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# MANUAL TRANSMISSION

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22109000036

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## GENERAL INFORMATION

22100010038

The F5MR1 and F5MR2 manual transmissions are designed.

Items		Specifications
Model		F5MR1, F5MR2
Type		Manual, 5-speed, Front wheel drive
Gear ratio	1st	3.363
	2nd	2.074
	3rd	1.321
	4th	0.967
	5th	0.795
	Reverse	3.550
Final reduction ratio		4.067

## LUBRICANTS

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Item	Specified lubricant	Quantity ℓ
Transmission oil	Elf Tranself TRX 75W-80W (XT3556)	3.4

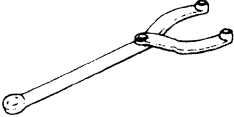
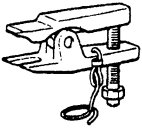
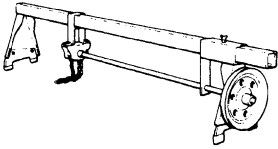
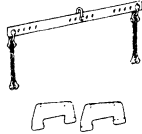
**SEALANT**

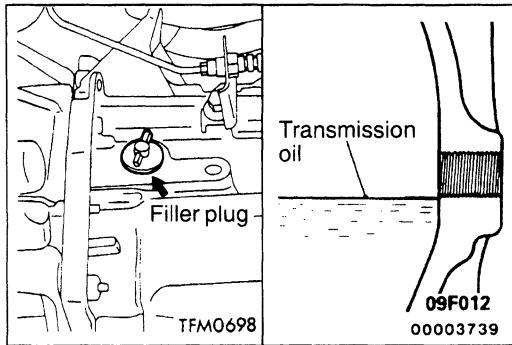
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Item	Specified sealant	Remark
Spring pin	MITSUBISHI GENUINE PART MD970389 or equivalent	Semi-drying sealant

**SPECIAL TOOLS**

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Tool	Number	Name	Use
	MB990767	End yoke holder	Fixing the hub
	MB990635 or MB991113	Steering linkage puller	Tie rod end and lower arm disconnection
	GENERAL SERVICE TOOL MZ203827	Engine lifter	Supporting the engine assembly during removal and installation of the transmission
	MB991453	Engine hanger	



## ON-VEHICLE SERVICE

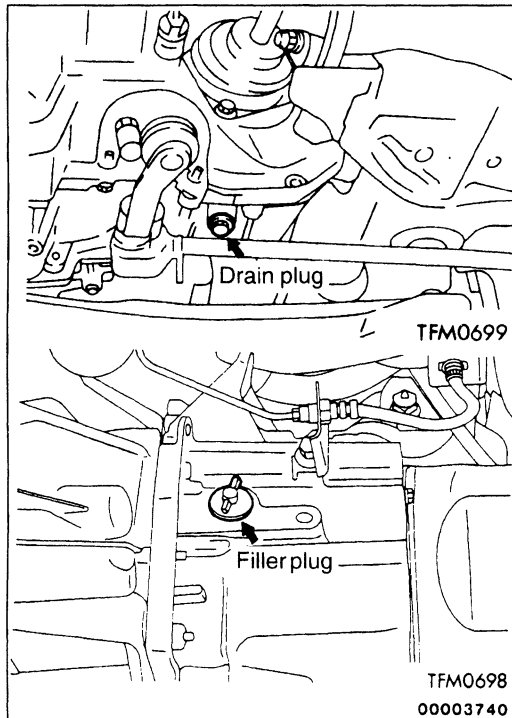
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### TRANSMISSION OIL LEVEL CHECK

Inspect each component for evidence of leakage, and check the oil level by remaining the filler plug. If the oil is contaminated, it is necessary to replace it with new oil.

1. Oil level should be at the lower portion of the filler plug hole.
2. Check that the transmission oil is not noticeably dirty, and that it has a suitable viscosity.
3. Tighten filler plug to specified torque.

