

FOREWORD

This wiring diagram manual has been prepared to provide information on the electrical system of the 2001 ES 300.

Applicable models: MCV20 Series

For service specifications and repair procedures of the above models other than those listed in this manual, refer to the following manuals;

Manual Name	Pub. No.
● 2001 LEXUS ES 300 Repair Manual Volume 1 Volume 2	RM831U1 RM831U2
● 2001 LEXUS New Car Features	NCF186U

All information in this manual is based on the latest product information at the time of publication. However, specifications and procedures are subject to change without notice.

TOYOTA MOTOR CORPORATION

NOTICE

When handling supplemental restraint system components (removal, installation or inspection, etc.), always follow the direction given in the repair manuals listed above to prevent accidents and supplemental restraint system malfunction.

A INTRODUCTION

This manual consists of the following 13 sections:

No.	Section	Description
A	INDEX	Index of the contents of this manual.
	INTRODUCTION	Brief explanation of each section.
B	HOW TO USE THIS MANUAL	Instructions on how to use this manual.
C	TROUBLE-SHOOTING	Describes the basic inspection procedures for electrical circuits.
D	ABBREVIATIONS	Defines the abbreviations used in this manual.
E	GLOSSARY OF TERMS AND SYMBOLS	Defines the symbols and functions of major parts.
F	RELAY LOCATIONS	Shows position of the Electronic Control Unit, Relays, Relay Block, etc. This section is closely related to the system circuit.
G	ELECTRICAL WIRING ROUTING	Describes position of Parts Connectors, Splice points, Ground points, etc. This section is closely related to the system circuit.
H	INDEX	Index of the system circuits.
	SYSTEM CIRCUITS	Electrical circuits of each system are shown from the power supply through ground points. Wiring connections and their positions are shown and classified by code according to the connection method. (Refer to the section, "How to use this manual"). The "System Outline" and "Service Hints" useful for troubleshooting are also contained in this section.
I	GROUND POINT	Shows ground positions of all parts described in this manual.
J	POWER SOURCE (Current Flow Chart)	Describes power distribution from the power supply to various electrical loads.
K	CONNECTOR LIST	Describes the form of the connectors for the parts appeared in this book. This section is closely related to the system circuit.
L	PART NUMBER OF CONNECTORS	Indicates the part number of the connectors used in this manual.
M	OVERALL ELECTRICAL WIRING DIAGRAM	Provides circuit diagrams showing the circuit connections.

This manual provides information on the electrical circuits installed on vehicles by dividing them into a circuit for each system.

The actual wiring of each system circuit is shown from the point where the power source is received from the battery as far as each ground point. (All circuit diagrams are shown with the switches in the OFF position.)

When troubleshooting any problem, first understand the operation of the circuit where the problem was detected (see System Circuit section), the power source supplying power to that circuit (see Power Source section), and the ground points (see Ground Point section). See the System Outline to understand the circuit operation.

When the circuit operation is understood, begin troubleshooting of the problem circuit to isolate the cause. Use Relay Location and Electrical Wiring Routing sections to find each part, junction block and wiring harness connectors, wiring harness and wiring harness connectors, splice points, and ground points of each system circuit. Internal wiring for each junction block is also provided for better understanding of connection within a junction block.

Wiring related to each system is indicated in each system circuit by arrows (from __, to __). When overall connections are required, see the Overall Electrical Wiring Diagram at the end of this manual.

[A] : System Title

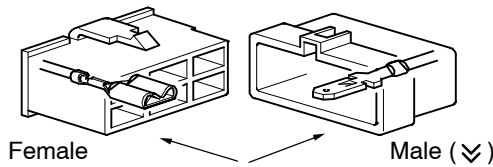
[B] : Indicates a Relay Block. No shading is used and only the Relay Block No. is shown to distinguish it from the J/B

Example: ① Indicates Relay Block No.1

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

[D] : Indicates related system.

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

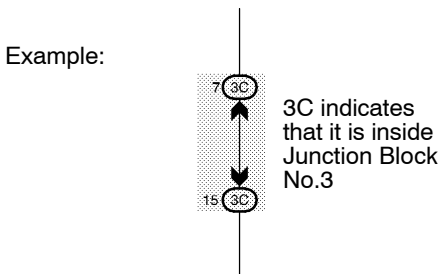


The first letter of the code for each wiring harness and wiring harness connector(s) indicates the component's location, e.g. "E" for the Engine Compartment, "I" for the Instrument Panel and Surrounding area, and "B" for the Body and Surrounding area.

When more than one code has the first and second letters in common, followed by numbers (e.g. IH1, IH2), this indicates the same type of wiring harness and wiring harness connector.

[F] : Represents a part (all parts are shown in sky blue). The code is the same as the code used in parts position.

[G] : 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.



[H] : When 2 parts both use one connector in common, the parts connector name used in the wire routing section is shown in square brackets [].

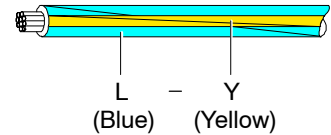
[I] : Indicates the wiring color.

Wire colors are indicated by an alphabetical code.

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

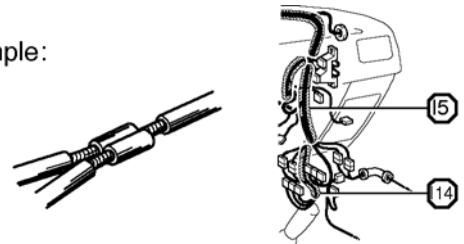
The first letter indicates the basic wire color and the second letter indicates the color of the stripe.

Example: L - Y



[J] : Indicates a wiring Splice Point (Codes are "E" for the Engine Room, "I" for the Instrument Panel, and "B" for the Body).

Example:



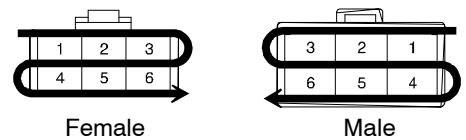
The Location of splice Point I 5 is indicated by the shaded section.

[K] : Indicates a shielded cable.



[L] : 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



[M] : Indicates a ground point.

The first letter of the code for each ground point(s) indicates the component's location, e.g. "E" for the Engine Compartment, "I" for the Instrument Panel and Surrounding area, and "B" for the Body and Surrounding area.

[N] : Page No.

B HOW TO USE THIS MANUAL

[O] SYSTEM OUTLINE

Current is applied at all times through the STOP fuse to TERMINAL 2 of the stop light SW.
When the ignition SW is turned on, current flows from the GAUGE fuse to TERMINAL 8 of the light failure sensor, and also flows through the rear lights warning light to TERMINAL 4 of the light failure sensor.

STOP LIGHT DISCONNECTION WARNING

When the ignition SW is turned on and the brake pedal is pressed (Stop light SW on), if the stop light circuit is open, the current flowing from TERMINAL 7 of the light failure sensor to TERMINALS 1, 2 changes, so the light failure sensor detects the disconnection and the warning circuit of the light failure sensor is activated.

As a result, the current flows from TERMINAL 4 of the light failure sensor to TERMINAL 11 to GROUND and turns the rear lights warning light on. By pressing the brake pedal, the current flowing to TERMINAL 8 of the light failure sensor keeps the warning circuit on and holds the warning light on until the ignition SW is turned off.

[P] SERVICE HINTS

S6 STOP LIGHT SW

2-1 : Closed with the brake pedal depressed

L4 LIGHT FAILURE SENSOR

1, 2, 7-GROUND : Approx. 12 volts with the stop light SW on

4, 8-GROUND : Approx. 12 volts with the ignition SW at ON position

11-GROUND : Always continuity

[Q] ○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C7	34	L4	36	R7	37
H17	36	R6	37	S6	35

[R] ○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	18	R/B No.1 (Instrument Panel Left)

[S] ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IB	20	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
3C	22	Instrument Panel Wire and J/B No.3 (Instrument Panel Left Side)

[T] □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE1	42	Floor Wire and Instrument Panel Wire (Left Kick Panel)
BV1	50	Luggage Room Wire and Floor Wire (Luggage Compartment Left)

[U] ▽ : GROUND POINTS

Code	See Page	Ground Points Location
BL	50	Under the Left Quarter Pillar
BO	50	Back Panel Center

[V] ○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I5	44	Cowl Wire	B18	50	Luggage Room Wire

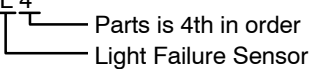
[O] : Explains the system outline.

[P] : Indicates values or explains the function for reference during troubleshooting.

[Q] : Indicates the reference page showing the position on the vehicle of the parts in the system circuit.

Example : Part "L4" (Light Failure Sensor) is on page 36 of the manual.

* The letter in the code is from the first letter of the part, and the number indicates its order in parts starting with that letter.

Example : L 4


[R] : Indicates the reference page showing the position on the vehicle of Relay Block Connectors in the system circuit.

Example : Connector "1" is described on page 18 of this manual and is installed on the left side of the instrument panel.

[S] : Indicates the reference page showing the position on the vehicle of J/B and Wire Harness in the system circuit.

Example : Connector "3C" connects the Instrument Panel Wire and J/B No.3. It is described on page 22 of this manual, and is installed on the instrument panel left side.

[T] : Indicates the reference page describing the wiring harness and wiring harness connector (the female wiring harness is shown first, followed by the male wiring harness).

Example : Connector "IE1" connects the floor wire (female) and Instrument panel wire (male). It is described on page 42 of this manual, and is installed on the left side kick panel.

[U] : Indicates the reference page showing the position of the ground points on the vehicle.

Example : Ground point "BO" is described on page 50 of this manual and is installed on the back panel center.

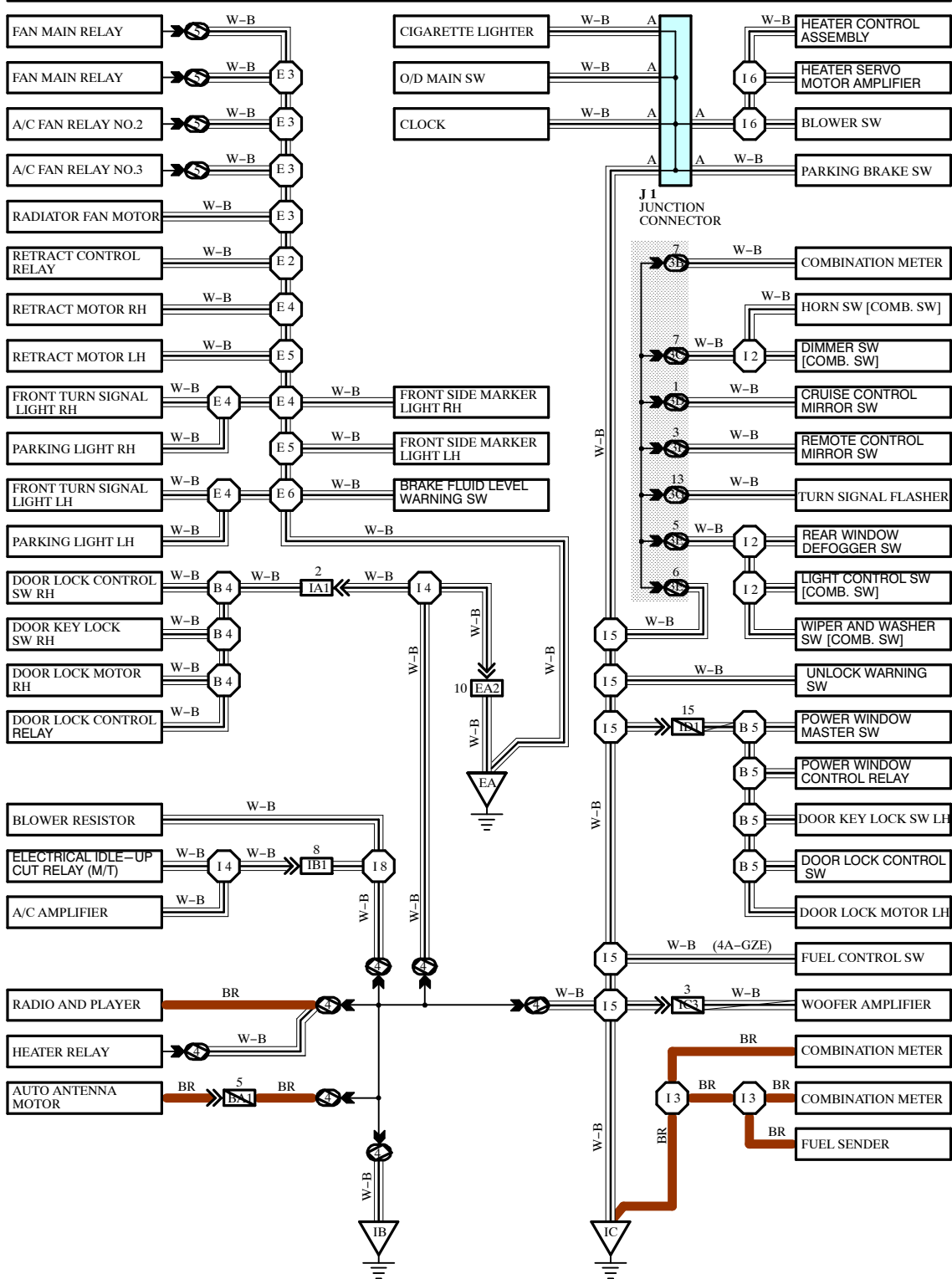
[V] : Indicates the reference page showing the position of the splice points on the vehicle.

Example : Splice point "I5" is on the Cowl Wire Harness and is described on page 44 of this manual.

B HOW TO USE THIS MANUAL

The ground points circuit diagram shows the connections from all major parts to the respective ground points. When troubleshooting a faulty ground point, checking the system circuits which use a common ground may help you identify the problem ground quickly. The relationship between ground points (∇_{EA} , ∇_{IB} and ∇_{IC} shown below) can also be checked this way.

I GROUND POINT

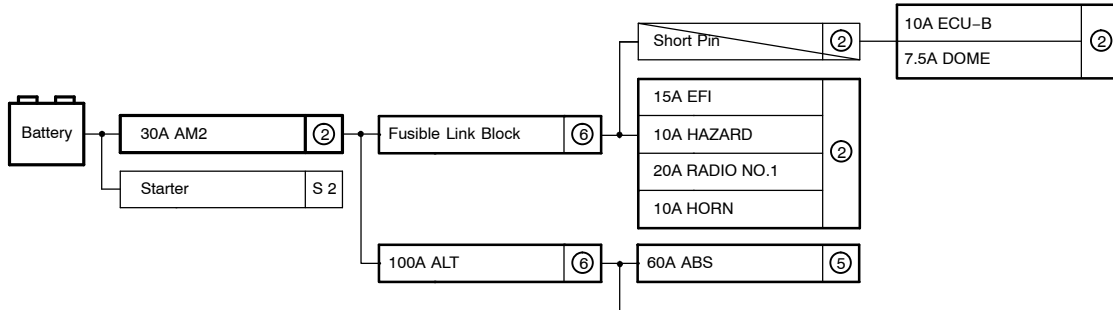


* The system shown here is an EXAMPLE ONLY. It is different to the actual circuit shown in the SYSTEM CIRCUITS SECTION.

The "Current Flow Chart" section, describes which parts each power source (fuses, fusible links, and circuit breakers) transmits current to. In the Power Source circuit diagram, the conditions when battery power is supplied to each system are explained. Since all System Circuit diagrams start from the power source, the power source system must be fully understood.

J POWER SOURCE (Current Flow Chart)

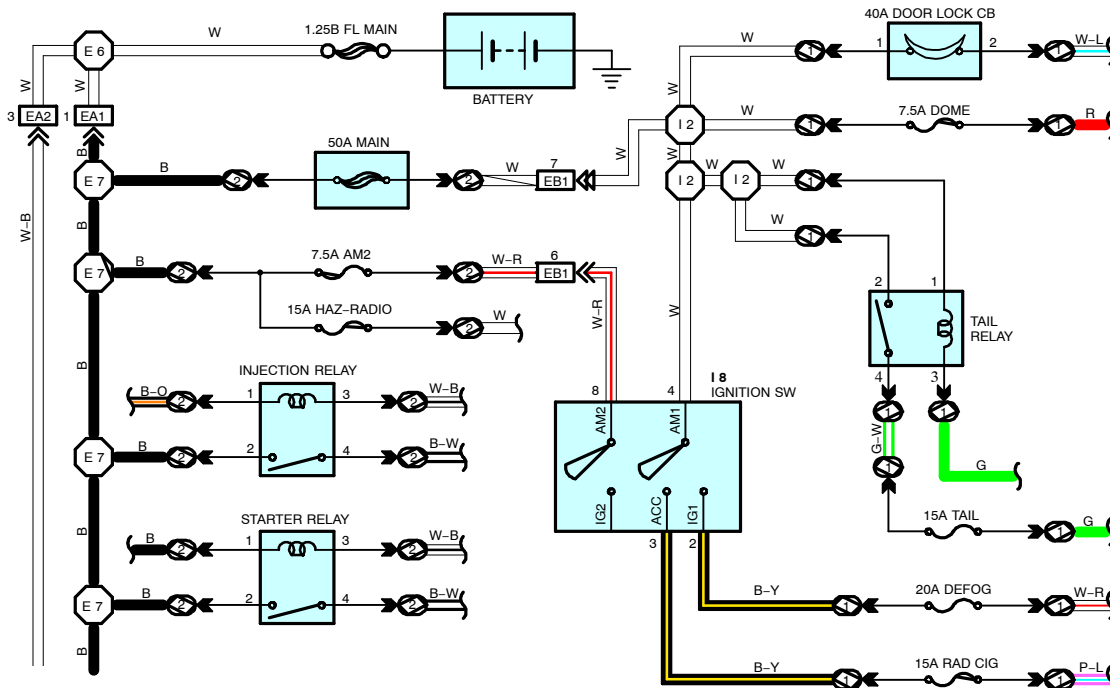
The chart below shows the route by which current flows from the battery to each electrical source (Fusible Link, Circuit Breaker, Fuse, etc.) and other parts.



Engine Room R/B (See Page 20)

Fuse	System	Page
20A	STOP	ABS
		ABS and Traction Control
		Cruise Control
		Electronically Controlled Transmission and A/T Indicator
		Multiplex Communication System
10A	DOME	Cigarette Lighter and Clock
		Combination Meter
		Headlight
		Interior Light
		Key Reminder and Seat Belt Warning
		Light Auto Turn Off

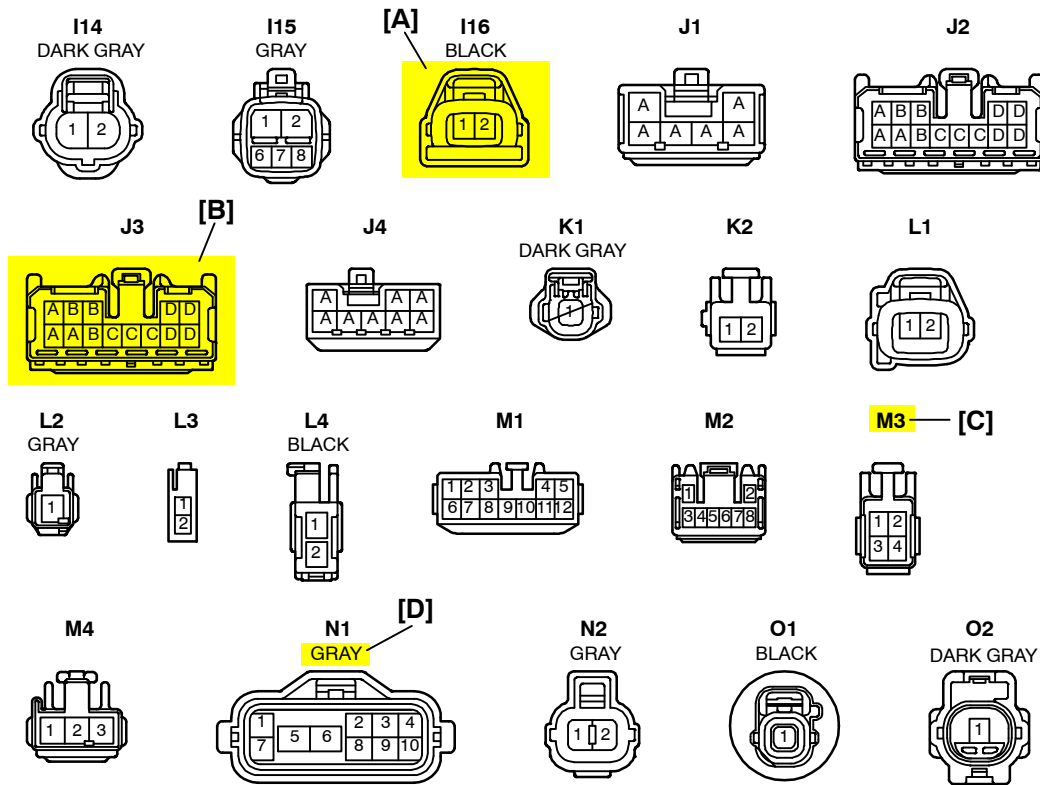
POWER SOURCE



* The system shown here is an EXAMPLE ONLY. It is different to the actual circuit shown in the SYSTEM CIRCUITS SECTION.

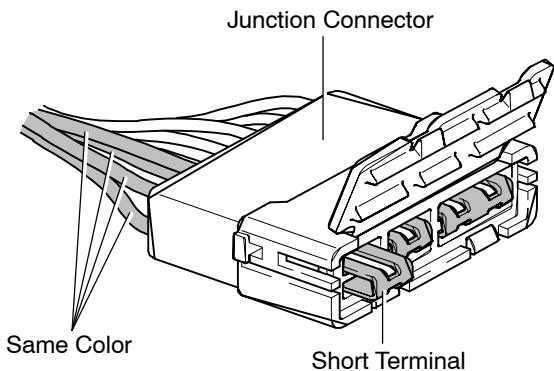
B HOW TO USE THIS MANUAL

K CONNECTOR LIST



[A] : Indicates connector to be connected to a part. (The numeral indicates the pin No.)

[B] : Junction Connector
Indicates a connector which is connected to a short terminal.



Junction connector in this manual include a short terminal which is connected to a number of wire harnesses. Always perform inspection with the short terminal installed. (When installing the wire harnesses, the harnesses can be connected to any position within the short terminal grouping. Accordingly, in other vehicles, the same position in the short terminal may be connected to a wire harness from a different part.)

Wire harness sharing the same short terminal grouping have the same color.

[C] : Parts Code
The first letter of the code is taken from the first letter of part, and the numbers indicates its order in parts which start with the same letter.

[D] : Connector Color
Connectors not indicated are milky white in color.

L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number
A 1	A/C Ambient Temp. Sensor	90980-11070	D 4	Diode (Door Courtesy Light)	90980-11608
A 2	A/C Condenser Fan Motor	90980-11237	D 5	Diode (Key Off Operation)	90980-10962
A 3	A/C Condenser Fan Relay	90980-10940	D 6	Diode (Luggage Compartment Light)	90980-11608
A 4	A/C Triple Pressure SW (A/C Dual and Single Pressure SW)	90980-10943	D 7	Door Lock Control Relay	90980-10848
[A]	A/T Oil Temp. Sensor [B]	90980-11143	D 8	Door Courtesy Light LH	90980-11148
A 6	ABS Actuator	90980-11151	D 9	Door Courtesy Light RH	
A 7	ABS Actuator	90980-11009	D10	Door Courtesy SW LH	90980-11097
A 8	ABS Speed Sensor Front LH	90980-10941	D11	Door Courtesy SW RH	
A 9	ABS Speed Sensor Front RH	90980-11002	D12	Door Courtesy SW Front LH	90980-11156
A10	Airbag Sensor Front LH	90980-11856	D13	Door Courtesy SW Front RH	
A11	Airbag Sensor Front RH		D14	Door Courtesy SW Rear LH	
A12	Airbag Sensor Rear LH	90980-11194	D15	Door Courtesy SW Rear RH	
		90980-11170	D16	Door Courtesy SW Front LH	90980-11170

[A] : Part Code

[B] : Part Name

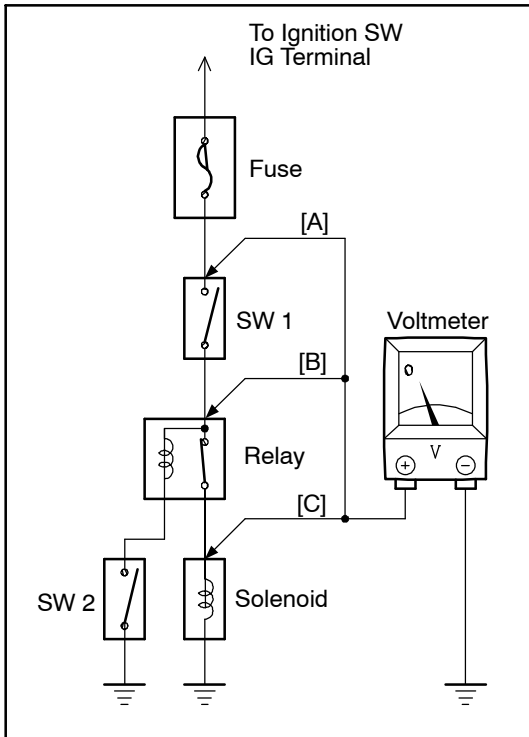
[C] : Part Number

Toyota Part Number are indicated.

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.).

C TROUBLESHOOTING

VOLTAGE CHECK



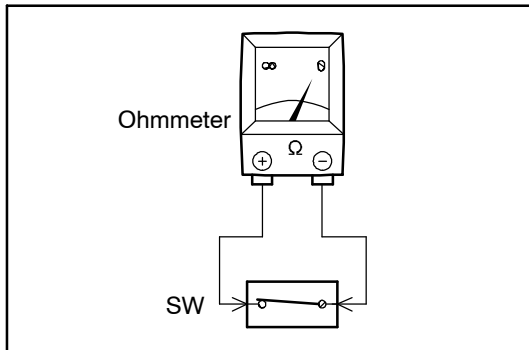
- (a) Establish conditions in which voltage is present at the check point.

Example:

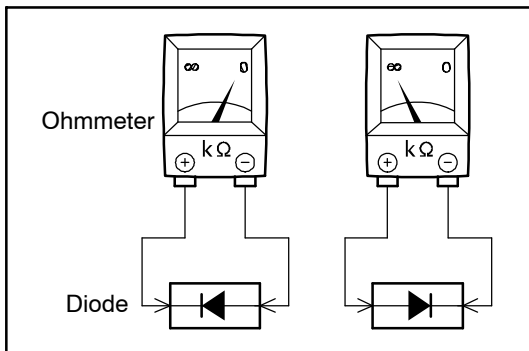
- [A] – Ignition SW on
- [B] – Ignition SW and SW 1 on
- [C] – Ignition SW, SW 1 and Relay on (SW 2 off)

- (b) Using a voltmeter, connect the negative lead to a good ground point or negative battery terminal, and the positive lead to the connector or component terminal. This check can be done with a test light instead of a voltmeter.

CONTINUITY AND RESISTANCE CHECK



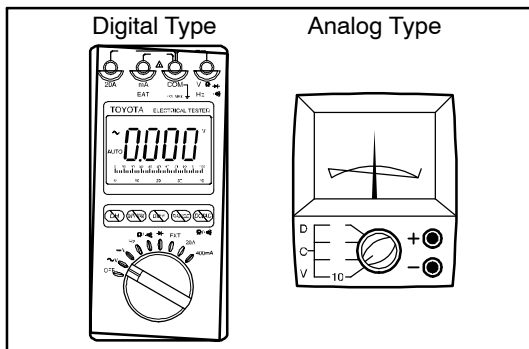
- (a) Disconnect the battery terminal or wire so there is no voltage between the check points.
 (b) Contact the two leads of an ohmmeter to each of the check points.



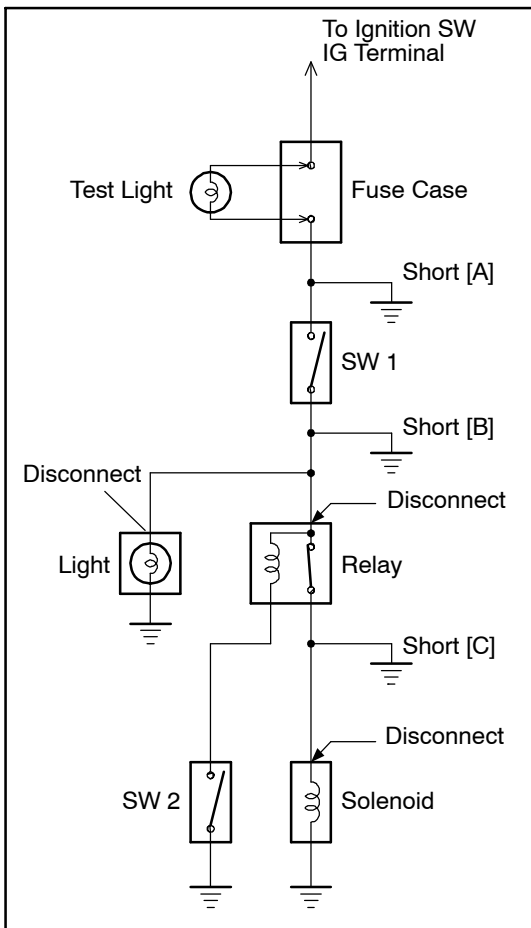
If the circuit has diodes, reverse the two leads and check again.

When contacting the negative lead to the diode positive side and the positive lead to the negative side, there should be continuity.

When contacting the two leads in reverse, there should be no continuity.



- (c) Use a volt/ohmmeter with high impedance (10 k Ω /V minimum) for troubleshooting of the electrical circuit.



FINDING A SHORT CIRCUIT

- Remove the blown fuse and disconnect all loads of the fuse.
- Connect a test light in place of the fuse.
- Establish conditions in which the test light comes on.

Example:

- [A] - Ignition SW on
- [B] - Ignition SW and SW 1 on
- [C] - Ignition SW, SW 1 and Relay on (Connect the Relay) and SW 2 off (or Disconnect SW 2)

- Disconnect and reconnect the connectors while watching the test light. The short lies between the connector where the test light stays lit and the connector where the light goes out.
- Find the exact location of the short by lightly shaking the problem wire along the body.

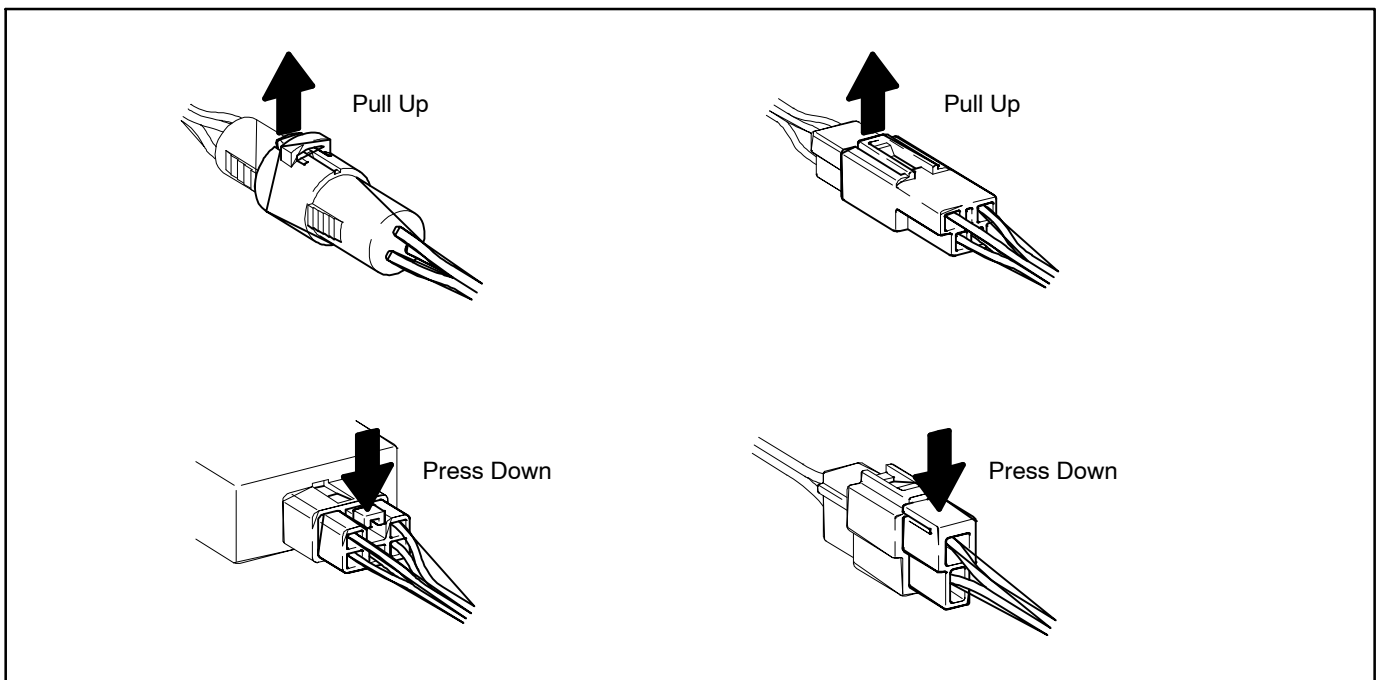
CAUTION:

- Do not open the cover or the case of the ECU unless absolutely necessary. (If the IC terminals are touched, the IC may be destroyed by static electricity.)**
- When replacing the internal mechanism (ECU part) of the digital meter, be careful that no part of your body or clothing comes in contact with the terminals of leads from the IC, etc. of the replacement part (spare part).**

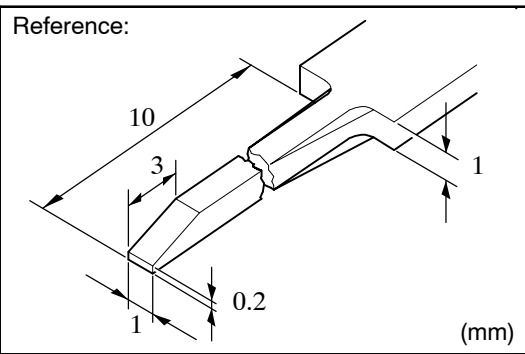
DISCONNECTION OF MALE AND FEMALE CONNECTORS

To pull apart the connectors, pull on the connector itself, not the wire harness.

HINT: Check to see what kind of connector you are disconnecting before pulling apart.



C TROUBLESHOOTING



HOW TO REPLACE TERMINAL (with terminal retainer or secondary locking device)

1. PREPARE THE SPECIAL TOOL

HINT : To remove the terminal from the connector, please construct and use the special tool or like object shown on the left.

2. DISCONNECT CONNECTOR

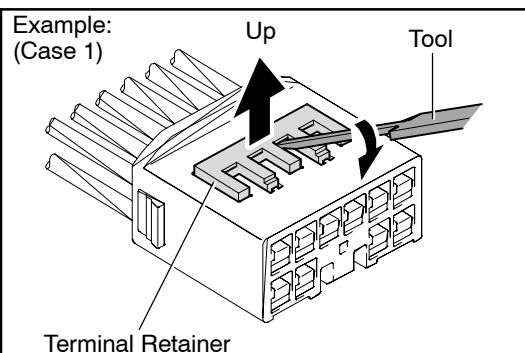
3. DISENGAGE THE SECONDARY LOCKING DEVICE OR TERMINAL RETAINER.

(a) Locking device must be disengaged before the terminal locking clip can be released and the terminal removed from the connector.

(b) Use a special tool or the terminal pick to unlock the secondary locking device or terminal retainer.

NOTICE:

Do not remove the terminal retainer from connector body.

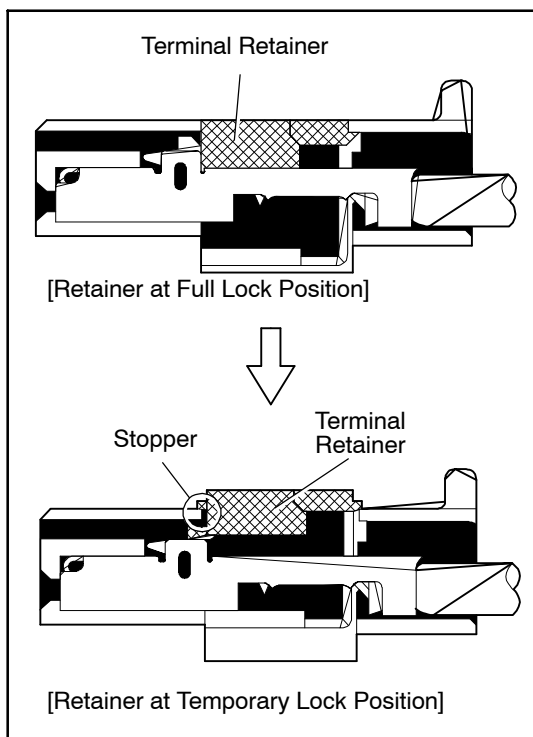


[A] For Non-Waterproof Type Connector

HINT : The needle insertion position varies according to the connector's shape (number of terminals etc.), so check the position before inserting it.

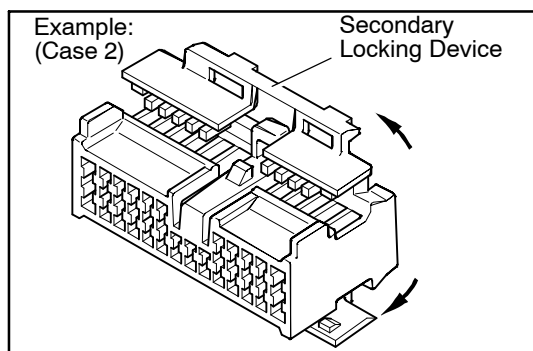
"Case 1"

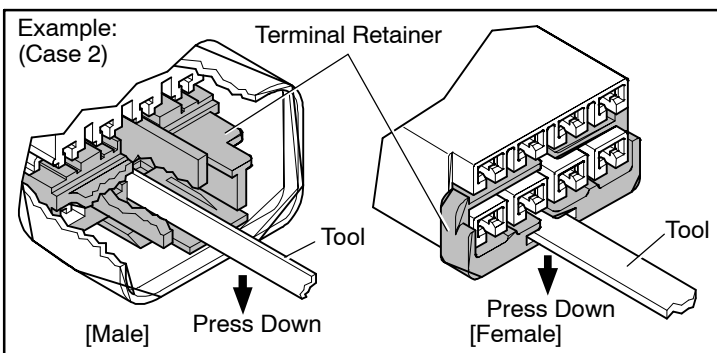
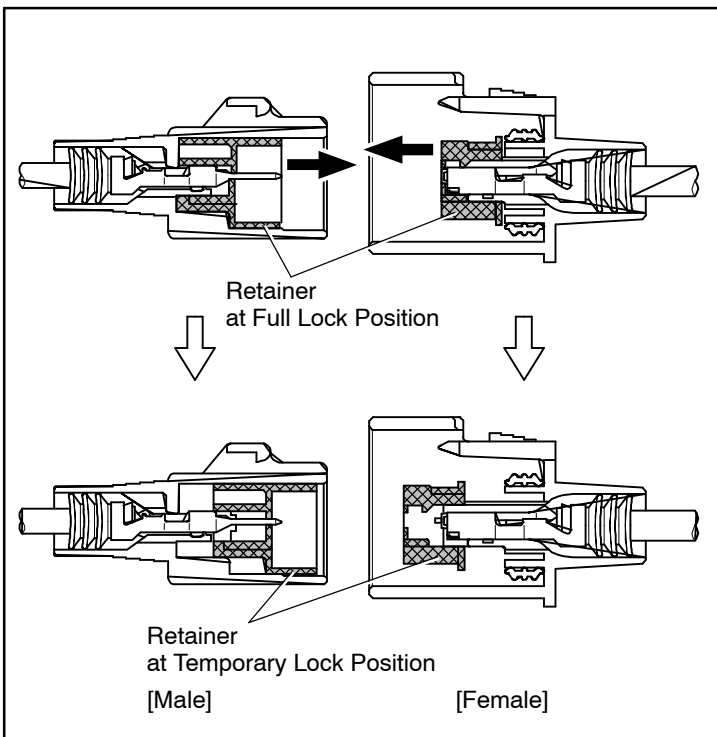
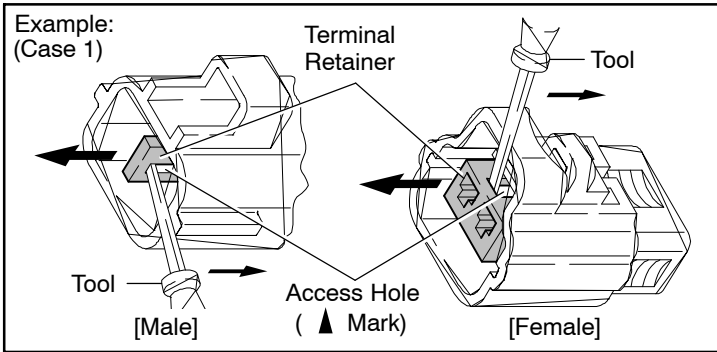
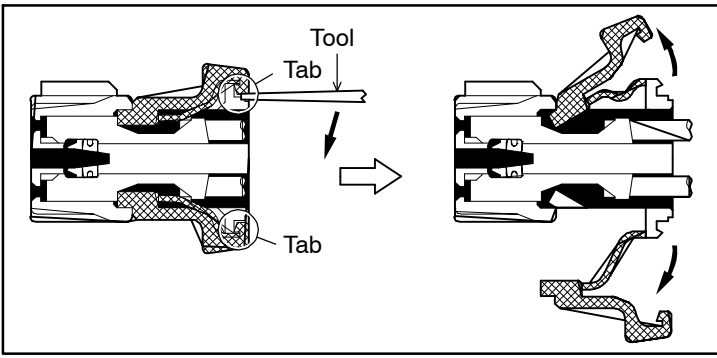
Raise the terminal retainer up to the temporary lock position.



"Case 2"

Open the secondary locking device.





[B] For Waterproof Type Connector

HINT : Terminal retainer color is different according to connector body.

Example:

Terminal Retainer : Connector Body

Black or White : Gray

Black or White : Dark Gray

Gray or White : Black

"Case 1"

Type where terminal retainer is pulled up to the temporary lock position (Pull Type).

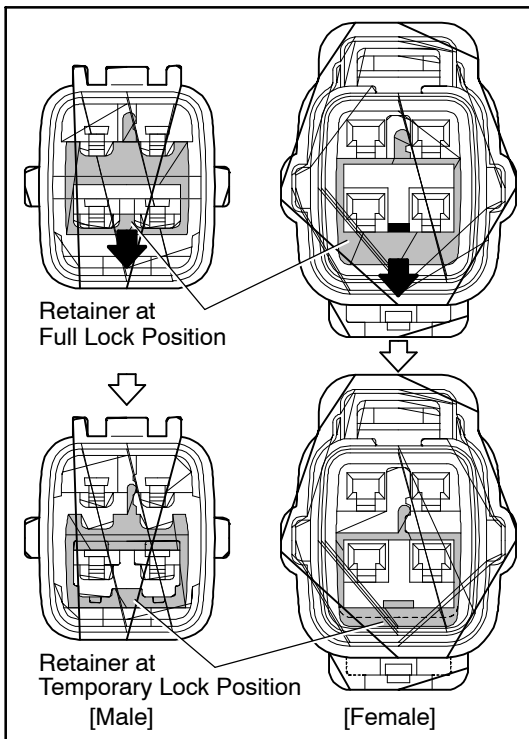
Insert the special tool into the terminal retainer access hole (▲Mark) and pull the terminal retainer up to the temporary lock position.

HINT : The needle insertion position varies according to the connector's shape (Number of terminals etc.), so check the position before inserting it.

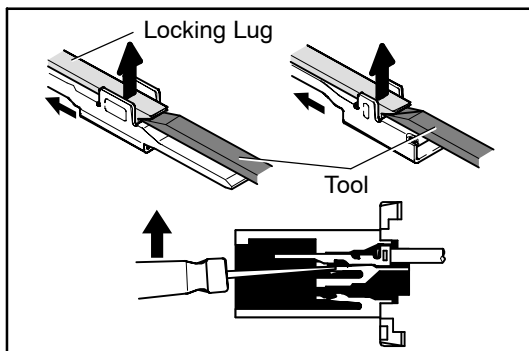
"Case 2"

Type which cannot be pulled as far as Power Lock insert the tool straight into the access hole of terminal retainer as shown.

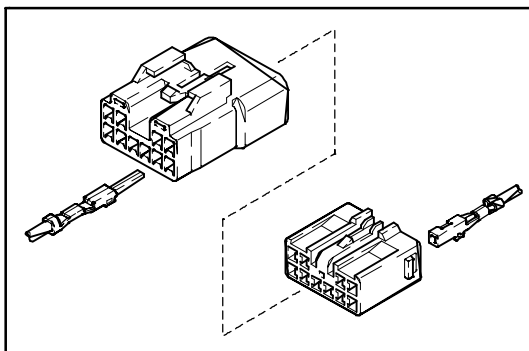
C TROUBLESHOOTING



Push the terminal retainer down to the temporary lock position.



(c) Release the locking lug from terminal and pull the terminal out from rear.

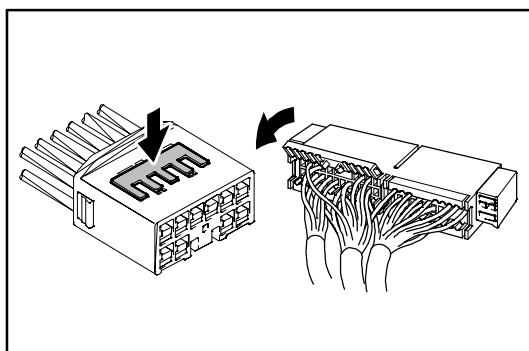


4. INSTALL TERMINAL TO CONNECTOR

(a) Insert the terminal.

HINT:

1. Make sure the terminal is positioned correctly.
2. Insert the terminal until the locking lug locks firmly.
3. Insert the terminal with terminal retainer in the temporary lock position.



(b) Push the secondary locking device or terminal retainer in to the full lock position.

5. CONNECT CONNECTOR

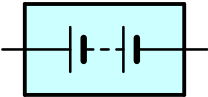

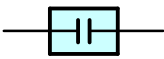


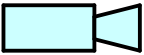
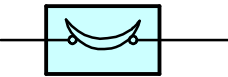


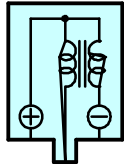




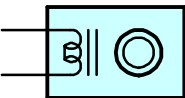

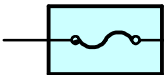
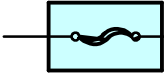
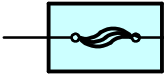
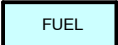

ABBREVIATIONS

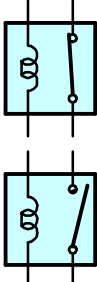

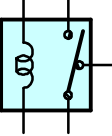
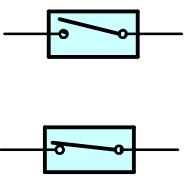
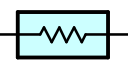
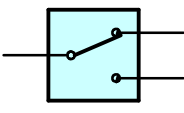
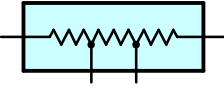
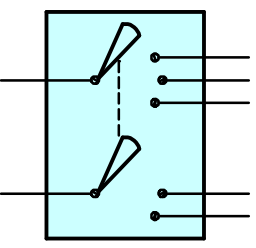

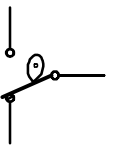

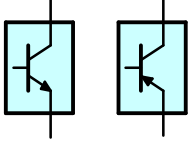
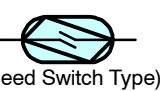
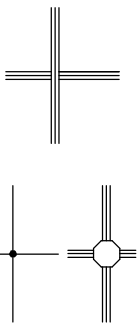
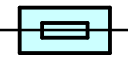
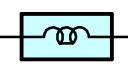
The following abbreviations are used in this manual.

ABS	=	Anti-Lock Brake System
ACM	=	Active Control Engine Mount
A/C	=	Air Conditioning
ACIS	=	Acoustic Control Induction System
A/T	=	Automatic Transaxle
BA	=	Brake Assist
CD	=	Compact Disc
COMB.	=	Combination
EC	=	Electrochromic
ECU	=	Electronic Control Unit
EGR	=	Exhaust Gas Recirculation
ESA	=	Electronic Spark Advance
EVAP	=	Evaporative Emission
FL	=	Fusible Link
HID	=	High Intensity Discharge
J/B	=	Junction Block
LH	=	Left-Hand
O/D	=	Overdrive
R/B	=	Relay Block
RH	=	Right-Hand
SFI	=	Sequential Multiport Fuel Injection
SRS	=	Supplemental Restraint System
SW	=	Switch
TEMP.	=	Temperature
TRAC	=	Traction Control
VSC	=	Vehicle Skid Control
VSV	=	Vacuum Switching Valve
VVT	=	Variable Valve Timing
w/	=	With
w/o	=	Without

* The titles given inside the components are the names of the terminals (terminal codes) and are not treated as being abbreviations.

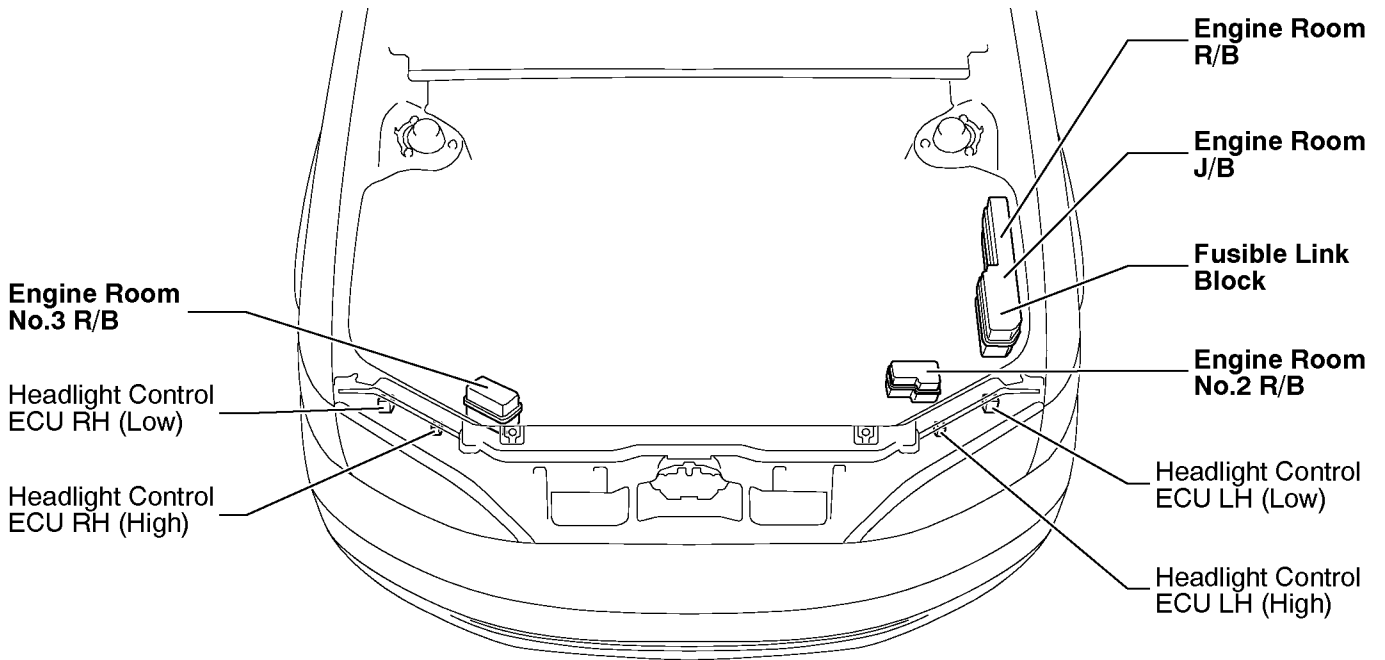
E GLOSSARY OF TERMS AND SYMBOLS

 <p>BATTERY Stores chemical energy and converts it into electrical energy. Provides DC current for the auto's various electrical circuits.</p>	 <p>GROUND The point at which wiring attaches to the Body, thereby providing a return path for an electrical circuit; without a ground, current cannot flow.</p>
 <p>CAPACITOR (Condenser) A small holding unit for temporary storage of electrical voltage.</p>	<p>HEADLIGHTS Current flow causes a headlight filament to heat up and emit light. A headlight may have either a single (1) filament or a double (2) filament</p> <p>1. SINGLE FILAMENT</p>  <p>2. DOUBLE FILAMENT</p> 
 <p>CIGARETTE LIGHTER An electric resistance heating element.</p>	
 <p>CIRCUIT BREAKER Basically a reusable fuse, a circuit breaker will heat and open if too much current flows through it. Some units automatically reset when cool, others must be manually reset.</p>	 <p>HORN An electric device which sounds a loud audible signal.</p>
 <p>DIODE A semiconductor which allows current flow in only one direction.</p>	 <p>IGNITION COIL Converts low-voltage DC current into high-voltage ignition current for firing the spark plugs.</p>
 <p>DIODE, ZENER A diode which allows current flow in one direction but blocks reverse flow only up to a specific voltage. Above that potential, it passes the excess voltage. This acts as a simple voltage regulator.</p>	 <p>LIGHT Current flow through a filament causes the filament to heat up and emit light.</p>
 <p>PHOTODIODE The photodiode is a semiconductor which controls the current flow according to the amount of light.</p>	 <p>LED (LIGHT EMITTING DIODE) Upon current flow, these diodes emit light without producing the heat of a comparable light.</p>
 <p>DISTRIBUTOR, IIA Channels high-voltage current from the ignition coil to the individual spark plugs.</p>	 <p>METER, ANALOG Current flow activates a magnetic coil which causes a needle to move, thereby providing a relative display against a background calibration.</p>
 <p>FUSE A thin metal strip which burns through when too much current flows through it, thereby stopping current flow and protecting a circuit from damage.</p>  <p>FUSIBLE LINK A heavy-gauge wire placed in high amperage circuits which burns through on overloads, thereby protecting the circuit. The numbers indicate the crosssection surface area of the wires.</p> <p>(for Medium Current Fuse)</p>  <p>(for High Current Fuse or Fusible Link)</p>	 <p>METER, DIGITAL Current flow activates one or many LED's, LCD's, or fluorescent displays, which provide a relative or digital display.</p>
	 <p>MOTOR A power unit which converts electrical energy into mechanical energy, especially rotary motion.</p>

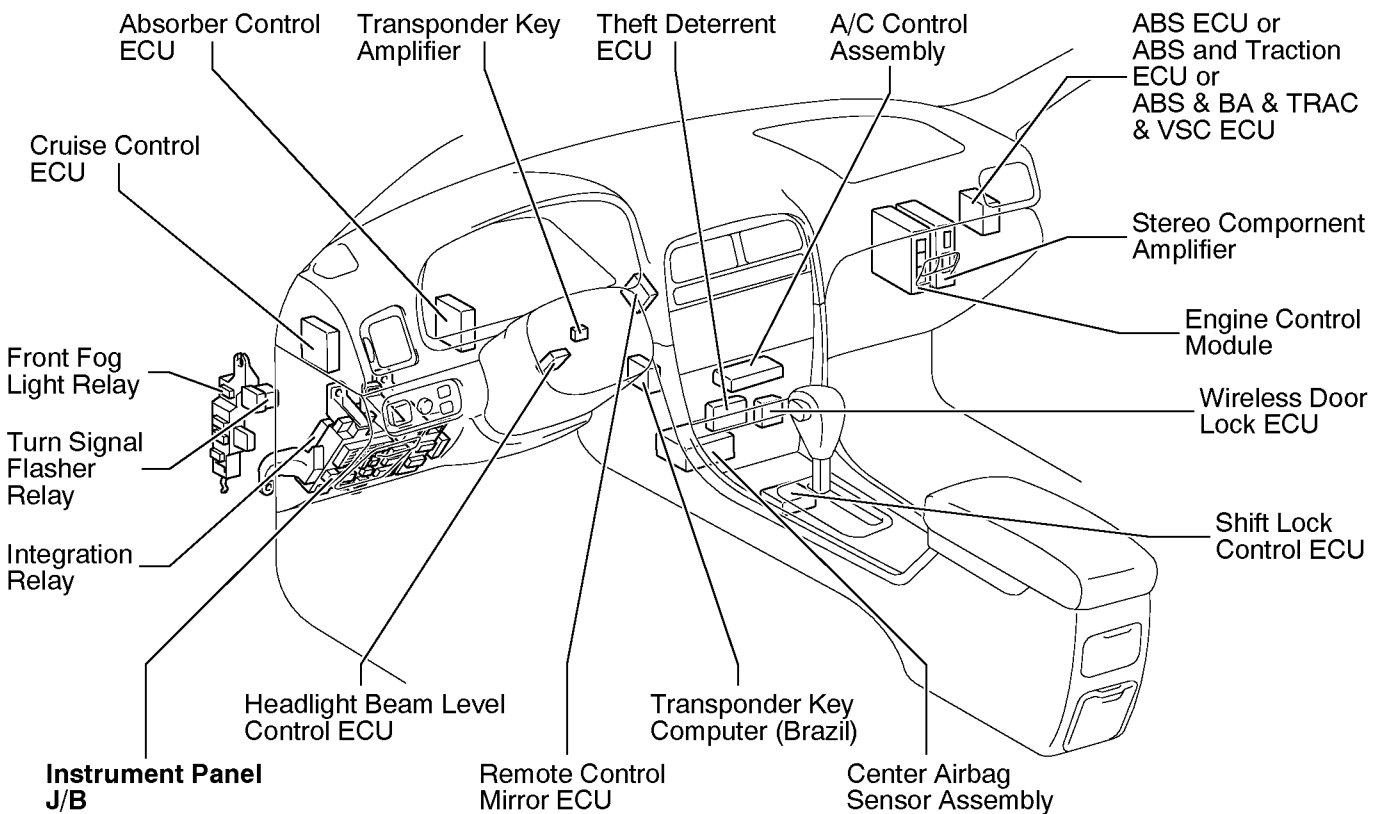
 <p>RELAY Basically, an electrically operated switch which may be normally closed (1) or open (2). Current flow through a small coil creates a magnetic field which either opens or closes an attached switch.</p> <p>1. NORMALLY CLOSED</p> <p>2. NORMALLY OPEN</p>	 <p>SPEAKER An electromechanical device which creates sound waves from current flow.</p>
 <p>RELAY, DOUBLE THROW A relay which passes current through one set of contacts or the other.</p>	<p>SWITCH, MANUAL Opens and closes circuits, thereby stopping (1) or allowing (2) current flow.</p>  <p>1. NORMALLY OPEN</p> <p>2. NORMALLY CLOSED</p>
 <p>RESISTOR An electrical component with a fixed resistance, placed in a circuit to reduce voltage to a specific value.</p>	<p>SWITCH, DOUBLE THROW A switch which continuously passes current through one set of contacts or the other.</p> 
 <p>RESISTOR, TAPPED A resistor which supplies two or more different non adjustable resistance values.</p>	<p>SWITCH, IGNITION A key operated switch with several positions which allows various circuits, particularly the primary ignition circuit, to become operational.</p> 
 <p>RESISTOR, VARIABLE or RHEOSTAT A controllable resistor with a variable rate of resistance. Also called a potentiometer or rheostat.</p>	<p>SWITCH, WIPER PARK Automatically returns wipers to the stop position when the wiper switch is turned off.</p> 
 <p>SENSOR (Thermistor) A resistor which varies its resistance with temperature.</p>	<p>TRANSISTOR A solidstate device typically used as an electronic relay; stops or passes current depending on the voltage applied at "base".</p> 
 <p>SENSOR, SPEED Uses magnetic impulses to open and close a switch to create a signal for activation of other components. (Reed Switch Type)</p>	<p>WIRES Wires are always drawn as straight lines on wiring diagrams. Crossed wires (1) without a black dot at the junction are not joined; crossed wires (2) with a black dot or octagonal mark at the junction are spliced (joined) connections.</p>  <p>(1) NOT CONNECTED</p> <p>(2) SPLICED</p>
 <p>SHORT PIN Used to provide an unbroken connection within a junction block.</p>	
 <p>SOLENOID An electromagnetic coil which forms a magnetic field when current flows, to move a plunger, etc.</p>	

F RELAY LOCATIONS

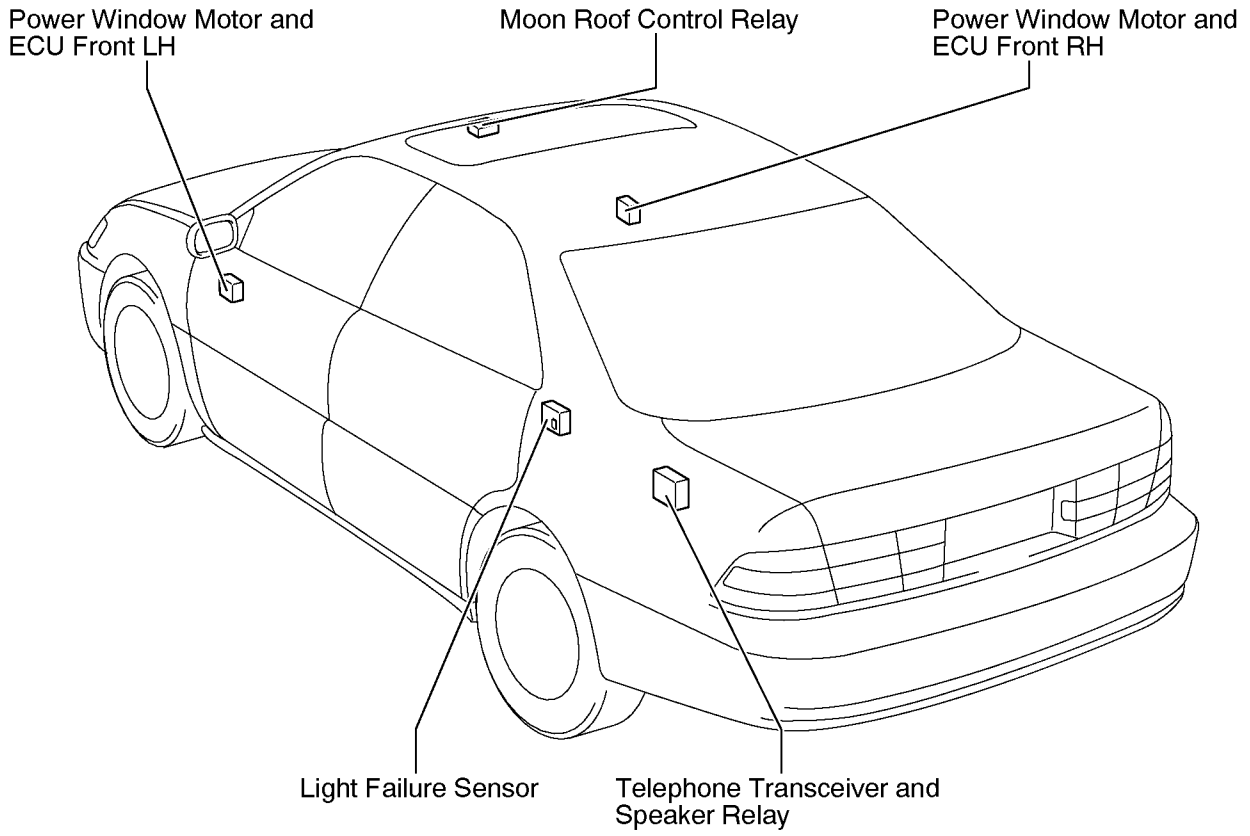
[Engine Compartment]



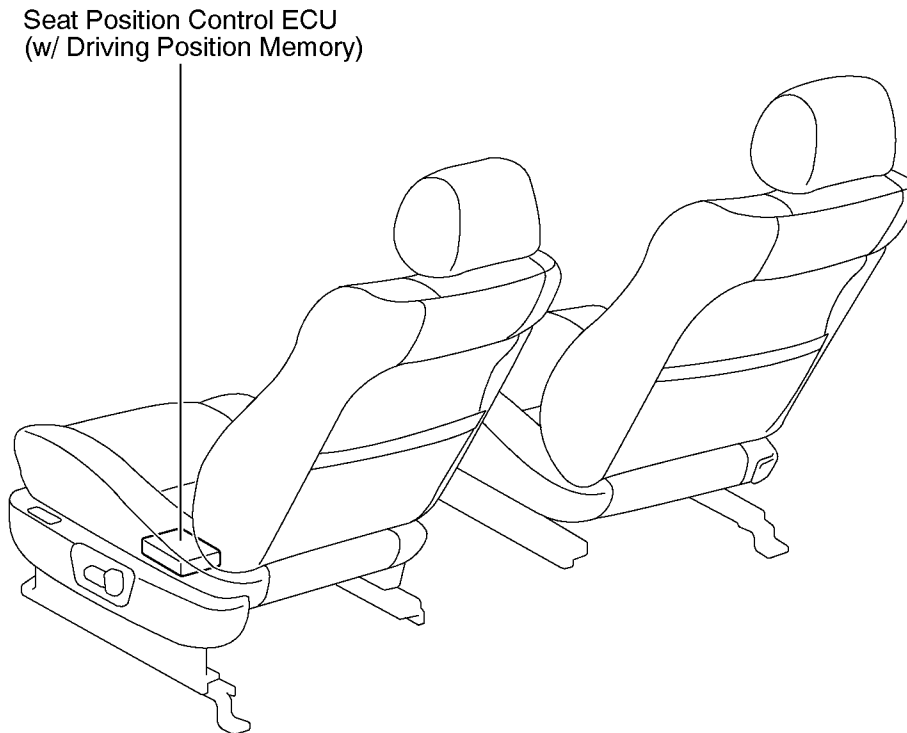
[Instrument Panel]



[Body]

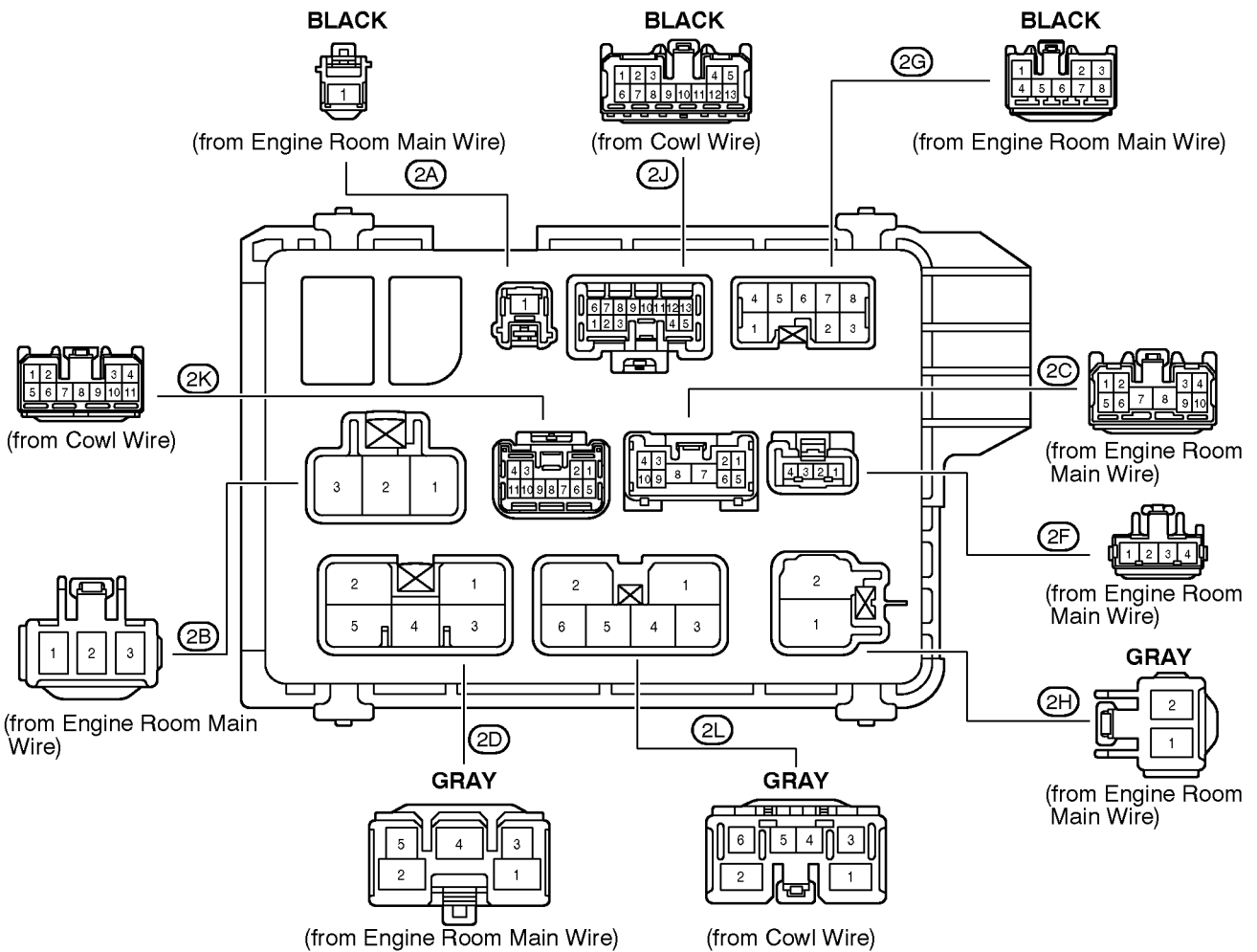
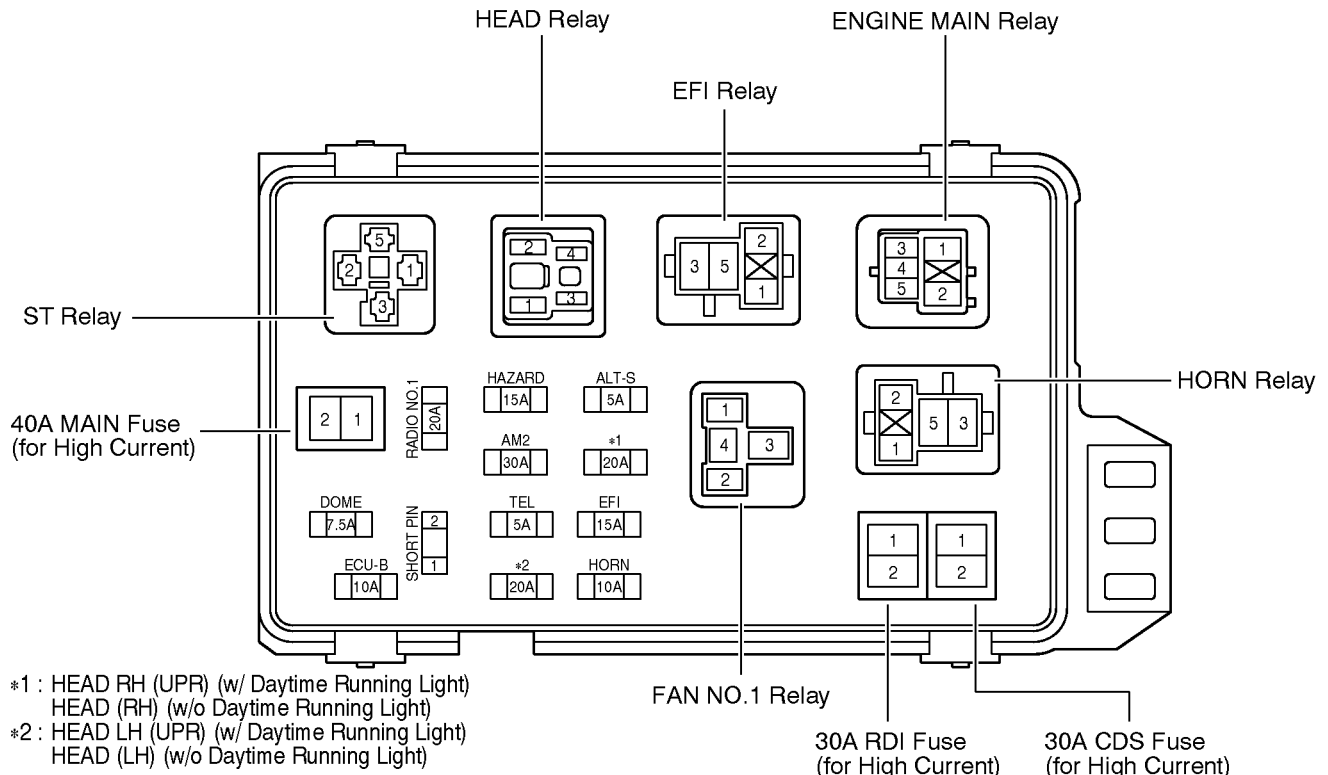


[Seat]

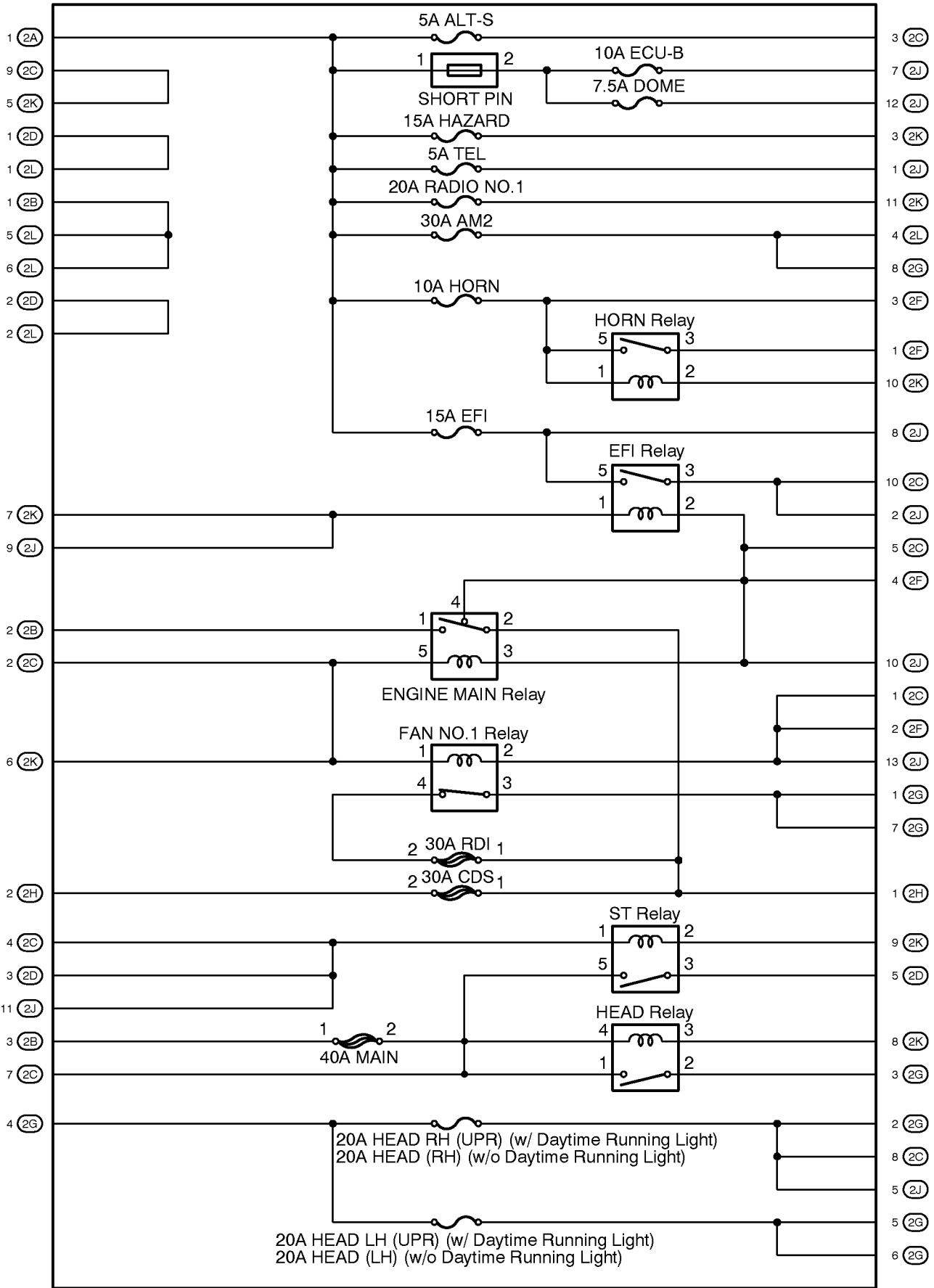


F RELAY LOCATIONS

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

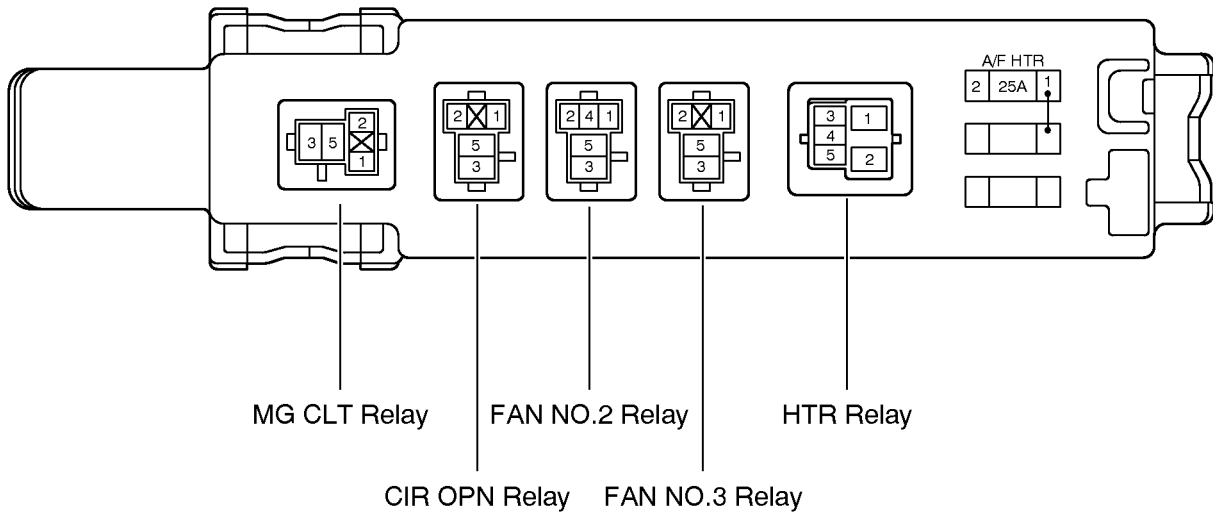


[Engine Room J/B Inner Circuit]

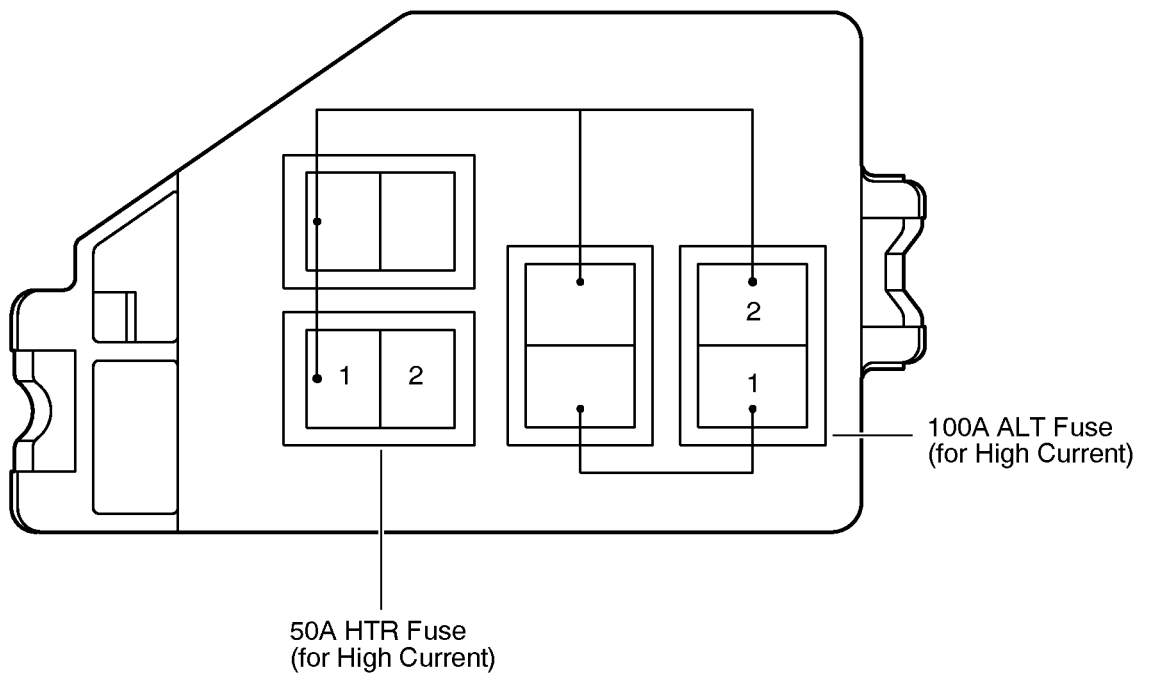


F RELAY LOCATIONS

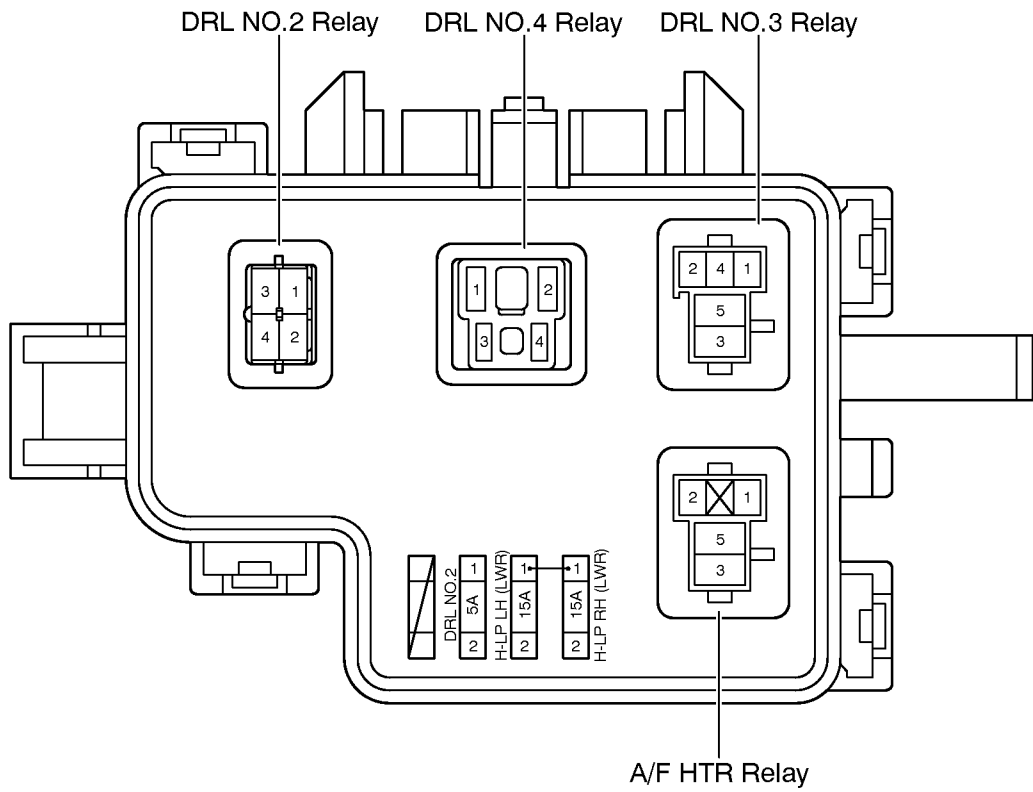
① : Engine Room R/B Engine Compartment Left (See Page 20)
[Inside Engine Room J/B]



Fusible Link Block Engine Compartment Left (See Page 20)
[Inside Engine Room J/B]

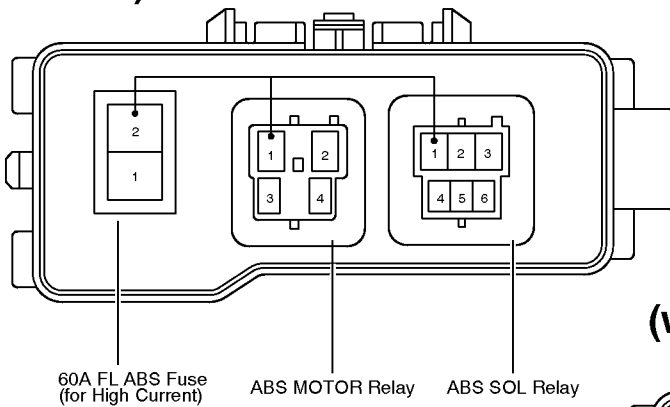


② : Engine Room No.2 R/B Engine Compartment Left (See Page 20)

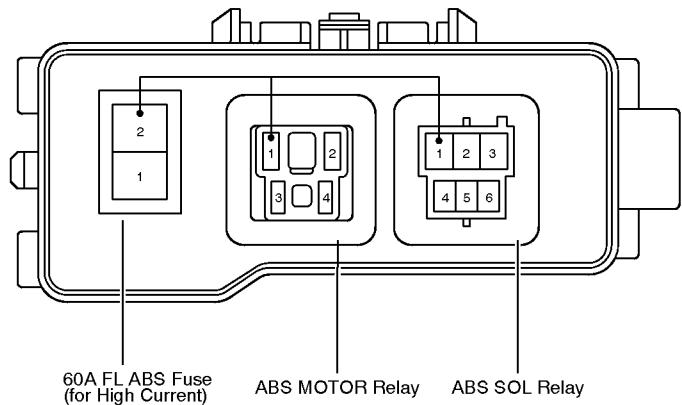


③ : Engine Room No.3 R/B Radiator Upper Support RH (See Page 20)

(w/ VSC)

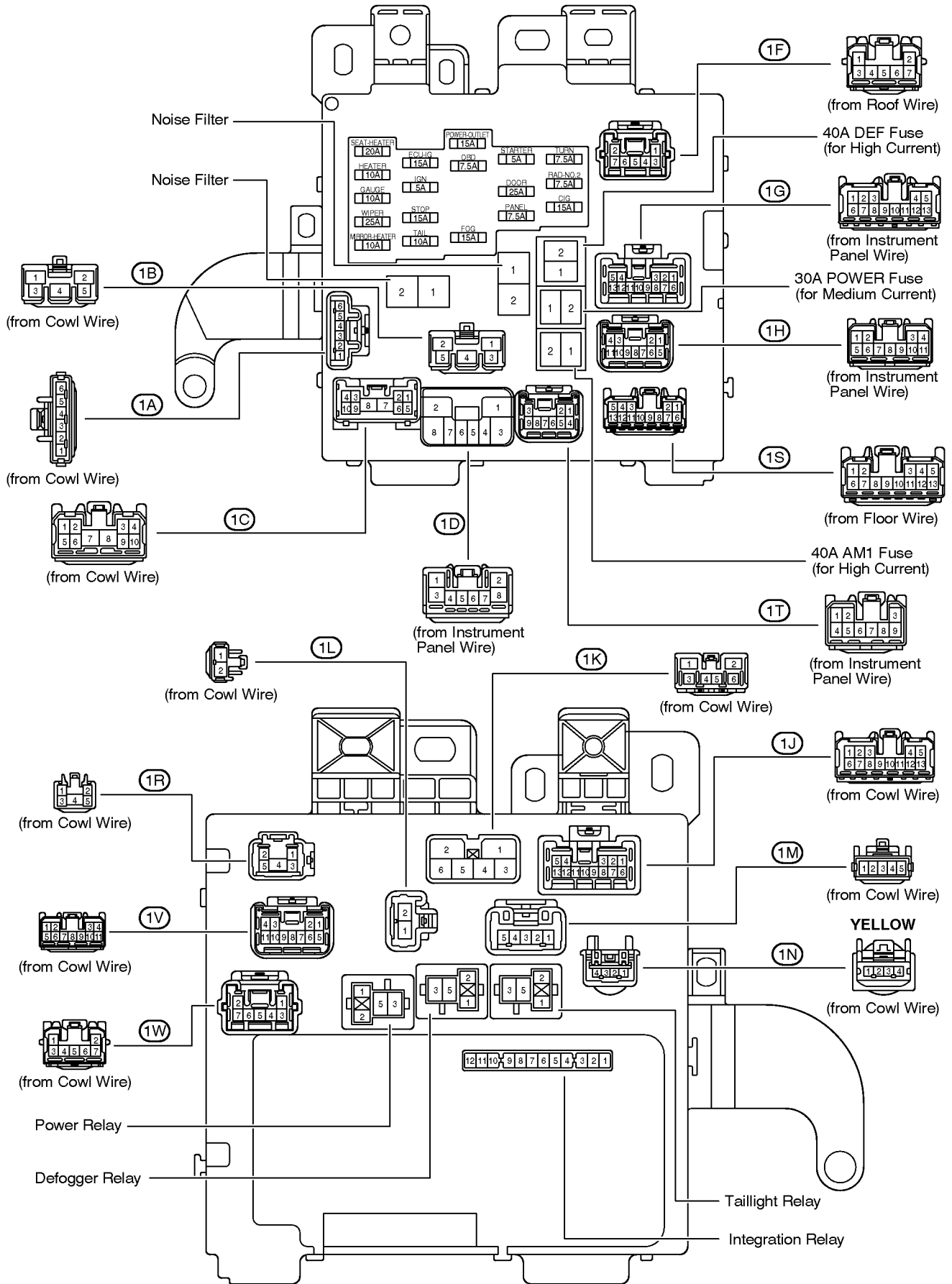


(w/o VSC)

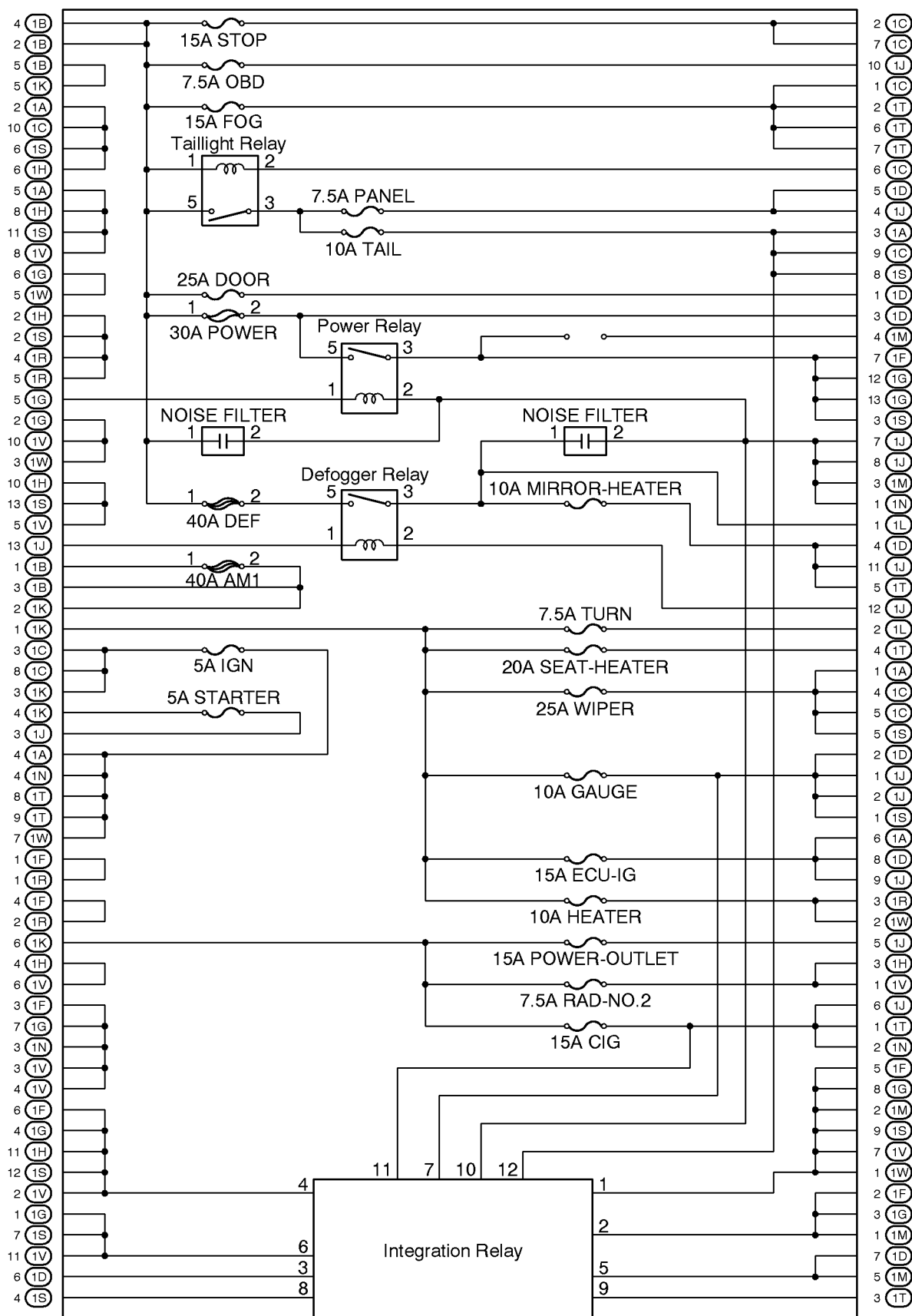


F RELAY LOCATIONS

○ : Instrument Panel J/B Lower Finish Panel (See Page 20)



[Instrument Panel J/B Inner Circuit]



G ELECTRICAL WIRING ROUTING

Position of Parts in Engine Compartment

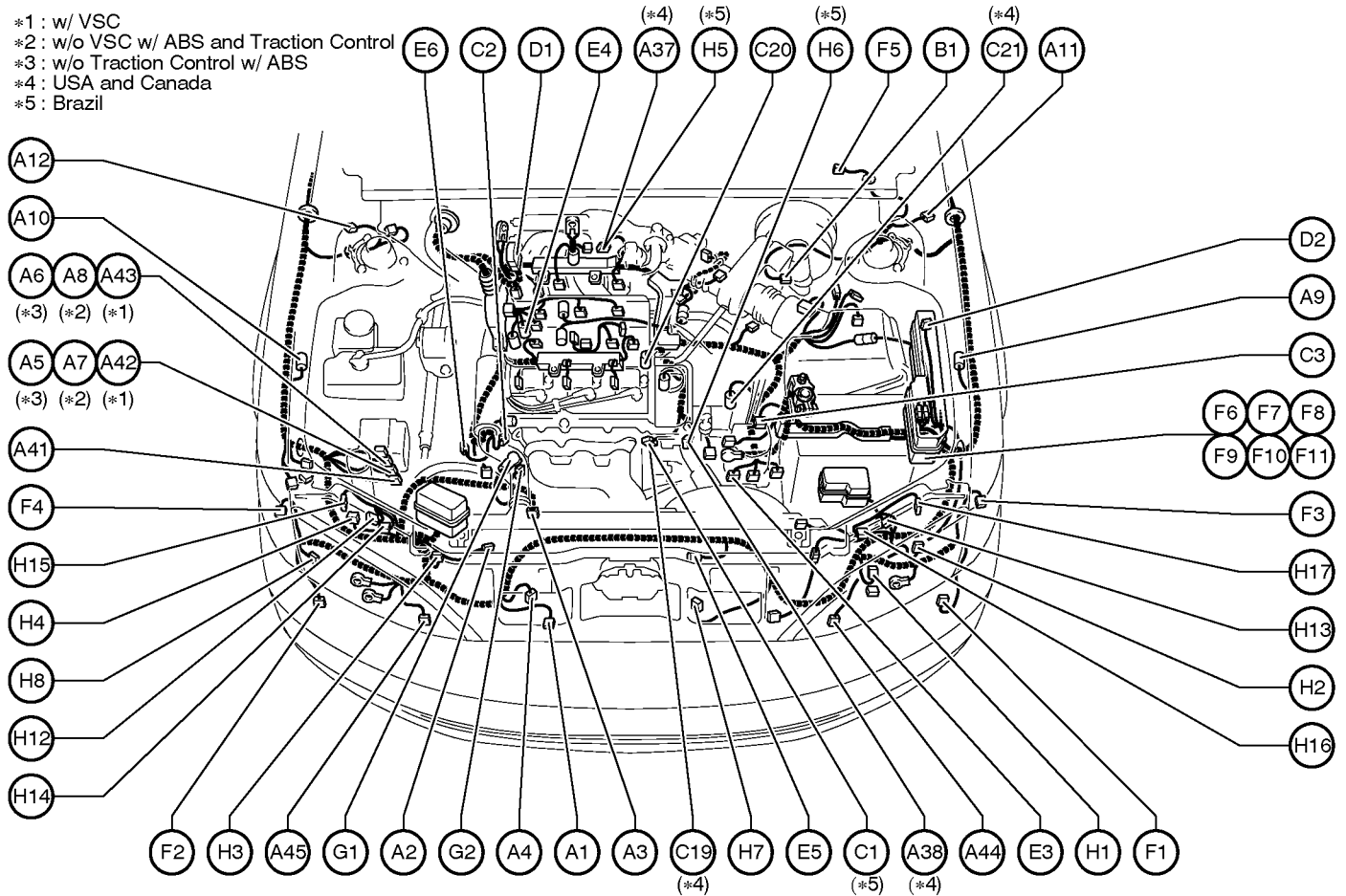
*1 : w/ VSC

*2 : w/o VSC w/ ABS and Traction Control

*3 : w/o Traction Control w/ ABS

*4 : USA and Canada

*5 : Brazil



- A 1 A/C Ambient Temp. Sensor
- A 2 A/C Condenser Fan Motor
- A 3 A/C Magnetic Clutch and Lock Sensor
- A 4 A/C Triple Pressure SW
(A/C Dual and Single Pressure SW)
- A 5 ABS Actuator
- A 6 ABS Actuator
- A 7 ABS and Traction Actuator
- A 8 ABS and Traction Actuator
- A 9 ABS Speed Sensor Front LH
- A 10 ABS Speed Sensor Front RH
- A 11 Absorber Control Actuator Front LH
- A 12 Absorber Control Actuator Front RH
- A 37 Air Fuel Ratio Sensor (Bank 1 Sensor 1)
- A 38 Air Fuel Ratio Sensor (Bank 2 Sensor 1)
- A 41 ABS & BA & TRAC & VSC Actuator
- A 42 ABS & BA & TRAC & VSC Actuator
- A 43 ABS & BA & TRAC & VSC Actuator
- A 44 Airbag Sensor Front LH
- A 45 Airbag Sensor Front RH

- B 1 Brake Fluid Level Warning SW

- C 1 Camshaft Position Sensor
- C 2 Crankshaft Position Sensor
- C 3 Cruise Control Actuator
- C 19 Camshaft Timing Oil Control Valve LH
- C 20 Camshaft Timing Oil Control Valve RH
- C 21 Counter Gear Speed Sensor

- D 1 Data Link Connector 1
- D 2 Diode (A/C)

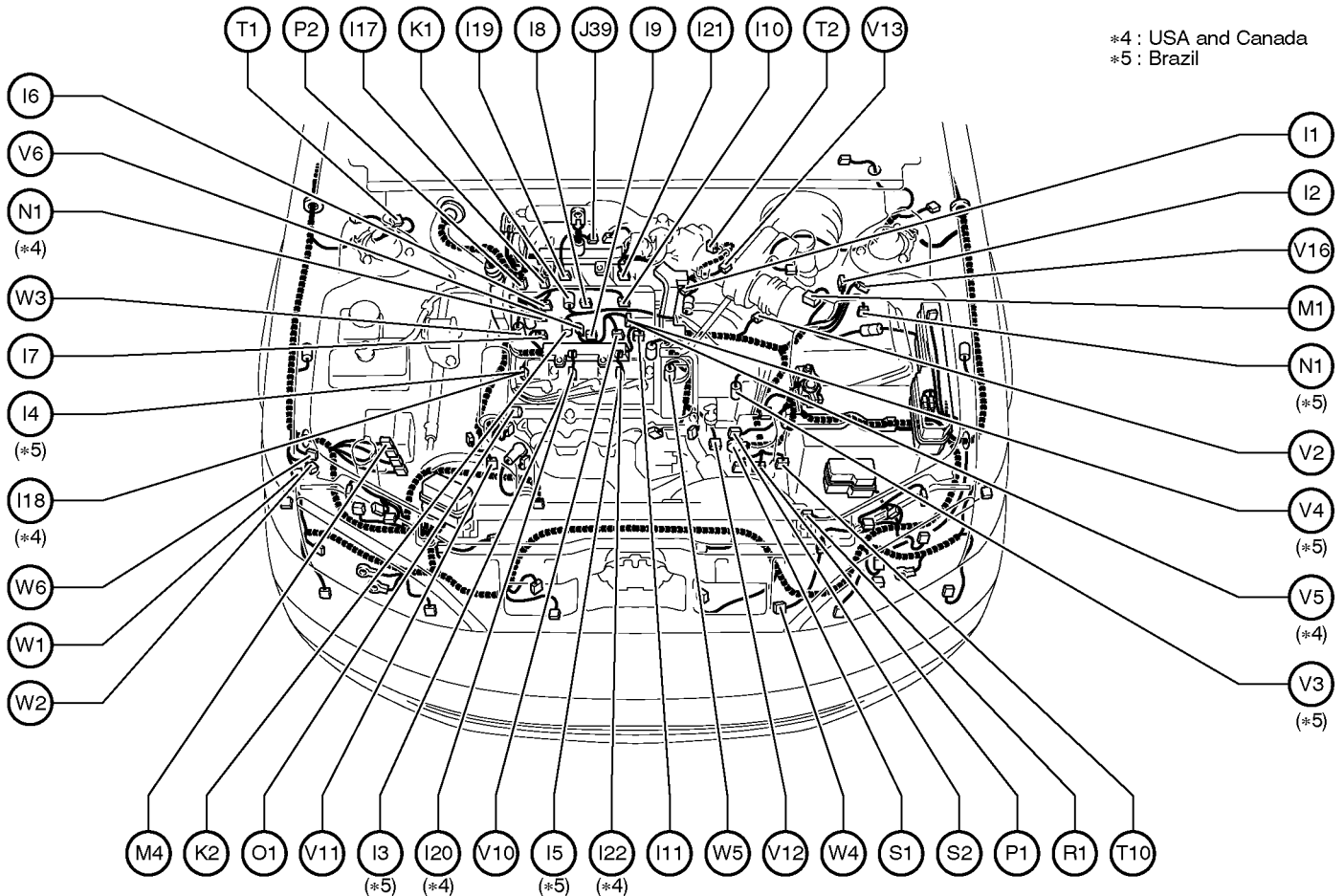
- E 3 Electronically Controlled Transmission Solenoid
- E 4 Engine Coolant Temp. Sensor
- E 5 Engine Hood Courtesy SW
- E 6 Engine Oil Level Warning SW

- F 1 Front Fog Light LH
- F 2 Front Fog Light RH
- F 3 Front Turn Signal and Front Parking Light LH
- F 4 Front Turn Signal and Front Parking Light RH
- F 5 Front Wiper Motor
- F 6 Fusible Link Block
- F 7 Fusible Link Block
- F 8 Fusible Link Block
- F 9 Fusible Link Block
- F 10 Fusible Link Block
- F 11 Fusible Link Block

- G 1 Generator
- G 2 Generator

- 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 2 Sensor 1)
- H 7 Horn LH
- H 8 Horn RH
- H 12 Headlight Beam Level Control Actuator LH
- H 13 Headlight Beam Level Control Actuator RH
- H 14 Headlight Control ECU LH (High)
- H 15 Headlight Control ECU LH (Low)
- H 16 Headlight Control ECU RH (High)
- H 17 Headlight Control ECU RH (Low)

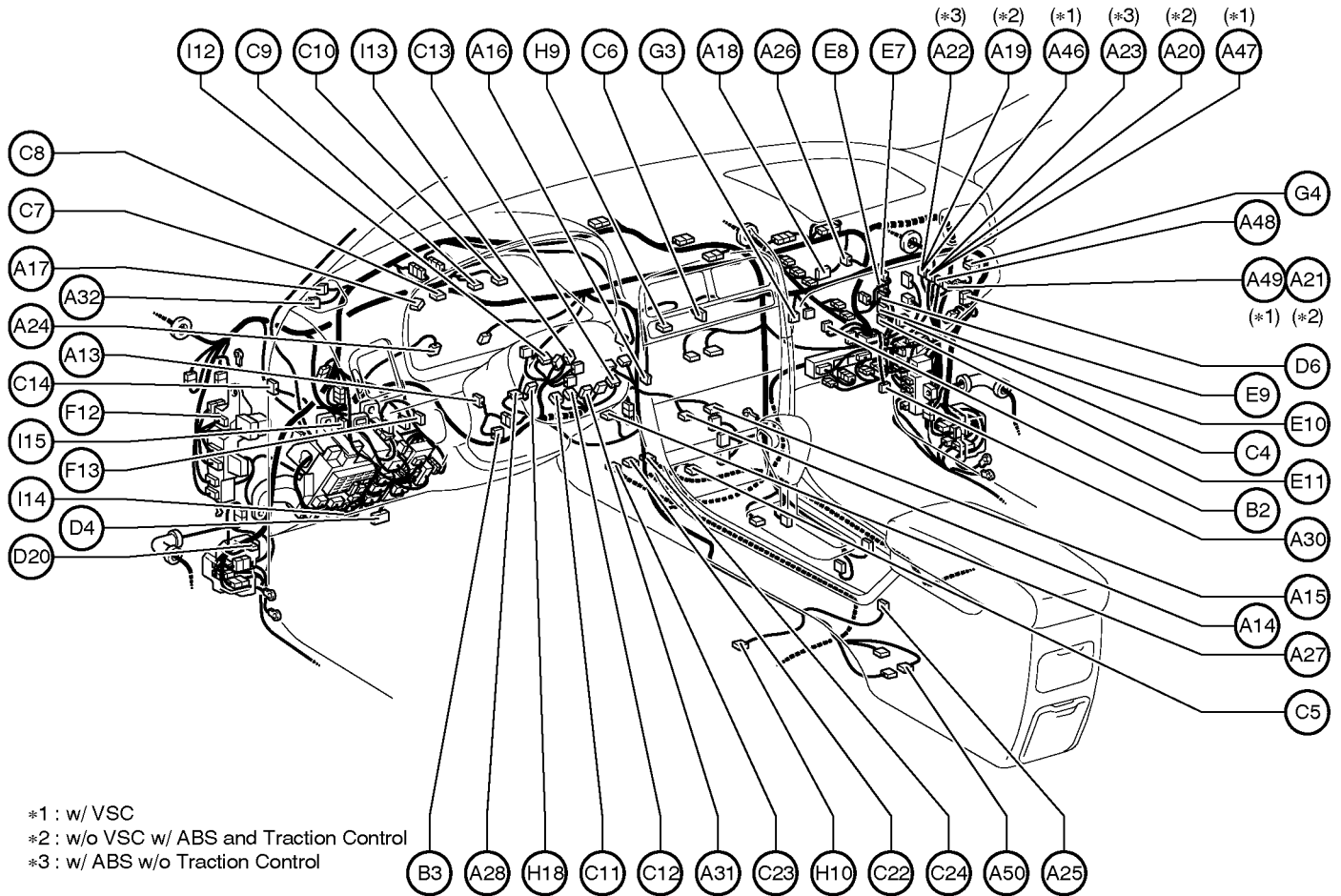
Position of Parts in Engine Compartment



- | | |
|---|--|
| <p>I 1 Idle Air Control Valve
 I 2 Igniter
 I 3 Ignition Coil No.1
 I 4 Ignition Coil No.2
 I 5 Ignition Coil No.3
 I 6 Injector No.1
 I 7 Injector No.2
 I 8 Injector No.3
 I 9 Injector No.4
 I 10 Injector No.5
 I 11 Injector No.6
 I 17 Ignition Coil and Igniter No.1
 I 18 Ignition Coil and Igniter No.2
 I 19 Ignition Coil and Igniter No.3
 I 20 Ignition Coil and Igniter No.4
 I 21 Ignition Coil and Igniter No.5
 I 22 Ignition Coil and Igniter No.6</p> <p>J 39 Junction Connector</p> <p>K 1 Knock Sensor 1
 K 2 Knock Sensor 2</p> <p>M 1 Mass Air Flow Meter
 M 4 Master Cylinder Pressure Sensor</p> <p>N 1 Noise Filter (Ignition)</p> <p>O 1 Oil Pressure SW</p> | <p>P 1 Park/Neutral Position SW, A/T Indicator Light SW and Back-Up Light SW
 P 2 Power Steering Oil Pressure SW</p> <p>R 1 Radiator Fan Motor</p> <p>S 1 Starter
 S 2 Starter</p> <p>T 1 Theft Deterrent Horn
 T 2 Throttle Position Sensor
 T 10 Turbine Speed Sensor</p> <p>V 2 Vehicle Speed Sensor (Combination Meter)
 V 3 Vehicle Speed Sensor (Electronically Controlled Transmission)
 V 4 VSV (EGR)
 V 5 VSV (EVAP)
 V 6 VSV (Intake Air Control)
 V 10 VSV (ACIS)
 V 11 VSV (ACM)
 V 12 VVT Sensor LH
 V 13 VVT Sensor RH
 V 16 VSV (Canister Closed Valve)</p> <p>W 1 Washer Level Warning SW
 W 2 Washer Motor
 W 3 Water Temp. Sender
 W 4 Water Temp. SW No.1
 W 5 Water Temp. SW No.2
 W 6 Wireless Door Lock Buzzer</p> |
|---|--|

G ELECTRICAL WIRING ROUTING

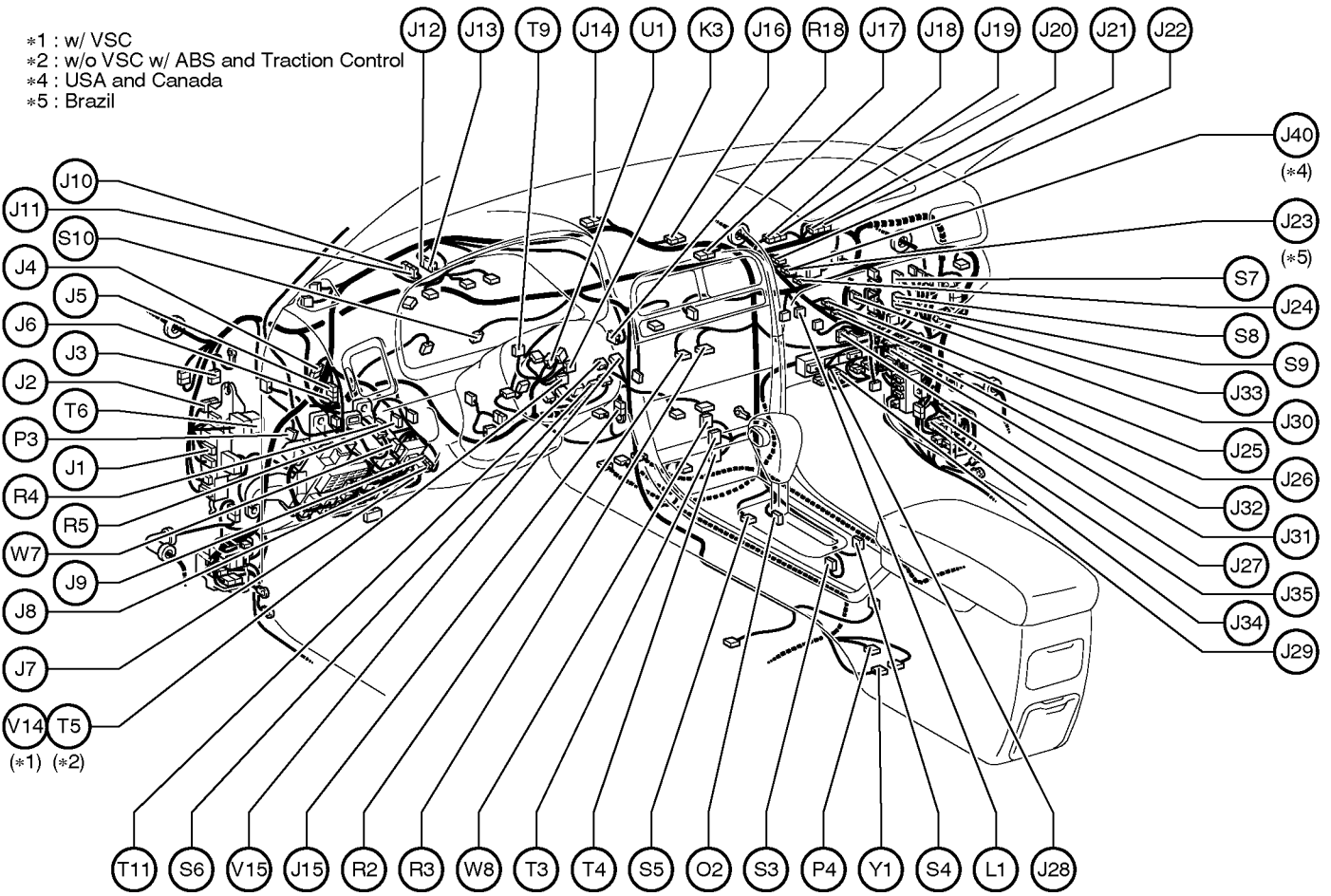
Position of Parts in Instrument Panel



- *1 : w/ VSC
- *2 : w/o VSC w/ ABS and Traction Control
- *3 : w/ ABS w/o Traction Control

- | | |
|---|--|
| A 13 A/C Blower Motor Linear Controller | C 10 Combination Meter |
| A 14 A/C Control Assembly | C 11 Combination SW |
| A 15 A/C Control Assembly | C 12 Combination SW |
| A 16 A/C Room Temp. Sensor | C 13 Combination SW |
| A 17 A/C Solar Sensor | C 14 Cruise Control ECU |
| A 18 A/C Thermistor | C 22 Center Airbag Sensor Assembly |
| A 19 ABS and Traction ECU | C 23 Center Airbag Sensor Assembly |
| A 20 ABS and Traction ECU | C 24 Center Airbag Sensor Assembly |
| A 21 ABS and Traction ECU | D 4 Data Link Connector 3 |
| A 22 ABS ECU | D 6 Diode (Courtesy) |
| A 23 ABS ECU | D 20 Diode (Dome) |
| A 24 Absorber Control ECU | E 7 Engine Control Module |
| A 25 Absorber Control SW | E 8 Engine Control Module |
| A 26 Air Inlet Control Servo Motor | E 9 Engine Control Module |
| A 27 Air Mix Control Servo Motor | E 10 Engine Control Module |
| A 28 Air Vent Mode Control Servo Motor | E 11 Engine Control Module |
| A 30 Airbag Squib (Front Passenger Airbag Assembly) | F 12 Front Fog Light Relay |
| A 31 Airbag Squib (Steering Wheel Pad) | F 13 Fuel Lid and Luggage Compartment Door Opener SW |
| A 32 Automatic Light Control Sensor | G 3 Glove Box Light |
| A 46 ABS & BA & TRAC & VSC ECU | G 4 Glove Box Light SW |
| A 47 ABS & BA & TRAC & VSC ECU | H 9 Hazard SW |
| A 48 ABS & BA & TRAC & VSC ECU | H 10 Heated Oxygen Sensor (Bank 1 Sensor 2) |
| A 49 ABS & BA & TRAC & VSC ECU | H 18 Headlight Beam Level Control ECU |
| A 50 ABS Deceleration Sensor | I 12 Ignition Key Cylinder Light |
| B 2 Blower Motor | I 13 Ignition SW |
| B 3 Blower Resistor | I 14 Integration Relay |
| C 4 CD Automatic Changer | I 15 Integration Relay |
| C 5 Cigarette Lighter | |
| C 6 Clock | |
| C 7 Combination Meter | |
| C 8 Combination Meter | |
| C 9 Combination Meter | |

Position of Parts in Instrument Panel



*1 : w/ VSC
 *2 : w/o VSC w/ ABS and Traction Control
 *4 : USA and Canada
 *5 : Brazil

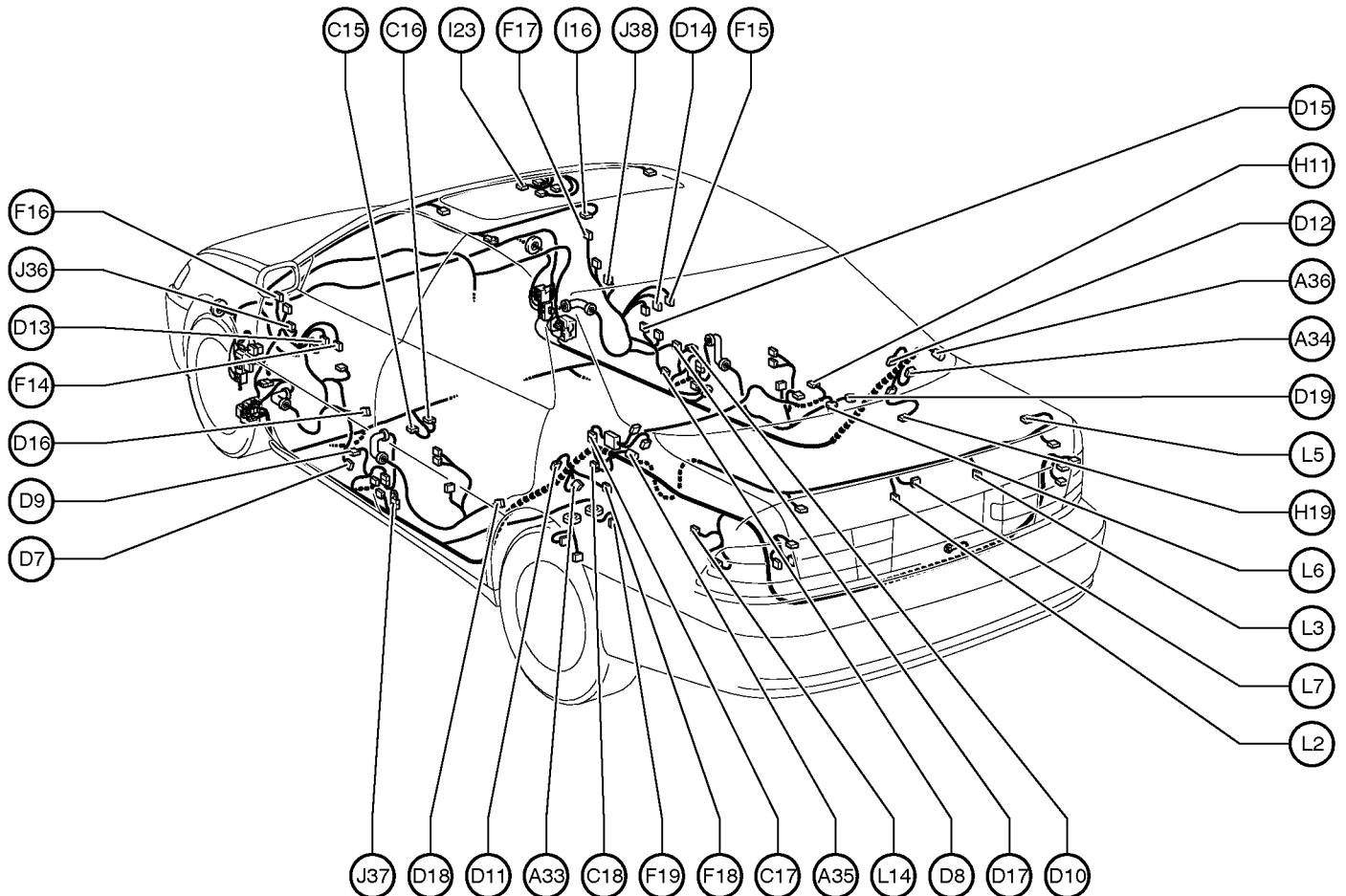
- J 1 Junction Connector
- J 2 Junction Connector
- J 3 Junction Connector
- J 4 Junction Connector
- J 5 Junction Connector
- J 6 Junction Connector
- J 7 Junction Connector
- J 8 Junction Connector
- J 9 Junction Connector
- J 10 Junction Connector
- J 11 Junction Connector
- J 12 Junction Connector
- 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 31 Junction Connector
- J 32 Junction Connector
- J 33 Junction Connector
- J 34 Junction Connector
- J 35 Junction Connector
- J 40 Junction Connector

K 3 Key Interlock Solenoid

- L 1 Luggage Compartment Door Opener Main SW
- O 2 O/D Main SW and A/T Shift Lever Illumination
- P 3 Parking Brake SW
- P 4 Power Outlet
- R 2 Radio and Player
- R 3 Radio and Player
- R 4 Remote Control Mirror SW
- R 5 Rheostat
- R 18 Remote Control Mirror ECU
- S 3 Seat Heater SW (Driver's Seat)
- S 4 Seat Heater SW (Front Passenger's Seat)
- S 5 Shift Lock Control ECU
- S 6 Steering Sensor
- S 7 Stereo Component Amplifier
- S 8 Stereo Component Amplifier
- S 9 Stereo Component Amplifier
- S 10 Stop Light SW
- T 3 Theft Deterrent ECU
- T 4 Theft Deterrent ECU
- T 5 TRAC Off SW
- T 6 Turn Signal Flasher Relay
- T 9 Transponder Key Amplifier
- T 11 Transponder Key Computer
- U 1 Unlock Warning SW (Ignition Key)
- V 14 VSC OFF SW
- V 15 VSC Warning Buzzer
- W 7 Wireless Door Lock Buzzer Volume SW
- W 8 Wireless Door Lock ECU
- Y 1 Yaw Rate Sensor

G ELECTRICAL WIRING ROUTING

Position of Parts in Body



A33 ABS Speed Sensor Rear LH
 A34 ABS Speed Sensor Rear RH
 A35 Absorber Control Actuator Rear LH
 A36 Absorber Control Actuator Rear RH

C15 Cellular Phone (Hand Set)
 C16 Cellular Phone (Hand Set)
 C17 Choke Coil
 C18 Condenser

D 7 Door Courtesy Light Front LH
 D 8 Door Courtesy Light Front RH
 D 9 Door Courtesy SW Front LH
 D10 Door Courtesy SW Front RH
 D11 Door Courtesy SW Rear LH
 D12 Door Courtesy SW Rear RH
 D13 Door Key Lock and Unlock SW Front LH
 D14 Door Key Lock and Unlock SW Front RH
 D15 Door Lock Control SW Front RH
 D16 Door Lock Motor and Door Unlock Detection SW Front LH
 D17 Door Lock Motor and Door Unlock Detection SW Front RH
 D18 Door Lock Motor and Door Unlock Detection SW Rear LH
 D19 Door Lock Motor and Door Unlock Detection SW Rear RH

F 14 Front Door Speaker LH
 F 15 Front Door Speaker RH
 F 16 Front Tweeter Speaker LH
 F 17 Front Tweeter Speaker RH
 F 18 Fuel Lid Opener Motor
 F 19 Fuel Pump and Fuel Sender

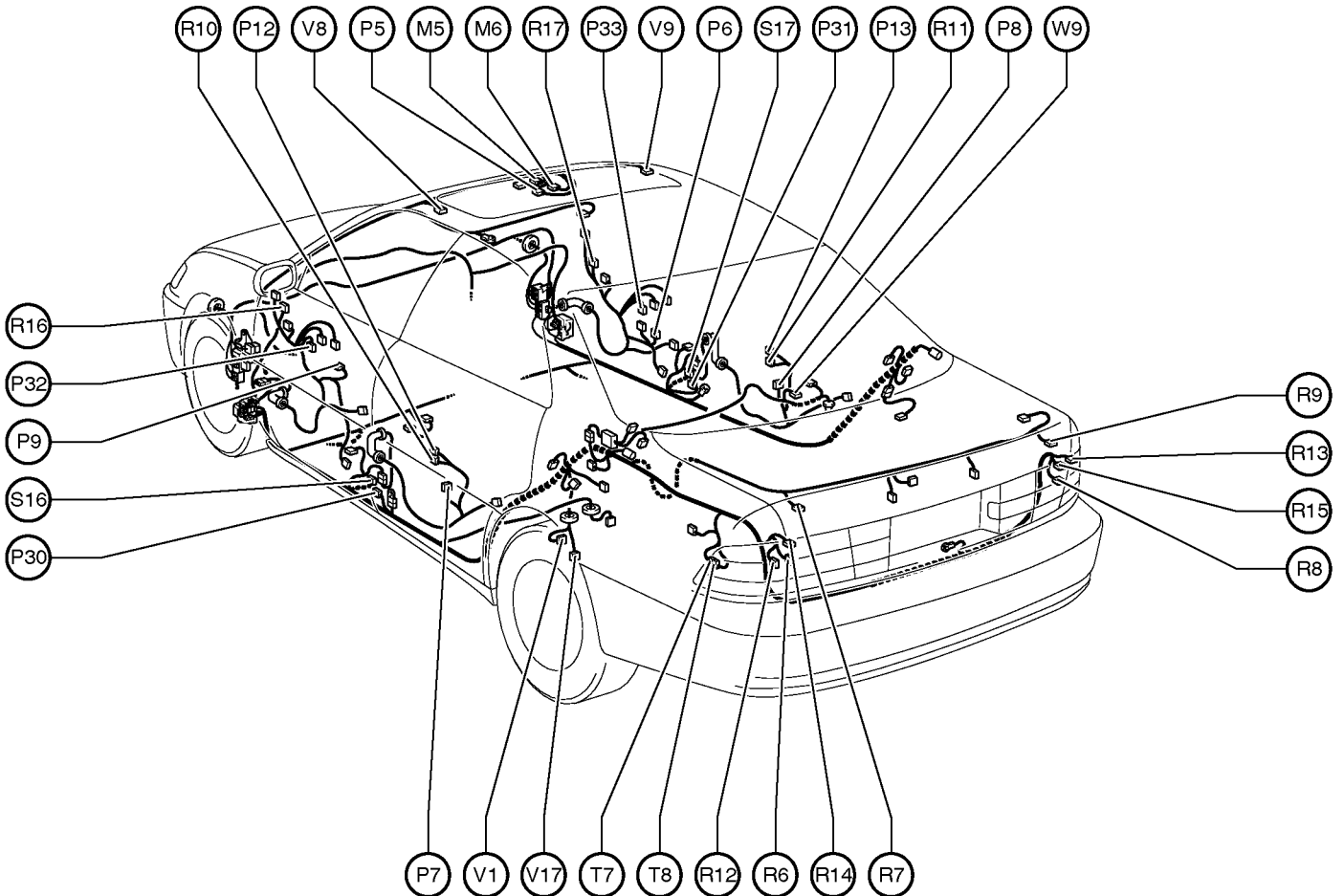
H11 High Mounted Stop Light
 H19 Height Control Sensor

