

## ON-VEHICLE REPAIR

### SIDE OIL SEAL

#### Exploded View

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Refer to [TM-28, "Exploded View"](#).

#### Removal and Installation

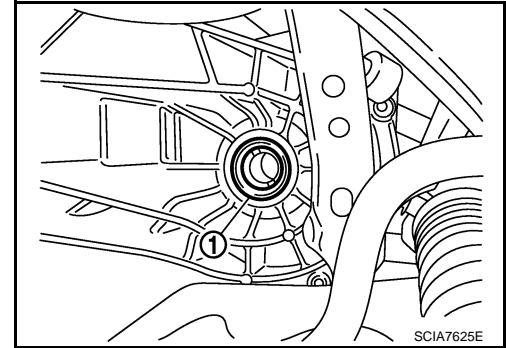
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#### REMOVAL

1. Remove front drive shafts. Refer to [FAX-21, "MR20DE : Removal and Installation"](#).
2. Remove differential side oil seals (1) using a suitable tool.

**CAUTION:**

**Never damage transaxle case and clutch housing.**



#### INSTALLATION

Note the following, and install in the reverse order of removal.

- Install differential side oil seals (1) to clutch housing and transaxle case using the drift (A) [SST: KV38100300].

B : Transaxle case side

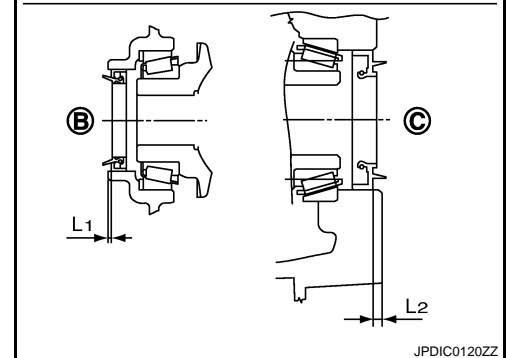
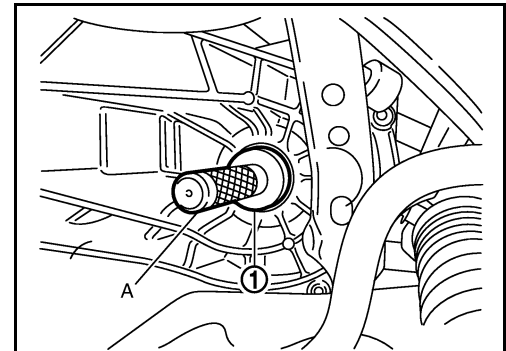
C : Clutch housing side

**Dimension "L1" : 1.2 - 1.8 mm (0.047 - 0.071 in)**

**Dimension "L2" : 2.7 - 3.3 mm (0.106 - 0.130 in)**

**CAUTION:**

- **Never reuse differential side oil seal.**
- **When installing, never incline differential side oil seal.**
- **Never damage clutch housing and transaxle case.**
- Check oil level and oil leakage after installation. Refer to [TM-19, "Inspection"](#).



