

MANUAL TRANSMISSION

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E22AA--

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SPECIFICATIONS

GENERAL SPECIFICATIONS

E22CA--

Items	2400	3000, 2500D	3500	2800D
Transmission models	V5M21	V5MT1	V5M31	V5M31
Type	5-speed floor shift	5-speed floor shift	5-speed floor shift	5-speed floor shift
Gear ratio				
1st	3.967	3.918	3.952	3.952
2nd	2.136	2.261	2.238	2.238
3rd	1.360	1.395	1.398	1.398
4th	1.000	1.000	1.000	1.000
5th	0.856	0.829	0.819	0.761
Reverse	3.578	3.295	3.553	3.553
Transfer				
Type	2-speed floor shift	2-speed floor shift	2-speed floor shift	2-speed floor shift
Gear ratio				
High	1.000	1.000	1.000	1.000
Low	1.925	1.925	1.900	1.900

LUBRICANTS

Items	Specified lubricant	Quantity	dm ³ (U.S. qts., Imp. qts.)
Manual transmission oil	Hypoid gear oil API GL-4, SAE 75W-90 or 75W-85W	2.2 (2.3, 1.9) <V5M21> 2.2 (2.6, 2.2) <V5MT1> 3.7 (3.9, 3.3) <V5M31>	
Transfer oil	Hypoid gear oil API GL-4, SAE 75W-90 or 75W-85W	V5M21, V5MT1 2.3 (2.4, 2.0) <Vehicles without P.T.O.> 2.7 (2.9, 2.4) <Vehicles with P.T.O.> V5M31 2.5 (2.6, 2.2) <Vehicles without P.T.O.> 2.9 (3.1, 2.6) <Vehicles with P.T.O.>	
Transfer oil seal lip	Hypoid gear oil API GL-4, SAE 75W-90 or 75W-85W	As required	

NOTE

P.T.O.: Power Take Off

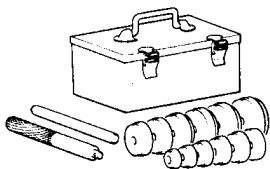
SEALANTS AND ADHESIVES

E22CE--

Items	Specified sealant	Remarks
Oil drain plug	3M ATD Part No. 8660 or equivalent	Semi-drying sealant
Oil filter plug	3M ATD Part No. 8660 or equivalent	Semi-drying sealant
Outer circumference of speedometer cable grommet	3M ATD Part No. 8001, 8011 or equivalent	Drying adhesive
Control lever assembly		
Control lever gasket	3M ATD Part No. 8661 or equivalent	Semi-drying sealant
Control lever assembly mounting bolt	3M Stud Locking No. 4170 or equivalent	Anaerobic sealant
Transmission and transfer assembly		
Control housing gasket	3M ATD Part No. 8661 or equivalent	Semi-drying sealant
Control housing mounting bolt	3M Stud Locking No. 4170 or equivalent	Anaerobic sealant

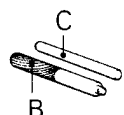
SPECIAL TOOLS

E22DA--

Tool	Number	Name	Use
	MB990925	Bearing and oil seal installer set	Installation of oil seal (MB990928, MB990938)

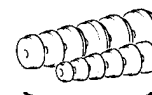
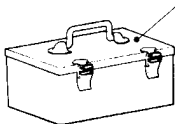
MB990925

Brass bar



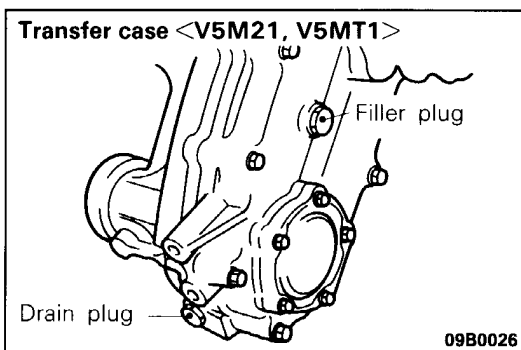
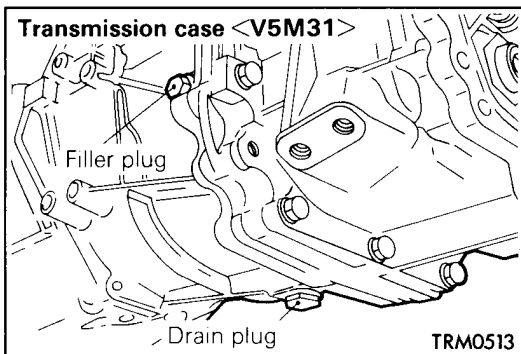
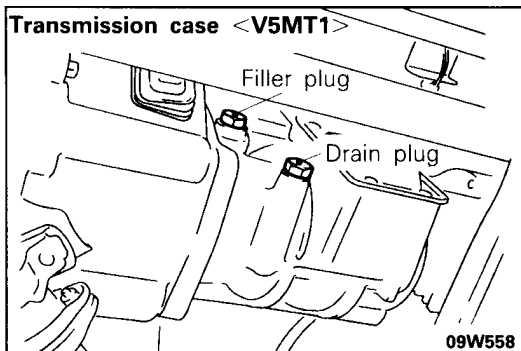
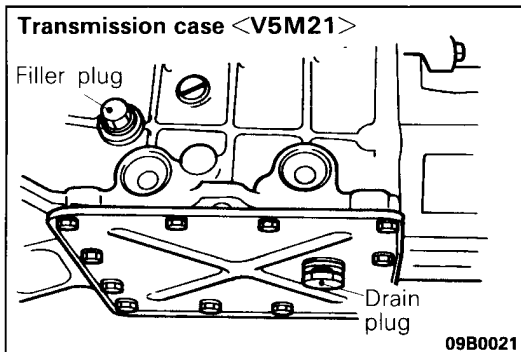
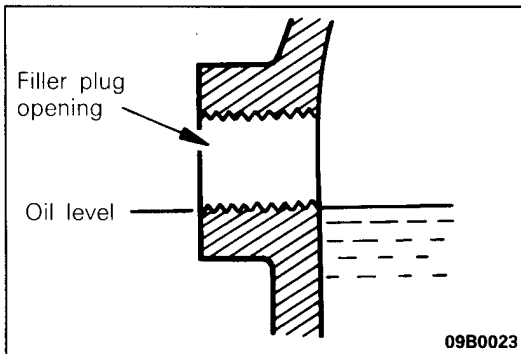
Bar (snap-in type)

Tool box



Installer adaptor

	Contents of new tool (MB990925)	Current tools	O.D. mm (in.)		Contents of new tool (MB990925)	Current tools	O.D. mm (in.)
A	MB990926	MB990272 MB990658 MB990659	39 (1.54)	A	MB990933	MB990307 MB990724	63.5 (2.50)
	MB990927	MB990264 MB990680	45 (1.77)		MB990934	MB990766 MB990807	67.5 (2.66)
	MB990928	MB990271 MB990808	49.5 (1.95)		MB990935	MB990133 MB990308 MB990762	71.5 (2.81)
	MB990929	MB990306	51 (2.01)		MB990936	MB990718	75.5 (2.97)
	MB990930	MB990283	54 (2.13)		MB990937	MB990309	79 (3.11)
	MB990931	MB990681 MB990764	57 (2.24)	B	MB990938	MB990124	-
	MB990932	MB990263	61 (2.40)	C	MB990939	-	-



SERVICE ADJUSTMENT PROCEDURES

OIL LEVEL CHECK

E22FDAG

Inspect each component for evidence of leakage, and check the oil level by removing 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. When installing the V5MT1 transmission's filler plug, coat the threaded part with the drying sealant.

OIL REPLACEMENT

E22FDAP

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

Specified torque:

<V5M21>	59 Nm (6 kgm, 4.3 ft.lbs.)
<V5M31>	33 Nm (3.4 kgm, 24.6 ft.lbs.)
<Transfer>	33 Nm (3.4 kgm, 24.6 ft.lbs.)

4. When installing the V5MT1 transmission's drain plug, coat the threaded part with the drying sealant.

Specified sealant: 3M ATD Part No. 8660 or equivalent

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

Specified transmission oil: Hypoid gear oil SAE 75W-90 or 75W-85W conforming API GL-4 or higher

Quantity:

Transmission

<V5M21>	2.2 dm ³ (2.3 U.S. qts., 1.9 Imp. qts.)
<V5MT1>	2.5 dm ³ (2.6 U.S. qts., 2.2 Imp. qts.)
<V5M31>	3.7 dm ³ (3.9 U.S. qts., 3.3 Imp. qts.)

