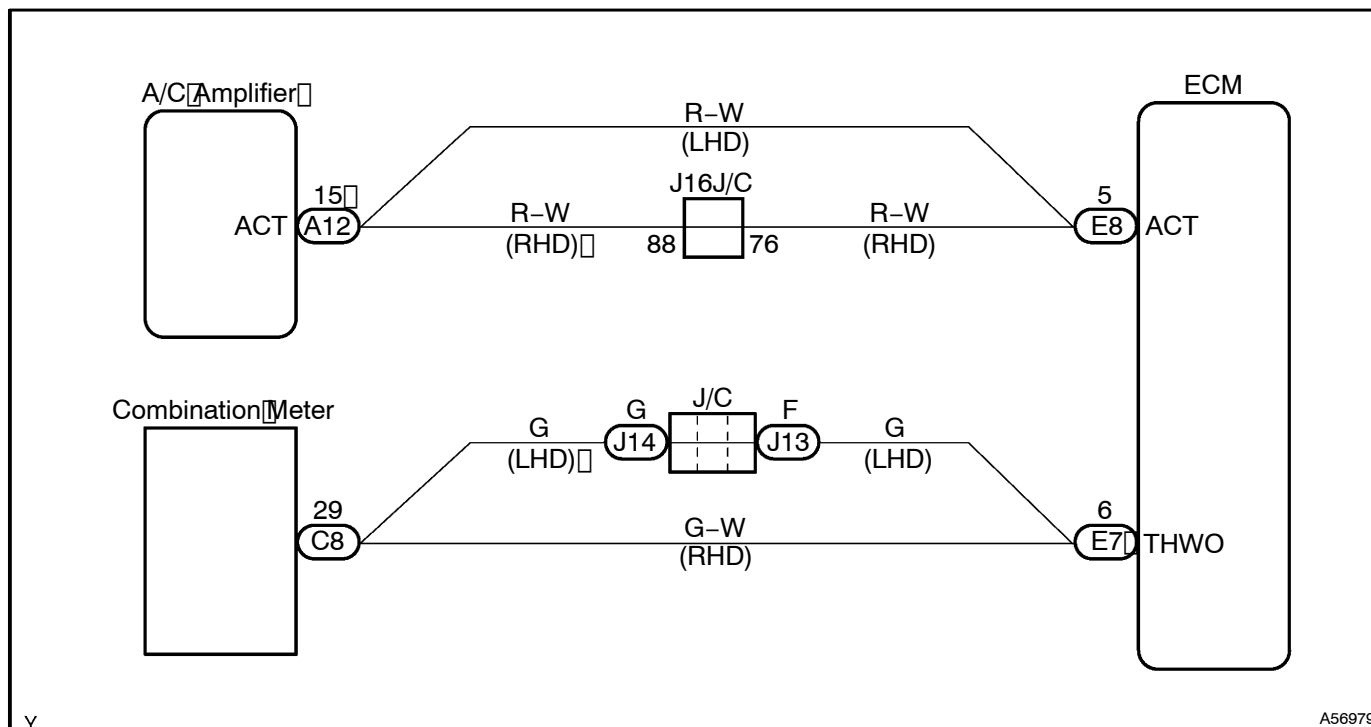


A/C CUT CONTROL CIRCUIT

CIRCUIT DESCRIPTION

This circuit cuts air conditioning operation during vehicle acceleration in order to increase acceleration performance. During acceleration with the vehicle speed at 30 km/h (19 mph) or less and accelerator pedal opening angle at 45° or more, the A/C magnetic switch is turned OFF for several seconds. The air conditioning is also controlled by the ECM by putting the engine coolant temperature to A/C amplifier.

WIRING DIAGRAM



INSPECTION PROCEDURE

When using hand-held tester:

1 HAND-HELD TESTER (CHECK OPERATION A/C CUT CONTROL)

(a) Start the engine and air conditioning switch ON.

