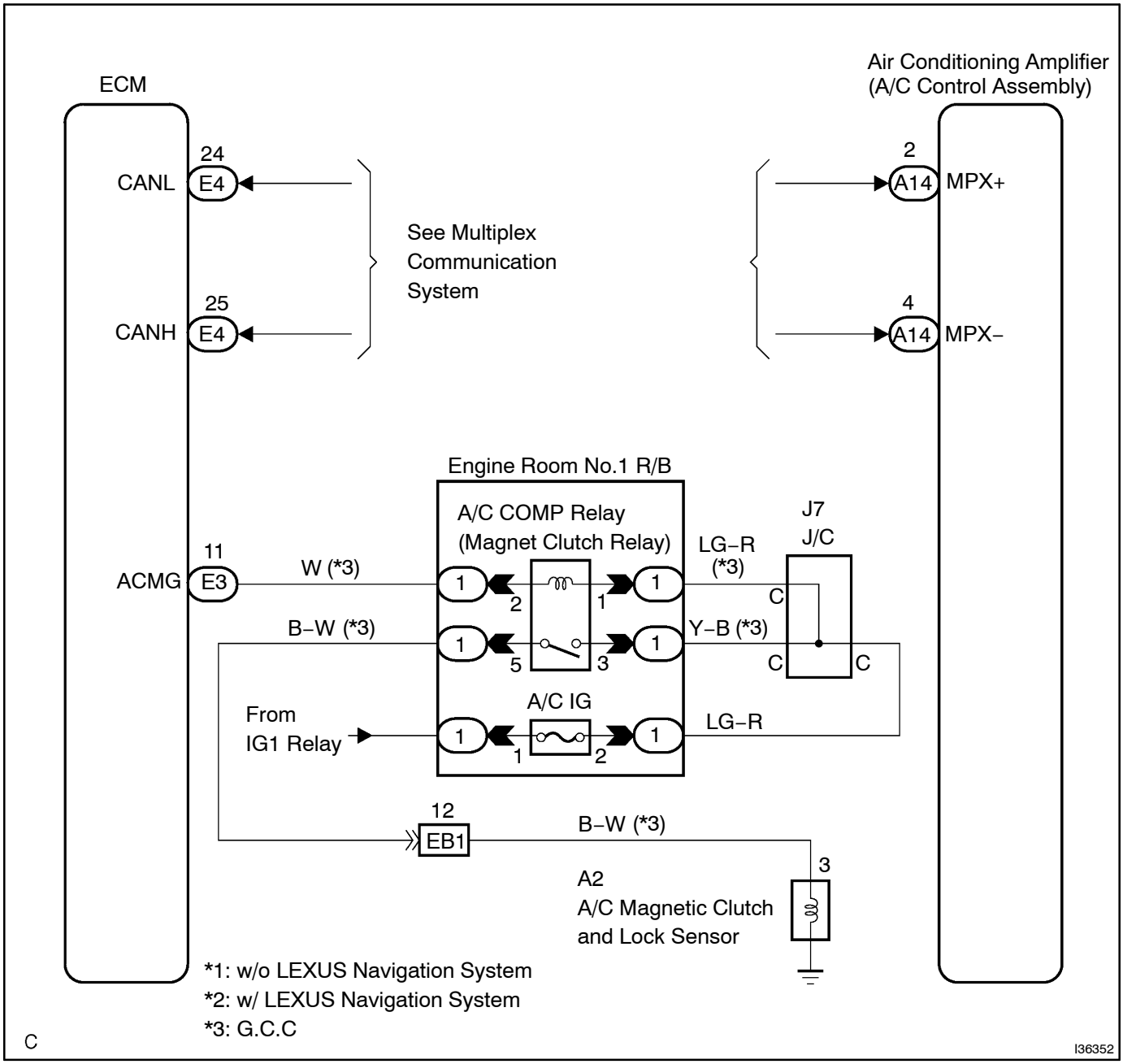
COMPRESSOR CIRCUIT

CIRCUIT DESCRIPTION

This ciruit is only for G.C.C. country models.

The A/C amplifier outputs the magnetic clutch ON signal from terminals MPX+ and MPX– 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 the A/C compressor magnetic clutch ON.