I 16 Interior Light
 I 23 Inner Mirror

J 36 Junction Connector
 J 37 Junction Connector
 J 38 Junction Connector

L 2 License Plate Light LH
 L 3 License Plate Light RH
 L 4 Light Failure Sensor
 L 5 Luggage Compartment Door Key Unlock SW
 L 6 Luggage Compartment Light
 L 7 Luggage Compartment Light SW and Luggage Compartment Door Opener Motor

Position of Parts in Body



M 5 Moon Roof Control Relay
M 6 Moon Roof Control SW

P 5 Personal Light
P 6 Power Window Control SW Front RH
P 7 Power Window Control SW Rear LH
P 8 Power Window Control SW Rear RH
P 9 Power Window Master SW and Door Lock Control SW
Front LH
P12 Power Window Motor Rear LH
P13 Power Window Motor Rear RH
P30 Pretensioner LH
P31 Pretensioner RH
P32 Power Window Motor and ECU Front LH
P33 Power Window Motor and ECU Front RH

R 6 Rear Combination Light LH
R 7 Rear Combination Light LH
R 8 Rear Combination Light RH
R 9 Rear Combination Light RH
R10 Rear Door Speaker LH

R11 Rear Door Speaker RH
R12 Rear Side Marker Light LH
R13 Rear Side Marker Light RH
R14 Rear Turn Signal Light LH
R15 Rear Turn Signal Light RH
R16 Remote Control Mirror LH
R17 Remote Control Mirror RH

S16 Side Airbag Sensor LH
S17 Side Airbag Sensor RH

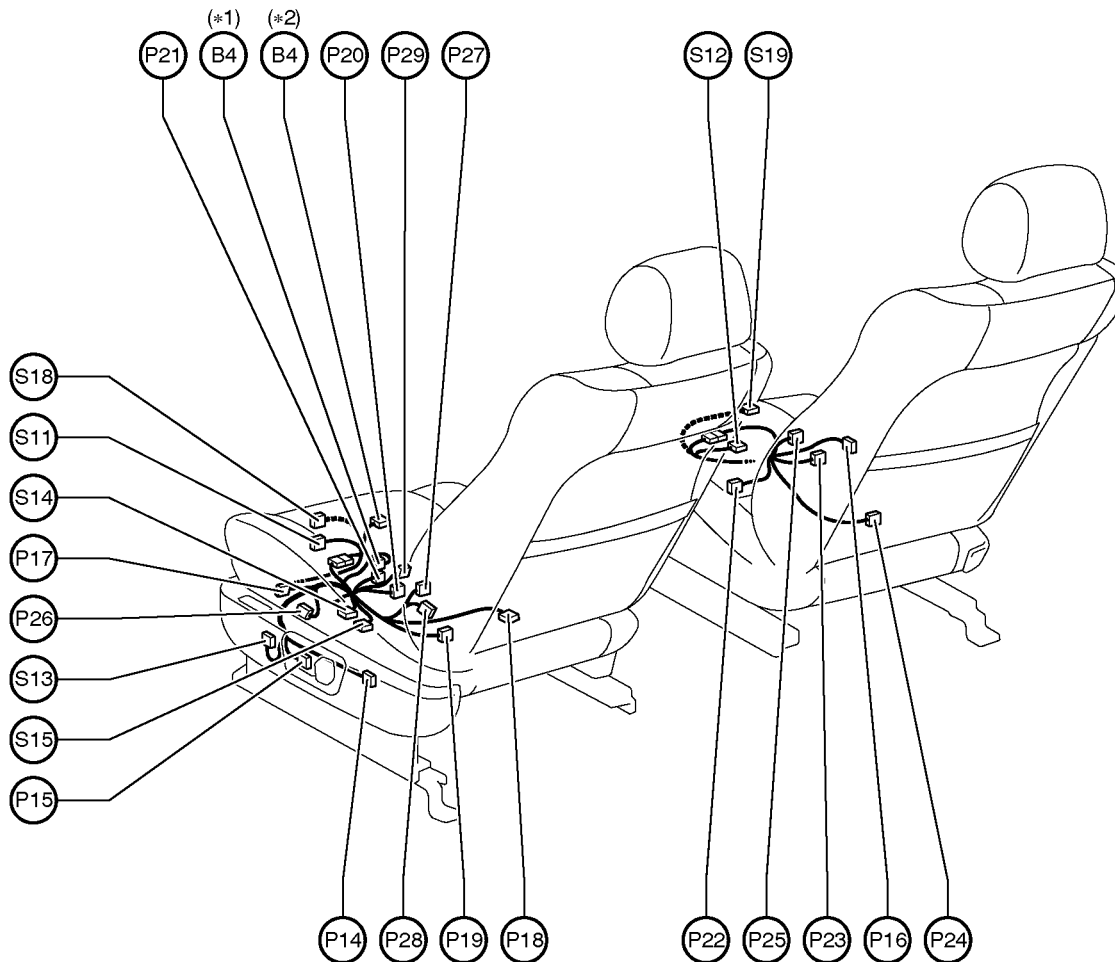
T 7 Telephone Transceiver and Speaker Relay
T 8 Telephone Transceiver and Speaker Relay

V 1 Vapor Pressure Sensor
V 8 Vanity Light LH
V 9 Vanity Light RH
V17 VSV (Pressure Switching Valve)

W 9 Woofer Speaker

G ELECTRICAL WIRING ROUTING

Position of Parts in Seat



*1 : w/ Memory
*2 : w/o Memory

B 4 Buckle SW

P 14 Power Seat Control SW
(Driver's Seat Lumbar Support Control)

P 15 Power Seat Control SW (Driver's Seat) (w/ Memory)

P 16 Power Seat Control SW (Front Passenger's Seat)

P 17 Power Seat Motor (Driver's Seat Front Vertical Control)

P 18 Power Seat Motor
(Driver's Seat Lumbar Support Control)

P 19 Power Seat Motor (Driver's Seat Rear Vertical Control)

P 20 Power Seat Motor (Driver's Seat Reclining Control)

P 21 Power Seat Motor (Driver's Seat Slide Control)

P 22 Power Seat Motor
(Front Passenger's Seat Front Vertical Control)

P 23 Power Seat Motor
(Front Passenger's Seat Rear Vertical Control)

P 24 Power Seat Motor
(Front Passenger's Seat Reclining Control)

P 25 Power Seat Motor
(Front Passenger's Seat Slide Control)

P 26 Power Seat Position Sensor
(Driver's Seat Front Vertical Control)

P 27 Power Seat Position Sensor
(Driver's Seat Rear Vertical Control)

P 28 Power Seat Position Sensor
(Driver's Seat Reclining Control)

P 29 Power Seat Position Sensor (Driver's Seat Slide Control)

S 11 Seat Heater (Driver's Seat)

S 12 Seat Heater (Front Passenger's Seat)

S 13 Seat Memory SW

S 14 Seat Position Control ECU

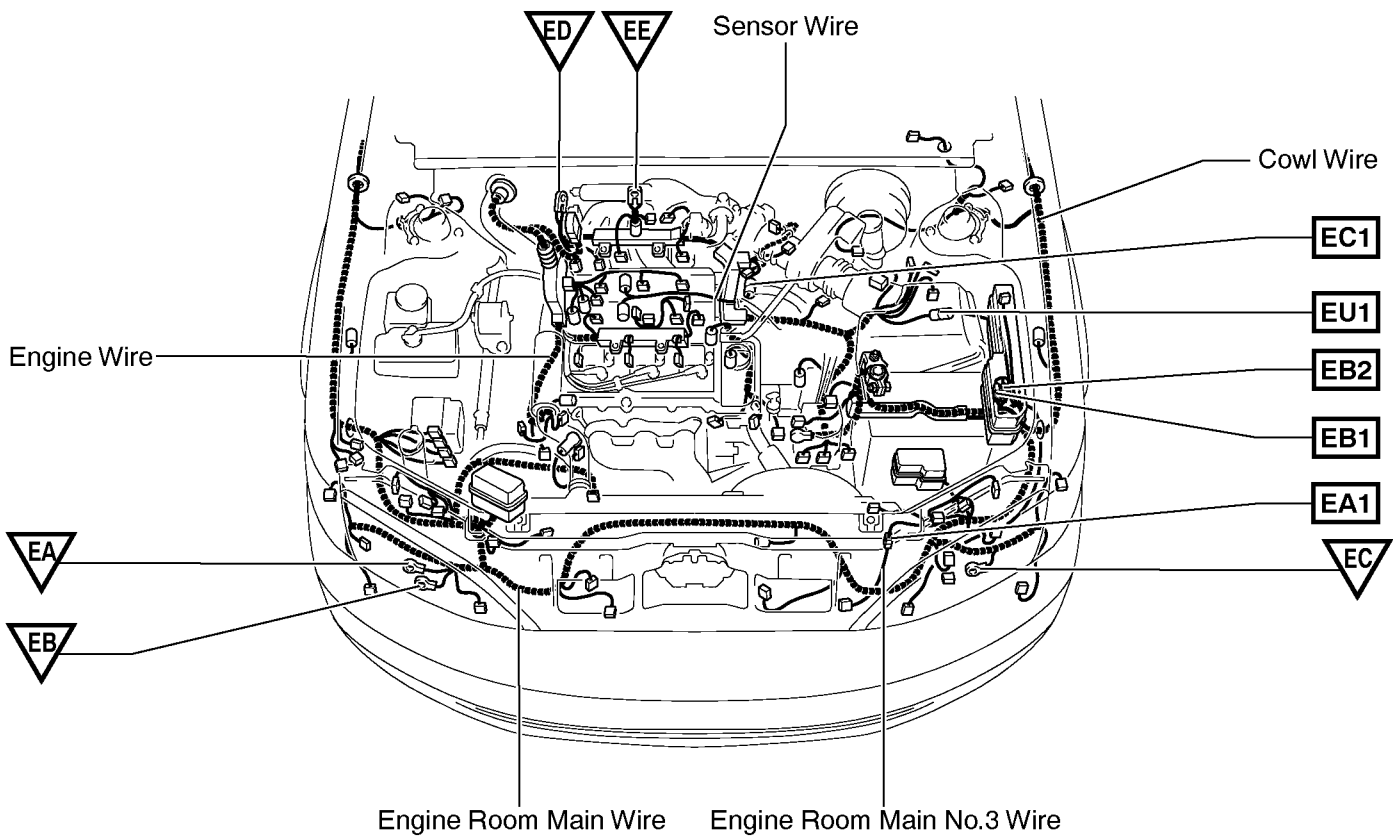
S 15 Seat Position Control ECU

S 18 Side Airbag Squib LH

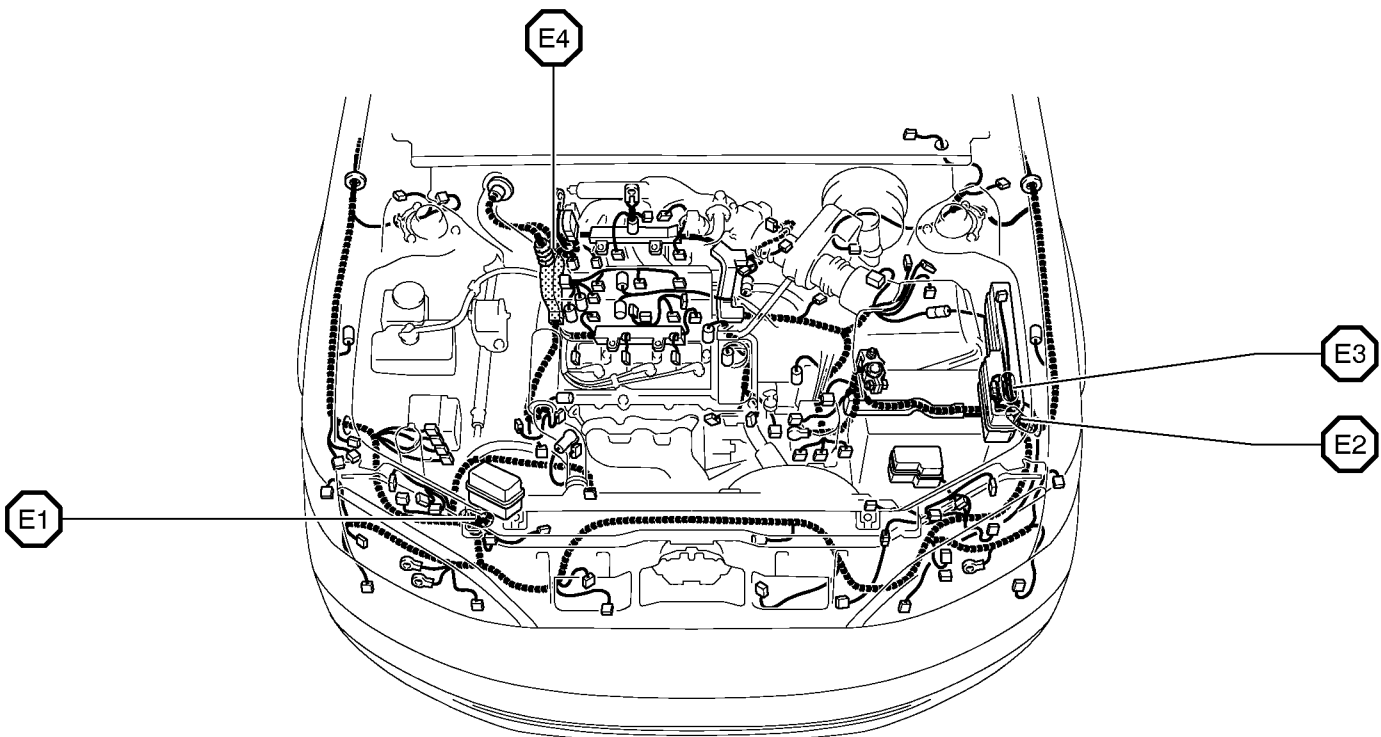
S 19 Side Airbag Squib RH

G ELECTRICAL WIRING ROUTING

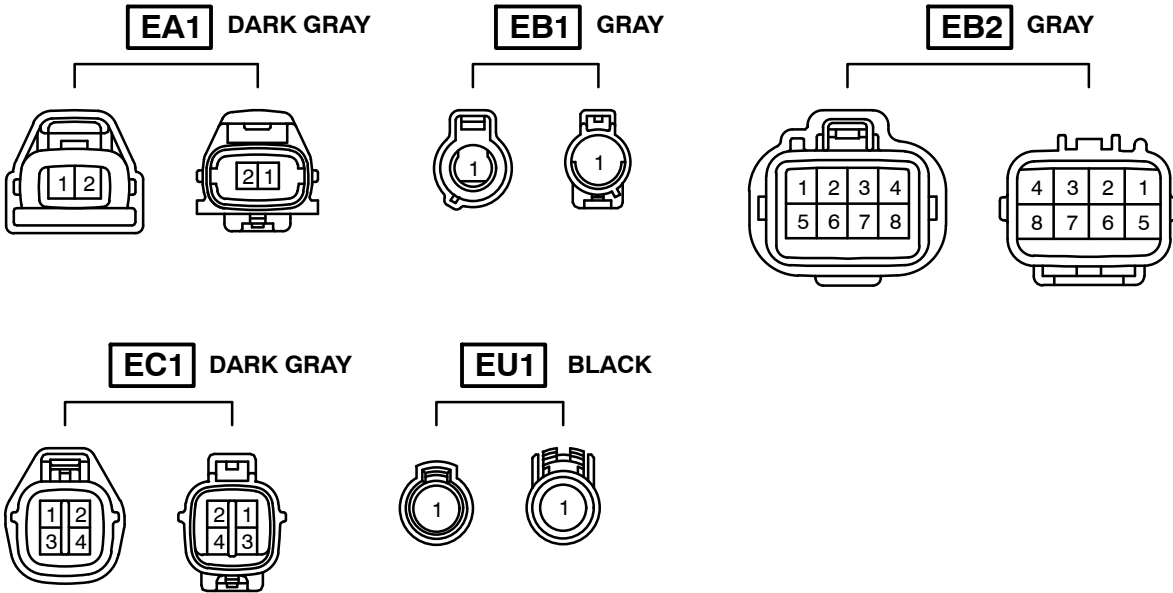
- : Location of Connector Joining Wire Harness and Wire Harness
- ▽ : Location of Ground Points



- : Location of Splice Points



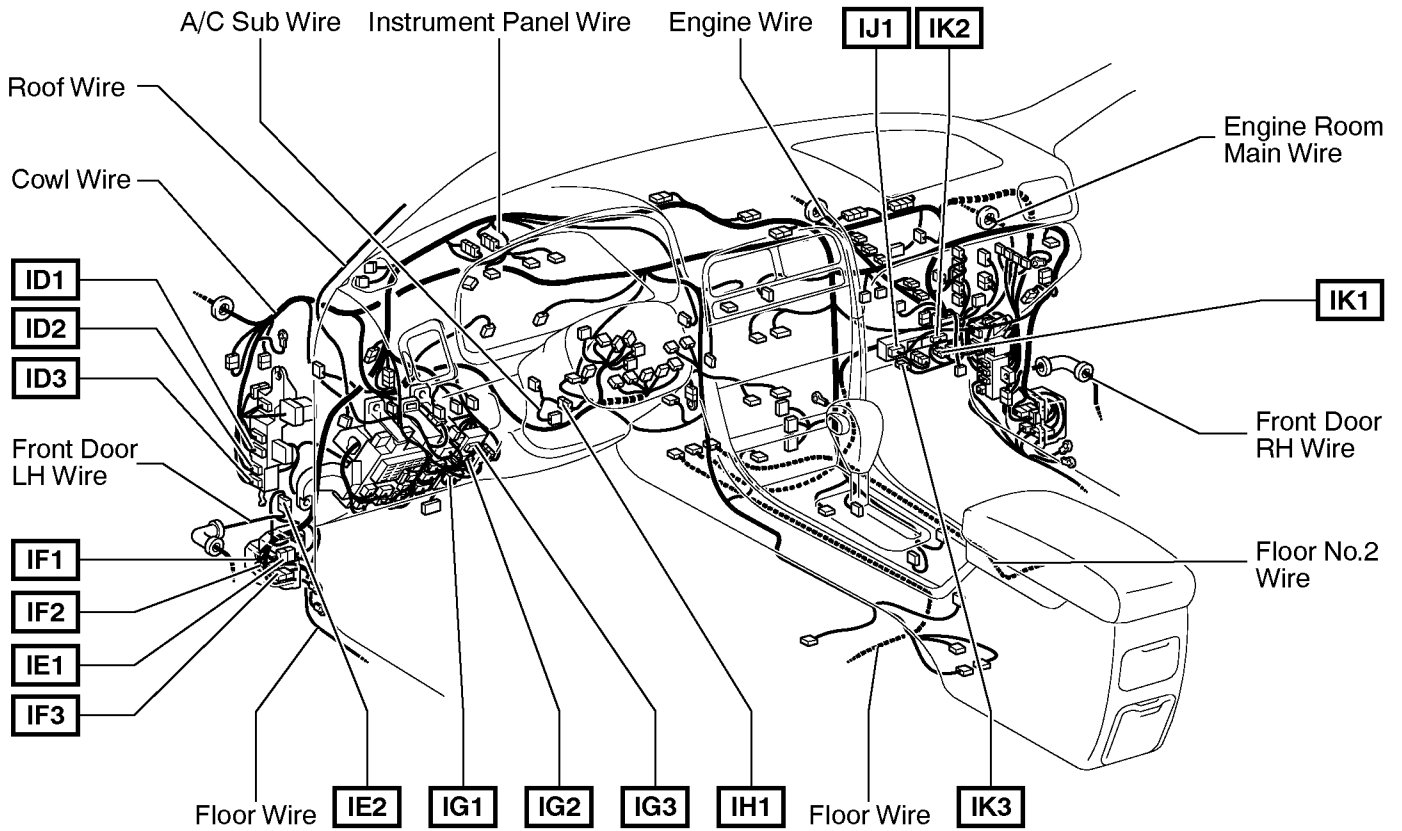
Connector Joining Wire Harness and Wire Harness



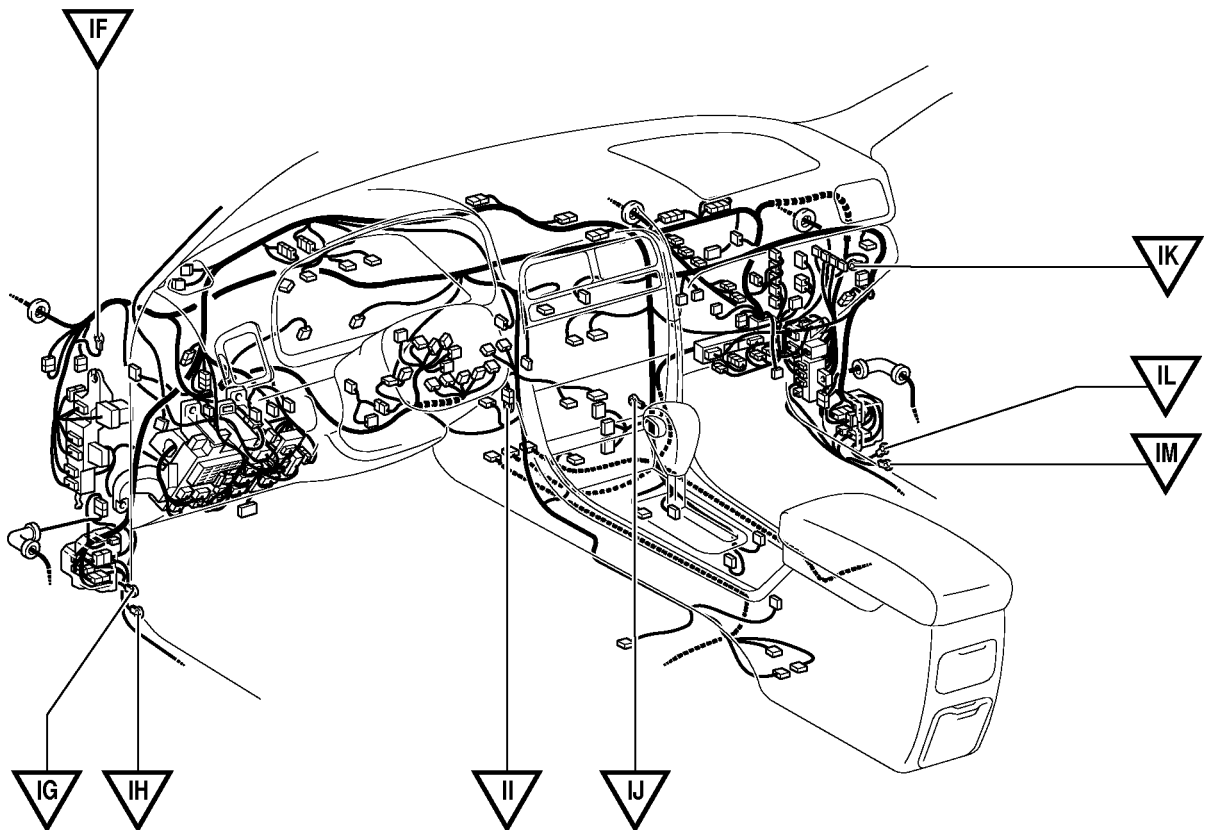
Code	Joining Wire Harness and Wire Harness (Connector Location)
EA1	Engine Room Main Wire and Engine Room Main No.3 Wire (Behind Headlight LH)
EB1	Cowl Wire and Engine Room Main Wire (Under the Engine Room J/B)
EB2	
EC1	Engine Wire and Sensor Wire (Left Bank of the Cylinder Head)
EU1	Engine Wire and Engine Room Main Wire (Under the Engine Room J/B)

G ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness

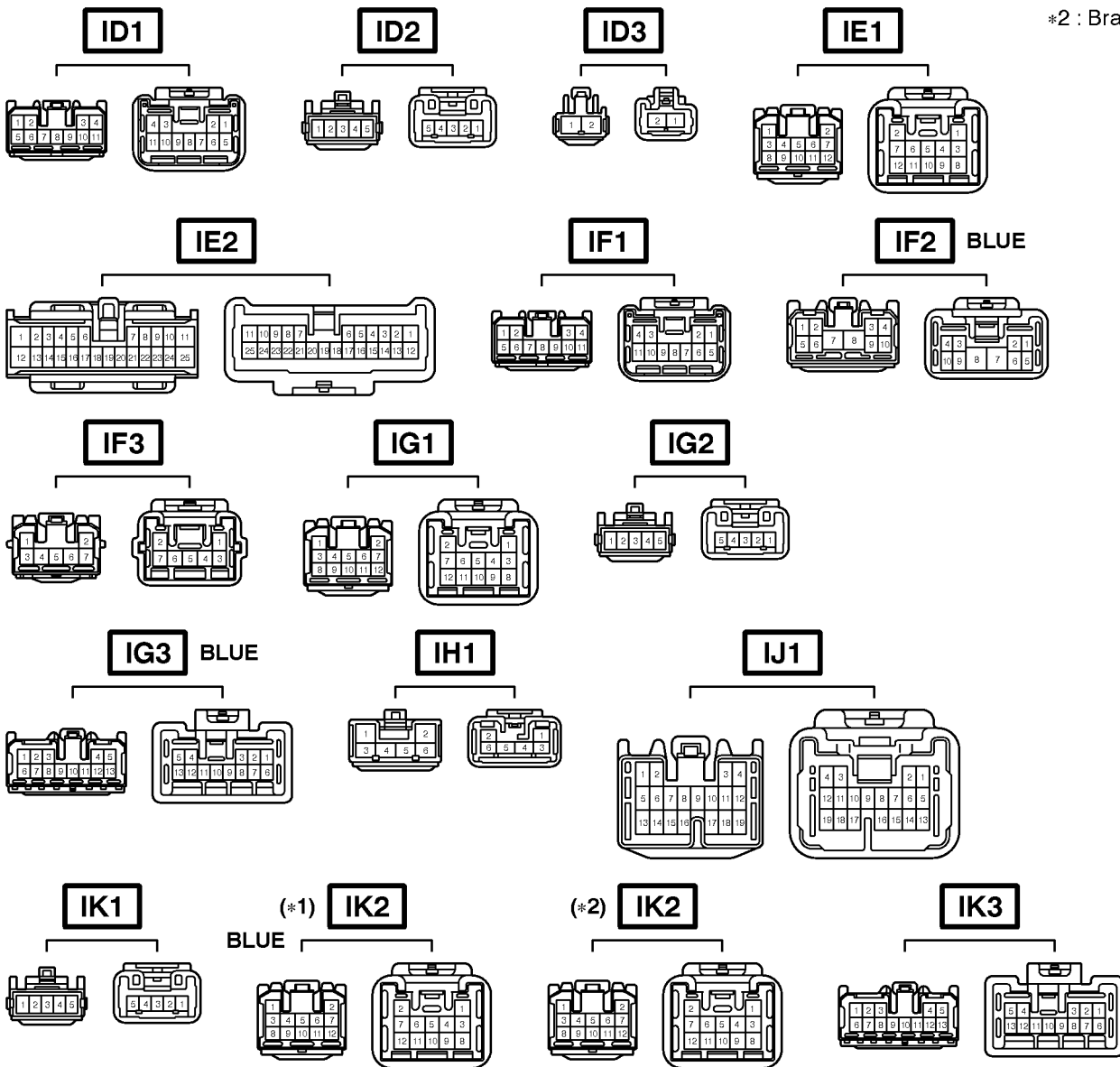


▽ : Location of Ground Points



Connector Joining Wire Harness and Wire Harness

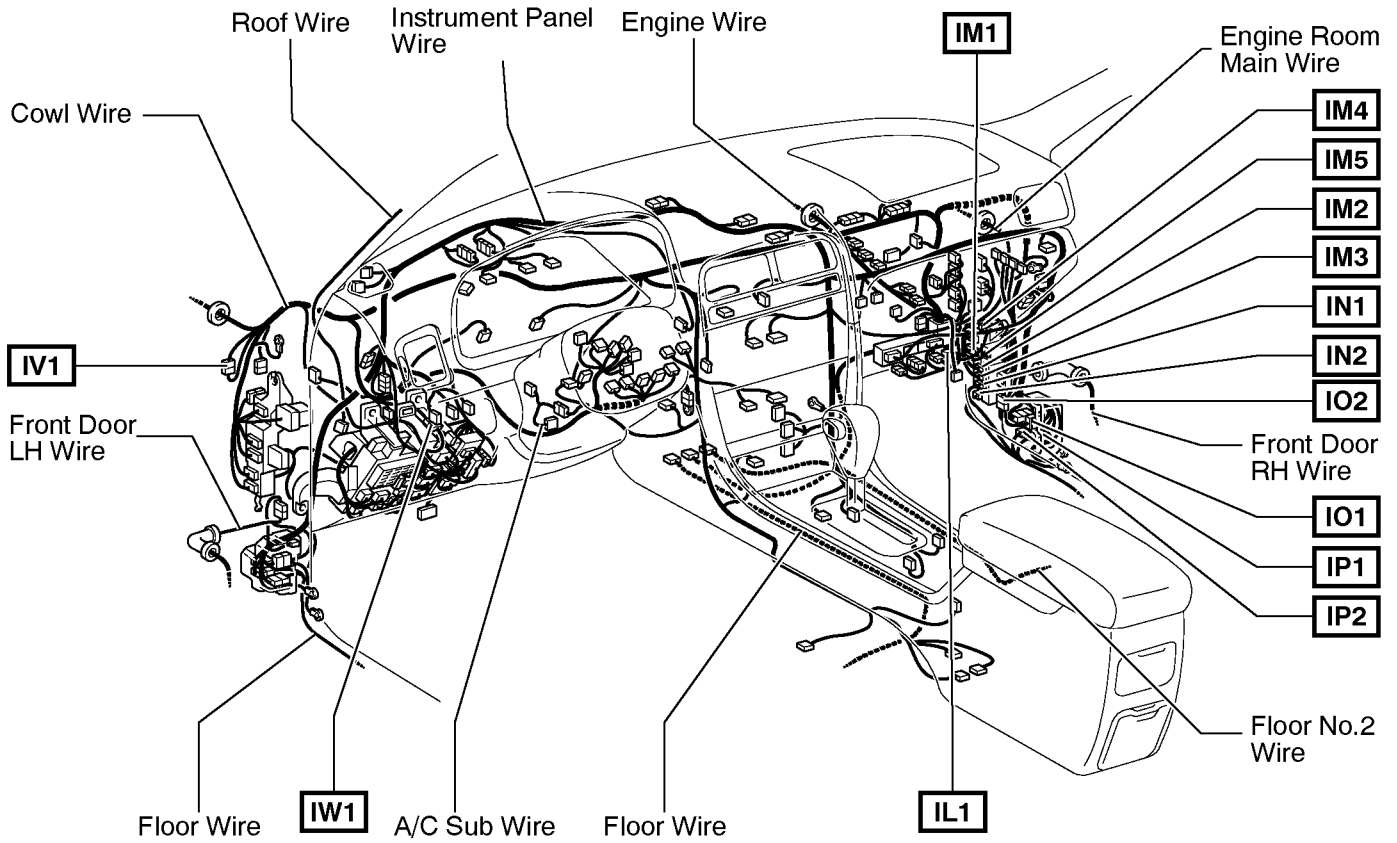
*1 : USA and Canada
*2 : Brazil



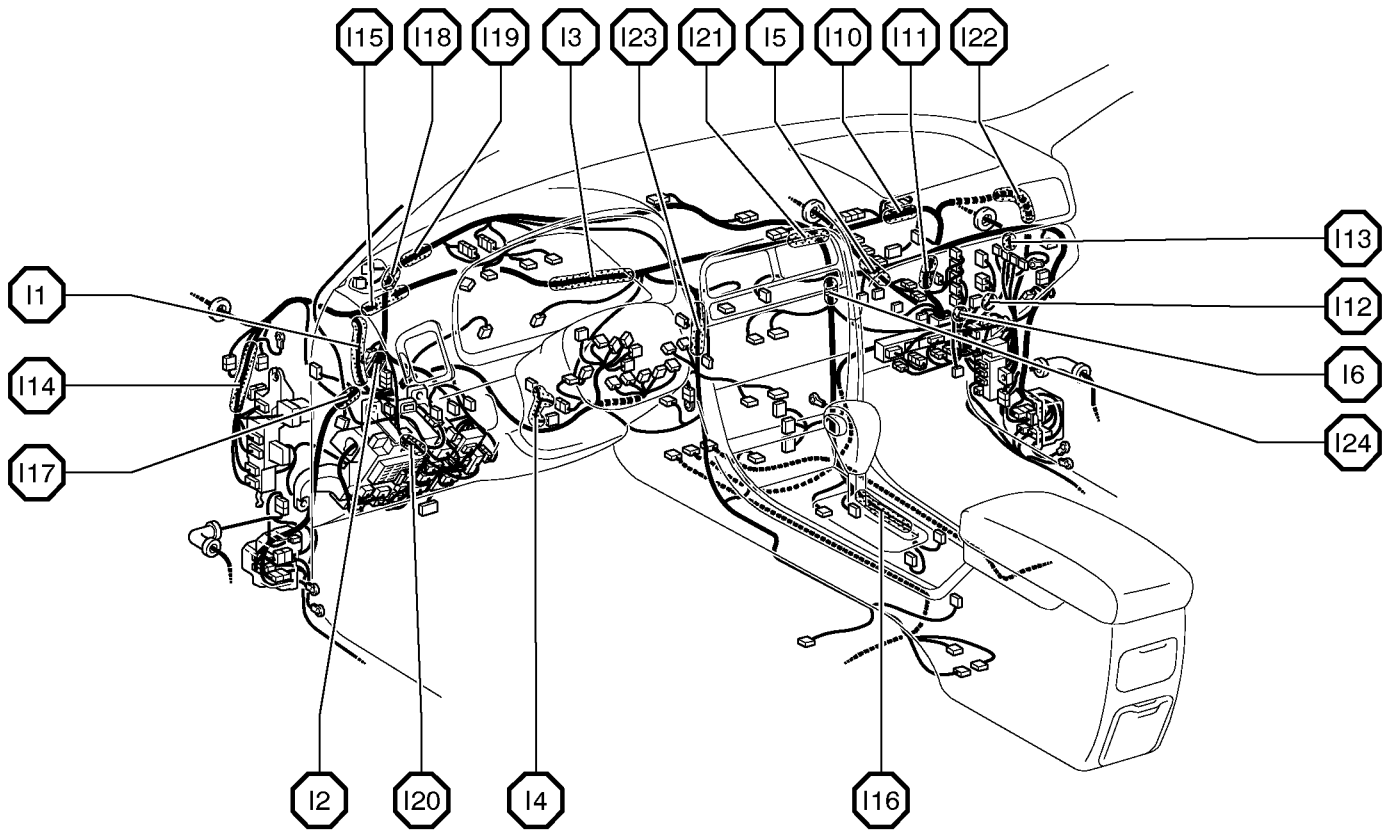
Code	Joining Wire Harness and Wire Harness (Connector Location)
ID1	
ID2	Floor Wire and Cowl Wire (Left Kick Panel)
ID3	
IE1	
IE2	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IF1	
IF2	Floor Wire and Instrument Panel Wire (Left Kick Panel)
IF3	
IG1	
IG2	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IG3	
IH1	Cowl Wire and A/C Sub Wire (Behind Radio and Player)
IJ1	Instrument Panel Wire and Cowl Wire (Under the Glove Box)
IK1	
IK2	Engine Wire and Cowl Wire (Under the Glove Box)
IK3	

G ELECTRICAL WIRING ROUTING

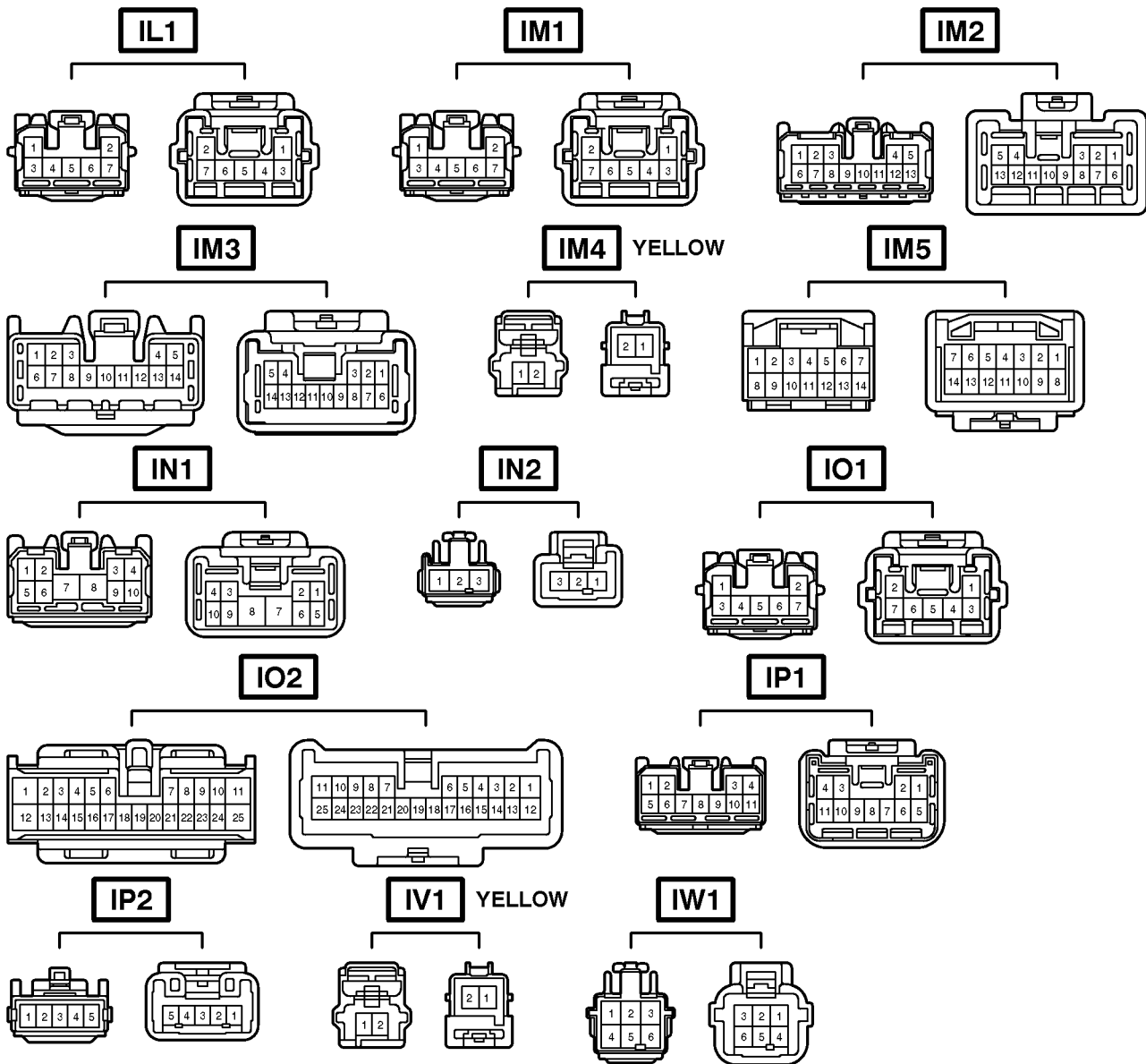
□ : Location of Connector Joining Wire Harness and Wire Harness



○ : Location of Splice Points



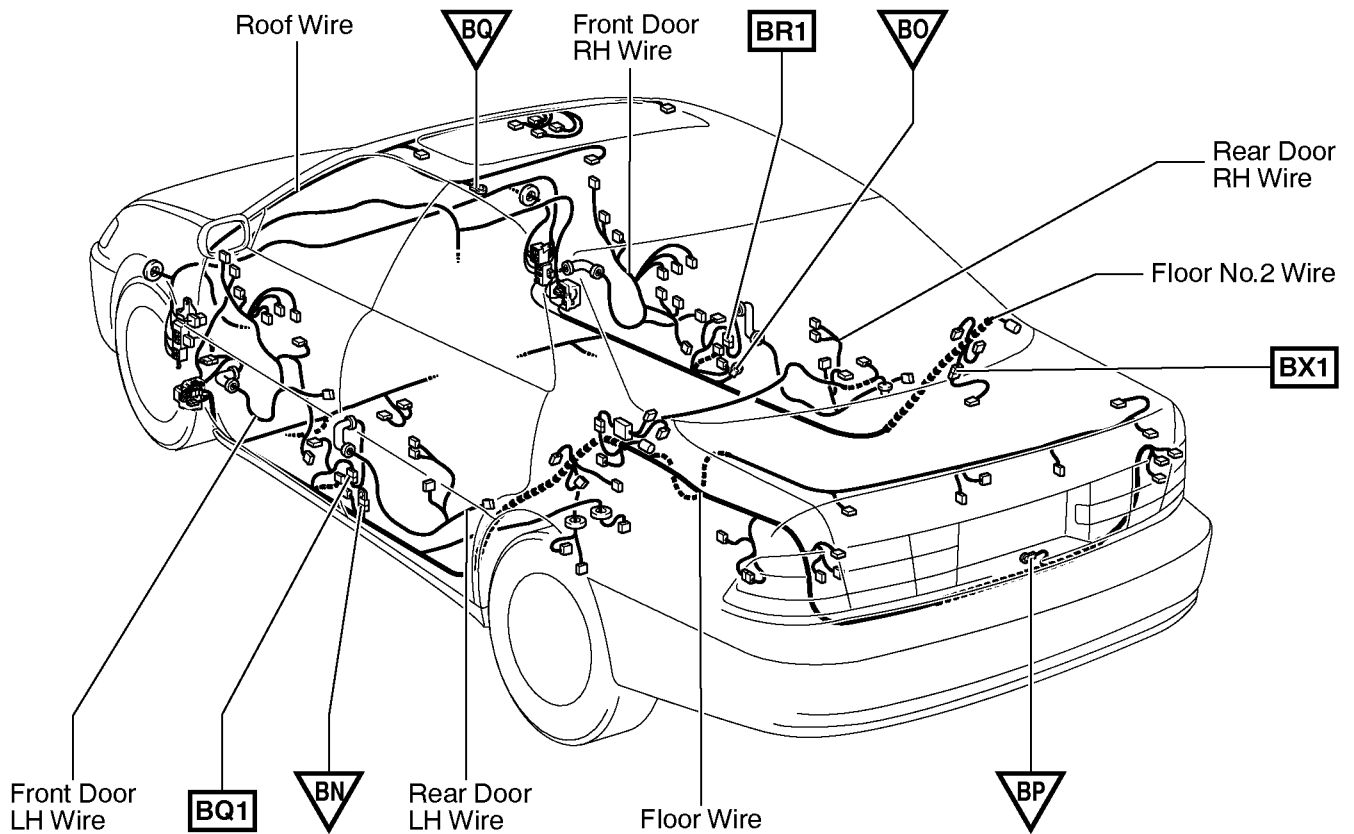
Connector Joining Wire Harness and Wire Harness



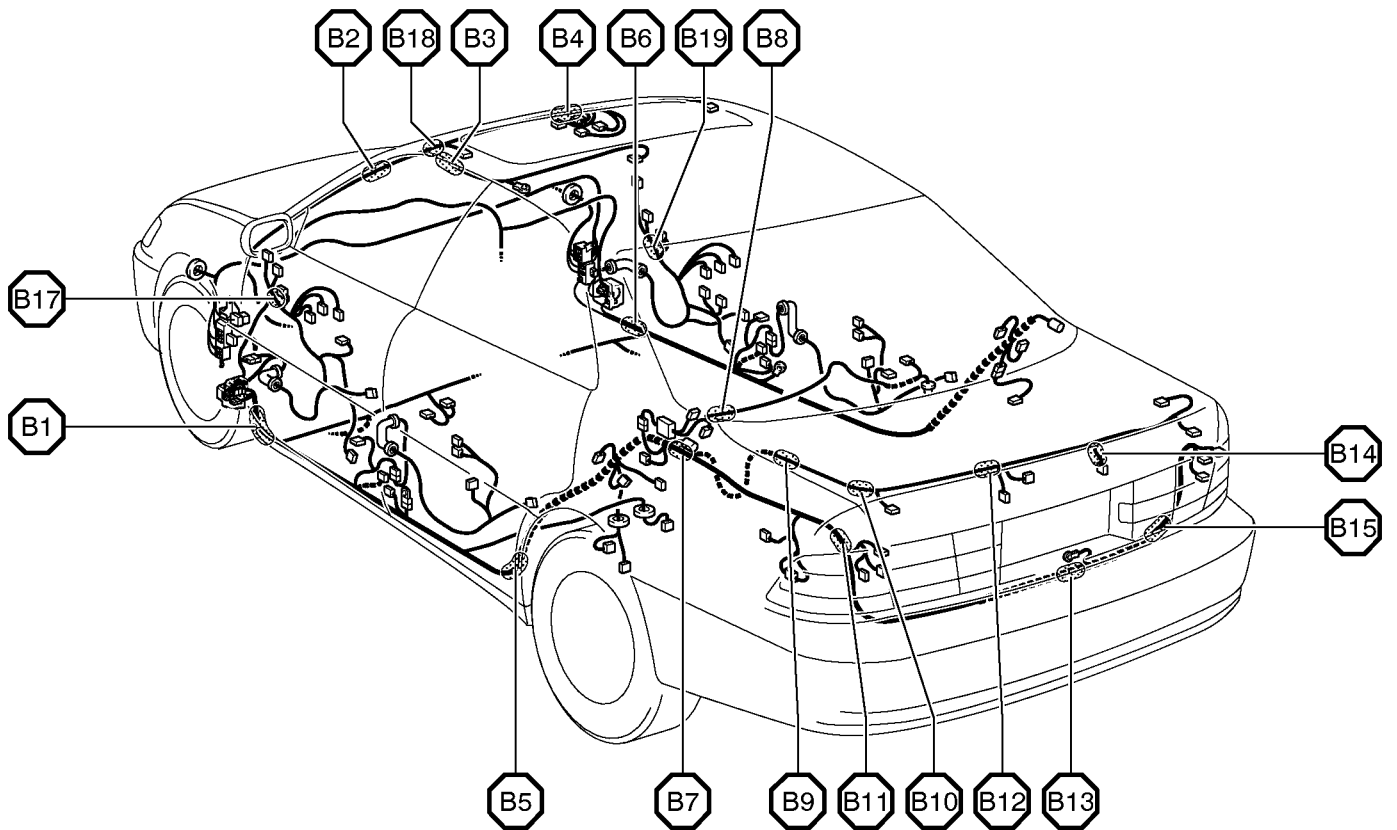
Code	Joining Wire Harness and Wire Harness (Connector Location)
IL1	Engine Wire and Instrument Panel Wire (Under the Glove Box)
IM1	Engine Room Main Wire and Cowl Wire (Right Kick Panel)
IM2	
IM3	
IM4	
IM5	
IN1	Floor No.2 Wire and Cowl Wire (Right Kick Panel)
IN2	
IO1	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IO2	
IP1	Floor No.2 Wire and Instrument Panel Wire (Right Kick Panel)
IP2	
IV1	Cowl Wire and Cowl Wire (Left Cowl Side Panel)
IW1	Roof Wire and Cowl Wire (Right Side of Instrument Panel J/B)

G ELECTRICAL WIRING ROUTING

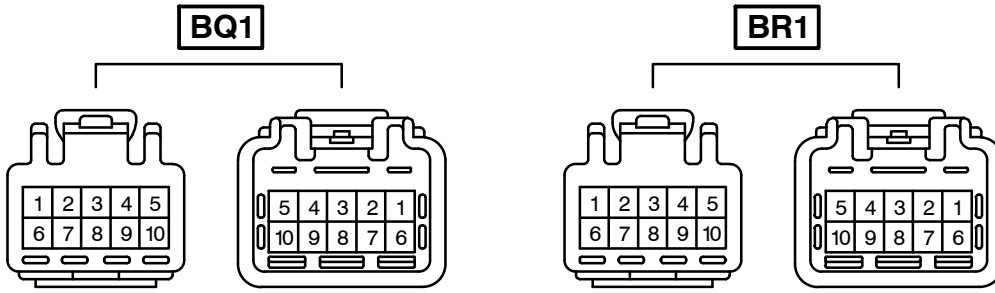
- : Location of Connector Joining Wire Harness and Wire Harness
- ▽ : Location of Ground Points



- : Location of Splice Points



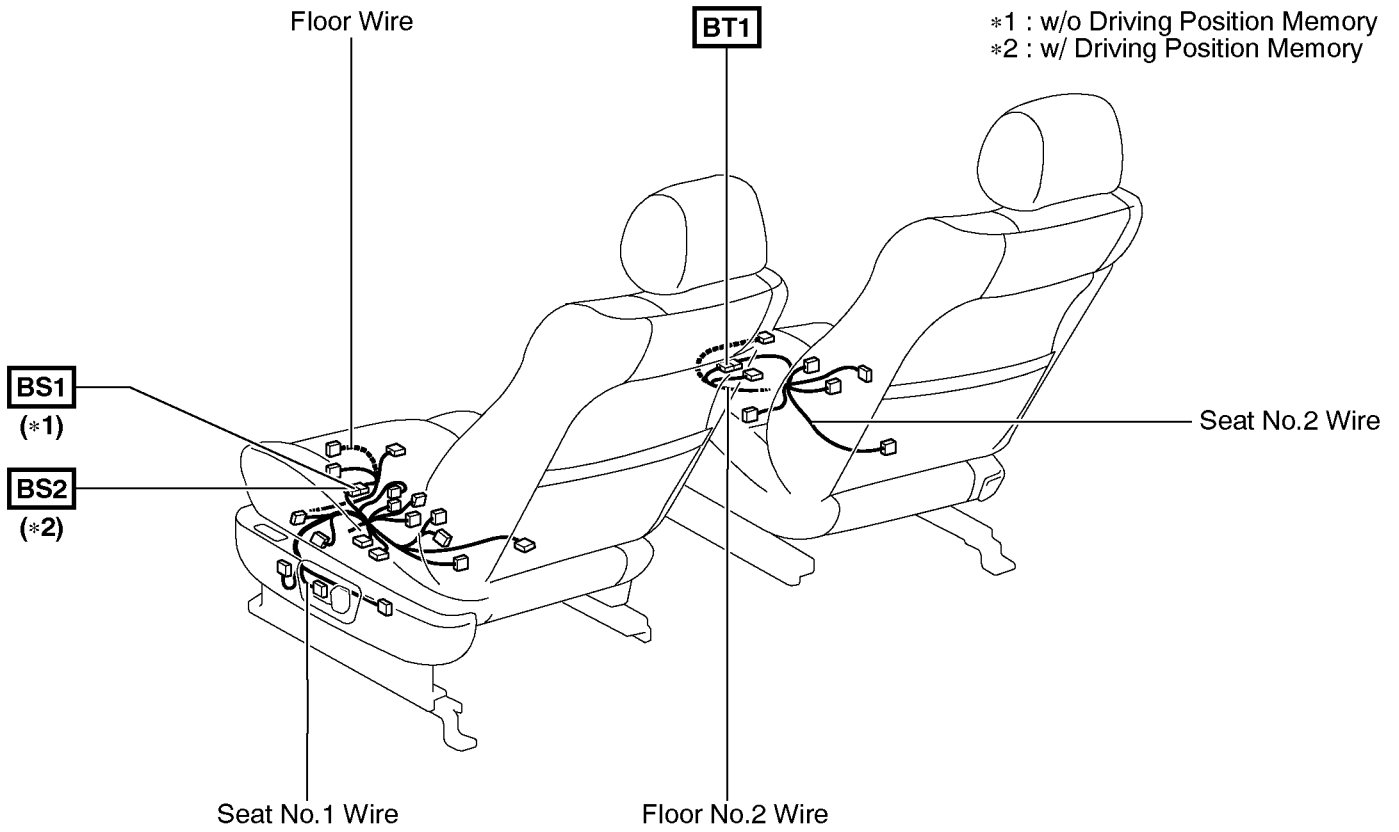
Connector Joining Wire Harness and Wire Harness



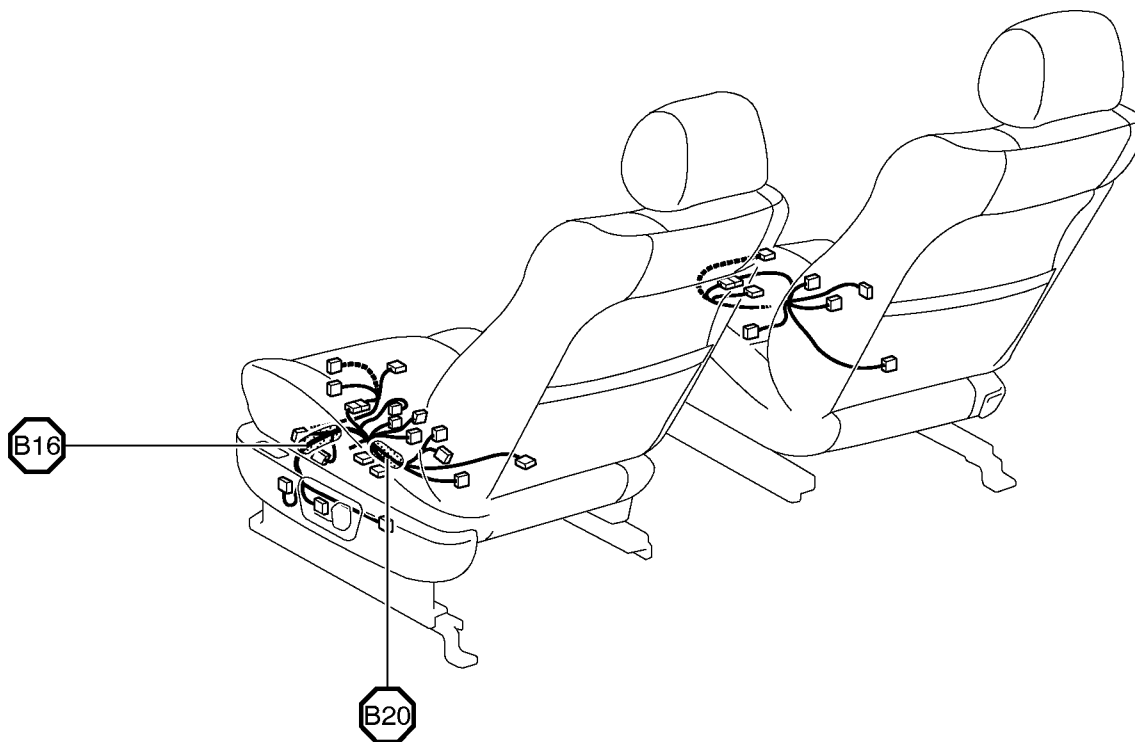
Code	Joining Wire Harness and Wire Harness (Connector Location)
BQ1	Rear Door LH Wire and Floor Wire (Left Center Pillar)
BR1	Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)

G ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness

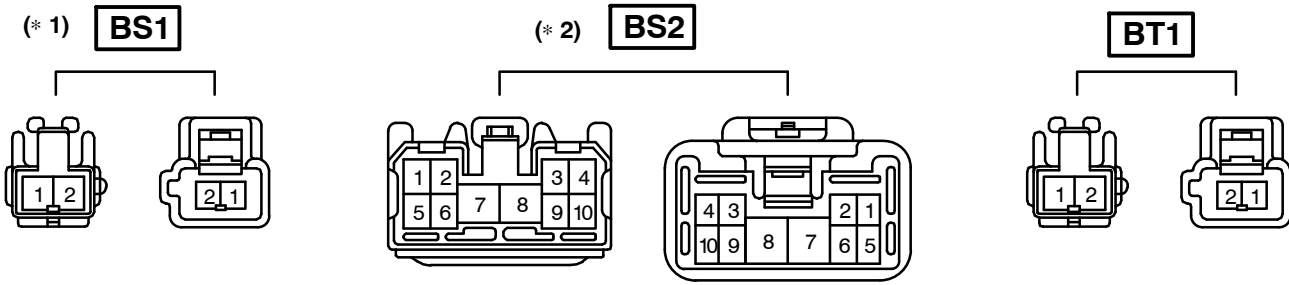


○ : Location of Splice Points



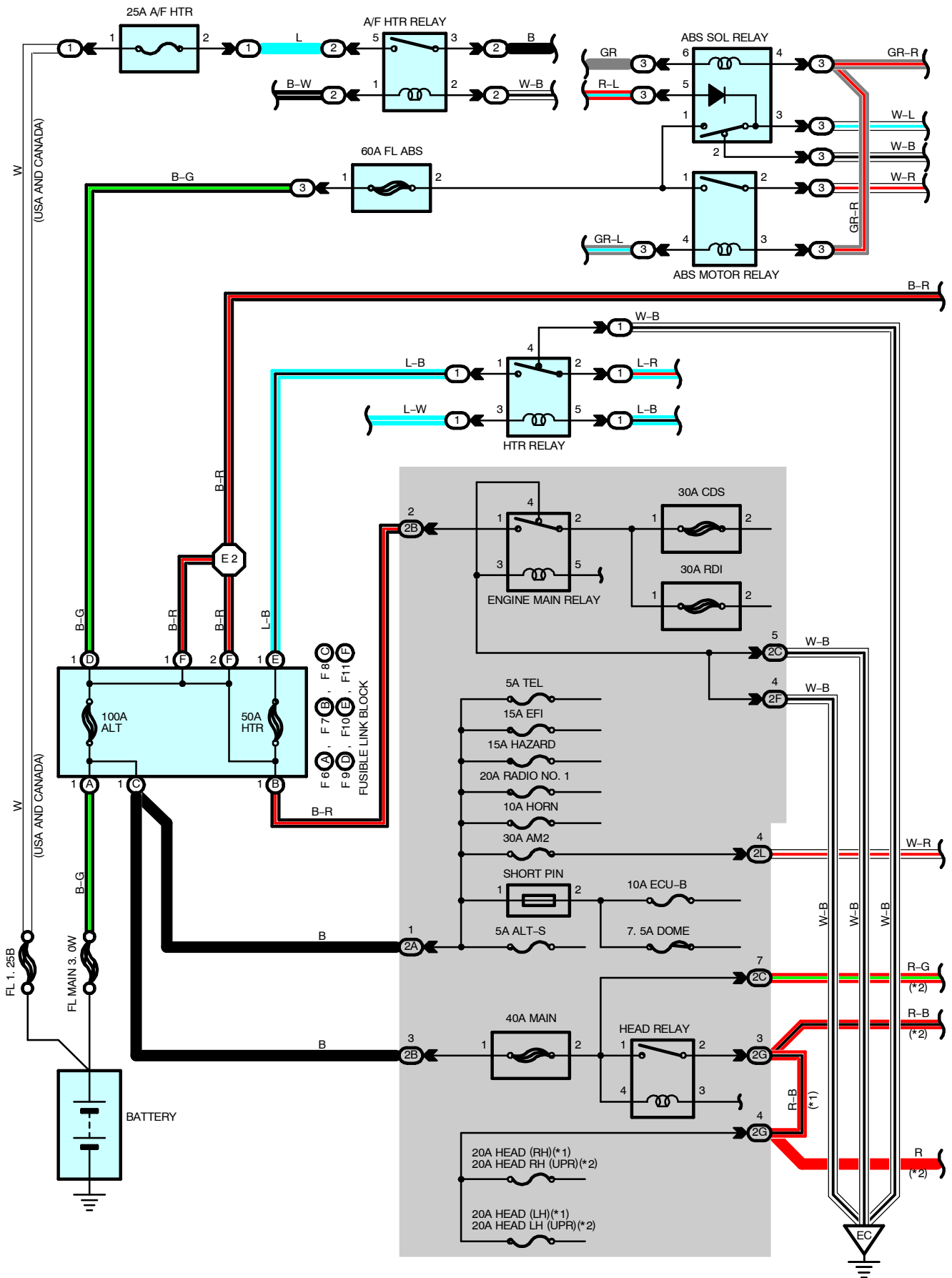
Connector Joining Wire Harness and Wire Harness

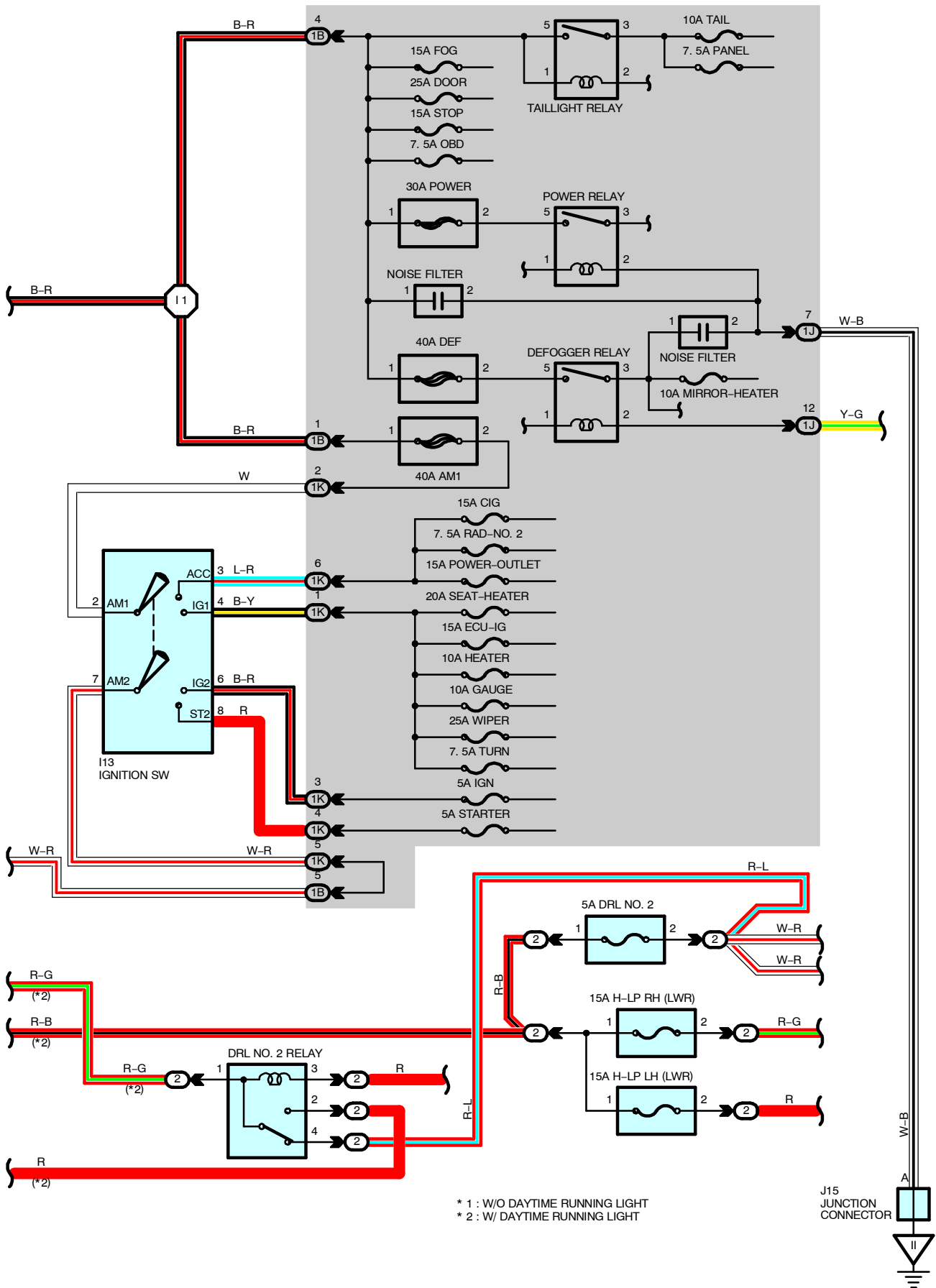
* 1 : w/o Driving Position Memory
 * 2 : w/ Driving Position Memory



Code	Joining Wire Harness and Wire Harness (Connector Location)
BS1	Floor Wire and Seat No.1 Wire (Under the Driver's Seat)
BS2	
BT1	Floor No.2 Wire and Seat No.2 Wire (Under the Front Passenger's Seat)

POWER SOURCE





POWER SOURCE

SERVICE HINTS

TAILLIGHT RELAY [INSTRUMENT PANEL J/B]

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

HEAD RELAY (w/o DAYTIME RUNNING LIGHT) [ENGINE ROOM J/B]

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

HEAD RELAY (w/ DAYTIME RUNNING LIGHT) [ENGINE ROOM J/B]

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

Closed with the engine running and the parking brake pedal released (Parking brake SW off)

I13 IGNITION SW

2-3 : Closed with the ignition key at **ACC** or **ON** position

2-4 : Closed with the ignition key at **ON** or **ST** position

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

7-8 : Closed with the ignition key at **ST** position

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
F6	A	28	F9	D	28
F7	B	28	F10	E	28
F8	C	28	F11	F	28
				I13	30
				J15	31

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	24	Engine Room R/B (Engine Compartment Left)
2	25	Engine Room No.2 R/B (Engine Compartment Left)
3	25	Engine Room No.3 R/B (Radiator Upper Support RH)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1J		
1K		
2A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B		
2C		
2F		
2G		
2L	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)

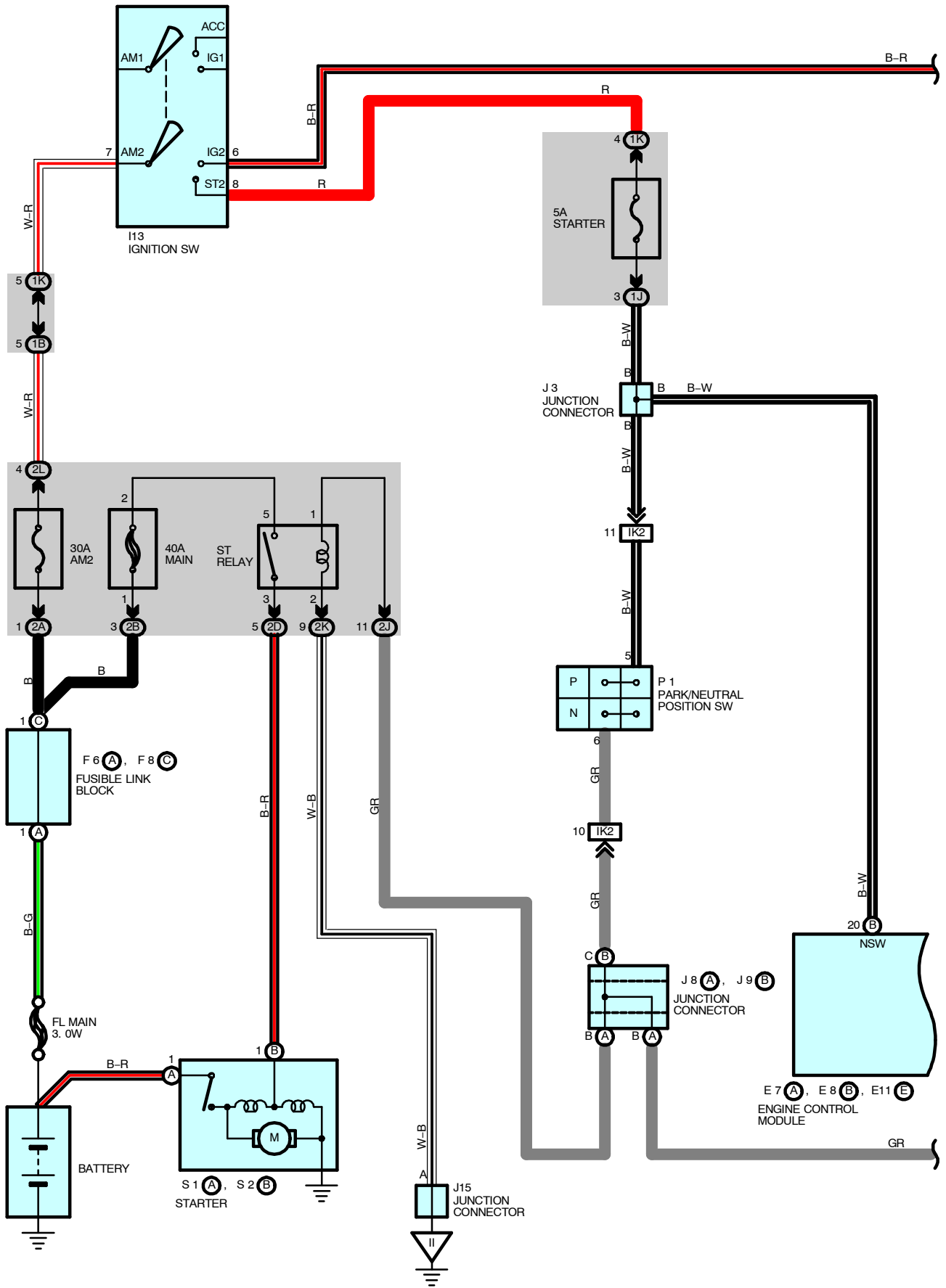
▽ : GROUND POINTS

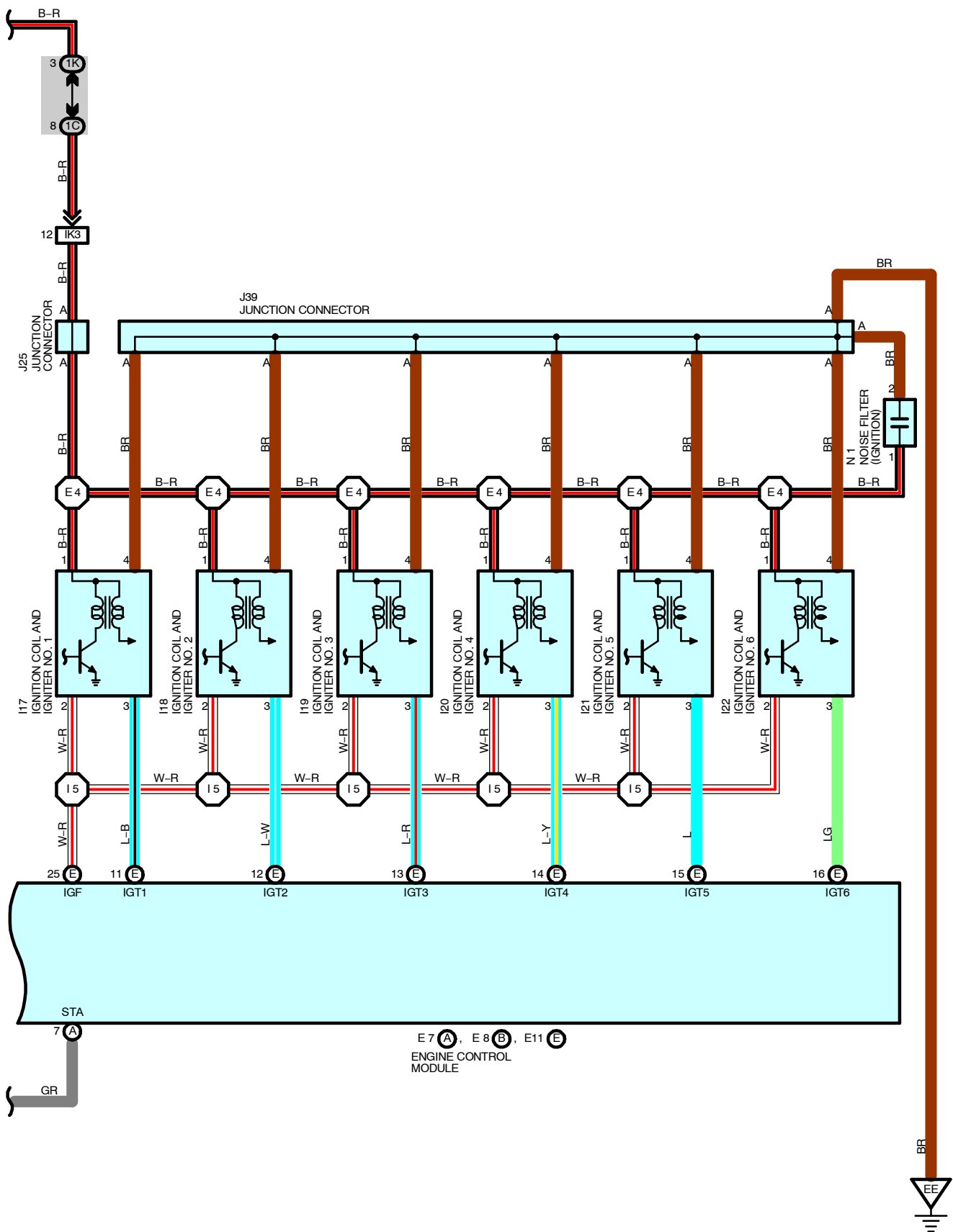
Code	See Page	Ground Points Location
EC	36	Left Radiator Side Support
II	38	Instrument Panel Brace LH

○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	36	Cowl Wire	I1	40	Cowl Wire

STARTING AND IGNITION (USA AND CANADA)





STARTING AND IGNITION (USA AND CANADA)

SERVICE HINTS

I13 IGNITION SW

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

S1 (A), S2 (B) STARTER

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

P1 PARK/NEUTRAL POSITION SW

- 5-6 : Closed with the A/T shift lever in **P** or **N** position

ST RELAY [ENGINE ROOM J/B]

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

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
E7	A 30	I19	29	J25	31
E8	B 30	I20	29	J39	29
E11	E 30	I21	29	N1	29
F6	A 28	I22	29	P1	29
F8	C 28	J3	31	S1	A 29
I13	30	J8	A 31	S2	B 29
I17	29	J9	B 31		
I18	29	J15	31		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1C		
1J		
1K		
2A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B		
2D		
2J	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)
2K		
2L		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IK2	38	Engine Wire and Cowl Wire (Under the Glove Box)
IK3		

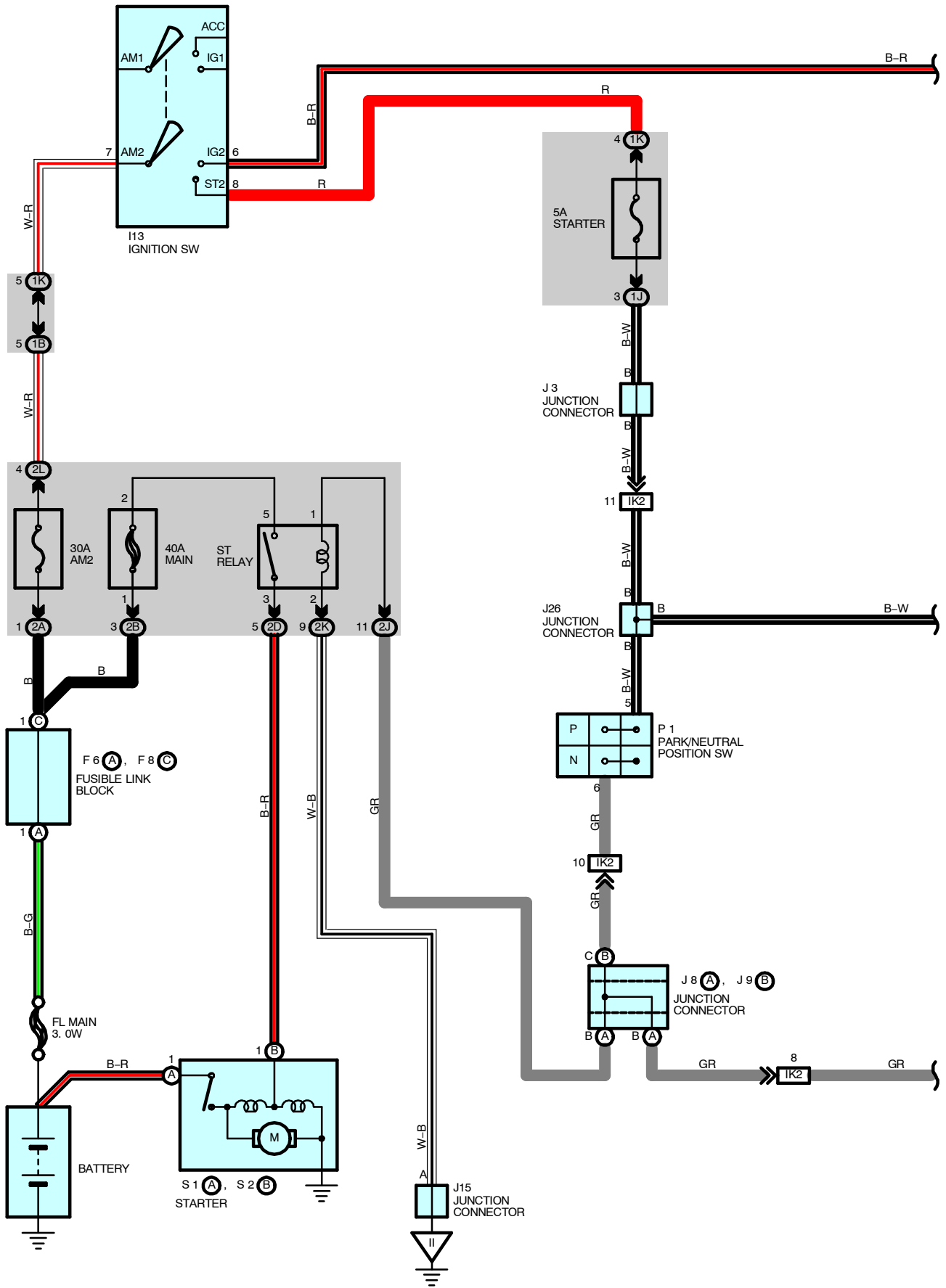
▽ : GROUND POINTS

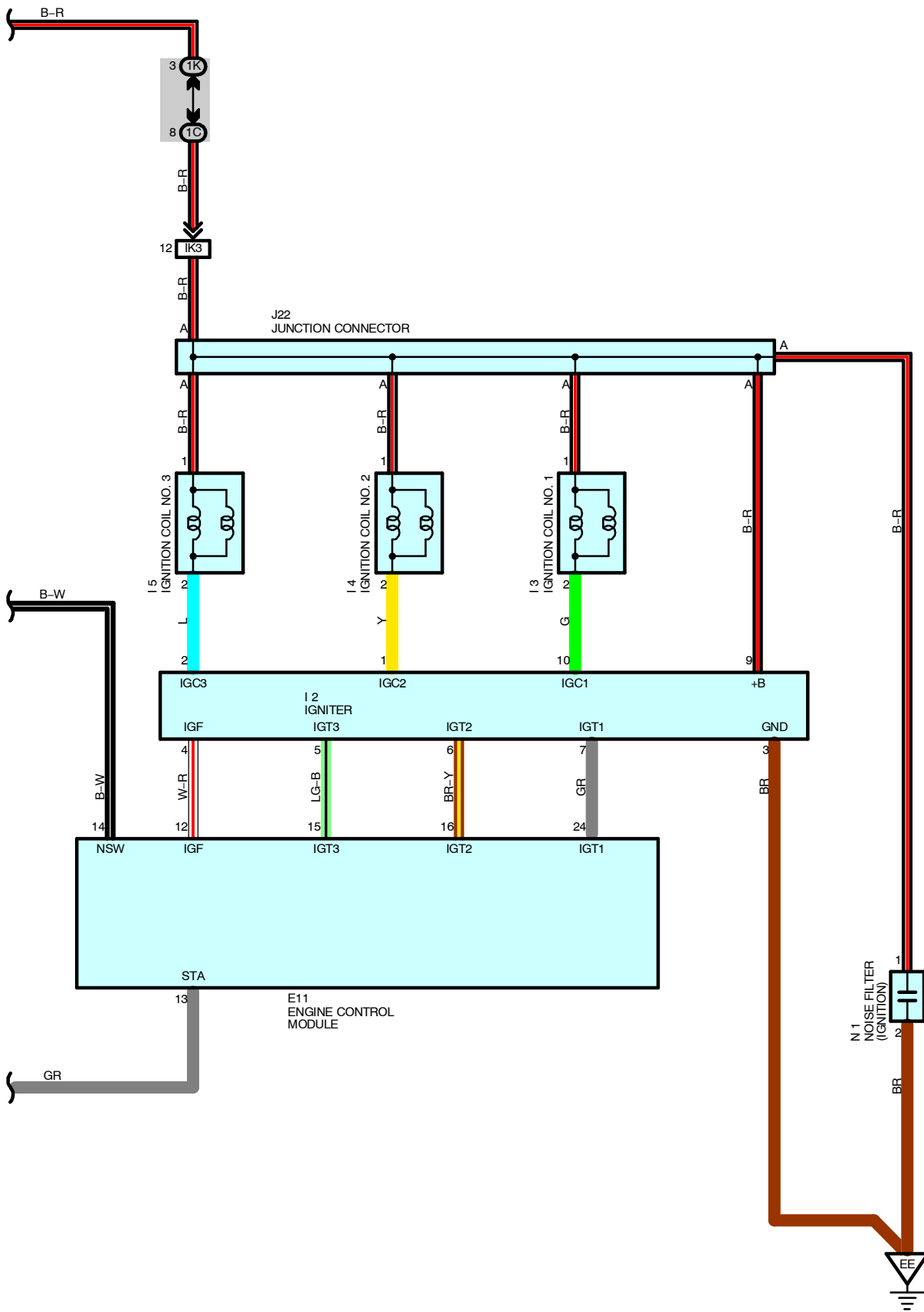
Code	See Page	Ground Points Location
EE	36	Rear Side of Surge Tank
II	38	Instrument Panel Brace LH

○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E4	36	Engine Wire	I5	40	Engine Wire

STARTING AND IGNITION (BRAZIL)





STARTING AND IGNITION (BRAZIL)

SERVICE HINTS

I13 IGNITION SW

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

S1 (A), S2 (B) STARTER

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

P1 PARK/NEUTRAL POSITION SW

- 5-6 : Closed with the A/T shift lever in **P** or **N** position

ST RELAY [ENGINE ROOM J/B]

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

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
E11	30	I5	29	J22	31
F6	A 28	I13	30	J26	31
F8	C 28	J3	31	N1	29
I2	29	J8	A 31	P1	29
I3	29	J9	B 31	S1	A 29
I4	29	J15	31	S2	B 29

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1C		
1J		
1K		
2A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B		
2D		
2J	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)
2K		
2L		

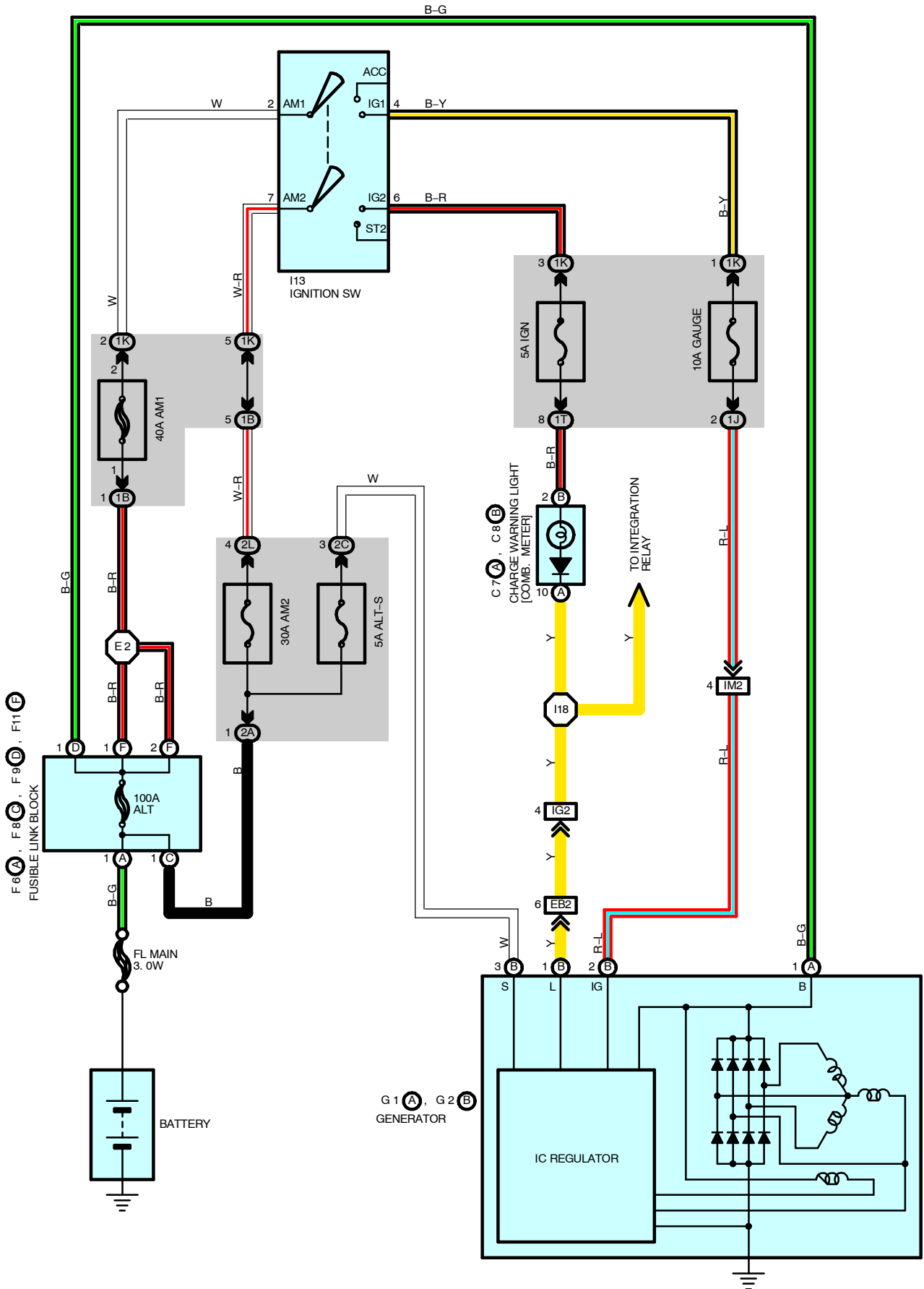
□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IK2	38	Engine Wire and Cowl Wire (Under the Glove Box)
IK3		

▽ : GROUND POINTS

Code	See Page	Ground Points Location
EE	36	Rear Side of Surge Tank
II	38	Instrument Panel Brace LH

CHARGING



SERVICE HINTS

G1 (A), G2 (B) GENERATOR

- (A) 1-GROUND : 13.9–15.1 volts with the engine running at 2000 rpm and 25°C (77°F)
 13.5–14.3 volts with the engine running at 2000 rpm and 115°C (239°F)
- (B) 1-GROUND : 0–4 volts with the ignition SW at ON position and engine not running

○ : PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
C7	A	30	F8	C	28	G1	A	28
C8	B	30	F9	D	28	G2	B	28
F6	A	28	F11	F	28	I13		30

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1J		
1K		
1T	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
2A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2C		
2L	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)

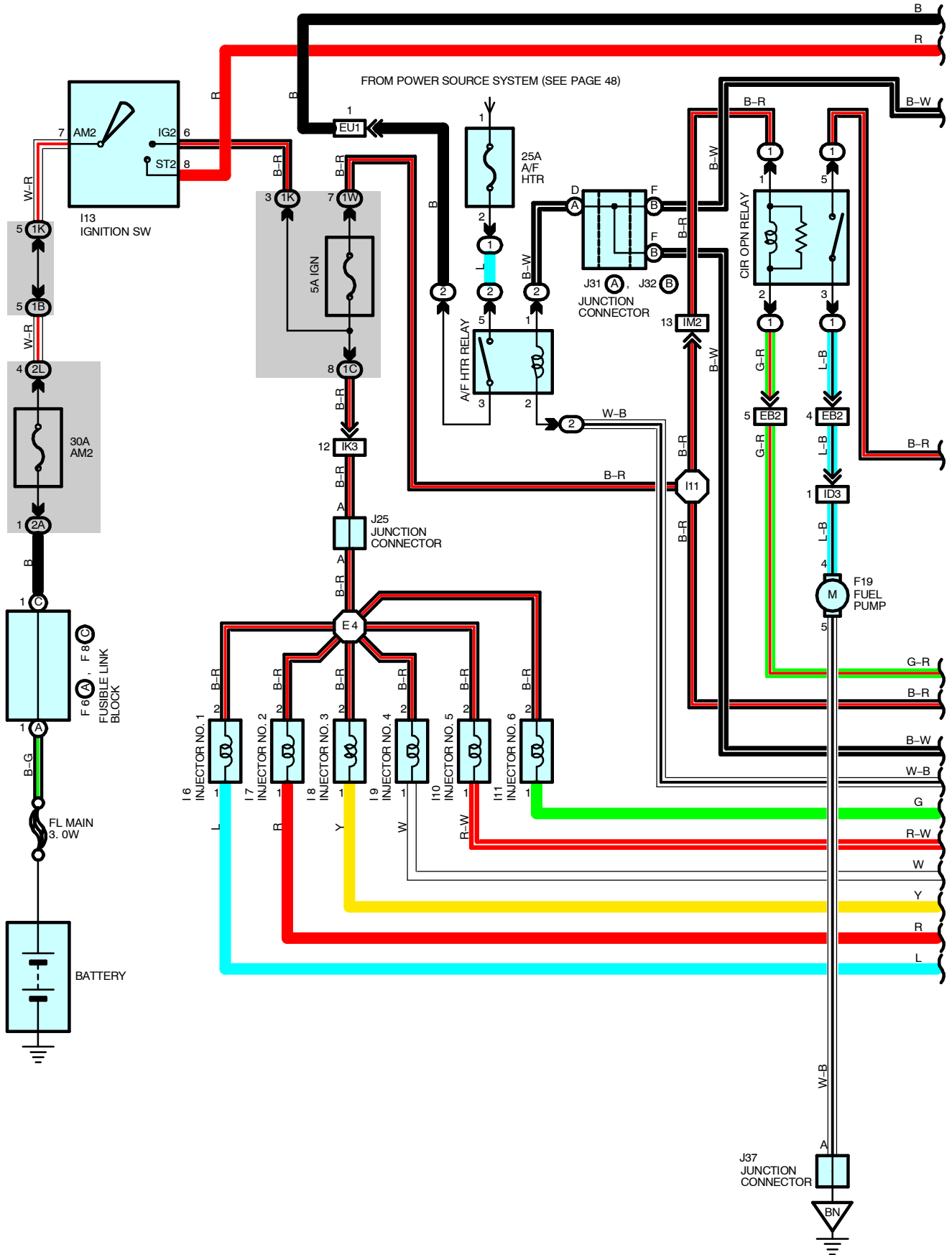
□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

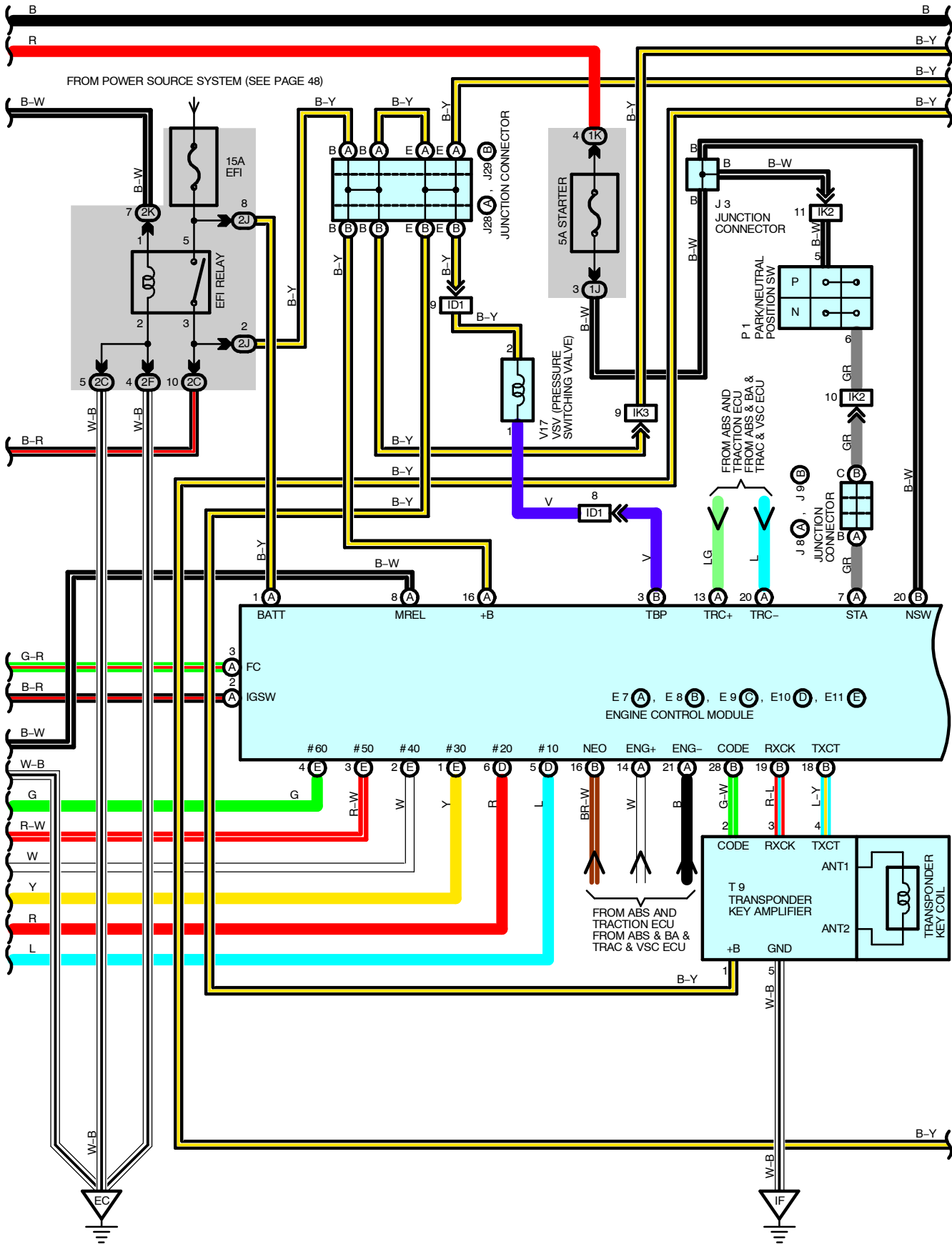
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB2	36	Cowl Wire and Engine Room Main Wire (Under the Engine Room J/B)
IG2	38	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IM2	40	Engine Room Main Wire and Cowl Wire (Right Kick Panel)

○ : SPLICE POINTS

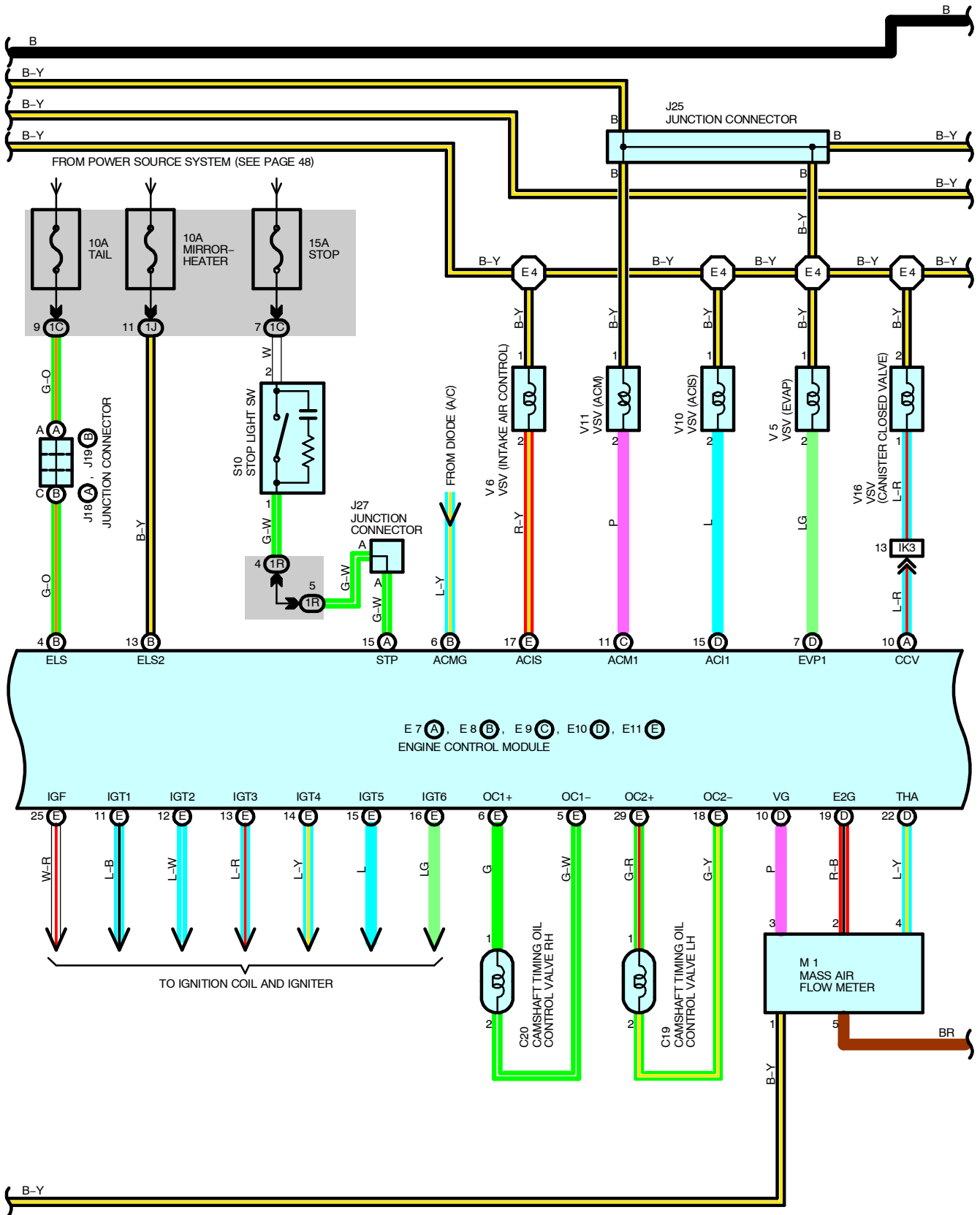
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	36	Cowl Wire	I18	40	Instrument Panel Wire

ENGINE CONTROL AND ENGINE IMMOBILISER SYSTEM

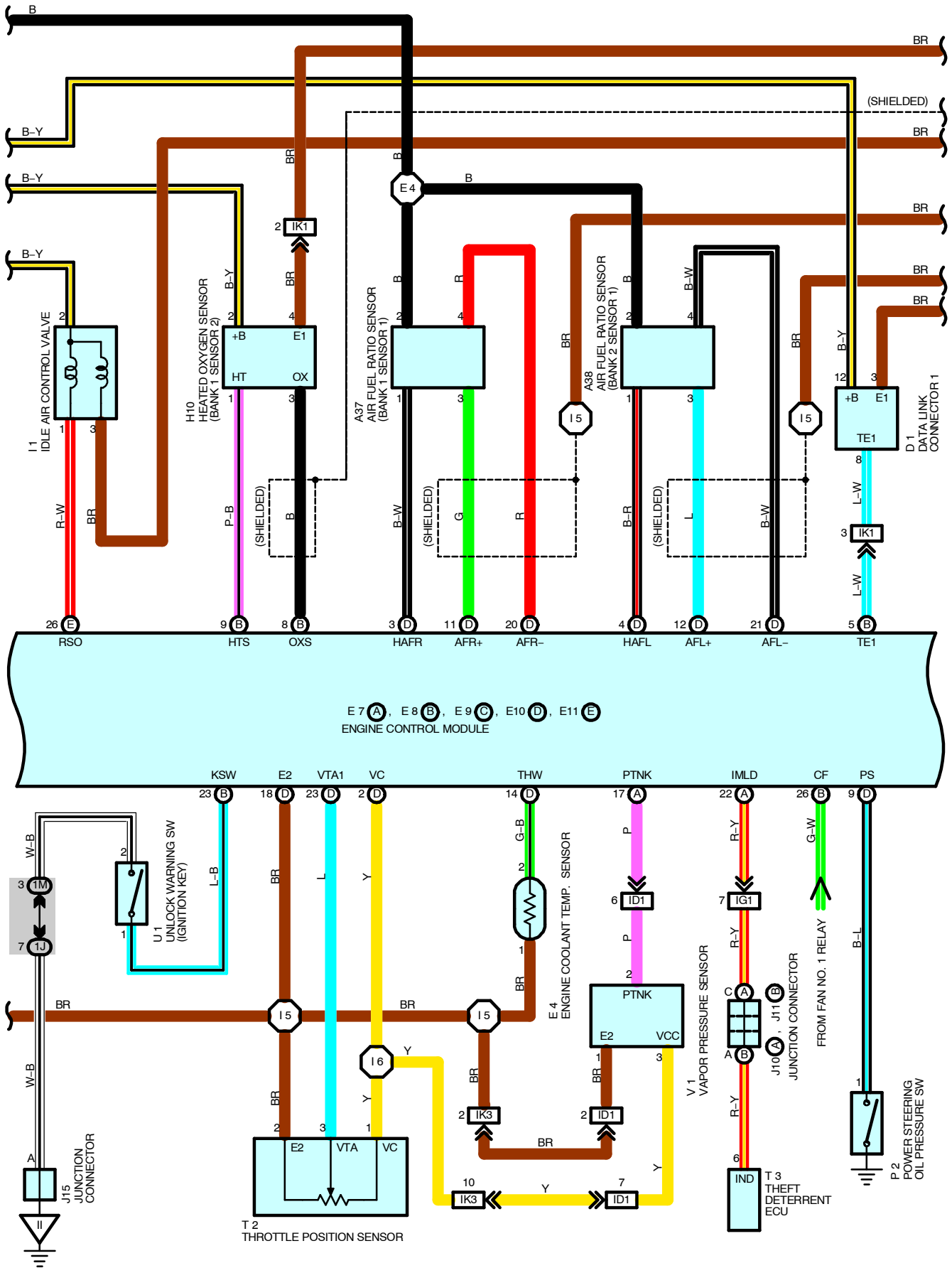




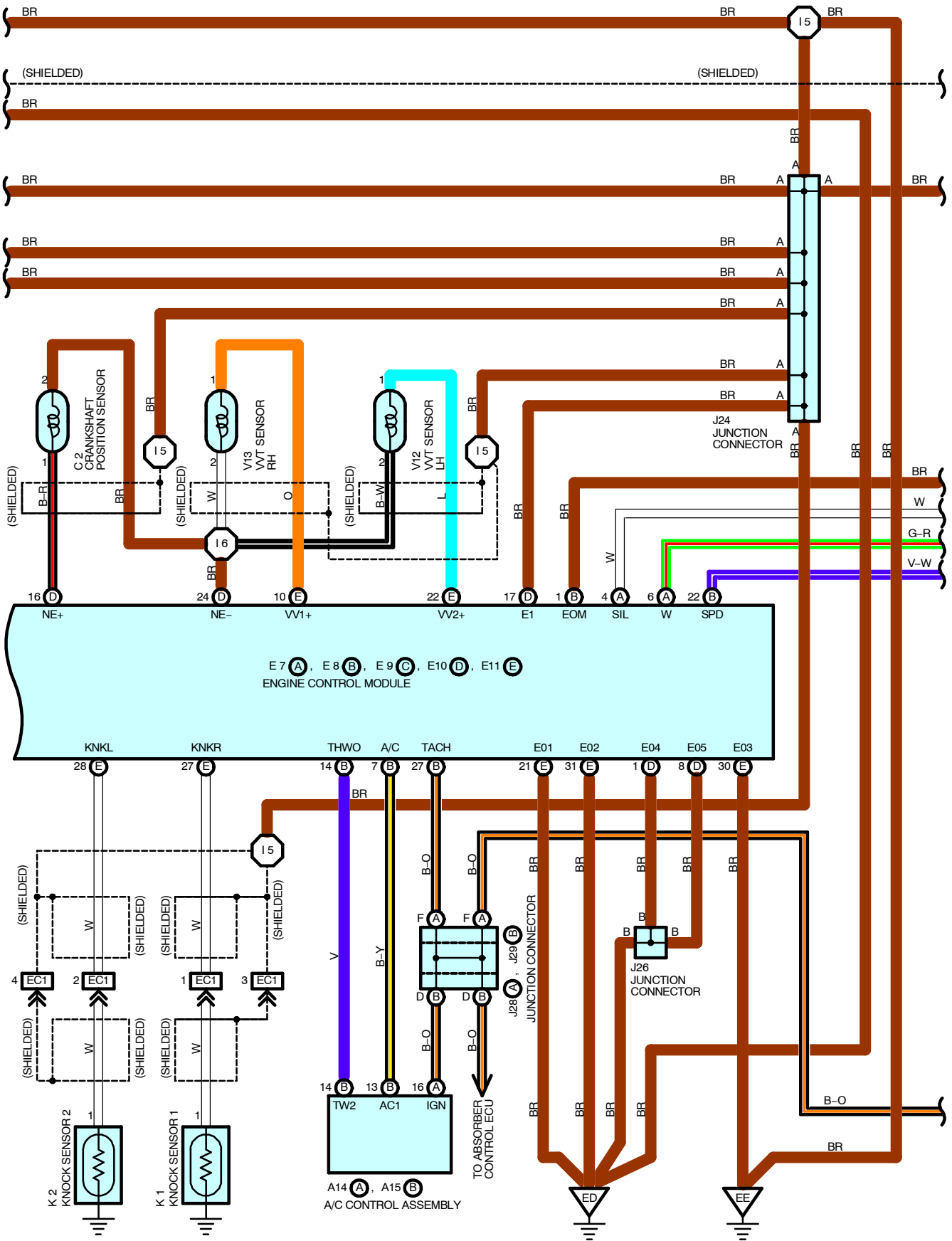
ENGINE CONTROL AND ENGINE IMMOBILISER SYSTEM

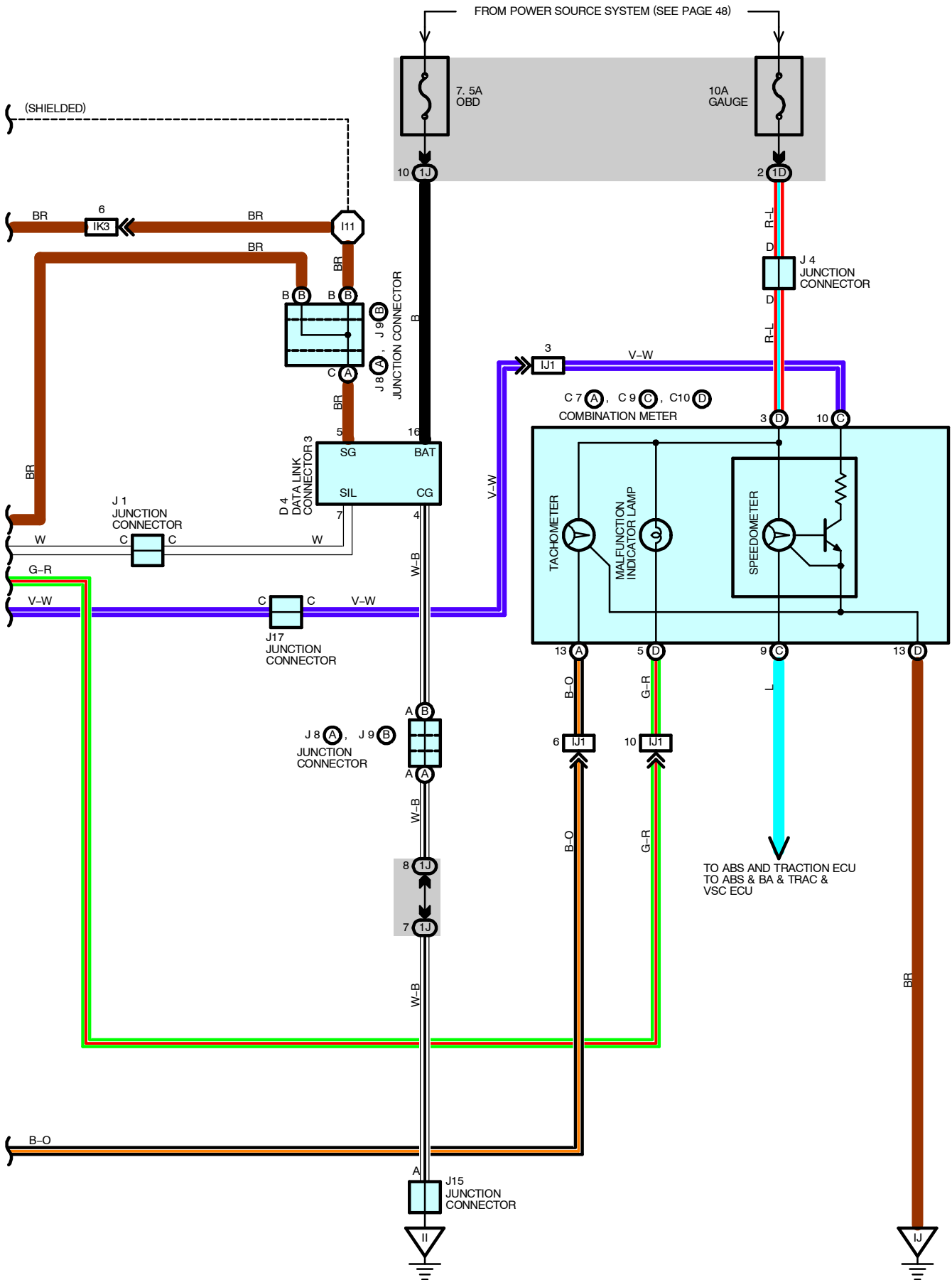


(USA AND CANADA)



ENGINE CONTROL AND ENGINE IMMOBILISER SYSTEM





ENGINE CONTROL AND ENGINE IMMOBILISER SYSTEM

SYSTEM OUTLINE

This system utilizes an engine control module and maintains overall control of the engine, transaxle and so on. An outline of the engine control is explained 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 water 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 into TERMINAL THA of the engine control module.

(3) Oxygen sensor signal system

The oxygen density in the exhaust gases is detected and input as a control signal into TERMINAL OXS of the engine control module. To maintain stable detection performance by the heated oxygen sensor, a heater is used for warming the sensor. The heater is also controlled by the engine control module (HTS).

(4) RPM signal system

Camshaft position and crankshaft position are detected by the VVT sensor LH, RH and crankshaft position sensor. The camshaft position is input as a control signal to TERMINAL VV1+ and VV2+ of the engine control module, and the engine RPM is input into TERMINAL NE+.

(5) Throttle signal circuit

The throttle position sensor detects the throttle valve opening angle as a control signal, which is input into TERMINAL VTA1 of the engine control module.

(6) Vehicle speed signal system

The vehicle speed sensor, installed inside the transaxle, detects the vehicle speed and inputs a control signal into TERMINAL SPD of the engine control module.

(7) Park/Neutral position SW signal system

The Park/Neutral position SW detects whether the shift position is in neutral, parking or not, and inputs a control signal into TERMINAL STA of the engine control module.

(8) A/C SW signal system

The A/C control assembly inputs the A/C operations into TERMINAL A/C of the engine control module as a control signal.

(9) Battery signal circuit

Voltage is always supplies to TERMINAL BATT of the engine control module.

If you turn on the ignition SW, the current goes from TERMINAL MREL of the engine control module to the EFI main relay and put on the relay, and the voltage related to the engine control module operation is supplied to TERMINAL +B of the engine control module through the EFI relay.

(10) Intake air volume signal circuit

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

(11) NSW signal circuit

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

(12) Engine knock signal circuit

Engine knocking is detected by the knock sensor 1 and 2, then the signals are input into TERMINALS KNKR and KNKL of the engine control module as a control signal.

(13) Air fuel ratio signal system

The air fuel ratio is detected and input as a control signal into TERMINALS AFL+, AFR+ of the engine control module.

2. CONTROL SYSTEM

* SFI system

The SFI system monitors the engine condition through the signals, which are input from each sensor (Input signals (1) to (12)). The best fuel injection volume is decided based on this data and the program memorized by the engine control module, and the control signal is output to TERMINALS #10, #20, #30, #40, #50 and #60 of the engine control module to operate the injector (Inject the fuel). The SFI system produces control of fuel injection operation by the engine control module in response to the driving conditions.

* ESA system

The ESA system monitors the engine condition through the signals, which are input to the engine control module from each sensor (Input signals from 1, 3, 4, 12). The best ignition timing is decided according to this data and the memorized data in the engine control module and the control signal is output to TERMINALS IGT1, IGT2, IGT3, IGT4, IGT5 and IGT6. This signal controls the igniter to provide the best ignition timing for the driving conditions.

* 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 emissions is low), and warms up the heated oxygen sensor to improve detection performance of the sensor.

The engine control module evaluates the signals from each sensor (Input signals from 1, 4, 9, 10), current is output to TERMINAL HTS, controlling the heater.

* Idle air control system

The idle air control system (Rotary solenoid type) increases the RPM and provides idle stability for fast idle-up when the engine is cold, and when the idle speed has dropped due to electrical load and so on, the engine control module evaluates the signals from each sensor (Input signals from 1, 4, 5, 8, 9), current is output to TERMINAL RSO to control idle air control valve.

* ACIS

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.

The engine control module judges the engine speed by the signals (4), (5)) from each sensor and outputs signals to the TERMINAL ACIS to control the VSV (Intake air control).

3. DIAGNOSIS SYSTEM

With the diagnosis system, when there is a malfunction in the engine control module signal system, the malfunctioning system is recorded in the memory.

