STOP CHRYSLER CONVERTER FAILURE

Maintain Proper TCC Apply Pressure

Exclusively from Sonnax!

- Patent-pending “apply limit” valve design prevents converter ballooning & transmission damage
- Limits TCC apply pressure to the safe max of 130 psi in RH/RE & 150 psi in RFE
- Prevents lockup & TCC problems without affecting line pressure, even in chipped & performance units

45/545RFE, 65/66/68RFE

TCC Apply Limit Switch Valve Kits

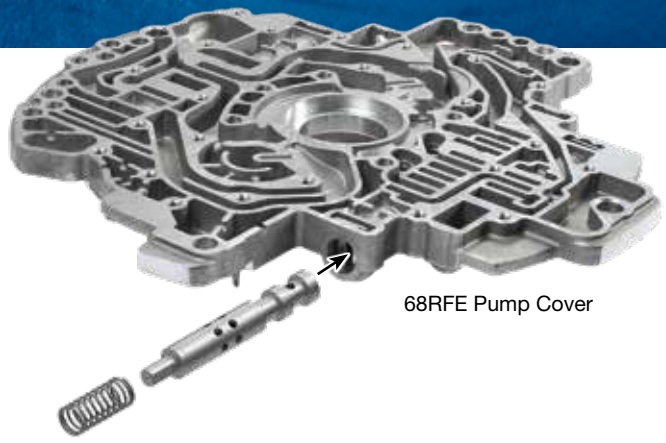
ZIP DROP-IN VALVE

Part No. 44912-36K

Oversized Kit

Part No. 44912-41K

Requires F-44912-TL8 & VB-FIX



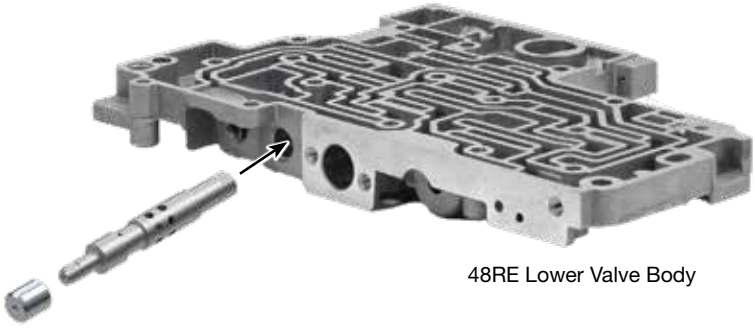
68RFE Pump Cover

46RH/RE, 47RH/RE, 48RE

TCC Apply Limit Valve Kit

ZIP DROP-IN VALVE

Part No. 22771A-44K



48RE Lower Valve Body

Keep the Chrysler Comebacks Away!

Ask Your Distributor TODAY for a Sonnax Apply Limit Valve Kit

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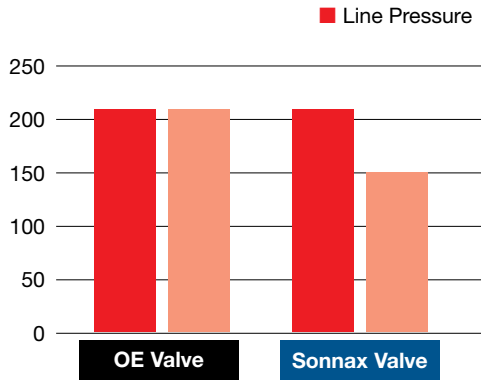
Prevent RFE, RH/RE Converter Failure: Maintain Proper TCC Apply Pressure

sonnax®

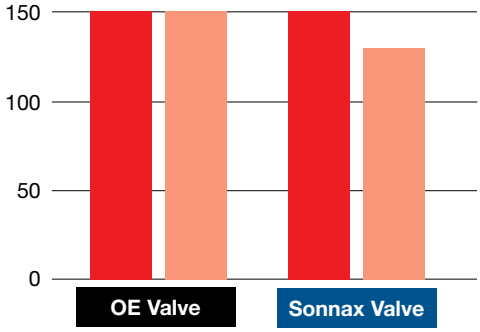
RFE ▶

Sonnax valve limits TCC apply pressure to a max of 150 psi, even in chipped and HP units.



RH/RE ▶

Sonnax valve limits TCC apply pressure to a max near 130 psi depending on the set point of max line pressure.



