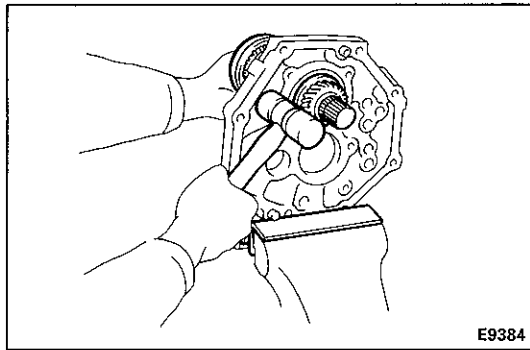


## ASSEMBLY OF TRANSMISSION

(See pages MT-8 to 10)

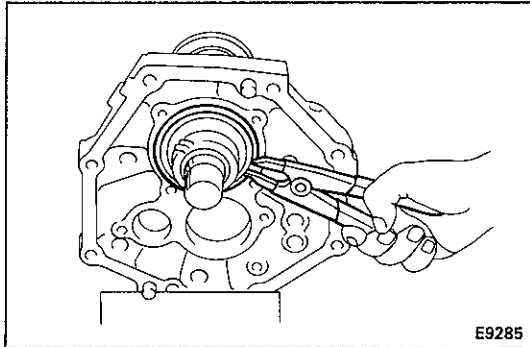
### 1. INSTALL OUTPUT SHAFT TO INTERMEDIATE PLATE

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



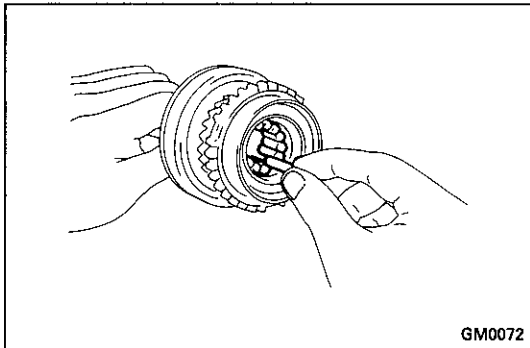
- (b) Using a snap ring pliers, install the output shaft center bearing snap ring.

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

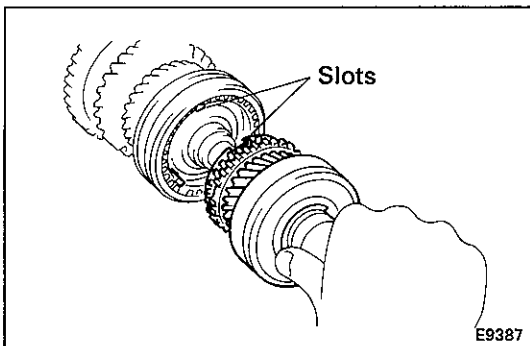


### 2. INSTALL INPUT SHAFT TO OUTPUT SHAFT

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

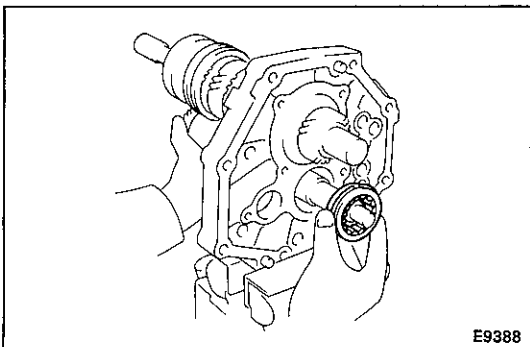


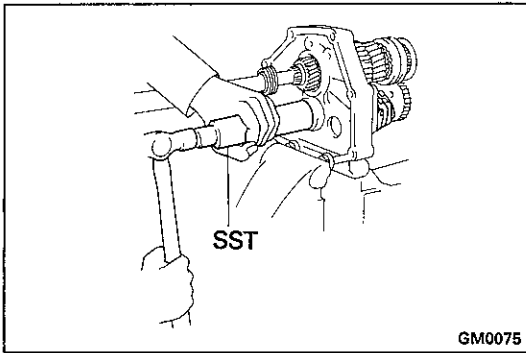
- (b) Install the input shaft to the output shaft with the synchronizer ring slots aligned with the shifting keys.



### 3. INSTALL COUNTER GEAR TO INTERMEDIATE PLATE

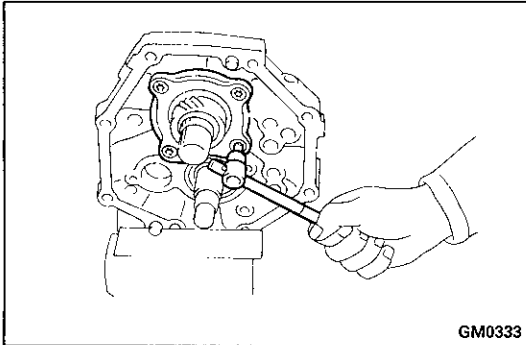
- (a) Using a snap ring pliers, install snap ring to counter gear rear bearing.





