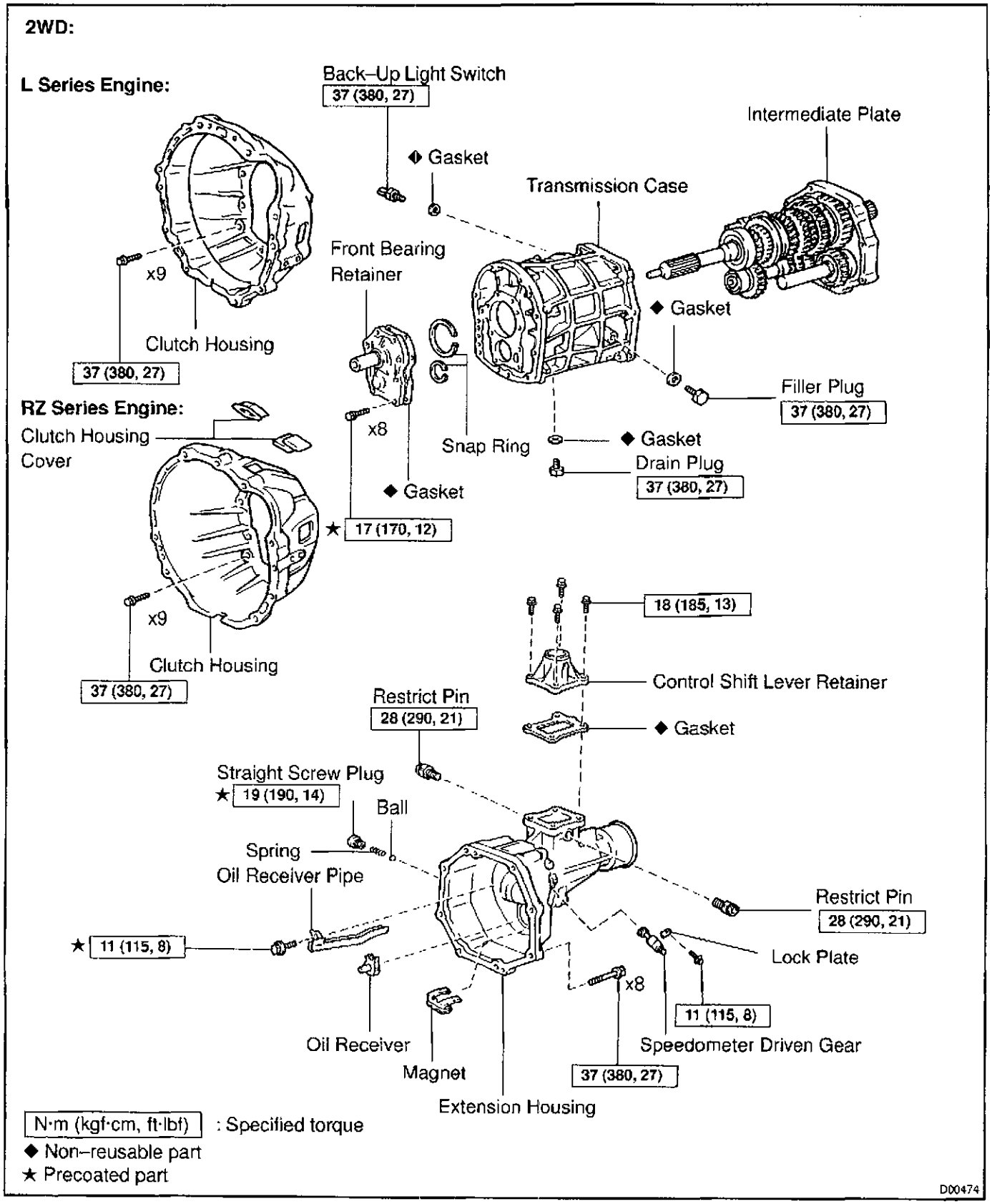
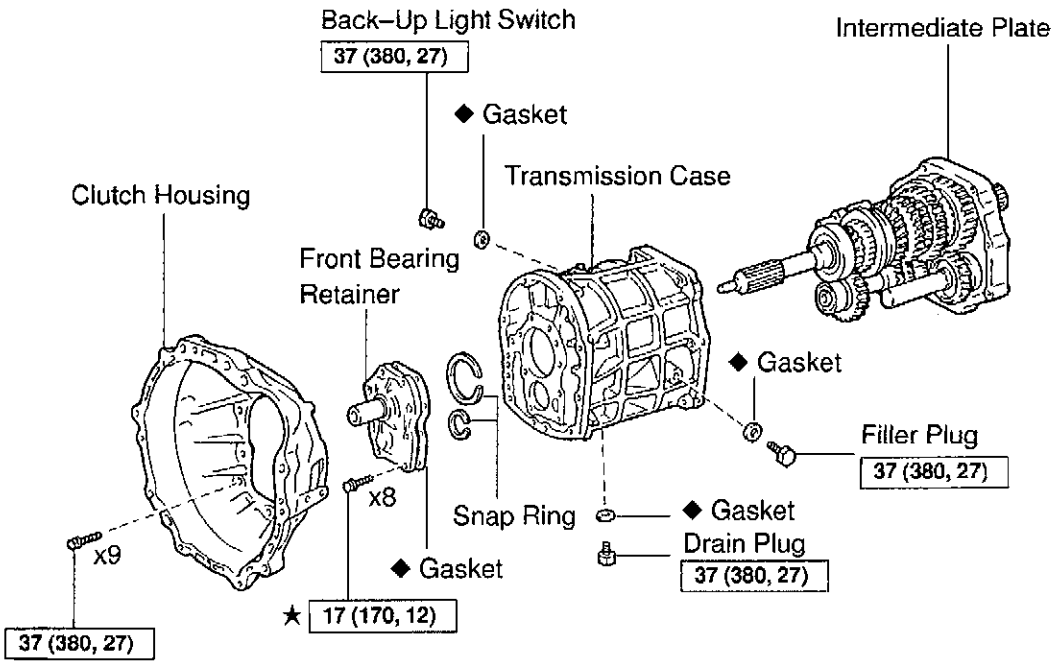
MANUAL TRANSMISSION ASSEMBLY