# CONTROL LINKAGE

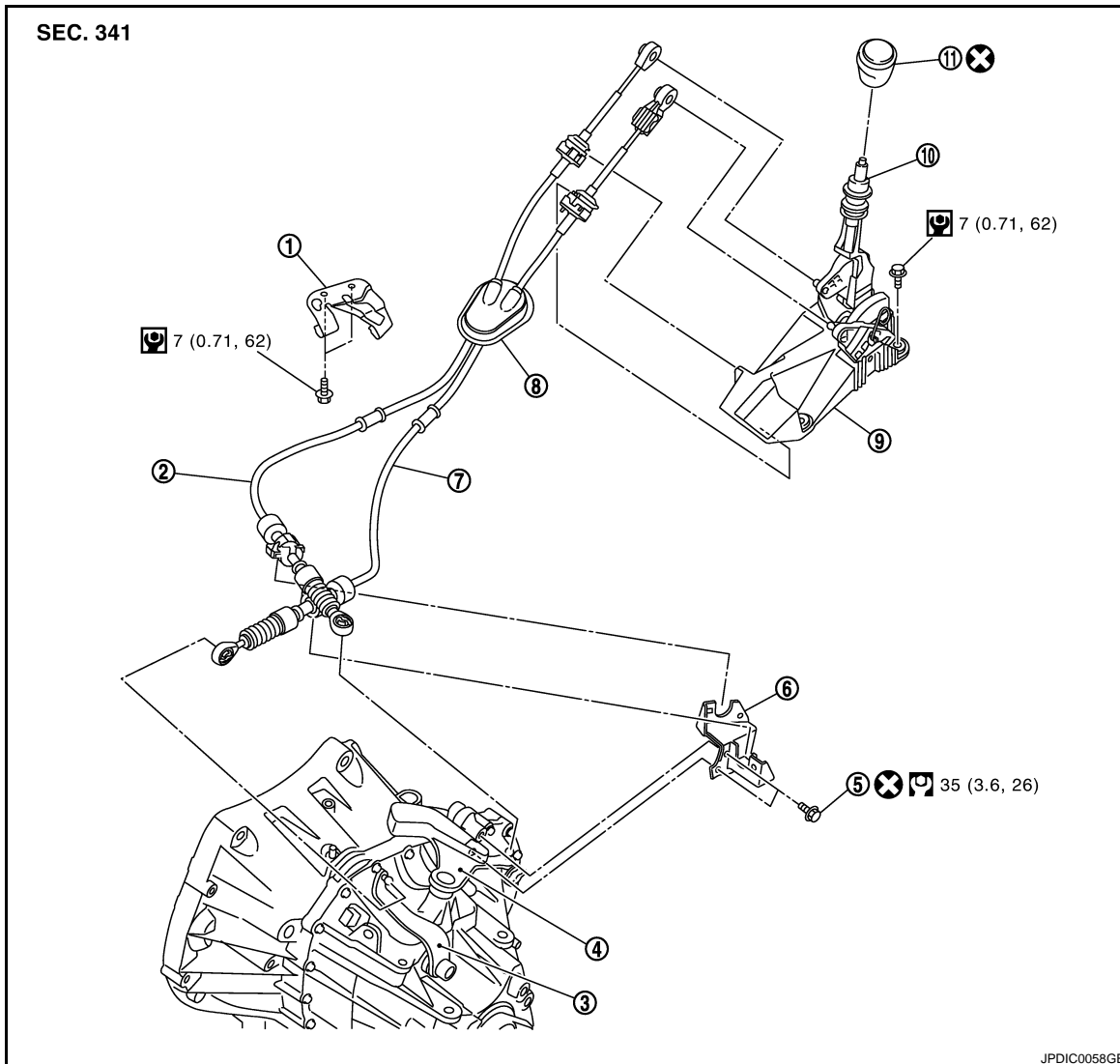
< ON-VEHICLE REPAIR >

[6MT: RS6F94R]

## CONTROL LINKAGE

Exploded View

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- |                   |                        |                            |
|-------------------|------------------------|----------------------------|
| 1. Bracket        | 2. Shift cable         | 3. Selector lever          |
| 4. Shifter lever  | 5. Tapping bolt        | 6. Cable mounting bracket  |
| 7. Select cable   | 8. Grommet             | 9. Control device assembly |
| 10. Control lever | 11. Control lever knob |                            |

Refer to [GI-4. "Components"](#) for the symbols in the figure.

## Removal and Installation

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### REMOVAL

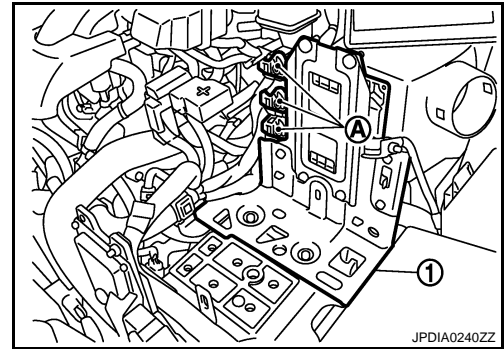
1. Remove the air cleaner case and air duct (inlet) or air ducts. Refer to [EM-25. "Removal and Installation"](#).
2. Remove the battery. Refer to [PG-133. "Removal and Installation"](#).

