SYSTEM OUTLINE

1. HEATER BLOWER MOTOR OPERATION

WITH THE IGNITION SW ON, CURRENT FROM THE GAUGE FUSE FLOWS FROM **TERMINAL 3** OF THE HEATER RELAY → COIL → **TERMINAL 1** → **TERMINAL 5** OF THE HEATER BLOWER SW.

***** LOW SPEED OPERATION

WHEN THE HEATER BLOWER SW IS MOVED TO THE **LOW SPEED** POSITION, THE CURRENT APPLIED TO **TERMINAL 5** FLOWS FROM **TERMINAL 6** → **GROUND,** CAUSING THE HEATER RELAY TO COME ON. THEN FROM 30A HEATER CB THE CURRENT FLOWS FROM **TERMINAL 5** OF THE HEATER RELAY → **TERMINAL 4** → **TERMINAL 1** OF THE BLOWER MOTOR → **TERMINAL 2** → **TERMINAL 3** OF THE BLOWER RESISTOR → **TERMINAL1** → **GROUND,** CAUSING THE BLOWER MOTOR TO ROTATE. THIS TIME THE CURRENT FLOWS AGAINST THE FULL RESISTANCE OF THE BLOWER RESISTOR, SO THE MOTOR TURNS SLOWLY AT LOW SPEED.

***** OPERATION AT SPEED M1 (I), M2 (II)

WHEN THE HEATER BLOWER SW IS MOVED TO THE SPEED **M1(I)** POSITION, THE CURRENT APPLIED TO **TERMINAL 5** FLOWS FROM **TERMINAL 6** → **GROUND,** TURNING THE HEATER RELAY TO ON. THEN, THE SAME AS WITH LOW SPEED, CURRENT PASSING THROUGH THE 30A HEATER CB FLOWS FROM THE BLOWER MOTOR → **TERMINAL 3** OF THE BLOWER RESISTOR → **TERMINAL 2** → **TERMINAL 1** OF THE BLOWER SW → **TERMINAL 6** → **GROUND.** THIS TIME, THE RESISTANCE OF THE BLOWER RESISTOR IS LESS THAN IT IS FOR LOW SPEED, SO THE BLOWER MOTOR ROTATES FASTER THAN IT DOES AT LOW SPEED.

WITH THE BLOWER SW IN THE **M2(II)** POSITION, CURRENT FLOWING THROUGH THE MOTOR FLOWS FROM **TERMINAL 3** OF THE BLOWER RESISTOR → **TERMINAL 4** → **TERMINAL 2** OF THE BLOWER SW → **TERMINAL 6** → **GROUND.** THIS TIME, RESISTANCE OF THE BLOWER RESISTOR IS LESS THAN FOR SPEED **M1(I)** SO THAT THE BLOWER MOTOR ROTATES EVEN FASTER THAN FOR SPEED M1(I).

***** HIGH SPEED OPERATION

WITH THE BLOWER SWITCH IN **HIGH SPEED** POSITION, UNTIL THE HEATER RELAY COMES ON AND CURRENT FLOWS TO THE BLOWER MOTOR, OPERATION IS THE SAME AS FOR SPEED M1(I) AND M2(II). THE CURRENT PASSING THROUGH THE BLOWER MOTOR FLOWS FROM **TERMINAL 8** OF THE BLOWER SW → **TERMINAL 6** → **GROUND** WITHOUT FLOWING THROUGH THE BLOWER RESISTOR, SO THAT THE BLOWER MOTOR ROTATES AT THE FASTEST SPEED, HIGH SPEED.

2. RADIATOR FAN AND CONDENSOR FAN OPERATION

WHEN THE IGNITION SW IS TURNED ON, CURRENT FROM THE IGN FUSE FLOWS THROUGH **TERMINAL 1** OF THE RADIATOR FAN RELAY NO.1 → **TERMINAL 2** → **TERMINAL 1** OF THE A/C HIGH PRESSURE SW → **TERMINAL 2** → **TERMINAL 1** OF THE WATER TEMP. SW → **GROUND,** ACTIVATING THE RELAY. AT THIS TIME, CURRENT IS SUPPLIED FROM THE 30A FL RDI FAN TO **TERMINAL 4** OF THE RELAY. AT THE SAME TIME, CURRENT FROM THE IGN FUSE FLOWS THROUGH **TERMINAL 6** OF THE A/C FAN RELAY NO. 2 → COIL → **TERMINAL 2** → A/C HIGH PRESSURE SW → WATER TEMP. SW → **GROUND,** THEN THROUGH THE 30A FL CDS FAN → **TERMINAL 2** OF THE A/C CONDENSOR FAN MOTOR → **TERMINAL 1** → **TERMINAL 1** OF THE A/C FAN RELAY NO. 2 → **TERMINAL 4** → **TERMINAL 2** OF THE A/C FAN RELAY NO. 3.