- (b) 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)

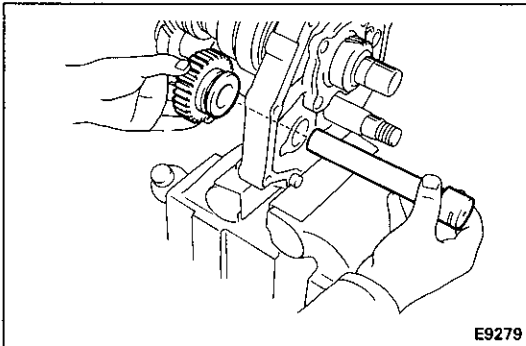


#### 4. INSTALL REAR BEARING RETAINER

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

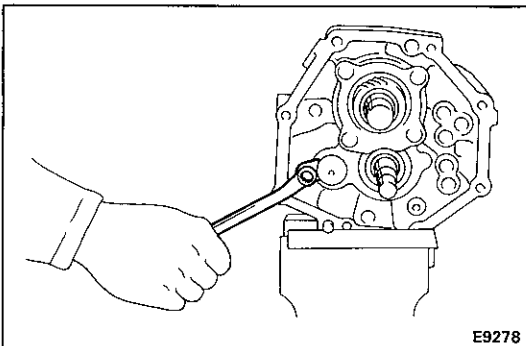
**Torque: 185 kg-cm (13 ft-lb, 18 N·m)**

(Torx socket wrench T40 09042-00020)



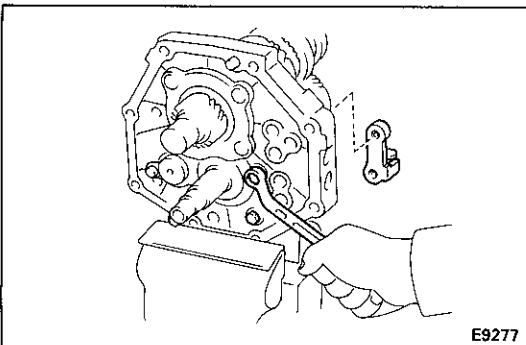
#### 5. INSTALL REVERSE IDLER GEAR AND SHAFT

- (a) Install reverse idler gear and shaft.



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

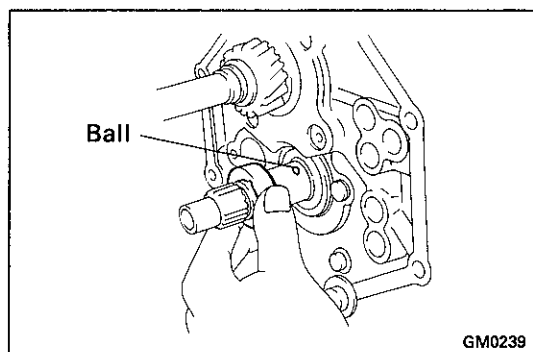
**Torque: 175 kg-cm (13 ft-lb, 17 N·m)**



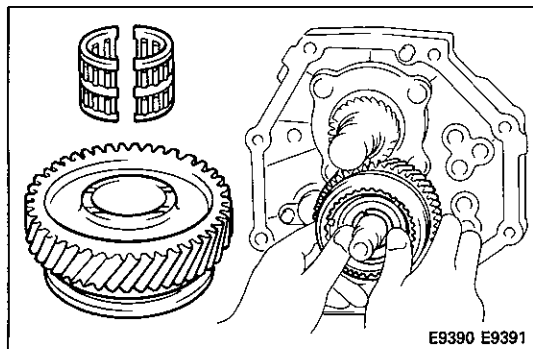
#### 6. INSTALL REVERSE SHIFT ARM BRACKET

Install reverse shift arm bracket and torque the two bolts.

**Torque: 185 kg-cm (13 ft-lb, 18 N·m)**

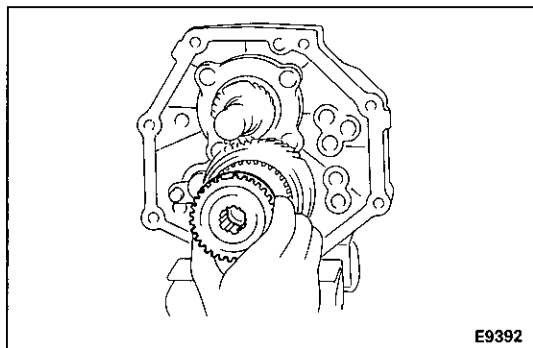


**7. (5-Speed)  
INSTALL BALL AND SPACER**



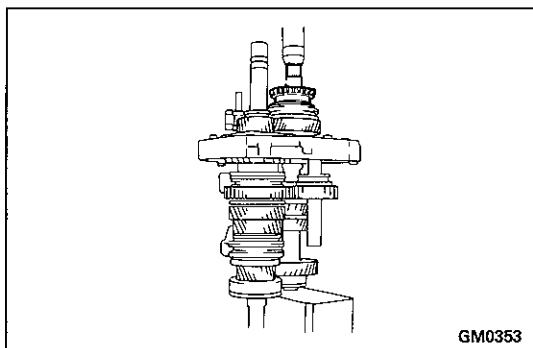
**8. (5-Speed)  
INSTALL COUNTER FIFTH GEAR WITH HUB SLEEVE  
NO.3 ASSEMBLY AND NEEDLE ROLLER BEARINGS**

- (a) Apply gear oil to the needle roller bearings.
- (b) Install the counter 5th gear with hub sleeve No.3 and needle roller bearings.

