

Compressor Circuit

— CIRCUIT DESCRIPTION —

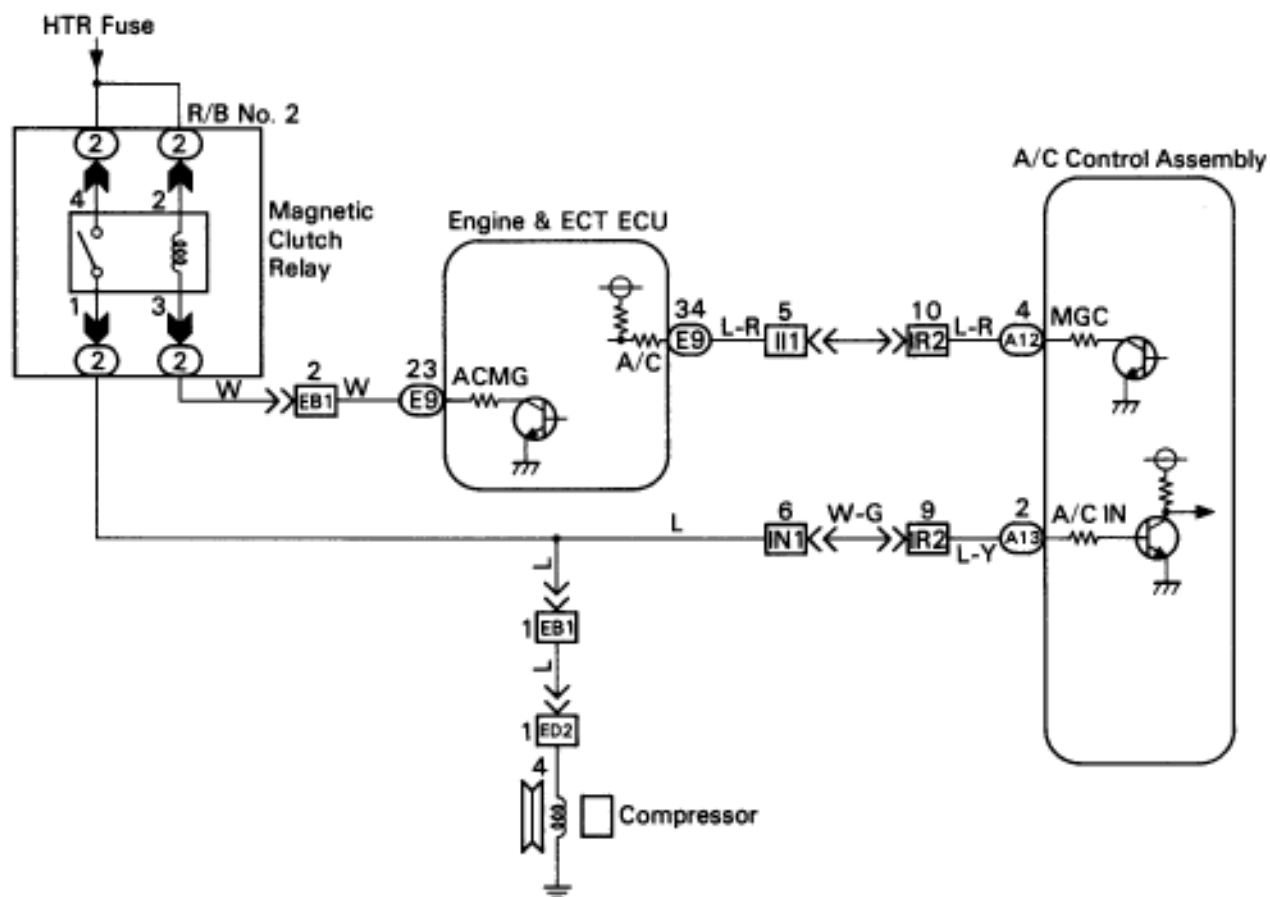
The air conditioner control assembly outputs the magnetic clutch ON signal from terminal MGC to the Engine & ECT ECU.