COMPONENTS

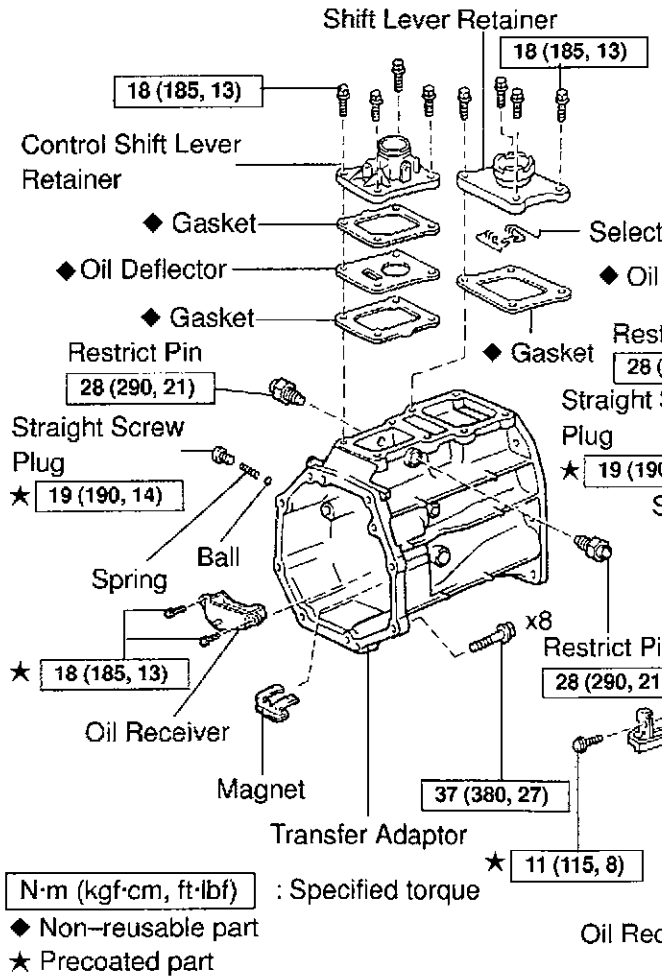
MT0G2-01



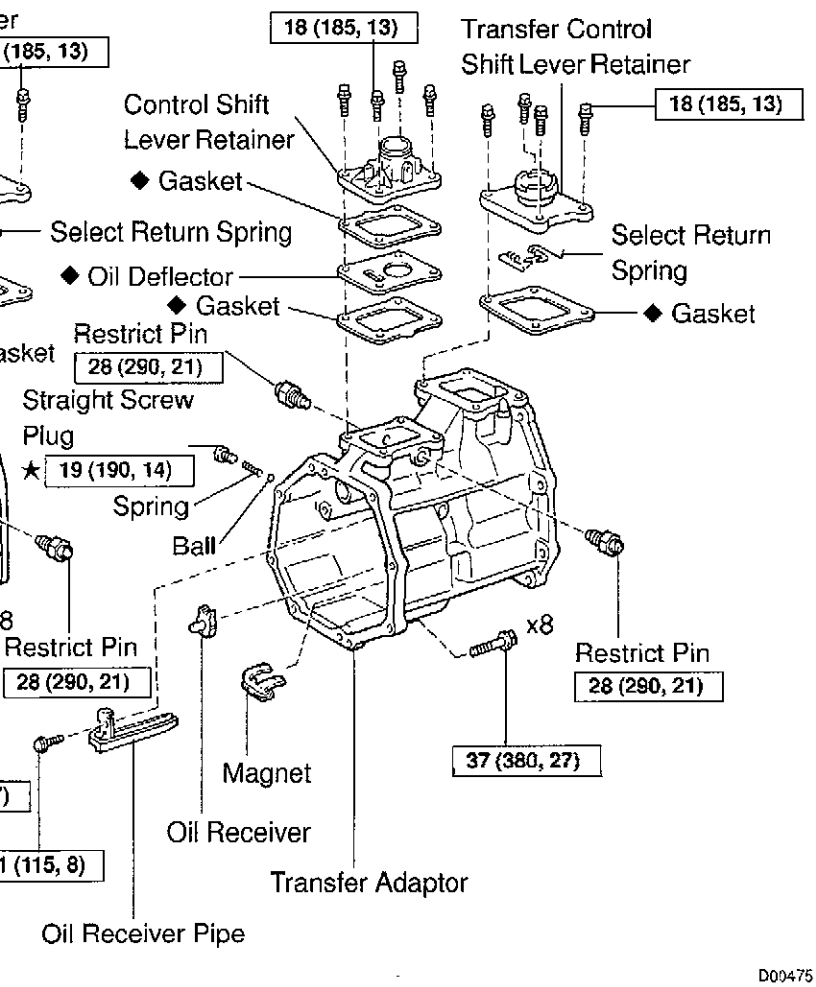
4WD:



RF Type Transfer:

