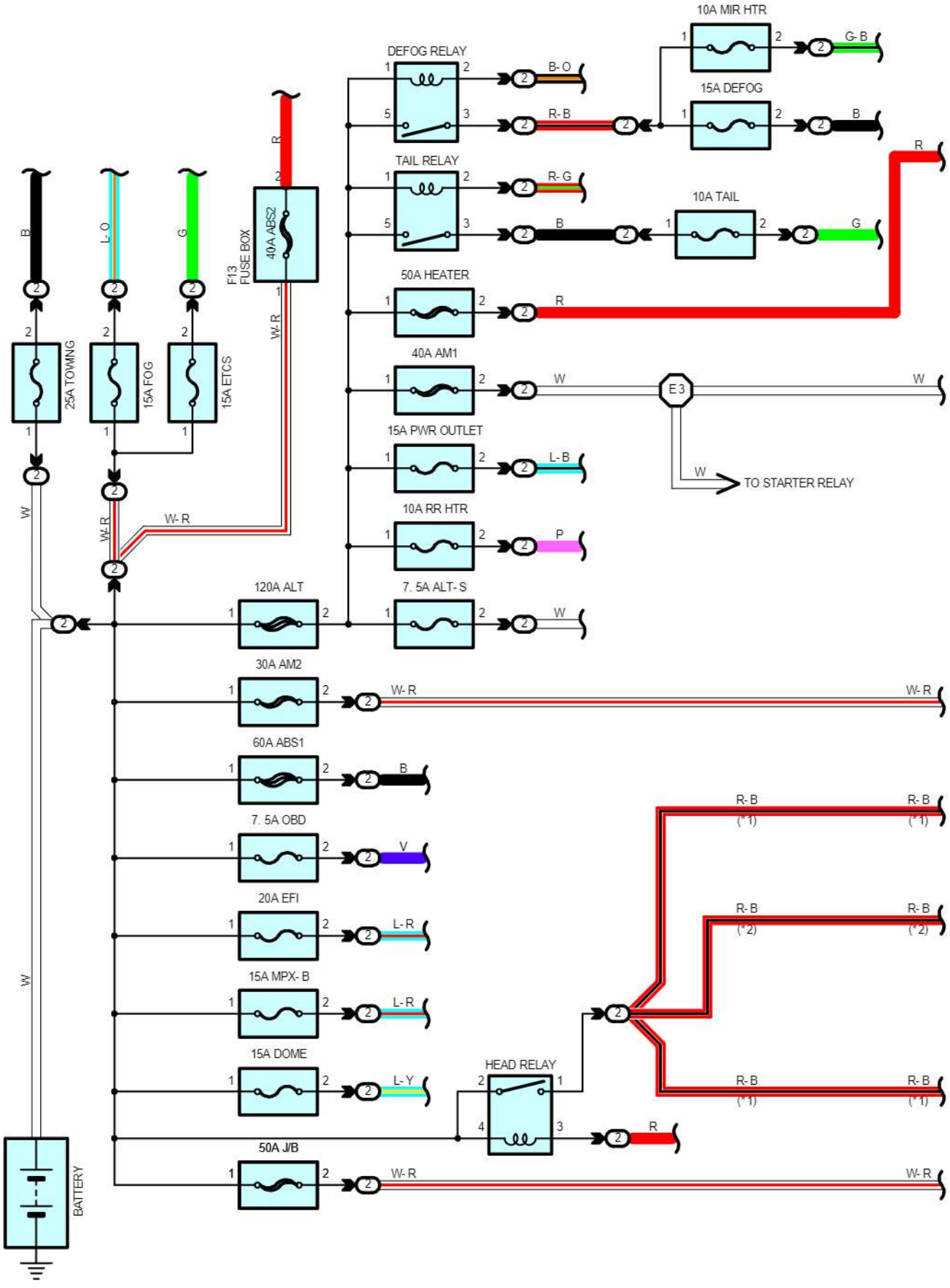
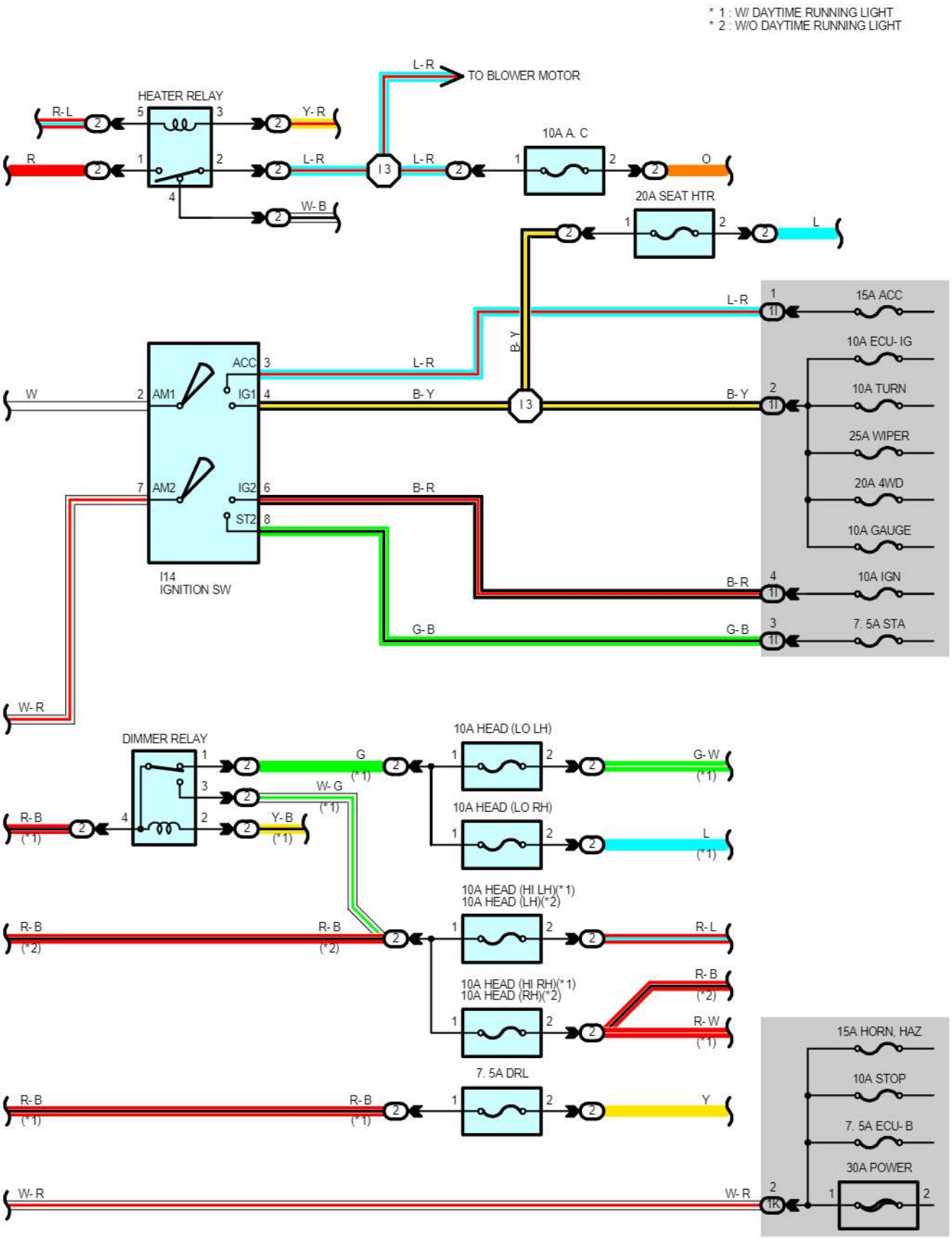


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POWER SOURCE

SERVICE HINTS

HEATER RELAY

2-1 : Closed with ignition SW on and blower SW on (Manual Air Conditioning), heater control panel SW [A/C amplifier] on (Automatic Air Conditioning)

HEAD RELAY

2-1 : Closed with light control SW at **HEAD** position or dimmer SW at **FLASH** position
Closed with engine running and parking brake lever released (w/ daytime running light)

I14 IGNITION SW

2-3 : Closed with ignition key at **ACC** or **ON** position
2-4 : Closed with ignition key at **ON** or **ST** position
7-6 : Closed with ignition key at **ON** or **ST** position
7-8 : Closed with ignition key at **ST** position

TAIL RELAY

3-5 : Closed with light control SW at **TAIL** or **HEAD** position

DIMMER RELAY

Changed from HEAD (LO) to HEAD (HI) with dimmer SW at **FLASH** position or with HEAD relay on and dimmer SW at **HIGH** position (w/ daytime running light)

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
F13	28	I14	31		

: 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

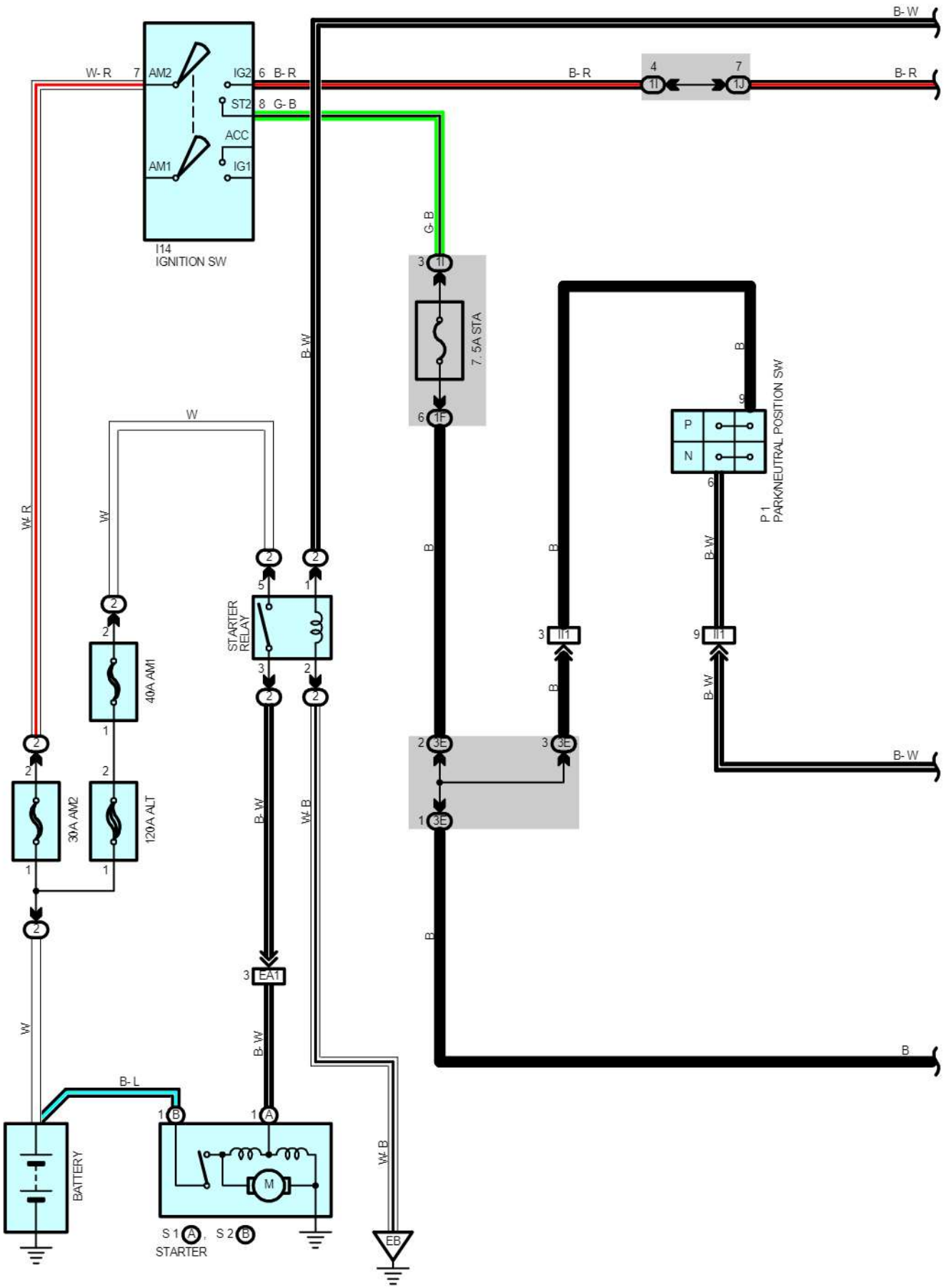
Code	See Page	Junction Block and Wire Harness (Connector Location)
1I	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1K		

: SPLICE POINTS

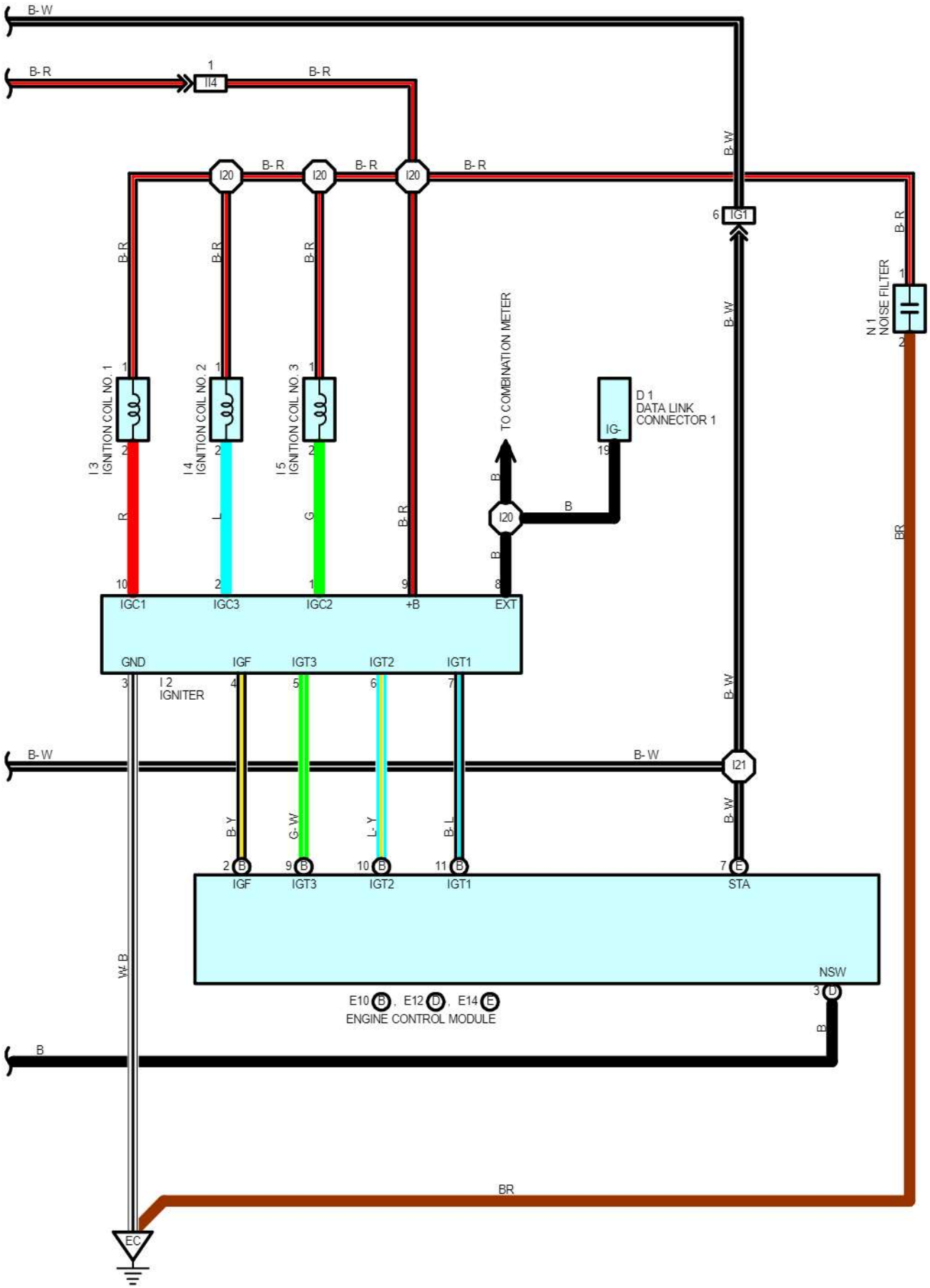
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E3	36	Engine Room Main Wire	I3	40	Engine Room Main Wire

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STARTING AND IGNITION

SERVICE HINTS

S1 (A), S2 (B) STARTER

Points closed with Park/Neutral position SW at **P** or **N** position and ignition SW at **ST** position

I14 IGNITION SW

7-6 : Closed with ignition SW at **ON** or **ST** position
7-8 : Closed with ignition SW at **ST** position

P1 PARK/NEUTRAL POSITION SW

9-6 : Closed with A/T shift lever in **P** or **N** position

STARTER RELAY

3-5 : Closed with Park/Neutral position SW at **P** or **N** position and ignition SW at **ST** position

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
D1	28	I3	29	P1	29
E10 B	31	I4	29	S1 A	29
E12 D	31	I5	29	S2 B	29
E14 E	31	I14	31		
I2	29	N1	29		

: 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)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1I	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1J	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
3E	26	Cowl Wire and Center J/B (Near the Steering Column Tube)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	36	Engine No.2 Wire and Engine Room Main Wire (Near the Engine Room R/B)
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
II1	40	Engine Wire and Cowl Wire (On the Glove Box)
II4		

: GROUND POINTS

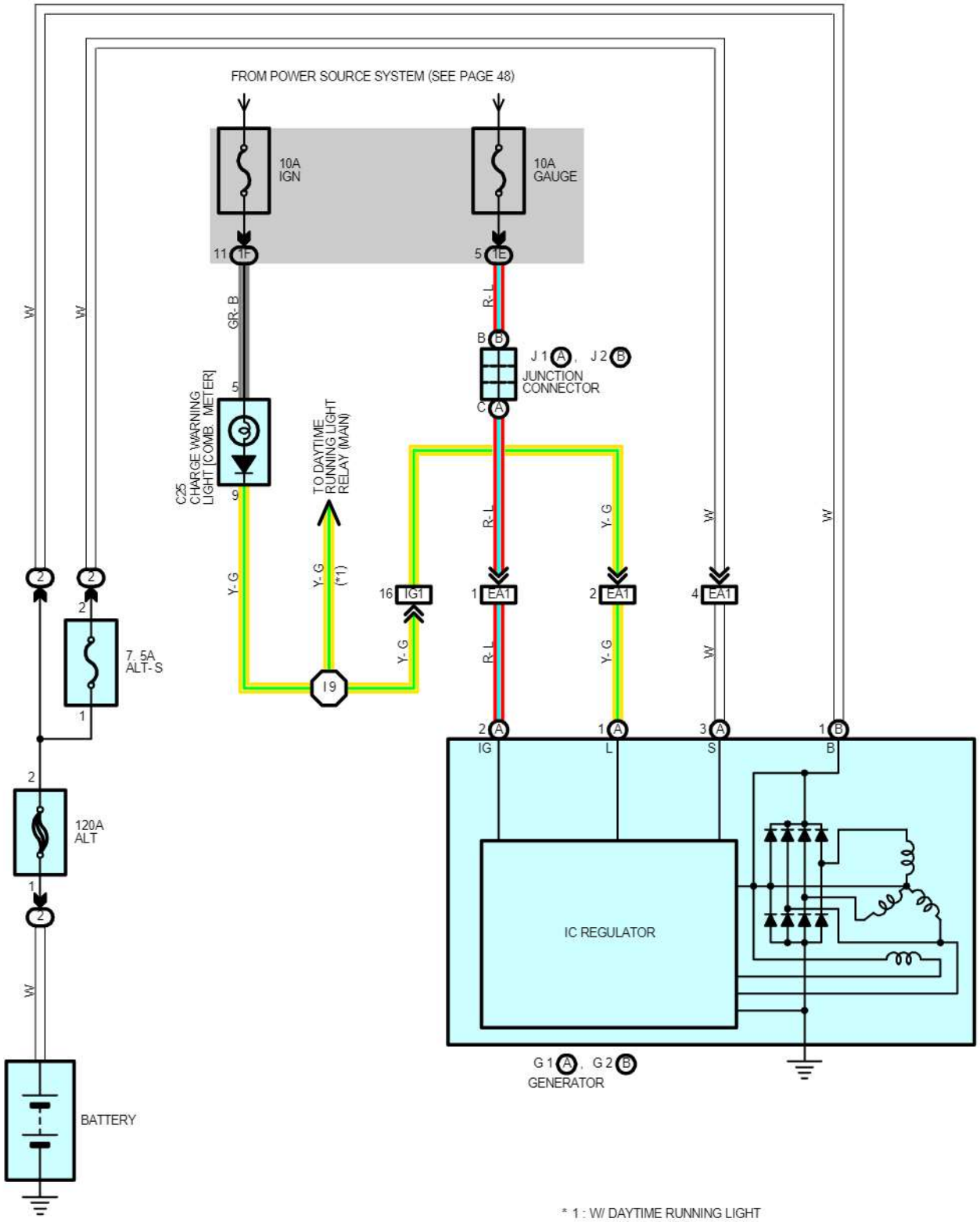
Code	See Page	Ground Points Location
EB	36	Front Left Fender
EC	36	Intake Manifold Left

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I20	40	Engine Wire	I21	40	Cowl Wire

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* 1 : W/ DAYTIME RUNNING LIGHT

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SERVICE HINTS

G1 (A), G2 (B) GENERATOR

(B) 1-GROUND : **13.9- 15.1** volts with engine running at **2000** rpm and **25**°C (**77**°F)
13.5- 14.3 volts with engine running at **2000** rpm and **115**°C (**239**°F)

(A) 1-GROUND : **0- 4** volts with ignition SW at **ON** position and engine not running

: PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
C25		30	G2	B	28	J2	B	29
G1	A	28	J1	A	29			

: 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)
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)

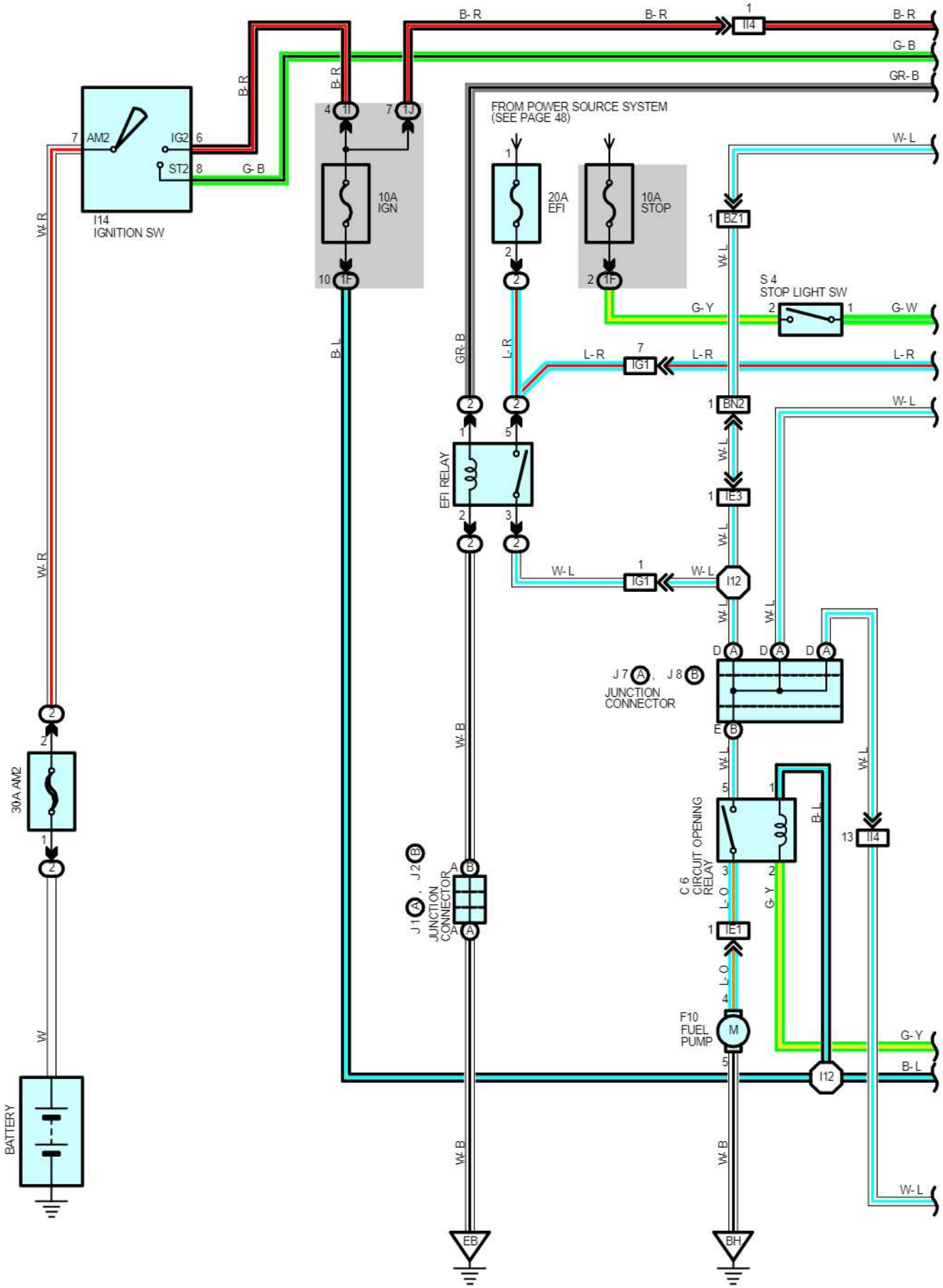
: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	36	Engine No.2 Wire and Engine Room Main Wire (Near the Engine Room R/B)
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)

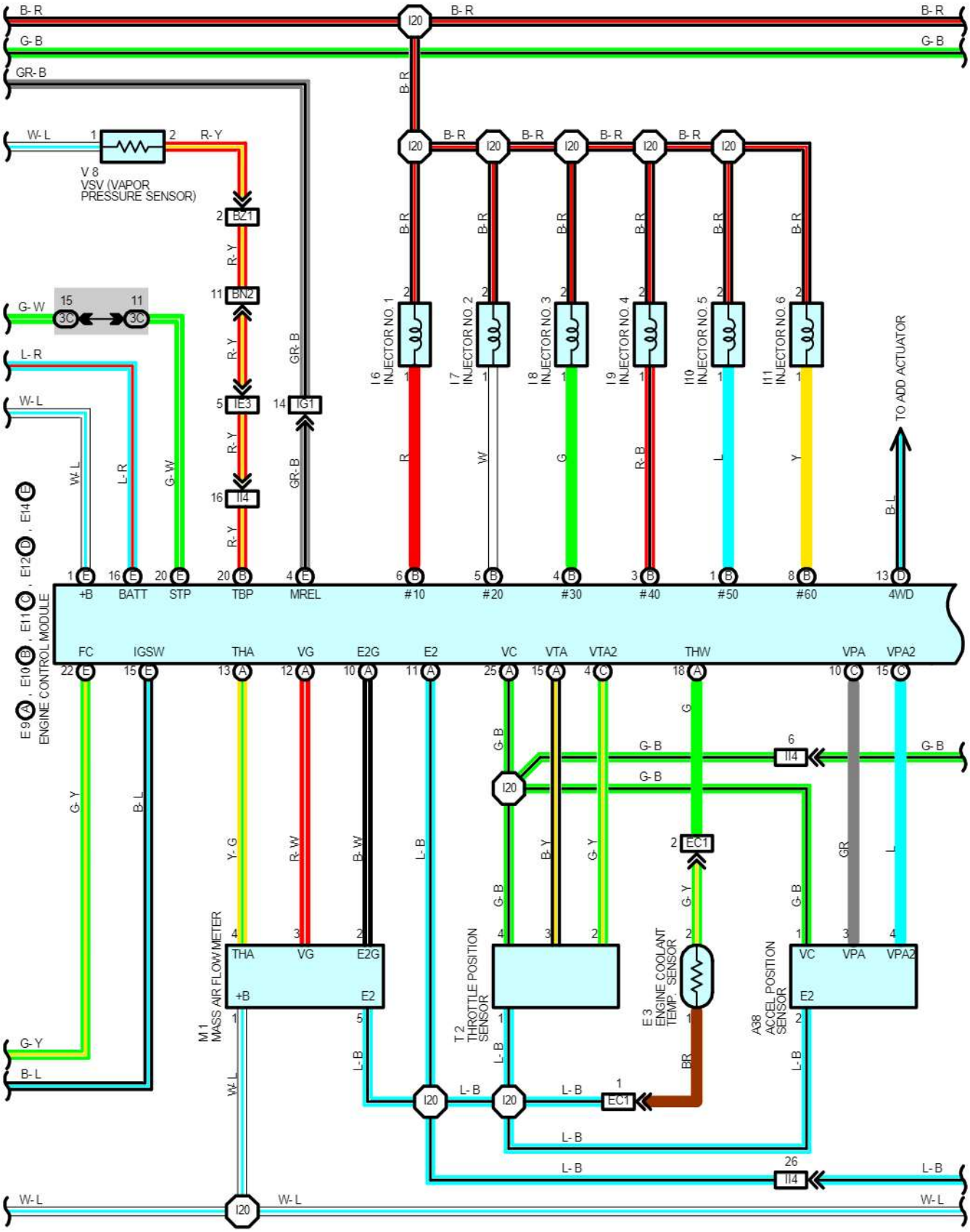
: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I9	40	Cowl Wire			

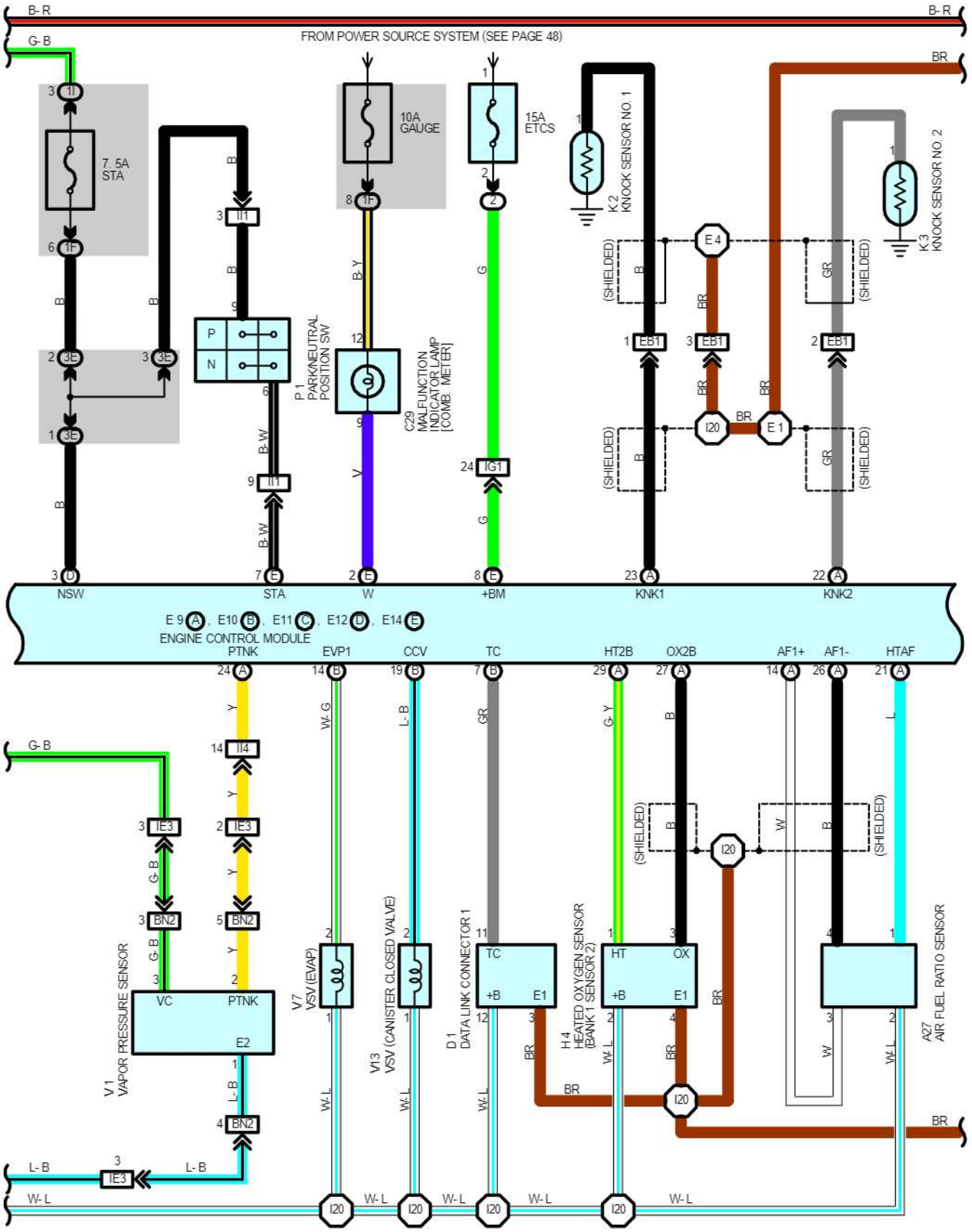
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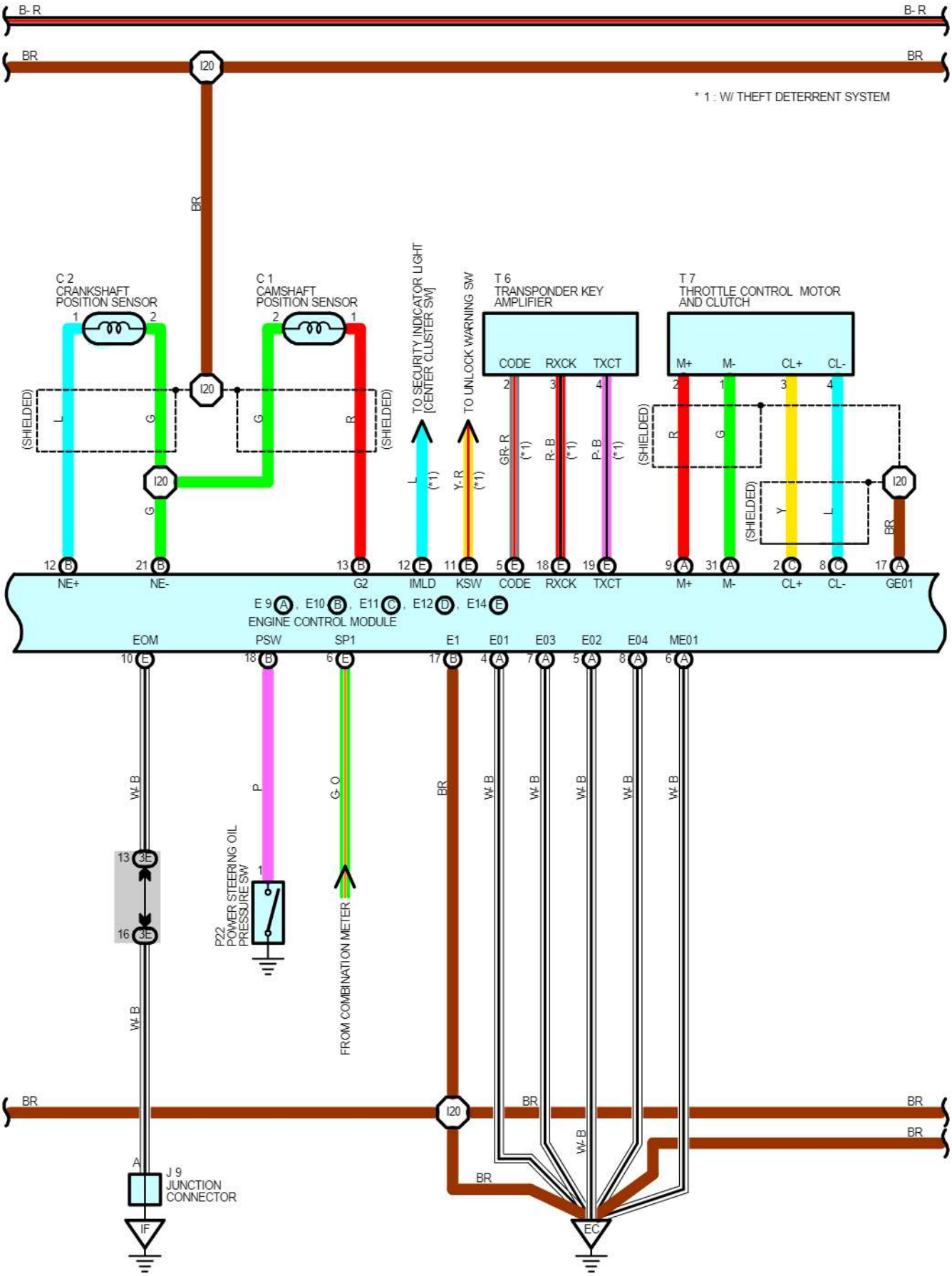
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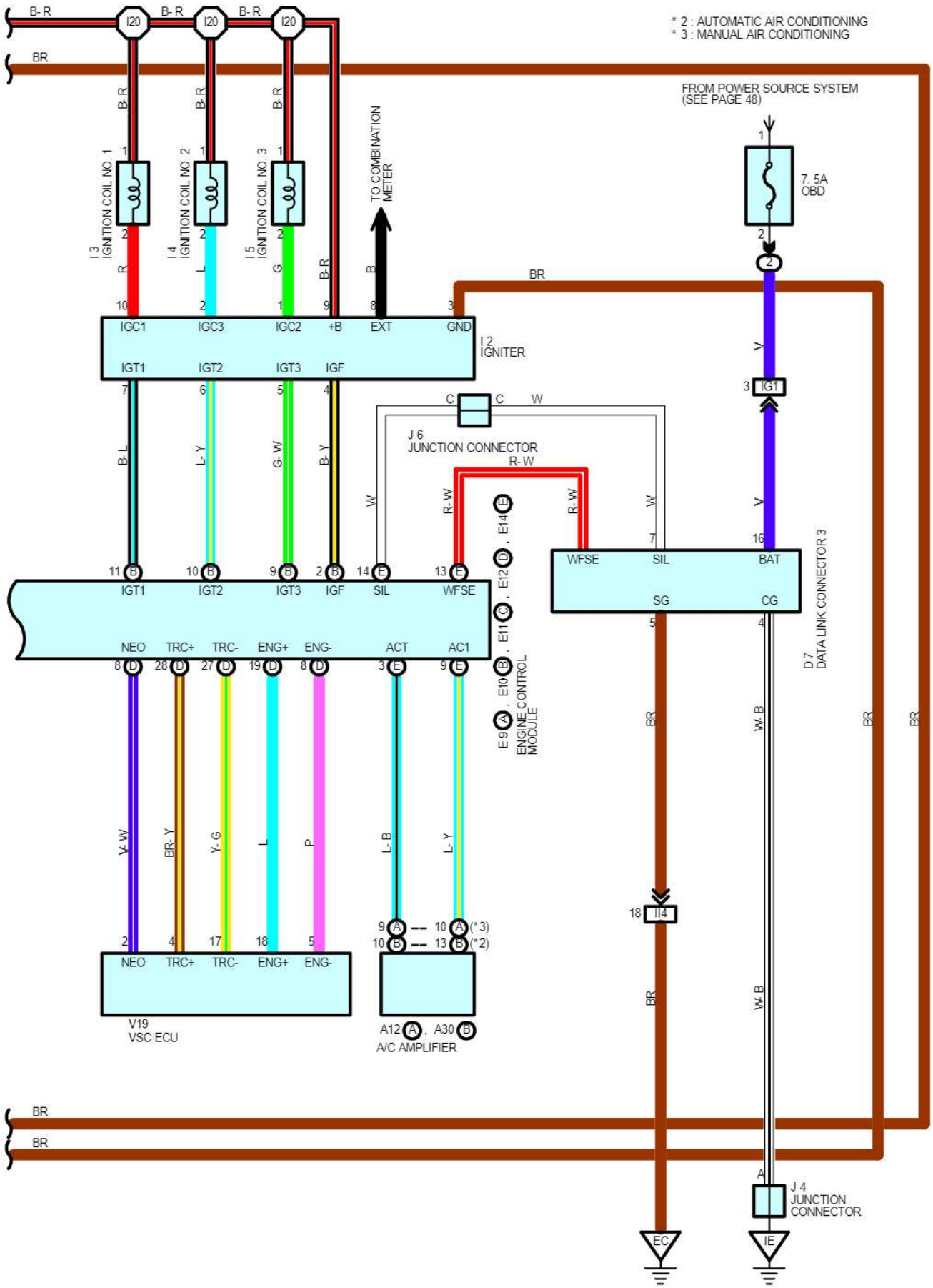
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SYSTEM OUTLINE

The engine control system utilize a microcomputer and maintains overall control of the engine, transmission, etc. An outline of engine control is given here.

1. INPUT SIGNAL

(1) Engine coolant temp. signal system

The engine coolant temp. sensor detects the engine coolant temp. and has a built-in thermistor with a resistance which varies according to the engine coolant temp. The engine coolant temp. is input as a control signal to TERMINAL THW of the engine control module.

(2) Heated oxygen sensor signal system

The oxygen density in the exhaust emissions is detected and input as a control signal to TERMINAL OXB2 of the engine control module. To maintain stable detection performance by the heated oxygen sensor, the heated oxygen sensors are warmed. The heater is also controlled by the engine control module (HT2B).

(3) RPM signal system

Camshaft position and crankshaft position are detected by the camshaft position sensor and crankshaft position sensor, camshaft position is input as a control signal to TERMINAL G2 of the engine control module, and engine RPM is input to TERMINAL NE+.

(4) Throttle signal system

The throttle position sensor detects the throttle valve opening angle, which is input as a control signal to TERMINALS VTA and VTA2 of the engine control module.

(5) Vehicle speed signal system

The vehicle speed sensor, detects the vehicle speed and input to ABS speed sensor of the VSC ECU, from VSC ECU to TERMINAL SP1 of the engine control module, via combination meter.

(6) A/C SW signal system

The operating voltage of the A/C magnetic clutch is detected and input as a control signal to TERMINAL AC1 of the engine control module.

(7) Battery signal system

Voltage is constantly applied to TERMINAL BATT of the engine control module. When the ignition SW is turned to on, voltage for engine control module operation is applied via the EFI relay to TERMINAL +B of the engine control module.

(8) Intake air volume signal system

Intake air volume is detected by the mass air flow meter and a signal is input into TERMINAL VG of the engine control module as a control signal.

(9) Stop light SW signal system

The stop light SW is used to detect whether or not the vehicle is braking and the information is input as a control signal to TERMINAL STP of the engine control module.

(10) Starter signal system

To confirm that the engine is cranking, the voltage applied to the starter motor during cranking is detected and is input as a control signal to TERMINAL STA of the engine control module.

(11) Engine knock signal system

Engine knocking is detected by the knock sensor no. 1 and no. 2 and the signals are input to TERMINALS KNK1 and KNK2 of the engine control module.

(12) 4WD signal system (4WD)

Whether or not the vehicle is operating in 4WD mode is determined, and a control signal is input to TERMINAL 4WD of the engine control module.

(13) Intake air temp. signal circuit

The intake air temp. sensor is installed in the mass air flow meter and detects the intake air temp., which is input as a control signal into TERMINAL THA of the engine control module.

(14) Air fuel ratio signal system

The air fuel ratio is detected and input as a control signal into TERMINAL AF1+ of the engine control module.

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2. CONTROL SYSTEM

* SFI system
  The SFI system monitors the engine conditions through the signals each sensor inputs to the engine control module. Based on this data and the program memorized in the engine control module, the most appropriate fuel injection timing is detected and current is output to TERMINALS #10, #20, #30, #40, #50 AND #60 of the engine control module, causing the injectors to operate (to inject fuel). It is this system which, through the work of the engine control module, finely controls fuel injection in response to driving conditions.
* ESA system
  The ESA system monitors the engine conditions using the signals input to the engine control module from each sensor. Based on this data and the program memorizes in the engine control module, the most appropriate ignition timing is decided and current is output to TERMINALS IGT1, IGT2 and IGT3 of the engine control module. This output controls the igniter to produce the most appropriate ignition timing for the driving conditions.
* Heated oxygen sensor heater control system
  The heated oxygen sensor heater control system turns the heater to on when the intake air volume is low (Temp. of exhaust emissions is low). And warms up the heated oxygen sensors to improve detection performance of the sensors. The engine control module evaluates the signals from each sensor current is output to TERMINAL HT2B and controls the heater.

3. DIAGNOSIS SYSTEM

With the diagnosis system, when there is a malfunction in the ECU signal system, the malfunctioning system is recorded in the memory. The malfunctioning system can then be found by reading the display (Code) of the malfunction indicator lamp.

4. FAIL- SAFE SYSTEM

When a malfunction occurs in any system, if there is a possibility of engine being caused by continued control based on the signals from that system, the fail-safe system either controls the system by using data (Standard values) recorded in the engine control module memory or else stops the engine.

SERVICE HINTS

EFI RELAY

5-3 : Closed with ignition SW at **ON** or **ST** position

C6 CIRCUIT OPENING RELAY

5-3 : Closed with starter running or ignition SW at **ON** position

I6, I7, I8, I9, I10, I11 INJECTOR

1-2 : **13.4- 14.2** Ω

E3 ENGINE COOLANT TEMP. SENSOR

1-2 : **10- 20** kΩ (**-20** °C, **-4** °F)
4- 7 kΩ (**0**°C, **32**°F)
2- 3 kΩ (**20**°C, **68**°F)
0.9- 1.3 kΩ (**40**°C, **104**°F)
0.4- 0.7 kΩ (**60**°C, **140**°F)
0.2- 0.4 kΩ (**80**°C, **176**°F)

E9 (A), E10 (B), E11 (C), E12 (D), E14 (E) ENGINE CONTROL MODULE

Voltage at engine control module wiring connectors
+B-E1 : **9- 14** volts (Ignition SW on)
BATT-E1 : **9- 14** volts (Always)
VC-E2 : **4.5- 5.5** volts (Ignition SW on)
VTA-E2 : Approx. **0.6** volts (Ignition SW on and throttle valve fully closed)
Approx. **4** volts (ignition SW on and throttle valve fully open)
STA-E1 : **6** volts or more (Ignition SW at **ST** position)
W-E1 : **9- 14** volts (No trouble and engine running)
THW-E1 : **0.2- 1.0** volts (Ignition SW on and coolant temp. **80**°C, **176**°F)
SP1-E1 : Pulse generation with vehicle moving
STP-E1 : **7.5- 14** volts (Stop light SW on)
IGT1, IGT2, IGT3-E1 : Pulse generation (Cranking or idling)
#10, #20, #30, #40, #50, #60-E1 : **9- 14** volts (Ignition SW on)

RESISTANCE AT ECU WIRING CONNECTOR

(Disconnect wiring connector)
THW-E2 : **0.2- 0.4** kΩ (Coolant temp. **80**°C, **176**°F)
NE+-E2 : **140- 180** Ω

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: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A12 A	30	H4	28	J8 B	31
A27	28	I2	29	J9	31
A30 B	30	I3	29	K2	29
A38	28	I4	29	K3	29
C1	28	I5	29	M1	29
C2	28	I6	29	P1	29
C6	30	I7	29	P22	29
C29	30	I8	29	S4	31
D1	28	I9	29	T2	29
D7	30	I10	29	T6	31
E3	28	I11	29	T7	29
E9 A	31	I14	31	V1	33
E10 B	31	J1 A	29	V7	29
E11 C	31	J2 B	29	V8	33
E12 D	31	J4	31	V13	29
E14 E	31	J6	31	V19	31
F10	32	J7 A	31		

: 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)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1I	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1J	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
3C	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3E		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	36	Sensor Wire and Engine Wire (Front Side of Cylinder Head Cover Right)
EC1	36	Engine Wire and Water Temp. Sensor Wire (Front Side of Cylinder Head Cover Right)
IE1	38	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IE3		
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
II1	40	Engine Wire and Cowl Wire (On the Glove Box)
II4		
BN2	42	Frame Wire and Floor No.2 Wire (Under the Left Side of Rear Seat Cushion)
BZ1	42	Frame Wire and Frame No.2 Wire (Upper the Rear Axle Housing Left)

: GROUND POINTS

Code	See Page	Ground Points Location
EB	36	Front Left Fender
EC	36	Intake Manifold Left
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH
BH	42	Left Quarter Panel Inner

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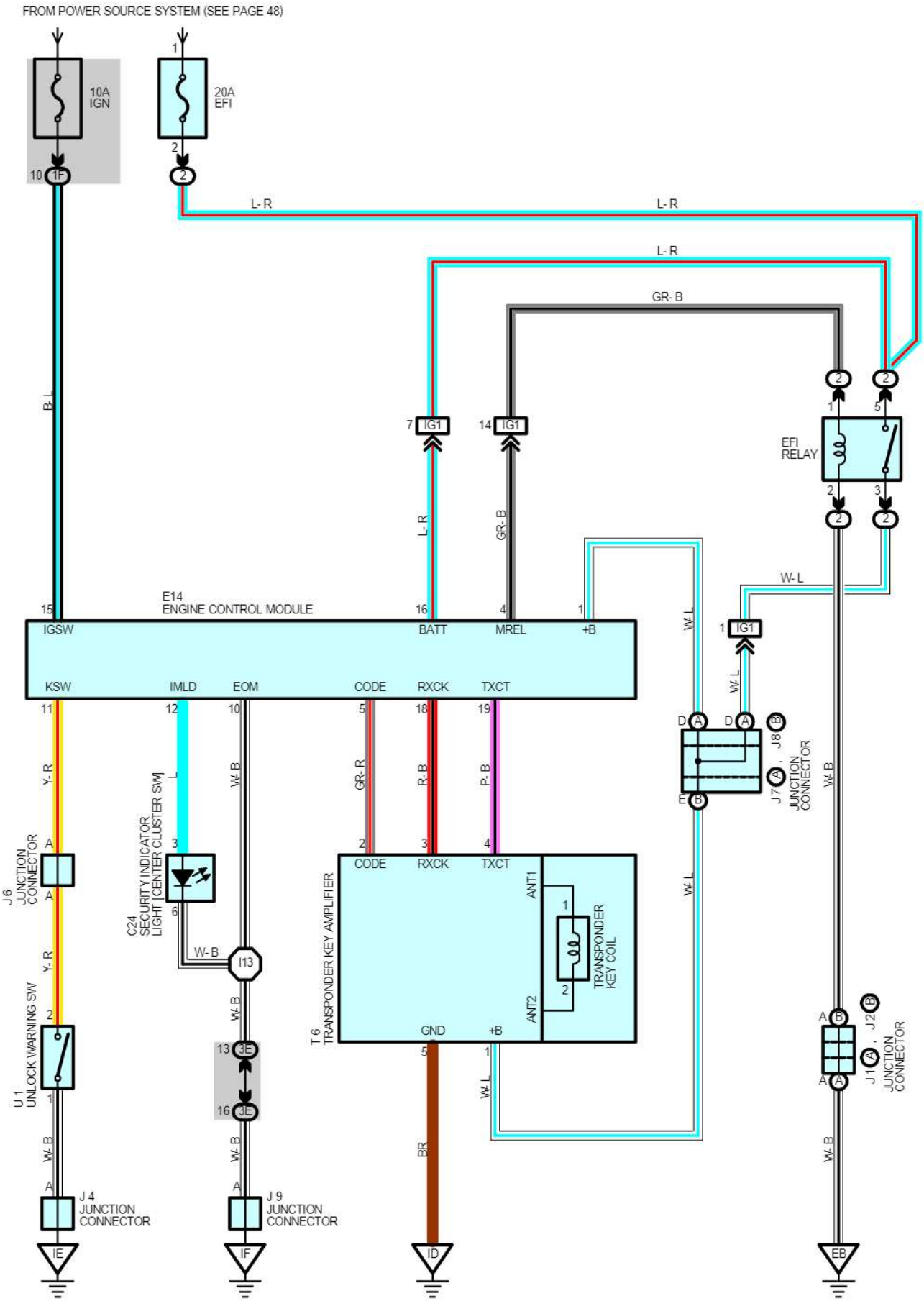
: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	36	Engine Wire	I12	40	Cowl Wire
E4	36	Sensor Wire	I20	40	Engine Wire

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ENGINE IMMOBILISER SYSTEM



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SERVICE HINTS

E14 ENGINE CONTROL MODULE

11-GROUND : Continuity with ignition key in cylinder
16-GROUND : Always Approx. **12** volts
15-GROUND : Approx. **12** volts with ignition SW on
10-GROUND : Always continuity

: PARTS LOCATION

Code		See Page	Code		See Page	Code	See Page
C24		30	J4		31	J9	31
E14		31	J6		31	T6	31
J1	A	29	J7	A	31	U1	31
J2	B	29	J8	B	31		

: 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)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
3E	26	Cowl Wire and Center J/B (Near the Steering Column Tube)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)

: GROUND POINTS

Code	See Page	Ground Points Location
EB	36	Front Left Fender
ID	38	Left Kick Panel
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I13	40	Cowl Wire			

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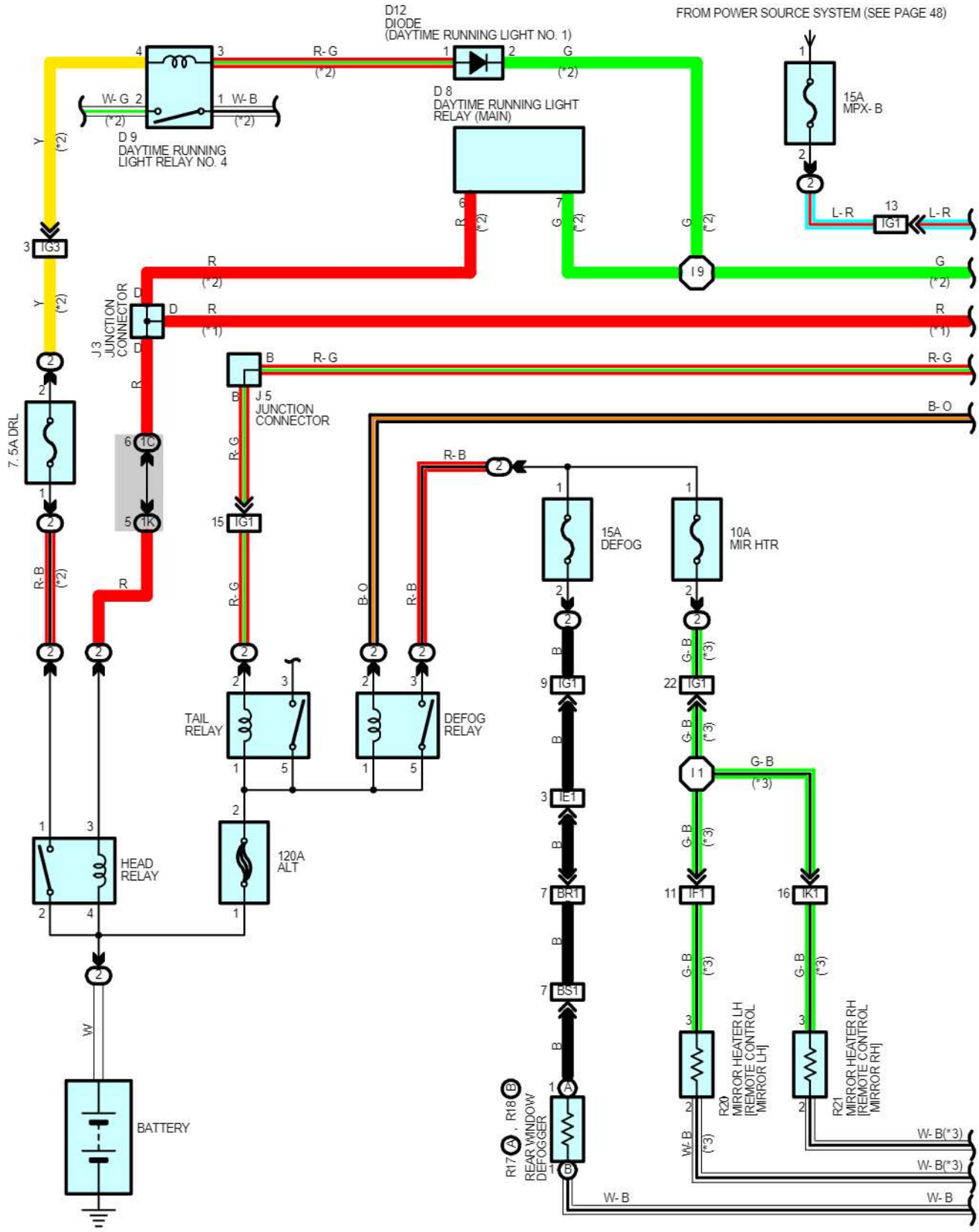


