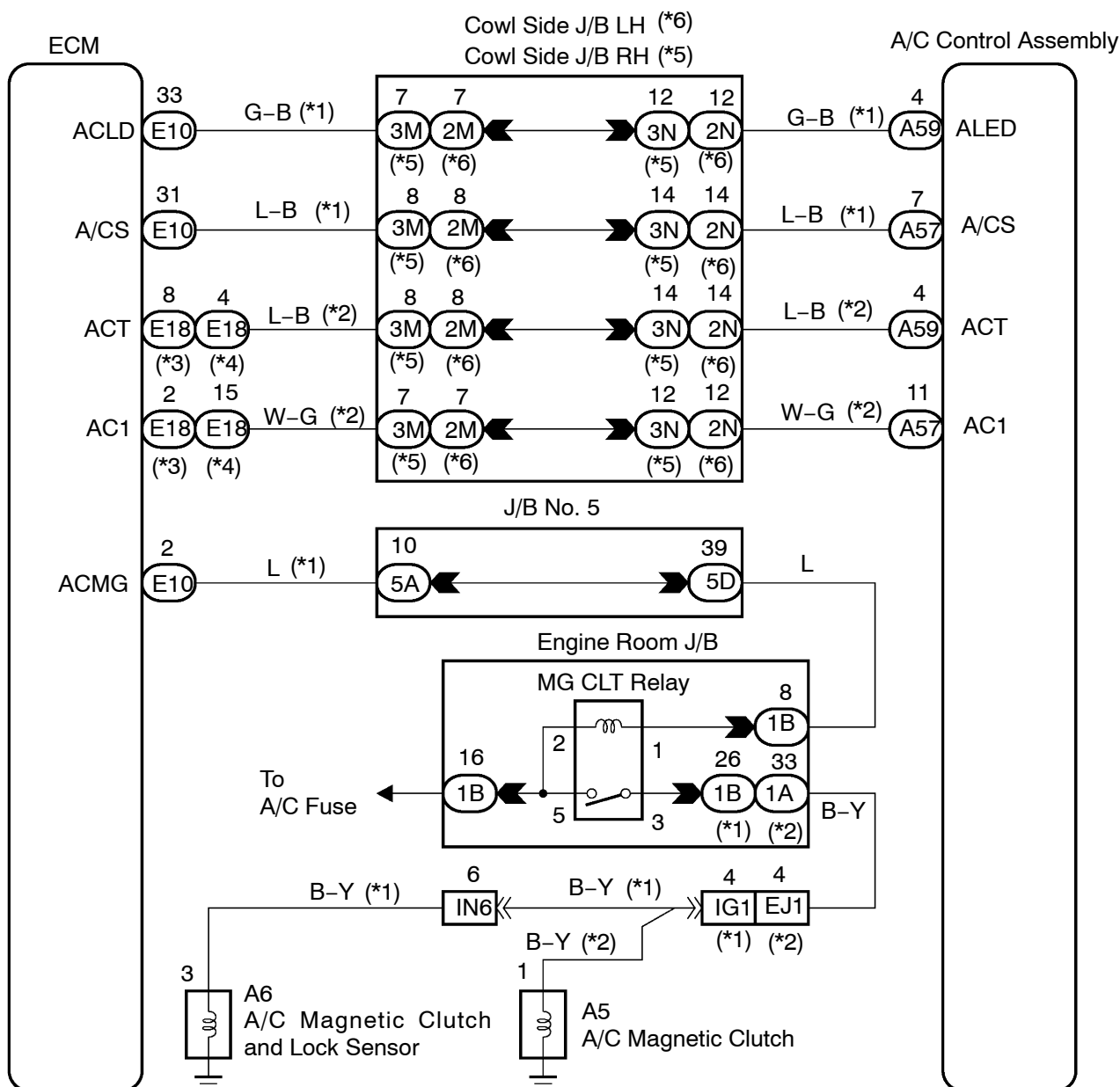


## CIRCUIT DESCRIPTION

The A/C amplifier outputs the magnetic clutch ON signal from terminal AC1, AC/S to the engine (and ECT) ECU. When the engine (and ECT) ECU receives this signal, it sends a signal from terminal ACMG and switches the A/C magnetic clutch relay ON, thus turning on the A/C magnetic clutch.

## WIRING DIAGRAM



- |                    |                           |
|--------------------|---------------------------|
| *1: 2UZ-FE         | *4: 1HD-FTE Except Europe |
| *2: 1HD-FTE        | *5: LHD                   |
| *3: 1HD-FTE Europe | *6: RHD                   |

## INSPECTION PROCEDURE

### HINT:

In case of using the hand-held tester, start the inspection from step 1 and in case of not using the hand-held tester start step 2.

### 1 Read value of hand-held tester.

#### PREPARATION:

- (a) Connect the hand-held tester to the DLC3.
- (b) Turn the ignition switch ON and push the hand-held tester main SW ON.

#### CHECK:

Select the item "A/C SIG" in the DATA LIST and read its value displayed on the hand-held tester.

#### OK:

| Item    | Measurement Item/ Display (Range) | Normal condition                                                                                   | Diagnostic code |
|---------|-----------------------------------|----------------------------------------------------------------------------------------------------|-----------------|
| A/C SIG | A/C SW Status/ ON or OFF          | <ul style="list-style-type: none"> <li>• A/C SW Push: ON</li> <li>• A/C SW Release: OFF</li> </ul> | ←               |

### HINT:

Check with the engine running.

