
MANUAL TRANSMISSION

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2210900036

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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

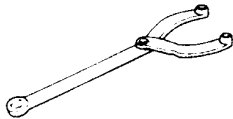
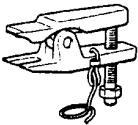
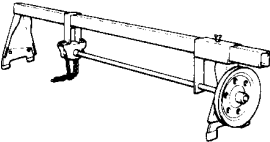
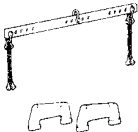
SEALANT

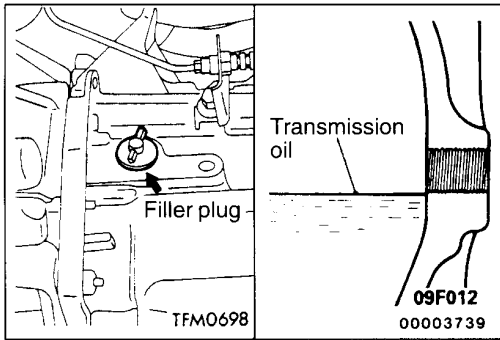
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Item	Specified sealant	Remark
Spring pin	MITSUBISHI GENUINE PART MD970389 or equivalent	Semi-drying sealant

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

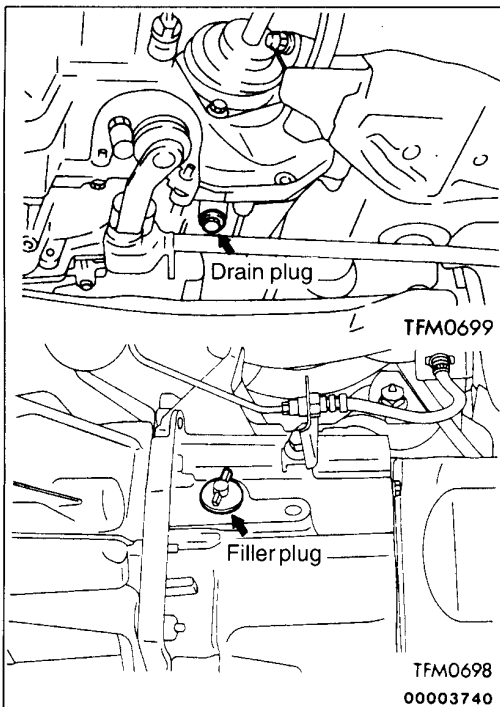
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TRANSMISSION OIL LEVEL CHECK

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.

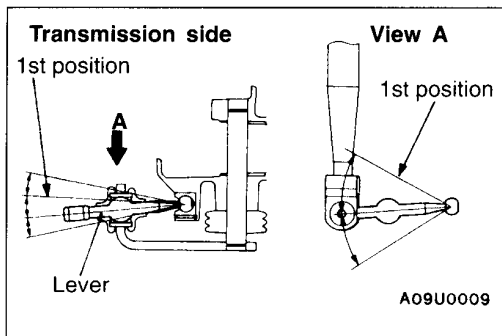
Specified torque: 22 Nm

REVERSE MIS-OPERATION PREVENTION FUNCTION CHECK

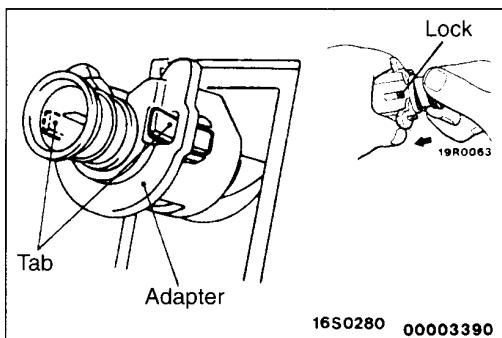
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1. Carry out the following checks.

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.	Shifts to 1st
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.

