

DTC	49	FUEL PRESSURE SENSOR CIRCUIT MALFUNCTION
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CIRCUIT DESCRIPTION

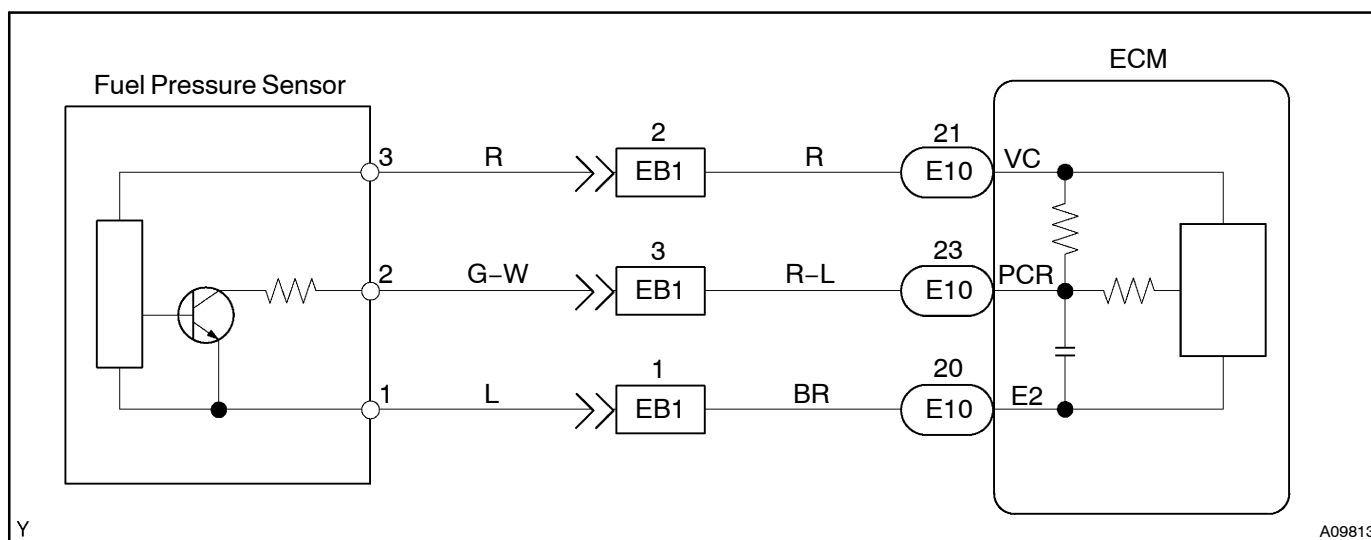
Fuel pressure sensor installed on a Common Rail detects the fuel pressure and controls to feed back the pump discharge in order to keep the target pressure (20 – 135 Mpa) set by the engine control computer.

DTC No.	DTC Detection Condition	Trouble Area
P49	Open or short in fuel pressure sensor circuit for common rail	<ul style="list-style-type: none"> • Open or short in fuel pressure sensor circuit for common rail • Fuel pressure sensor for common rail • ECM

HINT:

After confirming DTC 49, use the hand-held tester to confirm the fuel rail pressure from the CURRENT DATA.

WIRING DIAGRAM

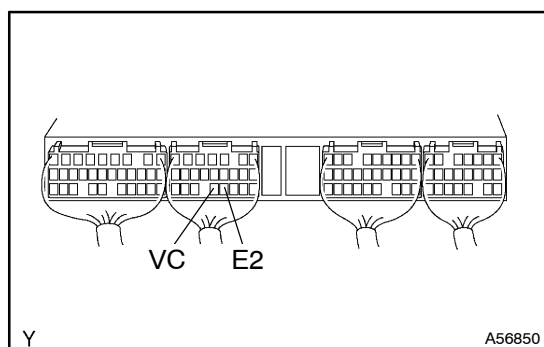


INSPECTION PROCEDURE

HINT:

- If DTC 22, 24, 39 and 49 are output simultaneously, E2 (sensor ground) may be open.
- Read freeze frame data using hand-held tester, as freeze frame data records the engine conditions when a malfunction is detected. When troubleshooting it is useful for determining whether the vehicle was running or stopped, the engine was warmed up or not, etc. at the time of the malfunction.

