DTC	P0443	EVAPORATIVE EMISSION CONTROL SYSTEM PURGE CONTROL VALVE CIRCUIT

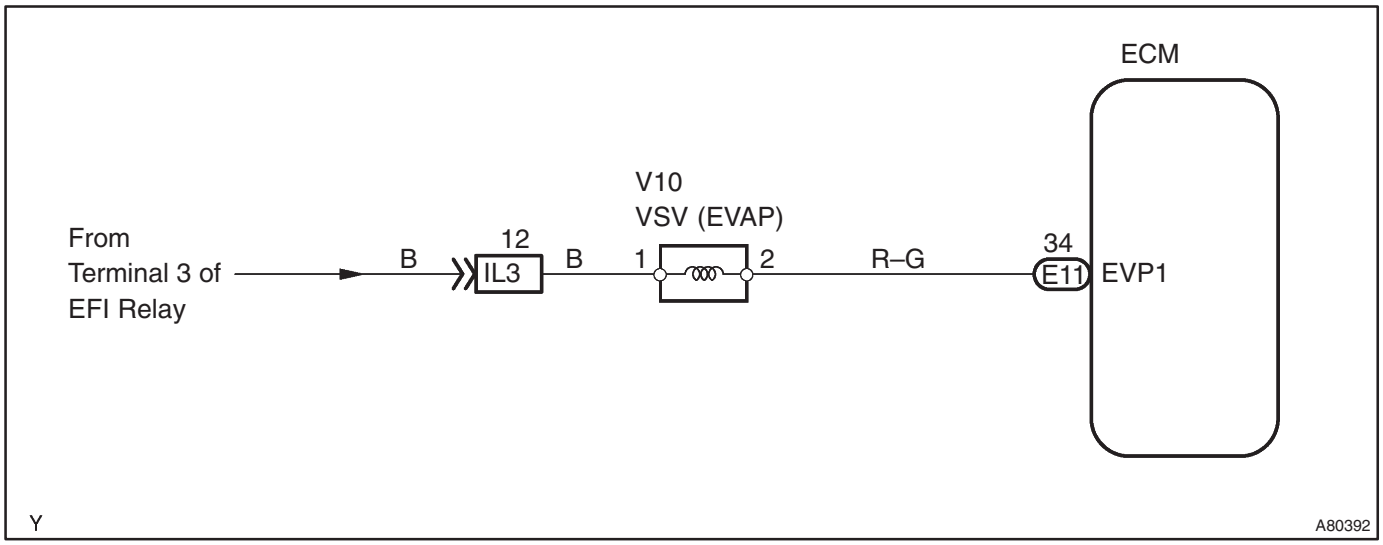
CIRCUIT DESCRIPTION

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

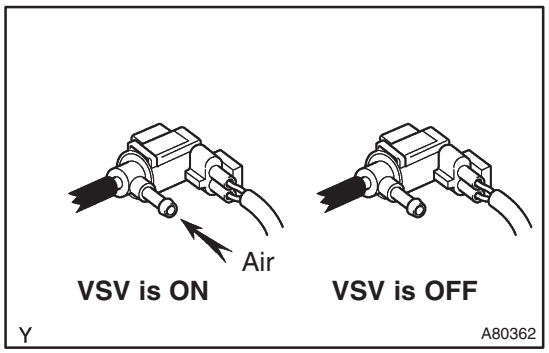


INSPECTION PROCEDURE

HINT:

Read freeze frame data using the Intelligent Tester II. Freeze frame data records the engine conditions when a malfunction is detected. When troubleshooting, freeze frame data can help determine if the vehicle was running or stopped, if the engine was warmed up or not, if the air–fuel ratio was lean or rich, and other data from the time the malfunction occurred.

1 PERFORM ACTIVE TEST BY INTELLIGENT TESTER II(VSV FOR EVAP)



(a) Disconnect the vacuum hose from the VSV for EVAP.
(b) Connect the Intelligent Tester II to the DLC3.
(c) Start the engine and turn the Intelligent Tester II ON.
(d) Select the following menu items: Powertrain / Engine and ECT / Active Test / Purge VSV. Press the right or left button.
(e) Check if the disconnected port suction air when operating the EVAP VSV using the Intelligent Tester II.

