

PROCEDURE

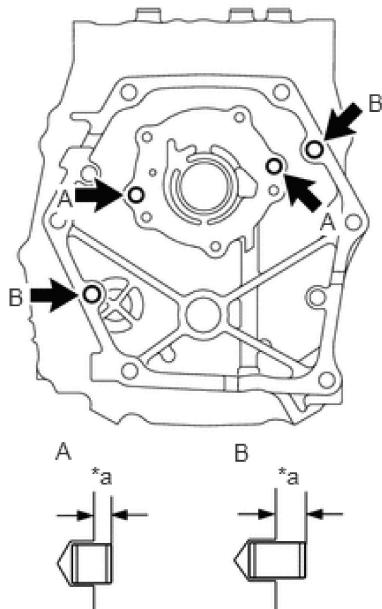
■ 1.INSTALL TRANSFER ADAPTER STRAIGHT PIN

33112C

NOTICE:

It is not necessary to remove a straight pin unless it is being replaced.

a.



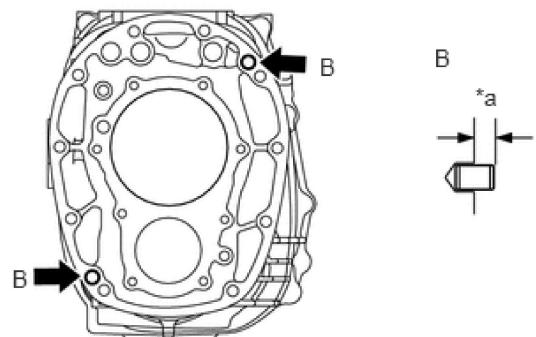
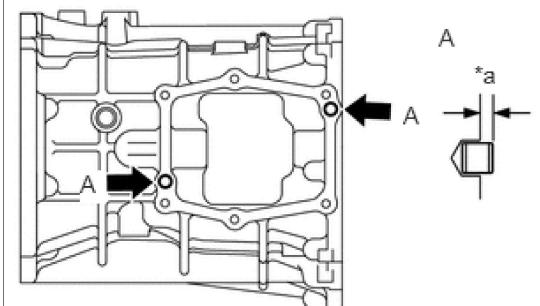
*a Protrusion Height

Using a plastic-faced hammer, tap 4 new transfer adapter straight pins into the transfer adapter.

Standard Protrusion Height:

Item	Specified Condition
A	4.0 to 6.0 mm (0.1575 to 0.2362 in.)
B	7.0 to 9.0 mm (0.2756 to 0.3543 in.)

b.



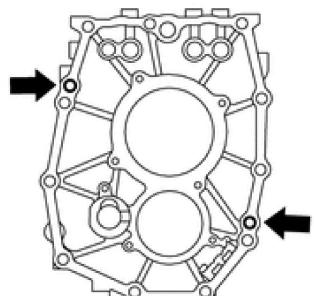
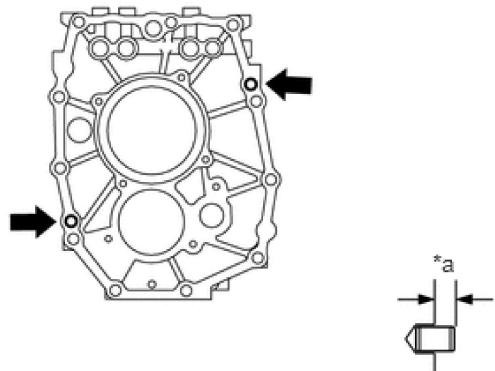
*a Protrusion Height

Using a plastic-faced hammer, tap 4 new transfer adapter straight pins into the transmission case.

Standard Protrusion Height:

Item	Specified Condition
A	4.0 to 6.0 mm (0.1575 to 0.2362 in.)
B	7.0 to 9.0 mm (0.2756 to 0.3543 in.)

c.



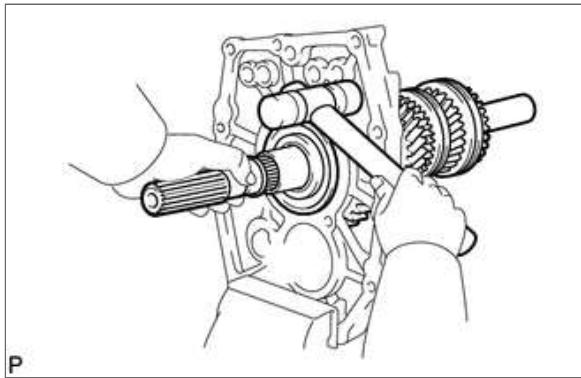
*a | Protrusion Height

Using a plastic-faced hammer, tap 2 new transfer adapter straight pins into the transmission intermediate plate.

Standard Protrusion Height:

7.0 to 9.0 mm (0.2756 to 0.3543 in.)

■ **2.INSTALL OUTPUT SHAFT ASSEMBLY**



- a. Fix the transmission intermediate plate in a vise between aluminum plates.

NOTICE:

Do not overtighten the vise.

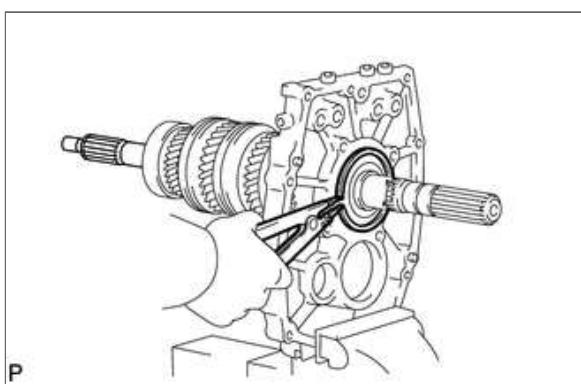
- b. Install the output shaft by lightly tapping on the back side of the transmission intermediate plate with a plastic-faced hammer.

HINT:

Perform the procedure while pulling the output shaft assembly to the rear side by hand.

■ **3.INSTALL OUTPUT SHAFT BEARING SHAFT SNAP RING**

33321B

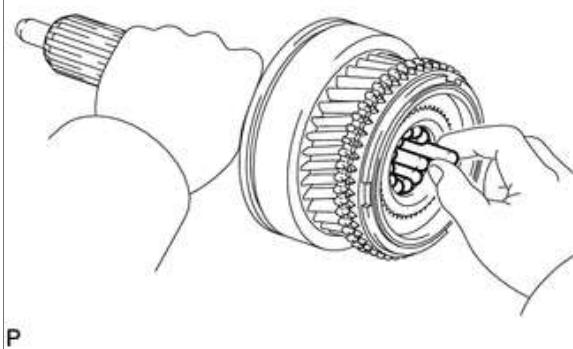


- a. Using a snap ring expander, install the snap ring to the output shaft bearing.

■ **4.INSTALL INPUT SHAFT BEARING**

33311D

a.



Apply gear oil to the input shaft bearing and install them to the input shaft.

■ **5.INSPECT NO. 2 SYNCHRONIZER RING**

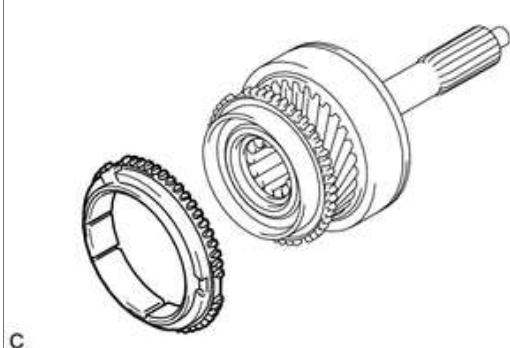
33368

Click hereDrivetrain>H150F (MANUAL TRANSMISSION / TRANSAXLE)>MANUAL TRANSMISSION UNIT>INSPECTION

■ **6.INSTALL NO. 2 SYNCHRONIZER RING**

33368

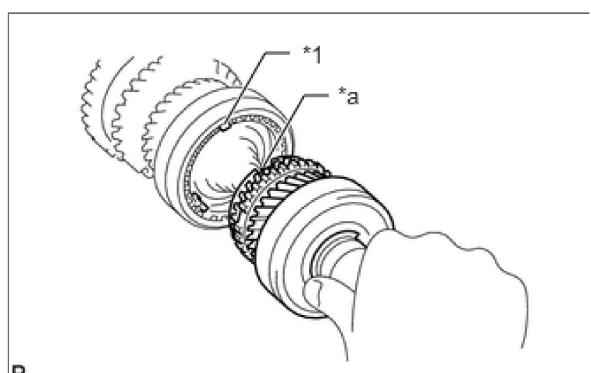
a.



Apply gear oil to the No. 2 synchronizer ring and install it to the input shaft.

■ **7.INSTALL INPUT SHAFT**

33311



*1 Shifting Key

*a Groove

- a.** Apply gear oil to the No. 2 synchronizer ring grooves and shifting key.

HINT:

Align the shifting key of the synchronizer ring with the groove of the clutch hub.

- b.** While aligning the key groove of the input shaft with the shifting key position of the output shaft assembly, install the input shaft to the output shaft assembly.

NOTICE:

- Do not drop the No. 2 synchronizer ring and input shaft bearing.

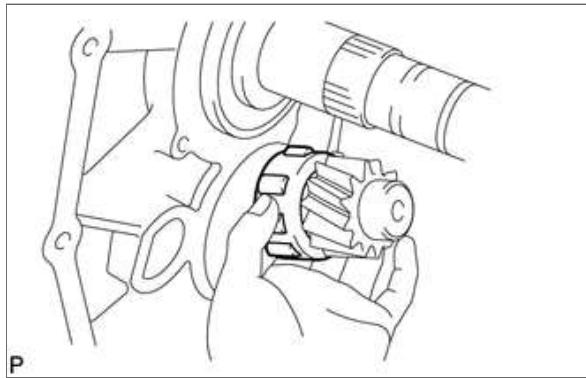
- The input shaft should be able to rotate smoothly.

8.INSTALL COUNTER GEAR

33421

- Temporarily install the counter gear to the transmission intermediate plate.