**Specified torque: 22 Nm**



### TRANSMISSION OIL REPLACEMENT

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1. Remove transmission drain plug.
2. Drain oil.
3. Tighten drain plug to specified torque.

**Specified torque: 38 Nm**

4. Remove filler plug and fill with specified oil till the level comes to the lower portion of filler plug hole.

**Specified oil: Elf Tranself TRX 75W-80W (XT3556)**

**Quantity: 3.4 l**

5. Tighten filler plug to specified torque.

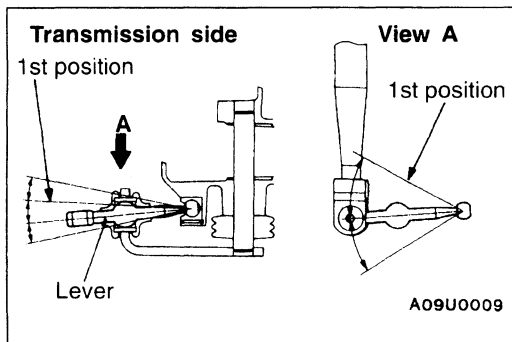
**Specified torque: 22 Nm**

**REVERSE MIS-OPERATION PREVENTION FUNCTION CHECK**

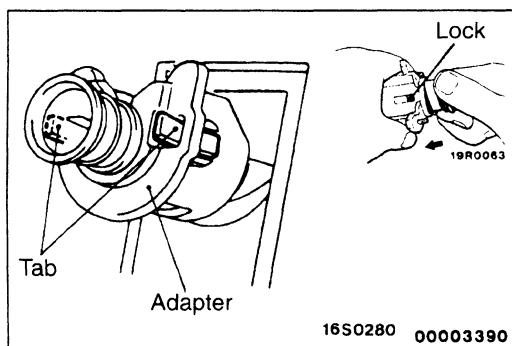
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1. Carry out the following checks.

Checking procedure	Check conditions	Check contents (normal condition)
1	Locking knob: Cannot be pulled up	Shift lever: Move the lever in the select direction (reverse direction) until it stops, and then move it forward.
2	Locking knob: Can be pulled up	Shifts to reverse



2. If the above operations cannot be carried out, adjust the shift rod by the following procedure.
  - a. Loosen the shift rod adjustment bolt.
  - b. Move the transmission-side lever and the shift lever assembly to 1st position.
  - c. Tighten the shift rod adjustment bolt.



**SPEEDOMETER CABLE REPLACEMENT** 22100250010

1. Remove the meter bezel and combination meter.
2. Remove the adapter lock.
3. Pull the speedometer cable slightly into the passenger compartment, and remove the rear side of the adapter from the cable.
4. After turning the adapter so that the notched section is aligned with the tab on the cable side, remove the adapter by sliding it backwards.
5. Tie a rope to the end of the speedometer cable that is in the passenger compartment. Then remove the grommet inside the engine compartment, and pull the cable into the engine compartment.
6. Pull out the retainer pin, and then remove the speedometer cable from the transmission.

