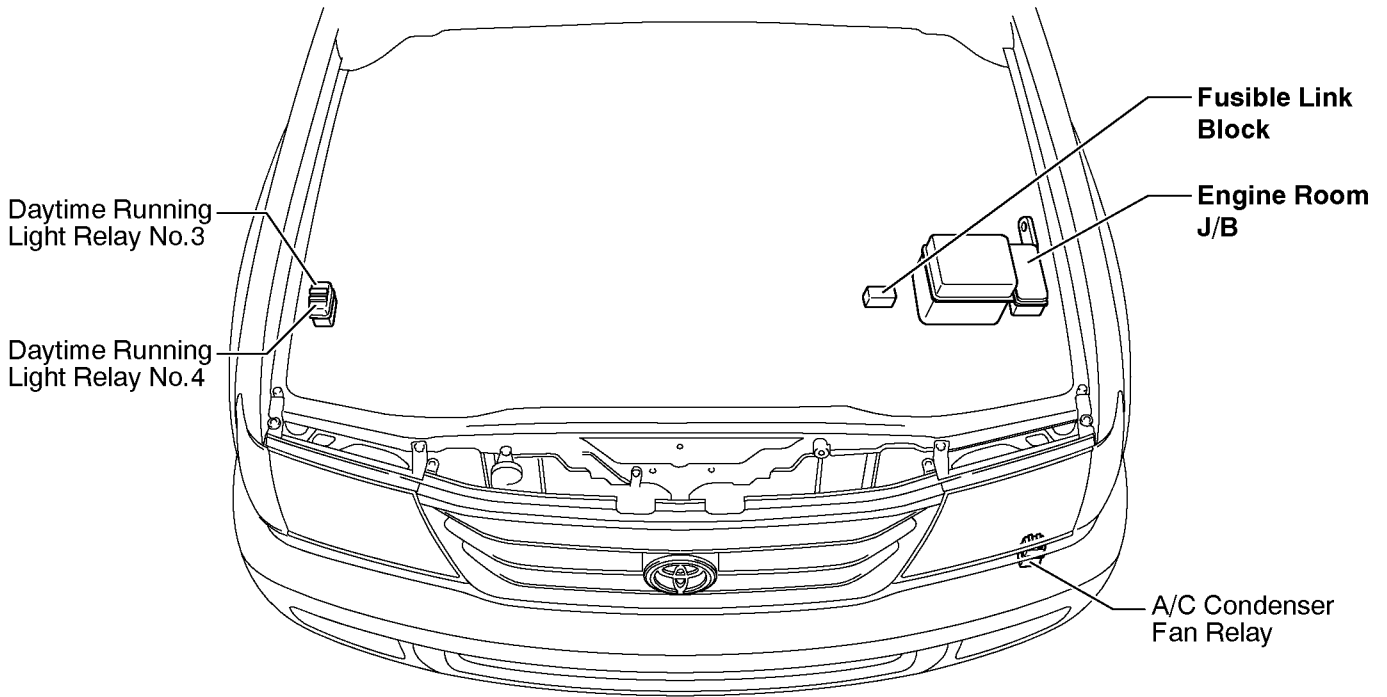
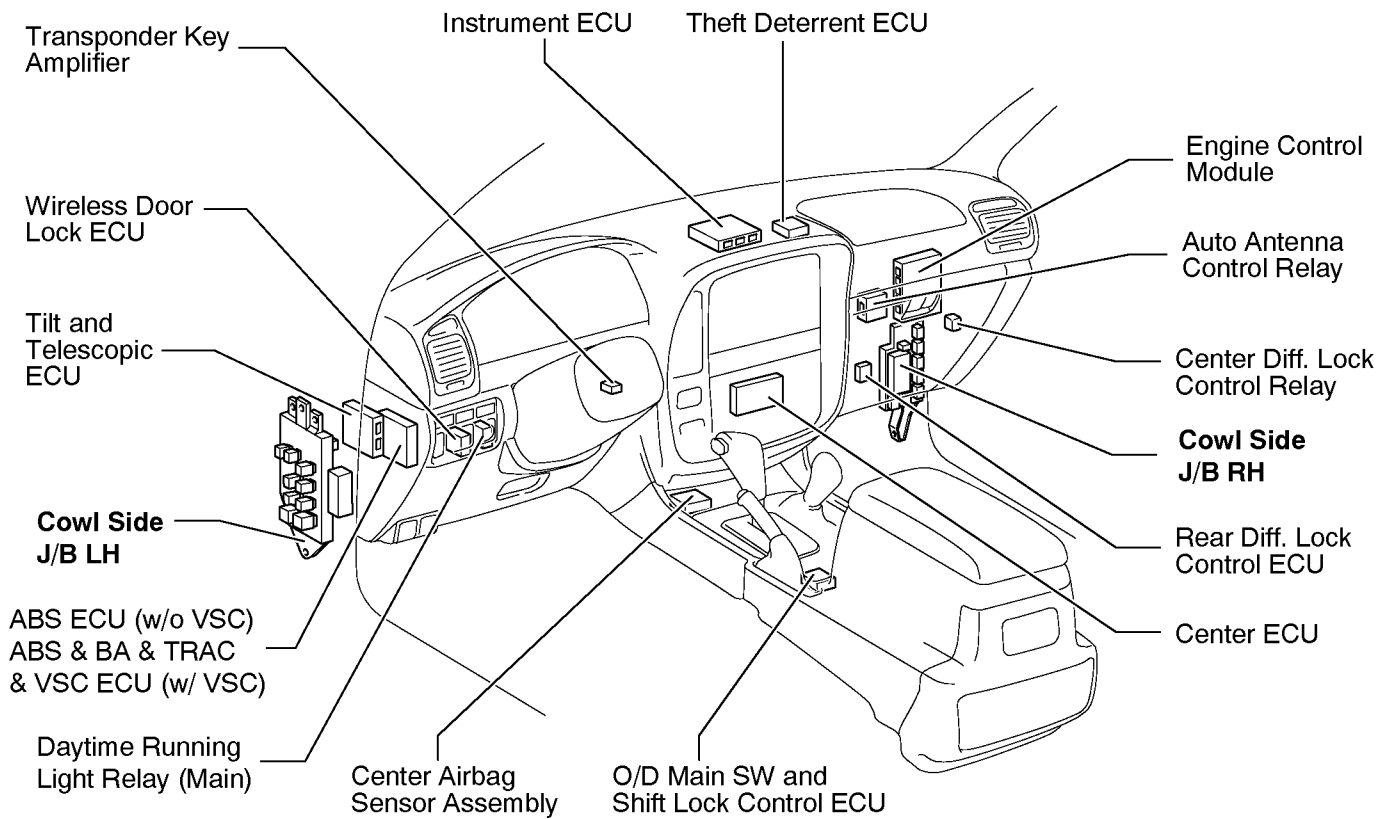


# F RELAY LOCATIONS

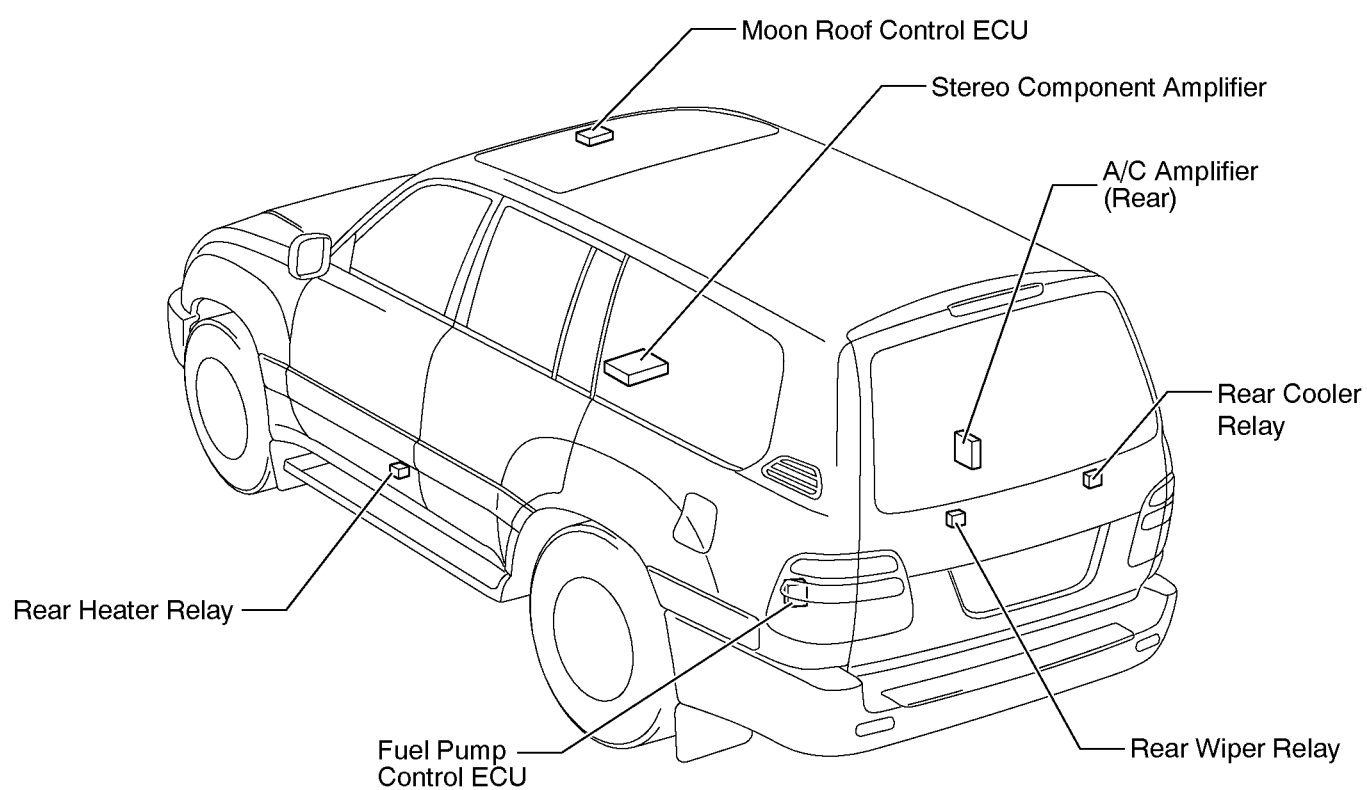
## [Engine Compartment]



## [Instrument Panel]

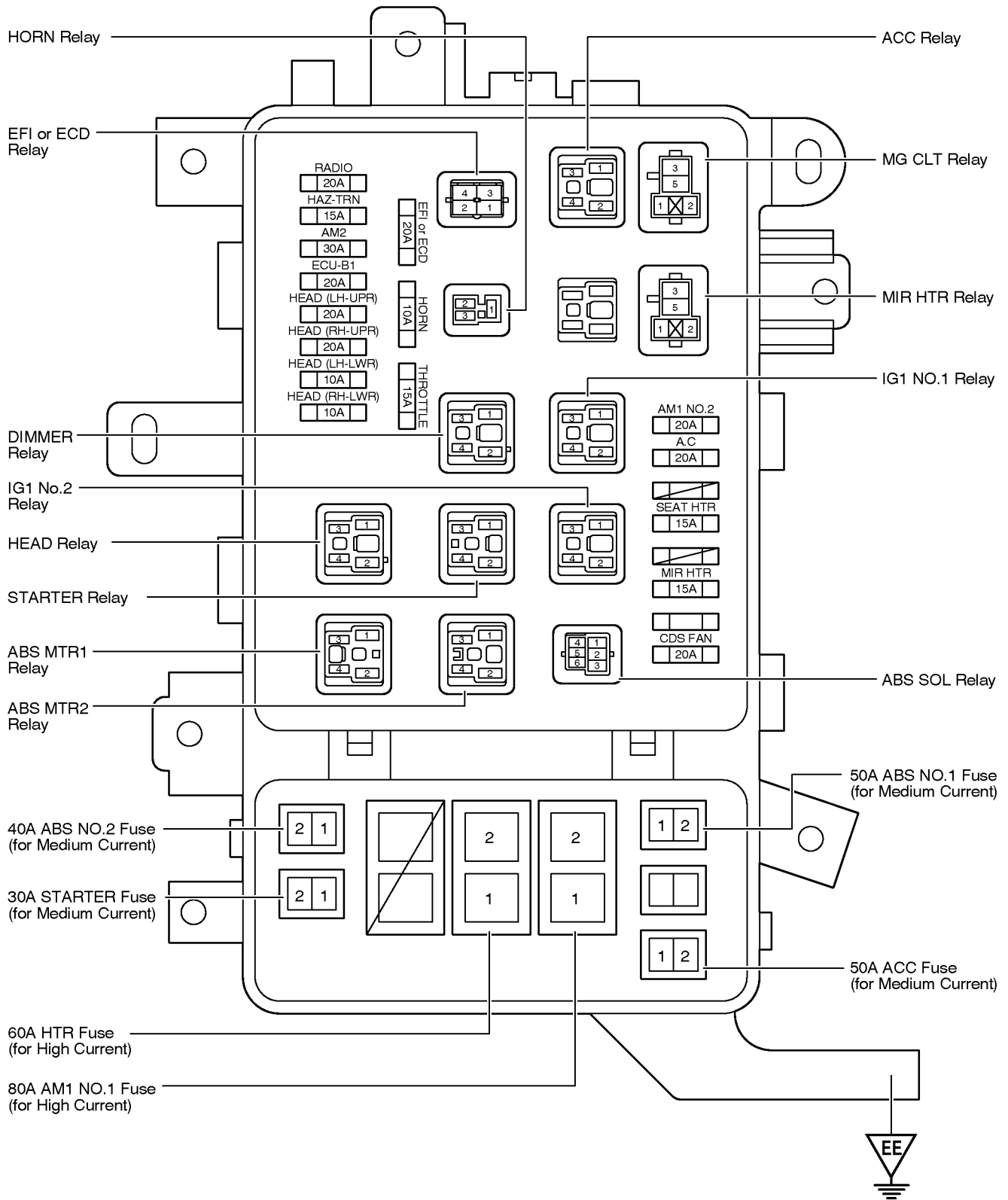


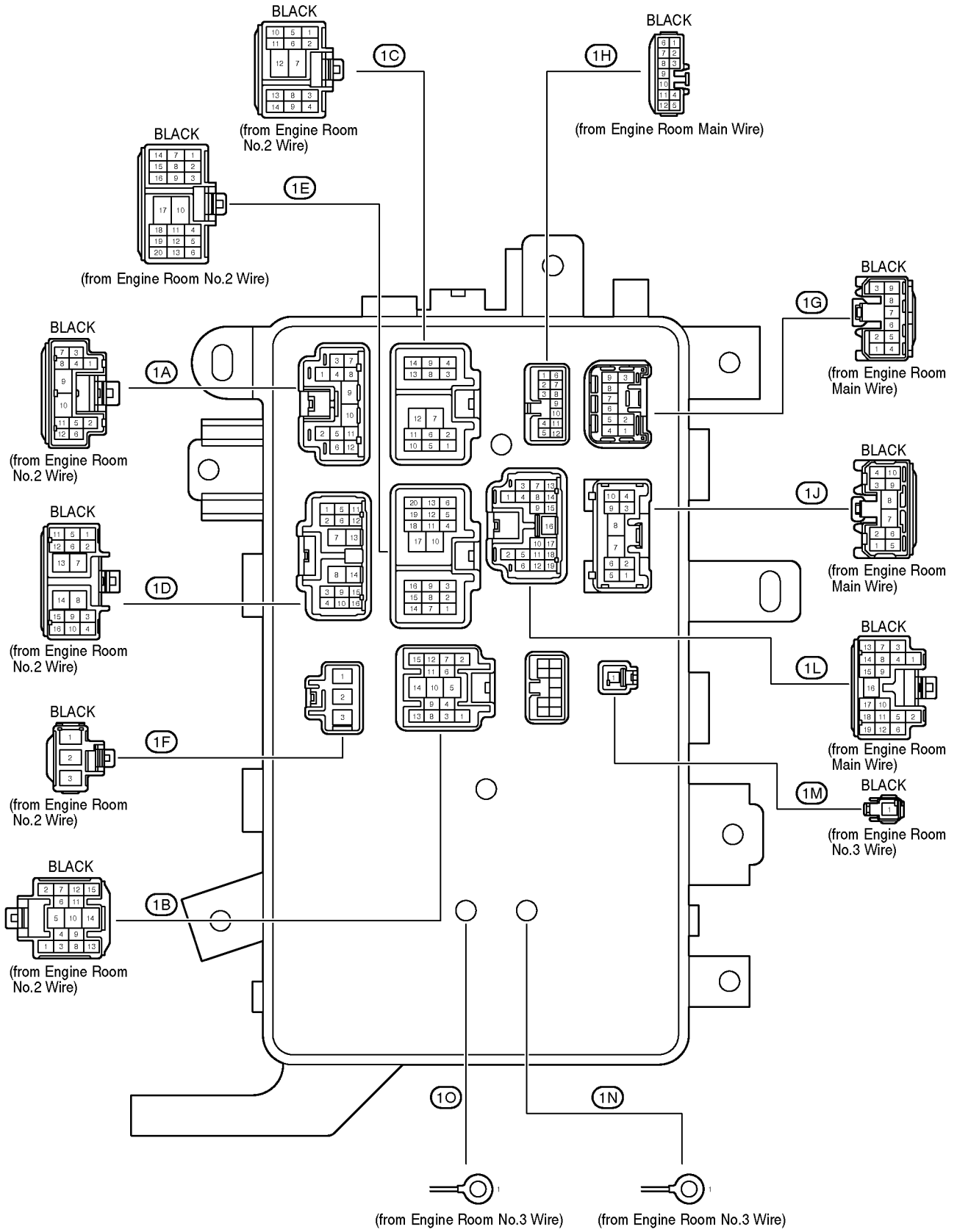
## [Body]



# F RELAY LOCATIONS

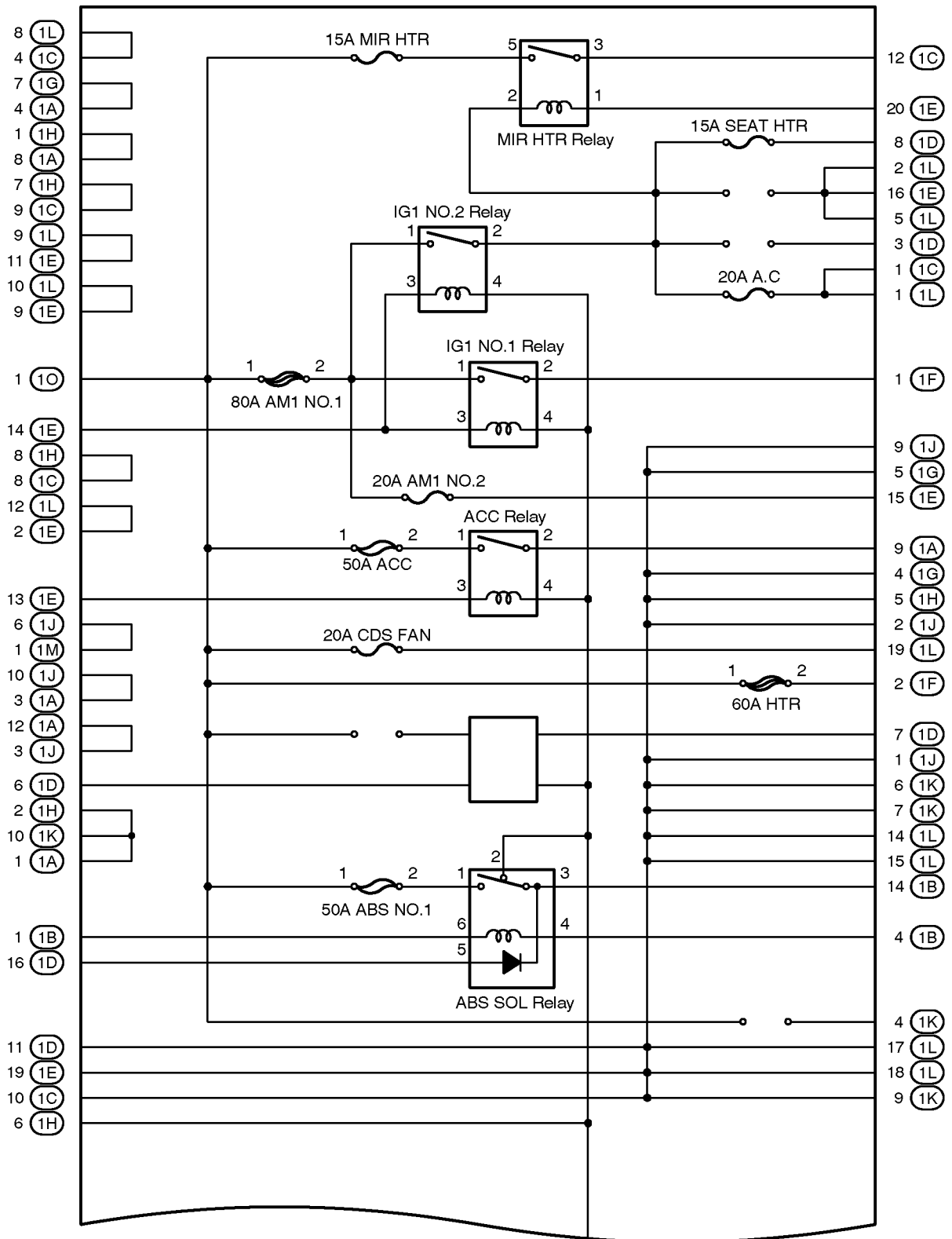
○ : Engine Room J/B      Engine Compartment Left (See Page 20)





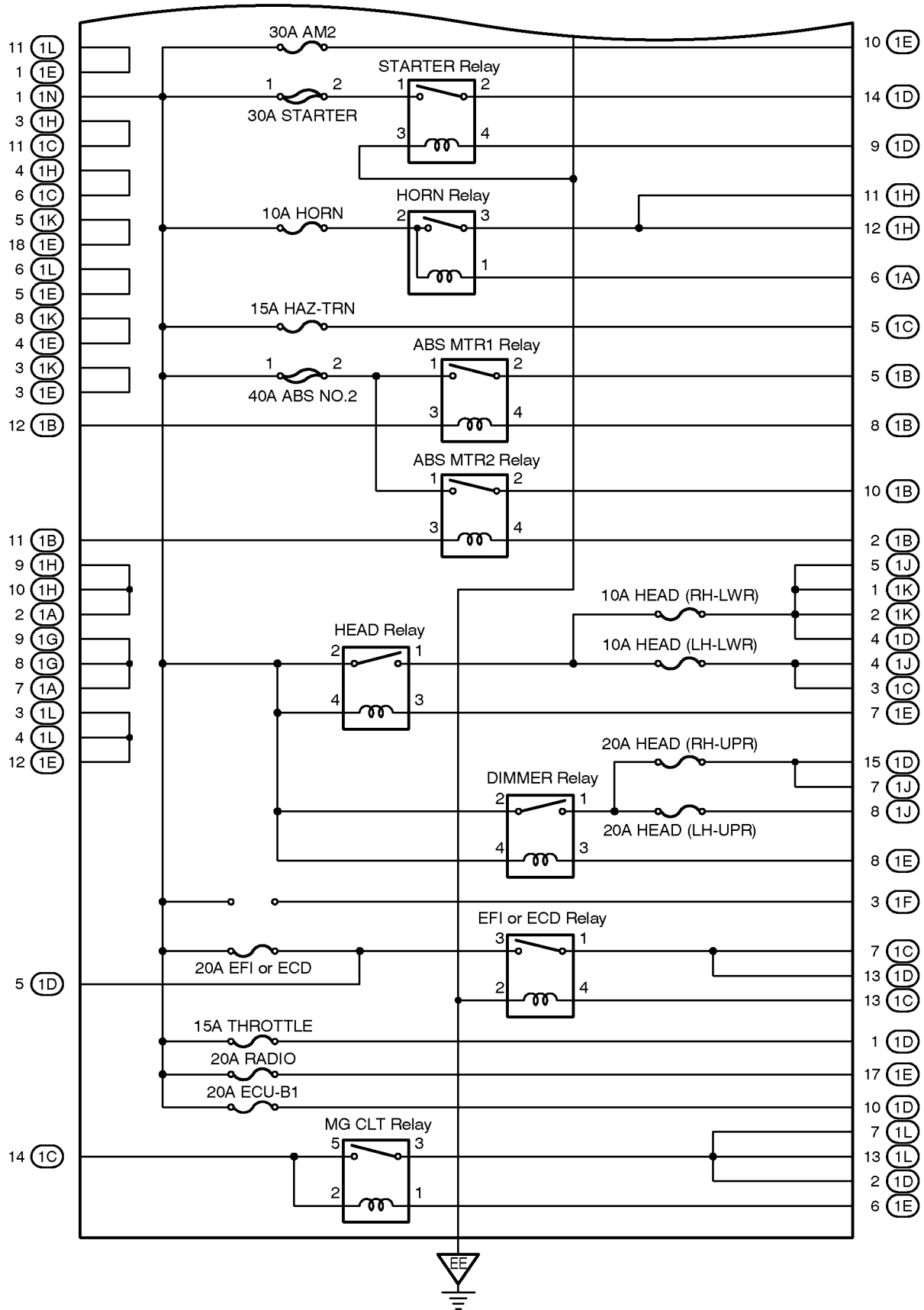
# F RELAY LOCATIONS

## [Engine Room J/B Inner Circuit]



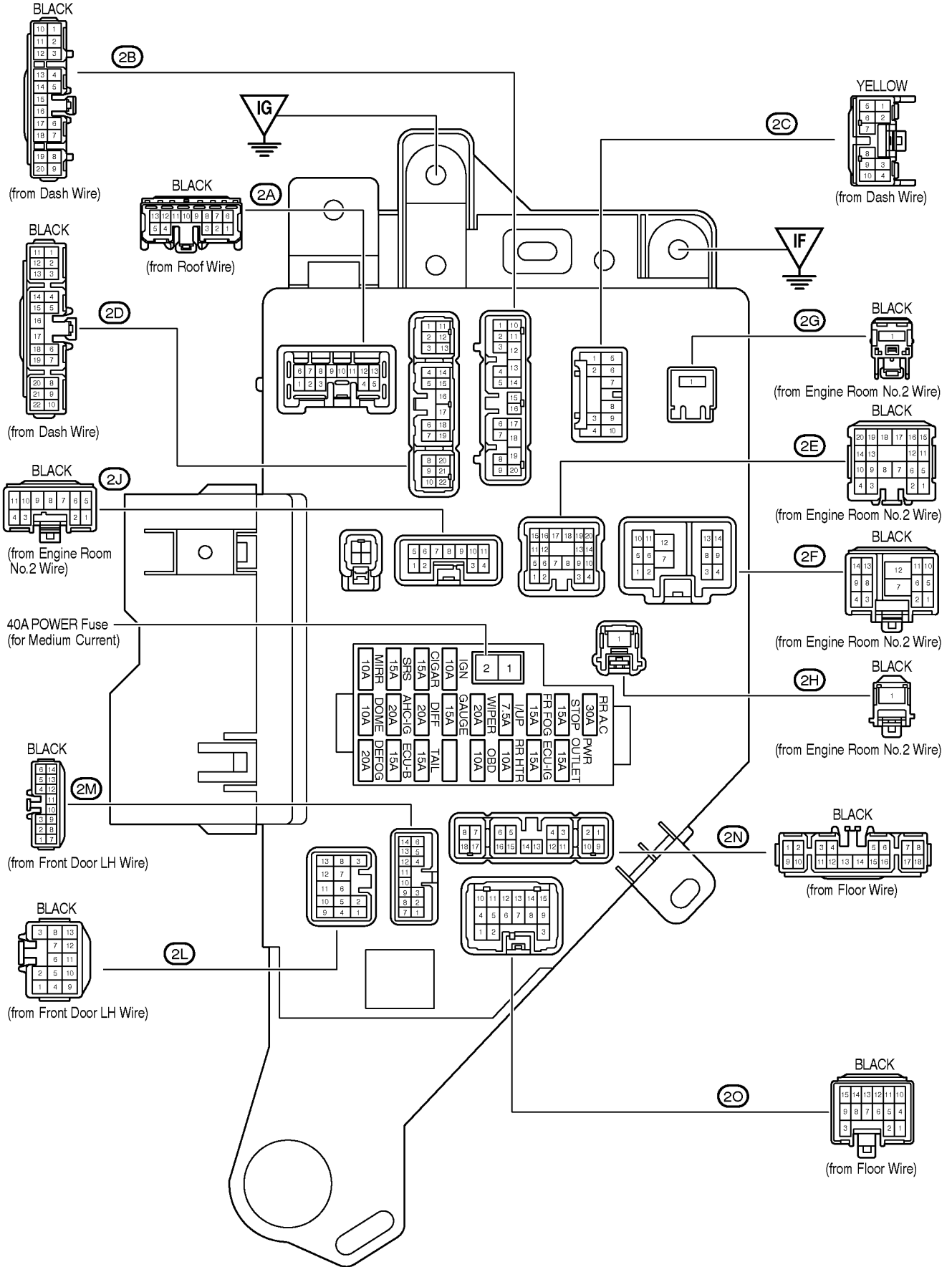
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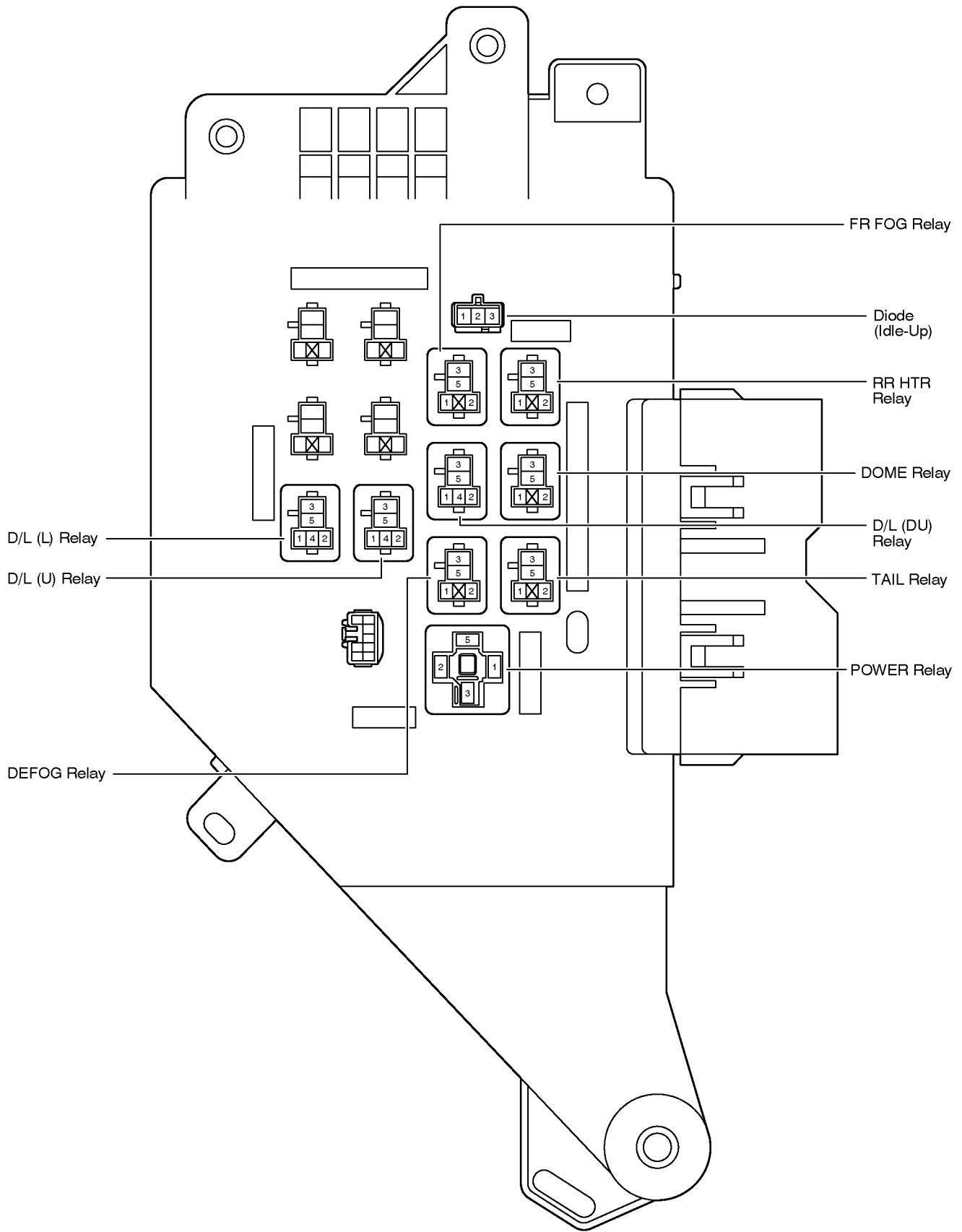
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# F RELAY LOCATIONS

○ : Cowl Side J/B LH      **Left Kick Panel (See Page 20)**

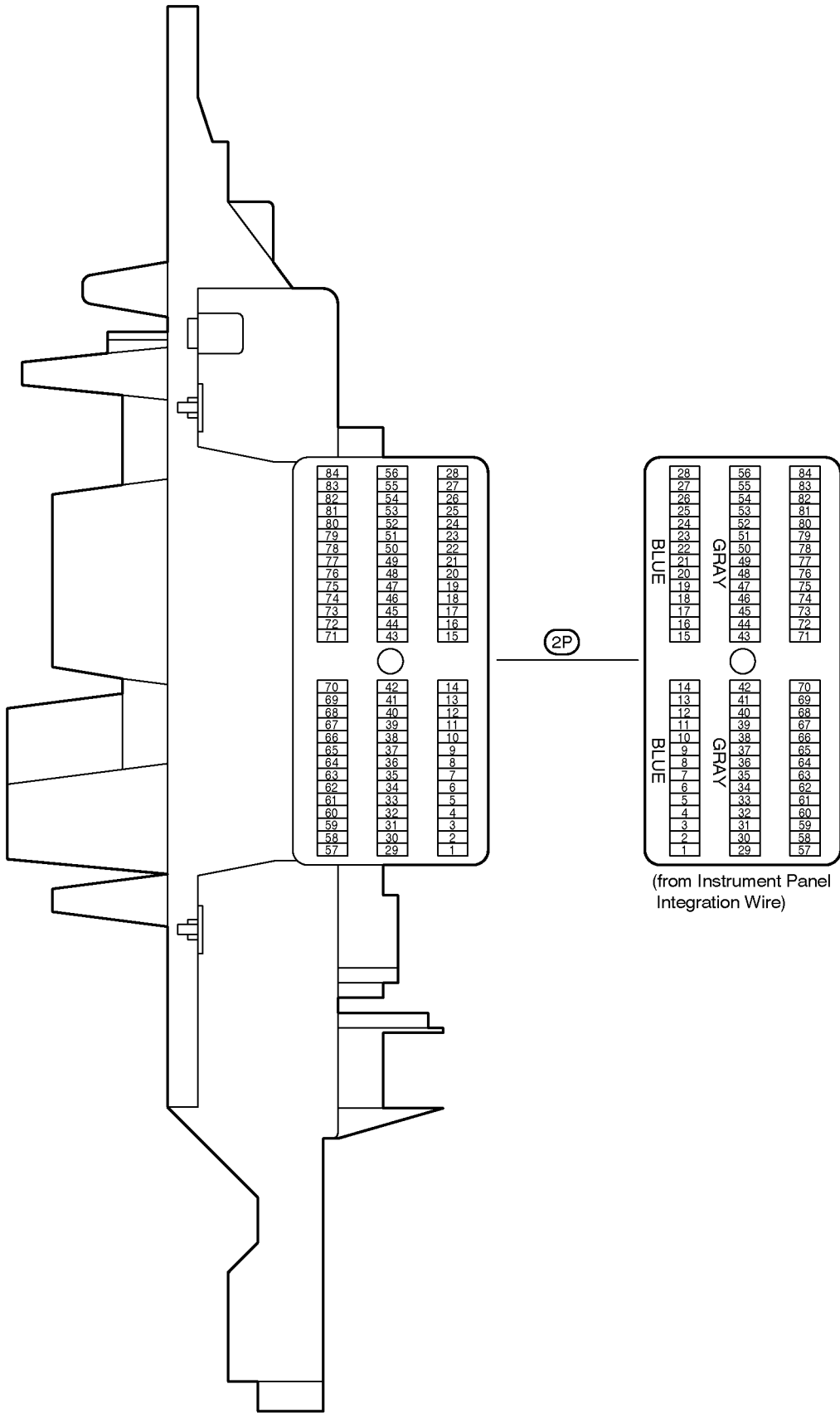




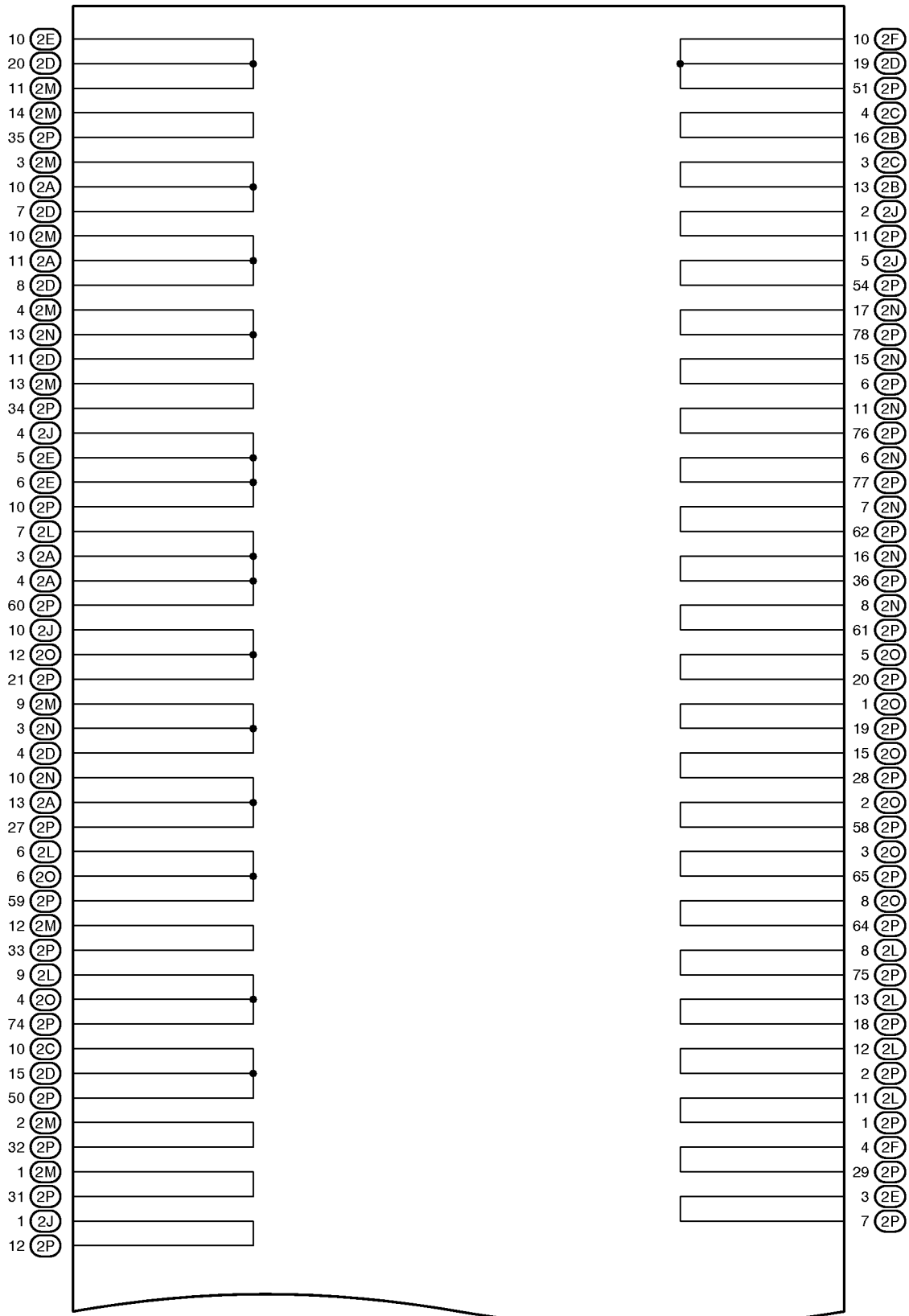


# F RELAY LOCATIONS

○ : Cowl Side J/B LH      Left Kick Panel (See Page 20)



[Cowl Side J/B LH Inner Circuit]

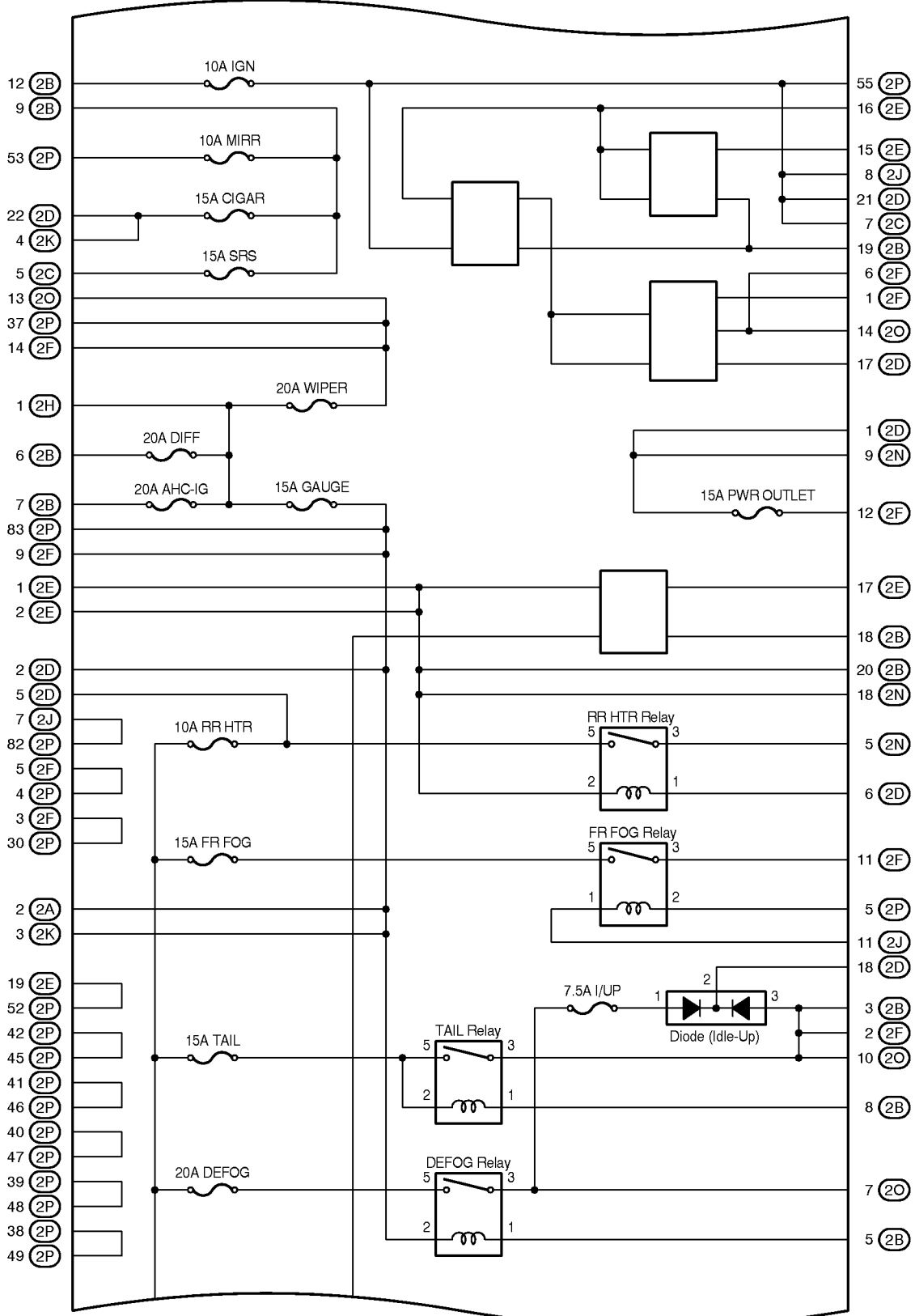


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# F RELAY LOCATIONS

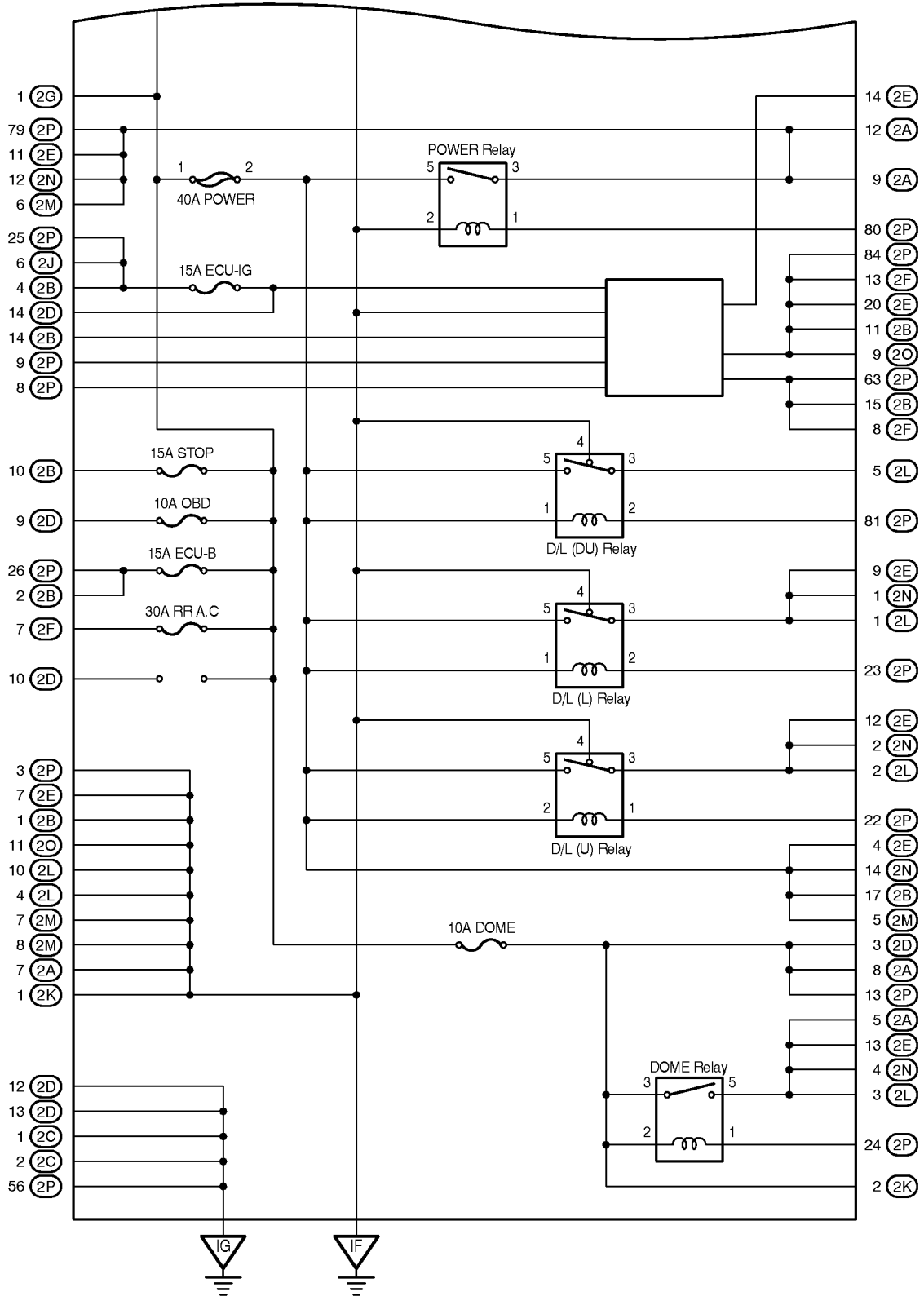
## [Cowl Side J/B LH Inner Circuit]

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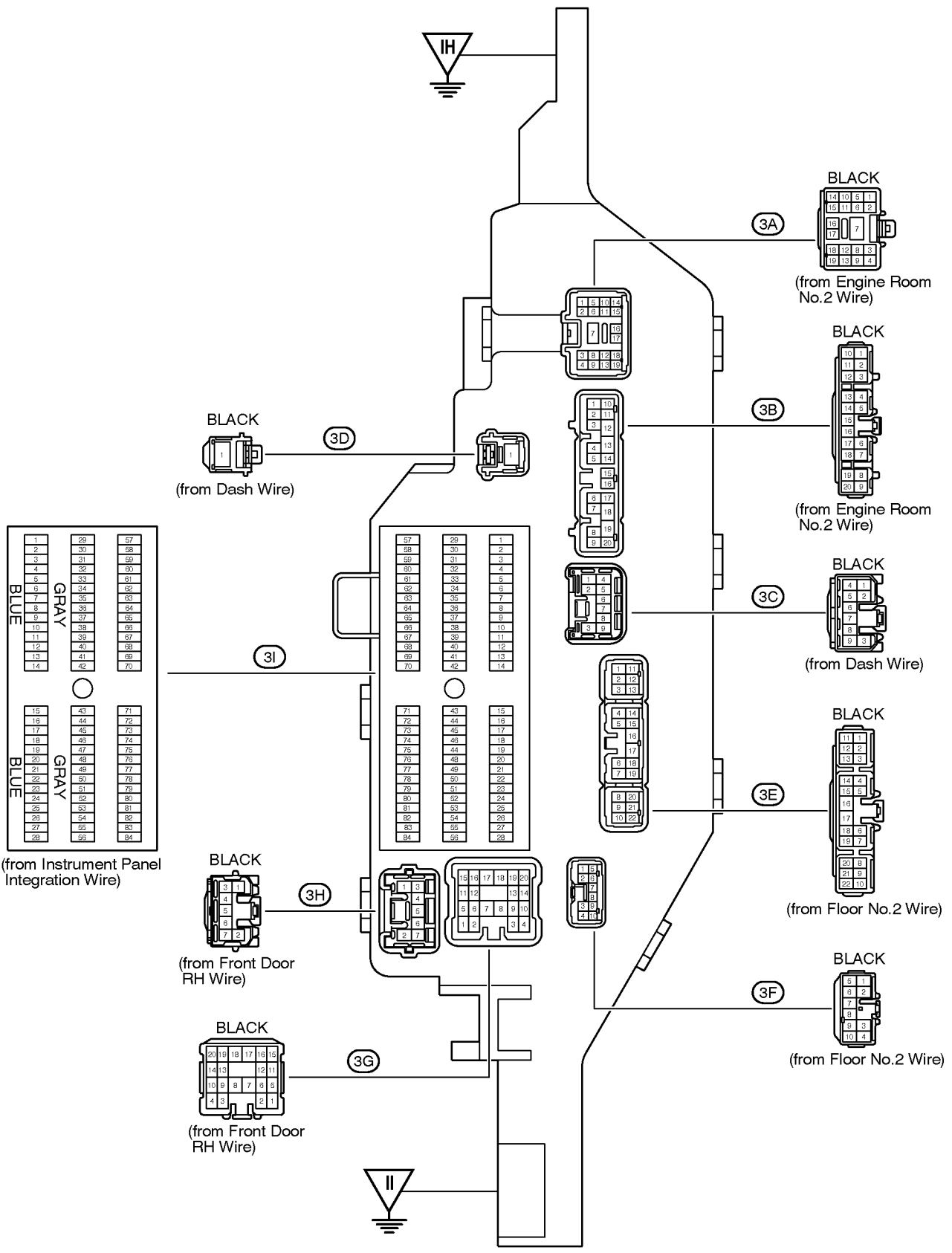
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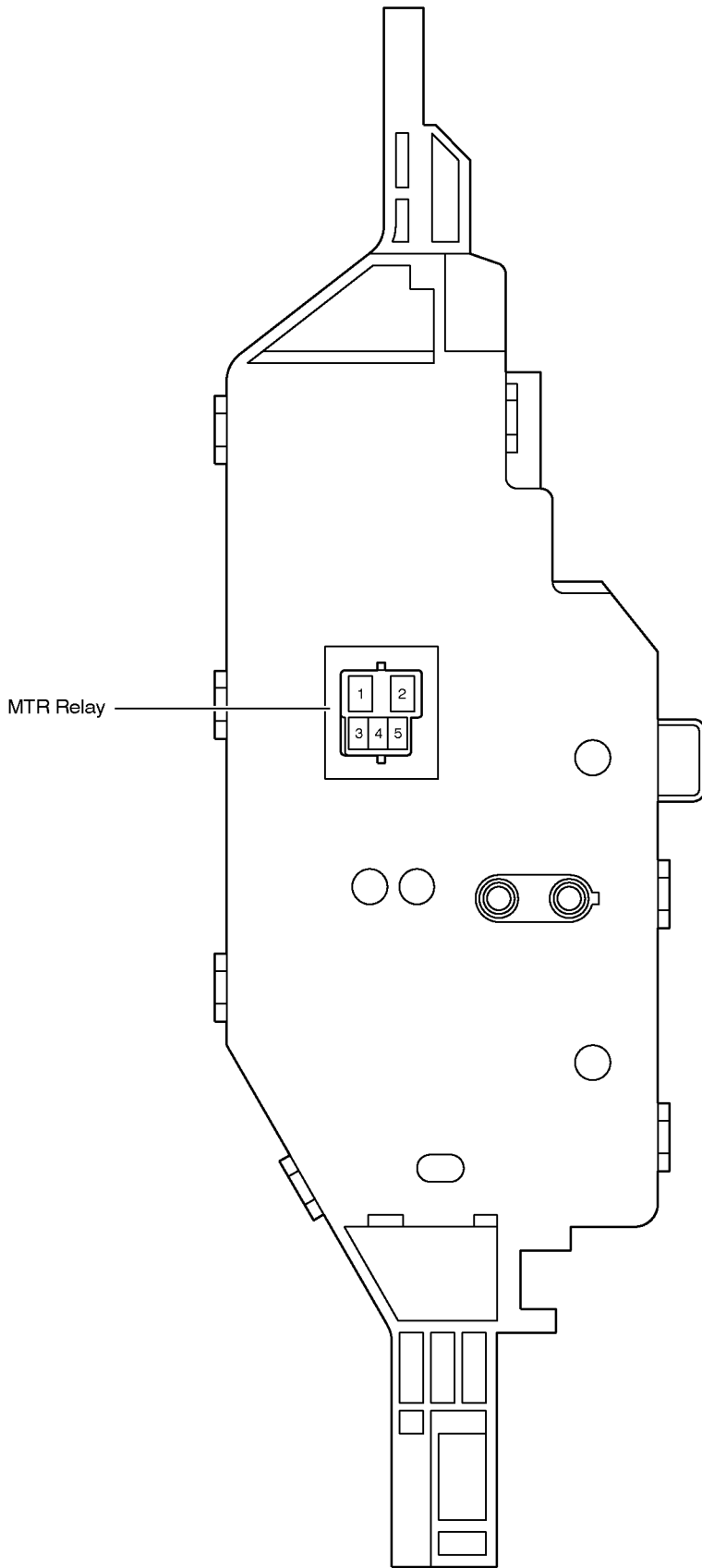
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# F RELAY LOCATIONS

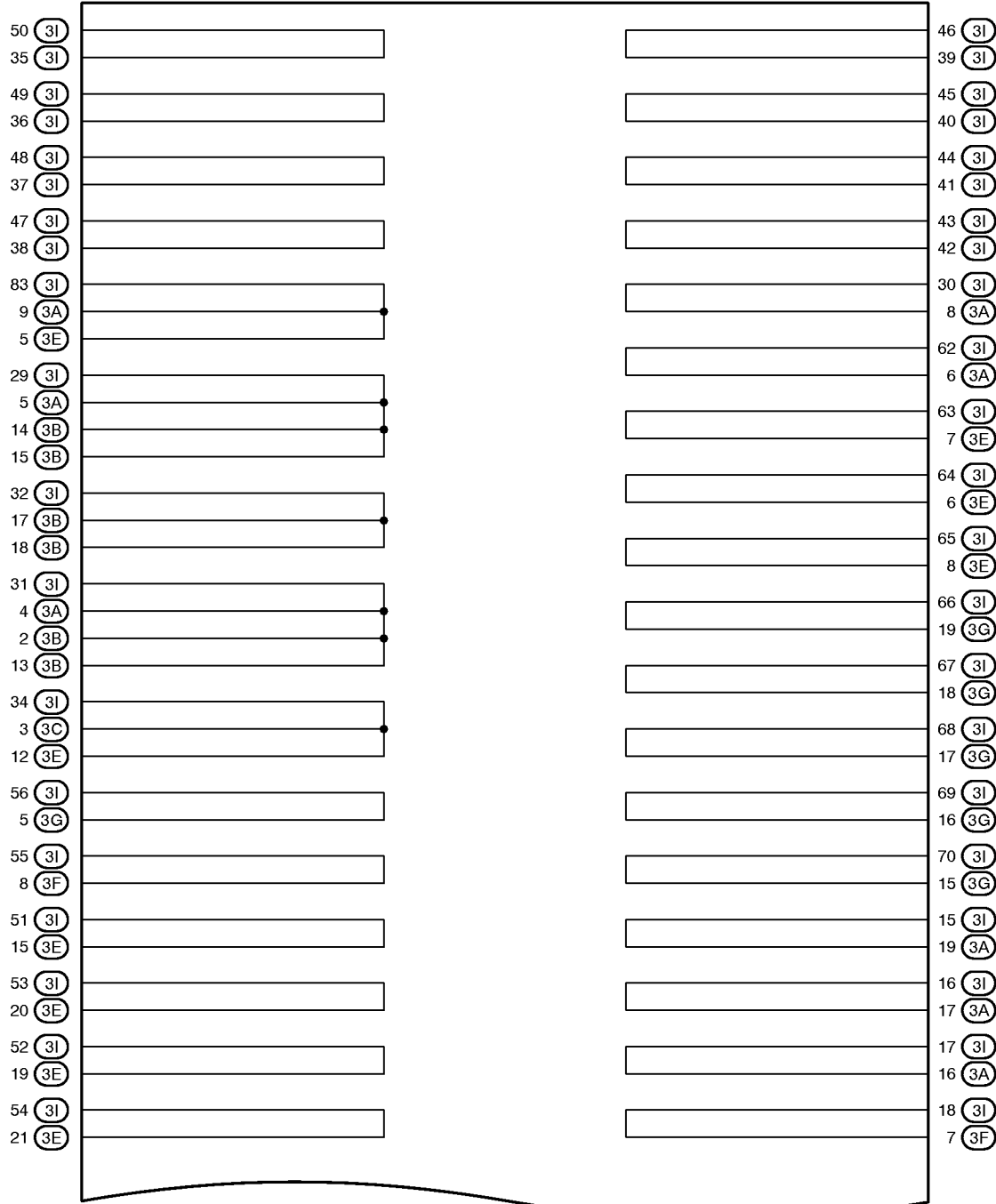
**○ : Cowl Side J/B RH**      **Right Kick Panel (See Page 20)**





# F RELAY LOCATIONS

## [Cowl Side J/B RH Inner Circuit]



Cont. Next Page

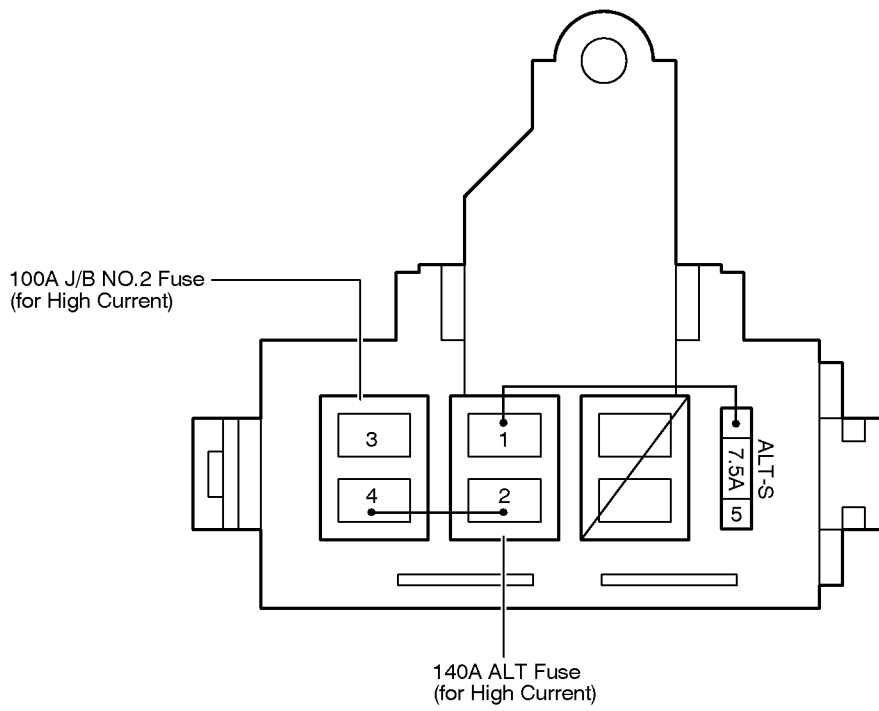




# F RELAY LOCATIONS

Fusible Link Block

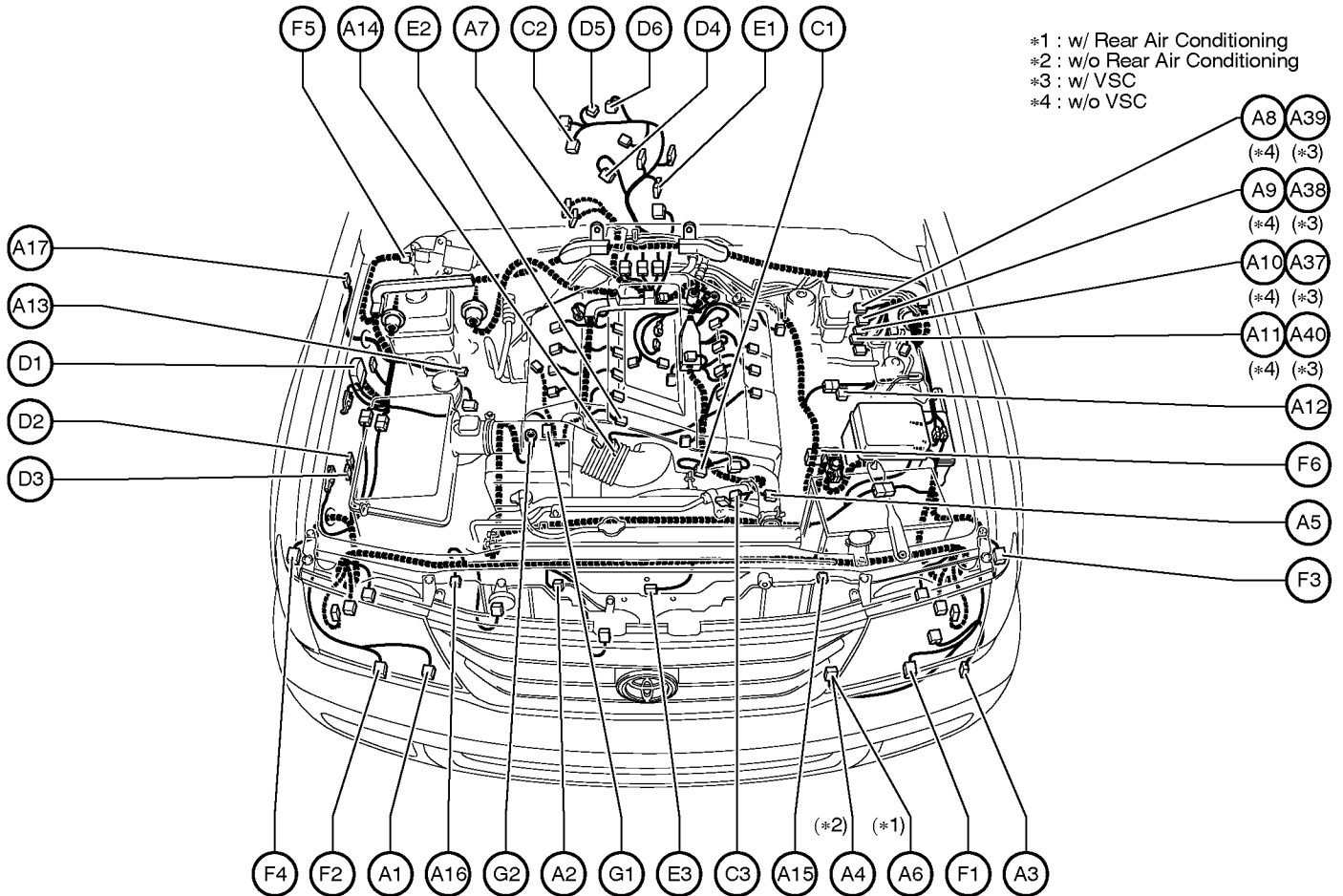
Near the Battery (See Page 20)





# G ELECTRICAL WIRING ROUTING

## Position of Parts in Engine Compartment



- A 1 A/C Ambient Temp. Sensor
- A 2 A/C Condenser Fan Motor
- A 3 A/C Condenser Fan Relay
- A 4 A/C Dual Pressure SW
- A 5 A/C Magnetic Clutch and Lock Sensor
- A 6 A/C Triple Pressure SW  
(A/C Dual and Single Pressure SW)
- A 7 A/T Oil Temp. Sensor
- A 8 ABS Actuator
- A 9 ABS Actuator
- A10 ABS Actuator
- A11 ABS Actuator
- A12 ABS Speed Sensor Front LH
- A13 ABS Speed Sensor Front RH
- A14 Accel Position Sensor
- A15 Airbag Sensor Front LH
- A16 Airbag Sensor Front RH
- A17 Auto Antenna Motor
- A37 ABS & BA & TRAC & VSC Actuator
- A38 ABS & BA & TRAC & VSC Actuator
- A39 ABS & BA & TRAC & VSC Actuator
- A40 ABS & BA & TRAC & VSC Actuator

- D 1 Data Link Connector 1
- D 2 Daytime Running Light Relay No.3
- D 3 Daytime Running Light Relay No.3
- D 4 Detection SW (Center Diff. Lock)
- D 5 Detection SW (Transfer L Position)
- D 6 Detection SW (Transfer Neutral Position)

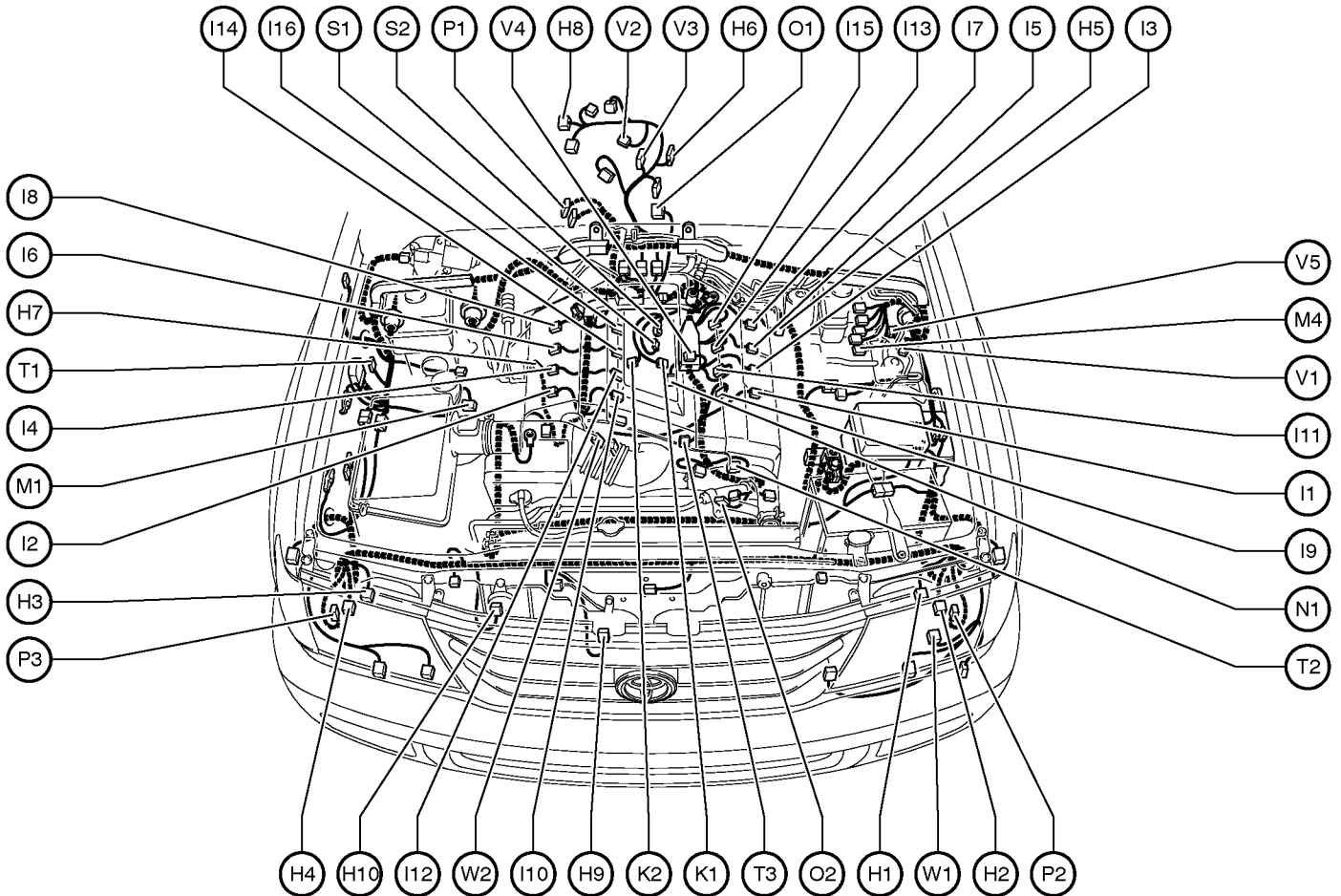
- E 1 Electronically Controlled Transmission Solenoid
- E 2 Engine Coolant Temp. Sensor
- E 3 Engine Hood Courtesy SW

- F 1 Front Fog Light LH
- F 2 Front Fog Light RH
- F 3 Front Turn Signal and Side Marker Light LH
- F 4 Front Turn Signal and Side Marker Light RH
- F 5 Front Wiper Motor
- F 6 Fusible Link Block

- G 1 Generator
- G 2 Generator

- C 1 Camshaft Position Sensor
- C 2 Center Diff. Lock Control Motor
- C 3 Crankshaft Position Sensor

## Position of Parts in Engine Compartment



H 1 Headlight LH (High)

H 2 Headlight LH (Low)

H 3 Headlight RH (High)

H 4 Headlight RH (Low)

H 5 Heated Oxygen Sensor (Bank 1 Sensor 1)

H 6 Heated Oxygen Sensor (Bank 1 Sensor 2)

H 7 Heated Oxygen Sensor (Bank 2 Sensor 1)

H 8 Heated Oxygen Sensor (Bank 2 Sensor 2)

H 9 Horn LH

H10 Horn RH

I 1 Ignition Coil and Igniter No.1

I 2 Ignition Coil and Igniter No.2

I 3 Ignition Coil and Igniter No.3

I 4 Ignition Coil and Igniter No.4

I 5 Ignition Coil and Igniter No.5

I 6 Ignition Coil and Igniter No.6

I 7 Ignition Coil and Igniter No.7

I 8 Ignition Coil and Igniter No.8

I 9 Injector No.1

I 10 Injector No.2

I 11 Injector No.3

I 12 Injector No.4

I 13 Injector No.5

I 14 Injector No.6

I 15 Injector No.7

I 16 Injector No.8

K 1 Knock Sensor 1

K 2 Knock Sensor 2

M 1 Mass Air Flow Meter

M 4 Master Cylinder Pressure Sensor

N 1 Noise Filter (Ignition)

O 1 O/D Direct Clutch Speed Sensor

O 2 Oil Pressure Sender

P 1 Park/Neutral Position SW,A/T Indicator Light SW and Back-Up Light SW

P 2 Parking Light LH

P 3 Parking Light RH

S 1 Starter

S 2 Starter

T 1 Theft Deterrent Horn

T 2 Throttle Control Motor

T 3 Throttle Position Sensor

V 1 Vapor Pressure Sensor

V 2 Vehicle Speed Sensor (Combination Meter)

V 3 Vehicle Speed Sensor (Electronically Controlled Transmission)

V 4 VSV (EVAP)

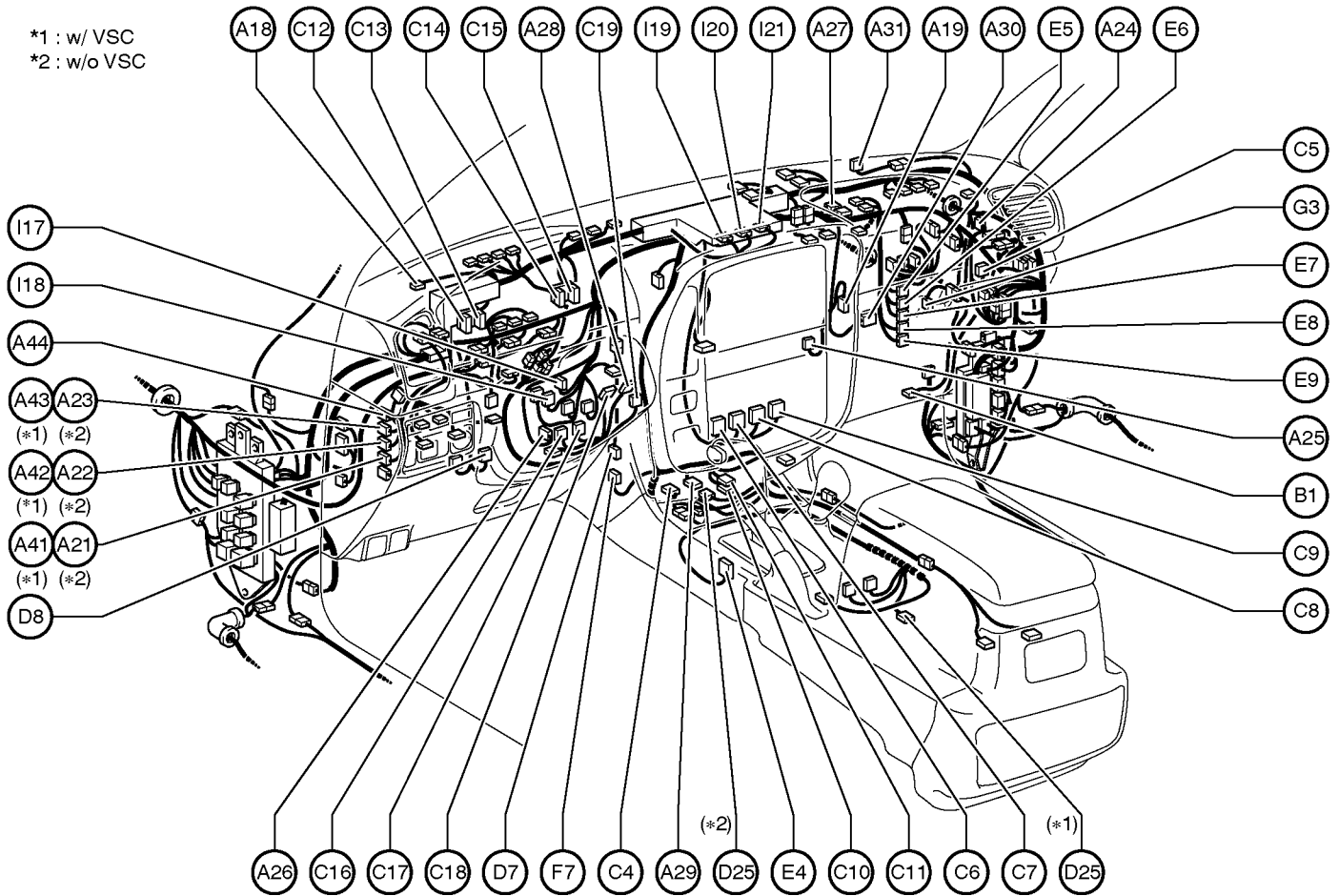
V 5 VSV (Vapor Pressure Sensor)

W 1 Washer Motor

W 2 Water Temp. Sender

# G ELECTRICAL WIRING ROUTING

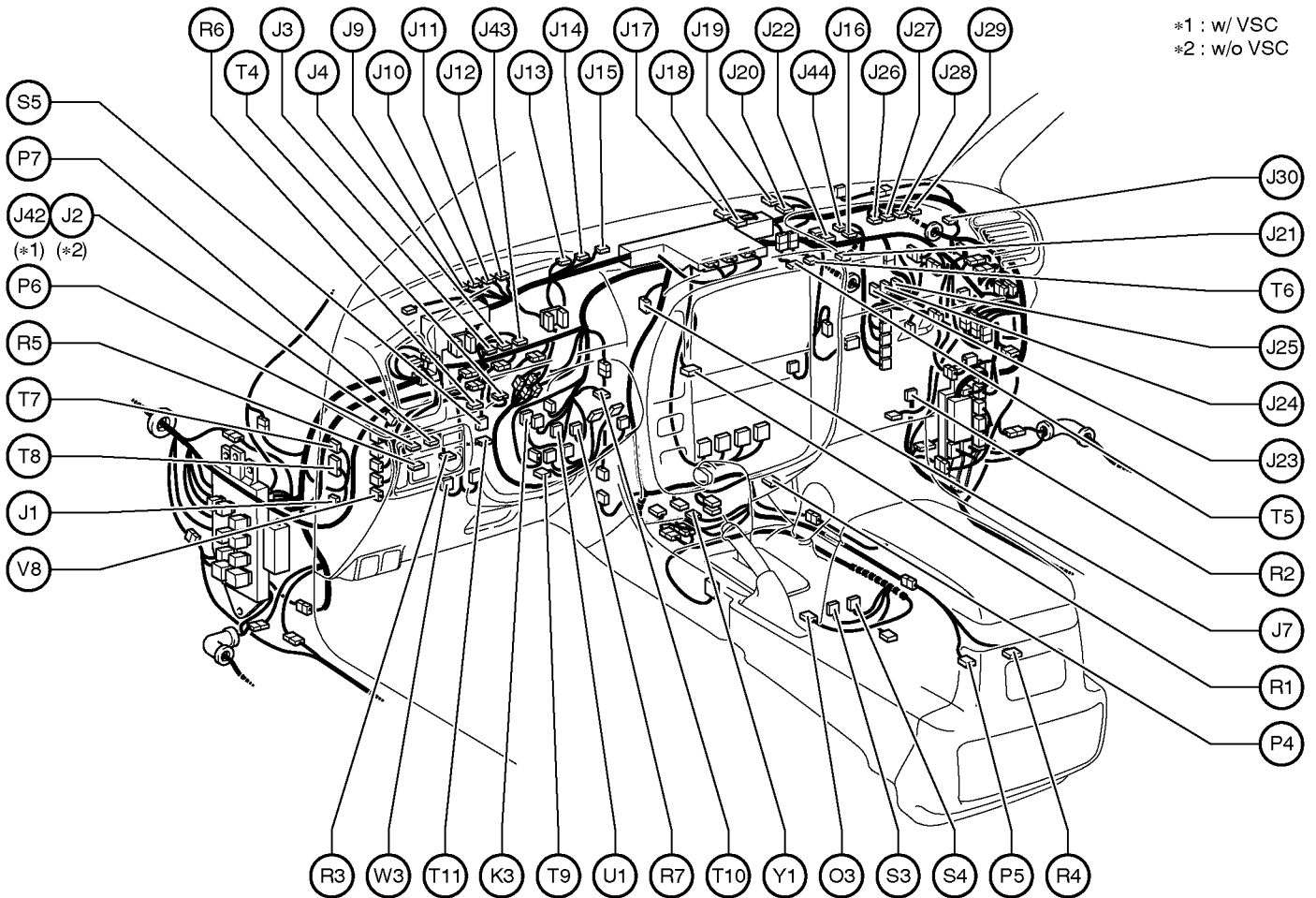
## Position of Parts in Instrument Panel



- A 18 A/C Solar Sensor
- A 19 A/C Thermistor
- A 21 ABS ECU
- A 22 ABS ECU
- A 23 ABS ECU
- A 24 Air Inlet Control Servo Motor
- A 25 Air Mix Control Servo Motor
- A 26 Air Vent Mode Control Servo Motor
- A 27 Airbag Squib (Front Passenger Airbag Assembly)
- A 28 Airbag Squib (Steering Wheel Pad)
- A 29 Ashtray Illumination
- A 30 Auto Antenna Control Relay
- A 31 Automatic Light Control Sensor
- A 41 ABS & BA & TRAC & VSC ECU
- A 42 ABS & BA & TRAC & VSC ECU
- A 43 ABS & BA & TRAC & VSC ECU
- A 44 ABS & BA & TRAC & VSC ECU
- B 1 Blower Motor Controller
- C 4 Center Airbag Sensor Assembly
- C 5 Center Diff. Lock Control Relay
- C 6 Center ECU
- C 7 Center ECU
- C 8 Center ECU
- C 9 Center ECU
- C 10 Cigarette Lighter
- C 11 Cigarette Lighter Illumination
- C 12 Combination Meter
- C 13 Combination Meter

- C 14 Combination Meter
- C 15 Combination Meter
- C 16 Combination SW
- C 17 Combination SW
- C 18 Combination SW
- C 19 Combination SW
- D 7 Data Link Connector 3
- D 8 Daytime Running Light Relay (Main)
- D 25 Deceleration Sensor
- E 4 Electronically Controlled Transmission Pattern Select SW
- E 5 Engine Control Module
- E 6 Engine Control Module
- E 7 Engine Control Module
- E 8 Engine Control Module
- E 9 Engine Control Module
- F 7 Fuel Control SW
- G 3 Glove Box Light
- I 17 Ignition Key Cylinder Light
- I 18 Ignition SW
- I 19 Instrument ECU
- I 20 Instrument ECU
- I 21 Instrument ECU

**Position of Parts in Instrument Panel**



\*1 : w/ VSC  
\*2 : w/o VSC

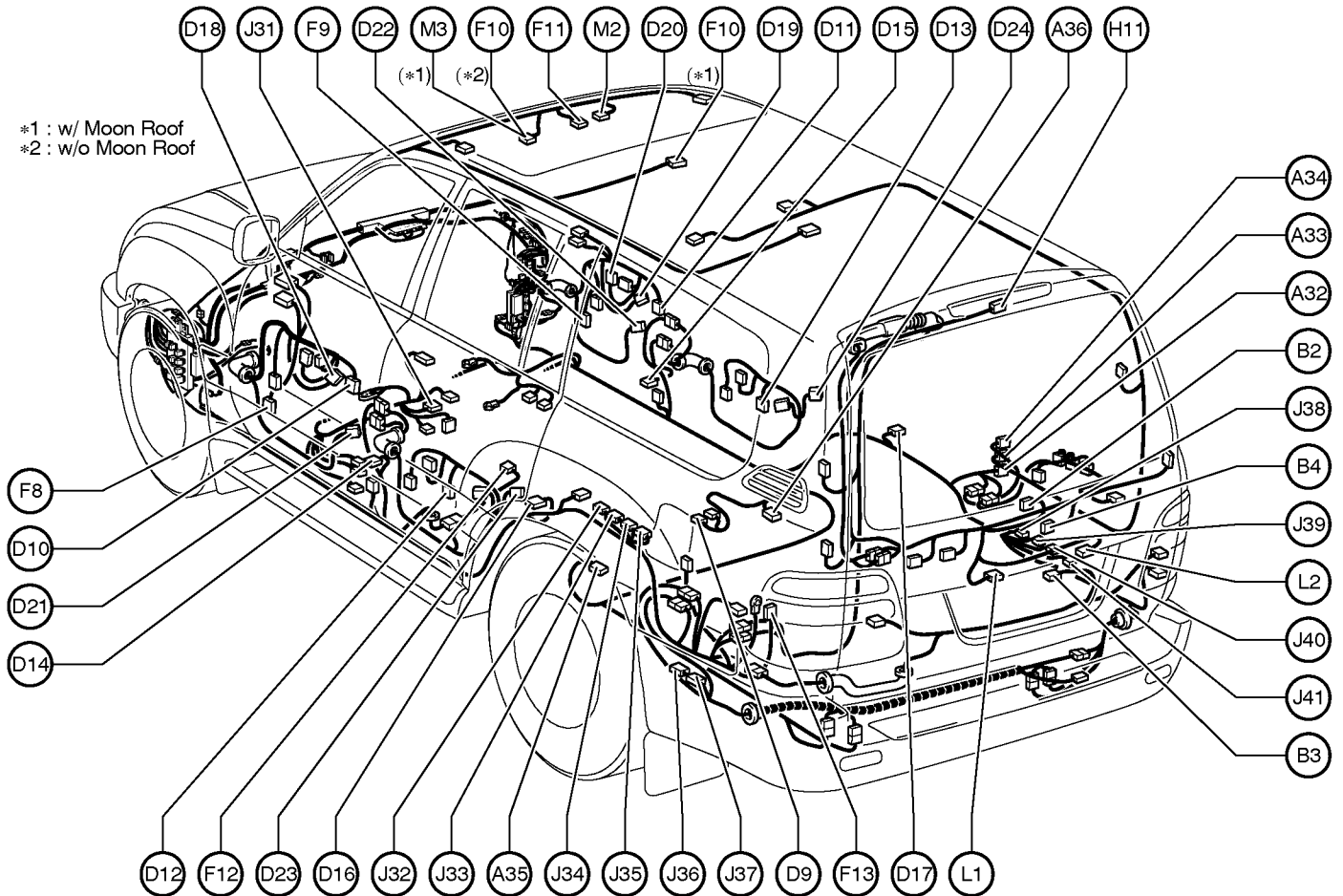
- J 1 Junction Connector
- J 2 Junction Connector
- J 3 Junction Connector
- J 4 Junction Connector
- J 7 Junction Connector
- J 9 Junction Connector
- J 10 Junction Connector
- J 11 Junction Connector
- J 12 Junction Connector
- J 13 Junction Connector
- J 14 Junction Connector
- J 15 Junction Connector
- J 16 Junction Connector
- J 17 Junction Connector
- J 18 Junction Connector
- J 19 Junction Connector
- J 20 Junction Connector
- J 21 Junction Connector
- J 22 Junction Connector
- J 23 Junction Connector
- J 24 Junction Connector
- J 25 Junction Connector
- J 26 Junction Connector
- J 27 Junction Connector
- J 28 Junction Connector
- J 29 Junction Connector
- J 30 Junction Connector
- J 42 Junction Connector
- J 43 Junction Connector
- J 44 Junction Connector

- K 3 Key Interlock Solenoid
- O 3 O/D Main SW and Shift Lock Control ECU

- P 4 Power Outlet (Front)
- P 5 Power Outlet (Rear Console Box)
- P 6 Power Quarter Window SW LH
- P 7 Power Quarter Window SW RH
- R 1 Radio and Player
- R 2 Rear Diff. Lock Control ECU
- R 3 Rear Diff. Lock SW
- R 4 Rear Heater SW
- R 5 Remote Control Mirror SW
- R 6 Rheostat
- R 7 Room Temp. Sensor (Front)
- S 3 Seat Heater SW (Driver's Seat)
- S 4 Seat Heater SW (Front Passenger's Seat)
- S 5 Stop Light SW
- T 4 Telescopic Motor
- T 5 Theft Deterrent ECU
- T 6 Theft Deterrent ECU
- T 7 Tilt and Telescopic ECU
- T 8 Tilt and Telescopic ECU
- T 9 Tilt Motor
- T 10 Transponder Key Amplifier
- T 11 Turn Signal Flasher
- U 1 Unlock Warning SW
- V 8 VSC Warning Buzzer
- W 3 Wireless Door Lock ECU
- Y 1 Yaw Rate Sensor

# G ELECTRICAL WIRING ROUTING

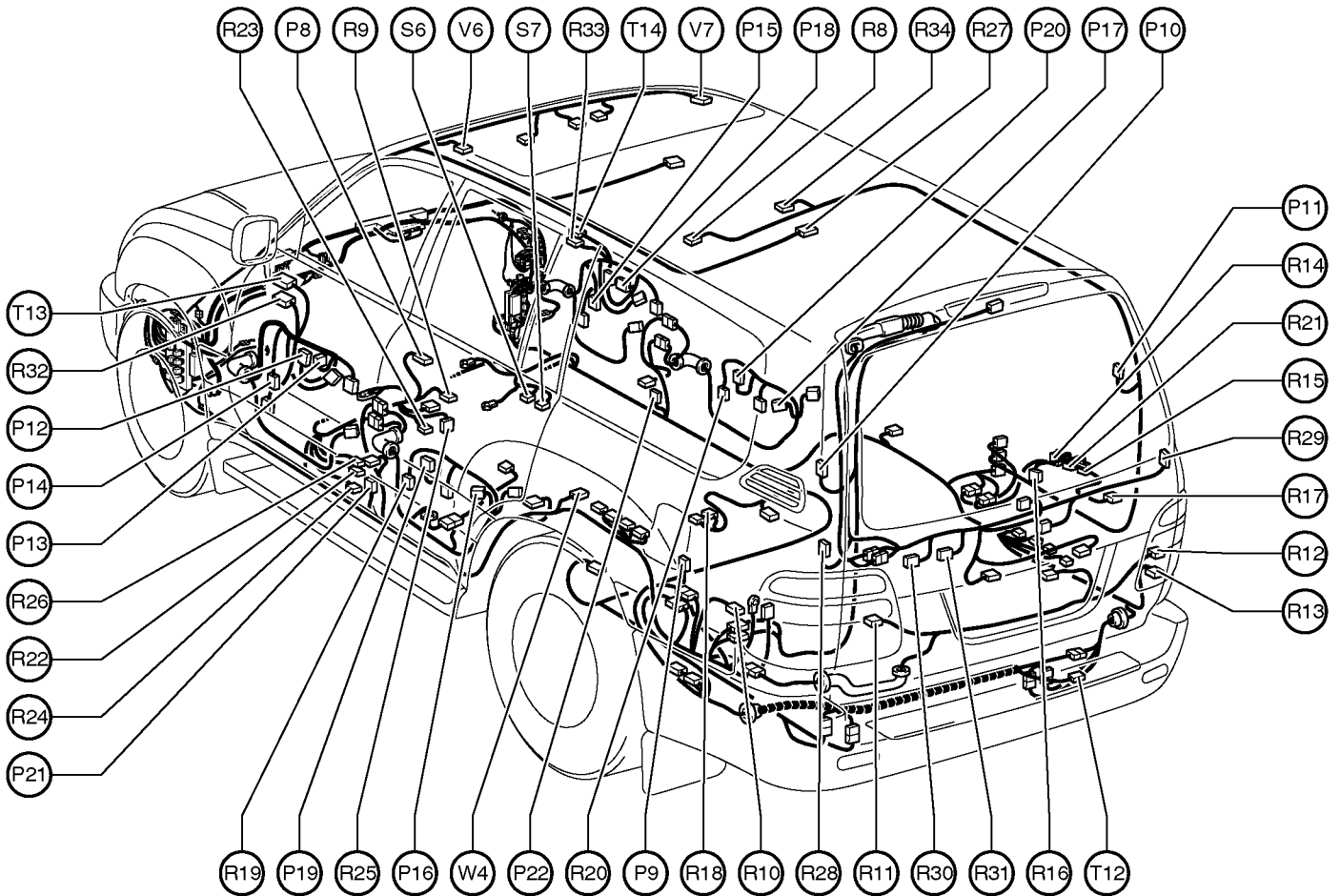
## Position of Parts in Body



\*1 : w/ Moon Roof  
\*2 : w/o Moon Roof

- |  |   |
|--|---|
| A 32 A/C Amplifier (Rear)                                  | F 8 Front Door Speaker LH                         |
| A 33 A/C Amplifier (Rear)                                  | F 9 Front Door Speaker RH                         |
| A 34 A/C Amplifier (Rear)                                  | F 10 Front Interior Light and Rear Personal Light |
| A 35 ABS Speed Sensor Rear LH                              | F 11 Front Personal Light                         |
| A 36 ABS Speed Sensor Rear RH                              | F 12 Fuel Pump and Sender                         |
|  | F 13 Fuel Pump Control ECU                        |
| B 2 Back Door Courtesy SW                                  | H 11 High Mounted Stop Light                      |
| B 3 Back Door Key Lock and Unlock SW                       |   |
| B 4 Back Door Lock Motor and Back DoorUnlock Detection SW  | J 31 Junction Connector                           |
| D 9 Detection SW (Rear Diff. Lock)                         | J 32 Junction Connector                           |
| D 10 Door Courtesy Light Front LH                          | J 33 Junction Connector                           |
| D 11 Door Courtesy Light Front RH                          | J 34 Junction Connector                           |
| D 12 Door Courtesy Light Rear LH                           | J 35 Junction Connector                           |
| D 13 Door Courtesy Light Rear RH                           | J 36 Junction Connector                           |
| D 14 Door Courtesy SW Front LH                             | J 37 Junction Connector                           |
| D 15 Door Courtesy SW Front RH                             | J 38 Junction Connector                           |
| D 16 Door Courtesy SW Rear LH                              | J 39 Junction Connector                           |
| D 17 Door Courtesy SW Rear RH                              | J 40 Junction Connector                           |
| D 18 Door Key Lock and Unlock SW LH                        | J 41 Junction Connector                           |
| D 19 Door Key Lock and Unlock SW RH                        | L 1 License Plate Light LH                        |
| D 20 Door Lock Control SW RH                               | L 2 License Plate Light RH                        |
| D 21 Door Lock Motor and Door Unlock Detection SW Front LH | M 2 Moon Roof Control ECU                         |
| D 22 Door Lock Motor and Door Unlock Detection SW Front RH | M 3 Moon Roof Control SW                          |
| D 23 Door Lock Motor and Door Unlock Detection SW Rear LH  |   |
| D 24 Door Lock Motor and Door Unlock Detection SW Rear RH  |   |

## Position of Parts in Body



P 8 Parking Brake SW  
 P 9 Power Outlet (Luggage Compartment)  
 P10 Power Vent Window Motor LH  
 P 11 Power Vent Window Motor RH  
 P12 Power Window Master SW  
 P13 Power Window Master SW  
 P14 Power Window Motor Front LH  
 P15 Power Window Motor Front RH  
 P16 Power Window Motor Rear LH  
 P17 Power Window Motor Rear RH  
 P18 Power Window SW Front RH  
 P19 Power Window SW Rear LH  
 P20 Power Window SW Rear RH  
 P21 Pretensioner LH  
 P22 Pretensioner RH

R 8 Rear A/C Control SW  
 R 9 Rear Air Mix Control Servo Motor  
 R10 Rear Combination Light LH  
 R11 Rear Combination Light LH  
 R12 Rear Combination Light RH  
 R13 Rear Combination Light RH  
 R14 Rear Cooler Blower Motor  
 R15 Rear Cooler Magnetic Valve  
 R16 Rear Cooler Power Transistor  
 R17 Rear Cooler Relay  
 R18 Rear Diff. Lock Motor  
 R19 Rear Door Speaker LH

R20 Rear Door Speaker RH  
 R21 Rear Evaporator Temp. Sensor  
 R22 Rear Heater Blower Motor  
 R23 Rear Heater Blower Resistor  
 R24 Rear Heater Fan Relay  
 R25 Rear Heater Power Transistor  
 R26 Rear Inlet Air Temp. Sensor  
 R27 Rear Interior Light  
 R28 Rear Window Defogger  
 R29 Rear Window Defogger  
 R30 Rear Wiper Motor  
 R31 Rear Wiper Relay  
 R32 Remote Control Mirror LH  
 R33 Remote Control Mirror RH  
 R34 Room Temp. Sensor (Rear)

S 6 Stereo Component Amplifier  
 S 7 Stereo Component Amplifier

T 12 Trailer Socket  
 T 13 Tweeter LH  
 T 14 Tweeter RH

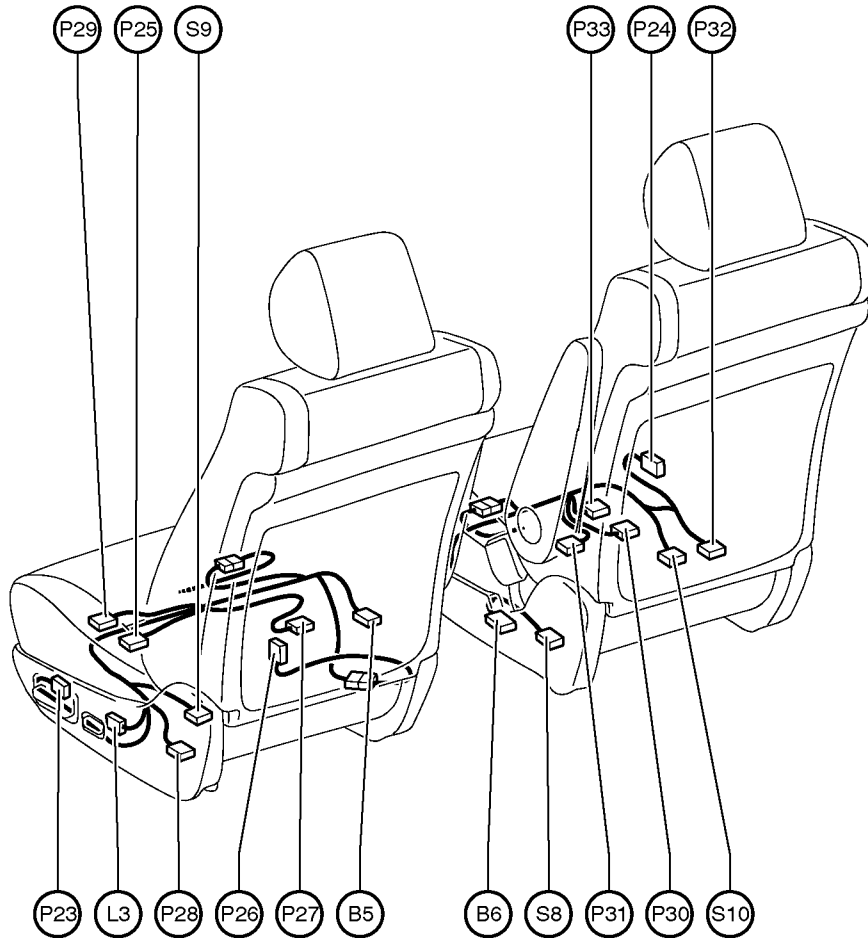
V 6 Vanity Light LH  
 V 7 Vanity Light RH

W 4 Woofer (Speaker)



# G ELECTRICAL WIRING ROUTING

## Position of Parts in Seat



B 5 Buckle SW LH  
 B 6 Buckle SW RH

L 3 Lumbar Support Control SW (Driver's Seat)

P23 Power Seat Control SW (Driver's Seat)  
 P24 Power Seat Control SW (Front Passenger's Seat)  
 P25 Power Seat Motor  
 (Driver's Seat Front Vertical Control)  
 P26 Power Seat Motor  
 (Driver's Seat Lumbar Support Control)  
 P27 Power Seat Motor  
 (Driver's Seat Rear Vertical Control)  
 P28 Power Seat Motor  
 (Driver's Seat Reclining Control)

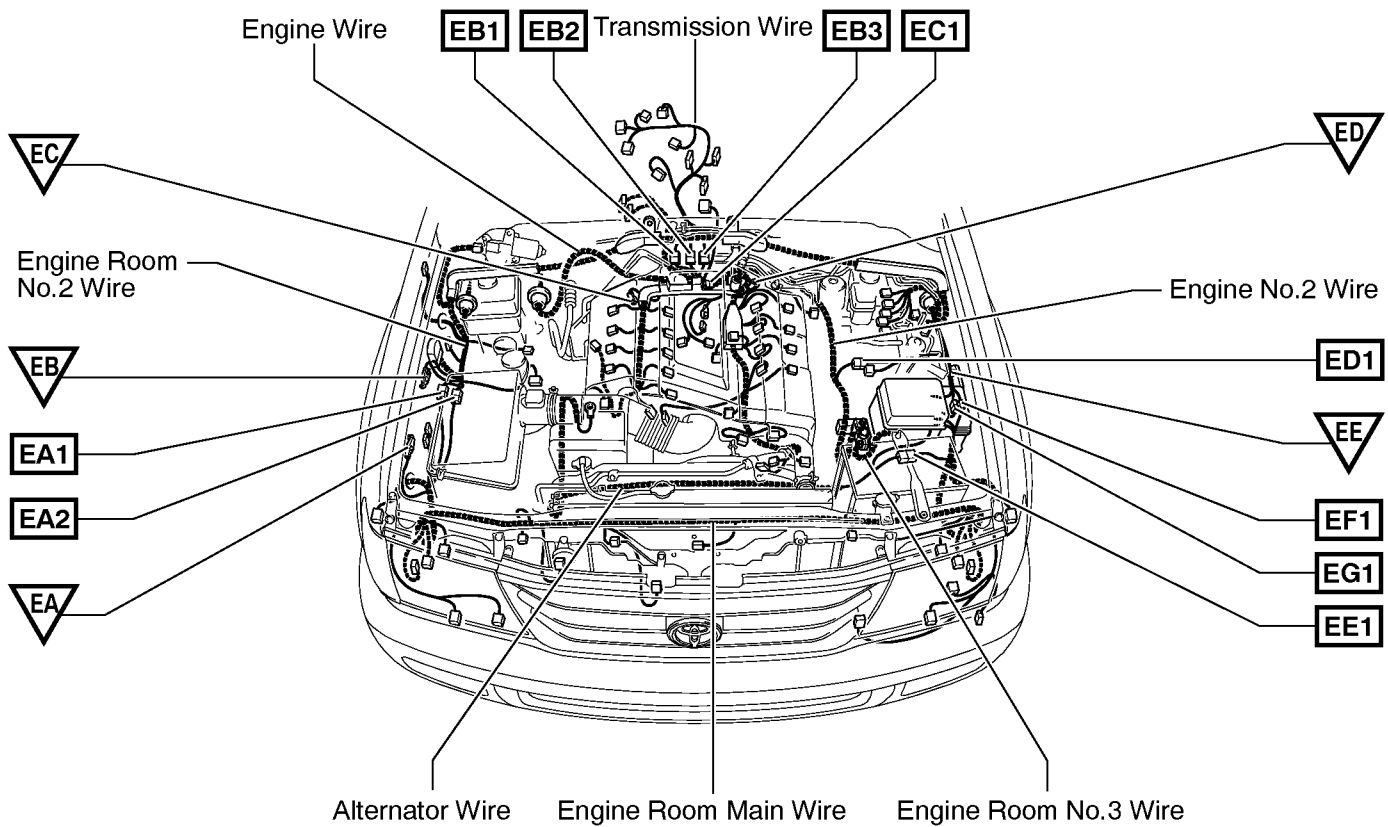
P29 Power Seat Motor  
 (Driver's Seat Slide Control)  
 P30 Power Seat Motor  
 (Front Passenger's Seat Front Vertical Control)  
 P31 Power Seat Motor  
 (Front Passenger's Seat Rear Vertical Control)  
 P32 Power Seat Motor  
 (Front Passenger's Seat Reclining Control)  
 P33 Power Seat Motor  
 (Front Passenger's Seat Slide Control)

S 8 Seat Belt Warning Occupant Detection Sensor  
 S 9 Seat Heater (Driver's Seat)  
 S10 Seat Heater (Front Passenger's Seat)

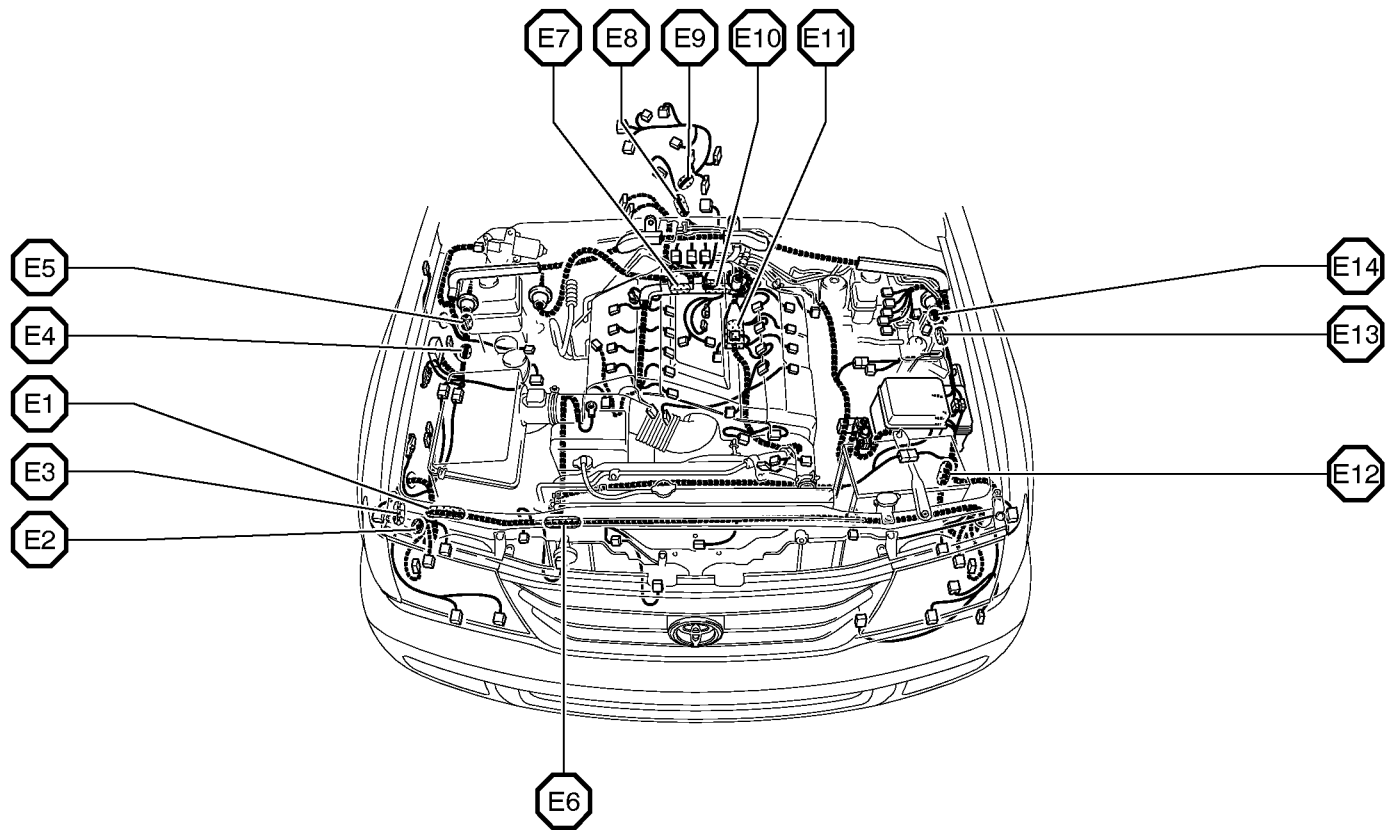


# G ELECTRICAL WIRING ROUTING

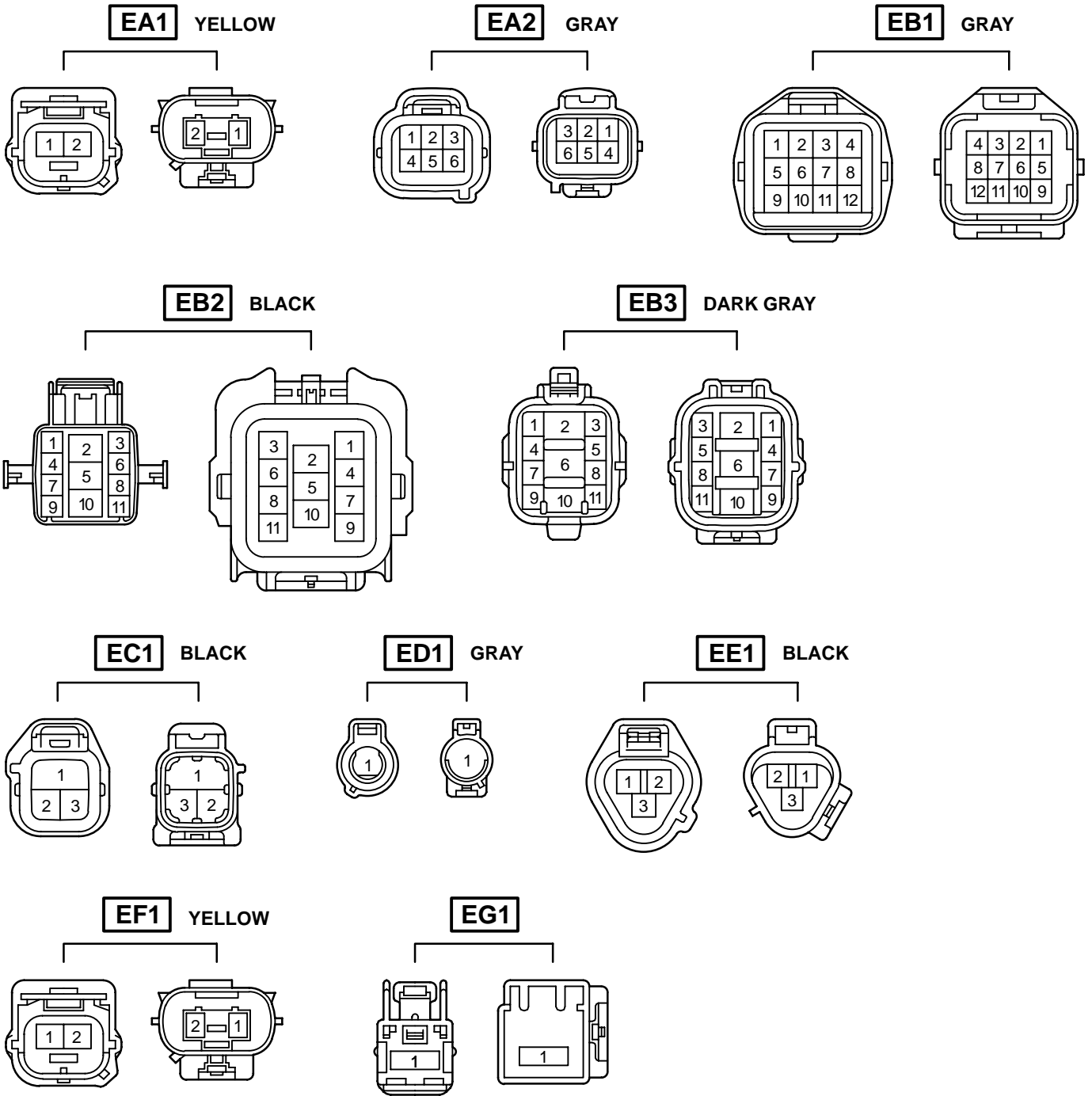
□ : Location of Connector Joining Wire Harness and Wire Harness  
 ▽ : Location of Ground Points



○ : Location of Splice Points



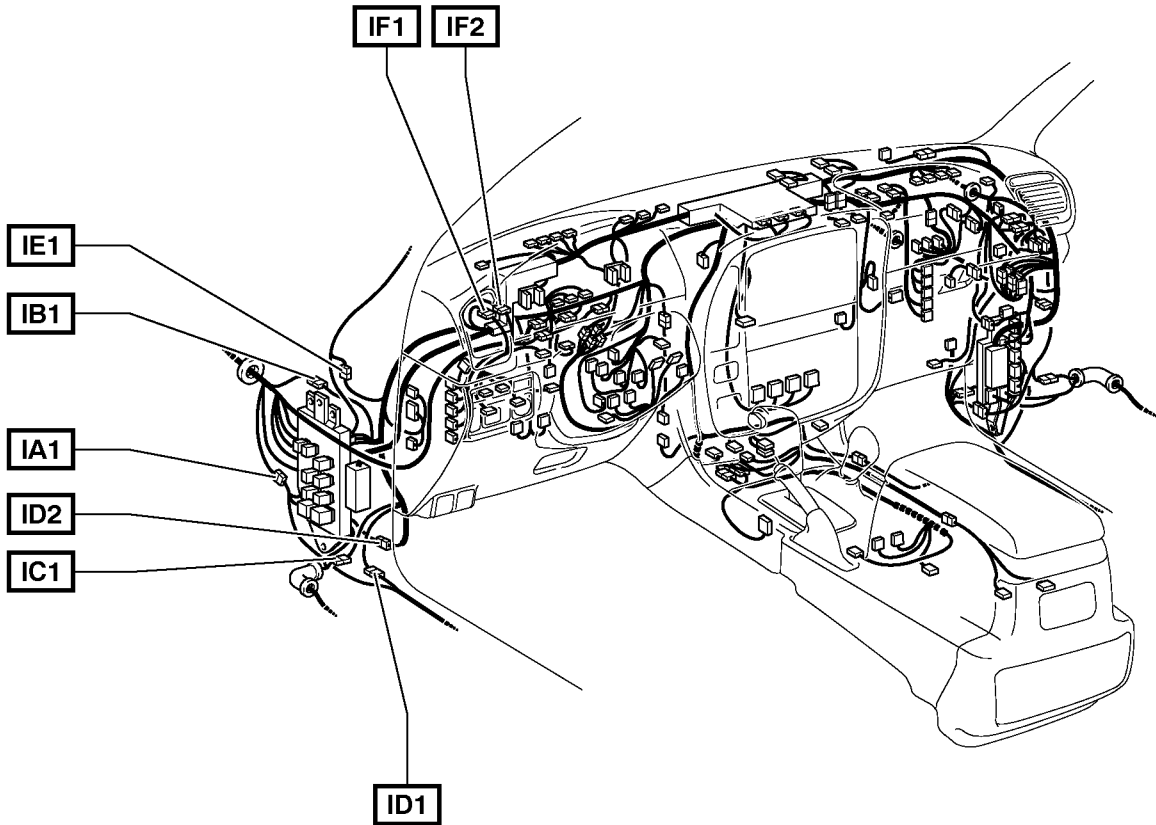
## Connector Joining Wire Harness and Wire Harness



