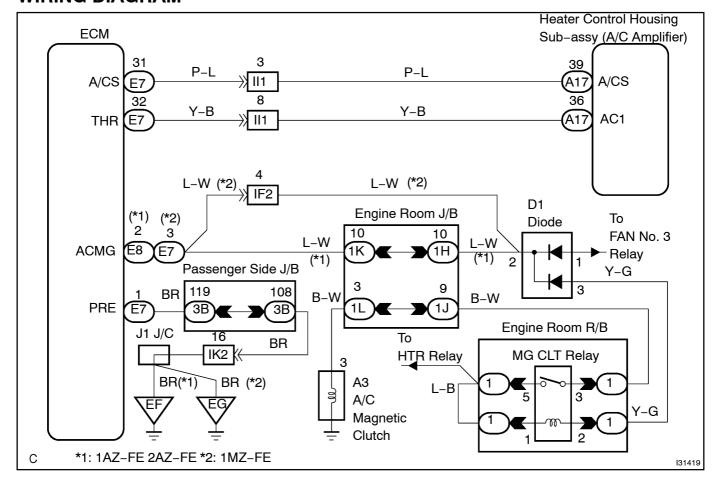
COMPRESSOR CIRCUIT

CIRCUIT DESCRIPTION

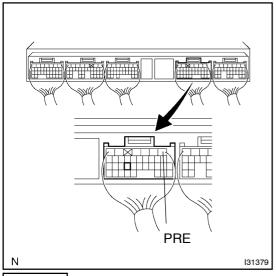
The A/C amplifier outputs the magnetic clutch ON signal from terminal AC1 to the ECM receives this signal, it sends a signal from terminal ACMG and switches the magnetic clutch relay ON, thus turning on the magnetic clutch.

WIRING DIAGRAM



INSPECTION PROCEDURE

1 | CHECK HARNESS AND CONNECTOR(BETWEEN ECM AND BODY GROUND)



- (a) Remove the ECM with the connector still connected.
- (b) Measure voltage between terminal PRE of ECM connector and body ground.

OK: Continuity

NG REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

2 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 using DATA LIST.

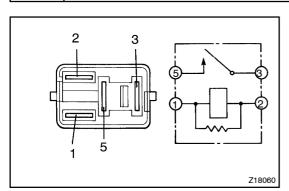
ECM:

Description	Tester display	Check condition
Magnet clutch inputsignal	A/C SIG	ON – OFF

NG $>\mid$ Go to step 7

ОК

3 INSPECT MAGNET-CLUTCH RELAY



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

Continuity:

Tester connection	Specified condition	
1 – 2	Continuity	
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

ОК

4 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 using DATA LIST.

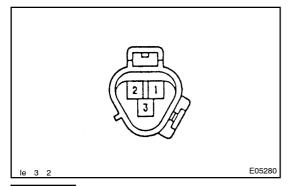
ECM:

Description	Tester display	Check condition
Magnet clutch outputsignal	A/C MAG CLUTCH	ON – OFF

NG REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

5 INSPECT MAGNET CLUTCH ASSY



- (a) Disconnect the connector from the compressor.
- (b) Connect the positive (+) lead from the battery to terminal 3 and negative (-) lead to terminal body ground.
 Standard: Clutch is engaged.

NG REPLACE MAGNET CLUTCH ASSY

OK

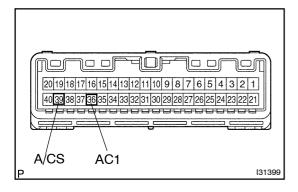
6 CHECK HARNESS AND CONNECTOR(BETWEEN BATTERY AND MAGNET CLUTCH)

NG REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOM TABLE

7 INSPECT HEATER CONTROL HOUSING SUB-ASSY(AC1, A/CS)



- (a) Start the engine and push AUTO switch.
- (b) Measure voltage between terminals AC1 and A/CS of A/C amplifier and body ground when magnetic clutch is ON and OFF by A/C switch.

Voltage:

Switch operation	Tester connection	Specified condition
ON	AC1 – Body ground	1.3 – 2.6 V
OFF	AC1 – Body ground	3.7 – 4.5 V
ON	A/CS – Body ground	10 – 14 V
OFF	A/CS – Body ground	Below 1 V

NG \

CHECK AND REPLACE HEATER CONTROL HOUSING SUB-ASSY

OK

REPAIR OR REPLACE HARNESS OR CONNECTOR