

**Oversized Secondary Pressure Regulator Valve Kit**

**Part No.**  
**97741-17K**

- Valve
- End Plug
- O-Rings (2) 1 extra



**Tool Kit**

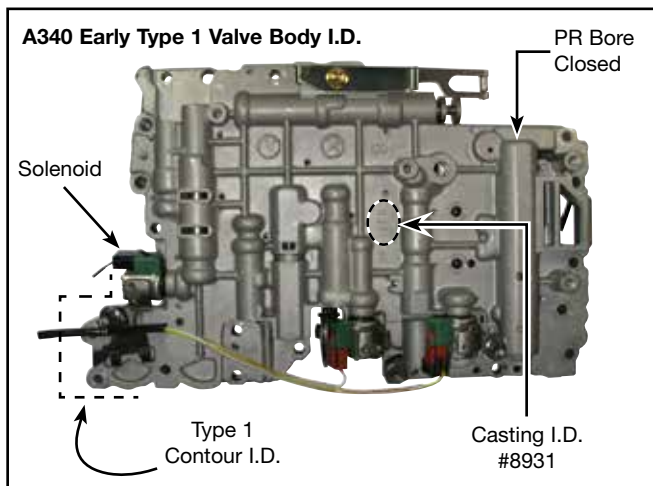
**Part No.**  
**F-39741-TL11**

- Reamer
- Reamer Jig
- Guide Pin

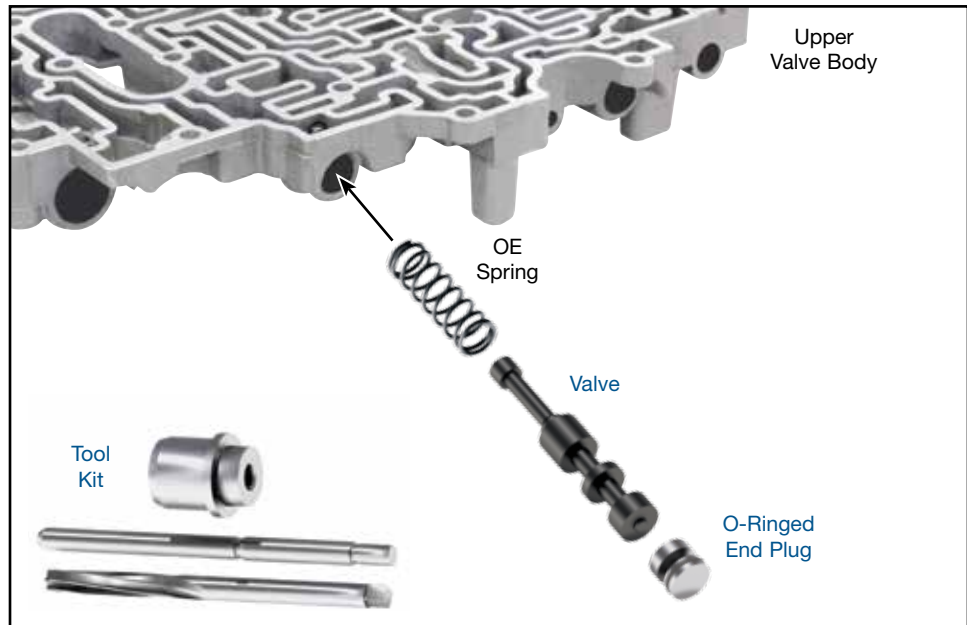


**NOTE:** Sonnax “F-Tool” kits designed to service a specific bore require the VB-FIX, a self-aligning valve body reaming fixture. More information and instructions can be found online at [www.sonnax.com](http://www.sonnax.com).

This tool kit also can be used for Aisin AW TF-80SC secondary regulator valve kit **39741-11K**.



**Toyota A340E/H, Early (Type 1)**



**1. Disassembly**

- Remove and discard the OE secondary pressure regulator valve and end plug.
- Retain the OE spring for reuse.

**2. Bore Preparation**

- Clean the bore thoroughly in a solvent tank.
- Generously lubricate the bore and reamer with cutting fluid (i.e. Mobilmet S-122,

Lubegard<sup>®</sup> Bio-Tap, Tap Magic<sup>™</sup>, etc.). For best results, provide a continuous flow of water-soluble cutting fluid (i.e. Mobilmet S-122) during the reaming process.

- The reamers should be turned using a low RPM, high-torque air drill regulated to a maximum of 200 RPM.

