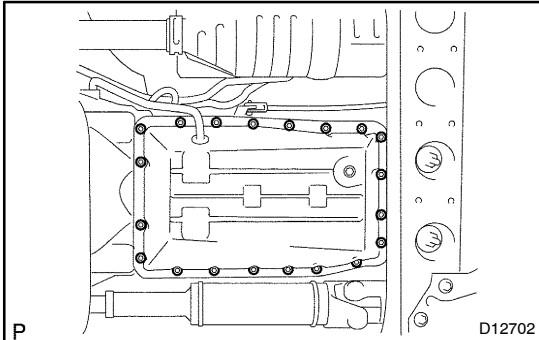


# VALVE BODY ASSEMBLY ON-VEHICLE REPAIR

## 1. REMOVE ENGINE NO.2 UNDER COVER

## 2. DRAIN ATF

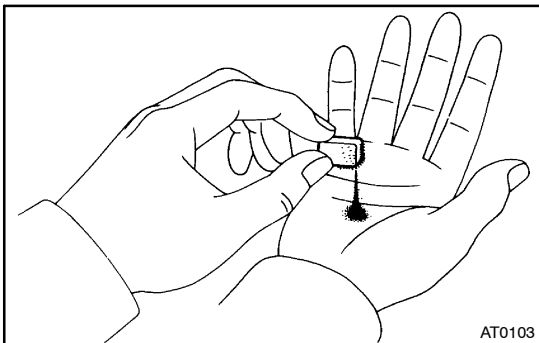


## 3. REMOVE OIL PAN

### NOTICE:

**Some fluid will remain in the oil pan.**

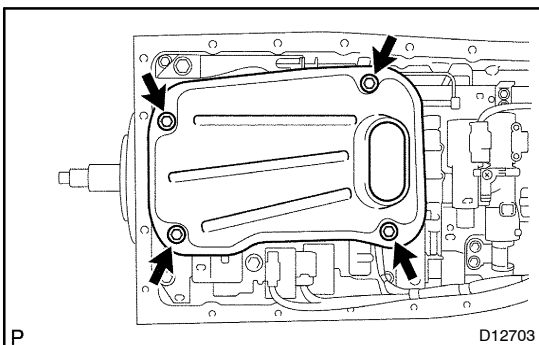
- Remove the 20 bolts.
- Remove the oil pan gasket.



## 4. EXAMINE PARTICLES IN PAN

Remove the magnets and use them to collect steel particles. Carefully look at the foreign matter and particles in the pan and on the magnets to anticipate the type of wear you will find in the transmission.

Steel (magnetic)...bearing, gear and clutch plate wear  
Brass (non –magnetic)...bushing wear

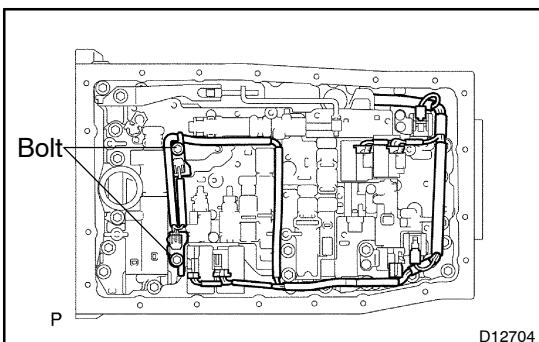


## 5. REMOVE OIL STRAINER

Remove the 4 bolts, the oil strainer and the O –ring.

### NOTICE:

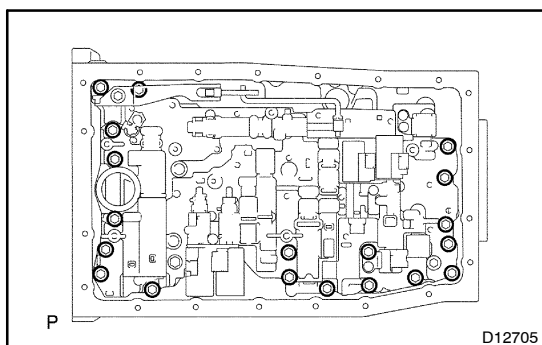
**Be careful as some fluid will come out with the oil strainer.**



