
TOYOTA UB80E

NO MOVE AFTER REBUILD

COMPLAINT: A 2015 Toyota Camry comes into the shop needing a transmission. After installing a rebuilt transmission, the vehicle did not move forward or reverse.

Due to the original transmission slipping and having poor shifts, the valve body was replaced during the rebuild process. When the original valve body was removed, it was compared to its replacement. In doing so, a significant difference was noticed. The original valve body had 2 open valve bores but the replacement had the 2 valves in the bore, see figures 1 and 2.

CAUSE: There are 2 different valve bodies for this transmission. The valve body that has two empty valve bores side by side is for NON-STOP/START applications. The valve body that has valves in these bores is for STOP/START vehicles (figure 3). This type of transmission used in ATSG's UB80 TechTran manual showing the one valve to be a B2 One-Way Check Valve and the other a C1 One-Way Check Valve. A no move condition will occur when a STOP/START Valve body is installed in a NON-STOP/START transmission which is what occurred here. Figure 4 provides a cutaway view from SONNAX showing these One-Way Check Valves used in STOP-START valve bodies.

Once this was discovered, the original valve body was put back on the transmission as a test to see if the vehicle would moved in forward and reverse. When this was done, the transmission only had reverse. There was no forward gears. The transmission was then removed to inspect the C1 clutch. for inspection, in doing so they discovered the C1 balance piston snap ring was installed in an incorrect location which prevented the C1 piston from applying the C1 clutch , see figures 5 and 6.

CORRECTION: With the correct Valve body installed and the C1 balance piston snap ring in the correct position, The transmission now moved forward and reverse.

Thanks to Nick at Twinn Transmission and SONNAX for this information.

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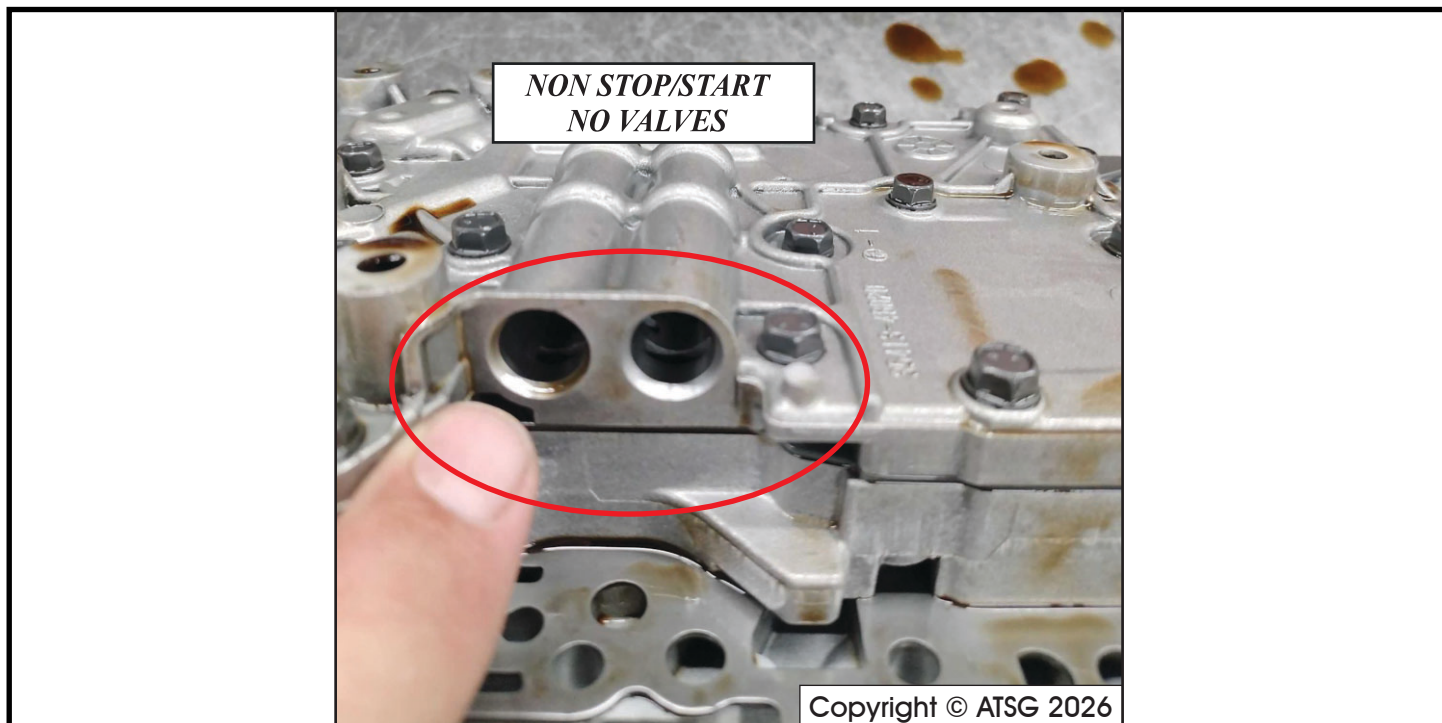


