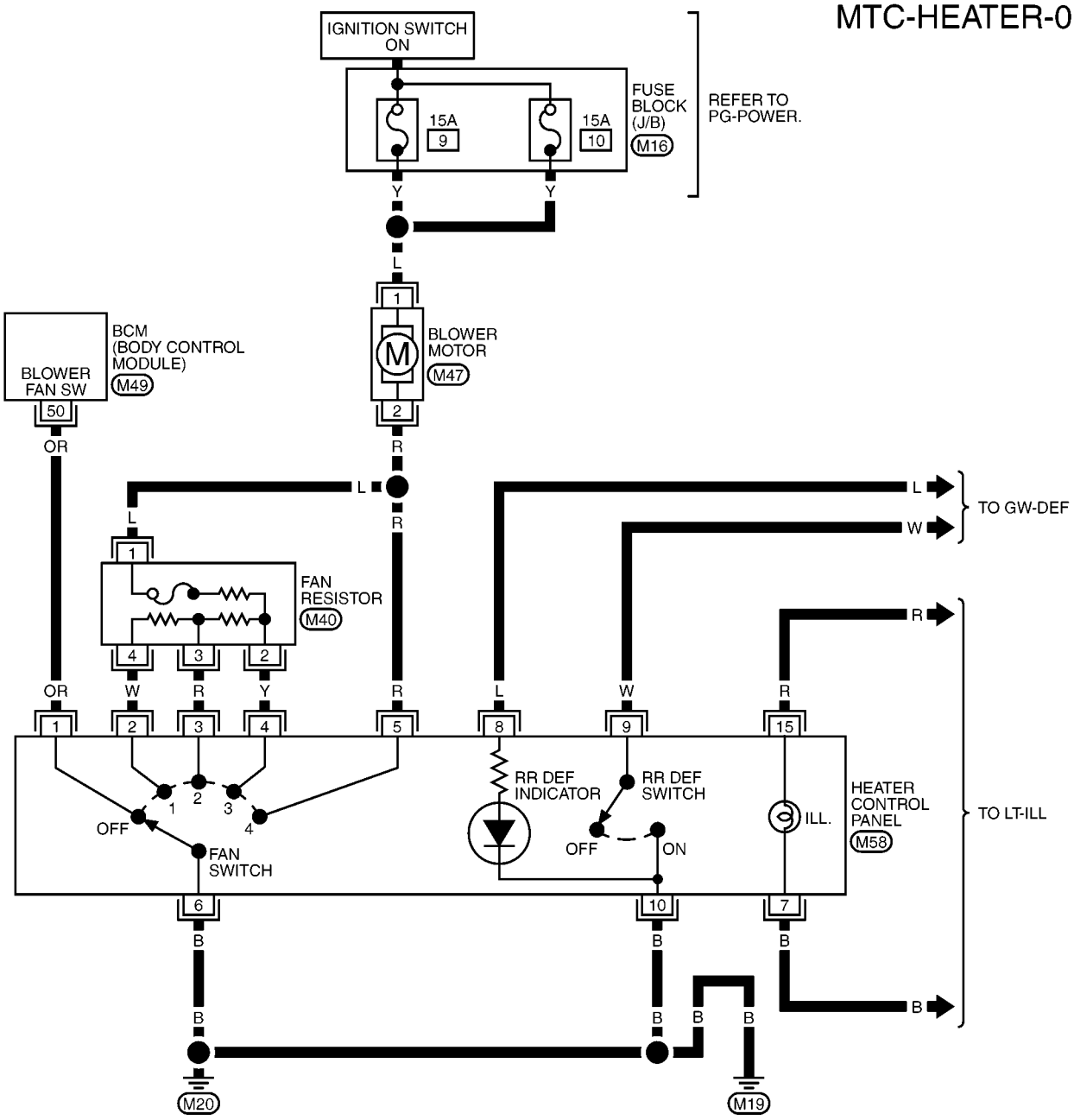
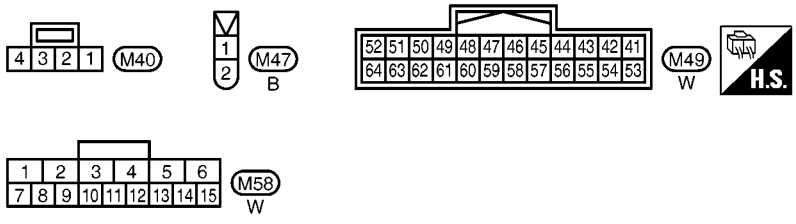
TROUBLE DIAGNOSIS

