

## Oversized Pressure Regulator Valve Kit

**Part No.**

**97741-06K**

- Pressure Regulator Valve
- Pressure Regulator Spring
- Boost Valve
- Reverse Boost Valve
- Boost Sleeve (Replaces OE 2-dot boost sleeve)

**NOTE:** Fits type 3 and 4 valve bodies with .426" dia. EPC valve spool.

## Tool Kit

**Part No.**

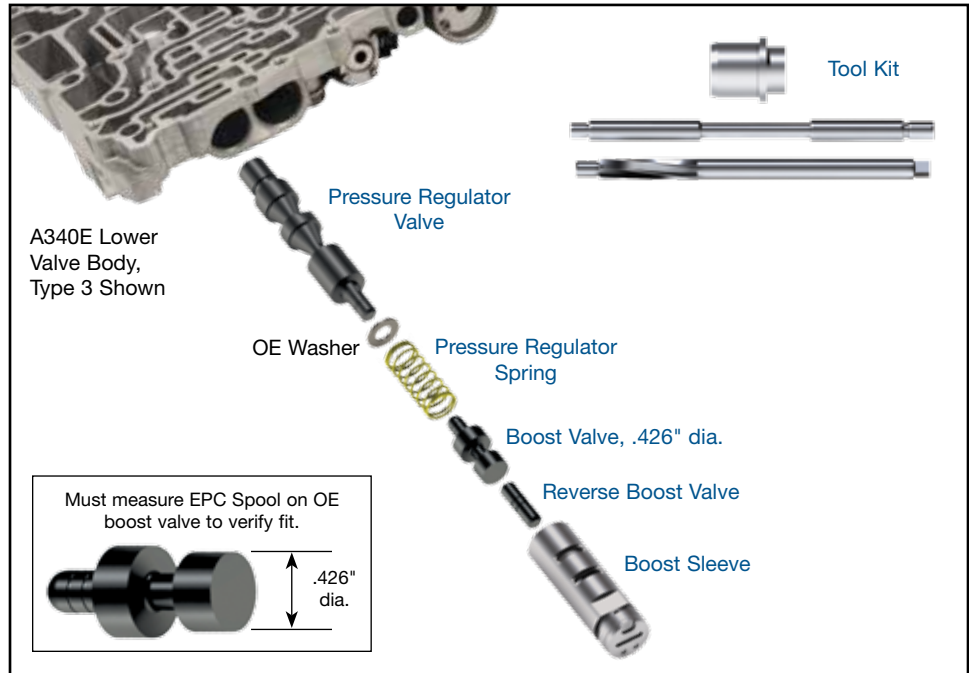
**F-97741-TL6**

- 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).



## Toyota A340E/F, Late



### 1. Disassembly

- Remove the OE valve train.
- Discard the OE boost valve assembly, pressure regulator valve and spring.
- Keep the OE washer and retainer for reuse.

