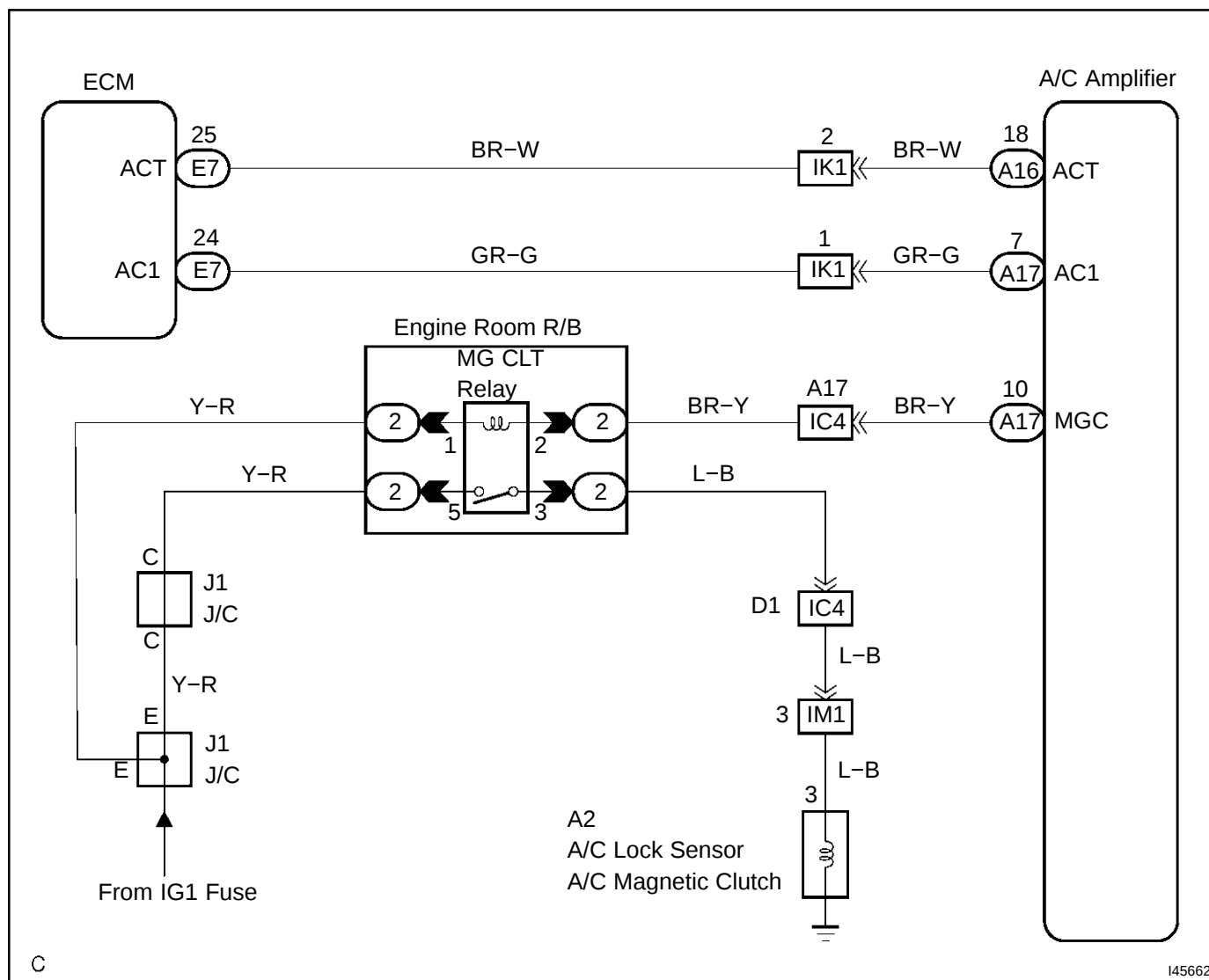


COMPRESSOR CIRCUIT

CIRCUIT DESCRIPTION

The A/C amplifier outputs the magnetic clutch ON signal from AC1 terminal to the ECM. When the ECM receives this signal, it sends a signal from ACT terminal and the A/C amplifier switches the A/C magnetic clutch relay ON. This turns the A/C magnetic clutch on.

WIRING DIAGRAM



INSPECTION PROCEDURE**1 READ VALUE OF HAND-HELD TESTER**

- (a) Connect the hand-held tester to the DLC3.
- (b) Turn the ignition switch ON and push the hand-held tester main SW ON.
- (c) Check the A/C magnet clutch input signal using DATA LIST.

ECM:

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
A/C SIG	A/C signal / ON or OFF	A/C switch pushed: ON A/C switch released: OFF	-

NG**Go to step 8****OK****2 READ VALUE OF HAND-HELD TESTER**

- (a) Connect the hand-held tester to DLC3.
- (b) Turn the ignition switch ON and push the hand-held tester main SW ON.
- (c) Check the A/C magnet clutch operation permission signal using DATA LIST.