Transfer

<V5M21, V5MT1–Vehicles without P.T.O.>	2.3 dm ³ (2.4 U.S. qts., 2.0 Imp. qts.)
<V5M21, V5MT1–Vehicles with P.T.O.>	2.7 dm ³ (2.9 U.S. qts., 2.4 Imp. qts.)
<V5M31–Vehicles without P.T.O.>	2.5 dm ³ (2.6 U.S. qts., 2.2 Imp. qts.)
<V5M31–Vehicles with P.T.O.>	2.9 dm ³ (3.1 U.S. qts., 2.6 Imp. qts.)

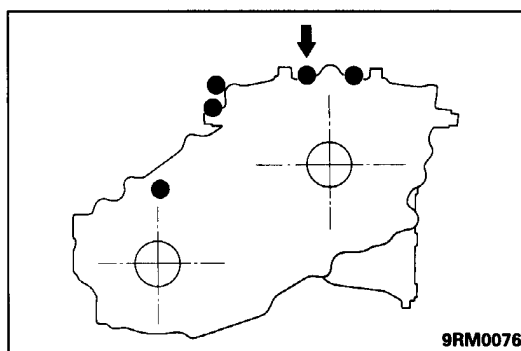
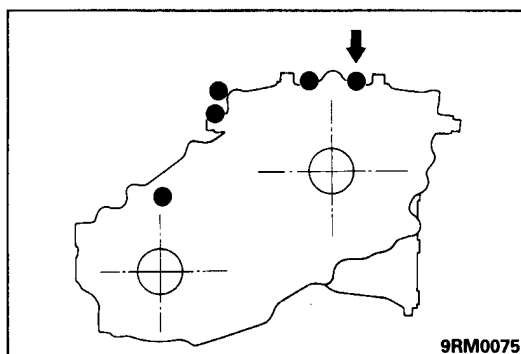
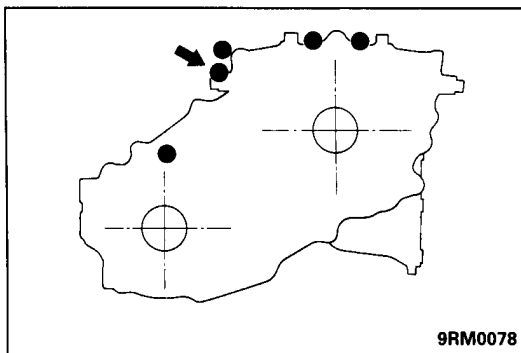
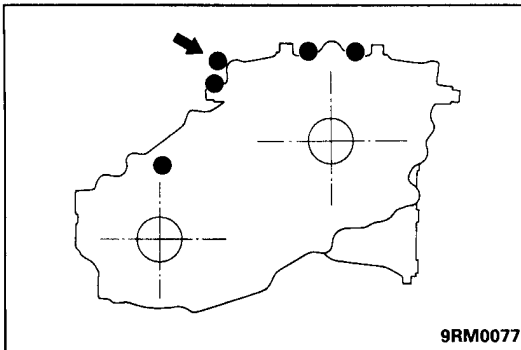
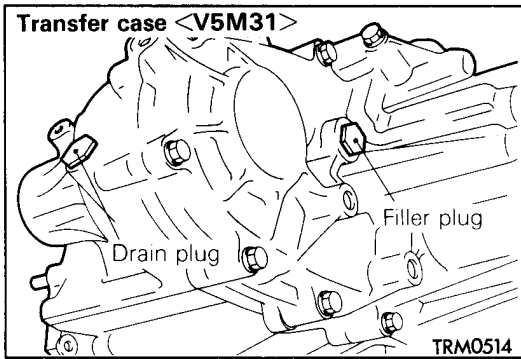
6. Tighten the oil filler plug to the specified torque.

Specified torque:

<V5M21>	59 Nm (6 kgm, 4.3 ft.lbs.)
<V5M31>	33 Nm (3.4 kgm, 24.6 ft.lbs.)
<Transfer>	33 Nm (3.4 kgm, 24.6 ft.lbs.)

7. When installing the V5MT1 transmission's filler plug, coat the threaded part with the drying sealant.

Specified sealant: 3M ATD Part No. 8660 or equivalent



CENTRE DIFFERENTIAL LOCK DETECTION SWITCH CHECK

E22FFAA

Check the continuity between the brown connector terminal on the side of the transfer case and the transfer case.

Transfer control lever position	Continuity
4H	No continuity
4HLc	Continuity

2WD/4WD DETECTION SWITCH CHECK

E22FGAA

Check the continuity between the black connector terminal on the side of the transfer case and the transfer case.

Transfer control lever position	Continuity
2H	Continuity
4H	No continuity

CENTRE DIFFERENTIAL LOCK OPERATION DETECTION SWITCH CHECK

E22FHAA

Check the continuity between the brown connector terminal on the top of the transfer case and the transfer case.

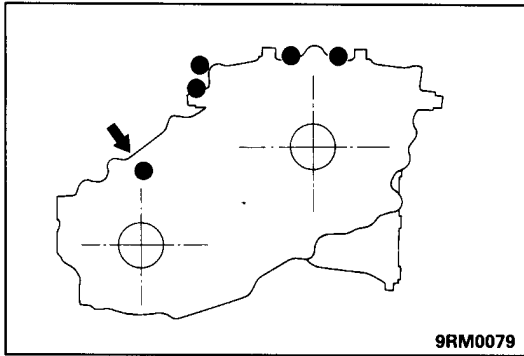
Transfer control lever position	Continuity
4H	No continuity
4HLc	Continuity

4WD OPERATION DETECTION SWITCH CHECK

E22FIAA

Check the continuity between the black connector terminal on the top of the transfer case and the transfer case.

Transfer control lever position	Continuity
2H	No continuity
4H	Continuity

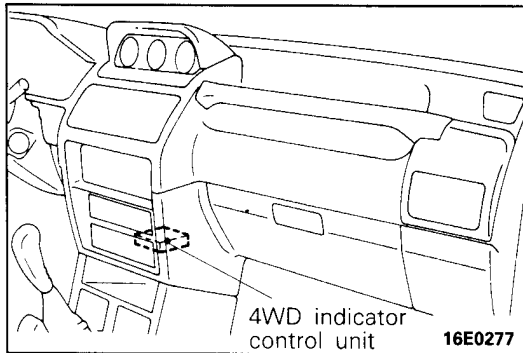
**HI/LO DETECTION SWITCH CHECK**

E22KJAA

Check the continuity between the white connector terminal on the side of the transfer case and the transfer case.

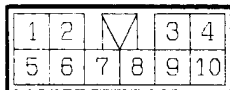
Transfer control lever position	Continuity
4HLc	Continuity
N (between 4HLc and 4LLc)	No continuity
4LLc	Continuity

NOTES



4WD INDICATOR CONTROL UNIT INSPECTION

1. Remove the radio or CD player. (Refer to GROUP 54 – Radio and Stereo.)
2. Remove the 4WD indicator control unit.
3. Measure the voltage at the terminals under each condition.
4. Carry out the voltage measurements with the harness disconnected from the control unit. Insert the probe from the rear of the connector and take the measurement between terminal Ⓢ (earth terminal) and the respective terminals.



