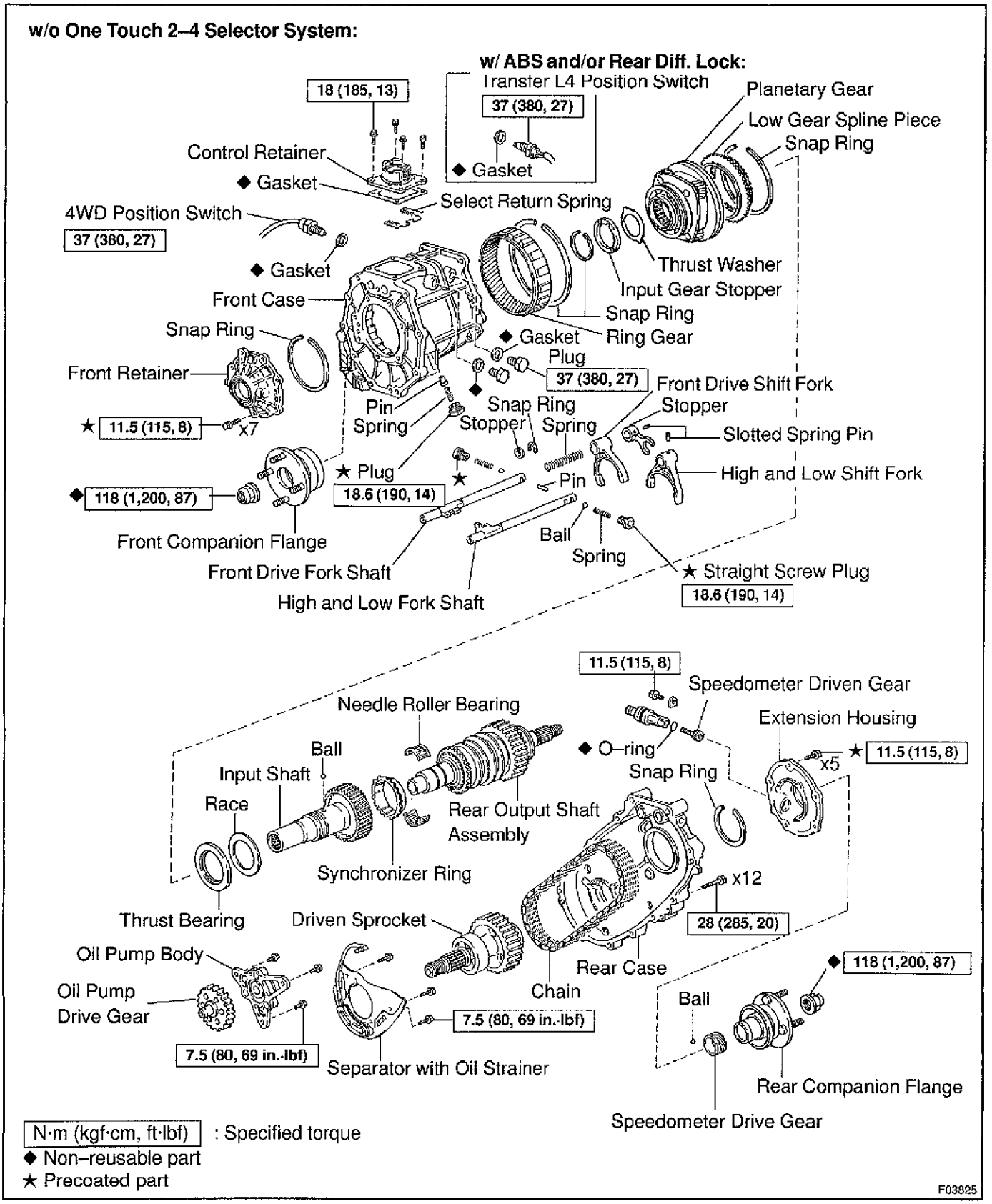
TRANSFER ASSEMBLY

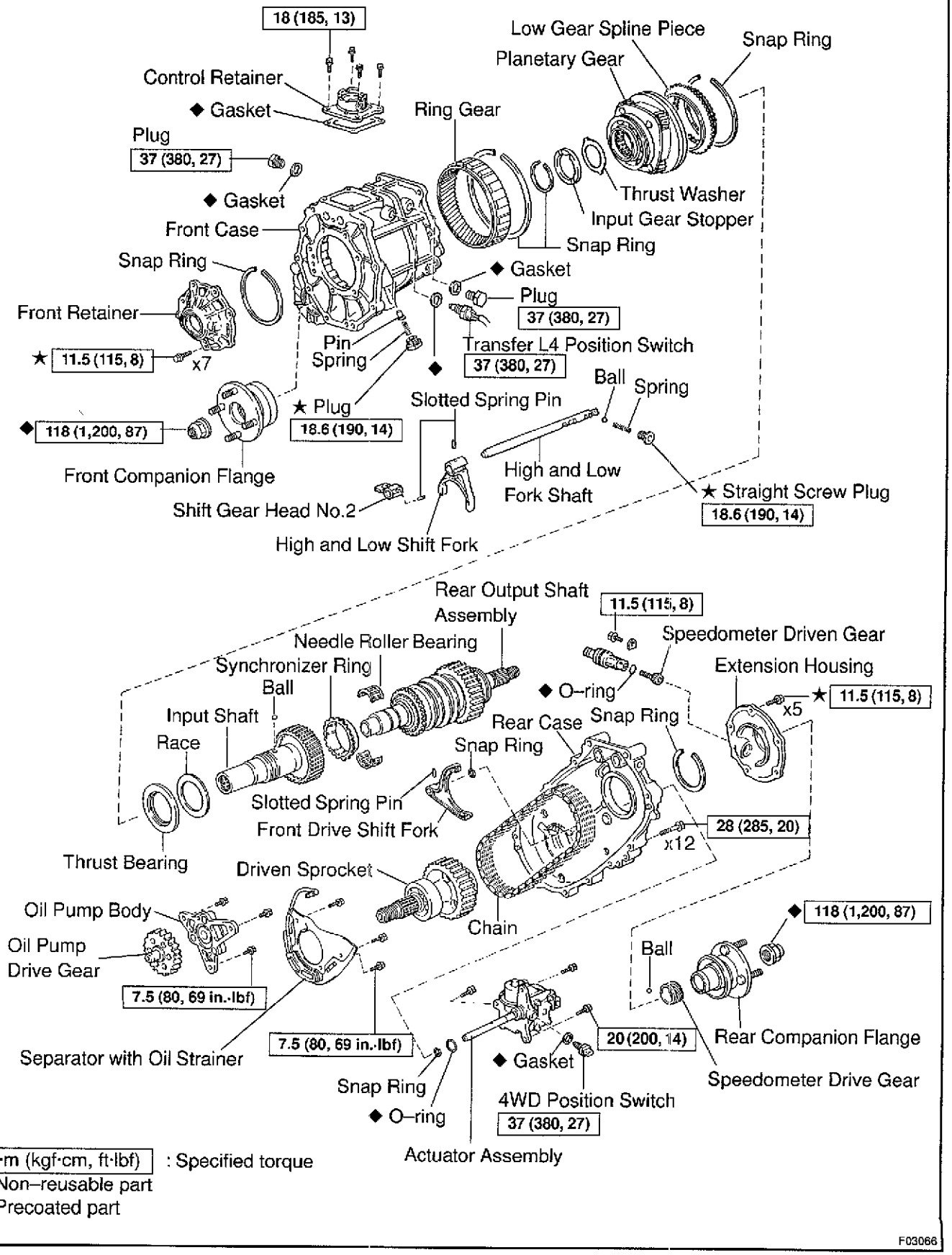
COMPONENTS

TR033–01



TR

w/ One Touch 2–4 Selector System:



N·m (kgf·cm, ft·lbf) : Specified torque
◆ Non–reusable part
★ Precoated part

F03066

TR

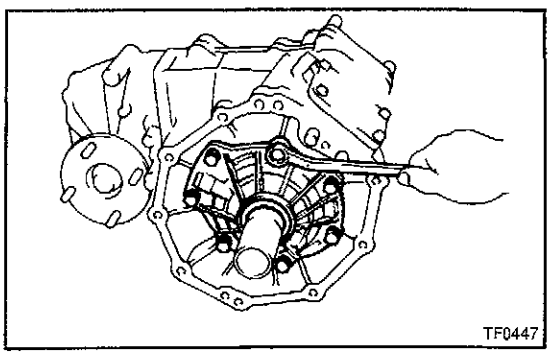
TR084-01

DISASSEMBLY

1. **REMOVE SPEEDOMETER DRIVEN GEAR**
   Torque: 11.5 N·m (115 kgf·cm, 8 ft·lbf)
2. **w/o One Touch 2–4 Selector System:**
   REMOVE 4WD POSITION SWITCH
   Torque: 37 N·m (380 kgf·cm, 27 ft·lbf)
3. **w/o One Touch 2–4 Selector System**
   (w/ ABS and/or Rear Diff. Lock only):
   REMOVE TRANSFER L4 POSITION SWITCH
   Torque: 37 N·m (380 kgf·cm, 27 ft·lbf)
4. **w/ One Touch 2–4 Selector System:**
