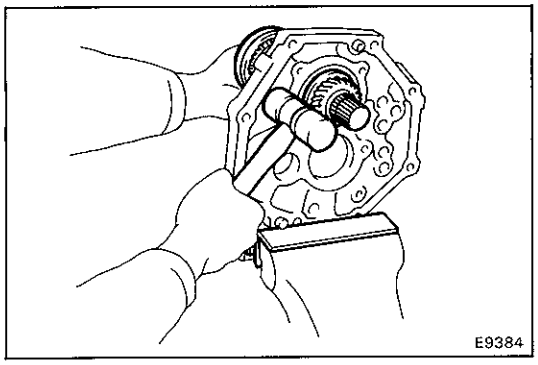
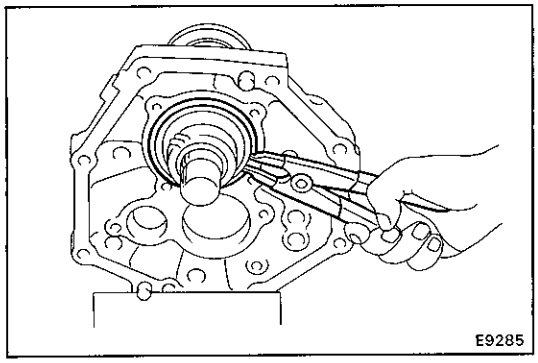


ASSEMBLY OF TRANSMISSION

(See pages MT-12 to 14)

1. INSTALL OUTPUT SHAFT TO INTERMEDIATE PLATE

(a) Install the output shaft into the intermediate plate by pulling on the output shaft and tapping of the intermediate plate.

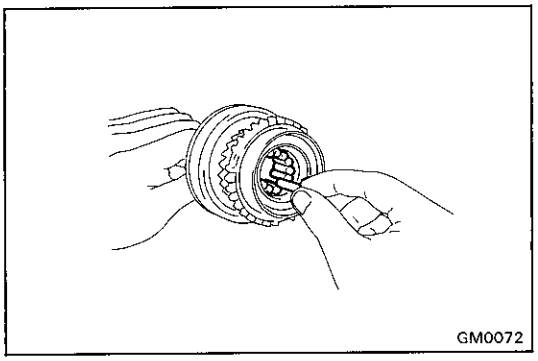


(b) Using snap ring pliers, install the output shaft center bearing snap ring.

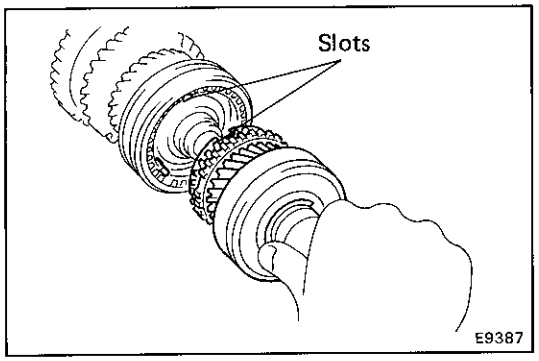
HINT: Be sure the snap ring is flush with the intermediate plate surface.

2. INSTALL INPUT SHAFT TO INTERMEDIATE PLATE

(a) Apply MP grease to the 13 needle roller bearings and install them into the input shaft.



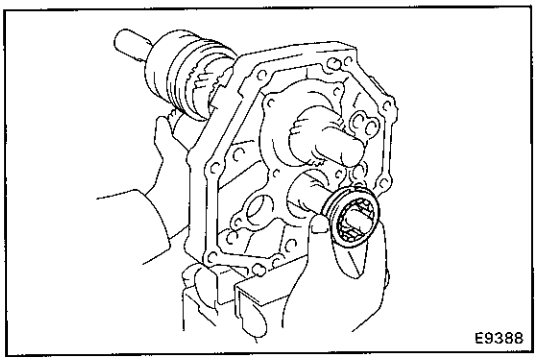
(b) Install the input shaft to the output shaft with the synchronizer ring slots aligned with the shifting keys.

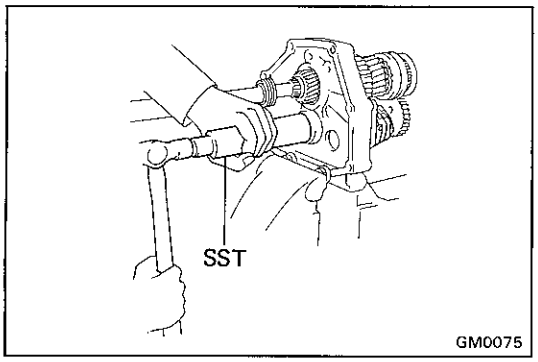


3. INSTALL COUNTER GEAR TO INTERMEDIATE PLATE

(a) Using snap ring pliers, install the snap ring to counter gear rear bearing.

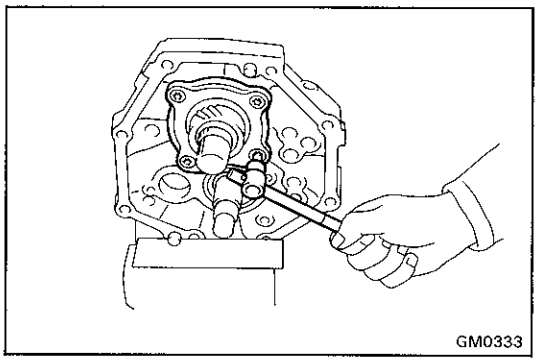
(b) Install the counter gear and counter gear rear bearing to intermediate plate.





(c) Install the counter gear into the intermediate plate while holding the counter gear and install the counter rear bearing with SST.

