

Toyota/Lexus U660E, U660F, U760E, U760F

Oversized Converter & Lube Relief Check Valve Kit



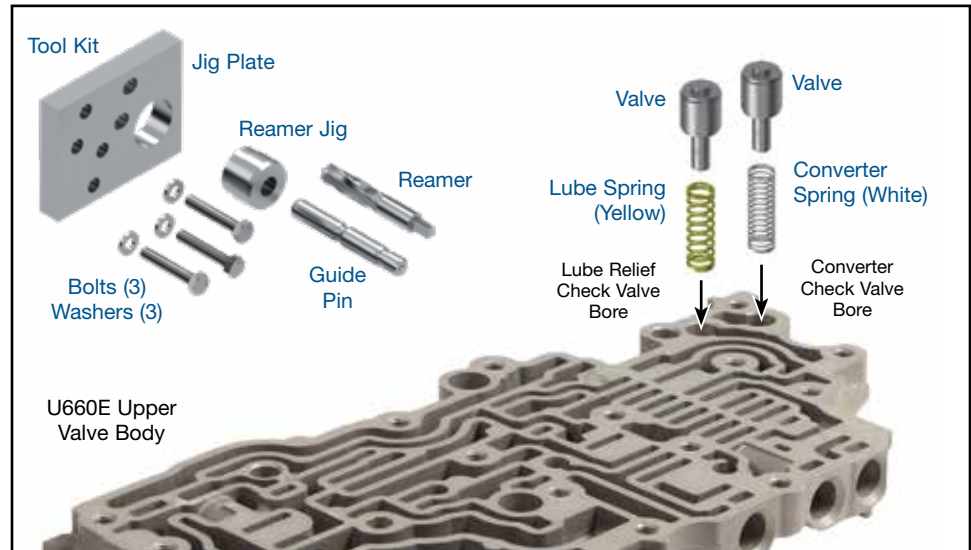
Part No.
47740-60K

- Valves (2) White
- Converter Spring White
- Lube Spring Yellow

Tool Kit

Part No.
47740-TL60

- Reamer
- Reamer Jig
- Jig Plate
- Guide Pin
- Bolts (3)
- Washers (3)

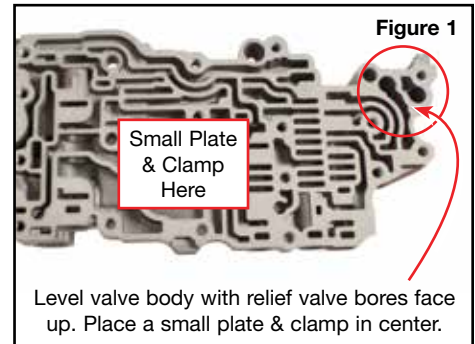


1. Disassembly

Remove and discard two OE valves and springs.

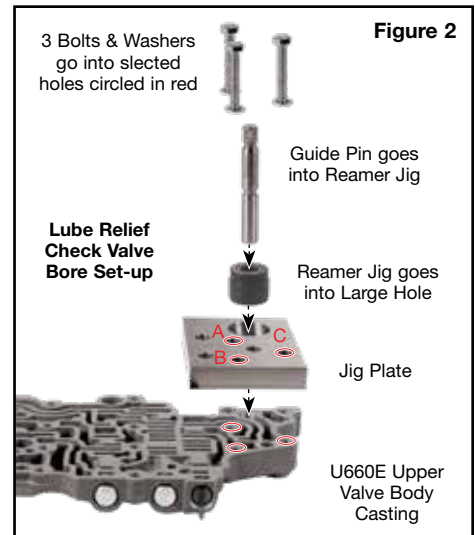
2. Bore Reaming

- Place upper valve body on bench with the relief valve bores facing up. Keep casting level on the bench using a block wood (or similar).
- Secure valve body to bench using a small plate and clamp near center of valve body (**Figure 1**).



LUBE RELIEF CHECK VALVE PROCEDURE

- Place Sonnax jig plate onto valve body casting. Center the large hole in plate around the lube relief check valve bore and align valve body holes A-B-C with the lube bolt pattern on the jig plate (**Figure 2**).
- Loosely install three Sonnax bolts and washers through jig plate into valve body holes A-B-C (**Figure 2**).
- Insert reamer jig into large hole in jig plate (**Figure 2**).
- Slide guide pin through reamer jig and into lube relief check valve bore until bottomed (**Figure 2**).
- Once guide pin, reamer jig, and jig plate are aligned with the bore to be reamed, securely tighten bolts. Ensure jig plate is tightly held in place while allowing guide pin to stroke freely in reamer jig and casting bore (**Figure 3**).



2. Bore Reaming (continued)

LUBE RELIEF CHECK VALVE PROCEDURE (CONTINUED)

- Remove guide pin and insert reamer into reamer jig (Figure 4).
- Ream bore with steady, clockwise rotation using speed handle or regulated air drill.

CONVERTER RELIEF CHECK VALVE PROCEDURE

- Reposition Sonnax jig plate over the converter relief check valve bore. Center the large hole in plate around the converter relief check valve bore, and align valve body holes A-B-C with the lube bolt pattern on the jig plate (Figure 5).
- Loosely install three Sonnax bolts and washers through jig plate into valve body holes A-B-C (Figure 5).
- Insert reamer jig into large hole in jig plate (Figure 5).
- Slide guide pin through reamer jig and into converter relief check valve bore until bottomed (Figure 5).
- Once guide pin, reamer jig, and jig plate are aligned with the bore to be reamed, securely tighten bolts. Ensure jig plate is tightly held in place while allowing guide pin to stroke freely in reamer jig and casting bore (Figure 6).
- Remove guide pin and insert reamer into reamer jig (Figure 7).
- Ream bore with steady, clockwise rotation using speed handle or regulated air drill.
- If reamer stalls before finishing the entire bore, the reamer and reamer jig can be removed to clear chips built up in the bottom of the bore.



NOTE: Jig Plate **MUST** remain tightened to valve body to retain correct alignment.

FINISH REAMING PROCEDURE FOR BOTH LUBE & CONVERTER RELIEF LOCATIONS

- Once reaming is complete, spin the reamer a few more times to burnish and improve surface finish.
- If necessary, deburr bore entrances slightly to facilitate assembly of Sonnax oversized relief check valves.

3. Installation & Assembly

- Be certain all debris has been removed from the valve bore and valve body.
- Install Sonnax yellow lube spring and valve in lube relief bore (Main Photo).
- Install Sonnax white converter spring and valve in converter relief bore (Main Photo).

4. Final Testing

Vacuum testing at the converter relief location only holds the recommended minimum 12 in-Hg (Figure 8).

