TR081-03

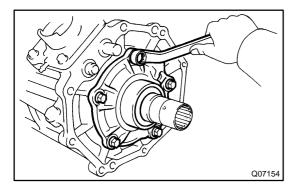
DISASSEMBLY

1. REMOVE VEHICLE SPEED SENSOR ASSEMBLY

- (a) Remove the bolt and vehicle speed sensor assembly.
- (b) Using a small screwdriver, remove the clip and vehicle speed sensor driven gear.
- (c) Using a small screwdriver, remove the O-ring. HINT:

Tape the small screwdriver tip before use.

2. REMOVE L4 POSITION SWITCH, NEUTRAL POSITION SWITCH AND STRAIGHT SCREW PLUG WITH 3 GASKETS



3. REMOVE FRONT BEARING RETAINER

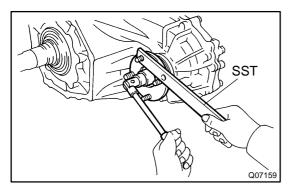
Remove the 5 bolts and front bearing retainer.

HINT:

If necessary, tap the front bearing retainer with a plastic hammer to remove it.

4. REMOVE CONTROL SHIFT LEVER RETAINER

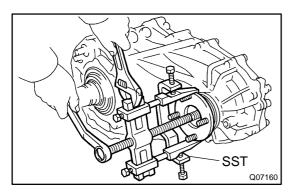
Remove the 4 bolts, control shift lever retainer and oil deflector.



5. REMOVE FRONT COMPANION FLANGE

- (a) Using a chisel and hammer, loosen the staked part of the front companion flange lock nut.
- (b) Using SST to hold the front companion flange, remove the front companion flange lock nut.

SST 09330-00021



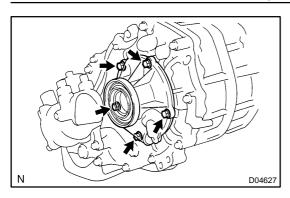
(c) Using SST, remove the front companion flange.

SST 09950- 40011 (09951- 04020, 09952- 04010, 09953- 04030, 09954- 04010, 09955- 04051, 09957-04010, 09958-04011)

6. REMOVE REAR COMPANION FLANGE

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

2002 4RUNNER (RM887U)



7. REMOVE EXTENSION HOUSING

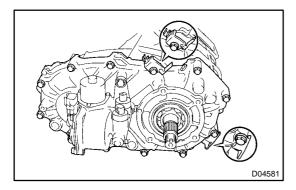
Remove the 5 bolts and extension housing.

HINT:

If necessary, tap the extension housing with a plastic hammer to remove it.

8. REMOVE VEHICLE SPEED SENSOR DRIVE GEAR AND OUTPUT SHAFT WASHER

- (a) Remove the vehicle speed sensor drive gear and 2 output shaft washers.
- (b) Using a magnetic finger, remove the ball from the rear output shaft.

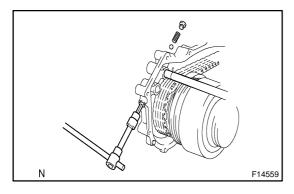


9. REMOVE REAR CASE

Remove the 12 bolts, 2 clamps and rear case.

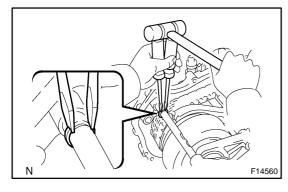
HINT:

If necessary, tap the rear case with a plastic hammer to remove it.



10. REMOVE STRAIGHT SCREW PLUG, SPRING AND BALL

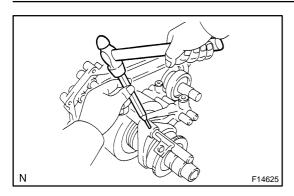
- (a) Using a hexagon wrench, remove the 2 straight screw plugs.
- (b) Using a magnetic finger, remove the spring and ball.



