

the factory guidance, from the 2013 Ram Diesel Supplement Manual:

Warming the Engine

Run the engine a few minutes before routine shutdown. After cold operation, idle the engine three to five minutes before shutting it down. This idle period will allow the lubricating oil and coolant to carry excess heat away from the combustion chamber, bearings, internal components, and turbocharger. This is especially important for turbocharged, charge air-cooled engines.

Operating Condition	Load	Turbocharger Temperature	Idle Time (min.) Before Engine Shutdown
Low Speeds	Empty	Cool	Less than One
Low Speeds	Medium		One
Low Speeds	Medium	Warm	Two
Low Speeds	Maximum GCWR		Three
Low Speeds	Maximum GCWR		Four
High Speeds	Maximum GCWR	Hot	Five

In addition, I decided that I would not drill a hole in the exhaust to add a pre-turbo EGT probe. I feel that the factory EGT1 gives me sufficient guidance with a stock engine.

Fan Speed (item 20) tells how much "help" is needed to cool the engine heat. You will also know immediately if the fan is not working. The clutch on my 2004 was probably non-functional for some time before I realized it.

Fuel Pressure (item 24) tells something about how hard the fuel system is "working." In the past, we had to buy an external gauge (about \$200) or use the TST PowerMax-CR to monitor this parameter.

Throttle Position (item 32) and VGT Actuator Position (item 33) display some of the engine's approach to keeping boost up under light load, and to increasing EGT to assist in "running" the engine. Number 48 also tells you the status of the brake when it is being used.

Boost Status (item 38) is handy to tell you when this process is occurring. I have seen it "on" only a couple of times.

Converter Temp (item 41) (Aisin only) is generally within one or two of the transmission temperature, which I monitor on the instrument cluster unless the converter is unlocked and the engine is working to pull a trailer, etc.

DEAD PEDAL ISSUE

As far as I can tell, this issue for the 2013-up Rams is really not a single problem. I have experienced some "hesitation" when not in Tow/Haul mode because Ram is attempting to optimize fuel mileage by delaying downshifts if the accelerator pedal is not depressed much. The engine has plenty of torque for casual in-town driving while unloaded. If I am rolling about 5-8mph on the speedometer and hit the accelerator, the computers have to consider that all of a sudden the transmission needs to downshift all the way to first gear, and then do so. If at a higher speed, the torque converter may have to unlock as well. These mechanical functions take a bit of time. Emissions regulations also mean that the engine cannot get a big gulp of fuel and make a cloud of black smoke while spooling up the turbocharger and starting to make power. If you routinely put the transmission into Tow/Haul mode, it will aggressively downshift after you touch the brakes (as long as you don't touch the accelerator pedal afterwards). Then you don't have the hesitation because the engine is in a power and response mode instead of in an economy mode.

Another problem can occur when you are on the accelerator pedal, and then press the brake pedal before getting off the accelerator. Just a tiny bit of overlap in time here is enough to create the situation. The Ram computer considers the possibility of a "runaway" or stuck accelerator position sensor, which is assumed to be caused by a stuck accelerator pedal. So if the controller sees the throttle is on, and then the brake is depressed while the accelerator is not released even for a brief instant of time, the computer will cut the accelerator for you and set the P2299 Diagnostic Trouble Code. The faster you are going and the harder you press on the brake the faster it shuts down. To get the accelerator back, just let off the throttle and step back down and you should be going again. All newer Chrysler gas-powered vehicles work the same way.

This safety feature (anti-runaway) has been in all Chrysler vehicles with electronic throttle controls for many years. This feature does not kill the engine, but it kills the throttle/accelerator pedal position. It leaves a fault code that the dealers refer to as the two-footed driver code because it only occurs if the throttle is kept depressed for an instant when the brake is hit. It has an algorithm that is dependent on throttle, brake application (newer vehicles with brake position sensors are more sensitive) and road speed. If you're going slow it might take effect slowly, if going fast it may only take a second or two.

As Chrysler's Stuart Miller explained to us at May Madness 2013, the computer also senses if you take your foot very abruptly off the accelerator pedal. It assumes that you might hit the brakes hard right afterward for a panic stop. As soon as you take your foot off the accelerator in that manner, the computer prepares the braking system by pushing the brake pads from "rest" position to just touching the brake rotors, saving you maybe 10-12 feet of stopping distance if indeed you hit the brakes for a panic stop.