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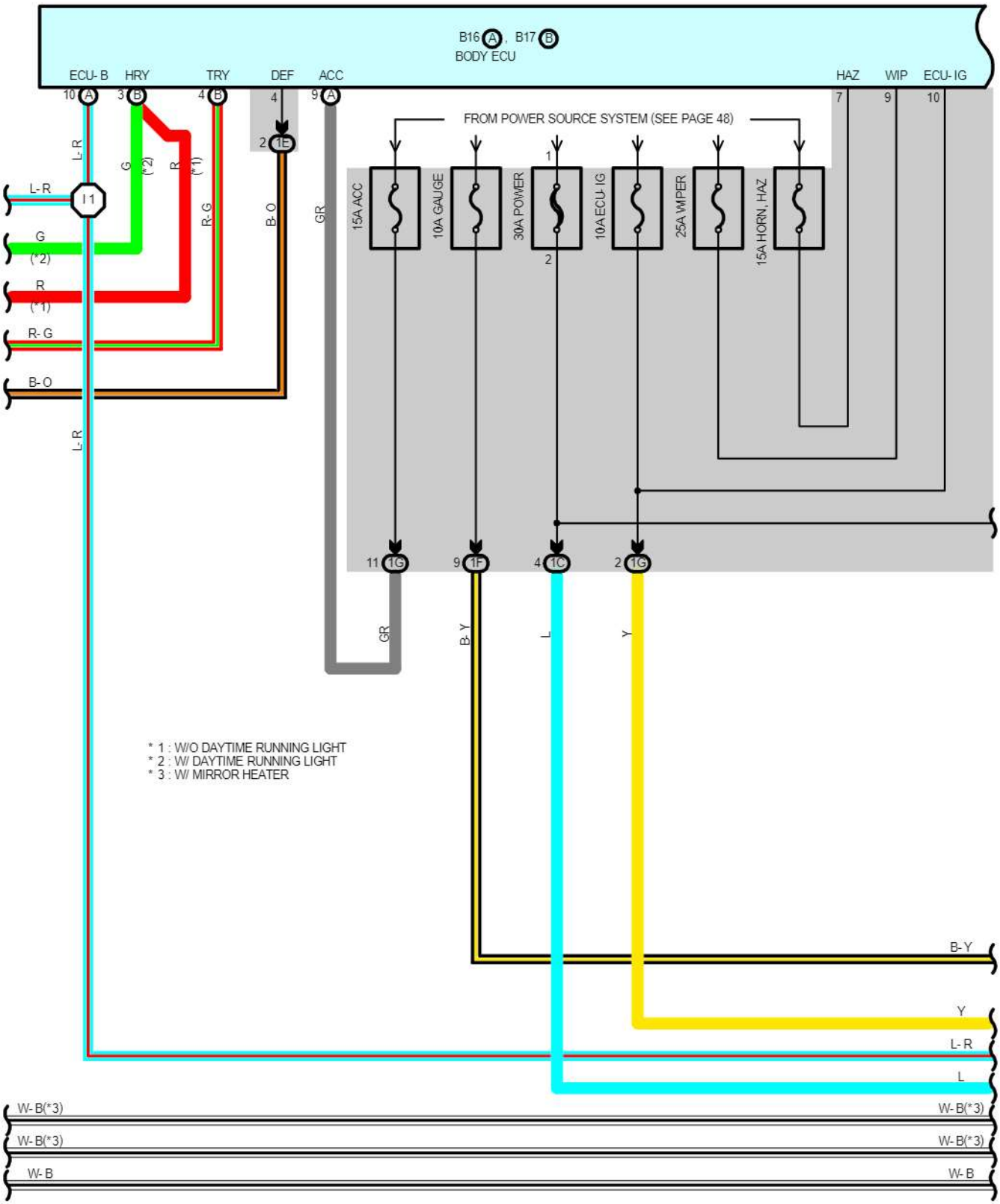
MULTIPLEX COMMUNICATION SYSTEM INCLUDES FOLLOWING SYSTEMS

- DOOR LOCK CONTROL
- HORN
- MIRROR HEATER
- POWER WINDOW (REAR)
- REAR WINDOW DEFOGGER
- REAR WIPER AND WASHER
- THEFT DETERRENT
- WIRELESS DOOR LOCK CONTROL

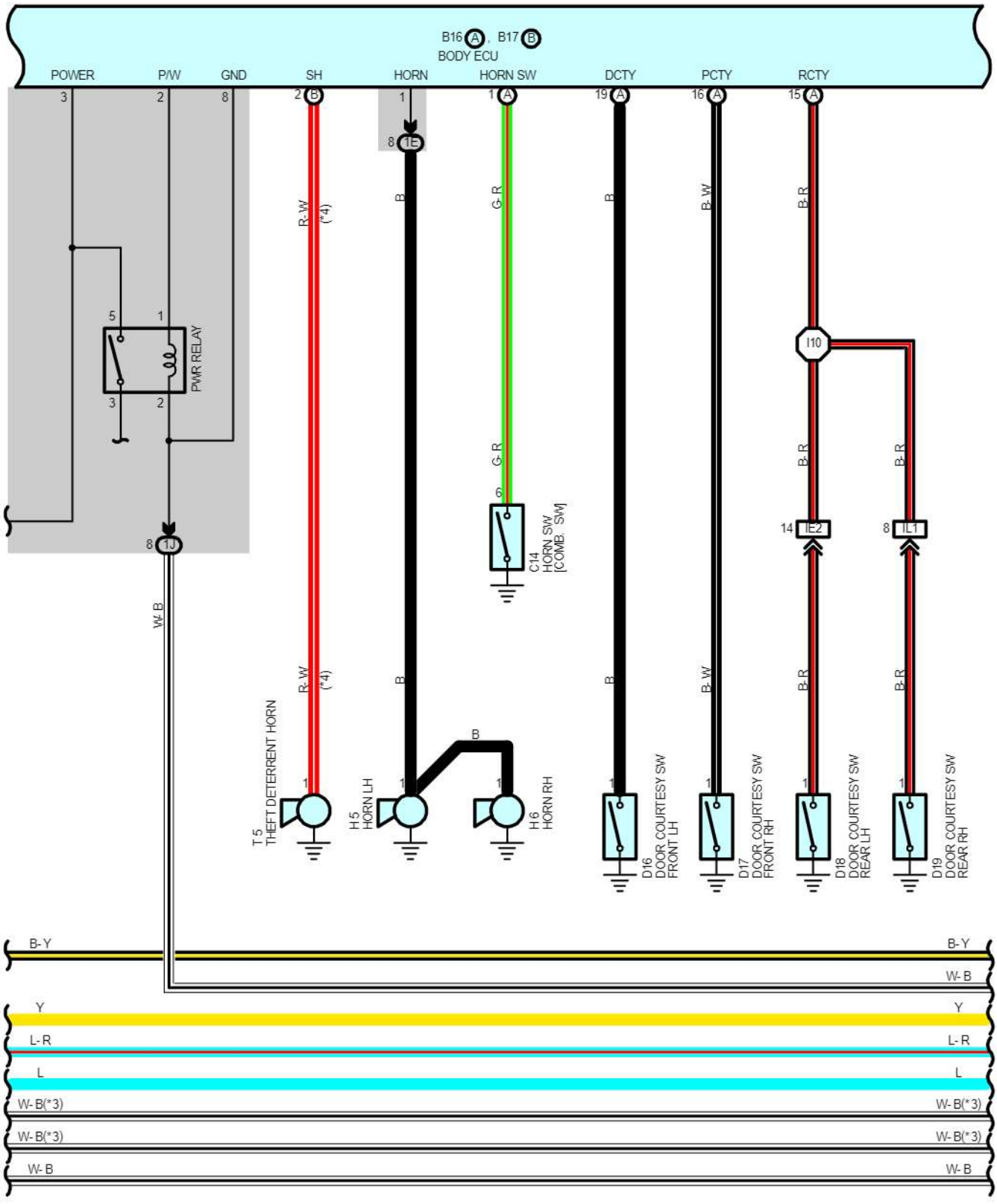
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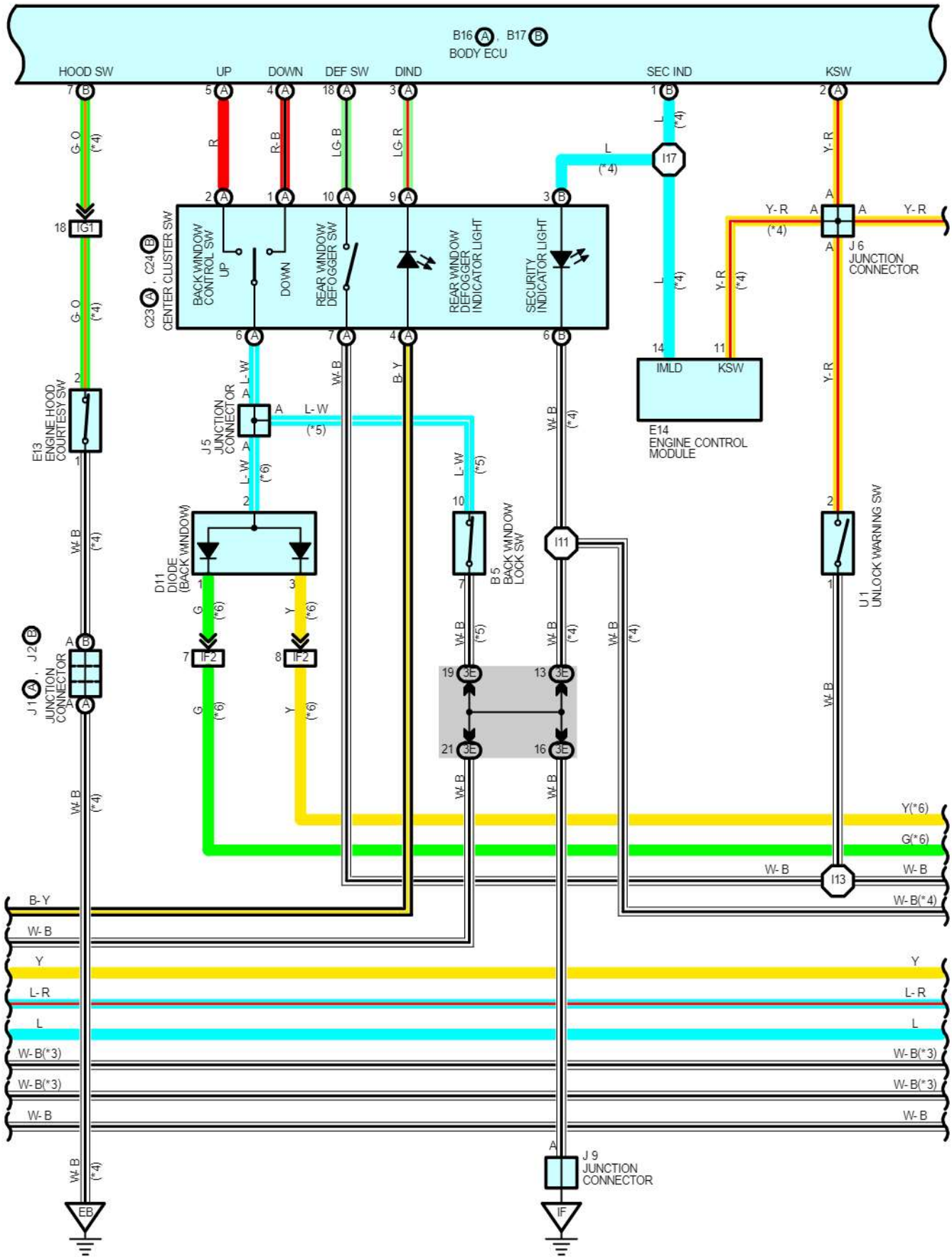


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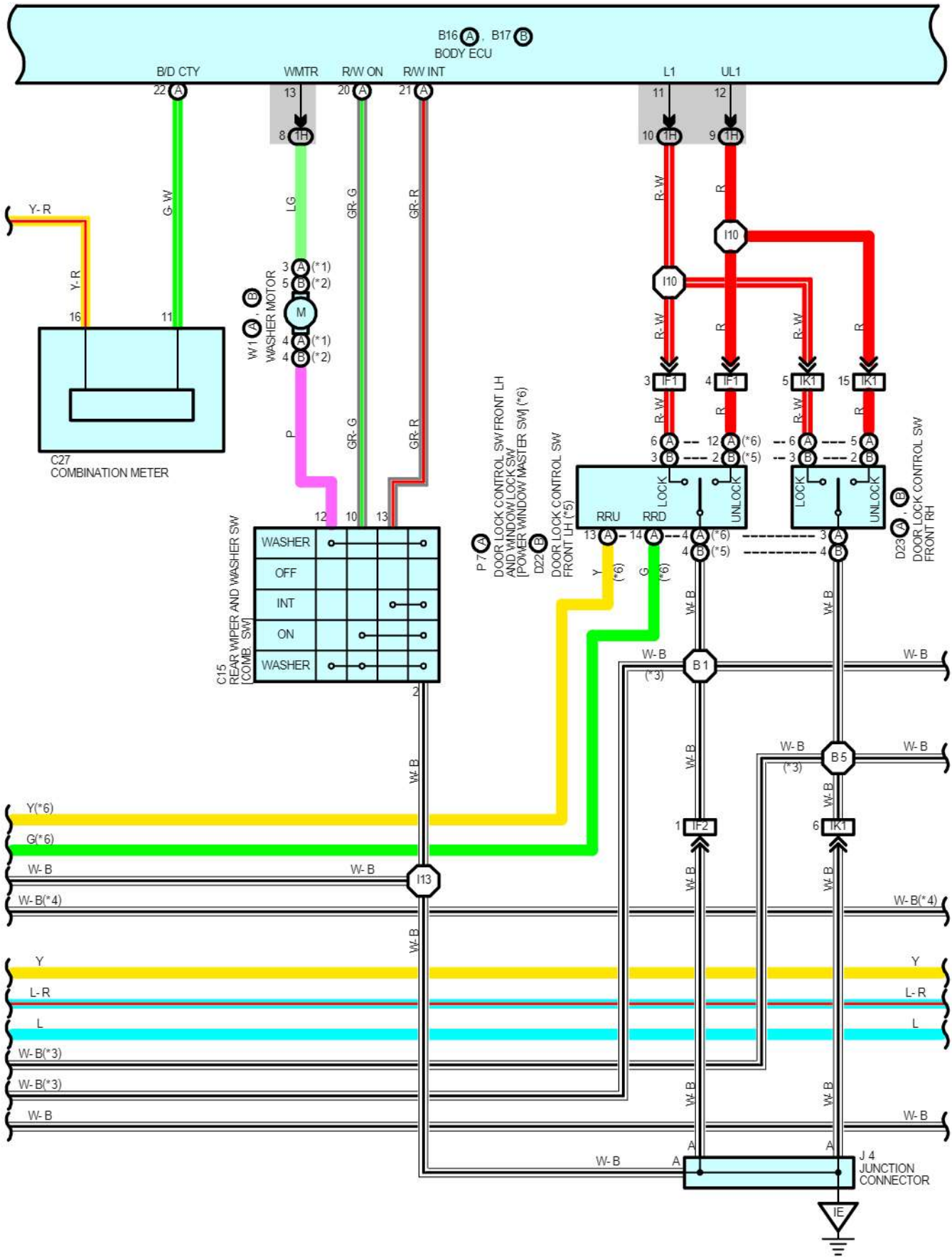


* 3 : W/ MIRROR HEATER
* 4 : W/ THEFT DETERRENT SYSTEM
* 5 : W/O POWER WINDOW
* 6 : W/ POWER WINDOW

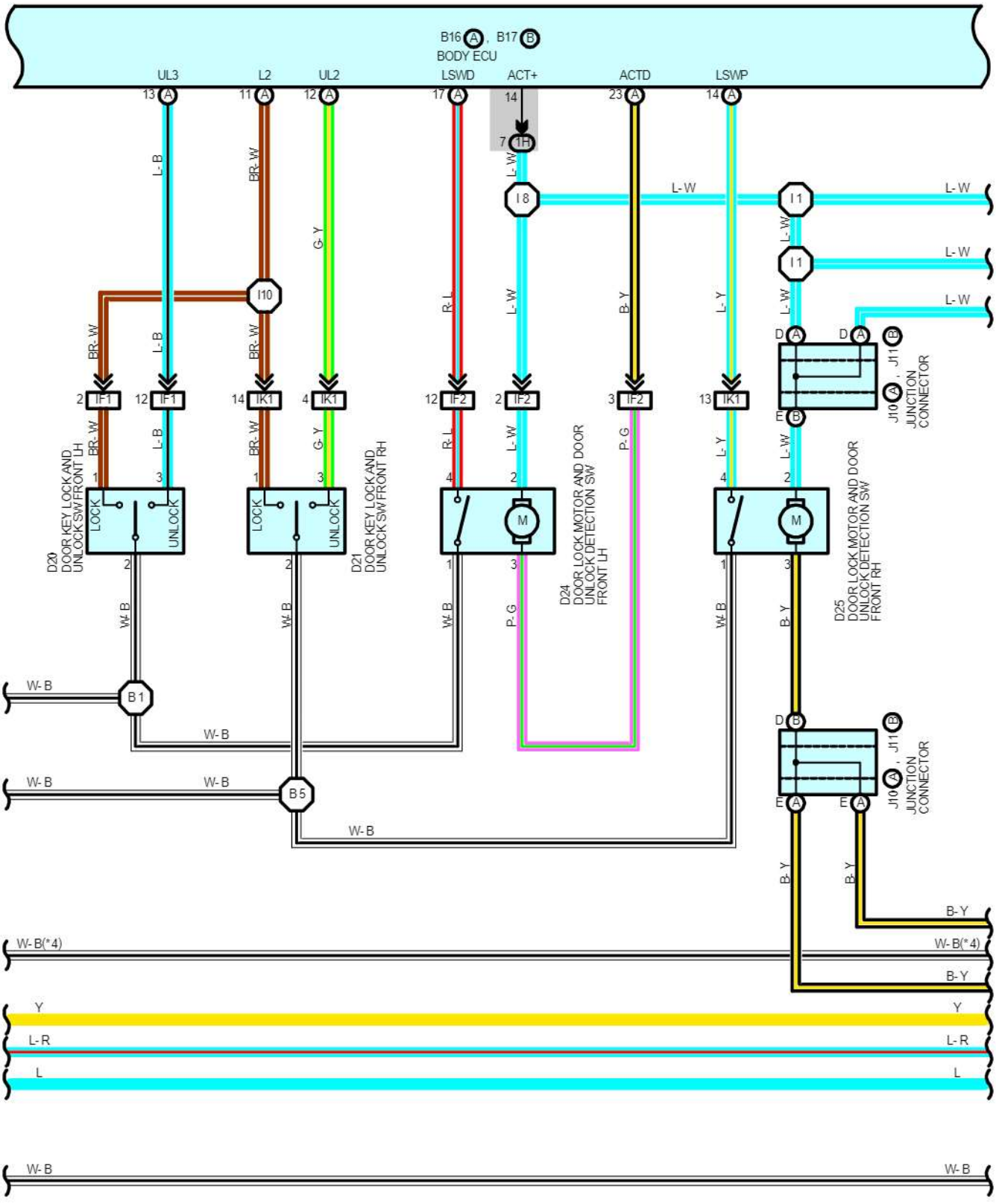
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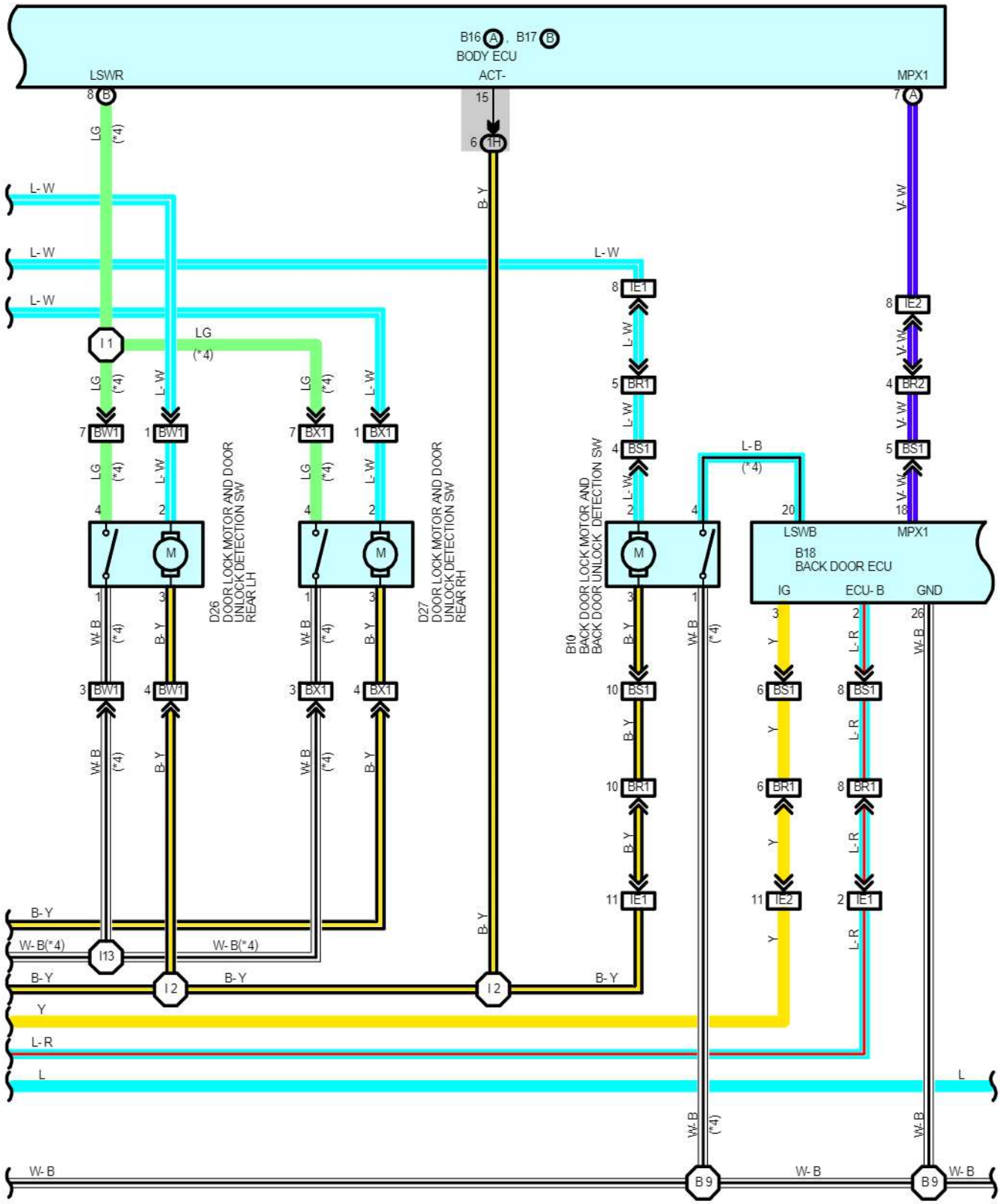


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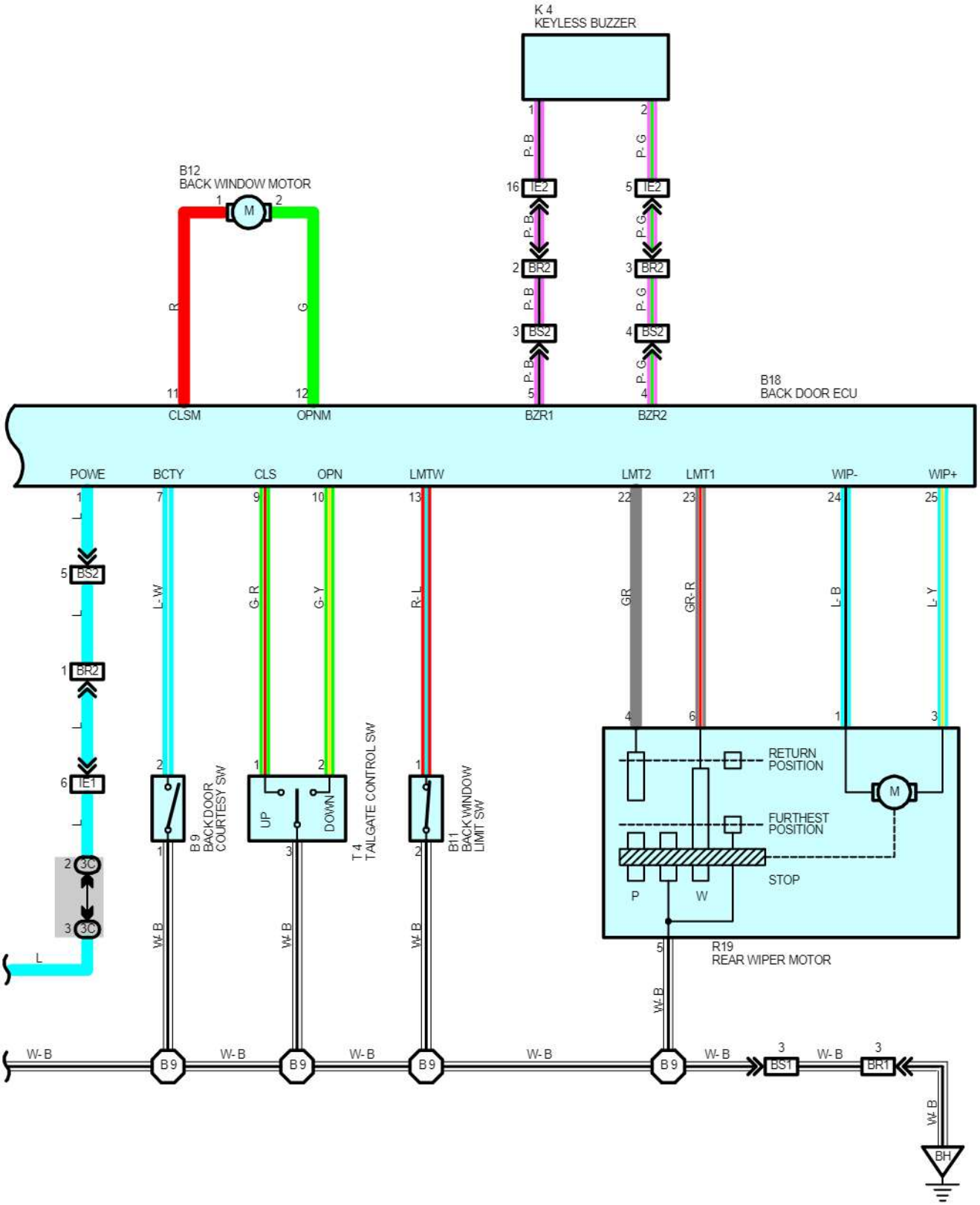
* 1 : W/O DAYTIME RUNNING LIGHT
* 2 : W/ DAYTIME RUNNING LIGHT
* 3 : W/ MIRROR HEATER
* 4 : W/ THEFT DETERRENT SYSTEM
* 5 : W/O POWER WINDOW
* 6 : W/ POWER WINDOW

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* 4 : W/ THEFT DETERRENT SYSTEM



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MULTIPLEX COMMUNICATION SYSTEM

SYSTEM OUTLINE

1. COMMUNICATION OUTLINE

Communication is made among the body and back door ECUs.
When the ECU receives a signal from related switches, i.e., the rear wiper SW, the body ECU sends signals to the back door ECU, and moves rear wiper.
For details, please refer to the new car features and/or the repair manual.

SERVICE HINTS

B16 (A) BODY ECU

(A) 9-GROUND : Approx. **12** volts with ignition SW at **ACC** or **ON** position
3, 7, (A)10-GROUND : Always approx. **12** volts
9,10-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position
8-GROUND : Always continuity

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B5	30	D18	32	J5	31
B9	32	D19	32	J6	31
B10	32	D20	32	J9	31
B11	32	D21	32	J10 A	31
B12	32	D22 B	32	J11 B	31
B16 A	30	D23 A	32	K4	29
B17 B	30	D23 B	32	P7 A	33
B18	32	D24	32	R17 A	33
C14	30	D25	32	R18 B	33
C15	30	D26	32	R19	33
C23 A	30	D27	32	R20	33
C24 B	30	E13	28	R21	33
C27	30	E14	31	T4	33
D8	30	H5	28	T5	29
D9	30	H6	28	U1	31
D11	30	J1 A	29	W1 A	29
D12	30	J2 B	29	W1 B	29
D16	32	J3	31		
D17	32	J4	31		

: 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	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1G		
1H		
1J		
1K	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
3C	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3E		

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: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE1	38	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IE2		
IF1	38	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IF2		
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
IG3		
IK1	40	Front Door RH Wire and Cowl Wire (Right Kick Panel)
IL1	40	Cowl Wire and Floor Wire (Right Kick Panel)
BR1	42	Back Door No.1 Wire and Floor No.2 Wire (Left Rear Side of Roof)
BR2		
BS1	42	Back Door No.1 Wire and Back Door No.2 Wire (Back Door Left)
BS2		
BW1	42	Rear Door LH Wire and Cowl Wire (Left Center Pillar)
BX1	42	Rear Door RH Wire and Cowl Wire (Right Center Pillar)

: GROUND POINTS

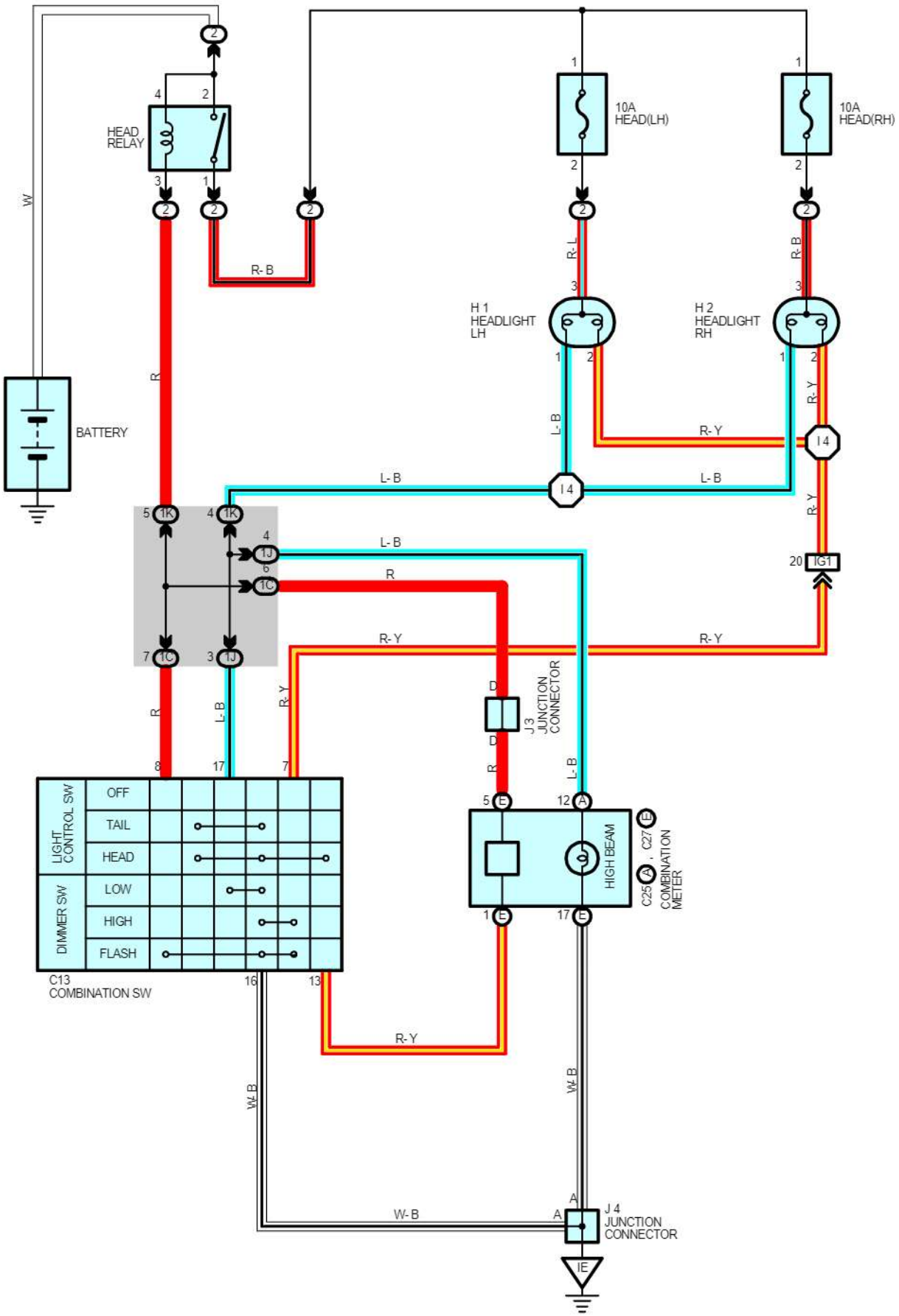
Code	See Page	Ground Points Location
EB	36	Front Left Fender
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH
BH	42	Left Quarter Panel Inner

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I1	40	Cowl Wire	I13	40	Cowl Wire
I2			I17		
I8			B1	42	Front Door LH Wire
I9			B5	42	Front Door RH Wire
I10			B9	42	Back Door No.2 Wire
I11					

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HEADLIGHT (w/o DAYTIME RUNNING LIGHT)



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SERVICE HINTS

HEAD RELAY

2-1 : Closed with light control SW at **HEAD** position or dimmer SW at **FLASH** position

: PARTS LOCATION

Code		See Page	Code	See Page	Code	See Page
C13		30	H1	28	J4	31
C25	A	30	H2	28		
C27	E	30	J3	31		

: 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	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1J		
1K	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)

: GROUND POINTS

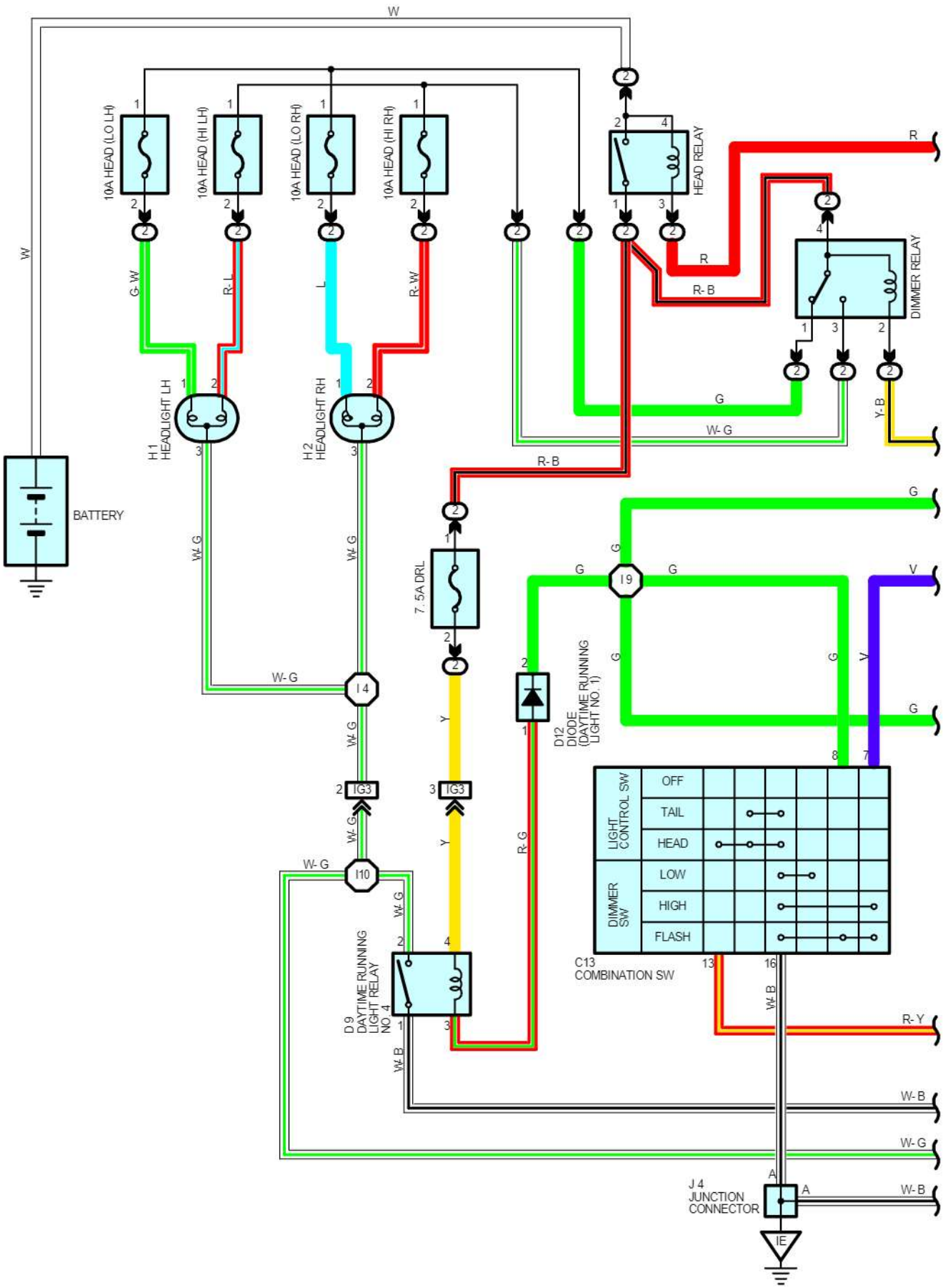
Code	See Page	Ground Points Location
IE	38	Cowl Side Panel LH

: SPLICE POINTS

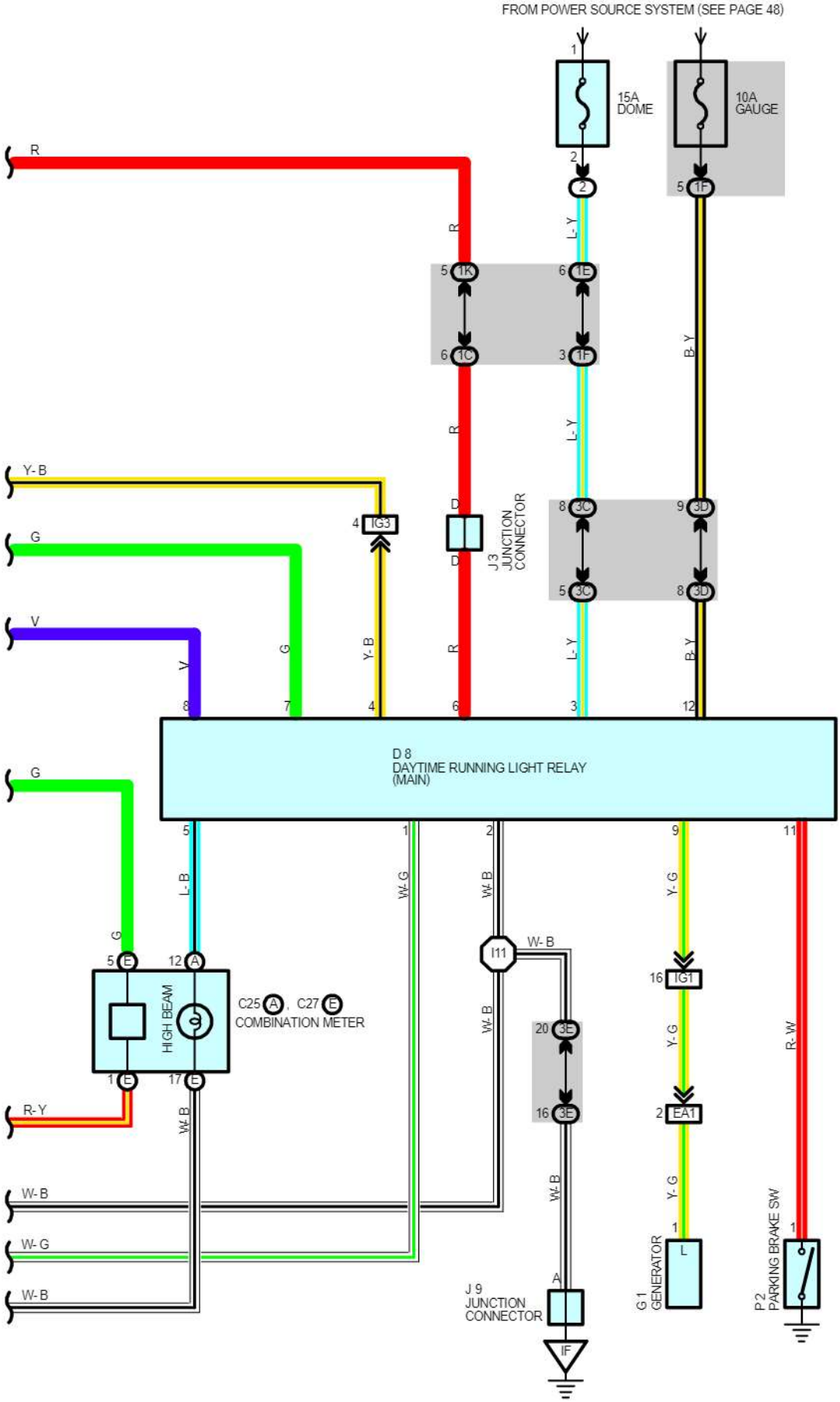
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I4	40	Engine Room Main Wire			

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HEADLIGHT (w/ DAYTIME RUNNING LIGHT)



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HEADLIGHT (w/ DAYTIME RUNNING LIGHT)

SYSTEM OUTLINE

1. DAYTIME RUNNING LIGHT OPERATION

When the engine is started, voltage generated at TERMINAL L of the generator is applied to TERMINAL 9 of the daytime running light relay (Main).

If the parking brake lever is pulled up (Parking brake SW on) at this time, the relay is not activated so the daytime running light system does not operate. If the parking brake lever is then released (Parking brake SW off), a signal is input to TERMINAL 11 of the relay. This activates the relay, so current flows from battery to the HEAD relay (Point side) to TERMINAL 4 of the DIMMER relay to TERMINAL 1 to HEAD (LO LH), (LO RH) fuse to TERMINAL 1 of the headlights to TERMINAL 3 to TERMINAL 1 of the daytime running light relay (Main) to TERMINAL 2 to GROUND. This causes the headlights to light up (The headlights light up dimmer than full brightness.).

Once the daytime running light system operates and headlights light up, headlights remain on even if the parking brake lever is pulled up (Parking brake SW on).

If the engine stalls and the ignition SW remains on, headlights remain lighted up even though current is no longer output from TERMINAL L of the generator. If the ignition SW is then turned off, the headlights go off. If the engine is started with the parking brake lever released (Parking brake SW off), the daytime running light system operates and the headlights light up when the engine starts.

2. HEADLIGHT OPERATION

When the light control SW is switched to HEAD position, current flows from the DRL fuse to TERMINAL 4 of the daytime running light relay no. 4 to TERMINAL 3 to TERMINAL 1 of the diode (Daytime running light no. 1) to TERMINAL 2 to TERMINAL (E) 5 of the combination meter to TERMINAL (E) 1 to TERMINAL 13 of the light control SW to TERMINAL 16 to GROUND, activating the daytime running light relay no. 4. Current then flows from the HEAD (LO LH), (LO RH) fuse to TERMINAL 1 of the headlights to TERMINAL 3 to TERMINAL 2 of the daytime running light relay no. 4 to TERMINAL 1 to GROUND, causing the headlights to light up at normal intensity.

When the dimmer SW is switched to the HIGH position, the signal from the dimmer SW is input to the daytime running light relay (Main). This activates the relay and current flows from TERMINAL 4 of the DIMMER relay to TERMINAL 2 to TERMINAL 4 of the daytime running light relay (Main), activating the DIMMER relay.

This causes current to flow from TERMINAL 4 of the DIMMER relay to TERMINAL 3 to HEAD (HI LH), (HI RH) fuse to TERMINAL 2 of the headlights to TERMINAL 3 to TERMINAL 2 of the daytime running light relay no. 4 to TERMINAL 1 to GROUND, causing the headlights to light up at high beam.

When the dimmer SW is switched to FLASH position, the daytime running light relay (Main) is activated and current flows from TERMINAL 4 of the DIMMER relay to TERMINAL 3. Current from the DRL fuse flows to TERMINAL 4 of the daytime running light relay no. 4 to TERMINAL 3 to TERMINAL 1 of the diode (Daytime running light no. 1) to TERMINAL 2 to TERMINAL 8 of the dimmer SW to TERMINAL 16 to GROUND, and also flows from the HEAD (HI LH), (HI RH) fuse to TERMINAL 2 of the headlights to TERMINAL 3 to TERMINAL 2 of the daytime running light relay no. 4 to TERMINAL 1 to GROUND, causing the high beam to operate.

SERVICE HINTS

HEAD RELAY

2-1 : Closed with light control SW at **HEAD** position or dimmer SW at **FLASH** position
Closed with engine running and parking brake lever released

DIMMER RELAY

Changes from HEAD(LO) to HEAD(HI) with dimmer SW at **FLASH** position or with HEAD relay on and dimmer SW at **HIGH** position

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C13	30	D12	30	J4	31
C25 A	30	G1	28	J9	31
C27 E	30	H1	28	P2	31
D8	30	H2	28		
D9	30	J3	31		

▭ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
2	22	Engine Room R/B (Engine Compartment Left)

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: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1K	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
3C	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3D		
3E		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	36	Engine No.2 Wire and Engine Room Main Wire (Near the Engine Room R/B)
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
IG3		

: GROUND POINTS

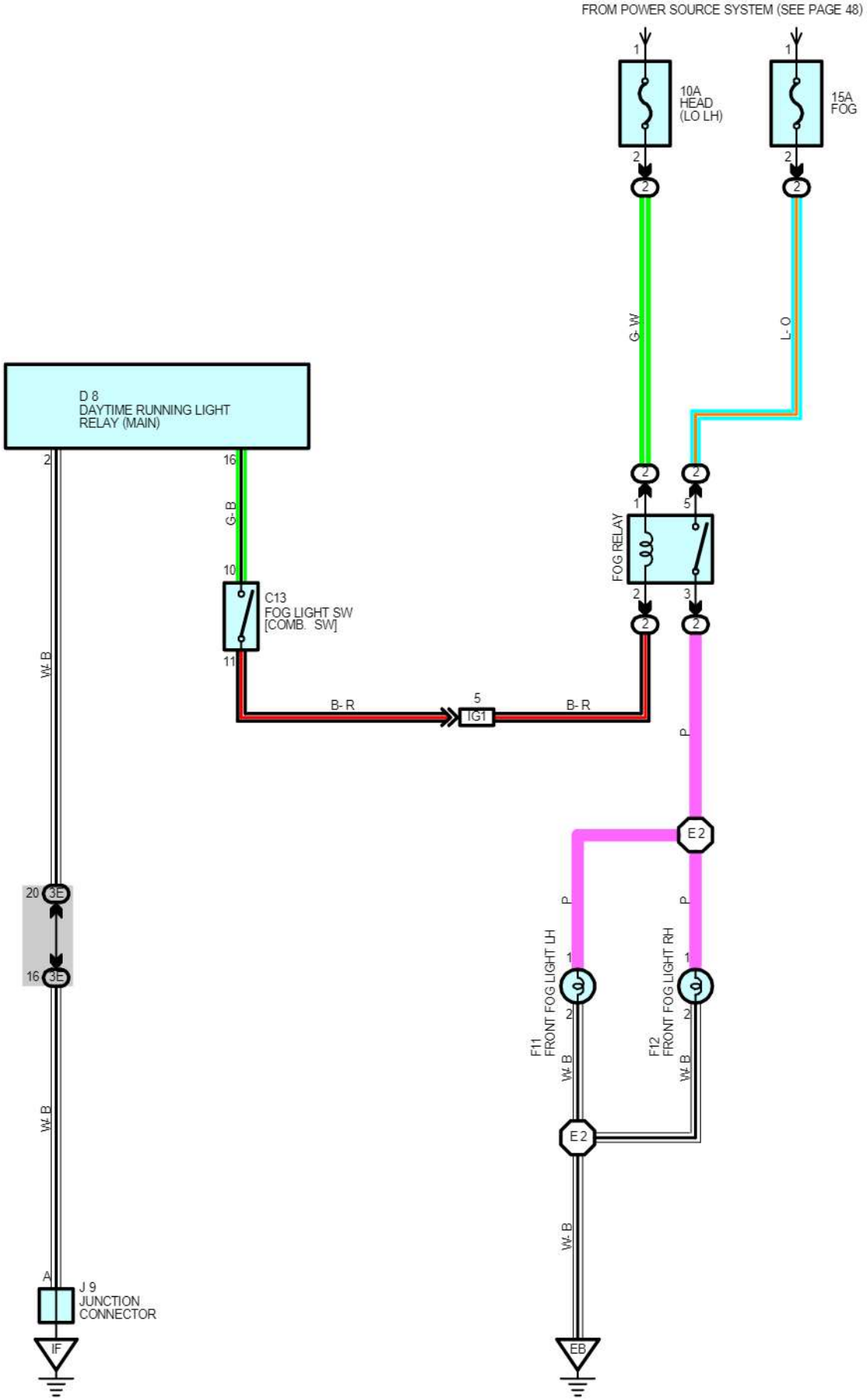
Code	See Page	Ground Points Location
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I4	40	Engine Room Main Wire	I10	40	Cowl Wire
I9	40	Cowl Wire	I11		

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FRONT FOG LIGHT



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SERVICE HINTS

FOG RELAY

5-3 : Closed with light control SW at **HEAD** position, dimmer SW at **LOW** position and fog light SW at **ON** position

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C13	30	F11	28	J9	31
D8	30	F12	28		

: 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)
3E	26	Cowl Wire and Center J/B (Near the Steering Column Tube)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)

: GROUND POINTS

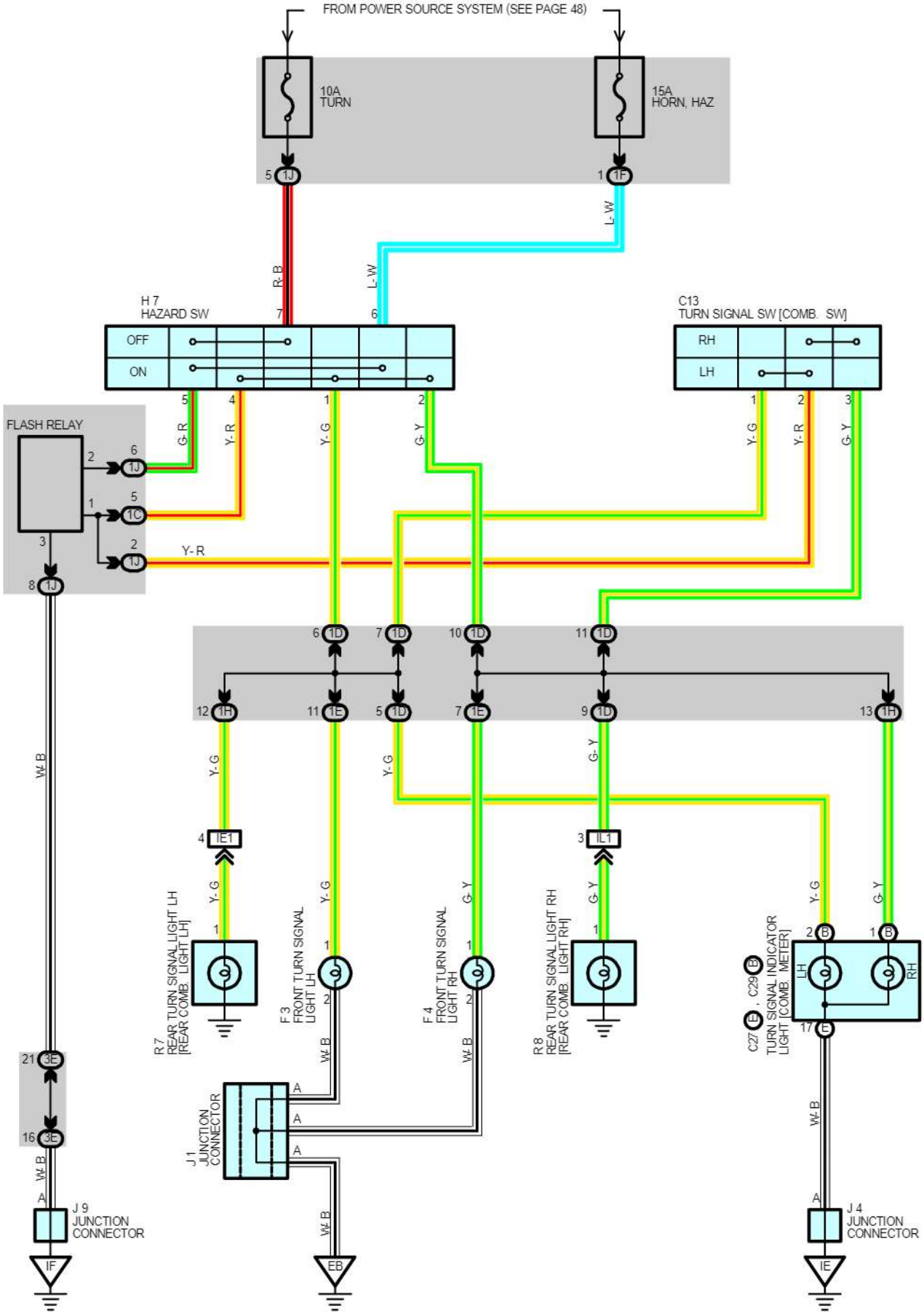
Code	See Page	Ground Points Location
EB	36	Front Left Fender
IF	38	Cowl Side Panel RH

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	36	Engine Room Main Wire			

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TURN SIGNAL AND HAZARD WARNING LIGHT



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SERVICE HINTS

FLASH RELAY

2-GROUND : Approx. **12** volts with ignition SW on or hazard SW on
1-GROUND : Changes from **12** to **0** volts with ignition SW on and turn signal SW at **LH** or **RH** position, or with hazard SW on
3-GROUND : Always continuity

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C13	30	F4	28	J9	31
C27 E	30	H7	31	R7	33
C29 B	30	J1	29	R8	33
F3	28	J4	31		

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1D		
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1H		
1J		
3E	26	Cowl Wire and Center J/B (Near the Steering Column Tube)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

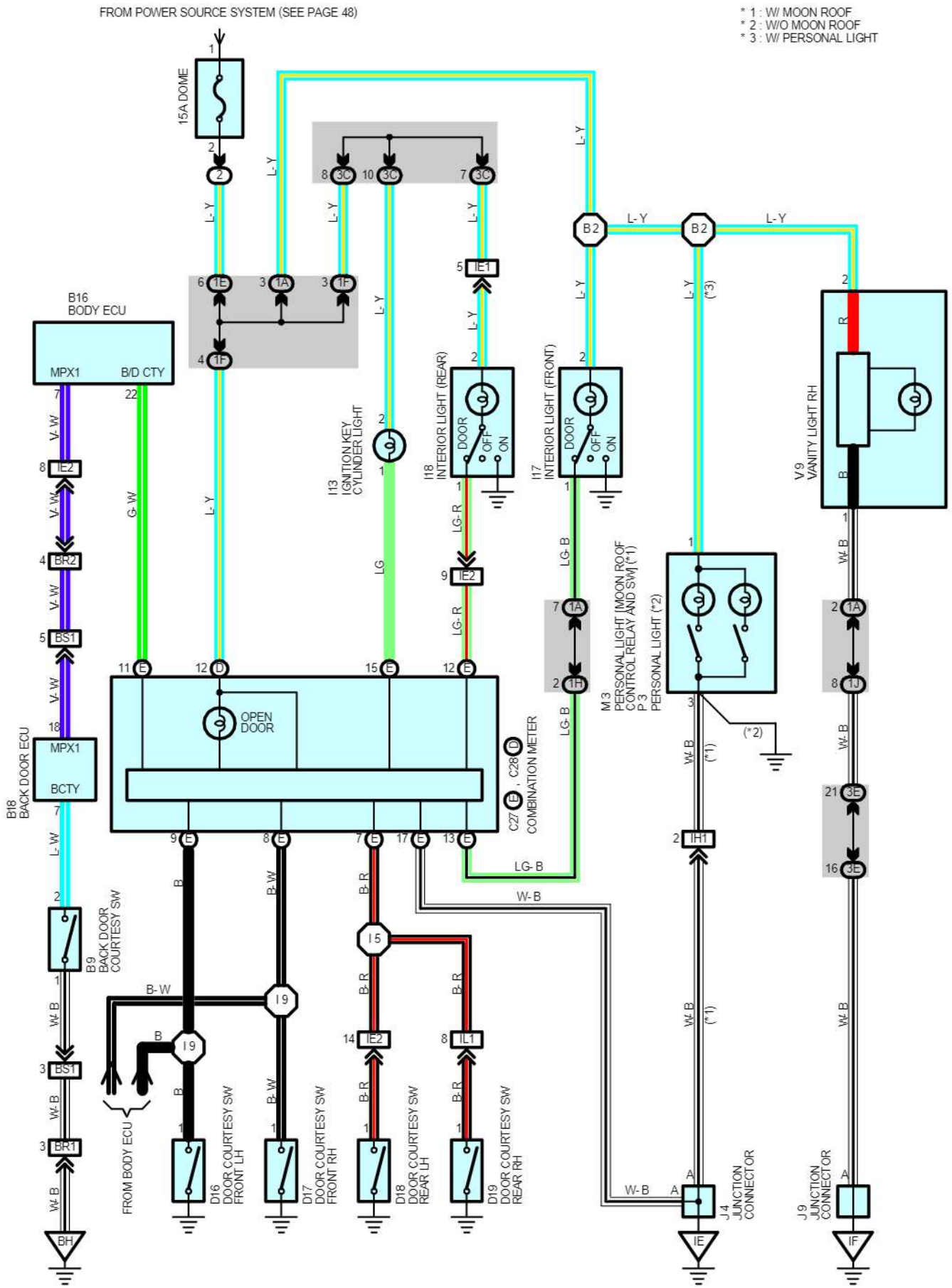
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE1	38	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IL1	40	Cowl Wire and Floor Wire (Right Kick Panel)

▽ : GROUND POINTS

Code	See Page	Ground Points Location
EB	36	Front Left Fender
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH

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INTERIOR LIGHT



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SYSTEM OUTLINE

NORMAL OPERATION

* When the front door LH, RH rear door LH or RH is opened
  When the door is opened, the interior light (Front) and open door warning light is turned on. When the front door LH, RH rear door LH and RH are closed, the interior light (Front) is turned off.
* When the back door is opened, interior light (Rear) and the open door warning light is turned on. When back door is closed, the interior light (Rear) is turned off.
* When all the doors are closed, the open door warning light is turned off.

