SYSTEM OUTLINE

1. COOLING FAN OPERATION

WHEN THE IGNITION SW IS TURNED ON, THE CURRENT FROM **AM2** FUSE FLOWS TO **TERMINAL 1** OF FAN MAIN RELAY → **TERMINAL 3** → **GROUND,** CAUSING THE FAN MAIN RELAY OF EACH FAN TO TURN ON.

AT THAT TIME, THE CURRENT FROM **AM2** FUSE FLOWS TO FAN RELAY NO. 1 AND NO. 2, AND FLOWS FROM **TERMINAL 2** OF FAN RELAY NO. 1 AND NO. 2 → **TERMINAL 1** → **TERMINAL 2** OF A/C HIGH SINGLE PRESSURE SW → **TERMINAL 1** → **TERMINAL 8** OF A/C AMPLIFIER. AT THE SAME TIME, THE CURRENT FROM **GAUGE** FUSE FLOWS TO **TERMINAL 7** OF A/C AMPLIFIER → **TERMINAL 1** → **TERMINAL 1** OF FAN RELAY NO. 3 → **TERMINAL 2** → **GROUND,** CAUSING THE FAN RELAY NO. 3 TO TURN ON.

***** OPERATION AT LOW SPEED

WHEN THE IGNITION SW IS TURNED ON, THE FAN MAIN RELAY AND FAN RELAY NO. 1, NO. 2 AND NO. 3 TURN ON, THE CURRENT FLOWS FROM **ALT** FUSE FLOWS TO **TERMINAL 5** OF FAN MAIN RELAY → **TERMINAL 4** → **CDS FAN** FUSE → **TERMINAL 2** OF A/C CONDENSER FAN MOTOR → **TERMINAL 1** → **TERMINAL 3** OF FAN RELAY NO. 2 → **TERMINAL 5** → **TERMINAL 5** OF FAN RELAY NO. 3 → **TERMINAL 3** → **TERMINAL 2** OF RADIATOR FAN MOTOR → **TERMINAL 1** → **GROUND,** FLOWING TO EACH FAN MOTOR IN SERIES, CAUSING THE FAN TO ROTATE AT LOW SPEED.

***** OPERATION AT HIGH SPEED

DURING A/C OPERATION, WHEN THE PRESSURE OF A/C COMPRESSOR BECOMES HIGHER THAN NORMAL PRESSURE (MORE THAN **1402** KPA **14.3** KG/CM^2 **203** PSI), THE A/C SINGLE PRESSURE SW TURNS OFF.

AS A RESULT, FAN RELAY NO. 1 AND NO. 2 TURNS OFF AND THE CURRENT FLOWS FROM **ALT** FUSE TO **TERMINAL 5** OF FAN MAIN RELAY → **TERMINAL 4** → **CDS FAN** FUSE → **TERMINAL 2** OF A/C CONDENSER FAN MOTOR → **TERMINAL 1** → **TERMINAL 3** OF FAN RELAY NO. 2 → **TERMINAL 4** → **GROUND,** AT THE SAME TIME FROM **TERMINAL 4** OF FAN MAIN RELAY TO **RDI FAN** FUSE → **TERMINAL 4** OF FAN RELAY NO. 1 → **TERMINAL 3** → **TERMINAL 2** OF RADIATOR FAN MOTOR → **TERMINAL 1** → **GROUND,** FLOWING TO EACH FAN MOTOR IN PARALLEL CAUSING THE FAN TO ROTATE AT HIGH SPEED.

NOTE THAT, EVEN IF THE ENGINE COOLANT TEMPERATURE RISES ABOVE **90**˚C (**194**˚F), THE WATER TEMP. SW (FOR RADIATOR FAN) TURNS OFF A SIGNAL IS SENT TO **TERMINAL 9** OF A/C AMPLIFIER. BECAUSE CURRENT FLOW FROM **TERMINAL 8** OF A/C AMPLIFIER TO **TERMINAL 6** IS SHUT OFF, THE CIRCUIT BETWEEN THE A/C SINGLE PRESSURE SW AND GROUND IS DEACTIVATED, SO THE SAME OPERATION CONTINUES.

2. HEATER BLOWER MOTOR OPERATION

CURRENT IS APPLIED AT ALL TIMES THROUGH THE **HTR** FUSE TO **TERMINAL 5** OF HEATER RELAY.

WHEN THE IGNITION SW IS TURNED TO ON, CURRENT FLOWS THROUGH **GAUGE** FUSE TO **TERMINAL 1** OF HEATER RELAY → **TERMINAL 3** → **TERMINAL 10** OF AIR VENT MODE CONTROL SERVO MOTOR → **TERMINAL 11** → **TERMINAL (A) 4** AND **(A) 5** OF A/C CONTROL ASSEMBLY.

***** LOW SPEED OPERATION

WHEN THE BLOWER SW (A/C CONTROL ASSEMBLY) IS MOVED TO **LOW** POSITION, THE CURRENT FLOWS TO **TERMINAL (A) 4** AND **(A) 5** OF A/C CONTROL ASSEMBLY → **TERMINAL (A) 6** OF A/C CONTROL ASSEMBLY → **GROUND** AND TURNES THE HEATER RELAY ON.

THIS CAUSES THE CURRENT FLOWING FROM THE **HTR** FUSE TO **TERMINAL 5** OF THE HEATER RELAY TO FLOW TO **TERMINAL 4** OF HEATER RELAY → **TERMINAL 1** OF BLOWER MOTOR → **TERMINAL 2** → **TERMINAL 1** OF BLOWER RESISTOR → **TERMINAL 4** → **GROUND,** CAUSING THE BLOWER MOTOR TO ROTATE AT LOW SPEED.