SST 09316-60010 (09316-00010)

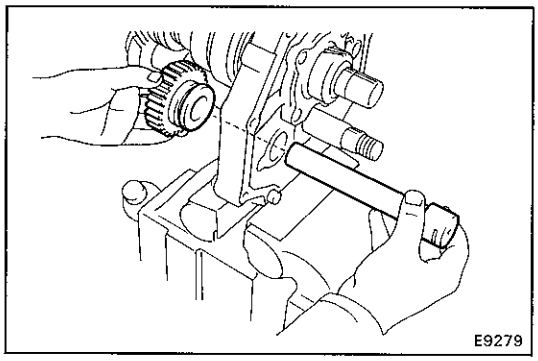


4. INSTALL REAR BEARING RETAINER

Using a torx socket wrench, install and torque the four screws.

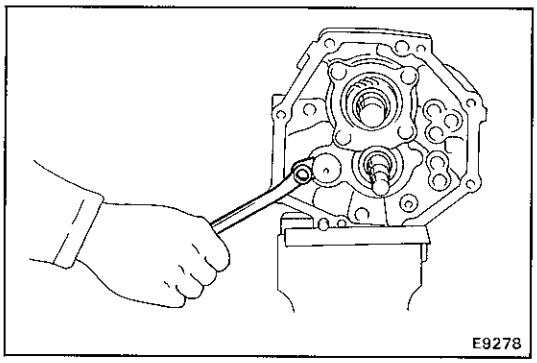
(Torx socket wrench T40 09042-00020)

Torque: 185 kg-cm (13 ft-lb, 18 N·m)



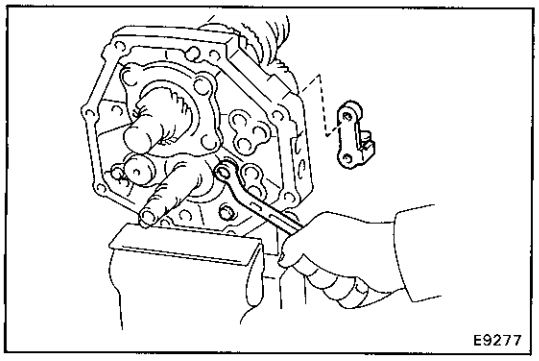
5. INSTALL REVERSE IDLER GEAR AND SHAFT

(a) Install the reverse idler gear and shaft.



(b) Install the shaft stopper and torque the bolt.

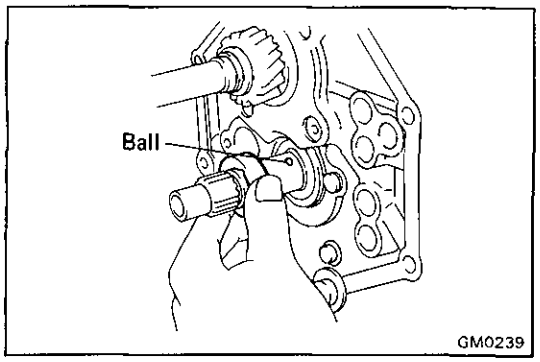
Torque: 175 kg-cm (13 ft-lb, 17 N·m)



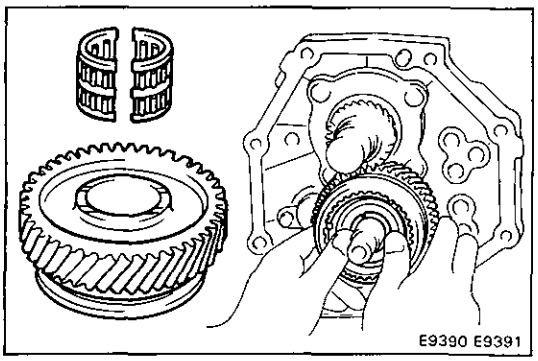
6. INSTALL REVERSE SHIFT ARM BRACKET

Install the reverse shift arm bracket and torque the two bolts.

Torque: 185 kg-cm (13 ft-lb, 18 N·m)



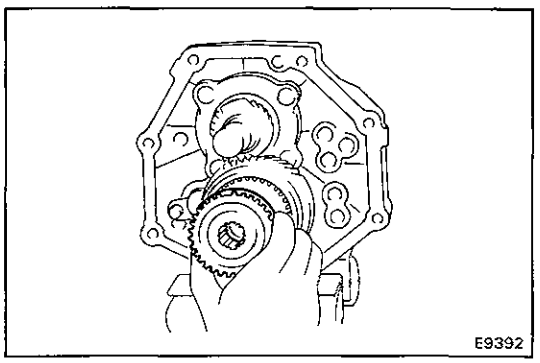
7. (5-Speed)
INSTALL BALL AND SPACER



8. (5-Speed)
INSTALL COUNTER FIFTH GEAR WITH HUB SLEEVE NO.3 ASSEMBLY AND NEEDLE ROLLER BEARINGS

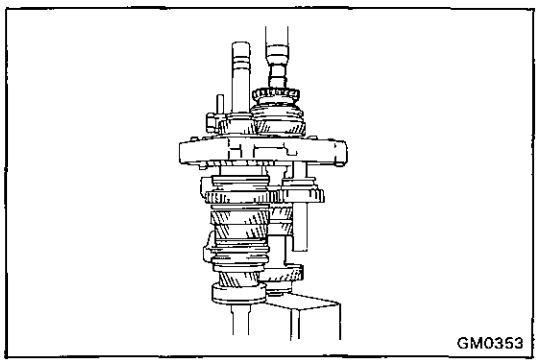
(a) Apply gear oil to the needle roller bearings.

(b) Install the counter 5th gear with hub sleeve No.3 and needle roller bearings.



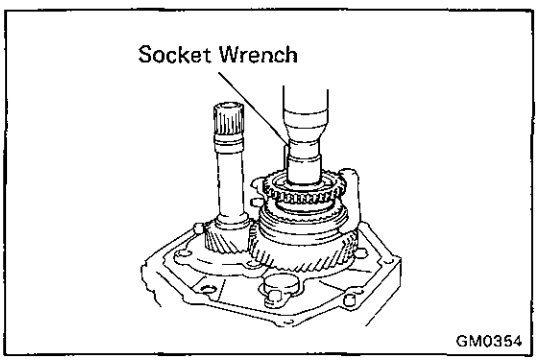
9. (5-Speed)
INSTALL SYNCHRONIZER RING AND GEAR SPLINE PIECE NO.5

(a) Install the synchronizer ring on gear spline piece No.5.



