the front drive clutch sleeve assembly from the drive sprocket.



4. **w/o A.D.D.:**
REMOVE BEARING, SPACER AND DRIVE SPROCKET WITH FRONT DRIVE CLUTCH SLEEVE

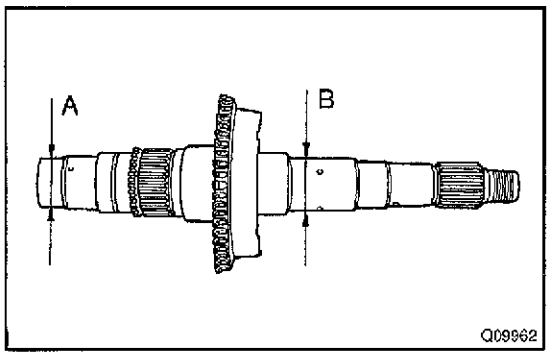
(a) Using SST and a press, remove the bearing.
SST 09555–55010



(b) Remove these parts:
- Spacer and ball
- Drive sprocket with front drive clutch sleeve
- Needle roller bearing

(c) Remove the front drive clutch sleeve from the drive sprocket

5. **w/ A.D.D.:**
REMOVE 3 SHIFTING KEYS AND 2 KEY SPRINGS FROM FRONT DRIVE CLUTCH SLEEVE



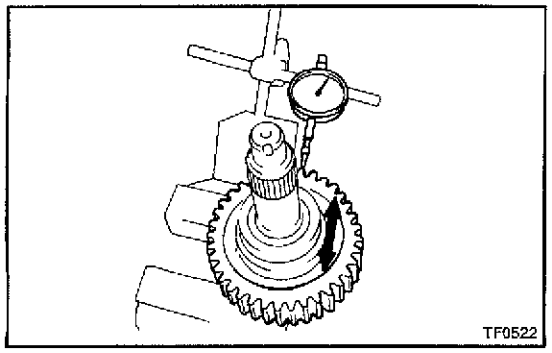
TR03C-01

INSPECTION

1. INSPECT REAR OUTPUT SHAFT

Using a micrometer, measure the outer diameter of the rear output shaft journal surface.

Minimum diameter:
Part A: 27.98 mm (1.1016 in.)
Part B: 36.99 mm (1.4563 in.)

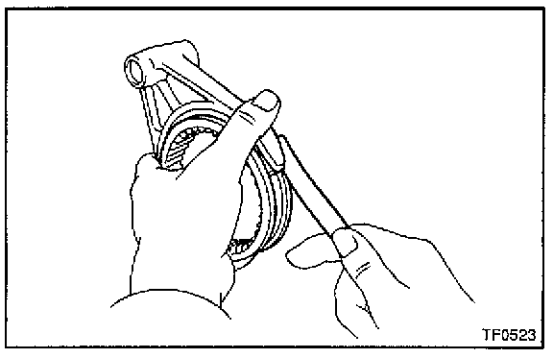


2. INSPECT DRIVE SPROCKET RADIAL CLEARANCE

Using a dial indicator, measure the radial clearance between the sprocket and shaft with the needle roller bearing installed.

Standard clearance:
0.010 – 0.055 mm (0.0004 – 0.0022 in.)
Maximum clearance: 0.055 mm (0.0022 in.)

If the clearance exceeds the maximum, replace the drive sprocket, rear output shaft or needle roller bearing.

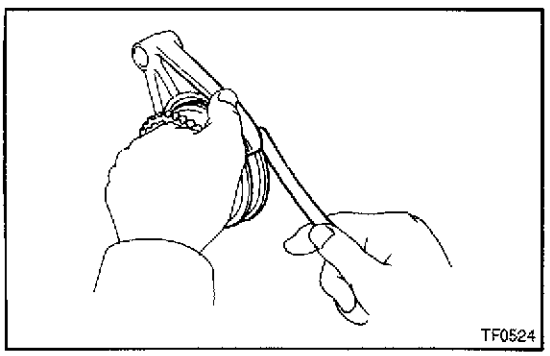


3. INSPECT FRONT DRIVE SHIFT FORK AND CLUTCH SLEEVE CLEARANCE

Using a feeler gauge, measure the clearance between the front drive shift fork and clutch sleeve.

Maximum clearance: 1.0 mm (0.039 in.)

If the clearance exceeds the maximum, replace the shift fork or clutch sleeve.



