



DTC 54

FUEL PUMP CIRCUIT (LOW VOLTAGE)

3.4L (VIN S) "F" CARLINE (SFI)

Circuit Description:

The status of the fuel pump CKT 120 is monitored by the PCM at terminal "A6" and is used to compensate fuel delivery based on system voltage. This signal is also used to store a diagnostic trouble code if the fuel pump relay is defective or fuel pump voltage is lost while the engine is running. There should be about 12 volts on CKT 120 for 2 seconds after the ignition is turned "ON," or any time reference pulses are being received by the PCM.

This DTC is designed to detect a faulty relay causing extended crank time and the DTC will help the diagnosis of an engine that "Cranks But Will Not Run."

DTC 54 Will Set When: Voltage at terminal "A6" is less than 7 volts for .3 second since the last reference pulse was received.

Action Taken (PCM will default to): If a fault is detected during start-up, the MIL will become illuminated until the ignition is cycled "OFF." If the voltage is detected below 7 volts with the engine running, the light will remain "ON" while the condition exists.

DTC Will Clear When: A current DTC 54 will clear when voltage at the fuel pump monitor is sensed within the calibrated voltage threshold. A history DTC 54 will clear after 50 consecutive ignition key cycles without a current DTC 54 being stored.

DTC 54
FUEL PUMP CIRCUIT
(LOW VOLTAGE)
3.4L (VIN S) "F" CARLINE (SFI)

- CLEAR DTC(S).
- IGNITION "ON."
- IGNITION "OFF" FOR 10 SECONDS.
- IGNITION "ON."
- LISTEN FOR IN-TANK FUEL PUMP.
- PUMP SHOULD RUN FOR 2 SECONDS AFTER IGNITION "ON." DOES IT?

NO

- IGNITION "OFF."
- USING A 10 AMP FUSED JUMPER WIRE, CONNECT FUEL PUMP PRIME CONNECTOR TO 12 VOLTS. DOES PUMP RUN?

YES

- IGNITION "OFF."
- DISCONNECT FUEL PUMP RELAY.
- IGNITION "ON."
- PROBE CKT 439 WITH A TEST LIGHT TO GROUND.

LIGHT "ON"

CONNECT TEST LIGHT BETWEEN CKTs 439 & 451.

LIGHT "OFF"

REPAIR OPEN IN CKT 439.

NO

- DISCONNECT FUEL PUMP RELAY.
- USING THE FUSED JUMPER WIRE, CONNECT CKT 120 TO 12 VOLTS. DOES PUMP RUN?

YES

FAULTY CONNECTION OR FAULTY RELAY.

NO

OPEN CKT 120, FAULTY IN-TANK PUMP OR FAULTY PUMP GROUND.

YES

- CLEAR DTC(S).
- START AND RUN ENGINE FOR 30 SECONDS OR UNTIL DTC 54 SETS. DOES DTC SET?

YES

- DISCONNECT PCM CONNECTOR "A".
- WITH A DVM CHECK FOR CONTINUITY FROM CKT 120 OF FUEL PUMP RELAY TO PCM PIN "A6". DO YOU HAVE CONTINUITY?

YES

FAULTY CONNECTION AT PCM OR FAULTY PCM.

NO

DTC 54 IS INTERMITTENT. REFER TO "INTERMITTENTS" IN SECTION "B".

NO

REPAIR OPEN CKT 120.

LIGHT "ON"

- CONNECT TEST LIGHT BETWEEN HARNESS CKT 465 AND GROUND.
- IGNITION "OFF" FOR 10 SECONDS.
- NOTE TEST LIGHT WITHIN 2 SECONDS AFTER IGNITION "ON."

LIGHT "ON"

REPLACE FAULTY FUEL PUMP RELAY.

LIGHT "OFF"

REPAIR OPEN CKT 451.

LIGHT "OFF"

CKT 465 OPEN, SHORTED TO GROUND OR FAULTY PCM.

"AFTER REPAIRS," REFER TO DTC CRITERIA ON FACING PAGE AND CONFIRM DTC DOES NOT RESET.