   REMOVE TRANSFER L4 POSITION SWITCH
   Torque: 37 N·m (380 kgf·cm, 27 ft·lbf)
5. **REMOVE PLUGS OF FRONT CASE**
   Torque: 37 N·m (380 kgf·cm, 27 ft·lbf)

HINT:
At the time of installation, check the following items.
- Install the switches and plugs with a new gasket each.
- The input shaft and output shafts rotate smoothly.
- Shifting can be made smoothly to all positions.

TR

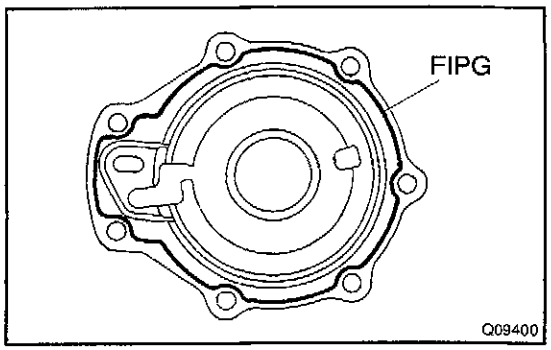

TF0447

6. **REMOVE FRONT RETAINER**

(a) Remove the 7 bolts.
Torque: 11.5 N·m (115 kgf·cm, 8 ft·lbf)

HINT:
At the time of installation, apply liquid sealer to the bolts.
Sealant:
Part No.08833–00080, THREE BOND 1344,
LOCTITE 242 or equivalent

(b) Using a plastic hammer, tap the front retainer and remove it.