***** HIGH SPEED OPERATION

WHEN THE BLOWER SW (A/C CONTROL ASSEMBLY) IS MOVED TO **HI** POSITION, THE CURRENT FLOWS TO **TERMINAL (A) 4** AND **(A) 5** OF A/C CONTROL ASSEMBLY → **TERMINAL (A) 6** OF A/C CONTROL ASSEMBLY → **GROUND** AND TURNS THE HEATER RELAY ON.

THIS CAUSES THE CURRENT FLOWING FROM THE **HTR** FUSE TO **TERMINAL 5** OF THE HEATER RELAY TO FLOW TO **TERMINAL 4** OF HEATER RELAY → **TERMINAL 1** OF BLOWER MOTOR → **TERMINAL 2** → **TERMINAL (A) 3** OF A/C CONTROL ASSEMBLY → **TERMINAL (A) 6** → **GROUND,** CAUSING THE BLOWER MOTOR TO ROTATE AT HIGH SPEED.

***** MIDIUM SPEED OPERATION (OPERATION AT M1, M2)

WHEN THE BLOWER SW (A/C CONTROL ASSEMBLY) IS MOVED TO **M1** POSITION, THE CURRENT FLOWS TO **TERMINAL (A) 4** AND **(A) 5** OF A/C CONTROL ASSEMBLY → **TERMINAL (A) 6** OF A/C CONTROL ASSEMBLY → **GROUND** AND TURNS THE HEATER RELAY ON.

THIS CAUSES THE CURRENT FLOWING FROM THE **HTR** FUSE TO **TERMINAL 5** OF THE HEATER RELAY TO FLOW TO **TERMINAL 4** OF HEATER RELAY → **TERMINAL 1** OF BLOWER MOTOR → **TERMINAL 2** → **TERMINAL 1** OF BLOWER RESISTOR → **TERMINAL 2** → **TERMINAL (A) 1** OF A/C CONTROL ASSEMBLY → **TERMINAL (A) 6** → **GROUND,** CAUSING THE BLOWER MOTOR TO ROTATE AT MEDIUM LOW SPEED.

WHEN THE BLOWER SW (A/C CONTROL ASSEMBLY) IS MOVED TO **M2** POSITION, CURRENT FLOWS FROM **TERMINAL 5** OF HEATER RELAY → **TERMINAL 1** OF BLOWER RESISTOR → **TERMINAL 3** → **TERMINAL (A) 2** OF BLOWER SW (A/C CONTROL ASSEMBLY) → **TERMINAL (A) 6** → **GROUND.**

THIS CURRENT FLOW FROM BLOWER MOTOR TO **GROUND** IS GREATER THAN AT **M1** POSITION, SO THE BLOWER MOTOR ROTATES AT MEDIUM HIGH SPEED.

3. OPERATION OF AIR INLET SERVO MOTOR

∗ SWITCHING FROM FRESH TO RECIRC

WITH THE IGNITION SW TURNED ON, THE CURRENT FLOWS FROM **GAUGE** FUSE TO **TERMINAL 1** OF AIR INLET SERVO MOTOR.

WHEN THE RECIRC/FRESH SW IS SWITCHED TO THE RECIRC SIDE, THE CURRENT FLOWS FROM **TERMINAL 4** OF AIR INLET SERVO MOTOR → **TERMINAL 3** → **TERMINAL (C) 1** OF A/C CONTROL ASSEMBLY → **TERMINAL (C) 15** → **GROUND,** THE MOTOR ROTATES AND THE DAMPER MOVES TO THE RECIRC SIDE.

WHEN IT IS IN THE **RECIRC** POSITION, THE CURRENT IS CUT INSIDE THE SERVO MOTOR AND THE DAMPER STOPS AT THAT POSITION.

∗ SWITCHING FROM RECIRC TO FRESH

WITH IGNITION SW ON, WHEN THE RECIRC/FRESH SW IS SWITCHED TO THE FRESH SIDE, THE CURRENT FLOWS FROM **TERMINAL 4** OF AIR INLET SERVO MOTOR → **TERMINAL 1** → **TERMINAL (C) 9** OF A/C CONTROL ASSEMBLY → **TERMINAL (C) 15** → **GROUND,** THE MOTOR ROTATES AND THE DAMPER MOVES TO THE FRESH SIDE.

WHEN IT IS IN THE **FRESH** POSITION, THE CURRENT IS CUT INSIDE THE SERVO MOTOR AND THE DAMPER STOPS AT THAT POSITION.

4. OPERATION OF AIR VENT MODE CONTROL SERVO MOTOR

WITH IGNITION SW TURNED ON, THE CURRENT FLOWS FROM **GAUGE** FUSE TO **TERMINAL 6** OF AIR VENT MODE CONTROL SERVO MOTOR → **TERMINAL 7** → **GROUND,** AND THE DAMPER MOVES TO THE POSITION OF THE MODE SELECTION SW OF THE CONTROL ASSEMBLY SW.

WHEN THE MODE SELECTION SW OF A/C CONTROL ASSEMBLY IS MOVED TO **DEF** POSITION WITH THE DAMPER IN THE **FACE** POSITION, THE CURRENT FLOWS FROM **TERMINAL 5** OF AIR VENT MODE CONTROL SERVO MOTOR TO **TERMINAL (C) 14** OF A/C CONTROL ASSEMBLY → **TERMINAL (C) 15** → **GROUND.**

AS A RESULT, THE SERVO MOTOR OPERATES UNIT THE DAMPER REACHES **DEF** POSITION.

FOOT/DEF POSITION: THE CURRENT FLOWS FROM **TERMINAL 4** OF SERVO MOTOR TO **TERMINAL (C) 5** OF A/C CONTROL ASSEMBLY.