Wiring Diagram —HEATER—

To ESM

MTC-HEATER-01

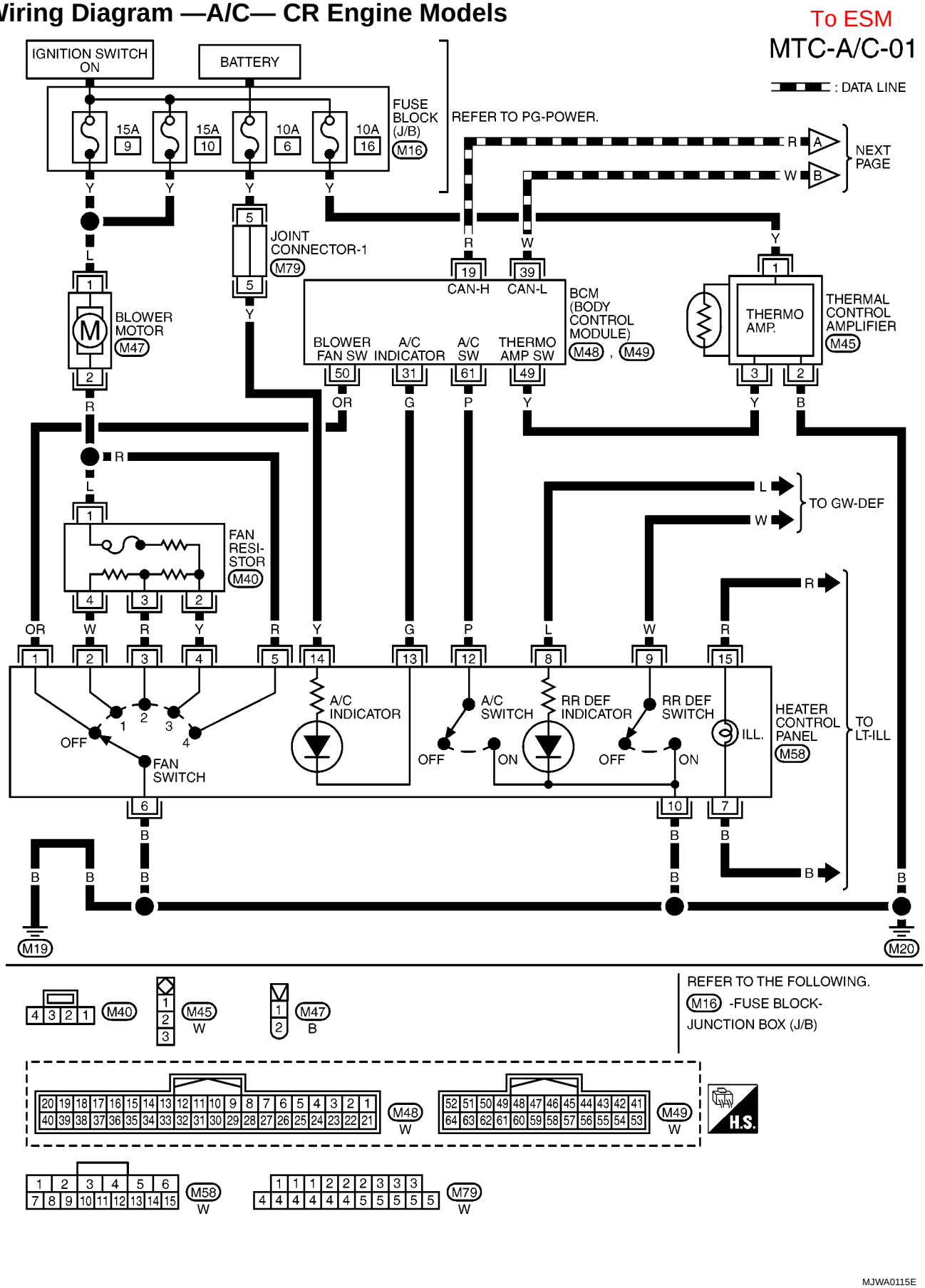




