

## Solenoid Regulator Valve

### 36947-14

**NOTE:** Fits late-style, '96-later, two-spool valve version.



### 36948-22

**NOTE:** Fits early-style, '95-earlier, three-spool valve version.



## Tool Kit

### F-36947-TL14

Late style

- Reamer
- Reamer Jig
- Guide Pin



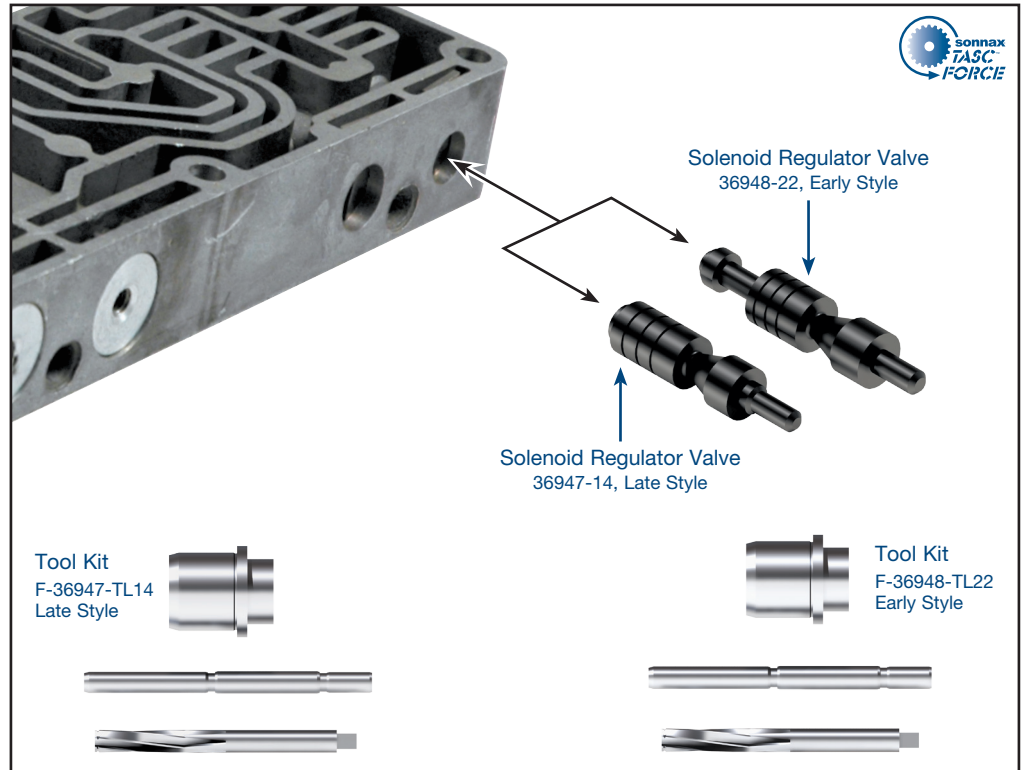
### F-36948-TL22

Early style

- 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).



**NOTE:** Verify proper valve and valve body versions before reaming.

### 1. Disassembly

- Remove OE valve spring retainer and spring and save both for reuse.
- Remove OE valve and discard.

### 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® 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.
- 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™ material attached to a wire and powered with a drill motor is ideal for the task. Scotch-Brite™ 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.