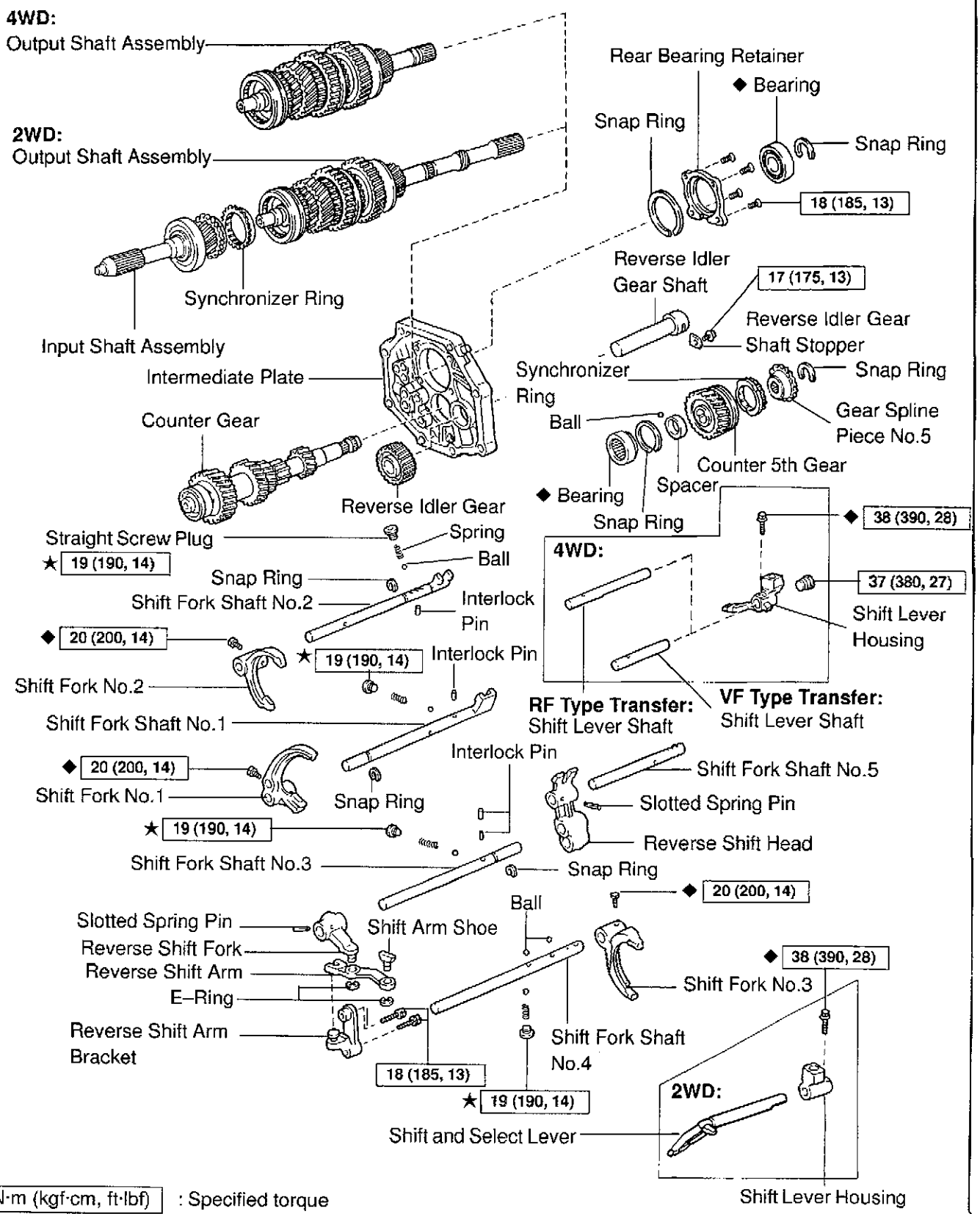


VF Type Transfer:



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

D00475



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

D00476

MT053-01

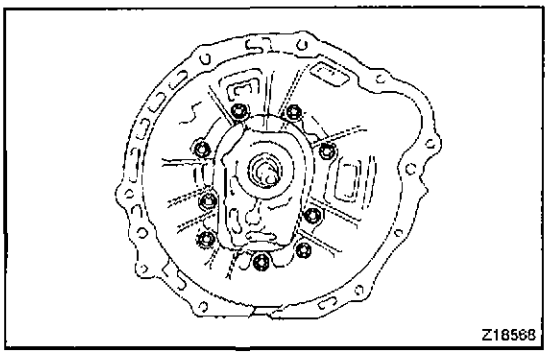
DISASSEMBLY

1. **2WD:**
   REMOVE SPEEDOMETER DRIVEN GEAR

Remove the bolt, lock plate and driven gear.

Torque: 11 N·m (115 kgf·cm, 8 ft·lbf)

2. **REMOVE BACK–UP LIGHT SWITCH AND GASKET**
   Torque: 37 N·m (380 kgf·cm, 27 ft·lbf)

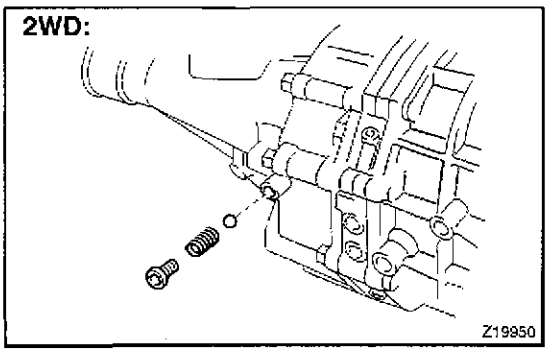


3. **REMOVE CLUTCH HOUSING**

Remove the 9 bolts and clutch housing.

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

2WD:



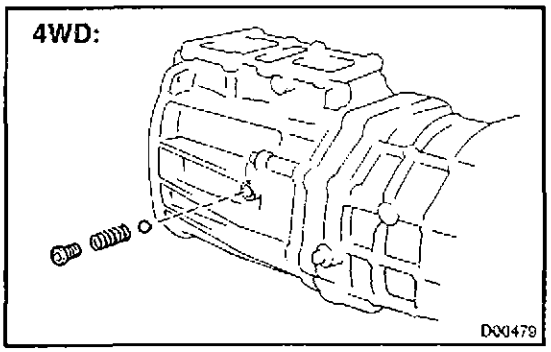
4. **REMOVE STRAIGHT SCREW PLUG, SPRING AND BALL**

(a) Using a torx socket wrench (T40), remove the screw plug from the extension housing (2WD) or transfer adaptor (4WD).

Sealant:
Part No. 08833 – 00080, THREE BOND 1344, LOCTITE 242 or equivalent
Torque: 19 N·m (190 kgf·cm, 14 ft·lbf)

(b) Using a magnetic finger, remove the spring and ball.

4WD:



5. REMOVE TRANSFER CONTROL SHIFT LEVER RETAINER

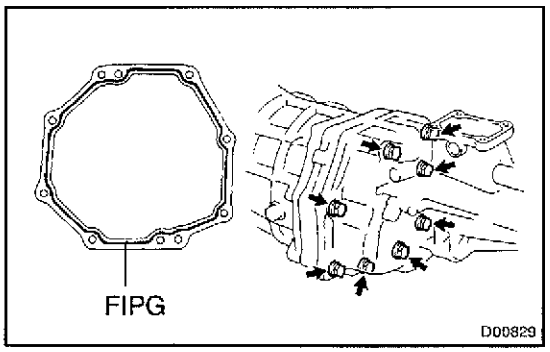
(a) Remove the 4 bolts, retainer and gasket.
Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)

(b) Remove the select return spring from the retainer.

