

**Oversized
Damper Clutch
Control Valve Kit**



**Part No.
84741-13K**

- Valve
- Sleeve
- O-Rings (2) 1 extra

Tool Kit

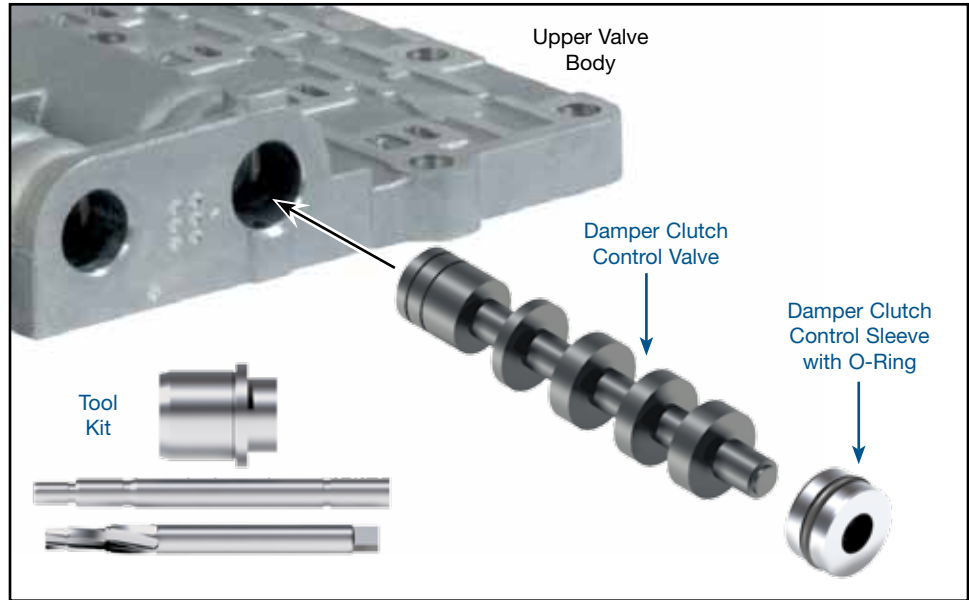


**Part No.
F-84741-TL13**

- 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.

Hyundai/Kia A4CF1, A4CF2



1. Disassembly

- Remove OE bore lineup and discard damper clutch control valve and sleeve.
- Keep the OE spring and retaining pin for re-use.

2. Bore Preparation

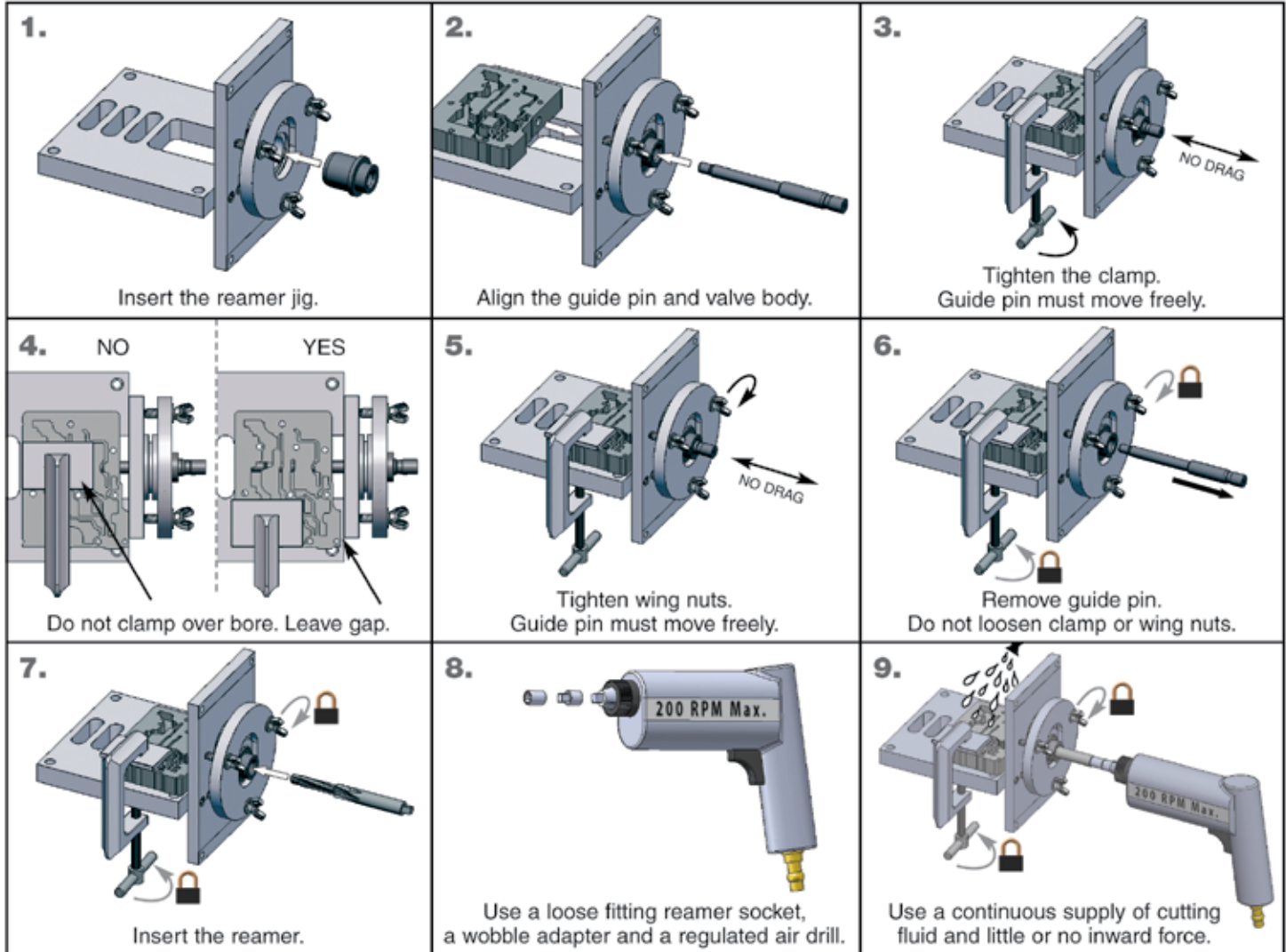
- Clean the bore thoroughly in a solvent tank.
- Generously lubricate the bore and reamer with cutting fluid (i.e. Mobilmet S-122, Lubegard[®] Bio-Tap, Tap Magic[™], etc.). For best results, provide a continuous flow of water-soluble cutting fluid (i.e. Mobilmet S-122) during the reaming process.
- The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

3. Bore Reaming

Use the associated “F-Tool” F-84741-TL13 kit and VB-FIX reaming fixture as illustrated below to ream the bore.



4. Installation & Assembly

- Place the Sonnax O-ring in the narrow groove on the Sonnax sleeve, lubricate with Sonnax Slippery Stick O-LUBE and roll on bench to size. Place onto the small spool diameter of the Sonnax valve with the undercut face inboard.
- Install the OE spring into the spring pocket on the Sonnax valve.
- Install the spring/valve/sleeve assembly into the bore, spring end first.
- Secure the sleeve in the bore with the OE retaining pin.

5. Final Testing

A vacuum test at the ports indicated holds 18 in-Hg or more.