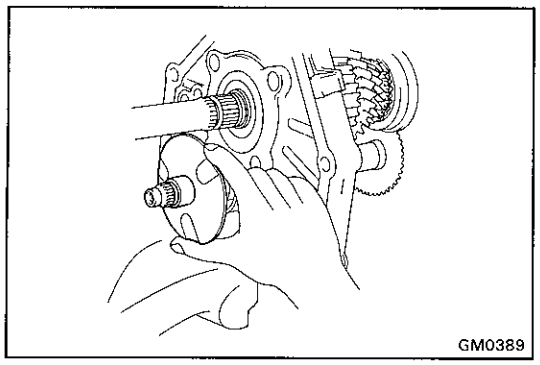
(b) Dismount the intermediate plate from the vise.

(c) Stand the transmission as shown.

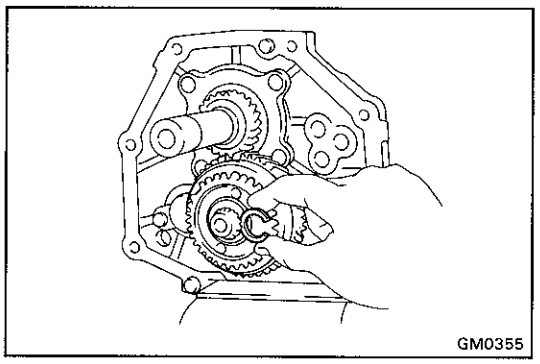


(d) Using a press and 22 mm socket wrench, install the gear spline piece No.5 with the synchronizer ring slots aligned with the shifting keys.

(e) Mount the intermediate plate to vise.


GM0389

10. (4-Speed)
INSTALL OIL SEPARATOR

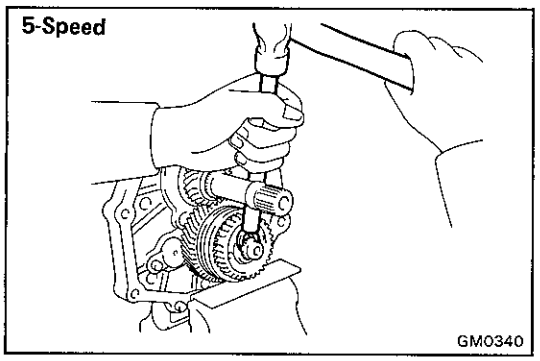

GM0355

11. INSTALL SNAP RING

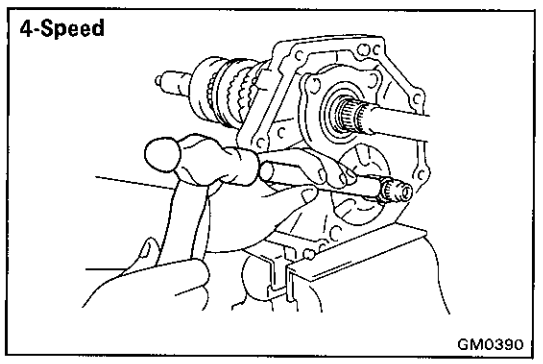
(a) Select a snap ring that will allow minimum axial play.

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)

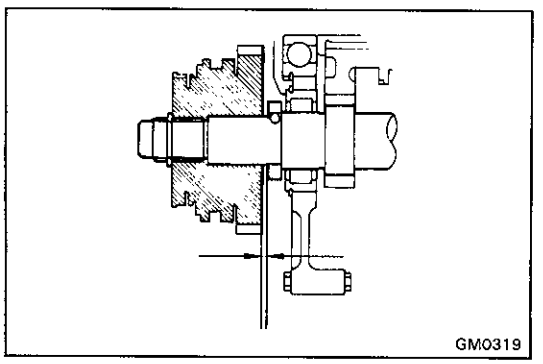
(b) Using a brass bar and a hammer, install the snap ring.



GM0340



GM0390

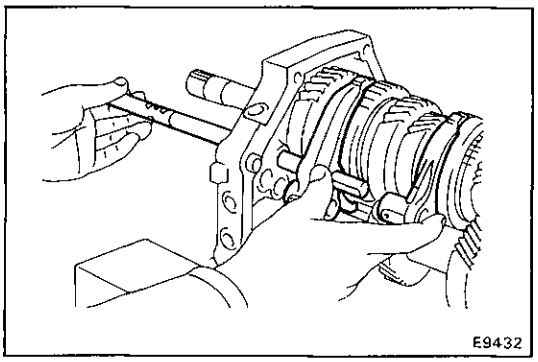

GM0319

12. (5-Speed)
MEASURE COUNTER FIFTH 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.)**

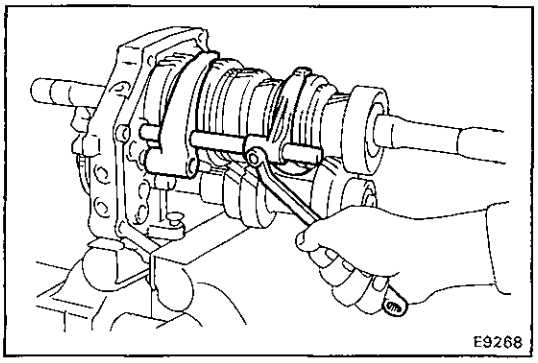
Maximum clearance: **0.03 mm (0.018 in.)**


E9432

13. INSTALL SHIFT FORK SHAFT NO.2 AND SHIFT FORK NO.2

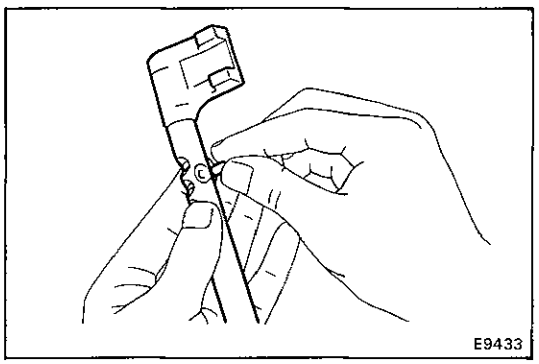
(a) Install shift fork No.1 and No.2.