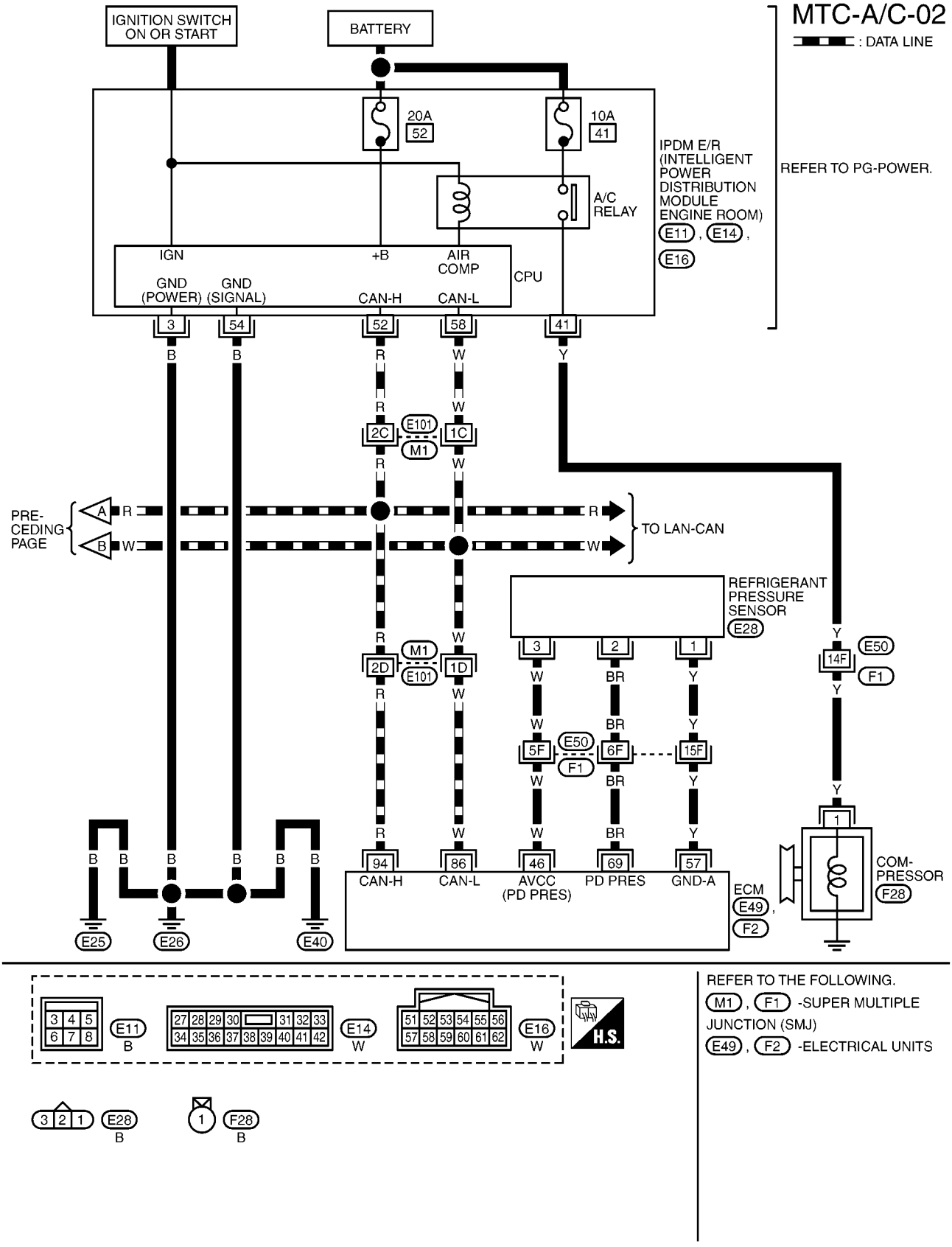
REFER TO THE FOLLOWING.
M16 -FUSE BLOCK-
JUNCTION BOX (J/B)