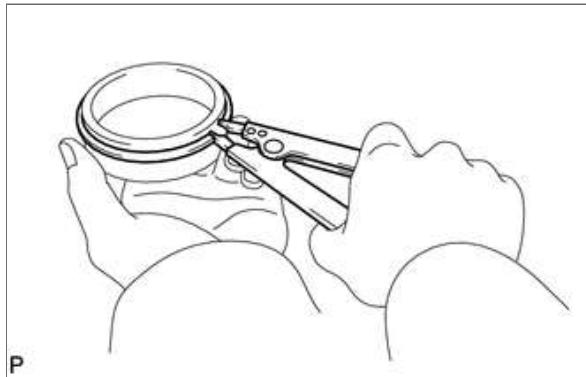
b.



Attach the 2 locations of the center counter shaft bearing to install the counter gear.

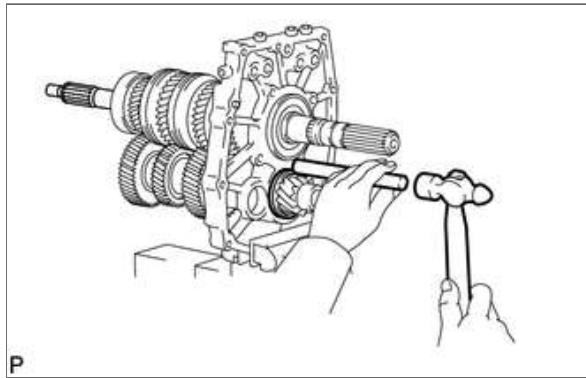
- Coat the counter shaft center bearing with gear oil.

d.



Using a snap ring expander, install the snap ring to the counter shaft center bearing (outer race).

e.



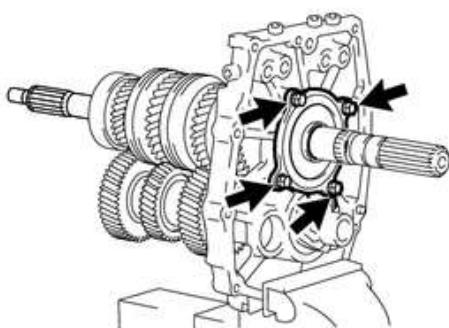
Using a brass bar and hammer, lightly tap the bearing outer race uniformly to install it.

NOTICE:

Do not drop the counter gear. Hold the front side of the counter gear.

NOTICE:

- Make sure that the counter gear does not fall when tapping the center counter shaft bearing (outer race).
- Make sure that the sliding surfaces of the bearing are not damaged by teeth of the counter gear assembly when inserting the counter shaft center bearing (outer race)



- a. Install the output shaft rear bearing retainer to the transmission intermediate plate with the 4 bolts.

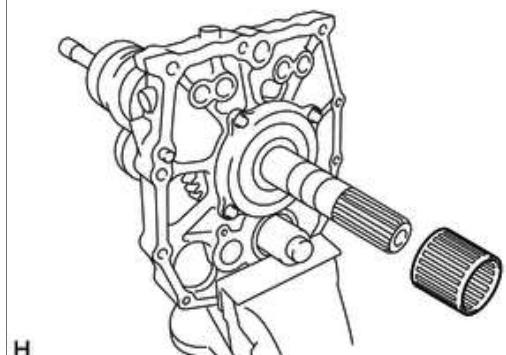
Torque:

18.13 N*m (185 kgf*cm, 13 ft.*lbf)

■ 10.INSTALL REVERSE GEAR BEARING

33331A

a.

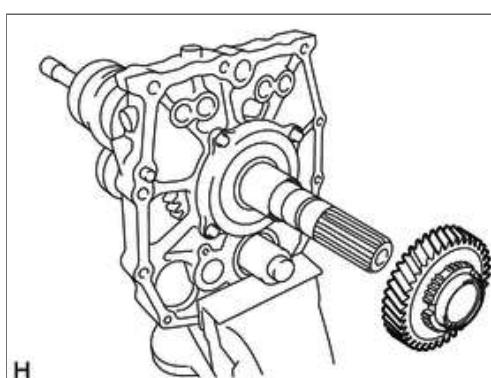


Coat the reverse gear bearing with gear oil, and install it to the output shaft.

■ 11.INSTALL REVERSE GEAR

33331

a.



Coat the reverse gear with gear oil, and install it to the output shaft.

HINT:

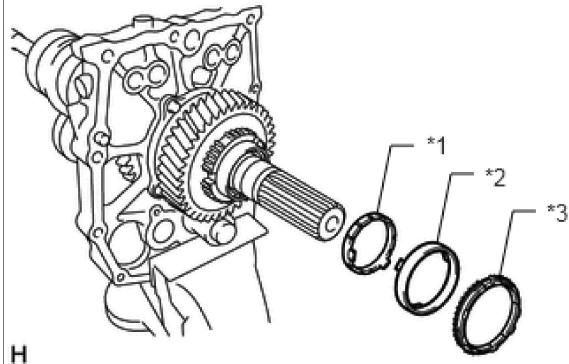
Apply gear oil to the inner diameter surface and thrust surface of the reverse gear.

■ 12.INSTALL REVERSE SYNCHRONIZER RING SET

33049

- a. Apply gear oil to the reverse synchronizer ring set and tapered cone surface of the reverse gear.

b.



H

*1	Outer Ring
*2	Middle Ring
*3	Inner Ring

Install the reverse synchronizer ring set to the reverse gear.

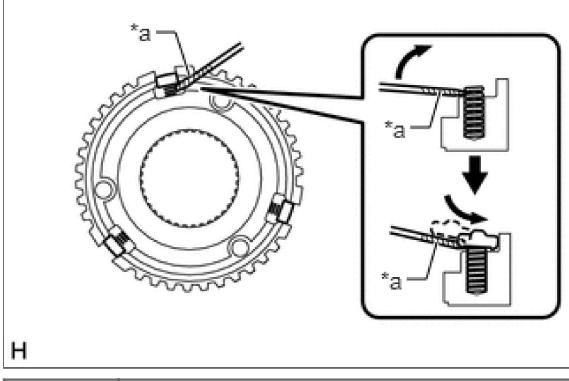
NOTICE:

- Align the claw of the middle ring and the cutout of the reverse gear.
- Align the claw of the inner ring and the key groove of the outer ring.

■ **13.INSTALL NO. 4 TRANSMISSION CLUTCH HUB**

33352B

a.



H

*a	Protective Tape
----	-----------------

Using a screwdriver, install the 3 shifting keys and 3 springs to the No. 4 transmission clutch hub.

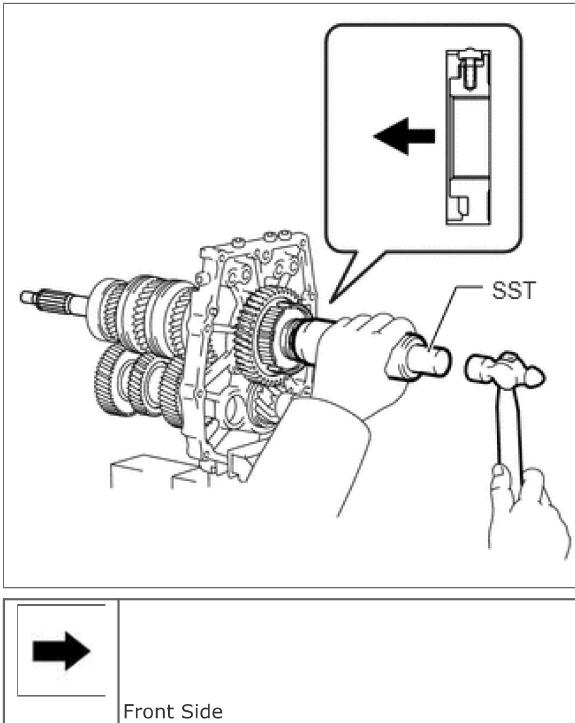
NOTICE:

Lightly move the shifting key with your finger and check that it does not separate from the No. 4 transmission clutch hub.

HINT:

- Push down the spring as shown in the illustration when installing the shifting key.
- Tape the screwdriver tip before use.

b.



Using SST and a hammer, install the No. 4 transmission clutch hub.

SST

09316-60011 (09316-00011)

NOTICE:

- Install in the correct direction.
- Align the key groove of the reverse synchronizer ring set with the shifting key position when installing.

HINT:

Align the shifting key of the synchronizer ring with the groove of the clutch hub.

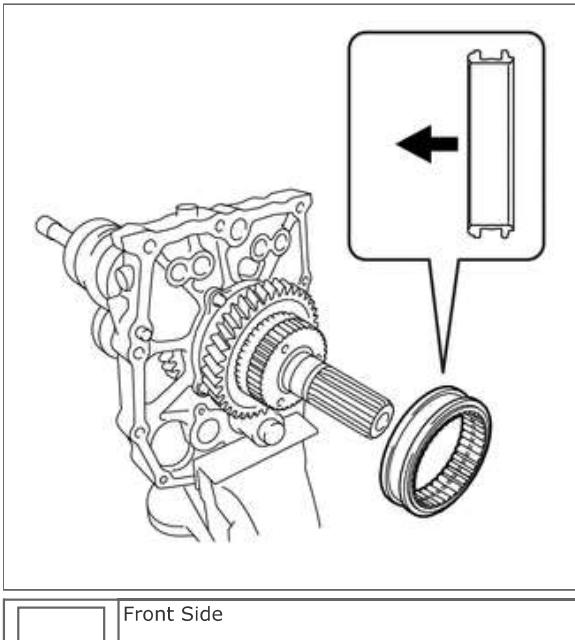
c. Install the clutch hub and confirm that the gear and synchronizer ring move smoothly.

■ **14.INSTALL NO. 1 TRANSMISSION HUB SLEEVE**

33363

a. Apply a light coat of gear oil to the spline of No. 1 transmission hub sleeve.

b.





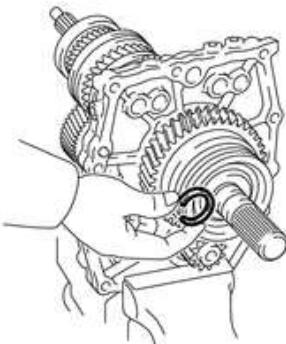
Install the No. 1 transmission hub sleeve to the No. 4 transmission clutch hub.

NOTICE:

Do not mistake the installation direction of the No. 1 transmission hub sleeve.

■ **15.INSTALL NO. 3 TRANSMISSION CLUTCH HUB SHAFT SNAP RING**

33393A



- a. Select a new snap ring that will allow minimum clearance.