Q09400

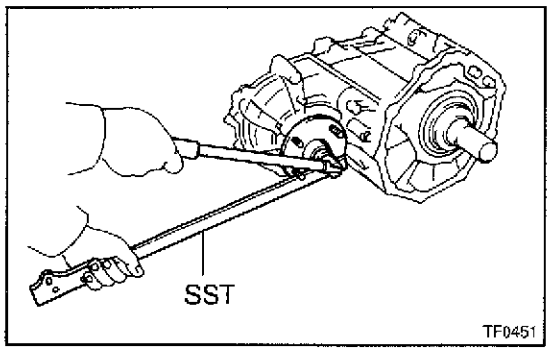
HINT:
At the time of installation, please refer to the following items.
- Remove any FIPG material and be careful not to drop oil on the contacting surfaces of the front retainer.
- Apply FIPG to the front retainer, as shown.
  FIPG:
  Part No.08826–00090, THREE BOND 1281,
  LOCTITE 242 or equivalent

7. REMOVE CONTROL RETAINER

(a) Remove the 4 bolts, control retainer and gasket.
Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)

HINT:
At the time of installation, install a new gasket.

(b) w/o One Touch 2–4 Selector System:
Remove the select return spring from the retainer.

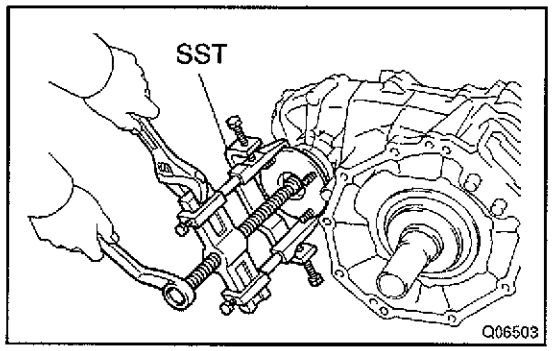


8. REMOVE FRONT COMPANION FLANGE

(a) Using a chisel and hammer, loosen the staked part of the nut.

HINT:
At the time of installation, stake a new lock nut.

(b) Using SST to hold the flange, remove the companion flange lock nut.
SST 09330–00021
Torque: 118 N·m (1,200 kgf·cm, 87 ft·lbf)



(c) Using SST, remove the companion flange.
SST 09950–40010

9. REMOVE REAR COMPANION FLANGE

Remove the rear companion flange in the same way as the front companion flange.

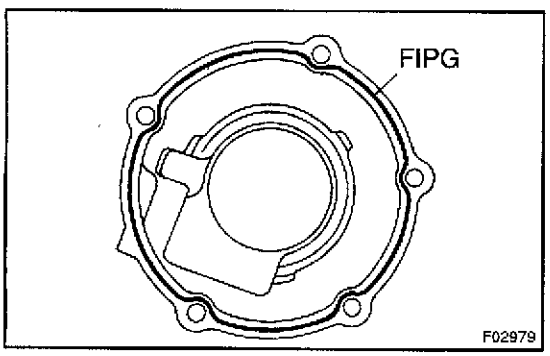
HINT:
At the time of installation, please refer to the following items.
- Front companion flange bolts are silver.
- Rear companion flange bolts are black.

10. REMOVE EXTENSION HOUSING

(a) Remove the 5 bolts.
Torque: 11.5 N·m (115 kgf·cm, 8 ft·lbf)

HINT:
At the time of installation, apply liquid sealer to the bolts.
Sealant:
Part No.08833–00080, THREE BOND 1344,
LOCTITE 242 or equivalent

(b) Using a plastic hammer, tap the extension housing and remove it.



HINT:
At the time of installation, please refer to the following items.
- Remove any FIPG material and be careful not to drop oil on the contacting surfaces of the extension housing.
- Apply FIPG to the extension housing, as shown.
FIPG:
Part No.08826–00090,
THREE BOND 1281 or equivalent

11. REMOVE SPEEDOMETER DRIVE GEAR

(a) Remove the speedometer drive gear.

HINT:

At the time of installation, please refer to the following item.

Make sure to install the speedometer drive gear in the correct direction.

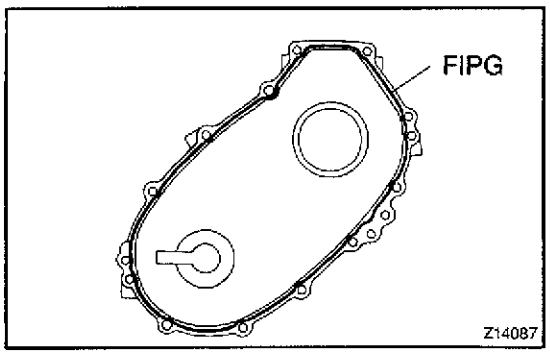
(b) Using a magnetic finger, remove the ball from the rear output shaft.

12. SEPARATE FRONT CASE AND REAR CASE

(a) Remove the 12 bolts.

Torque: 28 N·m (285 kgf·cm, 20 ft·lbf)

(b) Using a plastic hammer, tap the rear case and separate the front case and rear case.



HINT:

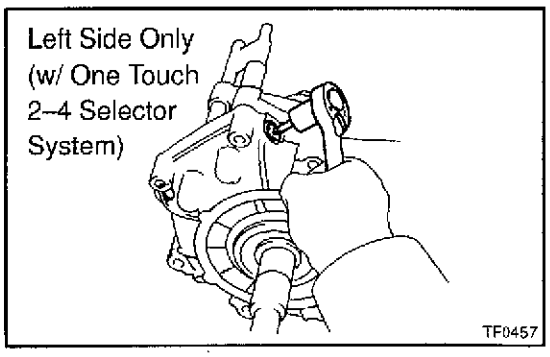
At the time of installation, please refer to the following items.

- Shift the high and low clutch sleeve to low side (rear side) and assemble the front case and rear case.
- Remove any FIPG material and be careful not to drop oil on the contacting surfaces of the rear case.
- Apply FIPG to the rear case, as shown.

