

TCC Regulator & Isolator Valve Tool Kit



Part No.
F-77754-TL4

- Roughing Reamer
- Finishing Reamer
- Reamer Jigs (2)
- Guide Pin
- Stop Pin

Isolator Sleeve Tool Kit



Part No.
F-77754-SERV

- Roughing Reamer
- Guide Pin

NOTE: Use F-77754-SERV with F-77754-TL4 on GM remanufactured valve bodies.

Tool kit F-77754-SERV is no longer in production but may be available from distributor inventory. If none can be located, bench reaming tool kit 77754-SERV is available for this reaming operation.

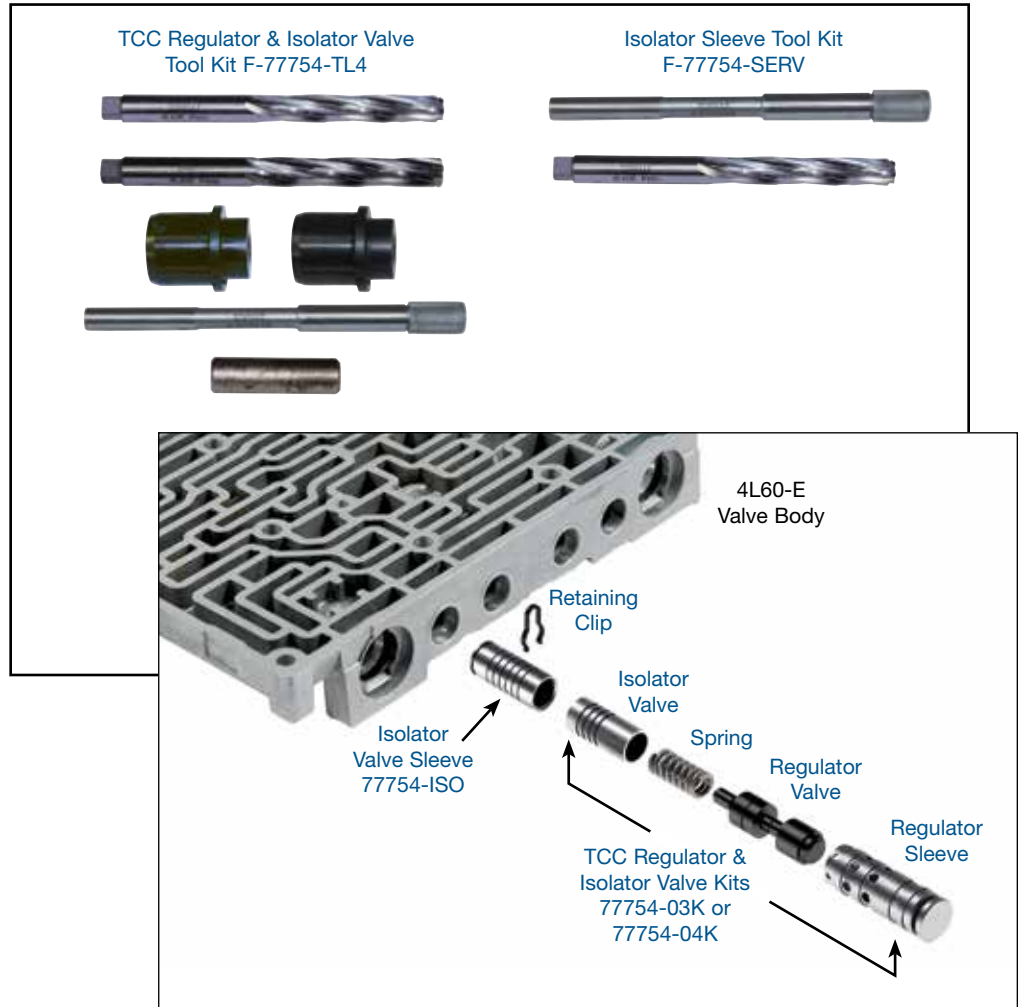
Products above used for installation of the following kits:

TCC Regulator & Isolator Valve Kit 77754-03K Elevated apply/firmer TCC

TCC Regulator & Isolator Valve Kit 77754-04K OE apply for EC3

Isolator Valve Sleeve 77754-ISO

GM 4L60-E, 4L65-E, 4L70-E



1. Bore Reaming

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.
- a. Clean bore thoroughly in solvent tank.
 - b. Generously lubricate 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.