Figure 1

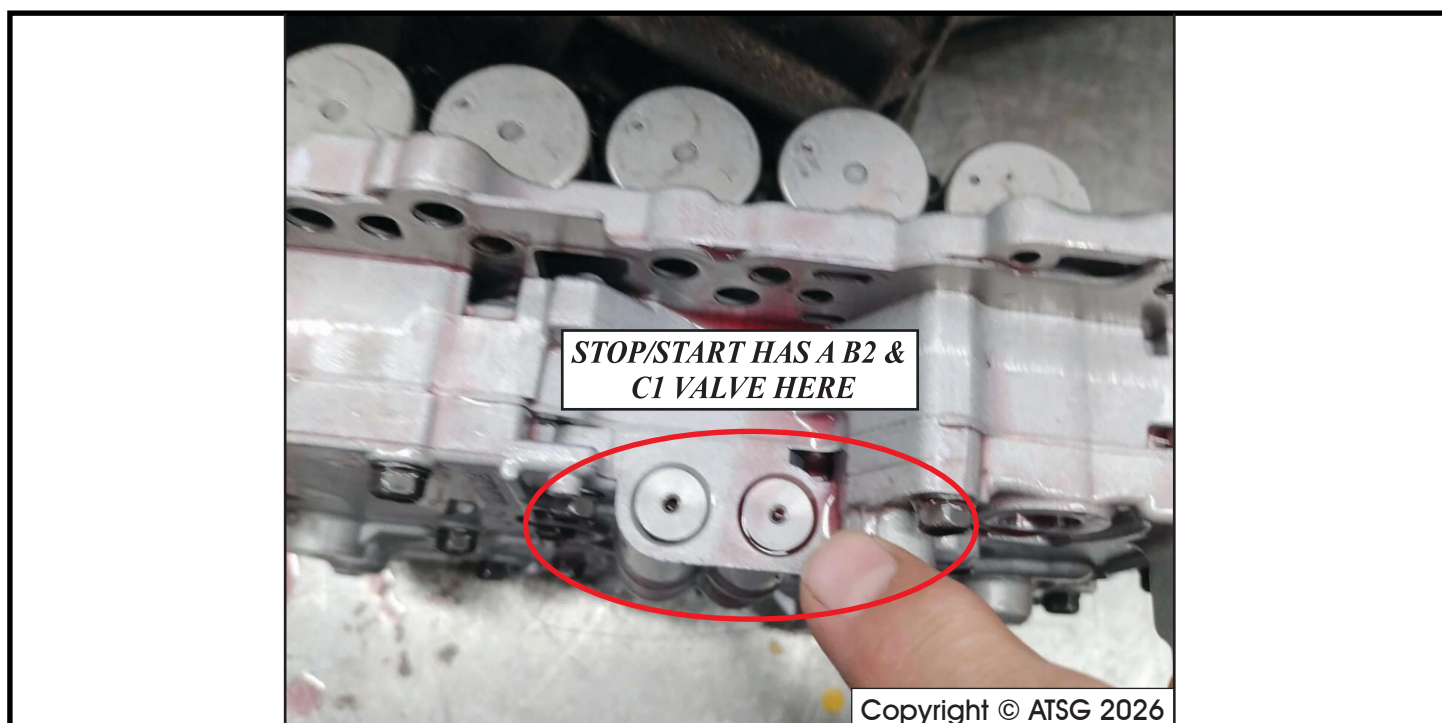


Figure 2