WIRING DIAGRAM



INSPECTION PROCEDURE

1 READ VALUE ON INTELLIGENT TESTER II

(a) Connect the intelligent tester II to the DLC3.
(b) Turn the ignition switch to the ON position and push the intelligent tester II main switch on.
(c) Select the items below in the DATA LIST, and read the displays on the intelligent tester II.

DATA LIST / ENGINE AND ECT / ALL:

Item	Measurement Item/Display (Range)	Normal Condition	Diagnostic Note
A/C signal (A/C Sig)	A/C signal / ON or OFF	A/C ON: ON	–

OK:
The display is as specified in the normal condition.

NG → **Go to step 2**

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (SEE PAGE 05–778)

2 INSPECT FUSE (A/C IG)

(a) Remove the A/C IG fuse from the engine room No.1 R/B.
(b) Measure the resistance according to the value(s) in the table below.

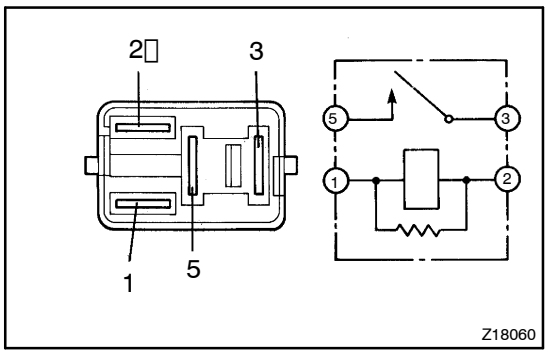
Standard:

Tester item	Condition	Specified condition
A/C IG fuse	Always	Below 1 Ω

NG → **CHECK FOR SHORT IN ALL HARNESSES AND COMPONENTS CONNECTED TO FAILURE FUSE**

OK

3 INSPECT A/C COMP RELAY (MAGNET CLUTCH RELAY)



(a) Remove the A/C COMP relay (Magnet clutch relay) from the engine room No.1 R/B.
(b) Measure the resistance according to the value(s) in the table below

Standard:

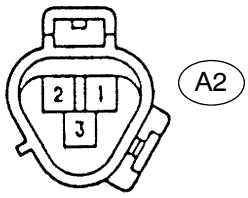
Tester connection	Condition	Specified condition
3 – 5	Always	10 kΩ or higher
3 – 5	When battery voltage applied to terminals 1 and 2	Below 1 Ω (When battery voltage applied to terminals 1 and 2)

NG → **REPLACE RELAY**

OK

4 INSPECT MAGNET CLUTCH ASSY

Magnet Clutch Assy Connector Front View:



Ie–3–2 E05280

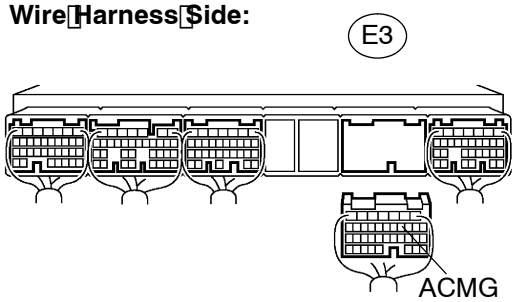
(a) Disconnect the connector from the magnet clutch assy.
(b) Connect the positive (+) lead from the battery to terminal 3 and negative (–) lead to terminal body ground, then check that the magnetic clutch assy is engaged.

NG → REPLACE MAGNET CLUTCH ASSY

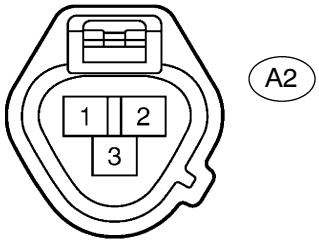
OK

5 INSPECT ECM

ECM Connector Wire Harness Side:



Magnet Clutch Assy Connector Wire Harness View:



I36159 E51630 I38853

(a) Remove the ECM and disconnect the connector.
(b) Turn the ignition switch to the ON position.
(c) Measure the voltage according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified condition
A2–3 – Body ground	Ignition switch to ON position. When using service wire, connect terminal E3–11 (ACMG) and body ground	10 to 14 V
A2–3 – Body ground	Ignition switch to ON position. When using service wire, not connect terminal E3–11 (ACMG) and body ground	Below 1 V

NG → REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (SEE PAGE 05–778)