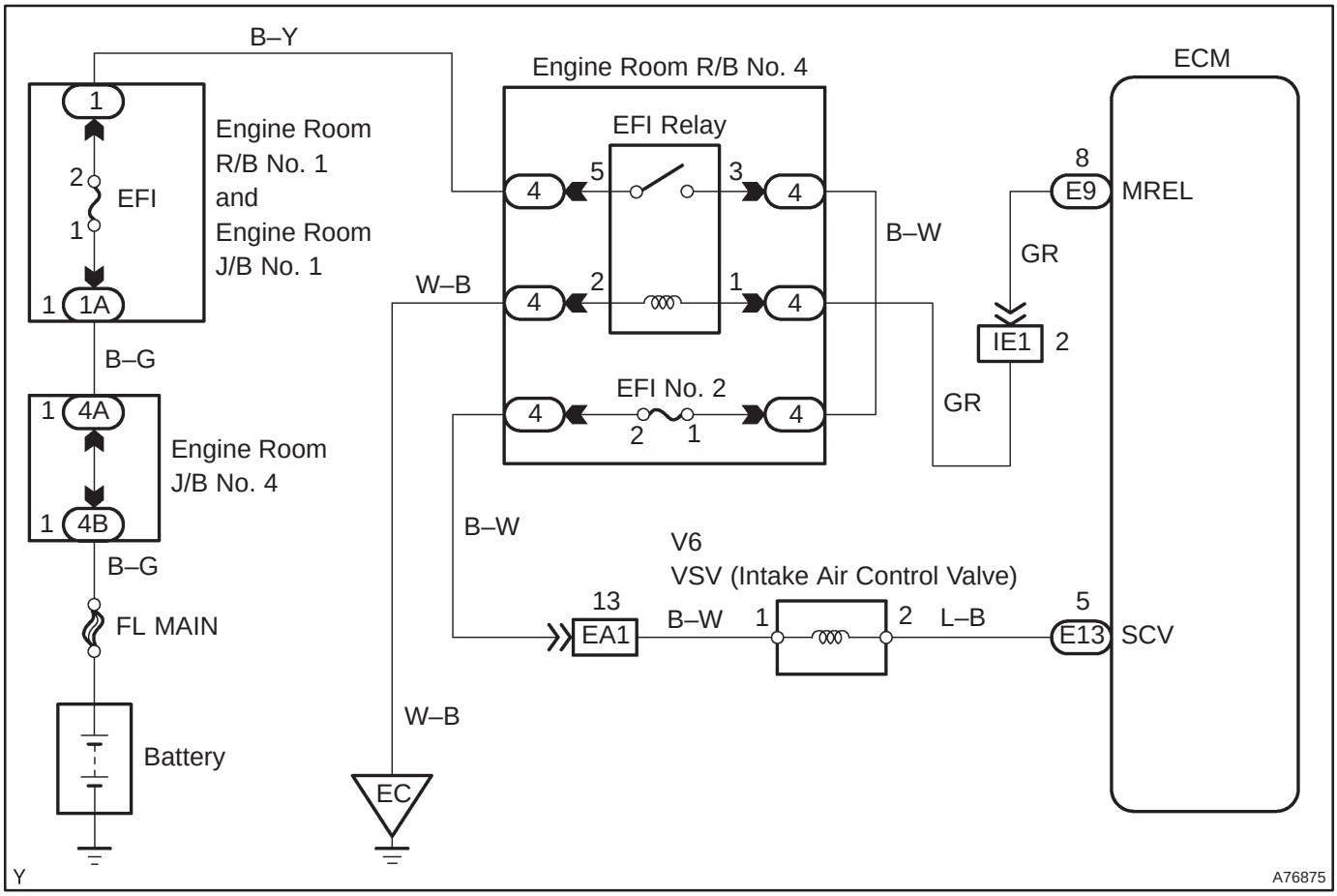
DTC	P2008	INTAKE MANIFOLD RUNNER CONTROL CIRCUIT / OPEN (BANK 1)

CIRCUIT DESCRIPTION

The Intake Air Control valve (IACV) is opened and shut by the actuator with intake manifold vacuum. It stabilizes the engine combustion. The IACV operation generates swirl air flow in the cylinder.

DTC No.	DTC Detection Condition	Trouble Area
P2008	Open or short in VSV for IACV circuit 0.5 sec. or more (2 trip detection logic)	• Open of short in VSV for IACV circuit • VSV for IACV • ECM

WIRING DIAGRAM

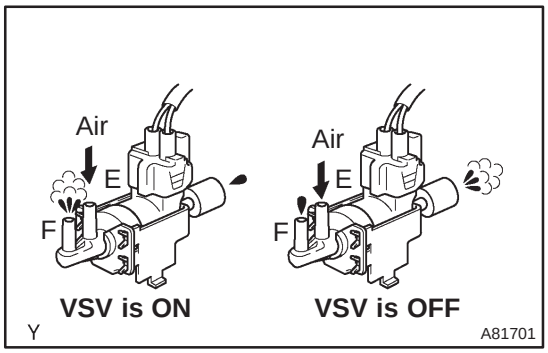


INSPECTION PROCEDURE

HINT:

Read freeze frame data using the hand–held tester. 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 IACV)



(a) Disconnect the vacuum hose from the VSV for IACV.
(b) Turn the ignition switch ON.
(c) Select the item "DIAGNOSIS / OBD/MOBD / ACTIVE TEST / SCV VSV" (press the right or left button).
(d) Check the VSV for IACV operation when it is operated by the hand–held tester.