FOOT POSITION: THE CURRENT FLOWS FROM **TERMINAL 3** OF SERVO MOTOR TO **TERMINAL (C) 4** OF A/C CONTROL ASSEMBLY.

BI–LEVEL POSITION: THE CURRENT FLOWS FROM **TERMINAL 2** OF SERVO MOTOR TO **TERMINAL (C) 13** OF CONTROL ASSEMBLY.

5. AIR CONDITIONER OPERATION

THE A/C AMPLIFIER RECEIVES VARIOUS SIGNALS, THE ENGINE SPEED SIGNAL FROM THE IGNITER, OUTLET TEMPERATURE SIGNAL FROM THE A/C THERMISTOR AND CURRENT TEMPARATURE FROM THE WATER TEMP. SW, ETC.

WHEN THE ENGINE IS STARTED AND THE A/C SW (A/C CONTROL ASSEMBLY) IS TURNED ON, THE CURRENT FLOWS FROM **A/C** FUSE TO **TERMINAL (B) 5** OF A/C CONTROL ASSEMBLY → **TERMINAL (B) 6** → **TERMINAL 11** OF A/C AMPLIFIER.

AT THIS TIME, THE A/C AMPLIFIER IS ACTIVATED AND CURRENT APPLIED FROM **A/C** FUSE TO **TERMINAL 1** OF A/C MAGNETIC CLUTCH RELAY FLOWS FROM **TERMINAL 3** OF A/C MAGNETIC CLUTCH RELAY → **TERMINAL 15** OF A/C AMPLIFIER → **TERMINAL 6** → **GROUND**. THIS CAUSES THE A/C MAGNETIC CLUTCH RELAY TO TURN ON, SO CURRENT APPLIED TO **TERMINAL 2** OF A/C MAGNETIC CLUTCH RELAY FLOWS FROM **TERMINAL 4** OF A/C MAGNETIC CLUTCH RELAY → **TERMINAL 1** OF A/C MAGNETIC CLUTCH → **GROUND,** CAUSING THE A/C COMPRESSOR TO OPERATE.

WITH THE ACTIVATION OF A/C AMPLIFIER, CURRENT APPLIED FROM **A/C** FUSE TO **TERMINAL 2** OF VSV (FOR A/C IDLE–UP) FLOWS FROM **TERMINAL 1** OF VSV (FOR A/C IDLE–UP) → **TERMINAL 14** OF A/C AMPLIFIER → **TERMINAL 6** → **GROUND,** AND TURNS ON THE VSV TO AVOID LOWERING THE ENGINE SPEED DURING AIR CONDITIONER OPERATION.

WHEN ANY OF THE FOLLOWING SIGNALS ARE INPUT TO THE A/C AMPLIFIER, THE AMPLIFIER OPERATES TO TURN OFF THE AIR CONDITIONER.

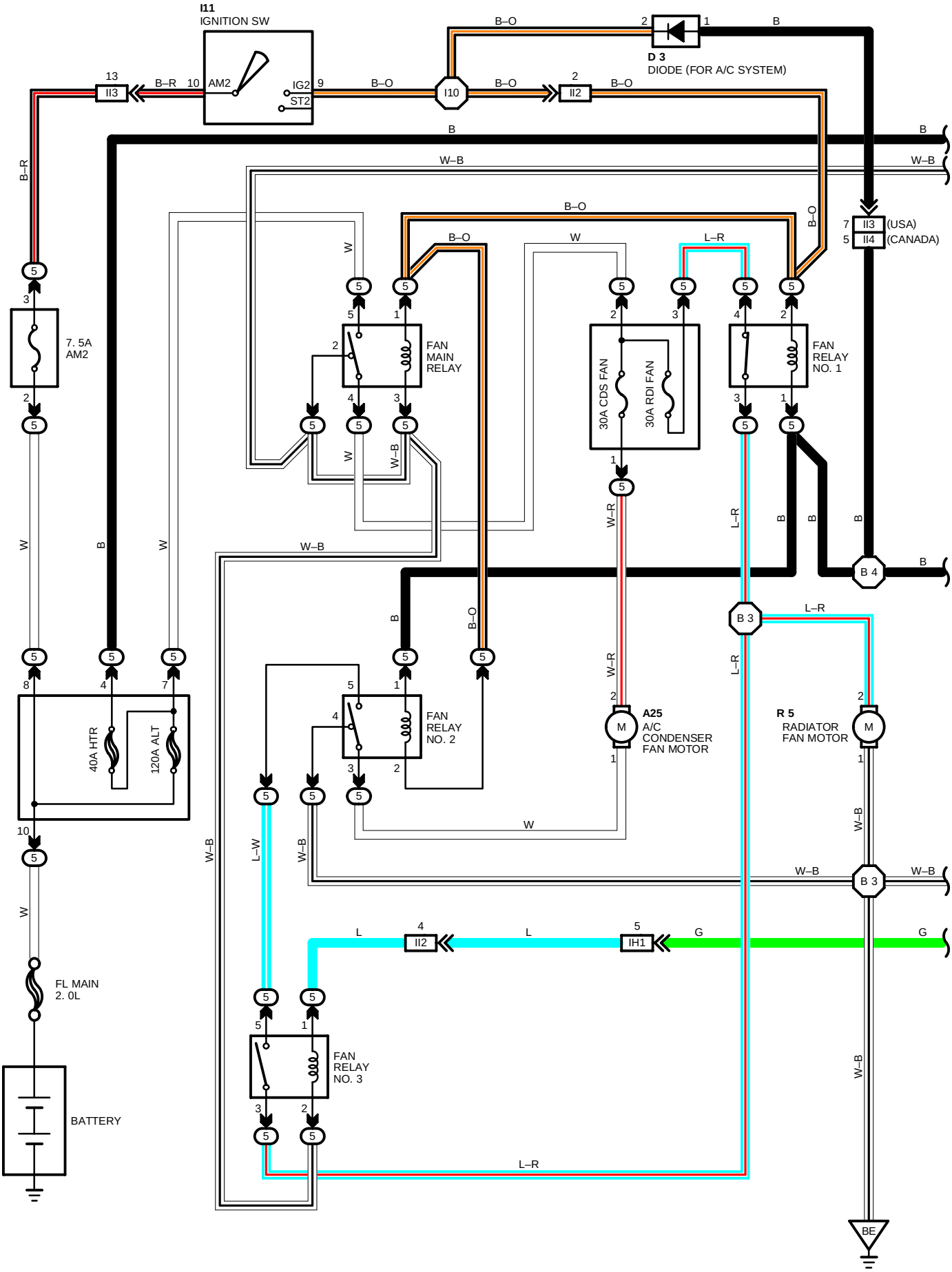
∗ THE ENGINE SPEED DECREASES. (3S–GTE)