HINT:

A/C magnetic clutch is turned ON.

(b) Select the ACTIVE TEST mode on the hand-held tester.

(c) Check operation of A/C magnetic clutch cut when air conditioning cut control is operated by the hand-held tester.

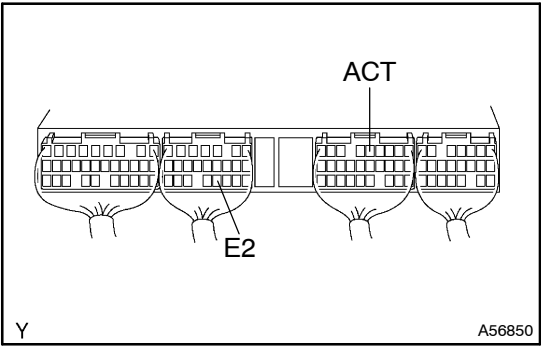
Result: A/C magnet clutch is turned OFF.

OK

**PROCEED TO NEXT CIRCUIT INSPECTION
SHOWN ON PROBLEM SYMPTOM TABLE
(See page 05-170)**

NG

2 INSPECT ECM



- (a) Start the engine.
- (b) Measure voltage between terminal ACT and E2 of ECM connector when A/C switch is turned to ON and OFF.
- Voltage:**

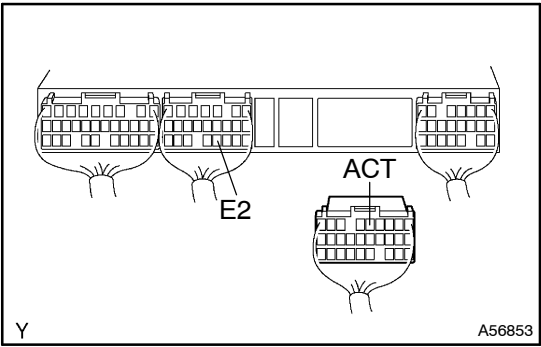
A/C switch condition	Voltage
Engine at idling	9 - 14 V
IG ON Engine stop	0 - 3 V

OK

**CHECK AND REPLACE
AIR CONDITIONING AMPLIFIER ASSY**

NG

3 CHECK HARNESS AND CONNECTOR (ECM-A/C AMPLIFIER)



- (a) Disconnect the A/C amplifier A12 connector. (See page 55-96)
- (b) Disconnect the ECM E8 connector.
- (c) Check for open between the terminals ACT of the ECM E8 connector and A12 of the A/C amplifier harness side connector. (Terminal arrangement on 55-2)

Resistance: 1 Ω or less

- (d) Check for short between the terminals ACT of the ECM E8 connector and E2 of the ECM E10 connector.

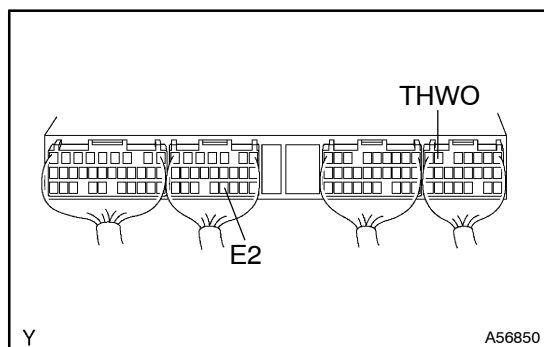
Resistance: 1 MΩ or more

NG

**REPAIR OR REPLACE
HARNESS AND CONNECTOR**

OK

4 INSPECT ECM



- Turn the ignition switch ON.
- Measure voltage between terminal THWO and E2 of ECM connector.