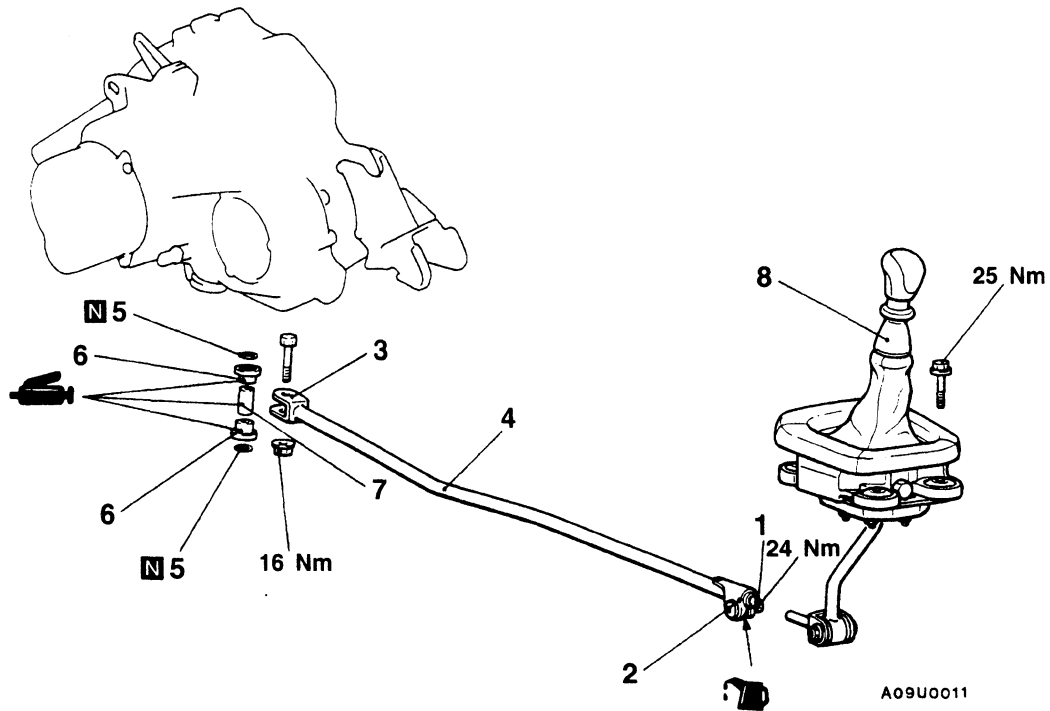
TRANSMISSION CONTROL

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REMOVAL AND INSTALLATION

**Post-installation Operation**

- (1) Reverse Mis-operation Prevention Function Check (Refer to P.22-5.)
- (2) Shift Lever Operation Check



**Shift rod assembly removal steps**

1. Shift rod adjusting bolt
2. Shift rod assembly connection (Shift lever side)
3. Shift rod assembly connection (Transmission side)
4. Shift rod assembly
5. O-ring

