

COMPLAINT

SECONDARY COMPLAINTS

Poor shift quality, delayed forward or no reverse, 2nd gear starts

• Flare on 1-2 or 2-3 shift on 4R, or 2-3, 3-4 on a 5R • Repeated 741 TCC slippage

CAUSE

The end plugs become loose in the valve body, allowing control circuit oil to flow around them. Valves wear into the casting and leak EPC boost oil. Excess wear or sticking boost valves cause harsh upshifts and coastdown shifts.

CORRECTION

The Sonnax kit contains various components and highly wear-resistant sleeves that fit with the OEM anodized aluminum valves to eliminate EPC leakage and provide increased durability and sealing characteristics. The OEM middle bore plugs have been eliminated.

EPC & Engagement Control Kit

37947-11K

- 1 EPC Boost Valve Sleeve
- 1 Forward Modulation Valve w/Teflon® Seal
- 1 Forward Modulation Valve Sleeve
- 1 Forward Modulation O-Ringed End Plug
- 1 Forward Modulation Spring
- 2 Reverse Modulation Sleeves
- 1 Reverse Modulation O-Ringed End Plug
- 1 O-Ringed 2-3 Shift Valve End Plug
- 1 O-Ringed 1-2 Shift Valve End Plug
- 1 Solenoid Regulator Valve Spring
- 1 Rear Lube Orifice
- 4 Torlon® Check Balls
- 4 "L" Retaining Pins
- 2 Coiled Spring Pins
- 3 Extra O-Rings



37947-TL11

Note: See part listing and photos in far right-hand column of page 2 for tools included in this tool kit.