Snap Ring Thickness:

Mark	Specified Condition
A	2.40 to 2.45 mm (0.0945 to 0.0964 in.)
B	2.45 to 2.50 mm (0.0965 to 0.0984 in.)
C	2.50 to 2.55 mm (0.0985 to 0.1003 in.)
D	2.55 to 2.60 mm (0.1004 to 0.1023 in.)
E	2.60 to 2.65 mm (0.1024 to 0.1043 in.)
F	2.65 to 2.70 mm (0.1044 to 0.1062 in.)

- b.



Using a brass bar and hammer, install the No. 3 transmission clutch hub shaft snap ring to the output shaft.

NOTICE:

Do not damage the output shaft and No. 4 transmission clutch hub.

■ **16.INSPECT REVERSE GEAR THRUST CLEARANCE**

■ **17.INSPECT REVERSE GEAR RADIAL CLEARANCE**

■ **18.INSTALL NO. 2 GEAR SHIFT FORK**

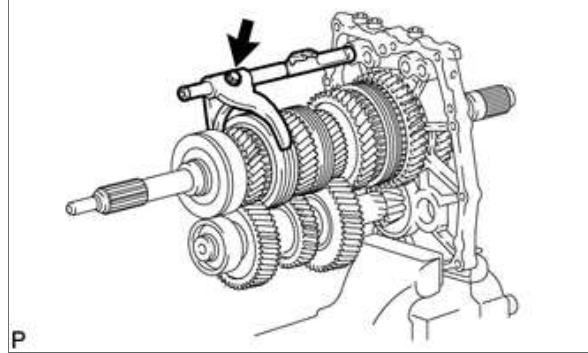
33213G

- a. Apply gear oil to the No. 2 gear shift fork shaft and install it to the No. 2 gear shift fork.

NOTICE:

Make sure to install the No. 2 gear shift fork shaft in the correct direction.

b.



Install the No. 2 gear shift fork together with the No. 2 gear shift fork shaft to the output shaft assembly, and insert the No. 2 gear shift fork shaft into the transmission intermediate plate.

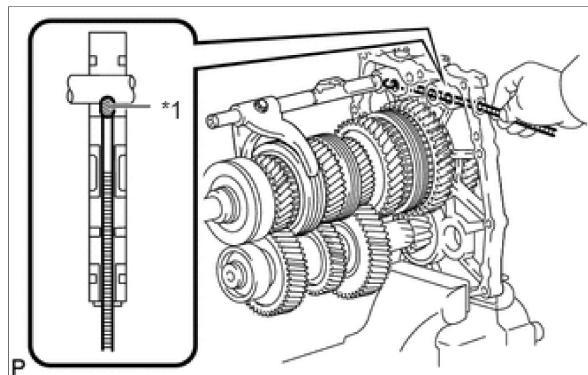
- c. Install the bolt.

Torque:

46.29 N*m (472 kgf*cm, 34 ft.*lbf)

- d. Apply gear oil to the interlock pin.

e.



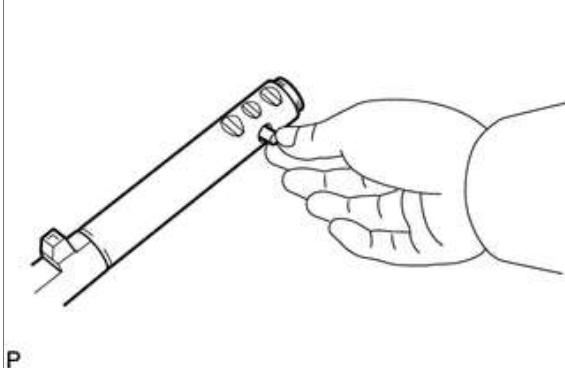
*1 Interlock Pin

Using a magnet hand, install the interlock pin to the intermediate plate.

■ **19.INSTALL NO. 1 GEAR SHIFT FORK**

33212A

a.



P

Apply MP grease to the interlock pin.

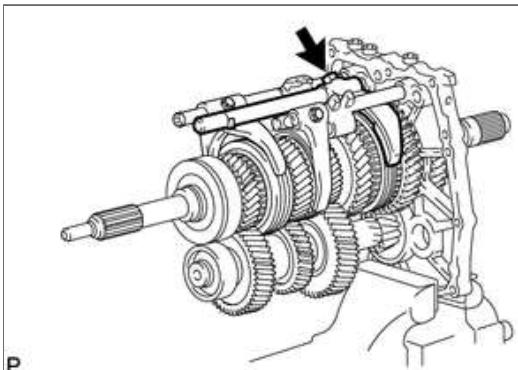
- b. Install the interlock pin to the No. 1 gear shift fork shaft.

HINT:

Apply MP grease to prevent the interlock pin from falling off.

- c. Apply gear oil to the No. 1 shift fork shaft.

d.



P

Temporarily install the No. 1 gear shift fork to the output shaft, and insert the No. 1 shift fork shaft into the No. 1 gear shift fork and transmission intermediate plate.

NOTICE:

- Do not drop the No. 1 gear shift fork
- Make sure to install the No. 1 gear shift fork in the correct direction.

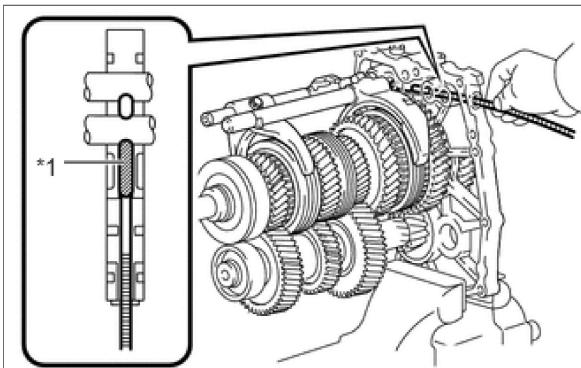
- e. Install the bolt.

Torque:

46.29 N*m (472 kgf*cm, 34 ft.*lbf)

- f. Apply gear oil to the interlock pin.

g.



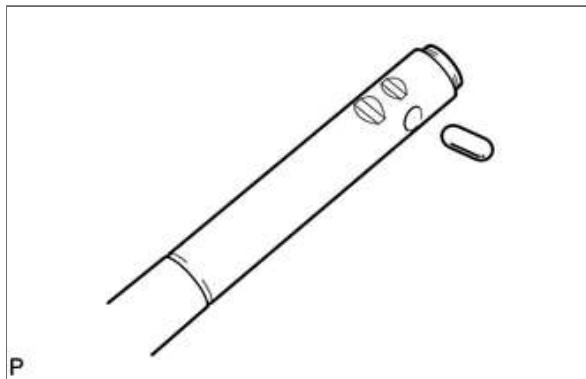
*1 Interlock Pin

Using a magnet hand, install the interlock pin to the transmission intermediate plate.

■ **20.INSTALL NO. 3 GEAR SHIFT FORK**

33214G

a.



Apply MP grease to the interlock pin.

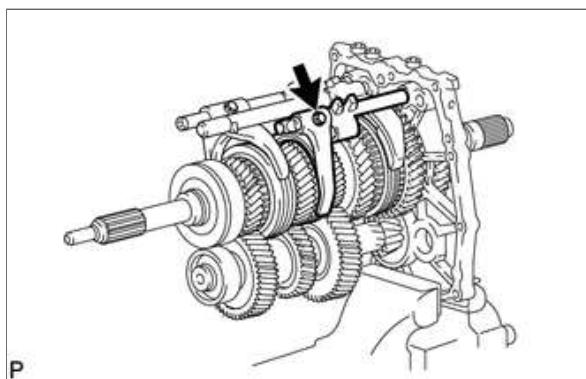
b. Install the interlock pin to the No. 3 gear shift fork shaft.

HINT:

Apply MP grease to prevent the interlock pin from falling off.

c. Apply gear oil to the No. 3 shift fork shaft.

d.



Insert the No. 3 shift fork shaft into the transmission intermediate plate.

NOTICE:

Make sure to install the No. 3 gear shift fork shaft in the correct direction.

e. Install the reverse shift head to the No. 3 gear shift fork shaft.

NOTICE:

Make sure to install the reverse shift head in the correct direction.

f. Temporarily install the No. 3 gear shift fork to the output shaft, and insert the No. 3 shift fork shaft into the No. 3 gear shift fork.

NOTICE:

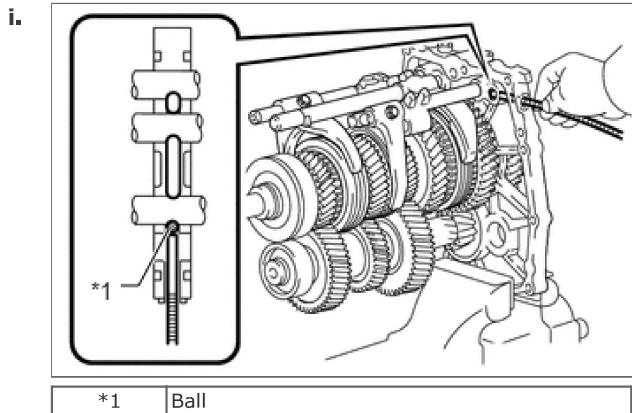
- Do not drop the No. 3 gear shift fork.
- Make sure to install the No. 3 gear shift fork in the correct direction.

g. Install the bolt.

Torque:

46.29 N*m (472 kgf*cm, 34 ft.*lbf)

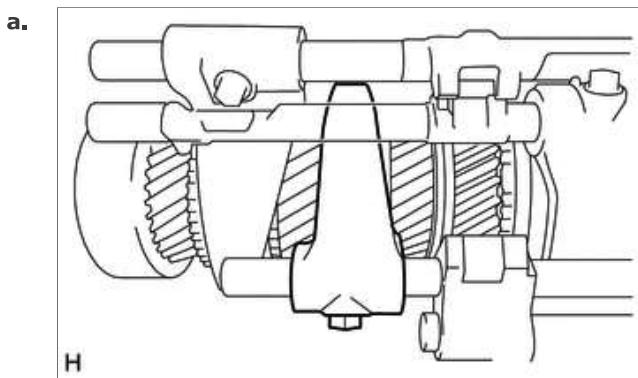
h. Apply gear oil to the ball.



Using a magnet hand, install the ball to the transmission intermediate plate.

