

Servo Release "Check Valve"

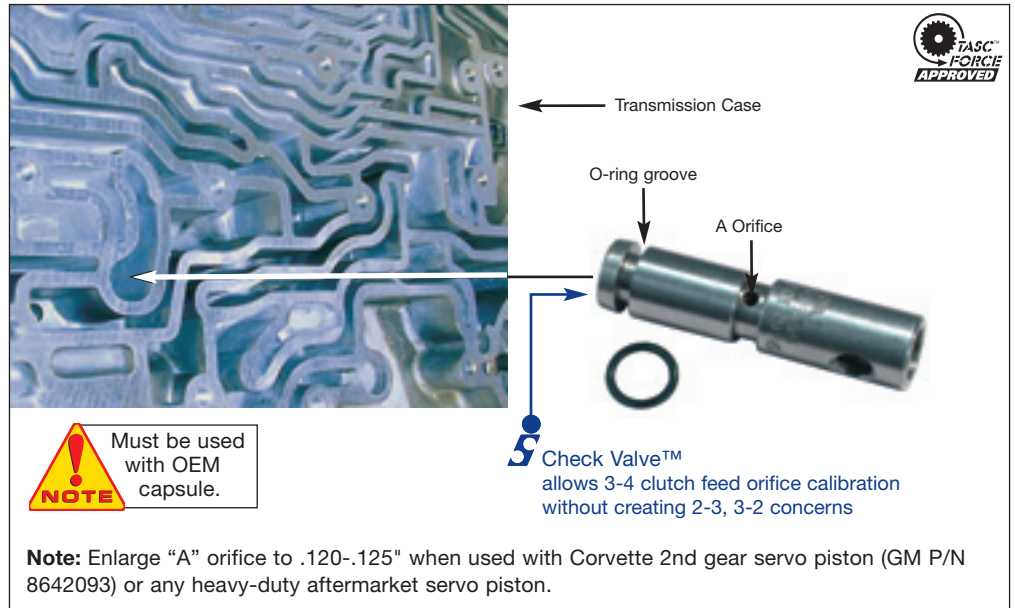
77701-076

- 1 Check Valve
- 1 O-Ring

Note: U.S. Patent No. 5,536,221

Check Valve Application and Orifice "A" Modification

1. Valve 77701-076 comes ready to install for all 4L60/700-R4 and 4L60-E transmissions with selective servo part numbers **8642553** and **8642554**. The servo serial number is integrally cast into the inner recess of the servo piston housing.
2. Servos with part number **8642093** or aftermarket aluminum billet servos have greater volume and require more oil flow. Enlarge orifice "A" on the valve to .120"-.125" with a #31 drill bit. Drill hole carefully. Too large an orifice will cause flare/bump shift from 2nd to 3rd. See photo on page 2.



Spacer Plate Modifications

Use of the valve allows modification of the spacer plate to increase apply oil flow to 3-4 clutch without affecting 2nd gear release. Enlarge orifice "B" or "C" in spacer plate. See appropriate 4L60 or 4L60-E illustrations and charts on page 2.

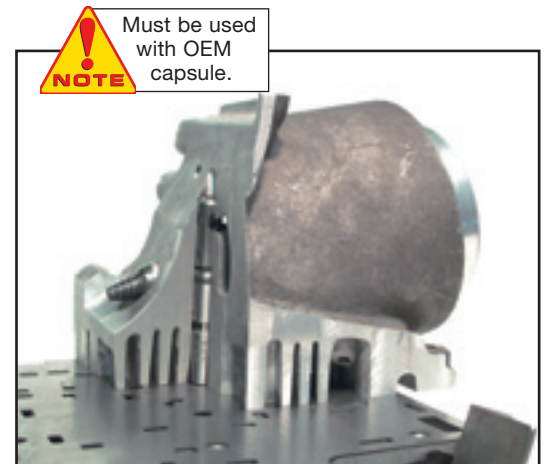
Pre-Installation instructions

1. Before installing 77701-076 servo release check valve, make sure the 3rd accumulator checkball capsule is in the case and there are no leaks. Replace a leaking capsule with OEM part number **8634400**. A leaking capsule can be removed from the case using a 3/8 - 16 bolt with a tapered tip and a slide hammer.
2. Occasionally, worn or damaged cases cause a leak between the case and capsule. If necessary, these cases can be salvaged by installing a cup plug in place of a capsule. Be aware that the use of a plug can result in a soft 2-3 shift on first drive cycle as air is cushioning the shift. Pressure is not allowed to release as it did with the OE capsule.