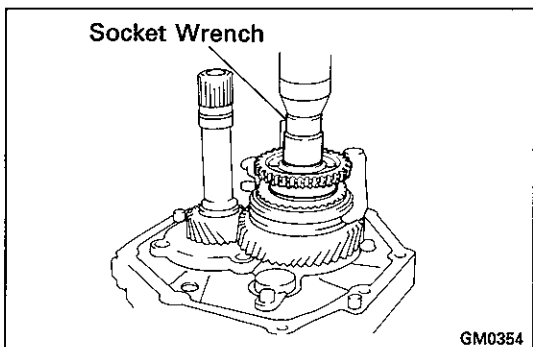


**9. (5-Speed)  
INSTALL SYNCHRONIZER RING AND GEAR SPLINE  
PIECE NO.5**

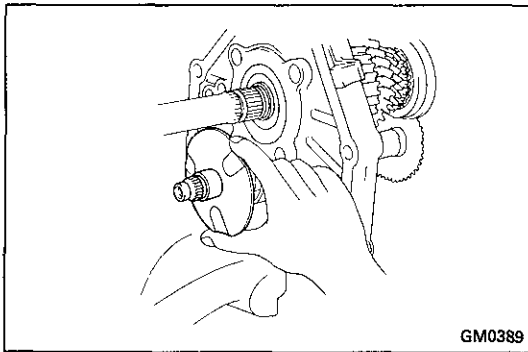
- (a) Install the synchronizer ring on gear spline piece No.5.



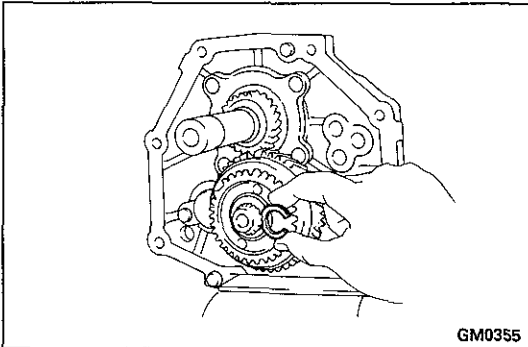
- (b) Dismount the intermediate plate from the vise.
- (c) Stand the transmission as shown.



- (d) Using a press and 22 mm socket wrench install gear spline piece No.5 with the synchronizer ring slots aligned with the shifting keys.
- (e) Mount the intermediate plate to the vise.



### 10. (4-Speed) INSTALL OIL SEPARATOR

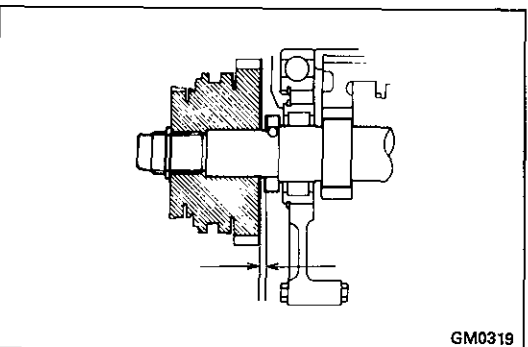
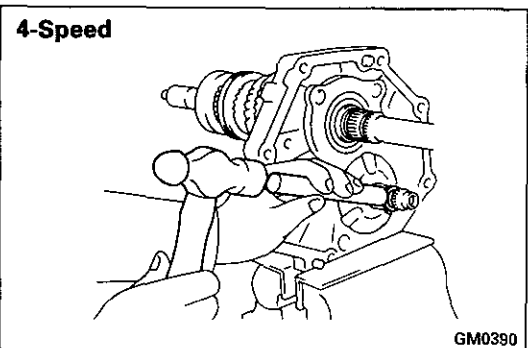
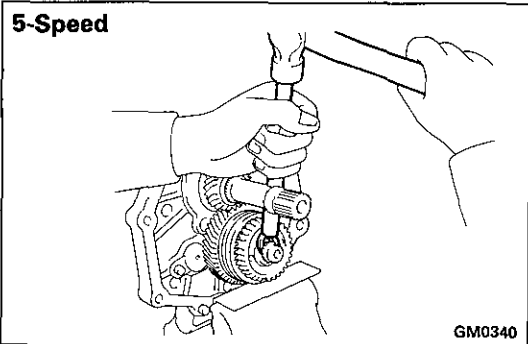


