Instruction Data Sheet

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

PART NUMBERS **77898E-K, -4K, 7K**

Reverse Boost Valve & Sleeve Kits

77898E-K Oversized
.490" EPC spool diameter for early pumps

77898E-4K OEM Ratio
.470" EPC spool diameter for early pumps

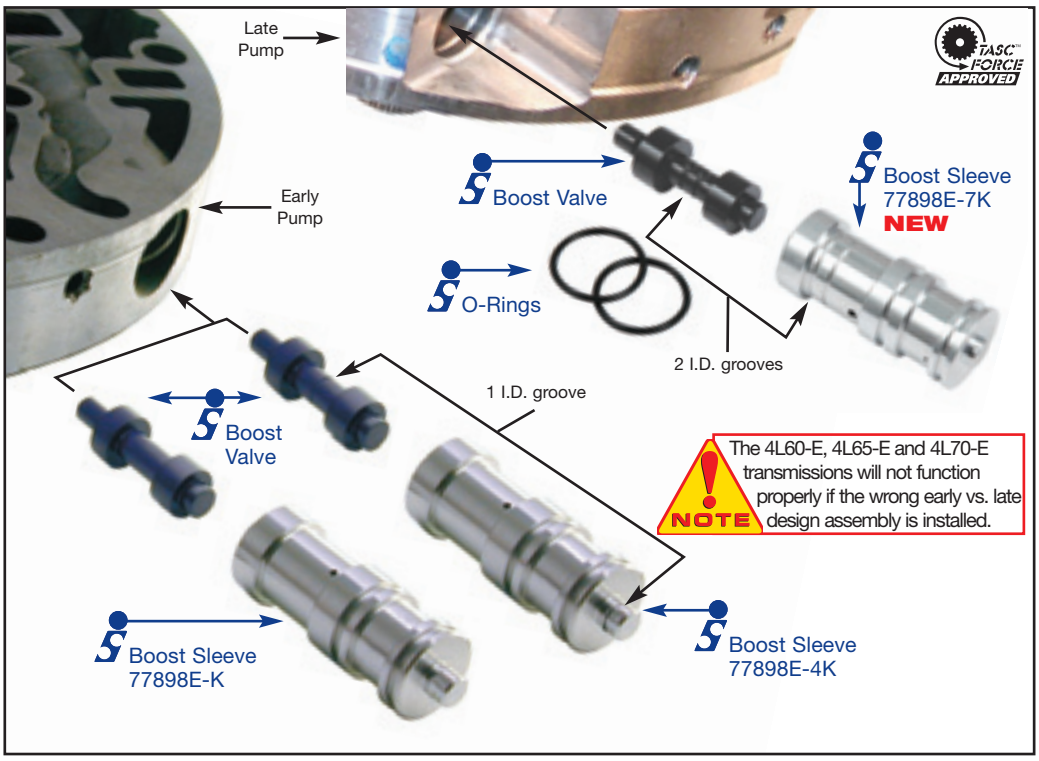
NEW PRODUCT!

77898E-7K Oversized
.490" EPC spool diameter for late pumps

Each kit includes the following

1 Boost Valve
1 Boost Sleeve
2 O-Rings

Note: U.S. Patent No. 6,619,323



PUMP DESIGN		OEM		SONNAX WITH O-RINGS		SONNAX "FACTORY" STYLE	
		VALVE	SLEEVE	VALVE	SLEEVE	VALVE	SLEEVE
1.907" LONG SLEEVE	EARLY DESIGN	1 BAND	NO END GROOVE				
		.421" EPC					
	EARLY DESIGN	2 BANDS	1 END GROOVE	1 GROOVE	1 GROOVE NUB END	1 GROOVE	1 GROOVE NUB END
		.470" EPC		.470" EPC 77898E-4K		.470" EPC 77898E-6K	
	EARLY DESIGN	INCREASED RATIO VERSION OEM REPLACEMENT .470"		NO GROOVE	NO GROOVE	NO GROOVE	NO GROOVE
				.490" EPC 77898E-K		.490" EPC 77898E-3K	
1.810" SHORT SLEEVE	LATE DESIGN	3 BANDS	NO END GROOVE				
		.421" EPC					
	LATE DESIGN	4 BANDS	1 END GROOVE				
		.470" EPC					
	LATE DESIGN	INCREASED RATIO VERSION OEM REPLACEMENT .470"		2 GROOVES	2 GROOVES ON PR END		
				.490" EPC 77898E-7K			

