DI3SD-01

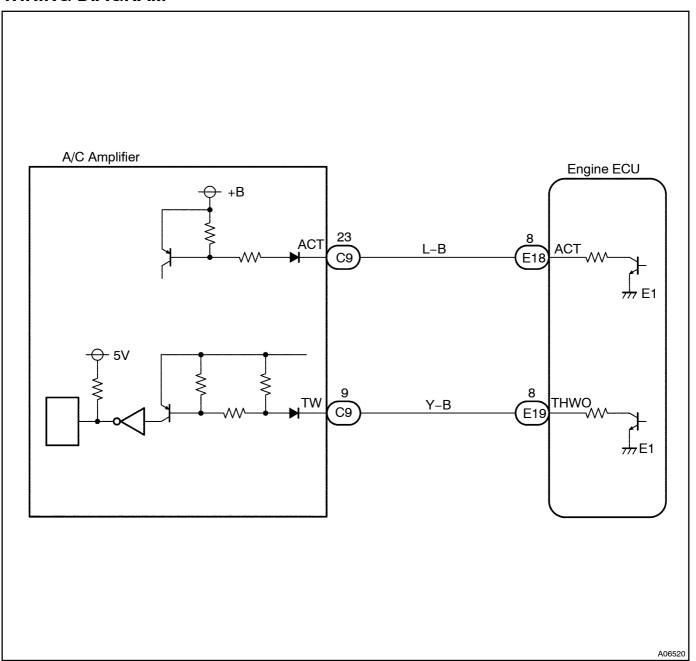
# A/C Cut Control Circuit

## **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 ECU out putting the engine coolant temperature to A/C amplifier.

## **WIRING DIAGRAM**



## INSPECTION PROCEDURE

## When using hand-held tester

1 Connect the hand-held tester and check operation of air conditioning cut control.

## **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) Start the engine and air conditioning switch ON.

#### HINT:

A/C magnetic clutch is turned ON.

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

## **CHECK:**

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

#### OK:

A/C magnet clutch is turned OFF.



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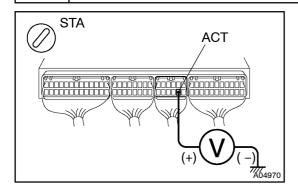
2 Check for open and short in harness and connector between engine ECU and A/C amplifier (See page IN-19).

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Repair or replace harness or connector.

OK

## 3 Check voltage between terminal ACT of engine ECU and body ground.



#### PREPARATION:

- (a) Remove the glove compartment door.
- (b) Start the engine.

### **CHECK:**

Measure voltage between terminal ACT of engine ECU connector and body ground when A/C switch is turned to ON and OFF.

#### OK:

A/C switch condition	Voltage	
ON 9 – 14 V		
OFF	0 – 3 V	

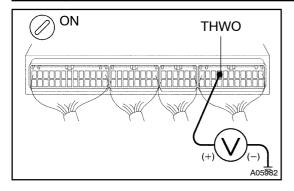
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Check and replace A/C amplifier.

OK

4

## Check voltage between terminal THWO of engine ECU and body ground.



#### **PREPARATION:**

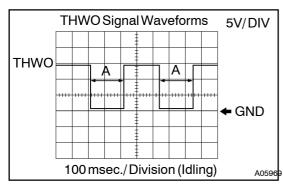
- (a) Remove the glove compartment door.
- (b) Turn the ignition switch ON.

## **CHECK:**

Measure voltage between terminal THWO of engine ECU and body ground.

## OK:

Voltage is generated intermittently.



## Reference: INSPECTION USING OSCILLOSCOPE

During idling, check waveform between terminals THWO and E1 of engine ECU.

#### HINT:

The correct waveform is as shown.

Watertemp.	30° Corless Ap	prox.75 °C	90° C or more
Α	65 msec.	335.8 msec.	393 msec.

NG

Check and replace A/C amplifier.

ОК

Check and replace engine ECU (See page IN-19).

# When not using hand -held tester

1 Check voltage between terminal ACT of engine ECU and body ground (See page DI-96, Step 3).

OK

Check and replace engine ECU (See page IN-19).

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2 Check voltage between terminal THWO of engine ECU and body ground (See page DI-96, Step 4).

OK

Check and replace engine ECU (See page IN-19).

NG

Check for open and short in harness and connector between engine ECU and A/C amplifier (See page IN-19).

NG

Repair or replace harness or connector.

OK

Check and replace A/C amplifier.