### 2. Bore Preparation

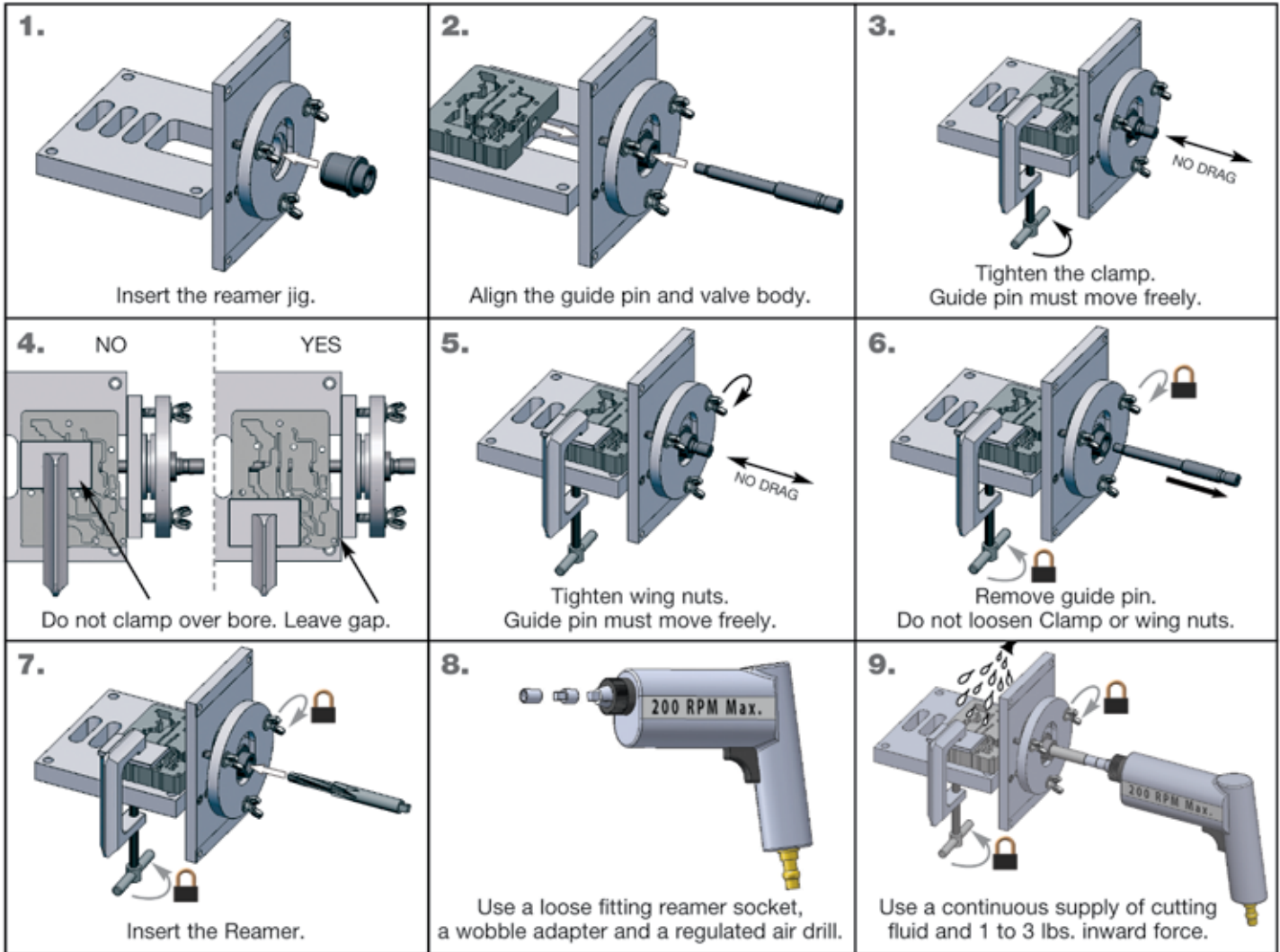
- Clean the bore thoroughly in a solvent tank.
- Generously lubricate the bore and reamer with cutting fluid (i.e. Mobilmet S-122, Lubgard<sup>®</sup> Bio-Tap, Tap Magic<sup>™</sup>, etc.). For best results, provide a continuous flow of water-soluble cutting fluid (i.e. Mobilmet S-122) during the reaming 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-97741-TL6 kit and VB-FIX reaming fixture as illustrated below to ream the bore.

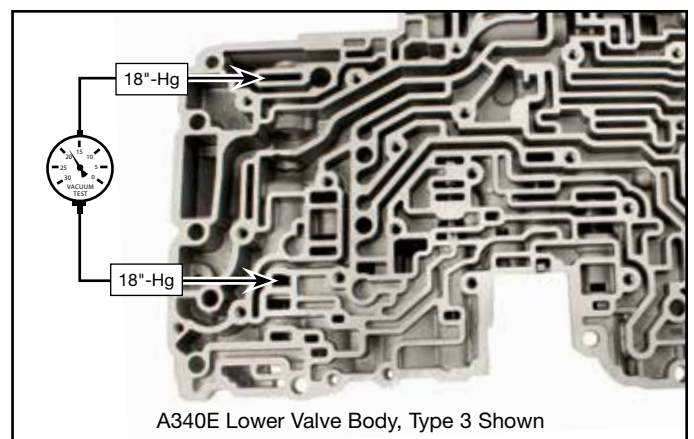


### 4. Installation & Assembly

- Install the Sonnax pressure regulator valve and OE washer, followed by Sonnax spring.
- Install the Sonnax boost valve, reverse boost valve and sleeve assembly and secure with OE retainer.