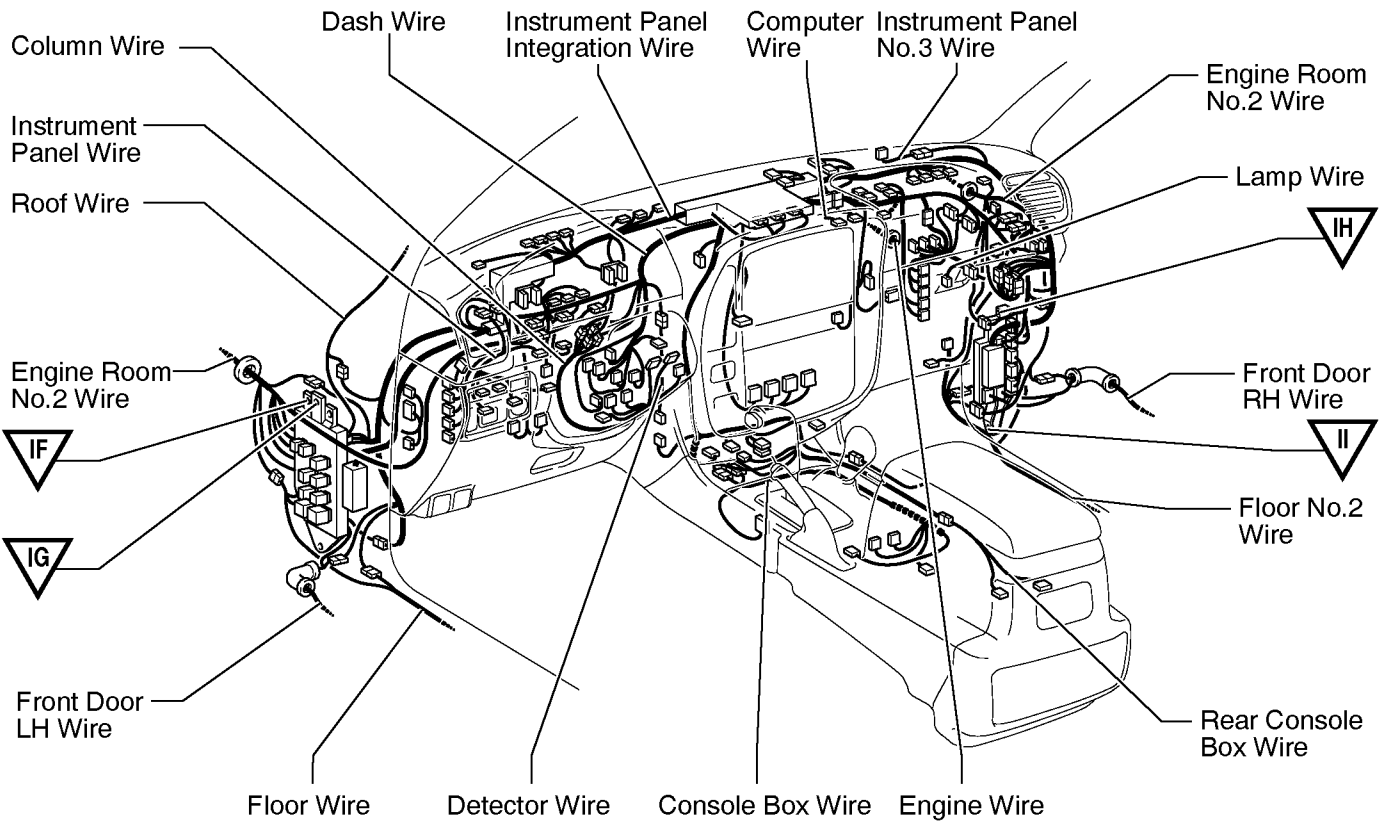
Code	Joining Wire Harness and Wire Harness (Connector Location)
EA1	Engine Room Main Wire and Engine Room No.2 Wire (Engine Compartment Right)
EA2	Engine Room Main Wire and Engine Room No.2 Wire (Engine Compartment Right)
EB1	
EB2	Engine Wire and Transmission Wire (On the Transmission)
EB3	
EC1	Engine No.2 Wire and Engine Wire (On the Transmission)
ED1	Engine No.2 Wire and Engine Room No.2 Wire (Near the Engine Room J/B)
EE1	Engine Room Main Wire and Alternator Wire (Near the Battery)
EF1	Engine Room No.2 Wire and Engine Room Main Wire (Under the Engine Room J/B)
EG1	Engine Room No.2 Wire and Engine Room No.3 Wire (Under the Engine Room J/B)

# G ELECTRICAL WIRING ROUTING

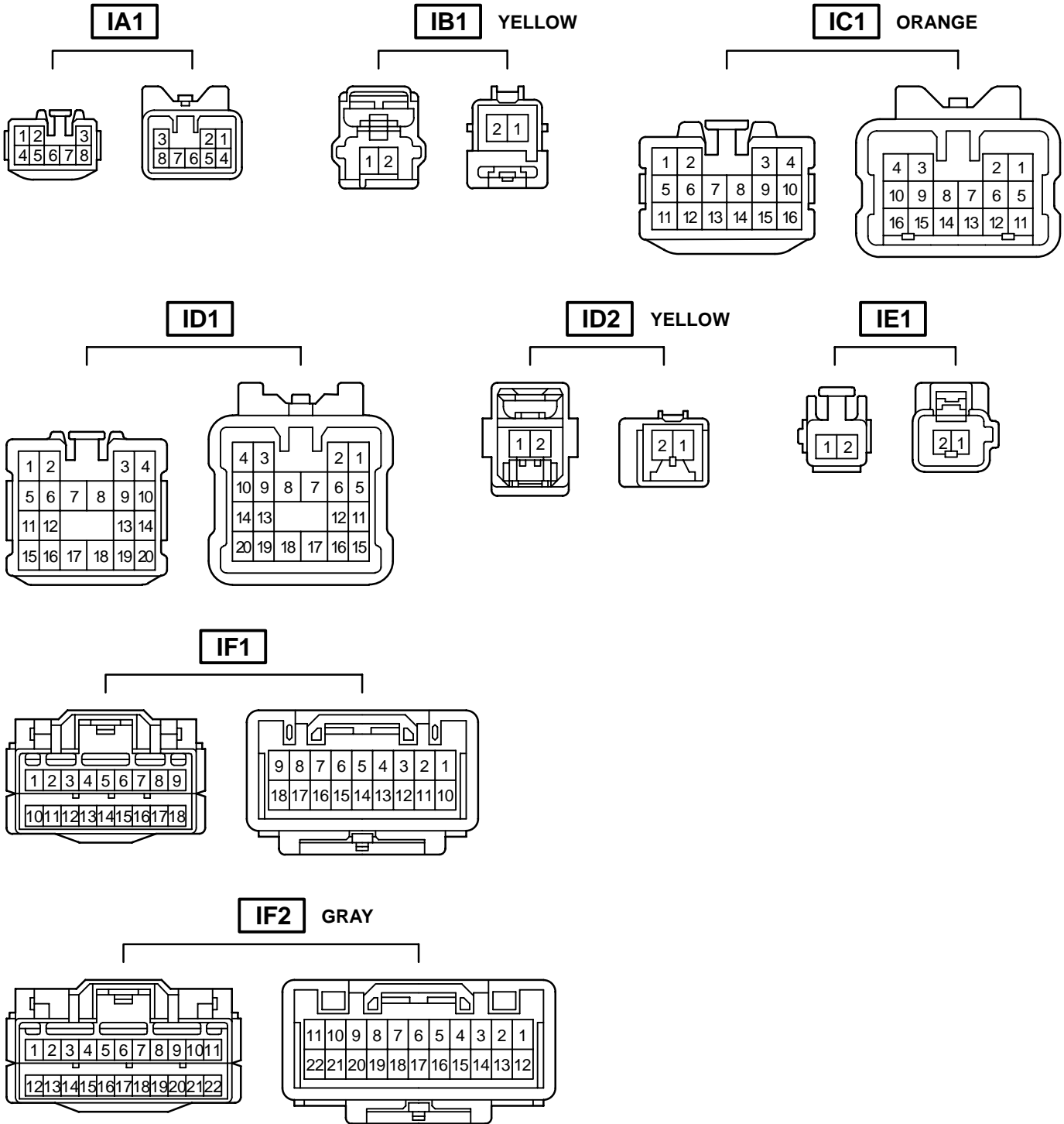
□ : Location of Connector Joining Wire Harness and Wire Harness



▽ : Location of Ground Points



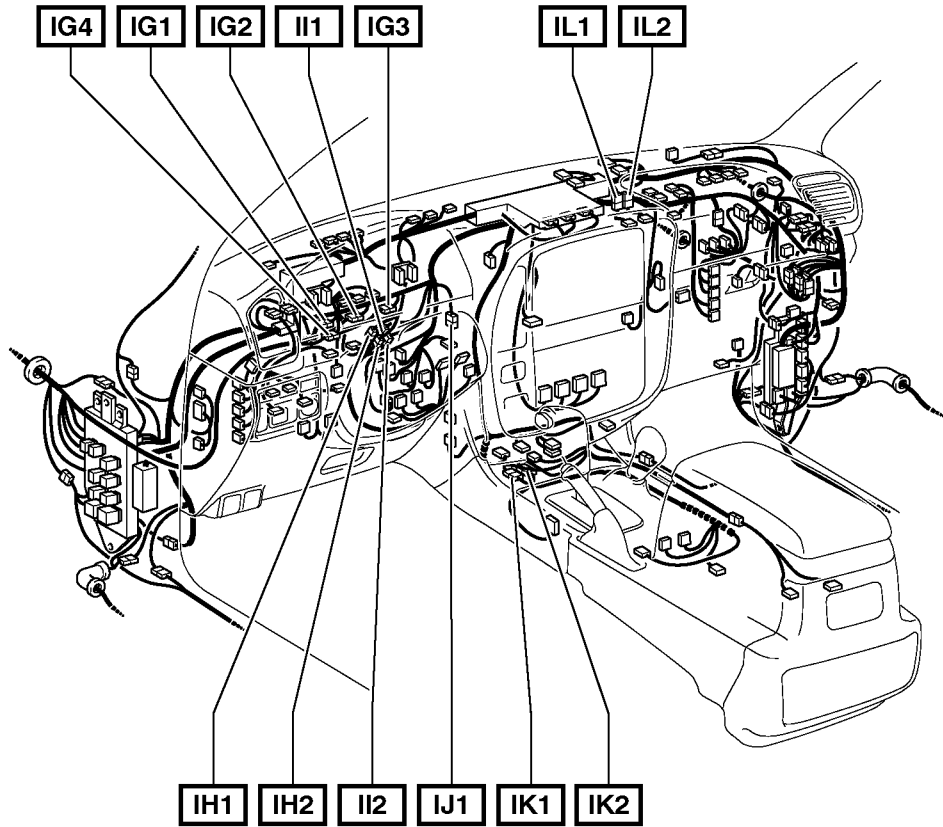
## Connector Joining Wire Harness and Wire Harness



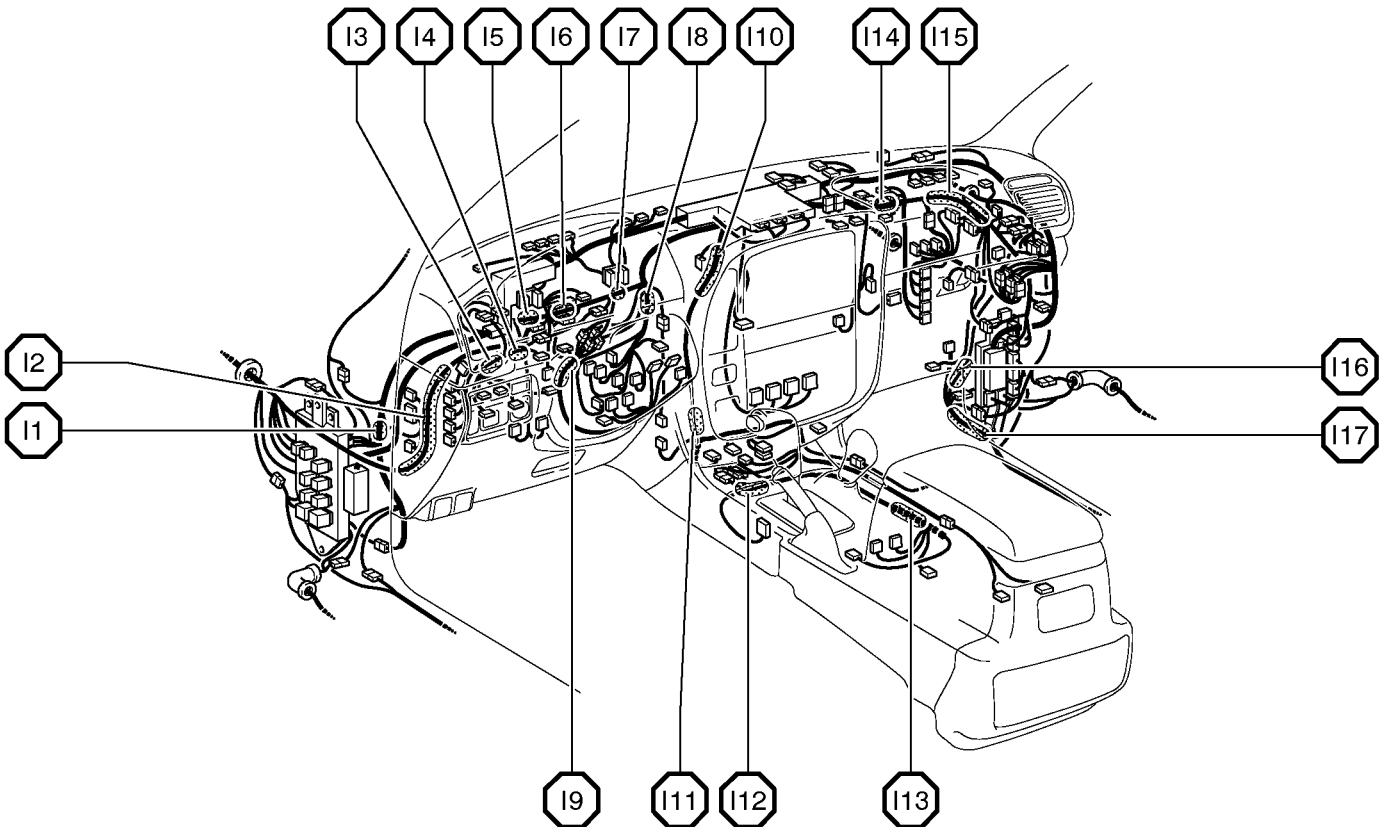
Code	Joining Wire Harness and Wire Harness (Connector Location)
IA1	Floor Wire and Engine Room No.2 Wire (Left Kick Panel)
IB1	Engine Room No.2 Wire and Dash Wire (Left Kick Panel)
IC1	Front Door LH Wire and Dash Wire (Left Kick Panel)
ID1	Dash Wire and Floor Wire (Left Kick Panel)
ID2	Dash Wire and Roof Wire (Left Kick Panel)
IE1	Dash Wire and Roof Wire (Left Kick Panel)
IF1	Instrument Panel Integration Wire and Instrument Panel Wire (Left Side of Instrument Panel)
IF2	Instrument Panel Integration Wire and Instrument Panel Wire (Left Side of Instrument Panel)

# G ELECTRICAL WIRING ROUTING

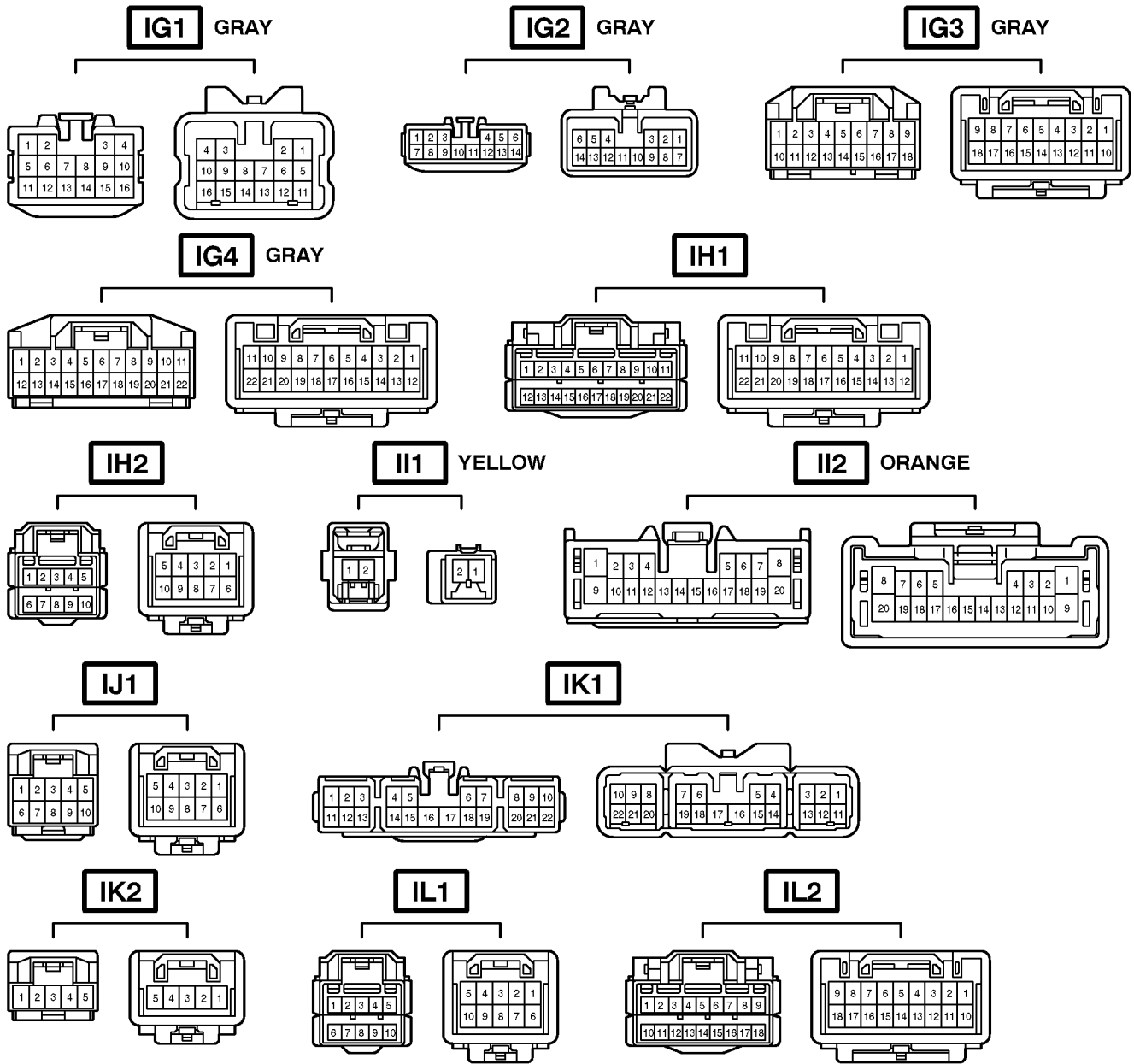
□ : Location of Connector Joining Wire Harness and Wire Harness



○ : Location of Splice Points



# Connector Joining Wire Harness and Wire Harness

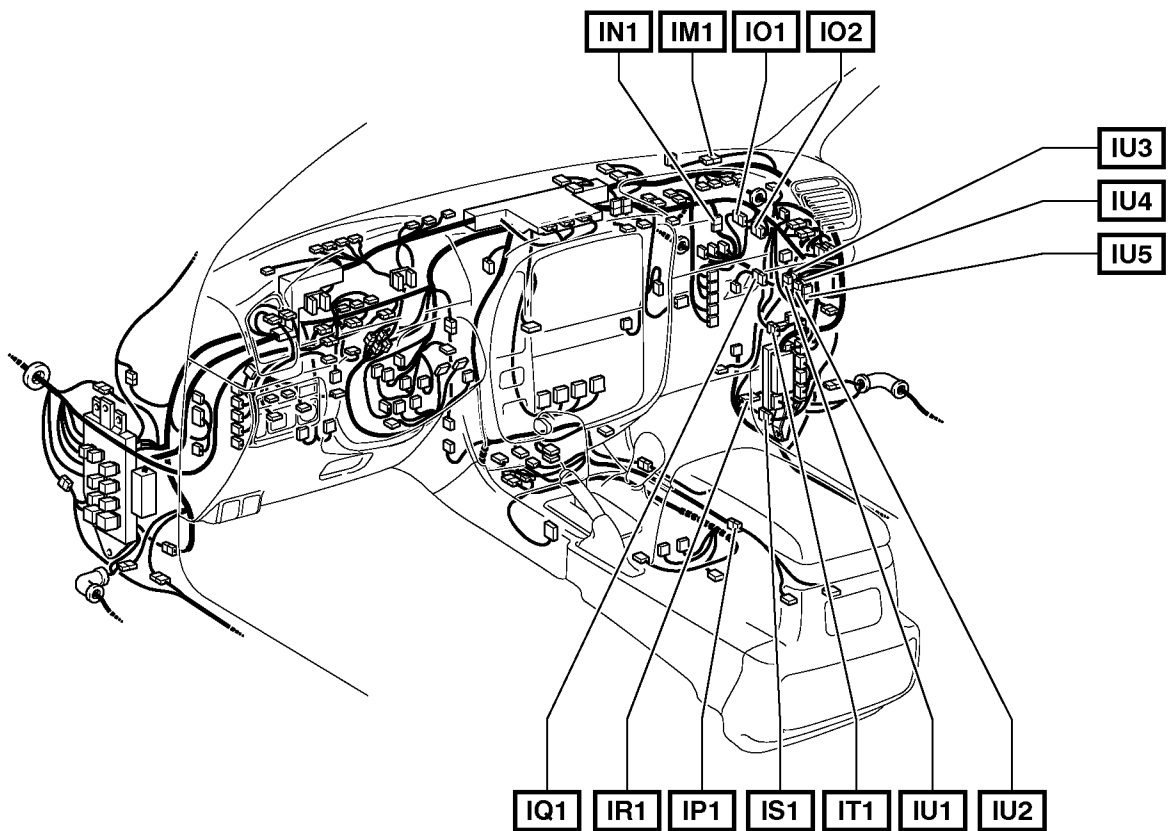


Code	Joining Wire Harness and Wire Harness (Connector Location)
IG1	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IG2	
IG3	
IG4	
IH1	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
IH2	
II1	Dash Wire and Column Wire (Near the Ignition SW)
II2	Column Wire and Dash Wire (Near the Ignition SW)
IJ1	Dash Wire and Detector Wire (Instrument Panel Center)
IK1	Console Box Wire and Dash Wire (Left Side of Front Console)
IK2	
IL1	Instrument Panel Integration Wire and Computer Wire (Instrument Panel Center)
IL2	

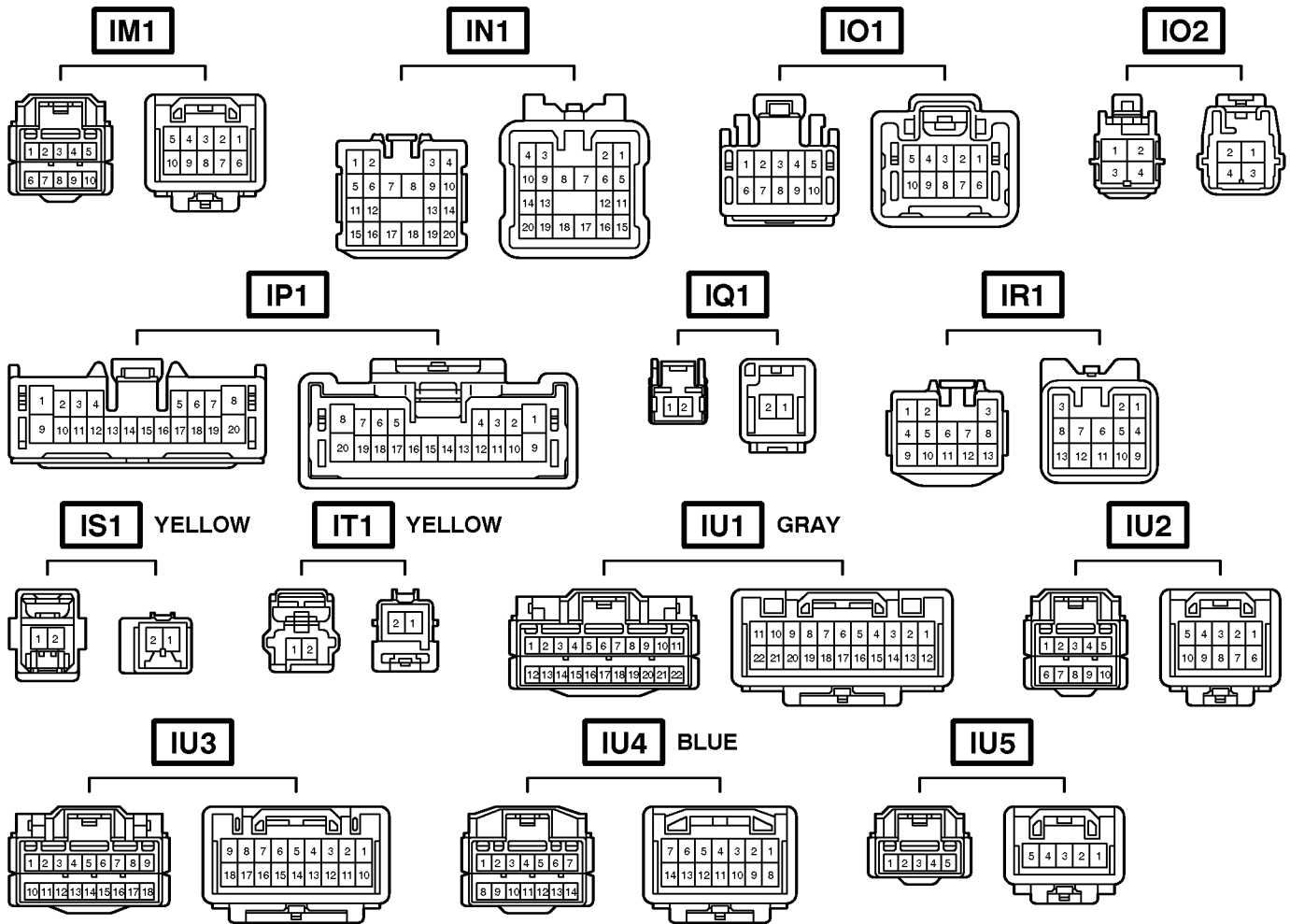


## G ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness




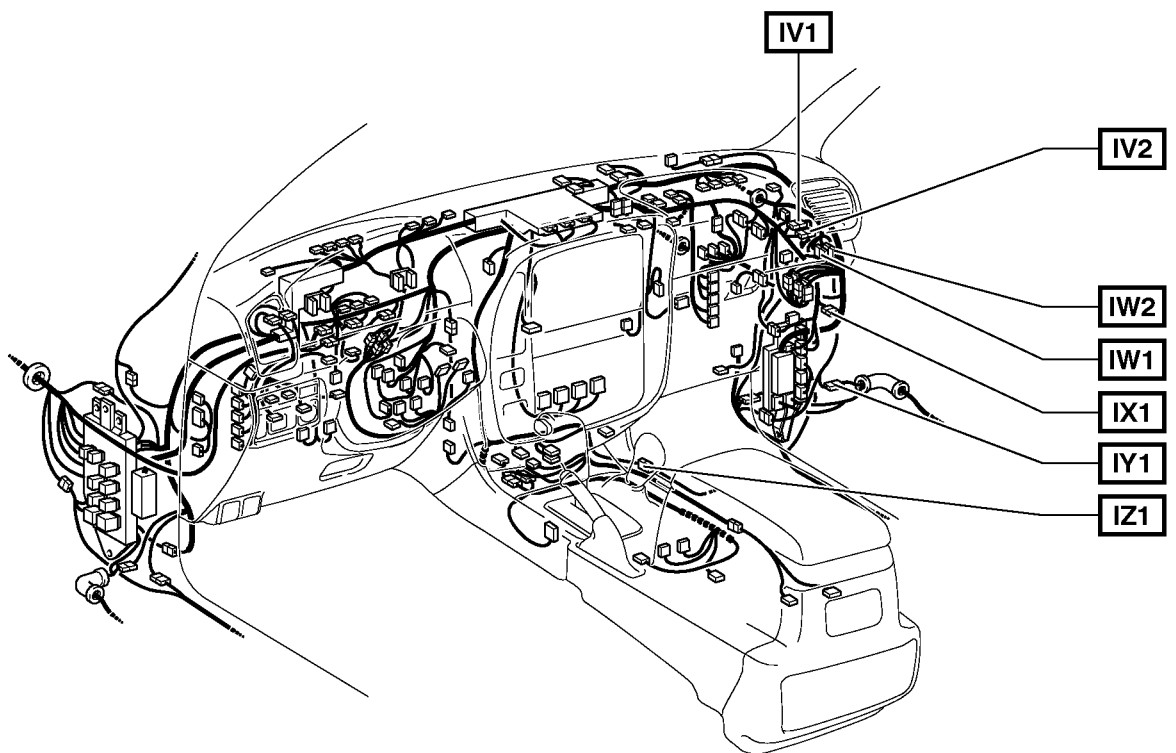
## Connector Joining Wire Harness and Wire Harness



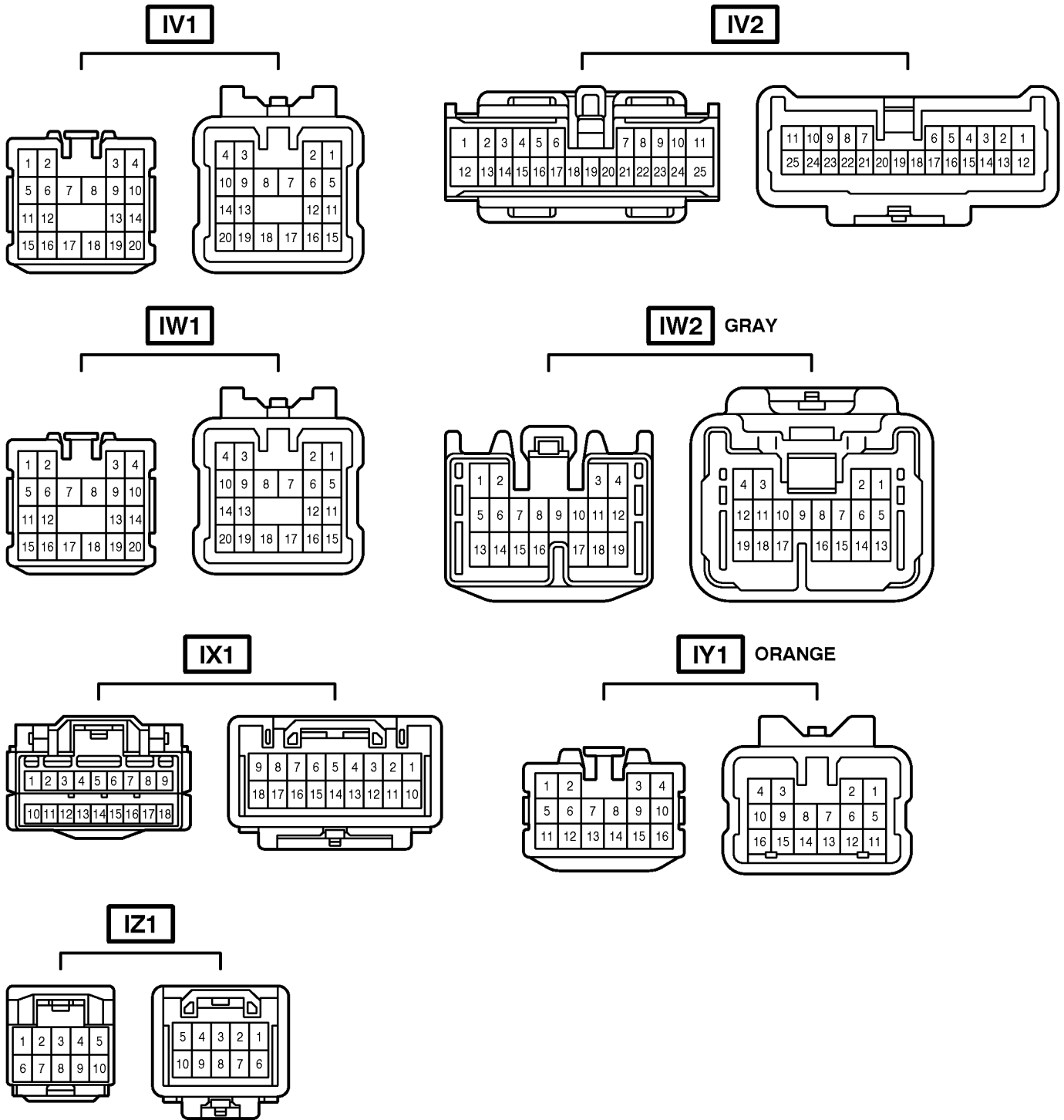
Code	Joining Wire Harness and Wire Harness (Connector Location)
IM1	Instrument Panel Integration Wire and Instrument Panel No.3 Wire (Right Side of Instrument Panel)
IN1	Engine Wire and Dash Wire (Behind the Glove Box)
IO1	
IO2	
IP1	Rear Console Box Wire and Dash Wire (Right Side of Rear Console)
IQ1	Instrument Panel Integration Wire and Lamp Wire (Behind the Glove Box)
IR1	Engine Room No.2 Wire and Floor No.2 Wire (Right Kick Panel)
IS1	Dash Wire and Floor No.2 Wire (Right Kick Panel)
IT1	Engine Room No.2 Wire and Dash Wire (Right Kick Panel)
IU1	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU2	
IU3	
IU4	
IU5	

## G ELECTRICAL WIRING ROUTING

 : Location of Connector Joining Wire Harness and Wire Harness



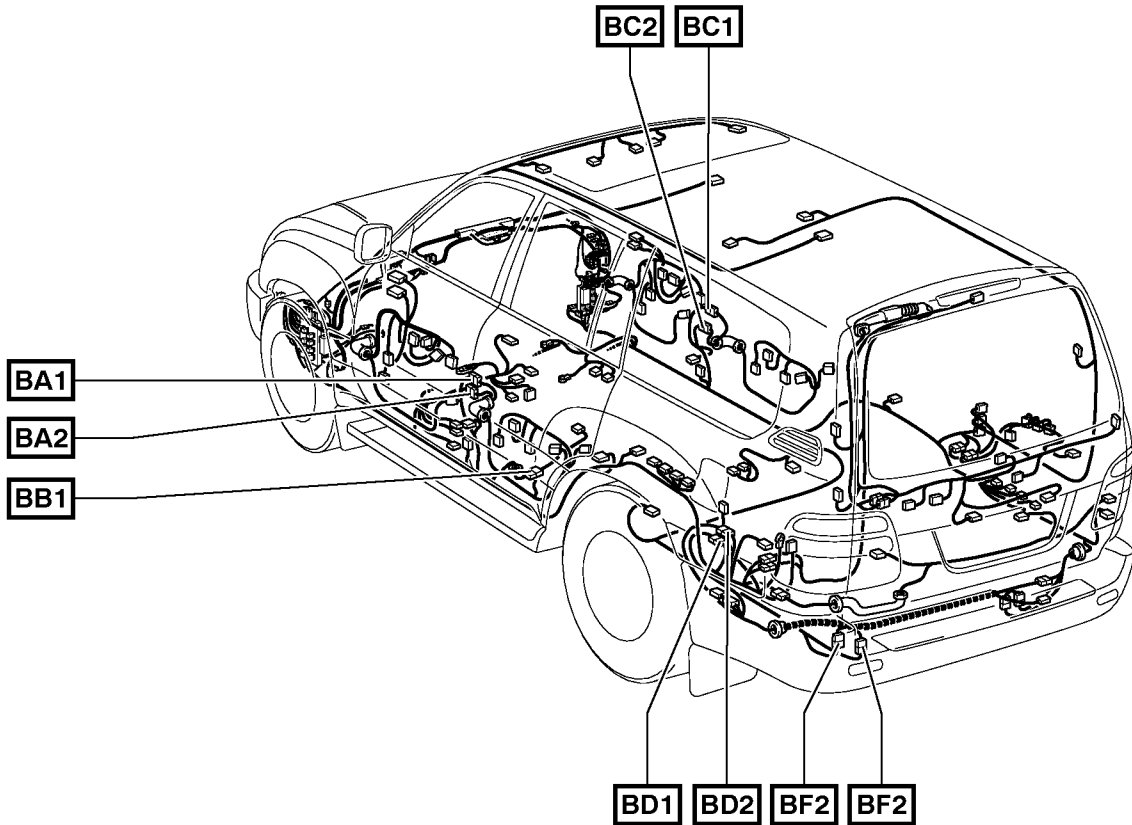
## Connector Joining Wire Harness and Wire Harness



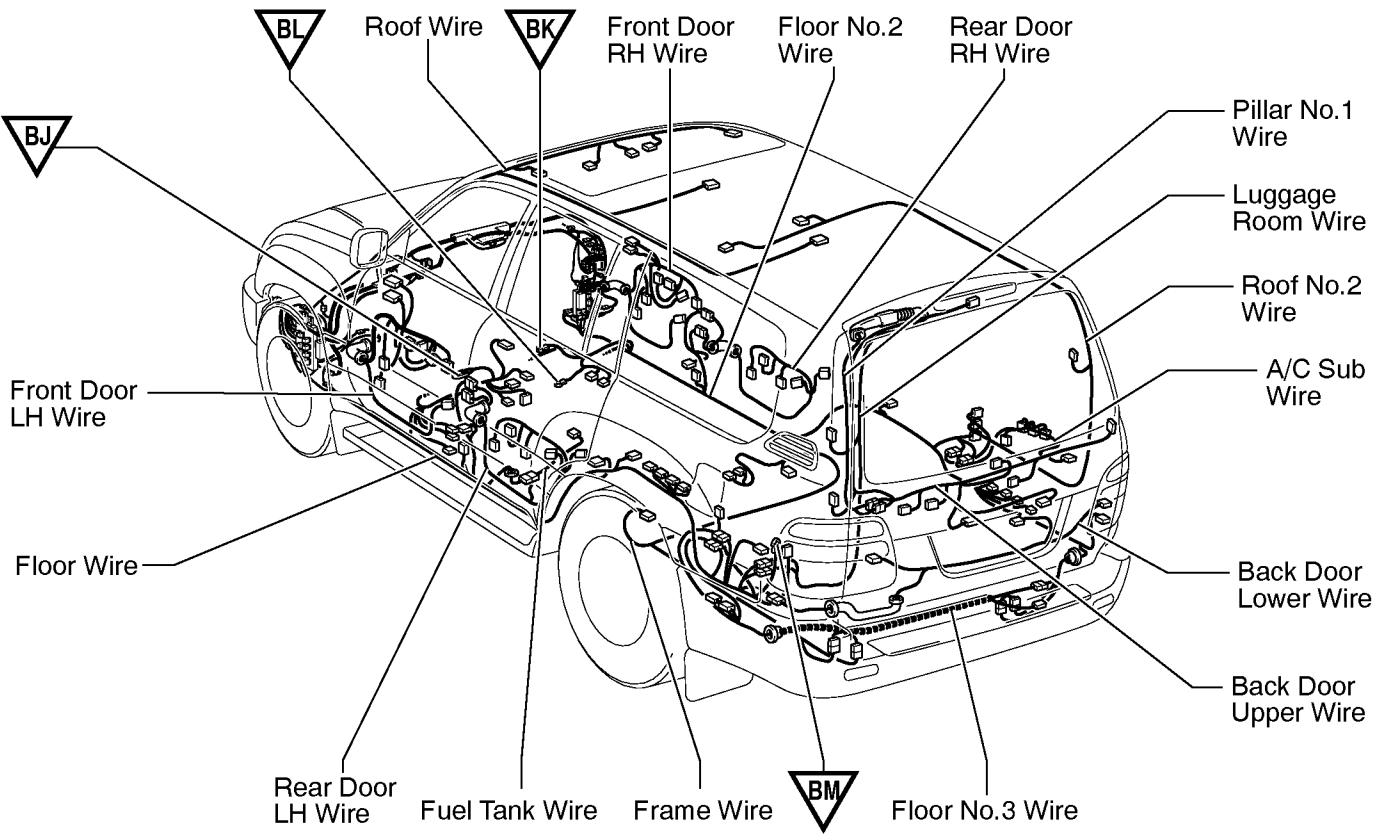
Code	Joining Wire Harness and Wire Harness (Connector Location)
IV1	Dash Wire and Floor No.2 Wire (Behind the Glove Box)
IV2	Dash Wire and Floor No.2 Wire (Behind the Glove Box)
IW1	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
IW2	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
IX1	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
IY1	Front Door RH Wire and Dash Wire (Right Kick Panel)
IZ1	Floor No.2 Wire and Dash Wire (Right Side of Rear Console)

# G ELECTRICAL WIRING ROUTING

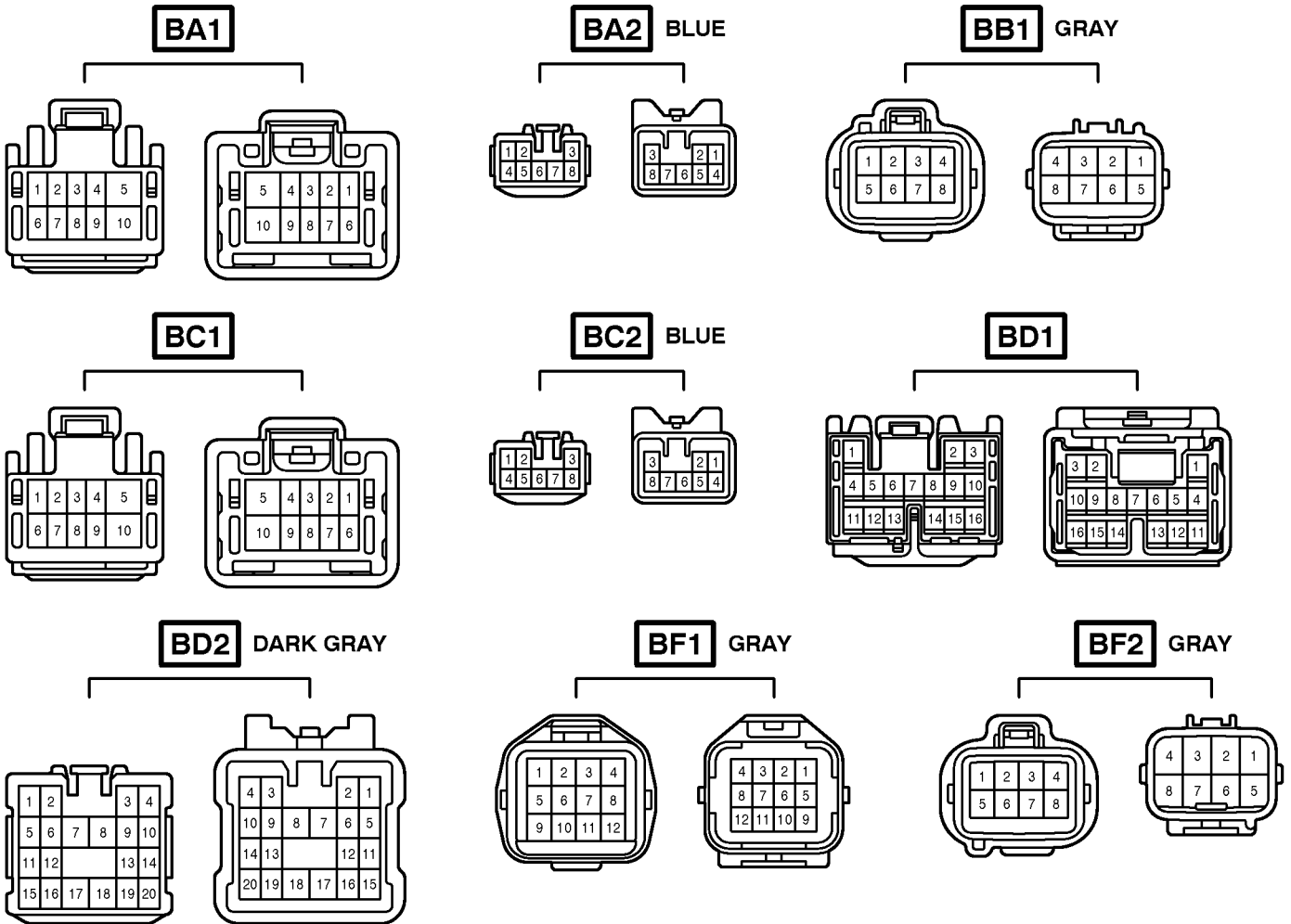
□ : Location of Connector Joining Wire Harness and Wire Harness



▽ : Location of Ground Points



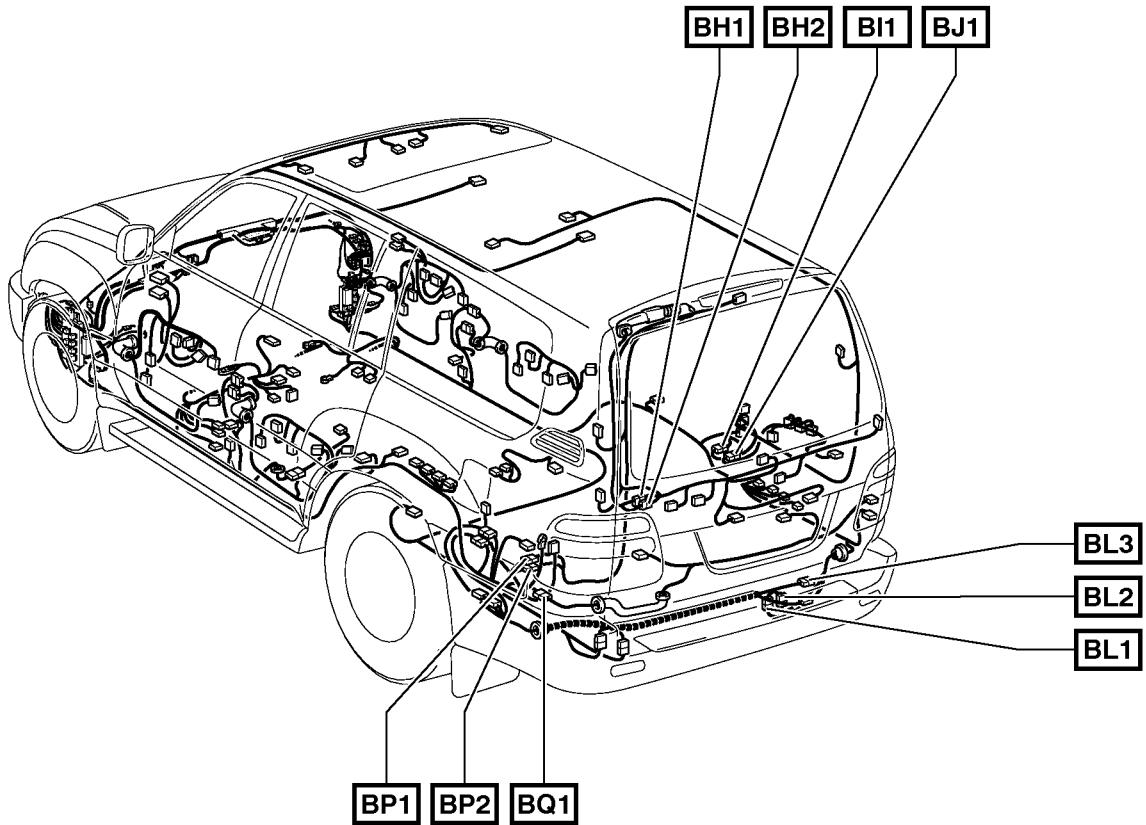
## Connector Joining Wire Harness and Wire Harness



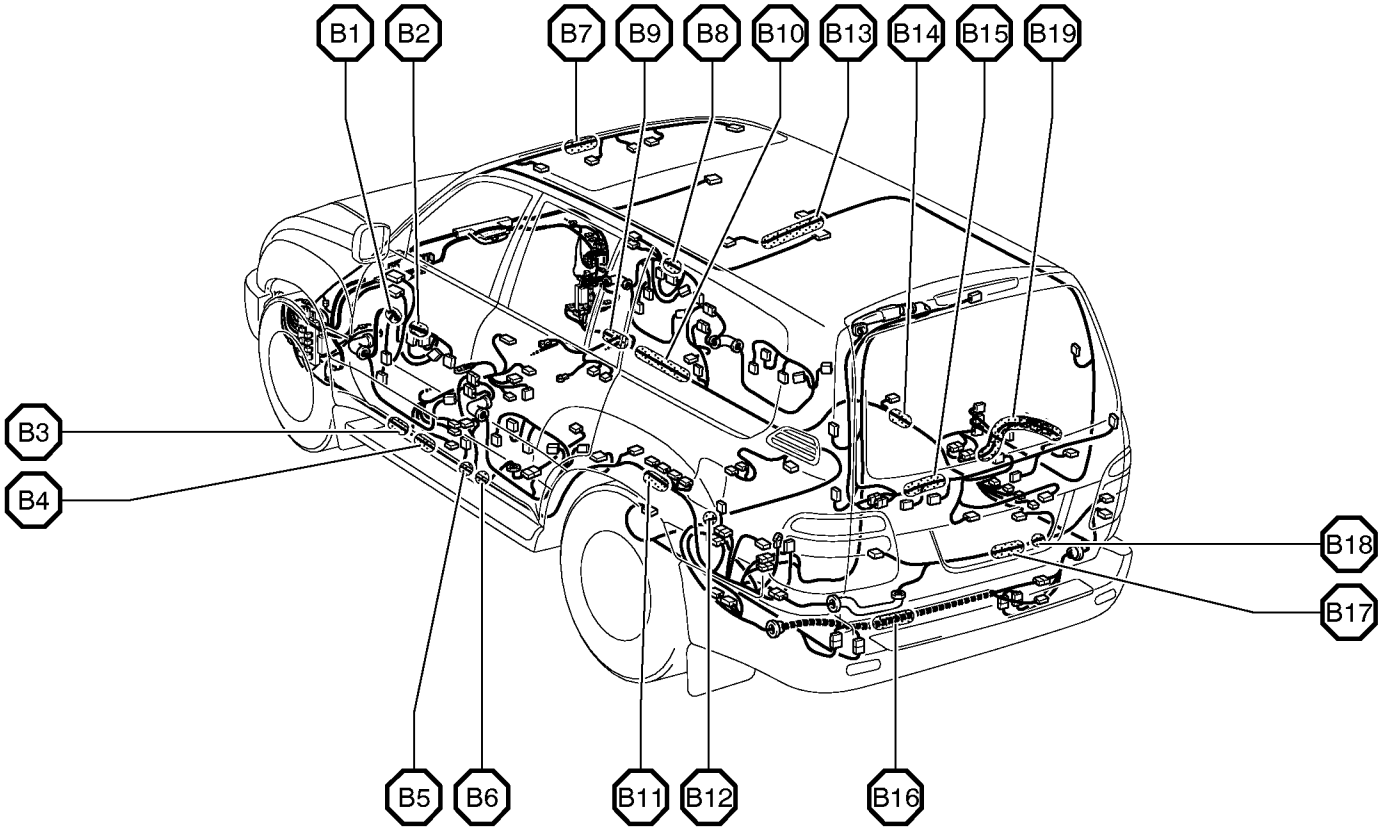
Code	Joining Wire Harness and Wire Harness (Connector Location)
BA1	Rear Door LH Wire and Floor Wire (Left Side of Center Pillar)
BA2	Rear Door LH Wire and Floor Wire (Left Side of Center Pillar)
BB1	Floor Wire and Fuel Tank Wire (Near the Fuel Tank)
BC1	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)
BC2	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)
BD1	Floor No.3 Wire and Floor Wire (Left Rear Side Quarter Panel)
BD2	Floor No.3 Wire and Floor Wire (Left Rear Side Quarter Panel)
BF1	Frame Wire and Floor No.3 Wire (Left Side of Rear Floor Crossmember)
BF2	Frame Wire and Floor No.3 Wire (Left Side of Rear Floor Crossmember)

# G ELECTRICAL WIRING ROUTING

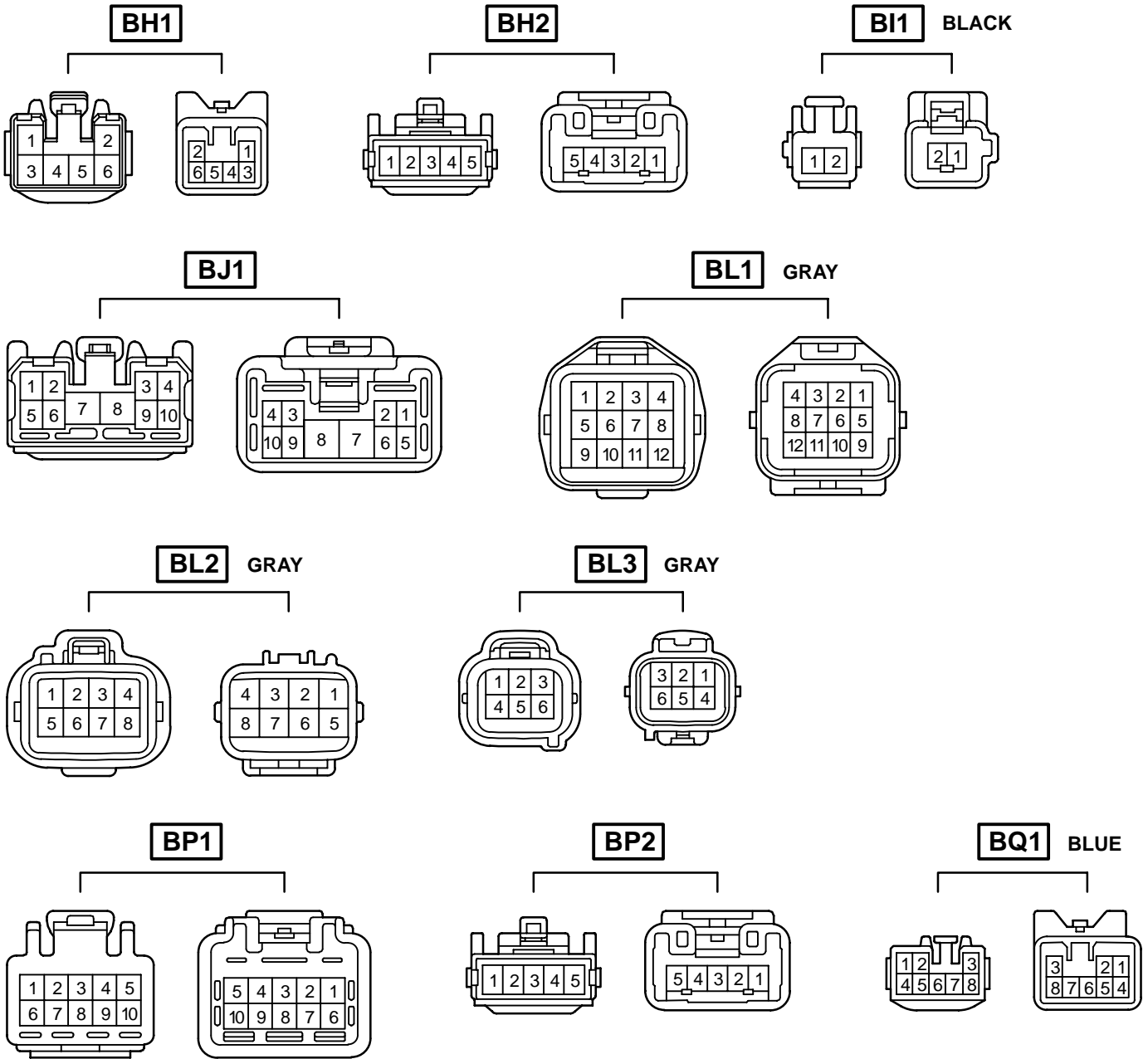
□ : Location of Connector Joining Wire Harness and Wire Harness



○ : Location of Splice Points



## Connector Joining Wire Harness and Wire Harness

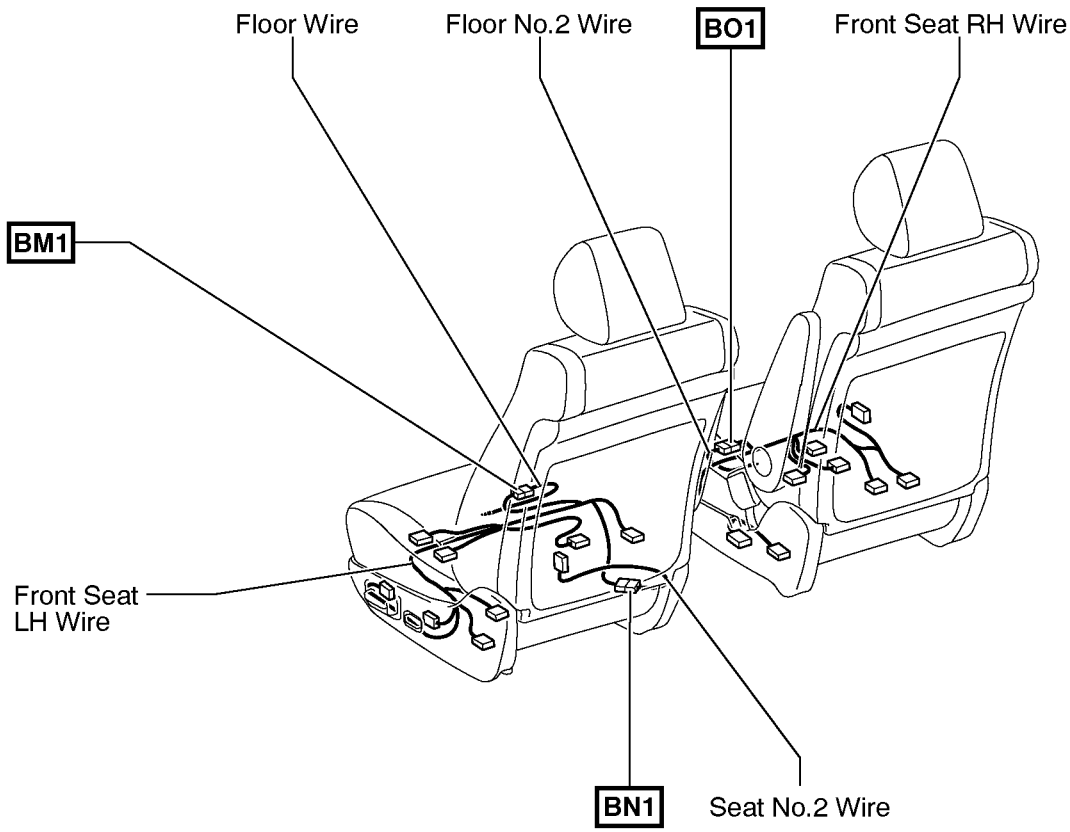


Code	Joining Wire Harness and Wire Harness (Connector Location)
BH1	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BH2	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
B11	Roor No.2 Wire and Floor No.2 Wire (Right Side Rear Quarter Panel)
BJ1	Floor No.2 Wire and A/C Sub Wire (Right Side Rear Quarter Panel)
BL1	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BL2	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BL3	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BP1	Pillar No.1 Wire and Floor Wire (Left Rear Side Quarter Panel)
BP2	Pillar No.1 Wire and Floor Wire (Left Rear Side Quarter Panel)
BQ1	Back Door Lower Wire and Floor Wire (Right Side of Rear Floor Crossmember)

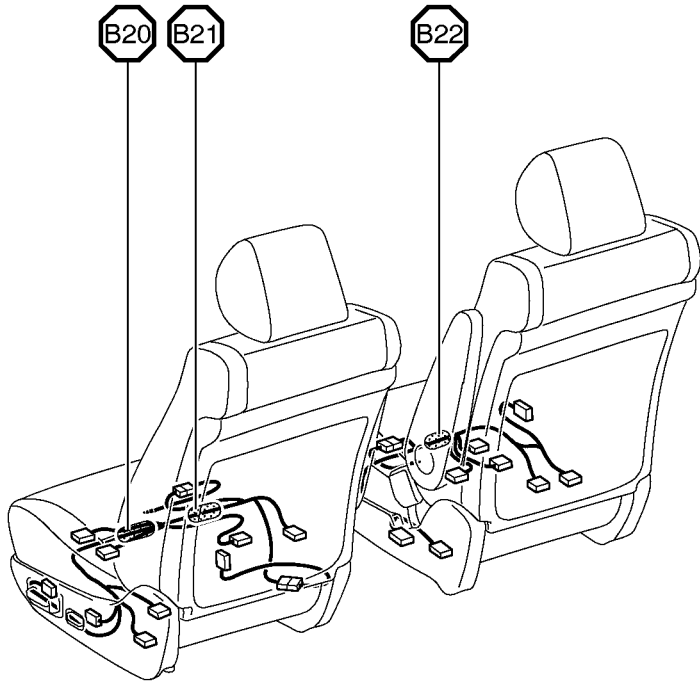


# G ELECTRICAL WIRING ROUTING

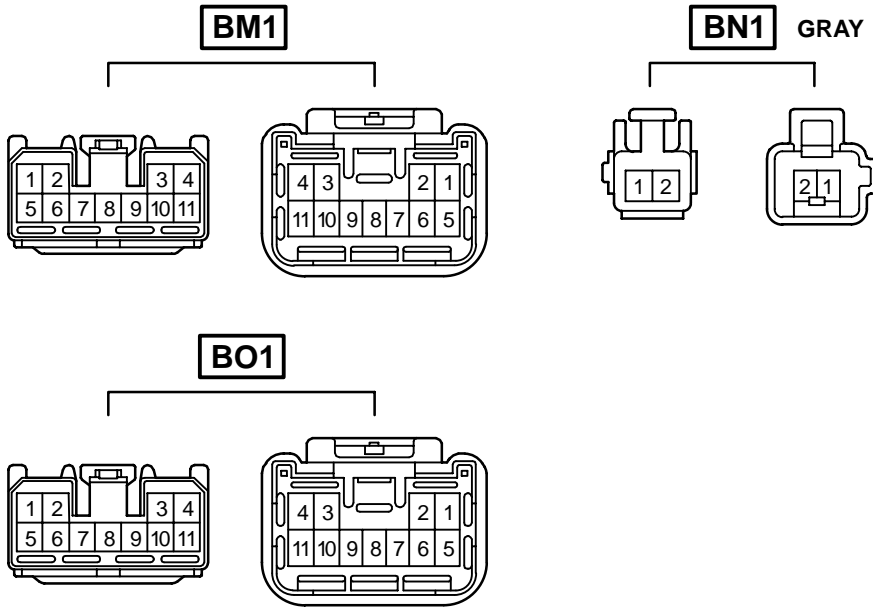
**□** : Location of Connector Joining Wire Harness and Wire Harness



**○** : Location of Splice Points

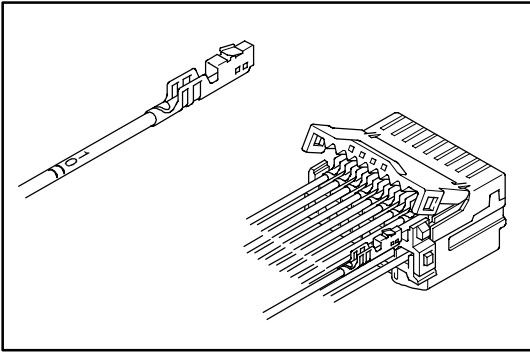


## Connector Joining Wire Harness and Wire Harness



Code	Joining Wire Harness and Wire Harness (Connector Location)
BM1	Floor Wire and Front Seat LH Wire (Front Side Under the Driver's Seat)
BN1	Seat No.2 Wire and Front Seat LH Wire (Rear Side Under the Driver's Seat)
BO1	Floor No.2 Wire and Front Seat RH Wire (Front Side Under the Front Passenger's Seat)

## HINT



### WIRE COLOR AND TERMINAL NUMBER

In some parts of the instrumental panel wiring harness, the same wire color (i.e. SB: Sky Blue) is used for all the wiring to a specific connector.

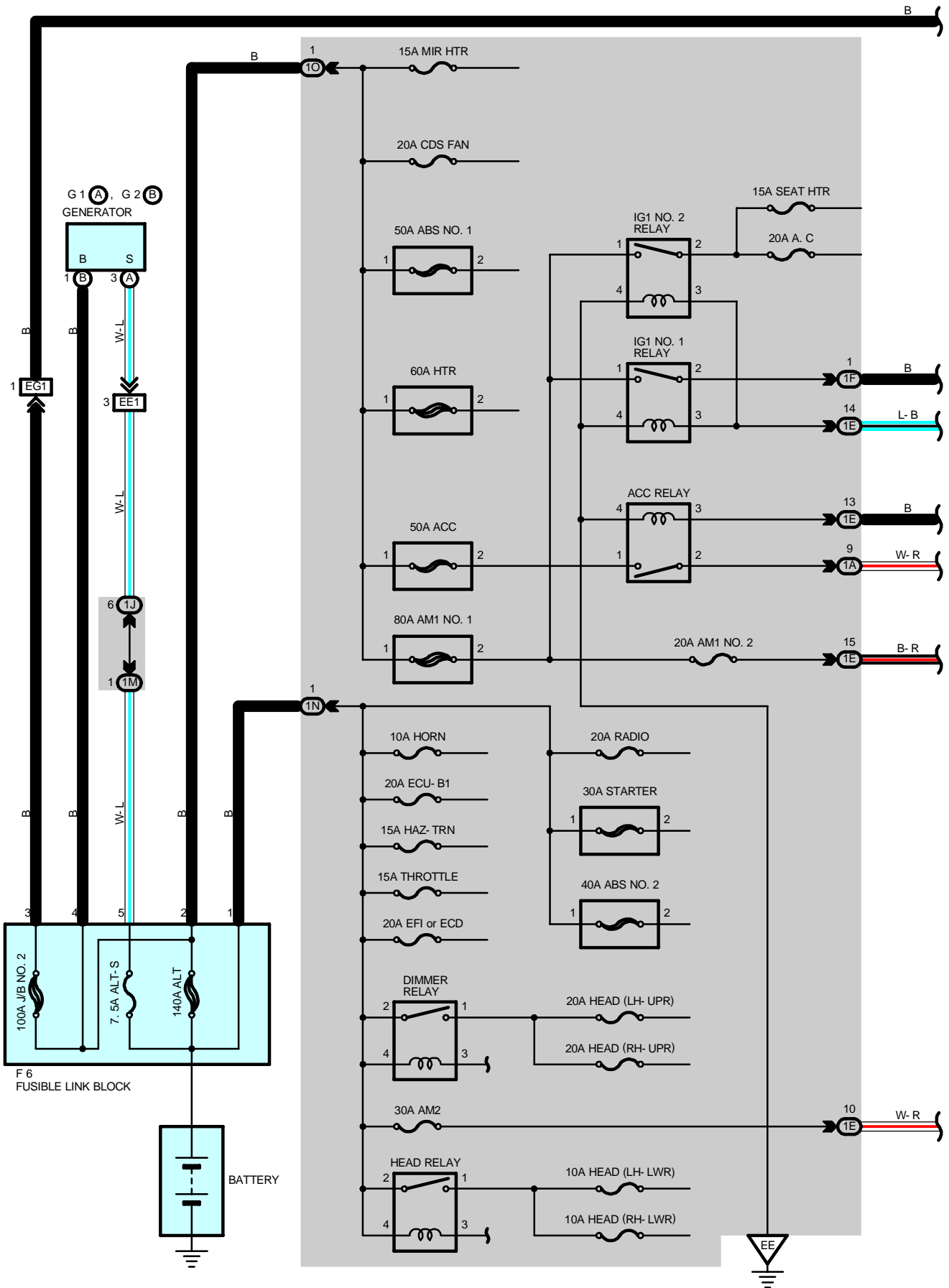
In order to identify the wiring, the terminal number is printed on the wiring.

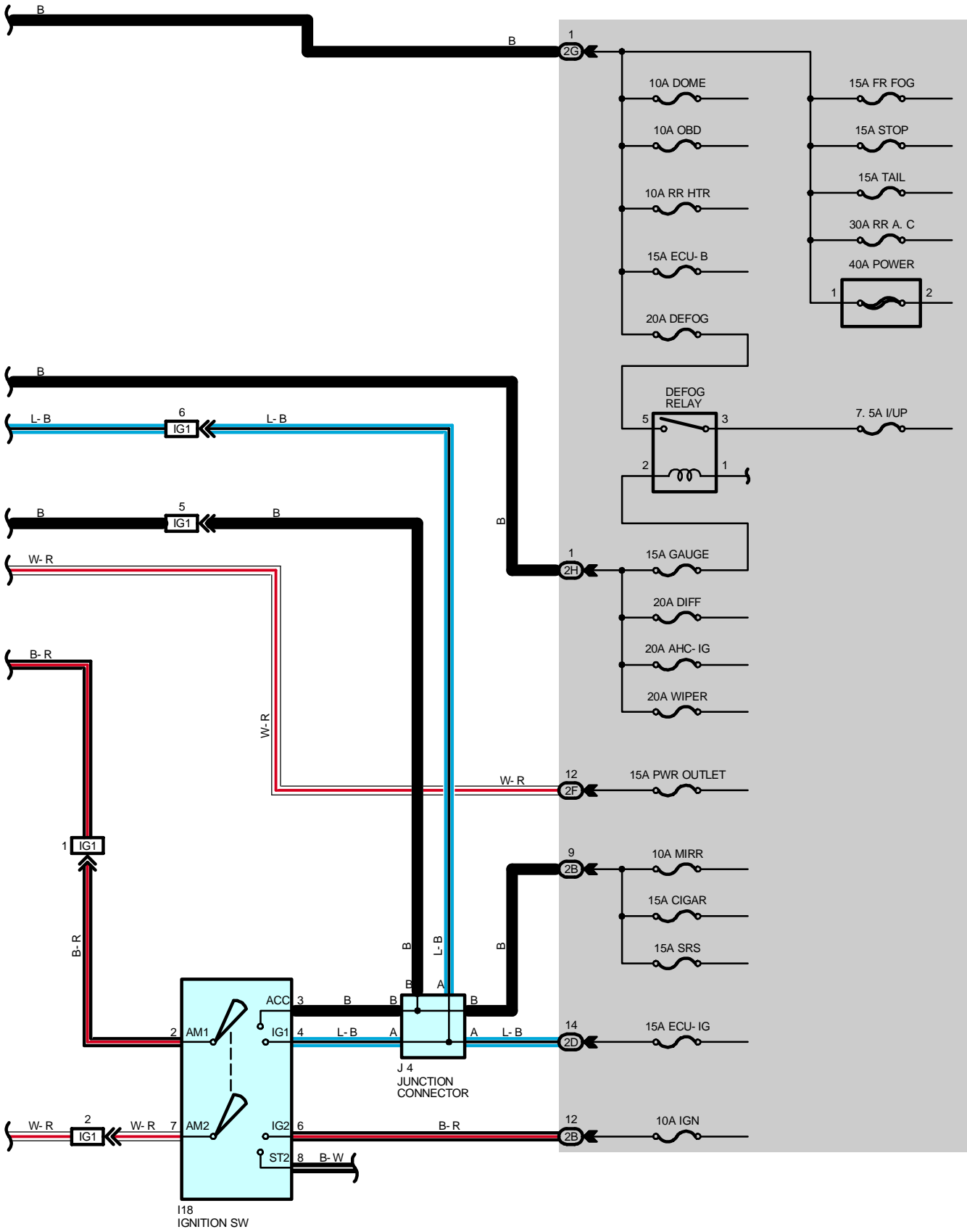
Install the wiring to the connector position with the same terminal number.

Some early production vehicles may not have these terminal numbers printed.



# POWER SOURCE





# POWER SOURCE

## SERVICE HINTS

### HEAD RELAY

2-1 : Closed with light control SW at **HEAD** position or dimmer SW at **FLASH** position  
(When the light auto turn off system does not operate)

### DIMMER RELAY

1-2 : Closed with daytime running light operation  
: Closed with light control SW at **HEAD** position and dimmer SW at **HIGH** position  
: Closed with dimmer SW at **FLASH** position

### I18 IGNITION SW

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

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page	
F6	38	G2	B	38	J4	41
G1	A	38	I18	40		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1E		
1F		
1J	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1M	23	Engine Room No.3 Wire and Engine Room J/B (Engine Compartment Left)
1N		
1O		
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		
2F	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2G		
2H		

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EE1	46	Engine Room Main Wire and Alternator Wire (Near the Battery)
EG1	46	Engine Room No.2 Wire and Engine Room No.3 Wire (Under the Engine Room J/B)
IG1	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)

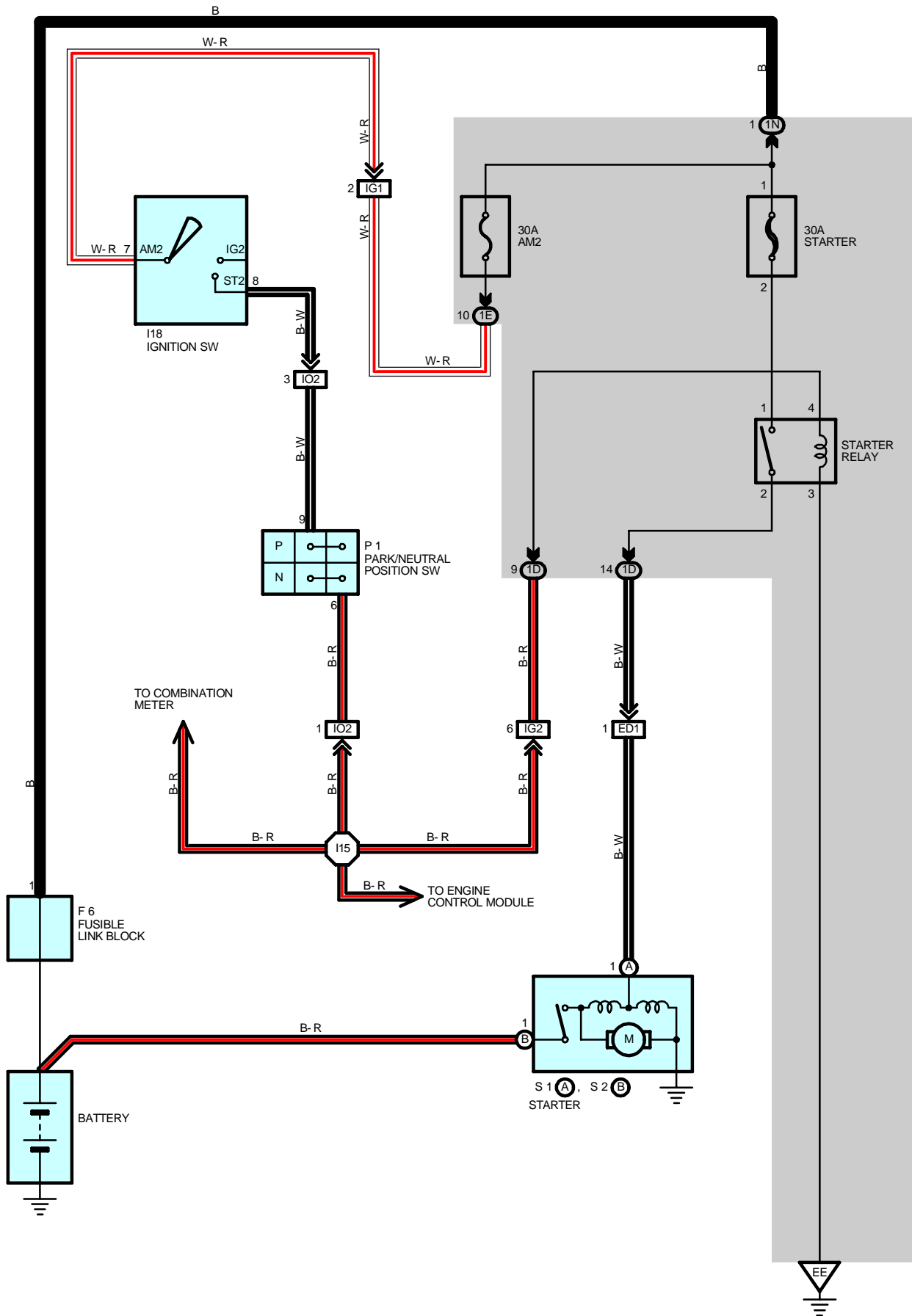
## ▽ : GROUND POINTS

Code	See Page	Ground Points Location
EE	46	Front Left Side of Fender Apron





# STARTING



## SERVICE HINTS

### I18 IGNITION SW

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

### S1 (A), S2 (B) STARTER

Points 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
F6	38	P1	39	S2	B 39
I18	40	S1	A 39		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1E		
1N	23	Engine Room No.3 Wire and Engine Room J/B (Engine Compartment Left)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ED1	46	Engine No.2 Wire and Engine Room No.2 Wire (Near the Engine Room J/B)
IG1	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IG2		
IO2	52	Engine Wire and Dash Wire (Behind the Glove Box)

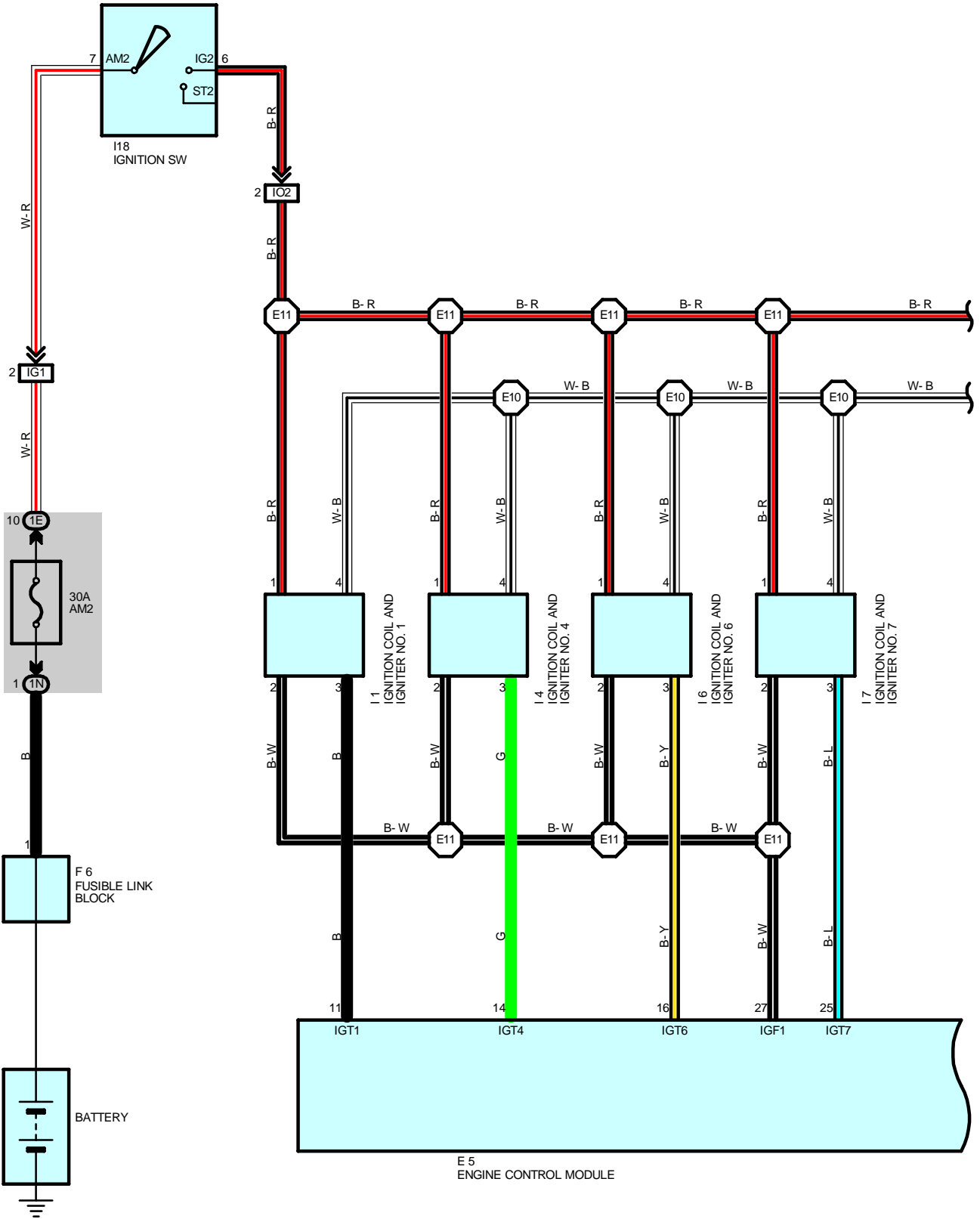
## ▽ : GROUND POINTS

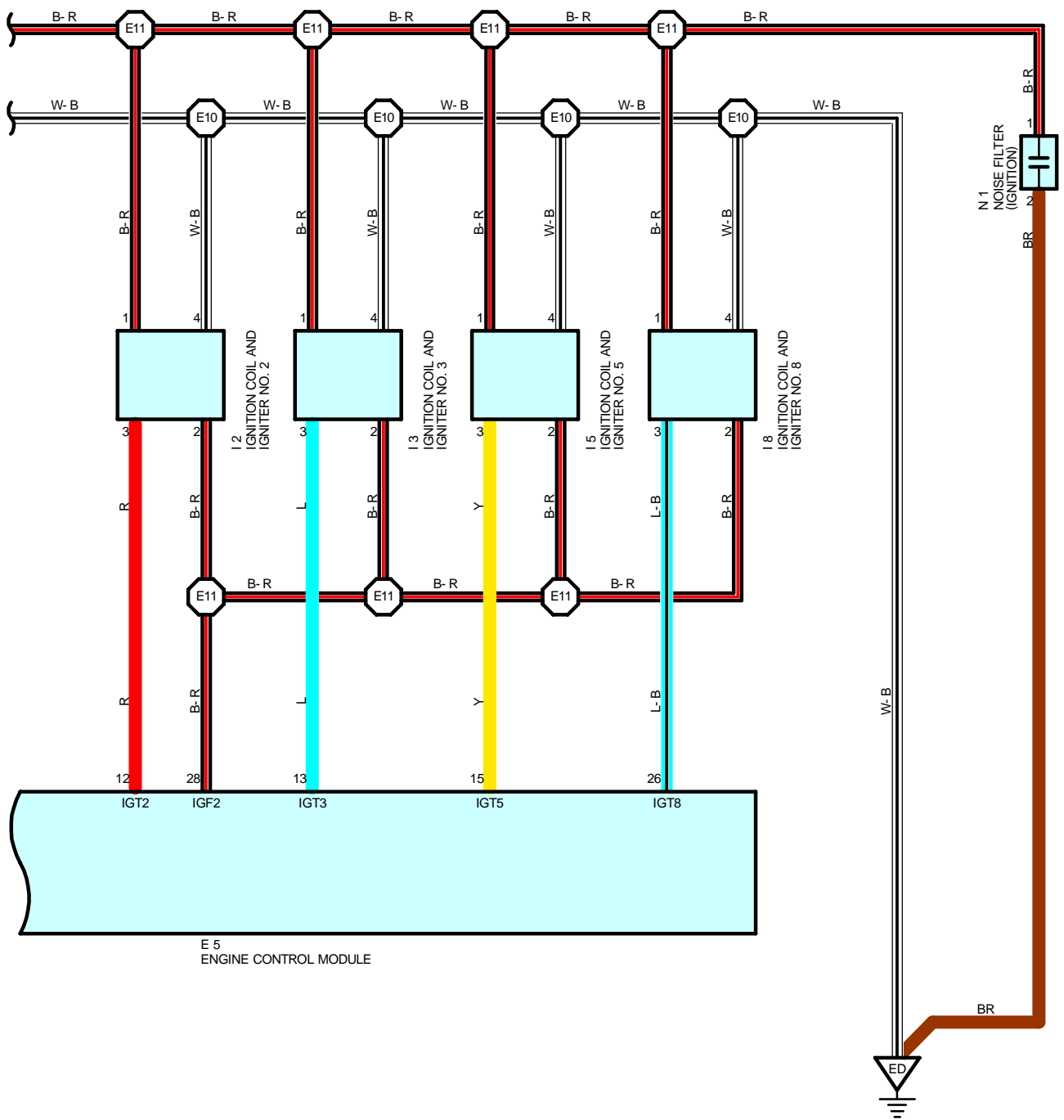
Code	See Page	Ground Points Location
EE	46	Front Left Side of Fender Apron

## ○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I15	50	Dash Wire			

# IGNITION





# IGNITION

## SERVICE HINTS

### I18 IGNITION SW

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

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
E5	<a href="#">40</a>	I3	<a href="#">39</a>	I7	<a href="#">39</a>
F6	<a href="#">38</a>	I4	<a href="#">39</a>	I8	<a href="#">39</a>
I1	<a href="#">39</a>	I5	<a href="#">39</a>	I18	<a href="#">40</a>
I2	<a href="#">39</a>	I6	<a href="#">39</a>	N1	<a href="#">39</a>

## ⊞ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1E	<a href="#">23</a>	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1N	<a href="#">23</a>	Engine Room No.3 Wire and Engine Room J/B (Engine Compartment Left)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	<a href="#">50</a>	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IO2	<a href="#">52</a>	Engine Wire and Dash Wire (Behind the Glove Box)

## ▽ : GROUND POINTS

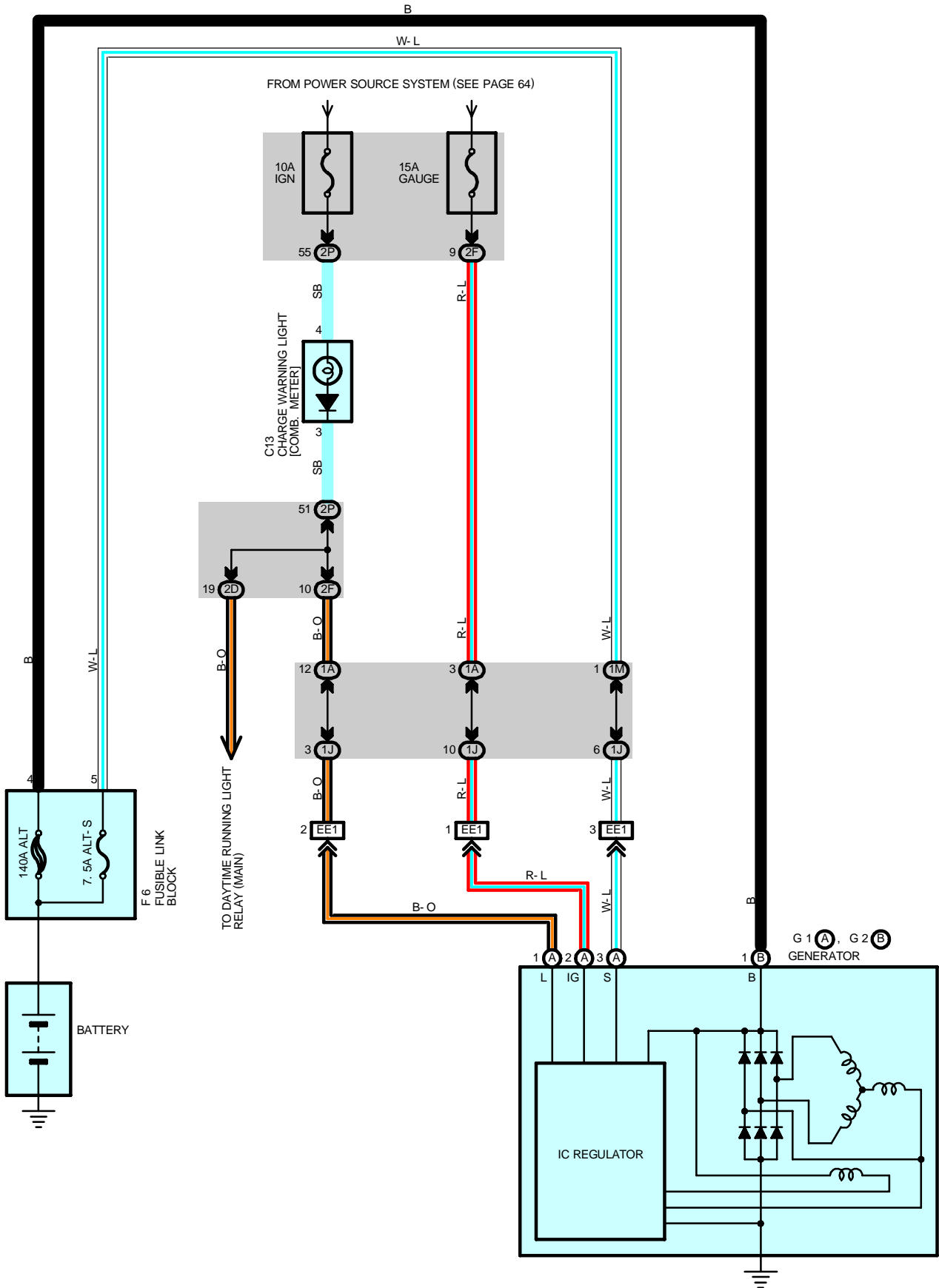
Code	See Page	Ground Points Location
ED	<a href="#">46</a>	Rear Bank of Left Cylinder Head

## ⊠ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E10	<a href="#">46</a>	Engine Wire	E11	<a href="#">46</a>	Engine Wire



# CHARGING



---

**SERVICE HINTS****G1 GENERATOR**

1-GROUND : 13.2- 14.0 volts with engine running at 5000 rpm and 115°C (239°F)

**○ : PARTS LOCATION**

Code	See Page	Code	See Page	Code	See Page
C13	40	G1	A	38	
F6	38	G2	B	38	

**○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

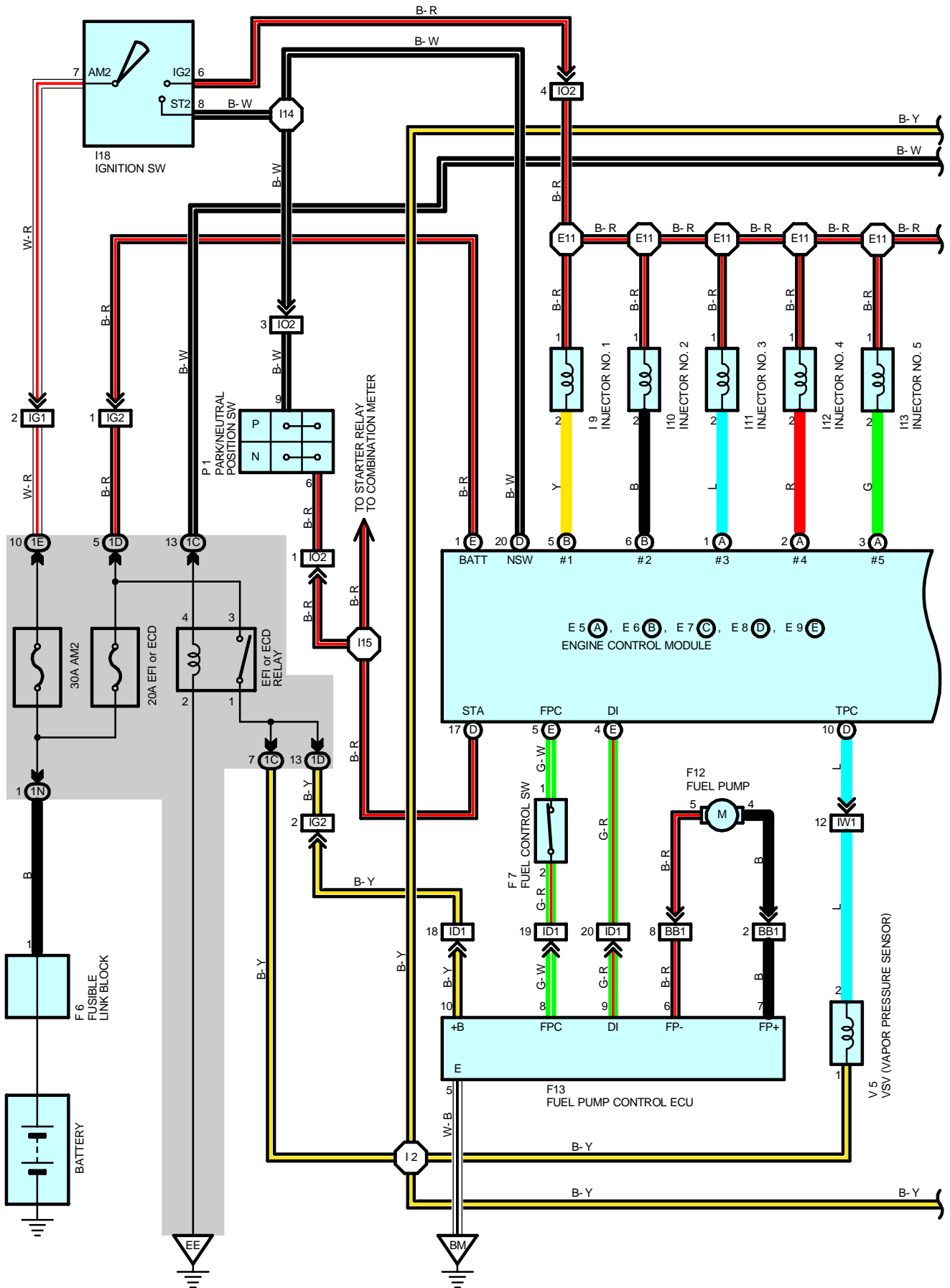
Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1J	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1M	23	Engine Room No.3 Wire and Engine Room J/B (Engine Compartment Left)
2D	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2F	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)

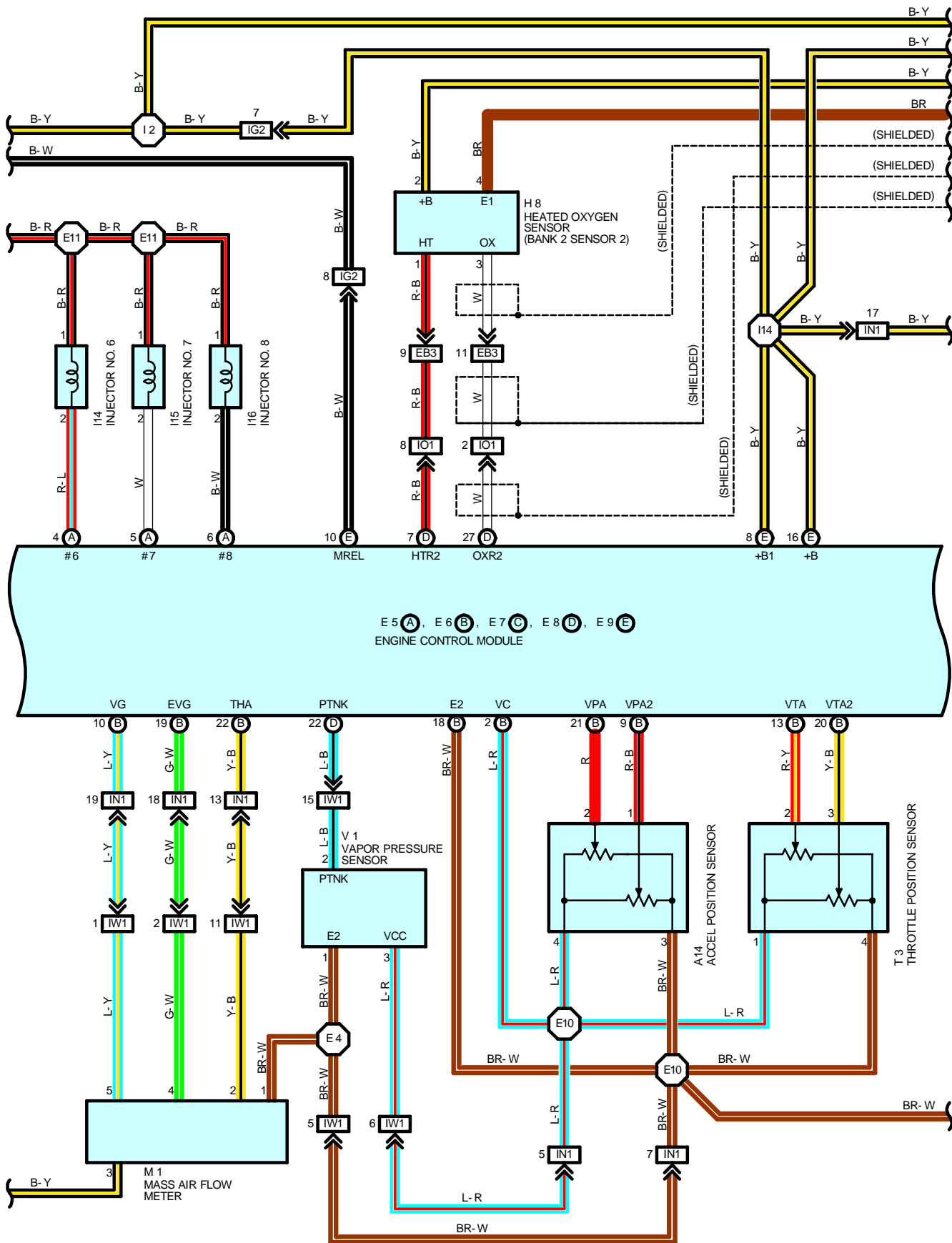
**□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EE1	46	Engine Room Main Wire and Alternator Wire (Near the Battery)

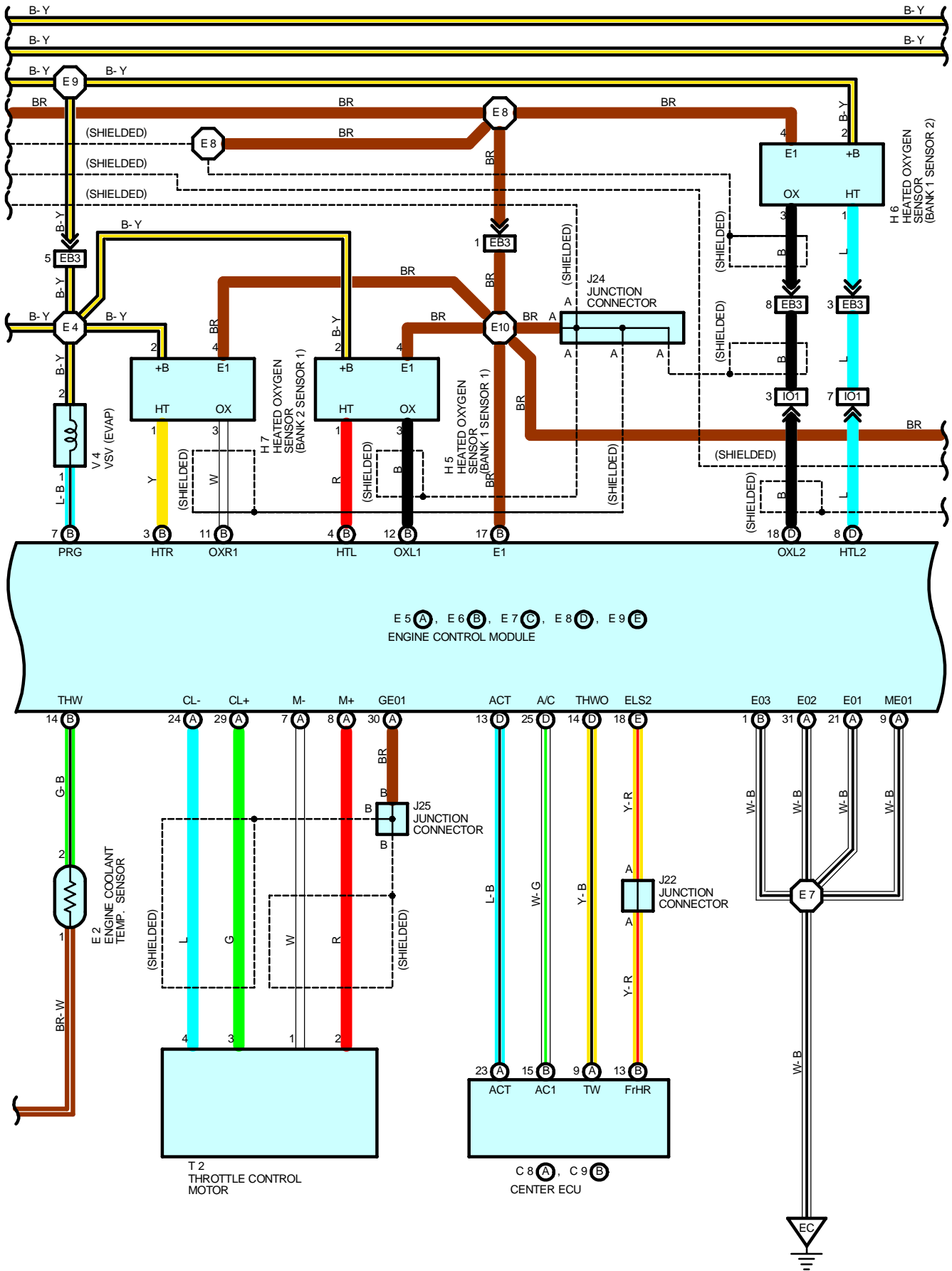


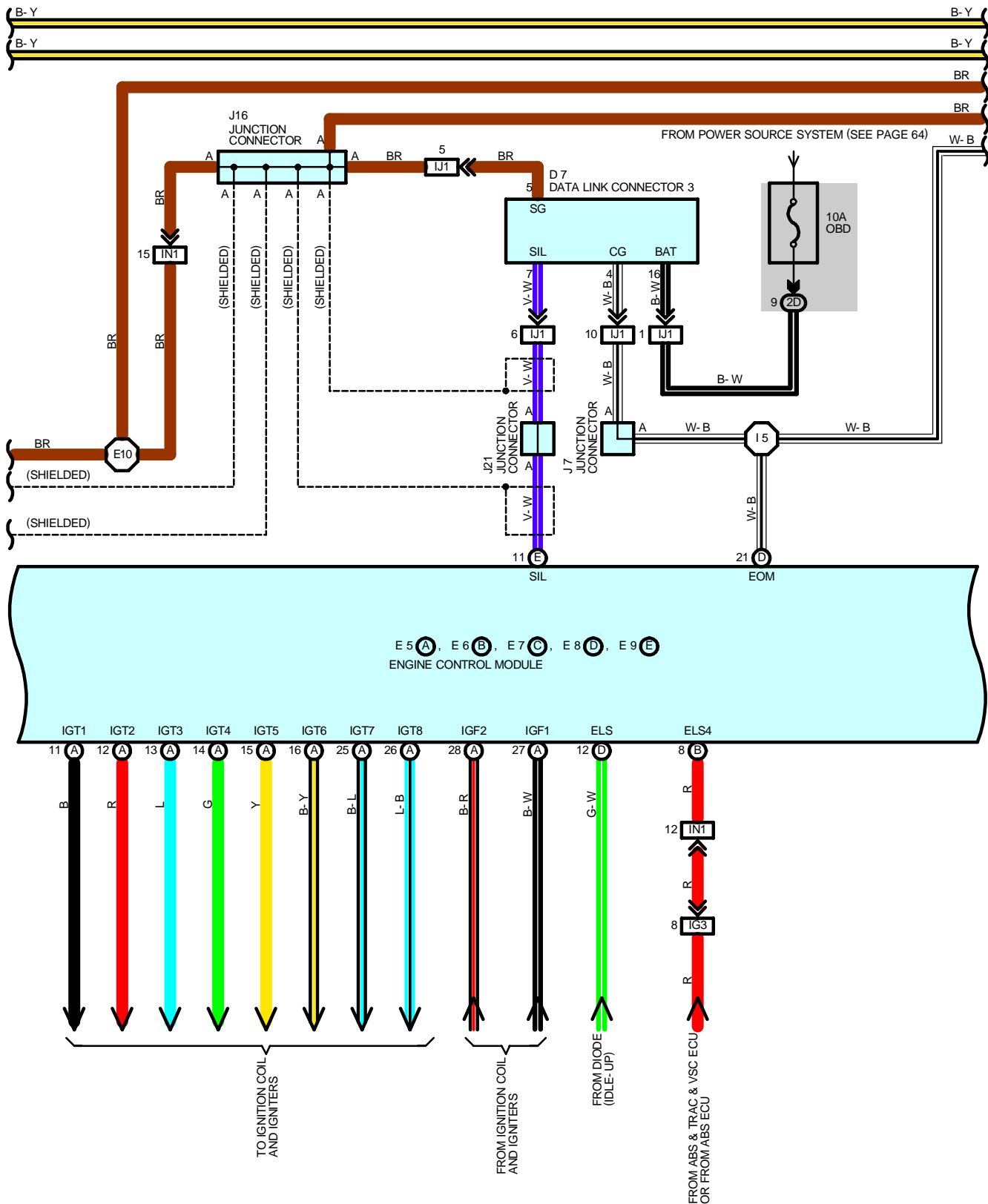
# ENGINE CONTROL AND ENGINE IMMOBILISER SYSTEM



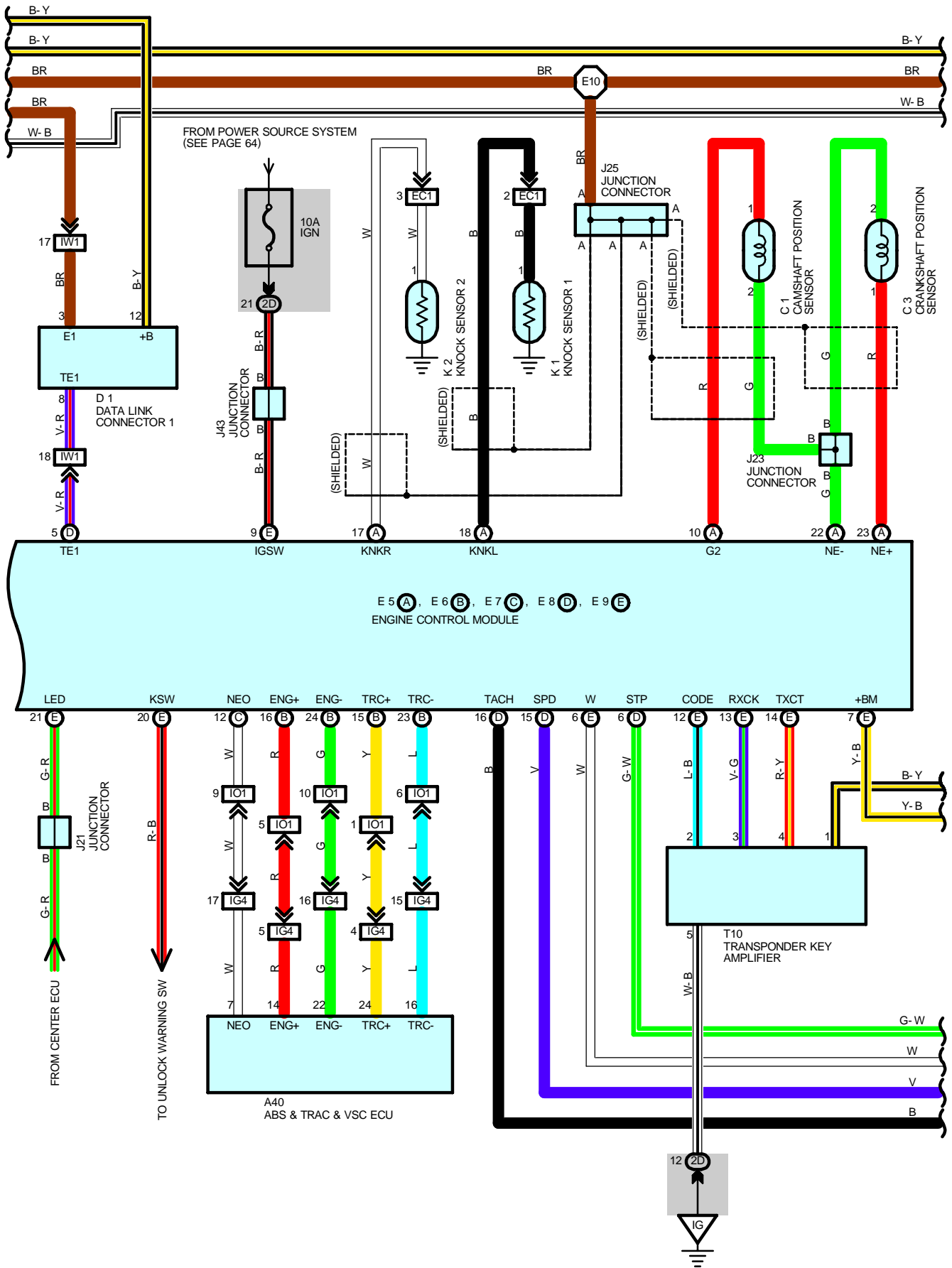


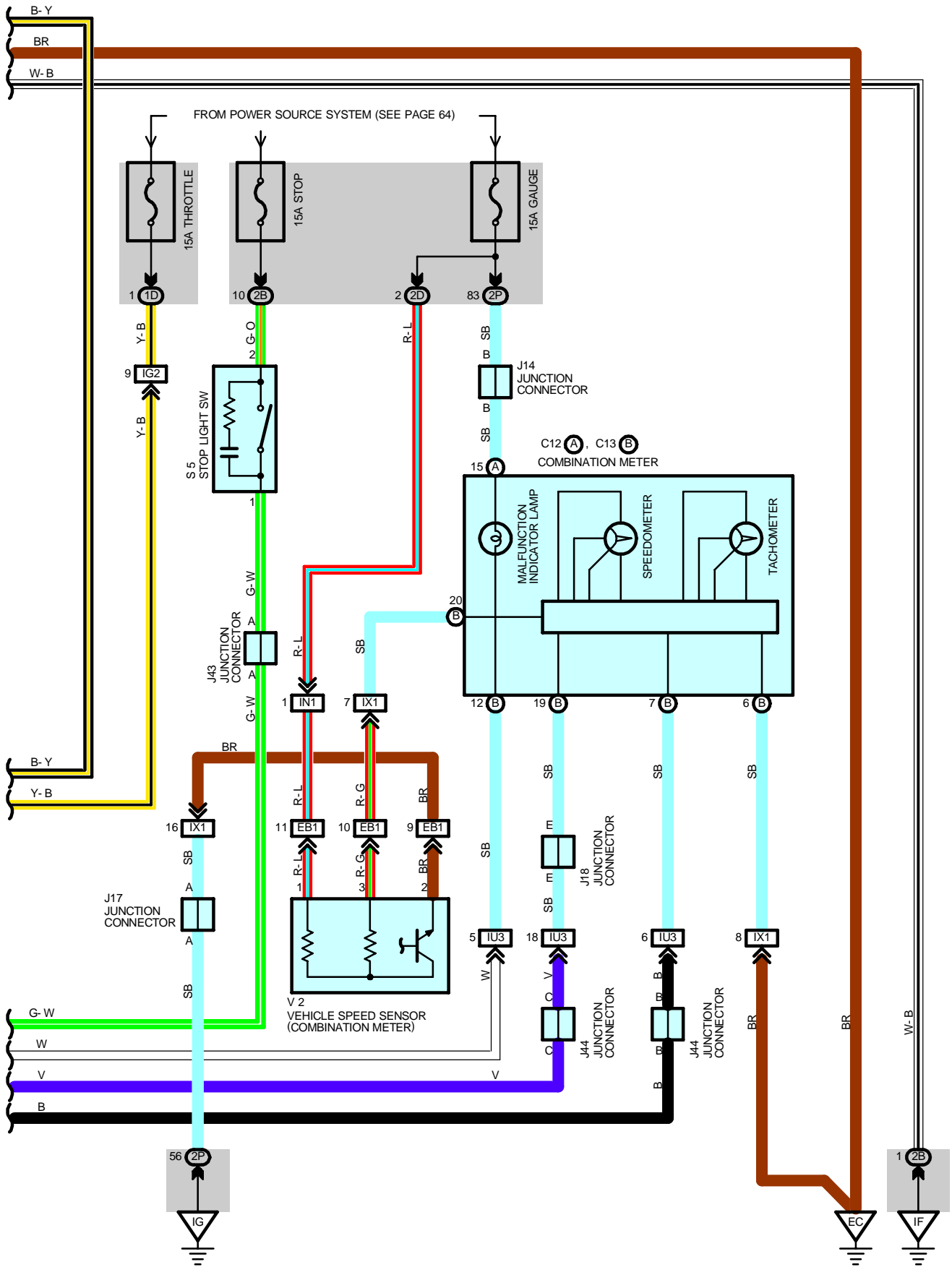
# ENGINE CONTROL AND ENGINE IMMOBILISER SYSTEM





# ENGINE CONTROL AND ENGINE IMMOBILISER SYSTEM





# ENGINE CONTROL AND ENGINE IMMOBILISER SYSTEM

## SYSTEM OUTLINE

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

### 1. INPUT SIGNALS

(1) Engine coolant temp. signal circuit

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 into TERMINAL THW of the engine control module as a control signal.

(2) 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 to TERMINAL THA of the engine control module.

(3) Oxygen sensor signal circuit

The oxygen density in the exhaust emission is detected and is input as a control signal from the heated oxygen sensors to TERMINALS OXL1, OXR1, OXL2, OXR2 of the engine control module.

(4) RPM signal circuit

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

(5) Throttle position sensor signal circuit

The throttle position sensor detects the throttle valve opening angle as a control signal, which is input into TERMINAL VTA of the engine control module.

(6) Vehicle speed circuit

The vehicle speed sensor (Combination meter) detects the vehicle speed, and the signal is input into TERMINAL SPD of the engine control module via the combination meter.

(7) Battery signal circuit

Voltage is constantly applied to TERMINAL BATT of the engine control module. When the ignition SW is turned on, the voltage for engine control module start up power supply is applied through the EFI or ECD relay, to TERMINALS +B, +B1 of the engine control module. The current from the IGN fuse flows to TERMINAL IGSW of the engine control module, and voltage is constantly applied to TERMINAL +BM.

(8) Intake air volume signal circuit

The intake air volume is detected by the mass air flow meter, and is input as a control signal to TERMINAL VG of the engine control module.

(9) Stop light SW signal circuit

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

(10) Starter signal circuit

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

(11) Engine knock signal circuit

Engine knocking is detected by the knock sensors, and is input into TERMINALS KNKL, KNKR of the engine control module as a control signal.

## **2. CONTROL SYSTEM**

### **\* SFI system**

The SFI system monitors the engine condition through the signals input from each sensors to the engine control module. The control signal is sent to the engine control module TERMINALS #1, #2, #3, #4, #5, #6, #7, #8 to operate the injector (Fuel injection). The SFI system controls the fuel injection by the engine control module in response to the driving conditions.

### **\* ESA system**

The ESA system monitors the engine condition through the signals input from each sensors to the engine control module. The best ignition timing is decided according to this data and the data memorized in the engine control module. The control signal is output to TERMINALS IGT1, IGT2, IGT3, IGT4, IGT5, IGT6, IGT7, IGT8, and these signals control the igniter to provide the best ignition timing.

### **\* Heated oxygen sensor heater control system**

The heated oxygen sensor heater control system turns the heater on when the intake air volume is low (Temp. of exhaust emission is low), and warms up the heated oxygen sensors to improve their detection performance. The engine control module evaluates the signals from each sensors, and outputs current to TERMINALS HTL, HTR, HTL2, HTR2 to control the heater.

### **\* Fuel pump control system**

The engine control module supplies current to TERMINAL FPC, and controls the operation speed of the fuel pump with the fuel pump control ECU.

### **\* ACIS**

The ACIS includes a valve in the bulkhead separating the surge tank into two parts. This valve is opened and closed in accordance with the driving conditions to control the intake manifold length in two stages, for increased engine output in all ranges from low to high speeds.

### **\* ETCS-i**

The ETCS-i controls the engine output at its optimal level in accordance with the opening of the accelerator pedal, under all driving conditions.

## **3. DIAGNOSIS SYSTEM**

When there is a malfunction in the engine control module signal system, the malfunctioning system is recorded in the memory. The malfunctioning system can be found by reading the code displayed on the malfunction indicator lamp.

## **4. FAIL-SAFE SYSTEM**

When a malfunction has occurred in any system, there is a possibility of causing engine trouble due to continued control based on that system. In that case, the fail-safe system either controls the system using the data (Standard values) recorded in the engine control module memory, or else stops the engine.



