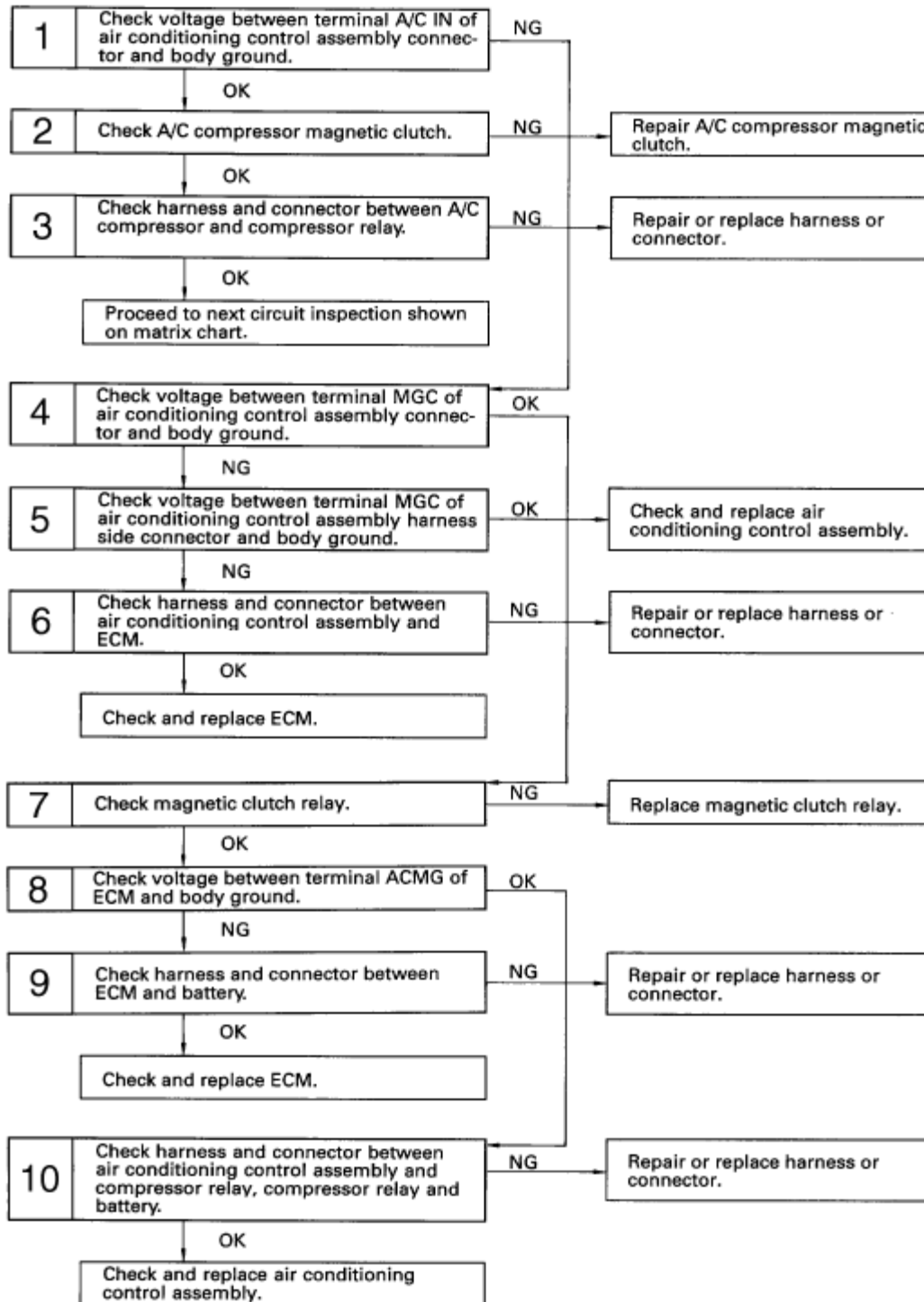


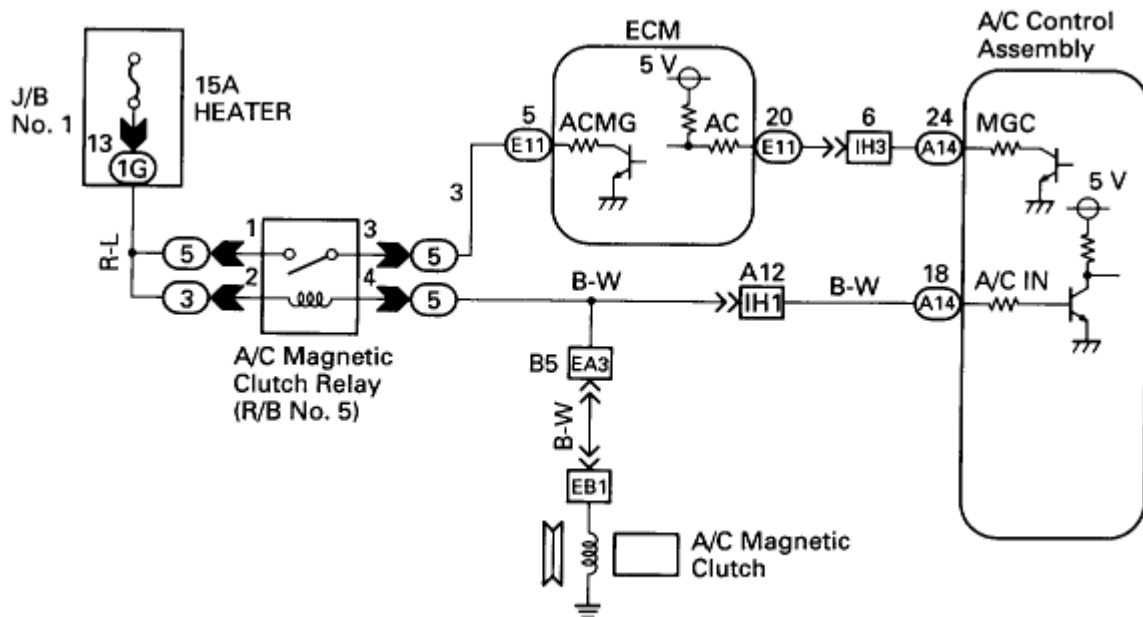
Compressor Magnetic Clutch Circuit

Circuit Description

The air conditioning [control assembly](#) outputs the magnetic clutch ON signal from terminal MGC to the ECM. When the ECM receives this signal, it sends a signal from terminal ACMG and switches the air conditioning magnetic clutch relay on, thus turning the air conditioning compressor magnetic clutch on. The air conditioning control assembly also monitors at terminal A/C IN whether or not power is being supplied to the magnetic clutch.



Diagnostic Chart



N06465

Wiring Diagram

Inspection Procedures

1 Check voltage between terminal A/C IN of air conditioning control assembly connector and body ground.

IG ON

Connect

BE3840
N06410

P Remove air conditioning control assembly with connectors still connected.

C

- Start the engine.
- Push one of fan speed control switches (Lo, Med or Hi).
- Check voltage between terminal A/C IN of air conditioning control assembly connector and body ground when A/C switch is on and off.

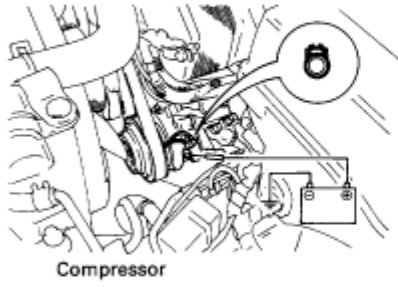
OK

A/C Switch	Voltage
ON	Battery positive voltage
OFF	0 V

OK

NG Go to step **4**.

