

Oversized Pressure Regulator Valve Kit

Part No.
41954-15K



- Pressure Regulator Valve
- Spring Seat

NOTE: May be used in Mitsubishi front wheel drive, '96-later valve bodies including F4A41/42/51, F5A51 and Hyundai/Kia A5HF1 and A5GF1. However, OE valve spool diameters **MUST** be measured to verify application. This kit **CANNOT** be used in rear wheel or all wheel drive units.

Tool Kit



Part No.
F-41954-TL15

- Reamer
- Reamer Jig
- Guide Pin

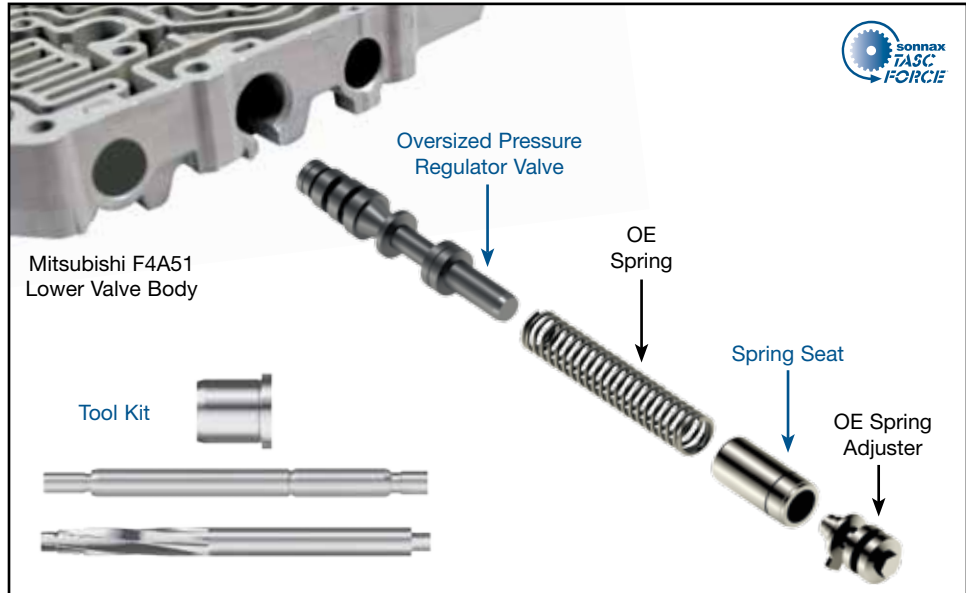
NOTE: Sonnax "F-Tool" kits designed to service a specific bore require the VB-FIX, a self-aligning valve body reaming fixture. More information and instructions can be found online at www.sonnax.com.

Also Available

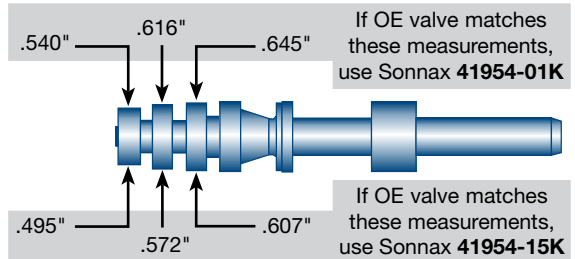
Oversized Pressure Regulator Valve
41954-01K

NOTE: May be used in Mitsubishi front wheel drive, '96-later valve bodies including F4A41/42/51, F5A51 and Hyundai/Kia A5HF1 and A5GF1. However, OE valve spool diameters **MUST** be measured to verify application. This kit **CANNOT** be used in rear wheel or all wheel drive units.

Mitsubishi F4A, F5A & Hyundai/Kia A5HF1, A5GF1

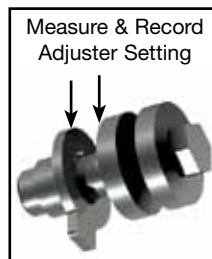


IMPORTANT: The OE valve spool diameters **MUST** be measured to verify application and therefore which Sonnax oversized pressure regulator valve will replace OE. Proper Sonnax valve and tool kit must be chosen **BEFORE** reaming the valve body.



1. Disassembly

- Remove and retain the OE retainer and spring adjuster, without turning the adjuster screw.
- Measure and record the OE adjuster setting as shown.
- Remove OE spring and pressure regulator valve. Discard valve and keep 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® 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.