1. Bore Reaming (continued)

- Reamers should be turned by hand using a speed handle or by low speed, high-torque drill at 60-200 RPM.
- If unfamiliar with use of **VB-FIX** and associated F-tool kits, please visit www.sonnax.com for general VB-FIX use instructions.

Option A: TCC regulator and isolator bore in non-GM remanufactured valve bodies

- Align and secure valve body on base of **VB-FIX**. Install reamer jig **F-77754-RJ** and align bore with guide pin **F-77754-GP**.
- Ream bore with roughing reamer **F-77754-RM**. Blow chips free with low air pressure before removing reamer. To remove reamer, turn clockwise while slowly pulling outward.
- Switch to reamer jig **F-77754-RJ2**. Ream bore with finishing reamer **F-77754-RM2**.

Option B: TCC regulator bore only, non-GM remanufactured valve bodies

Follow same steps in option "A" after installing stop pin **F-77754-01** in bore. Stop pin prevents reamers from entering isolator portion of bore (**Figure 2**).

Option C: TCC regulator and isolator bore in GM-serviced valve bodies

- Align and secure valve body on base of **VB-FIX**. Install reamer jig **F-77754-RJ** and align bore with guide pin **F-77754-GP2**.
- Ream bore with roughing reamer **F-77754-RM3**. Blow chips free with low air pressure before removing reamer. To remove reamer, turn clockwise while slowly pulling outward.
- Switch to reamer jig **F-77754-RJ2**. Ream bore with finishing reamer **F-77754-RM2**.

2. Finish and Clean-up

- Remove any remaining debris from bore with low air pressure and clean in a solvent tank.
- Examine 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. However, Scotch-Brite™ is a very abrasive material and all residual Scotch-Brite™ debris must be removed afterward to ensure particles do not migrate or remain embedded in the surface. Cleaning this material out should involve several progressive steps using solvent on a lint-free rag.
- Clean the reamer after each use and store in its protective tube.

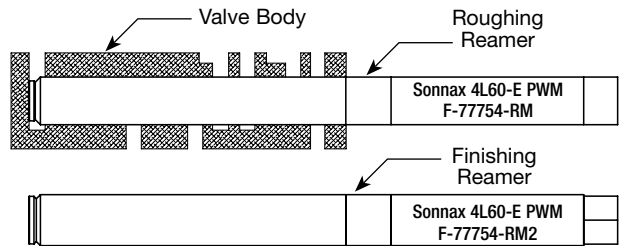
3. Installation

Follow installation steps included with **77754-03K**, **77754-04K** or **77754-ISO** kits.

Option A (Non-Serviced)

Figure 1

Valve body has excess isolator bore wear.



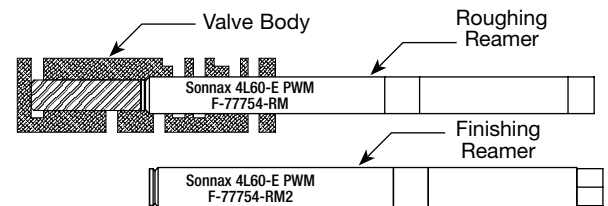
Reaming Steps:

- Use **F-77754-RM** (Roughing Reamer) with jig **F-77754-RJ**.
- Use **F-77754-RM2** (Finishing Reamer) with jig **F-77754-RJ2**.

Option B (Non-Serviced)

Figure 2

Valve body does not have excess isolator bore wear.

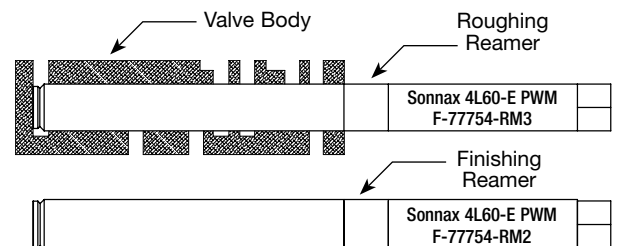


Reaming Steps:

- Install reamer stop pin in isolator bore as shown above.
- Use **F-77754-RM** (Roughing Reamer) with jig **F-77754-RJ**.
- Use **F-77754-RM2** (Finishing Reamer) with jig **F-77754-RJ2**.

Option C (GM-Serviced Valve Body)

Figure 3



Reaming Steps:

- Use **F-77754-RM3** (Roughing Reamer) with jig **F-77754-RJ**.
- Use **F-77754-RM2** (Finishing Reamer) with jig **F-77754-RJ2**.