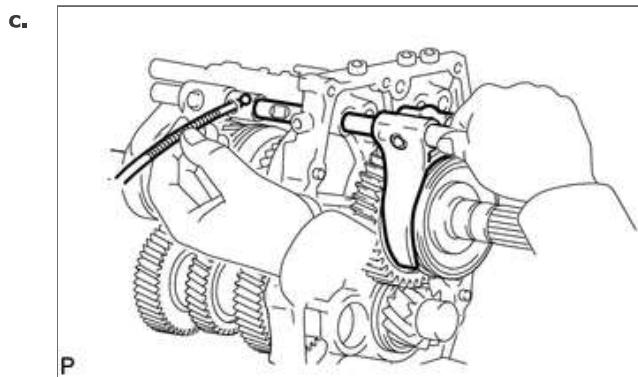
■ **21.INSTALL REVERSE SHIFT FORK**

33211



Move the No. 3 gear shift fork to the position shown in the illustration.

- b. Apply gear oil to the No. 4 gear shift fork.



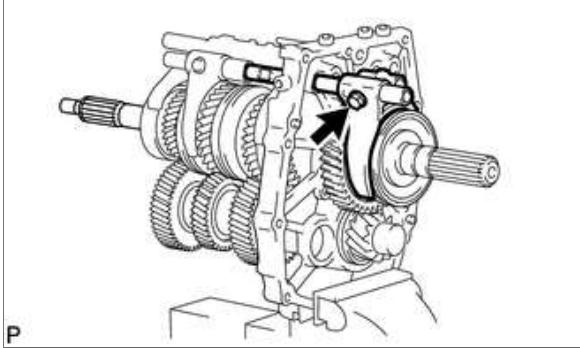
Temporarily install the reverse gear shift fork to the output shaft, and insert the No. 4 gear shift fork shaft into the reverse shift fork and transmission intermediate plate.

NOTICE:

- Do not drop the reverse shift fork.
- Make sure to install the No. 4 gear shift fork shaft and reverse shift fork in the correct direction.

- d. Apply gear oil to the ball.
- e. Using a magnet hand, install the ball to the reverse shift head, and insert the No. 4 gear shift fork shaft into the reverse shift head.

f.



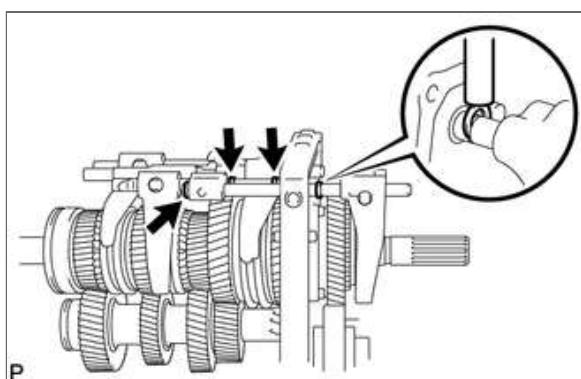
Install the bolt.

Torque:

34.3 N*m (350 kgf*cm, 25 ft.*lbf)

■ **22.INSTALL SHIFT FORK SHAFT SNAP RING**

33244B



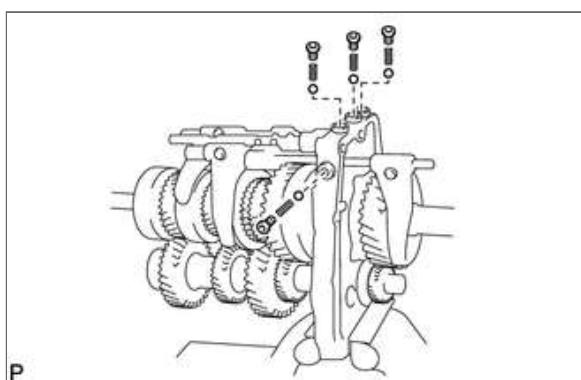
- a. Using a brass bar and hammer, install 4 new shift fork shaft snap rings.

NOTICE:

Make sure to install the shift fork shaft snap ring in the correct direction.

■ **23.INSTALL SHIFT DETENT BALL PLUG**

33275F



- a. Clean and remove any oil from the 4 shift detent ball plugs and installation holes.

- b. Install the 4 balls and 4 springs to the intermediate plate.

- c. Apply adhesive to 2 or 3 threads of the 4 detent ball plugs.

Adhesive:

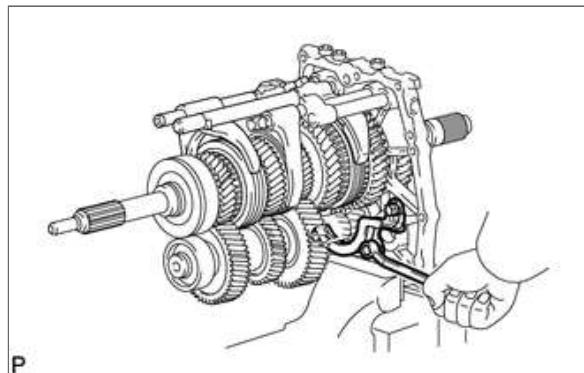
Toyota Genuine Adhesive 1324, Three Bond 1324 or equivalent

- d. Using a T40 "TORX" socket wrench, install the 4 detent ball plugs.

Torque:
18.62 N*m (190 kgf*cm, 14 ft.*lbf)

■ **24.INSTALL MANUAL TRANSMISSION CASE RECEIVER**

33125B

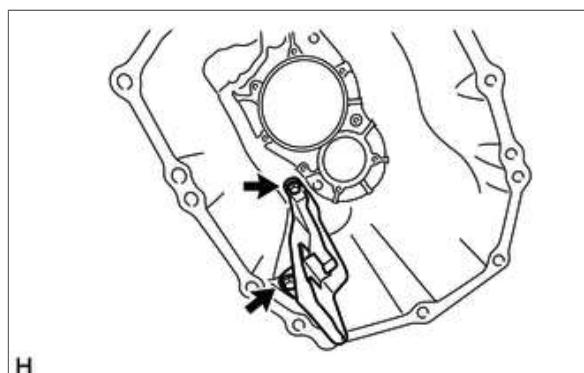


- a. Install the transmission case receiver to the intermediate plate with the 3 bolts.

Torque:
18.13 N*m (185 kgf*cm, 13 ft.*lbf)

■ **25.INSTALL NO. 1 OIL RECEIVER PIPE**

33124C

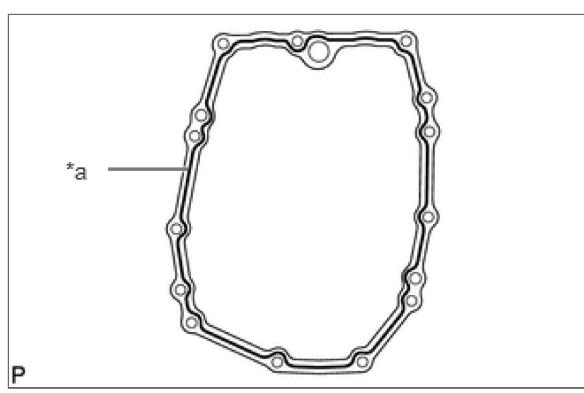


- a. Install the oil receiver pipe to the transmission case with the 2 bolts.

Torque:
11.76 N*m (120 kgf*cm, 9 ft.*lbf)

■ **26.INSTALL MANUAL TRANSMISSION CASE SUB-ASSEMBLY**

33101



*a Seal Packing

- a. Clean the contact surface of the manual transmission case sub-assembly and transmission intermediate plate with non-residue solvent.
- b. Apply seal packing to the transmission case, as shown in the illustration.

Seal Packing:

Toyota Genuine Seal Packing 1281, Three Bond 1281 or equivalent

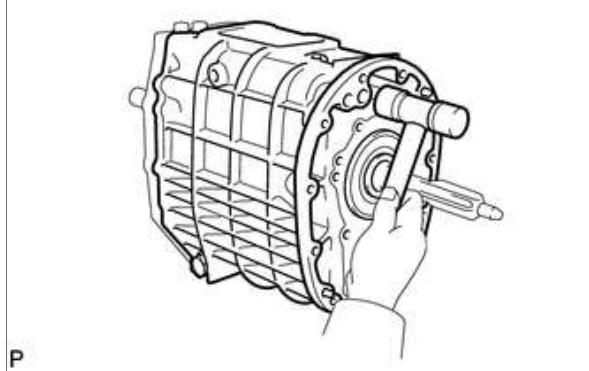
Seal diameter:

1.2 mm (0.0472 in.)

NOTICE:

- Assemble the parts within 10 minutes of application. Otherwise, the seal packing material must be removed and reapplied.
- Make sure that foreign matter or oil does not adhere to the application surface.
- Apply seal packing in the middle along the seal surface and inner side around the bolt holes.
- Overlap the seal packing application start and end positions by 1 to 5 mm.
- Apply seal packing in a continuous line (width 1.2 mm (0.0472 in.)) along the sealing surface of the transmission case.

c.



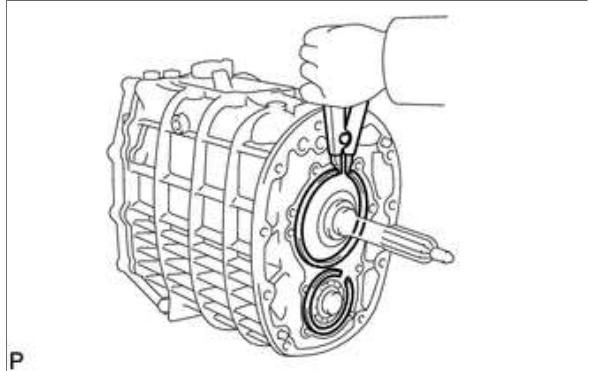
P

Install the transmission case by lightly tapping it into place with a plastic-faced hammer.

NOTICE:

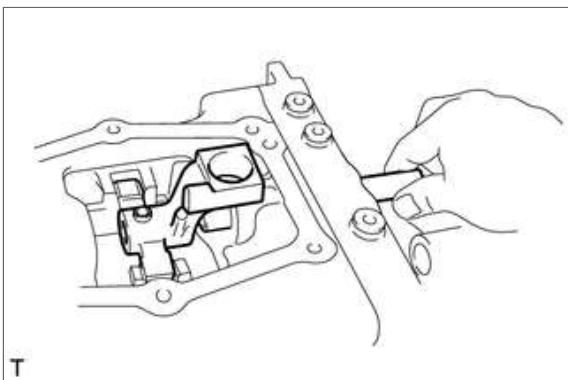
Install the transmission case straight so that unnecessary force is not applied to the bearing.

d.



