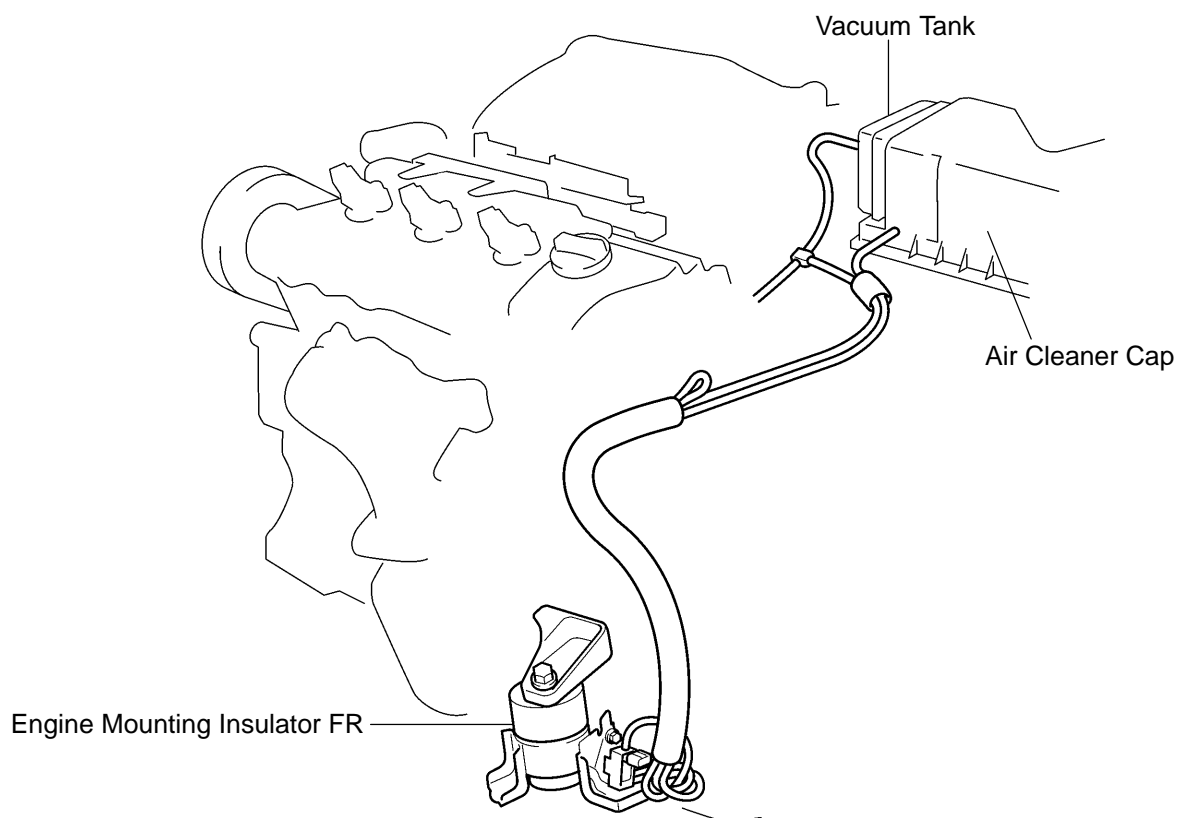
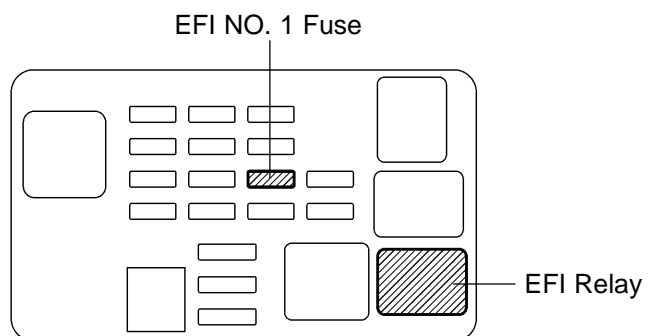


