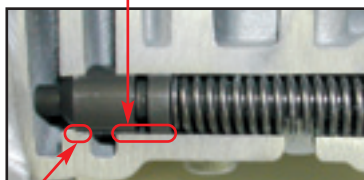


## Forward & Reverse Abuse Valve Kit

### 77754-35K

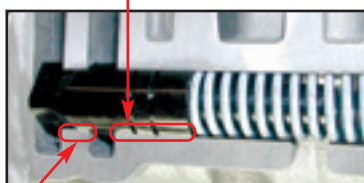
- 1 Valve
- 1 Abuse Bore Plug
- 1 Spring

Leaks to exhaust here due to wear

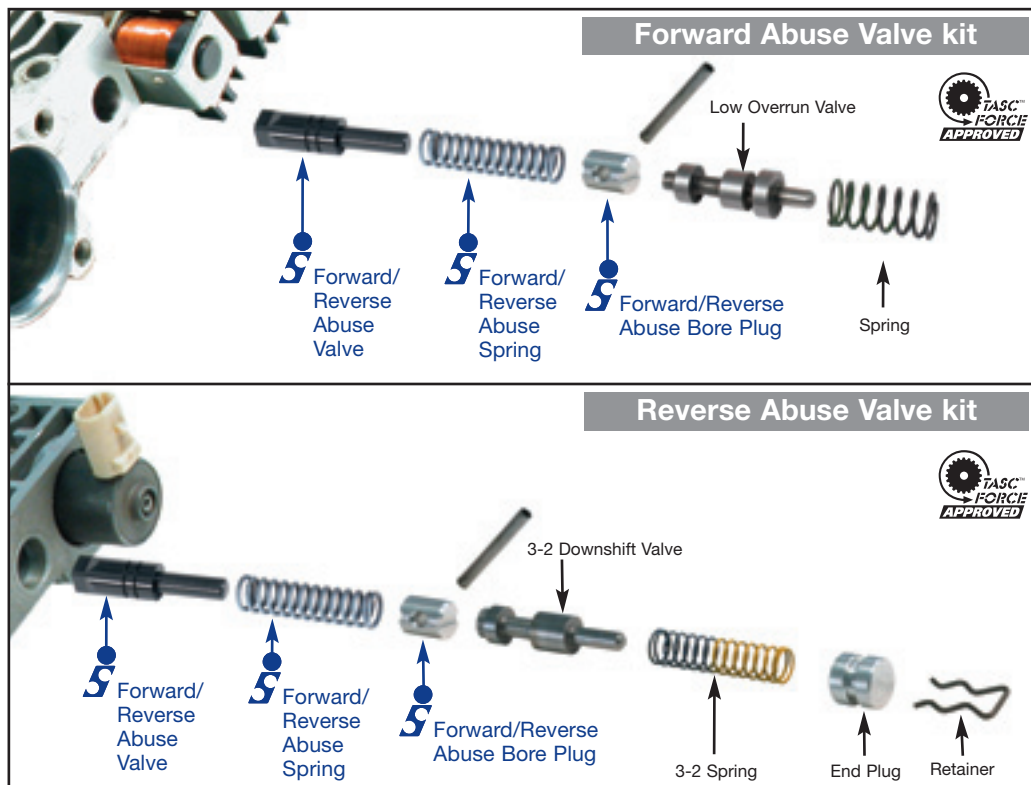


OEM - Minimal sealing and support here

Lengthened spool reduces wear and leakage

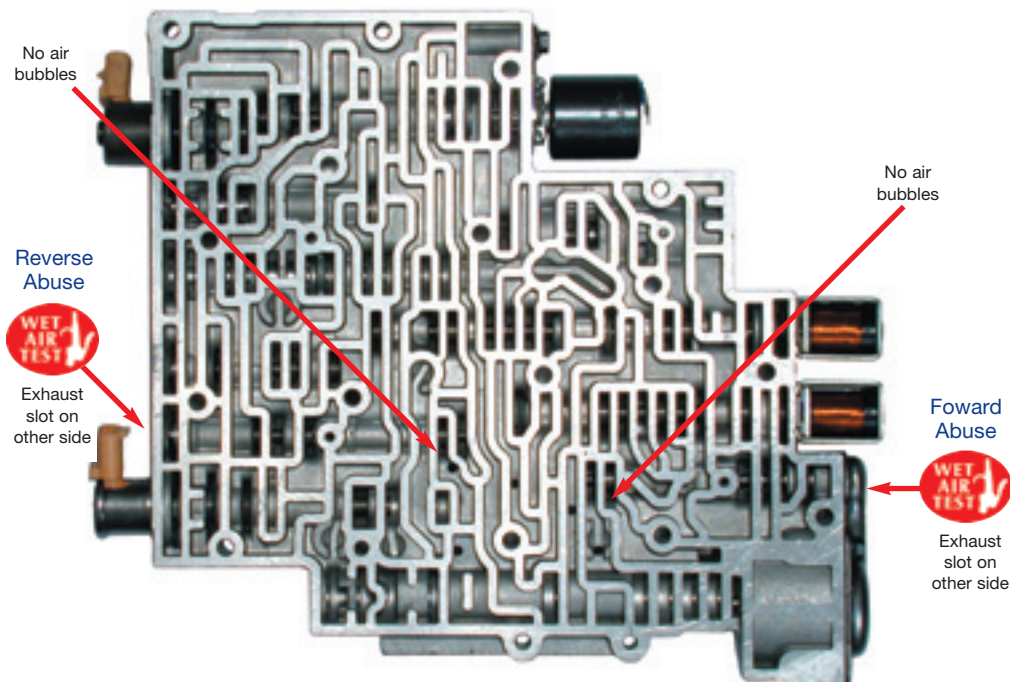


Sonnax - Improved support and flow control here



### Wet Air Test

1. Remove manifold pressure switch.
2. Place cast side down, machined side facing up.
3. Place ATF into both exposed circuits of both valves.
4. Using a rubber-tipped air gun, blow 30-60 regulated air psi upward from the cast side and into the exhaust slot.
5. Air pressure at an angle and somewhat deflected is sufficient to find a worn bore.
6. Excessive leaks and/or air bubbles should not be visible in the abuse circuits.



Put ATF in from this side. Air supply to exhaust slots on opposite side.

## DISASSEMBLY

1. Remove and retain the outer 3-2 downshift valve line-up (forward abuse) or low overrun valve line-up (reverse abuse).
2. Remove the rolled spring pin and abuse bore plug. Save the pin.
3. Remove and discard the forward or reverse abuse valve and spring.

### Hint for Valve Removal

Some valves may be difficult to remove due to a bore ridge worn at the OEM full open position. To remove a stuck valve, push a spring with an interference fit over the valve stem. Approximate spring dimensions are .288" OD, .038" wire diameter and 1.25" long. Insert a stiff stainless steel wire with a hooked end into the spring and jerk it out.



### Hint for Removing Bore Ridge

In instances where the valve has been stuck, a bore ridge may have been worn at the OEM full open position. To remove this ridge, use a 3/8" drill shank or 3/8" center punch as a bore sizing tool. Insert the shank into the bore, tapping until it is seated in the bore, to push the aluminum in place.

## INSTALLATION

1. Refer to the photos for proper valve orientation and alignment.
2. The replacement valve and spring work in either the forward or reverse abuse locations.
3. Install the replacement bore plug and retain with the original pin.
4. Reinstall the original 3-2 downshift valve line-up (forward abuse) or low overrun valve line-up (reverse abuse).