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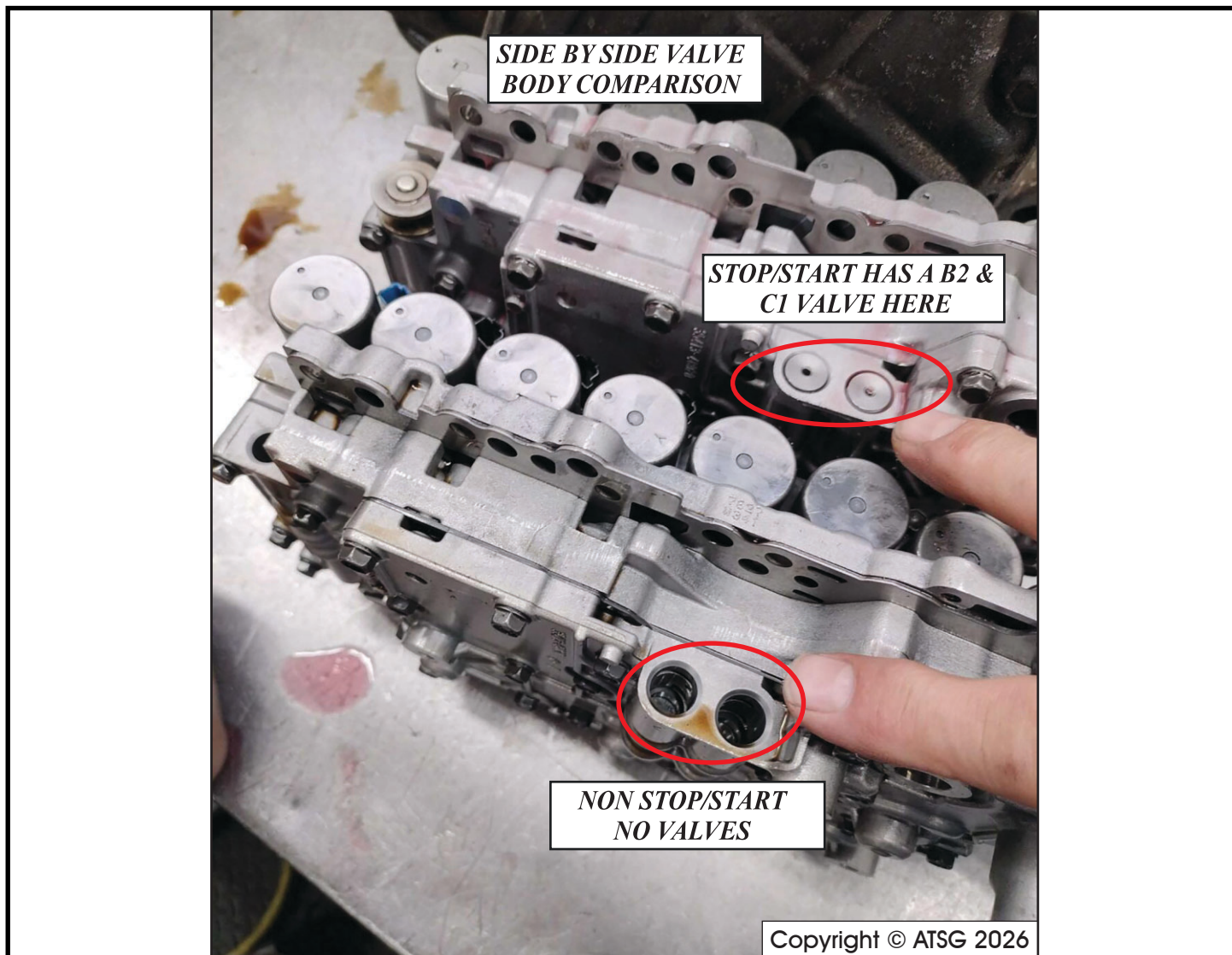


