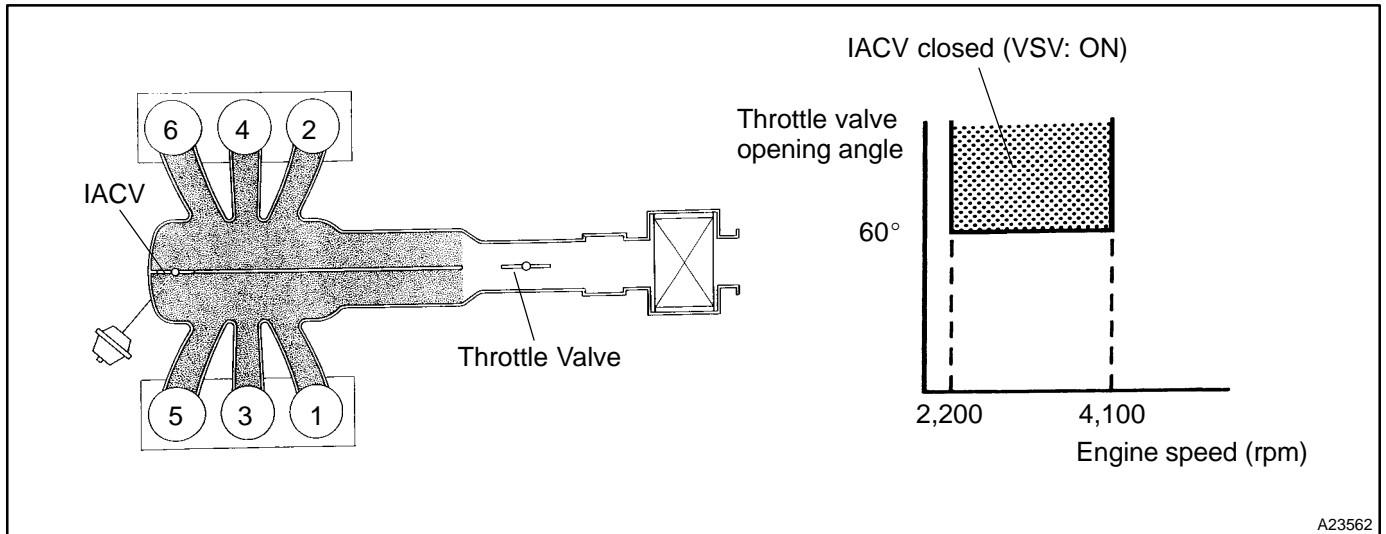


IACV Control VSV Circuit

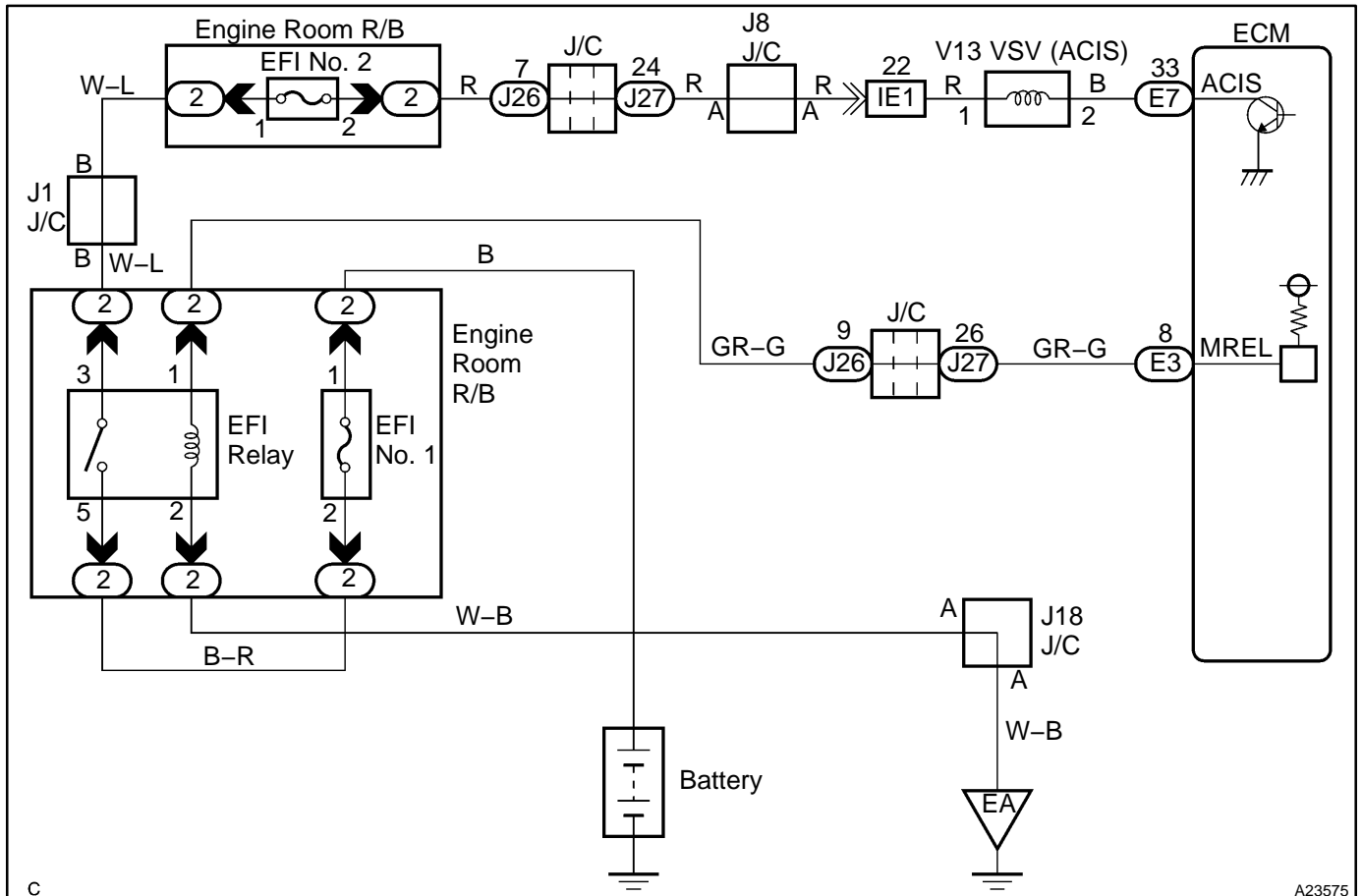
CIRCUIT DESCRIPTION

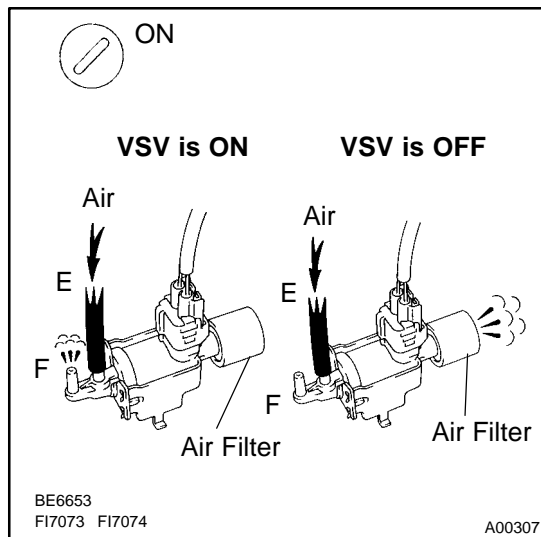
This circuit opens and closes the Intake Air Control Valve (IACV) in response to the engine load in order to increase the intake efficiency (ACIS: Acoustic Control Induction System).

When the engine speed is between 2,200 and 4,100 rpm and the throttle valve opening angle is 60° or more, the ECM supplies current to the VSV (ON status), so the IACV will close. Besides that condition, the VSV is usually OFF and the IACV is open.