6. REMOVE CONTROL SHIFT LEVER RETAINER

Remove the 4 bolts, 2 gaskets, oil deflector and retainer.
Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)

7. REMOVE 2 RESTRICT PINS
Torque: 28 N·m (290 kgf·cm, 21 ft·lbf)



8. 2WD:
REMOVE EXTENSION HOUSING

(a) Remove the shift lever housing set bolt.
Torque: 38 N·m (390 kgf·cm, 28 ft·lbf)

(b) Remove the 8 bolts.
Torque: 37 N·m (390 kgf·cm, 27 ft·lbf)

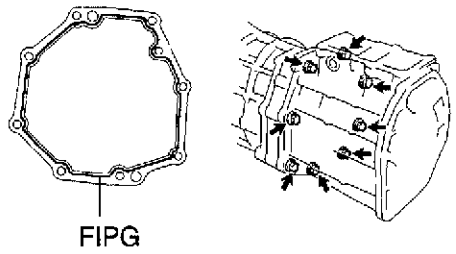
(c) Using a plastic hammer, tap the extension housing and remove it.
FIPG:
Part No. 08826 – 00090, THREE BOND 1281 or equivalent

(d) Remove the shift lever housing and the shift and select lever.

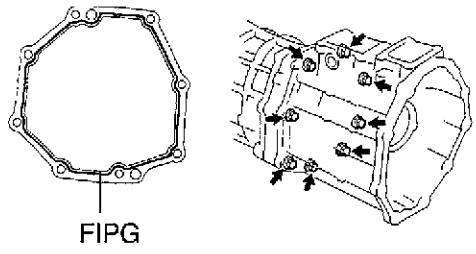
(e) Remove the bolt and oil receiver pipe from the extension housing.
Sealant:
Part No. 08833 – 00080, THREE BOND 1344, LOCTITE 242 or equivalent
Torque: 11 N·m (115 kgf·cm, 8 ft·lbf)

(f) Remove the oil receiver and magnet from the extension housing.

RF Type Transfer:



VF Type Transfer:



9. 4WD:

REMOVE TRANSFER ADAPTOR

(a) Remove the shift lever housing set bolt.
Torque: 38 N·m (390 kgf·cm, 28 ft·lbf)

(b) Remove the 8 bolts.
Torque: 37 N·m (390 kgf·cm, 27 ft·lbf)

(c) Using a plastic hammer, tap the transfer adaptor and remove it.
FIPG:
Part No. 08826 – 00090, THREE BOND 1281 or equivalent

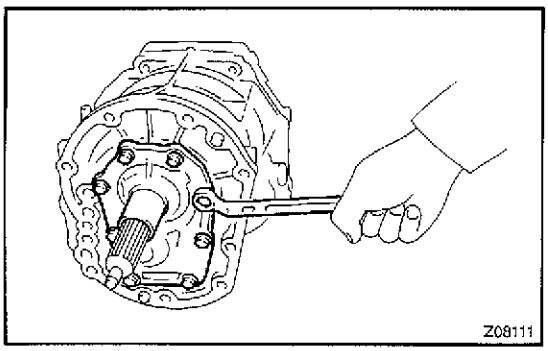
(d) Remove the shift lever housing and shift lever shaft.

(e) VF Type Transfer:
Remove the bolt and oil receiver pipe from the transfer adaptor.
Sealant:
Part No. 08833 – 00080, THREE BOND 1344, LOCTITE 242 or equivalent
Torque: 11 N·m (115 kgf·cm, 8 ft·lbf)

(f) RF Type Transfer:
Remove the 2 bolts and oil receiver from the transfer adaptor.
Sealant:
Part No. 08833 – 00080, THREE BOND 1344, LOCTITE 242 or equivalent
Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)

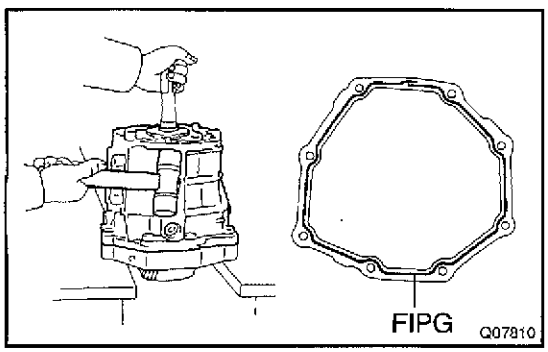
(g) VF Type Transfer:
Remove the oil receiver from the transfer adaptor.

(h) Remove the magnet from the transfer adaptor.



10. REMOVE FRONT BEARING RETAINER

Remove the 8 bolts, gasket and retainer.
Sealant:
Part No. 08833 – 00080, THREE BOND 1344, LOCTITE 242 or equivalent
Torque: 17 N·m (170 kgf·cm, 12 ft·lbf)

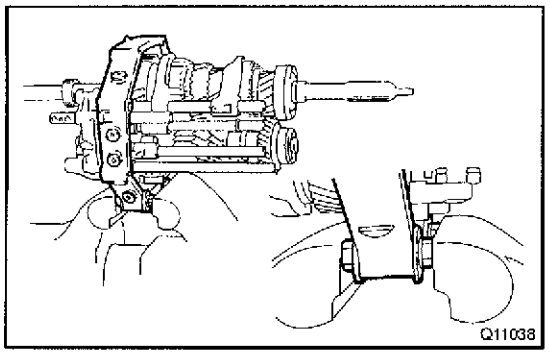


11. SEPARATE INTERMEDIATE PLATE FROM TRANSMISSION CASE

(a) Using a snap ring expander, remove the 2 snap rings from the input shaft and counter gear.

(b) Stand the transmission, as shown.

