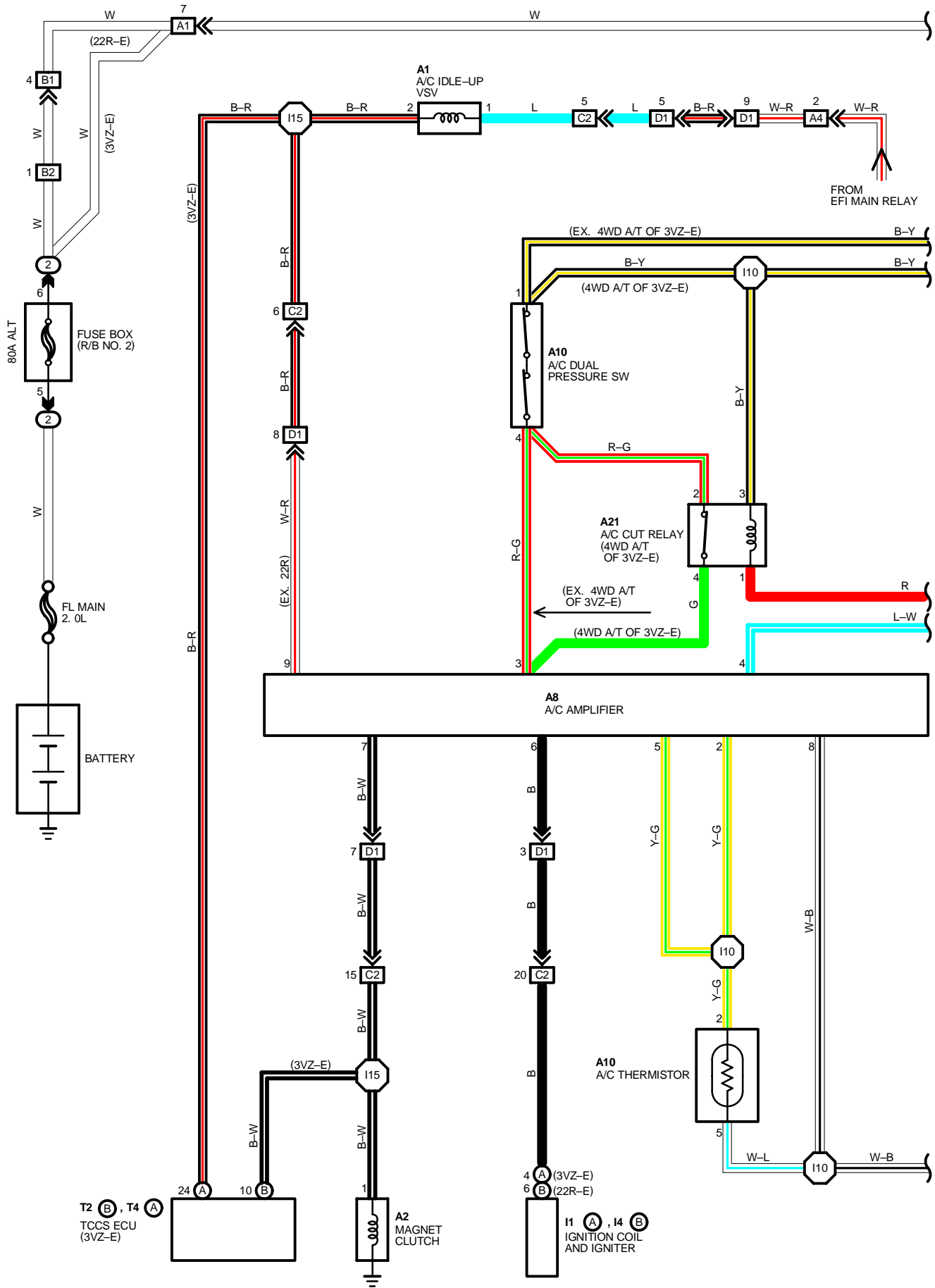
