



Technical Service Information

4L60/4L60E/4L65E/4L70E

1-2/2-3 POOR SHIFT QUALITY (SERVO PISTON I.D.)

COMPLAINT: The 1-2 and 2-3 shift quality is poor, line pressure is within specs and the 1-2 accumulator assembly is correct for the vehicle application.

CAUSE: One cause may be that the transmission has a soft shift 2nd gear servo in it.

CORRECTION: It is a common practice when the technician wishes to improve 1-2 and 2-3 shift quality without causing a harsh shift complaint is to replace the original soft shift 2nd gear servo assembly with a firmer shift servo assembly.

In some cases a Corvette servo was installed which sometimes results in a 1-2 shift that is too firm, yet the other two servo assemblies that were available did not improve the 1-2 or 2-3 shift quality.

There is now available a fourth 2nd gear servo assembly which was produced to service the 4L70E transmissions which creates a 1-2 & 2-3 shift feel that is in between the soft shift servo and the Corvette servo.

This is possible due to the larger apply area created by the divider ring of the Corvette and 4L70E servo assemblies. The smaller the hole in the divider ring the greater the second gear apply area. The firmer shift servo assemblies also “clean up” the 2-3 shift because accumulation for the 2-3 shift takes place on the release side of the 2nd gear servo assembly.

The soft shift servo assemblies have a casting number on the servo of 8642553 and 8642554 which have a divider hole diameter of 2.312” and 2.520” respectively which are typically used in V6 and small V8 applications, these numbers can be found on the rear of the servo casting as seen in Figure 1.

The Corvette servo has a casting number of 8642093 and has a divider hole diameter of 1.792.

The 4L70E servo has a casting number of 24229159 and has a divider hole diameter of 2.075. All four servo piston and divider rings as well as their dimensions can be seen in Figure 2. There are also available firm shift servo assemblies available from the aftermarket.

A special thank you to Greg Nader of Sonnax for this information which made this bulletin possible.

SERVICE INFORMATION:

4L70E 2nd Gear Servo Piston.....24230441
4L70E Divider Ring.....24229157

SECOND GEAR SERVO

SERVO PISTON & DIVIDER RING

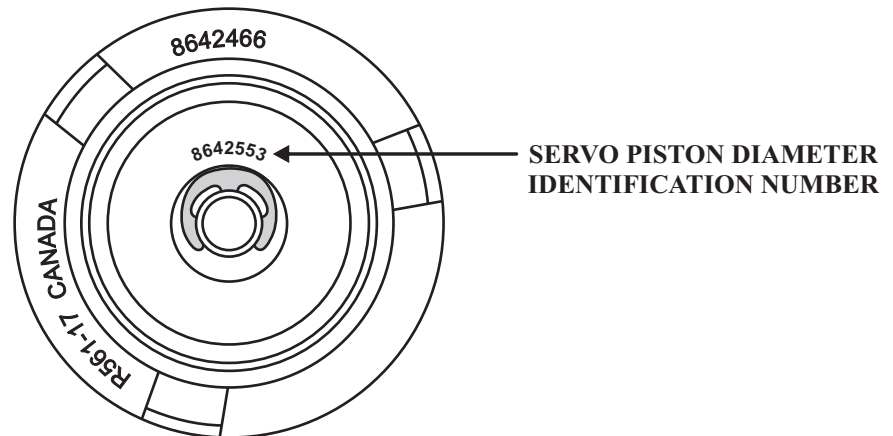
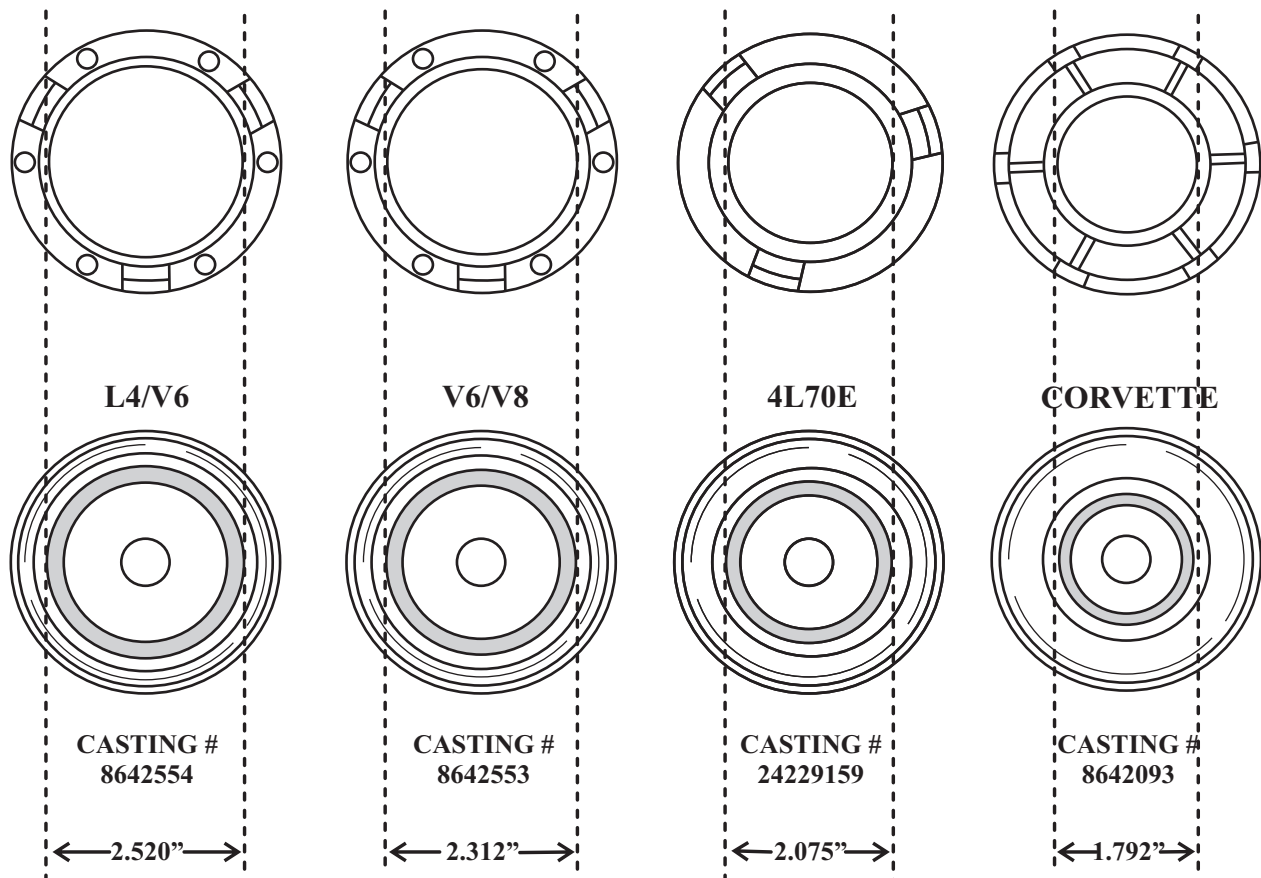


Figure 1

SERVO PISTON & DIVIDER RING DIAMETERS



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Figure 2