MJWA0114E

Wiring Diagram —A/C— CR Engine Models

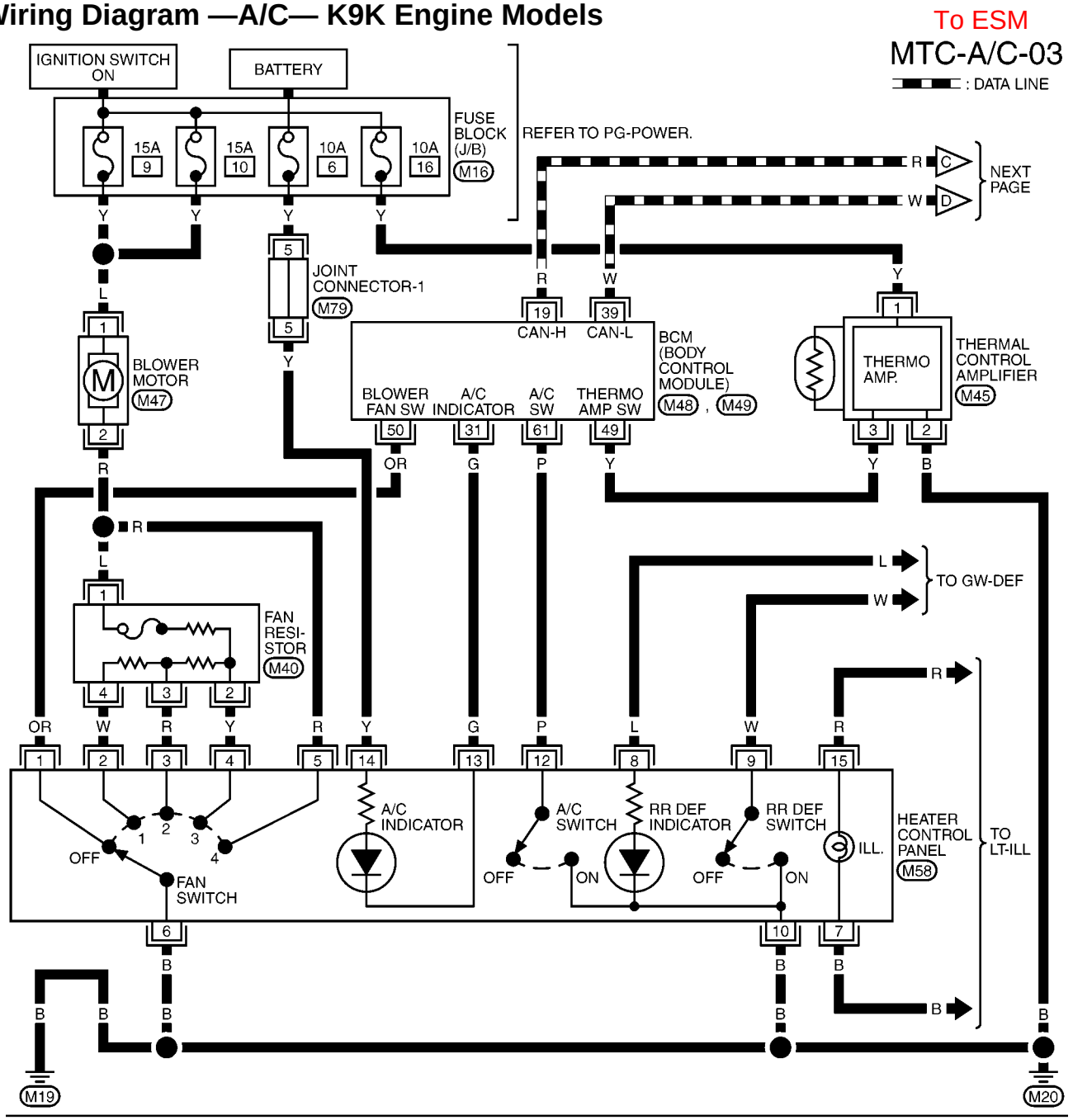


MJWA0115E

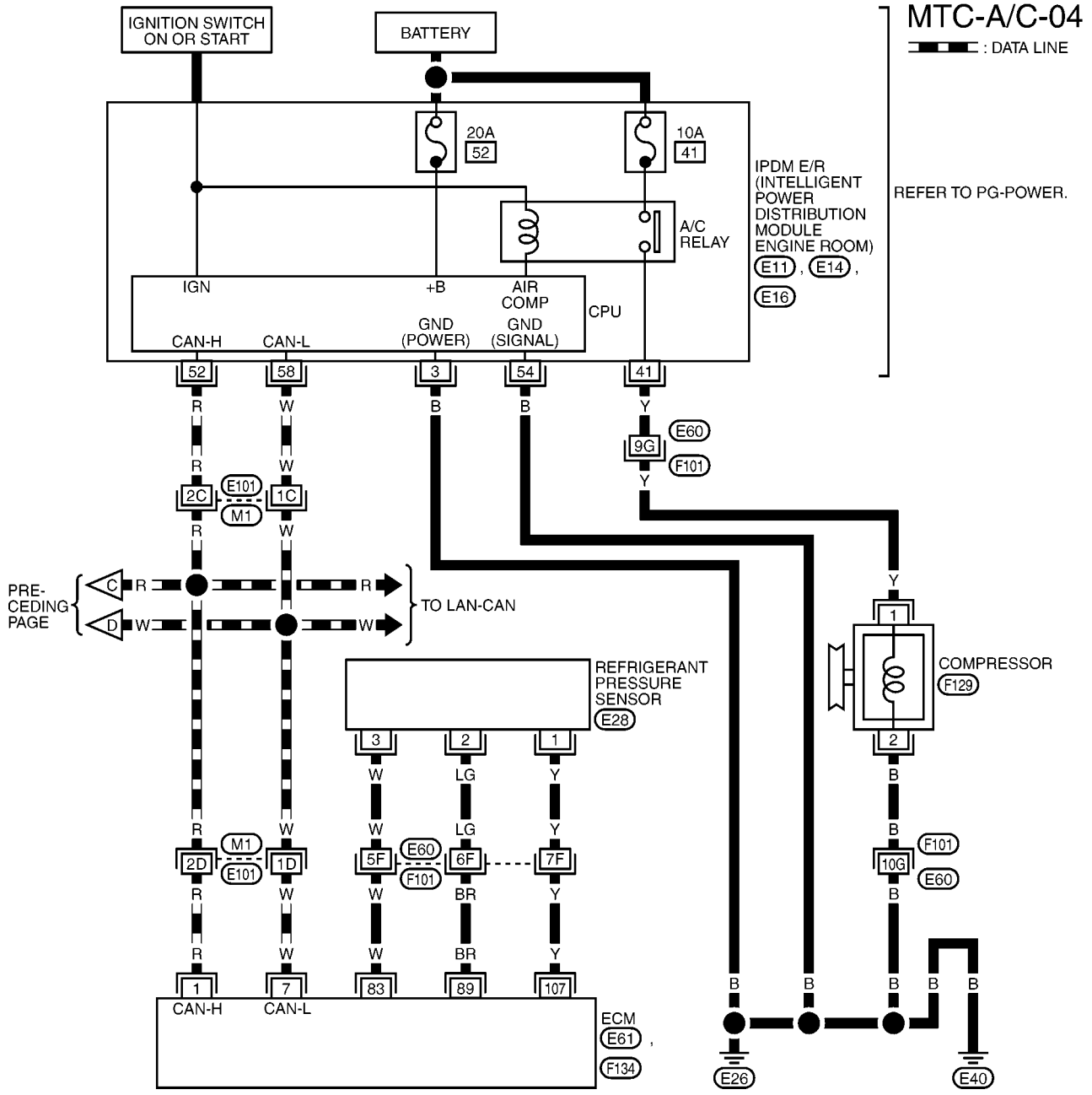

MTC-A/C-02
: DATA LINE
IGNITION SWITCH ON OR START
BATTERY
20A 52
10A 41
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) E11, E14, E16
REFER TO PG-POWER.
A/C RELAY
IGN
+B
AIR COMP
CPU
GND (POWER)
GND (SIGNAL)
CAN-H
CAN-L
3
54
52
58
41
B
R
W
Y
2C
1C
E101
M1
PRE-CEDING PAGE
A
B
TO LAN-CAN
REFRIGERANT PRESSURE SENSOR E28
2D
1D
3
2
1
5F
6F
15F
E50
F1
14F
BR
94
86
46
69
57
CAN-H
CAN-L
AVCC (PD PRES)
PD PRES
GND-A
ECM E49, F2
COM-PRESSOR F28
E25
E26
E40
REFER TO THE FOLLOWING.
M1, F1 -SUPER MULTIPLE JUNCTION (SMJ)
E49, F2 -ELECTRICAL UNITS
E11
E14
E16
H.S.
E28
F28