### 11. INSTALL SNAP RING

- (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 – 0.10 (0.120 – 0.122)
G	3.10 – 3.15 (0.122 – 0.124)

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

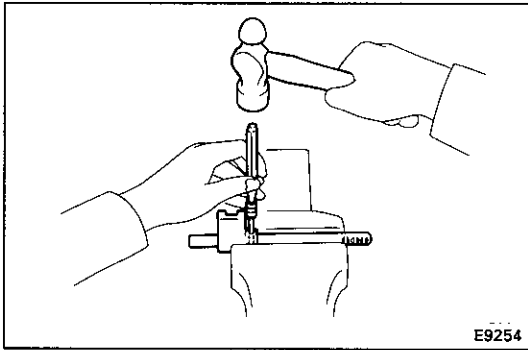


### 12. (5-Speed) MEASURE COUNTER FIFTH GEAR THRUST CLEAR- ANCE

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

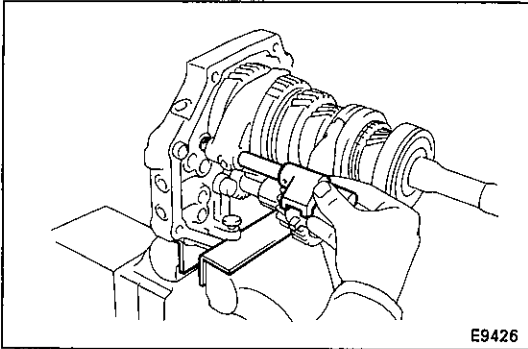
**Standard clearance:** 0.10 – 0.30 mm  
(0.0039 – 0.0118 in.)

**Maximum clearance:** 0.30 mm (0.0118 in.)

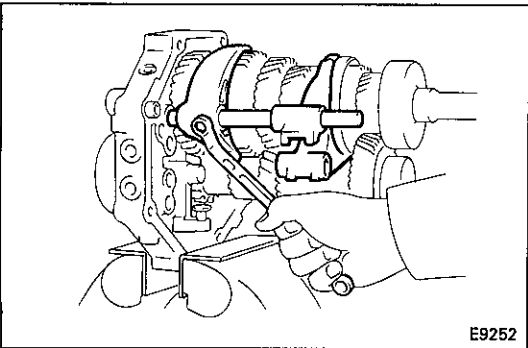


### 13. INSTALL SHIFT FORK SHAFT NO.1 AND FORK

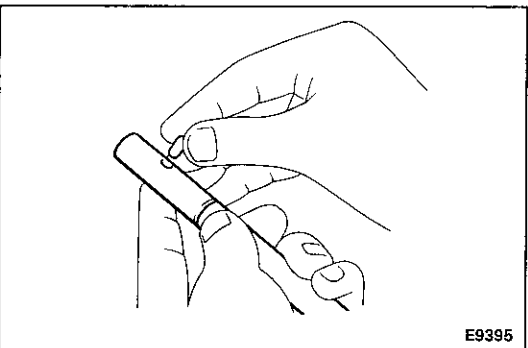
- (a) Install 1st and 2nd shift head to the shift fork shaft No.1.
- (b) Using a pin punch and hammer, drive in slotted spring pin.



- (c) Install shift fork No.1 and No.2.
- (d) Install shift fork shaft No.1 through the shift fork No.1, No.2 and intermediate plate.

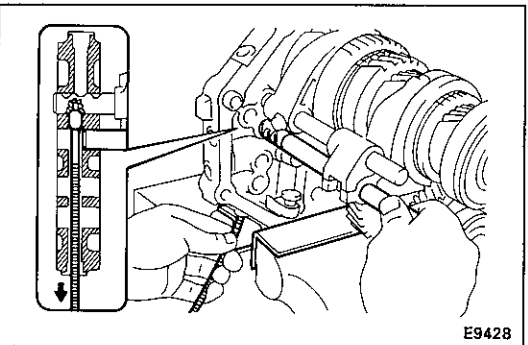


- (e) Install shift fork No.1 set bolt and torque the bolt.  
**Torque: 200 kg-cm (14 ft-lb, 20 N·m)**

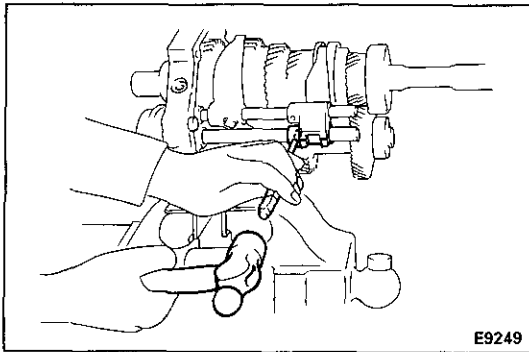


### 14. INSTALL SHIFT FORK SHAFT NO.2 AND FORK

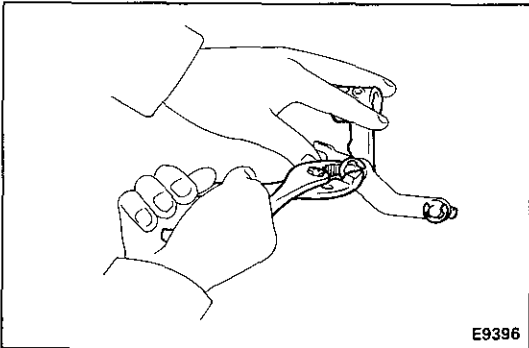
- (a) Apply MP grease to interlock pin No.2 and install them into the shift fork shaft No.2.