## CONTROL LINKAGE

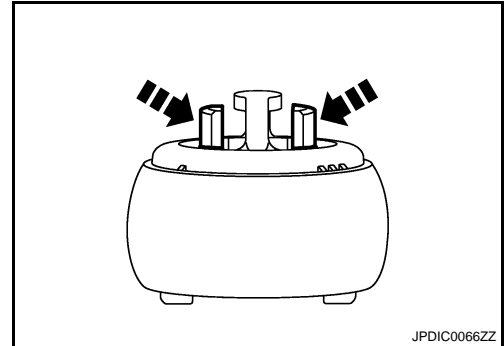
< ON-VEHICLE REPAIR >

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3. Disconnect connectors (A) and then remove bracket (1).



4. While pressing the lock of the select cable in the direction of the arrow shown in the figure, remove the select cable from the selector lever.
5. While pressing the lock of the shift cable in the direction of the arrow shown in the figure, remove the shift cable from the shifter lever.

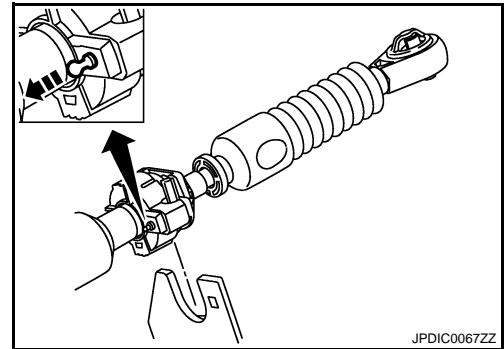


6. While pulling the lock of the select cable in the direction of the arrow shown in the figure, remove the select cable from the cable mounting bracket.
7. While pulling the lock of the shift cable in the direction of the arrow shown in the figure, remove the shift cable from the cable mounting bracket.
8. Remove the control lever knob.

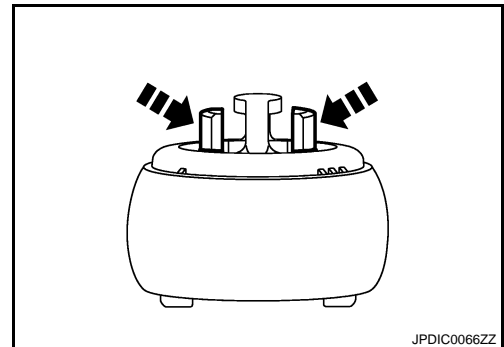
**NOTE:**

Pull out the control lever knob for removal.

9. Remove console finisher assembly and the center console assembly. Refer to [IP-21, "Removal and Installation"](#).
10. Shift the control lever to the neutral position.



11. While pressing the lock of the select cable in the direction of the arrow shown in the figure, remove the select cable from the control device assembly.
12. While pressing the lock of the shift cable in the direction of the arrow shown in the figure, remove the shift cable from the control device assembly.

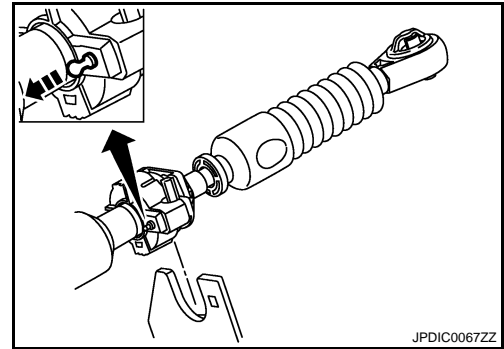


# CONTROL LINKAGE

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13. While pulling the lock of the select cable in the direction of the arrow shown in the figure, remove the select cable from the control device assembly.
14. While pulling the lock of the shift cable in the direction of the arrow shown in the figure, remove the shift cable from the control device assembly.
15. Remove the control device assembly.
16. Remove the heat plate.
17. Remove the bracket.
18. Remove the grommet and then remove the shift cable and select cable from the vehicle.



## INSTALLATION

Note the following, and install in the reverse order of removal.

