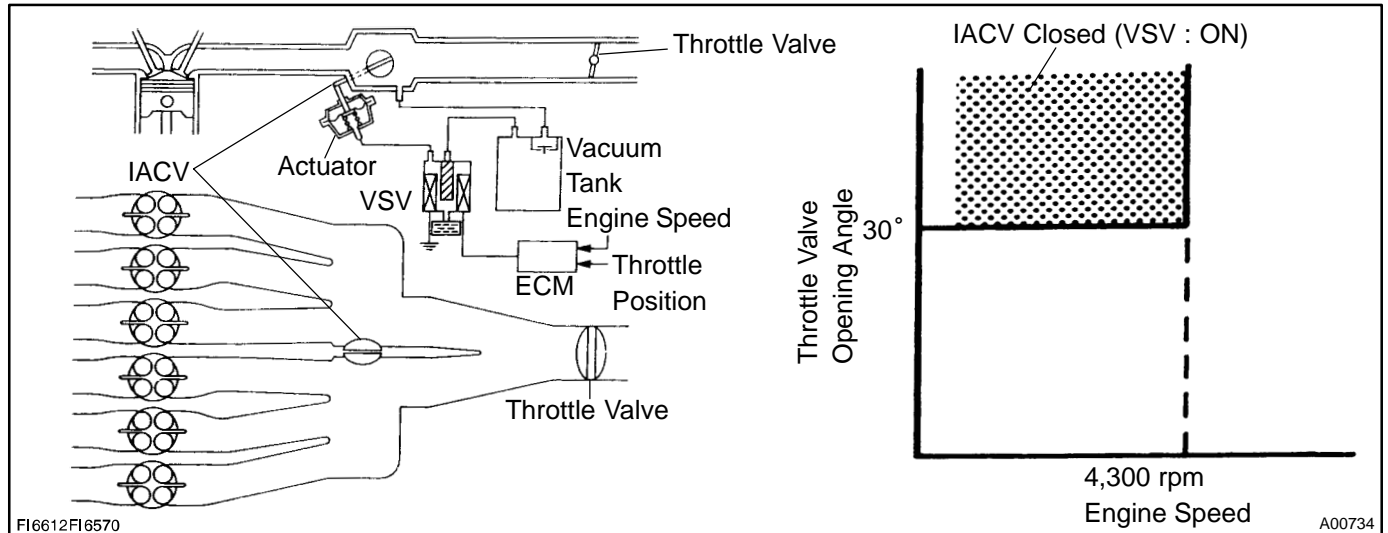


IACV Control Circuit

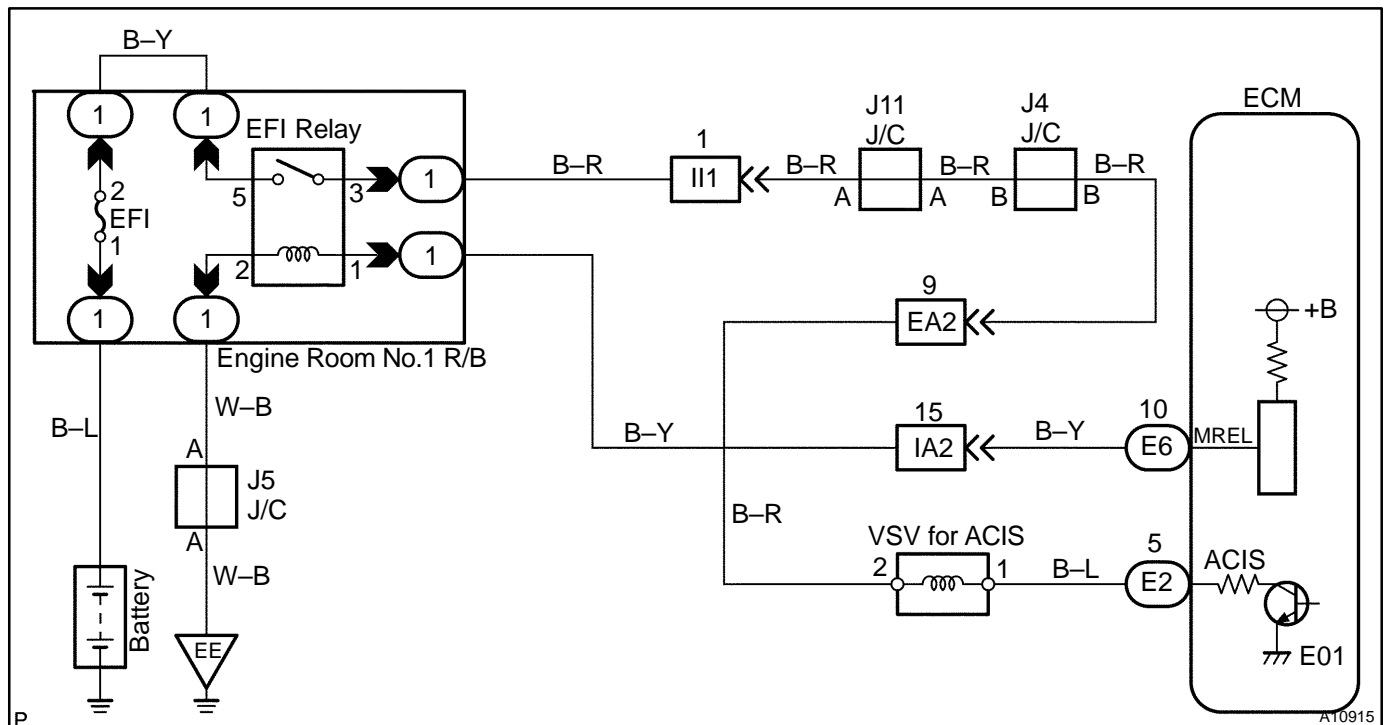
CIRCUIT DESCRIPTION

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 4,300 rpm or less and the throttle valve opening angle is 30° or more, the ECM turns the VSV ON and closes the IACV. At all other times, the VSV is OFF, so the IACV is open.

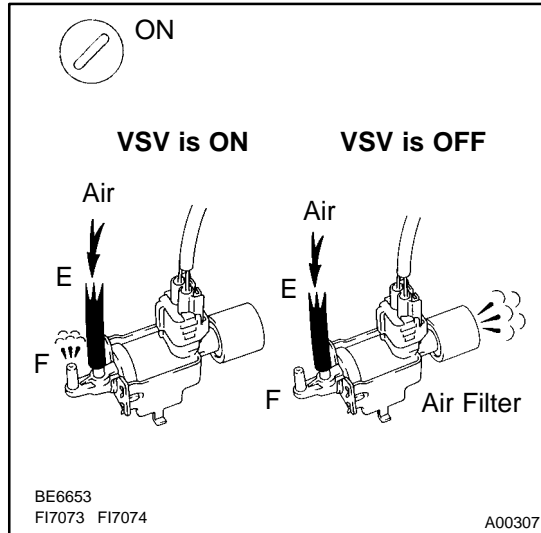


WIRING DIAGRAM



INSPECTION PROCEDURE**LEXUS hand-held tester:**

- | | |
|----------|-----------------------------------------------------------------------------|
| 1 | Connect LEXUS hand-held tester, and check operation of VSV for ACIS. |
|----------|-----------------------------------------------------------------------------|

**PREPARATION:**

- Connect the LEXUS hand-held tester to the DLC3.
- Turn the ignition switch ON and push the LEXUS hand-held tester main switch ON.
- Select the ACTIVE TEST mode on the LEXUS hand-held tester.

CHECK:

Check the operation of the the VSV when the VSV is operated by the LEXUS 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 air filter.

OK

Check for vacuum tank (See page SF-48).

NG

- | | |
|----------|---------------------------------------------|