4. FAIL-SAFE SYSTEM

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

ENGINE CONTROL AND ENGINE IMMOBILISER SYSTEM

SERVICE HINTS

CIR OPN RELAY [ENGINE ROOM R/B]

5-3 : Closed with the starter running

EFI RELAY [ENGINE ROOM J/B]

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

E4 ENGINE COOLANT TEMP. SENSOR

1-2 : **10.0–20.0** k Ω (**-20°C**, **-4°F**)

4.0–7.0 k Ω (**0°C**, **32°F**)

2.0–3.0 k Ω (**20°C**, **68°F**)

0.9–1.3 k Ω (**40°C**, **104°F**)

0.4–0.7 k Ω (**60°C**, **140°F**)

0.2–0.4 k Ω (**80°C**, **176°F**)

E7 (A), E8 (B), E9 (C), E10 (D), E11 (E) ENGINE CONTROL MODULE

Voltage at engine control module wiring connector

BATT-E1 : Always **9.0–14.0** volts

+B-E1 : **9.0–14.0** volts (Ignition SW at **ON** position)

VC-E2 : Always **4.5–5.5** volts (Ignition SW at **ON** position)

VTA1-E2 : **0.3–0.8** volts (Ignition SW on and throttle valve fully closed)

3.2–4.9 volts (Ignition SW on and throttle valve fully open)

VG-E2G : **1.1–1.5** volts (Engine idling and A/C SW off)

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

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

IGF-E1 : **4.5–5.5** volts (Ignition SW at **ON** position)

Pulse generation (Engine idling)

NE+ -NE- : Pulse generation (Engine idling)

SIL-E1 : Pulse generation (During transmission)

TACH-E1 : Pulse generation (Engine idling)

STA-E1 : **6.0** volts or more (Engine cranking)

FC-E1 : **9.0–14.0** volts (Ignition SW at **ON** position)

0–3.0 volts (Engine idling)

SPD-E1 : Pulse generation (Ignition SW on and rotate driving wheel slowly)

W-E1 : Below **3.0** volts (Ignition SW at **ON** position)

A/C-E1 : Below **2.0** volts (Engine idling and A/C SW on)

9.0–14.0 volts (A/C SW off)

ACIS-E01 : **9.0–14.0** volts (Ignition SW at **ON** position)

NSW-E1 : **9.0–14.0** volts (Ignition SW on and other shift position in **P** or **N** position)

0–3.0 volts (Ignition SW on and shift position in **P** or **N** position)

EVP1-E01 : **9.0–14.0** volts (Ignition SW at **ON** position)

TE1-E1 : **9.0–14.0** volts (Ignition SW at **ON** position)

STP-E1 : **7.5–14.0** volts (Ignition SW on and brake pedal depressed)

0–1.5 volts (Ignition SW on and brake pedal depressed)

CF-E1 : **9.0–14.0** volts (Cooling fan is operating on high speed)

0–2.0 volts (Cooling fan is operating on low speed or off)

TBP-E1 : **9.0–14.0** volts (Ignition SW on and disconnect the vacuum hose from the vapor pressure sensor)

PTNK-E1 : **3.0–3.6** volts (Ignition SW at **ON** position)

1.3–2.1 volts (Ignition SW on and apply vacuum **2.0** kpa)

OXS-E1 : Pulse generation (Maintain engine speed at **2500** rpm for two minutes after warming up)

RSO-E1 : **9.0–14.0** volts (Ignition SW at **ON** position)

HTS-E03 : **9.0–14.0** volts (Ignition SW at **ON** position)

0–3.0 volts (Engine idling)

KNKL, KNKR-E1 : Pulse generation (Engine idling)

IGT1, IGT2, IGT3, IGT4, IGT5, IGT6-E1 : Pulse generation (Engine idling)

#10, #20, #30, #40, #50, #60-E01 : **9.0–14.0** volts (ignition SW at **ON** position)

Pulse generation (Engine idling)

(USA AND CANADA)

16, 17, 18, 19, I10, I11 INJECTOR

2-1 : Approx. 13.8 Ω

T2 THROTTLE POSITION SENSOR

2-1 : 3.75 kΩ

○ : PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
A14	A	30	I6		29	J29	B	31
A15	B	30	I7		29	J31	A	31
A37		28	I8		29	J32	B	31
A38		28	I9		29	J37		32
C2		28	I10		29	K1		29
C7	A	30	I11		29	K2		29
C9	C	30	I13		30	M1		29
C10	D	30	J1		31	P1		29
C19		28	J3		31	P2		29
C20		28	J4		31	S10		31
D1		28	J8	A	31	T2		29
D4		30	J9	B	31	T3		31
E4		28	J10	A	31	T9		31
E7	A	30	J11	B	31	U1		31
E8	B	30	J15		31	V1		33
E9	C	30	J17		31	V5		29
E10	D	30	J18	A	31	V6		29
E11	E	30	J19	B	31	V10		29
F6	A	28	J24		31	V11		29
F8	C	28	J25		31	V12		29
F19		32	J26		31	V13		29
H10		30	J27		31	V16		29
I1		29	J28	A	31	V17		33

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	24	Engine Room R/B (Engine Compartment Left)
2	25	Engine Room No.2 R/B (Engine Compartment Left)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1C		
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1K		
1M		
1R		
1W		
2A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2C		
2F		
2J	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)
2K		
2L		

ENGINE CONTROL AND ENGINE IMMOBILISER SYSTEM (USA AND CANADA)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB2	36	Cowl Wire and Engine Room Main Wire (Under the Engine Room J/B)
EC1	36	Engine Wire and Sensor Wire (Left Bank of the Cylinder Head)
EU1	36	Engine Wire and Engine Room Main Wire (Under the Engine Room J/B)
ID1	38	Floor Wire and Cowl Wire (Left Kick Panel)
ID3		
IG1	38	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IJ1	38	Instrument Panel Wire and Cowl Wire (Under the Glove Box)
IK1	38	Engine Wire and Cowl Wire (Under the Glove Box)
IK2		
IK3		
IM2	40	Engine Room Main Wire and Cowl Wire (Right Kick Panel)

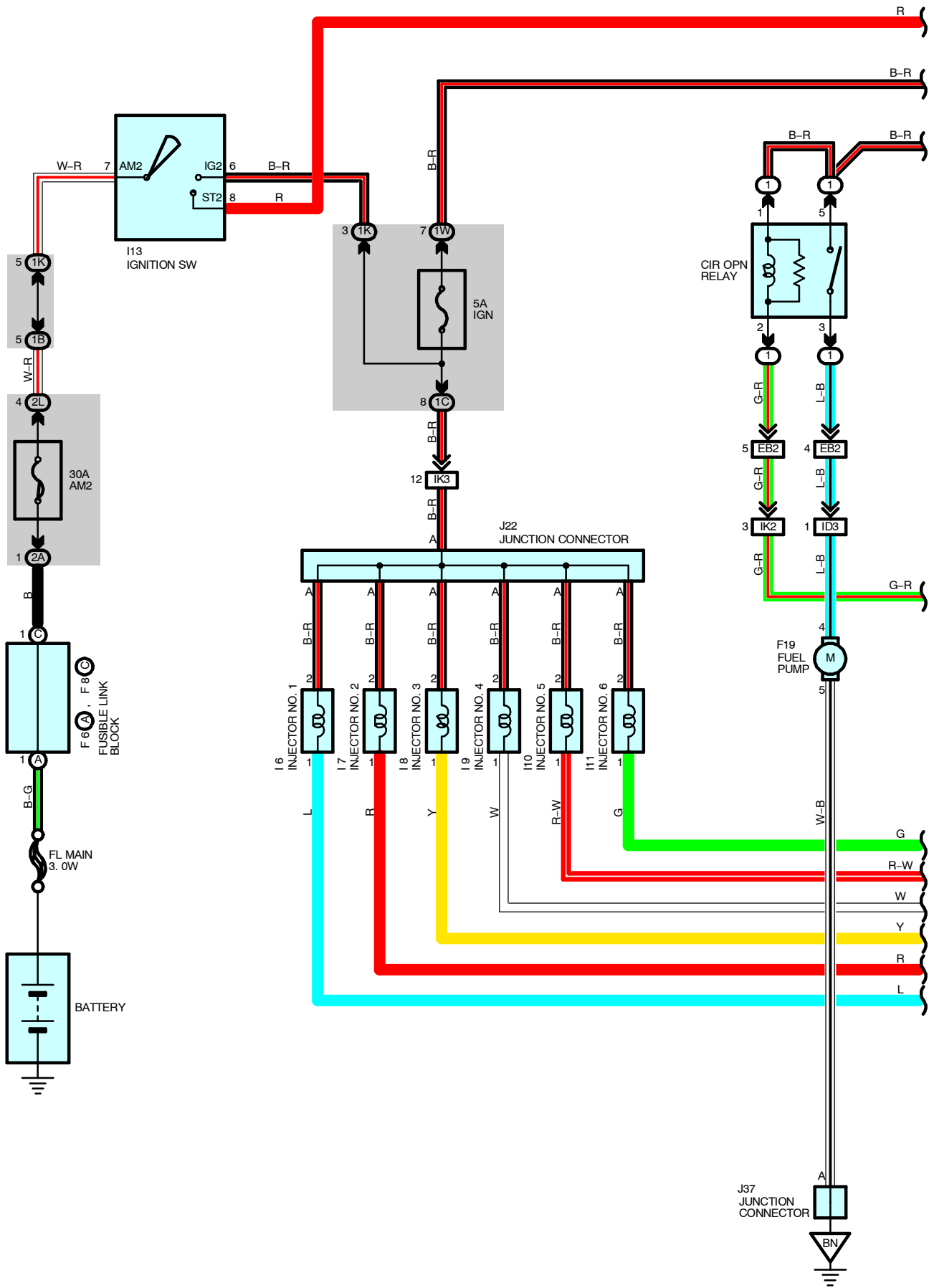
: GROUND POINTS

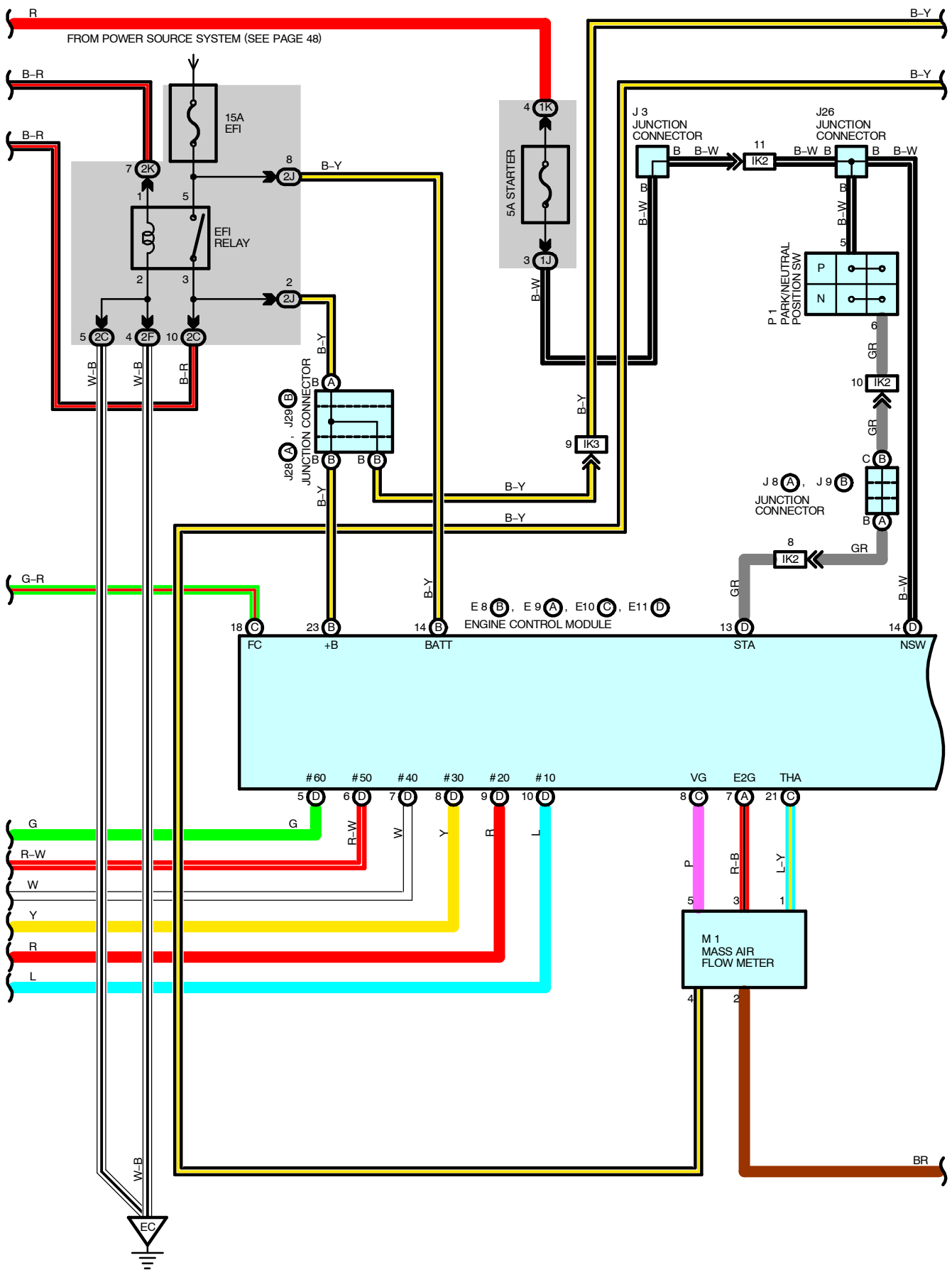
Code	See Page	Ground Points Location
EC	36	Left Radiator Side Support
ED	36	Surge Tank RH
EE	36	Rear Side of Surge Tank
IF	38	Cowl Side Panel LH
II	38	Instrument Panel Brace LH
IJ	38	Instrument Panel Brace RH
BN	42	Under the Left Center Pillar

: SPLICE POINTS

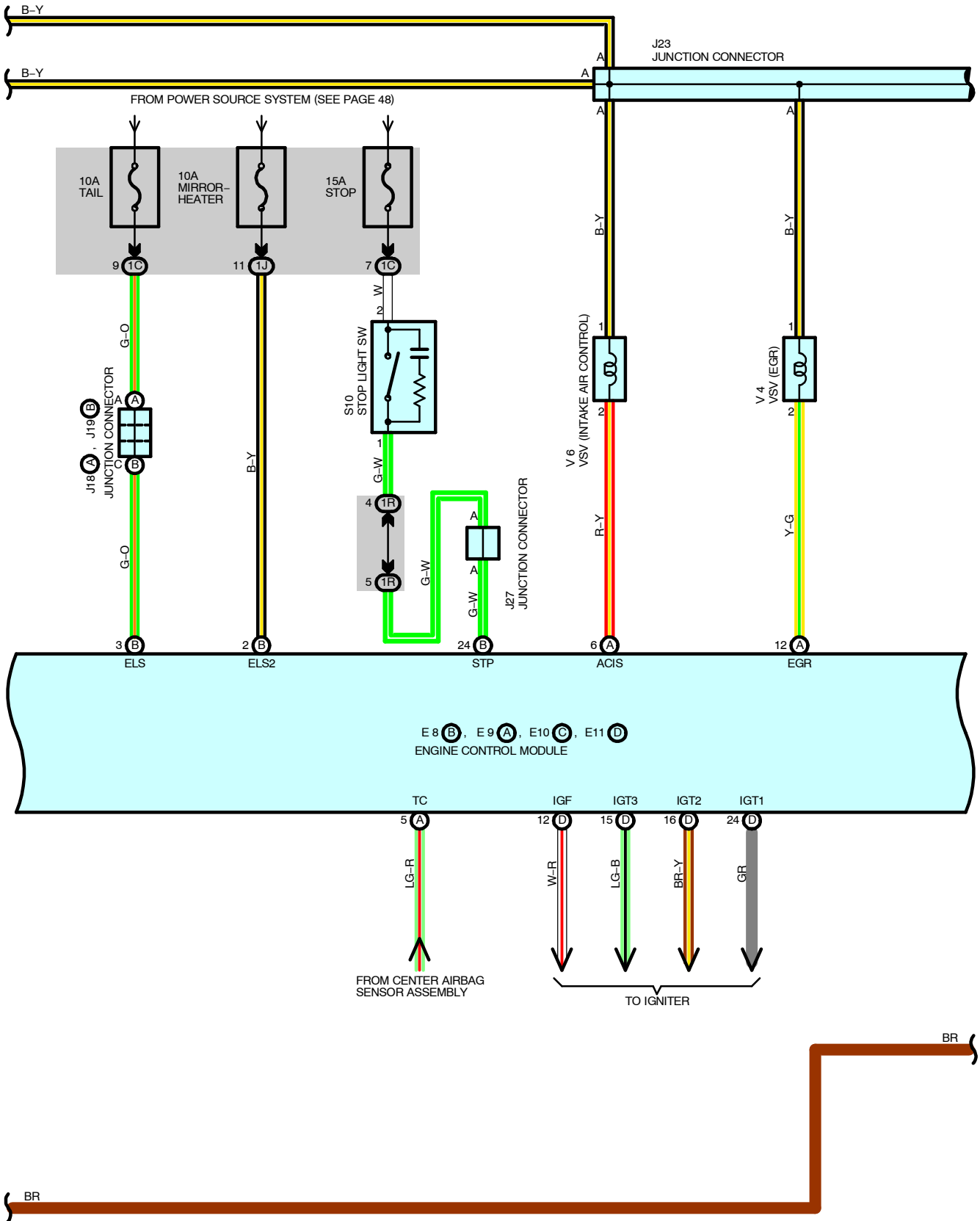
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E4	36	Engine Wire	I6	40	Engine Wire
I5	40		I11	40	Cowl Wire

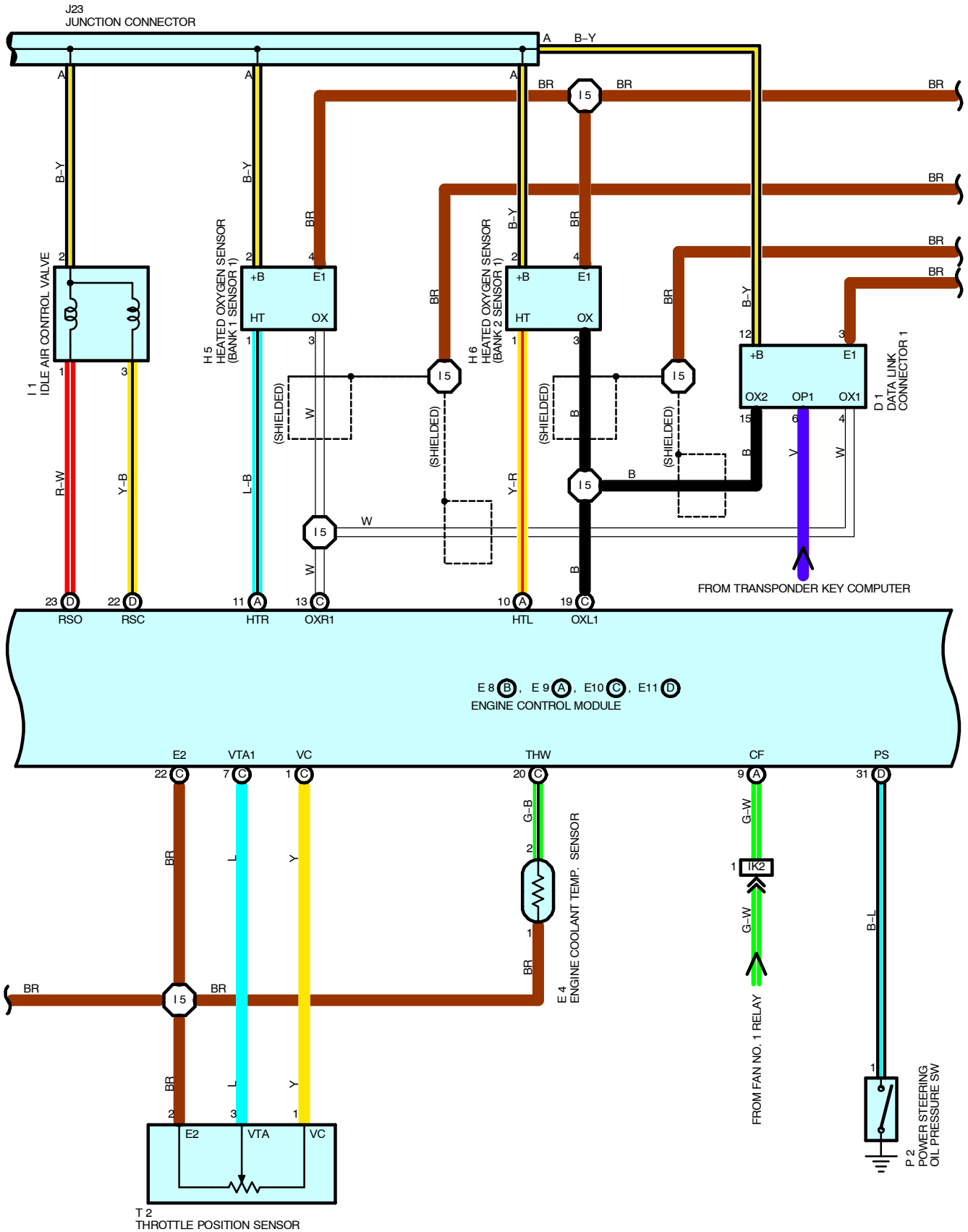
ENGINE CONTROL (BRAZIL)



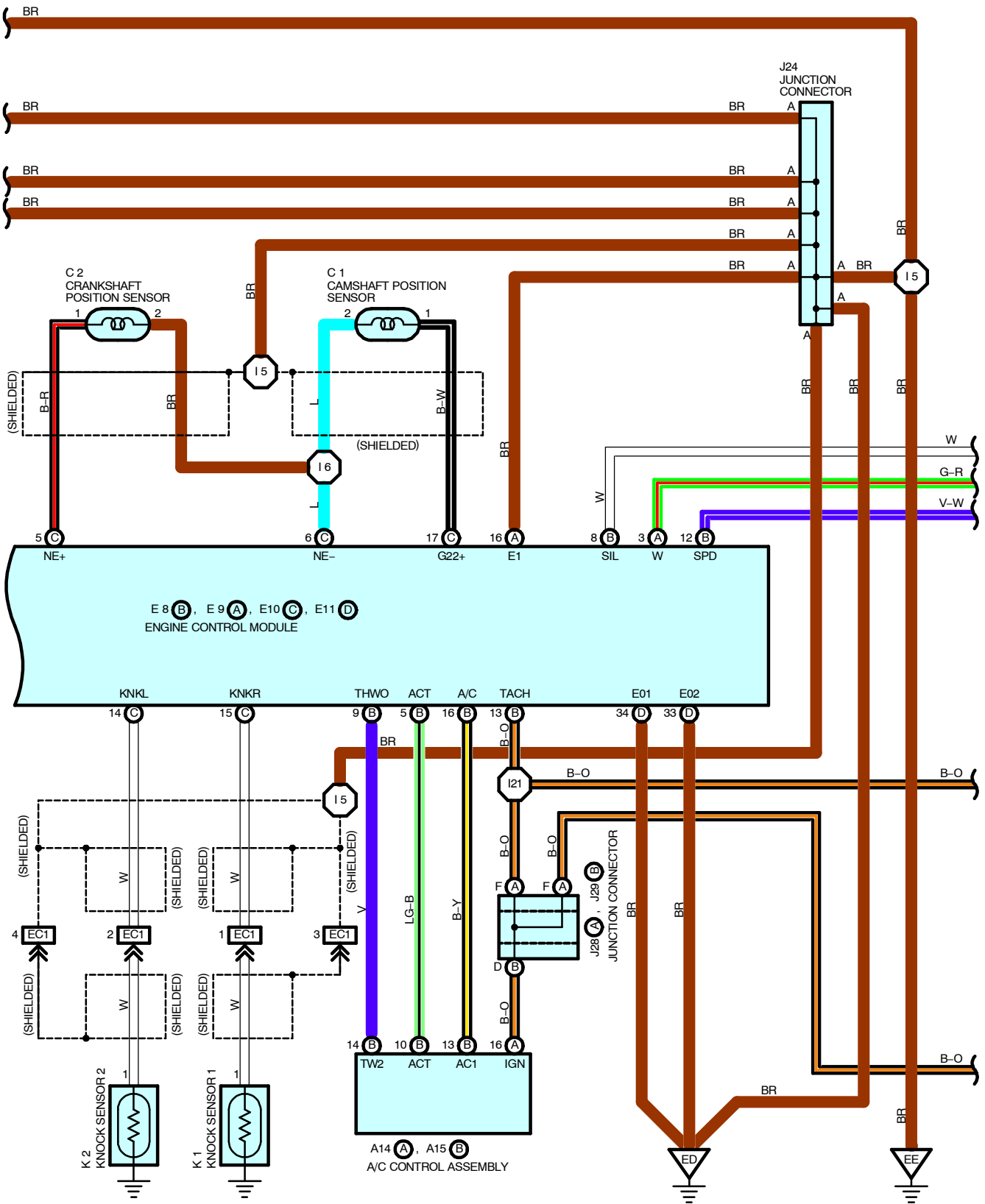


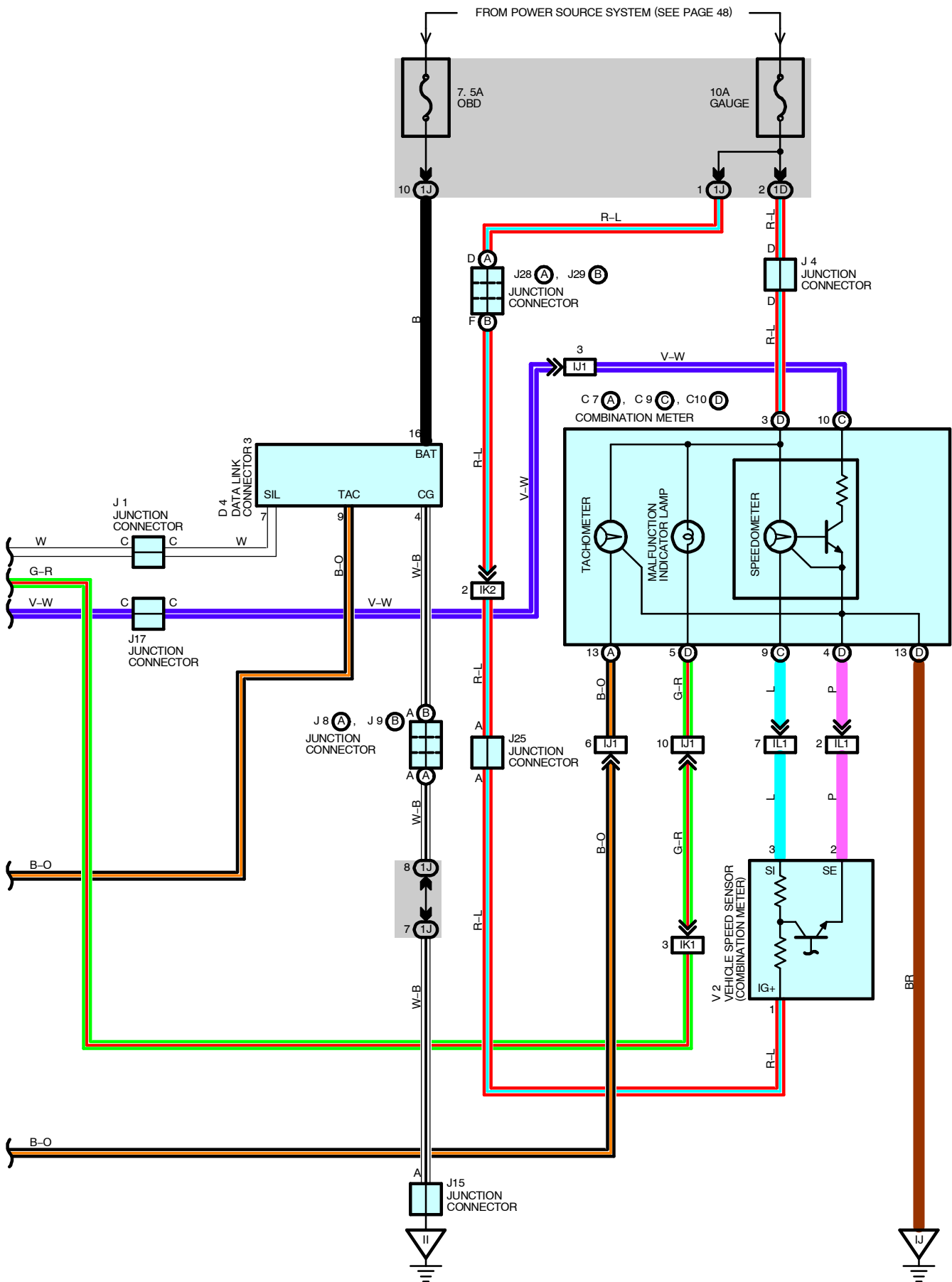
ENGINE CONTROL (BRAZIL)





ENGINE CONTROL (BRAZIL)





ENGINE CONTROL (BRAZIL)

SYSTEM OUTLINE

This system utilizes an engine control module and maintains overall control of the engine, transaxle and so on. An outline of the engine control is explained 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 water 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 into TERMINAL THA of the engine control module.

(3) Oxygen sensor signal system

The oxygen density in the exhaust gases is detected and input as a control signal into TERMINALS OXL1 and OXR1 of the engine control module. To maintain stable detection performance by the heated oxygen sensor, a heater is used for warming the sensor. The heater is also controlled by the engine control module (HTL and HTR).

(4) RPM signal system

Camshaft position and crankshaft position are detected by the camshaft position sensor and crankshaft position sensor. The camshaft position is input as a control signal to TERMINAL G22+ of the engine control module, and the engine RPM is input into TERMINAL NE+.

(5) Throttle signal circuit

The throttle position sensor detects the throttle valve opening angle as a control signal, which is input into TERMINAL VTA1 of the engine control module.

(6) Vehicle speed signal system

The vehicle speed sensor, installed inside the transaxle, detects the vehicle speed and inputs a control signal into TERMINAL SPD of the engine control module.

(7) Park/Neutral position SW signal system

The Park/Neutral position SW detects whether the shift position is in neutral, parking or not, and inputs a control signal into TERMINAL STA of the engine control module.

(8) A/C SW signal system

The A/C control assembly inputs the A/C operations into TERMINAL A/C of the engine control module as a control signal.

(9) Battery signal circuit

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

(10) Intake air volume signal circuit

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

(11) NSW signal circuit

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

(12) Engine knock signal circuit

Engine knocking is detected by the knock sensor 1 and 2, then the signals are input into TERMINALS KNKR and KNKL of the engine control module as a control signal.

2. CONTROL SYSTEM

* SFI system

The SFI system monitors the engine condition through the signals, which are input from each sensor (Input signals (1) to (12)). The best fuel injection volume is decided based on this data and the program memorized by the engine control module, and the control signal is output to TERMINALS #10, #20, #30, #40, #50 and #60 of the engine control module to operate the injector (Inject the fuel). The SFI system produces control of fuel injection operation by the engine control module in response to the driving conditions.

* ESA system

The ESA system monitors the engine condition through the signals, which are input to the engine control module from each sensor (Input signals from 1, 3, 4, 12). The best ignition timing is decided according to this data and the memorized data in the engine control module and the control signal is output to TERMINALS IGT1, IGT2 and IGT3. This signal controls the igniter to provide the best ignition timing for the driving conditions.

* 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 emissions is low), and warms up the heated oxygen sensor to improve detection performance of the sensor.

The engine control module evaluates the signals from each sensor (Input signals from 1, 4, 9, 10), current is output to TERMINALS HTL and HTR, controlling the heater.

* Idle air control system

The idle air control system (Rotary solenoid type) increases the RPM and provides idle stability for fast idle-up when the engine is cold, and when the idle speed has dropped due to electrical load and so on, the engine control module evaluates the signals from each sensor (Input signals from 1, 4, 5, 8, 9), current is output to TERMINALS RSO and RSC to control idle air control valve.

* EGR control system

The EGR control system detects the signal from each sensor (Input signals from 1, 4, 9, 10), and outputs current to TERMINAL EGR to control the VSV (EGR).

* ACIS

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.

The engine control module judges the engine speed by the signals ((4), (5)) from each sensor and outputs signals to the TERMINAL ACIS to control the VSV (Intake air control).

3. DIAGNOSIS SYSTEM

With the diagnosis system, when there is a malfunction in the engine control module signal system, the malfunctioning system is recorded in the memory.

4. FAIL-SAFE SYSTEM

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

ENGINE CONTROL (BRAZIL)

SERVICE HINTS

CIR OPN RELAY [ENGINE ROOM R/B]

5-3 : Closed with the starter running

EFI RELAY [ENGINE ROOM J/B]

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

E4 ENGINE COOLANT TEMP. SENSOR

1-2 : **10.0-20.0** k Ω (**-20** $^{\circ}$ C, **-4** $^{\circ}$ F)

4.0-7.0 k Ω (**0** $^{\circ}$ C, **32** $^{\circ}$ F)

2.0-3.0 k Ω (**20** $^{\circ}$ C, **68** $^{\circ}$ F)

0.9-1.3 k Ω (**40** $^{\circ}$ C, **104** $^{\circ}$ F)

0.4-0.7 k Ω (**60** $^{\circ}$ C, **140** $^{\circ}$ F)

0.2-0.4 k Ω (**80** $^{\circ}$ C, **176** $^{\circ}$ F)

E8 (B), E9 (A), E10 (C), E11 (D) ENGINE CONTROL MODULE

Voltage at engine control module wiring connector

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

+B-E1 : **9.0-14.0** volts (Ignition SW at **ON** position)

VC-E2 : Always **4.5-5.5** volts (Ignition SW at **ON** position)

VTA1-E2 : **0.3-0.8** volts (Ignition SW on and throttle valve fully closed)

3.2-4.9 volts (Ignition SW on and throttle valve fully open)

VG-E2G : **1.1-1.5** volts (Engine idling and A/C SW off)

THA-E2 : **0.5-3.4** volts (Engine idling and intake air temp. **20** $^{\circ}$ C, **68** $^{\circ}$ F)

THW-E2 : **0.2-1.0** volts (Engine idling and coolant temp. **80** $^{\circ}$ C, **176** $^{\circ}$ F)

IGF-E1 : **4.5-5.5** volts (Ignition SW at **ON** position)

Pulse generation (Engine idling)

G22+-NE- : Pulse generation (Engine idling)

NE+ -NE- : Pulse generation (Engine idling)

SIL-E1 : Pulse generation (During transmission)

TACH-E1 : Pulse generation (Engine idling)

STA-E1 : **6.0** volts or more (Engine cranking)

EGR-E01 : **9.0-14.0** volts (Ignition SW at **ON** position)

FC-E1 : **9.0-14.0** volts (Ignition SW at **ON** position)

0-3.0 volts (Engine idling)

SPD-E1 : Pulse generation (Ignition SW on and rotate driving wheel slowly)

W-E1 : Below **3.0** volts (Ignition SW at **ON** position)

A/C-E1 : Below **2.0** volts (Engine idling and A/C SW on)

9.0-14.0 volts (A/C SW off)

ACT-E1 : **9.0-14.0** volts (Engine idling and A/C SW on)

Below **2.0** volts (A/C SW off)

ACIS-E01 : **9.0-14.0** volts (Ignition SW at **ON** position)

NSW-E1 : **9.0-14.0** volts (Ignition SW on and other shift position in **P** or **N** position)

0-3.0 volts (Ignition SW on and shift position in **P** or **N** position)

TC-E1 : **9.0-14.0** volts (Ignition SW at **ON** position)

STP-E1 : **7.5-14.0** volts (Ignition SW on and brake pedal depressed)

0-1.5 volts (Ignition SW on and brake pedal depressed)

CF-E1 : **9.0-14.0** volts (Cooling fan is operating on high speed)

0-2.0 volts (Cooling fan is operating on low speed or off)

RSC,RSO-E1 : **9.0-14.0** volts (Ignition SW at **ON** position)

KNKL,KNKR-E1 : Pulse generation (Engine idling)

HTL, HTR-E02 : **9.0-14.0** volts (Ignition SW at **ON** position)

0-3.0 volts (Engine idling)

OXL1, OXR1-E1 : Pulse generation (Maintain engine speed at **2500** rpm for two minutes after warming up)

IGT1, IGT2, IGT3-E1 : Pulse generation (Engine idling)

#10, #20, #30, #40, #50, #60-E01 : **9.0-14.0** volts (ignition SW at **ON** position)

Pulse generation (Engine idling)

I6, I7, I8, I9, I10, I11 INJECTOR2-1 : Approx. **13.8 Ω****T2 THROTTLE POSITION SENSOR**2-1 : **3.75 kΩ****○ : PARTS LOCATION**

Code		See Page	Code		See Page	Code		See Page
A14	A	30	I1	29	J24	31		
A15	B	30	I6	29	J25	31		
C1		28	I7	29	J26	31		
C2		28	I8	29	J27	31		
C7	A	30	I9	29	J28	A	31	
C9	C	30	I10	29	J29	B	31	
C10	D	30	I11	29	J37	32		
D1		28	I13	30	K1	29		
D4		30	J1	31	K2	29		
E4		28	J3	31	M1	29		
E8	B	30	J4	31	P1	29		
E9	A	30	J8	A	P2	29		
E10	C	30	J9	B	S10	31		
E11	D	30	J15	31	T2	29		
F6	A	28	J17	31	V2	29		
F8	C	28	J18	A	V4	29		
F19		32	J19	B	V6	29		
H5		28	J22	31				
H6		28	J23	31				

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	24	Engine Room R/B (Engine Compartment Left)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1C		
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1K		
1R		
1W		
2A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2C		
2F		
2J	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)
2K		
2L		

ENGINE CONTROL (BRAZIL)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB2	36	Cowl Wire and Engine Room Main Wire (Under the Engine Room J/B)
EC1	36	Engine Wire and Sensor Wire (Left Bank of the Cylinder Head)
ID3	38	Floor Wire and Cowl Wire (Left Kick Panel)
IJ1	38	Instrument Panel Wire and Cowl Wire (Under the Glove Box)
IK1	38	Engine Wire and Cowl Wire (Under the Glove Box)
IK2		
IK3		
IL1	40	Engine Wire and Instrument Panel Wire (Under the Glove Box)

: GROUND POINTS

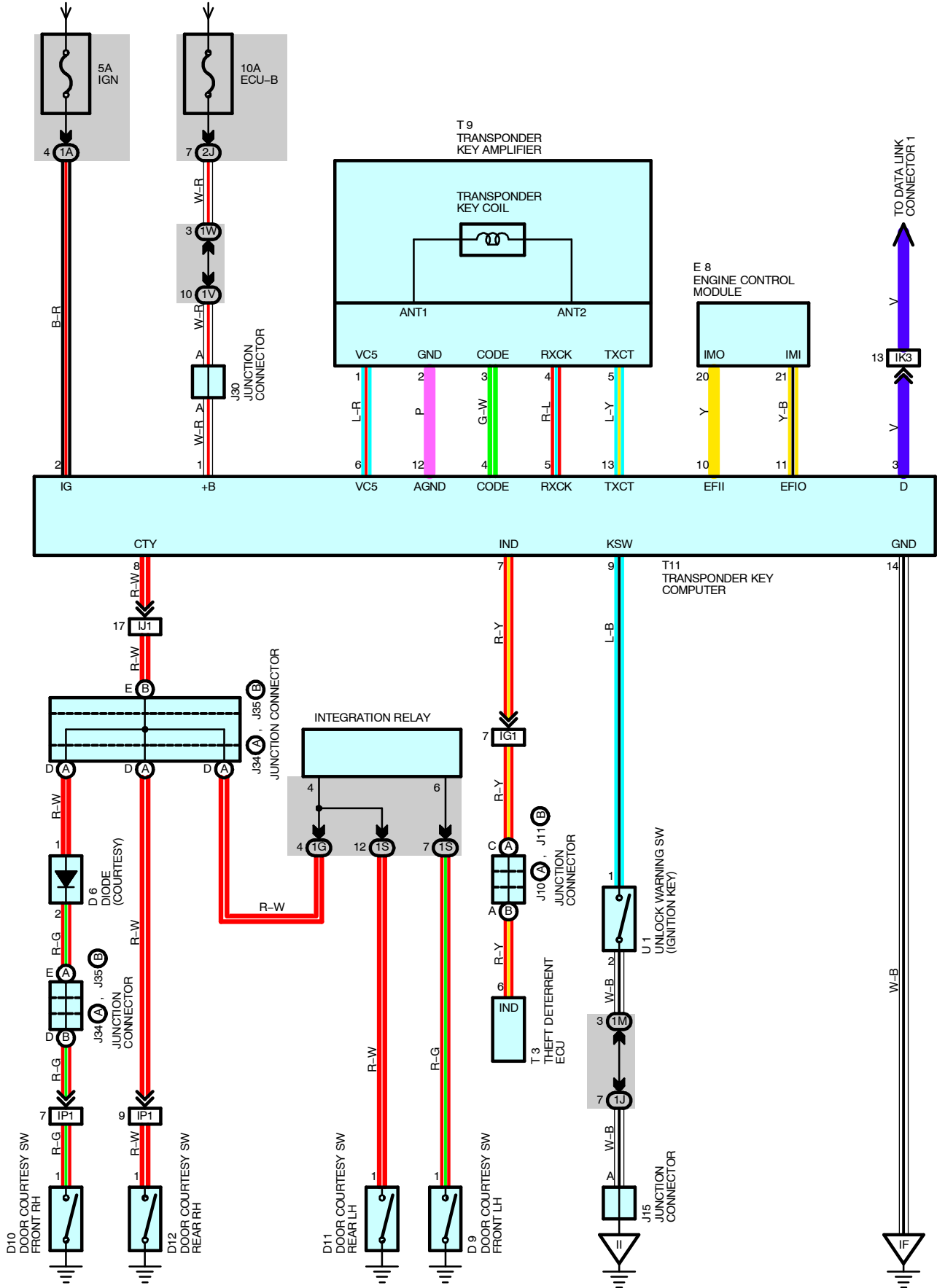
Code	See Page	Ground Points Location
EC	36	Left Radiator Side Support
ED	36	Surge Tank RH
EE	36	Rear Side of Surge Tank
II	38	Instrument Panel Brace LH
IJ	38	Instrument Panel Brace RH
BN	42	Under the Left Center Pillar

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I5	40	Engine Wire	I21	40	Cowl Wire
I6					

ENGINE IMMOBILISER SYSTEM (BRAZIL)

FROM POWER SOURCE SYSTEM (SEE PAGE 48)



SERVICE HINTS

T11 TRANSPONDER KEY COMPUTER

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

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
D6	30	J10	A 31	T3	31
D9	32	J11	B 31	T9	31
D10	32	J15	31	T11	31
D11	32	J30	31	U1	31
D12	32	J34	A 31		
E8	30	J35	B 31		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1G	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1M		
1S	26	Floor Wire and Instrument Panel J/B (Lower Finish Panel)
1V	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1W		
2J	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)

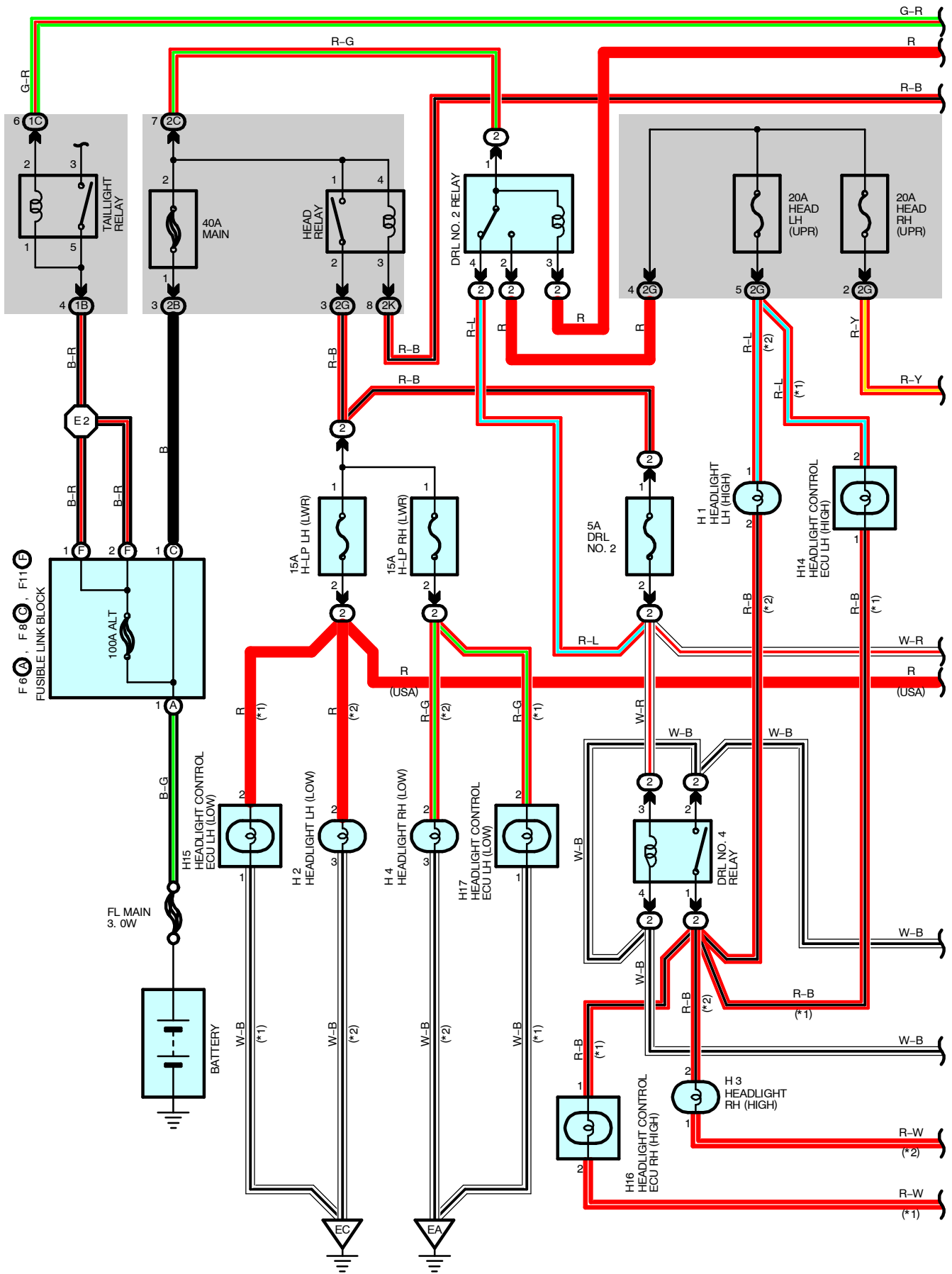
□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

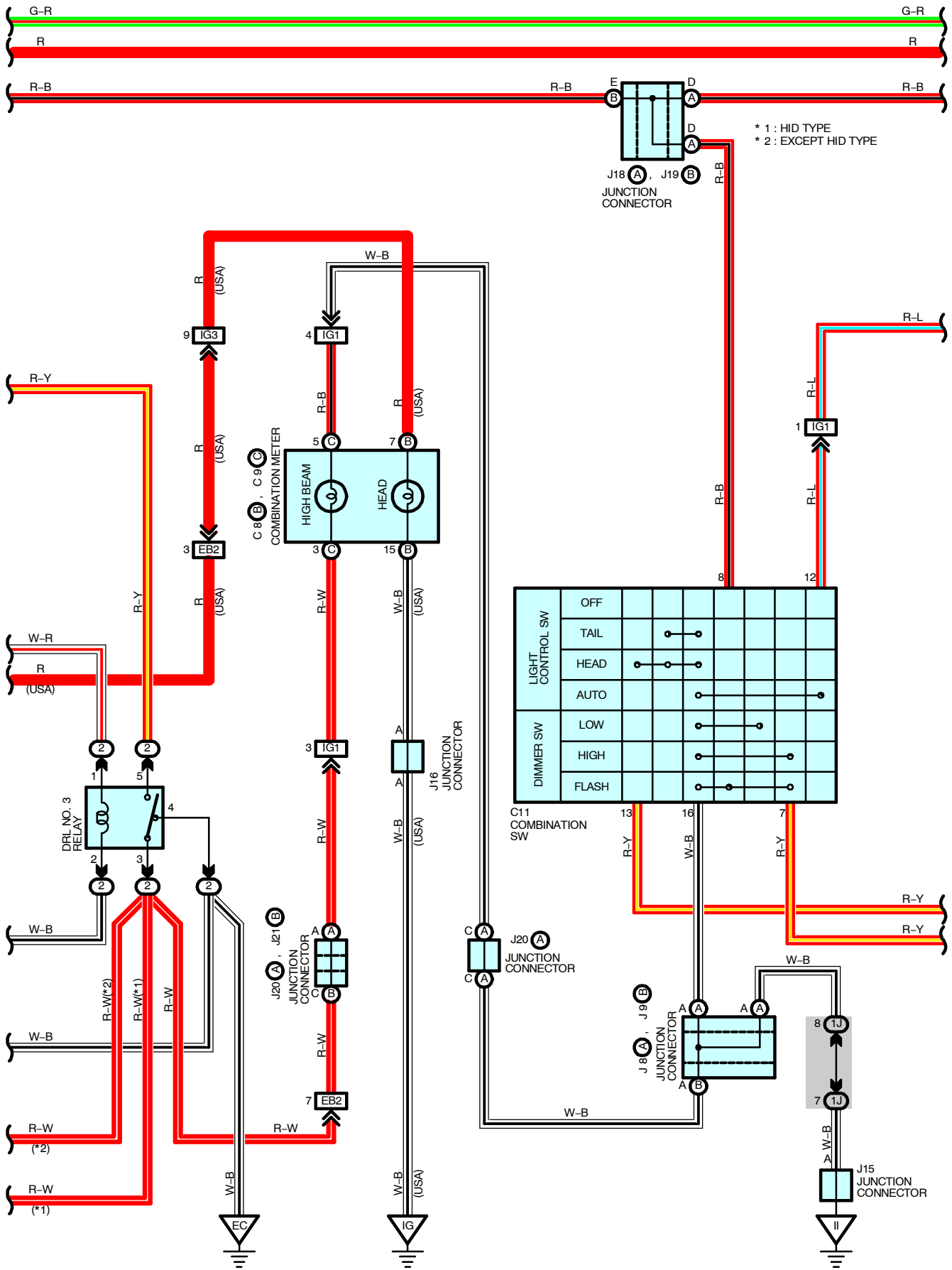
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	38	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IJ1	38	Instrument Panel Wire and Cowl Wire (Under the Glove Box)
IK3	38	Engine Wire and Cowl Wire (Under the Glove Box)
IP1	40	Floor No.2 Wire and Instrument Panel Wire (Right Kick Panel)

▽ : GROUND POINTS

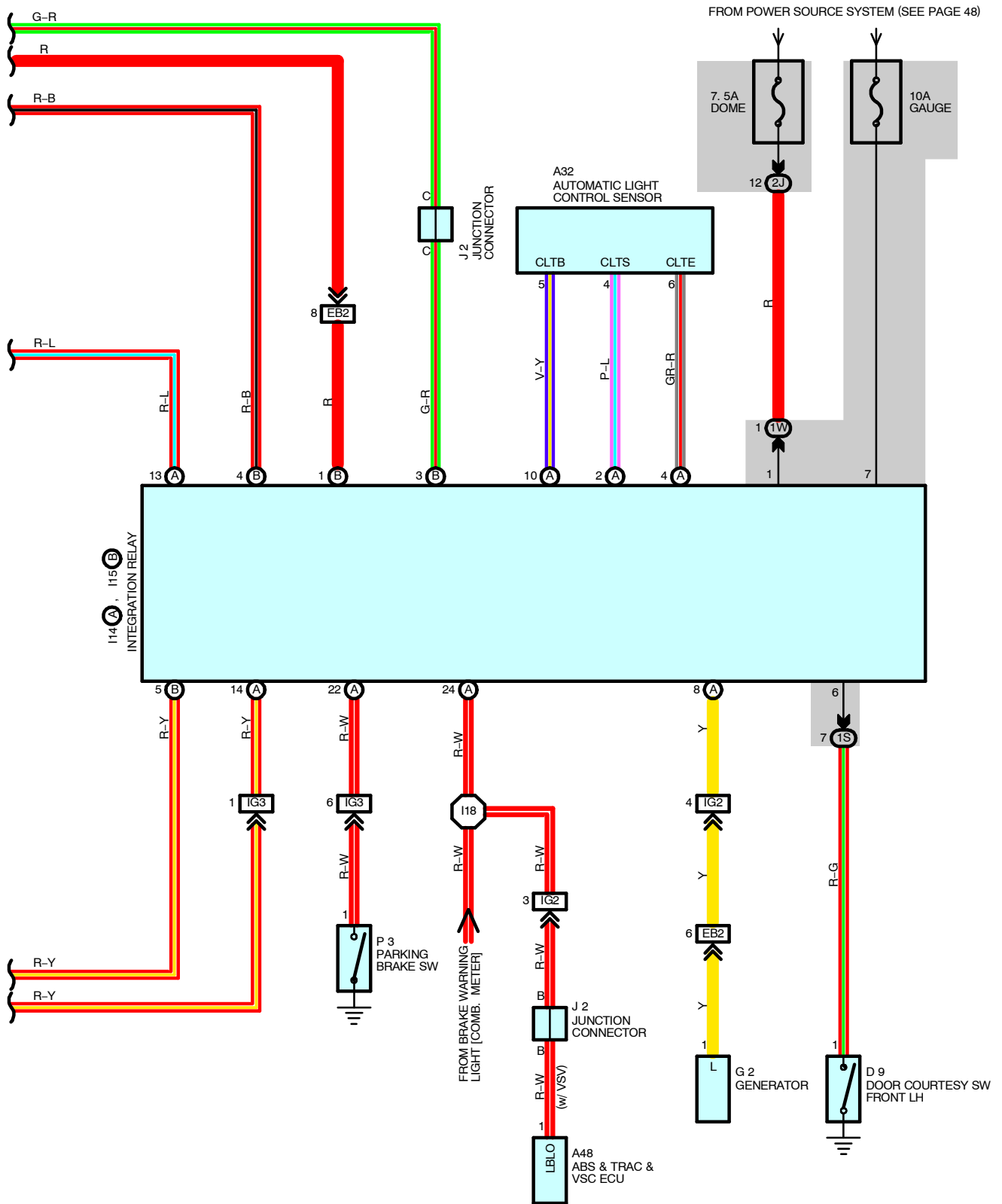
Code	See Page	Ground Points Location
IF	38	Cowl Side Panel LH
II	38	Instrument Panel Brace LH

HEADLIGHT (w/ DAYTIME RUNNING LIGHT)





HEADLIGHT (w/ DAYTIME RUNNING LIGHT)



SYSTEM OUTLINE

Current from the battery is always flowing from the FL MAIN to MAIN fuse to HEAD relay (Coil side) to TERMINAL (B) 4 of the integration relay to TERMINAL (B) 5 to TERMINAL 13 of the light control SW and TERMINAL 8 of the dimmer SW, FL MAIN to MAIN fuse to DRL NO.2 relay (Coil side) to TERMINAL (B) 1 of the integration relay.

1. DAYTIME RUNNING LIGHT OPERATION

When the engine is started, voltage generated at TERMINAL L of the generator is applied to TERMINAL (A) 8 of the integration relay.

If the parking brake pedal is depressed (Parking brake SW on) at this time, the relay is not energized, so the daytime running light system does not operate. If the parking pedal lever is released (Parking brake SW off), the signal is input to TERMINAL (A) 22 of the integration relay. This activates the integration relay and current from MAIN fuse flows to DRL NO.2 relay (Point side) to HEAD LH (UPR) fuse to TERMINAL 2 of the headlight control ECU LH (High) [HID type] to TERMINAL 1 or TERMINAL 1 of the headlight LH (High) [Except HID type] to TERMINAL 1 (HID type) or TERMINAL 2 (Except HID type) to TERMINAL 1 of the headlight control ECU RH (High) [HID type] or TERMINAL 2 of the headlight RH (High) [Except HID type] to TERMINAL 2 (HID type) or TERMINAL 1 (Except HID type) to TERMINAL 3 of the DRL NO.3 relay to TERMINAL 4 to GROUND, causing the headlights to light up dimmer than normal brightness.

This is how the daytime running light system operates once the daytime running light system operates and the headlights have light up, the headlights remain on even if the parking brake pedal is depressed (Parking brake SW on).

Even if the engine stalls with the ignition SW on and there is no voltage from TERMINAL L of the generator, the headlights remain on. If the ignition SW is then turned off, headlights are turned off.

If the engine is started while the parking brake pedal is released (Parking brake SW off), the daytime running light system operates and the headlights light up as the engine starts.

2. HEADLIGHT OPERATION

- * When the light control SW at the HEAD position

When the light control SW is set to HEAD position, the current flowing to the HEAD relay (Coil side) flows to TERMINAL (B) 4 of the integration relay to TERMINAL (B) 5 to TERMINAL 13 of the light control SW to TERMINAL 16 to GROUND, turning the HEAD relay on.

This causes the current flowing to the HEAD relay (Point side) to DRL NO.2 fuse to DRL NO.3 relay (Coil side) and DRL NO.4 relay (Coil side) to GROUND, turning the DRL NO.3 and NO.4 relay on. also, current from the HEAD relay (Point side) to H-LP (LWR) fuses to TERMINAL 2 of the headlight control ECUs (Low) [HID type] or headlights (Low) [Except HID type] to TERMINAL 1 (HID type) or TERMINAL 3 (Except HID type) to GROUND, so the headlights (Low side) light up.

- * Dimmer SW at FLASH position

When the dimmer SW is set to FLASH position, current flows from HEAD relay (Coil side) to TERMINAL 8 of the dimmer SW to TERMINAL 16 to GROUND, turning the HEAD relay on. At the same time, signals are output from TERMINAL 7 of the dimmer SW to TERMINAL (A) 14 of the integration relay, activating the integration relay and also the DRL NO.2 relay. When the HEAD relay and integration relay are activated, the headlights (Low and high) then light up.

- * Dimmer SW at HIGH position

When the light control SW is set to HEAD position, a signal is output from TERMINAL (B) 5 of the integration relay to TERMINAL 13 of the light control SW to TERMINAL 16 to GROUND.

When the dimmer SW is set to HIGH position, these signals activate DRL NO.2 relay, so current flows from DRL NO.2 relay (Point side) to HEAD LH (UPR) fuse to TERMINAL 2 of the headlight control ECU LH (High) [HID type] or TERMINAL 1 of the headlight LH (High) [Except HID type] to TERMINAL 1 (HID type) or TERMINAL 2 (Except HID type) to DRL NO.4 relay (Point side) to GROUND, and current also simultaneously flows from HEAD RH (UPR) fuse to DRL NO.3 relay (Point side) to TERMINAL 2 of the headlight control ECU RH (High) [HID type] or TERMINAL 1 of the headlight RH (High) [Except HID type] to TERMINAL 1 (HID type) or TERMINAL 2 (Except HID type) to DRL NO.4 relay (Point side) to GROUND, causing the headlights (High side) to light up.

3. AUTOMATIC LIGHT CONTROL OPERATION

When the daytime running light is operating and the automatic light control sensor detects a decrease in the ambient light (It continues less than approx. 2500 lux over about 20 seconds, and it is less than 1000 lux.), the automatic light control operation starts. At the same time integration relay is activated, so current flows from the ALT fuse to the taillight relay (Coil side) to TERMINAL (B) 3 of the integration relay, and the DRL NO.2 fuse to the DRL NO.4 relay (Coil side) to GROUND, activating both the taillight relay and the DRL NO.4 relay, so that the taillights and headlights light up.

When the light control sensor detects an increase in the ambient light (It continues more than approx. 1000 lux over about 20 seconds, and it is more than 2500 lux), the ignition SW is turned off, the light control SW is turned to HEAD position, and the automatic light control operation stop.

SERVICE HINTS

I14 (A) INTEGRATION RELAY

- 6-GROUND : Continuity with the driver's door open
- 7-GROUND : Approx. 12 volts with the ignition SW at **ON** position
- (A) 22-GROUND : Continuity with the parking brake pedal depressed (Parking brake SW on)

HEADLIGHT (w/ DAYTIME RUNNING LIGHT)

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A32	30	H1	28	J2	31
A48	30	H2	28	J8	A 31
C8	B 30	H3	28	J9	B 31
C9	C 30	H4	28	J15	31
C11	30	H14	28	J16	31
D9	32	H15	28	J18	A 31
F6	A 28	H16	28	J19	B 31
F8	C 28	H17	28	J20	A 31
F11	F 28	I14	A 30	J21	B 31
G2	28	I15	B 30	P3	31

: RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
2	25	Engine Room No.2 R/B (Engine Compartment Left)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1C		
1J		
1S	26	Floor Wire and Instrument Panel J/B (Lower Finish Panel)
1W	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
2B	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2C		
2G		
2J	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)
2K		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB2	36	Cowl Wire and Engine Room Main Wire (Under the Engine Room J/B)
IG1	38	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IG2		
IG3		

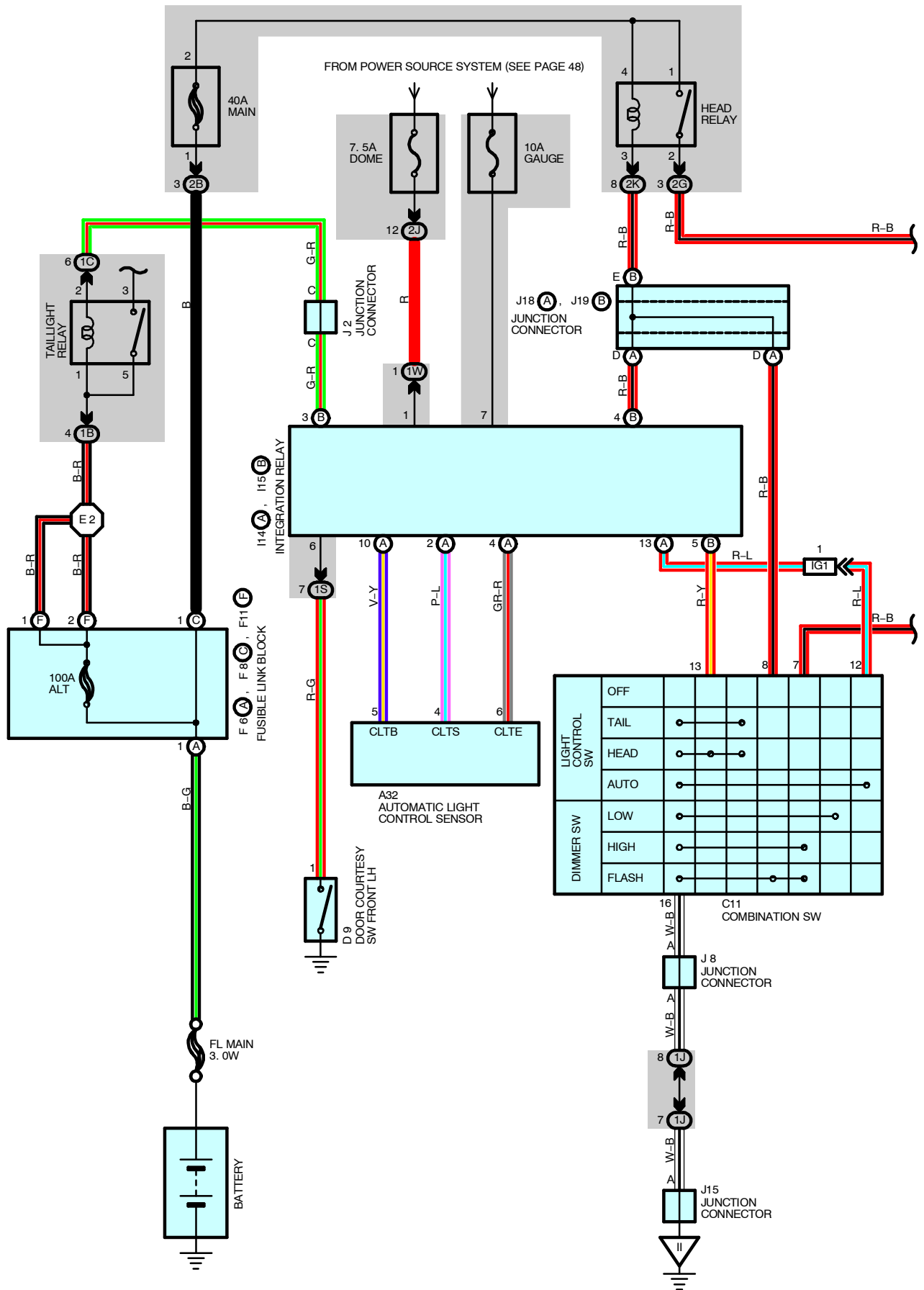
: GROUND POINTS

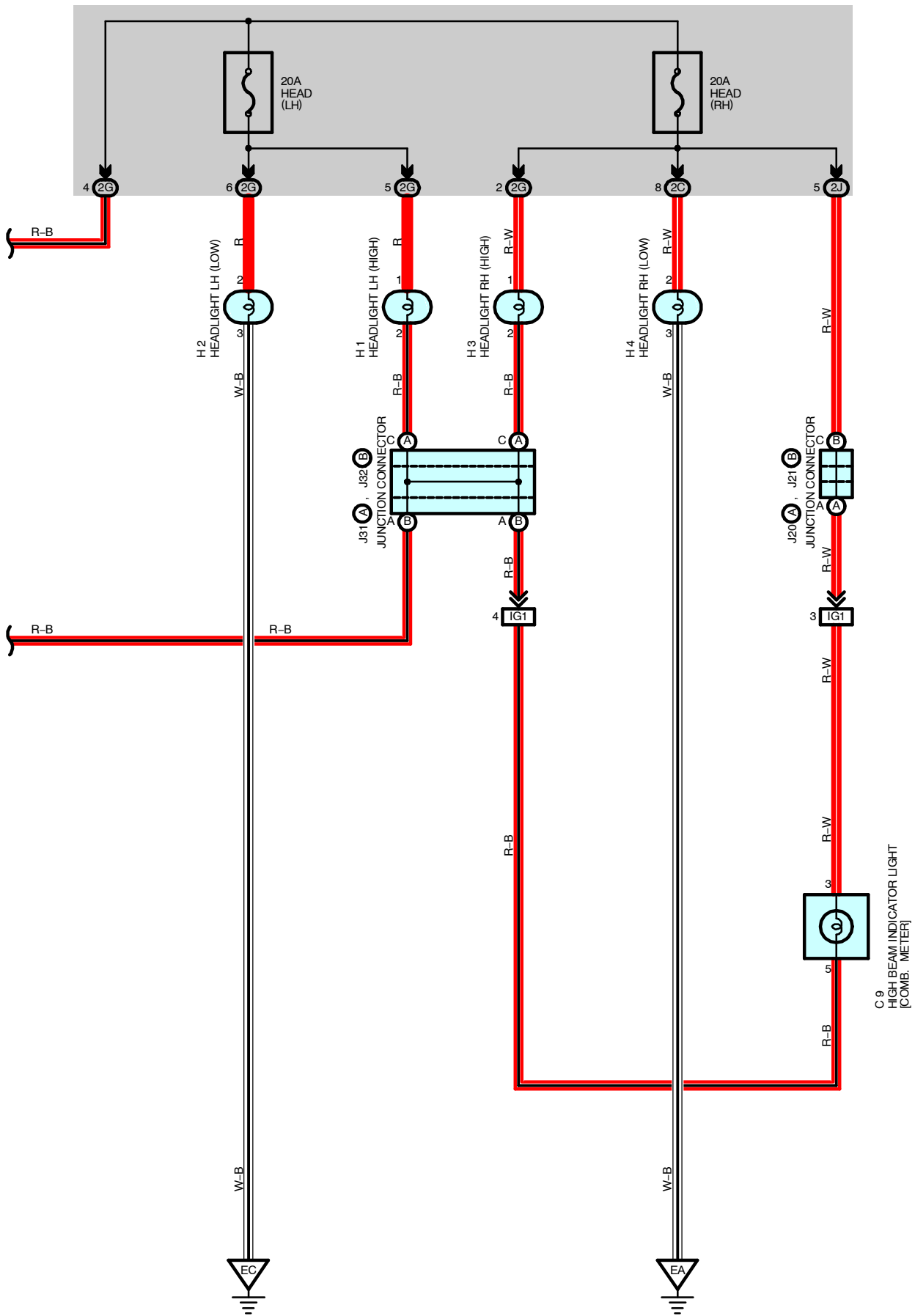
Code	See Page	Ground Points Location
EA	36	Right Radiator Side Support
EC	36	Left Radiator Side Support
IG	38	Left Kick Panel
II	38	Instrument Panel Brace LH

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	36	Cowl Wire	I18	40	Instrument Panel Wire

HEADLIGHT (w/o DAYTIME RUNNING LIGHT)





HEADLIGHT (w/o DAYTIME RUNNING LIGHT)

SYSTEM OUTLINE

AUTOMATIC LIGHT CONTROL OPERATION

The automatic light control sensor detects a decrease in the ambient light (It continues less than approx. 2500 lux over about 20 seconds, and it is less than 1000 lux.), the automatic light control operation starts. At the same time integration relay is activated, so current flows from the FL MAIN fuse to the taillight relay (Coil side) to TERMINAL (B) 3 of the integration relay, so that the taillights and headlights light up.

When the light control sensor detects an increase in the ambient light (It continues more than approx. 1000 lux over about 20 seconds, and it is more than 2500 lux), the ignition SW is turned to off, the light control SW is turned to HEAD position, and the automatic light control operation stop.

SERVICE HINTS

HEAD RELAY [ENGINE ROOM J/B]

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

I14 (A) INTEGRATION RELAY

6-GROUND : Continuity with the driver's door open

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

(A) 22-GROUND : Continuity with the parking brake pedal depressed (Parking brake SW on)

LIGHT AUTO TURN OFF OPERATION

Please refer to the light auto turn off system (See page 126)

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A32	30	H2	28	J18	A 31
C9	30	H3	28	J19	B 31
C11	30	H4	28	J20	A 31
D9	32	I14	A 30	J21	B 31
F6	A 28	I15	B 30	J31	A 31
F8	C 28	J2	31	J32	B 31
F11	F 28	J8	31		
H1	28	J15	31		

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1C		
1J		
1S	26	Floor Wire and Instrument Panel J/B (Lower Finish Panel)
1W	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
2B	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2C		
2G		
2J	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)
2K		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	38	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)

: GROUND POINTS

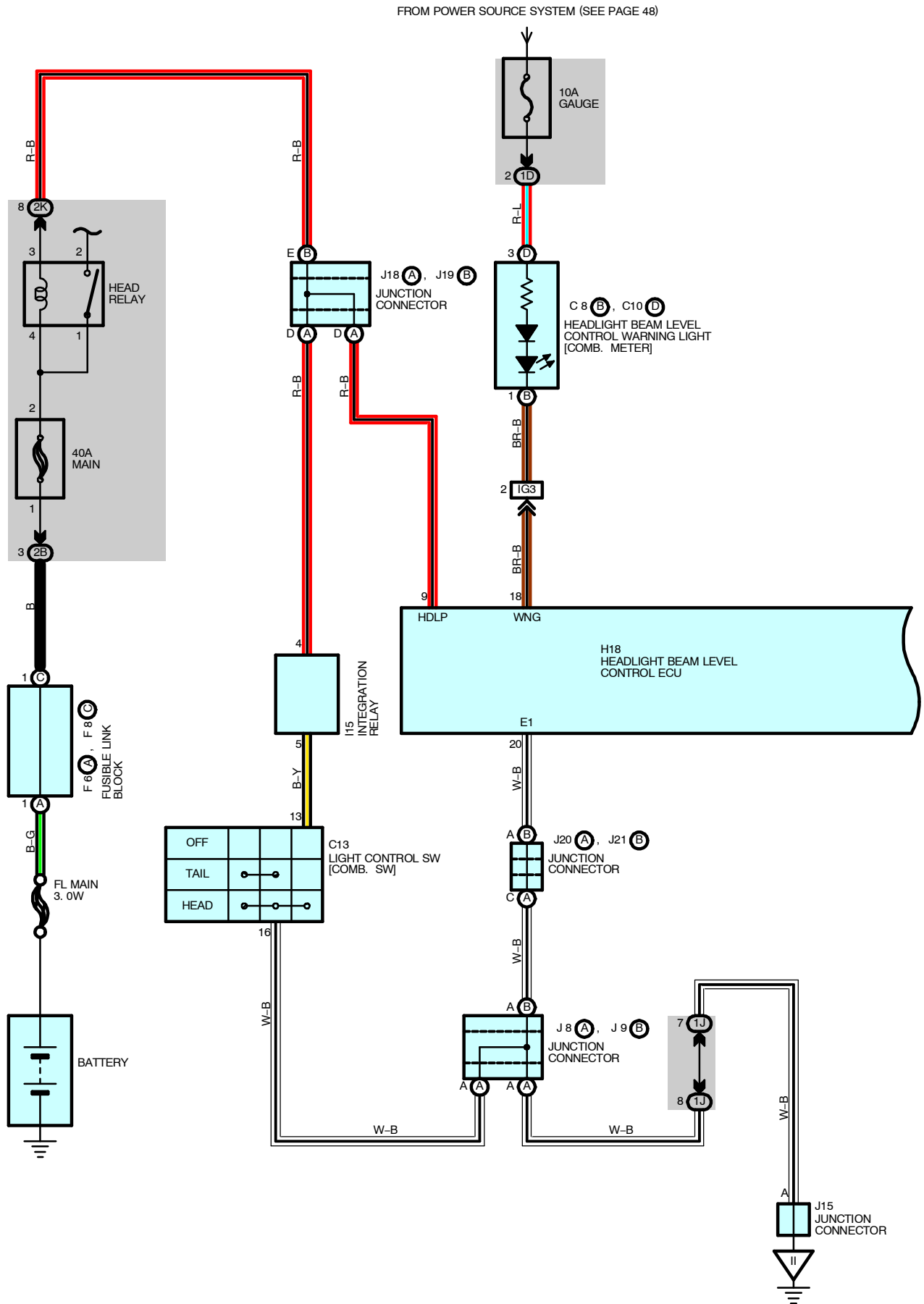
Code	See Page	Ground Points Location
EA	36	Right Radiator Side Support
EC	36	Left Radiator Side Support
II	38	Instrument Panel Brace LH



: SPLICE POINTS

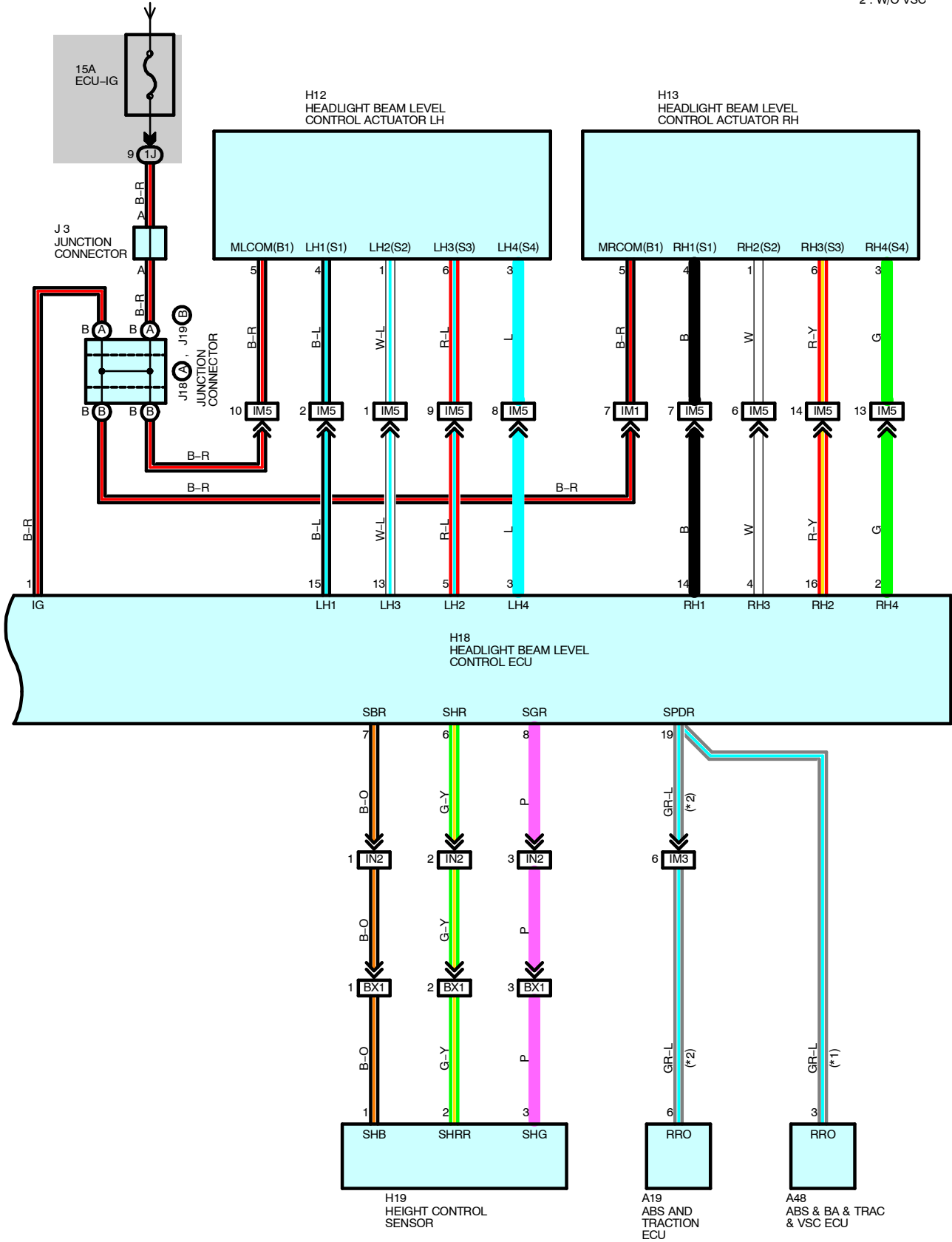
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	36	Cowl Wire			

HEADLIGHT BEAM LEVEL CONTROL



FROM POWER SOURCE SYSTEM (SEE PAGE 48)

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



HEADLIGHT BEAM LEVEL CONTROL

SYSTEM OUTLINE

This system calculates changes in the illuminating angle from changes in the vehicle height and axle distance based on the information on the vehicle height detected by the height control sensors installed at the front and rear of the vehicle and information on the vehicle speed and acceleration output from the VSC or ABS and traction system to reversely operate the reflector by the obtained illuminating angle through actuators in order to always keep the beam axis constant.
If an error occurs in this system, the headlight beam level control warning light in the combination meter lights up to warn the driver.

SERVICE HINTS

H12, H13 HEADLIGHT BEAM LEVEL CONTROL ACTUATOR LH, RH

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

H18 HEADLIGHT BEAM LEVEL CONTROL ECU

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

15-GROUND : Approx. 12 volts with light control SW at **HEAD** position

20-GROUND : Always continuity

C13 LIGHT CONTROL SW [COMB. SW]

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

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A19	30	H12	28	J9 B	31
A48	30	H13	28	J15	31
C8 B	30	H18	30	J18 A	31
C10 D	30	H19	32	J19 B	31
C13	30	I15	30	J20 A	31
F6 A	28	J3	31	J21 B	31
F8 C	28	J8 A	31		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
2B	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2K	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

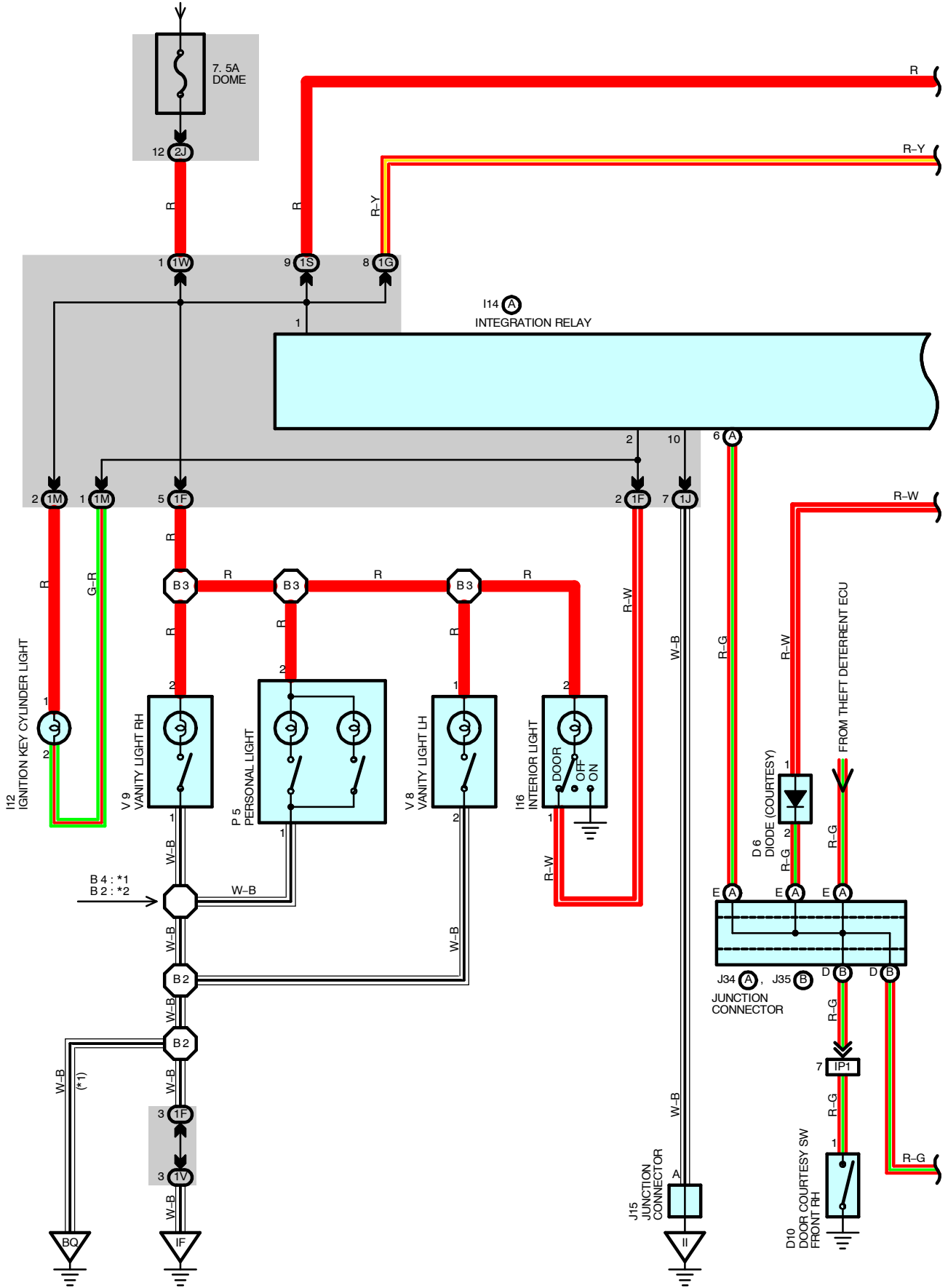
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG3	38	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IM1	40	Engine Room Main Wire and Cowl Wire (Right Kick Panel)
IM3		
IM5		
IN2	40	Floor No.2 Wire and Cowl Wire (Right Kick Panel)
BX1	42	Floor No.4 Wire and Floor No.2 Wire (Quarter Wheel House RH)

▽ : GROUND POINTS

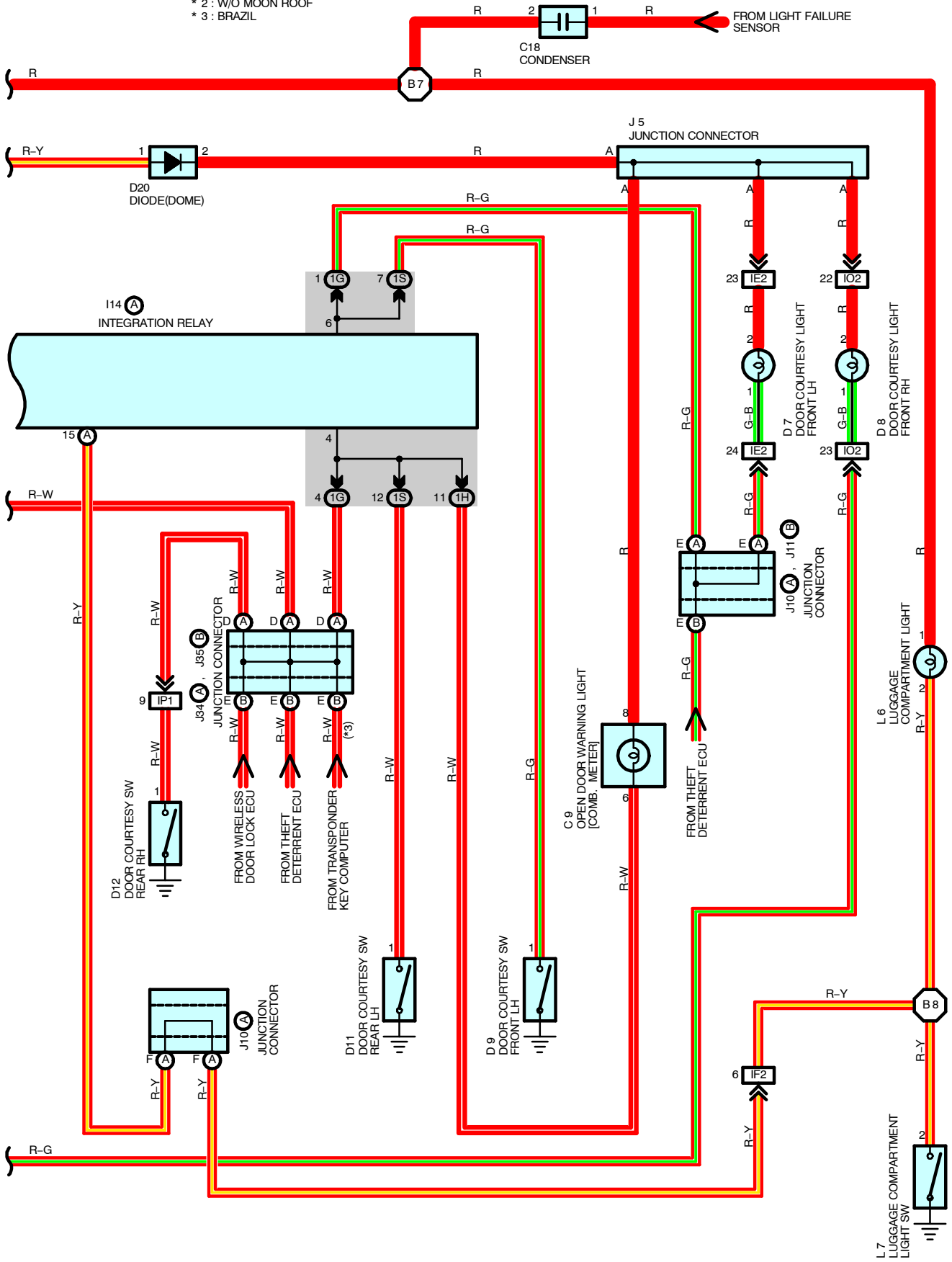
Code	See Page	Ground Points Location
II	38	Instrument Panel Brace LH

INTERIOR LIGHT

FROM POWER SOURCE SYSTEM (SEE PAGE 48)



- * 1 : W/ MOON ROOF
- * 2 : W/O MOON ROOF
- * 3 : BRAZIL



INTERIOR LIGHT

SERVICE HINTS

INTEGRATION RELAY [INSTRUMENT PANEL J/B]

- 1-GROUND : Always approx. 12 volts
- 4-GROUND : Continuity with each door (Front RH, rear LH and RH) open
- 6-GROUND : Continuity with the driver's door open

D9, D10, D11, D12 DOOR COURTESY SW FRONT LH, RH, REAR LH, RH

- 1-GROUND : Closed with each of the doors open

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C9	30	D12	32	J15	31
C18	32	D20	30	J34 A	31
D6	30	I12	30	J35 B	31
D7	32	I14 A	30	L6	32
D8	32	I16	32	L7	32
D9	32	J5	31	P5	33
D10	32	J10 A	31	V8	33
D11	32	J11 B	31	V9	33

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	26	Roof Wire and Instrument Panel J/B (Lower Finish Panel)
1G	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1H		
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1M		
1S	26	Floor Wire and Instrument Panel J/B (Lower Finish Panel)
1V	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1W		
2J	22	Cowl 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)
IE2	38	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IF2	38	Floor Wire and Instrument Panel Wire (Left Kick Panel)
IO2	40	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IP1	40	Floor No.2 Wire and Instrument Panel Wire (Right Kick Panel)

▽ : GROUND POINTS

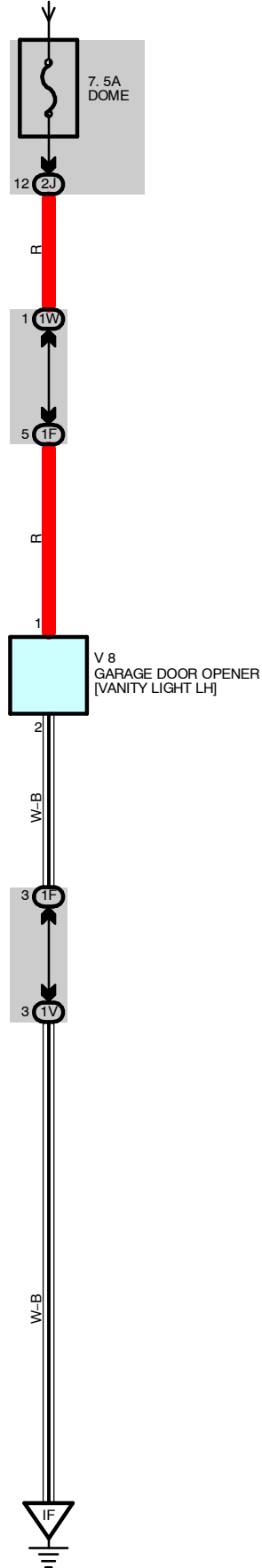
Code	See Page	Ground Points Location
IF	38	Cowl Side Panel LH
II	38	Instrument Panel Brace LH
BQ	42	Roof Left

○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B2	42	Roof Wire	B7	42	Floor Wire
B3			B8		
B4					

GARAGE DOOR OPENER

FROM POWER SOURCE SYSTEM (SEE PAGE 48)



SERVICE HINTS**V8 GARAGE DOOR OPENER [VANITY LIGHT LH]**

1-GROUND : Always approx. 12 volts

2-GROUND : Always continuity

 : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
V8	33				

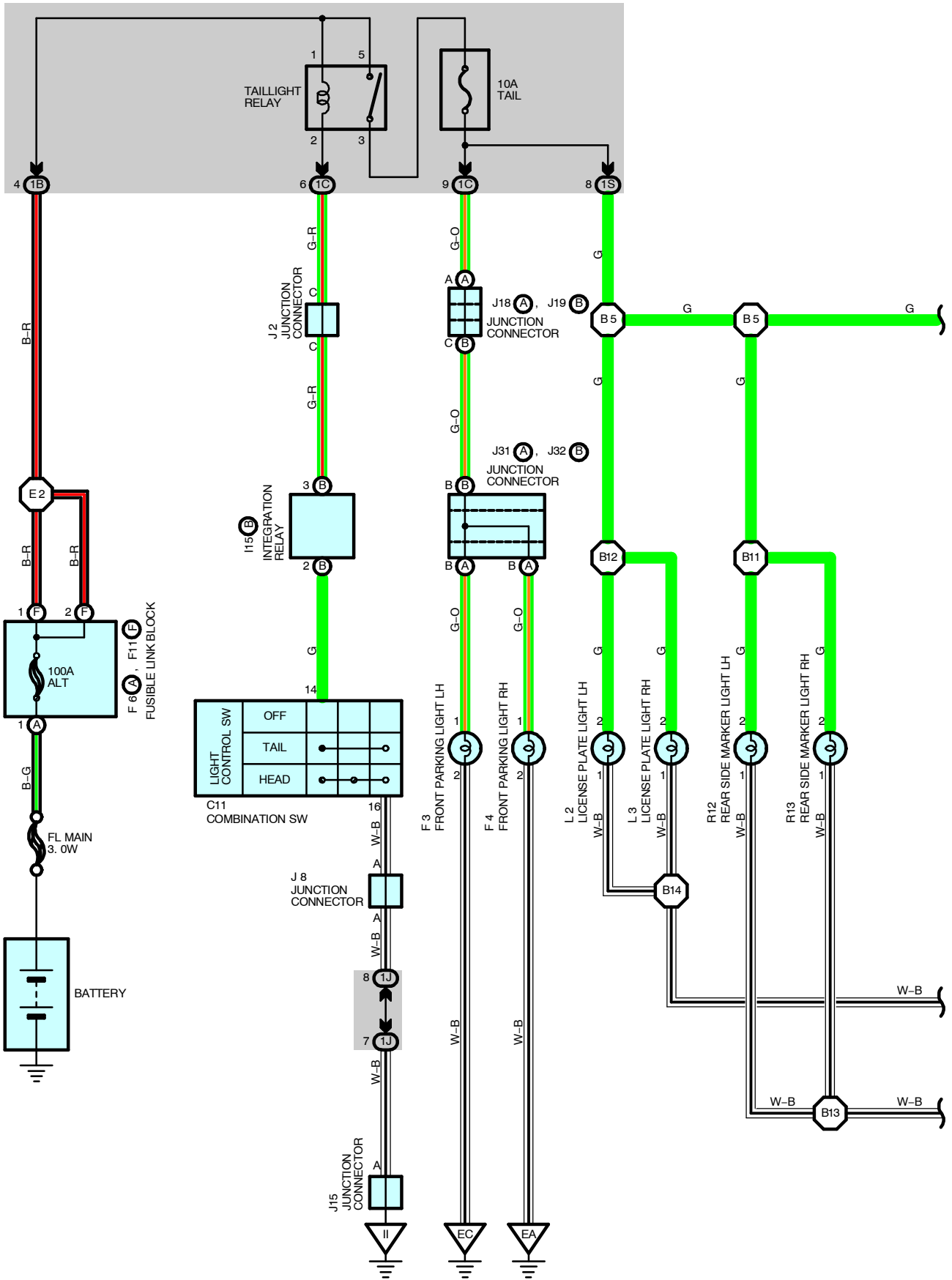
 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	26	Roof Wire and Instrument Panel J/B (Lower Finish Panel)
1V	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1W		
2J	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)

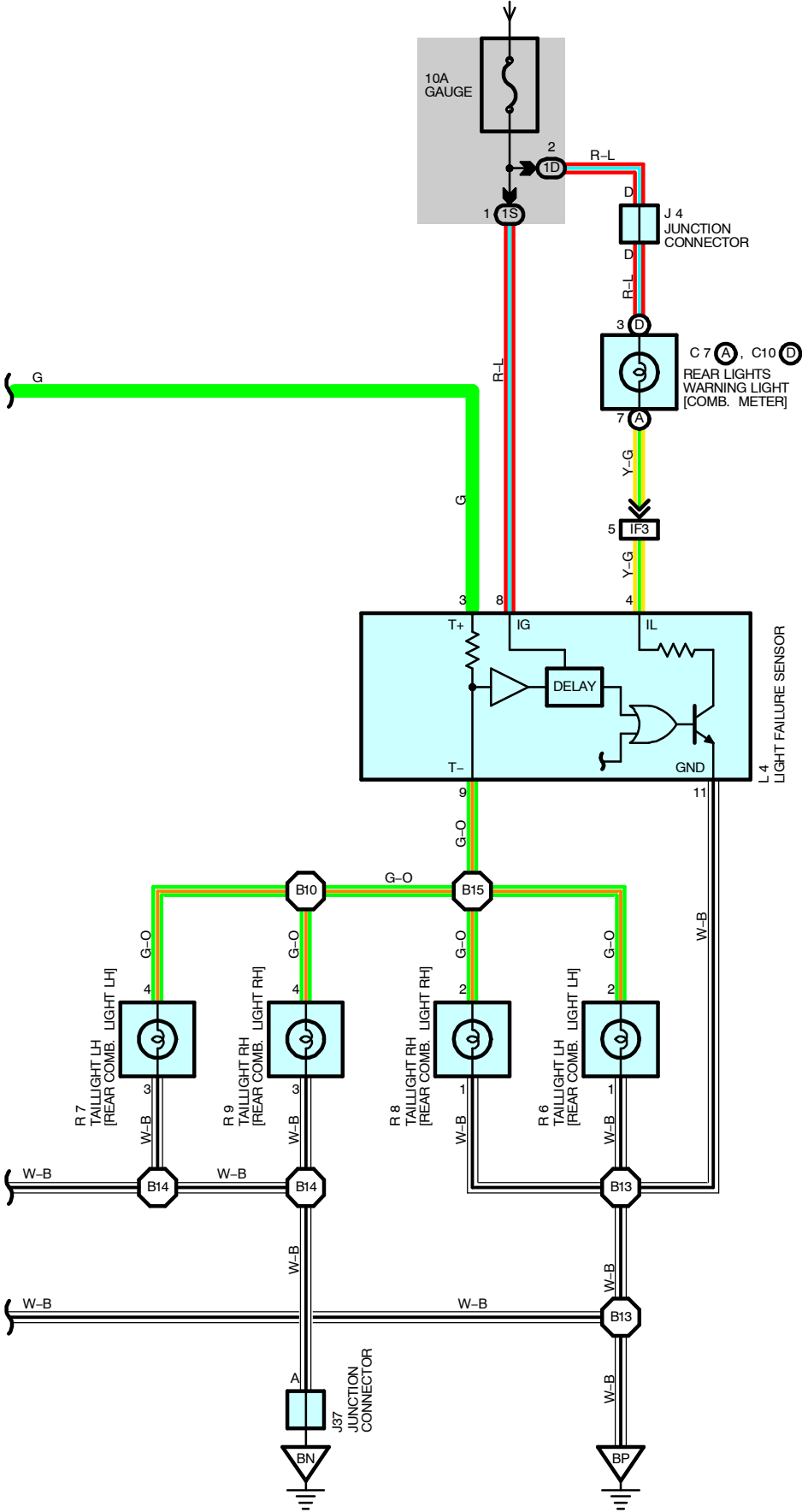
 : GROUND POINTS

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

TAILLIGHT



FROM POWER SOURCE SYSTEM (SEE PAGE 48)



TAILLIGHT

SYSTEM OUTLINE

When the light control SW is turned to TAIL or HEAD position, the current flows to TERMINAL 3 of the light failure sensor through the TAIL fuse.

When the ignition SW is turned on, the current flows from the GAUGE fuse to TERMINAL 8 of the light failure sensor, and also flows through the rear lights warning light to TERMINAL 4 of the light failure sensor.

TAILLIGHT DISCONNECTION WARNING

With the ignition SW on and the light control SW turned to TAIL or HEAD position, if the taillight circuit is open, the light failure sensor detects the failure by the change in current flowing from TERMINAL 3 of the light failure sensor to TERMINAL 9 and the warning circuit of the light failure sensor is activated.

As a result, the current flows from TERMINAL 4 of the light failure sensor to TERMINAL 11 to GROUND and turns the rear lights warning light on, which remains on until the light control SW is turned off.

SERVICE HINTS

TAILLIGHT RELAY [INSTRUMENT PANEL J/B]

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

L4 LIGHT FAILURE SENSOR

4, 8-GROUND : Approx. 12 volts with the ignition SW at ON position

3, 9-GROUND : Approx. 12 volts with the light control SW at TAIL or HEAD position

11-GROUND : Always continuity

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C7	A 30	J4	31	L3	32
C10	D 30	J8	31	L4	32
C11	30	J15	31	R6	33
F3	28	J18	A 31	R7	33
F4	28	J19	B 31	R8	33
F6	A 28	J31	A 31	R9	33
F11	F 28	J32	B 31	R12	33
I15	B 30	J37	32	R13	33
J2	31	L2	32		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1C		
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1S	26	Floor Wire and Instrument Panel J/B (Lower Finish Panel)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF3	38	Floor Wire and Instrument Panel Wire (Left Kick Panel)

▽ : GROUND POINTS

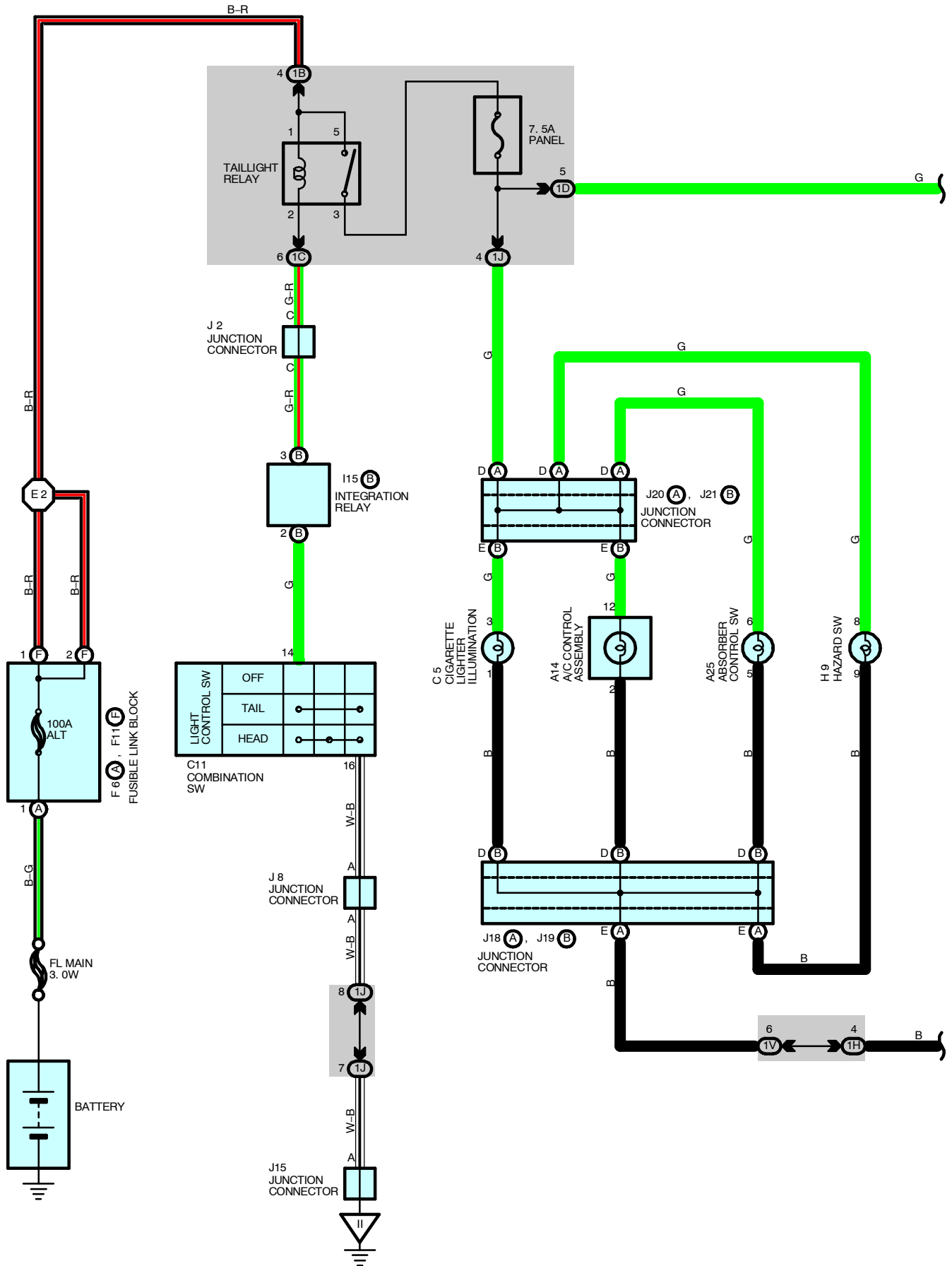
Code	See Page	Ground Points Location
EA	36	Right Radiator Side Support
EC	36	Left Radiator Side Support
II	38	Instrument Panel Brace LH
BN	42	Under the Left Center Pillar
BP	42	Back Panel Center

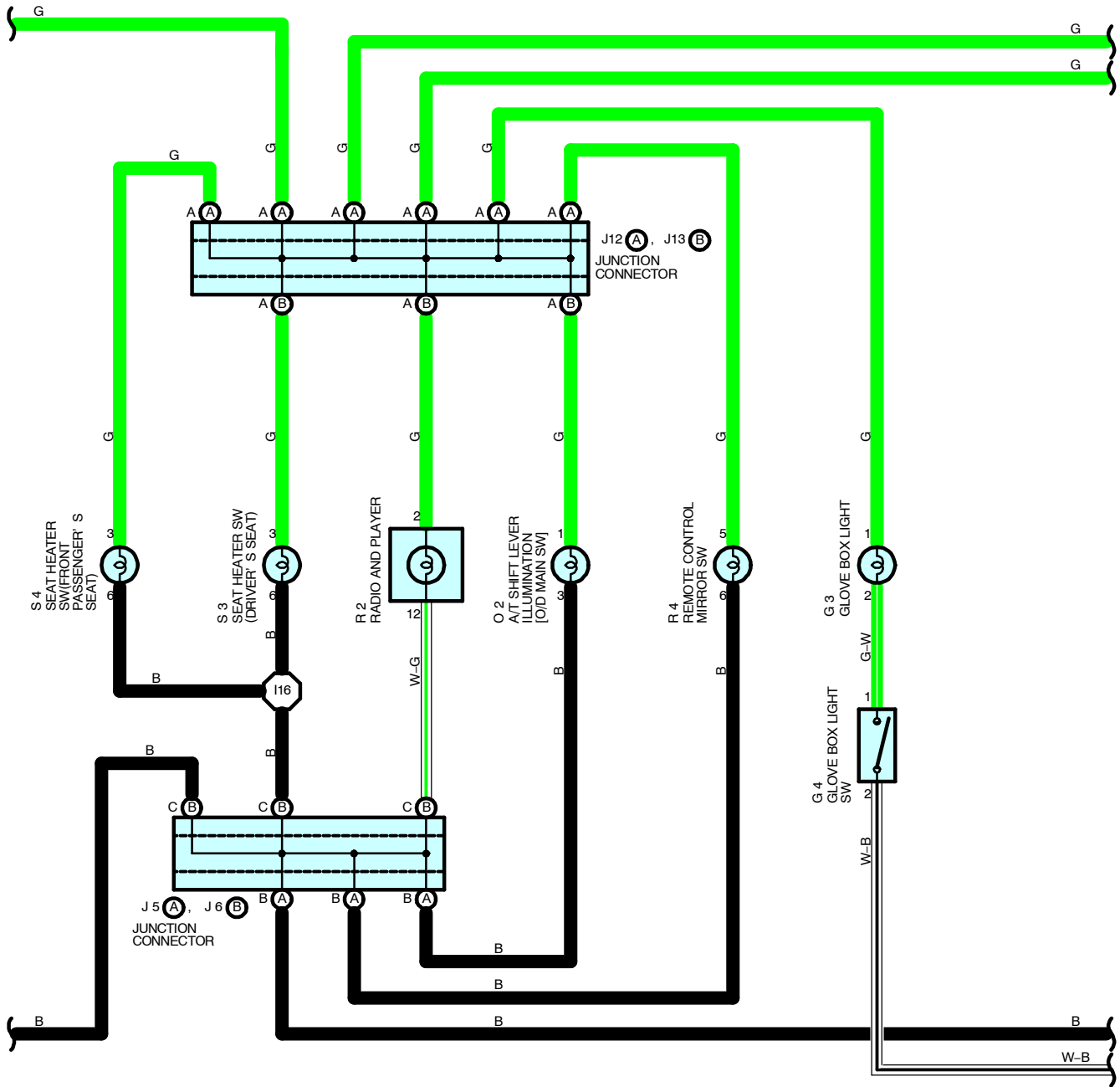


: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	36	Cowl Wire	B12	42	Floor Wire
B5	42	Floor Wire	B13		
B10			B14		
B11			B15		

ILLUMINATION

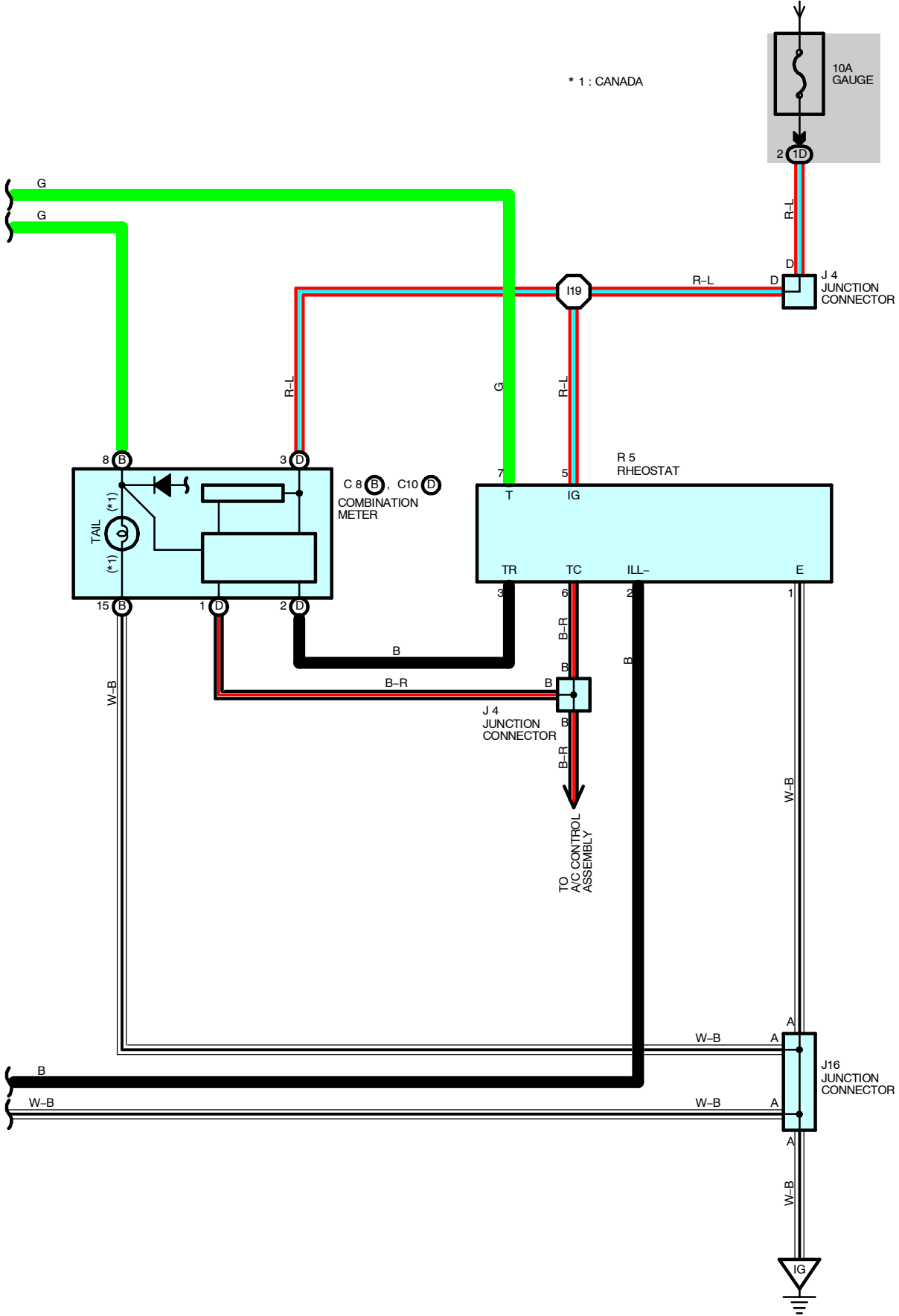




ILLUMINATION

FROM POWER SOURCE SYSTEM (SEE PAGE 48)

* 1 : CANADA



SERVICE HINTS

TAILLIGHT RELAY [INSTRUMENT PANEL J/B]

5-3 : Closed with the light control SW at **TAIL** or **HEAD** position (when the light auto turn off system is off)

C11 COMBINATION SW

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

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A14	30	I15 B	30	J19 B	31
A25	30	J2	31	J20 A	31
C5	30	J4	31	J21 B	31
C8 B	30	J5 A	31	O2	31
C10 D	30	J6 B	31	R2	31
C11	30	J8	31	R4	31
F6 A	28	J12 A	31	R5	31
F11 F	28	J13 B	31	S3	31
G3	30	J15	31	S4	31
G4	30	J16	31		
H9	30	J18 A	31		

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1C		
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1H		
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1V		

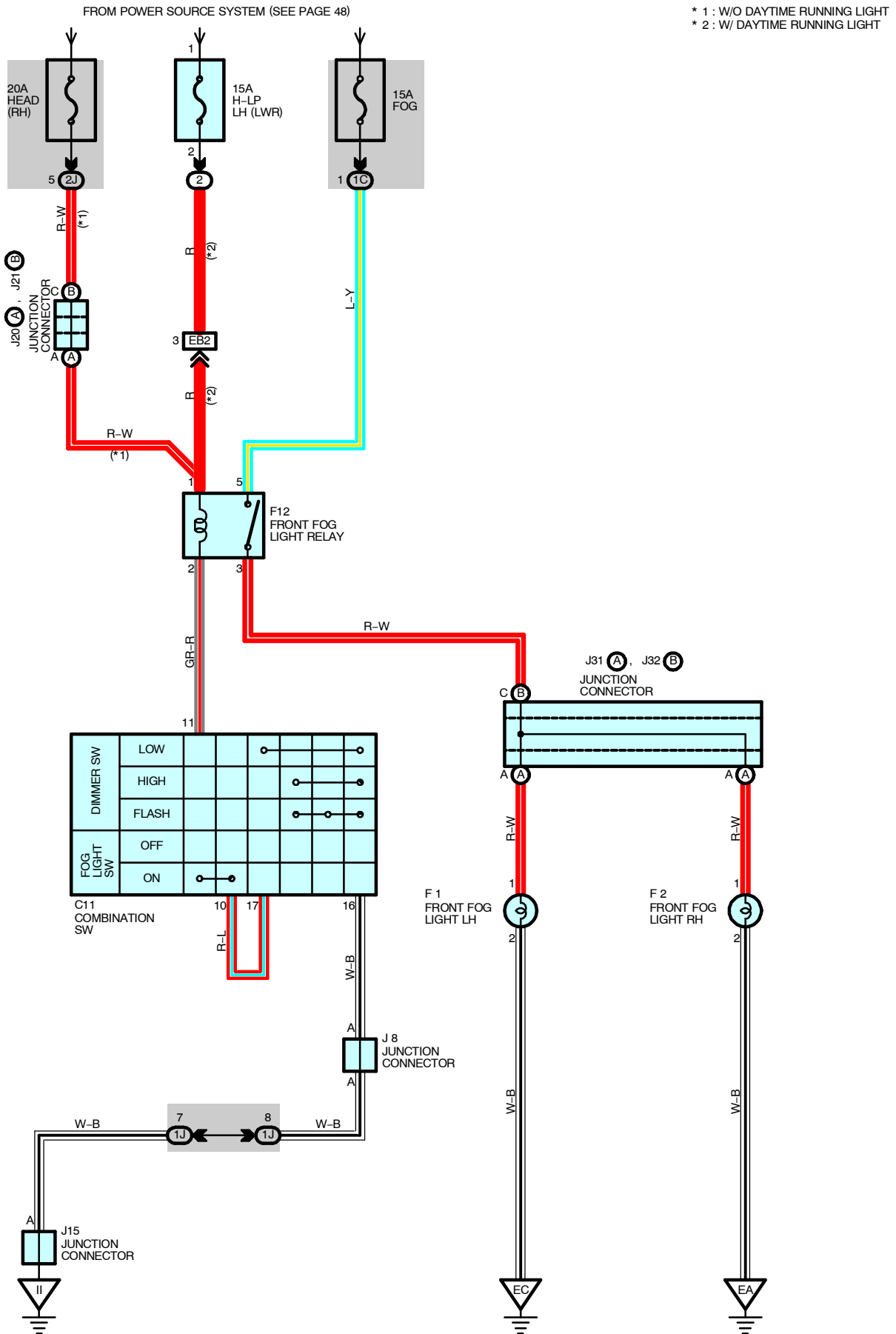
: GROUND POINTS

Code	See Page	Ground Points Location
IG	38	Left Kick Panel
II	38	Instrument Panel Brace LH

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	36	Cowl Wire	I19	40	Instrument Panel Wire
I16	40	Instrument Panel Wire			

FRONT FOG LIGHT



SERVICE HINTS**F12 FRONT FOG LIGHT RELAY**

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

 : **PARTS LOCATION**

Code	See Page	Code	See Page	Code	See Page
C11	30	J8	31	J31 A	31
F1	28	J15	31	J32 B	31
F2	28	J20 A	31		
F12	30	J21 B	31		

 : **RELAY BLOCKS**

Code	See Page	Relay Blocks (Relay Block Location)
2	25	Engine Room No.2 R/B (Engine Compartment Left)

 : **JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1J		
2J	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)

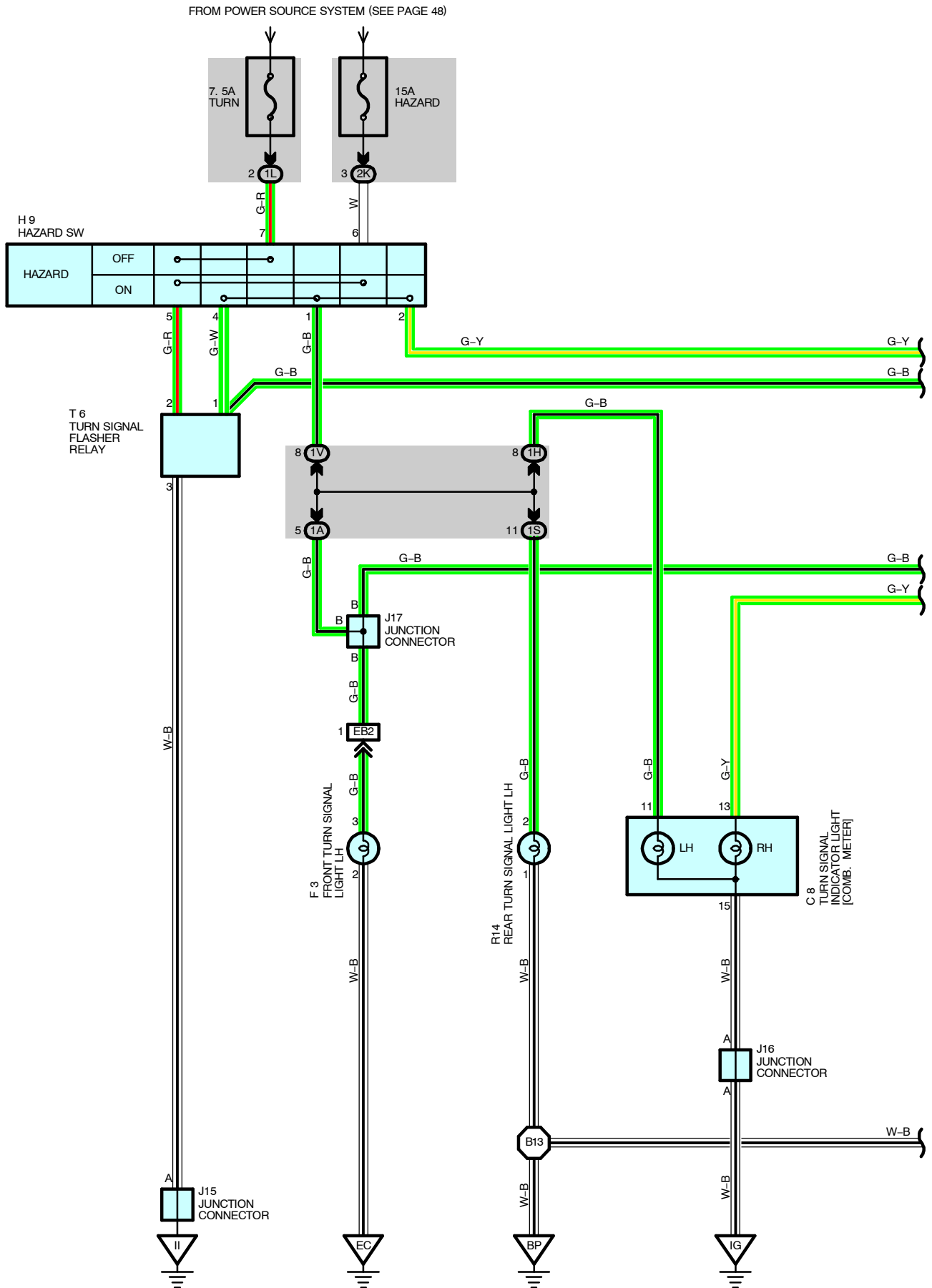
 : **CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS**

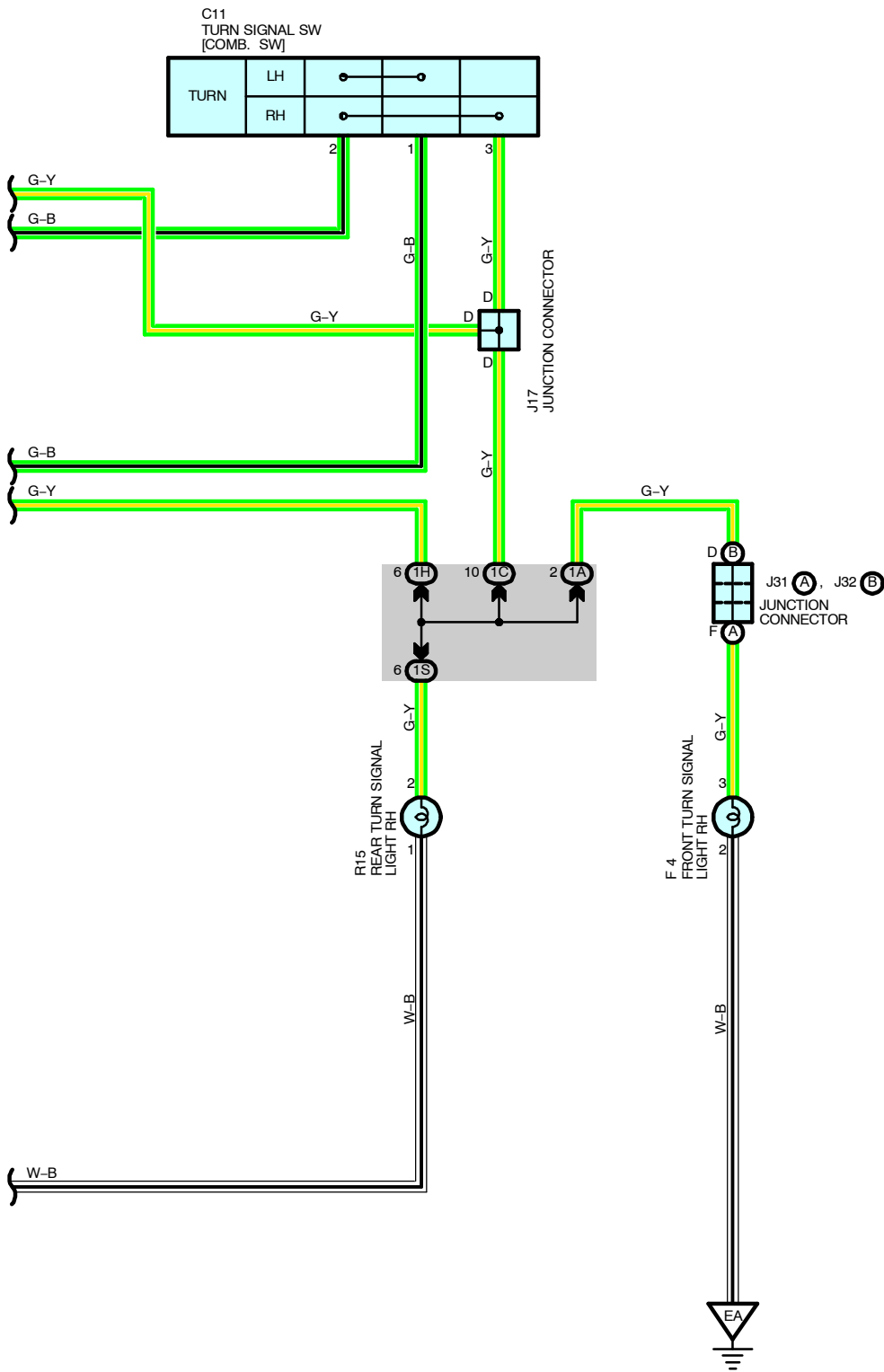
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB2	36	Cowl Wire and Engine Room Main Wire (Under the Engine Room J/B)

 : **GROUND POINTS**

Code	See Page	Ground Points Location
EA	36	Right Radiator Side Support
EC	36	Left Radiator Side Support
II	38	Instrument Panel Brace LH

TURN SIGNAL AND HAZARD WARNING LIGHT





TURN SIGNAL AND HAZARD WARNING LIGHT

SERVICE HINTS

T6 TURN SIGNAL FLASHER RELAY

- 2-GROUND : Approx. 12 volts with the ignition SW on or the hazard SW on
- 1-GROUND : Changes from approx. 12 to 0 volts with the ignition SW on and the turn signal SW left or right position, or the hazard SW on
- 3-GROUND : Always continuity

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C8	30	J15	31	R14	33
C11	30	J16	31	R15	33
F3	28	J17	31	T6	31
F4	28	J31	A	31	
H9	30	J32	B	31	

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1C		
1H	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1L	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1S	26	Floor Wire and Instrument Panel J/B (Lower Finish Panel)
1V	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
2K	22	Cowl 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)
EB2	36	Cowl Wire and Engine Room Main Wire (Under the Engine Room J/B)

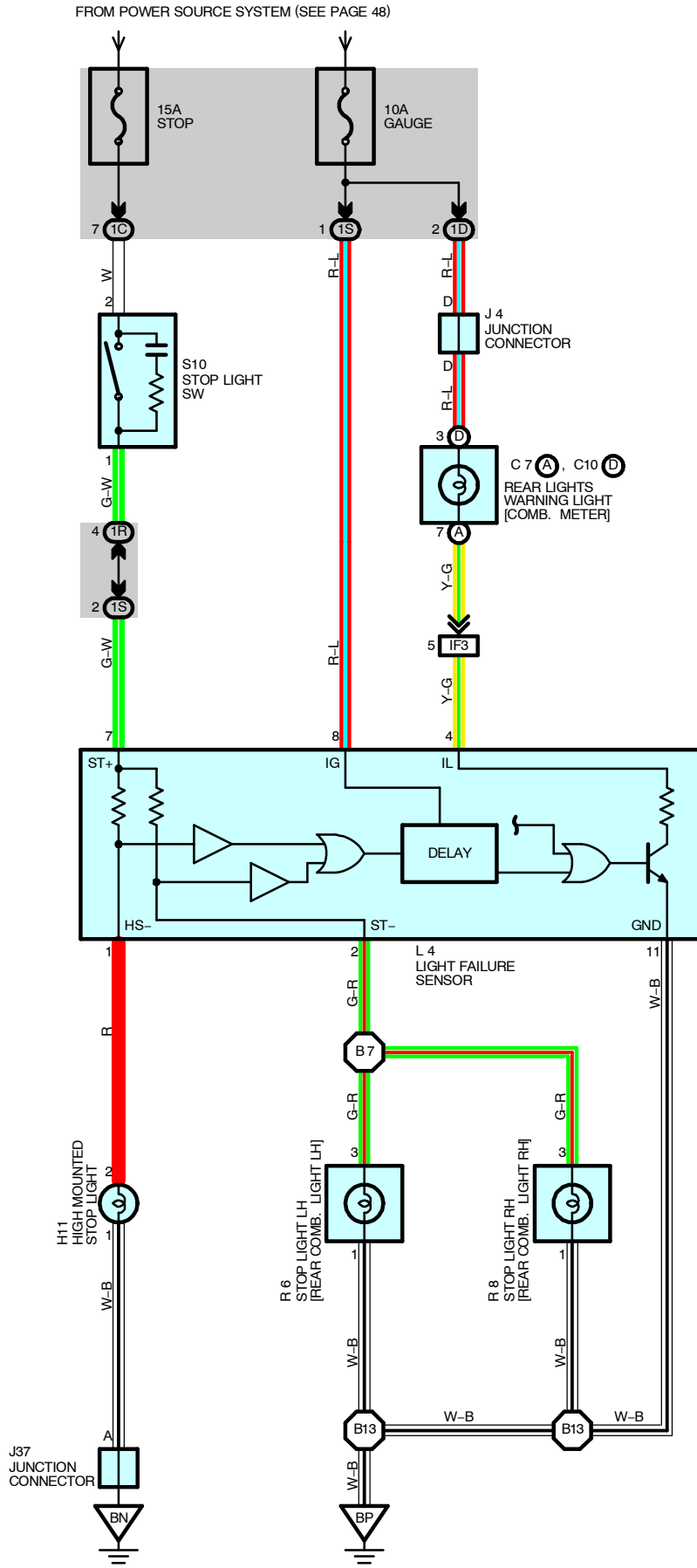
▽ : GROUND POINTS

Code	See Page	Ground Points Location
EA	36	Right Radiator Side Support
EC	36	Left Radiator Side Support
IG	38	Left Kick Panel
II	38	Instrument Panel Brace LH
BP	42	Back Panel Center

○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B13	42	Floor Wire			

STOP LIGHT



SYSTEM OUTLINE

Current is applied at all times through a STOP fuse to TERMINAL 2 of the stop light SW. When the ignition SW is turned on, current flows from the GAUGE fuse to TERMINAL 8 of the light failure sensor, and also flows through the rear lights warning light to TERMINAL 4 of the light failure sensor.

STOP LIGHT DISCONNECTION WARNING

When the ignition SW is turned on and the brake pedal is pressed (Stop light SW on), if the stop light circuit is open, the current flowing from TERMINAL 7 of the light failure sensor to TERMINALS 1, 2 changes, so the light failure sensor detects the disconnection and the warning circuit of the light failure sensor is activated. As a result, the current flows from TERMINAL 4 of the light failure sensor to TERMINAL 11 to GROUND and turns the rear lights warning light on. By pressing the brake pedal, the current flowing to TERMINAL 8 of the light failure sensor keeps the warning circuit on and the warning light on until the ignition SW is turned off.

SERVICE HINTS

S10 STOP LIGHT SW

2-1 : Closed with the brake pedal depressed

L4 LIGHT FAILURE SENSOR

1, 2, 7-GROUND : Approx. 12 volts with the stop light SW on
4, 8-GROUND : Approx. 12 volts with the ignition SW at ON position
11-GROUND : Always continuity

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page	
C7	A	30	J4	31	R6	33
C10	D	30	J37	32	R8	33
H11	32	L4	32	S10	31	

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1R	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1S	26	Floor Wire and Instrument Panel J/B (Lower Finish Panel)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF3	38	Floor Wire and Instrument Panel Wire (Left Kick Panel)

▽ : GROUND POINTS

Code	See Page	Ground Points Location
BN	42	Under the Left Center Pillar
BP	42	Back Panel Center

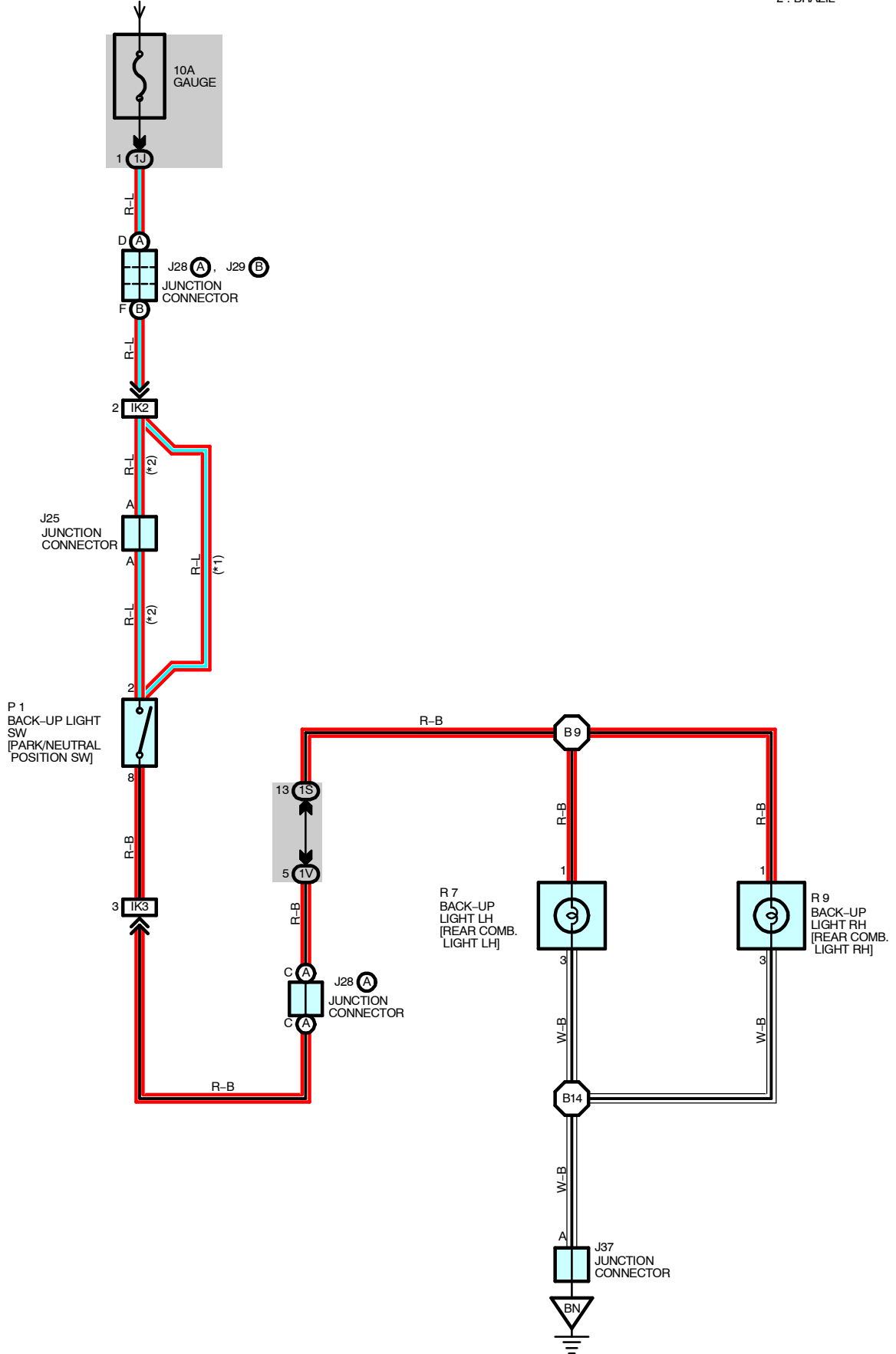
○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B7	42	Floor Wire	B13	42	Floor Wire

BACK-UP LIGHT

FROM POWER SOURCE SYSTEM (SEE PAGE 48)

* 1 : USA AND CANADA
* 2 : BRAZIL



SERVICE HINTS**P1 BACK-UP LIGHT SW [PARK/NEUTRAL POSITION SW]**2-8 : Closed with the shift lever in **R** position : **PARTS LOCATION**

Code		See Page	Code	See Page	Code	See Page
J25		31	J37	32	R9	33
J28	A	31	P1	29		
J29	B	31	R7	33		

 : **JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1S	26	Floor Wire and Instrument Panel J/B (Lower Finish Panel)
1V	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)

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

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IK2	38	Engine Wire and Cowl Wire (Under the Glove Box)
IK3		

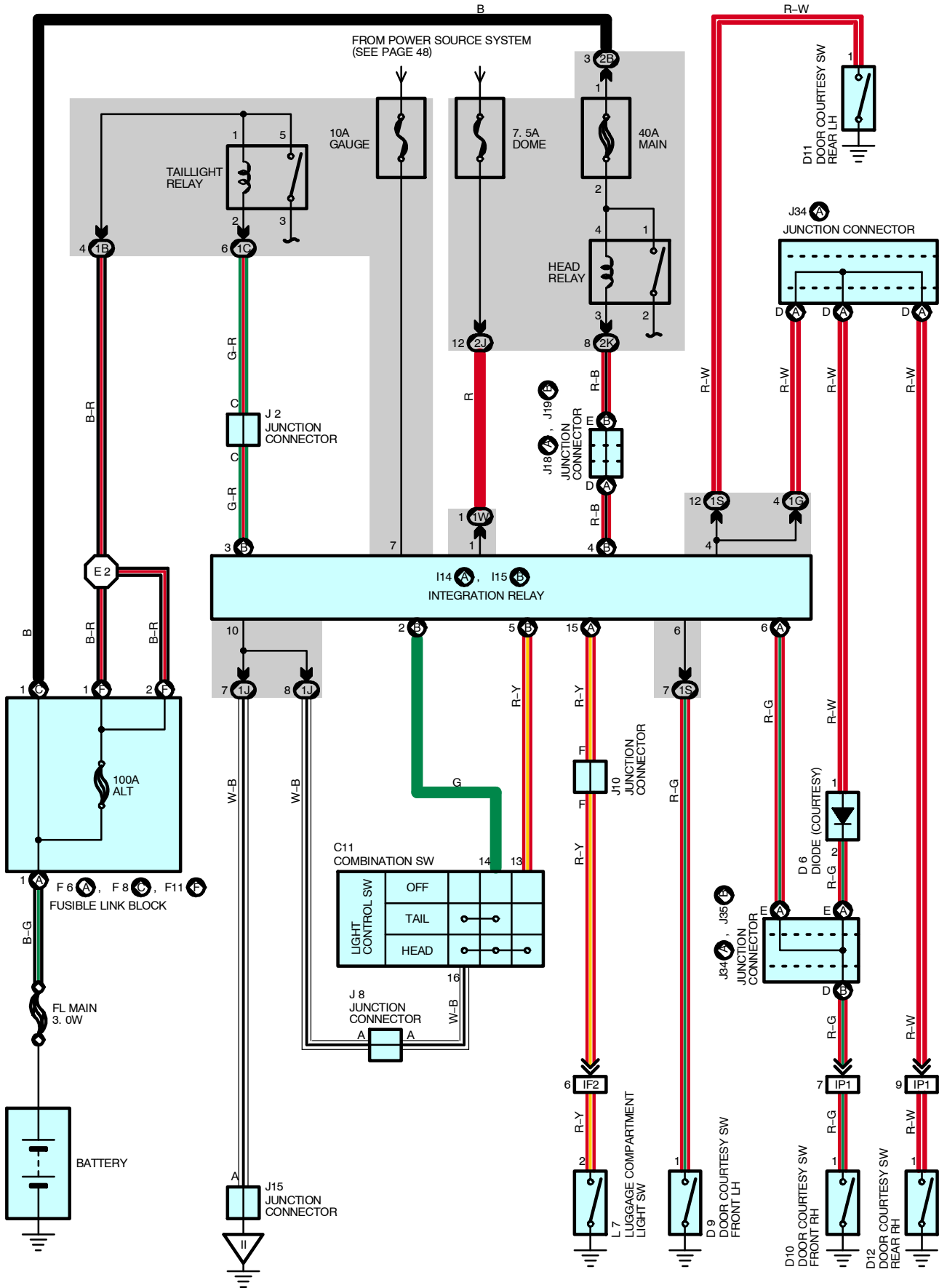
 : **GROUND POINTS**

Code	See Page	Ground Points Location
BN	42	Under the Left Center Pillar

 : **SPLICE POINTS**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B9	42	Floor Wire	B14	42	Floor Wire

LIGHT AUTO TURN OFF



SYSTEM OUTLINE

With the ignition SW turned on, the current flows to TERMINAL 7 of the integration relay through GAUGE fuse. Voltage is applied at all times to TERMINAL (B) 3 of the integration relay through the taillight relay (Coil side), and to TERMINAL (B) 4 through the HEAD relay (Coil side).