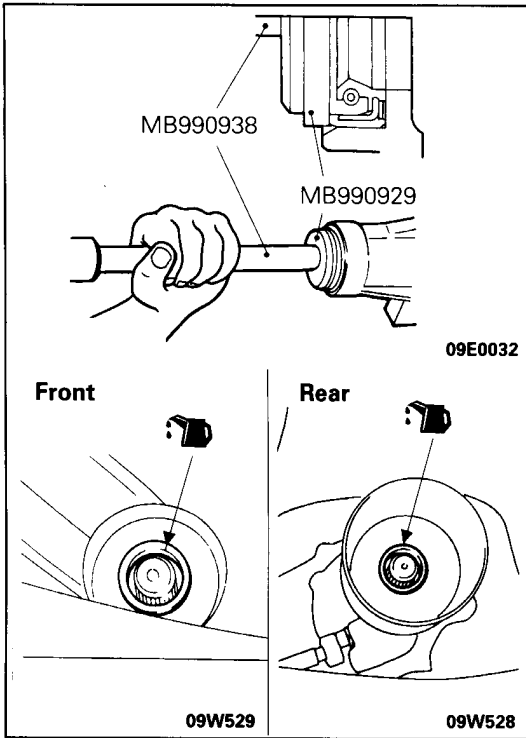
16E0277a

(Control unit side)

Terminal No.	Inspection item		Inspection condition		Terminal voltage	
3	Ignition switch (IG ²)		Ignition switch (IG2)	OFF	0 V	
				ON	System voltage*	
4	Combination meter	Center differential lock indicator lamp	Ignition switch: ON	Transfer lever position	4H	System voltage*
					4HLc	Less than 1.5V
10	(4WD indicator lamp)	Front wheel lamp	Ignition switch: ON	In 2WD	0 V	
				In 4WD	System voltage*	
9		Rear wheel lamp	Ignition switch: ON	Transfer lever position	N	0 V
					4HLc, 4LLc	System voltage*
6	Free-wheel engage switch		Ignition switch: ON	In 2WD	system voltage*	
				In 4WD	0 V	
1	HI/LOW detection switch		Ignition switch: ON	Transfer lever position	N	System voltage*
					4HLc, 4LLc	0 V
2	4WD operation detection switch		Ignition switch: ON	Transfer lever position	2H	System voltage*
					4H	0 V
5	Centre differential lock detection switch		Ignition switch: ON	Transfer lever position	4H	System voltage*
					4HLc	0 V
7	Centre differential lock operation detection switch		Ignition switch: ON	Transfer lever position	4H	System voltage*
					4HLc	0 V

NOTE

System voltage marked with (*) is 1–2V lower than actual battery voltage.

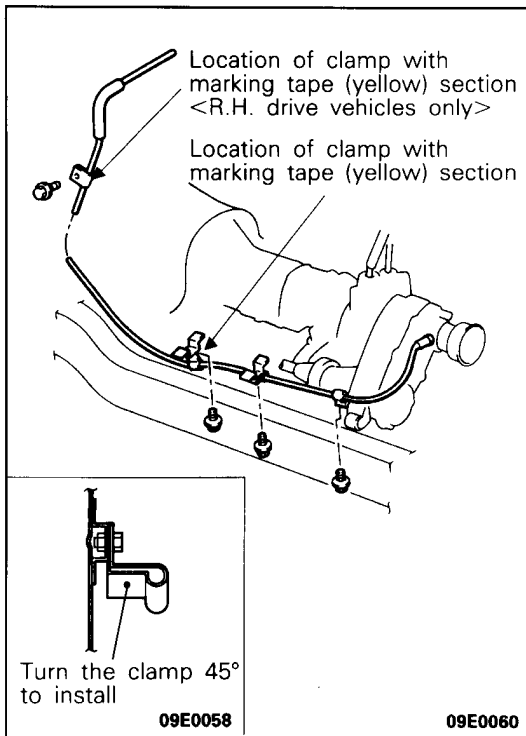


TRANSFER OIL SEALS REPLACEMENT

E22FAAF

1. Disconnect the propeller shaft from the transfer. (Refer to GROUP 25 – Propeller Shaft.)
2. Using a flat-tip (–) screwdriver, remove the oil seal.
3. Using the special tool, tap the transfer oil seal into the transfer.
Note in illustration the direction of installation of transfer oil seal.
4. Apply a coating of the transmission oil to the lip of the oil seal.

Specified transmission oil: Hypoid gear oil API GL-4, SAE 75W-90 or 75W-85W



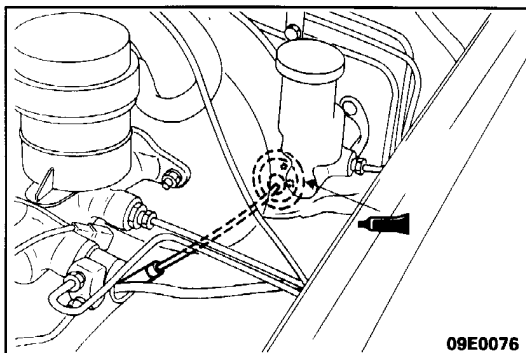
SPEEDOMETER CABLE REPLACEMENT

E22FCBI

1. Replace the cable assembly if there is a malfunction.
2. Connect the speedometer cable to the transmission and connect the wiring by the following procedure.
 - (1) Wire the speedometer cable so that the minimum bend radius is 150mm (5.91 in.) or more.
 - (2) Wire the clamps that have a section with marking tape (yellow) in the locations shown in the illustration.

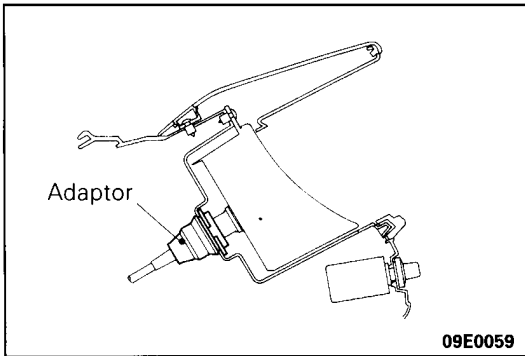
Caution

Wire the speedometer cable so that it does not interfere with the brake tube.



3. After installing the speedometer cable grommet to the towboard, apply specified sealant to the outside of the grommet.

Specified sealant: 3M ATD Part No. 8001, 8011 or equivalent



4. Install the adaptor to the speedometer cable, and install the speedometer.

Caution

If the cable connections are not made securely to the speedometer side and to the transmission side, the speedometer indications will not be accurate, and an abnormal noise will develop, so be sure to make the connections securely.

5. After connecting to the speedometer, pull the speedometer cable out from the engine compartment until the cable marking is fully withdrawn from the grommet, to remove all bends from the cable inside the instrument panel.

GEARSHIFT LEVER ASSEMBLY

E22GA--

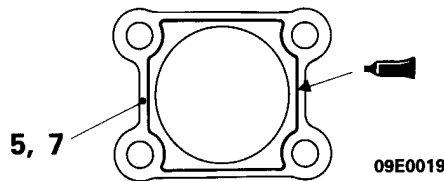
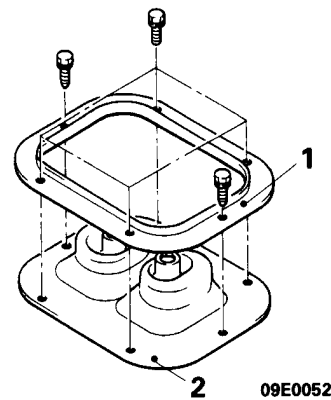
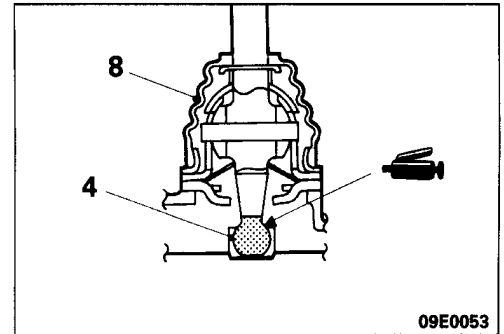
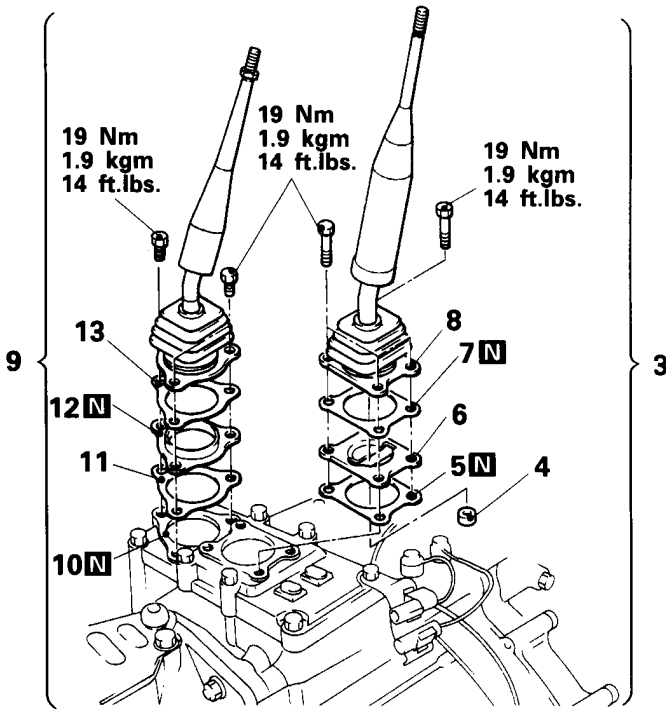
REMOVAL AND INSTALLATION

Pre-removal Operation

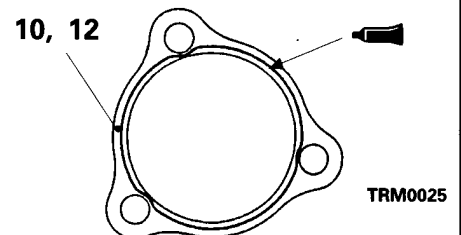
- Removal of Front Console Assembly (Refer to GROUP 52 – Floor Console.)
- Move the Transmission and Transfer Control Levers to the Following Positions.
Transmission Control Lever: Neutral Position
Transfer Control Lever: 4H (4 wheel drive-high range) Position

Post-installation Operation

- Installation of Front Floor Console Assembly (Refer to GROUP 52 – Floor Console.)
- Check the Operation of the Transmission and Transfer Control Levers and the Movement in each Lever Position.



