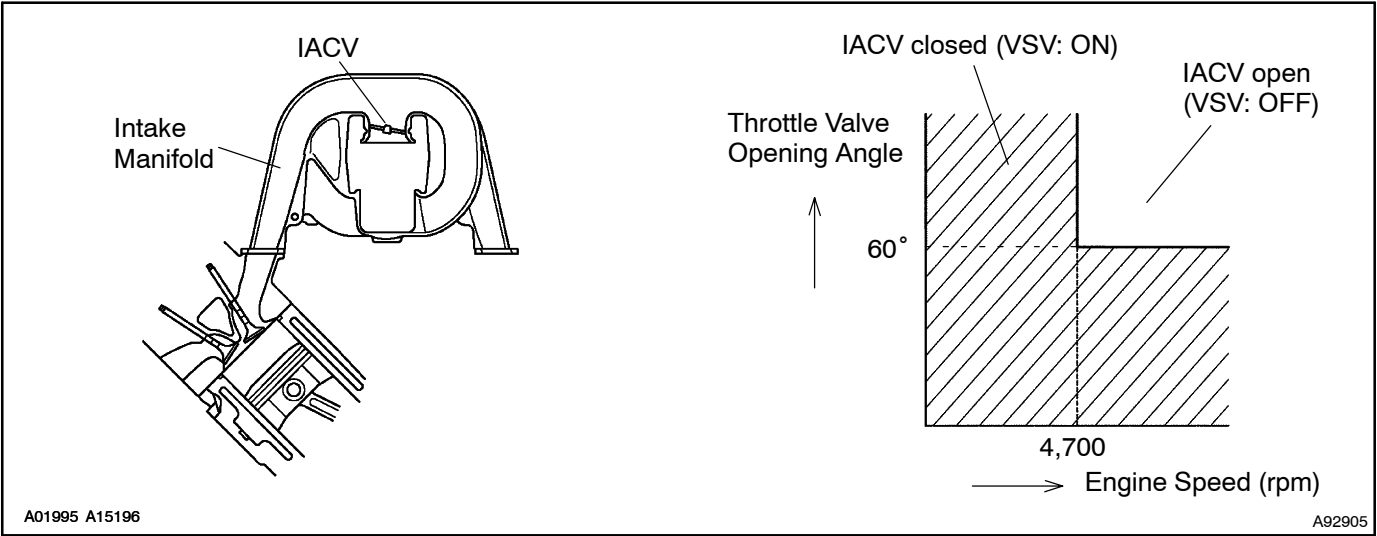


DTC	P0660	INTAKE MANIFOLD TUNING VALVE CONTROL CIRCUIT/OPEN (BANK 1)
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CIRCUIT DESCRIPTION