- (b) Using a magnetic finger, install interlock pin No.1 to the intermediate plate.
- (c) Install shift fork shaft No.2 through the shift fork No.2 and intermediate plate.

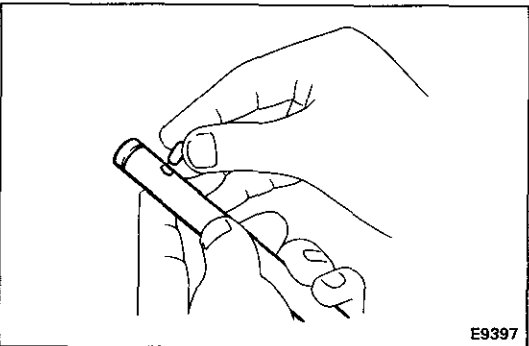


- (d) Using a pin punch and hammer, drive in slotted spring pin to the shift fork No.2.

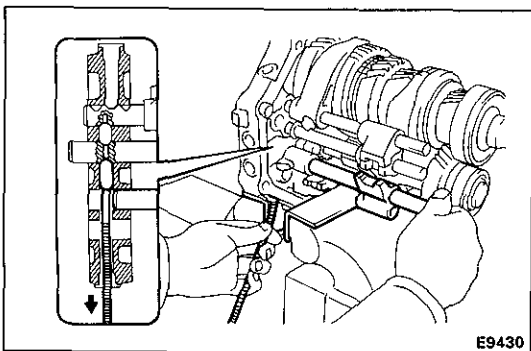


#### 15. INSTALL SHIFT FORK SHAFT NO.3 AND REVERSE SHIFT FORK AND HEAD

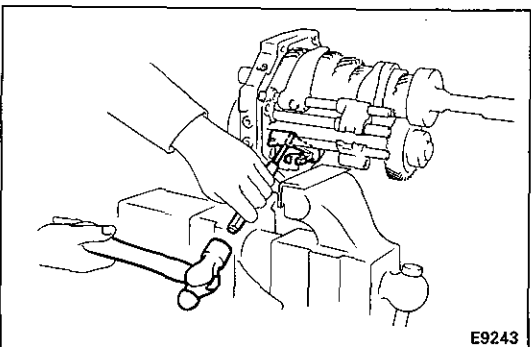
- (a) Install shift arm shoe, shift fork and two E-rings to reverse shift arm.  
 (b) Install reverse shift arm to reverse shift arm bracket.



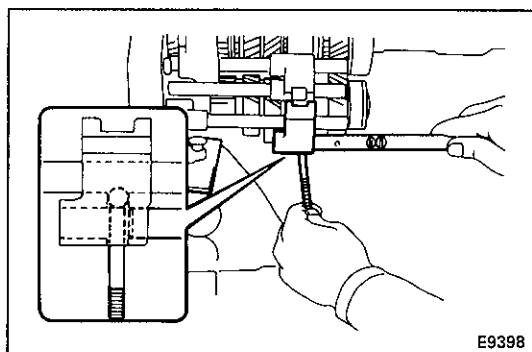
- (c) Apply MP grease to interlock pin No.2 and install them into the shift fork shaft No.3.



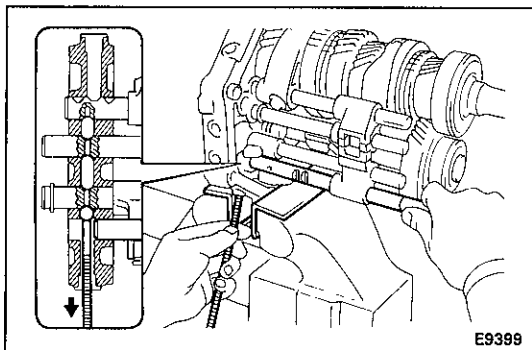
- (d) Using magnetic finger, install interlock pin No.1 to the intermediate plate.  
 (e) Install shift fork shaft No.3 through the reverse shift fork, head and intermediate plate.



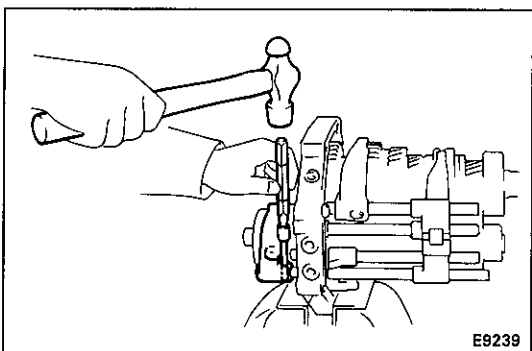
- (f) Using a pin punch and hammer, drive in slotted spring pin to the reverse shift fork.