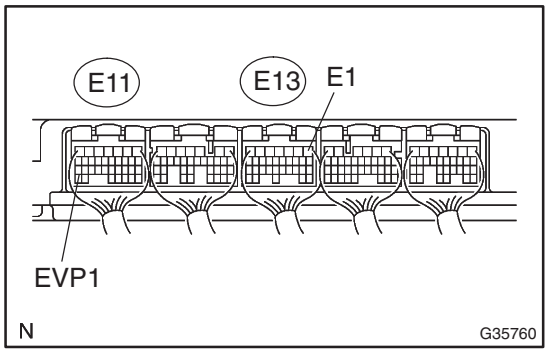
Standard:

Tester Operation	Specified Condition
VSV is ON	Suction air
VSV is OFF	No suction air

OK → **CHECK FOR INTERMITTENT PROBLEMS (See page 05–199)**

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
EVP1 (E11–34) – E1 (E13–1)	9 to 14 V

OK → **REPLACE ECM (See Pub. No. RM1017E, page 10–11)**

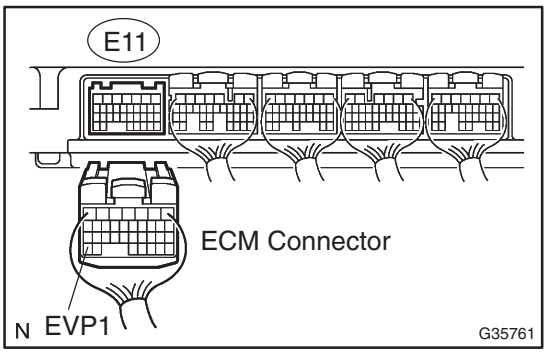
NG

3 INSPECT DUTY VACUUM SWITCHING VALVE(OPERATION OF VSV FOR EVAP)

NG → **REPLACE DUTY VACUUM SWITCHING VALVE**

OK

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



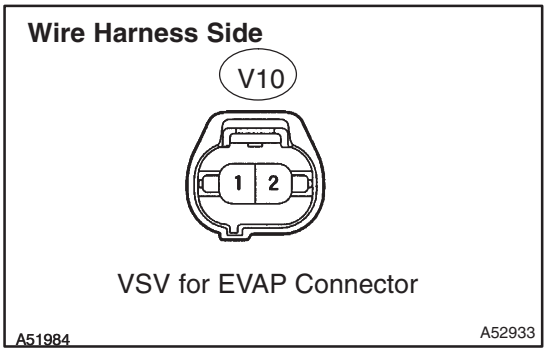
(a) Disconnect the E11 ECM connector.
(b) Disconnect the VSV for EVAP connector.
(c) Check for resistance between the wire harness side connector.

Standard (Check for open):

Symbols (Terminal No.)	Specified condition
VSV for EVAP (V10–2) – EVP1 (E11–34)	Below 1 Ω

Standard (Check for short):

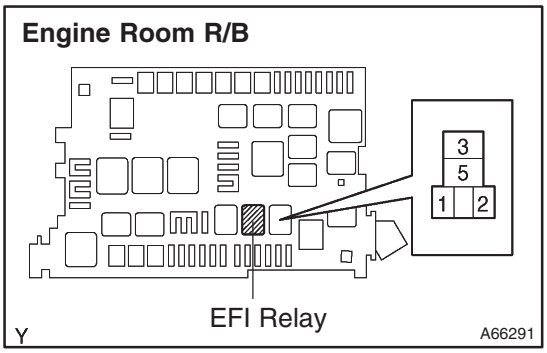
Symbols (Terminal No.)	Specified condition
VSV for EVAP (V10–2) or EVP1 (E11–34) – Body ground	10 kΩ or higher



NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

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



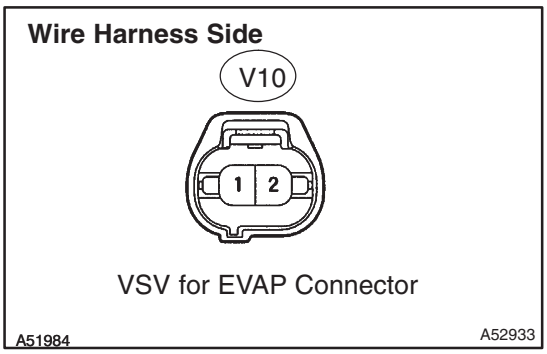
(a) Remove the EFI relay from the engine room R/B.
(b) Disconnect the VSV for EVAP connector.
(c) Check for resistance between the wire harness side connector.

Standard (Check for open):

Symbols (Terminal No.)	Specified condition
VSV for EVAP (V10–1) – EFI relay (3)	Below 1 Ω

Standard (Check for short):

Symbols (Terminal No.)	Specified condition
VSV for EVAP (V10–1) or EFI relay (3) – Body ground	10 kΩ or higher



NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

INSPECT ECM POWER SOURCE CIRCUIT (See page 05–395)