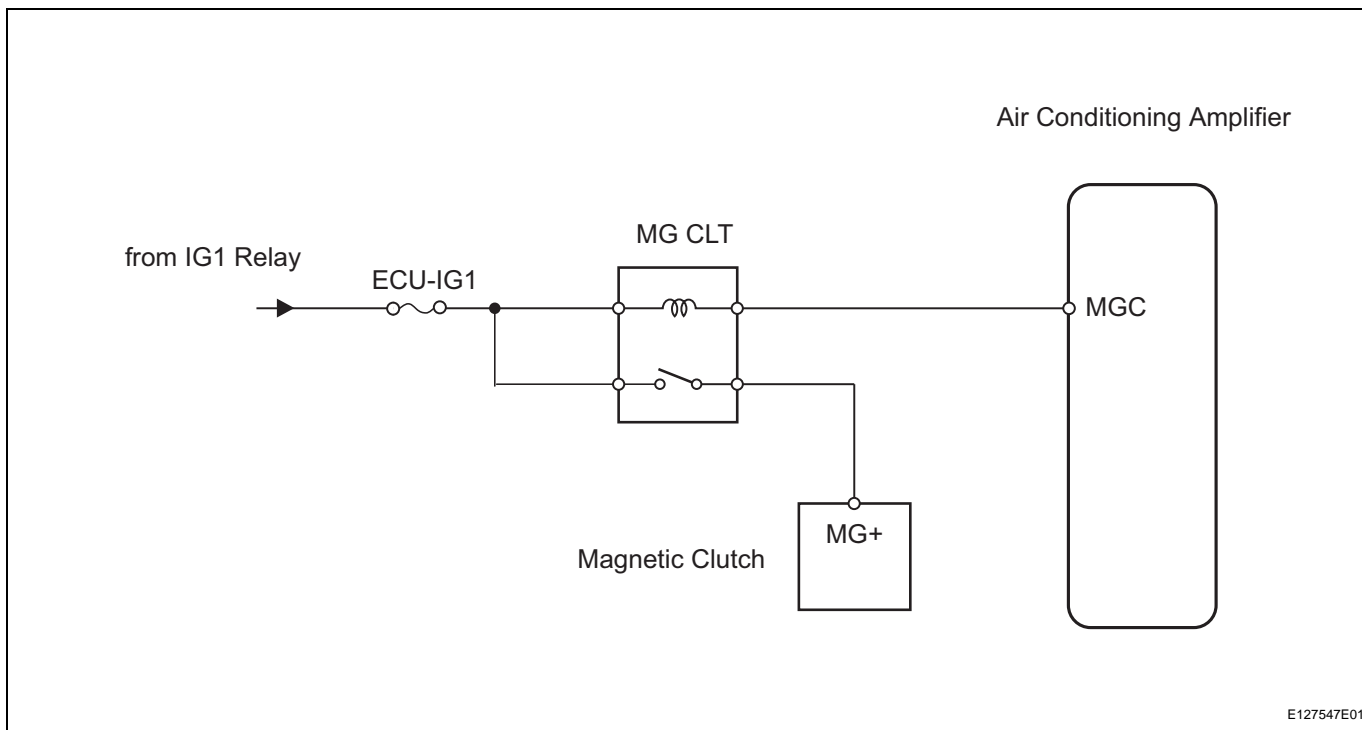


## Compressor Circuit

### DESCRIPTION

When the A/C switch is turned on, the magnetic clutch ON signal is sent from the air conditioning amplifier. Then the MG CLT relay turns on to operate the magnetic clutch.

### WIRING DIAGRAM



### INSPECTION PROCEDURE

**AC**

#### 1 PERFORM ACTIVE TEST BY INTELLIGENT TESTER (A/C MAG CLUTCH)

- (a) Connect the intelligent tester (with CAN VIM) to the DLC3.
- (b) Turn the ignition switch ON and turn the intelligent tester main switch ON.
- (c) Select the item below in the ACTIVE TEST and then check that the compressor magnetic relay operates.

#### Air conditioning amplifier

Item	Test Details / Display (Range)	Diagnostic Note
A/C MAG CLUTCH	Magnetic clutch relay / OFF, ON	Operating sound can be heard

OK

**PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

NG

**2 INSPECT FUSE (ECU-IG1)**

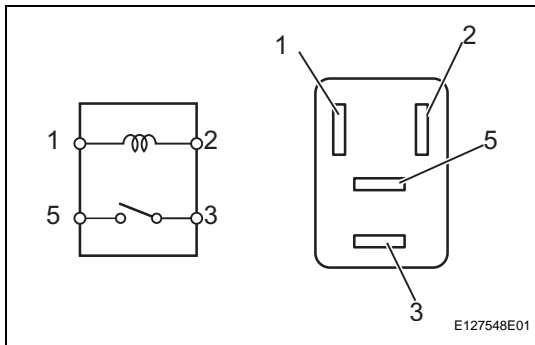
- (a) Remove the ECU-IG1 fuse from the instrument panel junction block.
- (b) Measure the resistance of the fuse.