FIPG:

Part No.08826–00090,

THREE BOND 1281 or equivalent



13. REMOVE STRAIGHT SCREW PLUG, SPRING AND LOCKING BALL

(a) Using a hexagon wrench, remove the 1 or 2 screws.

Torque: 18.6 N·m (190 kgf·cm, 14 ft·lbf)

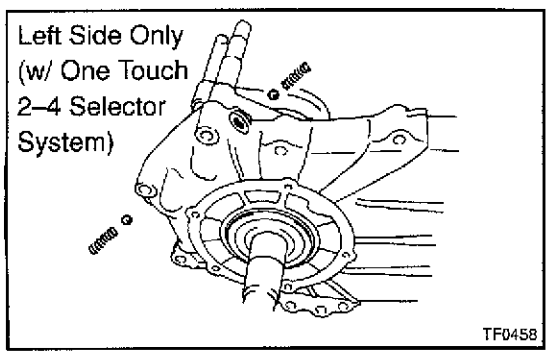
HINT:

At the time of installation, apply liquid sealer to the plugs.

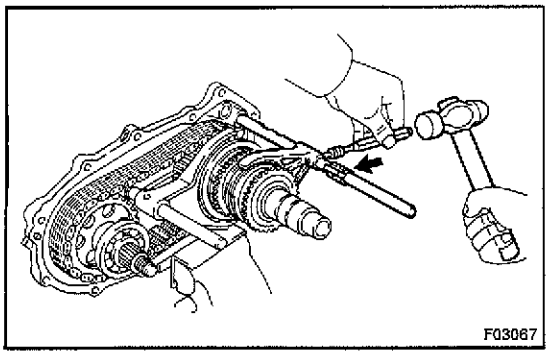
Sealant:

Part No.08833–00080, THREE BOND 1344,

LOCTITE 242 or equivalent



(b) Using a magnetic finger, remove the 1 or 2 springs and balls from the both holes.



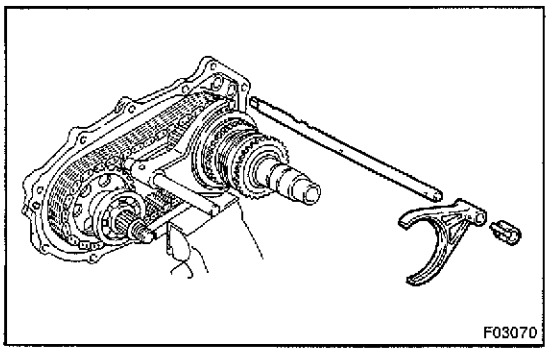
14. w/ One Touch 2–4 Selector System:
REMOVE HIGH AND LOW FORK SHAFT, SHIFT FORK AND SHIFT HEAD NO.2

(a) Mount the rear case in a vise.

NOTICE:

Be careful not to damage the sealing surface.

(b) Using a pin punch and hammer, drive out the 2 slotted spring pins.

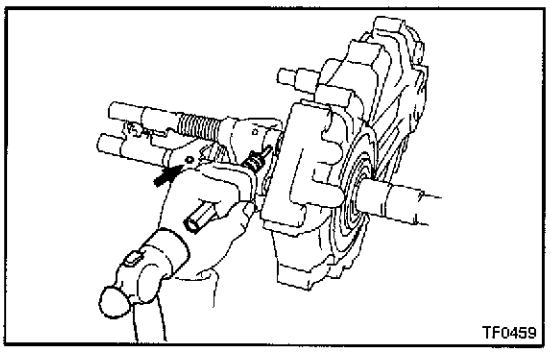


(c) Remove high and low fork shaft, shift fork and shift gear head No.2.

HINT:

At the time of installation, please refer to the following items.

- Place the high and low shift fork into the groove of the clutch sleeve.
- Make sure to install the shift fork and shift gear head No.2 in the correct direction.

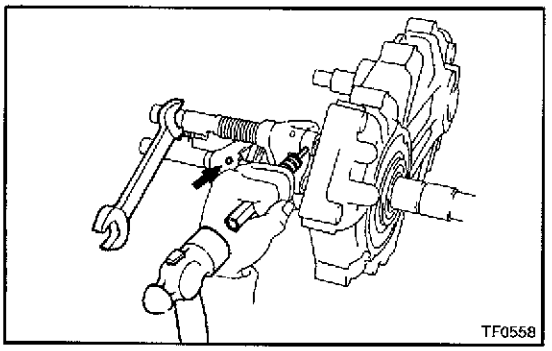


15. w/o One Touch 2–4 Selector System:
REMOVE FRONT DRIVE FORK SHAFT, SHIFT FORK, SPRING AND STOPPER

(a) Using a pin punch and hammer, drive out the 2 slotted spring pins.

HINT:

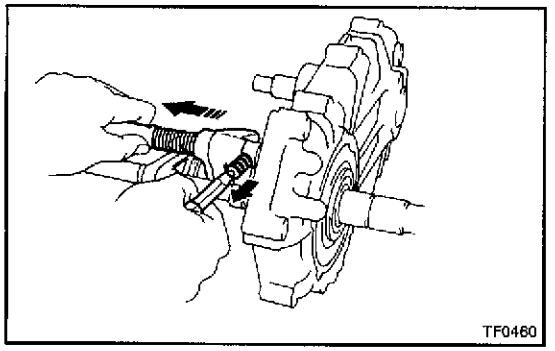
When the pin is removed from the front drive fork shaft, the shaft will spring loose if the pin punch is removed, so keep the pin punch inserted in the shaft hole.