P

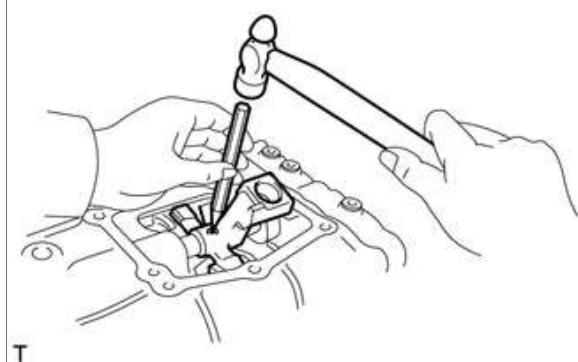
Using a snap ring expander, install the 2 snap rings to the input shaft and counter gear.



T

- a. Temporarily install the shift lever housing to the transmission case and install the shift and select lever shaft to the transmission intermediate plate and shift lever housing.

b.



T

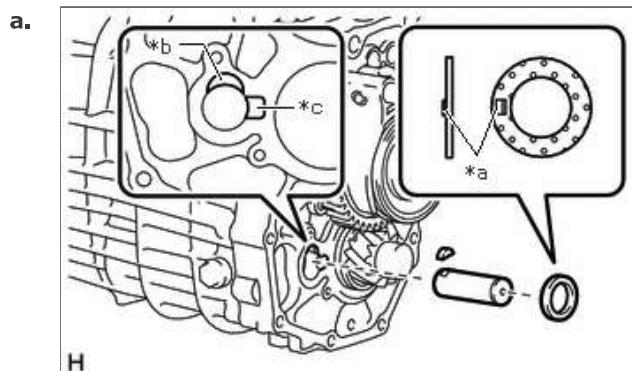
Using a pin punch and a hammer, tap in the slotted spring pin.

28.INSPECT REVERSE IDLER GEAR RADIAL CLEARANCE

Click hereDrivetrain>H150F (MANUAL TRANSMISSION / TRANSAXLE)>MANUAL TRANSMISSION UNIT>INSPECTION

29.INSTALL REVERSE IDLER GEAR SHAFT

33451

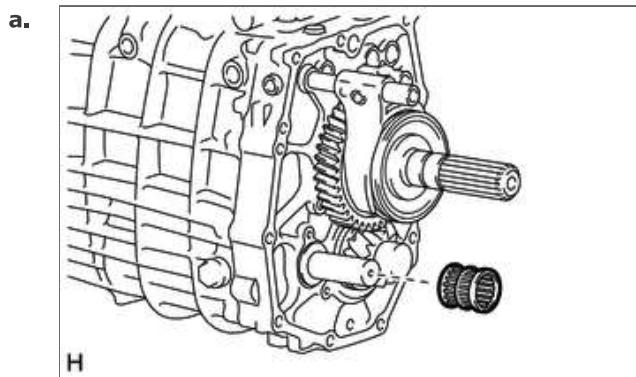


H

*a	Protrusion
*b	Reverse Idler Gear Shaft Woodruff Alignment Groove
*c	Reverse Idler Thrust Washer Protrusion Alignment Groove

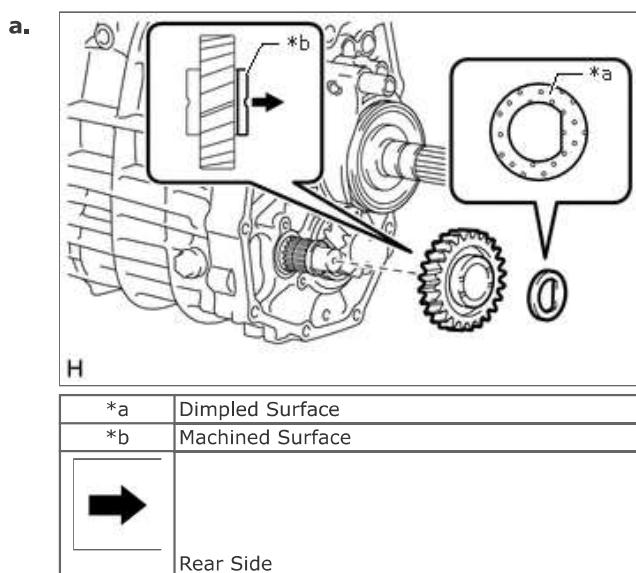
Install the woodruff key to the reverse idler gear shaft.

- b. Align the reverse idler gear shaft woodruff key with the groove of the transmission intermediate plate, and install the reverse idler gear shaft to the transmission intermediate plate.
- c. Install the reverse idler thrust washer to the reverse idler gear shaft.



Install the reverse idler gear bush or bearing to the reverse idler gear shaft.

31.INSTALL REVERSE IDLER GEAR



Install the reverse idler gear to the reverse idler gear shaft.

NOTICE:

Make sure to install the reverse idler gear in the correct direction.

- b. Install the reverse idler gear shaft so that the dimpled surface of the No. 2 reverse idler thrust washer is facing the reverse idler gear side.

NOTICE:

Make sure to install the No. 2 reverse idler thrust washer in the correct direction.

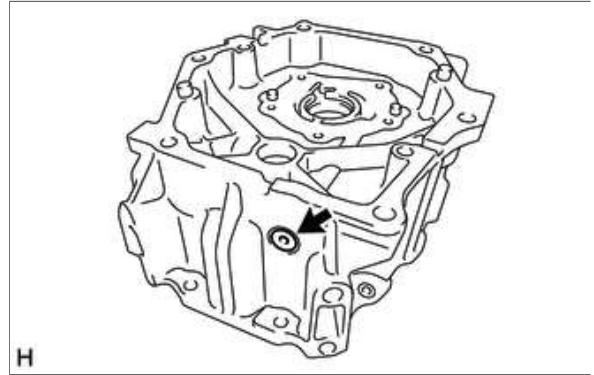
32.INSTALL TRANSFER ADAPTER W/HEAD STRAIGHT SCREW PLUG

- a. Clean and remove any oil from the transfer adapter with head straight screw plug and installation holes.
- b. Apply adhesive to 2 or 3 threads of the transfer adapter with head straight screw plug.

Adhesive:

Toyota Genuine Adhesive 1324, Three Bond 1324 or equivalent

c.



Using a T40 "TORX" socket wrench, install the transfer adapter with head straight screw plug.

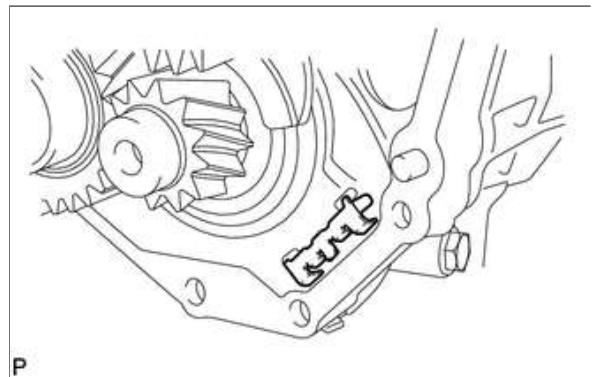
Torque:

18.62 N*m (190 kgf*cm, 14 ft.*lbf)

■ **33.INSTALL TRANSMISSION MAGNET**

33449B

a.



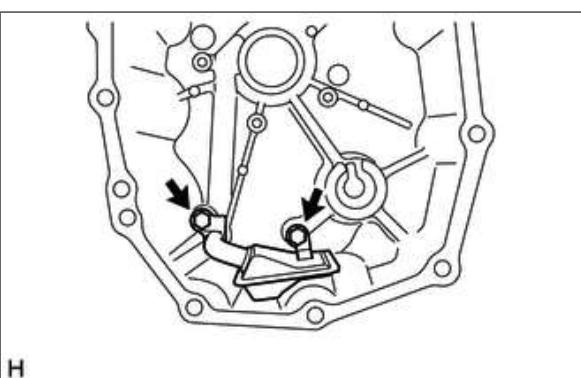
Install the transmission magnet to the transmission intermediate plate.

NOTICE:

Make sure to install the transmission magnet in the correct direction.

■ **34.INSTALL MANUAL TRANSMISSION OIL STRAINER SUB-ASSEMBLY**

33408

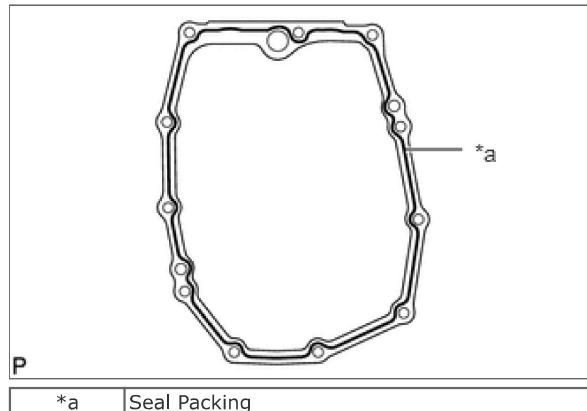


H

- a. Apply a light coat of gear oil to new O-ring.
- b. Install an O-ring to the manual transmission oil strainer sub-assembly.
- c. Install the manual transmission oil strainer sub-assembly to the transfer adapter with the 2 bolts.
Torque:
11.76 N*m (120 kgf*cm, 9 ft.*lbf)

- a. Clean the contact surface of the transfer adapter and transmission intermediate plate with non-residue solvent.
- b. Clean and degrease the 11 bolts and the installation holes in the transmission intermediate plate.

c.



Apply seal packing to the transfer adapter as shown in the illustration.

Seal Packing:

Toyota Genuine Seal Packing 1281, Three Bond 1281 or equivalent

Seal diameter:

1.2 mm (0.0472 in.)

NOTICE:

- Assemble parts within 10 minutes of application. Otherwise, the seal packing must be removed and reapplied.
- Make sure that foreign matter or oil does not adhere to the application surface.
- Apply seal packing in the middle along the seal surface and inner side around the bolt holes.
- Overlap the seal packing application start and end positions by 1 to 5 mm.