### 5. Final Testing

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



## Oversized Pressure Regulator Valve Kit

**Part No.**  
**97741-10K**



- Pressure Regulator Valve
- Pressure Regulator Spring
- Boost Valve
- Reverse Boost Valve
- Boost Sleeve (Replaces OE 3-dot or no-dot boost sleeve)

**NOTE:** Fits type 3 and 4 valve bodies with .353" dia. EPC valve spool.

## Tool Kit

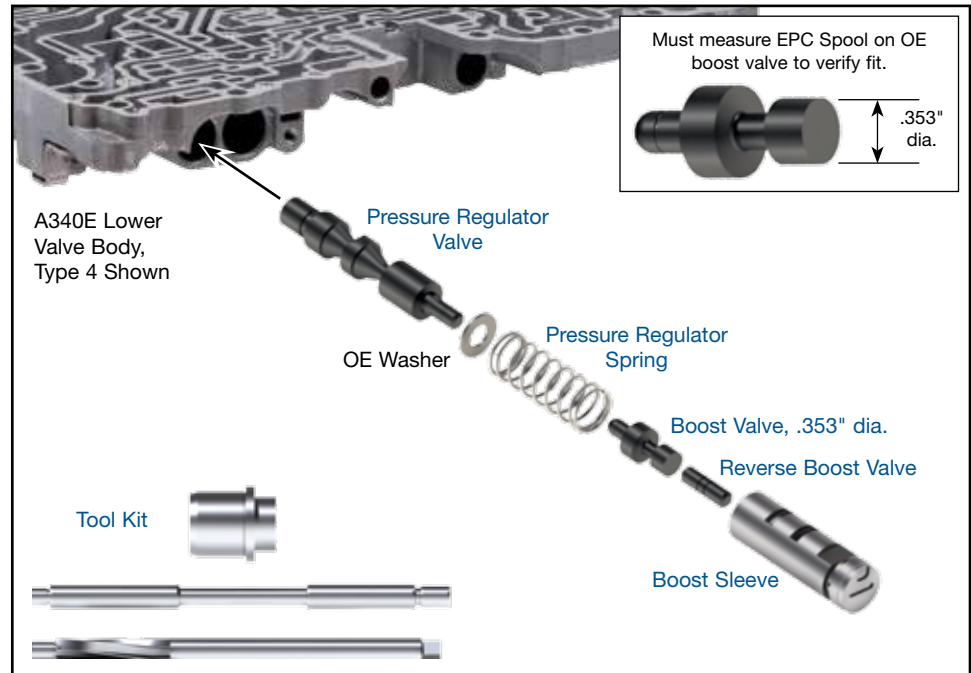
**Part No.**  
**F-97741-TL6**



- Reamer
- Reamer Jig
- Guide Pin

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## Toyota A340E/F, Late



### 1. Disassembly

- Remove the OE valve train.
- Discard the OE boost valve assembly, pressure regulator valve and spring.
- Keep the OE washer and retainer for reuse.

