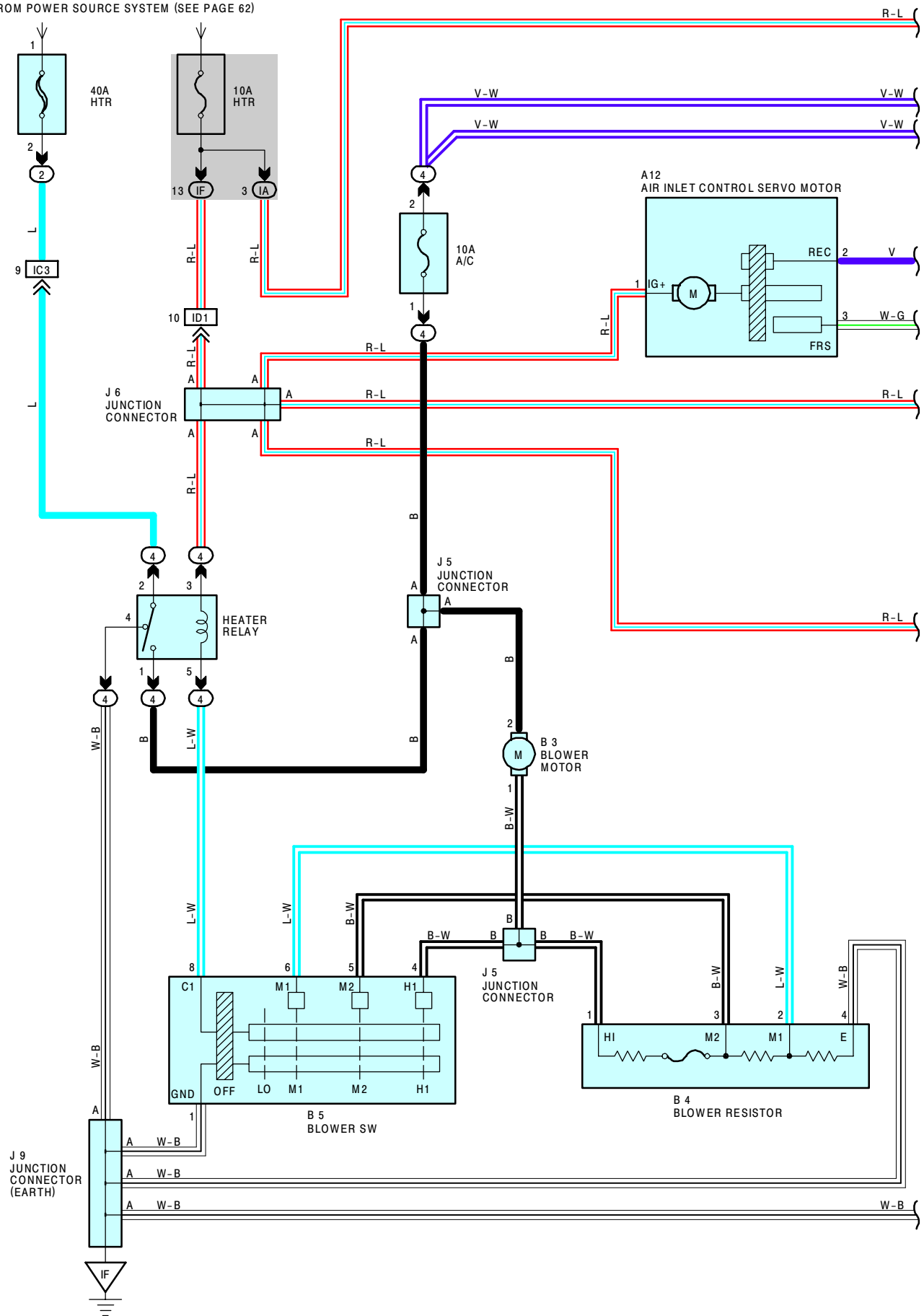