***** LOW SPEED OPERATION

WHEN THE A/C MAGNET CLUTCH IS TURNED ON DURING A/C OPERATION, CURRENT FROM THE ECU–IG FUSE FLOWS THROUGH **TERMINAL 2** OF THE MAGNET CLUTCH RELAY → **TERMINAL 4** → **TERMINAL 1** OF THE A/C FAN RELAY NO.3 → **GROUND,** ACTIVATING RELAY NO. 3. THEN THE CURRENT APPLIED TO **TERMINAL 2** OF THE RELAY NO. 3 FLOWS THROUGH **TERMINAL 4** → **TERMINAL 1** OF THE RADIATOR FAN MOTOR → **TERMINAL 2** → **GROUND.** SINCE THE CONDENSOR AND RADIATOR FAN MOTORS ARE CONNECTED IN SERIES, BOTH FANS ROTATE AT LOW SPEED.

***** HIGH SPEED OPERATION

WHEN THE WATER TEMP. REACHES APPROX. **90**˚C (**194**˚F) OR MORE (RADIATOR FAN WATER TEMP. SW IS OFF) OR THE REFRIGERANT PRESSURE REACHES **15.5**KG/CM^2 (**220**PSI, **1520** KPS) OR MORE (A/C HIGH PRESSURE SW IS OFF), CURRENT TO THE RADIATOR FAN RELAY NO. 1 AND A/C FAN RELAY NO. 2 IS CUT OFF AND THAT TO THE MOTOR IS SUPPLIED IN PARALLEL, CAUSING THE MOTOR TO ROTATE AT HIGH SPEED.

3. AIR CONDITIONER OPERATION

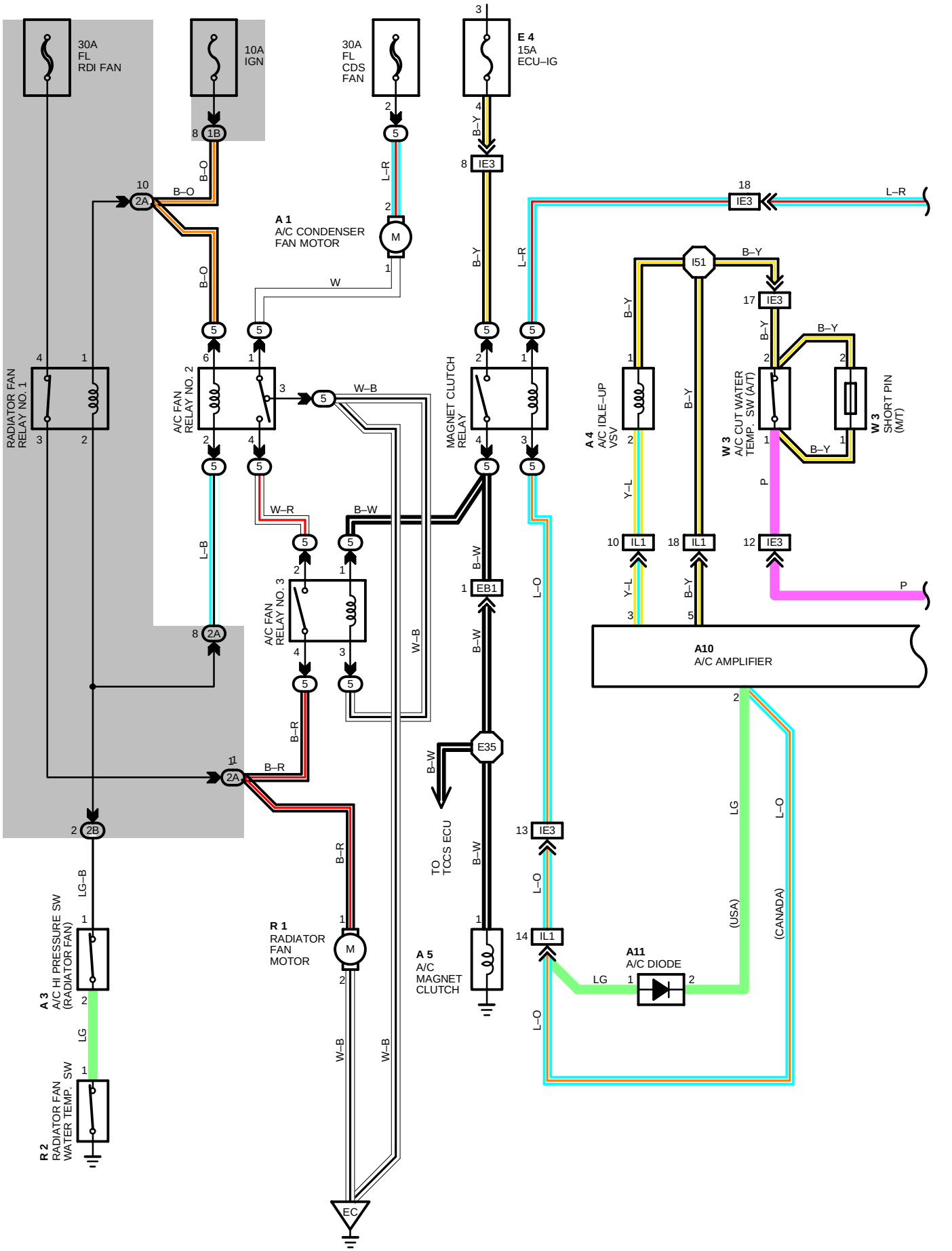
WHEN THE BLOWER SW IS SET TO ON, CURRENT FROM THE 30A HEATER CB FLOWS THROUGH → **TERMINAL 1** OF THE A/C DUAL PRESSURE SW → **TERMINAL 2** → **TERMINAL 1** OF THE A/C CUT WATER TEMP. SW (A/T) → **TERMINAL 2** → **TERMINAL 5** OF THE A/C AMPLIFIER VIA THE A/C FUSE. THE ENGINE SPEED SIGNAL FROM IIA, THE EVAPORATOR TEMP. SIGNAL FROM THE A/C THERMISTOR, ARE ALL SUPLIED TO THE A/C AMPLIFIER.