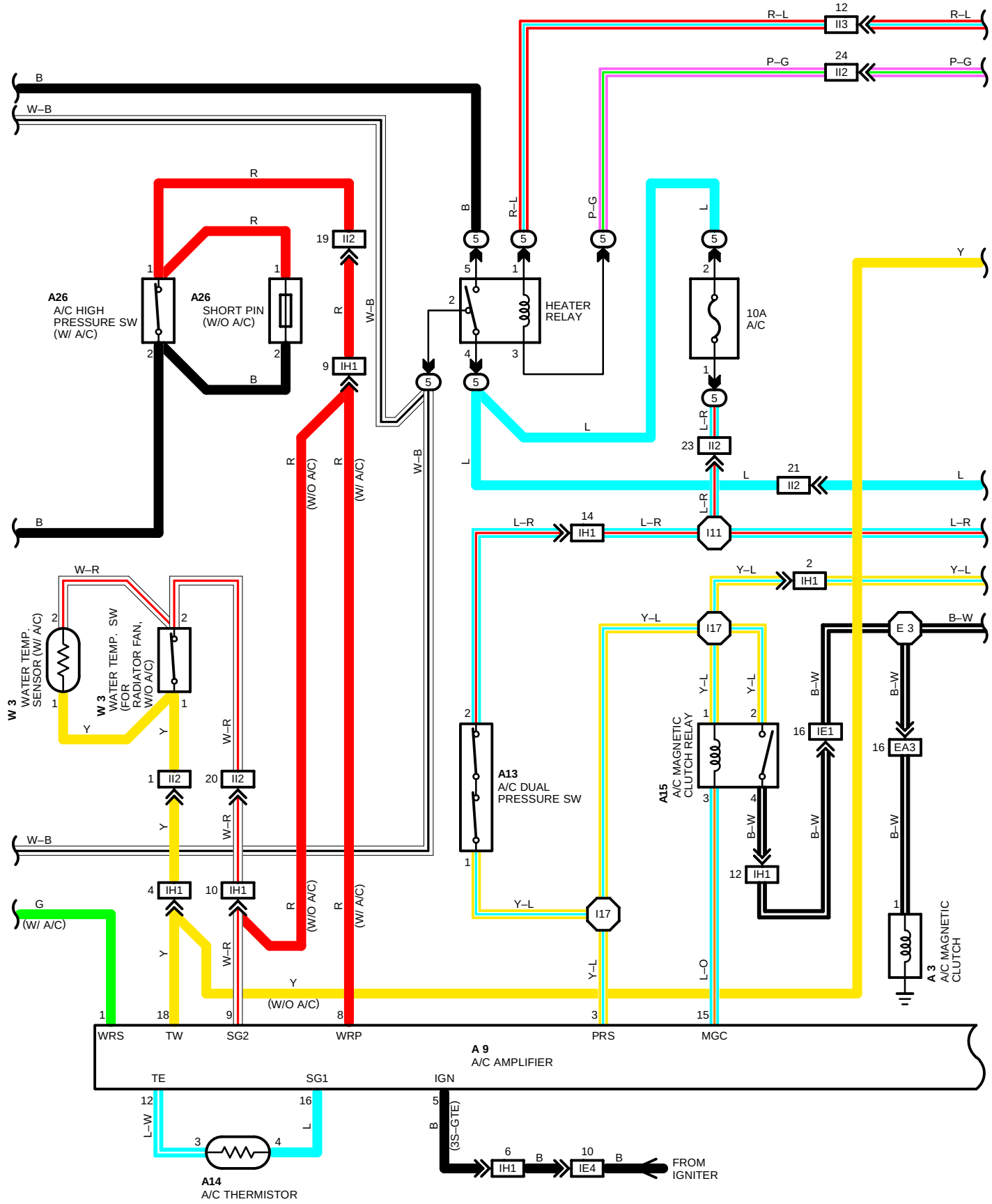
∗ COOLANT TEMP. SIGNAL IS HIGH.

∗ A SIGNAL THAT THE TEMPERATURE AT THE AIR OUTLET IS LOW.