WIRING DIAGRAM



INSPECTION PROCEDURE**1 Connect hand-held tester and check operation of VSV for ACIS.****PREPARATION:**

- (a) Connect the hand-held tester to the DLC3.
- (b) Turn the ignition switch to ON and hand-held tester main switch ON.
- (c) Select the item: DIAGNOSIS / ENHANCED OBD II / ACTIVE TEST / INTAKE CTL VSV1. Operate the VSV for ACIS.

CHECK:

Check operation of VSV when VSV is operated by the hand-held tester.

OK:

VSV is ON:

Air from pipe E is flowing out through pipe F.

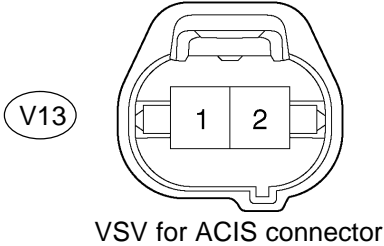
VSV is OFF:

Air from pipe E is flowing out through the air filter.

OK**Check for ACIS system (See page [SF-49](#)).****NG****2 Check VSV for ACIS (See page [SF-49](#)).****NG****Replace VSV for ACIS.****OK**

3 Check for open and short in harness and connector between EFI main relay (Marking: EFI) and ECM.

Wire Harness Side



Y

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- (a) Check the wire harness between the VSV for ACIS and connector the ECM connector.
- (1) Disconnect the VSV for ACIS connector.
 - (2) Disconnect the E5 and E7 ECM connector.
 - (3) Check for resistance between the wire harness side connectors.

Standard (Check for open):

Symbols (Terminal No.)	Specified condition
VSV for ACIS (V13-2) - ACIS (E7-33)	Below 1 Ω

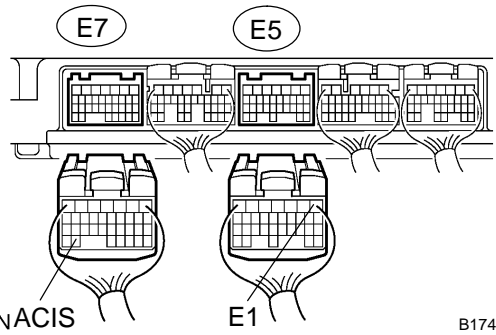
Standard (Check for short):

Symbols (Terminal No.)	Specified condition
VSV for ACIS (V13-2) or ACIS (E7-33) - E1 (E5-1)	10 k Ω or higher

- (b) Check the wire harness between the VSV for ACIS connector and the EFI relay.
- (1) Disconnect the VSV for ACIS connector.
 - (2) Remove the EFI relay from the engine room R/B.
 - (3) Check for resistance between the wire harness side connectors.

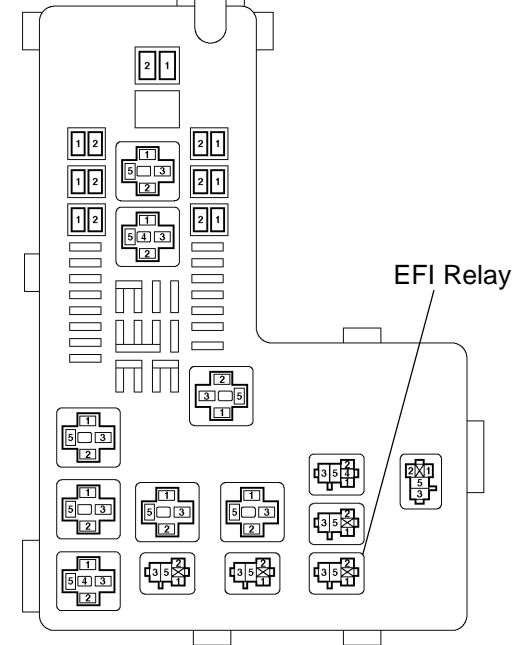
Standard (Check for open):

Symbols (Terminal No.)	Specified condition
VSV for ACIS (V13-1) - EFI relay terminal 3 of R/B	Below 1 Ω



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Engine Room R/B:



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Repair or replace harness or connector.

OK

Replace ECM (See page SF-66).