1. NORMAL LIGHTING OPERATION

(Turn taillight on)

With the light control SW turned to TAIL position, a signal is input into TERMINAL (B) 2 of the integration relay. According to this signal, the current flowing to TERMINAL (B) 3 of the relay flows from TERMINAL (B) 2 to TERMINAL 14 of the light control SW to TERMINAL 16 to GROUND and taillight relay causes taillight to turn on.

(Turn headlight on)

With the light control SW turned to HEAD position, the signals are input into TERMINALS (B) 2 and (B) 5 of the integration relay. According to these signals, the current flowing to TERMINAL (B) 4 of the relay flows to TERMINAL (B) 5 to TERMINAL 13 of the light control SW to TERMINAL 16 to GROUND in the headlight circuit, and causes taillight and HEAD relay to turn the light on. The taillight circuit is same as above.

2. LIGHT AUTO TURN OFF OPERATION

With the lights on and the ignition SW turned off (Input signal goes to TERMINAL 7 of the integration relay), When either of door is opened, the relay operates and the current is cut off which flows from TERMINAL (B) 3 of the relay to TERMINAL (B) 2 in taillight circuit and from TERMINAL (B) 4 to TERMINAL (B) 5 in headlight circuit. As a result, all lights are turned off automatically.

SERVICE HINTS

I15 (B) INTEGRATION RELAY

- (B) 4-GROUND : Always approx. **12** volts
- (B) 3-GROUND : Always approx. **12** volts
- (B) 5-GROUND : Continuity with the light control SW at **HEAD** position
- (B) 2-GROUND : Continuity with the light control SW at **TAIL** or **HEAD** position
- 6-GROUND : Continuity with the driver's door open
- 7-GROUND : Approx. **12** volts with the ignition SW at **ON** position
- 1-GROUND : Always approx. **12** volts
- 10-GROUND : Always continuity

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C11	30	F8	C 28	J15	31
D6	30	F11	F 28	J18	A 31
D9	32	I14	A 30	J19	B 31
D10	32	I15	B 30	J34	A 31
D11	32	J2	31	J35	B 31
D12	32	J8	31	L7	32
F6	A 28	J10	31		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1C		
1G	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1S	26	Floor Wire and Instrument Panel J/B (Lower Finish Panel)
1W	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
2B	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2J	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)
2K		

LIGHT AUTO TURN OFF

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF2	38	Floor Wire and Instrument Panel Wire (Left Kick Panel)
IP1	40	Floor No.2 Wire and Instrument Panel Wire (Right Kick Panel)

 : GROUND POINTS

Code	See Page	Ground Points Location
II	38	Instrument Panel Brace LH

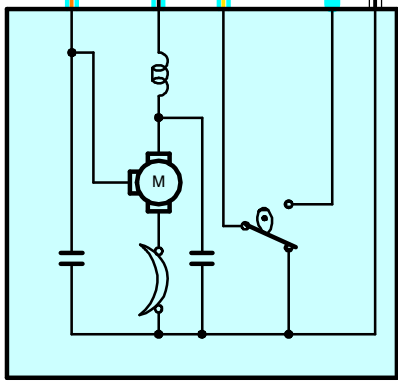
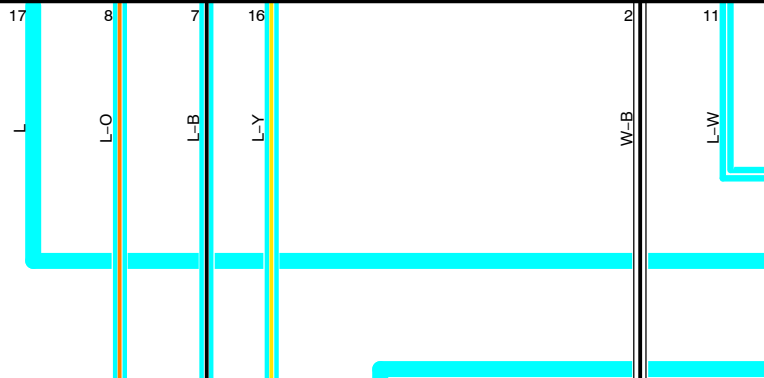
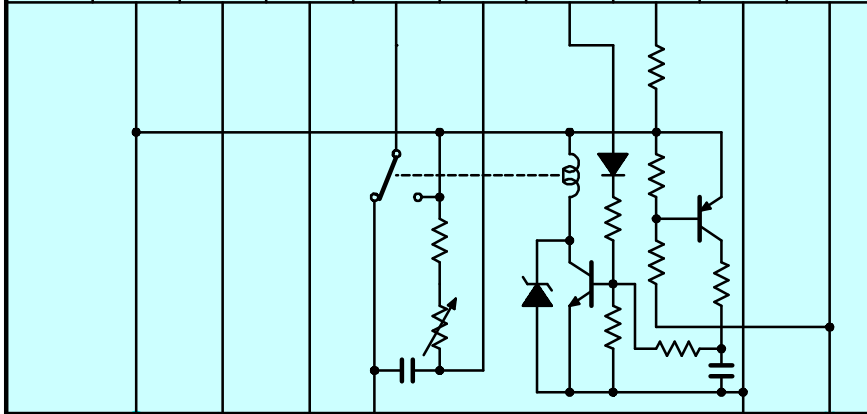
 : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	36	Cowl Wire			

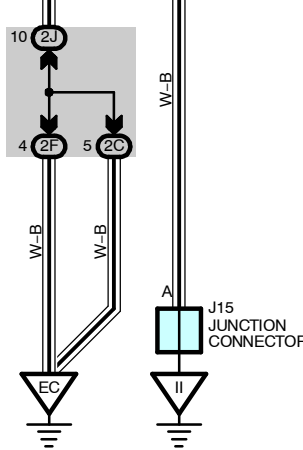
WIPER AND WASHER

C13
FRONT WIPER AND WASHER SW
[COMB. SW]

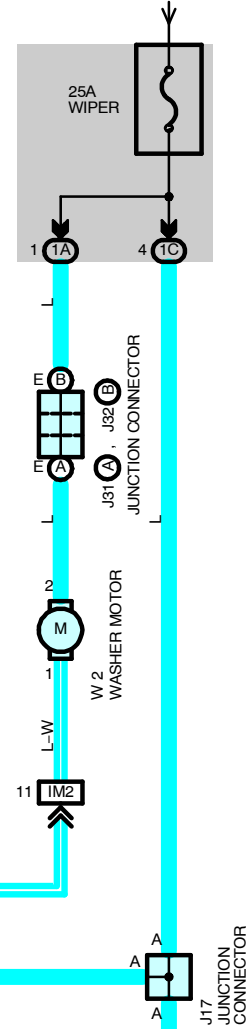
	+B	+2	+1	+S	INT1	INT2	B1	EW	WF
OFF			●	○	○	○	○		
INT			○	○	○	○			
LOW	○	○							
HIGH	○								
WASHER								○	○



F 5
FRONT WIPER MOTOR



FROM POWER SOURCE SYSTEM (SEE PAGE 48)



SYSTEM OUTLINE

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

1. LOW SPEED POSITION

With the wiper SW turned to LOW position, the current flows through TERMINAL 17 of the front wiper and washer SW to TERMINAL 7 to TERMINAL 1 of the front wiper motor to TERMINAL 5 to GROUND and causes the wiper motor to run at low speed.

2. HIGH SPEED POSITION

With the wiper SW turned to HIGH position, the current flows through TERMINAL 17 of the front wiper and washer SW to TERMINAL 8 to TERMINAL 4 of the front wiper motor to TERMINAL 5 to GROUND and causes the wiper motor to run at high speed.

3. INT POSITION

With the wiper SW turned to INT position, the wiper relay operates and the current which is connected by relay function flows through TERMINAL 17 of the front wiper and washer SW to TERMINAL 2 to GROUND. This flow of current operates the intermittent circuit and the current flows through TERMINAL 17 of the front wiper and washer SW to TERMINAL 7 to TERMINAL 1 of the front wiper motor to TERMINAL 5 to GROUND and the wiper functions.

The intermittent operation is controlled by a condenser's charged and discharged function installed in the relay and the intermittent time is controlled by a time control SW to charge the charging time of condenser.

4. WASHER CONTINUOUS OPERATION

With the washer SW turned to on, the current flows through TERMINAL 2 of the washer motor to TERMINAL 1 to TERMINAL 11 of the front wiper and washer SW to TERMINAL 2 to GROUND and causes the washer motor to run and the window washer to jet. This causes the current to flow to washer continuous operation circuit in TERMINAL 17 of the front wiper and washer SW to TERMINAL 7 to TERMINAL 1 of the front wiper motor to TERMINAL 5 to GROUND and the wiper functions.

SERVICE HINTS

C13 FRONT WIPER AND WASHER SW [COMB. SW]

2-GROUND : Always continuity

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

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

Approx. 12 volts 2 to 12 seconds intermittently with the front wiper and washer SW at **INT** position

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

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

F5 FRONT WIPER MOTOR

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

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C13	30	J17	31	W2	29
F5	28	J31	A 31		
J15	31	J32	B 31		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1C		
2C	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2F		
2J	22	Cowl 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)
IM2	40	Engine Room Main Wire and Cowl Wire (Right Kick Panel)

WIPER AND WASHER

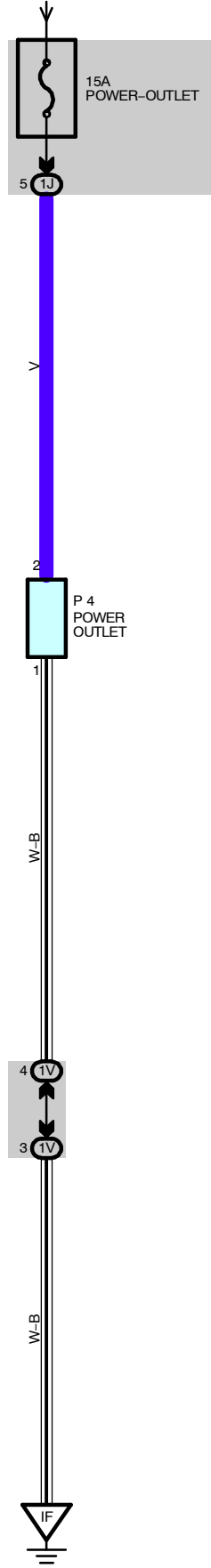


: GROUND POINTS

Code	See Page	Ground Points Location
EC	36	Left Radiator Side Support
II	38	Instrument Panel Brace LH

POWER OUTLET

FROM POWER SOURCE SYSTEM (SEE PAGE 48)



SERVICE HINTS**P4 POWER OUTLET**2-GROUND : Approx. **12** volts with the ignition SW at **ACC** or **ON** position

1-GROUND : Always continuity

 : **PARTS LOCATION**

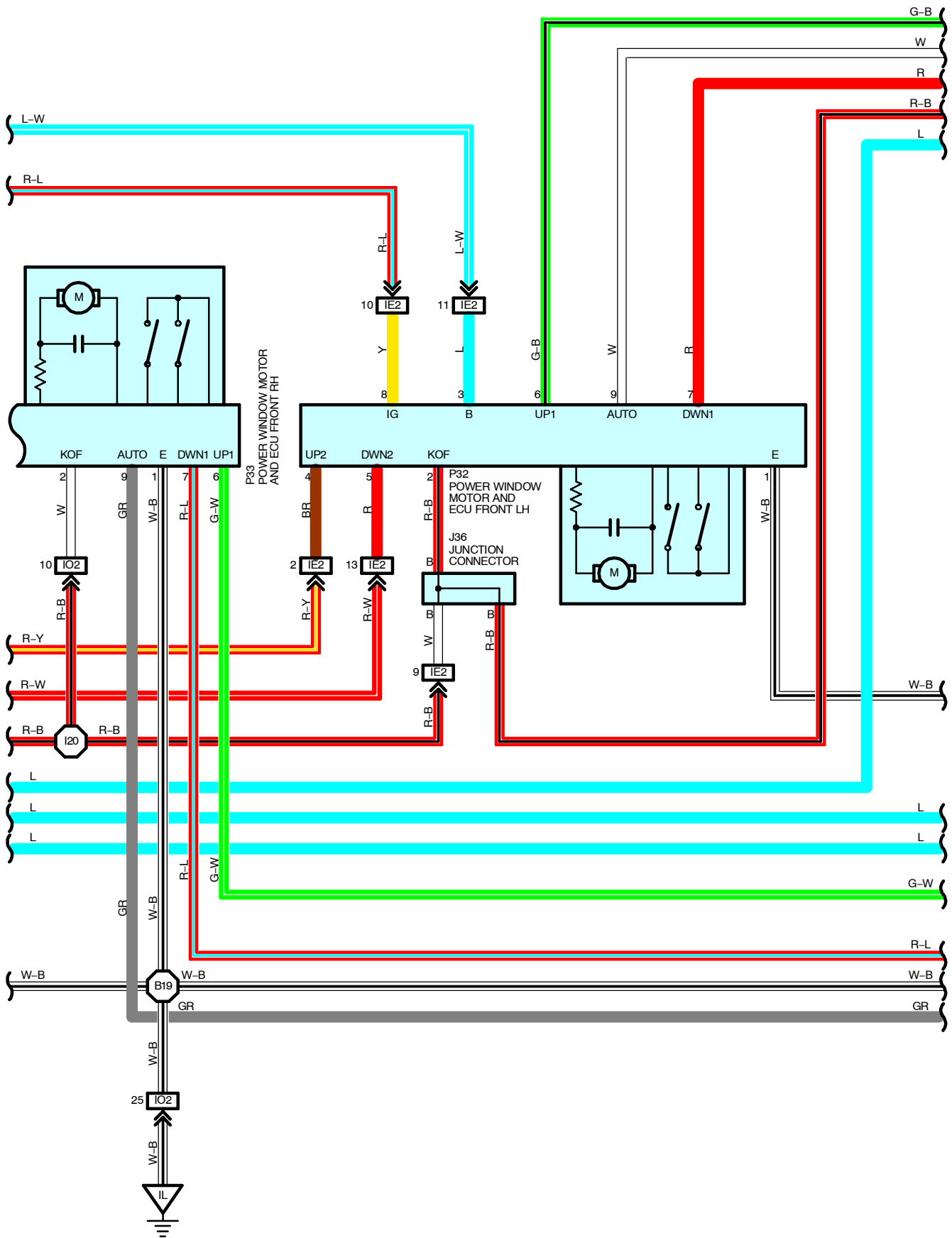
Code	See Page	Code	See Page	Code	See Page
P4	31				

 : **JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

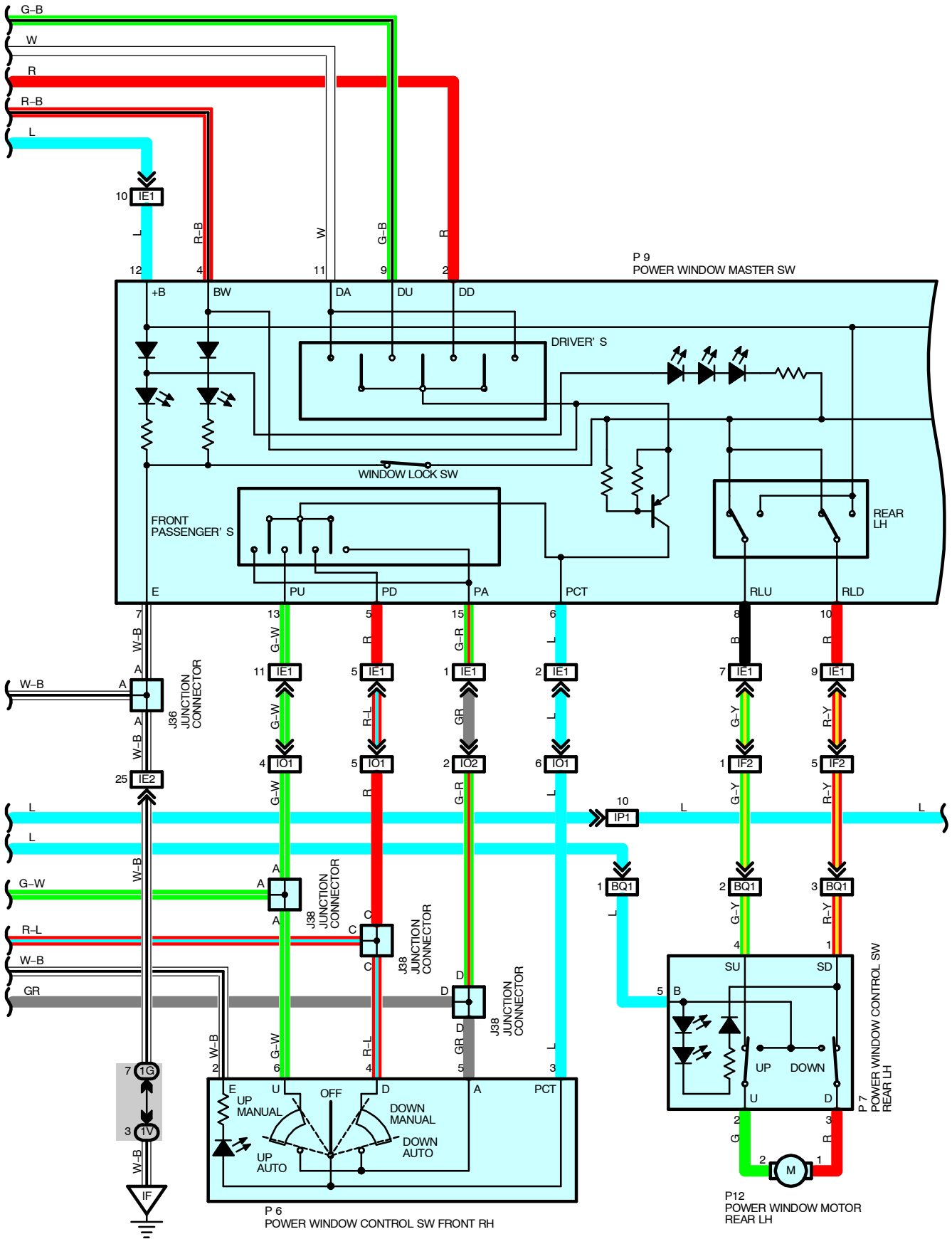
Code	See Page	Junction Block and Wire Harness (Connector Location)
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1V		

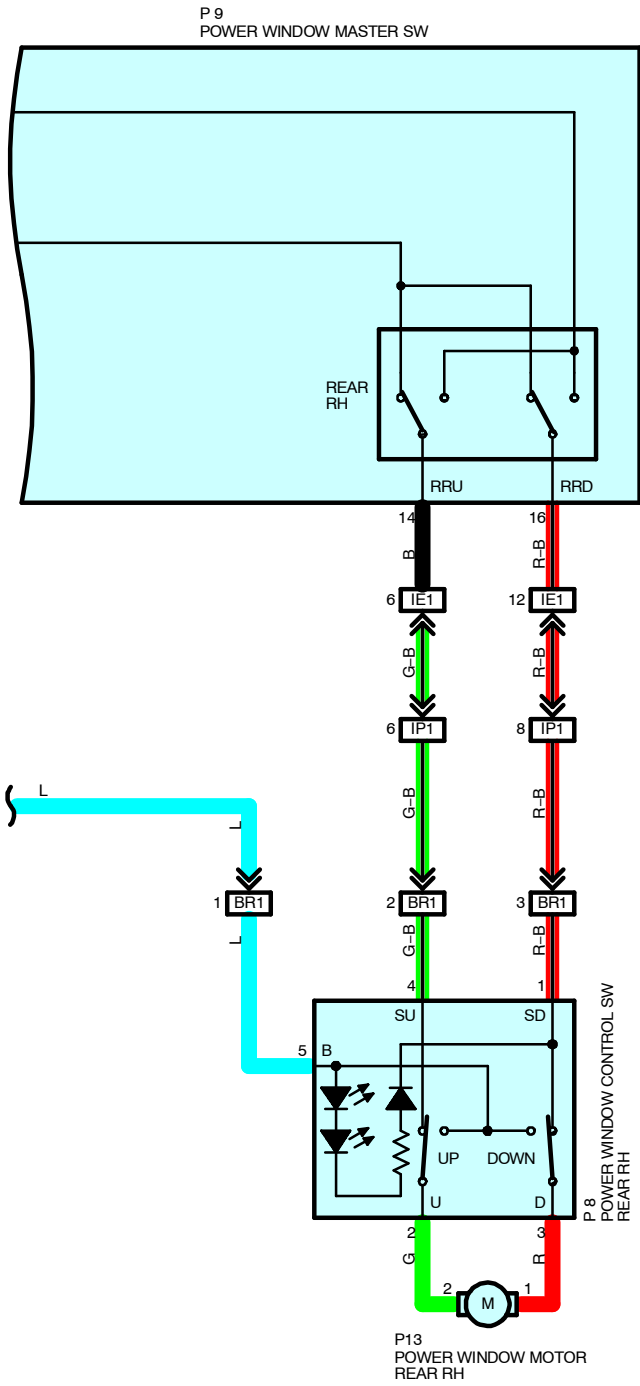
 : **GROUND POINTS**

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



POWER WINDOW





POWER WINDOW

SYSTEM OUTLINE

1. MANUAL DOWN OR UP OPERATION (DRIVER'S, FRONT PASSENGER'S WINDOW)

The signal is input to TERMINAL DWN1 of the power window motor and ECU front LH or RH while the power window master SW or the power window control SW front RH is kept pressed one step. This activates the power window motor and ECU front LH or RH to flow the current from into the power window motor to the power window motor and ECU front LH or RH to GROUND, to rotate the motor and open the window.

The signal is input to TERMINAL UP1 of the power window motor and ECU front LH or RH while the power window master SW or the power window control SW front RH is kept pulled one step. This activates the power window motor and ECU front LH or RH to flow the current from into the power window motor to the power window motor and ECU front LH or RH to GROUND, to reversely rotate the motor and close the window. When the window lock SW is pushed to the lock side, the ground circuit to the front passenger's window becomes open. As a result, even if Open/Close operation of the front passenger's window is tried, power window master SW is not grounded and the motor does not rotate, so the front passenger's window can not be operated and window lock occurs.

2. AUTO DOWN OR UP OPERATION (DRIVER'S, FRONT PASSENGER'S WINDOW)

The signals are input to TERMINALS DWN1 and AUTO of the power window motor and ECU front LH or RH when the power window master SW or the power window control SW front RH is pressed two steps. According to these signals, it is determined that the power window motor and ECU front LH or RH is in the auto mode. The current flows from into the power window motor to the power window motor and ECU front LH or RH to GROUND, to rotate the motor and automatically open the window.

The signals are input to TERMINALS UP1 and AUTO of the power window motor and ECU front LH or RH when the power window master SW or the power window control SW front RH is pulled two steps. According to these signals, it is determined that the power window motor and ECU front LH or RH is in the auto mode. The current flows from into the power window motor to the power window motor and ECU front LH or RH to GROUND, to rotate the motor and automatically close the window. When the window lock SW is pushed to the lock side, the ground circuit to the front passenger's window becomes open. As a result, even if Open/Close operation of the front passenger's window is tried, power window master SW is not grounded and the motor does not rotate, so the front passenger's window can not be operated and window lock occurs.

3. POWER WINDOW OPERATION LINKED WITH DOOR KEY LOCK AND UNLOCK SW

When the ignition key is inserted into the door key cylinder on the driver or passenger side and kept turned to the lock or unlock position for approximately 1.5 sec. or longer, driver's and front passenger's door windows can be opened or closed.

Power window close operation

When the ignition key is inserted into the door key cylinder and kept turned to the lock position for 1.5 sec. or longer, the signal from the door key lock and unlock SW is input to TERMINAL (A) 18 of the integration relay to TERMINAL (A) 21 to TERMINAL UP2 of the power window ECU front LH and RH. The current flows from into the power window motor to the power window motor and ECU front LH and RH to GROUND, to close driver's and front passenger's door windows.

Power window open operation

When the ignition key is inserted into the door key cylinder and kept turned to the unlock position for 1.5 sec. or longer, the signal from the door key lock and unlock SW is input to TERMINAL (A) 19 or (A) 20 of the integration relay to TERMINAL (A) 23 to TERMINAL DWN2 of the power window motor and ECU front LH and RH. The current flows from power window motor and ECU front LH and RH into the power window motor to the power window motor and ECU front LH and RH to GROUND, to open driver's and front passenger's door windows.

If any of the following conditions is detected, the power window operation is stopped.

4. MANUAL OPERATION (REAR LH, RH WINDOW)

With the power window control SW rear LH or RH pulled to the up side, current flowing from TERMINAL 5 of the power window control SW flows to TERMINAL 2 of the power window control SW to TERMINAL 2 of the power window motor to TERMINAL 1 to TERMINAL 3 of the power window control SW to TERMINAL 1 to TERMINAL RLD or RRD of the master SW to TERMINAL 7 to GROUND and causes the power window motor rear LH or RH to rotate in the up direction. Up operation continues only while the power window control SW is pulled to the up side. When the window descends, the current flowing to the motor flows in the opposite direction, from TERMINAL 2 to TERMINAL 1, and the motor rotates in reverse. When the window lock SW is pushed to the lock side, the ground circuit to the rear window becomes open. As a result, even if Open/Close operation of the rear window is tried, the current from TERMINAL 7 of the power window master SW is not grounded and the motor does not rotate, so the rear window can not be operated and window lock occurs.

5. CATCHING PREVENTION FUNCTION

If any foreign matter is caught in the window while it is rising, the pulse sensor installed in the power window motor detects changes in the number of motor rotations, forcibly lowers the door window 50 mm or if the door window opening amount is 200 mm or less, the window is lowered so that the opening amount is 200 mm.

6. KEY OFF POWER WINDOW OPERATION

With the ignition SW turned from on to off, integration relay operates and current flows from DOOR fuse to TERMINAL (A) 1 of the relay to TERMINAL (A) 3 to TERMINAL 1 of power relay to TERMINAL 2 to GROUND, and TERMINAL (A) 3 of the relay to TERMINAL KOF of the power window motor and ECU front LH and RH for about 43 seconds. The same as normal operation, the current flows from POWER fuse to TERMINAL 5 of the power relay to TERMINAL 3 to TERMINAL 12 of the power window master SW and TERMINAL 3 of the power relay to TERMINAL 5 of the power window control SW rear LH, RH. As a result, for about 43 seconds after the ignition SW is turned off, the functioning of this relay makes it possible to raise and lower the power window. Also, by opening the front door (Door open detection SW on) within about 43 seconds after turning the ignition SW to off, a signal is input to TERMINALS (A) 6 or 6 of the integration relay. As a result, the relay turns off and up and down movement of the power window stops.

SERVICE HINTS

P9 POWER WINDOW MASTER SW

4, 12-GROUND :

Approx. 12 volts with the ignition SW at **ON** position

: Approx. 12 volts with the key off operation

7-GROUND : Always continuity

P32, P33 POWER WINDOW MOTOR AND ECU FRONT LH, RH

3-GROUND : Always approx. 12 volts

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

1-GROUND : Always continuity

WINDOW LOCK SW

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

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
D9	32	J15	31	P7	33
D10	32	J33	31	P8	33
D13	32	J34	A 31	P9	33
D14	32	J35	B 31	P12	33
I14	A 30	J36	32	P13	33
J4	31	J38	32	P32	33
J7	31	P6	33	P33	33

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1G		
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1S	26	Floor Wire and Instrument Panel J/B (Lower Finish Panel)
1V	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)

POWER WINDOW

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE1	38	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IE2		
IF2	38	Floor Wire and Instrument Panel Wire (Left Kick Panel)
IO1	40	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IO2		
IP1	40	Floor No.2 Wire and Instrument Panel Wire (Right Kick Panel)
BQ1	42	Rear Door LH Wire and Floor Wire (Left Center Pillar)
BR1	42	Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)

: GROUND POINTS

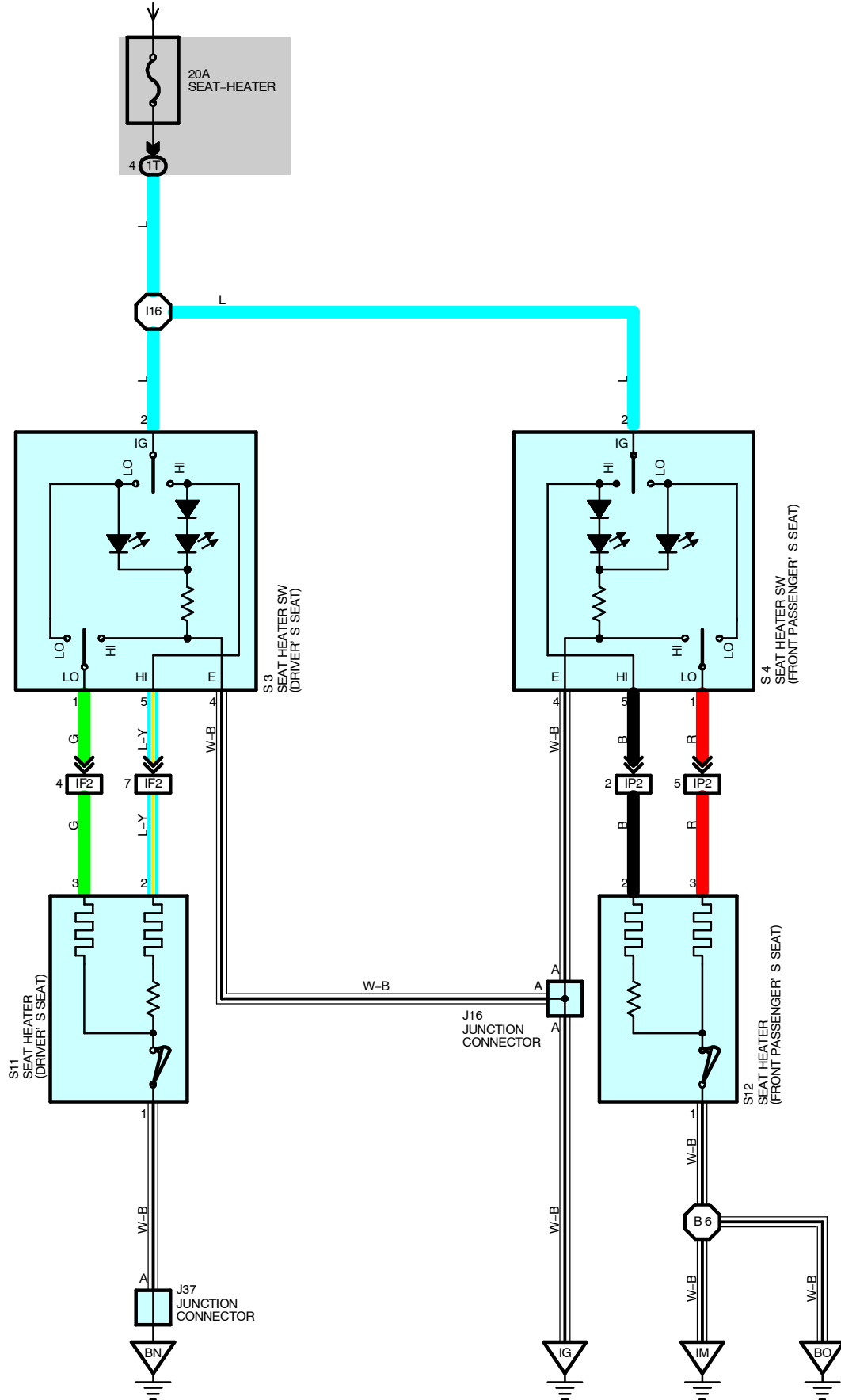
Code	See Page	Ground Points Location
IF	38	Cowl Side Panel LH
II	38	Instrument Panel Brace LH
IL	38	Right Kick Panel

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I2	40	Instrument Panel Wire	I20	40	Instrument Panel Wire
I17			B19	42	Front Door RH Wire

SEAT HEATER

FROM POWER SOURCE SYSTEM (SEE PAGE 48)



SERVICE HINTS**S3, S4 SEAT HEATER SW**4-GROUND : Approx. 12 volts with the ignition SW at **ON** position

2-GROUND : Always continuity

 : **PARTS LOCATION**

Code	See Page	Code	See Page	Code	See Page
J16	31	S3	31	S11	34
J37	32	S4	31	S12	34

 : **JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1T	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)

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

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF2	38	Floor Wire and Instrument Panel Wire (Left Kick Panel)
IP2	40	Floor No.2 Wire and Instrument Panel Wire (Right Kick Panel)

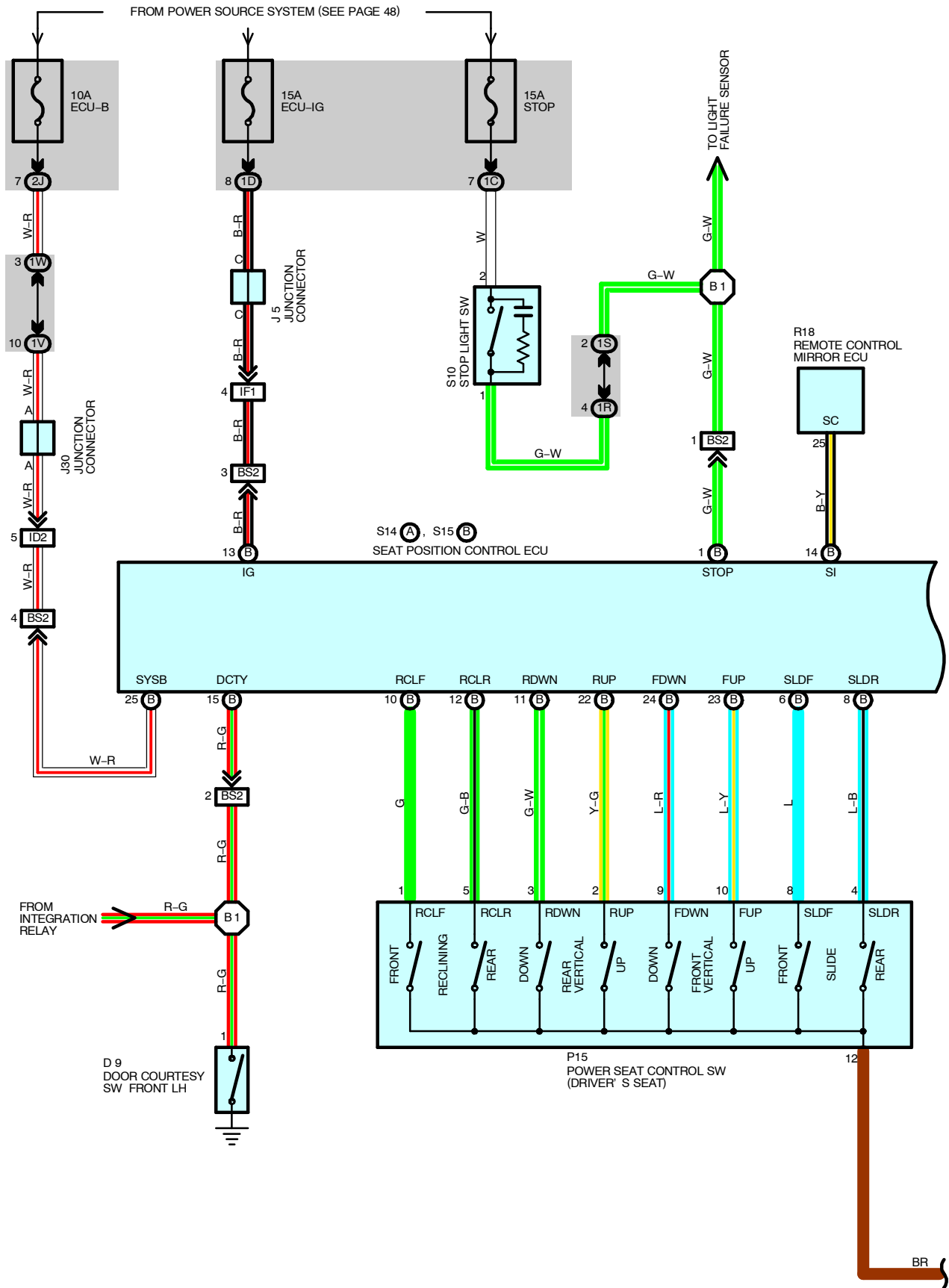
 : **GROUND POINTS**

Code	See Page	Ground Points Location
IG	38	Left Kick Panel
IM	38	Right Kick Panel
BN	42	Under the Left Center Pillar
BO	42	Under the Right Center Pillar

 : **SPLICE POINTS**

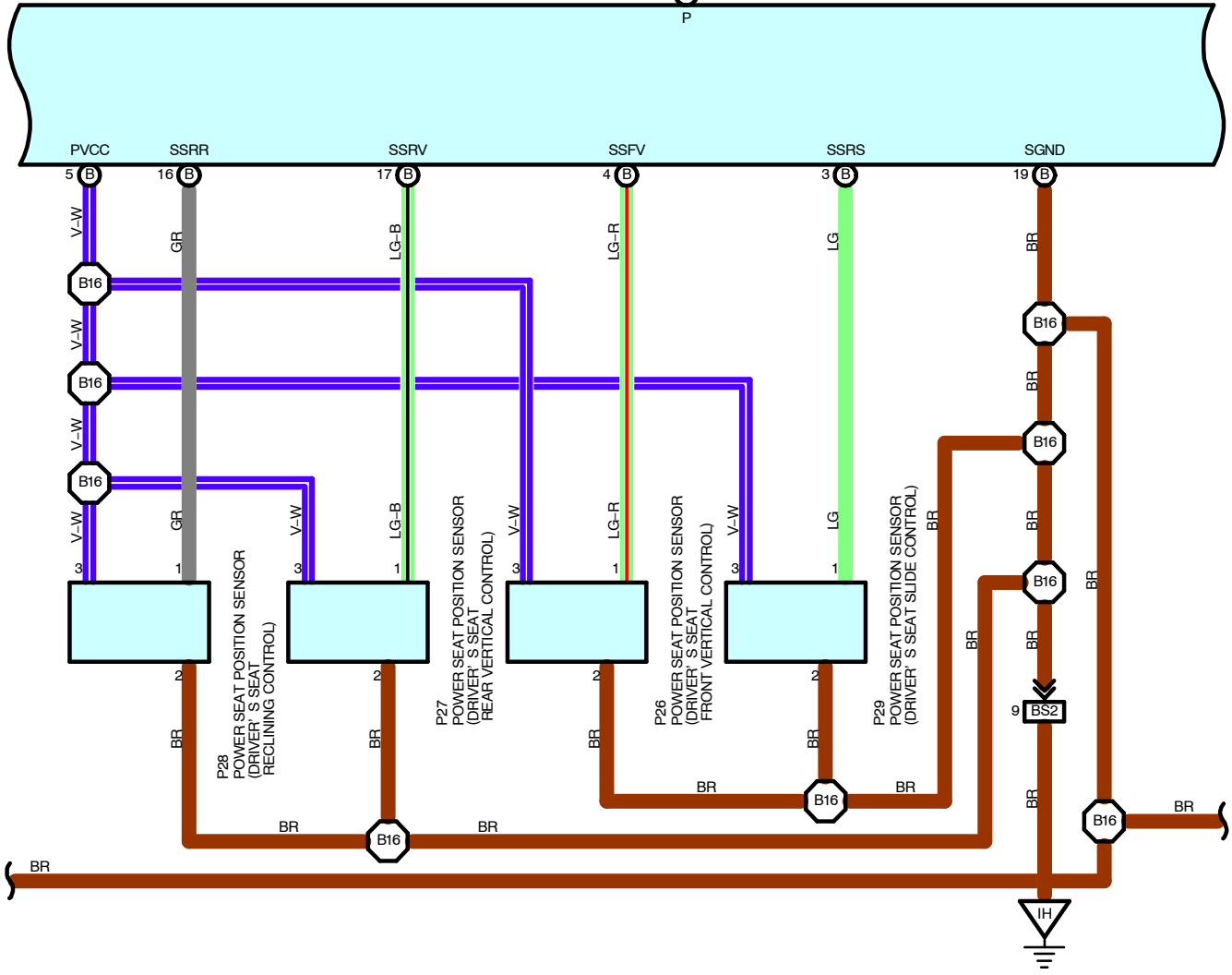
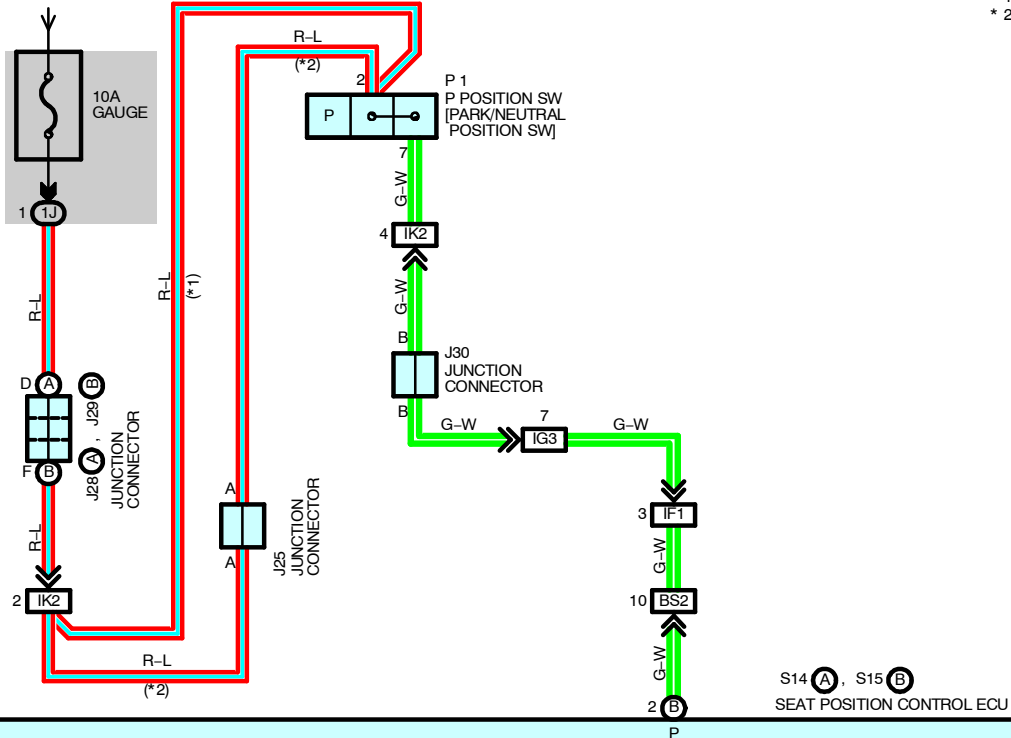
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I16	40	Instrument Panel Wire	B6	42	Floor No.2 Wire

POWER SEAT (DRIVER'S SEAT w/ DRIVING POSITION MEMORY)



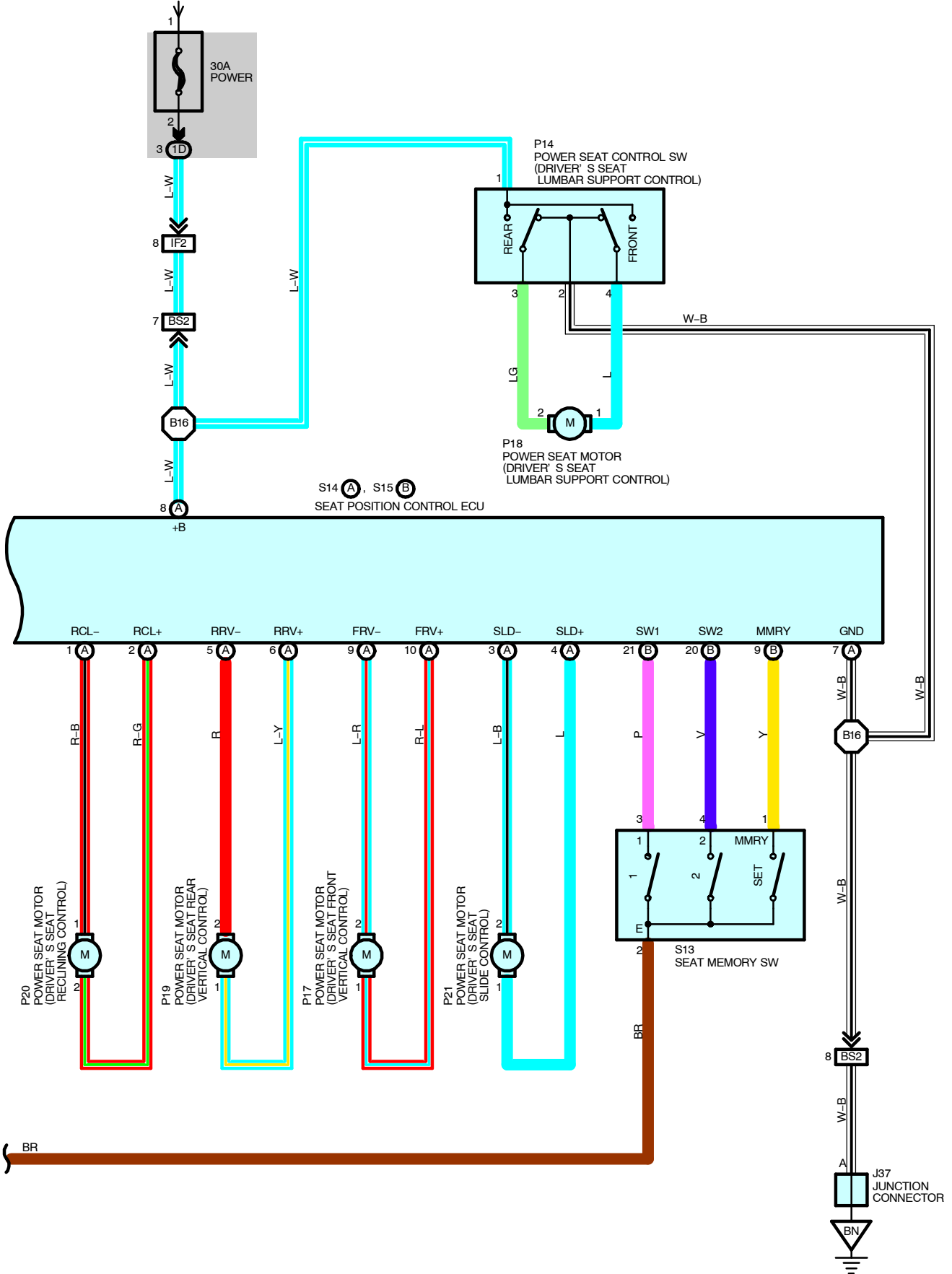
FROM POWER SOURCE SYSTEM (SEE PAGE 48)

* 1 : USA AND CANADA
 * 2 : BRAZIL



POWER SEAT (DRIVER'S SEAT w/ DRIVING POSITION MEMORY)

FROM POWER SOURCE SYSTEM (SEE PAGE 48)



SYSTEM OUTLINE

Current is always applied from ECU-B fuse to TERMINAL SYSB of the seat position control ECU, from POWER fuse to TERMINAL +B of the seat position control ECU, and from STOP fuse to TERMINAL 2 of the stop light SW.

With the ignition SW turned on, current flows from ECU-IG fuse to TERMINAL IG of the seat position control ECU and from the GAUGE fuse to TERMINAL 2 of the P position SW.

POWER SEAT OPERATION (DRIVER'S SEAT)

Current is always applied to TERMINAL SYSB and TERMINAL +B of the seat position control ECU so that seat position control ECU is always ready to operate.

When the power seat control SW is pushed to the "FRONT SLIDE position" side, a signal is input into TERMINAL SLDF of the seat position control ECU, the ECU operates and the current to TERMINAL +B of the seat position control ECU flows from TERMINAL SLD+ of the seat position control ECU to TERMINAL 1 of the power seat motor (Driver's seat slide control) to TERMINAL 2 to TERMINAL SLD- of the seat position control ECU to TERMINAL GND to GROUND, rotating the power seat motor so that the seat slides forward while the power seat control SW is being pressed.

To slide the driver's seat to the rear, pushing the power seat control SW to the "REAR SIDE position" side, inputs a signal to TERMINAL SLDR of the seat position control ECU. This causes the current flowing from the ECU to the motor to flow from TERMINAL SLD- of the seat position control ECU to TERMINAL 2 of the power seat motor (Driver's seat slide control) to TERMINAL 1 to TERMINAL SLD+ of the seat position control ECU, flowing the reverse to front slide operation and causing the motor to rotate in reverse, so that the driver's seat moves to the rear.

The movement to other positions occurs similarly, so only the flow of current to each motor is shown:

FRONT VERTICAL CONTROL UP OPERATION

TERMINAL +B of the seat position control ECU to TERMINAL FRV+ to TERMINAL 1 of the power seat motor (Driver's seat front vertical control) to TERMINAL 2 to TERMINAL FRV- of the ECU to TERMINAL GND to GROUND.

FRONT VERTICAL CONTROL DOWN OPERATION

TERMINAL +B of the seat position control ECU to TERMINAL FRV- to TERMINAL 2 of the power seat motor (Driver's seat front vertical control) to TERMINAL 1 to TERMINAL FRV+ of the ECU to TERMINAL GND to GROUND.

REAR VERTICAL CONTROL UP OPERATION

TERMINAL +B of the seat position control ECU to TERMINAL RRV+ to TERMINAL 1 of the power seat motor (Driver's seat rear vertical control) to TERMINAL 2 to TERMINAL RRV- of the ECU to TERMINAL GND to GROUND.

REAR VERTICAL CONTROL DOWN OPERATION

TERMINAL +B of the seat position control ECU to TERMINAL RRV- to TERMINAL 2 of the power seat motor (Driver's seat rear vertical control) to TERMINAL 1 to TERMINAL RRV+ of the ECU to TERMINAL GND to GROUND.

RECLINING CONTROL FRONT OPERATION

TERMINAL +B of the seat position control ECU to TERMINAL RCL+ to TERMINAL 2 of the power seat motor (Driver's seat reclining control) to TERMINAL 1 to TERMINAL RCL- of the ECU to TERMINAL GND to GROUND.

RECLINING CONTROL REAR OPERATION

TERMINAL +B of the seat position control ECU to TERMINAL RCL- to TERMINAL 1 of the power seat motor (Driver's seat reclining control) to TERMINAL 2 to TERMINAL RCL+ of the ECU to TERMINAL GND to GROUND.

The number of turns of each motor (Amount of movement of each part of the seat) is detected by the position sensors and input to the ECU, making it possible to perform memory and return functions for the seat position using the seat memory switch.

POWER SEAT (DRIVER'S SEAT w/ DRIVING POSITION MEMORY)

SERVICE HINTS

P1 P POSITION SW [PARK/NEUTRAL POSITION SW]

2-7 : Closed with the shift lever at **P** position

S14 (A), S15 (B) SEAT POSITION CONTROL ECU

- (B) 1-GROUND : Approx. **12** volts with the stop light SW on
- (A) 8-GROUND : Always approx. **12** volts
- (B) 2-GROUND : Approx. **12** volts with the ignition SW at **ON** position and the shift lever at **P** position
- (A) 4-GROUND : Approx. **12** volts with the driver's seat at front slide operation
- (A) 3-GROUND : Approx. **12** volts with the driver's seat at rear slide operation
- (A) 10-GROUND : Approx. **12** volts with the driver's seat at front vertical up operation
- (A) 9-GROUND : Approx. **12** volts with the driver's seat at front vertical down operation
- (A) 6-GROUND : Approx. **12** volts with the driver's seat at rear vertical up operation
- (A) 5-GROUND : Approx. **12** volts with the driver's seat at rear vertical down operation
- (A) 2-GROUND : Approx. **12** volts with the driver's seat at front reclining operation
- (A) 1-GROUND : Approx. **12** volts with the driver's seat at rear reclining operation
- (B) 19-GROUND : Always continuity
- (B) 25-GROUND : Always approx. **12** volts
- (A) 7-GROUND : Always continuity

P15 POWER SEAT CONTROL SW (DRIVER'S SEAT)

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

S10 STOP LIGHT SW

2-1 : Closed with the brake pedal depressed

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
D9	32	P14	34	P27	34
J5	31	P15	34	P28	34
J25	31	P17	34	P29	34
J28	A 31	P18	34	R18	31
J29	B 31	P19	34	S10	31
J30	31	P20	34	S13	34
J37	32	P21	34	S14	A 34
P1	29	P26	34	S15	B 34

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1R		
1S	26	Floor Wire and Instrument Panel J/B (Lower Finish Panel)
1V	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1W		
2J	22	Cowl 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)
ID2	38	Floor Wire and Cowl Wire (Left Kick Panel)
IF1	38	Floor Wire and Instrument Panel Wire (Left Kick Panel)
IF2		
IG3	38	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK2	38	Engine Wire and Cowl Wire (Under the Glove Box)
BS2	44	Floor Wire and Seat No.1 Wire (Under the Driver's Seat)

 : GROUND POINTS

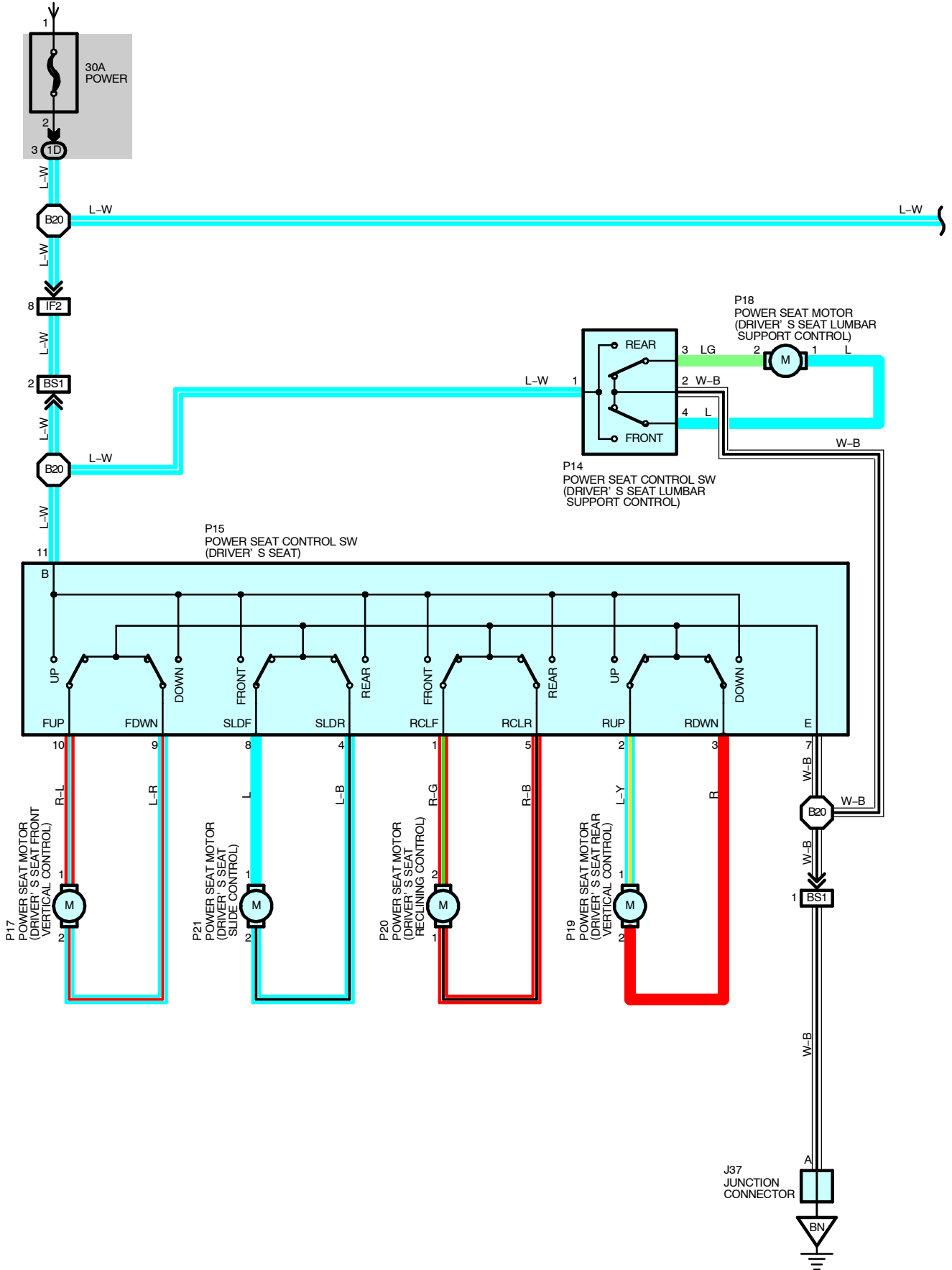
Code	See Page	Ground Points Location
IH	38	Left Kick Panel
BN	42	Under the Left Center Pillar

 : SPLICE POINTS

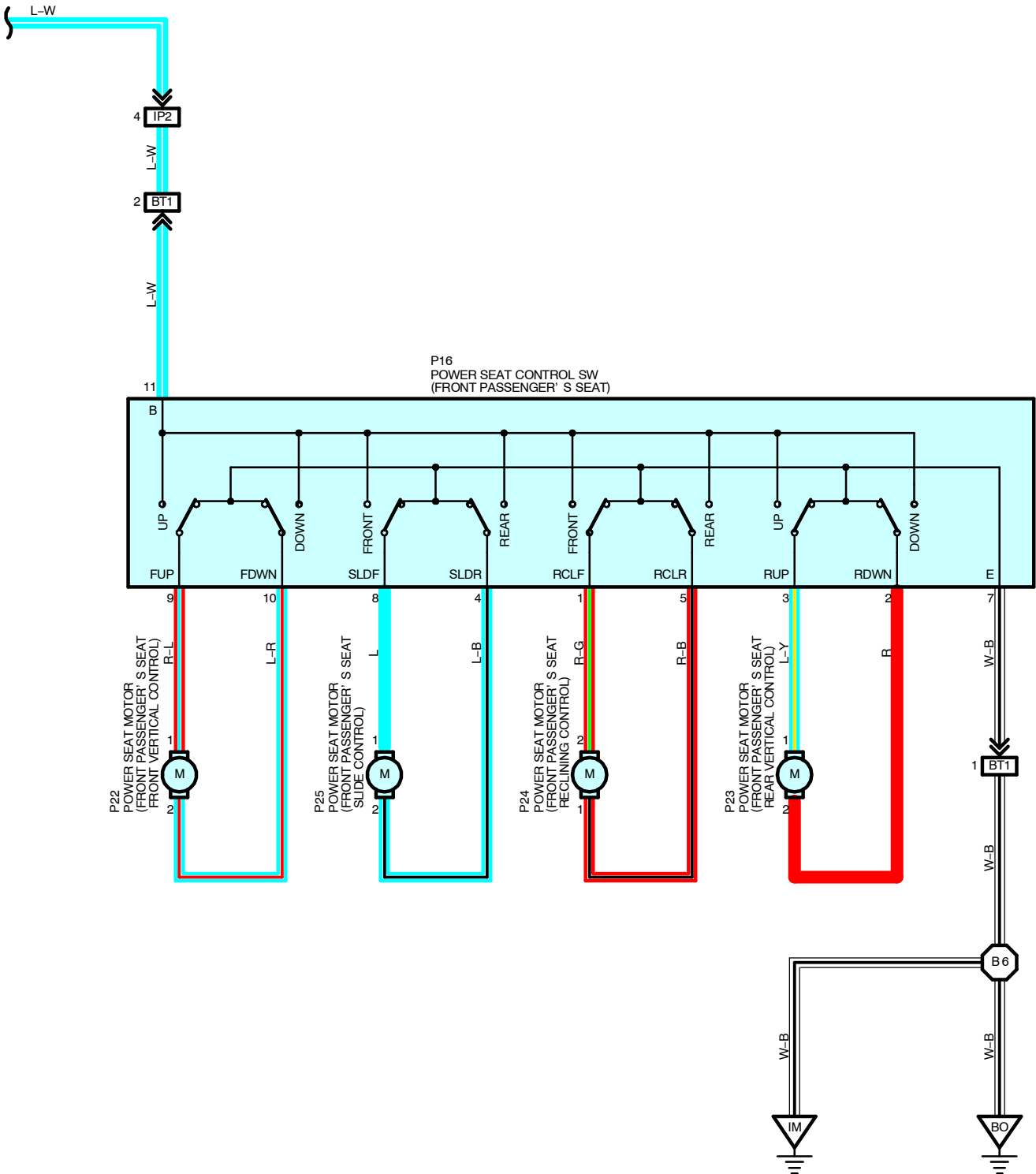
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B1	42	Floor Wire	B16	44	Seat No.1 Wire

POWER SEAT (DRIVER'S SEAT w/o DRIVING POSITION MEMORY),

FROM POWER SOURCE SYSTEM (SEE PAGE 48)



(FRONT PASSENGER'S SEAT)



POWER SEAT (DRIVER'S SEAT w/o DRIVING POSITION MEMORY), (FRONT PASSENGER'S SEAT)

SERVICE HINTS

P15 POWER SEAT CONTROL SW (DRIVER'S SEAT)

11-GROUND : Always approx. 12 volts

7-GROUND : Always continuity

P16 POWER SEAT CONTROL SW (FRONT PASSENGER'S SEAT)

11-GROUND : Always approx. 12 volts

7-GROUND : Always continuity

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
J37	32	P18	34	P23	34
P14	34	P19	34	P24	34
P15	34	P20	34	P25	34
P16	34	P21	34		
P17	34	P22	34		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF2	38	Floor Wire and Instrument Panel Wire (Left Kick Panel)
IP2	40	Floor No.2 Wire and Instrument Panel Wire (Right Kick Panel)
BS1	44	Floor Wire and Seat No.1 Wire (Under the Driver's Seat)
BT1	44	Floor No.2 Wire and Seat No.2 Wire (Under the Front Passenger's Seat)

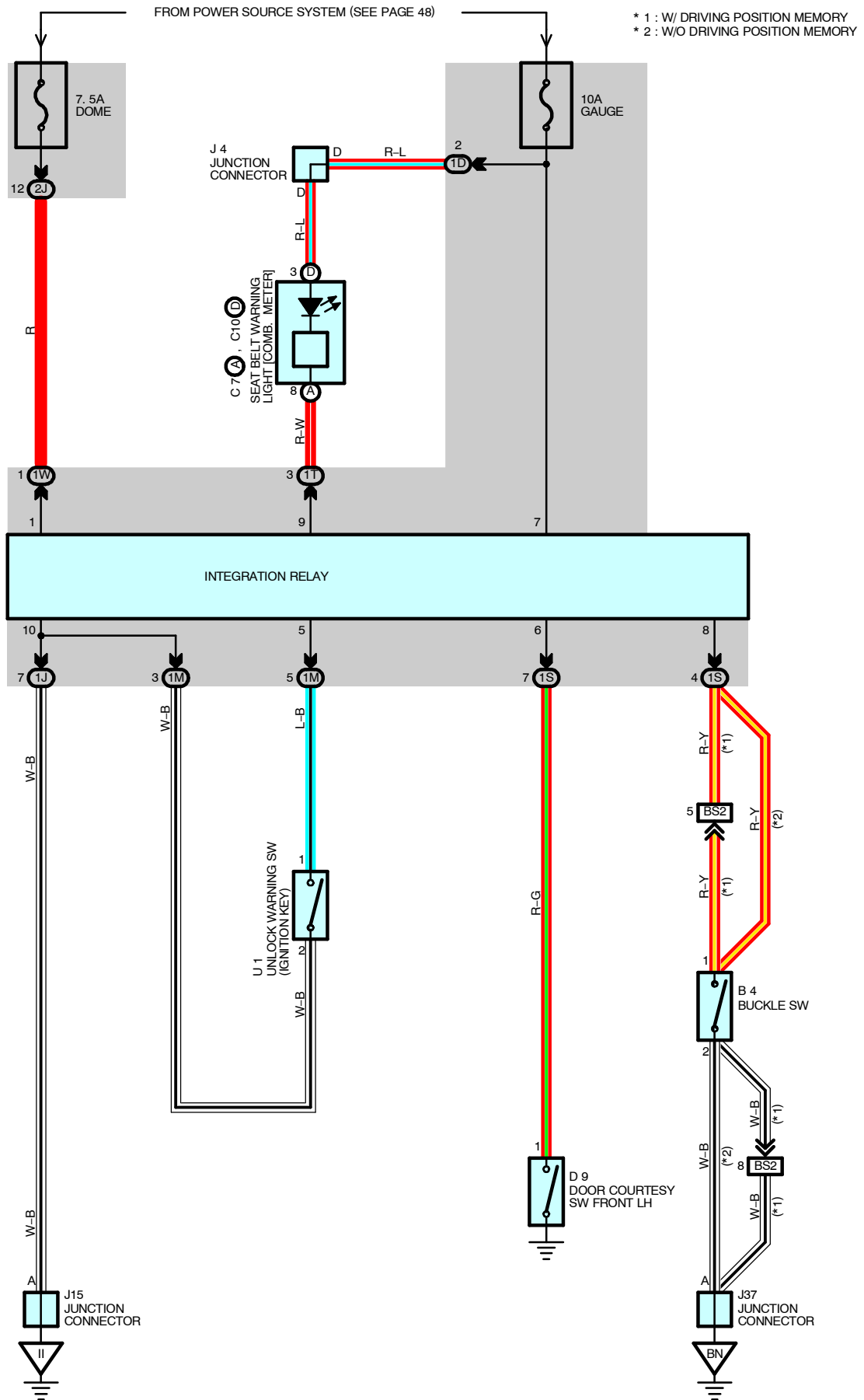
▽ : GROUND POINTS

Code	See Page	Ground Points Location
IM	38	Right Kick Panel
BN	42	Under the Left Center Pillar
BO	42	Under the Right Center Pillar

○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B6	42	Floor No.2 Wire	B20	44	Seat No.1 Wire

KEY REMINDER AND SEAT BELT WARNING



SYSTEM OUTLINE

Current always flows to TERMINAL 1 of the integration relay through the DOME fuse.

1. SEAT BELT WARNING SYSTEM

When the ignition SW is turned on, current flows from the GAUGE fuse to the TERMINAL 7 of the integration relay at the same time, current flows to TERMINAL 9 of the relay from the GAUGE fuse through the seat belt warning light this current activates the integration relay and, for approx. 4–8 seconds, current flowing through the warning light flows from TERMINAL 9 of the relay to TERMINAL 10 to GROUND, causing the warning light to light up. At the same as the warning light lights up, a buckle SW off signal is input to TERMINAL 8 of the relay, the current flowing to TERMINAL 1 of the relay flows from TERMINAL 10 to GROUND and the seat belt warning buzzer sounds for approx. 4–8 seconds. However, if seat belt is put on during this period (While the buzzer is sounding), signal input to TERMINAL 8 of the relay stops and the current flow from TERMINAL 1 of the relay to TERMINAL 10 to GROUND is cut, causing the buzzer to stop.

2. KEY REMINDER SYSTEM

With the ignition key inserted in the key cylinder (Unlock warning SW on), the ignition SW still off and door open (Door courtesy SW on), when a signal is input TERMINALS 5 and 6 of the relay, the integration relay operates, current flows from TERMINAL 1 of the relay to TERMINAL 10 to GROUND and the key reminder buzzer sounds.

SERVICE HINTS

B4 BUCKLE SW

1–2 : Closed with the driver's seat belt use

D9 DOOR COURTESY SW FRONT LH

1–GROUND : Closed with the driver's door open

INTEGRATION RELAY [INSTRUMENT PANEL J/B]

10–GROUND : Always continuity

6–GROUND : Continuity with the driver's door open

5–GROUND : Continuity with the ignition key in cylinder

8–GROUND : Continuity unless driver's seat belt in use

9–GROUND : 0 volts for 4–8 seconds with the ignition SW on and 12 volts 4–8 seconds after ignition SW on

1–GROUND : Always approx. 12 volts

7–GROUND : Approx. 12 volts with the ignition SW at ON position

U1 UNLOCK WARNING SW (IGNITION KEY)

1–2 : Closed with the ignition key in cylinder

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B4	34	D9	32	J37	32
C7	A 30	J4	31	U1	31
C10	D 30	J15	31		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1M		
1S	26	Floor Wire and Instrument Panel J/B (Lower Finish Panel)
1T	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1W	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
2J	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

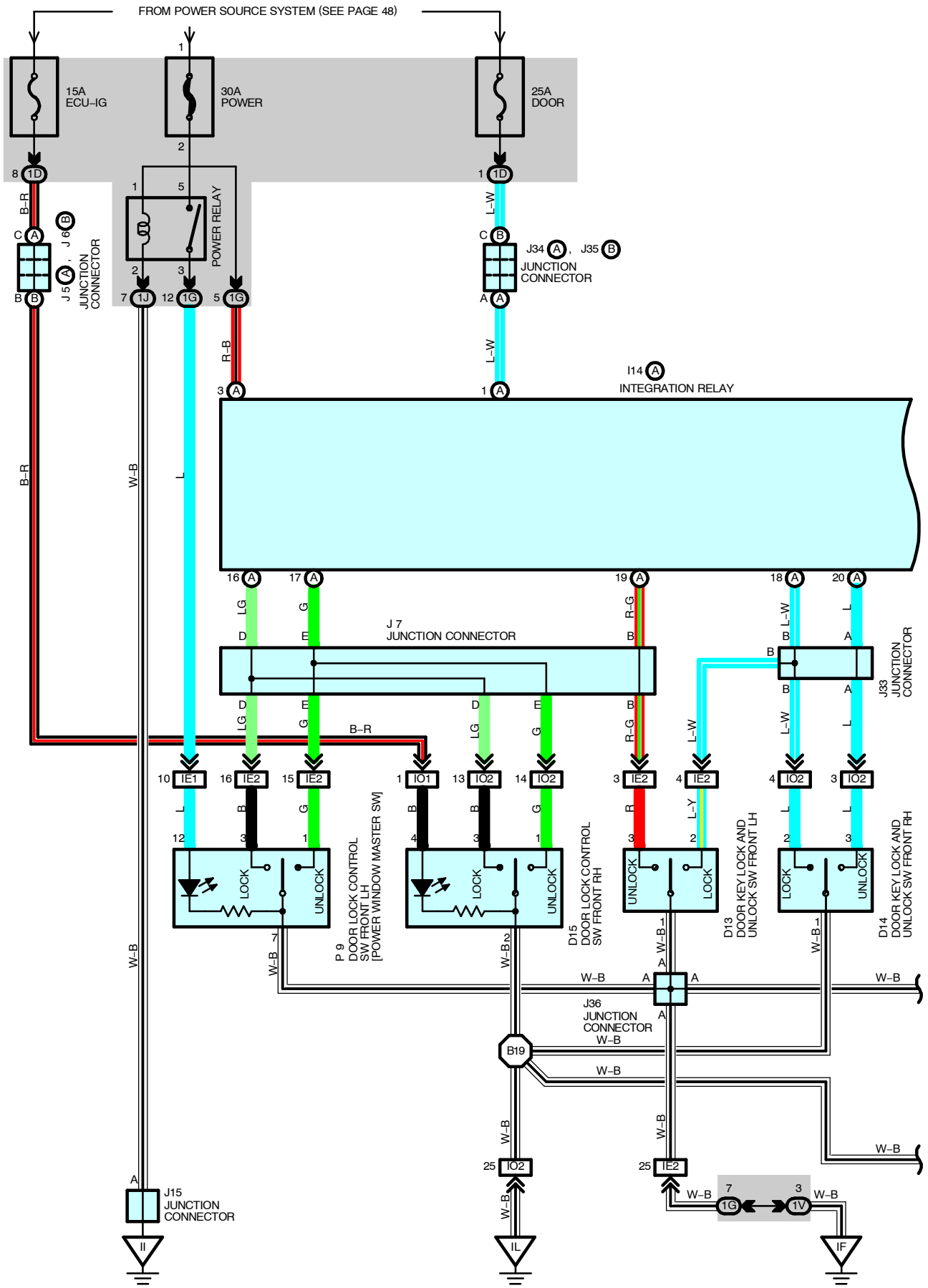
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
BS2	44	Floor Wire and Seat No.1 Wire (Under the Driver's Seat)

KEY REMINDER AND SEAT BELT WARNING

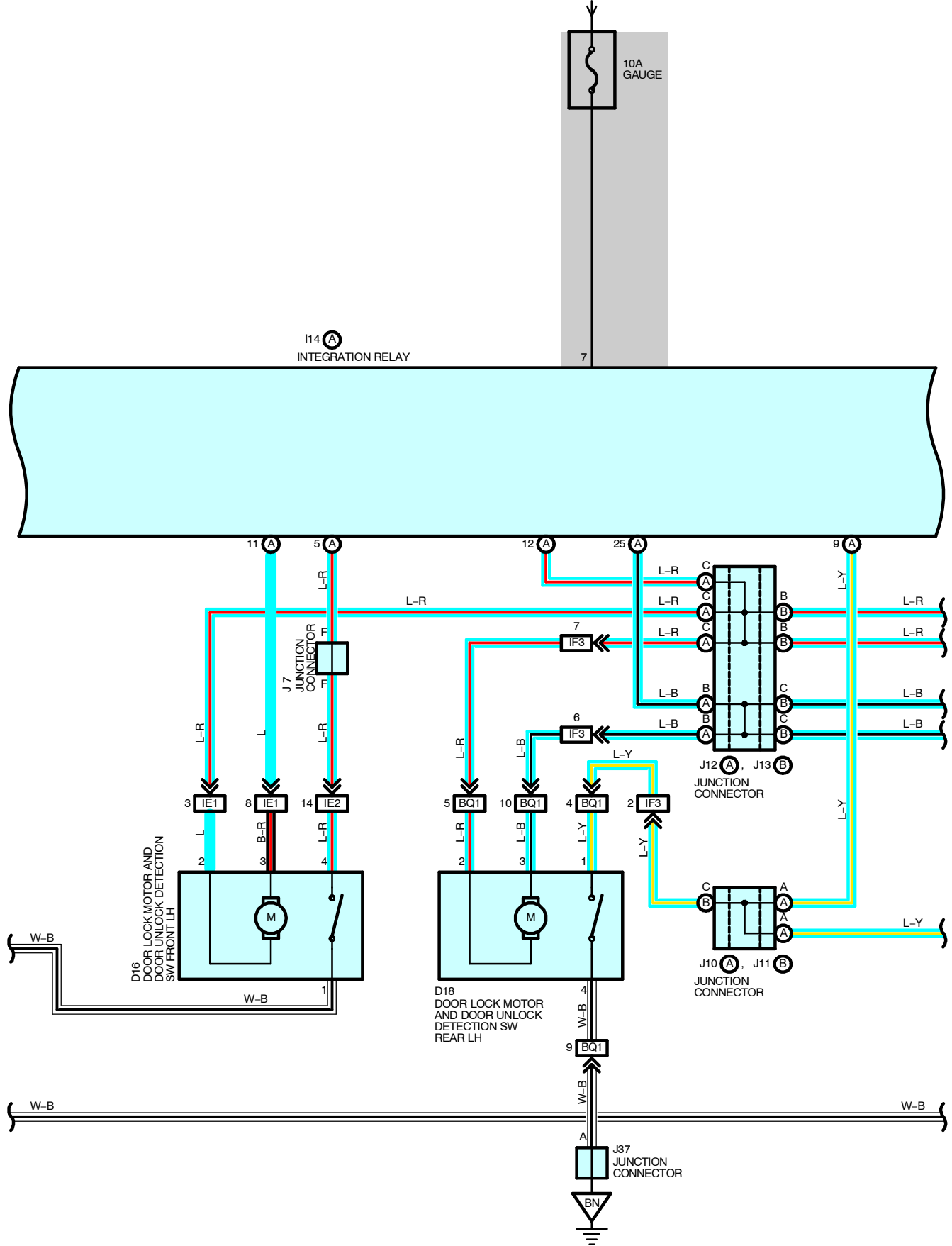
 : GROUND POINTS

Code	See Page	Ground Points Location
II	38	Instrument Panel Brace LH
BN	42	Under the Left Center Pillar

DOOR LOCK CONTROL

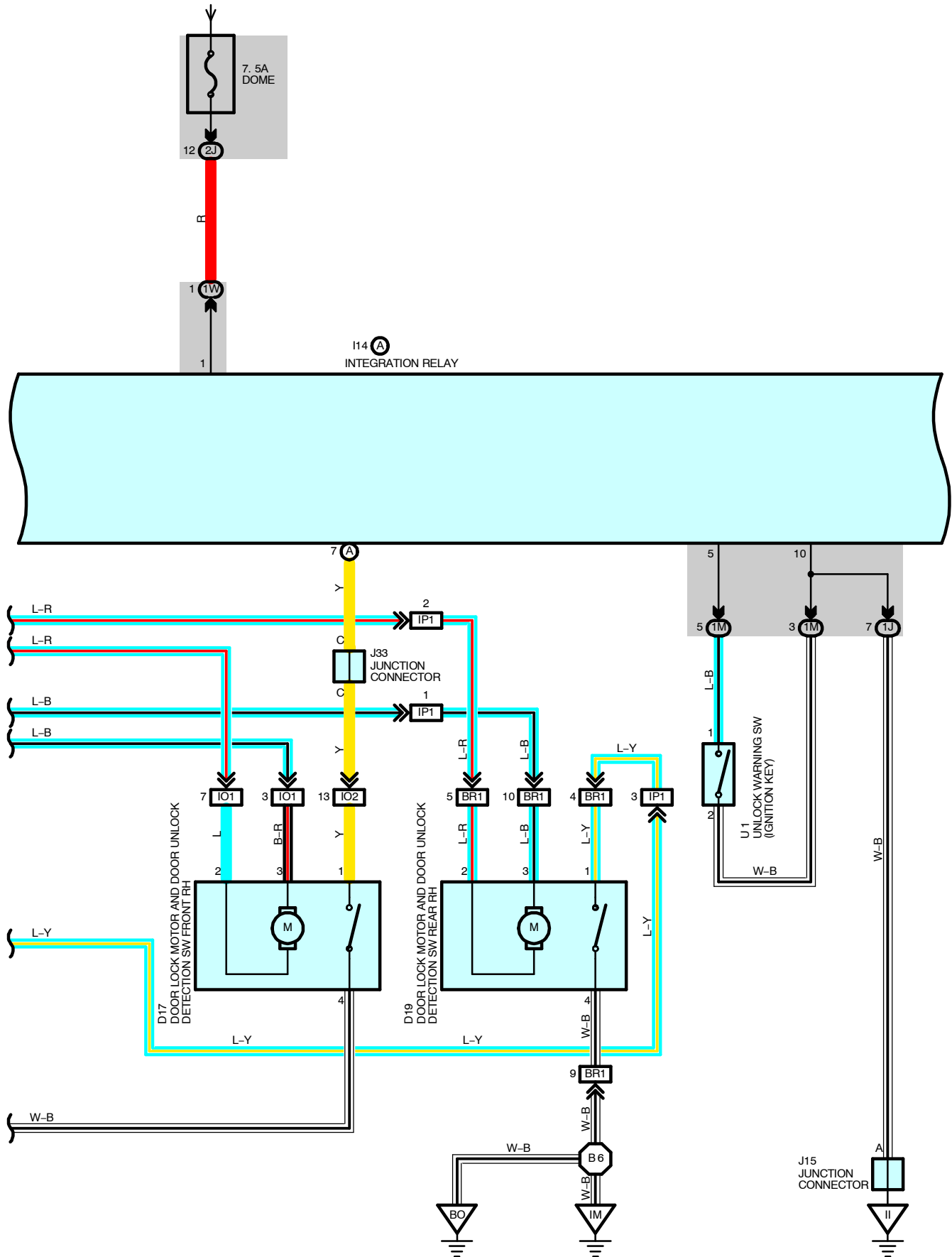


FROM POWER SOURCE SYSTEM (SEE PAGE 48)

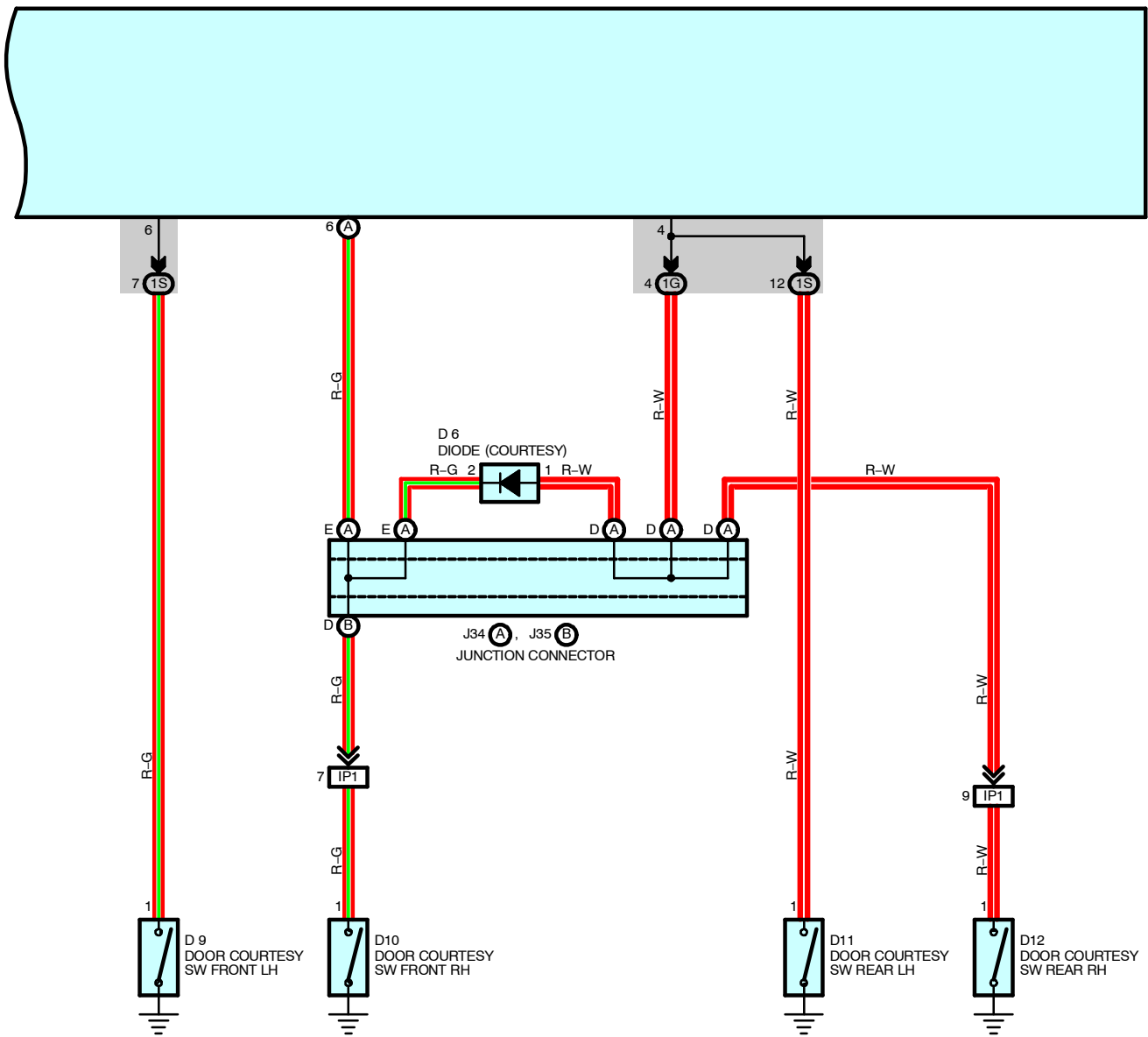


DOOR LOCK CONTROL

FROM POWER SOURCE SYSTEM (SEE PAGE 48)



I14 (A)
INTEGRATION RELAY



DOOR LOCK CONTROL

SYSTEM OUTLINE

Current always flows to TERMINAL (A) 1 of the integration relay through the DOOR fuse.

When the ignition SW is turned on, the current flowing through the GAUGE fuse flows to TERMINAL 7 of the integration relay to TERMINAL (A) 3 to the power relay (Coil side) to GROUND. As a result, the current flowing through the POWER fuse flows to the power relay (Point side) to TERMINAL 12 of the door lock control SW LH to TERMINAL 7 to GROUND, causing the indicator light to light up.

1. MANUAL LOCK OPERATION

When the door lock control SW or door key lock and unlock SW to LOCK position, a lock signal is input to TERMINAL (A) 16 or (A) 18 of the integration relay and causes the relay to function. Current flows from TERMINAL (A) 1 of the relay to TERMINAL (A) 12 to TERMINALS 2 of the door lock motors to TERMINALS 3 of the door lock motors to TERMINAL (A) 25 and TERMINAL (A) 11 of the relay to TERMINAL 10 to GROUND and the door lock motor causes the door to lock.

2. MANUAL UNLOCK OPERATION

When the door lock control SW or door key lock and unlock SW to UNLOCK position, an unlock signal is input to TERMINAL (A) 17 or (A) 19 or (A) 20 of integration relay and causes the relay to function. Current flows from TERMINAL (A) 1 of the relay to TERMINAL (A) 25 and TERMINAL (A) 11 to TERMINALS 3 of the door lock motors to TERMINALS 2 to TERMINAL (A) 12 of the relay to TERMINAL 10 to GROUND and door lock motors causes door to unlock.

3. DOUBLE UNLOCK OPERATION

When the door key lock and unlock SW LH is turned to the unlock side, only the driver's door is mechanically unlocked. Turning the door key lock and unlock SW LH to the unlock side causes a signal to be input to TERMINAL (A) 19 of the integration relay, and if the signal is input again within 3 seconds by turning the SW to the unlock side again, current flows from TERMINAL (A) 25 of the integration relay to TERMINALS 3 of the door lock motors to TERMINALS 2 to TERMINAL (A) 12 of the relay to TERMINAL 10 to GROUND, causing the door lock motors to operate and unlock the doors.

4. IGNITION KEY REMINDER OPERATION

* Operating door lock knob (Operation of door lock motors)

With ignition key in cylinder (Unlock warning SW on), when the door is opened and locked using door lock knob (Door lock motor), the door is locked once but each door is unlocked soon by the function of relay. As a result, the current flows from TERMINAL (A) 1 of the integration relay to TERMINAL (A) 25 to TERMINALS 3 of the door lock motors to TERMINALS 2 to TERMINAL (A) 12 of the relay to TERMINAL 10 to GROUND and causes all the doors to unlock.

* Operating door lock control SW or door key lock and unlock SW

With ignition key in cylinder (Unlock warning SW on), when the door is opened and locked using door lock control SW or key SW, the door is locked once but each door is unlock by the function of SW contained in motors, which the signal is input to TERMINAL (A) 5 (Front LH) or (A) 7 (Front RH) or (A) 9 (Rear LH, RH) of the relay. According to this input signal, the current in ECU flows from TERMINAL (A) 1 of the relay to TERMINAL (A) 25 to TERMINALS 3 of the door lock motors to TERMINALS 2 to TERMINAL (A) 12 of the relay to TERMINAL 10 to GROUND and causes all the doors to unlock.

* In case of key less lock

With ignition key in cylinder (Unlock warning SW on), when the unlock function is disturbed more than 0.2 seconds, for example pushing the door lock knob etc., the door holds on lock condition. Closing the door after, door courtesy SW inputs the signal into TERMINAL 4 or 6 or (A) 6 of the integration relay. By this input signal, the ECU works and current flows from TERMINAL (A) 1 of the relay to TERMINAL (A) 25 to TERMINALS 3 of the door lock motors to TERMINALS 2 to TERMINAL (A) 12 of the relay to TERMINAL 10 to GROUND and causes all the doors to unlock.

SERVICE HINTS

I14 (A) INTEGRATION RELAY

- 10-GROUND : Always continuity
- 6-GROUND : Continuity with the driver's door open
- (A) 1-GROUND : Always approx. **12** volts
- (A) 25-GROUND : Approx. **12** volts **0.2** seconds with the following operation
 - * Door lock control SW unlocked
 - * Door lock control SW locked with the ignition key in the cylinder and the driver's door open (Ignition key reminder function)
 - * Door lock knob locked with the ignition key in the cylinder and the driver's door open (Ignition key reminder function)
 - * Unlocking the driver's, passenger's door cylinder with the key
- (A) 12-GROUND : Approx. **12** volts **0.2** seconds with the following operation
 - * Door lock control SW locked
 - * Locking the driver's, passenger's door cylinder with the key
- (A) 16-GROUND : **0** volts with the door lock control SW locked
- (A) 6-GROUND : Continuity with the front passenger's door open
- (A) 5-GROUND : Continuity with the driver's door lock knob unlocked
- (A) 7-GROUND : Continuity with the front passenger's door lock knob unlocked
- (A) 17-GROUND : **0** volts with the door lock control SW unlocked
- (A) 20-GROUND : **0** volts with the passenger's door lock cylinder unlocked with key
 - 7-GROUND : Approx. **12** volts with the ignition SW at **ON** position
- (A) 19-GROUND : **0** volts with the driver's door lock cylinder unlocked with key
- (A) 18-GROUND : **0** volts with the driver's, passenger's door lock cylinder locked with key
- (A) 9-GROUND : Continuity with the rear passenger's door lock knob unlocked
- 4-GROUND : Continuity with the rear passenger's door open

D9, D10, D11, D12 DOOR COURTESY SW FRONT LH, RH, REAR LH, RH

- 1-GROUND : Closed with each of the doors open

D13 DOOR KEY LOCK AND UNLOCK SW FRONT LH

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

D14 DOOR KEY LOCK AND UNLOCK SW FRONT RH

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

D16, D17, D18, D19 DOOR LOCK MOTOR AND DOOR UNLOCK DETECTION SW FRONT LH, RH, REAR LH, RH

- 1-4 : Closed with **UNLOCK** position

U1 UNLOCK WARNING SW (IGNITION KEY)

- 1-2 : Closed with the ignition key in the cylinder

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
D6	30	D18	32	J15	31
D9	32	D19	32	J33	31
D10	32	I14	A 30	J34	A 31
D11	32	J5	A 31	J35	B 31
D12	32	J6	B 31	J36	32
D13	32	J7	31	J37	32
D14	32	J10	A 31	P9	33
D15	32	J11	B 31	U1	31
D16	32	J12	A 31		
D17	32	J13	B 31		

DOOR LOCK CONTROL

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1G		
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1M		
1S	26	Floor Wire and Instrument Panel J/B (Lower Finish Panel)
1V	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1W		
2J	22	Cowl 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)
IE1	38	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IE2		
IF3	38	Floor Wire and Instrument Panel Wire (Left Kick Panel)
IO1	40	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IO2		
IP1	40	Floor No.2 Wire and Instrument Panel Wire (Right Kick Panel)
BQ1	42	Rear Door LH Wire and Floor Wire (Left Center Pillar)
BR1	42	Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)

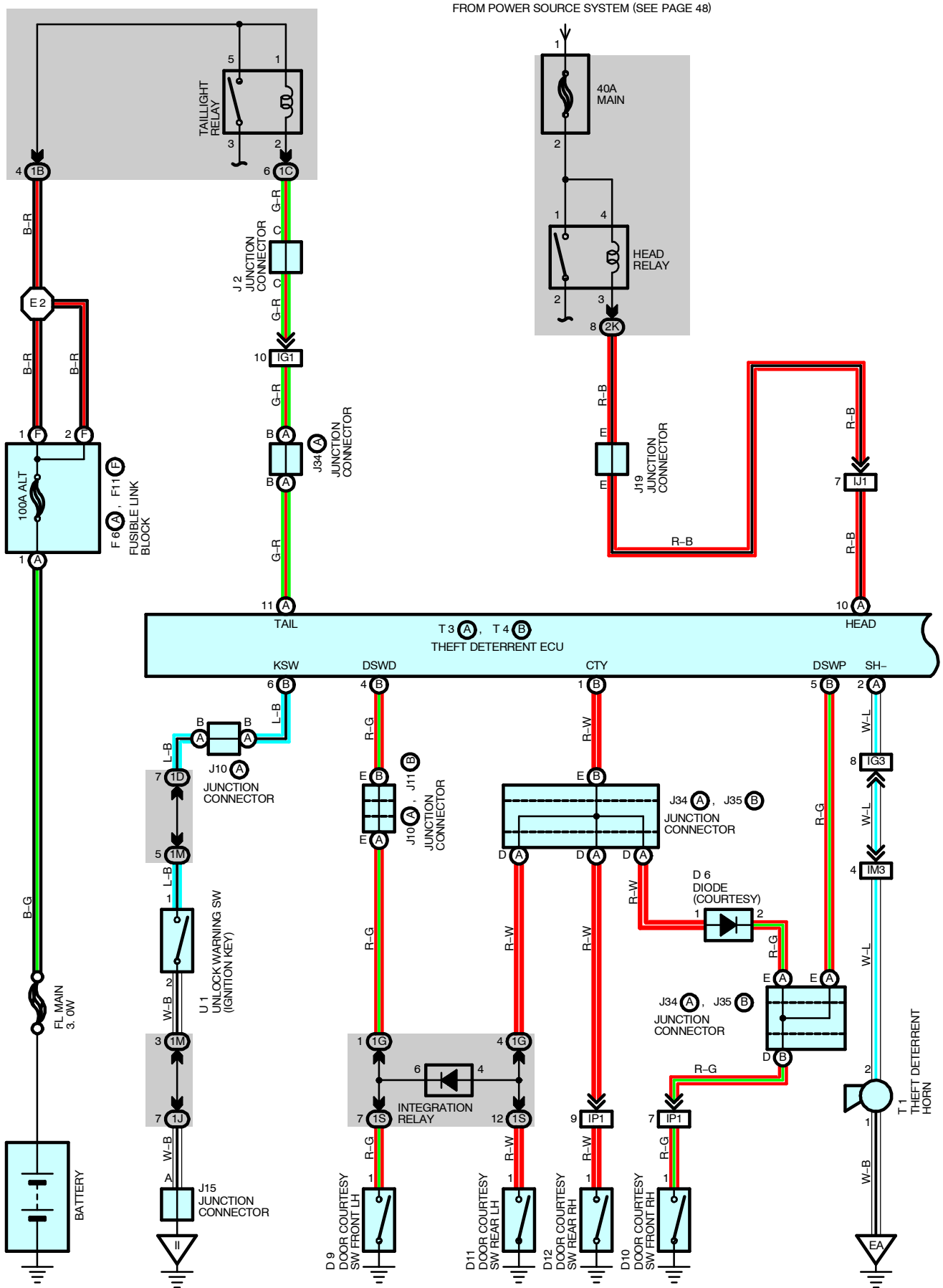
: GROUND POINTS

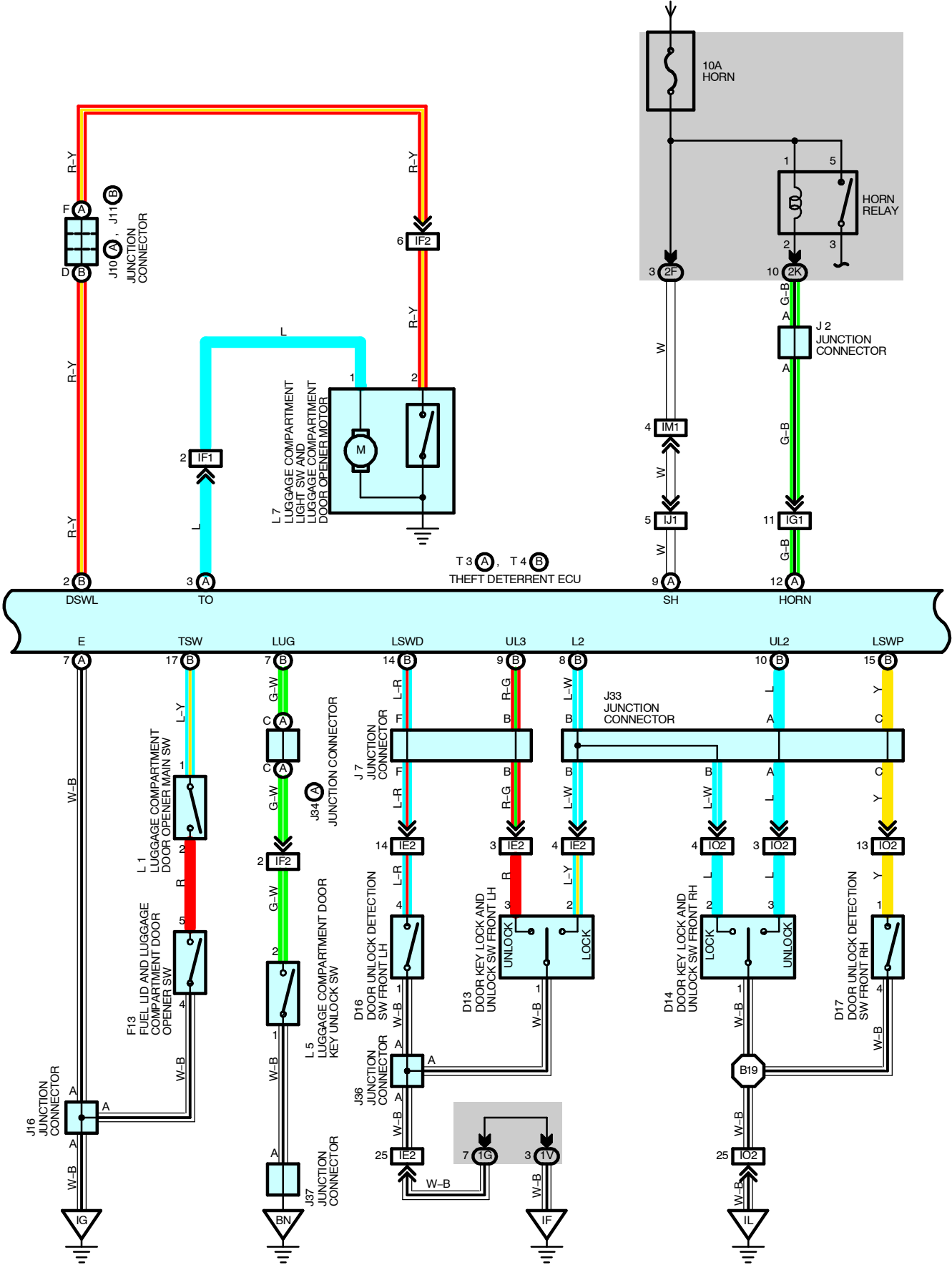
Code	See Page	Ground Points Location
IF	38	Cowl Side Panel LH
II	38	Instrument Panel Brace LH
IL	38	Right Kick Panel
IM		
BN	42	Under the Left Center Pillar
BO	42	Under the Right Center Pillar

: SPLICE POINTS

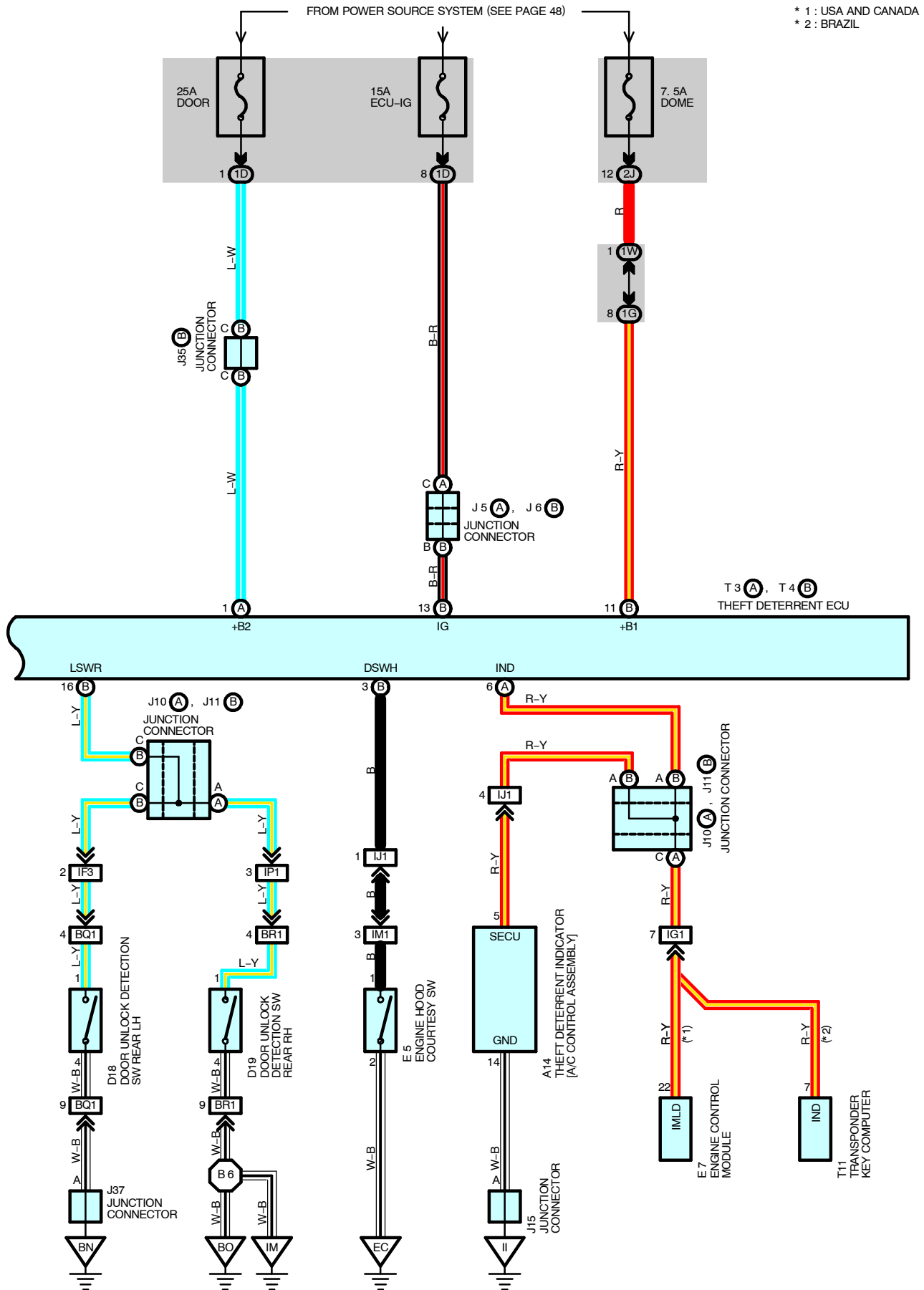
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B6	42	Floor No.2 Wire	B19	42	Front Door RH Wire

THEFT DETERRENT





THEFT DETERRENT



SERVICE HINTS

D13, D14 DOOR KEY LOCK AND UNLOCK SW FRONT LH, RH

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

D16, D17, D18, D19 DOOR UNLOCK DETECTION SW FRONT LH, RH, REAR LH, RH

- 1-4 : Closed with **UNLOCK** position

E5 ENGINE HOOD COURTESY SW

- 1-2 : Closed with the engine hood open

U1 UNLOCK WARNING SW (IGNITION KEY)

- 1-2 : Closed with the ignition key in the cylinder

L5 LUGGAGE COMPARTMENT DOOR KEY UNLOCK SW

- 1-2 : Closed with the luggage compartment door lock cylinder unlock with the key

L7 LUGGAGE COMPARTMENT LIGHT SW

- 2-GROUND : Closed with the luggage compartment door open

T3 (A), T4 (B) THEFT DETERRENT ECU

- (B)13-GROUND : Approx. **12** volts with the ignition SW at **ON** position
- (B) 6-GROUND : Continuity with the ignition key in the cylinder
- (B)15-GROUND : Continuity with the front RH door to **UNLOCK** position
- (B)11-GROUND : Always approx. **12** volts
- (B) 9-GROUND : Continuity with the door key lock and unlock SW front LH to **UNLOCK** position
- (B)14-GROUND : Continuity with the front LH door to **UNLOCK** position
- (B) 5-GROUND : Continuity with the front RH door opened
- (B) 4-GROUND : Continuity with the front LH door opened
- (B) 8-GROUND : Continuity with the door key lock and unlock SW to **LOCK** position
- (A) 7-GROUND : Always continuity
- (B)10-GROUND : Continuity with the door key lock and unlock SW front RH to **UNLOCK** position
- (A) 1-GROUND : Always approx. **12** volts
- (B) 7-GROUND : Continuity with the luggage compartment door lock cylinder unlock with the key
- (B) 1-GROUND : Continuity with each of the doors open
- (B) 3-GROUND : Continuity with the engine hood open
- (B) 2-GROUND : Continuity with the luggage compartment door open
- (B)16-GROUND : Continuity with the rear door to **UNLOCK** position

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A14	30	E7	30	J33	31
D6	30	F6 A	28	J34 A	31
D9	32	F11 F	28	J35 B	31
D10	32	F13	30	J36	32
D11	32	J2	31	J37	32
D12	32	J5 A	31	L1	31
D13	32	J6 B	31	L5	32
D14	32	J7	31	L7	32
D16	32	J10 A	31	T1	29
D17	32	J11 B	31	T3 A	31
D18	32	J15	31	T4 B	31
D19	32	J16	31	T11	31
E5	28	J19	31	U1	31

THEFT DETERRENT

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1C		
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1G		
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1M		
1S	26	Floor Wire and Instrument Panel J/B (Lower Finish Panel)
1V	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1W		
2F	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2J	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)
2K		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE2	38	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IF1	38	Floor Wire and Instrument Panel Wire (Left Kick Panel)
IF2		
IF3		
IG1	38	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IG3		
IJ1	38	Instrument Panel Wire and Cowl Wire (Under the Glove Box)
IM1	40	Engine Room Main Wire and Cowl Wire (Right Kick Panel)
IM3		
IO2	40	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IP1	40	Floor No.2 Wire and Instrument Panel Wire (Right Kick Panel)
BQ1	42	Rear Door LH Wire and Floor Wire (Left Center Pillar)
BR1	42	Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)

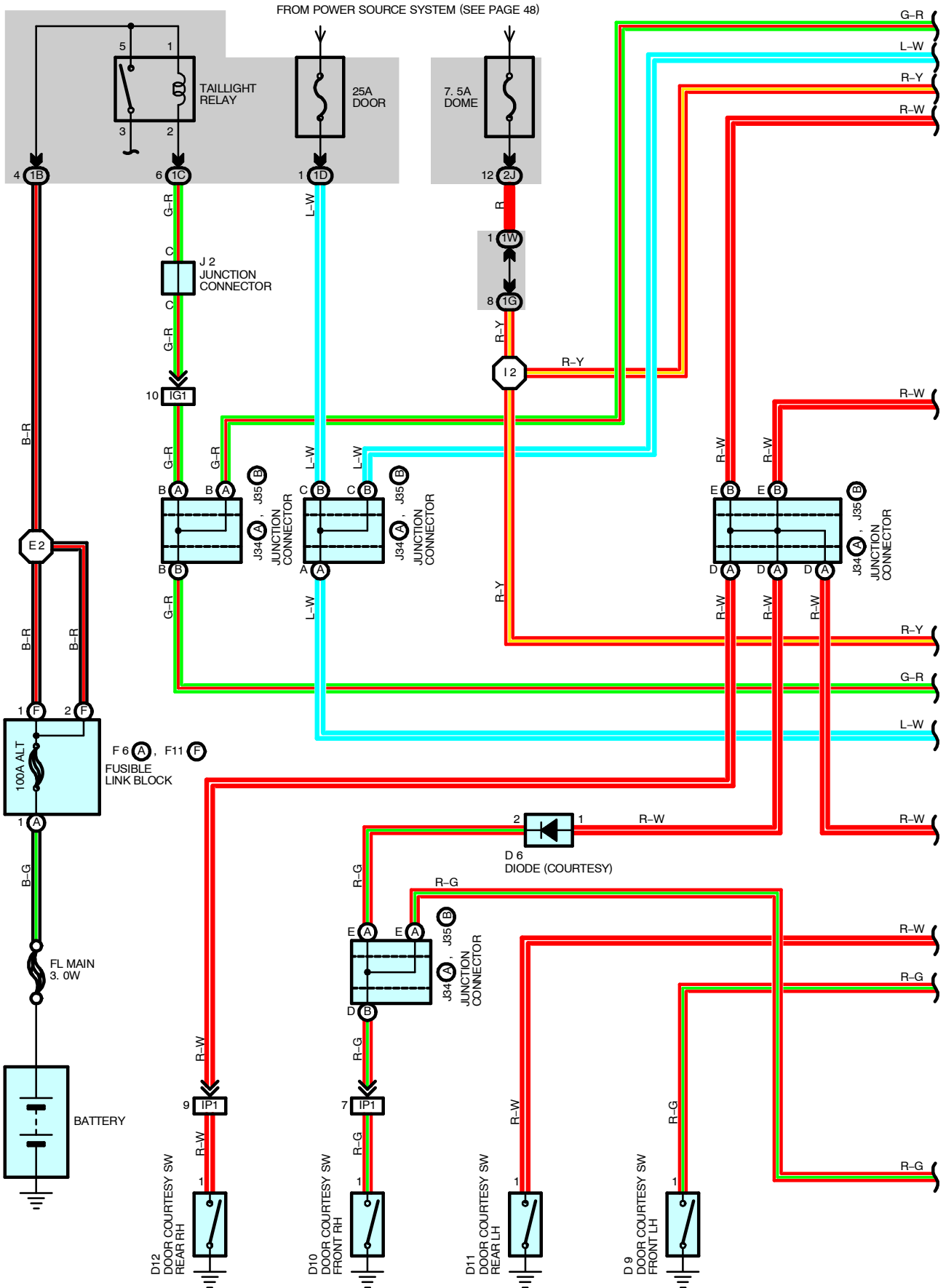
: GROUND POINTS

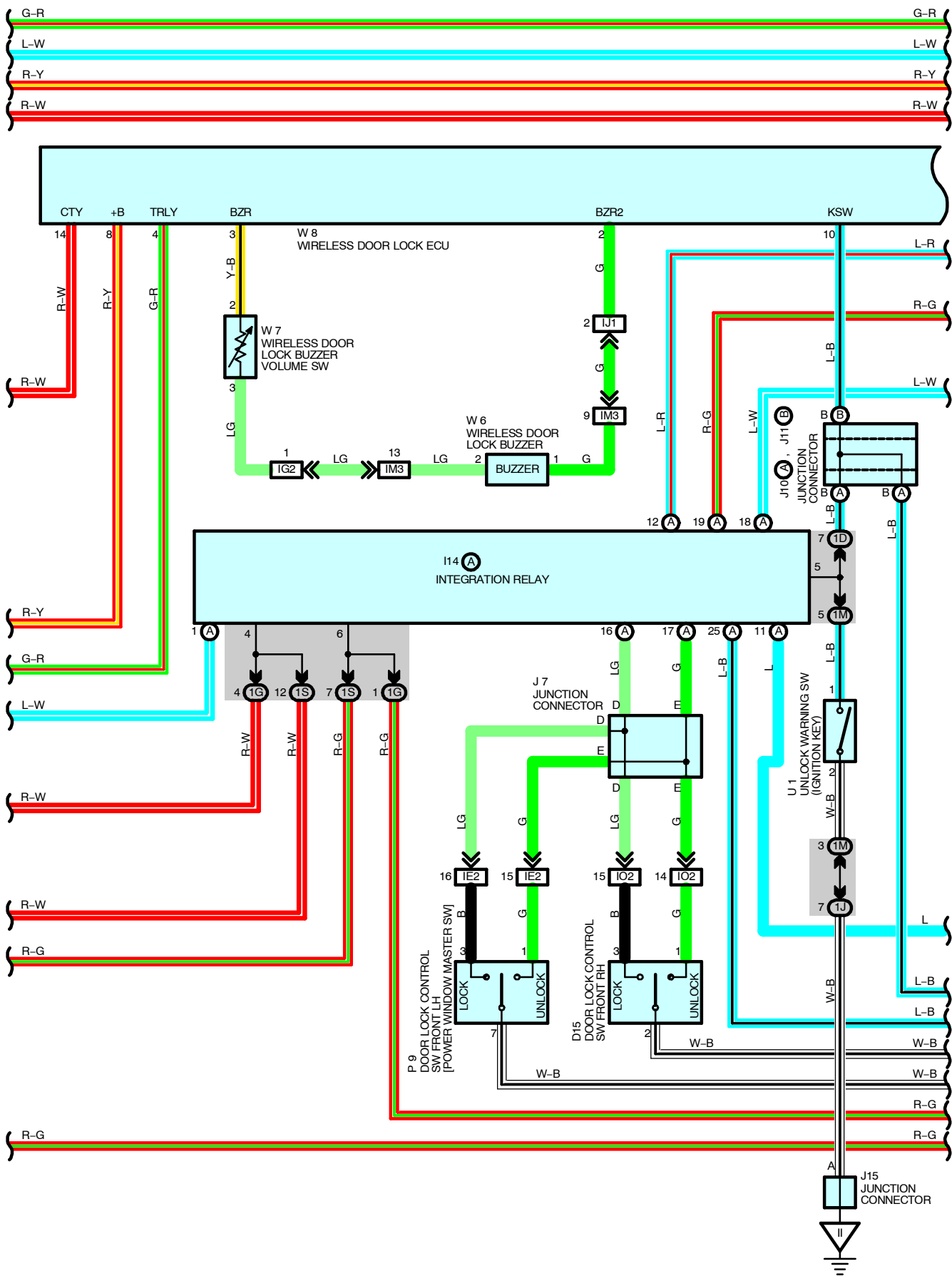
Code	See Page	Ground Points Location
EA	36	Right Radiator Side Support
EC	36	Left Radiator Side Support
IF	38	Cowl Side Panel LH
IG	38	Left Kick Panel
II	38	Instrument Panel Brace LH
IL	38	Right Kick Panel
IM		
BN	42	Under the Left Center Pillar
BO	42	Under the Right Center Pillar

: SPLICE POINTS

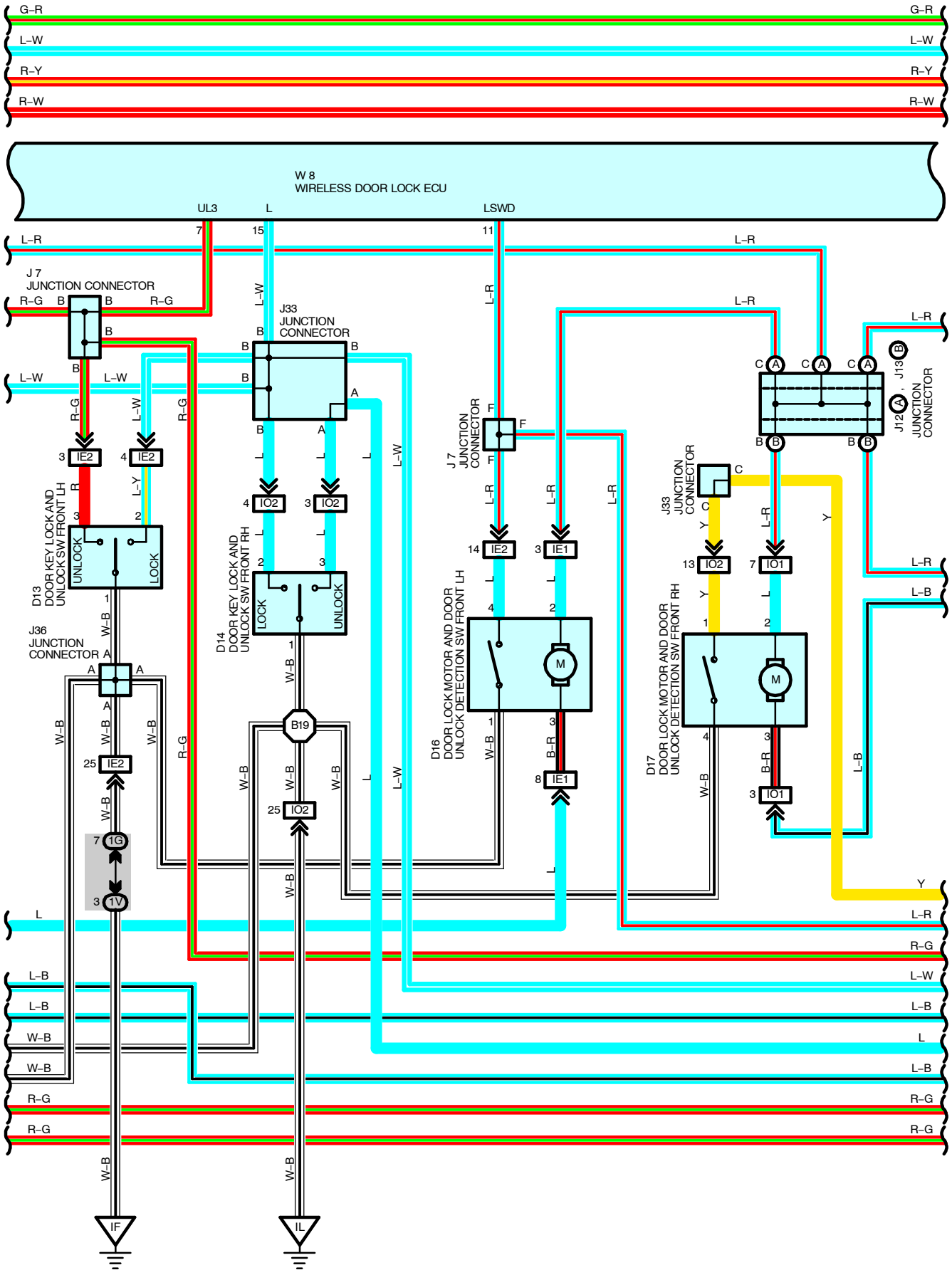
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	36	Cowl Wire	B19	42	Front Door RH Wire
B6	42	Floor No.2 Wire			

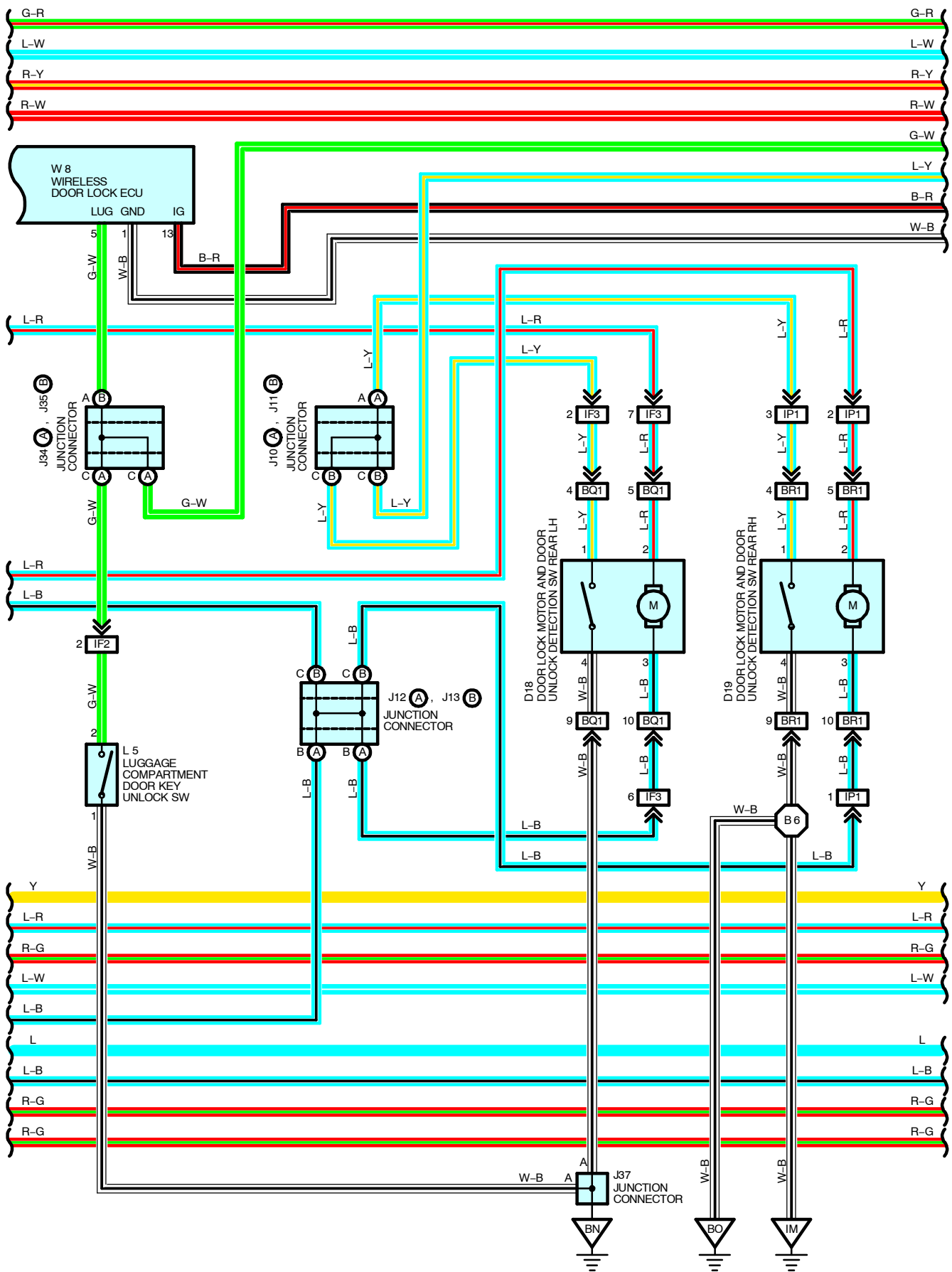
WIRELESS DOOR LOCK CONTROL



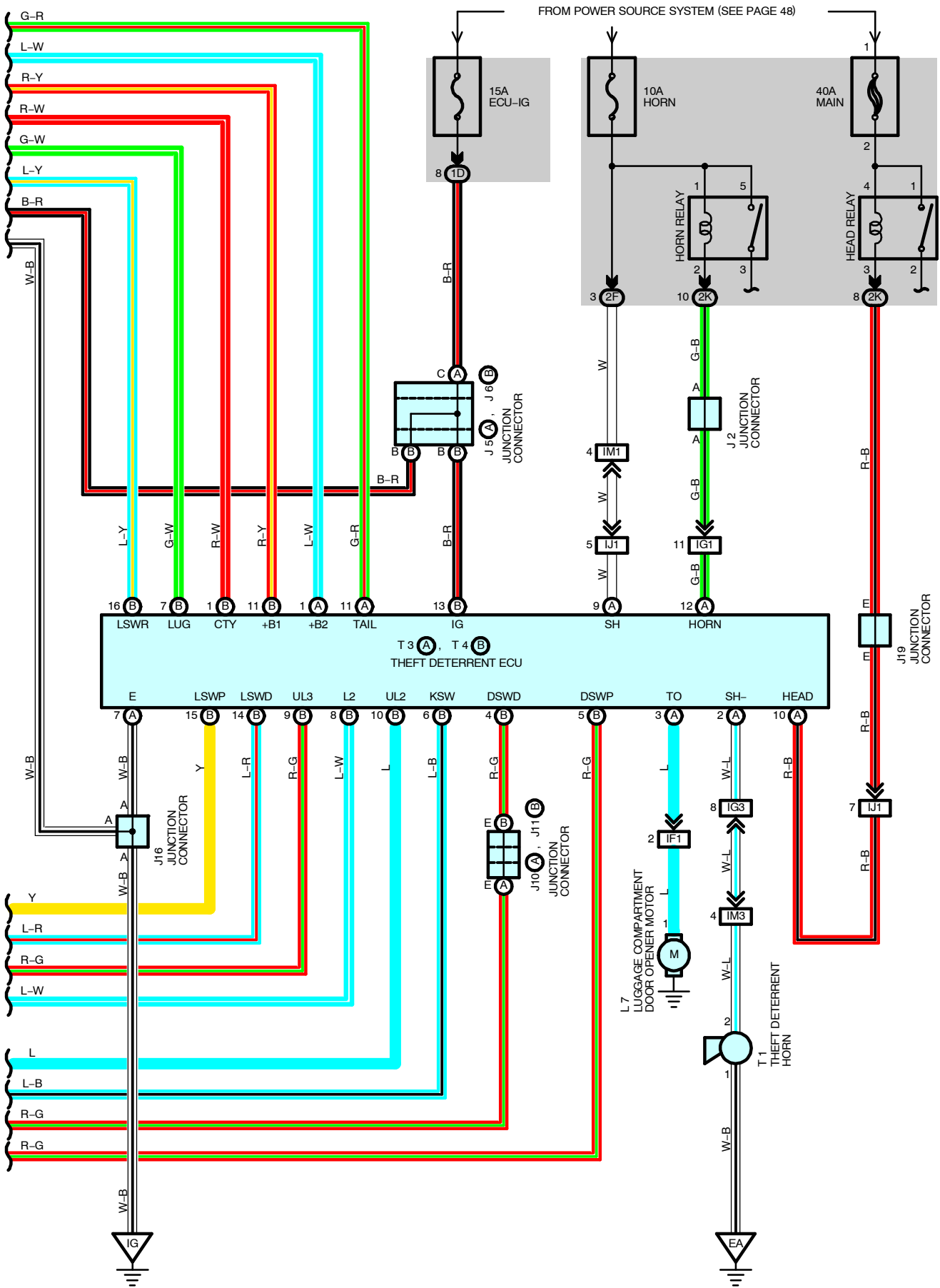


WIRELESS DOOR LOCK CONTROL





WIRELESS DOOR LOCK CONTROL



SYSTEM OUTLINE

Door lock control (Lock and unlock) and luggage compartment door control (Luggage compartment door open) is performed by remote control, without the ignition key inserted in the door key cylinder, using low-power electrical waves emitted by a transmitter.