ECM:

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
A/C MAG CLUTCH	A/C magnet clutch / ON or OFF	A/C switch ON: ON A/C switch OFF: OFF	-

NG**REPLACE ECM****OK****3 PERFORM ACTIVE TEST BY HAND-HELD TESTER**

- (a) Connect the hand-held tester to DLC3.
- (b) Turn the ignition switch ON and push the hand-held tester main SW ON.
- (c) Check the A/C magnet clutch operation using ACTIVE TEST.

AIR CONDITIONER:

Description	Test Details / Display (Range)	Diagnostic Note
A/C MAG CLUTCH	Magnet clutch relay / OFF, ON	Operation sound can be heard

NG**Go to step 5****OK**

4 CHECK HARNESS AND CONNECTOR(BETWEEN AIR CONDITIONING AMPLIFIER (ACT TERMINAL) AND ECM(ACT TERMINAL))

- (a) Check for open and short circuit in the harness and the connector between A/C amplifier and the ECM (See page 01-36).

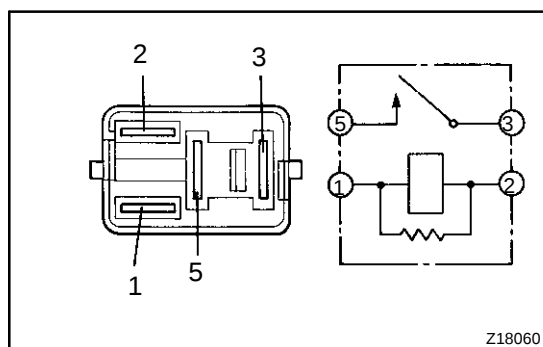
NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

5 INSPECT COOLER RELAY ASSY



- (a) Remove the cooler relay assy from the engine room J/B.
 (b) Check continuity between each pair of terminals as shown in the chart.

Standard:

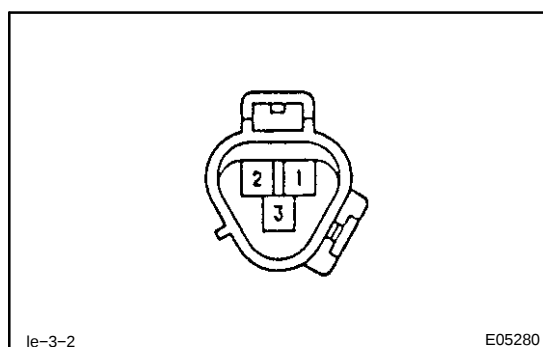
Tester connection	Condition	Specified condition
3 - 5	Always	10 kΩ or higher
3 - 5	Voltage is applied between terminals 1 and 2	Below 1 Ω (Battery voltage is applied between terminals 1 and 2)

NG

REPLACE COOLER RELAY ASSY

OK

6 INSPECT MAGNET CLUTCH ASSY



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

Standard: Magnetic clutch is engaged.

NG

REPLACE MAGNET CLUTCH ASSY

OK

7 CHECK HARNESS AND CONNECTOR(BETWEEN AIR CONDITIONING AMPLIFIER (MGC TERMINAL) AND BODY GROUND)

- (a) Check for open and short circuit in the harness and the connector between A/C amplifier and body ground (See page 01-36).

NG → REPLACE HARNESS OR CONNECTOR

OK

REPLACE AIR CONDITIONING AMPLIFIER

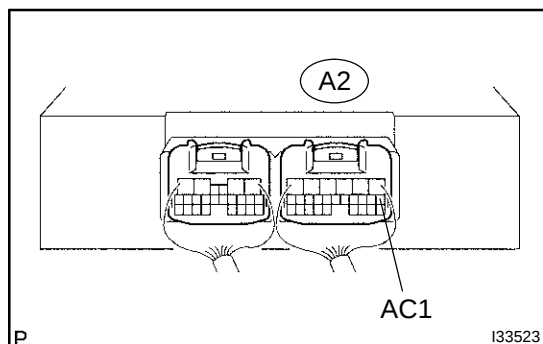
8 CHECK HARNESS AND CONNECTOR(BETWEEN AIR CONDITIONING AMPLIFIER (AC1 TERMINAL) AND ECM(AC1 TERMINAL))

- (a) Check for open and short circuit in the harness and the connector between A/C amplifier and the ECM (See page 01-36).

NG → REPLACE HARNESS OR CONNECTOR

OK

9 INSPECT AIR CONDITIONING AMPLIFIER(AC1)



- (a) Remove the A/C amplifier with the connectors being connected.
 (b) Start the engine and push AUTO switch.
 (c) Measure voltage between terminal AC1 of the A/C amplifier and body ground when the magnetic clutch is turned ON and OFF by operating the A/C switch.

Standard:

Switch operation	Tester connection	Specified condition
ON	AC1 - Body ground	1.3 to 2.6 V
OFF	AC1 - Body ground	3.7 to 4.5 V

NG → REPLACE AIR CONDITIONING AMPLIFIER

OK

REPLACE ECM