

## GENERAL INFORMATION

### SPECIFICATIONS

Item		Specification
Transmission model		F5M42
Engine model		4G94
Type		5-speed, floor-shift
Gear ratio	1st	3.583
	2nd	1.947
	3rd	1.379
	4th	1.030
	5th	0.767
	Reverse	3.363
Final reduction ratio (Differential gear ratio)		3.722

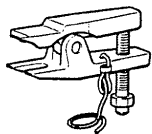
### SERVICE SPECIFICATION

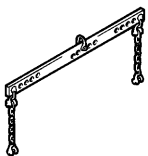
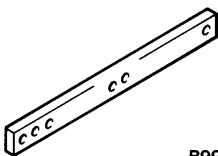
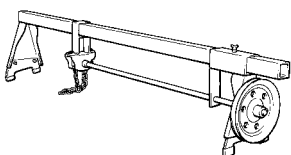
Item	Standard value
Protruding length of stabilizer bar mounting bolt mm	22.5 – 23.5

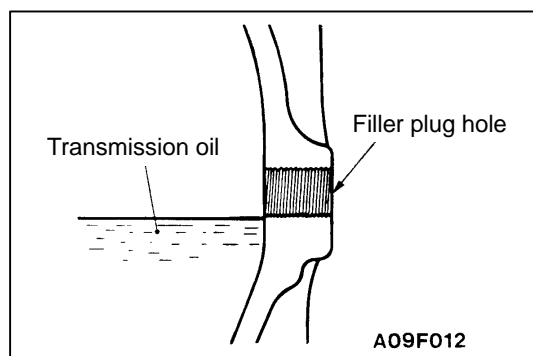
### LUBRICANT

Item	Specified lubricant	Quantity L
Transmission oil	Gear oil SAE 75W-90 or 75W-85W conforming to API GL-4	2.2

### SPECIAL TOOLS

Tool	Number	Name	Use
	MB990635 or MB991113	Steering linkage puller	Tie rod end and lower arm disconnection

Tool	Number	Name	Use
 B991454	MB991454	Engine hanger	Supporting the engine assembly during removal and installation of the transmission (Using the MB991454's chain)
 B991527	MB991527	Engine hanger	
 GENERAL SERVICE TOOL MZ203827	GENERAL SERVICE TOOL MZ203827	Engine lifter	