4. INSPECT HIGH AND LOW SHIFT FORK AND CLUTCH SLEEVE CLEARANCE

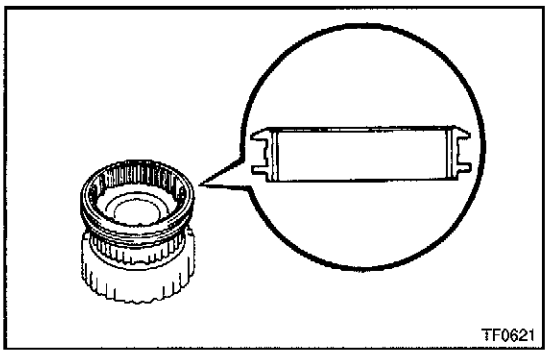
Using a feeler gauge, measure the clearance between the high and low shift fork and clutch sleeve.

Maximum clearance: 1.0 mm (0.039 in.)

If the clearance exceeds the maximum, replace the shift fork or clutch sleeve.

TR03D-01

REASSEMBLY

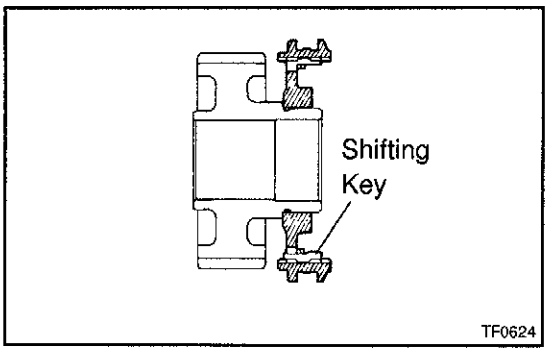


1. **W/ A.D.D.:**
   INSTALL FRONT DRIVE CLUTCH SLEEVE ONTO DRIVE SPROCKET

(a) Install the front drive clutch sleeve onto the drive sprocket.

HINT:

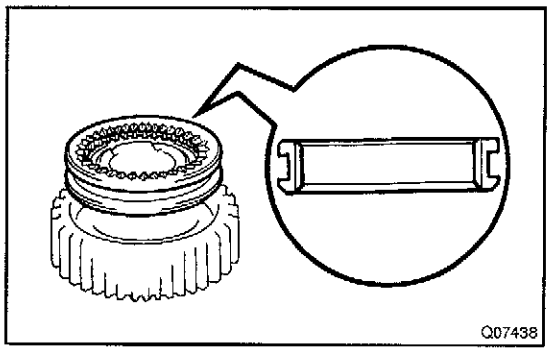
Make sure to install the clutch sleeve in the correct direction.



(b) Install the 3 shifting keys and 2 springs.

NOTICE:

Install the key springs positioned so that their end gaps are not in line.

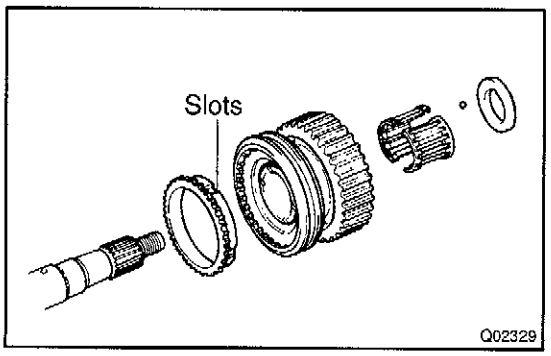


2. **w/o A.D.D.:**
   INSTALL FRONT DRIVE CLUTCH SLEEVE ONTO DRIVE SPROCKET

Install the front drive clutch sleeve onto the drive sprocket.

HINT:

Make sure to install the clutch sleeve in the correct direction.



3. **w/ A.D.D.:**
   INSTALL DRIVE SPROCKET WITH FRONT DRIVE CLUTCH SLEEVE ASSEMBLY, SPACER AND BEARING

(a) w/o One Touch 2–4 Selector System:

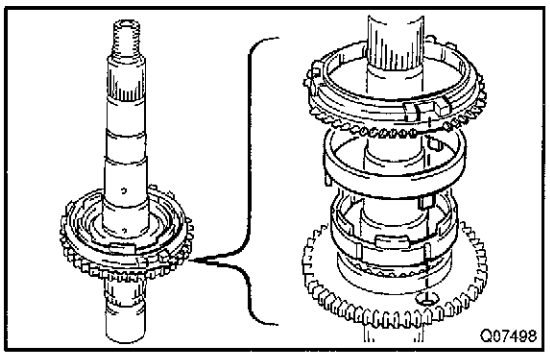
Install these parts:

(1) Apply gear oil to the shaft and needle roller bearing.