1	INSPECT ECM
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- Turn the ignition switch ON.
- Measure the voltage between terminals VC and E2 of the ECM connector.

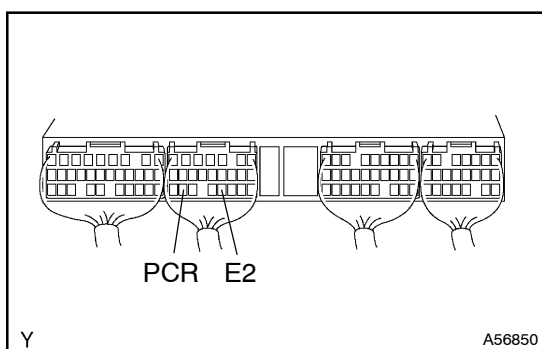
Voltage: 4.5 – 5.5 V

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CHECK AND REPLACE ECM

OK

2 INSPECT ECM



- (a) Start the engine.
- (b) Measure the voltage between terminals PCR and E2 of the ECM connector.

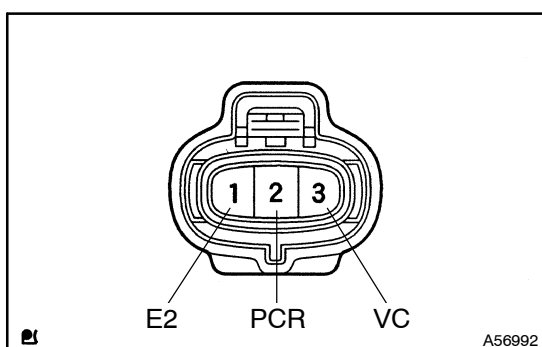
Voltage: 4.6 V at 20°C (68°F)

OK

CHECK AND REPLACE ECM

NG

3 CHECK HARNESS AND CONNECTOR (COMMON RAIL FUEL PRESSURE SENSOR-ECM)



- (a) Disconnect the fuel pressure sensor connector.
- (b) Disconnect the ECM E10 connector.
- (c) Check for open between the terminals 3 of the fuel pressure sensor harness side connector and VC of the ECM E10 connector.

Resistance: 1 Ω or less

- (d) Check for open between the terminals 2 of the fuel pressure sensor harness side connector and PCR of the ECM E10 connector.

Resistance: 1 Ω or less

- (e) Check for open between the terminals 1 of the fuel pressure sensor harness side connector and E2 of the ECM E10 connector.

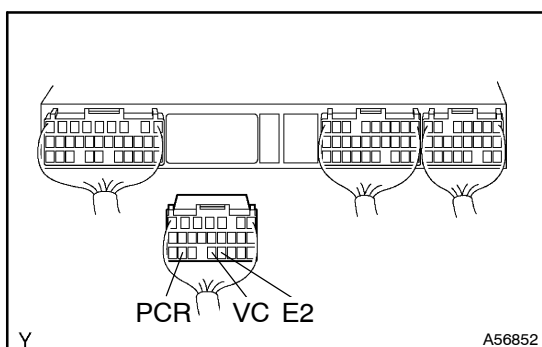
Resistance: 1 Ω or less

- (f) Check for short between the terminals VC and PCR of the ECM E10 connector.

Resistance: 1 MΩ or more

- (g) Check for short between the terminals VC, PCR and E2 of the ECM E10 connector.

Resistance: 1 MΩ or more



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**REPAIR OR REPLACE
HARNESS AND CONNECTOR**

OK

REPLACE COMMON RAIL ASSY