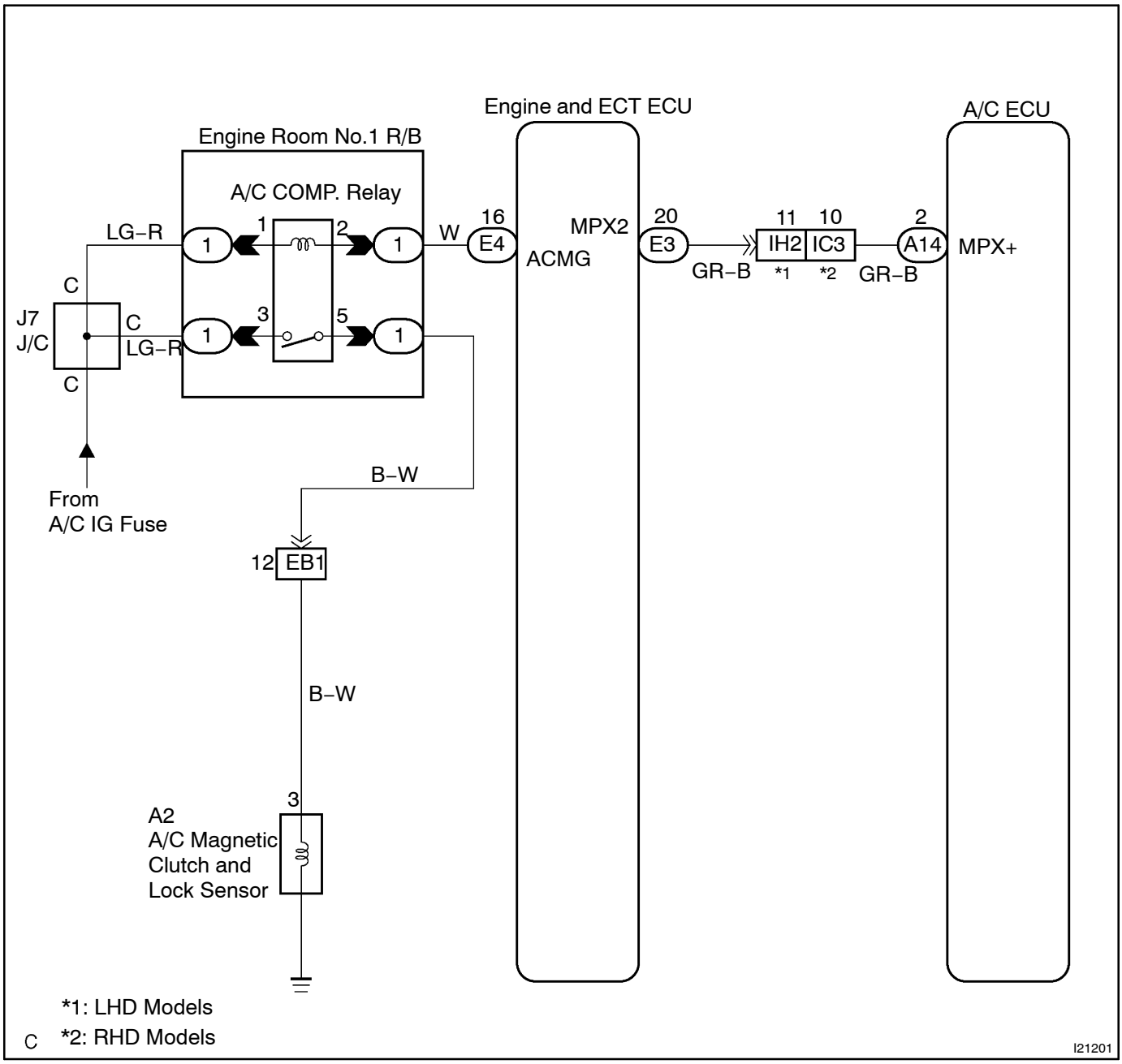
DI8CA–01

Compressor Circuit

CIRCUIT DESCRIPTION

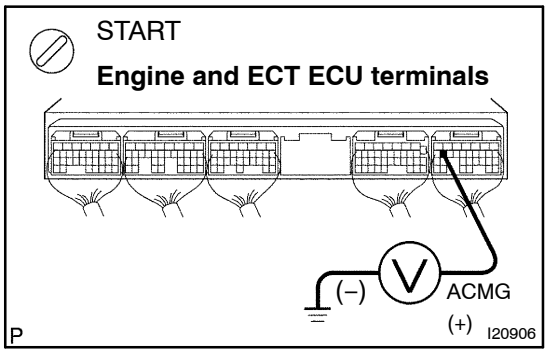
The A/C ECU outputs the magnetic clutch ON signal from terminal MPX2 to the engine and ECT ECU. When the engine and ECT ECU receives this signal, it sends a signal from terminal ACMG and switches the A/C magnetic clutch relay ON, thus turning the A/C compressor magnetic clutch ON.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	Check voltage between terminal ACMG of engine and ECT ECU connector and body ground.



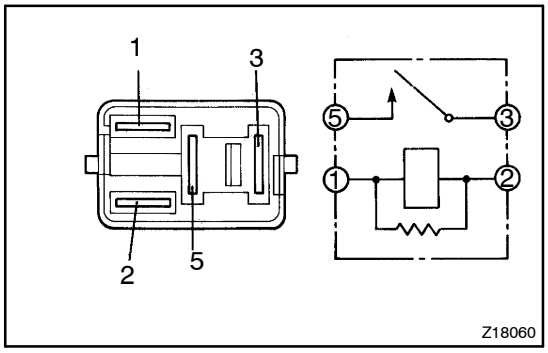
PREPARATION:
Remove the engine and ECT ECU with connector still connected.
CHECK:
(a) Start engine.
(b) Push AUTO SW.
(c) Measure voltage between terminal ACMG of engine and ECT ECU connector and body ground when A/C switch is ON and OFF.
OK:

A/C switch	Voltage
ON	10 – 4 V
OFF	0 V

OK → **Go to step 3.**

NG

2	Check magnetic clutch relay.



PREPARATION:
Remove magnetic clutch relay from engine room J/B.
CHECK:
Check continuity between each pair of terminals shown below of magnetic clutch relay.
OK:

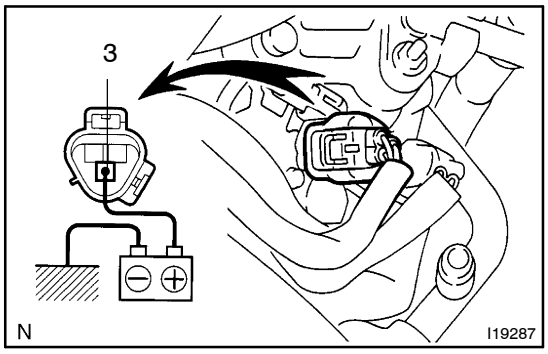
Tester connection	Specified condition
1 – 2	62.5 – 90.9 Ω
3 – 5	No continuity

PREPARATION:
Apply battery positive (+) voltage between terminals 1 and 2.
CHECK:
Check continuity between terminals 3 and 5.
OK:
Continuity exists

NG → **Replace magnetic clutch relay.**

OK

3	Check A/C compressor 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 or replace A/C compressor magnetic clutch.**

OK

4	Check harness and connector between magnetic clutch relay and engine and ECT ECU (See page IN–35).

NG → **Repair or replace harness or connector.**

OK

5	Check harness and connector between engine and ECT ECU and A/C compressor (See page IN–35).

NG → **Repair or replace harness or connector.**

OK

Check and replace engine and ECT ECU and A/C ECU.