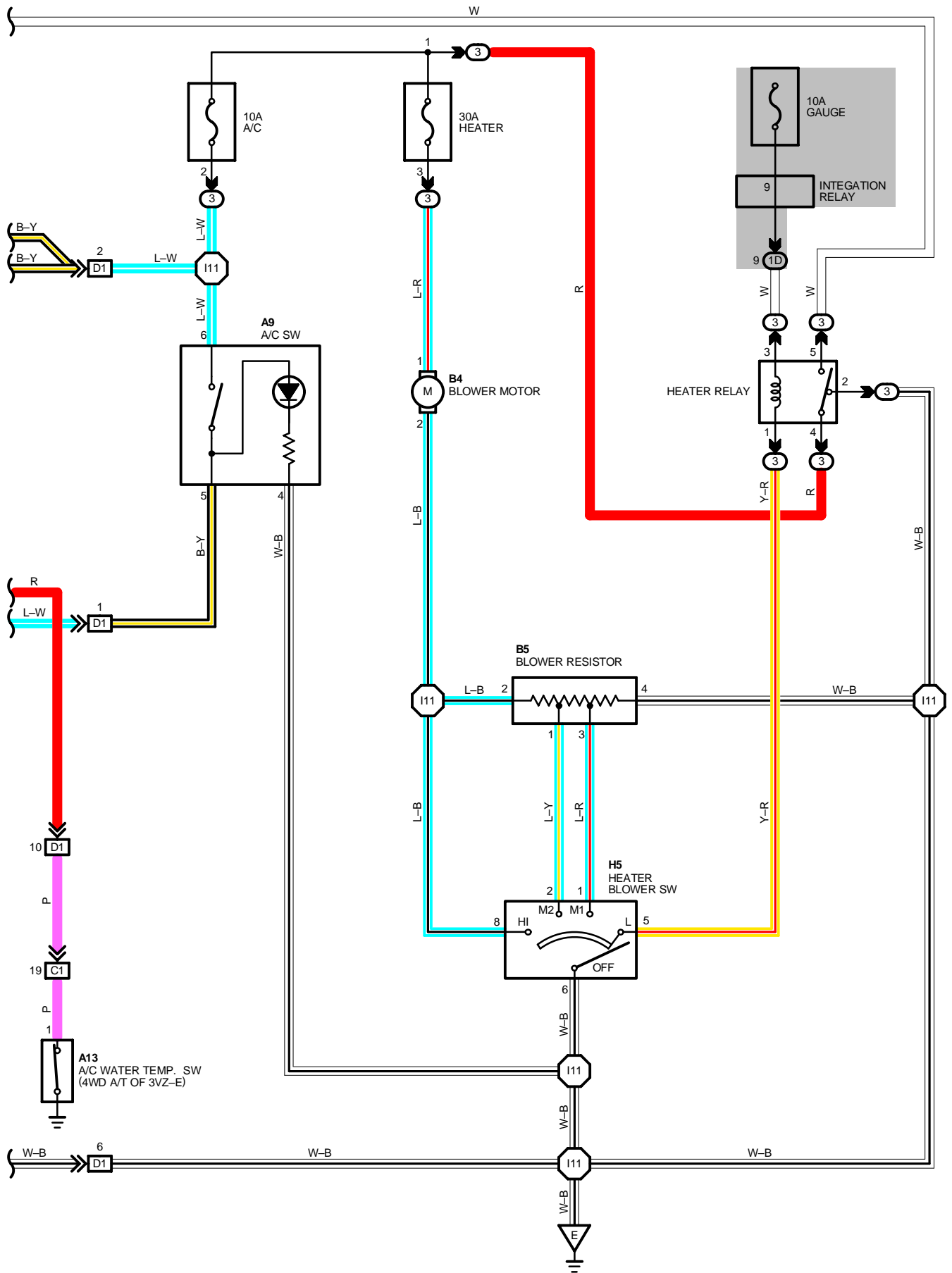