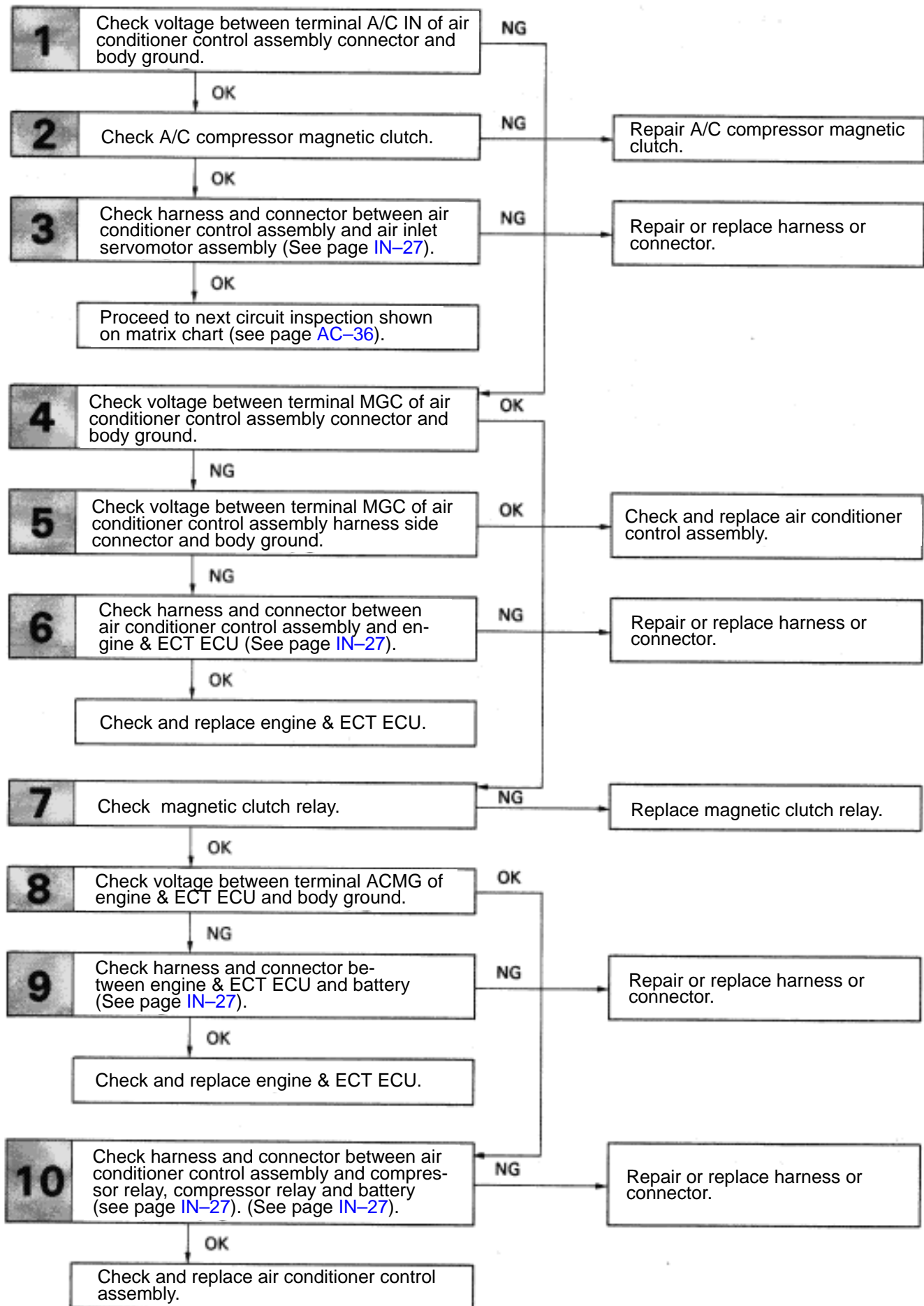
When the Engine & ECT ECU receives this signal, it sends a signal from terminal ACMG and switches the air conditioner magnetic clutch relay on, thus turning on the air conditioner compressor magnetic clutch. The air conditioner control assembly also monitors at terminal A/C IN whether or not power is being supplied to the magnetic clutch.

— DIAGNOSTIC CHART —

See next page for the Diagnostic Chart.

WIRING DIAGRAM

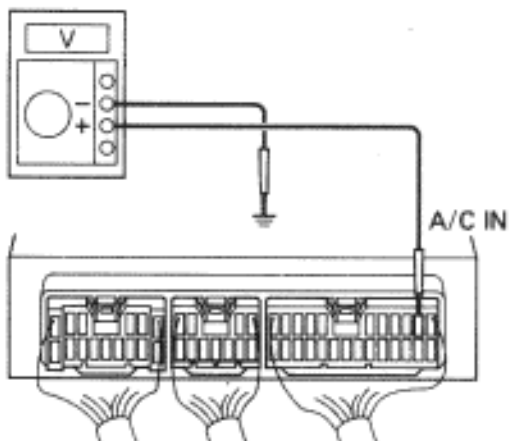




INSPECTION PROCEDURE

1

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



AC2983

P

1. Remove console upper panel. (See page [BO-131](#)).
2. Remove A/C control assembly with connectors still connected.
3. Start the engine.

C

Check voltage between terminal A/C IN of air conditioner control assembly connector and body ground when magnetic clutch is on and off by A/C switch.

OK

Magnetic Clutch	Voltage
ON	10 – 14 V
OFF	Below 1 V

OK**NG**Go to step **4**.

2

Check air conditioner compressor magnetic clutch.



AC2930

P

Disconnect magnetic clutch connector.