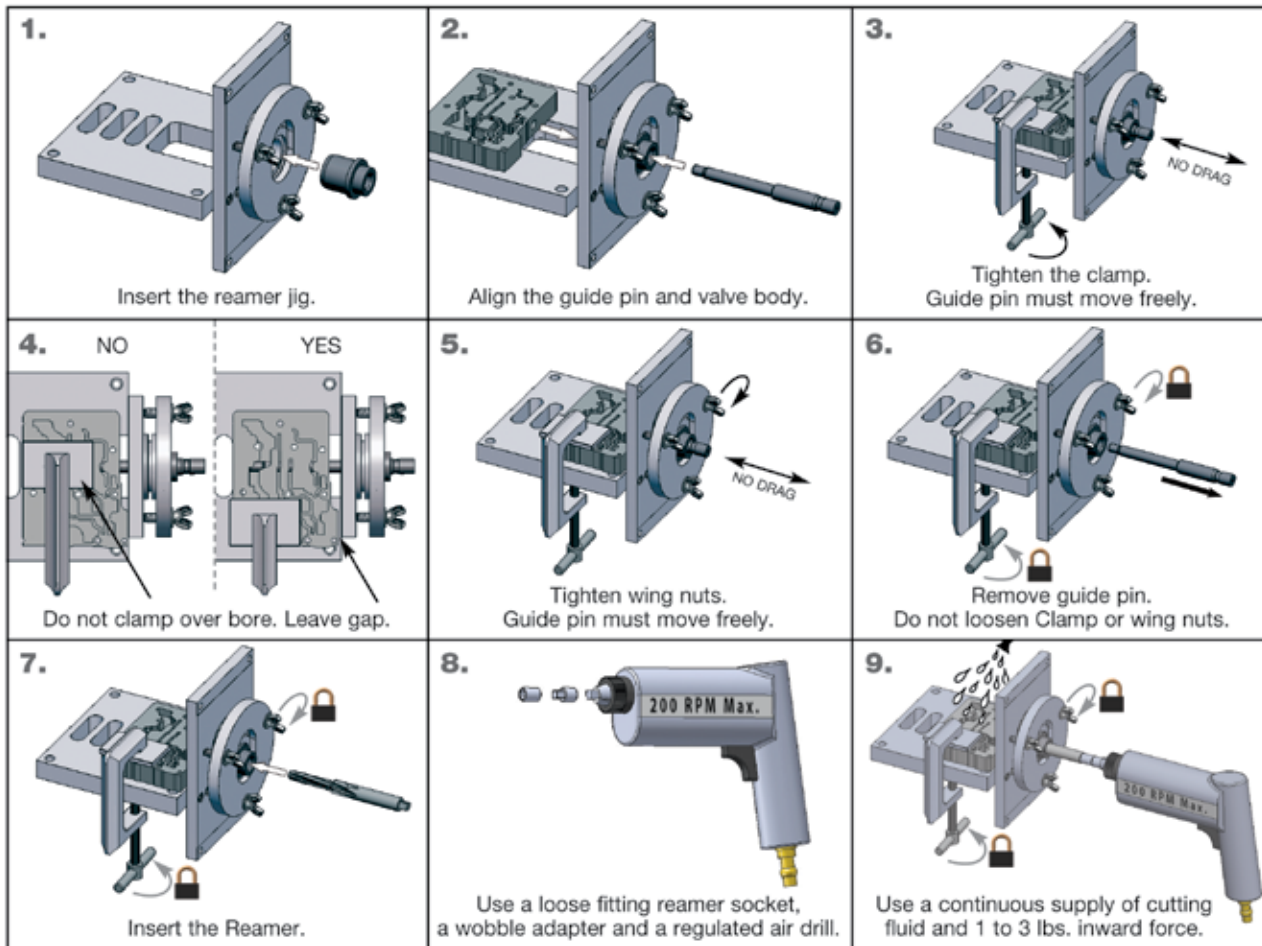
- The reamers should be turned using a low RPM, high-torque air drill regulated to a maximum of 200 RPM.
- Examine the bore after cleaning for surface finish, debris and burrs. Flashing and burrs on the exit side of land and in bores must be carefully removed. A small piece of Scotch-Brite™ material 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-41954-TL15 kit and VB-FIX reaming fixture as illustrated below to ream the bore.



4. Installation & Assembly

- Install the Sonnax pressure regulator valve.
- Reinstall the OE spring.
- Install the Sonnax spring seat.
- Before installing the OE spring adjuster, verify that it is set to the measurement noted during disassembly. If that setting is unknown, set the spring adjuster assembly to .250". Pressure must be verified after repair. One revolution of

the adjuster will change idle pressure by approximately 5 psi.

- Reinstall the OE spring adjuster and retainer.

5. Final Testing

- A vacuum test at the port indicated holds 18 in-Hg or more.
- Line pressure should be verified after repair. Pressure should be D1-145 psi at idle; R-185 idle, 260 max.