# ENGINE CONTROL AND ENGINE IMMOBILISER SYSTEM

## SERVICE HINTS

### EFI OR ECD RELAY

1-3 : Closed with ignition SW at **ON** or **ST** position

### E2 ENGINE COOLANT TEMP. SENSOR

1-2 : Approx. **16.2 kΩ** (-20 °C, -4 °F)  
 : Approx. **2.45 kΩ** (20 °C, 68 °F)  
 : Approx. **0.32 kΩ** (80 °C, 176 °F)

### E6 (B), E8 (D), E9 (E) ENGINE CONTROL MODULE

BATT-E1 : Always **9.0- 14.0** volts

+BM-E1 : Always **9.0- 14.0** volts

IGSW-E1 : **9.0- 14.0** volts with ignition SW at **ON** or **ST** position

+B, +B1-E1 : **9.0- 14.0** volts with ignition SW at **ON** or **ST** position

VC-E2 : **4.5- 5.5** volts with ignition SW on

VTA2-E2 : **2.0- 2.9** volts with ignition SW on and throttle valve fully closed

: **4.6- 5.0** volts with ignition SW on and throttle valve fully opened

VTA-E2 : **0.4- 1.0** volts with ignition SW on and throttle valve fully closed

: **3.2- 4.8** volts with ignition SW on and throttle valve fully opened

VPA-E2 : **0.25- 0.9** volts with ignition SW at on and accelerator fully closed

: **3.2- 4.8** volts with ignition SW at on and accelerator fully opened

VPA2-E2 : **1.8- 2.7** volts with ignition SW at on and accelerator fully closed

: **4.7- 5.0** volts with ignition SW at on and accelerator fully opened

THA-E2 : **0.5- 3.4** volts with idling, intake air temp. **20 °C (68 °F)**

THW-E2 : **0.2- 1.0** volts with idling, coolant temp. **80 °C (176 °F)**

STA-E1 : **6.0** volts or more with cranking

TE1-E1 : **9.0- 14.0** volts with ignition SW on

W-E1 : **9.0- 14.0** volts with idling

: **0- 3.0** volts with ignition SW on

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A14	38	F13	42	J21	41
A40	40	H5	39	J22	41
C1	38	H6	39	J23	41
C3	38	H7	39	J24	41
C8	A 40	H8	39	J25	41
C9	B 40	I9	39	J43	41
C12	A 40	I10	39	J44	41
C13	B 40	I11	39	K1	39
D1	38	I12	39	K2	39
D7	40	I13	39	M1	39
E2	38	I14	39	P1	39
E5	A 40	I15	39	S5	41
E6	B 40	I16	39	T2	39
E7	C 40	I18	40	T3	39
E8	D 40	J7	41	T10	41
E9	E 40	J14	41	V1	39
F6	38	J16	41	V2	39
F7	40	J17	41	V4	39
F12	42	J18	41	V5	39

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1D		
1E		
1N	23	Engine Room No.3 Wire and Engine Room J/B (Engine Compartment Left)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	46	Engine Wire and Transmission Wire (On the Transmission)
EB3		
EC1	46	Engine No.2 Wire and Engine Wire (On the Transmission)
ID1	48	Dash Wire and Floor Wire (Left Kick Panel)
IG1	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IG2		
IG3		
IG4		
IJ1	50	Dash Wire and Detector Wire (Instrument Panel Center)
IN1	52	Engine Wire and Dash Wire (Behind the Glove Box)
IO1		
IO2		
IU3	52	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
IX1	54	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
BB1	56	Floor Wire and Fuel Tank Wire (Near the Fuel Tank)

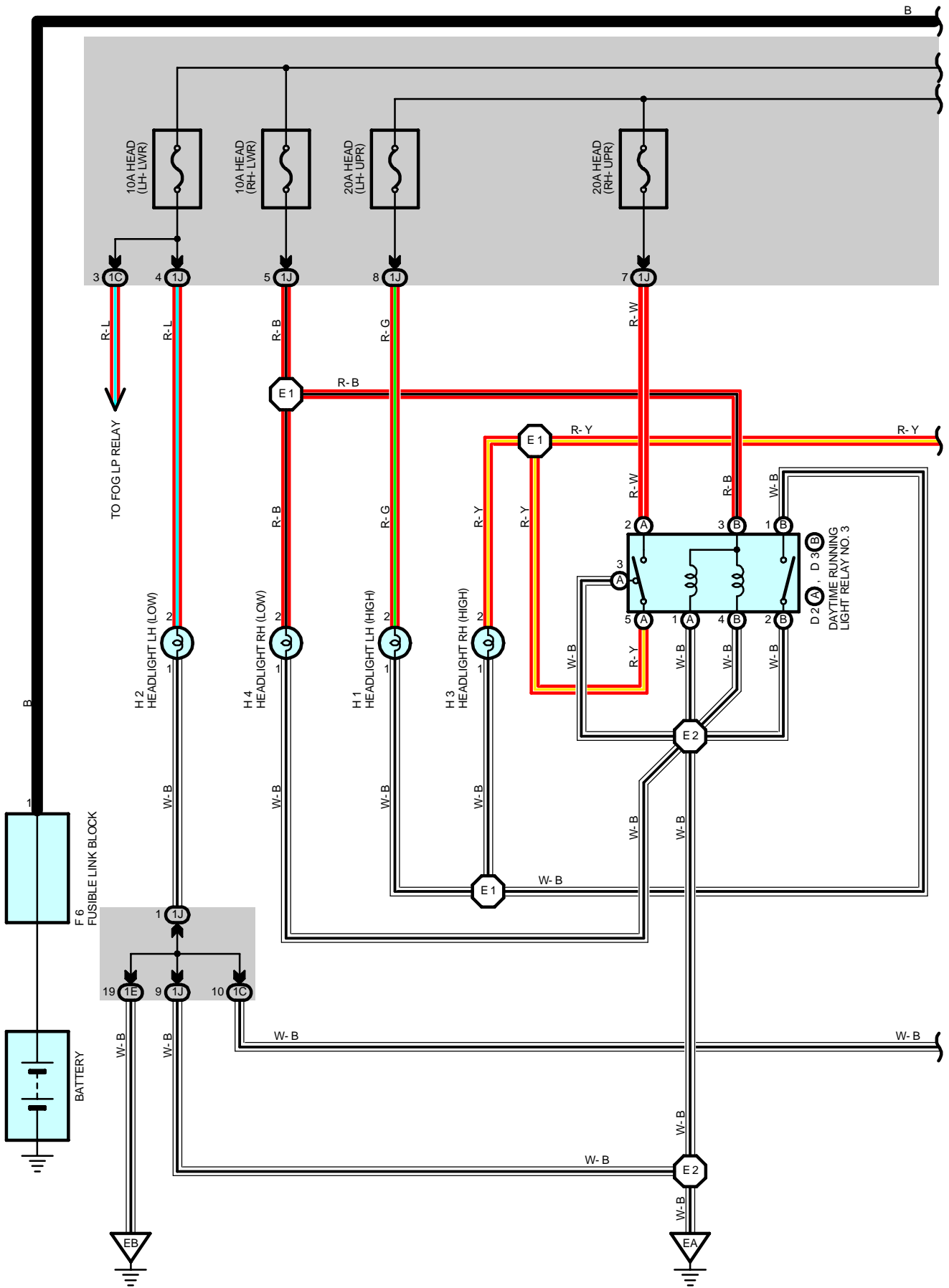
 : GROUND POINTS

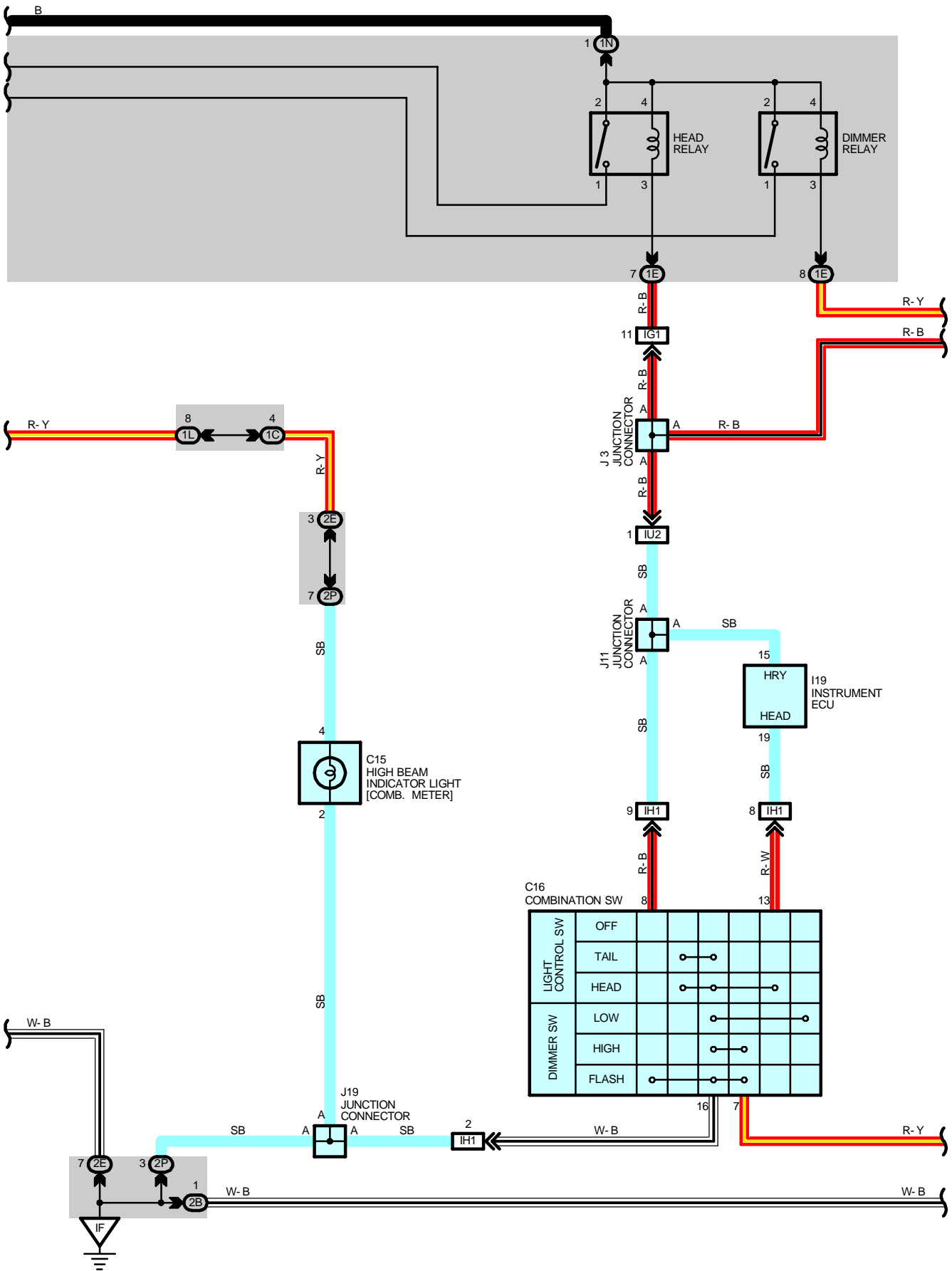
Code	See Page	Ground Points Location
EC	46	Rear Bank of Right Cylinder Head
EE	46	Front Left Side of Fender Apron
IF	48	Set Bolt of Cowl Side J/B LH
IG		
BM	56	Left Rear Side Quarter Panel

 : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E4	46	Engine Room No.2 Wire	E11	46	Engine Wire
E7	46	Engine Wire	I2	50	Engine Room No.2 Wire
E8	46	Transmission Wire	I5	50	Dash Wire
E9					
E10	46	Engine Wire	I15		

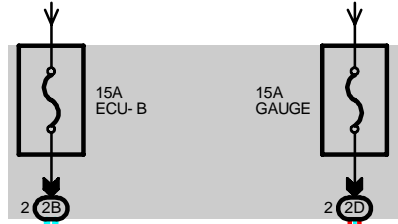
# HEADLIGHT





# HEADLIGHT

FROM POWER SOURCE SYSTEM (SEE PAGE 64)

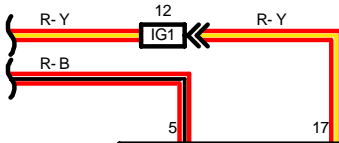


L-W

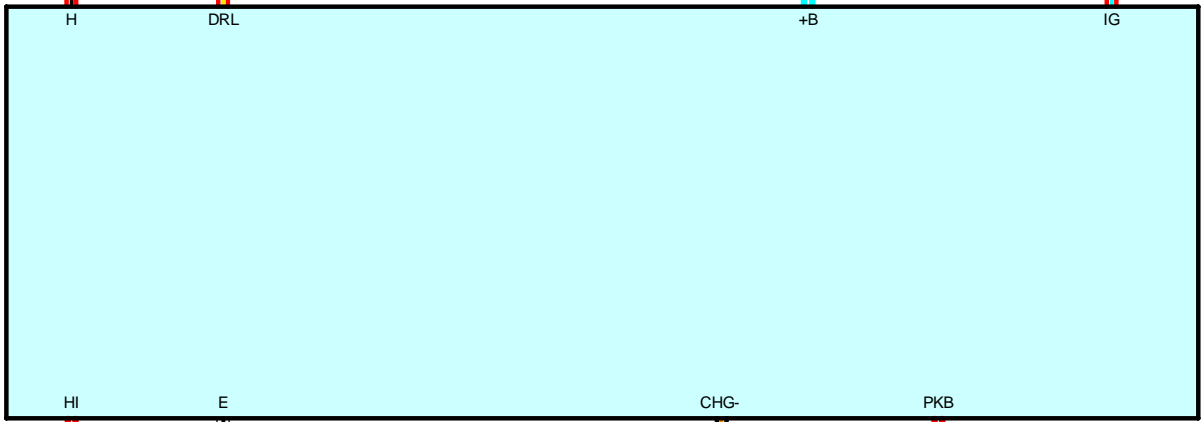
15 +B

R-L

2 IG



D 8  
DAYTIME RUNNING LIGHT RELAY (MAIN)



16

R-W

9 IU2

SB

10 IH1

R-Y

W-B

13

W-B

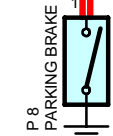
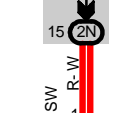
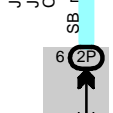
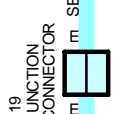
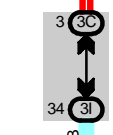
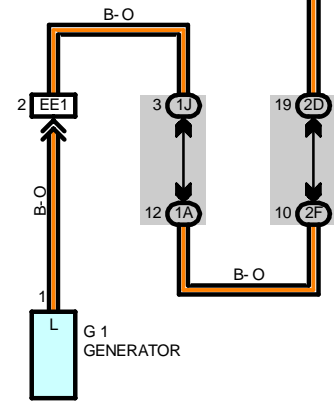
A

W-B

J 1  
JUNCTION  
CONNECTOR

11

B-O



## SYSTEM OUTLINE

### 1. DAYTIME RUNNING LIGHT OPERATION

When the engine is started, a signal from the generator is input to daytime running light relay (Main) TERMINAL 11.

At this time, if the parking brake lever is pulled up, the relay does not operate, so the daytime running light system does not operate. When the parking brake lever is released, a signal is input to daytime running light relay (Main) TERMINAL 8. This activates the daytime running light relay (Main), and turns on the DIMMER relay. The current from the battery flows through the fusible link block to DIMMER relay (Point side) to HEAD (LH-UPR) fuse to headlight LH (High) to headlight RH (High) to daytime running light relay No.3 TERMINAL (A) 5 to TERMINAL (A) 3 to GROUND, and the headlights are lit dimmer than usual. Once the daytime running light system is operated, the headlights remain lit even though the parking brake lever is pulled up. The headlights remain lit even when the engine stops with the ignition SW on, and the signal from the generator is cut off. When the ignition SW is turned from on to off, the daytime running light system is canceled and the headlights are turned off. If the engine is started with the parking brake lever released, the daytime running light system operates and the headlights are turned on when the engine starts running.

### 2. HEADLIGHT OPERATION

\* When the light control SW is turned to HEAD position

When the light control SW is turned to HEAD position, the HEAD relay is turned on. At the same time, a signal is input to the daytime running light relay (Main) TERMINAL 5.

As a result, the daytime running light relay (Main) cancels the daytime running light system operation, and turns off the headlight LH, RH (High).

Simultaneously, the current from the battery flows from the fusible link block to HEAD relay (Point side) to HEAD (LH-LWR), HEAD (RH-LWR) fuse to headlight LH, RH (Low) to GROUND, and turns on the headlights at normal brightness.

\* When the dimmer SW is turned to HIGH position

When the light control SW is turned to HEAD position, the low beam of the headlights are turned on, and at the same time, current flows from HEAD (RH-LWR) fuse to daytime running light relay No.3 (Coil side) to GROUND, and turns on the daytime running light relay No.3.

When the dimmer SW is turned to HIGH position, a signal is input to daytime running light relay (Main) TERMINAL 16. This activates the DIMMER relay, and the current from the battery flows from the fusible link block to DIMMER relay (Point side) to HEAD (LH-UPR) fuse to headlight LH (High) to daytime running light relay No.3 TERMINAL (B) 2 to TERMINAL (B) 1 to GROUND. At the same time the current flows from DIMMER relay (Point side) to HEAD (RH-UPR) fuse to daytime running light relay No.3 TERMINAL (A) 2 to TERMINAL (A) 5 to headlight RH (High) to daytime running light relay No.3 TERMINAL (B) 2 to TERMINAL (B) 1 to GROUND. Also current flows from the daytime running light relay No.3 TERMINAL (A) 3 to TERMINAL (A) 5 to combination meter TERMINAL 4 to TERMINAL 2 to GROUND. As a result the headlight high beam, low beam, and high beam indicator light are turned on simultaneously.

\* When the dimmer SW is turned to FLASH position

When the dimmer SW is turned to FLASH position, the HEAD relay is turned on, the daytime running light system is canceled and the daytime running light relay No.3 is turned on, as when the light control SW is turned to HEAD position. At the same time, the DIMMER relay is turned on as when the dimmer SW is turned to HIGH position. As a result, the headlight high beam, low beam, and high beam indicator light are turned on simultaneously.

## SERVICE HINTS

### HEAD RELAY

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

### DIMMER RELAY

1-2 : Closed with daytime running light operation

: Closed with light control SW at **HEAD** position and dimmer SW at **HIGH** position

: Closed with dimmer SW at **FLASH** position

### C16 COMBINATION SW

13-16 : Closed with light control SW at **HEAD** position

8-16 : Closed with dimmer SW at **FLASH** position

7-16 : Closed with dimmer SW at **HIGH** or **FLASH** position

# HEADLIGHT

## : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C15	40	G1	38	J1	41
C16	40	H1	39	J3	41
D2	A 38	H2	39	J11	41
D3	B 38	H3	39	J19	41
D8	40	H4	39	P8	43
F6	38	I19	40		

## : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1C		
1E		
1J	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1L		
1N	23	Engine Room No.3 Wire and Engine Room J/B (Engine Compartment Left)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		
2E	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2F		
2N	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3C	32	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3I	32	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

## : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EE1	46	Engine Room Main Wire and Alternator Wire (Near the Battery)
IG1	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IH1	50	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
IU2	52	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)

## : GROUND POINTS

Code	See Page	Ground Points Location
EA	46	Front Right Side of Fender Apron
EB		
IF	48	Set Bolt of Cowl Side J/B LH

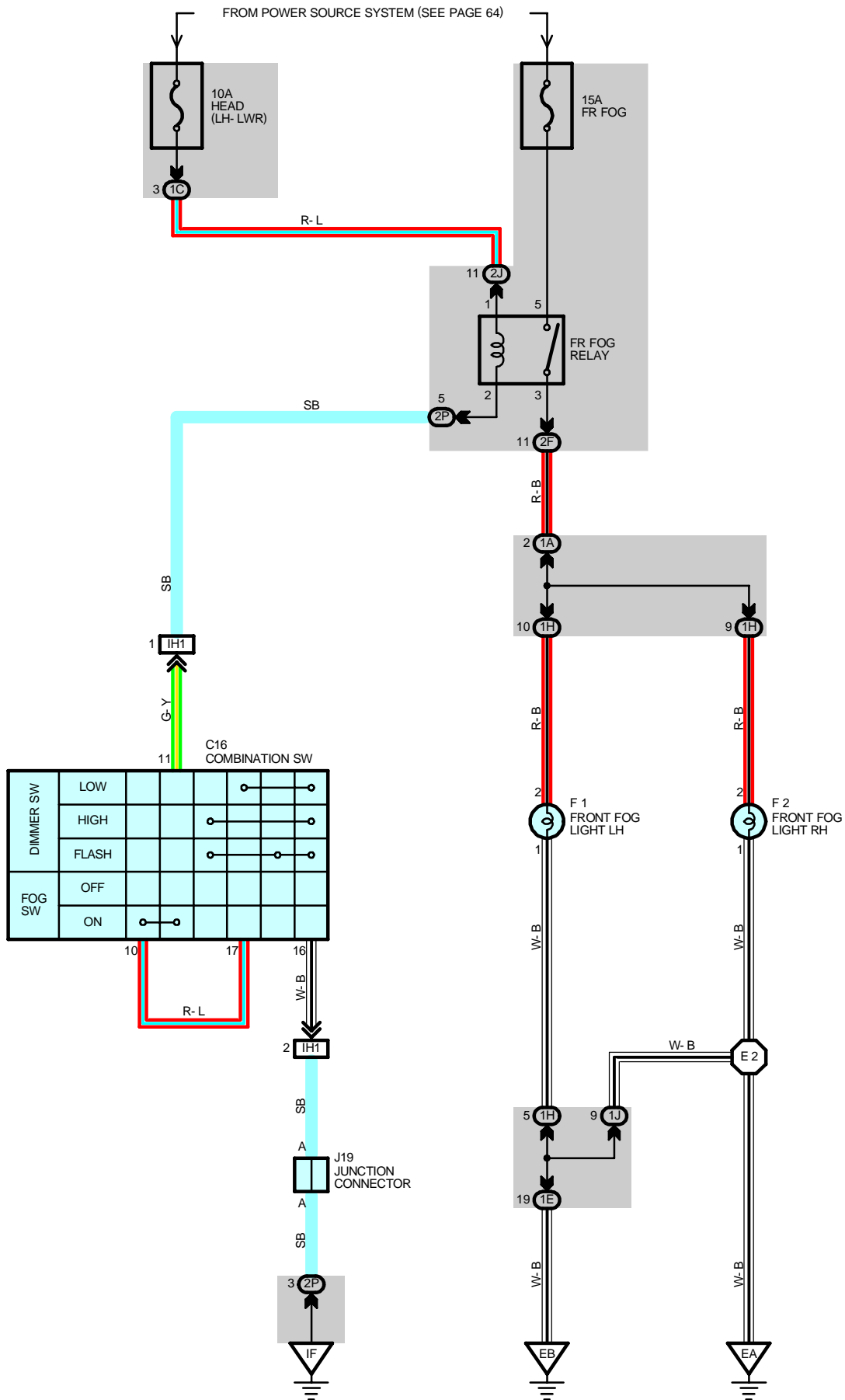
## : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	46	Engine Room Main Wire	E2	46	Engine Room Main Wire





# FRONT FOG LIGHT



**SERVICE HINTS****FR FOG RELAY**

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

 : **PARTS LOCATION**

Code	See Page	Code	See Page	Code	See Page
C16	40	F2	38		
F1	38	J19	41		

 : **JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1C		
1E		
1H	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1J		
2F	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2J		
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)

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

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IH1	50	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)

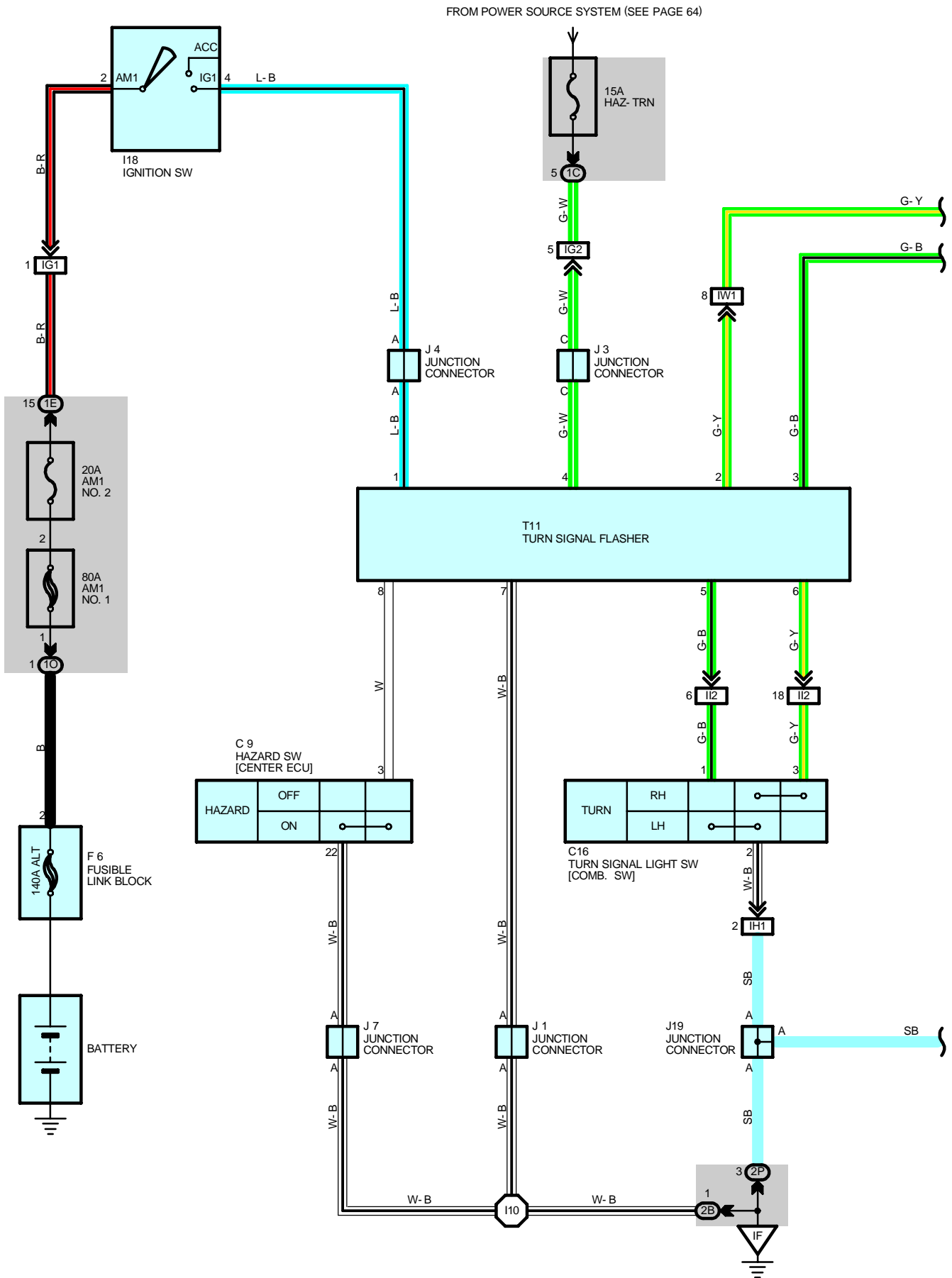
 : **GROUND POINTS**

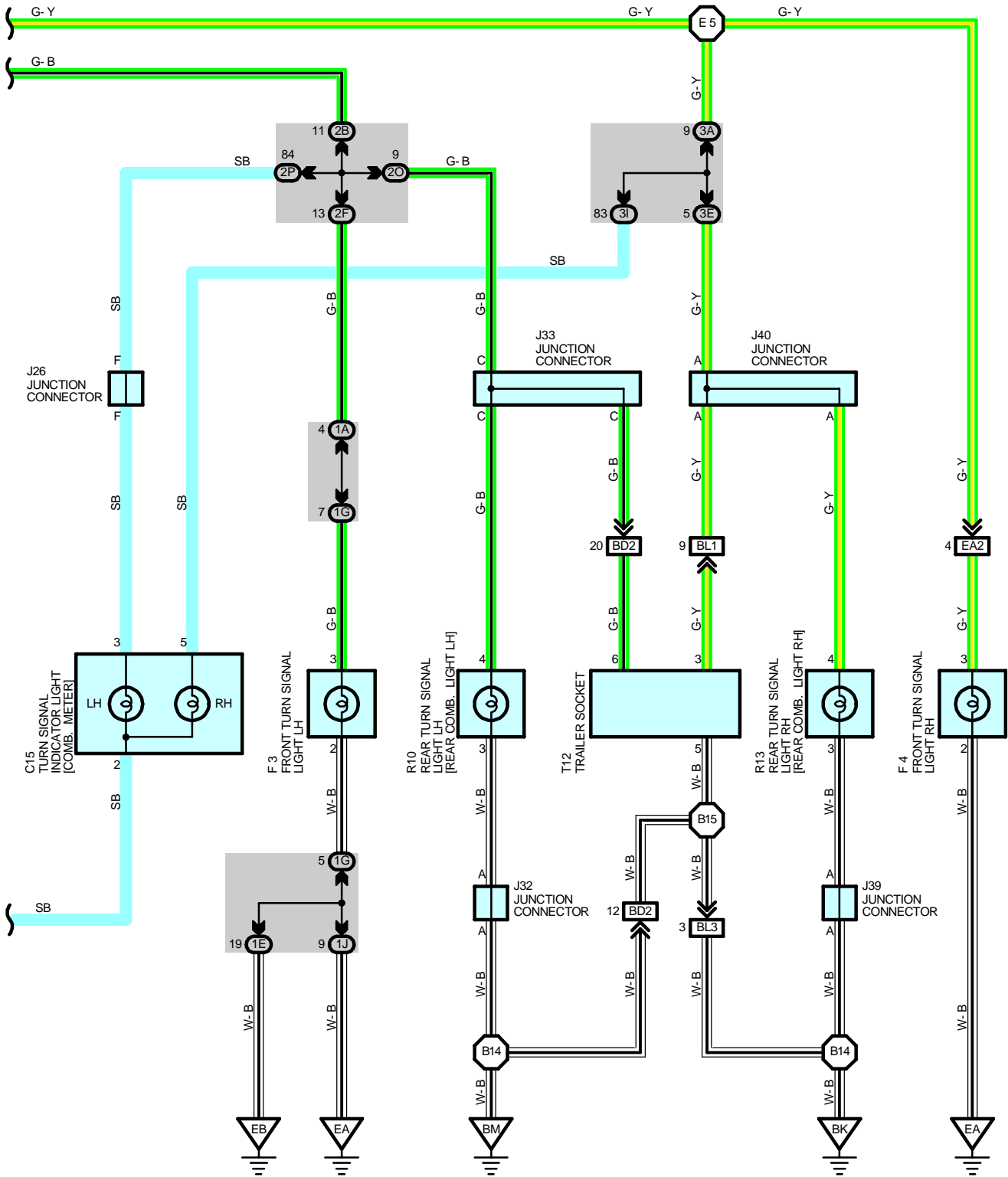
Code	See Page	Ground Points Location
EA	46	Front Right Side of Fender Apron
EB		
IF	48	Set Bolt of Cowl Side J/B LH

 : **SPLICE POINTS**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	46	Engine Room Main Wire			

# TURN SIGNAL AND HAZARD WARNING LIGHT





# TURN SIGNAL AND HAZARD WARNING LIGHT

## SERVICE HINTS

### T11 TURN SIGNAL FLASHER

- 4-GROUND : Always approx. 12 volts
- 1-GROUND : Approx. 12 volts with ignition SW at **ON** or **ST** position
- 7-GROUND : Always continuity

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C9	40	J1	41	J33	42
C15	40	J3	41	J39	42
C16	40	J4	41	J40	42
F3	38	J7	41	R10	43
F4	38	J19	41	R13	43
F6	38	J26	41	T11	41
I18	40	J32	42	T12	43

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1C		
1E		
1G	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1J		
1O	23	Engine Room No.3 Wire and Engine Room J/B (Engine Compartment Left)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2F	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2O	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3A	32	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3E	32	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3I	32	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA2	46	Engine Room Main Wire and Engine Room No.2 Wire (Engine Compartment Right)
IG1	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IG2		
IH1	50	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
I12	50	Column Wire and Dash Wire (Near the Ignition SW)
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
BD2	56	Floor No.3 Wire and Floor Wire (Left Rear Side Quarter Panel)
BL1	58	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BL3		

## ▽ : GROUND POINTS

Code	See Page	Ground Points Location
EA	46	Front Right Side of Fender Apron
EB		
IF	48	Set Bolt of Cowl Side J/B LH
BK	56	Front Side Under the Front Passenger's Seat
BM	56	Left Rear Side Quarter Panel

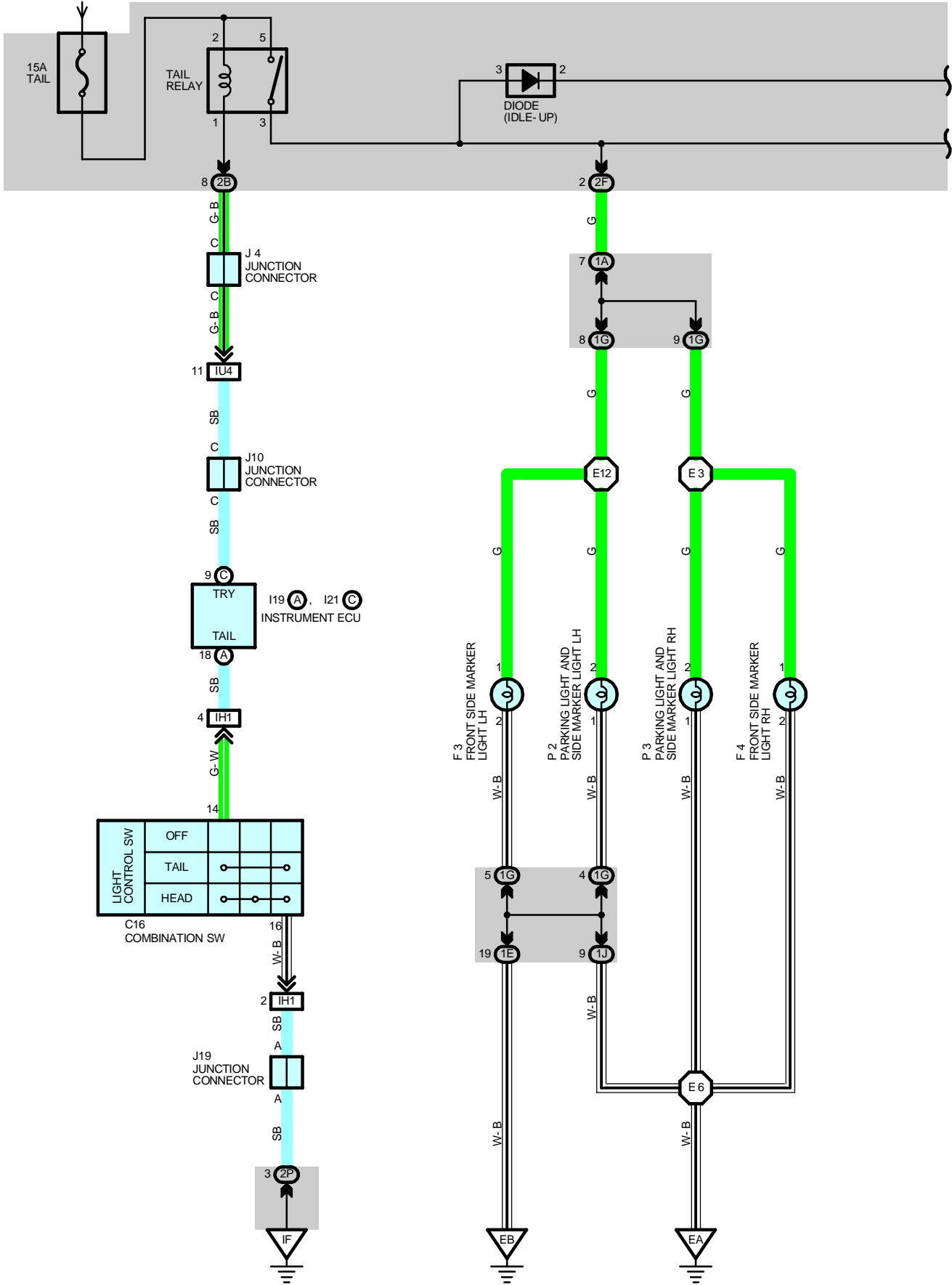


**: SPLICE POINTS**

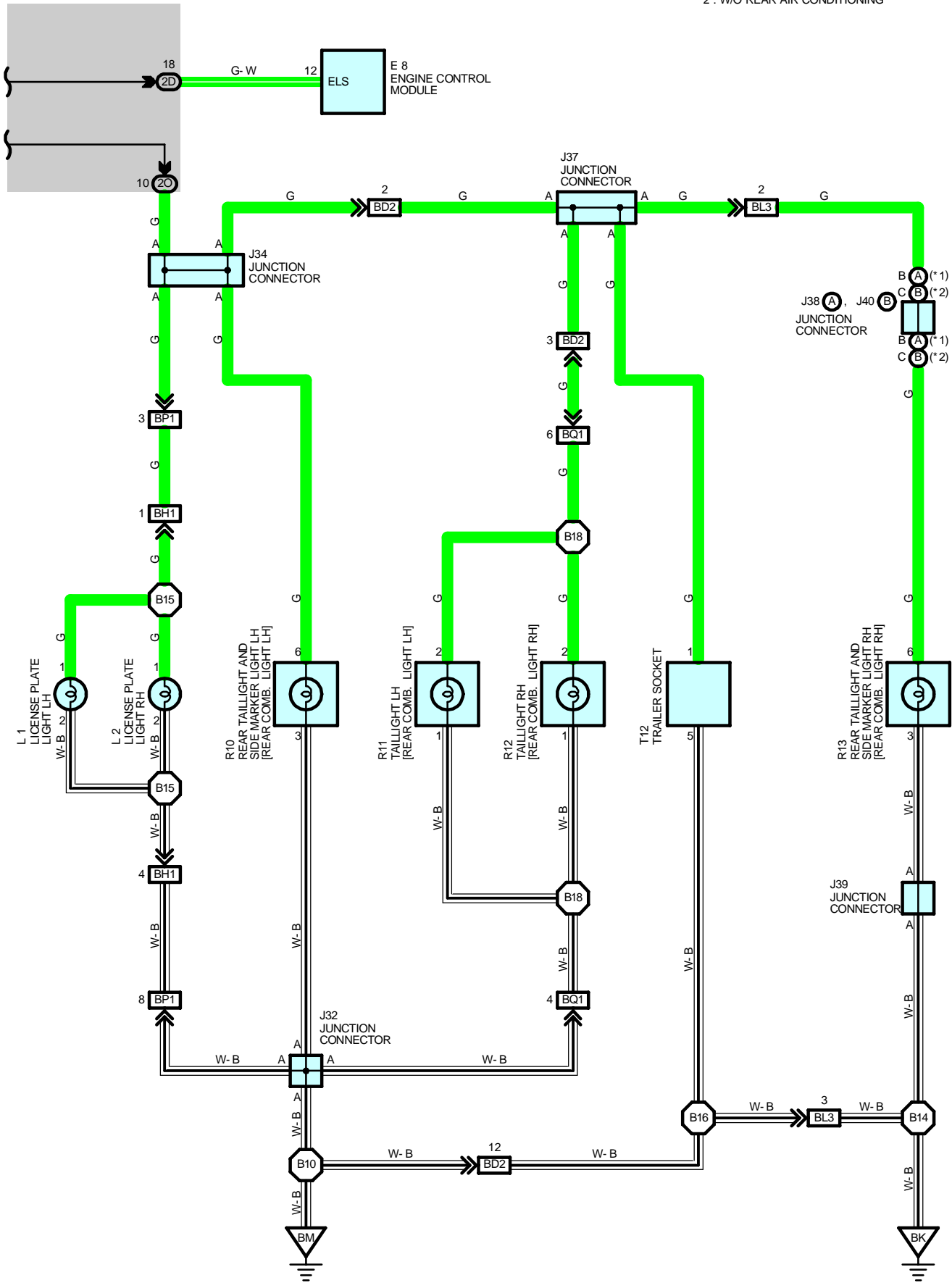
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E5	<a href="#">46</a>	Engine Room No.2 Wire	B14	<a href="#">58</a>	Floor No.2 Wire
I10	<a href="#">50</a>	Dash Wire	B15	<a href="#">58</a>	Back Door Upper Wire

# TAILLIGHT

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



\* 1 : W/ REAR AIR CONDITIONING  
 \* 2 : W/O REAR AIR CONDITIONING





# TAILLIGHT

## SERVICE HINTS

### TAIL RELAY

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

### C16 COMBINATION SW

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

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C16	40	J19	41	L2	42
E8	40	J32	42	P2	39
F3	38	J34	42	P3	39
F4	38	J37	42	R10	43
I19	A 40	J38	A 42	R11	43
I21	C 40	J39	42	R12	43
J4	41	J40	B 42	R13	43
J10	41	L1	42	T12	43

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1E		
1G	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1J		
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		
2F	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2O	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IH1	50	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
IU4	52	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
BD2	56	Floor No.3 Wire and Floor Wire (Left Rear Side Quarter Panel)
BH1	58	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BL3	58	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BP1	58	Pillar No.1 Wire and Floor Wire (Left Rear Side Quarter Panel)
BQ1	58	Back Door Lower Wire and Floor Wire (Left Rear Side Quarter Panel)

## ▽ : GROUND POINTS

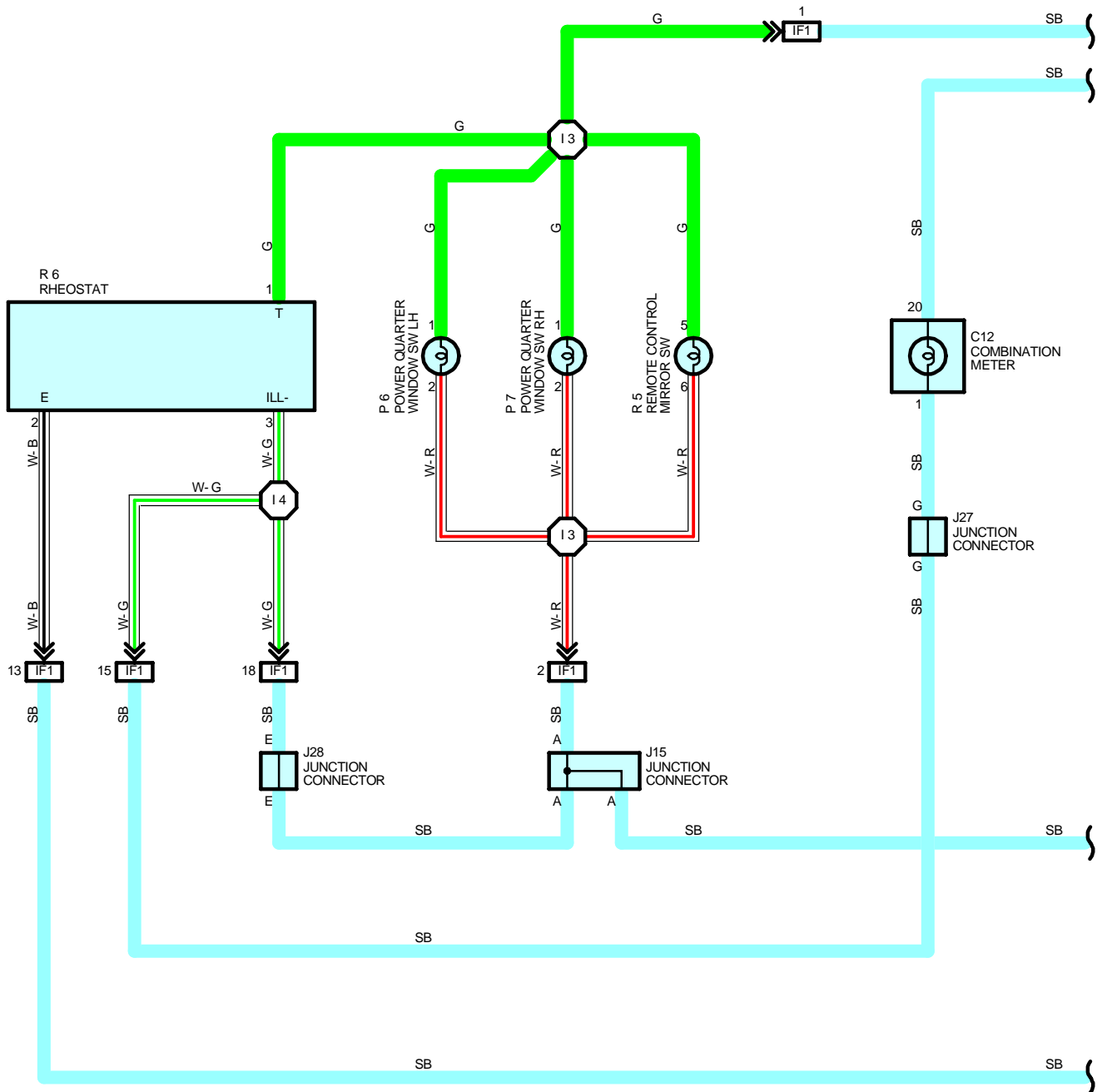
Code	See Page	Ground Points Location
EA	46	Front Right Side of Fender Apron
EB		
IF	48	Set Bolt of Cowl Side J/B LH
BK	56	Front Side Under the Front Passenger's Seat
BM	56	Left Rear Side Quarter Panel

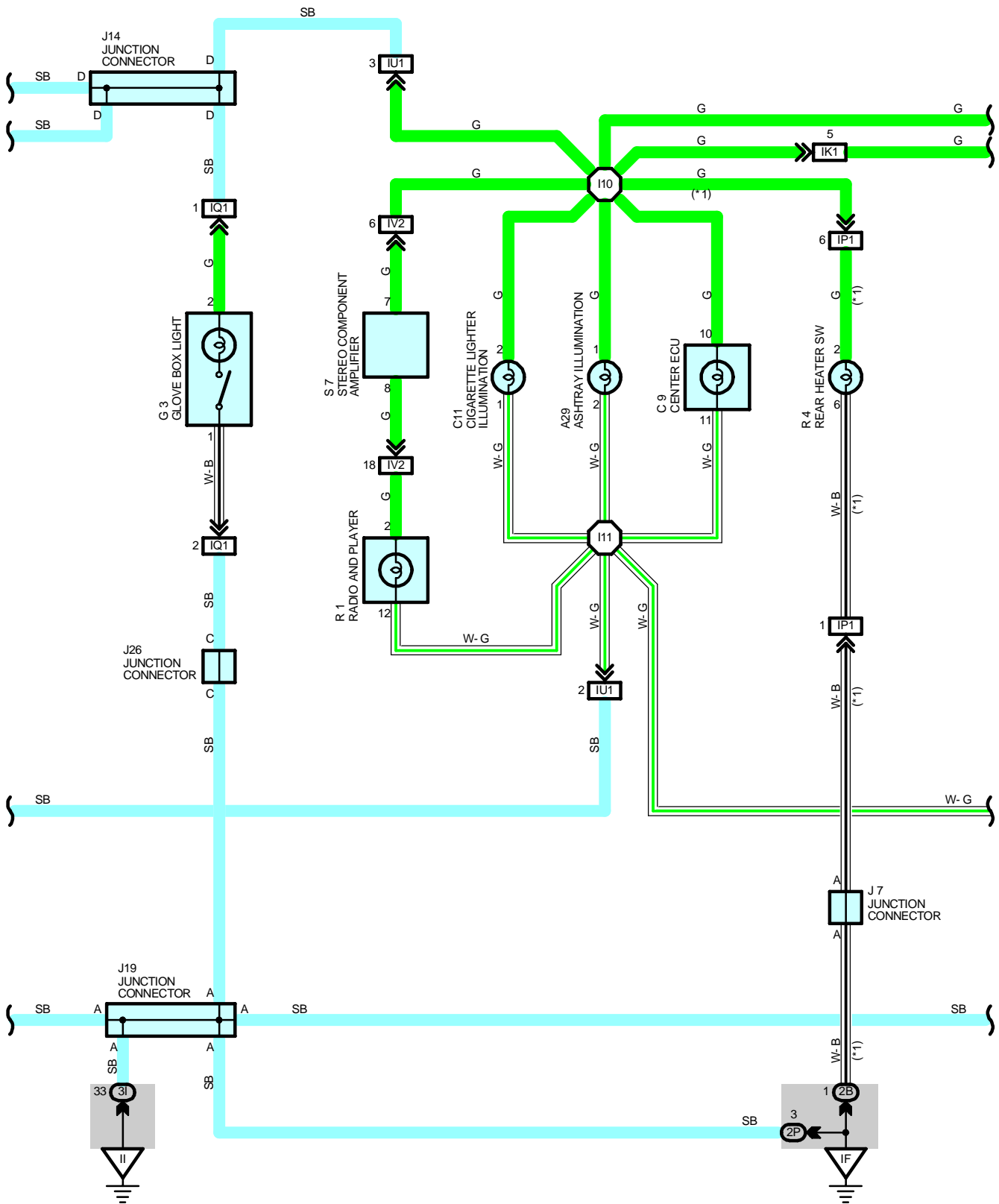
## ○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E3	46	Engine Room Main Wire	B14	58	Floor No.2 Wire
E6			B15	58	Back Door Upper Wire
E12			B16	58	Floor No.3 Wire
B10	58	Floor No.2 Wire	B18	58	Back Door Lower Wire



# ILLUMINATION

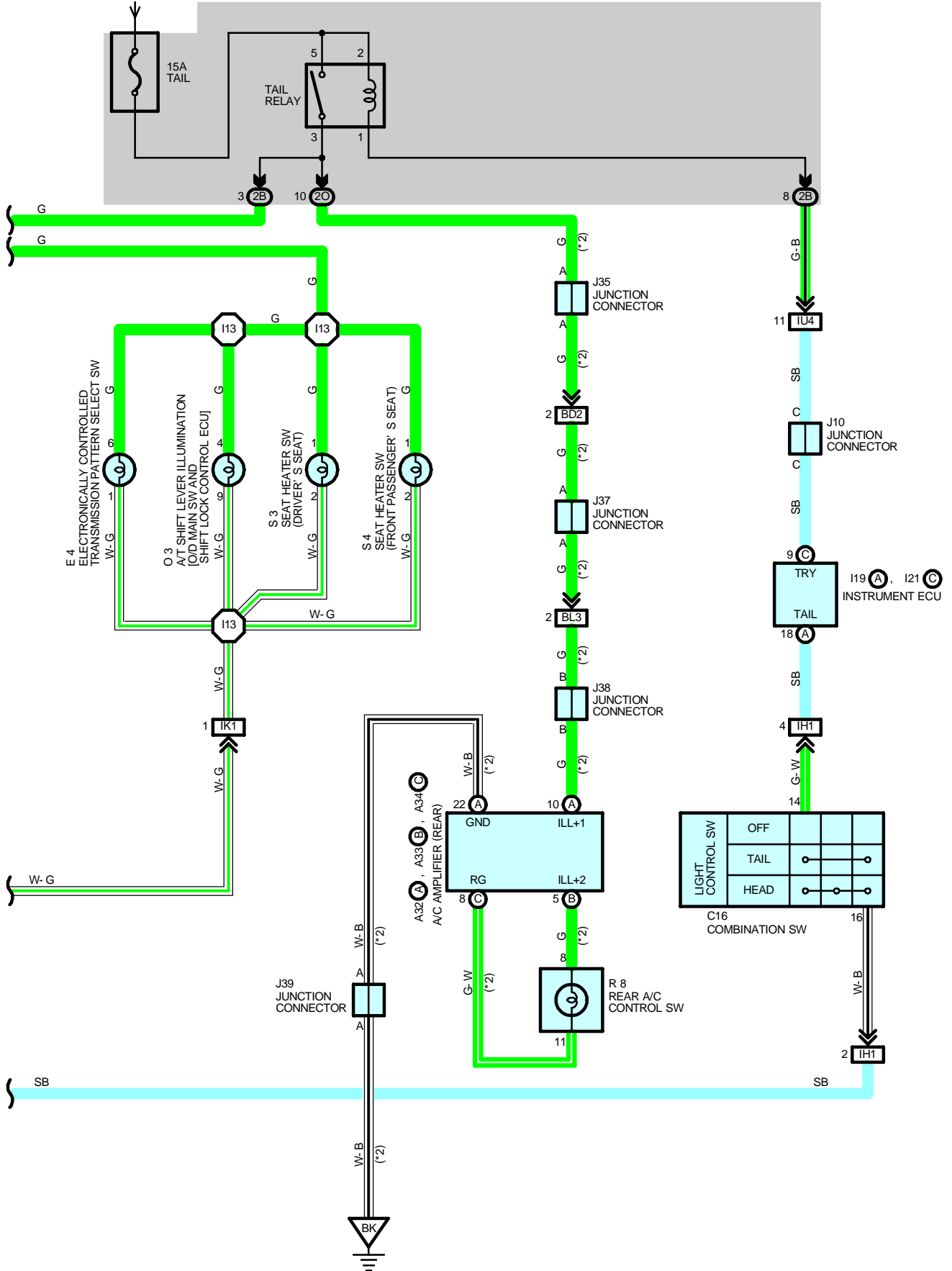




# ILLUMINATION

FROM POWER SOURCE SYSTEM (SEE PAGE 64)

\* 2 : W/ REAR AIR CONDITIONING



## SERVICE HINTS

### TAIL RELAY

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

### C16 COMBINATION SW

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

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A29	40	J7	41	O3	41
A32	A 42	J10	41	P6	41
A33	B 42	J14	41	P7	41
A34	C 42	J15	41	R1	41
C9	40	J19	41	R4	41
C11	40	J26	41	R5	41
C12	40	J27	41	R6	41
C16	40	J28	41	R8	43
E4	40	J35	42	S3	41
G3	40	J37	42	S4	41
I19	A 40	J38	42	S7	43
I21	C 40	J39	42		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2O	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3I	32	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF1	48	Instrument Panel Integration Wire and Instrument Panel Wire (Left Side of Instrument Panel)
IH1	50	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
IK1	50	Console Box Wire and Dash Wire (Left Side of Front Console)
IP1	52	Rear Console Box Wire and Dash Wire (Right Side of Rear Console)
IQ1	52	Instrument Panel Integration Wire and Lamp Wire (Behind the Glove Box)
IU1	52	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU4		
IV2	54	Dash Wire and Floor No.2 Wire (Behind the Glove Box)
BD2	56	Floor No.3 Wire and Floor Wire (Left Rear Side Quarter Panel)
BL3	58	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)

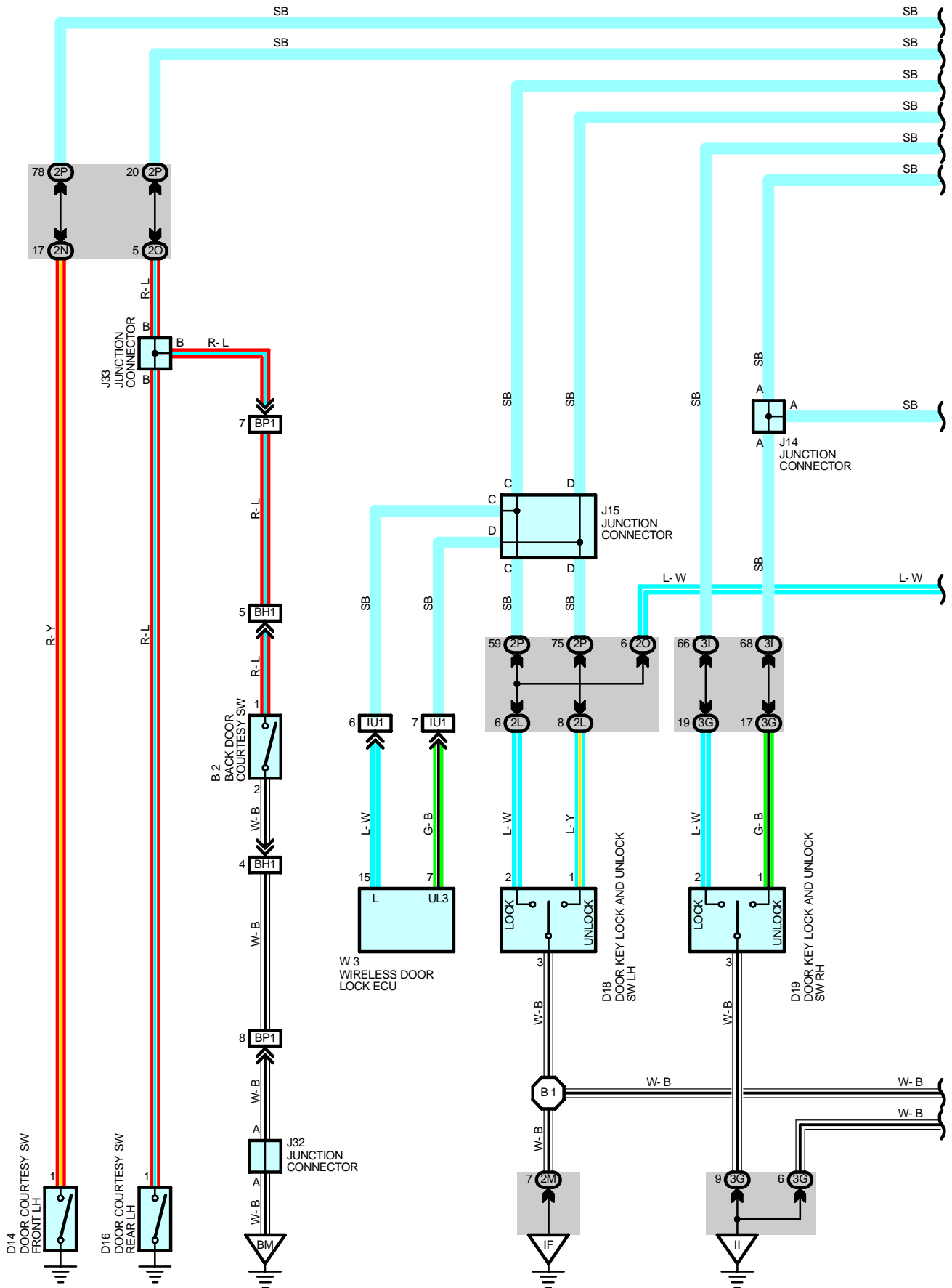
## ▽ : GROUND POINTS

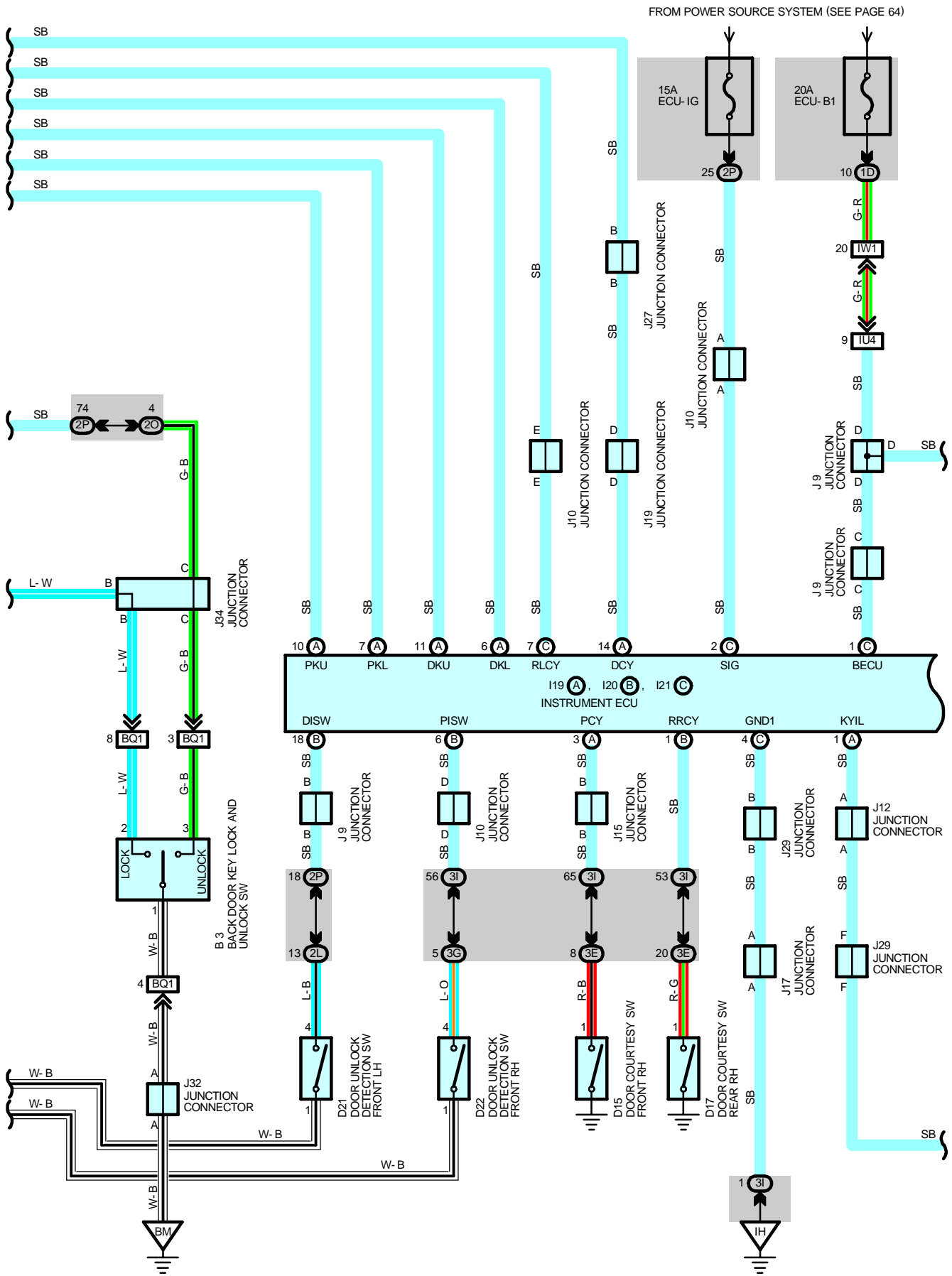
Code	See Page	Ground Points Location
IF	48	Set Bolt of Cowl Side J/B LH
II	48	Set Bolt of Cowl Side J/B RH
BK	56	Front Side Under the Front Passenger's Seat

## ○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I3	50	Instrument Panel Wire	I11	50	Dash Wire
I4			I13	50	Console Box Wire
I10	50	Dash Wire			

# INTERIOR LIGHT

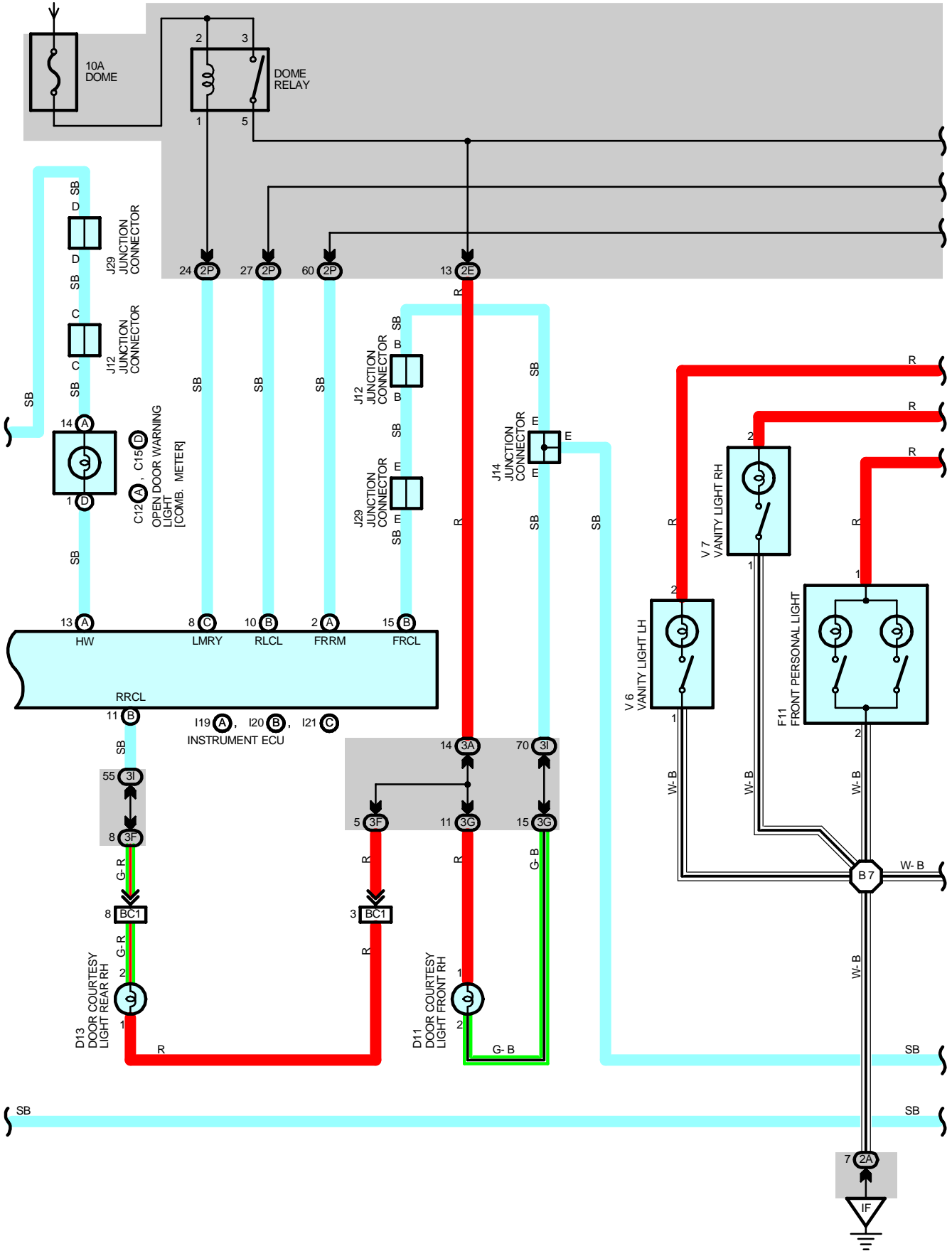


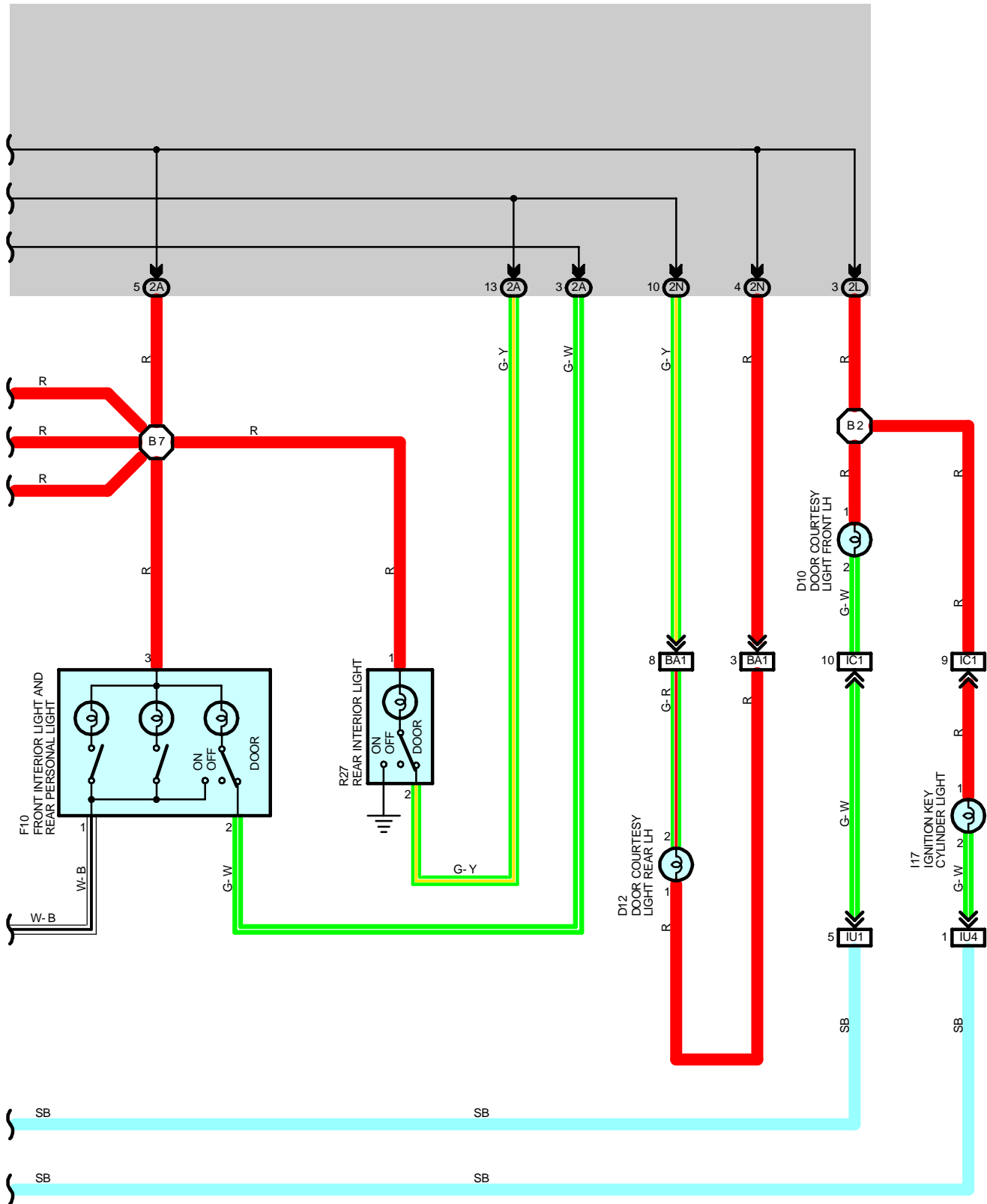




# INTERIOR LIGHT

FROM POWER SOURCE SYSTEM (SEE PAGE 64)





# INTERIOR LIGHT

## SYSTEM OUTLINE

### NORMAL OPERATION

- \* When the front Door LH or RH is opened  
When the door is opened, the door courtesy light front LH, RH and open door warning light is turned on. When the front door LH and RH are closed, the door courtesy light front LH, RH is turned off.
- \* When the rear door LH, RH or the back door is opened, door courtesy light rear LH, RH, rear interior light and the open door warning light is turned on. When the rear door LH, RH and back door are closed, the door courtesy light rear LH, RH is turned off.
- \* When all the doors are closed, the open door warning light is turned off.

### TURN OFF FUNCTION

When the ignition SW turned off and there is no change in the door courtesy SW for approx. 30 minutes, the DOME relay is turned off. The DOME relay is turned on again when any of the following conditions are met.

- \* Ignition SW is turned from OFF position to ACC or ON position
- \* Change to any door courtesy SW
- \* Driver or front passenger door is unlocked by the key or transmitter

### IMMEDIATE TURN OFF FUNCTION AT DOOR LOCK

When all the doors are closed, and the driver or front passenger door is locked by the key or transmitter, the DOME relay is turned off, after approx. 80 seconds. However, when the illuminated entry system is operating, the DOME relay is turned off after the operation is completed. the DOME relay is turned on again when any of the following conditions are met.

- \* Ignition SW is turned from OFF position to ACC or ON position
- \* Change to any door courtesy SW
- \* Driver or front passenger door is unlocked by the key or transmitter

### ILLUMINATED ENTRY SYSTEM

- \* When any door is opened, each light is turned on.
- \* The light remains on for approx. 15 seconds after all doors are closed, and fades out.
- \* With the ignition SW is at ACC or ON position, and any door open, when all the doors are closed, each light fades out immediately.
- \* When the ignition SW is turned to ACC or ON position during timer lighting, each light fades out immediately.
- \* When the doors are locked during timer lighting, each light fades out immediately.
- \* The lights include, the front interior light, ignition key cylinder light, and front door courtesy light LH,RH.

## SERVICE HINTS

### D14, D15, D16, D17 DOOR COURTESY SW FRONT LH, RH, REAR LH, RH

1-GROUND : Closed with door open

### B2 BACK DOOR COURTESY SW

1-2 : Closed with back door open

### I19 (A), I20 (B), I21 (C) INSTRUMENT ECU

- (C) 1-GROUND : Always approx. 12 volts
- (C) 2-GROUND : Approx. 12 volts with ignition SW at **ON** or **ST** position
- (C) 4-GROUND : Always continuity
- (A) 3-GROUND : Continuity with front passenger door open
- (A)14-GROUND : Continuity with driver door open
- (B) 1-GROUND : Continuity with rear RH door open
- (C) 7-GROUND : Continuity with rear LH door or back door open

 : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B2	42	D19	42	J15	41
B3	42	D21	42	J17	41
C12	A 40	D22	42	J19	41
C15	D 40	F10	42	J27	41
D10	42	F11	42	J29	41
D11	42	I17	40	J32	42
D12	42	I19	A 40	J33	42
D13	42	I20	B 40	J34	42
D14	42	I21	C 40	R27	43
D15	42	J9	41	V6	43
D16	42	J10	41	V7	43
D17	42	J12	41	W3	41
D18	42	J14	41		

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2A	26	Roof Wire and Cowl Side J/B LH (Left Kick Panel)
2E	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2L	26	Front Door LH Wire and Cowl Side J/B LH (Left Kick Panel)
2M		
2N	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2O		
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3A	32	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3E	32	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3F		
3G	32	Front Door RH Wire and Cowl Side J/B RH (Right Kick Panel)
3I	32	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC1	48	Front Door LH Wire and Dash Wire (Left Kick Panel)
IU1	52	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU4		
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
BA1	56	Rear Door LH Wire and Floor Wire (Left Side of Center Pillar)
BC1	56	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)
BH1	58	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BP1	58	Pillar No.1 Wire and Floor Wire (Left Rear Side Quarter Panel)
BQ1	58	Back Door Lower Wire and Floor Wire (Left Rear Side Quarter Panel)

 : GROUND POINTS

Code	See Page	Ground Points Location
IF	48	Set Bolt of Cowl Side J/B LH
IH	48	Set Bolt of Cowl Side J/B RH
II		
BM	56	Left Rear Side Quarter Panel

# INTERIOR LIGHT

---



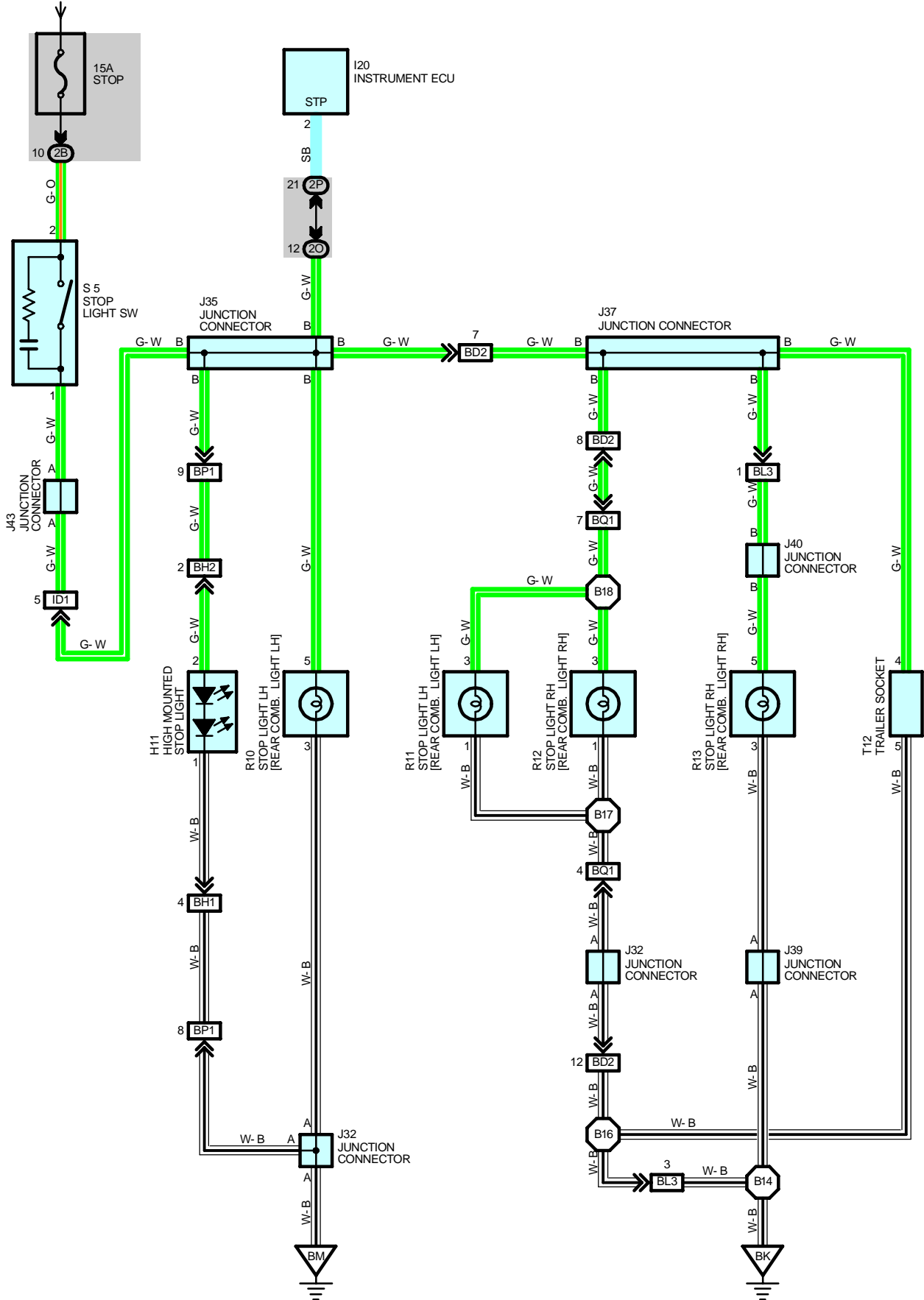
: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B1	58	Front Door LH Wire	B7	58	Roof Wire
B2					



# STOP LIGHT

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



**SERVICE HINTS****S5 STOP LIGHT SW**

2-1 : Closed with brake pedal depressed

 : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
H11	42	J39	42	R12	43
I20	40	J40	42	R13	43
J32	42	J43	41	S5	41
J35	42	R10	43	T12	43
J37	42	R11	43		

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2O	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ID1	48	Dash Wire and Floor Wire (Left Kick Panel)
BD2	56	Floor No.3 Wire and Floor Wire (Left Rear Side Quarter Panel)
BH1	58	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BH2		
BL3	58	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BP1	58	Pillar No.1 Wire and Floor Wire (Left Rear Side Quarter Panel)
BQ1	58	Back Door Lower Wire and Floor Wire (Left Rear Side Quarter Panel)

 : GROUND POINTS

Code	See Page	Ground Points Location
BK	56	Front Side Under the Front Passenger's Seat
BM	56	Left Rear Side Quarter Panel

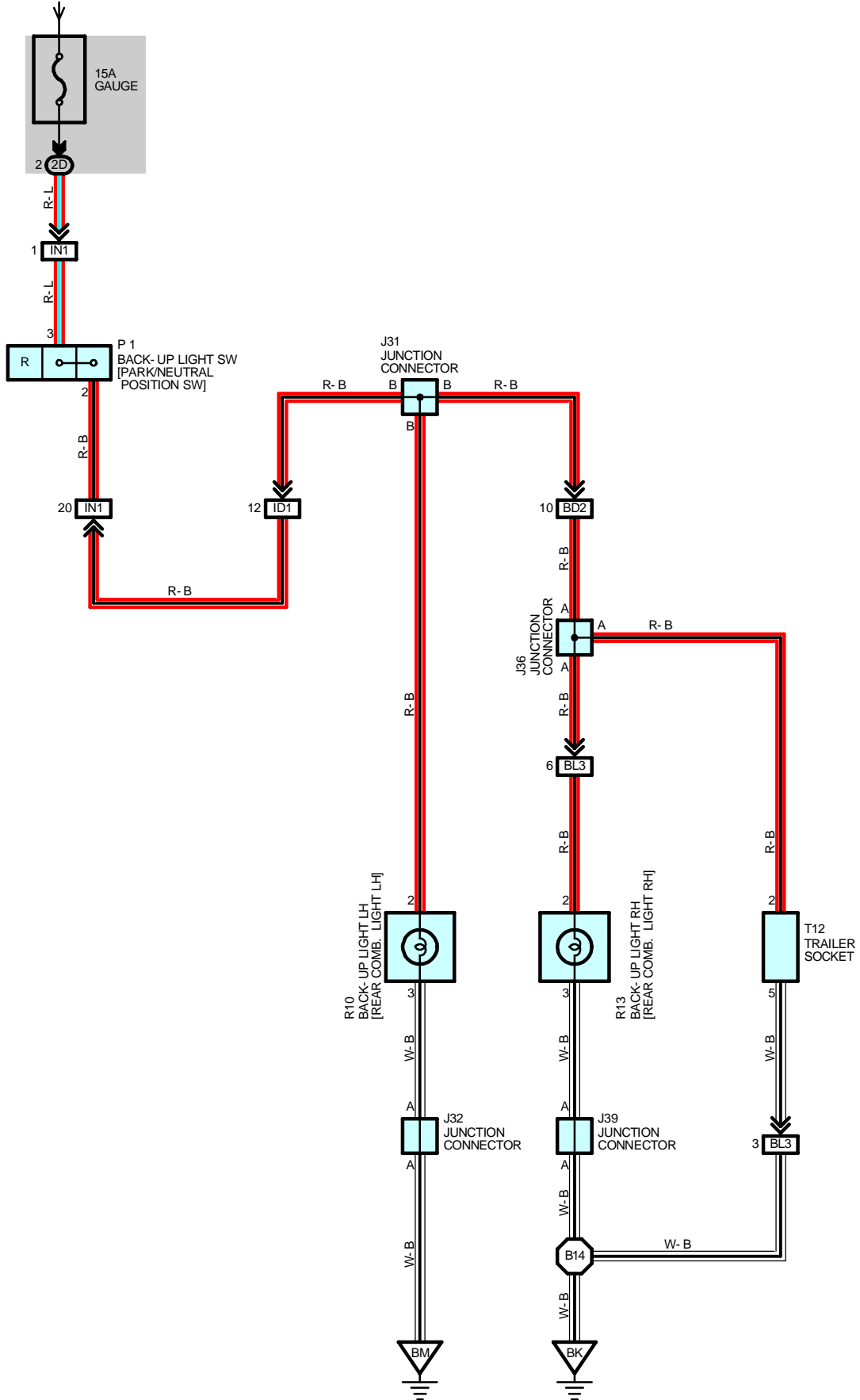
 : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B14	58	Floor No.2 Wire	B17	58	Back Door Lower Wire
B16	58	Floor No.3 Wire	B18		



# BACK-UP LIGHT

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



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

4-8 : Closed with shift lever at R position

 : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
J31	<a href="#">42</a>	J39	<a href="#">42</a>	R13	<a href="#">43</a>
J32	<a href="#">42</a>	P1	<a href="#">39</a>	T12	<a href="#">43</a>
J36	<a href="#">42</a>	R10	<a href="#">43</a>		

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
2D	<a href="#">26</a>	Dash Wire and Cowl Side J/B LH (Left Kick Panel)

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ID1	<a href="#">48</a>	Dash Wire and Floor Wire (Left Kick Panel)
IN1	<a href="#">52</a>	Engine Wire and Dash Wire (Behind the Glove Box)
BD2	<a href="#">56</a>	Floor No.3 Wire and Floor Wire (Left Rear Side Quarter Panel)
BL3	<a href="#">58</a>	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)

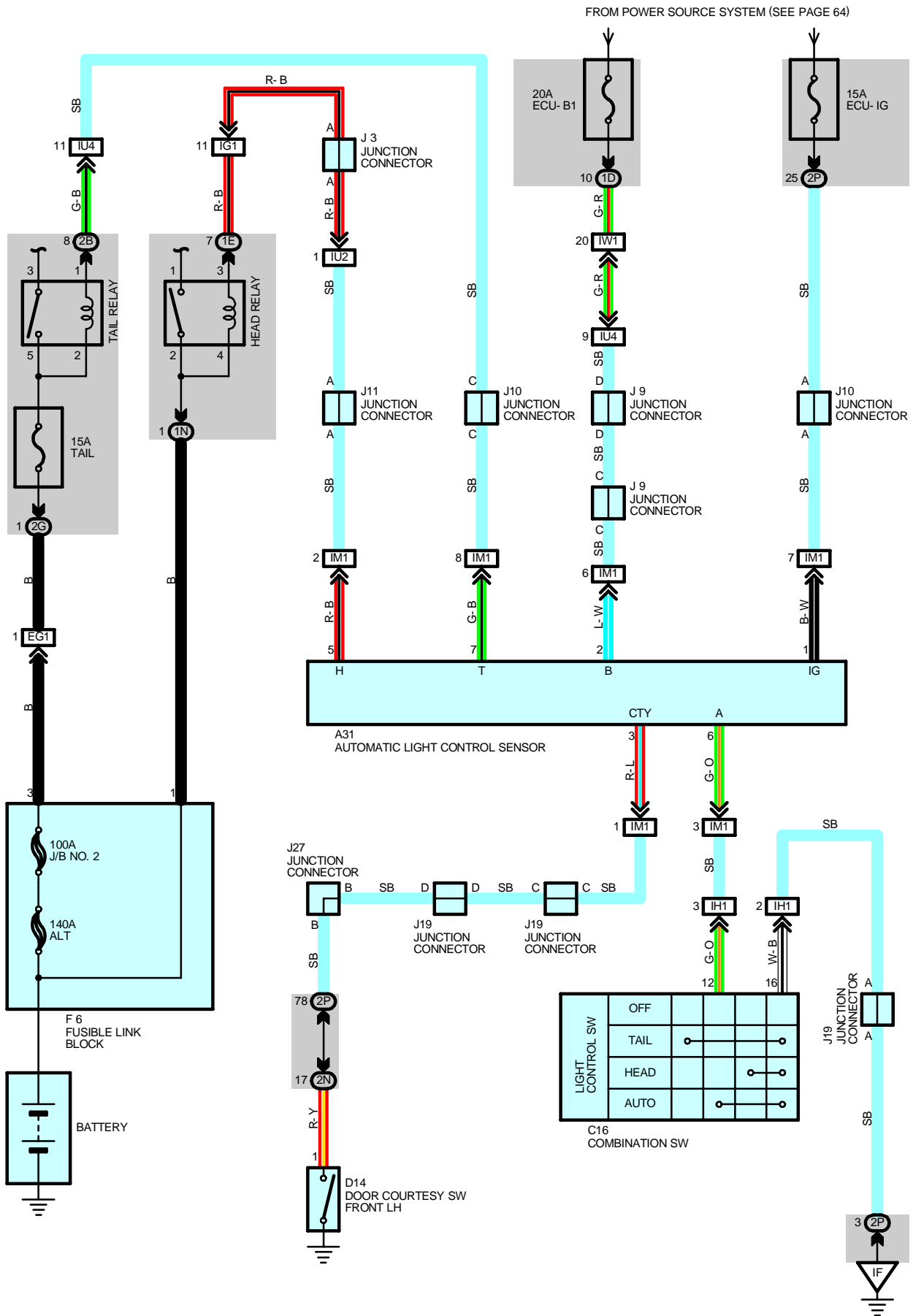
 : GROUND POINTS

Code	See Page	Ground Points Location
BK	<a href="#">56</a>	Front Side Under the Front Passenger's Seat
BM	<a href="#">56</a>	Left Rear Side Quarter Panel

 : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B14	<a href="#">58</a>	Floor No.2 Wire			

# AUTOMATIC LIGHT CONTROL



## SYSTEM OUTLINE

When the light control SW is set at AUTO position, this system automatically turns ON/OFF the taillights and headlights depending on the brightness around the vehicle.

### AUTOMATIC LIGHT CONTROL OPERATION

#### (1) Turn on operation

- \* With the ignition SW turned on, and the light control SW set at AUTO position, when the brightness around the vehicle drops in between a predetermined level, the timer of the automatic light control sensor starts counting, and turns on the taillight and headlight after approx. 5.8 seconds have elapsed. In case the brightness around the vehicle increases over a predetermined level during timer counting, the timer will be reset.
- \* With the ignition SW turned on and the light control SW set at AUTO position, when the brightness around the vehicle drops below a predetermined level, the timer of the automatic light control sensor starts counting, and turns on the taillight and headlight after approx. 2.9 seconds have elapsed. In case the brightness around the vehicle increases in between a predetermined level during timer counting, the timer will be stopped, and when the brightness increases over a predetermined level, the timer will be reset.

#### (2) Turn off operation

- \* When the brightness increases over a predetermined level while the automatic light control system is operating, the timer of the automatic light control sensor starts counting, and turns off the taillight and headlight after approx. 5.8 seconds have elapsed. In case the brightness around the vehicle drops below a predetermined level during timer counting, the timer will be reset.
- \* The taillights and headlights will be turned off when the ignition SW is turned from on to off and driver door is opened, during automatic light control system operation, with the light control SW set at AUTO position.

## SERVICE HINTS

### A31 AUTOMATIC LIGHT CONTROL SENSOR

- 1-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position
- 2-GROUND : Always approx. **12** volts
- 3-GROUND : Continuity with driver door open
- 6-GROUND : Continuity with light control SW at **AUTO** position

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A31	40	J3	41	J19	41
C16	40	J9	41	J27	41
D14	42	J10	41		
F6	38	J11	41		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1E		
1N	23	Engine Room No.3 Wire and Engine Room J/B (Engine Compartment Left)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2G	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2N	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EG1	46	Engine Room No.2 Wire and Engine Room No.3 Wire (Under the Engine Room J/B)
IG1	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IH1	50	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
IM1	52	Instrument Panel Integration Wire and Instrument Panel No.3 Wire (Right Side of Instrument Panel)
IU2	52	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU4		
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)

# AUTOMATIC LIGHT CONTROL

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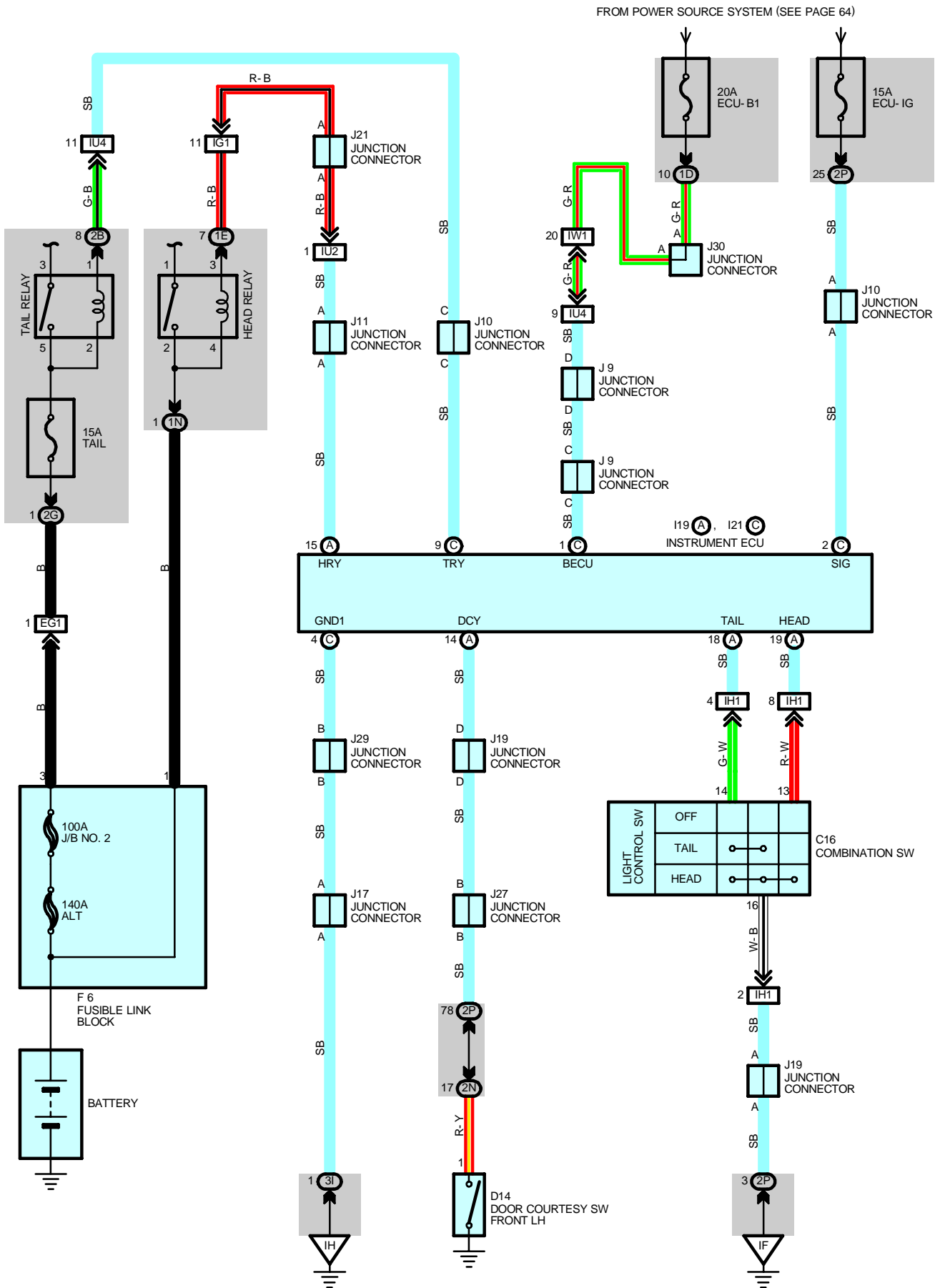


: GROUND POINTS

Code	See Page	Ground Points Location
IF	<a href="#">48</a>	Set Bolt of Cowl Side J/B LH



# LIGHT AUTO TURN OFF



## SYSTEM OUTLINE

This system automatically turns off the taillight or headlight by the opening/closing of the driver door, to prevent the lights from remaining lit.

### LIGHT AUTO TURN OFF OPERATION

\* When headlights are on

When the ignition SW is turned from on to off with the headlights on (Light control SW at HEAD position), a signal is input to instrument ECU TERMINAL SIG. When the driver door is opened at this time, a signal is input from the door courtesy SW front LH to the instrument ECU TERMINAL DCY. The instrument ECU TERMINAL HRY is controlled to turn off the HEAD relay. As a result, the current to the headlight is cut off and the light is turned off.

\* When taillights are on

When the ignition SW is turned from on to off with the taillights on (Light control SW at TAIL position), a signal is input to instrument ECU TERMINAL SIG. When the driver door is opened at this time, a signal is input from the door courtesy SW front LH to the instrument ECU TERMINAL DCY. The instrument ECU TERMINAL TRY is controlled to turn off the TAIL relay. As a result, the current to the taillight is cut off and the light is turned off.

## SERVICE HINTS

### I19 (A), I21 (C) INSTRUMENT ECU

- (A)14-GROUND : Continuity with driver door open
- (A)18-GROUND : Continuity with light control SW at **TAIL** or **HEAD** position
- (A)19-GROUND : Continuity with light control SW at **HEAD** position
- (C) 1-GROUND : Always approx. **12** volts
- (C) 2-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position
- (C) 4-GROUND : Always continuity

### D14 DOOR COURTESY SW FRONT LH

- 1-GROUND : Closed with door open

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C16	40	J9	41	J21	41
D14	42	J10	41	J27	41
F6	38	J11	41	J29	41
I19	A 40	J17	41	J30	41
I21	C 40	J19	41		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1E		
1N	23	Engine Room No.3 Wire and Engine Room J/B (Engine Compartment Left)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2G	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2N	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3I	32	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EG1	46	Engine Room No.2 Wire and Engine Room No.3 Wire (Under the Engine Room J/B)
IG1	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IH1	50	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
IU2	52	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU4		
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)



# LIGHT AUTO TURN OFF

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 : GROUND POINTS

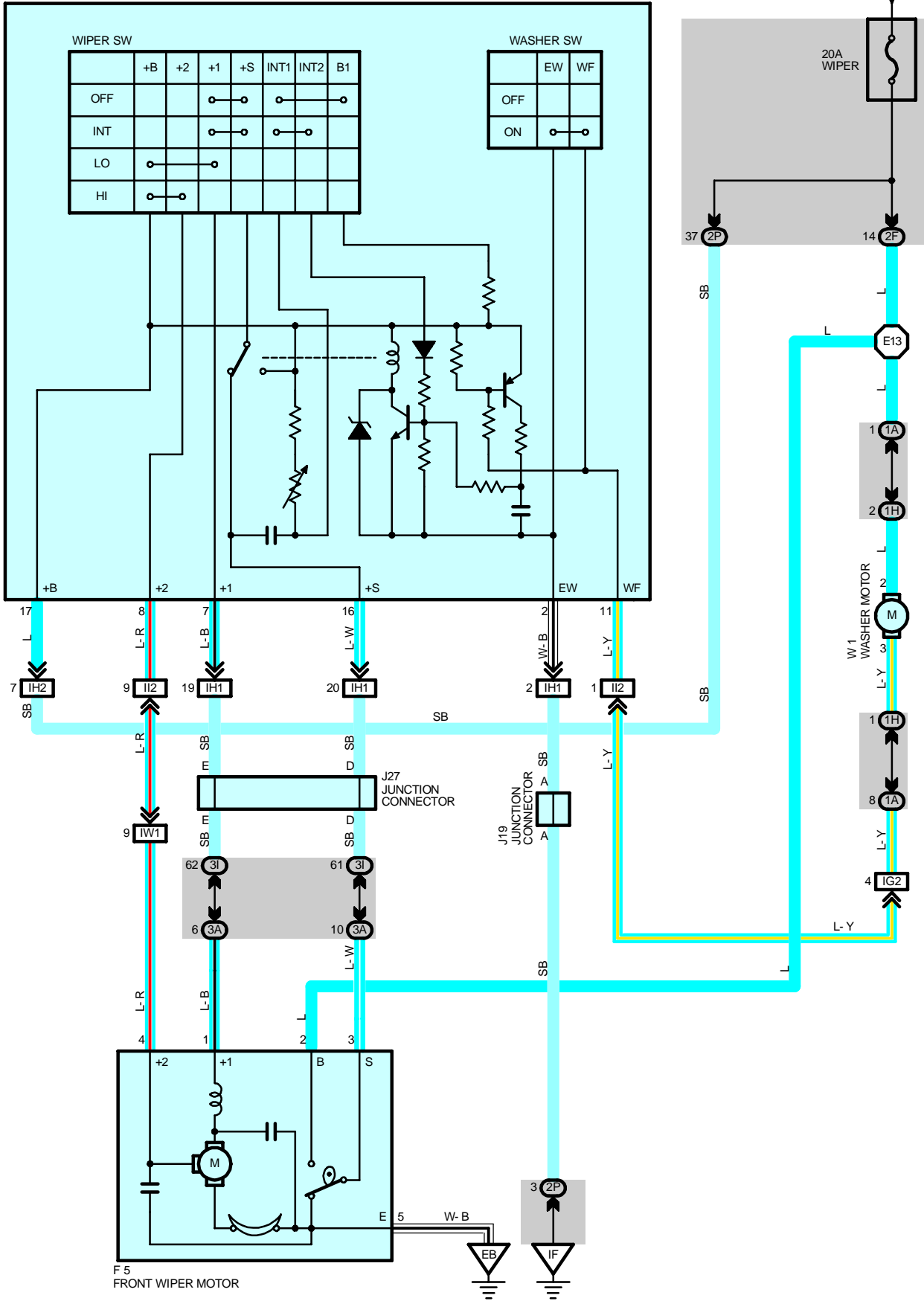
Code	See Page	Ground Points Location
IF	<a href="#">48</a>	Set Bolt of Cowl Side J/B LH
IH	<a href="#">48</a>	Set Bolt of Cowl Side J/B RH



# FRONT WIPER AND WASHER

C19  
FRONT WIPER AND WASHER SW [COMB. SW]

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



## SYSTEM OUTLINE

When the ignition SW turned on, the current from the WIPER fuse flows to the front wiper and washer SW TERMINAL 17, and front wiper motor TERMINAL 2.

### 1. LOW POSITION

When the wiper SW is turned to LO position, the current flows from the front wiper and washer SW TERMINAL 17 to TERMINAL 7 to front wiper motor TERMINAL 1 to TERMINAL 5 to GROUND, and operates the front wiper motor at low speed.

### 2. HIGH POSITION

When the wiper SW is turned to HI position, the current flows from the front wiper and washer SW TERMINAL 17 to TERMINAL 8 to front wiper motor TERMINAL 4 to TERMINAL 5 to GROUND, and operates the front wiper motor at high speed.

### 3. INT POSITION

When the wiper SW is turned to INT position, the relay operates and the current which is connected by the relay function flows from the front wiper and washer SW TERMINAL 17 to TERMINAL 2 to GROUND, and operates the wiper.

The intermittent operation is controlled by the charge/discharge function of the condenser installed in the relay, and the intermittent time is controlled by a time control SW to change the charging time of the condenser.

### 4. WASHER CONTINUOUS OPERATION

When the washer SW is turned on, the current flows from the washer motor TERMINAL 2 to TERMINAL 1 to front wiper and washer SW TERMINAL 11 to TERMINAL 2 to GROUND, operates the washer motor and the window washer emits a water spray. This causes the current to flow to the washer continuous operation circuit in front wiper and washer SW TERMINAL 11 to TERMINAL 7 to front wiper motor TERMINAL 1 to TERMINAL 5 to GROUND, and operates the wiper.

## SERVICE HINTS

### C19 FRONT WIPER AND WASHER SW [COMB. SW]

2-GROUND : Always continuity

17-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position

7-GROUND : Approx. **12** volts with front wiper and washer SW at **LO** position

: Approx. **12** volts **1.6** to **10.7** seconds intermittently with the front wiper and washer SW at **INT** position

16-GROUND : Approx. **12** volts with ignition SW on unless the front wiper motor at **STOP** position

8-GROUND : Approx. **12** volts with front wiper and washer SW at **HI** position

### F5 FRONT WIPER MOTOR

2-3 : Closed unless the wiper motor at **STOP** position

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C19	40	J19	41	W1	39
F5	38	J27	41		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1H	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2F	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3A	32	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3I	32	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG2	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IH1	50	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
IH2		
II2	50	Column Wire and Dash Wire (Near the Ignition SW)
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)

# FRONT WIPER AND WASHER

---

 : GROUND POINTS

Code	See Page	Ground Points Location
EB	<a href="#">46</a>	Front Right Side of Fender Apron
IF	<a href="#">48</a>	Set Bolt of Cowl Side J/B LH

 : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E13	<a href="#">46</a>	Engine Room No.2 Wire			

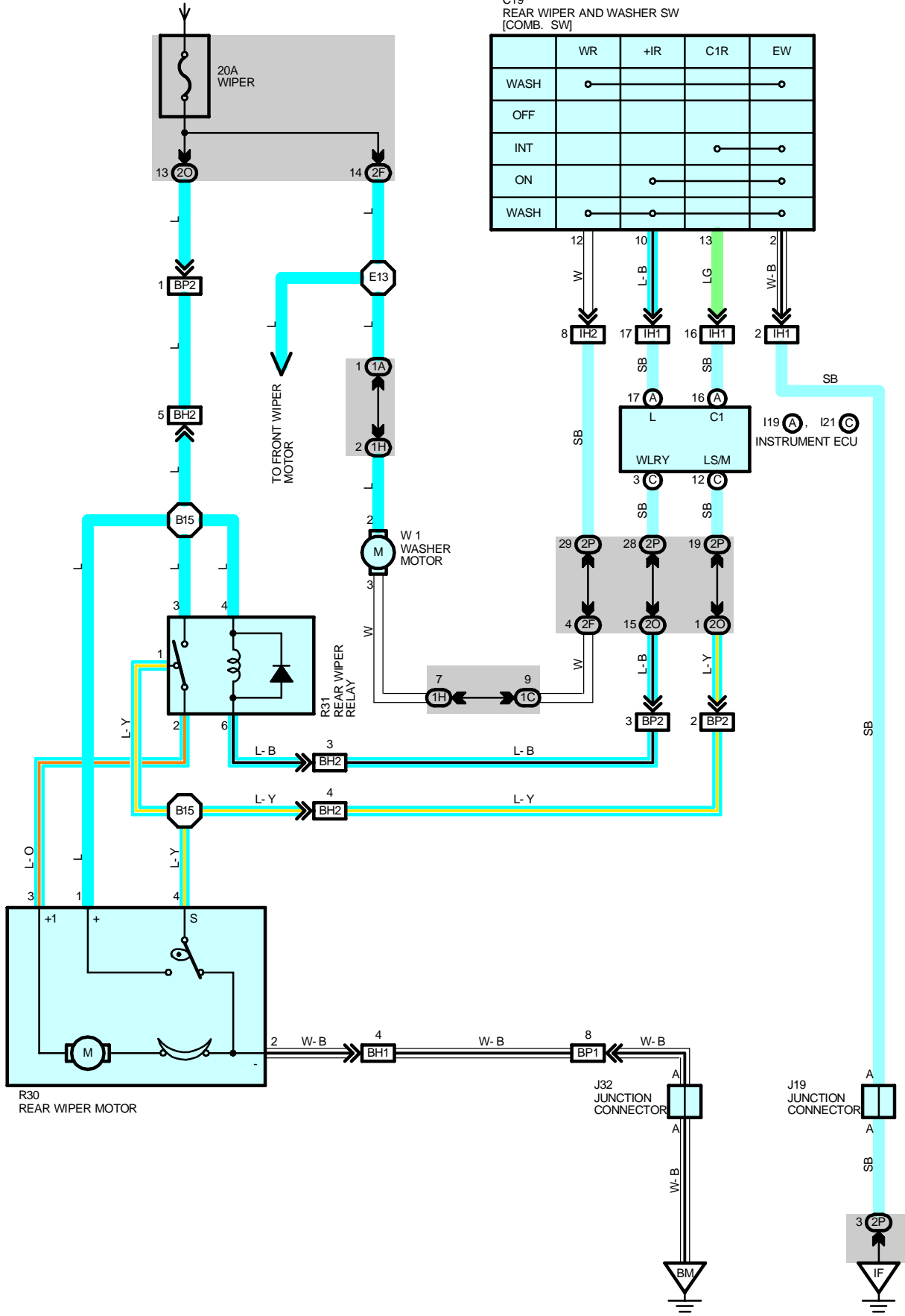


# REAR WIPER AND WASHER

FROM POWER SOURCE SYSTEM (SEE PAGE 64)

C19  
REAR WIPER AND WASHER SW  
[COMB. SW]

	WR	+IR	C1R	EW
WASH				
OFF				
INT				
ON				
WASH				



## SYSTEM OUTLINE

When the ignition SW is turned on, the current flows from WIPER fuse to washer motor TERMINAL 2, rear wiper relay TERMINAL 3 and TERMINAL 4, and rear wiper motor TERMINAL 1 respectively.

### 1. REAR WIPER NORMAL OPERATION

When the ignition SW is turned on, and the rear wiper and washer SW is turned to ON position, the current flows from rear wiper relay (Coil side) to instrument ECU TERMINAL (C) 3 to TERMINAL (A) 17 to rear wiper and washer SW TERMINAL 10 to TERMINAL 2 to GROUND, and turns on the rear wiper relay. As a result, the current flows from rear wiper relay TERMINAL 3 to TERMINAL 2 to rear wiper motor TERMINAL 3 to TERMINAL 2 to GROUND, and operates the rear wiper.

### 2. REAR WIPER INTERMITTENT OPERATION

When the ignition SW is turned on, and the rear wiper and washer SW is turned to INT position, the current flows from rear wiper relay (Coil side) to instrument ECU TERMINAL (C) 3 to TERMINAL (A) 16 to rear wiper and washer SW TERMINAL 13 to TERMINAL 2 to GROUND, and the intermittent circuit in the instrument ECU is controlled to operate the wiper intermittently.

### 3. WASHER OPERATION

When the ignition SW is turned on, and the rear wiper and washer SW is turned from OFF to WASH position, the current flows from the WIPER fuse to washer motor TERMINAL 2 to TERMINAL 3 to rear wiper and washer SW TERMINAL 12 to TERMINAL 2 to GROUND. This activates the washer motor, and the window washer emits a water spray. When the rear wiper and washer SW is turned to ON position, the window washer emits a water spray during rear wiper normal operation.