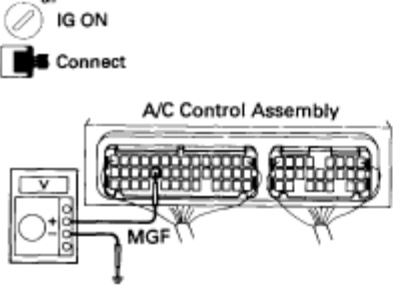
Step 1

2	Check A/C compressor magnetic clutch.
 <p>Compressor</p> <p style="font-size: small;">N05470</p>	<p>P Disconnect magnetic clutch connector.</p> <p>C Connect positive (+) lead connected to battery to magnetic clutch connector terminal.</p> <p>OK Magnetic clutch is energized.</p>
OK	NG Repair A/C compressor magnet clutch.

Step 2

3	Check harness and connector between A/C compressor and compressor relay.
OK	NG Repair or replace harness or connector.
<p>Proceed to next circuit inspection shown on matrix chart</p>	

Step 3

4	Check voltage between terminal MGC of air conditioning control assembly connector and body ground.						
<p>IG ON</p> <p>Connect</p>  <p>A/C Control Assembly</p> <p>MGC</p> <p style="font-size: small;">DE3840 N06413</p>	<p>C</p> <ol style="list-style-type: none"> Turn ignition switch on. Push one of the switches (Lo, Med or Hi). Check voltage between terminal MGC of air conditioning control assembly connector and body ground when A/C switch is on and off. <p>OK</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>A/C Switch</th> <th>Voltage</th> </tr> </thead> <tbody> <tr> <td>ON</td> <td>0 V</td> </tr> <tr> <td>OFF</td> <td>10 – 14 V</td> </tr> </tbody> </table>	A/C Switch	Voltage	ON	0 V	OFF	10 – 14 V
A/C Switch	Voltage						
ON	0 V						
OFF	10 – 14 V						
NG	OK Go to step 7 .						

Step 4

5 Check voltage between terminal MGC of air conditioning control assembly harness side connector and body ground.

A/C Control Assembly

MGF

RE3841
N96291

P Disconnect air conditioning control assembly connector.

C 1. Turn ignition switch on.
2. Check voltage between terminal MGC of air conditioning control assembly harness side connector and body ground.

OK Voltage: 10 – 14V

NG

OK Check and replace air conditioning control assembly.

Step 5

6 Check harness and connector between air conditioning control assembly and ECM.

OK

NG Repair or replace harness or connector.

Check and replace ECM.

Step 6

7 Check magnetic clutch relay.

RE 1647 RE 1640

P Remove magnetic clutch relay.

C Check continuity between each pair of terminals shown below, for the magnetic clutch relay.

OK

Terminals 1 and 3	Continuity
Terminals 2 and 4	Open

P 1. Apply battery positive voltage between terminals 1 and 3.
2. Check continuity between terminals 2 and 4.

OK

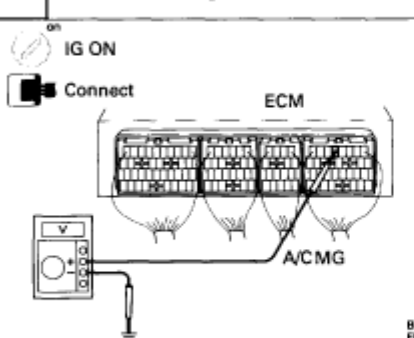
Terminals 2 and 4	Continuity
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OK

NG Replace magnetic clutch relay.

Step 7

8 Check voltage between terminal A/C MG of ECM and body ground.



P Remove ECM with connectors still connected.

C

1. Turn ignition switch on.
2. Push one of the fan speed control switches (Lo, Med or Hi).
3. Measure voltage between terminal A/C MG of ECM connector and body ground.

OK

A/C Switch	Voltage
ON	Approx. 1.3 V
OFF	Battery positive voltage ~ 1.3 V

NG

OK Go to step **10** .

BE3840
F16830

Step 8

9 Check harness and connector between ECM and battery.

OK

NG Repair or replace harness or connector.

Check and replace ECM.

Step 9

10 Check harness and connector between air conditioning control assembly and compressor relay, compressor relay and battery.

OK

NG Repair or replace harness or connector.

Check and replace air conditioning control assembly.

Step 10