(2) Place the synchronizer ring on the spline and align the ring slots with the shifting keys.

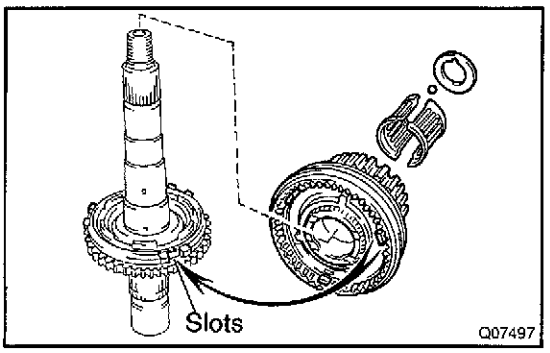
(3) Install the needle roller bearing in the drive sprocket.

(4) Install the drive sprocket with the front drive clutch sleeve assembly.

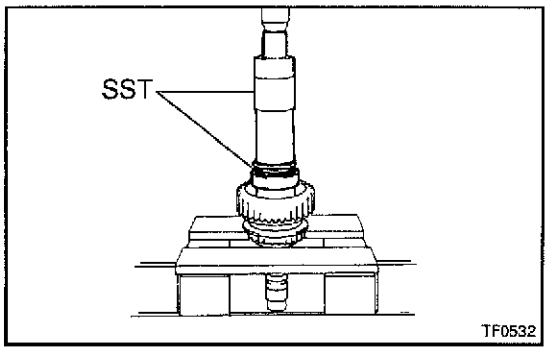


(b) w/ One Touch 2–4 Selector System:
Install these parts:
(1) Apply gear oil to the shaft and needle roller bearing.
(2) Install the synchronizer inner ring, center ring and outer ring.

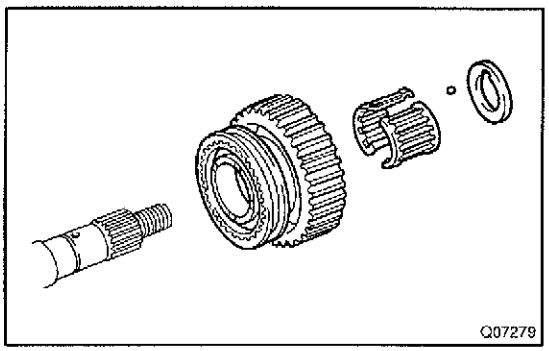
NOTICE:
Align the slots of outer and inner rings.



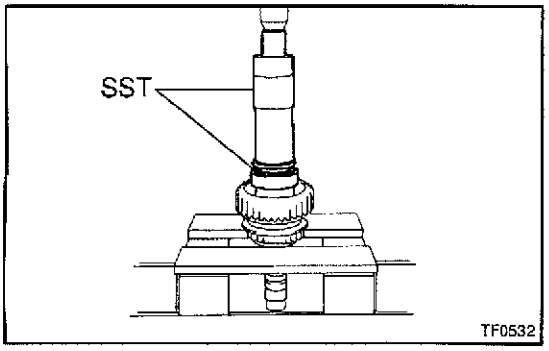
(3) Install the needle roller bearing in the drive sprocket.
(4) Install the drive sprocket with the front drive clutch sleeve assembly.
(5) Place the synchronizer ring on the gear and align the ring slots with the shifting keys.
(6) Install the spacer to align it with the ball.



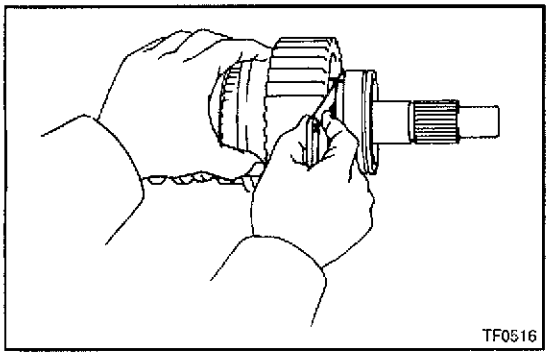
(7) Using SST and a press, install a new bearing with the outer race snap ring groove toward the rear.
SST 09316–60011 (09316–00011, 09316–00071)



4. w/o A.D.D.:
INSTALL DRIVE SPROCKET WITH FRONT DRIVE CLUTCH SLEEVE, SPACER AND BEARING
(a) Apply gear oil to the shaft and needle roller bearing.
(b) Install the needle roller bearing in the drive sprocket.
(c) Install the drive sprocket with the front drive clutch sleeve assembly.
(d) Install the spacer to align it with the ball.