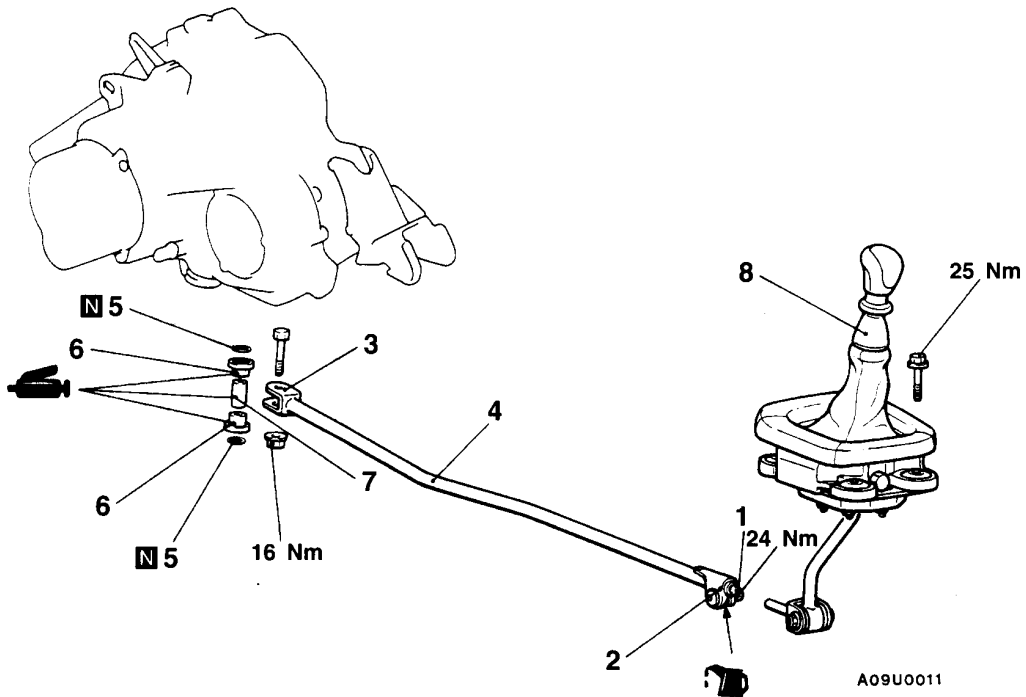
TRANSMISSION CONTROL

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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



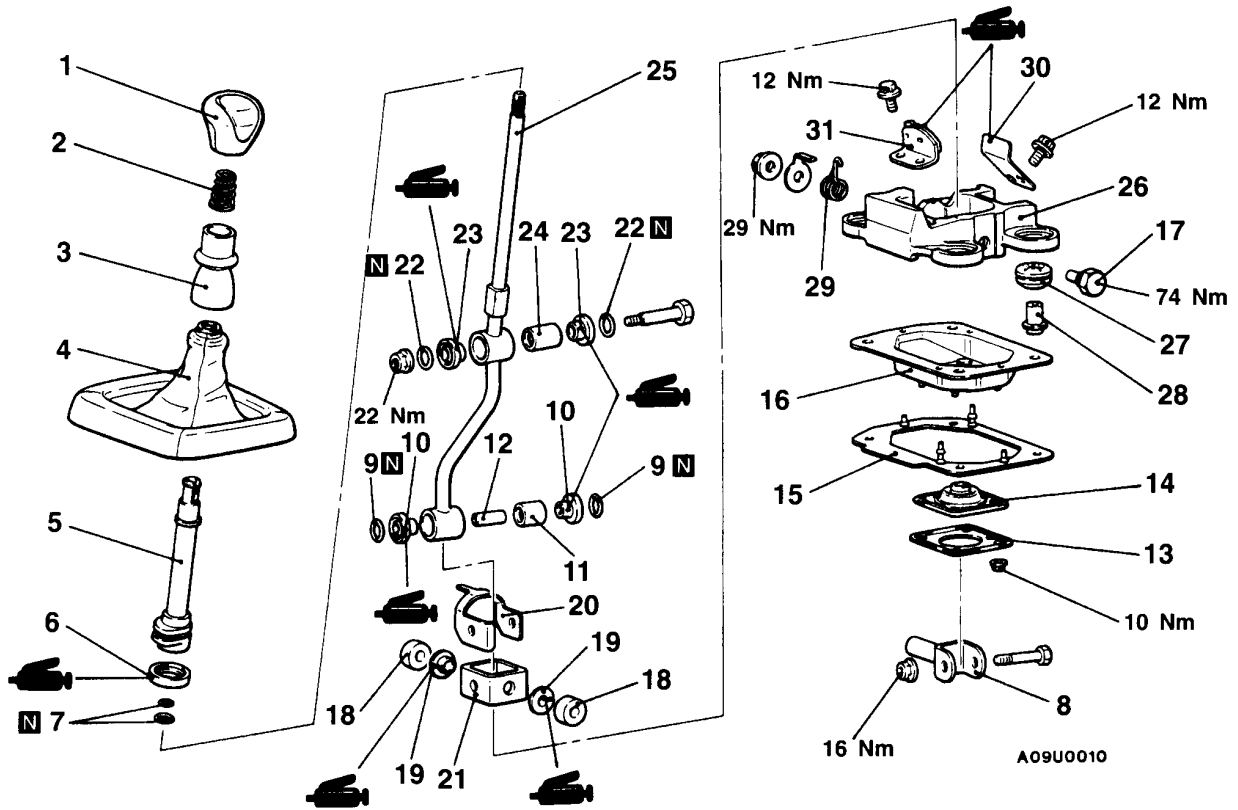
REMOVAL SERVICE POINT

◀A▶ SHIFT ROD ASSEMBLY DISCONNECTION

Suspend the shift rod assembly from the vehicle with wire.