1. WIRELESS DOOR LOCK OR UNLOCK NORMAL OPERATION

With the ignition key not inserted into the ignition key cylinder (Unlock warning SW off) and all the doors completely closed, when the lock button (Transmitter) is pushed, the wireless door lock control ECU receives the electrical waves from the transmitter, causing it to operate.

As a result, the ECU judges whether the door is locked or unlocked based on the signal from the door lock motor and door unlock detection SW, and sends a signal to the theft deterrent and door lock control ECU to switch the condition from lock to unlock or vice versa, causing the door lock motor to operate.

2. WIRELESS LUGGAGE COMPARTMENT DOOR OPEN NORMAL OPERATION

With the ignition key not inserted into the ignition key cylinder (Unlock warning SW off), when the luggage compartment door opener button (Transmitter) is pushed, the wireless door lock control ECU receives the electrical waves from the transmitter, causing it to operate.

As a result, a signal from the luggage compartment door unlock SW is sent to the theft deterrent ECU, causing the luggage compartment door opener motor to operate.

3. WIRELESS DOOR UNLOCK OPERATION

Pushing the unlock button (Transmitter) once, driver's door is unlocked. Furthermore, pushing the button again within 3 seconds, the other doors are unlocked.

4. AUTOMATIC LOCK OPERATION

With the ignition key not inserted into the ignition key cylinder (Unlock warning SW off) and all the doors completely closed, after pushing the button (Transmitter) to unlock all the doors, if a door is not opened within 30 seconds, all the doors will be automatically relocked.

5. WIRELESS CONTROL STOP FUNCTION

If a door is open (Door courtesy SW on), a signal is input from the door courtesy SW to the wireless door lock control ECU, stopping wireless door lock and wireless luggage compartment door open.

If the ignition key is in the ignition key cylinder (Unlock warning SW on), the unlock warning SW inputs a signal to the wireless door lock control ECU, stopping wireless door lock or unlock and wireless luggage compartment door open.

6. DOOR LOCK MOTOR PROTECTIVE FUNCTION

If the door lock or unlock condition does not change after wireless door lock or unlock operation, 2 seconds later, the door lock ECU sends current three times to the door lock motor. If the door lock condition still has not changed as a result, the wireless door lock ECU stops reception and stops door lock and unlock function.

7. VISUAL CONFIRMATION OF LOCK OR UNLOCK FUNCTION

If all doors indicate they are locked after the lock command, taillights and parking lights will flash once. If any door indicates it is open after the lock command, taillights and parking lights will flash twice.

SERVICE HINTS

D9, D10, D11, D12 DOOR COURTESY SW FRONT LH, RH, REAR LH, RH

1-GROUND : Closed with each of the doors open

U1 UNLOCK WARNING SW (IGNITION KEY)

1-2 : Closed with the ignition key in the cylinder

W8 WIRELESS DOOR LOCK ECU

8-GROUND : Always approx. 12 volts

1-GROUND : Always continuity

14-GROUND : Continuity with each of the doors open

10-GROUND : Continuity with the ignition key in the cylinder

WIRELESS DOOR LOCK CONTROL

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
D6	30	I14 A	30	J35 B	31
D9	32	J2	31	J36	32
D10	32	J5 A	31	J37	32
D11	32	J6 B	31	L5	32
D12	32	J7	31	L7	32
D13	32	J10 A	31	P9	33
D14	32	J11 B	31	T1	29
D15	32	J12 A	31	T3 A	31
D16	32	J13 B	31	T4 B	31
D17	32	J15	31	U1	31
D18	32	J16	31	W6	29
D19	32	J19	31	W7	31
F6 A	28	J33	31	W8	31
F11 F	28	J34 A	31		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B 1C	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1D 1G	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1J 1M	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1S	26	Floor Wire and Instrument Panel J/B (Lower Finish Panel)
1V 1W	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
2F	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2J 2K	22	Cowl 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)
IE1 IE2	38	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IF1 IF2 IF3	38	Floor Wire and Instrument Panel Wire (Left Kick Panel)
IG1 IG2 IG3	38	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IJ1	38	Instrument Panel Wire and Cowl Wire (Under the Glove Box)
IM1 IM3	40	Engine Room Main Wire and Cowl Wire (Right Kick Panel)
IO1 IO2	40	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IP1	40	Floor No.2 Wire and Instrument Panel Wire (Right Kick Panel)
BQ1	42	Rear Door LH Wire and Floor Wire (Left Center Pillar)
BR1	42	Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)

**: GROUND POINTS**

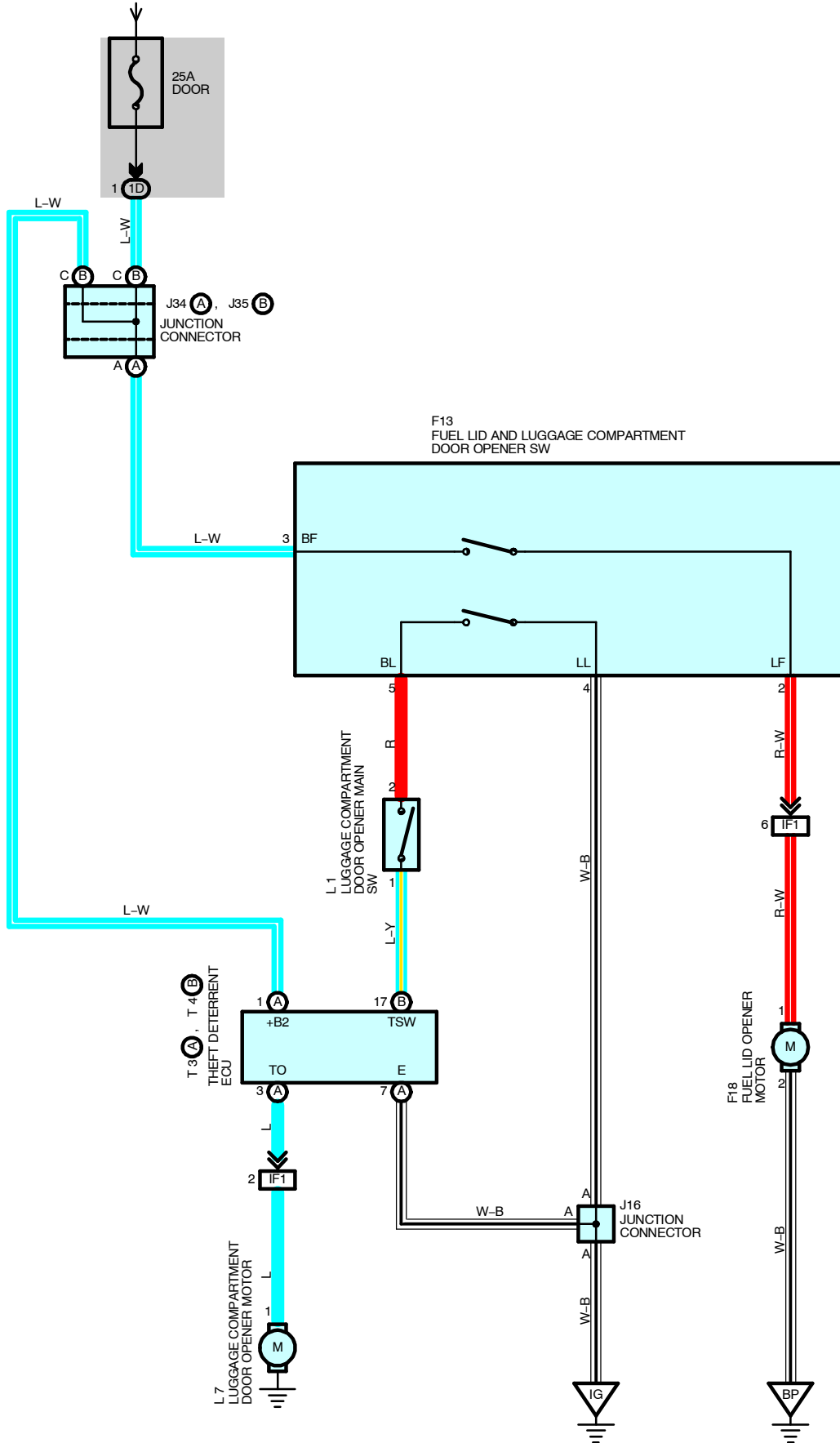
Code	See Page	Ground Points Location
EA	36	Right Radiator Side Support
IF	38	Cowl Side Panel LH
IG	38	Left Kick Panel
II	38	Instrument Panel Brace LH
IL	38	Right Kick Panel
IM		
BN	42	Under the Left Center Pillar
BO	42	Under the Right Center Pillar

**: SPLICE POINTS**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	36	Cowl Wire	B6	42	Floor No.2 Wire
I2	40	Instrument Panel Wire	B19	42	Front Door RH Wire

FUEL LID AND LUGGAGE COMPARTMENT DOOR OPENER

FROM POWER SOURCE SYSTEM (SEE PAGE 48)



SERVICE HINTS**F13 FUEL LID AND LUGGAGE COMPARTMENT DOOR OPENER SW**

3-2 : Closed with fuel lid opener SW on

 : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page		
F13	30	J34	A	31	L7	32	
F18	32	J35	B	31	T3	A	31
J16	31	L1		31	T4	B	31

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)

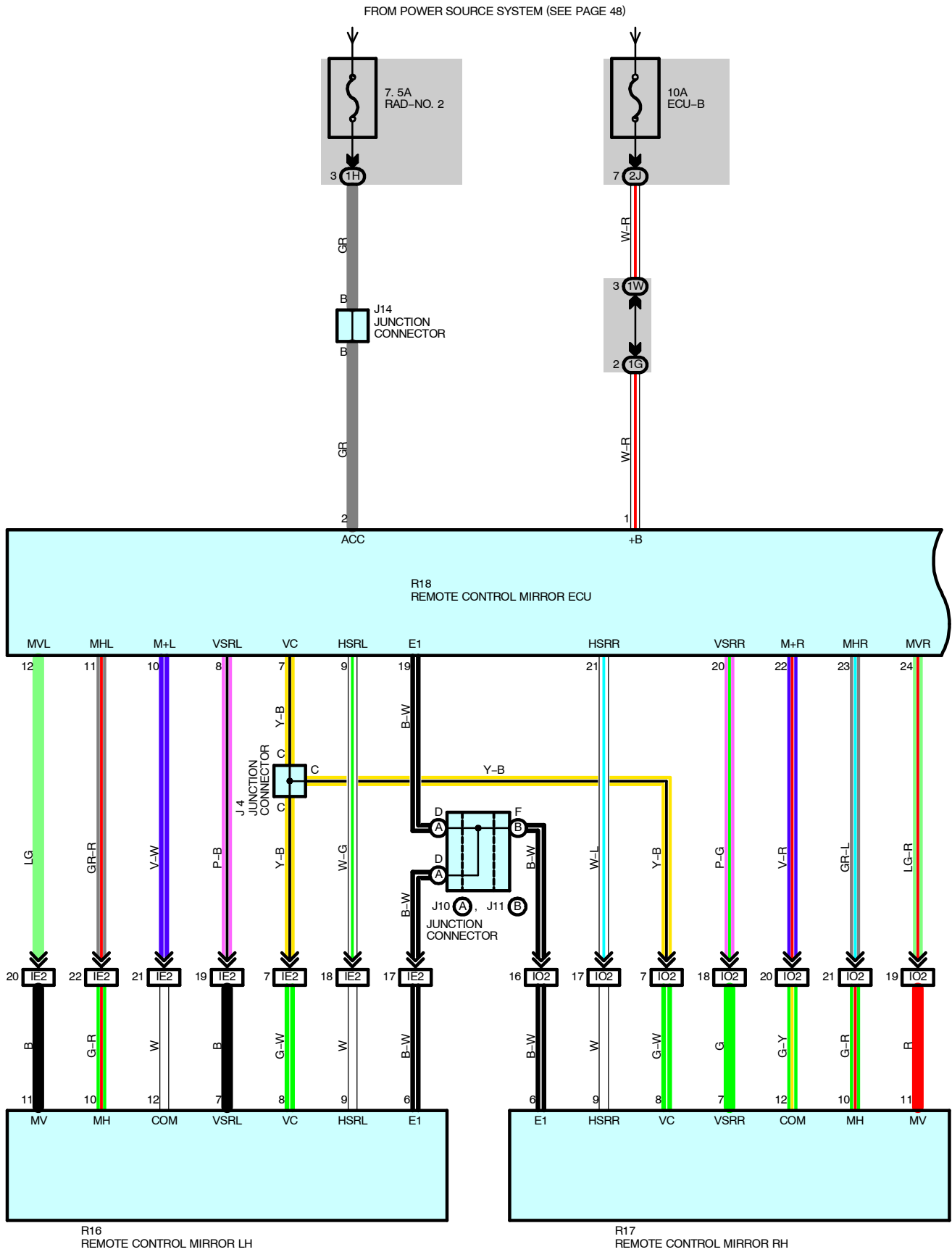
 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

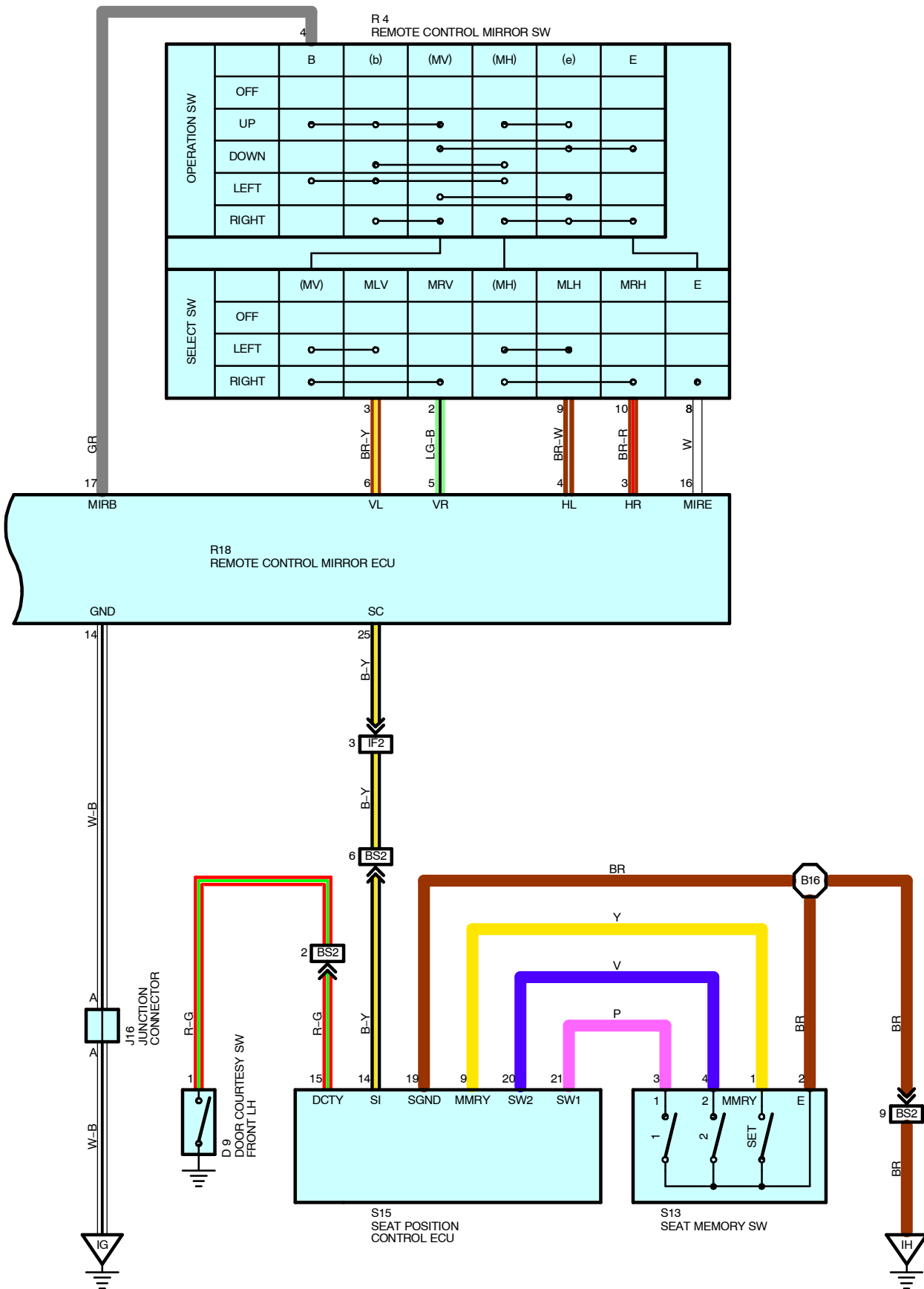
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF1	38	Floor Wire and Instrument Panel Wire (Left Kick Panel)

 : GROUND POINTS

Code	See Page	Ground Points Location
IG	38	Left Kick Panel
BP	42	Back Panel Center

REMOTE CONTROL MIRROR (w/ DRIVING POSITION MEMORY)





REMOTE CONTROL MIRROR (w/ DRIVING POSITION MEMORY)

SYSTEM OUTLINE

Current is always applied to TERMINAL 1 of the remote control mirror ECU through the ECU-B fuse.

When the ignition SW is turned to ON or ACC position, the current flows to TERMINAL 2 of the remote control mirror ECU through the RAD-NO.2 fuse.

REMOTE CONTROL MIRROR OPERATION

When the ignition SW is turned to ON or ACC position, the remote control mirror ECU operates. When the select SW of the remote control mirror SW is moved to the LEFT position and the operation SW is moved to the LEFT position, a signal is input from TERMINAL 17 of the remote control mirror ECU to TERMINAL 4 of the remote control mirror SW to TERMINAL 9 to TERMINAL 4 of the ECU.

As a result, the current to TERMINAL 1 of the ECU flows to TERMINAL 11 of the ECU to TERMINAL 10 of the remote control mirror LH to motor to TERMINAL 12 to TERMINAL 10 of the ECU to TERMINAL 14 to GROUND, rotating the motor to adjust the angle of the left side of the outer mirror (Driver's).

To change the angle of the right side of the mirror, the operation SW of the remote control mirror SW is moved to the RIGHT position.

Then, a signal is input from TERMINAL 17 of the remote control mirror ECU to TERMINAL 4 of the remote control mirror SW to TERMINAL 10 to TERMINAL 3 of the ECU.

As a result, the current to TERMINAL 1 of the remote control mirror ECU flows from TERMINAL 10 of the ECU to TERMINAL 12 of the remote control mirror LH to motor to TERMINAL 10 to TERMINAL 11 of the ECU to TERMINAL 14 to GROUND, causing the angle of the outer mirror (Driver's) to change on the right side.

The movement to other positions occurs similarly, so only the current flow to each motor is shown.

SELECT SW RH POSITION, OPERATION SW LEFT POSITION

TERMINAL 1 of the remote control mirror ECU to TERMINAL 23 to TERMINAL 10 of the remote control mirror RH to motor to TERMINAL 12 to TERMINAL 22 of the ECU to TERMINAL 14 to GROUND.

SELECT SW RH POSITION, OPERATION SW RIGHT POSITION

TERMINAL 1 of the remote control mirror ECU to TERMINAL 22 to TERMINAL 12 of the remote control mirror RH to motor to TERMINAL 10 to TERMINAL 23 of the ECU to TERMINAL 14 to GROUND.

SELECT SW LH POSITION, OPERATION SW UP POSITION

TERMINAL 1 of the remote control mirror ECU to TERMINAL 12 to TERMINAL 11 of the remote control mirror LH to motor to TERMINAL 12 to TERMINAL 10 of the ECU to TERMINAL 14 to GROUND.

SELECT SW LH POSITION, OPERATION SW DOWN POSITION

TERMINAL 1 of the remote control mirror ECU to TERMINAL 10 to TERMINAL 12 of the remote control mirror LH to motor to TERMINAL 11 to TERMINAL 12 of the ECU to TERMINAL 14 to GROUND.

SELECT SW RH POSITION, OPERATION SW UP POSITION

TERMINAL 1 of the remote control mirror ECU to TERMINAL 24 to TERMINAL 11 of the remote control mirror RH to motor to TERMINAL 12 to TERMINAL 22 of the ECU to TERMINAL 14 to GROUND.

SELECT SW RH POSITION, OPERATION SW DOWN POSITION

TERMINAL 1 of the remote control mirror ECU to TERMINAL 22 to TERMINAL 12 of the remote control mirror RH to motor to TERMINAL 11 to TERMINAL 24 of the ECU to TERMINAL 14 to GROUND.

The number of turns of each motor (Amount of movement of each part of the mirror) is detected by the position sensors and input to the ECU, making it possible to perform memory and return functions for the mirror position using the driving position memory and return SW.

SERVICE HINTS

D9 DOOR COURTESY DETECTION SW FRONT LH

1-GROUND : Closed with the driver's door open

S13 SEAT MEMORY SW

1-2 : Closed with SET SW on

3-2 : Closed with memory 1 SW on

4-2 : Closed with memory 2 SW on

R4 REMOTE CONTROL MIRROR SW

3-8 : Continuity with select SW at **LEFT** position and operation SW at **LEFT** position

3-4 : Continuity with select SW at **LEFT** position and operation SW at **RIGHT** position

2-8 : Continuity with select SW at **RIGHT** position and operation SW at **LEFT** position

2-4 : Continuity with select SW at **RIGHT** position and operation SW at **RIGHT** position

3-4 : Continuity with select SW at **LEFT** position and operation SW at **UP** operation

3-8 : Continuity with select SW at **LEFT** position and operation SW at **DOWN** position

2-4 : Continuity with select SW at **RIGHT** position and operation SW at **UP** position

2-8 : Continuity with select SW at **RIGHT** position and operation SW at **DOWN** position

R18 REMOTE CONTROL MIRROR ECU

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

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

14-GROUND : Always continuity

12-GROUND : Approx. **12** volts with remote control mirror LH at up operation

11-GROUND : Approx. **12** volts with remote control mirror LH at left operation

7-GROUND : Approx. **5** volts

19-GROUND : Always continuity

24-GROUND : Approx. **12** volts with remote control mirror RH at up operation

23-GROUND : Approx. **12** volts with remote control mirror RH at left operation

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
D9	32	J14	31	R17	33
J4	31	J16	31	R18	31
J10	A 31	R4	31	S13	34
J11	B 31	R16	33	S15	34

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1H		
1W	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
2J	22	Cowl 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)
IE2	38	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IF2	38	Floor Wire and Instrument Panel Wire (Left Kick Panel)
IO2	40	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
BS2	44	Floor Wire and Seat No.1 Wire (Under the Driver's Seat)

▽ : GROUND POINTS

Code	See Page	Ground Points Location
IG	38	Left Kick Panel
IH		

REMOTE CONTROL MIRROR (w/ DRIVING POSITION MEMORY)

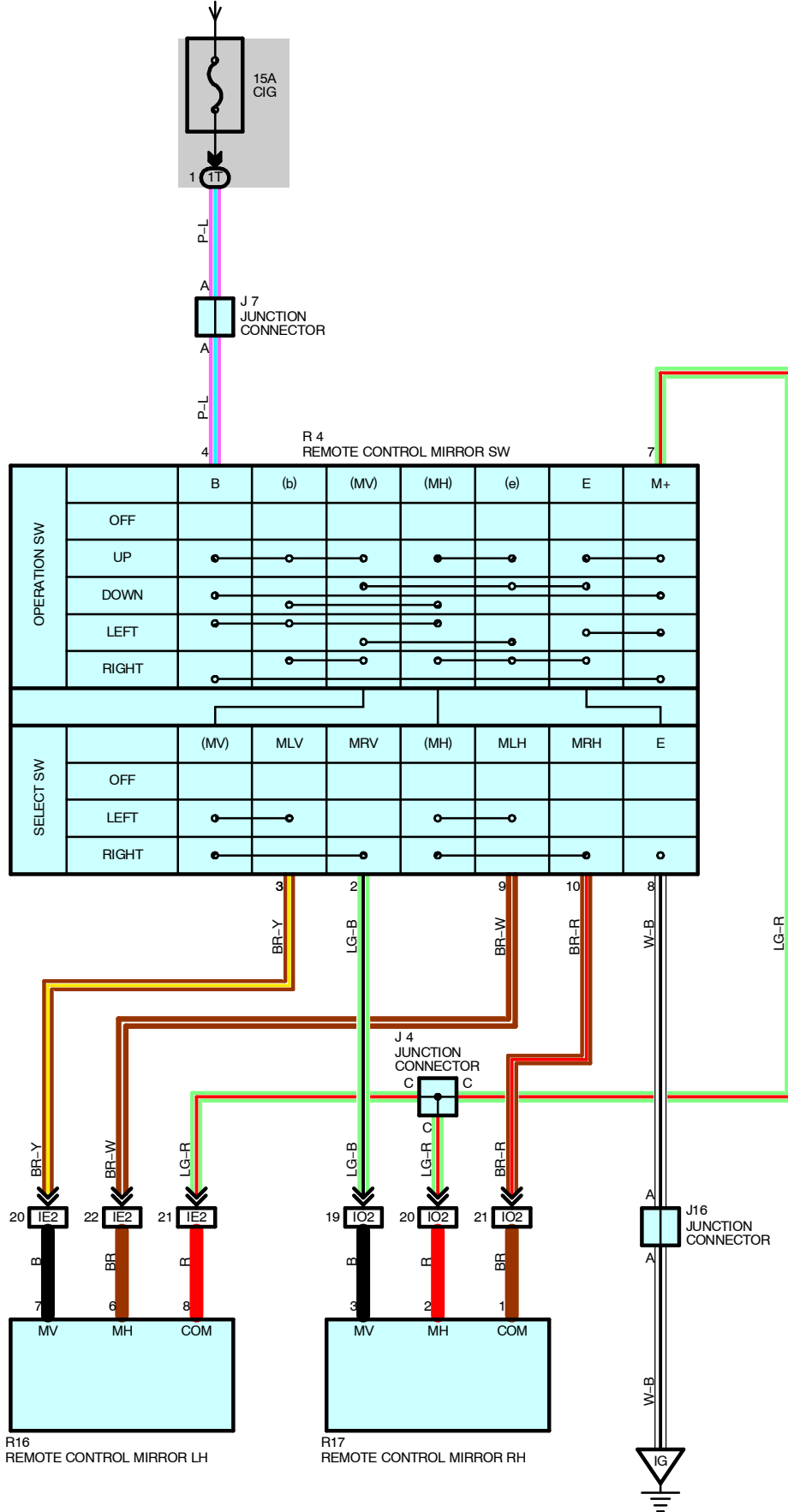


: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B16	44	Seat No.1 Wire			

REMOTE CONTROL MIRROR (w/o DRIVING POSITION MEMORY)

FROM POWER SOURCE SYSTEM (SEE PAGE 48)



SERVICE HINTS

R4 REMOTE CONTROL MIRROR SW

- 4-GROUND : Approx. **12** volts with the ignition SW at **ACC** or **ON** position
- 7-8 : Continuity with the operation SW at **UP** or **LEFT** position
- 4-7 : Continuity with the operation SW at **DOWN** or **RIGHT** position
- 8-GROUND : Always continuity

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
J4	31	J16	31	R16	33
J7	31	R4	31	R17	33

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1T	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

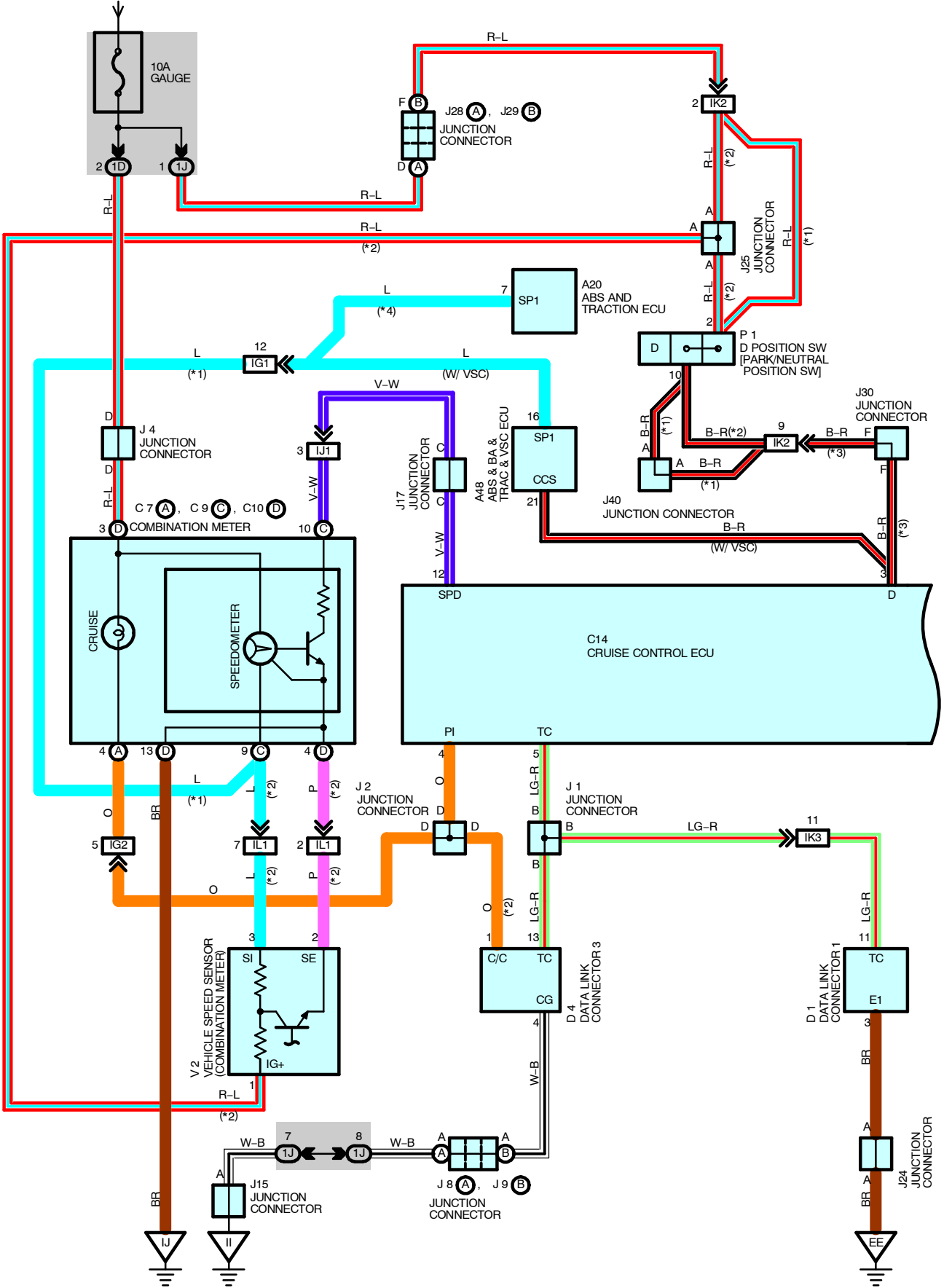
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE2	38	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IO2	40	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)

: GROUND POINTS

Code	See Page	Ground Points Location
IG	38	Left Kick Panel

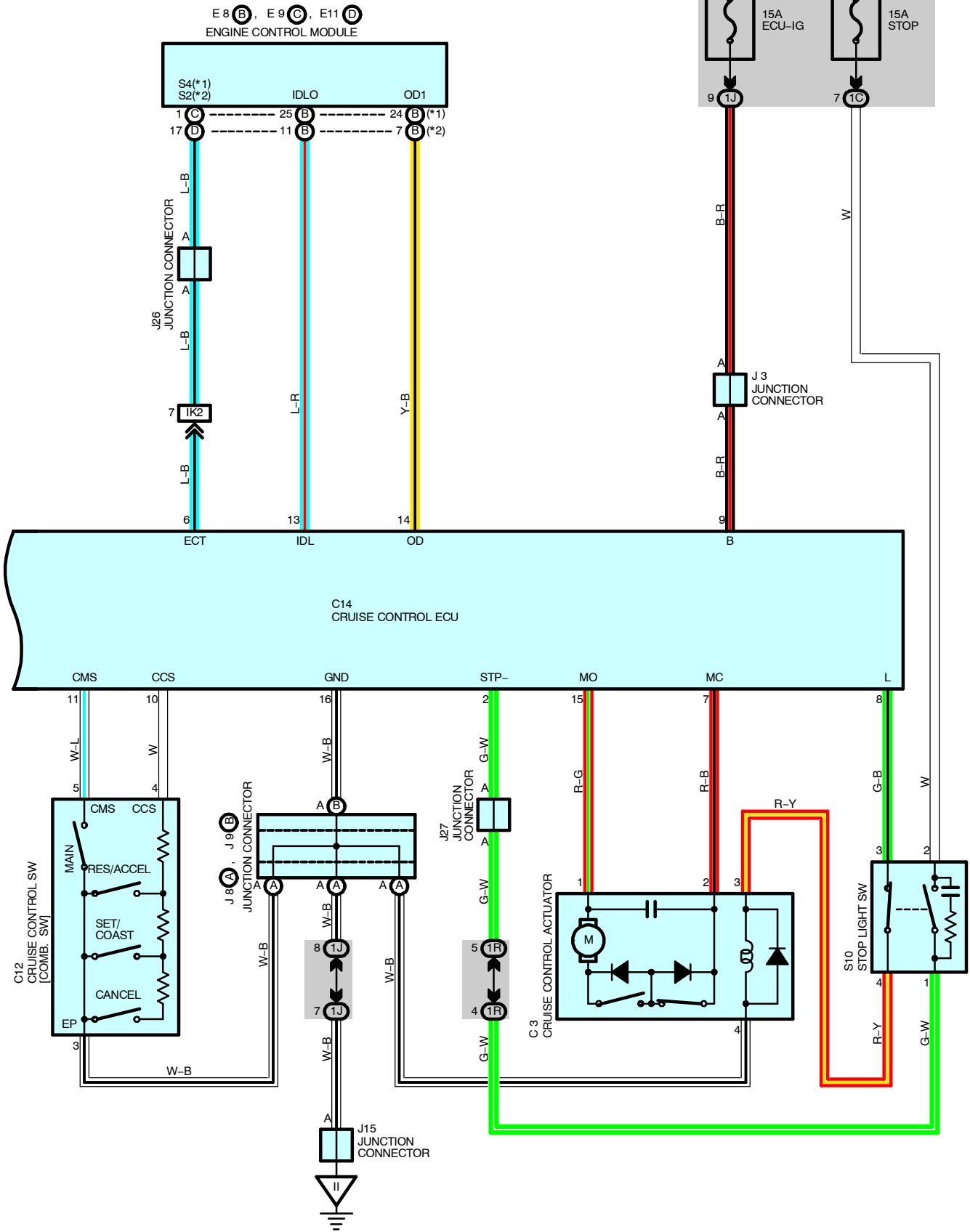
CRUISE CONTROL

FROM POWER SOURCE SYSTEM (SEE PAGE 48)



- * 1 : USA AND CANADA
- * 2 : BRAZIL
- * 3 : W/O VSC
- * 4 : W/O VSC W/ TRACTION CONTROL

FROM POWER SOURCE SYSTEM (SEE PAGE 48)



CRUISE CONTROL

SYSTEM OUTLINE

Current is applied at all times through the STOP fuse to TERMINAL 2 of the stop light SW.

With the ignition SW turned on, current flows through the GAUGE fuse to TERMINAL (D) 3 of the combination meter and the current through the ECU-IG fuse flows to TERMINAL 9 of the cruise control ECU.

When the ignition SW is on and the cruise control main SW is turned on, a signal is input from TERMINAL 5 of the cruise control SW to TERMINAL 11 of the cruise control ECU. As a result, the cruise control ECU functions and the current flows from the ECU-IG fuse to TERMINAL 9 of the cruise control ECU to TERMINAL 16 to GROUND, and the cruise control system is in a condition ready for operation.

At the same time, the current through the GAUGE fuse flows to TERMINAL (D) 3 of the cruise control indicator light to TERMINAL (A) 4 to TERMINAL 4 of the cruise control ECU to TERMINAL 16 to GROUND, causing the cruise control indicator light to light up, indicating that the cruise control is ready for operation.

1. SET OPERATION

When the cruise control main SW is turned on and the set SW is pushed with the vehicle speed within the set limit (Approx. 40 km/h, 25 mph to 200 km/h, 124 mph), a signal is input to TERMINAL 10 of the cruise control ECU and the vehicle speed at the time the set SW is released is memorized in the ECU as the set speed.

2. SET SPEED CONTROL

During cruise control driving, the cruise control ECU compares the set speed memorized in the cruise control ECU with the actual vehicle speed input into TERMINAL 12 of the cruise control ECU from the speedometer, and controls the cruise control actuator to maintain the set speed.

When the actual speed is lower than the set speed, the cruise control ECU causes the current to the cruise control actuator to flow from TERMINAL 15 of the cruise control ECU to TERMINAL 1 of the cruise control actuator to TERMINAL 2 to TERMINAL 7 of the cruise control ECU. As a result, the motor in the cruise control actuator is rotated to open the throttle valve and the throttle cable is pulled to increase the vehicle speed. When the actual driving speed is higher than the set speed, the current to the cruise control actuator flows from TERMINAL 7 of the cruise control ECU to TERMINAL 2 of the cruise control actuator to TERMINAL 1 to TERMINAL 15 of the cruise control ECU.

This causes the motor in the cruise control actuator to rotate to close the throttle valve and return the throttle cable to decrease the vehicle speed.

3. COAST CONTROL

During the cruise control driving, while the coast SW is on, the cruise control actuator returns the throttle cable to close the throttle valve and decrease the driving speed. The vehicle speed when the coast SW is turned off is memorized and the vehicle continues at the new set speed.

4. ACCEL CONTROL

During cruise control driving, while the accel SW is turned on, the cruise control actuator pulls the throttle cable to open the throttle valve and increase the driving speed.

The vehicle speed when the accel SW is turned off is memorized and the vehicle continues at the new set speed.

5. RESUME CONTROL

Unless the vehicle speed falls below the minimum speed limit (Approx. 40 km/h, 25 mph) after canceling the set speed by the cancel SW, pushing the resume SW will cause the vehicle to resume the speed set before cancellation.

6. MANUAL CANCEL MECHANISM

If any of the following operations occurs during cruise control operation, the magnetic clutch of the actuator turns off and the motor rotates to close the throttle valve and the cruise control is released.

- * Placing the shift lever except D position (Park/Neutral position SW except D position). Signal is not input to TERMINAL 3 of the cruise control ECU
- * Depressing the brake pedal (Stop light SW on). Signal input to TERMINAL 2 of the cruise control ECU
- * Pull the cancel SW (Cancel SW on). Signal input to TERMINAL 10 of the cruise control ECU
- * Pushing the main SW (Main SW off). Signal input to TERMINAL 11 of the cruise control ECU

7. AUTO CANCEL FUNCTION

- A) If any of the following operating conditions occurs during cruise control operation, the set speed is erased, the current flow to the magnetic clutch is stopped and the cruise control is released. (Main SW turns off).
When this occurs, the ignition SW must be turned off once before the main SW will turn on.
- * When current continued to flow to the motor inside the actuator in the throttle valve OPEN direction.
 - * The motor does not operate despite the motor drive signal being output.
- B) If any of the following operating conditions occurs during cruise control operation, the set speed is erased, the current flow to the magnetic clutch is stopped and the cruise control is released. (Main SW turn off).
When this occurs, the cancel state is cleared as the main SW will turn on again.
- * Over current to transistor driving the motor and/or the magnetic clutch.
 - * Open circuit in the magnetic clutch.
 - * Momentary interruption of vehicle speed signal.
 - * Short circuit in the cruise control SW.
 - * When the vehicle speed falls more than 16 km/h (10 mph) below the set speed, E.G. on an upward slope.
- C) If any of the following conditions occurs during cruise control operation, the set speed is erased and the cruise control is released. (The power to the magnetic clutch is cut off until the set SW is ON again.)
- * When the vehicle speed falls below the minimum speed limit, approx. 40 km/h (25 mph).
 - * When power to the cruise control system is momentarily cut off.
- D) If any of the following conditions occurs during cruise control operation, the cruise control is released.
- * Open the circuit for TERMINAL 2 of the stop light SW.

8. AUTOMATIC TRANSAXLE CONTROL FUNCTION

- * In overdrive. If the vehicle speed becomes lower than the overdrive cut speed (Set speed minus approx. 4 km/h, 2.5 mph) during cruise control operation, such as driving up a hill, the overdrive is released and the power increased to prevent a reduction in vehicle speed.
- * After releasing the overdrive, vehicle speed becomes higher than the overdrive return speed (Set speed minus approx. 2 km/h, 1.2 mph) and the cruise control ECU judges by the signals from the actuator's potentiometer that the upward slope has finished, the overdrive is resumed after approximately 2 seconds.
- * During cruise control driving, the cruise control operation signal is output from the cruise control ECU to the engine control module. Upon receiving this signal, the engine control module changes the shift pattern to normal.
To maintain smooth cruise control operation (on a downward slope etc.), the lock-up release of the transmission when the idling point of the throttle position is ON is forbidden.

SERVICE HINTS

C3 CRUISE CONTROL ACTUATOR

3-4 : Approx. **38** Ω

C12 CRUISE CONTROL SW [COMB. SW]

5-3 : Continuity with the MAIN SW on

4-3 : Approx. **418** Ω with the CANCEL SW on

Approx. **68** Ω with the RES/ACCEL SW on

Approx. **198** Ω with the SET/COAST SW on

C14 CRUISE CONTROL ECU

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

12-GROUND : **4** pulses with **1** rotation of the rotor shaft

10-GROUND : Approx. **418** Ω with the CANCEL SW on in the control SW

Approx. **198** Ω with the SET/COAST SW on in the control SW

Approx. **68** Ω with the RES/ACCEL SW on in the control SW

16-GROUND : Always continuity

CRUISE CONTROL

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A20	30	E9 C	30	J25	31
A48	30	E11 D	30	J26	31
C3	28	J1	31	J27	31
C7 A	30	J2	31	J28 A	31
C9 C	30	J3	31	J29 B	31
C10 D	30	J4	31	J30	31
C12	30	J8 A	31	J40	31
C14	30	J9 B	31	P1	29
D1	28	J15	31	S10	31
D4	30	J17	31	V2	29
E8 B	30	J24	31		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

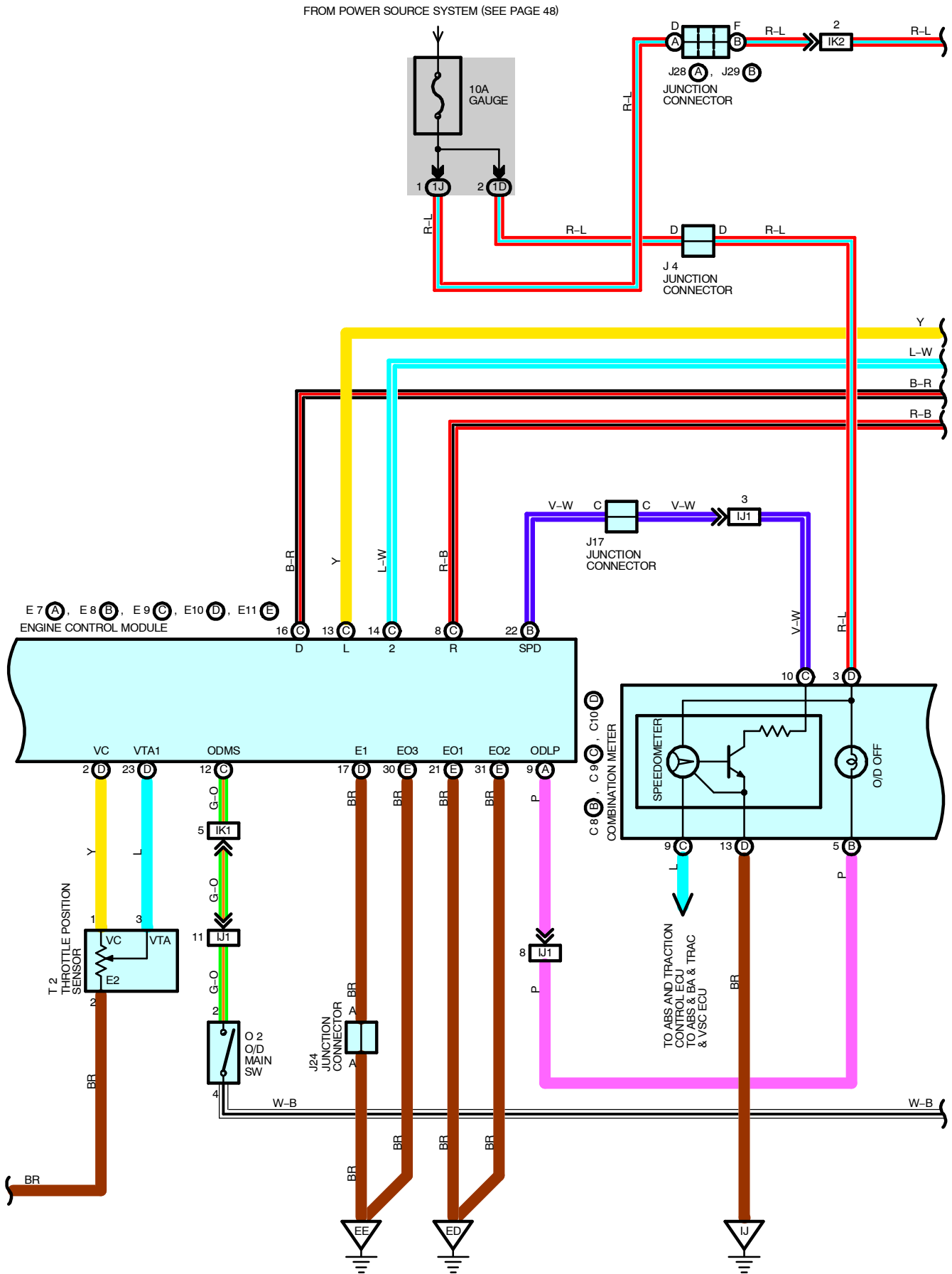
Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1R		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

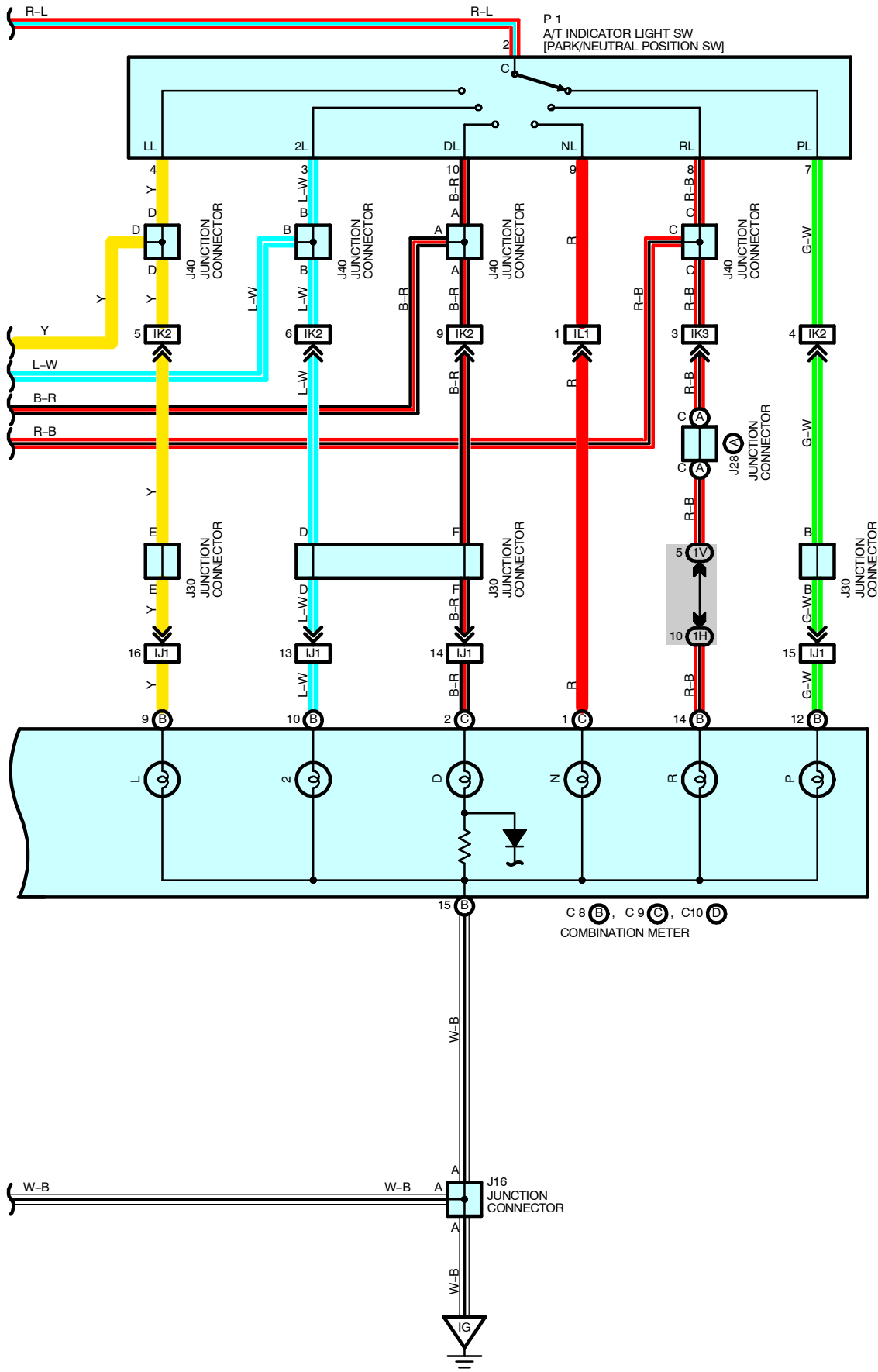
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	38	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IG2		
IJ1	38	Instrument Panel Wire and Cowl Wire (Under the Glove Box)
IK2	38	Engine Wire and Cowl Wire (Under the Glove Box)
IK3		
IL1	40	Engine Wire and Instrument Panel Wire (Under the Glove Box)

▽ : GROUND POINTS

Code	See Page	Ground Points Location
EE	36	Rear Side of Surge Tank
II	38	Instrument Panel Brace LH
IJ	38	Instrument Panel Brace RH



ELECTRONICALLY CONTROLLED TRANSMISSION AND A/T INDICATOR



(USA AND CANADA)

SYSTEM OUTLINE

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

1. GEAR SHIFT OPERATION

When driving, the engine warm up condition is input as a signal to TERMINAL THW of the engine control module from the engine coolant temp. sensor and the vehicle speed signal from speedometer is input to TERMINAL SPD of the engine control module. At the time, the throttle valve opening signal from the throttle position sensor is input to TERMINAL VTA1 of the engine control module as 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 judges from each signal that lock-up operation conditions have been met, current flows from TERMINAL DSL of the engine control module to TERMINAL 3 of the electronically controlled transmission solenoid to GROUND, causing continuity to the lock-up solenoid and causing lock-up operation.

3. STOP LIGHT SW CIRCUIT

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

4. OVERDRIVE CIRCUIT

* Overdrive on

When the engine is turned on from ignition off, the engine control module turns the O/D on. When the O/D main SW is pushed while the O/D is off, a signal is input into TERMINAL ODMS of the engine control module, and the O/D is turned on by the engine control module. In this case, the engine control module controls the gear shift according to the vehicle's driving condition, using the O/D range. At this time, the O/D off indicator light is off.

* Overdrive off

When the O/D main SW is pushed while the O/D is on, a signal is input into TERMINAL ODMS of the engine control module, and the O/D is turned off. At this time, the current flows through the O/D off indicator light to TERMINAL ODLP of the engine control module. As a result, the O/D off indicator light turns on, and the engine control module controls the gear shift according to the vehicle's driving condition, without using the O/D range.

SERVICE HINTS

E7 (A), E8 (B), E9(C), E10 (D), E11 (E) ENGINE CONTROL MODULE

L-E1 : 7.5-14.0 volts with the ignition SW on and the shift lever at **L** position

2-E1 : 7.5-14.0 volts with the ignition SW on and the shift lever at **2** position

R-E1 : 7.5-14.0 volts with the ignition SW on and the shift lever at **R** position

STP-E1 : 9.0-14.0 volts with the ignition SW on and the brake pedal depressed

THW-E2 : 0.2-1.0 volts with the engine coolant temp. 60°C (140°F)-120°C (248°F)

VTA1-E2 : 0.3-0.8 volts with the ignition SW on and the throttle valve fully closed
3.2-4.9 volts with the ignition SW on and the throttle valve fully opened

VC-E2 : 4.5-5.5 volts with the ignition SW at **ON** position

OD1-E1 : 4.5-5.5 volts with the ignition SW at **ON** position

ODMS-E1 : 9.0-14.0 volts with the ignition SW on and the O/D main SW turned off
0-3.0 volts with the ignition SW on and the O/D main SW turned on

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

ELECTRONICALLY CONTROLLED TRANSMISSION AND A/T INDICATOR (USA AND CANADA)

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C8	B 30	E10	D 30	J29	B 31
C9	C 30	E11	E 30	J30	31
C10	D 30	J3	31	J32	31
C14	30	J4	31	J40	31
C21	28	J16	31	O2	31
E3	28	J17	31	P1	29
E4	28	J24	31	S10	31
E7	A 30	J26	31	T2	29
E8	B 30	J27	31	T10	29
E9	C 30	J28	A 31		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1H		
1J		
1R		
1V		
1W		Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
2C	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2F		
2J	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)
2K		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IJ1	38	Instrument Panel Wire and Cowl Wire (Under the Glove Box)
IK1	38	Engine Wire and Cowl Wire (Under the Glove Box)
IK2		
IK3		
IL1	40	Engine Wire and Instrument Panel Wire (Under the Glove Box)

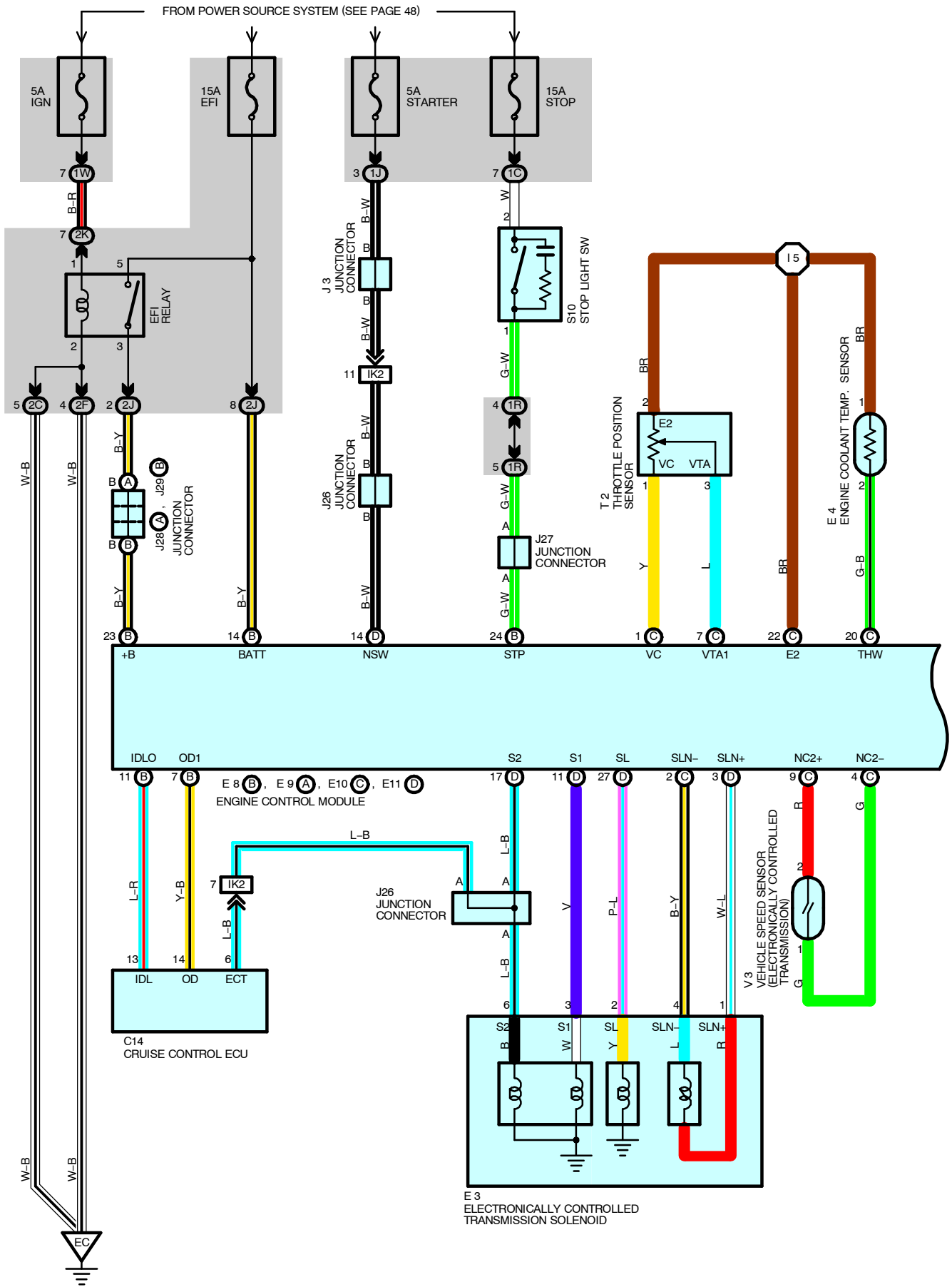
▽ : GROUND POINTS

Code	See Page	Ground Points Location
EC	36	Left Radiator Side Support
ED	36	Surge Tank RH
EE	36	Rear Side of Surge Tank
IG	38	Left Kick Panel
IJ	38	Instrument Panel Brace RH

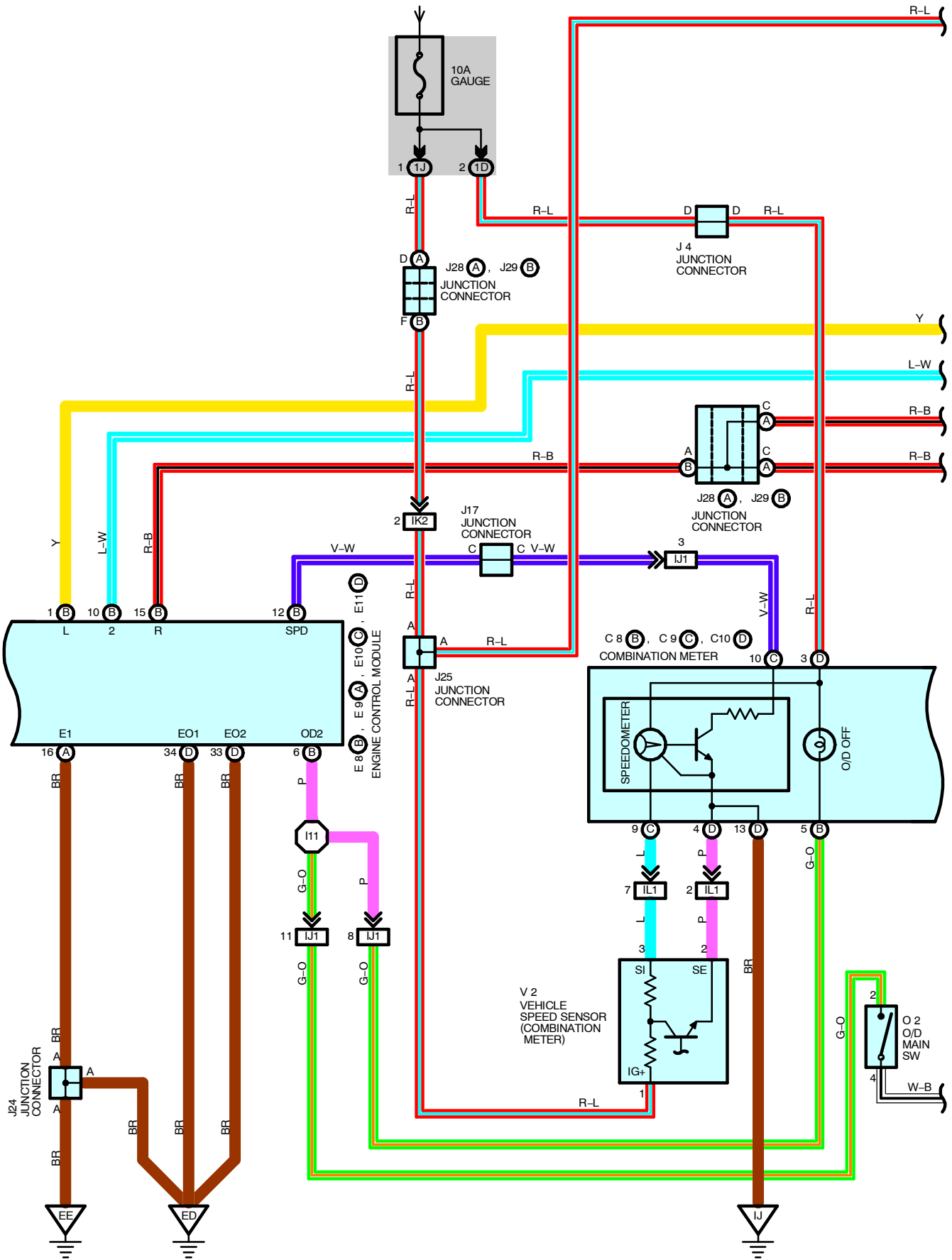
○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I5	40	Engine Wire			

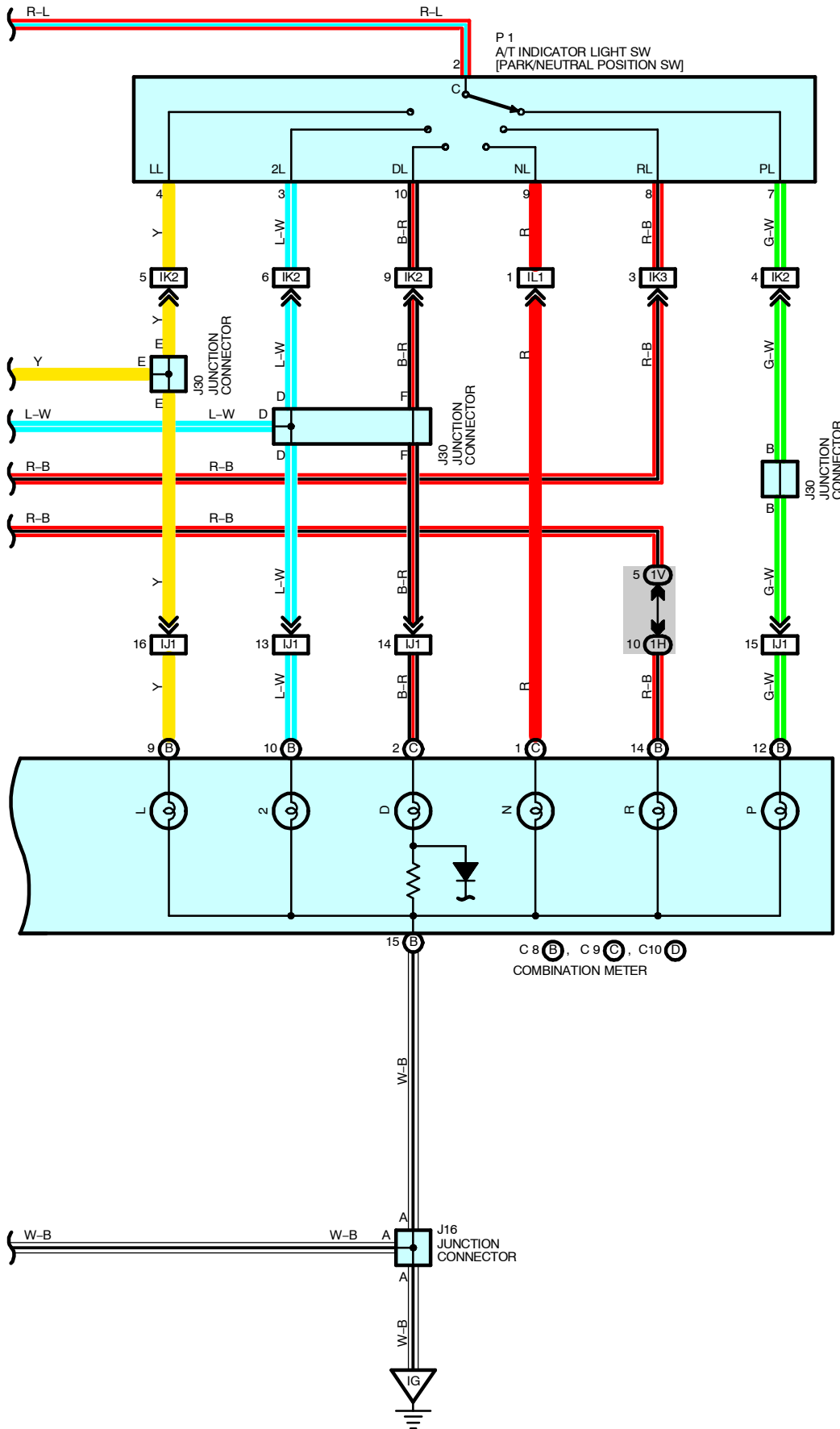
ELECTRONICALLY CONTROLLED TRANSMISSION AND A/T INDICATOR



FROM POWER SOURCE SYSTEM (SEE PAGE 48)



ELECTRONICALLY CONTROLLED TRANSMISSION AND A/T INDICATOR



SYSTEM OUTLINE

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

1. GEAR SHIFT OPERATION

When driving, the engine warm up condition is input as a signal to TERMINAL THW of the engine control module from the engine coolant temp. sensor and the vehicle speed signal from speedometer is input to TERMINAL SPD of the engine control module. At the time, the throttle valve opening signal from the throttle position sensor is input to TERMINAL VTA1 of the engine control module as 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 judges from each signal that lock-up operation conditions have been met, current flows from TERMINAL SL of the engine control module to TERMINAL 2 of the electronically controlled transmission solenoid to GROUND, causing continuity to the lock-up solenoid and causing lock-up operation.

3. STOP LIGHT SW CIRCUIT

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

4. OVERDRIVE CIRCUIT

* Overdrive on

When the O/D main SW is turned on (O/D off indicator light turns off), a signal is input to TERMINAL OD2 of the engine control module and engine control module operation causes gear shift when the conditions for overdrive are met.

* Overdrive off

When the O/D main SW is turned to off (O/D off indicator light turns on), the current flowing through the O/D off indicator light flows through the O/D main SW to GROUND. Causing the indicator light to light up. At the same time, a signal is input to TERMINAL OD2 of the engine control module and engine control module operation prevents shift into overdrive.

SERVICE HINTS

E8 (B), E9 (A), E10 (C), E11 (D) ENGINE CONTROL MODULE

S1, S2-E1 : 9.0-14.0 volts with the solenoid on

0-1.5 volts with the solenoid off

L-E1 : 7.5-14.0 volts with the ignition SW on and the shift lever at **L** position

2-E1 : 7.5-14.0 volts with the ignition SW on and the shift lever at **2** position

R-E1 : 7.5-14.0 volts with the ignition SW on and the shift lever at **R** position

STP-E1 : 9.0-14.0 volts with the ignition SW on and the brake pedal depressed

THW-E2 : 0.2-1.0 volts with the engine coolant temp. 60°C (140°F)-120°C (248°F)

VTA1-E2 : 0.3-0.8 volts with the ignition SW on and the throttle valve fully closed

3.2-4.9 volts with the ignition SW on and the throttle valve fully opened

VC-E2 : 4.5-5.5 volts with the ignition SW at **ON** position

OD1-E1 : 4.5-5.5 volts with the ignition SW at **ON** position

OD2-E1 : 9.0-14.0 volts with the ignition SW on and the O/D main SW turned off

0-3.0 volts with the ignition SW on and the O/D main SW turned on

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

O2 O/D MAIN SW

2-4 : Closed with the O/D main SW off, open with the O/D main SW on

ELECTRONICALLY CONTROLLED TRANSMISSION AND A/T INDICATOR (BRAZIL)

: PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
C8	B	30	E11	D	30	J28	A	31
C9	C	30	J3		31	J29	B	31
C10	D	30	J4		31	J30		31
C14		30	J16		31	O2		31
E3		28	J17		31	P1		29
E4		28	J24		31	S10		31
E8	B	30	J25		31	T2		29
E9	A	30	J26		31	V2		29
E10	C	30	J27		31	V3		29

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1H		
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1R		
1V		
1W		
2C	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2F		
2J	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)
2K		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IJ1	38	Instrument Panel Wire and Cowl Wire (Under the Glove Box)
IK2	38	Engine Wire and Cowl Wire (Under the Glove Box)
IK3		
IL1	40	Engine Wire and Instrument Panel Wire (Under the Glove Box)

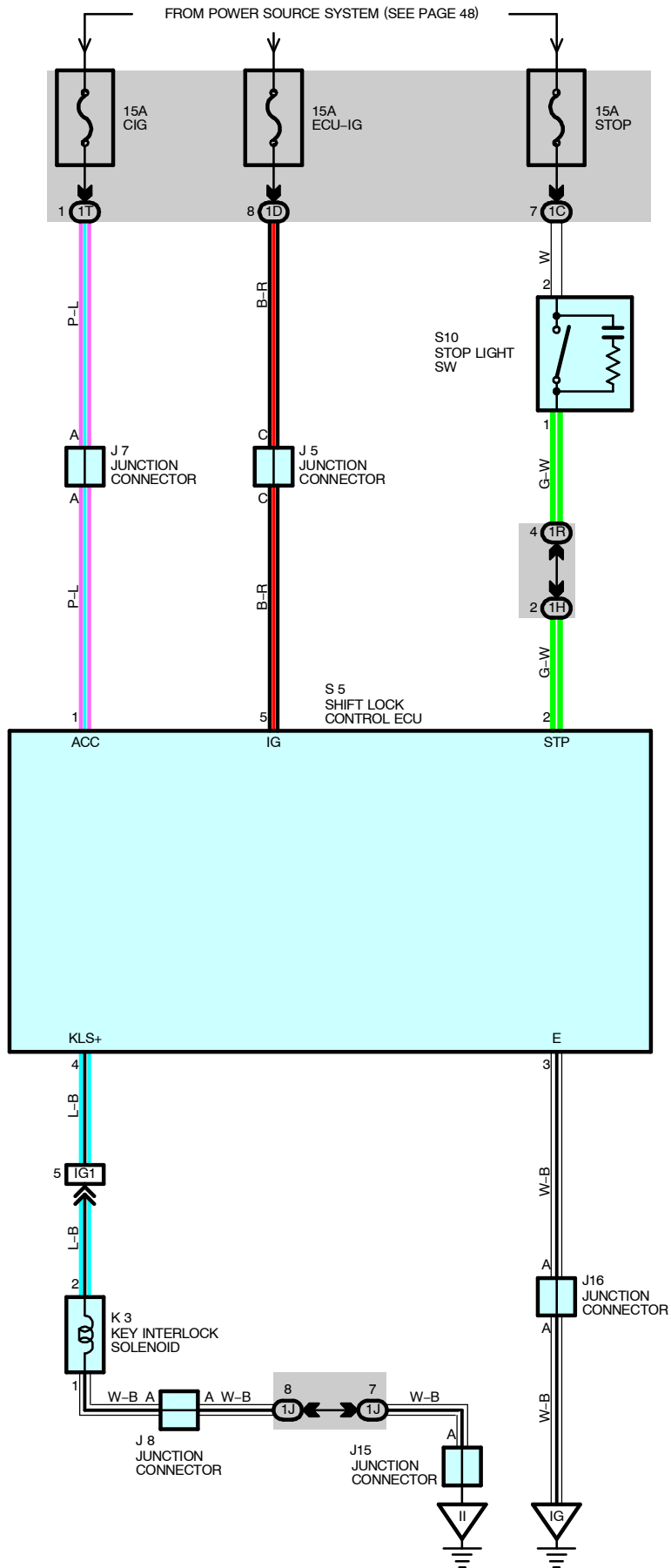
: GROUND POINTS

Code	See Page	Ground Points Location
EC	36	Left Radiator Side Support
ED	36	Surge Tank RH
EE	36	Rear Side of Surge Tank
IG	38	Left Kick Panel
IJ	38	Instrument Panel Brace RH

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I5	40	Engine Wire	I11	40	Cowl Wire

SHIFT LOCK



SERVICE HINTS

S5 SHIFT LOCK CONTROL ECU

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

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
J5	31	J15	31	S5	31
J7	31	J16	31	S10	31
J8	31	K3	31		

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1H		
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1R		
1T	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)

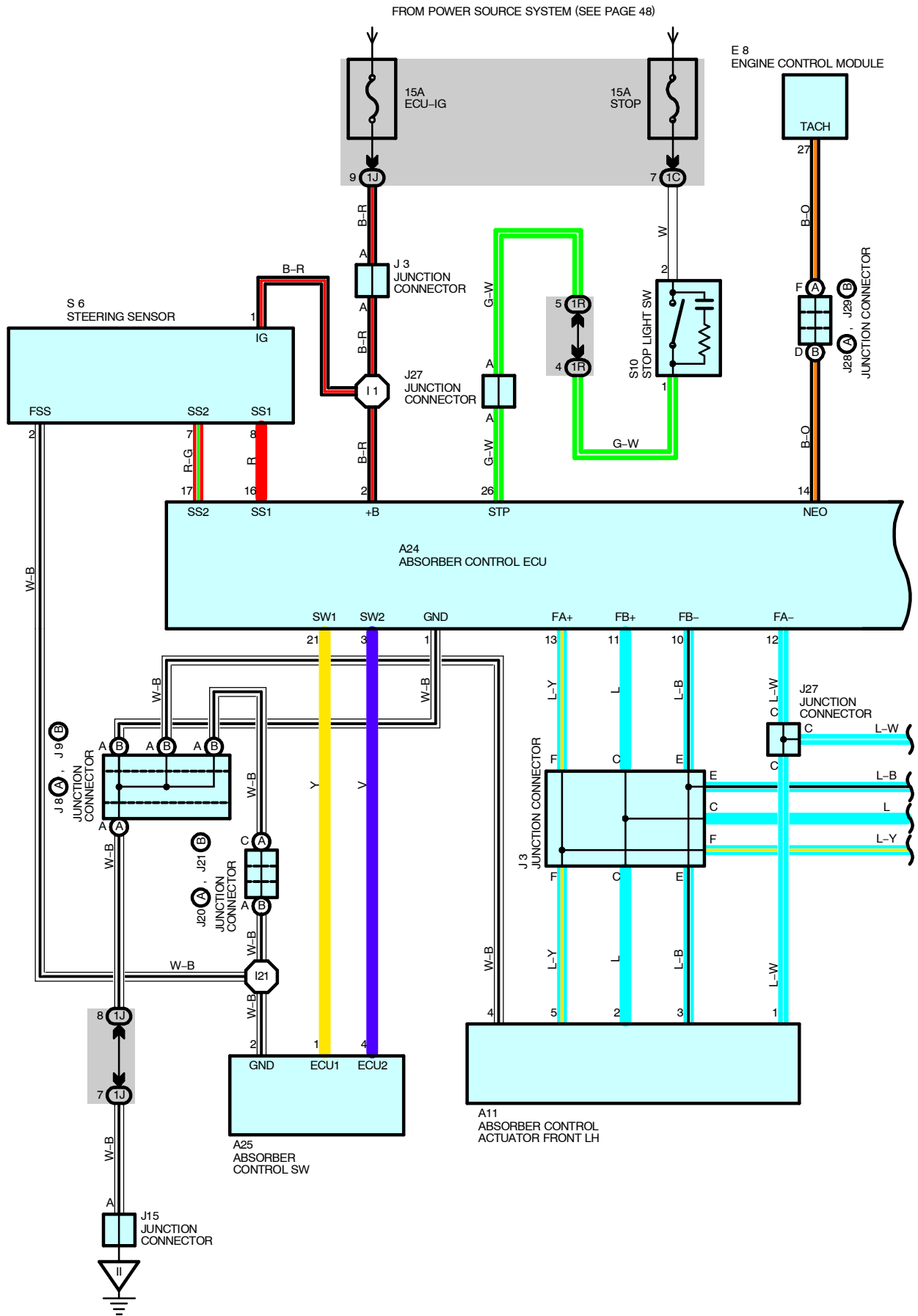
: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	38	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)

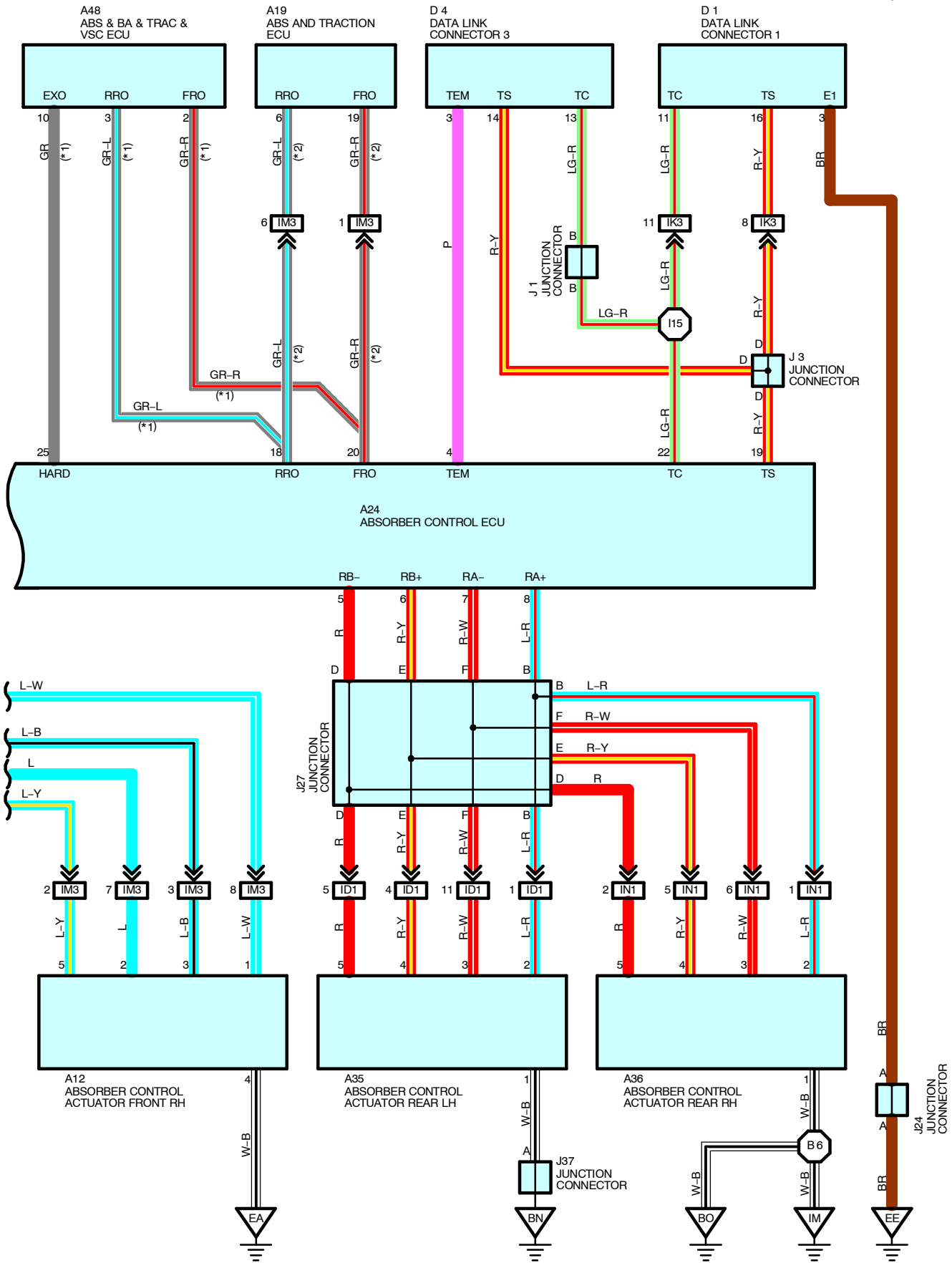
: GROUND POINTS

Code	See Page	Ground Points Location
IG	38	Left Kick Panel
II	38	Instrument Panel Brace LH

ELECTRIC MODULATED SUSPENSION



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



ELECTRIC MODULATED SUSPENSION

SYSTEM OUTLINE

Electric modulated suspension system is the damping force control system using several signals which restrains the vehicle movement (Such as rolling, diving, and squat) by a driver's operation together with restraining and absorbing the vehicle movement change and vibration against the unevenness of the road.

(1) Steering sensor signal

To input the rotation angle of the steering wheel into the TERMINALS SS1 and SS2 of the absorber control ECU.

(2) Speed sensor signal

To detect the vehicle speed at ABS speed sensor front RH, rear RH, and input to the TERMINALS FRO and RRO of the absorber control ECU from ABS and traction ECU or ABS & BA & TRAC & VSC ECU.

(3) Stop light SW signal

To detect the signal of the brake in operation and input it into the TERMINAL STP of the absorber control ECU.

(4) Engine rotation Signal

To detect the engine speed and input it into the TERMINAL NEO of the absorber control ECU.

(5) Absorber control SW Signal

To detect the switch condition and input it into the TERMINALS SW1 and SW2 of the absorber control ECU.

SERVICE HINTS

A24 ABSORBER CONTROL ECU

2-GROUND : Approx. 12 volts with the ignition SW at ON position

26-GROUND : Approx. 12 volts with the brake pedal depressed

1-GROUND : Always continuity

S6 STEERING SENSOR

1-GROUND : Approx. 12 volts with the ignition SW at ON position

2-GROUND : Always continuity

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A11	28	D4	30	J24	31
A12	28	E8	30	J27	31
A19	30	J1	31	J28	A 31
A24	30	J3	31	J29	B 31
A25	30	J8	A 31	J37	32
A35	32	J9	B 31	S6	31
A36	32	J15	31	S10	31
A48	30	J20	A 31		
D1	28	J21	B 31		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1J		
1R		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

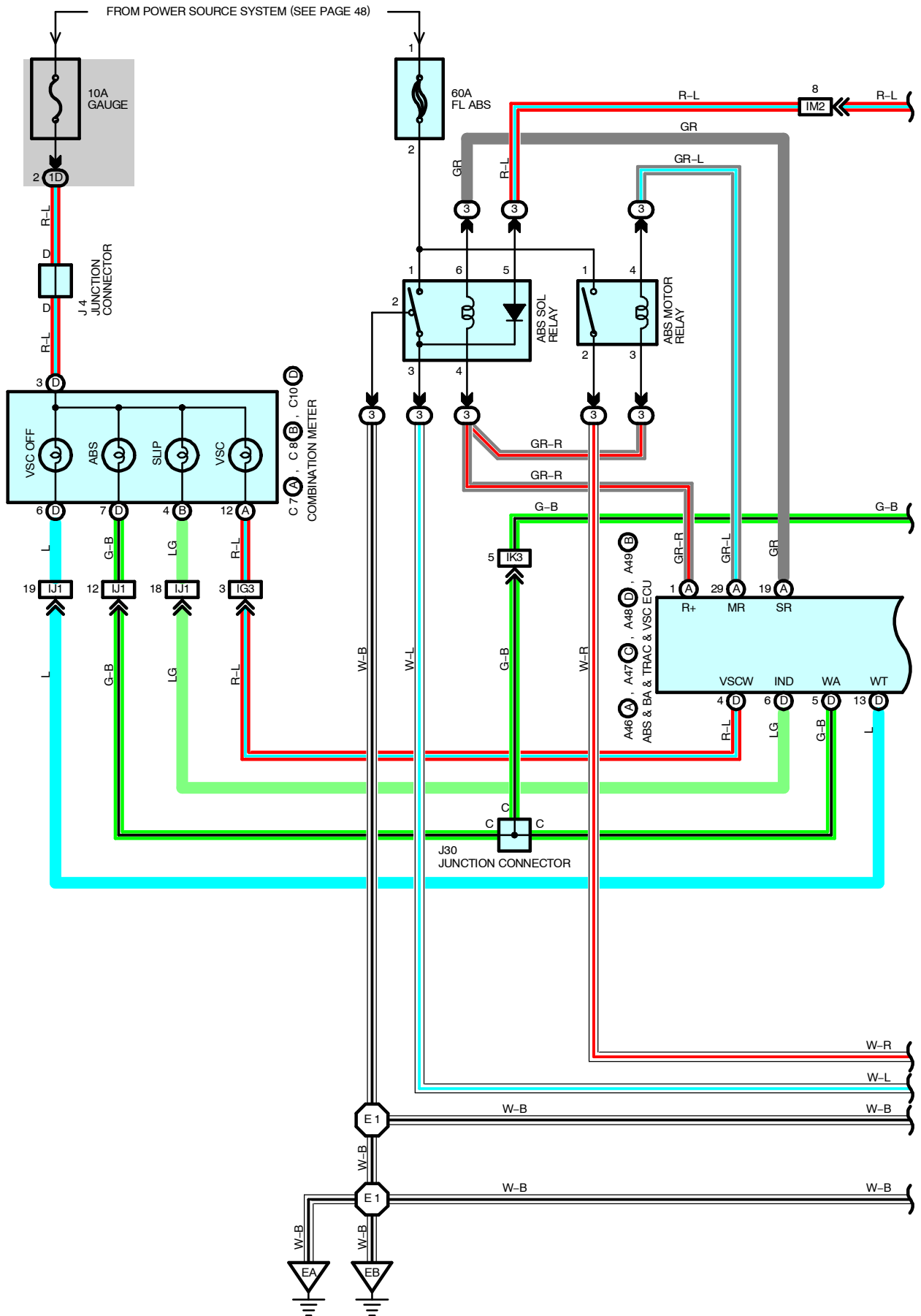
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ID1	38	Floor Wire and Cowl Wire (Left Kick Panel)
IK3	38	Engine Wire and Cowl Wire (Under the Glove Box)
IM3	40	Engine Room Main Wire and Cowl Wire (Right Kick Panel)
IN1	40	Floor No.2 Wire and Cowl Wire (Right Kick Panel)

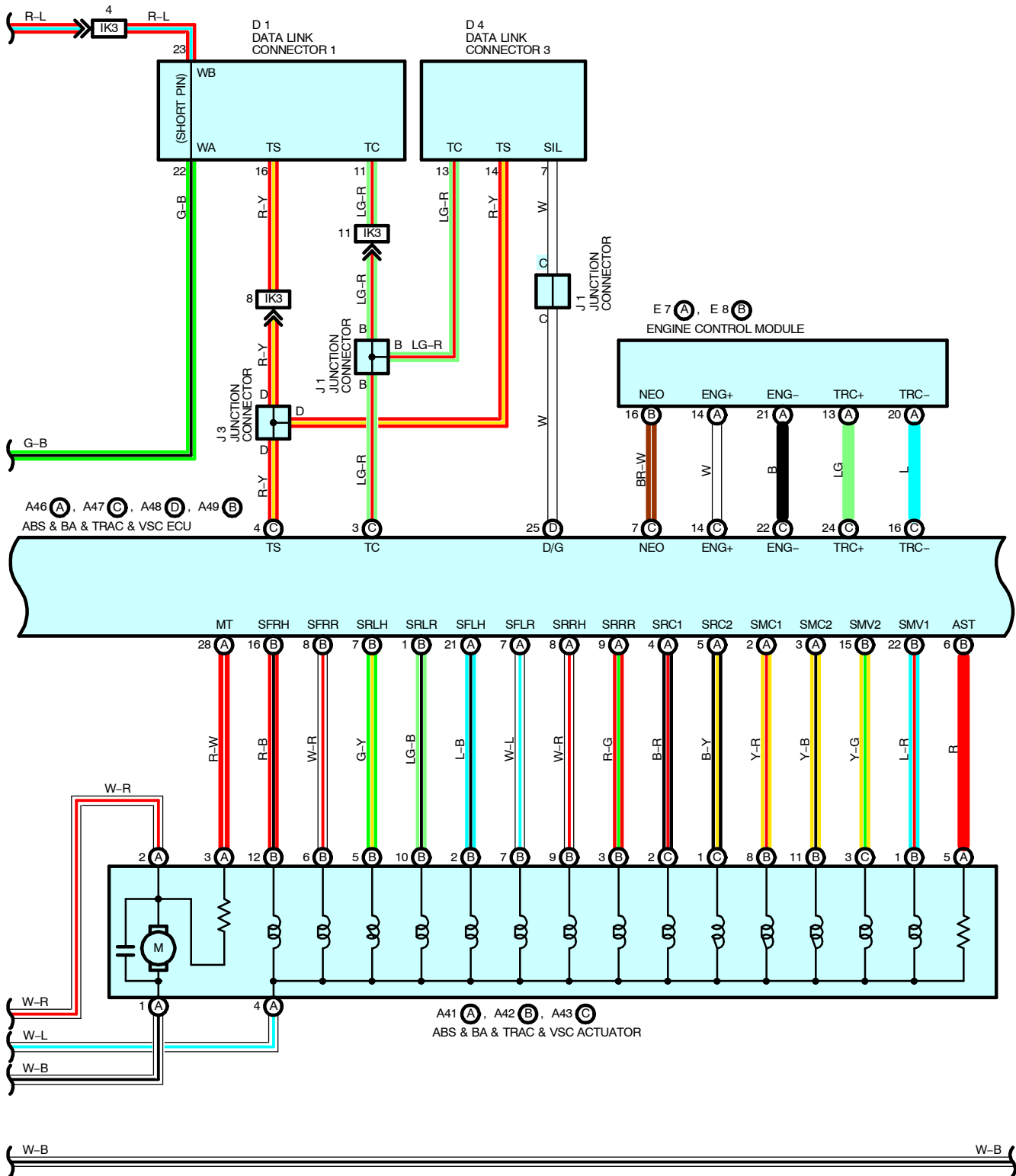
**: GROUND POINTS**

Code	See Page	Ground Points Location
EA	36	Right Radiator Side Support
EE	36	Rear Side of Surge Tank
II	38	Instrument Panel Brace LH
IM	38	Right Kick Panel
BN	42	Under the Left Center Pillar
BO	42	Under the Right Center Pillar

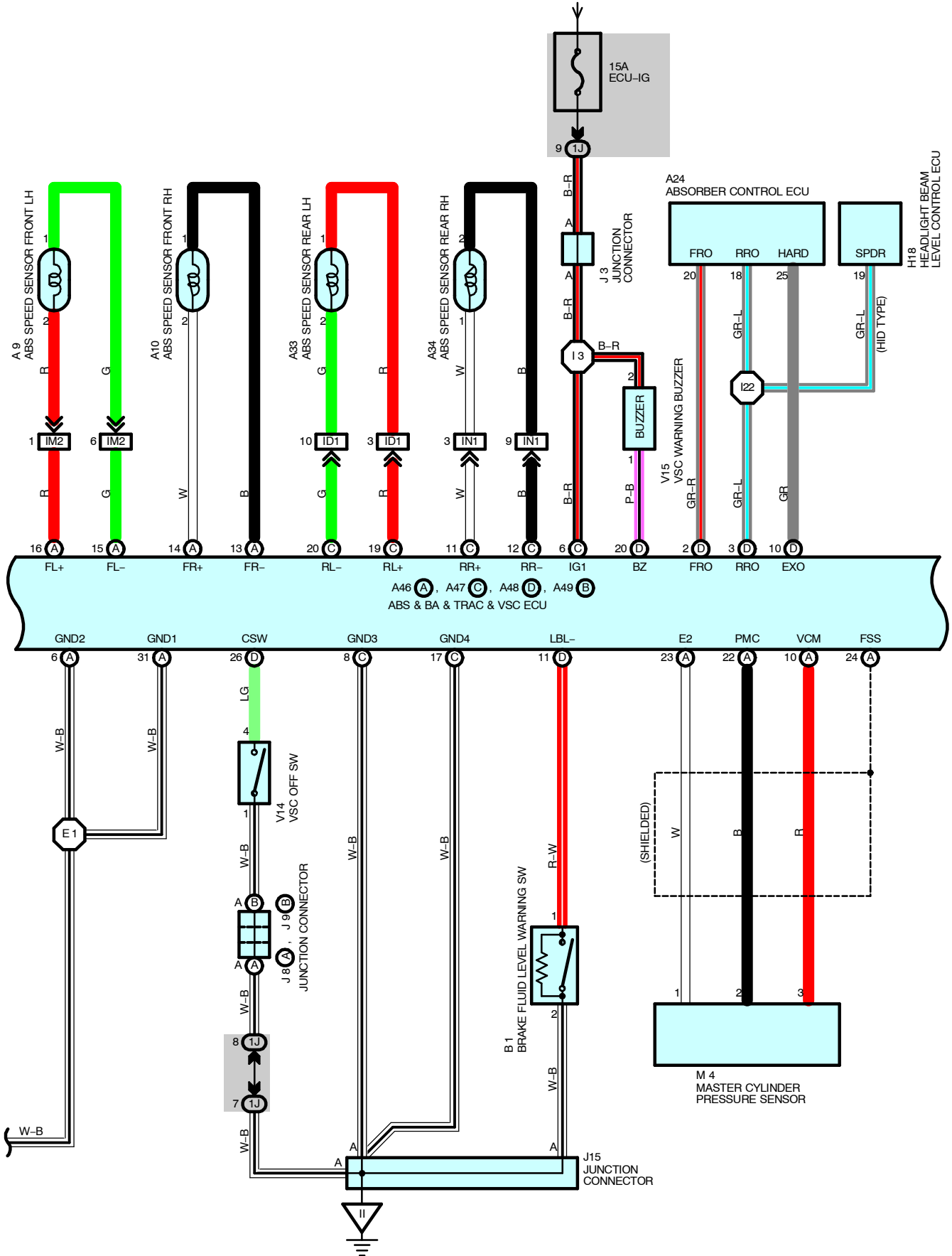
**: SPLICE POINTS**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I1	40	Cowl Wire	I21	40	Cowl Wire
I15			B6	42	Floor No.2 Wire

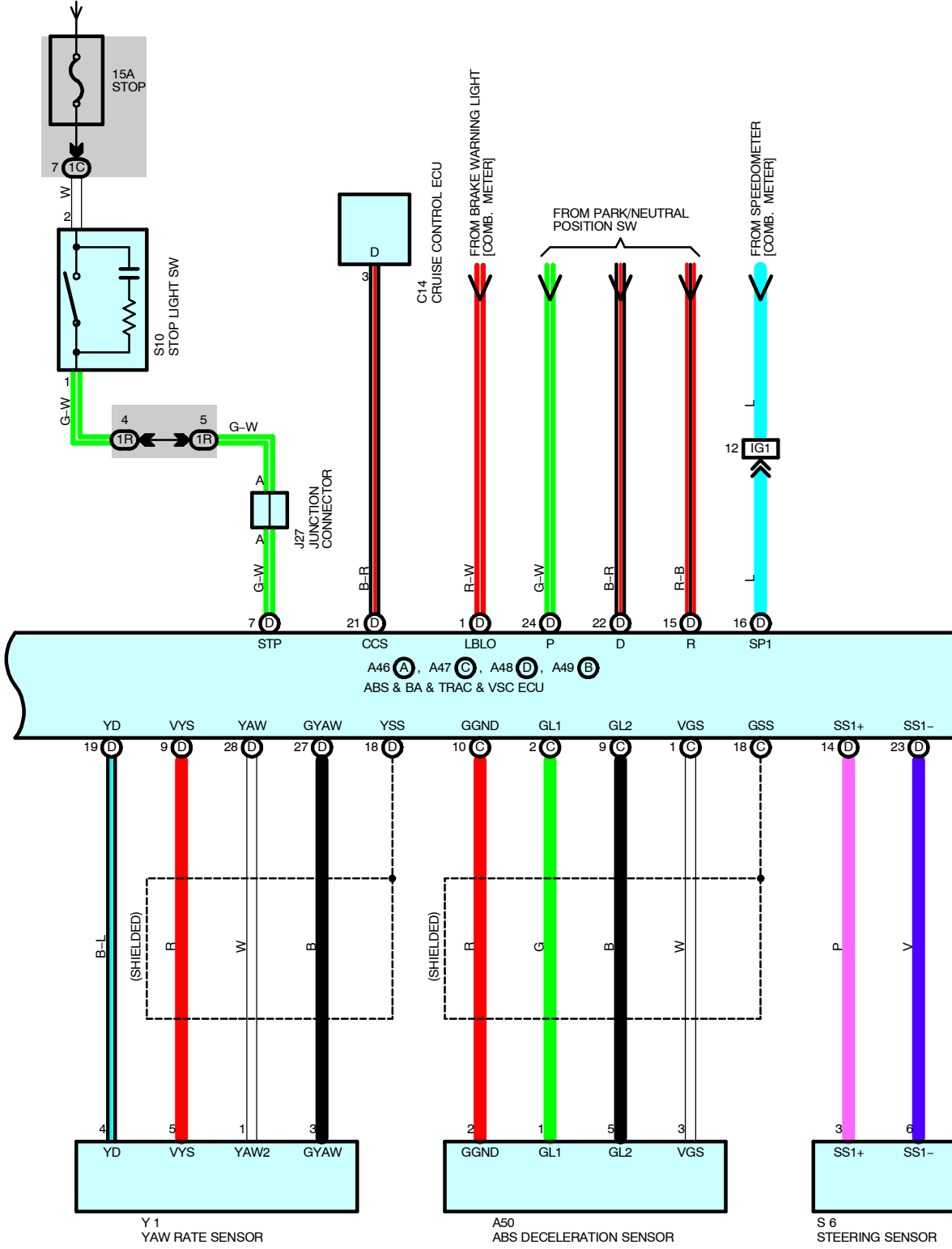




FROM POWER SOURCE SYSTEM (SEE PAGE 48)



FROM POWER SOURCE SYSTEM (SEE PAGE 48)



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 front 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 OFF SW

The VSC OFF SW is used to stop the VSC function. After the engine is started, if the VSC off SW is pressed, the VSC system is stopped (turned off) and the VSC OFF indicator light lights up. When the VSC OFF SW is pressed again, the VSC system enters the stand-by mode. If the engine is stopped and restarted, the VSC system enters the stand-by mode regardless of the VSC OFF SW.

VSC indicator light

If a malfunction occurs in the VSC system, the VSC indicator lights up to warn the driver.

4. 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 control

The engine power does not interfere with the VSC brake control by fuel cut controlling 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 alarm intermittently to warn the driver that the current road is slippery, while the VSC system is being operated.

5. FAIL SAFE FUNCTION

If a malfunction 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 malfunction signal to the engine control module. According to the malfunction signal, the brake actuator turns off the solenoid and the engine control module rejects any electronically controlled request from the VSC system. As a result, the vehicle functions without the ABS, BA, TRAC, and VSC systems.

SERVICE HINTS

A46 (A), A47 (C), A48 (D) ABS & BA & TRAC & VSC ECU

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

(D) 7-GROUND : Approx. 12 volts with stop light SW on

(A) 6, (A) 31, (C) 8, (C) 17-GROUND: Always continuity

A9, A10 ABS SPEED SENSOR FRONT LH, RH

1-2 : 1.5-1.7 k Ω (20°C, 68°F)

A33, A34 ABS SPEED SENSOR REAR LH, RH

1-2 : 1.5-1.7 k Ω (20°C, 68°F)

 : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A9	28	B1	28	J8	A 31
A10	28	C7	A 30	J9	B 31
A24	30	C8	B 30	J15	31
A33	32	C10	D 30	J27	31
A34	32	C14	30	J30	31
A41	A 28	D1	28	M4	29
A42	B 28	D4	30	S6	31
A43	C 28	E7	A 30	S10	31
A46	A 30	E8	B 30	V14	31
A47	C 30	H18	30	V15	31
A48	D 30	J1	31	Y1	31
A49	B 30	J3	31		
A50	30	J4	31		

 : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
3	25	Engine Room No.3 R/B (Radiator Upper Support RH)

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1R		

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ID1	38	Floor Wire and Cowl Wire (Left Kick Panel)
IG1	38	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IG3		
IJ1	38	Instrument Panel Wire and Cowl Wire (Under the Glove Box)
IK3	38	Engine Wire and Cowl Wire (Under the Glove Box)
IM2	40	Engine Room Main Wire and Cowl Wire (Right Kick Panel)
IN1	40	Floor No.2 Wire and Cowl Wire (Right Kick Panel)

 : GROUND POINTS

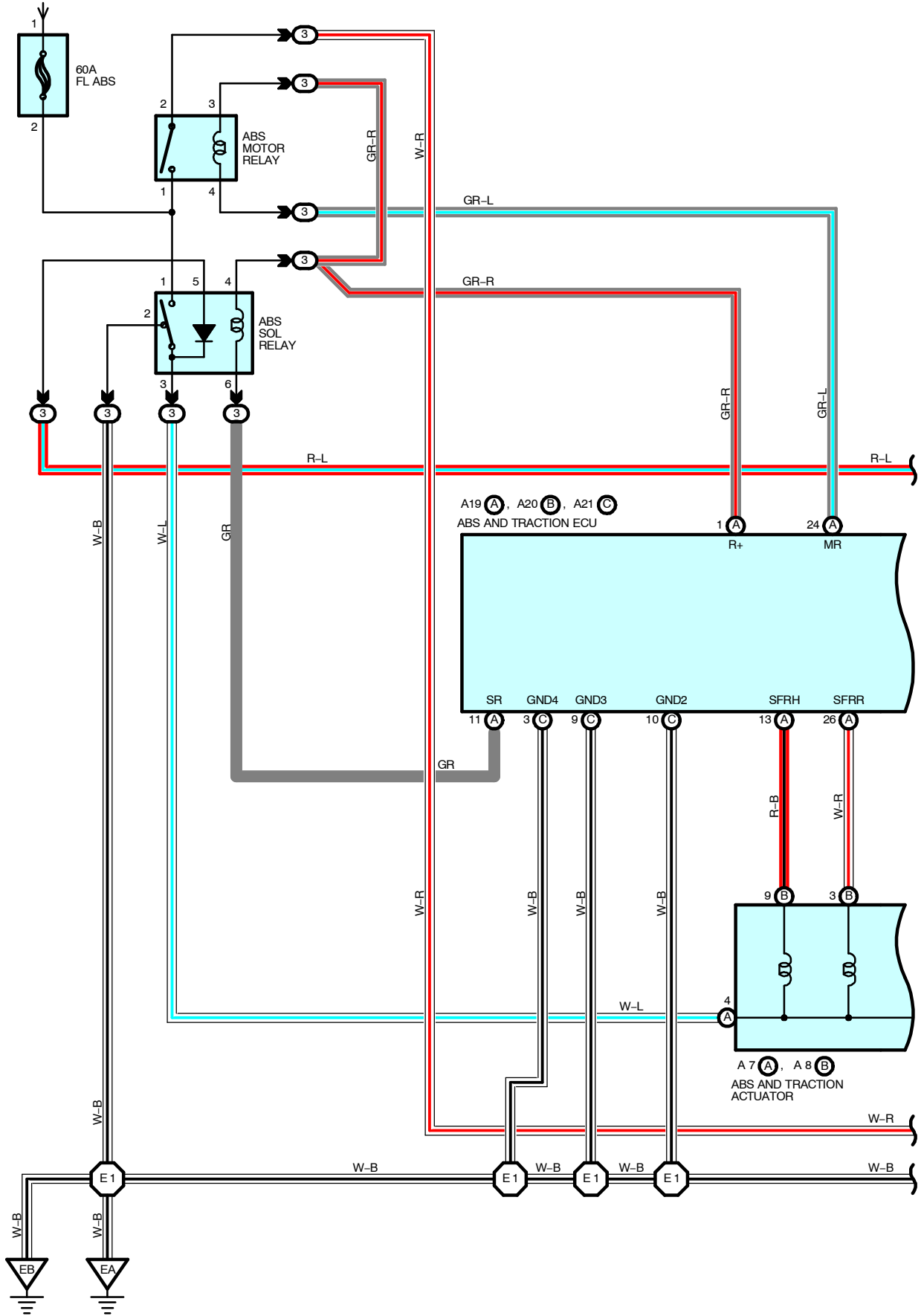
Code	See Page	Ground Points Location
EA	36	Right Radiator Side Support
EB		
II	38	Instrument Panel Brace LH

 : SPLICE POINTS

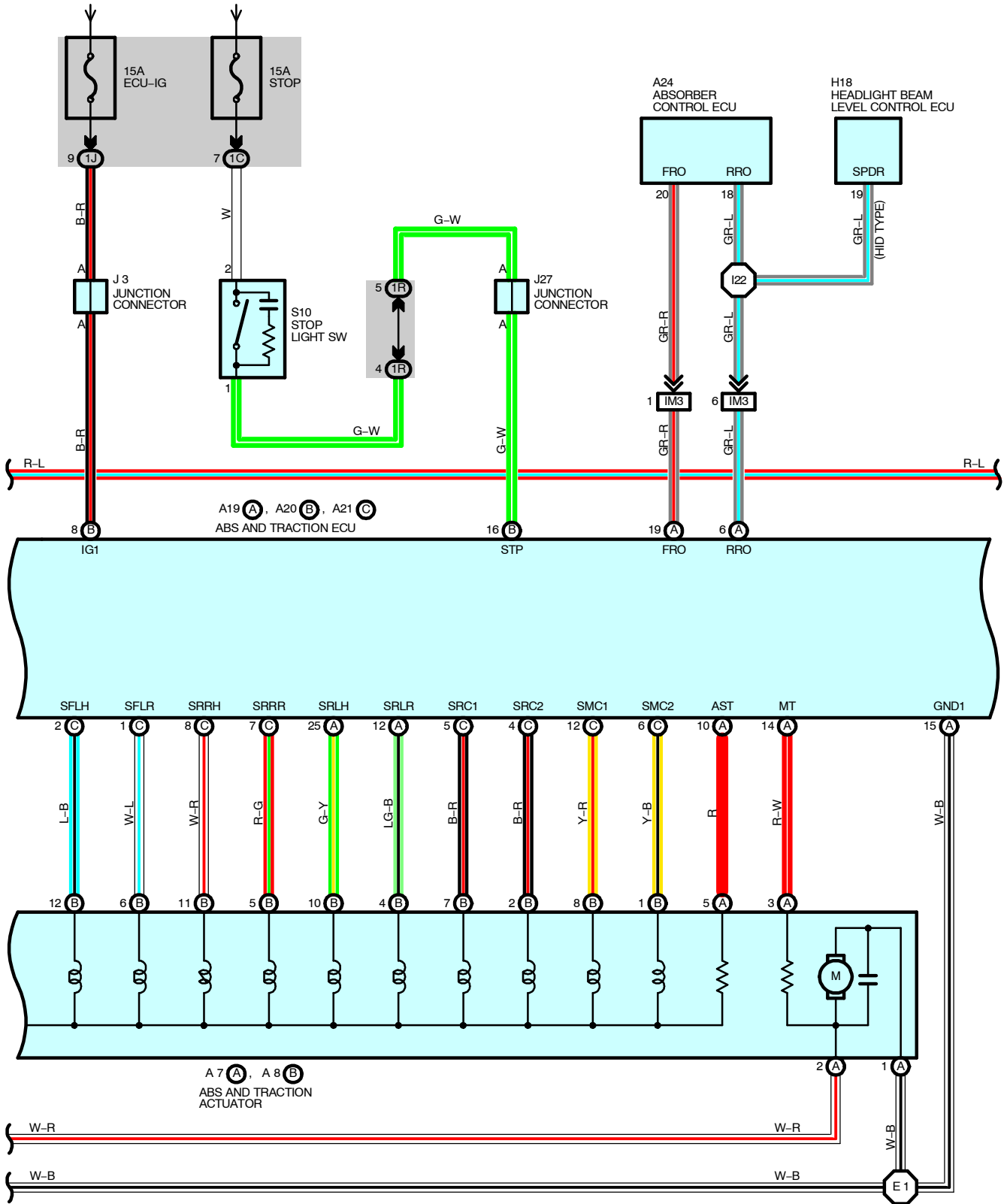
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	36	Engine Room Main Wire	I22	40	Cowl Wire
I3	40	Cowl Wire			

ABS AND TRACTION CONTROL

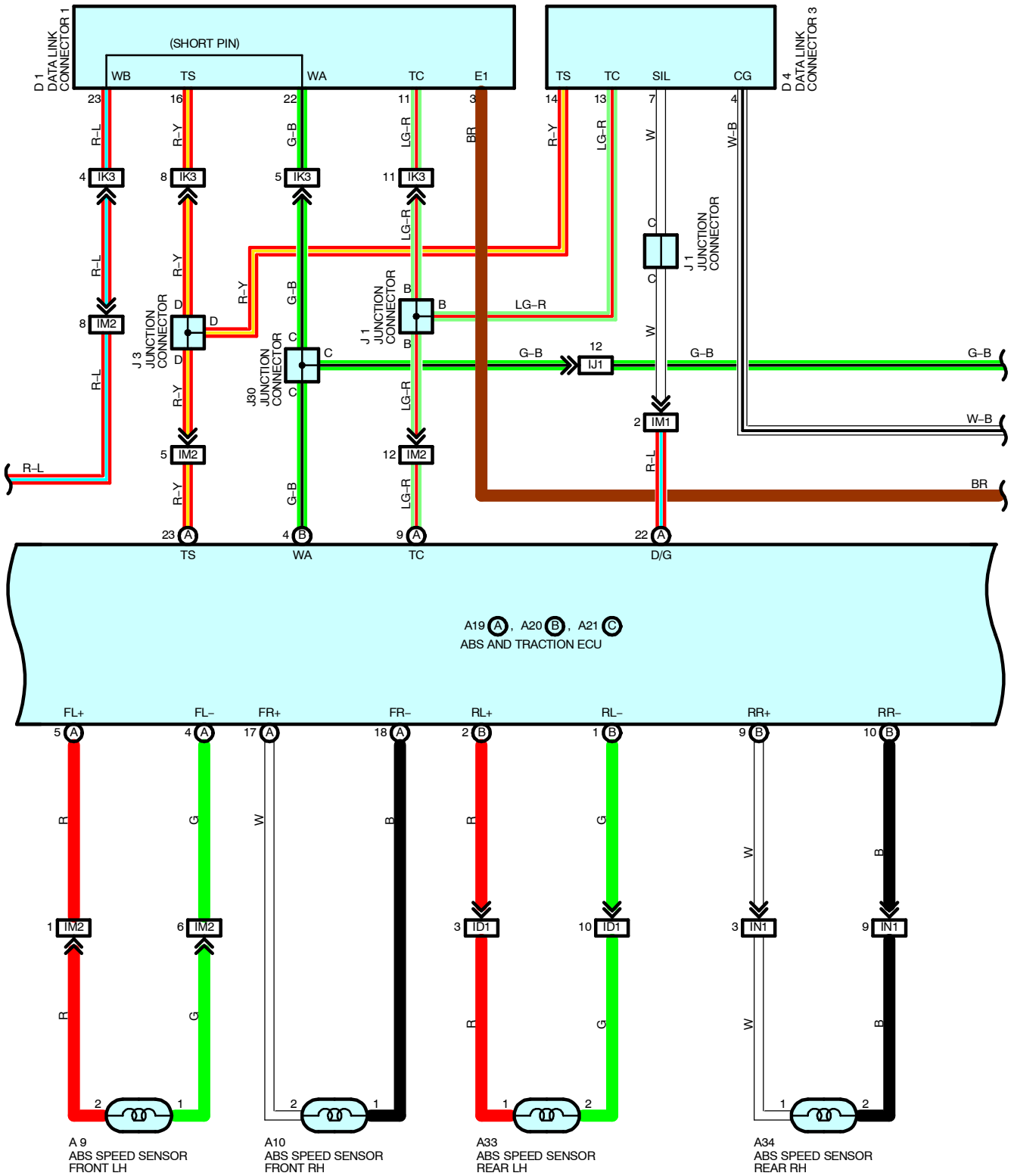
FROM POWER SOURCE SYSTEM (SEE PAGE 48)



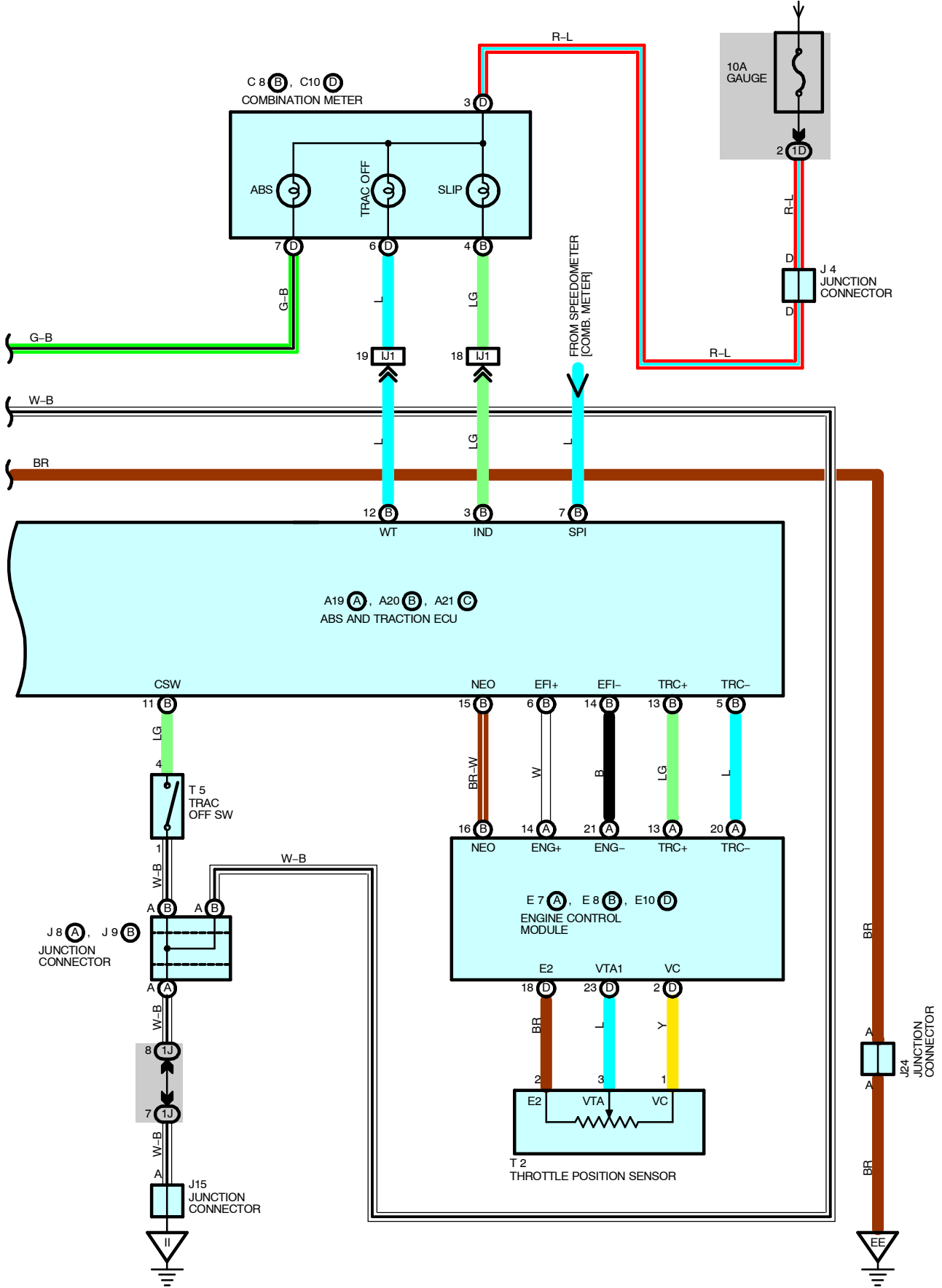
FROM POWER SOURCE SYSTEM (SEE PAGE 48)



ABS AND TRACTION CONTROL



FROM POWER SOURCE SYSTEM (SEE PAGE 48)



ABS AND TRACTION CONTROL

SYSTEM OUTLINE

(ABS)

ABS is a brake system designed for the purpose to improve the operating ability securing the stability of the vehicle by preventing the locking-up of the vehicle controlling the wheel cylinder pressure of all the four wheels at the time of sudden braking.

1. INPUT SIGNALS

(1) Speed sensor signal

The speed of the wheels is detected and input to TERMINALS FL+, FR+, RL+ and RR+ of the ABS and traction ECU.

(2) Stop light SW signal

A signal is input to TERMINAL STP of the ABS and traction ECU when brake pedal is depressed.

2. SYSTEM OPERATION

When the wheels are to be locked-up, the solenoid inside the actuator will be controlled by the signal from the ABS and traction ECU and the brake fluid in the wheel cylinder will flow through the reservoir and reduce the hydraulic pressure.

While the ABS is in operation, as the ABS and traction ECU always outputs the operation signal to the pump inside the actuator, brake fluid stored inside the reservoir will be suctioned up by the pump inside the actuator and returned to the master cylinder.

When the hydraulic pressure of the wheel cylinder is decompressed or increased until the necessary hydraulic pressure, the solenoid inside the actuator is controlled by the control signal from the ABS and traction ECU and as a result, hydraulic pressure of the wheel cylinder will be closed at both routes of the master cylinder and reservoir sides and the hydraulic pressure of the wheel cylinder will become to be in the holding condition.

If the increase of hydraulic pressure volume of the wheel cylinder becomes necessary, with the control signal from the ABS and traction ECU, the solenoid inside the actuator will be controlled and become the same condition as usual and the brake fluid of the master cylinder will be sent to the wheel cylinder and will increase the hydraulic pressure of the wheel cylinder. At this time, in the case that the brake fluid stays left in the reservoir, it will be sucked up by the pump inside the actuator and will be sent to the wheel cylinder.

Also, increasing speed of the hydraulic pressure is controlled by outputting the increasing and the said holding one after another.

(Traction control)

Traction control system is designed to perform the engine output control by the fuel cut and hydraulic pressure control of driving wheel brake and control the spinning of the driving wheels. By doing this, it improves starting acceleration and operating ability of the vehicle securing the driving ability in accordance with the road surface condition.

3. TRACTION CONTROL OPERATION

Estimating the vehicle speed from the rear wheel speed, comparing it with the front, driving wheel speed and judging the grip condition of the driving wheels. From the estimated vehicle speed, target speed of the driving speed will be set. When the front, driving wheel speed exceeds the control starting speed, it judges that the tire slip is occurred and performs the fuel cut cylinder number control and brake control and then adjust to make the front wheel speed become the traction control target speed. Controlling of the traction control will be completed when the vehicle move on to the road where the driving wheels will not have a tire slip or when the driver decelerate.