## SERVICE HINTS

### W1 WASHER MOTOR

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

3-GROUND : Continuity with rear wiper and washer SW at **WASH** position

### R30 REAR WIPER MOTOR

1-GROUND : Approx. 12 volts with ignition SW at **ON** or **ST** position

2-GROUND : Always continuity

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C19	40	J19	41	R31	43
I19	A 40	J32	42	W1	39
I21	C 40	R30	43		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1C		
1H	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2F	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2O	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IH1	50	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
IH2		
BH1	58	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BH2		
BP1	58	Pillar No.1 Wire and Floor Wire (Left Rear Side Quarter Panel)
BP2		



# REAR WIPER AND WASHER

---



## : GROUND POINTS

Code	See Page	Ground Points Location
IF	<a href="#">48</a>	Set Bolt of Cowl Side J/B LH
BM	<a href="#">56</a>	Left Rear Side Quarter Panel

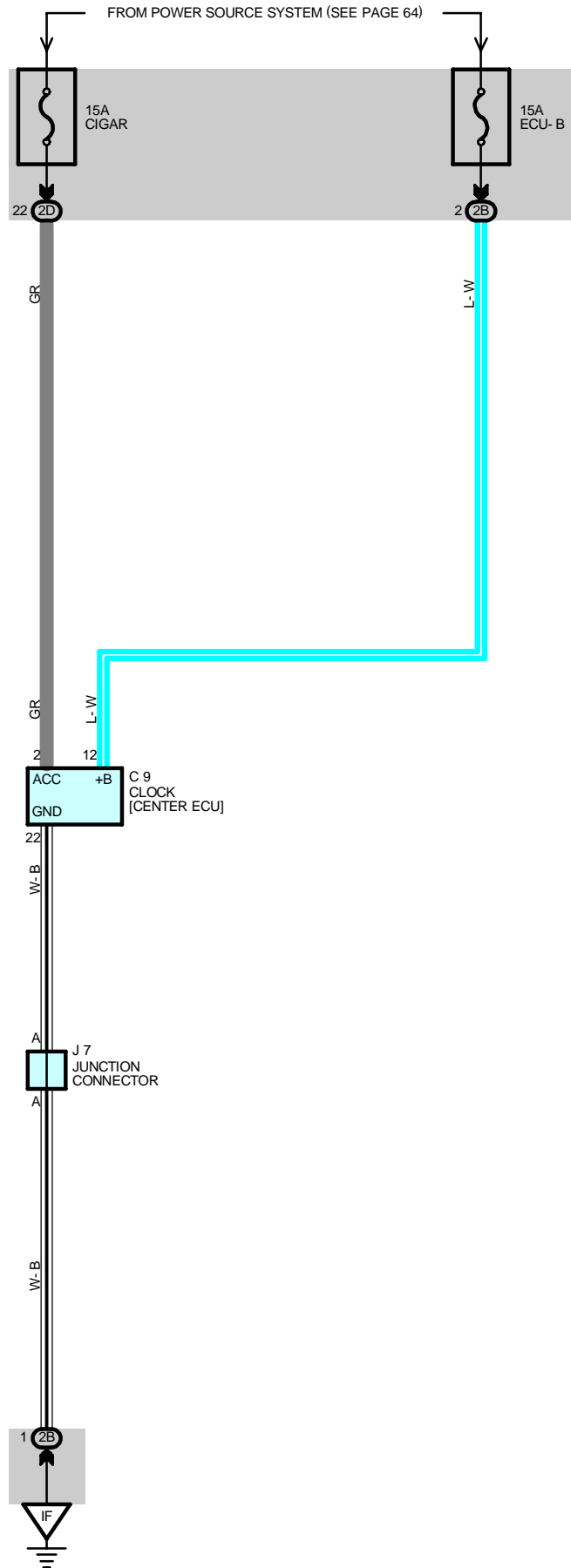


## : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E13	<a href="#">46</a>	Engine Room No.2 Wire	B15	<a href="#">58</a>	Back Door Upper Wire



# CLOCK



---

**SERVICE HINTS****C9 CLOCK [CENTER ECU]**2-GROUND : Approx. **12** volts with ignition SW at **ACC** or **ON** position12-GROUND : Always approx. **12** volts

22-GROUND : Always continuity

 **: PARTS LOCATION**

Code	See Page	Code	See Page	Code	See Page
C9	40	J7	41		

 **: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

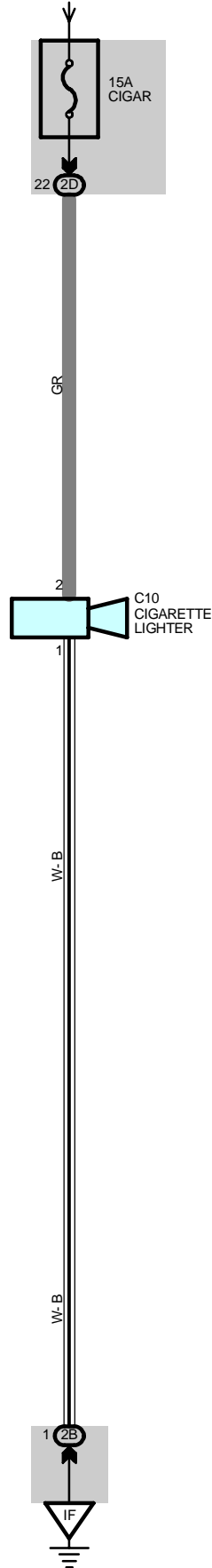
Code	See Page	Junction Block and Wire Harness (Connector Location)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		

 **: GROUND POINTS**

Code	See Page	Ground Points Location
IF	48	Set Bolt of Cowl Side J/B LH

# CIGARETTE LIGHTER

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



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**SERVICE HINTS****C10 CIGARETTE LIGHTER**2-GROUND : Approx. **12** volts with ignition SW at **ACC** or **ON** position

1-GROUND : Always continuity

 : **PARTS LOCATION**

Code	See Page	Code	See Page	Code	See Page
C10	40				

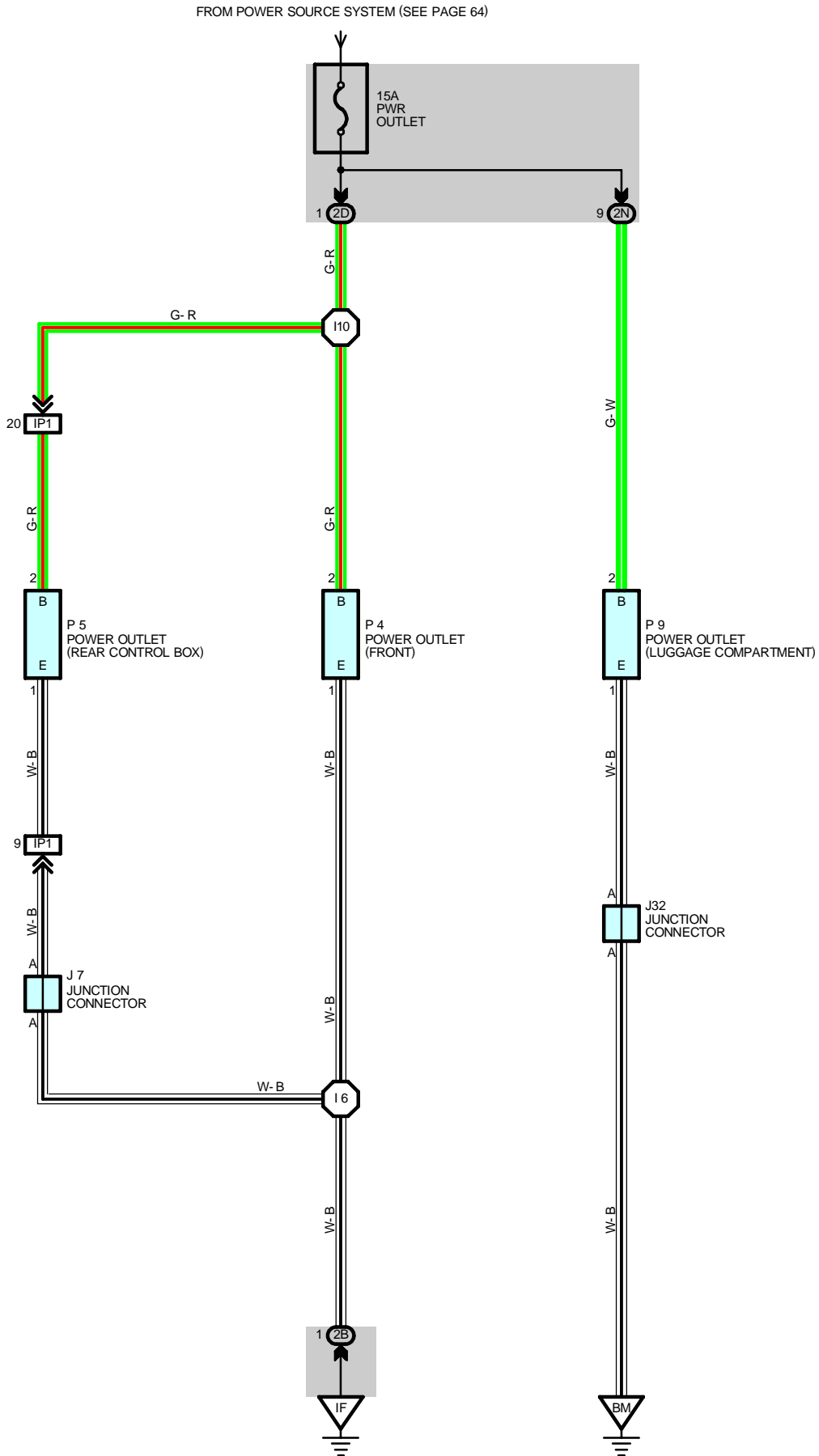
 : **JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

Code	See Page	Junction Block and Wire Harness (Connector Location)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		

 : **GROUND POINTS**

Code	See Page	Ground Points Location
IF	48	Set Bolt of Cowl Side J/B LH

# POWER OUTLET



## SERVICE HINTS

### P4 POWER OUTLET (FRONT)

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

1-GROUND : Always continuity

### P5 POWER OUTLET (REAR CONSOLE BOX)

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

1-GROUND : Always continuity

### P9 POWER OUTLET (LUGGAGE COMPARTMENT)

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

1-GROUND : Always continuity

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
J7	41	P4	41	P9	43
J32	42	P5	41		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		
2N	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IP1	52	Rear Console Box Wire and Dash Wire (Right Side of Rear Console)

## ▽ : GROUND POINTS

Code	See Page	Ground Points Location
IF	48	Set Bolt of Cowl Side J/B LH
BM	56	Left Rear Side Quarter Panel

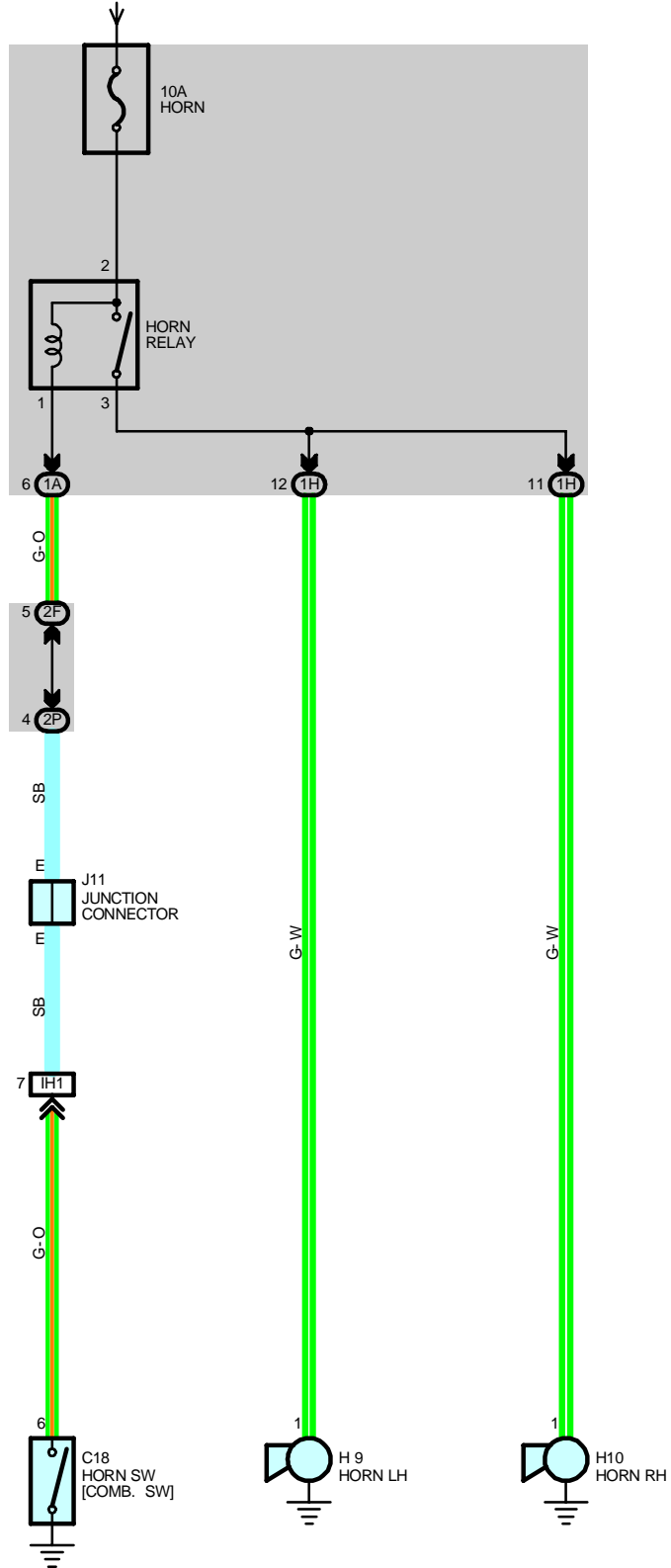
## ○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I6	50	Dash Wire	I10	50	Dash Wire



# HORN

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



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**SERVICE HINTS****HORN RELAY**

2-3 : Closed horn SW on

**○ : PARTS LOCATION**

Code	See Page	Code	See Page	Code	See Page
C18	<a href="#">40</a>	H10	<a href="#">39</a>		
H9	<a href="#">39</a>	J11	<a href="#">41</a>		

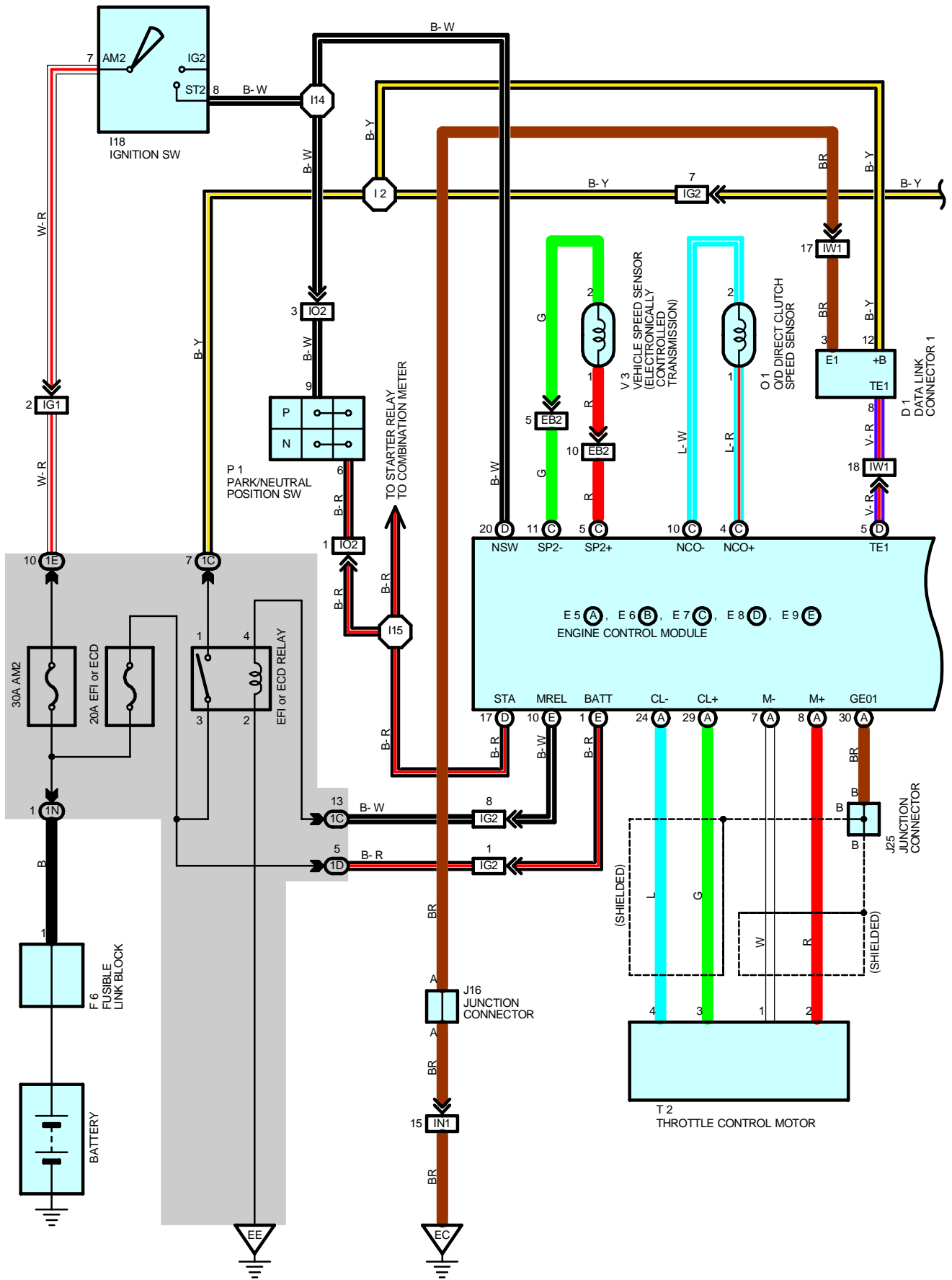
**○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

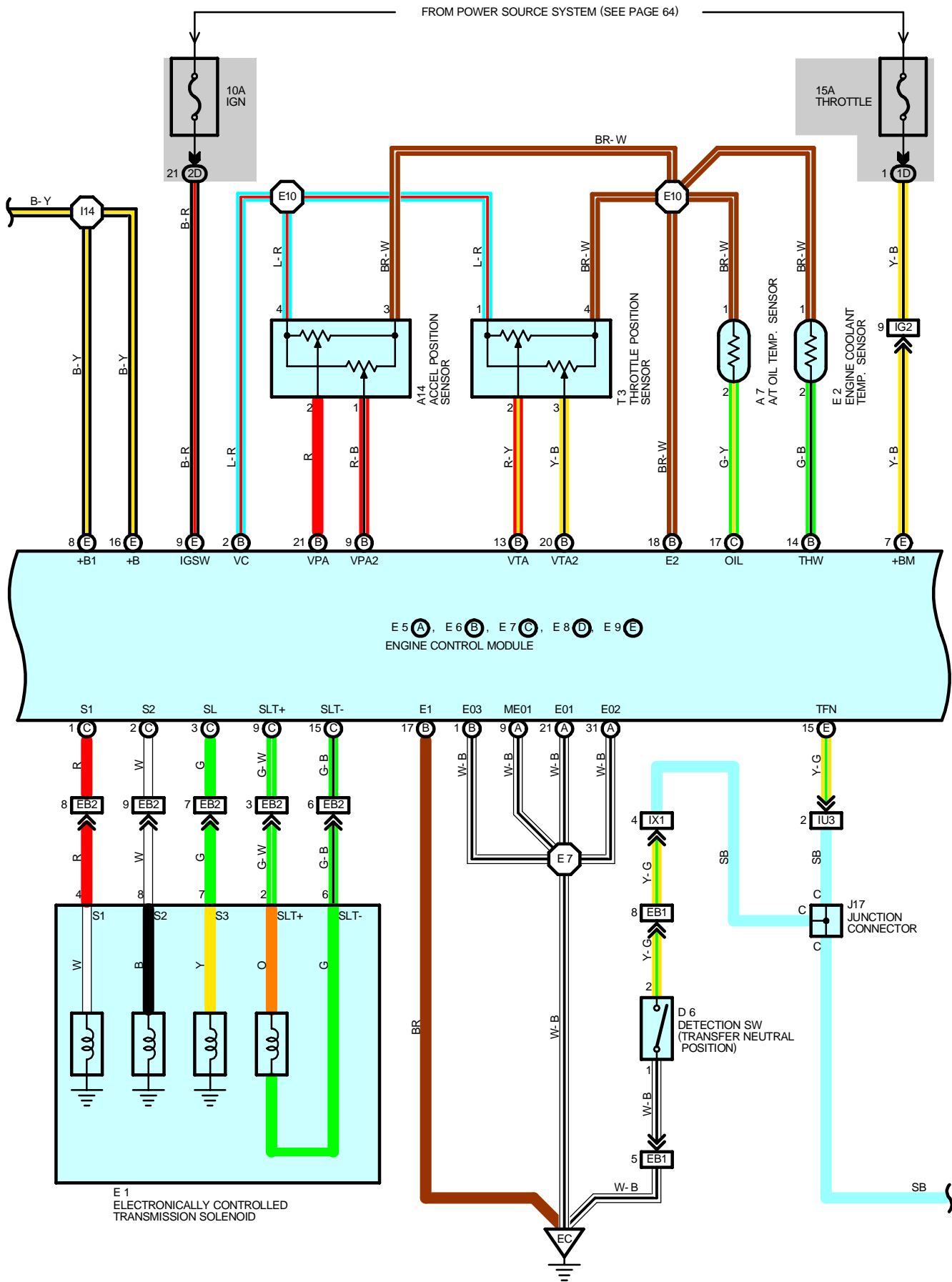
Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	<a href="#">23</a>	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1H	<a href="#">23</a>	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2F	<a href="#">26</a>	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2P	<a href="#">28</a>	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)

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

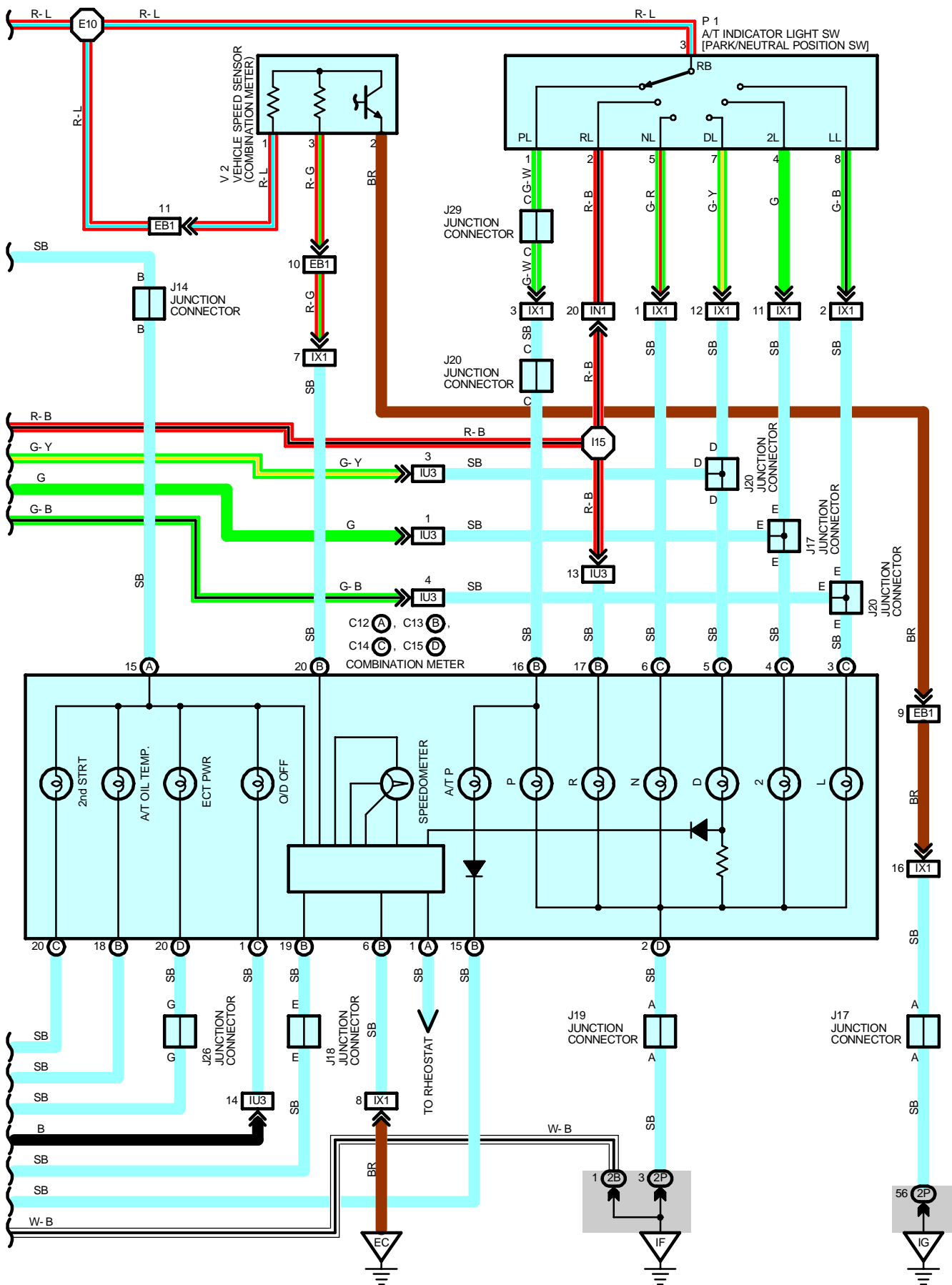
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IH1	<a href="#">50</a>	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)

# ELECTRONICALLY CONTROLLED TRANSMISSION AND AT INDICATOR









# ELECTRONICALLY CONTROLLED TRANSMISSION AND A/T INDICATOR

## SYSTEM OUTLINE

The electronically controlled transmission electrically controls the, throttle pressure, lock-up pressure, and accumulator pressure etc. through the solenoid valve.

The electronically controlled transmission is a system which precisely controls the gear shift timing and lock-up timing in response to the vehicle's driving conditions and the engine condition detected by various sensors. It makes smooth driving possible by shift selection of the gear which is the most appropriate to the driving conditions at that time, and by preventing downing, squat and gear shift shock when starting off.

### 1. GEAR SHIFT OPERATION

When driving, the engine warm up condition is input as a control signal from the engine coolant temp. sensor to TERMINAL THW of the engine control module, and the vehicle speed is input to TERMINAL SP2+ of the engine control module from the vehicle speed sensor. At the same time, the throttle valve opening signal from the throttle position sensor is input to TERMINALS VTA, VTA2 of the engine control module as a throttle angle signal. Based on these signals, the engine control module selects the best shift position for the driving conditions and sends current to the electronically controlled transmission solenoid.

### 2. LOCK-UP OPERATION

When the engine control module decides based on each signal that the lock-up condition has been met, the current flows from the engine control module TERMINAL SL to TERMINAL 7 of the electronically controlled transmission solenoid to GROUND.

### 3. STOP LIGHT SW CIRCUIT

If the brake pedal is depressed (Stop light SW on) when driving in lock-up position, a signal is input to TERMINAL STP of the engine control module. As a result, the engine control module cuts the current to the solenoid to release the lock-up.

### 4. ELECTRONICALLY CONTROLLED TRANSMISSION PATTERN SELECT SW CIRCUIT

When the electronically controlled transmission pattern select SW is switched to PWR, a signal is input to TERMINAL PWR of the engine control module, and the engine control module controls to enable shift-up and shift-down at a higher speed range than usual. In that case, the ECT PWR indicator light in the combination meter is lit up. When the electronically controlled transmission pattern select SW is switched to 2nd position, a signal is input to the engine control module TERMINAL SNWL, and through control of the engine control module, the gear shift of the transmission is made from 2nd position. The 2nd STRT indicator light in the combination meter is lit up.

### 5. OVERDRIVE CIRCUIT

#### \* O/D main SW on

When the O/D main SW is turned on (SW point is open), 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 (SW point is closed), 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.

### 6. TRANSFER SHIFT OPERATION

When the transfer shift lever is moved to L position, a signal is input into TERMINAL L4 of the engine control module.

In addition when the transfer shift lever is moved to N position a signal is input to engine control module TERMINAL TFN.

The engine control module detects the transfer condition through this.

## SERVICE HINTS

### E4 ELECTRONICALLY CONTROLLED TRANSMISSION PATTERN SELECT SW

5-3 : Closed with select SW at **PWR** position

2-3 : Closed with select SW at **2nd** position

### E6 (B), E8 (D), E9 (E) ENGINE CONTROL MODULE

BATT-E1 : Always **9.0- 14.0** volts

+B-E1 : **9.0- 14.0** volts with ignition SW at **ON** or **ST** position

+B1-E1 : **9.0- 14.0** volts with ignition SW at **ON** or **ST** position

NSW-E1 : **9.0- 14.0** volts with ignition SW at **ST** position

: **0- 3.0** volts with ignition SW on and shift lever in **P** or **N** position

STA-E1 : **6.0** volts or more with ignition SW at **ST** position and shift lever in **P** or **N** position

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

3-1 : Closed with shift lever in **P** position

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

3-5 : Closed with shift lever in **N** position

3-7 : Closed with shift lever in **D** position

3-4 : Closed with shift lever in **2** position

3-8 : Closed with shift lever in **L** position

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A7	38	E6	B 40	J22	41
A14	38	E7	C 40	J25	41
C12	A 40	E8	D 40	J26	41
C13	B 40	E9	E 40	J29	41
C14	C 40	F6	38	J44	41
C15	D 40	I18	40	O1	39
D1	38	J7	41	O3	41
D5	38	J14	41	P1	39
D6	38	J16	41	S5	41
E1	38	J17	41	T2	39
E2	38	J18	41	T3	39
E4	40	J19	41	V2	39
E5	A 40	J20	41	V3	39

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1D		
1E		
1N	23	Engine Room No.3 Wire and Engine Room J/B (Engine Compartment Left)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)



# ELECTRONICALLY CONTROLLED TRANSMISSION AND A/T INDICATOR

## : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	46	Engine Wire and Transmission Wire (On the Transmission)
EB2		
IG1	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IG2		
IK1	50	Console Box Wire and Dash Wire (Left Side of Front Console)
IN1	52	Engine Wire and Dash Wire (Behind the Glove Box)
IO2		
IU1	52	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU3		
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
IX1	54	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)

## : GROUND POINTS

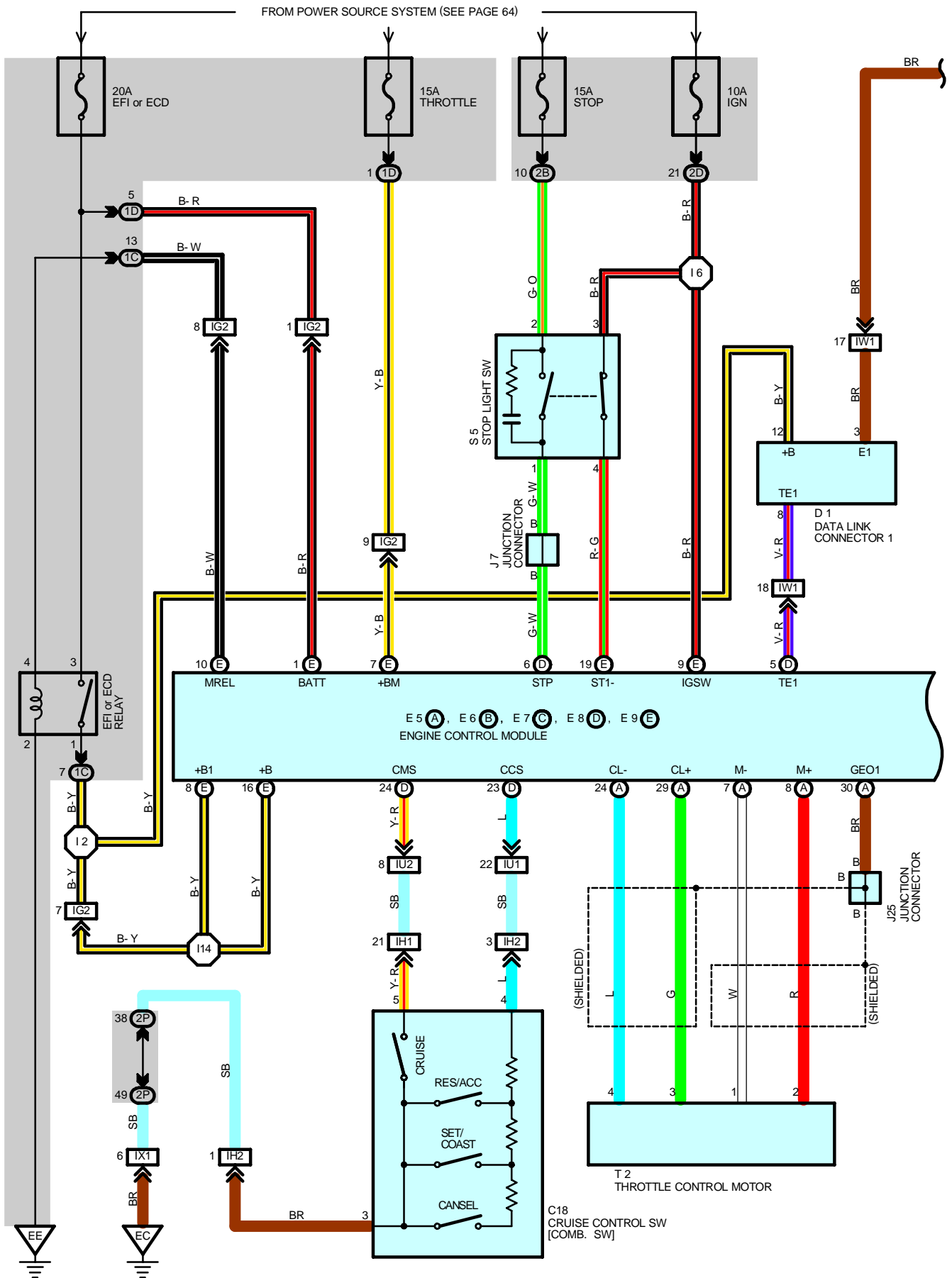
Code	See Page	Ground Points Location
EC	46	Rear Bank of Right Cylinder Head
EE	46	Front Left Side of Fender Apron
IF	48	Set Bolt of Cowl Side J/B LH
IG		

## : SPLICE POINTS

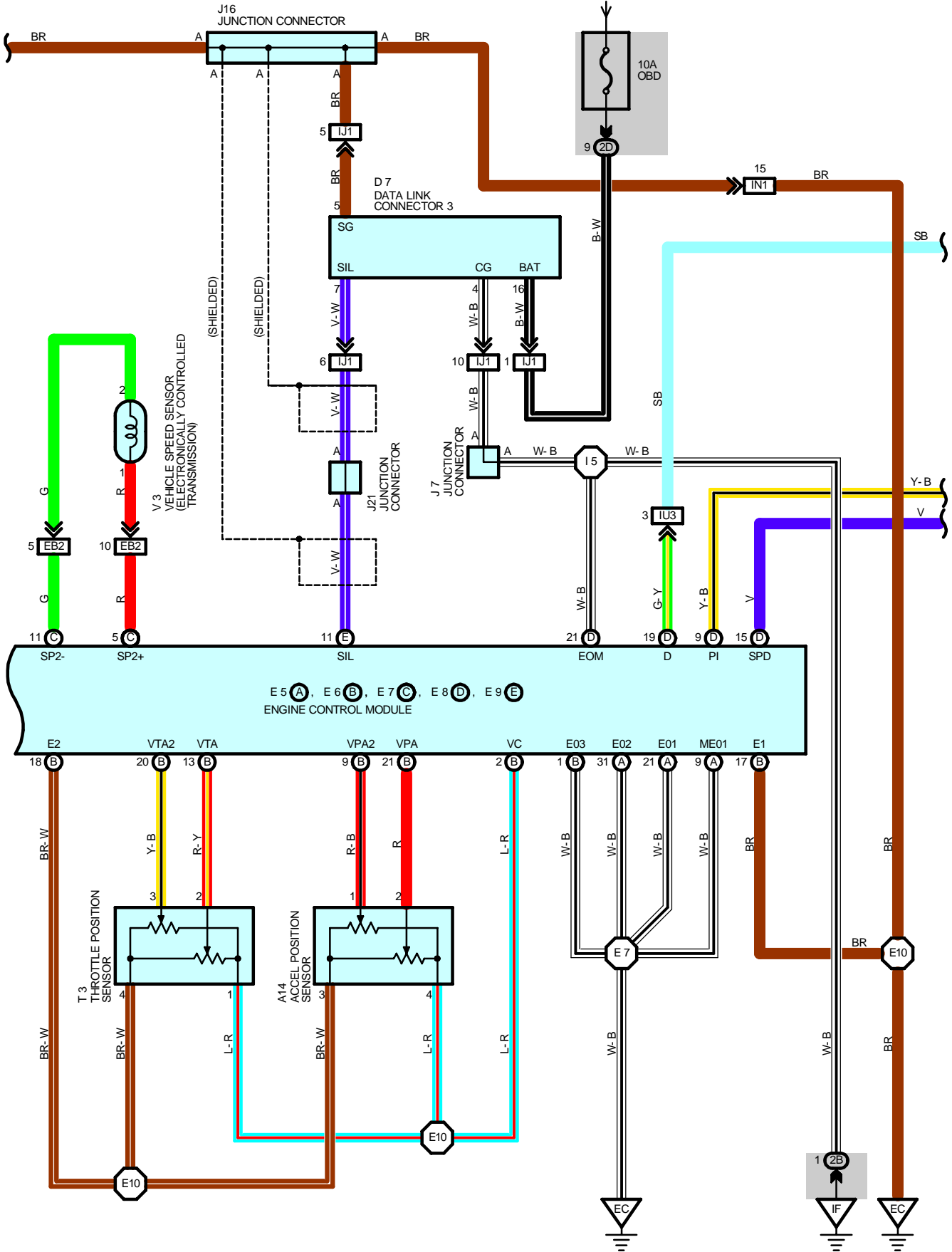
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E7	46	Engine Wire	I12	50	Console Box Wire
E10			I14		
I2	50	Engine Room No.2 Wire	I15	50	Dash Wire



# CRUISE CONTROL

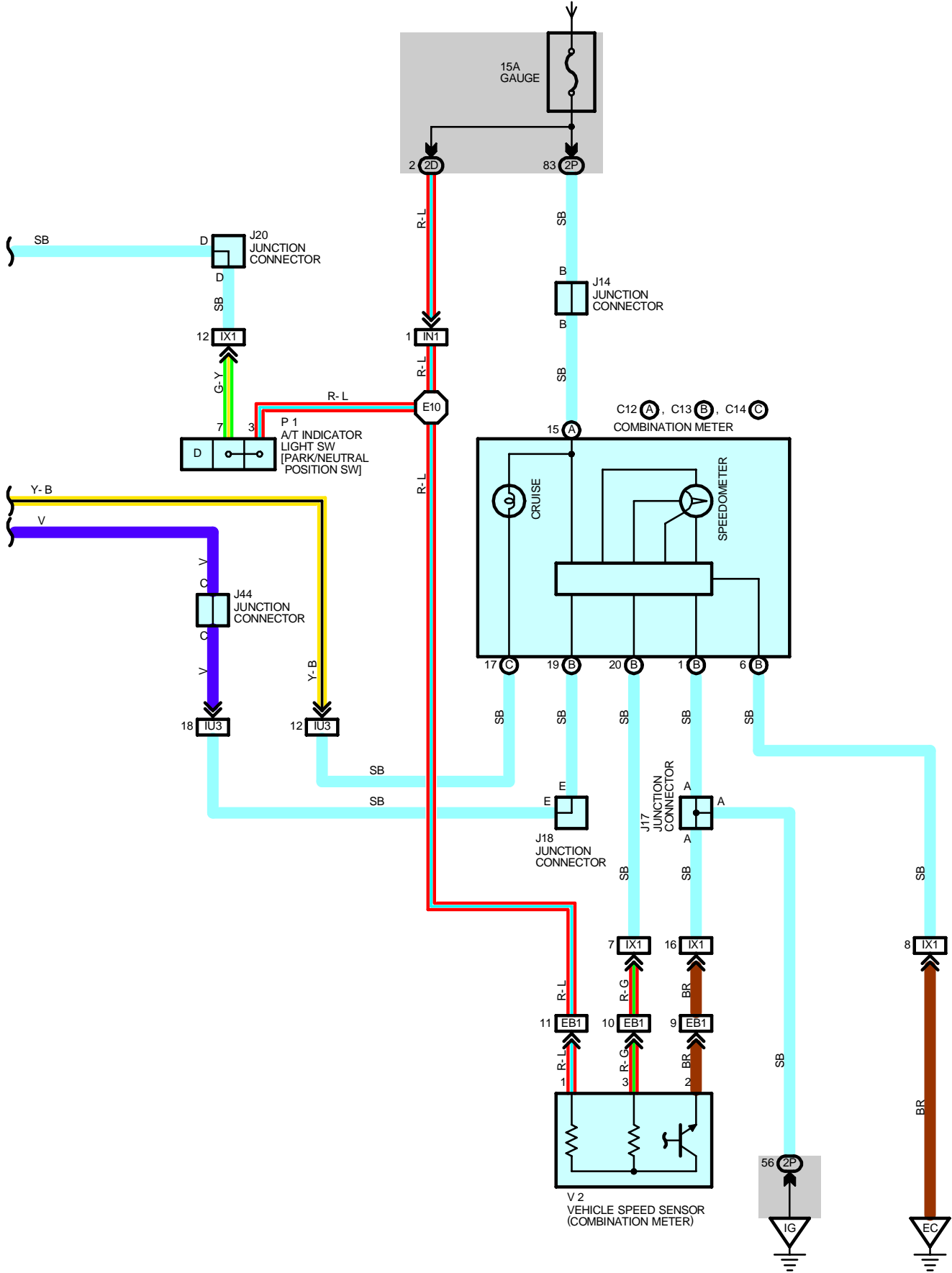


FROM POWER SOURCE SYSTEM (SEE PAGE 64)



# CRUISE CONTROL

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



## SYSTEM OUTLINE

The cruise control system is a constant vehicle speed controller which controls the opening angle of the engine throttle valve by the SW, and allows driving at a constant speed without depressing the accelerator pedal.

### SET OPERATION

When the CRUISE SW is turned on, the systems starts preparations for cruise control and turns on the indicator light in the combination meter.

### SET SPEED CONTROL

When the SET/COAST SW is operated with the CRUISE SW turned on during driving, the speed is controlled at a constant speed.

### COAST CONTROL

When the SET/COAST SW is kept turned on during cruise control driving, the engine control module controls the throttle valve to decelerate the vehicle speed.

Every time the SET/COAST SW is turned on instantaneously, the vehicle speed is decelerated approx. 1.5 km/h.

### ACCEL CONTROL

When the RES/ACC SW is kept turned on during cruise control driving, the engine control module controls the throttle valve to accelerate the vehicle speed.

Every time the SET/COAST SW is turned on instantaneously, the vehicle speed is accelerated approx. 1.5 km/h.

### RESUME CONTROL

If the vehicle speed is within the low speed limit (Approx. 40 km/h, 25 mph) when canceling the cruise control, operation of the RES/ACC SW accelerates the vehicle speed and resumes the level before canceling the cruise control.

### MANUAL CANCEL MECHANISM

If any of the following signals are input during cruise control driving, the cruise control is canceled.

- \* The stop light SW is on
- \* The CANCEL SW is turned on
- \* The CRUISE SW is turned off

### AUTO CANCEL FUNCTION

If any of the following conditions are detected, the cruise control is canceled:

- \* Failure in the stop light SW wiring
- \* Abnormality in the vehicle speed signal
- \* Malfunction in the electronically controlled throttle parts

### OVERDRIVE FUNCTION

The overdrive may be canceled if the vehicle travels on a upward slope during cruise control driving. After the overdrive is canceled, if the vehicle speed exceeds the overdrive return speed (Set speed ( 2 km/h, 1.2 mph ) ) and it is determined that the slope has finished, and the vehicle returns to overdrive mode again.

## SERVICE HINTS

### E5 (A), E6 (B), E8 (D), E9 (E) ENGINE CONTROL MODULE

- IGSW-E1 : 9.0- 14.0 volts with ignition SW at ON or ST position
- BATT-E1 : Always approx. 9.0- 14.0 volts
- STP-E1 : Approx. 12 volts with stop light SW at on
- : Below 1.5 volts with brake pedal is released

### C18 CRUISE CONTROL SW [COMB. SW]

- 4-3 : Approx. 418  $\Omega$  with CANCEL SW on
- : Approx. 198  $\Omega$  with SET/COAST SW on
- : Approx. 68  $\Omega$  with RES/ACC SW on

# CRUISE CONTROL

## : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A14	38	E7	C 40	J21	41
C12	A 40	E8	D 40	J25	41
C13	B 40	E9	E 40	J44	41
C14	C 40	J7	41	P1	39
C18	40	J14	41	S5	41
D1	38	J16	41	T2	39
D7	40	J17	41	T3	39
E5	A 40	J18	41	V2	39
E6	B 40	J20	41	V3	39

## : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1D		
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)

## : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	46	Engine Wire and Transmission Wire (On the Transmission)
EB2		
IG2	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IH1	50	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
IH2		
IJ1	50	Dash Wire and Detector Wire (Instrument Panel Center)
IN1	52	Engine Wire and Dash Wire (Behind the Glove Box)
IU1	52	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU2		
IU3		
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
IX1	54	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)

## : GROUND POINTS

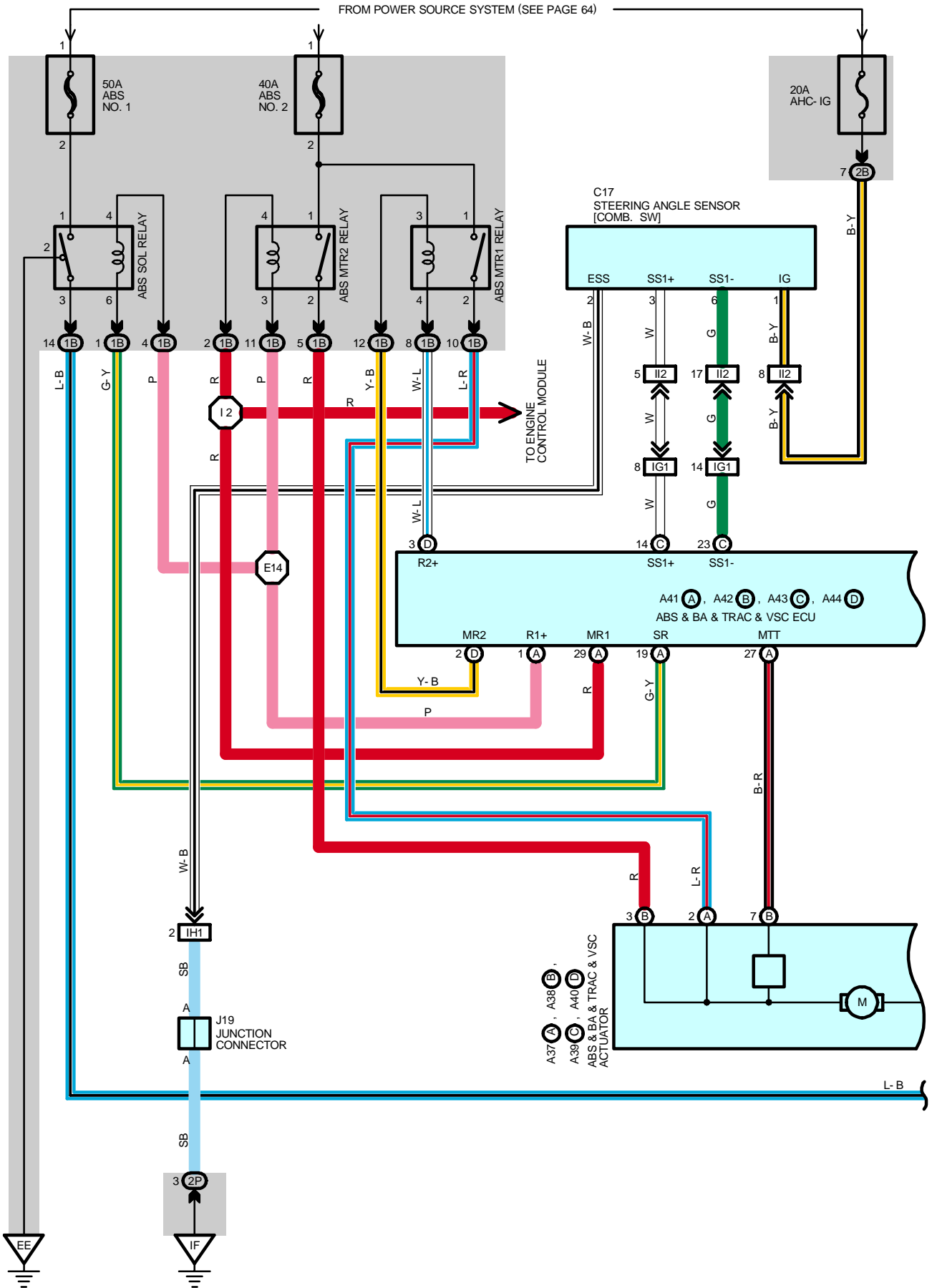
Code	See Page	Ground Points Location
EC	46	Rear Bank of Right Cylinder Head
EE	46	Front Left Side of Fender Apron
IF	48	Set Bolt of Cowl Side J/B LH
IG		

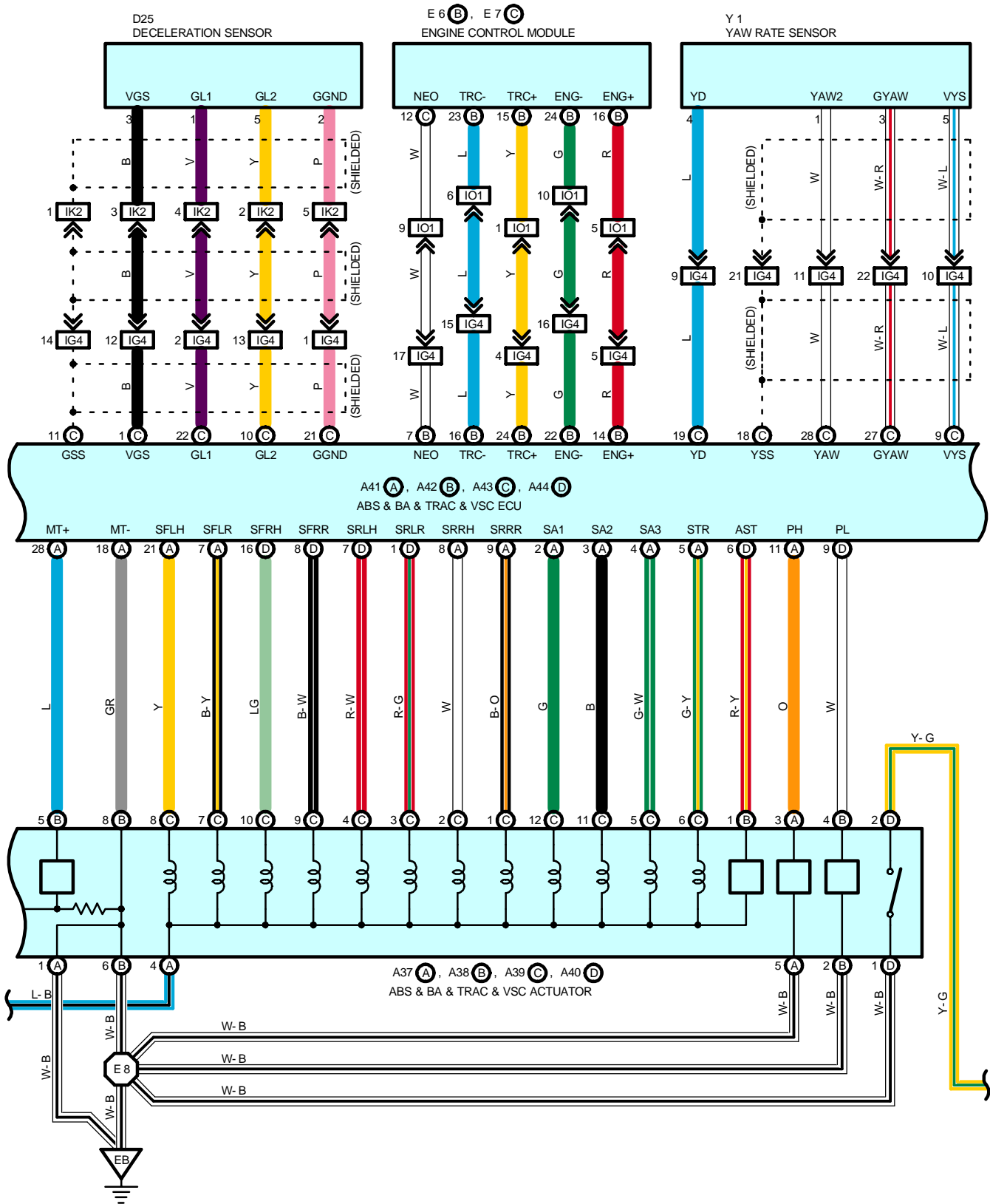
## : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E7	46	Engine Wire	I5	50	Dash Wire
E10			I6		
I2	50	Engine Room No.2 Wire	I14		

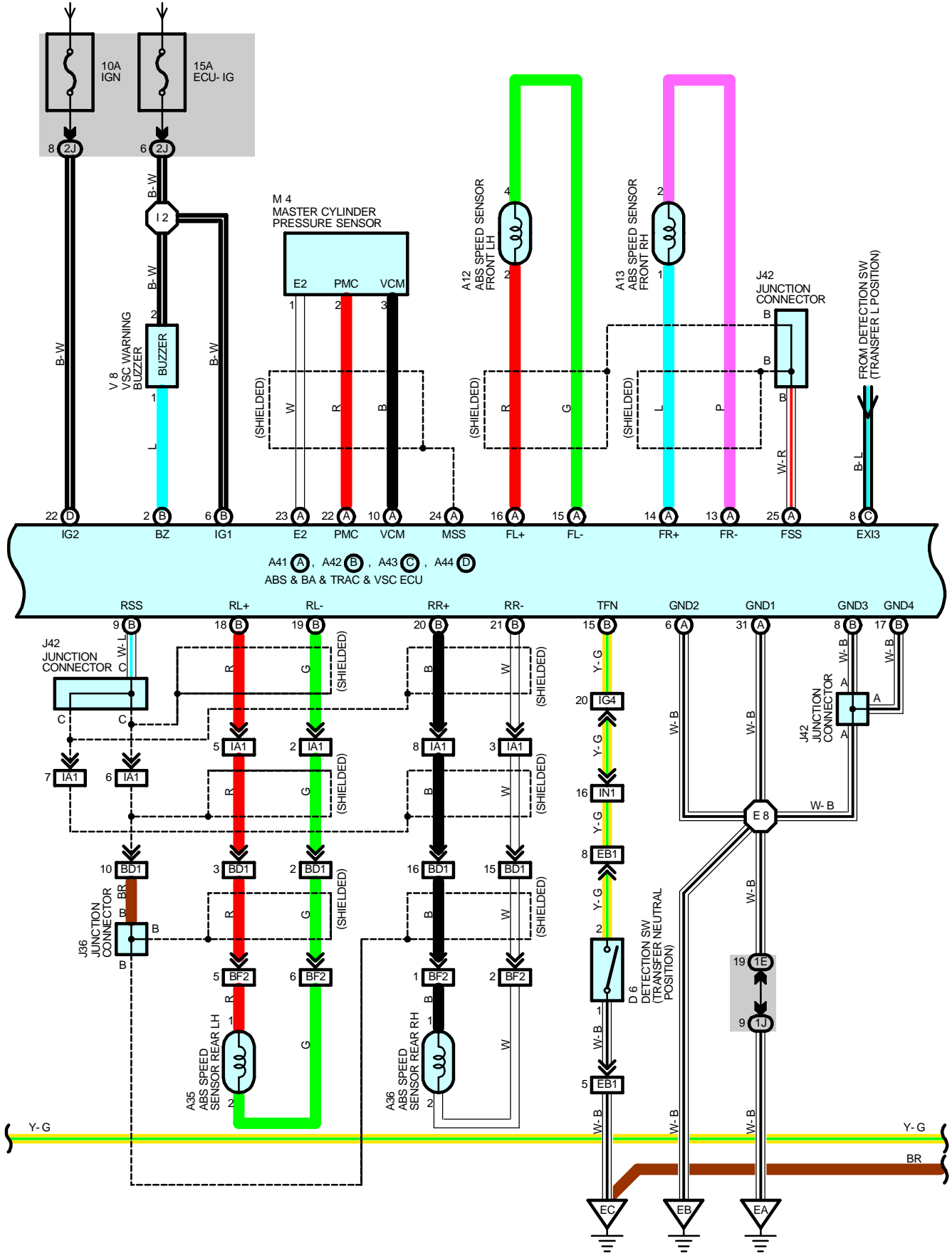




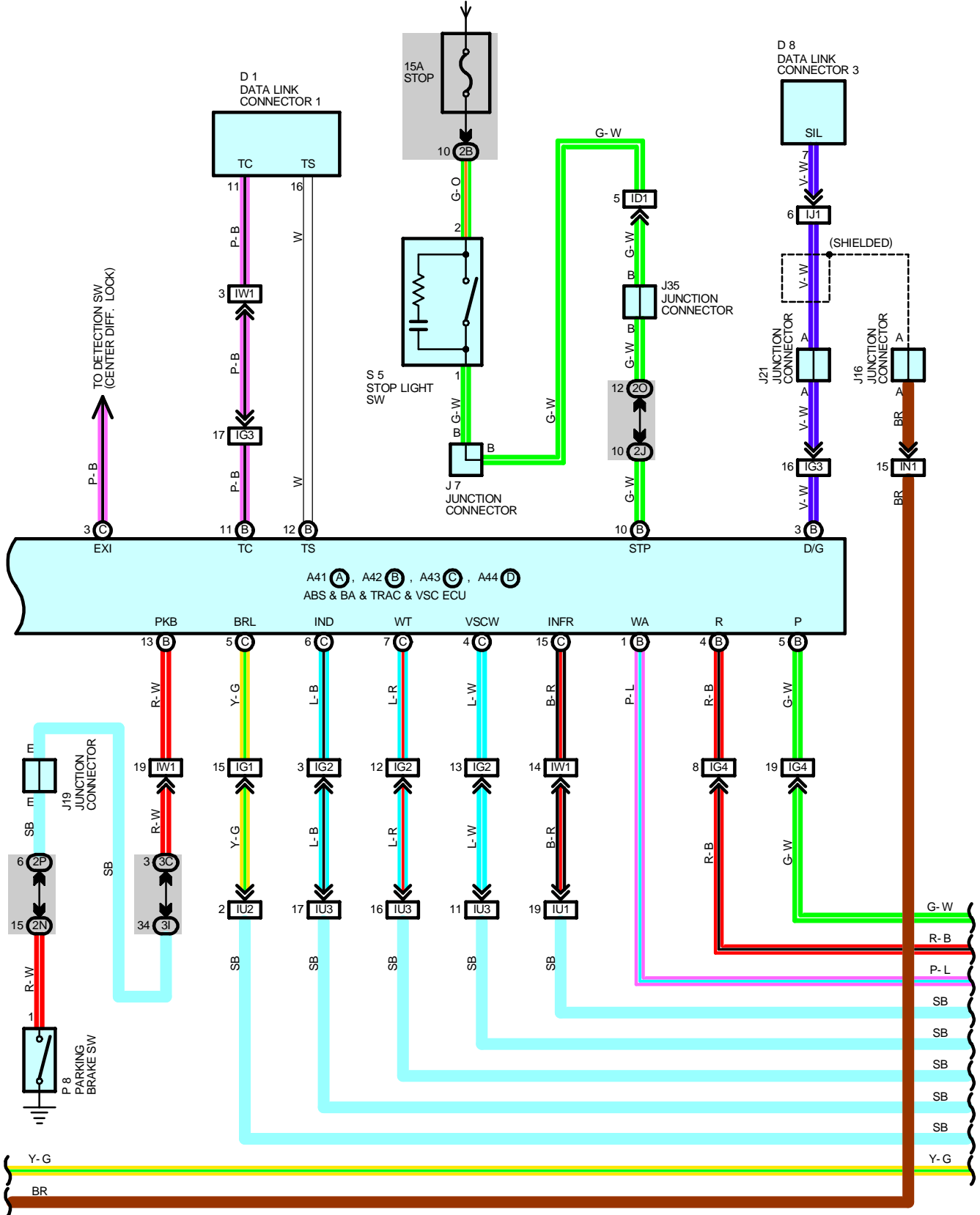




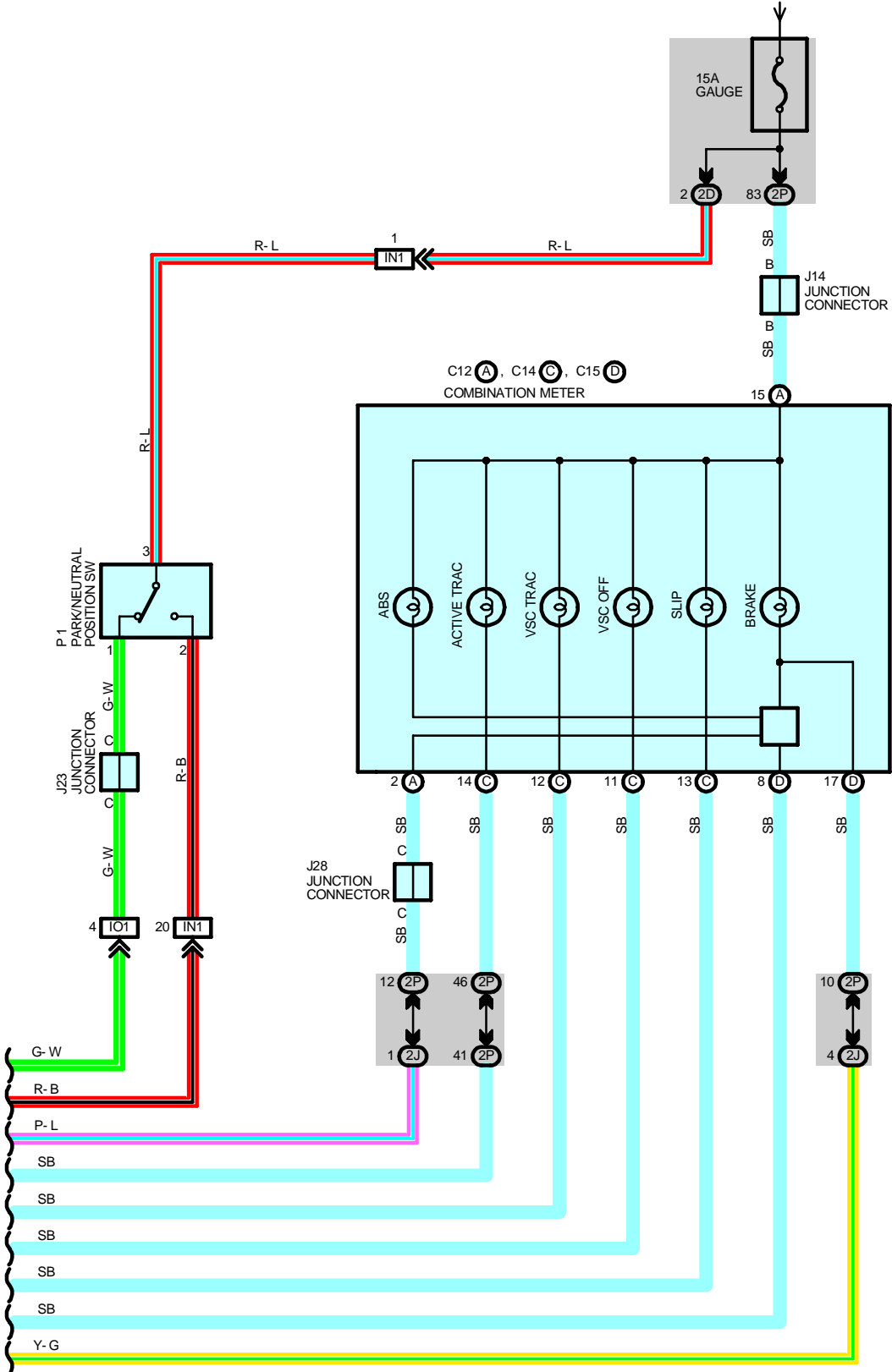
FROM POWER SOURCE SYSTEM (SEE PAGE 64)



FROM POWER SOURCE SYSTEM (SEE PAGE 64)



FROM POWER SOURCE SYSTEM (SEE PAGE 64)



## SYSTEM OUTLINE

### 1. ABS OPERATION

If the brake pedal is depressed suddenly, the ABS controls the hydraulic pressure of the wheel cylinders for all the four wheels to automatically avoid wheel locking and ensure the directional and steering stability of the vehicle. If the brake pedal is depressed suddenly, the ABS & BA & TRAC & VSC ECU controls the solenoids in the actuators using the signals from the sensors to move the brake fluid to the reservoir in order to release the braking pressure applied to the wheel cylinder. If the ABS & BA & TRAC & VSC ECU detects that the fluid pressure in the wheel cylinder is insufficient, the ECU controls the solenoids in the actuators to increase the braking pressure.

### 2. TRACTION CONTROL OPERATION

The traction control system controls the engine torque, the hydraulic pressure of the driving wheel cylinders, slipping of the wheels which may occur at start or acceleration of the vehicle, to ensure an optimal driving power and vehicle stability corresponding to the road conditions.

### 3. VSC OPERATION

Unexpected road conditions, vehicle speed, emergency situation, and any other external factors may cause large under- or over-steering of the vehicle. If this occurs, the VSC system automatically controls the engine power and wheel brakes to reduce the under- or over-steering.

To reduce large over-steering :

If the VSC system determines that the over-steering is large, it activates the brakes for the outer turning wheels depending on the degree of the over-steering to produce the moment toward the outside of the vehicle and reduce the over-steering.

To reduce large under-steering :

If the VSC system determines that the under-steering is large, it controls the engine power and activates the rear wheel brakes to reduce the under-steering.

VSC indicator light

If an error occurs in the VSC system, the VSC indicator lights up to warn the driver.

### 4. TRACTION MODE AND VSC FUNCTION

When the center differential of the transfer is locked, the VSC function is turned off. At this time, the VSC OFF indicator light in the combination meter will come on, and informs the driver that the VSC function is OFF.

### 5. MUTUAL SYSTEM CONTROL

To efficiently operate the VSC system at its optimal level, the VSC system and other control systems are mutually controlled while the VSC system is being operated.

Engine throttle control

The engine power does not interfere with the VSC brake control by controlling the opening of the throttle and reducing the engine output.

Engine control and electronically controlled transmission control

The strong braking force does not interfere with the braking force control of the VSC system by turning off the accel. and reducing changes in the driving torque at shift-down.

VSC system operation indication

The slip indicator light flashes and the buzzer sounds intermittently to warn the driver that the current road is slippery, while the VSC system is being operated.

### 6. FAIL SAFE FUNCTION

If an error occurs in the ABS & BA & TRAC & VSC ECU, sensor signals, and/or actuators, the ABS & BA & TRAC & VSC ECU inhibits the brake actuator control and inputs the error signal to the engine control module. According to the error signal, the brake actuator turns off the solenoid and the engine control module rejects any electronically controlled throttle open request from the VSC system. As a result, the vehicle functions without the ABS, TRAC, and VSC systems.

## SERVICE HINTS

### A41 (A), A42 (B), A43 (C), A44 (D) ABS & BA & TRAC & VSC ECU

(B) 6-GROUND : Approx. 12 volts with ignition SW at **ON** or **ST** position

(D)22-GROUND : Approx. 12 volts with ignition SW at **ON** or **ST** position

(B)10-GROUND : Approx. 12 volts with brake pedal depressed

(A)8, (A) 31, (B) 8, (B) 17-GROUND : Always continuity

(B)12-GROUND : Approx. 12 volts with ignition SW at **ON** position and data link connector 1 **TS-E1** not connected

(B)11-GROUND : Approx. 12 volts with ignition SW at **ON** position and data link connector 1 **TC-E1** not connected

### A12 ABS SPEED SENSOR FRONT LH

2-4 : Approx. 1.07 kΩ (20 °C, 68 °F)

### A13 ABS SPEED SENSOR FRONT RH

1-2 : Approx. 1.07 kΩ (20 °C, 68 °F)

### A35, A36 ABS SPEED SENSOR REAR LH, RH

1-2 : Approx. 1.2 kΩ (25 °C, 77 °F)

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A12	38	C14	C 40	J21	41
A13	38	C15	D 40	J23	41
A35	42	C17	40	J28	41
A36	42	D1	38	J35	42
A37	A 38	D6	38	J36	42
A38	B 38	D8	40	J42	41
A39	C 40	D25	40	M4	39
A40	D 40	E6	B 40	P1	39
A41	A 40	E7	C 40	P8	43
A42	B 40	J7	41	S5	41
A43	C 40	J14	41	V8	41
A44	D 40	J16	41	Y1	41
C12	A 40	J19	41		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1E		
1J	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		
2J	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2N	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2O		
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3C	32	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3I	32	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	46	Engine Wire and Transmission Wire (On the Transmission)
IA1	48	Floor Wire and Engine Room No.2 Wire (Left Kick Panel)
ID1	48	Dash Wire and Floor Wire (Left Kick Panel)
IG1	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IG2		
IG3		
IG4		
IH1	50	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
IJ2	50	Column Wire and Dash Wire (Near the Ignition SW)
IJ1	50	Dash Wire and Detector Wire (Instrument Panel Center)
IK2	50	Console Box Wire and Dash Wire (Left Side of Front Console)
IN1	52	Engine Wire and Dash Wire (Behind the Glove Box)
IO1		
IU1	52	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU2		
IU3		
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
BD1	56	Floor No.3 Wire and Floor Wire (Left Rear Side Quarter Panel)
BF2	56	Frame Wire and Floor No.3 Wire (Left Side of Rear Floor Crossmember)

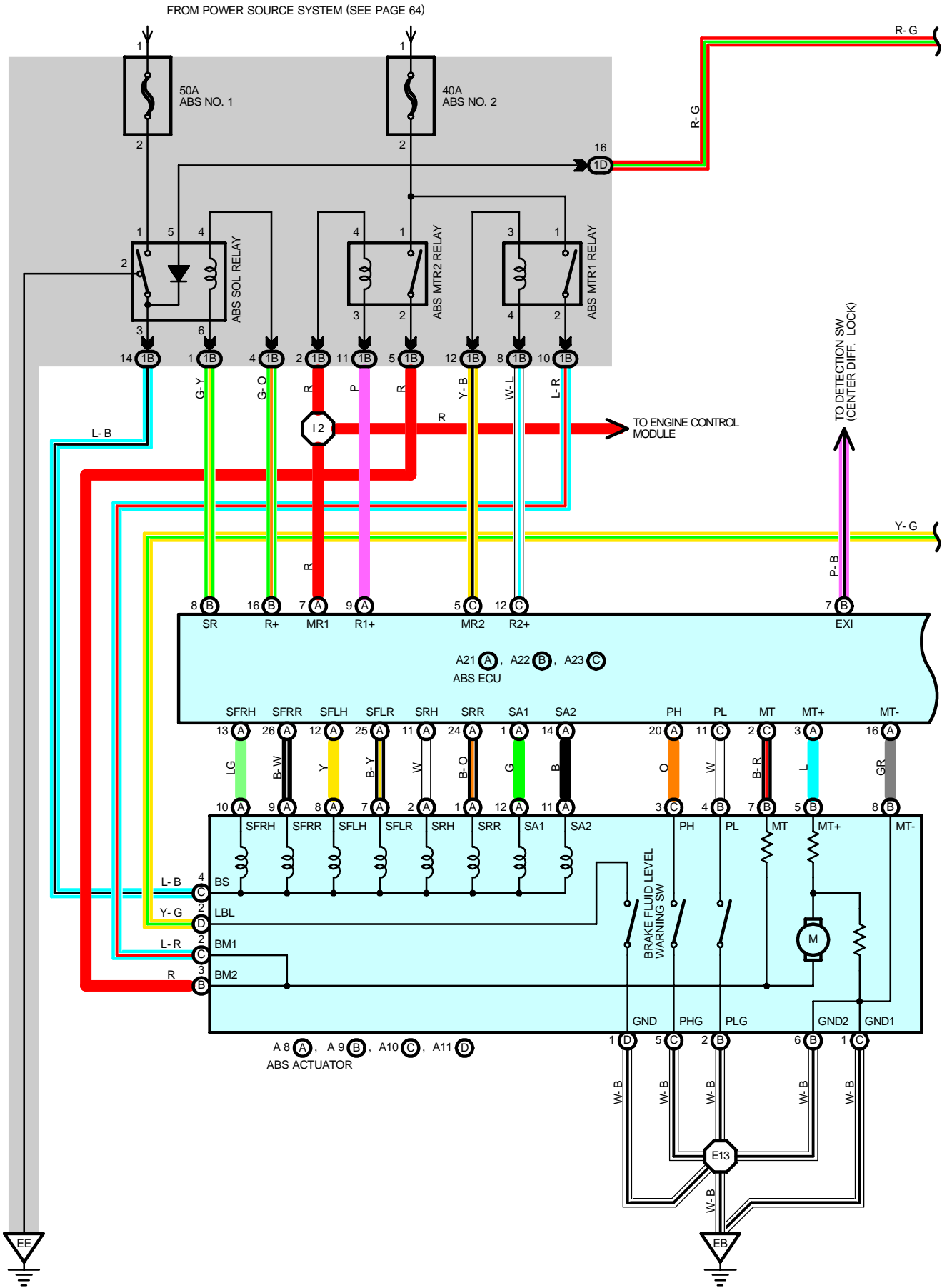
 : GROUND POINTS

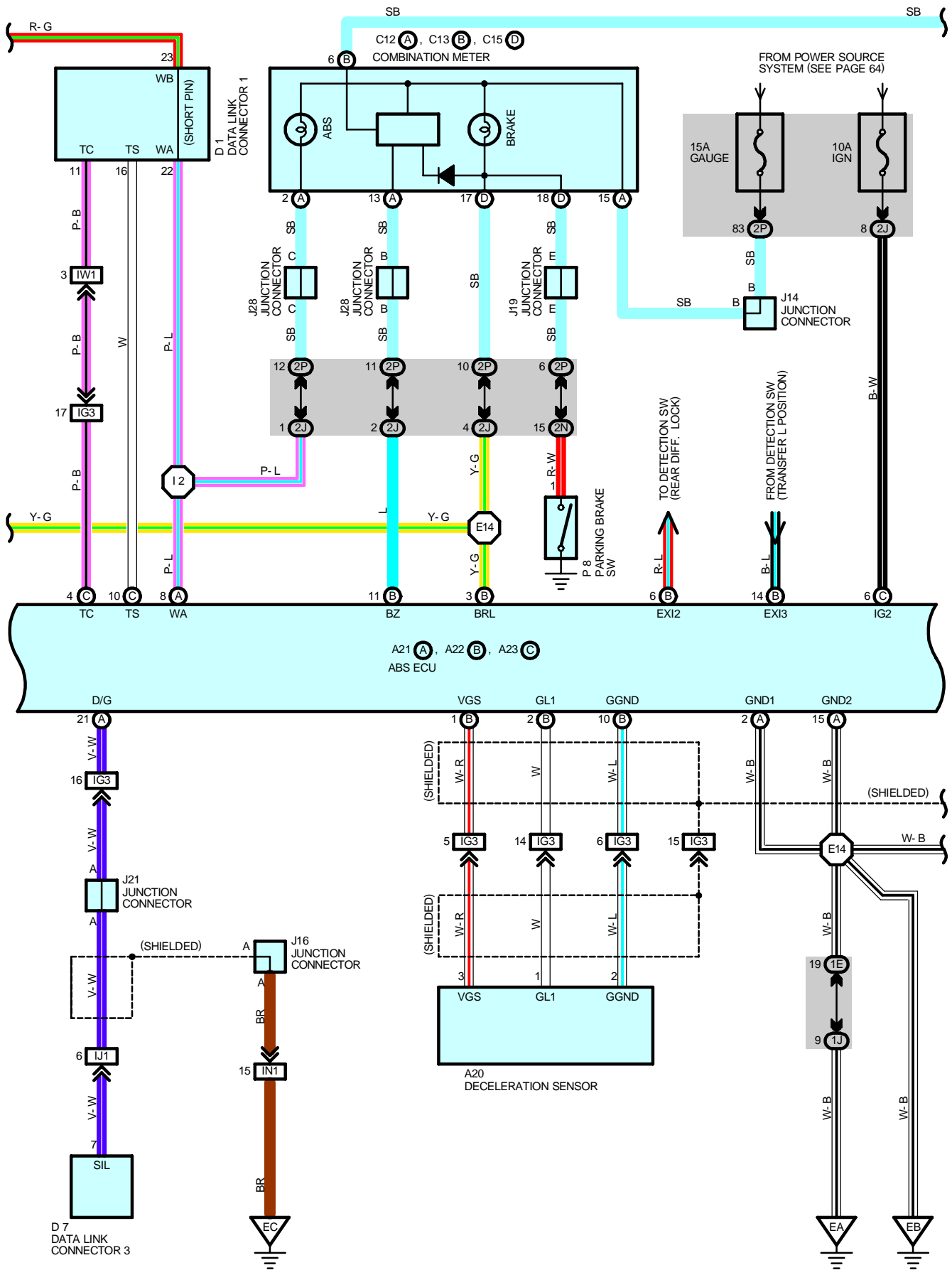
Code	See Page	Ground Points Location
EA	46	Front Right Side of Fender Apron
EB		
EC	46	Rear Bank of Right Cylinder Head
EE	46	Front Left Side of Fender Apron
IF	48	Set Bolt of Cowl Side J/B LH

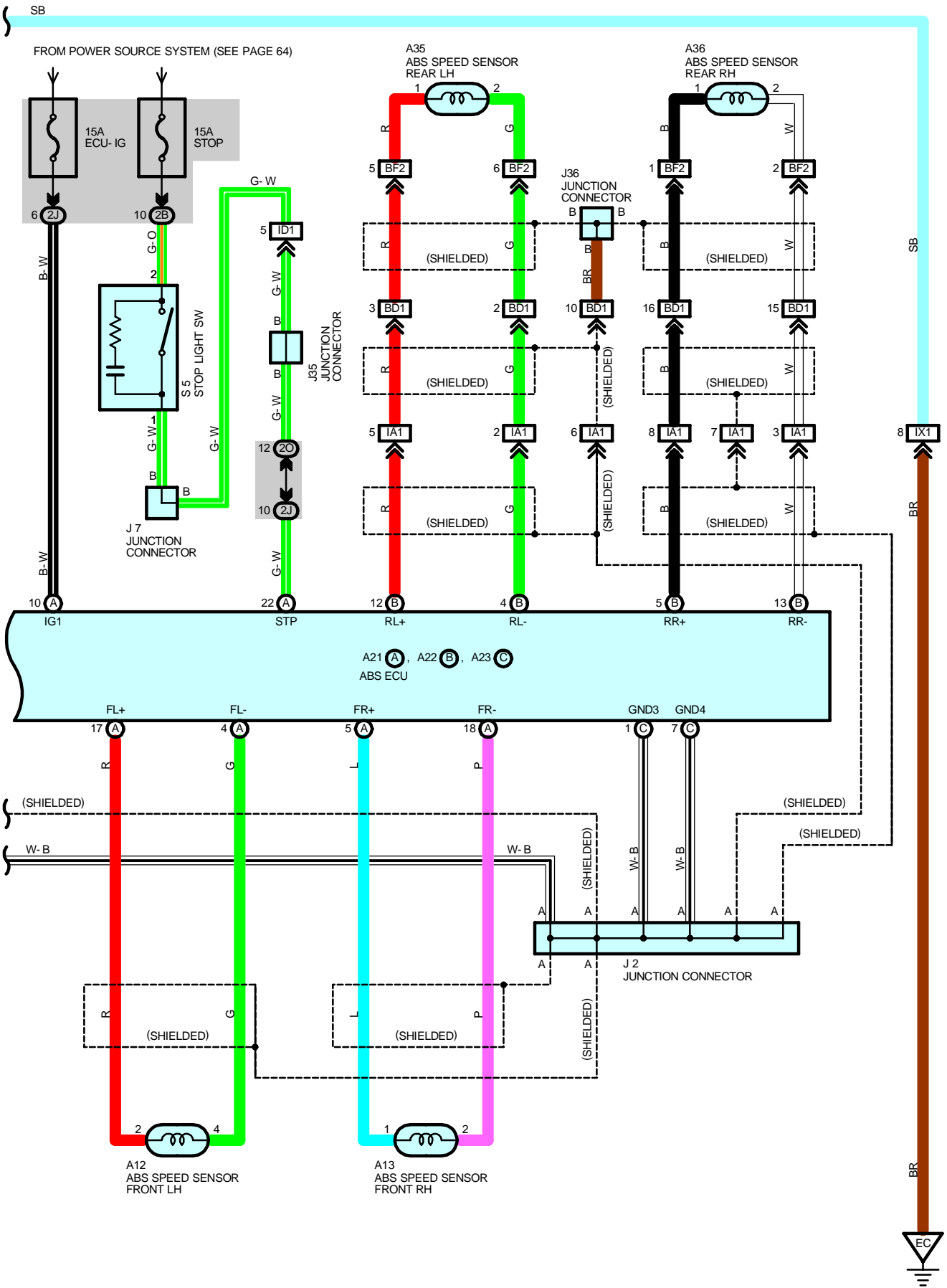
 : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E8	46	Transmission Wire	I2	50	Engine Room No.2 Wire
E14	46	Engine Room No.2 Wire			









## SYSTEM OUTLINE

### ABS OPERATION

If the brake pedal is depressed suddenly, the ABS controls the hydraulic pressure of the wheel cylinders to automatically avoid wheel locking and ensure the directional and steering stability of the vehicle.

In sudden braking, the ABS ECU controls the solenoids in the actuators using the signals from the sensors to move the brake fluid to the reservoir in order to release the braking pressure applied to the wheel cylinder. If the ABS ECU detects that the fluid pressure in the wheel cylinder is insufficient, the ABS ECU controls the solenoids in the actuators to increase the braking pressure.

### FAIL-SAFE FUNCTION

If an error occurs in the ABS ECU, sensor signals, and/or actuators, the ABS ECU inhibits the brake actuator control. According to this, the brake actuator turns off the solenoid, and the vehicle operates without the ABS system.

## SERVICE HINTS

### A21 (A), A22 (B), A23 (C) ABS ECU

(A)10-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position

(C) 6-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position

(A)22-GROUND : Approx. **12** volts with brake pedal depressed

(A) 2, (A) 15, (C) 1, (C) 7-GROUND : Always continuity

(C)10-GROUND : Approx. **12** volts with ignition SW at **ON** position and the data link connector 1 **TS-E1** not connected

(C) 4-GROUND : Approx. **12** volts with ignition SW at **ON** position and the data link connector 1 **TC-E1** not connected

### A11 (D) BRAKE FLUID LEVEL WARNING SW [ABS ACTUATOR]

(D) 2-(D) 1 : Closed with the float down

### A12 ABS SPEED SENSOR FRONT LH

2-4 : Approx. **1.07** kΩ (**20**°C, **68**°F)

### A13 ABS SPEED SENSOR FRONT RH

1-2 : Approx. **1.07** kΩ (**20**°C, **68**°F)

### A35, A36 ABS SPEED SENSOR REAR LH, RH

1-2 : Approx. **1.2** kΩ (**25**°C, **77**°F)

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page		
A8	A	38	A35	42	J16	41	
A9	B	38	A36	42	J19	41	
A10	C	38	C12	A	40	J21	41
A11	D	38	C13	B	40	J28	41
A12		38	C15	D	40	J35	42
A13		38	D1		38	J36	42
A20			D7		40	P8	43
A21	A	40	J2		41	S5	41
A22	B	40	J7		41		
A23	C	40	J14		41		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1D		
1E		
1J	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2J	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2N	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2O		
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)

# ABS

## : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	48	Floor Wire and Engine Room No.2 Wire (Left Kick Panel)
ID1	48	Dash Wire and Floor Wire (Left Kick Panel)
IG3	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IJ1	50	Dash Wire and Detector Wire (Instrument Panel Center)
IN1	52	Engine Wire and Dash Wire (Behind the Glove Box)
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
IX1	54	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
BD1	56	Floor No.3 Wire and Floor Wire (Left Rear Side Quarter Panel)
BF2	56	Frame Wire and Floor No.3 Wire (Left Side of Rear Floor Crossmember)

## : GROUND POINTS

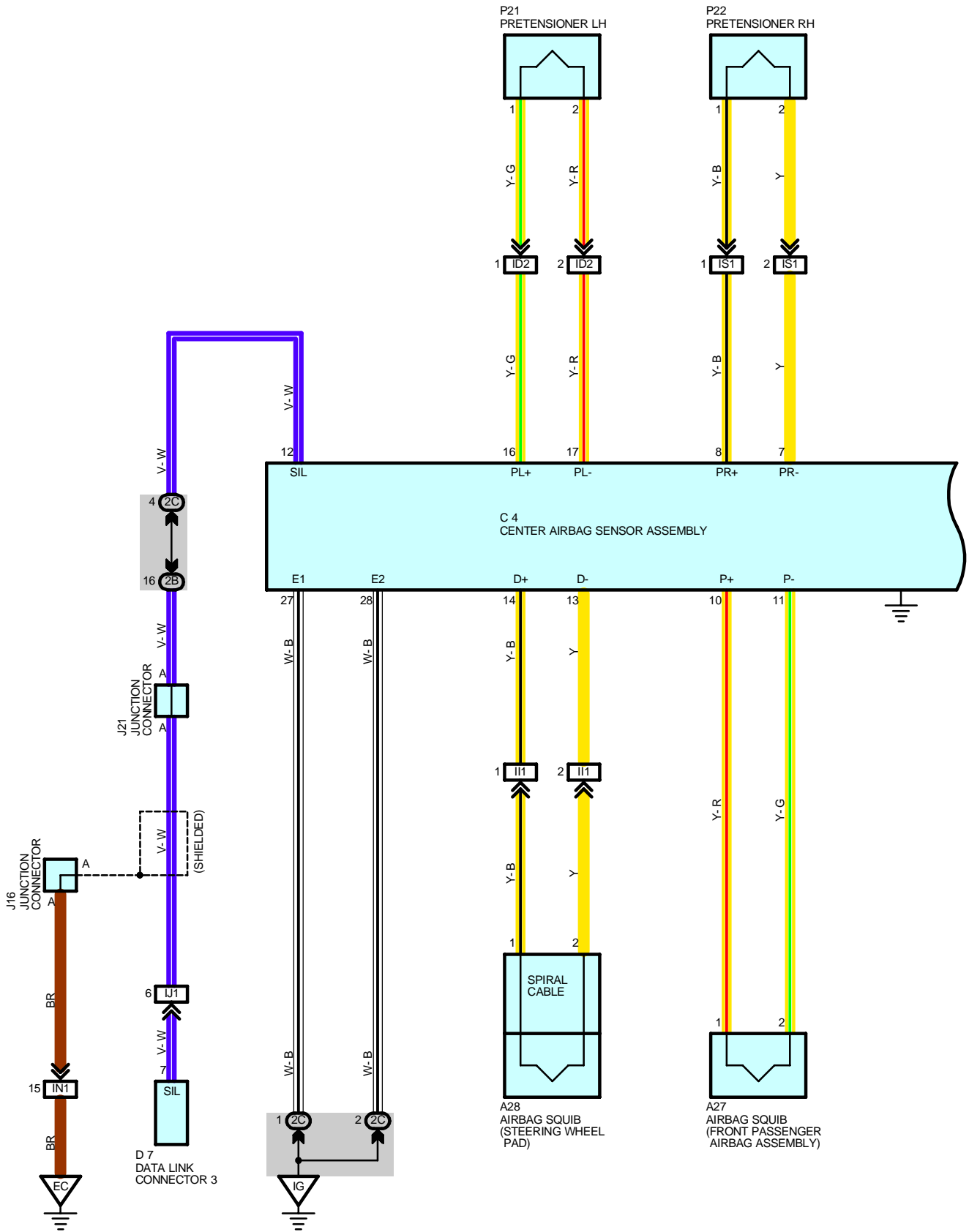
Code	See Page	Ground Points Location
EA	46	Front Right Side of Fender Apron
EB		
EC	46	Rear Bank of Right Cylinder Head
EE	46	Front Left Side of Fender Apron

## : SPLICE POINTS

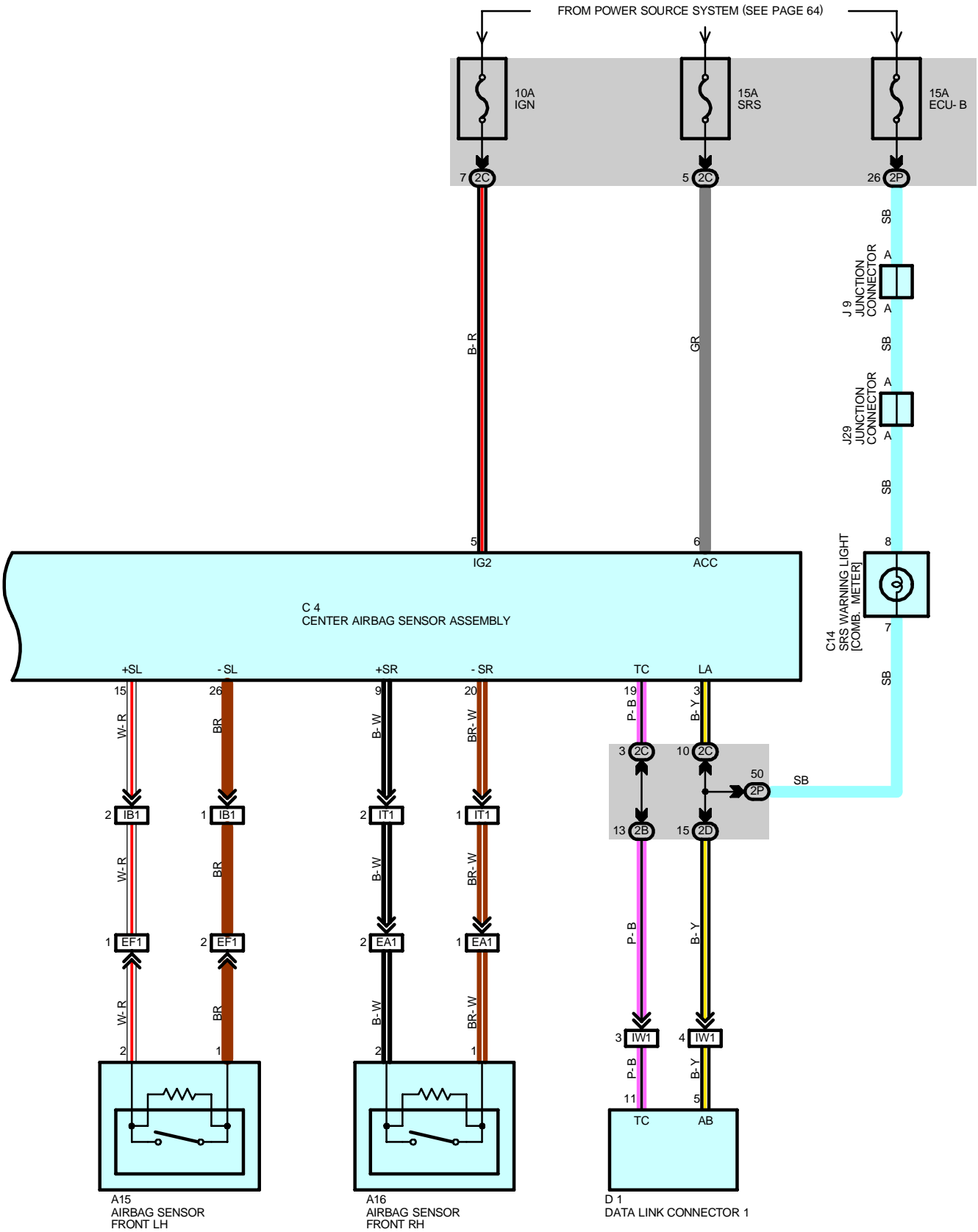
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E13	46	Engine Room No.2 Wire	I2	50	Engine Room No.2 Wire
E14					

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 to 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, seat belt pretensioner and 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, seat belt pretensioner 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, seat belt pretensioner and center airbag sensor assembly in order to reuse it.
- If the steering wheel pad, front passenger airbag assembly, seat belt pretensioner and 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 k $\Omega$ /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.



FROM POWER SOURCE SYSTEM (SEE PAGE 64)



A15 AIRBAG SENSOR FRONT LH

A16 AIRBAG SENSOR FRONT RH

D 1 DATA LINK CONNECTOR 1



## 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 on, the current from the SRS fuse flows to the center airbag sensor assembly TERMINAL 6. Only when the ignition SW is on does the current from the IGN fuse flow to center airbag sensor assembly TERMINAL 5. In case an accident occurs while driving, when the frontal impact exceeds a predetermined level, the current from the SRS or IGN fuse flows to center airbag sensor assembly TERMINALS 14, 10, 16, 8 to airbag squibs and pretensioners to center airbag sensor assembly TERMINALS 13, 11, 17, 7 to TERMINALS 27, 28 or BODY GROUND to GROUND. As a result, the current flows to the airbag squibs and pretensioner squibs, and operates the airbag and pretensioners. 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
A15	38	C14	40	J21	41
A16	38	D1	38	J29	41
A27	40	D7	40	P21	43
A28	40	J9	41	P22	43
C4	40	J16	41		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2C		
2D		
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

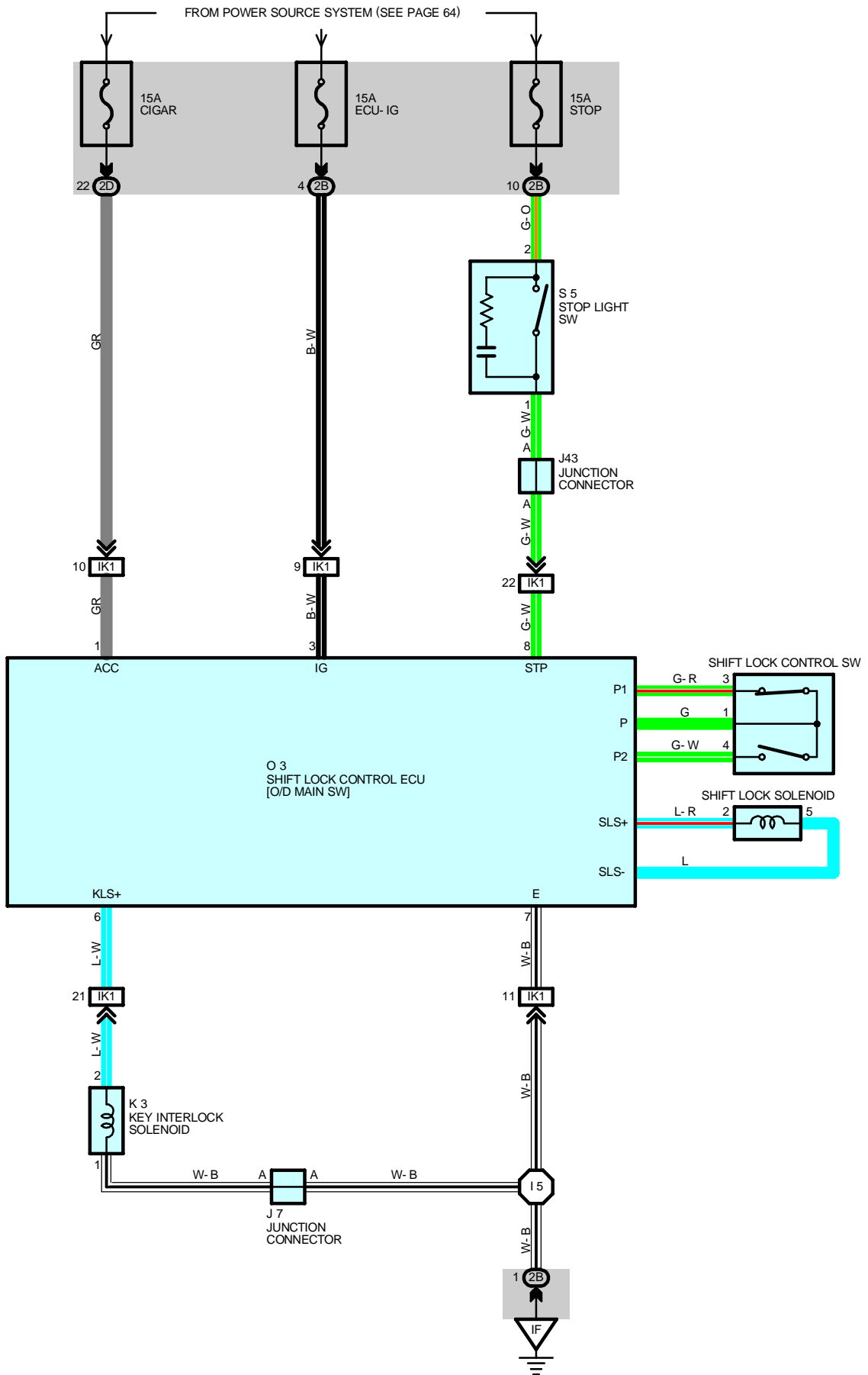
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	46	Engine Room Main Wire and Engine Room No.2 Wire (Engine Compartment Right)
EF1	46	Engine Room No.2 Wire and Engine Room Main Wire (Under the Engine Room J/B)
IB1	48	Engine Room No.2 Wire and Dash Wire (Left Kick Panel)
ID2	48	Dash Wire and Floor Wire (Left Kick Panel)
II1	50	Dash Wire and Column Wire (Near the Ignition SW)
IJ1	50	Dash Wire and Detector Wire (Instrument Panel Center)
IN1	52	Engine Wire and Dash Wire (Behind the Glove Box)
IS1	52	Dash Wire and Floor No.2 Wire (Right Kick Panel)
IT1	52	Engine Room No.2 Wire and Dash Wire (Right Kick Panel)
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)

## ▽ : GROUND POINTS

Code	See Page	Ground Points Location
EC	46	Rear Bank of Right Cylinder Head
IG	48	Set Bolt of Cowl Side J/B LH



# SHIFT LOCK



## SYSTEM OUTLINE

### 1. SHIFT LOCK MECHANISM

When the brake pedal is depressed with the ignition SW is turned on (Stop light SW on), the shift lock control ECU is activated and allows the driver to change the shift lever to a position other than P position.

### 2. KEY INTERLOCK MECHANISM

When the ignition SW is turned on and the shift lever is at a position other than P position, shift lock control ECU is activated to flow current to the key interlock solenoid. This inhibits to turn the ignition SW is turned from on to OFF position.

## SERVICE HINTS

### O3 SHIFT LOCK CONTROL ECU [O/D MAIN SW]

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

7-GROUND : Always continuity

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

8-GROUND : Approx. **12** volts with brake pedal depressed

### : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
J7	41	K3	41	S5	41
J43	41	O3	41		

### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		

### : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IK1	50	Console Box Wire and Dash Wire (Left Side of Front Console)

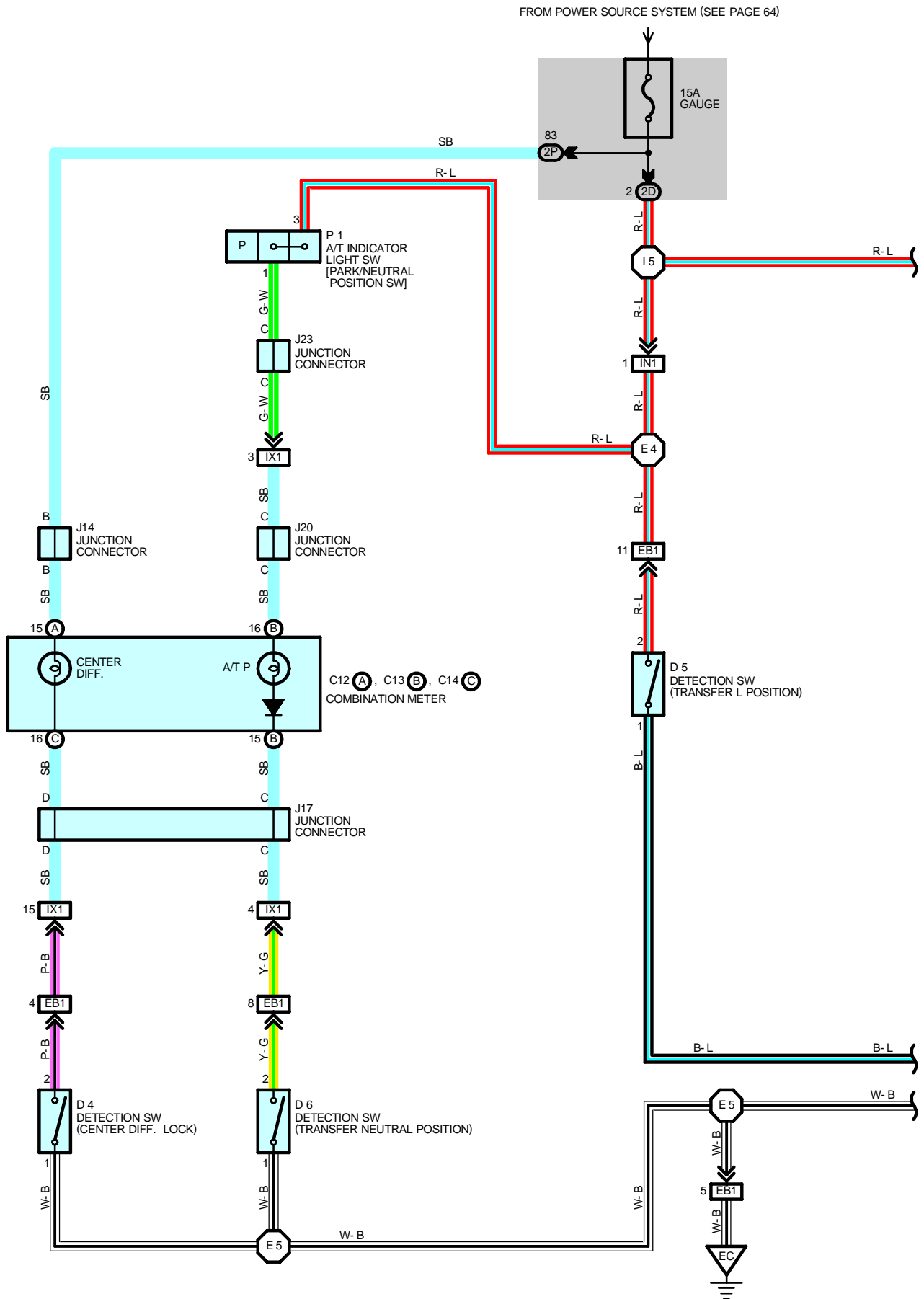
### : GROUND POINTS

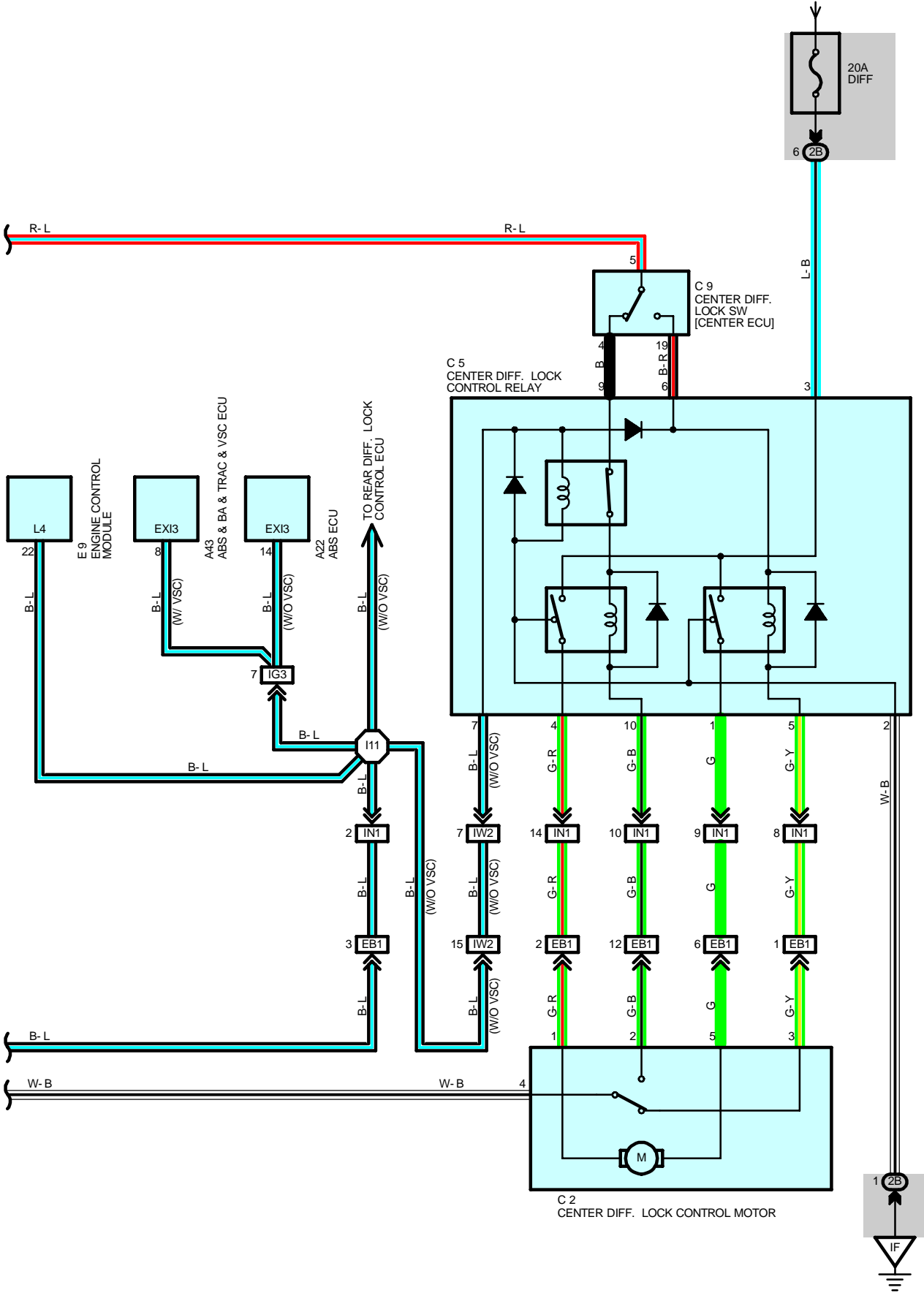
Code	See Page	Ground Points Location
IF	48	Set Bolt of Cowl Side J/B LH

### : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I5	50	Dash Wire			

# CENTER DIFFERENTIAL LOCK





# CENTER DIFFERENTIAL LOCK

## SERVICE HINTS

### C5 CENTER DIFF. LOCK CONTROL RELAY

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

7-GROUND : Approx. 12 volts with ignition SW at **ON** or **ST** position and transfer lever at **L** position

2-GROUND : Always continuity

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A22	40	C13	B 40	J14	41
A43	40	C14	C 40	J17	41
C2	38	D4	38	J20	41
C5	40	D5	38	J23	41
C9	40	D6	38	P1	39
C12	A 40	E9	40		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	46	Engine Wire and Transmission Wire (On the Transmission)
IG3	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IN1	52	Engine Wire and Dash Wire (Behind the Glove Box)
IW2	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
IX1	54	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)

## ▽ : GROUND POINTS

Code	See Page	Ground Points Location
EC	46	Rear Bank of Right Cylinder Head
IF	48	Set Bolt of Cowl Side J/B LH

## ○ : SPLICE POINTS

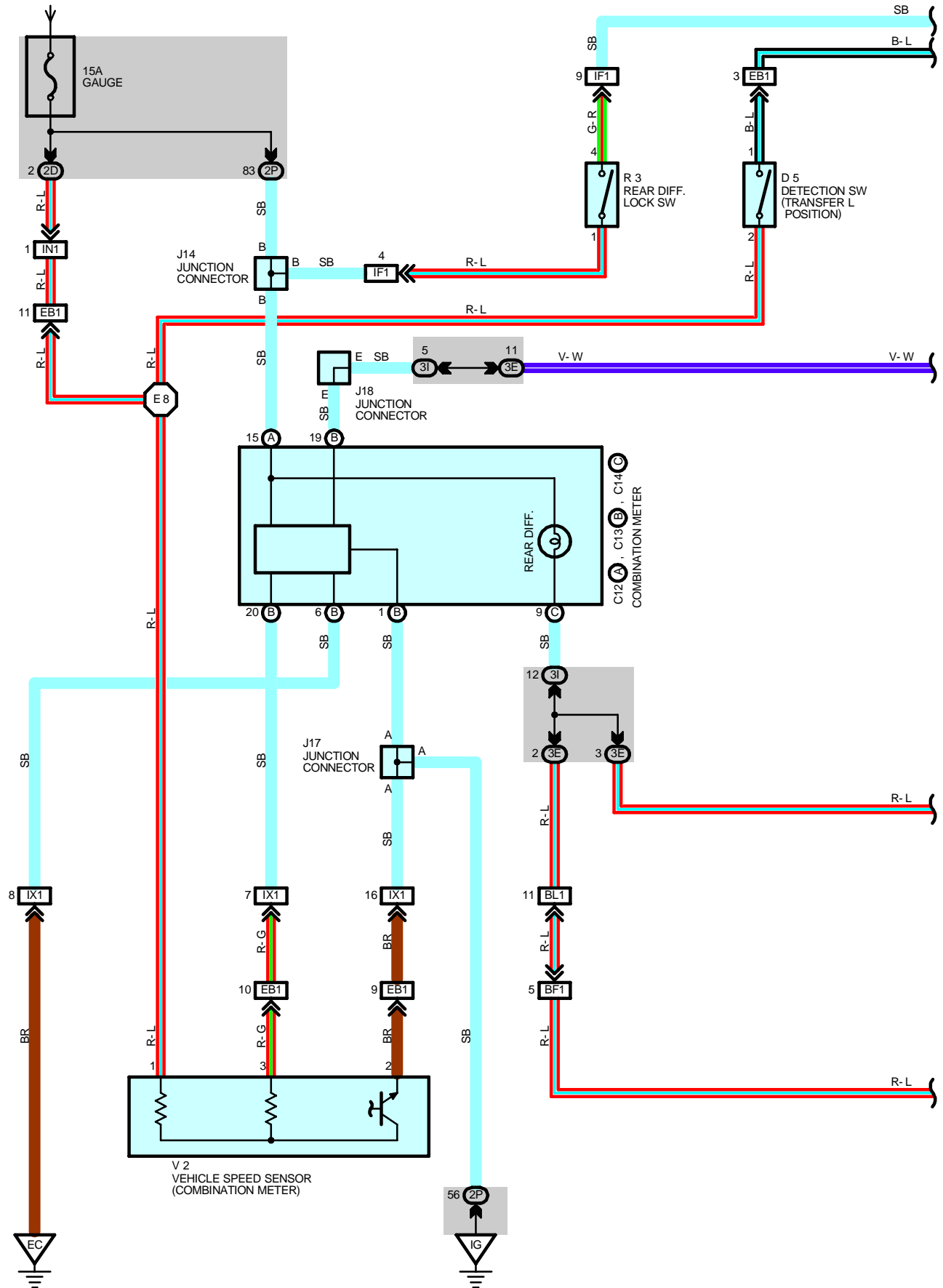
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E4	46	Engine Room No.2 Wire	I5	50	Dash Wire
E5			I11		

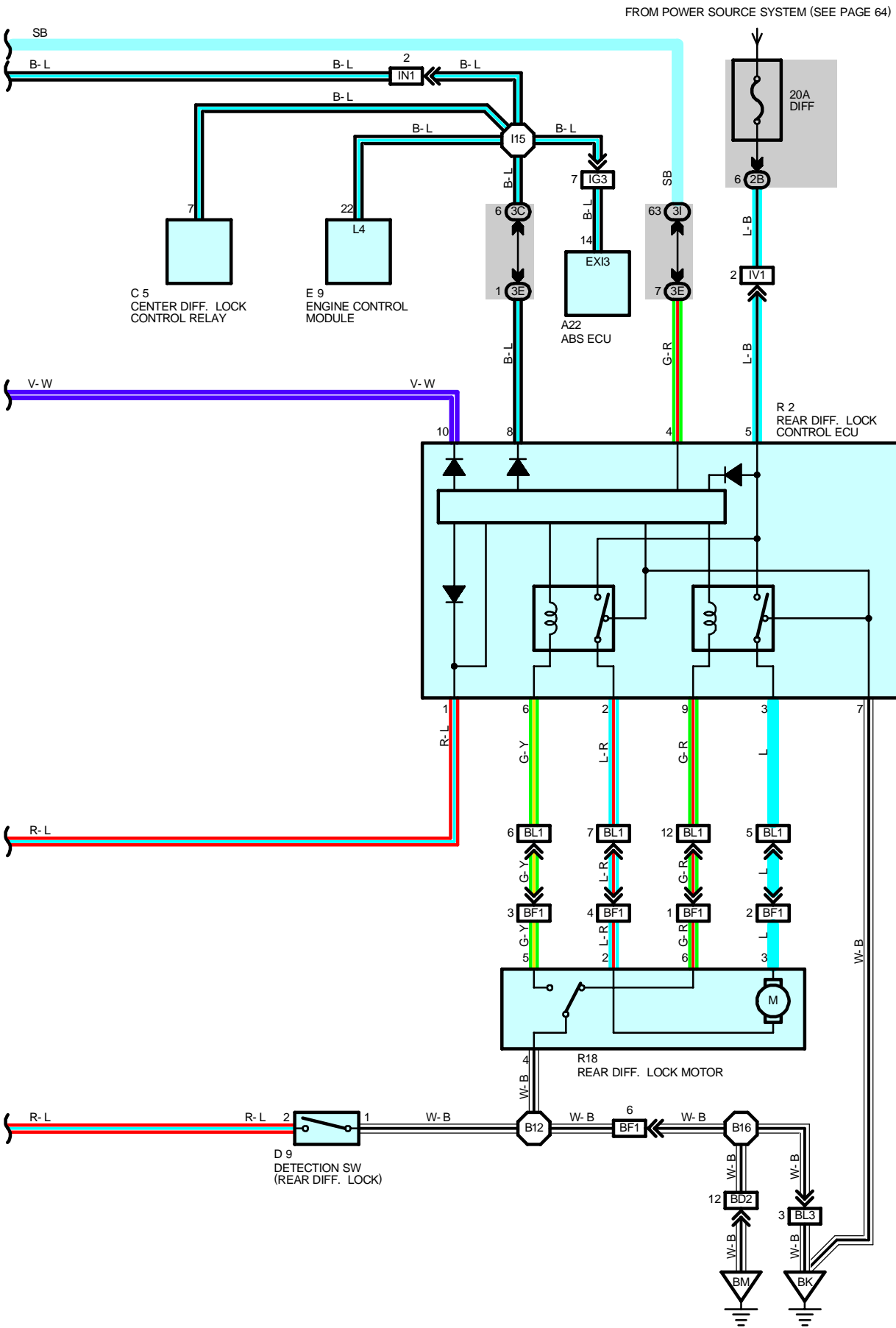




# REAR DIFFERENTIAL LOCK

FROM POWER SOURCE SYSTEM (SEE PAGE 64)





# REAR DIFFERENTIAL LOCK

## SYSTEM OUTLINE

This system locks/frees the rear differential by operation of the rear diff. lock SW.

- \* With the ignition SW turned on, rear diff. lock SW on, transfer lever in L, and the speed below 8 km/h (5 mph), the relay installed in the rear diff. lock control ECU is turned on through control of the rear diff. lock control ECU, and the current flows from DIFF fuse to rear diff. lock control ECU TERMINAL 5 to TERMINAL 3 to rear diff. lock motor TERMINAL 3 to TERMINAL 2 to rear diff. lock control ECU TERMINAL 2 to TERMINAL 7 to GROUND. As a result, the rear differential lock operates and the rear differential is locked. At the same time, the detection SW (Rear diff. lock ) is turned on, and the rear diff. indicator light in the combination meter lights up.
- \* When the rear diff. lock SW is turned to off from on, the relay installed in the rear diff. lock control ECU is turned on through control of the rear diff. lock control ECU, and the current flows from DIFF fuse to rear diff. lock control ECU TERMINAL 5 to TERMINAL 2 to rear diff. lock motor TERMINAL 2 to TERMINAL 3 to rear diff. lock control ECU TERMINAL 3 to TERMINAL 7 to GROUND. As a result, the rear differential lock operates and the rear differential is made free. At the same time, the detection SW (Rear diff. lock) is turned off, and the rear diff. indicator light in the combination meter is turned off.

The rear diff. indicator light blinks under the following conditions :

- \* When the rear diff. lock SW is turned on with the ignition SW on and the transfer lever at a position other than L.
- \* When the rear diff. lock SW is turned on at a speed over 8 km/h (5 mph), with the ignition SW on and the transfer position lever at L position.
- \* When the rear diff. lock motor is operating the rear differential to free from lock, and the detection SW (Rear diff. lock ) is off.

## SERVICE HINTS

### R2 REAR DIFF. LOCK CONTROL ECU

5-GROUND : Approx. 12 volts with ignition SW at **ON** or **ST** position

4-GROUND : Approx. 12 volts with ignition SW at **ON** or **ST** position and rear diff. lock SW at **ON** position

7-GROUND : Always continuity

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A22	40	D5	38	J18	41
C5	40	D9	42	R2	41
C12	A 40	E9	40	R3	41
C13	B 40	J14	41	R18	43
C14	C 40	J17	41	V2	39

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3C	32	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E	32	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3I	32	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	46	Engine Wire and Transmission Wire (On the Transmission)
IF1	48	Instrument Panel Integration Wire and Instrument Panel Wire (Left Side of Instrument Panel)
IG3	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IN1	52	Engine Wire and Dash Wire (Behind the Glove Box)
IV1	54	Dash Wire and Floor No.2 Wire (Behind the Glove Box)
IX1	54	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
BD2	56	Floor No.3 Wire and Floor Wire (Left Rear Side Quarter Panel)
BF1	56	Frame Wire and Floor No.3 Wire (Left Side of Rear Floor Crossmember)
BL1	58	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BL3		

**: GROUND POINTS**

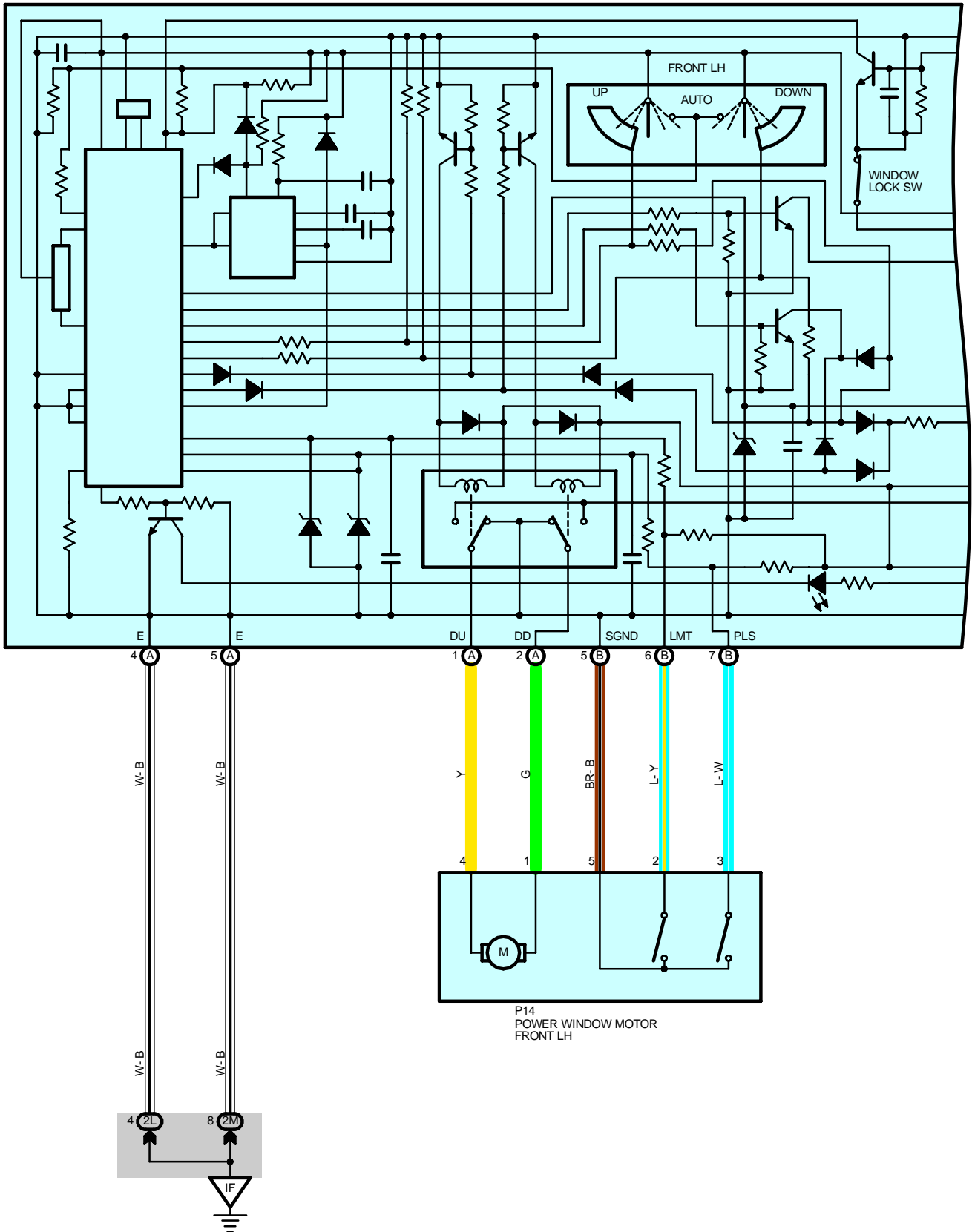
Code	See Page	Ground Points Location
EC	<a href="#">46</a>	Rear Bank of Right Cylinder Head
IG	<a href="#">48</a>	Set Bolt of Cowl Side J/B LH
BK	<a href="#">56</a>	Front Side Under the Front Passenger's Seat
BM	<a href="#">56</a>	Left Rear Side Quarter Panel

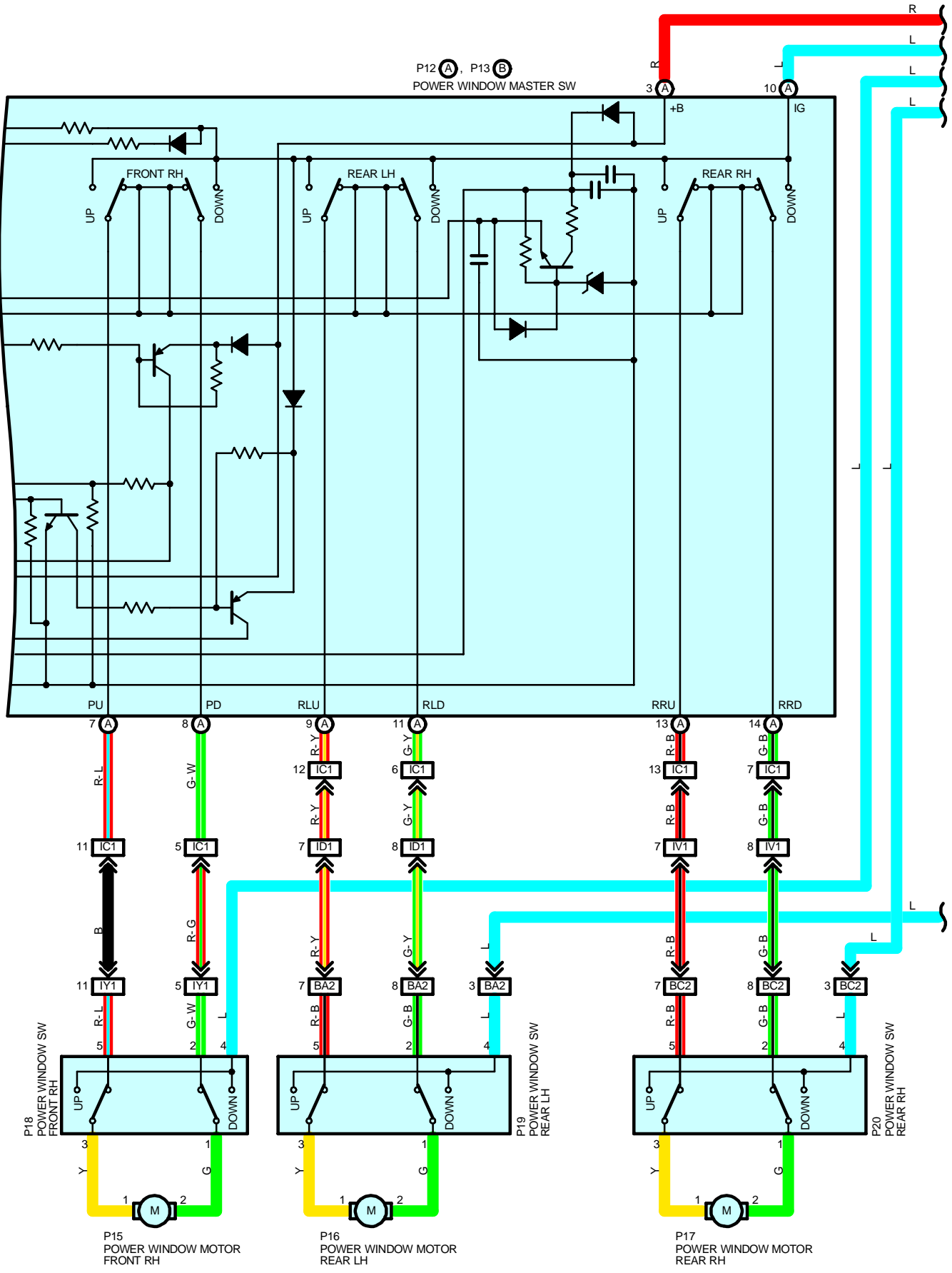
**: SPLICE POINTS**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E8	<a href="#">46</a>	Transmission Wire	B12	<a href="#">58</a>	Frame Wire
I15	<a href="#">50</a>	Dash Wire	B16	<a href="#">58</a>	Floor No.3 Wire

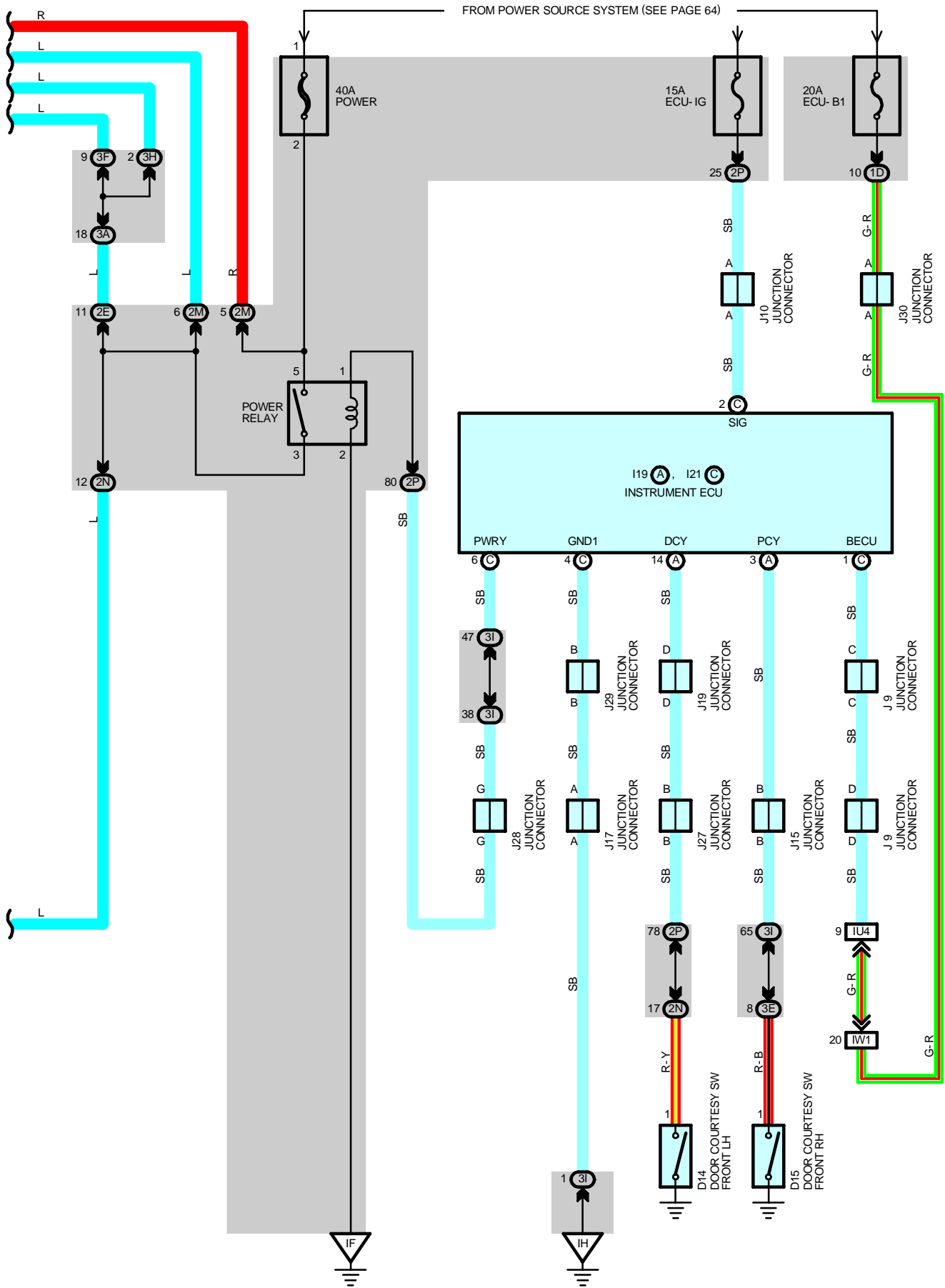
# POWER WINDOW

P12 (A), P13 (B)  
POWER WINDOW MASTER SW





# POWER WINDOW



## SYSTEM OUTLINE

### 1. MANUAL DOWN OR UP OPERATION (DRIVER'S SIDE)

When the power window master SW is pressed one step, the current flows from the power window master SW TERMINAL DD to power window motor front LH to power window master SW TERMINAL DU to GROUND, and rotates the motor to open the window.