**16. (5-Speed)****INSTALL SHIFT FORK SHAFT NO.4 AND SHIFT FORK NO.3**

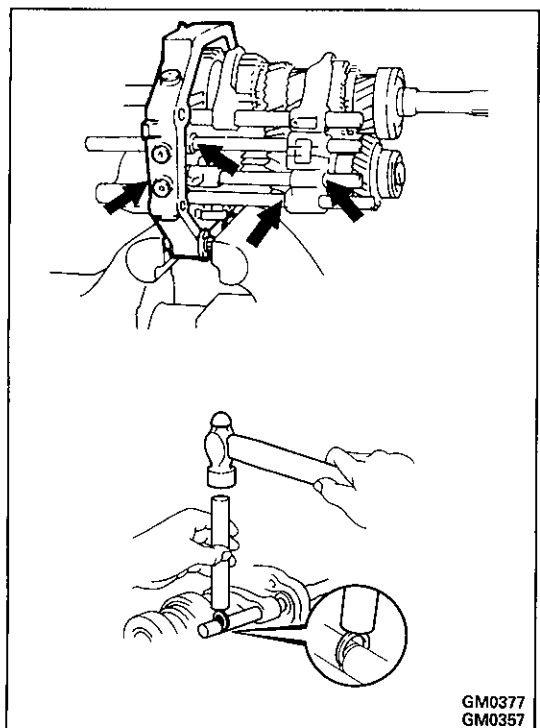
- (a) Using a magnetic finger, install ball to the reverse shift head.
- (b) Install shift fork shaft No.4 through the reverse shift head.



- (c) Using a magnetic finger, install interlock ball No.1 to the intermediate plate.
- (d) Install shift fork shaft No.4 through the shift fork No.3 and intermediate plate.



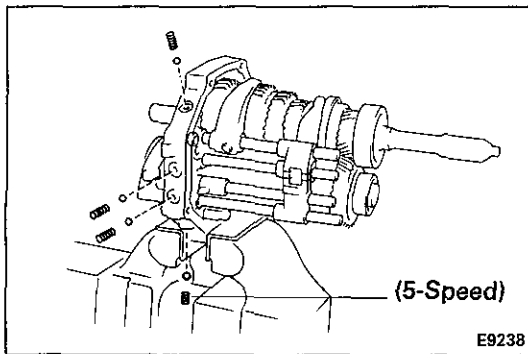
- (e) Using a pin punch and hammer, drive in slotted spring pin to shift fork No.3.

**17. INSTALL SHIFT FORK SHAFT SNAP RINGS**

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

5-Speed: Four snap rings

4-Speed: Two snap rings



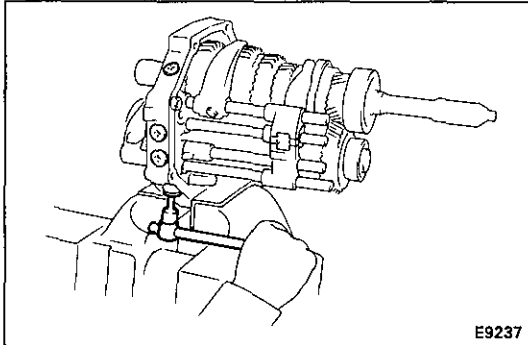
## 18. INSTALL LOCKING BALLS, SPRINGS AND STRAIGHT SCREW PLUGS

- (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).



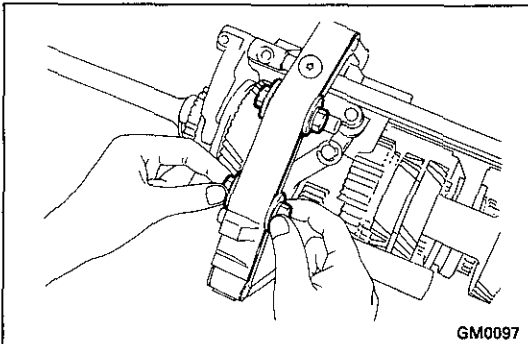
- (b) Apply sealant to the plug threads.

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

- (c) Install the locking balls, springs and screw plugs, and then torque the screw plugs with a torx socket wrench.

(Torx socket wrench T40 09042-00020)

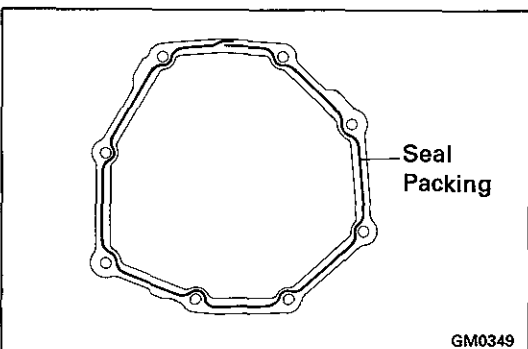
**Torque:** 190 kg-cm (14 ft-lb, 19 N-m)



## 19. DISMOUNT INTERMEDIATE PLATE FROM VISE

- (a) Dismount the intermediate plate from the vise.