(c) Using a plastic hammer, carefully tap the transmission case and remove it.
FIPG:
Part No. 08826 – 00090, THREE BOND 1281 or equivalent



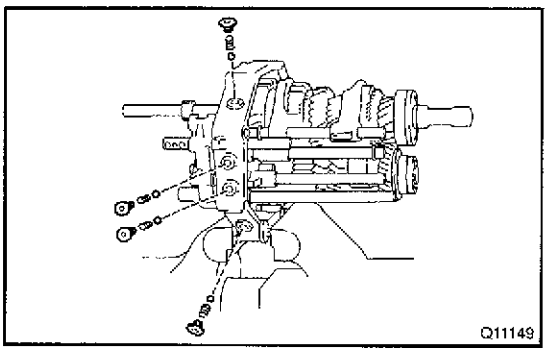
12. MOUNT INTERMEDIATE PLATE IN VISE

(a) Use the 2 clutch housing bolts, plate washers and suitable nuts, as shown.

HINT:

Increase or decrease plate washers so that the bolt tip does not protrude from the nut.

(b) Mount the intermediate plate in a vise.

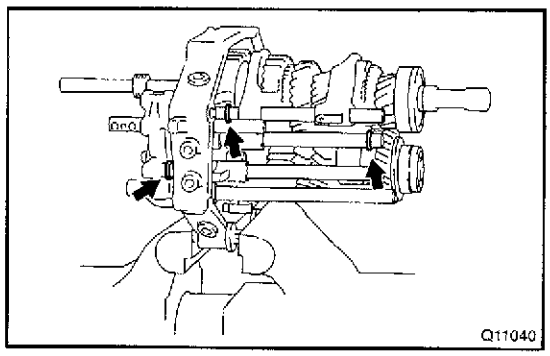


13. REMOVE STRAIGHT SCREW PLUG, SPRING AND BALL

(a) Using a torx socket wrench (T40), remove the 4 screw plugs from the intermediate plate.

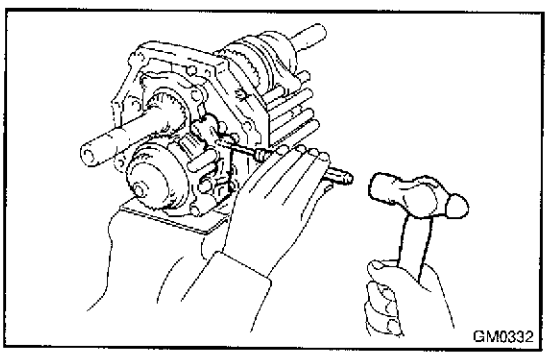
Sealant:
Part No. 08833 – 00080, THREE BOND 1344, LOCTITE 242 or equivalent
Torque: 19 N·m (190 kgf·cm, 14 ft·lbf)

(b) Using a magnetic finger, remove the 4 springs and balls.



14. REMOVE SHIFT FORK SHAFT SNAP RING

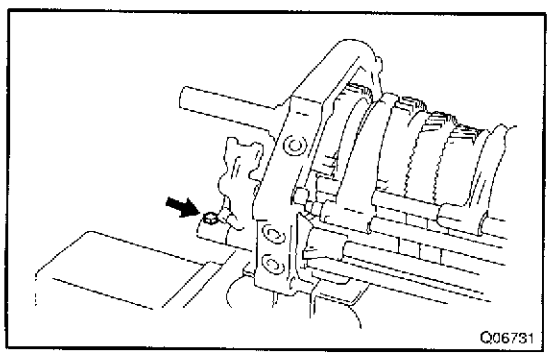
Using 2 screwdrivers and a hammer, drive out the 3 snap rings.



15. REMOVE SHIFT FORK SHAFT NO.5

(a) Using a pin punch and hammer, drive out the slotted spring pin from the reverse shift head.

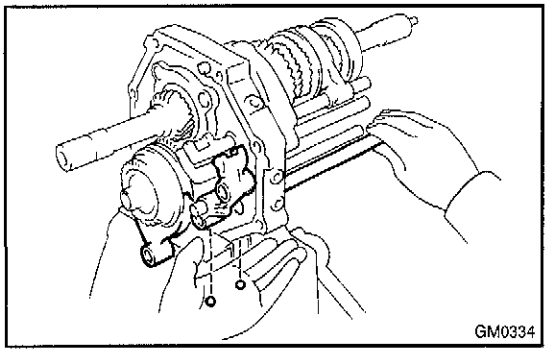
(b) Remove the shift fork shaft No.5.



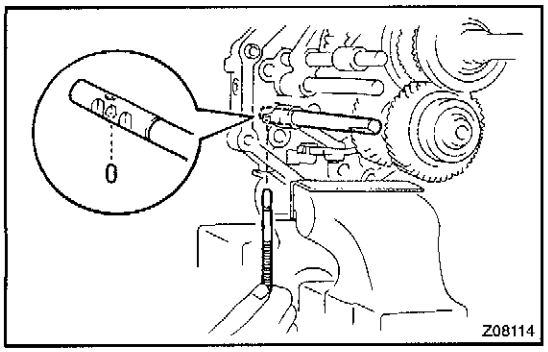
16. REMOVE SHIFT FORK NO.3, SHIFT FORK SHAFT NO.4 AND REVERSE SHIFT HEAD

(a) Remove the shift fork No.3 set bolt.

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

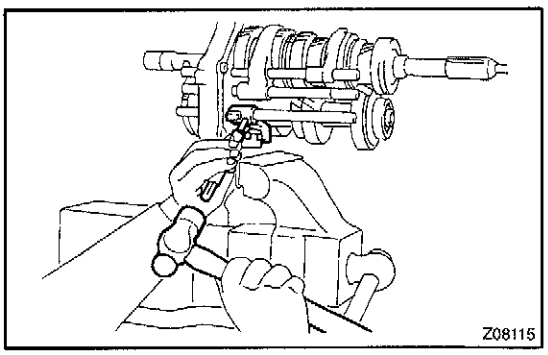


(b) Remove the shift fork No.3, shift fork shaft No.4, reverse shift head and 2 balls.