Figure 3

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TOYOTA/LEXUS UA80E, UA80F, UB80E, UB80F

sonnax

Critical Wear Areas & Vacuum Test Locations



Drop-In Zip Valve™
Parts Available

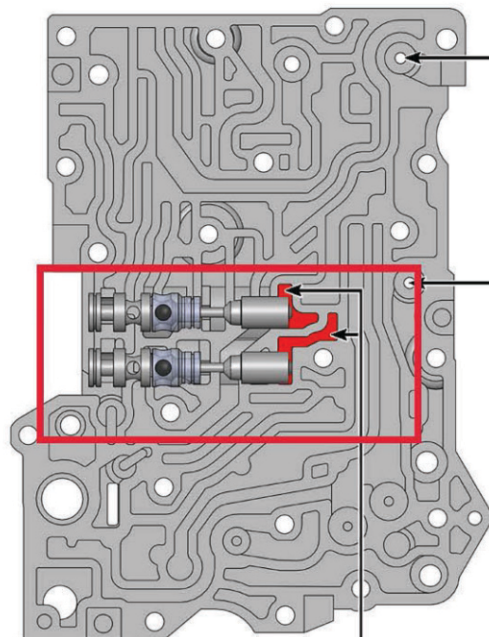
NOTE: OE valves are shown in rest position and should be tested in rest position unless otherwise indicated. Test locations are pointed to with an arrow. Springs are not shown for visual clarity. Low vacuum reading indicates wear and Sonnax parts are noted for replacement.

Rear Valve Body • UA80E Shown



For specific vacuum test information, refer to individual part instructions included in kits and available at www.sonnax.com.

Click on Sonnax part numbers to see more information.



TCCRV & TCCV Damper Kit

- Lube failures • Cooler drain back
- Overheated fluid/converter
- Delayed engagement

Replace with Sonnax Part No. **168740-11K**

Solenoid Damper

- Poor shift quality • Burnt clutches
- Delayed engagement
- Low line pressure
- TCC apply & release concerns
- Loss of shift solenoid control pressure

Replace with Sonnax Part No. **168740-12K**

B2/C1 One Way Check Valve

- Forward slip
- No Forward
- B2/C1 clutch failure

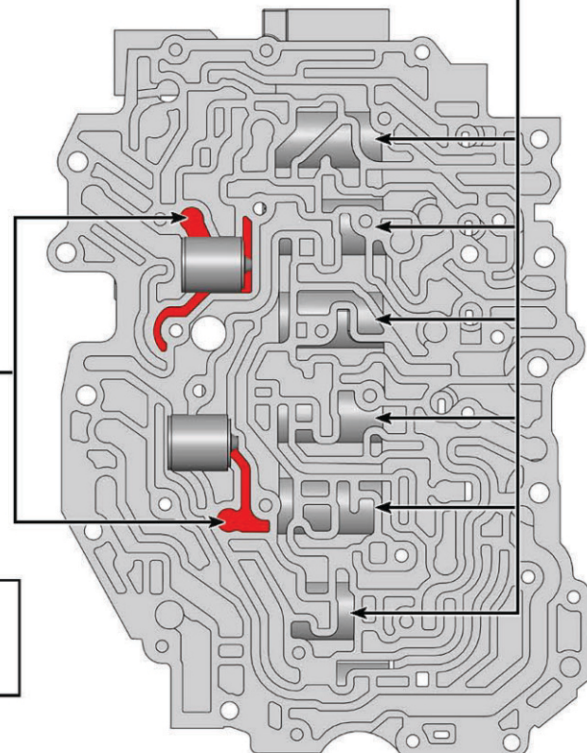
NOTE: Only on Stop-Start models. Valve bodies without Stop-Start will have open bores here.