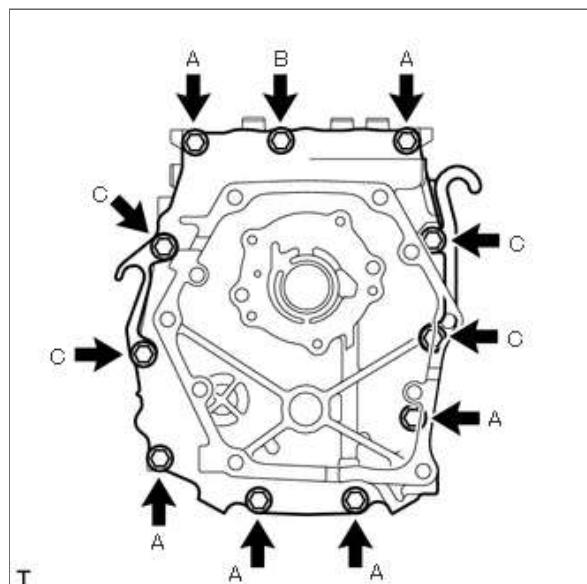
- d. Using a plastic-faced hammer, lightly tap the transfer adapter so that it fully contacts the transmission intermediate plate.

- e. Apply adhesive to 2 or 3 threads of the bolts labeled B only.

Adhesive:

Toyota Genuine Adhesive 1324, Three Bond 1324 or equivalent

f.



Install the transfer adapter, No. 1 transmission case hanger and No. 2 transmission case hanger to the transmission case with the 11 bolts.

Torque:

37.24 N*m (380 kgf*cm, 27 ft.*lbf)

Standard Bolt:

Item	Specified Condition
Bolt A, B	70 mm (2.75 in.)
Bolt C	75 mm (2.95 in.)

NOTICE:

Uniformly tighten the bolts in several steps.

■ **36.INSPECT OIL PUMP RELIEF VALVE**

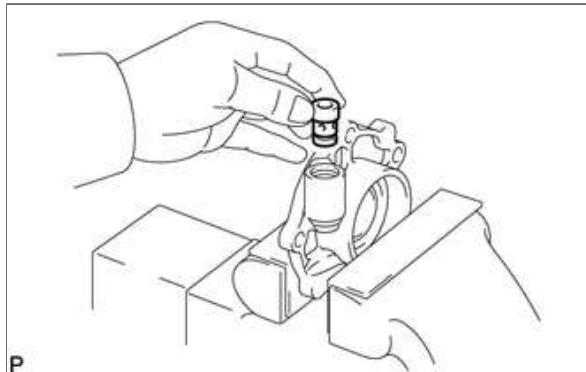
Click hereDrivetrain>H150F (MANUAL TRANSMISSION / TRANSAXLE)>MANUAL TRANSMISSION UNIT>INSPECTION

■ **37.INSTALL MANUAL TRANSMISSION OIL PUMP COVER O-RING**

33130N

- a. Clean the installation hole of the oil pump cover with non-residue solvent.

b.



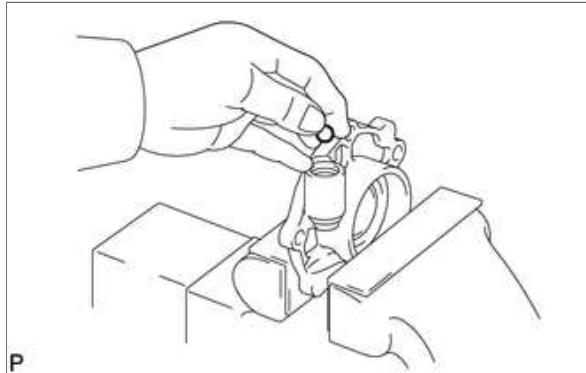
Secure the transmission oil pump cover in a vise between aluminum plates.

NOTICE:

Do not overtighten the vise.

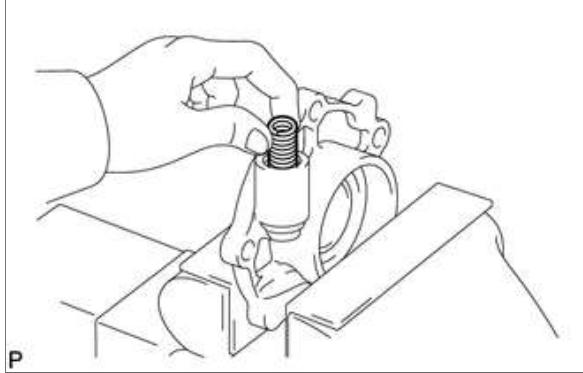
- c. Apply a light coat of gear oil to a new O-ring.
- d. Install the O-ring to the oil pump relief valve seat.
- e. Apply gear oil to the oil pump relief valve seat and install it to the oil pump cover.

f.



Install the transmission oil pump cover ball to the transmission oil pump cover.

g.



Install the transmission oil pump cover compression spring to the transmission oil pump cover.

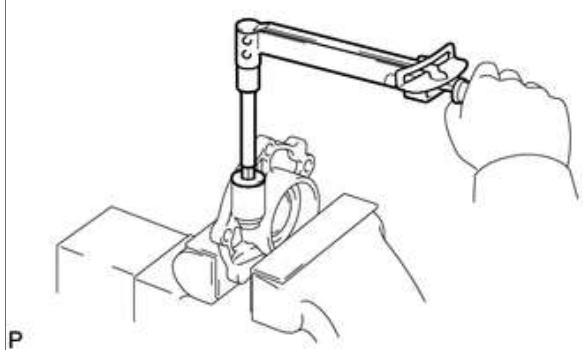
h. Clean and degrease the transmission oil pump cover plug.

i. Apply adhesive to 2 or 3 threads of the transmission oil pump cover plug.

Adhesive:

Toyota Genuine Adhesive 1324, Three Bond 1324 or equivalent

j.



Using a 10 mm hexagon wrench, install the transmission oil pump cover plug to the transmission oil pump cover.

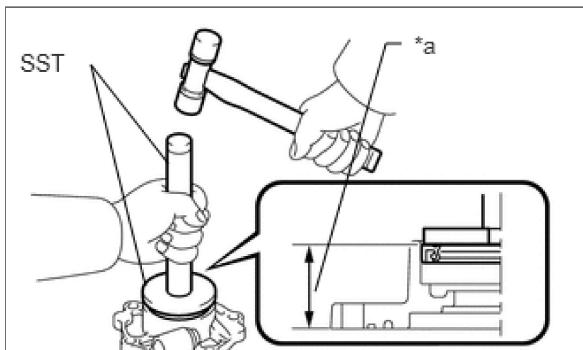
Torque:

18.13 N*m (185 kgf*cm, 13 ft.*lbf)

■ 38.INSTALL TRANSMISSION OIL PUMP COVER OIL SEAL

33130H

a.



*a Dimension A

Using SST and a hammer, install the transmission oil pump cover seal to the transmission oil pump cover.

SST

09950-60010 (09951-00640)

09950-70010 (09951-07150)

Dimension A:

35.3 to 35.9 mm (1.390 to 1.413 in.)

NOTICE:

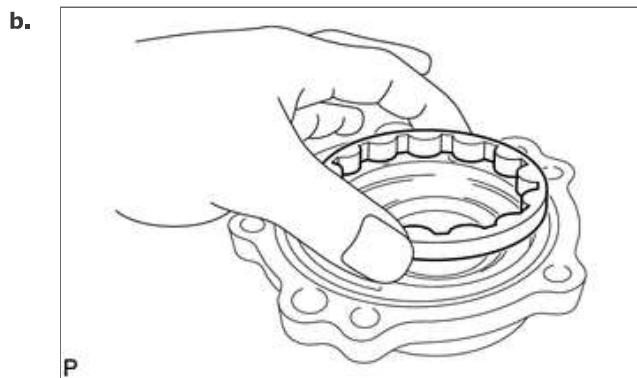
Install the transmission oil pump cover oil seal in the correct direction.

- b.** Apply MP grease to the lip of the transmission oil pump cover oil seal.

■ 39.INSTALL MANUAL TRANSMISSION OIL PUMP DRIVEN ROTOR

33468A

- a.** Coat the transmission oil pump driven rotor with gear oil.

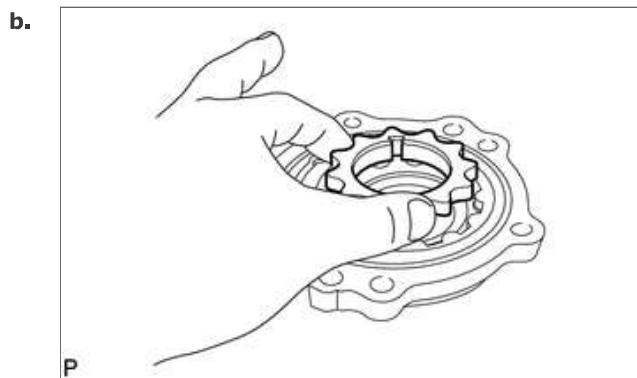


Install the transmission oil pump driven rotor into the oil pump cover.

■ 40.INSTALL MANUAL TRANSMISSION OIL PUMP DRIVE ROTOR

33467A

- a.** Coat the transmission oil pump drive rotor with gear oil.



Install the transmission oil pump drive rotor into the oil pump cover.

NOTICE:

Install the transmission oil pump driven rotor in the correct direction.

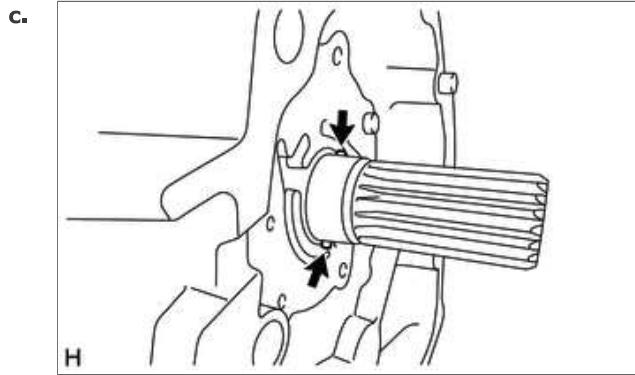
■ 41.INSPECT OIL PUMP ROTOR SET

Click hereDrivetrain>H150F (MANUAL TRANSMISSION / TRANSAXLE)>MANUAL TRANSMISSION UNIT>INSPECTION

■ 42.INSTALL TRANSMISSION OIL PUMP COVER

33130G

- a.** Clean the 5 bolts and installation holes with a non-residue solvent.
- b.** Apply MP grease to the pin.



Install the pin to the output shaft.

