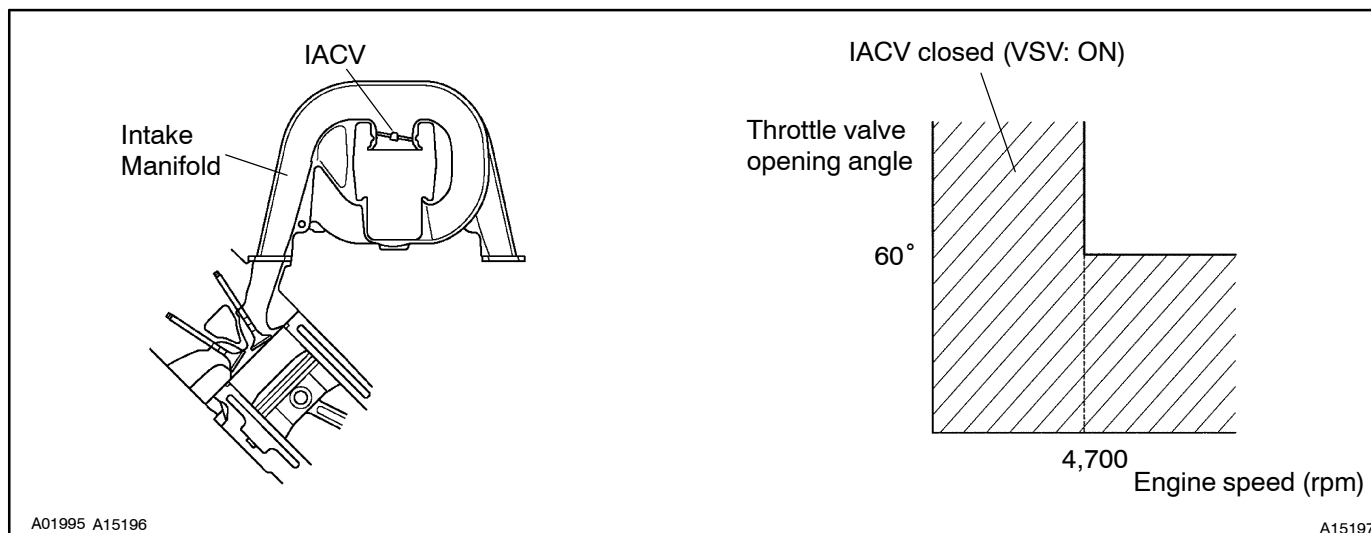


<b>DTC</b>	<b>P1651</b>	<b>VSV for ACIS Circuit Malfunction</b>
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## CIRCUIT DESCRIPTION

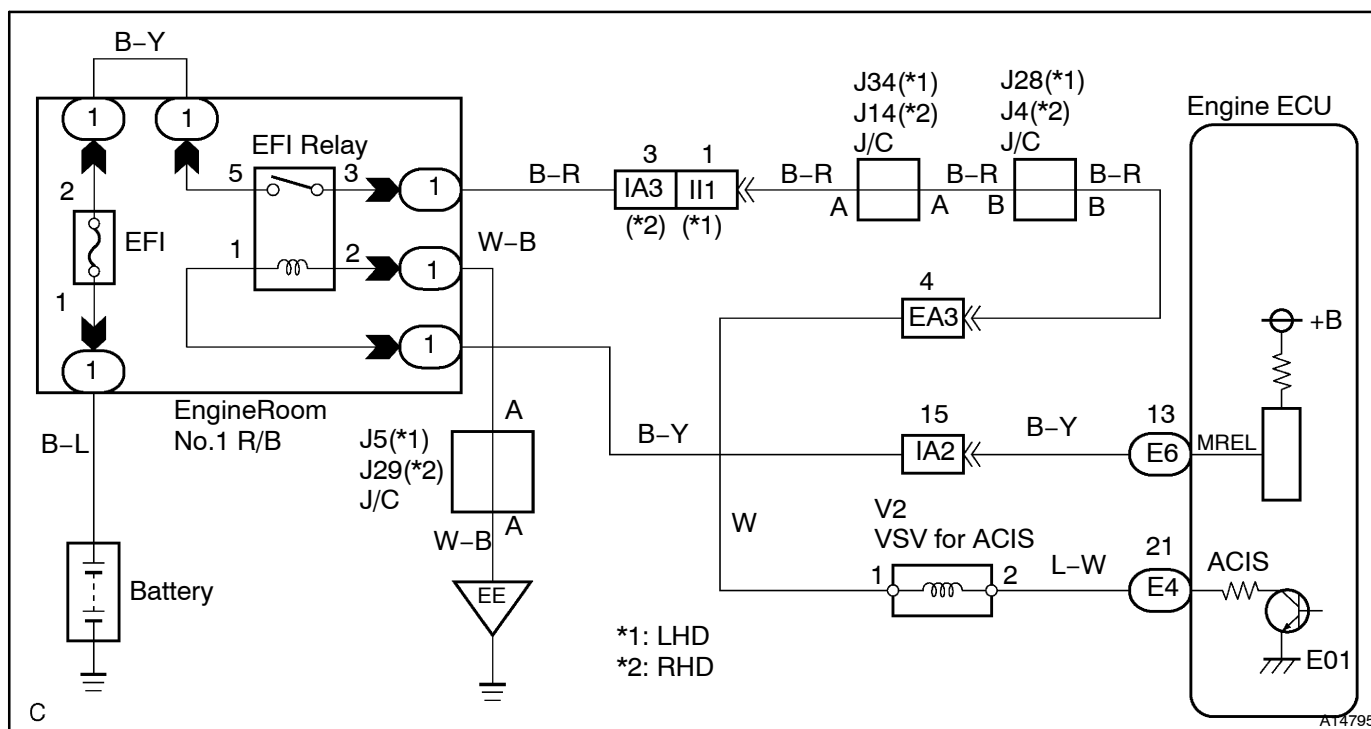
This circuit opens and closes the Intake Air Control Valve (IACV) in response to the engine load in order to increase the intake efficiency (ACIS: Acoustic Control Induction System).