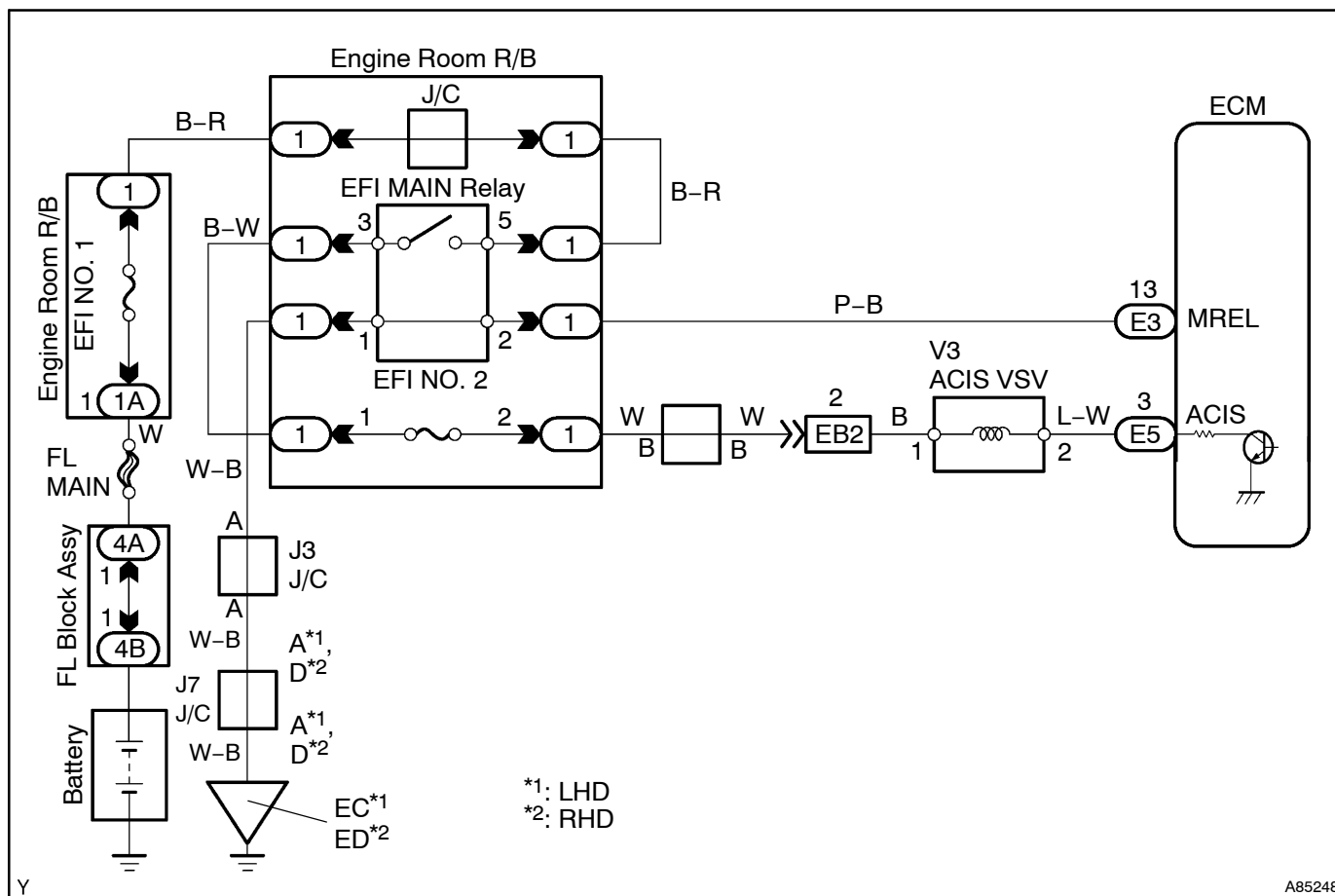
This circuit opens and closes the Intake Air Control Valve (IACV) in response to the engine load in order to increase the intake efficiency (ACIS: Acoustic Control Induction System).

When the engine speed is 4,700 rpm or more and the throttle valve opening angle is 60° or more, the IACV is open (VSV: OFF). At all other times, the IACV is closed (VSV: ON).



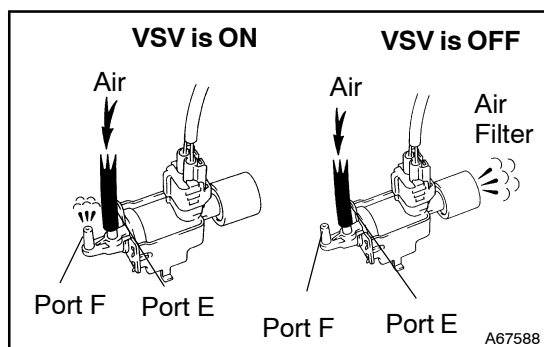
DTC No.	DTC Detecting Condition	Trouble Area
P0660	Proper response to ECM command does not occur (2 trip detection logic)	<ul style="list-style-type: none">• Open or short in ACIS VSV circuit• ACIS VSV• ECM

WIRING DIAGRAM



INSPECTION PROCEDURE

1 PERFORM ACTIVE TEST (ACIS VSV)



- Disconnect the vacuum hose from the port F on the ACIS VSV.
- Connect the Intelligent Tester II to the DLC3.
- Start the engine.
- Enter the following menus: Enter/ Diagnosis/ OBD·MOBD/ Power train/ Engine and ECT/ Active Test/ INTAKE CTL VSV1. Operate the ACIS VSV.
- Check the VSV's air flow when switching the VSV.

Standard:

Tester Operation	Specified Condition
VSV is ON	Air from port E flows out through port F

NG

Go to step 4

OK

2 CHECK VACUUM HOSES (INTAKE MANIFOLD - ACIS VSV - IACV)

Check the condition of the vacuum hoses between the intake manifold, ACIS VSV and IACV.

OK:

The vacuum hoses are connected securely and are not cracked or damaged.

