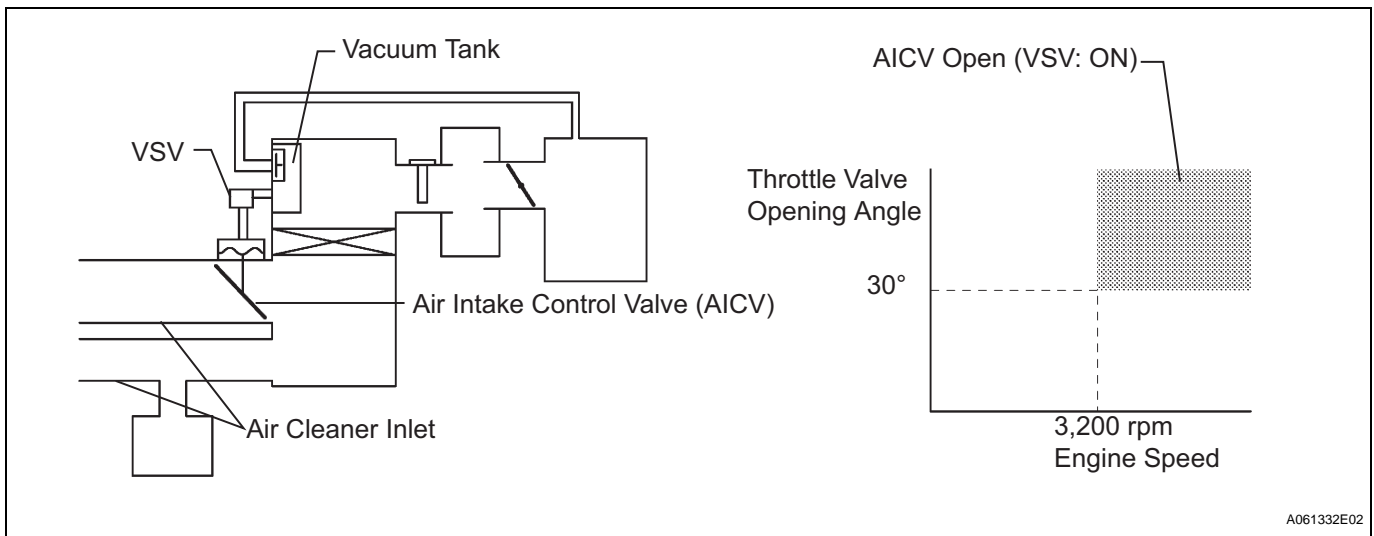


Air Intake Control Circuit

DESCRIPTION

The air cleaner is equipped with two inlets, one of which is opened or closed by the Intake Air Control (IAC) valve No. 3. This system reduces intake noise and increases engine power at low to high speed engine speeds.

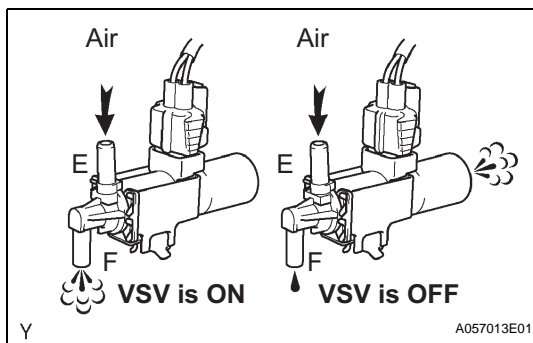
When the engine is operating at low to mid speeds, this system operates the IAC valve to close one of the air cleaner inlets. When the engine speed is more than 3,200 rpm and the opening angle of the throttle valve is more than 30°, the ECM activates the VSV and opens the IAC valve No. 3.



WIRING DIAGRAM

Refer to ACIS CONTROL CIRCUIT (See page [ES-351](#)).

1 READ VALUE OF INTELLIGENT TESTER (VSV FOR AICV)



- Turn the ignition switch ON and push the intelligent tester main switch ON.
- Enter the following menus: DIAGNOSIS / ENHANCED OBD II / ACTIVE TEST / INTAKE CTL VSV1. Operate the VSV.
- Check the operation of the VSV when the VSV is operated by the intelligent tester.