## ON-VEHICLE SERVICE

### TRANSMISSION OIL CHECK

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

**Tightening torque:  $32 \pm 2$  N·m**

### TRANSMISSION OIL REPLACEMENT

1. Remove oil filler plug and oil drain plug.
2. Drain oil.
3. Tighten the oil drain plug to the specified torque.

**Tightening torque:  $32 \pm 2$  N·m**

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

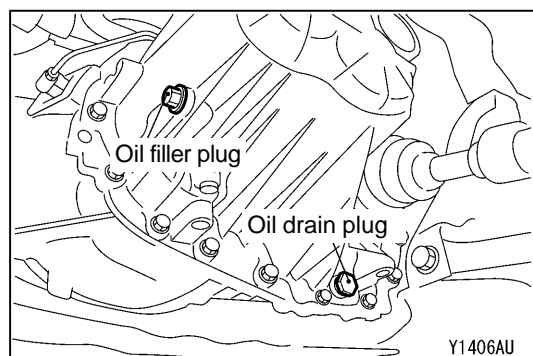
**Specified transmission oil:**

**Gear oil SAE 75W-90 or 75W-85W conforming to API GL-4**

**Quantity: 2.2 L**

5. Tighten the oil filler plug to the specified torque.

**Tightening torque:  $32 \pm 2$  N·m**



# TRANSMISSION CONTROL

## REMOVAL AND INSTALLATION

### Caution: SRS

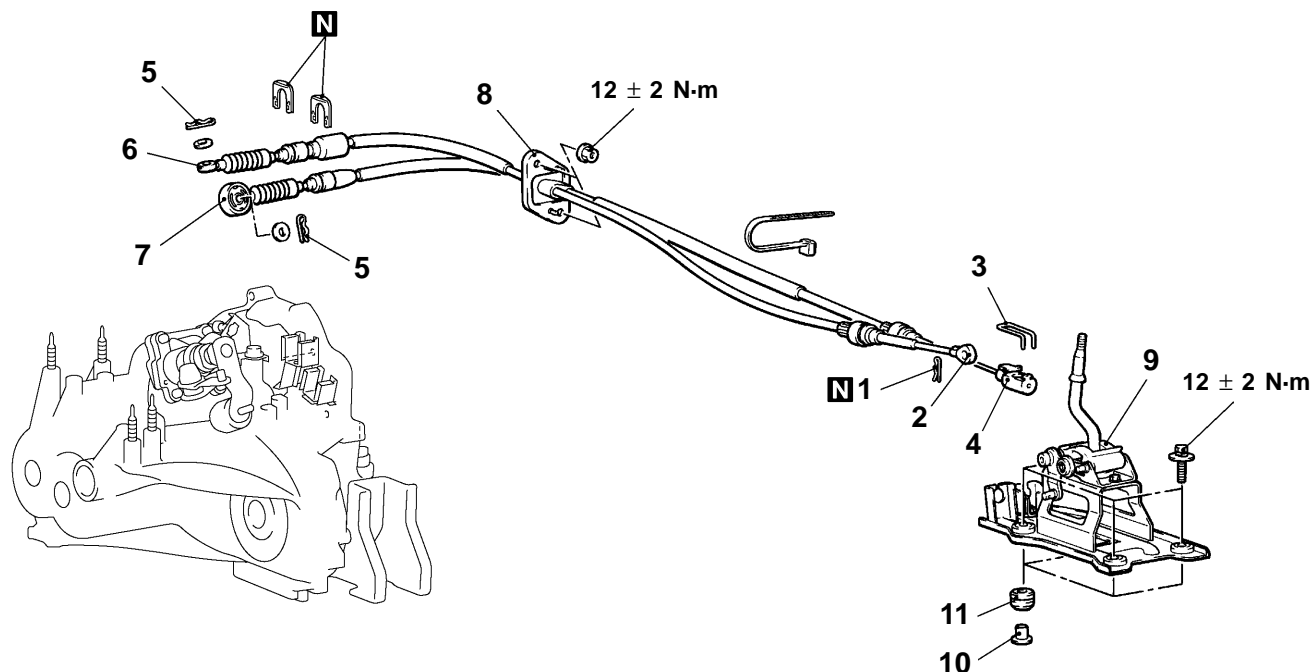
Be careful not to subject the SRS-ECU to any shocks during removal and installation of the shift lever assembly, shift cable and select cable assembly.

#### Pre-removal Operation

- Shift the Transmission Control Lever to the N Position.
- [Front Floor Console Removal](#)

#### Post-installation Operation

- [Front Floor Console Installation](#)
- Check the Operation of the Transmission Control Lever and the Movement in Each Lever Position.



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#### Shift cable and select cable assembly removal steps

1. Snap pin
2. Select cable connection (Shift lever side)
3. Clip
4. Shift cable connection (Shift lever side)
- SRS-ECU (Refer to [GROUP 52B](#))
- [Air cleaner assembly](#)
5. Snap pin
6. Select cable connection (Transmission side)
7. Shift cable connection (Transmission side)
8. Shift cable and select cable assembly

#### Shift lever assembly removal steps

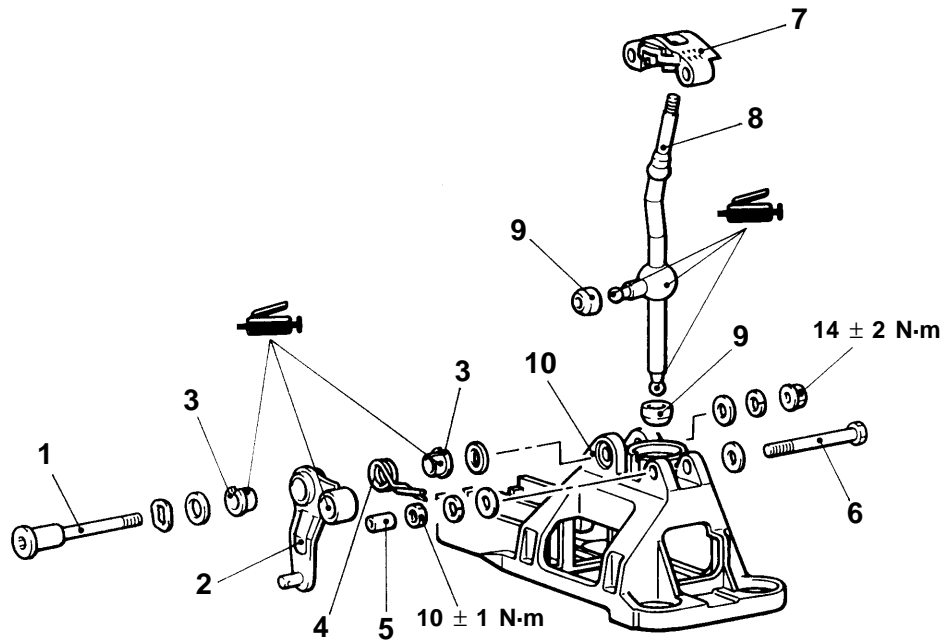
1. Split pin
2. Select cable connection (Shift lever side)
3. Clip
4. Shift cable connection (Shift lever side)
9. Shift lever assembly
10. Distance piece
11. Bushing