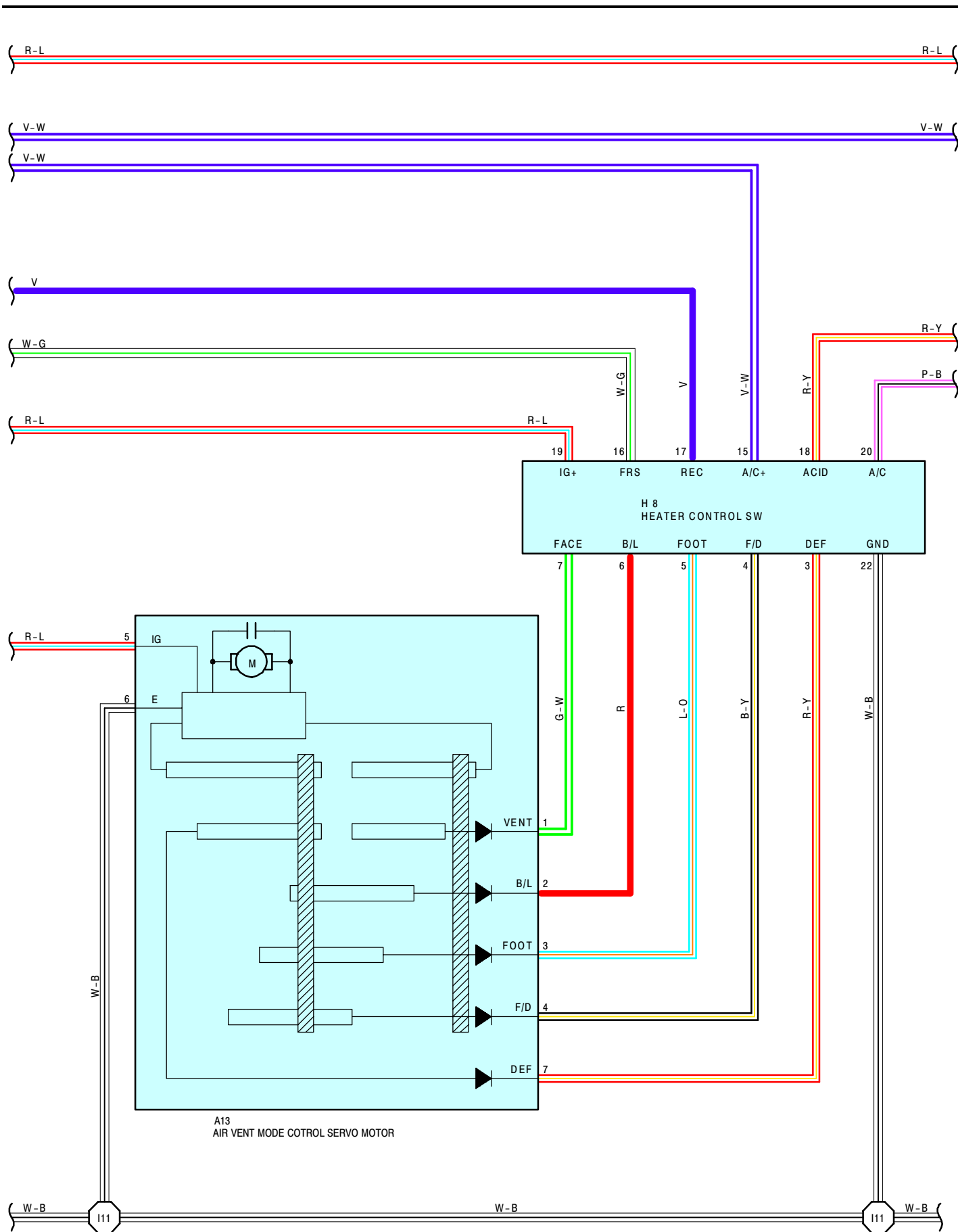




