

### Tech & Install Tips

## **Toyota/Lexus U660E, U660F** Remanufactured **Valve Body**

## Part No. **TOY183**

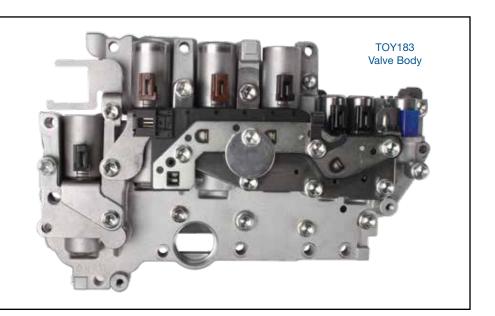
Fits '11-earlier w/three pressure switches

#### $\mathbf{O}$ 184

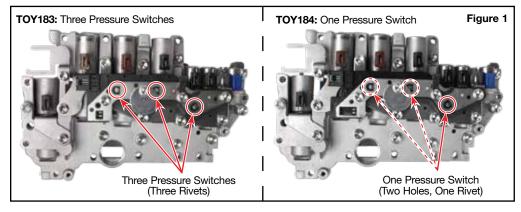
Fits '12-later w/one pressure switch



NOTE: Case connector, solenoid harness, speed sensor and manual valve are not included.



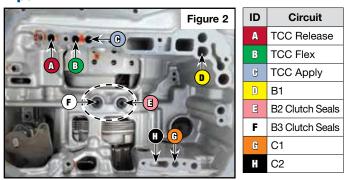
#### Valve Body Identification



#### **Valve Body Installation Tips**

#### 1. 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.



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#### TOYOTA/LEXUS U660E, U660F VALVE BODY TOY183, TOY184

## Tech & Install Tips

#### 2. Install Valve Body into Case

a. Install speed sensor, solenoid harness, case connector, and manual valve from original valve body onto the Sonnax replacement valve body.



**CAUTION:** Case connector and speed sensor can be easily broken, handle with care (**Figure 3**).

CAUTION: Verify the B2 and B3 clutch seals are in place before installing Sonnax replacement valve body
(Locations E & F, Figure 2).

- b. Install valve body into case using 11 bolts and hand tighten as shown (**Figure 4**).
- c. Tighten first 10 bolts in sequence shown to 96 in-lb. Tighten last bolt to 85 in-lb (**Figure 5**).
- d. Install filter and tighten two bolts to 85 in-lb (Figure 6)
- e. Install pan and tighten 19 bolts in a criss-cross pattern to 62 in-lb (**Figure 7**).
- f. Install transmission filler tube into pan and tighten bolt to 7 in-lb.
- g. Install TCM or pass thru connector and tighten two bolts to 96 in-lb (**Figure 8**).
- h. Temporarily install overflow plug (Figure 7).

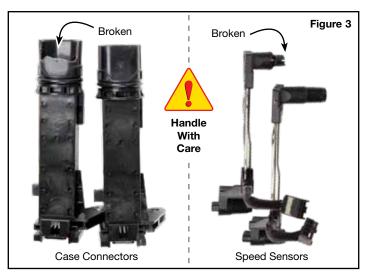
#### 3. Fluid Fill

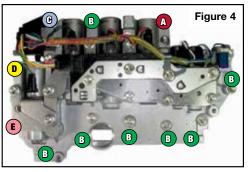
- a. Ensure vehicle is level.
- b. Remove refill plug and add 3.4 qts of Toyota WS type ATF.
- c. Temporarily reinstall refill plug.
- d. Start engine and shift through all gear ranges, including S1-S6, to check engagements and allow fluid to enter all hydraulic circuits.
- e. Using a capable scan tool, check transmission oil temperature. Fluid level should be adjusted between 95-113°F.
- f. Remove overflow plug.
- g. If ATF flows out, wait until it slows to a trickle and reinstall overflow plug.
- h. If ATF does not flow out, remove refill plug and fill with ATF until fluid flows out of overflow plug. Wait until it slows to a trickle and reinstall overflow and refill plugs.
- i. Tighten overflow plug to 29 ft-lb and tighten refill plug to 36 ft-lb.