6. Shift rod bushing
7. Collar

**Shift lever assembly removal steps**

2. Shift rod assembly connection (Shift lever side)
8. Shift lever assembly



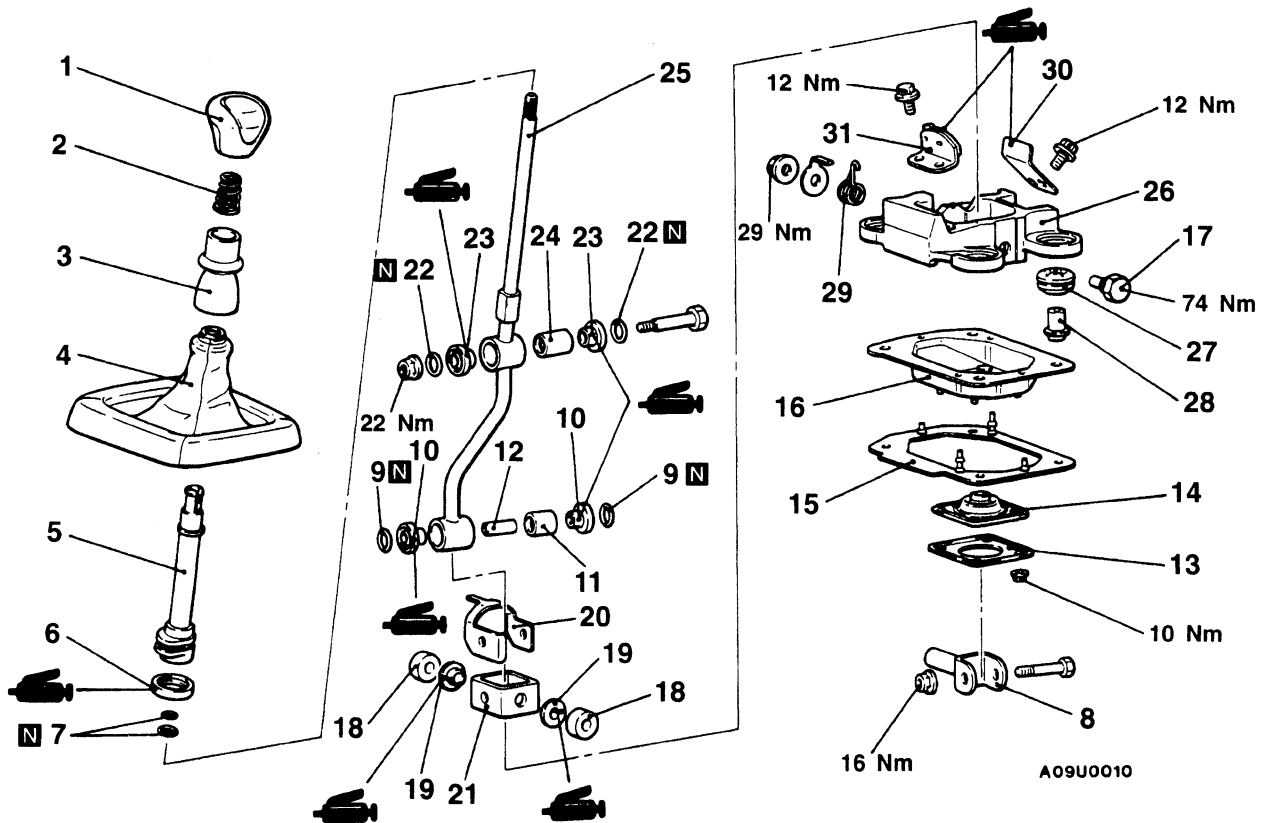
**REMOVAL SERVICE POINT**

**◀A▶ SHIFT ROD ASSEMBLY DISCONNECTION**

Suspend the shift rod assembly from the vehicle with wire.

SHIFT LEVER ASSEMBLY  
DISASSEMBLY AND REASSEMBLY

22100400033



Disassembly steps

1. Shift knob
2. Spring
3. Locking knob
4. Shift lever cover assembly
5. Locking tube
6. Stopper rubber A
7. O-ring
8. Shift fork
9. O-ring
10. Shift bushing
11. Rubber bushing
12. Collar
13. Retainer
14. Dust cover
15. Packing

16. Base bracket
17. Bolt B
18. Rubber bushing
19. Bushing
20. Detent plate
21. Base
22. O-ring
23. Shift bushing
24. Rubber bushing
25. Shift lever
26. Bracket assembly
27. Bushing
28. Distance piece
29. Select return spring
30. 5th stopper plate
31. Reverse stopper plate