Installation Instructions

To install the 77701-076, press the tapered end into the case bore without using the o-ring provided. There should be some resistance felt when pressing the valve into the case. If the valve presses in without resistance, remove the valve. Lubricate the o-ring, o-ring groove and case bore, and install the o-ring over the groove and reinstall the valve. The bore in the case is not a critical diameter for OEM manufacturing purposes, so some variations are possible. The o-ring ensures a positive hydraulic seal in cases with enlarged bores.

Note: When installed the top of the valve should be flush or slightly below flush to avoid damage to the spacer plate. If the check valve needs to be removed, use a #5 easy out or tap to 5/16-18 and remove with a bolt and puller.



4L60 & E

PART NUMBER 77701-076

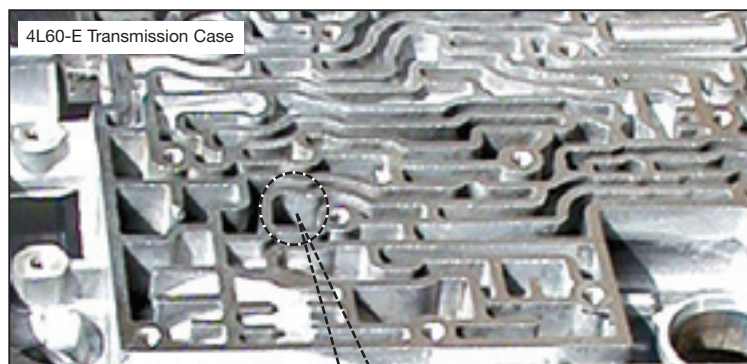
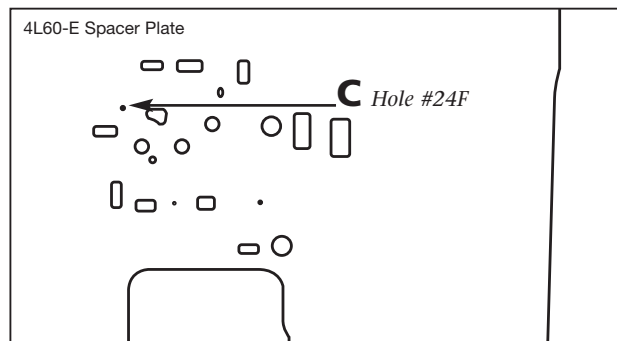
Servo Release
"Check Valve"

4L60-E Applications:

"C" - Transmission 4L60-E

Application Orifice Diameter

Light Duty	.090"
Regular Duty	.100"
Heavy Duty	.115"
Performance	.130"



O-ring groove

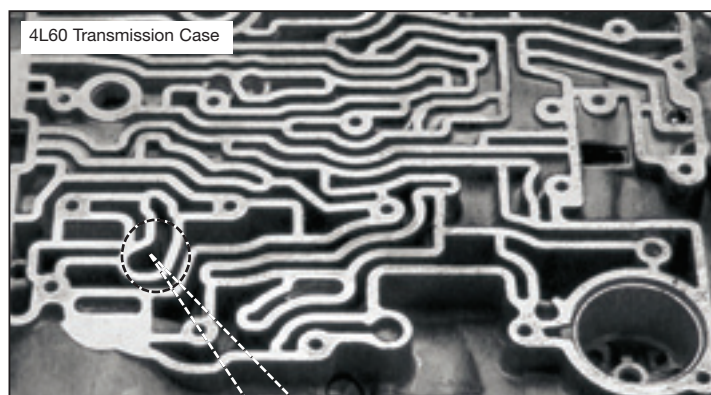
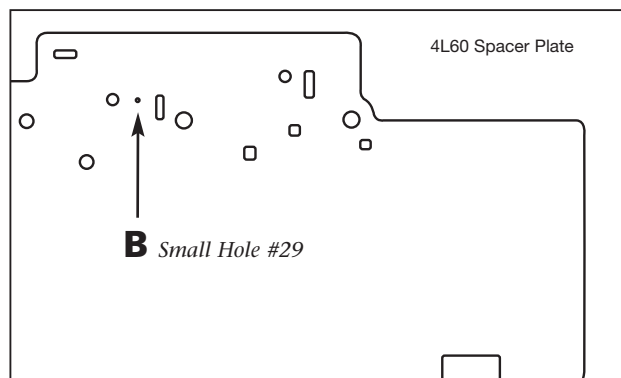
A Orifice

4L60 Applications:

"B" - Transmission 4L60

Application Orifice Diameter

Light Duty	.100"
Regular Duty	.110"
Heavy Duty	.125"
Performance	.140"



O-ring groove

A Orifice