

Quick Check Diagnostics

A tech came to me with a P0305 code on a Dodge 1500 pickup with a hemi engine.

The Question was, is there a quick way to determine which direction to take in the diagnostic procedure?

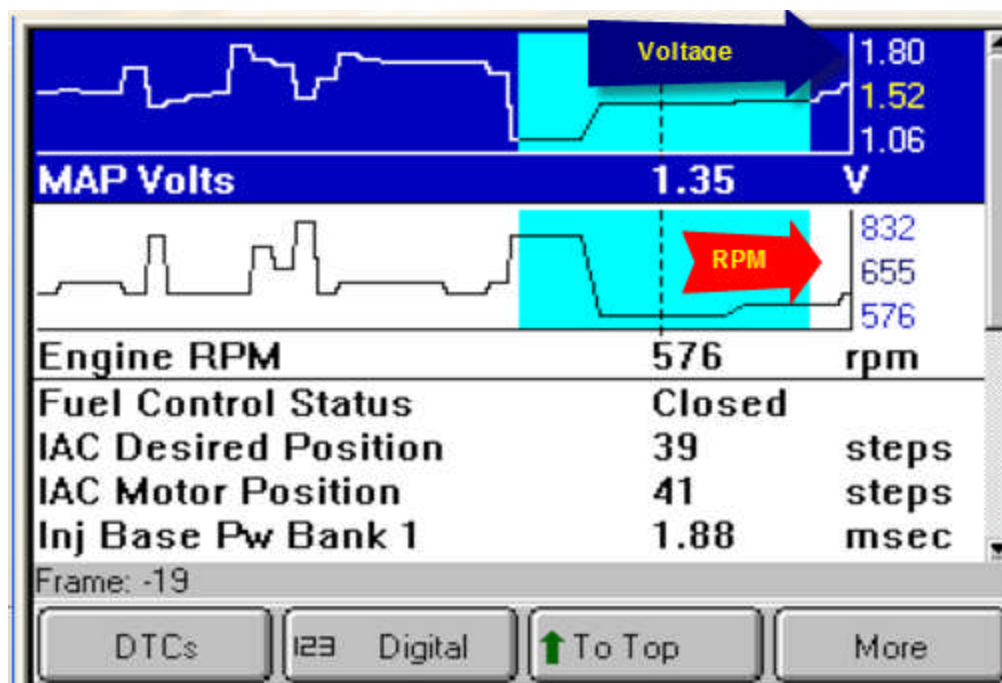


Figure 1 Idle Conditions

The idle is surging. It should be steady with no more than 50 RPM variation. The Map should run on this vehicle between .9. To 1.5 Volts, this vehicle is high at times indicating pressure pulses in the intake.

Next step will be a cranking MAP sensor test. Select Minimum PIDs and if you have a SNAP-On tool zoom the screen to get the response you will need. OTC tools use the custom data screen and just pick the PIDS you will want to look at.

Disable fuel and crank the engine over with a closed throttle.

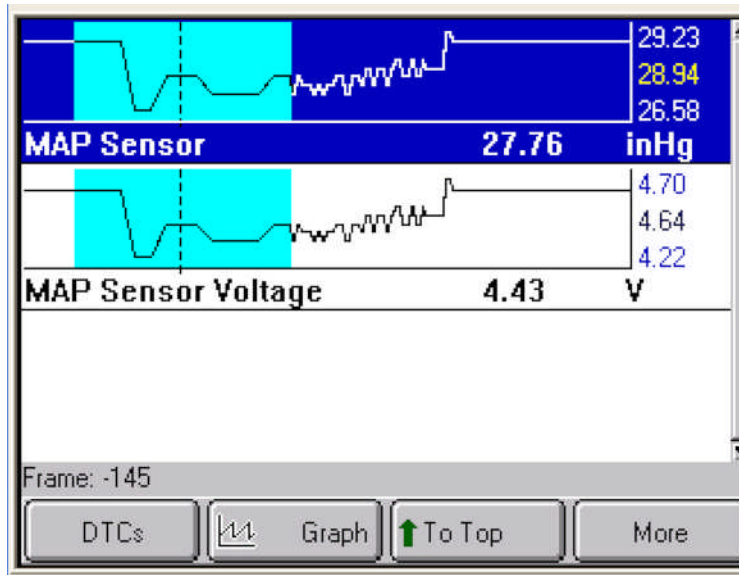


Figure 2 MAP shows a problem.

These two tests indicate a mechanical problem with the engine, in this case it turned out to be a broken valve spring.

Engine Misfires are Fuel, Ignition and Compression related, pick a test that eliminates one at a time for proper diagnostics.