TRANSMISSION ASSEMBLY

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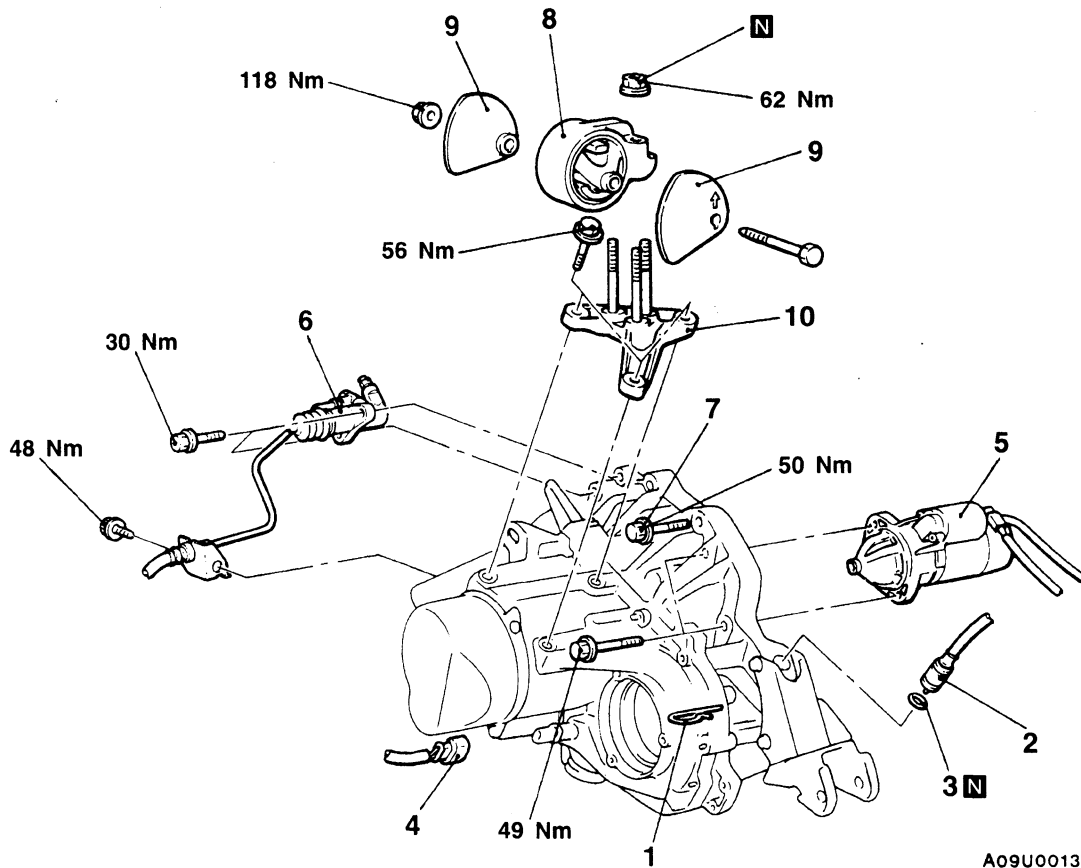
REMOVAL AND INSTALLATION

**Pre-removal Operation**

- (1) Transmission Oil Draining (Refer to P.22-4.)
- (2) Under Cover Removal
- (3) Air Cleaner Assembly Removal
- (4) Battery Removal
- (5) Canister Removal (Refer to GROUP 17.)
- (6) Shift Rod Assembly Removal (Refer to P.22-6.)

**Post-installation Operation**

- (1) Shift Rod Assembly Installation (Refer to P.22-6.)
- (2) Canister Installation (Refer to GROUP 17.)
- (3) Battery Installation
- (4) Air Cleaner Assembly Installation
- (5) Under Cover Installation
- (6) Transmission Oil Supplying (Refer to P.22-4.)
- (7) Shift Lever Operation Check
- (8) Speedometer Operation Check



