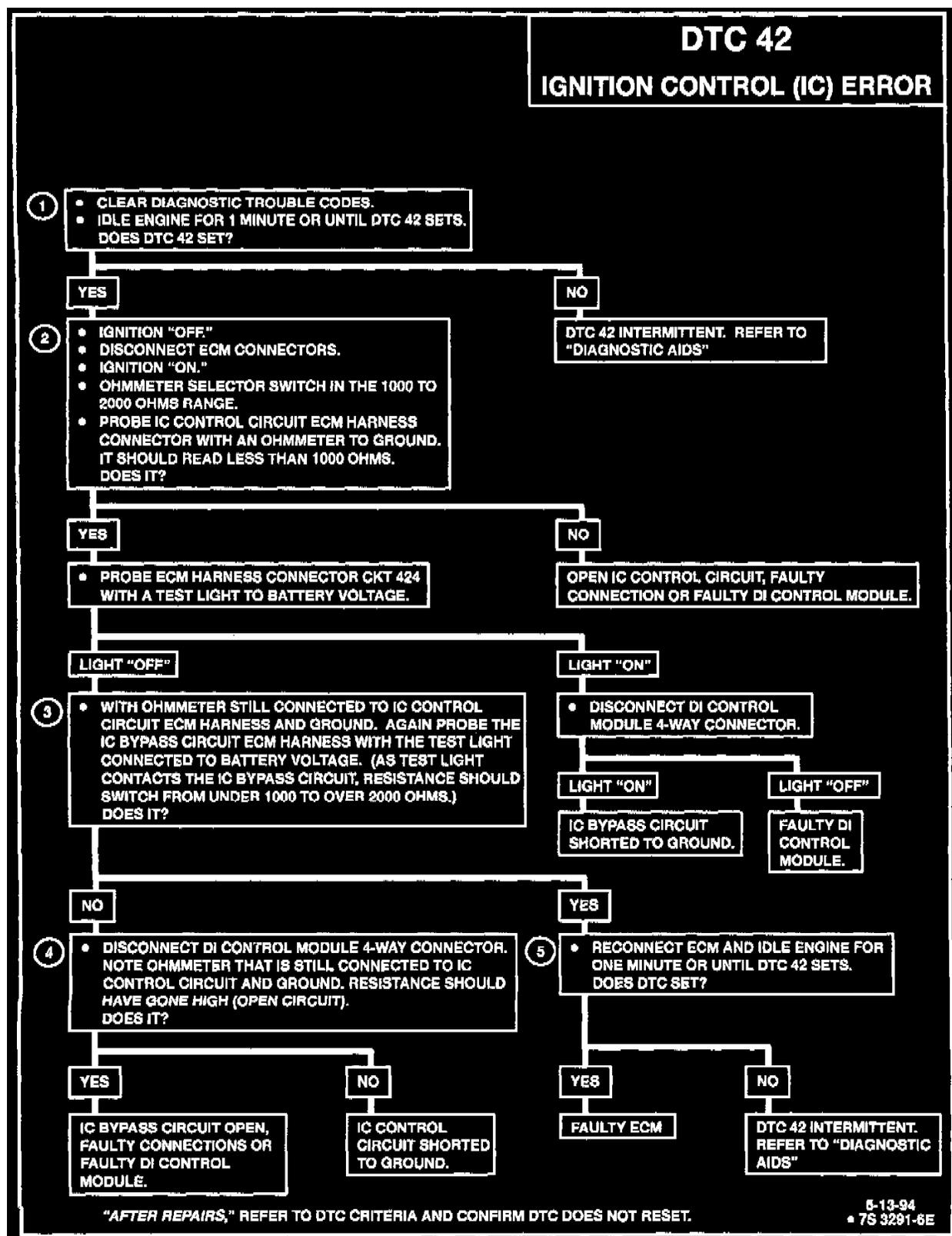
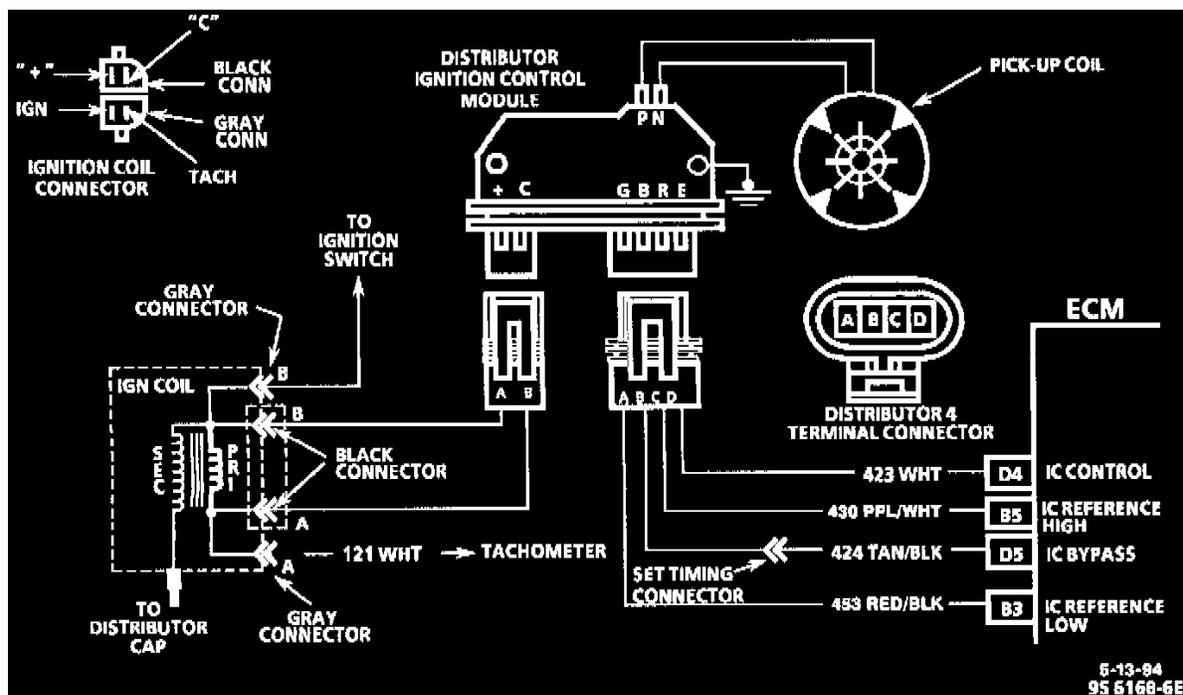