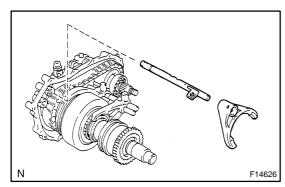
11. REMOVE NO. 2 GEAR SHIFT FORK AND HIGH AND LOW SHIFT FORK SHAFT

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

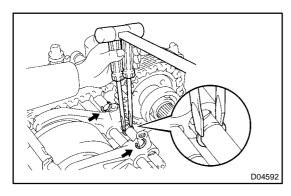
2002 4RUNNER (RM887U)



(b) Using a pin punch and hammer, tap out the slotted spring pin from the No. 2 gear shift fork.

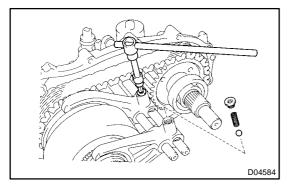


(c) Remove the No. 2 gear shift fork and high and low shift fork shaft.

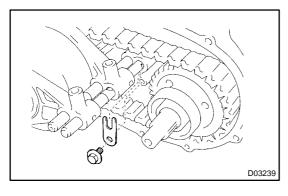


12. REMOVE GEAR SHIFT FORK SHAFT

(a) Using 2 screwdrivers and a hammer, remove the 3 snap rings from the gear shift fork shaft.

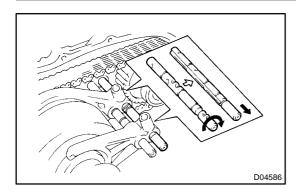


(b) Using a hexagon wrench, remove the 2 straight screw plugs, springs and balls from the No. 1 gear shift fork and center diff. lock fork.

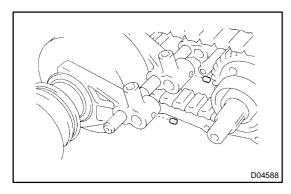


(c) Remove the bolt and shift shaft stopper.

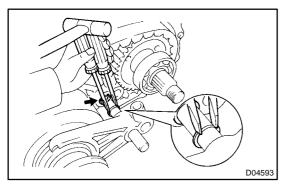
2002 4RUNNER (RM887U)



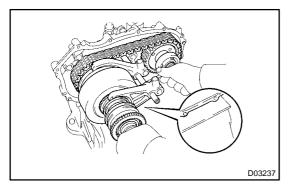
(d) Rotate the slit portion of the gear shift fork shaft to the No. 2 shift interlock pin and remove it.



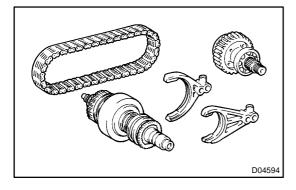
(e) Using a magnetic finger, remove the 2 No. 2 shift interlock pins from the No. 1 gear shift fork and center diff. lock fork.



- 13. REMOVE REAR OUTPUT SHAFT ASSEMBLY, NO. 1
 GEAR SHIFT FORK, CENTER DIFF. LOCK FORK,
 DRIVEN SPROCKET ASSEMBLY AND FRONT DRIVE
 CHAIN
- (a) Using 2 screwdrivers and a hammer, tap out the 2 snap rings from the gear shift fork shaft of the actuator assembly.
- (b) Using a snap ring expander, remove the output shaft snap ring.

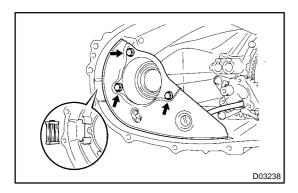


- (c) Mount the rear case in a vise, as shown.
- (d) Using a plastic hammer, carefully tap the rear case, and remove the rear output shaft assembly together with No. 1 gear shift fork, center diff. lock fork, driven sprocket assembly and front drive chain.



- (e) Remove the front driven chain, driven sprocket assembly, center diff. lock fork and No. 1 gear shift fork from the rear output shaft assembly.
- 14. REMOVE ACTUATOR ASSEMBLY
- (a) Remove the 3 bolts and actuator assembly.
- (b) Remove the O-ring, No. 1 and No. 2 4WD position switches with the 2 gaskets from the actuator assembly.