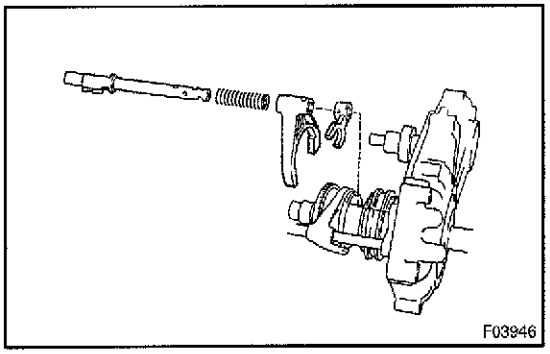
HINT:

At the time of installation, please refer to the following item.

When installing the pin in the front drive fork shaft, push the shaft towards the rear case and install the pin while the spring is compressed.



(b) Hold the front drive fork shaft in place by hand, when removing the pin punch.

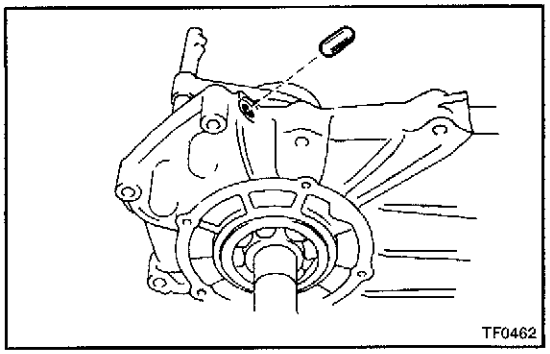


(c) Remove the front drive fork shaft, spring, fork and stopper.

HINT:

At the time of installation, please refer to the following items.

- Place the front drive shift fork into the groove of the clutch sleeve.
- Make sure to install the shift fork and stopper in the correct direction.

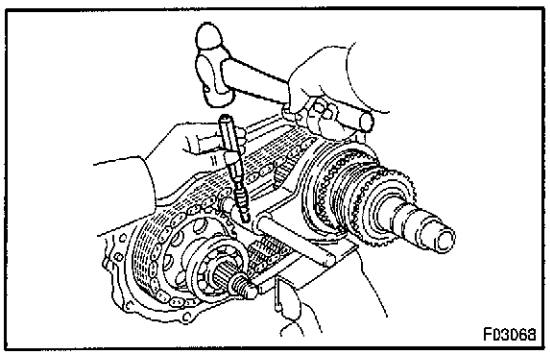


(d) Using a magnetic finger, remove the straight pin.

HINT:

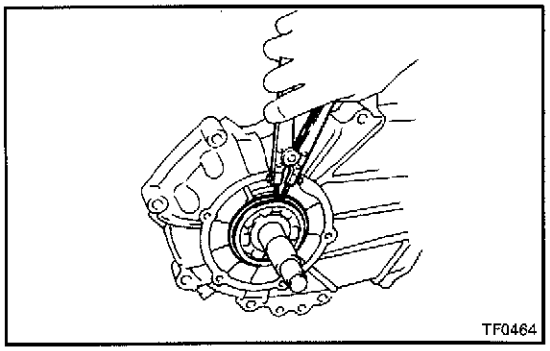
At the time of installation, please refer to the following item.

Apply gear oil to the straight pin and insert it into the case hole.

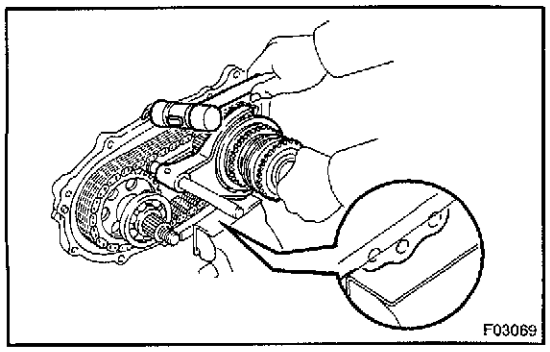


16. w/ One Touch 2–4 Selector System:
REMOVE REAR OUTPUT SHAFT, DRIVEN SPROCKET, CHAIN AND FRONT DRIVE SHIFT FORK

(a) Using a pin punch and hammer, drive out the slotted spring pins.



(b) Using a snap ring expander, remove the snap ring.



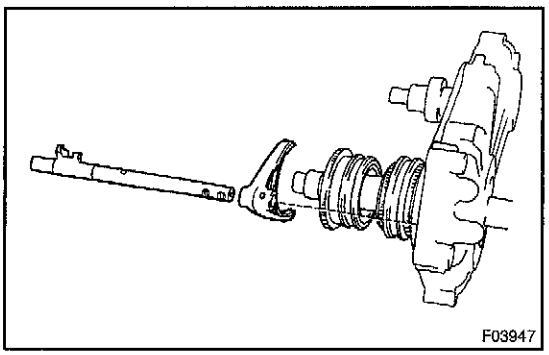
(c) Using a plastic hammer, tap the rear case with pulling the rear output shaft, driven sprocket and front drive shift fork.

HINT:

At the time of installation, please refer to the following items.

- Place the front drive shift fork into the groove of the clutch sleeve.
- Make sure to install the shift fork in the correct direction.
- If necessary, heat the rear case to about 50 – 80 °C (122 – 176 °F).

(d) Remove the chain.