When the engine speed is 4,700 rpm or more and the throttle valve opening angle is 60° or more, the VSV is OFF, so the IACV is open. All the other times, the ECM turns the VSV ON and closes the IACV.



DTC No.	DTC Detecting Condition	Trouble Area
P1651	Proper response to engine ECU command does not occur (2 trip detection logic)	<ul style="list-style-type: none"> <li>• Open or short in VSV circuit for ACIS</li> <li>• VSV for ACIS</li> <li>• Engine ECU</li> </ul>

## WIRING DIAGRAM



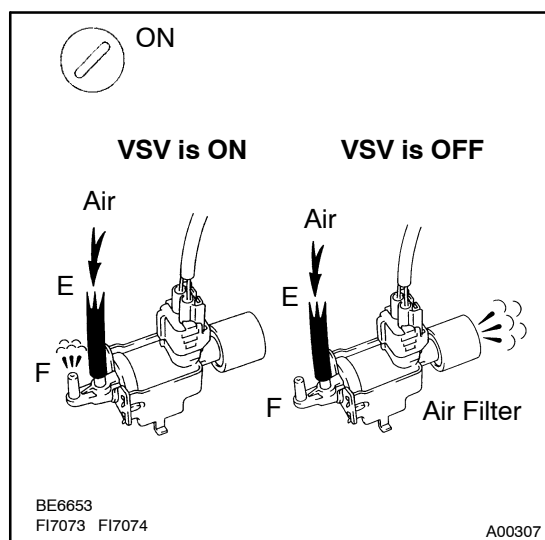
## INSPECTION PROCEDURE

### HINT:

Read freeze frame data using OBD scan tool or hand-held tester. Because freeze frame records the engine conditions when the 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.

### When using hand-held tester:

- 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 ON and push the hand-held tester main switch ON.
- (c) Select the ACTIVE TEST mode on the hand-held tester.

### CHECK:

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

### OK:

**VSV is ON:**

**Air from port E flows out through port F.**

**VSV is OFF:**

**Air from port E flows out through the air filter.**

OK

Check for vacuum tank (See page FI-59).

NG

- 2 **Check VSV for ACIS (See page FI-59).**

NG

Replace VSV for ACIS.

OK

- 3 **Check for open and short in harness and connector between EFI main relay and (Marking: EFI) engine ECU (See page IN-30).**

NG

Repair or replace harness or connector.

OK

Check and replace engine ECU  
(See [page IN-30](#)).

## When using OBD scan tool:

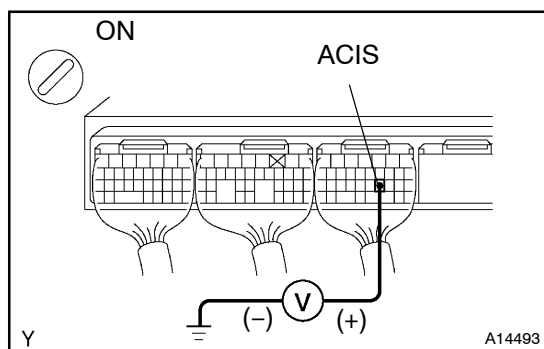
1 Check VSV for ACIS (See [page FI-59](#)).

NG

Replace VSV for ACIS.

OK

2 Check voltage between terminal ACIS of engine ECU connector and body ground.



### PREPARATION:

- (a) Remove the engine ECU hood and cover (See [page FI-74](#)).
- (b) Turn the ignition switch ON.

### CHECK:

Measure the voltage between terminal ACIS of the engine ECU connector and body ground.

### OK:

Voltage: 9 – 14 V

NG

Check for open and short in harness and connector between EFI main relay (Marking: EFI) and engine ECU (See [page IN-30](#)).

OK

Check and replace engine ECU  
(See [page IN-30](#)).