



DTC 42

IGNITION CONTROL (IC) CIRCUIT (SHORTED OR GROUNDED CIRCUIT) 5.7L (VIN P) "F" CARLINE (SFI)

Circuit Description:

The distributor ignition system provides two timing inputs to the PCM, high resolution signal (360 pulses per crankshaft revolution) and low resolution signal (4 pulses per crankshaft revolution). The PCM uses these two reference pulses to determine individual ignition spark timing for each cylinder.

Once the PCM calculates ignition timing, the timing signal will be sent to the ignition coil module on the IC circuit. Each timing pulse received by the ignition coil module on the IC circuit will trigger the ignition coil module to operate the ignition coil. Secondary ignition voltage is induced and is then sent to the distributor for distribution to each spark plug.

The IC signal voltage ranges from about .5 volt to 4.5 volts.

DTC 42 Will Set When: PCM detects 84 crankshaft revolutions without any IC activity.

Action Taken (PCM will default to): If DTC 42 is detected, the PCM will disable the fuel injectors to prevent flooding of the engine. DTC 42 will be stored in the PCM memory but will not turn "ON" the Malfunction Indicator Lamp (MIL).

DTC Chart Test Description: Number(s) below refer to circled number(s) on the diagnostic chart.

1. If the engine starts at this point, DTC 42 is intermittent.
2. This check determines if the IC signal from the PCM is available at the ignition coil module.
3. The remaining tests begin to check that the ignition coil module circuitry is OK. If the ignition

coil module loses its voltage source, secondary voltage will not be produced and a DTC 42 will set.

4. Since the ignition coil module gets its power from the coil, check the ignition feed circuit to the ignition coil for opens.

Diagnostic Aids: DTC 42 will set only during cranking.