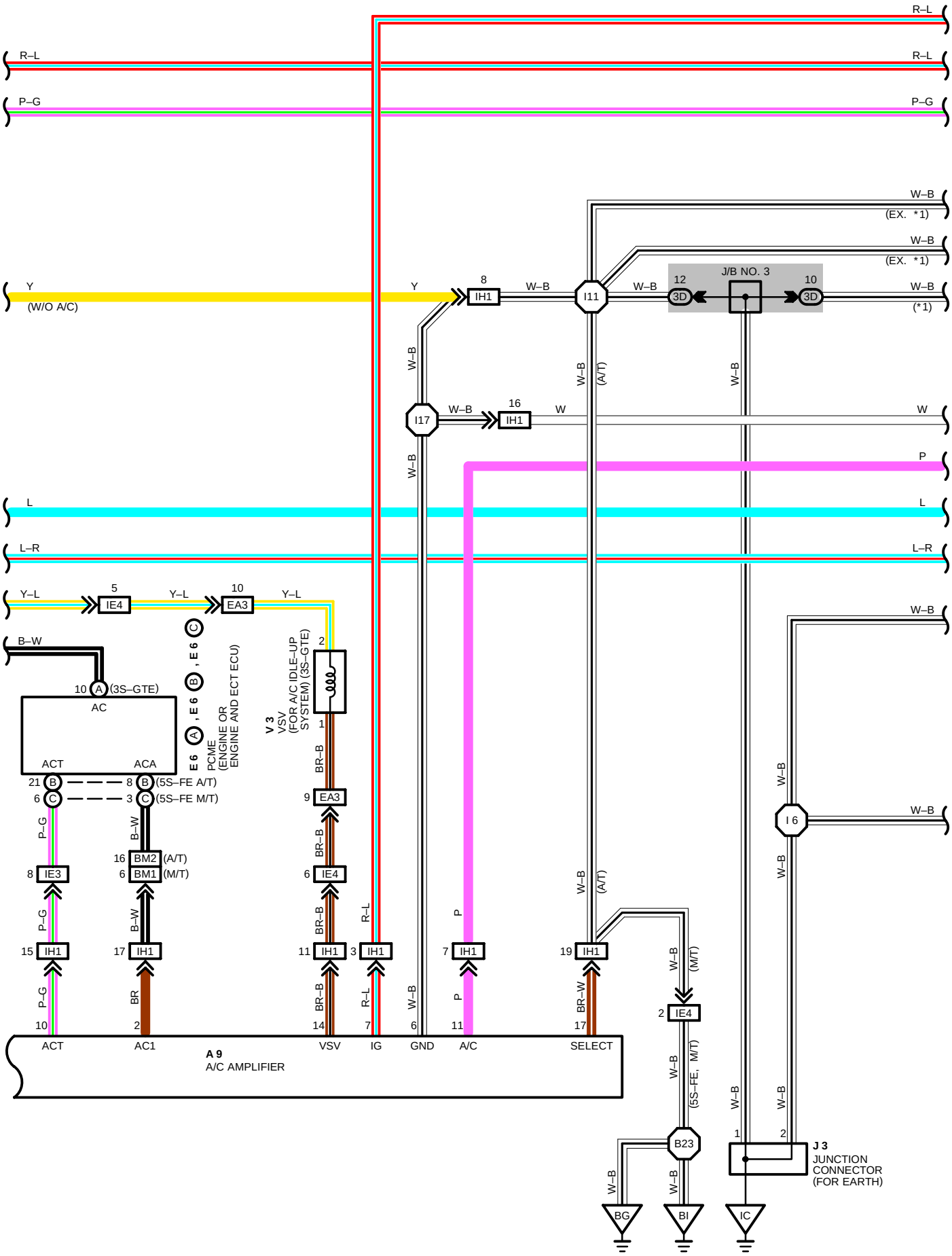
∗ A SIGNAL THAT THE REFRIGERANT PRESSURE IS ABNORMALLY HIGH OR LOW.