NG

Go to step 6.

OK

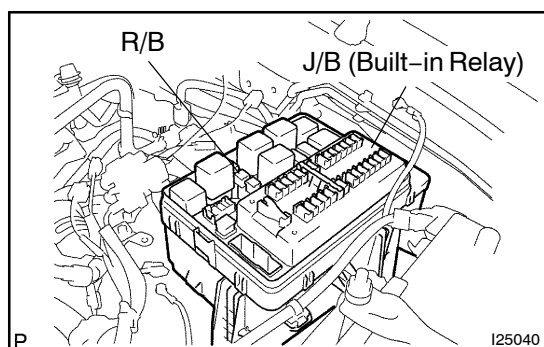
### 2 Check magnetic clutch relay.

#### CHECK:

Check the magnetic clutch relay ([See page AC-20](#)).

#### HINT:

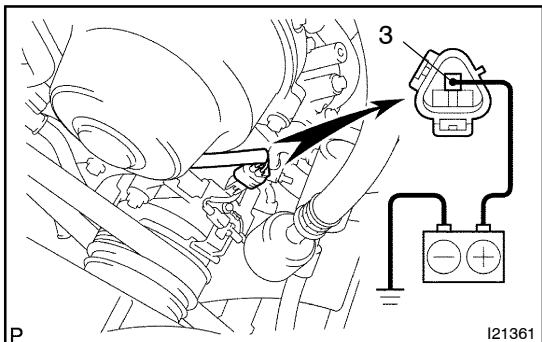
The magnetic clutch relay is built in the engine room J/B. Also the relay is constructed with a R/B that is in the J/B as unit. To disconnect the wireharness connecting with R/B is impossible. If the relay has a malfunction, replace it with J/B assembly wireharness together.



NG

Replace engine room J/B.

OK

**3 Check A/C magnetic clutch.****PREPARATION:**

Disconnect magnetic clutch connector.

**CHECK:**

Connect positive (+) lead connected to battery to magnetic clutch connector terminal 3.

**OK:**

**Magnetic clutch is energized.**

**NG**

**Repair A/C magnetic clutch.**

**OK**

**In case of using hand-held tester (Go to step 4)**  
**In case of not using hand-held tester (Go to step 5)**

**4 Read value of hand-held tester.****PREPARATION:**

- (a) Connect the hand-held tester to the DLC3.  
 (b) Turn the ignition switch ON and push the hand-held tester main SW ON.

**CHECK:**

Select the item "A/C MAG CLUTCH" in the DATA LIST and read its value displayed on the hand-held tester.

**OK:**

| Item           | Measurement Item/ Display (Range)   | Normal condition                                                                                   | Diagnostic Note |
|----------------|-------------------------------------|----------------------------------------------------------------------------------------------------|-----------------|
| A/C MAG CLUTCH | A/C magnet clutch Status/ ON or OFF | <ul style="list-style-type: none"> <li>• A/C SW Push: ON</li> <li>• A/C SW Release: OFF</li> </ul> | ←               |

**HINT:**

Check with the engine running.

**NG**

**Repair or replace harness or connector.**

**OK**

|   |                                                                                   |
|---|-----------------------------------------------------------------------------------|
| 5 | Check harness and connector between magnetic clutch and battery (See page IN-38). |
|---|-----------------------------------------------------------------------------------|

NG

Repair or replace harness or connector.

OK

Proceed to next circuit inspection shown on problem symptoms table (See page DI-1238).

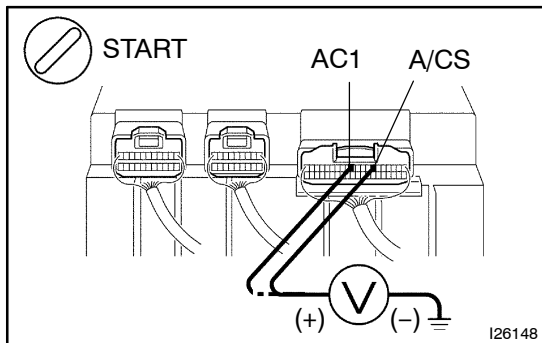
|   |                                                                                              |
|---|----------------------------------------------------------------------------------------------|
| 6 | Check harness and connector between A/C amplifier and engine (and ECT) ECU (See page IN-38). |
|---|----------------------------------------------------------------------------------------------|

NG

Repair or replace harness or connector.

OK

- 7 Check voltage between terminal AC1 \*1, A/CS \*2 of A/C amplifier connector and body ground.**

**PREPARATION:**

- (a) Remove A/C amplifier with connector still connected.  
 (b) Start the engine and push AUTO switch.

**CHECK:**

Check the voltage between terminal AC1 \*1, A/CS \*2 of A/C amplifier connector and body ground when magnetic clutch is ON and OFF by A/C switch.

\*1: Except 2UZ-FE

\*2: 2UZ-FE

**OK:**

| Switch operation | Tester connection  | Specified condition |
|------------------|--------------------|---------------------|
| ON               | AC1 - Body ground  | 1.3 - 2.6 V         |
| OFF              | AC1 - Body ground  | 3.7 - 4.5 V         |
| ON               | A/CS - Body ground | 10 - 14 V           |
| OFF              | A/CS - Body ground | Below 1.0 V         |

**NG****Check and replace A/C amplifier.****OK****Repair or replace harness or connector.**