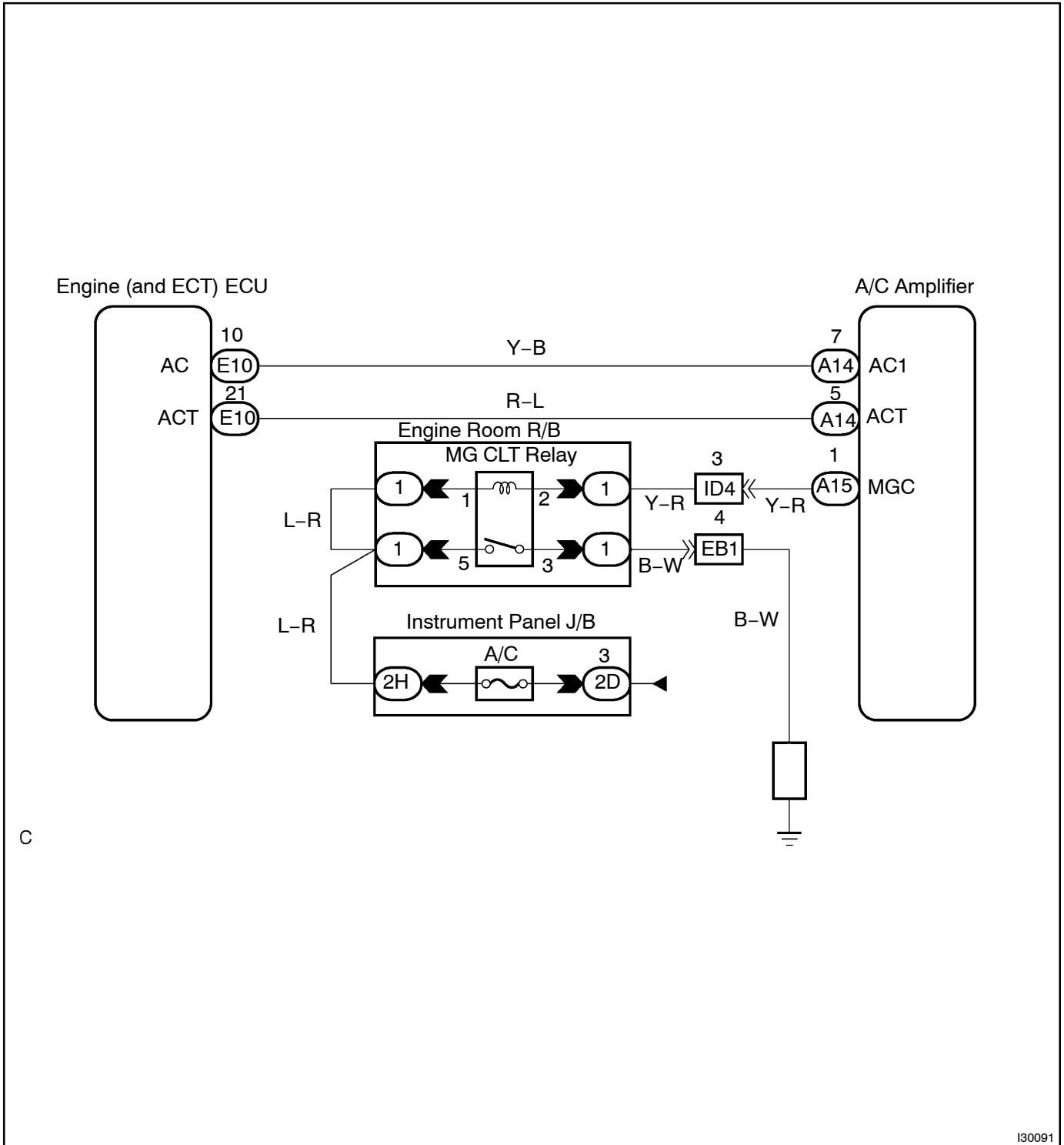


COMPRESSOR CIRCUIT

CIRCUIT DESCRIPTION

The A/C amplifier outputs the magnetic clutch ON signal from terminal AC1 to the engine (and ECT) ECU receives this signal, it sends a signal from terminal ACT and switches the magnetic clutch relay ON, thus turning on the magnetic clutch.

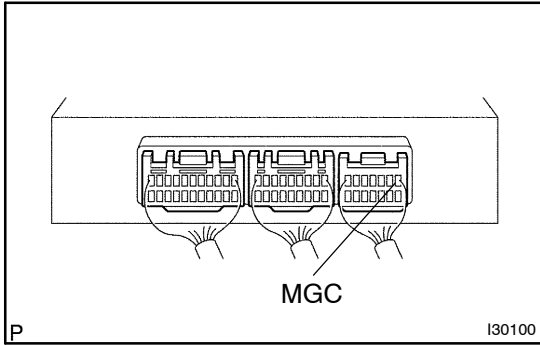
WIRING DIAGRAM



C

INSPECTION PROCEDURE

1 CHECK AIRCONDITIONER AMPLIFIER ASSY(MGC)



- (a) Remove amplifier assy, air conditioner with connectors still connected.
- (b) Start the engine and push AUTO switch.
- (c) Check voltage between terminal MGC of amplifier assy, air conditioner and body ground when magnetic clutch is ON and OFF by A/C switch.