## 6. DISCONNECT TEMPERATURE SENSOR

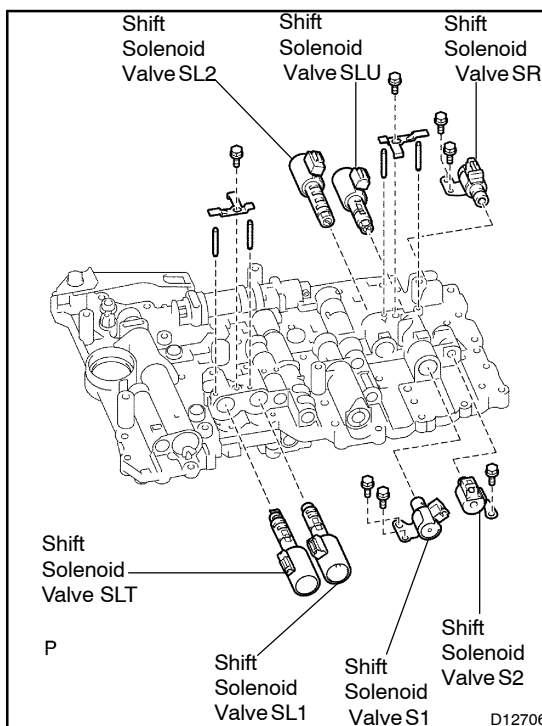
- Disconnect the 7 solenoid connectors.
- Remove 2 bolts and the 2 temperature sensors clamp from the valve body.
- Disconnect the 2 temperature sensor from the valve body.

## 7. DISCONNECT 7 CONNECTORS FROM SHIFT SOLENOID VALVES



## 8. REMOVE VALVE BODY

- Remove the 19 bolts and the valve body.
- Remove the 3 drum seal gaskets.

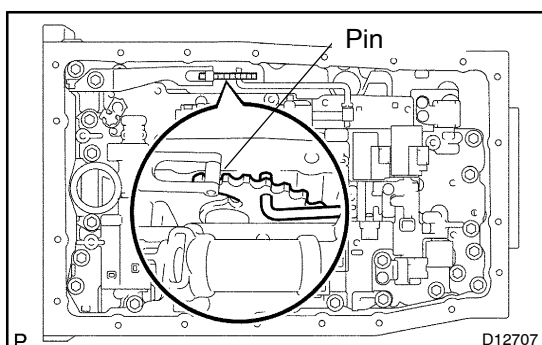


## 9. REMOVE SOLENOID VALVE

- Remove the 2 bolts and the shift solenoid valve SR.
- Remove the 3 bolts and the shift solenoid valve S1 and S2.
- Remove the 2 bolts, 2 solenoid lock plates and the 4 straight pins.
- Remove the shift solenoid SL2 and the shift solenoid valve SLU.
- Remove the shift solenoid SL1 and the shift solenoid valve SLT.
- Remove the O-ring from the solenoid valve S2.

## 10. INSTALL SOLENOID VALVE

- Install a new O-ring to shift solenoid valve S2.
- Install the shift solenoid SL1 and the shift solenoid valve SLT.
- Install the shift solenoid SL2 and the shift solenoid valve SLU.
- Install the 4 straight pins and the 2 solenoid lock plates with the 2 bolts.  
**Torque: 6.4 N·m (65 kgf·cm, 57 in·lbf)**
- Install the shift solenoid valve S1 and S2 with the 2 bolts.  
**Torque: 10 N·m (102 kgf·cm, 7 ft·lbf)**
- Install the shift solenoid valve SR with the 2 bolts.  
**Torque: 6.4 N·m (65 kgf·cm, 5.7 ft·lbf)**

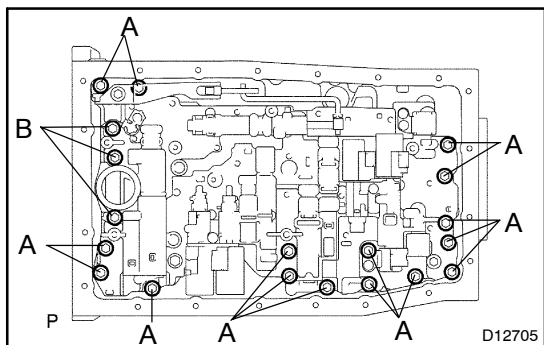


## 11. INSTALL VALVE BODY

### HINT:

Align the groove of the manual valve with the pin of the lever.