ILLUMINATED ENTRY SYSTEM

* When driver's door is opened, the ignition key cylinder light is turned on.
* The ignition key cylinder light remains on for approx. 5 seconds after driver's door is closed.

SERVICE HINTS

D16, D17, D18, D19 DOOR COURTESY SW FRONT LH, RH, REAR LH, RH

1-GROUND : Closed with door open

B9 BACK DOOR COURTESY SW

1-2 : Closed with door open

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B9	32	D17	32	J4	31
B16	30	D18	32	J9	31
B18	32	D19	32	M3	33
C27 E	30	I13	31	P3	33
C28 D	30	I17	32	V9	33
D16	32	I18	32		

: 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)
1A	24	Roof Wire and Driver Side J/B (Lower Finish Panel)
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1H		
1J		
3C	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3E		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE1	38	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IE2		
IH1	40	Roof Wire and Cowl Wire (Instrument Panel Reinforcement Left)
IL1	40	Cowl Wire and Floor Wire (Right Kick Panel)
BR1	42	Back Door No.1 Wire and Floor No.2 Wire (Left Rear Side of Roof)
BR2		
BS1	42	Back Door No.1 Wire and Back Door No.2 Wire (Back Door Left)

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INTERIOR LIGHT

 : GROUND POINTS

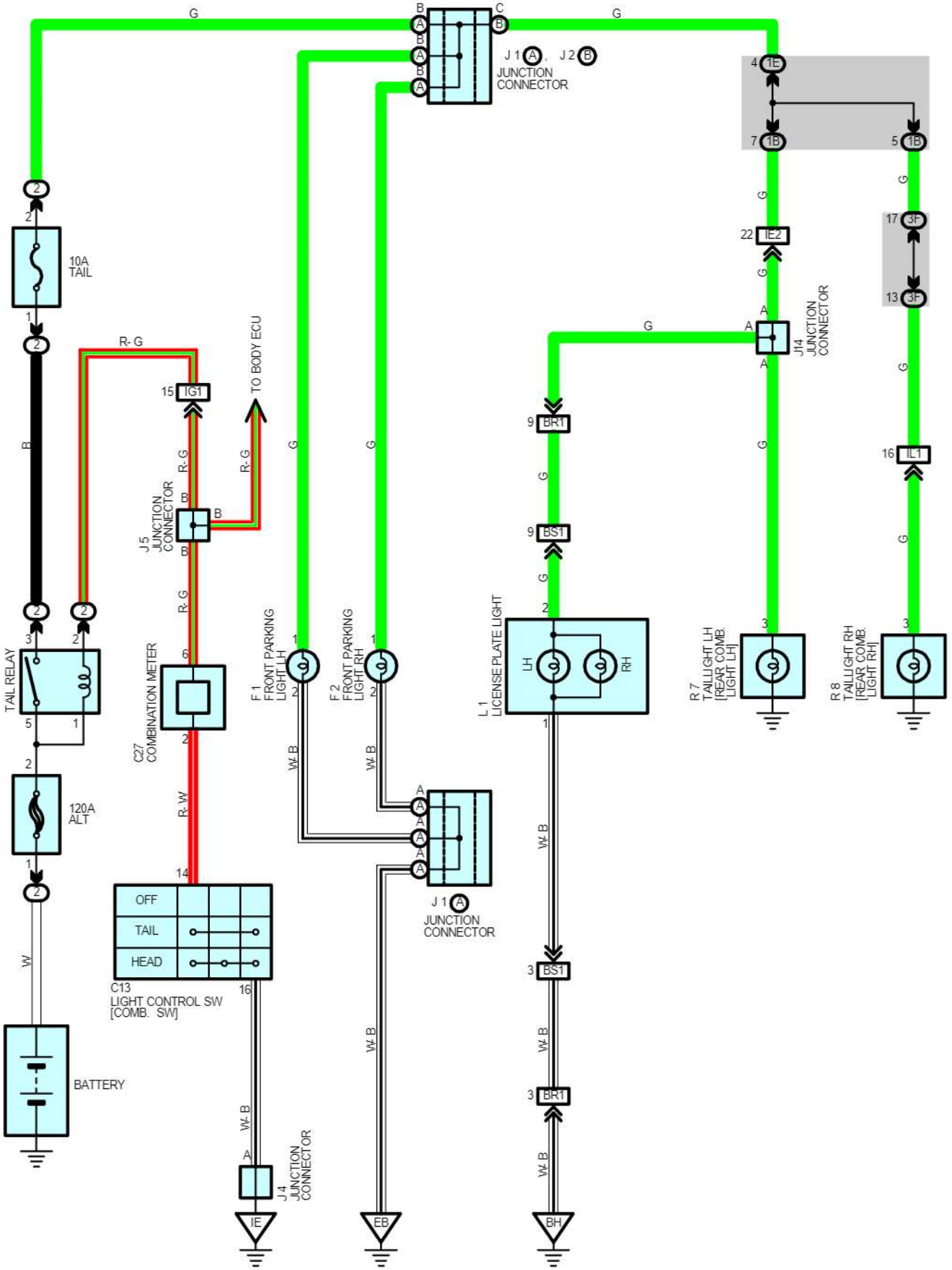
Code	See Page	Ground Points Location
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH
BH	42	Left Quarter Panel Inner

 : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I5	40	Cowl Wire	B2	42	Roof Wire
I9					

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SERVICE HINTS

C13 LIGHT CONTROL SW [COMB. SW]

14-16 : Closed with light control SW at **TAIL** or **HEAD** position

TAIL RELAY

5-3 : Closed with light control SW at **TAIL** or **HEAD** position

: PARTS LOCATION

Code	See Page	Code		See Page	Code	See Page
C13	30	J1	A	29	J14	32
C27	30	J2	B	29	L1	32
F1	28	J4		31	R7	33
F2	28	J5		31	R8	33

: 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)
1B	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
3F	26	Cowl Wire and Center J/B (Near the Steering Column Tube)

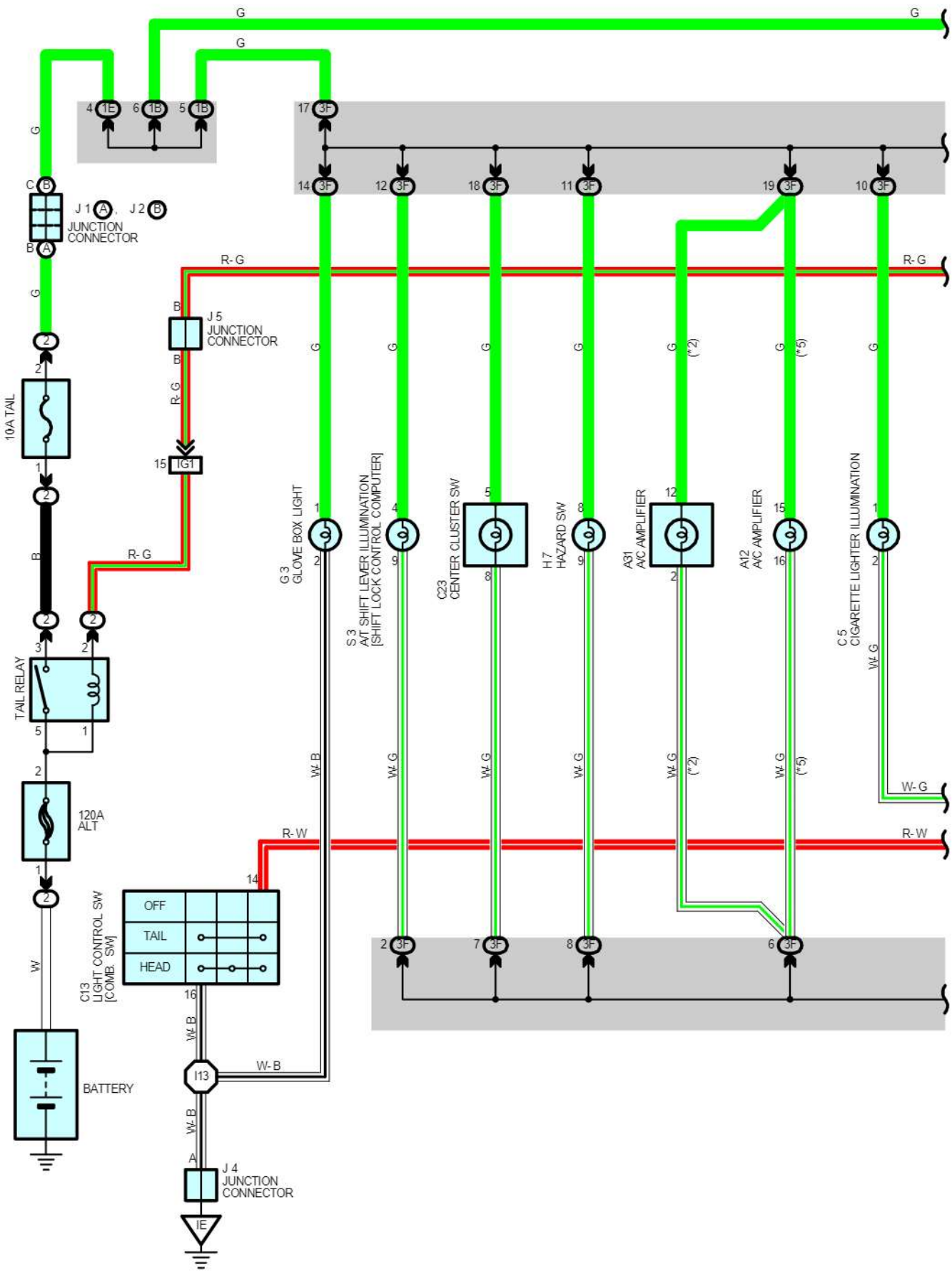
: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE2	38	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
IL1	40	Cowl Wire and Floor Wire (Right Kick Panel)
BR1	42	Back Door No.1 Wire and Floor No.2 Wire (Left Rear Side of Roof)
BS1	42	Back Door No.1 Wire and Back Door No.2 Wire (Back Door Left)

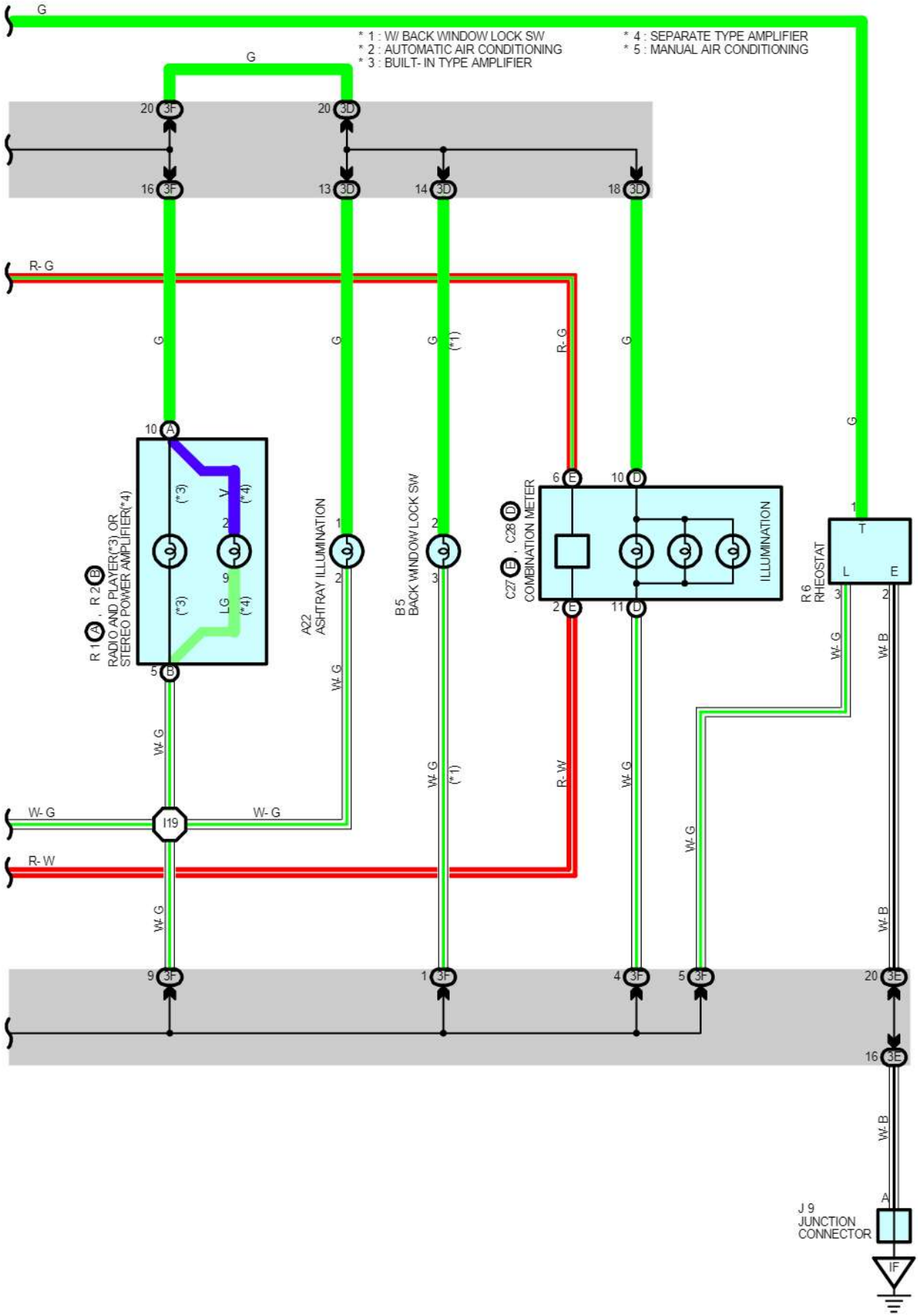
: GROUND POINTS

Code	See Page	Ground Points Location
EB	36	Front Left Fender
IE	38	Cowl Side Panel LH
BH	42	Left Quarter Panel Inner

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ILLUMINATION

SERVICE HINTS

C13 LIGHT CONTROL SW [COMB. SW]

14-16 : Closed with light control SW at **TAIL** or **HEAD** position

TAIL RELAY

5-3 : Closed with light control SW at **TAIL** or **HEAD** position

R6 RHEOSTAT

1-2 : Approx. **12** volts with rheostat fully turned counterclockwise and **0** volts with fully turned clockwise

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A12	30	C27 E	30	J5	31
A22	30	C28 D	30	J9	31
A31	30	G3	31	R1 A	31
B5	30	H7	31	R2 B	31
C5	30	J1 A	29	R6	31
C13	30	J2 B	29	S3	31
C23	30	J4	31		

: 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)
1B	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
3D	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3E		
3F		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)

: GROUND POINTS

Code	See Page	Ground Points Location
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH

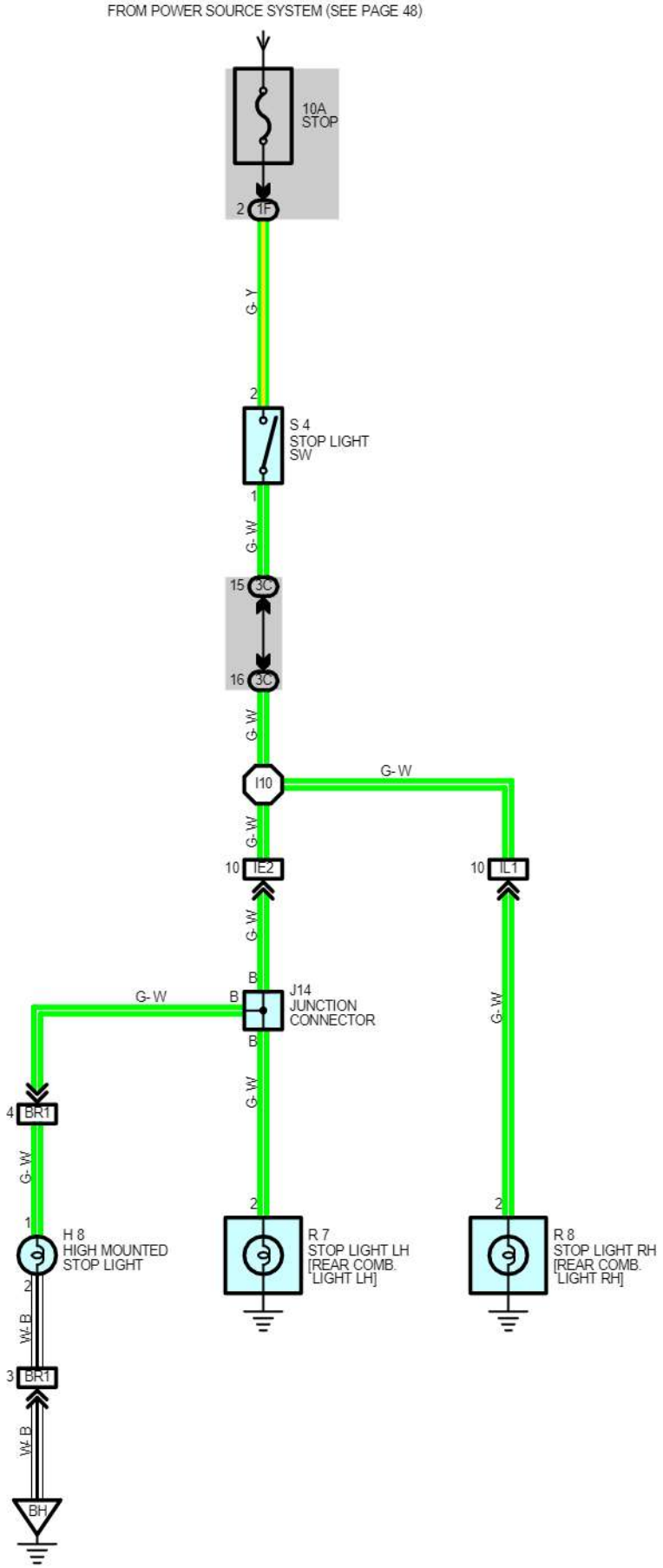
: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I13	40	Cowl Wire	I19	40	Cowl Wire

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STOP LIGHT



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SERVICE HINTS

S4 STOP LIGHT SW

2-1 : Closed with brake pedal depressed

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
H8	32	R7	33	S4	31
J14	32	R8	33		

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
3C	26	Cowl Wire and Center J/B (Near the Steering Column Tube)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE2	38	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IL1	40	Cowl Wire and Floor Wire (Right Kick Panel)
BR1	42	Back Door No.1 Wire and Floor No.2 Wire (Left Rear Side of Roof)

: GROUND POINTS

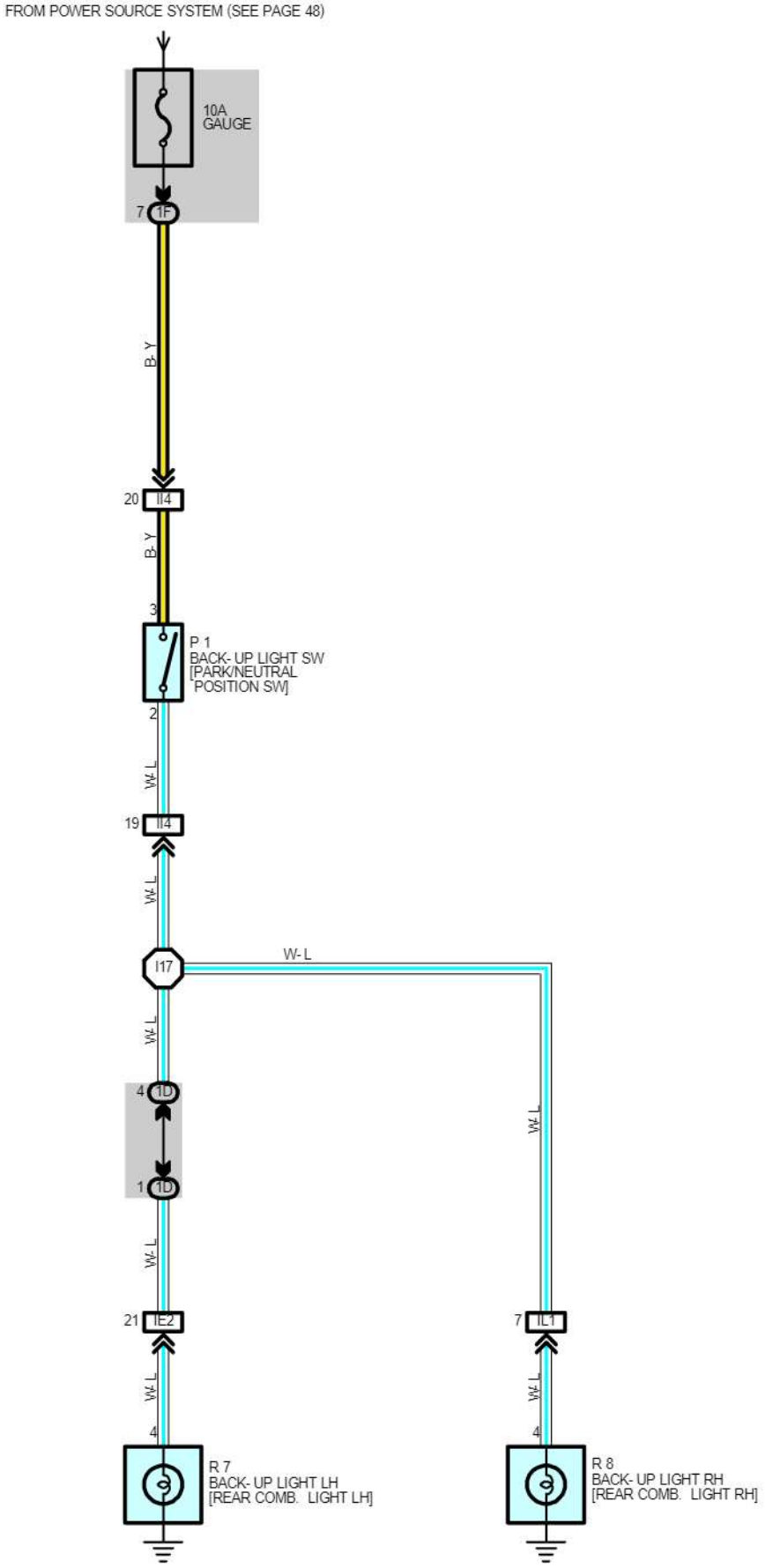
Code	See Page	Ground Points Location
BH	42	Left Quarter Panel Inner

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I10	40	Cowl Wire			

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BACK-UP LIGHT



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SERVICE HINTS

P1 BACK-UP LIGHT SW [PARK/NEUTRAL POSITION SW]

3-2 : Closed with shift lever in **R** position

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
P1	29	R7	33	R8	33

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1F		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

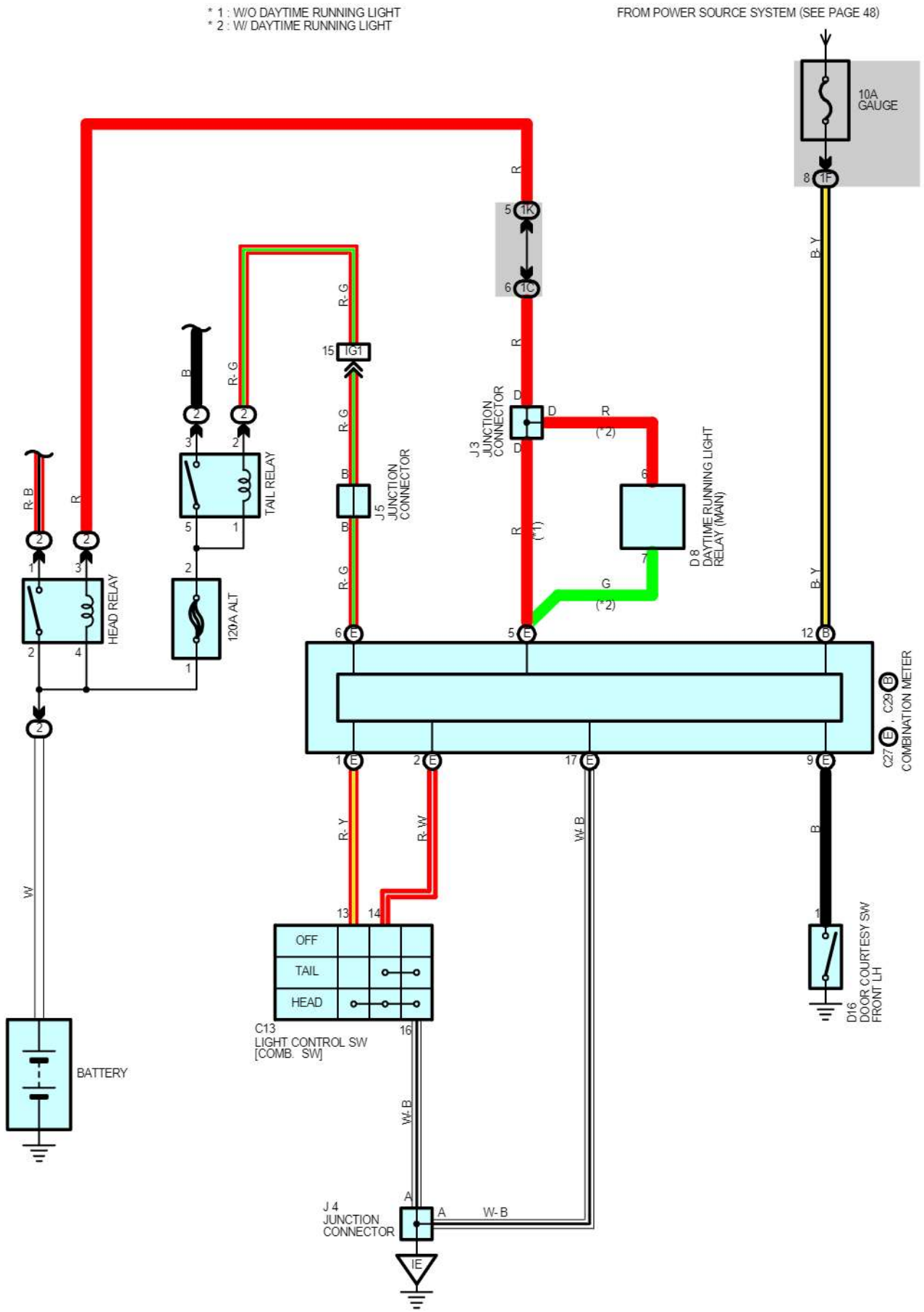
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE2	38	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
II4	40	Engine Wire and Cowl Wire (On the Glove Box)
IL1	40	Cowl Wire and Floor Wire (Right Kick Panel)

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I17	40	Cowl Wire			

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LIGHT AUTO TURN OFF



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SYSTEM OUTLINE

With the ignition SW turned on, the current flows to TERMINAL (B) 12 of the combination meter through GAUGE fuse.
Voltage is applied at all times to TERMINAL (E) 6 of the combination meter through the TAIL relay (Coil side), and to TERMINAL (E) 5 of the combination meter through the HEAD relay (Coil side) [w/o daytime running light] or through the daytime running light relay (Main) [w/ daytime running light].

1. NORMAL LIGHTING OPERATION

(Turn taillight on)
With the light control SW turned to TAIL position, a signal is input into TERMINAL (E) 2 of the combination meter. According to this signal, the current flowing to TERMINAL (E) 6 of the combination meter flows from TERMINAL (E) 2 to TERMINAL 14 of the light control SW to TERMINAL 16 to GROUND and TAIL relay causes taillight to turn on.

(Turn headlight on)
With the light control SW turned to HEAD position, the signals are input into TERMINALS (E) 1 and (E) 2 of the combination meter. According to these signals, the current flowing to TERMINAL (E) 5 of the combination meter flows to TERMINAL (E) 1 to TERMINAL 13 of the light control SW to TERMINAL 16 to GROUND in the headlight circuit, and causes TAIL and HEAD relay to turn the light on. The taillight circuit is same as above.

2. LIGHT AUTO TURN OFF OPERATION

With the lights on and the ignition SW turned off (Input signal goes to TERMINAL (B) 12 of the combination meter), when door on front LH side is opened (Input signal goes to TERMINAL (E) 9 of the combination meter), the relay operates and the current is cut off which flows from TERMINAL (E) 6 of the combination meter to TERMINAL (E) 2 in taillight circuit and from TERMINAL (E) 5 to TERMINAL (E) 1 in headlight circuit. As a result, all lights are turned off automatically.

SERVICE HINTS

C27 (E), C29 (B) COMBINATION METER

(E) 1-GROUND : Continuity with the light control SW at **HEAD** position
(E) 2-GROUND : Continuity with the light control SW at **TAIL** or **HEAD** position
(E) 9-GROUND : Continuity with the front LH door open
(B)12-GROUND : Approx. **12** volts with the ignition SW at **ON** position
(E)17-GROUND : Always continuity

: PARTS LOCATION

Code		See Page	Code	See Page	Code	See Page
C13		30	D8	30	J4	31
C27	E	30	D16	32	J5	31
C29	B	30	J3	31		

: 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	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1F		
1K	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)

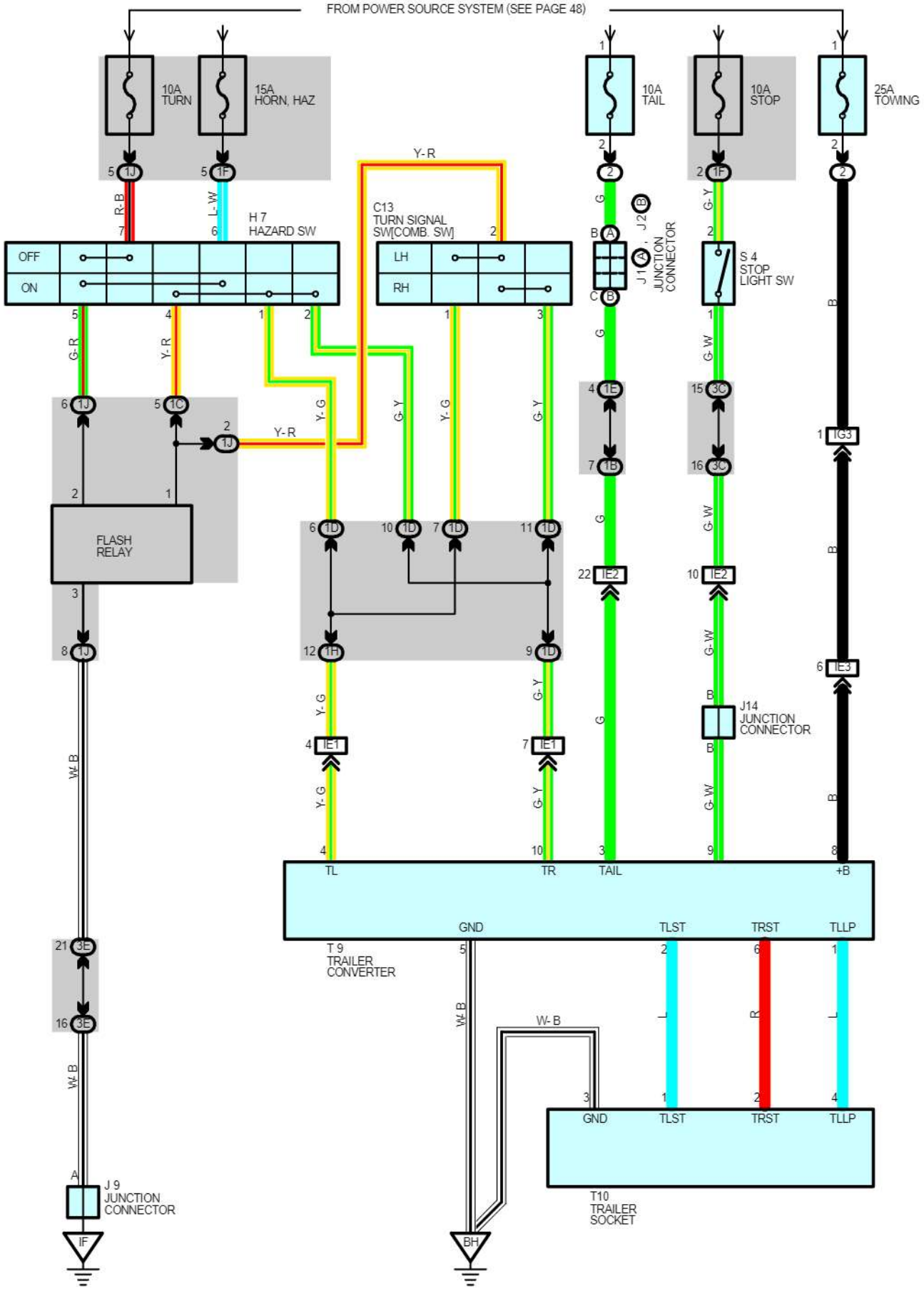
: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)

: GROUND POINTS

Code	See Page	Ground Points Location
IE	38	Cowl Side Panel LH

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SERVICE HINTS

T9 TRAILER CONVERTER

8-GROUND : Always approx. **12** volts
5-GROUND : Always continuity

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C13	30	J2 B	29	S4	31
H7	31	J9	31	T9	33
J1 A	29	J14	32	T10	33

: 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)
1B	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1C		
1D		
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1H		
1J		
3C	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3E		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

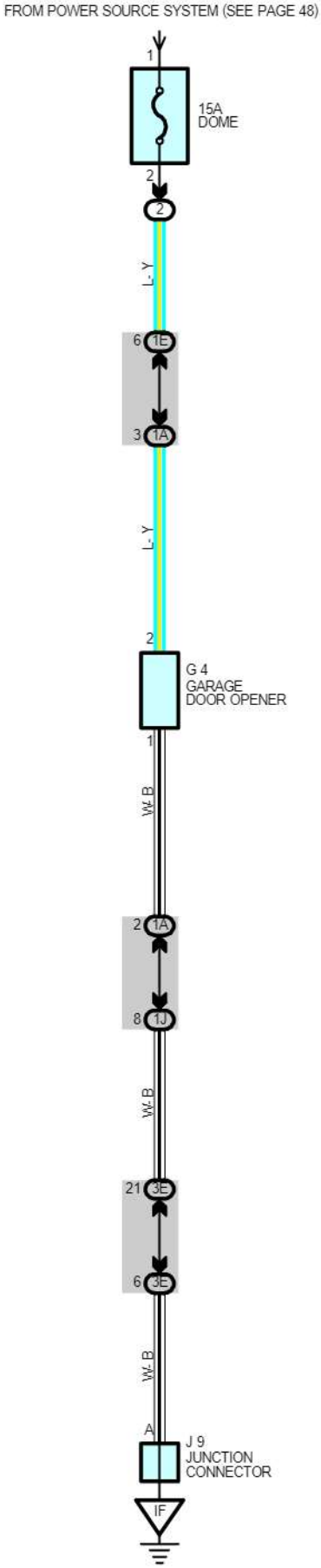
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE1	38	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IE2		
IE3		
IG3	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)

: GROUND POINTS

Code	See Page	Ground Points Location
IF	38	Cowl Side Panel RH
BH	42	Left Quarter Panel Inner

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GARAGE DOOR OPENER



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SERVICE HINTS

G4 GARAGE DOOR OPENER

2-GROUND : Always approx. **12** volts
1-GROUND : Always continuity

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
G4	32	J9	31		

⬭ : 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

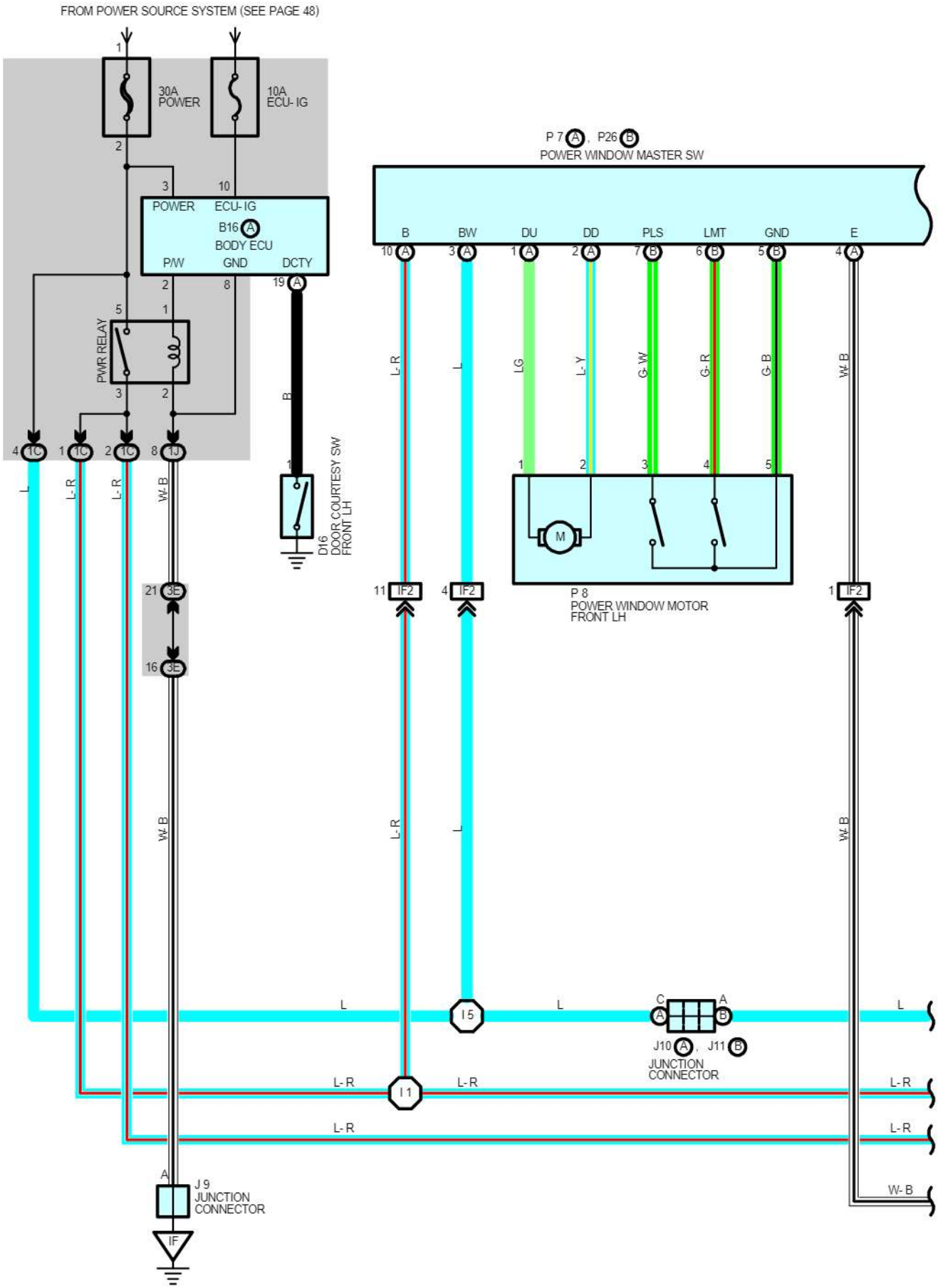
Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	24	Roof Wire and Driver Side J/B (Lower Finish Panel)
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1J	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
3E	26	Cowl Wire and Center J/B (Near the Steering Column Tube)

▽ : GROUND POINTS

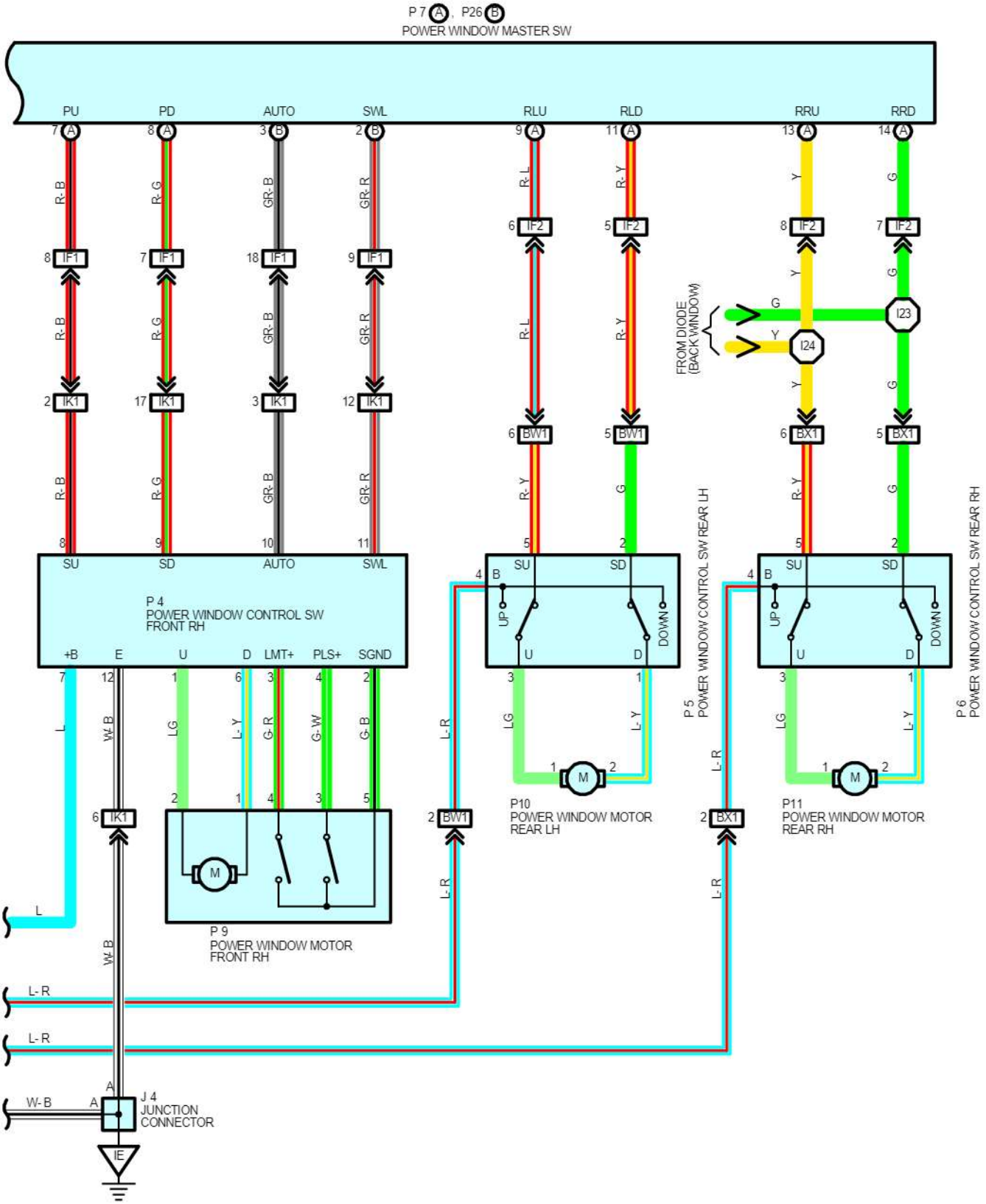
Code	See Page	Ground Points Location
IF	38	Cowl Side Panel RH

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POWER WINDOW



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SYSTEM OUTLINE

With the ignition SW turned on, current flows through the ECU-IG fuse to TERMINAL 10 of the body ECU. This activates the ECU and at all times the current flowing to TERMINAL 3 of the ECU, TERMINAL (A) 3 of the power window master SW and TERMINAL 7 of the power window control SW front RH from POWER fuse. When the ignition SW turned on, current flows to TERMINAL 5 of the PWR relay to TERMINAL 3 to TERMINAL (A) 10 of the power window master SW and TERMINAL 4 of the power window control SW (Rear LH, rear RH).

1. MANUAL OPERATION (DRIVER'S SW)

With the ignition SW turned on and with the power window master SW (Manual SW) in UP position, the current flowing to TERMINAL (A) 10 of the power window master SW flows to TERMINAL (A) 1 to TERMINAL 1 of the power window motor front LH to TERMINAL 2 to TERMINAL (A) 2 of the power window master SW to TERMINAL (A) 4 to GROUND and causes the power window motor to rotate in the up direction. The window ascends only while the SW is being pushed (Manual up position). In down operation, the flow of current from TERMINAL (A) 10 of the power window master SW to TERMINAL (A) 2 to TERMINAL 2 of the power window motor front LH to TERMINAL 1 to TERMINAL (A) 1 of the power window master SW to TERMINAL (A) 4 to GROUND, flowing in the opposite direction to manual up operation and causing the motor to rotate in reverse, lowering the window.

For the other windows, as the power window master SW is operated, the relevant door window is opened or closed.

2. MANUAL OPERATION (FRONT PASSENGER'S SW)

With the power window control SW pulled to the up side, current flowing from TERMINAL 7 of the power window control SW to TERMINAL 1 to TERMINAL 2 of the power window motor to TERMINAL 1 to TERMINAL 6 of the power window control SW to TERMINAL 12 to GROUND and causes the power window motor to rotate in the up direction. Up operation continues only while the power window control SW is pulled to the up side (Manual up position). When the window descends, the current flowing to the motor flows in the opposite direction, from TERMINAL 2 to TERMINAL 1, and the motor rotates in reverse. When the window lock SW is pushed to the lock side, the ground circuit to the front passenger's SW becomes open. As a result, even if Open/Close operation of the front passenger's window is tried, the current from TERMINAL 12 of the power window control SW is not grounded and the motor does not rotate, so the front passenger's window can not be operated and window lock occurs.

3. MANUAL OPERATION (REAR LH, RH SW)

With the power window control SW pulled to the up side, current flowing from TERMINAL 4 of the power window control SW to TERMINAL 3 to TERMINAL 1 of the power window motor to TERMINAL 2 to TERMINAL 1 of the power window control SW to TERMINAL 2 to TERMINAL (A) 11 or (A) 14 of the power window master SW to TERMINAL (A) 4 to GROUND and causes the power window motor to rotate in the up direction. Up operation continues only while the power window control SW is pulled to the up side. When the window descends, the current flowing to the motor flows in the opposite direction, from TERMINAL 1 to TERMINAL 2, and the motor rotates in reverse. When the window lock SW is pushed to the lock side, the ground circuit to the rear LH, RH window becomes open. As a result, even if Open/Close operation of the rear LH, RH window is tried, the current from TERMINAL (A) 4 of the power window master SW is not grounded and the motor does not rotate, so the rear LH, RH window can not be operated and window lock occurs.

4. STOPPING OF AUTO DOWN (DRIVER'S WINDOW)

When the manual SW (Power window master SW) is pulled to the up side during auto down operation, a ground circuit opens in the master SW and current does not flow from TERMINAL (A) 1 of the power window master SW to TERMINAL (A) 4, so the motor stops, causing auto down operation to stop. If the manual SW is pulled continuously, the motor rotates in the up direction in manual up operation.

5. STOPPING OF AUTO DOWN (FRONT PASSENGER'S WINDOW)

When the manual SW (Power window master SW or power window control SW front RH) is pulled to the up side during auto down operation, a ground circuit opens in the control SW and current does not flow from TERMINAL 1 of the power window control SW front RH to TERMINAL 12, so the motor stops, causing auto down operation to stop. If the manual SW is pulled continuously, the motor rotates in the up direction in manual up operation.

6. STOPPING OF AUTO UP (DRIVER'S WINDOW)

When the manual SW (Power window master SW) is pushed to the down side during auto up operation, a ground circuit opens in the master SW and current does not flow from TERMINAL (A) 2 of the power window master SW to TERMINAL (A) 4, so the motor stops, causing auto up operation to stop. If the manual SW is pushed continuously, the motor rotates in the down direction in manual down operation.

7. STOPPING OF AUTO UP (FRONT PASSENGER'S WINDOW)

When the manual SW (Power window master SW or power window control SW front RH) is pushed to the down side during auto up operation, a ground circuit opens in the control SW and current does not flow from TERMINAL 6 of the power window control SW front RH to TERMINAL 12, so the motor stops, causing auto up operation to stop. If the manual SW is pushed continuously, the motor rotates in the down direction in manual down operation.

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8. AUTO DOWN OPERATION (DRIVER'S WINDOW)

With the ignition SW on and with the auto SW of the power window master SW in DOWN position, current flowing to TERMINAL (A) 10 of the power window master SW to TERMINAL (A) 2 to TERMINAL 2 of the power window motor front LH to TERMINAL 1 to TERMINAL (A)1 of the power window master SW to TERMINAL (A) 4 to GROUND, causing the motor to rotate towards the down side. Then the solenoid in the power window master SW is activated and it locks the auto SW being pushed, causing the motor to continue to rotate in auto down operation. When the window has completely descended, the current flow between TERMINAL (A) 1 of the power window master SW and TERMINAL (A) 4 increases. As a result, the solenoid stops operating, the auto SW turns off and flow from TERMINAL (A) 10 of the power window master SW to TERMINAL (A) 2 is cut off, stopping the motor so that auto stop occurs.

9. AUTO DOWN OPERATION (FRONT PASSENGER'S WINDOW)

With the ignition SW on and with the auto SW of the power window master SW or power window control SW front RH in DOWN position, current flowing to TERMINAL 7 of the power window control SW front RH to TERMINAL 6 to TERMINAL 1 of the power window motor front RH to TERMINAL 2 to TERMINAL 1 of the power window control SW front RH to TERMINAL 12 to GROUND, causing the motor to rotate towards the down side. Then the solenoid in the power window control SW front RH is activated and it locks the auto SW being pushed, causing the motor to continue to rotate in auto down operation. When the window has completely descended, the current flow between TERMINAL 6 of the power window control SW front RH and TERMINAL 12 increases. As a result, the solenoid stops operating, the auto SW turns off and flow from TERMINAL 7 of the power window control SW front RH to TERMINAL 6 is cut off, stopping the motor so that auto stop occurs.

10. AUTO UP OPERATION (DRIVER'S WINDOW)

With the ignition SW on and with the auto SW of the power window master SW in UP position, current flowing to TERMINAL (A) 10 of the power window master SW to TERMINAL (A) 1 to TERMINAL 1 of the power window motor front LH to TERMINAL 2 to TERMINAL (A) 2 of the power window master SW to TERMINAL (A) 4 to GROUND, causing the motor to rotate towards the up side. Then the solenoid in the power window master SW is activated and it locks the auto SW being pulled, causing the motor to continue to rotate in auto up operation. When the window has completely descended, the current flow between TERMINAL (A) 2 of the power window master SW and TERMINAL (A) 4 increases. As a result, the solenoid stops operating, the auto SW turns off and flow from TERMINAL (A) 10 of the power window master SW to TERMINAL (A) 1 is cut off, stopping the motor so that auto stop occurs.

11. AUTO UP OPERATION (FRONT PASSENGER'S WINDOW)

With the ignition SW on and with the auto SW of the power window master SW or power window control SW front RH in UP position, current flowing to TERMINAL 7 of the power window control SW front RH to TERMINAL 1 to TERMINAL 2 of the power window motor front RH to TERMINAL 1 to TERMINAL 6 of the power window control SW front RH to TERMINAL 12 to GROUND, causing the motor to rotate towards the up side. Then the solenoid in the power window control SW front RH is activated and it locks the auto SW being pulled, causing the motor to continue to rotate in auto up operation. When the window has completely descended, the current flow between TERMINAL 6 of the power window control SW front RH and TERMINAL 12 increases. As a result, the solenoid stops operating, the auto SW turns off and flow from TERMINAL 7 of the power window control SW front RH to TERMINAL 1 is cut off, stopping the motor so that auto stop occurs.