## SHIFT LEVER ASSEMBLY DISASSEMBLY AND REASSEMBLY

MAIN

Group  
22

22



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### Disassembly steps

- |                  |                        |
|------------------|------------------------|
| 1. Bolt          | 6. Bolt                |
| 2. Select lever  | 7. Cap                 |
| 3. Bushing       | 8. Shift lever         |
| 4. Return spring | 9. Shift lever bushing |
| 5. Collar        | 10. Base block         |

## TRANSMISSION ASSEMBLY

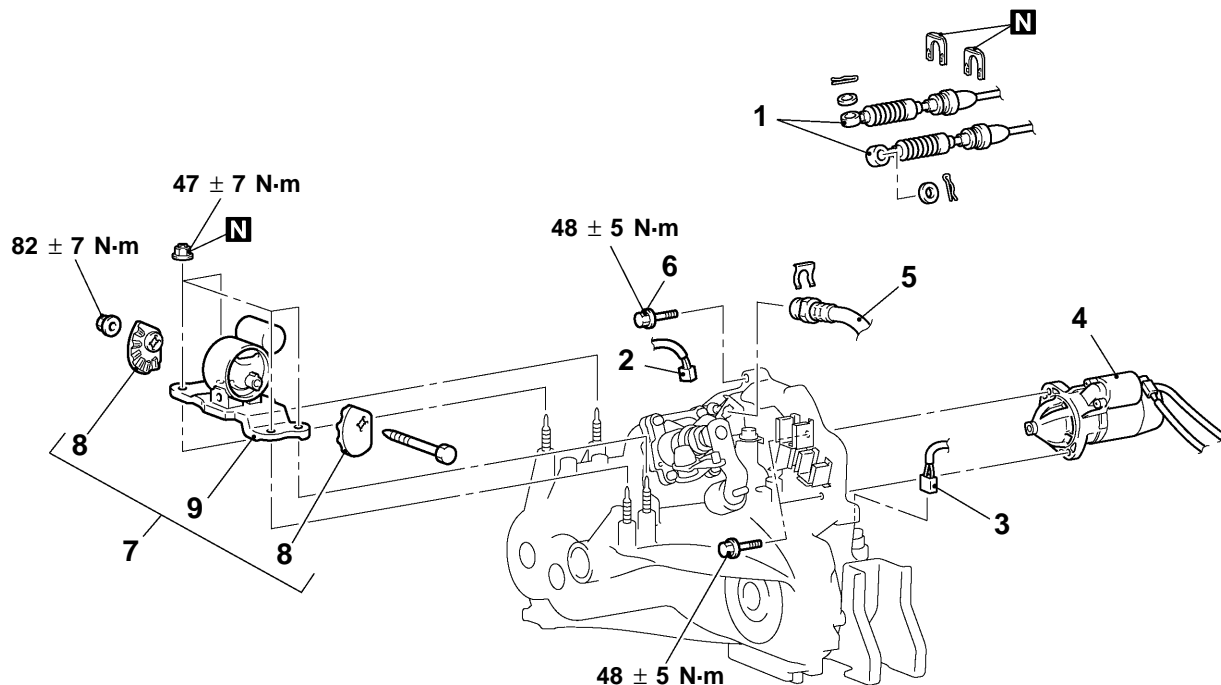
## REMOVAL AND INSTALLATION

## Caution

In order to prevent the insulator from being damaged, mounting locations marked by \* should be provisionally tightened, and then fully tightened when the body is supporting the full weight of the engine.

