U151E/F, U250E

PART NUMBERS 27741-08K, 57917E-TL8

Oversized Pressure Regulator & Boost Valve Kit

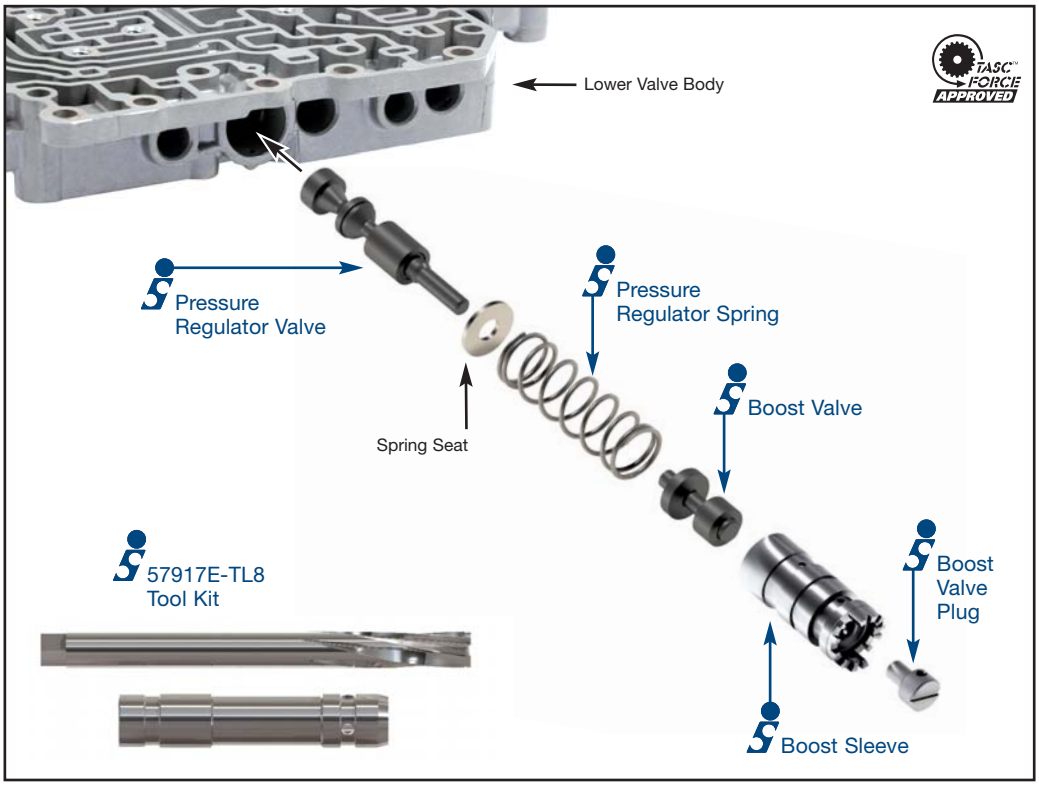
27741-08K

1 Pressure Regulator Valve
1 Pressure Regulator Spring
1 Boost Valve
1 Boost Sleeve
1 Boost Valve Plug

57917E-TL8

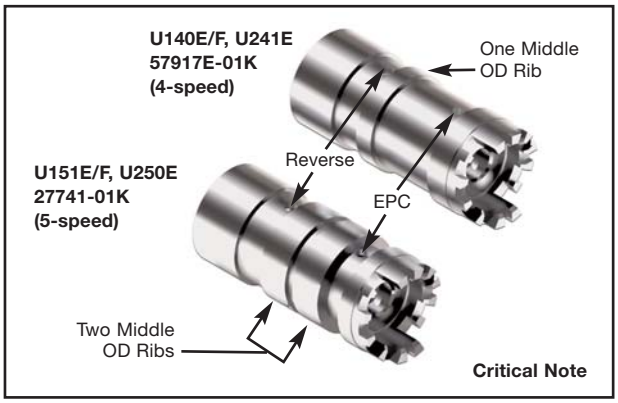
1 Reamer
1 Reamer Jig

Note: This tool kit is also used to install 57917E-08K the Oversized PR & Boost Valve Kit for Toyota U140E/F, U240E & U241E.



Critical Note

The boost assemblies between the 4-speed and 5-speed CANNOT be interchanged! The U140E/F, U241E (4-speed) boost valve sleeve and the U151E/F, U250E (5-speed) boost sleeve are identical except for the middle OD ribs. The extra rib on the 5-speed sleeve seals an EPC port. If sleeves are mis-matched, line pressure problems will occur.