SERVICE HINTS

A19 (A), A20 (B), A21 (C) ABS AND TRACTION ECU

- IG1-GND : 10-14 volts with the ignition SW at **ON** position
 R+ -SR : 9-14 volts with the ignition SW at **ON** position and the ABS warning light off
 R+ -MR : 0-1 volts with the ignition SW at **ON** position
 WA-GND : 0-2 volts with the ignition SW at **ON** position and the ABS warning light on
 : 10-14 volts with the ignition SW at **ON** position and the ABS warning light off
 STP-GND : 0-1.5 volts with the stop light SW off
 : 8-14 volts with the stop light SW on
 D/G-GND : 10-14 volts with the ignition SW at **ON** position and the ABS warning light on
 MT-GND : 0-1.5 volts with the ignition SW at **ON** position
 NEO-GND : Pules generation with idling
 IND-GND : 0-2 volts with the ignition SW at **ON** position and the SLIP indicator light on
 : 10-14 volts with the ignition SW at **ON** position and the SLIP indicator light off
 WT-GND : 0-2 volts with the ignition SW at **ON** position and the TRAC OFF indicator light on
 : 10-14 volts with the ignition SW at **ON** position and the TRAC OFF indicator light off
 CSW-GND : 0-2 volts with the ignition SW at **ON** position and the TRAC OFF SW pushed
 : 8-14 volts with the ignition SW at **ON** position and the TRAC OFF SW released
 TC, TS-GND : 8-14 volts with the ignition SW at **ON** position
 TRC+, TRC- -GND : Pules generation with the traction control active
 EFI+, EFI- -GND : Pules generation with the ignition SW at **ON** position
 SRLH, SRLR, AST-GND : 10-14 volts with the ignition SW at **ON** position and warning light off
 SFLH, SRRR, SRRH-GND : 10-14 volts with the ignition SW at **ON** position and warning light off
 SFRR, SFRH, SFLR-GND : 10-14 volts with the ignition SW at **ON** position and warning light off
 SRC1, SRC2, SMC1, SMC2-GND : 10-14 Volts with the ignition SW at **ON** position and the TRAC OFF indicator light off

S10 STOP LIGHT SW

- 2-1 : Closed with the brake pedal depressed

A9, A10, A33, A34 ABS SPEED SENSOR FRONT LH, RH, REAR LH, RH

- 1-2 : 1.5-1.7 kΩ (20°C, 68°F)

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page			
A7	A	28	C8	B	30	J4	31	
A8	B	28	C10	D	30	J8	A	31
A9		28	D1		28	J9	B	31
A10		28	D4		30	J15		31
A19	A	30	E7	A	30	J24		31
A20	B	30	E8	B	30	J27		31
A21	C	30	E10	D	30	J30		31
A24		30	H18		30	S10		31
A33		32	J1		31	T2		29
A34		32	J3		31	T5		31

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
3	25	Engine Room No.3 R/B (Radiator Upper Support RH)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1R		

ABS AND TRACTION CONTROL

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ID1	38	Floor Wire and Cowl Wire (Left Kick Panel)
IJ1	38	Instrument Panel Wire and Cowl Wire (Under the Glove Box)
IK3	38	Engine Wire and Cowl Wire (Under the Glove Box)
IM1	40	Engine Room Main Wire and Cowl Wire (Right Kick Panel)
IM2		
IM3		
IN1	40	Floor No.2 Wire and Cowl Wire (Right Kick Panel)

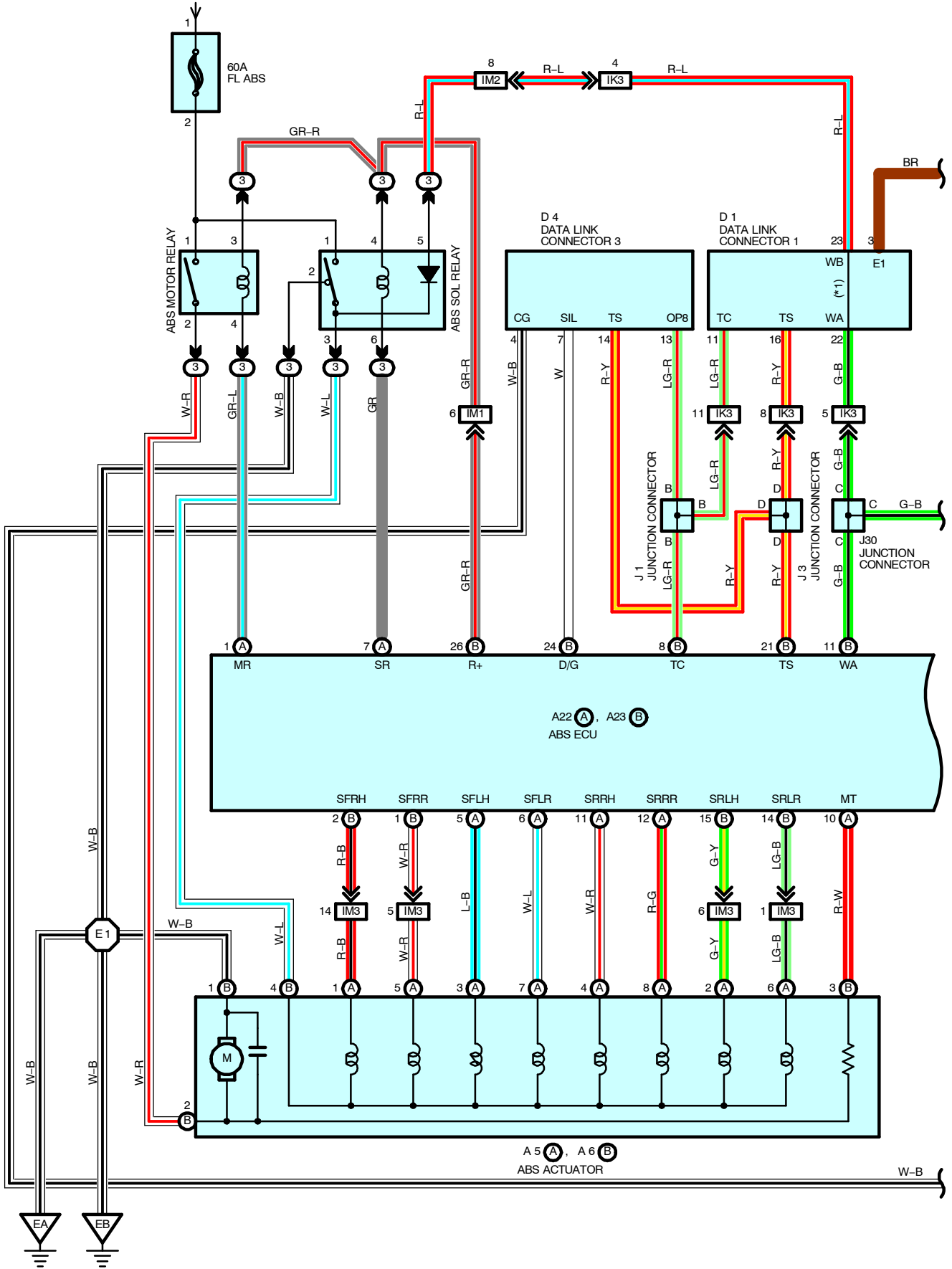
: GROUND POINTS

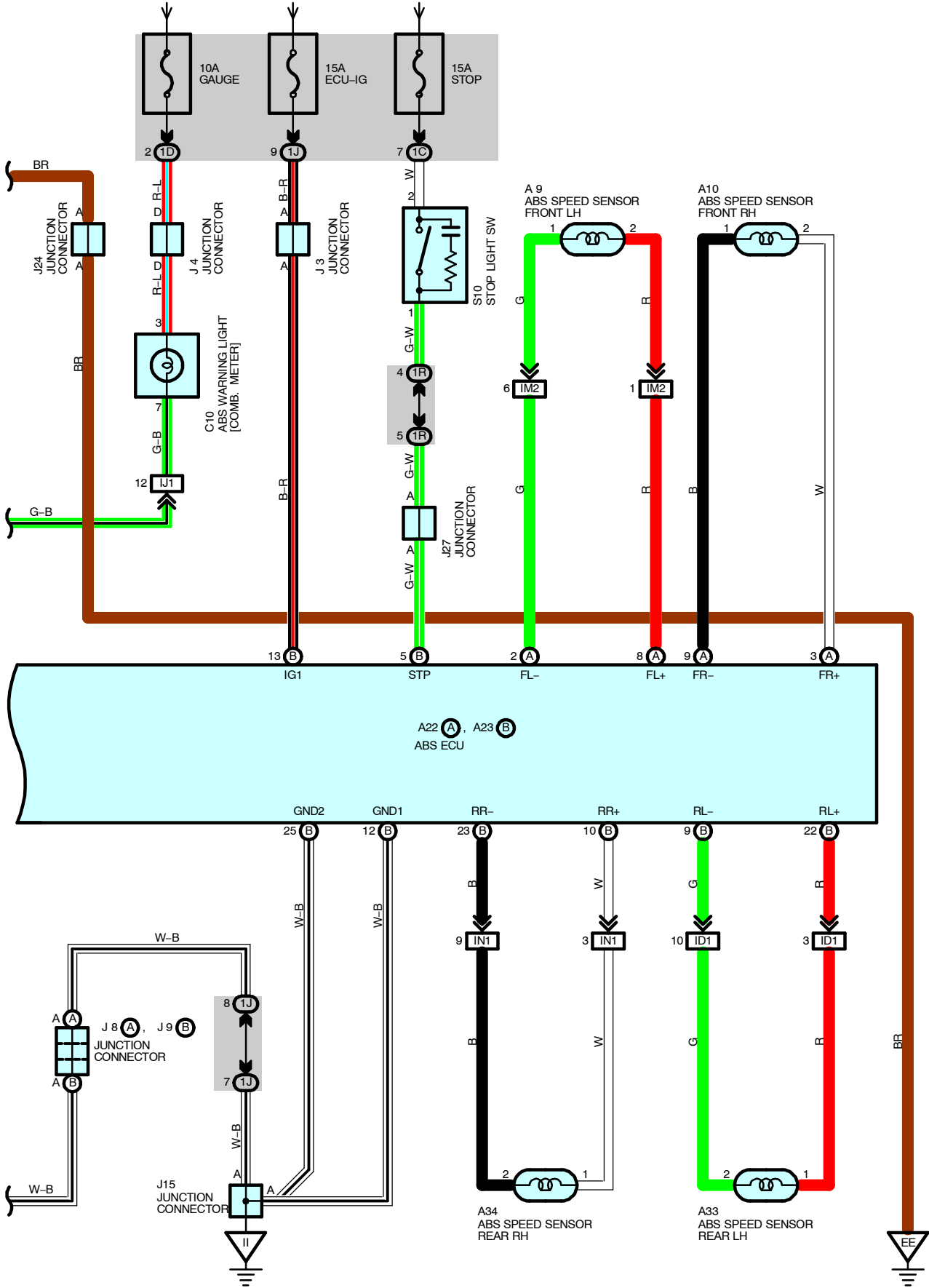
Code	See Page	Ground Points Location
EA	36	Right Radiator Side Support
EB		
EE	36	Rear Side of Surge Tank
II	38	Instrument Panel Brace LH

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	36	Engine Room Main Wire	I22	40	Cowl Wire

FROM POWER SOURCE SYSTEM (SEE PAGE 48)





SYSTEM OUTLINE

This system controls the respective brake fluid pressures acting on the disc brake cylinders of the right front wheel, left front wheel and rear wheels when the brakes are applied in a panic stop so that the wheels do not lock. This results in improved directional stability and steerability during panic braking.

1. INPUT SIGNALS

(1) Speed sensor signal

The speed of the wheels is detected and input to TERMINALS FL+, FR+, RL+ and RR+ of the ABS ECU.

(2) Stop light SW signal

A signal is input to TERMINAL STP of the ABS ECU when brake pedal is operated.

2. SYSTEM OPERATION

During sudden braking the ABS ECU, which has signals input from each sensor, controls the current flowing to the solenoid inside the actuator and lets the hydraulic pressure acting on each wheel cylinder escape to the reservoir. The pump inside the actuator is also operating at this time and it returns the brake fluid from the reservoir to the master cylinder, thus preventing locking of the vehicle wheels.

If the ECU judges that the hydraulic pressure acting on the wheel cylinder is insufficient, the current acting on the solenoid is controlled and the hydraulic pressure is increased. Holding of the hydraulic pressure is also controlled by the ECU, by the same method as above. Pressure reduction, holding and increase are repeated to maintain vehicle stability and to improve steerability during sudden braking.

SERVICE HINTS

A23 (B) ABS ECU

(Connect the ECU connector)

(B)12-GROUND : Always continuity

(B)25-GROUND : Always continuity

(B)13-GROUND : Approx. 12 volts with the ignition SW at **ON** position

(B) 5-GROUND : Approx. 12 volts with the brake pedal depressed

A6 (B) ABS ACTUATOR

(B) 1-GROUND: Always continuity

S10 STOP LIGHT SW

2-1 : Closed with the brake pedal depressed

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A5	A 28	A34	32	J8	A 31
A6	B 28	C10	30	J9	B 31
A9	28	D1	28	J15	31
A10	28	D4	30	J24	31
A22	A 30	J1	31	J27	31
A23	B 30	J3	31	J30	31
A33	32	J4	31	S10	31

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
3	25	Engine Room No.3 R/B (Radiator Upper Support RH)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1R		

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ID1	38	Floor Wire and Cowl Wire (Left Kick Panel)
IJ1	38	Instrument Panel Wire and Cowl Wire (Under the Glove Box)
IK3	38	Engine Wire and Cowl Wire (Under the Glove Box)
IM1	40	Engine Room Main Wire and Cowl Wire (Right Kick Panel)
IM2		
IM3		
IN1	40	Floor No.2 Wire and Cowl Wire (Right Kick Panel)

 : GROUND POINTS

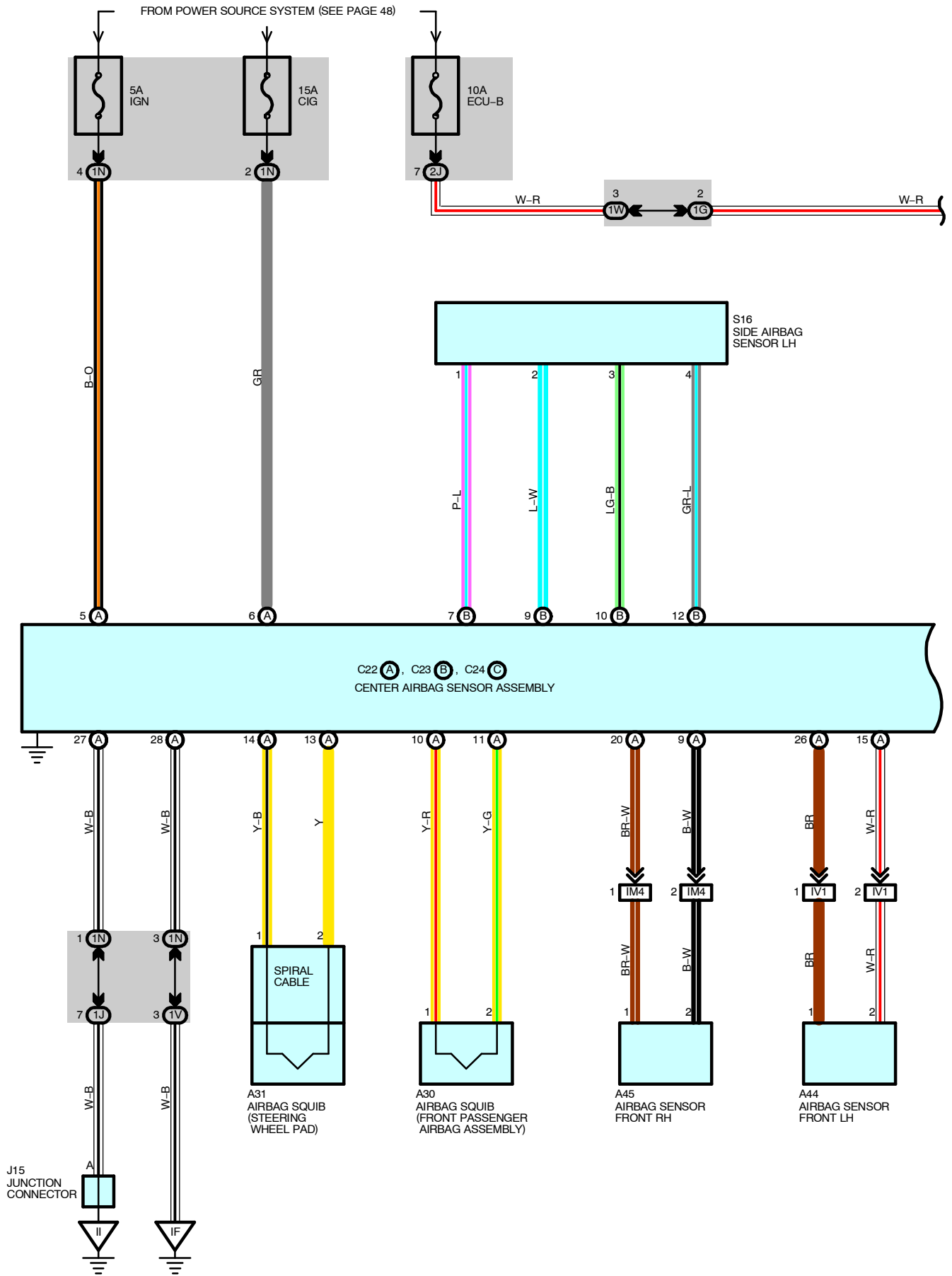
Code	See Page	Ground Points Location
EA	36	Right Radiator Side Support
EB		
EE	36	Rear Side of Surge Tank
II	38	Instrument Panel Brace LH

 : SPLICE POINTS

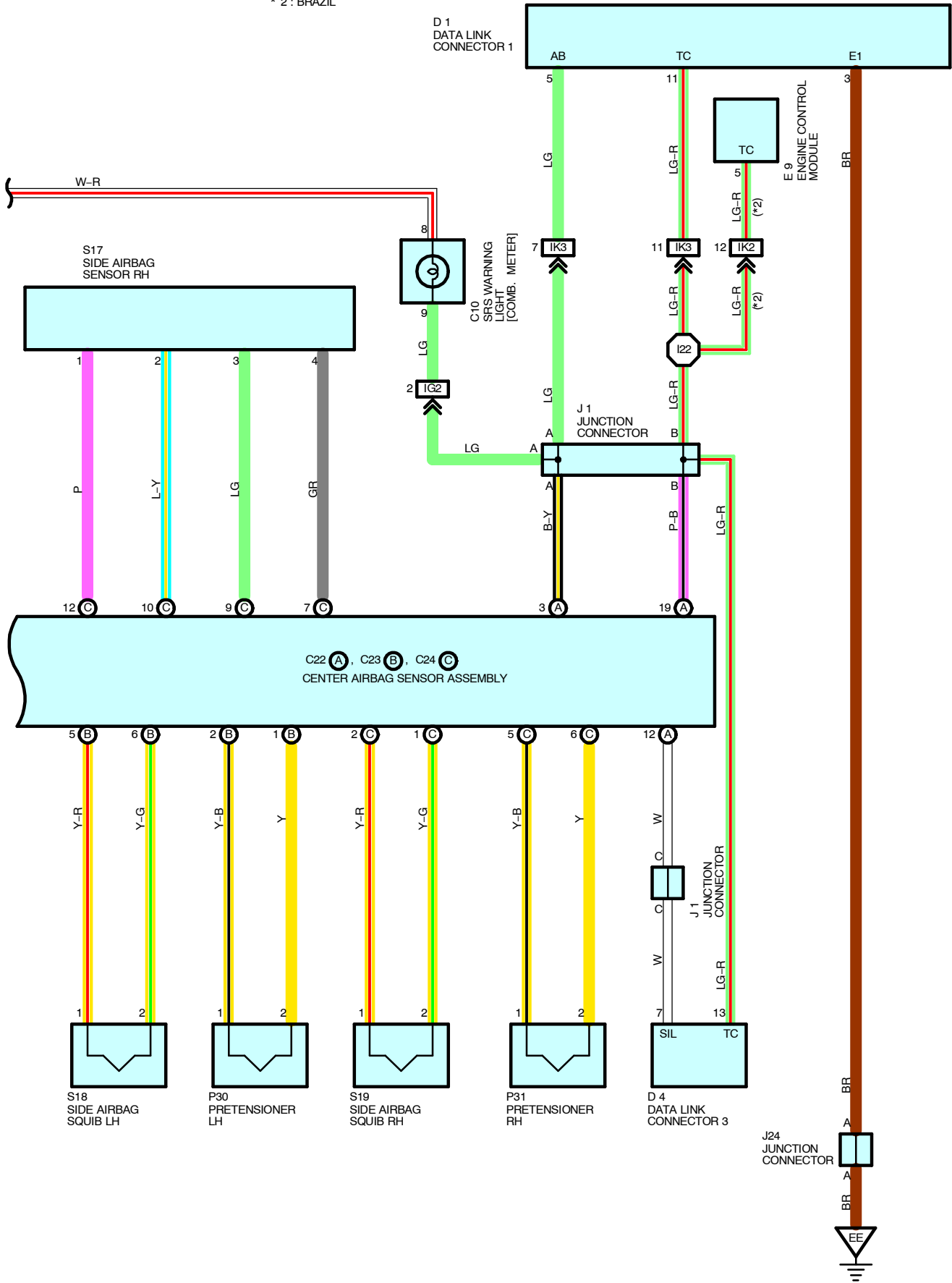
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	36	Engine Room Main Wire			

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. 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, side airbag assembly, pretensioner, front airbag sensor assembly, center airbag sensor assembly or side 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, side airbag assembly, pretensioner, front airbag sensor assembly, center airbag sensor assembly and side 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, side airbag assembly, pretensioner, front airbag sensor assembly, center airbag sensor assembly or side airbag sensor assembly in order to reuse it.
- If the steering wheel pad, front passenger airbag assembly, side airbag assembly, pretensioner, front airbag sensor assembly, center airbag sensor assembly or side 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 Ω /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.



* 1 : EXCEPT BRAZIL
 * 2 : BRAZIL



SYSTEM OUTLINE

The SRS is a driver and front passenger protection device which has a supplemental role to the seat belts.

When the ignition SW is turned to ACC or ON, current from the CIG fuse flows to TERMINAL (A) 6 of the center airbag sensor assembly. Only when the ignition SW is on does the current flow from the IGN fuse to TERMINAL (A) 5 of the center airbag sensor assembly.

If an accident occurs while driving, when the frontal impact exceeds a set level, current from the CIG or IGN fuse flows to TERMINALS (A) 14, (A) 10, (B) 2 and (C) 5 of the center airbag sensor assembly to TERMINALS 1 of the airbag squibs and the pretensioners to TERMINALS 2 to TERMINALS (A) 13, (A) 11, (B) 1 and (C) 6 of the center airbag sensor assembly to TERMINAL (A) 27, (A) 28 or BODY GROUND to GROUND, so that current flows to the front airbag squibs and the pretensioners and causes them to operate.

When the side impact also exceeds a set level, current from the CIG or IGN fuse flows to TERMINALS (B) 5, (C) 2, (B) 2 and (C) 5 of the center airbag sensor assembly to TERMINALS 1 of the side airbag squibs and the pretensioners to TERMINALS 2 to TERMINALS (B) 6, (C) 1, (B) 1 and (C) 6 of the center airbag sensor assembly to TERMINAL (A) 27, (A) 28 or BODY GROUND to GROUND, causing side airbag squibs and the pretensioners to operate.

The airbag stored inside the steering wheel pad is instantaneously expanded to soften the shock to the driver.

The airbag stored inside the passenger's instrument panel is instantaneously expanded to soften the shock to the front passenger.

Side airbags are instantaneously expanded to soften the shock of side to the driver and front passenger.

The pretensioners make sure of the seat belt restrainability.

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page	
A30	30	C24	C	30	P30	33
A31	30	D1		28	P31	33
A44	28	D4		30	S16	33
A45	28	E9		30	S17	33
C10	30	J1		31	S18	34
C22	A	J15		31	S19	34
C23	B	J24		31		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1N		
1V		
1W		
2J	22	Cowl 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)
IG2	38	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK2	38	Engine Wire and Cowl Wire (Under the Glove Box)
IK3		
IM4	40	Engine Room Main Wire and Cowl Wire (Right Kick Panel)
IV1	40	Cowl Wire and Cowl Wire (Left Cowl Side Panel)

▽ : GROUND POINTS

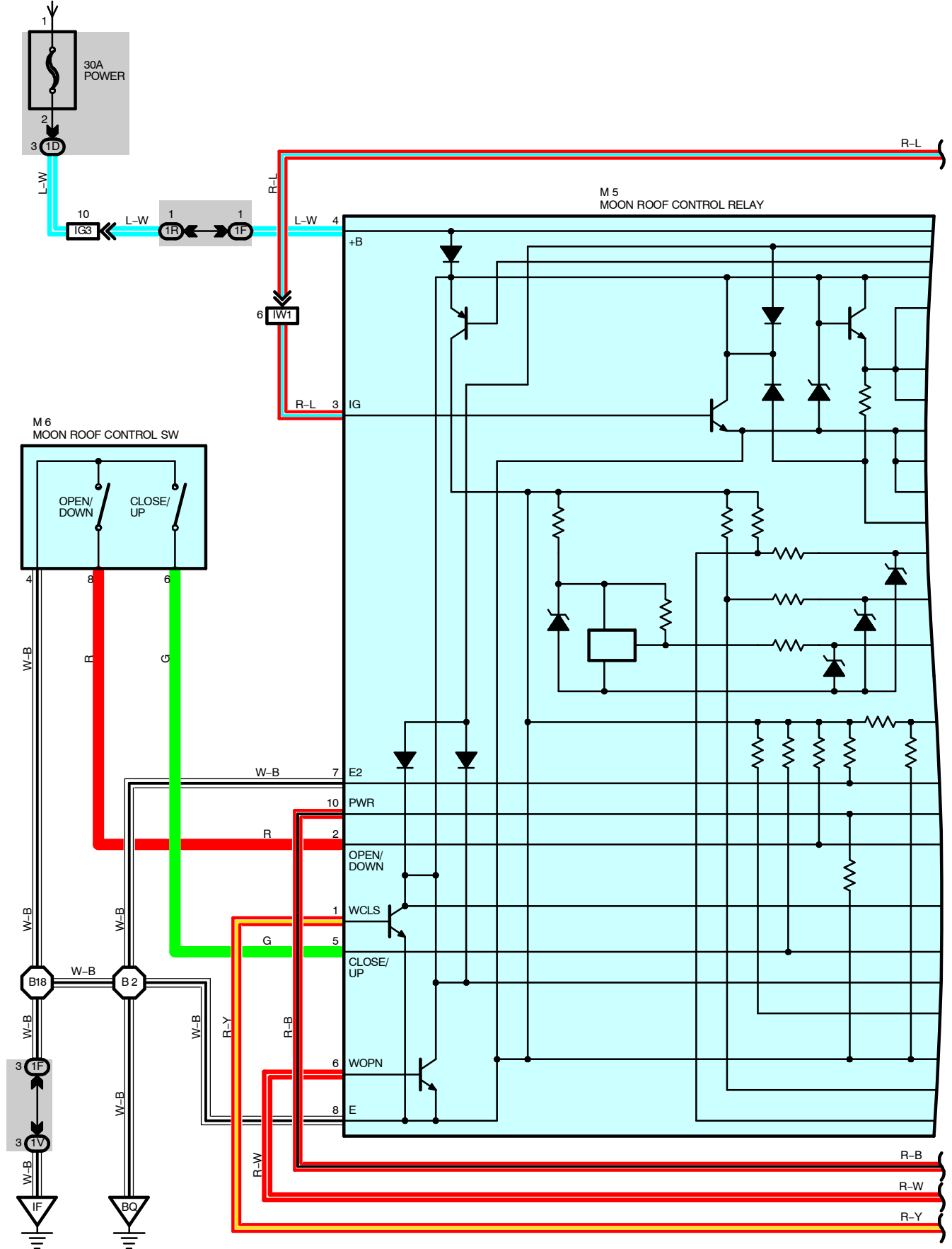
Code	See Page	Ground Points Location
EE	36	Rear Side of Surge Tank
IF	38	Cowl Side Panel LH
II	38	Instrument Panel Brace LH

○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I22	40	Cowl Wire			

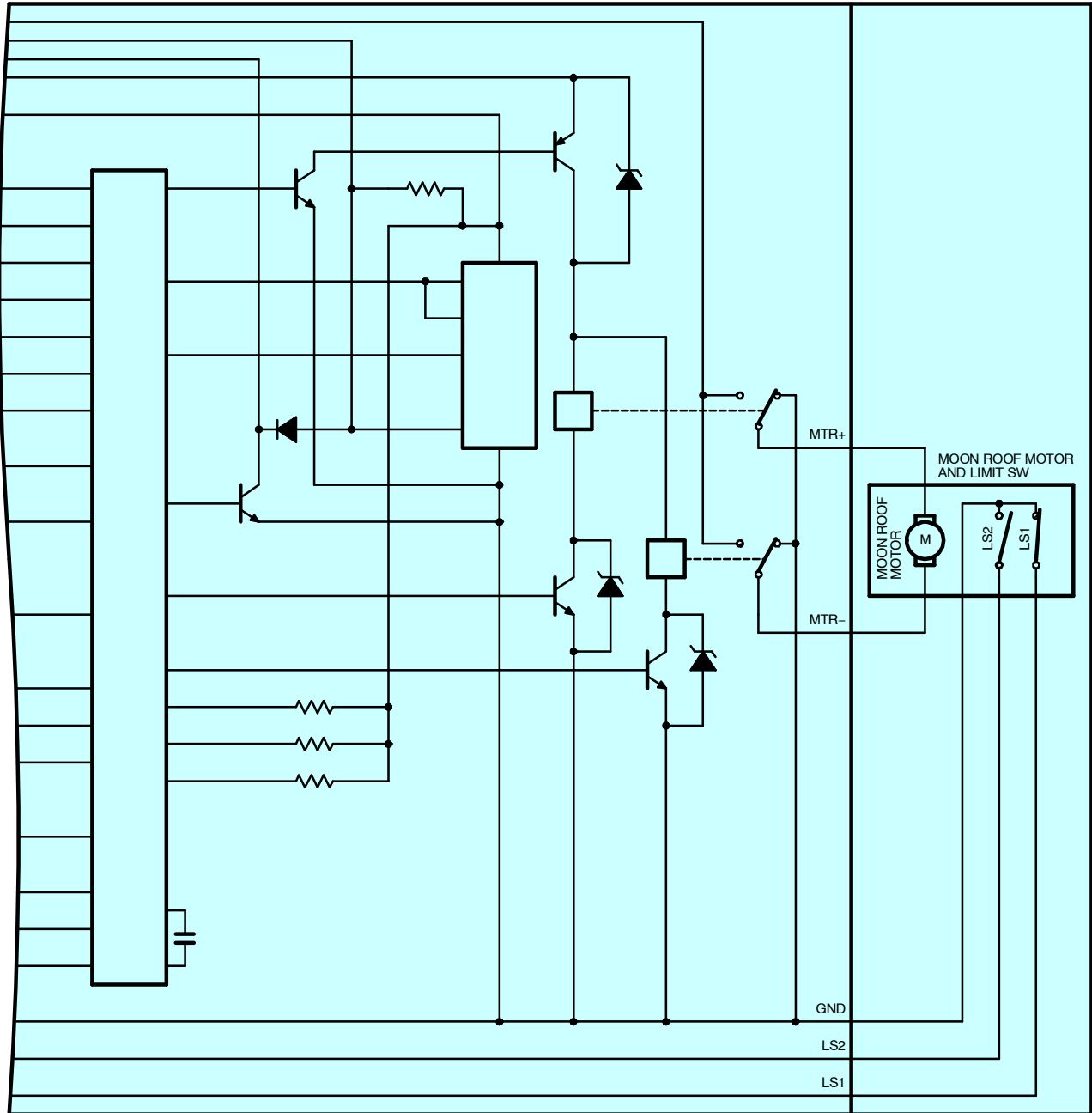
MOON ROOF

FROM POWER SOURCE SYSTEM (SEE PAGE 48)



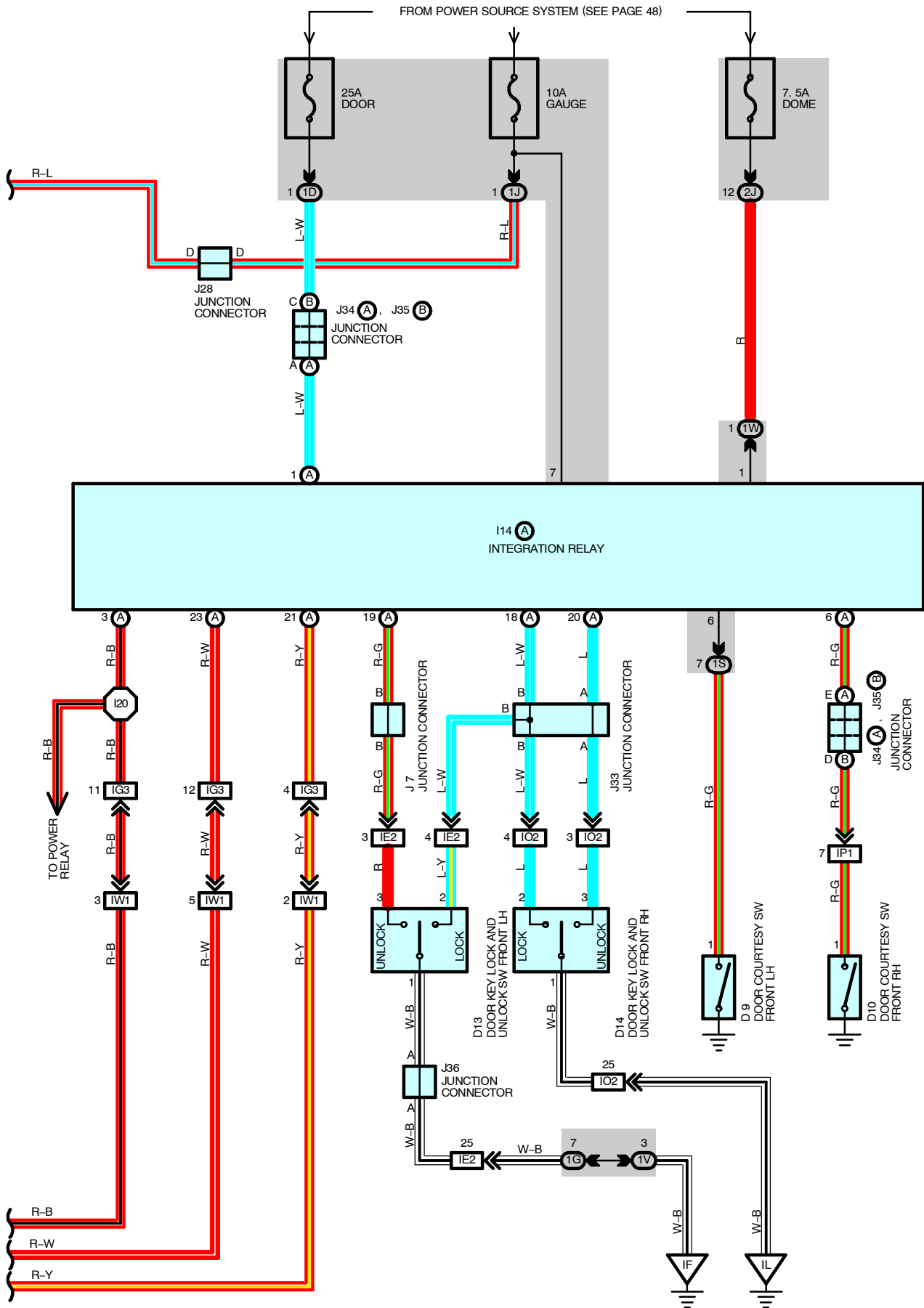
R-L R-L

M 5
MOON ROOF CONTROL RELAY



R-B R-B
R-W R-W
R-Y R-Y

MOON ROOF



SYSTEM OUTLINE

In this system, the HALL IC in the moon roof control relay detects changes in the motor rotation to allow opening/closing and tilting up/down of the moon roof using one touch operation. Additionally, catching prevention mechanism during moon roof operation is also provided.

Voltage is always applied from the POWER fuse to TERMINAL 4 of the moon roof control relay. When the ignition SW is turned to ON, the voltage is applied from the GAUGE fuse to TERMINAL 3 of the moon roof control relay.

1. SLIDE OPEN OPERATION

When the moon roof control SW is pressed to OPEN position (The limit SW No.1 is off and limit SW No.2 is on), the signal is input from TERMINAL 8 of the moon roof control SW to TERMINAL 2 of the moon roof control relay. This activates the relay and rotates the motor to open the moon roof. After that, when the limit SW No.1 is turned on, and then turned off again, the pulse signal sent from the HALL IC activates the relay, and it determines that the moon roof is fully opened, and stops the motor rotation. If other operation SW or open SW is operated while the moon roof is being opened, the relay is activated to stop the moon roof operation. Additionally, 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 pressed to CLOSE position (The limit SW No.1 is off and limit SW No.2 is off), the signal is input from TERMINAL 6 of the moon roof control SW to TERMINAL 5 of the moon roof control relay. This activates the relay and rotates the motor to automatically close the moon roof. After that, when the limit SW No.2 is turned on, the pulse signal sent from the HALL IC activates the relay, and it determines that the moon roof is fully closed, and stops the motor rotation. If other operation SW or close SW is operated while the moon roof is being closed, the relay is activated to stop the moon roof operation.

3. TILT UP OPERATION

When the moon roof control SW is pressed to TILT UP position (The limit SW No.1 is off and limit SW No.2 is on), the signal is input from TERMINAL 6 of the moon roof control SW to TERMINAL 5 of the moon roof control relay. This activates the relay and rotates the motor to automatically tilt up the moon roof. If the pulse signal sent from the HALL IC is not input when the moon roof is fully tilted up, the relay determines that the motor has stopped, and stops the current flowing into the motor.

If other operation SW or tilt up SW is operated while the moon roof is being tilted up, the relay is activated to stop the moon roof operation. Additionally, when the moon roof is open, the tilt up operation does not function.

4. TILT DOWN OPERATION

When the moon roof control SW is pressed to TILT DOWN position (The limit SW No.1 is on and limit SW No.2 is on), the signal is input from TERMINAL 8 of the moon roof control SW to TERMINAL 2 of the moon roof control relay. This activates the relay and rotates the motor to automatically tilt down the moon roof. When the limit SW No.1 is turned off, the pulse signal sent from the HALL IC activates the relay, and it determines that the moon roof is fully closed, and stops the motor rotation.

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

5. CATCHING PREVENTION FUNCTION

If the moon roof control relay detects a catching load from changes in the motor rotation during slide close or tilt down operation, the operation is stopped, and then the motor is rotated in the reverse direction.

Slide close operation

The moon roof is moved approximately 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 approximately 200 mm completely, the reverse movement is stopped.

Tilt down operation

If a catching load is detected during tilt down operation, the moon roof is fully tilted up.

6. KEY OFF MOON ROOF OPERATION

With the ignition SW turned from on to off, integration relay operates and current flows from the DOOR fuse to TERMINAL (A) 1 of the relay to TERMINAL (A) 3 to TERMINAL 10 of the moon roof control relay for about 43 seconds, the same as normal operation. As a result, for about 43 seconds after the ignition SW is turned off, the functioning of this relay makes it possible to open and close the moon roof. Also, by opening the front door (Door courtesy SW on) within about 43 seconds after turning the ignition SW to off, a signal is input to TERMINALS 6 or (A) 6 of the integration relay. As a result, the relay turns off and open close movement of the moon roof stops.

MOON ROOF

7. MOON ROOF OPERATION LINKED WITH DOOR KEY LOCK AND UNLOCK SW

When the ignition key is inserted into the driver or passenger door key cylinder and kept turned to the lock or unlock position for approximately 1.5 sec. or longer, the slide open or close operation.

8. FAIL SAFE FUNCTION

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

Slide open/close operation with the moon roof control SW Approximately 20 sec.

Tilt up/down operation with the moon roof control SW Approximately 2 sec.

Slide open operation for reverse movement in case of activation of the catching prevention function Approximately 20 sec.

Tilt open operation for reverse movement in case of activation of the catching prevention function Approximately 2 sec.

SERVICE HINTS

M5 MOON ROOF CONTROL RELAY

4-GROUND : Always approx. 12 volts

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

7-GROUND : Always continuity

8-GROUND : Always continuity

M6 MOON ROOF CONTROL SW

4-6 : Closed with moon roof control SW at **TILT UP** position

4-8 : Closed with moon roof control SW at **TILT DOWN** position

4-8 : Closed with moon roof control SW at **OPEN** position

4-6 : Closed with moon roof control SW at **CLOSE** position

4-GROUND : Always continuity

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
D9	32	J7	31	J36	32
D10	32	J28	31	M5	33
D13	32	J33	31	M6	33
D14	32	J34	A 31		
I14	A 30	J35	B 31		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1F	26	Roof Wire and Instrument Panel J/B (Lower Finish Panel)
1G	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1R		
1S	26	Floor Wire and Instrument Panel J/B (Lower Finish Panel)
1V	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1W		
2J	22	Cowl 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)
IE2	38	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IG3	38	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IO2	40	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IP1	40	Floor No.2 Wire and Instrument Panel Wire (Right Kick Panel)
IW1	40	Roof Wire and Cowl Wire (Right Side of Instrument Panel J/B)

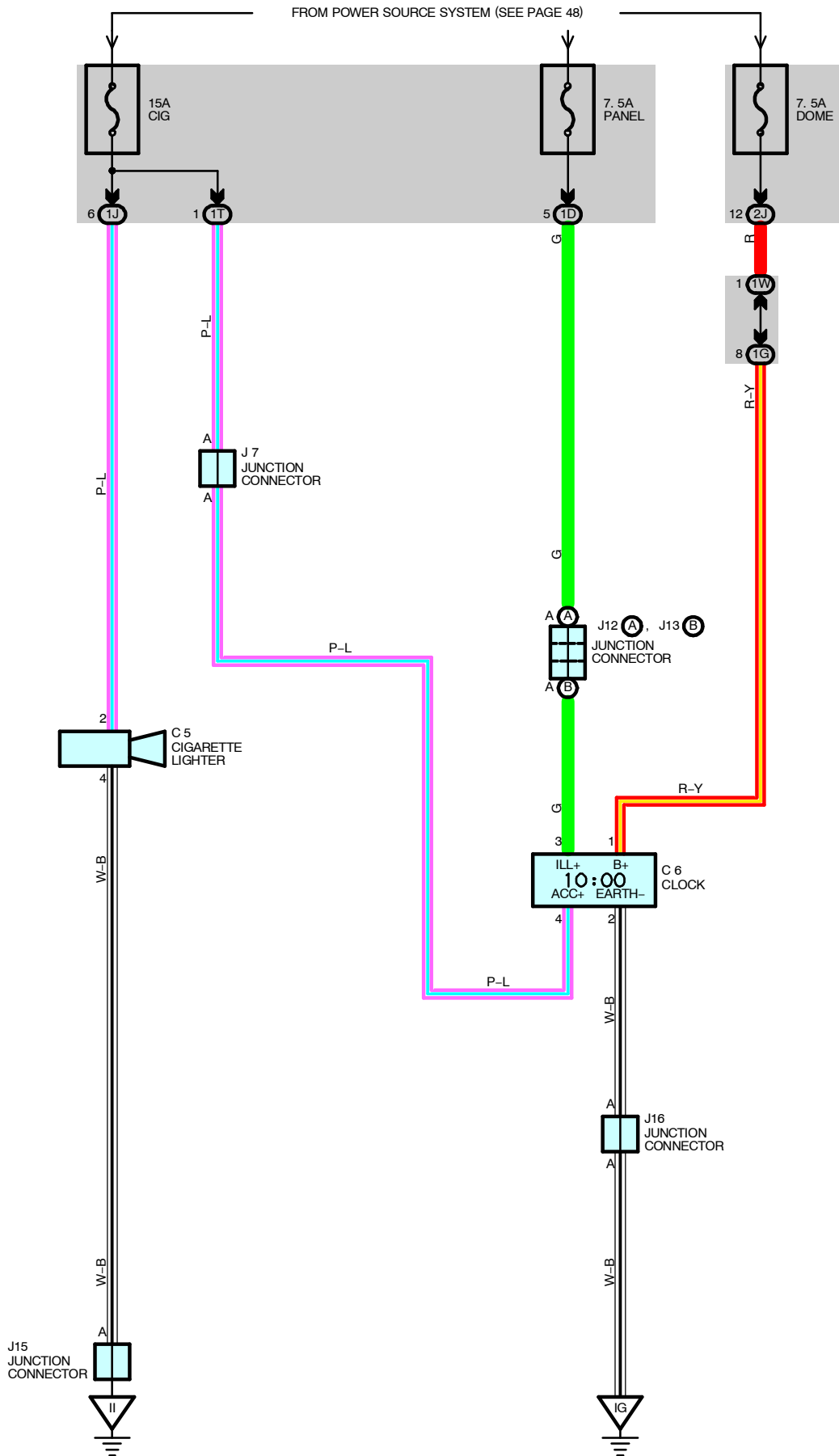
**: GROUND POINTS**

Code	See Page	Ground Points Location
IF	38	Cowl Side Panel LH
IL	38	Right Kick Panel
BQ	42	Roof Left

**: SPLICE POINTS**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I20	40	Instrument Panel Wire	B18	42	Roof Wire
B2	42	Roof Wire			

CIGARETTE LIGHTER AND CLOCK



SERVICE HINTS

C5 CIGARETTE LIGHTER

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

4-GROUND : Always continuity

C6 CLOCK

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

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

2-GROUND : Always continuity

3-GROUND : Approx. **12** volts with the light control SW at **TAIL** or **HEAD** position

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page	
C5	30	J12	A	31	J16	31
C6	30	J13	B	31		
J7	31	J15		31		

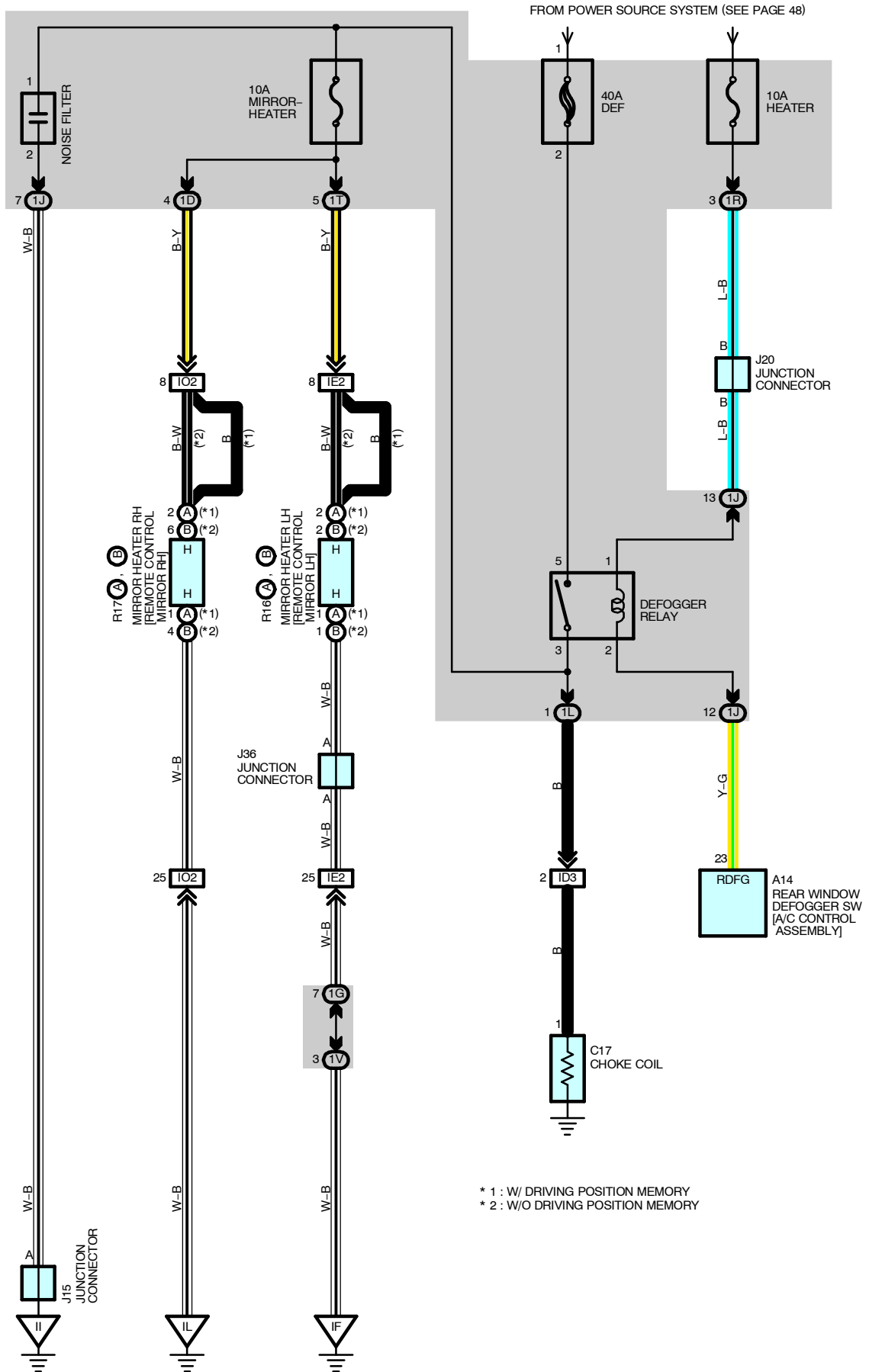
○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1G		
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1T	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1W	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
2J	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)

▽ : GROUND POINTS

Code	See Page	Ground Points Location
IG	38	Left Kick Panel
II	38	Instrument Panel Brace LH

REAR WINDOW DEFOGGER AND MIRROR HEATER



SERVICE HINTS**DEFOGGER RELAY [INSTRUMENT PANEL J/B]**

5-3 : Closed with the ignition SW at **ON** position and the rear window defogger SW [A/C control assembly] on

 : **PARTS LOCATION**

Code	See Page	Code	See Page	Code	See Page
A14	30	J20	31	R16	B 33
C17	32	J36	32	R17	A 33
J15	31	R16	A 33		B 33

 : **JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1G		
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1L		
1R		
1T	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1V	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)

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

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ID3	38	Floor Wire and Cowl Wire (Left Kick Panel)
IE2	38	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IO2	40	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)

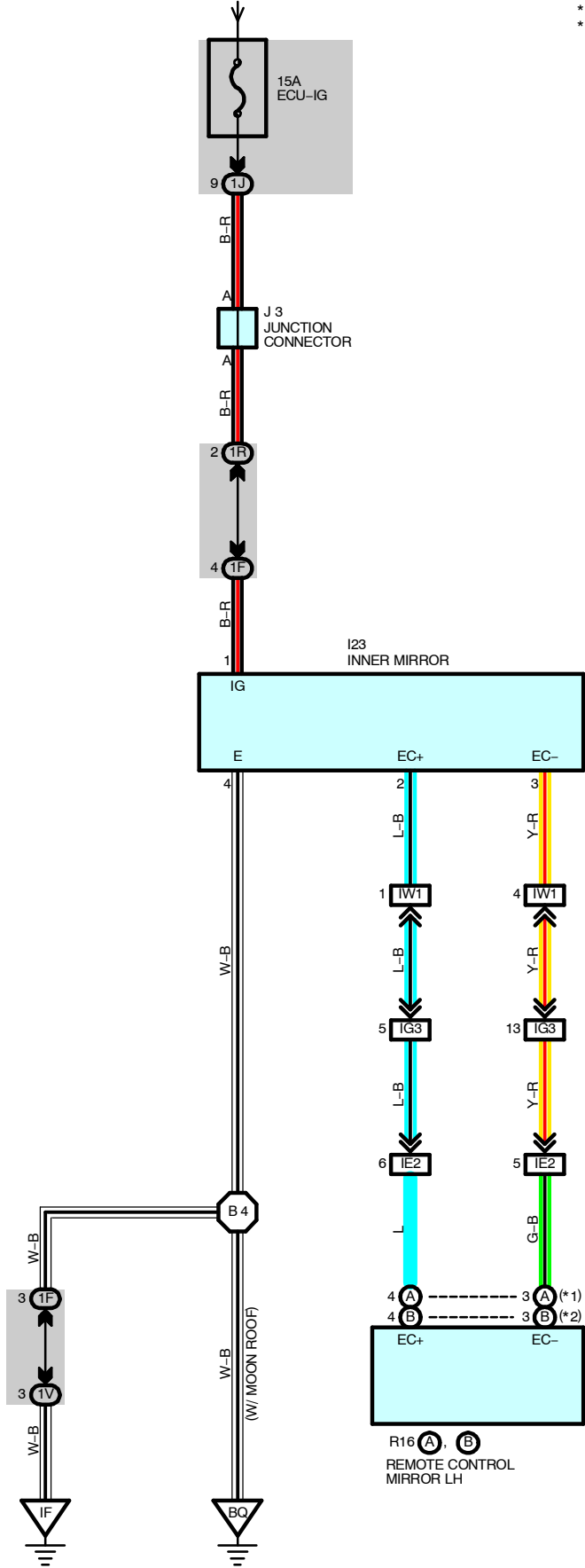
 : **GROUND POINTS**

Code	See Page	Ground Points Location
IF	38	Cowl Side Panel LH
II	38	Instrument Panel Brace LH
IL	38	Right Kick Panel

AUTOMATIC GLARE-RESISTANT EC MIRROR

FROM POWER SOURCE SYSTEM (SEE PAGE 48)

* 1 : W/ DRIVING POSITION MEMORY
 * 2 : W/O DRIVING POSITION MEMORY



SERVICE HINTS**I23 INNER MIRROR**1-GROUND : Approx. 12 volts with the ignition SW at **ON** position

4-GROUND : Always continuity

 : **PARTS LOCATION**

Code	See Page	Code	See Page	Code	See Page
I23	32	R16	A	33	
J3	31		B	33	

 : **JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	26	Roof Wire and Instrument Panel J/B (Lower Finish Panel)
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1R		
1V		

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

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE2	38	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IG3	38	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IW1	40	Roof Wire and Cowl Wire (Right Side of Instrument Panel J/B)

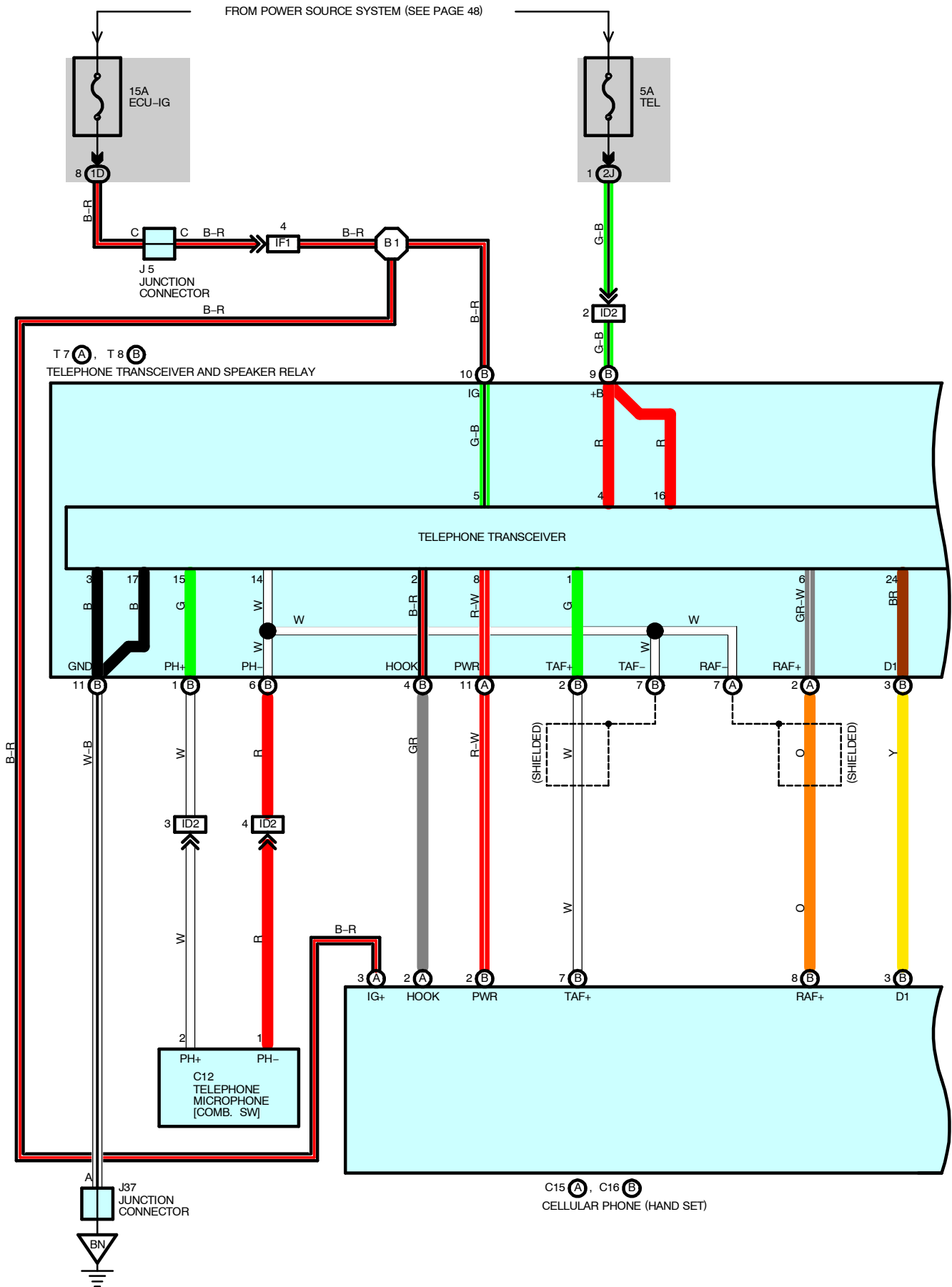
 : **GROUND POINTS**

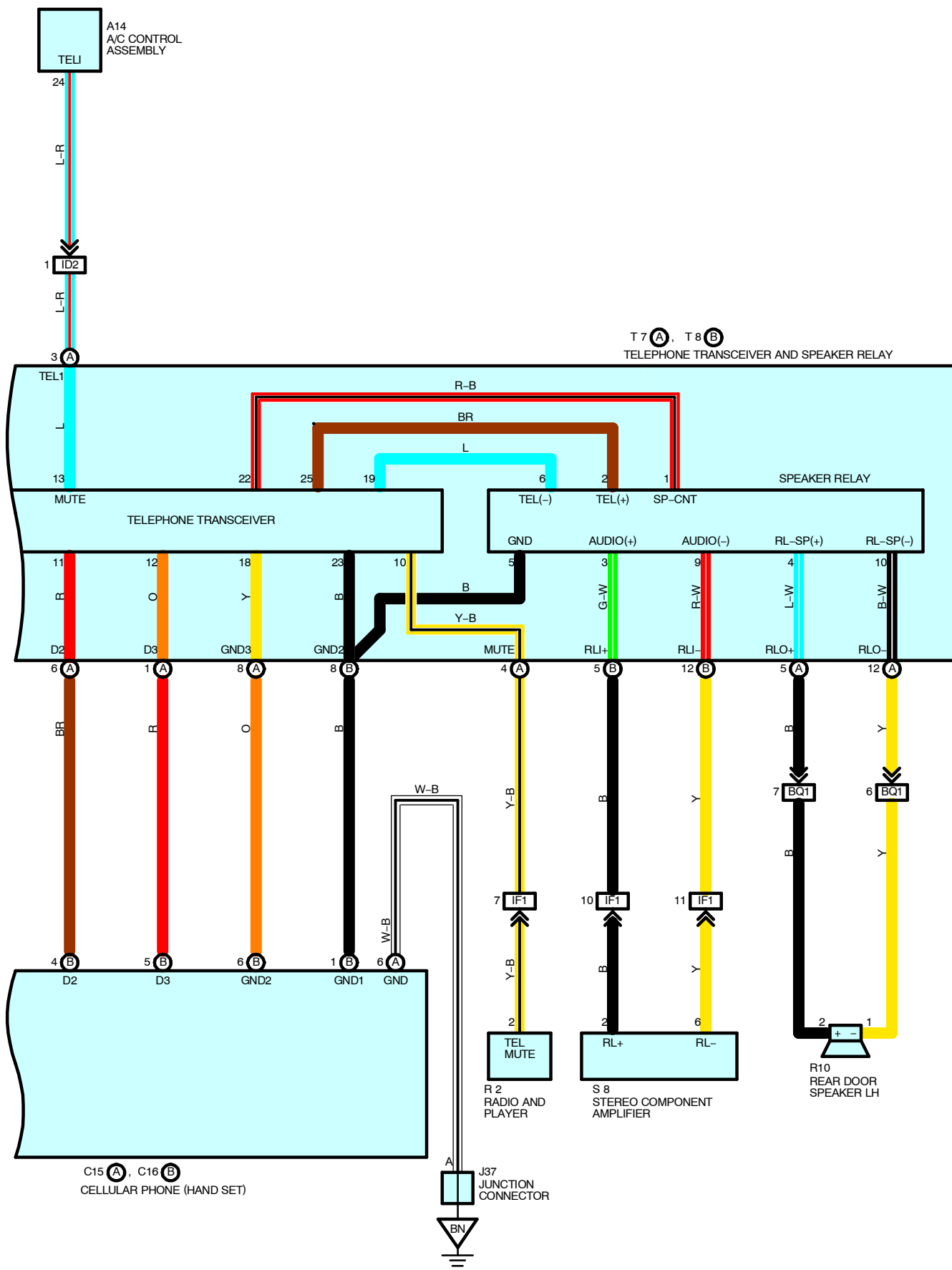
Code	See Page	Ground Points Location
IF	38	Cowl Side Panel LH
BQ	42	Roof Left

 : **SPLICE POINTS**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B4	42	Roof Wire			

CELLULAR MOBILE TELEPHONE





CELLULAR MOBILE TELEPHONE

SERVICE HINTS

T8 (B) TELEPHONE TRANSCEIVER AND SPEAKER RELAY

- (B) 9-GROUND : Always approx. 12 volts
- (B)10-GROUND : Approx. 12 volts with the ignition SW at **ON** position
- (B)11-GROUND : Always continuity

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A14	30	J5	31	S8	31
C12	30	J37	32	T7	A 33
C15	A 32	R2	31	T8	B 33
C16	B 32	R10	33		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
2J	22	Cowl 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)
ID2	38	Floor Wire and Cowl Wire (Left Kick Panel)
IF1	38	Floor Wire and Instrument Panel Wire (Left Kick Panel)
BQ1	42	Rear Door LH Wire and Floor Wire (Left Center Pillar)

▽ : GROUND POINTS

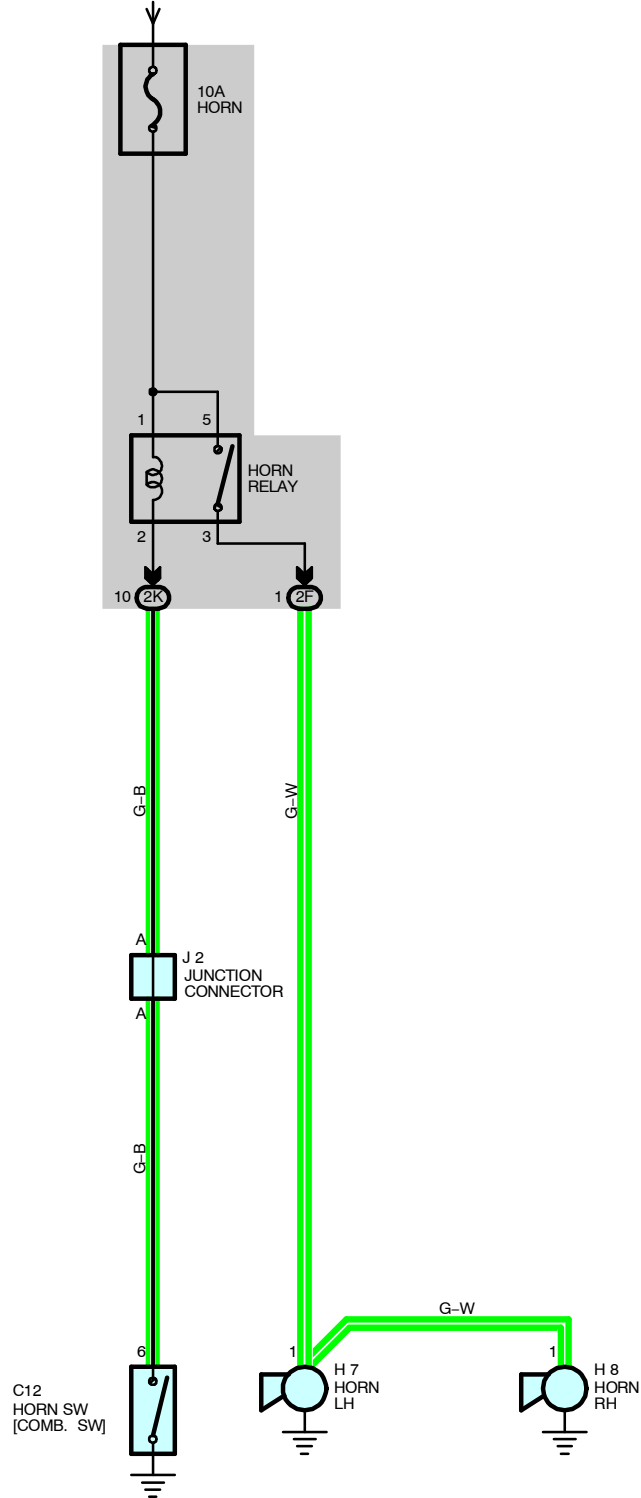
Code	See Page	Ground Points Location
BN	42	Under the Left Center Pillar

○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B1	42	Floor Wire			

HORN

FROM POWER SOURCE SYSTEM (SEE PAGE 48)



SERVICE HINTS**HORN RELAY [ENGINE ROOM J/B]**

5-3 : Closed with the horn SW on

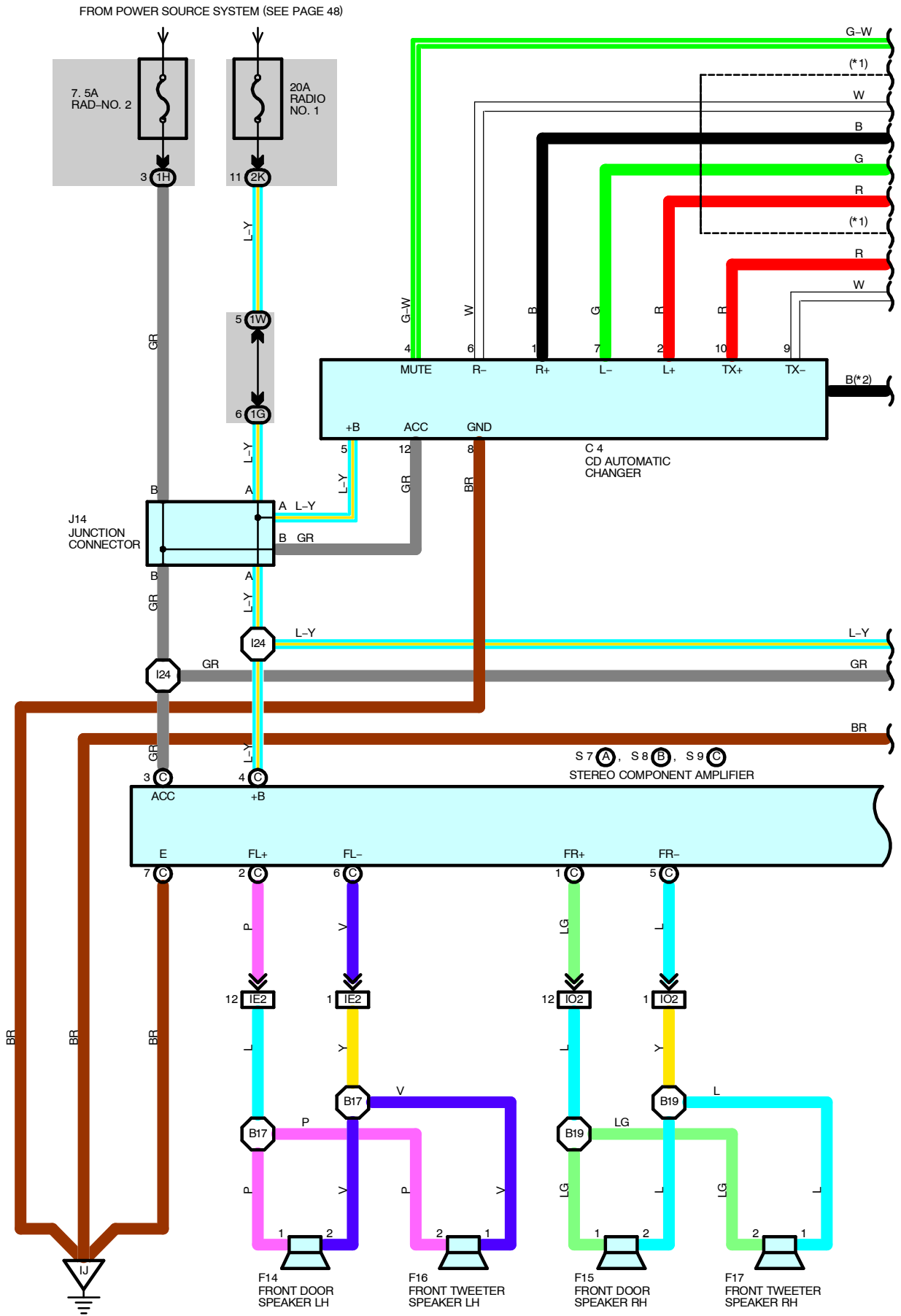
○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C12	30	H8	28		
H7	28	J2	31		

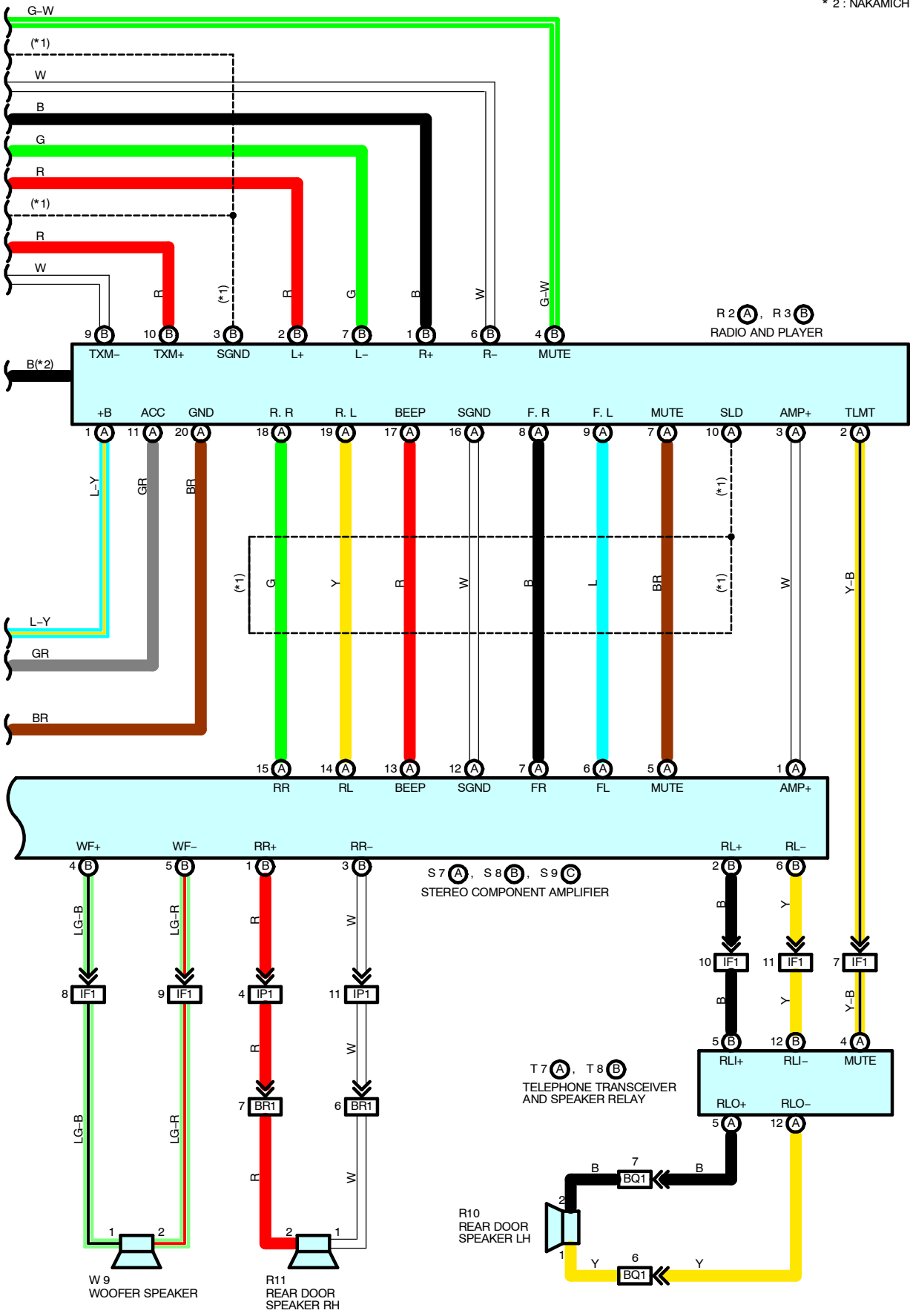
○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
2F	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2K	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)

RADIO AND PLAYER



* 1: SHIELDED
 * 2: NAKAMICHI



RADIO AND PLAYER

SERVICE HINTS

S9 (C) STEREO COMPONENT AMPLIFIER

(C) 7-GROUND : Always continuity

(C) 3-GROUND : Approx. 12 volts with the ignition SW at **ON** or **ACC** position

(C) 4-GROUND : Always approx. 12 volts

C4 CD AUTOMATIC CHANGER

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

5-GROUND : Always approx. 12 volts

8-GROUND : Always continuity

R2 (A) RADIO AND PLAYER

(A) 1-GROUND : Always approx. 12 volts

(A)11-GROUND : Approx. 12 volts with the ignition SW at **ON** or **ACC** position

(A)20-GROUND : Always continuity

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C4	30	R2	A 31	S9	C 31
F14	32	R3	B 31	T7	A 33
F15	32	R10	33	T8	B 33
F16	32	R11	33	W9	33
F17	32	S7	A 31		
J14	31	S8	B 31		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1H		
1W	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
2K	22	Cowl 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)
IE2	38	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IF1	38	Floor Wire and Instrument Panel Wire (Left Kick Panel)
IO2	40	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IP1	40	Floor No.2 Wire and Instrument Panel Wire (Right Kick Panel)
BQ1	42	Rear Door LH Wire and Floor Wire (Left Center Pillar)
BR1	42	Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)

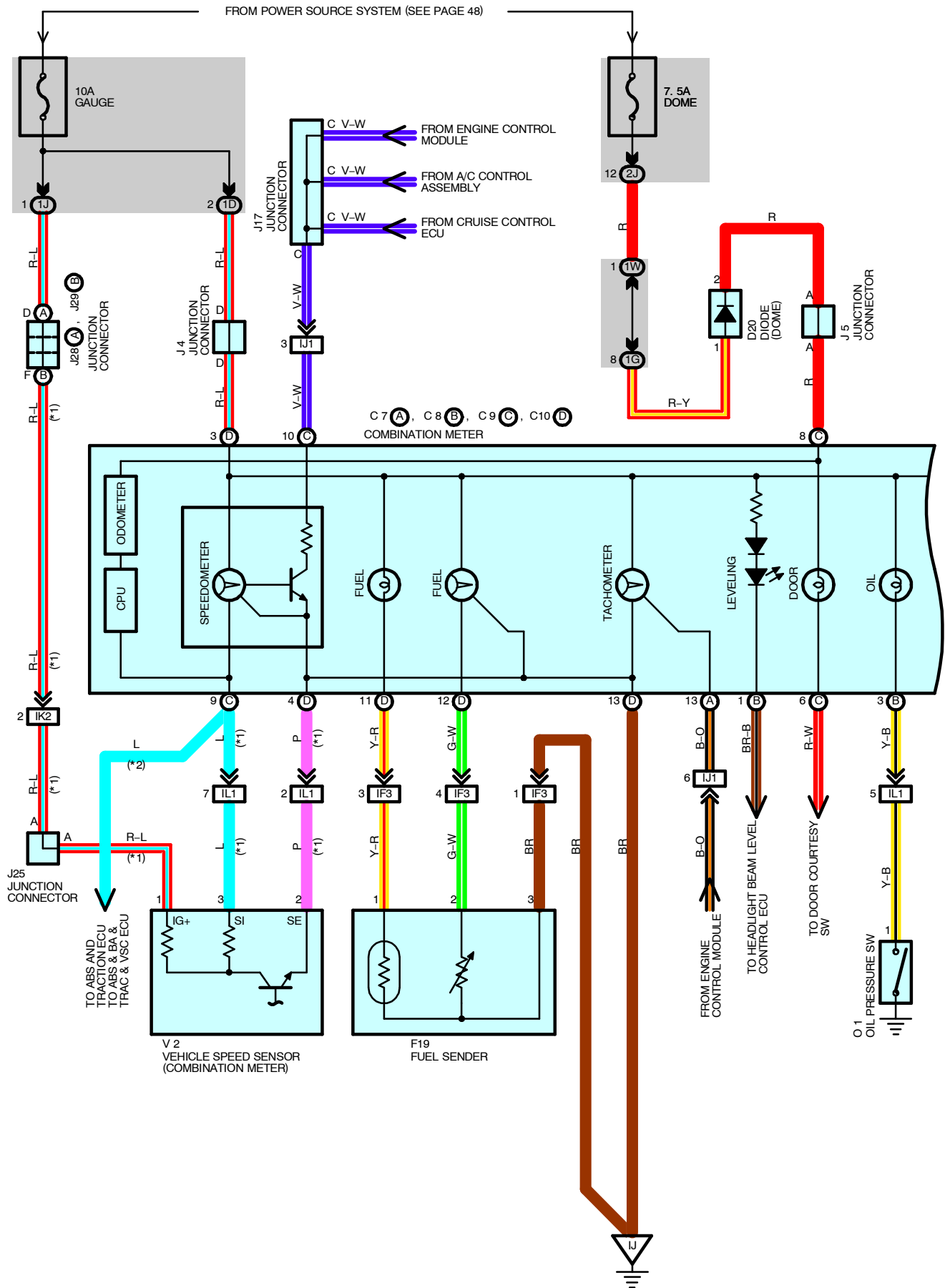
▽ : GROUND POINTS

Code	See Page	Ground Points Location
IJ	38	Instrument Panel Brace RH

○ : SPLICE POINTS

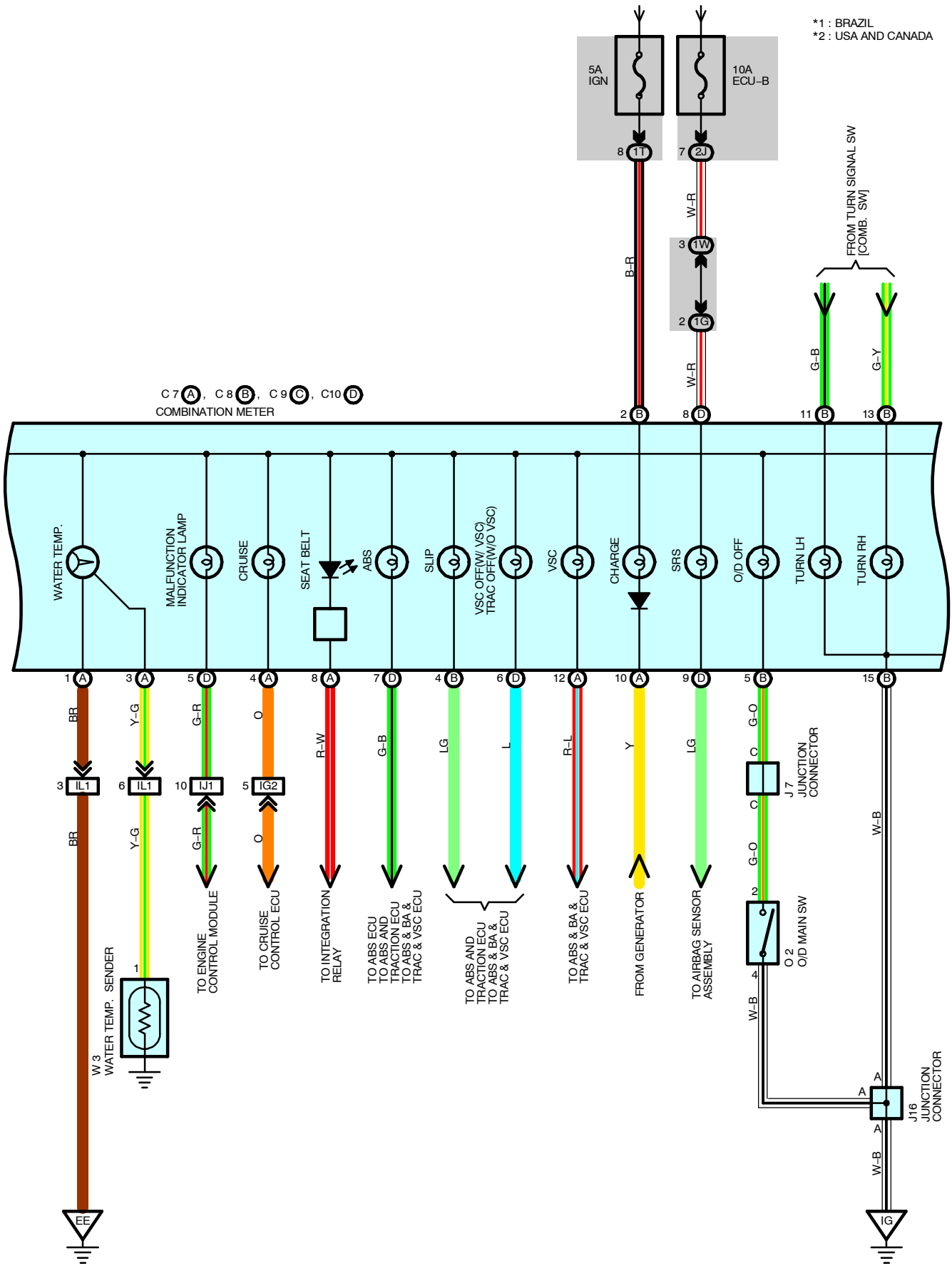
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I24	40	Instrument Panel Wire	B19	42	Front Door RH Wire
B17	42	Front Door LH Wire			

COMBINATION METER

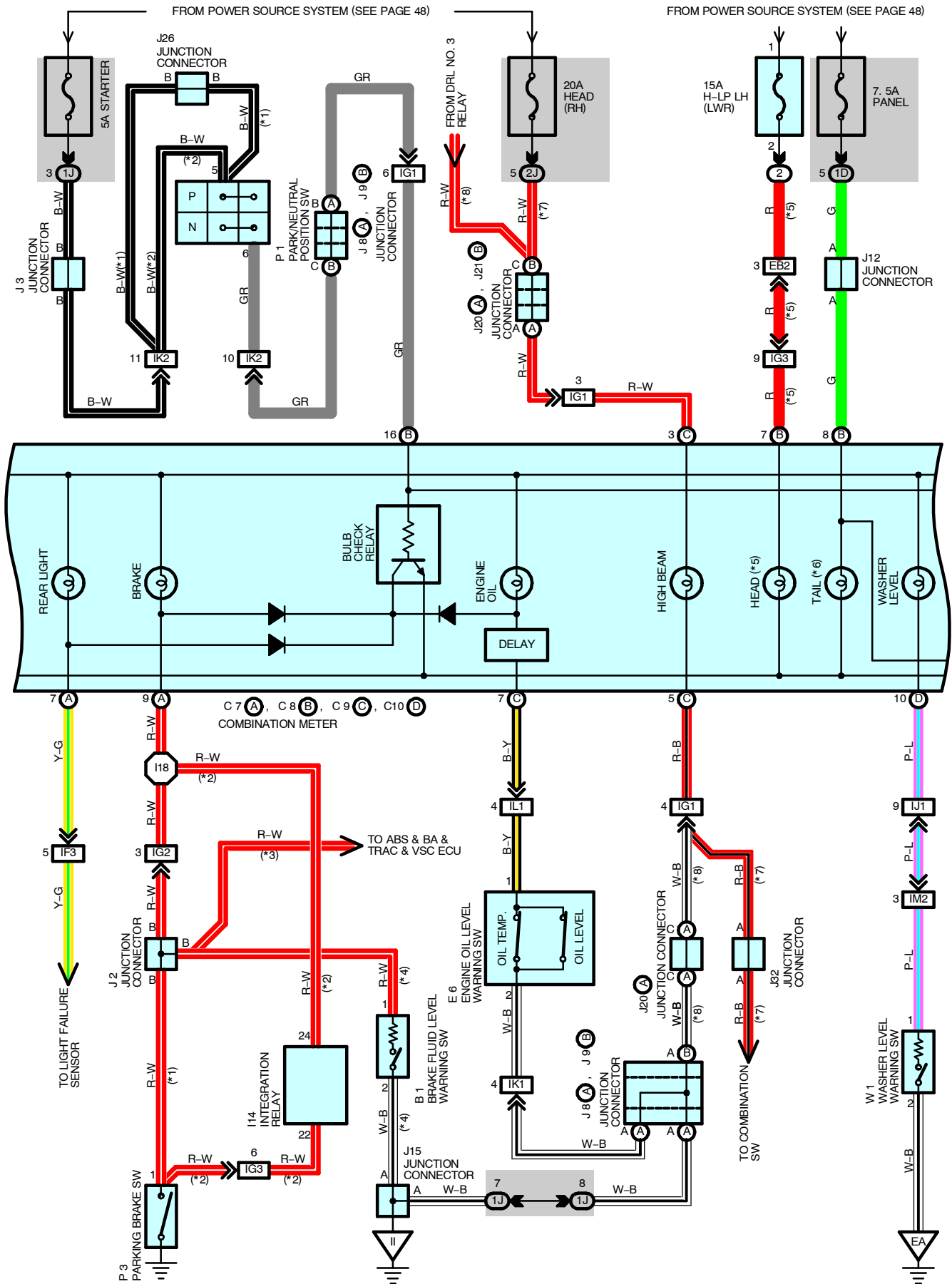


FROM POWER SOURCE SYSTEM (SEE PAGE 48)

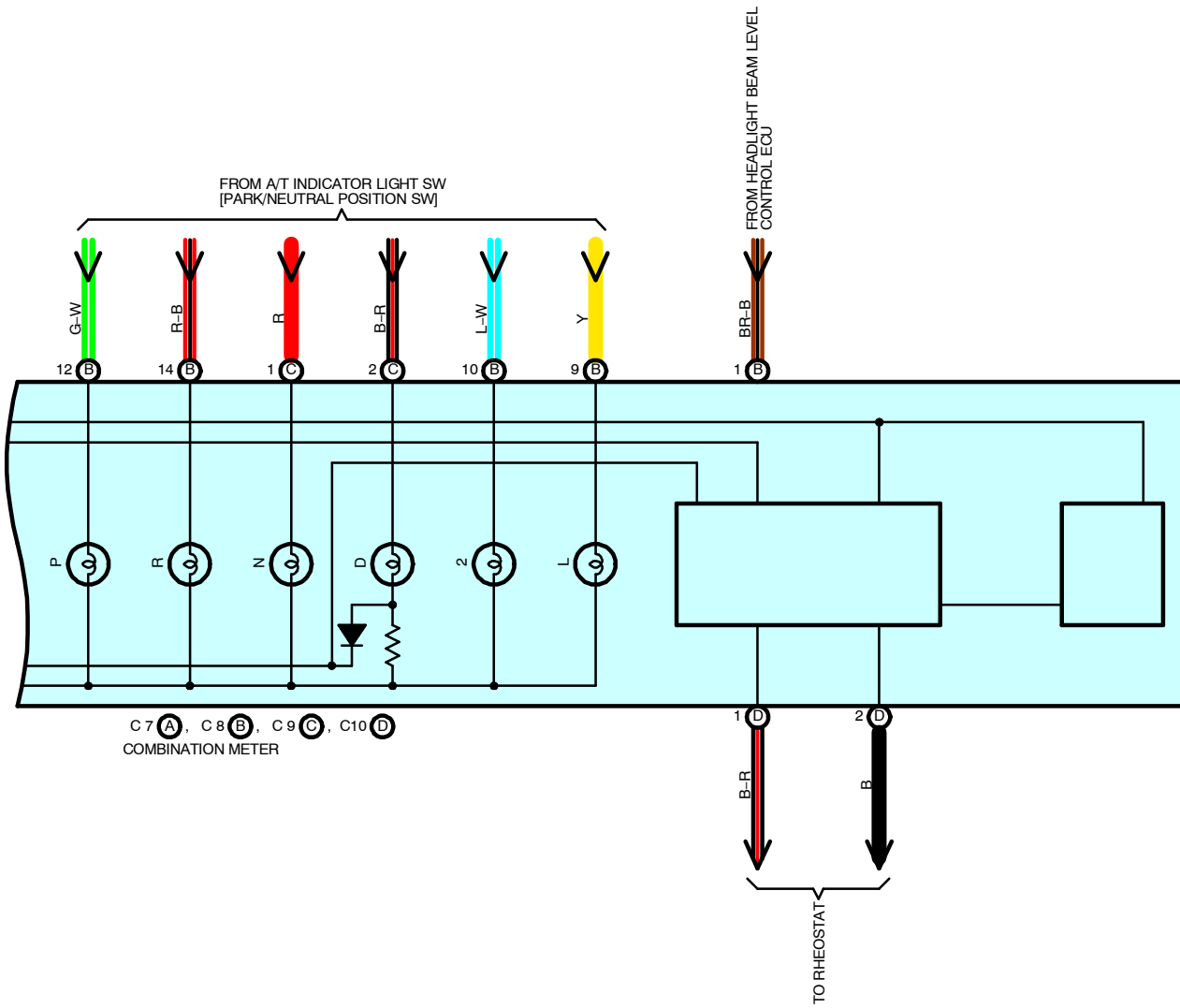
*1 : BRAZIL
 *2 : USA AND CANADA



COMBINATION METER



- * 1 : BRAZIL
- * 2 : USA AND CANADA
- * 3 : W/ VSC
- * 4 : W/O VSC
- * 5 : USA
- * 6 : CANADA
- * 7 : W/O DAYTIME RUNNING LIGHT
- * 8 : W/ DAYTIME RUNNING LIGHT



COMBINATION METER

SERVICE HINTS

B1 BRAKE FLUID LEVEL WARNING SW

1-2 : Closed with the float down

P3 PARKING BRAKE SW

1-GROUND : Closed with the parking brake pedal depressed

O1 OIL PRESSURE SW

1-GROUND : Closed with the oil pressure below approx. **0.2 kgf/cm² (2.8 psi, 19.6 kpa)**

W3 WATER TEMP. SENDER

1-GROUND : Approx. **226 Ω (50°C, 122°F)**
Approx. **25 Ω (115°C, 239°F)**

E6 ENGINE OIL LEVEL WARNING SW

1-2 : Closed with the float up and the engine oil temp. at below approx. **55°C (131°F)**
Open with the float down and the engine oil temp. at below approx. **60°C (140°F)**

F19 FUEL SENDER

2-3 : Approx. **3 Ω** at fuel full
Approx. **110 Ω** at fuel empty

C7 (A), C8 (B), C9 (C), C10 (D) COMBINATION METER

- (D) 3-GROUND : Approx. **12 volts** with the ignition SW at **ON** position
- (D) 13-GROUND : Always continuity
- (A) 1-GROUND : Always continuity
- (C) 8-GROUND : Always approx. **12 volts**
- (B) 15-GROUND : Always continuity
- (C) 5-GROUND : Always continuity
- (D) 8-GROUND : Always approx. **12 volts**

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B1	28	J5	31	J28 A	31
C7 A	30	J7	31	J29 B	31
C8 B	30	J8 A	31	J32	31
C9 C	30	J9 B	31	O1	29
C10 D	30	J12	31	O2	31
D20	30	J15	31	P1	29
E6	28	J16	31	P3	31
F19	32	J17	31	V2	29
I14	30	J20 A	31	W1	29
J2	31	J21 B	31	W3	29
J3	31	J25	31		
J4	31	J26	31		

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
2	25	Engine Room No.2 R/B (Engine Compartment Left)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1G		
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1T	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1W	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
2J	22	Cowl 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)
EB2	36	Cowl Wire and Engine Room Main Wire (Under the Engine Room J/B)
IF3	38	Floor Wire and Instrument Panel Wire (Left Kick Panel)
IG1	38	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IG2		
IG3		
IJ1	38	Instrument Panel Wire and Cowl Wire (Under the Glove Box)
IK1	38	Engine Wire and Cowl Wire (Under the Glove Box)
IK2		
IL1	40	Engine Wire and Instrument Panel Wire (Under the Glove Box)
IM2	40	Engine Room Main Wire and Cowl Wire (Right Kick Panel)

 : GROUND POINTS

Code	See Page	Ground Points Location
EA	36	Right Radiator Side Support
EE	36	Rear Side of Surge Tank
IG	38	Left Kick Panel
II	38	Instrument Panel Brace LH
IJ	38	Instrument Panel Brace RH

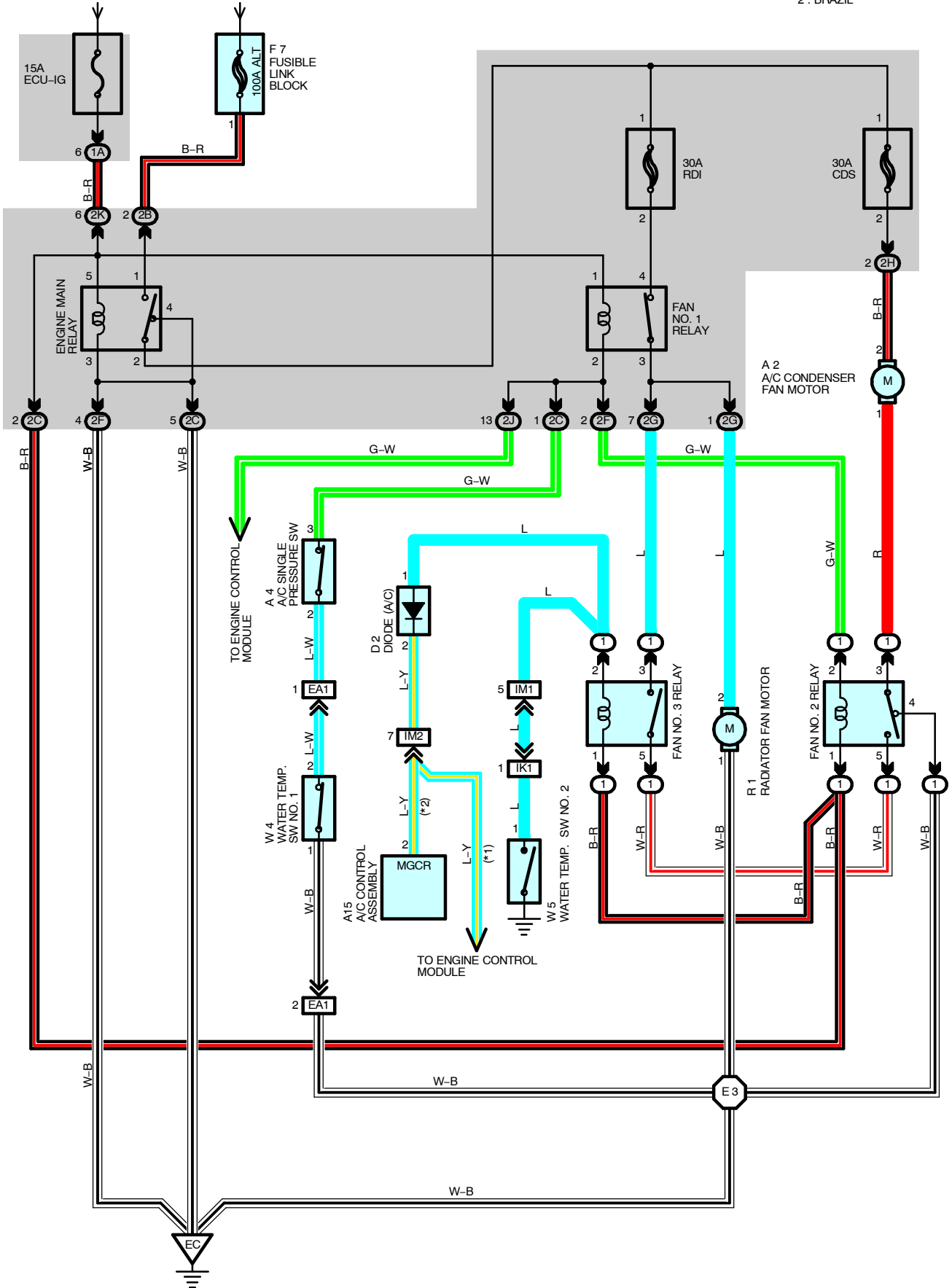
 : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I18	40	Instrument Panel Wire			

RADIATOR FAN AND CONDENSER FAN

FROM POWER SOURCE SYSTEM (SEE PAGE 48)

* 1 : USA AND CANADA
* 2 : BRAZIL



SYSTEM OUTLINE

With the ignition SW turned on, the current through the ECU-IG fuse flows to the FAN NO.1 relay (Coil side), FAN NO.2 relay (Coil side) and FAN NO.3 relay (Coil side). Furthermore, the current through the FAN NO.1 relay (Coil side) or the FAN NO.2 relay (Coil side) flows to TERMINAL 3 of the A/C single pressure SW to TERMINAL 2 to TERMINAL 2 of the water temp. SW NO.1 to TERMINAL 1 to GROUND, causing the FAN NO.2 relay to turn on.

1. LOW SPEED OPERATION

Only when the A/C system is activated or the water temp. SW No.2 is turned on, the A/C condenser fan motor and the radiator fan motor rotates at low speed.

When the A/C system is activated, the current from ECU-IG fuse flows to the FAN NO.3 relay (Coil side) to TERMINAL 1 of the diode (A/C) to TERMINAL 2 to TERMINAL 2 of the A/C control assembly, causing the FAN NO.3 relay to turn on. As a result, the current through the CDS fuse flows to TERMINAL 2 of the A/C condenser fan motor to TERMINAL 1 to TERMINAL 3 of the FAN NO.2 relay to TERMINAL 5 to TERMINAL 5 of the FAN NO.3 relay to TERMINAL 3 to TERMINAL 2 of the radiator fan motor to TERMINAL 1 to GROUND. As this flowing in series for the motors, the motors rotate at low speed.

When the water temp. SW NO.2 is turned on, the current from ECU-IG fuse flows to the FAN NO.3 relay (Coil side) to TERMINAL 1 of the water temp. SW NO.2 to GROUND, causing the fan NO.3 relay to turn on. As a result, the current through the CDS fuse flows the same route as above, rotating the motors at low speed.

2. HIGH SPEED OPERATION

Only when the A/C single pressure SW is turned off or the water temp. SW No.1 is turned off, the A/C condenser fan motor and the radiator fan motor rotate at high speed.

When the A/C single pressure SW is turned off, the current from the RDI fuse flows to the FAN NO.1 relay (Point side) to TERMINAL 2 of the radiator fan motor to TERMINAL 1 to GROUND. At the same time, the current from the CDS fuse flows to TERMINAL 2 of the A/C condenser fan motor to TERMINAL 1 to TERMINAL 3 of the FAN NO.2 relay to TERMINAL 4 to GROUND.

As the current flowing in parallel for the motors as above, the motors rotate at high speed.

SERVICE HINTS

A4 A/C SINGLE PRESSURE SW

3-2 : Open above approx. **15.5 kgf/cm² (220 psi, 1520 kpa)**
Close below approx. **12.5 kgf/cm² (178 psi, 1226 kpa)**

W4 WATER TEMP. SW NO.1

2-1 : Open above approx. **95°C (203°F)**

W5 WATER TEMP. SW NO.2

1-GROUND : Close above approx. **90°C (194°F)**

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A2	28	D2	28	W4	29
A4	28	F7	28	W5	29
A15	30	R1	29		

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	24	Engine Room R/B (Engine Compartment Left)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
2B	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2C		
2F		
2G		
2H		
2J	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)
2K		

RADIATOR FAN AND CONDENSER FAN

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	36	Engine Room Main Wire and Engine Room Main No.3 Wire (Behind Headlight LH)
IK1	38	Engine Wire and Cowl Wire (Under the Glove Box)
IM1	40	Engine Room Main Wire and Cowl Wire (Right Kick Panel)
IM2		

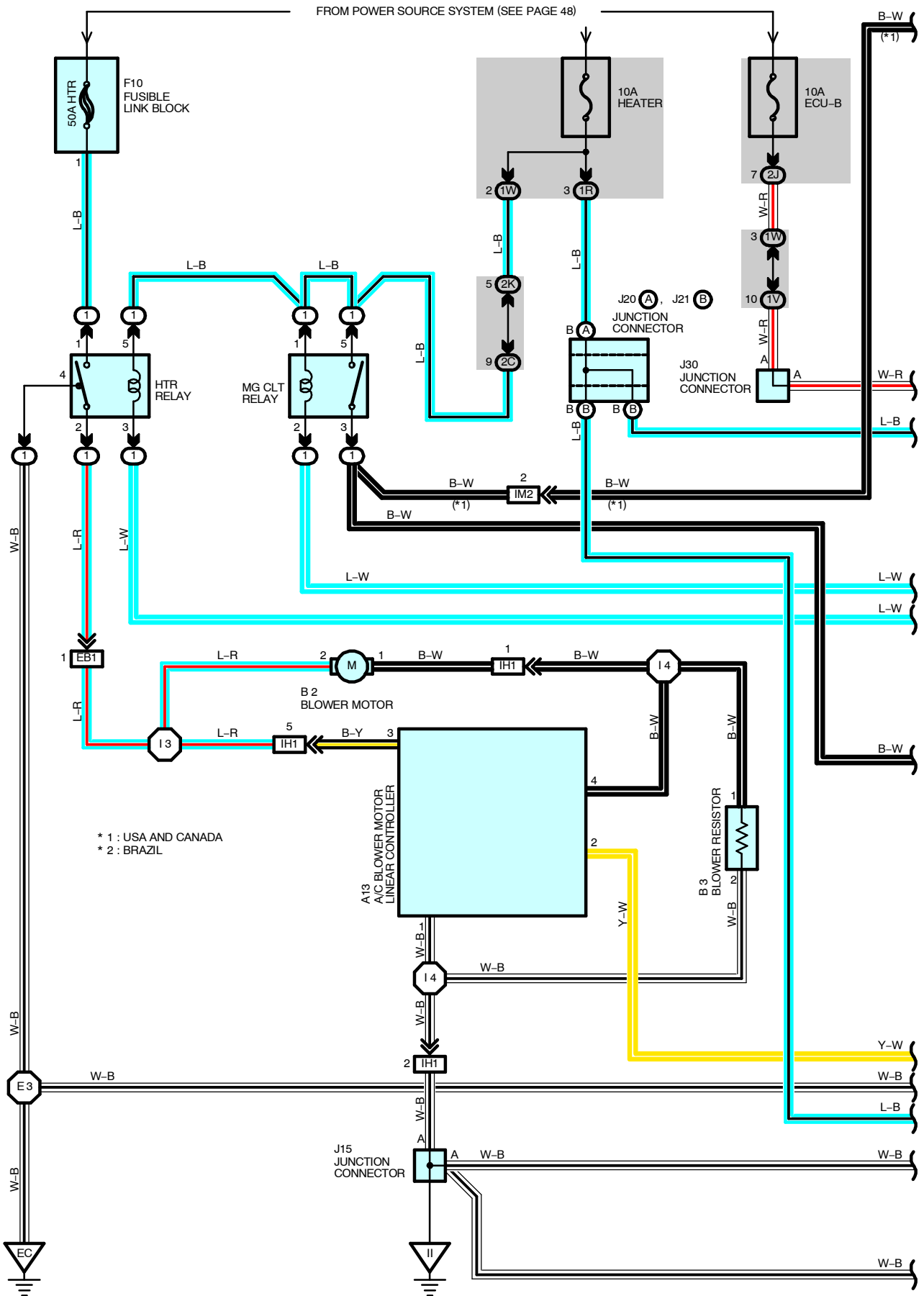
: GROUND POINTS

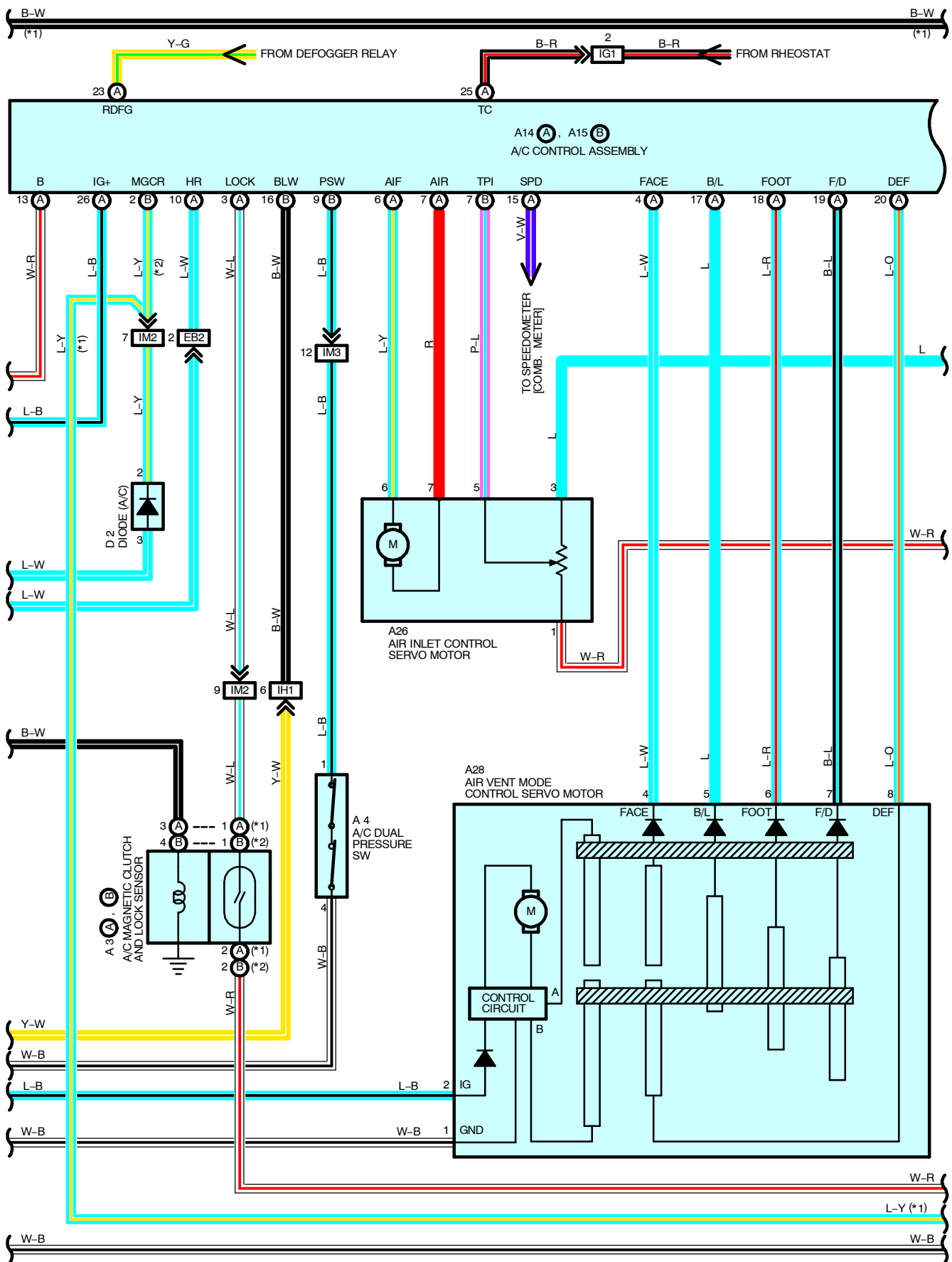
Code	See Page	Ground Points Location
EC	36	Left Radiator Side Support

: SPLICE POINTS

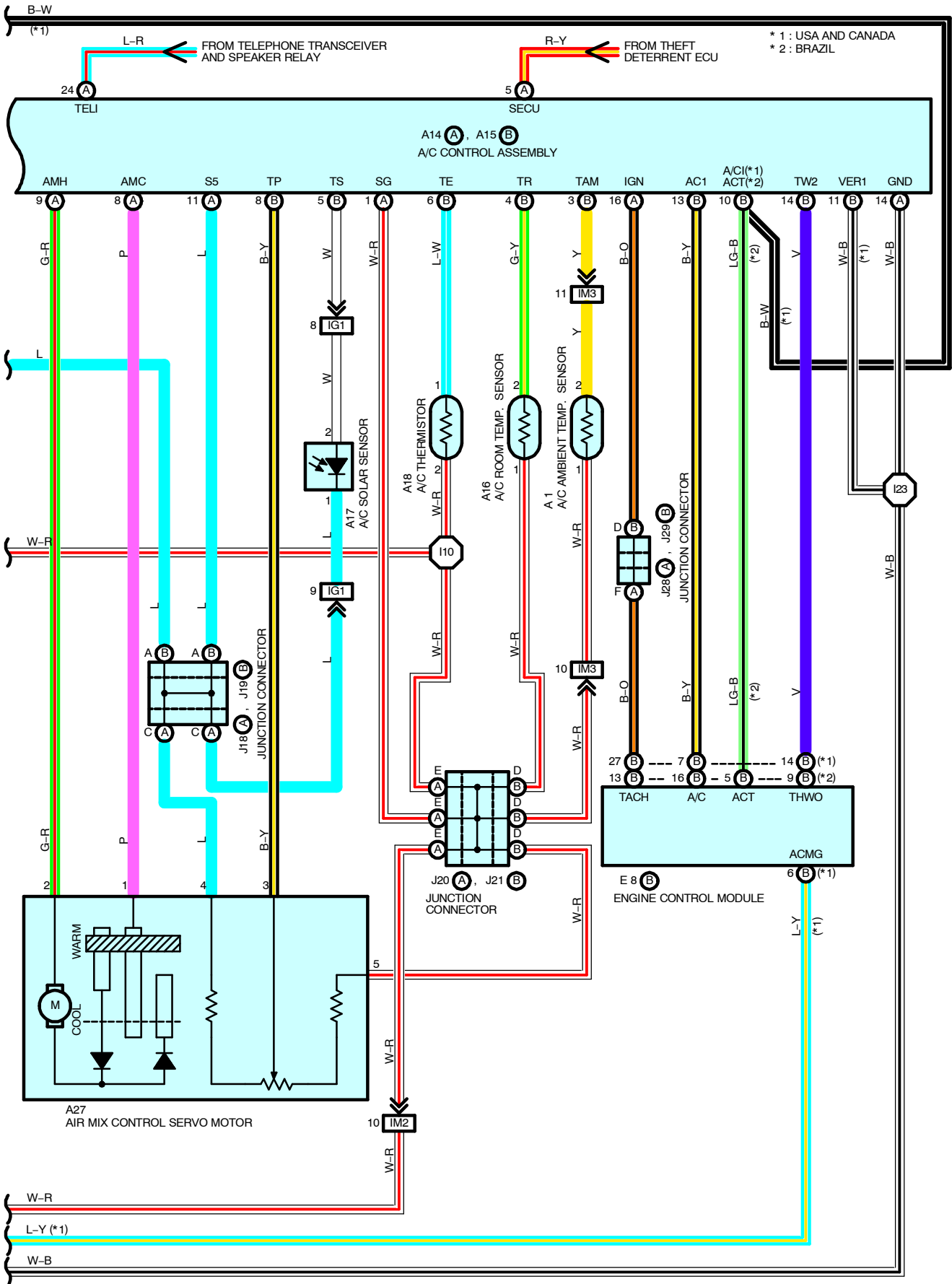
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E3	36	Engine Room Main Wire			

AUTOMATIC AIR CONDITIONING





AUTOMATIC AIR CONDITIONING



SYSTEM OUTLINE

1. HEATER BLOWER MOTOR OPERATION

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

* Low speed operation

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

* High speed operation

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

2. AIR INLET CONTROL SERVO MOTOR OPERATION

(Switching from FRESH to RECIRC)

With the ignition SW turned on, the current flows from HEATER fuse to TERMINAL IG+ of the A/C control assembly to TERMINAL AIR to TERMINAL 7 of the air inlet control servo motor to TERMINAL 6 to TERMINAL AIF of the A/C control assembly to TERMINAL GND to GROUND, the motor rotates and the damper moves to the RECIRC side. When the damper operates with the A/C SW at RECIRC position, the damper position signal is input from TERMINAL 5 of the servo motor to TERMINAL TPI of the ECU (Built into the A/C control assembly). As a result, current to the servo motor circuit is cut off by the ECU, so the damper stops at that position.

(Switching from RECIRC to FRESH)

With the ignition SW turned on, when the RECIRC/FRESH SW is switched to the FRESH side, the current flows from TERMINAL IG+ of the A/C control assembly to TERMINAL AIF to TERMINAL 6 of the air inlet control servo motor to TERMINAL 7 to TERMINAL AIR of the A/C control assembly to TERMINAL GND to GROUND, The motor rotates and the damper stops at that position.

When blower SW is on and heater control SW is at DEF position, it causes air inlet control servo motor to run automatically to FRESH position whether air inlet control SW is switched or not.

3. AIR VENT MODE CONTROL SERVO MOTOR OPERATION

When the ignition SW turned on, the current flows from HEATER fuse to TERMINAL IG+ of the A/C control assembly.

(Switching from DEF to FACE)

The current flows from TERMINAL FACE of the A/C control assembly to TERMINAL 4 of the air vent mode control servo motor to TERMINAL 8 to TERMINAL DEF of the A/C control assembly to TERMINAL GND to GROUND. The motor rotates and the damper moves to the FACE side. When the damper operates with the A/C SW at FACE position, the damper position signal is input from TERMINAL 8 of the servo motor to the TERMINAL DEF of the ECU (Built into the A/C control assembly). As a result, current to the servo motor circuit is cut off by the ECU, so the damper stops at that position.

(Switching from FACE to DEF)

The current flows from TERMINAL DEF of the A/C control assembly to TERMINAL 8 of the air vent control servo motor to TERMINAL 4 to TERMINAL FACE of the A/C control assembly to TERMINAL GND to GROUND, the motor rotates and the damper stops at that position.

4. AIR MIX CONTROL SERVO MOTOR OPERATION

When the temperature control SW (A/C control assembly) is turned to the COOL side the current flows from TERMINAL AMC of the A/C control assembly to TERMINAL 1 of the air mix control servo motor to motor to TERMINAL 2 to TERMINAL AMH of the A/C control assembly to GROUND and the motor rotates. The damper opening angle at this time is input from TERMINAL 3 of the servo motor to TERMINAL TP of the A/C control assembly, this is used to determine the DAMPER STOP position and maintain the set temperature.

When the temperature control SW (A/C control assembly) is turned to the HOT side, the current flows from servo motor to TERMINAL AMH of the A/C control assembly to TERMINAL 2 of the air mix control servo motor to motor to TERMINAL 1 to TERMINAL AMC of the A/C control assembly, rotating the motor in reverse and switching the damper from COOL to HOT side.

AUTOMATIC AIR CONDITIONING

5. AIR CONDITIONING OPERATION

The A/C control assembly receives various signals, I.E., the engine RPM from the engine control module, outside air temperature signal from the A/C ambient temp. sensor, coolant temperature from the engine control module and the lock signal from the A/C compressor, etc.

When the engine is started and the A/C SW (A/C control assembly) is on, a signal is input to the ECU. (Built in the A/C control assembly).

As a result, the ground circuit in engine control module (USA and Canada) or A/C control assembly (Brazil) is closed and current flows from HEATER fuse to TERMINAL 1 of the MG CLT relay to TERMINAL 2 to TERMINAL 3 of the diode (A/C) to TERMINAL 2 to TERMINAL ACMG of the engine control module (USA and Canada) or TERMINAL MGCR of the A/C control assembly (Brazil) to GROUND, turning the MG CLT relay on, so that the magnetic clutch is on and the A/C compressor operates.

At the same time, the engine control module detects the magnetic clutch is on and the A/C compressor operates.

If the A/C control assembly detects the following conditions, it stops the air conditioning:

- * Evaporator outlet air is too low.
- * There is a marked difference between the compressor speed and the engine speed.
- * The refrigerant pressure is abnormally high or abnormally low.
- * The engine speed is too low.
- * Rapid acceleration occurs.

6. DEF SYNCHRONIZED CONTROL FUNCTION

When the blower SW is on and the heater control SW is at DEF position, it causes A/C to run whether A/C SW is on or not.