Apply the sealant to both sides of the gasket (No. 5 and 7).



Apply the sealant to both sides of the gasket (No. 10 and 12).

Sealant: 3M ATD Part No. 8661 or equivalent

Transmission control lever assembly removal steps

1. Retainer
2. Control lever boot
- ➡➡ 3. Transmission control lever assembly
4. Control lever bushing
5. Gasket
- ➡➡ 6. Stopper plate
7. Gasket
8. Transmission control lever

Transfer control lever assembly removal steps

1. Retainer
2. Control lever boot
- ➡➡ 9. Transfer control lever assembly
10. Gasket
11. Stopper plate
12. Gasket
13. Transfer control lever

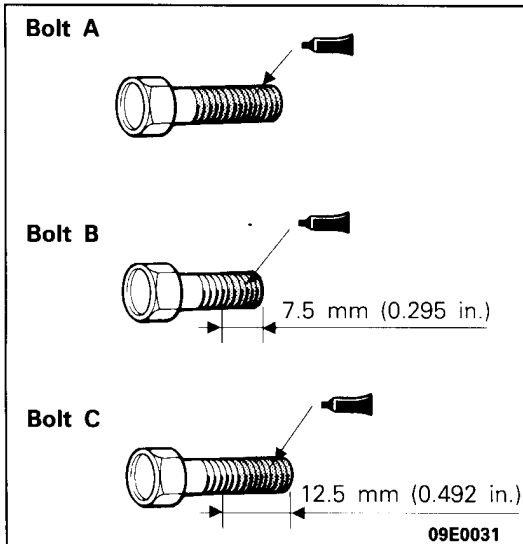
SERVICE POINTS OF INSTALLATION

9. INSTALLATION OF TRANSFER CONTROL LEVER ASSEMBLY/3. TRANSMISSION CONTROL LEVER ASSEMBLY

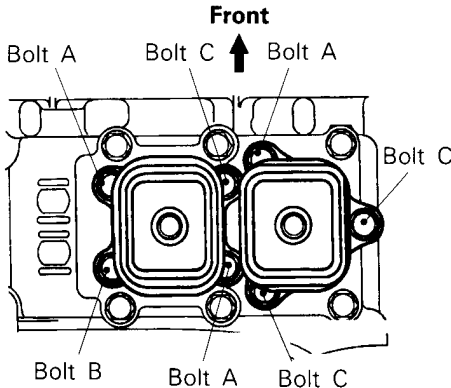
- (1) Remove the adhesive sticking to the lever assembly mounting bolts.
- (2) Use a tap (M8x1.25) to remove the adhesive sticking to the screw holes in the control housing, and clean it by blowing in air.

- (3) Apply specified adhesive to the threads of the lever assembly mounting bolts.
Apply adhesive to the whole thread for bolt A, and to the areas shown in the illustration for bolts B and C.

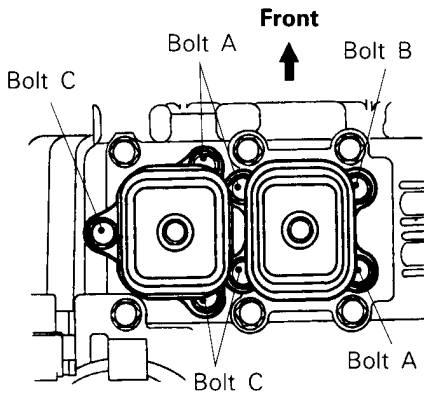
Specified adhesive: 3M Stud Locking No. 4710 or equivalent



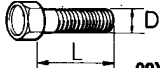
<L.H. drive vehicles>



<R.H. drive vehicles>

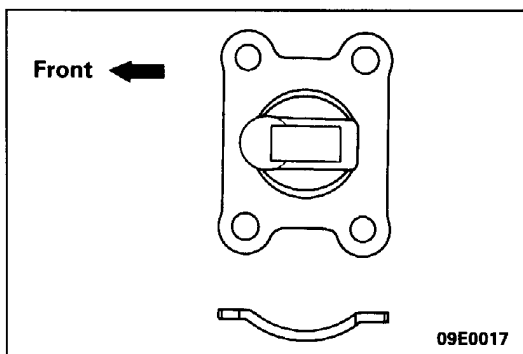


- (4) The dimensions of the mounting bolts vary according to their mounting locations, so do not confuse them when installing.

Bolt	O.D. × Length mm(in.)	Bolt identification
A	④ 8×22 (0.3×0.9)	④ D × L  09Y512
B	④ 8×18 (0.3×0.7)	
C	④ 8×23 (0.3×0.9)	

6. INSTALLATION OF STOPPER PLATE

Install the stopper plate to the transmission control lever in the direction shown in the illustration.



TRANSMISSION AND TRANSFER ASSEMBLY

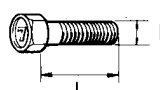
REMOVAL AND INSTALLATION

E22JA--

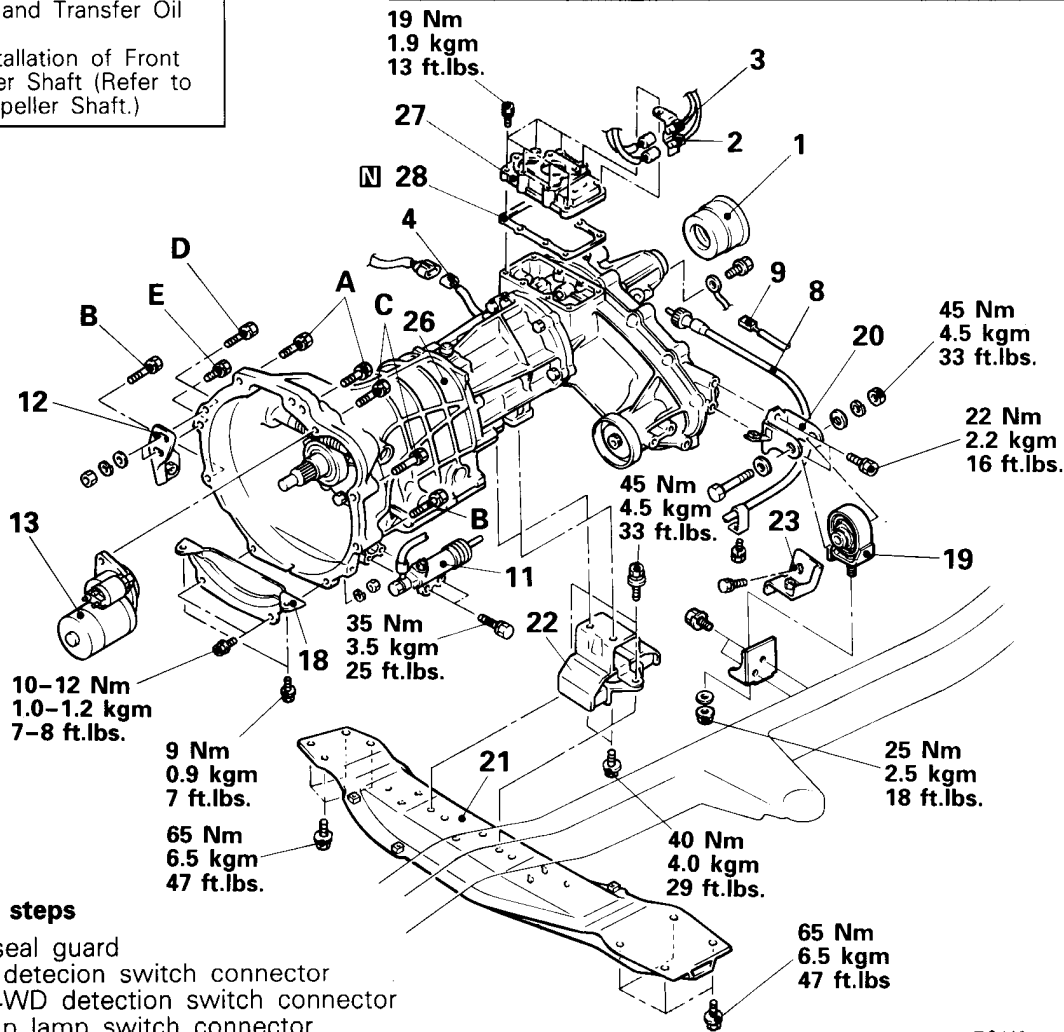
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Pre-removal and Post-installation Operation