12. KEY OFF POWER WINDOW OPERATION

With the ignition SW turned from on to off, the body ECU operates and current flows from the POWER fuse to TERMINAL 3 of the body ECU to TERMINAL 2 to TERMINAL 1 of the PWR relay to TERMINAL 2 to GROUND for about 43 seconds. The same as normal operation, the current flows from the POWER fuse to TERMINAL 5 of the PWR relay to TERMINAL 3 to TERMINAL (A) 10 of the power window master SW, TERMINAL 4 (Rear LH, RH) of the power window control SW and signal input in to the TERMINAL 11 of the power window control SW front RH. As a result, for about 43 seconds after the ignition SW is turned off, it is possible to raise and lower the power window by the functioning of this ECU. Also, by opening the front door LH (the door courtesy SW front LH on) within about 43 seconds after turning the ignition SW to off, a signal is input to TERMINAL (A) 19 of the body ECU. As a result, the ECU turns off and up and down movement of the window stops.
Furthermore, front RH, rear LH, RH window operate the same as the above circuit.

13. CATCHING PREVENTION FUNCTION (DRIVER'S, FRONT PASSENGER'S WINDOW)

When any foreign matter is caught in the window during power window auto up operation, the pulse sensor in the power window motor detects the changes in the number of motor rotations and forcibly opens the door window 50 mm, or when the window opening is less then 200 mm, it opens the window until the opening is 200 mm.

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POWER WINDOW

SERVICE HINTS

B16 (A) BODY ECU

3-GROUND : Always approx. **12** volts
10-GROUND : Approx. **12** volts with ignition SW at **ON** position
(A)19-GROUND : Continuity with front LH door opened
8-GROUND : Always continuity

PWR RELAY

5-3 : Closed with ignition SW on and stays at **12** volts for **43** seconds after the ignition SW is turned off, but if a door is opened in this **43** seconds period, voltage will drop to **0** volts

D16 DOOR COURTESY SW FRONT LH

1-GROUND : Continuity with door opened

P4 POWER WINDOW CONTROL SW FRONT RH

7-GROUND : Always approx. **12** volts
12-GROUND : Always continuity

P5, P6 POWER WINDOW CONTROL SW REAR LH, RH

4-GROUND : Approx. **12** volts with ignition SW on and stays at **12** volts for **43** seconds after the ignition SW is turned off, but if a door is opened in this **43** seconds period, voltage will drop to **0** volts

P7 (A) POWER WINDOW MASTER SW

(A) 4-GROUND : Always continuity
(A)10-GROUND : Approx. **12** volts with ignition SW on and stays at **12** volts for **43** seconds after the ignition SW is turned off, but if a door is opened in this **43** seconds period, voltage will drop to **0** volts
(A) 3-GROUND : Always approx. **12** volts

WINDOW LOCK SW

Open with window lock SW at **LOCK** position

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B16 A	30	J11 B	31	P8	33
D16	32	P4	33	P9	33
J4	31	P5	33	P10	33
J9	31	P6	33	P11	33
J10 A	31	P7 A	33	P26 B	33

⬭ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C 1J	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
3E	26	Cowl Wire and Center J/B (Near the Steering Column Tube)

▭ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF1 IF2	38	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IK1	40	Front Door RH Wire and Cowl Wire (Right Kick Panel)
BW1	42	Rear Door LH Wire and Cowl Wire (Left Center Pillar)
BX1	42	Rear Door RH Wire and Cowl Wire (Right Center Pillar)

▽ : GROUND POINTS

Code	See Page	Ground Points Location
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH

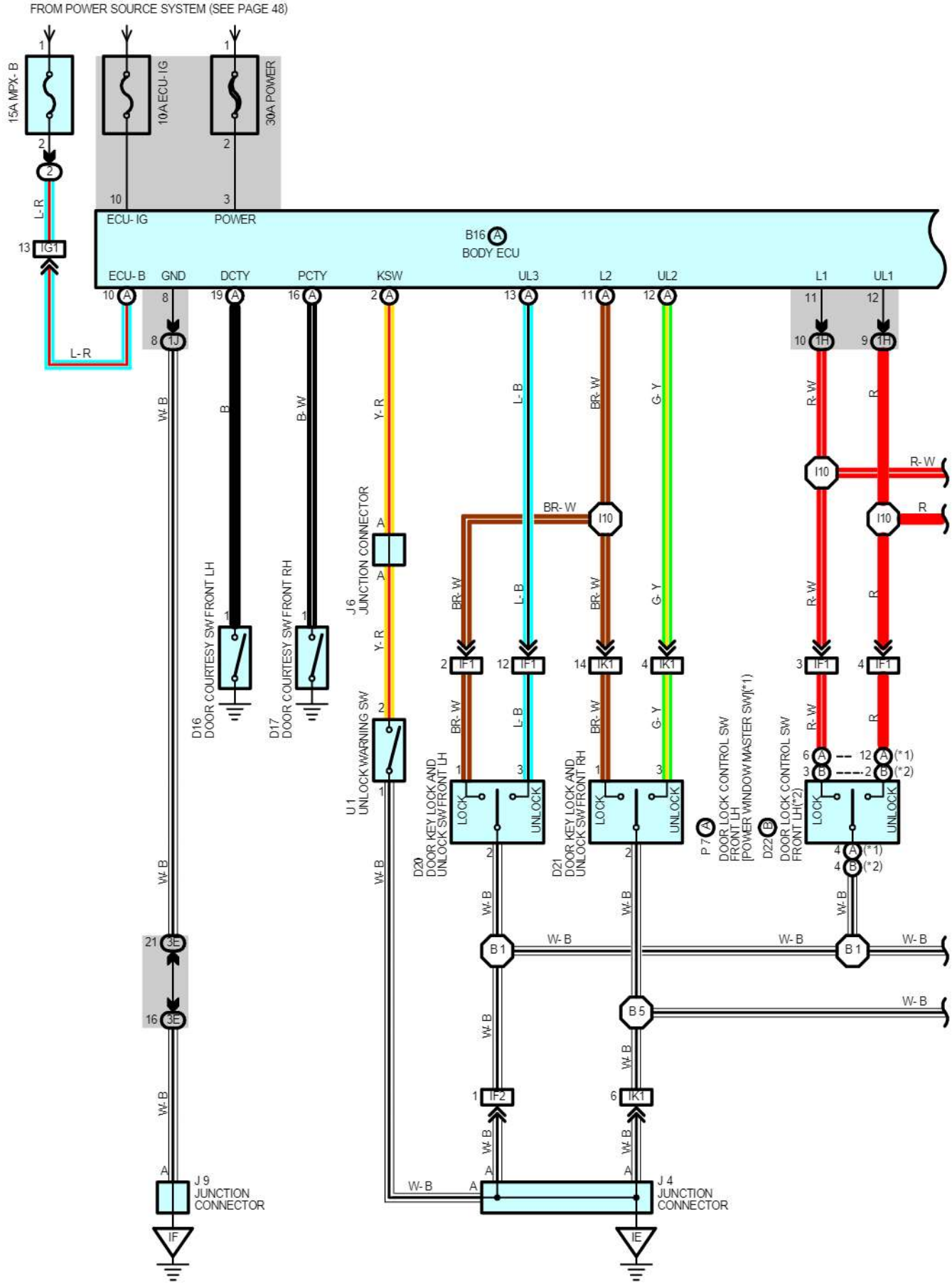
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: **SPLICE POINTS**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I1	40	Cowl Wire	I23	40	Cowl Wire
I5			I24		

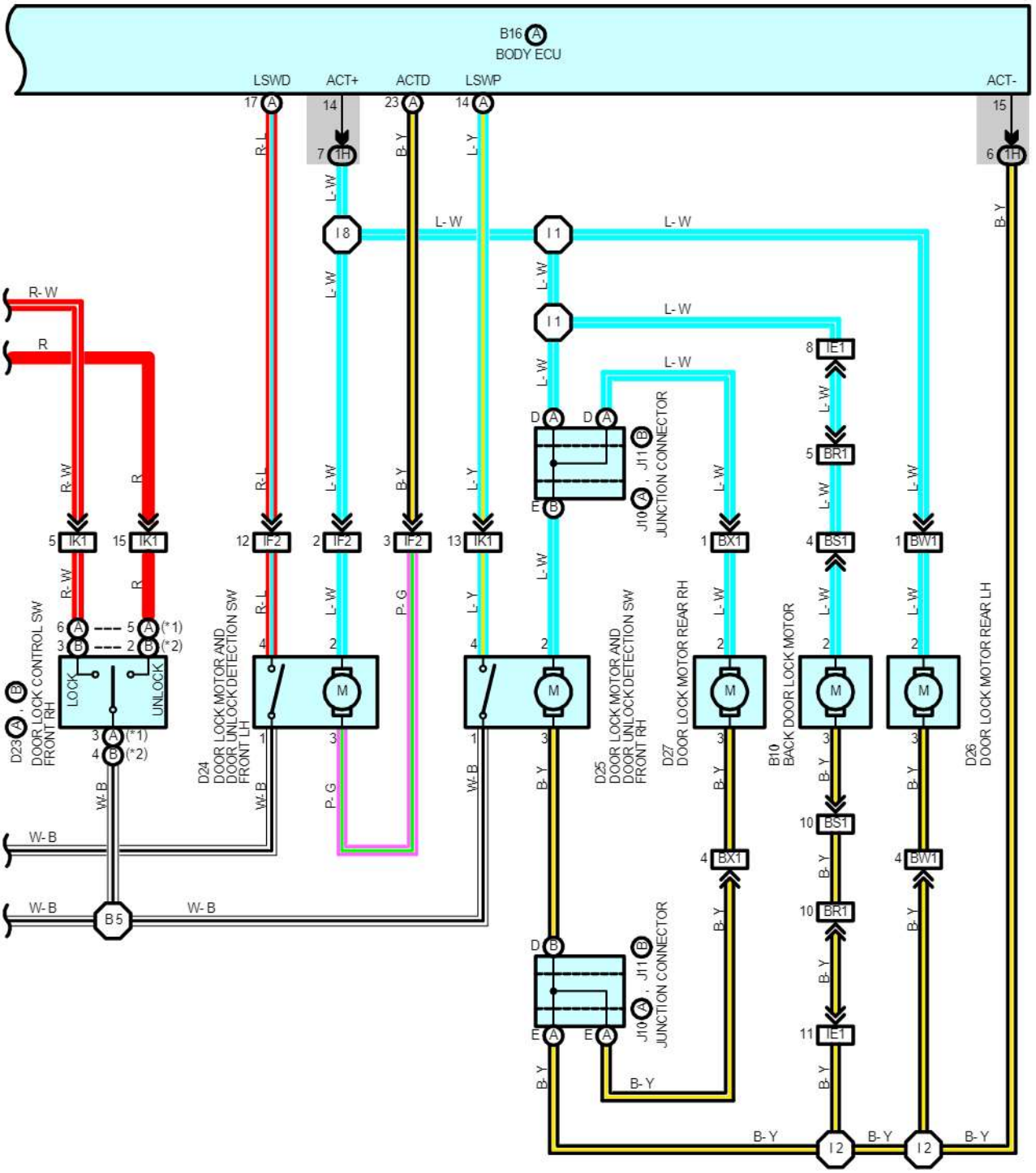
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DOOR LOCK CONTROL



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* 1 : W/ POWER WINDOW
* 2 : W/O POWER WINDOW



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DOOR LOCK CONTROL

SYSTEM OUTLINE

Current always flows to TERMINAL POWER of the body ECU through the POWER fuse.

1. MANUAL LOCK OPERATION

To push door lock control SW or door key lock and unlock SW to LOCK position, a lock signal is input to TERMINAL L1 or L2 of the body ECU and causes the body ECU to function. Current flows from TERMINAL POWER of the body ECU to TERMINAL ACT+ to TERMINAL 2 of the door lock motors to TERMINAL 3 to TERMINAL ACT- and ACTD of the body ECU to TERMINAL GND to GROUND and the door lock motor causes the door to lock.

2. MANUAL UNLOCK OPERATION

To push door lock control SW or door key lock and unlock SW to UNLOCK position, an unlock signal is input to TERMINAL UL1, UL2 or UL3 of the body ECU and causes the body ECU to function. Current flows from TERMINAL POWER of the body ECU to TERMINAL ACT- and ACTD to TERMINAL 3 of the door lock motors to TERMINAL 2 to TERMINAL ACT+ of the body ECU to TERMINAL GND to GROUND and the door lock motor causes the door to unlock.

3. IGNITION KEY REMINDER OPERATION

* Operating door lock knob (in door lock motor operation)
  With ignition key in cylinder (Unlock warning SW on), when the driver's door is opened (Door courtesy SW on) and locked using the driver's door lock knob (Door lock motor), the driver's door is locked once but all door is unlocked soon by the function of the body ECU. As a result, the current flows from TERMINAL POWER of the body ECU to TERMINAL ACT- and ACTD to TERMINAL 3 of the door lock motors to TERMINAL 2 to TERMINAL ACT+ of the body ECU to TERMINAL GND to GROUND and causes all the door to unlock.
  For front passenger's door, as driver's door lock knob operated, the door lock motor is operated.

* Operating door lock control SW or door key lock and unlock SW
  With ignition key in cylinder (Unlock warning SW on), when the door is opened (Door courtesy SW on) and locked using door lock control SW or door key lock and unlock SW, all door lock is locked once but all door is unlocked by the function of SW contained in motor, which inputs the signal to TERMINAL LSWD or LSWP of the body ECU. According to this input signal, the current in the body ECU flows from TERMINAL POWER of the body ECU to TERMINAL ACT- and ACTD to TERMINAL 3 of the door lock motors to TERMINAL 2 to TERMINAL ACT+ of the body ECU to TERMINAL GND to GROUND and causes all the doors to unlock.

4. DOUBLE OPERATION UNLOCK OPERATION

When the door key lock and unlock SW front LH is turned to the unlock side, only the driver's door is unlocked. Turning the door key lock and unlock SW front LH to the unlock side causes a signal to be input to TERMINAL UL3 of the body ECU, and if the signal input again within 3 seconds by turning the SW to the unlock side again, current flows from TERMINAL POWER of the body ECU to TERMINAL ACT- and ACTD to TERMINAL 3 of the door lock motors to TERMINAL 2 to TERMINAL ACT+ of the body ECU to TERMINAL GND to GROUND and the door lock motor causes all the doors to unlock.

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SERVICE HINTS

B16 (A) BODY ECU

10-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position
8-GROUND : Always continuity
3-GROUND : Always approx. **12** volts
15-GROUND : Approx. **12** volts for **0.2** seconds with following operations.
* Door lock control SW unlocked.
* Door lock control SW locked with ignition key in cylinder and driver's door open. (Ignition key reminder function)
* Door lock knob locked with ignition key in cylinder and driver's door open. (Ignition key reminder function)
* Unlocking the passenger's door cylinder with key.
* Double operation unlocking the driver's door cylinder with key.

14-GROUND : Approx. **12** volts for **0.2** seconds with following operations.
* Door lock control SW locked.
* Locking the driver's, passenger's door cylinder with key.

(A)17-GROUND : Continuity with driver's door lock knob unlocked.
(A)14-GROUND : Continuity with Front passenger's door lock knob unlocked.
(A)23-GROUND : Approx. **12** volts for **0.2** seconds with following operations.
* Door lock control SW unlocked.
* Door lock control SW locked with ignition key in cylinder and driver's door open. (Ignition key reminder function)
* Door lock knob locked with ignition key in cylinder and driver's door open. (Ignition key reminder function)
* Unlocking the driver's door cylinder with key.

D20, D21 DOOR KEY LOCK AND UNLOCK SW FRONT LH, RH

3-2 : Closed with door lock cylinder unlocked with key.
1-2 : Closed with door lock cylinder locked with key.

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B10	32	D23 A	32	J6	31
B16 A	30	D23 B	32	J9	31
D16	32	D24	32	J10 A	31
D17	32	D25	32	J11 B	31
D20	32	D26	32	P7 A	33
D21	32	D27	32	U1	31
D22 B	32	J4	31		

: 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)
1H	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1J		
3E	26	Cowl Wire and Center J/B (Near the Steering Column Tube)

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: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE1	38	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IF1	38	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IF2		
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
IK1	40	Front Door RH Wire and Cowl Wire (Right Kick Panel)
BR1	42	Back Door No.1 Wire and Floor No.2 Wire (Left Rear Side of Roof)
BS1	42	Back Door No.1 Wire and Back Door No.2 Wire (Back Door Left)
BW1	42	Rear Door LH Wire and Cowl Wire (Left Center Pillar)
BX1	42	Rear Door RH Wire and Cowl Wire (Right Center Pillar)

: GROUND POINTS

Code	See Page	Ground Points Location
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH

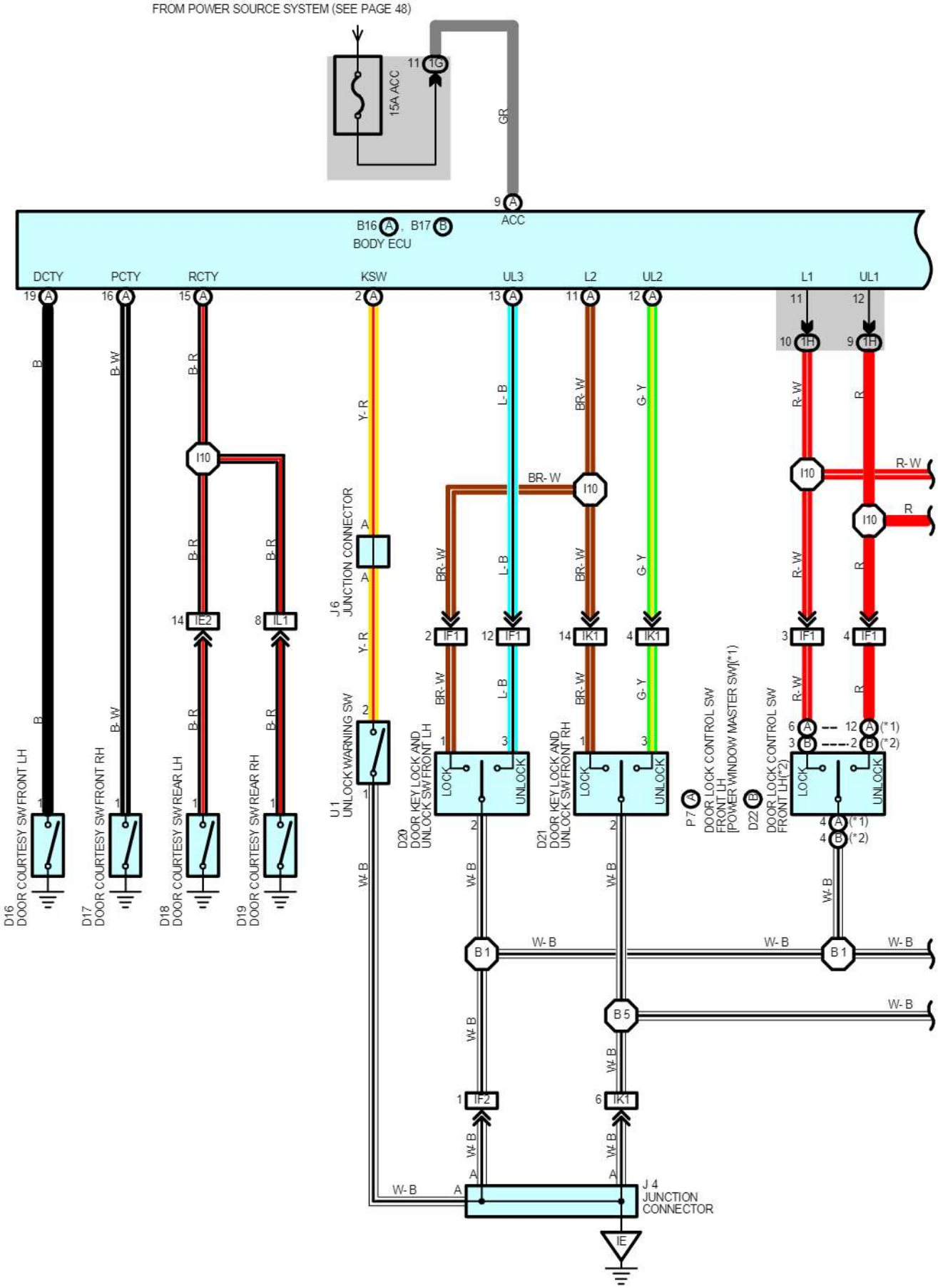
: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I1	40	Cowl Wire	I10	40	Cowl Wire
I2			B1	42	Front Door LH Wire
I8			B5	42	Front Door RH Wire

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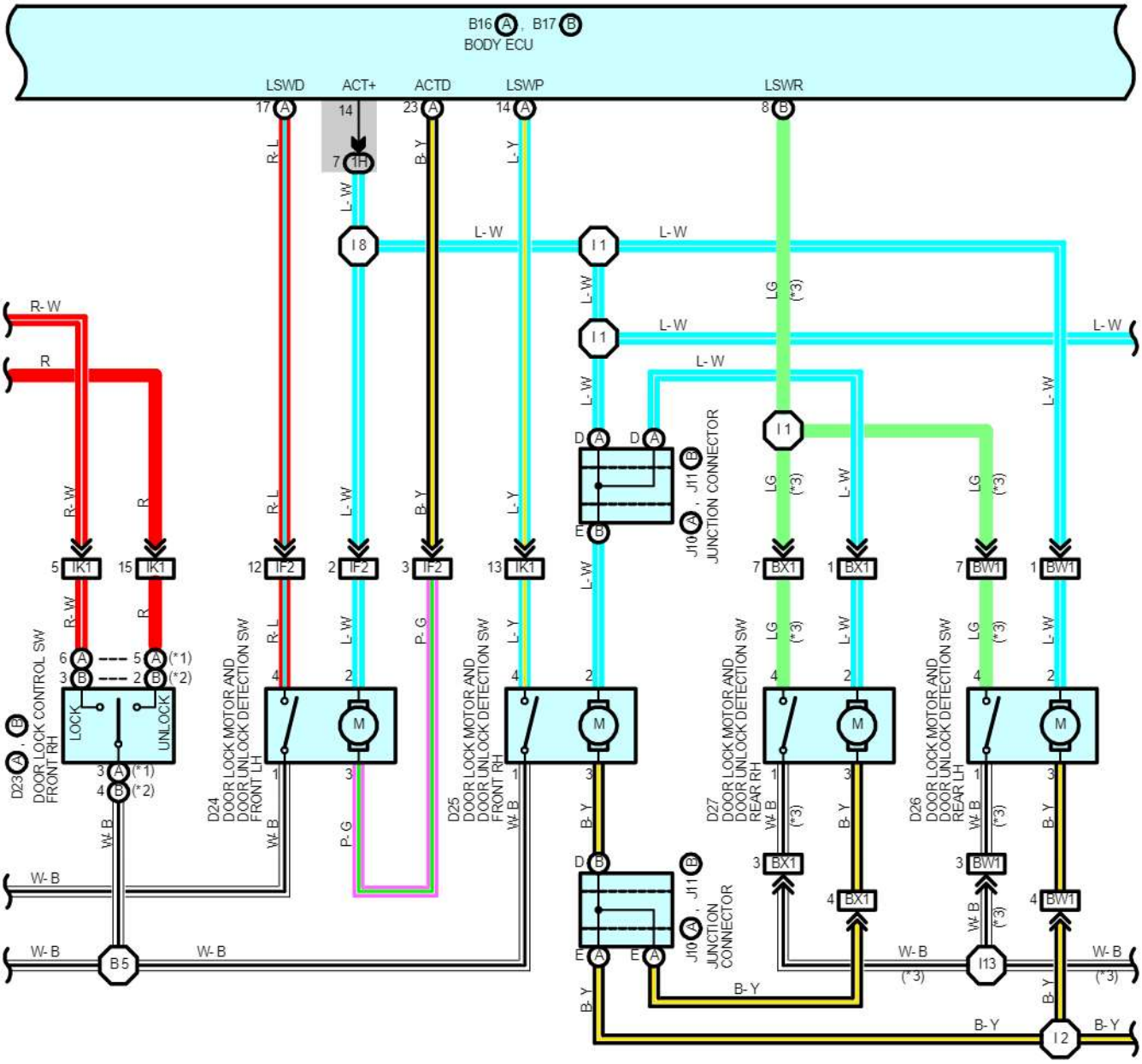
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WIRELESS DOOR LOCK CONTROL



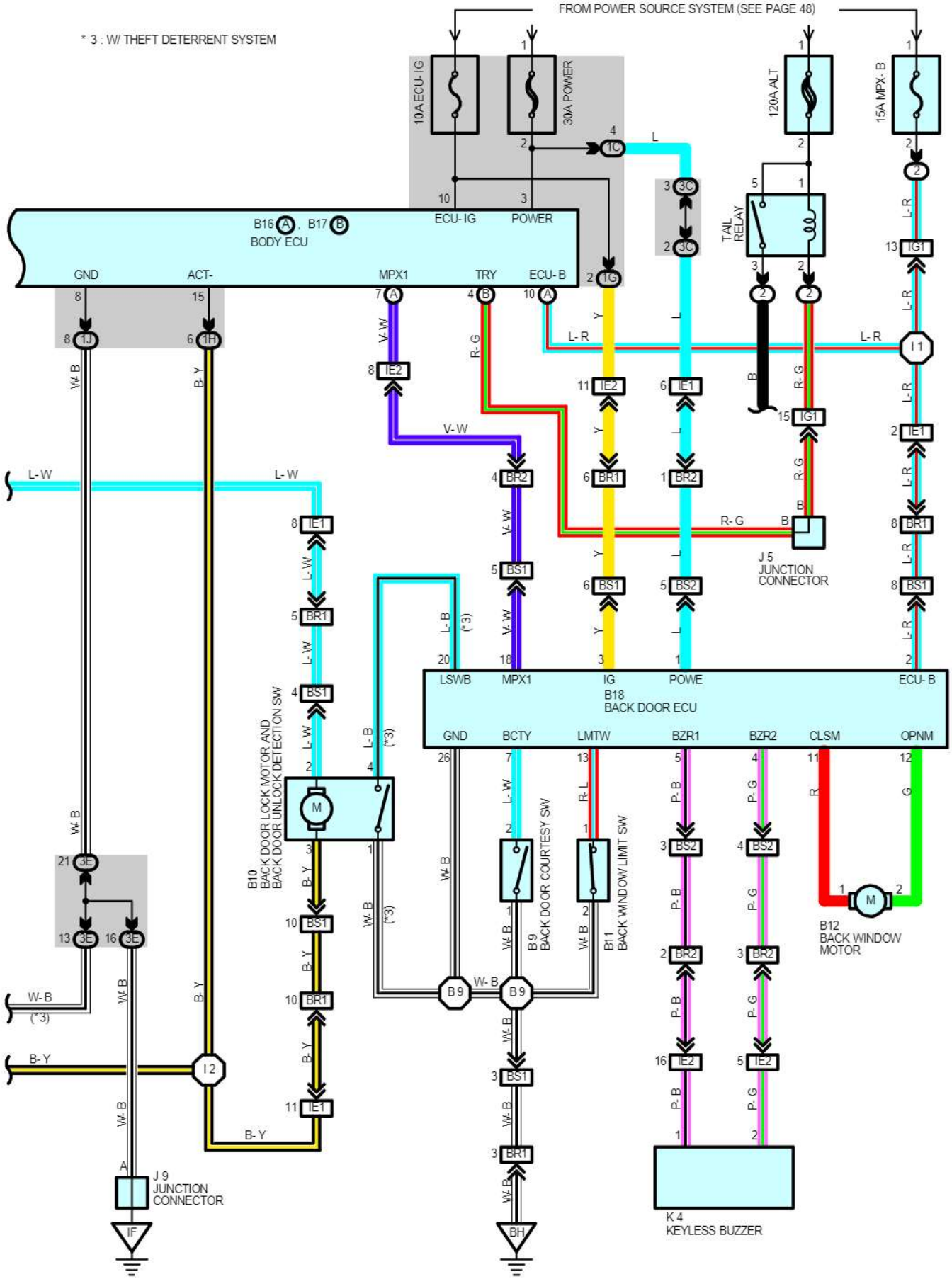
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* 1 : W/ POWER WINDOW
* 2 : W/O POWER WINDOW
* 3 : W/ THEFT DETERRENT SYSTEM



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WIRELESS DOOR LOCK CONTROL



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SYSTEM OUTLINE

In this system, the back door ECU receivers weak radio wave transmitted from the transmitter built-into the ignition key, and outputs a signal to the body ECU. Accordingly, all the doors are can be locked and unlocked by remote control.

1. NORMAL OPERATION

* Lock operation
  When the lock SW on the transmitter is pressed, all the doors are locked.
* Unlock operation
  When the unlock SW on the transmitter is pressed once, only the driver door is unlocked. When the unlock SW is pressed again within 3 seconds, all the doors are unlocked.

2. AUTO LOCK FUNCTION

When the door is not actually opened within 30 seconds after the door has been unlocked by the unlock SW on the transmitter, all the doors are automatically locked. If any of the following conditions are detected, the wireless door lock does not function.

* Any door is opened.
* The ignition key is inserted into the ignition SW.
* When the unlock detection SW of all the doors are locked.

3. WIRELESS DOOR LOCK STOP FUNCTION

If any of the following conditions are detected, the wireless door lock does not function.
Lock operation

* When any door is open (Door courtesy SW on)
* The ignition key is inserted into the ignition SW (Unlock warning SW on)
* Ignition SW is on

Unlock operation

* Ignition SW is on

4. BUZZER SOUND FUNCTION

During lock operation, when the back door ECU receives a lock signal from the door unlock detection SW, the wireless door lock buzzer goes on once. During unlock operation, when the back door ECU receives an unlock signal from the door unlock detection SW, the keyless buzzer goes on twice.
With any door open, when the back door ECU receives a lock signal from the transmitter, the keyless buzzer goes on for approx. 10 seconds. If the door is closed, or ignition SW is on, or if the unlock signal is received from the transmitter while the buzzer is on, the buzzer stops.

5. VISUAL CONFIRMATION OF LOCK OR UNLOCK

During lock operation, when the back door ECU receives a lock signal from the door unlock detection SW, the taillight and front parking light is flashed once. During unlock operation, when the back door ECU receives an unlock signal from the door unlock detection SW, the taillight and front parking light is flashed twice.

6. PANIC MODE FUNCTION

When the panic SW on the transmitter is pressed, the back door ECU receives a signal and enters the panic mode. The signal input into the body ECU from the back door ECU turns on (during 60 seconds) the theft deterrent horn, the horn LH and RH, and flashes the front parking light, taillight and headlight. When the panic SW or the unlock SW of the transmitter is pressed during the panic mode, the panic mode is canceled, and the theft deterrent horn, the horn LH and RH stop, and the front parking light, taillight and headlight are turned off.

7. REPEAT FUNCTION

If the lock detection signal in response to the output signal is not received after the back door ECU has output the lock signal, the lock signal is output again.

8. BUZZER VOLUME CONTROL

The volume of the keyless buzzer can be set among 5 steps by operating the transmitter, when the ignition SW is off, any door open, and the ignition key is not in the ignition key cylinder.

9. BACK WINDOW CONTROL

When the ignition SW is off, the ignition key is not inserted into the ignition key cylinder, the back window can be opened by pressing the back window open SW of the transmitter for approximately 0.8 seconds. At that time, the keyless buzzer beeps once.

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WIRELESS DOOR LOCK CONTROL

SERVICE HINTS

B16 (A) BODY ECU

8-GROUND : Always continuity
3, (A)10-GROUND : Always approx. **12** volts
10-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position

D24, D25, D26, D27 DOOR LOCK MOTOR AND DOOR UNLOCK DETECTION SW FRONT LH, RH, REAR LH, RH

2-GROUND : Approx. **12** volts with door lock motor at lock operation
3-GROUND : Approx. **12** volts with door lock motor at unlock operation

B10 BACK DOOR LOCK MOTOR AND BACK DOOR UNLOCK DETECTION SW

2-GROUND : Approx. **12** volts with door lock motor at lock operation
3-GROUND : Approx. **12** volts with door lock motor at unlock operation

B18 BACK DOOR ECU

2-GROUND : Always approx. **12** volts
3-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position
26-GROUND : Always continuity

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B9	32	D19	32	J4	31
B10	32	D20	32	J5	31
B11	32	D21	32	J6	31
B12	32	D22 B	32	J9	31
B16 A	30	D23 A	32	J10 A	31
B17 B	30	D23 B	32	J11 B	31
B18	32	D24	32	K4	29
D16	32	D25	32	P7 A	33
D17	32	D26	32	U1	31
D18	32	D27	32		

: 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	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1G		
1H		
1J		
3C	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3E		

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: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE1	38	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IE2		
IF1	38	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IF2		
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
IK1	40	Front Door RH Wire and Cowl Wire (Right Kick Panel)
IL1	40	Cowl Wire and Floor Wire (Right Kick Panel)
BR1	42	Back Door No.1 Wire and Floor No.2 Wire (Left Rear Side of Roof)
BR2		
BS1	42	Back Door No.1 Wire and Back Door No.2 Wire (Back Door Left)
BS2		
BW1	42	Rear Door LH Wire and Cowl Wire (Left Center Pillar)
BX1	42	Rear Door RH Wire and Cowl Wire (Right Center Pillar)

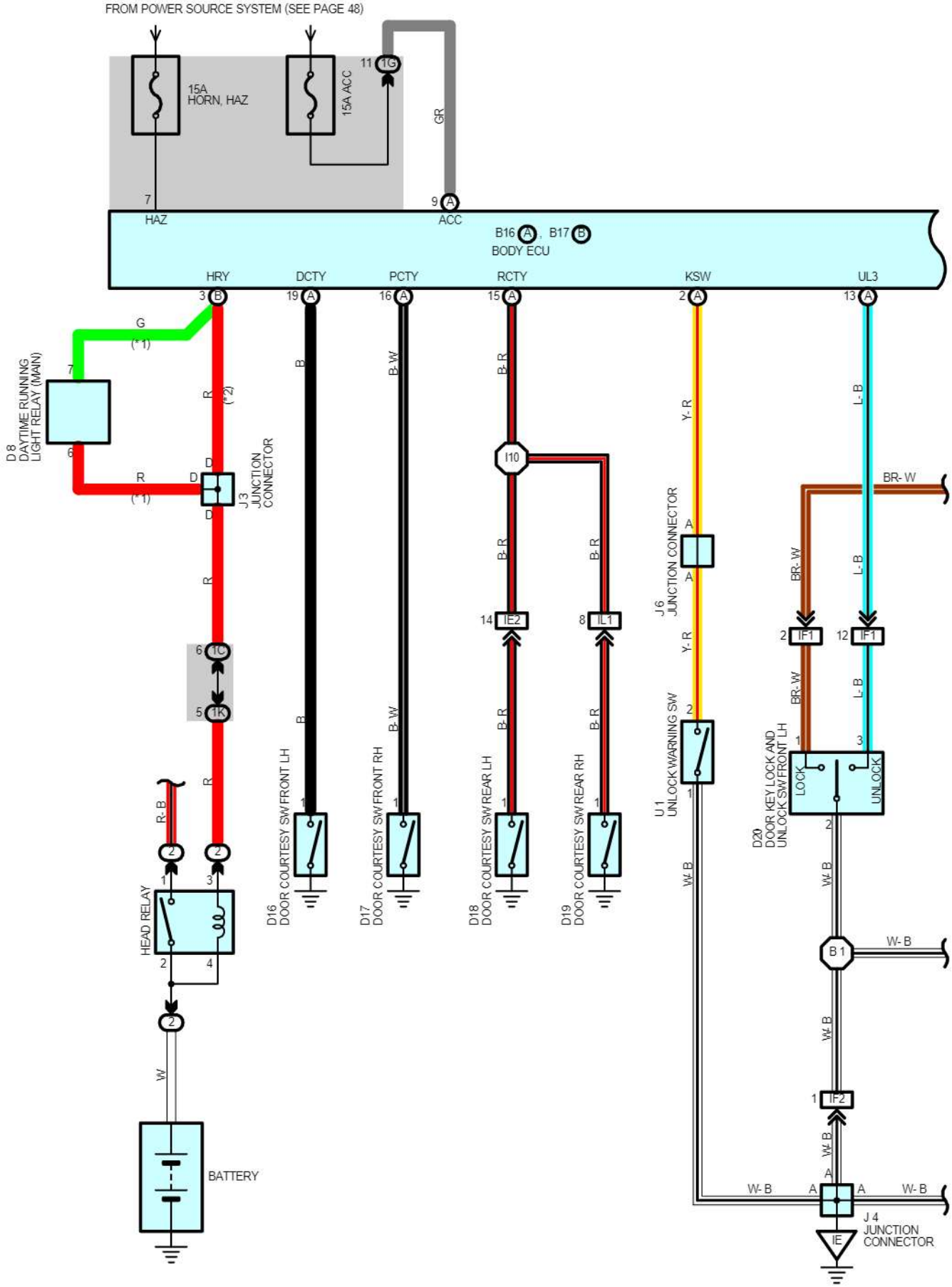
: GROUND POINTS

Code	See Page	Ground Points Location
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH
BH	42	Left Quarter Panel Inner

: SPLICE POINTS

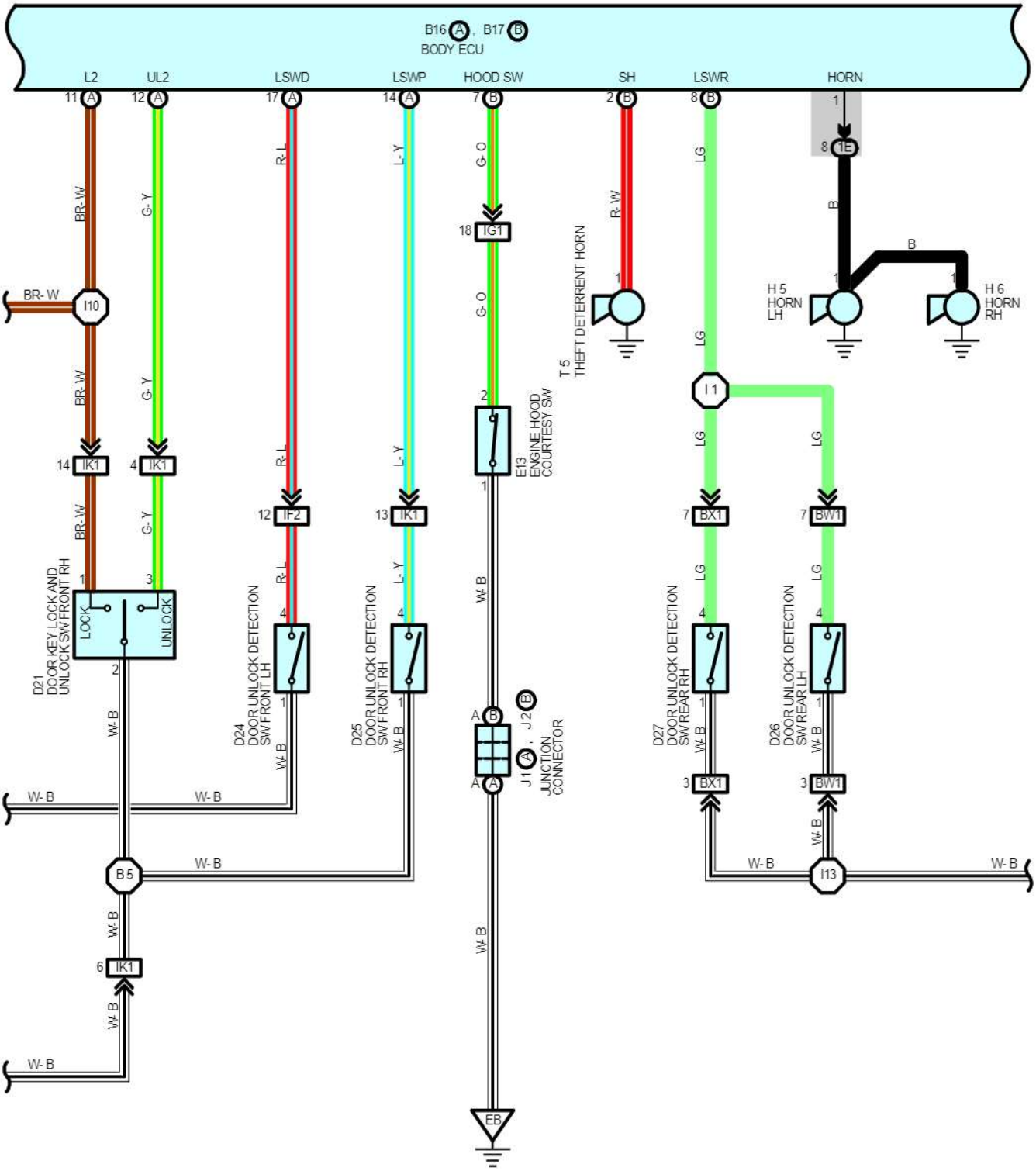
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I1	40	Cowl Wire	I13	40	Cowl Wire
I2			B1	42	Front Door LH Wire
I8			B5	42	Front Door RH Wire
I10			B9	42	Back Door No.2 Wire

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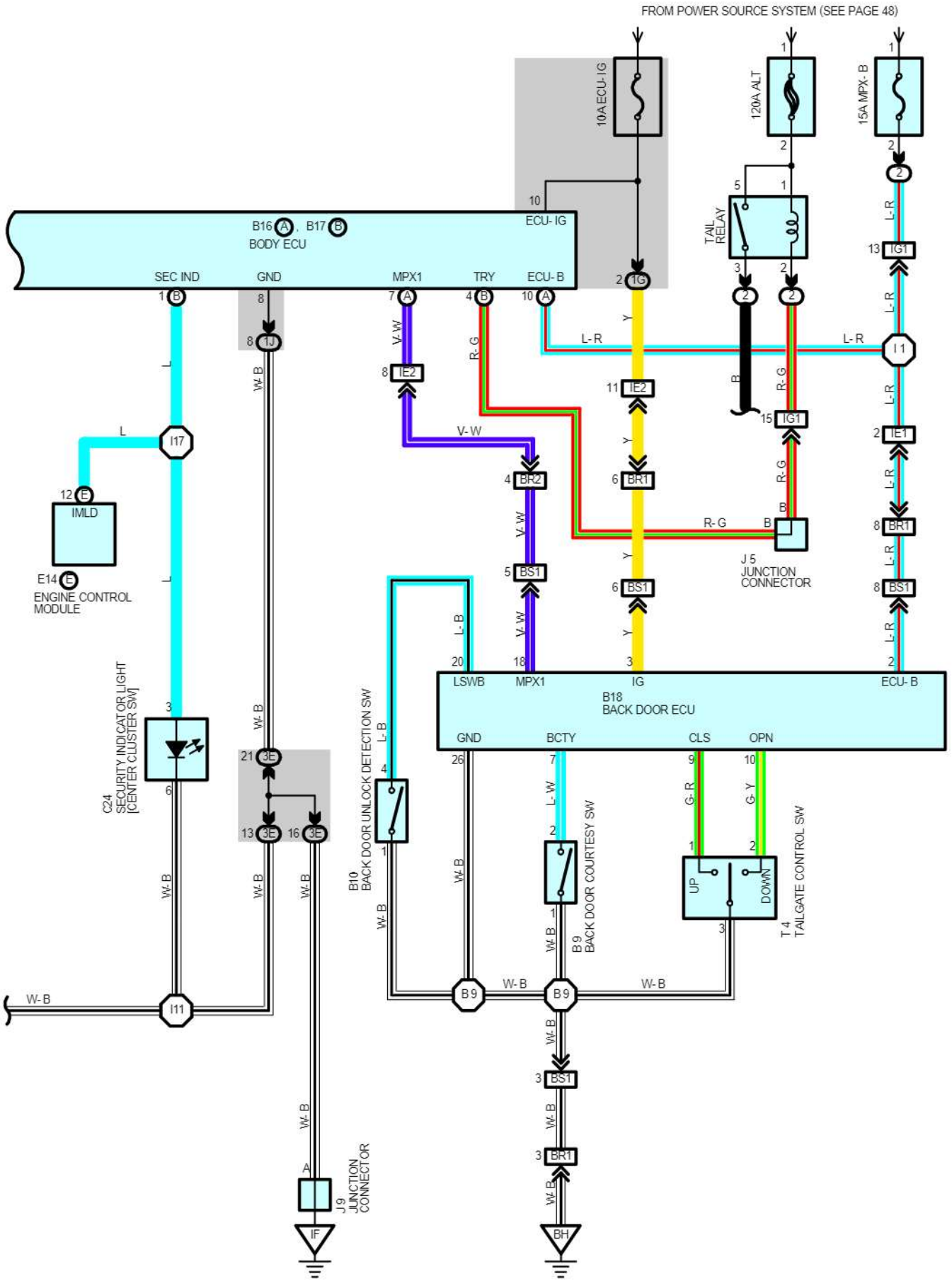


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* 1 : W/ DAYTIME RUNNING LIGHT
* 2 : W/O DAYTIME RUNNING LIGHT



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SERVICE HINTS

D20, D21 DOOR KEY LOCK AND UNLOCK SW FRONT LH, RH

2-3 : Closed with door lock cylinder unlocked with key
1-2 : Closed with door lock cylinder locked with key

T4 TAILGATE CONTROL SW

2-3 : Closed with door lock cylinder unlocked with key
1-3 : Closed with door lock cylinder locked with key

E13 ENGINE HOOD COURTESY SW

2-1 : Open with engine hood open

U1 UNLOCK WARNING SW

2-1 : Closed with ignition key in cylinder

B16 (A), B17 (B) BODY ECU

(A) 2-GROUND : Continuity with ignition key in cylinder
(A)16-GROUND : Continuity with front RH door open
(A)19-GROUND : Continuity with front LH door open
(A)11-GROUND : Continuity with door key lock and unlock SW at **LOCK** position
8-GROUND : Always continuity
(B) 7-GROUND : Continuity with engine hood closed
(A)13-GROUND :
Continuity with door key lock and unlock SW front LH at **UNLOCK** position
(A)12-GROUND :
Continuity with door key lock and unlock SW front RH at **UNLOCK** position
(A) 9-GROUND : Approx. **12** volts with ignition SW at **ACC** or **ON** position
10-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position
7, (A) 10-GROUND : Always approx. **12** volts

B18 BACK DOOR ECU

2-GROUND : Always approx. **12** volts
3-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position
26-GROUND : Always continuity

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B9	32	D20	32	J2 B	29
B10	32	D21	32	J3	31
B16 A	30	D24	32	J4	31
B17 B	30	D25	32	J5	31
B18	32	D26	32	J6	31
C24	30	D27	32	J9	31
D8	30	E13	28	T4	33
D16	32	E14	31	T5	29
D17	32	H5	28	U1	31
D18	32	H6	28		
D19	32	J1 A	29		

: RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
2	22	Engine Room R/B (Engine Compartment Left)

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THEFT DETERRENT



: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1G	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1J		
1K	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
3E	26	Cowl Wire and Center J/B (Near the Steering Column Tube)



: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE1	38	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IE2		
IF1	38	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IF2		
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
IK1	40	Front Door RH Wire and Cowl Wire (Right Kick Panel)
IL1	40	Cowl Wire and Floor Wire (Right Kick Panel)
BR1	42	Back Door No.1 Wire and Floor No.2 Wire (Left Rear Side of Roof)
BR2		
BS1	42	Back Door No.1 Wire and Back Door No.2 Wire (Back Door Left)
BW1	42	Rear Door LH Wire and Cowl Wire (Left Center Pillar)
BX1	42	Rear Door RH Wire and Cowl Wire (Right Center Pillar)



: GROUND POINTS

Code	See Page	Ground Points Location
EB	36	Front Left Fender
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH
BH	42	Left Quarter Panel Inner



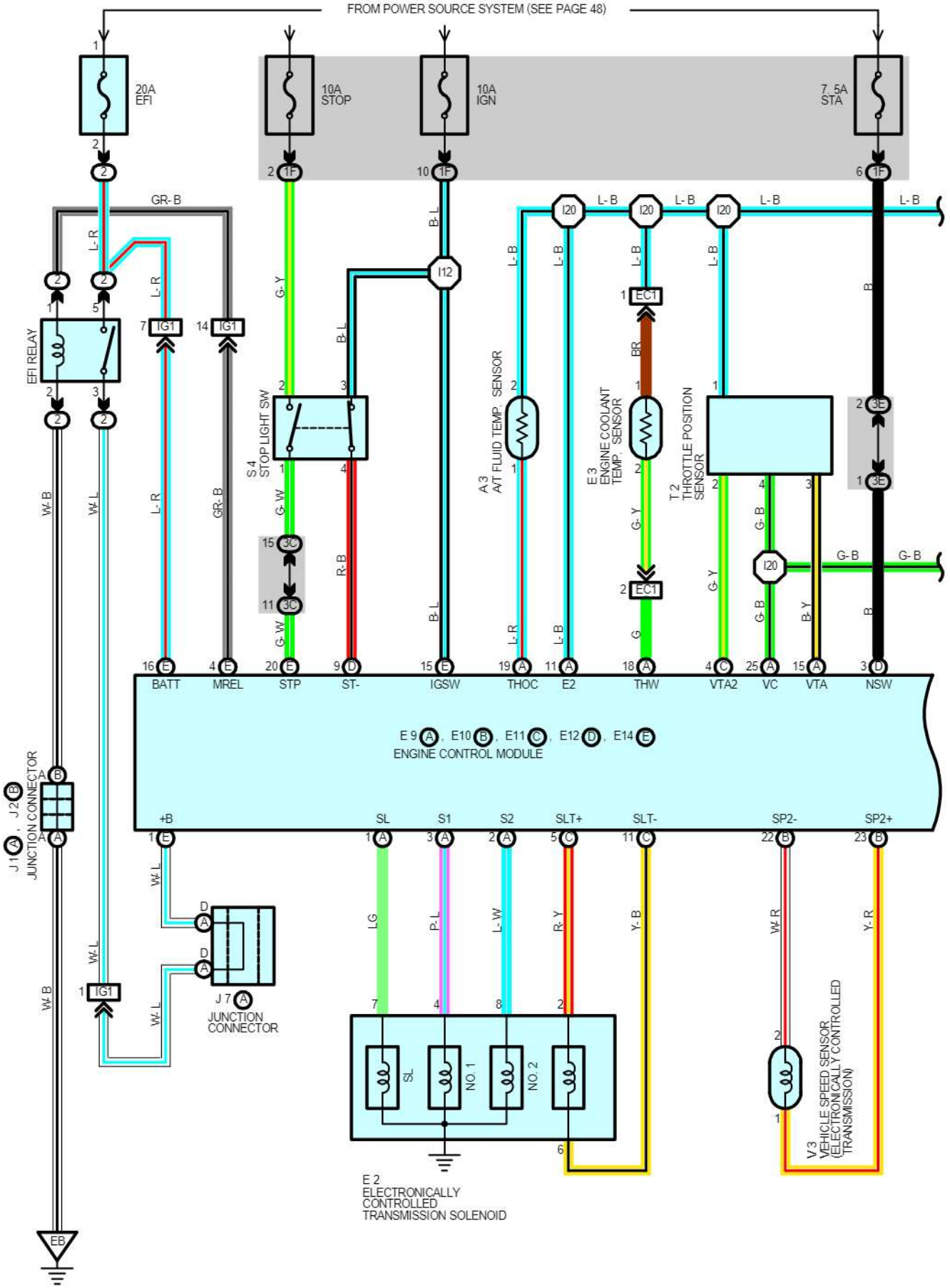
: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I1	40	Cowl Wire	I17	40	Cowl Wire
I10			B1	42	Front Door LH Wire
I11			B5	42	Front Door RH Wire
I13			B9	42	Back Door No.2 Wire

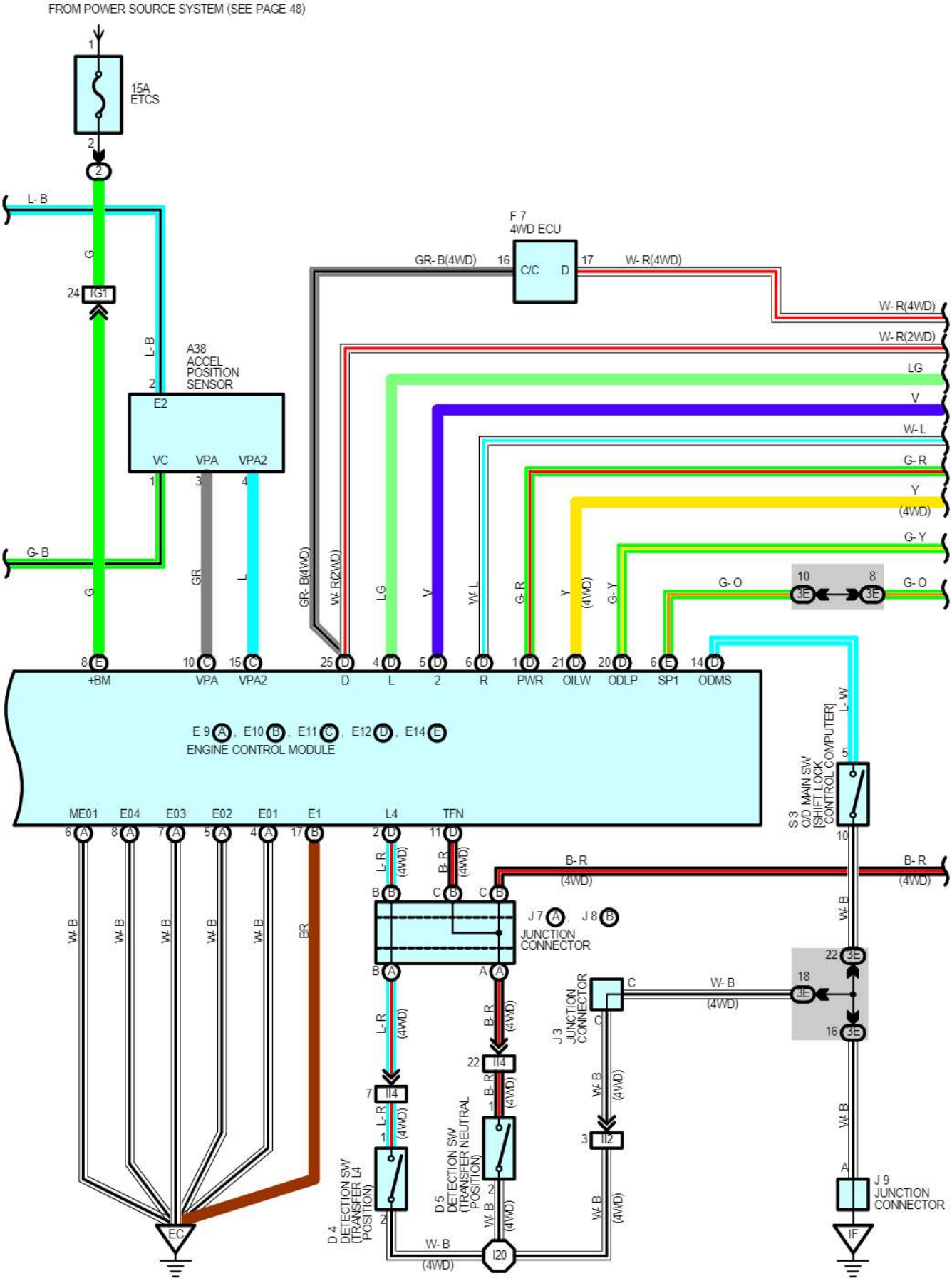
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ELECTRONICALLY CONTROLLED TRANSMISSION AND A/T INDICATOR

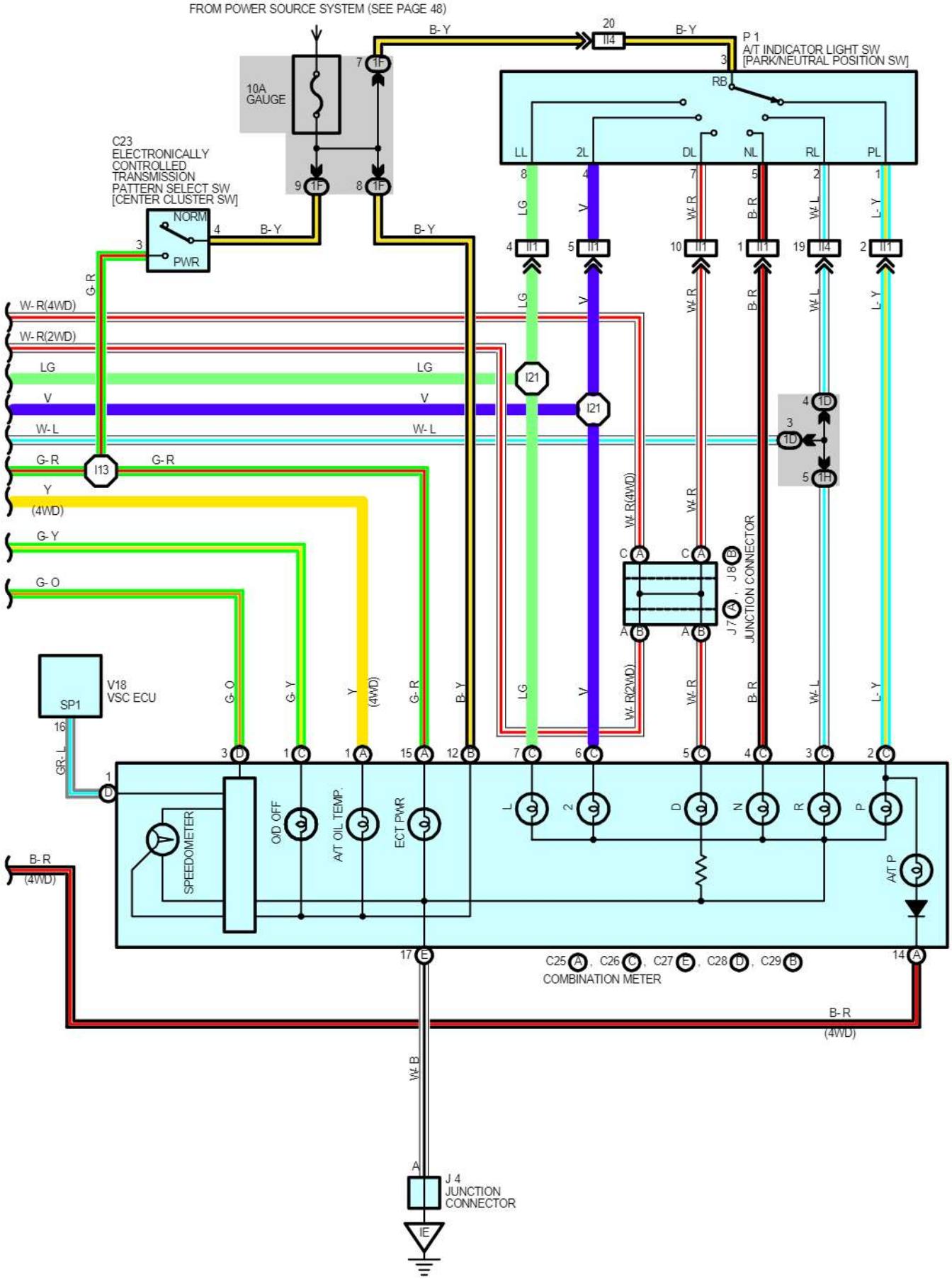


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ELECTRONICALLY CONTROLLED TRANSMISSION AND A/T INDICATOR



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SYSTEM OUTLINE

Previous automatic transmissions have selected each gear shift using mechanically controlled throttle hydraulic pressure, governor hydraulic pressure and lock-up hydraulic pressure. The electronically controlled transmission, however, electrically controls the governor pressure and lock-up through the solenoid valve. Control of the solenoid valve by the engine control module based on the input signals from each sensor makes smooth driving possible by shift selection for each is most appropriate to the driving conditions at that time.