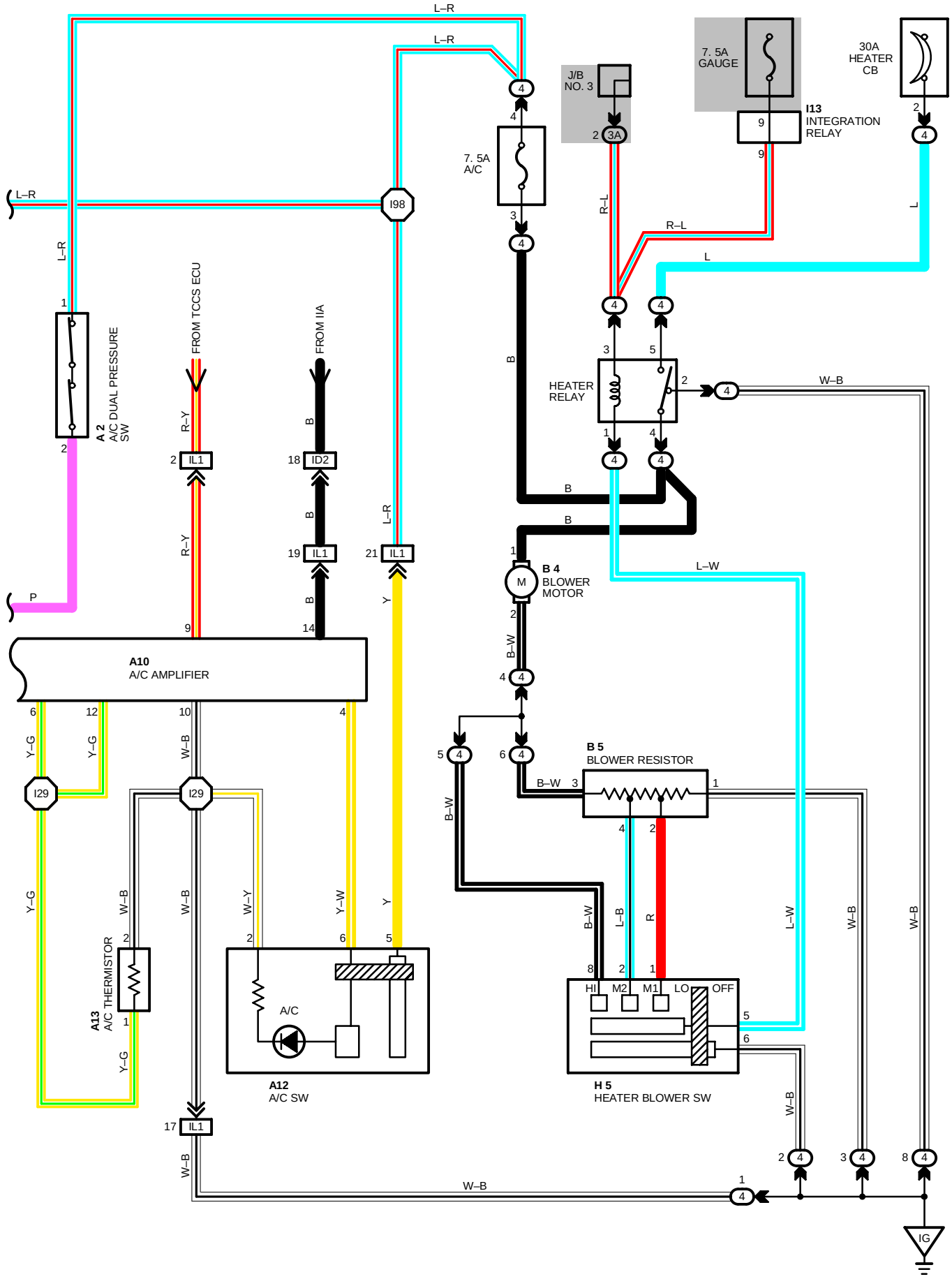
WHEN THE A/C SW IS TURNED ON, THE A/C SW ON SIGNAL IS SENT TO ACTIVATE THE A/C AMPLIFIER. CURRENT FLOWS FROM THE A/C FUSE → **TERMINAL 1** OF THE MAGNET CLUTCH RELAY → COIL → **TERMINAL 3** → **TERMINAL 2** OF AMPLIFIER → **TERMINAL 10** → **GROUND,** TURNING THE MAGNET CLUTCH RELAY ON.