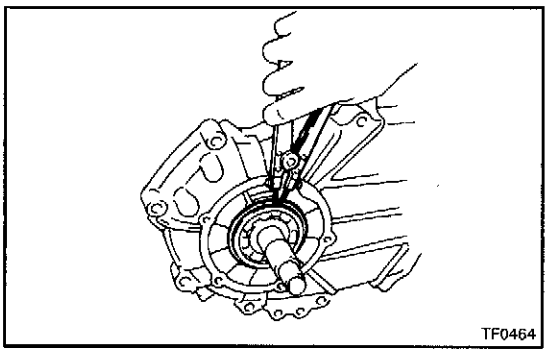


17. w/o One Touch 2–4 Selector System: REMOVE HIGH AND LOW FORK SHAFT AND SHIFT FORK

HINT:

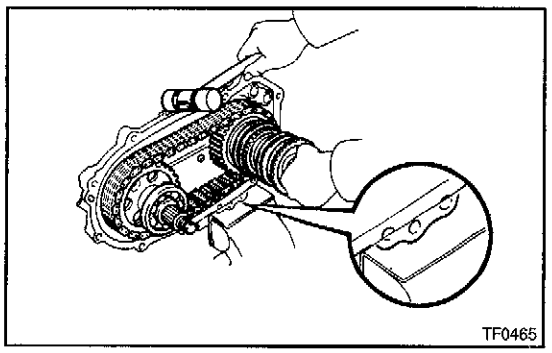
At the time of installation, please refer to the following items.

- Place the high and low shift fork into the groove of the clutch sleeve.
- Make sure to install the shift fork in the correct direction.



18. REMOVE REAR OUTPUT SHAFT, DRIVEN SPROCKET AND CHAIN

(a) Using a snap ring expander, remove the snap ring.



(b) Mount the rear case in the vise.

NOTICE:

Be careful not to damage the sealing surface.

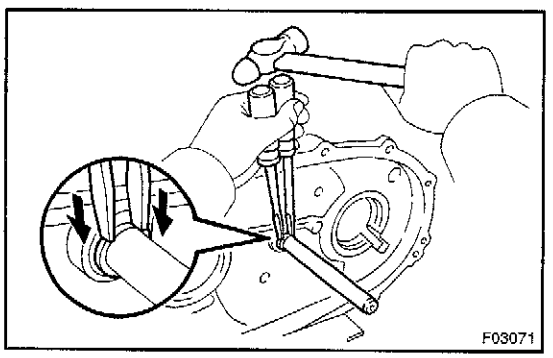
(c) Using a plastic hammer, tap the rear case with pulling the rear output shaft and driven sprocket.

HINT:

At the time of installation, please refer to the following item.

If necessary, heat the rear case to about 50 – 80°C (122 – 176°F).

(d) Remove the chain.

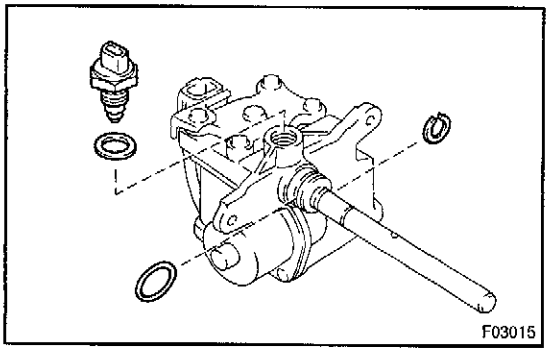


19. w/ One Touch 2–4 Selector System: REMOVE ACTUATOR ASSEMBLY

(a) Using 2 screwdrivers and a hammer, remove the snap ring.

(b) Remove the 3 bolts and the actuator assembly.

Torque: 20 N·m (200 kgf·cm, 14 ft·lbf)



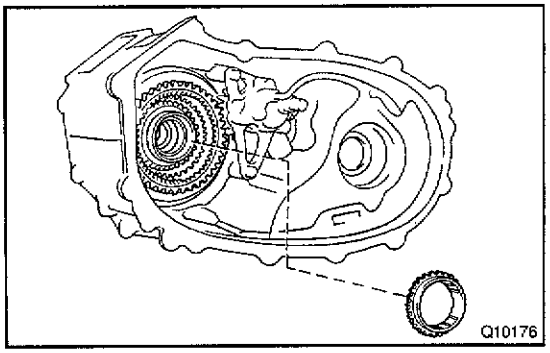
(c) Remove the O–ring, 4WD position switch, gasket and snap ring from the actuator assembly.

Torque: 37 N·m (380 kgf·cm, 27 ft·lbf)

HINT:

At the time of installation, please refer to the following items.

- Install a new gasket.
- Coat a new O–ring with gear oil and install it to the actuator assembly.



20. REMOVE SYNCHRONIZER RING FROM INPUT SHAFT

HINT:

At the time of installation, please refer to the following items.

- Apply gear oil to the synchronizer ring.
- Align the synchronizer ring slots with the shifting keys, and install the ring on the high and low clutch hub.

21. REMOVE SEPARATOR WITH OIL STRAINER

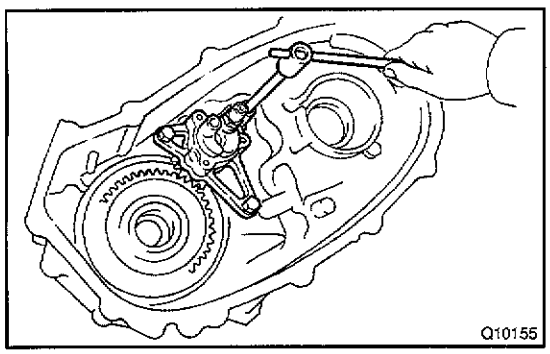
(a) Remove the 3 bolts and the separator with the oil strainer.
Torque: 7.5 N·m (80 kgf·cm, 69 in.·lbf)

(b) Remove the O–ring from the oil strainer pipe.

HINT:

At the time of installation, please refer to the following item.

