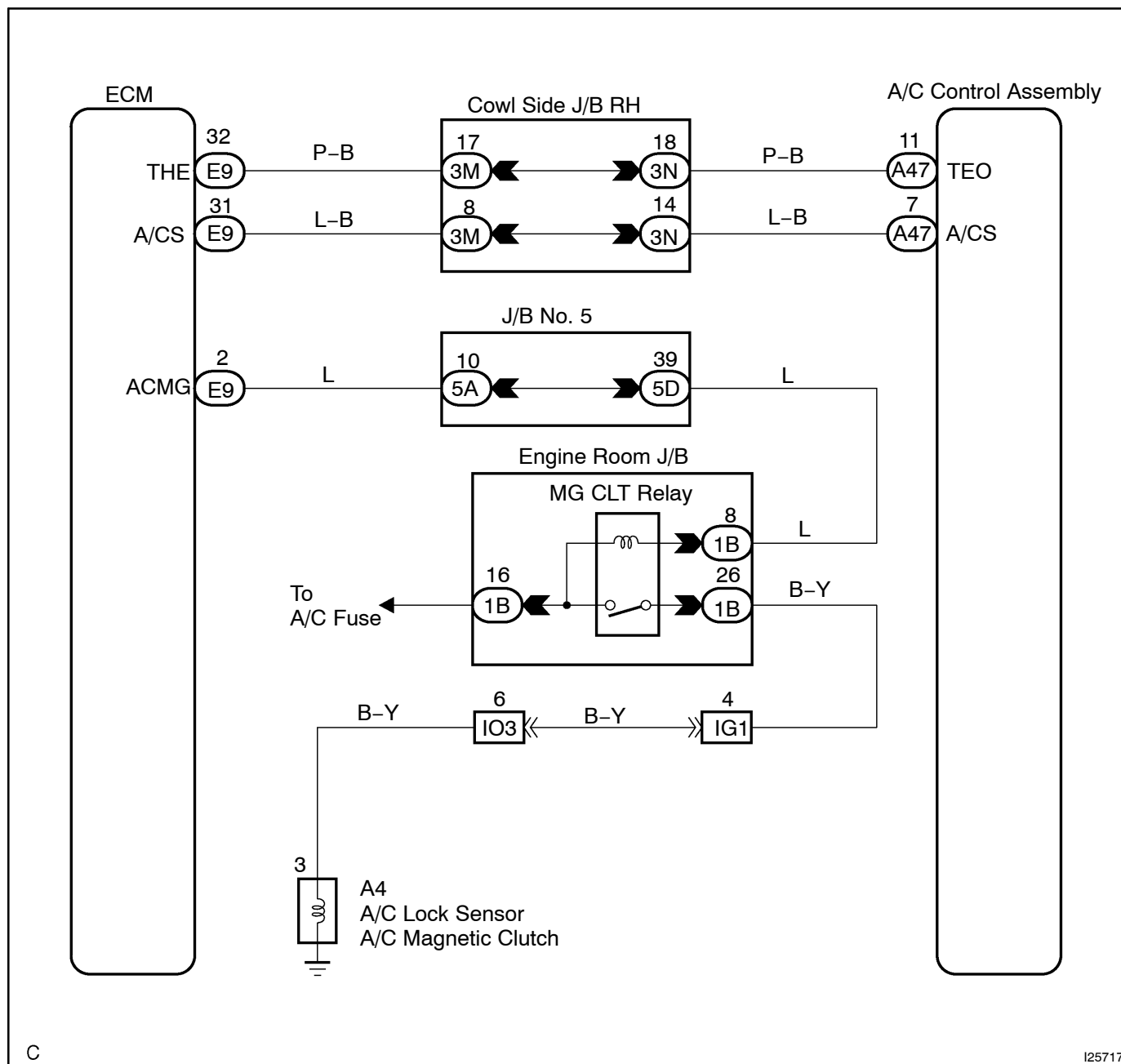


Compressor Magnetic Clutch Circuit

CIRCUIT DESCRIPTION

The A/C amplifier outputs the magnetic clutch ON signal from terminal A/CS to the ECM. When the ECM 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



INSPECTION PROCEDURE

HINT:

In case of using the hand-held tester, start the inspection from step 1 and in case of using the hand-held tester, start from step 3.