# E40D, 4R100

## Solenoid Regulator Valve

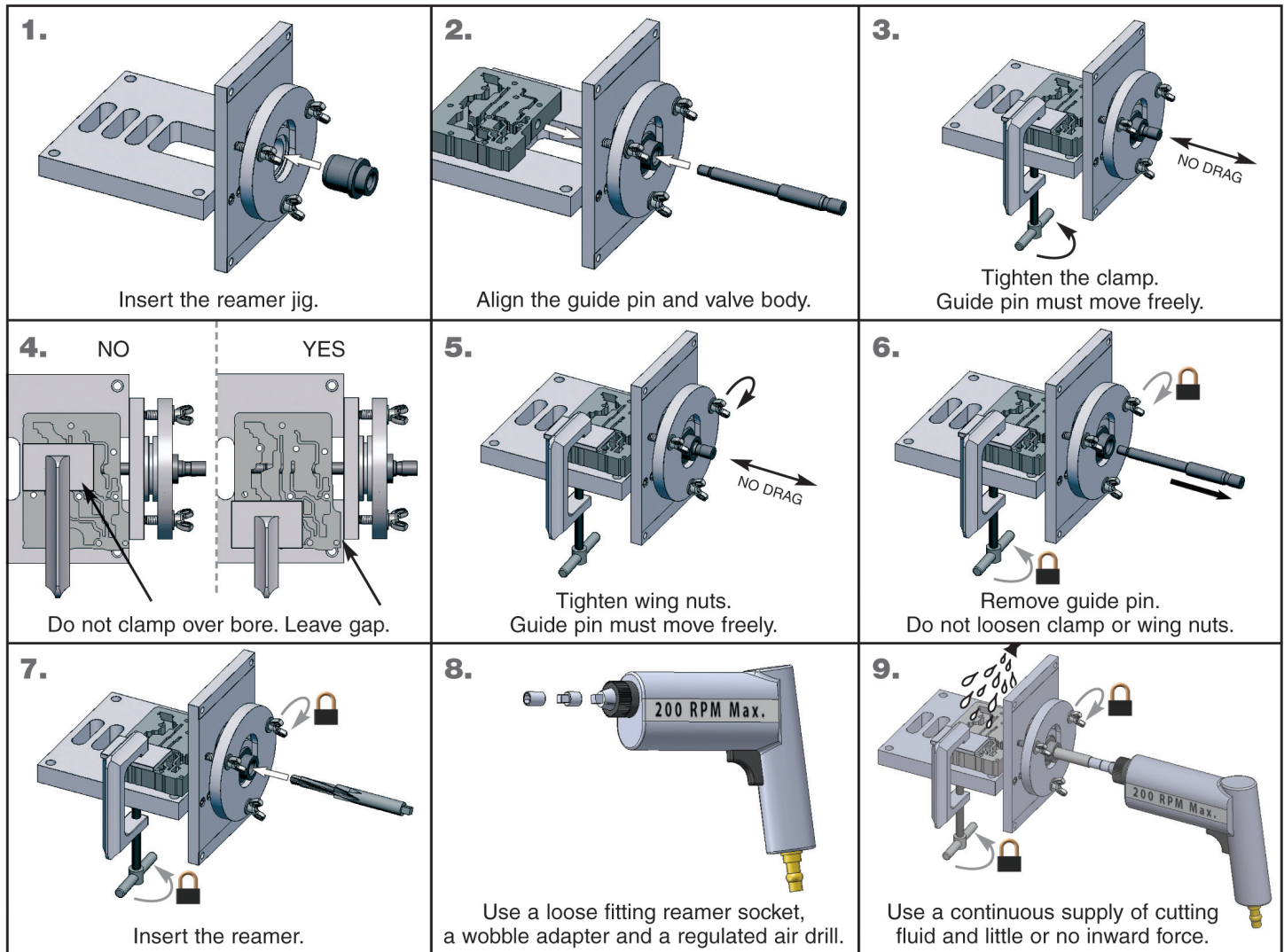
PART NUMBERS 36947-14, F-36947-TL14, 36948-22, F-36948-TL22

INSTRUCTION DATA SHEET

### 3. Bore Reaming

Use the associated "F-Tool" kit (see note) and VB-FIX reaming fixture as illustrated below to ream the bore.

**NOTE:** If using "Late Style" valve 36947-14, use tool kit F-36947-TL14. If using "Early Style" valve 36948-22, use tool kit F-36948-TL22 for reaming.



### 4. Installation & Assembly

- Install the Sonnax solenoid regulator valve.
- Install the OE spring over the valve stem.
- Install the OE valve spring retainer.

### 5. Final Testing

A wet air test in the location indicated with the valve blocked inward should result in no leakage out the neighboring line port, or a vacuum test of the balance port should hold at least 18" of vacuum.