We all want to build a transmission that lives a long life, and we do our best to take the right steps to match the transmission build to the use of the vehicle it is going into. Many times the recipe for the build will include a line pressure boost along with some tuning to help provide better holding power, firmer shifts and quick pressure response.

There are definite benefits to increasing pressure and holding capacity, but there are items connected to line pressure, like the TCC apply circuit, that are designed to have limitations. There are two examples of transmissions of this type.

TCC Apply Problems in the RFE

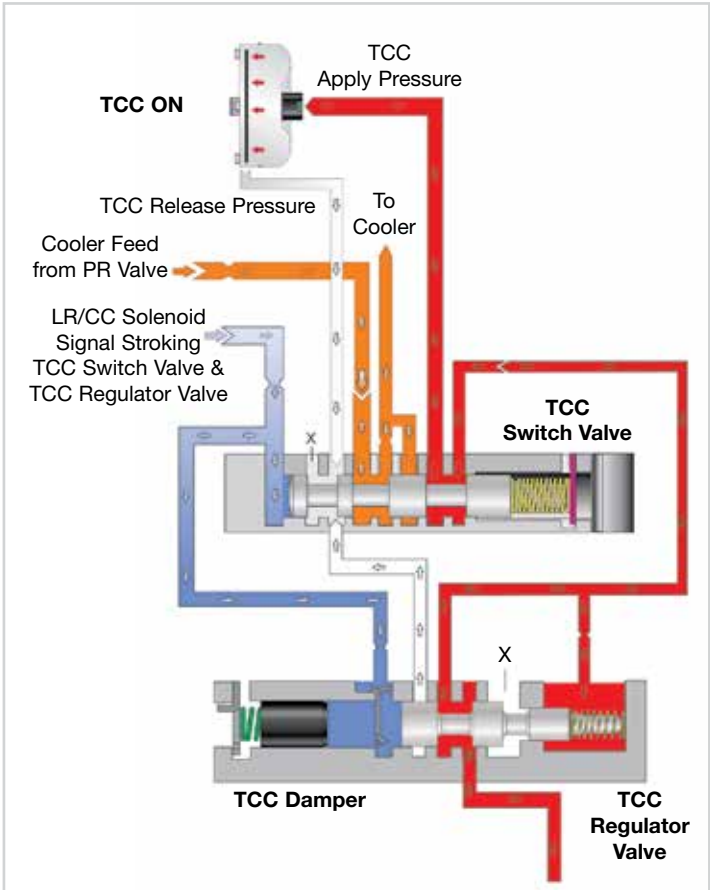
The first is the TCC apply circuit for the 45/545RFE and 65/66/68RFE family. When in full TCC apply mode, this circuit (as shown in diagram) is limited to whatever maximum line pressure is. On a stock unit, that max is around 160 psi in the Forward ranges. The interesting thing about this is that the RFE has a TCC regulator valve that is in charge of controlling the amount of TCC apply pressure that gets to the apply side of the clutch, but this valve only functions as a regulator valve during partial apply. Once the TCC goes into full apply, TCC apply pressure will equal line pressure.

Modifying the RFE pressure control circuitry does have its benefits, but there also can be some pitfalls related to how high pressure is regulated. Some performance kits will allow line pressure to be in excess of 220 psi. When line pressure gets that high, so does TCC apply pressure. This can cause converter ballooning and/or flex plate damage and eventual damage to the pump assembly and the bellhousing adapter. This increase in apply pressure puts a large amount of force on the crankshaft of the engine. Some have gone to billet torque converter covers to help prevent ballooning, but this does not prevent the additional force from this pressure increase.

TCC Apply Problems in the RH/RE

The second example of a circuit designed to have limitations is found in the Chrysler RH/RE family. The TCC apply valve is fed line pressure from the manual valve, and when the torque converter clutch is applied, line pressure is fed to the clutch. Compared to RFE units, this transmission family has a lower max pressure in Drive near 130 psi when in TCC or in 4th Gear. Performance kits will increase that pressure to 150 psi and higher, which is much lower than the RFE family, but can still cause ballooning.

The TCC apply circuit, on both examples, can benefit from a Sonnax apply limit valve that limits apply pressure near the factory specs. A billet cover converter is definitely a great addition as well.



OE RFE TCC Circuit in Full Apply