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 MAG CLUTCH" in the ACTIVE TEST and read its value displayed on the hand-held tester.

OK:

Item	Measurement Item/ Display (Range)	Diagnostic Note
A/C MAG CLUTCH	A/C Magnet Clutch Status/ ON or OFF	–

HINT:

Check with the engine running.

NG

Go to step 3.

OK

2	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:

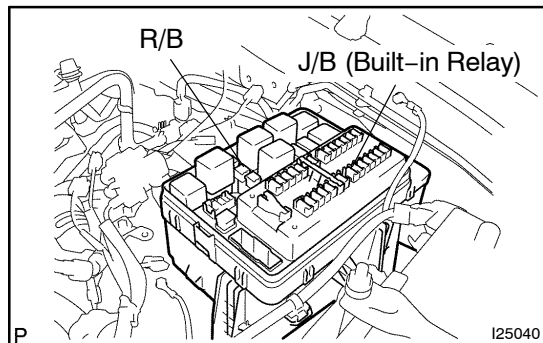
Item	Measurement Item/ Display (Range)	Normal condition	Diagnostic Note
A/C SIG	A/C SW Status/ ON or OFF	• A/C SW Push: ON • A/C SW Release: OFF	–

NG

Go to step 6.

OK

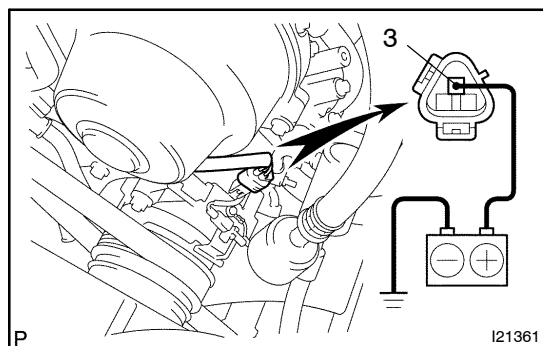
Proceed to next circuit inspection shown on problem symptoms table (See page [DI-1758](#)).

3 Check magnetic clutch relay.**CHECK:**

Check the magnetic clutch relay.

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 magnetic clutch relay.****OK****4 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**Replace A/C magnetic clutch.****OK****5 Check harness and connector between ECM - MAG CLUTCH (See page IN-36).****NG****Repair or replace harness and connector.****OK**

6 Check harness and connector (A/C control assembly – ECM).

PREPARATION:

Disconnect the connector.

CHECK:

Check the resistance between A/C control assembly and ECM connector.

OK:

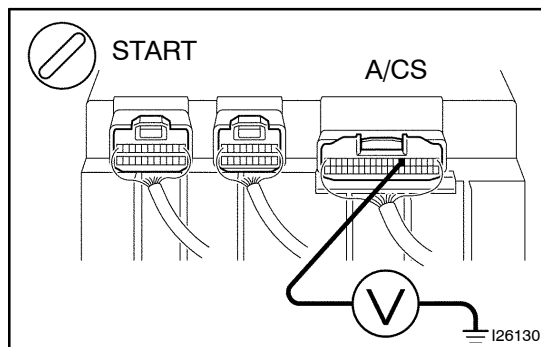
Switch operation	Tester connection	Specified condition
Always	A47-7 (A/CS) – E9-31 (A/CS)	Below 1.0 Ω
Always	A47-11 (TEO) – E9-32 (THE)	Below 1.0 Ω

NG

Repair or replace harness and connector.

OK

7 Check voltage between terminal A/CS of A/C amplifier connector and body ground.



PREPARATION:

- Remove A/C amplifier with connectors still connected.
- Start the engine and push AUTO switch.

CHECK:

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

OK:

Switch operation	Tester connection	Specified condition
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 ECM.