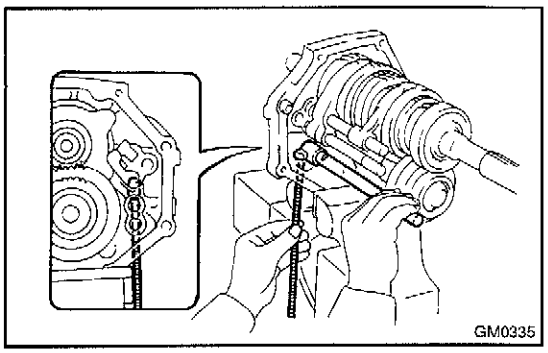


17. REMOVE REVERSE SHIFT ARM, REVERSE SHIFT FORK AND SHIFT FORK SHAFT NO.3

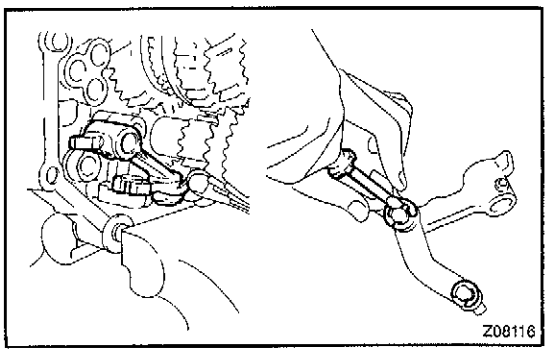
(a) Using a magnetic finger, remove the interlock pin from the shift fork shaft No.3.



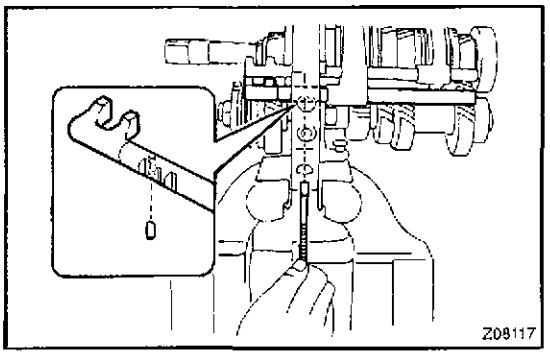
(b) Using a pin punch and hammer, drive out the slotted spring pin from the reverse shift fork.



(c) Remove the shift fork shaft No.3.
(d) Using a magnetic finger, remove the interlock pin.

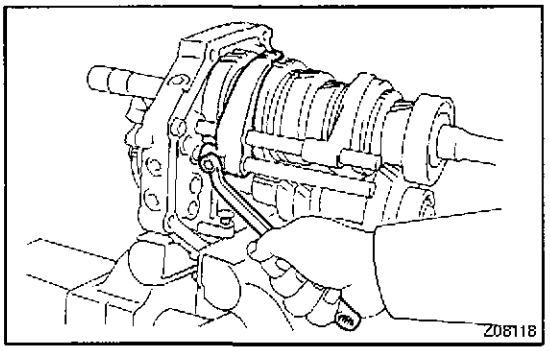


(e) Remove the reverse shift arm and fork.
(f) Using a screwdriver, remove the 2 E–rings.
(g) Separate the shift arm, fork and shoe.

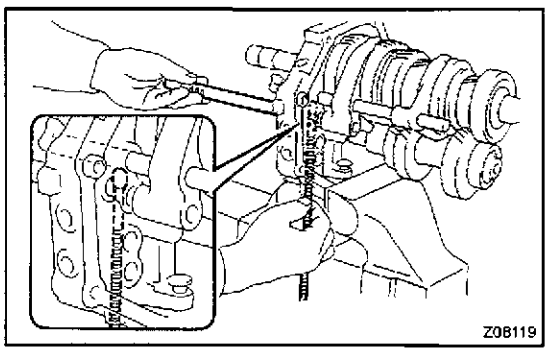


18. REMOVE SHIFT FORK SHAFTS NO.1, NO.2 AND SHIFT FORKS NO.1, NO.2

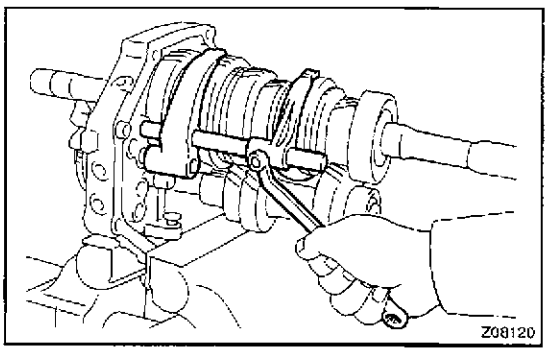
(a) Using a magnetic finger, remove the interlock pin from the shift fork shaft No.2.



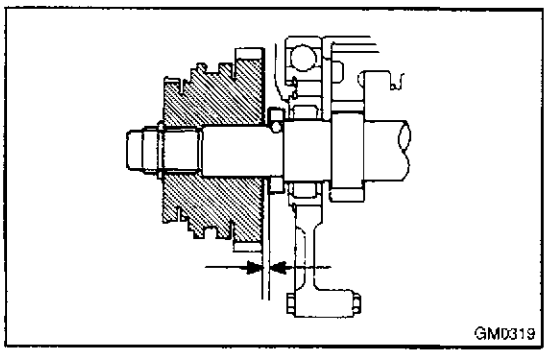
(b) Remove the shift fork No.1 set bolt.
Torque: 20 N·m (200 kgf·cm, 14 ft·lbf)



(c) Remove the shift fork shaft No.1.
(d) Using a magnetic finger, remove the interlock pin.



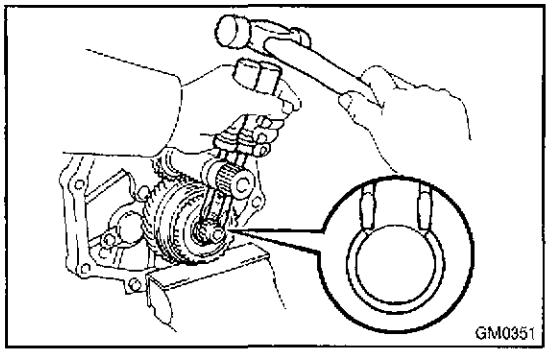
(e) Remove the shift fork No.2 set bolt.
Torque: 20 N·m (200 kgf·cm, 14 ft·lbf)
(f) Remove the shift forks No.1, No.2 and shift fork shaft No.2.



