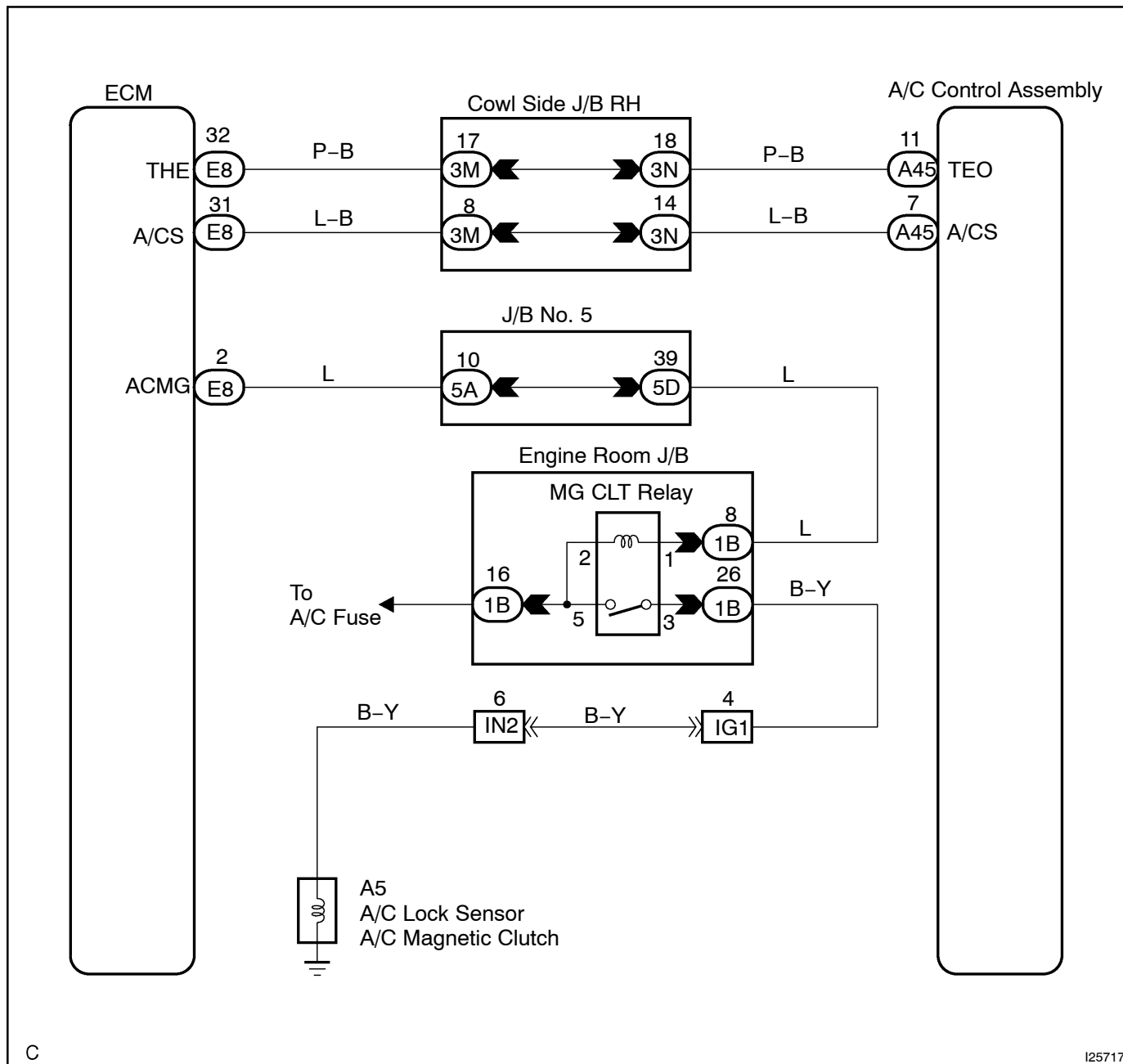


Compressor Magnetic Clutch Circuit

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

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

PREPARATION:

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

CHECK:

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

OK:

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

HINT:

Check with the engine running.

NG

Go to step 6.

OK

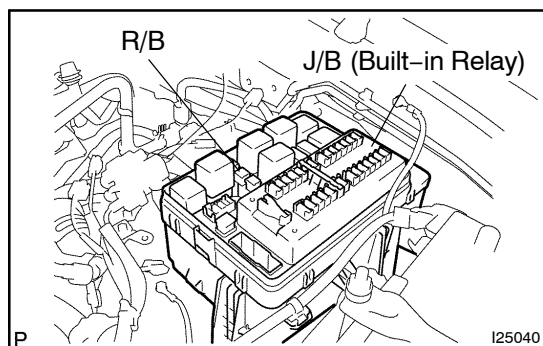
2	Check magnetic clutch relay.
---	-------------------------------------

CHECK:

Check the magnetic clutch relay (See page [AC-96](#)).

HINT:

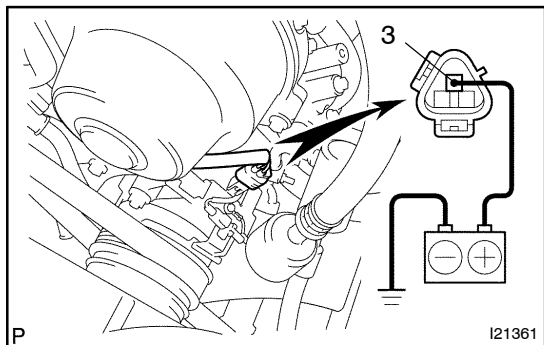
The magnetic clutch relay is built in the engine room J/B. Also the relay is constructed with a R/B that is in the J/B as unit. To disconnect the wireharness connecting with R/B is impossible. If the relay has a malfunction, replace it with J/B assembly wireharness together.



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

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

- (a) Connect the TOYOTA hand-held tester to the DLC3.
 (b) Turn the ignition switch ON and push the TOYOTA 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 TOYOTA 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	• A/C SW Push: ON • A/C SW Release: OFF	←

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-36).
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NG

Repair or replace harness or connector.

OK

Proceed to next circuit inspection shown on problem symptoms table (See page [DI-1086](#)).

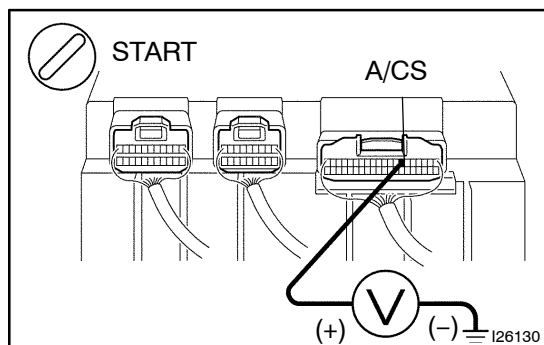
6	Check harness and connector between A/C amplifier and ECM (See page IN-36).
---	---

NG

Repair or replace harness or connector.

OK

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



PREPARATION:

- Remove A/C amplifier with connector 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 harness or connector.