When the power window master SW is pulled one step, the current flows from the power window master SW TERMINAL DU to power window motor front LH to power window master SW TERMINAL DD to GROUND, and rotates the motor to close the window.

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

### 2. AUTO DOWN OR UP OPERATION (DRIVER'S SIDE)

When the power window master SW is pushed two steps, the power window master SW determines it is in auto mode and the current flows from the power window master SW TERMINAL DD to power window motor front LH to power window master SW TERMINAL DU to GROUND, and rotates the motor to open the window automatically.

When the power window master SW is pulled two steps, the power window master SW determines it is in auto mode and the current flows from the power window master SW TERMINAL DU to power window motor front LH to power window master SW TERMINAL DD to GROUND, and rotates the motor to close the window automatically.

### 3. CATCHING PREVENTION FUNCTION (DRIVER'S SIDE)

When any foreign matter is caught in the window during power window 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 than 200 mm, it opens the window until the opening is 200 mm.

### 4. KEY OFF POWER WINDOW OPERATION

It is possible to operate the power window for approx. 43 seconds after the ignition SW is turned from on to off. However, when the door is opened while the window is being operated, the power window operation is stopped even though 43 seconds have not elapsed.

## SERVICE HINTS

### P12 POWER WINDOW MASTER SW

3-GROUND : Always approx. **12** volts

10-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position  
: Approx. **12** volts with key off power window operation

4, 5-GROUND : Always continuity

1-GROUND : Continuity with power window master SW at **MANUAL UP** position  
: Continuity with power window master SW at **AUTO UP** position

2-GROUND : Continuity with power window master SW at **MANUAL DOWN** position  
: Continuity with power window master SW at **AUTO DOWN** position

### WINDOW LOCK SW

Open with the window lock SW at lock position

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
D14	42	J19	41	P15	43
D15	42	J27	41	P16	43
I19	A 40	J28	41	P17	43
I21	C 40	J29	41	P18	43
J9	41	J30	41	P19	43
J10	41	P12	A 43	P20	43
J15	41	P13	B 43		
J17	41	P14	43		



# POWER WINDOW

## : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2E	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2L	26	Front Door LH Wire and Cowl Side J/B LH (Left Kick Panel)
2M		
2N	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3A	32	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3E	32	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3F		
3H	32	Front Door RH Wire and Cowl Side J/B RH (Right Kick Panel)
3I	32	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

## : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

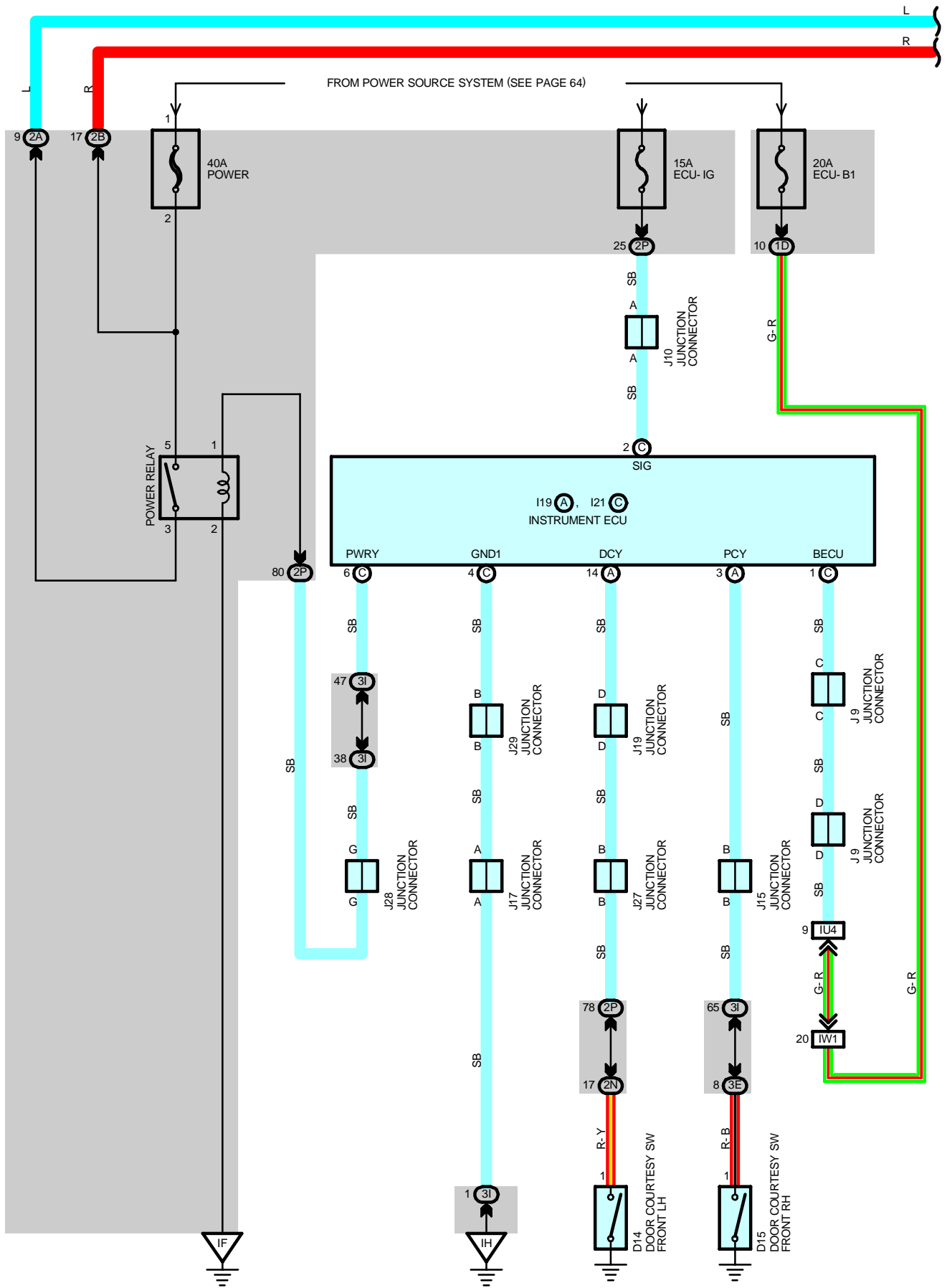
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC1	48	Front Door LH Wire and Dash Wire (Left Kick Panel)
ID1	48	Dash Wire and Floor Wire (Left Kick Panel)
IU4	52	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IV1	54	Dash Wire and Floor No.2 Wire (Behind the Glove Box)
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
IY1	54	Front Door RH Wire and Dash Wire (Right Kick Panel)
BA2	56	Rear Door LH Wire and Floor Wire (Left Side of Center Pillar)
BC2	56	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)

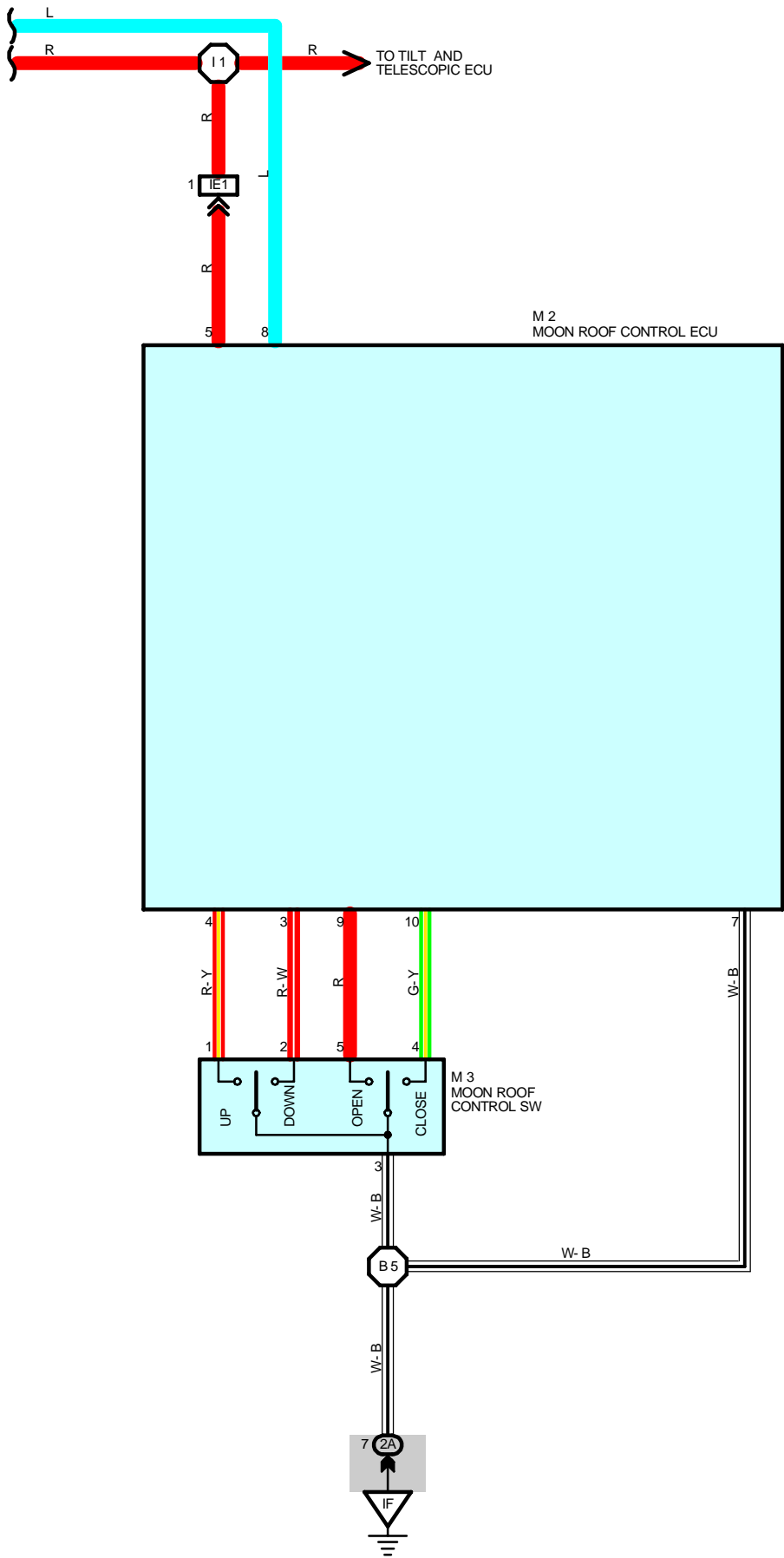
## : GROUND POINTS

Code	See Page	Ground Points Location
IF	48	Set Bolt of Cowl Side J/B LH
IH	48	Set Bolt of Cowl Side J/B RH



# MOON ROOF





# MOON ROOF

## SYSTEM OUTLINE

In this system, the HALL IC in the moon roof control ECU detects the changes in motor rotation, and allows opening/closing, tilting up/down of the moon roof by one touch operation.

In addition, catching prevention function during moon roof operation is also provided.

Voltage is constantly applied from POWER fuse to moon roof control ECU TERMINAL 5. When the ignition SW is turned on, the current flows from POWER fuse to moon roof control ECU TERMINAL 8.

### 1. SLIDE OPEN OPERATION

When the moon roof control SW is kept pressed to OPEN position for approx. 0.3 seconds or longer (Limit SW No.1 off, limit SW No.2 on), a signal is input from moon roof control SW TERMINAL 5 to moon roof control ECU TERMINAL 9. This activates the moon roof control ECU and rotates the motor to open the moon roof automatically. Then, when the limit SW No.1 is turned on and then turned off again, the pulse signal sent from the HALL IC activates the moon roof control ECU, and determines that the moon roof is fully open, and stops the motor. If other operation SW or the open SW is operated while the moon roof is being opened, the moon roof control ECU is activated to stop the moon roof operation. In addition, when the moon roof is tilted up, the slide open operation does not function.

### 2. SLIDE CLOSE OPERATION

When the moon roof control SW is kept pressed to CLOSE position for approx. 0.3 seconds or longer (Limit SW No.1 off, limit SW No.2 off), a signal is input from moon roof control SW TERMINAL 4 to moon roof control ECU TERMINAL 10. This activates the moon roof control ECU and rotates the motor to close the moon roof automatically. Then, when the limit SW No.2 is turned on, the pulse signal sent from the HALL IC activates the moon roof control ECU, and determines that the moon roof is closed fully, and stops the motor. If other operation SW or the close SW is operated while the moon roof is being closed, the moon roof control ECU is activated to stop the moon roof operation.

### 3. TILT UP OPERATION

When the moon roof control SW is kept pressed to UP position for approx. 0.3 seconds or longer (Limit SW No.1 off, limit SW No.2 on), a signal is input from moon roof control SW TERMINAL 1 to moon roof control ECU TERMINAL 4. This activates the moon roof control ECU and rotates the motor to tilt up the moon roof automatically. If the pulse signal is not input from the HALL IC for 0.5 seconds or longer, it determines that the moon roof is fully tilted up, and stops the motor. If other operation SW or the tilt up SW is operated while the moon roof is being tilted up, the moon roof control ECU is activated to stop the moon roof operation. In addition, when the moon roof is opened, the tilt up operation does not function.

### 4. TILT DOWN OPERATION

When the moon roof control SW is kept pressed to DOWN position for approx. 0.3 seconds or longer (Limit SW No.1 on, limit SW No.2 on), a signal is input from moon roof control SW TERMINAL 2 to moon roof control ECU TERMINAL 3. This activates the moon roof control ECU and rotates the motor to tilt down the moon roof automatically.

Then, when the limit SW No.1 is turned off, the pulse signal sent from the HALL IC activated the moon roof control ECU, and determines that the moon roof is closed fully, and stops the motor.

If other operation SW or the tilt down SW is operated while the moon roof is being tilted down, the moon roof control ECU is activated to stop the moon roof operation.

### 5. CATCHING PREVENTION FUNCTION

During slide close or tilt down operation, if the moon roof control ECU detects a catching load from the changes in the rotation of the motor, the operation is stopped, and the motor is rotated in the reverse direction.

#### \* Slide close operation

The moon roof is moved approx. 200 mm in the reverse direction (Slide open) after a catching load has been detected. However, if the full open position is detected before moving approx. 200 mm, the reverse movement is stopped.

#### \* Tilt down operation

If a catching load is detected, the moon roof is moved in the reverse direction until fully tilted up.

### 6. KEY OFF MOON ROOF OPERATION

Within approx. 45 seconds after the ignition SW is turned from ON to OFF, the moon roof can be operated. However, if the driver or front passenger door is opened during this period of time, the moon roof operation is stopped even though 45 seconds have not elapsed.

### 7. FAIL-SAFE FUNCTION

If the moon roof is operated continuously in the same direction, the current flowing to the motor is cut off when the time shown below has elapsed after the motor operation has been started.

\* Slide open/close operation by the moon roof SW approx. 20 seconds

\* Tilt up/down operation by the moon roof SW approx. 2 second

\* Slide open operation for reverse movement in case of catching prevention function approx. 20 seconds

\* Tilt up operation for reverse movement in case of catching prevention function approx. 2 seconds

## SERVICE HINTS

### M2 MOON ROOF CONTROL ECU

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

8-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position or key off moon roof operation  
: Approx. **12** volts with key off moon roof operation

7-GROUND : Always continuity

### M3 MOON ROOF CONTROL SW

1-3 : Closed with moon roof control SW at **TILT UP** position

2-3 : Closed with moon roof control SW at **TILT DOWN** position

5-3 : Closed with moon roof control SW at **OPEN** position

4-3 : Closed with moon roof control SW at **CLOSE** position

3-GROUND : Always continuity

### POWER RELAY

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

: Closed with key off moon roof operation

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
D14	42	J10	41	J28	41
D15	42	J15	41	J29	41
I19	A 40	J17	41	M2	42
I21	C 40	J19	41	M3	42
J9	41	J27	41		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2A	26	Roof Wire and Cowl Side J/B LH (Left Kick Panel)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2N	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3E	32	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3I	32	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE1	48	Dash Wire and Roof Wire (Left Kick Panel)
IU4	52	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)

## ▽ : GROUND POINTS

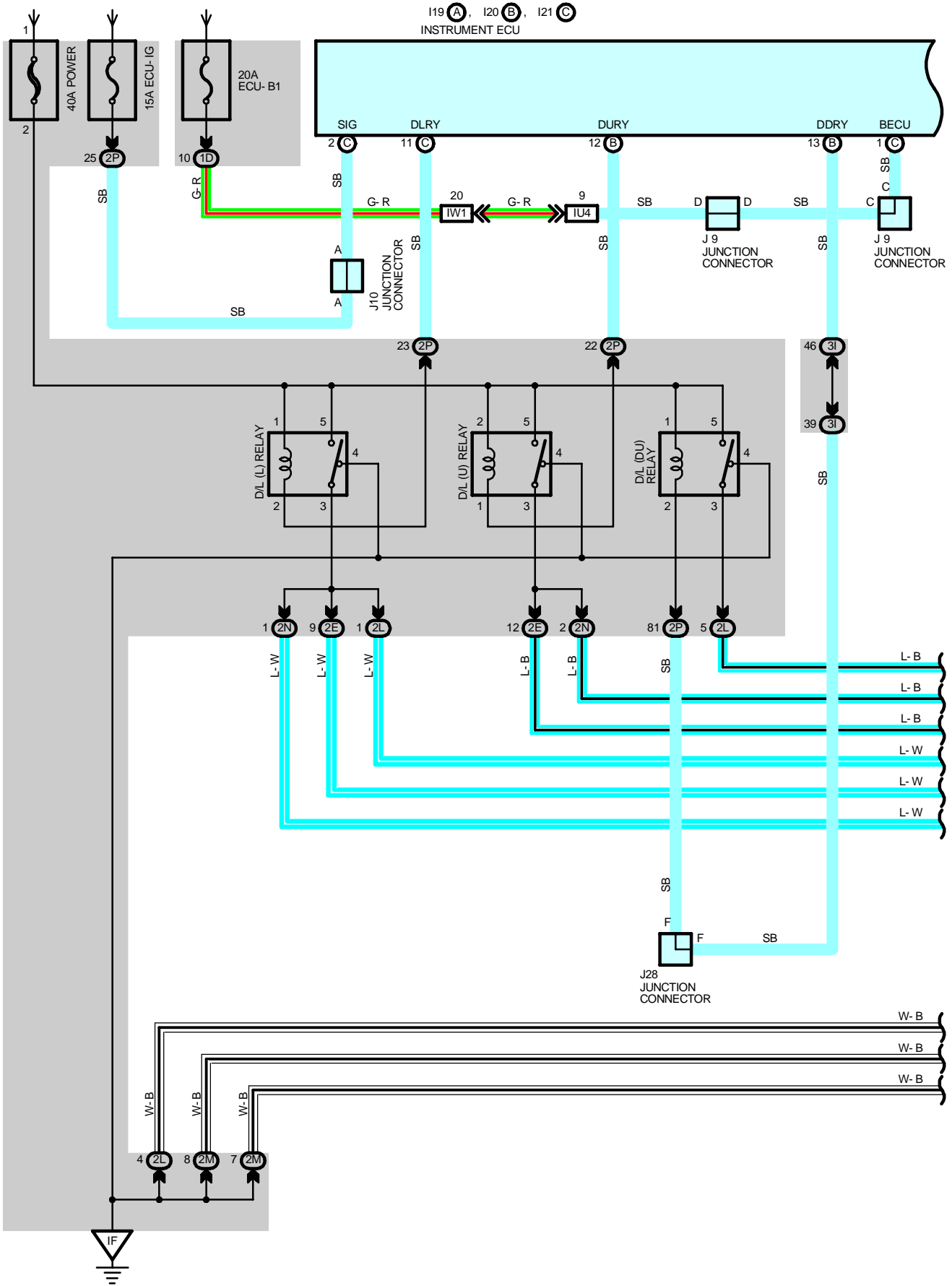
Code	See Page	Ground Points Location
IF	48	Set Bolt of Cowl Side J/B LH
IH	48	Set Bolt of Cowl Side J/B RH

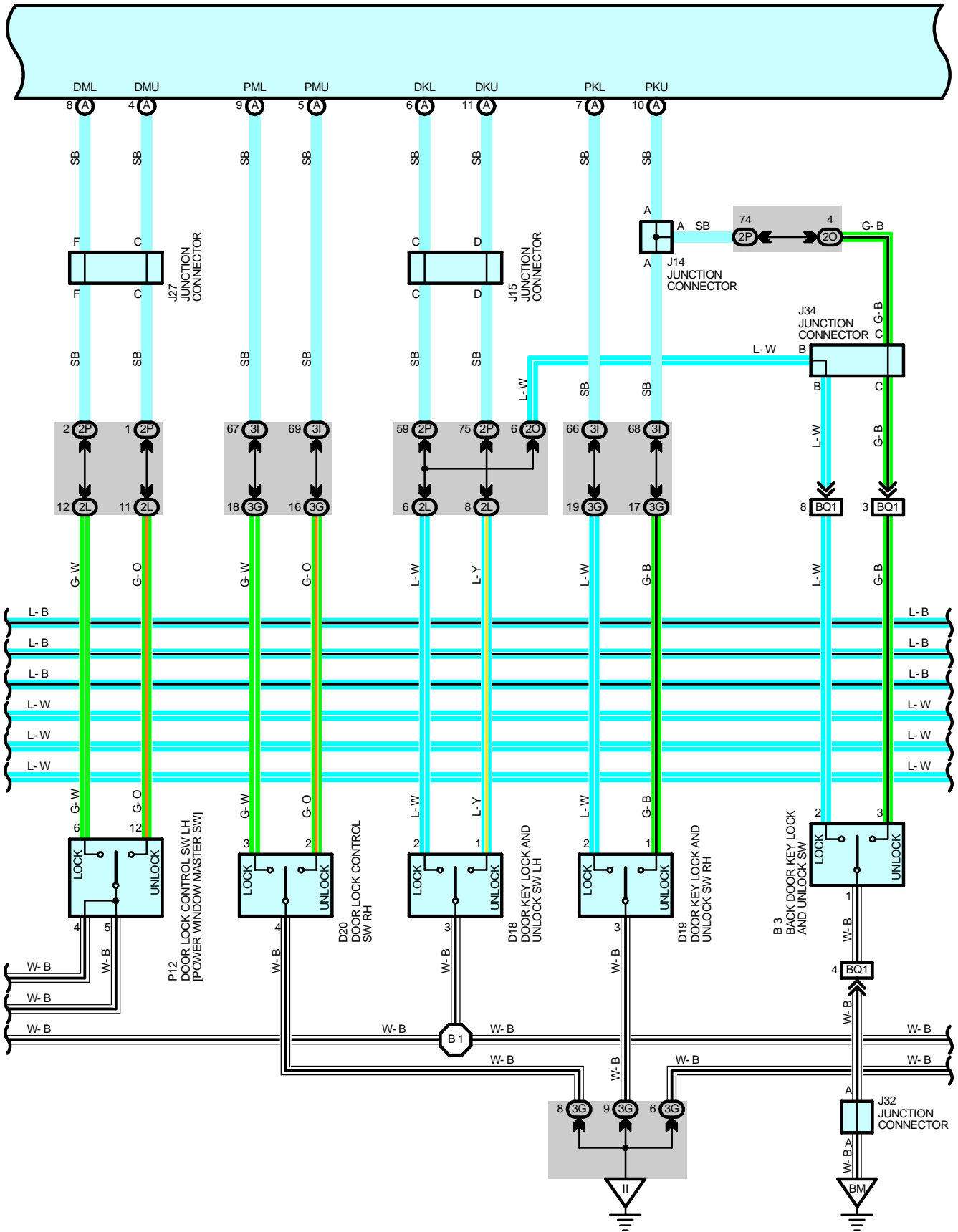
## ○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I1	50	Dash Wire	B5	58	Floor Wire

# DOOR LOCK CONTROL

FROM POWER SOURCE SYSTEM (SEE PAGE 64)

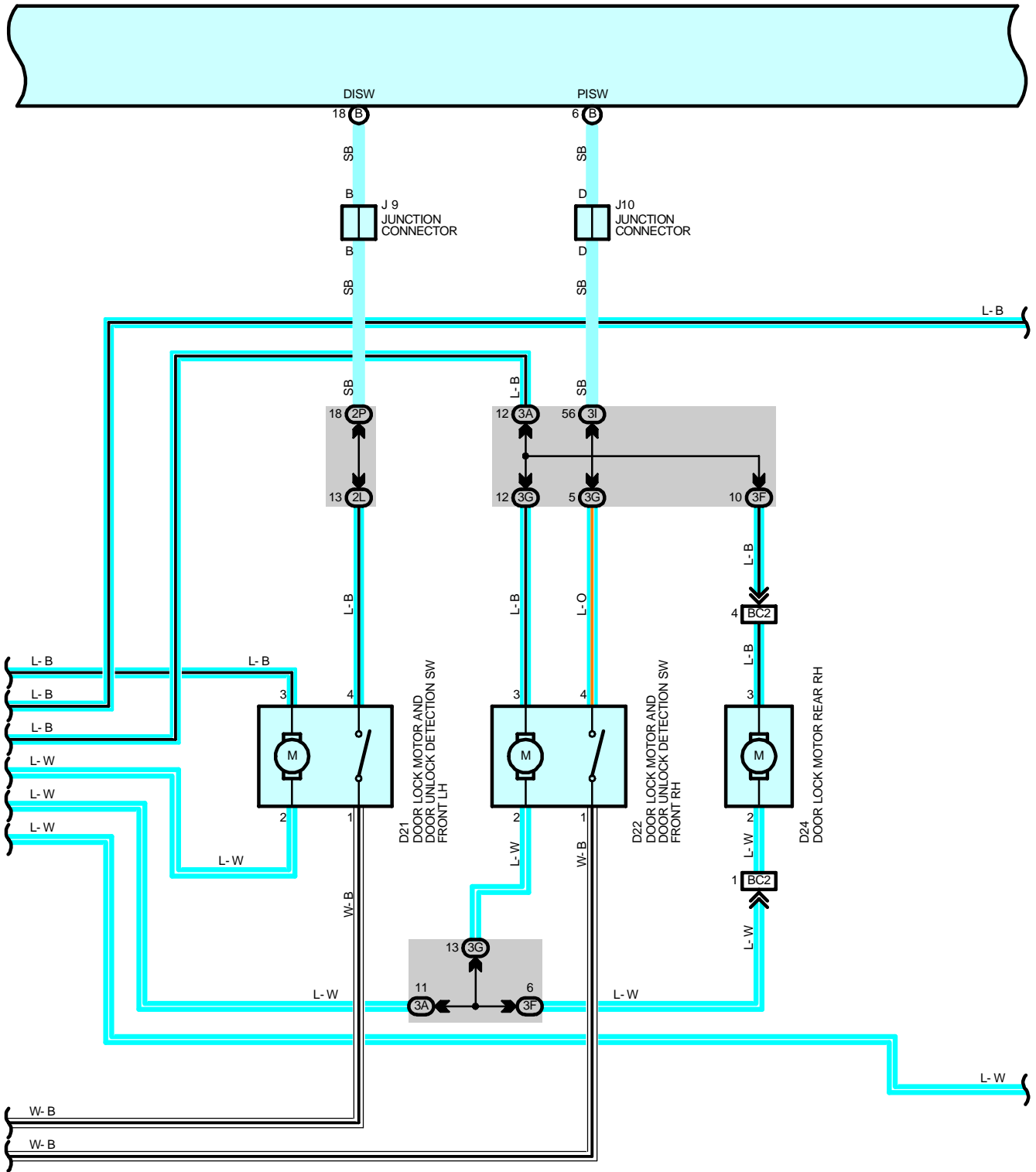


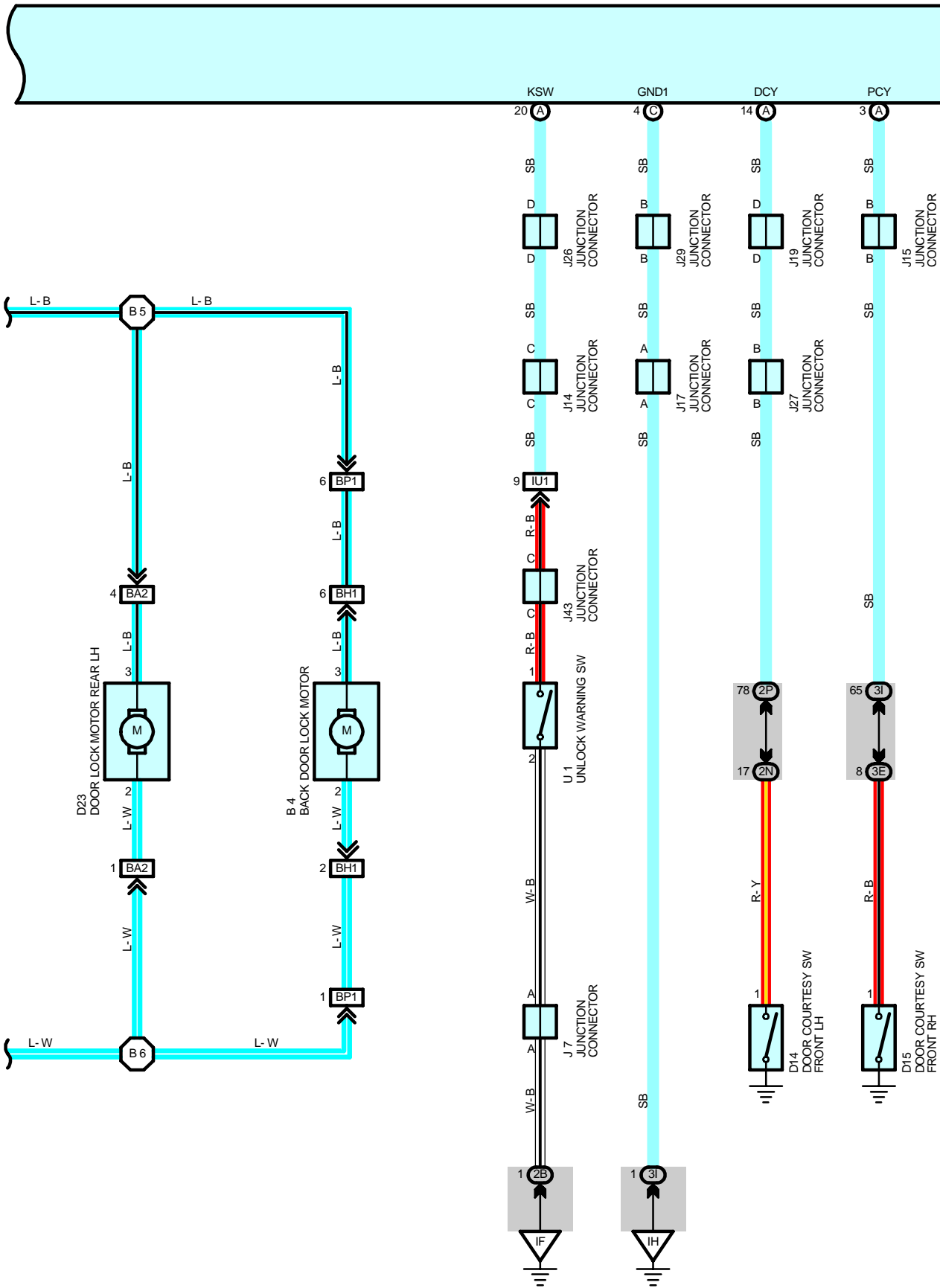




# DOOR LOCK CONTROL

I19 (A), I20 (B), I21 (C)  
INSTRUMENT ECU





# DOOR LOCK CONTROL

## SYSTEM OUTLINE

### 1. MANUAL UNLOCK OPERATION

When the door lock control SW of the driver or front passenger door is pressed to unlock side, a signal is input to the instrument ECU TERMINAL DMU, and TERMINAL PMU respectively. Then the current flows from the POWER fuse to D/L (U) relay (Coil side) to instrument ECU TERMINAL DURY to TERMINAL GND1 to GROUND, and turns on the D/L (U) relay and D/L (DU) relay. At the same time, the current flows from the POWER fuse to D/L (U) relay, D/L (DU) relay TERMINAL 5 to TERMINAL 3 to door lock motor and back door lock motor to D/L (L) relay TERMINAL 3 to TERMINAL 4 to GROUND, and unlocks the door.

### 2. MANUAL LOCK OPERATION

When the door lock control SW of the driver or front passenger door is pressed to lock side, a signal is input to the instrument ECU TERMINAL DML, and TERMINAL PML respectively. Then the current flows from the POWER fuse to D/L (L) relay (Coil side) to instrument ECU TERMINAL DLRY to TERMINAL GND1 to GROUND. This turns on the D/L (L) relay and the current flows from the POWER fuse to D/L (L) relay TERMINAL 5 to TERMINAL 3 to door lock motor and back door lock motor to D/L (U) relay, D/L (DU) relay TERMINAL 3 to TERMINAL 4 to GROUND, and locks the door.

### 3. DOOR KEY UNLOCK OPERATION

\* Unlock operation from driver door

When the door is unlocked once by the ignition key from the driver side, a signal is input from door key lock and unlock SW LH to instrument ECU TERMINAL DKU. As a result, the instrument ECU operates and the current flows from POWER fuse to D/L (DU) relay (Coil side) to instrument ECU TERMINAL DDRY to TERMINAL GND1 to GROUND, and turns on the D/L (DU) relay. At the same time, the current flows from the POWER fuse to D/L (DU) relay TERMINAL 5 to TERMINAL 3 to door lock motor front LH to D/L (L) relay TERMINAL 3 to TERMINAL 4 to GROUND, and unlocks the driver door only. Accordingly, if the second unlock operation is made within 3 seconds, a signal is input to instrument ECU TERMINAL DKU, and the current flows as manual unlock operation, and unlocks all the doors.

\* Unlock operation from front passenger or back door

When the front passenger door or back door is unlocked using the ignition key, a signal from the door key lock and unlock SW RH and/or back door key lock and unlock SW is input to instrument ECU TERMINAL PKU. As a result, the current flows as manual unlock operation and unlocks all the doors at once.

### 4. IGNITION KEY REMINDER OPERATION

When the door is locked using the door lock knob with the ignition key remaining in the key cylinder and door opened, it is automatically unlocked. Additionally, if lock operation is made by the door lock control SW or door key lock SW, after the lock operation is completed, the doors are unlocked automatically.

## SERVICE HINTS

### I19 (A), I21 (C) INSTRUMENT ECU

- (C) 1-GROUND : Always approx. 12 volts
- (C) 2-GROUND : Approx. 12 volts with ignition SW at **ON** or **ST** position
- (C) 4-GROUND : Always continuity
- (A) 3-GROUND : Continuity with front RH door open
- (A)14-GROUND : Continuity with front LH door open
- (A)20-GROUND : Continuity with ignition key in ignition key cylinder

### D21, D22 DOOR LOCK MOTOR AND DOOR UNLOCK DETECTION SW FRONT LH, RH

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

### D23, D24 DOOR LOCK MOTOR REAR LH, RH

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

### B4 BACK DOOR LOCK MOTOR

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

 : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B3	42	D24	42	J19	41
B4	42	I19	A 40	J26	41
D14	42	I20	B 40	J27	41
D15	42	I21	C 40	J28	41
D18	42	J7	41	J29	41
D19	42	J9	41	J32	42
D20	42	J10	41	J34	42
D21	42	J14	41	J43	41
D22	42	J15	41	P12	43
D23	42	J17	41	U1	41

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2L	26	Front Door LH Wire and Cowl Side J/B LH (Left Kick Panel)
2M		
2N	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2O		
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3A	32	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3E	32	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3F		
3G	32	Front Door RH Wire and Cowl Side J/B RH (Right Kick Panel)
3I	32	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IU1	52	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU4		
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
BA2	56	Rear Door LH Wire and Floor Wire (Left Side of Center Pillar)
BC2	56	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)
BH1	58	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BP1	58	Pillar No.1 Wire and Floor Wire (Left Rear Side Quarter Panel)
BQ1	58	Back Door Lower Wire and Floor Wire (Left Rear Side Quarter Panel)

 : GROUND POINTS

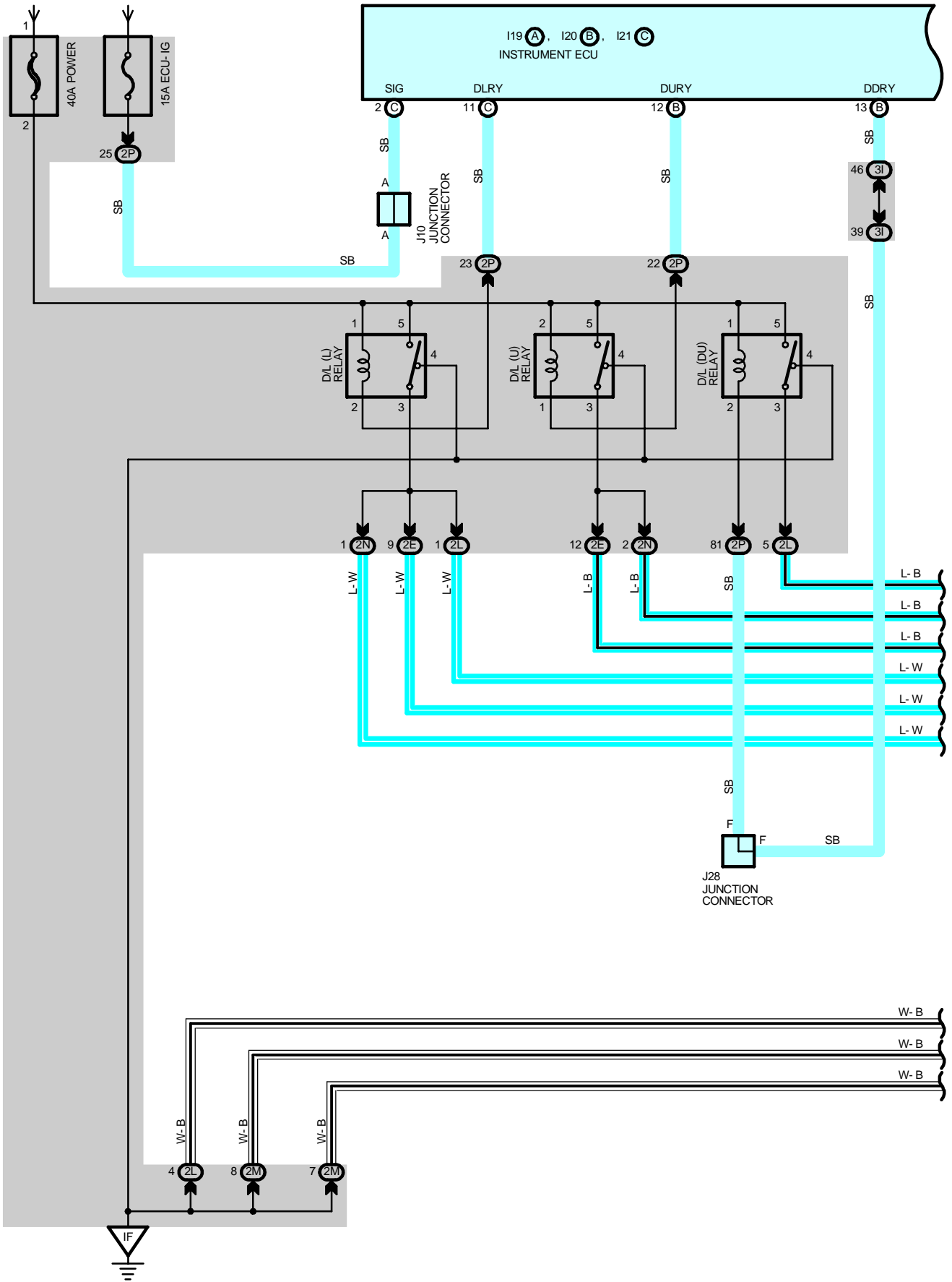
Code	See Page	Ground Points Location
IF	48	Set Bolt of Cowl Side J/B LH
IH	48	Set Bolt of Cowl Side J/B RH
II		
BM	56	Left Rear Side Quarter Panel

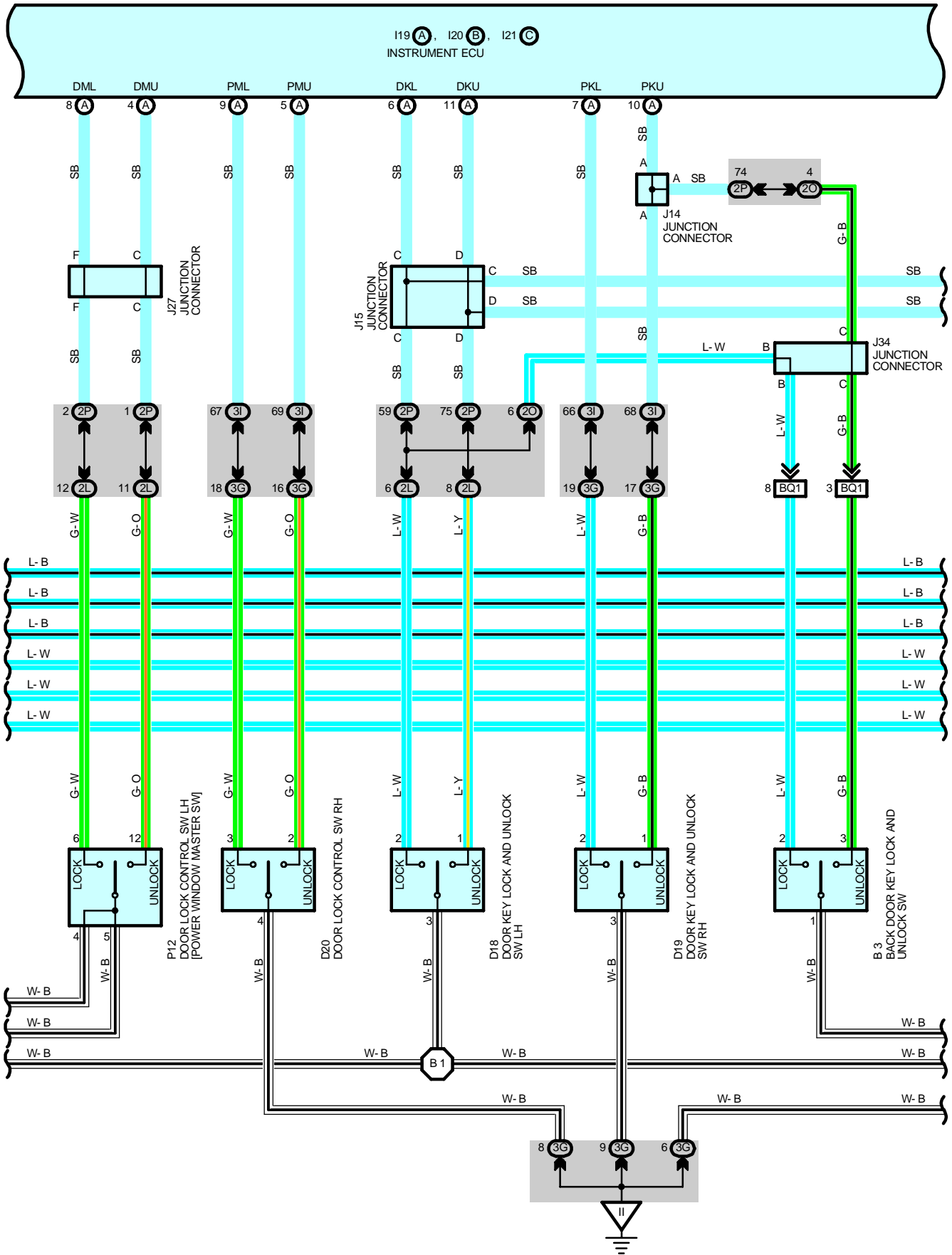
 : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B1	58	Front Door LH Wire	B6	58	Floor Wire
B5	58	Floor Wire			

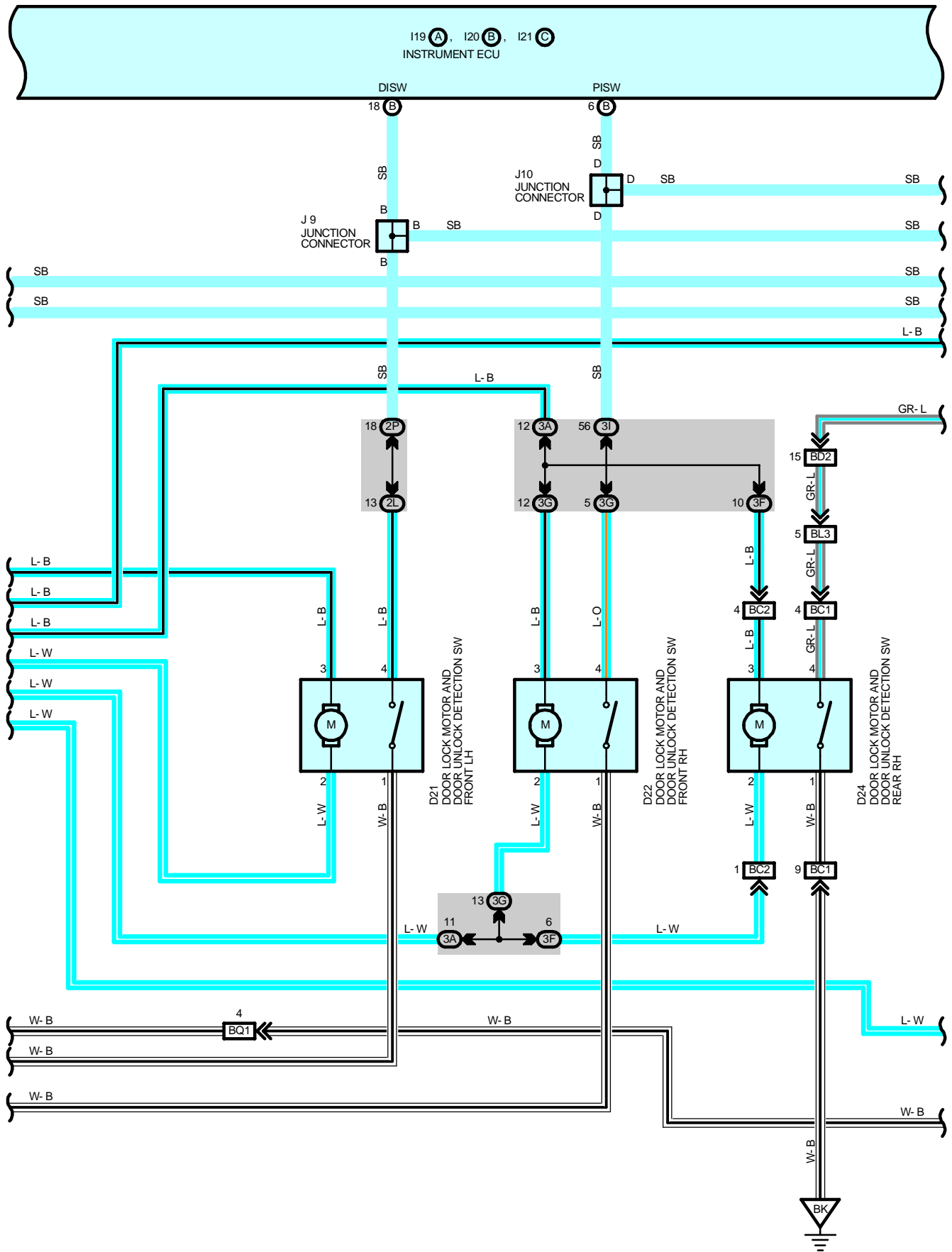
# WIRELESS DOOR LOCK CONTROL

FROM POWER SOURCE SYSTEM (SEE PAGE 64)

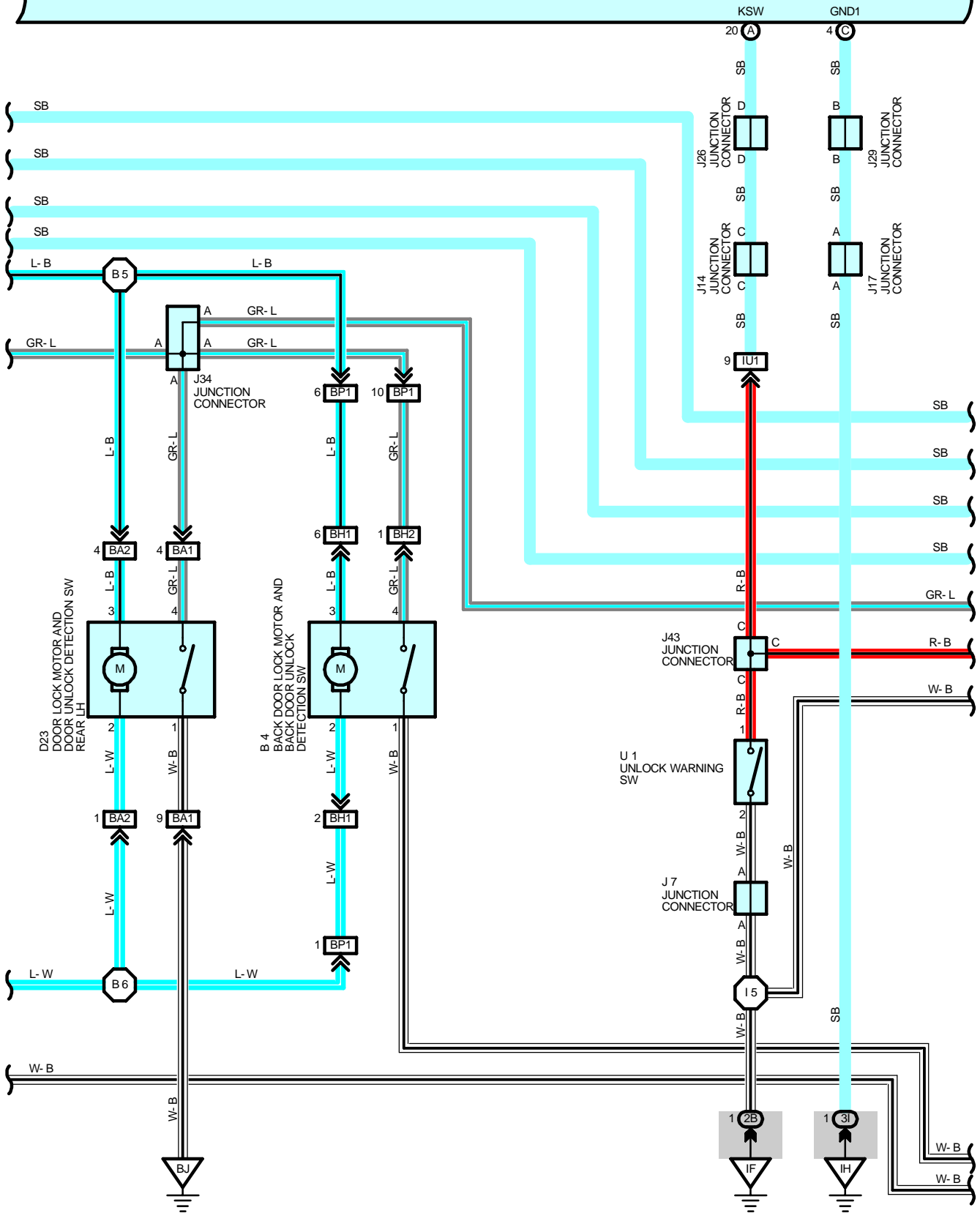




# WIRELESS DOOR LOCK CONTROL

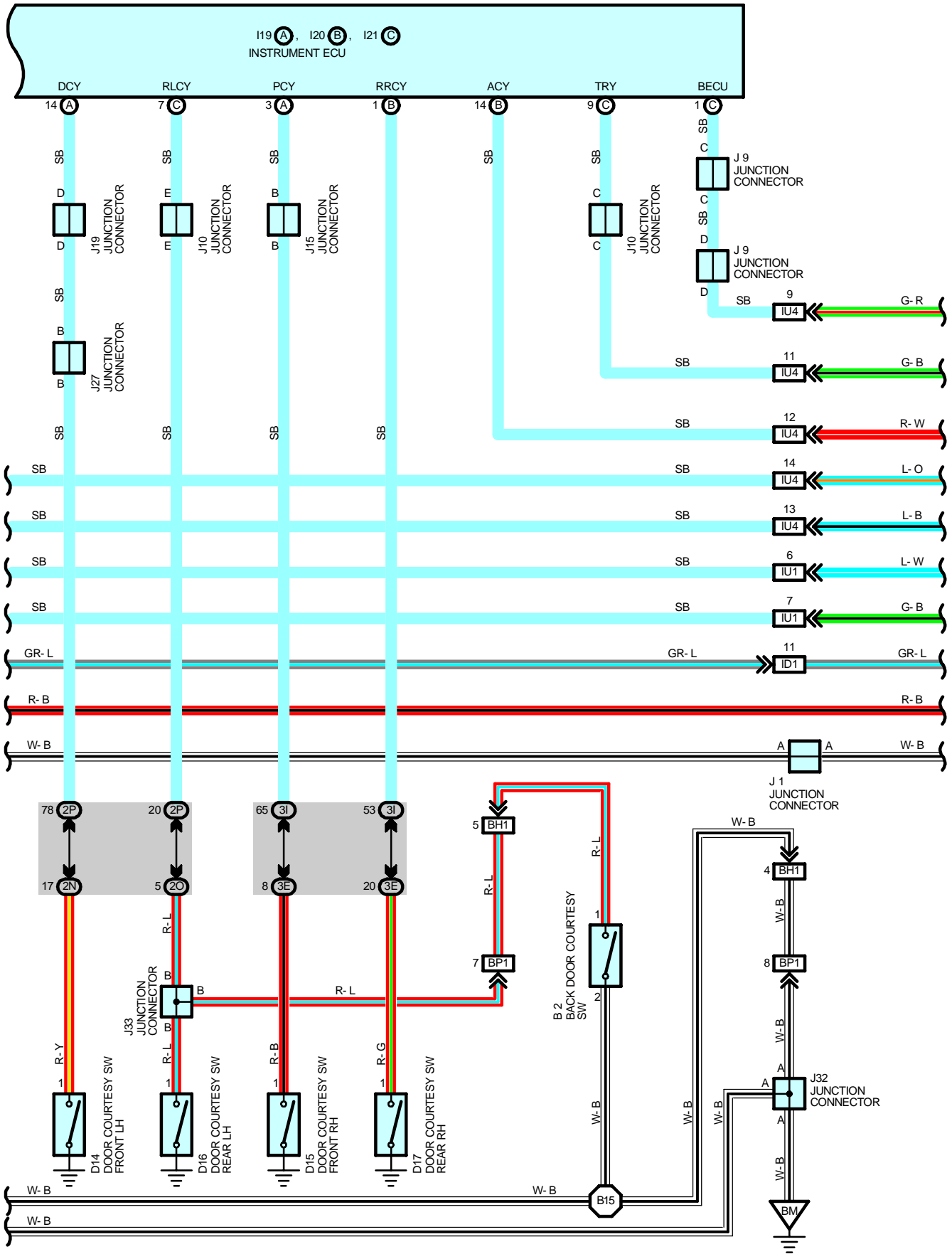


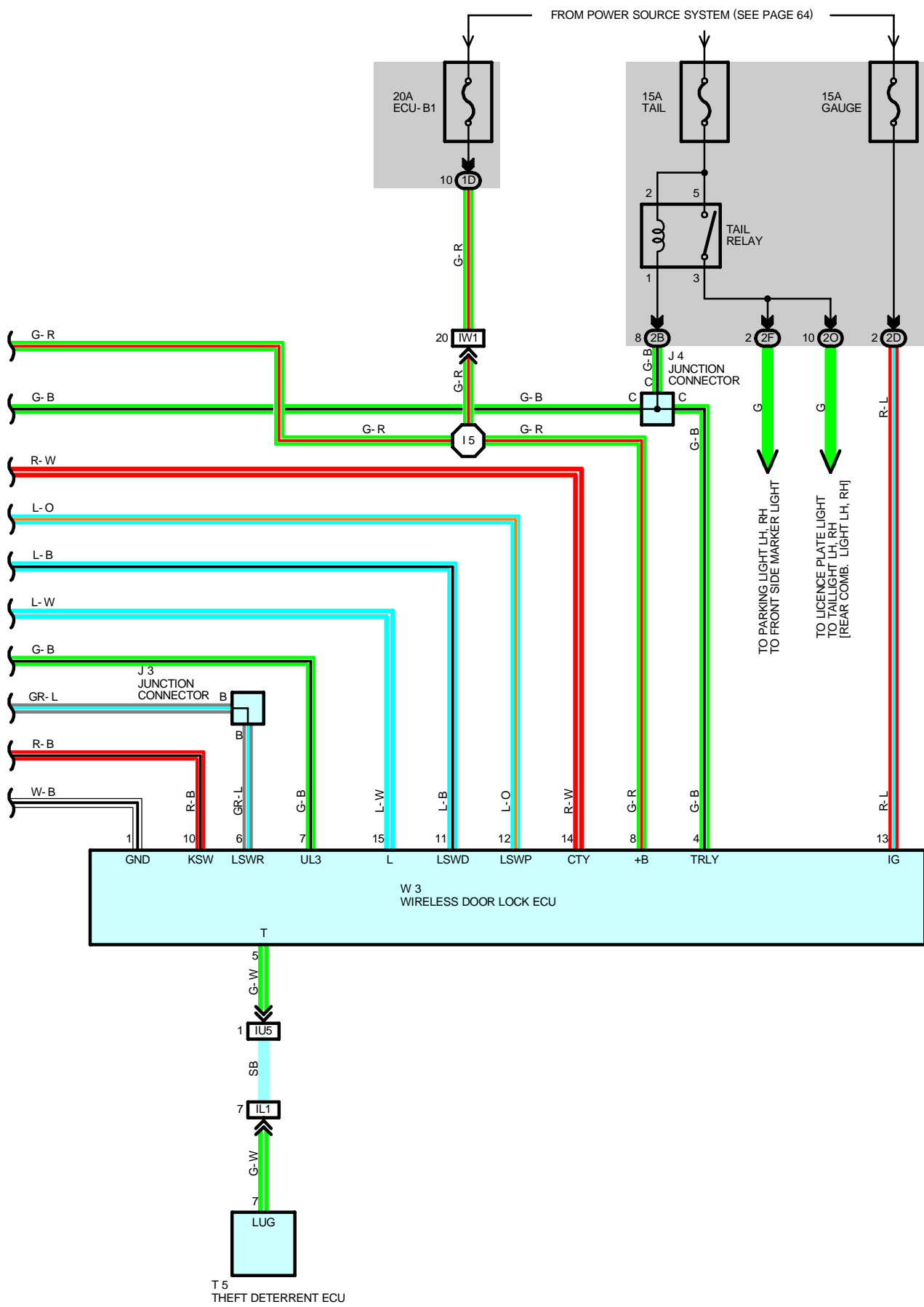
I19 (A), I20 (B), I21 (C)  
INSTRUMENT ECU





# WIRELESS DOOR LOCK CONTROL





# WIRELESS DOOR LOCK CONTROL

## SYSTEM OUTLINE

In this system, the wireless door lock ECU receives weak radio wave transmitted from the transmitter built into the ignition key, and outputs a signal to the instrument ECU. Accordingly, all the doors 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. VISUAL CONFIRMATION OF LOCK OR UNLOCK

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

### 5. PANIC MODE FUNCTION

When the panic SW on the transmitter is pressed, the wireless door lock ECU receives a signal and enters the panic mode. The signal input into the theft deterrent ECU from the wireless door lock ECU turns on the theft deterrent horn, and flashes the 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 stops, and the taillight and headlight are turned off.

### 6. REPEAT FUNCTION

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

## SERVICE HINTS

### W3 WIRELESS DOOR LOCK ECU

- 1-GROUND : Always continuity
- 8-GROUND : Always approx. **12** volts
- 13-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position

### D21, D22, D23, D24 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

### B4 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

### I19 (A), I20 (B), I21 (C) INSTRUMENT ECU

- (A) 3-GROUND : Continuity with front passenger door open
- (A)14-GROUND : Continuity with driver door open
- (B) 1-GROUND : Continuity with rear RH door open
- (C) 7-GROUND : Continuity with rear LH door or back door open
- (C) 1-GROUND : Always approx. **12** volts
- (C) 2-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position
- (C) 4-GROUND : Always continuity

### D14, D15, D16, D17 DOOR COURTESY SW FRONT LH, RH, REAR LH, RH

- 1-GROUND : Closed with door open

### B2 BACK DOOR COURTESY SW

- 1-2 : Closed with back door open

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B2	<a href="#">42</a>	D24	<a href="#">42</a>	J19	<a href="#">41</a>
B3	<a href="#">42</a>	I19	A <a href="#">40</a>	J26	<a href="#">41</a>
B4	<a href="#">42</a>	I20	B <a href="#">40</a>	J27	<a href="#">41</a>
D14	<a href="#">42</a>	I21	C <a href="#">40</a>	J28	<a href="#">41</a>
D15	<a href="#">42</a>	J1	<a href="#">41</a>	J29	<a href="#">41</a>
D16	<a href="#">42</a>	J3	<a href="#">41</a>	J32	<a href="#">42</a>
D17	<a href="#">42</a>	J4	<a href="#">41</a>	J33	<a href="#">42</a>
D18	<a href="#">42</a>	J7	<a href="#">41</a>	J34	<a href="#">42</a>
D19	<a href="#">42</a>	J9	<a href="#">41</a>	J43	<a href="#">41</a>
D20	<a href="#">42</a>	J10	<a href="#">41</a>	P12	<a href="#">43</a>
D21	<a href="#">42</a>	J14	<a href="#">41</a>	T5	<a href="#">41</a>
D22	<a href="#">42</a>	J15	<a href="#">41</a>	U1	<a href="#">41</a>
D23	<a href="#">42</a>	J17	<a href="#">41</a>	W3	<a href="#">41</a>

# WIRELESS DOOR LOCK CONTROL

## : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		
2E	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2F		
2L	26	Front Door LH Wire and Cowl Side J/B LH (Left Kick Panel)
2M		
2N	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2O		
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3A	32	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3E	32	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3F		
3G	32	Front Door RH Wire and Cowl Side J/B RH (Right Kick Panel)
3I	32	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

## : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ID1	48	Dash Wire and Floor Wire (Left Kick Panel)
IL1	50	Instrument Panel Integration Wire and Computer Wire (Instrument Panel Center)
IU1	52	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU4		
IU5		
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
BA1	56	Rear Door LH Wire and Floor Wire (Left Side of Center Pillar)
BA2		
BC1	56	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)
BC2		
BD2	56	Floor No.3 Wire and Floor Wire (Left Rear Side Quarter Panel)
BH1	58	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BH2		
BL3	58	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BP1	58	Pillar No.1 Wire and Floor Wire (Left Rear Side Quarter Panel)
BQ1	58	Back Door Lower Wire and Floor Wire (Left Rear Side Quarter Panel)

## : GROUND POINTS

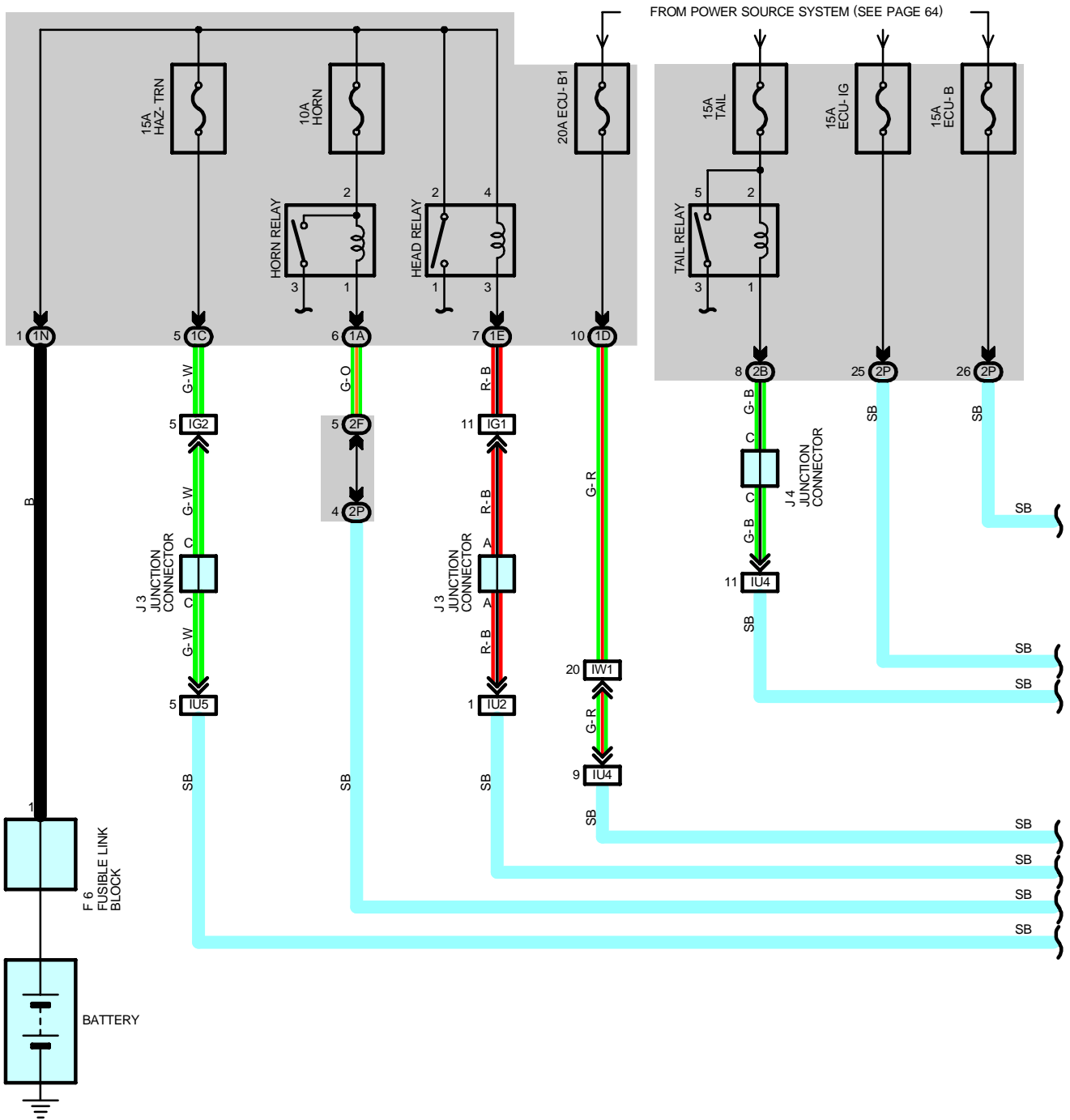
Code	See Page	Ground Points Location
IF	48	Set Bolt of Cowl Side J/B LH
IH	48	Set Bolt of Cowl Side J/B RH
II		
BJ	56	Under the Driver's Seat
BK	56	Front Side Under the Front Passenger's Seat
BM	56	Left Rear Side Quarter Panel

## : SPLICE POINTS

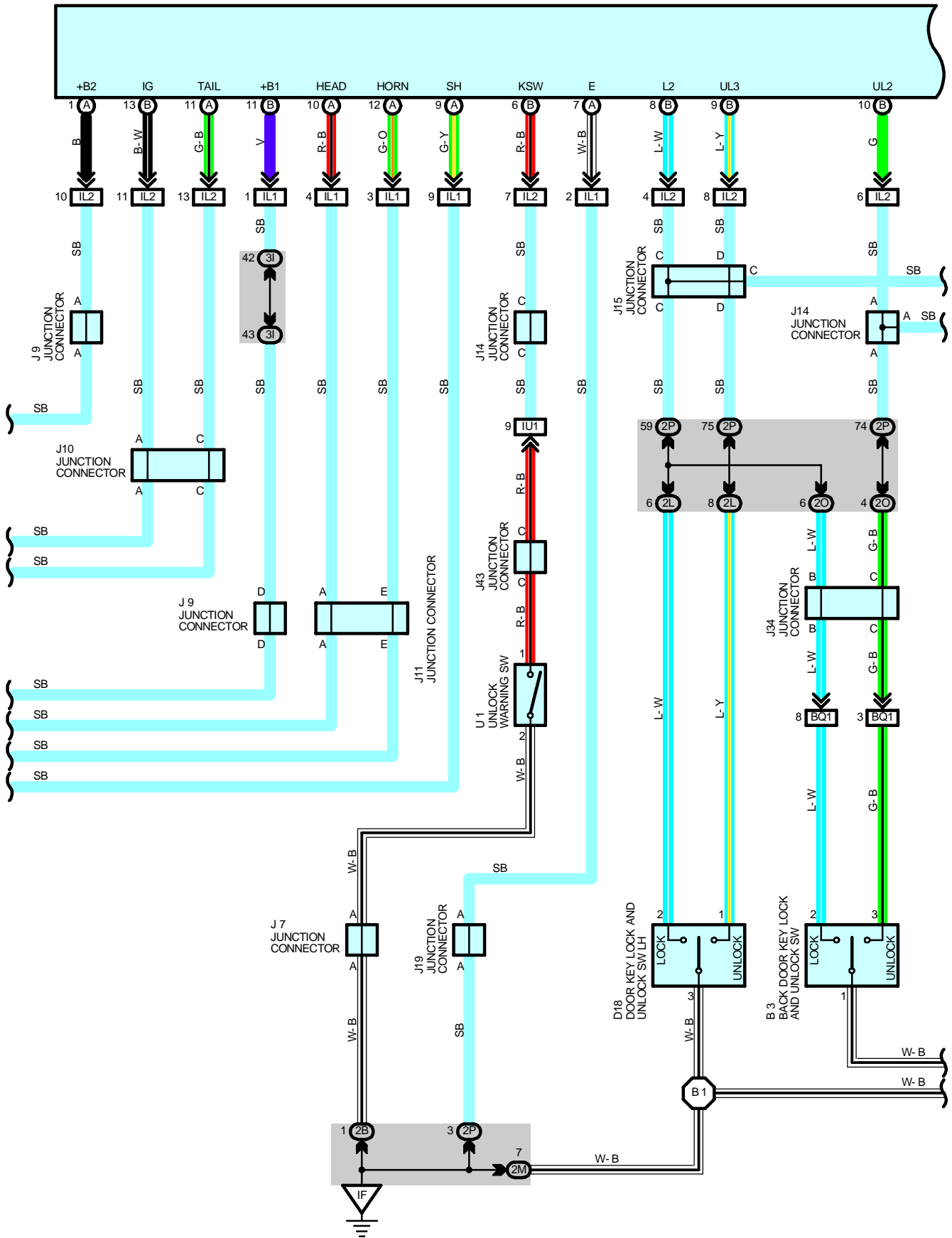
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I5	50	Dash Wire	B6	58	Floor Wire
B1	58	Front Door LH Wire	B15	58	Back Door Upper Wire
B5	58	Floor Wire			



# THEFT DETERRENT



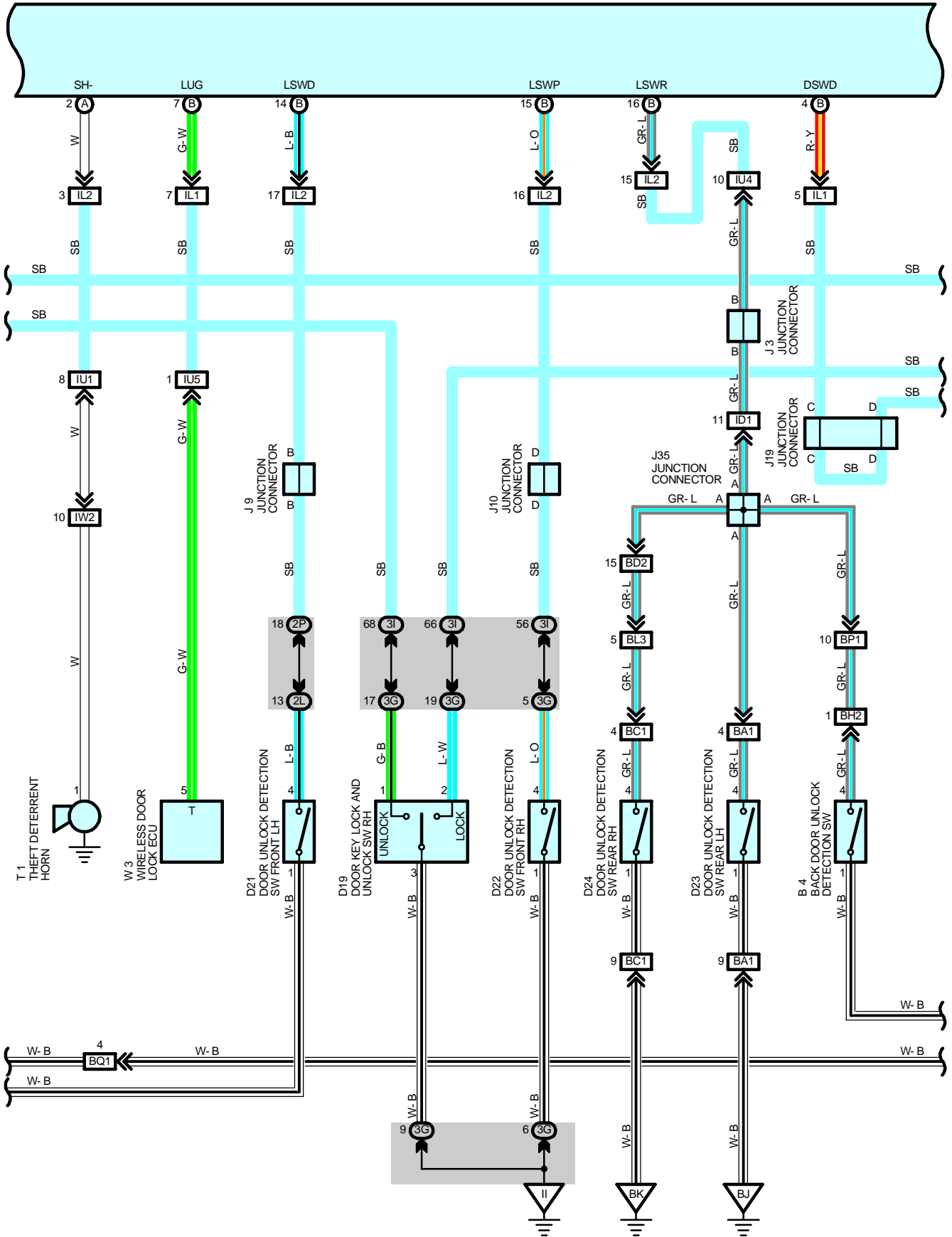
T 5 (B), T 6 (A)  
THEFT DETERRENT ECU



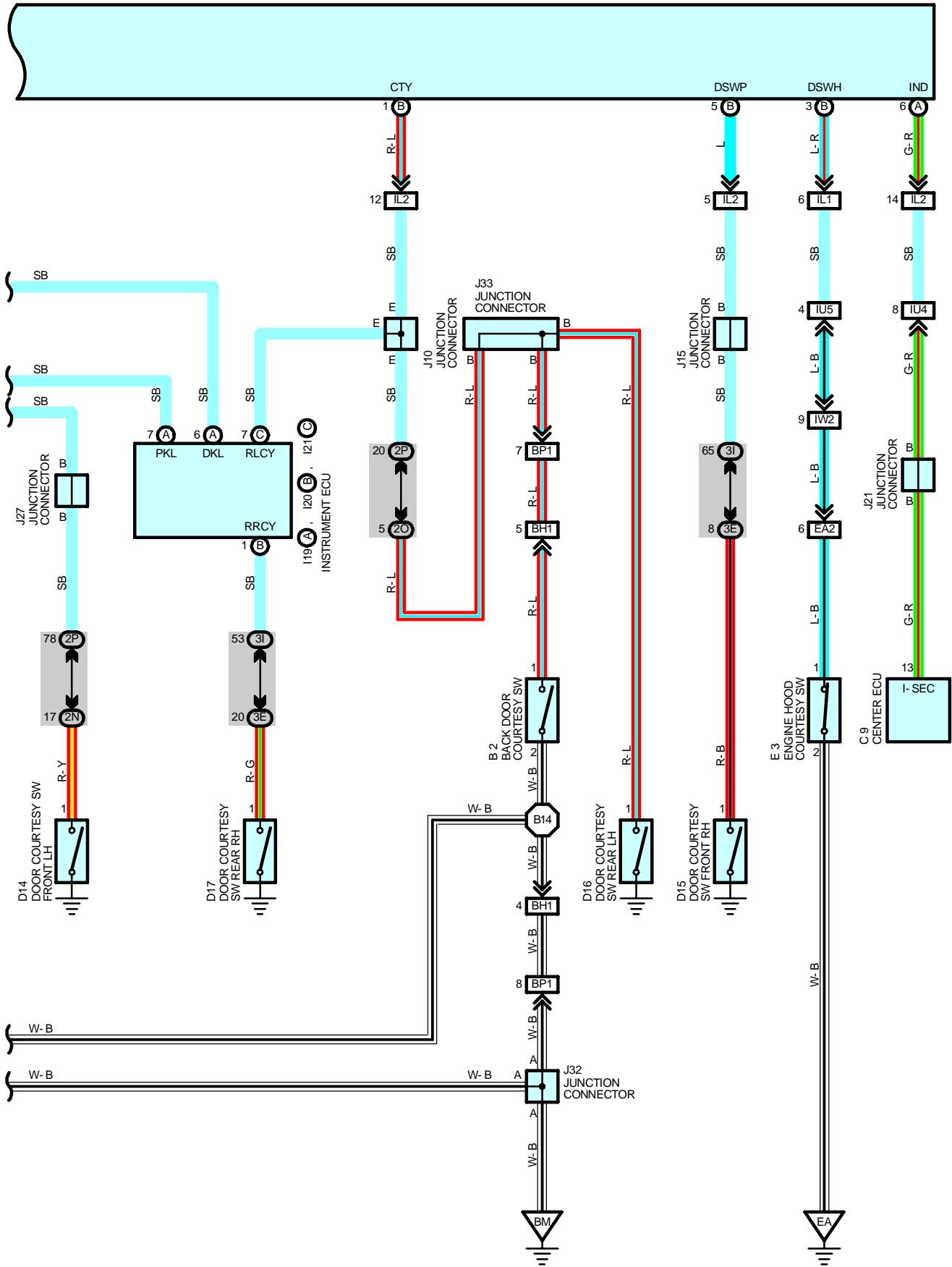


# THEFT DETERRENT

T5 (B), T6 (A)  
THEFT DETERRENT ECU



T5 (B), T6 (A)  
THEFT DETERRENT ECU



# THEFT DETERRENT

## SERVICE HINTS

### D18, D19 DOOR KEY LOCK AND UNLOCK SW LH, RH

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

### B3 BACK DOOR KEY LOCK AND UNLOCK SW

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

### E3 ENGINE HOOD COURTESY SW

- 1-3 : Opened with engine hood open

### U1 UNLOCK WARNING SW

- 2-1 : Closed with ignition key in cylinder

### T5 (A), T6 (B) THEFT DETERRENT ECU

- (A) 6-GROUND : Continuity with ignition key in cylinder
- (A)15-GROUND : Continuity with front RH door unlocked
- (A)14-GROUND : Continuity with front LH door unlocked
- (A) 5-GROUND : Continuity with front RH door open
- (A) 4-GROUND : Continuity with front LH door open
- (A) 8-GROUND : Continuity with door key lock SW at **LOCK** position
- (B) 7-GROUND : Always continuity
- (A) 3-GROUND : Continuity with engine hood close
- (A) 9, (B) 10-GROUND : Continuity with door key lock SW to **UNLOCK** position
- (A)11, (B) 1, (B) 9-GROUND : Always approx. **12** volts

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B2	42	E3	38	J21	41
B3	42	F6	38	J27	41
B4	42	I19	A 40	J32	42
C9	40	I20	B 40	J33	42
D14	42	I21	C 40	J34	42
D15	42	J3	41	J35	42
D16	42	J4	41	J43	41
D17	42	J7	41	T1	39
D18	42	J9	41	T5	B 41
D19	42	J10	41	T6	A 41
D21	42	J11	41	U1	41
D22	42	J14	41	W3	41
D23	42	J15	41		
D24	42	J19	41		

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1C		
1D		
1E		
1N	23	Engine Room No.3 Wire and Engine Room J/B (Engine Compartment Left)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2F	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2L	26	Front Door LH Wire and Cowl Side J/B LH (Left Kick Panel)
2M		
2N	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2O		
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3E	32	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3G	32	Front Door RH Wire and Cowl Side J/B RH (Right Kick Panel)
3I	32	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA2	46	Engine Room Main Wire and Engine Room No.2 Wire (Engine Compartment Right)
ID1	48	Dash Wire and Floor Wire (Left Kick Panel)
IG1	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IG2		
IL1	50	Instrument Panel Integration Wire and Computer Wire (Instrument Panel Center)
IL2		
IU1	52	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU2		
IU4		
IU5		
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
IW2		
BA1	56	Rear Door LH Wire and Floor Wire (Left Side of Center Pillar)
BC1	56	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)
BD2	56	Floor No.3 Wire and Floor Wire (Left Rear Side Quarter Panel)
BH1	58	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BH2		
BL3	58	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BP1	58	Pillar No.1 Wire and Floor Wire (Left Rear Side Quarter Panel)
BQ1	58	Back Door Lower Wire and Floor Wire (Left Rear Side Quarter Panel)

 : GROUND POINTS

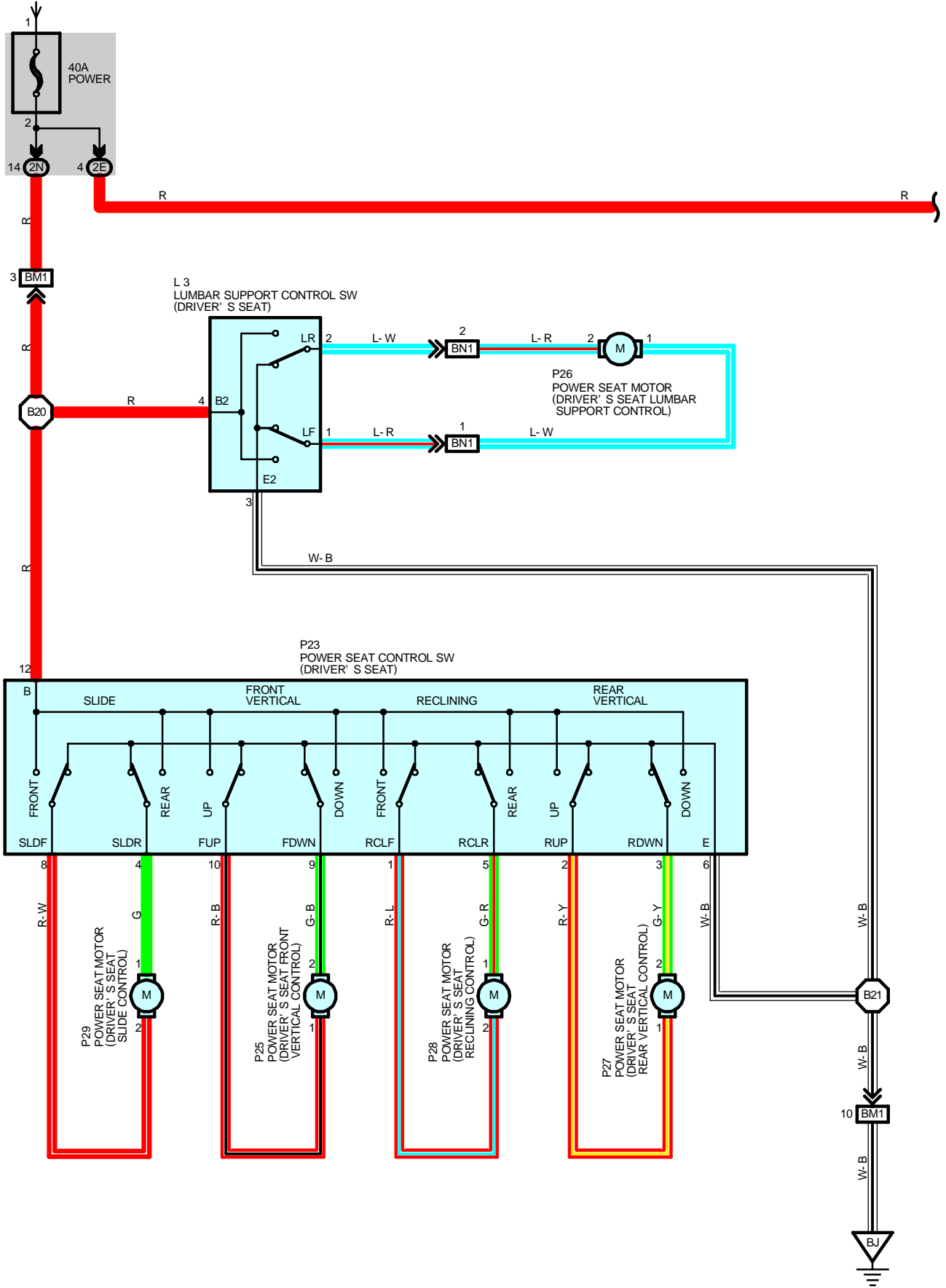
Code	See Page	Ground Points Location
EA	46	Front Right Side of Fender Apron
IF	48	Set Bolt of Cowl Side J/B LH
II	48	Set Bolt of Cowl Side J/B RH
BJ	56	Under the Driver's Seat
BK	56	Front Side Under the Front Passenger's Seat
BM	56	Left Rear Side Quarter Panel

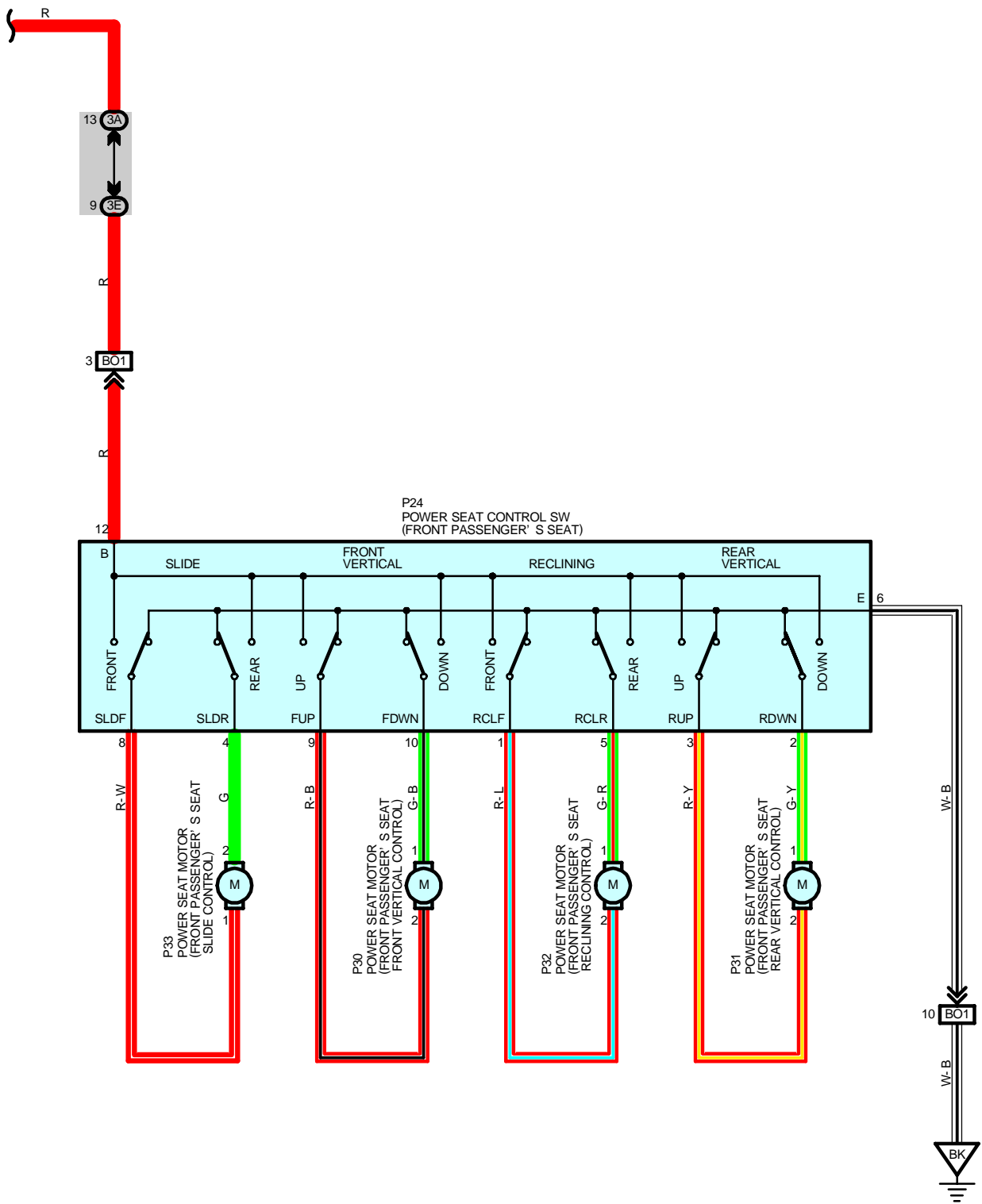
 : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B1	58	Front Door LH Wire	B14	58	Floor No.2 Wire

# POWER SEAT

FROM POWER SOURCE SYSTEM (SEE PAGE 64)





# POWER SEAT

## SERVICE HINTS

### P23 POWER SEAT CONTROL SW (DRIVER'S SEAT)

- 12-1 : Closed with driver's seat at front reclining operation
- 12-5 : Closed with driver's seat at rear reclining operation
- 12-10 : Closed with driver's seat at front vertical up operation
- 12-9 : Closed with driver's seat at front vertical down operation
- 12-2 : Closed with driver's seat at rear vertical up operation
- 12-3 : Closed with driver's seat at rear vertical down operation
- 12-8 : Closed with driver's seat at front slide operation
- 12-4 : Closed with driver's seat at rear slide operation
- 6-GROUND : Always continuity

### P24 POWER SEAT CONTROL SW (FRONT PASSENGER'S SEAT)

- 12-1 : Closed with front passenger's seat at front reclining operation
- 12-5 : Closed with front passenger's seat at rear reclining operation
- 12-9 : Closed with front passenger's seat at front vertical up operation
- 12-10 : Closed with front passenger's seat at front vertical down operation
- 12-3 : Closed with front passenger's seat at rear vertical up operation
- 12-2 : Closed with front passenger's seat at rear vertical down operation
- 12-8 : Closed with front passenger's seat at front slide operation
- 12-4 : Closed with front passenger's seat at rear slide operation
- 6-GROUND : Always continuity

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
L3	44	P26	44	P30	44
P23	44	P27	44	P31	44
P24	44	P28	44	P32	44
P25	44	P29	44	P33	44

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
2E	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2N	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
3A	32	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3E	32	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
BM1	60	Floor Wire and Front Seat LH Wire (Front Side Under the Driver's Seat)
BN1	60	Seat No.2 Wire and Front Seat LH Wire (Rear Side Under the Driver's Seat)
BO1	60	Floor No.2 Wire and Front Seat RH Wire (Front Side Under the Front Passenger's Seat)

## ▽ : GROUND POINTS

Code	See Page	Ground Points Location
BJ	56	Under the Driver's Seat
BK	56	Front Side Under the Front Passenger's Seat

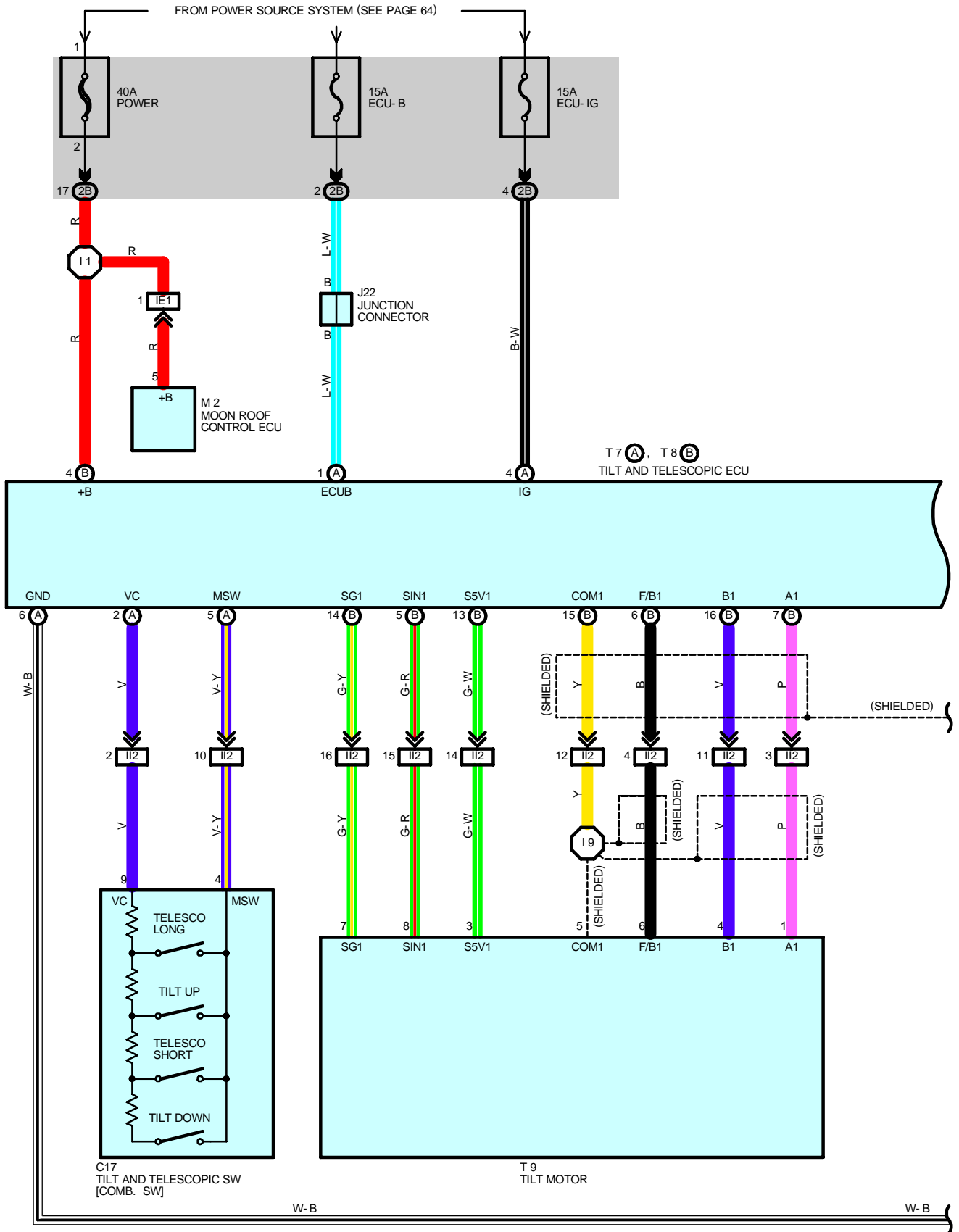
## ○ : SPLICE POINTS

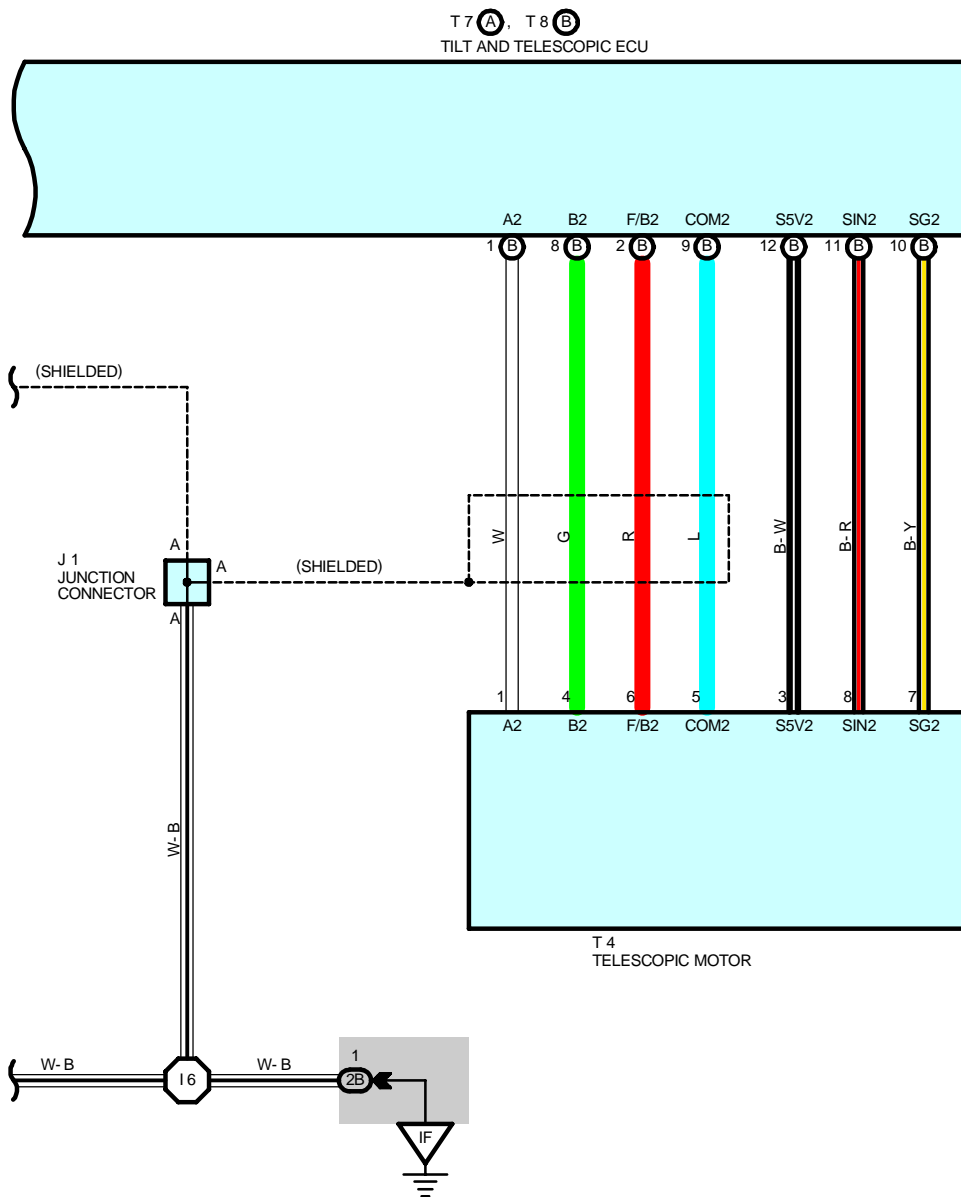
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B20	60	Front Seat LH Wire	B21	60	Front Seat LH Wire





# POWER TILT AND POWER TELESCOPIC





# POWER TILT AND POWER TELESCOPIC

## SYSTEM OUTLINE

This system provides the automatic tilt and telescopic mechanisms using the motor drive, tilt and telescopic ECU control, allowing variable steering movement in the back and forth, and vertical directions. This makes it possible to set the steering to the desired steering position.

### 1. MANUAL OPERATION

The tilt and telescopic can be adjusted while the ignition key is inserted into the key cylinder.

#### \* Tilt operation

When the tilt and telescopic SW is pressed to TILT DOWN position, the current flows from tilt and telescopic ECU TERMINAL (A) 2 to tilt and telescopic SW TERMINAL 9 to TERMINAL 4 to tilt and telescopic ECU TERMINAL (A) 5, and a signal is input to the tilt and telescopic ECU. This activates the tilt and telescopic ECU and rotates the tilt motor to lower the steering while the tilt and telescopic SW is kept pressed to TILT DOWN position.

When the tilt and telescopic SW is pressed to TILT UP position, the current flows from tilt and telescopic ECU TERMINAL (A) 2 to tilt and telescopic SW TERMINAL 9 to TERMINAL 4 to tilt and telescopic ECU TERMINAL (A) 5, and a signal is input to the tilt and telescopic ECU. This activates the tilt and telescopic ECU and rotates the tilt motor to raise the steering while the tilt and telescopic SW is kept pressed to TILT UP position.

#### \* Telescopic operation

When the tilt and telescopic SW is pressed to TELESCO LONG position, the current flows from tilt and telescopic ECU TERMINAL (A) 2 to tilt and telescopic SW TERMINAL 9 to TERMINAL 4 to tilt and telescopic ECU TERMINAL (A) 5, and a signal is input to the tilt and telescopic ECU. This activates the tilt and telescopic ECU and rotates the telescopic motor to extend the telescopic while the tilt and telescopic SW is kept pressed to TELESCO LONG position.

When the tilt and telescopic SW is pressed to TELESCO SHORT position, the current flows from tilt and telescopic ECU TERMINAL (A) 2 to tilt and telescopic SW TERMINAL 9 to TERMINAL 4 to tilt and telescopic ECU TERMINAL (A) 5, and a signal is input to the tilt and telescopic ECU. This activates the tilt and telescopic ECU and rotates the telescopic motor to retract the telescopic while the tilt and telescopic SW is kept pressed to TELESCO SHORT position.