#### 4. Initialize Transaxle Compensation Code

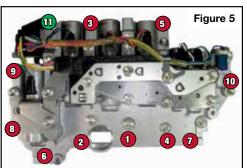
This procedure resets the code and, combined with a road test, allows the TCM to relearn (**Figure 8**).

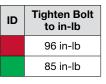
- a. Shift the shift lever to Neutral or Park.
- b. Turn the ignition switch off.

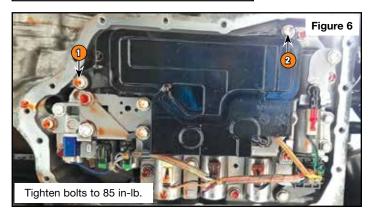




ID	Bolt Length						
A	25mm						
В	30mm						
G	35mm						
D	45mm						
Β	55mm						







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#### 4. Initialize Transaxle Compensation Code (continued)

- c. Connect Techstream to the DLC3.
- d. Turn ignition switch on and push Techstream main switch on.
- e. Enter the menu items in the following order: Powertrain / ECT / Utility / A/T Code Reset
- f. Press "Next" again to proceed.
- g. Press "Exit".

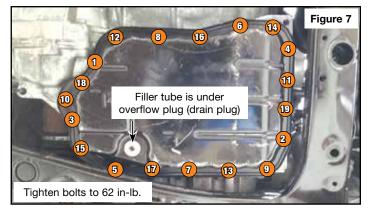
#### 5. Memory Reset

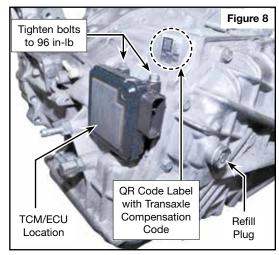
This procedure resets the TCM memory so it can memorize new performance information.

- a. Turn the ignition switch off.
- b. Connect the Techstream to the DLC3.
- c. Turn the ignition switch on.
- d. Turn Techstream main switch on.
- e. Enter menu items in the following order: Powertrain/ECT/Utility/Reset Memory.
- f. Press "Next" to confirm reset.

#### 6. Road Test

- a. Warm up the engine.
- b. From a standstill, with a throttle opening of 15%, drive the vehicle completing up and downshifts from 1st–6th Gears. Repeat this step 5–10 times until shift shock no longer exists.
- c. From a standstill, with a throttle opening of 25%, drive the vehicle completing up and downshifts from 1st–6th Gears. Repeat this step 5–10 times until shift shock no longer exists.





#### **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. Clutch and solenoid apply charts (**Figure 9**) are provided for additional aid in diagnosing problems.

- Tranmission runs hot: Incorrect fluid
- TCC slip or shift problems with metal found in fluid: Counter drive gear bearing spun in case
- TCC slip or no movement: Worn or broken splines in turbine hub
- Metal found in fluid: rear planetary sun gear worked out of C1 clutch hub and rubbing on planetary carrier

												Fig	ure 9
Clutch & Brake Application							Solenoid Energized When selector position in manually operated.						
Selector Position	C1	C2	B1	B2	B3	F1	SL1	SL2	SL3	SL4	SLU	SLT	SL
P-Park							X					Х	
R-Reverse				Х	Х					Х		Х	
N-Neutral							X				Х		
D, S6-1st	Х					X	X					Х	
D, S6-2nd	Х		Х				X		Х			X	
D, S6-3rd	Х				Х		X			Х		Х	
D, S6-4th	Х	X					X	X				X	
D, S6-5th		Х			Х			Х		Х		Х	
D, S6-6th		Х	Х					Х	Х			Х	
S1-1st/Manual	Х		Х			Х							

**F**:------