

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

**Servo Release  
Check Valve Kit**

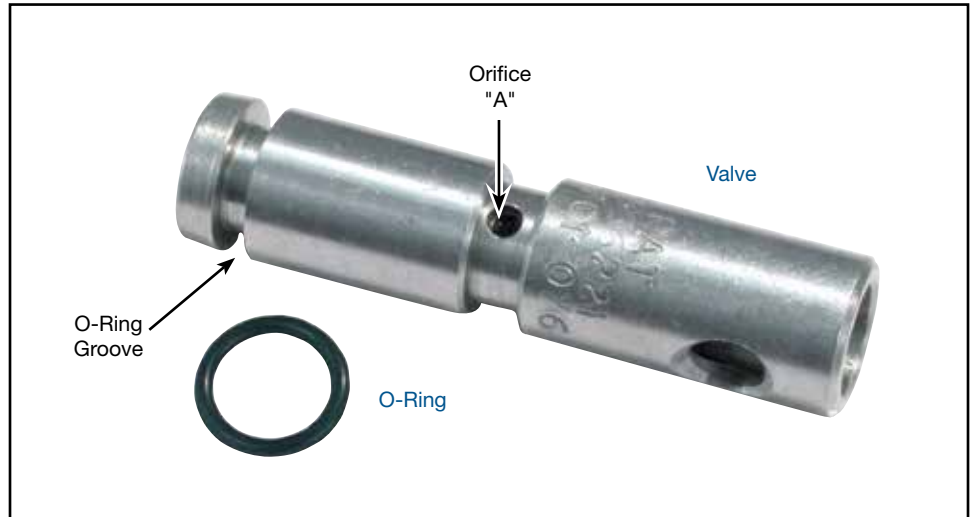
**Part No.**  
**77701-076**

- Valve
- O-Ring

Patent No. 5,536,221



**WARNING:** Must be used with properly functioning OE capsule.

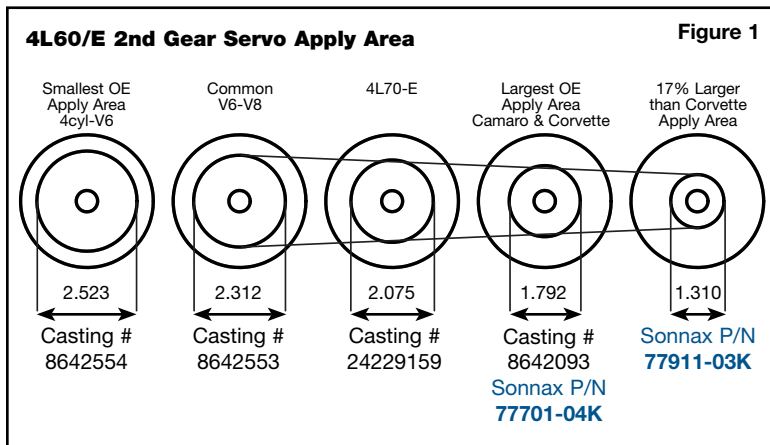


**1. Determine Servo Application**

- Sonnax servo release check valve comes ready to install in units with OE servos with casting numbers **8642554**, **8642553** and **24229159**. If casting number on inner recess of servo piston housing is missing or illegible, measure to determine which servo is in use (**Figure 1**).
- Servos with part number **8642093** and Sonnax servos **77701-04K** and **77911-03K** (**Figure 1**) have greater volume and require more oil flow. When using these servos, orifice "A" on Sonnax check valve should be enlarged to **.120 – .125"** using a #31 drill bit (**main picture**). Ensure debris is cleared from valve after enlargement.



**NOTE:** Drill carefully; too large an orifice will cause 2-3 flares or bump shifts.



**2. Spacer Plate Modification**

- For normal use, NO plate modification is necessary; proceed to step 3 "Installation & Assembly".
- For moderate performance applications, enlarge appropriate orifice to .090" using #43 drill bit (**Figure 2**, page 2).
- For maximum performance applications, enlarge appropriate orifice to .100" using #39 drill bit (**Figure 2**, page 2).

**3. Installation & Assembly**

- Ensure OE 3rd accumulator checkball capsule is installed and seals without leaks or seepage.
- Install Sonnax check valve into same bore as OE capsule, tapered end first (**Figures 3 & 4**, page 2).



**NOTE:** Bore variation is common. Install Sonnax check valve without O-ring; if valve slides in without resistance, remove valve. Install Sonnax O-ring, lubricate and roll on clean bench to size O-ring into groove, then reinstall. O-ring ensures good hydraulic seal in cases with enlarged bores.

- Installed valve should be slightly below flush to avoid spacer plate interference and damage.



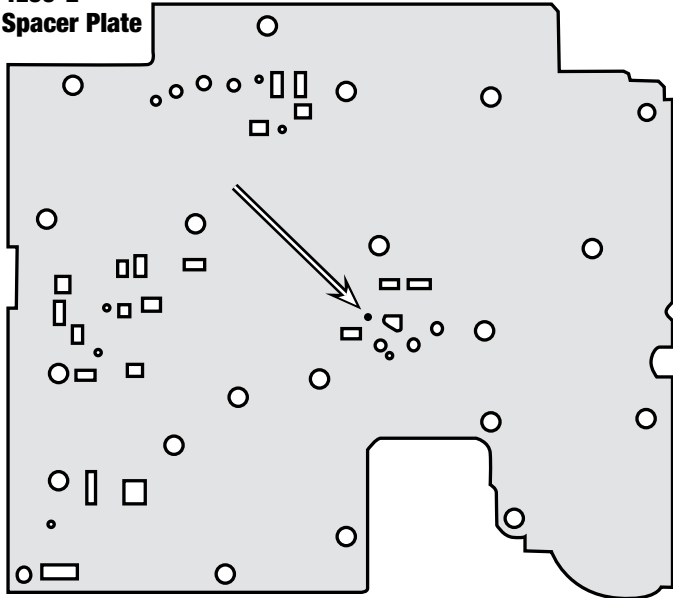
**NOTE:** If check valve requires removal for any reason, a #5 easy-out can be used or the valve can be tapped and removed with bolt and puller.

## TRANSMISSION PARTS

SERVO RELEASE CHECK VALVE KIT 77701-076

## Instructions

**4L60-E Spacer Plate**



- **For normal use:**  
NO plate modification is necessary.
- **For moderate performance applications:** Enlarge noted orifice to .090" using #43 drill bit.
- **For maximum performance applications:** Enlarge noted orifice to .100" using #39 drill bit.

**4L60 Spacer Plate** Figure 2

