sonnax®
TIME TESTED • INDUSTRY TRUSTED®

TRANSMISSION PARTS

Instructions

GM 4L80-E, 4L85-E

Boost Valve Kit

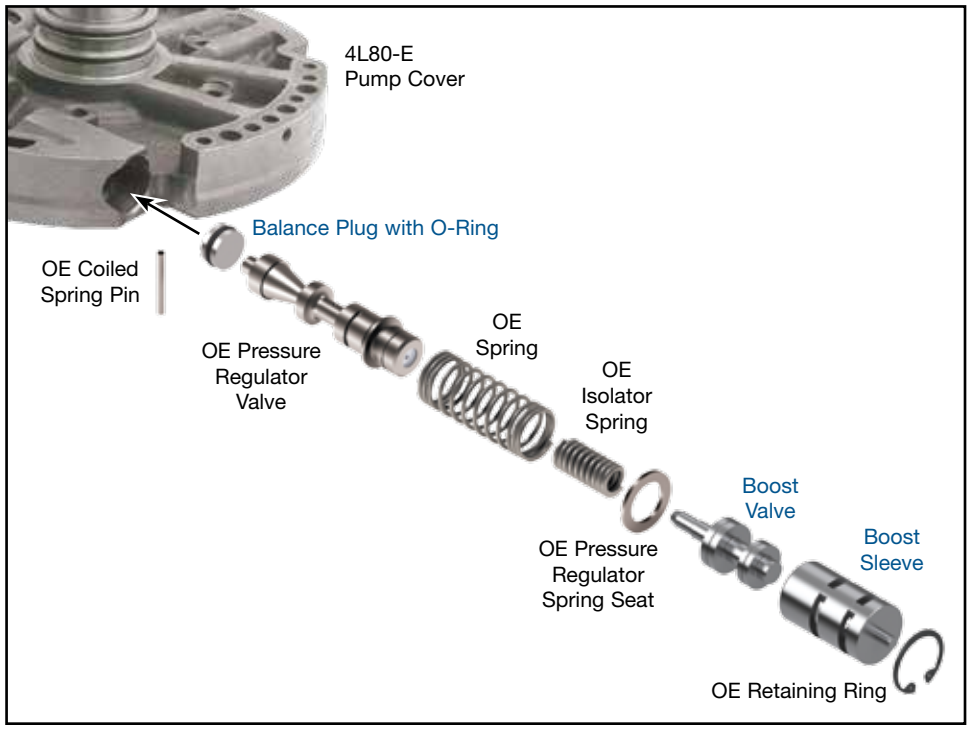
Part No. 34200-03K

- Boost Valve
- Boost Sleeve — Factory style, no O-rings
- Balance Plug with O-Ring

NOTE: Fits '91–later units with factory-style sleeve.

NOTE

Can be retrofit to '89–'91 units. See page 2 for details.



1. Boost Valve Disassembly

a. Remove OE retaining ring, save for reuse.

b. Remove and discard OE boost sleeve and valve.

2. Boost Valve Installation & Assembly

a. Ensure Sonnax boost valve is installed in Sonnax boost sleeve with spring stem facing outward.

b. Install boost valve assembly into bore, stem first. Ensure OE springs slide over valve stem.

c. Push boost valve assembly far enough into bore to reinstall OE retaining ring in casting bore groove.

3. Balance Oil Plug Disassembly

a. Remove OE coiled spring pin from casting at balance end of pressure regulator valve, saving for reuse.

b. Remove and discard OE end plug.

4. Balance Oil Plug Installation & Assembly

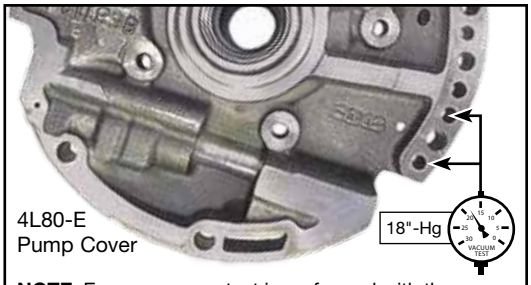
a. Install O-ring into balance oil plug groove. Roll on bench to size O-ring. Lubricate O-ring and plug.

b. Gently push end plug into bore, taking care not to sheer O-ring.

c. Push O-ringed plug into bore far enough to reinstall OE coiled spring pin.

5. Final Testing

Vacuum testing at the port(s) indicated holds the recommended minimum 18 in-Hg.



NOTE: Ensure vacuum test is performed with the pump fully assembled (this picture of pump is disassembled).

• '96–Earlier vs. '97–later OE boost valve designs:

Starting in '97 the larger of the two boost valve diameters was decreased from .855" to .830". A corresponding diameter change is also found in the mating boost sleeve. '97– later OE boost valves/sleeves can be identified by a groove machined in the end of the sleeve. The design change was made to reduce the maximum reverse pressure by approximately 40-50 psi. '96–earlier boost valves can be replaced with the Sonnax design as long as the valve and sleeve are both replaced.

• '89-'91 Retrofit instructions:

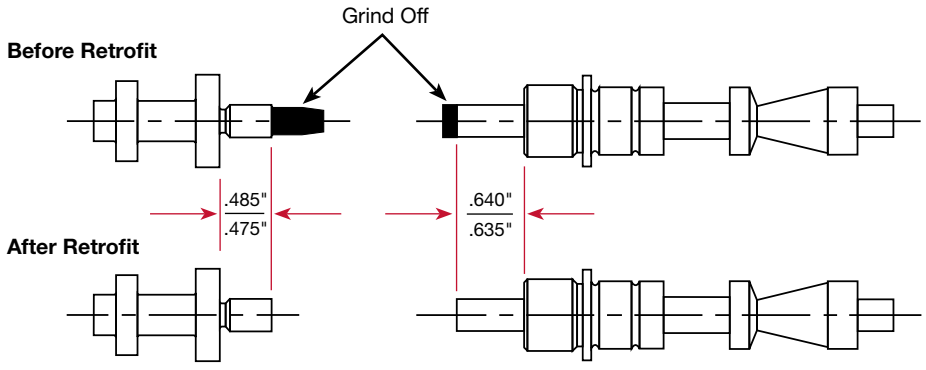
Between '89–'91 the OE pressure regulator valve and boost valve used a different design. The pressure regulator valve was longer and the boost valve shorter. The Sonnax boost valve can be modified for use with '89-'91 OEM pressure regulator valves.

The retrofit involves shortening both the Sonnax boost valve and the pressure regulator valve (see illustration). For newer OE pressure regulator valve designs no alterations are required.

High line pressure will result from using the late design boost with an early unmodified pressure regulator valve.

1989-1991 Pressure Regular Valve Design:

Grind Sonnax boost valve back to step for a finished length of .475–.485". Grind OE PR Valve to a finished length of .635–.640".



1991-Later Pressure Regulator Valve Design:

No modifications required.