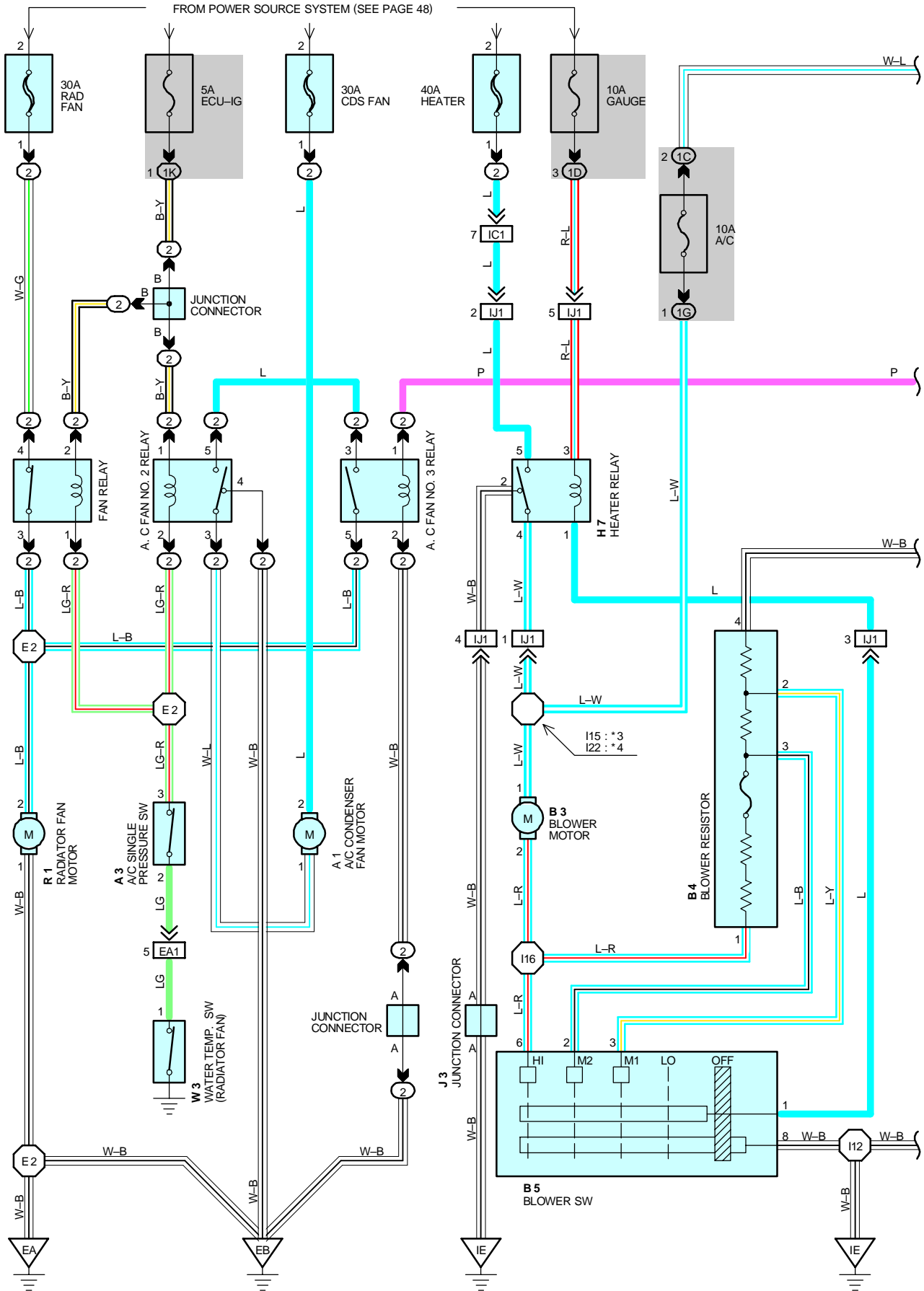
