

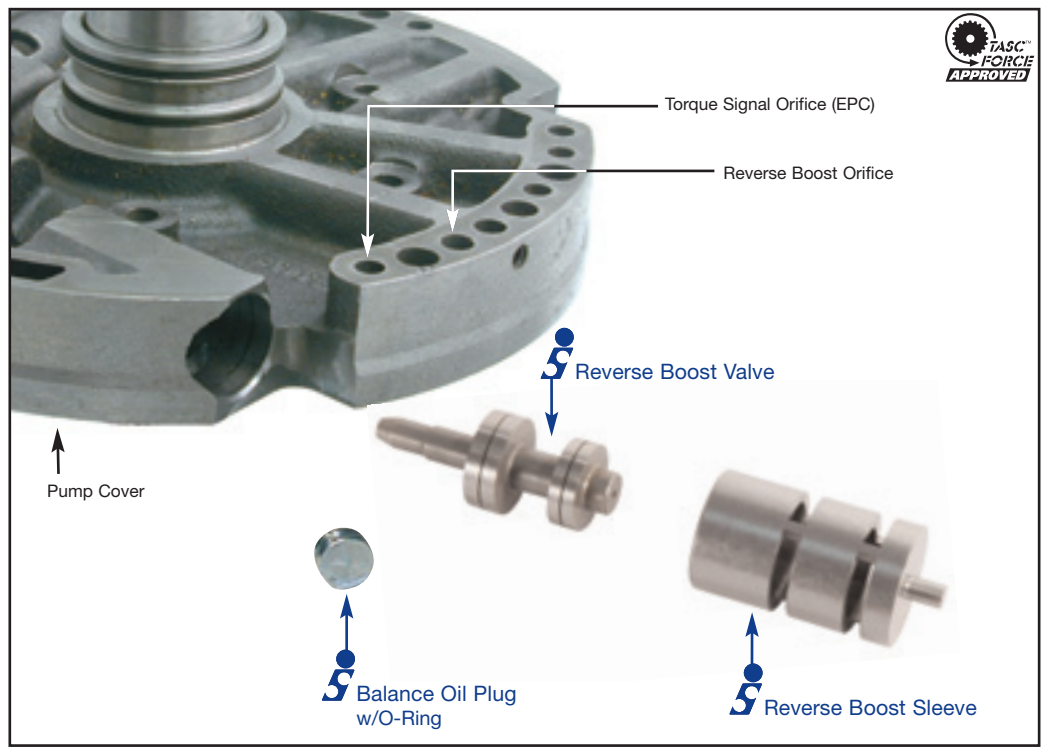
## "Factory Style" Reverse Boost Valve & Sleeve

### 34200-03K

- 1 Boost Valve
- 1 Boost Sleeve
- 1 Balance Plug & O-Ring

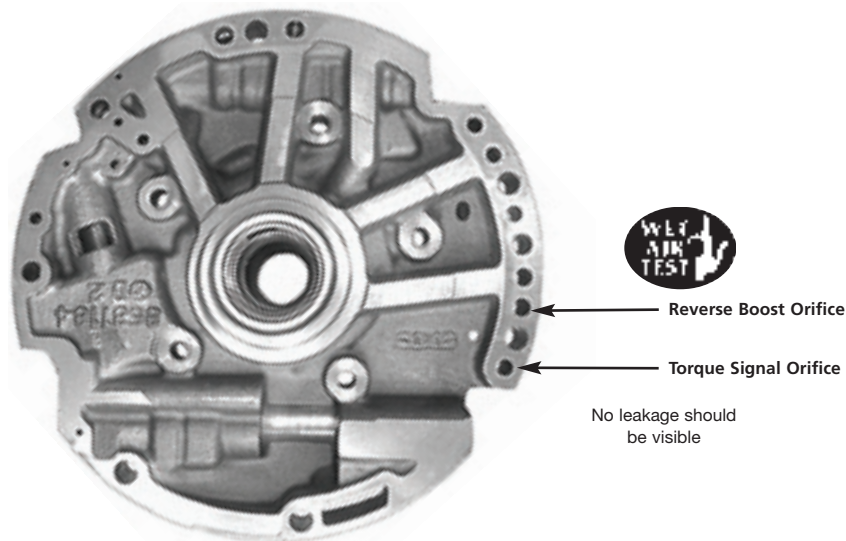
#### Notes:

1. Kit includes instructions to retrofit parts dating back to '89.
2. Wet Air Tests can be done using either the reverse boost orifice or the torque signal orifice for this particular application.



### Wet Air Test

To test for a worn reverse boost sleeve and valve assembly, perform a Wet Air Test with the pump halves still torqued together. Put a small amount of oil into either the reverse boost or torque signal orifice. Force low air pressure into the orifice. If oil comes out of the other orifice, there is leakage across the reverse boost/torque signal circuit. If there is a excessive leakage, the sleeve I.D. is worn, pump bore is leaking around the sleeve, or the pump is not flat. Discard both the OEM sleeve and valve and replace with Sonnax kit **34200-03K**. It is a good idea to perform the Wet Air Test again after installing the Sonnax kit. Continued leakage after replacing the boost valve/sleeve (with o-ring design) indicates cross leakage between the pump halves. Replace or resurface the pump halves to eliminate the remaining leakage.



## Balance Oil Plug Instructions:

1. Remove the balance oil plug last after disassembly of pump halves and pressure regulator valve.
2. Remove the roll pin and drive the plug outward from the pressure regulator bore.
3. Reinstall the end plug after the pressure regulator valve. This procedure will prevent the plug from being installed too far into the larger bore.

## Bore Preparation Instructions (On o-ring designed parts):

Sharp leading edges or casting surfaces must be deburred with a file and/or a new ScotchBrite™ pad or 320 grit emery cloth. The areas that usually create a concern are the balance oil plug roll pin cross holes, the boost sleeve entry near the snap ring groove and the sleeves entry across the oval opening in the pump casting.

## 1996 & Earlier vs. 1997 & Later OEM boost valve designs:

Starting in 1997 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. 1997 & later OEM 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. 1996 & earlier boost valves can be replaced with the Sonnax design as long as the valve and sleeve are both replaced.

## 1989-1991 Retrofit Instructions:

Between 1989 and 1991 the OEM 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 1989-1991 OEM pressure regulator valves. The retrofit involves shortening both the Sonnax boost valve and the pressure regulator valve (see illustration). For newer OEM 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.