1. GEAR SHIFT OPERATION

During driving, the engine control module selects the shift for each gear which is most appropriate to the driving conditions, based on input signals from the engine coolant temp. sensor to TERMINAL THW of the engine control module and also the input signals to TERMINAL SP2+ of the engine control module from the vehicle speed sensor devoted to the electronically controlled transmission. Current is then output to the electronically controlled transmission solenoid.
When shifting to 1st speed, current flows from TERMINAL S1 of the engine control module to TERMINAL 4 of the electronically controlled transmission solenoid to GROUND, and continuity to the no. 1 solenoid causes the shift.
For 2nd speed, current flows from TERMINAL S1 of the engine control module to TERMINAL 4 of the electronically controlled transmission solenoid to GROUND, and from TERMINAL S2 of the engine control module to TERMINAL 8 of the electronically controlled transmission solenoid to GROUND. And continuity to solenoid no.1 and no.2 causes the shift.
For 3rd speed, there is no continuity to no.1 solenoid, only to no.2 causing the shift. Shifting into 4th speed (Overdrive) takes place when there is no continuity to the either no. 1 or no.2 solenoid.

2. LOCK-UP OPERATION

When the engine control module judges from each signal that lock-up operation conditions have been met, current flows from TERMINAL SL of the engine control module to TERMINAL 7 of the electronically controlled transmission solenoid to GROUND, causing continuity to the lock-up solenoid and causing lock-up operation.

3. STOP LIGHT SW CIRCUIT

If the brake pedal is depressed (Stop light SW on) when driving in lock-up condition, a signal is input to TERMINAL STP of the engine control module, the engine control module operates and continuity to the lock-up solenoid is cut.

4. OVERDRIVE CIRCUIT

* O/D main SW on
  When the O/D main SW is turned on, a signal is input to TERMINAL ODMS of the engine control module and engine control module operation causes gear shift when the conditions for overdrive are met.
* O/D main SW off
  When the O/D main SW is turned off, a signal is input into TERMINAL ODMS of the engine control module, and turns on the O/D off indicator light. This activates the ECU, and the transmission system is controlled not to shift to overdrive.

5. A/T OIL TEMP. WARNING

When the A/T fluid temp. sensor affixed to the transmission case detects that the fluid temp. is 150°C (302°F) or more, the engine control module operates and the current flowing through the GAUGE fuse flows to the A/T oil temp. warning light to TERMINAL OILW of the engine control module to GROUND, so that warning light lights up, informing that the A/T oil temp. is high. When the A/T oil temp. drops to 120°C (248°F) or less, the engine control module stops operating and the warning light goes out.

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ELECTRONICALLY CONTROLLED TRANSMISSION AND A/T INDICATOR

SERVICE HINTS

P1 A/T INDICATOR LIGHT SW [PARK/NEUTRAL POSITION SW]

3-GROUND : Approx. **12** volts with ignition SW at **ON** position

S4 STOP LIGHT SW

1-2 : Closed with brake pedal depressed

E9 (A), E10 (B), E11 (C), E12 (D), E14 (E) ENGINE CONTROL MODULE

S1-E1 : **9- 14** volts
S2-E1 : **9- 14** volts
SL-E1 : **9- 14** volts
STP-E1 : **7.5- 14** volts with brake pedal depressed
: **0- 1.5** volts with brake pedal released
THW-E2 : **0.2- 1.0** volts with coolant temp. **80**°C (**176**°F)
THO-E2 : **4- 5** volts with fluid temp. **20**°C (**68**°F)
VTA-E2 : Approx. **4** volts with throttle valve fully closed
: Approx. **0.6** volts with throttle valve fully open
VC-E2 : **4.5- 5.5** volts
ODMS-E1 : **9- 14** volts O/D main SW turned on
: **0** volts O/D main SW turned off
SP1-E1 : Pulse generation with vehicle moving
2-E1 : **10- 14** volts with shift lever at **2** position
: **0- 2** volts with shift lever at except **2** position
L-E1 : **10- 14** volts with shift lever at **L** position
: **0- 2** volts with shift lever at except **L** position
OILW-E1 : **0.1- 4.9** volts
+B-E1 :**9- 14** volts
BATT-E1 : **9- 14** volts

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A3	28	E3	28	J7 A	31
A38	28	E9 A	31	J8 B	31
C23	30	E10 B	31	J9	31
C25 A	30	E11 C	31	P1	29
C26 C	30	E12 D	31	S3	31
C27 E	30	E14 E	31	S4	31
C28 D	30	F7	31	T2	29
C29 B	30	J1 A	29	V3	29
D4	28	J2 B	29	V18	31
D5	28	J3	31		
E2	28	J4	31		

: 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)
1D	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1F		
1H		
3C	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3E		

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: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EC1	36	Engine Wire and Water Temp. Sensor Wire (Front Side of Cylinder Head Cover Right)
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
II1	40	Engine Wire and Cowl Wire (On the Glove Box)
II2		
II4		

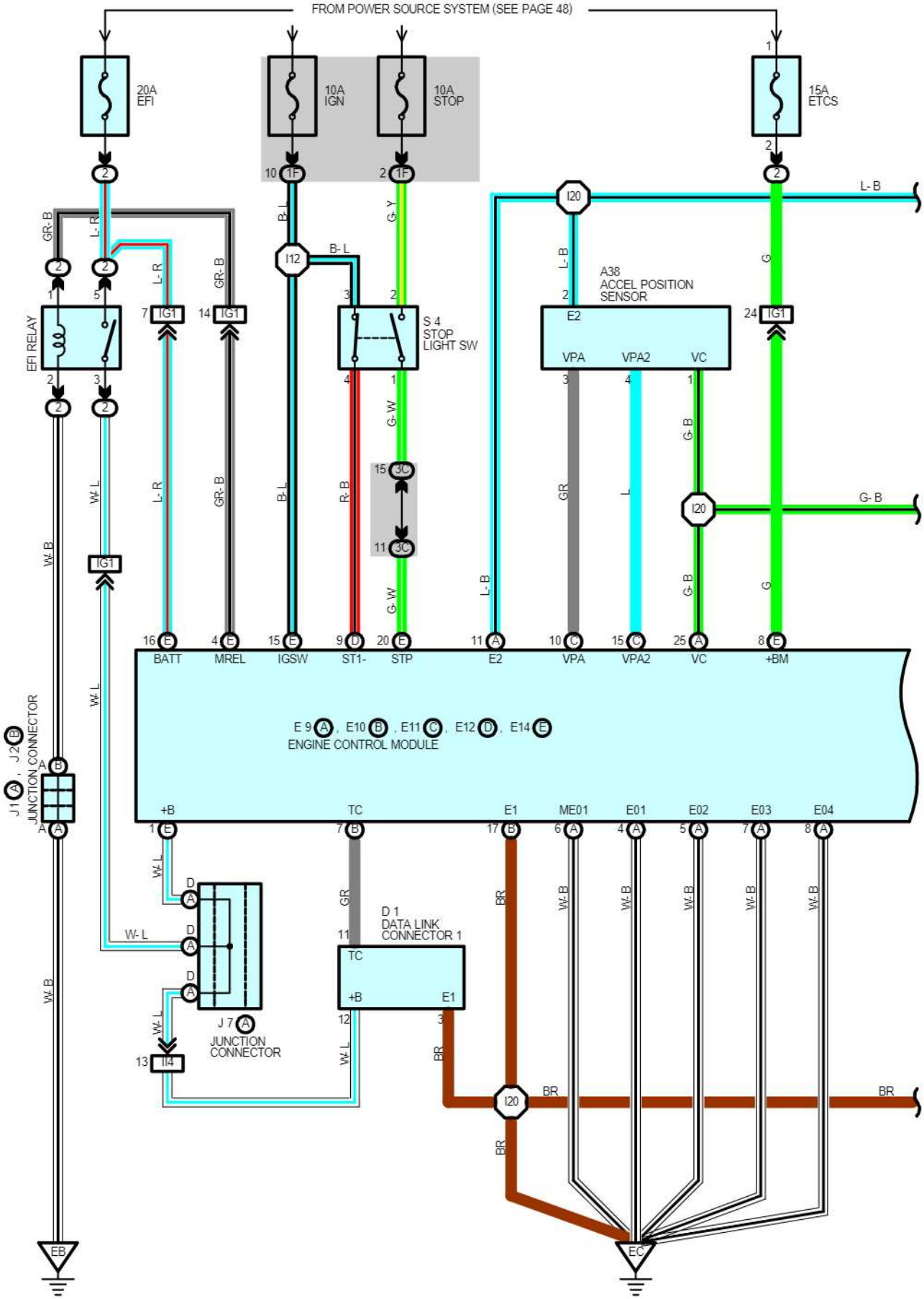
: GROUND POINTS

Code	See Page	Ground Points Location
EB	36	Front Left Fender
EC	36	Intake Manifold Left
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH

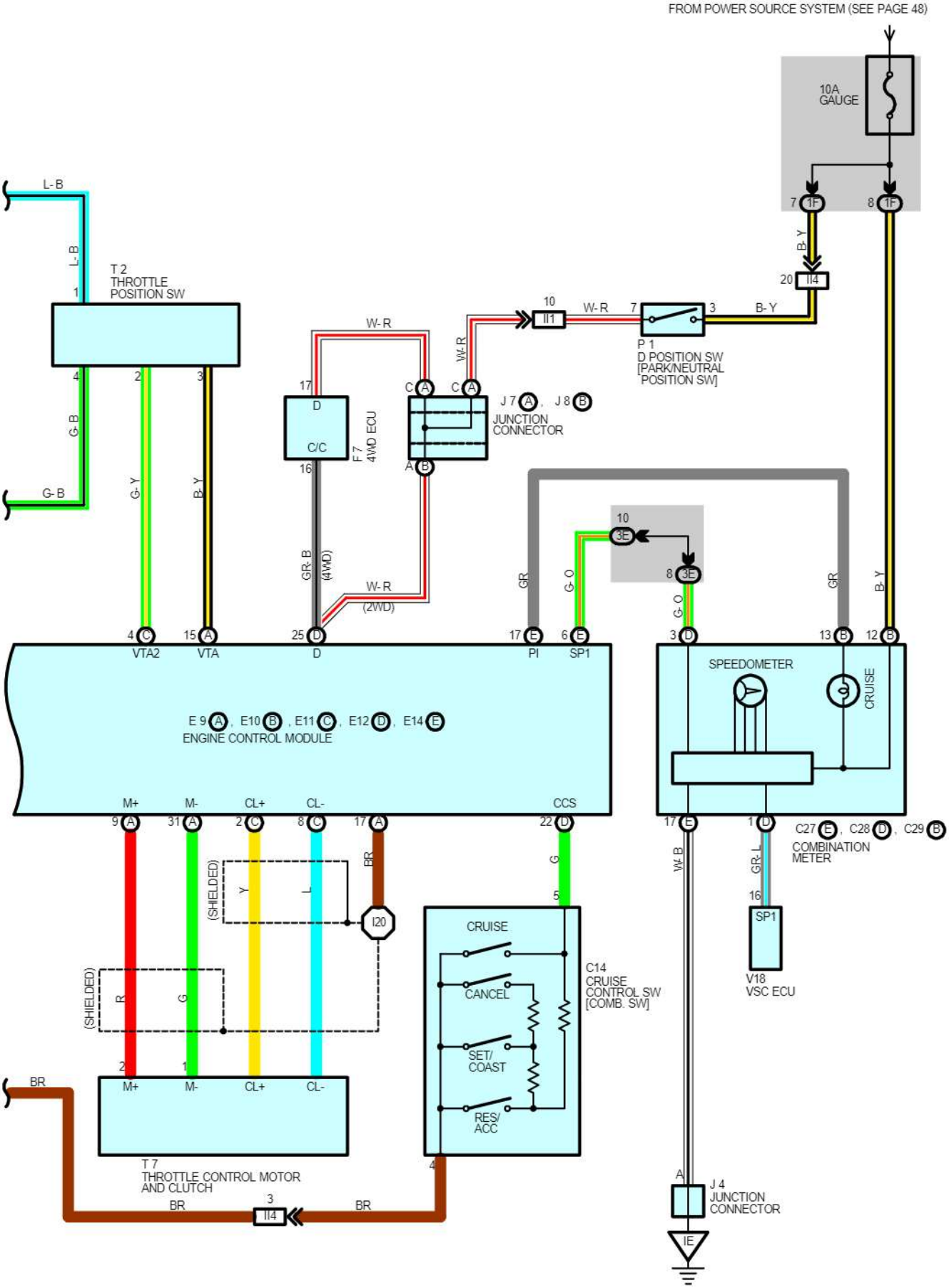
: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I12	40	Cowl Wire	I20	40	Engine Wire
I13			I21	40	Cowl Wire

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CRUISE CONTROL

SYSTEM OUTLINE

The cruise control system allows to travel at a constant speed, by the operation of the switch, without having to depress the accelerator pedal. In this system, the engine throttle valve opening angle is adjusted automatically to control the vehicle at a constant speed.

1. SET CONTROL

When the SET/COAST SW is operated while traveling with the CRUISE SW ON, the speed when the SW is operated to OFF (SW released) is memorized, and the vehicle speed is controlled at that speed.

2. COAST CONTROL

When the SET/COAST SW is operated to ON, the motor in the actuator rotates the throttle valve until it is closed fully to decrease the vehicle speed, and the speed when the SW is operated to OFF is memorized, and the vehicle speed is controlled at that speed.
Furthermore, every time the SET/COAST SW is operated momentarily (Approx. 0.5 sec.) to ON, the memorized vehicle speed is decreased by approx. 1.5 km/h.

3. ACCEL CONTROL

When the RESUME/ACCEL SW is operated to ON, the motor in the actuator rotates the throttle valve to open direction to increase the vehicle speed, and the speed when the SW is operated to OFF is memorized, and the vehicle speed is controlled at that speed.
Furthermore, every time the RES/ACC SW is operated momentarily (Approx. 0.5 sec.) to ON, the memorized vehicle speed is increased by approx. 1.5 km/h.

4. MANUAL CANCEL MECHANISM

If any of the following signals are input during cruise control traveling, the magnetic clutch of the actuator is turned off, and the current to the motor flows in the direction to close the throttle valve, and cancel the cruise control.

(1) Stop light SW is ON (Brake pedal is depressed)

(2) The CANCEL SW of the control SW is ON

(3) CRUISE SW is OFF

5. RESUME CONTROL

After canceling the cruise control (Except when the CRUISE SW is OFF) if the vehicle speed is above the minimum speed limit (Approx. 40 km/h, 25 mph), operating the RES/ACC SW from OFF to ON will cause the system to accelerate and resume to the vehicle speed before manual cancellation.

6. OVERDRIVE FUNCTION

The overdrive may be cut on an uphill grade, while traveling with the cruise control.
After the overdrive is cut, if the vehicle seed reaches the overdrive resume speed (Set speed minus 2 km/h), and if the system determines that the uphill grade has finished, the overdrive will resume after the overdrive timer operation.

7. AUTO CANCEL OPERATION

If any of the following conditions is encountered, the cruise control is automatically cancelled.

- The stop light SW wiring is faulty or short-circuited.
- The vehicle speed signal is faulty.
- The electronically controlled throttle malfunctions.

SERVICE HINTS

E9 (A), E10 (B), E12 (D), E14 (E) ENGINE AND ECT ECU

(E)15-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position
(E)16-GROUND : Always approx. **12** volts
(A)4, (A) 5, (A) 6, (A) 7, (A) 8, (B) 17-GROUND: Always continuity
(E)20-GROUND : Approx. **12** volts with stop light SW at on
(D)22-GROUND : Continuity with cruise control SW at on
Approx. **1540** Ω with CANCEL SW on in cruise control SW
Approx. **240** Ω with RES/ACC SW on in cruise control SW
Approx. **630** Ω with SET/COAST SW on in cruise control SW

C14 CRUISE CONTROL SW [COMB. SW]

5-4 : Approx. **1540** Ω with CANCEL SW on
Approx. **240** Ω with RES/ACC SW on
Approx. **630** Ω with SET/COAST SW on

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: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A38	28	E11 C	31	J8 B	31
C14	30	E12 D	31	P1	29
C27 E	30	E14 E	31	S4	31
C28 D	30	F7	31	T2	29
C29 B	30	J1 A	29	T7	29
D1	28	J2 B	29	V18	31
E9 A	31	J4	31		
E10 B	31	J7 A	31		

: 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)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
3C 3E	26	Cowl Wire and Center J/B (Near the Steering Column Tube)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
II1 II4	40	Engine Wire and Cowl Wire (On the Glove Box)

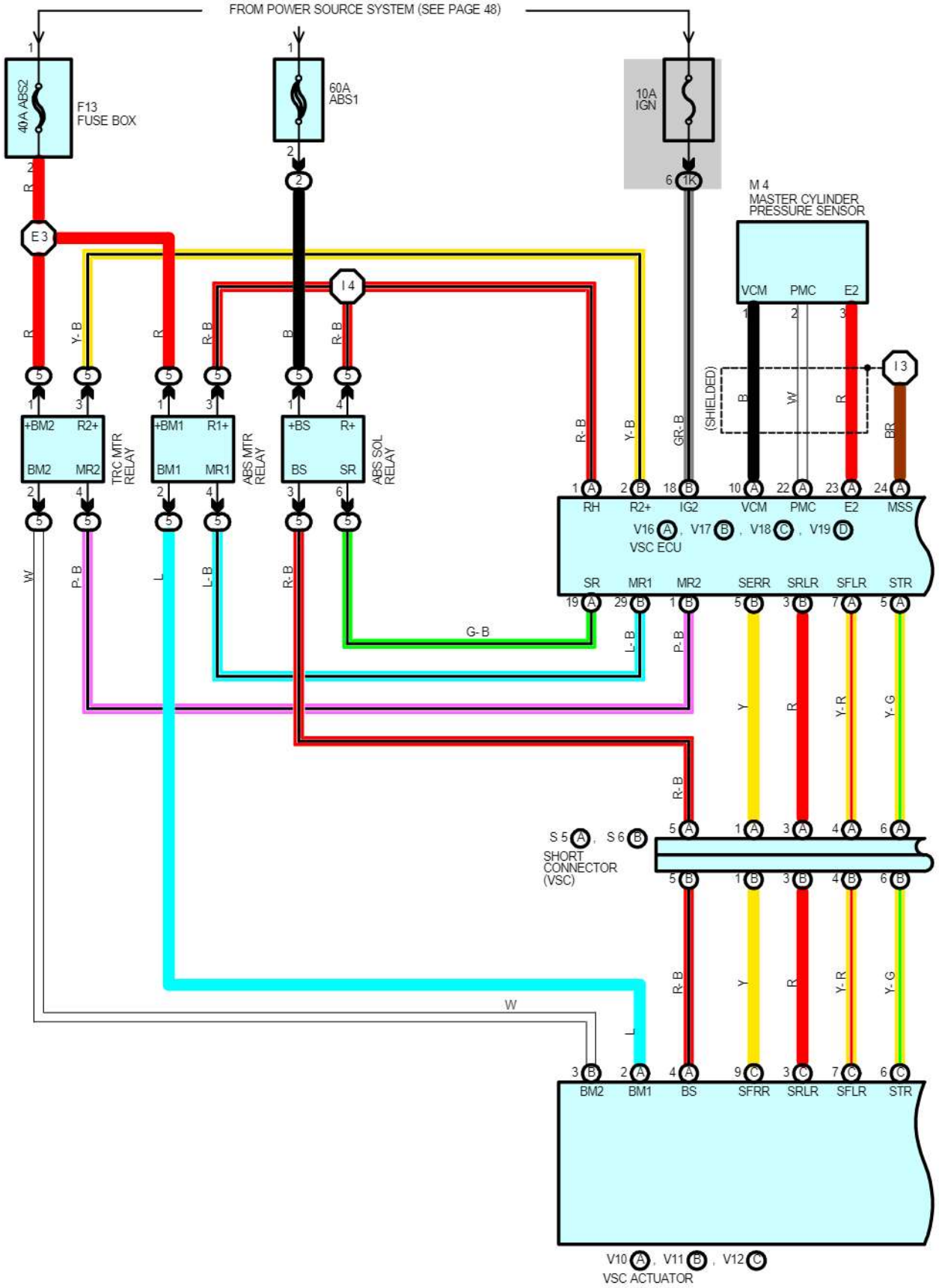
: GROUND POINTS

Code	See Page	Ground Points Location
EB	36	Front Left Fender
EC	36	Intake Manifold Left
IE	38	Cowl Side Panel LH

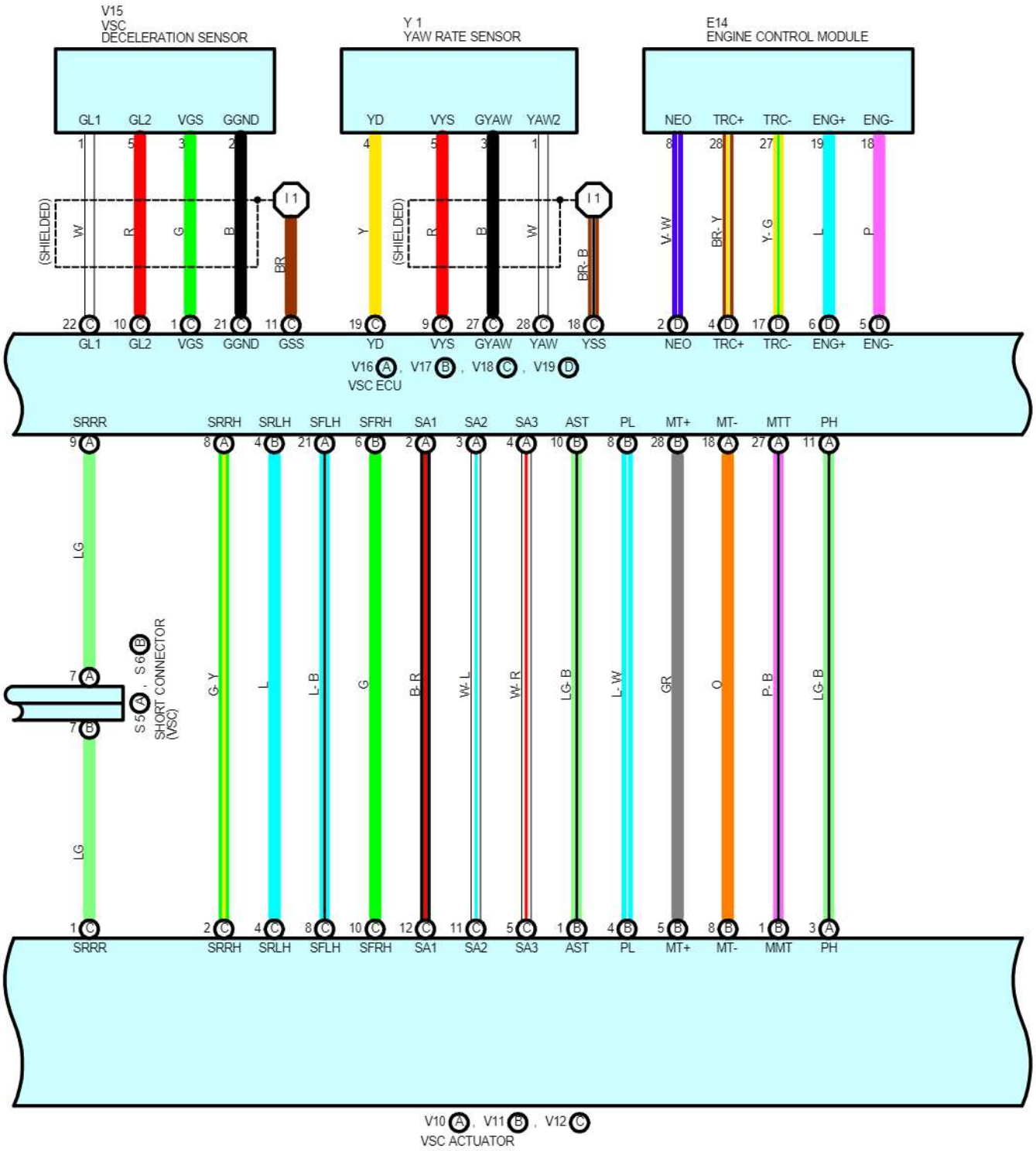
: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I12	40	Cowl Wire	I20	40	Engine Wire

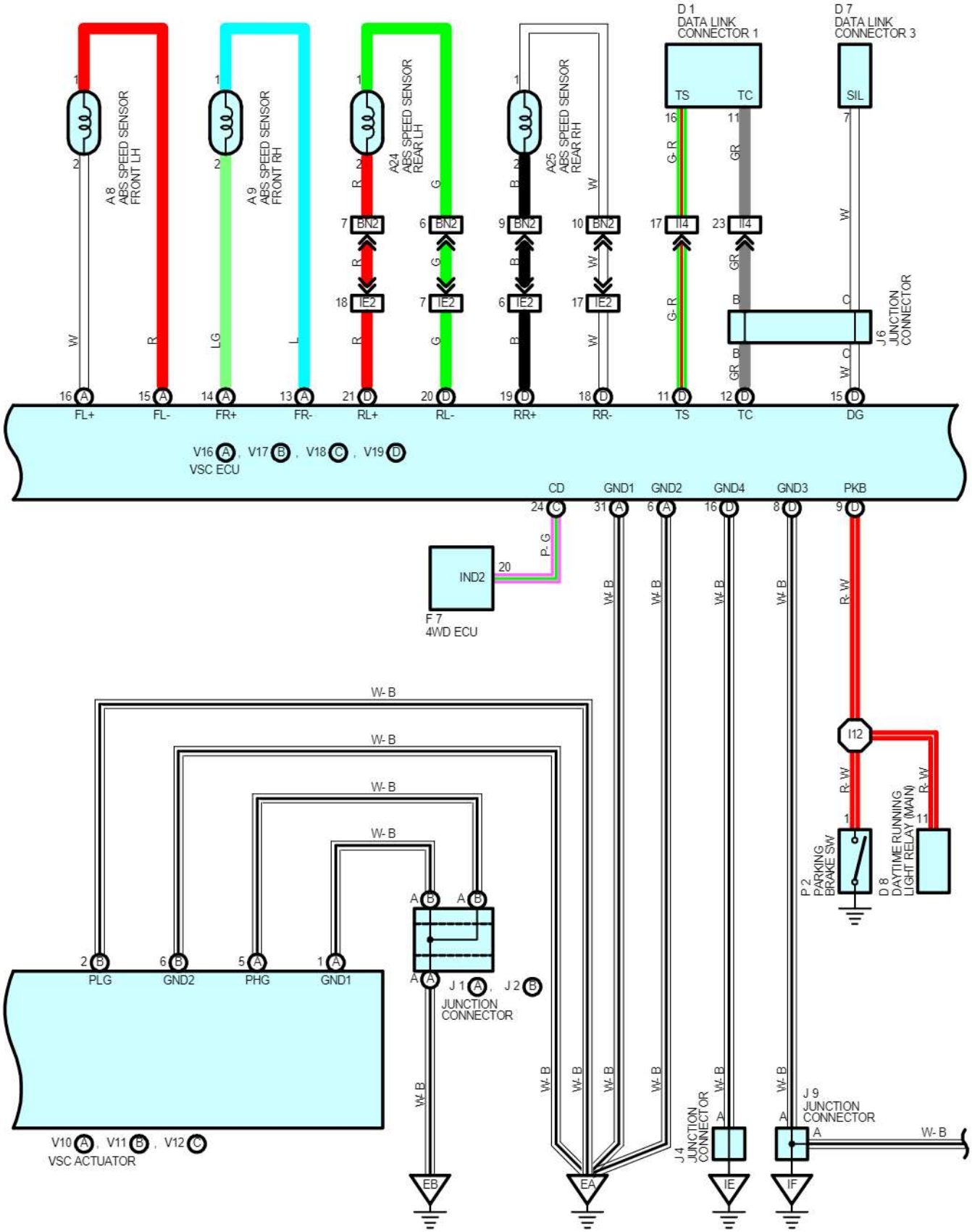
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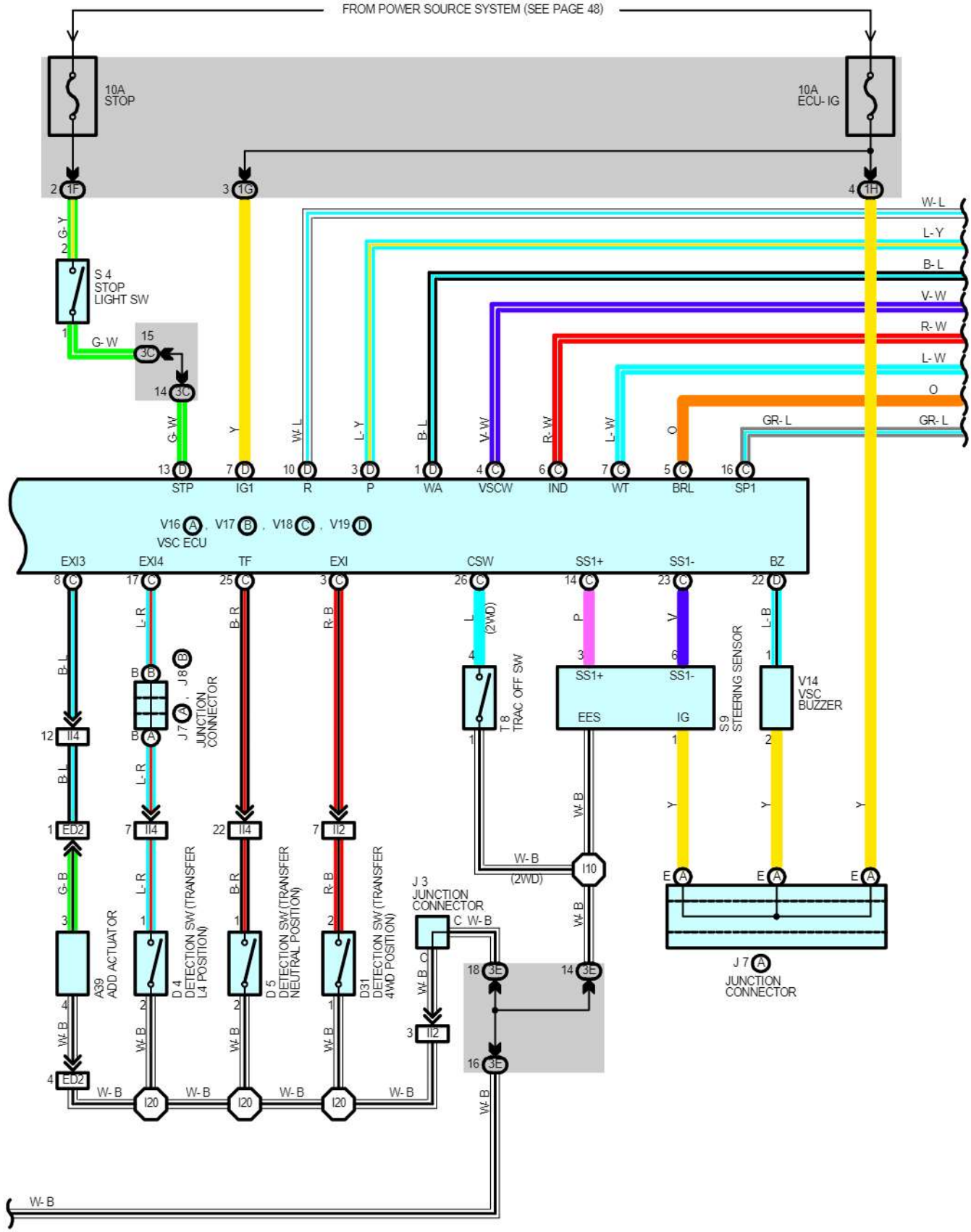
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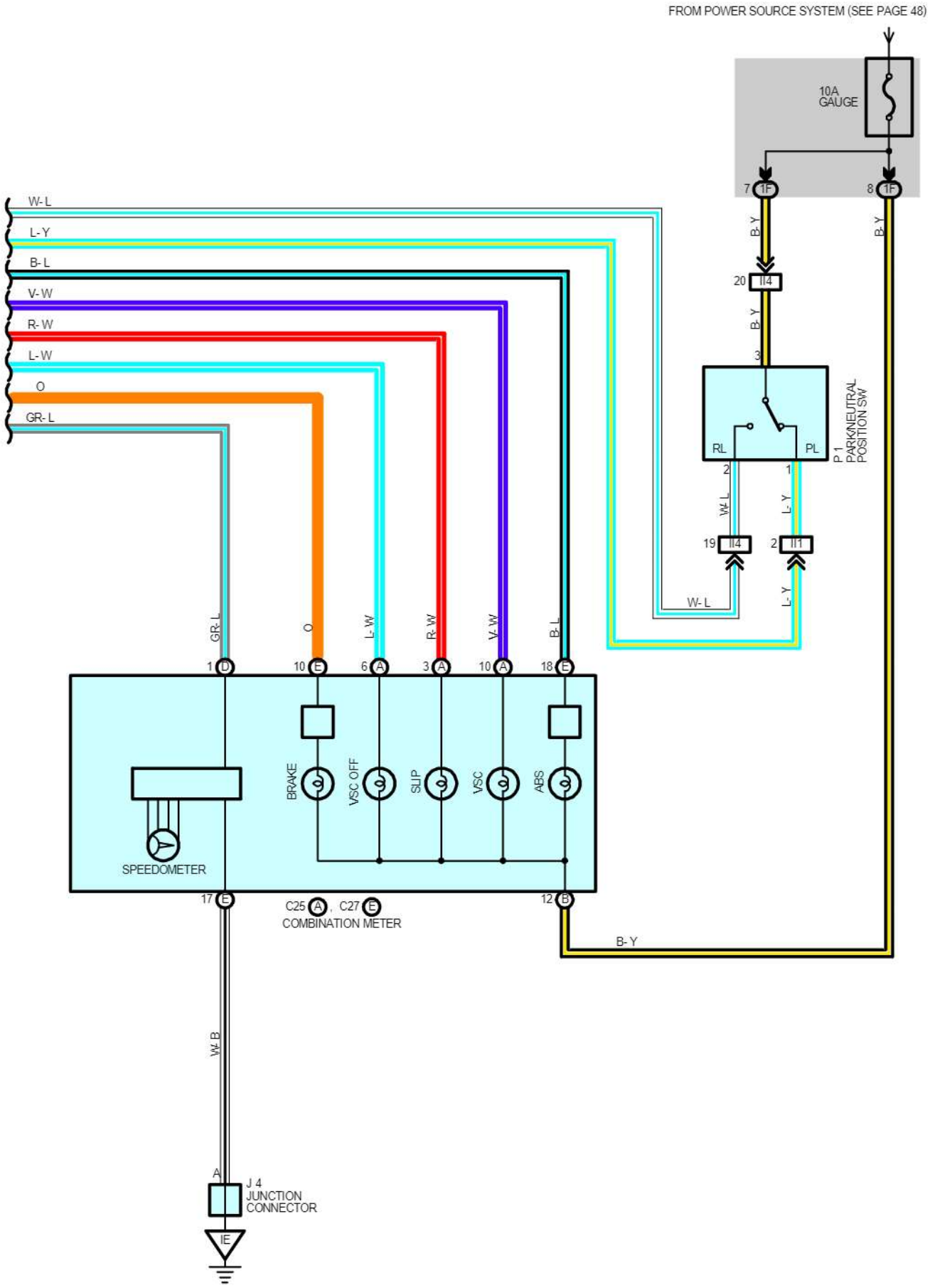
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SERVICE HINTS

V16 (A), V17 (B), V19 (D) VSC ECU

(B) 18, (D) 7-GROUND : Approx. **12** volts with the ignition SW at **ON** or **ST** position
(A) 6, (A) 31, (D) 8, (D) 16-GROUND : Always continuity

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A8	28	F7	31	S5 A	29
A9	28	F13	28	S6 B	29
A24	32	J1 A	29	S9	31
A25	32	J2 B	29	T8	31
A39	28	J3	31	V10 A	29
C25 A	30	J4	31	V11 B	29
C27 E	30	J6	31	V12 C	29
D1	28	J7 A	31	V14	31
D4	28	J8 B	31	V15	31
D5	28	J9	31	V16 A	31
D7	30	M4	29	V17 B	31
D8	30	P1	29	V18 C	31
D31	28	P2	31	V19 D	31
E14	31	S4	31	Y1	31

: RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
2	22	Engine Room R/B (Engine Compartment Left)
5	23	VSC R/B (Engine Compartment Right)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1G		
1H		
1K	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
3C	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3E		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ED2	36	Engine Wire and Differential Wire (Near the Front Differential)
IE2	38	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
II1	40	Engine Wire and Cowl Wire (On the Glove Box)
II2		
II4		
BN2	42	Frame Wire and Floor No.2 Wire (Under the Left Side of Rear Seat Cushion)

: GROUND POINTS

Code	See Page	Ground Points Location
EA	36	Front Right Fender
EB	36	Front Left Fender
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH

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 : SPLICE POINTS

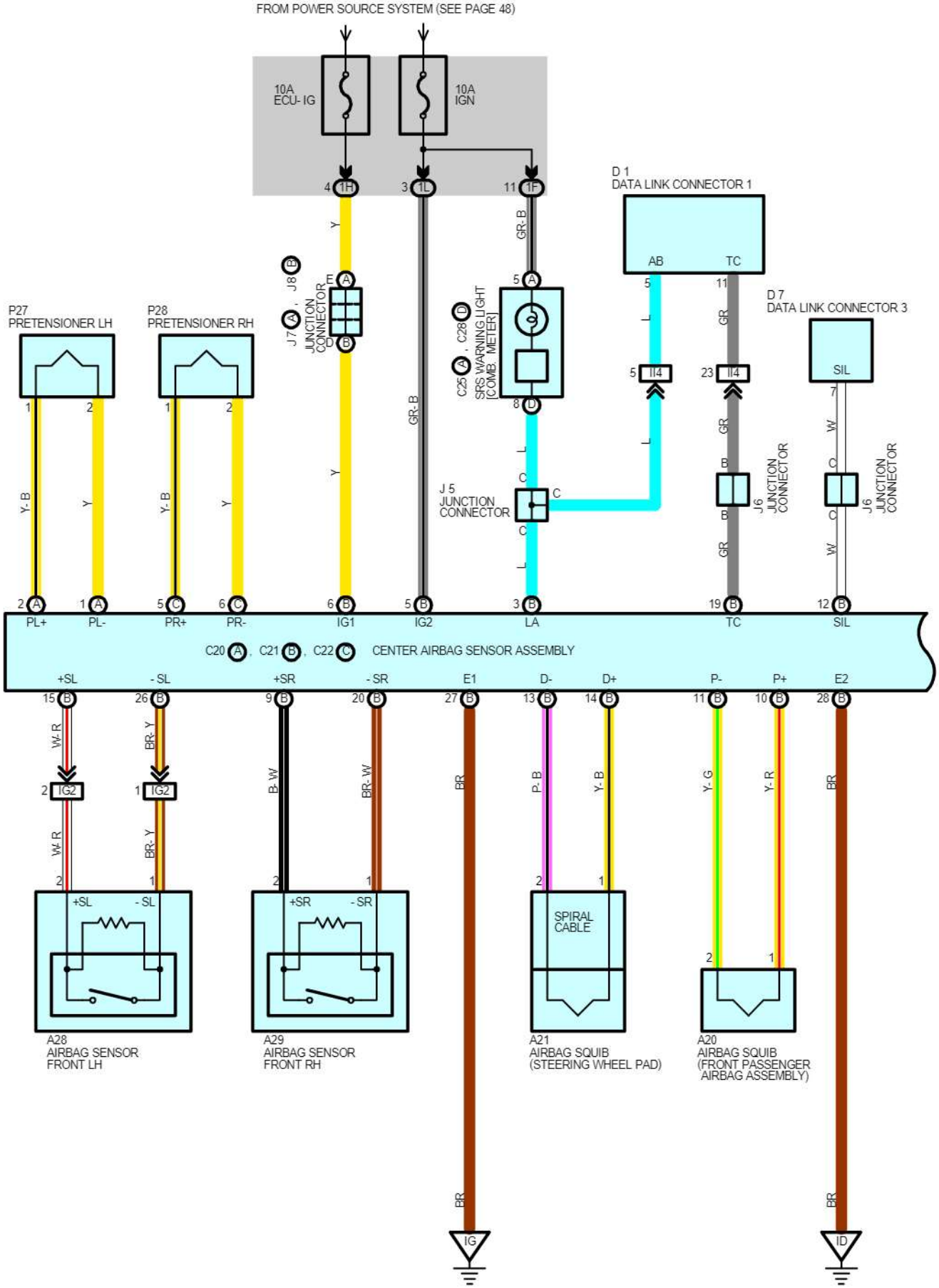
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E3	36	Engine Room Main Wire	I10	40	Cowl Wire
I1	40	Cowl Wire	I12		
I3	40	Engine Room Main Wire	I20	40	Engine Wire
I4					

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NOTICE: When inspecting or repairing the SRS, perform the operation in accordance with the following precautionary instructions and the procedure and precautions in the Repair Manual for the applicable model year.

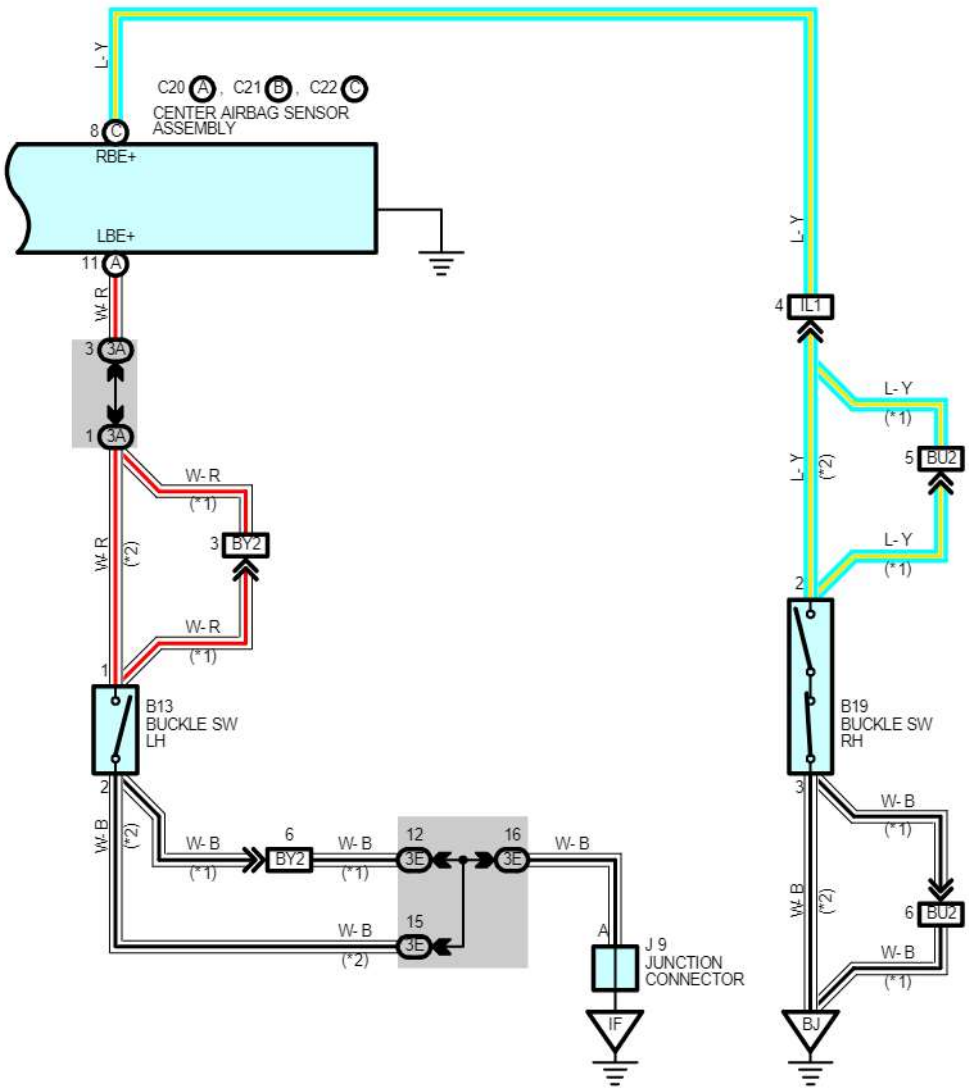
- Malfunction symptoms of the SRS are difficult to confirm, so the DTCs become the most important source of information when troubleshooting. When troubleshooting the SRS, always inspect the DTCs before disconnecting the battery.
- **Work must be started after 90 seconds from when the ignition switch is turned to the "LOCK" position and the negative (-) terminal cable is disconnected from the battery.**
  (The SRS is equipped with a back-up power source so that if work is started within 90 seconds from disconnecting the negative (-) terminal cable of the battery, the SRS may be deployed.)
- When the negative (-) terminal cable is disconnected from the battery, the memory of the clock and audio system will be canceled. So before starting work, make a record of the contents memorized in the audio memory system. When work is finished, reset the audio systems as they were before and adjust the clock. This vehicle has power tilt and power telescopic steering, power seat and power outside rear view mirror which are all equipped with memory function. However, it is not possible to make a record of the memory contents. So when the work is finished, it will be necessary to explain this fact tot the customer, and ask the customer to adjust the features and reset the memory. To avoid erasing the memory in each memory system, never use a back-up power supply from outside the vehicle.
- Before repairs, remove the airbag sensor if shocks are likely to be applied to the sensor during repairs.
- Do not expose the steering wheel pad, front passenger airbag assembly, pretensioner assembly, airbag sensor front assembly or center airbag sensor assembly directly to hot air or flames.
- Even in cases of a minor collision where the SRS does not deploy, the steering wheel pad, front passenger airbag assembly, pretensioner assembly, airbag sensor front assembly and center airbag sensor assembly should be inspected.
- Never use SRS parts from another vehicle. When replacing parts, replace them with new parts.
- Never disassemble and repair the steering wheel pad, front passenger airbag assembly, pretensioner assembly, airbag sensor front assembly or center airbag sensor assembly in order to reuse it.
- If the steering wheel pad, front passenger airbag assembly, pretensioner assembly, airbag sensor front assembly or center airbag sensor assembly has been dropped, or if there are cracks, dents or other defects in the case, bracket or connector, replace them with new ones.
- Use a volt/ohmmeter with high impedance (10 kΩ/V minimum) for troubleshooting the system's electrical circuits.
- Information labels are attached to the periphery of the SRS components. Follow the instructions on the notices.
- After work on the SRS is completed, perform the SRS warning light check.
- If the vehicle is equipped with a mobile communication system, refer to the precaution in the IN section of the Repair Manual.

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* 1 : W/ POWER SEAT
* 2 : W/O POWER SEAT



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SYSTEM OUTLINE

The SRS is a driver and front passenger protection device which has a supplemental role to the seat belts.
When the ignition SW is turned to ON position, the current from the ECU-IG, IGN fuse flows to the center airbag sensor assembly TERMINAL IG1, IG2.
In case an accident occurs while driving, when the frontal impact exceeds a predetermined level, the current from the ECU-IG or IGN fuse flows to center airbag sensor assembly TERMINALS D+, P+, PL+, PR+ to airbag squibs and pretensioners to center airbag sensor assembly TERMINALS D-, P-, PL-, PR- to TERMINALS E1, E2 or BODY GROUND to GROUND.
The current flows to the airbag squibs and pretensioners, and operates the airbag.
The airbag stored in the steering wheel pad is instantaneously expanded to soften the shock to the driver.
The airbag stored in the front passenger's instrument panel is instantaneously expanded to soften the shock to the front passenger.
The pretensioners ensure the seat belt restrainability.