- Shift the control lever to the neutral position.
- Securely assemble each cable and the selector lever and shifter lever.
- Securely assemble each cable and the cable mounting bracket.
- Securely assemble each cable and the control device assembly.
- Make sure that the claws of grommet are in contact with the floor.
- Be careful about the installation direction and push the control lever knob into the control lever.

### CAUTION:

**Never reuse control lever knob.**

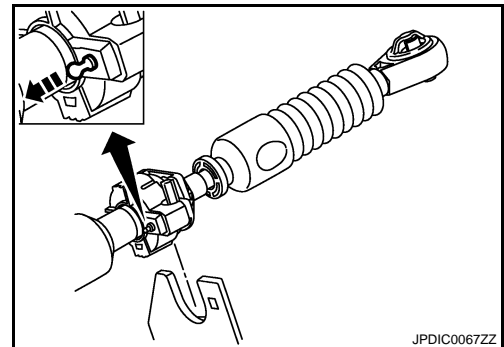
- Tapping work for tapping bolt is not applied to new clutch housing. Do not perform tapping by other than screwing tapping bolt because tapping is formed by screwing tapping bolt into clutch housing.

### CAUTION:

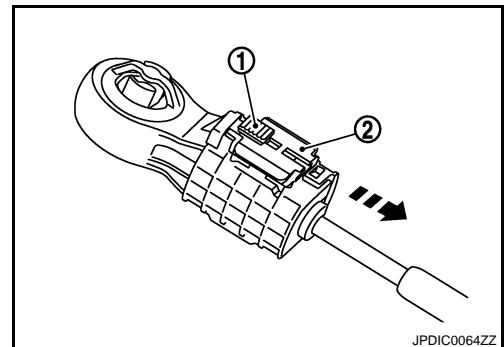
**Never reuse tapping bolt.**

Install the select cable (the control device assembly side) with the following procedure.

1. While pulling the lock of the select cable in the direction of the arrow shown in the figure, install the select cable to the control device assembly.



2. Slide the lock (1) of the select cable in the direction of the arrow as shown in the figure to pull up the stopper (2) of the select cable.
3. Install the end of the select cable to the pin of the control device assembly.



## CONTROL LINKAGE

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4. Install the lever stopper pin (1) or a pin [3 mm (0.12 in) dia.] to the control device assembly.

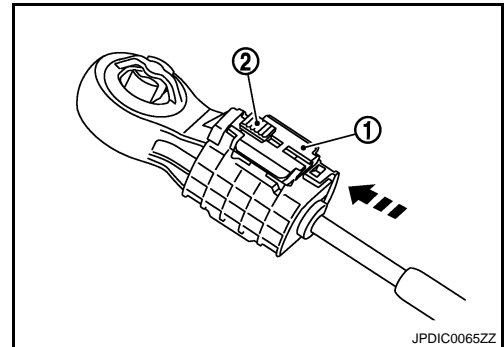
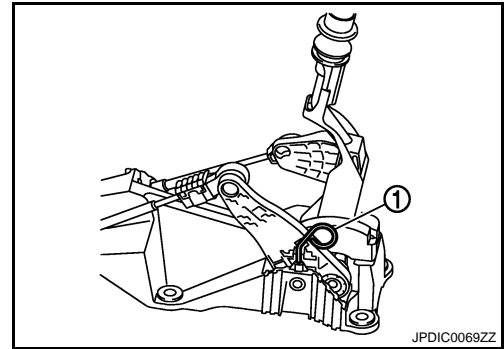
**CAUTION:**

**Select cable cannot be adjusted accurately without a use of a lever stopper pin or a pin [3 mm (0.12 in) dia.].**

**NOTE:**

A lever stopper pin is not included in control device assembly. Therefore, if the control device assembly is not replaced, prepare a pin [3 mm (0.12 in) dia.].

5. Check that the control lever does not move in the direction of the select. If it moves, repeat step 3.
6. Shift the control lever to 4th gear position.
7. With the stopper (1) of the select cable pressed into all the way, slide lock (2) of the select cable all the way in the direction of the arrow.
8. Remove the lever stopper pin or a pin [3 mm (0.12 in) dia.] from the control device assembly.
9. Shift the control lever to each gear position to check that there is no bindings. If any, repeat step 3.