Forward/Reverse Accumulators

- Slips in Forward & Reverse • Delayed engagement
- Poor shift quality • Harsh engagement

Replace with Sonnax Part No. **168740-05K**

Solenoid Valve Body UA80 Shown



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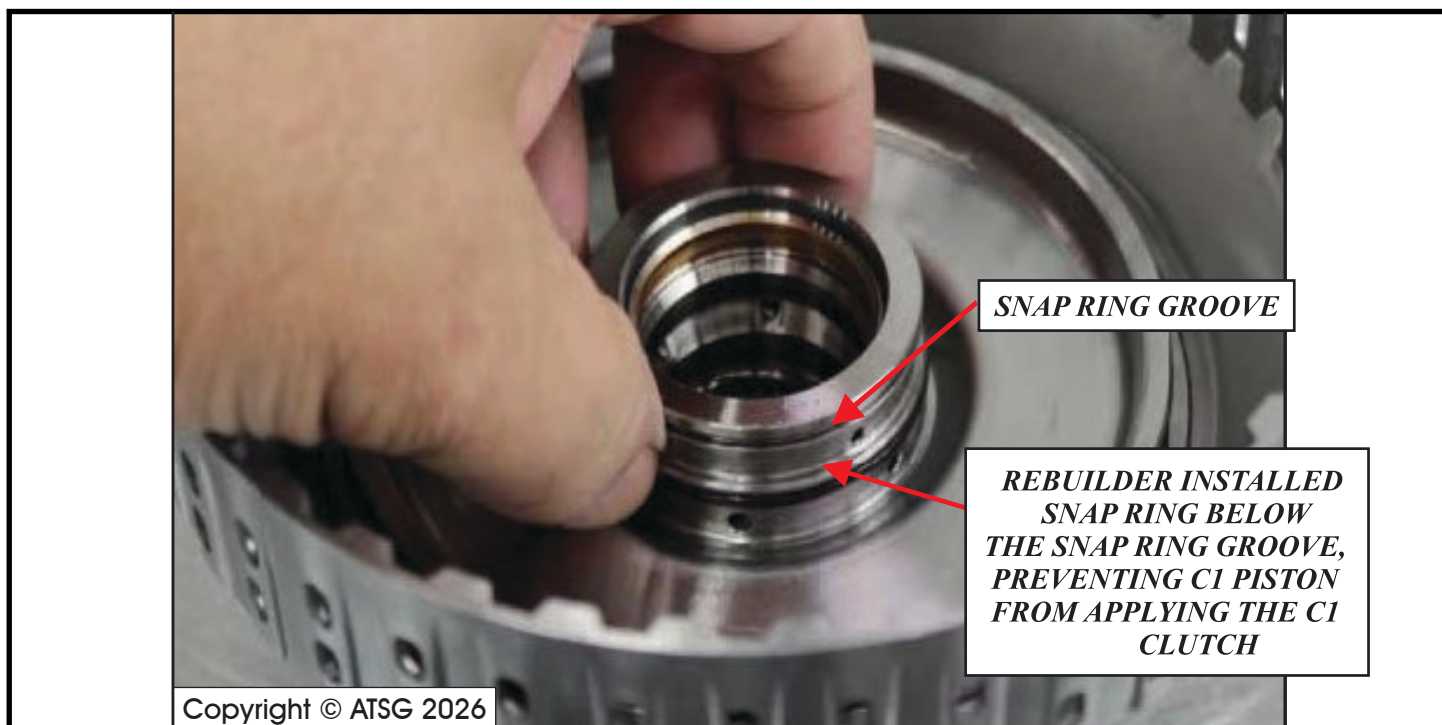