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A20	30	C20 A	30	J6	31
A21	30	C21 B	30	J7 A	31
A28	28	C22 C	30	J8 B	31
A29	28	C25 A	30	J9	31
B13	32 (w/o Power Seat)	C28 D	30	P27	33
	34 (w/ Power Seat)	D1	28	P28	33
B19	32 (w/o Power Seat)	D7	30		
	34 (w/ Power Seat)	J5	31		

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1H		
1L		
3A	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3E		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG2	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
II4	40	Engine Wire and Cowl Wire (On the Glove Box)
IL1	40	Cowl Wire and Floor Wire (Right Kick Panel)
BU2	44	Floor Wire and Seat No.2 Wire (Under the Front Passenger's Seat)
BY2	44	Cowl Wire and Seat No.1 Wire (Under the Driver's Seat)

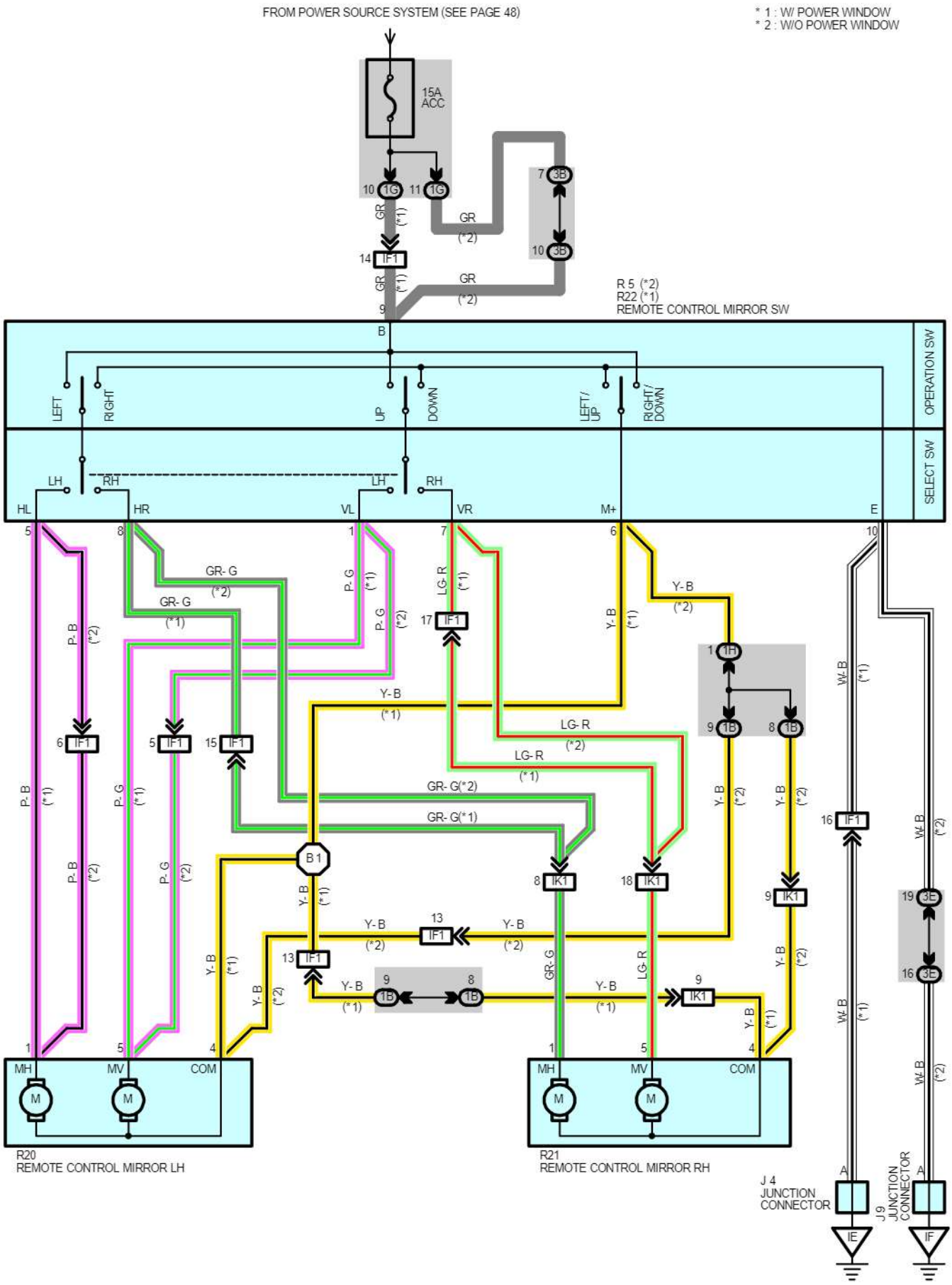
: GROUND POINTS

Code	See Page	Ground Points Location
ID	38	Left Kick Panel
IF	38	Cowl Side Panel RH
IG	38	Right Kick Panel
BJ	42	Right Quarter Panel Inner

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REMOTE CONTROL MIRROR



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SERVICE HINTS

R5, R22 REMOTE CONTROL MIRROR SW

10-GROUND : Always continuity
10-6 : Continuity with operation SW at **UP** or **LEFT** position
9-6 : Continuity with operation SW at **DOWN** or **RIGHT** position
9-GROUND : Approx. **12** volts with ignition SW at **ACC** or **ON** position

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
J4	31	R5	31	R21	33
J9	31	R20	33	R22	33

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1G		
1H		
3B	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3E		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF1	38	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IK1	40	Front Door RH Wire and Cowl Wire (Right Kick Panel)

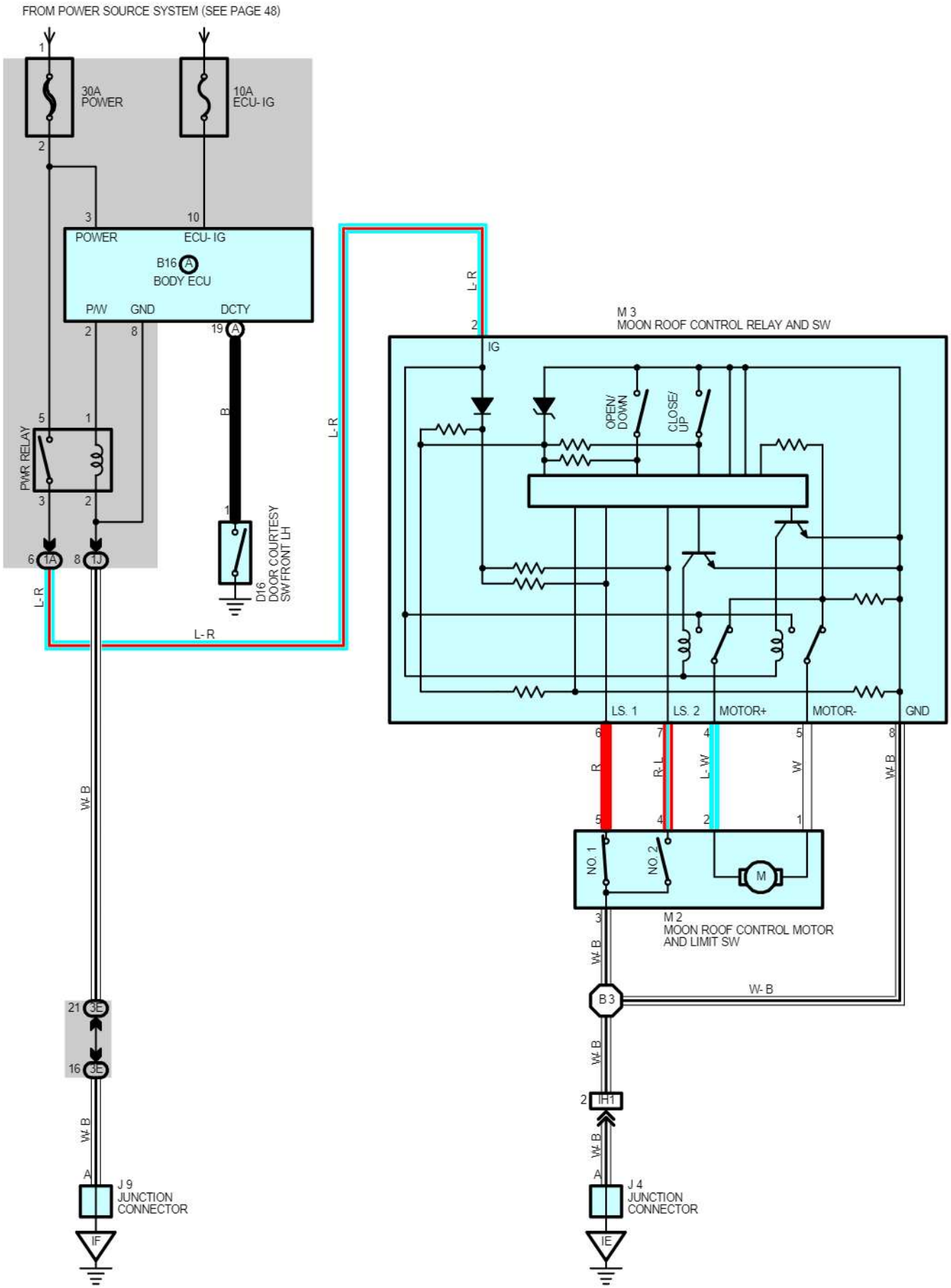
▽ : GROUND POINTS

Code	See Page	Ground Points Location
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B1	42	Front Door LH Wire			

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SYSTEM OUTLINE

Current is applied at all times through the POWER fuse to TERMINAL 5 of the PWR relay.
With the ignition SW turned on, the current flows from TERMINAL 1 of the PWR relay to TERMINAL 2 to GROUND through the ECU-IG fuse. As a result, the PWR relay is activated and the current to TERMINAL 5 of the PWR relay flows from TERMINAL 3 of the relay to TERMINAL 2 of the moon roof control relay and SW.

1. SLIDE OPEN OPERATION

When the ignition SW is turned on and the moon roof control SW is pushed to the OPEN position, a signal is input to HALL IC of the moon roof control relay and SW. The moon roof limit SW no. 2 is turned on at this time.
This activates the moon roof control relay and SW and rotates the motor to fully open the moon roof automatically. If other operation SW or the open SW is operated while the moon roof is being opened, the moon roof control relay and SW is activated to stop the moon roof operation.

2. SLIDE CLOSE OPERATION

With the ignition SW turned on, moon roof completely open and the moon roof limit switch no. 1 and no. 2 both are on, when the moon roof control SW is pushed to the CLOSE position, a signal is input to HALL IC of the moon roof control relay and SW.
When this occurs, the relay is activated and the current to TERMINAL 2 of the moon roof control relay and SW flows from TERMINAL 4 to TERMINAL 2 of the moon roof control motor to TERMINAL 1 to TERMINAL 5 of the moon roof control relay and SW to TERMINAL 8 to GROUND, rotating the motor to close the moon roof while the SW is being pushed to CLOSE position.
When the moon roof limit SW no. 1 is turned off (The moon roof limit SW no. 2 is on), and moon roof reaches 100mm from fully close position, signal is input from TERMINAL 5 of the moon roof limit SW to TERMINAL 6 of the moon roof control relay and SW. This signal activates the relay and stops continuity from TERMINAL 2 of the moon roof control relay and SW to TERMINAL 8, as a result, the moon roof stops at this position.
To close the moon roof completely, pushing the moon roof control SW again to the close side causes a signal to be input again to HALL IC of the moon roof control relay and SW. This activates the relay and the moon roof will close as long as the moon roof control SW is being pushed, allowing the moon roof to fully close.

3. TILT UP OPERATION

When the moon roof control SW is pushed to UP position, with the ignition SW turned on and the moon roof completely closed (Moon roof limit SW no.2 is off), a signal is input to HALL IC of the moon roof control relay and SW. As a result, the relay is activated and the current to TERMINAL 2 of the moon roof control relay and SW flows from TERMINAL 4 of the moon roof control relay and SW to TERMINAL 2 of the moon roof control motor to TERMINAL 1 to TERMINAL 5 of the moon roof control relay and SW to TERMINAL 8 to GROUND, rotating the motor so that tilt up operation occurs as long as the moon roof control SW is pushed on the tilt up side.

4. TILT DOWN OPERATION

When the moon roof control SW is pushed to DOWN position, with the ignition SW turned on and the moon roof tilted up (The moon roof limit SW no.1 and no.2 are both off.), a signal input to HALL IC of the moon roof control relay and SW.
As the result, the moon roof control relay is activated and the current to TERMINAL 2 of the moon roof control relay and SW flows from TERMINAL 5 of the moon roof control relay and SW to TERMINAL 1 of the moon roof control motor to TERMINAL 2 to TERMINAL 4 of the moon roof control relay and SW to TERMINAL 8 to GROUND, rotating the motor so that tilt down operation occurs as long as the moon roof control SW is pushed on the tilt down side. (During tilt down, the moon roof limit SW no. 1 is changes off to on.)

5. KEY OFF MOON ROOF OPERATION

With the ignition SW turned from on to off, the body ECU operates and the current flows from the POWER fuse to TERMINAL 3 of the body ECU to TERMINAL 2 to TERMINAL 1 of the PWR relay to TERMINAL 2 to GROUND, at this time, for about 43 seconds the same as normal operation, the current flows from the POWER fuse to TERMINAL 5 of the PWR relay to TERMINAL 3 to TERMINAL 2 of the moon roof control relay and SW. As a result, for about 43 seconds after the ignition SW is turned off, the function of this relay makes it possible to open and close the moon roof. Also, by opening the front door LH (Door courtesy SW front LH on) within about 43 seconds after turning the ignition SW to off, a signal is input to TERMINAL (A) 19 of the body ECU. As a result, the relay turns off, and open and close, movement of the moon roof stops.

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MOON ROOF

SERVICE HINTS

PWR RELAY

5-3 : Closed with the ignition SW at **ON** position or key off operated

M3 MOON ROOF CONTROL RELAY AND SW

8-GROUND : Always continuity
2-GROUND : Approx. **12** volts with the ignition SW at **ON** position or key off operated
4-GROUND : Approx. **12** volts with the ignition SW on and the moon roof control SW at **CLOSE** or **UP** position
5-GROUND : Approx. **12** volts with the ignition SW on and the moon roof control SW at **OPEN** or **DOWN** position

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B16 A	30	J4	31	M2	33
D16	32	J9	31	M3	33

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	24	Roof Wire and Driver Side J/B (Lower Finish Panel)
1J	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
3E	26	Cowl Wire and Center J/B (Near the Steering Column Tube)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IH1	40	Roof Wire and Cowl Wire (Instrument Panel Reinforcement Left)

: GROUND POINTS

Code	See Page	Ground Points Location
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH

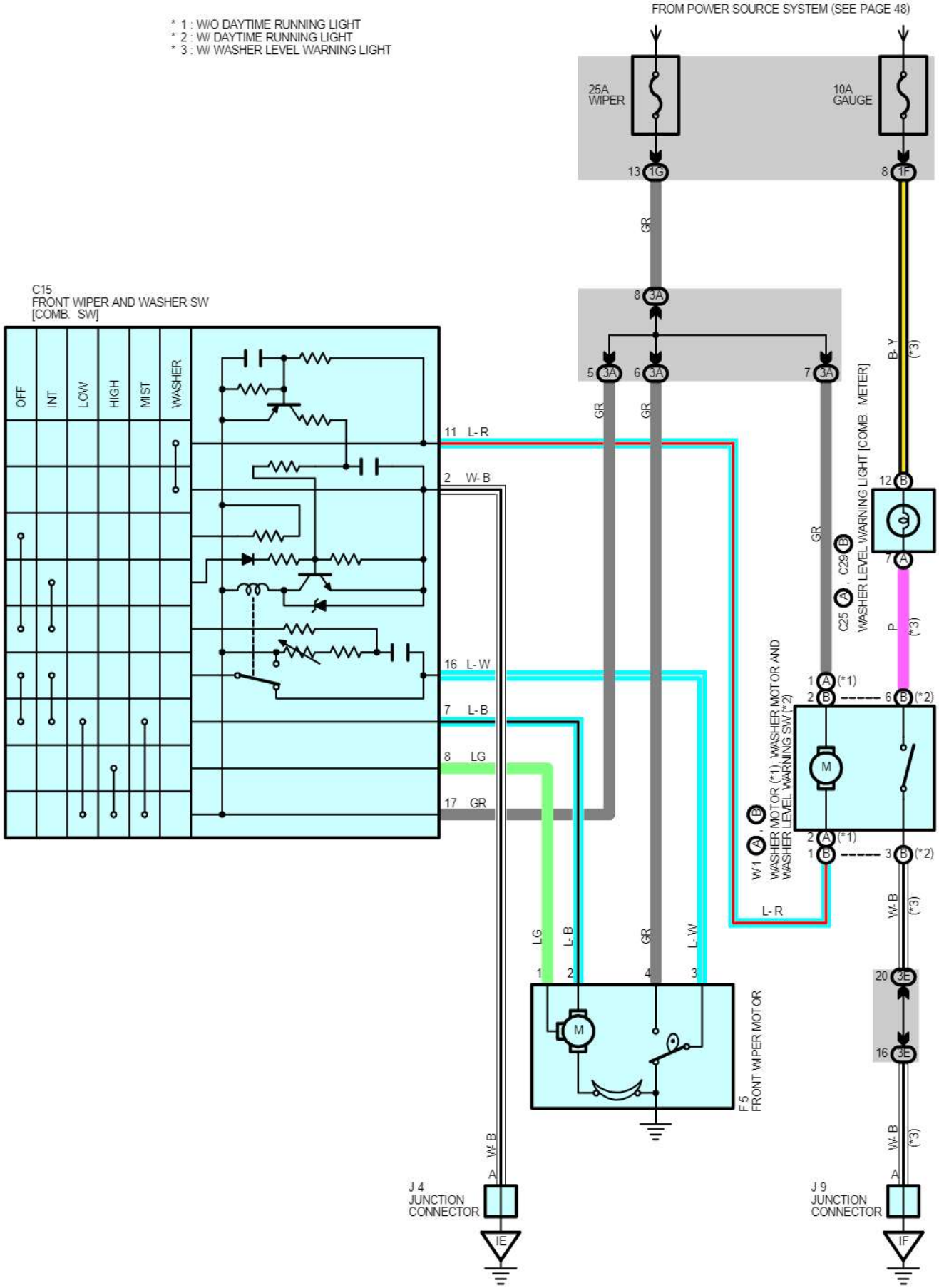
: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B3	42	Roof Wire			

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FRONT WIPER AND WASHER



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SYSTEM OUTLINE

With the ignition SW turned on, current flows to TERMINAL 17 of the front wiper and washer SW, TERMINAL 1 (w/o daytime running light) or 2 (w/ daytime running light) of the washer motor and TERMINAL 4 of the front wiper motor through the WIPER Fuse.

1. LOW SPEED POSITION

With the wiper SW turned to LOW position, the current flows from TERMINAL 17 of the front wiper and washer SW to TERMINAL 7 to TERMINAL 2 of the front wiper motor to GROUND and causes to the front wiper motor to run at low speed.

2. HIGH SPEED POSITION

With the wiper SW turned to HIGH position, the current flows from TERMINAL 17 of the front wiper and washer SW to TERMINAL 8 to TERMINAL 1 of the front wiper motor to GROUND and causes to the front wiper motor to run at high speed.

3. INT POSITION (w/ INTERMITTENT OPERATION)

With the wiper SW turned to INT position, the relay operated and the current which is connected by relay function flows from TERMINAL 17 of the front wiper and washer SW to TERMINAL 2 to GROUND. This flow of the current operates the intermittent circuit and the current flows from TERMINAL 17 of the front wiper and washer SW to TERMINAL 7 to TERMINAL 2 of the front wiper motor to GROUND and functions. The intermittent operation is controlled by a condenser's charged and discharged function installed in relay.

4. MIST POSITION (w/o INTERMITTENT OPERATION)

With wiper SW turned to MIST position, the current flows TERMINAL 17 of the front wiper and washer SW to TERMINAL 7 to TERMINAL 2 of the front wiper motor to GROUND and causes to the front wiper motor to run at low speed.

5. WASHER CONTINUITY OPERATION (w/ INTERMITTENT OPERATION)

With the washer SW turned to on, the current flows through TERMINAL 1 (w/o daytime running light) or 2 (w/ daytime running light) of the washer motor to TERMINAL 2 (w/o daytime running light) or 1 (w/ daytime running light) to TERMINAL 11 of the front wiper and washer SW to TERMINAL 2 to GROUND and causes the washer motor to run and window washer to spray. Simultaneously, current flows from the WIPER fuse to TERMINAL 17 of the front wiper and washer SW to TERMINAL 7 to TERMINAL 2 of the front wiper motor to GROUND, causing the wiper to function.

6. WASHER OPERATION (w/o INTERMITTENT OPERATION)

With the washer SW turned to on, the current flows from TERMINAL 1 (w/o daytime running light) or 2 (w/ daytime running light) of the washer motor to TERMINAL 2 (w/o daytime running light) or 1 (w/ daytime running light) to TERMINAL 11 of the front wiper and washer SW to TERMINAL 2 to GROUND and causes the washer motor to run and the window washer to spray, operates only while the washer SW is pressed.

SERVICE HINTS

C15 FRONT WIPER AND WASHER SW [COMB. SW]

2-GROUND : Always continuity
17-GROUND : Approx. **12** volts with ignition SW at **ON** position
7-GROUND : Approx. **12** volts with front wiper and washer SW at **LOW** position
Approx. **12** volts every approx. **1** to **10** seconds intermittently with front wiper and washer SW at **INT** position
(w/ intermittent operation)
Approx. **12** volts front wiper and washer SW at **MIST** position (w/o intermittent operation)
16-GROUND : Approx. **12** volts with ignition SW on unless front wiper motor at **STOP** position
8-GROUND : Approx. **12** volts with ignition SW on and front wiper and washer SW at **HIGH** position

F5 FRONT WIPER MOTOR

3-4 : Closed unless front wiper motor at **STOP** position

○ : PARTS LOCATION

Code		See Page	Code	See Page	Code		See Page
C15		30	F5	28	W1	A	29
C25	A	30	J4	31		B	29
C29	B	30	J9	31			

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 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1G		
3A	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3E		

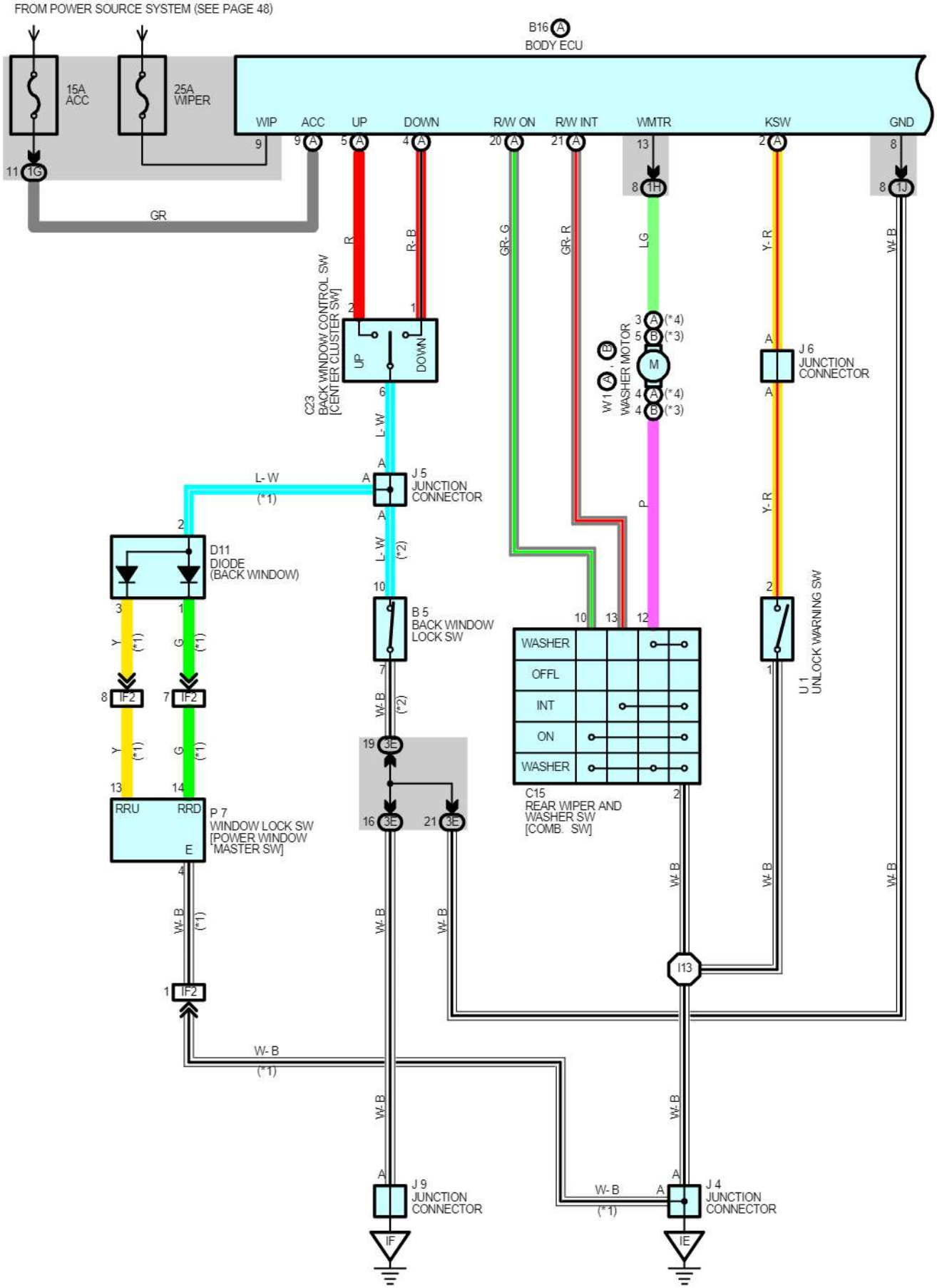
 : GROUND POINTS

Code	See Page	Ground Points Location
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH

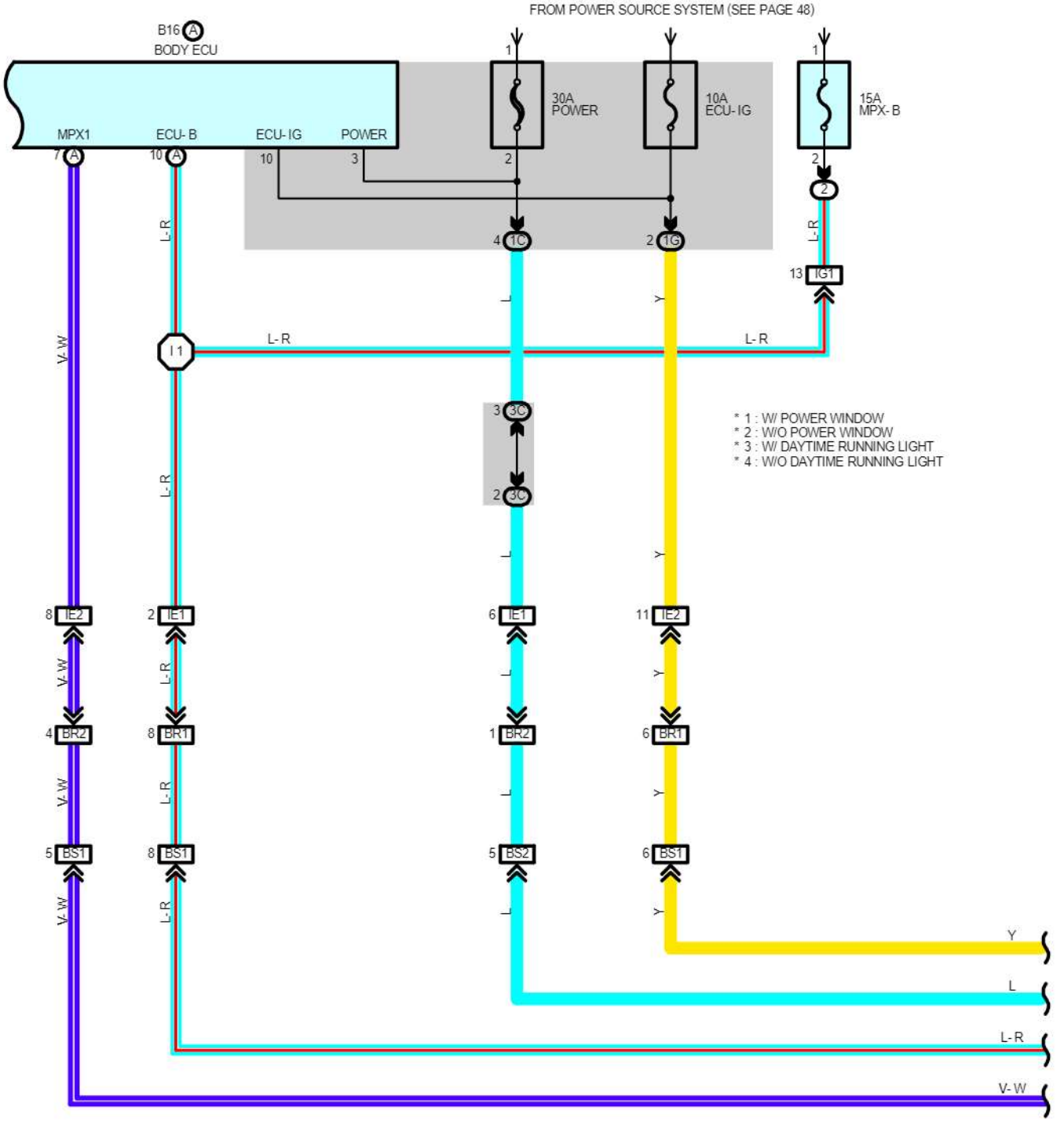
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POWER WINDOW (REAR), REAR WIPER AND WASHER

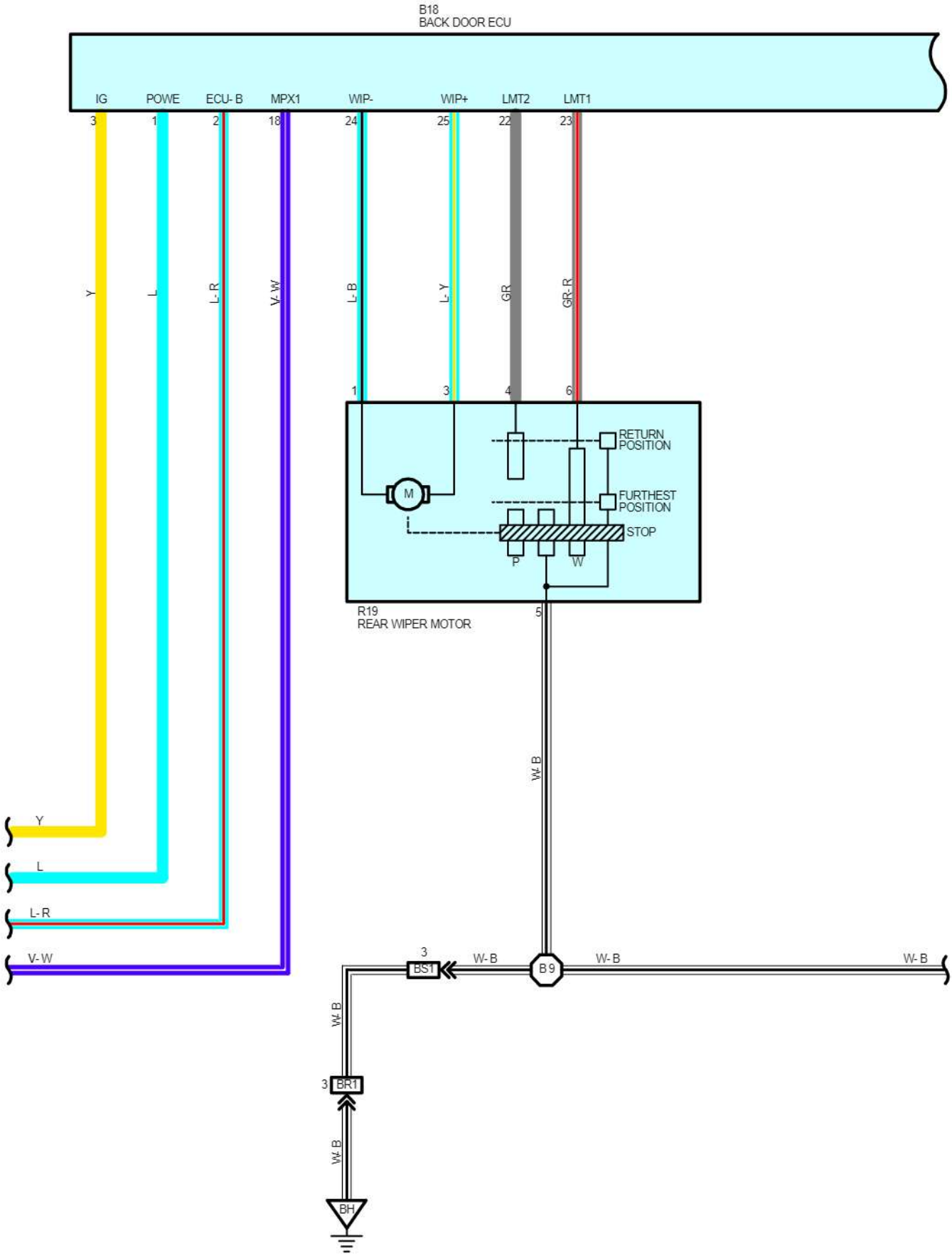


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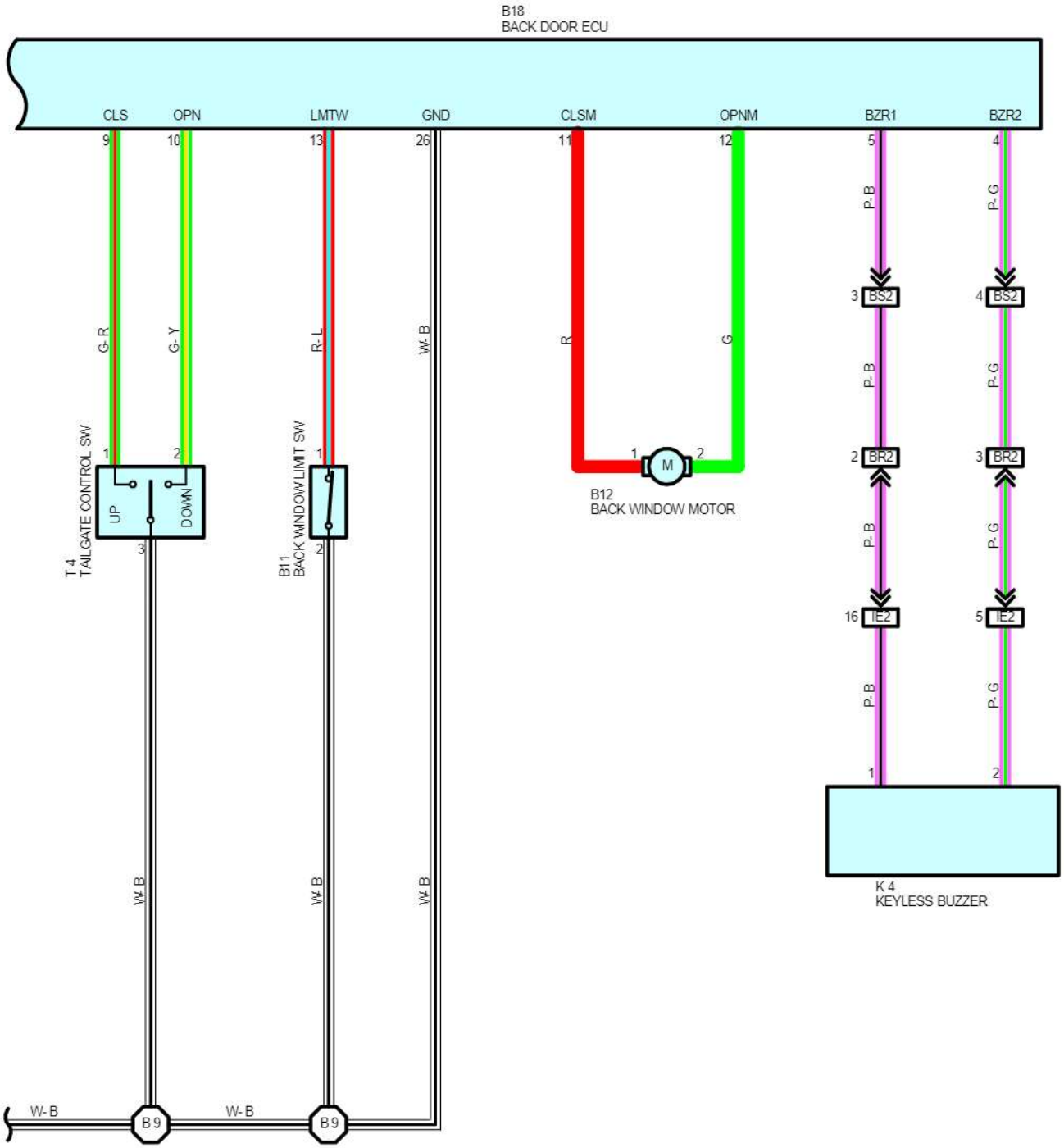


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POWER WINDOW (REAR), REAR WIPER AND WASHER



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SYSTEM OUTLINE

Current always flows through the POWER fuse to TERMINAL 3 of the body ECU and TERMINAL 1 of the back door ECU. With the ignition SW turned on, the WIPER fuse to TERMINAL 9 of the body ECU, the ECU-IG fuse to TERMINAL 10 of the body ECU and TERMINAL 3 of the back door ECU.

1. REAR POWER WINDOW MANUAL OPERATION (BACK WINDOW CONTROL SW)

When the back window control SW is pushed to the up side (With the ignition SW on), an "ON" signal is input from TERMINAL 2 of the back window control SW to TERMINAL (A) 5 of the body ECU to TERMINAL (A) 7 to TERMINAL 18 of the back door ECU. Thus, the back door ECU is activated and the current to TERMINAL 1 of the back door ECU flows to TERMINAL 26 of the back door ECU to GROUND so that the current to back window motor flows from TERMINAL 1 of the back door ECU to TERMINAL 11 to TERMINAL 1 of the back window motor to TERMINAL 2 to TERMINAL 12 of the back door ECU to TERMINAL 26 to GROUND. This causes the back window motor to rotate toward the up side and the window ascends only while the back window control SW is being pushed.

To lower the window, the signal input from TERMINAL 1 of the back window control SW to TERMINAL (A) 4 of the body ECU to TERMINAL (A) 7 to TERMINAL 18 of the back door ECU. Causes current to the back window motor to flow from TERMINAL 1 of the back door ECU to TERMINAL 12 to TERMINAL 2 of the back window motor to TERMINAL 1 to TERMINAL 11 of the back door ECU to TERMINAL 26 to GROUND, so the current flows in the revers direction to manual up operation and causes the motor to rotate in the opposite direction, thus lowering the window.

When the back window lock SW is pushed the lock side, the ground circuit of the back window control SW becomes open. Thus even if the driver operates the Open/Close function of the power window (Rear), the power window (Rear) will not operate because the back door ECU dose not receive the on signal and the back door ECU does not operate.

2. REAR POWER WINDOW MANUAL OPERATION (TAILGATE CONTROL SW)

When the tailgate control SW to the up side a signal is input to TERMINAL 9 of the back door ECU from TERMINAL 1 of the tailgate control SW. This activates the back door ECU regardless of whether the ignition SW is on or off, and the current flows from TERMINAL 1 of the back door ECU to TERMINAL 26. So the current to the back window motor flows to TERMINAL 1 of the back door ECU to TERMINAL 11 to TERMINAL 1 of the back window motor to TERMINAL 2 to TERMINAL 12 of the back door ECU to TERMINAL 26 to GROUND and causes the back window motor to rotate in the up direction so the back window ascends only while the tailgate control SW is being pushed to lower the window. The on signal of the tailgate control SW (Rotate to down side) is input to TERMINAL 10, causing the current to the motor to flow to TERMINAL 1 of the back door ECU to TERMINAL 12 to TERMINAL 2 of the back window motor to TERMINAL 1 to TERMINAL 11 of the back door ECU to TERMINAL 26 to GROUND. This flow is the reverse of manual up, so the motor rotates in the reverse direction and the window is lowered.

3. WIRELESS BACK WINDOW CONTROL

When the ignition SW is off, the back window can be opened by pressing the back window open SW of the transmitter for approximately 0.8 seconds. At that time, the keyless buzzer beeps once.

4. REAR WIPER OPERATION

With ignition SW turned on and the back door window completely closed (Back window limit SW on), when the rear wiper and washer SW is turned on, the signal is input from TERMINAL 10 of the rear wiper and washer SW to TERMINAL (A) 20 of the body ECU to TERMINAL 7 to TERMINAL 18 of the back door ECU. Thus the back door ECU activates and the current flows from TERMINAL 1 of the back door ECU to TERMINAL 25 to TERMINAL 3 of the rear wiper motor to TERMINAL 1 to TERMINAL 24 of the back door ECU to TERMINAL 26 to GROUND and operates the rear wiper to the upper limit of the wiping area. When the upper limit of the wiping area is reached, the point (Cam plate P point) on the wiper motor is turned on (in the case, W point of cam plate is off), and the signal to reverse the rear wiper motor is input to TERMINAL 22 of the back door ECU. The back door ECU stops the rear wiper motor for about 0.1 seconds and the current flows from TERMINAL 24 of the back door ECU to TERMINAL 1 of the rear wiper motor to TERMINAL 3 to TERMINAL 25 of the back door ECU to TERMINAL 26 to GROUND. As a result, the rear wiper motor reverses and stops the rear wiper before the retraction position. At that time, the point (Cam plate W point) on the rear wiper motor is turned on (in this case, P point of cam plate is off), and the signal to rotate the motor is input to TERMINAL 25 of the back door ECU to TERMINAL 3 of the rear wiper motor to TERMINAL 1 to TERMINAL 24 of the back door ECU to TERMINAL 26 to GROUND and the rear wiper SW off, the signal to TERMINAL 23 of the back door ECU from W point of cam plate is cancelled and the wiping function is continued when P point is turned on. The rear wiper continues beyond the rear wiper area to the retraction position. At that time, P and W points are turned on, the power window relay stops operating, and the current to the rear wiper is cut off to cam plate rear wiper operation.

5. WASHER OPERATION

With the ignition SW turned on and back window closed completely (Back window limit SW on), when the rear wiper and washer SW is turned strongly (Rear washer SW on), current flows from TERMINAL 9 of the body ECU to TERMINAL 13 to TERMINAL 3 (w/o daytime running light), 5 (w/ daytime running light) of the washer motor to TERMINAL 4 to TERMINAL 12 of the rear wiper and washer SW to TERMINAL 2 to GROUND and causes the rear window washer emits a water spray only while the rear washer SW is turned. When the rear wiper SW is off, and the rear wiper SW is then turned in the off direction, washer liquid will also spray.

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SERVICE HINTS

T4 TAILGATE CONTROL SW

2-3 : Continuity with tailgate control SW at down side
1-3 : Continuity with tailgate control SW at up side

C15 REAR WIPER AND WASHER SW [COMB. SW]

12-2 : Continuity with rear wiper and washer SW at **WASHER** position
10-2 : Continuity with rear wiper and washer SW at **ON** position

B18 BACK DOOR ECU

3-GROUND : Approx. **12** volts with ignition SW at **ON** position
1-GROUND : Always approx. **12** volts
26-GROUND : Always continuity
11-GROUND : Approx. **12** volts with back window at **UP** operation
12-GROUND : Approx. **12** volts with back window at **DOWN** operation
9-GROUND : Continuity with tailgate control SW at **UP** position
10-GROUND : Continuity with tailgate control SW at **DOWN** position

B11 BACK WINDOW LIMIT SW

1-2 : Closed with back power window fully closed

R19 REAR WIPER MOTOR

4, 6-5 : Continuity with rear wiper retracted
4-5 : Continuity with rear wiper at **RETURN** position

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B5	30	D11	30	R19	33
B11	32	J4	31	T4	33
B12	32	J5	31	U1	31
B16 A	30	J6	31	W1 A	29
B18	32	J9	31	W1 B	29
C15	30	K4	29		
C23	30	P7	33		

: 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	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1G		
1H		
1J		
3C	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3E		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE1	38	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IE2		
IF2	38	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
BR1	42	Back Door No.1 Wire and Floor No.2 Wire (Left Rear Side of Roof)
BR2		
BS1	42	Back Door No.1 Wire and Back Door No.2 Wire (Back Door Left)
BS2		

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: GROUND POINTS

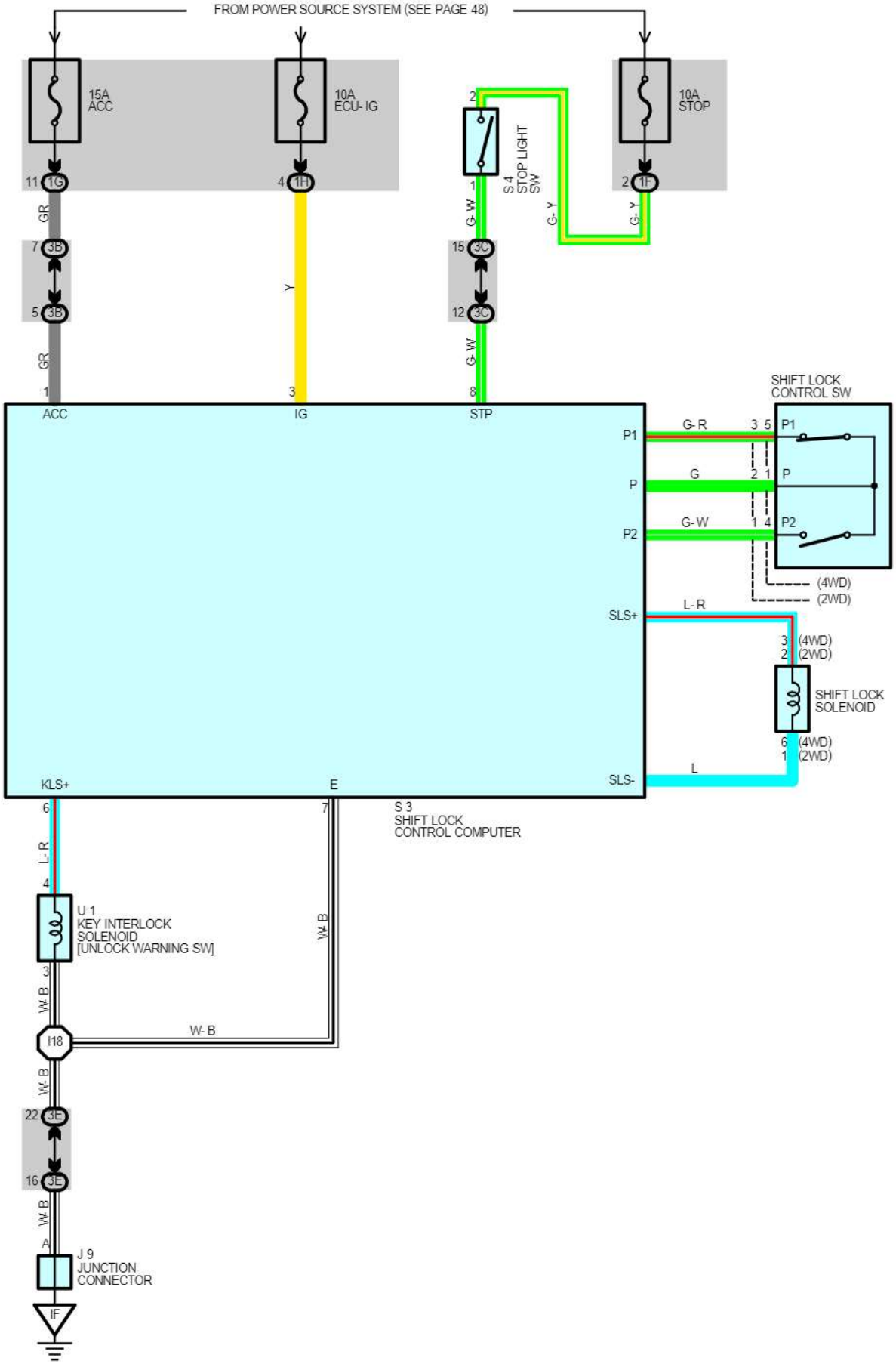
Code	See Page	Ground Points Location
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH
BH	42	Left Quarter Panel Inner

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I1	40	Cowl Wire	B9	42	Back Door No.2 Wire
I13					

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SYSTEM OUTLINE

When the ignition SW is turned to ACC position the current from the ACC fuse flows to TERMINAL 1 of the shift lock control computer. When the ignition SW is turned to ON position, the current from the ECU-IG fuse flows to TERMINAL 3 of the shift lock control computer.

1. SHIFT LOCK MECHANISM

With the ignition SW on, when a signal that the brake pedal is depressed (Stop light SW on) and a signal that the shift lever is put in P position (Continuous between P1 and P of the shift lock control SW) is input to the shift lock control computer, the shift lock control computer operates and current from the ECU-IG fuse flows to TERMINAL 3 of the shift lock control computer to TERMINAL SLS+ to TERMINAL 3 (4WD) or 2 (2WD) of the shift lock solenoid to TERMINAL 6 (4WD) or 1 (2WD) to TERMINAL SLS- of the shift lock control computer to TERMINAL 7 to GROUND. This causes the shift lock solenoid to turn on (Plate stopper disengages) and the shift lever can shift into position other than P.

2. KEY INTERLOCK MECHANISM

With the ignition SW at ON or ACC position, when the shift lever is put in P position (No continuous between P2 and P of the shift lock control SW), the current flowing from TERMINAL 6 of the shift lock control computer to key interlock solenoid is cut off. This causes the key interlock solenoid to turn off (Lock lever disengages from LOCK position) and the ignition key can be turned from ACC to LOCK position.

SERVICE HINTS

S3 SHIFT LOCK CONTROL COMPUTER

1-GROUND : Approx. **12** volts with the ignition SW at **ACC** or **ON** position
3-GROUND : Approx. **12** volts with the ignition SW at **ON** position
6-GROUND : **0** volts with ignition SW at **ACC** position and shift lever position in **P** position
6- 12 volts with shift lever position in except **P** position
7-GROUND : Always continuity
8-GROUND : Approx. **12** volts with the brake pedal depressed

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
J9	31	S4	31		
S3	31	U1	31		

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1G		
1H		
3B	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3C		
3E		

: GROUND POINTS

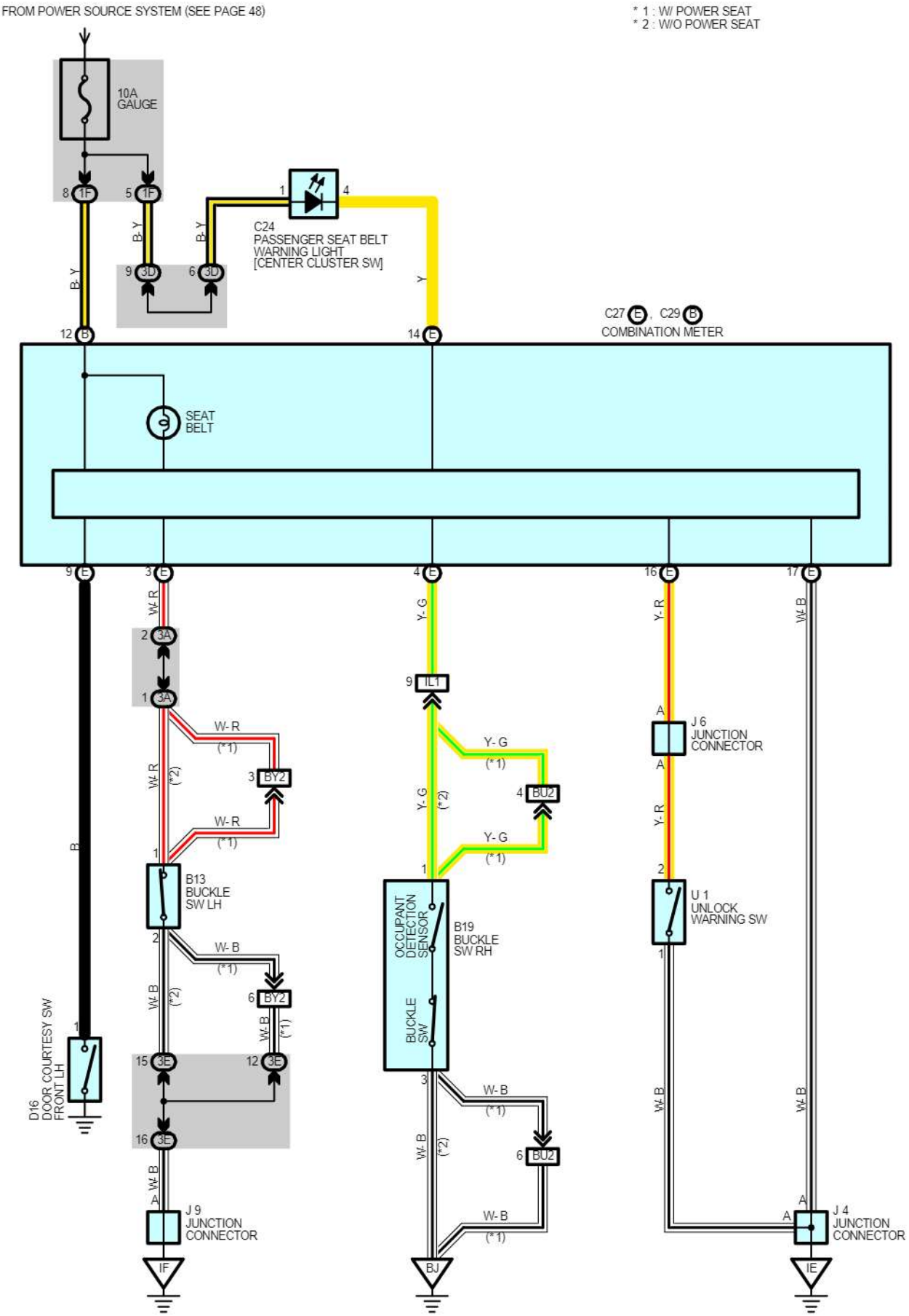
Code	See Page	Ground Points Location
IF	38	Cowl Side Panel RH

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I18	40	Cowl Wire			

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KEY REMINDER AND SEAT BELT WARNING



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SYSTEM OUTLINE

1. SEAT BELT WARNING SYSTEM

When the ignition SW turned on, a signal is input to the combination meter. To determine whether the driver has fastened the seat belt, a signal is input from the buckle SW LH to the combination meter TERMINAL (E) 3. When the seat belt is not fastened, the seat belt warning light in the combination meter blinks, and emits a warning sound.
In addition, the front passenger is recognized by a sensor (Seat belt warning occupant detection sensor (Buckle SW RH)) is installed in the front passenger seat, and determines whether the seat belt is fastened. When not fastened, the signals from the buckle SW RH is input to combination meter TERMINAL (E) 4, and the passenger seat belt warning light blinks to warn the passenger.

2. KEY REMINDER SYSTEM

When the driver door is opened with the ignition SW off and ignition key remaining in the key cylinder (Unlock warning SW on), a signal is input from the unlock warning SW to the combination meter TERMINAL (E) 16, and from the door courtesy SW front LH to combination meter TERMINAL (E) 9. As a result, the buzzer in the combination meter goes on and warns the driver that the key is remaining in the key cylinder.