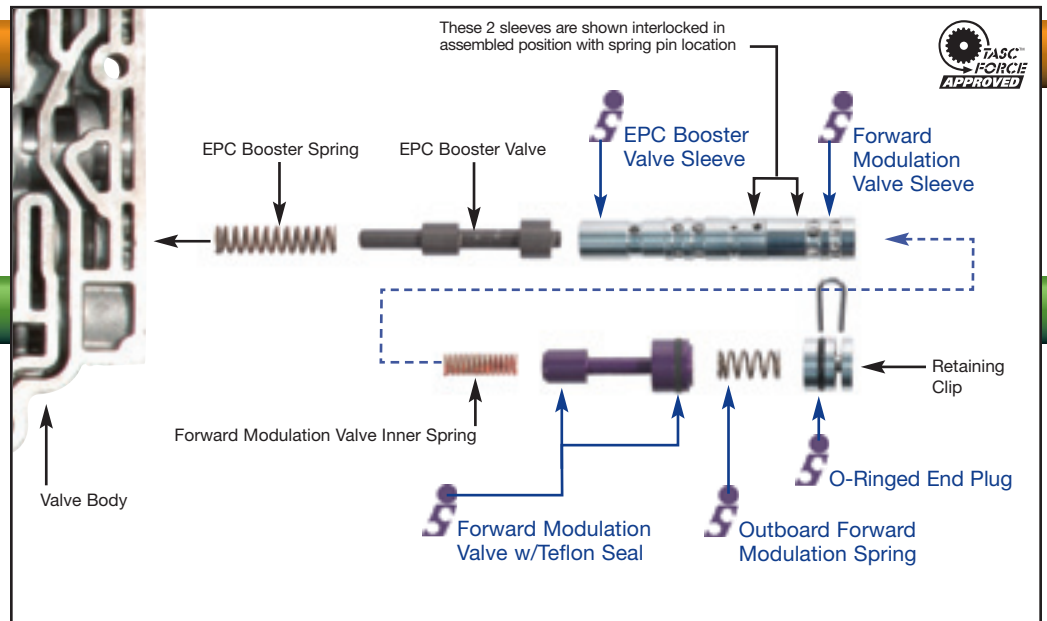


Figure 1

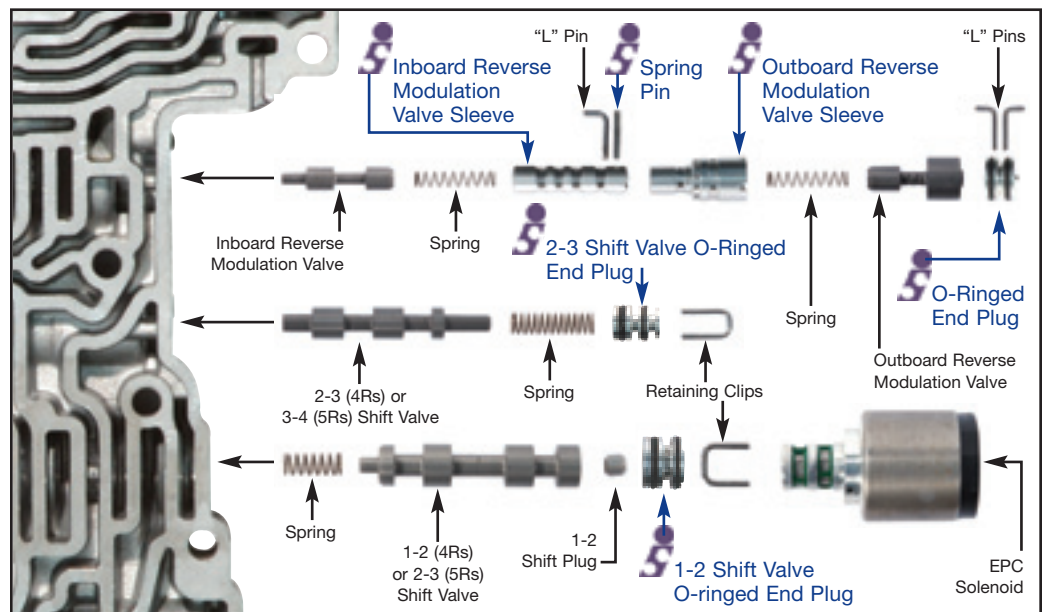


Figure 2

Sonnax Part Summary - Forward Modulation Bore

EPC (electronic pressure control) is the most critical pressure for keeping these transmissions functioning properly. However, constant oscillation of the forward and reverse modulation valves, EPC boost valve and shift end plugs creates casting bore wear that allows this valuable EPC pressure to exhaust. Installing a new EPC solenoid may raise EPC pressure enough to get the unit out the door, but unless the worn circuits are addressed, longevity is severely compromised.

In the forward modulation valve bore (see Figure 1), looseness of the outboard end plug allows EPC to exhaust, preventing the valve from stroking and creating forward engagement problems. Wear at the large spool on the forward modulation valve causes delayed forward, slide 1-2 shifts, no 3rd gear, and/or low EPC pressure. The bore plug that separates the forward modulation valve from the EPC booster valve also oscillates due to opposing spring and oil forces, creating bore wear and a path for EPC oil to exhaust. Constant oscillation of the EPC booster valve creates both bore wear and a ridge that allows the valve to stick, which can cause erratic EPC pressure, harsh shifts, or poor line rise. The forward modulation bore portion of this Sonnax kit offers numerous improvements over the OEM design and refurbishes the hydraulic integrity of the worn casting bore.

Sonnax Part Summary - Reverse Modulation Bore

In the reverse modulation valve bore (see Figure 2), looseness of the outboard end plug allows EPC pressure to exhaust, preventing the valve from stroking and creating reverse engagement problems. The bore plug that separates the inner and outer reverse modulation valves also oscillates due to opposing spring and oil forces, creating bore wear and a path for EPC oil to exhaust. Constant oscillation of both the inner and outer valves creates bore wear that allows clutch apply oil to exhaust, which can result in no 3rd gear. The reverse modulation bore portion of this Sonnax kit offers numerous improvements over the OEM design and refurbishes the hydraulic integrity of the worn casting bore.

Sonnax Part Summary - Shift Valve End Plugs

The plug separating the EPC solenoid from the 1-2 shift valve becomes very loose due to opposing forces and allows EPC oil pressure to flow past and stroke the 1-2 valve, causing 2nd gear starts. The 2-3 shift valve plug becomes loose in the bore due to opposing forces, allowing EPC oil to exhaust. The Sonnax kit provides replacement end plugs for these locations to restore hydraulic integrity.

Save Up to \$525 in valve body replacement costs



Required tool kit includes the following:

37947-TL11

- 2 Forward Modulation Reamers
- 2 Forward Modulation Reamer Jigs
- 2 Reverse Modulation Reamers
- 1 Reverse Modulation Reamer Jig
- 1 1 3/32" Core Drill
- 1 Core Drill Jig
- 1 Steel Shaft Collar



Reverse Modulation Reamer #1



Reverse Modulation Reamer #2 (Self-piloting)



Forward Modulation Reamer #1



Forward Modulation Reamer #2



Reverse Modulation Bore Drill Jig



Reverse Modulation Reamer (#1) Jig



Forward Modulation Reamer Jig #1



Forward Modulation Reamer Jig #2



Core Drill with Shaft Collar: Reverse Modulation Bore