RADIATOR FAN AND AIR CONDITIONER

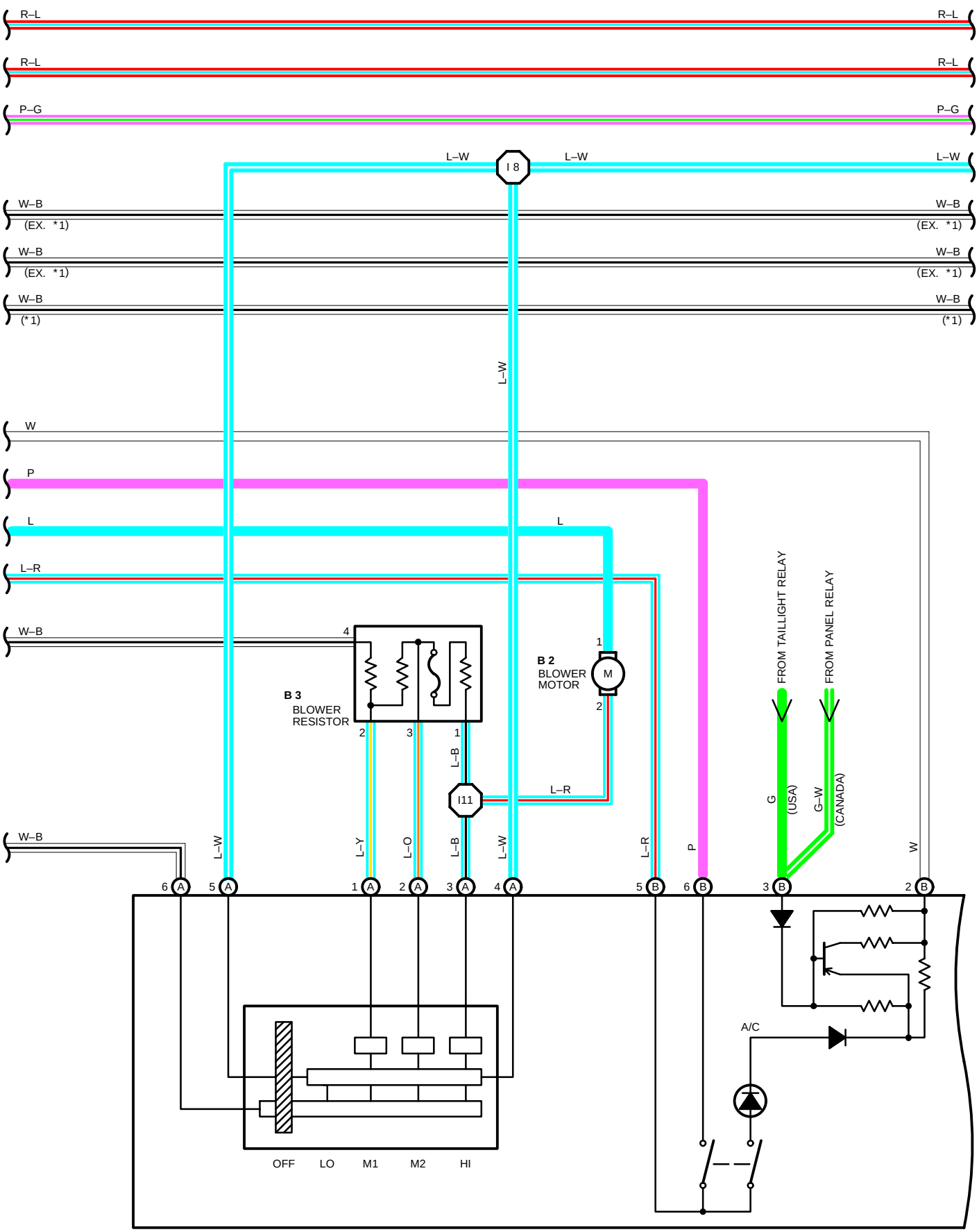



A26
A/C HIGH PRESSURE SW (W/ A/C)
A26
SHORT PIN (W/O A/C)
HEATER RELAY
10A A/C
A13
A/C DUAL PRESSURE SW
A15
A/C MAGNETIC CLUTCH RELAY
A 3
A/C MAGNETIC CLUTCH
W 3
WATER TEMP. SENSOR (W/ A/C)
W 3
WATER TEMP. SW (FOR RADIATOR FAN, W/O A/C)
A 9
A/C AMPLIFIER
A14
A/C THERMISTOR
WRS
TW
SG2
WRP
PRS
MGC
TE
SG1
IGN
(3S–GTE)
FROM IGNITER
(W/ A/C)
(W/O A/C)