Result:

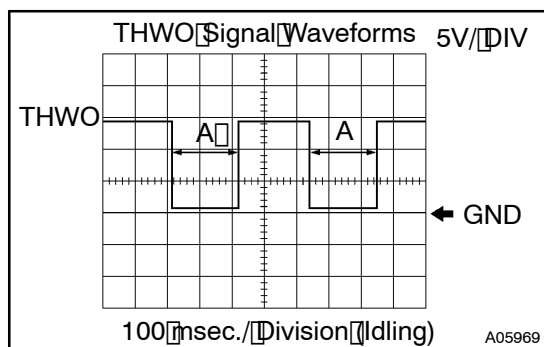
Voltage is generated intermittently.

HINT:

During idling, check waveform between terminals THWO and E2 of ECM using oscilloscope.

Water Temp.	30°C or less	Approx. 75°C	90°C or more
A	16.4 msec.	200.7 msec.	262 - 410 msec.

The correct waveform is as shown.

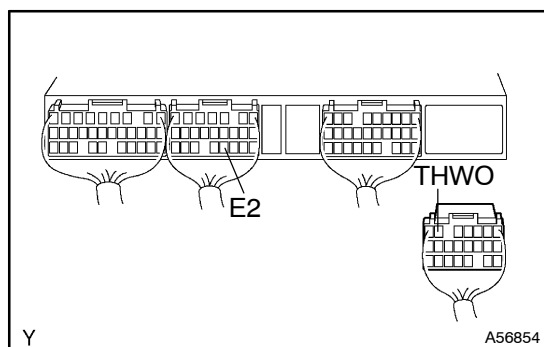


OK

**CHECK AND REPLACE
AIR CONDITIONING AMPLIFIER ASSY**

NG

5 CHECK HARNESS AND CONNECTOR (ECM-COMBINATION METER)



- Disconnect the combination meter C8 connector. (See [page 71-19](#))
- Disconnect the ECM E7 connector.
- Check for open between the terminals THWO of the ECM E7 connector and C8 of the combination meter harness side connector. (Terminal arrangement on [05-656](#))

Resistance: 1 Ω or less

- Check for short between the terminals THWO of the ECM E7 connector and E2 of the ECM E10 connector.

Resistance: 1 MΩ or more

NG

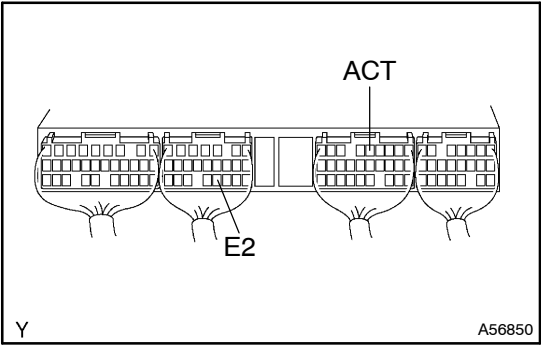
**REPAIR OR REPLACE
HARNESS AND CONNECTOR**

OK

CHECK AND REPLACE ECM

When not using hand-held tester:

1 INSPECT ECM



- (a) Start the engine.
- (b) Measure voltage between terminal ACT and E2 of ECM connector when A/C switch is turned to ON and OFF.

Voltage:

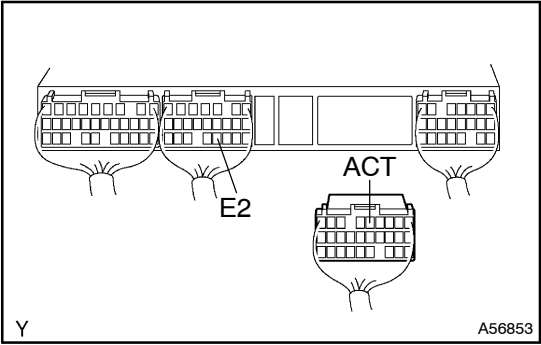
A/C switch condition	Voltage
Engine at idling	9 - 14 V
IG ON Engine stop	0 - 3 V

OK

CHECK AND REPLACE
AIR CONDITIONING AMPLIFIER ASSY

NG

2 CHECK HARNESS AND CONNECTOR(ECM-A/C AMPLIFIER)



- (a) Disconnect the A/C amplifier A12 connector. (See page 55-96)

- (b) Disconnect the ECM E8 connector.
- (c) Check for open between the terminals ACT of the ECM E8 connector and A12 of the A/C amplifier harness side connector. (Terminal arrangement on 55-2)

Resistance: 1 Ω or less

- (d) Check for short between the terminals ACT of the ECM E8 connector and E2 of the ECM E10 connector.