## Pre-removal and Post-installation Operation

- Under Cover Removal and Installation
- [Canister Removal and Installation](#)
- Battery Removal and Installation
- [Transmission Oil Draining and Supplying](#)
- Clutch Fluid Draining and Supplying
- Clutch Line Bleeding <Post-installation Only> (Refer to [On-vehicle Service](#).)
- Shift Lever Operation Check <Post-installation Only>



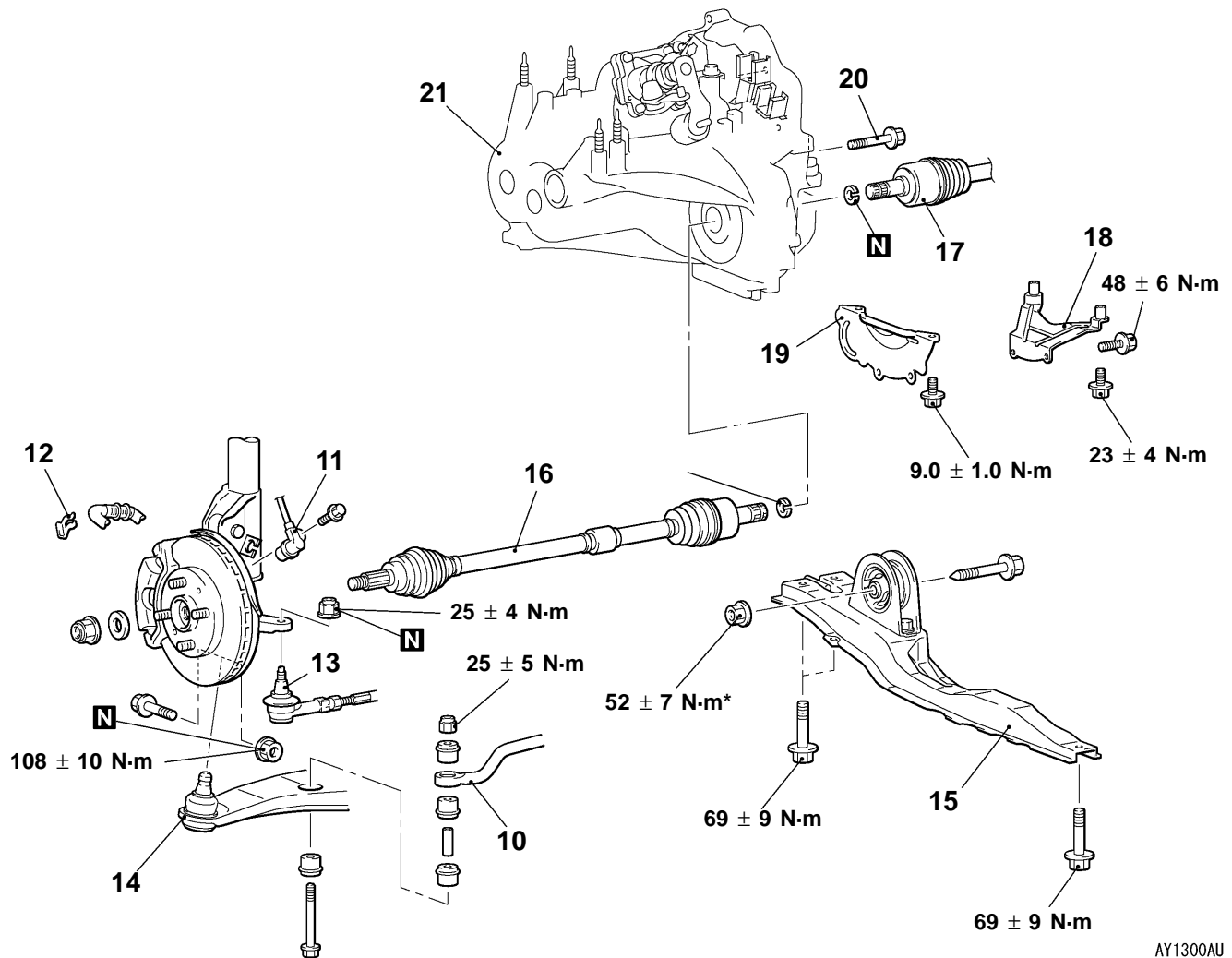
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## Removal steps

1. [Shift cable and select cable connection](#)
2. Backup lamp switch connector
3. Vehicle speed sensor connector
4. Starter motor

5. Clutch hose connection
6. Transmission assembly upper part coupling bolts
7. Transmission mount assembly
8. Transmission mount stopper
9. Transmission mount bracket
- Engine assembly supporting





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- Lifting up of the vehicle
- ▶ **A** ◀ 10. Stabilizer bar connection
- 11. Wheel speed sensor cable connection <Vehicles with ABS>
- 12. Brake hose clamp
- 13. Tie rod end connection
- 14. Lower arm ball joint connection
- 15. Centermember assembly



- 16. Drive shaft <L.H.> connection
- 17. Drive shaft <R.H.> connection
- 18. Transmission stay
- 19. Bell housing cover
- 20. Transmission assembly lower part coupling bolts
- 21. Transmission assembly