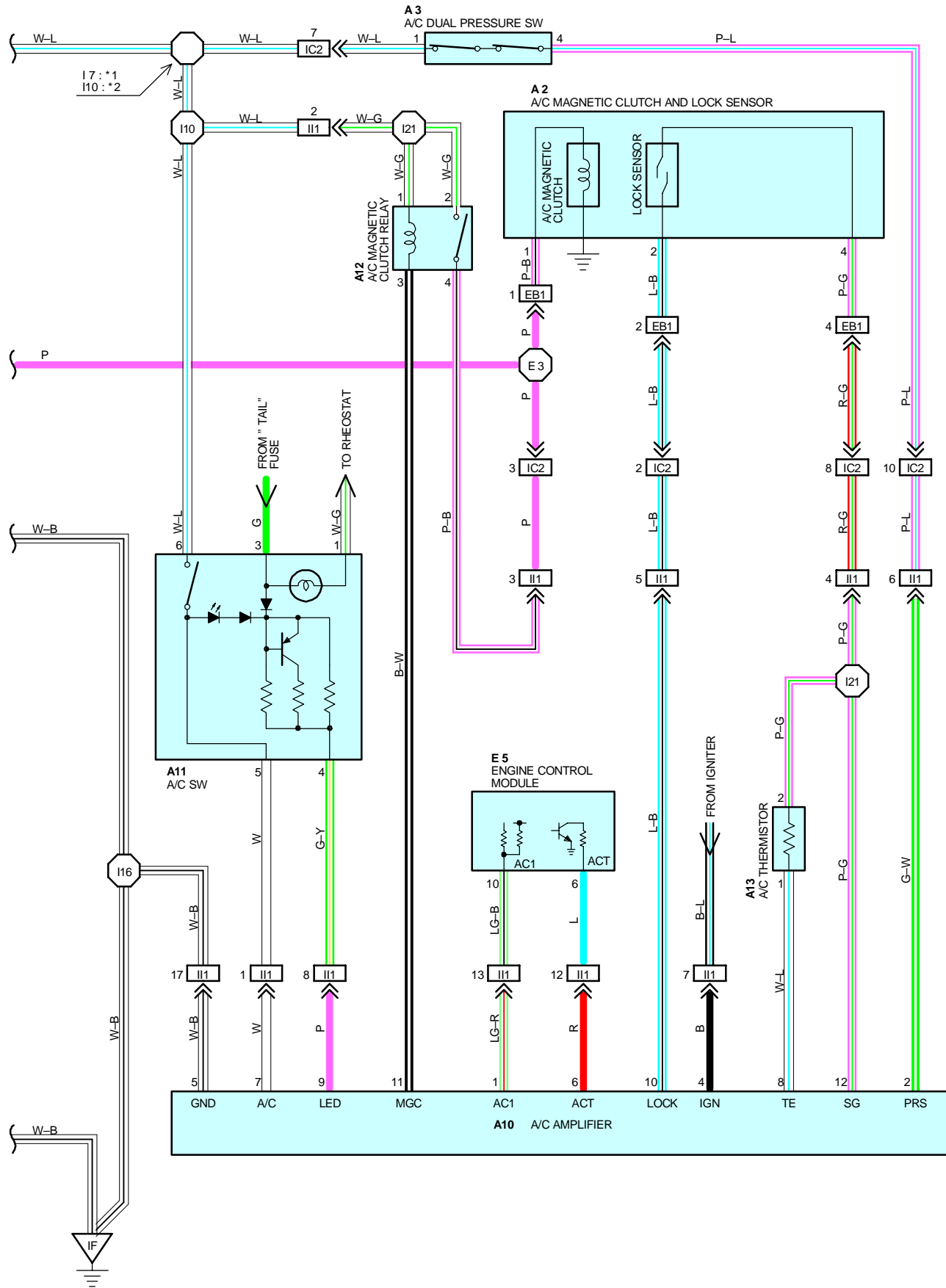