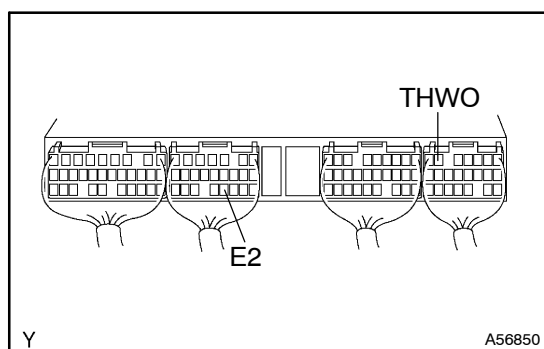
Resistance: 1 MΩ or more

NG

REPAIR OR REPLACE
HARNESS AND CONNECTOR

OK

3 INSPECT ECM



- Turn the ignition switch ON.
- Measure voltage between terminal THWO and E2 of ECM connector.

Result:

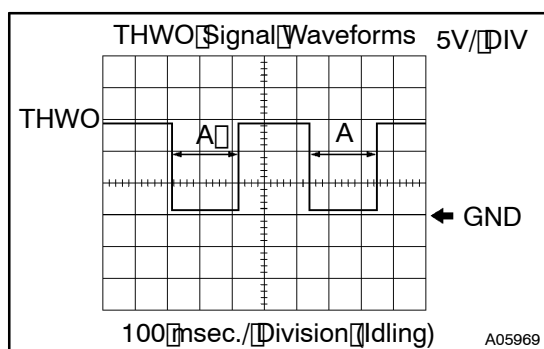
Voltage is generated intermittently.

HINT:

During idling, check waveform between terminals THWO and E2 of ECM using oscilloscope.

Water Temp.	30°C or less	Approx. 75°C	90°C or more
A	16.4 msec.	200.7 msec.	262 - 410 msec.

The correct waveform is as shown.

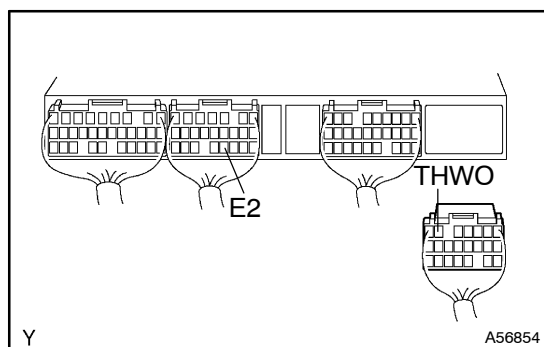


OK

**CHECK AND REPLACE
AIR CONDITIONING AMPLIFIER ASSY**

NG

4 CHECK HARNESS AND CONNECTOR (ECM-COMBINATION METER)



- Disconnect the combination meter C8 connector. (See [page 71-19](#))
- Disconnect the ECM E7 connector.
- Check for open between the terminals THWO of the ECM E7 connector and C8 of the combination meter harness side connector. (Terminal arrangement on [05-656](#))

Resistance: 1 Ω or less

- Check for short between the terminals THWO of the ECM E7 connector and E2 of the ECM E10 connector.

Resistance: 1 MΩ or more

NG

**REPAIR OR REPLACE
HARNESS AND CONNECTOR**

OK

CHECK AND REPLACE ECM