RADIATOR FAN AND AIR CONDITIONER

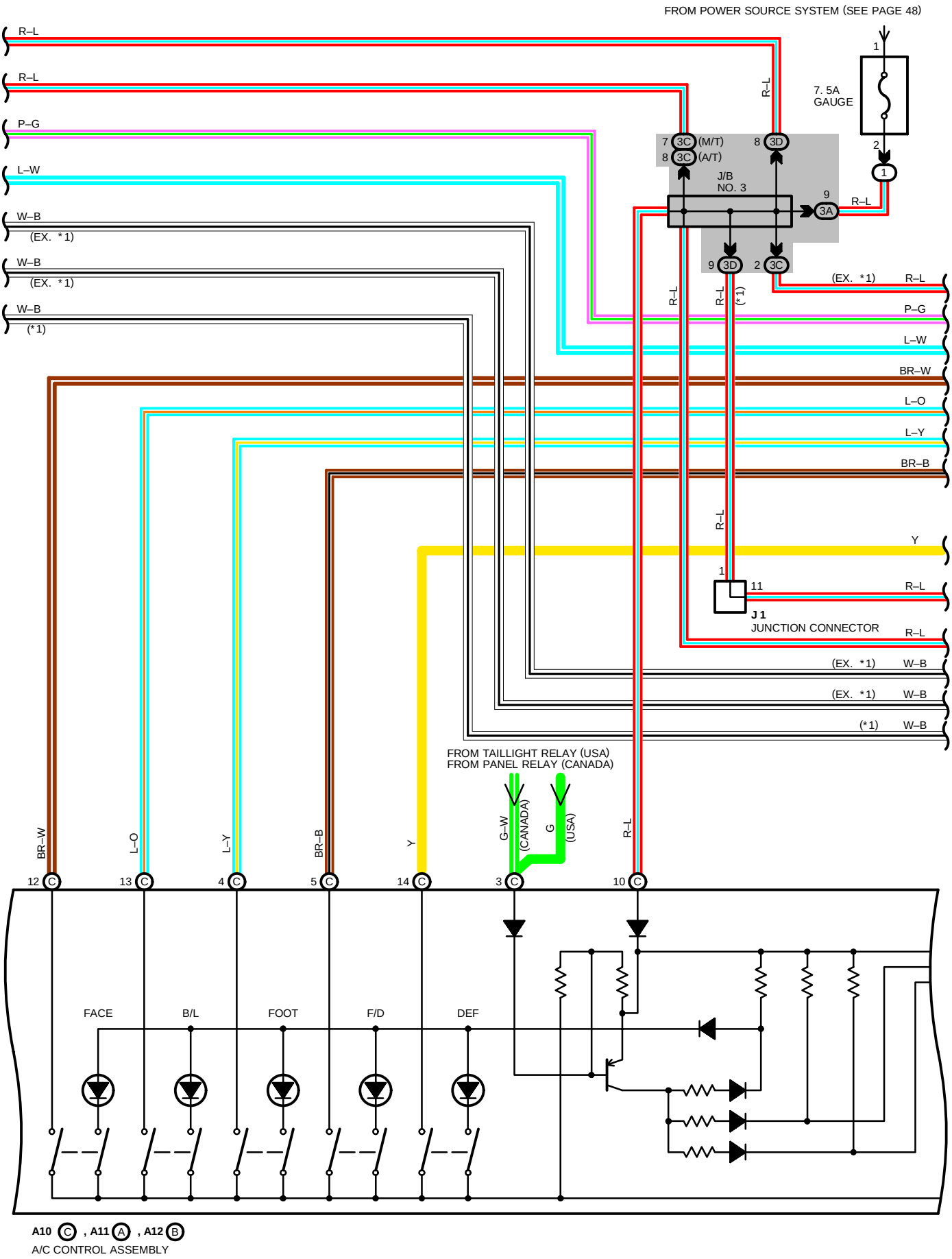


*1 : (1) CANADA
(2) USA (A/T)
(3) USA (M/T) WITH CRUISE CONTROL, ABS, POWER WINDOW OR WOOFER SPEAKER



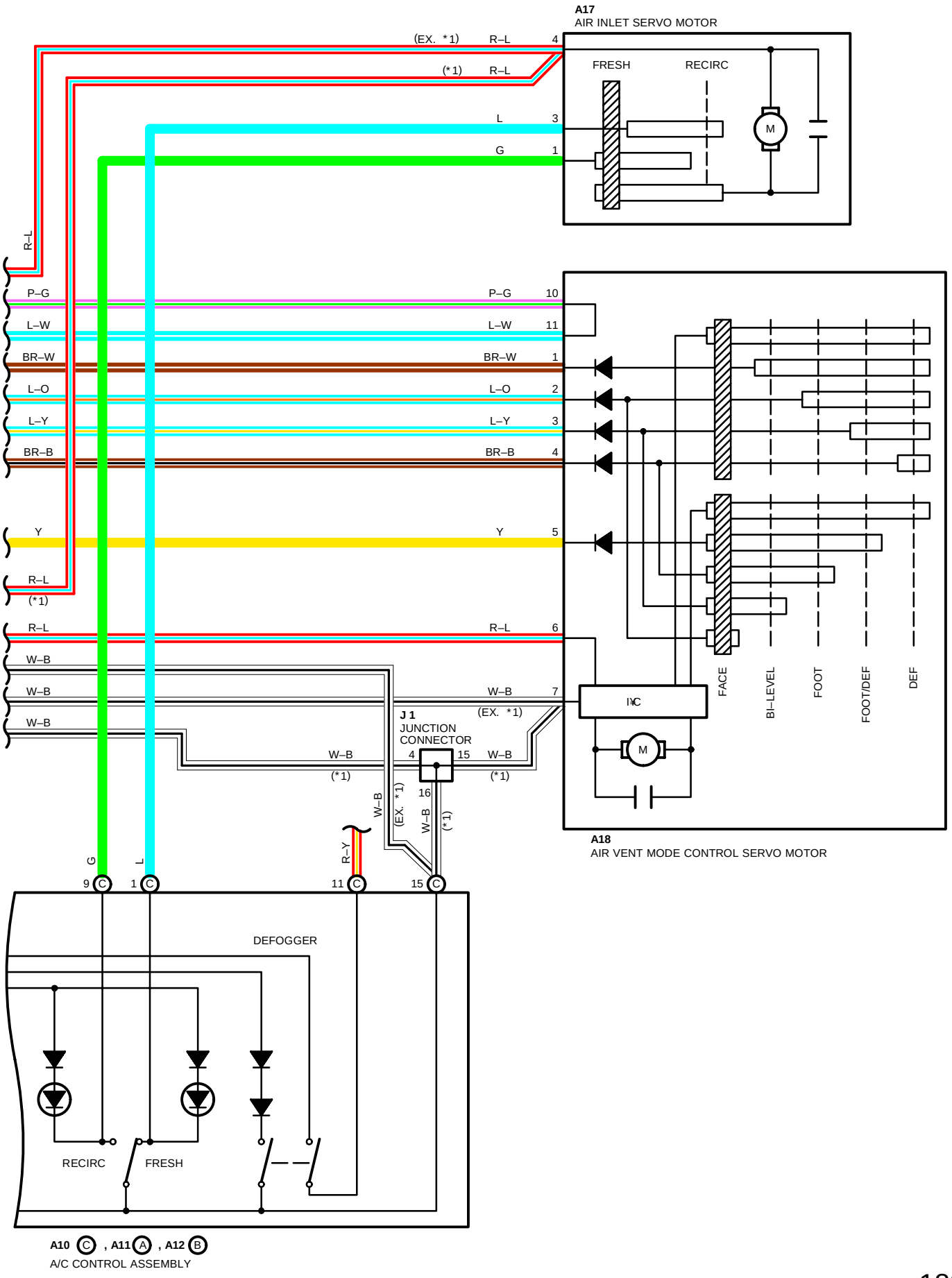
A10 (C) , **A11** (A) , **A12** (B)
A/C CONTROL ASSEMBLY

RADIATOR FAN AND AIR CONDITIONER



A10 C , A11 A , A12 B
A/C CONTROL ASSEMBLY

*1 : (1) CANADA
(2) USA (A/T)
(3) USA (M/T) WITH CRUISE CONTROL, ABS, POWER WINDOW OR WOOFER SPEAKER



RADIATOR FAN AND AIR CONDITIONER

SERVICE HINTS

A14 A/C THERMISTOR
3–4 : APPROX. **4852** Ω AT **0**˚C (**32**˚F)
APPROX. **2341** Ω AT **15**˚C (**59**˚F)
APPROX. **1500** Ω AT **25**˚C (**77**˚F)

A13 A/C DUAL PRESSURE SW
1–2 : OPEN WITH PRESSURE LESS THAN **206** KPA (**30** PSI, **2.1** KG/CM^2) OR ABOVE **2648** KPA (**384** PSI, **27** KG/CM^2)