MJWA0019E

Wiring Diagram —A/C— K9K Engine Models



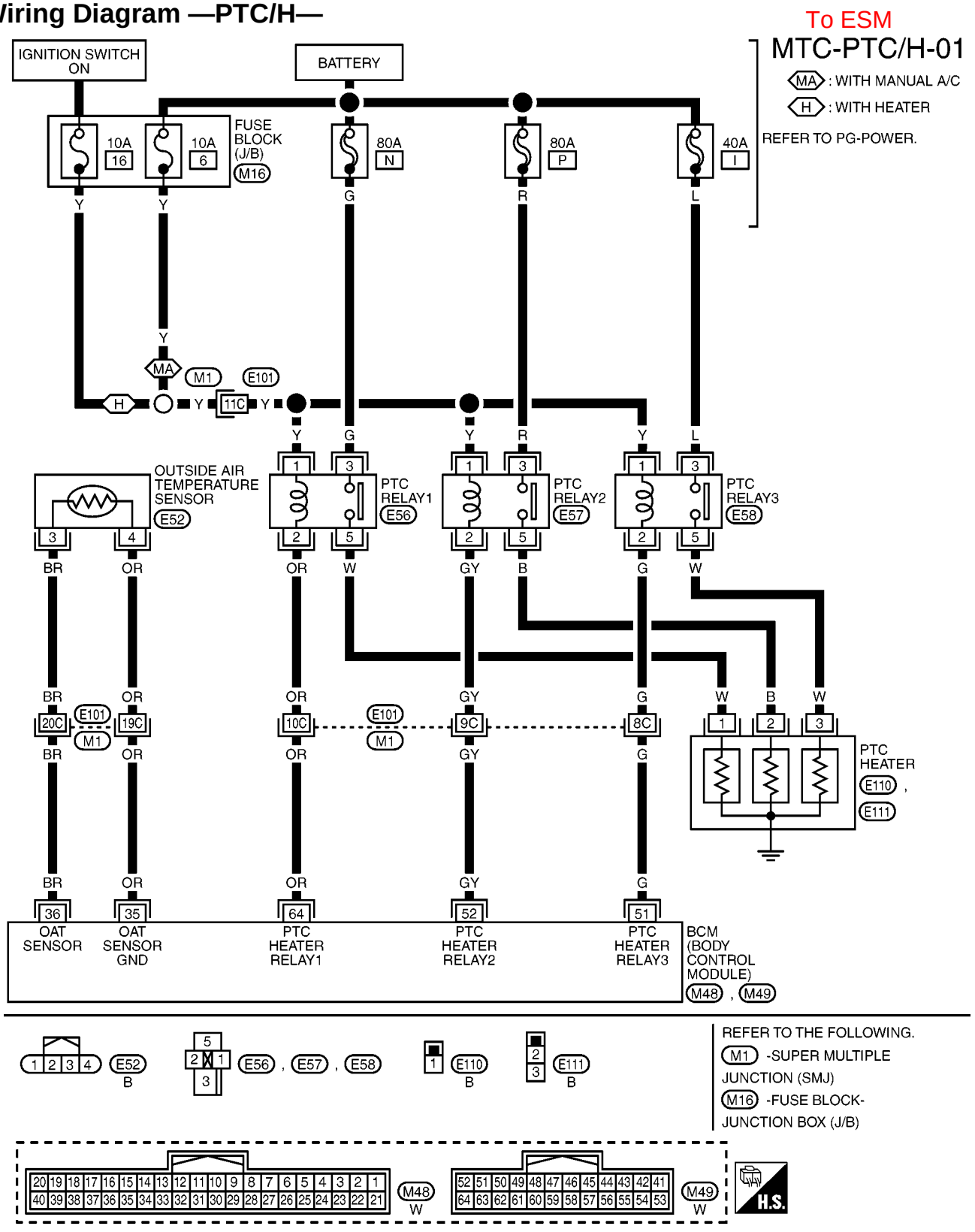
MJWA0116E



REFER TO THE FOLLOWING.
M1, F101 -SUPER MULTIPLE JUNCTION (SMJ)
E61, F134 -ELECTRICAL UNITS

MJWA0042E

Wiring Diagram —PTC/H—



MJWA0145E

PTC heater function is intended to improve the heating performance with CTP electrical system for air heating system which is broken down into several stages controlled by relays.