NG

REPAIR OR REPLACE VACUUM HOSES

OK

3 INSPECT INTAKE AIR CONTROL VALVE (See page 13-4)

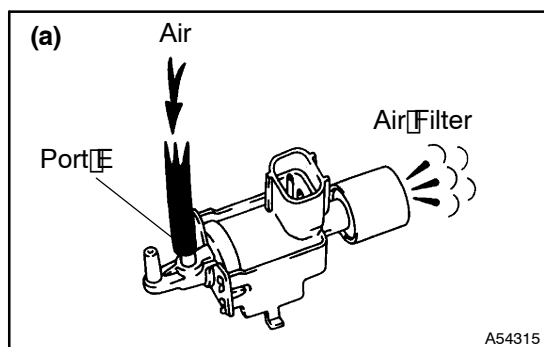
NG

REPLACE INTAKE AIR CONTROL VALVE

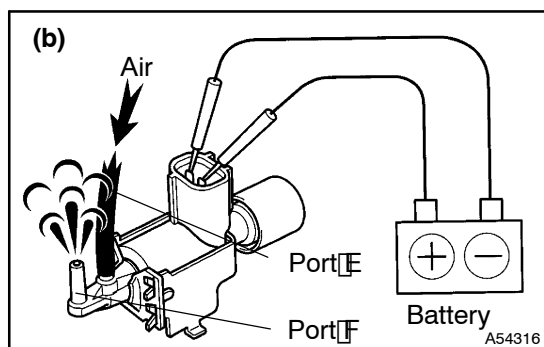
OK

REPLACE ECM (See page 10-21)

4 INSPECT ACIS VSV (OPERATION)



(a) Check that air flows from port E to the air filter.



(b) Apply battery positive voltage across the terminals.

(c) Check that air flows from port E to port F.

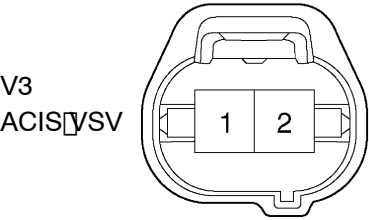
NG

REPLACE ACIS VSV

OK

5 CHECK WIRE HARNESS (ECM - ACIS VSV - EFI RELAY)

Wire Harness Side



Y

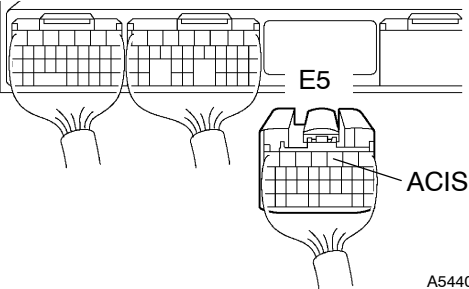
A56870

- (a) Disconnect the V3 ACIS VSV connector.
- (b) Disconnect the E5 ECM connector.
- (c) Measure the resistance of the wire harness side connectors.

Standard:

Tester Connection	Specified Condition
V3-2 - E5-3 (ACIS)	Below 1 Ω
V3-2 or E5-3 (ACIS) - Body Ground	10 k Ω or higher

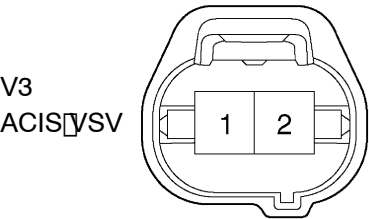
ECM



Y

A54408

Wire Harness Side



Y

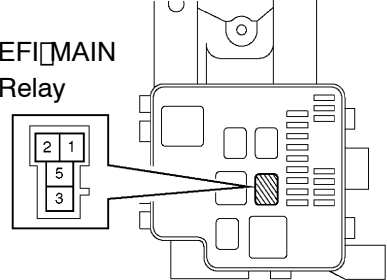
A56870

- (d) Check the wire harness between the ACIS VSV and the EFI MAIN relay.
- (1) Disconnect the V3 ACIS VSV connector.
- (2) Remove the EFI MAIN relay from the engine room relay block (R/B).
- (3) Measure the resistance of the wire harness side connectors.

Standard:

Tester Connection	Specified Condition
V3-1 - EFI MAIN relay Terminal 3 of R/B	Below 1 Ω

Engine Room R/B



Y

A87368

NG

REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

REPLACE ECM (See page 10-21)