| 2 | Check VSV for ACIS (See page SF-54). |
|----------|---------------------------------------------|

NG

Replace VSV for ACIS.

OK

- | | |
|----------|--------------------------------------------------------------------------------------------------------------------------|
| 3 | Check for open and short in harness and connector between EFI main relay (Marking: EFI) and ECM (See page IN-32). |
|----------|--------------------------------------------------------------------------------------------------------------------------|

NG

Repair or replace harness or connector.

OK

Check and replace ECM (See page IN-32).

OBD II scan tool (excluding LEXUS hand-held tester):

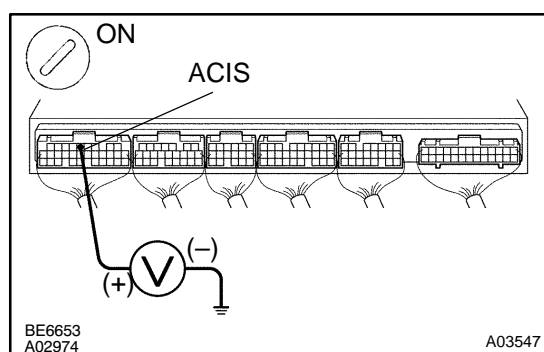
1 Check VSV for ACIS (See page SF-54).

NG

Replace VSV for ACIS.

OK

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

**PREPARATION:**

- (a) Remove the engine room ECM cover and hood.
- (b) Turn the ignition switch ON.

CHECK:

Measure the voltage between terminal ACIS of the ECM 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 ECM (See page IN-32).

OK

3 Check for vacuum tank (See page SF-48).

NG

Repair or replace.

OK

Check and replace ECM (See page IN-32).