SERVICE HINTS

C27 (E), C29 (B) COMBINATION METER

(B)12-GROUND : Approx. **12** volts with ignition SW at **ON** position
(E)17-GROUND : Always continuity

: PARTS LOCATION

Code	See Page	Code		See Page	Code	See Page
B13	32 (w/o Power Seat)	C24		30	J4	31
	34 (w/ Power Seat)	C27	E	30	J6	31
B19	32 (w/o Power Seat)	C29	B	30	J9	31
	34 (w/ Power Seat)	D16		32	U1	31

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
3A	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3D		
3E		

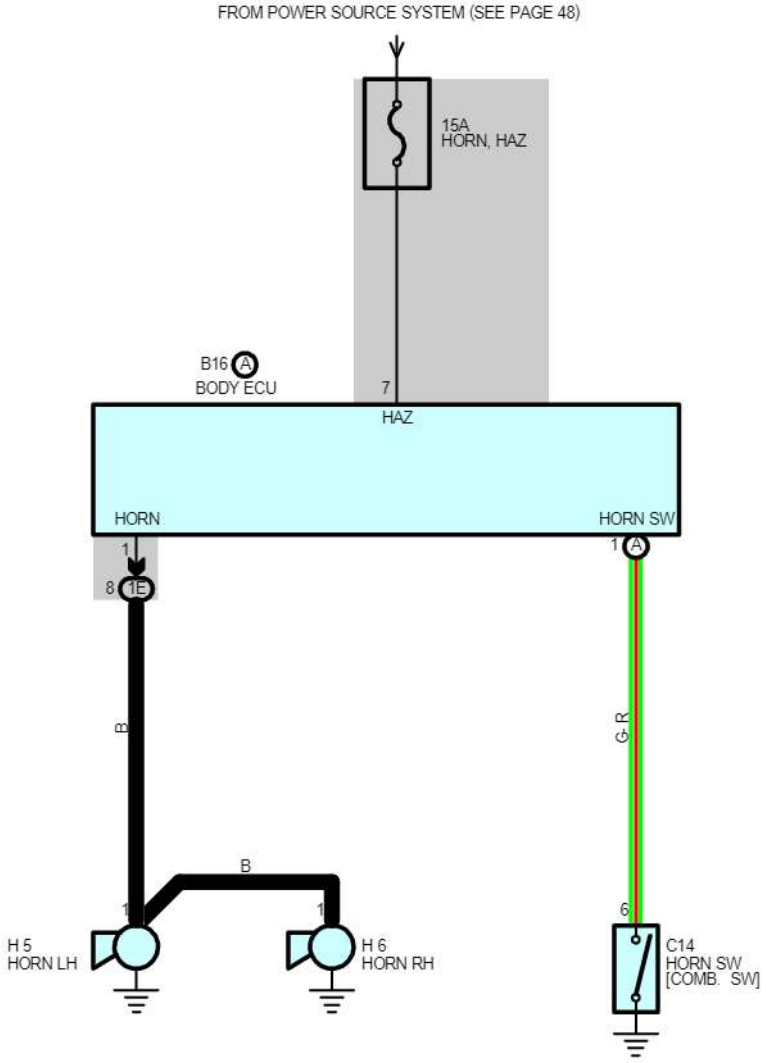
: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IL1	40	Cowl Wire and Floor Wire (Right Kick Panel)
BU2	44	Floor Wire and Seat No.2 Wire (Under the Front Passenger's Seat)
BY2	44	Cowl Wire and Seat No.1 Wire (Under the Driver's Seat)

: GROUND POINTS

Code	See Page	Ground Points Location
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH
BJ	42	Right Quarter Panel Inner

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SERVICE HINTS

B16 (A) BODY ECU

7-GROUND : Always approx. **12** volts
(A)1-GROUND : Continuity with horn SW on

○ : PARTS LOCATION

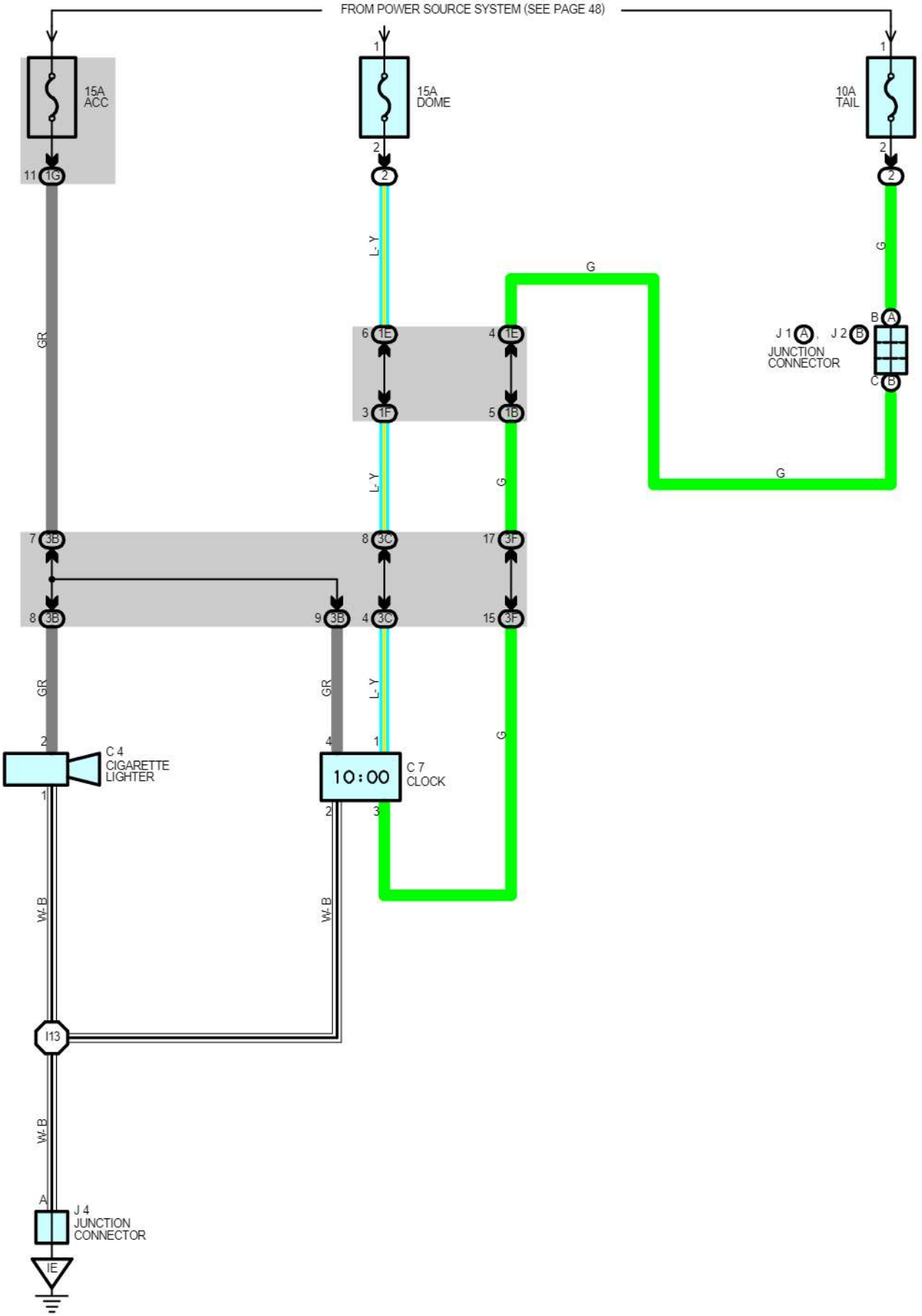
Code	See Page	Code	See Page	Code	See Page
B16 A	30	H5	28		
C14	30	H6	28		

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)

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CIGARETTE LIGHTER AND CLOCK



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SERVICE HINTS

C4 CIGARETTE LIGHTER

2-GROUND : Approx. **12** volts with ignition SW at **ON** or **ACC** position
1-GROUND : Always continuity

C7 CLOCK

1-GROUND : Always approx. **12** volts (Power for clock)
4-GROUND : Approx. **12** volts with ignition SW at **ON** or **ACC** position (Power for indication)
3-GROUND : Approx. **12** volts with light control SW at **TAIL** or **HEAD** position (Signal of indication)
2-GROUND : Always continuity

: PARTS LOCATION

Code	See Page	Code		See Page	Code	See Page
C4	30	J1	A	29	J4	31
C7	30	J2	B	29		

: 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)
1B	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1G		
3B	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3C		
3F		

: GROUND POINTS

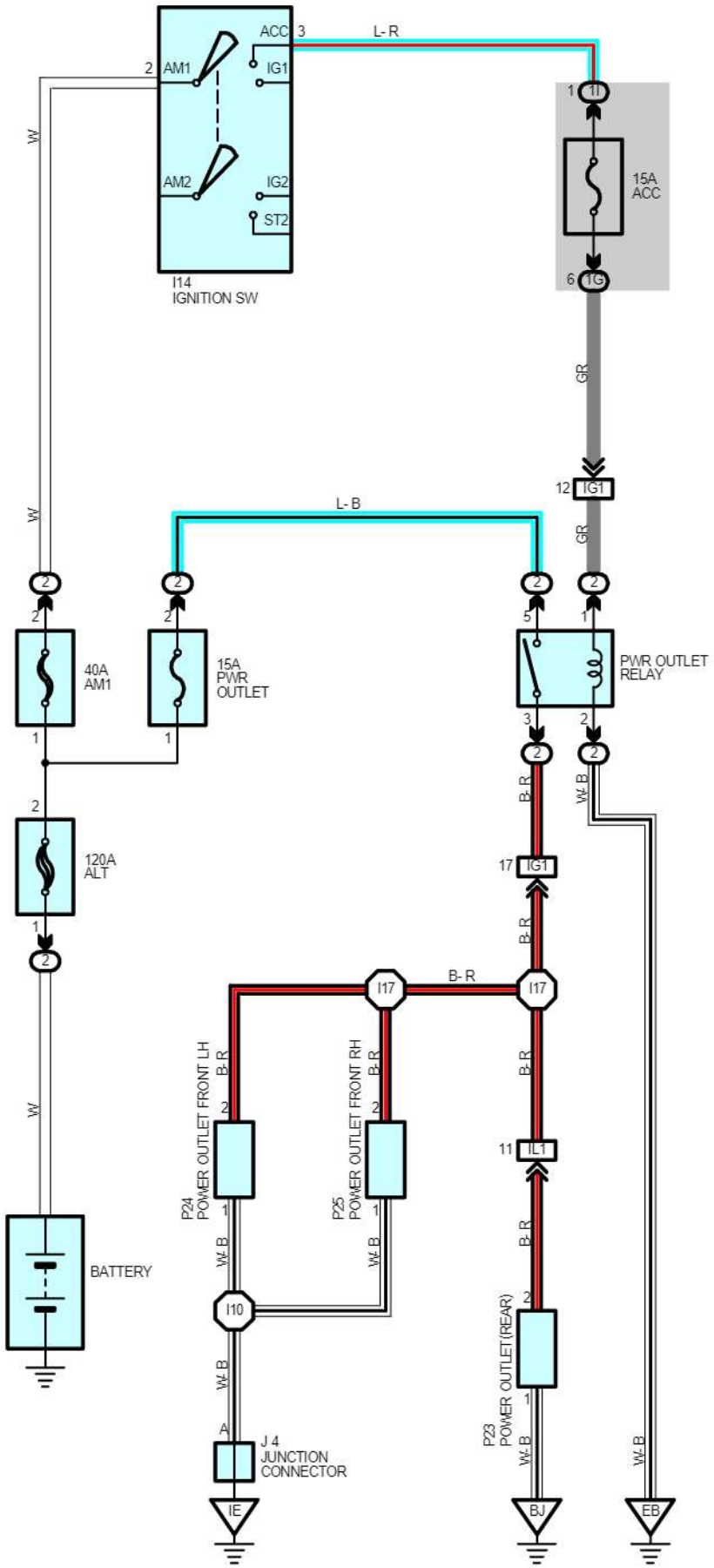
Code	See Page	Ground Points Location
IE	38	Cowl Side Panel LH

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I13	40	Cowl Wire			

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POWER OUTLET



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SERVICE HINTS

PWR OUTLET RELAY

3-5 : Closed with ignition SW at **ACC** or **ON** position
1-GROUND : Approx. **12** volts with ignition SW at **ACC** or **ON** position
5-GROUND : Always approx. **12** volts
2-GROUND : Always continuity

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
I14	31	P23	33	P25	31
J4	31	P24	31		

: 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)
1G	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1I	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
IL1	40	Cowl Wire and Floor Wire (Right Kick Panel)

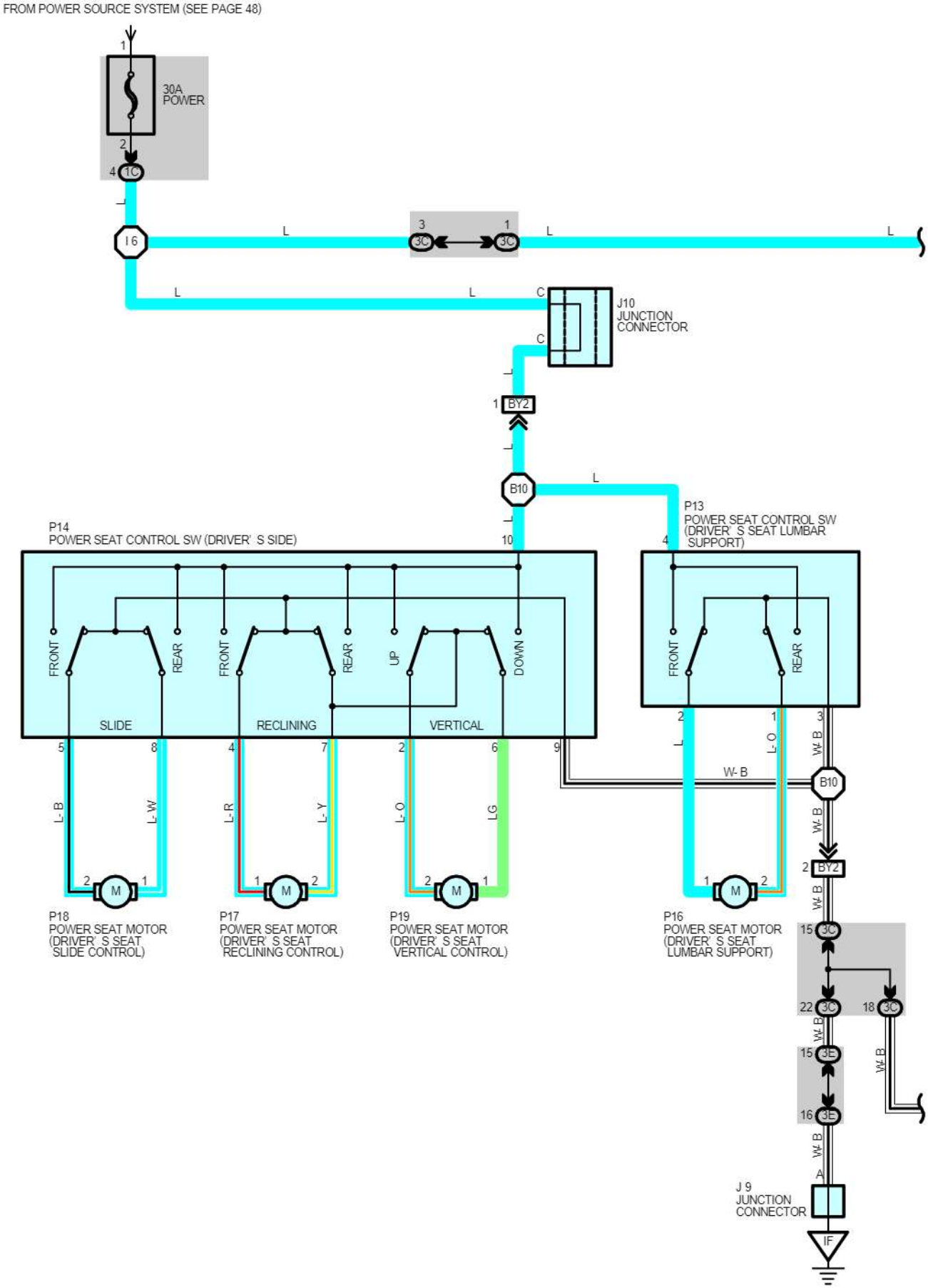
: GROUND POINTS

Code	See Page	Ground Points Location
EB	36	Front Left Fender
IE	38	Cowl Side Panel LH
BJ	42	Right Quarter Panel Inner

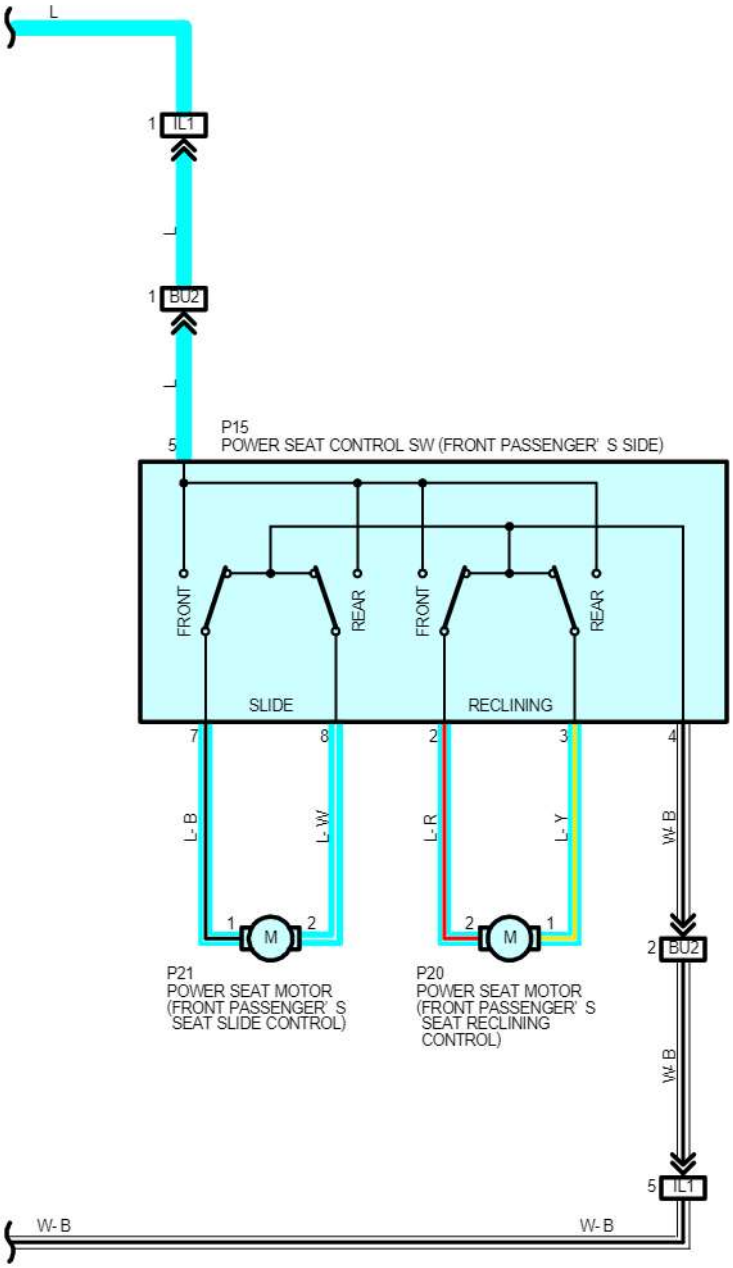
: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I10	40	Cowl Wire	I17	40	Cowl Wire

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POWER SEAT

SERVICE HINTS

P13 POWER SEAT CONTROL SW (DRIVER'S SEAT LUMBAR SUPPORT)

4-2 : Closed with the driver's seat at lumbar support front operation
4-1 : Closed with the driver's seat at lumbar support rear operation
3-GROUND : Always continuity

P14 POWER SEAT CONTROL SW (DRIVER'S SIDE)

10-5 : Closed with the driver's seat at front slide operation
10-8 : Closed with the driver's seat at rear slide operation
10-4 : Closed with the driver's seat at front reclining operation
10-7 : Closed with the driver's seat at rear reclining operation
10-2 : Closed with the driver's seat at vertical up operation
10-6 : Closed with the driver's seat at vertical down operation
9-GROUND : Always continuity

P15 POWER SEAT CONTROL SW (FRONT PASSENGER'S SIDE)

5-7 : Closed with the front passenger's seat at front slide operation
5-8 : Closed with the front passenger's seat at rear slide operation
5-2 : Closed with the front passenger's seat at front reclining operation
5-3 : Closed with the front passenger's seat at rear reclining operation
4-GROUND : Always continuity

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
J9	31	P15	34	P19	34
J10	31	P16	34	P20	34
P13	34	P17	34	P21	34
P14	34	P18	34		

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
3C	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3E		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IL1	40	Cowl Wire and Floor Wire (Right Kick Panel)
BU2	44	Floor Wire and Seat No.2 Wire (Under the Front Passenger's Seat)
BY2	44	Cowl Wire and Seat No.1 Wire (Under the Driver's Seat)

: GROUND POINTS

Code	See Page	Ground Points Location
IF	38	Cowl Side Panel RH

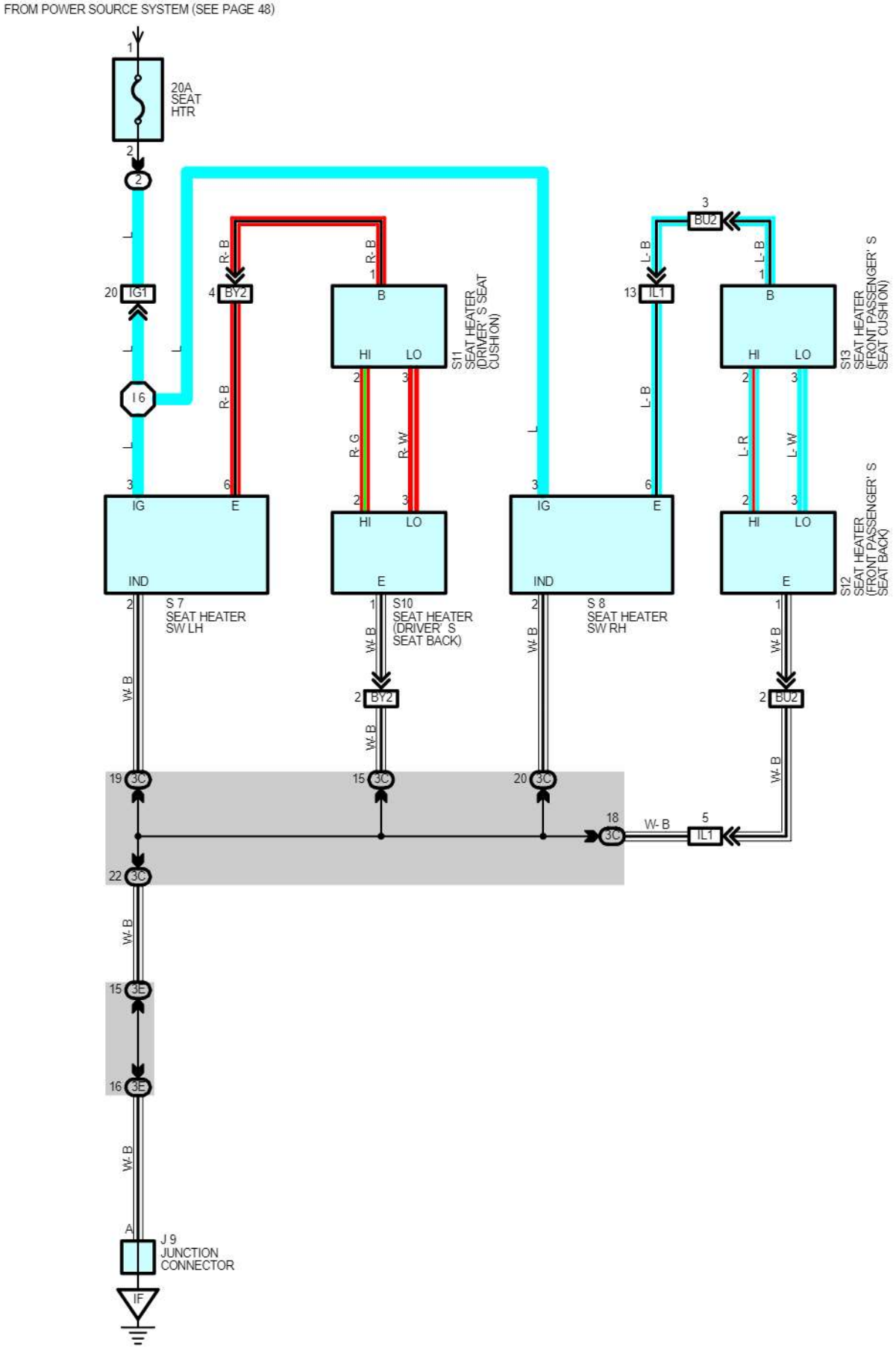
: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I6	40	Cowl Wire	B10	44	Seat No.1 Wire

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SEAT HEATER



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SERVICE HINTS

S7, S8 SEAT HEATER SW LH, RH

3-GROUND : Approx. **12** volts with the ignition SW at **ON** or **ST** position
2-GROUND : Always continuity

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
J9	31	S10	34	S13	34
S7	31	S11	34		
S8	31	S12	34		

: 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)
3C	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3E		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
IL1	40	Cowl Wire and Floor Wire (Right Kick Panel)
BU2	44	Floor Wire and Seat No.2 Wire (Under the Front Passenger's Seat)
BY2	44	Cowl Wire and Seat No.1 Wire (Under the Driver's Seat)

: GROUND POINTS

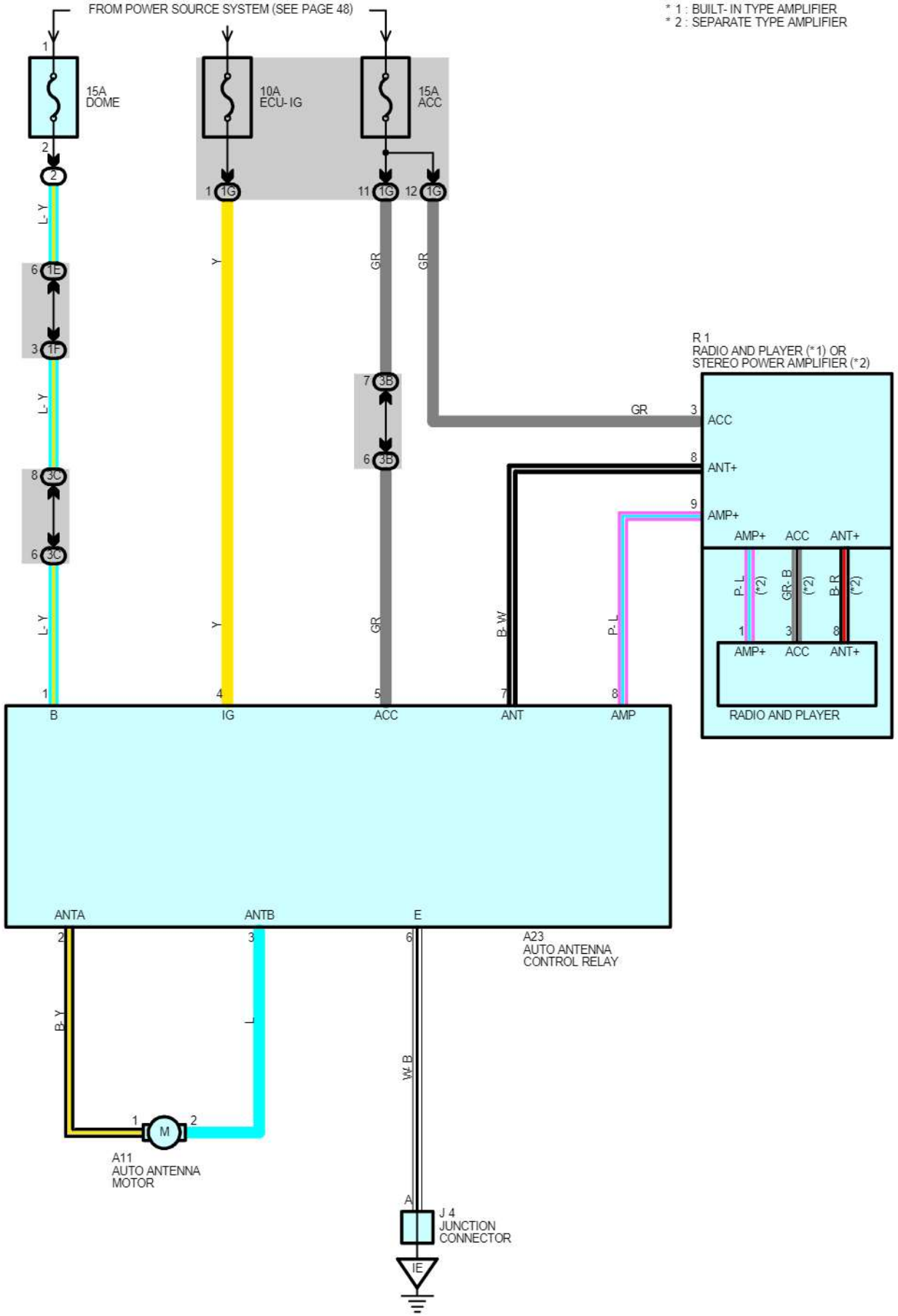
Code	See Page	Ground Points Location
IF	38	Cowl Side Panel RH

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I6	40	Cowl Wire			

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AUTO ANTENNA



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SERVICE HINTS

A23 AUTO ANTENNA CONTROL RELAY

1-GROUND : Always approx. **12** volts
5-GROUND : Approx. **12** volts with ignition SW at **ACC** or **ON** position
4-GROUND : Approx. **12** volts with ignition SW at **ON** position
6-GROUND : Always continuity
7-GROUND : Approx. **12** volts with ignition SW at **ACC** or **ON** position and radio SW on and player SW off
8-GROUND : Approx. **12** volts with ignition SW at **ACC** or **ON** position and radio SW off and player SW on

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A11	28	J4	31		
A23	30	R1	31		

: 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

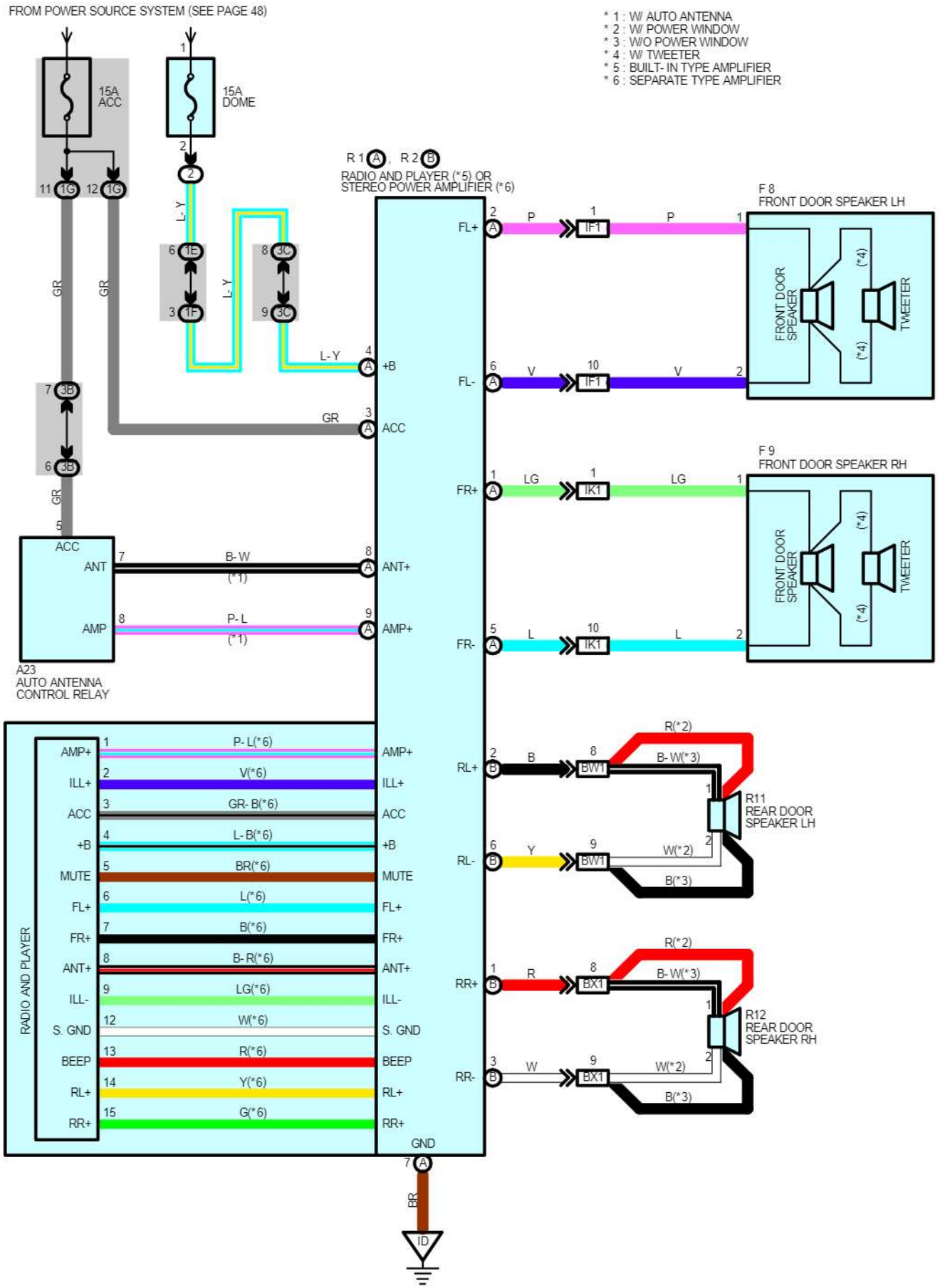
Code	See Page	Junction Block and Wire Harness (Connector Location)
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1G		
3B	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3C		

: GROUND POINTS

Code	See Page	Ground Points Location
IE	38	Cowl Side Panel LH

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RADIO AND PLAYER



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SERVICE HINTS

R1 (A) RADIO AND PLAYER (BUILT-IN TYPE AMPLIFIER) OR STEREO POWER AMPLIFIER (SEPARATE TYPE AMPLIFIER)

(A) 3-GROUND : Approx. **12** volts with ignition SW at **ON** or **ACC** position
(A) 4-GROUND : Always approx. **12** volts
(A) 7-GROUND : Always continuity

: PARTS LOCATION

Code	See Page	Code		See Page	Code	See Page
A23	30	R1	A	31	R12	33
F8	32	R2	B	31		
F9	32	R11		33		

: 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)
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1G		
3B	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3C		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

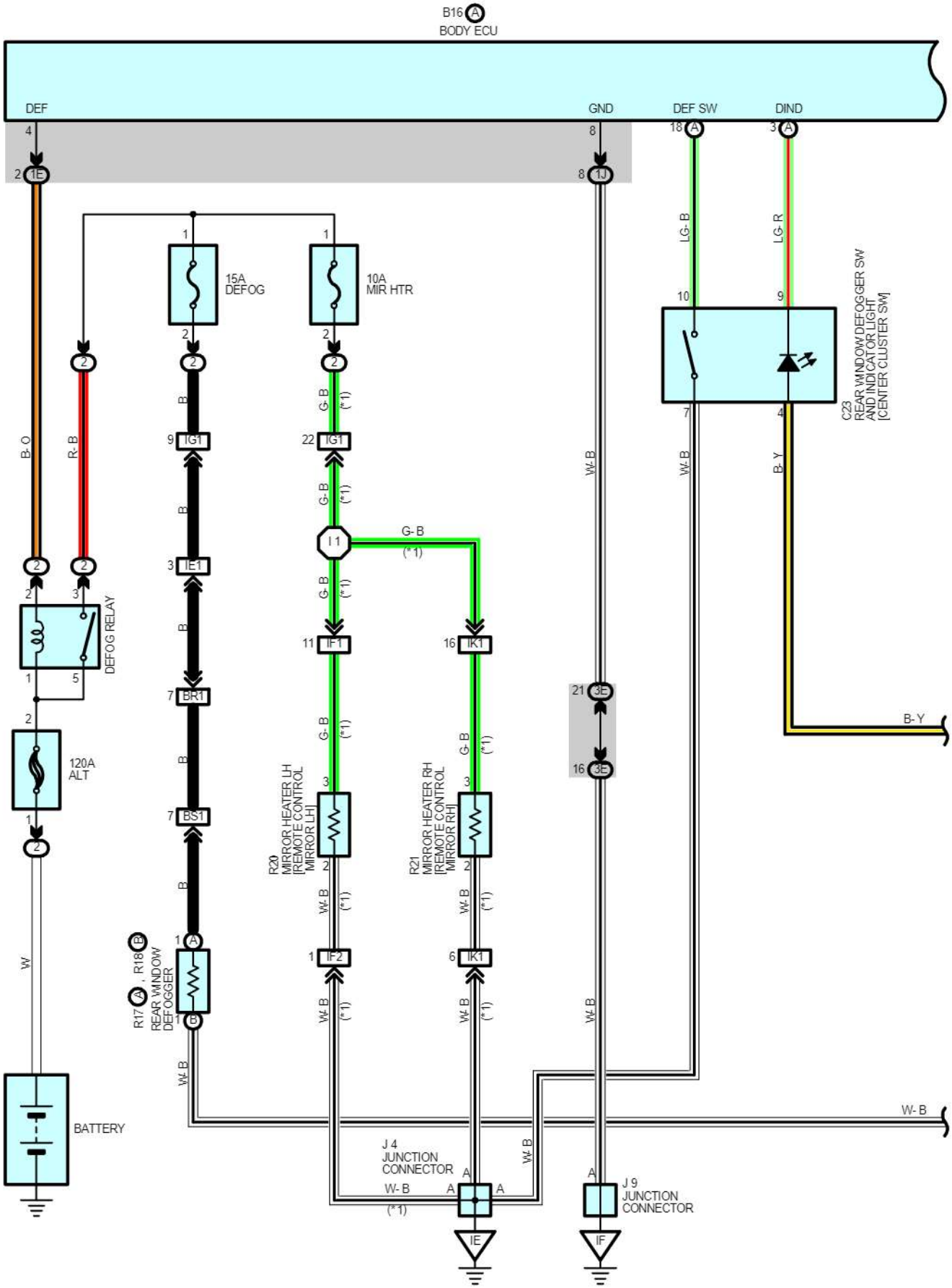
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF1	38	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IK1	40	Front Door RH Wire and Cowl Wire (Right Kick Panel)
BW1	42	Rear Door LH Wire and Cowl Wire (Left Center Pillar)
BX1	42	Rear Door RH Wire and Cowl Wire (Right Center Pillar)

: GROUND POINTS

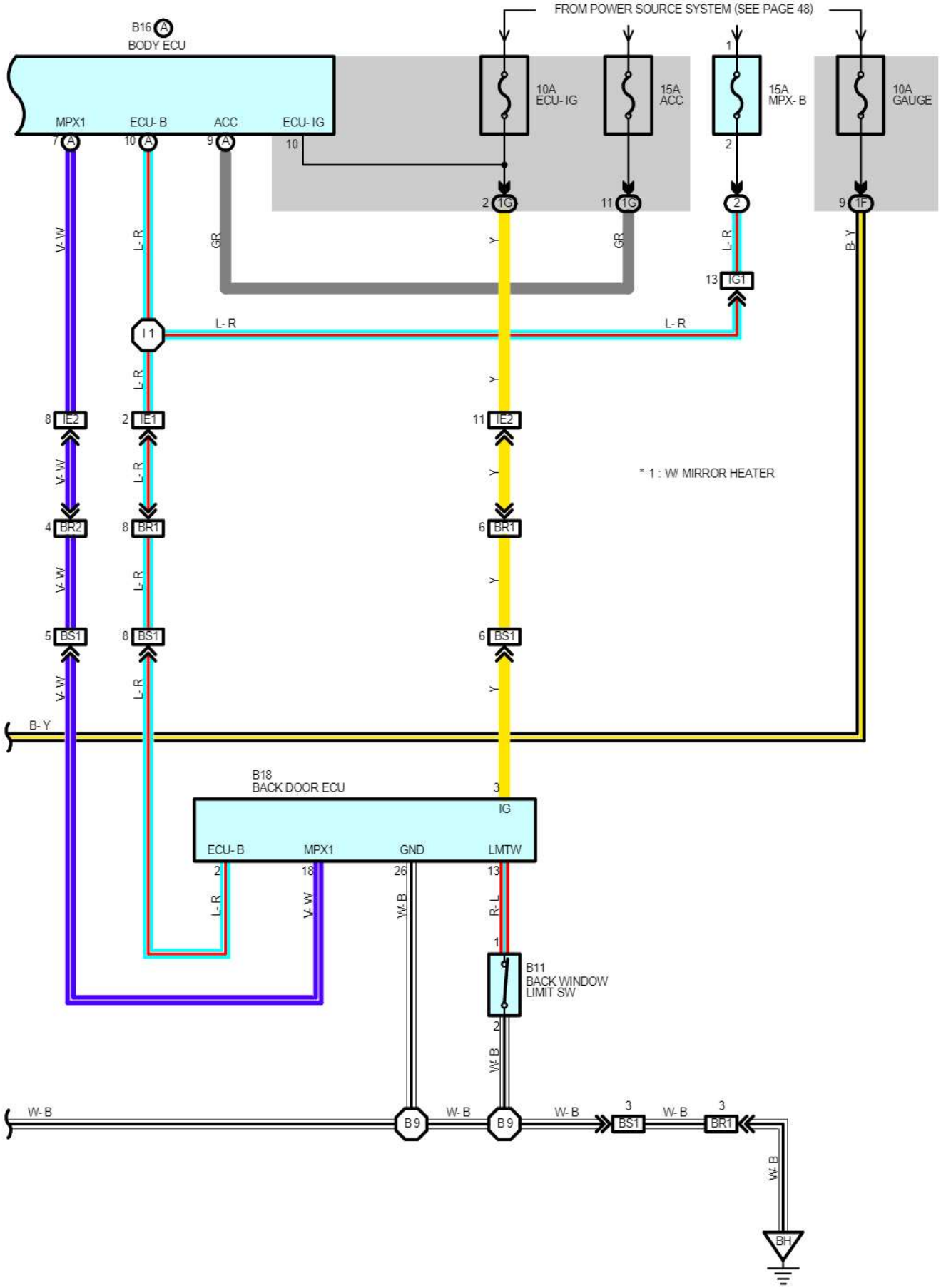
Code	See Page	Ground Points Location
ID	38	Left Kick Panel

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REAR WINDOW DEFOGGER AND MIRROR HEATER



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REAR WINDOW DEFOGGER AND MIRROR HEATER

SYSTEM OUTLINE

When the rear window defogger SW (Center cluster SW) is turned on while the ignition SW is on and the back window is closed, the rear window defogger and mirror heater is operated through the control of the body ECU, and the rear window defogger indicator light comes on.

SERVICE HINTS

B11 BACK WINDOW LIMIT SW

1-2 : Closed with back power window fully closed

DEFOG RELAY

3-5 : Closed with ignition SW at **ON** position, rear window fully closed (Limit SW on) and rear window defogger SW on

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B11	32	J4	31	R20	33
B16 A	30	J9	31	R21	33
B18	32	R17 A	33		
C23	30	R18 B	33		

: 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)
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1G		
1J		
3E	26	Cowl Wire and Center J/B (Near the Steering Column Tube)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE1	38	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IE2		
IF1	38	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IF2		
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
IK1	40	Front Door RH Wire and Cowl Wire (Right Kick Panel)
BR1	42	Back Door No.1 Wire and Floor No.2 Wire (Left Rear Side of Roof)
BR2		
BS1	42	Back Door No.1 Wire and Back Door No.2 Wire (Back Door Left)

: GROUND POINTS

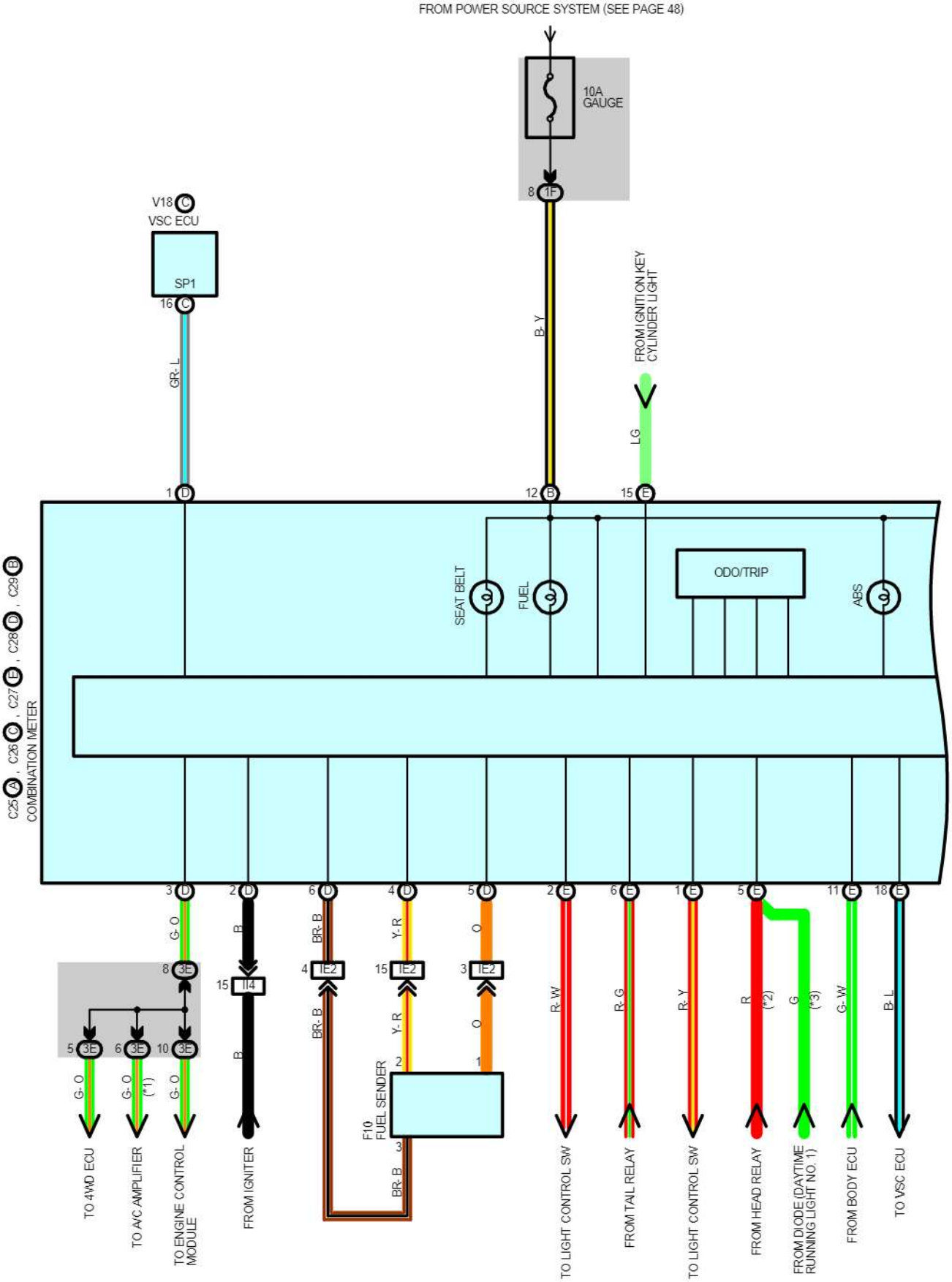
Code	See Page	Ground Points Location
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH
BH	42	Left Quarter Panel Inner

: SPLICE POINTS

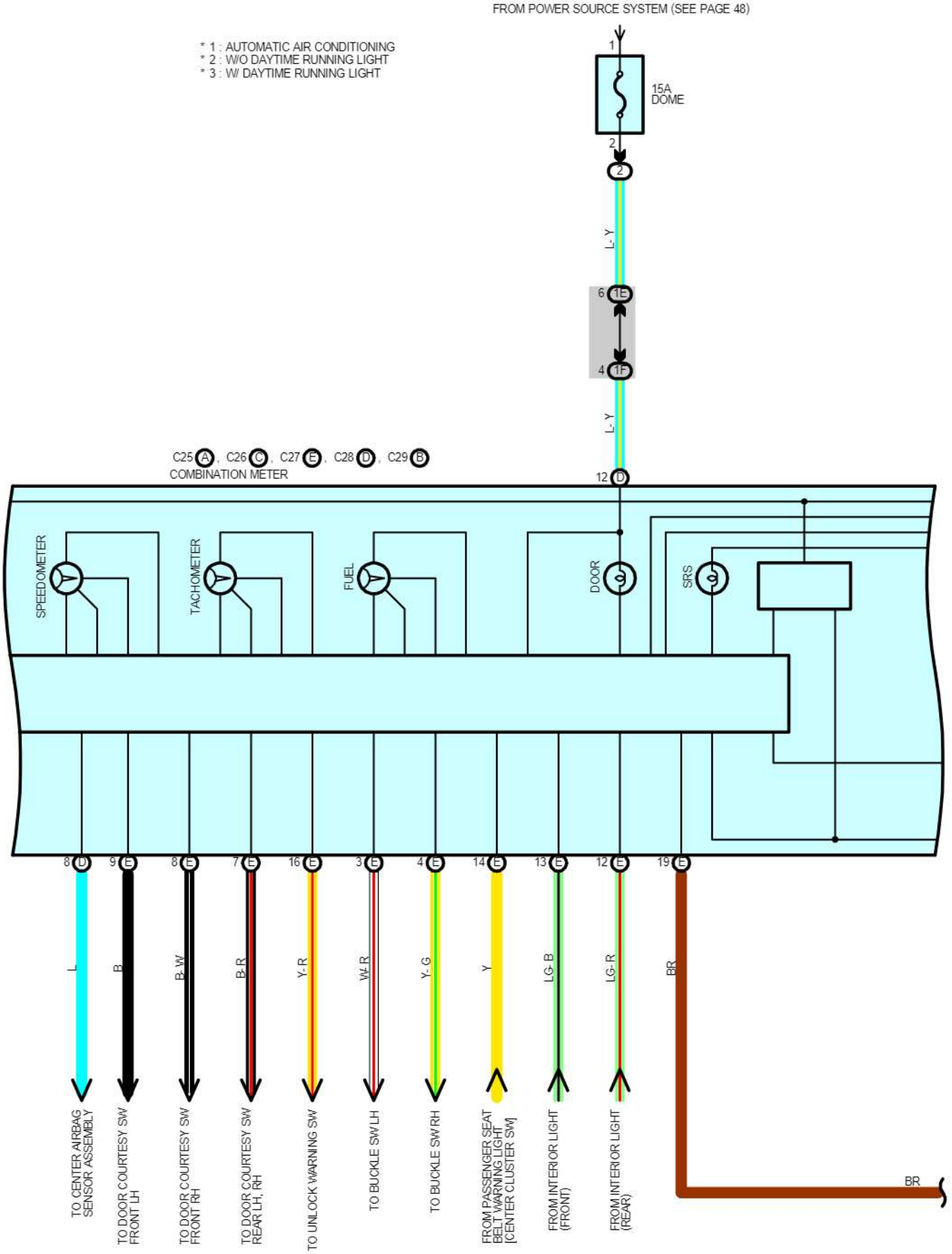
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I1	40	Cowl Wire	B9	42	Back Door No.2 Wire

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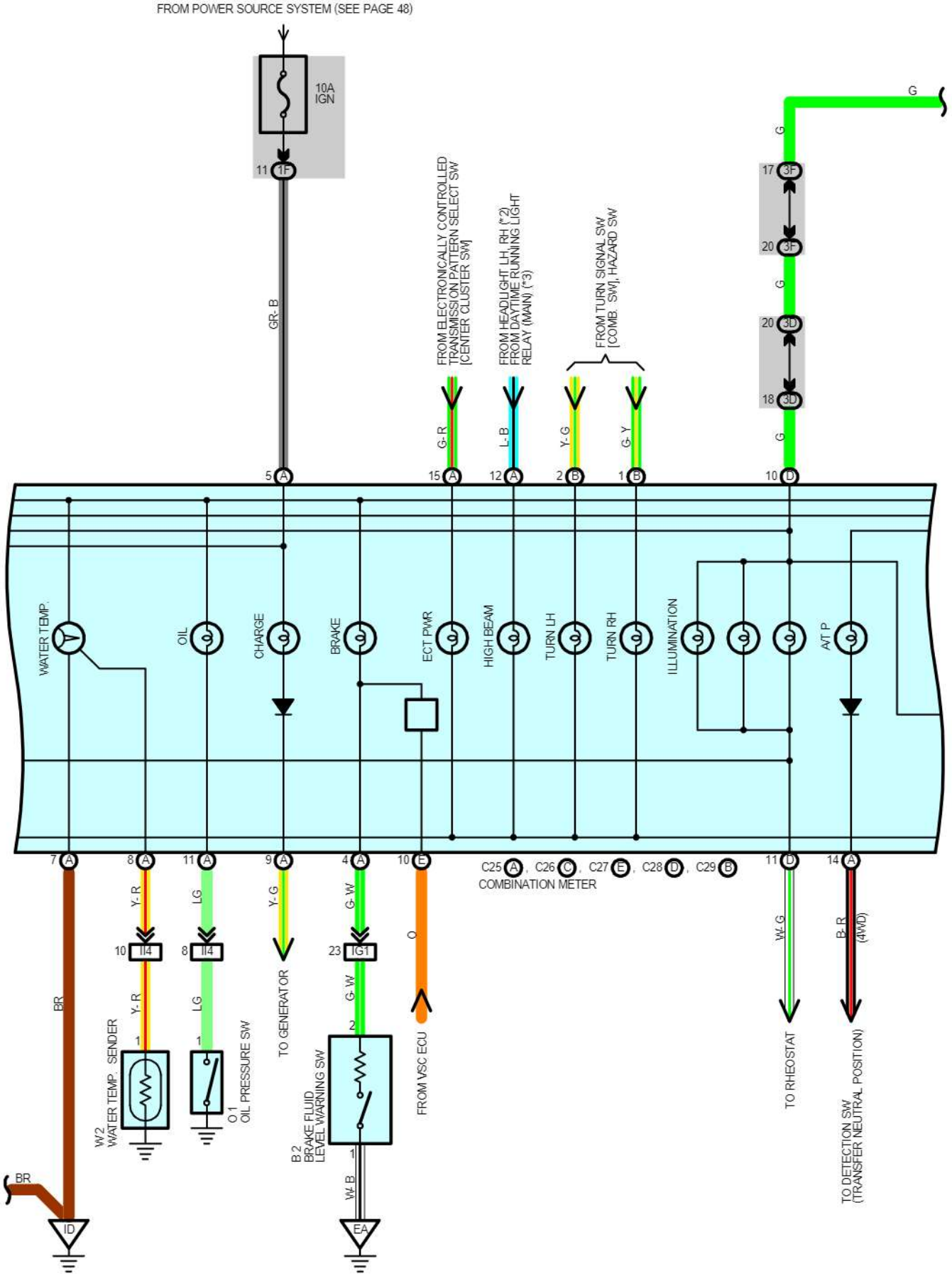


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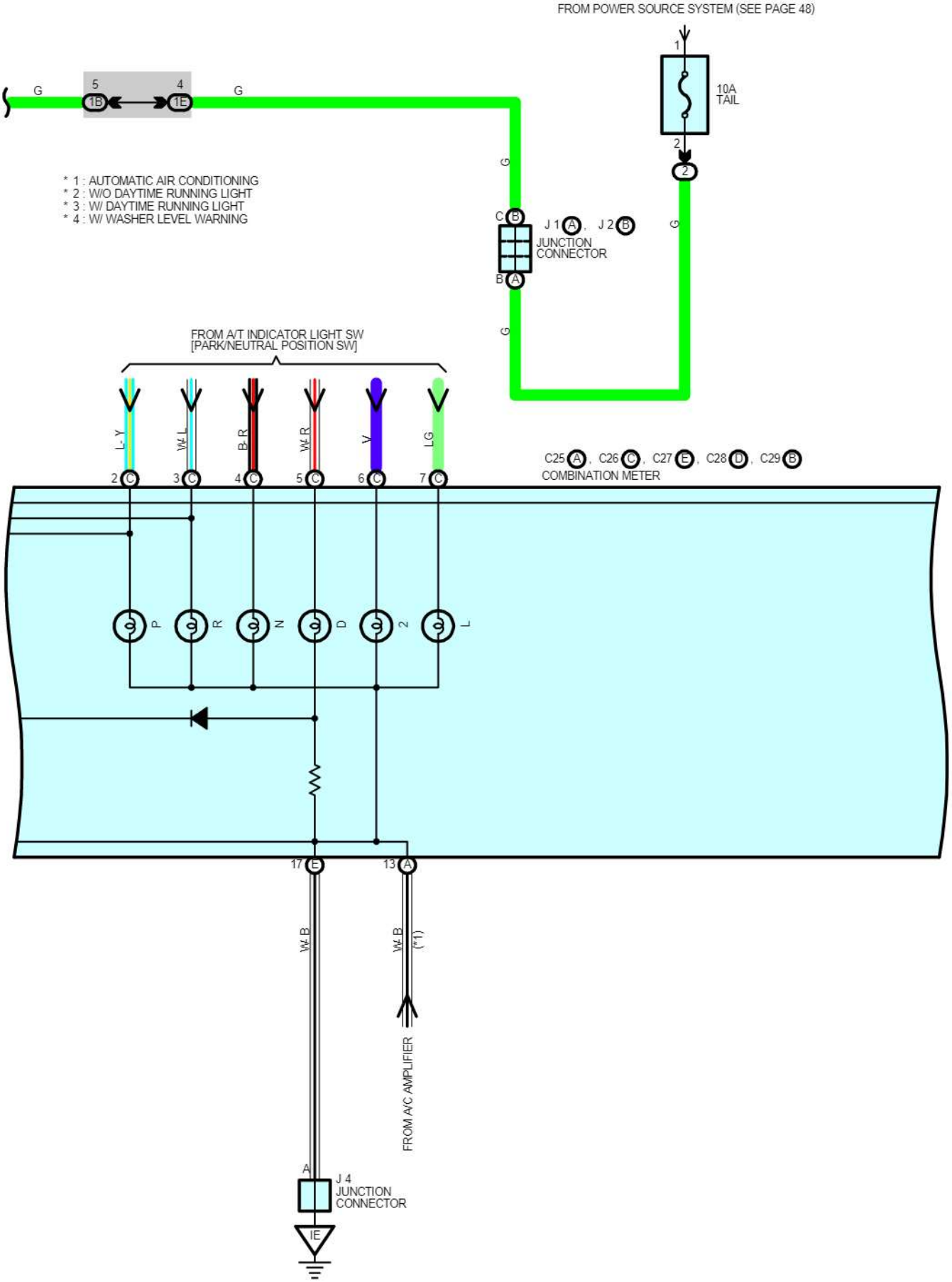