### Inspection

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After installing, confirm the following items:

- When the control lever is shifted to 1st-2nd side and 5th-6th side, confirm the control lever returns to neutral position smoothly.
- When the control lever is shifted to each position, make sure there is no binding or disconnection in each boot.

# AIR BREATHER HOSE

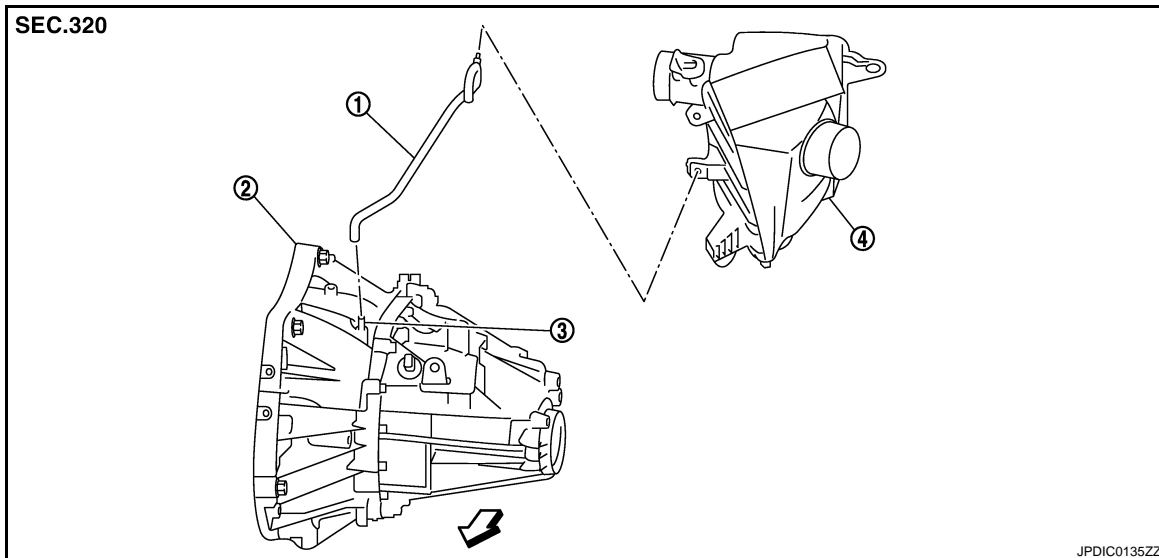
< ON-VEHICLE REPAIR >

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## AIR BREATHER HOSE

Exploded View

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1. Air breather hose
2. Transaxle assembly
3. Two way connector
4. Air cleaner case

⇨: Vehicle front

## Removal and Installation

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### REMOVAL

Refer to the figure for removal procedure.

#### **CAUTION:**

**When removing air breather hose, be sure to hold two way connector securely.**

### INSTALLATION

Refer to the figure for installation procedure.

- When installing air breather hose on two way connector, aim paint mark face toward the vehicle front.
- When installing air breather hose on two way connector, push it until it hits transaxle case.
- When installing air breather hose to air cleaner case, make sure that clip are fully inserted.