## SERVICE HINTS

### T7 (A), T8 (B) TILT AND TELESCOPIC ECU

- (A) 1-GROUND : Always approx. **12** volts
- (B) 4-GROUND : Always approx. **12** volts
- (A) 4-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position
- (A) 6-GROUND : Always continuity

### C17 TILT AND TELESCOPIC SW [COMB. SW]

- 4-9 : Approx. **160** Ω with telesco long operation
- : Approx. **360** Ω with tilt up operation
- : Approx. **790** Ω with telesco short operation
- : Approx. **1.99** kΩ with tilt down operation

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C17	40	M2	42	T8   B	41
J1	41	T4	41	T9	41
J22	41	T7   A	41		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE1	48	Dash Wire and Roof Wire (Left Kick Panel)
II2	50	Column Wire and Dash Wire (Near the Ignition SW)

## ▽ : GROUND POINTS

Code	See Page	Ground Points Location
IF	48	Set Bolt of Cowl Side J/B LH

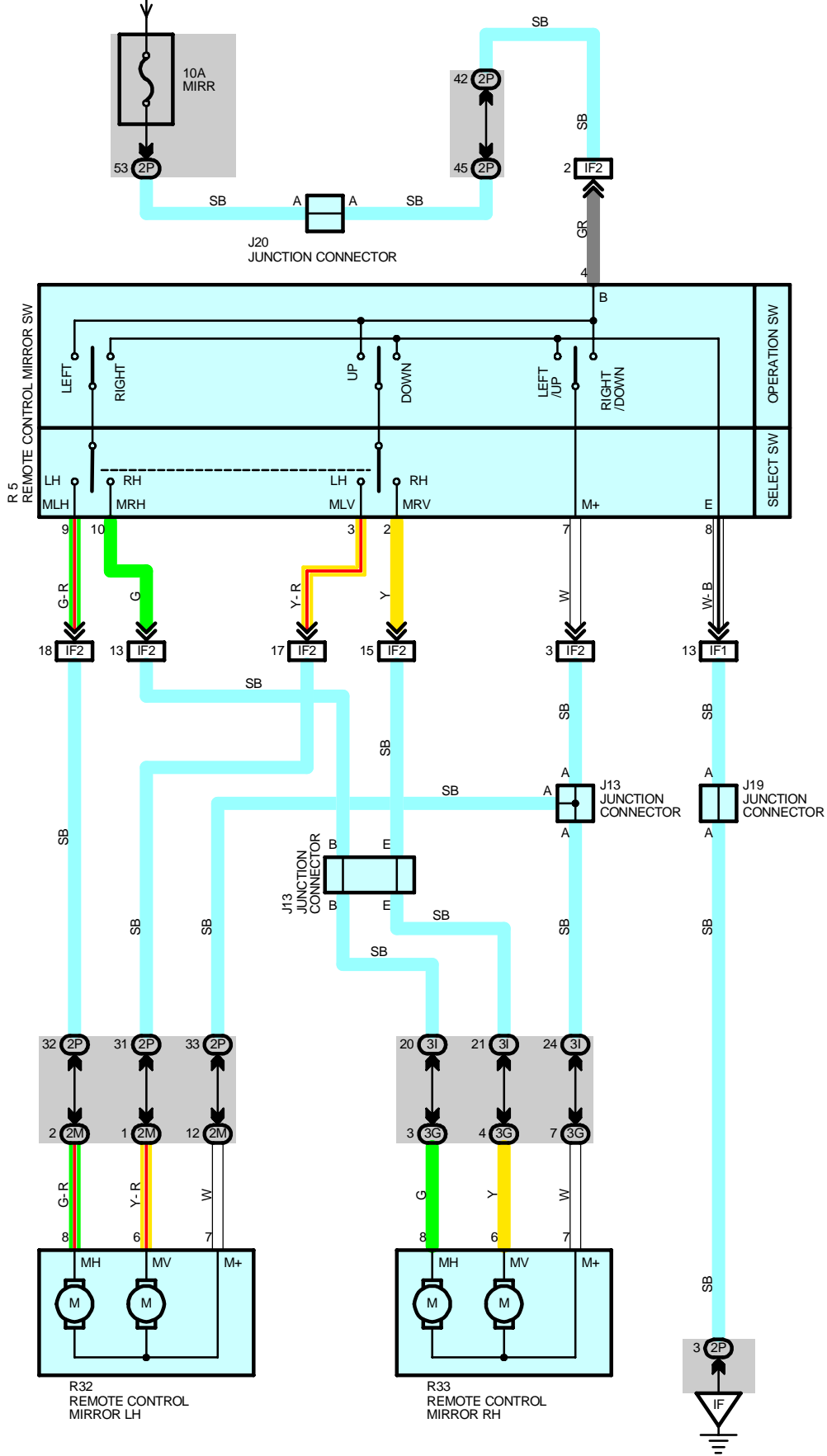


**: SPLICE POINTS**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I1	50	Dash Wire	I9	50	Column Wire
I6					

# REMOTE CONTROL MIRROR

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



## SERVICE HINTS

### R5 REMOTE CONTROL MIRROR SW

- 7-8 : Continuity with the operation SW at **UP** or **LEFT** position
- 4-7 : Continuity with the operation SW at **RIGHT** or **DOWN** position
- 4-9 : Continuity with the operation SW at **LEFT** position and the select SW at **LH** position
- 4-3 : Continuity with the operation SW at **UP** position and the select SW at **LH** position
- 8-10 : Continuity with the operation SW at **RIGHT** position and the select SW at **RH** position
- 2-8 : Continuity with the operation SW at **DOWN** position and the select SW at **RH** position
- 4-GROUND : Approx. **12** volts with ignition SW at **ACC** or **ON** position
- 8-GROUND : Always continuity

### ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
J13	41	J20	41	R32	43
J19	41	R5	41	R33	43

### ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
2M	26	Front Door LH Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3G	32	Front Door RH Wire and Cowl Side J/B RH (Right Kick Panel)
3I	32	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

### □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

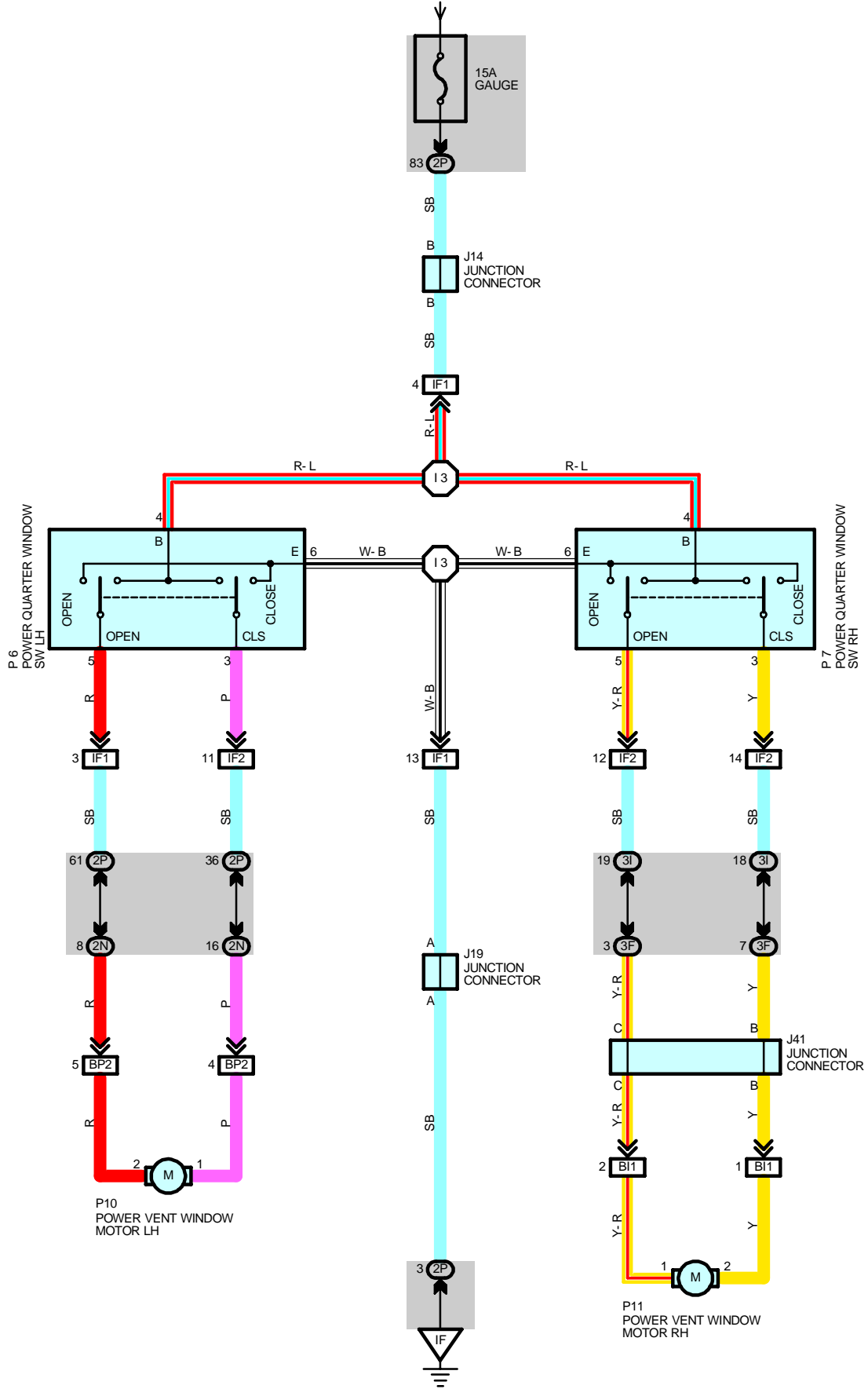
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF1	48	Instrument Panel Integration Wire and Instrument Panel Wire (Left Side of Instrument Panel)
IF2		

### ▽ : GROUND POINTS

Code	See Page	Ground Points Location
IF	48	Set Bolt of Cowl Side J/B LH

# POWER REAR QUARTER WINDOW

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



## SERVICE HINTS

### P6 POWER QUARTER WINDOW SW LH

4-GROUND : Approx. 12 volts with ignition SW at **ON** or **ST** position

6-GROUND : Always continuity

### P7 POWER QUARTER WINDOW SW RH

4-GROUND : Approx. 12 volts with ignition SW at **ON** or **ST** position

6-GROUND : Always continuity

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
J14	41	P6	41	P11	43
J19	41	P7	41		
J41	42	P10	43		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
2N	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3F	32	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3I	32	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF1	48	Instrument Panel Integration Wire and Instrument Panel Wire (Left Side of Instrument Panel)
IF2		
BI1	58	Roof No.2 Wire and Floor No.2 Wire (Right Side Rear Quarter Panel)
BP2	58	Pillar No.1 Wire and Floor Wire (Left Rear Side Quarter Panel)

## ▽ : GROUND POINTS

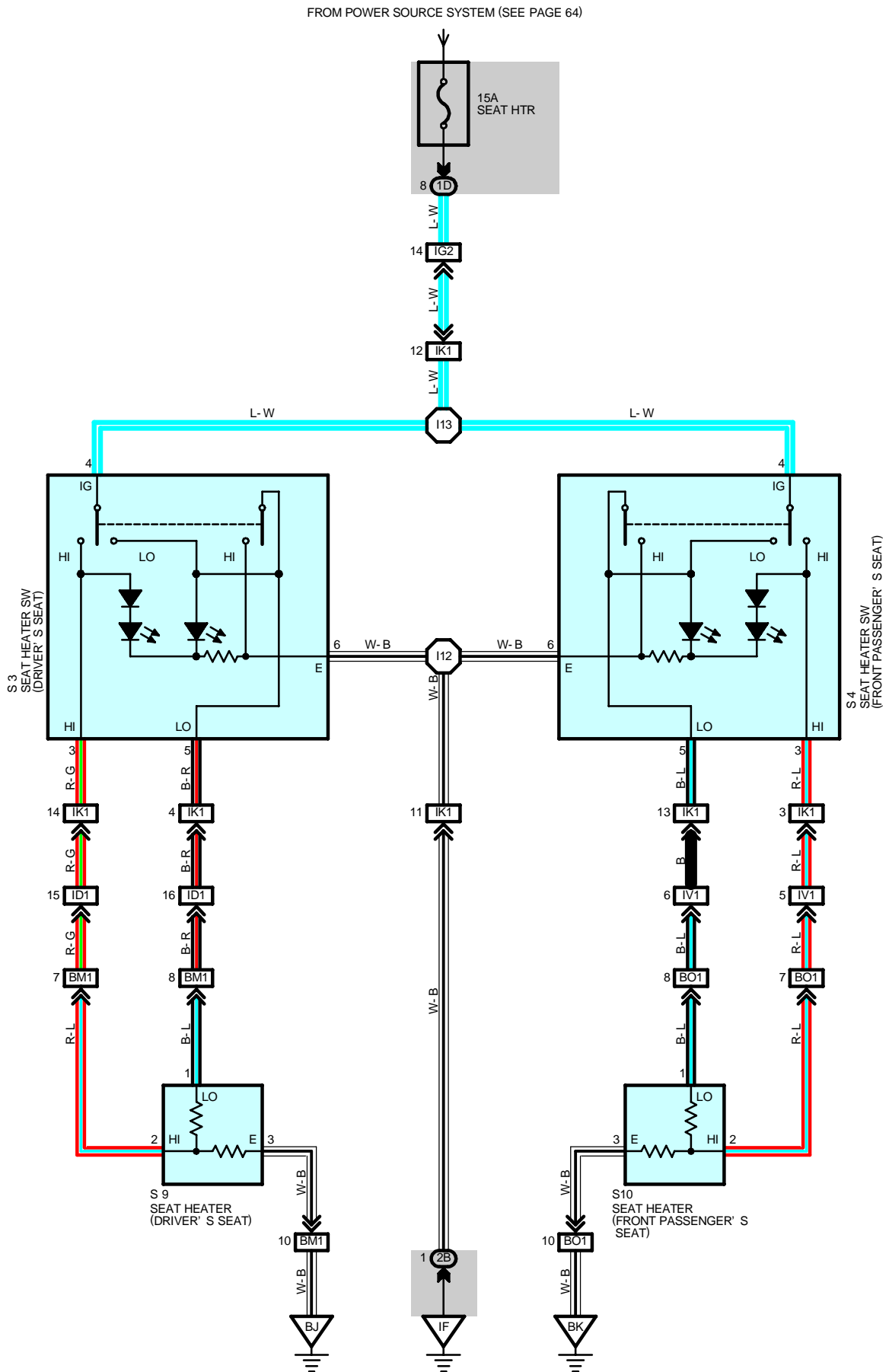
Code	See Page	Ground Points Location
IF	48	Set Bolt of Cowl Side J/B LH

## ○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I3	50	Instrument Panel Wire			



# SEAT HEATER



## SERVICE HINTS

### S3 SEAT HEATER SW (DRIVER'S SEAT)

4-GROUND : Approx. 12 volts with ignition SW at **ON** or **ST** position

6-GROUND : Always continuity

### S4 SEAT HEATER SW (FRONT PASSENGER'S SEAT)

4-GROUND : Approx. 12 volts with ignition SW at **ON** or **ST** position

6-GROUND : Always continuity

## : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
S3	41	S9	44		
S4	41	S10	44		

## : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)

## : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ID1	48	Dash Wire and Floor Wire (Left Kick Panel)
IG2	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IK1	50	Console Box Wire and Dash Wire (Left Side of Front Console)
IV1	54	Dash Wire and Floor No.2 Wire (Behind the Glove Box)
BM1	60	Floor Wire and Front Seat LH Wire (Front Side Under the Driver's Seat)
BO1	60	Floor No.2 Wire and Front Seat RH Wire (Front Side Under the Front Passenger's Seat)

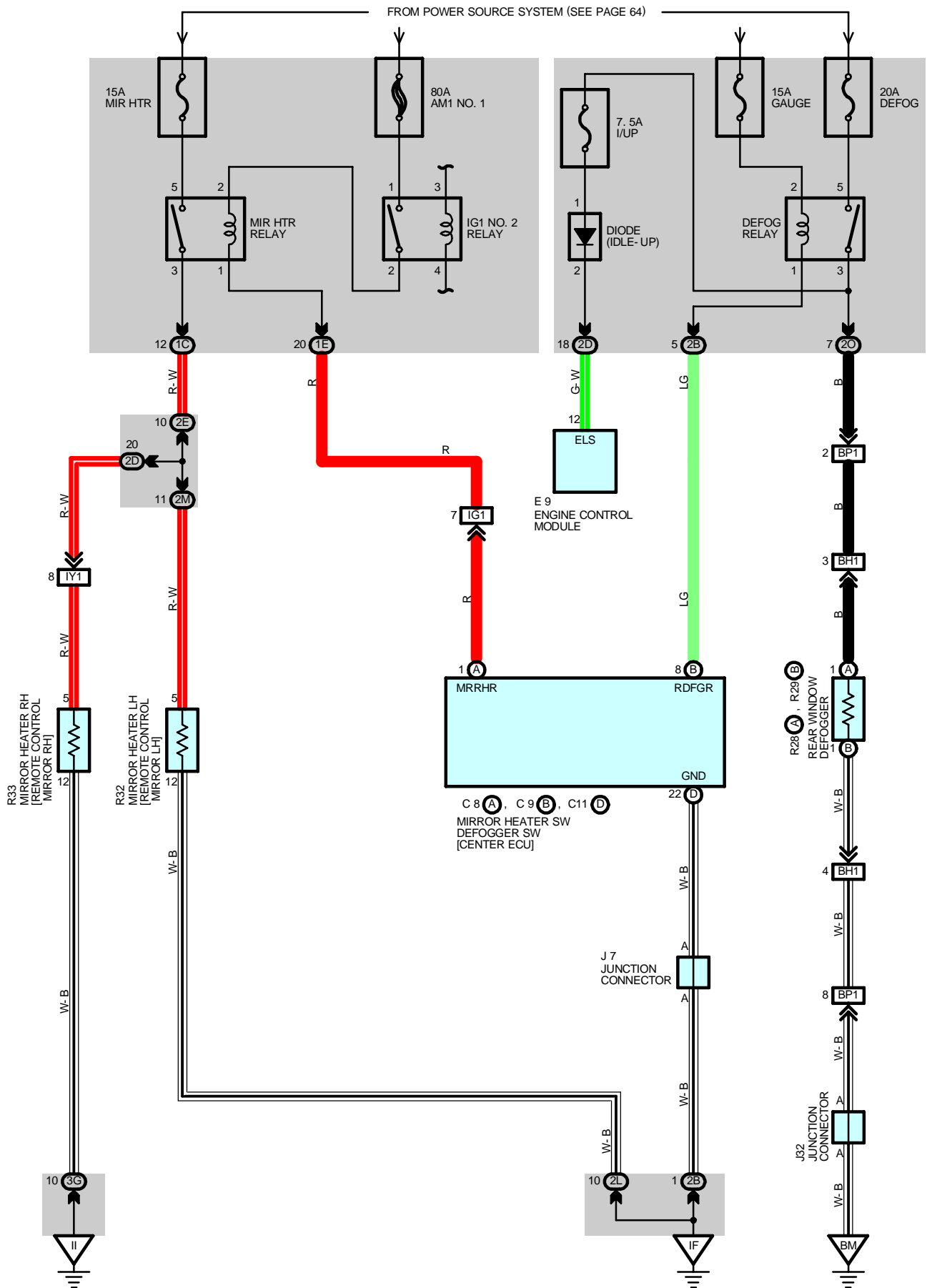
## : GROUND POINTS

Code	See Page	Ground Points Location
IF	48	Set Bolt of Cowl Side J/B LH
BJ	56	Under the Driver's Seat
BK	56	Front Side Under the Front Passenger's Seat

## : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I12	50	Console Box Wire	I13	50	Console Box Wire

# REAR WINDOW DEFOGGER AND MIRROR HEATER



**SERVICE HINTS****DEFOG RELAY**

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

**MIR HTR RELAY**

5-3 : Closed with ignition SW at **ON** or **ST** position and mirror heater SW on

**○ : PARTS LOCATION**

Code	See Page	Code	See Page	Code	See Page	
C8	A	40	J7	41	R32	43
C9	B	40	J32	42	R33	43
C11	D	40	R28	A	43	
E9		40	R29	B	43	

**○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1E		
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		
2E	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2L	26	Front Door LH Wire and Cowl Side J/B LH (Left Kick Panel)
2M		
2O	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
3G	32	Front Door RH Wire and Cowl Side J/B RH (Right Kick Panel)

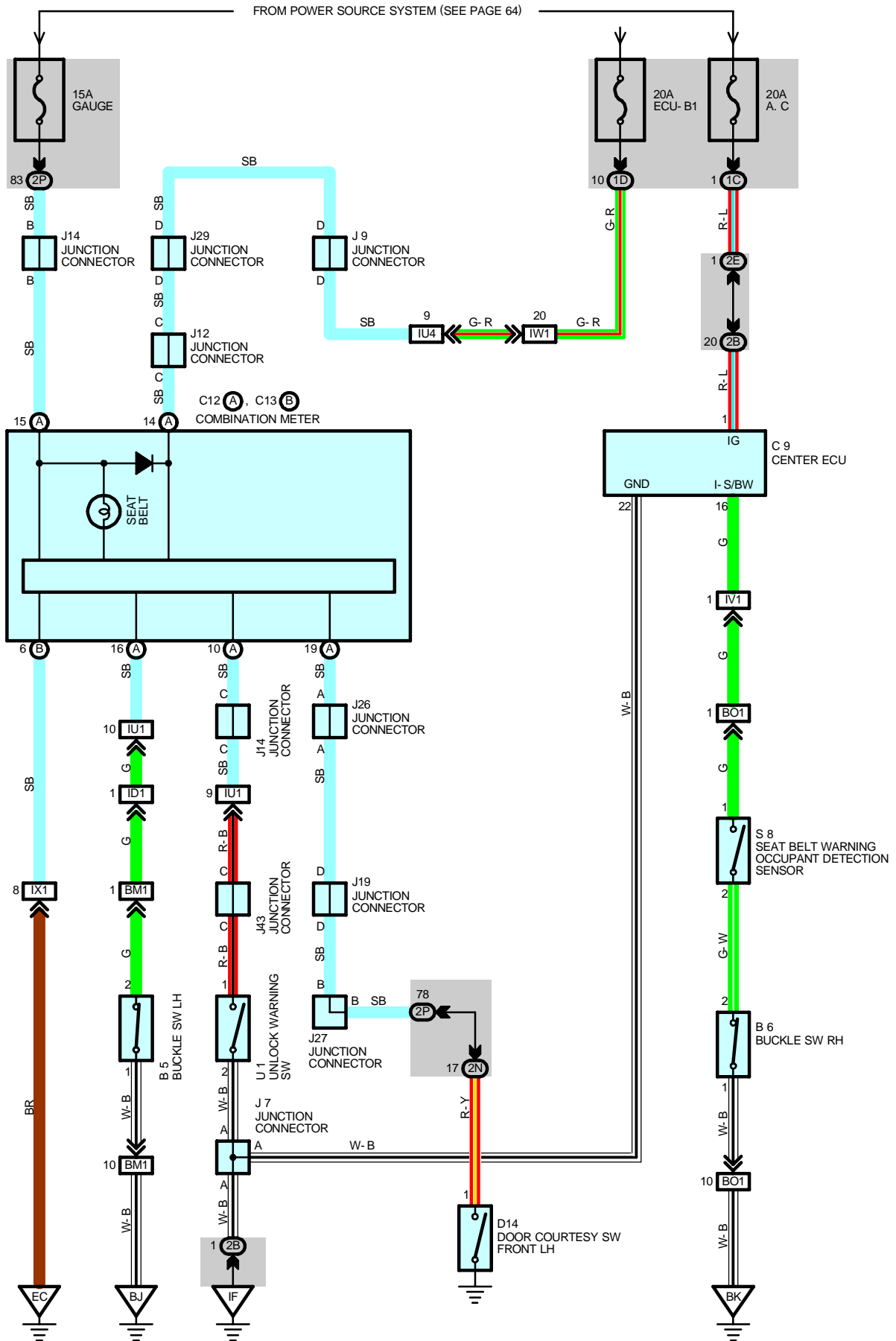
**□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IY1	54	Front Door RH Wire and Dash Wire (Right Kick Panel)
BH1	58	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BP1	58	Pillar No.1 Wire and Floor Wire (Left Rear Side Quarter Panel)

**▽ : GROUND POINTS**

Code	See Page	Ground Points Location
IF	48	Set Bolt of Cowl Side J/B LH
II	48	Set Bolt of Cowl Side J/B RH
BM	56	Left Rear Side Quarter Panel

# KEY REMINDER AND SEAT BELT WARNING



## SYSTEM OUTLINE

### 1. SEAT BELT WARNING SYSTEM

When the ignition SW turned on, a signal is input to the combination meter and center ECU. To determine whether the driver has fastened the seat belt, a signal is input from the buckle SW LH to the combination meter TERMINAL (A) 16. 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) is installed in the front passenger seat, and determines whether the seat belt is fastened. When not fastened, the signals from the seat belt warning occupant detection sensor and buckle SW RH is input to center ECU TERMINAL 16, 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 (A) 10, and from the door courtesy SW front LH to combination meter TERMINAL (A) 19. 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

### S8 SEAT BELT WARNING OCCUPANT DETECTION SENSOR

1-2 : Closed with passenger sit on the front passenger seat

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B5	44	J7	41	J27	41
B6	44	J9	41	J29	41
C9	40	J12	41	J43	41
C12	A	J14	41	S8	44
C13	B	J19	41	U1	41
D14	42	J26	41		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1D		
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2N	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)

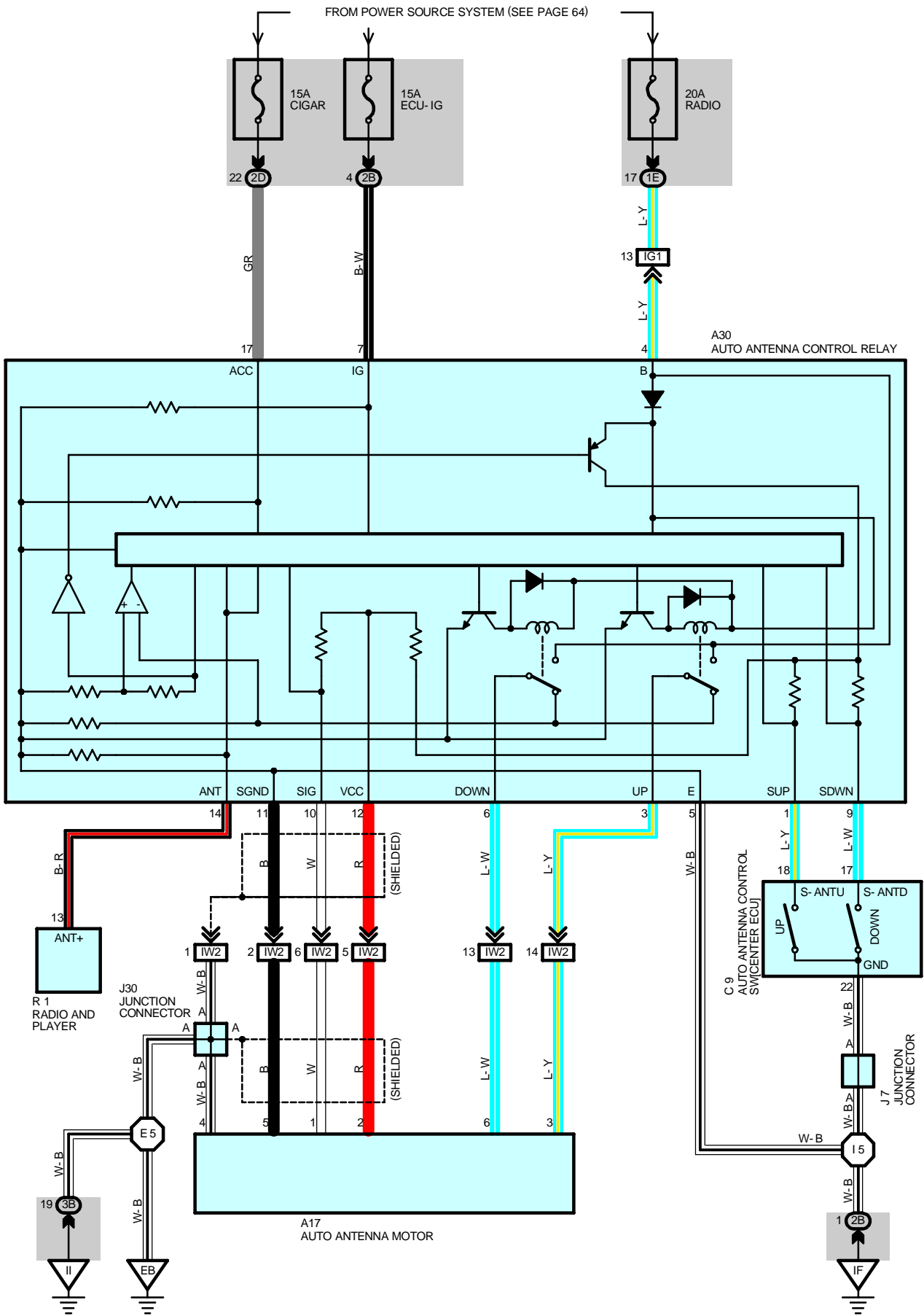
## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ID1	48	Dash Wire and Floor Wire (Left Kick Panel)
IU1	52	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU4		
IV1	54	Dash Wire and Floor No.2 Wire (Behind the Glove Box)
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
IX1	54	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
BM1	60	Floor Wire and Front Seat LH Wire (Front Side Under the Driver's Seat)
BO1	60	Floor No.2 Wire and Front Seat RH Wire (Front Side Under the Front Passenger's Seat)

## ▽ : GROUND POINTS

Code	See Page	Ground Points Location
EC	46	Rear Bank of Right Cylinder Head
IF	48	Set Bolt of Cowl Side J/B LH
BJ	56	Under the Driver's Seat
BK	56	Front Side Under the Front Passenger's Seat

# AUTO ANTENNA



**SERVICE HINTS****A30 AUTO ANTENNA CONTROL RELAY**4-GROUND : Always approx. **12** volts7-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position17-GROUND : Approx. **12** volts with ignition SW at **ACC** or **ON** position

5-GROUND : Always continuity

 : **PARTS LOCATION**

Code	See Page	Code	See Page	Code	See Page
A17	<a href="#">38</a>	C9	<a href="#">40</a>	J30	<a href="#">41</a>
A30	<a href="#">40</a>	J7	<a href="#">41</a>	R1	<a href="#">41</a>

 : **JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1E	<a href="#">23</a>	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2B	<a href="#">26</a>	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		
3B	<a href="#">32</a>	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)

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

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	<a href="#">50</a>	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IW2	<a href="#">54</a>	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)

 : **GROUND POINTS**

Code	See Page	Ground Points Location
EB	<a href="#">46</a>	Front Right Side of Fender Apron
IF	<a href="#">48</a>	Set Bolt of Cowl Side J/B LH
II	<a href="#">48</a>	Set Bolt of Cowl Side J/B RH

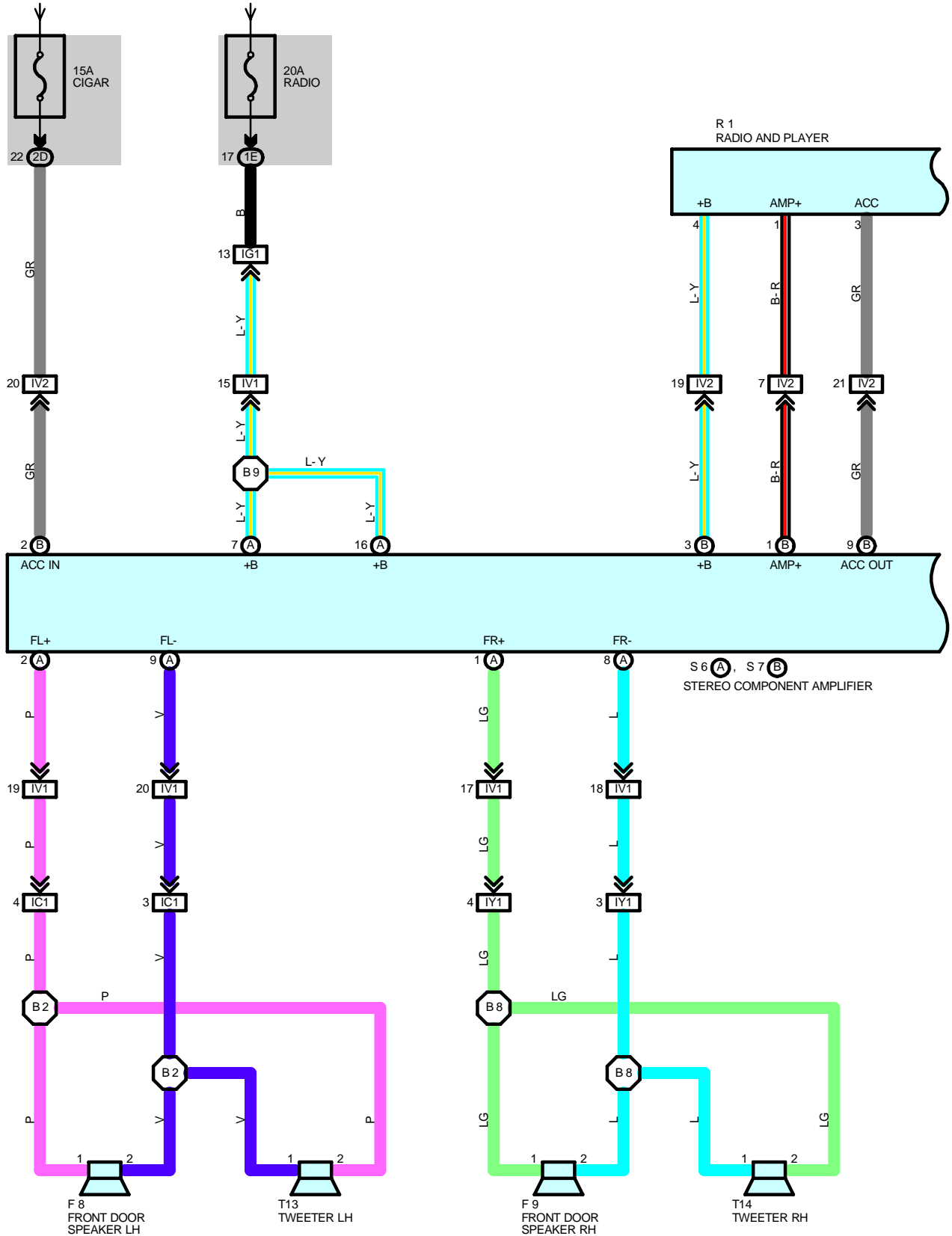
 : **SPLICE POINTS**

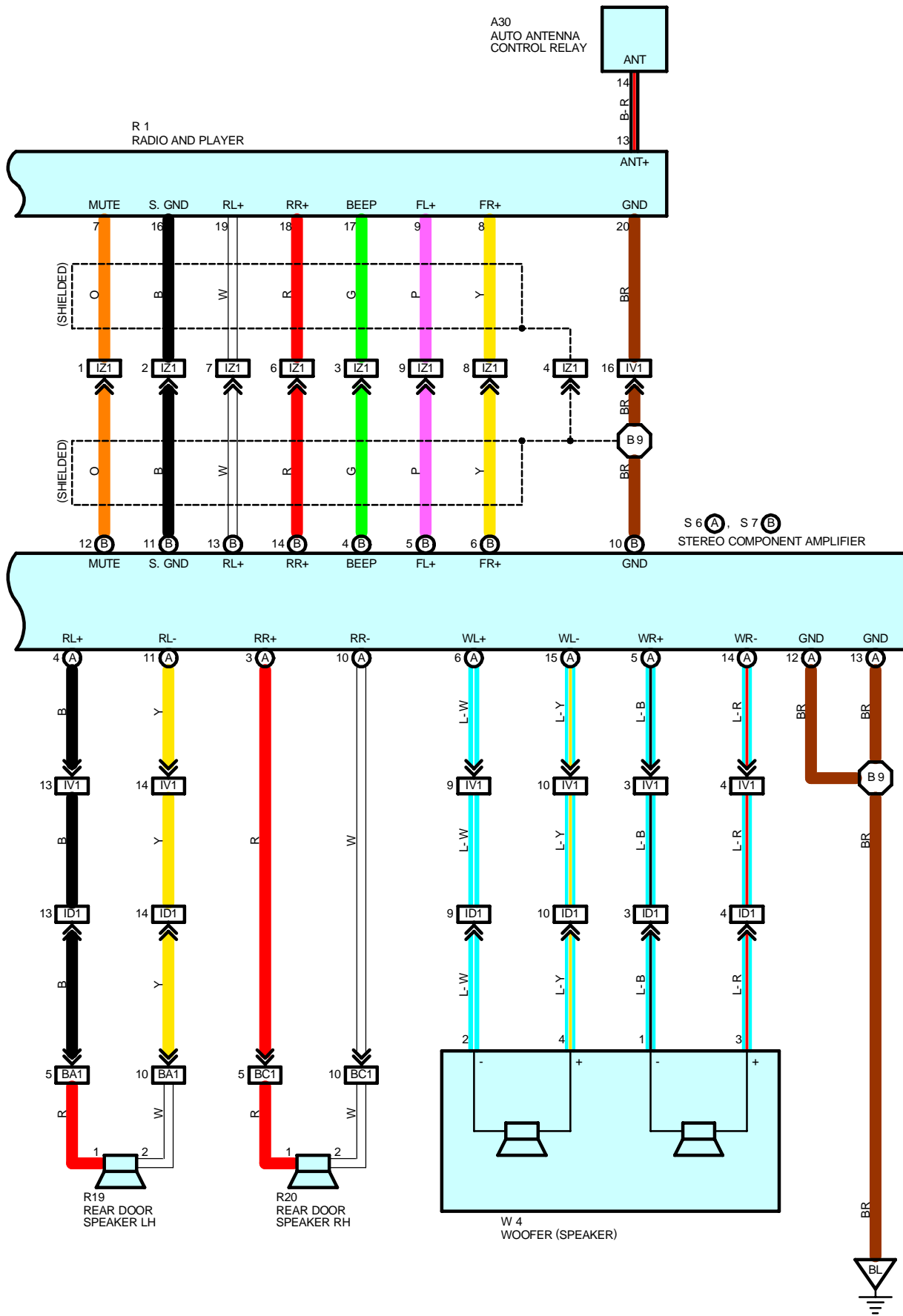
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E5	<a href="#">46</a>	Engine Room No.2 Wire	I5	<a href="#">50</a>	Dash Wire



# RADIO AND PLAYER

FROM POWER SOURCE SYSTEM (SEE PAGE 64)





# RADIO AND PLAYER

## SERVICE HINTS

### R1 RADIO AND PLAYER

20-GROUND : Always continuity

### S6 (A), S7 (B) STEREO COMPONENT AMPLIFIER

(B) 2-GROUND : Approx. 12 volts with ignition SW at **ACC** or **ON** position

(A) 7, (A) 16-GROUND : Always approx. 12 volts

(A) 12, (A) 13-GROUND : Always continuity

## ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page	
A30	40	R19	43	T13	43	
F8	42	R20	43	T14	43	
F9	42	S6	A	43	W4	43
R1	41	S7	B	43		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1E	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2D	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC1	48	Front Door LH Wire and Dash Wire (Left Kick Panel)
ID1	48	Dash Wire and Floor Wire (Left Kick Panel)
IG1	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IV1	54	Dash Wire and Floor No.2 Wire (Behind the Glove Box)
IV2		
IY1	54	Front Door RH Wire and Dash Wire (Right Kick Panel)
IZ1	54	Floor No.2 Wire and Dash Wire (Right Side of Rear Console)
BA1	56	Rear Door LH Wire and Floor Wire (Left Side of Center Pillar)
BC1	56	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)

## ▽ : GROUND POINTS

Code	See Page	Ground Points Location
BL	56	Rear Side Under the Front Passenger's Seat

## ○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B2	58	Front Door LH Wire	B9	58	Floor No.2 Wire
B8	58	Front Door RH Wire			





**SERVICE HINTS****RR HTR RELAY**

5-3 : Closed with the ignition SW at **ON** position and the rear heater SW on

**R4 REAR HEATER SW**

1-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position

5-6 : Continuity with rear heater SW at **LO** or **HI** position

6-GROUND : Always continuity

 : **PARTS LOCATION**

Code	See Page	Code	See Page	Code	See Page	
C6	A	40	J7	41	R22	43
C8	C	40	J31	42	R23	43
C9	D	40	R4	41	R24	43

 : **JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		
2E	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2N	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
3C	32	Dash Wire and Cowl Side J/B RH (Right Kick Panel)

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

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ID1	48	Dash Wire and Floor Wire (Left Kick Panel)
IP1	52	Rear Console Box Wire and Dash Wire (Right Side of Rear Console)

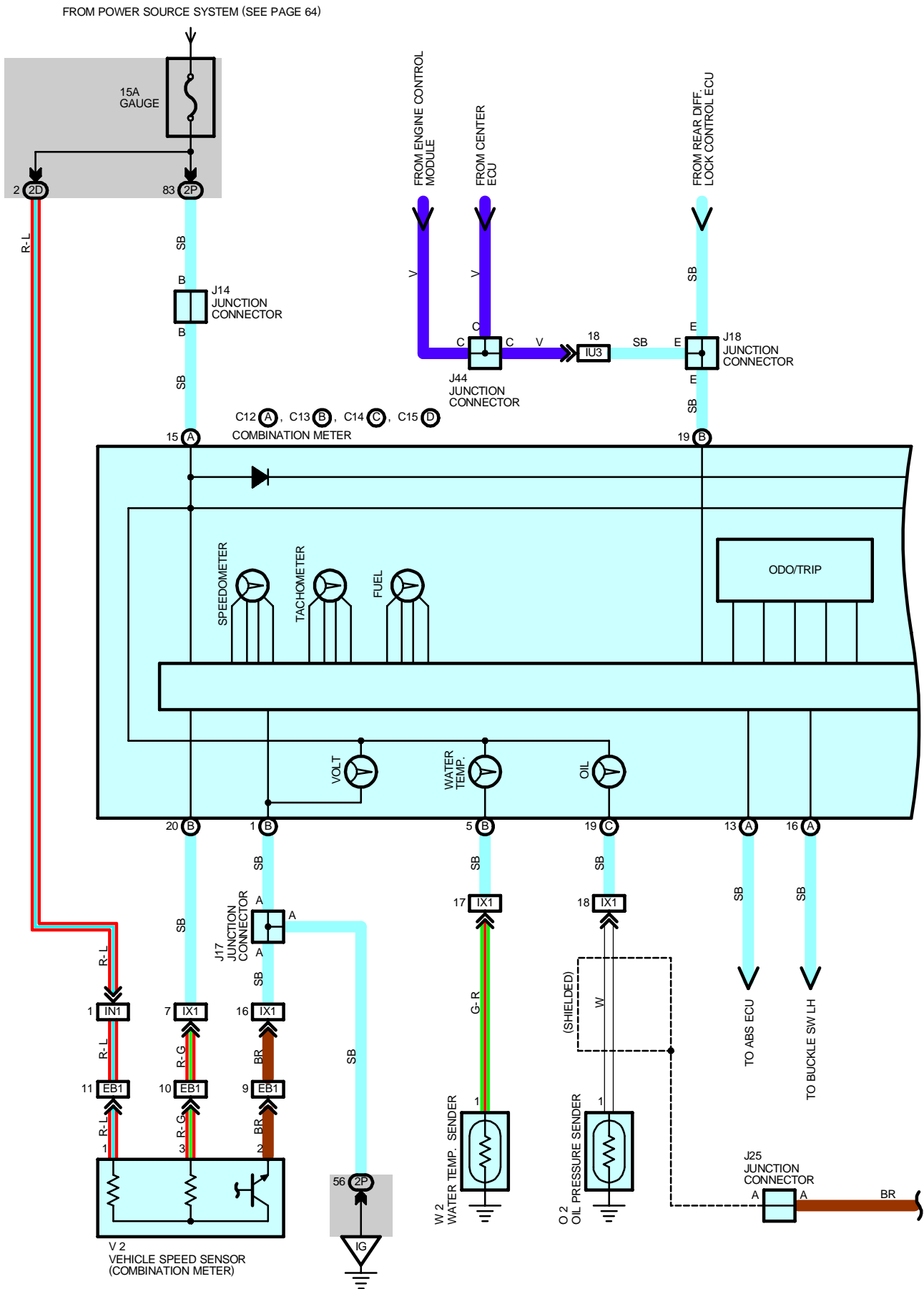
 : **GROUND POINTS**

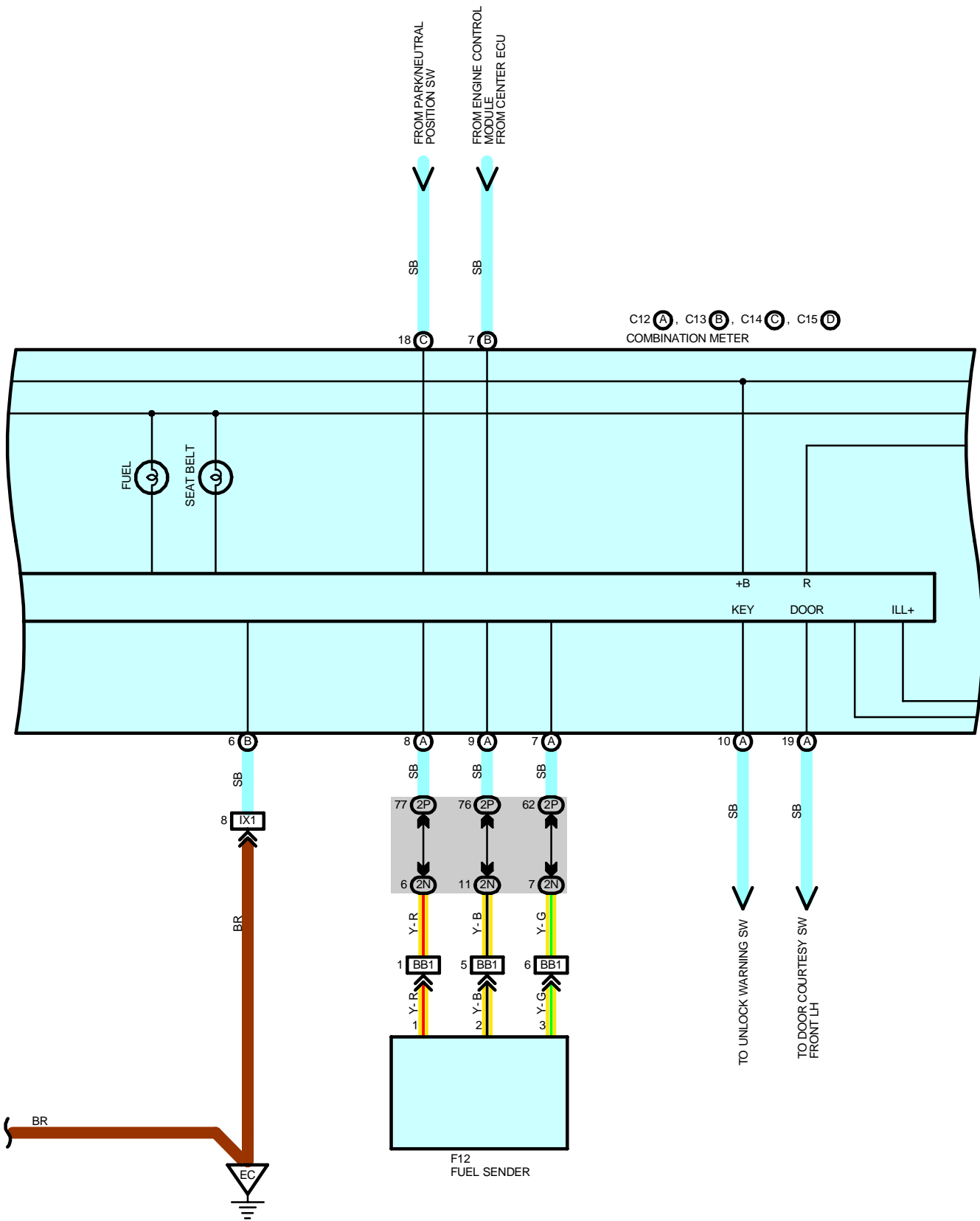
Code	See Page	Ground Points Location
IF	48	Set Bolt of Cowl Side J/B LH
II	48	Set Bolt of Cowl Side J/B RH
BJ	56	Under the Driver's Seat

 : **SPLICE POINTS**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I6	50	Dash Wire	B4	58	Floor Wire

# COMBINATION METER

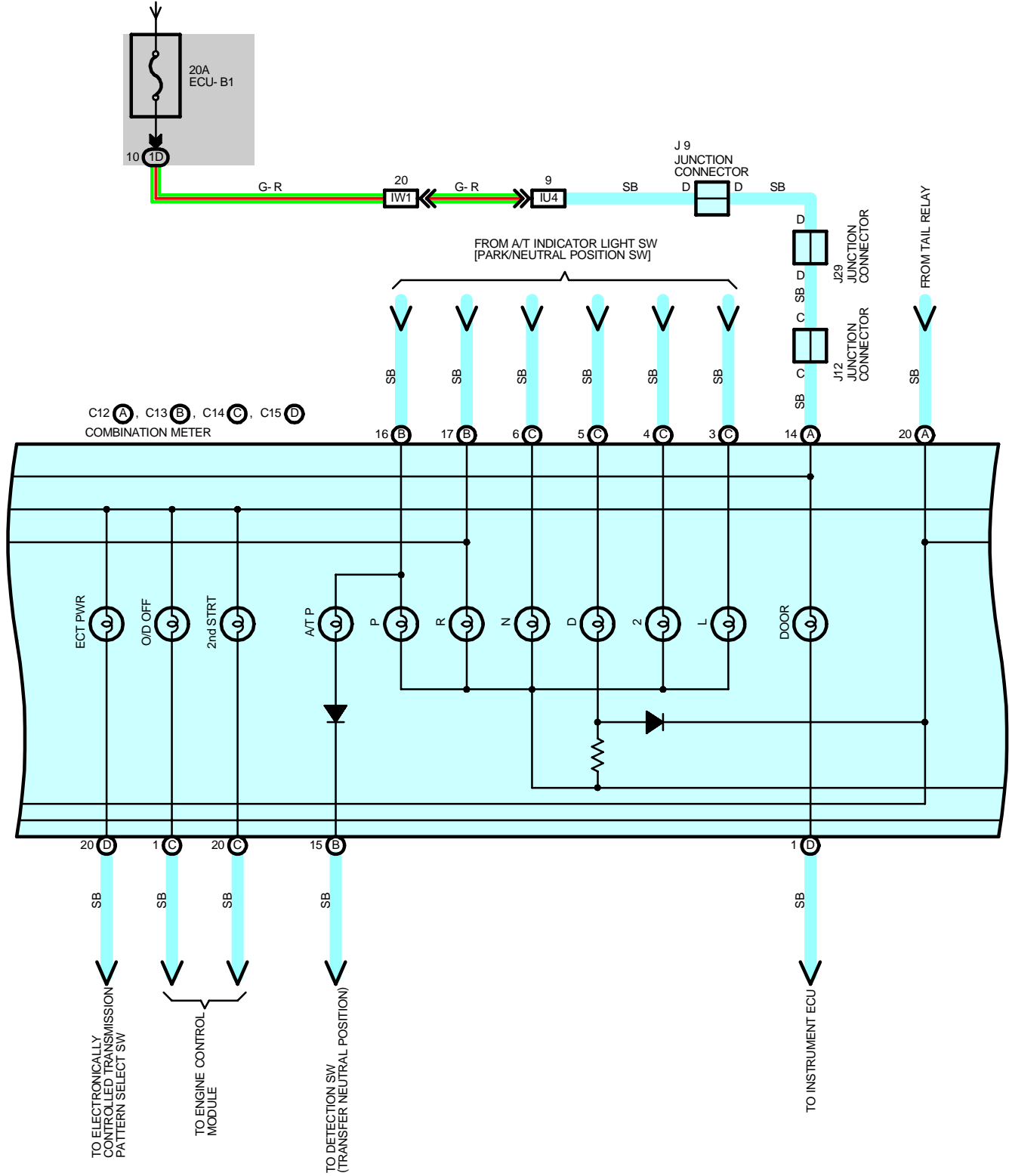






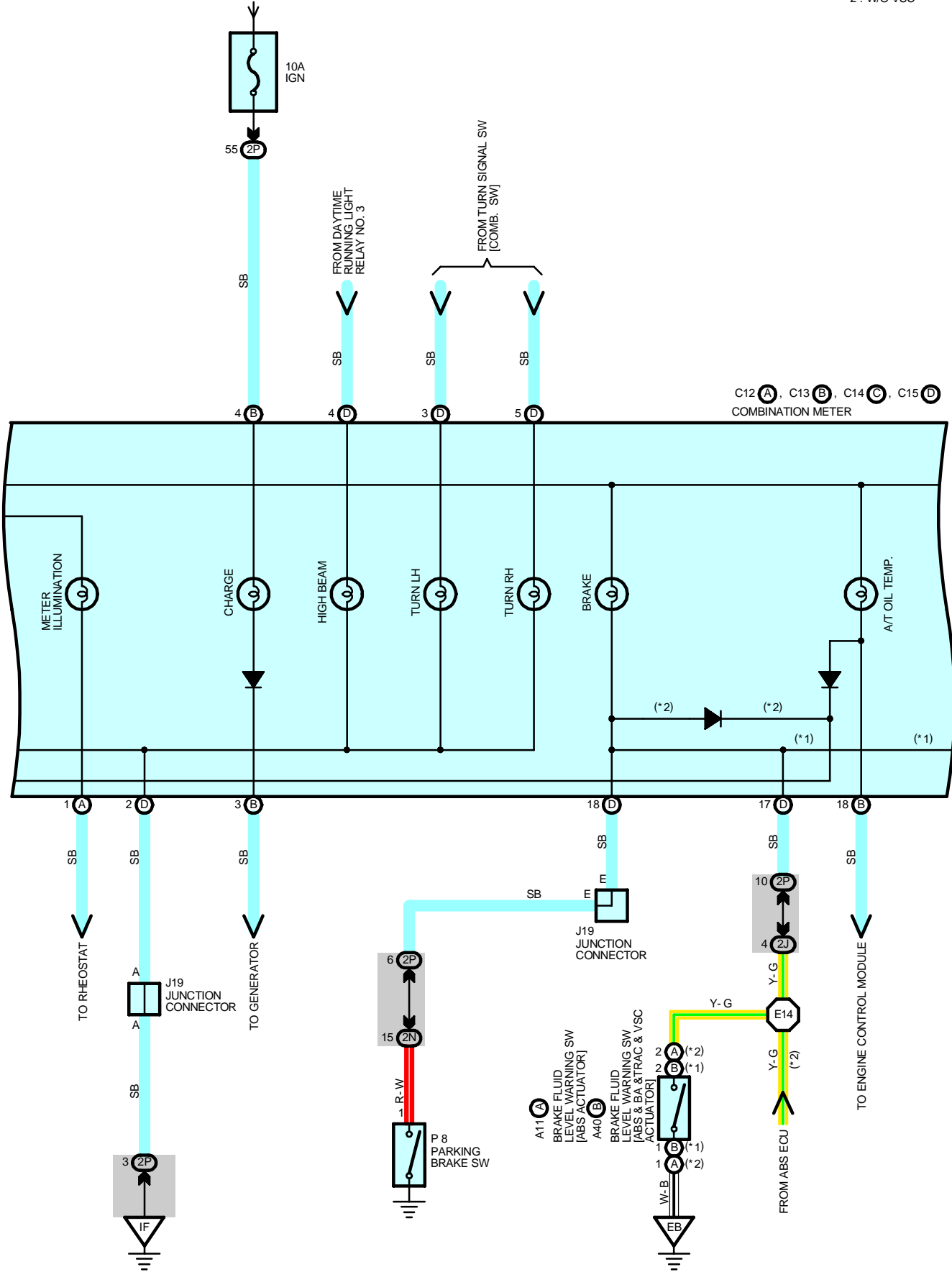
# COMBINATION METER

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



FROM POWER SOURCE SYSTEM (SEE PAGE 64)

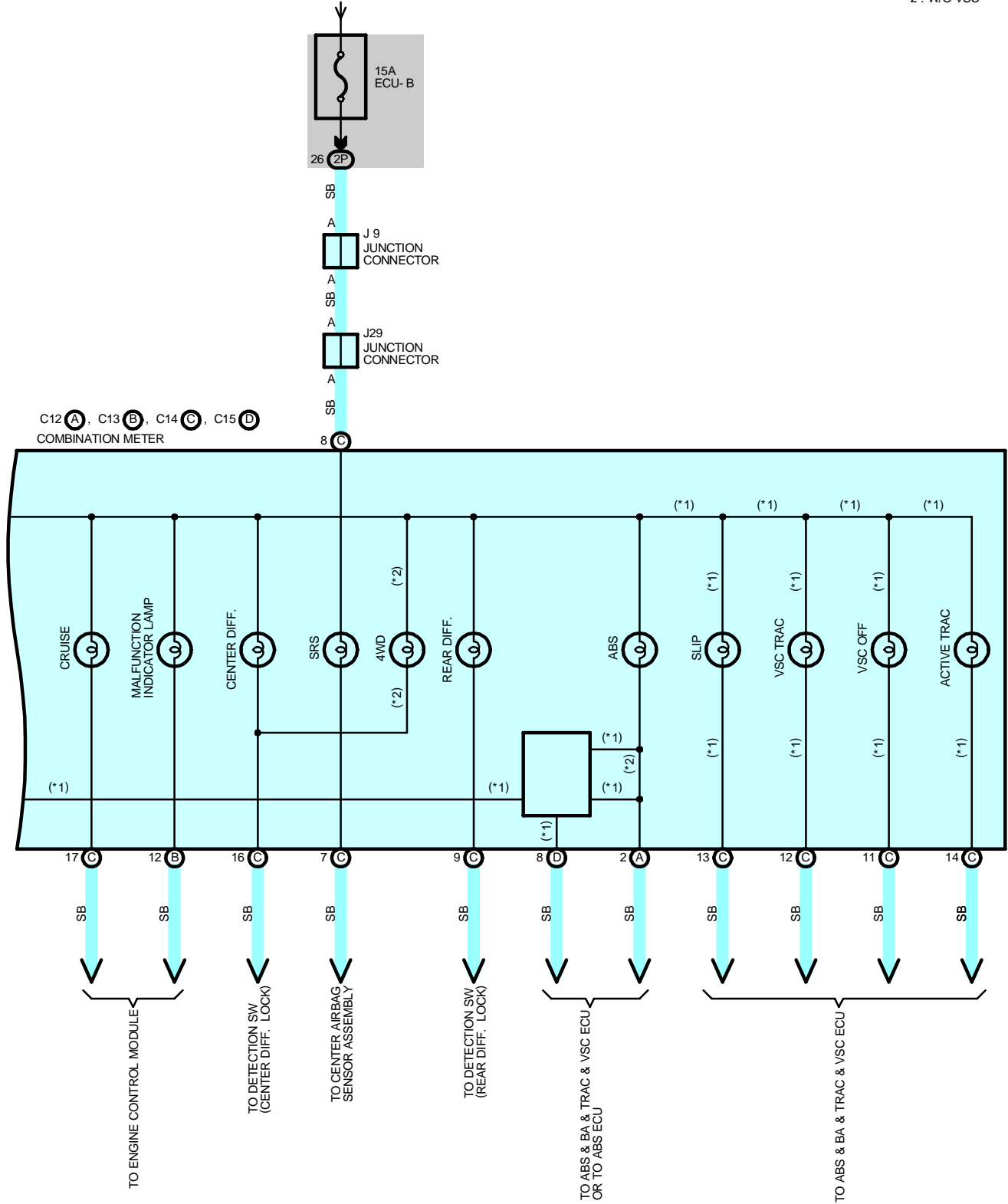
\* 1 : W/ VSC  
\* 2 : W/O VSC



# COMBINATION METER

FROM POWER SOURCE SYSTEM (SEE PAGE 64)

\* 1 : W/ VSC  
\* 2 : W/O VSC



## SERVICE HINTS

### A11 BRAKE FLUID LEVEL WARNING SW [ABS ACTUATOR]

1-2 : Closed with float down

### P8 PARKING BRAKE SW

1-GROUND : Closed with parking brake lever pulled up

### C12 (A), C13 (B), C14 (C), C15 (D) COMBINATION METER

(A) 14, (C) 8-GROUND : Always approx. 12 volts

(A) 15, (B) 4-GROUND : Approx. 12 volts with ignition SW at **ON** or **ST** position

(B) 1, (B) 6, (D) 2-GROUND : Always continuity

### W2 WATER TEMP. SENDER

1-GROUND : Approx. 160- 240  $\Omega$  (50°C, 122°F)

: Approx. 17.1- 21.2  $\Omega$  (120°C, 248°F)

## ○ : PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
A11	A	38	J9		41	J29		41
A40	B	40	J12		41	J44		41
C12	A	40	J14		41	O2		39
C13	B	40	J17		41	P8		43
C14	C	40	J18		41	V2		39
C15	D	40	J19		41	W2		39
F12		42	J25		41			

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2D	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2J	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2N	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	46	Engine Wire and Transmission Wire (On the Transmission)
IN1	52	Engine Wire and Dash Wire (Behind the Glove Box)
IU3	52	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU4		
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
IX1	54	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
BB1	56	Floor Wire and Fuel Tank Wire (Near the Fuel Tank)

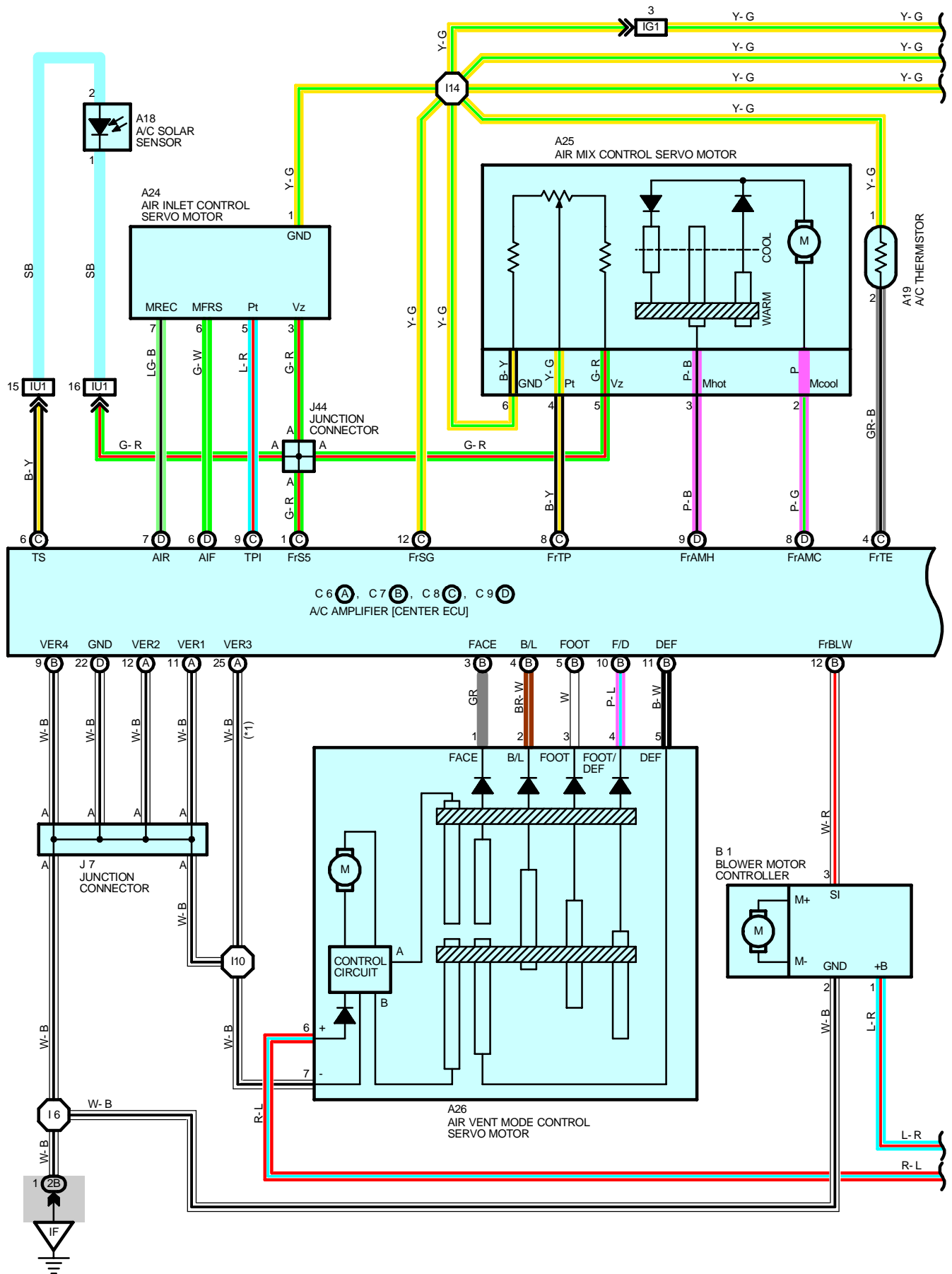
## ▽ : GROUND POINTS

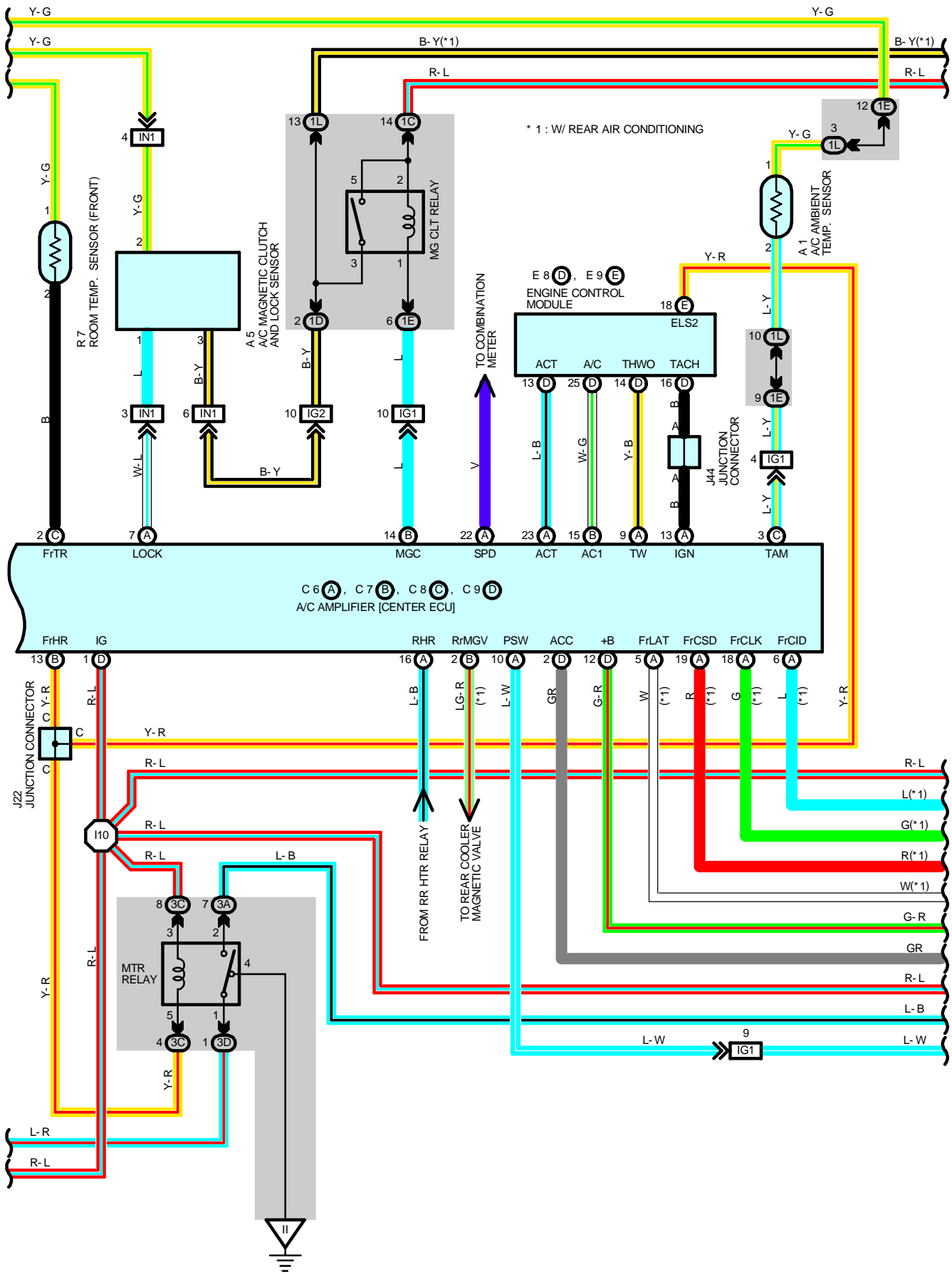
Code	See Page	Ground Points Location
EB	46	Front Right Side of Fender Apron
EC	46	Rear Bank of Right Cylinder Head
IF	48	Set Bolt of Cowl Side J/B LH
IG		

## ○ : SPLICE POINTS

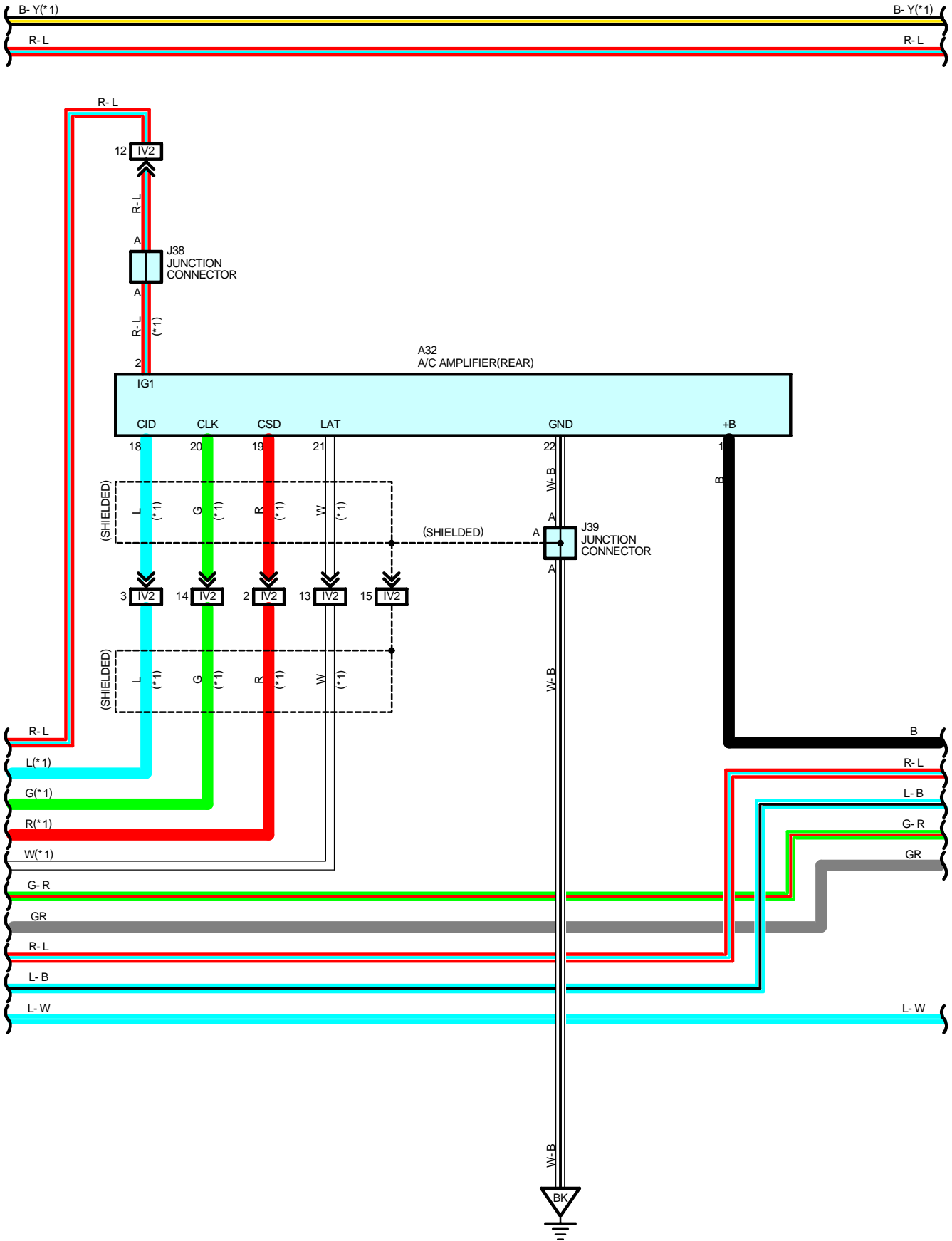
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E14	46	Engine Room No.2 Wire			

# CONDENSER FAN AND FRONT AIR CONDITIONING

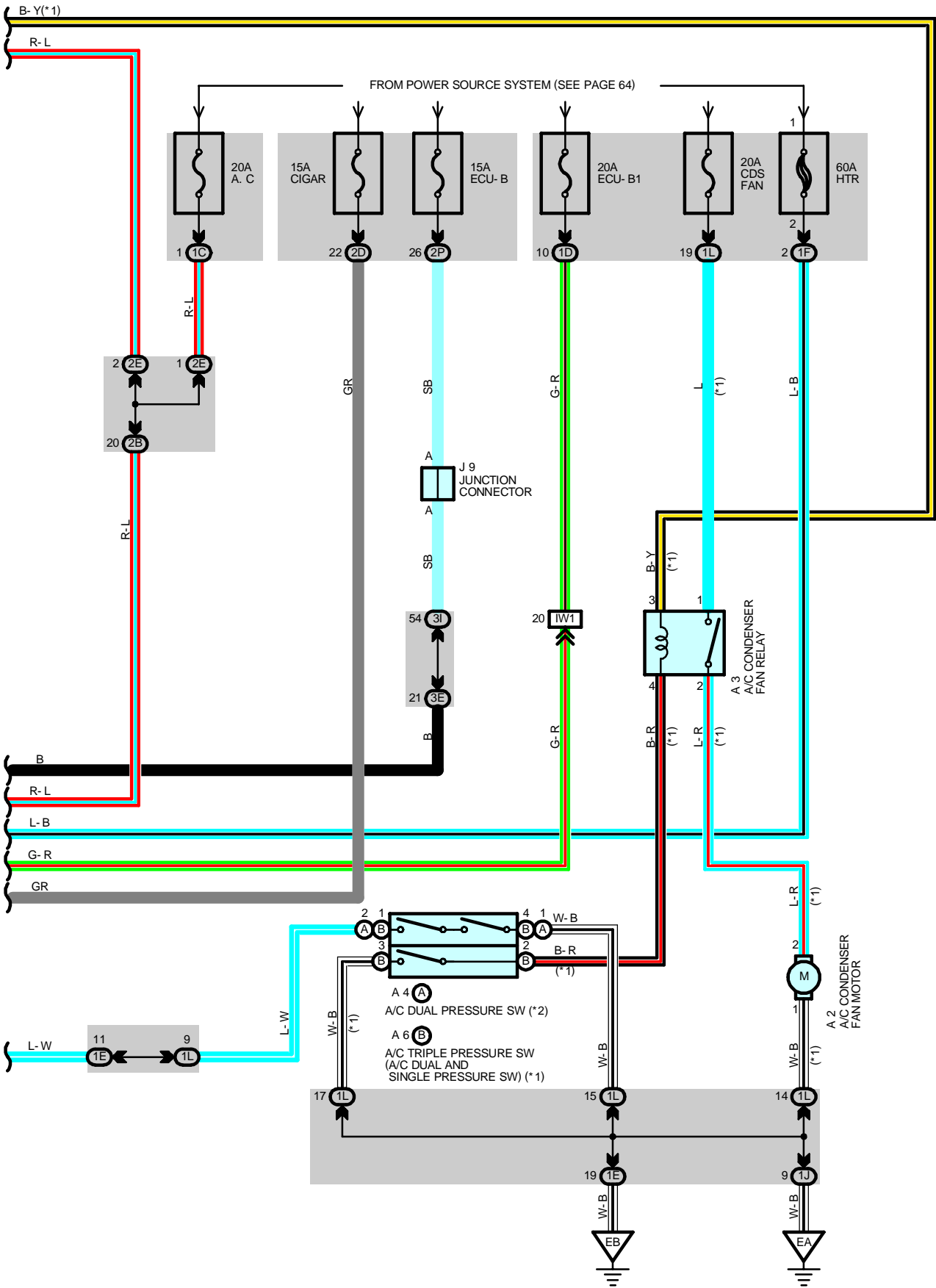




# CONDENSER FAN AND FRONT AIR CONDITIONING



\* 1 : W REAR AIR CONDITIONING  
 \* 2 : W/O REAR AIR CONDITIONING





# CONDENSER FAN AND FRONT AIR CONDITIONING

## SYSTEM OUTLINE

### 1. HEATER BLOWER OPERATION

Manual operation

When the blower speed is set at any speed by the blower control SW, the center ECU sends a signal to the blower motor controller, and controls the blower motor speed.

Auto operation

When the auto SW is operated, the center ECU sends signals to the blower motor controller, according to the signals from respective sensors, commands from the temperature SW etc., and controls the blower motor automatically.

### 2. AIR INLET CONTROL SERVO MOTOR CONTROL

When the FRESH/RECIRC select SW is switched to RECIRC, the motor in the air inlet control servo motor rotates to move the damper to the RECIRC side. The damper position is recognized by the A/C amplifier [Center ECU] TERMINAL TPI, and rotates the motor until the damper reaches its position.

When the FRESH/RECIRC select SW is switched to FRESH, the motor in the air inlet control servo motor rotates to move the damper to the FRESH side. The damper position is recognized by the A/C amplifier [Center ECU] TERMINAL TPI, and rotates the motor until the damper reaches its position.

### 3. AIR VENT MODE CONTROL SERVO MOTOR

When the mode select SW in the center ECU is pushed, a signal is sent from the center ECU, and activates the air vent mode control servo motor. This causes the servo motor to rotate to the position selected using the mode select SW (FACE, BI-LEVEL, FOOT, FOOT/DEF, DEF), and moves the damper.

### 4. AIR MIX CONTROL SERVO MOTOR

When the temperature control SW in the center ECU is pushed, a signal is sent from the center ECU, and activates the air mix control servo motor. The motor and damper is moved until it reaches the temperature set by the temperature control SW.

### 5. AIR CONDITIONING OPERATION

The center ECU receives various signals, i. e., the engine RPM from the crankshaft position sensor, outlet temperature from the A/C ambient temp. sensor, coolant temperature from the engine coolant temp. sensor, and the lock signal from the A/C compressor, etc. When the engine is started and the A/C SW is turned on, a signal is sent to the center ECU. As a result, the A/C magnetic clutch is turned on and operates the compressor.

In addition, when the engine control module detects that the A/C magnetic clutch is on and the A/C compressor is operating, it controls the engine in the direction to avoid lowering the engine RPM during A/C operation.

When any of the following signals are sent to the center ECU, the A/C is turned off.

- \* Coolant temp. is high.
- \* Outlet air temp. is low.
- \* Large difference between the engine speed and compressor speed.
- \* The refrigerant pressure is abnormally high or low.

### 6. CONDENSER FAN MOTOR OPERATION (w/ REAR AIR CONDITIONING)

When the A/C is operating and the A/C single pressure SW is on, the current flows from the A.C fuse to MG CLT relay TERMINAL 5 to TERMINAL 3 to A/C condenser fan relay TERMINAL 3 to TERMINAL 4 to A/C single pressure SW TERMINAL 2 to TERMINAL 3 to GROUND, and turns on the A/C condenser fan relay. As a result, the current flows from the CDS FAN fuse to A/C condenser fan relay TERMINAL 1 to TERMINAL 2 to A/C condenser fan motor TERMINAL 2 to TERMINAL 1 to GROUND, and operates the A/C condenser fan motor.

## SERVICE HINTS

### C6 (A), C7 (B), C9 (D) A/C AMPLIFIER [CENTER ECU]

ACC-GROUND : Approx. 12 volts with ignition SW at ACC or ON position

+B-GROUND : Always approx. 12 volts

AIF-GROUND : Approx. 12 volts with FRESH select SW on

AIR-GROUND : Approx. 12 volts with RECIRC select SW on

VER1, VER2, VER3, VER4, GND-GROUND: Always continuity

### A4 (A) A/C DUAL PRESSURE SW

(A) 2-(A) 1 : Open with the refrigerant pressure at less than approx. 2.0 kgf/cm<sup>2</sup> (196.1 kpa, 28.4 psi) or more than approx. 32.0 kgf/cm<sup>2</sup> (3138.1 kpa, 455 psi)

### A6 (B) A/C TRIPLE PRESSURE SW (A/C DUAL AND SINGLE PRESSURE SW)

(B) 1-(B) 4 : Open with the refrigerant pressure at less than approx. 2.0 kgf/cm<sup>2</sup> (196.1 kpa, 28.4 psi) or more than approx. 32.0 kgf/cm<sup>2</sup> (3138.1 kpa, 455 psi)

(B) 2-(B) 3 : Open below approx. 12.5 kgf/cm<sup>2</sup> (1225 kpa, 178 psi)  
: Closed above approx. 15.5 kgf/cm<sup>2</sup> (1520 kpa, 220 psi)

 : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A1	38	A25	40	E9   E	40
A2	38	A26	40	J7	41
A3	38	A32	42	J9	41
A4   A	38	B1	40	J22	41
A5	38	C6   A	40	J38	42
A6   B	38	C7   B	40	J39	42
A18	40	C8   C	40	J44	41
A19	40	C9   D	40	R7	41
A24	40	E8   D	40		

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1D		
1E		
1F		
1J	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1L		
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		
2E	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3A	32	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3C	32	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3D		
3E	32	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3I	32	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	50	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IG2		
IN1	52	Engine Wire and Dash Wire (Behind the Glove Box)
IU1	52	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IV2	54	Dash Wire and Floor No.2 Wire (Behind the Glove Box)
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)

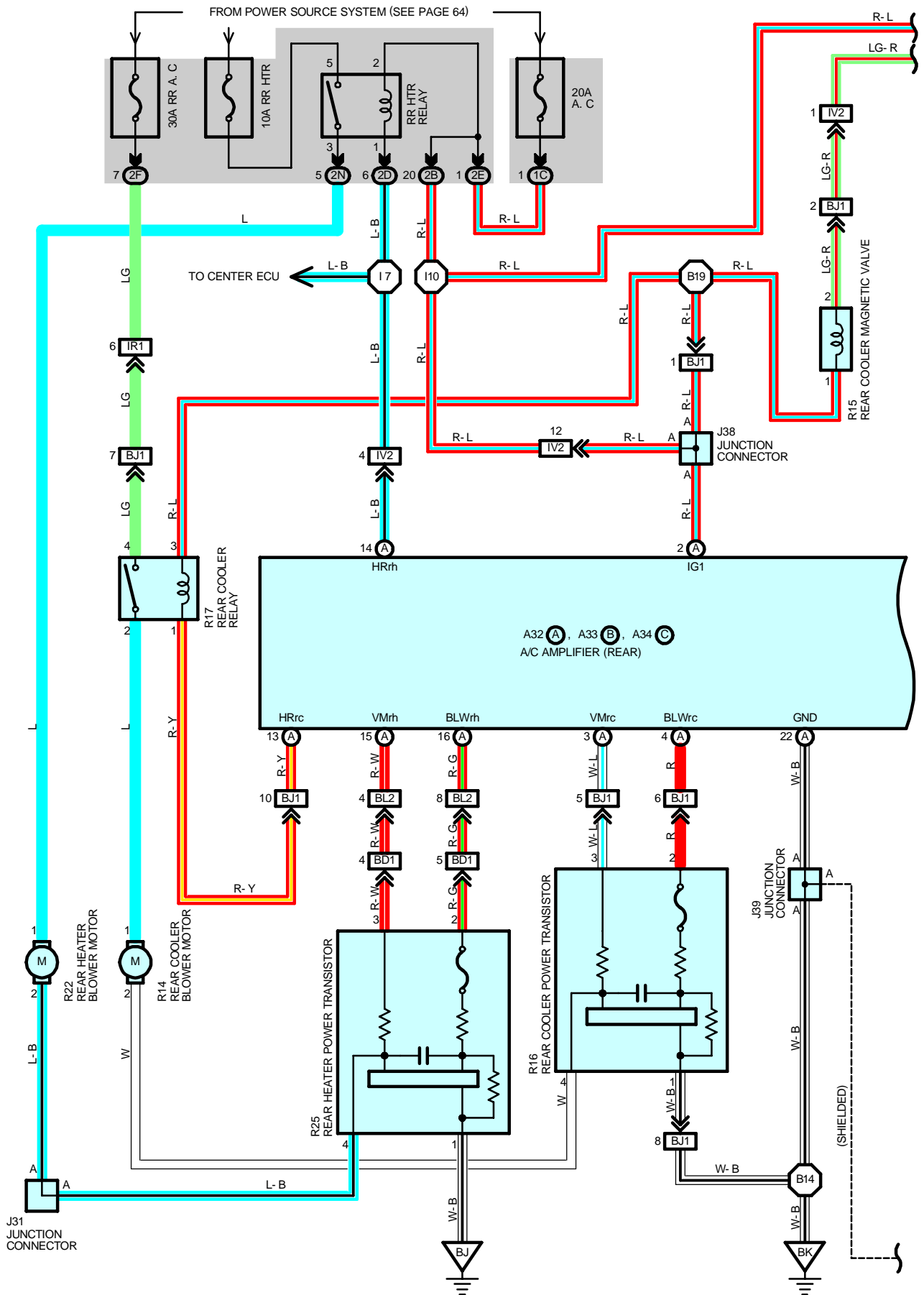
 : GROUND POINTS

Code	See Page	Ground Points Location
EA	46	Front Right Side of Fender Apron
EB		
IF	48	Set Bolt of Cowl Side J/B LH
II	48	Set Bolt of Cowl Side J/B RH
BK	56	Front Side Under the Front Passenger's Seat

 : SPLICE POINTS

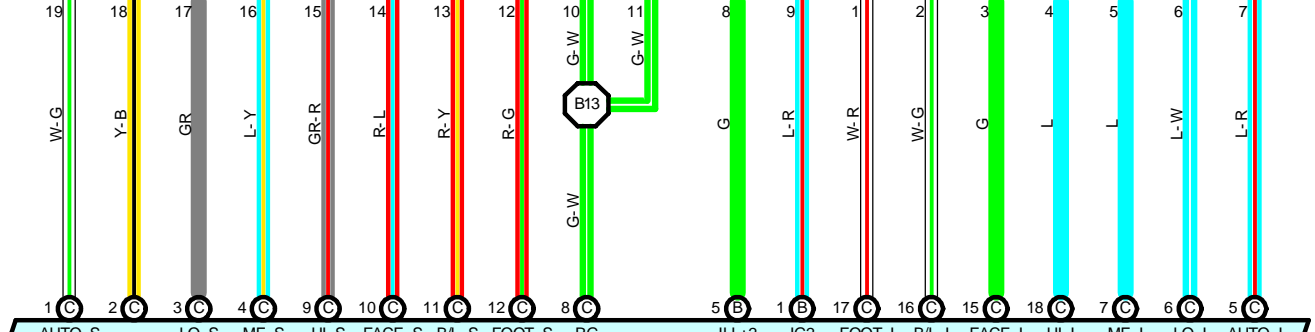
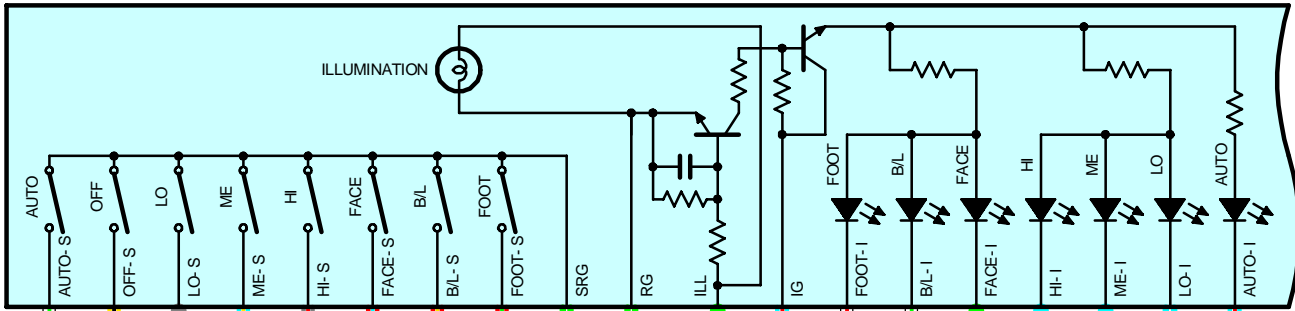
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I6	50	Dash Wire	I14	50	Dash Wire
I10					

# REAR AIR CONDITIONING

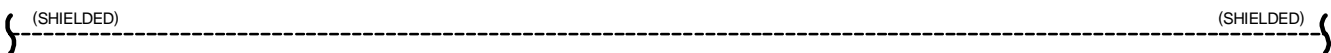
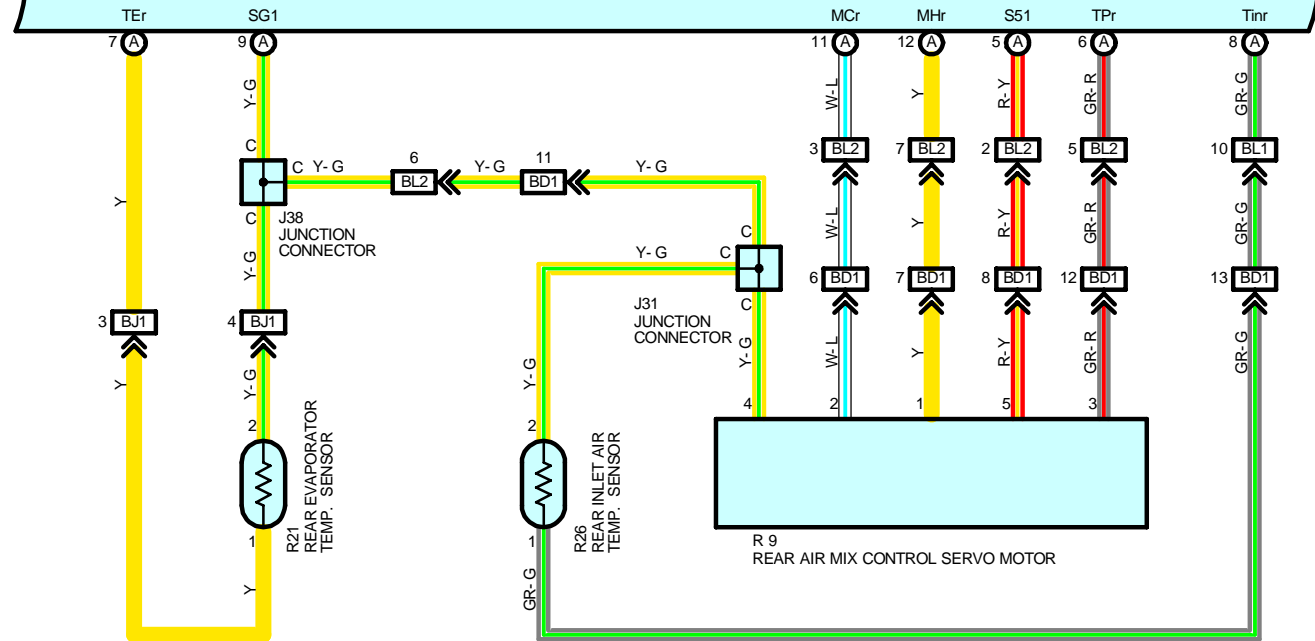




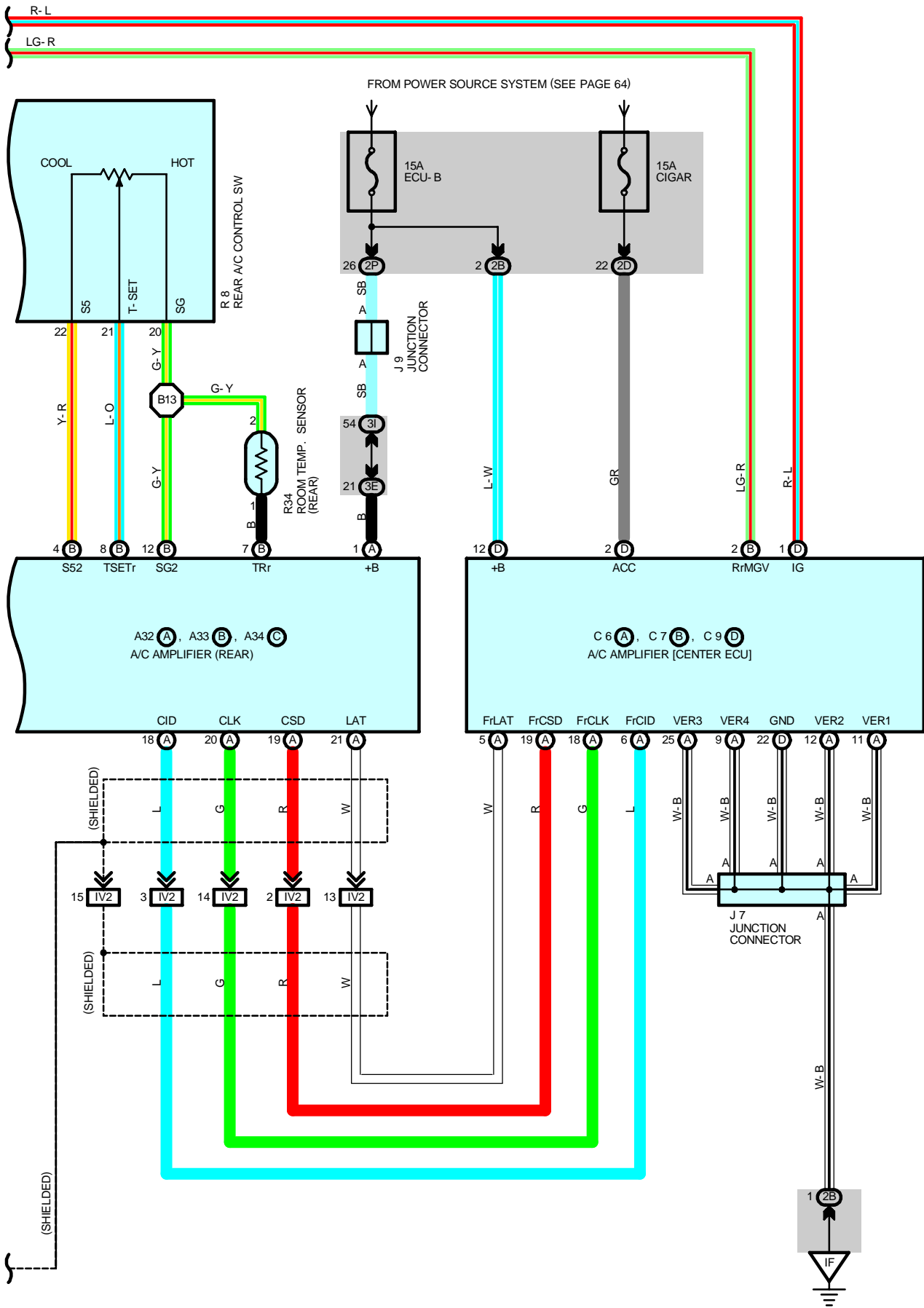
R 8  
REAR A/C CONTROL SW



A32 (A), A33 (B), A34 (C)  
A/C AMPLIFIER (REAR)



# REAR AIR CONDITIONING



## SYSTEM OUTLINE

### 1. COOLER AND HEATER BLOWER OPERATION

\* Manual operation

When the blower control SW in the rear A/C control SW is set to any blower speed, a signal is sent to the A/C amplifier (Rear). The A/C amplifier (Rear) controls the power transistor and operates the rear cooler blower motor and rear heater blower motor at the set speed.

\* Auto operation

When the auto SW in the rear A/C control SW is operated, a signal is sent to the A/C amplifier (Rear). The A/C amplifier (Rear) controls the power transistor according to the signals from respective sensors, and operates the rear cooler blower motor and rear heater blower motor.

### 2. AIR MIX CONTROL SERVO MOTOR CONTROL

When the temperature control lever in the rear A/C control SW is operated, a signal is sent to the A/C amplifier (Rear). The A/C amplifier (Rear) controls the rear air mix control servo motor to operate the damper until it reaches the temperature set by the temperature control lever.

### 3. AIR CONDITIONING OPERATION

The cooler and heater operation can be switched by the mode select SW in the rear A/C control SW.

## SERVICE HINTS

### A32 A/C AMPLIFIER (REAR)

+B-GROUND : Always approx. **12** volts

IG1-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position

GND-GROUND : Always continuity

## ○ : PARTS LOCATION

Code		See Page	Code	See Page	Code	See Page
A32	A	42	J31	42	R17	43
A33	B	42	J38	42	R21	43
A34	C	42	J39	42	R22	43
C6	A	40	R8	43	R25	43
C7	B	40	R9	43	R26	43
C9	D	40	R14	43	R34	43
J7		41	R15	43		
J9		41	R16	43		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		
2E	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2F		
2N	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3E	32	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3I	32	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IR1	52	Engine Room No.2 Wire and Floor No.2 Wire (Right Kick Panel)
IV2	54	Dash Wire and Floor No.2 Wire (Behind the Glove Box)
BD1	56	Floor No.3 Wire and Floor Wire (Left Rear Side Quarter Panel)
BJ1	58	Floor No.2 Wire and A/C Sub Wire (Right Side Rear Quarter Panel)
BL1	58	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BL2		

# REAR AIR CONDITIONING



## : GROUND POINTS

Code	See Page	Ground Points Location
IF	<a href="#">48</a>	Set Bolt of Cowl Side J/B LH
BJ	<a href="#">56</a>	Under the Driver's Seat
BK	<a href="#">56</a>	Front Side Under the Front Passenger's Seat



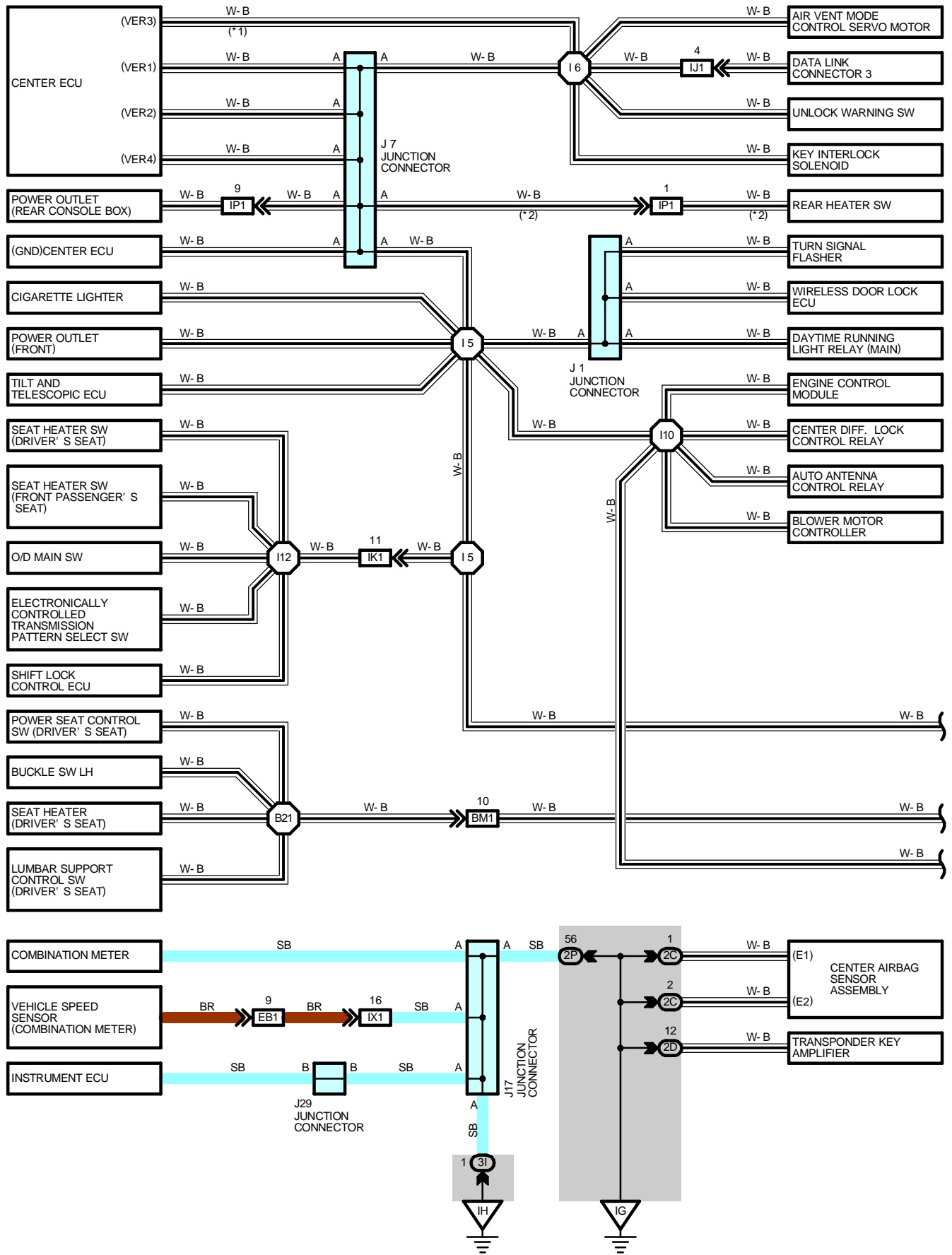
## : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I7	<a href="#">50</a>	Dash Wire	B14	<a href="#">58</a>	Floor No.2 Wire
I10			B19	<a href="#">58</a>	A/C Sub Wire
B13	<a href="#">58</a>	Roof No.2 Wire			

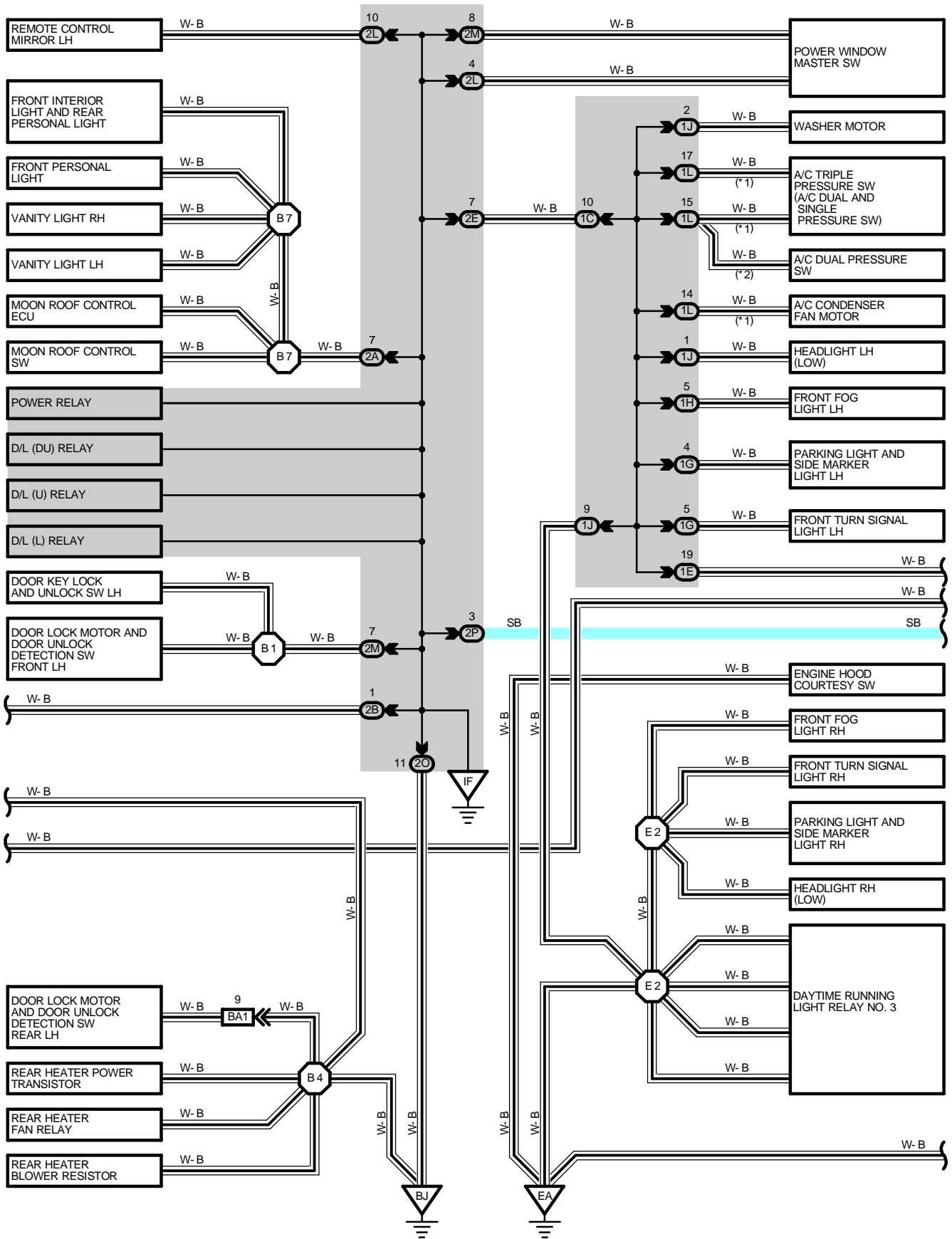




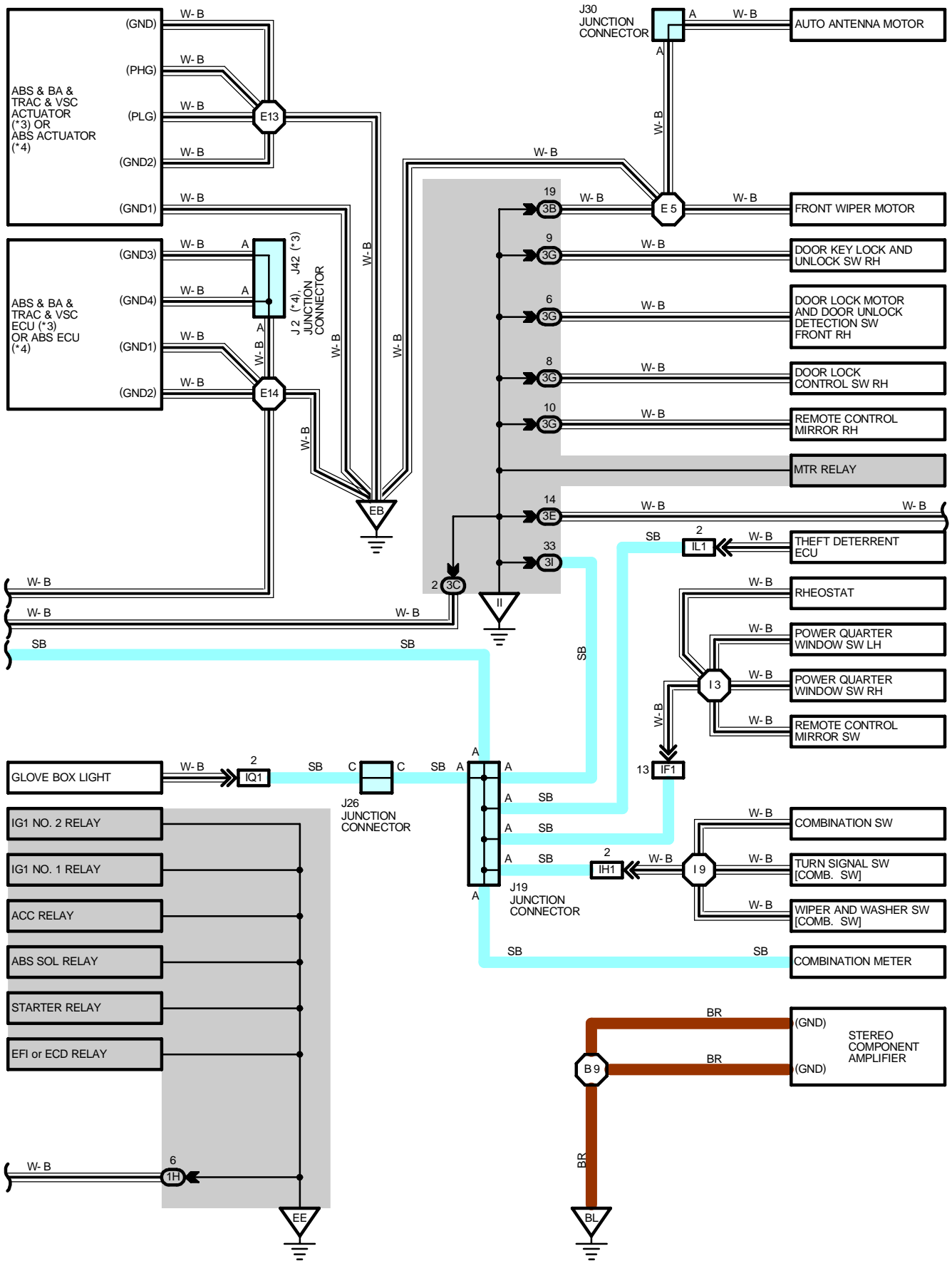
# I GROUND POINT



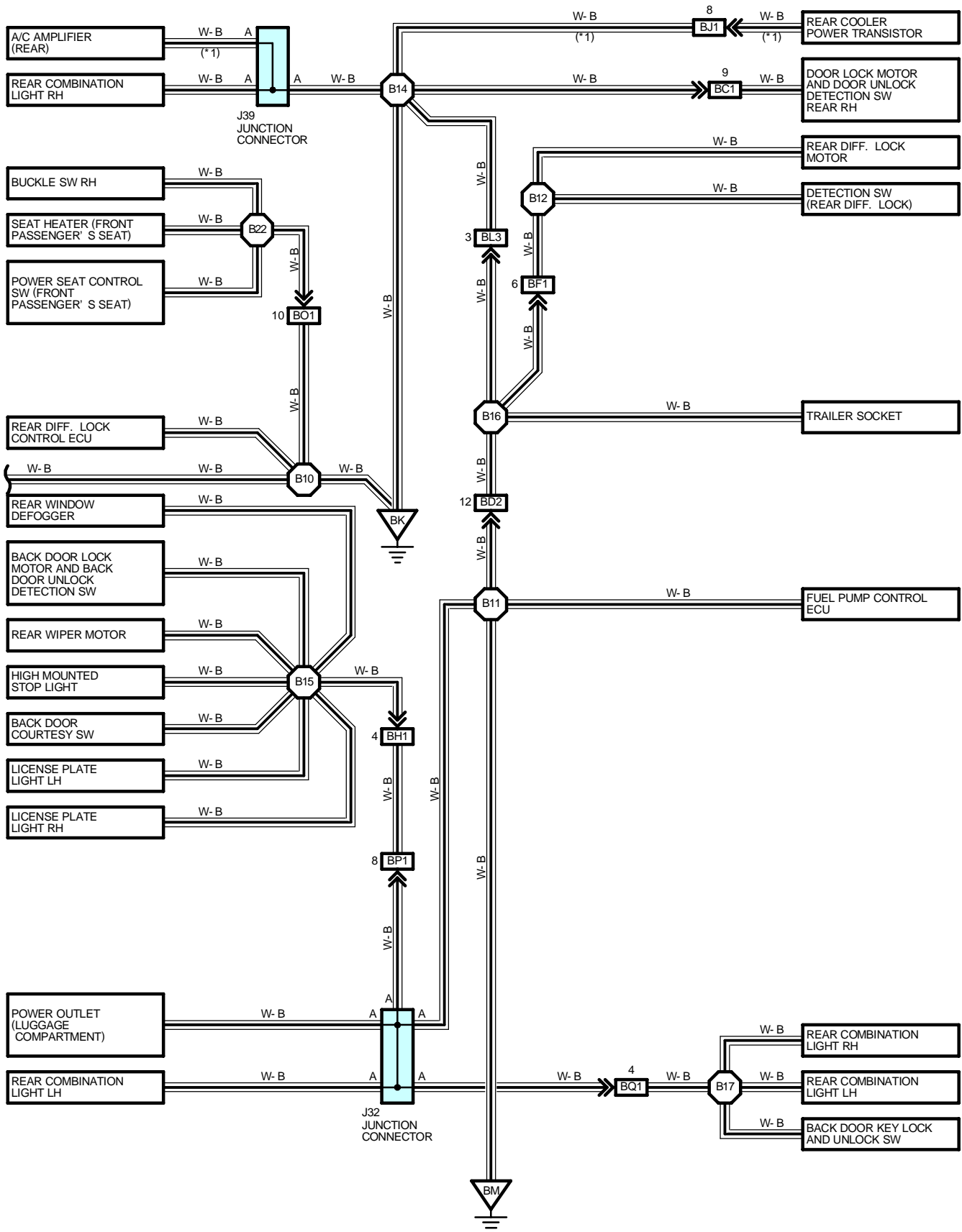
\* 1 : W/ REAR AIR CONDITIONING  
 \* 2 : W/O REAR AIR CONDITIONING



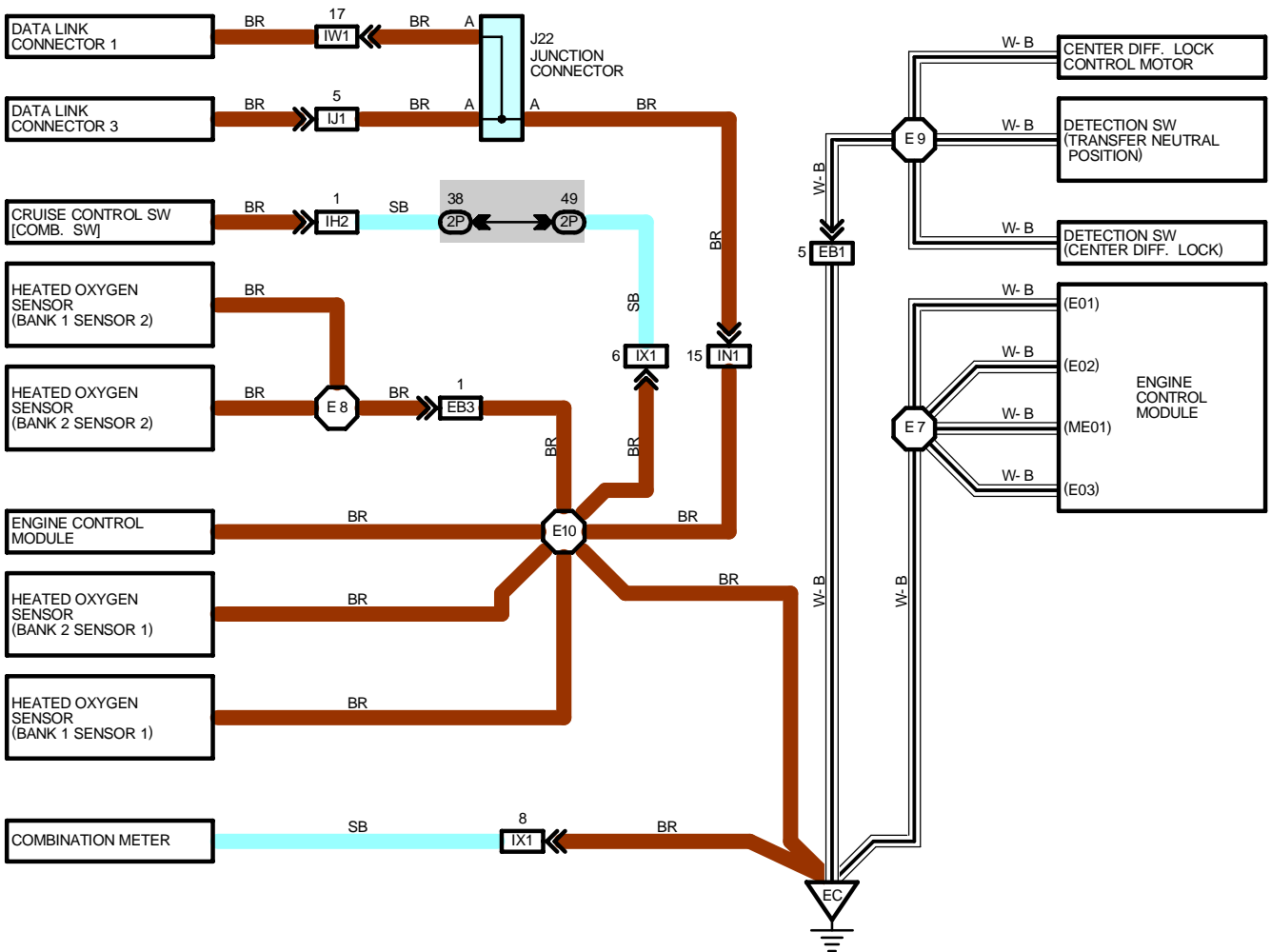
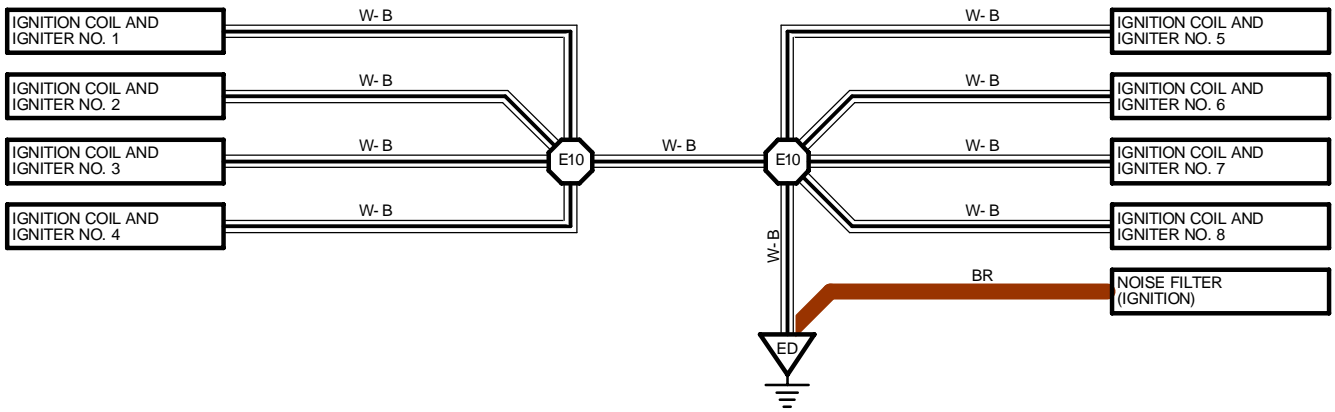
# I GROUND POINT



- \* 1 : W/ REAR AIR CONDITIONING
- \* 3 : W/ VSC
- \* 4 : W/O VSC



# I GROUND POINT



**○ : PARTS LOCATION**

Code	See Page	Code	See Page	Code	See Page
J1	41	J19	41	J30	41
J2	41	J22	41	J32	42
J7	41	J26	41	J39	42
J17	41	J29	41	J42	41

**○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	23	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1E		
1G	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1H		
1J		
1L		
2A	26	Roof Wire and Cowl Side J/B LH (Left Kick Panel)
2B	26	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2C		
2D	26	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
2L		
2M	26	Front Door LH Wire and Cowl Side J/B LH (Left Kick Panel)
2O	26	Floor Wire and Cowl Side J/B LH (Left Kick Panel)
2P	28	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3B	32	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3C	32	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E	32	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3G	32	Front Door RH Wire and Cowl Side J/B RH (Right Kick Panel)
3I	32	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

# I GROUND POINT

## : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	46	Engine Wire and Transmission Wire (On the Transmission)
EB3		
IF1	48	Instrument Panel Integration Wire and Instrument Panel Wire (Left Side of Instrument Panel)
IH1	50	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
IH2		
IJ1	50	Dash Wire and Detector Wire (Instrument Panel Center)
IK1	50	Console Box Wire and Dash Wire (Left Side of Front Console)
IL1	50	Instrument Panel Integration Wire and Computer Wire (Instrument Panel Center)
IN1	52	Engine Wire and Dash Wire (Behind the Glove Box)
IP1	52	Rear Console Box Wire and Dash Wire (Right Side of Rear Console)
IQ1	52	Instrument Panel Integration Wire and Lamp Wire (Behind the Glove Box)
IW1	54	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
IX1	54	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
BA1	56	Rear Door LH Wire and Floor Wire (Left Side of Center Pillar)
BC1	56	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)
BD2	56	Floor No.3 Wire and Floor Wire (Left Rear Side Quarter Panel)
BF1	56	Frame Wire and Floor No.3 Wire (Left Side of Rear Floor Crossmember)
BH1	58	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BJ1	58	Floor No.2 Wire and A/C Sub Wire (Right Side Rear Quarter Panel)
BL3	58	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BM1	60	Floor Wire and Front Seat LH Wire (Front Side Under the Driver's Seat)
BO1	60	Floor No.2 Wire and Front Seat RH Wire (Front Side Under the Front Passenger's Seat)
BP1	58	Pillar No.1 Wire and Floor Wire (Left Rear Side Quarter Panel)
BQ1	58	Back Door Lower Wire and Floor Wire (Left Rear Side Quarter Panel)

## : GROUND POINTS

Code	See Page	Ground Points Location
EA	46	Front Right Side of Fender Apron
EB		
EC	46	Rear Bank of Right Cylinder Head
ED	46	Rear Bank of Left Cylinder Head
EE	46	Front Left Side of Fender Apron
IF	48	Set Bolt of Cowl Side J/B LH
IG		
IH	48	Set Bolt of Cowl Side J/B RH
II		
BJ	56	Under the Driver's Seat
BK	56	Front Side Under the Front Passenger's Seat
BL	56	Rear Side Under the Front Passenger's Seat
BM	56	Left Rear Side Quarter Panel



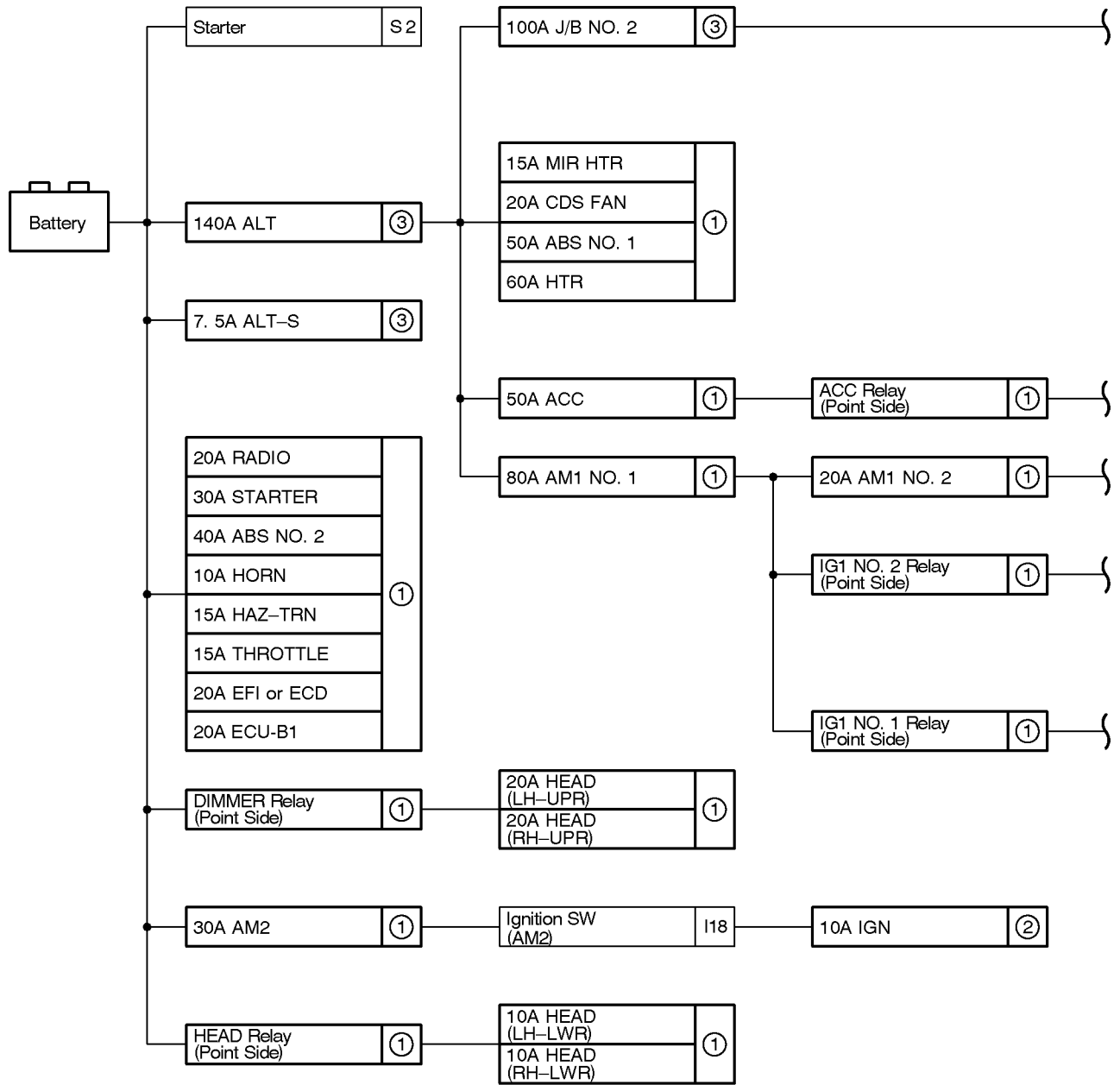
**: SPLICE POINTS**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	46	Engine Room Main Wire	B1	58	Front Door LH Wire
E5	46	Engine Room No.2 Wire	B4	58	Floor Wire
E7	46	Engine Wire	B7	58	Roof Wire
E8	46	Transmission Wire	B9	58	Floor No.2 Wire
E9			B10		
E10	46	Engine Wire	B11	58	Floor Wire
E13	46	Engine Room No.2 Wire	B12	58	Frame Wire
E14			B14	58	Floor No.2 Wire
I3	50	Instrument Panel Wire	B15	58	Back Door Upper Wire
I5	50	Dash Wire	B16	58	Floor No.3 Wire
I6			B17	58	Back Door Lower Wire
I9	50	Column Wire	B21	60	Front Seat LH Wire
I10	50	Dash Wire	B22	60	Front Seat RH Wire
I12	50	Console Box Wire			



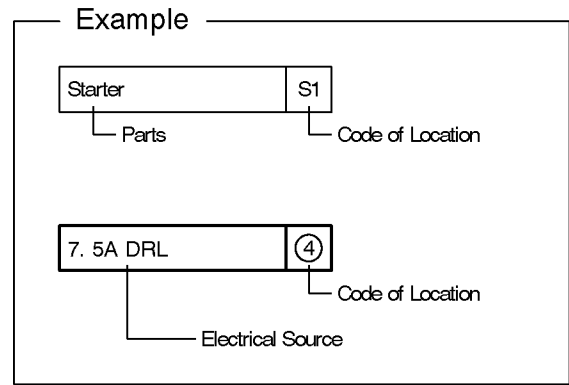
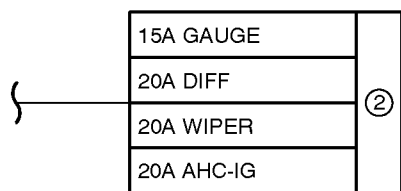
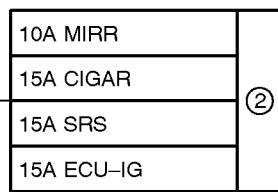
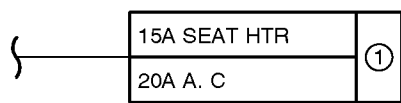
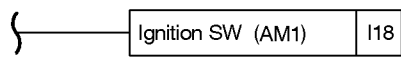
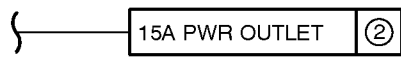
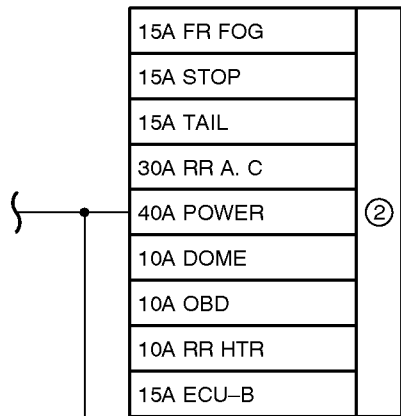
# J POWER SOURCE (Current Flow Chart)

The chart below shows the route by which current flows from the battery to each electrical source (Fusible Link, Circuit Breaker, Fuse, etc.) and other parts.



