

Oversized Servo Pin Kit

Part No.
77787-03K

- Servo Pin
- Spring
- O-Ring

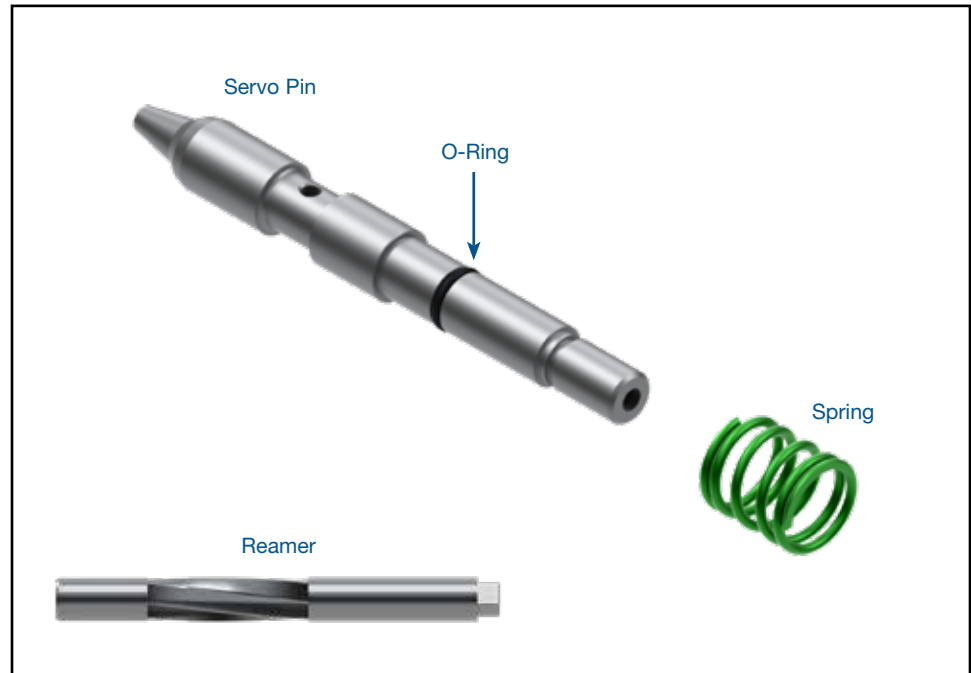


Green

Reamer

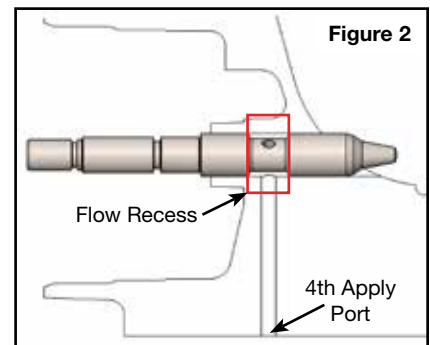
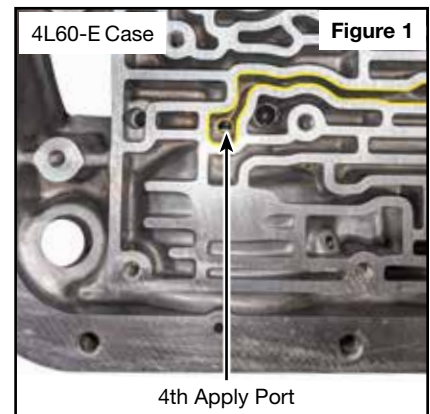
Part No.
77787-RM3

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



1. Vacuum Testing the Servo Pin Bore

- Identify the 4th apply port located directly below and intersecting with the servo pin bore (**Figure 1**).
- Install the pin into the bore. While looking through the port, ensure that a portion of the pin's flow recess is over the port (**Figure 2**).
- Vacuum can be tested at either the 4th apply port or the pin's center hole on the outboard end, while the other is plugged. Some methods include:
 - Cover the pin's center hole with your finger. Test vacuum with the plastic cone tip directly in the port at the bottom of the worm track.
 - Cover the pin's center hole with your finger. Test vacuum with a test plate large enough to cover the port's entire worm track.
 - Place the case on a closed cell foam mat so that the port's worm track is covered. Test vacuum with the plastic cone tip in the pin's center hole.
 - Plug the port with some Loctite® Fun-Tak putty. Test vacuum with the plastic cone tip in the pin's center hole.