#### **CAUTION:**

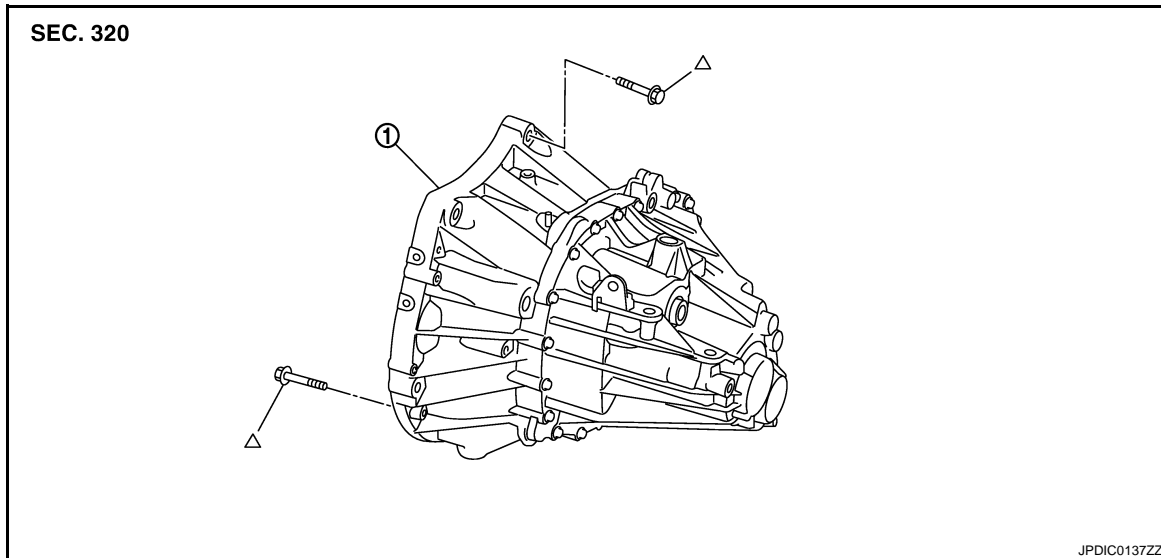
**Make sure air breather hose is not collapsed or blocked due to folding or bending when installed.**

## REMOVAL AND INSTALLATION

### TRANSAXLE ASSEMBLY

#### Exploded View

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1. Transaxle assembly

△: For the tightening torque, refer to "INSTALLATION".

#### CAUTION:

If transaxle assembly is removed from the vehicle, always replace CSC (Concentric Slave Cylinder). Return CSC insert to original position to remove transaxle assembly. Dust on clutch disc sliding parts may damage seal of CSC and may cause clutch fluid leakage.

### Removal and Installation

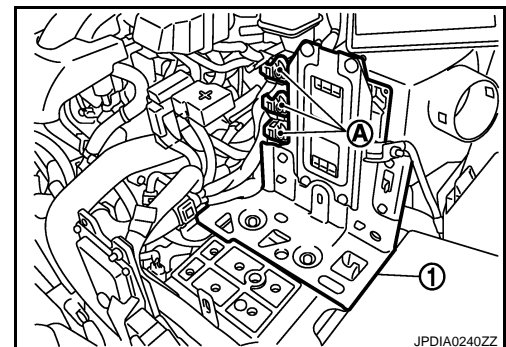
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#### CAUTION:

If transaxle assembly is removed from the vehicle, always replace CSC (Concentric Slave Cylinder). Return CSC insert to original position to remove transaxle assembly. Dust on clutch disc sliding parts may damage seal of CSC and may cause clutch fluid leakage.

#### REMOVAL

1. Disconnect the battery cable from the negative terminal.
  2. Remove air breather hose. Refer to [TM-25, "Removal and Installation"](#).
  3. Remove air cleaner case and air duct (inlet). Refer to [EM-25, "Removal and Installation"](#).
  4. Remove battery. Refer to [PG-133, "Removal and Installation"](#).
  5. Disconnect connectors (A) and then remove bracket (1).
  6. Drain clutch fluid and then remove clutch tube from CSC (Concentric Slave Cylinder). Refer to [CL-15, "Removal and Installation"](#).
- CAUTION:**  
Never depress clutch pedal during removal procedure.
7. Disconnect position switch harness connector.
  8. Disconnect ground cable.
  9. Remove wire harnesses from transaxle assembly.
  10. Disconnect select cable and shift cable from transaxle assembly. Refer to [TM-21, "Removal and Installation"](#).
  11. Remove starter motor. Refer to [STR-28, "MR20DE MODELS : Removal and Installation"](#).