Standard

Tester Operation	Specified Condition
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

Go to step 4

NG

2 CHECK VSV FOR AICV

(a) Inspect the VSV for AICV. (See page [IT-2](#))

NG

REPLACE VSV FOR AICV

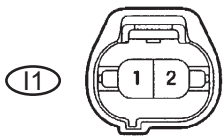
OK

3 CHECK HARNESS AND CONNECTOR (VSV FOR AICV - ECM, VSV FOR AICV - EFI MAIN RELAY)

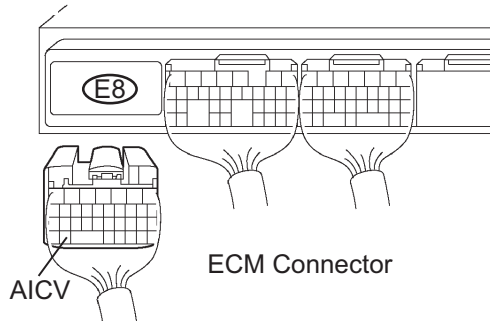
ES

Wire Harness Side:

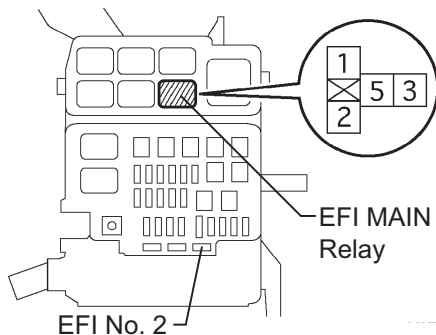
VSV for AICV Connector



Front View



Engine Room R/B and Fusible Link Block:



A124758E01

- (a) Check the wire harness between the VSV and ECM.
- (1) Disconnect the I1 VSV connector for AICV.
 - (2) Disconnect the E8 ECM connector.
 - (3) Measure the resistance of the wire harness side connectors.

Standard resistance

Tester Connection	Specified Condition
I1-1 - E8-33 (AICV)	Below 1 Ω
I1-1 or E8-33 (AICV) - Body ground	10 k Ω or higher

- (b) Check the wire harness between the VSV and the EFI MAIN relay.

- (1) Check the EFI No. 2 fuse.
 - Remove the EFI No. 2 fuse from the fusible link block.
 - Measure the resistance of the EFI No. 2 fuse.

Standard resistance:

Below 1 Ω

- Reinstall the EFI No. 2 fuse.
- (2) Disconnect the I1 VSV for AICV connector.
 - (3) Remove the EFI MAIN relay from the engine room R/B.
 - (4) Measure the resistance of the wire harness side connectors.

Standard resistance

Tester Connection	Specified Condition
I1-2 (VSV for AICV) - EFI MAIN relay terminal 3	Below 1 Ω

- (c) Install the EFI MAIN relay.
- (d) Reconnect the VSV connector and ECM connector.

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

4 INSPECT VACUUM TANK

(a) Inspect the vacuum tank. (See page [IT-2](#))

NG

REPLACE VACUUM TANK

OK

REPLACE ECM

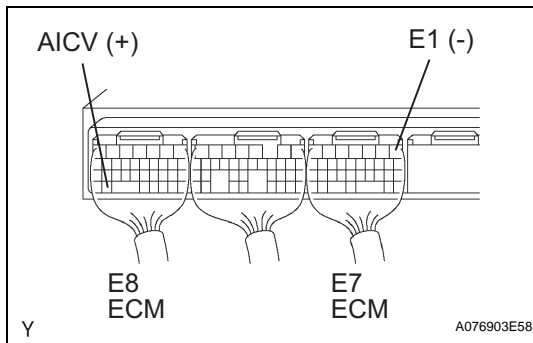
1 CHECK VSV FOR AICV

NG

REPLACE INTAKE AIR CONTROL VALVE
ASSEMBLY NO.3

OK

ES

2 INSPECT ECM

- (a) Turn the ignition switch ON.
(b) Measure the voltage of the ECM connectors.