# AIR CONDITIONING

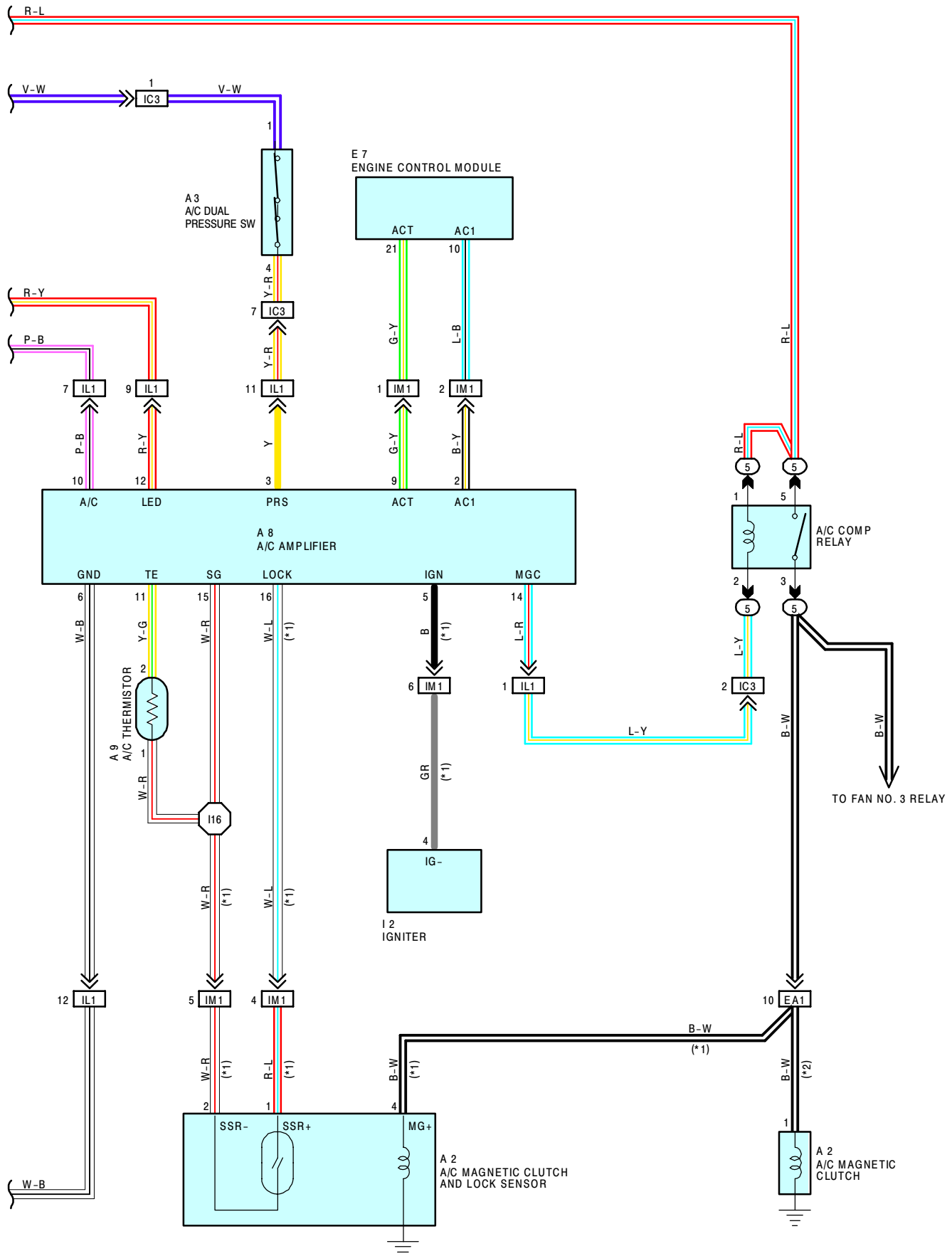
FROM POWER SOURCE SYSTEM (SEE PAGE 62)







## AIR CONDITIONING



## SYSTEM OUTLINE

### 1. HEATER BLOWER MOTOR OPERATION

CURRENT IS APPLIED AT ALL TIMES THROUGH THE **HTR FUSE (40A)** TO **TERMINAL 2** OF THE HEATER RELAY.

WHEN THE IGNITION SW IS TURNED ON, CURRENT FLOWS THROUGH THE **HTR FUSE (10A)** TO **TERMINAL 3** OF THE HEATER RELAY → THE COIL SIDE → **TERMINAL 5** → **TERMINAL 8** OF THE BLOWER SW.

#### \* LOW SPEED OPERATION

WHEN THE BLOWER SW IS MOVED TO **LO** POSITION, CURRENT FLOWS TO **TERMINAL 8** OF THE BLOWER SW → **TERMINAL 1** → **GROUND**, CAUSING THE HEATER RELAY TO SWITCH ON. THIS CAUSES THE CURRENT TO FLOW FROM THE **HTR FUSE (40A)** TO **TERMINAL 2** OF THE HEATER RELAY → **TERMINAL 1** → **TERMINAL 2** OF THE BLOWER MOTOR → **TERMINAL 1** → **TERMINAL 1** OF THE BLOWER RESISTOR → **TERMINAL 4** → **GROUND**, CAUSING THE BLOWER MOTOR TO ROTATE AT LOW SPEED.