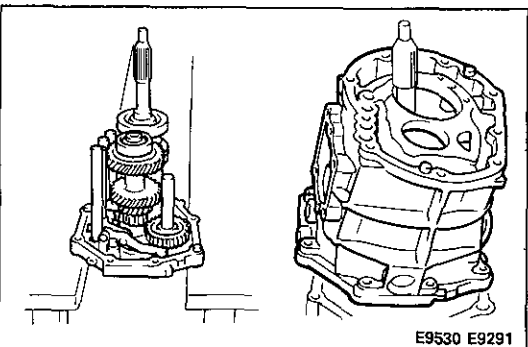
- (b) Remove the bolts, nuts and plate washers.



## 20. INSTALL TRANSMISSION CASE

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

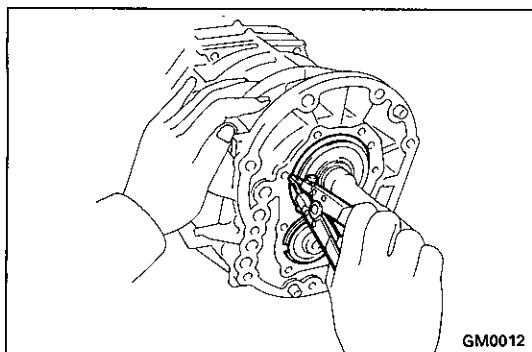
**Seal Packing:** Part No.08833-00090 **THREE BOND 1281** or equivalent



- (b) Stand the intermediate plate as shown.

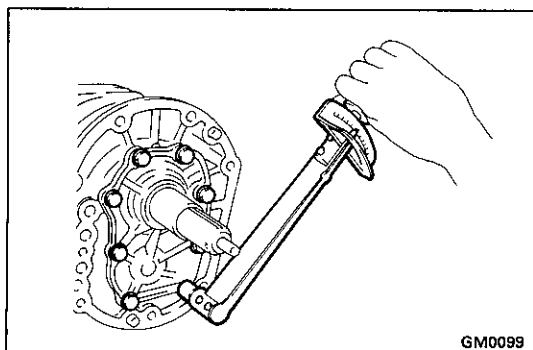
- (c) Install transmission case to the intermediate plate as shown.





## 21. INSTALL BEARING SNAP RINGS

Using snap ring pliers, install the two snap rings.



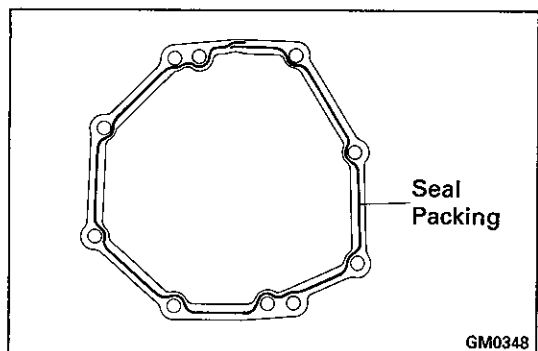
## 22. INSTALL FRONT BEARING RETAINER WITH NEW GASKET

- (a) Install the bearing retainer with a new gasket.
- (b) Apply sealant to the bolt threads.

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

- (c) Install and torque the bolts.

**Torque:** 170 kg-cm (12 ft-lb, 17 N·m)

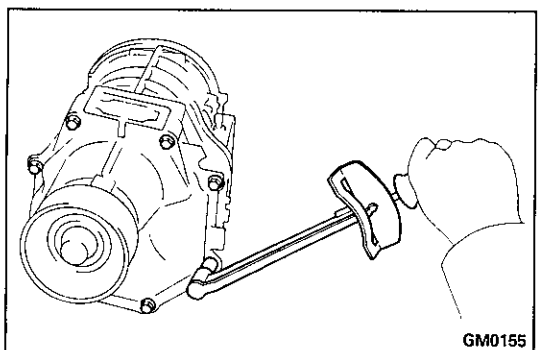


## 23.-1 (2WD)

### INSTALL EXTENSION HOUSING

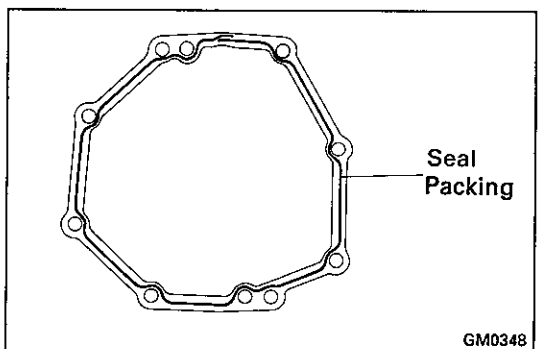
- (a) Apply seal packing to the extension housing as shown.

