



68RFE Transmission Information

Drive Learn Process

This part performed by transmission installer;

Take the vehicle out for an initial test drive. Do not exceed 30% throttle or 2,000 RPM. Allow the transmission to shift all the way up to sixth gear and back down to first at least 10 times. Full power is never applied or immediate transmission failure will likely result.

This is where you, our customer come in:

You must keep throttle below 50% at all times during this cycle. Drive the vehicle for a MINIMUM of 3 days. The truck must be allowed to rest overnight and go from HOT to COLD engine and transmission temperatures. During this time period it is best to have a MINIMUM of 200 miles STOP AND GO driving. Highway driving does not count as it will not contribute toward the drive learn of the transmission. During the entire relearn process it is important that you **do not engage the towhaul mode or tow any loads during this period.**

Any time you install or reflash your truck to modify the engine tuning you will also be inadvertently reflashing the transmission tuning as well. Therefore, the above drive learn procedure must be completed again anytime you upgrade, reinstall or switch tunes. Failure to do this will cause immediate transmission damage! Simply changing power levels via CSP 5 switch is not considered a full reflash, however you should drive at least 30 miles before using full engine power.

Operational Notes

Due to the increase in line pressure and clutch surface area versus the stock configuration, you may notice your new transmission runs warmer than previously. In stop and go situations where you are not towing, it is normal to see temperatures up to 200 degrees. If towing, the temps may run even higher. We recommend manual shifting the transmission when towing in stop and go traffic. In stop and go scenarios, simply putting the transmission in neutral when stopped will help keep temperatures down.

You may notice that your truck has set DTC codes P2701, 2702, 2703 or 2704 stored. This is nothing to worry about. They refer to inadequate CVI volumes. In a stock transmission this would be an issue but with a modified performance 68RFE, these codes are generated for other reasons. These codes can appear due to the fact that you are now applying the clutches 29% faster due to the 225psi of line pressure. In a performance transmission with additional clutches you will apply even faster and this may cause one or more CVI values to get down to 0. Once at 0 these codes will appear. When the apply is quicker than the factory was looking for it to be, these codes set. These codes do not affect performance in anyway and can be disregarded.

Muldoon’s Performance Transmissions has strict requirements for larger than stock tire sizes and axle ratios. Please consult this data to assist in getting the correct gear swap if needed. Any tires larger than 36” require a re-gear in order for us to warranty the transmission.

Tire Size	Acceptable Differential Ratios
Below 35”	3.42 - 3.73
35” to 37”	3.73 – 4.10
	4.10 – 4.56
39” to 42”	4.56 – 4.88

Transmission Tuning 2010 - 2018

In order for your new transmission to work correctly, you need to have acceptable transmission tuning. The following table is how your transmission tune needs to be configured for warranty eligibility. If your transmission tuning cannot be configured exactly in this manner, there will be no warranty included.

Gear	Line Pressure	Line Pressure Gain	TCC Lockup
Exhaust Brake	120psi	N/A	
TCC Gain Rate	N/A	0.448	
Drive, foot on brake, no throttle	60psi	OEM	
First	160psi	OEM	Unlocked
Second	160psi	OEM	Unlocked
Third	160psi	OEM	Unlocked
Fourth	180psi	OEM	Lockup after fourth gear has been applied
Fifth	225psi	0.448	Lockup with partial lock on upshift
Sixth	225psi	0.448	Lockup with partial lock on upshift
Reverse	OEM	OEM	

Transmission Tuning 2007.5 – 2009

Because 3rd gen vehicles have a separate TCM module, there are just two options for transmission tuning: If you already have H&S Overdrive software with your overdrive unlock code, this can be used. Otherwise, your truck will need to have the PCM recalibrated to increase line pressure.

Thermostatic Bypass - If your truck is 2013 and up and doesn’t already have one, A thermostatic bypass valve has to be installed to ensure proper transmission cooling operation. Although uncommon, some 2010- 2012 trucks are equipped with a transmission thermostat. Since these vehicles already have a small transmission cooler, the thermostat must be bypassed. - Additional labor and parts are needed to facilitate the removal of the transmission thermostat on these trucks.

Tuneless transmission option- MPT offers a tuneless transmission configuration option for 2007.5-2018 trucks. This option requires the vehicle to have a stock line pressure map (169 PSI maximum). - Additional charges apply for this option.

DEF Tank

If your truck is equipped with a DEF tank, additional labor time is required to facilitate your transmission install.