DTC	P0443	EVAPORATIVE EMISSION CONTROL SYSTEM PURGE CONTROL VALVE CIRCUIT

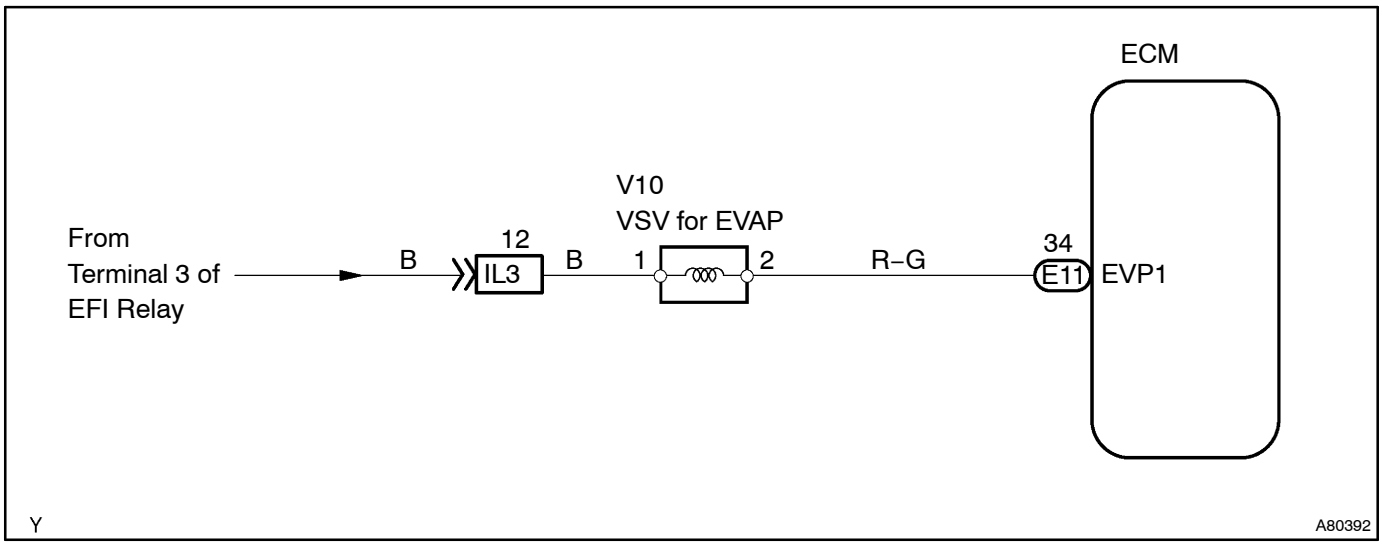
CIRCUIT DESCRIPTION

To reduce HC emissions, evaporated fuel from the fuel tank is routed through the charcoal canister to the intake manifold for combustion in the cylinders.

The ECM changes the duty signal to the VSV for the EVAP so that the intake quantity of HC emissions is appropriate for the driving conditions (engine load, engine speed, vehicle speed, etc.) after the engine is warmed up.

DTC No.	DTC Detecting Condition	Trouble Area
P0443	Proper response to ECM command does not occur (1 trip detection logic)	• Open or short in VSV circuit for EVAP • VSV for EVAP • ECM

WIRING DIAGRAM

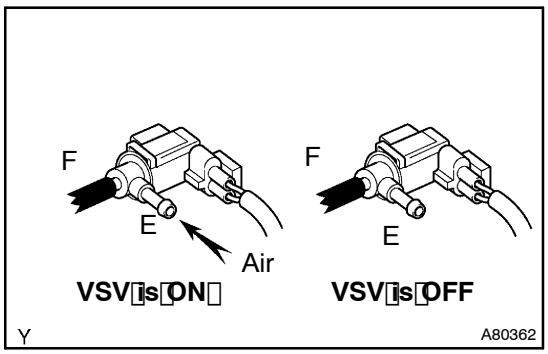


INSPECTION PROCEDURE

HINT:

Read freeze frame data using the 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, the air–fuel ratio was lean or rich, etc. at the time of the malfunction.

1	PERFORM ACTIVE TEST BY HAND–HELD TESTER (VSV FOR EVAP)



(a) Disconnect the vacuum hose from the VSV for EVAP.
(b) Start the engine.
(c) Select the item "DIAGNOSIS / OBD/MOBD / ACTIVE TEST / EVAP VSV" (press the right or left button).
(d) When the VSV for EVAP is operated by the hand–held tester, check whether the disconnected hose applies suction to your finger.