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



- (b) Install the extension housing and torque the bolts.

**Torque:** 380 kg-cm (27 ft-lb, 37 N·m)

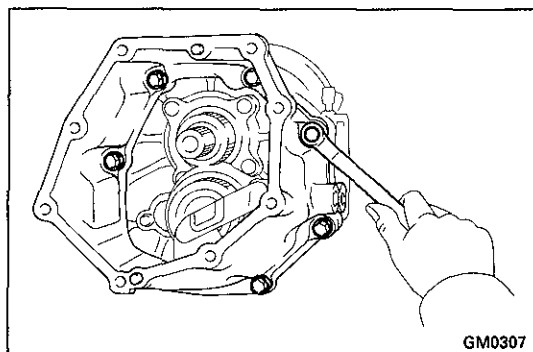


## 23.-2 (4WD)

### INSTALL TRANSFER ADAPTOR

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

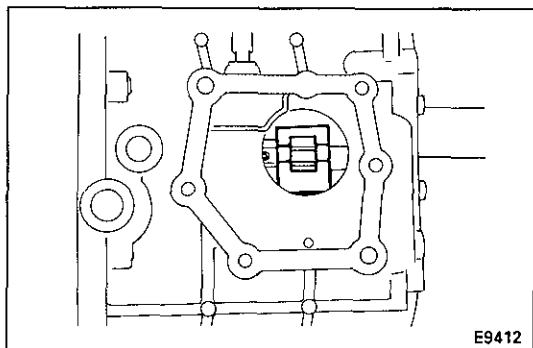
**Seal Packing:** Part No.08826-00090, THREE BOND 1281 or equivalent



- (b) Apply sealant to the three bolt threads of adaptor inner.

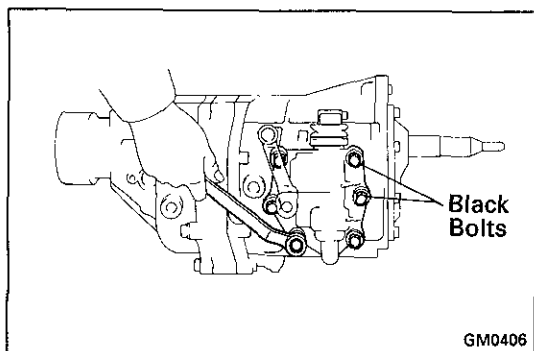
**Sealant: Part No.08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent**

- (c) Install the transfer adaptor and torque the bolts.  
**Torque: 380 kg-cm (27 ft-lb, 37 N·m)**



#### 24. INSTALL SHIFT LEVER SHAFT HOUSING ASSEMBLY WITH NEW GASKET

- (a) Shift the shift fork No.2, 1st and 2nd shift head and reverse shift head to the neutral position.



- (b) Install a new gasket to the transmission case.

- (c) Apply sealant to the threads of all bolts except the two black bolts.

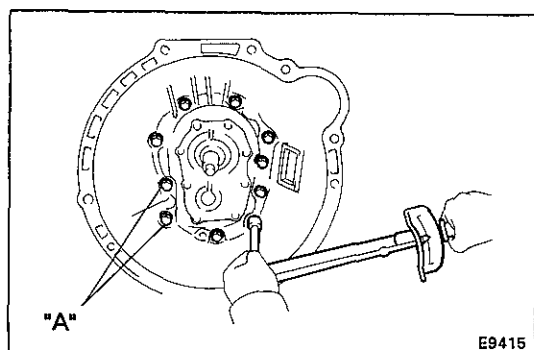
**Sealant: Part No.08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent**

- (d) Install the shift lever shaft housing and torque the bolts.

**Torque: 170 kg-cm (12 ft-lb, 17 N·m)**

#### 25. AFTER INSTALLING SHIFT LEVER SHAFT HOUSING, CHECK FOLLOWING ITEMS:

- (a) Check to see that the input shaft and output shaft rotate smoothly.
- (b) Check to see that shifting can be made smoothly to all positions.



#### 26. INSTALL CLUTCH HOUSING

- (a) Install the 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 and torque the bolts.

**Torque: 380 kg-cm (27 ft-lb, 37 N·m)**

**27. INSTALL BACK-UP LIGHT SWITCH**

**Torque: 380 kg-cm (27 ft-lb, 37 N·m)**

**28. (2WD)****INSTALL SPEEDOMETER DRIVEN GEAR**

- (a) Install speedometer driven gear.
- (b) Install lock plate and bolt and torque bolt.

**Torque: 115 kg-cm (8 ft-lb, 11 N·m)**

**29. APPLY MOLYBDENUM DISULPHIDE LITHIUM BASE GREASE (NLGI NO.2) OR MP GREASE**

Apply molybdenum disulphide lithium base grease to the following parts:

- Release fork and hub contact point
- Release fork and push rod contact point
- Release fork pivot point
- Clutch disc spline

**30. INSTALL BOOT, FORK, HUB AND BEARING ON TRANSMISSION**