#### \* MEDIUM SPEED OPERATION (OPERATION AT M1, M2)

WHEN THE BLOWER SW IS MOVED TO **M1** POSITION, CURRENT FLOWS TO **TERMINAL 8** OF THE BLOWER SW → **TERMINAL 1** → **GROUND**, TURNING THE HEATER RELAY TO SWITCH ON. THIS CAUSES THE CURRENT TO FLOW FROM THE **HTR FUSE (40A)** TO **TERMINAL 2** OF THE HEATER RELAY → **TERMINAL 1** → **TERMINAL 2** OF THE BLOWER MOTOR → **TERMINAL 1** → **TERMINAL 1** OF THE BLOWER RESISTOR → **TERMINAL 2** → **TERMINAL 6** OF THE BLOWER SW → **TERMINAL 1** → **GROUND**. AT THIS TIME, THE BLOWER RESISTANCE OF THE BLOWER RESISTOR IS LESS THAN AT LOW SPEED, SO THE BLOWER MOTOR ROTATES AT MEDIUM LOW SPEED.

WHEN THE BLOWER SW IS MOVED TO **M2** POSITION, CURRENT FLOWS THROUGH THE MOTOR FLOWS FROM **TERMINAL 1** OF THE BLOWER RESISTOR TO **TERMINAL 3** → **TERMINAL 5** OF THE BLOWER SW → **TERMINAL 1** → **GROUND**. AT THIS TIME, RESISTANCE OF THE BLOWER RESISTOR IS LESS THAN AT **M1** POSITION, SO THE BLOWER MOTOR ROTATES AT MEDIUM HIGH SPEED.

#### \* HIGH SPEED OPERATION

WHEN THE BLOWER SW IS MOVED TO HIGH POSITION, CURRENT FLOWS TO **TERMINAL 8** OF THE BLOWER SW → **TERMINAL 1** → **GROUND**, TURNING THE HEATER RELAY TO SWITCH ON.

THIS CAUSES THE CURRENT TO FLOW FROM THE **HTR FUSE (40A)** TO **TERMINAL 2** OF THE HEATER RELAY → **TERMINAL 1** → **TERMINAL 2** OF THE BLOWER MOTOR → **TERMINAL 1** → **TERMINAL 4** OF THE BLOWER SW → **TERMINAL 1** → **GROUND**, CAUSING THE BLOWER MOTOR TO ROTATE AT HIGH SPEED.

### 2. OPERATION OF AIR INLET CONTROL SERVO MOTOR

#### \* SWITCHING FROM FRESH TO RECIRC

WITH THE IGNITION SW TURNED ON, CURRENT FLOWS FROM THE **HTR FUSE (10A)** TO **TERMINAL 1** OF THE AIR INLET CONTROL SERVO MOTOR. WHEN THE RECIRC/FRESH SW IS SWITCHED TO THE RECIRC SIDE, CURRENT FLOWS FROM **TERMINAL 1** OF THE AIR INLET CONTROL SERVO MOTOR TO **TERMINAL 2** → **TERMINAL 17** OF THE HEATER CONTROL SW → **TERMINAL 22** → **GROUND**. THE MOTOR ROTATES AND THE DAMPER MOVES TO THE RECIRC SIDE. WHEN IT IS IN THE **RECIRC** POSITION, CURRENT IS CUT INSIDE THE SERVO MOTOR AND THE DAMPER STOPS AT THAT POSITION.

#### \* SWITCHING FROM RECIRC TO FRESH

WITH THE IGNITION SW TURNED ON, WHEN THE RECIRC/FRESH SW IS SWITCHED TO THE FRESH SIDE, CURRENT FLOWS FROM **TERMINAL 1** OF THE AIR INLET CONTROL SERVO MOTOR TO **TERMINAL 3** → **TERMINAL 16** OF THE HEATER CONTROL SW → **TERMINAL 22** → **GROUND**. THE MOTOR ROTATES AND THE DAMPER MOVES TO THE FRESH SIDE. WHEN IT IS IN THE **FRESH** POSITION, CURRENT IS CUT INSIDE THE SERVO MOTOR AND THE DAMPER STOPS AT THAT POSITION.