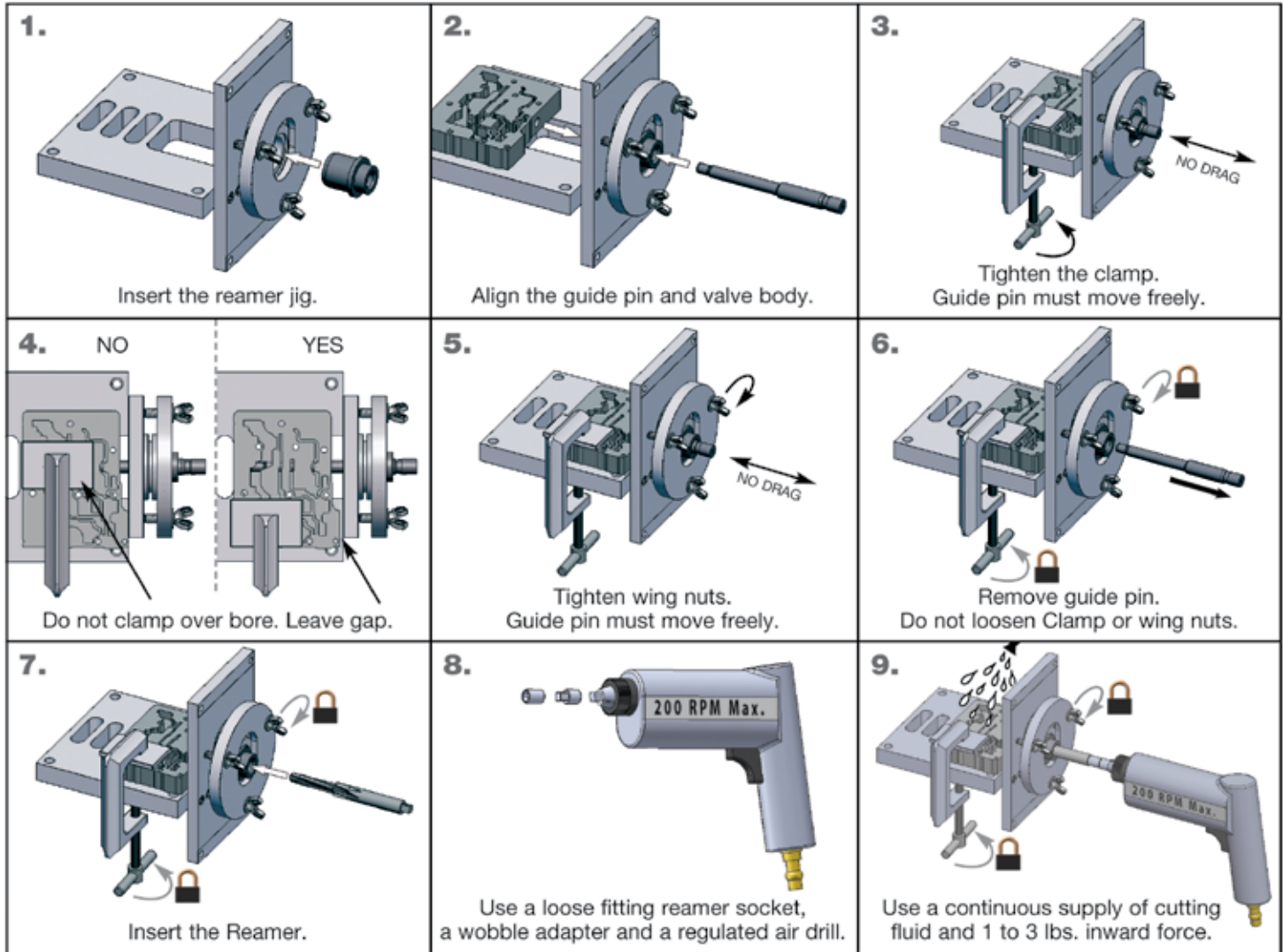
- Examine the bore after cleaning for surface finish, debris and burrs. Flashing and burrs on the exit side of land and in bores must be carefully removed. A small piece of Scotch-Brite<sup>™</sup> material attached to a wire and powered with a drill motor is ideal for the task. Scotch-Brite<sup>™</sup> is a very abrasive material and all residual debris must be cleaned to ensure particles do not migrate or remain imbedded into the surface. Post cleaning involves several progressive steps with solvent on a lint-free rag.

**CAUTIONS AND SUGGESTIONS:**

- Turning the reamer backward will dull it prematurely.
- Pushing on the reamer will result in poor surface finish and inadequate and sporadic material removal.
- Never use a crescent wrench, ratchet or pliers to turn the reamer.
- 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 Sonnax reamer before resharpening or replacing averages 50-70 bores.

### 3. Bore Reaming

Use the associated “F-Tool” F-39741-TL11 kit and VB-FIX reaming fixture as illustrated below to ream the bore.



### 4. Installation & Assembly

- Place the OE spring onto the Sonnax valve. Install this spring/valve assembly into the reamed and cleaned valve body bore, spring end first as shown.
- Place the Sonnax O-ring into the shallow Sonnax end plug groove. Lubricate with Sonnax Slippery Stick O-LUBE or equivalent and roll the O-ringed end plug on the bench to size.
- Carefully install the Sonnax O-ringed end plug into the bore, with the O-ringed land outboard.
- Retain with OE retaining pin.

### 5. Final Testing

Vacuum tests at the ports indicated hold the recommended minimum amount of 18 in-Hg.