### 2. Bore Preparation

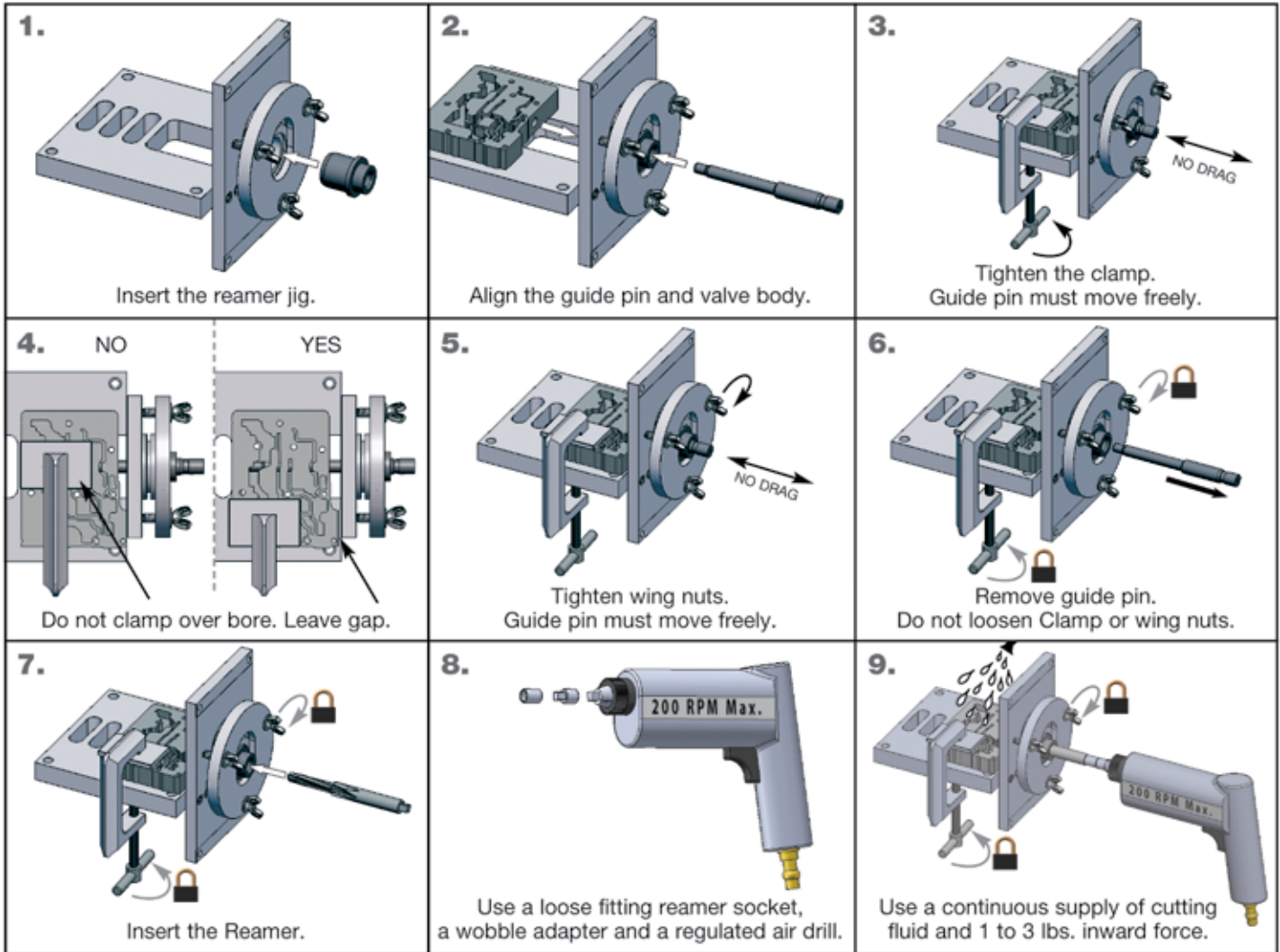
- Clean the bore thoroughly in a solvent tank.
- Generously lubricate the bore and reamer with cutting fluid (i.e. Mobilmet S-122, Lubegard<sup>®</sup> Bio-Tap, Tap Magic<sup>™</sup>, etc.). For best results, provide a continuous flow of water-soluble cutting fluid (i.e. Mobilmet S-122) during the reaming 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.

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### 4. Installation & Assembly

- Install the Sonnax pressure regulator valve and OE washer, followed by Sonnax spring.
- Install the Sonnax boost valve, reverse boost valve and sleeve assembly and secure with OE retainer.

### 5. Final Testing

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