[LOCATION] ① : Engine Room J/B (See Page 22)

② : Cowl Side J/B LH (See Page 26)



③ : Fusible Link Block (F 6 on See Page 36)

## J POWER SOURCE (Current Flow Chart)

### Engine Room J/B (See Page 22)

Fuse		System	Page
20A	ECU-B1	Automatic Light Control	118
		Combination Meter	242
		Condenser Fan and Front Air Conditioning	248
		Door Lock Control	194
		Interior Light	106
		Key Reminder and Seat Belt Warning	232
		Light Auto Turn Off	122
		Moon Roof	190
		Power Window	184
		Theft Deterrent	210
		Wireless Door Lock Control	200
10A	HEAD (LH-LWR)	Front Fog Light	92
		Headlight	86
10A	HEAD (RH-LWR)	Headlight	86
10A	HORN	Horn	140
		Theft Deterrent	210
15A	HAZ-TRN	Theft Deterrent	210
		Turn Signal and Hazard Warning Light	94
15A	MIR HTR	Rear Window Defogger and Mirror Heater	230
15A	SEAT HTR	Seat Heater	228
15A	THROTTLE	Cruise Control	150
		Electronically Controlled Transmission and A/T Indicator	142
		Engine Control and Engine Immobiliser System	76
20A	A.C	Condenser Fan and Front Air Conditioning	248
		Key Reminder and Seat Belt Warning	232
		Rear Air Conditioning	254
		Rear Heater (w/o Rear Air Conditioning)	240
20A	AM1 NO.2	Turn Signal and Hazard Warning Light	94
20A	CDS FAN	Condenser Fan and Front Air Conditioning	248
20A	EFI or ECD	Cruise Control	150
		Electronically Controlled Transmission and A/T Indicator	142
		Engine Control and Engine Immobiliser System	76
20A	HEAD (LH-UPR)	Headlight	86
20A	HEAD (RH-UPR)	Headlight	86
20A	RADIO	Auto Antenna	234
		Radio and Player	236
30A	AM2	Electronically Controlled Transmission and A/T Indicator	142
		Engine Control and Engine Immobiliser System	76
		Ignition	70
		Starting	68
30A	STARTER	Starting	68

\* These are the page numbers of the first page on which the related system is shown.

Fuse		System	Page
40A	ABS NO.2	ABS	164
		VSC	156
50A	ABS NO.1	ABS	164
		VSC	156
60A	HTR	Condenser Fan and Front Air Conditioning	248
80A	AM1 NO.1	Rear Window Defogger and Mirror Heater	230
		Turn Signal and Hazard Warning Light	94

### Cowl Side J/B LH (See Page 26)

Fuse		System	Page
7.5A	I/UP	Rear Window Defogger and Mirror Heater	230
10A	DOME	Interior Light	106
10A	IGN	ABS	164
		Charging	74
		Combination Meter	242
		Cruise Control	150
		Electronically Controlled Transmission and A/T Indicator	142
		Engine Control and Engine Immobiliser System	76
		SRS	169
	VSC	156	
10A	MIRR	Remote Control Mirror	224
10A	OBD	Cruise Control	150
		Engine Control and Engine Immobiliser System	76
10A	RR HTR	Rear Air Conditioning	254
		Rear Heater (w/o Rear Air Conditioning)	240
15A	CIGAR	Auto Antenna	234
		Cigarette Lighter	136
		Clock	134
		Condenser Fan and Front Air Conditioning	248
		Radio and Player	236
		Rear Air Conditioning	254
		Shift Lock	174
15A	ECU-B	Clock	134
		Combination Meter	242
		Condenser Fan and Front Air Conditioning	248
		Headlight	86
		Power Tilt and Power Telescopic	220
		Rear Air Conditioning	254
		SRS	169
Theft Deterrent	210		
15A	ECU-IG	ABS	164
		Auto Antenna	234
		Automatic Light Control	118
		Door Lock Control	194

\* These are the page numbers of the first page on which the related system is shown.

## J POWER SOURCE (Current Flow Chart)

Fuse		System	Page
15A	ECU-IG	Interior Light	106
		Light Auto Turn Off	122
		Moon Roof	190
		Power Tilt and Power Telescopic	220
		Power Window	184
		Shift Lock	174
		Theft Deterrent	210
		VSC	156
		Wireless Door Lock Control	200
15A	FR FOG	Front Fog Light	92
15A	GAUGE	ABS	164
		Back-Up Light	116
		Center Differential Lock	176
		Charging	74
		Combination Meter	242
		Cruise Control	150
		Electronically Controlled Transmission and A/T Indicator	142
		Engine Control and Engine Immobiliser System	76
		Headlight	86
		Key Reminder and Seat Belt Warning	232
		Power Rear Quarter Window	226
		Rear Differential Lock	180
		Rear Window Defogger and Mirror Heater	230
VSC	156		
Wireless Door Lock Control	200		
15A	PWR OUTLET	Power Outlet	138
15A	SRS	SRS	169
15A	STOP	ABS	164
		Cruise Control	150
		Electronically Controlled Transmission and A/T Indicator	142
		Engine Control and Engine Immobiliser System	76
		Shift Lock	174
		Stop Light	114
VSC	156		
15A	TAIL	Automatic Light Control	118
		Illumination	102
		Light Auto Turn Off	122
		Taillight	98
		Theft Deterrent	210
Wireless Door Lock Control	200		
20A	AHC-IG	VSC	156
20A	DEFOG	Rear Window Defogger and Mirror Heater	230
20A	DIFF	Center Differential Lock	176
		Rear Differential Lock	180

\* These are the page numbers of the first page on which the related system is shown.

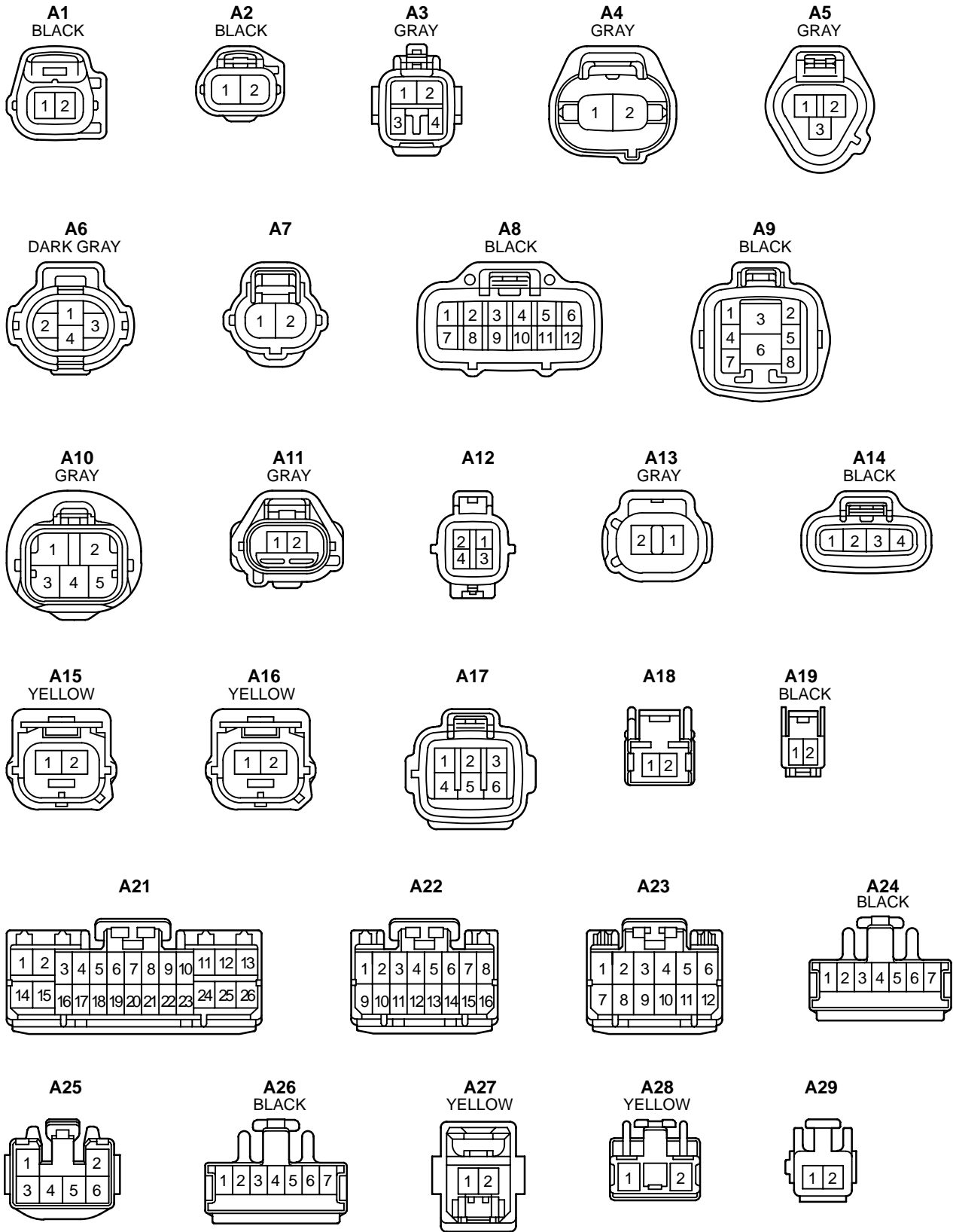
Fuse		System	Page
20A	WIPER	Front Wiper and Washer	126
		Rear Wiper and Washer	130
30A	RR A.C	Rear Air Conditioning	254
40A	POWER	Door Lock Control	194
		Moon Roof	190
		Power Seat	216
		Power Tilt and Power Telescopic	220
		Power Window	184
		Wireless Door Lock Control	200

### Fusible Link Block (F6 on See Page 36)

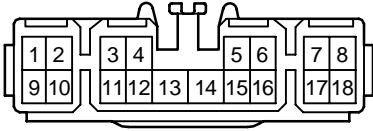
Fuse		System	Page
7.5A	ALT-S	Charging	74
100A	J/B NO.2	Automatic Light Control	118
		Light Auto Turn Off	122
140A	ALT	Automatic Light Control	118
		Charging	74
		Light Auto Turn Off	122
		Turn Signal and Hazard Warning Light	94

\* These are the page numbers of the first page on which the related system is shown.

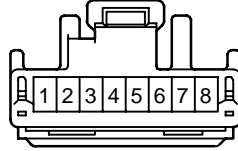
# K CONNECTOR LIST



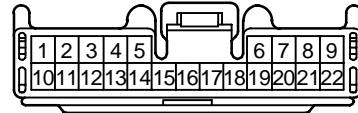
**A30**



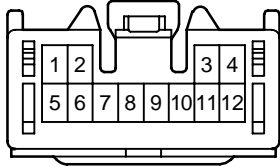
**A31**  
BLACK



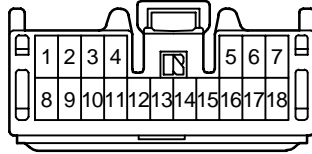
**A32**



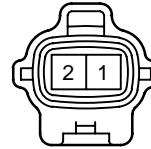
**A33**



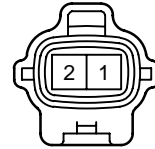
**A34**



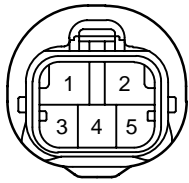
**A35**  
GRAY



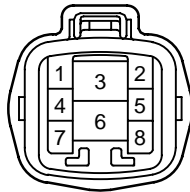
**A36**  
GRAY



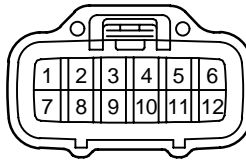
**A37**  
GRAY



**A38**  
BLACK



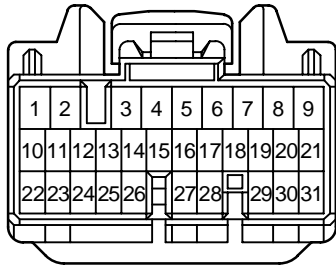
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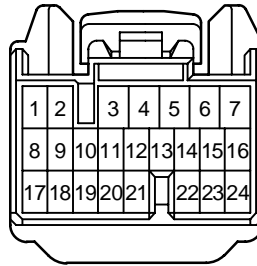
**A40**  
GRAY



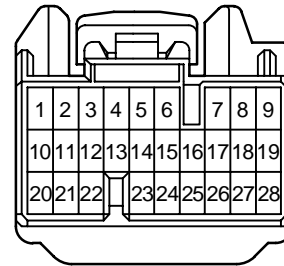
**A41**



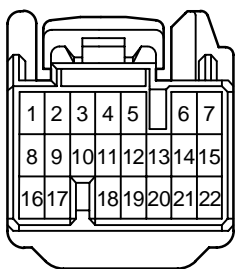
**A42**



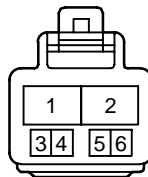
**A43**



**A44**



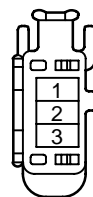
**B1**  
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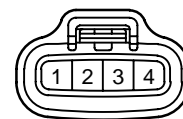
**B2**



**B3**



**B4**  
BLACK



**B5**



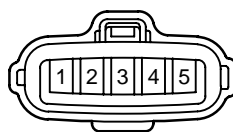
**B6**



**C1**  
DARK GRAY



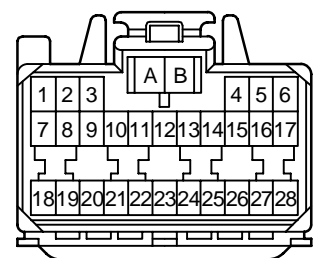
**C2**  
BLACK



**C3**  
DARK GRAY



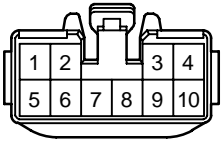
**C4**  
YELLOW



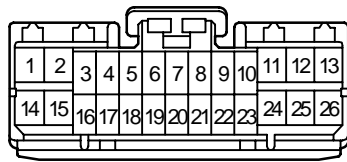


# K CONNECTOR LIST

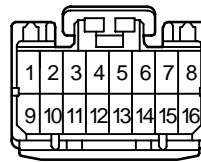
**C5**



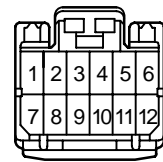
**C6**  
DARK GRAY



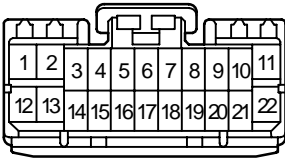
**C7**  
BLACK



**C8**  
GRAY



**C9**



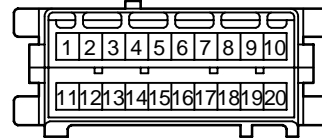
**C10**  
GRAY



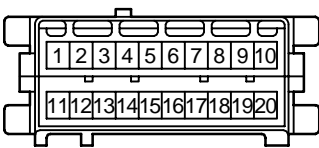
**C11**  
GRAY



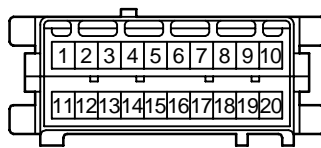
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GRAY



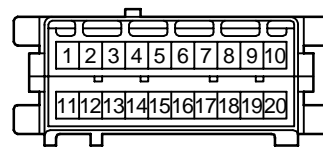
**C13**



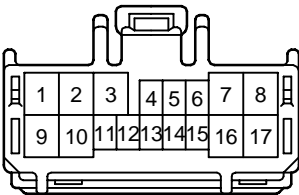
**C14**  
GRAY



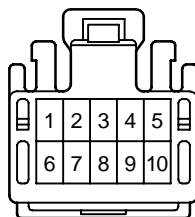
**C15**



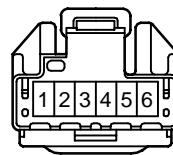
**C16**



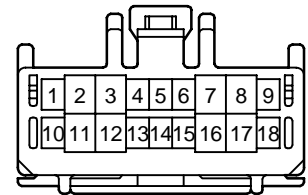
**C17**



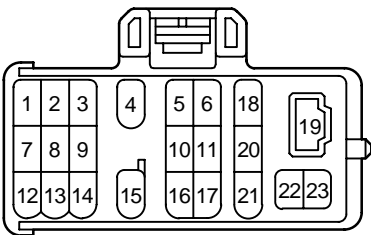
**C18**  
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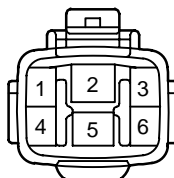
**C19**  
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**D1**  
BLACK



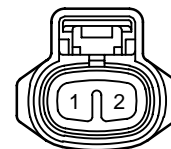
**D2**  
BLACK



**D3**  
BLACK



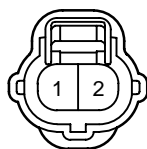
**D4**  
GRAY



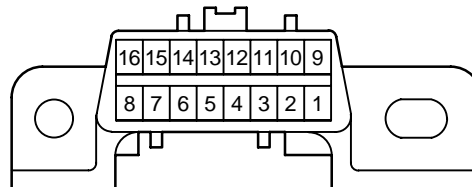
**D5**  
GRAY

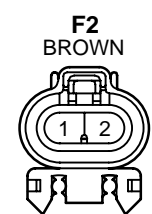
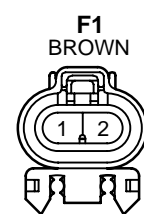
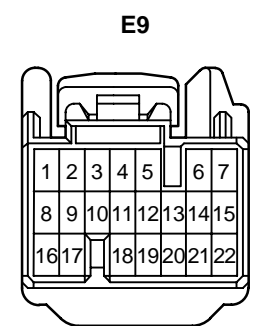
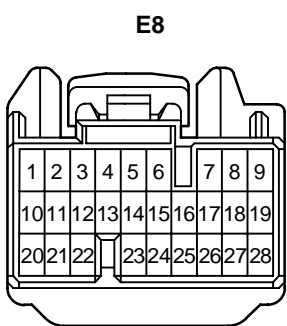
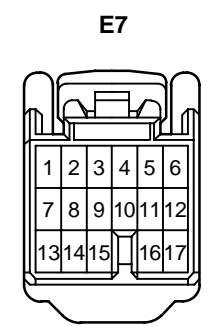
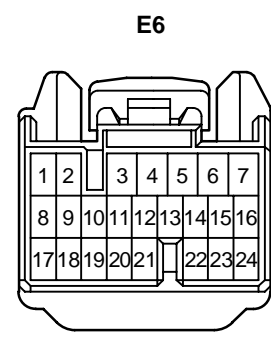
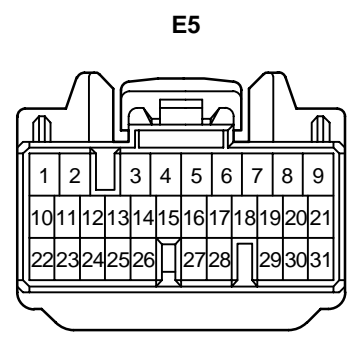
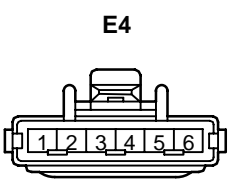
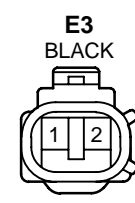
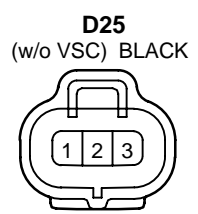
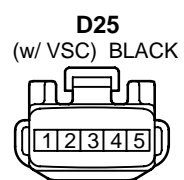
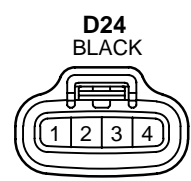
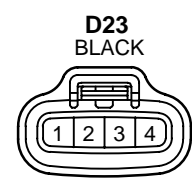
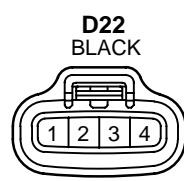
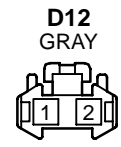
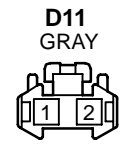
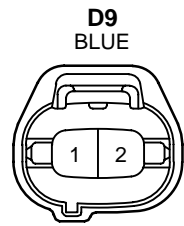
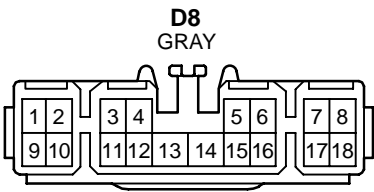


**D6**  
GRAY

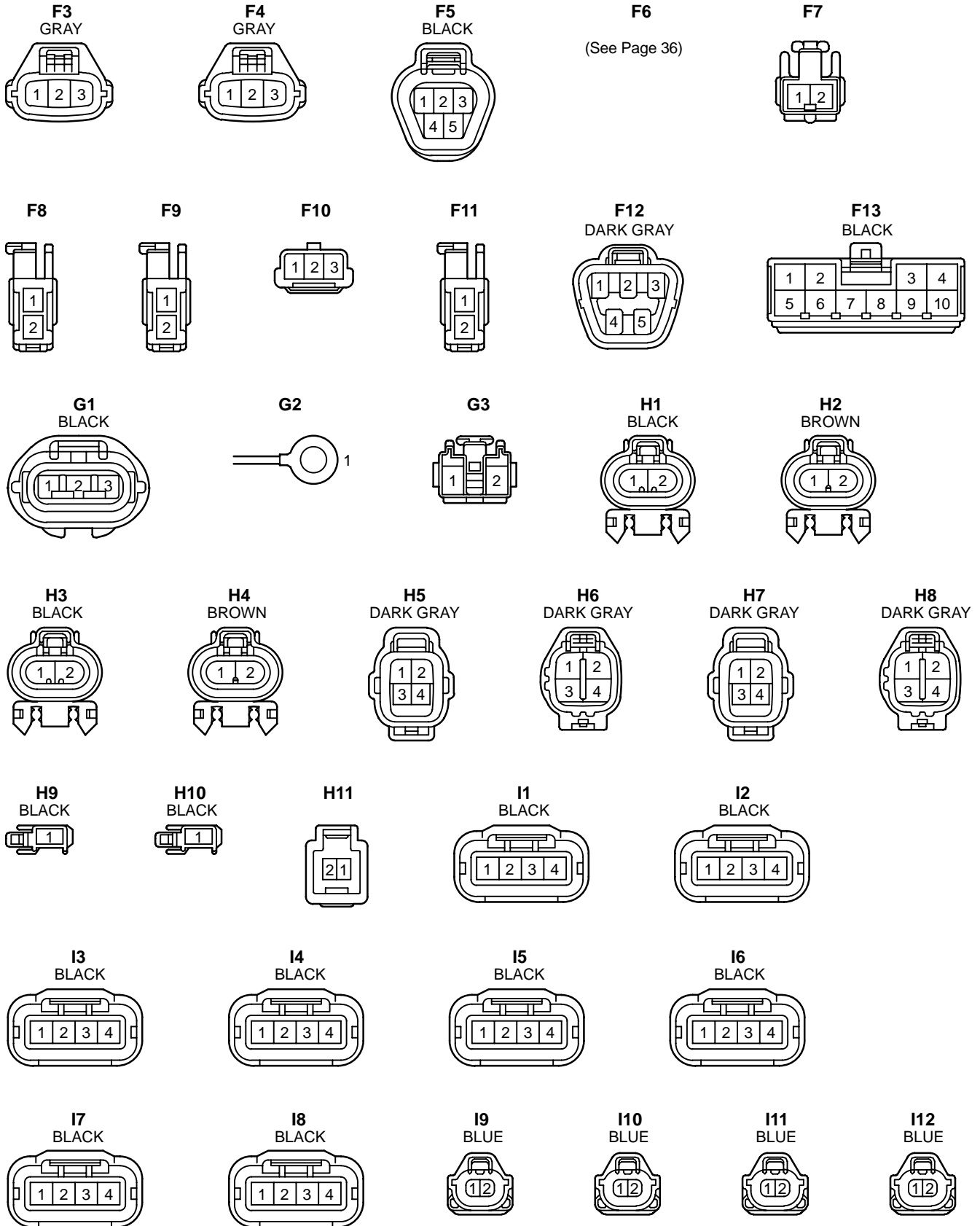


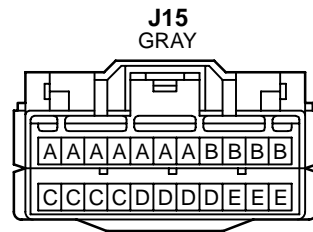
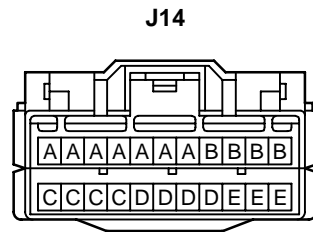
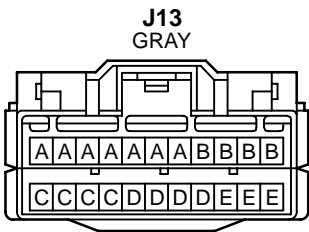
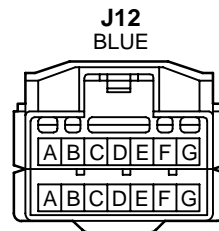
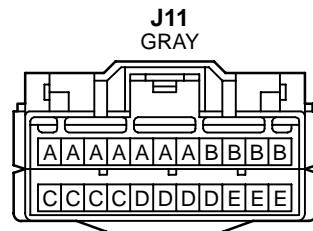
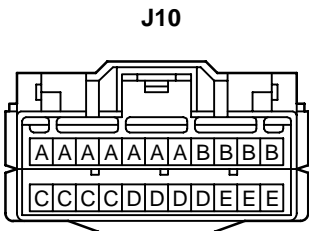
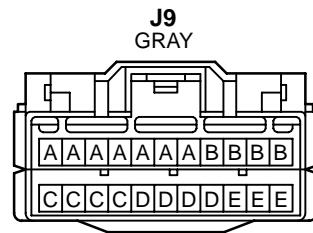
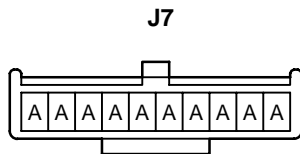
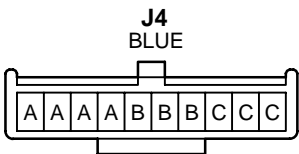
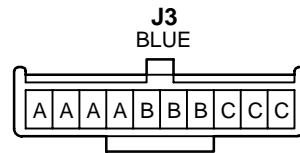
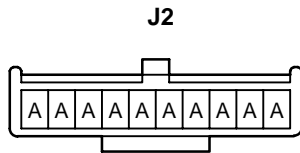
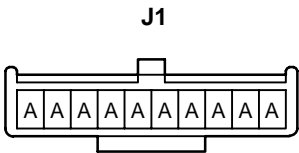
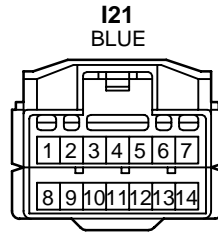
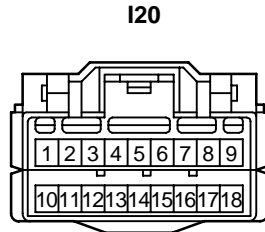
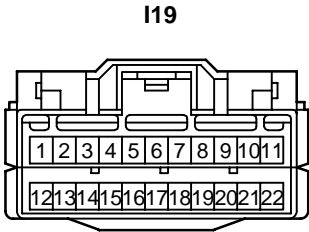
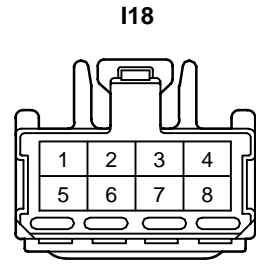
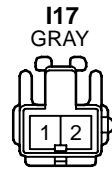
**D7**





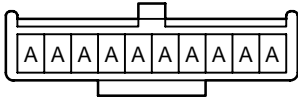
# K CONNECTOR LIST



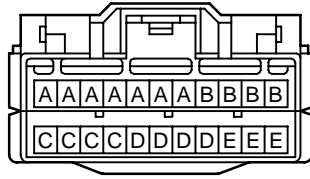


# K CONNECTOR LIST

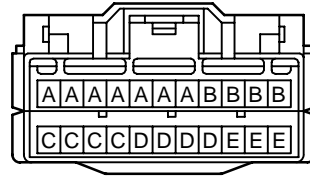
**J16**



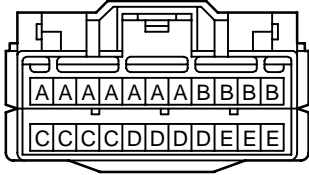
**J17**



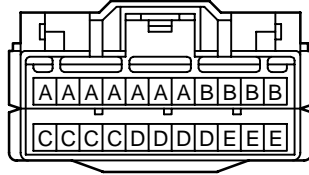
**J18**  
GRAY



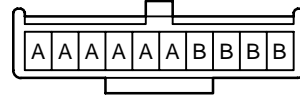
**J19**  
GRAY



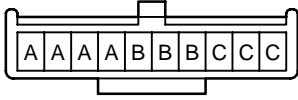
**J20**



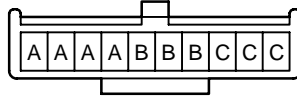
**J21**  
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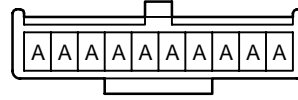
**J22**  
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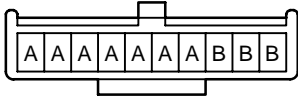
**J23**  
BLUE



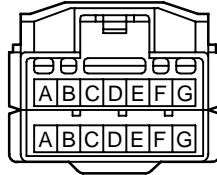
**J24**



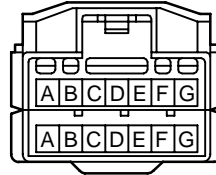
**J25**  
RED



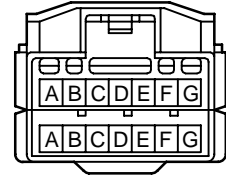
**J26**  
BLUE



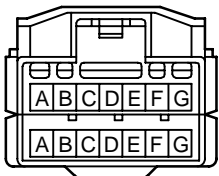
**J27**  
GRAY



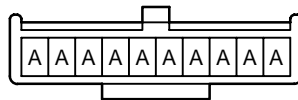
**J28**



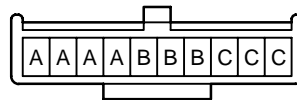
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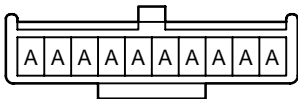
**J30**



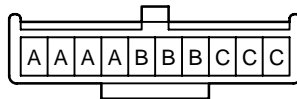
**J31**  
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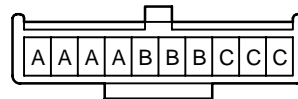
**J32**



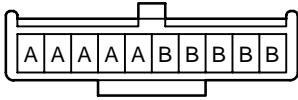
**J33**  
BLUE



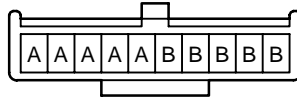
**J34**  
BLUE



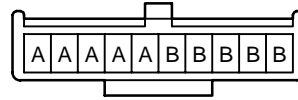
**J35**  
GREEN



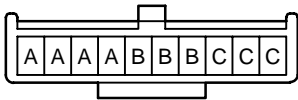
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GREEN



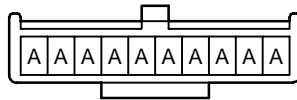
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GREEN



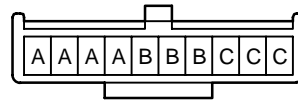
**J38**  
BLUE

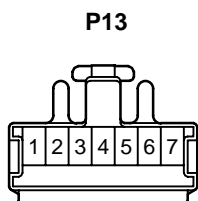
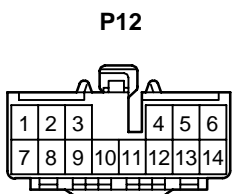
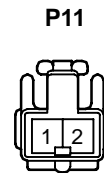
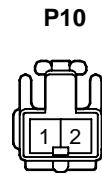
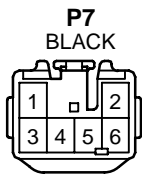
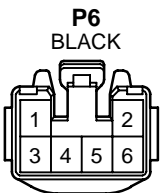
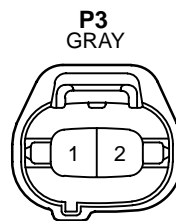
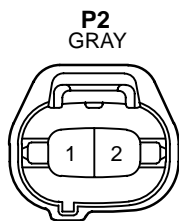
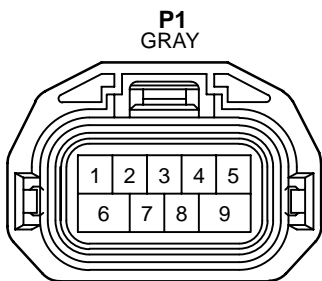
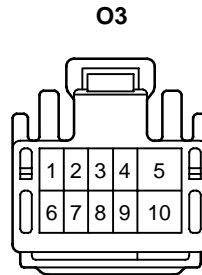
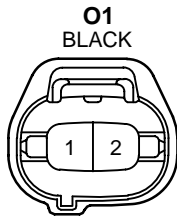
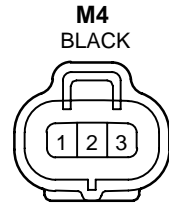
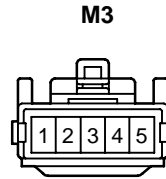
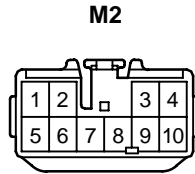
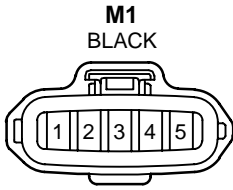
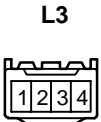
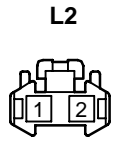
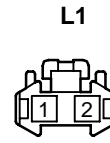
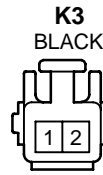
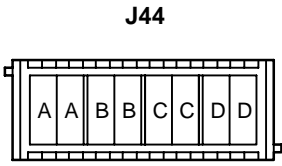
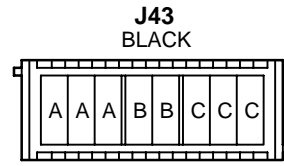
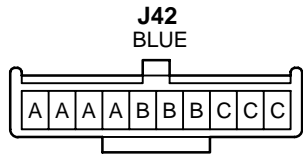
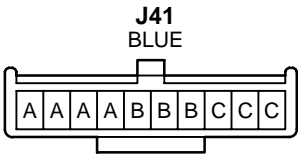


**J39**

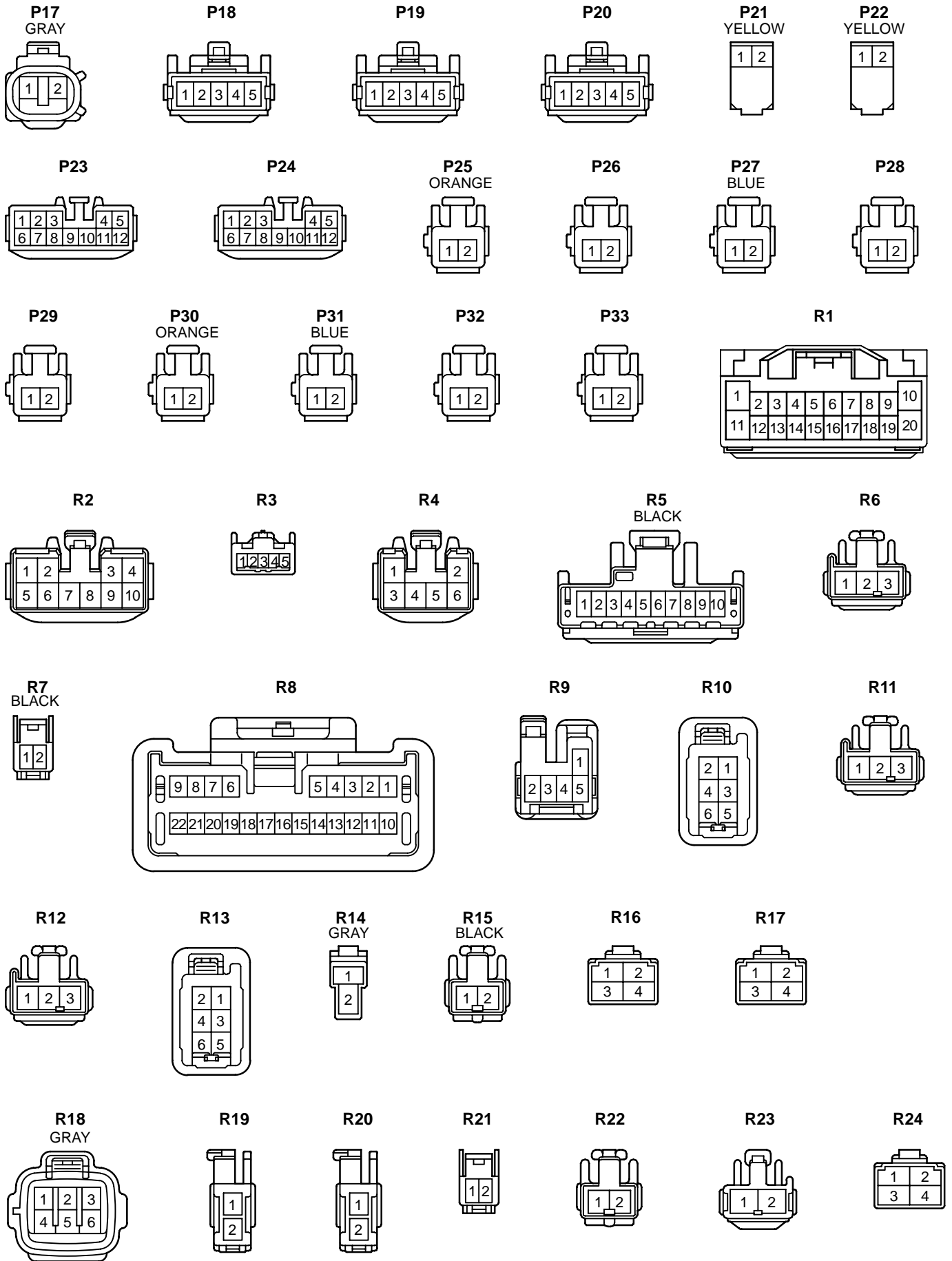


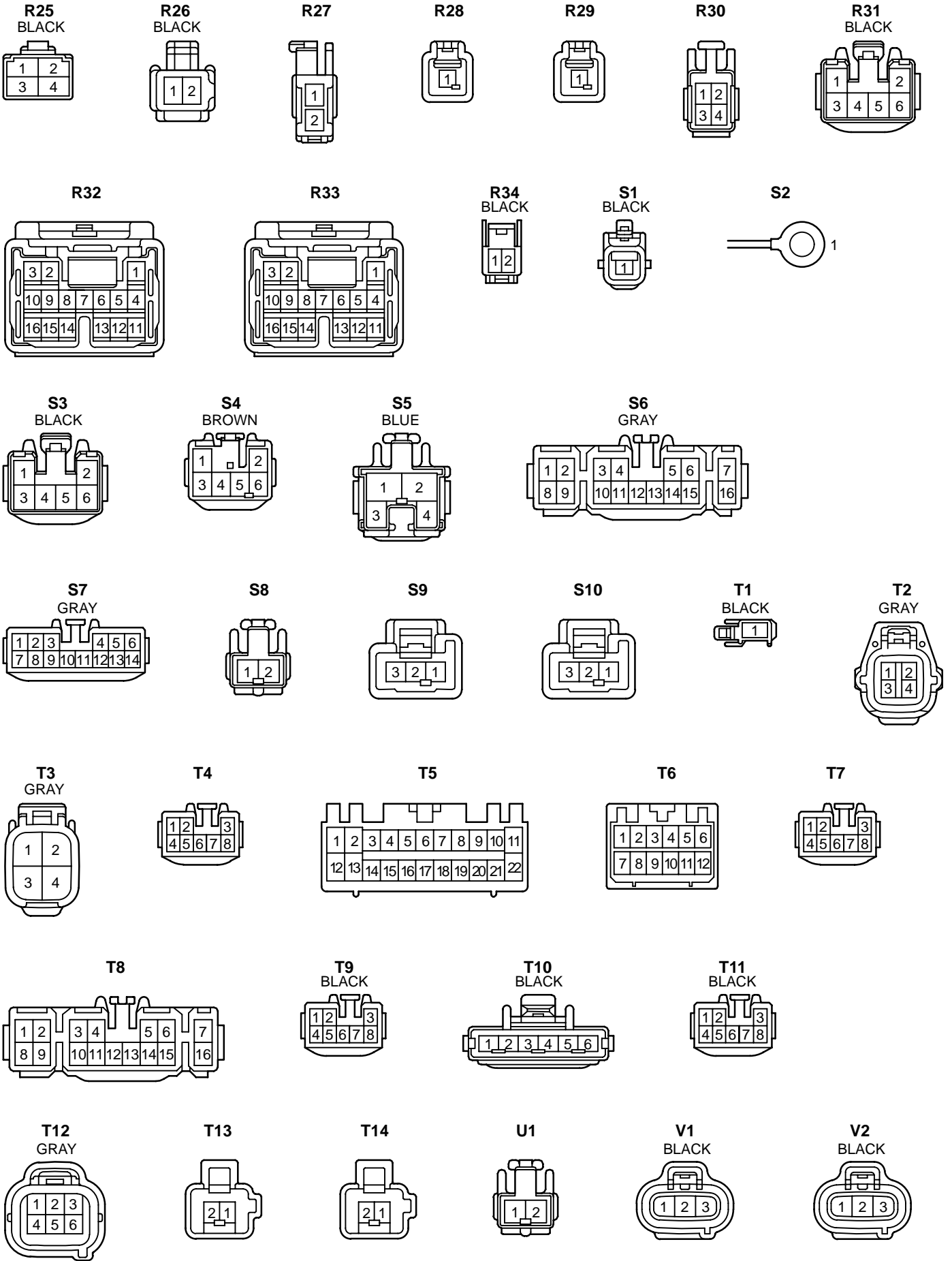
**J40**  
BLUE





# K CONNECTOR LIST



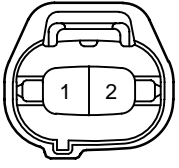




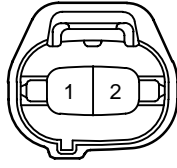
# K CONNECTOR LIST

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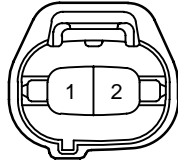
**V3**  
BLACK



**V4**  
BLACK



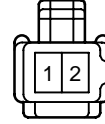
**V5**  
BLUE



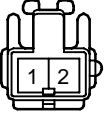
**V6**



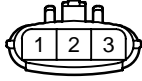
**V7**



**V8**  
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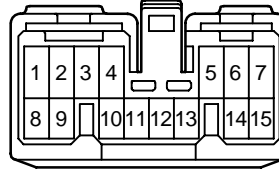
**W1**  
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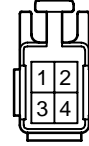
**W2**  
GRAY



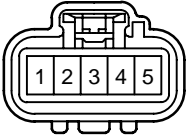
**W3**



**W4**



**Y1**





## L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number
A 1	A/C Ambient Temp. Sensor	90980-11070	B 1	Blower Motor Controller	90980-10910
A 2	A/C Condenser Fan Motor	90980-11237	B 2	Back Door Courtesy SW	90980-10039
A 3	A/C Condenser Fan Relay	90980-10940	B 3	Back Door Key Lock and Unlock SW	90980-11490
A 4	A/C Dual Pressure SW	90980-11149	B 4	Back Door Lock Motor and Back Door Unlock Detection SW	90980-11150
A 5	A/C Magnetic Clutch and Lock Sensor	90980-11016	B 5	Buckle SW LH	90980-11211
A 6	A/C Triple Pressure SW (A/C Dual and Single Pressure SW)	90980-10943	B 6	Buckle SW RH	
A 7	A/T Oil Temp. Sensor	90980-11025	C 1	Camshaft Position Sensor	90980-10947
A 8	ABS Actuator	90980-11151	C 2	Center Diff. Lock Control Motor	90980-11024
A 9	ABS Actuator	90980-10895	C 3	Crankshaft Position Sensor	90980-11162
A10	ABS Actuator	90980-11413	C 4	Center Airbag Sensor Assembly	90980-11872
A11	ABS Actuator	90980-11009	C 5	Center Diff. Lock Control Relay	90980-10801
A12	ABS Speed Sensor Front LH	90980-10941	C 6	Center ECU	90980-11390
A13	ABS Speed Sensor Front RH	90980-11002	C 7	Center ECU	90980-11391
A14	Accel Position Sensor	90980-11150	C 8	Center ECU	90980-11408
A15	Airbag Sensor Front LH	90980-11856	C 9	Center ECU	90980-11392
A16	Airbag Sensor Front RH				
A17	Auto Antenna Motor	90980-11194	C10	Cigarette Lighter	90980-10760
A18	A/C Solar Sensor	90980-11919	C11	Cigarette Lighter Illumination	90980-11148
A19	A/C Thermistor	90980-11918	C12	Combination Meter	82824-60060
A21	ABS ECU	90980-11390	C13	Combination Meter	82824-60050
A22	ABS ECU	90980-11391	C14	Combination Meter	82824-60060
A23	ABS ECU	90980-11424	C15	Combination Meter	82824-60050
A24	Air Inlet Control Servo Motor	90980-11165	C16	Combination SW	90980-11672
A25	Air Mix Control Servo Motor	90980-10797	C17	Combination SW	90980-11581
A26	Air Vent Mode Control Servo Motor	90980-11165	C18	Combination SW	90980-11616
A27	Airbag Squib (Front Passenger Airbag Assembly)	90980-11884	C19	Combination SW	90980-11594
A28	Airbag Squib (Steering Wheel Pad)	90980-10850	D 1	Data Link Connector 1	90980-11195
A29	Ashtray Illumination	90980-10825	D 2	Daytime Running Light Relay No.3	90980-10939
A30	Auto Antenna Control Relay	90980-10819	D 3	Daytime Running Light Relay No.3	90980-10940
A31	Automatic Light Control Sensor	90980-11633	D 4	Detection SW (Center Diff. Lock)	90980-11250
A32	A/C Amplifier (Rear)	90980-11502	D 5	Detection SW (Transfer L Position)	
A33	A/C Amplifier (Rear)	90980-11475	D 6	Detection SW (Transfer Neutral Position)	90980-11025
A34	A/C Amplifier (Rear)	90980-11497	D 7	Data Link Connector 3	90080-98012
A35	ABS Speed Sensor Rear LH	90980-11073	D 8	Daytime Running Light Relay (Main)	90980-10819
A36	ABS Speed Sensor Rear RH				
A37	ABS & BA & TRAC & VSC Actuator	90980-11413	D 9	Detection SW (Rear Diff. Lock)	90980-11156
A38	ABS & BA & TRAC & VSC Actuator	90980-10895	D10	Door Courtesy Light Front LH	90980-11148
A39	ABS & BA & TRAC & VSC Actuator	90980-11151	D11	Door Courtesy Light Front RH	
A40	ABS & BA & TRAC & VSC Actuator	90980-11009	D12	Door Courtesy Light Rear LH	
A41	ABS & BA & TRAC & VSC ECU	90980-11935	D13	Door Courtesy Light Rear RH	90980-10871
A42	ABS & BA & TRAC & VSC ECU	90980-11476	D14	Door Courtesy SW Front LH	
A43	ABS & BA & TRAC & VSC ECU	90980-11637	D15	Door Courtesy SW Front RH	
A44	ABS & BA & TRAC & VSC ECU	90980-11638	D16	Door Courtesy SW Rear LH	
			D17	Door Courtesy SW Rear RH	

Note: Not all of the above part numbers of the connector are established for the supply. In case of ordering a connector or terminal with wire, please confirm in advance if there is supply for it using "Parts Catalog News" (published by Parts Engineering Administration Dept.).

Code	Part Name	Part Number	Code	Part Name	Part Number
D18	Door Key Lock and Unlock SW LH	90980-11170	H 8	Heated Oxygen Sensor (Bank 2 Sensor 2)	90980-11028
D19	Door Key Lock and Unlock SW RH		H 9	Horn LH	90980-10619
D20	Door Lock Control SW RH	90980-10601	H10	Horn RH	
D21	Door Lock Motor and Door Unlock Detection SW Front LH	90980-11150	H11	High Mounted Stop Light	90980-11211
D22	Door Lock Motor and Door Unlock Detection SW Front RH		I 1	Ignition Coil and Igniter No.1	90980-11885
D23	Door Lock Motor and Door Unlock Detection SW Rear LH		I 2	Ignition Coil and Igniter No.2	
D24	Door Lock Motor and Door Unlock Detection SW Rear RH		I 3	Ignition Coil and Igniter No.3	
D25	Deceleration Sensor (w/ VSC)		90980-11182	I 4	
	Deceleration Sensor (w/o VSC)	90980-10845	I 5	Ignition Coil and Igniter No.5	
E 1	Electronically Controlled Transmission Solenoid	90980-10891	I 6	Ignition Coil and Igniter No.6	
E 2	Engine Coolant Temp. Sensor	90980-10737	I 7	Ignition Coil and Igniter No.7	
E 3	Engine Hood Courtesy SW	90980-11003	I 8	Ignition Coil and Igniter No.8	
E 4	Electronically Controlled Transmission Pattern Select SW	90980-10933	I 9	Injector No.1	90980-11153
E 5	Engine Control Module	90980-11421	I10	Injector No.2	
E 6	Engine Control Module	90980-11476	I11	Injector No.3	
E 7	Engine Control Module	90980-11586	I12	Injector No.4	
E 8	Engine Control Module	90980-11637	I13	Injector No.5	
E 9	Engine Control Module	90980-11638	I14	Injector No.6	
F 1	Front Fog Light LH	90980-11660	I15	Injector No.7	
F 2	Front Fog Light RH		I16	Injector No.8	
F 3	Front Turn Signal and Side Marker Light LH	90980-11020	I17	Ignition Key Cylinder Light	90980-10906
F 4	Front Turn Signal and Side Marker Light RH		I18	Ignition SW	90980-11615
F 5	Front Wiper Motor	90980-11599	I19	Instrument ECU	90980-11927
F 6	Fusible Link Block	82620-60010	I20	Instrument ECU	90980-11914
F 7	Fuel Control SW	90980-10860	I21	Instrument ECU	90980-11925
F 8	Front Door Speaker LH	90980-10935	J 1	Junction Connector	90980-11927
F 9	Front Door Speaker RH		J 2	Junction Connector	
F10	Front Interior Light and Rear Personal Light	90980-10365	J 3	Junction Connector	
F11	Front Personal Light	90980-10935	J 4	Junction Connector	
F12	Fuel Pump and Sender	90980-11077	J 7	Junction Connector	
F13	Fuel Pump Control ECU	90980-10862	J 9	Junction Connector	
G 1	Generator	90980-11349	J10	Junction Connector	
G 2	Generator	90980-09212	J11	Junction Connector	
G 3	Glove Box Light	90980-11098	J12	Junction Connector	90980-11925
H 1	Headlight LH (High)	90980-11659	J13	Junction Connector	90980-11927
H 2	Headlight LH (Low)	90980-11660	J14	Junction Connector	
H 3	Headlight RH (High)	90980-11659	J15	Junction Connector	
H 4	Headlight RH (Low)	90980-11660	J16	Junction Connector	
H 5	Heated Oxygen Sensor (Bank 1 Sensor 1)	90980-10869	J17	Junction Connector	-
H 6	Heated Oxygen Sensor (Bank 1 Sensor 2)	90980-11028	J18	Junction Connector	
H 7	Heated Oxygen Sensor (Bank 2 Sensor 1)	90980-10869	J19	Junction Connector	
			J20	Junction Connector	

## L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number		
J21	Junction Connector	-	P 9	Power Outlet (Luggage Compartment)	90980-10860		
J22	Junction Connector		P10	Power Vent Window Motor LH			
J23	Junction Connector		P11	Power Vent Window Motor RH			
J24	Junction Connector		P12	Power Window Master SW	90980-11791		
J25	Junction Connector		P13	Power Window Master SW	90980-11165		
J26	Junction Connector	90980-11925	P14	Power Window Motor Front LH	90980-11599		
J27	Junction Connector		P15	Power Window Motor Front RH	90980-11003		
J28	Junction Connector		P16	Power Window Motor Rear LH			
J29	Junction Connector		P17	Power Window Motor Rear RH			
J30	Junction Connector		-	P18	Power Window SW Front RH	90980-10789	
J31	Junction Connector	P19		Power Window SW Rear LH			
J32	Junction Connector	P20		Power Window SW Rear RH			
J33	Junction Connector	P21		Pretensioner LH	90980-11862		
J34	Junction Connector	P22		Pretensioner RH			
J35	Junction Connector	P23		Power Seat Control SW (Driver's Seat)	90980-10803		
J36	Junction Connector	P24		Power Seat Control SW (Front Passenger's Seat)			
J37	Junction Connector	-		P25	Power Seat Motor (Driver's Seat Front Vertical Control)	90980-10825	
J38	Junction Connector			P26	Power Seat Motor (Driver's Seat Lumbar Support Control)		
J39	Junction Connector			P27	Power Seat Motor (Driver's Seat Rear Vertical Control)		
J40	Junction Connector			P28	Power Seat Motor (Driver's Seat Reclining Control)		
J41	Junction Connector			P29	Power Seat Motor (Driver's Seat Slide Control)		
J42	Junction Connector			P30	Power Seat Motor (Front Passenger's Seat Front Vertical Control)		
J43	Junction Connector			82824-10020	P31		Power Seat Motor (Front Passenger's Seat Rear Vertical Control)
J44	Junction Connector			82824-10010	P32		Power Seat Motor (Front Passenger's Seat Reclining Control)
K 1	Knock Sensor 1		90980-11166	P33	Power Seat Motor (Front Passenger's Seat Slide Control)		
K 2	Knock Sensor 2		90980-10825	R 1	Radio and Player		90980-12038
K 3	Key Interlock Solenoid	R 2		Rear Diff. Lock Control ECU	90980-10801		
L 1	License Plate Light LH	90980-11148		R 3	Rear Diff. Lock SW	90980-10631	
L 2	License Plate Light RH		R 4	Rear Heater SW	90980-10797		
L 3	Lumbar Support Control SW (Driver's Seat)	90980-10601	R 5	Remote Control Mirror SW	90980-11657		
M 1	Mass Air Flow Meter	90980-11317	R 6	Rheostat	90980-10908		
M 2	Moon Roof Control ECU	90980-10997	R 7	Room Temp. Sensor (Front)	90980-11918		
M 3	Moon Roof Control SW	90980-10789	R 8	Rear A/C Control SW	90980-11503		
M 4	Master Cylinder Pressure Sensor	90980-10845	R 9	Rear Air Mix Control Servo Motor	90980-11319		
N 1	Noise Filter (Ignition)	90980-10843	R10	Rear Combination Light LH	90980-11587		
O 1	O/D Direct Clutch Speed Sensor	90980-11156	R11	Rear Combination Light LH	90980-10908		
O 2	Oil Pressure Sender	90980-11363	R12	Rear Combination Light RH			
O 3	O/D Main SW and Shift Lock Control ECU	90980-11614	R13	Rear Combination Light RH	90980-11587		
P 1	Park/Neutral Position SW, A/T Indicator Light SW and Back-Up Light SW	90980-11784	R14	Rear Cooler Blower Motor	90980-10214		
P 2	Parking Light LH	90980-11156	R15	Rear Cooler Magnetic Valve	90980-10860		
P 3	Parking Light RH						
P 4	Power Outlet (Front)	90980-10760					
P 5	Power Outlet (Rear Console Box)	90980-10860					
P 6	Power Quarter Window SW LH	90980-10797					
P 7	Power Quarter Window SW RH	90980-10996					
P 8	Parking Brake SW	90980-10871					

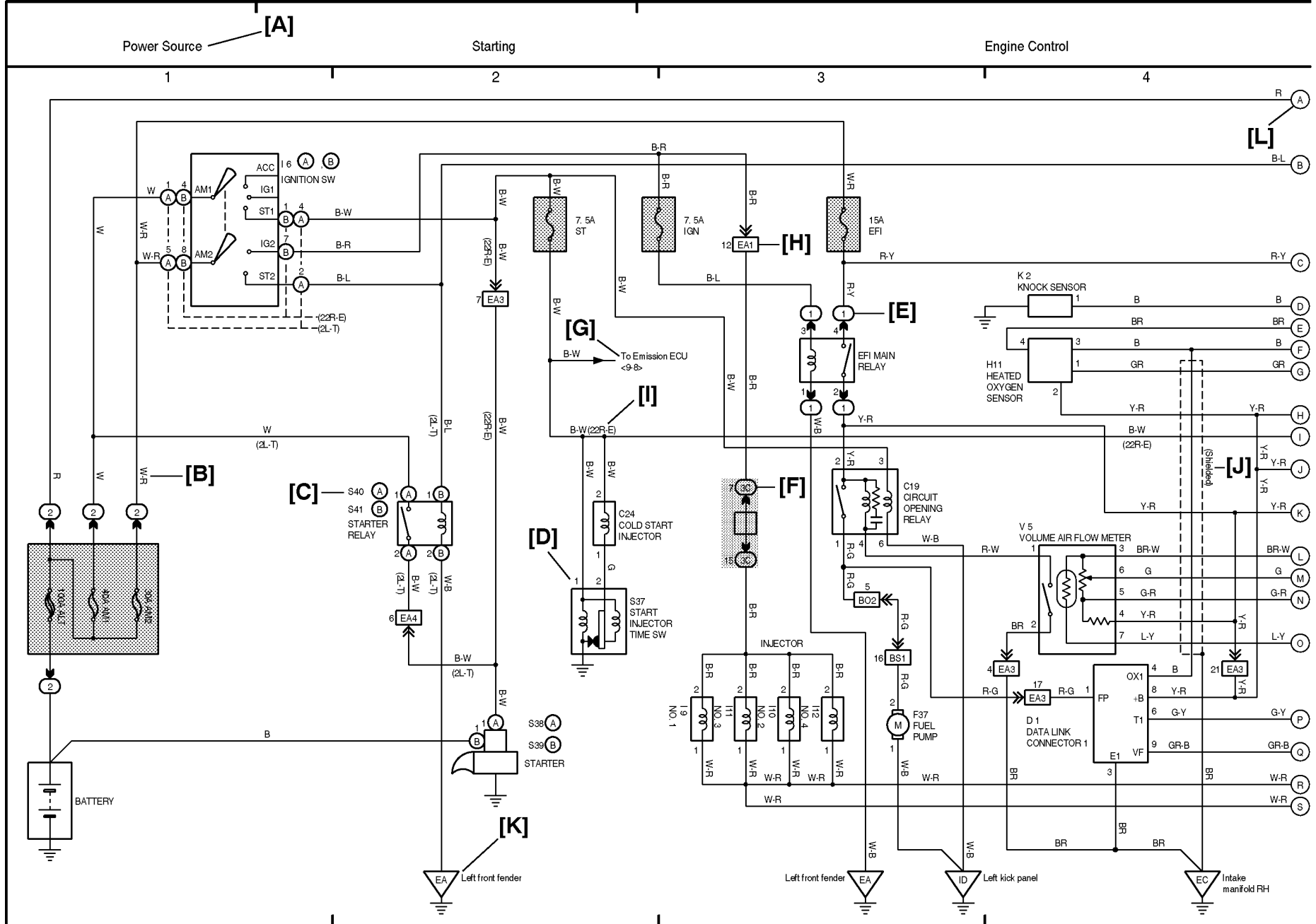
Note: Not all of the above part numbers of the connector are established for the supply. In case of ordering a connector or terminal with wire, please confirm in advance if there is supply for it using "Parts Catalog News" (published by Parts Engineering Administration Dept.).

Code	Part Name	Part Number	Code	Part Name	Part Number
R16	Rear Cooler Power Transistor	90980-10171	T 1	Theft Deterrent Horn	90980-10619
R17	Rear Cooler Relay		T 2	Throttle Control Motor	90980-10942
R18	Rear Diff. Lock Motor	90980-11194	T 3	Throttle Position Sensor	90980-11037
R19	Rear Door Speaker LH	90980-10935	T 4	Telescopic Motor	90980-10799
R20	Rear Door Speaker RH		T 5	Theft Deterrent ECU	90980-10765
R21	Rear Evaporator Temp. Sensor	90980-11918	T 6	Theft Deterrent ECU	90980-10973
R22	Rear Heater Blower Motor	90980-10860	T 7	Tilt and Telescopic ECU	90980-10799
R23	Rear Heater Blower Resistor	90980-10916	T 8	Tilt and Telescopic ECU	90980-10848
R24	Rear Heater Fan Relay	90980-10171	T 9	Tilt Motor	90980-10799
R25	Rear Heater Power Transistor		T10	Transponder Key Amplifier	90980-10933
R26	Rear Inlet Air Temp. Sensor	90980-11369	T11	Turn Signal Flasher	90980-10799
R27	Rear Interior Light	90980-10935	T12	Trailer Socket	90980-10988
R28	Rear Window Defogger	90980-11097	T13	Tweeter LH	90980-11300
R29	Rear Window Defogger		T14	Tweeter RH	
R30	Rear Wiper Motor	90980-10795	U 1	Unlock Warning SW	90980-10860
R31	Rear Wiper Relay	90908-10797	V 1	Vapor Pressure Sensor	90980-11143
R32	Remote Control Mirror LH	90980-11573	V 2	Vehicle Speed Sensor (Combination Meter)	
R33	Remote Control Mirror RH		V 3	Vehicle Speed Sensor (Electronically Controlled Transmission)	90980-11156
R34	Room Temp. Sensor (Rear)	90980-11918	V 4	VSV (EVAP)	
S 1	Starter	90980-11400	V 5	VSV (Vapor Pressure Sensor)	
S 2	Starter	90980-09585	V 6	Vanity Light LH	90980-11369
S 3	Seat Heater SW (Driver's Seat)	90980-10797	V 7	Vanity Light RH	
S 4	Seat Heater SW (Front Passenger's Seat)	90980-10996	V 8	VSC Warning Buzzer	90980-10906
S 5	Stop Light SW	90980-11118	W 1	Washer Motor	90980-11294
S 6	Stereo Component Amplifier	90980-10848	W 2	Water Temp. Sender	90980-11428
S 7	Stereo Component Amplifier	90980-10807	W 3	Wireless Door Lock ECU	90980-11264
S 8	Seat Belt Warning Occupant Detection Sensor	90980-10860	W 4	Woofer (Speaker)	90980-10795
S 9	Seat Heater (Driver's Seat)	90980-10907	Y 1	Yaw Rate Sensor	90980-11904
S10	Seat Heater (Front Passenger's Seat)				

# HOW TO READ THIS SECTION

\* The system shown here is an EXAMPLE ONLY. It is different to the actual circuit shown in the wiring diagram section.

# OVERALL ELECTRICAL WIRING DIAGRAM



**[A]** : System Title

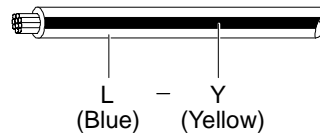
**[B]** : Indicates the wiring color.

Wire colors are indicated by an alphabetical code.

B = Black    W = White    BR = Brown  
L = Blue    V = Violet    SB = Sky Blue  
R = Red    O = Orange    LG = Light Green  
P = Pink    Y = Yellow    GR = Gray  
G = Green

The first letter indicates the basic wire color and the second letter indicates the color of the stripe.

Example: L - Y

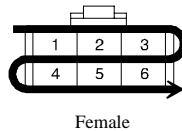


**[C]** : The position of the parts is the same as shown in the wiring diagram and wire routing.

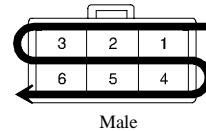
**[D]** : Indicates the pin number of the connector. The numbering system is different for female and male connectors.

Example : Numbered in order from upper left to lower right

Numbered in order from upper right to lower left



Female



Male

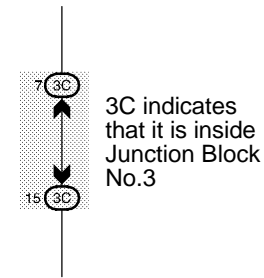
The numbering system for the overall wiring diagram is the same as above

**[E]** : Indicates a Relay Block. No shading is used and only the Relay Block No. is shown to distinguish it from the J/B.

Example : ① Indicates Relay Block No.1

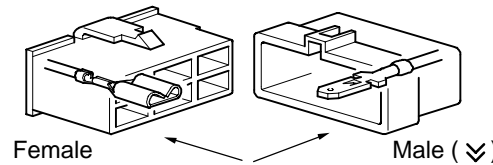
**[F]** : Junction Block (The number in the circle is the J/B No. and the connector code is shown beside it). Junction Blocks are shaded to clearly separate them from other parts.

Example:



**[G]** : Indicates related system.

**[H]** : Indicates the wiring harness and wiring harness connector. The wiring harness with male terminal is shown with arrows (↘). Outside numerals are pin numbers.



**[I]** : ( ) is used to indicate different wiring and connector, etc. when the vehicle model, engine type, or specification is different.

**[J]** : Indicates a shielded cable.



**[K]** : Indicates and located on ground point.

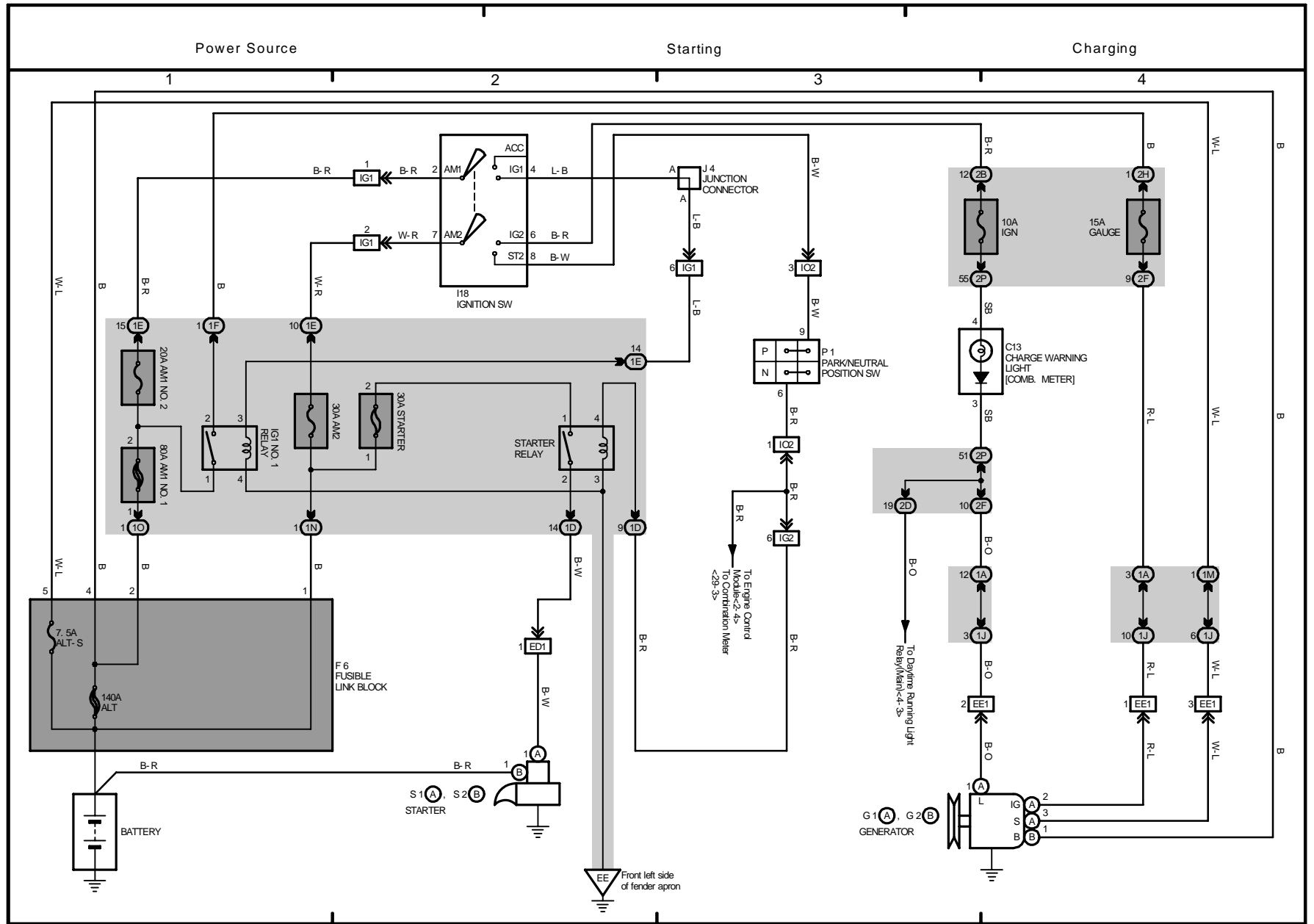
**[L]** : The same code occurring on the next page indicates that the wire harness is continuous.

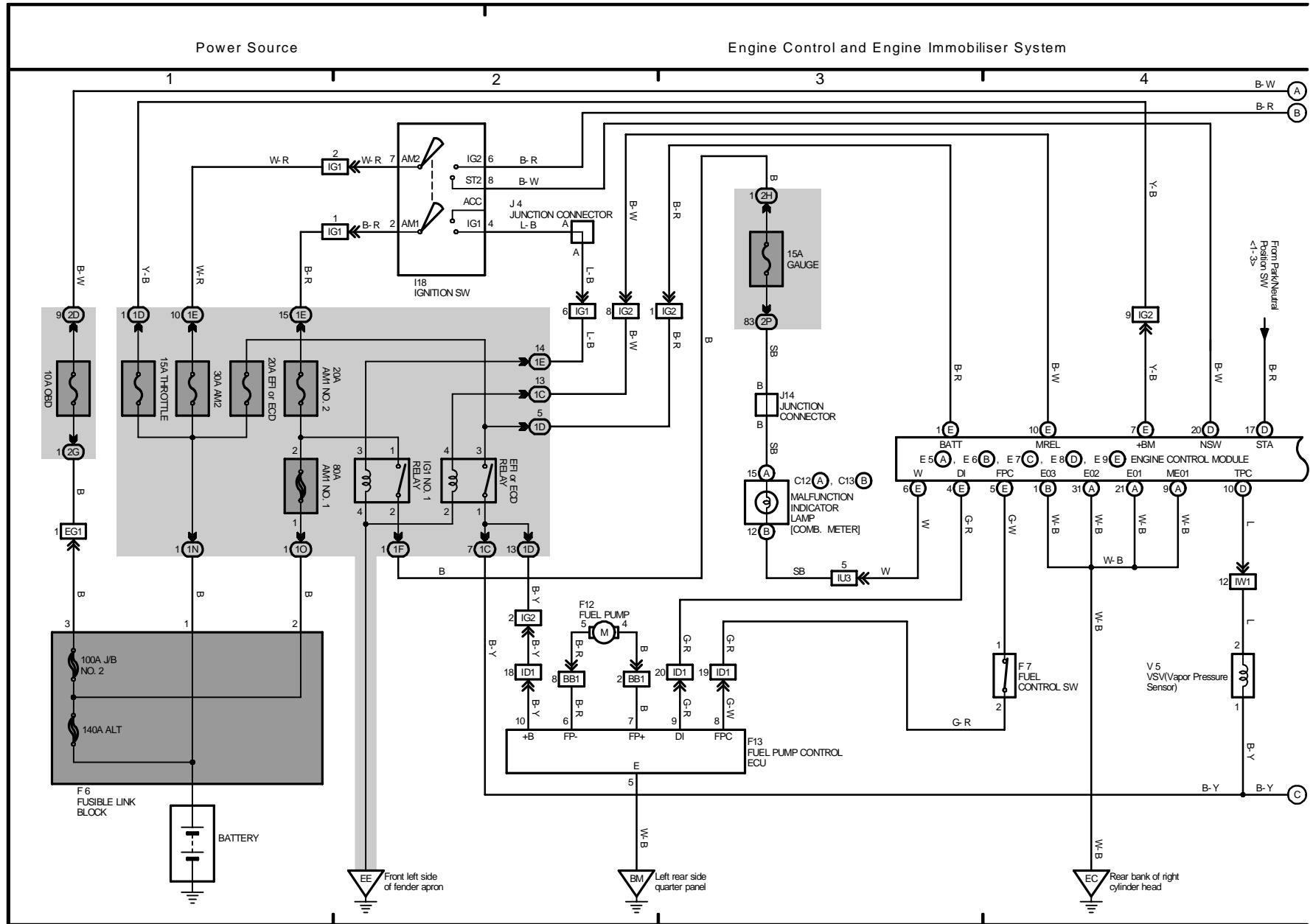


# SYSTEM INDEX

<b>SYSTEMS</b>	<b>LOCATION</b>	<b>SYSTEMS</b>	<b>LOCATION</b>
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Light Auto Turn Off .....	22-2	Wireless Door Lock Control .....	9-19

# 1 LAND CRUISER ELECTRICAL WIRING DIAGRAM

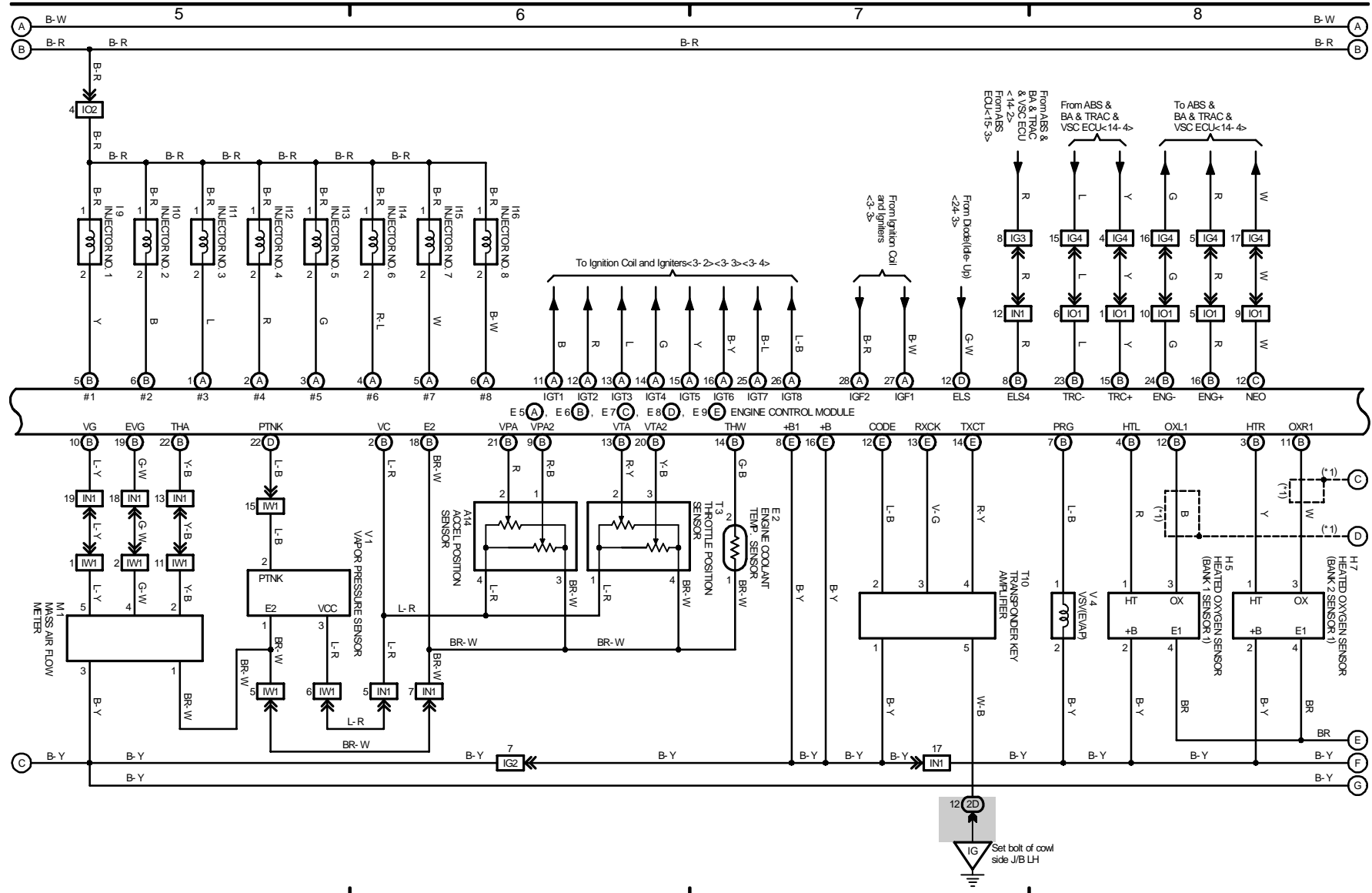




M OVERALL ELECTRICAL WIRING DIAGRAM

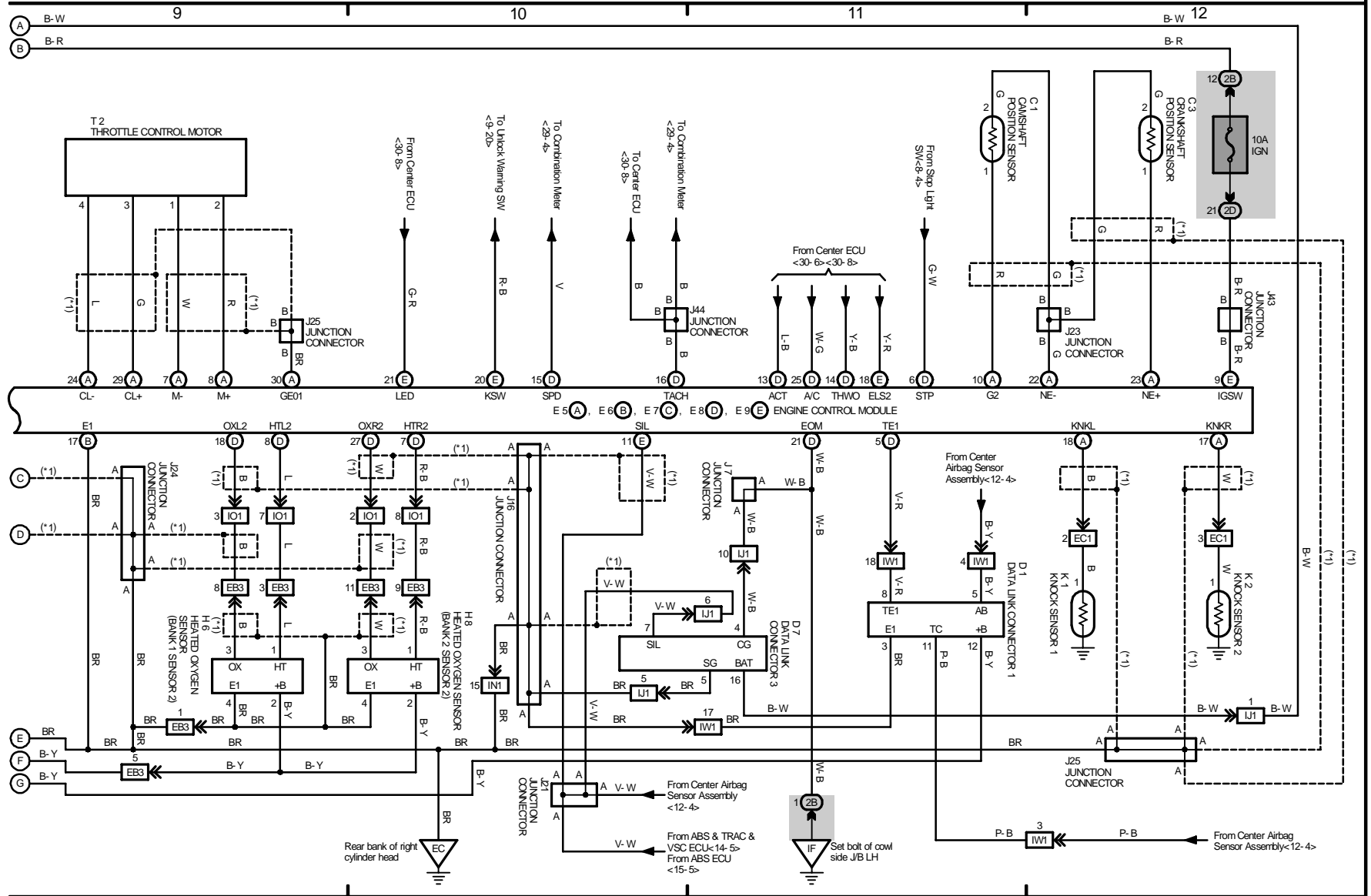
Engine Control and Engine Immobiliser System

\* 1: Shielded

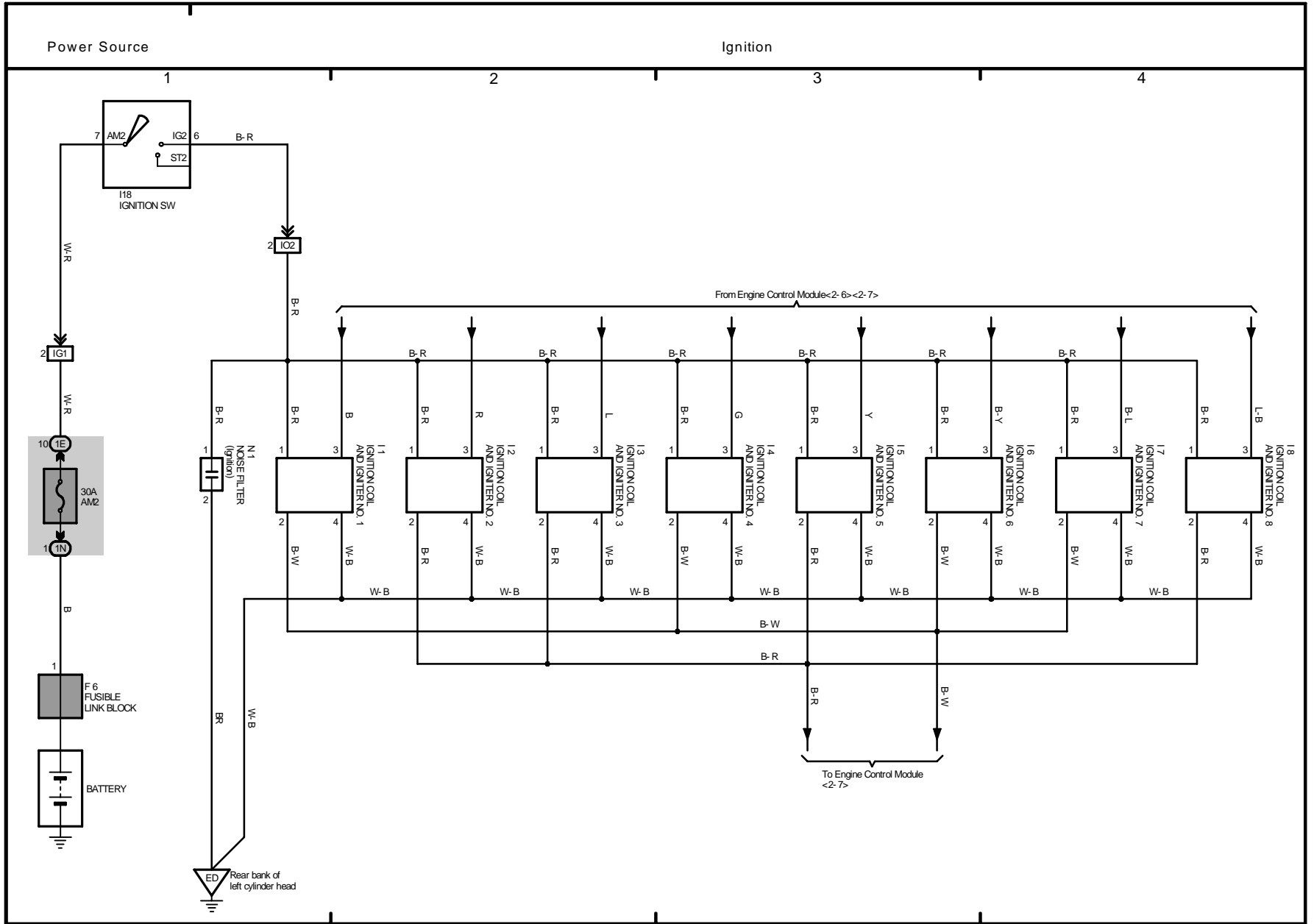


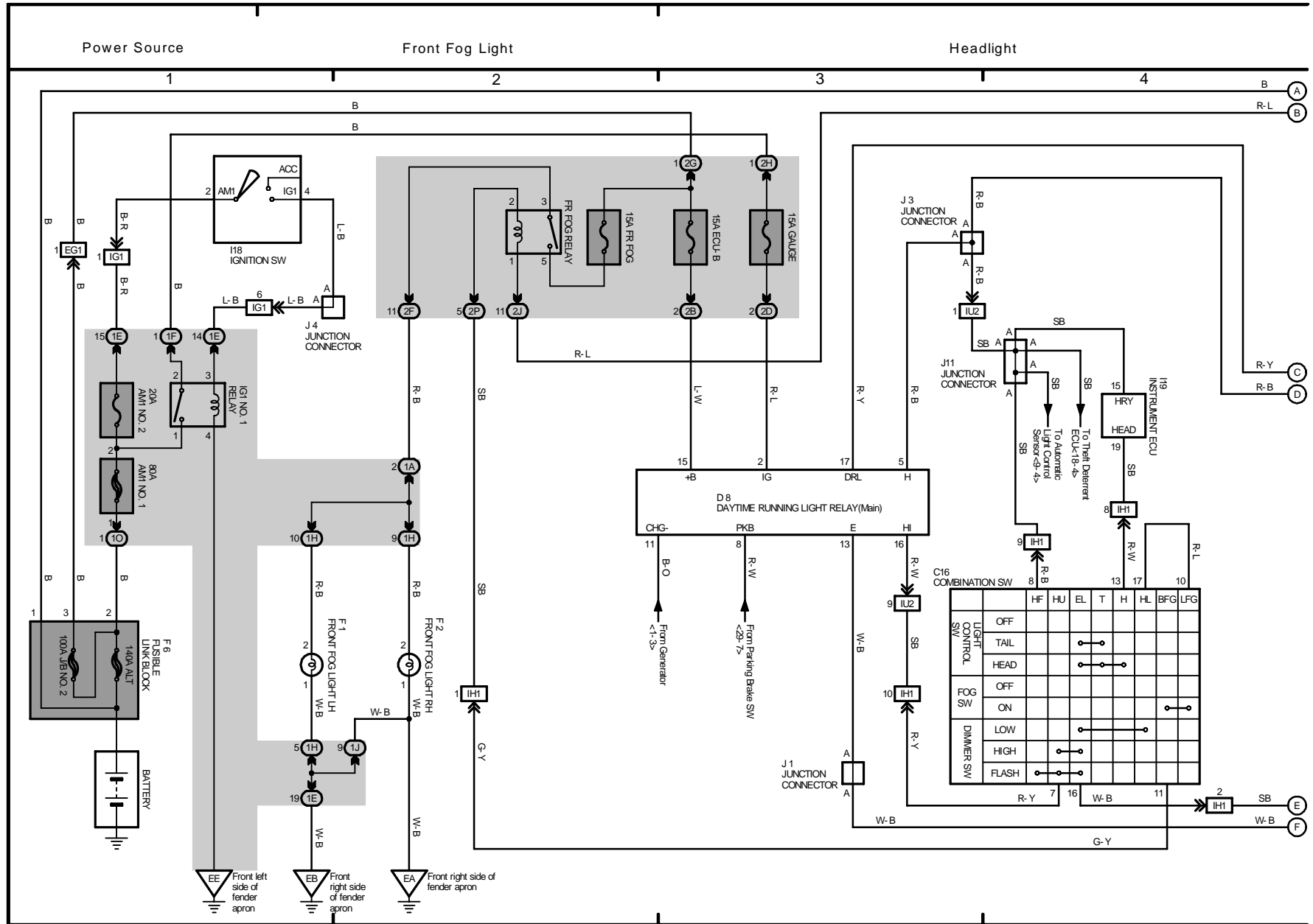
Engine Control and Engine Immobiliser System