(b) Install shift fork shaft No.2 through the intermediate plate and shift forks.


E9268

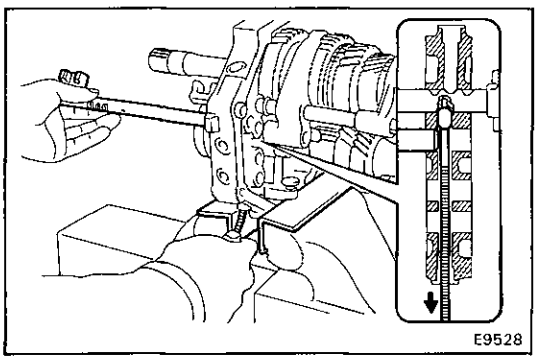
(c) Install shift fork No.2 set bolt and torque the bolt.

Torque: 200 kg-cm (14 ft-lb, 20 N·m)


E9433

14. INSTALL SHIFT FORK SHAFT NO.1 AND SHIFT FORK NO.1

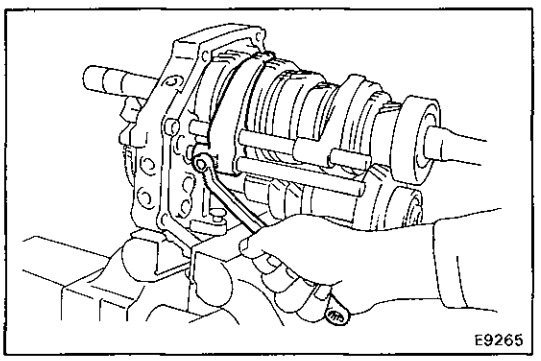
(a) Apply MP grease to interlock pin No.2 and install them into the shift fork shaft No.1.


E9528

(b) Apply MP gearse to the interlock pin No.1.

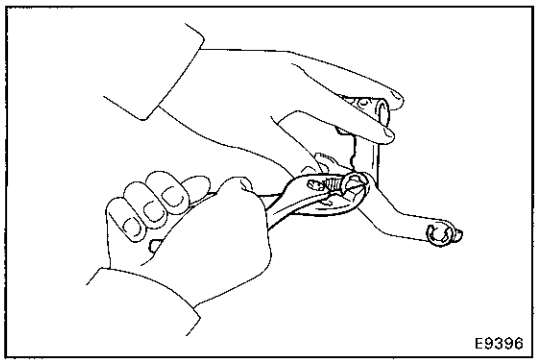
(c) Using a magnetic finger, install interlock pin No.1 to the intermediate plate.

(d) Install shift fork shaft No.1 through the intermediate plate and shift fork No.1.


E9265

(e) Install shift fork No.1 set bolt, and torque the bolt.

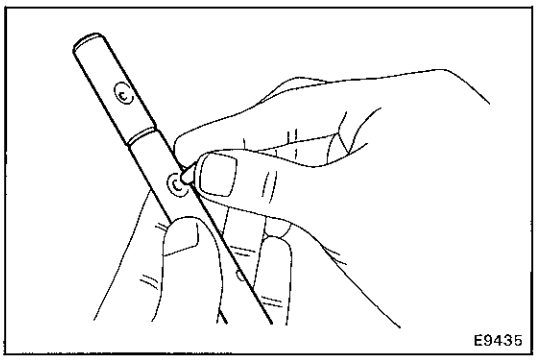
Torque: 200 kg-cm (14 ft-lb, 20 N·m)



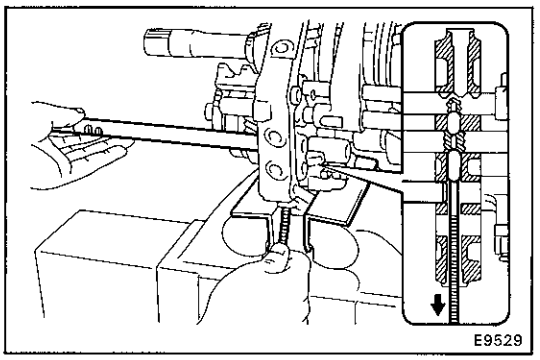
15. INSTALL SHIFT FORK SHAFT NO.3 AND REVERSE SHIFT ARM

(a) Install shift arm shoe, shift fork and two E- rings to reverse shift arm.

(b) Install reverse shift arm to reverse shift arm bracket.



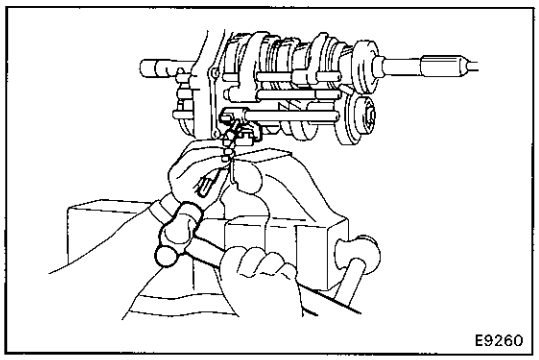
(c) Apply MP grease to interlock pin No.4 install them into the shift fork shaft No.3.