HINT:

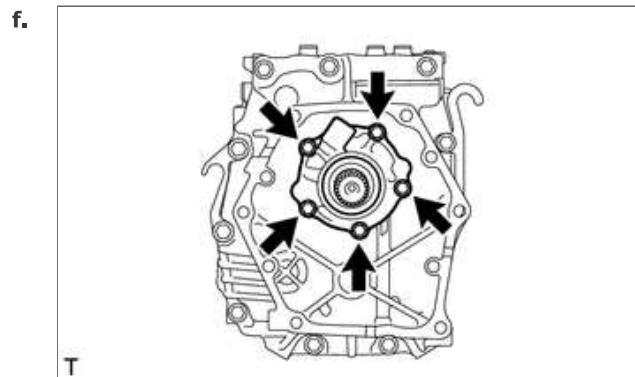
Apply MP grease to prevent the pin from falling off.

- d. Apply MP grease to a new O-ring, and install the O-ring to the transmission oil pump cover.

- e. Apply adhesive to 2 or 3 threads of the 5 bolts.

Adhesive:

Toyota Genuine Adhesive 1324, Three Bond 1324 or equivalent



Install the oil pump cover to the transfer adapter with the 5 bolts.

Torque:

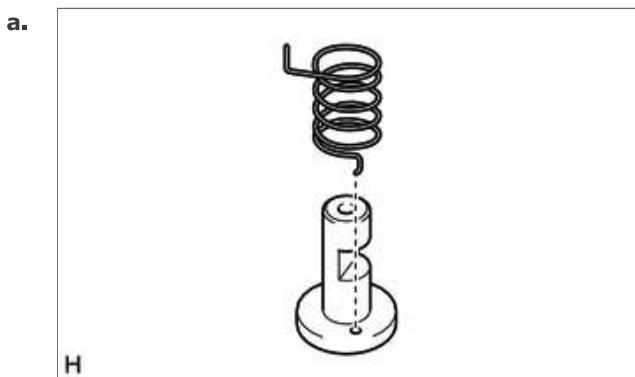
16.66 N*m (170 kgf*cm, 12 ft.*lbf)

NOTICE:

- Align the groove of the transmission oil pump driven rotor with the pin position.
- Uniformly tighten the bolts in several steps.

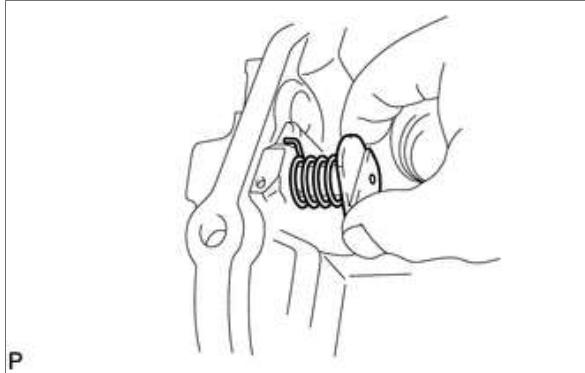
■ **43.INSTALL NO. 1 REVERSE RESTRICT PIN**

33283



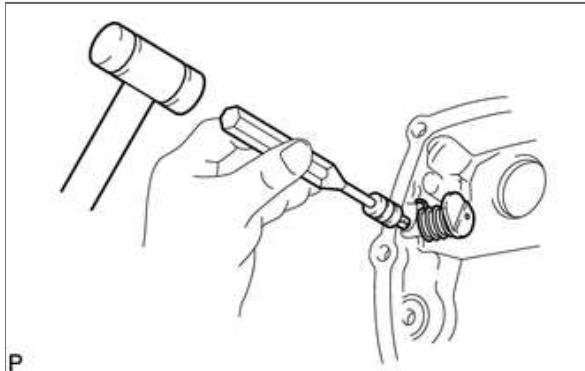
Install the spring to the reverse restrict pin.

b.



Install the No. 1 reverse restrict pin and spring to the floor shift control shift lever retainer sub-assembly.

c.



Using a 5 mm pin punch and hammer, tap a new slotted pin into the shift lever retainer.

■ 44.INSTALL FLOOR SHIFT CONTROL SHIFT LEVER RETAINER SUB-ASSEMBLY

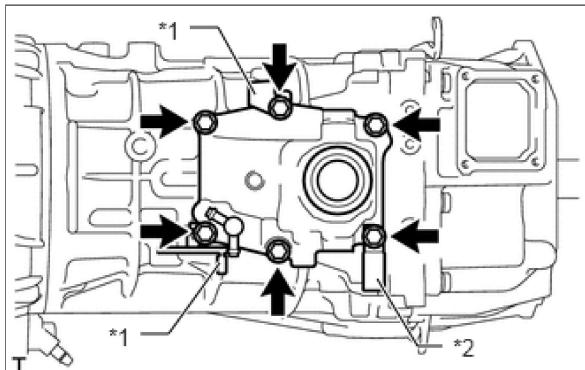
33506F

- a. Clean and degrease the 6 bolts and the installation holes in the transmission case.
- b. Apply adhesive to 2 or 3 threads of the bolts.

Adhesive:

Toyota Genuine Adhesive 1324, Three Bond 1324 or equivalent

c.



*1	Bracket
*2	Clamp

Install the floor shift control shift lever retainer sub-assembly, bracket, 2 clamps and new extension housing oil deflector to the manual transmission case with the 6 bolts.

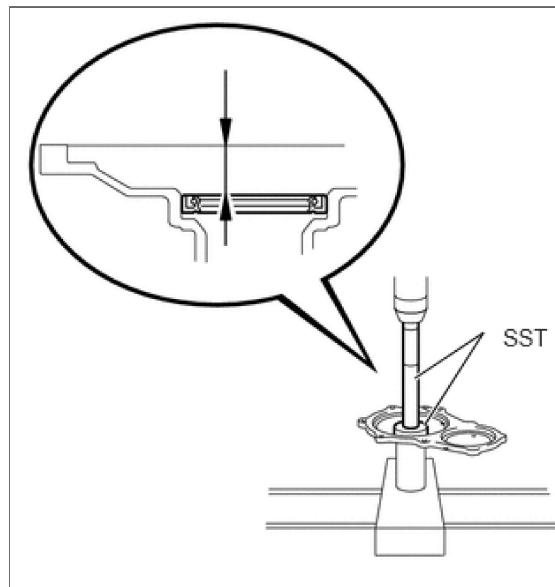
Torque:

16.66 N*m (170 kgf*cm, 12 ft.*lbf)

NOTICE:

Uniformly tighten the bolts in several steps

a.



Using SST and a press, drive in a new front transmission bearing retainer oil seal.

SST

09950-60010 (09951-00460)
09950-70010 (09951-07150)

Standard Drive in Depth:
15.4 to 16.2 mm (0.6063 to 0.6377 in.)

NOTICE:

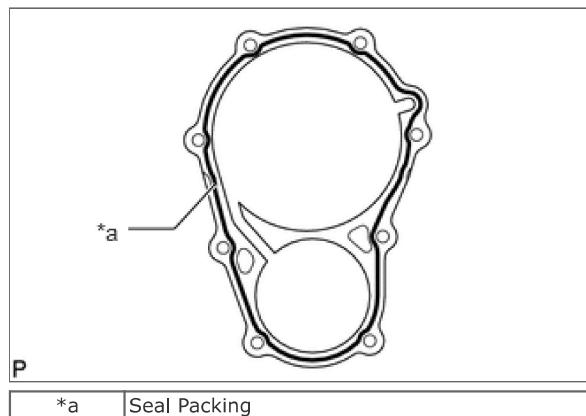
Install the front transmission bearing retainer oil seal in the correct direction.

- b. Apply MP grease to the lip of the front transmission bearing retainer oil seal.

46.INSTALL FRONT BEARING RETAINER

- a. Remove any seal packing from the contact surfaces of the front bearing retainer and transmission case and clean the surfaces with a non-residue solvent.
- b. Clean the 8 bolts and installation holes with a non-residue solvent.

c.



*a	Seal Packing
----	--------------

Apply seal packing to the front bearing retainer, as shown in the illustration.

Seal Packing:

Toyota Genuine Seal Packing 1281, Three Bond 1281 or equivalent

NOTICE:

- Install the front bearing retainer within 10 minutes of application

- Make sure that foreign matter or oil does not adhere to the application surface.
- Apply seal packing in the middle along the seal surface and inner side around the bolt holes.
- Overlap the seal packing application start and end positions by 1 to 5 mm.

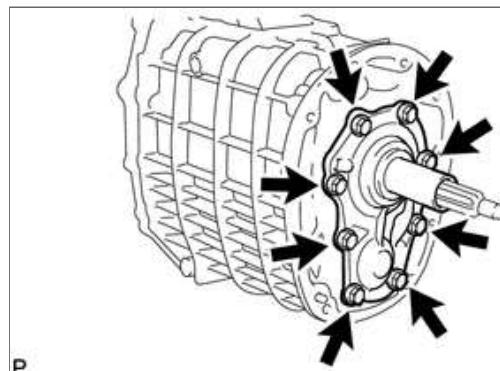
d. Using a plastic-faced hammer, lightly tap the front bearing retainer so that it fully contacts the transmission case.

e. Apply adhesive to 2 or 3 threads of the bolts.

Adhesive:

Toyota Genuine Adhesive 1324, Three Bond 1324 or equivalent

f.



Install the front bearing retainer to the transmission case with the 8 bolts.

Torque:

16.66 N*m (170 kgf*cm, 12 ft.*lbf)

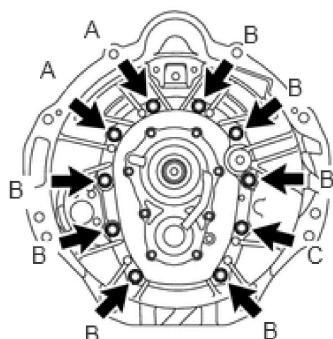
NOTICE:

Uniformly tighten the bolts in several steps

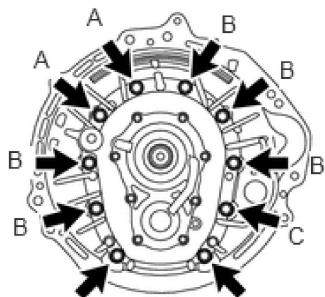
■ **47.INSTALL CLUTCH HOUSING**

31111

*A



*B



T

*A	for 1VD-FTV
*B	for 1GR-FE

- a. Clean and degrease the 2 bolts (labeled A) and the installation holes in the transmission case.
- b. Temporarily install the clutch housing to the manual transmission case.
- c. Apply adhesive to 2 or 3 threads of the bolts labeled A only.