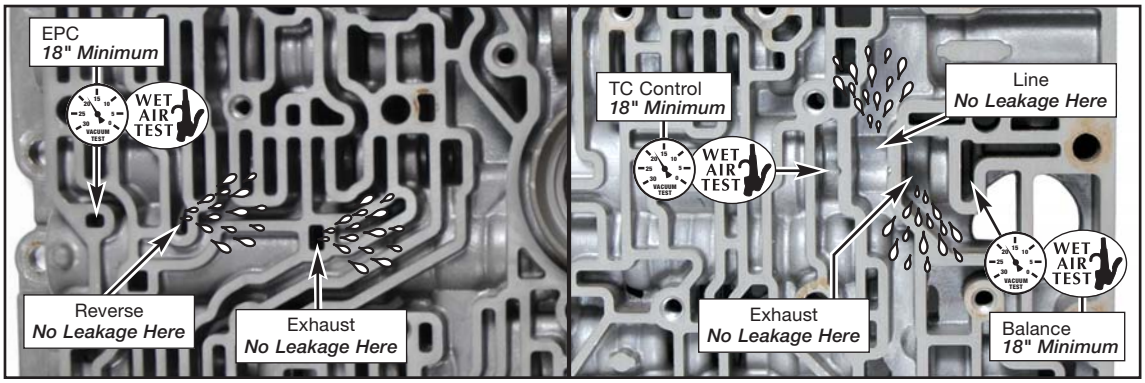


Wear Identification/WAT

Visible wear is often seen as a shiny patch on the inside diameter of the sleeve or valve bore.

- **Pressure Regulator Valve Wear Test:** Place a small amount of ATF into the balance line circuit. Follow with low air pressure while holding the valve inboard. There should be little or no leakage of air or oil past the valve spool and out the regulated line port.

- **Pressure Regulator Boost Valve Wear Test:** Place a small amount of ATF into the EPC port. Follow with low air pressure. There should be little or no leakage of air or oil past the valve spool and out the reverse port.



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Disassembly:

Note: This assembly is adjustable, and set for the particular application at the factory. Make note of which end step of the sleeve the retainer resides in prior to removing from the valve body. Failure to do so will result in no line rise.

Reaming Instructions

Prep and Set-up

1. Remove all components from the bore.
2. Clean the bore thoroughly in a solvent tank.
3. Securely clamp the housing to the bench, making sure not to clamp directly over the bore to be reamed.
4. Insert the reamer jig into the bore.
5. Soak the bore and reamer with cutting fluid (Mobilmet S-122, Lubegard Bio-Tap, Tap Magic™, etc). For best results, provide a continuous flow of water-soluble cutting fluid (i.e. Mobilmet S-122) during the reaming process.
6. Gently insert the reamer through the jig and into the bore until the cutting tip contacts the first bore to be reamed.
7. Select the correct sized socket to fit the square shank of the reamer, and attach it to a wobble/swivel socket drive..

Reaming

1. The reamer should be turned either by hand using a speed handle or by a low rpm, high torque air drill regulated to a maximum of 200 rpm.
2. The reaming action should be clockwise in a smooth and continuous motion at 60-200 rpm. The reamer should actually pull itself through the bore, so little or no forward force should be applied.
3. Continue reaming until the reamer stop is reached.

Finish and Clean-up

1. Using low air pressure, blow the chips free before removing the reamer.
2. To remove the reamer, turn clockwise while slowly pulling outward on the reamer.
3. Remove any remaining debris from the bore with low air pressure and clean in a solvent tank.
4. Examine the bore after cleaning for surface finish, debris, and burrs. Flashing and burrs on the exit side of casting bores can be carefully removed with a small piece of Scotchbrite™ on the end of a long wire.
5. Clean the reamer after each use and store in its protective tube.

Cautions and Suggestions

1. Turning the reamer backward will dull it prematurely.
2. Pushing on the reamer will result in poor surface finish and inadequate and sporadic material removal.
3. Never use a crescent wrench, ratchet or pliers to turn the reamer.
4. A dull reamer will cut a smaller hole. Reamers can be sharpened, but should only be done by a professional tool sharpener. Actual life of a reamer before resharpening or replacing averages 50-70 bores.

Installation/Assembly Steps

Take note of the position of the adjustable step on the original boost sleeve. When installing the new sleeve, ensure that the retaining pin goes through the new sleeve in the same position as the original adjustable step in the OEM sleeve. Discard all bore components except the washer/spring seat. Re-use the OEM washer with the replacement valve and spring.

1. Install the new oversized presure regulator valve.
2. Install the original OEM spring seat.
3. Install the new pressure regulator spring.
4. Install the new boost valve assembly.
5. Install the new boost valve plug and place the retaining pin into the same notch step as noted prior to disassembly.