Standard:

Tester operation	Specified condition
VSV is ON	Air from port E flows out through port F.
VSV is OFF	Air does not flow from port E to port F.

NG → **Go to step 2**

OK

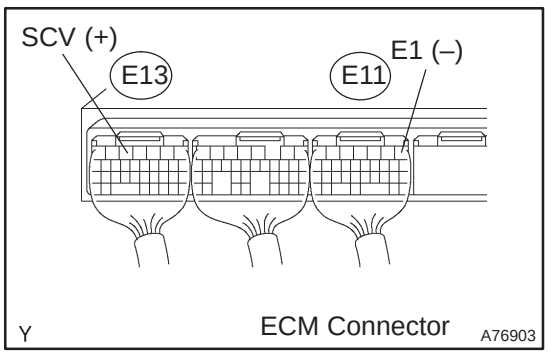
CHECK FOR INTERMITTENT PROBLEMS

2	INSPECT VACUUM SWITCHING VALVE ASSY NO.1(VSV FOR IACV) (See page 13–2)

NG → **REPLACE VACUUM SWITCHING VALVE ASSY NO.1 (VSV FOR IACV)**

OK

3	INSPECT ECM(SCV VOLTAGE)



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

Standard:

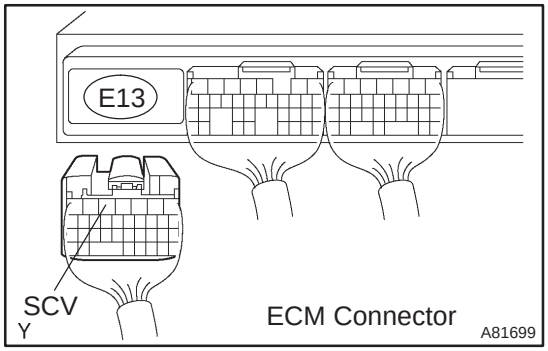
Symbols (Terminal No.)	Specified condition
SCV (E13–5) – E1 (E11–1)	9 to 14 V

NG → **Go to step 4**

OK

CHECK AND REPLACE ECM (See page 01–32)

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



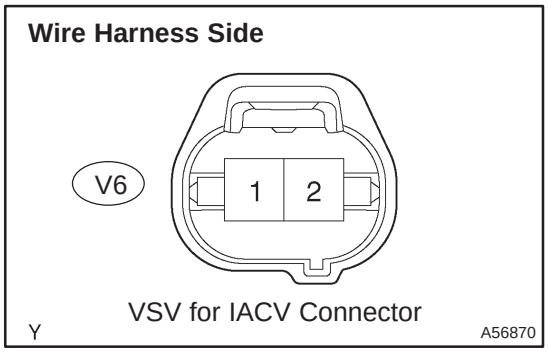
(a) Disconnect the V6 VSV for IACV connector.
(b) Disconnect the E13 ECM connector.
(c) Check for continuity between the wire harness side connectors.

Standard (Check for open):

Symbols (Terminal No.)	Specified condition
VSV for IACV (V6–2) – SCV (E13–5)	Continuity

Standard (Check for short):

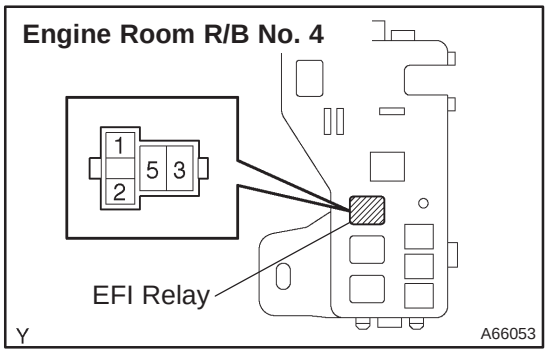
Symbols (Terminal No.)	Specified condition
VSV for IACV (V6–2) or SCV (E13–5) – Body ground	No continuity



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

OK

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



(a) Inspect the EFI No. 2 fuse.
  (1) Remove the EFI No. 2 fuse from the engine room R/B No. 4.
  (2) Check the continuity of the EFI No. 2 fuse.

Standard: Continuity

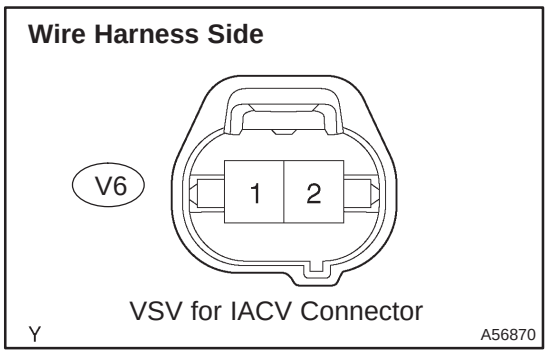
(b) Remove the EFI relay from the engine room R/B No. 4.
(c) Disconnect the V6 VSV for IACV connector.
(d) Check for continuity between the wire harness side connector.

Standard (Check for open):

Symbols (Terminal No.)	Specified condition
VSV for IACV (V6–1) – EFI relay (3)	Continuity

Standard (Check for short):

Symbols (Terminal No.)	Specified condition
VSV for IACV (V6–1) or EFI relay (3) – Body ground	No continuity



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

OK

CHECK FOR ECM POWER SOURCE CIRCUIT (See page 05–502)