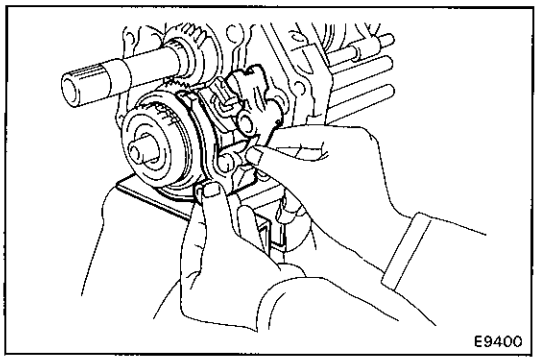
(d) Apply MP grease to the interlock pin No.3.

(e) Using a magnetic finger, install interlock pin No.3 to the intermediate plate.

(f) Install shift fork shaft No.3 through the intermediate plate and reverse shift fork.



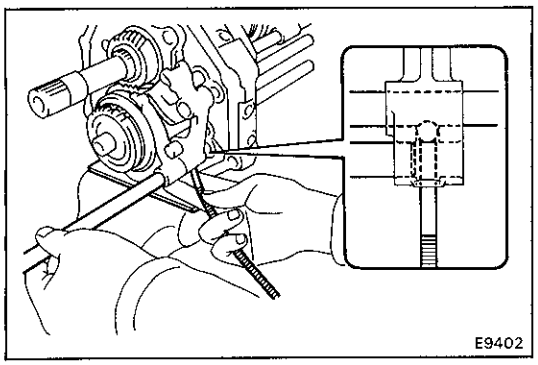
(g) Using a pin punch and a hammer, drive in the slotted spring pin.



16.-1 (5-Speed)
INSTALL REVERSE SHIFT HEAD, 5TH SHIFT FORK, SHIFT FORK SHAFT NO.4 AND NO.5

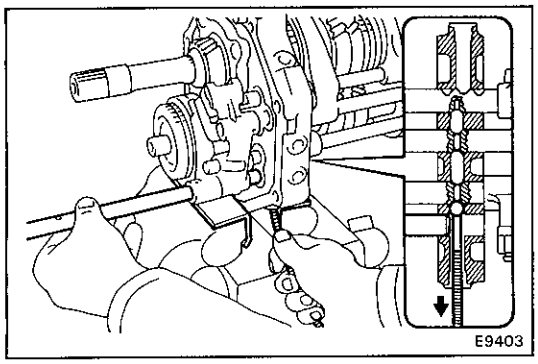
(a) Install reverse shift head to shift fork shaft No.3.

(b) Install shift fork No.3.



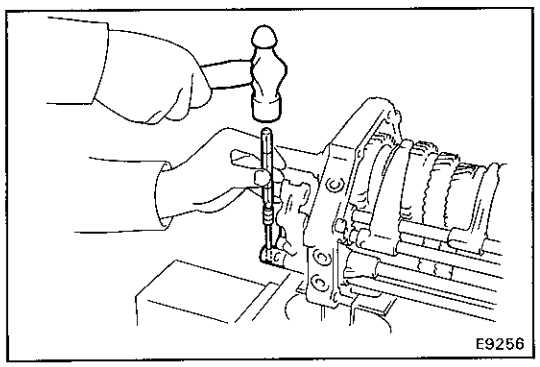
(c) Using a magnetic finger, install ball to the reverse shift head.

(d) Install shift fork shaft No.4 as shown.

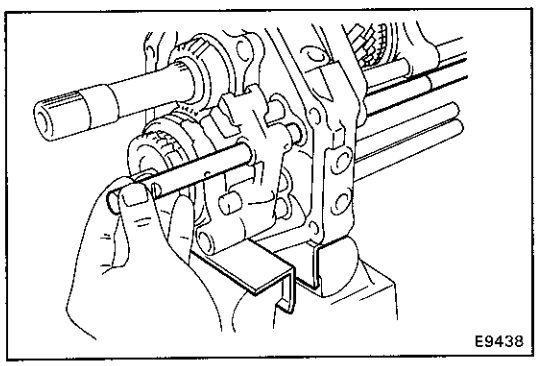


(e) Using a magnetic finger, install interlock ball No.1 to the intermediate plate.

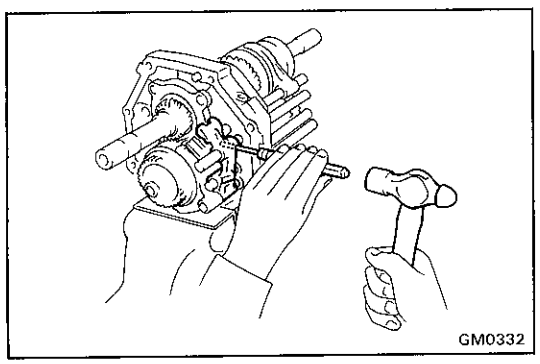
(f) Install shift fork shaft No.4 through the intermediate plate.



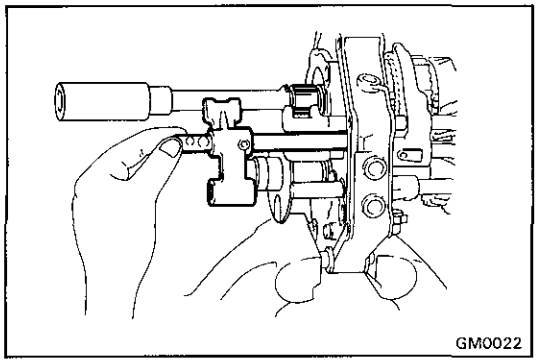
(g) Using a pin punch and a hammer, drive in the slotted spring pin to the shift fork No.3.



(h) Install shift fork shaft No.5 through the reverse shift head and intermediate plate.