**Standard resistance:**  
Below 1 Ω

**NG** → **REPLACE FUSE**

**OK**

**3 INSPECT MAGNETIC CLUTCH RELAY (Marking: MG CLT)**



- (a) Remove the magnetic clutch relay from the engine room No. 1 relay block.
- (b) Measure the resistance of the relay.

**Standard resistance**

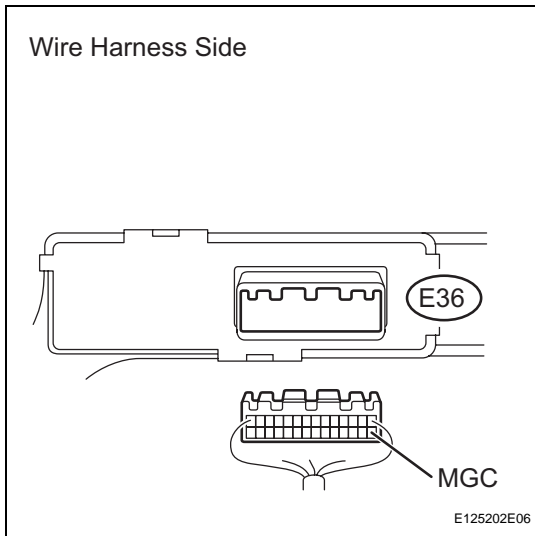
Tester Connection	Specified Condition
3 - 5	10 kΩ or higher
3 - 5	Below 1 Ω (when battery voltage is applied to terminals 1 and 2)

**NG** → **REPLACE MAGNETIC CLUTCH RELAY**

**OK**

**AC**

**4 CHECK WIRE HARNESS (AIR CONDITIONING AMPLIFIER - BATTERY)**



- (a) Disconnect the E36 amplifier connector.
- (b) Measure the voltage of the wire harness side connector.

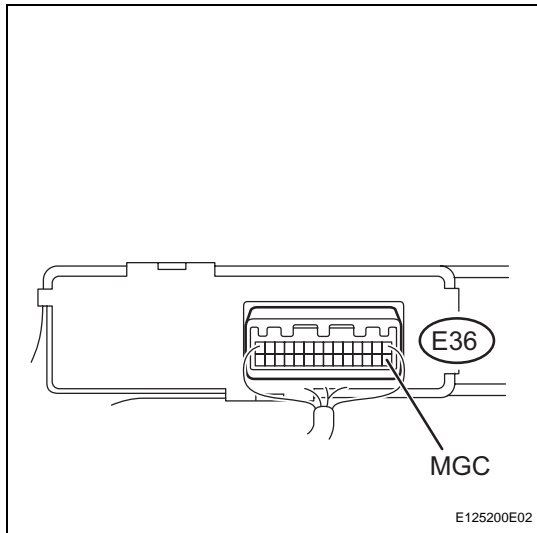
**Standard voltage**

Tester Connection	Condition	Specified Condition
E36-15 (MGC) - Body ground	Ignition switch ON	10 to 14 V
E36-15 (MGC) - Body ground	Ignition switch OFF	Below 1 V

**NG** → **REPAIR OR REPLACE HARNESS AND CONNECTOR**

**OK**

**5 CHECK AIR CONDITIONING AMPLIFIER (MGC VOLTAGE)**



- (a) Remove the air conditioning amplifier with its connectors still connected.
- (b) Measure the voltage of the connector.

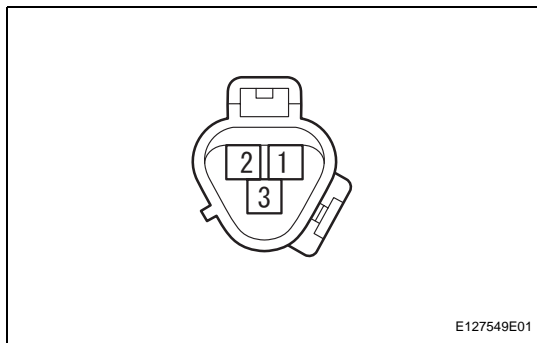
**Standard voltage**

Tester Connection	Condition	Specified Condition
E36-15 (MGC) - Body ground	Ignition switch ON A/C switch OFF	10 to 14 V
E36-15 (MGC) - Body ground	Ignition switch ON A/C switch ON	Below 1 V

**NG** → **REPLACE AIR CONDITIONING AMPLIFIER**

**OK**

**6 CHECK MAGNETIC CLUTCH**



- (a) Disconnect the B47 magnetic clutch connector.
- (b) Connect the battery's positive (+) lead to terminal 3 of the magnetic clutch and the negative (-) lead to the body ground.

**OK:**  
Magnetic clutch is engaged.

**NG** → **REPLACE MAGNETIC CLUTCH**

**OK**

**REPAIR OR REPLACE WIRE HARNESS (MAGNETIC CLUTCH - ECU-IG1)**

**AC**