ACTIVE CONTROL ENGINE MOUNT

LOCATION



Engine Room J/B

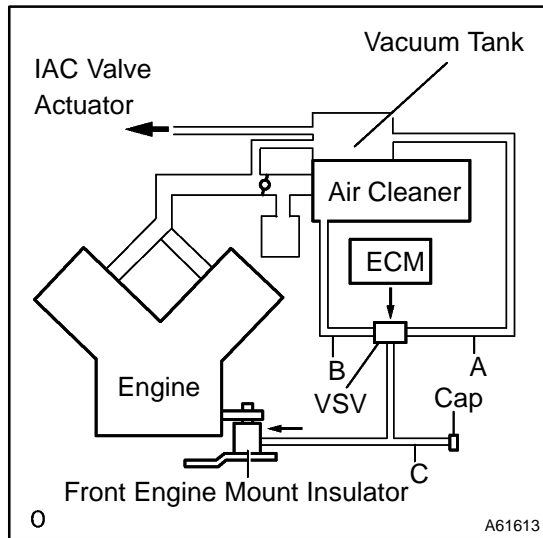


The Active Control Engine Mount (ACM) system decreases engine vibration at low engine speed using the VSV for ACM. The VSV is controlled by a pulse signal transmitted to the VSV from the ECM. The frequency of this pulse signal is matched to the engine speed to decrease engine vibration.

[illegible]

INSPECTION PROCEDURE

1 CHECK VACUUM HOSES



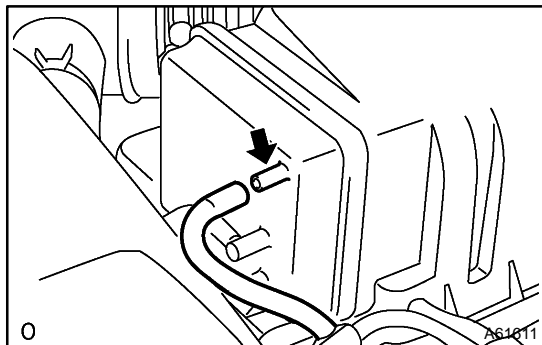
- (a) Check if the vacuum hose cap is missing.
- (b) If the hose is damaged, replace the vacuum hose assembly.
- (c) Check the air and vacuum hoses for looseness, disconnection and blockage.

NG

REPAIR OR REPLACE VACUUM HOSES

OK

2 CHECK VACUUM



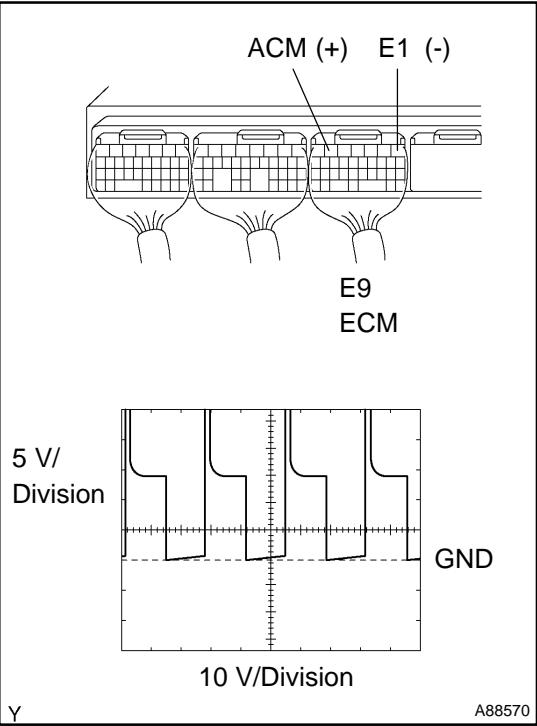
- (a) Start the engine.
- (b) Disconnect the vacuum hose from the vacuum tank.
- (c) Check that the unconnected port located on the vacuum tank applies suction to your finger.
- (d) Reconnect the vacuum hose.