# RADIATOR FAN AND AIR CONDITIONING







### SYSTEM OUTLINE

#### 5. HEATER BLOWER MOTOR OPERATION

CURRENT IS APPLIED AT ALL TIMES THROUGH THE **HEATER FUSE** TO **TERMINAL 5** OF THE HEATER RELAY. WHEN THE IGNITION SW IS TURNED ON, THE CURRENT FLOWS THROUGH **GAUGE FUSE** TO **TERMINAL 3** OF THE HEATER RELAY → COIL → **TERMINAL 1** → **TERMINAL 1** OF THE BLOWER SW.

##### \* LOW SPEED OPERATION

WHEN THE BLOWER SW IS MOVED TO **LO** POSITION, THE CURRENT FLOWS TO THE **TERMINAL 1** OF THE BLOWER SW → **TERMINAL 8** → **GROUND**, CAUSING THE HEATER RELAY TO TURN ON. THIS CAUSES THE CURRENT TO FLOW FROM THE **HEATER FUSE** TO **TERMINAL 5** OF THE HEATER RELAY → **TERMINAL 4** → **TERMINAL 1** OF THE BLOWER MOTOR → **TERMINAL 2** → **TERMINAL 1** OF THE BLOWER RESISTOR → **TERMINAL 4** → **GROUND**, CAUSING THE BLOWER MOTOR TO ROTATE AT A LOW SPEED.

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

WHEN THE BLOWER SW IS MOVED TO **M1** POSITION. THE CURRENT FLOWS TO **TERMINAL 1** OF THE BLOWER SW → **TERMINAL 8** → **GROUND**, CAUSING THE HEATER RELAY TO TURN ON. THIS CAUSES THE CURRENT FLOW FROM THE **HEATER FUSE** TO **TERMINAL 5** OF THE HEATER RELAY → **TERMINAL 4** → **TERMINAL 1** OF THE BLOWER MOTOR → **TERMINAL 2** → **TERMINAL 1** OF THE BLOWER RESISTOR → **TERMINAL 2** → **TERMINAL 3** OF THE BLOWER SW → **TERMINAL 8** → **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, THE CURRENT THROUGH THE MOTOR FLOWS FROM **TERMINAL 1** OF THE BLOWER RESISTOR → **TERMINAL 3** → **TERMINAL 2** OF THE BLOWER SW → **TERMINAL 8** → **GROUND**. AT THIS TIME, RESISTANCE OF THE BLOWER RESISTOR IS LESS THAN AT **M1** POSITION, SO 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 **HI** POSITION, THE CURRENT FLOWS TO **TERMINAL 1** OF THE BLOWER SW → **TERMINAL 8** → **GROUND**, CAUSING THE HEATER RELAY TO TURN ON.

THIS CAUSES THE CURRENT TO FLOW FROM THE **HEATER FUSE** TO **TERMINAL 5** OF THE HEATER RELAY → **TERMINAL 4** → **TERMINAL 1** OF THE BLOWER MOTOR → **TERMINAL 2** → **TERMINAL 6** OF THE BLOWER SW → **TERMINAL 8** → **GROUND**, CAUSING THE BLOWER MOTOR TO ROTATE AT HIGH SPEED.

#### 6. RADIATOR FAN AND CONDENSER FAN OPERATION

WHEN THE IGNITION SW IS TURNED ON, THE CURRENT FLOWS FROM THE **ECU-IG FUSE** TO **TERMINAL 2** OF THE FAN RELAY → **TERMINAL 1** → **TERMINAL 3** OF THE A/C SINGLE PRESSURE SW → **TERMINAL 2** → **TERMINAL 1** OF THE WATER TEMP. SW (RADIATOR FAN) → **GROUND**, ACTIVATING THE FAN RELAY. AT THIS TIME, THE CURRENT IS APPLIED FROM **RAD FAN FUSE** TO **TERMINAL 4** OF THE FAN RELAY. AT THE SAME TIME, THE CURRENT FROM THE **ECU-IG FUSE** THROUGH **TERMINAL 1** OF THE A.C. FAN NO. 2 RELAY → COIL → **TERMINAL 2** → A/C SINGLE PRESSURE SW → WATER TEMP. SW (RADIATOR FAN) → **GROUND**, THEN THROUGH THE **CDS FAN FUSE** TO **TERMINAL 2** OF THE A/C CONDENSER FAN MOTOR → **TERMINAL 1** → **TERMINAL 3** OF THE A/C FAN NO. 2 RELAY → **TERMINAL 5** → **TERMINAL 3** OF THE A/C FAN NO. 3 RELAY.