- Removal and Installation of Transmission and Transfer Control Lever Assembly (Refer to P.22-9.)
- Removal and Installation of Transfer Case Protector
- Removal and Installation of Front Exhaust Pipe
- Draining and Supplying of Transmission Oil and Transfer Oil (Refer to P.22-4.)
- Removal and Installation of Front and Rear Propeller Shaft (Refer to GROUP 25 – Propeller Shaft.)

	Nm	kgm	ft.lbs.	O.D. × Length mm (in.)	Bolt identification
A	50	5.0	35	10×40 (0.4×1.6)	 D × L
B	50	5.0	35	10×65 (0.4×2.6)	
C	31	3.1	22	10×60 (0.4×2.4)	
D	24	2.4	17	8×55 (0.3×2.2)	
E	24	2.4	17	8×25 (0.3×1.0)	

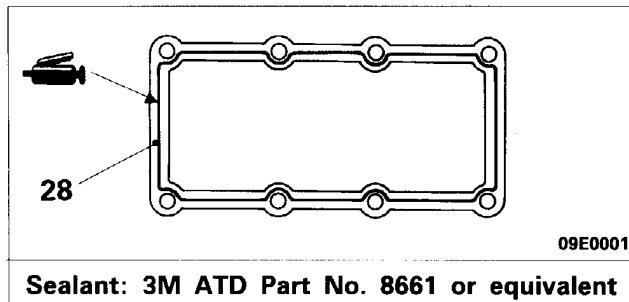
09Y512



09E0112

Removal steps

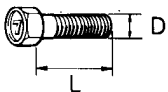
1. Dust seal guard
2. HI/LO detection switch connector
3. 2WD/4WD detection switch connector
4. Back-up lamp switch connector
8. Connection for speedometer cable
<Vehicles built up to October, 1993>
9. Speed sensor connector
<Vehicles built from November, 1993>
- ↔ 11. Connection for clutch release cylinder
12. Exhaust pipe mounting bracket
13. Starter motor
18. Bell housing cover
- ↔ 19. Transfer roll stopper
20. Transfer mounting bracket
21. No. 2 crossmember
22. Engine mounting rear insulator
23. Transfer case protector bracket
- ↔ ↔ 26. Transmission and transfer assembly
- ↔ ↔ 27. Control housing
28. Gasket



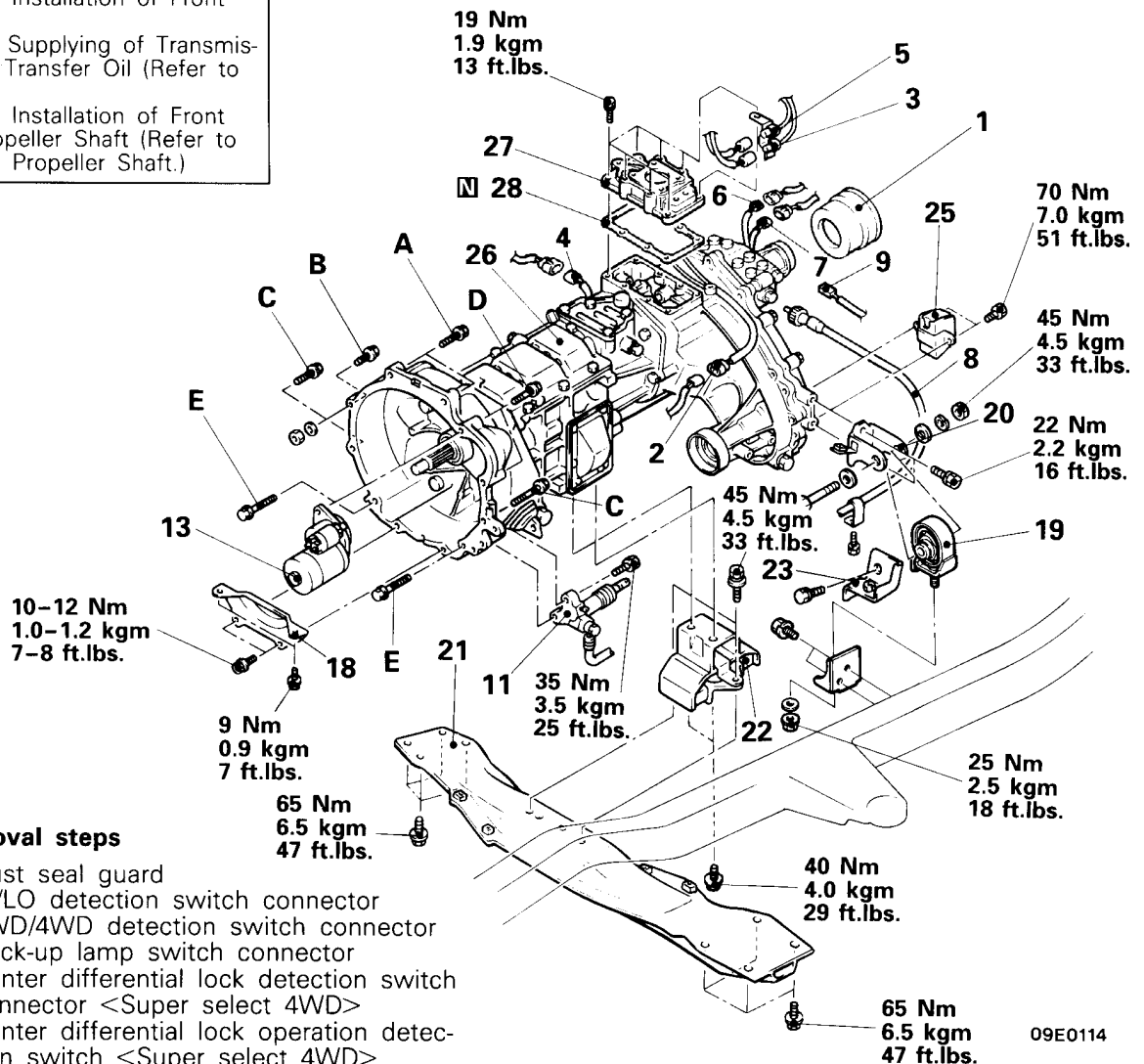
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Pre-removal and Post-installation Operation

- Removal and Installation of Transmission and Transfer Control Lever Assembly (Refer to P.22-9.)
- Removal and Installation of Transfer Case Protector
- Removal and Installation of P.T.O. (Refer to GROUP 51 – P.T.O..)
- Removal and Installation of Front Exhaust Pipe
- Draining and Supplying of Transmission Oil and Transfer Oil (Refer to P.22-4.)
- Removal and Installation of Front and Rear Propeller Shaft (Refer to GROUP 25 – Propeller Shaft.)