**SHIFT LEVER ASSEMBLY
DISASSEMBLY AND REASSEMBLY**

22100400033



Disassembly steps

- | | |
|---|--|
| <ol style="list-style-type: none"> 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 | <ol style="list-style-type: none"> 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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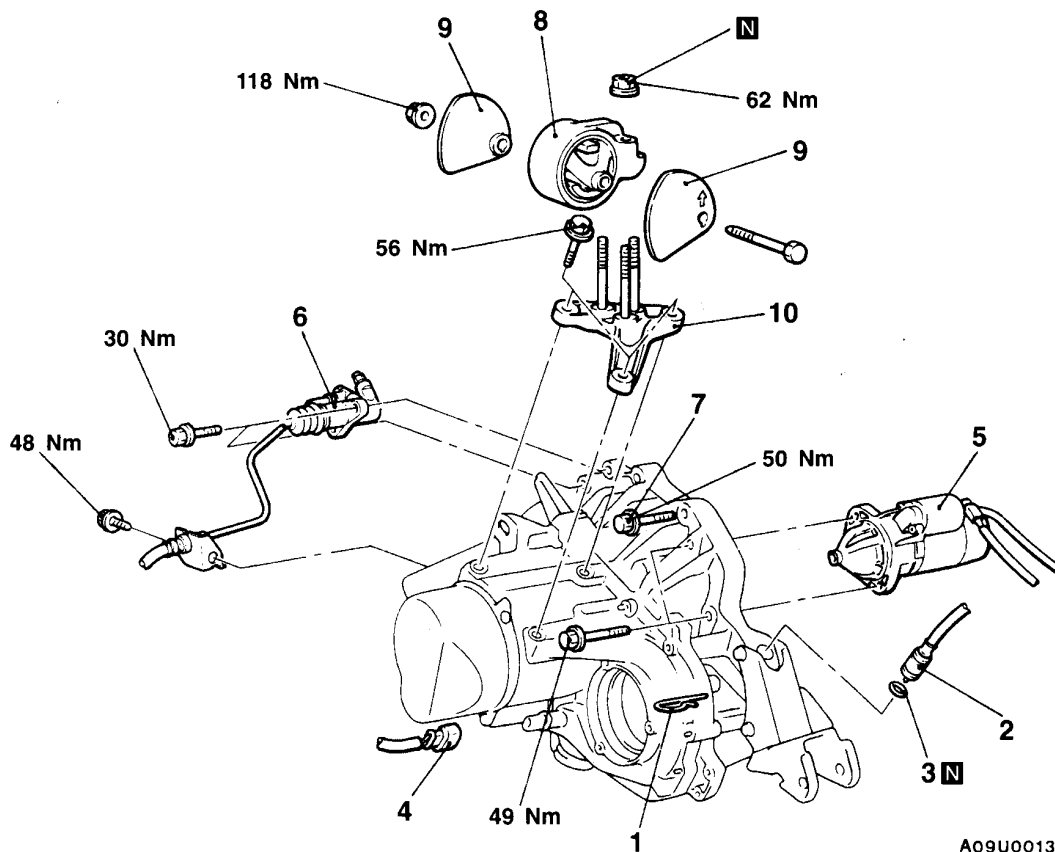
REMOVAL AND INSTALLATION