A L L Diagnostic Trouble Codes (DTC): Manufacturer Code Charts

Engine Control Module - ECM



Diagnostic Trouble Code 42



Ignition Circuit

CIRCUIT DESCRIPTION

When the system is running on the ignition module, that is, no voltage on the bypass line, the ignition module grounds the IC signal. The PCM expects to see no voltage on the IC line during this condition. If it sees a voltage, it sets DTC 42 and will not go into the IC mode.

When the rpm for IC is reached (about 450 rpm), and bypass voltage is applied, the IC should no longer be grounded in the ignition module so the IC voltage should be varying.

DTC 42 WILL SET WHEN

If the bypass line is open or grounded, the ignition module will not switch to IC mode so the IC voltage will be low and DTC 42 will be set. If the IC line is grounded, the ignition module will switch to IC, but because the line is grounded there will be no IC signal. A DTC 42 will be set.

ACTION TAKEN (ECM WILL DEFAULT TO)

The Malfunction Indicator Lamp (MIL) will illuminate.

DTC 42 WILL CLEAR WHEN

Conditions for fault are no longer present and Tech 1 "Clear DTCs" function is used or 50 ignition switch keycycles have passed with no further faults or ignition switch is turned "OFF" and battery feed voltage is removed for 10 seconds.

DTC CHART TEST DESCRIPTION

Number(s) below refer to circled number(s) on the diagnostic chart.

1. DTC 42 means the ECM has seen an open or short to ground in the IC or bypass circuits. This test confirms DTC 42 and that the fault causing the DTC is present.
2. Checks for a normal IC ground path through the ignition module. An IC CKT 423 shorted to ground will also read less than 500 ohms; however, this will be checked later.
3. As the test light voltage touches CKT 424, the module should switch causing the ohmmeter to "overrange" if the meter is in the 100-200 ohm position. Selecting the 10-20,000 ohms position will indicate above 5000 ohms. The important thing is that the module "switched."
4. The module did not switch and this step checks for:
 - ^ IC CKT 423 shorted to ground.
 - ^ Bypass CKT 424 open.
 - ^ Faulty ignition module connection or module.
5. Confirms that DTC 42 is a faulty ECM and not an intermittent in CKTs 423 or 424.

DIAGNOSTIC AIDS

The scan tool does not have any ability to help diagnose a DTC 42 problem.

Refer to **Diagnosis By Symptom / Intermittents** See: Powertrain Management/Computers and Control Systems/Testing and Inspection/Initial Inspection and Diagnostic Overview/- Intermittent Malfunctions