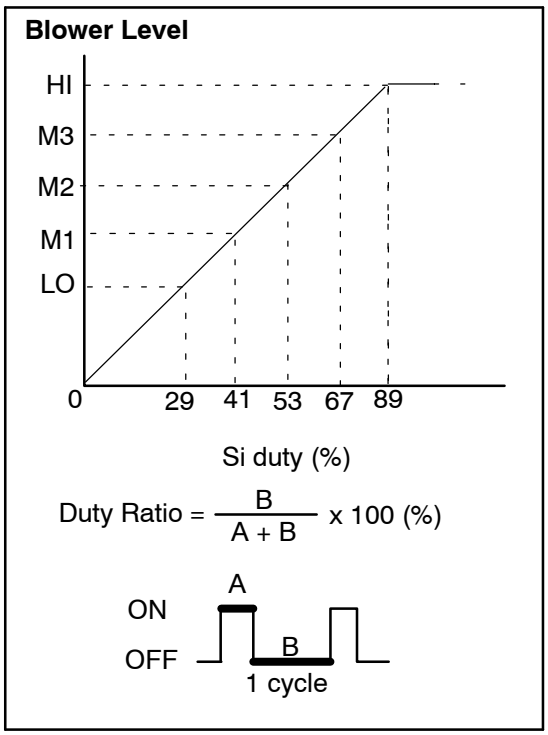
BLOWER MOTOR CIRCUIT



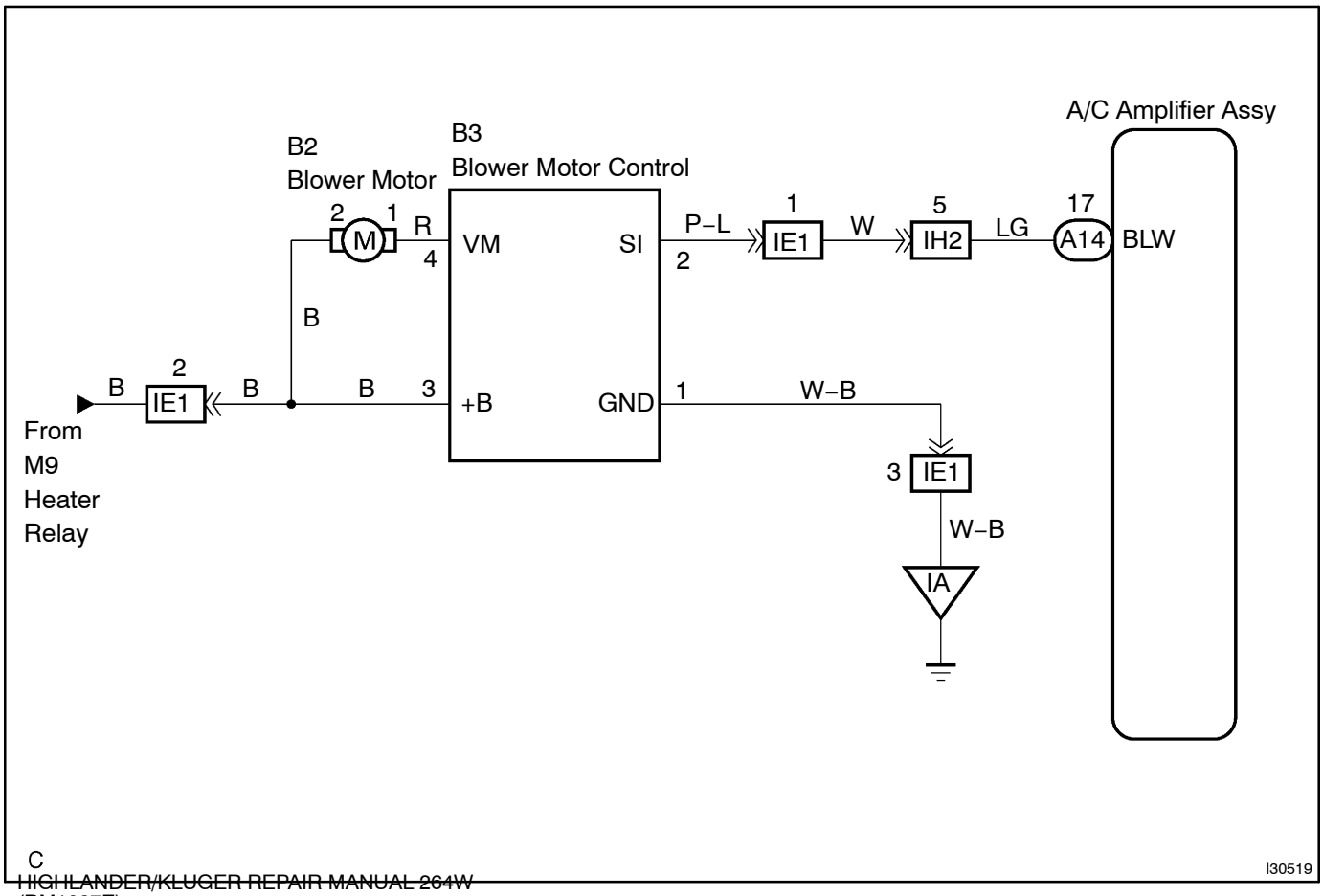
CIRCUIT DESCRIPTION

The blower motor is operated by signals from the A/C amplifier assy. Blower motor speed signals are transmitted by changes in the Duty Ratio.

Duty Ratio

The duty ratio is the ratio of the period of continuity in one cycle. For example, if A is the period of continuity in one cycle, B is the period of non–continuity.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	PERFORM ACTUATOR CHECK

(a) Set the actuator check mode (see page 05–423).
(b) Press the blower switch to change to the step operation.
(c) Check the air flow level by hand.

Display Code	Blower level
0	0
1	1
2	17
3	17
4	17
5	17
6	17
7	17
8	17
9	31

OK:
Blower level changes in accordance with each display code.

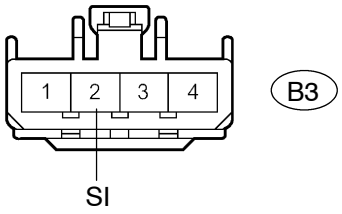
NG → **Go to step 2**

OK

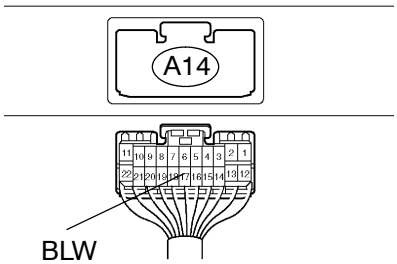
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (SEE PAGE 05–435)

2	CHECK HARNESS AND CONNECTOR(BLOWER MOTOR CONTROLLER – A/C AMPLIFIER)

Blower Motor Controller Connector Front View:



A/C Amplifier Connector Wire Harness View:



I41004

(a) Measure the resistance according to the value(s) in the table below.

Standard:

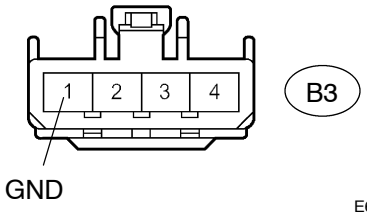
Tester connection	Condition	Specified condition
A14–17 (BLW) – B3–2 (SI)	Always	Below 1 Ω
A14–17 (BLW) – Body ground	Always	10 kΩ or higher

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

OK

3	CHECK HARNESS AND CONNECTOR(BLOWER MOTOR CONTROLLER – BODY GROUND)

Blower Motor Controller Connector Front View:



E69146

(a) Measure the resistance according to the value(s) in the table below.

Standard:

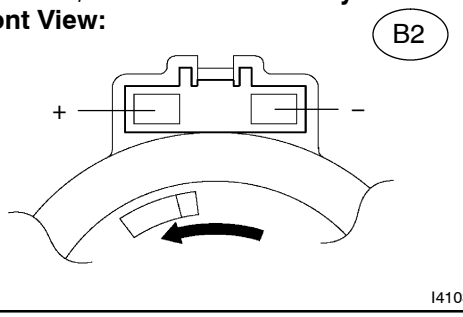
Tester connection	Condition	Specified condition
B3–1 (GND) – Body ground	Always	Below 1 Ω

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

OK

4 INSPECT COOLING UNIT MOTOR SUB–ASSY W/FAN

Blower w/ Fan Motor Sub–assy
Front View:



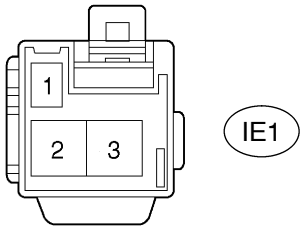
(a) Remove the blower w/ fan motor sub–assy.
(b) Connect positive (+) lead to terminal 2 of the blower motor connector and negative (–) lead to terminal 1.
Standard: Blower motor operates smoothly.