### 3. OPERATION OF AIR VENT MODE CONTROL SERVO MOTOR

WITH THE IGNITION SW TURNED ON, CURRENT FLOWS FROM **HTR (10A) FUSE** TO **TERMINAL 5** OF THE AIR VENT MODE CONTROL SERVO MOTOR → **TERMINAL 6** → **GROUND**, AND THE DAMPER MOVES TO THE POSITION OF THE MODE SELECTION SW OF THE HEATER CONTROL SWITCH ON. WHEN THE MODE SELECTION SW OF THE HEATER CONTROL SW IS MOVED TO **DEF** POSITION FROM THE DAMPER IN THE **FACE** POSITION, CURRENT FLOWS FROM **TERMINAL 7** OF THE AIR VENT MODE CONTROL SERVO MOTOR TO **TERMINAL 3** OF THE HEATER CONTROL SW → **TERMINAL 22** → **GROUND**. AS A RESULT, THE SERVO MOTOR OPERATES UNTIL THE DAMPER REACHES **DEF** POSITION. WHEN THIS OCCURS THE CURRENT TO THE HEATER CONTROL SW IS SHUT OFF AND ROTATION OF THE MOTOR STOPS. SWITCHING TO OTHER MODES IS CONTROLLED BY THE SERVO MOTOR ACCORDING THE FLOWING CURRENT:

1. **FOOT/DEF POSITION** : CURRENT FLOWS FROM **TERMINAL 4** OF THE SERVO MOTOR TO **TERMINAL 4** OF THE HEATER CONTROL SW.
2. **FOOT POSITION** : CURRENT FLOWS FROM **TERMINAL 3** OF THE SERVO MOTOR TO **TERMINAL 5** OF THE HEATER CONTROL SW.
3. **BI-LEVEL POSITION** : CURRENT FLOWS FROM **TERMINAL 2** OF THE SERVO MOTOR TO **TERMINAL 6** OF THE HEATER CONTROL SW.
4. **FACE POSITION** : CURRENT FLOWS FROM **TERMINAL 1** OF THE SERVO MOTOR TO **TERMINAL 7** OF THE HEATER CONTROL SW.



# AIR CONDITIONING

## SERVICE HINTS

### A 3 A/C DUAL PRESSURE SW

1-4 : OPEN WITH THE PRESSURE LESS THAN **2.0 KG/CM<sup>2</sup> (28.4 PSI, 196 KPA)** OR ABOVE **32 KG/CM<sup>2</sup> (455 PSI, 3138 KPA)**

### A 8 A/C AMPLIFIER

14-6 : CONTINUITY WITH THE A/C SW (HEATER CONTROL SW) ON AND THE IGNITION SW AT **ON** POSITION

15-GROUND : ALWAYS CONTINUITY

6-GROUND : ALWAYS CONTINUITY

14-GROUND : APPROX. **12 VOLTS** WITH THE IGNITION SW ON

### A 9 A/C THERMISTOR

1-2 : APPROX. **2341 ± 234 Ω** AT **15°C (59°F)**

### B 4 BLOWER RESISTOR

1-3 : APPROX. **0.47 Ω**

1-2 : APPROX. **1.42 Ω**

1-4 : APPROX. **2.28 Ω**

### B 5 BLOWER SW

8-1 : CONTINUITY WITH THE BLOWER SW AT **LO, M1, M2** AND **HI** POSITIONS

6-1 : CONTINUITY WITH THE BLOWER SW AT **M1** POSITION

5-1 : CONTINUITY WITH THE BLOWER SW AT **M2** POSITION

4-1 : CONTINUITY WITH THE BLOWER SW AT **HI** POSITION

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
<b>A 2</b>	<a href="#">28 (5S-FE)</a> , <a href="#">30 (7A-FE)</a>	<b>A13</b>	<a href="#">32</a>	<b>H 8</b>	<a href="#">33</a>
<b>A 3</b>	<a href="#">28 (5S-FE)</a> , <a href="#">30 (7A-FE)</a>	<b>B 3</b>	<a href="#">32</a>	<b>I 2</b>	<a href="#">29 (5S-FE)</a>
<b>A 8</b>	<a href="#">32</a>	<b>B 4</b>	<a href="#">32</a>	<b>J 5</b>	<a href="#">33</a>
<b>A 9</b>	<a href="#">32</a>	<b>B 5</b>	<a href="#">32</a>	<b>J 6</b>	<a href="#">33</a>
<b>A12</b>	<a href="#">32</a>	<b>E 7</b>	<a href="#">32</a>	<b>J 9</b>	<a href="#">33</a>