When the blower SW is on and the heater control SW is at DEF position, the RECIRC/FRESH SW is switched to the FRESH side, it causes FRESH position to turn whether RECIRC/FRESH SW is turned on to FRS position or not

SERVICE HINTS

MG CLT RELAY [ENGINE ROOM R/B NO.1]

5-3 : Closed with the ignition SW on, the blower SW on and the A/C SW on or the heater control SW at DEF position

A4 A/C DUAL PRESSURE SW

4-1 : Open above approx. **2.0 kgf/cm² (28 psi, 196 kpa)** or **32 kgf/cm² (455 psi, 3138 kpa)**

A3 (A), (B) A/C MAGNETIC CLUTCH

(A) 3, (B) 4-GROUND : Approx. **3.7 Ω**

A14 (A), A15 (B) A/C CONTROL ASSEMBLY

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

IG+ -GROUND : Approx. **12 volts** with the ignition SW at **ON** position

HR -GROUND : Approx. **12 volts** with the ignition SW at **ON** position and do not turn the blower motor
Below **1 volt** with the ignition SW at **ON** position and turn the blower motor

PSW-GROUND : Below **1 volt** with the ignition SW at **ON** position

AC1-GROUND : Below **1 volt** at start the engine, operate the compressor
+ **OR MORE** volts at start the engine, do not operate the compressor

BLW-GROUND : Below **1.5 volts** with the ignition SW on and turn the blower motor

S5-SG : **4-6 volts** with the ignition SW at **ON** position

SG-GROUND : Always continuity

AMH-AMC : **1.3-1.9 volts** with the ignition SW off

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

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

FACE-GROUND : Approx. **12 volts** with the FACE SW on

DEF-GROUND : Approx. **12 volts** with the DEF SW on

GND-GROUND : Always continuity

 : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A1	28	A18	30	J15	31
A3	A	A26	30	J18	A
	B	A27	30	J19	B
A4	28	A28	30	J20	A
A13	30	B2	30	J21	B
A14	A	B3	30	J28	A
A15	B	D2	28	J29	B
A16	30	E8	B	J30	31
A17	30	F10	28		

 : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	24	Engine Room R/B (Engine Compartment Left)

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1R	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1V		
1W		
2C	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2J	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)
2K		

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	36	Cowl Wire and Engine Room Main Wire (Under the Engine Room J/B)
EB2		
IG1	38	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IH1	38	Cowl Wire and A/C Sub Wire (Behind Radio and Player)
IM2	40	Engine Room Main Wire and Cowl Wire (Right Kick Panel)
IM3		

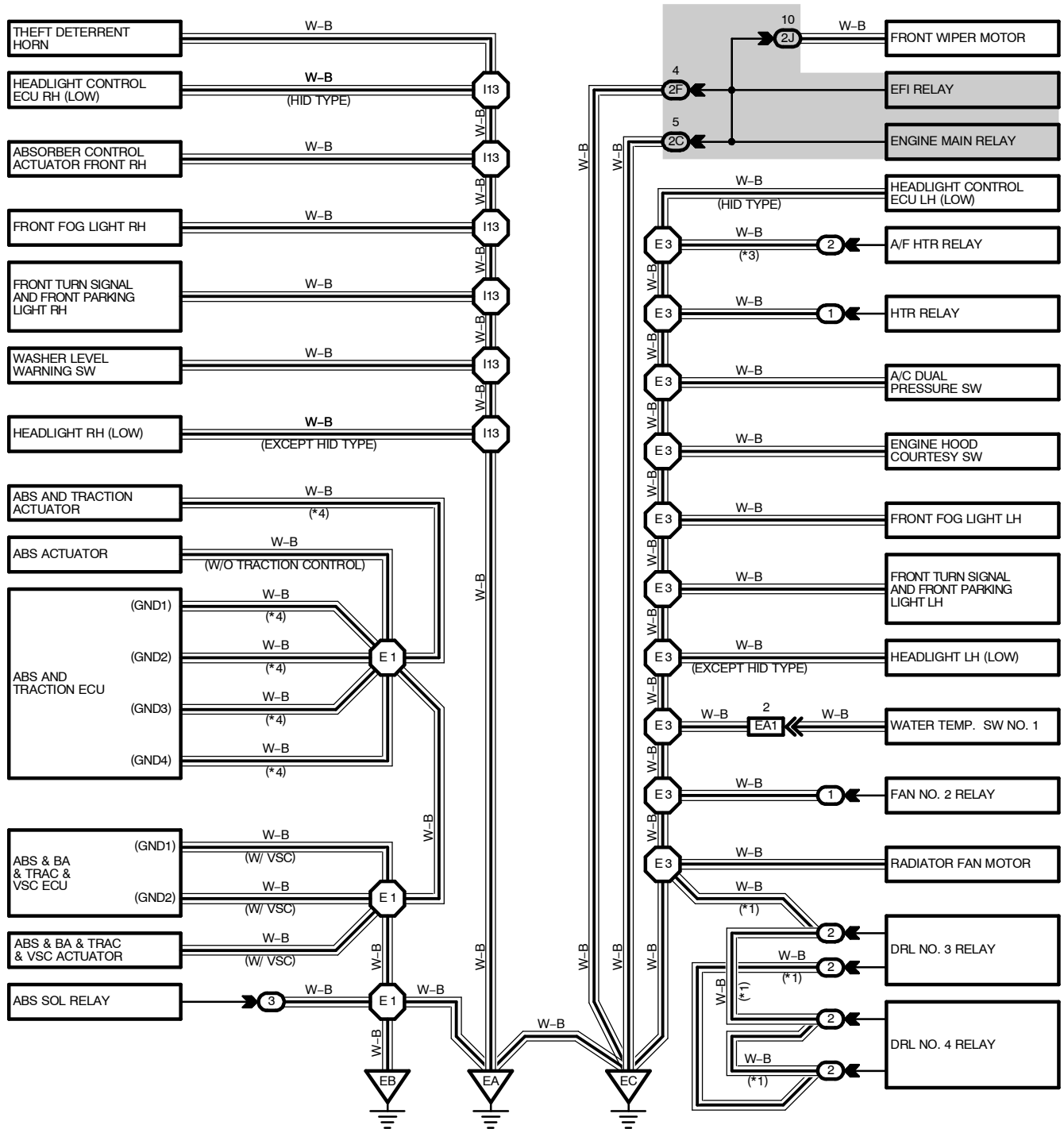
 : GROUND POINTS

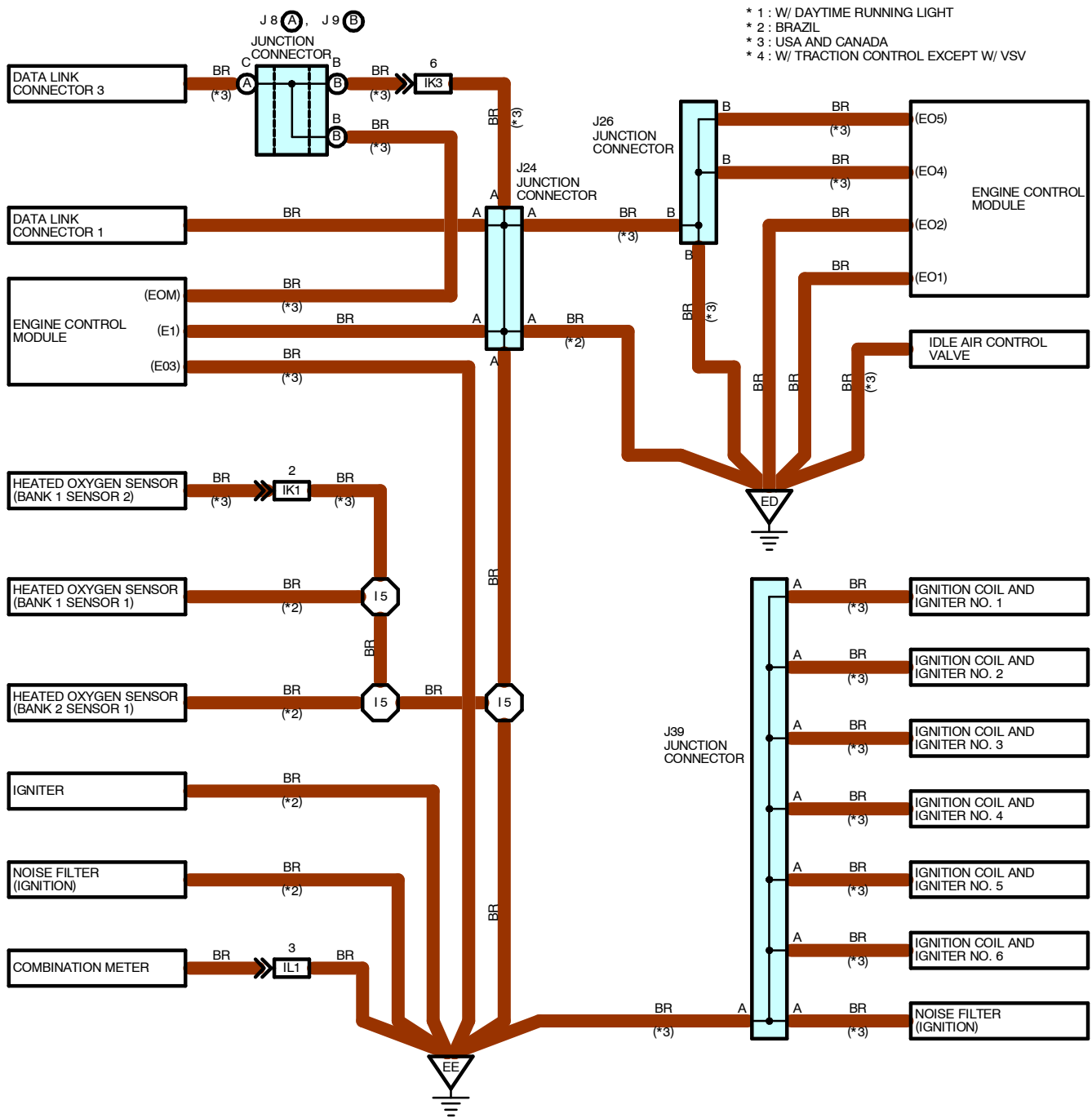
Code	See Page	Ground Points Location
EC	36	Left Radiator Side Support
II	38	Instrument Panel Brace LH

 : SPLICE POINTS

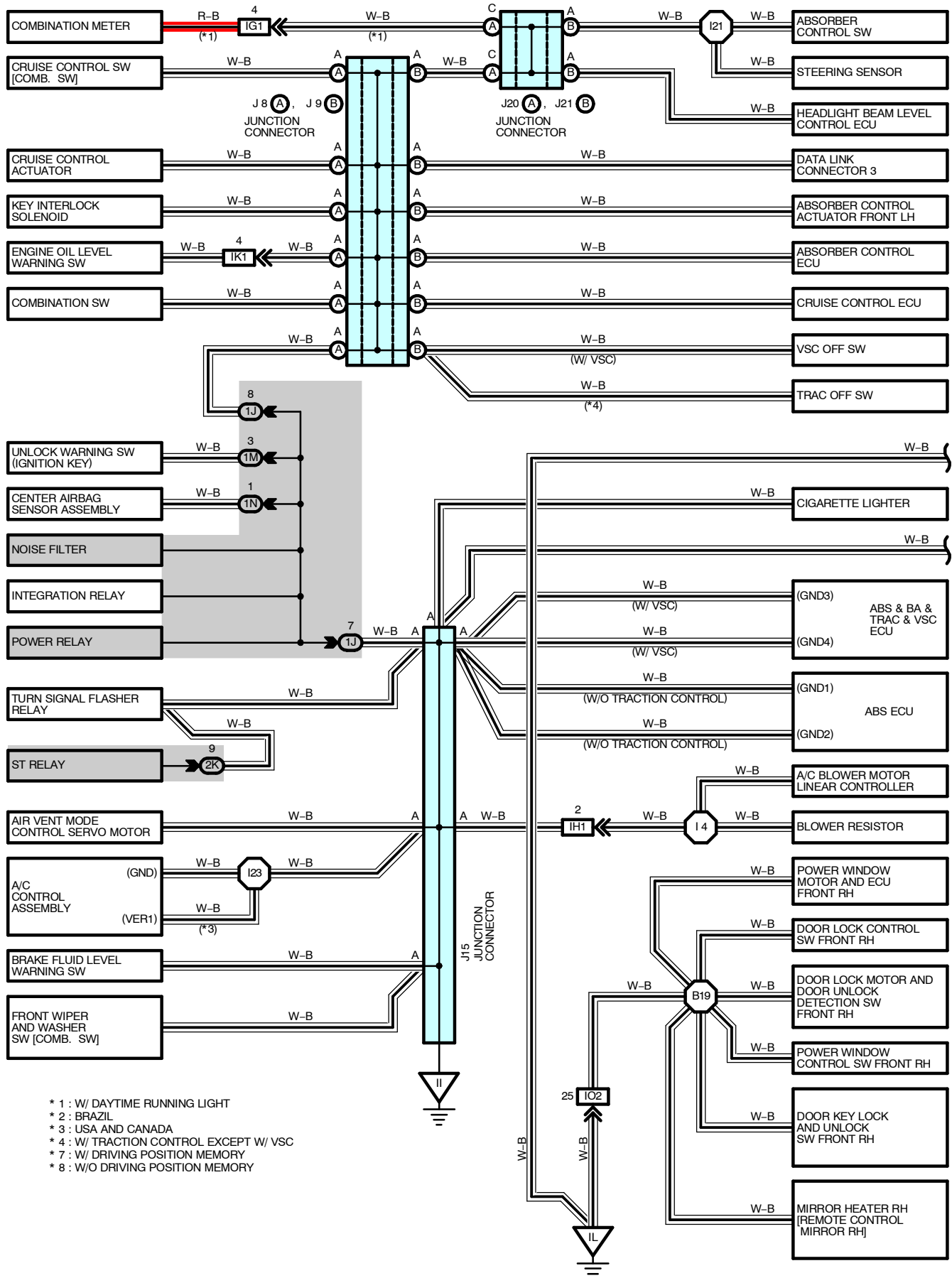
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E3	36	Engine Room Main Wire	I10	40	Cowl Wire
I3	40	Cowl Wire	I23		
I4	40	A/C Sub Wire			

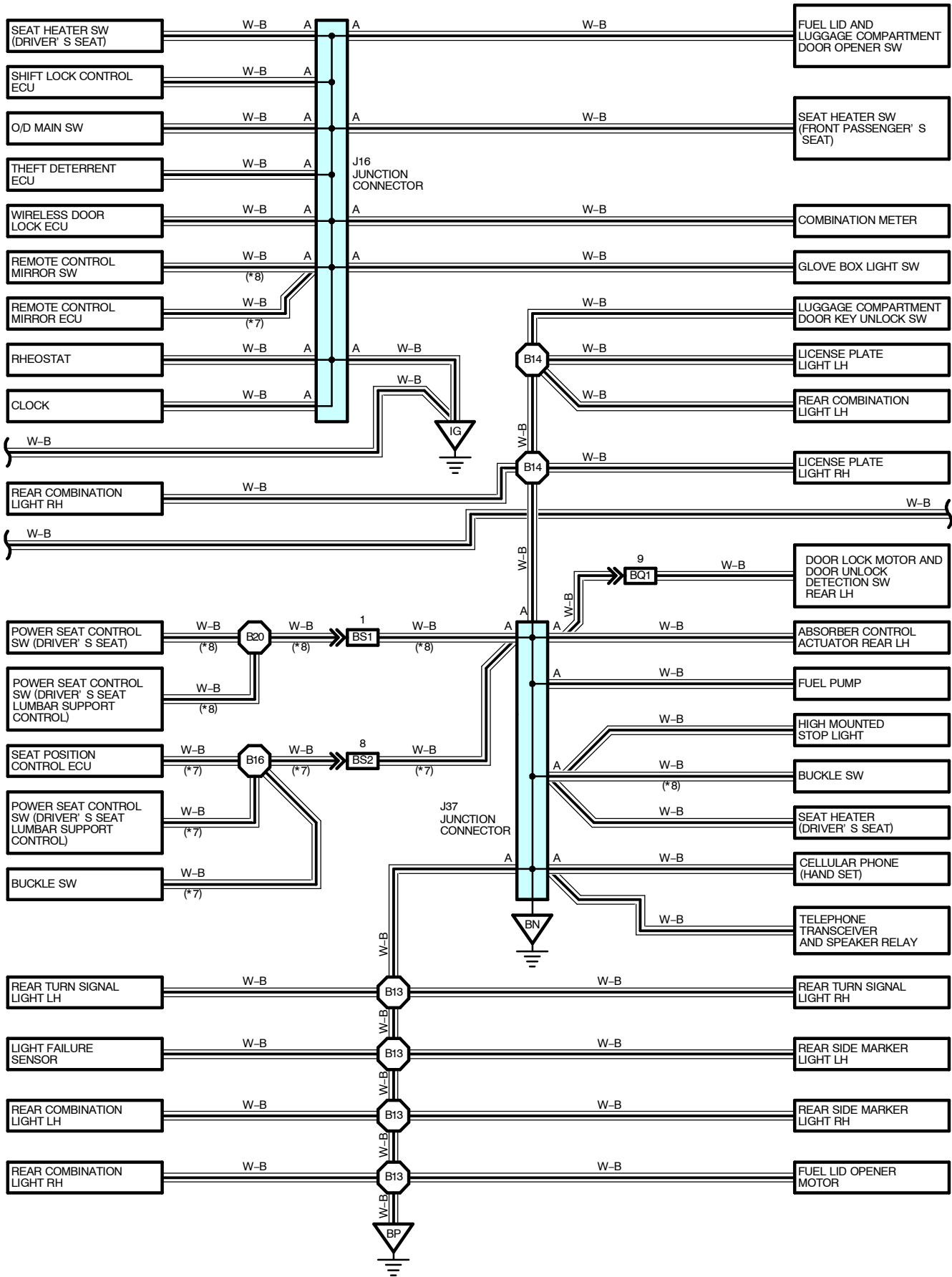
I GROUND POINT



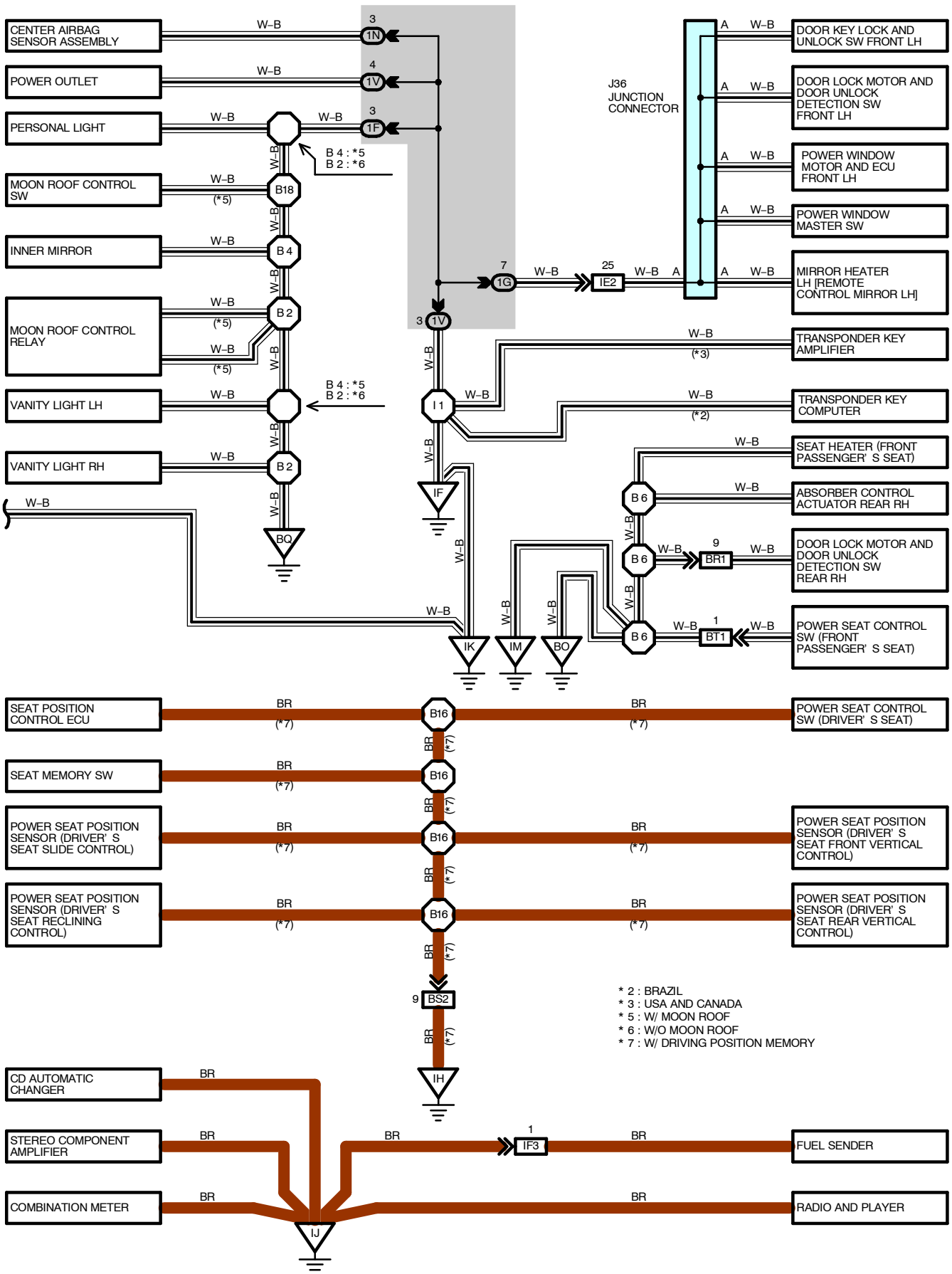


I GROUND POINT





I GROUND POINT



○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
J8	A	31	J20	A	31
J9	B	31	J21	B	31
J15	31	J24	31	J36	32
J16	31	J26	31	J37	32
				J39	29

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	24	Engine Room R/B (Engine Compartment Left)
2	25	Engine Room No.2 R/B (Engine Compartment Left)
3	25	Engine Room No.3 R/B (Radiator Upper Support RH)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	26	Roof Wire and Instrument Panel J/B (Lower Finish Panel)
1G	26	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1J	26	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1M		
1N		
1V		
2C	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2F		
2J	22	Cowl Wire and Engine Room J/B (Engine Compartment Left)
2K		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	36	Engine Room Main Wire and Engine Room Main No.3 Wire (Behind Headlight LH)
IE2	38	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IF3	38	Floor Wire and Instrument Panel Wire (Left Kick Panel)
IG1	38	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IH1	38	Cowl Wire and A/C Sub Wire (Behind Radio and Player)
IK1	38	Engine Wire and Cowl Wire (Under the Glove Box)
IK3		
IL1	40	Engine Wire and Instrument Panel Wire (Under the Glove Box)
IO2	40	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
BQ1	42	Rear Door LH Wire and Floor Wire (Left Center Pillar)
BR1	42	Rear Door RH Wire and Floor No 2 Wire (Right Center Pillar)
BS1	44	Floor Wire and Seat No.1 Wire (Under the Driver's Seat)
BS2		
BT1	44	Floor No.2 Wire and Seat No.2 Wire (Under the Front Passenger's Seat)

I GROUND POINT



: GROUND POINTS

Code	See Page	Ground Points Location
EA	36	Right Radiator Side Support
EB		
EC	36	Left Radiator Side Support
ED	36	Surge Tank RH
EE	36	Rear Side of Surge Tank
IF	38	Cowl Side Panel LH
IG	38	Left Kick Panel
IH		
II	38	Instrument Panel Brace LH
IJ	38	Instrument Panel Brace RH
IK	38	Cowl Side Panel RH
IL	38	Right Kick Panel
IM		
BN	42	Under the Left Center Pillar
BO	42	Under the Right Center Pillar
BP	42	Back Panel Center
BQ	42	Roof Left

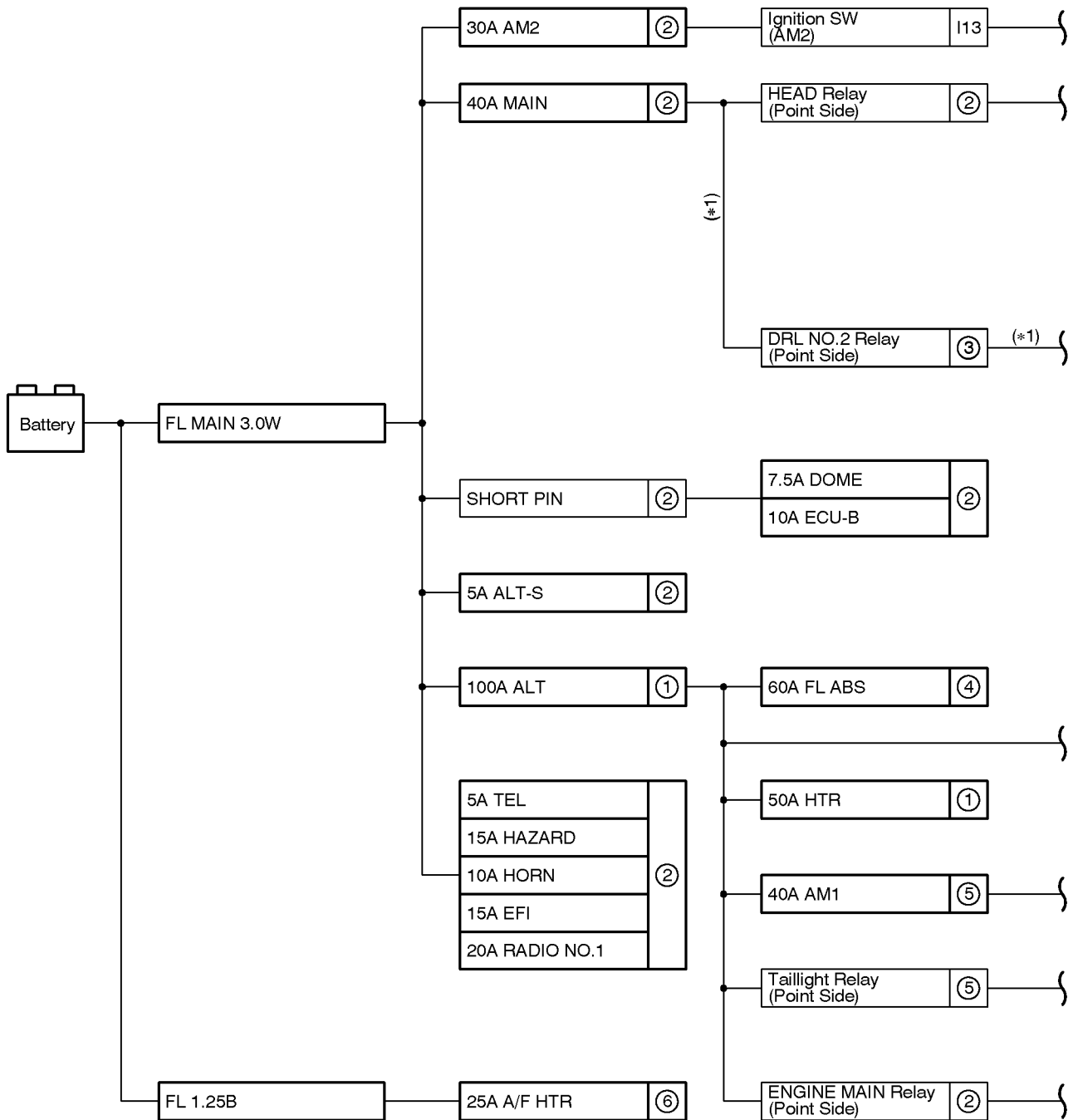


: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	36	Engine Room Main Wire	B4	42	Roof Wire
E3			B6	42	Floor No.2 Wire
I1	40	Cowl Wire	B13	42	Floor Wire
I4	40	A/C Sub Wire	B14		
I5	40	Engine Wire	B16	44	Seat No.1 Wire
I13	40	Engine Room Main Wire	B18	42	Roof Wire
I21	40	Cowl Wire	B19	42	Front Door RH Wire
I23			B20	44	Seat No.1 Wire
B2	42	Roof Wire			

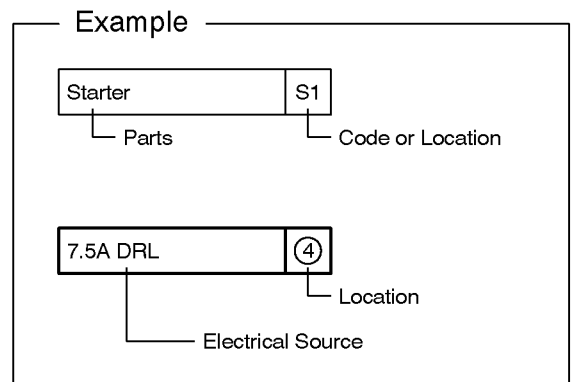
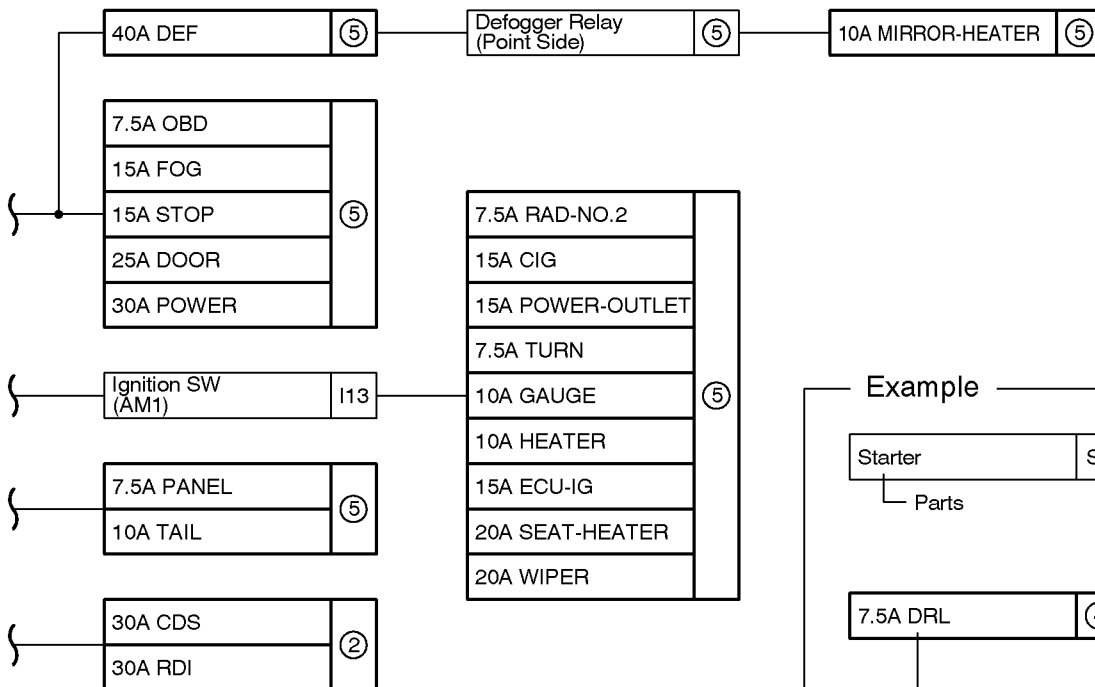
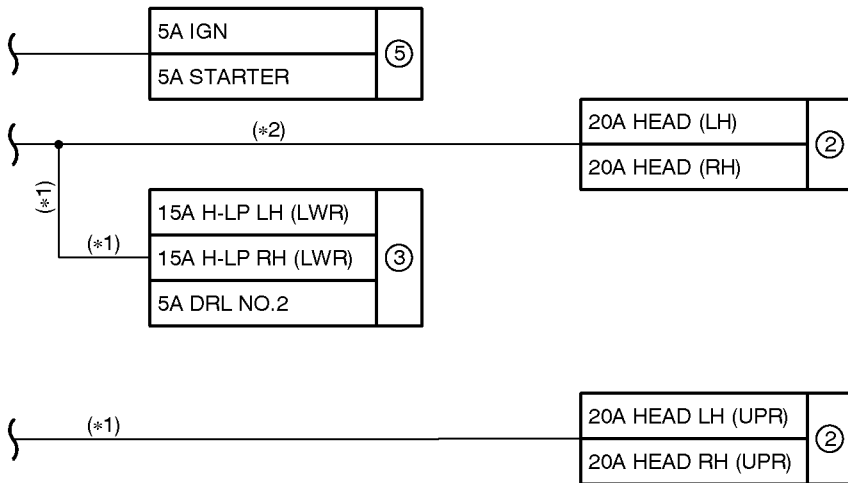
J POWER SOURCE (Current Flow Chart)

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 : Fusible Link Block (See page 24) ② : Engine Room J/B (See page 22)
 ⑤ : Instrument Panel J/B (See page 26) ⑥ : Engine Room R/B (See page 24)

*1 : w/ Daytime Running Light
 *2 : w/o Daytime Running Light



③ : Engine Room No.2 R/B (See page 25)

④ : Engine Room No.3 R/B (See page 25)

J POWER SOURCE (Current Flow Chart)

Engine Room J/B (See Page 22)

Fuse		System	Page
5A	ALT-S	Charging	60
5A	TEL	Cellular Mobile Telephone	252
7.5A	DOME	Cigarette Lighter and Clock	246
		Combination Meter	262
		Door Lock Control	160
		Garage Door Opener	106
		Headlight (w/ Daytime Running Light)	88
		Headlight (w/o Daytime Running Light)	94
		Interior Light	102
		Key Reminder and Seat Belt Warning	156
		Light Auto Turn Off	126
		Moon Roof	240
		Theft Deterrent	168
		Wireless Door Lock Control	174
10A	ECU-B	Automatic Air Conditioning	272
		Combination Meter	262
		Engine Immobiliser System (Brazil)	86
		Power Seat (Driver's Seat w/ Driving position Memory)	146
		Remote Control Mirror (w/ Driving Position Memory)	184
		SRS	235
10A	HORN	Horn	256
		Theft Deterrent	168
		Wireless Door Lock Control	174
15A	EFI	Electronically Controlled Transmission and A/T Indicator (Brazil)	204
		Electronically Controlled Transmission and A/T Indicator (USA and Canada)	198
		Engine Control (Brazil)	74
		Engine Control and Engine Immobiliser System (USA and Canada)	62
15A	HAZARD	Turn Signal and Hazard Warning Light	118
20A	HEAD (LH)	Headlight (w/o Daytime Running Light)	94
20A	HEAD (RH)	Combination Meter	262
		Front Fog Light	116
		Headlight (w/o Daytime Running Light)	94
20A	HEAD LH (UPR)	Headlight (w/ Daytime Running Light)	88
20A	HEAD RH (UPR)	Headlight (w/ Daytime Running Light)	88
20A	RADIO NO.1	Radio and Player	258
30A	AM2	Charging	60
		Engine Control (Brazil)	74
		Engine Control and Engine Immobiliser System (USA and Canada)	62
		Starting and Ignition (Brazil)	56
		Starting and Ignition (USA and Canada)	52
30A	CDS	Radiator Fan and Condenser Fan	268

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

Fuse		System	Page
30A	RDI	Radiator Fan and Condenser Fan	268
40A	MAIN	Headlight (w/ Daytime Running Light)	88
		Headlight (w/o Daytime Running Light)	94
		Headlight Beam Level Control	98
		Light Auto Turn Off	126
		Starting and Ignition (Brazil)	56
		Starting and Ignition (USA and Canada)	52
		Theft Deterrent	168
		Wireless Door Lock Control	174

Engine Room R/B (See Page 24)

Fuse		System	Page
25A	A/F HTR	Engine Control and Engine Immobiliser System (USA and Canada)	62

Fusible Link Block (See Page 24)

Fuse		System	Page
50A	HTR	Automatic Air Conditioning	272
100A	ALT	Charging	60
		Headlight (w/ Daytime Running Light)	88
		Headlight (w/o Daytime Running Light)	94
		Illumination	112
		Light Auto Turn Off	126
		Radiator Fan and Condenser Fan	268
		Taillight	108
		Theft Deterrent	168

Engine Room No.2 R/B (See Page 25)

Fuse		System	Page
5A	DRL NO.2	Headlight (w/ Daytime Running Light)	88
15A	H-LP LH (LWR)	Combination Meter	262
		Front Fog Light	116
		Headlight (w/ Daytime Running Light)	88
15A	H-LP RH (LWR)	Headlight (w/ Daytime Running Light)	88

Engine Room No.3 R/B (See Page 25)

Fuse		System	Page
60A	FL ABS	ABS	230
		ABS and Traction Control	222
		VSC	216

Instrument Panel J/B (See page 26)

Fuse		System	Page
5A	IGN	Charging	60
		Combination Meter	262

* 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
5A	IGN	Electronically Controlled Transmission and A/T Indicator (Brazil)	204
		Electronically Controlled Transmission and A/T Indicator (USA and Canada)	198
		Engine Control (Brazil)	74
		Engine Control and Engine Immobiliser System (USA and Canada)	62
		Engine Immobiliser System (Brazil)	86
		SRS	235
5A	STARTER	Combination Meter	262
		Electronically Controlled Transmission and A/T Indicator (Brazil)	204
		Electronically Controlled Transmission and A/T Indicator (USA and Canada)	198
		Engine Control (Brazil)	74
		Engine Control and Engine Immobiliser System (USA and Canada)	62
		Starting and Ignition (Brazil)	56
		Starting and Ignition (USA and Canada)	52
7.5A	OBD	Engine Control (Brazil)	74
		Engine Control and Engine Immobiliser System (USA and Canada)	62
7.5A	PANEL	Cigarette Lighter and Clock	246
		Combination Meter	262
		Illumination	112
7.5A	RAD-NO.2	Radio and Player	258
		Remote Control Mirror (w/ Driving Position Memory)	184
7.5A	TURN	Turn Signal and Hazard Warning Light	118
10A	GAUGE	ABS	230
		ABS and Traction Control	222
		Back-Up Light	124
		Charging	60
		Combination Meter	262
		Cruise Control	192
		Door Lock Control	160
		Electronically Controlled Transmission and A/T Indicator (Brazil)	204
		Electronically Controlled Transmission and A/T Indicator (USA and Canada)	198
		Engine Control (Brazil)	74
		Engine Control and Engine Immobiliser System (USA and Canada)	62
		Headlight (w/ Daytime Running Light)	88
		Headlight (w/o Daytime Running Light)	94
		Headlight Beam Level Control	98
		Illumination	112
		Key Reminder and Seat Belt Warning	156
		Light Auto Turn Off	126
Moon Roof	240		
Power Seat (Driver's Seat w/ Driving Position Memory)	146		
Power Window	136		

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

Fuse		System	Page
10A	GAUGE	Stop Light	122
		Taillight	108
		VSC	216
10A	HEATER	Automatic Air Conditioning	272
		Rear Window Defogger and Mirror Heater	248
10A	MIRROR-HEATER	Engine Control (Brazil)	74
		Engine Control and Engine Immobiliser System (USA and Canada)	62
		Rear Window Defogger and Mirror Heater	248
10A	TAIL	Engine Control (Brazil)	74
		Engine Control and Engine Immobiliser System (USA and Canada)	62
		Taillight	108
15A	CIG	Cigarette Lighter and Clock	246
		Remote Control Mirror (w/o Driving Position Memory)	190
		Shift Lock	210
		SRS	235
15A	ECU-IG	ABS	230
		ABS and Traction Control	222
		Automatic Glare-Resistant EC Mirror	250
		Cellular Mobile Telephone	252
		Cruise Control	192
		Door Lock Control	160
		Electric Modulated Suspension	212
		Headlight Beam Level Control	98
		Power Seat (Driver's Seat w/ Driving Position Memory)	146
		Radiator Fan and Condenser Fan	268
		Shift Lock	210
		Theft Deterrent	168
VSC	216		
Wireless Door Lock Control	174		
15A	FOG	Front Fog Light	116
15A	POWER-OUTLET	Power Outlet	134
15A	STOP	ABS	230
		ABS and Traction Control	222
		Cruise Control	192
		Electric Modulated Suspension	212
		Electronically Controlled Transmission and A/T Indicator (Brazil)	204
		Electronically Controlled Transmission and A/T Indicator (USA and Canada)	198
		Engine Control (Brazil)	74
		Engine Control and Engine Immobiliser System (USA and Canada)	62
		Power Seat (Driver's Seat w/ Driving Position Memory)	146
		Shift Lock	210
		Stop Light	122
VSC	216		

* 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
20A	SEAT-HEATER	Seat Heater	144
25A	DOOR	Door Lock Control	160
		Fuel Lid and Luggage Compartment Door Opener	182
		Moon Roof	240
		Power Window	136
		Theft Deterrent	168
		Wireless Door Lock Control	174
25A	WIPER	Wiper and Washer	130
30A	POWER	Door Lock Control	160
		Moon Roof	240
		Power Seat (Driver's Seat w/ Driving Position Memory)	146
		Power Seat (Driver's Seat w/o Driving Position Memory), (Front Passenger's Seat)	152
		Power Window	136
40A	AM1	Charging	60
40A	DEF	Rear Window Defogger and Mirror Heater	248

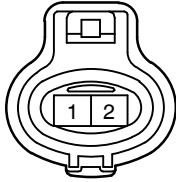
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K CONNECTOR LIST

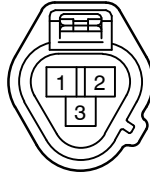
A1
DARK GRAY



A2
GRAY



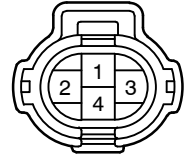
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(w/ Daytime Running Light) GRAY



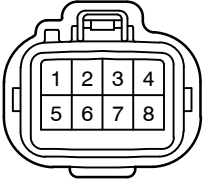
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(w/o Daytime Running Light) GRAY



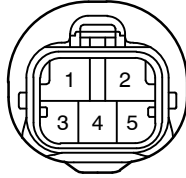
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BLACK



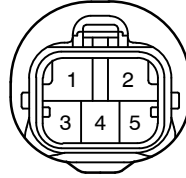
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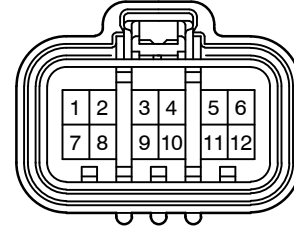
A6
GRAY



A7
GRAY



A8
BLACK



A9
GRAY



A10
GRAY



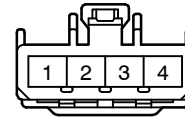
A11
GRAY



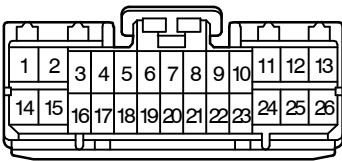
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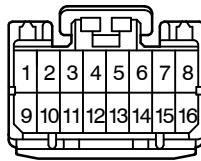
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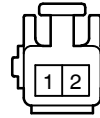
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A15



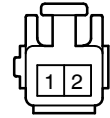
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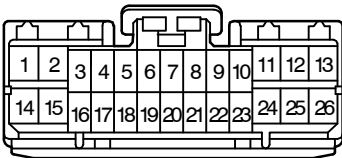
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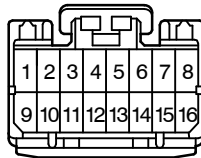
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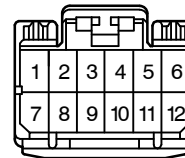
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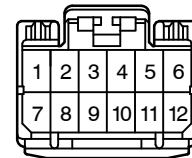
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GRAY



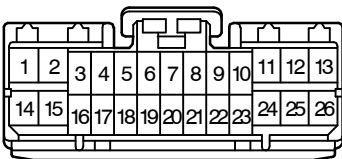
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GRAY



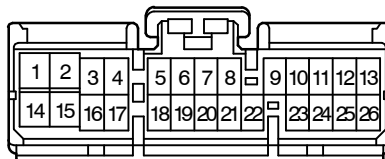
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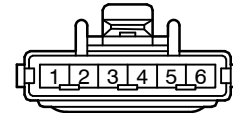
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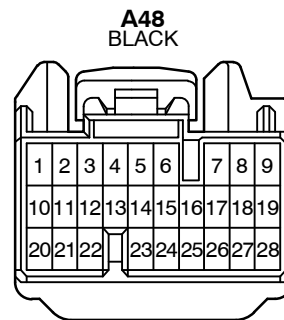
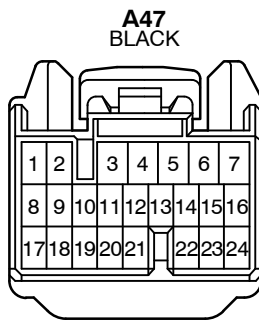
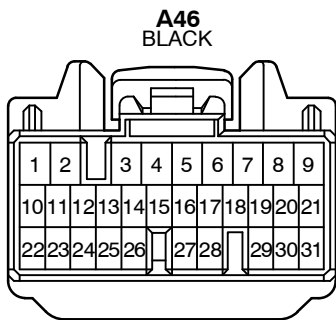
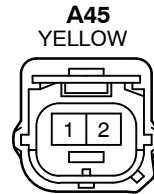
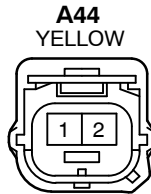
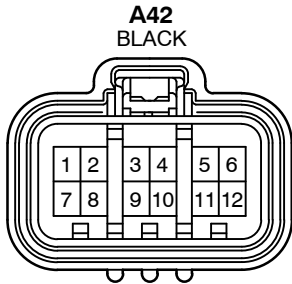
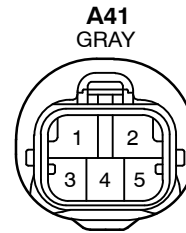
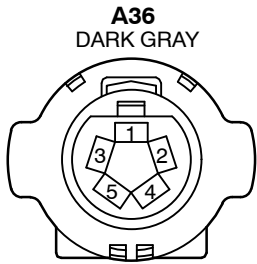
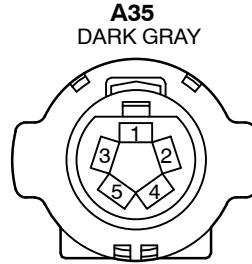
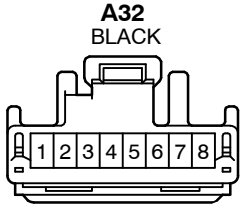
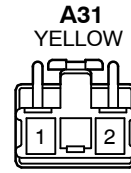
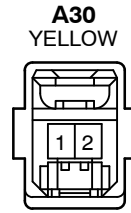
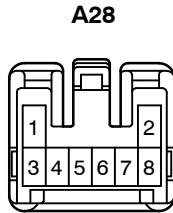
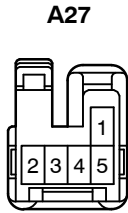
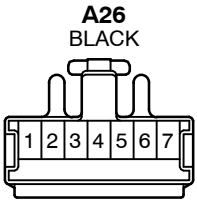


A24
ORANGE



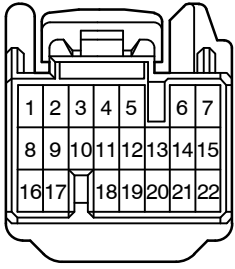
A25
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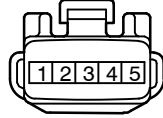


K CONNECTOR LIST

A49
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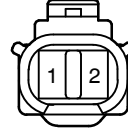
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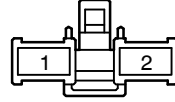
B1
(w/ VSC) BLACK



B1
(w/o VSC) GRAY



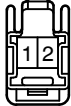
B2



B3
BLACK



B4
GRAY



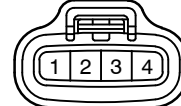
C1
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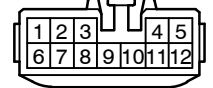
C2
BLACK



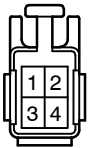
C3
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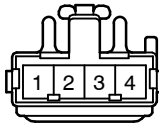
C4



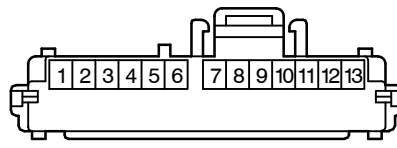
C5



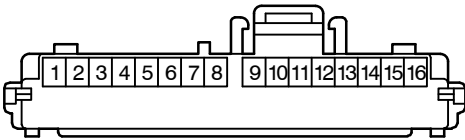
C6
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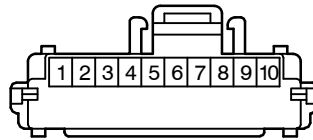
C7
BLUE



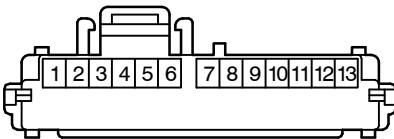
C8



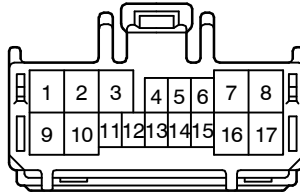
C9
GRAY



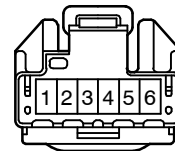
C10
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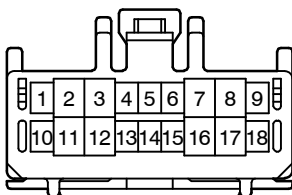
C11



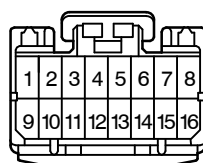
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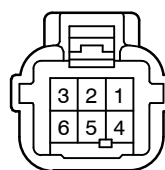
C13
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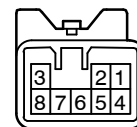
C14



C15

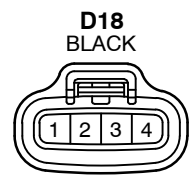
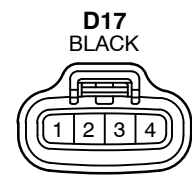
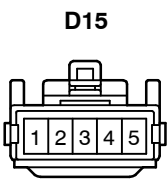
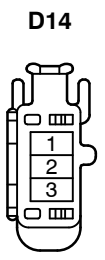
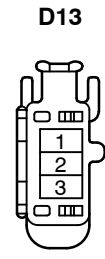
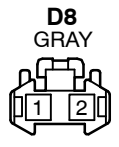
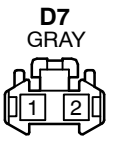
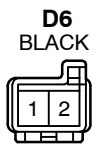
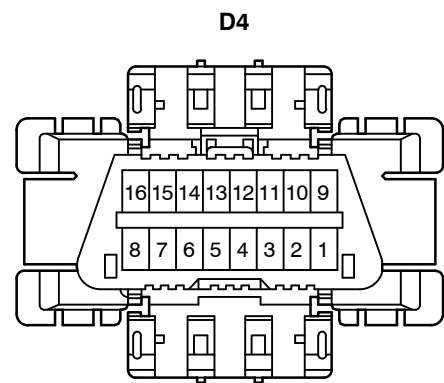
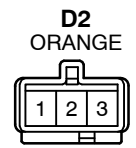
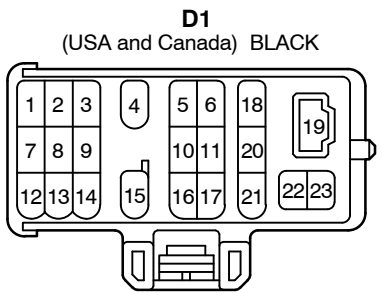
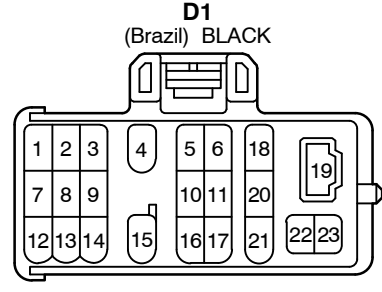
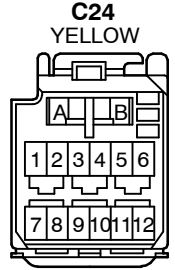
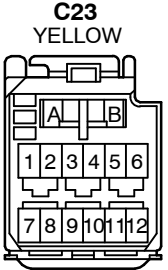
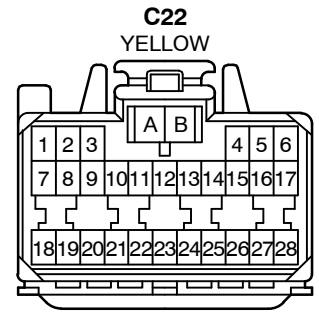
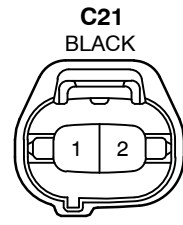
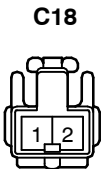


C16

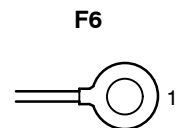
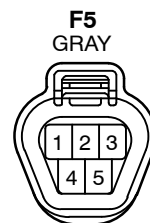
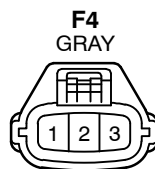
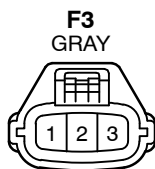
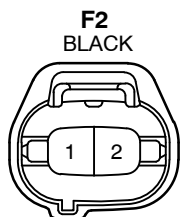
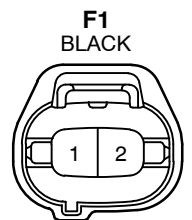
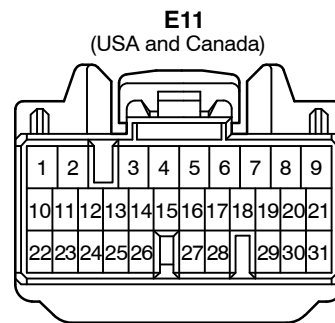
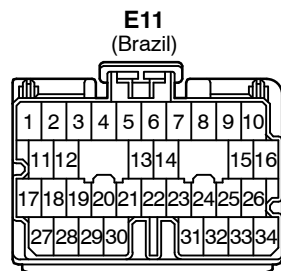
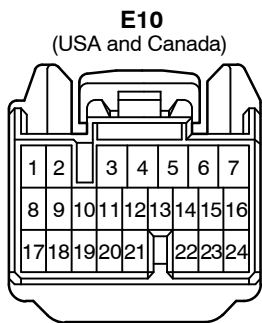
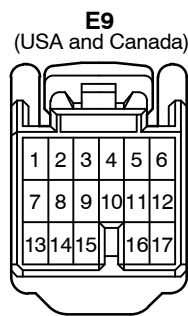
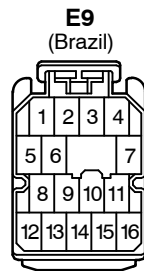
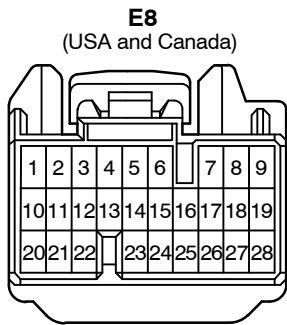
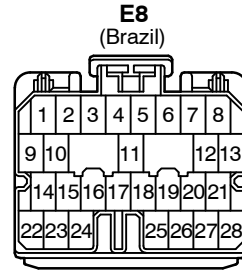
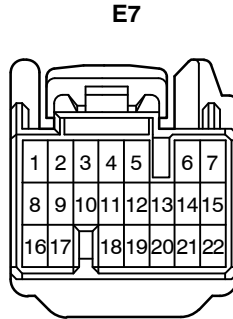
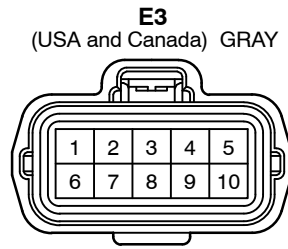


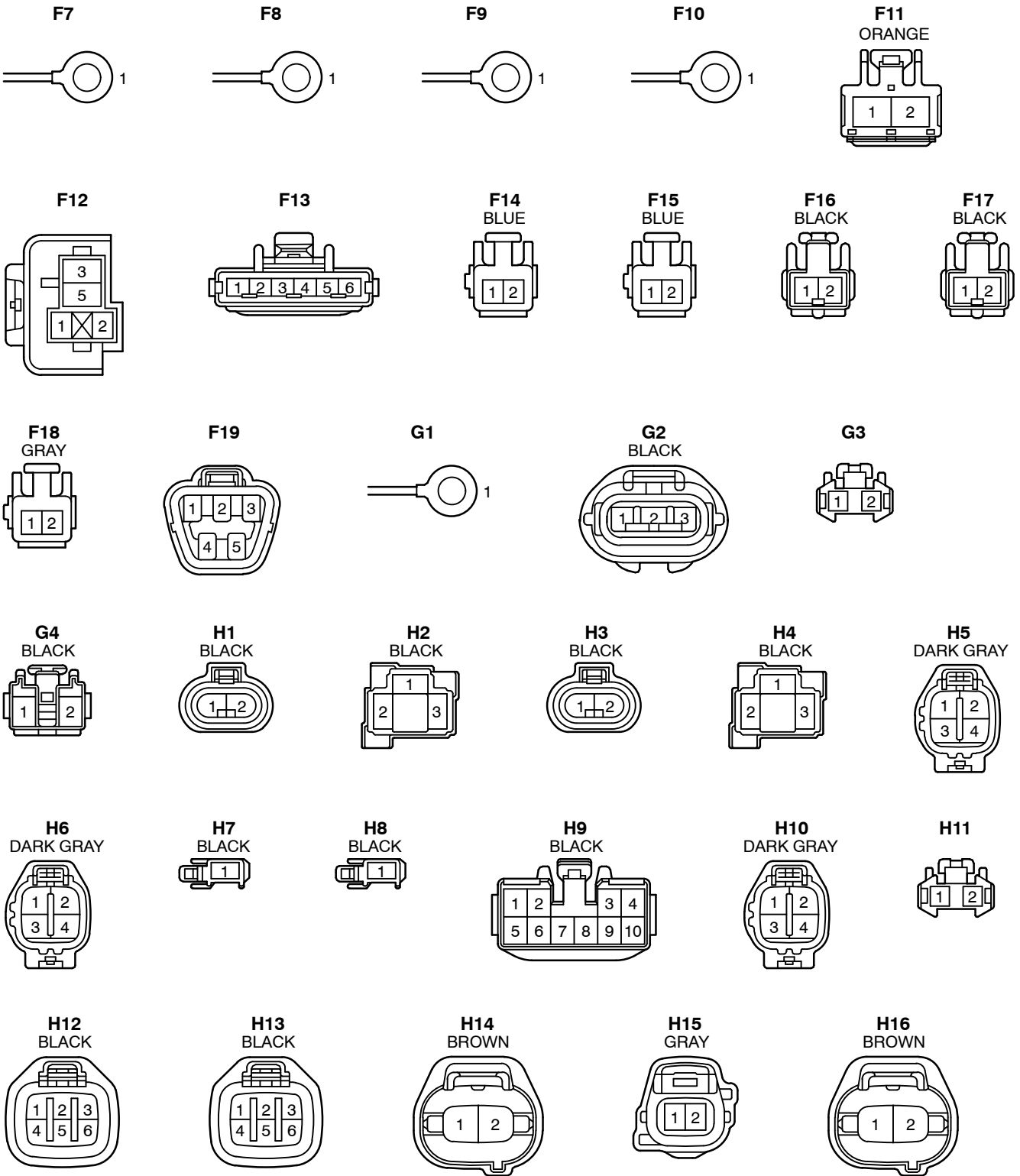
C17



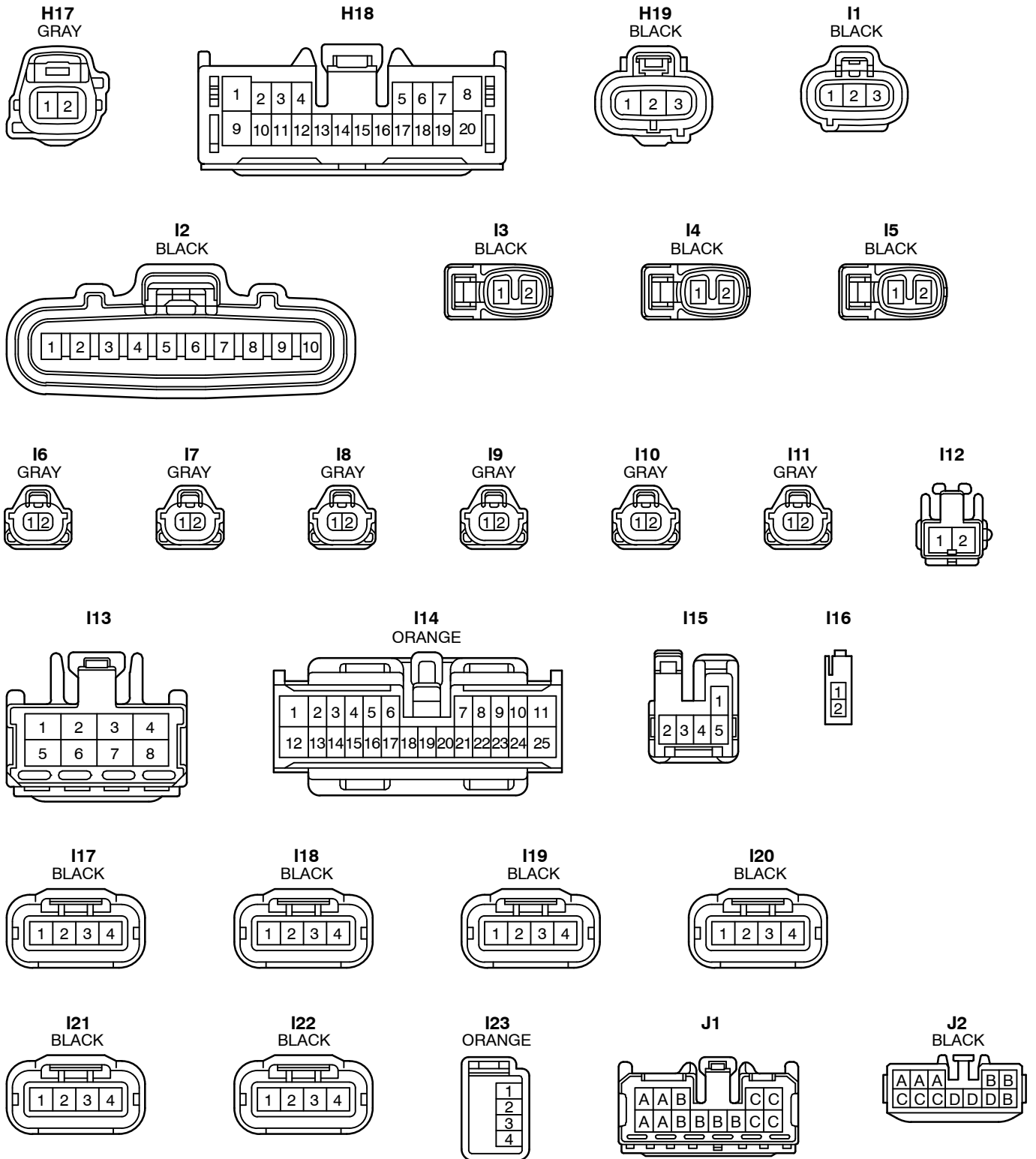


K CONNECTOR LIST

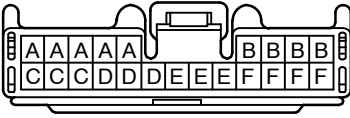




K CONNECTOR LIST



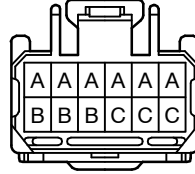
J3



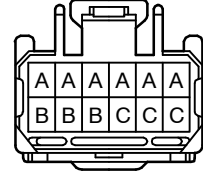
J4
BLACK



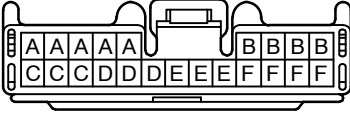
J5
GRAY



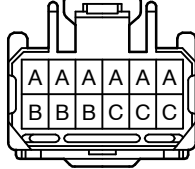
J6
GRAY



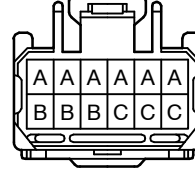
J7



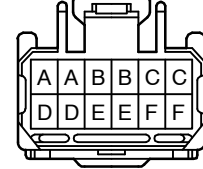
J8
GRAY



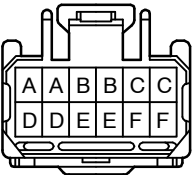
J9
GRAY



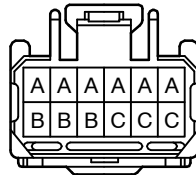
J10



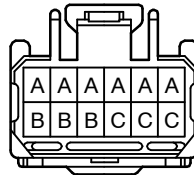
J11



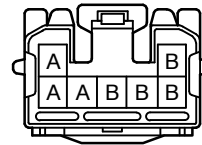
J12
GRAY



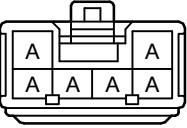
J13
GRAY



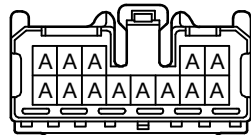
J14



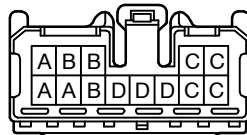
J15



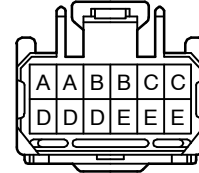
J16
ORANGE



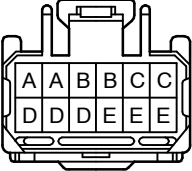
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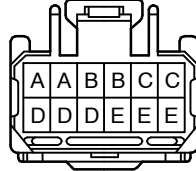
J18
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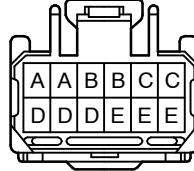
J19
BLACK



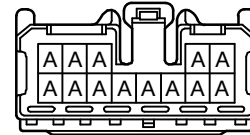
J20
GRAY



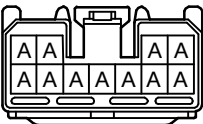
J21
GRAY



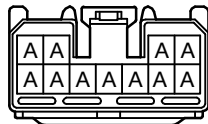
J22
ORANGE



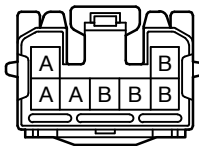
J23



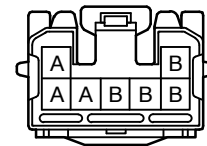
J24



J25

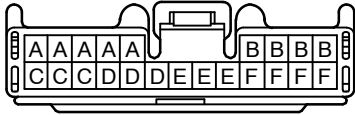


J26

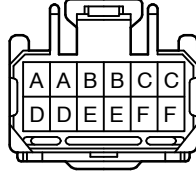


K CONNECTOR LIST

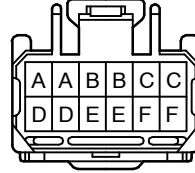
J27



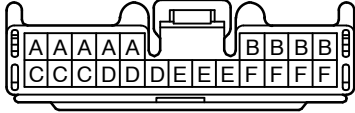
J28



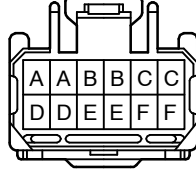
J29



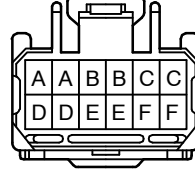
J30



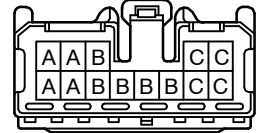
J31



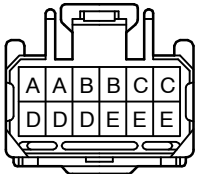
J32



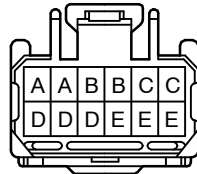
J33



J34
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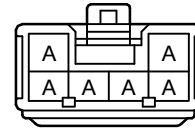
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J36



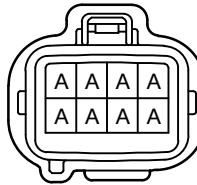
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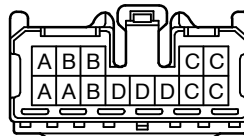
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J39
GRAY



J40
BLUE



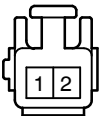
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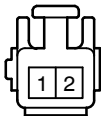
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K3
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L1



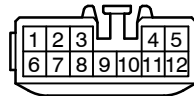
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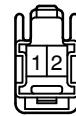
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L4



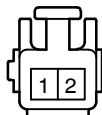
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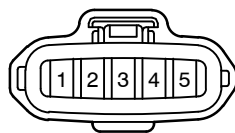
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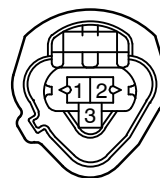
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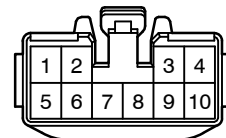
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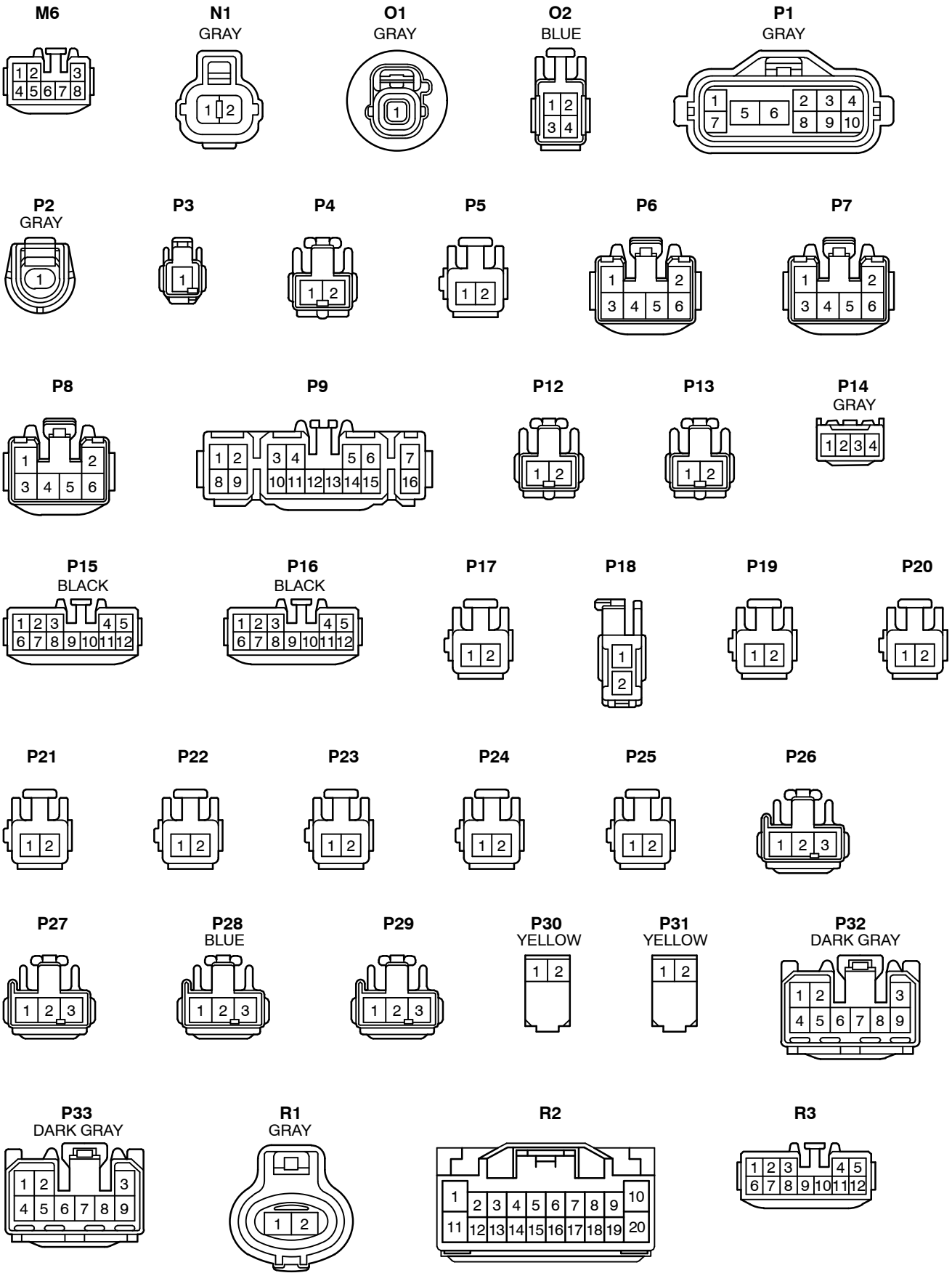


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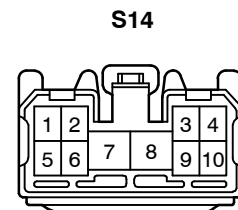
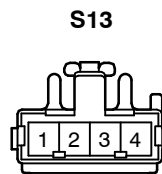
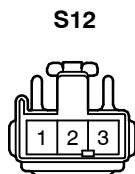
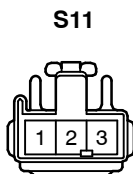
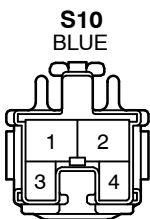
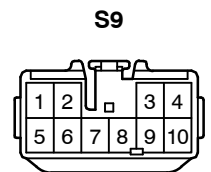
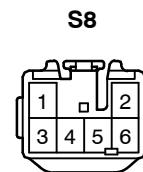
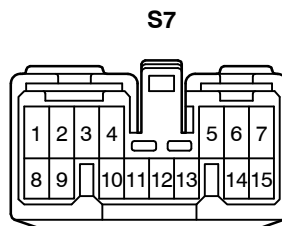
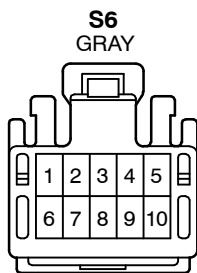
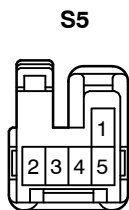
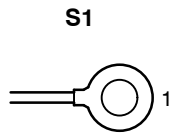
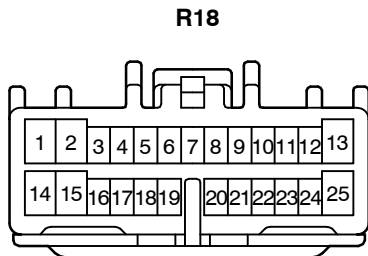
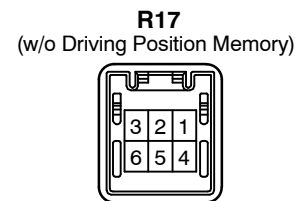
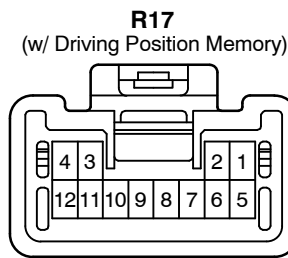
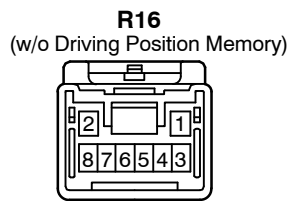
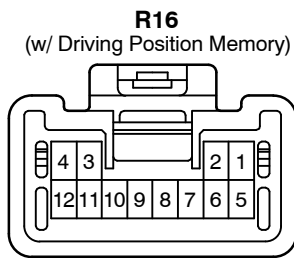
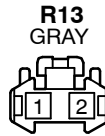
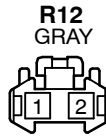
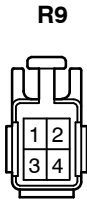
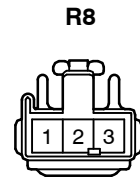
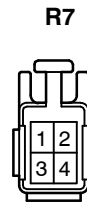
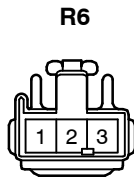
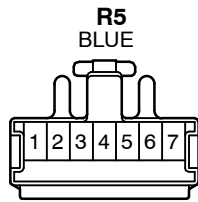
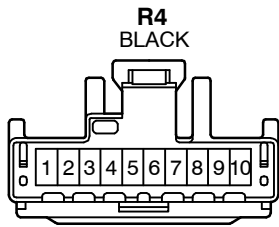


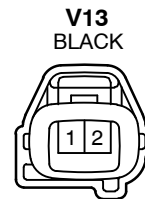
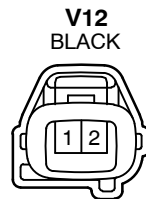
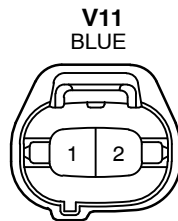
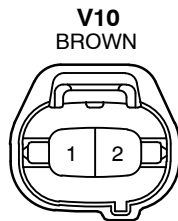
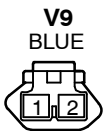
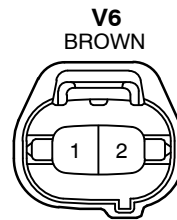
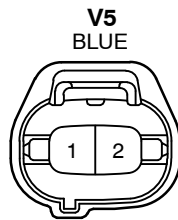
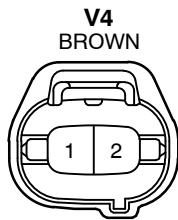
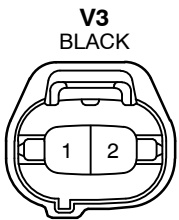
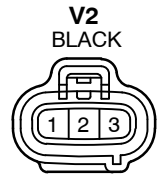
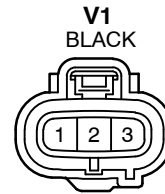
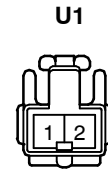
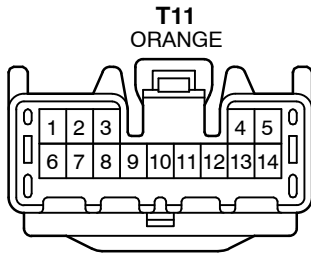
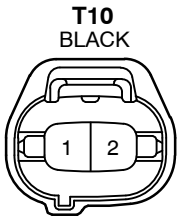
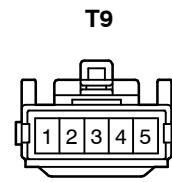
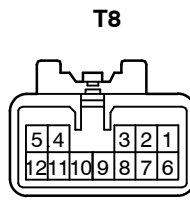
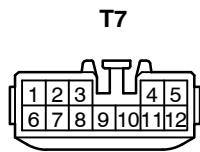
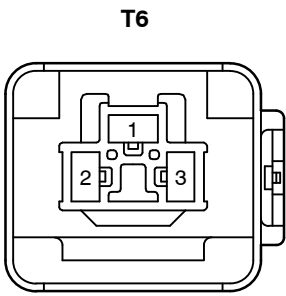
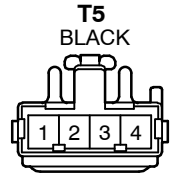
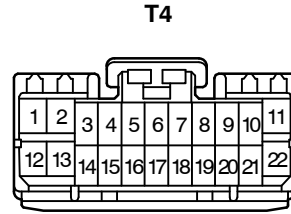
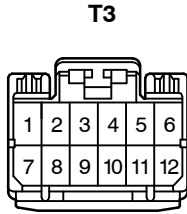
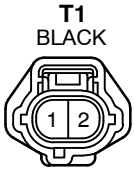
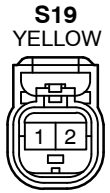
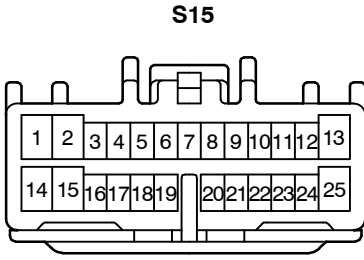
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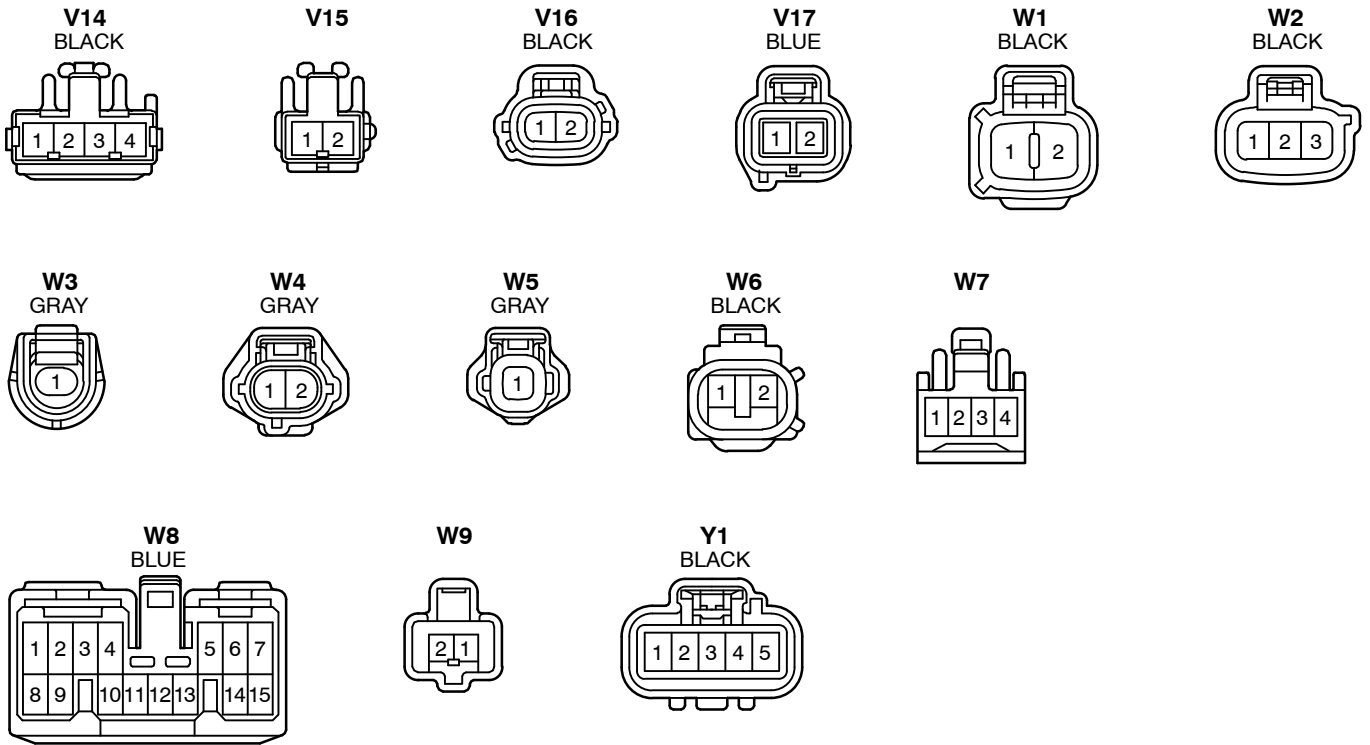


K CONNECTOR LIST





K CONNECTOR LIST



L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number
A 1	A/C Ambient Temp. Sensor	90980-11070	A47	ABS & BA & TRAC & VSC ECU	90980-11476
A 2	A/C Condenser Fan Motor	90980-10928	A48	ABS & BA & TRAC & VSC ECU	90980-11637
A 3	A/C Magnetic Clutch and Lock Sensor (w/ Daytime Running Light)	90980-11016	A49	ABS & BA & TRAC & VSC ECU	90980-11638
	A/C Magnetic Clutch and Lock Sensor (w/o Daytime Running Light)	90980-10942	A50	ABS Deceleration Sensor	90980-11182
A 4	A/C Triple Pressure SW (A/C Dual and Single Pressure SW)	90980-10943	B 1	Brake Fluid Level Warning SW (w/ VSC)	90980-11207
				Brake Fluid Level Warning SW (w/o VSC)	
A 5	ABS Actuator	90980-10891	B 2	Blower Motor	90980-10385
A 6	ABS Actuator	90980-11413	B 3	Blower Resistor	-
A 7	ABS and Traction Actuator		B 4	Buckle SW	90980-11212
A 8	ABS and Traction Actuator	90980-11698	C 1	Camshaft Position Sensor	90980-10947
A 9	ABS Speed Sensor Front LH	90980-11075	C 2	Crankshaft Position Sensor	
A10	ABS Speed Sensor Front RH		C 3	Cruise Control Actuator	90980-11150
A11	Absorber Control Actuator Front LH	90980-11599	C 4	CD Automatic Changer	90980-10803
A12	Absorber Control Actuator Front RH		C 5	Cigarette Lighter	90980-10795
A13	A/C Blower Motor Linear Controller	90980-11676	C 6	Clock	90980-11013
A14	A/C Control Assembly	90980-11390	C 7	Combination Meter	90980-11114
A15	A/C Control Assembly	90980-11391	C 8	Combination Meter	90980-11113
A16	A/C Room Temp. Sensor	90980-10825	C 9	Combination Meter	90980-11116
A17	A/C Solar Sensor	90980-11369	C10	Combination Meter	90980-11115
A18	A/C Thermistor	90980-10825	C11	Combination SW	90980-11672
A19	ABS and Traction ECU	90980-11390	C12	Combination SW	90980-11616
A20	ABS and Traction ECU	90980-11391	C13	Combination SW	90980-11594
A21	ABS and Traction ECU	90980-11424	C14	Cruise Control ECU	90980-11391
A22	ABS ECU		C15	Cellular Phone (Hand Set)	90980-10998
A23	ABS ECU	90980-11390	C16	Cellular Phone (Hand Set)	90980-10798
A24	Absorber Control ECU	90980-11406	C17	Choke Coil	90980-11259
A25	Absorber Control SW	90980-10933	C18	Condenser	90980-10860
A26	Air Inlet Control Servo Motor	90980-11165	C19	Camshaft Timing Oil Control Valve LH	90980-11162
A27	Air Mix Control Servo Motor	90980-11319	C20	Camshaft Timing Oil Control Valve RH	
A28	Air Vent Mode Control Servo Motor	90980-11321	C21	Counter Gear Speed Sensor	90980-11156
A30	Airbag Squib (Front Passenger Airbag Assembly)	90980-11884	C22	Center Airbag Sensor Assembly	90980-11872
	Airbag Squib (Steering Wheel Pad)	90980-10850	C23	Center Airbag Sensor Assembly	90980-11869
A31	Automatic Light Control Sensor	90980-11633	C24	Center Airbag Sensor Assembly	90980-11867
A32	ABS Speed Sensor Rear LH	90980-11060	D 1	Data Link Connector 1 (Brazil)	90980-11195
A33	ABS Speed Sensor Rear RH			Data Link Connector 1 (USA and Canada)	90980-11323
A34	Absorber Control Actuator Rear LH	90980-11689	D 2	Diode (A/C)	90980-11071
A35	Absorber Control Actuator Rear RH		D 4	Data Link Connector 3	90980-11665
A36	Air Fuel Ratio Sensor (Bank 1 Sensor 1)	90980-10869	D 6	Diode (Courtesy)	90980-10962
A37	Air Fuel Ratio Sensor (Bank 2 Sensor 1)		D 7	Door Courtesy Light Front LH	90980-11148
A41	ABS & BA & TRAC & VSC Actuator	90980-11413	D 8	Door Courtesy Light Front RH	
A42	ABS & BA & TRAC & VSC Actuator	90980-11698	D 9	Door Courtesy SW Front LH	90980-10871
A43	ABS & BA & TRAC & VSC Actuator	90980-11132	D10	Door Courtesy SW Front RH	
A44	Airbag Sensor Front LH	90980-11856	D11	Door Courtesy SW Rear LH	
A45	Airbag Sensor Front RH		D12	Door Courtesy SW Rear RH	
A46	ABS & BA & TRAC & VSC ECU	90980-11421	D13	Door Key Lock and Unlock SW Front LH	90980-11490
			D14	Door Key Lock and Unlock SW Front RH	

Note: Not all of the above part numbers of the connector are established for the supply.

Code	Part Name	Part Number	Code	Part Name	Part Number
D15	Door Lock Control SW Front RH	90980-10789	G 2	Generator	90980-11349
D16	Door Lock Motor and Door Unlock Detection SW Front LH	90980-11150	G 3	Glove Box Light	90980-11148
D17	Door Lock Motor and Door Unlock Detection SW Front RH		G 4	Glove Box Light SW	90980-11098
D18	Door Lock Motor and Door Unlock Detection SW Rear LH		H 1	Headlight LH (HI)	90980-11095
D19	Door Lock Motor and Door Unlock Detection SW Rear RH		H 2	Headlight LH (LO)	90980-11314
D20	Diode (Dome)	90980-11608	H 3	Headlight RH (HI)	90980-11095
E 3	Electronically Controlled Transmission Solenoid (Brazil)	90980-10854	H 4	Headlight RH (LO)	90980-11314
	Electronically Controlled Transmission Solenoid (USA and Canada)	90980-11658	H 5	Heated Oxygen Sensor (Bank 1 Sensor 1)	90980-11028
E 4	Engine Coolant Temp. Sensor	90980-10737	H 6	Heated Oxygen Sensor (Bank 2 Sensor 1)	
E 5	Engine Hood Courtesy SW	90980-11189	H 7	Horn LH	90980-10619
E 6	Engine Oil Level Warning SW	90980-11235	H 8	Horn RH	
E 7	Engine Control Module	90980-11638	H 9	Hazard SW	90980-10801
E 8	Engine Control Module (Brazil)	90980-11218	H10	Heated Oxygen Sensor (Bank 1 Sensor 2)	90980-11028
	Engine Control Module (USA and Canada)	90980-11637	H11	High Mounted Stop Light	90980-11148
E 9	Engine Control Module (Brazil)	90980-11219	H12	Headlight Beam Level Control Actuator LH	90980-11144
	Engine Control Module (USA and Canada)	90980-11586	H13	Headlight Beam Level Control Actuator RH	
E10	Engine Control Module (Brazil)	90980-11220	H14	Headlight Control ECU LH (High)	90980-11149
	Engine Control Module (USA and Canada)	90980-11476	H15	Headlight Control ECU LH (Low)	90980-11255
E11	Engine Control Module (Brazil)	90980-11221	H16	Headlight Control ECU RH (High)	90980-11149
	Engine Control Module (USA and Canada)	90980-11421	H17	Headlight Control ECU RH (Low)	90980-11255
F 1	Front Fog Light LH	90980-11156	H18	Headlight Beam Level Control ECU	90980-11469
	Front Fog Light RH		H19	Height Control Sensor	90980-11860
F 3	Front Turn Signal and Front Parking Light LH	90980-11020	I 1	Idle Air Control Valve	90980-11145
F 4	Front Turn Signal and Front Parking Light RH		I 2	Igniter	90980-11653
F 5	Front Wiper Motor	90980-11599	I 3	Ignition Coil No.1	90980-11246
F 6	Fusible Link Block	90980-09566	I 4	Ignition Coil No.2	
F 7	Fusible Link Block	99141-13006	I 5	Ignition Coil No.3	90980-11153
F 8	Fusible Link Block	90980-09566	I 6	Injector No.1	
F 9	Fusible Link Block	90980-09567	I 7	Injector No.2	
F10	Fusible Link Block	-	I 8	Injector No.3	
F11	Fusible Link Block	90980-11579	I 9	Injector No.4	
F12	Front Fog Light Relay	82660-20340	I10	Injector No.5	
F13	Fuel Lid and Luggage Compartment Door Opener SW	90980-10933	I11	Injector No.6	90980-10906
F14	Front Door Speaker LH	90980-10825	I12	Ignition Key Cylinder Light	90980-11615
F15	Front Door Speaker RH		I13	Ignition SW	90980-11058
F16	Front Tweeter Speaker LH	90980-10860	I14	Integration Relay	90980-11319
F17	Front Tweeter Speaker RH		I15	Integration Relay	90980-10121
F18	Fuel Lid Opener Motor		I16	Interior Light	90980-11885
F19	Fuel Pump and Fuel Sender	90980-11077	I17	Ignition Coil and Igniter No.1	
G 1	Generator	90980-09213	I18	Ignition Coil and Igniter No.2	
			I19	Ignition Coil and Igniter No.3	
			I20	Ignition Coil and Igniter No.4	90980-11186
			I21	Ignition Coil and Igniter No.5	
			I22	Ignition Coil and Igniter No.6	
			I23	Inner Mirror	

L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number
J 1	Junction Connector	90980-11542	L 4	Light Failure Sensor	90980-10803
J 2	Junction Connector	90980-10803	L 5	Luggage Compartment Door Key Unlock SW	90980-11212
J 3	Junction Connector	90980-11502	L 6	Luggage Compartment Light	90980-11148
J 4	Junction Connector	90980-10803	L 7	Luggage Compartment Light SW and Luggage Compartment Door Opener Motor	90980-10825
J 5	Junction Connector	90980-11661	M 1	Mass Air Flow Meter	90980-11317
J 6	Junction Connector		M 4	Master Cylinder Pressure Sensor	90980-11451
J 7	Junction Connector	90980-11502	M 5	Moon Roof Control Relay	90980-10801
J 8	Junction Connector	90980-11661	M 6	Moon Roof Control SW	90980-10799
J 9	Junction Connector		N 1	Noise Filter (Ignition)	90980-10843
J10	Junction Connector		O 1	Oil Pressure SW	90980-11363
J11	Junction Connector		O 2	O/D Main SW and A/T Shift Lever Illumination	90980-10795
J12	Junction Connector		P 1	Park/Neutral Position SW,A/T Indicator Light SW and Back-Up Light SW	90980-11332
J13	Junction Connector		P 2	Power Steering Oil Pressure SW	90980-11428
J14	Junction Connector	90980-11529	P 3	Parking Brake SW	90980-10871
J15	Junction Connector	90980-10976	P 4	Power Outlet	90980-10860
J16	Junction Connector	90980-11542	P 5	Personal Light	90980-10825
J17	Junction Connector		P 6	Power Window Control SW Front RH	90980-10797
J18	Junction Connector	90980-11661	P 7	Power Window Control SW Rear LH	
J19	Junction Connector		P 8	Power Window Control SW Rear RH	90980-10848
J20	Junction Connector		P 9	Power Window Master SW and Door Lock Control SW Front LH	
J21	Junction Connector	90980-11542	P12	Power Window Motor Rear LH	90980-10860
J22	Junction Connector		P13	Power Window Motor Rear RH	
J23	Junction Connector	90980-11539	P14	Power Seat Control SW (Driver's Seat Lumbar Support Control)	90980-10601
J24	Junction Connector		P15	Power Seat Control SW (Driver's Seat)	90980-10803
J25	Junction Connector	90980-11529	P16	Power Seat Control SW (Front Passenger's Seat)	
J26	Junction Connector		P17	Power Seat Motor (Driver's Seat Front Vertical Control)	90980-10825
J27	Junction Connector	90980-11502	P18	Power Seat Motor (Driver's Seat Lumbar Support Control)	90980-10935
J28	Junction Connector	90980-11661	P19	Power Seat Motor (Driver's Seat Rear Vertical Control)	90980-10825
J29	Junction Connector		P20	Power Seat Motor (Driver's Seat Reclining Control)	
J30	Junction Connector	90980-11502	P21	Power Seat Motor (Driver's Seat Slide Control)	
J31	Junction Connector	90980-11661	P22	Power Seat Motor (Front Passenger's Seat Front Vertical Control)	
J32	Junction Connector		P23	Power Seat Motor (Front Passenger's Seat Rear Vertical Control)	
J33	Junction Connector	90980-11542	P24	Power Seat Motor (Front Passenger's Seat Reclining Control)	
J34	Junction Connector	90980-11661	P25	Power Seat Motor (Front Passenger's Seat Slide Control)	90980-10908
J35	Junction Connector		P26	Power Seat Position Sensor (Driver's Seat Front Vertical Control)	
J36	Junction Connector	90980-10803			
J37	Junction Connector	90980-10976			
J38	Junction Connector	90980-10803			
J39	Junction Connector	90980-10897			
J40	Junction Connector	90980-11542			
K 1	Knock Sensor 1	90980-11166			
K 2	Knock Sensor 2				
K 3	Key Interlock Solenoid	90980-10825			
L 1	Luggage Compartment Door Opener Main SW				
L 2	License Plate Light LH	90980-11148			
L 3	License Plate Light RH				

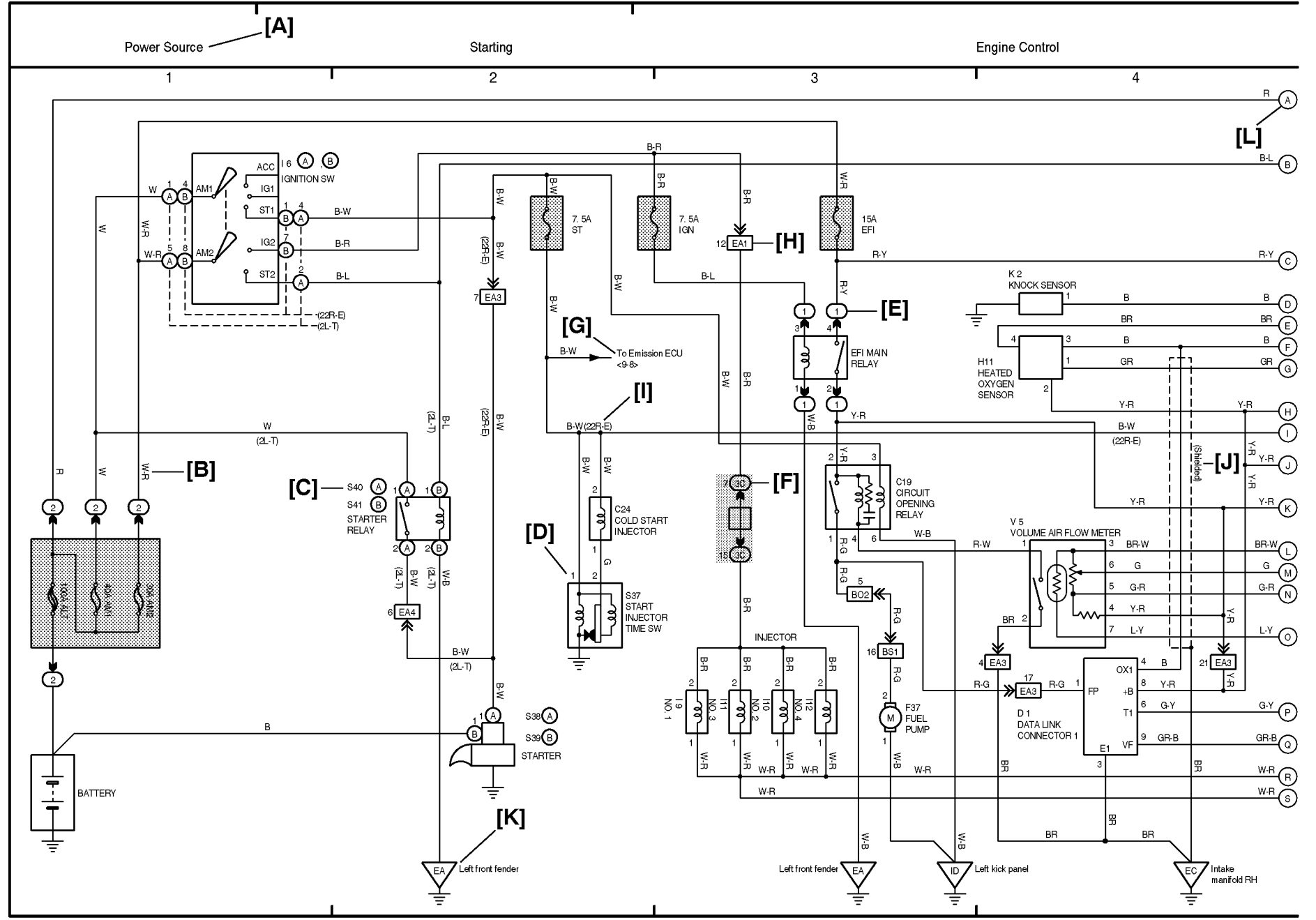
Note: Not all of the above part numbers of the connector are established for the supply.

Code	Part Name	Part Number	Code	Part Name	Part Number
P27	Power Seat Position Sensor (Driver's Seat Rear Vertical Control)	90980-10908	S14	Seat Position Control ECU	90980-11527
P28	Power Seat Position Sensor (Driver's Seat Reclining Control)		S15	Seat Position Control ECU	90980-11877
P29	Power Seat Position Sensor (Driver's Seat Slide Control)		S16	Side Airbag Sensor LH	90980-11857
P30	Pretensioner LH	S17	Side Airbag Sensor RH		
P31	Pretensioner RH	90980-11862	S18	Side Airbag Squib LH	90980-11864
P32	Power Window Motor and ECU Front LH		S19	Side Airbag Squib RH	
P33	Power Window Motor and ECU Front RH	90980-11535	T 1	Theft Deterrent Horn	90980-11235
R 1	Radiator Fan Motor		90980-10928	T 2	Throttle Position Sensor
R 2	Radio and Player	90980-12038	T 3	Theft Deterrent ECU	90980-11424
R 3	Radio and Player	90980-10803	T 4	Theft Deterrent ECU	90980-11392
R 4	Remote Control Mirror SW	90980-11657	T 5	TRAC Off SW	90980-11013
R 5	Rheostat	90980-11165	T 6	Turn Signal Flasher Relay	82751-50010
R 6	Rear Combination Light LH	90980-10908	T 7	Telephone Transceiver and Speaker Relay	90980-10803
R 7	Rear Combination Light LH	90980-10795	T 8	Telephone Transceiver and Speaker Relay	90980-10802
R 8	Rear Combination Light RH	90980-10908	T 9	Transponder Key Amplifier	90980-10789
R 9	Rear Combination Light RH	90980-10795	T10	Turbine Speed Sensor	90980-11156
R10	Rear Door Speaker LH	90980-11060	T11	Transponder Key Computer	90980-11556
R11	Rear Door Speaker RH		U 1	Unlock Warning SW (Ignition Key)	90980-10860
R12	Rear Side Marker Light LH	90980-11148	V 1	Vapor Pressure Sensor	90980-11860
R13	Rear Side Marker Light RH		V 2	Vehicle Speed Sensor (Combination Meter)	90980-11143
R14	Rear Turn Signal Light LH		V 3	Vehicle Speed Sensor (Electronically Controlled Transmission)	90980-11156
R15	Rear Turn Signal Light RH	90980-10825	V 4	VSV (EGR)	90980-11149
R16	Remote Control Mirror LH (w/ Driving Position Memory)		90980-11500	V 5	VSV (EVAP)
	Remote Control Mirror LH (w/o Driving Position Memory)	90980-11532	V 6	VSV (Intake Air Control)	90980-11149
R17	Remote Control Mirror RH (w/ Driving Position Memory)	90980-11500	V 8	Vanity Light LH	90980-10621
	Remote Control Mirror RH (w/o Driving Position Memory)	90980-11487	V 9	Vanity Light RH	
R18	Remote Control Mirror ECU	90980-11877	V10	VSV (ACIS)	90980-11149
S 1	Starter	90980-09689	V11	VSV (ACM)	90980-11156
S 2	Starter	90980-11400	V12	VVT Sensor LH	90980-10947
S 3	Seat Heater SW (Driver's Seat)	90980-10367	V13	VVT Sensor RH	
S 4	Seat Heater SW (Front Passenger's Seat)		V14	VSC OFF SW	90980-11013
S 5	Shift Lock Control ECU	90980-11319	V15	VSC Warning Buzzer	90980-10906
S 6	Steering Sensor	90980-11581	V16	VSV (Canister Closed Valve)	90980-11162
S 7	Stereo Component Amplifier	90980-11264	V17	VSV (Pressure Switching Valve)	90980-11859
S 8	Stereo Component Amplifier	90980-10996	W 1	Washer Level Warning SW	90980-11068
S 9	Stereo Component Amplifier	90980-10997	W 2	Washer Motor	90980-10981
S10	Stop Light SW	90980-11118	W 3	Water Temp. Sender	90980-11428
S11	Seat Heater (Driver's Seat)	90980-10908	W 4	Water Temp. SW No.1	90980-11235
S12	Seat Heater (Front Passenger's Seat)		W 5	Water Temp. SW No.2	90980-11243
S13	Seat Memory SW	90980-11013	W 6	Wireless Door Lock Buzzer	90980-11003
			W 7	Wireless Door Lock Buzzer Volume SW	90980-11107
			W 8	Wireless Door Lock ECU	90980-11264
			W 9	Woofer Speaker	90980-11060
			Y 1	Yaw Rate Sensor	90980-11904

M OVERALL ELECTRICAL WIRING DIAGRAM

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

HOW TO READ THIS SECTION



2001 LEXUS ES 300 (EWD439U)

[A] : System Title

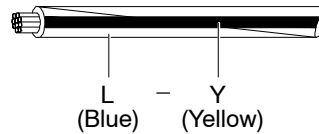
[B] : Indicates the wiring color.

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

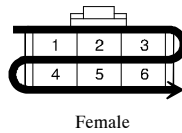


[C] : The position of the parts is the same as shown in the wiring diagram and wire routing.

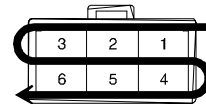
[D] : Indicates the pin number of the connector. The numbering system is different for female and male connectors.

Example : Numbered in order from upper left to lower right

Numbered in order from upper right to lower left



Female



Male

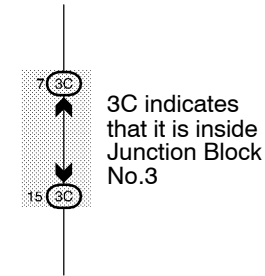
The numbering system for the overall wiring diagram is the same as above

[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 : Indicates Relay Block No.1

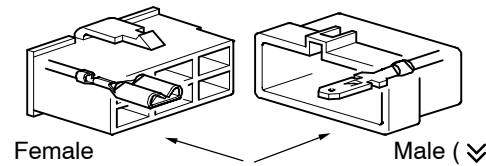
[F] : Junction Block (The number in the circle is the J/B No. and the connector code is shown beside it). Junction Blocks are shaded to clearly separate them from other parts.

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.

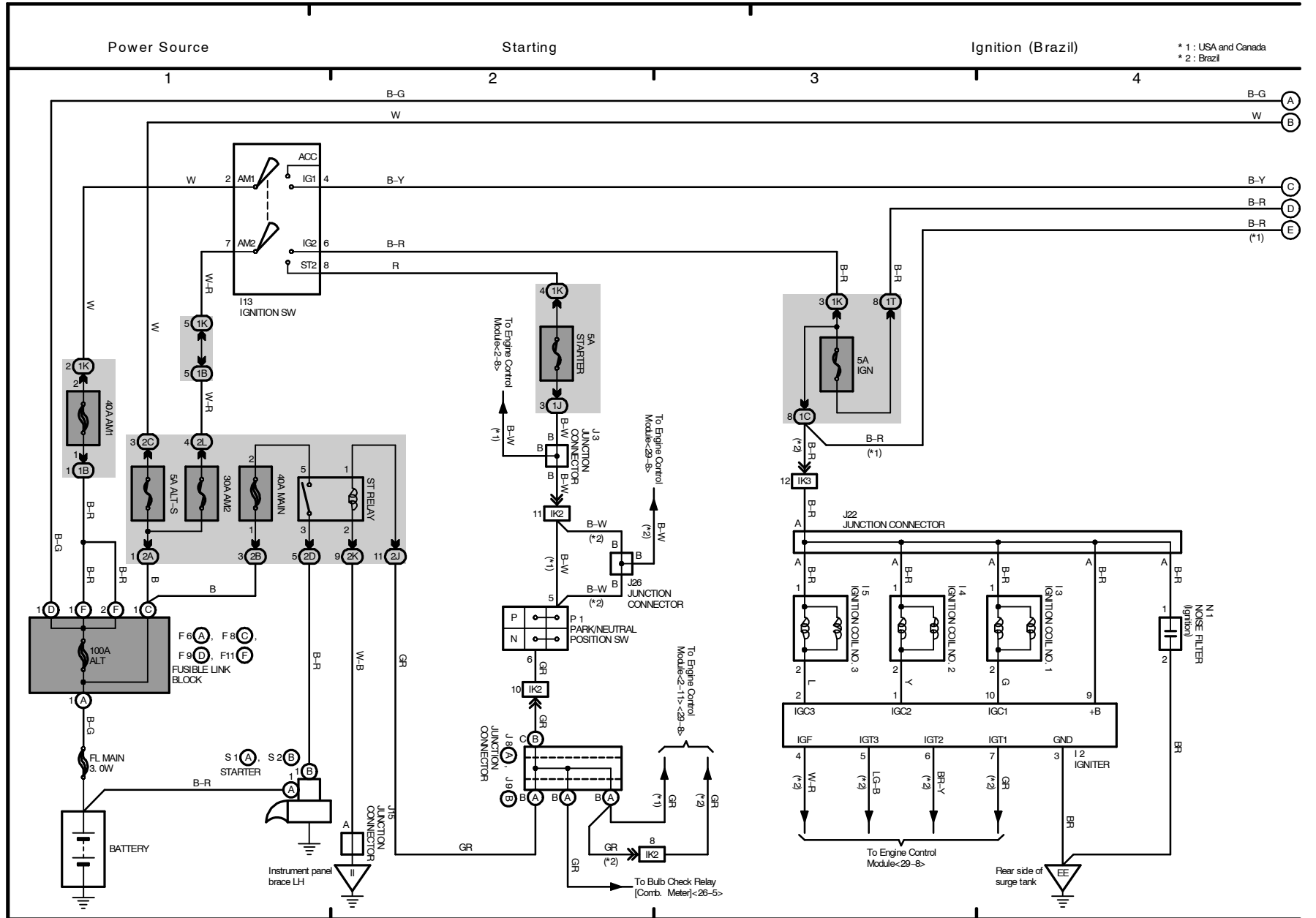


[K] : Indicates and located on ground point.

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

SYSTEM INDEX

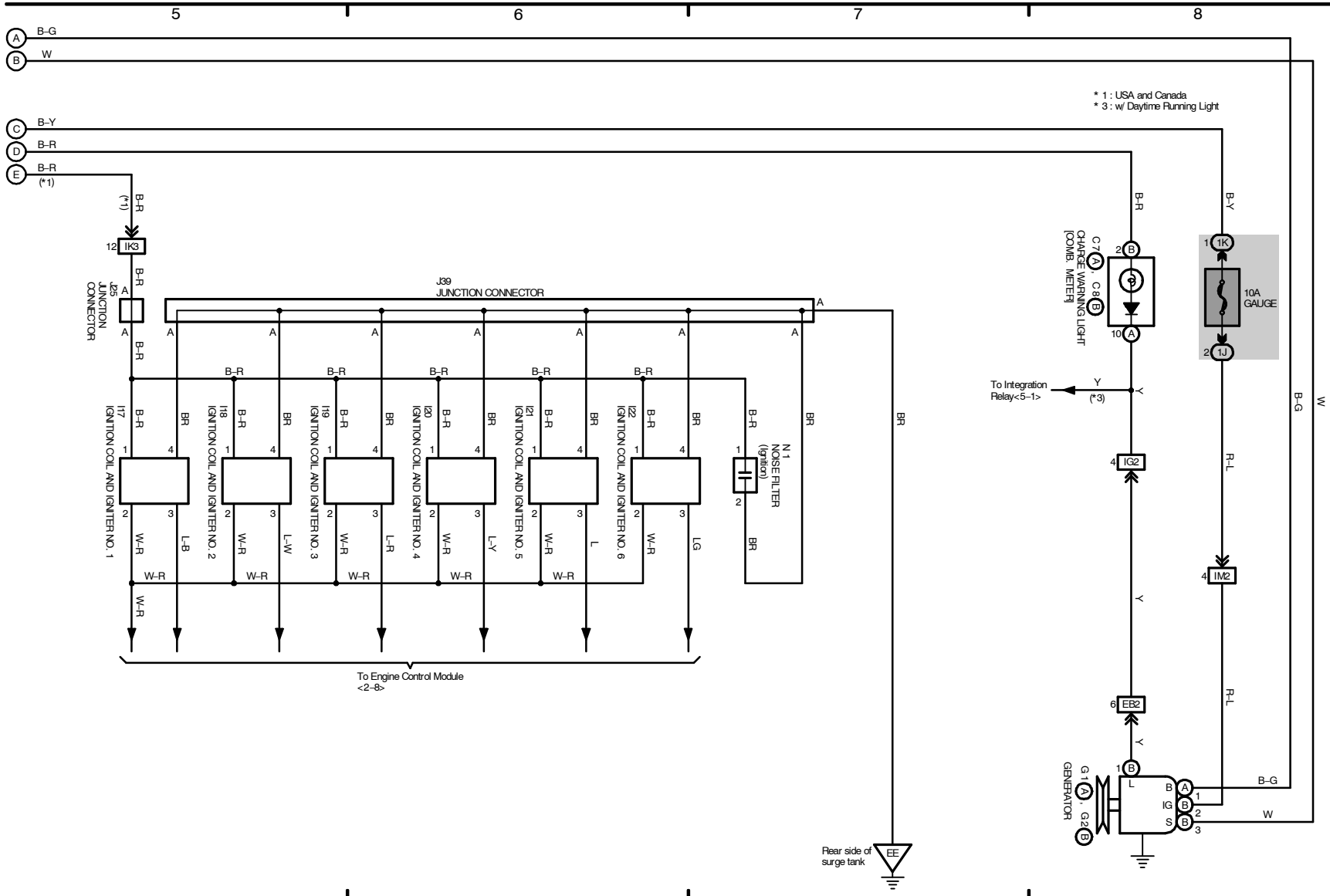
SYSTEMS	LOCATION	SYSTEMS	LOCATION
ABS	20-2	Illumination	7-2
ABS and Traction Control	19-2	Interior Light	8-2
Automatic Air Conditioning	27-2	Key Reminder and Seat Belt Warning	14-3
Automatic Glare-Resistant EC Mirror	33-4	Light Auto Turn Off	10-2
Back-Up Light	9-4	Moon Roof	14-2
Cellular Mobile Telephone	24-2	Power Outlet	23-3
Charging	1-8	Power Seat (Driver's Seat w/ Driving Position Memory)	15-2
Cigarette Lighter and Clock	23-4	Power Seat (Driver's Seat w/o Driving Position Memory)	16-2
Combination Meter	26-2	Power Seat (Front Passenger's Seat)	16-3
Cruise Control	21-2	Power Source	1~33-1
Door Lock Control	11-2	Power Window	13-2
Electric Modulated Suspension	22-2	Radiator Fan and Condenser Fan	18-3
Electronically Controlled Transmission and A/T Indicator (Brazil) .	30-2	Radio and Player	25-2
Electronically Controlled Transmission and A/T Indicator (USA and Canada)	3-2	Rear Window Defogger and Mirror Heater	18-2
Engine Control (Brazil)	29-2	Remote Control Mirror (w/ Driving Position Memory)	32-2
Engine Control and Engine Immobiliser System (USA and Canada)	2-2	Remote Control Mirror (w/o Driving Position Memory)	17-3
Engine Immobiliser System (Brazil)	29-11	Seat Heater	23-2
Front Fog Light	4-4	Shift Lock	24-4
Fuel Lid and Luggage Compartment Door Opener	10-3	SRS	28-2
Garage Door Opener	23-3	Starting	1-2
Headlight (w/ Daytime Running Light)	5-2	Stop Light	6-4
Headlight (w/o Daytime Running Light)	4-2	Taillight	6-2
Headlight Beam Level Control	33-2	Theft Deterrent	12-2
Horn	14-4	Turn Signal and Hazard Warning Light	9-2
Ignition (Brazil)	1-3	VSC	31-2
Ignition (USA and Canada)	1-5	Wiper and Washer	17-2
		Wireless Door Lock Control	11-6



2001 LEXUS ES 300 (EWD439U)

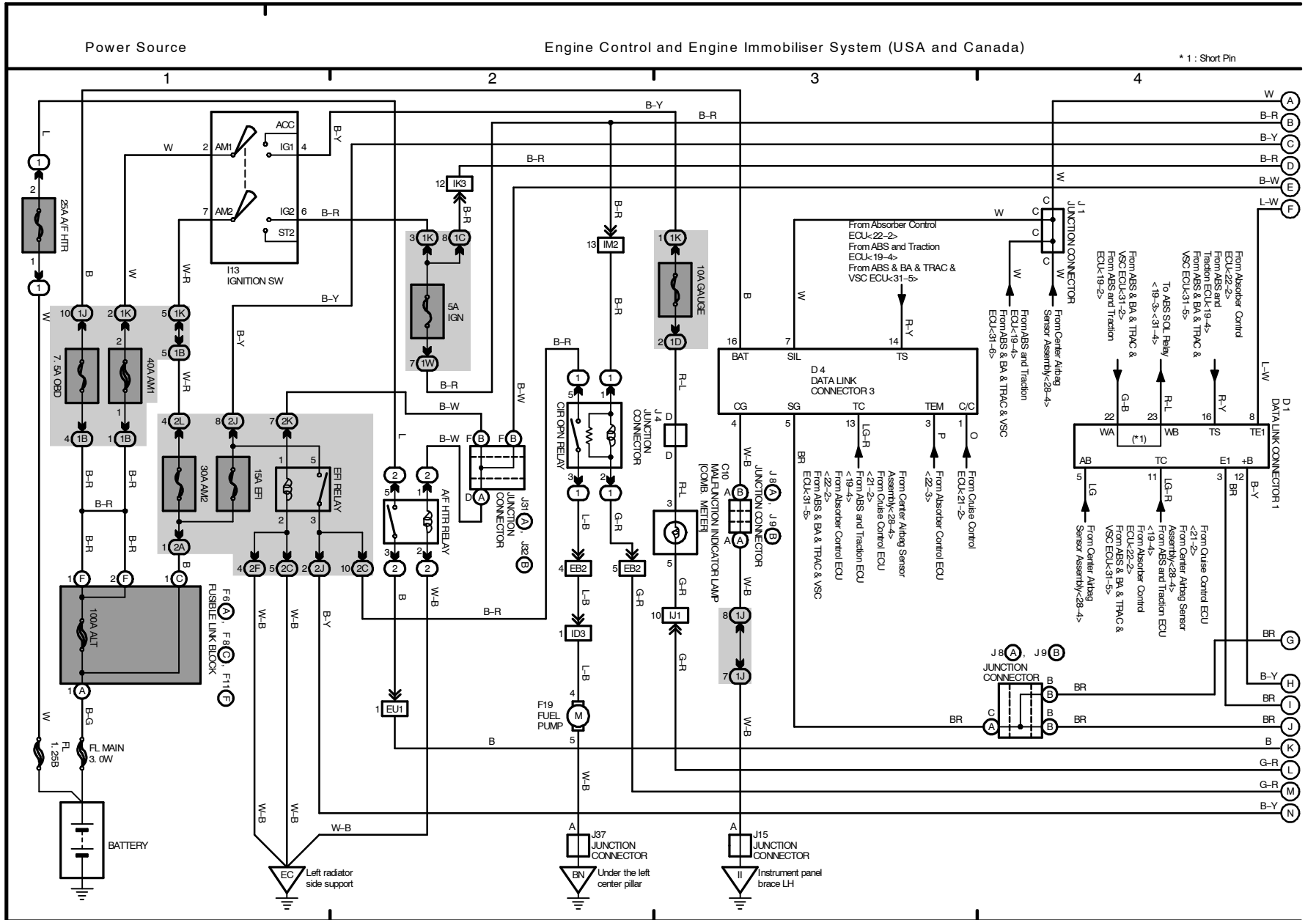
Ignition (USA and Canada)

Charging



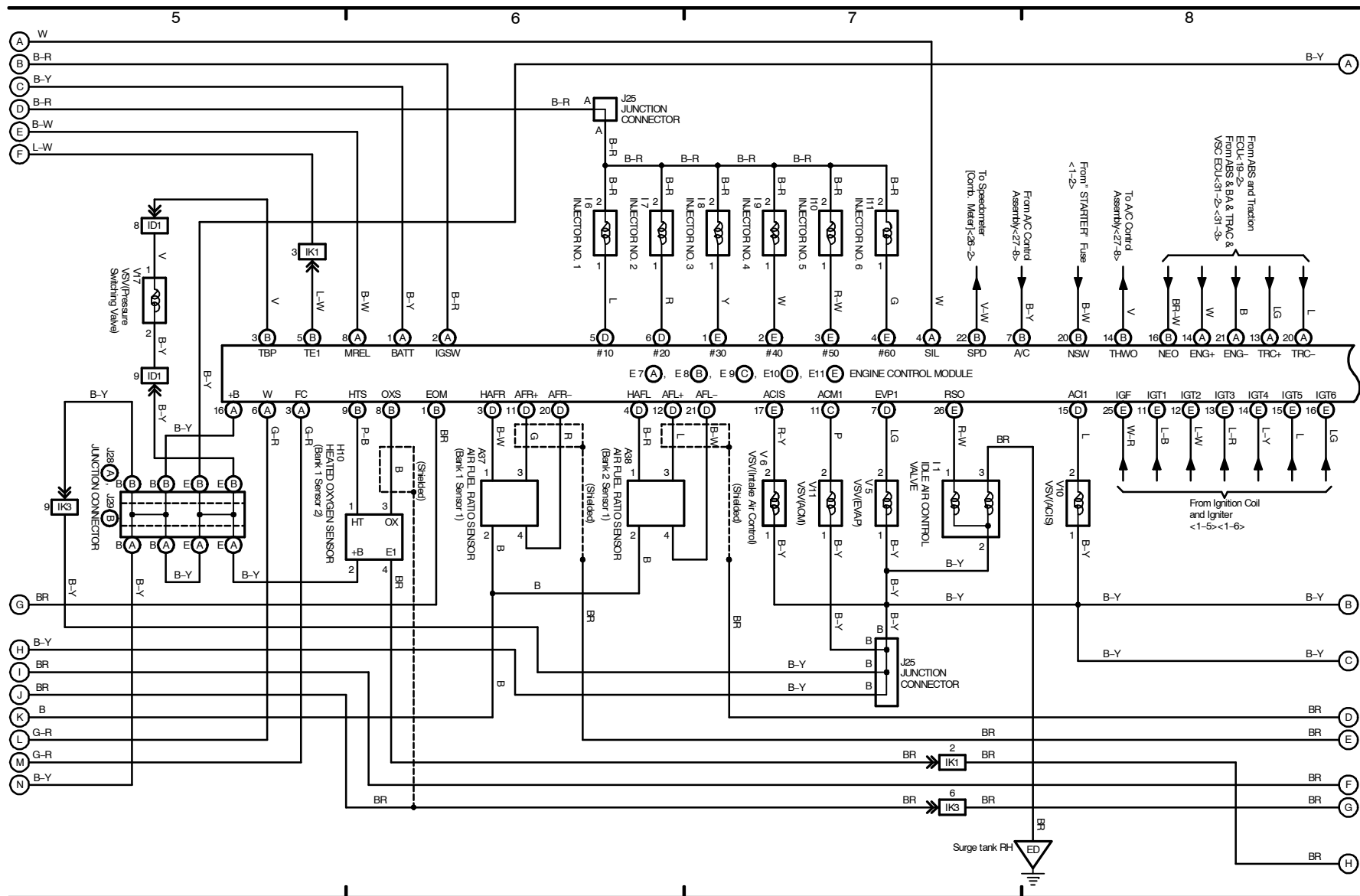
2001 LEXUS ES 300 (EWD439U)

M OVERALL ELECTRICAL WIRING DIAGRAM



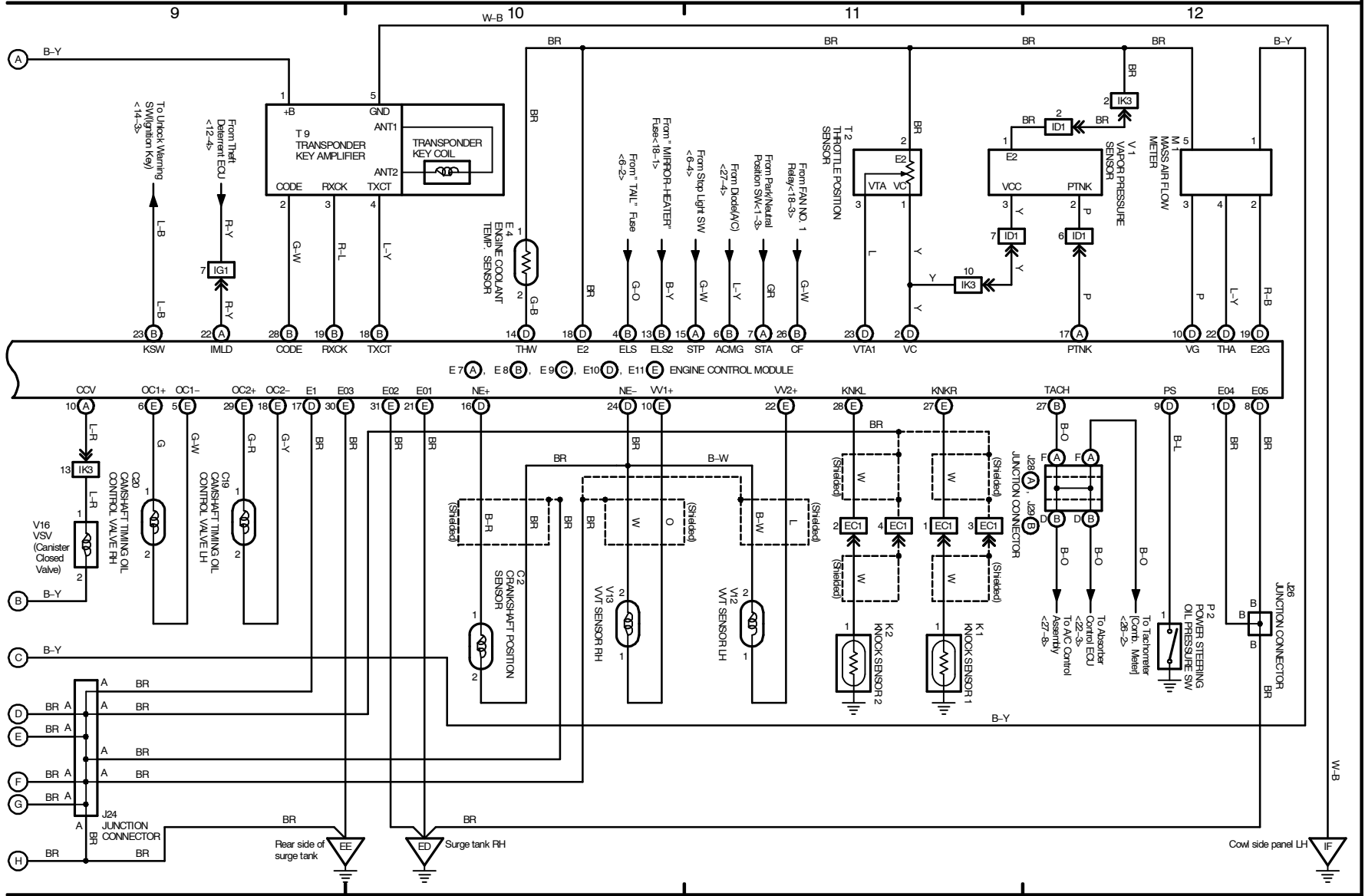
2001 LEXUS ES 300 (EWD439U)

Engine Control and Engine Immobiliser System (USA and Canada)



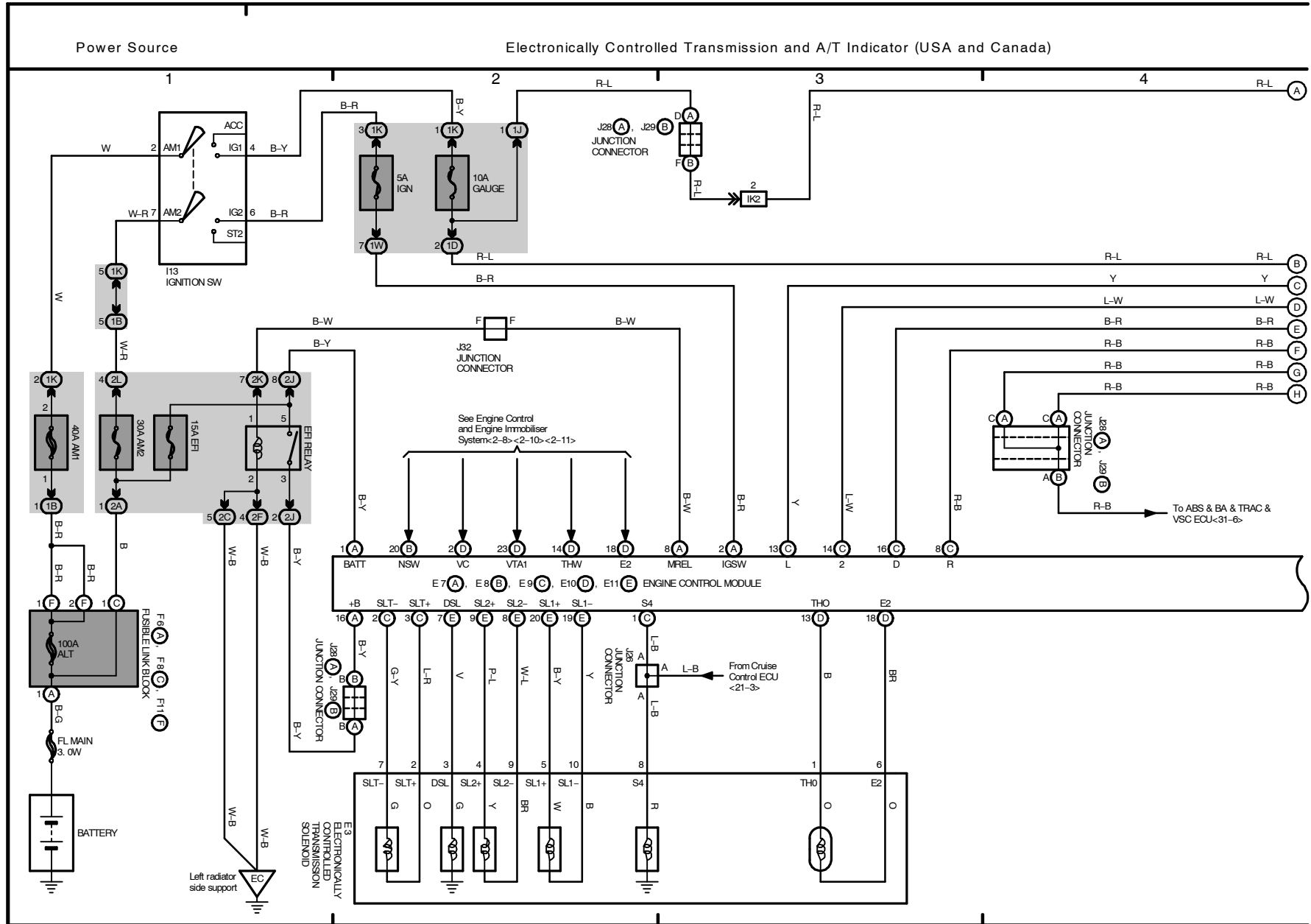
2001 LEXUS ES 300 (EWD439U)

Engine Control and Engine Immobiliser System (USA and Canada)



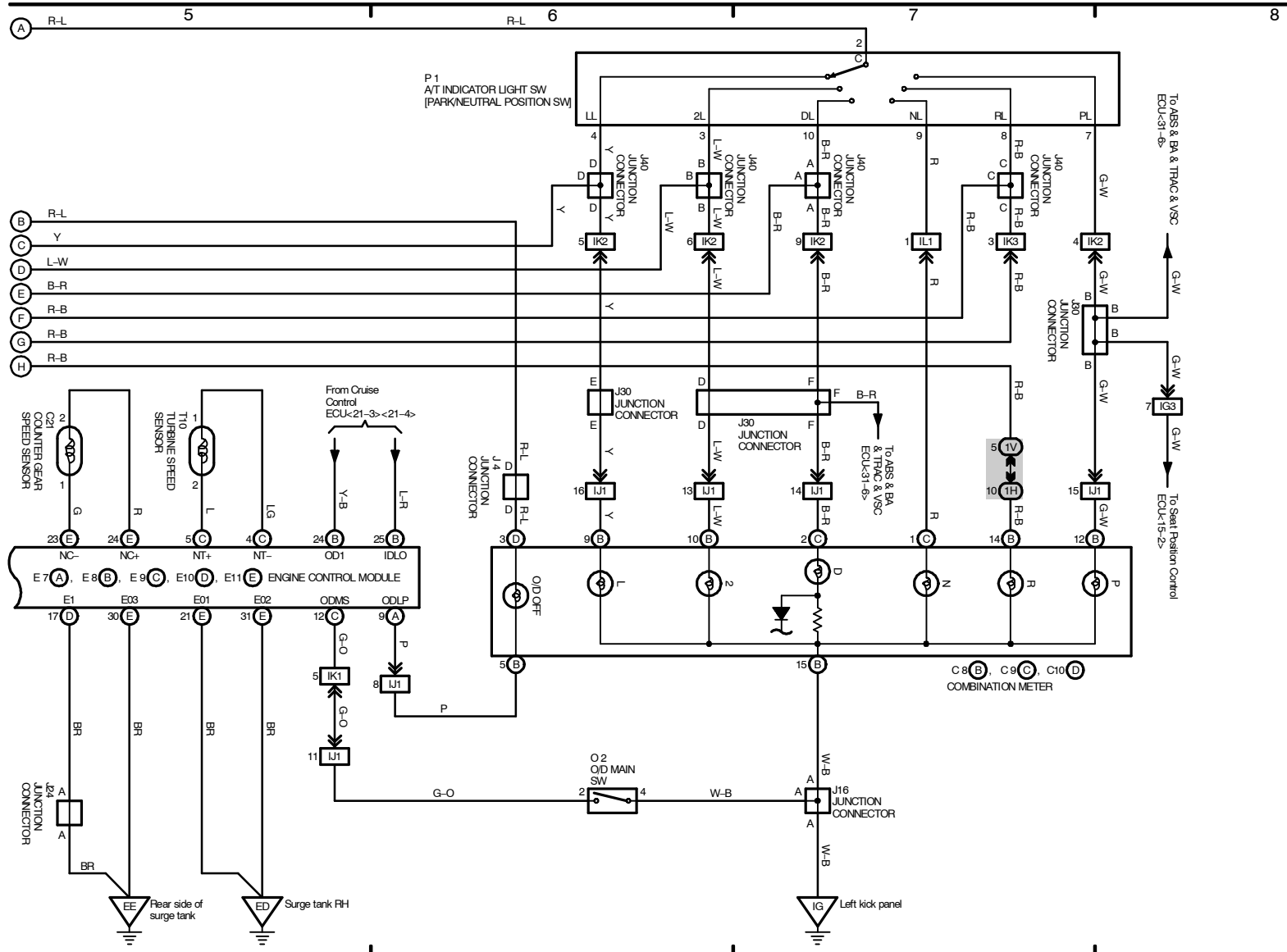
2 ES 300 (Cont' d)

2001 LEXUS ES 300 (EWD439U)

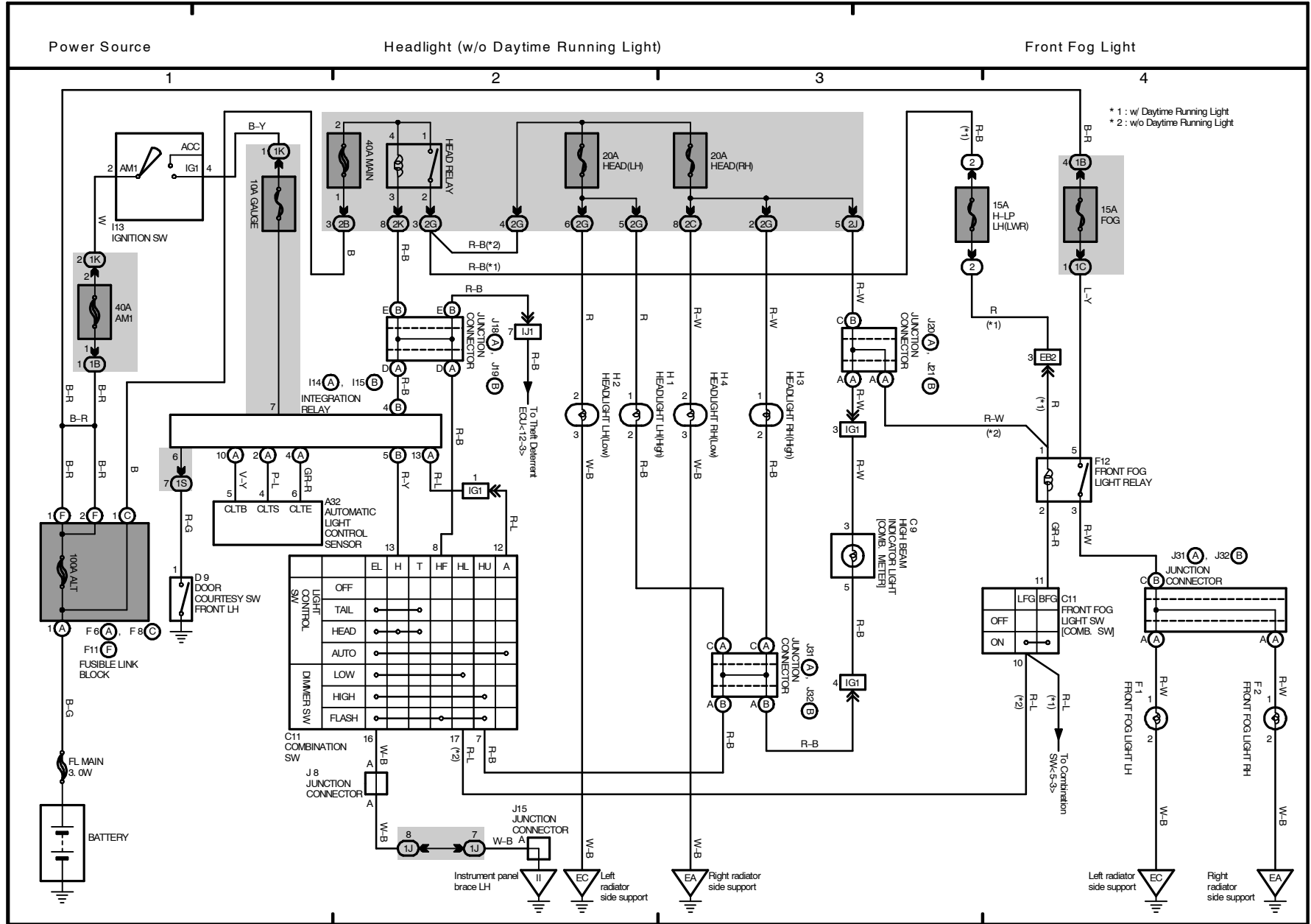


M OVERALL ELECTRICAL WIRING DIAGRAM

Electronically Controlled Transmission and A/T Indicator (USA and Canada)