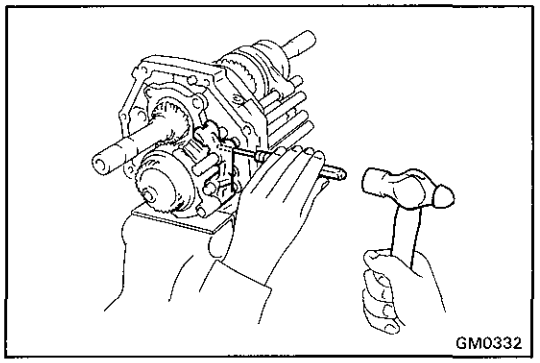
(i) Using a pin punch and a hammer, drive in the slotted spring pin to the reverse shift head.


GM0022

16.-2 (4-Speed)

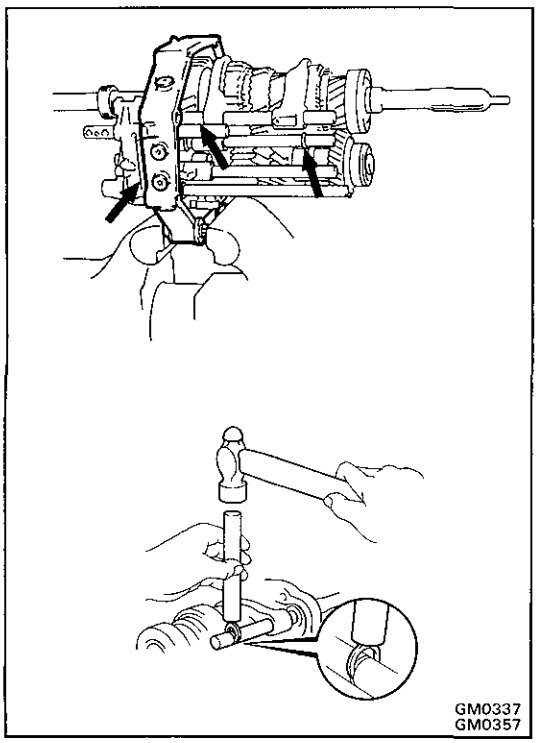
INSTALL REVERSE SHIFT HEAD AND SHIFT FORK SHAFT NO.4

(a) Install reverse shift head to shift fork shaft No.3.


GM0332

(b) Install shift fork shaft No.5 through the reverse shift head and intermediate plate.

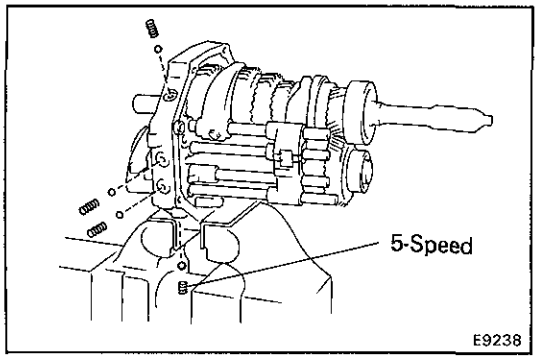
(c) Using a pin punch and hammer, drive in the slotted spring pin to the reverse shift head.


GM0337
GM0357

17. INSTALL SHIFT FORK SHAFT SNAP RINGS

Using a brass bar and a hammer, drive in snap rings.

5-Speed: three snap rings
4-Speed: four snap rings



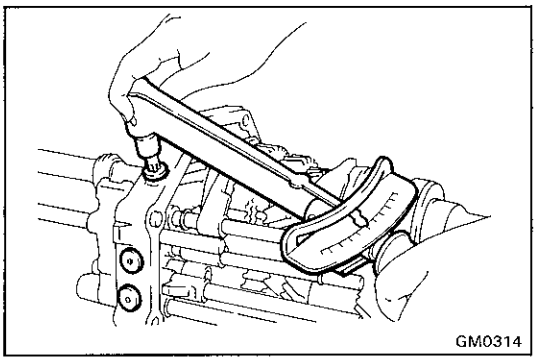
E9238

18. INSTALL LOCKING BALLS, SPRINGS AND SCREW PLUGS

(a) Install locking balls and springs.

5-Speed: four balls and four springs
4-Speed: three balls and three springs

HINT: Install the short spring into the bottom of the intermediate plate (5-Speed).

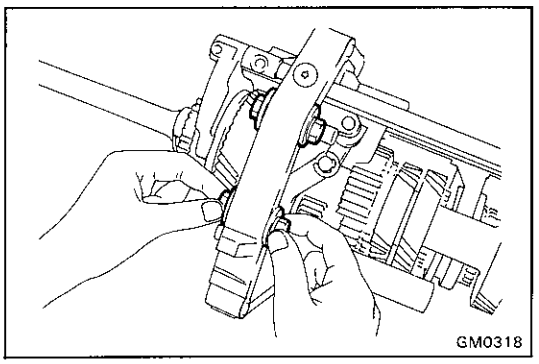

GM0314

(b) Apply liquid sealer to the plug threads.

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

(c) Install the screw plugs and torque the screw plugs with a torx socket wrench.
(Torx socket wrench T40 09042-00020)

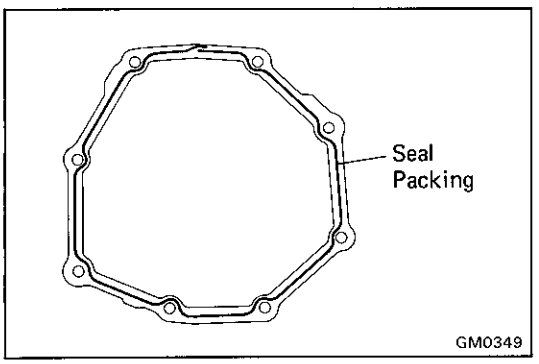
Torque: 190 kg-cm (14 ft-lb, 19 N·m)


GM0318

19. DISMOUNT INTERMEDIATE PLATE FROM VISE

(a) Dismount the intermediate plate from the vise.

(b) Remove the bolts, nuts and plate washers.