C

Connect ⊕ lead connected to battery to magnetic clutch connector terminal 3.

OK

Magnetic clutch is energized.

OK**NG**

Repair air conditioner compressor magnetic clutch.

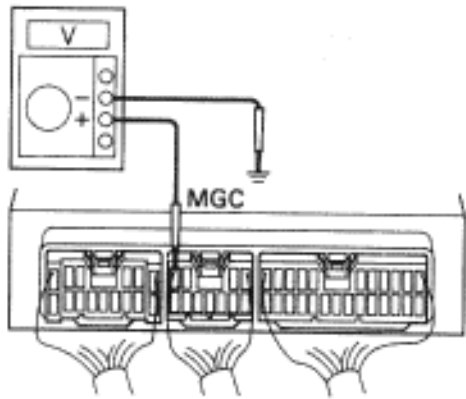
3

Check for open and short in harness and connector between battery and blower motor, blower motor and body ground (see page [IN-27](#)).

OK**NG**

Repair or replace harness or connector.

Proceed to next circuit inspection shown on Matrix chart (see [AC-36](#)).

4**Check voltage between terminal MGC of air conditioner control assembly connector and body ground.**

AC2992

P

1. Remove console upper panel. (See page B0-111)
2. Remove A/C Control Assembly with connectors still connected.
3. Start the engine.

C

Check voltage between terminal MGC of air conditioner control assembly connector and body ground when magnetic clutch is on and off by A/C switch.

OK

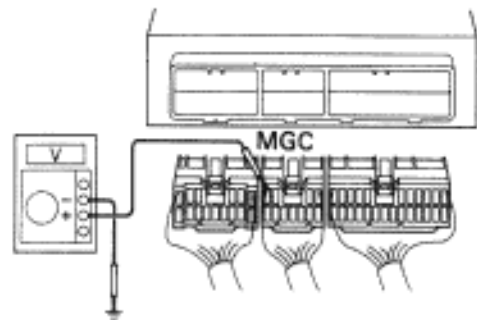
Magnetic Clutch	Voltage
ON	Below 1 V
OFF	4 – 6 V

NG**OK**

Go to step [7].

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

ON
IG ON

BE6853
AC2976**P**

- (1) Disconnect air conditioner control assembly connector.

- (2) Turn ignition switch on.

C

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

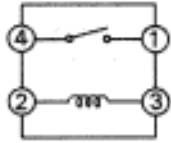
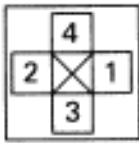
OK**Voltage: 4 — 6 V****NG****OK**

Check and replace air conditioner control assembly.

6**Check open and short in harness and connector between air conditioner control assembly and engine & ECT ECU (see page IN-27).****OK****NG**

Repair or replace harness or connector.

Check and replace engine & ECT ECU.

7**Check magnetic clutch relay.**

AC2933

P
C

Remove magnetic clutch relay from R/B No. 2.
Check continuity between each pair of terminals shown below of magnetic clutch relay.

OK

Terminals 2 and 3	Approx. 75 Ω
Terminals 4 and 1	Open

P

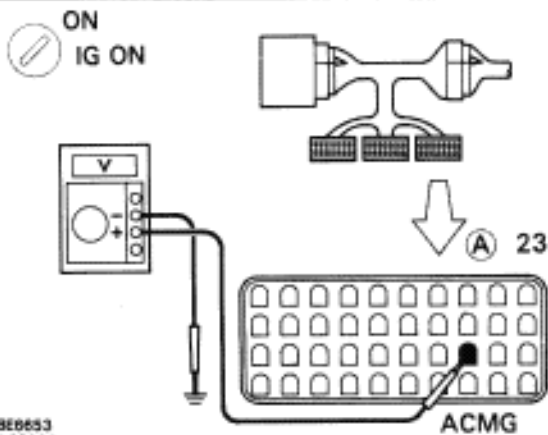
1. Apply battery voltage between terminals 2 and 3.
2. check continuity between terminals 4 and 1.

OK

Terminals and	
---------------	--

OK**NG**

Replace magnetic relay.

8**Check voltage between terminal ACMG of engine & ECT ECU body ground.**8E8653
AC2997**P**

1. Remove engine & ECT ECU with connectors still connected.

C

2. Turn ignition switch on.
1. Push one of the fan speed control switches (Lo, Med or Hi).
2. Measure voltage between terminal ACMG of engine & ECT ECU connector and body ground.

OK

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

NG**OK**

Go to step [10].

9**Check open and short in harness and connector between engine & ECT ECU and battery (see page IN-27).****OK****NG**

Repair or replace harness or connector.

Check and replace engine & ECT ECU.

10**Check open and short in harness and connector between air conditioner control assembly and compressor relay, compressor relay and battery (see page IN-27).****OK****NG**

Repair or replace harness or connector.

Check and replace air conditioner control assembly

–MEMO–