##### \* LOW SPEED OPERATION

WHEN THE MAGNETIC CLUTCH IS TURNED ON DURING A/C OPERATION, THE CURRENT FROM THE **A/C FUSE** FLOWS THROUGH **TERMINAL 2** OF THE A/C MAGNETIC CLUTCH RELAY TO **TERMINAL 4** → **TERMINAL 1** OF THE A/C FAN NO. 3 RELAY → **TERMINAL 2** → **GROUND**, ACTIVATING THE A.C. FAN NO. 3 RELAY. THEN THE CURRENT APPLIED TO **TERMINAL 3** OF THE A.C. FAN NO. 3 RELAY FLOWS THROUGH **TERMINAL 5** TO **TERMINAL 2** OF THE RADIATOR FAN MOTOR → **TERMINAL 1** → **GROUND**. SINCE THE CONDENSOR AND RADIATOR FAN MOTORS ARE CONNECTED IN SERIES, BOTH FANS ROTATE AT LOW SPEED.

##### \* HIGH SPEED OPERATION

DURING A/C OPERATION WHEN THE WATER TEMP. REACHES APPROX. **90°C (194°F)** OR MORE (WATER TEMP. SW (RADIATOR FAN) IS OFF) OR THE REFRIGERANT PRESSURE REACHES **1520 KPA (15.5 KGF/CM<sup>2</sup>, 220 PSI)** OR MORE (A/C SINGLE PRESSURE SW IS OFF), CURRENT TO THE FAN RELAY AND A/C FAN NO. 2 RELAY IS OFF AND THAT THE MOTORS ARE SUPPLIED IN PARALLEL, CAUSING THE MOTOR TO ROTATE AT HIGH SPEED.

## SYSTEM OUTLINE

### 7. AIR CONDITIONING OPERATION

WHEN THE BLOWER SW IS SET ON, THE CURRENT FROM THE **A/C** FUSE FLOWS TO **TERMINAL 1** OF THE A/C DUAL PRESSURE SW → **TERMINAL 4** → **TERMINAL 2** OF THE A/C AMPLIFIER. THE ENGINE RPM SIGNAL FROM THE IGNITER, THE EVAPORATOR TEMP. SIGNAL FROM THE A/C THERMISTOR AND THE LOCK SIGNAL FROM THE LOCK SENSOR ARE ALL SUPPLIED TO THE A/C AMPLIFIER.

WHEN THE A/C SW IS TURNED ON, THE A/C SW ON SIGNAL IS SENT TO THE A/C AMPLIFIER. WHEN THE A/C SW IS TURNED ON, THE A/C SW ON SIGNAL IS SENT TO THE A/C AMPLIFIER. THE CURRENT FLOWS FROM THE **A/C** FUSE TO **TERMINAL 1** OF THE A/C MAGNETIC CLUTCH RELAY → COIL → **TERMINAL 3** → **TERMINAL 11** OF THE A/C AMPLIFIER → **TERMINAL 5** → GROUND, TURNING THE A/C MAGNETIC CLUTCH RELAY ON.

THIS CAUSES THE CURRENT FROM THE **A/C** FUSE TO FLOW TO THE A/C MAGNETIC CLUTCH, TURNING THE A/C MAGNETIC CLUTCH ON. WHEN ANY OF THE FOLLOWING SIGNALS ARE INPUT TO THE A/C AMPLIFIER, THE AMPLIFIER OPERATES TO TURN OFF THE AIR CONDITIONING.