	Nm	kgm	ft.lbs.	O.D. × Length mm (in.)	Bolt identification
A	50	5.0	35	10×45 (0.4×1.8)	 D × L
B	24	2.4	17	8×30 (0.3×1.2)	
C	50	5.0	35	10×80 (0.4×3.2)	
D	31	3.1	22	10×60 (0.4×2.4)	
E	36	3.6	26	10×25 (0.4×1.0)	

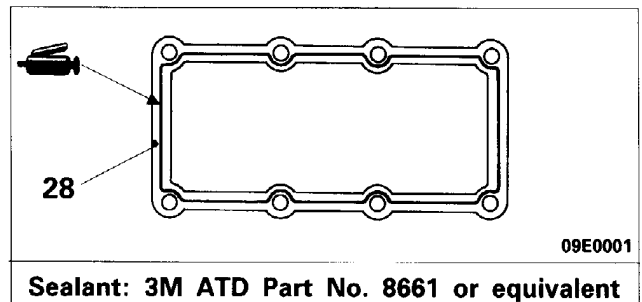
09Y512



Removal steps

1. Dust seal guard
2. HI/LO detection switch connector
3. 2WD/4WD detection switch connector
4. Back-up lamp switch connector
5. Center differential lock detection switch connector <Super select 4WD>
6. Center differential lock operation detection switch <Super select 4WD>
7. 4WD operation detection switch connector <Super select 4WD>
8. Connection for speedometer cable <Vehicles built up to October, 1993>
9. Speed sensor connector <Vehicles built from November, 1993>

- ↔ 11. Connection for clutch master cylinder
- ↔ 13. Starter motor
- ↔ 18. Bell housing cover
- ↔ 19. Transfer roll stopper
- 20. Transfer mounting bracket
- 21. No. 2 crossmember
- 22. Engine mounting rear insulator
- 23. Transfer case protector bracket
- 25. Mass damper
- ↔ 26. Transmission and transfer assembly
- ↔ 27. Control housing
- 28. Gasket



Sealant: 3M ATD Part No. 8661 or equivalent

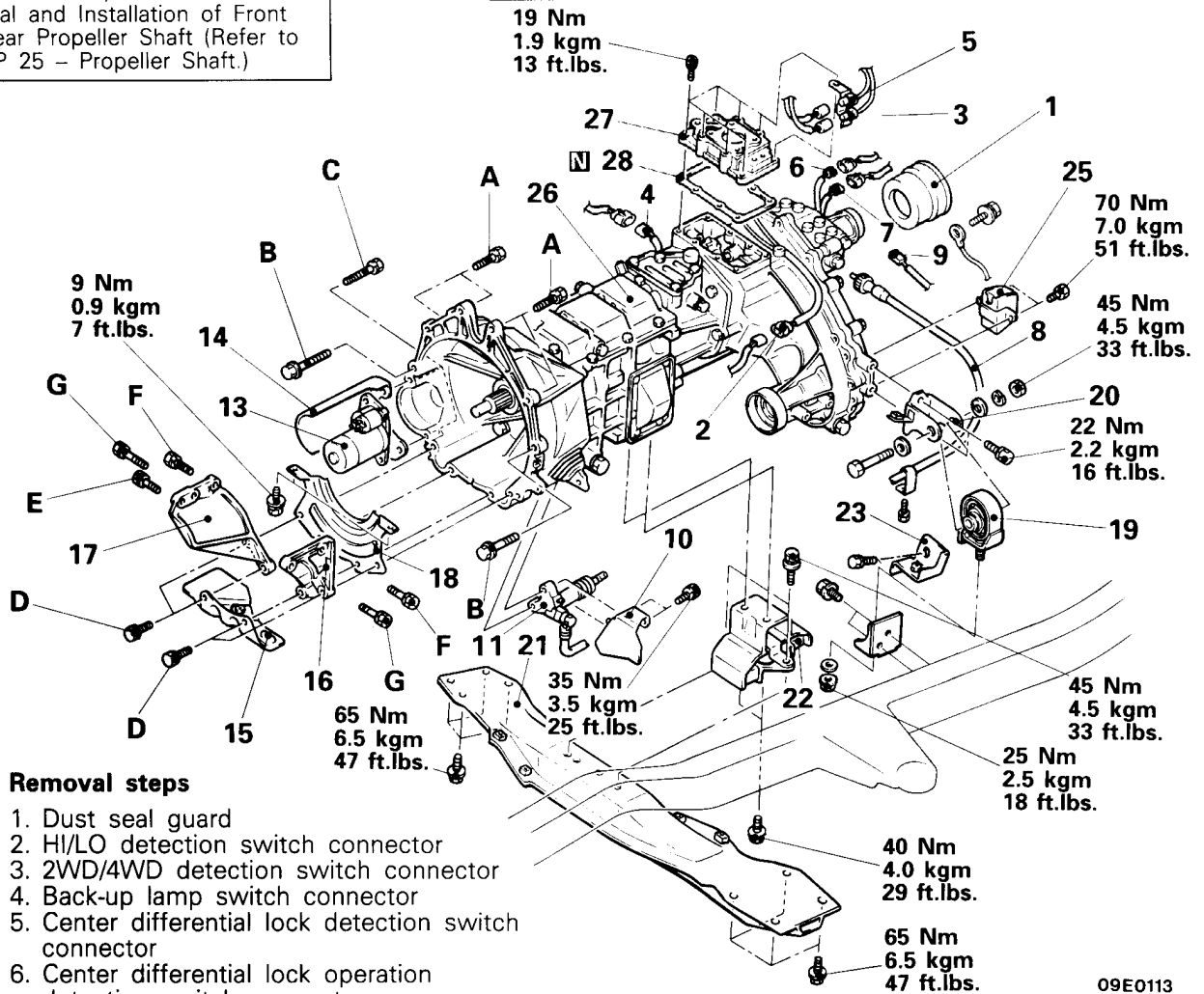
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Pre-removal and Post-installation Operation

- Removal and Installation of Transmission and Transfer Control Lever Assembly (Refer to P.22-9.)
- Removal and Installation of Transfer Case Protector
- Removal and Installation of Front Exhaust Pipe
- Draining and Supplying of Transmission Oil and Transfer Oil (Refer to P.22-4.)
- Removal and Installation of Front and Rear Propeller Shaft (Refer to GROUP 25 – Propeller Shaft.)

	Nm	kgm	ft.lbs.	O.D. × Length mm (in.)	Bolt identification
A	75	7.5	54	12×40 (0.5×1.6)	
B	90	9.0	65	12×55 (0.5×2.2)	
C	31	3.1	22	10×55 (0.4×2.2)	
D	36	3.6	26	10×40 (0.4×1.6)	
E	75	7.5	54	12×35 (0.5×1.4)	
F	42	4.2	30	10×30 (0.4×1.2)	
G	75	7.5	34	12×50 (0.5×2.0)	

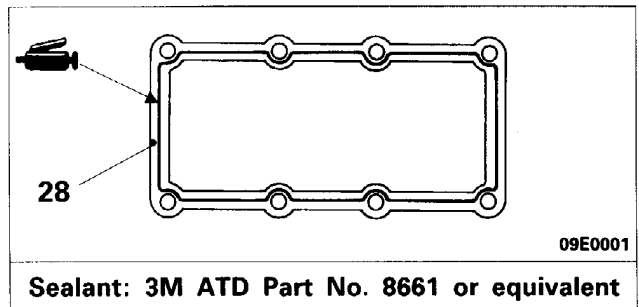
09Y512



09E0113

Removal steps

1. Dust seal guard
2. HI/LO detection switch connector
3. 2WD/4WD detection switch connector
4. Back-up lamp switch connector
5. Center differential lock detection switch connector
6. Center differential lock operation detection switch connector
7. 4WD operation detection switch
8. Connection for speedometer cable <Vehicles built up to October, 1993>
9. Speed sensor connector <Vehicles built from November, 1993>
10. Heat protector
11. Connection for clutch master cylinder
13. Starter motor
14. Starter cover
15. Heat protector
16. Transmission stay
17. Transmission stay
18. Bell housing cover
19. Transfer roll stopper
20. Transfer mounting bracket
21. No. 2 crossmember
22. Engine mounting rear insulator
23. Transfer case protector bracket