\* 1 : Shielded



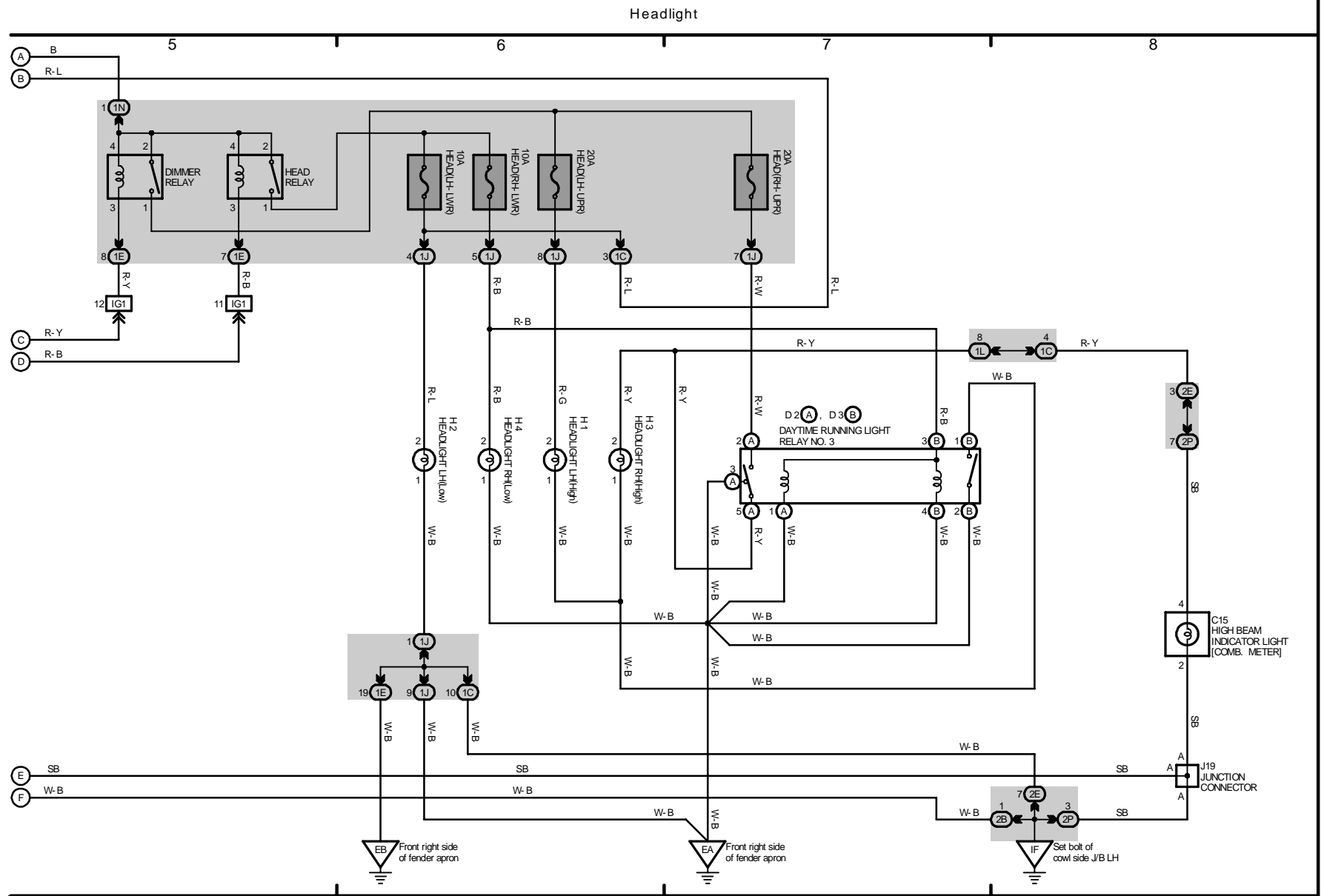
### 3 LAND CRUISER





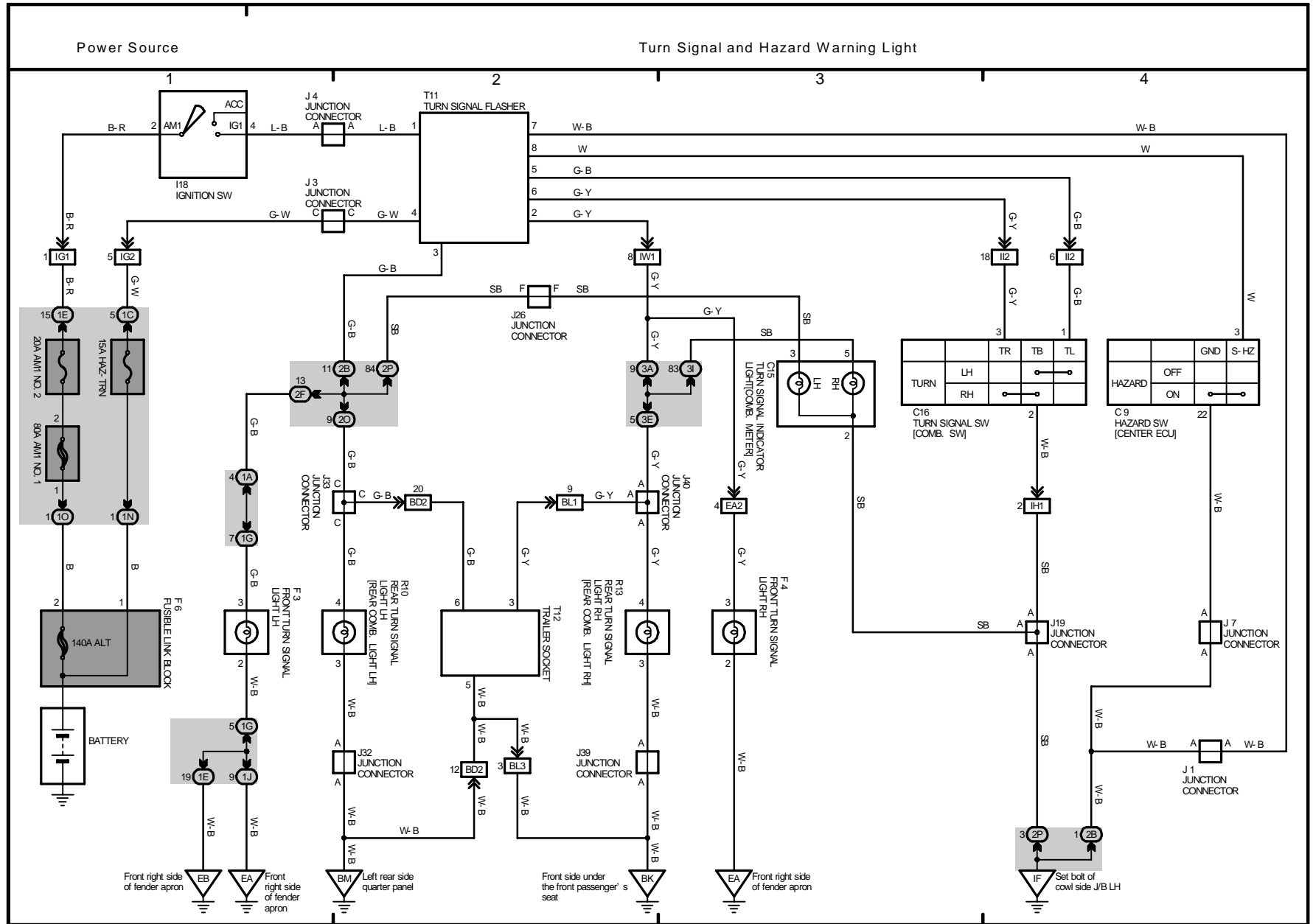
M OVERALL ELECTRICAL WIRING DIAGRAM

4 LAND CRUISER (Cont' d)



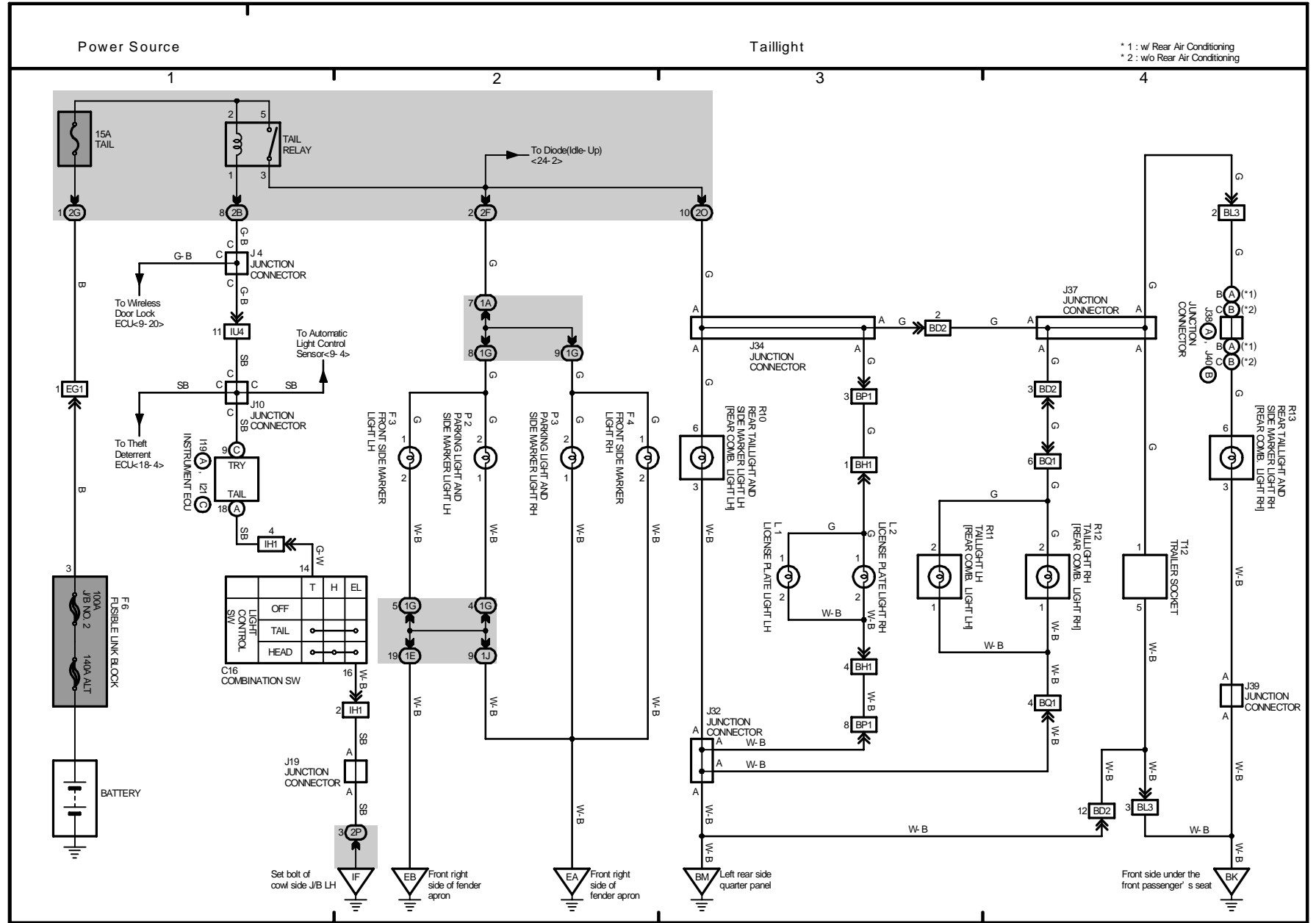


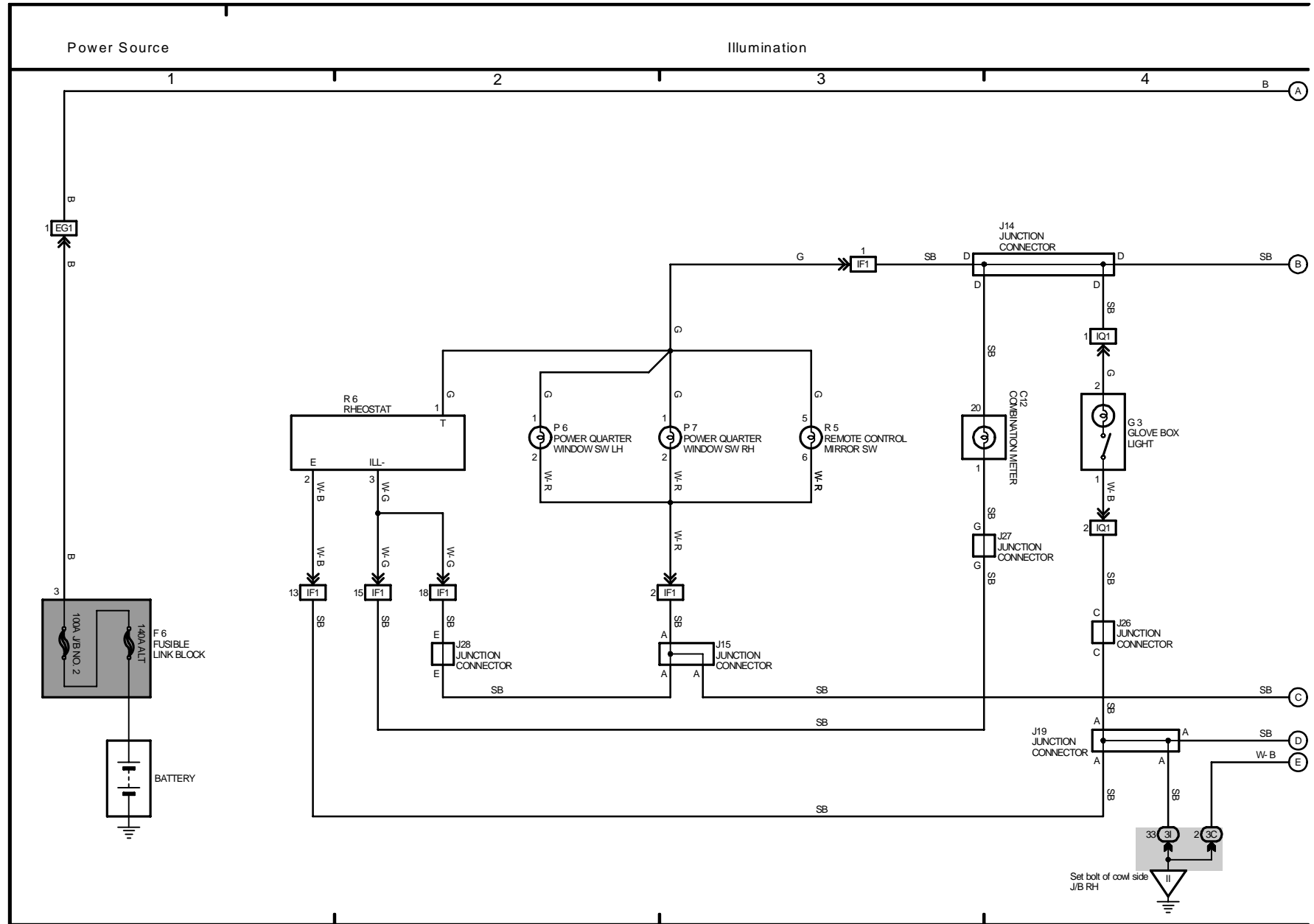
5 LAND CRUISER



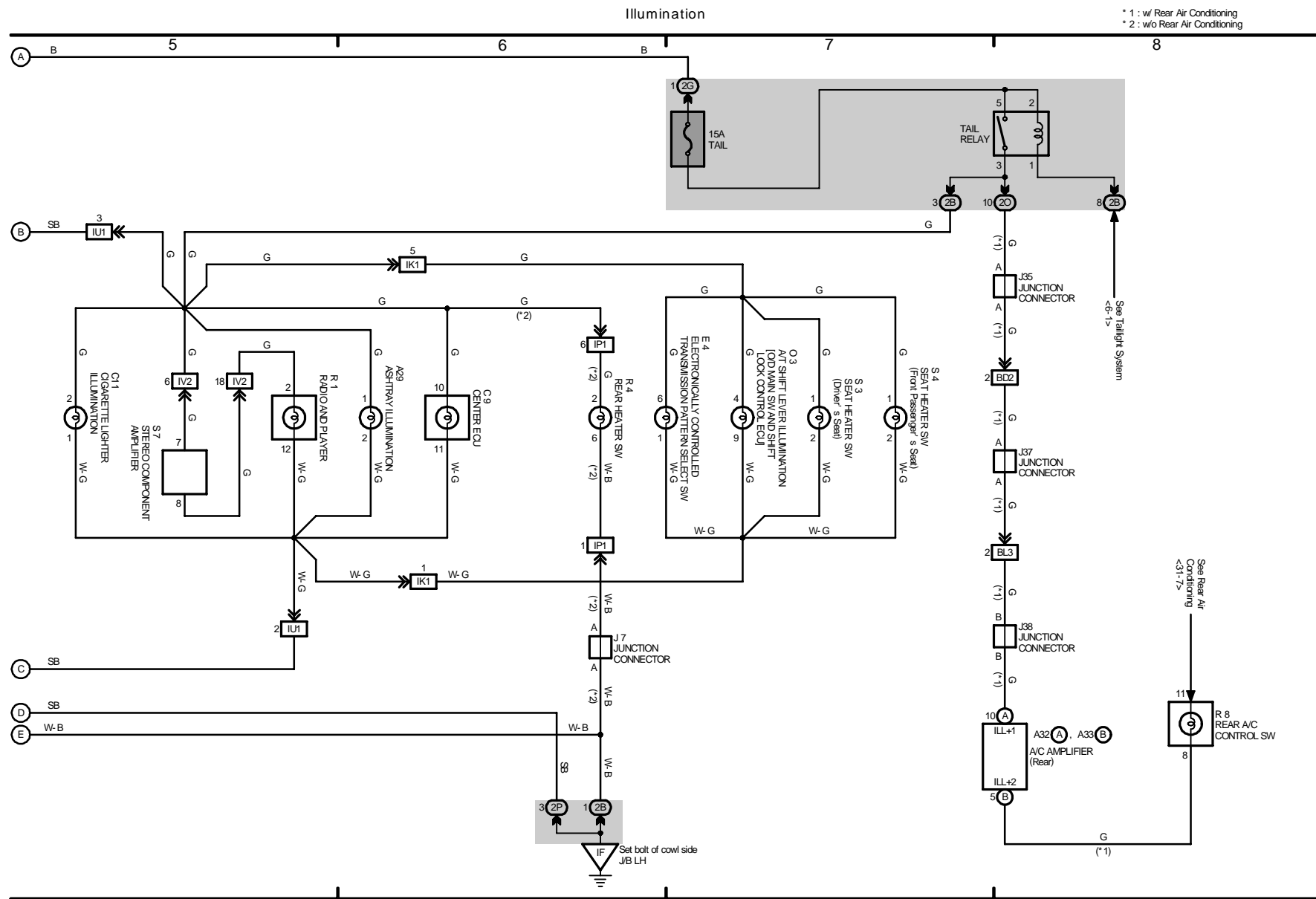
M OVERALL ELECTRICAL WIRING DIAGRAM

6 LAND CRUISER

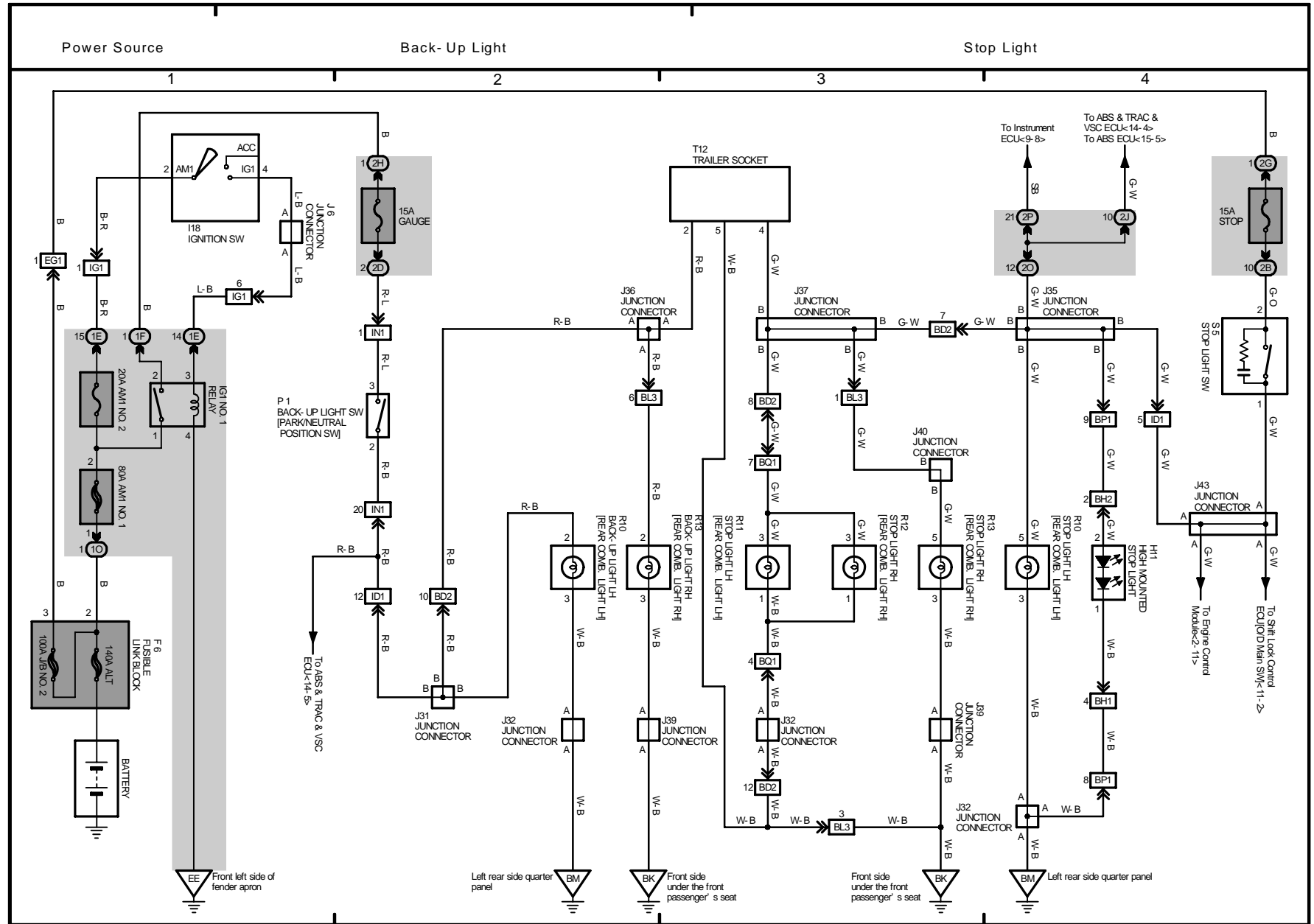




7 LAND CRUISER (Cont' d)

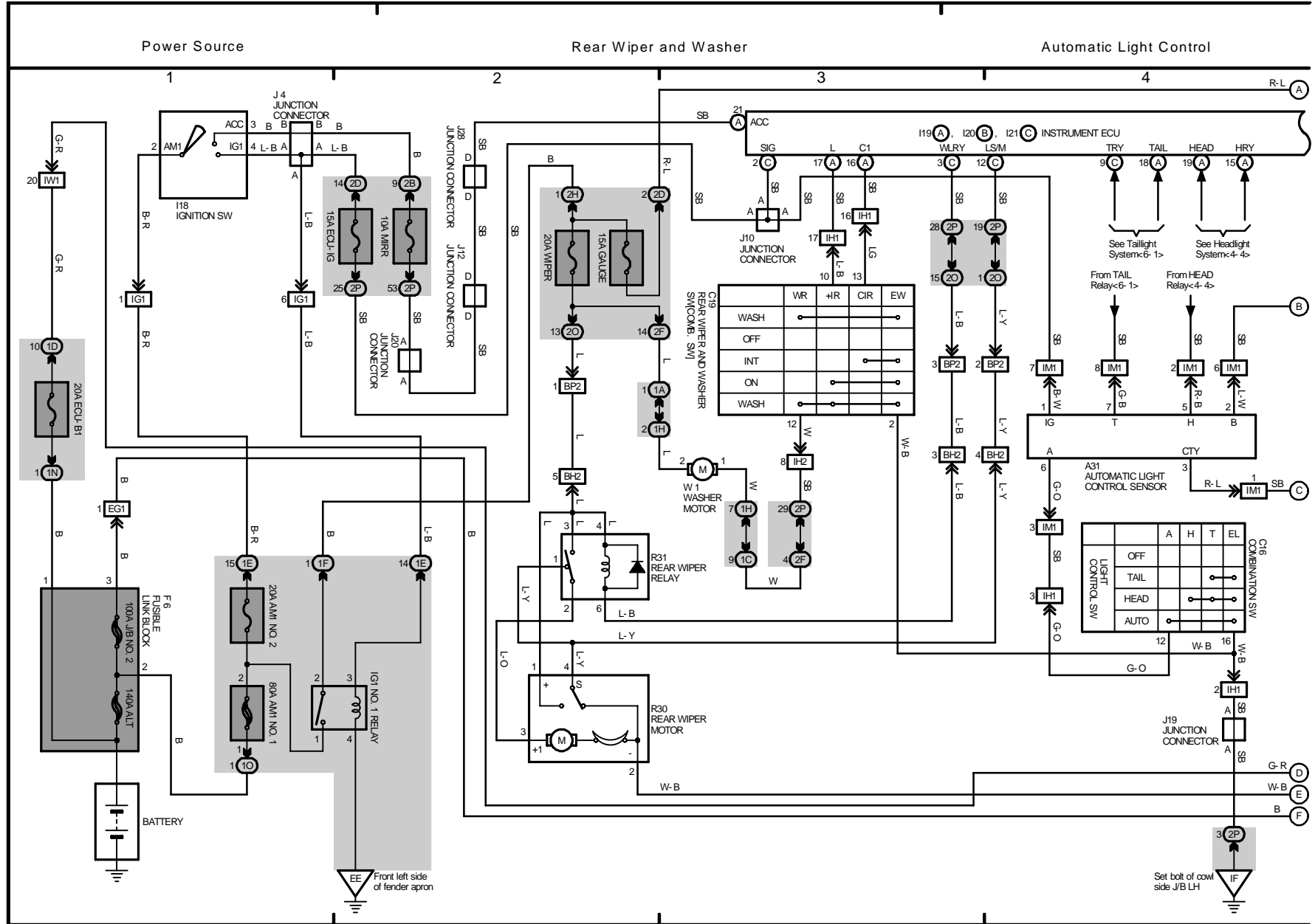


8 LAND CRUISER



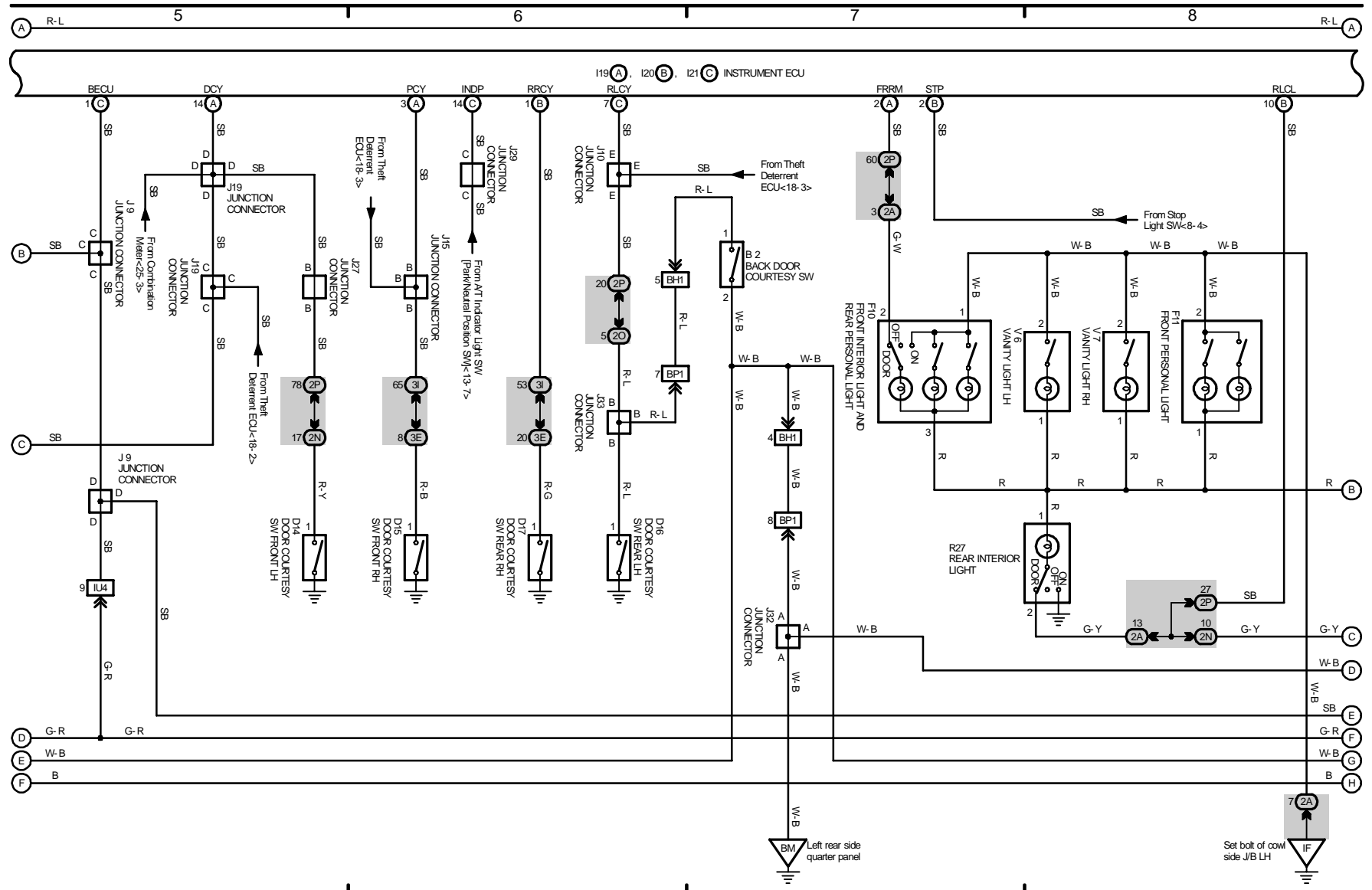
M OVERALL ELECTRICAL WIRING DIAGRAM



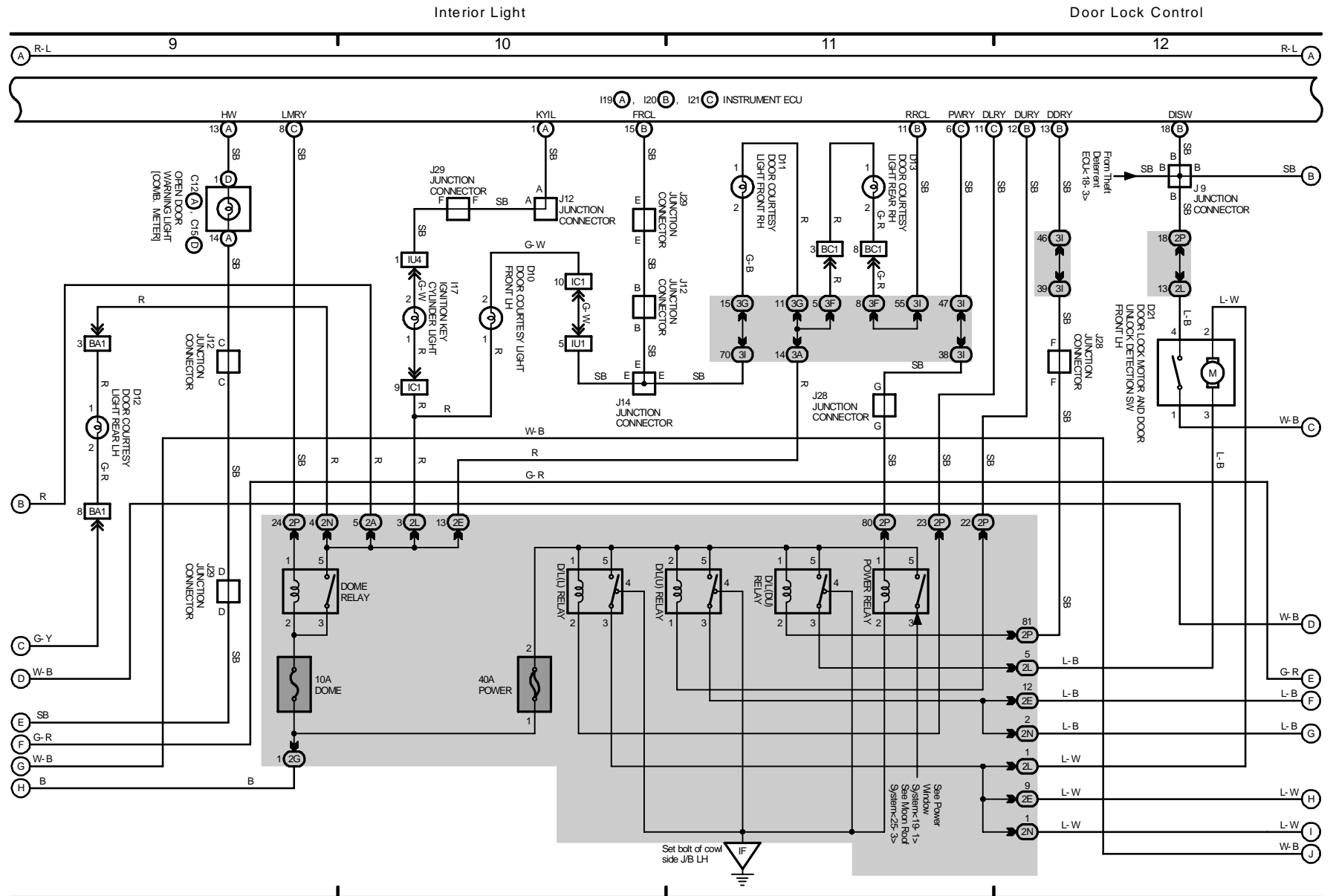


OVERALL ELECTRICAL WIRING DIAGRAM

Interior Light

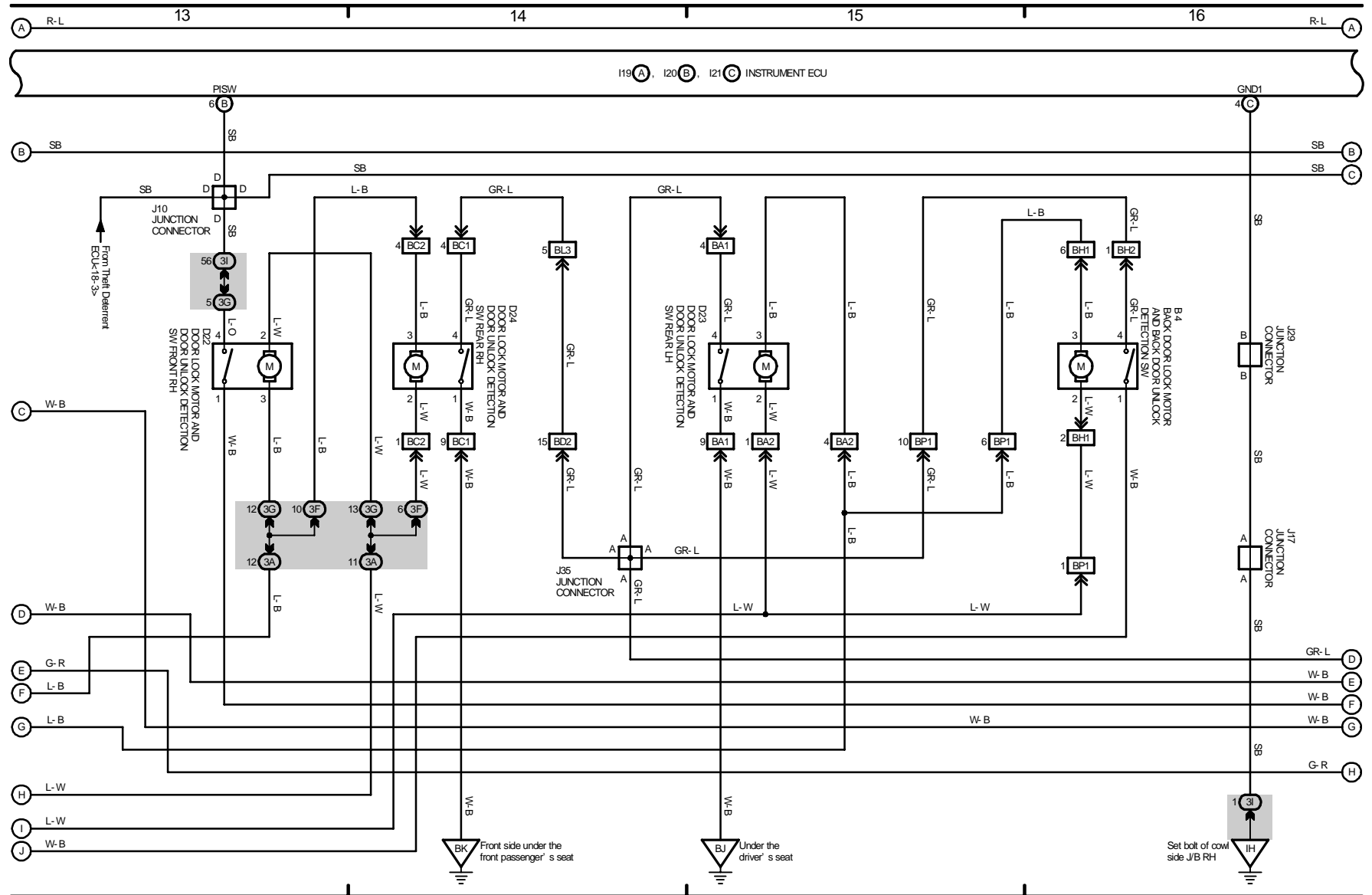


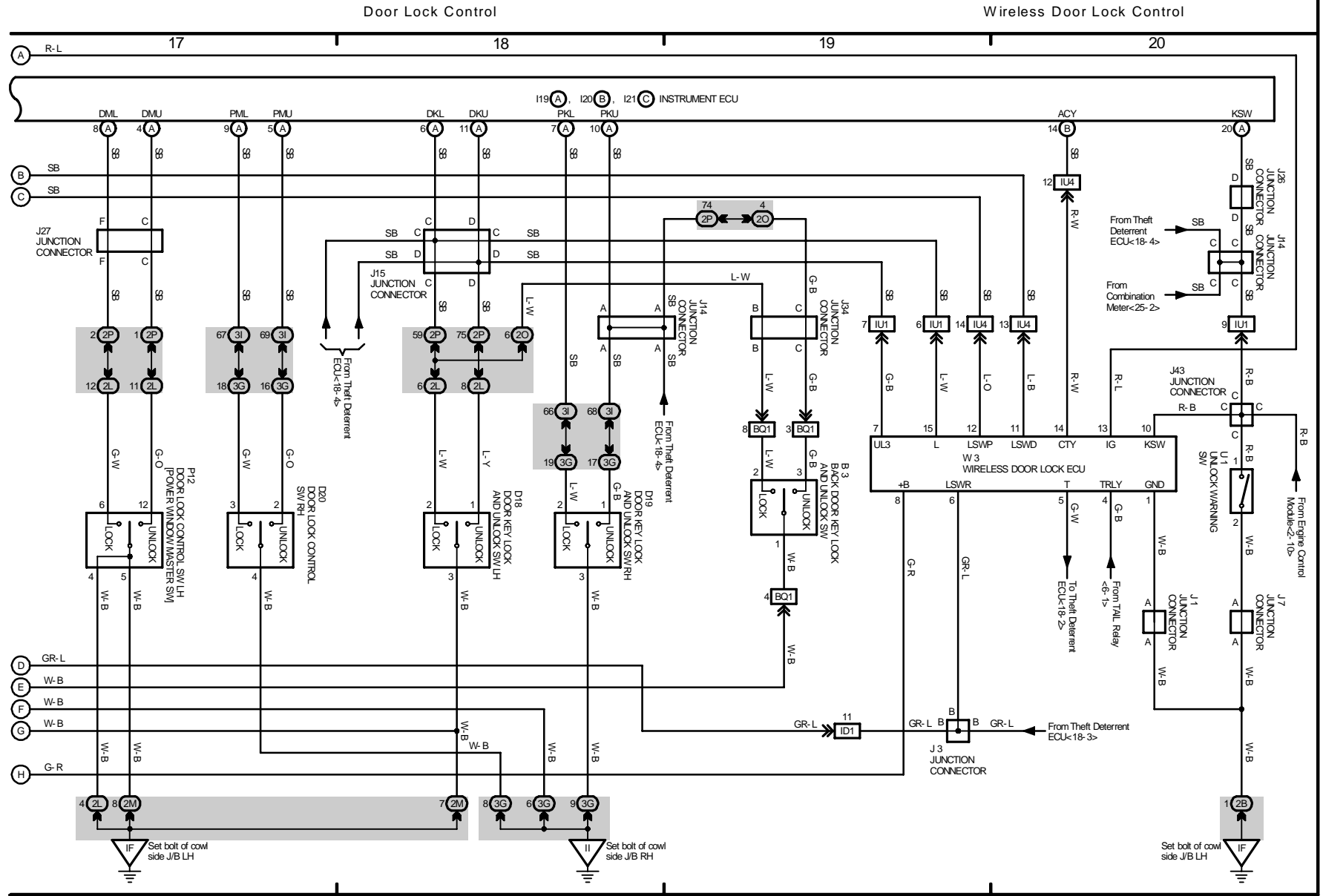




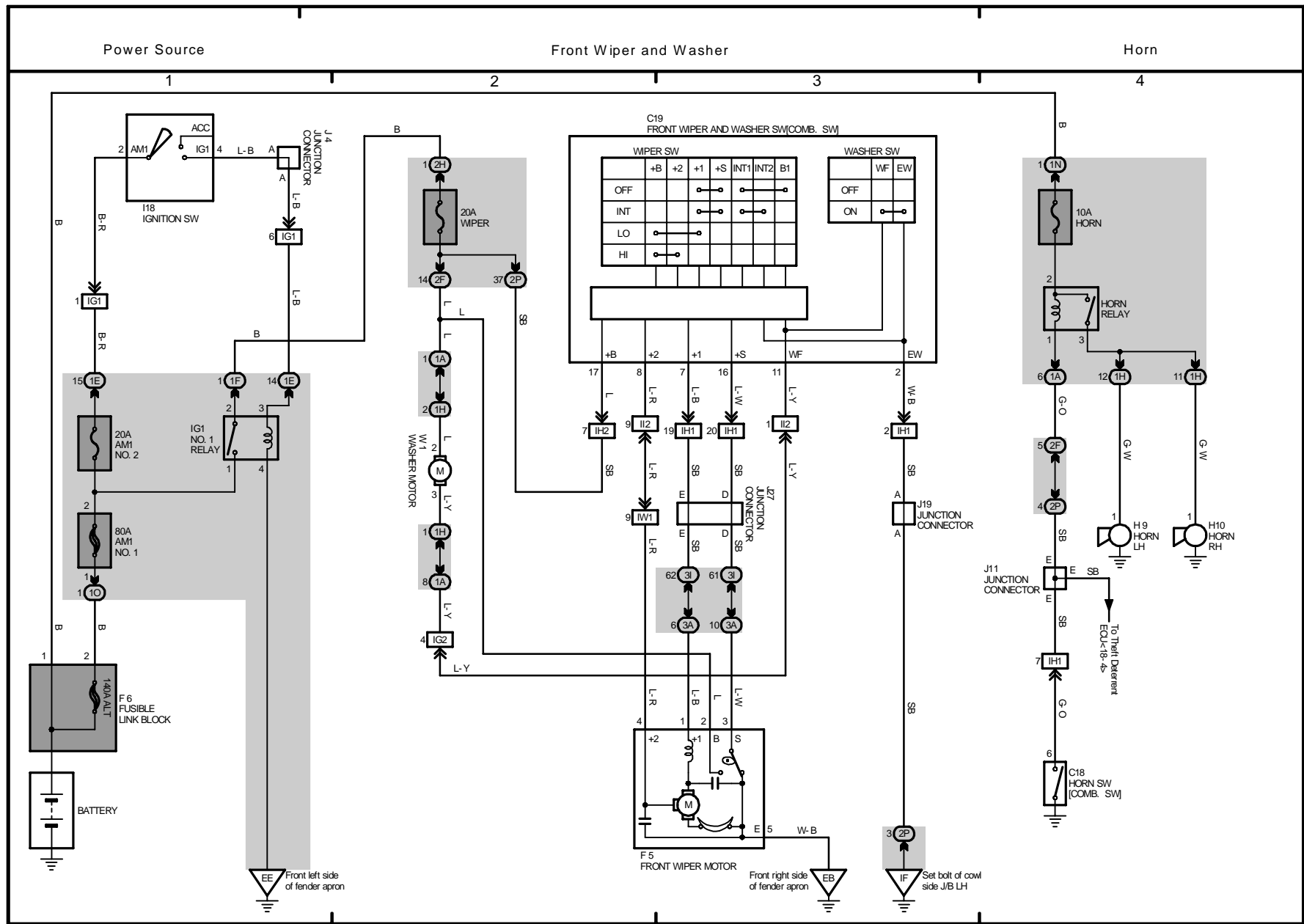
M OVERALL ELECTRICAL WIRING DIAGRAM

Door Lock Control

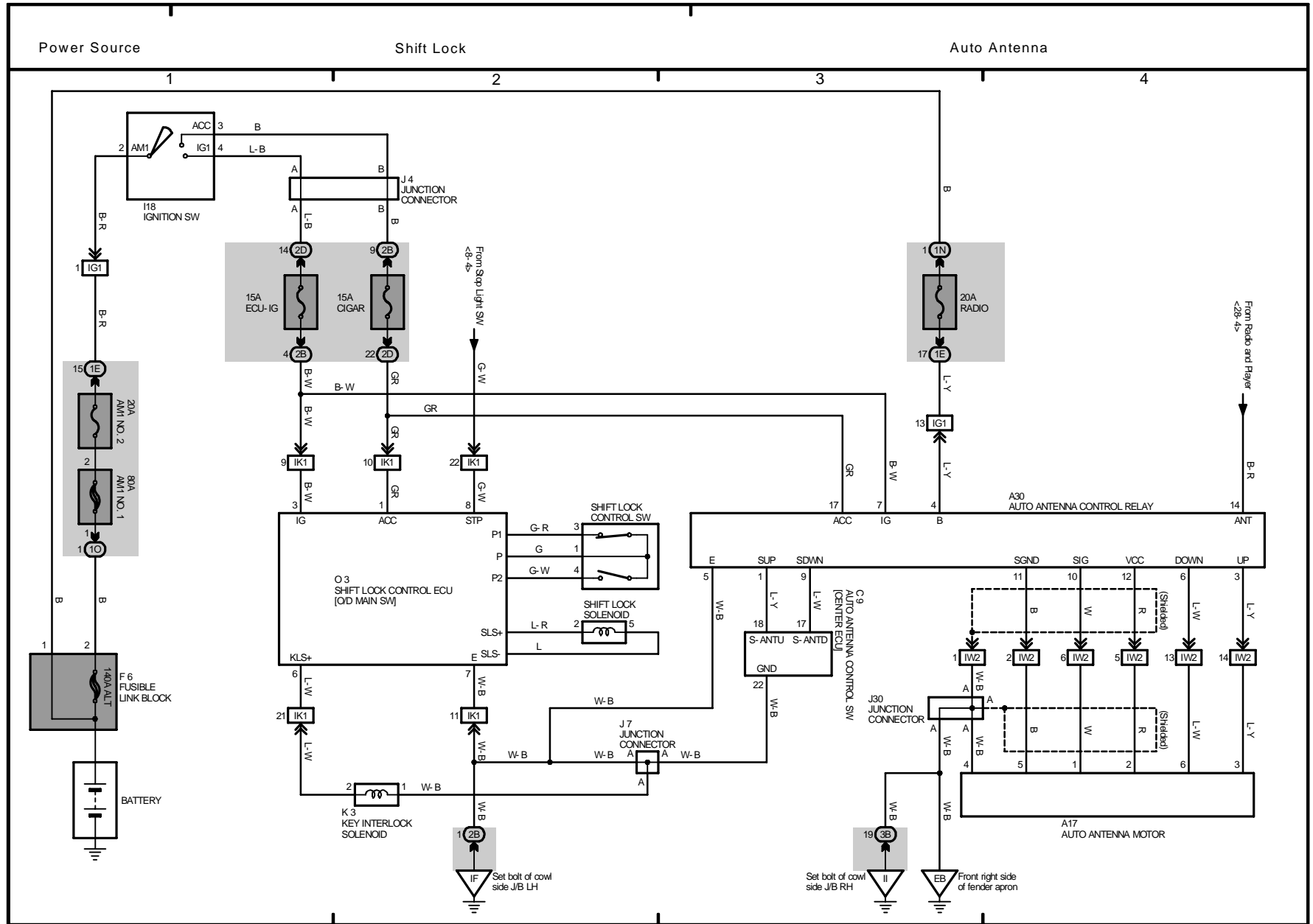




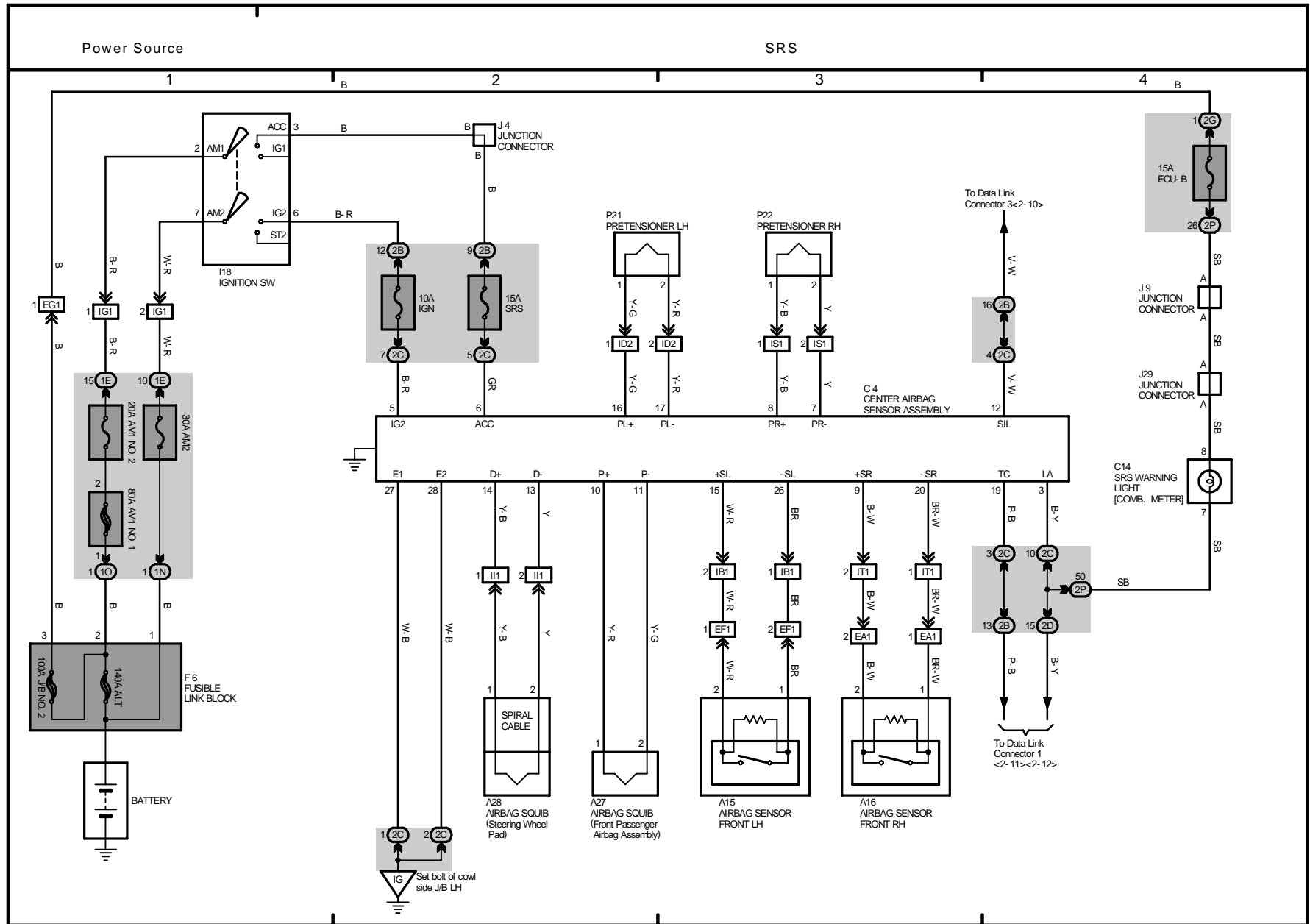
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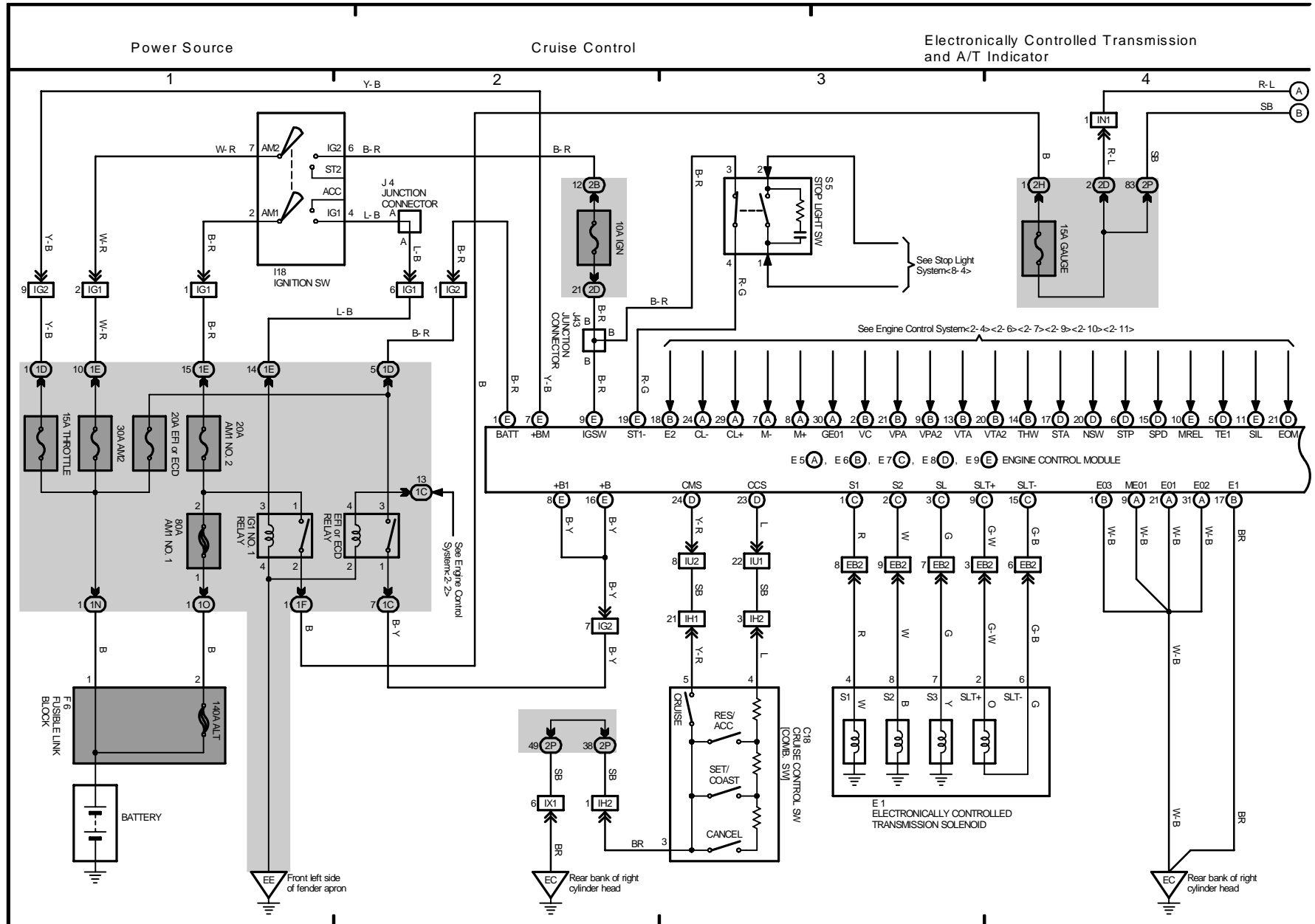


11 LAND CRUISER



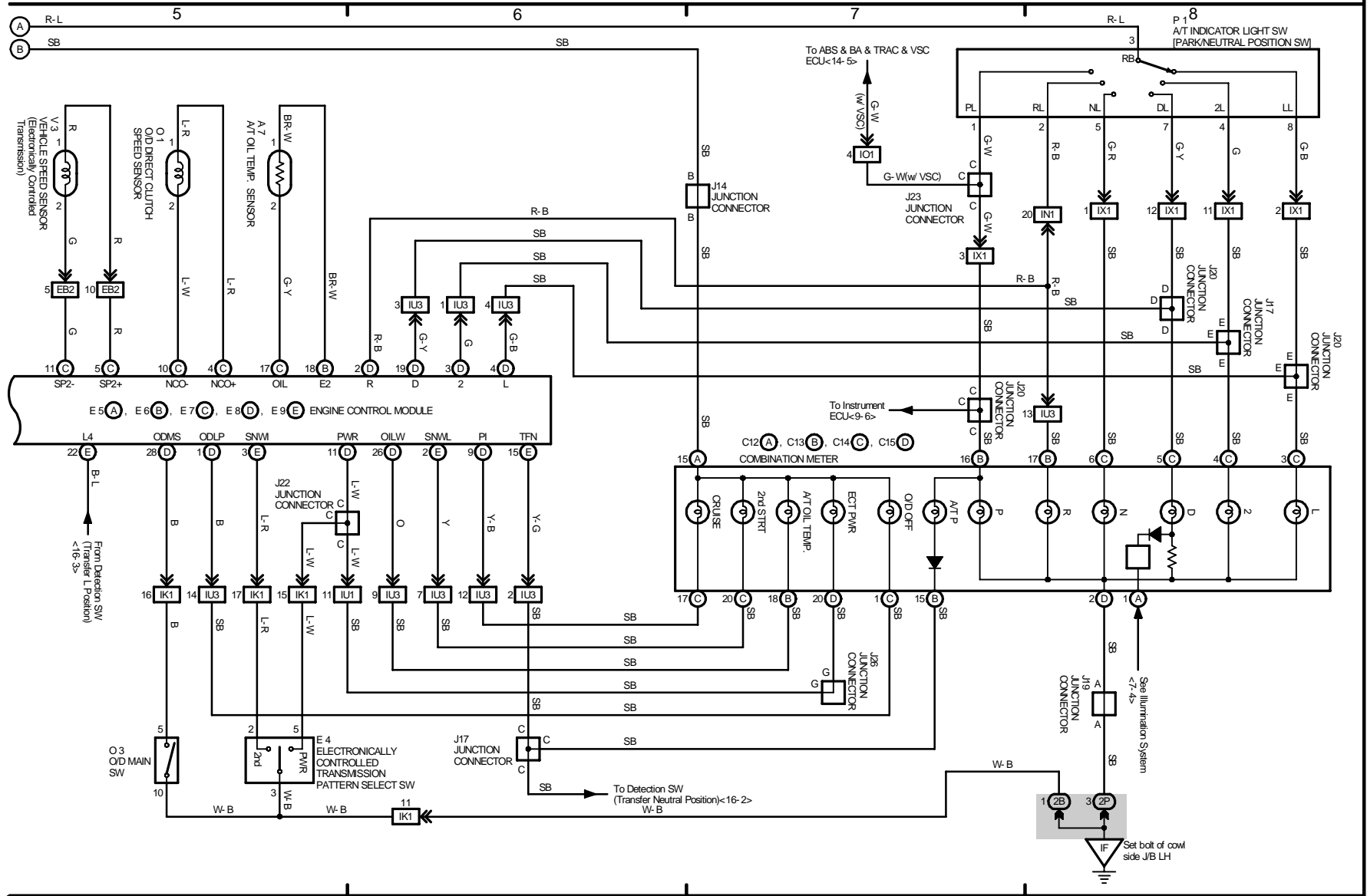
12 LAND CRUISER



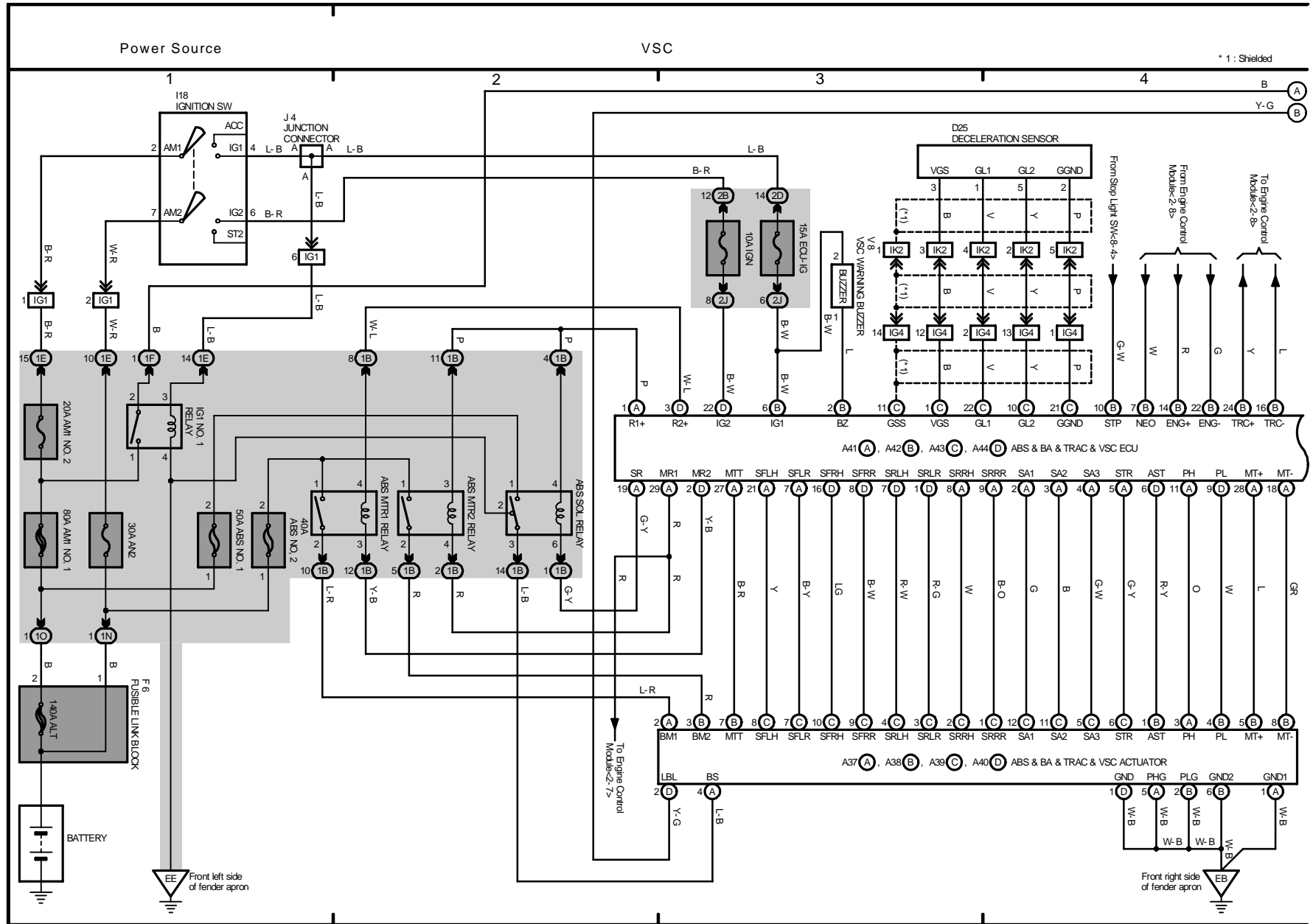


M OVERALL ELECTRICAL WIRING DIAGRAM

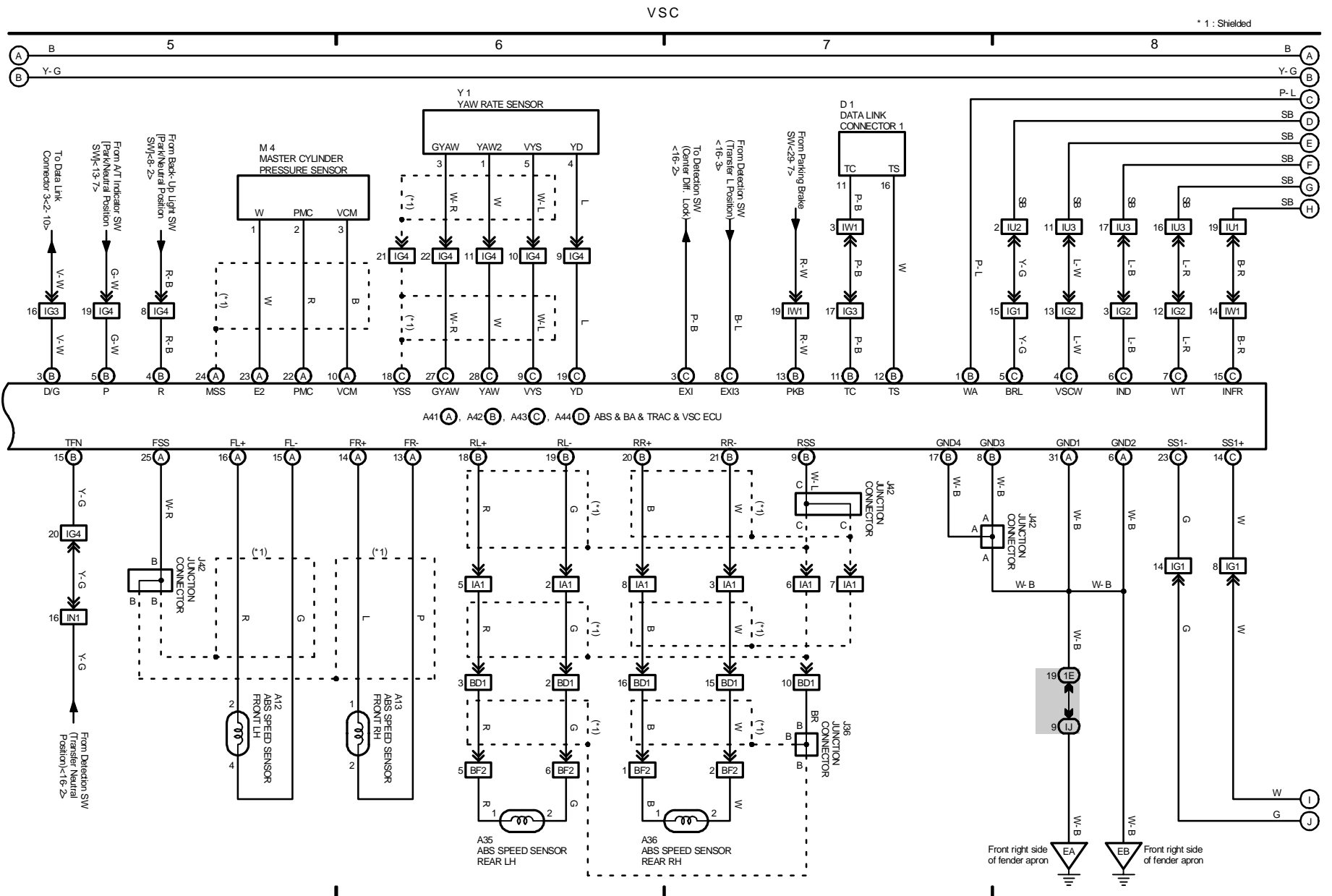
Electronically Controlled Transmission and A/T Indicator

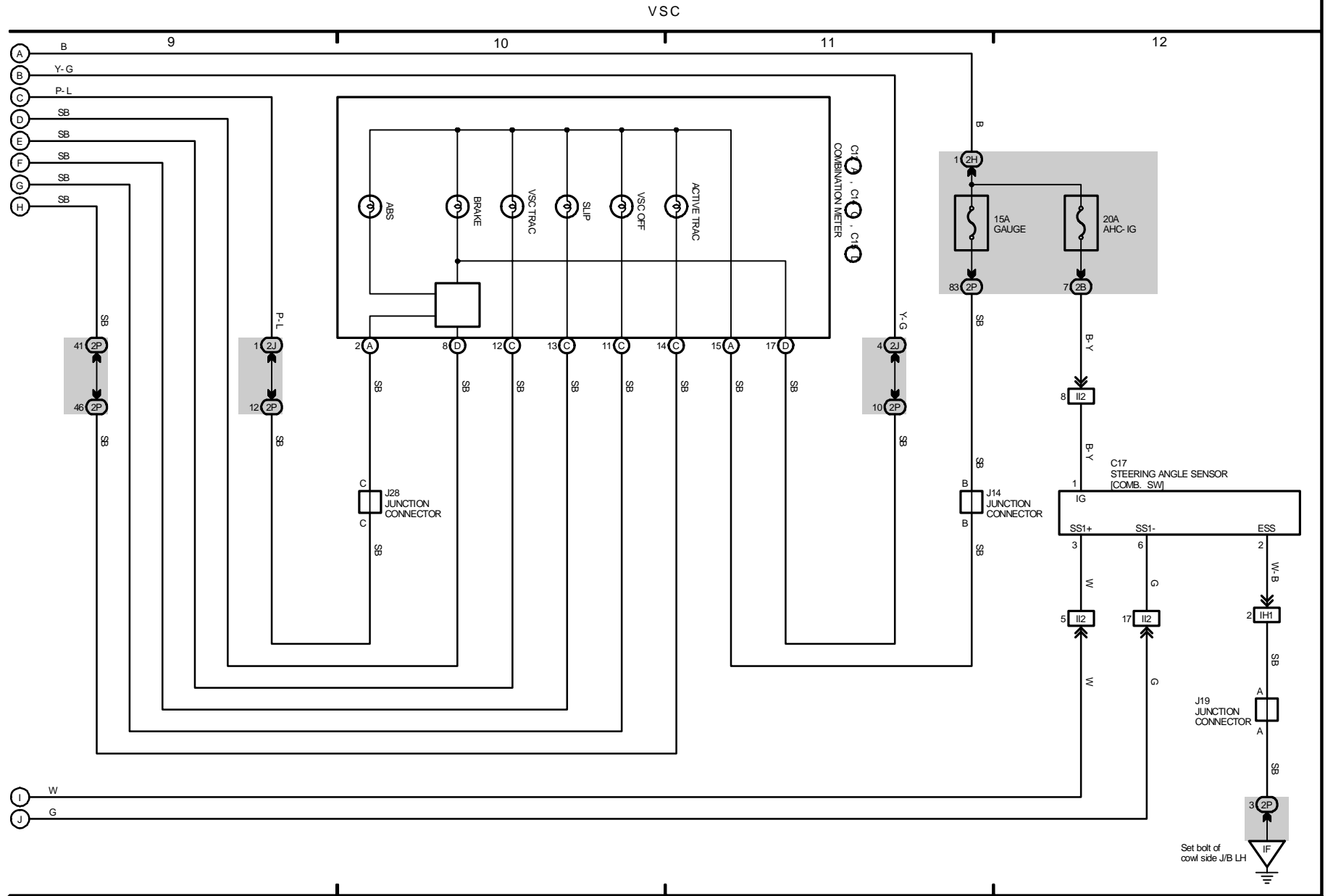




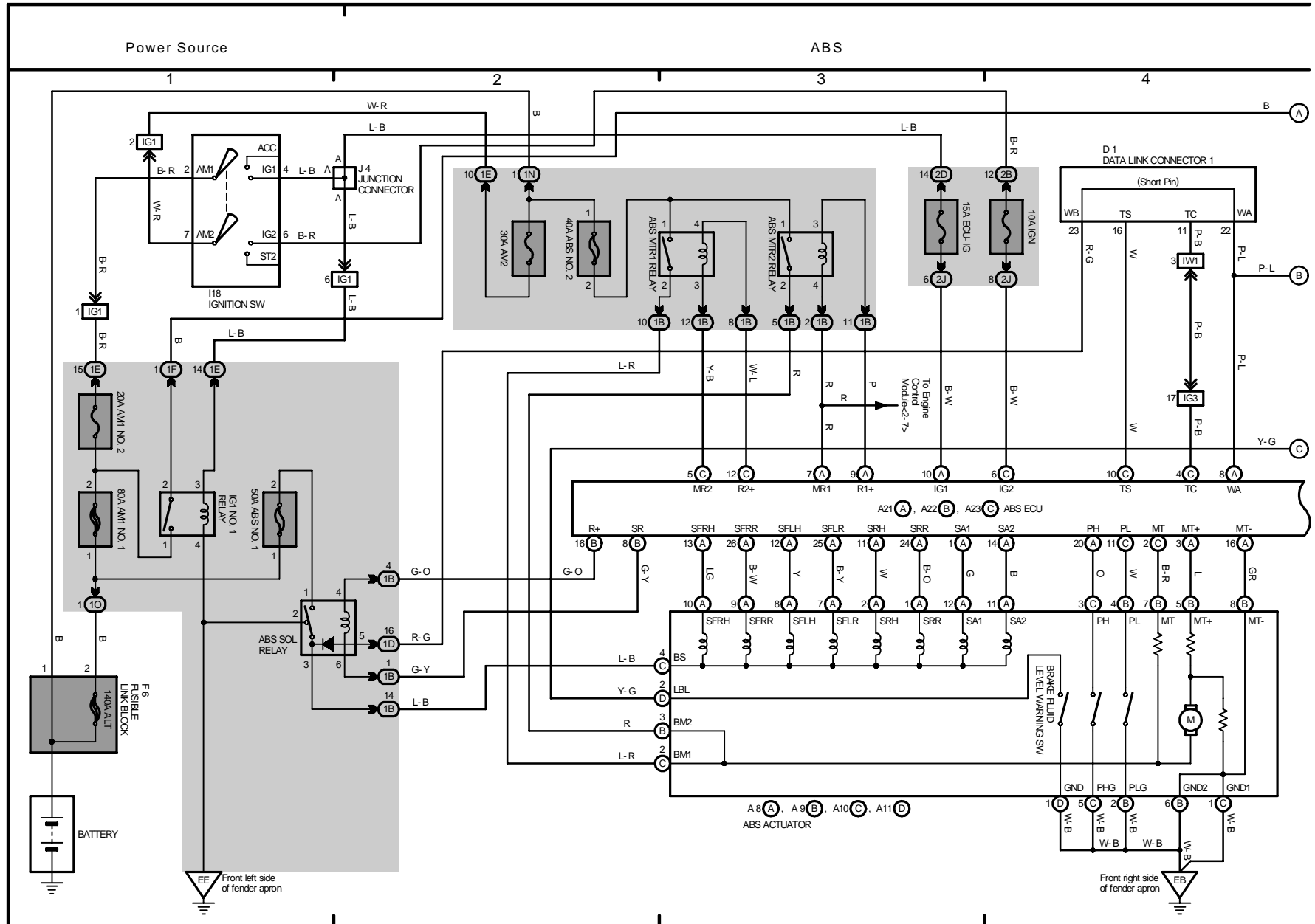


M OVERALL ELECTRICAL WIRING DIAGRAM



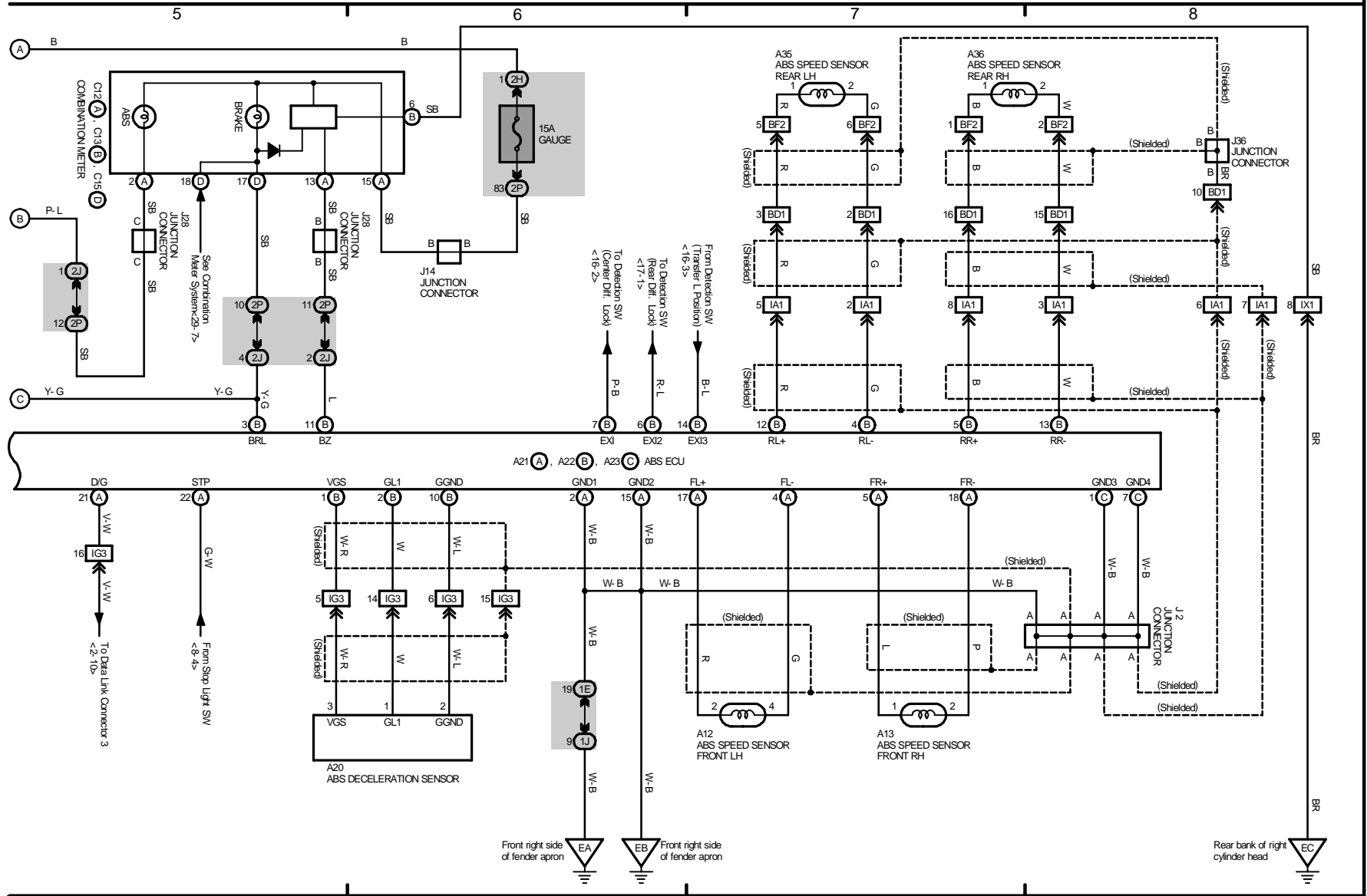




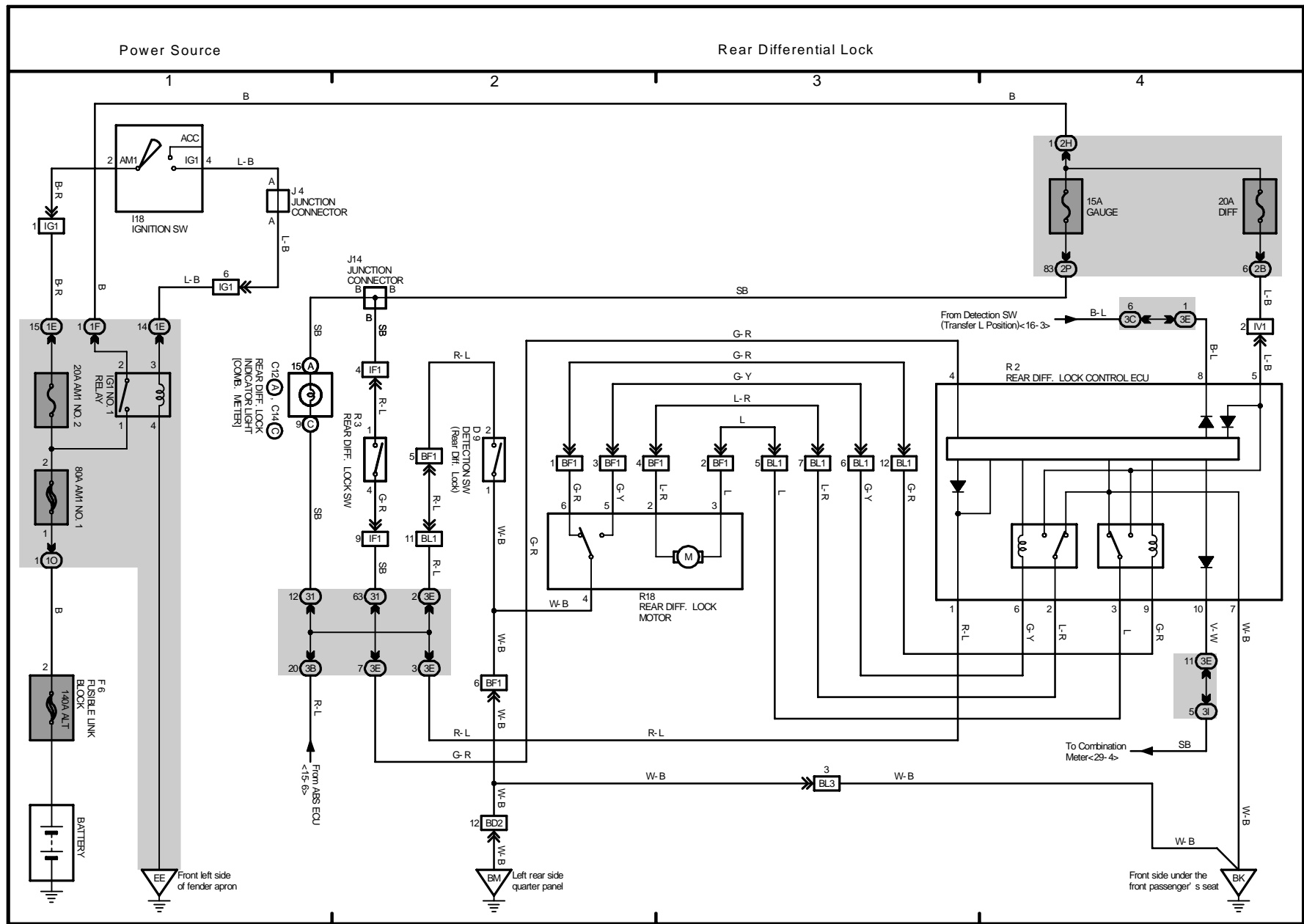


M OVERALL ELECTRICAL WIRING DIAGRAM

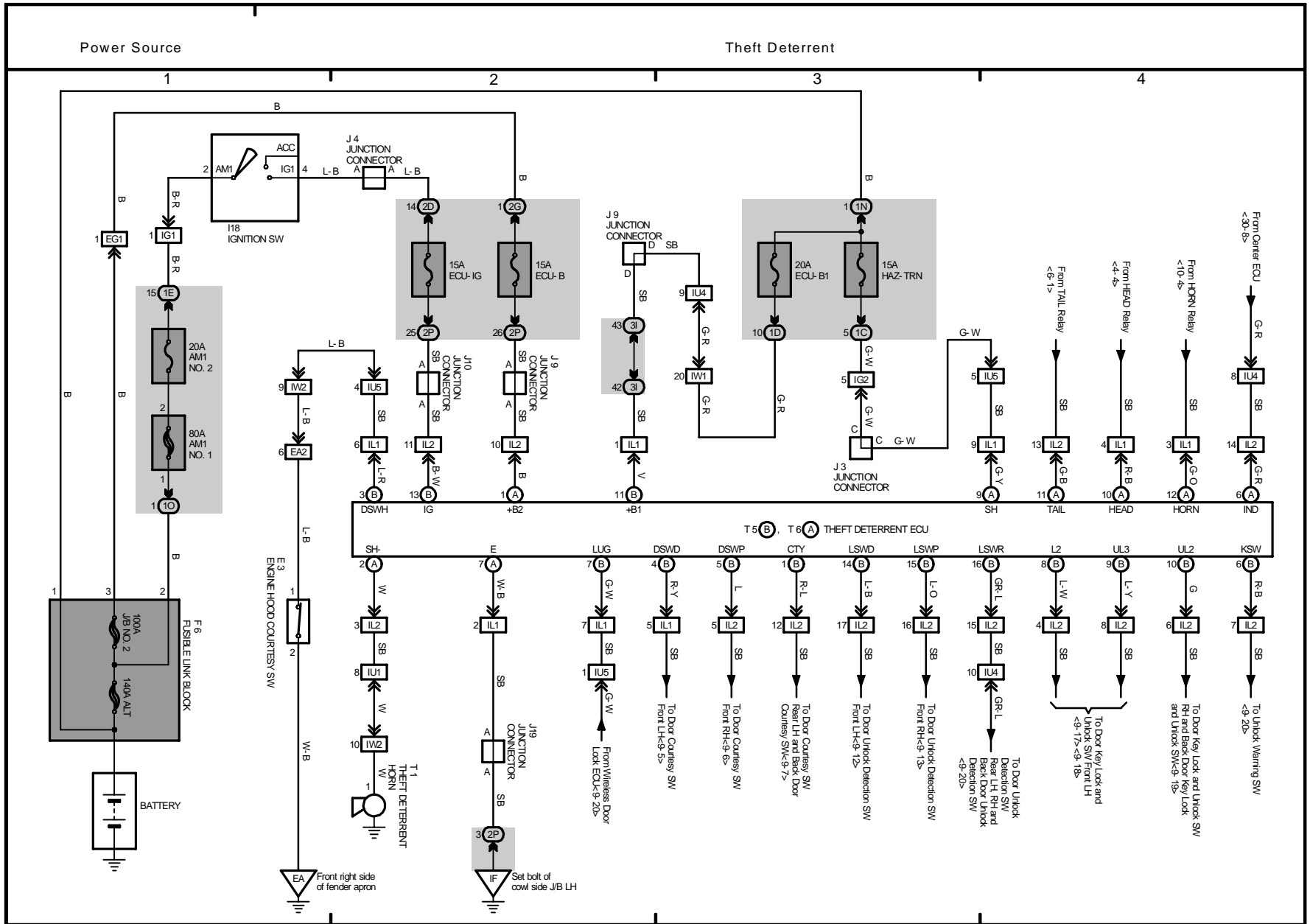
ABS

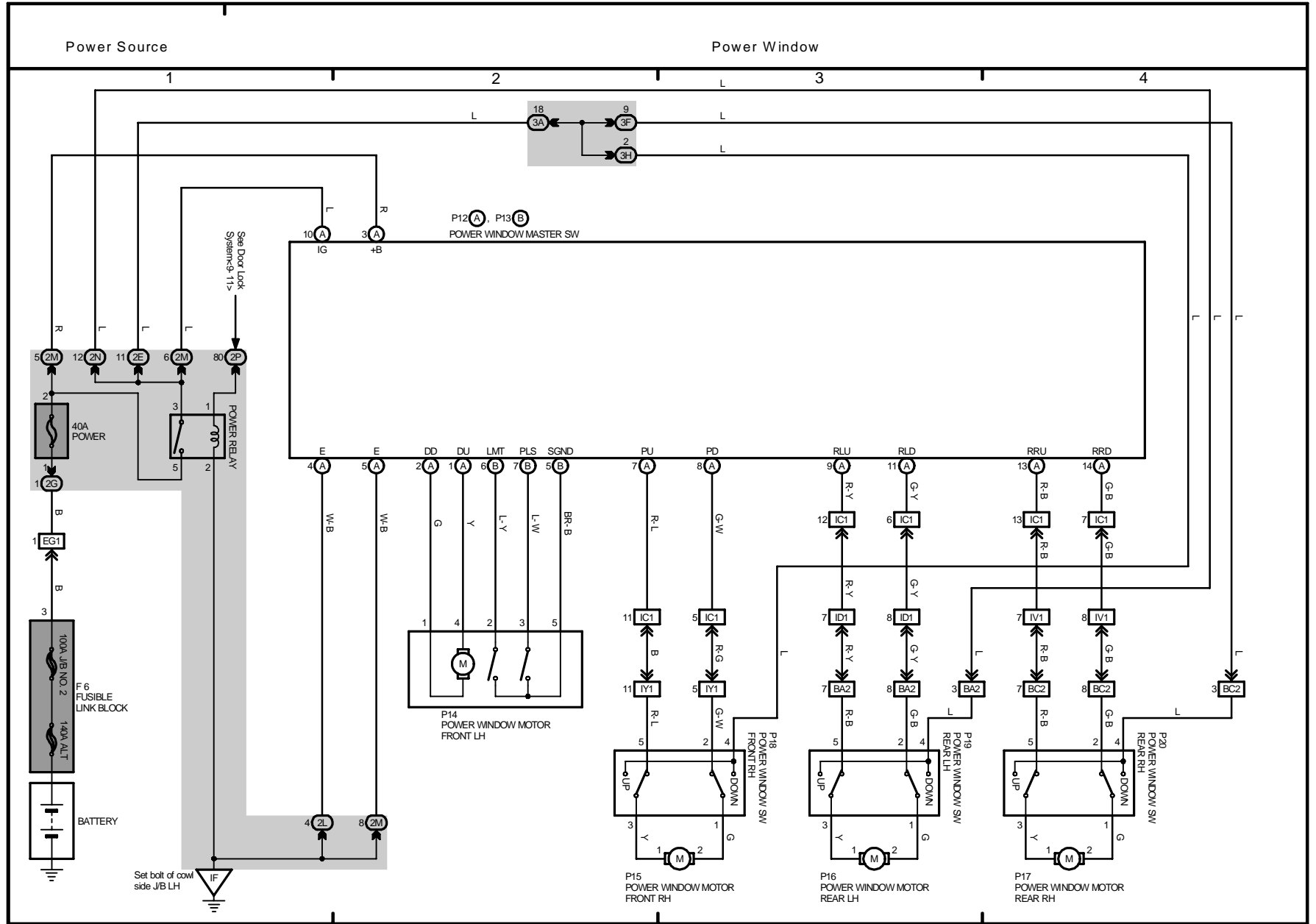






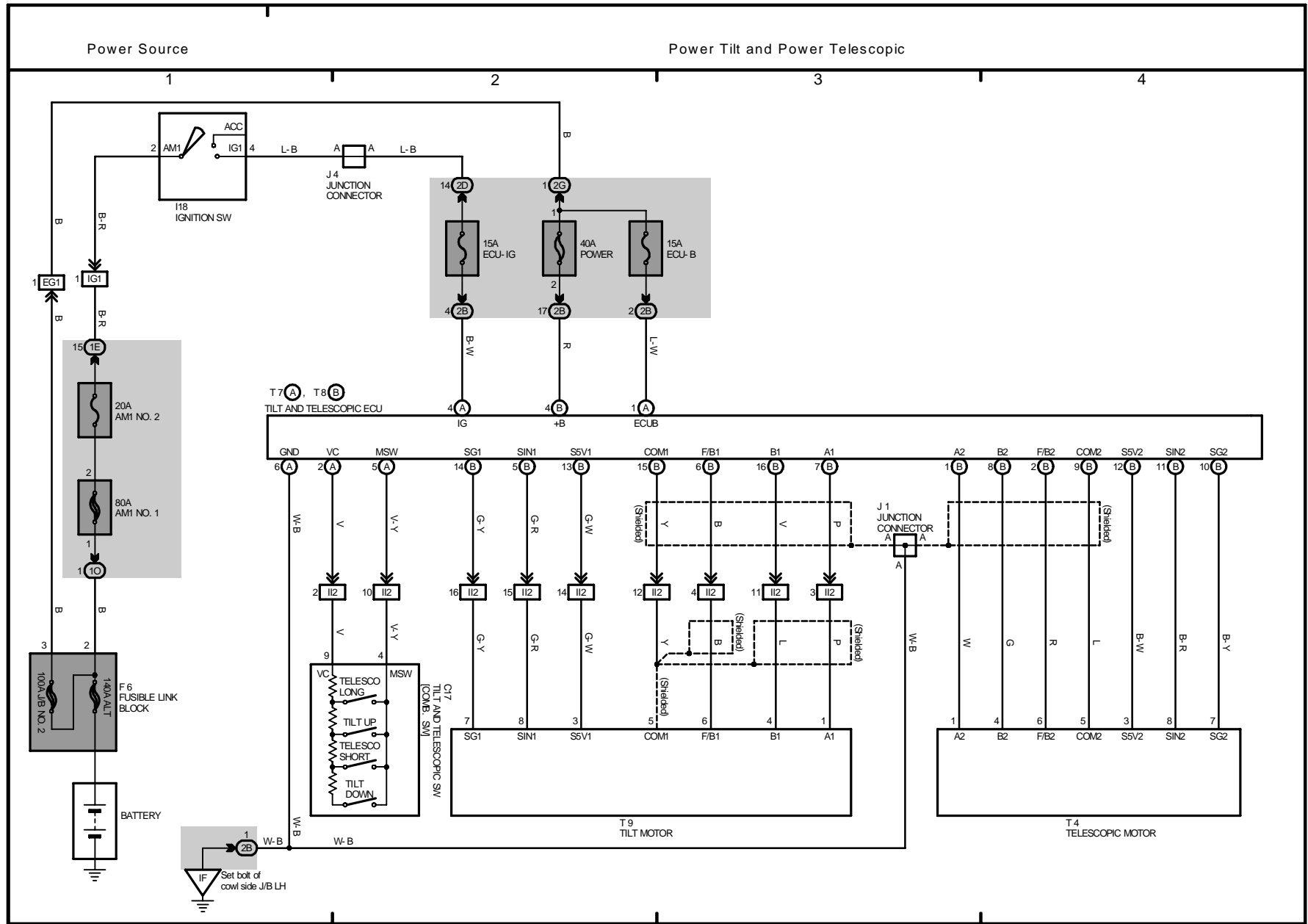


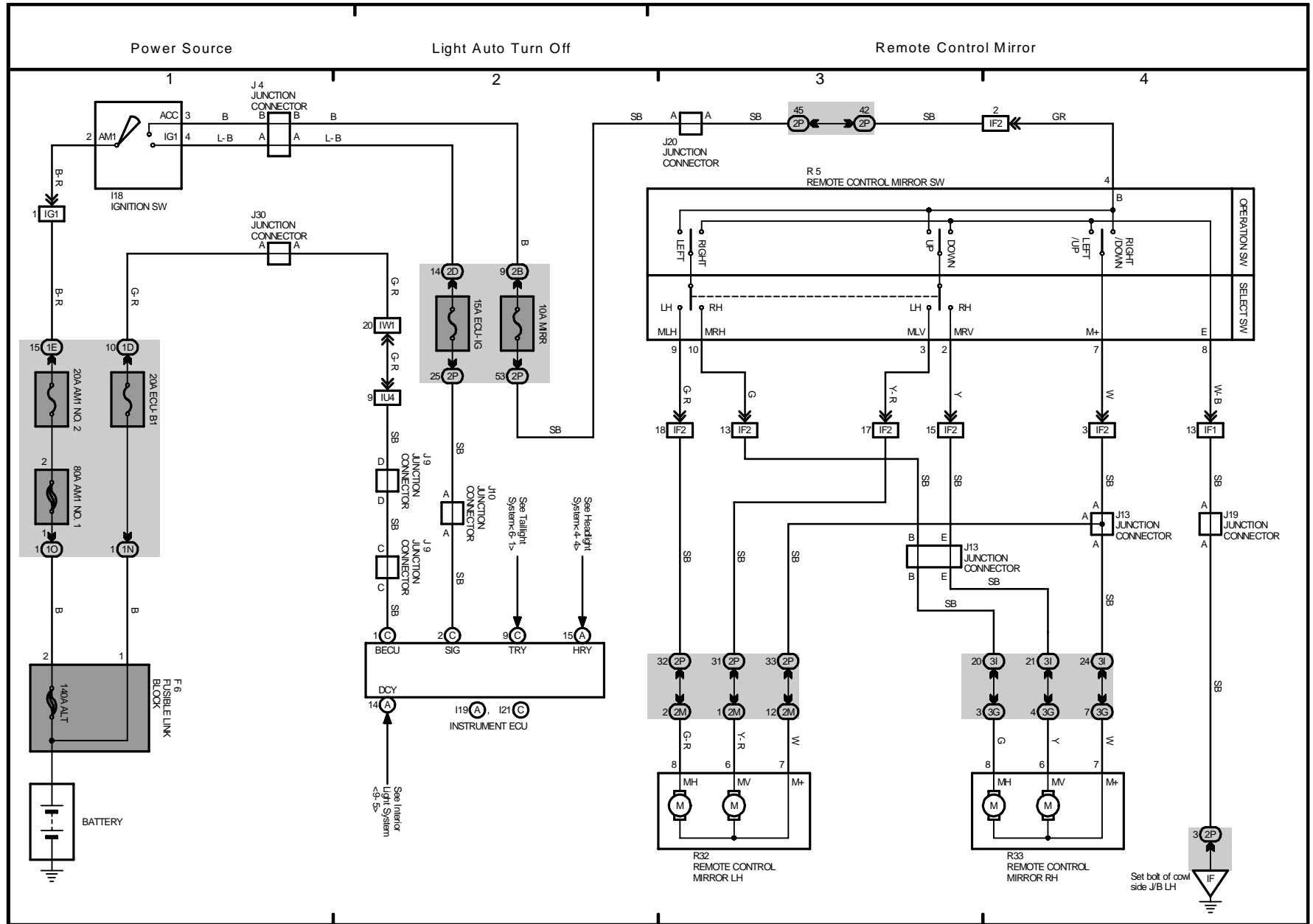




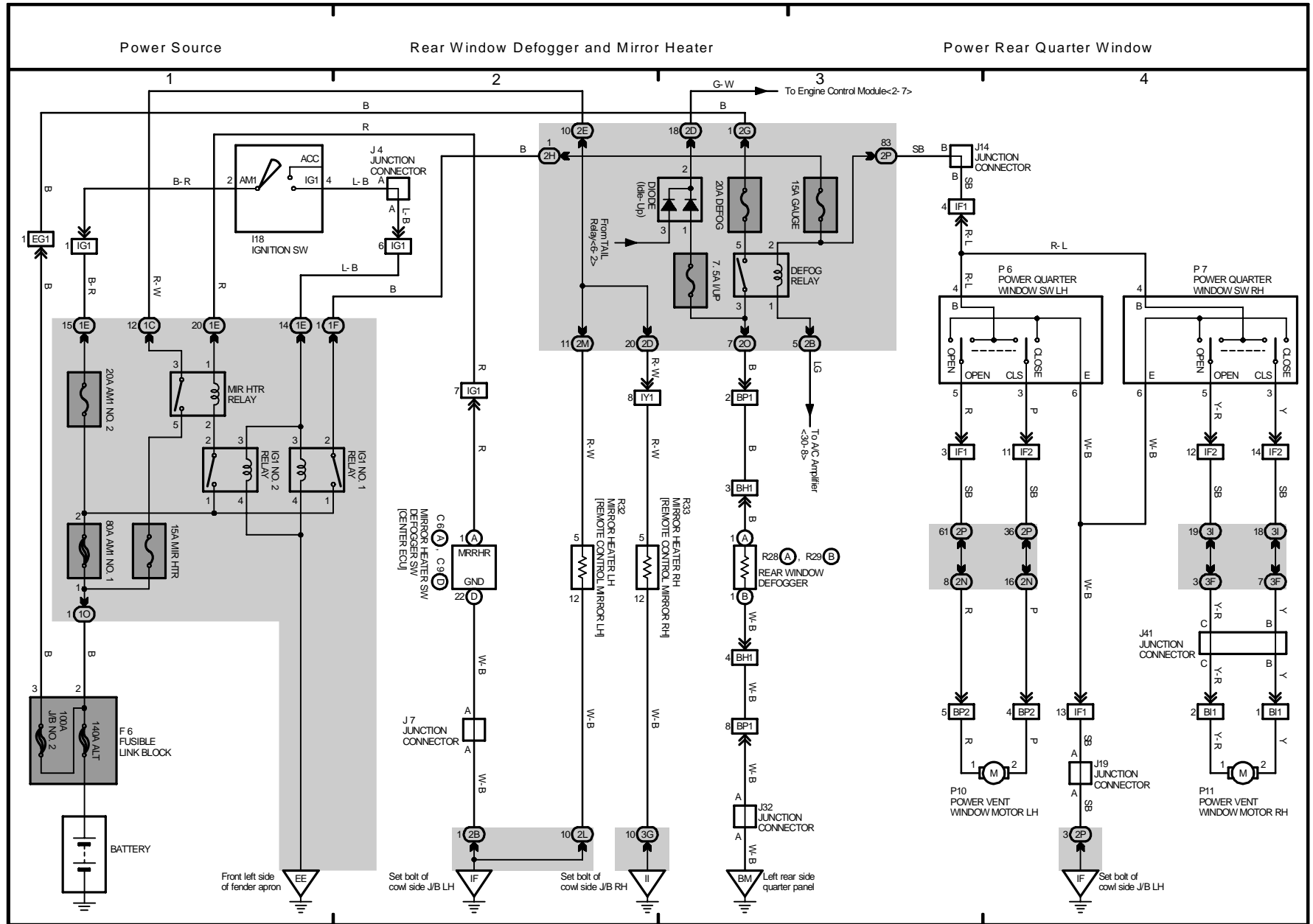


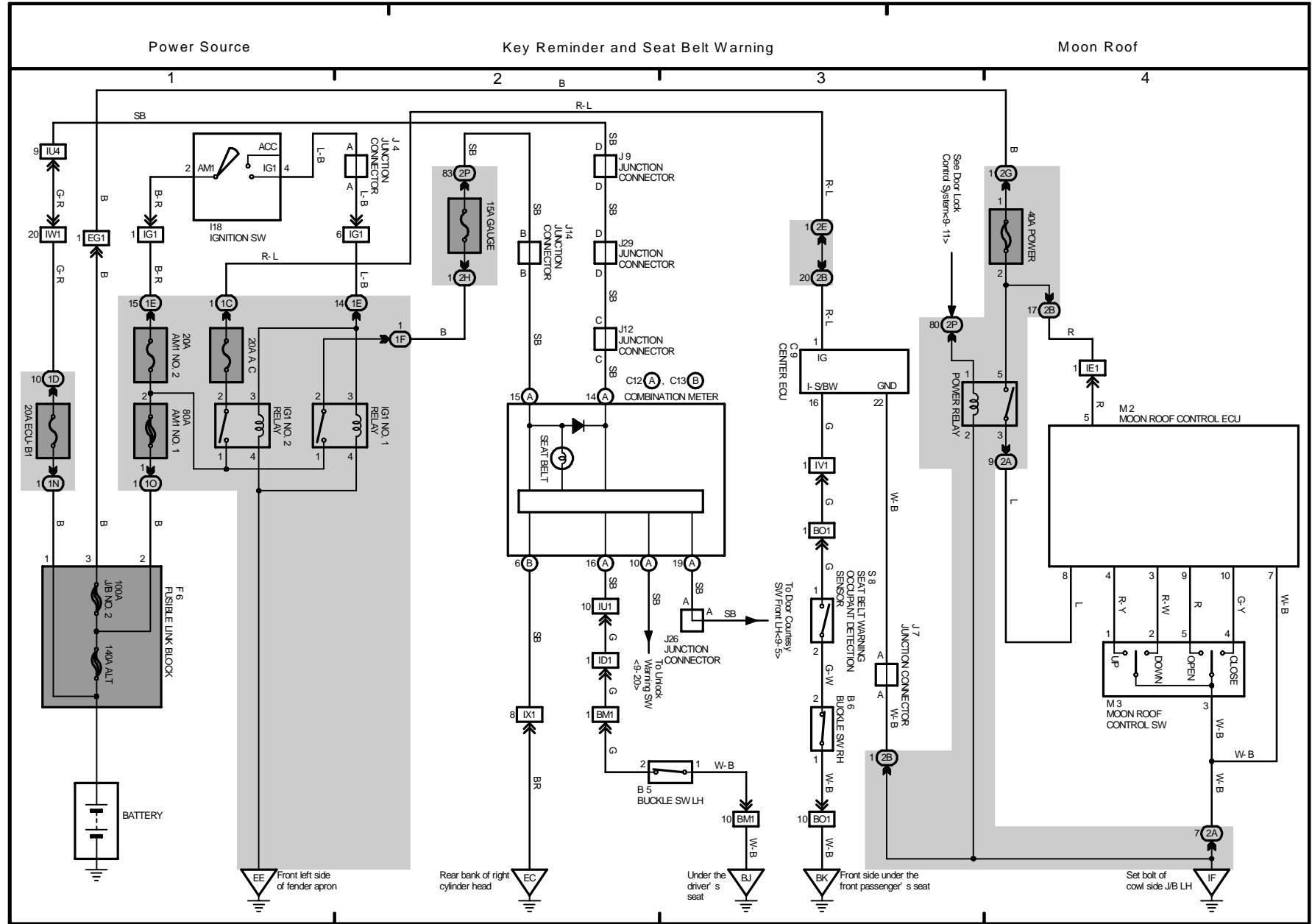
21 LAND CRUISER



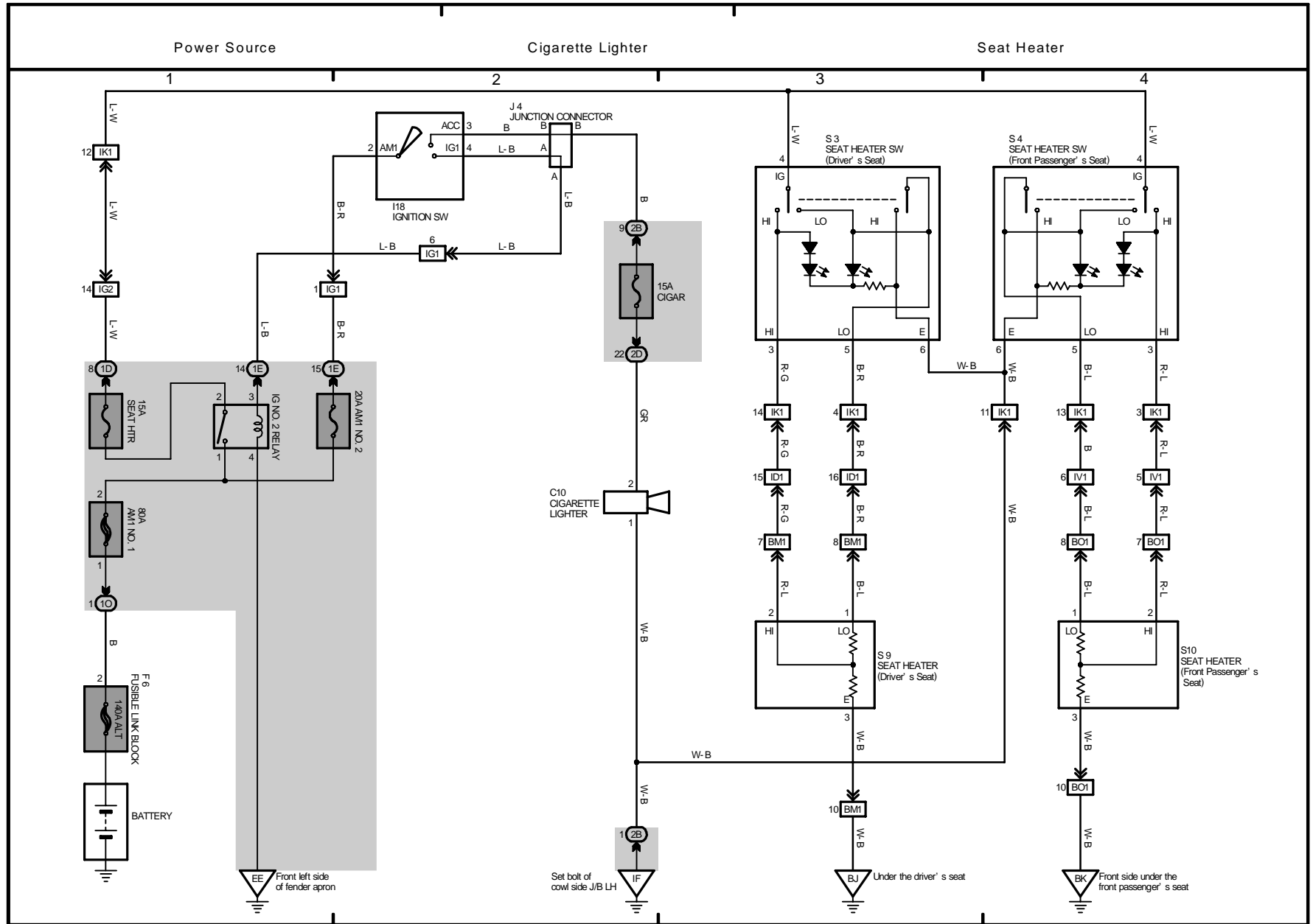


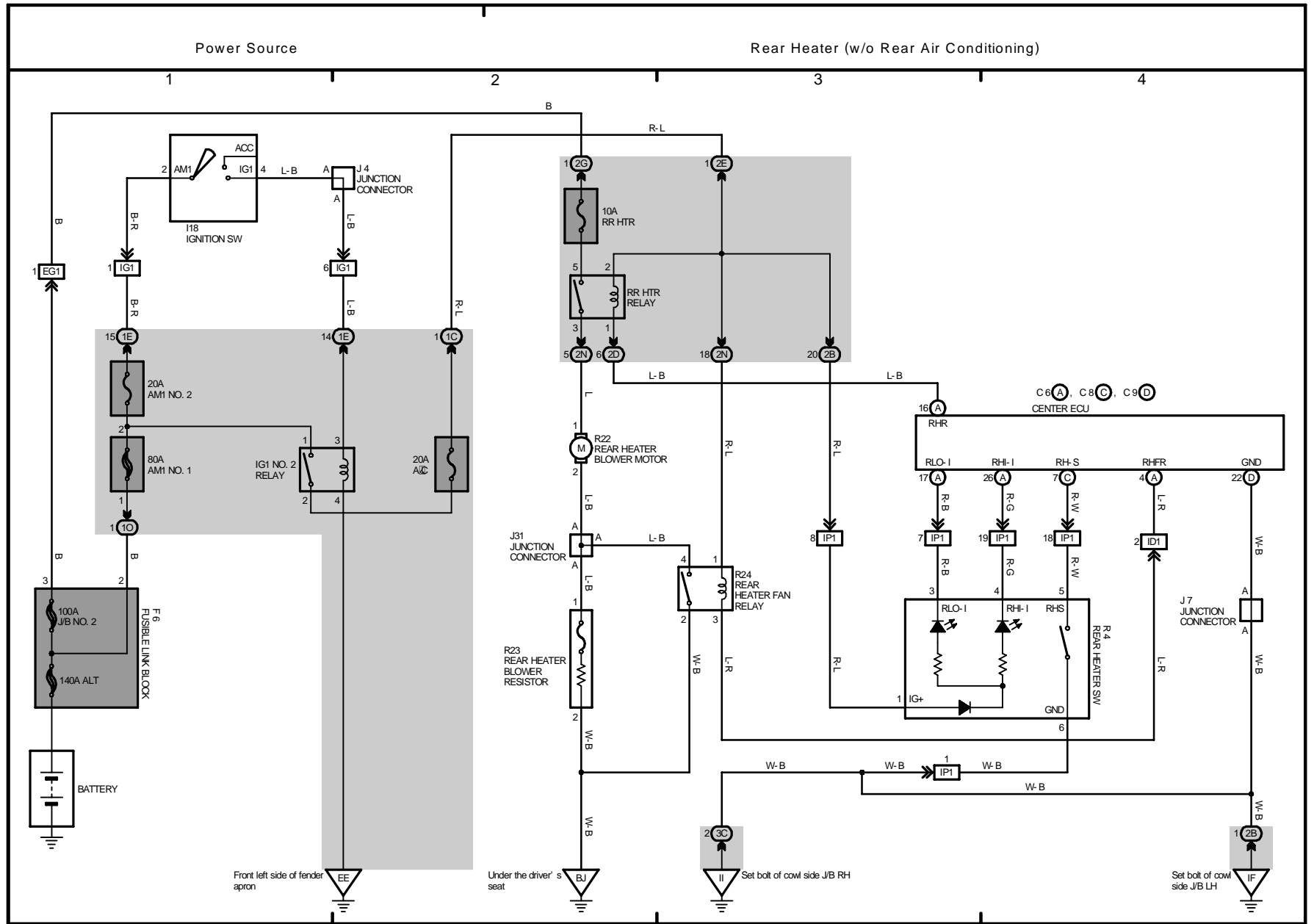


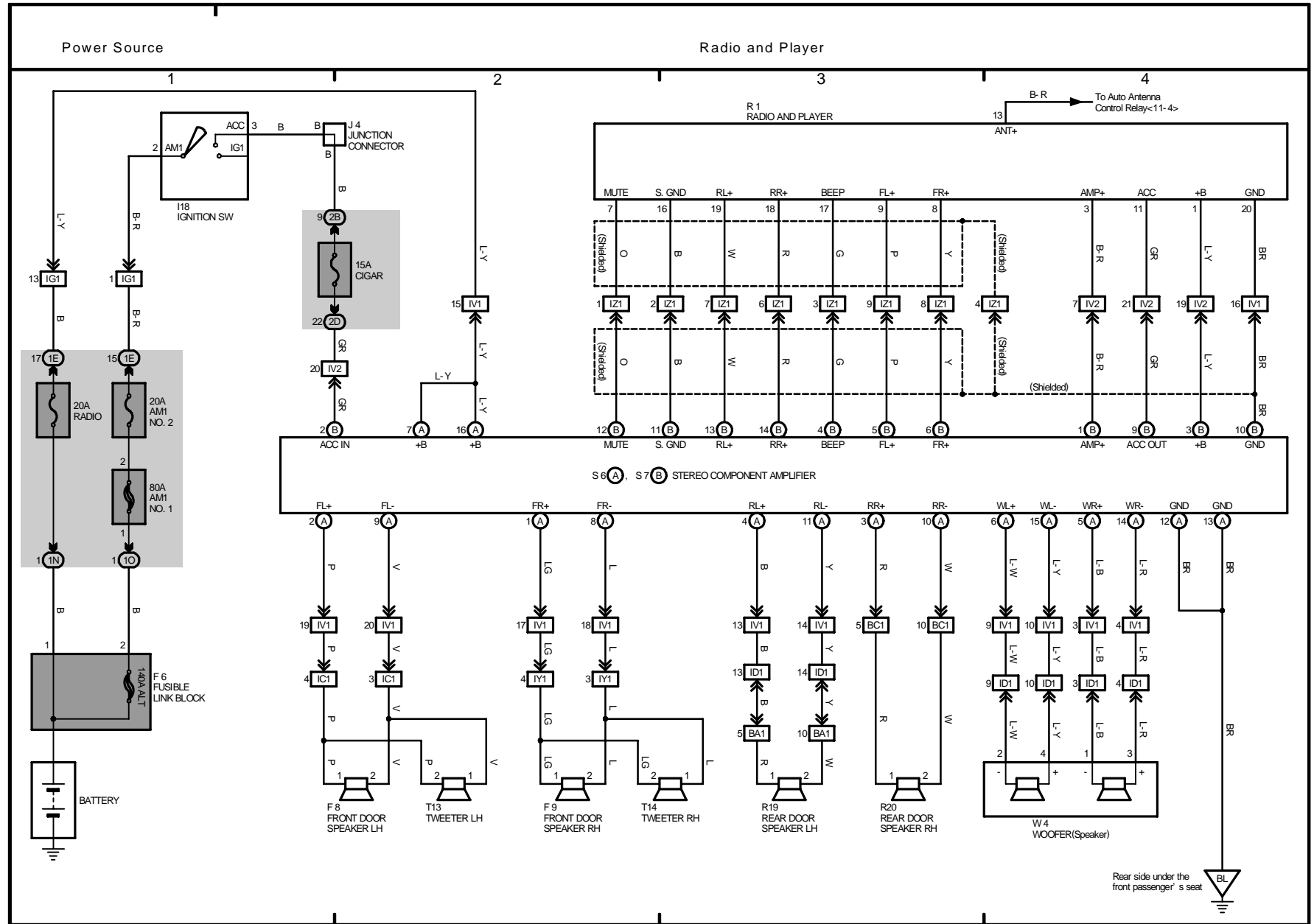






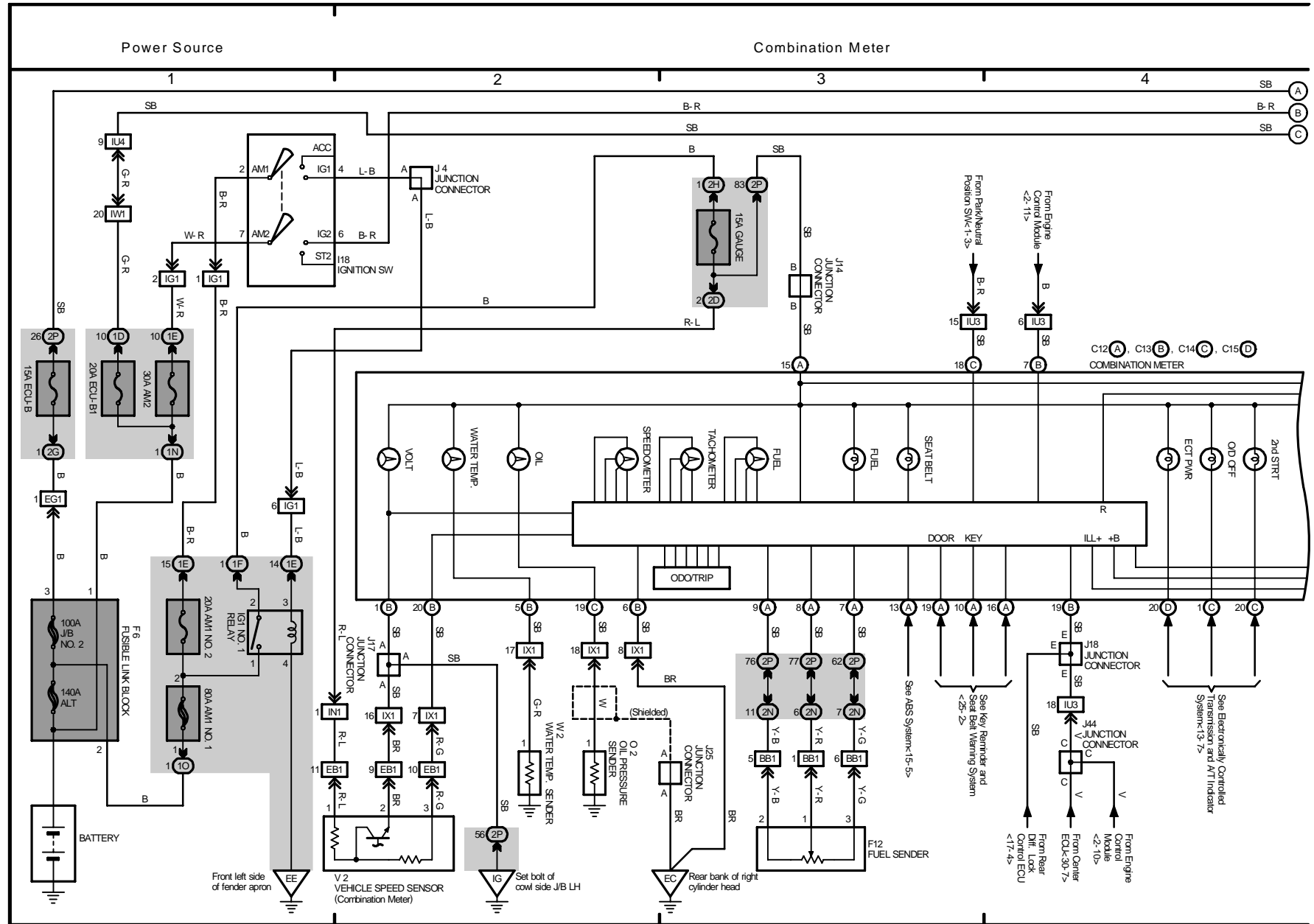




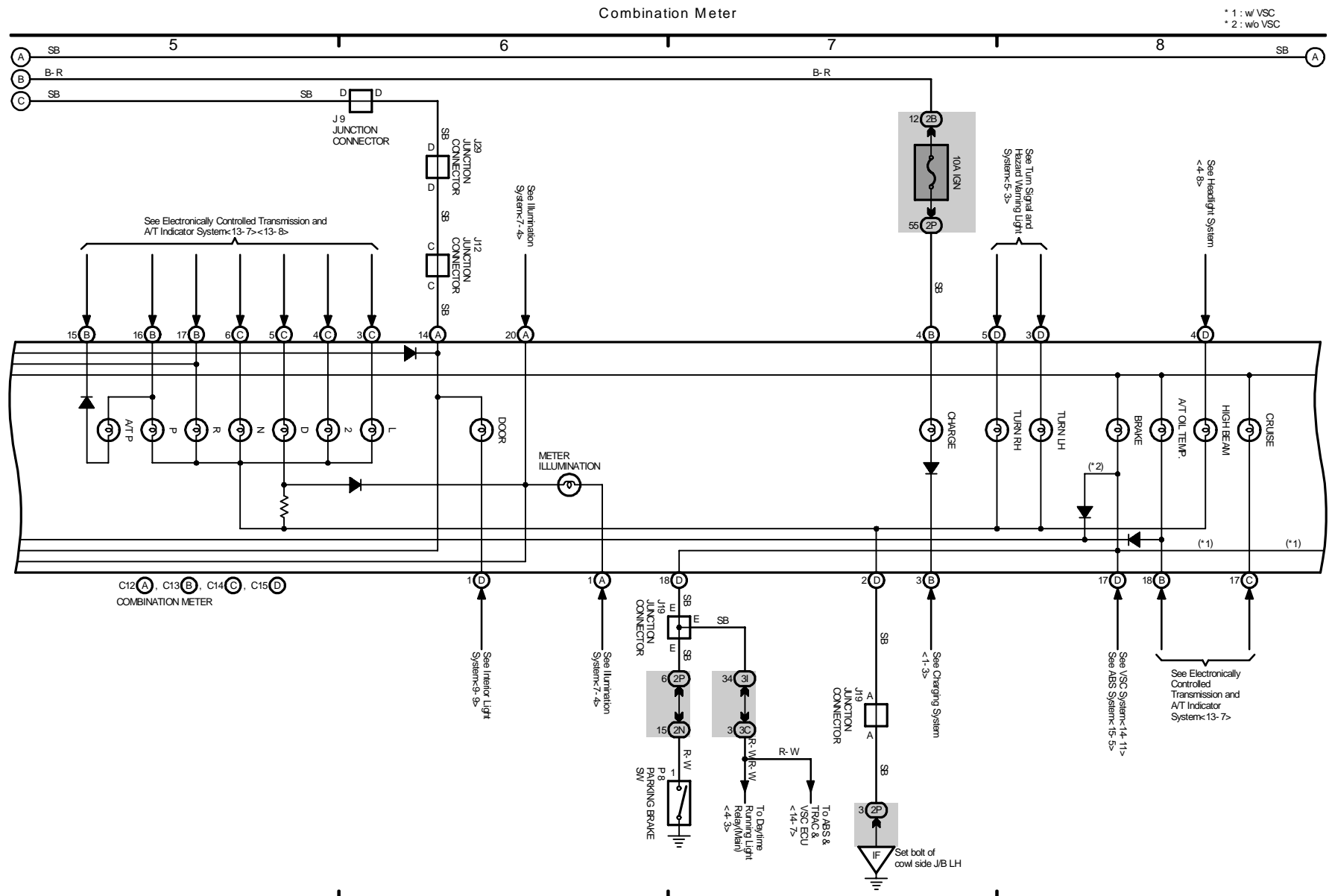


Rear side under the front passenger's seat

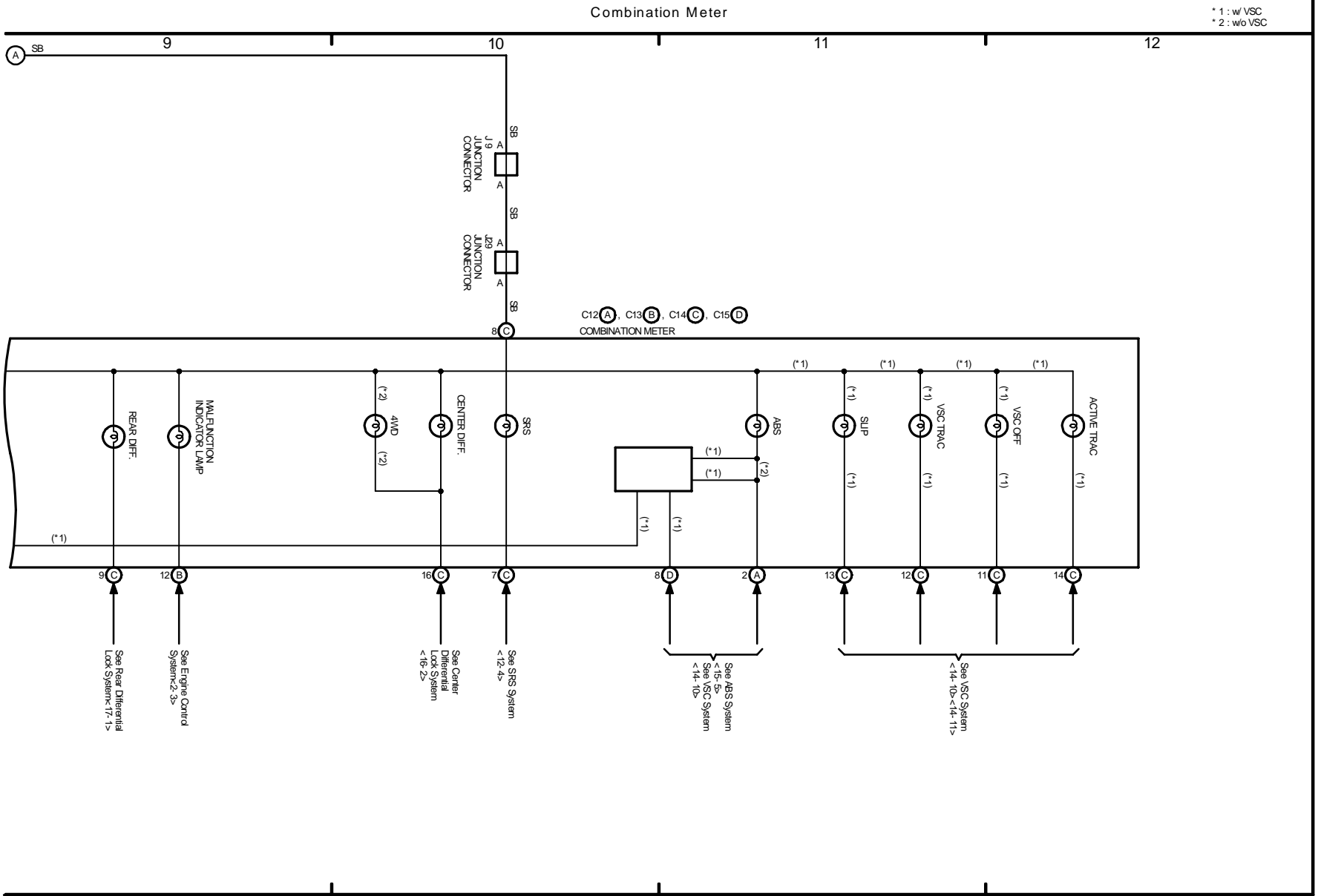




M OVERALL ELECTRICAL WIRING DIAGRAM

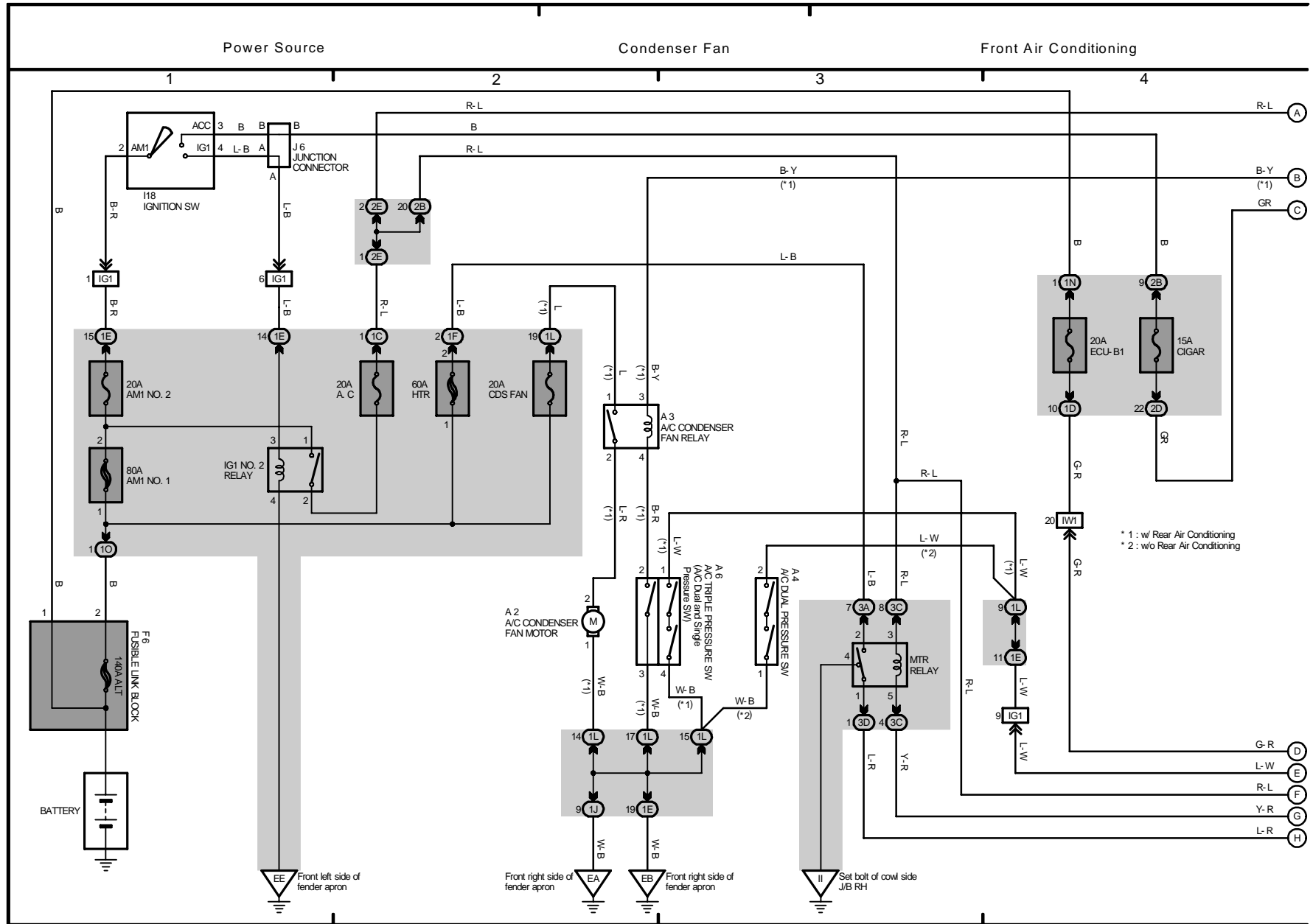


# M OVERALL ELECTRICAL WIRING DIAGRAM



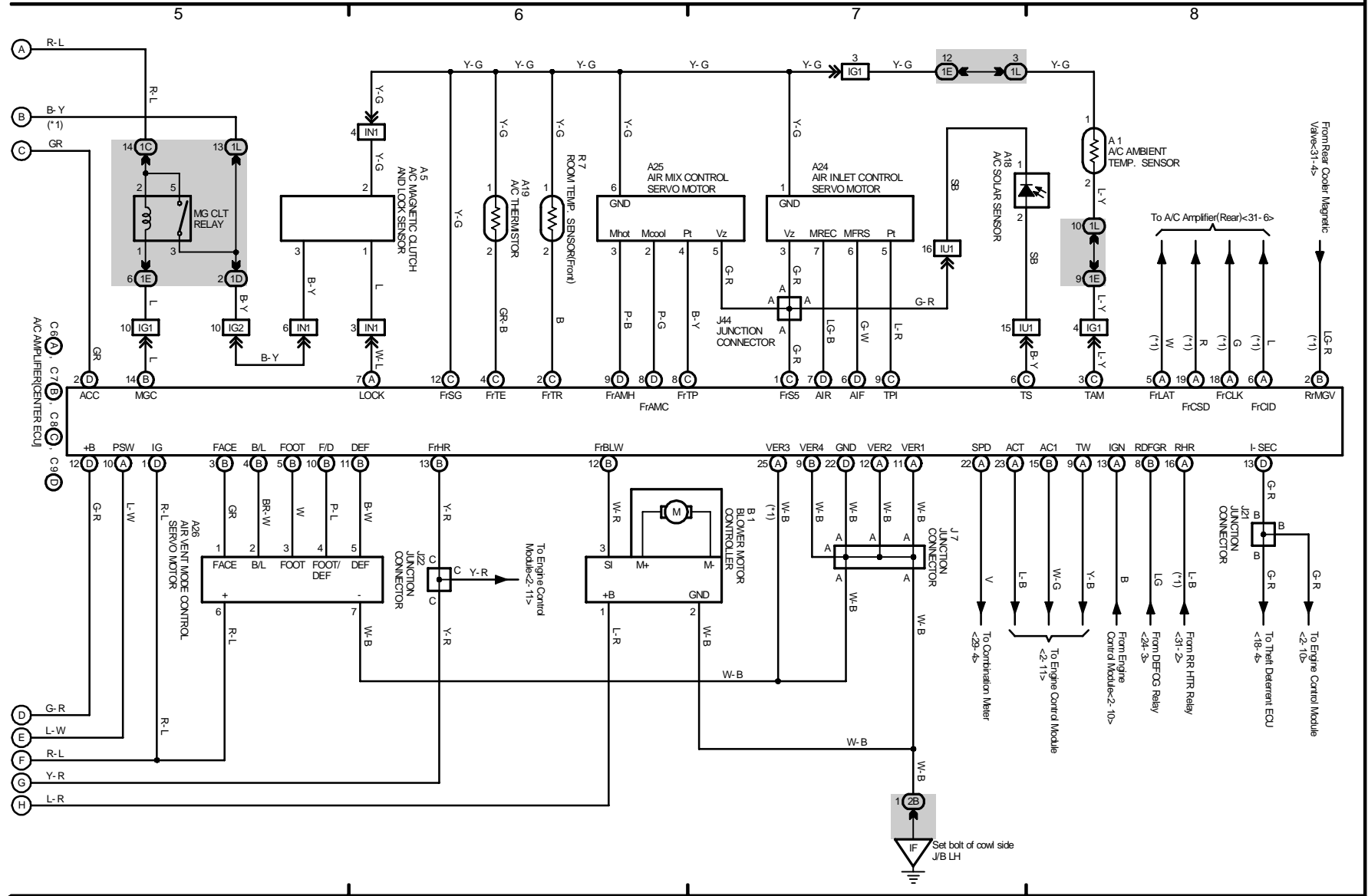


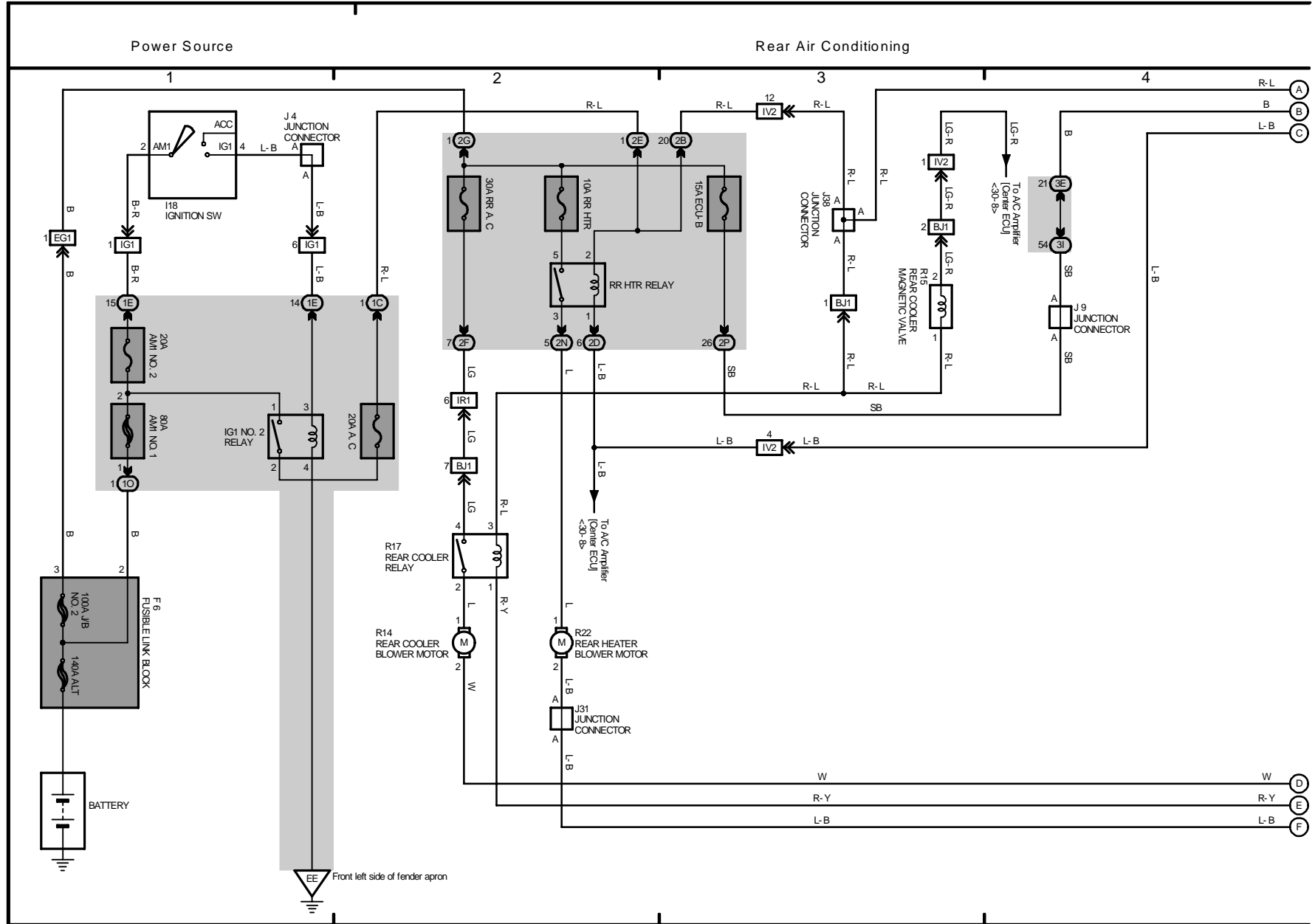




Front Air Conditioning

\* 1 : w Rear Air Conditioning





M OVERALL ELECTRICAL WIRING DIAGRAM