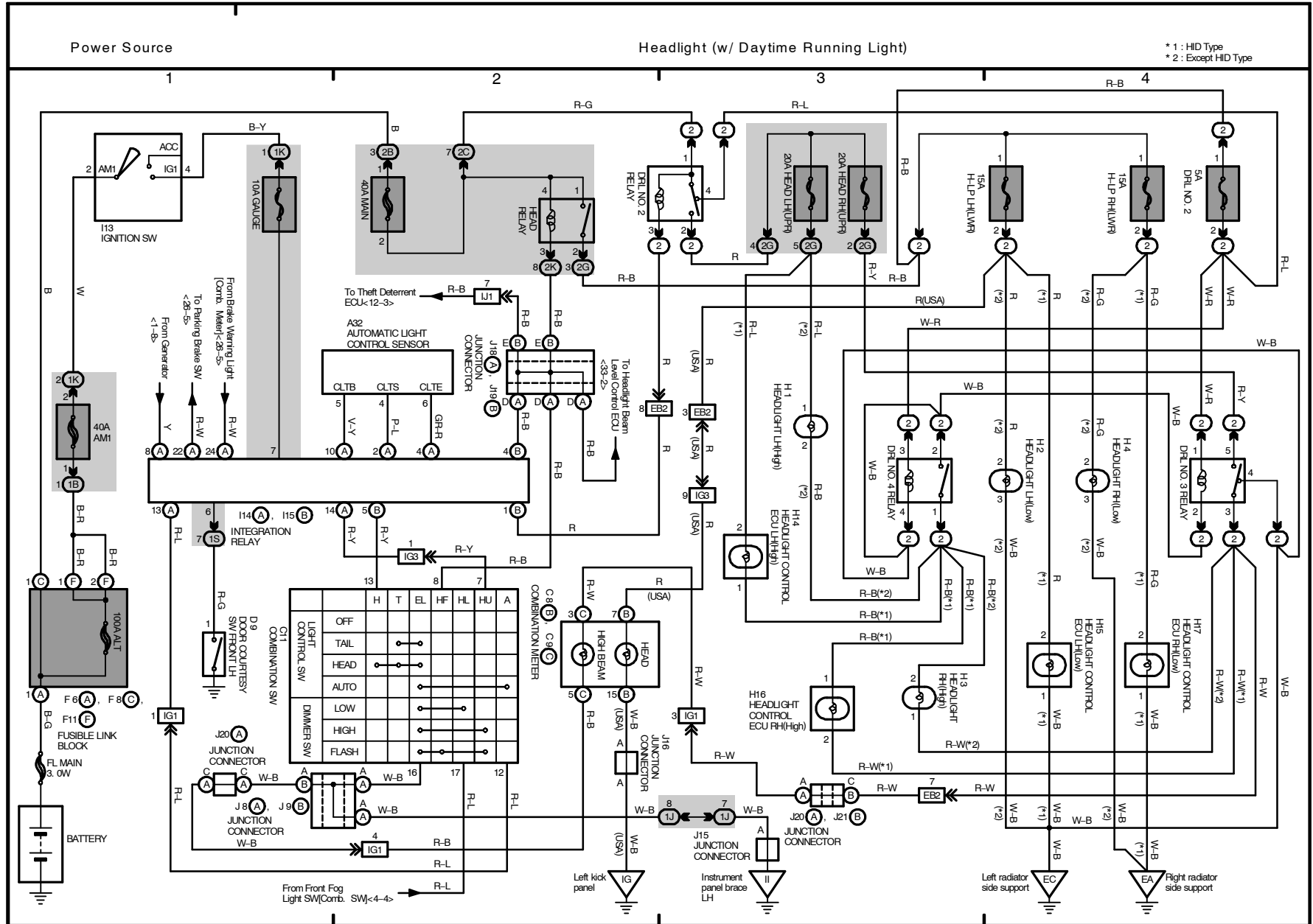


2001 LEXUS ES 300 (EWDA39U)



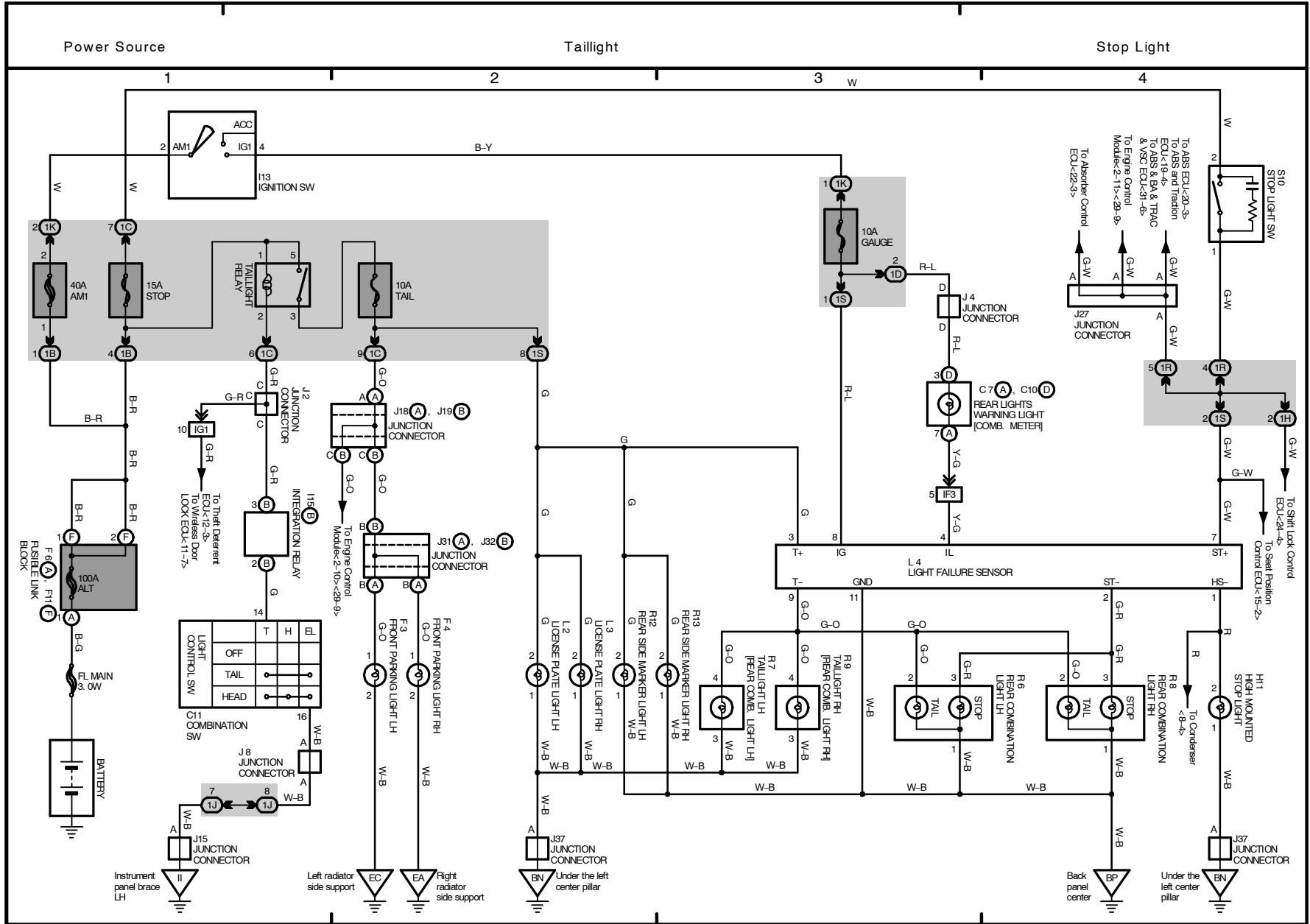
M OVERALL ELECTRICAL WIRING DIAGRAM

2001 LEXUS ES 300 (EWD439U)

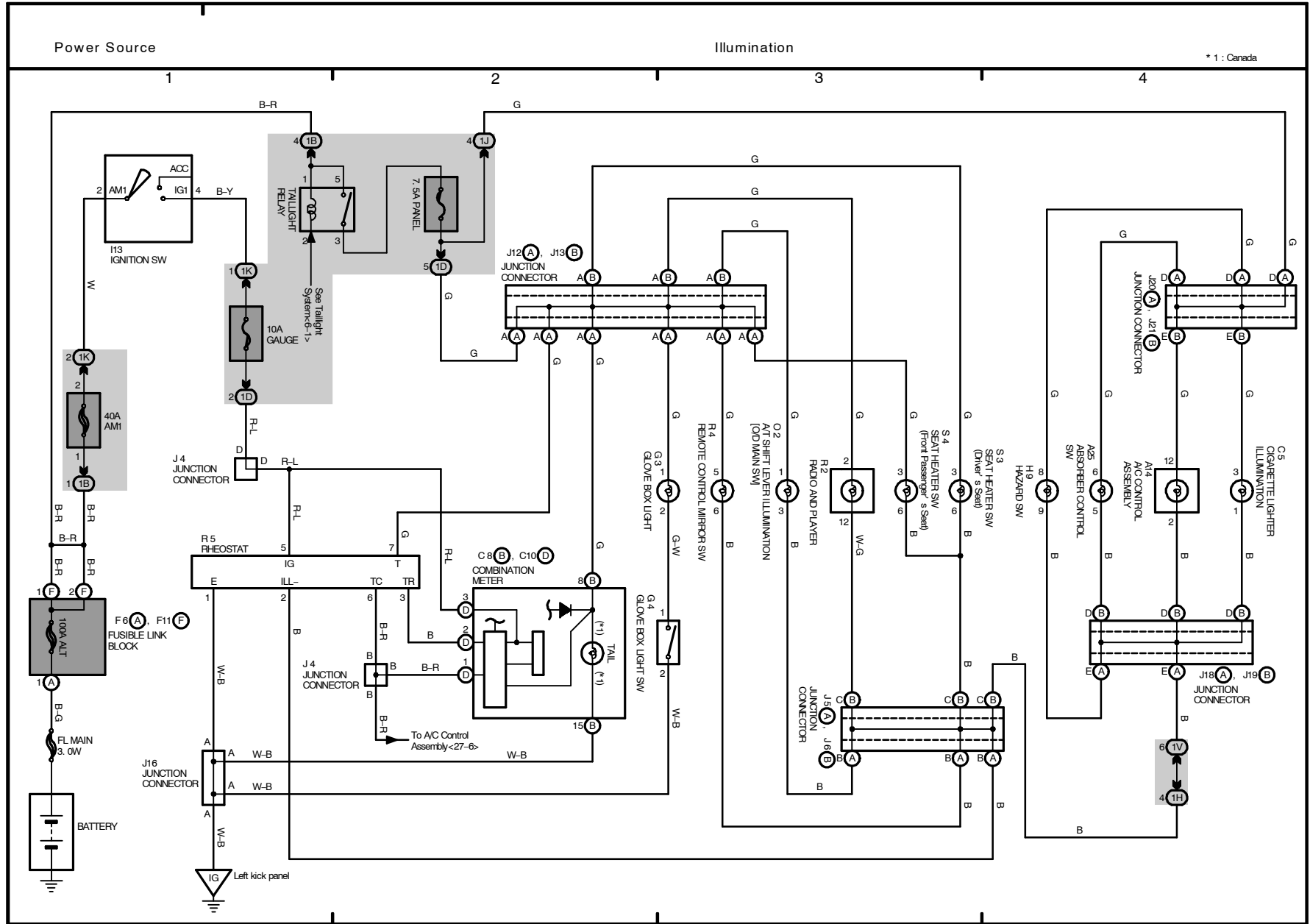


M OVERALL ELECTRICAL WIRING DIAGRAM

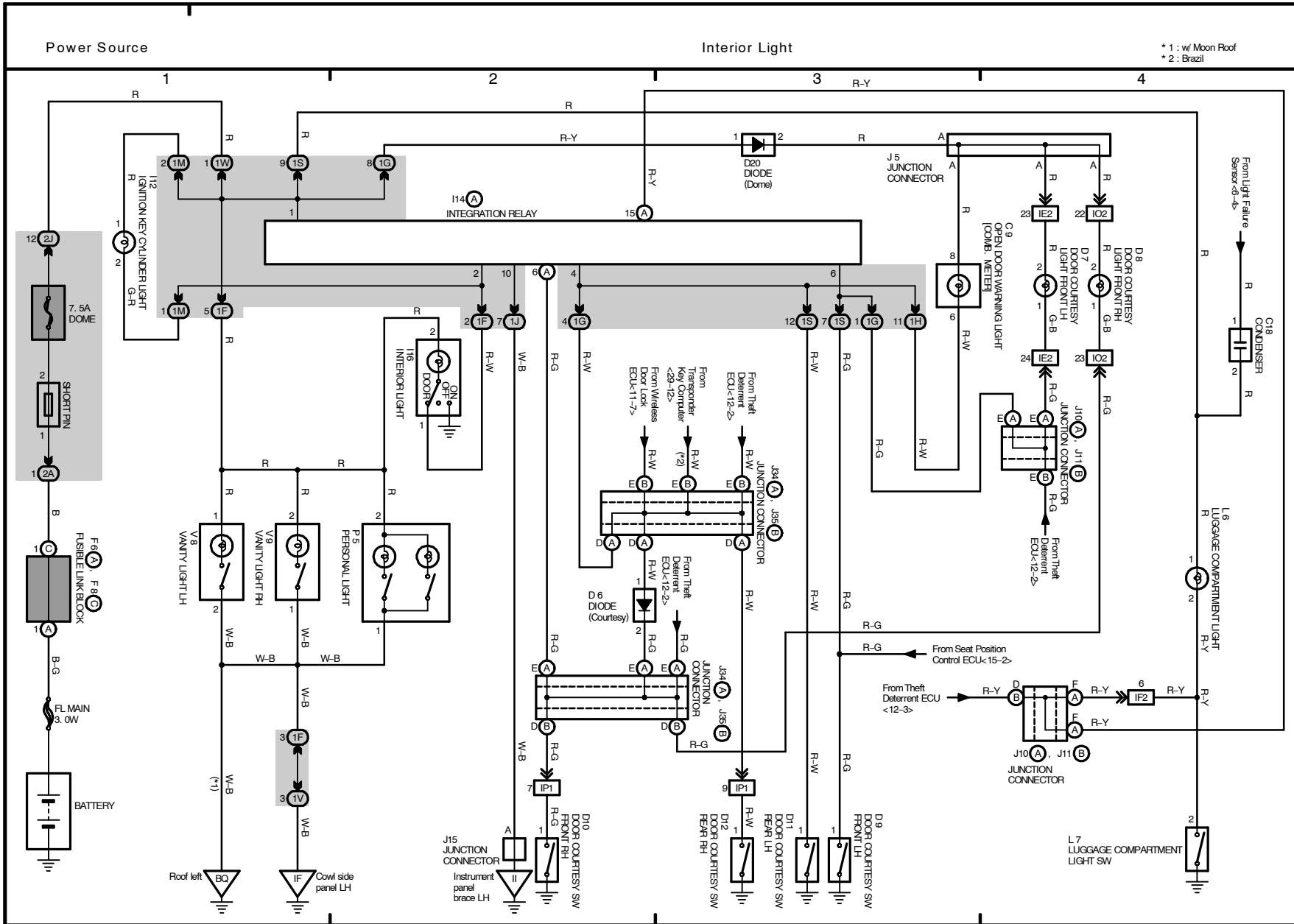
6 ES 300



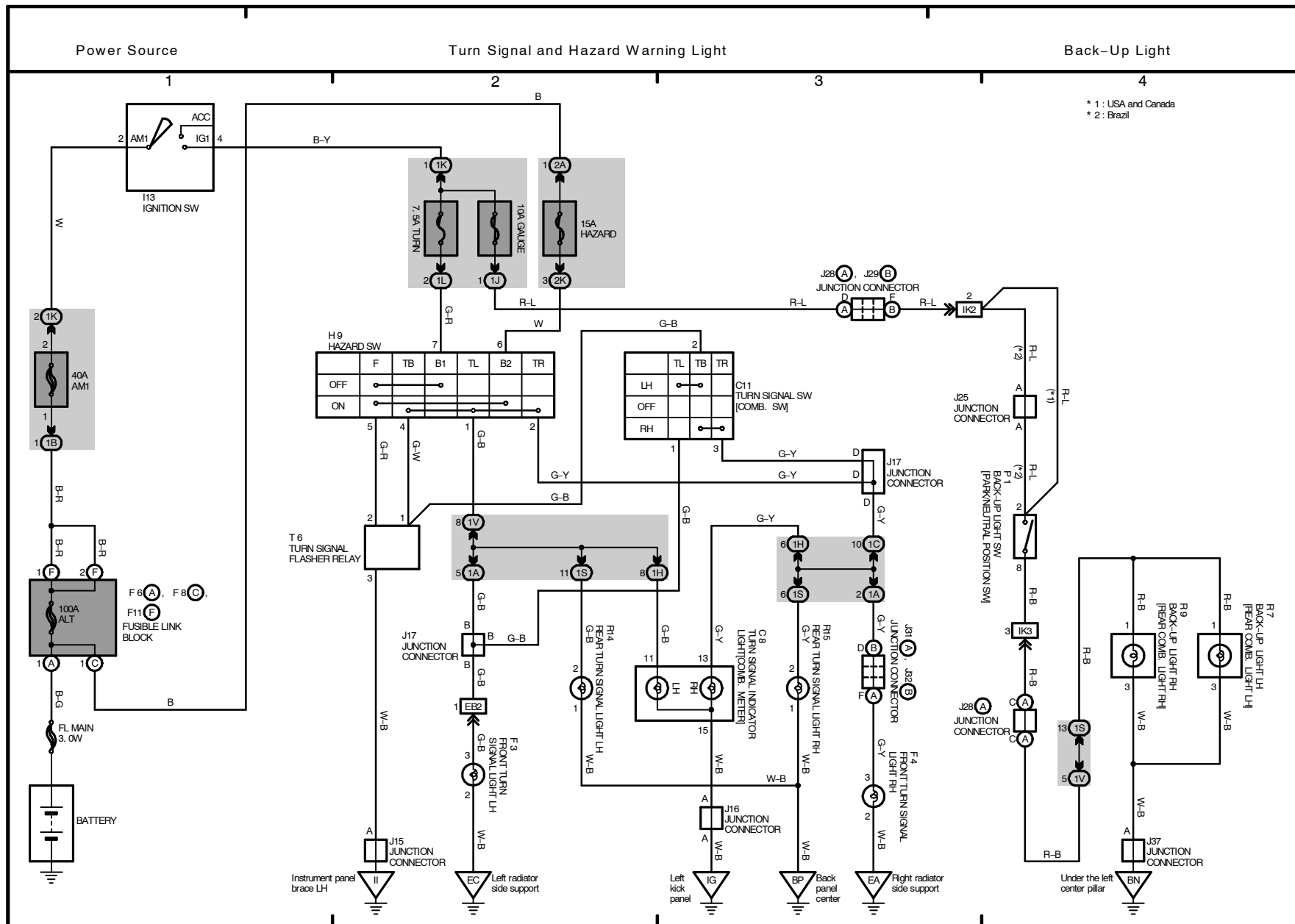
2001 LEXUS ES 300 (EWD439U)

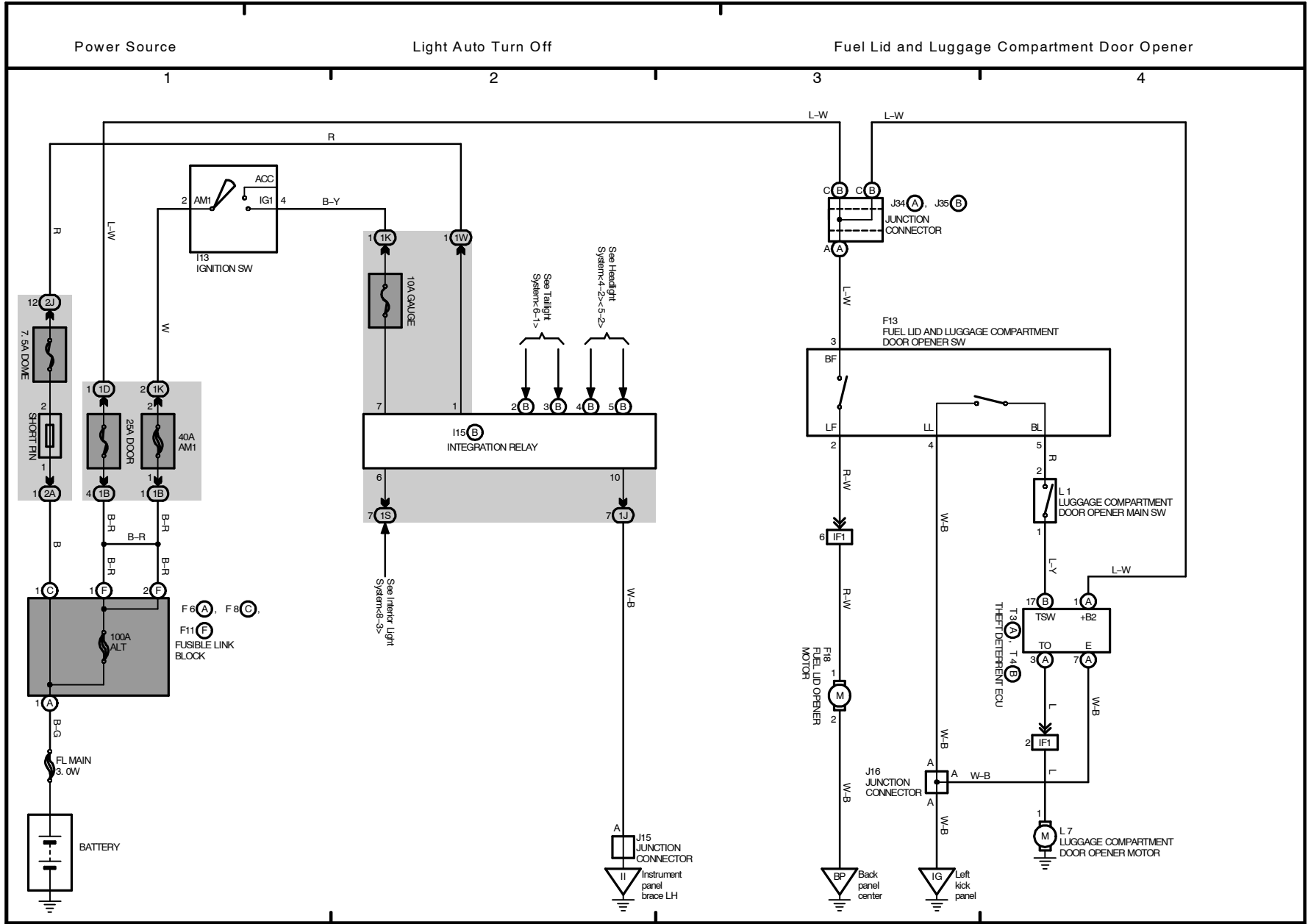


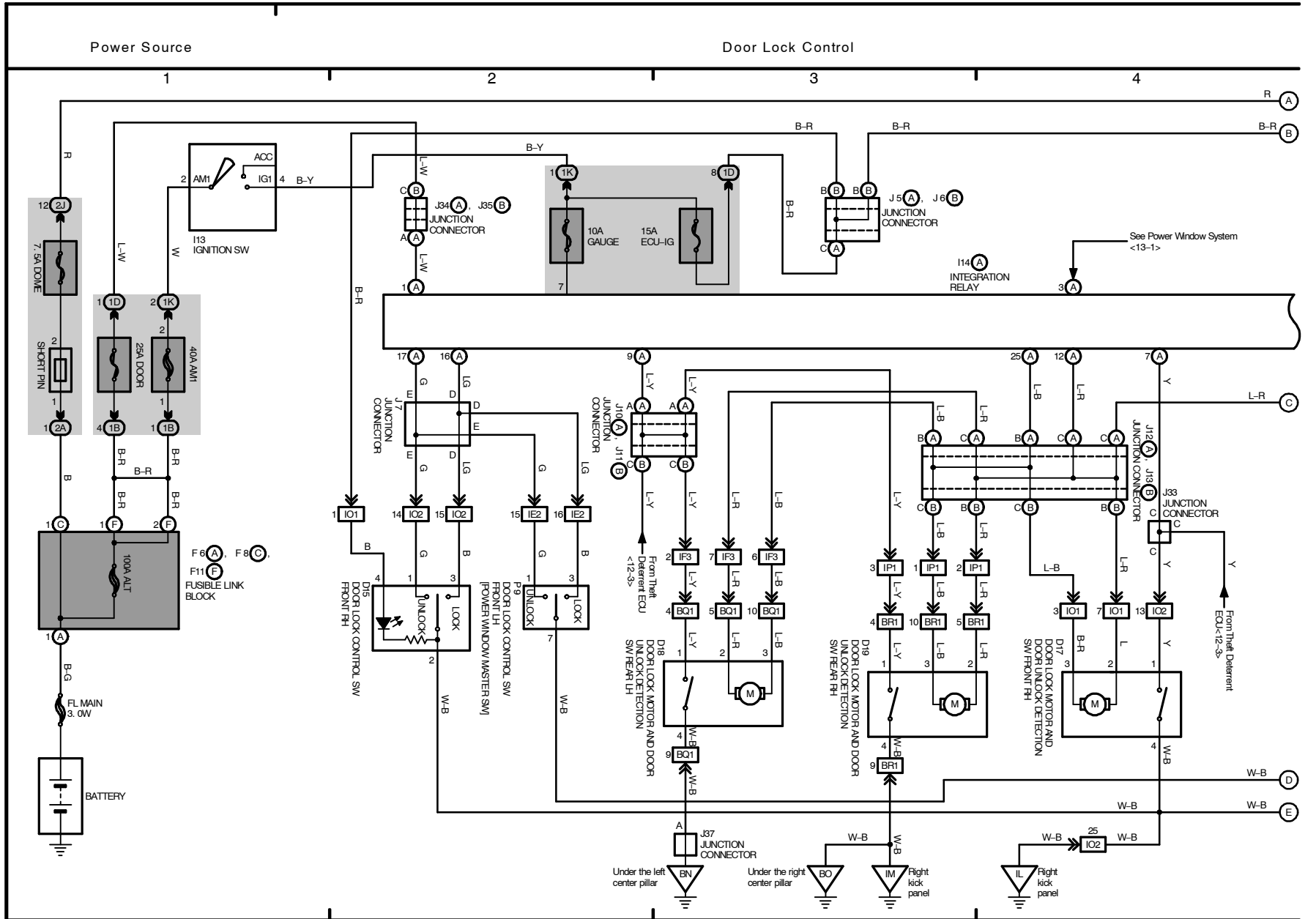
2001 LEXUS ES 300 (EWDA39U)



M OVERALL ELECTRICAL WIRING DIAGRAM





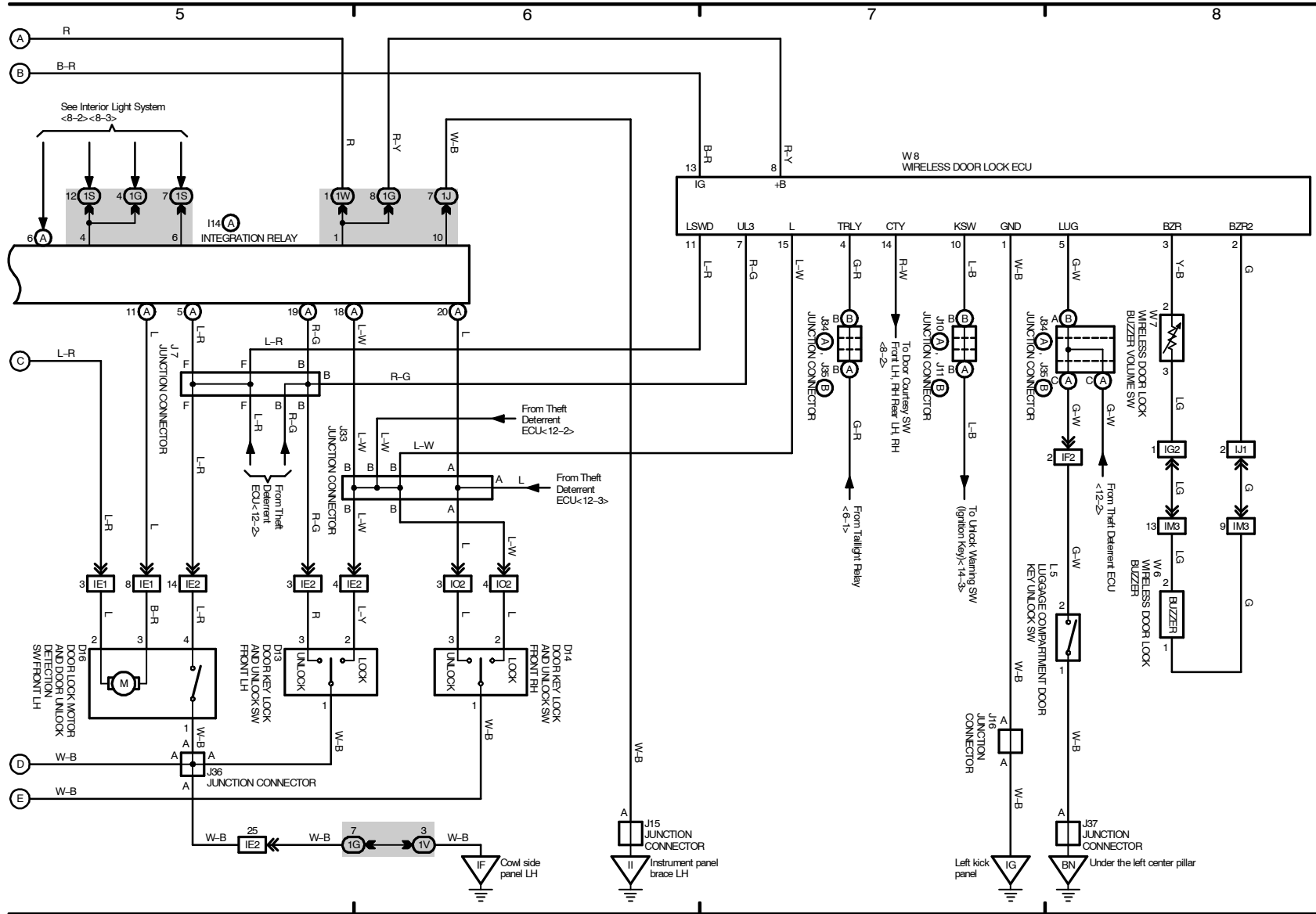


2001 LEXUS ES 300 (EWD439U)

M OVERALL ELECTRICAL WIRING DIAGRAM

Door Lock Control

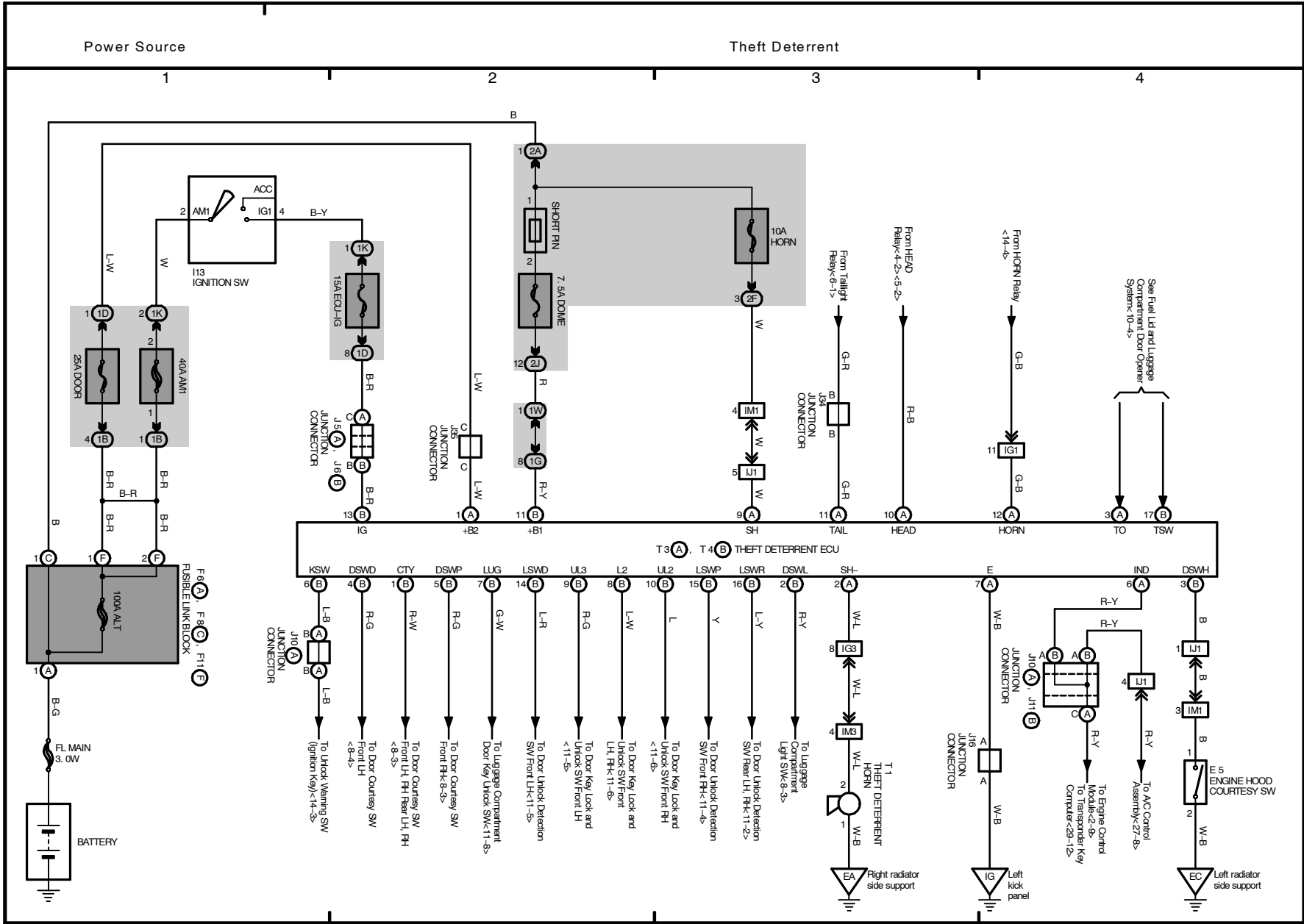
Wireless Door Lock Control



2001 LEXUS ES 300 (EWPD439U)

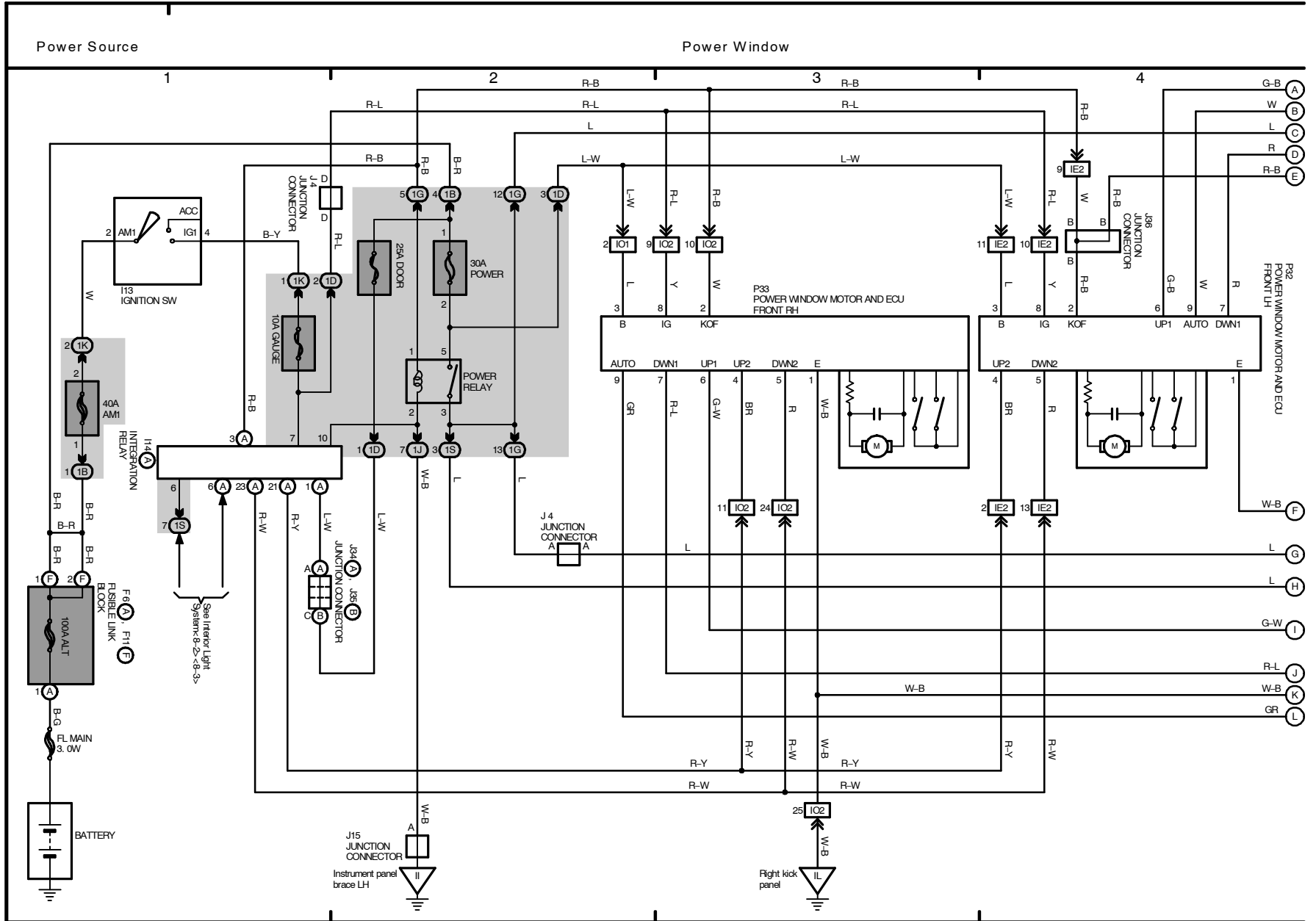
M OVERALL ELECTRICAL WIRING DIAGRAM

12 ES 300

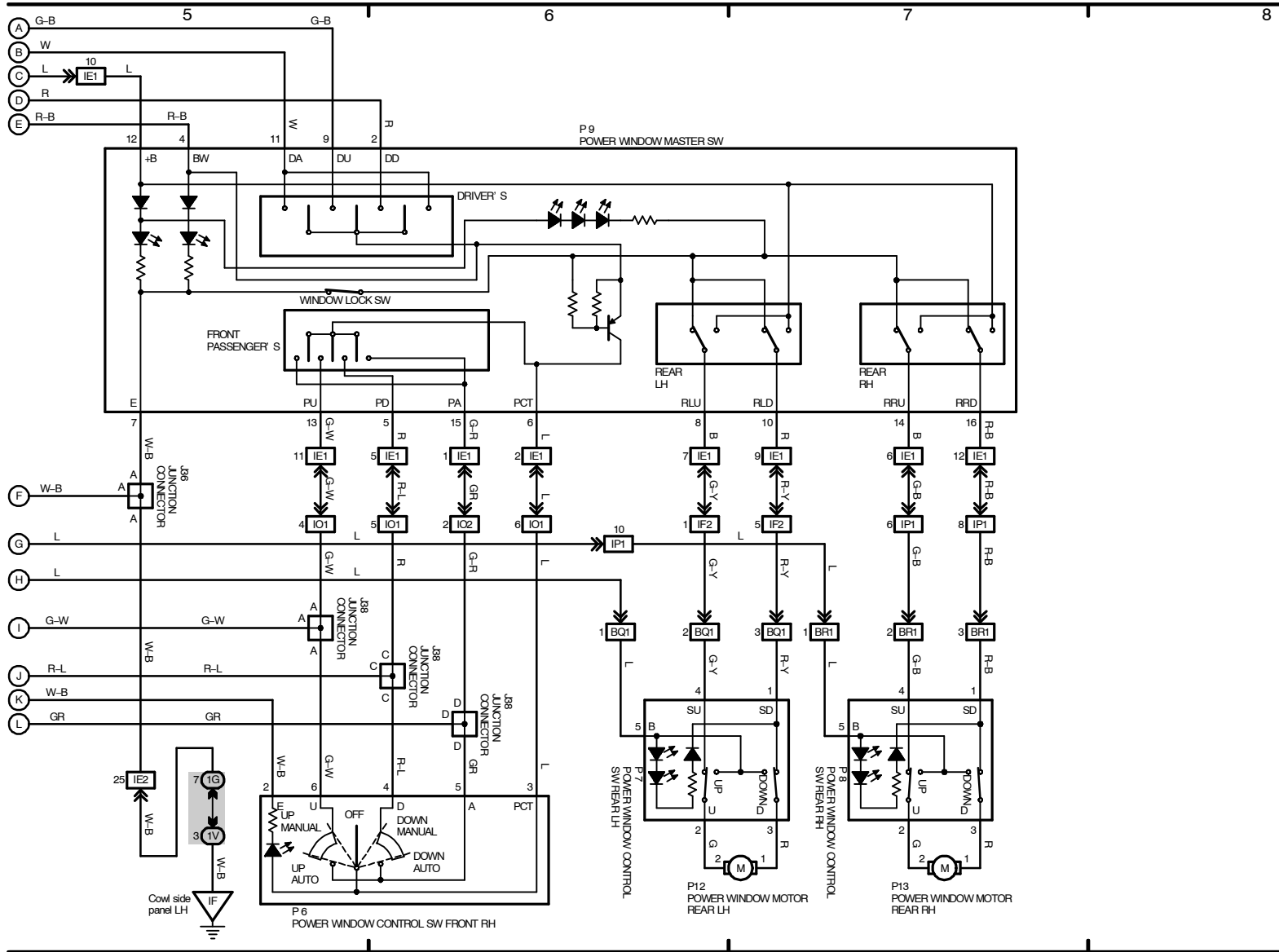


2001 LEXUS ES 300 (EWD439U)

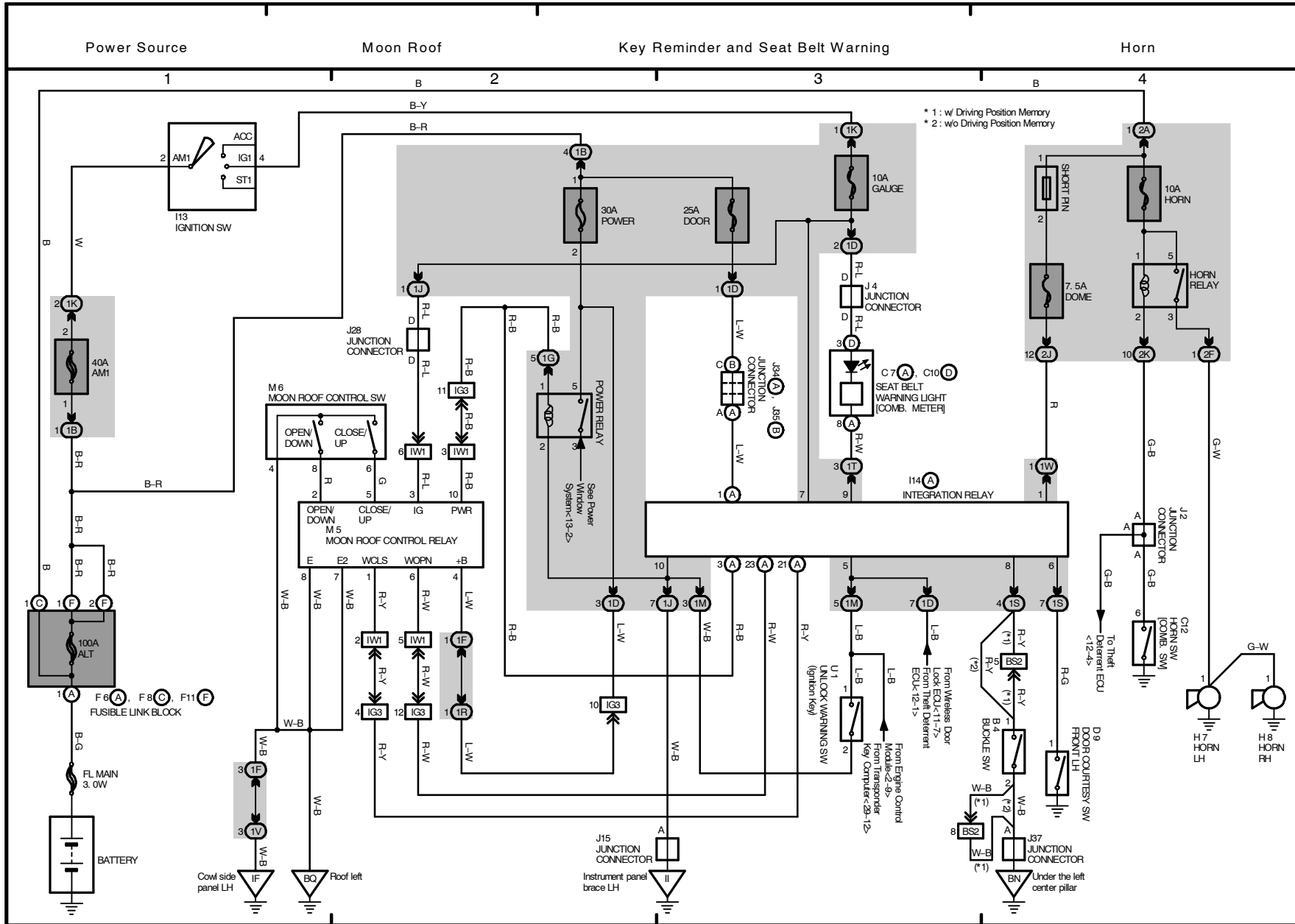
M OVERALL ELECTRICAL WIRING DIAGRAM

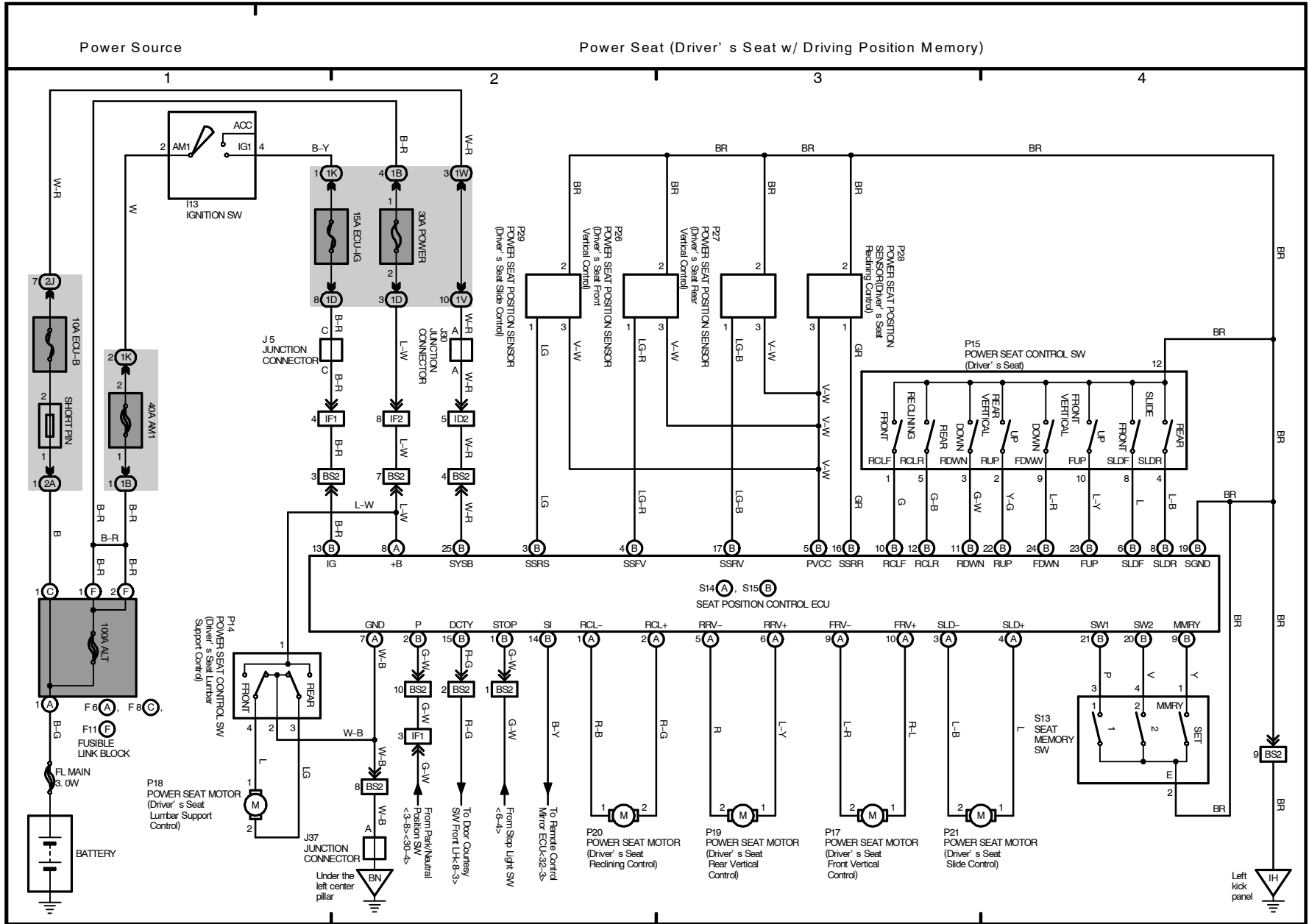


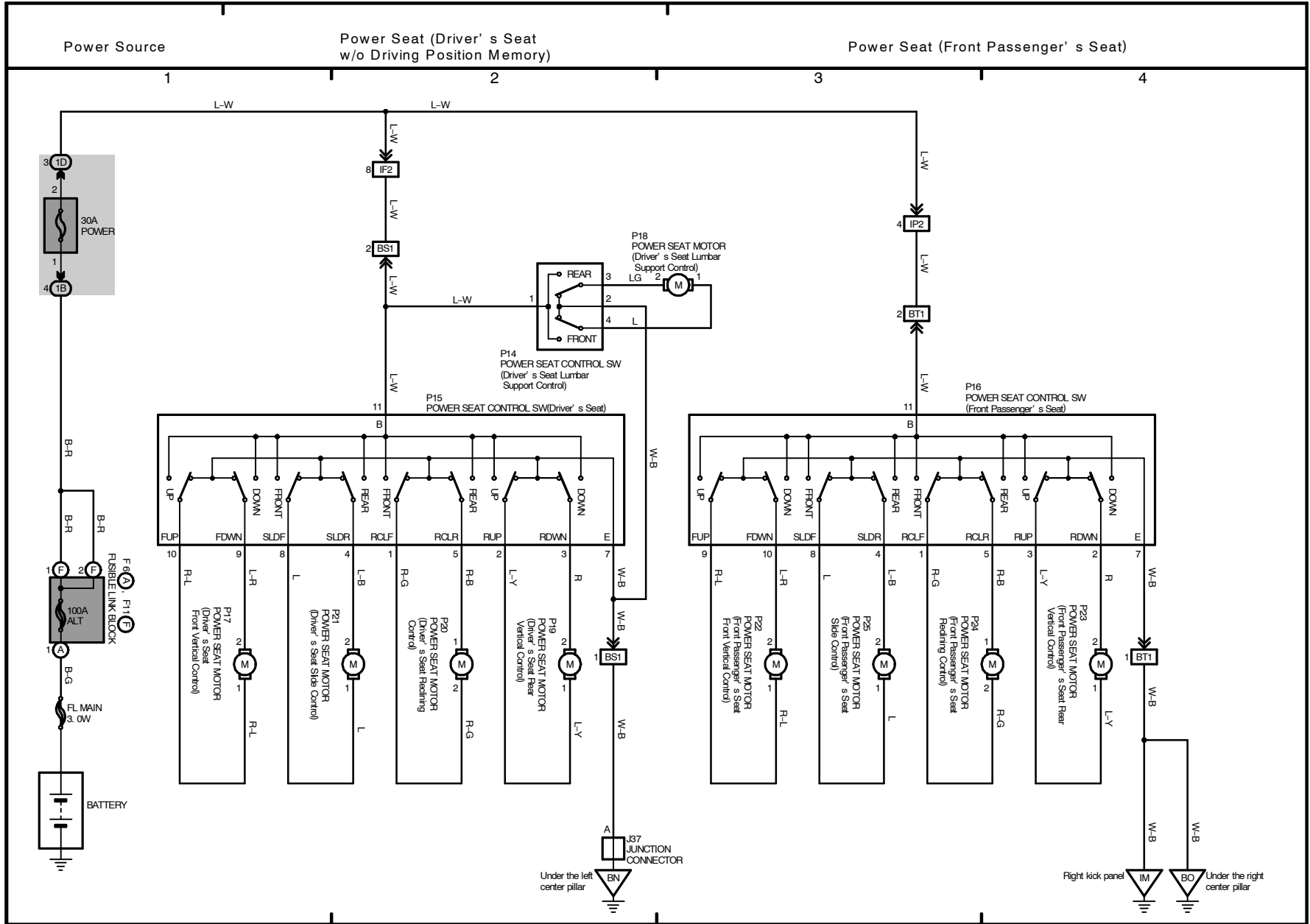
Power Window



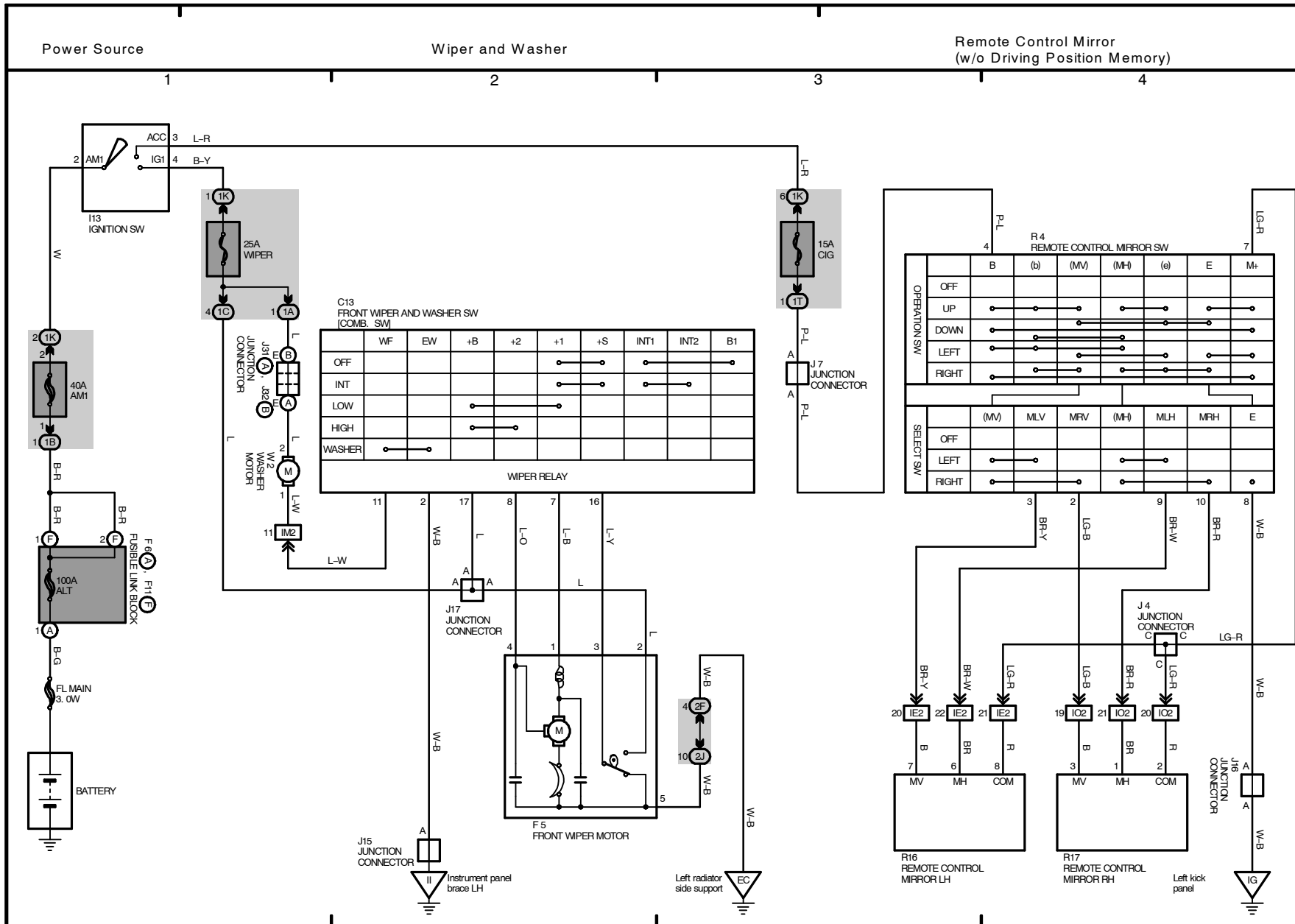
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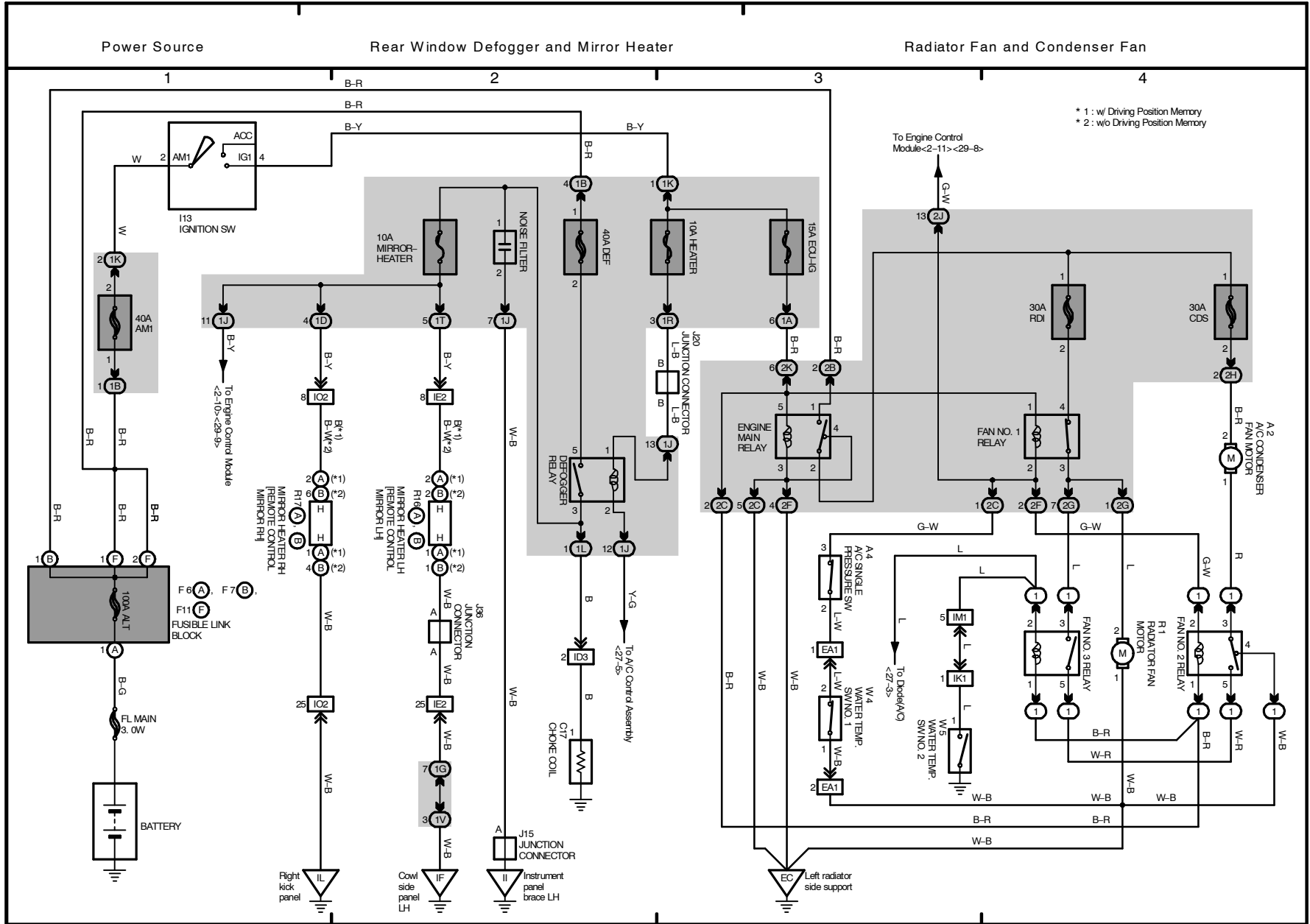




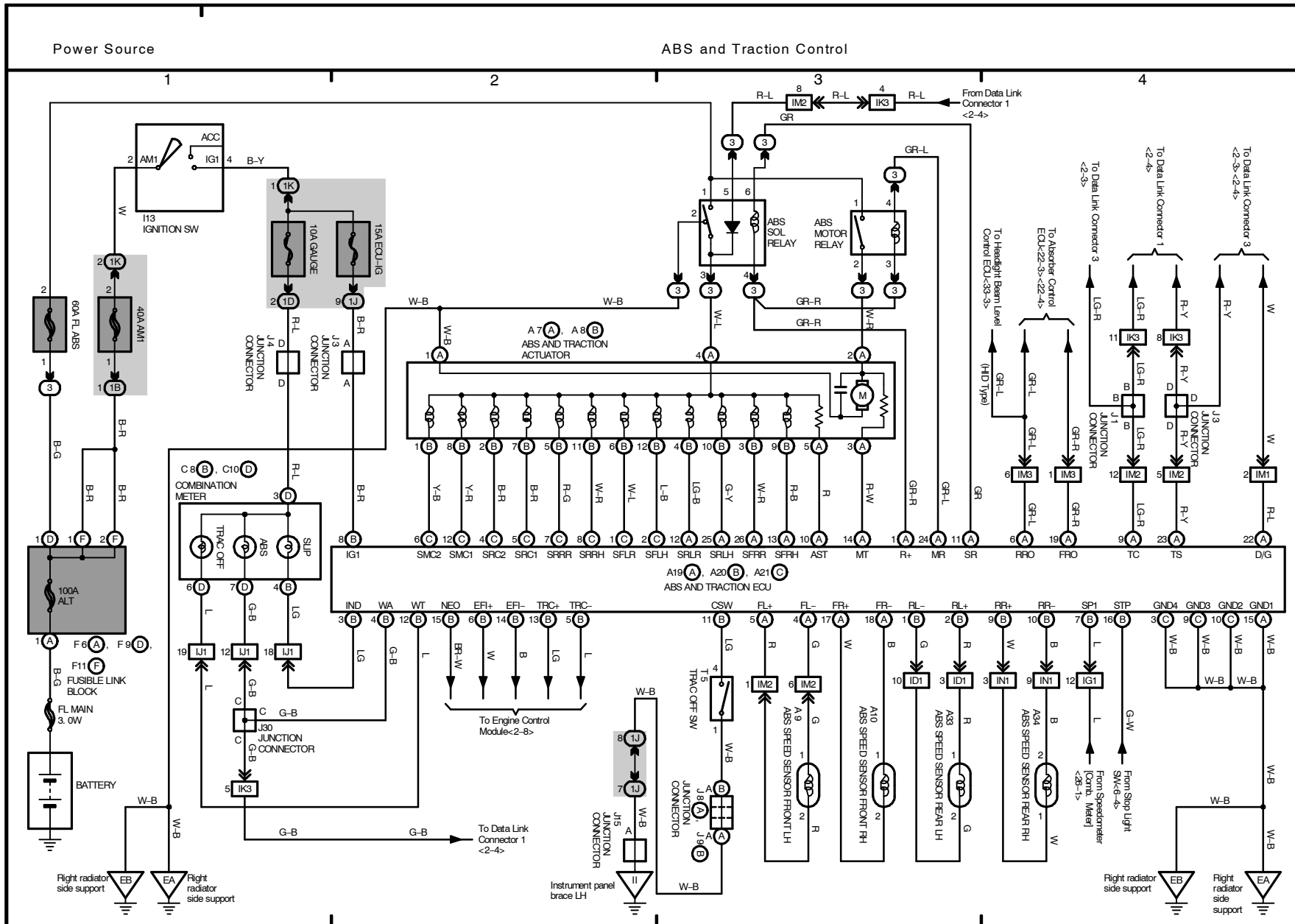


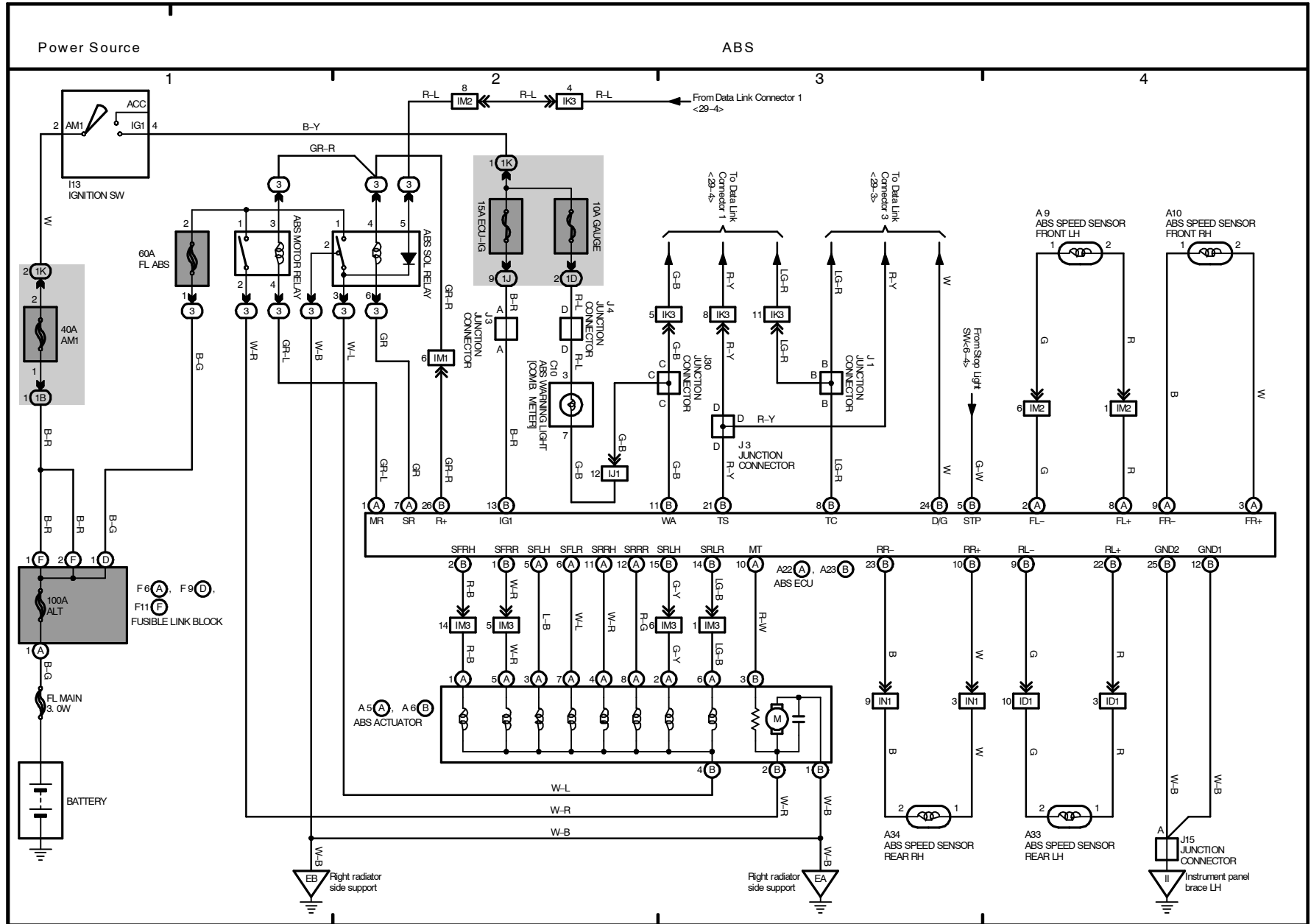
M OVERALL ELECTRICAL WIRING DIAGRAM



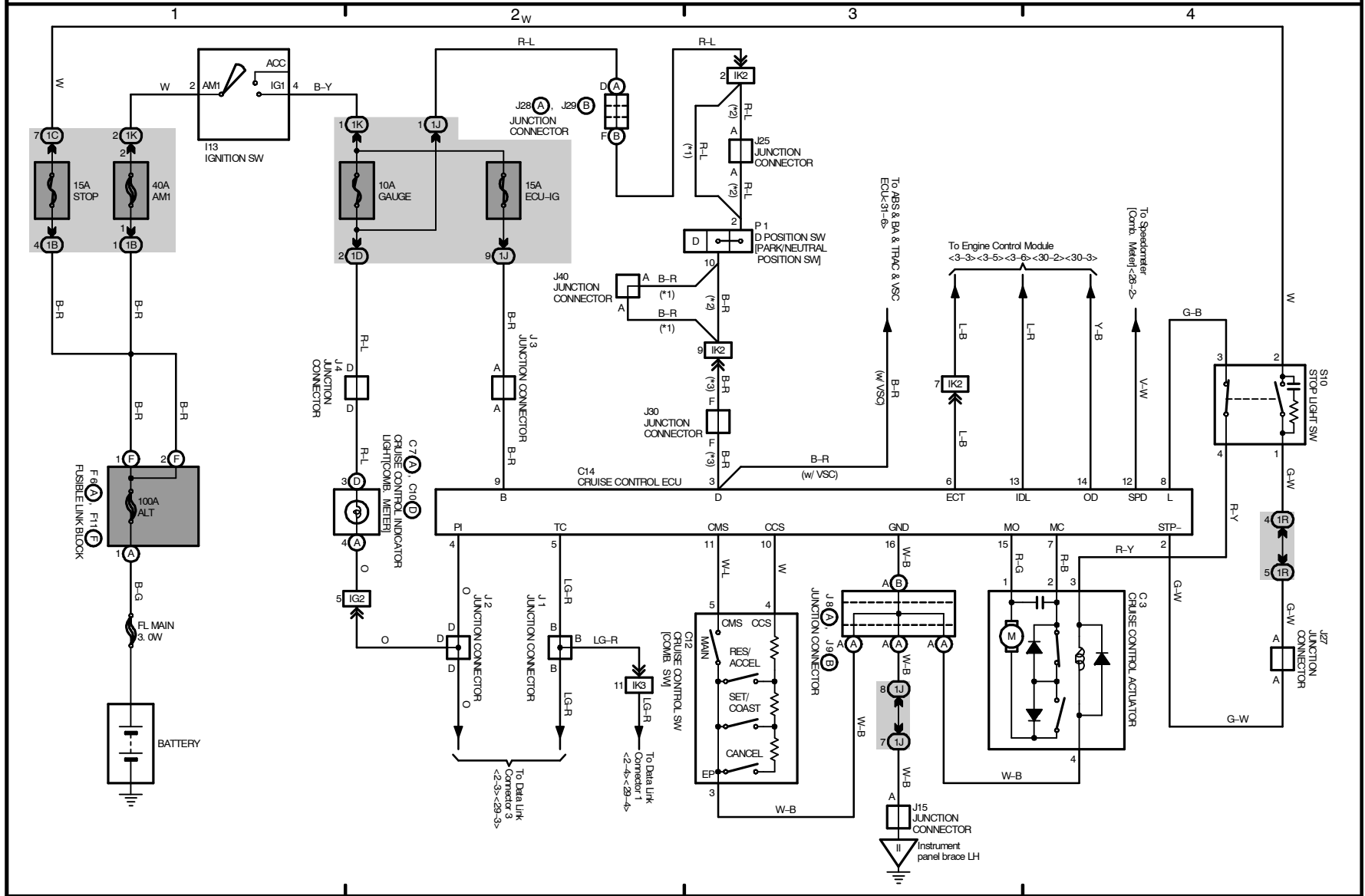


2001 LEXUS ES 300 (EWD439U)

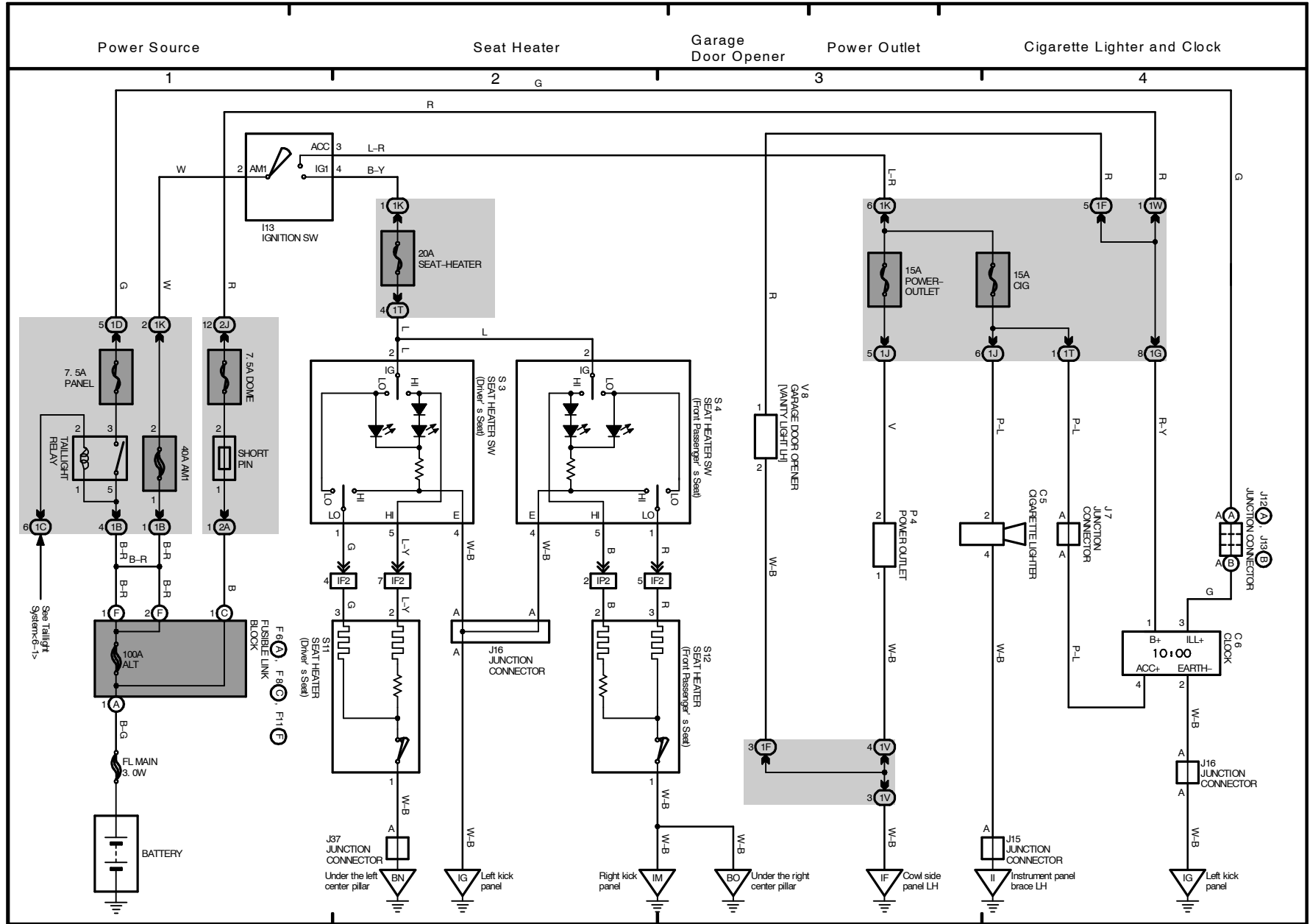


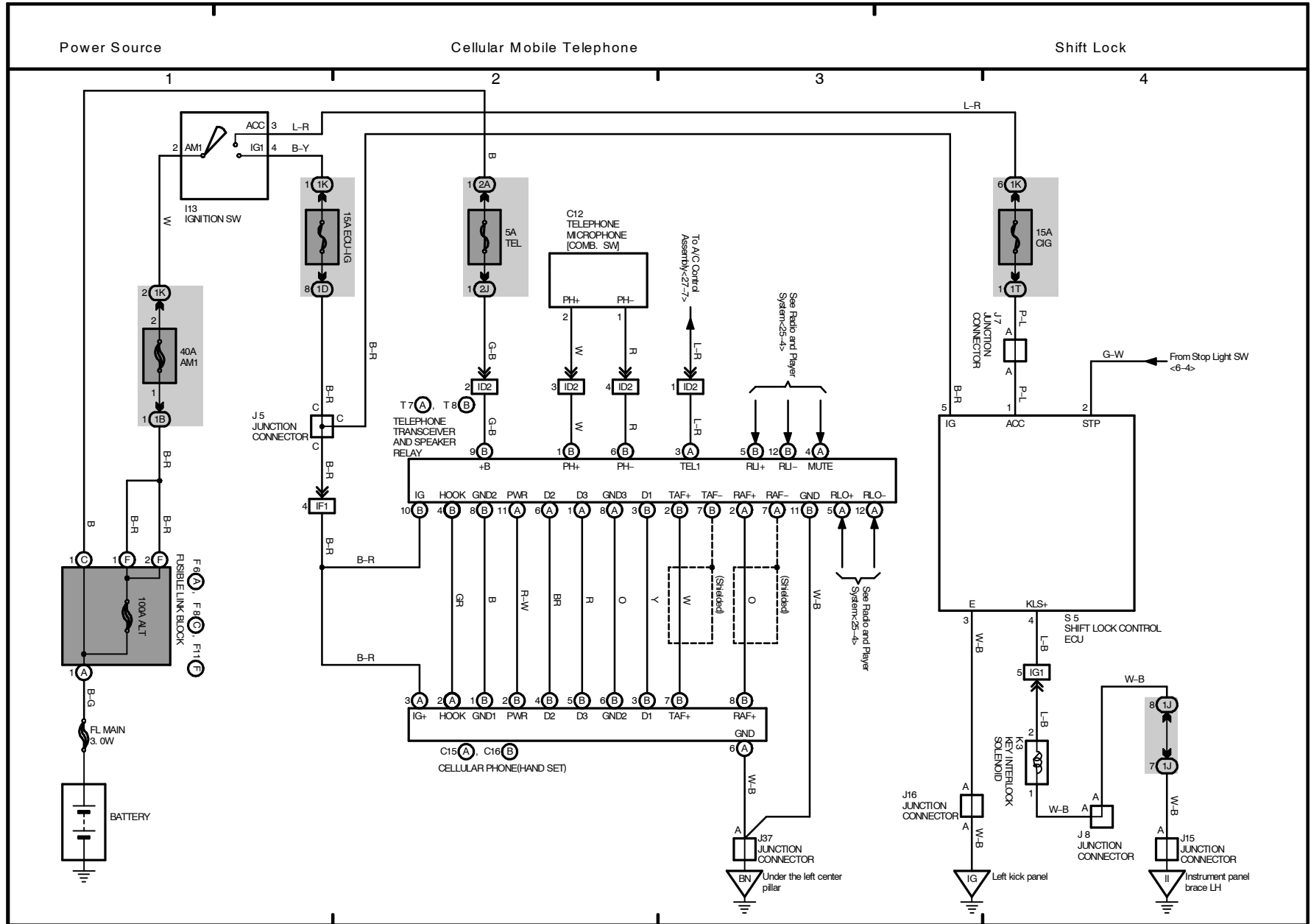


- * 1 : USA and Canada
- * 2 : Brazil
- * 3 : w/o VSC

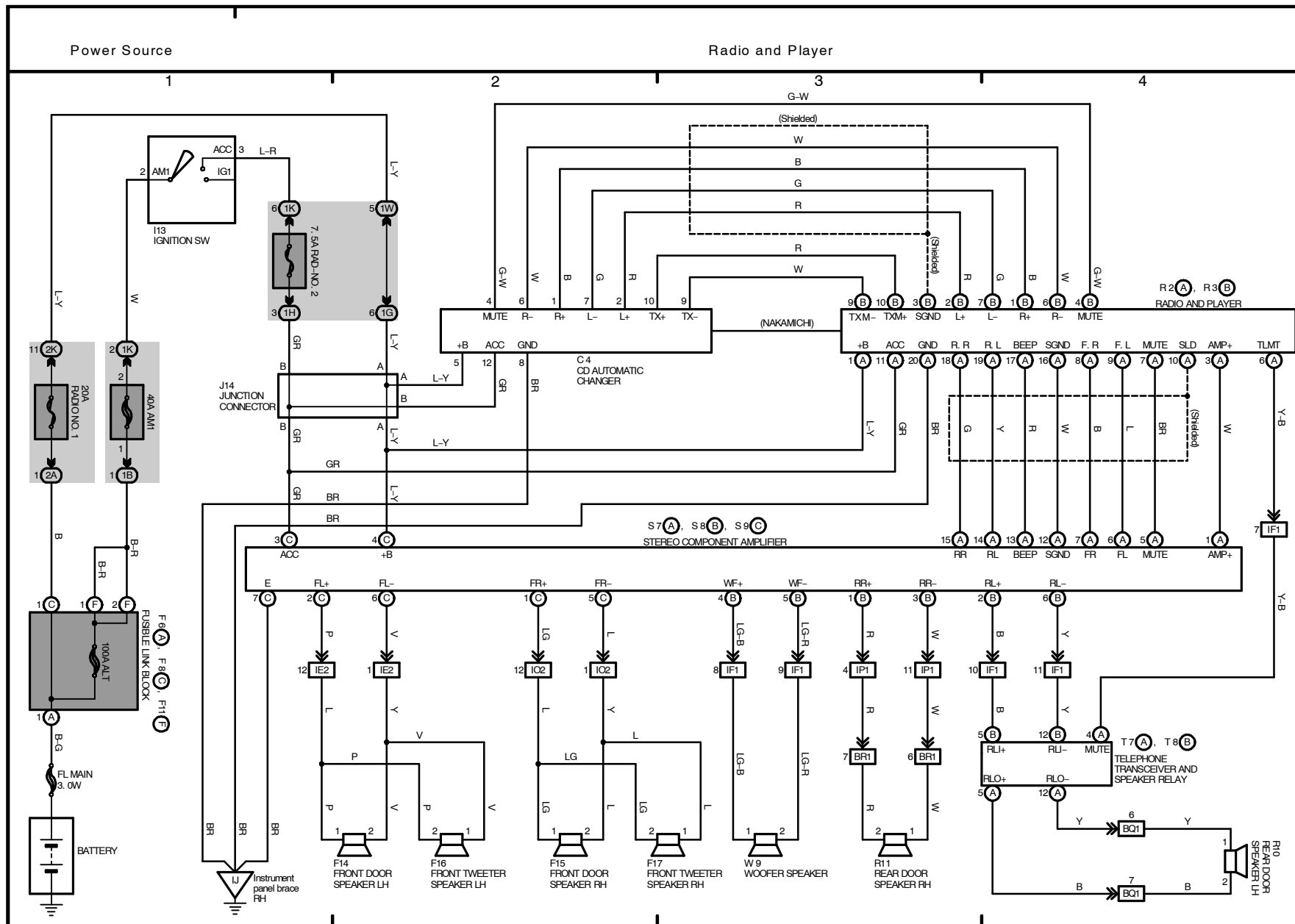


2001 LEXUS ES 300 (EWDA39U)

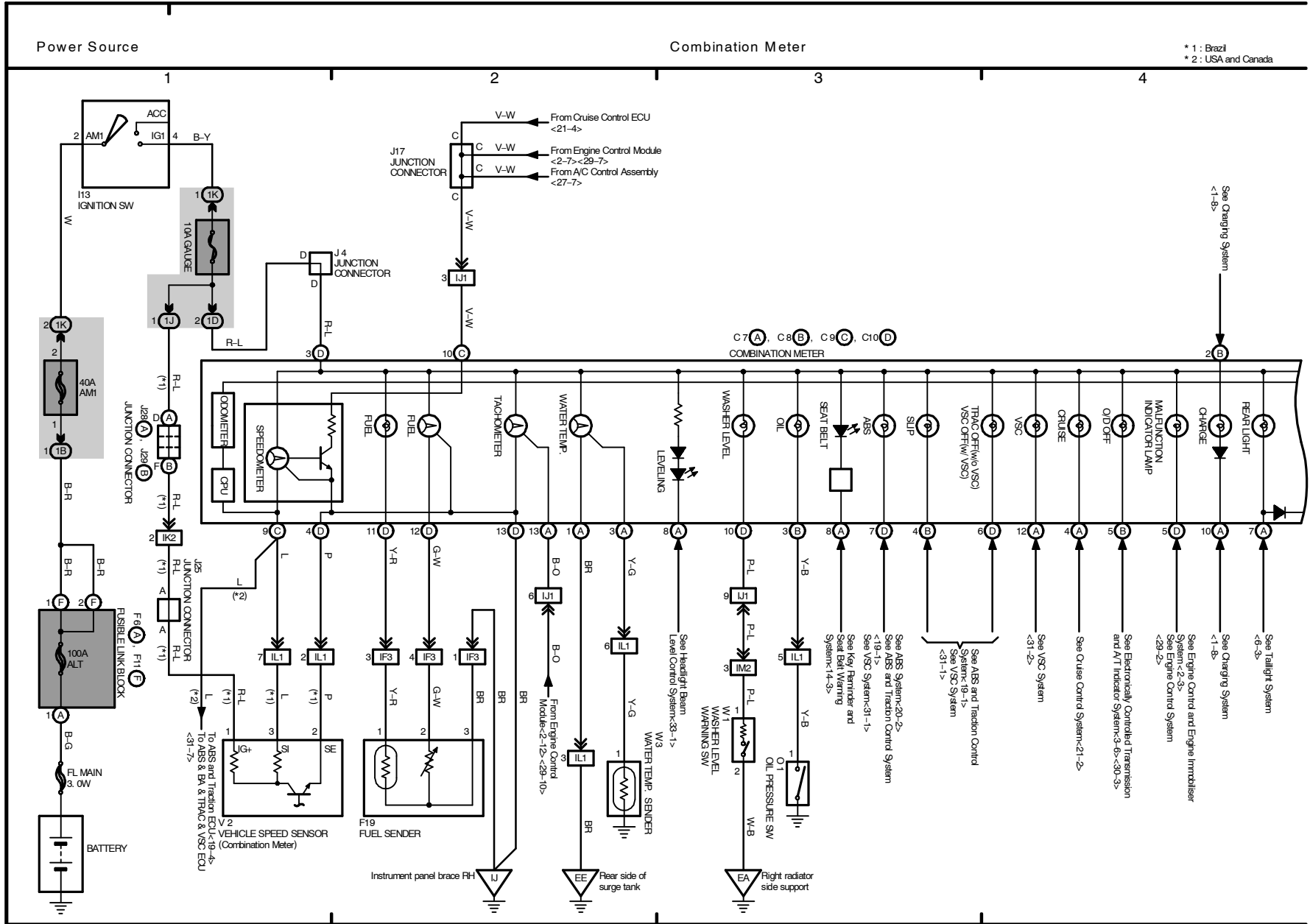




M OVERALL ELECTRICAL WIRING DIAGRAM



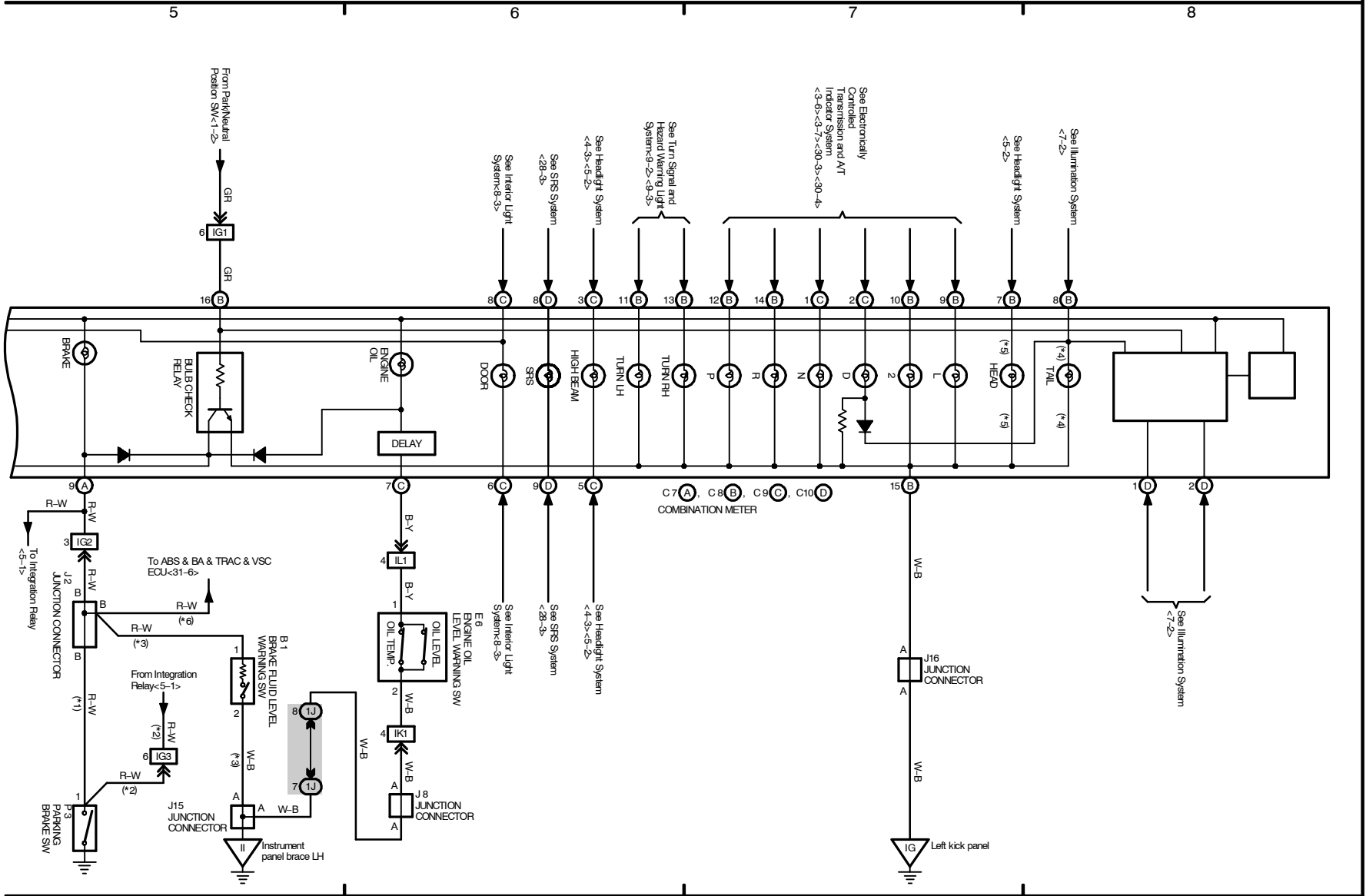
M OVERALL ELECTRICAL WIRING DIAGRAM



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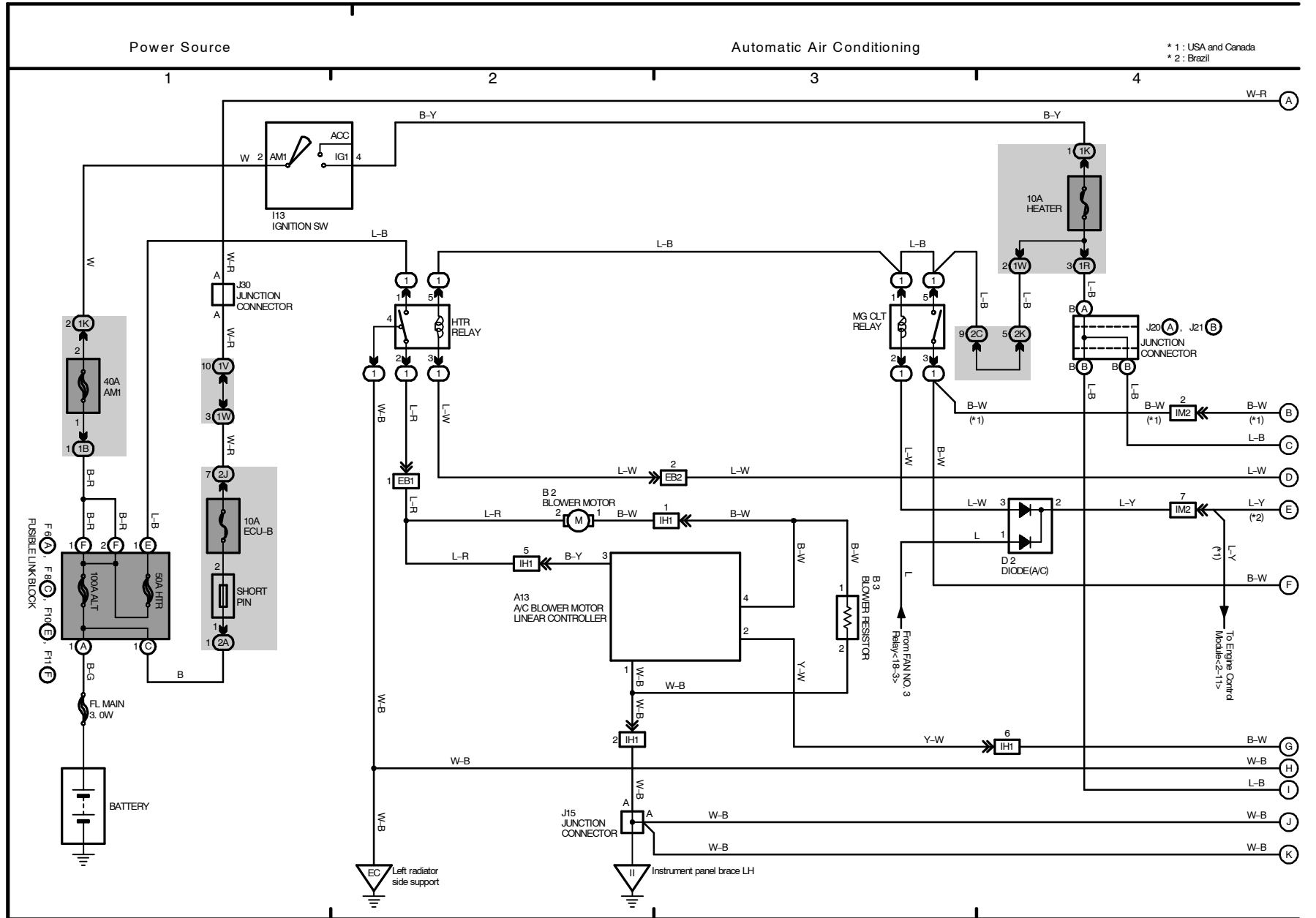
Combination Meter

- * 1 : Brazil
- * 2 : USA and Canada
- * 3 : Except w/ VSC
- * 4 : Canada
- * 5 : USA
- * 6 : w/ VSC



2001 LEXUS ES 300 (EWD439U)

2001 LEXUS ES 300 (EWD439U)

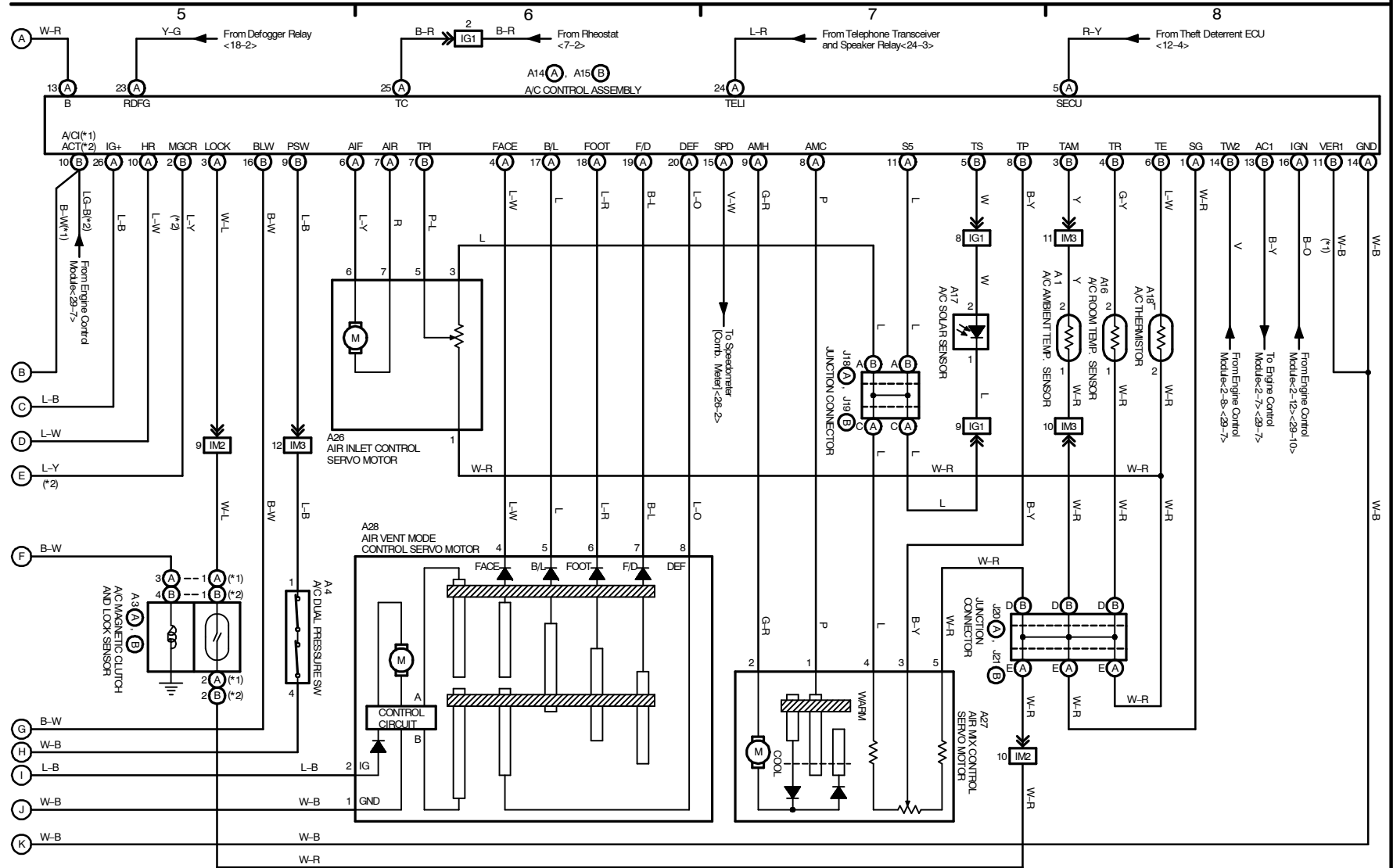


M OVERALL ELECTRICAL WIRING DIAGRAM

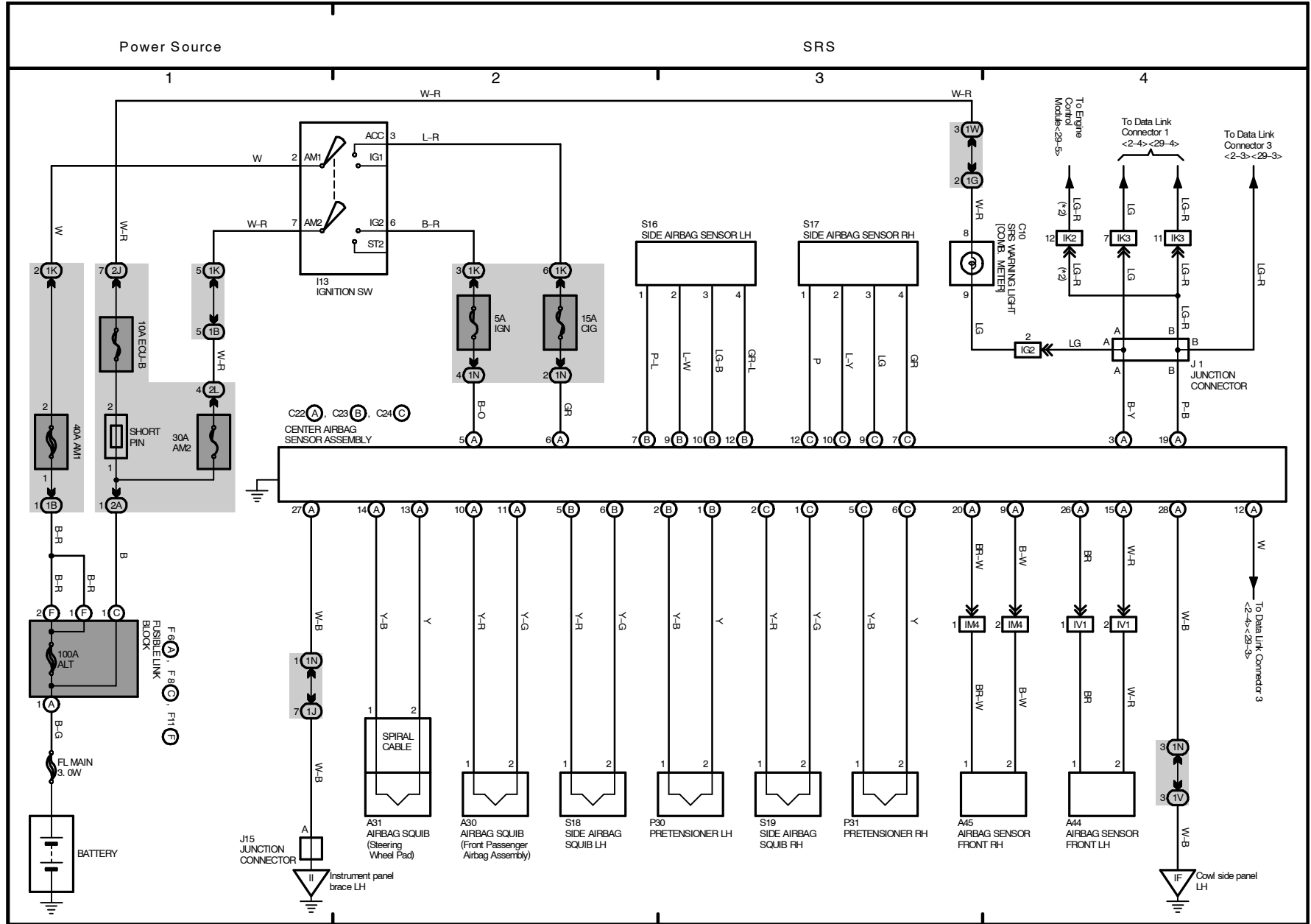
* 1 : USA and Canada
* 2 : Brazil

Automatic Air Conditioning

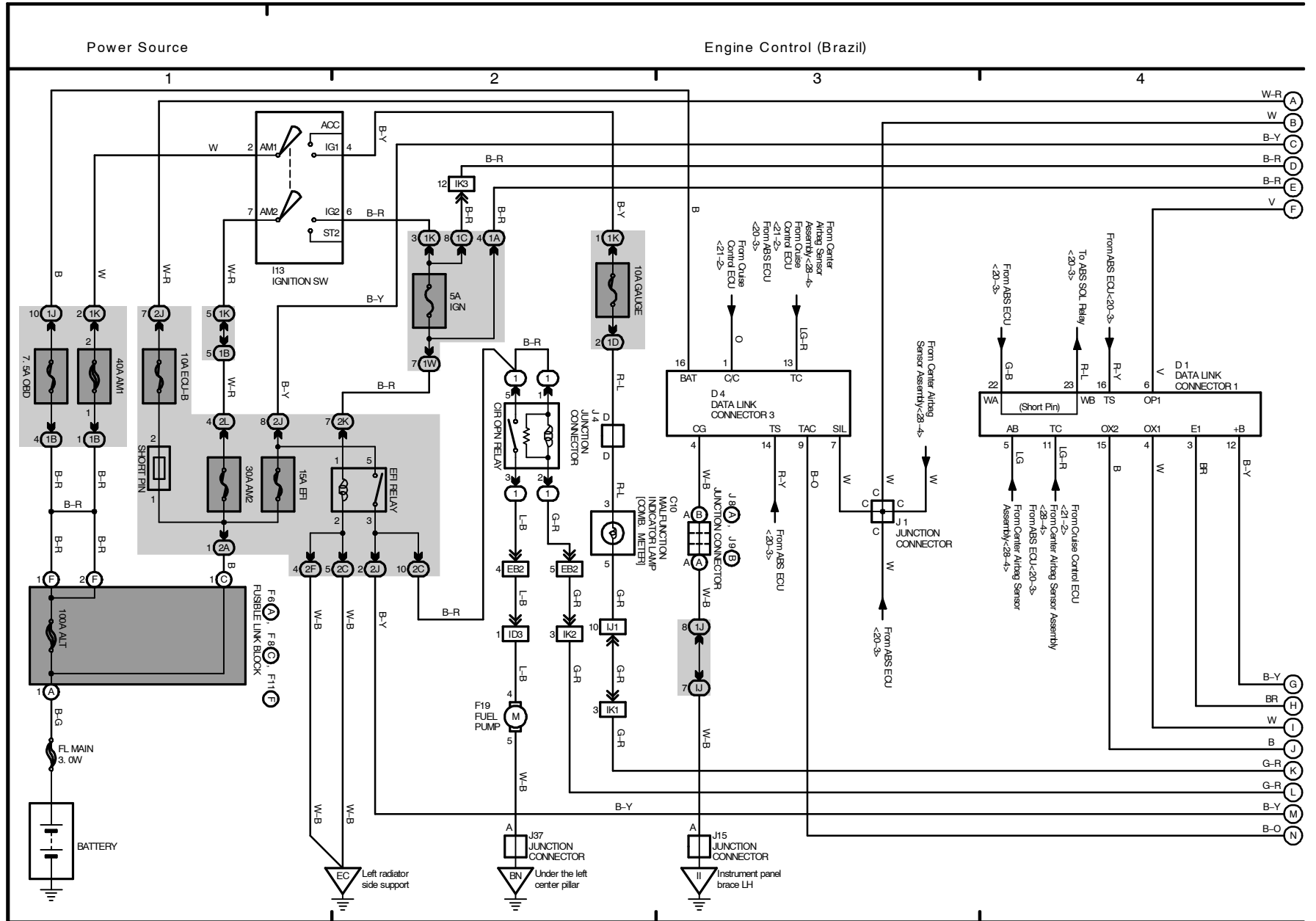
* 1 : USA and Canada
 * 2 : Brazil



2001 LEXUS ES 300 (EWD439U)

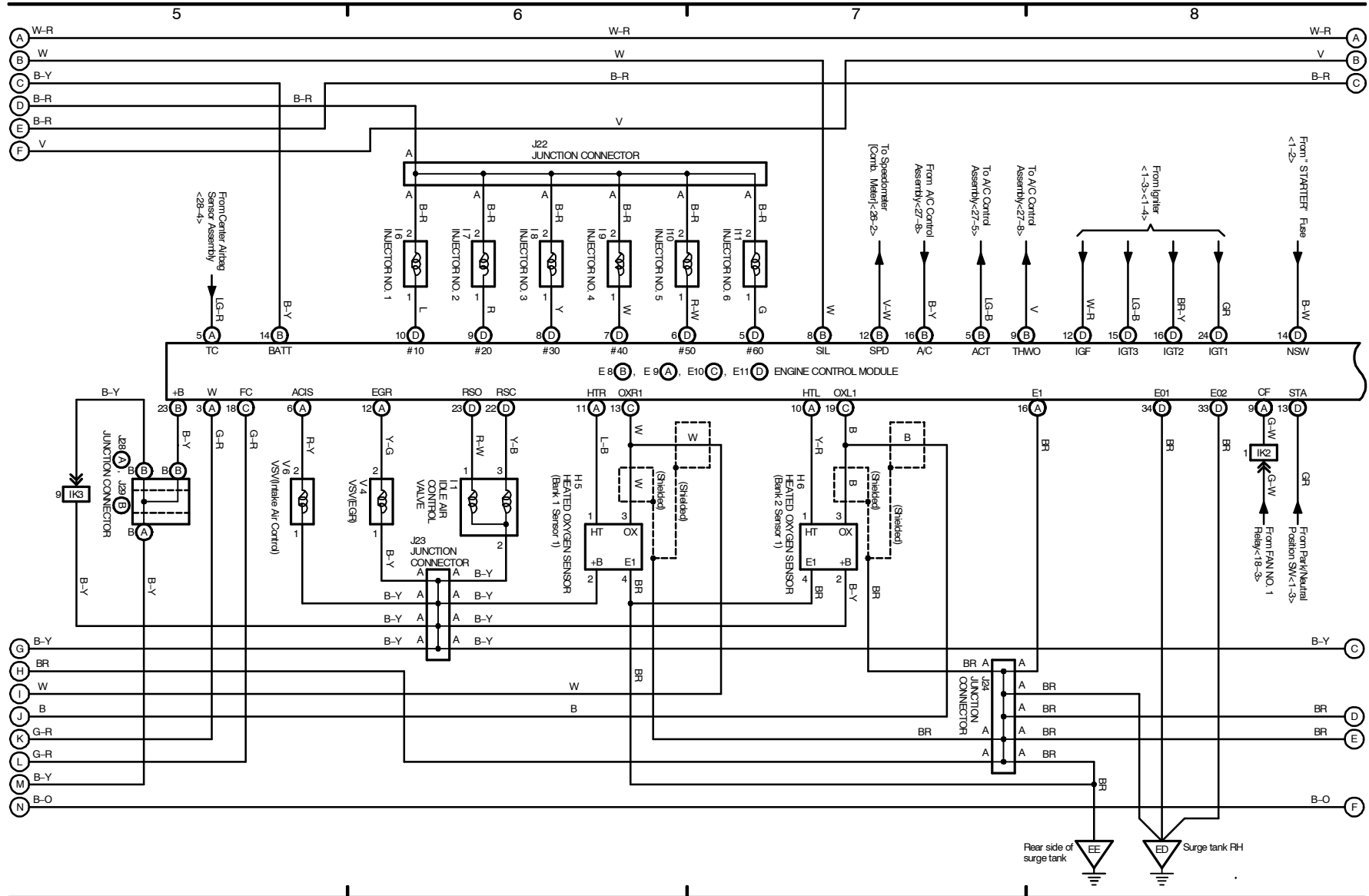


M OVERALL ELECTRICAL WIRING DIAGRAM



2001 LEXUS ES 300 (EWD439U)

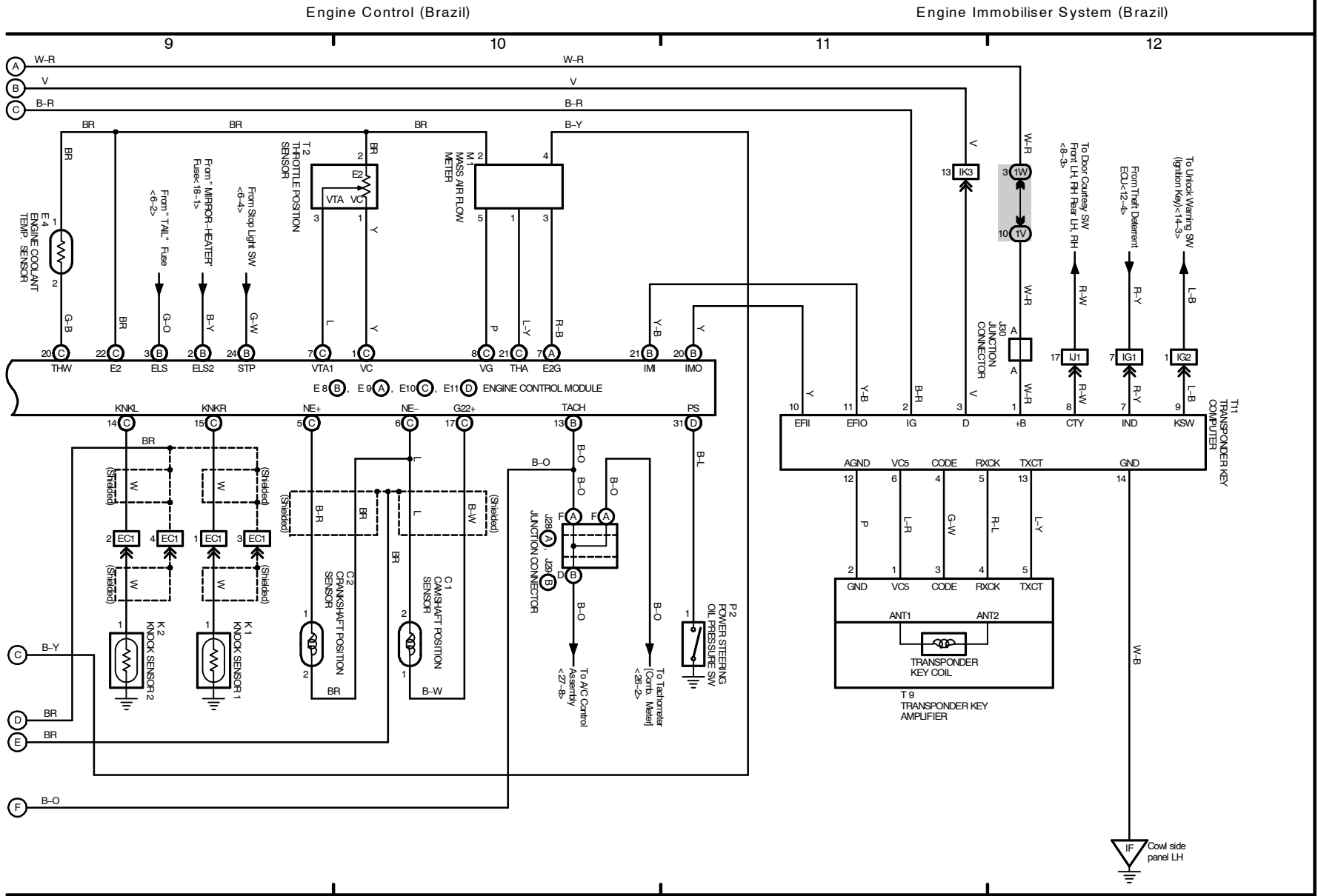
Engine Control (Brazil)



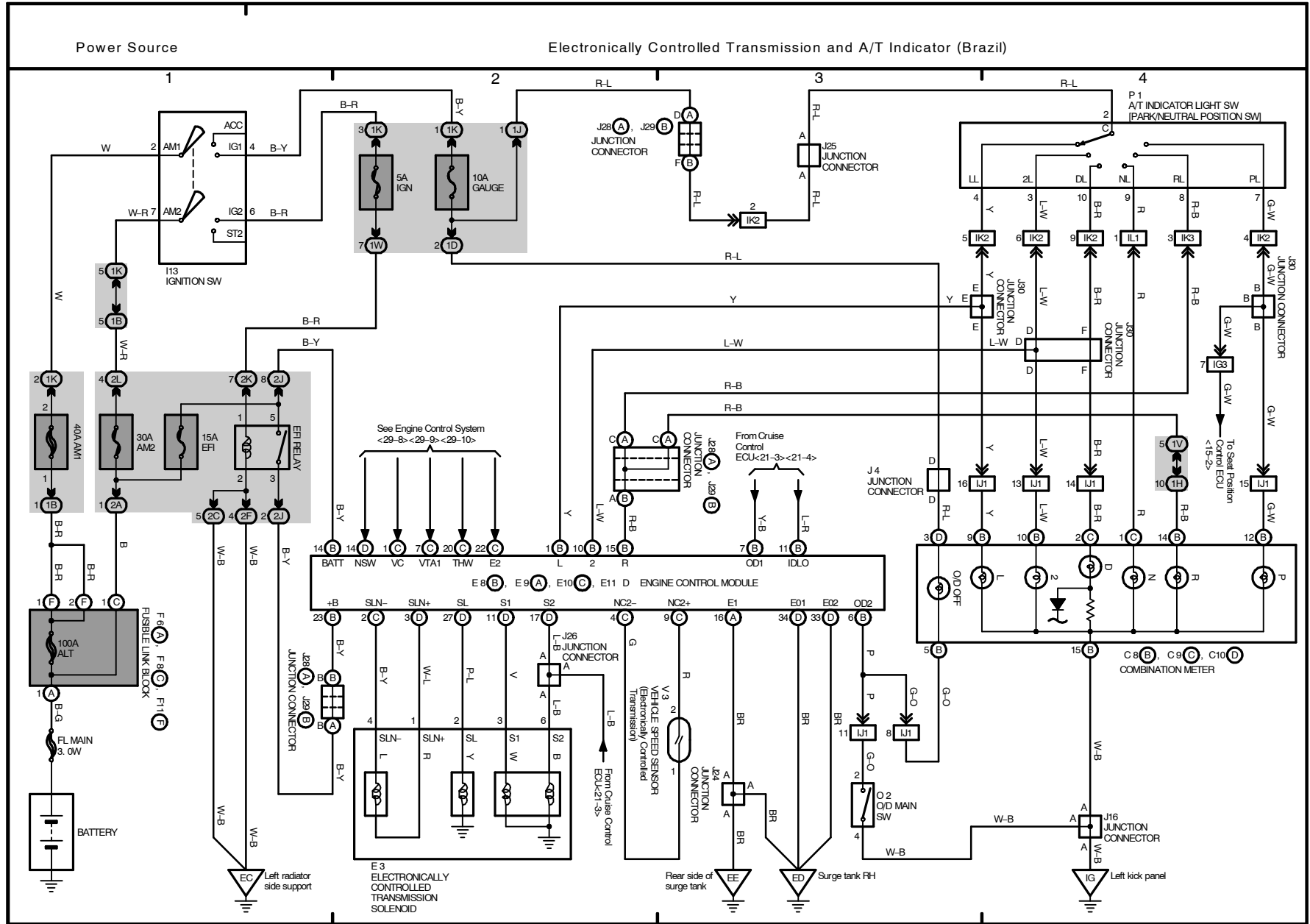
2001 LEXUS ES 300 (EWDA39U)

M OVERALL ELECTRICAL WIRING DIAGRAM

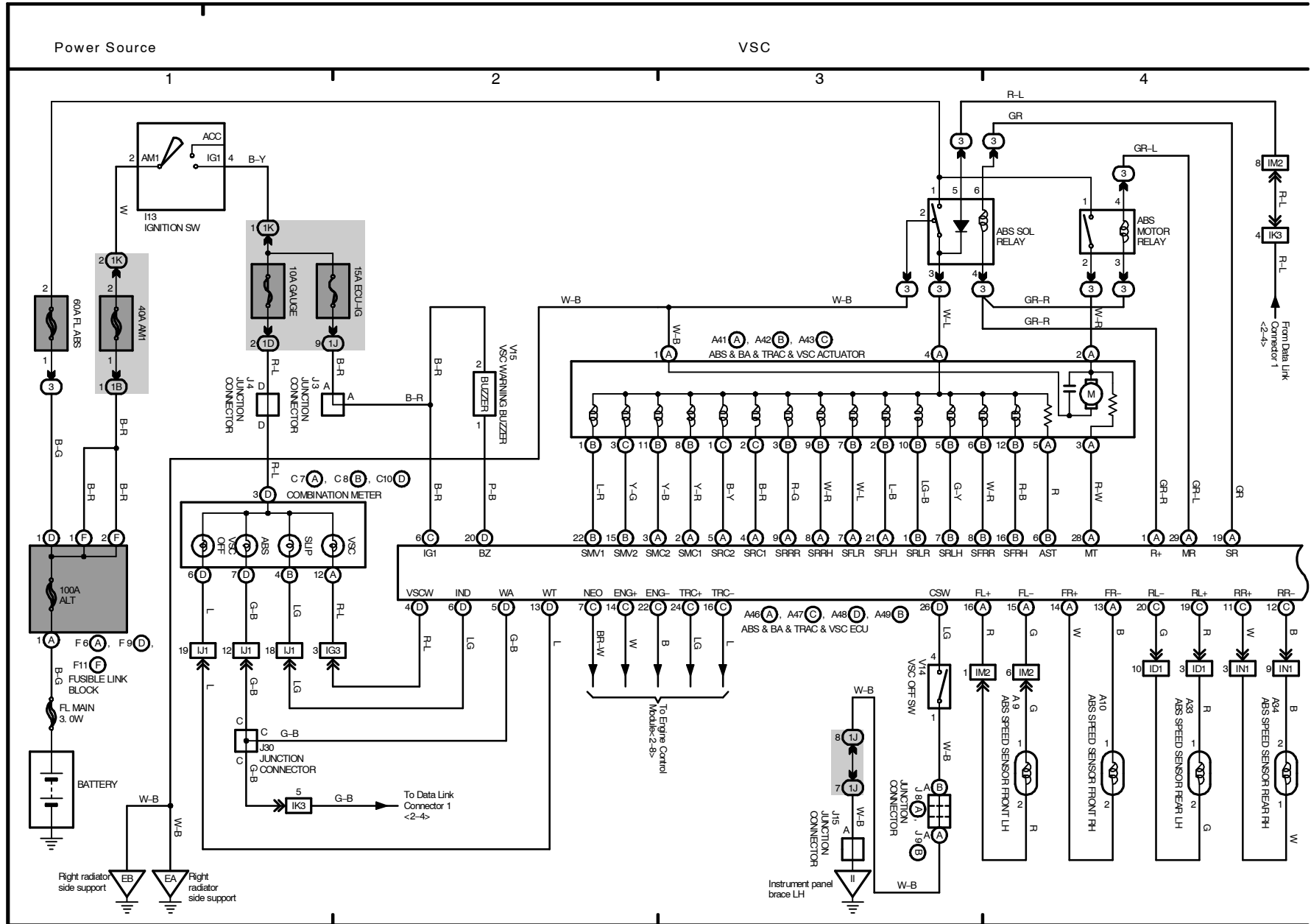
29 ES 300 (Cont' d)



2001 LEXUS ES 300 (EWD439U)

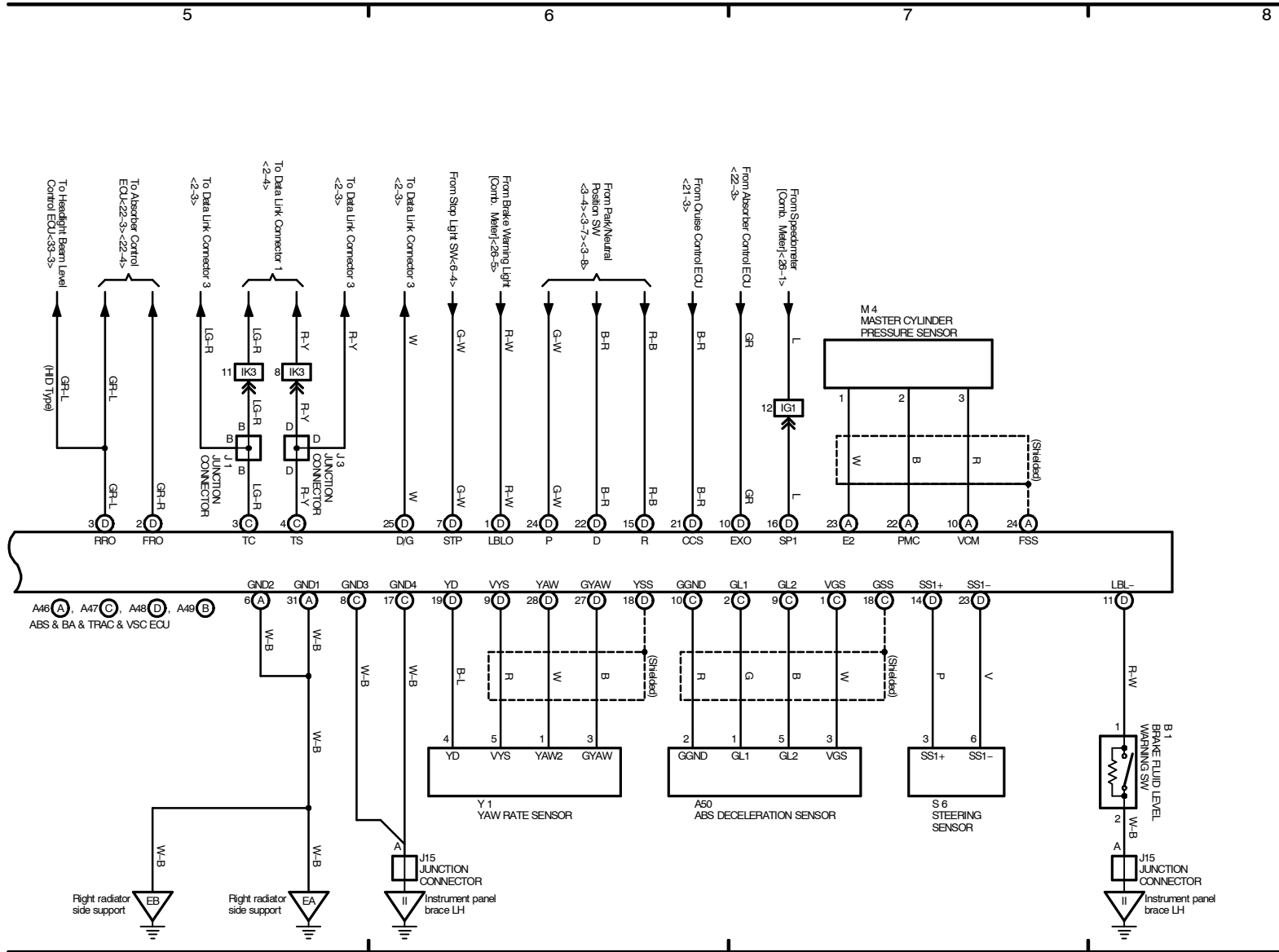


M OVERALL ELECTRICAL WIRING DIAGRAM



2001 LEXUS ES 300 (EWD439U)

VSC



2001 LEXUS ES 300 (EWD439U)