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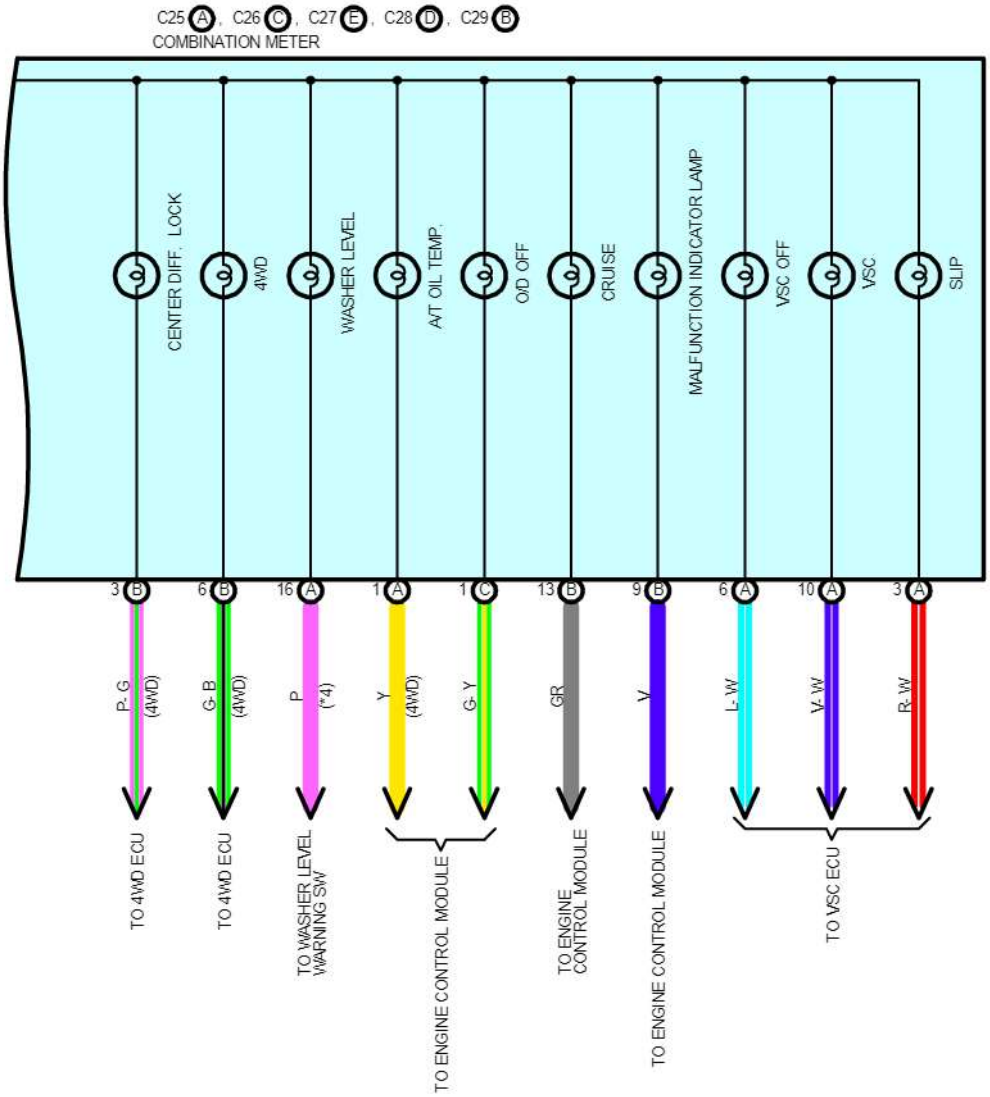
COMBINATION METER



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SERVICE HINTS

B2 BRAKE FLUID LEVEL WARNING SW

1-2 : Closed with float down

C25 (A), C27 (E), C28 (D), C29 (B) COMBINATION METER

(B)12-GROUND : Approx. **12** volts with ignition SW at **ON** position
(A) 5-GROUND : Approx. **12** volts with ignition SW at **ON** position
(A) 7, (E) 17, (E) 19-GROUND : Always continuity
(D)12-GROUND : Always approx. **12** volts

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B2	28	C29 B	30	O1	29
C25 A	30	F10	32	V18	31
C26 C	30	J1 A	29	W2	29
C27 E	30	J2 B	29		
C28 D	30	J4	31		

: 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)
1B	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
3D	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3E		
3F		

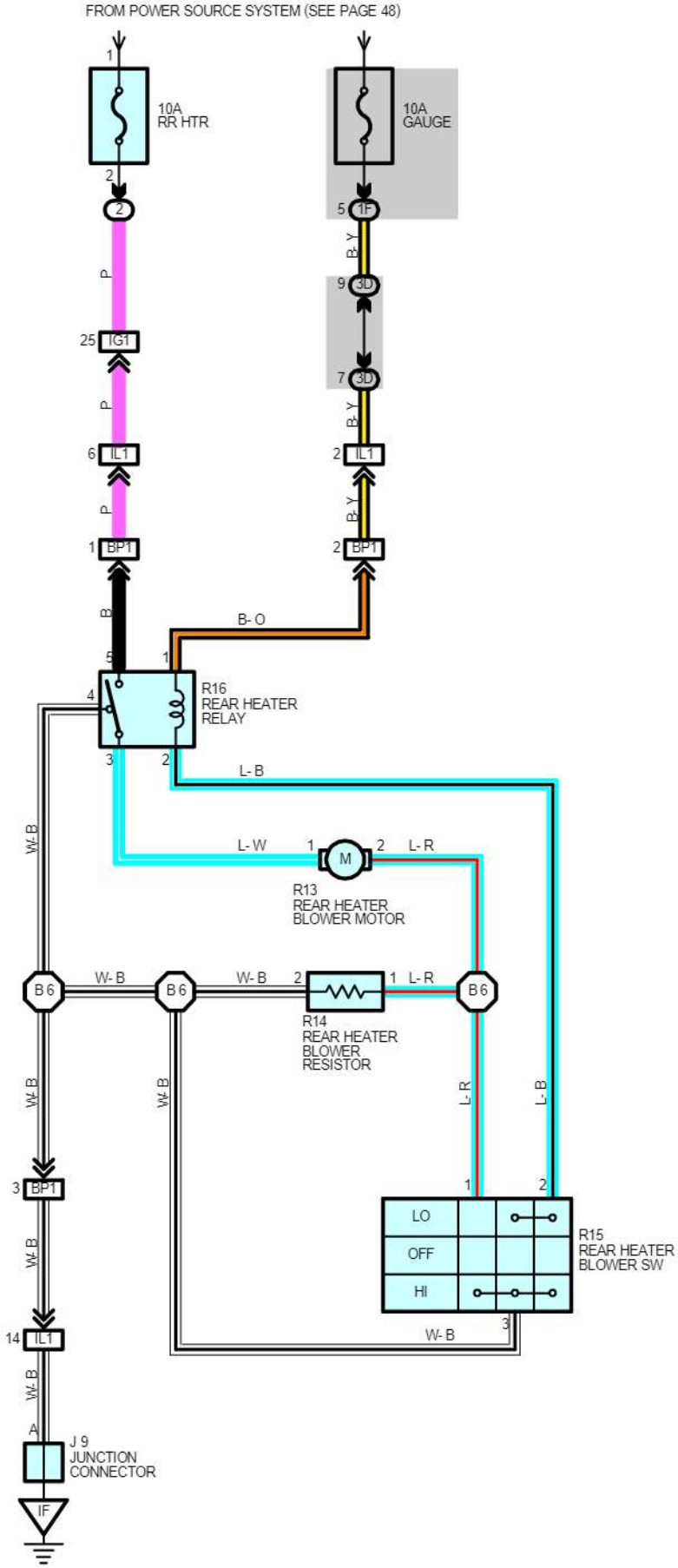
: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE2	38	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
II4	40	Engine Wire and Cowl Wire (On the Glove Box)

: GROUND POINTS

Code	See Page	Ground Points Location
EA	36	Front Right Fender
ID	38	Left Kick Panel
IE	38	Cowl Side Panel LH

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SERVICE HINTS

R15 REAR HEATER BLOWER SW

2-3 : Closed with the ignition SW at on and rear heater blower SW at **LO** position

1, 2-3 : Closed with the ignition SW at on and rear heater blower SW at **HI** position

R16 REAR HEATER RELAY

5-3 : Closed with the ignition SW at **ON** position and rear heater blower SW at **HI** or **LO** position



: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
J9	31	R14	33	R16	33
R13	33	R15	33		



: 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)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
3D	26	Cowl Wire and Center J/B (Near the Steering Column Tube)



: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
IL1	40	Cowl Wire and Floor Wire (Right Kick Panel)
BP1	42	Floor Wire and Rear Heater Sub Wire (Under the Front Passenger's Seat)



: GROUND POINTS

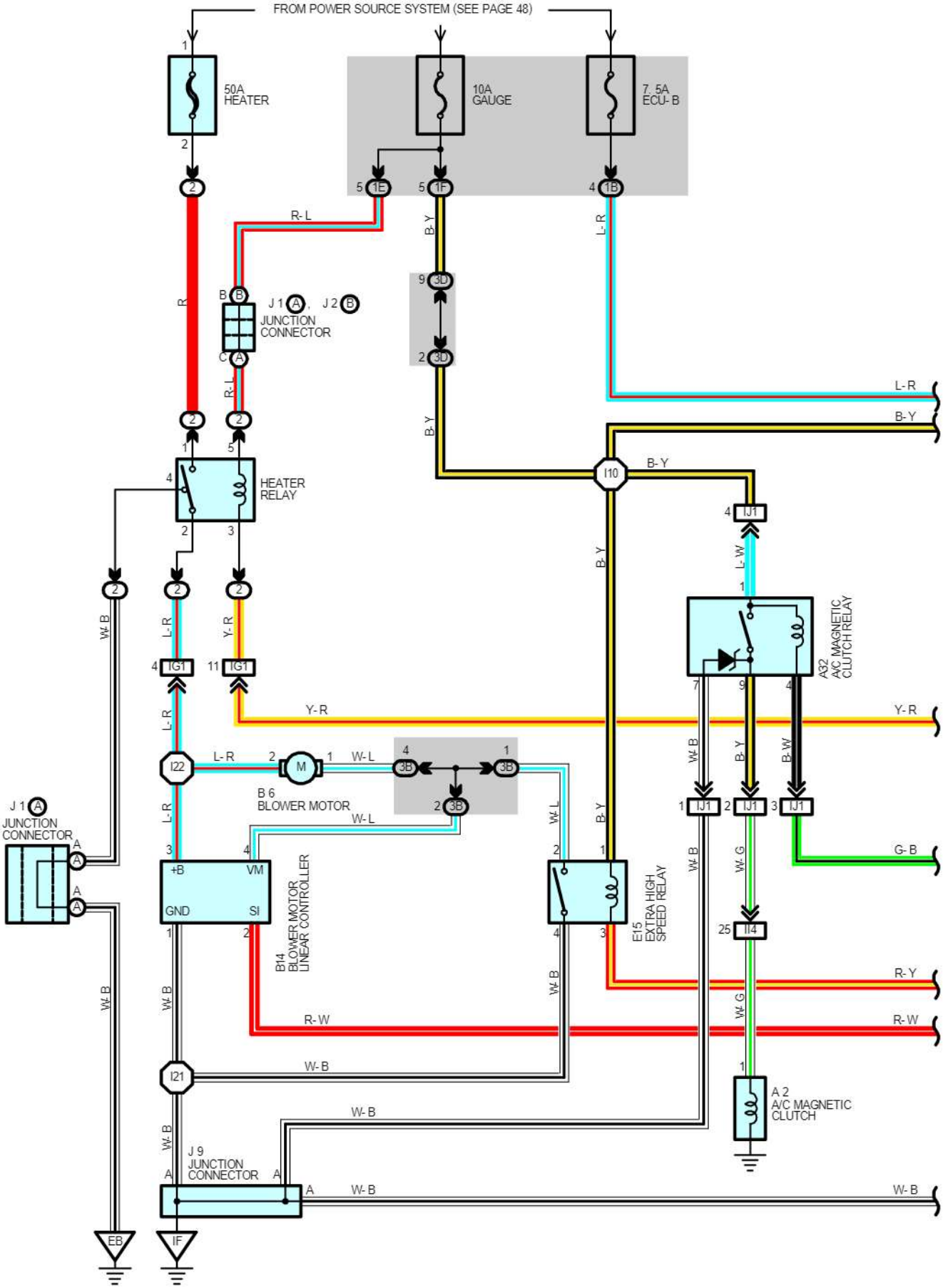
Code	See Page	Ground Points Location
IF	38	Cowl Side Panel RH



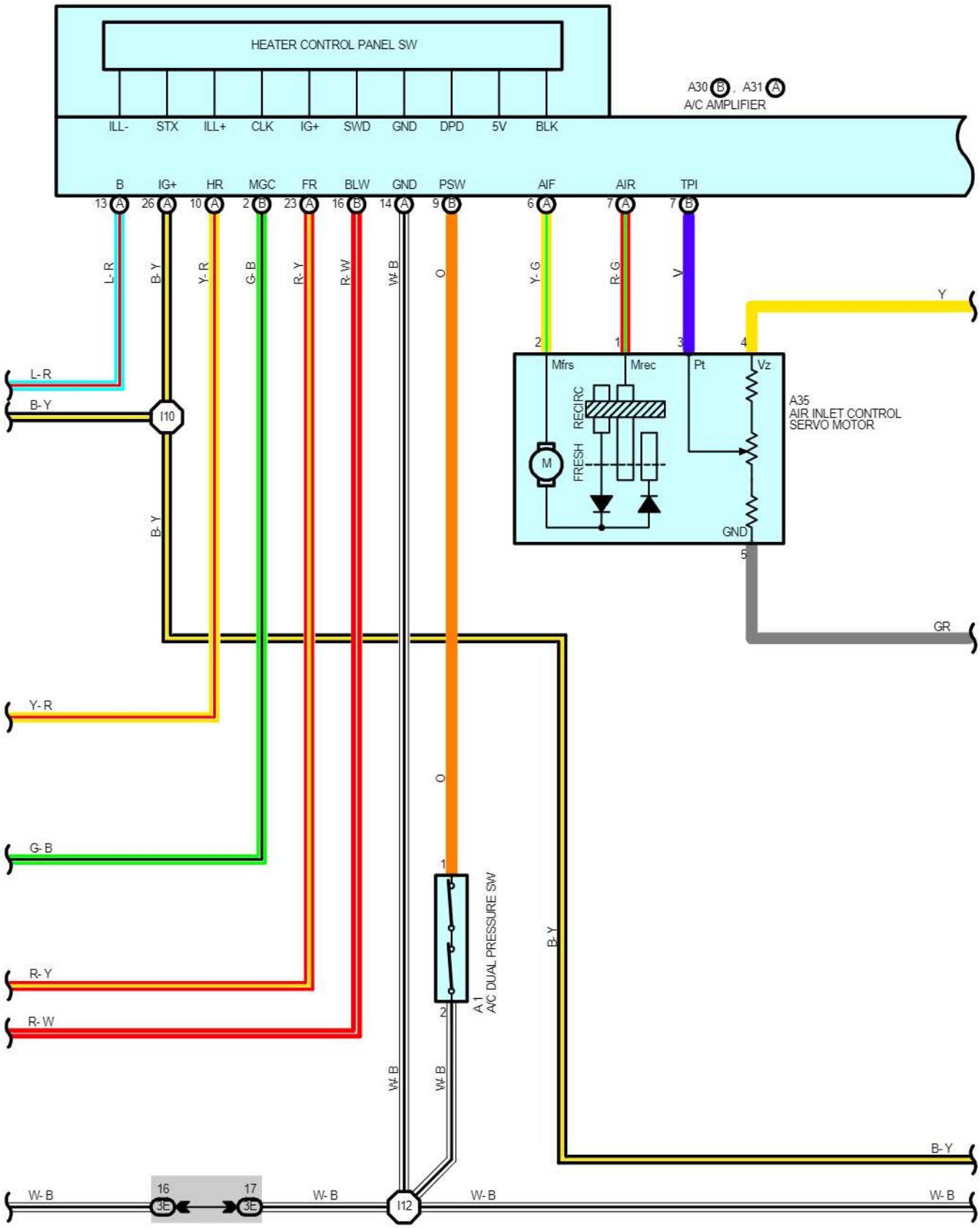
: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B6	42	Rear Heater Sub Wire			

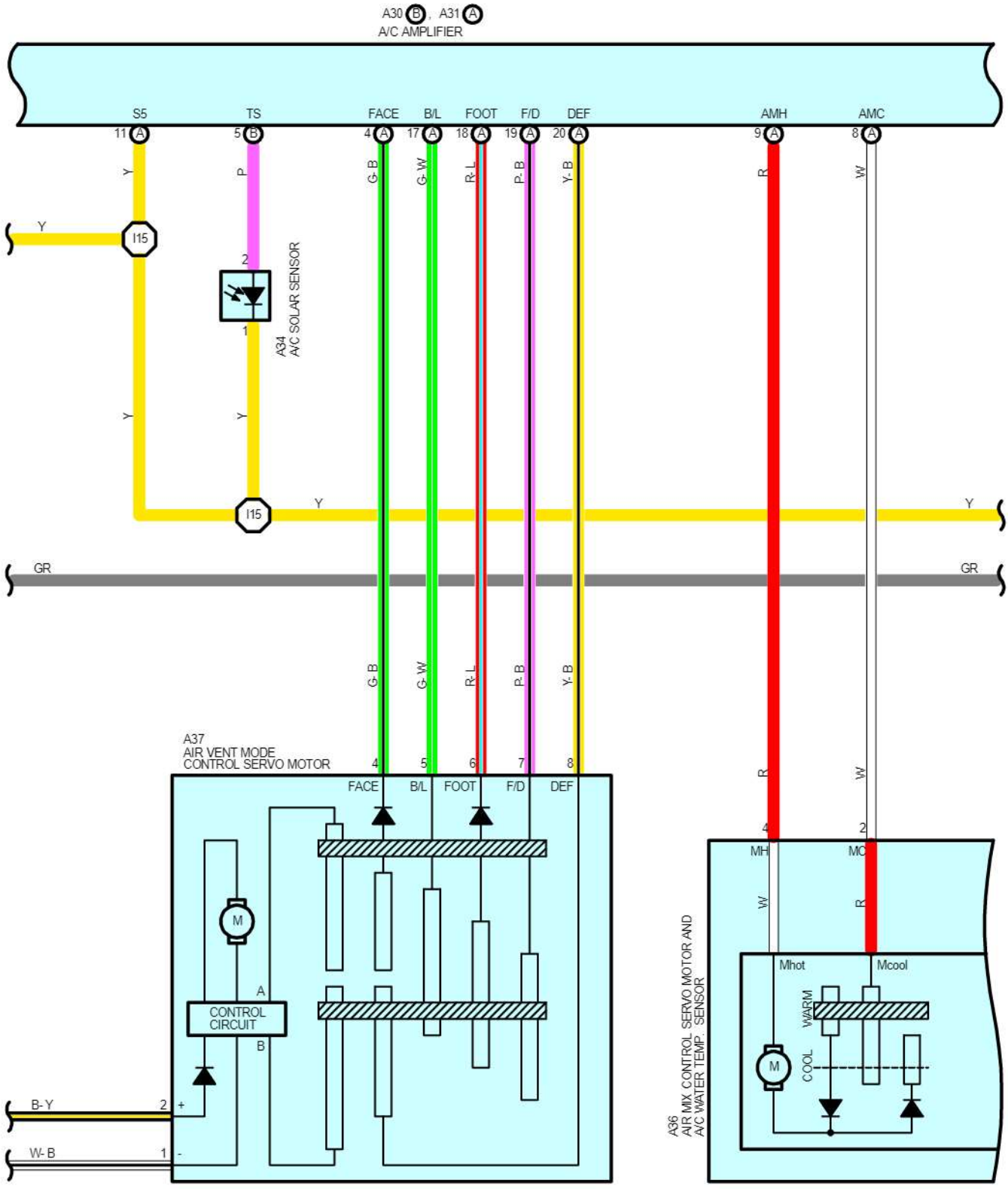
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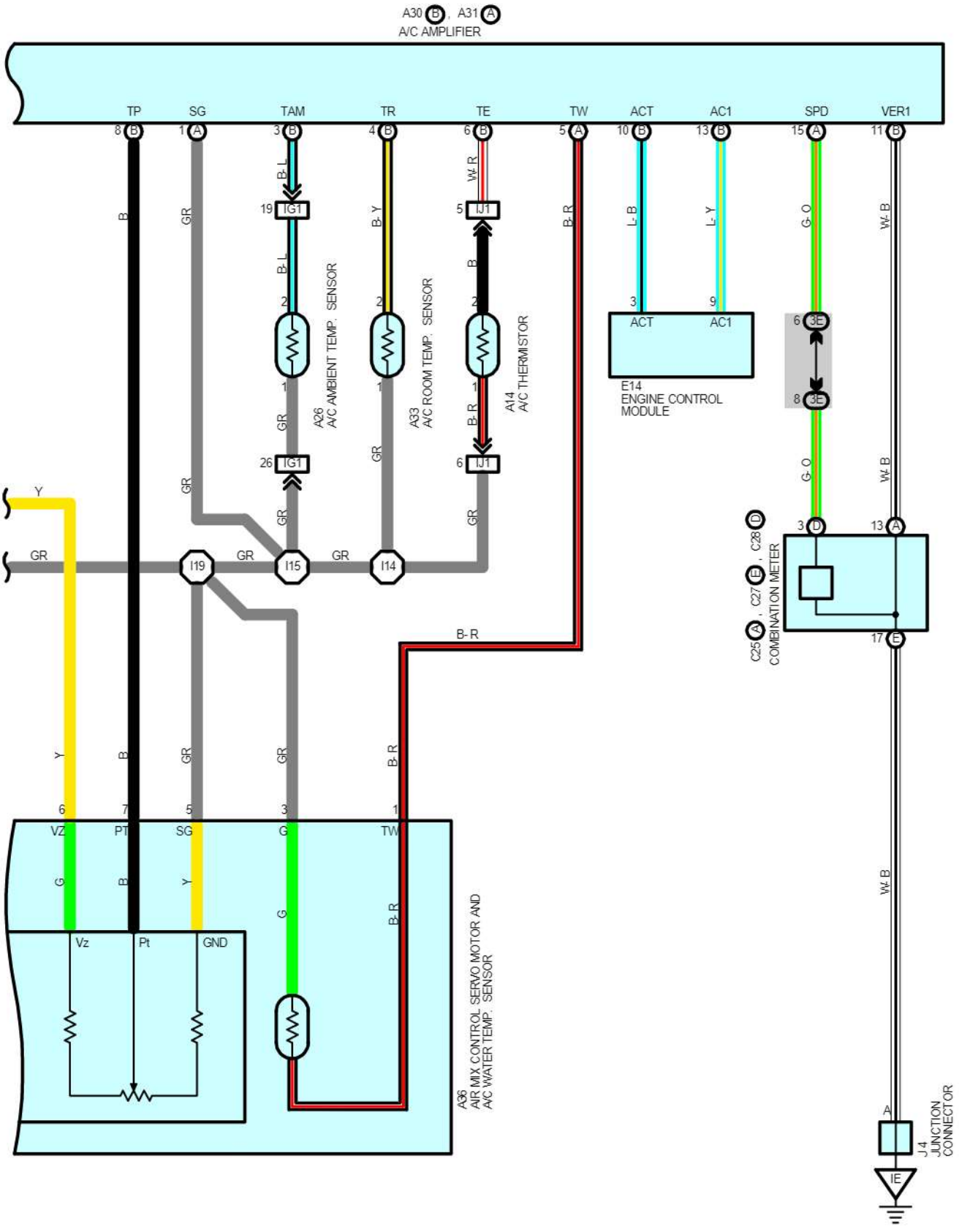
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SYSTEM OUTLINE

1. HEATER BLOWER MOTOR OPERATION

Current is applied at all times through HEATER fuse to TERMINAL 1 of the HEATER relay. When the ignition SW is turned on, current flows through the GAUGE fuse to TERMINAL 5 of the HEATER relay to TERMINAL 3 to TERMINAL HR of the A/C amplifier. At the same time, current also flows from GAUGE fuse to TERMINAL IG+ of the A/C amplifier.

* Low speed operation
  When the blower SW (Heater control panel SW) is pushed to LOW SPEED position, the current to TERMINAL HR of the A/C amplifier flows to TERMINAL GND of the A/C amplifier to GROUND and turns the HEATER relay on. As a result, the current to TERMINAL 1 of the HEATER relay flows to TERMINAL 2 of the relay to TERMINAL 2 of the blower motor to TERMINAL 1 to TERMINAL 2 of the blower resistor (Low) to TERMINAL 1 to GROUND and causes the blower motor to rotate at low speed.

* High speed operation
  When the blower SW (Heater control panel SW) is pushed to HIGH SPEED position, the current to TERMINAL HR of the A/C amplifier flows to TERMINAL GND of the A/C amplifier to GROUND and turns the HEATER relay on. As a result, the current to TERMINAL 1 of the HEATER relay flows to TERMINAL 2 to TERMINAL 2 of the blower motor to TERMINAL 1 to TERMINAL 4 of the blower motor linear controller to TERMINAL 2 to TERMINAL BLW of the A/C amplifier (Which is activated when the blower SW is pushed to high speed position) to TERMINAL GND to GROUND without passing through the blower resistor (Low), causing the blower motor to rotate at high speed.

2. AIR INLET CONTROL SERVO MOTOR OPERATION

(Switching from FRESH to RECIRC)
With the ignition SW turned on, the current flows from GAUGE fuse to TERMINAL IG+ of the A/C amplifier to TERMINAL AIR to TERMINAL 1 of the air inlet control servo motor to TERMINAL 2 to TERMINAL AIF of the A/C amplifier to TERMINAL GND to GROUND, the motor rotates and the damper moves to the RECIRC side. when the damper operates with the heater control panel SW at RECIRC position, the damper position signal is input from TERMINAL 3 of the servo motor to TERMINAL TPI of the A/C amplifier. As a result, current to the servo motor circuit is cut off by the A/C amplifier, so the damper stops at that position.
(Switching from RECIRC to FRESH)
With the ignition SW turned on, when the heater control panel SW is switched to the FRESH side, the current flows from TERMINAL IG+ of the A/C amplifier to TERMINAL AIF to TERMINAL 2 of the air inlet control servo motor to TERMINAL 1 to TERMINAL AIR of the A/C amplifier to TERMINAL GND to GROUND, The motor rotates and the damper stops at that position.

3. AIR VENT MODE CONTROL SERVO MOTOR OPERATION

When the ignition SW turned on, the current flows from GAUGE fuse to TERMINAL IG+ of the A/C amplifier.
(Switching from DEF to FACE)
The current flows from TERMINAL FACE of the A/C amplifier to TERMINAL 4 of the air vent mode control servo motor to TERMINAL 8 to TERMINAL DEF of the A/C amplifier to TERMINAL GND to GROUND. The motor rotates and the damper moves to the FACE side. When the damper operates with the heater control panel SW at FACE position, the damper position signal is input from TERMINAL 8 of the servo motor to the TERMINAL DEF of the A/C amplifier. As a result, current to the servo motor circuit is cut off by the A/C amplifier, so the damper stops at that position.
(Switching from FACE to DEF)
The current flows from TERMINAL DEF of the A/C amplifier to TERMINAL 8 of the air vent control servo motor to TERMINAL 4 to TERMINAL FACE of the A/C amplifier to TERMINAL GND to GROUND, the motor rotates and the damper stops at that position.

4. AIR MIX CONTROL SERVO MOTOR OPERATION

When the temperature control SW (Heater control panel SW) is turned to the "COOL" side the current flows from TERMINAL AMC of the A/C amplifier to TERMINAL 2 of the air mix control servo motor to motor to TERMINAL 4 to TERMINAL AMH of the A/C amplifier to GROUND and the motor rotates. The damper opening angle at this time is input from TERMINAL 7 of the servo motor to TERMINAL TP of the A/C amplifier, this is used to determine the DAMPER STOP position and maintain the set temperature.
When the temperature control SW (Heater control panel SW) is turned to the "HOT" side, the current flows from servo motor to TERMINAL AMH of the A/C amplifier to TERMINAL 4 of the air mix control servo motor to motor to TERMINAL 2 to TERMINAL AMC of the A/C amplifier, rotating the motor in reverse and switching the damper from "COOL" to "HOT" side.

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5. AIR CONDITIONING OPERATION

The A/C amplifier receives various signals, I.E., out side air temperature signal from the A/C ambient temp. sensor, coolant temperature from water temp. sensor, etc.
When the engine is started and the A/C SW (Heater control panel SW) is on, a signal is input to the A/C amplifier.
As a result, the ground circuit in A/C amplifier is closed and current flows from GAUGE fuse to TERMINAL 1 of the A/C magnetic clutch relay to TERMINAL 4 to TERMINAL MGC of the A/C amplifier to TERMINAL GND to GROUND, turning the A/C magnetic clutch relay on, so that the magnetic clutch is on and the A/C compressor operates.
At the same time, the engine control module. Detects the magnetic clutch is on and the A/C compressor operates.
If the A/C amplifier detects the following conditions, it stops the air conditioning:

* Evaporator outlet air is too low.
* The refrigerant pressure is abnormally high or abnormally low.
* The engine speed is too low.
* Rapid acceleration occurs.

SERVICE HINTS

A1 A/C DUAL PRESSURE SW

1-2 : Open above approx. **2.0** kgf/cm^2 (**28** psi, **196** kpa) or **32** kgf/cm^2 (**455** psi, **3138** kpa)

A2 A/C MAGNETIC CLUTCH

1-GROUND : Approx. **3.7** Ω

A30 (B), A31 (A) A/C AMPLIFIER

B-GROUND : Always approx. **12** volts
IG+ -GROUND : Approx. **12** volts with the ignition SW at **ON** position
HR -GROUND : Approx. **12** volts with the ignition SW at **ON** position and do not turn the blower motor
Below **1** volts with the ignition SW at **ON** position and turn the blower motor
PSW-GROUND : Below **1** volts with the ignition SW at **ON** position
AC1-GROUND : Below **1** volts at start the engine, operate the compressor
+ OR MORE volts at start the engine, do not operate the compressor
BLW-GROUND : Below **1.5** volts with the ignition SW on and turn the blower motor
S5-SG : **4- 6** volts with the ignition SW at **ON** position
SG-GROUND : Always continuity
AMH-AMC : **1.3- 1.9** volts with the ignition SW off
AIF-GROUND : Approx. **12** volts with the FRESH SW on
AIR-GROUND : Approx. **12** volts with the RECIRC SW on
FACE-GROUND : Approx. **12** volts with the FACE SW on
DEF-GROUND : Approx. **12** volts with the DEF SW on
GND-GROUND : Always continuity

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A1	28	A34	30	C28 D	30
A2	28	A35	30	E14	31
A14	30	A36	30	E15	31
A26	28	A37	30	J1 A	29
A30 B	30	B6	30	J2 B	29
A31 A	30	B14	30	J4	31
A32	30	C25 A	30	J9	31
A33	30	C27 E	30		

▭ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
2	22	Engine Room R/B (Engine Compartment Left)

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 **: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
3B	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3D		
3E		

 **: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
II4	40	Engine Wire and Cowl Wire (On the Glove Box)
IJ1	40	Cowl Wire and A/C Sub Wire (Near the A/C Unit)

 **: GROUND POINTS**

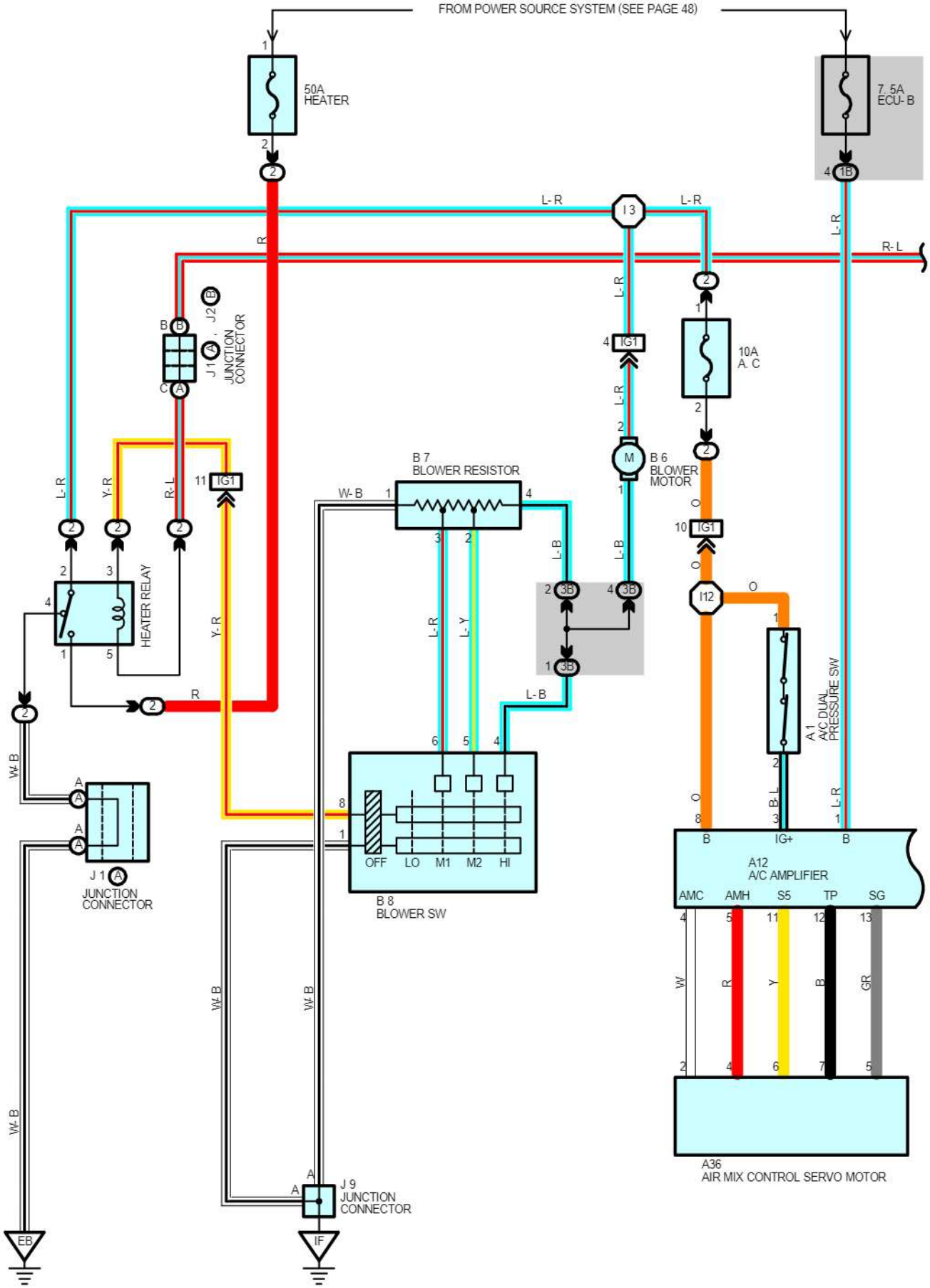
Code	See Page	Ground Points Location
EB	36	Front Left Fender
IE	38	Cowl Side Panel LH
IF	38	Cowl Side Panel RH

 **: SPLICE POINTS**

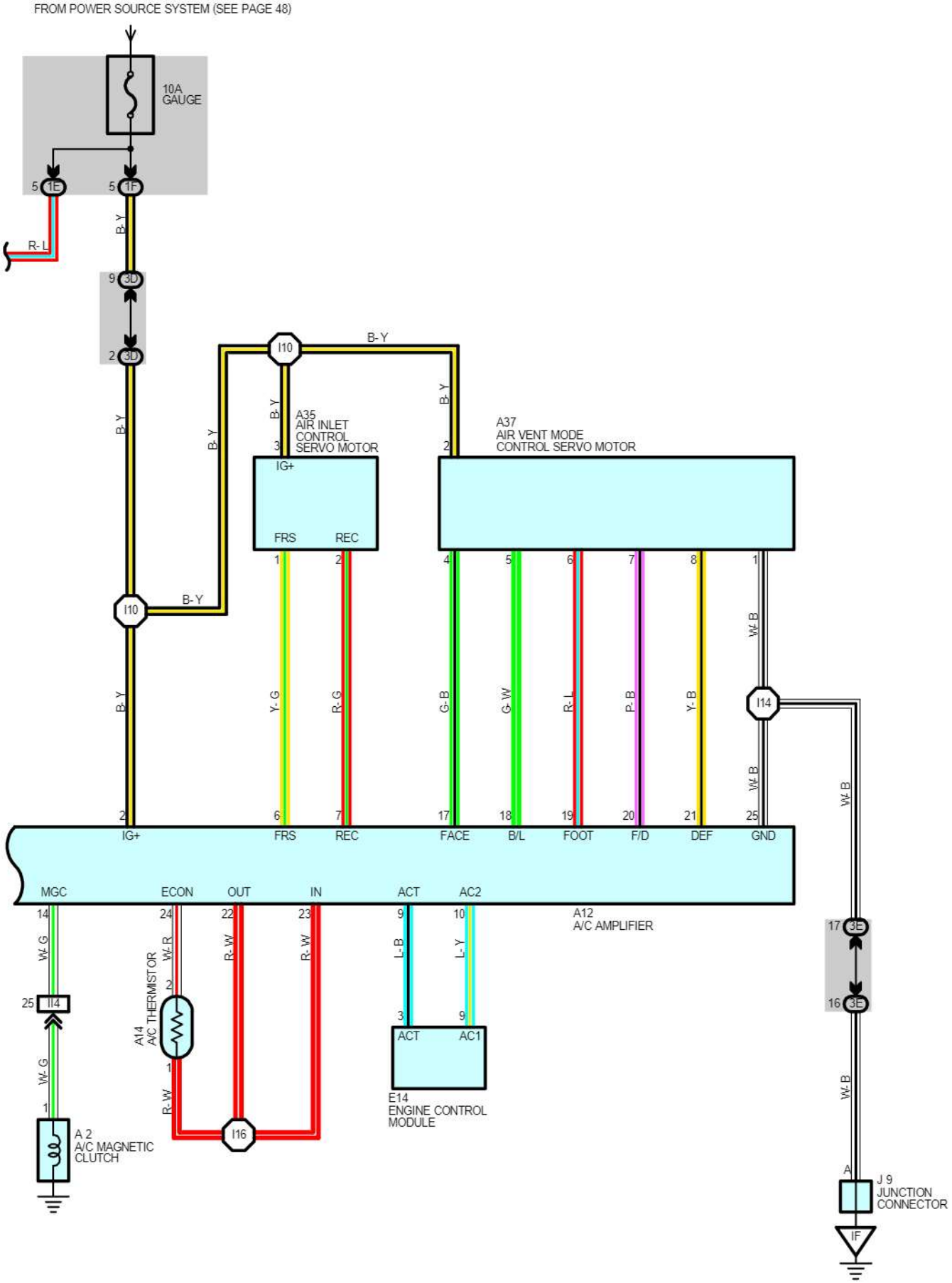
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I10	40	Cowl Wire	I19	40	Cowl Wire
I12			I21		
I14			I22		
I15					

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SYSTEM OUTLINE

1. BLOWER MOTOR OPERATION

With the ignition SW on, current from the GAUGE fuse flows to TERMINAL 5 of the HEATER relay to TERMINAL 3 to TERMINAL 1 of the blower SW.

* Low speed operation

When the blower SW is moved to LO position, the current flows to TERMINAL 1 of the blower SW to TERMINAL 8 to GROUND, causing the HEATER relay to come on. Then the current from HEATER fuse to TERMINAL 1 of the HEATER relay to TERMINAL 2 to TERMINAL 2 of the blower motor to TERMINAL 1 to TERMINAL 4 of the blower resistor to TERMINAL 1 to GROUND, causing the blower motor to rotate. At this time, the current flows against the full resistance of the blower resistor, so the motor turns slowly at low speed.

* Medium speed operation (Operation at speed M1, M2)

When the blower SW is moved to the M1 position, the current flows to TERMINAL 1 of the blower SW to TERMINAL 8 to GROUND, turning the HEATER relay to on. Then, the same as low speed operation, the current passing through the TERMINAL 2 of the HEATER relay flows to the TERMINAL 2 of the blower motor to TERMINAL 1 to TERMINAL 4 of the blower resistor to TERMINAL 3 to TERMINAL 3 of the blower SW to TERMINAL 8 to 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 flowing through the blower motor flows from TERMINAL 4 of the blower resistor to TERMINAL 2 to TERMINAL 2 of the blower SW to TERMINAL 8 to GROUND. At this time, blower 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 HI position, the current flows to TERMINAL 1 of the blower SW to TERMINAL 8 to GROUND, turning the HEATER relay to on. Then, the same as medium speed operation, the current passing through the blower motor flows from TERMINAL 6 of the blower SW to TERMINAL 8 to GROUND, causing the blower motor to rotates at high speed.

2. AIR CONDITIONING OPERATION

When the blower SW is set to on, current from the HEATER fuse flows through the A.C fuse to TERMINAL 1 of the A/C dual pressure SW to TERMINAL 2 to TERMINAL 3 of the A/C amplifier. The engine speed signal from engine control Module and the evaporator 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 magnetic clutch, turning the compressor on. The A/C operation is shut off when a signal indicating low evaporator 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

A1 A/C DUAL PRESSURE SW

1-2 : Open with refrigerant pressure at less than approx. **2.0** kgf/cm^2 (**28.4** psi, **196** kpa) or more than approx. **32** kgf/cm^2 (**455** psi, **3138** kpa)

HEATER RELAY

1-2 : Closed with ignition SW at **ON** position and blower SW on
1-GROUND : Always approx. **12** volts
5-GROUND : Approx. **12** volts with ignition SW at **ON** position
4-GROUND : Always continuity

B8 BLOWER SW

8-1 : Closed with blower SW at **LO** position
8-6, 1 : Closed with blower SW at **M1** position
8-5, 1 : Closed with blower SW at **M2** position
8-4, 1 : Closed with blower SW at **HI** position

A2 A/C MAGNETIC CLUTCH

1-GROUND : Approx. **3.7** Ω

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code		See Page
A1	28	A36	30	E14		31
A2	28	A37	30	J1	A	29
A12	30	B6	30	J2	B	29
A14	30	B7	30	J9		31
A35	30	B8	30			

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: 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)
1B	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
3B	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3D		
3E		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	38	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
II4	40	Engine Wire and Cowl Wire (On the Glove Box)

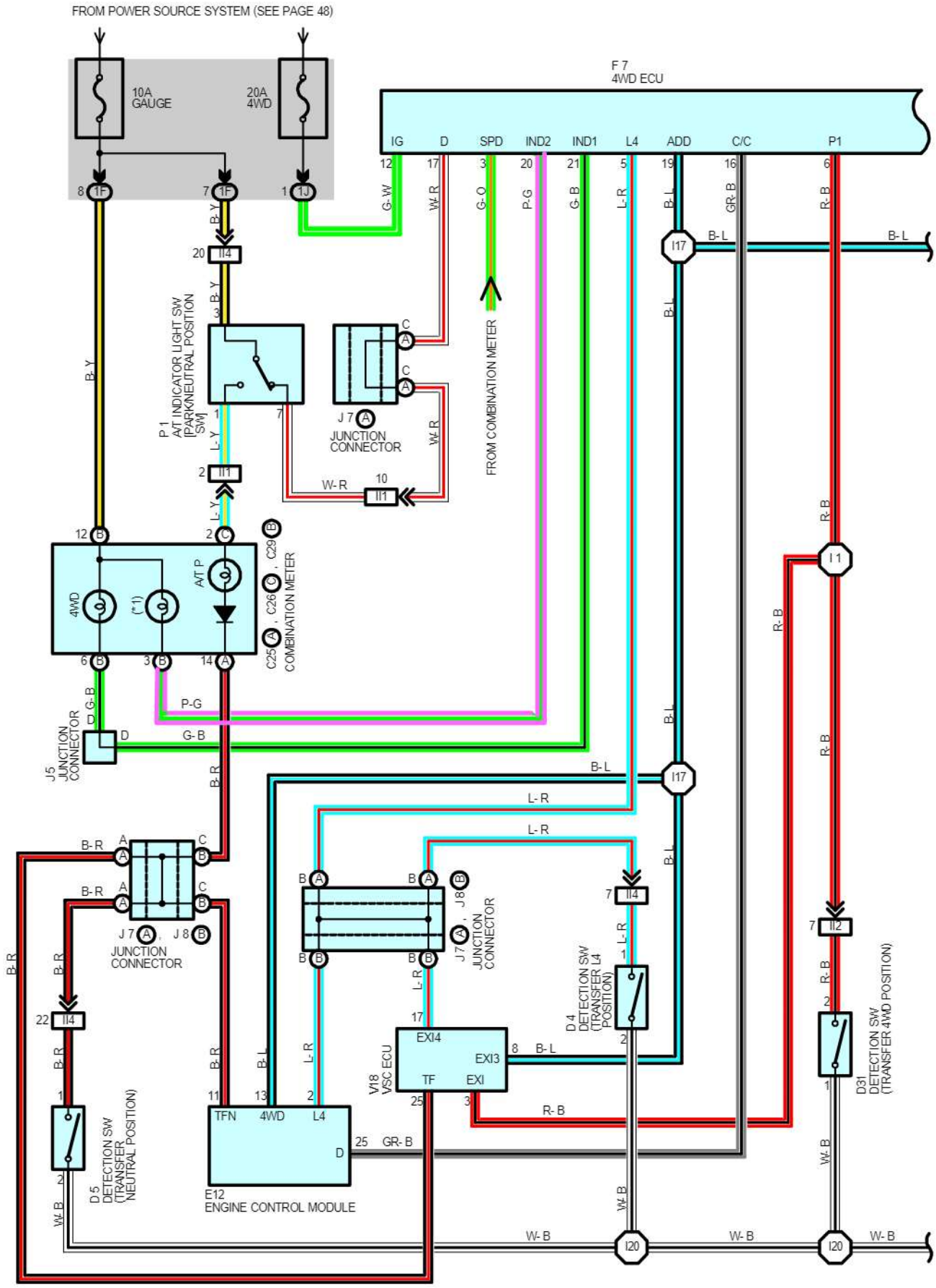
: GROUND POINTS

Code	See Page	Ground Points Location
EB	36	Front Left Fender
IF	38	Cowl Side Panel RH

: SPLICE POINTS

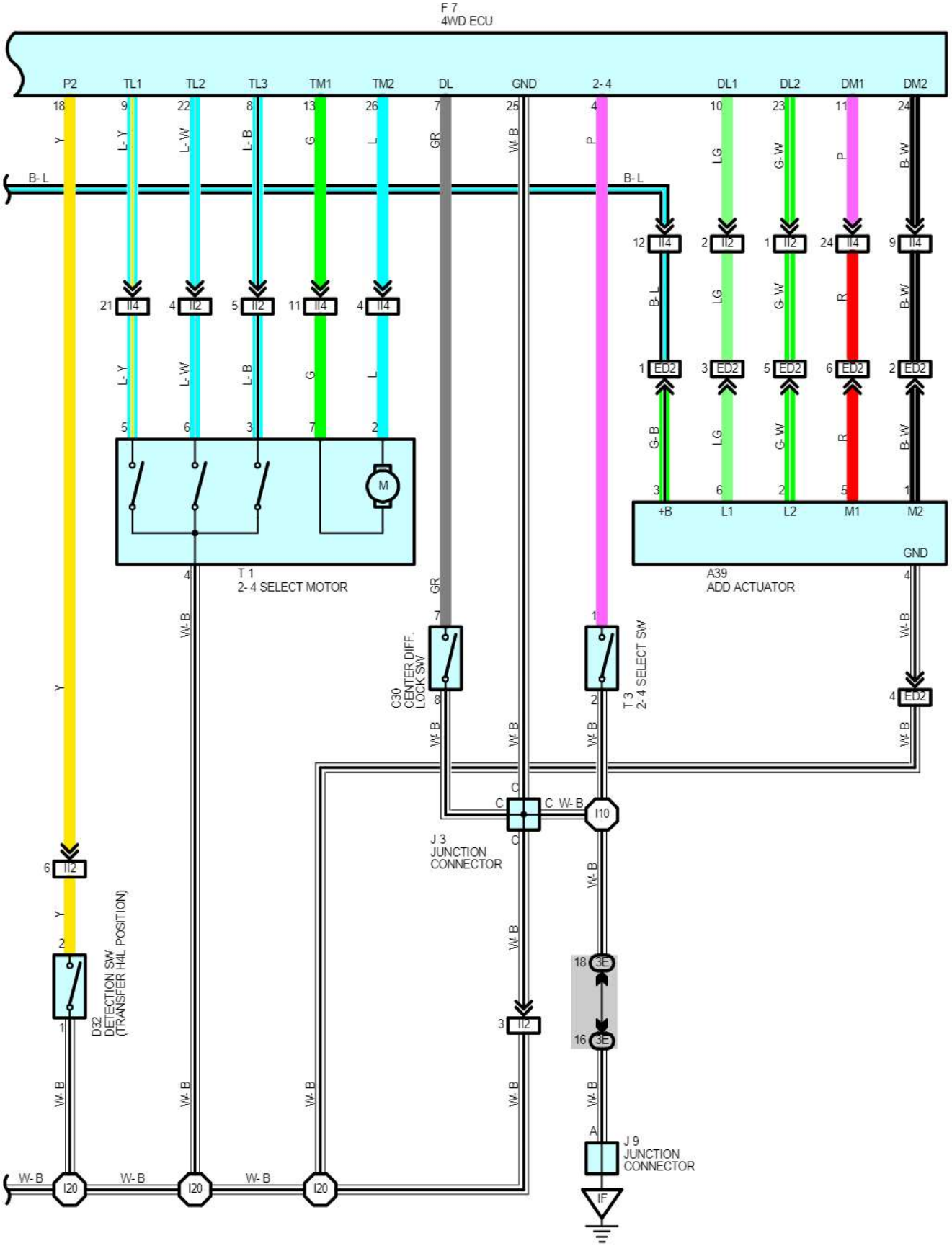
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I3	40	Engine Room Main Wire	I14	40	Cowl Wire
I10	40	Cowl Wire	I16		
I12					

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* 1 : CENTER DIFF. LOCK



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SYSTEM OUTLINE

The 4WD ECU detects the condition of the detection SW ((Transfer 4WD position), (Transfer H4L Position)), 2-4 select SW and the vehicle speed, and controls the 2-4 select motor and center diff. lock SW.

4WD CONTROL

(1) Shift position

The target shift position determined through the condition of the 2-4 select SW and center diff. lock SW, and operates the 2-4 select motor.

* When the 2-4 select SW and the center diff. lock SW are both off, put in to H2 position. At this time, current flows from the 4WD fuse to TERMINAL 12 of the 4WD ECU to TERMINAL 26 to TERMINAL 2 of the 2-4 select motor to TERMINAL 7 to TERMINAL 13 of the 4WD ECU to TERMINAL 25 to GROUND, so the 2-4 select motor rotates at H2 position.
* When the 2-4 select SW is on and the center diff. lock SW is off, put in to H4 position. At this time, current flows from the 4WD fuse to TERMINAL 12 of the 4WD ECU to TERMINAL 13 to TERMINAL 7 of the 2-4 select motor to TERMINAL 2 to TERMINAL 26 of the 4WD ECU to TERMINAL 25 to GROUND, so the 2-4 select motor rotates at H4 position.
* When the 2-4 select SW and the center diff. lock SW are both on, or the 2-4 select SW is off, and the center diff. lock SW is on, put in to H4L position. When switched from H4F to H4L, current flows from the 4WD fuse to TERMINAL 12 of the 4WD ECU to TERMINAL 26 to TERMINAL 2 of the 2-4 select motor to TERMINAL 7 to TERMINAL 13 of the 4WD ECU to TERMINAL 25 to GROUND, so the 2-4 select motor rotates at H4L position. When switched from H2 to H4L, current flows from the 4WD fuse to TERMINAL 12 of the 4WD ECU to TERMINAL 13 to TERMINAL 7 of the 2-4 select motor to TERMINAL 2 to TERMINAL 26 of the 4WD ECU to TERMINAL 25 to GROUND, so the 2-4 select motor rotates at H4L position.

(2) Shift limit control

When the vehicle speed is over 100 km/h, shift change to H4 or H4L mode can not be made. The vehicle speed signal is input to TERMINAL 3 of the 4WD ECU. At this time, the 4WD indicator light and the center diff. lock indicator light flashes, and the buzzer installed in the 4WD ECU goes on. This condition can be canceled by decelerating the vehicle speed to below 100 km/h, or by selecting H2 mode.

(3) Shift control

When the 2-4 select motor will not switch after approximately 3 seconds from shifting (When there are no changes to the signals to TERMINAL 8, TERMINAL 9 and TERMINAL 22 of the 4WD ECU), the 4WD indicator light and the center diff. lock indicator light flashes. The cruise control is canceled if in use. When the 2-4 select motor switch is completed, the indicator lights go off and the cruise control can be set again.

(4) ADD valve control

When switching between 2WD to 4WD, the ADD actuator is controlled to free or lock the ADD. At this time, current flows from the 4WD fuse to TERMINAL 12 of the 4WD ECU to TERMINAL 23 to TERMINAL 2 of the ADD actuator to GROUND, or flows from the 4WD fuse to TERMINAL 12 of the 4WD ECU to TERMINAL 10 to TERMINAL 6 of the ADD actuator to GROUND, so the ADD actuator is controlled.

SERVICE HINTS

F7 4WD ECU

12-GROUND : Approx. **12** volts with ignition SW on
25-GROUND : Always continuity
3-GROUND : Pulse generation with vehicle moving

T3 2-4 SELECT SW

1-2 : Closed with 2-4 select SW on

P1 A/T INDICATOR LIGHT SW [PARK/NEUTRAL POSITION SW]

3-1 : Closed with A/T shift lever at **P** position
3-7 : Closed with A/T shift lever at **D** position

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A39	28	D31	28	J8 B	31
C25 A	30	D32	28	J9	31
C26 C	30	E12	31	P1	29
C29 B	30	F7	31	T1	29
C30	30	J3	31	T3	31
D4	28	J5	31	V18	31
D5	28	J7 A	31		

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: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1J		
3E	26	Cowl Wire and Center J/B (Near the Steering Column Tube)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ED2	36	Engine Wire and Differential Wire (Near the Front Differential)
II1	40	Engine Wire and Cowl Wire (On the Glove Box)
II2		
II4		

: GROUND POINTS

Code	See Page	Ground Points Location
IF	38	Cowl Side Panel RH

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I1	40	Cowl Wire	I17	40	Cowl Wire
I10			I20	40	Engine Wire

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