Adhesive:

Toyota Genuine Adhesive 1324, Three Bond 1324 or equivalent

- d. Install the clutch housing with the 10 bolts.

Torque:

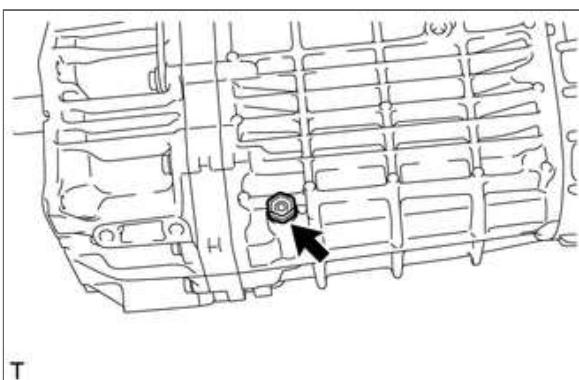
37.24 N*m (380 kgf*cm, 27 ft.*lbf)

Standard Bolt:

Item	Length
Bolt A, B	45 mm (1.77 in.)
Bolt C	35 mm (1.38 in.)

■ **48.INSTALL DRAIN PLUG SUB-ASSEMBLY**

33104



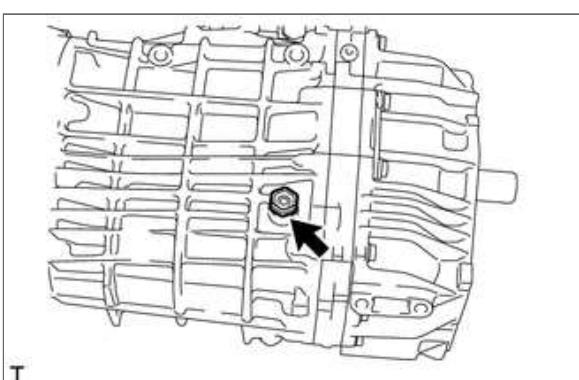
- a. Install a new gasket and the drain plug sub-assembly to the manual transmission.

Torque:

37.24 N*m (380 kgf*cm, 27 ft.*lbf)

■ **49.TEMPORARILY INSTALL MANUAL TRANSMISSION CASE PLUG**

33111A



- a. Temporarily install a new gasket and the filler plug to the manual transmission.

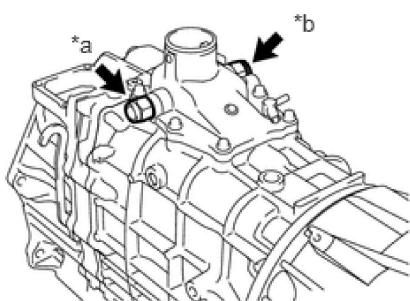
Torque:

37.24 N*m (380 kgf*cm, 27 ft.*lbf)

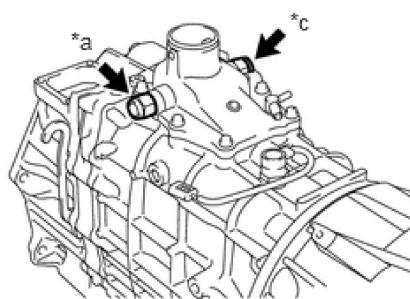
HINT:

The filler plug will be tightened to a torque specification in the "Inspect Transmission Oil" procedure.

*A



*B



*A	for 1GR-FE
*B	for 1VD-FTV
*a	Red
*b	Gray
*c	Green

- a. Clean and degrease the 2 restrict pins and the installation holes in the floor shift control shift lever retainer sub-assembly.

- b. Apply adhesive to 2 or 3 threads of the reverse restrict pins.

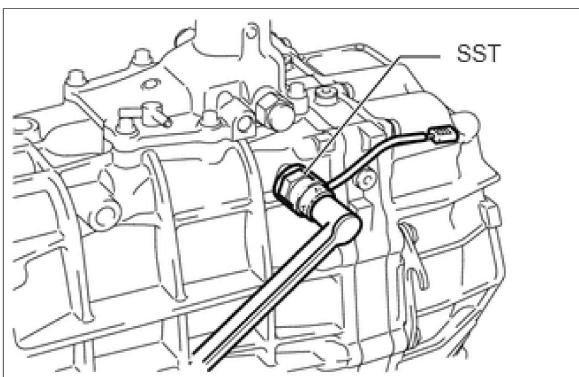
Adhesive:

Toyota Genuine Adhesive 1324, Three Bond 1324 or equivalent

- c. Install the 2 reverse restrict pins to the shift lever retainer as shown in the illustration.

Torque:

37.24 N*m (380 kgf*cm, 27 ft.*lbf)

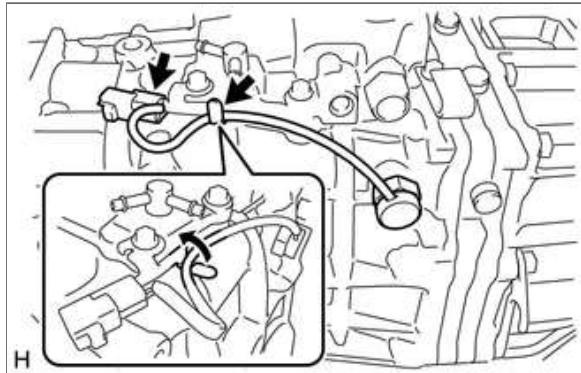


- a. Using SST, install a new gasket and the back-up light switch to the transmission.

SST
09817-16011

Torque:
44.1 N*m (450 kgf*cm, 33 ft.*lbf)

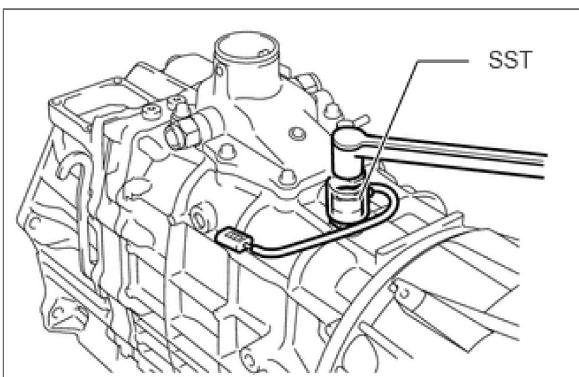
b.



Connect the back-up light switch connector clamp to the bracket and connect the wire harness clamp as shown in illustration.

■ **52.INSTALL SHIFT POSITION SWITCH (for 1VD-FTV)**

84225A



- a. Using SST, install a new gasket and the shift position switch to the transmission.

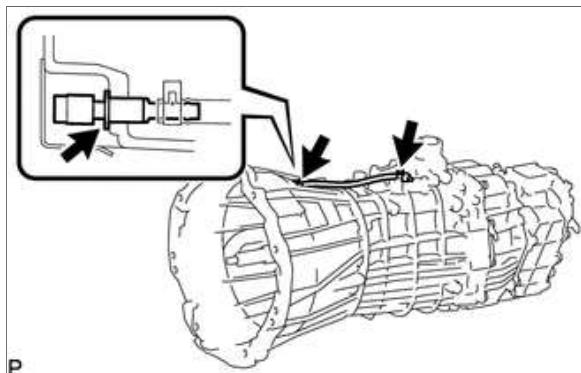
SST
09817-16011

Torque:
44.1 N*m (450 kgf*cm, 33 ft.*lbf)

■ **53.INSTALL BREATHER PLUG (for 1VD-FTV)**

33101J

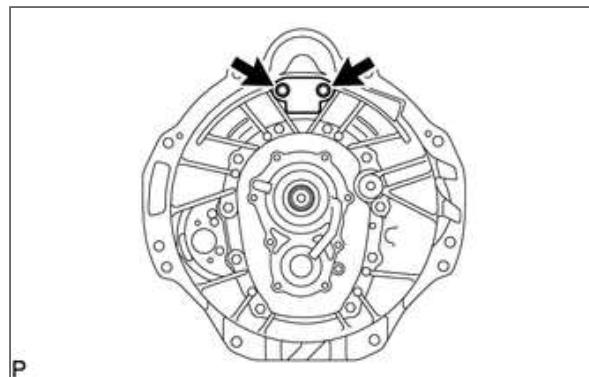
a.



Install the breather plug to the clutch housing.

- b.** Connect the transmission breather hose to the floor shift control shift lever retainer sub-assembly and breather plug.
- c.** Slide the 2 clips to secure it.

d.



Install the transmission oil baffle with the 2 bolts.

Torque:

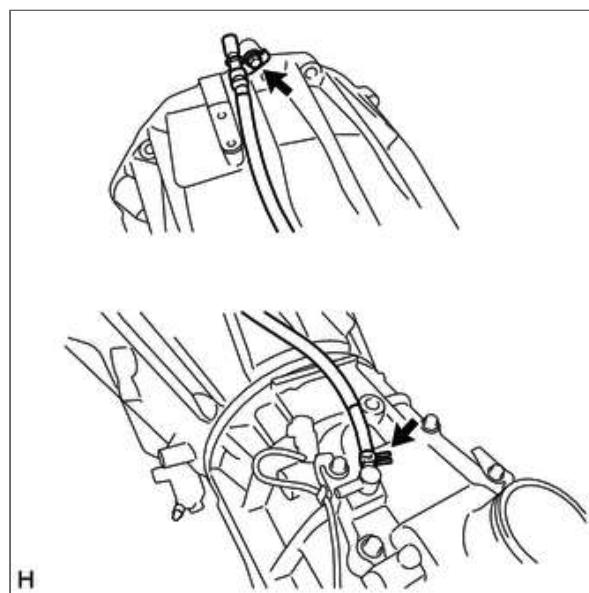
11.8 N*m (120 kgf*cm, 9 ft.*lbf)

■ **54.INSTALL TRANSMISSION BREATHER SUB-ASSEMBLY (for 1GR-FE)**

33019

- a.** Connect the transmission breather sub-assembly to the floor shift control shift lever retainer sub-assembly.

b.



Connect the transmission breather sub-assembly to the clutch housing with the bolt.

Torque:

18.13 N*m (185 kgf*cm, 13 ft.*lbf)