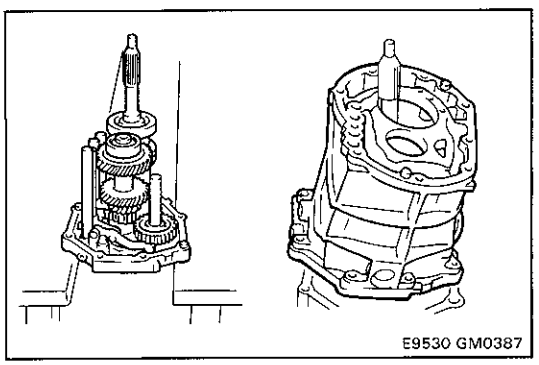


GM0349

20. INSTALL TRANSMISSION CASE

(a) Apply seal packing to the transmission case as shown.

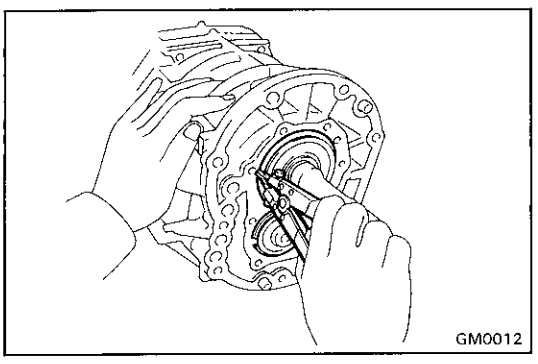
Seal packing: Part No.08833-00090, THREE BOND 1281 or equivalent


E9530 GM0387

(b) Stand the intermediate plate as shown.

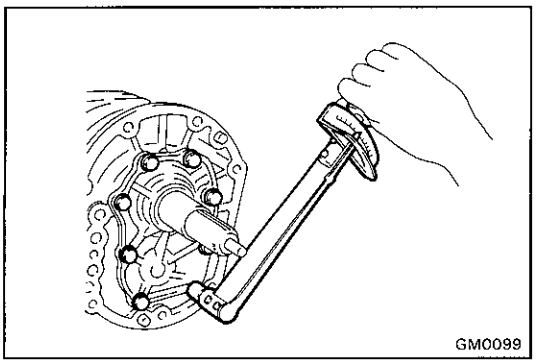
(c) Install transmission case to the intermediate plate as shown.

HINT: If necessary, tap the transmission case with a plastic hammer.


GM0012

21. INSTALL FRONT BEARING RETAINER

(a) Using a snap ring pliers, install the two snap rings to input shaft bearing and counter gear front bearing.



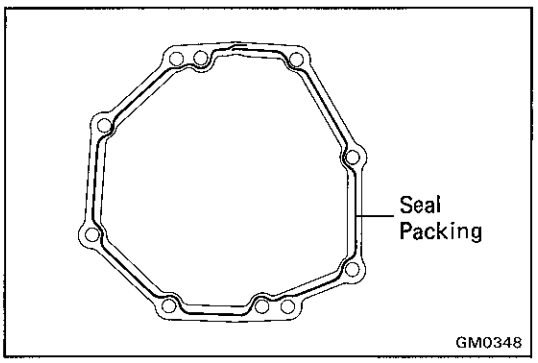
(b) Install bearing retainer with a new gasket.

(c) Apply liquid sealer to the bolt threads.

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

(d) Install and torque the bolts.

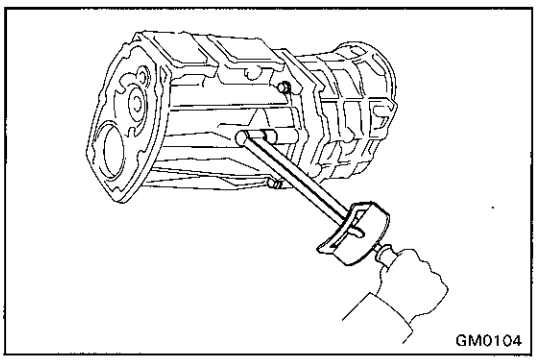
Torque: 170 kg-cm (12 ft-lb, 17 N·m)



22. INSTALL TRANSFER ADAPTOR, SHIFT LEVER SHAFT AND SHIFT LEVER HOUSING

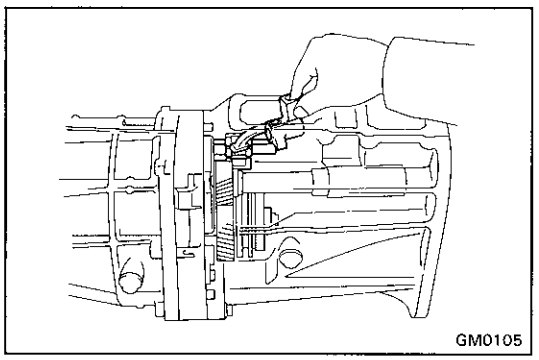
(a) Apply seal packing to the transfer adaptor as shown.

Seal packing: Part No.08826-00090, THREE BOND 1281 or equivalent

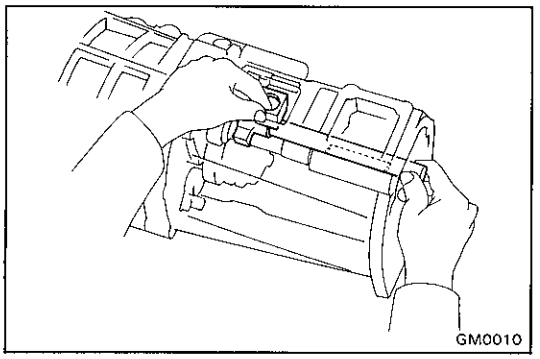


(b) Install and torque the transfer adaptor with the eight bolts.