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

Reverse Boost Valve & Sleeve Kits

PART NUMBERS **77898E-K, -4K, 7K**

Installation Instructions

1. Discard the worn boost sleeve and valve.
2. Lubricate all pieces of the replacement kit and position springs with assembly lube. Incorrect location will create high pressure.
3. After placing the two o-rings into the grooves on the boost sleeve, pre-lube them and roll sleeve over bench to resize the o-ring.
4. Insert the valve into the sleeve with the nubbed end facing out.
5. Carefully push the sleeve assembly into the pump body, with the open end toward the two springs, only deep enough to reinstall the retaining ring.
6. Return the retaining clip to the pump body.

Boost Sleeve Wet Air Test

Put oil into the bottom of the boost sleeve and insert the valve. Force low air pressure into torque signal orifice (closest to nubbed end) while holding in the valve. Air should not leak excessively out of the reverse orifice or the end of the sleeve.

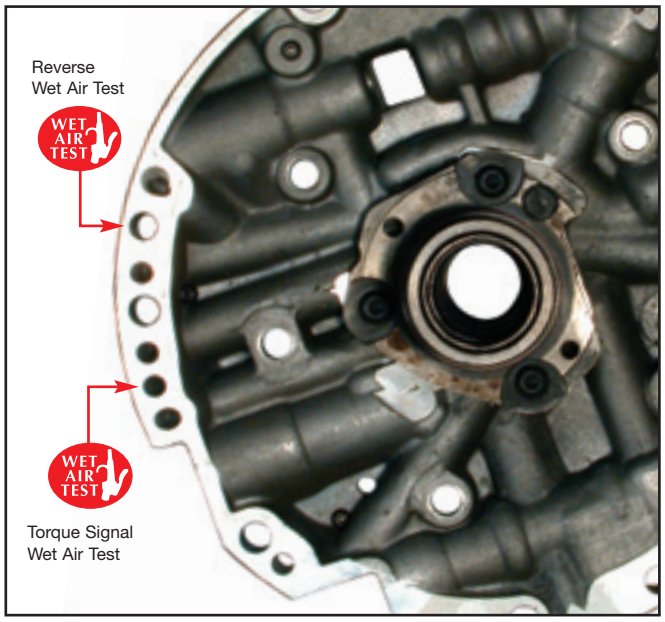
Pump Assembled Wet Air Test

Boost sleeve can be air tested through reverse and torque signal circuits on an assembled pump. No cross leaks should be evident.

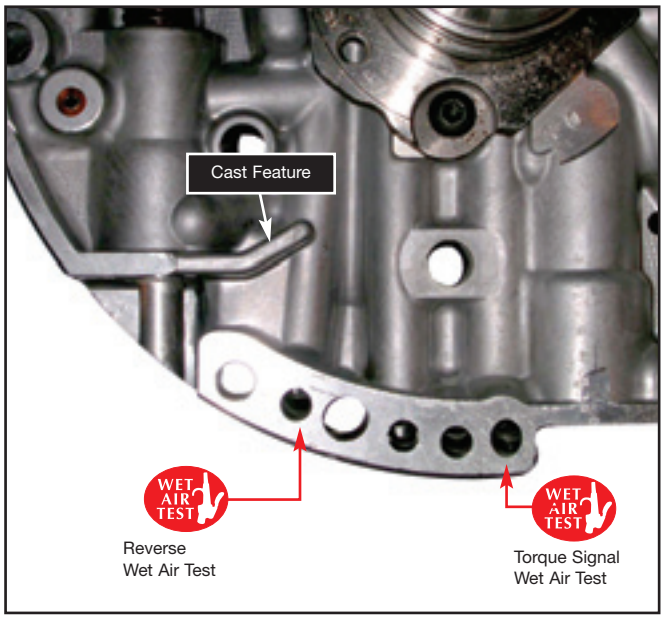
Design

The Sonnax oversized (.490"/77898E-K, -7K) valves were designed to result in a slight/moderate boost in line pressure at mid-range (over the .470"/E-4K). They result in approximately 10-15% higher pressure line at the same EPC duty cycle over various OEM diameters. If increased reaction time (faster line rise) is desired, the EPC feed orifices may be enlarged.

Pump Identification



Early Model Pump



Late Model Pump

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