- \* ENGINE LOW RPM SIGNAL.
- \* A SIGNAL THAT THE TEMPERATURE AT EVAPORATOR IS LOW.
- \* A SIGNAL THAT THE REFRIGERANT PRESSURE IS ABNORMALLY HIGH OR LOW.
- \* A SIGNAL THAT THE A/C COMPRESSOR IS LOCKED.

## SERVICE HINTS

### FAN RELAY

- (2) 4-(2)3 : OPEN WITH THE IGNITION SW ON, THE A/C SINGLE PRESSURE SW ON AND THE WATER TEMP. SW (RADIATOR FAN)

### A/C FAN NO. 2 RELAY

- (2) 3 - (2) 4 : CLOSED WITH THE IGNITION SW OFF, THE A/C SINGLE PRESSURE SW OFF OR THE WATER TEMP. SW (RADIATOR FAN)
- (2) 3 - (2) 4 : CLOSED WITH THE IGNITION SW ON, THE A/C SINGLE PRESSURE SW ON AND THE WATER TEMP. SW (RADIATOR FAN)

### A/C FAN NO. 3 RELAY

- (2) 5 - (2) 3 : CLOSED WITH THE IGNITION SW ON AND A/C MAGNETIC CLUTCH RELAY ON

### H7 HEATER RELAY

- 4-5: CLOSED WITH THE IGNITION SW ON AND THE BLOWER SW ON.

### A13 A/C THERMISTOR

- 1-2: APPROX. 1500 Ω AT 25°C (77°F)

### A 3 A/C DUAL PRESSURE SW

- 1-4: OPEN WITH THE REFRIGERANT PRESSURE AT LESS THAN APPROX. 196.1 KPA (2.0 KGF/CM<sup>2</sup>, 28.4 PSI) OR MORE THAN APPROX. 3138.1 KPA (32.0 KGF/CM<sup>2</sup>, 458 PSI)

### A 3 A/C SINGLE PRESSURE SW

- 2-3: OPEN WITH THE REFRIGERANT PRESSURE MORE THAN 1520 KPA (15.5 KGF/CM<sup>2</sup>, 220 PSI)

### W 3 WATER TEMP. SW (RADIATOR FAN)

- 1-GROUND: OPEN ABOVE APPROX. 90°C (194°F)  
CLOSED BELOW APPROX. 83°C (181°F)



## RADIATOR FAN AND AIR CONDITIONING

### : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A 1	24	A12	26	E 5	26
A 2	24	A13	26	H 7	26
A 3	24	B 3	26	J 3	27
A10	26	B 4	26	R 1	25
A11	26	B 5	26	W 3	25

### : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
2	22	ENGINE ROOM R/B (ENGINE COMPARTMENT LEFT)

### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1C	20	INSTRUMENT PANEL WIRE AND DRIVER SIDE J/B (LEFT KICK PANEL)
1D		
1G		
1K	20	ENGINE ROOM MAIN WIRE AND DRIVER SIDE J/B (LEFT KICK PANEL)

### : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EA1	30	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (INSIDE OF THE ENGINE ROOM R/B)
EB1	30	A/C NO. 1 WIRE AND ENGINE ROOM MAIN WIRE (NEAR THE RADIATOR SUPPORT RH)
IC1	32	INSTRUMENT PANEL WIRE AND ENGINE ROOM MAIN WIRE (LEFT KICK PANEL)
IC2		
II1	34	INSTRUMENT PANEL WIRE AND A/C SUB WIRE (NEAR THE BLOWER UNIT)
IJ1	34	INSTRUMENT PANEL NO. 2 WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)

### : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EA	30	FRONT SIDE OF THE RIGHT FENDER
EB	30	FRONT SIDE OF THE LEFT FENDER
IE	32	INSTRUMENT PANEL BRACE LH
IF	32	RIGHT KICK PANEL

### : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E2	30	ENGINE ROOM MAIN WIRE	I15	34	INSTRUMENT PANEL WIRE
E3			I16		
I7	34	INSTRUMENT PANEL WIRE	I21	34	A/C SUB WIRE
I10			I22	34	INSTRUMENT PANEL WIRE
I12					