09E0001

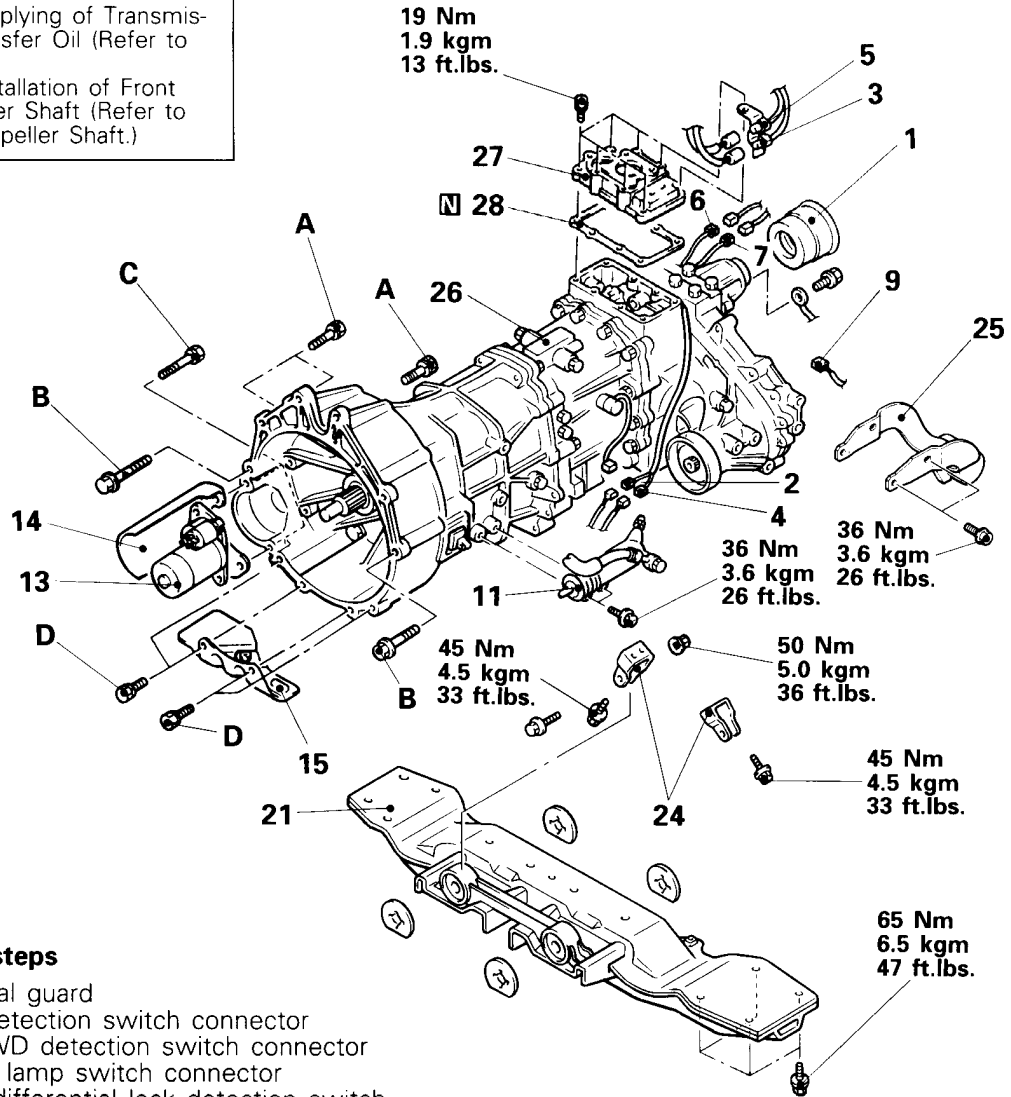
- 25. Mass damper
- 26. Transmission and transfer assembly
- 27. Control housing
- 28. Gasket

<3500>

Pre-removal and Post-installation Operation

- Removal and Installation of Transmission and Transfer Control Lever Assembly (Refer to P.22-9.)
- Removal and Installation of Transfer Case Protector
- Removal and Installation of Front Exhaust Pipe
- Draining and Supplying of Transmission Oil and Transfer Oil (Refer to P.22-4.)
- Removal and Installation of Front and Rear Propeller Shaft (Refer to GROUP 25 – Propeller Shaft.)

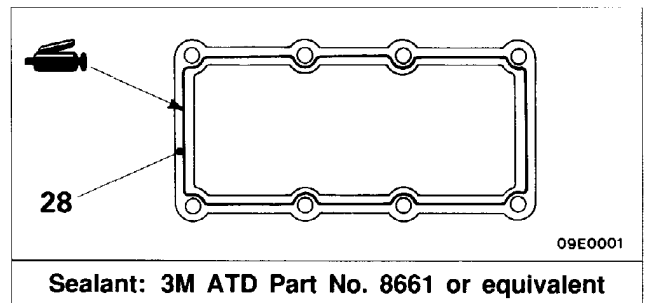
	Nm	kgm	ft.lbs.	O.D. × Length mm (in.)	Bolt identification
A	75	7.5	54	12 × 40 (0.5 × 1.6)	 D × L 09Y512
B	90	9.0	65	12 × 55 (0.5 × 2.2)	
C	31	3.1	22	10 × 55 (0.4 × 2.2)	
D	36	3.6	26	10 × 40 (0.4 × 1.6)	



09E0107

Removal steps

1. Dust seal guard
2. HI/LO detection switch connector
3. 2WD/4WD detection switch connector
4. Back-up lamp switch connector
5. Center differential lock detection switch connector
6. Center differential lock operation detection switch connector
7. 4WD operation detection switch
9. Speed sensor connector
11. Connection for clutch master cylinder
13. Starter motor
14. Starter cover
15. Heat protector
21. No. 2 crossmember
24. Engine mounting rear bracket
25. Mass damper
- Disconnection of clutch release bearing
26. Transmission and transfer assembly
27. Control housing
28. Gasket

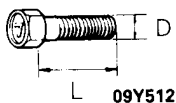


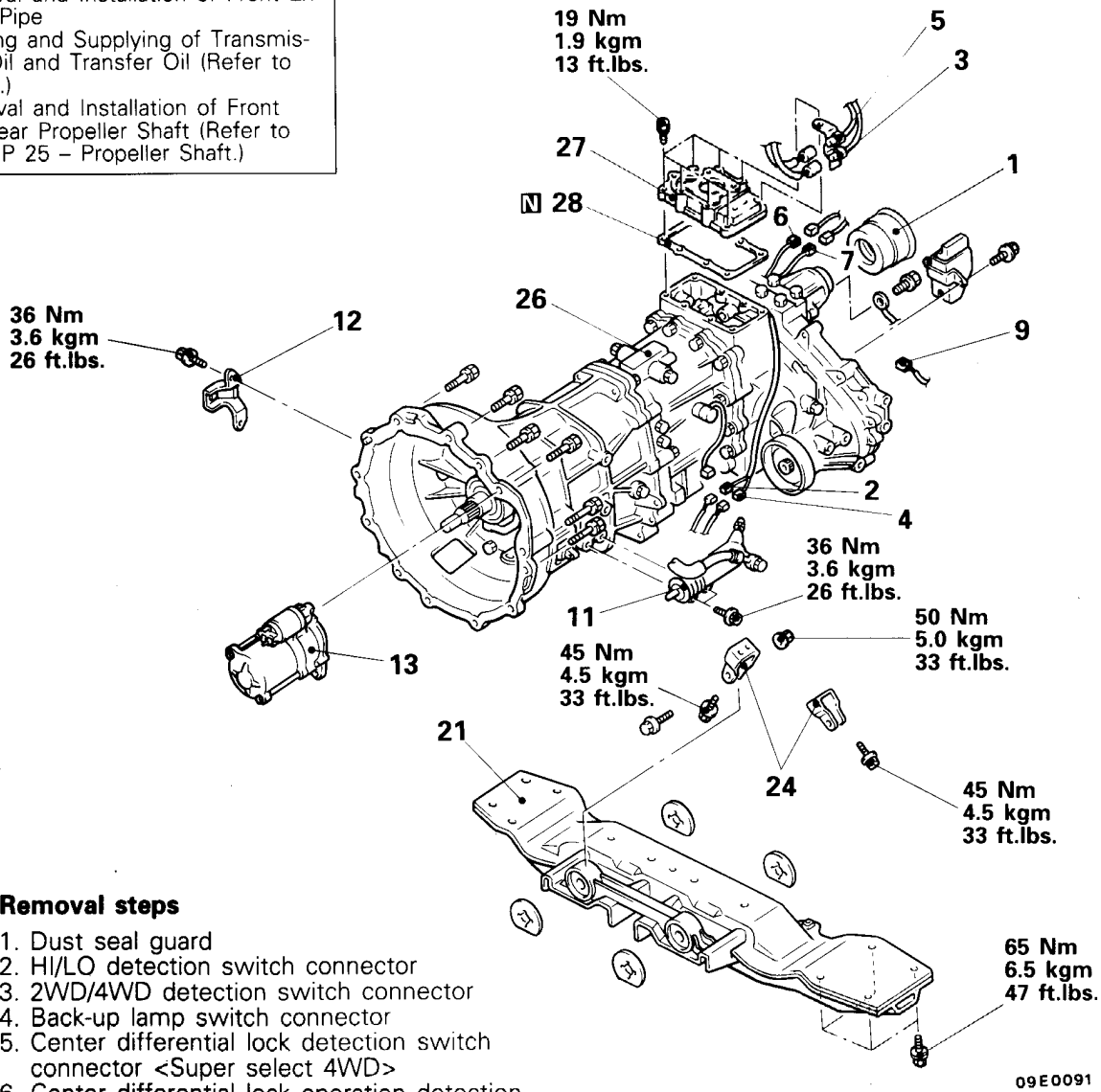
09E0001

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Pre-removal and Post-installation Operation