NG

CHECK AND REPLACE VACUUM SOURCE AND HOSES

OK

3 INSPECT ECM (ACM VOLTAGE)



- (a) Connect the oscilloscope between terminals ACM and E1 of the E9 ECM connector.
- (b) Warm up engine to normal operating temperature.
- (c) Turn the A/C switch on.
- (d) Measure the voltage between terminals ACM and E1 of the E9 ECM connector.

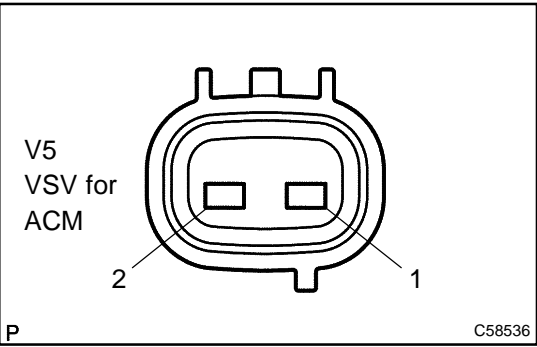
Result:

Condition	Voltage
Shift position is D range, and engine speed is 850 rpm or less	Pulse generation
Shift position is D range, and engine speed is 950 rpm or more	9 to 14 V
Shift position is P range	9 to 14 V

OK Go to step 6

NG

4 INSPECT VSV FOR ACM (RESISTANCE)



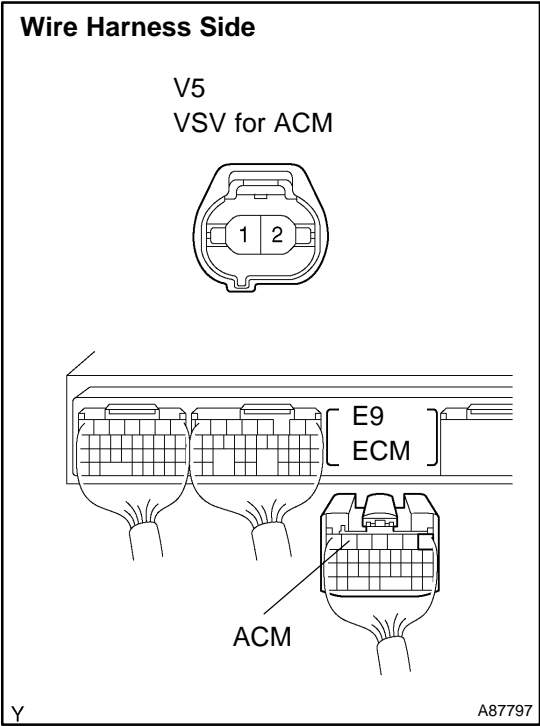
- (a) Disconnect the V5 VSV connector.
- (b) Measure the resistance between the terminals 1 and 2.
Standard: 19 to 21 Ω at 20°C (68°F)

NG REPLACE VSV

OK

5

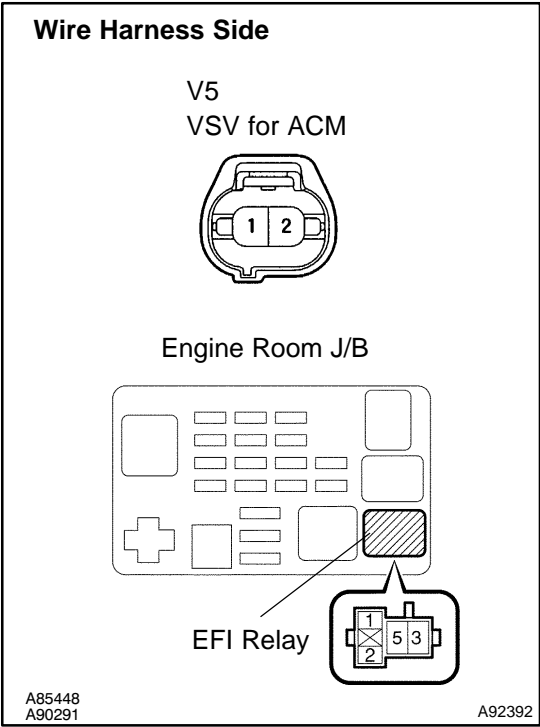
CHECK WIRE HARNESS (VSV FOR ACM - ECM, VSV FOR ACM - EFI RELAY)