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**Removal steps**

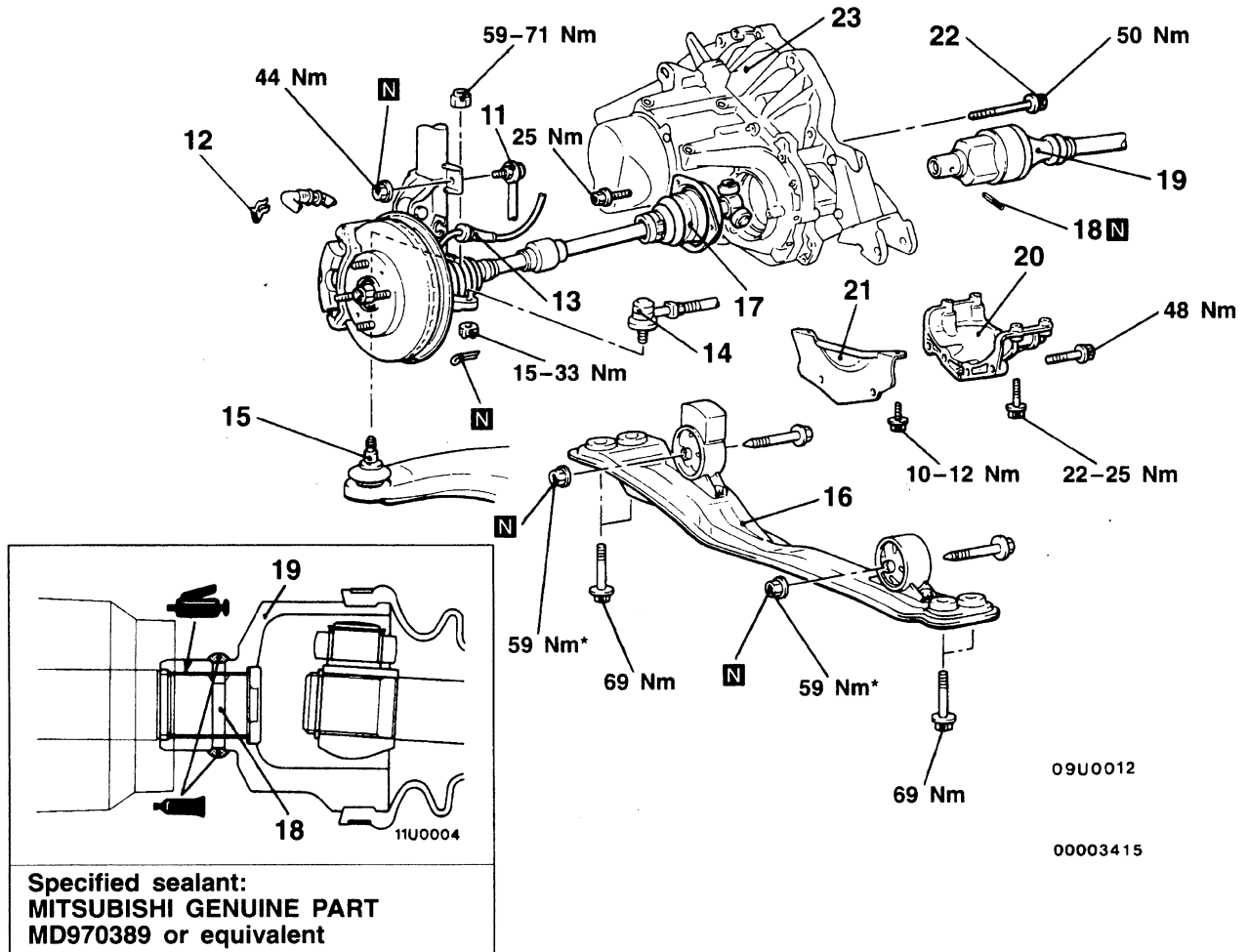
1. Retainer pin
2. Speedometer cable connection
3. O-ring
4. Backup lamp switch connector
5. Starter motor
6. Clutch release cylinder connection
7. Transmission assembly upper part coupling bolts



8. Transmission mount bracket
9. Transmission mount stopper
10. Transmission mount lower bracket
- Engine assembly supporting







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**Lifting up of the vehicle**

- 11. Stabilizer link connection
- 12. Brake hose clamp
- 13. Speed sensor cable connection  
<Vehicles with ABS>
- 14. Tie rod end connection
- 15. Lower arm ball joint connection
- 16. Centermember assembly
- 17. Drive shaft <L.H.> connection
- 18. Spring pin
- 19. Drive shaft <R.H.> connection

- 20. Transmission stay <SOHC>
- 21. Bell housing cover <SOHC>
- 22. Transmission assembly lower part  
coupling bolts
- 23. Transmission assembly

**Caution**

\*: Indicates parts which should be temporarily tightened, and then fully tightened with the vehicle on the ground in the unladen condition.

