

U151E, U151F, U250E Remanufactured Valve Body

('04-'16)

Part Nos.

TOY181

TOY181-RMN

NOTE: Save your existing manual valve for reuse with our remanufactured valve body.



Valve Body Installation Tips

1. Verify Case Accumulator Pistons & Springs are Installed Correctly

Common spring colors:

- C2 (Closest to bell housing) = Yellow
- C3 (Middle) = Plain/No color
- B3 (Rear) = Purple (both inner and outer)

2. Air Check

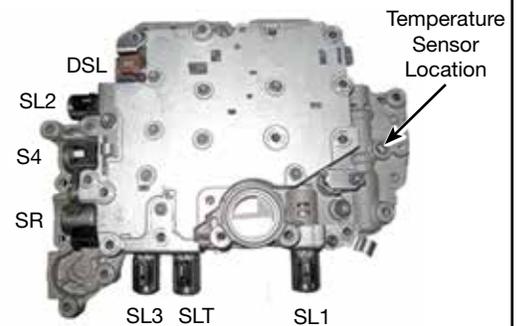
While valve body is out, air-check indicated circuits (**Figure 2**) using low, regulated air pressure. This will help you discover any issues prior to installing the remanufactured valve body.

3. Install Valve Body onto Case

- Install drain back checkball and spring into case, spring first (**Figure 2**).
- Verify B1 and B2 apply seals are in the case locations.
- Align slot in manual valve with manual linkage.
- Assemble valve body on case and torque bolts to 11 Nm or 8 ft-lb.
- Connect wire harness to solenoids and install temperature sensor (**Figure 1**). Assemble bracket into temperature sensor slot and torque bolt to 6.6 Nm or 58 in-lb.
- Install filter and three retaining bolts and torque to 11 Nm or 8 ft-lb.
- Assemble pan gasket and pan onto transmission case and torque bolts to 7.8 Nm or 69 in-lb.

U151 Solenoid ID

Figure 1



Common Internal Wire Colors

Solenoid	Color
SL1	White & Black
SLT	Green & Gray
SL3	Red & Blue
SR	Purple
S4	Yellow
SL2	Green & Brown
DSL	Light Blue

Valve Body Installation Tips (continued)

4. Fluid Fill & Road Test

- Fill transmission with Toyota WS transmission fluid to factory spec.
- Let engine run to warm transmission fluid to approximately 175°.
- Install scan tool to verify transmission fluid temp is achieved.

NOTE: This function must be done with a capable scan tool.

- Reset transmission memory with capable scan tool. (Battery disconnect will not reset.)
- Road test vehicle performing 10–15 upshift and downshift cycles through all five speeds.

NOTE: A small 2-3 upshift flare or overlap issue, clunk into 4th Gear and a 3-2 downshift clunk is common during adaptive relearn. This condition will typically resolve itself within the 10–15 shift cycles after reset is performed.

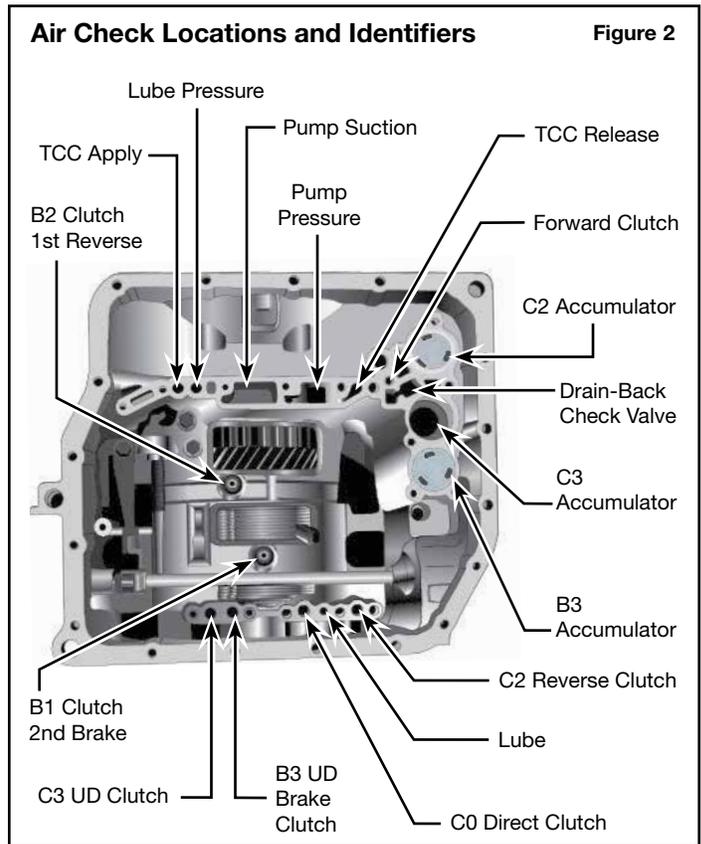
Transmission Diagnostic Tips

This remanufactured valve body has been through a rigorous inspection and rebuild process, then a comprehensive, functional hydraulic and electronic test to ensure it meets OE performance and quality. It is designed to eliminate many pressure-, shift- and converter-related complaints, but will not correct complaints that stem from other areas of the transmission.

The following are common areas of failure or root causes for symptoms that could be attributed to valve body issues that should also be examined or addressed during your transmission build. A brake and clutch application chart (Figure 3) is below for additional aid in diagnosing problems.

- 5-4 Downshift clunk can be caused by C1 clutch piston debonding.
- 2-3 Upshift flare and or binding can be caused by sealing ring problems in the rear cover.
- This can cause premature C0 clutch failure.

A bind-up during 2-3 upshift can be caused by bad speed sensors.



Shift quality complaints can also be caused by:

- Clutch and brake clearance issues
- Low battery voltage and poor battery grounds
- Bushing/bearing failure and overheat can be caused by case bearings turning, evidenced by bits of aluminum debris in ATF.



NOTE: The case bearing has been known to spin out on high mileage units, causing fine metal to build up which can hang up solenoids and valve trains in the valve body.

Clutch & Brake Application Chart

Figure 3

Gear Range	FWD Clutch C1	REV Input Clutch C2	Direct Clutch C0	U/D Clutch C3	2nd Brake B1	L/R Brake B2	U/D Brake B3	No. 1 One-Way Clutch F1	No. 2 One-Way Clutch F2
Park							ON		
Reverse		ON				ON	ON		
Neutral							ON		
D-1 st Gear	ON						ON	ON	ON
D-2 nd Gear	ON				ON		ON		ON
D-3 rd Gear	ON		ON				ON		ON
D-4 th Gear			ON		ON		ON		ON
D-5 th Gear			ON	ON	ON				