W 3 WATER TEMP. SW (FOR RADIATOR FAN)
1–2 : OPEN ABOVE APPROX. **90**˚C (**194**˚F)
CLOSED BELOW APPROX. **83**˚C (**184.4**˚F)

B 3 BLOWER RESISTOR
1–3 : APPROX. **0.45** Ω
3–2 : APPROX. **0.78** Ω
2–4 : APPROX. **0.91** Ω

A 9 A/C AMPLIFIER
7–GROUND : APPROX. **12** VOLTS WITH THE IGNITION SW ON
6–GROUND : ALWAYS CONTINUITY
18–9 : CONTINUITY WITH WATER TEMP. SW CLOSED [BELOW APPROX. **83**˚C (**181.4**˚F)]
5–GROUND : APPROX. **12** VOLTS WITH ENGINE RUNNING
11–GROUND : APPROX. **12** VOLTS WITH IGNITION SW ON AND A/C SW (A/C CONTROL ASSEMBLY) ON

A17 AIR INLET SERVO MOTOR
4–3 : CLOSED WITH AIR INLET DAMPER AT **RECIRC** POSITION
4–1 : CLOSED WITH AIR INLET DAMPER AT **FRESH** POSITION

: PARTS LOCATION

CODE		SEE PAGE	CODE		SEE PAGE	CODE		SEE PAGE
A 3		24 (5S–FE), 25 (3S–GTE)	**A17**		26	**E 6**	B	24 (5S–FE)
A 9		26	**A18**		26		C	24 (5S–FE)
A10	C	26	**A25**		27	**I11**		26
A11	A	26	**A26**		27	**J 1**		26
A12	B	26	**B 2**		26	**J 3**		26
A13		26	**B 3**		26	**R 5**		27
A14		26	**D 3**		26	**V 3**		24 (5S–FE), 25 (3S–GTE)
A15		26	**E 6**	A	25 (3S–GTE)	**W 3**		27

: RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	20	R/B NO. 1 (LEFT KICK PANEL)
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT LEFT)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
3A	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3C		
3D		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EA3	28 (5S–FE) 30 (3S–GTE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/B NO. 2 INNER)
IE1	32	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)
IE4		
IH1	32	COWL WIRE AND A/C SUB WIRE (INSTRUMENT PANEL RIGHT)
II2	34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)
II3	34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)
II4		
BM1	36	ENGINE ROOM MAIN WIRE AND COWL WIRE (ROOM PARTITION BOARD LEFT)
BM2		

: GROUND POINTS

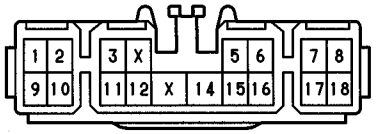
CODE	SEE PAGE	GROUND POINTS LOCATION
IC	32	INSTRUMENT PANEL BRACE LH
BE	36	FRONT RIGHT FENDER
BG	36	UNDER THE LEFT CENTER PILLAR
BI	36	BACK PANEL CENTER

: SPLICE POINTS

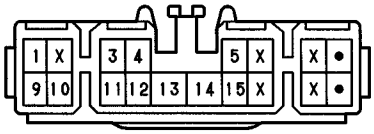
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 3	28 (5S–FE)	ENGINE ROOM MAIN WIRE	I11	34	COWL WIRE
	30 (3S–GTE)		I17	34	A/C SUB WIRE
I 6	34	COWL WIRE	B 3	36	LUGGAGE ROOM WIRE
I 8			B 4		
I10			B23	36	ENGINE ROOM MAIN WIRE

A 3 GRAY

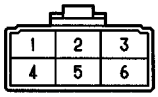
A 9 BLACK



A10 (C)



A11 (A)



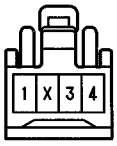
A12 (B)

A13 BLUE

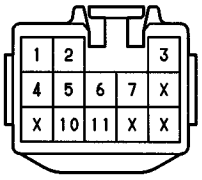
A14

A15

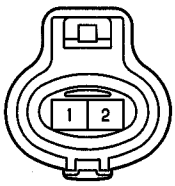
A17



A18



A25 GRAY



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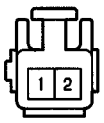

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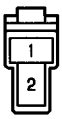
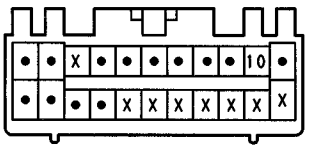


B 3 BLACK

D 3 BLACK

E 6 (A) DARK GRAY



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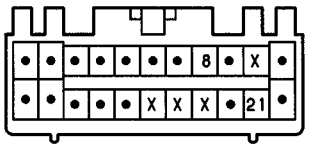
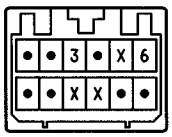
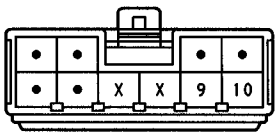


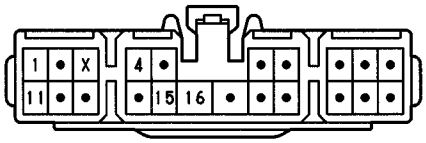
E 6 (C) DARK GRAY



I11 BLACK



J 1



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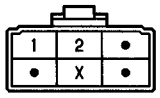
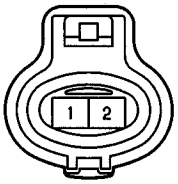


R 5 GRAY



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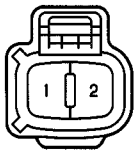

W 3 GRAY