

DTC	P1430	Vacuum Sensor for HC Adsorber and Catalyst System Circuit Malfunction
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CIRCUIT DESCRIPTION

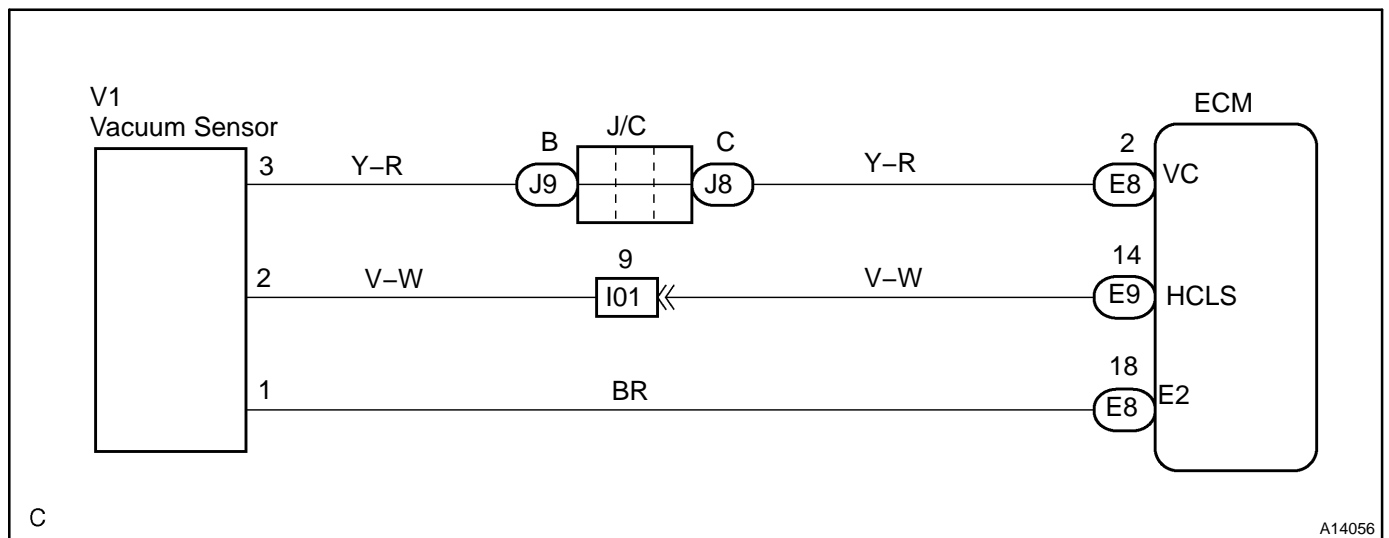
DTC No.	DTC Detecting Condition	Trouble Area
P1430	Open or short in vacuum sensor circuit	<ul style="list-style-type: none"> • Open or short in vacuum sensor circuit • Vacuum sensor for HC adsorber and catalyst system • ECM

HINT:

After confirming DTC P1430, use the hand-held tester to confirm the manifold absolute pressure from the CURRENT DATA.

Manifold Absolute Pressure (kPa)	Malfunction
Approx. 0	<ul style="list-style-type: none"> • HCLS circuit short
130 or more	<ul style="list-style-type: none"> • VC circuit open or short • HCLS circuit open • E2 circuit open

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

- If DTCs P1430, P1431, P0110, P0115, P0120 and P0121 are output simultaneously, E2 (sensor ground) may be open.
- Read freeze frame data using hand-held tester. Because freeze frame records the engine conditions when the malfunction is detected. When troubleshooting it is useful for determining whether the vehicle was running or stopped, the engine was warmed up or not, the air-fuel ratio was lean or rich, etc. at the time of the malfunction.

When using hand-held tester:

1	Connect hand-held tester, and read value.
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PREPARATION:

- (a) Connect the hand-held tester to the DLC3.
 (b) Turn the ignition switch ON and push the hand-held tester main switch ON.

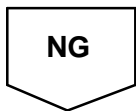
CHECK:

Read the value of the manifold absolute pressure on the hand-held tester.