- (a) Check the wire harness between the VSV and ECM.
- (1) Disconnect the V5 VSV connector for ACM.
 - (2) Disconnect the E9 ECM connector.
 - (3) Check the resistance of the wire harness side connectors.

Standard:

Tester Connection	Specified Condition
V5-2 - E9-6 (ACM)	Below 1 Ω
V5-2 or E9-6 (ACM) - Body ground	10 k Ω or higher



- (b) Check the wire harness between the VSV and EFI relay.
- (1) Disconnect the V5 VSV connector.
 - (2) Remove the EFI relay from the engine room J/B.
 - (3) Check the resistance of the wire harness side connectors.

Standard:

Tester Connection	Specified Condition
V5-1 (VSV for ACM) - J/B EFI relay terminal 3	Below 1 Ω

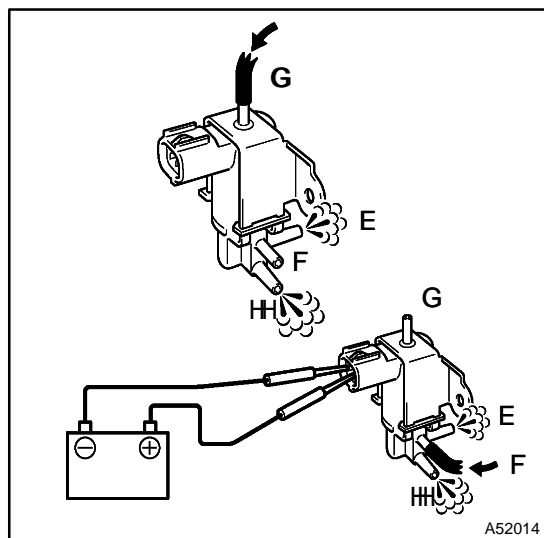
NG

REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

REPLACE ECM (See page 10-24)

6 INSPECT VSV FOR ACM (OPERATION)



- Remove the VSV.
- Check operation of the VSV when battery positive voltage is applied to the terminals of the VSV connector.

OK:

Battery positive voltage is not applied:

The air from pipe G is flowing out through pipes E and H.

Battery positive voltage is applied:

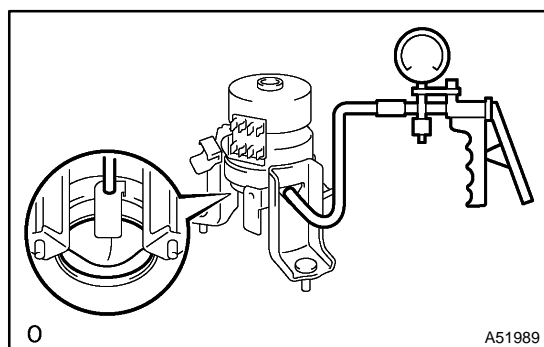
The air from pipe F is flowing out through pipes E and H.

NG

REPLACE VSV FOR ACM

OK

7 INSPECT TRANSVERSE ENGINE ENGINE MOUNTING INSULATOR



- Disconnect the vacuum hose from the front engine mount insulator.
- Using MITYVAC (hand-held vacuum pump), apply a vacuum of 80 kPa (600 mmHg, 25 in.Hg) and wait for 1 minute.
- Make sure there is no needle movement on the MITYVAC.
- Check that there is no fluid leakage caused by a broken lower diaphragm.

NG

REPLACE TRANSVERSE ENGINE ENGINE MOUNTING INSULATOR

OK

SYSTEM OK