19. MEASURE COUNTER 5TH GEAR THRUST CLEARANCE

Using a feeler gauge, measure the counter 5th gear thrust clearance.

Standard clearance:
0.10–0.30 mm (0.0039–0.0118 in.)
Maximum clearance:
0.35 mm (0.0138 in.)

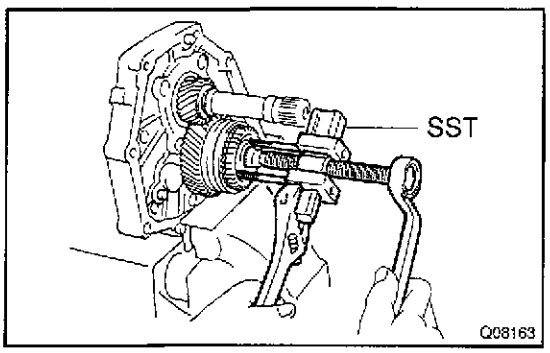


20. REMOVE GEAR SPLINE PIECE NO.5, SYNCHRONIZER RING, NEEDLE ROLLER BEARING AND COUNTER 5TH GEAR WITH HUB SLEEVE NO.3

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

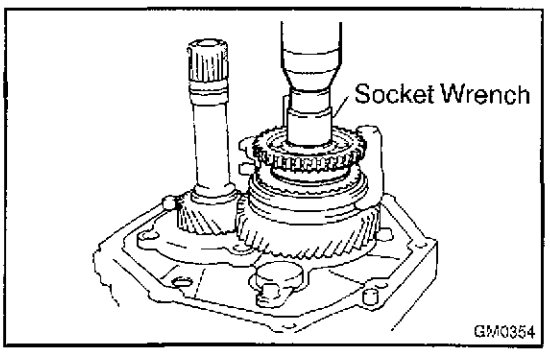
HINT:
At the time of reassembly, please refer to the following item.
Select a snap ring that allows the minimum axial play.

Mark	Thickness mm (in.)
A	2.80–2.85 (0.110–0.112)
B	2.85–2.90 (0.112–0.114)
C	2.90–2.95 (0.114–0.116)
D	2.95–3.00 (0.116–0.118)
E	3.00–3.05 (0.118–0.120)
F	3.05–3.10 (0.120–0.122)
G	3.10–3.15 (0.122–0.124)

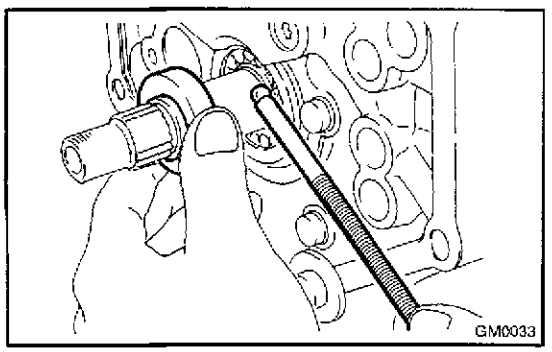


(b) Using SST, remove the gear spline piece No.5.
SST 09950–50010

(c) Remove the synchronizer ring, needle roller bearing and counter 5th gear.



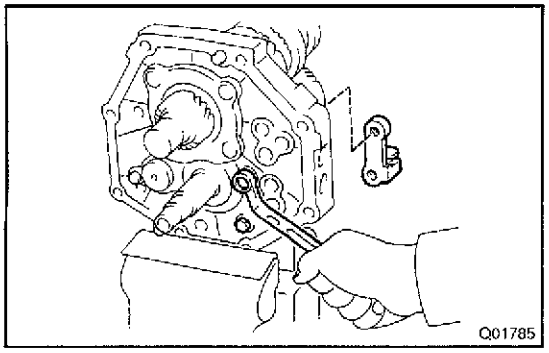
HINT:
At the time of reassembly, please refer to the following item.
Using a press and socket wrench, install the gear spline piece No.5 with the synchronizer ring slots aligned with the shifting keys.



21. REMOVE SPACER AND BALL

(a) Remove the spacer.

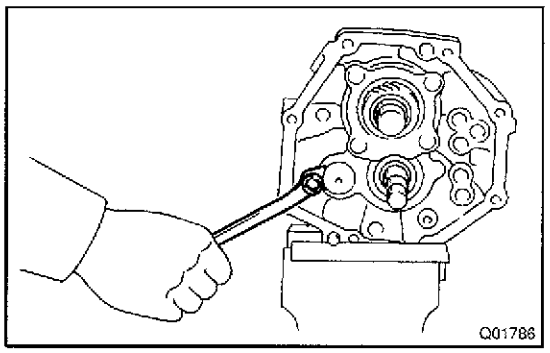
(b) Using a magnetic finger, remove the ball.



22. REMOVE REVERSE SHIFT ARM BRACKET

Remove the 2 bolts and reverse shift arm bracket.

Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)

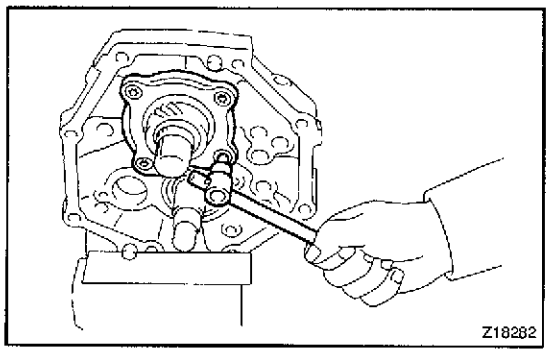


23. REMOVE REVERSE IDLER GEAR AND SHAFT

(a) Remove the reverse idler gear shaft stopper set bolt and stopper.