THIS CAUSES CURRENT FROM THE ECU–IG FUSE TO FLOW TO THE MAGNET CLUTCH, TURNING THE COMPRESSOR ON. AT THE SAME TIME, THE CURRENT APPLIED TO THE A/C IDLE–UP VSV THROUGH **TERMINAL 3** OF THE AMPLIFIER → **TERMINAL 10** → **GROUND,** ACTIVATING THE VSV TO PREVENT ENGINE SPEED DROP IN A/C OPERATION.

THE A/C OPERATION IS SHUT OFF WHEN A SIGNAL INDICATING LOW EVAPORATER TEMP., GREAT DIFFERENCE BETWEEN THE ENGINE AND COMPRESSOR SPEEDS, OR ABNORMALLY HIGH OR LOW REFRIGERANT PRESSURE, IS SUPPLIED WHILE THE ENGINE HIGH SPEED SIGNAL EXISTS. WHEN ONE OF THESE SIGNAL IS RECEIVED, THE AMPLIFIRE SHUT OFF THE A/C OPERATION.

RADIATOR FAN AND AIR CONDITIONER




L–R
L–R
J/B
NO. 3
2
3A
7. 5A
GAUGE
9
I13
INTEGRATION
RELAY
30A
HEATER
CB
2
4
7. 5A
A/C
3
4
R–L
L
I98
L–R
1
2
A 2
A/C DUAL PRESSURE
SW
FROM TCCS ECU
R–Y
2
IL1
R–Y
9
FROM IIA
B
18
ID2
B
19
IL1
B
14
L–R
21
IL1
Y
P
A10
A/C AMPLIFIER
6
12
10
4
Y–G
Y–G
W–B
I29
I29
HEATER
RELAY
3
5
2
1
4
W–B
B
B
B
1
M
B 4
BLOWER
MOTOR
L–W
2
B–W
4
5
6
B 5
BLOWER RESISTOR
B–W
3
1
4
2
B–W
L–B
R
L–W
W–B
W–B
Y–G
W–B
W–Y
Y–W
Y
2
6
5
A13
A/C THERMISTOR
1
Y–G
A/C
A12
A/C SW
8
2
1
HI
M2
M1
LO
OFF
5
6
H 5
HEATER BLOWER SW
W–B
17
IL1
W–B
W–B
1
2
3
8
IG

RADIATOR FAN AND AIR CONDITIONER

SYSTEM OUTLINE

RADIATOR FAN RELAY NO. 1
4–3 : OPEN WITH IGNITION SW ON A/C HI PRESSURE SW ON AND RADIATOR FAN WATER TEMP. SW ON

A/C FAN RELAY NO. 2
(5) 1–(5) 3 : CLOSED WITH IGNITION SW OFF, A/C HI PRESSURE SW OFF AND RADIATOR FAN WATER TEMP. SW OFF.
(5) 1–(5) 4 : CLOSED WITH IGNITION SW ON, A/C HI PRESSURE SW ON AND RADIATOR FAN WATER TEMP. SW ON.