**REMOVAL SERVICE POINTS**

**◀A▶ STARTER MOTOR REMOVAL**

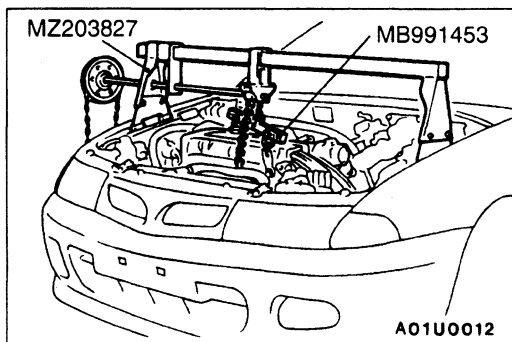
Remove the starter motor with the starter motor harness still connected and secure it inside the engine compartment.

### ◀B▶ CLUTCH RELEASE CYLINDER REMOVAL

Remove the clutch release cylinder without disconnecting the oil line connection, and fix it to the vehicle chassis.

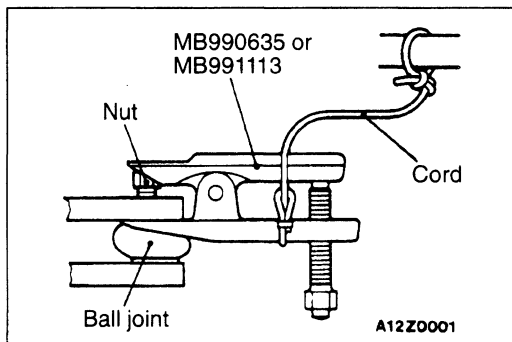
### ◀C▶ TRANSMISSION MOUNT BRACKET REMOVAL

Jack up the transmission assembly gently with a garage jack, and then remove the transmission mount bracket.



### ◀D▶ ENGINE ASSEMBLY SUPPORTING

Set the special tool to the vehicle to support the engine assembly.



### ◀E▶ TIE ROD END/LOWER ARM BALL JOINT DISCONNECTION

#### Caution

1. Use the special tool to loosen the tie-rod end mounting nut. Only loosen the nut; do not remove it from the ball joint.
2. Support the special tool with a cord, etc. not to let it come off.

### ◀F▶ DRIVE SHAFT <L.H.> REMOVAL

1. Remove the drive shaft with the hub and knuckle, etc., still attached.
2. Suspend the removed drive shaft inside the wheel housing with wire so that there are no sharp bends in any of the joints.

## INSTALLATION SERVICE POINTS

### ▶A◀ DRIVE SHAFT <R.H.>/SPRING PIN INSTALLATION

1. After applying multipurpose grease to the transmission-side spline of the drive shaft, align the spring pin hole at the end of the drive shaft with the spring pin hole at the end of the shaft at the transmission side, and then install the drive shaft.  
If the spring pin hole is slightly off-line, turn the drive shaft 180° and then install it again.

NOTE

Because there are an odd number of splines on the drive shaft, the pin hole will be off-line by half the width of the hole if the drive shaft is turned 180°.

2. Apply specified sealant to the spring pin, and then insert it into the drive shaft.

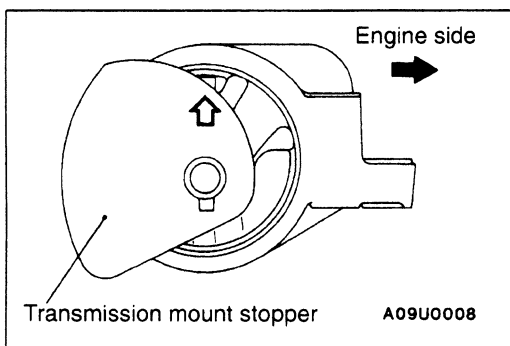
**Specified sealant:**

**MITSUBISHI GENUINE PART MD970389 or equivalent**

3. After inserting the pin, apply sealant to both ends of the pin hole to fully seal the hole.

**Specified sealant:**

**MITSUBISHI GENUINE PART MD970389 or equivalent**



**►B◄ TRANSMISSION MOUNT STOPPER INSTALLATION**

Install the transmission mount stopper so that the arrow points as shown in the illustration.

**NOTES**