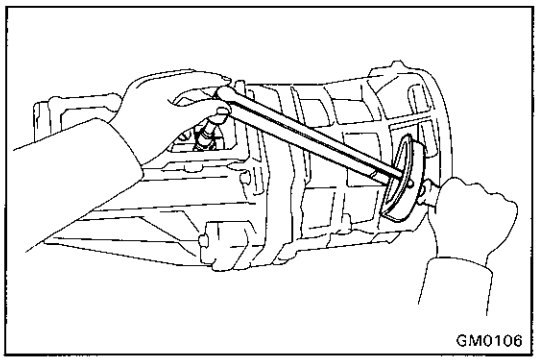
Torque: 380 kg-cm (27 ft-lb, 37 N·m)



(c) Insert the shift lever housing to the transfer adaptor and connect the fork shafts.

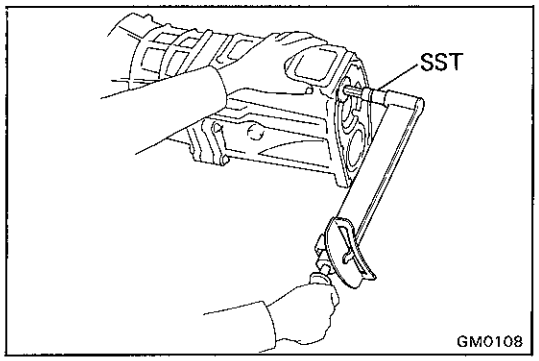


(d) Insert the shift lever shaft to the transfer adaptor and shift lever housing.


GM0106

(e) Install and torque the shift lever housing bolt.

Torque: 380 kg-cm (28 ft-lb, 38 N·m)

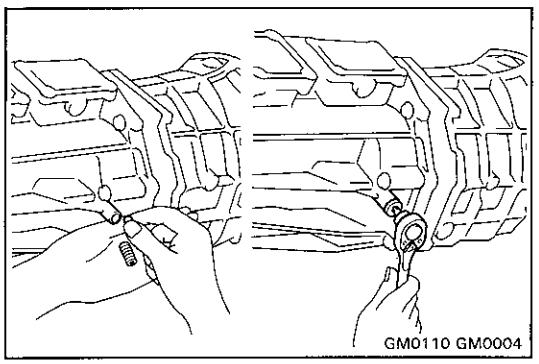


GM0108

(f) Using SST, install and torque the plug.

SST 09923-00010

Torque: 380 kg-cm (27 ft-lb, 37 N·m)


GM0110 GM0004

23. INSTALL LOCKING BALL, SPRING AND SCREW PLUG

(a) Apply liquid sealer to the plug threads.

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

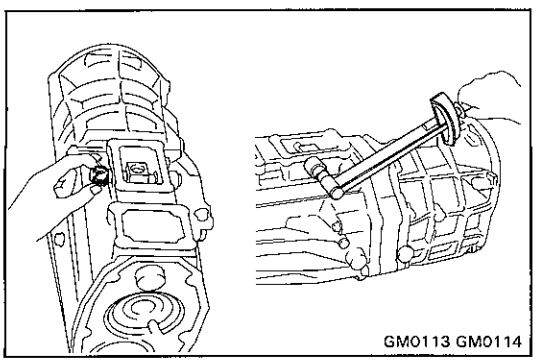
(b) Install the locking ball, spring and plug, and torque the plug.
(Torx socket wrench T40 09042-00020)

Torque: 190 kg-cm (14 ft-lb, 19 N·m)

24. AFTER INSTALLING TRANSFER ADAPTOR CHECK FOLLOWING ITEMS

(a) Check to see that the input and output shafts rotate smoothly.

(b) Check to see that shifting can be made smoothly to all positions.

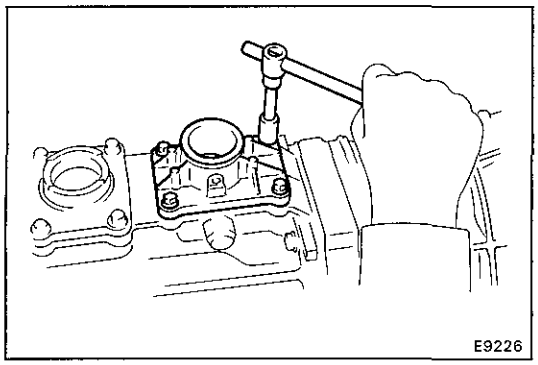

GM0113 GM0114

25. INSTALL RESTRICT PINS

(a) Install the black pin on the reverse gear/5th gear side.

(b) Install another pin and torque the pins.

Torque: 280 kg-cm (20 ft-lb, 27 N·m)



26. INSTALL TRANSMISSION SHIFT LEVER CONTROL RETAINER

(a) Install shift lever control retainer and new gasket.

(b) Install four bolts and torque the bolts.

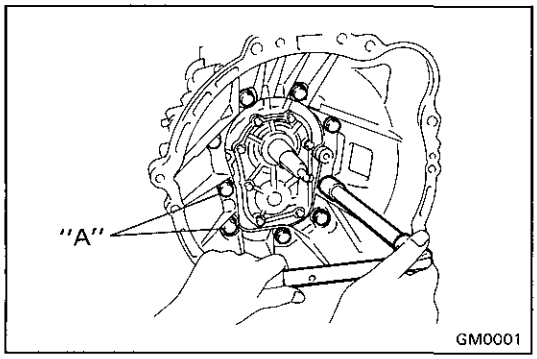
Torque: 185 kg-cm (13 ft-lb, 18 N·m)

27. INSTALL TRANSFER SHIFT LEVER CONTROL RETAINER

(a) Install shift lever control retainer and new gasket.

(b) Install four bolts and torque the bolts.

Torque: 185 kg-cm (13 ft-lb, 18 N·m)



28. INSTALL CLUTCH HOUSING

(a) Install clutch housing.

(b) Apply liquid sealer to the "A" bolt threads.

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

(c) Install nine bolts and torque the bolts.

Torque: 380 kg-cm (27 ft-lb, 37 N·m)

29. INSTALL BACK-UP LIGHT SWITCH

Torque: 380 kg-cm (27 ft-lb, 37 N·m)