Figure 5

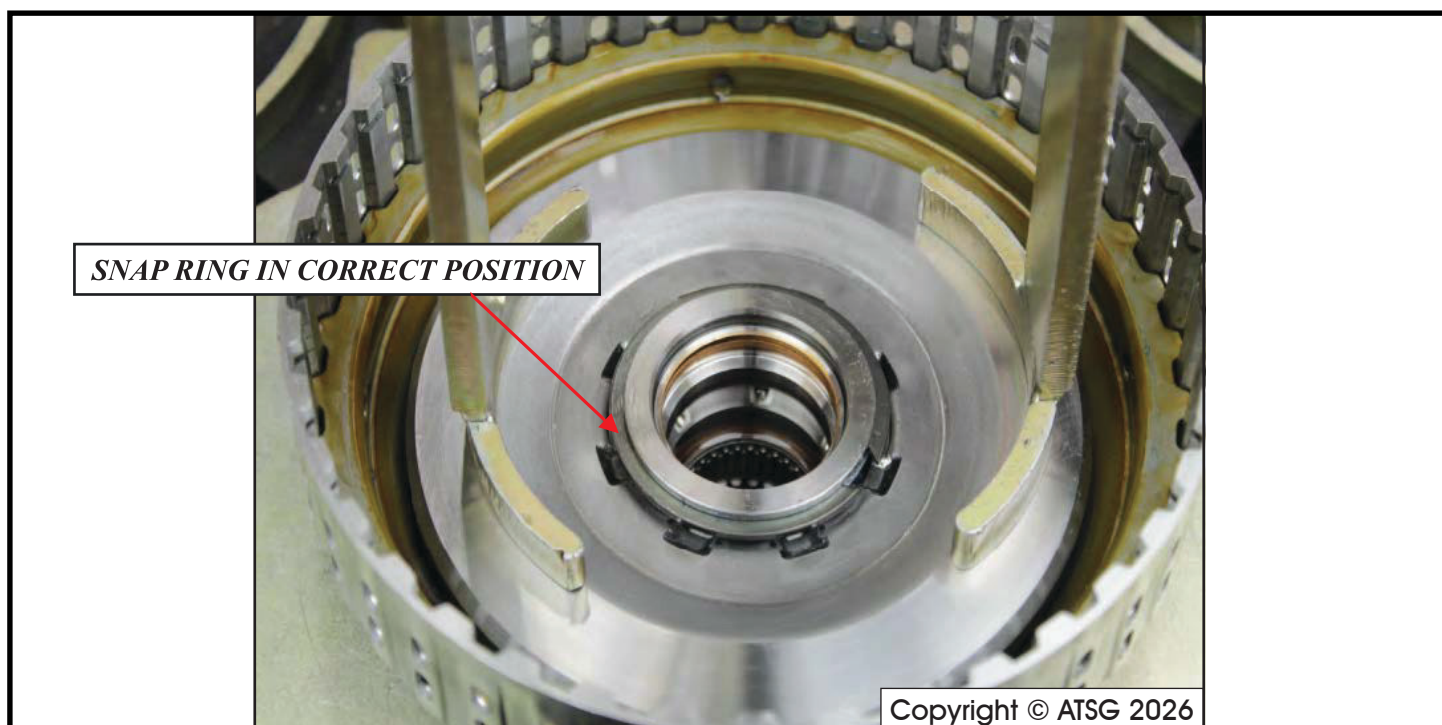


Figure 6