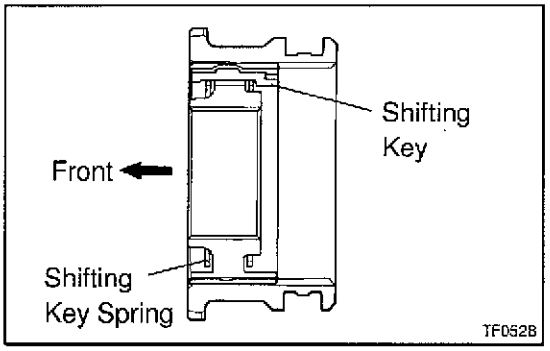
(e) Using SST and a press, install a new bearing with the outer race snap ring groove toward the rear.
SST 09316–60011 (09316–00011, 09316–00071)



5. INSPECT DRIVE SPROCKET THRUST CLEARANCE

Using a feeler gauge, measure the drive sprocket thrust clearance.

Standard clearance:
0.10 – 0.25 mm (0.0039 – 0.0098 in.)

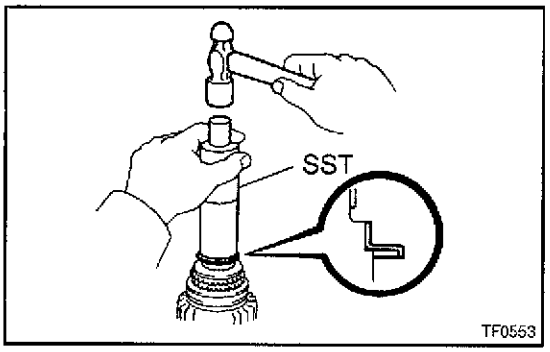


6. INSERT HIGH AND LOW CLUTCH SLEEVE ONTO CLUTCH

(a) Install the clutch hub and 3 shifting keys onto the clutch sleeve.

(b) Install the 2 shifting key springs under the shifting keys.

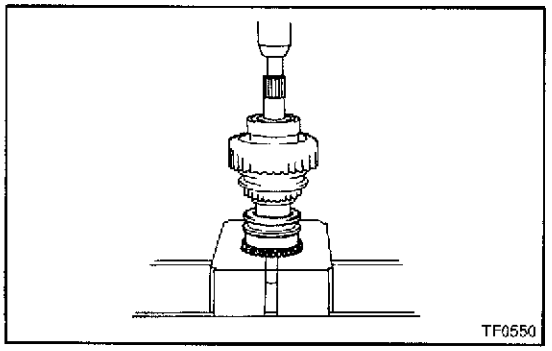
NOTICE:
Install the key springs positioned so that their end gaps are not in line.



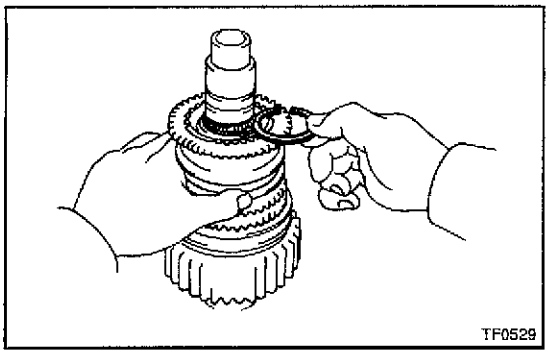
7. INSTALL HIGH AND LOW CLUTCH HUB ASSEMBLY

(a) Using SST and a hammer, drive in a new key retainer.
SST 09316–60011 (09316–00011)

NOTICE:
Be careful not to deform or damage the key retainer.



(b) Using a press, install the high and low clutch hub sleeve assembly.


TF0529

8. INSTALL SNAP RING

Select a snap ring that will allow minimum axial play and install it to the shaft.

Mark	Thickness mm (in.)
A	2.10 – 2.15 (0.0827 – 0.0846)
B	2.15 – 2.20 (0.0846 – 0.0866)
C	2.20 – 2.25 (0.0866 – 0.0886)
D	2.25 – 2.30 (0.0886 – 0.0906)
E	2.30 – 2.35 (0.0906 – 0.0925)
F	2.35 – 2.40 (0.0925 – 0.0945)
G	2.40 – 2.45 (0.0945 – 0.0965)
H	2.45 – 2.50 (0.0965 – 0.0984)
J	2.50 – 2.55 (0.0984 – 0.1004)
K	2.00 – 2.05 (0.0787 – 0.0807)
L	2.05 – 2.10 (0.0807 – 0.0827)