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



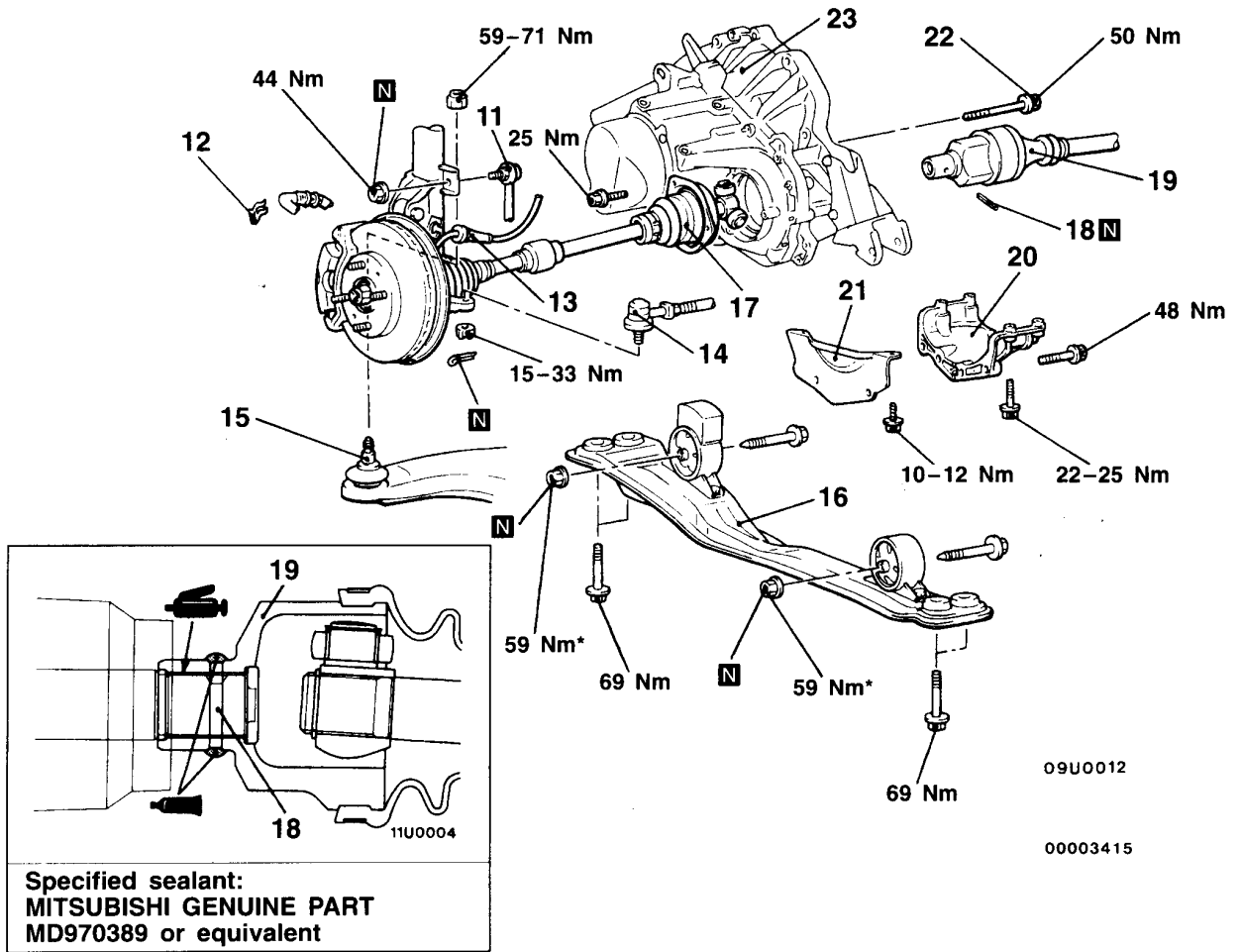
Removal steps

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





- 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

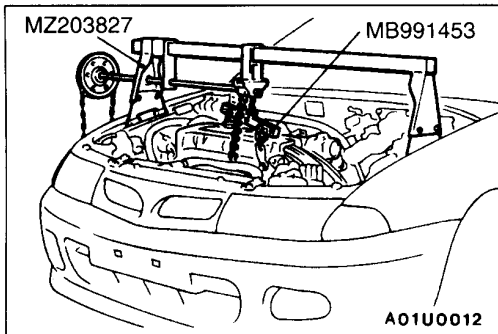
Remove the starter motor with the starter motor harness still connected and secure it inside the engine compartment.

◀B▶ CLUTCH RELEASE CYLINDER REMOVAL

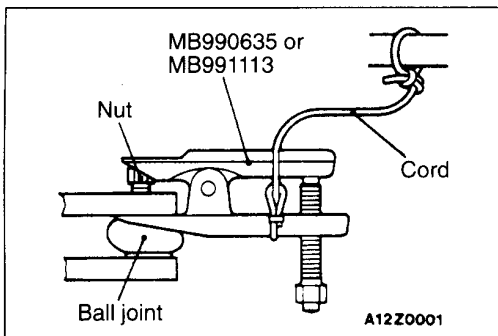
Remove the clutch release cylinder without disconnecting the oil line connection, and fix it to the vehicle chassis.

◀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.

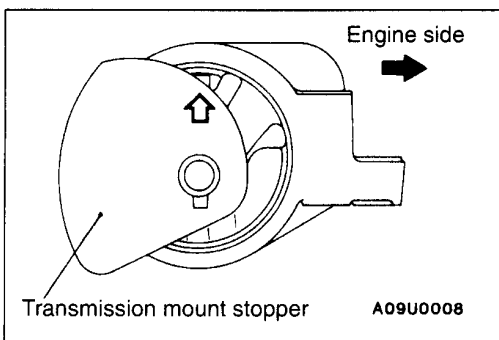
Specified sealant:

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.