2. Case Preparation

- Many cases have a lip at the exit of the servo pin bore (Figure 3).
- The lip must be removed to properly ream the bore. A 90° die grinder is suggested for easy access inside the case (Figure 4).
- Use the OE servo pin to confirm the bore exit is entirely cleared. The OE pin must pass freely through the bore exit (Figure 5).

3. Bore Reaming

Ream the servo pin bore (for reaming instructions please visit www.sonnax.com). Sonnax reaming tool 77787-RM3 is required for this operation. This reamer is self-guiding and does not require a fixture.

4. Servo Travel

- Assemble the 2nd Gear servo using Sonnax pin and spring. Do not install the O-ring at this time.
- Set pin travel using one of the two methods outlined below.

Method 1: Set pin travel using a dial indicator.

- Install the 2nd gear servo assembly, the separator piston, the 4th gear servo, servo cover, and retaining ring into the case (without seals).
- Set up the dial indicator against the servo cover (Figure 6).
- Depress the servo cover and measure the travel.
- Grind the pin tip as necessary to achieve .075–.125" of servo travel.

Method 2: Set pin travel using GM tool #J33037

- Follow the instructions included with the tool.
- Grind the pin tip until the white line is within the window.

NOTE: It is important to maintain a spherical tip radius when grinding the pin. The inner hole of a 3/8" flat washer cut in half makes a good radius gauge (Figure 7).

If servo travel is insufficient, the band will not be able to fully release. Double-check by looking up into the case near the manual shaft while turning the output shaft. The band drum should rotate inside the band.

To prevent case damage, do NOT use the servo cover retaining ring with flat sides (see GM Bulletin #04-07-30-025A).

5. Final Assembly

Install the new O-ring onto the new servo pin and all seals onto the servo pistons. Complete the servo assembly using normal build procedures.

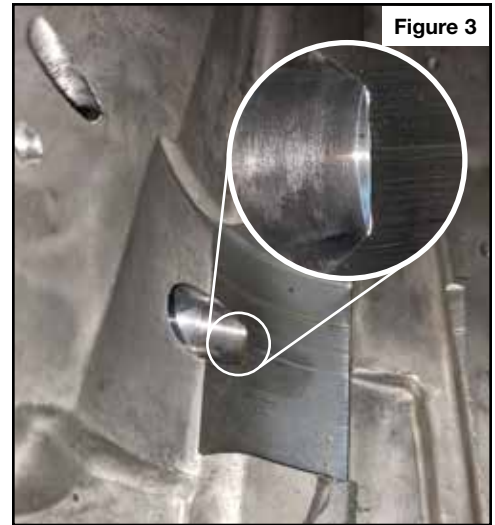


Figure 3



Figure 4



Figure 5



Figure 6

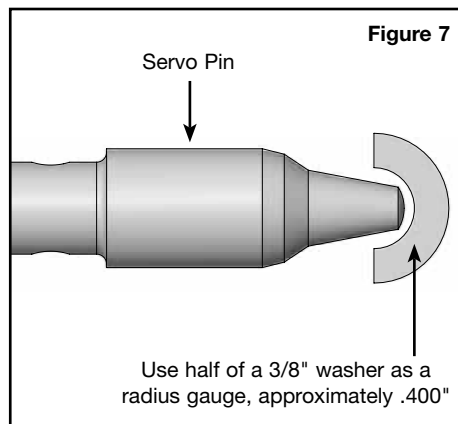


Figure 7