- Install the 3 new drum seal gaskets to the transmission case.



- (b) Install the 19 bolts and the valve body.

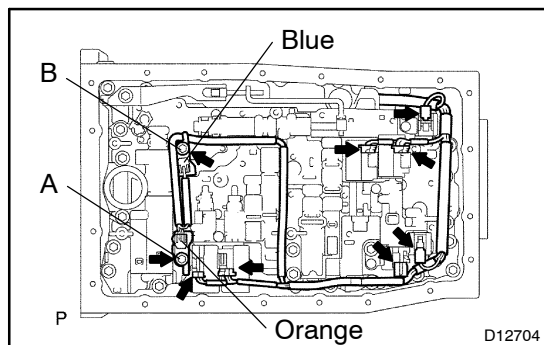
**Torque:**

**Bolt A, B: 11 N·m ( 110 kgf·cm, 8 ft·lbf)**

**Bolt length:**

**Bolt A: 25 mm (0.98 in.)**

**Bolt B: 36 mm ( 1.42 in.)**



## 12. CONNECT TEMPERATURE SENSOR

Connect the 2 temperature sensors to the valve body, and install the 2 temperature sensors clamp with the 2 bolts.

**Torque:**

**A: 11 N·m ( 112 kgf·cm, 8 ft·lbf)**

**B: 10 N·m ( 100 kgf·cm, 7 ft·lbf)**

**Bolt length:**

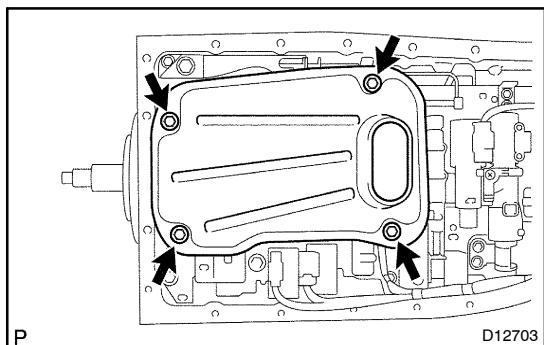
**Bolt A: 36 mm ( 1.42 in.)**

**Bolt B: 12 mm (0.47 in.)**

**Sensor wire harness:**

| Wire harness              | Color  |
|---------------------------|--------|
| for linear control        | Orange |
| for oil temp warning lamp | Blue   |

## 13. CONNECT 7 CONNECTORS TO SHIFT SOLENOID VALVES

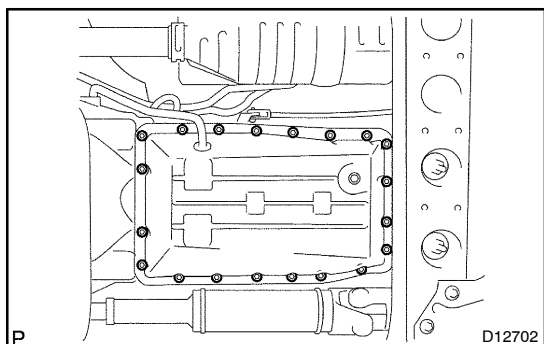


## 14. INSTALL OIL STRAINER

- (a) Install a new O-ring.

- (b) Install the oil strainer with the 4 bolts.

**Torque: 10 N·m ( 100 kgf·cm, 7 ft·lbf)**



## 15. INSTALL OIL PAN

**HINT:**

Remove any packing material, and be careful not to spill oil on the contacting surfaces of the transmission case and the oil pan.

- (a) Install a new gasket and oil pan.

- (b) Install the 20 bolts and oil pan.

**Torque: 4.4 N·m (45 kgf·cm, 39 in·lbf)**

**16. FILL ATF AND CHECK ATF LEVEL**

- (a) Install a new gasket and a drain plug.

**Torque: 20 N·m (205 kgf·cm, 15 ft·lbf)**

- (b) Fill new fluid through the filler pipe ([See page DI-4](#) or [DI-102](#)).

**17. INSTALL ENGINE NO.2 UNDER COVER**

**Torque: 29 N·m (296 kgf·cm, 21 ft·lbf)**