AIR CONDITIONER





AIR CONDITIONER

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 FL MAIN THE CURRENT FLOWS FROM TERMINAL 5 OR HEATER RELAY → TERMINAL 4 → 30A HEATER FUSE → TERMINAL 1 OF THE BLOWER MOTOR → TERMINAL 2 → TERMINAL 2 OF THE BLOWER RESISTOR → TERMINAL 4 → 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, M2)

WHEN THE HEATER BLOWER SW IS MOVED TO THE SPEED M1 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 FUSE FROM THE BLOWER MOTOR → TERMINAL 2 OF THE BLOWER RESISTOR → TERMINAL 3 → 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 POSITION, CURRENT FLOWING THROUGH THE MOTOR FLOWS FROM TERMINAL 2 OF THE BLOWER RESISTOR → TERMINAL 1 → TERMINAL 2 OF THE BLOWER SW → TERMINAL 6 → GROUND. THIS TIME, RESISTANCE OF THE BLOWER RESISTOR IS LESS THAN FOR SPEED M1 SO THAT THE BLOWER MOTOR ROTATES EVEN FASTER THAN FOR SPEED M1.

(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 FOR SPEED M1 AND M2. 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. AIR CONDITIONER OPERATION

WHEN THE BLOWER SW IS SET TO ON, CURRENT FROM THE FL MAIN FLOWS THROUGH THE A/C FUSE → TERMINAL 1 OF THE A/C DUAL PRESSURE SW → TERMINAL 4 → TERMINAL 3 OF THE A/C AMPLIFIER THE ENGINE SPEED SIGNAL FROM IGNITER AND THE EVAPRETOR TEMP. SIGNAL FROM THE A/C THERMISTOR 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 ACTIVATE THE A/C AMPLIFIER. CURRENT FLOWS FROM THE A/C AMPLIFIER TO THE MAGNET CLUTCH, TURNING THE COMPRESSOR ON. AT THE SAME TIME, THE CURRENT APPLIED TO THE A/C IDLE-UP VSV FLOWS THROUGH TERMINAL 9 OF THE AMPLIFIER → 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 EVAPRETOR TEMP., OR ABNORMALLY HIGH OR LOW REFRIGERANT PRESSURE, IS SUPPLIED WHILE THE ENGINE HIGH SPEED SIGNAL EXISTS. WHEN ONE OF THESE SIGNALS IS RECEIVED, THE AMPLIFIER SHUTS OFF THE A/C OPERATION.

SERVICE HINTS

A9 A/C SW

6-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION.

4-GROUND : ALWAYS CONTINUITY.

6-5 : CLOSED WITH A/C SW ON.

HEATER RELAY

(3) 4-(3) 5 : CLOSED WITH IGNITION SW ON AND BLOWER SW ON.

(3) 5-GROUND : ALWAYS APPROX. 12 VOLTS.

(3) 3-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION.

(3) 2-GROUND : ALWAYS CONTINUITY.

A10 A/C DUAL PRESSURE SW

1-2 : OPEN WITH REFRIGERANT PRESSURE AT LESS THAN APPROX. 2.1 KG/CM² (30 PSI, 206 KPA) OR MORE THAN APPROX. 27 KG/CM² (384 PSI, 2646 KPA).

 : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A1	22 (3VZ-E), 23 (22R-E)	A21	24	T2	B 24
A2	22 (3VZ-E), 23 (22R-E)	B4	24	T4	A 24
A8	24	B5	24		
A9	24	H5	24		
A10	24	I1	A 22		
A13	22	I4	B 23		

 : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
2	17	R/B NO. 2 (ENGINE COMPARTMENT RIGHT)
3	20	R/B NO. 3 (GLOVE BOX RIGHT)

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1D	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
A1	30	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)
A4	26 (3VZ-E) 28 (22R-E)	COWL WIRE AND ENGINE ROOM MAIN WIRE (R/B NO.2)
B1	28 (22R-E)	ENGINE ROOM MAIN WIRE AND ALTERNATOR WIRE (FRONT OF LEFT FENDER)
B2	28 (22R-E)	
C1	30	ENGINE WIRE AND COWL WIRE (RIGHT KICK PANEL)
C2	30	
D1	30	COWL WIRE AND A/C SUB WIRE (NEAR THE BATTERY)
D3	30	COWL WIRE AND A/C WIRE (BEHIND GLOVE BOX)

 : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
E	30	LEFT KICK PANEL

 : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I10	30	COWL WIRE	I13	30	COWL WIRE
I11			I15	30	ENGINE WIRE

AIR CONDITIONER