## ○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
<b>2</b>	<a href="#">26</a>	ENGINE COMPARTMENT LEFT
<b>4</b>	<a href="#">25</a>	RIGHT KICK PANEL
<b>5</b>	<a href="#">27</a>	ENGINE COMPARTMENT FRONT RIGHT

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
<b>IA</b>	<a href="#">20</a>	ENGINE ROOM MAIN WIRE AND INPANE J/B (LEFT KICK PANEL)
<b>IF</b>	<a href="#">20</a>	INSTRUMENT PANEL WIRE AND INPANE J/B (LEFT KICK PANEL)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>EA1</b>	<a href="#">38 (5S-FE)</a>	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (INSIDE OF R/B NO.2)
	<a href="#">40 (7A-FE)</a>	
<b>IC3</b>	<a href="#">42</a>	ENGINE ROOM MAIN WIRE AND COWL WIRE (INSIDE OF R/B NO.4)
<b>ID1</b>	<a href="#">42</a>	INSTRUMENT PANEL WIRE AND COWL WIRE (LEFT KICK PANEL)
<b>IL1</b>	<a href="#">44</a>	COWL WIRE AND A/C SUB WIRE (UPPER THE A/C UNIT)
<b>IM1</b>	<a href="#">44</a>	ENGINE WIRE AND A/C SUB WIRE (NEAR THE BLOWER MOTOR)

## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
<b>IF</b>	<a href="#">42</a>	R/B NO.4 SET BOLT

## ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
<b>I11</b>	<a href="#">44</a>	COWL WIRE	<b>I16</b>	<a href="#">44</a>	A/C SUB WIRE

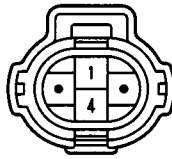
(5S-FE) A 2 GRAY



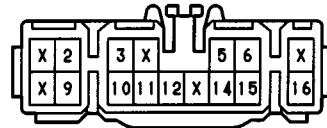
(7A-FE) A 2 GRAY



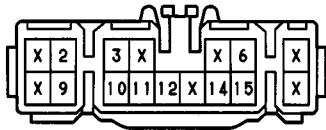
A 3 GRAY



(5S-FE) A 8 BLACK



(7A-FE) A 8 BLACK



A 9



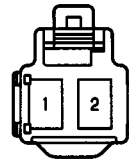
A12 BLUE



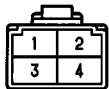
A13 BLACK



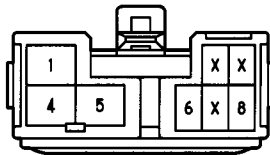
B 3 BLACK



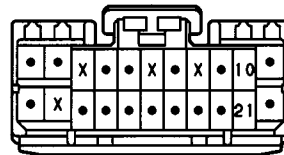
B 4 BLACK



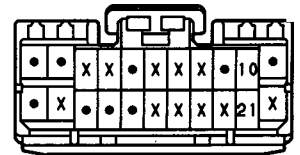
B 5



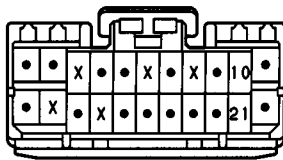
(5S-FE A/T) E 7 DARK GRAY



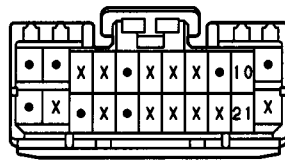
(5S-FE M/T) E 7 DARK GRAY



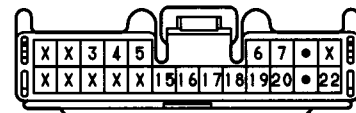
(7A-FE A/T) E 7 DARK GRAY



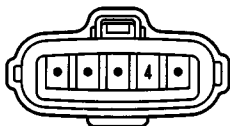
(7A-FE M/T) E 7 DARK GRAY



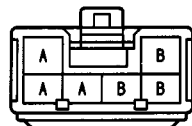
H 8 ORANGE



I 2 BLACK

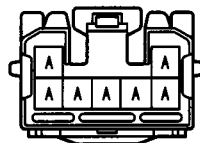


J 5



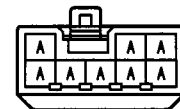
(HINT:SEE PAGE 7)

J 6



(HINT:SEE PAGE 7)

J 9



(HINT:SEE PAGE 7)