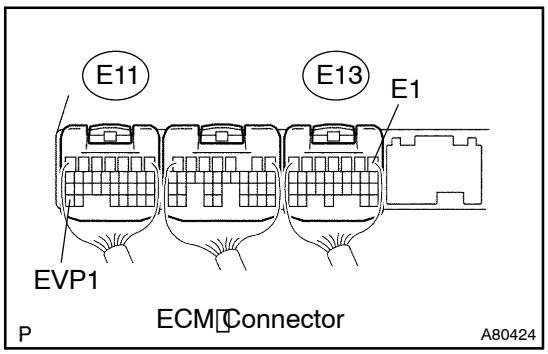
Standard:

Tester operation	Specified condition
VSV is ON	Disconnected hose applies suction to your finger
VSV is OFF	Disconnected hose applies no suction to your finger

OK	CHECK FOR INTERMITTENT PROBLEMS

NG

2	INSPECT ECM (CHECK VOLTAGE)



(a) Turn the ignition switch ON.
(b) Measure the voltage between the terminals of the E11 and E13 ECM connectors.

Standard:

Symbols (Terminal No.)	Specified condition
EVAP1 (E11–34) – E1 (E13–1)	9 to 14 V

OK	CHECK AND REPLACE ECM (See page 01–35)

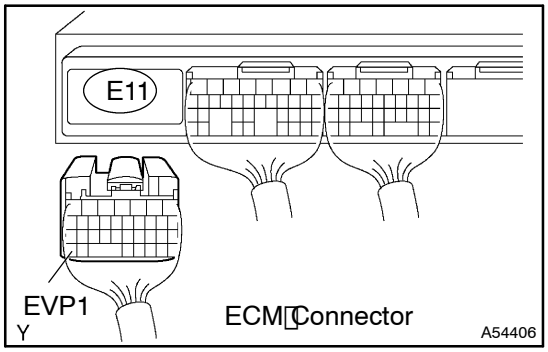
NG

3	INSPECT VACUUM SWITCHING VALVE ASSY NO.1 (OPERATION OF VSV FOR EVAP)

NG	REPLACE VACUUM SWITCHING VALVE ASSY NO.1

OK

4 CHECK HARNESS AND CONNECTOR (ECM – VSV FOR EVAP)



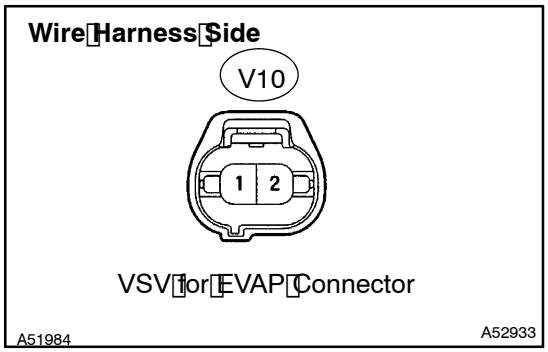
(a) Disconnect the E11 ECM connector.
(b) Disconnect the VSV for EVAP connector.
(c) Check for continuity between the wire harness side connector.

Standard (Check for open):

Symbols (Terminal No.)	Specified condition
VSV for EVAP (V10–1) – EVP1 (E11–34)	Continuity

Standard (Check for short):

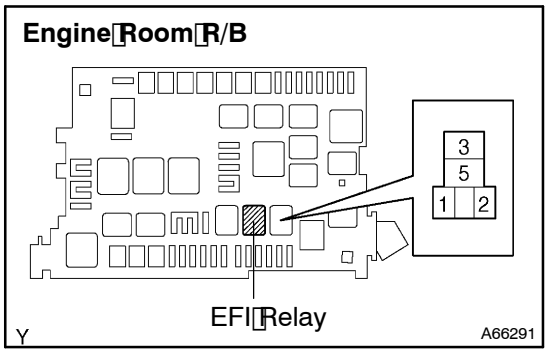
Symbols (Terminal No.)	Specified condition
VSV for EVAP (V10–1) or EVP1 (E11–34) – Body ground	No continuity



NG → REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

5 CHECK HARNESS AND CONNECTOR (EFI RELAY – VSV FOR EVAP)



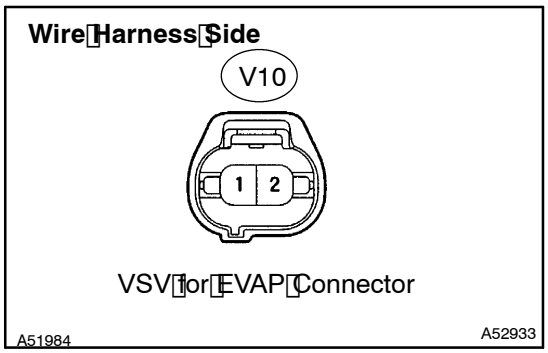
(a) Remove the EFI relay from the engine room R/B.
(b) Disconnect the VSV for EVAP connector.
(c) Check for continuity between the wire harness side connector.

Standard (Check for open):

Symbols (Terminal No.)	Specified condition
VSV for EVAP (V10–2) – EFI relay (3)	Continuity

Standard (Check for short):

Symbols (Terminal No.)	Specified condition
VSV for EVAP (V10–2) or EFI relay (3) – Body ground	No continuity



NG → REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

INSPECT ECM POWER SOURCE CIRCUIT (See page 05–215)