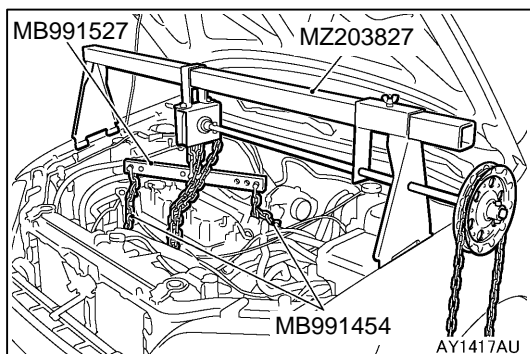
## REMOVAL SERVICE POINTS

### ◀A▶ STARTER MOTOR REMOVAL

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

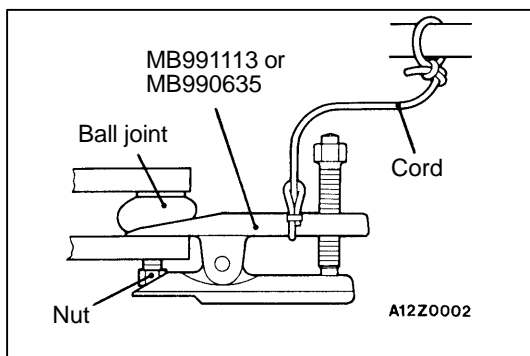
### ◀B▶ TRANSMISSION MOUNT ASSEMBLY REMOVAL

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



### ◀C▶ ENGINE ASSEMBLY SUPPORTING

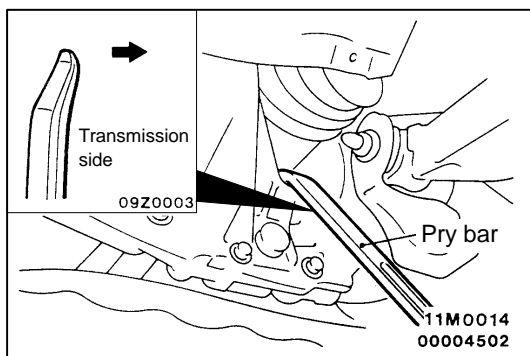
Set the special tool to the vehicle to support the engine assembly.



### ◀D▶ TIE ROD END DISCONNECTION

#### Caution

1. Loosen the nut only; do not remove it from the ball joint. Otherwise ball joint thread will be damaged.
2. The special tool should be suspended by a cord to prevent it from coming off.



### ◀E▶ DRIVE SHAFT <L.H.>/DRIVE SHAFT <R.H.> DISCONNECTION

1. Insert a pry bar between the transmission case and the drive shaft as shown to remove the drive shaft.

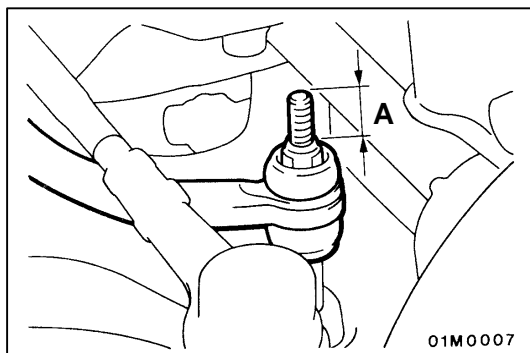
#### NOTE

Do not remove the hub and knuckle from the drive shaft.

#### Caution

**Always use a pry bar, or the TJ will be damaged.**

2. Suspend the removed drive shaft with a wire so that there are no sharp bends in any of the joints.
3. Use a shop towel to cover the transmission case not to let foreign material get into it.

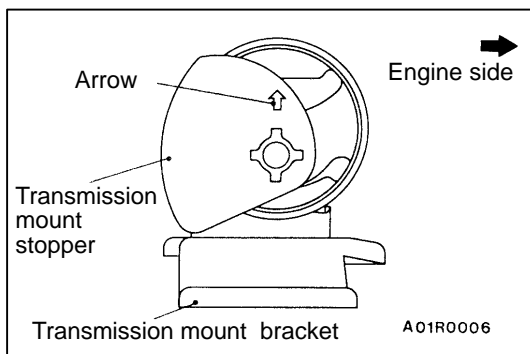


### INSTALLATION SERVICE POINTS

#### ►A◄ STABILIZER BAR INSTALLATION

Tighten the self-locking nut so that the stabilizer bar mounting bolt protrudes as shown.

**Standard value (A): 20.5 – 23.5 mm**



#### ►B◄ TRANSMISSION MOUNT STOPPER INSTALLATION

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