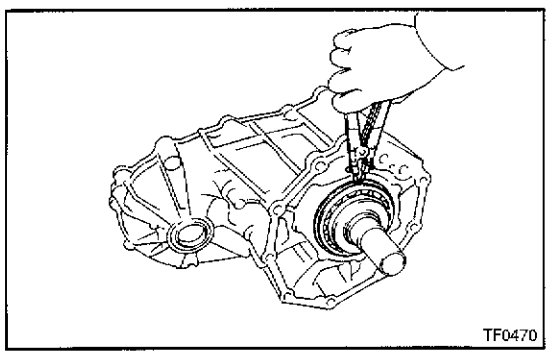
Coat a new O–ring with gear oil and install it to the oil strainer pipe.



22. REMOVE OIL PUMP BODY ASSEMBLY

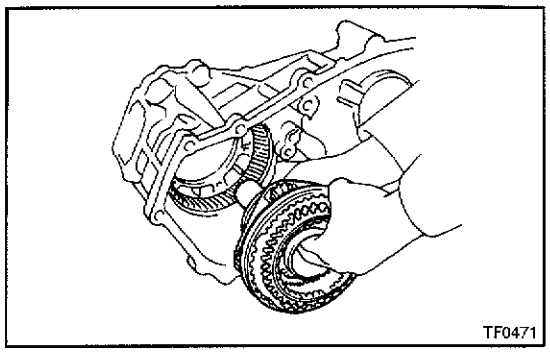
Remove the 3 bolts and the oil pump body assembly.
Torque: 7.5 N·m (80 kgf·cm, 69 in.·lbf)

23. REMOVE OIL PUMP DRIVE GEAR



24. REMOVE PLANETARY GEAR ASSEMBLY WITH INPUT SHAFT

(a) Using a snap ring expander, remove the snap ring.

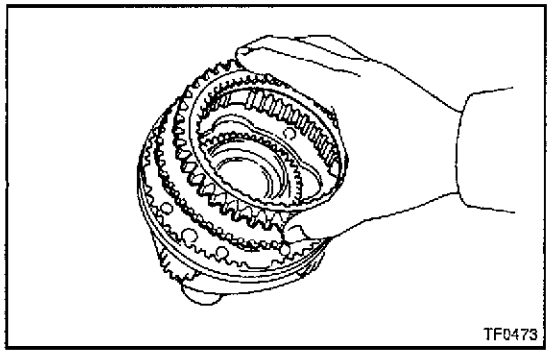


(b) Pull out the planetary gear assembly with the input shaft.

HINT:

At the time of installation, please refer to the following item.

If necessary, heat the front case to about 50 – 80°C (122 – 176°F).


TF0473

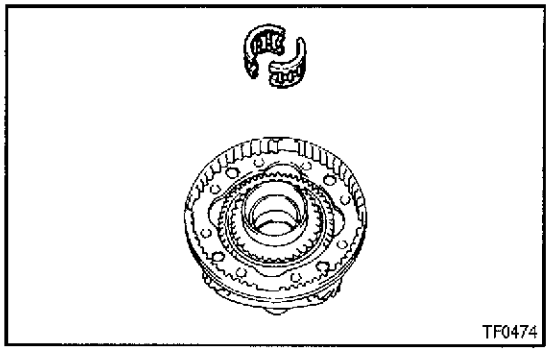
25. REMOVE LOW GEAR SPLINE PIECE

(a) Using a screwdriver, remove the snap ring.

HINT:

At the time of installation, please refer to the following item.
Be sure the end gap of the snap ring is not aligned with cutout portion of the planetary carrier.

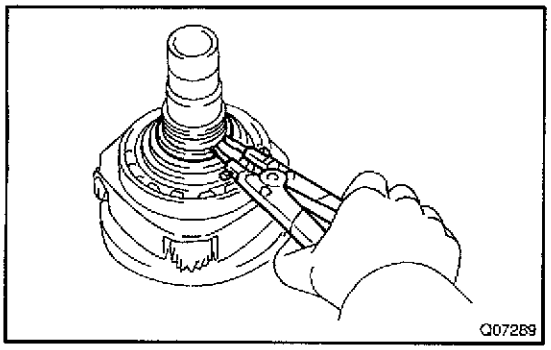
(b) Remove the low gear spline piece.


TF0474

26. REMOVE NEEDLE ROLLER BEARING FROM INPUT SHAFT

HINT:

At the time of installation, please refer to the following item.
Apply gear oil to the needle roller bearing.


Q07289

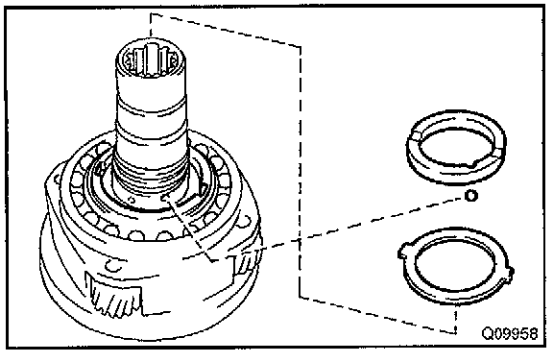
27. REMOVE INPUT GEAR STOPPER AND THRUST WASHER

(a) Using a snap ring expander, remove the snap ring.

HINT:

At the time of installation, please refer to the following item.
Select a snap ring that will allow 0.05 – 0.15 mm (0.0020 – 0.0059 in.) axial play.

