

Fuel Rail Pressure Control (CSER)

While not used in this first GTDI application, it is possible that during catalyst heating (CSER) the fuel injection timing may be unique to this mode. In future cases, a two squirt injection may be used. One of those injection squirts would occur during the compression stroke. Compression injection is only allowed within a calibrated fuel pressure "window". The P053F detection monitors the time fraction within that fuel pressure window.

Fuel Rail Pressure Control (CSER) Functional Check Operation:	
DTCs	P053F (Cold Start Fuel Pressure Control Performance)
Monitor execution	During CSER
Monitor Sequence	P0087 and P0088 must pass before setting P00C6 or P053F
Sensors/Actuators OK	FLI, FRP, FVR, Lift Pump
Monitoring Duration	Entire CSER period

Typical Fuel Rail Pressure Control (CSER) Functional Check Entry Conditions:		
Entry Condition	Minimum	Maximum
Fuel level	15%	

Typical Fuel Rail Pressure Control (CSER) Functional Check Malfunction Thresholds:
Time in Fuel Injection Pressure Window / CSER Duration > 0.70
Fuel Injection Pressure Window defined as follows:
Minimum Fuel Pressure to Support Desired Injection Mode <= Fuel Pressure Actual
Fuel Pressure Actual <= Maximum Fuel Pressure to Support Desired Injection Mode