Torque: 17 N·m (175 kgf·cm, 13 ft·lbf)

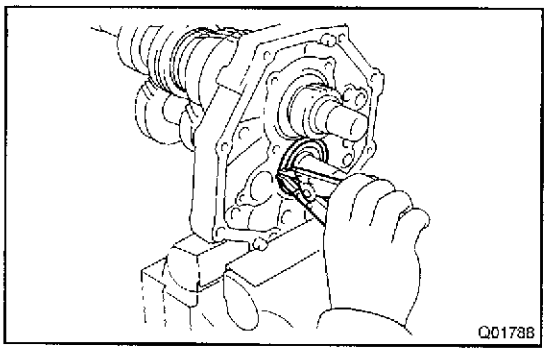
(b) Remove the reverse idler gear and shaft.



24. REMOVE REAR BEARING RETAINER

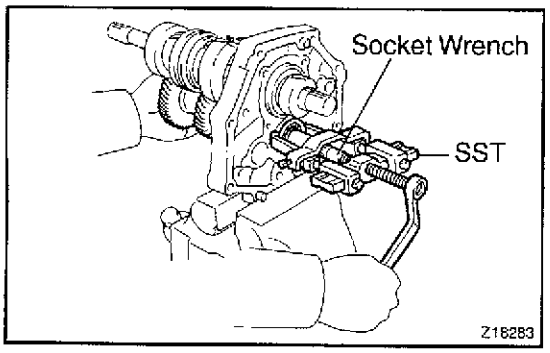
Using a torx socket wrench (T40), remove the 4 screw plugs and retainer.

Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)



25. REMOVE COUNTER GEAR

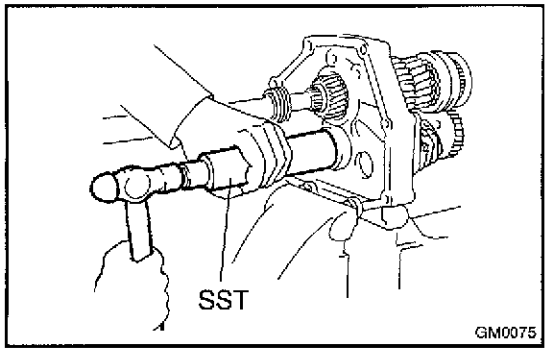
(a) Using a snap ring expander, remove the counter gear rear bearing snap ring.



(b) Using SST and a socket wrench, remove the counter gear rear bearing.

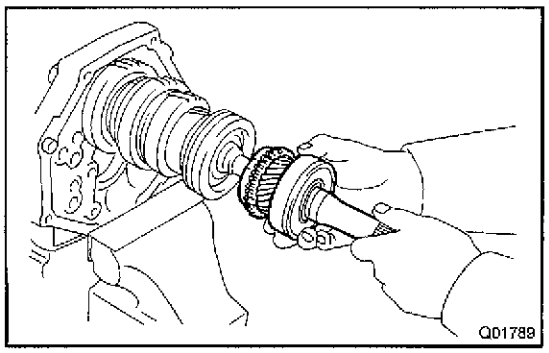
SST 09950–40010

(c) Remove the counter gear.



HINT:
At the time of reassembly, please refer to the following item.
Install the counter gear into the intermediate plate while holding the counter gear, and installing the counter rear bearing with SST.

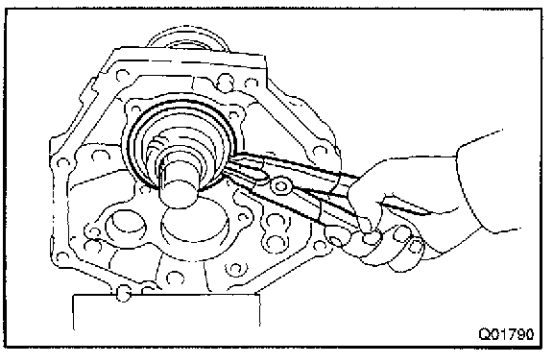
SST 09316–60011 (09316–00011)



26. REMOVE INPUT SHAFT ASSEMBLY

Remove the input shaft with the 13 needle roller bearings and synchronizer ring from the output shaft.

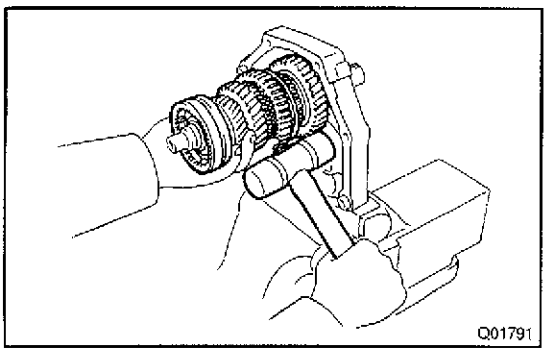
HINT:
At the time of reassembly, please refer to the following item.
Install the input shaft to the output shaft with the synchronizer ring slots aligned with the shifting keys.



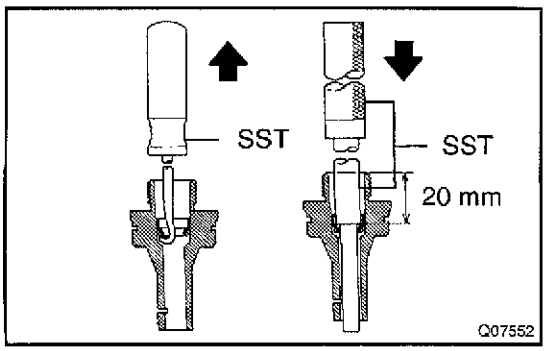
27. REMOVE OUTPUT SHAFT ASSEMBLY

(a) Using a snap ring expander, remove the output shaft center bearing snap ring.

HINT:
At the time of reassembly, please refer to the following item.
Make sure the snap ring is flush with the intermediate plate surface.



(b) Remove the output shaft from the intermediate plate by pulling on the output shaft and tapping on the intermediate plate with a plastic hammer.



28. 2WD:
IF NECESSARY, REPLACE SPEEDOMETER DRIVEN GEAR OIL SEAL

(a) Using SST, remove the oil seal.
SST 09921–00010

(b) Using SST, install a new oil seal.
SST 09201–10000 (09201–01080), 09950–70010 (09951–07150)
Drive in depth: 20 mm (0.79 in.)

(c) Coat the lip of the oil seal with MP grease.

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REASSEMBLY

Reassembly is in the reverse order of disassembly.

(See page MT–22)

HINT:

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