# TRANSAXLE ASSEMBLY

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## < REMOVAL AND INSTALLATION >

12. Remove engine under cover.
13. Drain gear oil. Refer to [TM-19, "Draining"](#).
14. Remove exhaust front tube. Refer to [EX-5, "Removal and Installation"](#).
15. Remove front drive shafts. Refer to [FAX-21, "MR20DE : Removal and Installation"](#).  
**NOTE:**  
Insert a suitable plug into differential side oil seal after removing front drive shaft.
16. Remove rear engine mounting brackets and rear torque rod. Refer to [EM-76, "M/T : Removal and Installation"](#).
17. Remove suspension member and suspension member stay. Refer to [FSU-21, "Removal and Installation"](#).
18. Set a suitable jack to transaxle assembly and then set a suitable jack to engine assembly.  
**CAUTION:**  
**When setting a suitable jack, be careful so that it does not contact with the switch.**
19. Remove transaxle assembly mounting bolts.
20. Remove engine mounting through bolt-securing nut. Refer to [EM-76, "M/T : Removal and Installation"](#).
21. Remove transaxle assembly from the vehicle.  
**CAUTION:**
  - **Secure transaxle assembly to a suitable jack while removing it.**
  - **The transaxle assembly must not interfere with the wire harnesses and clutch tube.**
22. Remove CSC (Concentric Slave Cylinder). Refer to [CL-16, "Removal and Installation"](#).  
**CAUTION:**  
**If transaxle assembly is removed from the vehicle, always replace CSC (Concentric Slave Cylinder). Return CSC insert to original position to remove transaxle assembly. Dust on clutch disc sliding parts may damage seal of CSC and may cause clutch fluid leakage.**

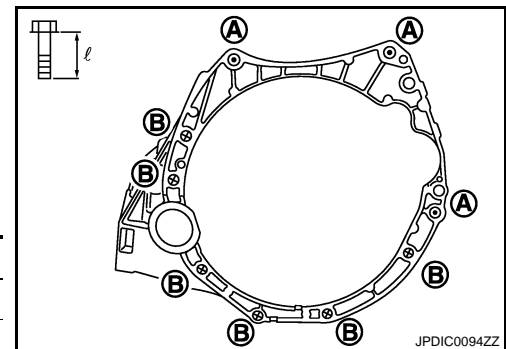
## INSTALLATION

Note the following, and install in the reverse order of removal.

- Tighten transaxle assembly mounting bolts to the specified torque.  
The figure is the view from the engine.

- : Transaxle to engine
- ⊗ : Engine to transaxle

Bolt symbol	A	B
Quantity	3	6
Bolt length "ℓ" mm (in)	60 (2.36)	50 (1.97)
Tightening torque N·m (kg·m, ft·lb)	62.0 (6.3, 46)	



### CAUTION:

- **The transaxle assembly must not interfere with the wire harnesses and clutch tube.**
- **When installing transaxle assembly, never bring input shaft into contact with clutch cover.**
- Refer to [CL-16, "Removal and Installation"](#) for CSC (Concentric Slave Cylinder) installation procedure.
- Refer to [TM-21, "Removal and Installation"](#) for select cable and shift cable installation procedure.
- Bleed the air from the clutch hydraulic system. Refer to [CL-6, "Air Bleeding Procedure"](#).
- After installation, check for oil leakage and oil level. Refer to [TM-19, "Inspection"](#).



# TRANSAXLE ASSEMBLY

< DISASSEMBLY AND ASSEMBLY >

[6MT: RS6F94R]