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	2.55 – 2.60 (0.1004 – 0.1024)
L	2.60 – 2.65 (0.1024 – 0.1043)
M	2.65 – 2.70 (0.1043 – 0.1063)
N	2.70 – 2.75 (0.1063 – 0.1083)
P	2.75 – 2.80 (0.1083 – 0.1102)
Q	2.80 – 2.85 (0.1102 – 0.1122)
R	2.85 – 2.90 (0.1122 – 0.1142)
S	2.90 – 2.95 (0.1142 – 0.1161)
T	2.95 – 3.00 (0.1161 – 0.1181)
U	3.00 – 3.05 (0.1181 – 0.1201)

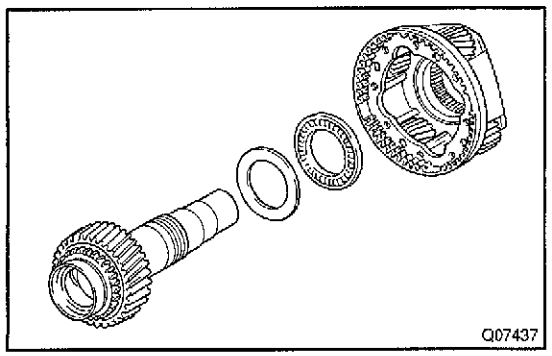


(b) Remove the input gear stopper, thrust washer and ball.

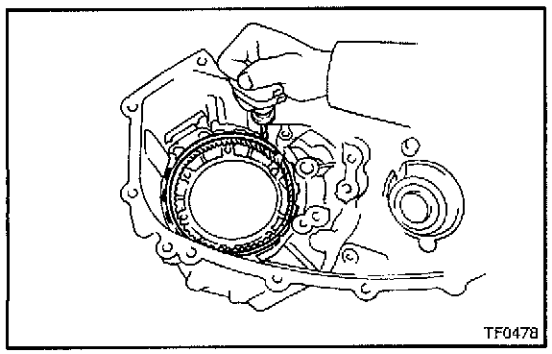
HINT:

At the time of installation, please refer to the following item.

Apply gear oil to the input gear stopper and thrust washer.



28. REMOVE INPUT SHAFT, THRUST BEARING AND RACE



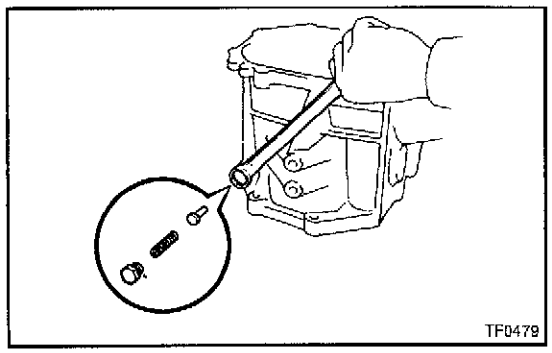
29. REMOVE PLANETARY RING GEAR

(a) Using a screwdriver, remove the snap ring.

HINT:

At the time of installation, please refer to the following item.

Be sure the end gap of the snap ring is not aligned with the upper side of the case.



(b) Remove the plug, spring and pin.

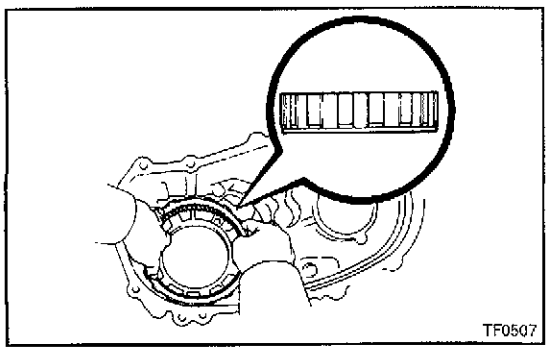
Torque: 18.6 N·m (190 kgf·cm, 14 ft·lbf)

HINT:

At the time of installation, please refer to the following item.

Apply liquid sealer to the plug.

Sealant:
Part No.08833–00080, THREE BOND 1344, LOCTITE 242 or equivalent

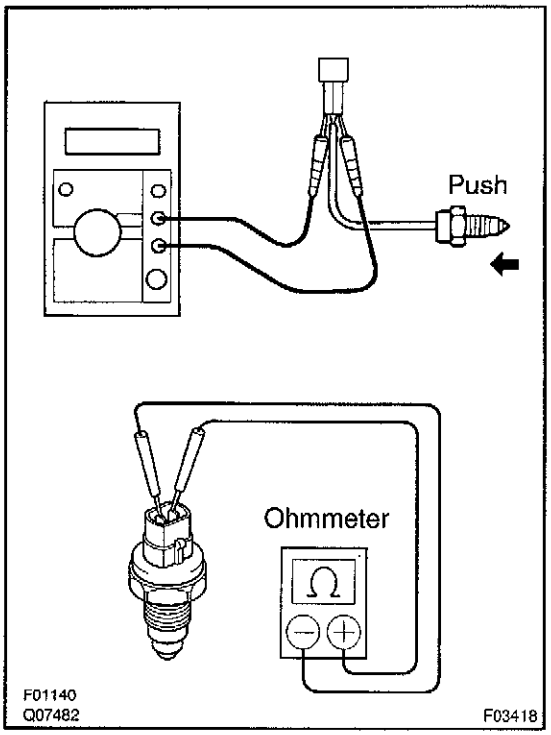


(c) Remove the planetary ring gear.

HINT:

At the time of installation, please refer to the following item.

Make sure to install the ring gear in the correct direction.



30. INSPECT SWITCHES

Check that continuity exists between terminals, as shown.

Switch Position	Specified Condition
Push	Continuity
Free	No continuity

If operation is not as specified, replace the switch.

TR035-01

REASSEMBLY

Reassembly is in the reverse order of disassembly (See page TR–10).

HINT:

Coat all of the sliding and rotating surfaces with gear oil before assembly.