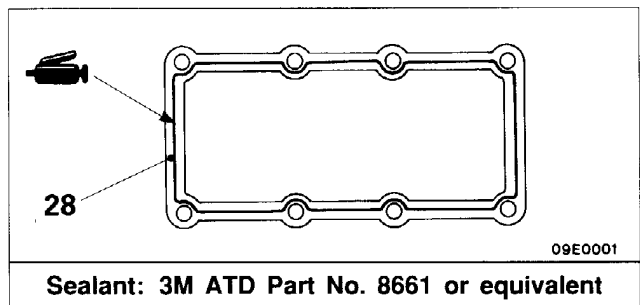
- Removal and Installation of Transmission and Transfer Control Lever Assembly (Refer to P.22-9.)
- Removal and Installation of Transfer Case Protector
- Removal and Installation of P.T.O. (Refer to GROUP 51 — P.T.O.)
- Removal and Installation of Front Exhaust Pipe
- Draining and Supplying of Transmission Oil and Transfer Oil (Refer to P.22-4.)
- Removal and Installation of Front and Rear Propeller Shaft (Refer to GROUP 25 — Propeller Shaft.)

	O.D. × Length mm (in.)	Bolt identification
A	10 × 25 (0.4 × 1.0)	D × L
B	10 × 45 (0.4 × 1.8)	 09Y512
C	10 × 50 (0.4 × 2.0)	
D	10 × 90 (0.4 × 3.6)	



Removal steps

1. Dust seal guard
2. HI/LO detection switch connector
3. 2WD/4WD detection switch connector
4. Back-up lamp switch connector
5. Center differential lock detection switch connector <Super select 4WD>
6. Center differential lock operation detection switch <Super select 4WD>
7. 4WD operation detection switch connector <Super select 4WD>
9. Speed sensor connector
11. Connection for clutch master cylinder
12. Exhaust pipe mounting bracket
13. Starter motor
21. No. 2 crossmember
24. Engine mounting rear bracket
 - Disconnection of clutch release bearing
26. Transmission and transfer assembly
27. Control housing
28. Gasket



SERVICE POINTS OF REMOVAL

E22JBAG

11. REMOVAL OF CLUTCH RELEASE CYLINDER

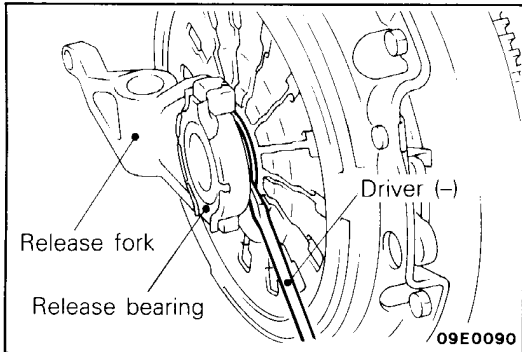
Remove the clutch release cylinder (with the clutch hose connected to it) from the transmission, and suspend it from the body by using a piece of wire or a similar method.

19. REMOVAL OF TRANSFER ROLL STOPPER

Before removing the transfer roll stopper, use a transmission jack to hold the transmission and transfer assembly.

● **DISCONNECTION OF CLUTCH RELEASE BEARING**

- (1) Remove the service hole cover on the clutch housing.
- (2) Operate the release fork to push the release bearing over to the clutch side.
- (3) Insert a flat-tipped screwdriver as shown in the illustration to disconnect the release bearing.

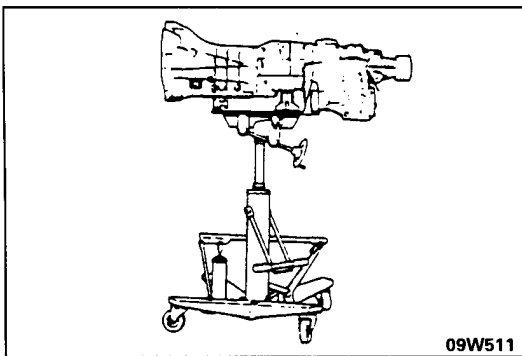


26. REMOVAL OF TRANSMISSION AND TRANSFER ASSEMBLY

Caution

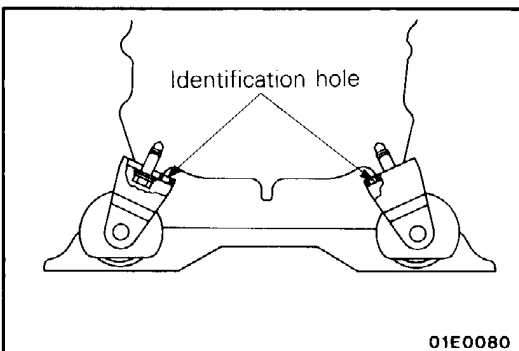
When removing the transmission and transfer assembly from the engine, care must be taken not to shake or rock with force, because to do so might cause damage to the end of the main drive gear, the pilot bearing, or the clutch disc, etc.

- (1) Disconnect the transmission and transfer assembly from the engine by pulling it slowly toward the rear of the vehicle.
- (2) When the transmission and transfer assembly are lowered, tilt the front of the transmission downward and slowly lower forward, while using care to make sure that the rear of the transmission does not interfere with the No. 4 crossmember.



24. INSTALLATION OF ENGINE REAR MOUNT BRACKET

Install the engine rear mount bracket so that the identification hole of the bracket is facing towards the inside of the vehicle.



E22JDCD

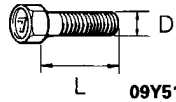
SERVICE POINTS OF INSTALLATION

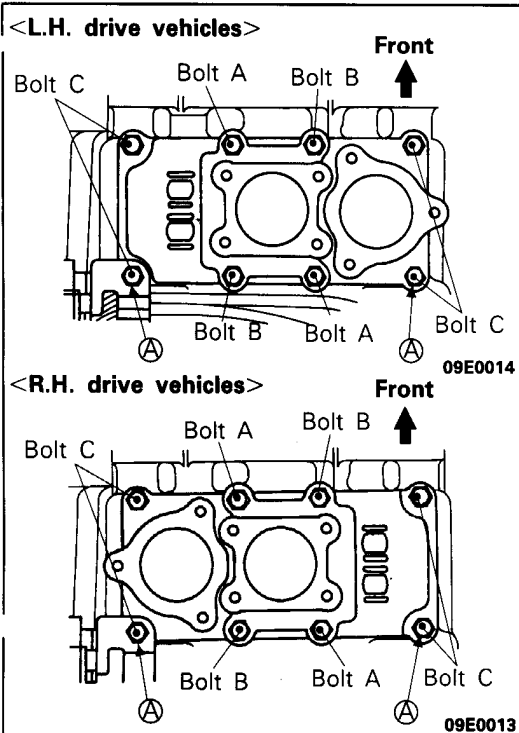
27. INSTALLATION OF CONTROL HOUSING

- (1) Remove the adhesive sticking to the control housing mounting bolts at (A) section.
- (2) Use a tap (M8×1.25) to remove the adhesive sticking to the screw holes at (A) section.
- (3) Apply specified adhesive to the mounting bolt threads at (A) section.

Specified adhesive: 3M Stud Locking No. 4170 or equivalent

- (4) The dimensions of the mounting bolts vary according to their mounting locations, so do not confuse them when installing.

Bolt	O.D. × Length mm (in.)	Bolt identification
A	8 × 40 (0.3 × 1.6)	 D × L 09Y512
B	8 × 40 (0.3 × 1.6) (Reamer bolt)	
C	8 × 25 (0.3 × 1.0)	



24. INSTALLATION OF TRANSMISSION AND TRANSFER ASSEMBLY

On the engine side, there are two centering locations. Make sure that the transmission mounting bolt holes are aligned with them before mounting the transmission and transfer assembly to the engine.