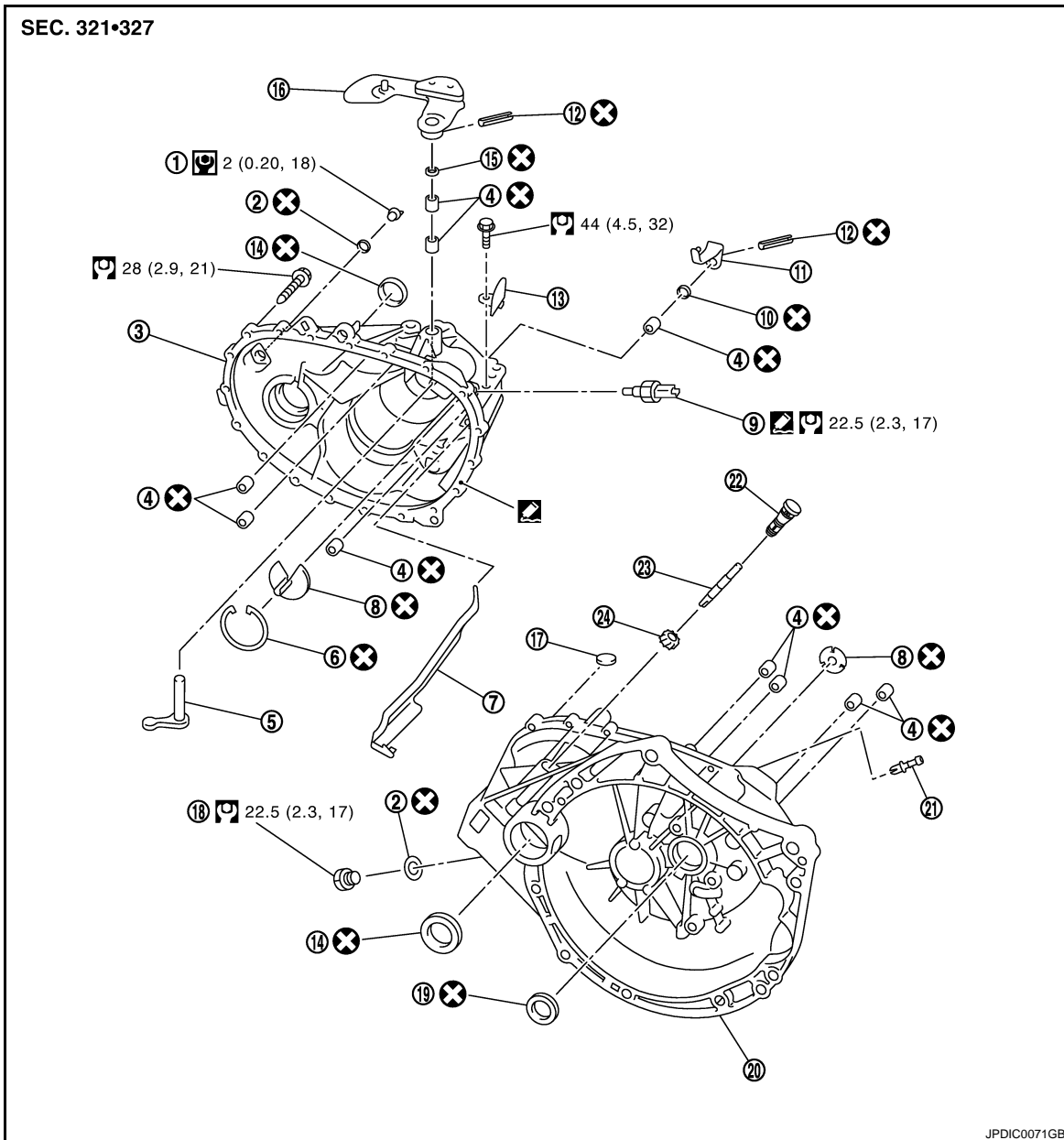
## DISASSEMBLY AND ASSEMBLY

### TRANSAXLE ASSEMBLY

Exploded View

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#### CASE AND HOUSING



- |                            |                                |                               |
|----------------------------|--------------------------------|-------------------------------|
| 1. Filler plug             | 2. Gasket                      | 3. Transaxle case             |
| 4. Bushing                 | 5. Shift finger                | 6. Snap ring                  |
| 7. Oil gutter              | 8. Oil channel                 | 9. Position switch            |
| 10. Shifter lever oil seal | 11. Shifter lever              | 12. Retaining pin             |
| 13. Bracket                | 14. Differential side oil seal | 15. Selector lever oil seal   |
| 16. Selector lever         | 17. Magnet                     | 18. Drain plug                |
| 19. Input shaft oil seal   | 20. Clutch housing             | 21. Two way connector         |
| 22. Plug (if equipped)     | 23. Pinion shaft (if equipped) | 24. Pinion gear (if equipped) |