Standard voltage

Tester Connection	Specified Condition
E8-33 (AICV) - E7-1 (E1)	9 to 14 V

NG

REPAIR OR REPLACE HARNESS OR
CONNECTOR

OK

3 INSPECT VACUUM TANK

- (a) Inspect the vacuum tank. (See page [IT-2](#))

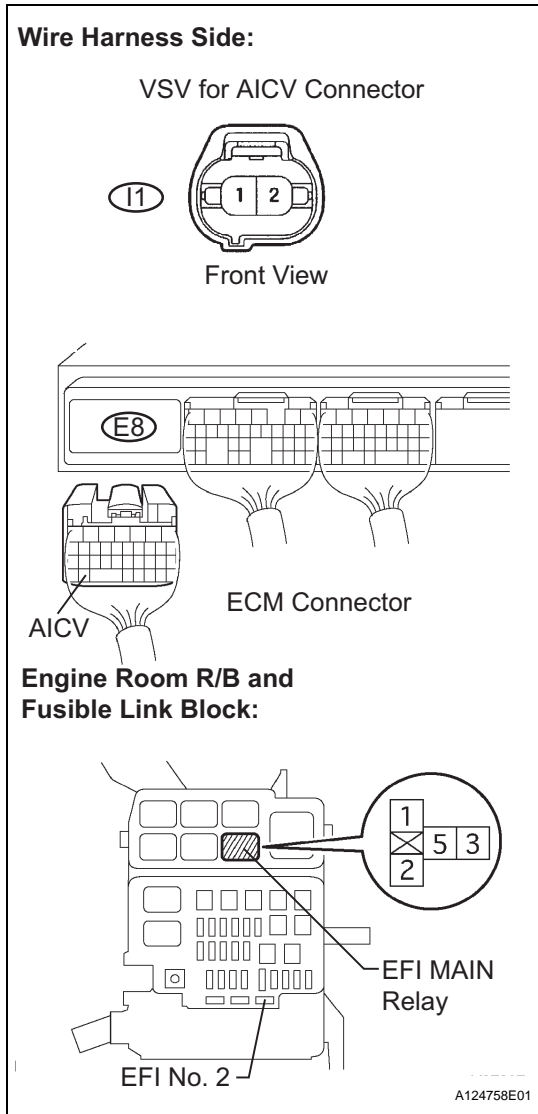
NG

REPLACE VACUUM TANK

OK

4

CHECK HARNESS AND CONNECTOR (VSV FOR AICV - ECM, VSV FOR AICV - EFI MAIN RELAY)



- (a) Check the wire harness between the VSV for AICV and ECM.
- (1) Disconnect the I1 VSV for AICV connector.
 - (2) Disconnect the E8 ECM connector.
 - (3) Measure the resistance of the wire harness side connectors.
- Standard resistance**

Tester Connection	Specified Condition
I1-1 - E8-33 (AICV)	Below 1 Ω
I1-1 or E8-33 (AICV) - Body ground	10 k Ω or higher

- (b) Check the wire harness between the VSV for AICV and EFI MAIN relay.
- (1) Check the EFI No. 2 fuse.
 - Remove the EFI No. 2 fuse from the fusible link block.
 - Measure the resistance of the EFI No. 2 fuse.
- Standard resistance:**
- Below 1 Ω**
- Reinstall the EFI No. 2 fuse.
 - (2) Disconnect the I1 VSV for AICV connector.
 - (3) Remove the EFI MAIN relay from the engine room R/B.
 - (4) Measure the resistance of the wire harness side connectors.
- Standard resistance**

Tester Connection	Specified Condition
I1-2 (VSV for AICV) - EFI MAIN relay terminal 3	Below 1 Ω

- (c) Install the EFI MAIN relay.
- (d) Reconnect the VSV connector and ECM connector.

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

REPLACE ECM