Blower Fan Motor System

To ESM

INSPECTION PROCEDURE

Symptom: Blower fan motor does not operate.

1. START INSPECTION

Check blower fan motor operation at each fan speed.

1 : Blower fan motor does not operate at all.

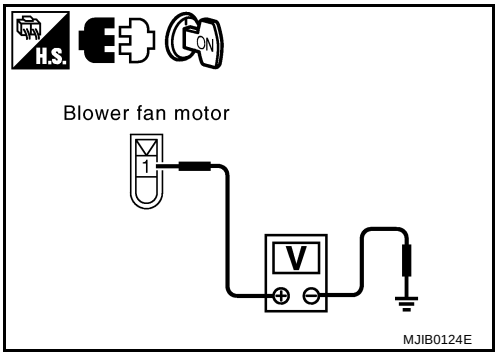
2 : Blower fan motor does not operate at one of speeds 1 - 4.

Do inspection results indicate 1 or 2 above?

1 >> GO TO 2.
2 >> GO TO 6.

2. CHECK POWER SUPPLY CIRCUIT

Disconnect blower fan motor connector, turn ignition switch ON, and check voltage between blower fan motor connector terminal and ground.



Connector terminal		Voltage
Blower fan motor	Ground	Battery voltage
1		

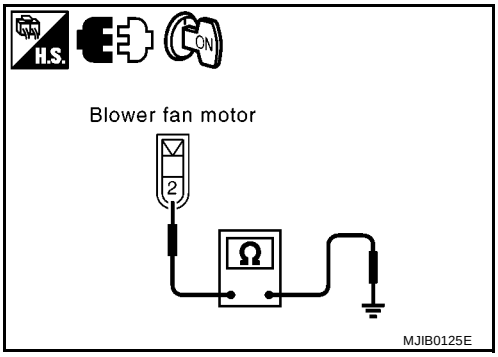
OK or NG

OK >> GO TO 3.
NG >> Check power supply circuit and 15A fuses [Nos. 9 and 10, located in the fuse block (J/B)]. Refer to PG-4, "POWER SUPPLY ROUTING" on ESM..

- If OK, check for open circuit in wiring harness. Repair or replace as necessary.
- If NG, replace fuse and check wiring harness for short circuit. Repair or replace as necessary.

3. CHECK CIRCUIT CONTINUITY

1. Turn the fan setting dial (fan switch) to any position except OFF.
2. Check continuity between blower fan motor connector terminal and ground.



Connector terminal		Continuity
Blower fan motor	Ground	Yes
2 (Without air conditioner)		
1 (With air conditioner)		

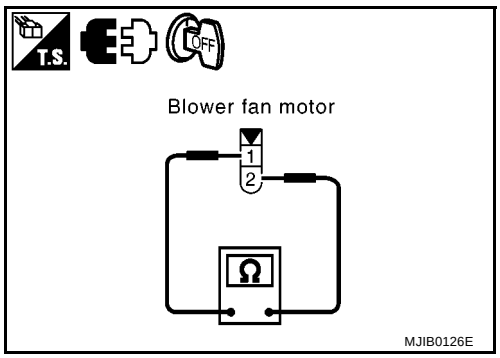
Does continuity exist?

YES >> GO TO 4.
NO >> GO TO 5.

4. CHECK BLOWER FAN MOTOR

Disconnect the blower fan motor connector, and check continuity between blower fan motor terminals 1 and 2.

Connector terminal		Continuity
Blower fan motor		
1	2	Yes



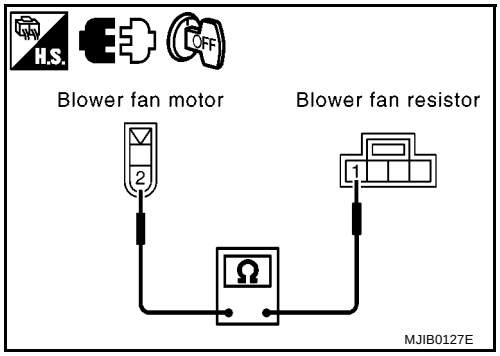
Does continuity exist?