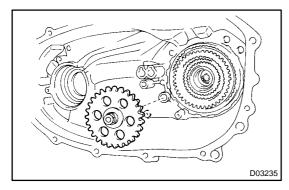
2002 4RUNNER (RM887U)



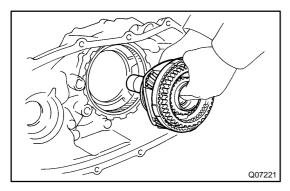
15. REMOVE OIL SEPARATOR AND MAGNET

- (a) Remove the 3 bolts and oil separator.
- (b) Remove the magnet from the front case.
- 16. REMOVE OIL PUMP BODY ASSEMBLY

Remove the 3 bolts and oil pump body assembly.

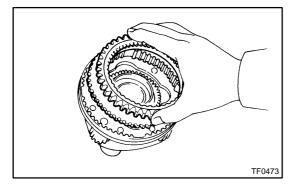


17. REMOVE OIL PUMP GEAR FROM FRONT CASE



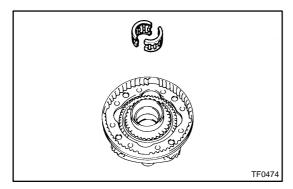
18. REMOVE LOW PLANETARY GEAR ASSEMBLY WITH INPUT SHAFT ASSEMBLY

- (a) Using a snap ring expander, remove the low planetary gear bearing snap ring.
- (b) Pull out the planetary gear assembly with the input shaft assembly.



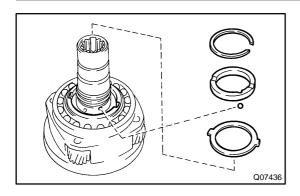
19. REMOVE LOW PLANETARY GEAR SPLINE PIECE

- (a) Using a screwdriver, remove the low planetary gear snap ring.
- (b) Remove the low planetary gear spline piece.

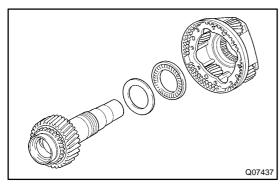


20. REMOVE OUTPUT SHAFT NEEDLE ROLLER BEAR-ING FROM INPUT SHAFT

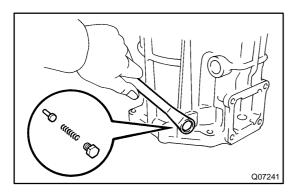
2002 4RUNNER (RM887U)



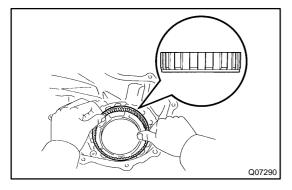
- 21. REMOVE INPUT GEAR STOPPER, LOW PLANETARY CARRIER THRUST WASHER AND INPUT GEAR STOPPER BALL
- (a) Using a snap ring expander, remove the input gear stopper snap ring.
- (b) Remove the input gear stopper, low planetary carrier thrust washer and input gear stopper ball.



22. REMOVE INPUT SHAFT ASSEMBLY, LOW PLAN-ETARY GEAR BEARING AND NO. 2 THRUST BEAR-ING RACE

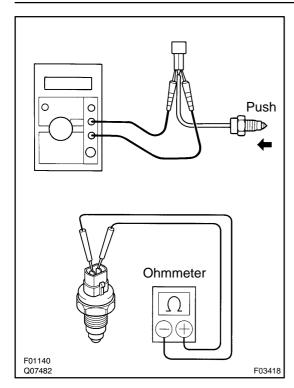


- 23. REMOVE LOW PLANETARY RING GEAR
- (a) Using a screwdriver, remove the low planetary ring gear hole snap ring.
- (b) Remove the head screw plug, spring and pin.



(c) Remove the low planetary ring gear.

2002 4RUNNER (RM887U)



24. INSPECT SWITCH

Check that there is continuity between terminals, as shown.

Switch position	Specified condition
Push	Continuity
Free	No continuity

If operation is not as specified, replace the switch.

2002 4RUNNER (RM887U)