Voltage:

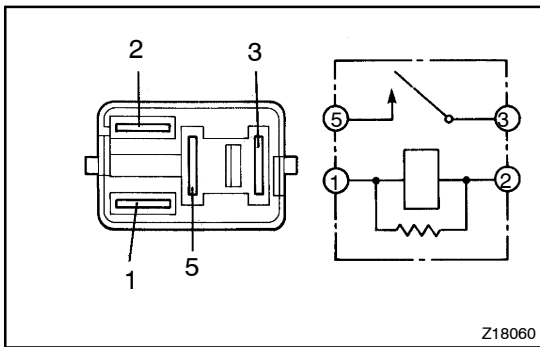
A/C switch ON: Below 1 V

A/C switch OFF: 10 - 14 V

NG → **Go to step 5**

OK

2 INSPECT MAGNET-CLUTCH RELAY



- (a) Remove the relay (magnetic clutch relay) from engine room R/B.
- (b) Check continuity between each pair of terminal shown below of relay (magnetic clutch relay).

Continuity (Resistance):

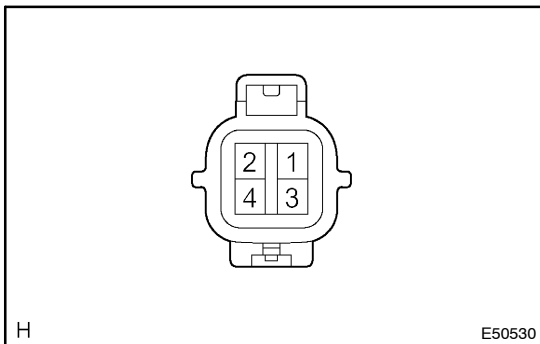
Tester connection	Specified condition
1 - 2	Continuity (62.5 - 90.9 Ω)
3 - 5	No continuity

- (c) Apply battery voltage between terminal 1 and 2.
- (d) Check that continuity exists between terminals 3 and 5.

NG → **REPLACE MAGNET-CLUTCH RELAY**

OK

3 CHECK MAGNET CLUTCH ASSY



- (a) Disconnect the connector from the compressor.
- (b) Connect the positive (+) lead from the battery to terminal 1 and negative (-) lead to terminal body ground, then check that the magnetic clutch is engaged.

NG → **REPLACE MAGNET CLUTCH ASSY**

OK

4 CHECK HARNESS AND CONNECTOR(BETWEEN MAGNETIC CLUTCH RELAY AND COMPRESSOR, COMPRESSOR AND BODY GROUND)

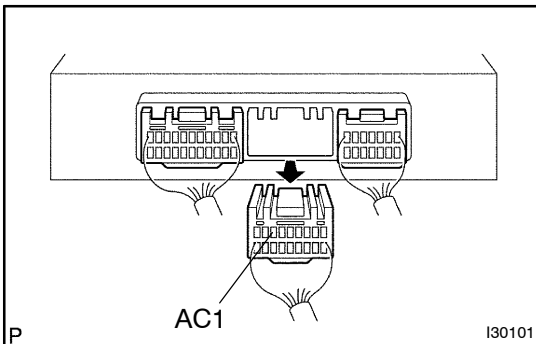
NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOM TABLE

5 CHECK AIRCONDITIONER AMPLIFIER ASSY(AC1)



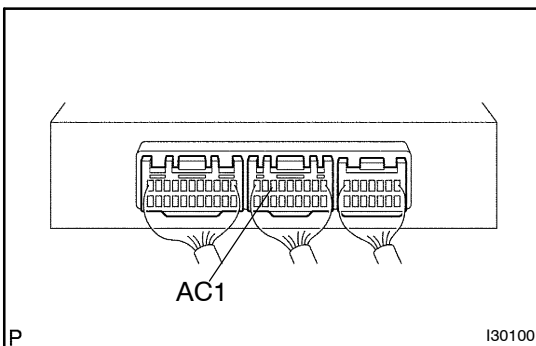
- Disconnect the "A14" connector of A/C amplifier.
- Turn ignition switch ON.
- Measure voltage between terminal AC1 of A/C amplifier wire harness side connector and body ground
Voltage: 10 - 14 V

NG

CHECK AND REPLACE AIRCONDITIONER AMPLIFIER ASSY

OK

6 CHECK AIRCONDITIONER AMPLIFIER ASSY(AC1)

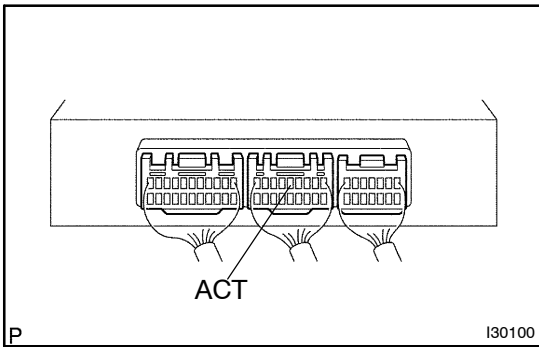


- Connect the "A14" connector to A/C amplifier.
- Start engine.
- Push AUTO switch.
- Measure voltage between terminal AC1 of A/C amplifier wire harness side connector and body ground
Voltage:
Magnetic clutch is engaged: Below 1 V
Magnetic clutch is not engaged: 10 - 14 V

NG

CHECK AND REPLACE COMPUTER ASSY, ENGINE CONTROL

OK

7 CHECK AIRCONDITIONER AMPLIFIER ASSY(ACT)

- (a) Start engine.
- (b) Push AUTO switch.
- (c) Measure voltage between terminal ACT of A/C amplifier wire harness side connector and body ground

Voltage:**A/C switch ON: 10 - 14 V****A/C switch OFF: Below 1 V****NG****REPAIR OR REPLACE HARNESS OR CONNECTOR(BETWEEN ENGINE (AND ECT) ECU AND A/C AMPLIFIER)****OK****8 CHECK HARNESS AND CONNECTOR(BETWEEN AIR CONDITIONER AMPLIFIER AND ENGINE (AND ECT) ECU)****NG****REPAIR OR REPLACE HARNESS AND CONNECTOR****OK****REPLACE AMPLIFIER ASSY, AIR CONDITIONER**