YES >> End of trouble diagnosis
NO >> Replace the blower fan motor.

5. CHECK CIRCUIT CONTINUITY

Check continuity between blower fan motor connector terminal and blower fan resistor terminal 1.

Connector terminal		Continuity
Blower fan motor	Blower fan Resistor	
2	1	Yes



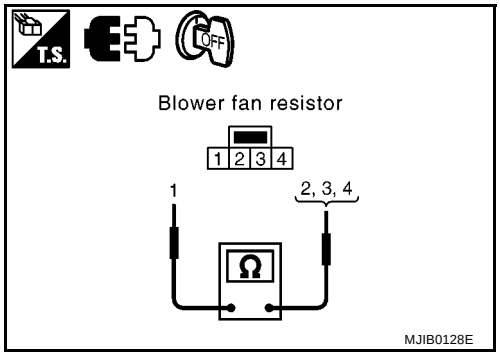
Does continuity exist?

YES >> GO TO 6.
NO >> Repair harness or connector.

6. CHECK BLOWER FAN RESISTOR

Disconnect blower fan resistor connector, and check continuity between blower fan resistor terminals 1 and 2, 3, 4.

Connector terminal		Continuity
Blower fan resistor		
1	2	Approx. 0.32Ω
	3	Approx. 1.4Ω
	4	Approx. 2.7Ω

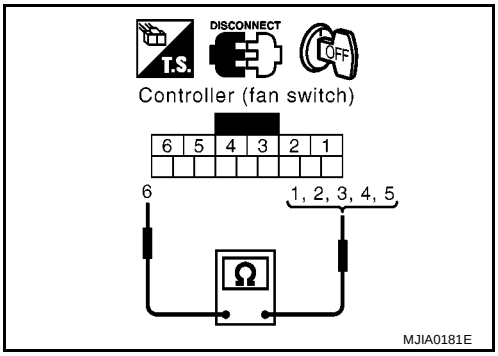


Does continuity exist?

YES >> GO TO 7.
NO >> Replace blower fan resistor.

7. CHECK FAN SWITCH

Disconnect controller connector, and check continuity between controller terminals 1 and 2, 3, 4, 5, 6.



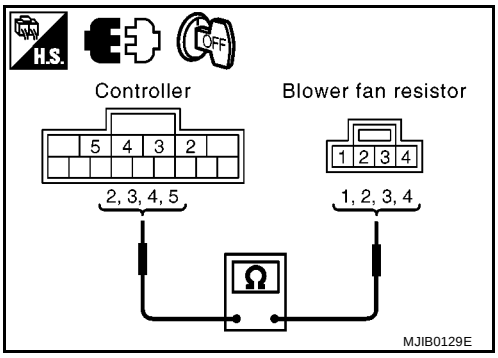
Connector terminal		Condition	Continuity
Controller			
6	1	Fan: OFF	Yes
	5	Fan: Speed 4	
	4	Fan: Speed 3	
	3	Fan: Speed 2	
	2	Fan: Speed 1	

OK or NG

OK >> GO TO 8.
NG >> Replace controller.

8. CHECK CIRCUIT CONTINUITY

Check continuity between the controller and the blower fan resistor terminals.



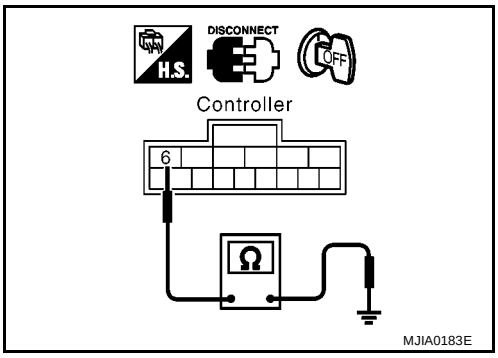
Connector terminal		Continuity
Controller	Blower fan Resistor	
5	1	Yes
4	2	
3	3	
2	4	

Does continuity exist?

YES >> GO TO 9.
NO >> Repair harness or connector.

9. CHECK FAN SWITCH GROUND CIRCUIT

Check continuity between controller terminal 6 and ground.



Connector terminal		Continuity
Controller	Ground	Yes
6		

Does continuity exist?

YES >> End of trouble diagnosis
NO >> Repair harness or connector.