NG → **REPLACE COOLING UNIT MOTOR SUB–ASSY W/FAN**

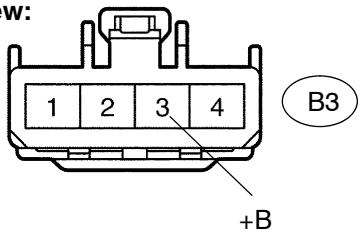
OK

5 CHECK A/C SUB NO.2 WIRE

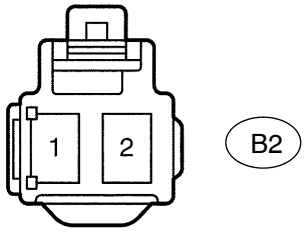
A/C Sub No.2 Wire Connector
Front View:
Wire to wire



A/C Sub No.2 Wire Connector
Front View:



A/C Sub No.2 Wire Connector
Front View:



I41008

(a) Measure the resistance according to the value(s) in the table below.
Standard:

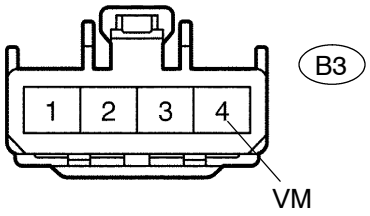
Tester connection	Condition	Specified condition
IE1–2 – B2–2	Always	Below 1 Ω
IE1–2 – B3–3 (+B)	Always	Below 1 Ω
B2–2 – B3–3 (+B)	Always	Below 1 Ω

NG → **REPAIR OR REPLACE A/C SUB NO.2 WIRE**

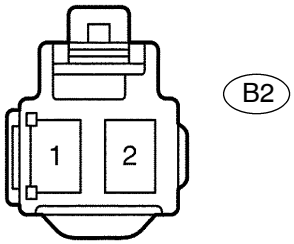
OK

6	CHECK HARNESS AND CONNECTOR(BLOWER MOTOR CONTROLLER – BLOWER MOTOR)

Blower Motor Controller Connector Front View:



Blower Motor Connector Front View:



P I36240

(a) Measure the resistance according to the value(s) in the table below.

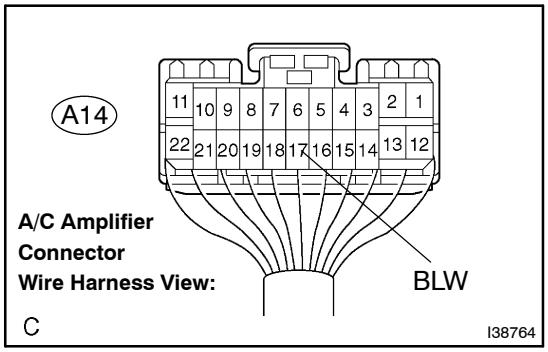
Standard:

Tester connection	Condition	Specified condition
B3–4 (VM) – B2–1	Always	Below 1 Ω
B3–4 (VM) – Body ground	Always	10 kΩ or higher

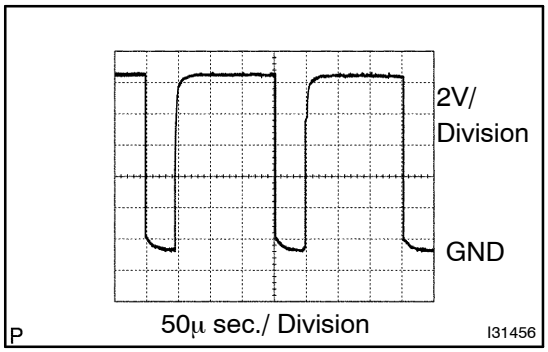
NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

7	INSPECT AIR CONDITIONING AMPLIFIER(BLW – BODY GROUND)



(a) Remove the A/C amplifier with the connectors still connected.
(b) Turn the ignition switch to the ON position.
(c) Turn the blower switch on (Lo).



(d) Check the waveform between terminal BLW (A10–17) of the A/C amplifier and body ground.
OK:
A waveform operates as shown a the illustration, should be output.

HINT:
Waveform varies with the blower level.

NG → **REPLACE AIR CONDITIONING AMPLIFIER**

OK

REPLACE BLOWER MOTOR CONTROL