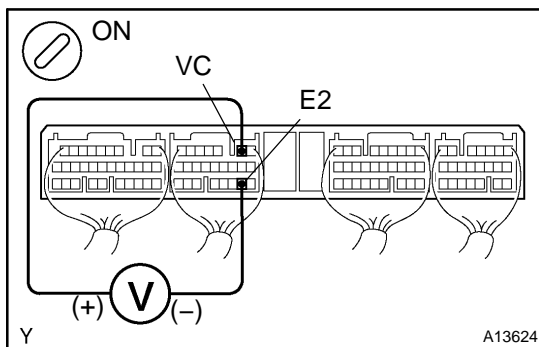
OK:

Same as atmospheric pressure.

OK	Check for intermittent problems (See page DI-3).
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2	Check voltage between terminals VC and E2 of ECM Connector.
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**PREPARATION:**

- (a) Remove the ECM with connector still connected (See page [SF-62](#)).
 (b) Turn the ignition switch ON.

CHECK:

Measure the voltage between terminals VC and E2 of the ECM connector.

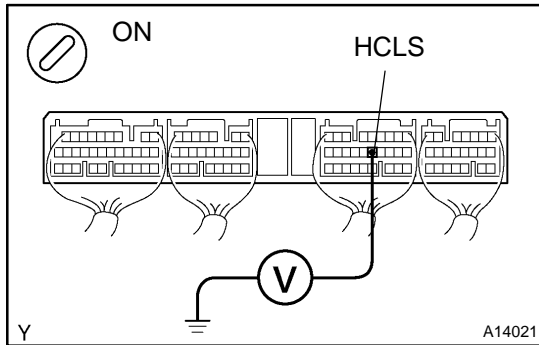
OK:

Voltage: 4.5 – 5.5 V

NG	Check and replace ECM (See page IN-41).
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3 Check voltage between terminals HCLS and E2 of ECM connector.

**PREPARATION:**

- Remove the ECM with connector still connected (See page [SF-62](#)).
- Turn the ignition switch ON.

CHECK:

Measure the voltage between terminals HCLS and E2 of the ECM connector.

OK:

Voltage: 3.3 – 3.9 V

OK

Check and replace ECM (See page [IN-41](#)).

NG

4 Check for open and short in harness and connector between vacuum sensor and ECM.

NG

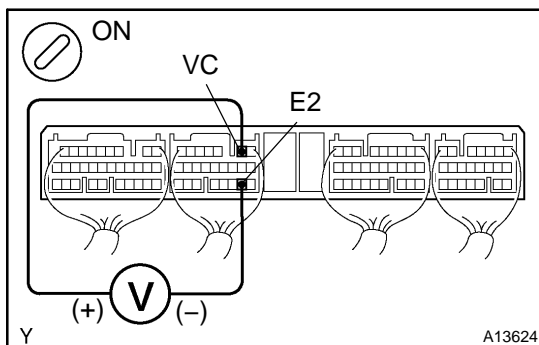
Repair and replace harness and connector.

OK

Replace vacuum sensor (See page [SF-50](#)).

When not using hand-held tester:

1 Check voltage between terminals VC and E2 of ECM connector.

**PREPARATION:**

- Remove the ECM with connector still connected (See page [SF-62](#)).
- Turn the ignition switch ON.

CHECK:

Measure the voltage between terminals VC and E2 of the ECM connector.

OK:

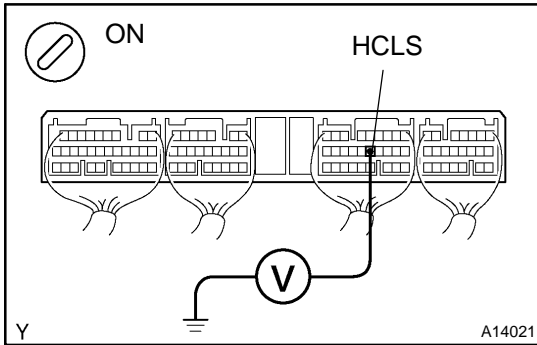
Voltage: 4.5 – 5.5 V

NG

Check and replace ECM (See page [IN-41](#)).

OK

2 Check voltage between terminals HCLS and E2 of ECM connector.

**PREPARATION:**

- Remove the ECM with connector still connected (See page [SF-62](#)).
- Turn the ignition switch ON.

CHECK:

Measure the voltage between terminals HCLS and E2 of the ECM connector.

OK:

Voltage: 3.3 – 3.9 V

OK

**Check and replace ECM
(See page [IN-41](#)).**

NG

3 Check for open and short in harness and connector between ECM and vacuum sensor (See page [IN-41](#)).

NG

Repair or replace harness or connector.

OK

Replace vacuum sensor.