A/C FAN RELAY NO. 3
(5) 2–(4) 4 : CLOSED IGNITION SW ON, AND MAGNET CLUTCH RELAY ON

HEATER RELAY
(4) 4–(4) 5 : CLOSED WITH IGNITION SW ON AND BLOWER SW ON

A 2 A/C DUAL PRESSURE SW
1–2 : OPEN WITH REFRIGERANT PRESSURE AT LESS THAN APPROX. **2.1**Kg/CM^2 (**30**PSI, **206**KPA) OR MORE THAN APPROX. **27.0** Kg/CM^2 (**384**PSI, **2648**KPA)

A 3 A/C HI PRESSURE SW (RADIATOR FAN)
1–2 : OPEN WITH REFRIGERANT PRESSURE MORE THAN **15.5**Kg/CM^2 (**221**PSI, 1520KPA)

R 2 RADIATOR FAN WATER TEMP. SW
1–GROUND : OPEN ABOVE APPROX **90**˚C (**194**˚F)
CLOSED BELOW APPROX **83**˚C (**181**˚F)

: PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A 1	26	**A11**	28 (S/D, W/G), 29 (STATION W/G)	**H 5**	28 (S/D, W/G), 29 (STATION W/G)
A 2	26	**A12**	28 (S/D, W/G), 29 (STATION W/G)	**I13**	28 (S/D, W/G), 29 (STATION W/G)
A 3	26	**A13**	28 (S/D, W/G), 29 (STATION W/G)	**R 1**	27
A 4	26	**B 4**	28 (S/D, W/G), 29 (STATION W/G)	**R 2**	27
A 5	26	**B 5**	28 (S/D, W/G), 29 (STATION W/G)	**W 3**	27
A10	28 (S/D, W/G), 29 (STATION W/G)	**E 4**	28 (S/D, W/G), 29 (STATION W/G)		

: RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
4	25	R/B NO. 4 (RIGHT KICK PANEL)
5	25	R/B NO. 5 (ENGINE COMPARTMENT LEFT)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	20	ENGINE ROOM MAIN WIRE AND J/B N0. 1 (LEFT KICK PANEL)
2A	22	ENGINE ROOM MAIN WIRE AND J/B N0. 2 (ENGINE COMPARTMENT LEFT)
2B	22	ENGINE WIRE AND J/B N0. 2 (ENGINE COMPARTMENT LEFT)
3A	24	COWL WIRE AND J/B NO. 3 (INSTRUMENT PANEL LEFT)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EB1	34	ENGINE ROOM MAIN WIRE AND ENGINE WIRE (NEAR THE R/B NO. 5)
ID2	36 (S/D, W/G)	ENGINE WIRE AND COWL WIRE (INSTRUMENT PANEL CENTER)
IE1	34	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)
IE2	34	
IE3	34	
IL1	36 (S/D, W/G)	COWL WIRE AND A/C WIRE (BEHIND GLOVE BOX)

: GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EC	34	LEFT FENDER
IG	36 (S/D, W/G)	R/B NO. 4 SET BOLT

: SPLICE POINTS

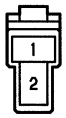
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E35	34	ENGINE WIRE	**I51**	36 (S/D, W/G)	COWL WIRE
I29	36 (S/D, W/G)	A/C WIRE		38 (STATION W/G)	
	38 (STATION W/G)		**I98**	36 (S/D, W/G)	

A 1 BLACK

A 2 GRAY

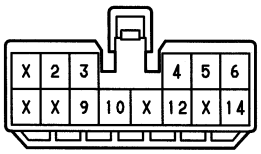
A 3 BLUE

A 4 BLACK

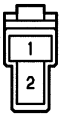


A 5

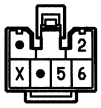
A10



A11

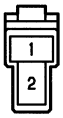


A12

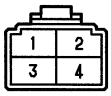


A13

B 4 BLACK

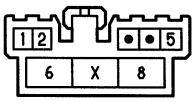


B 5 BLACK

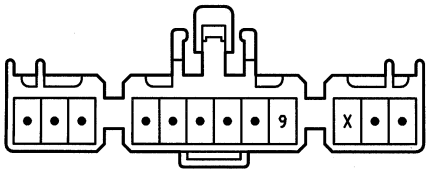


E 4

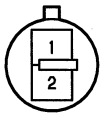
H 5



I13



R 1 GRAY



R 2

W 3 GRAY