FOREWORD

This wiring diagram manual has been prepared to provide information on the electrical system of the 2004 PRIUS.

Applicable models: NHW20 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.
▲2004 PRIUS Repair Manual	
Volume 1	RM1075U1
Volume 2	RM1075U2
Volume 3	RM1075U3
▲2004 PRIUS New Car Features	NCF255U

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.

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CAUTION

When repairing the hybrid vehicle (HV), always follow the direction given in the repair manual listed above to prevent electrical shock, leakage or explosion.

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.

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2004 PRIUS
ELECTRICAL WIRING DIAGRAM

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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.

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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.

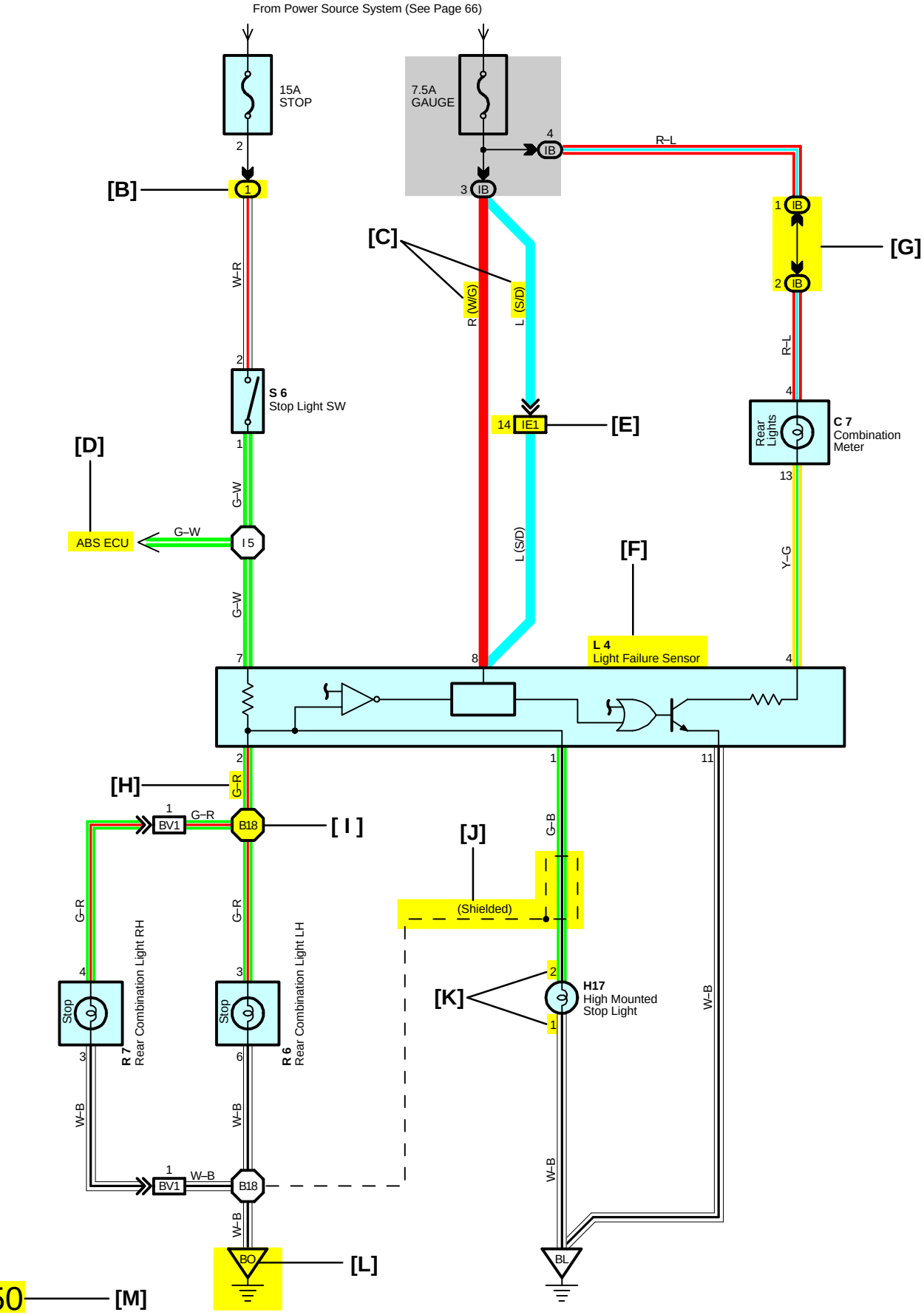
When the circuit operation is understood, begin troubleshooting of the problem circuit to isolate the cause. Use Relay Location and Electrical Wiring Routing sections to find each part, junction block and wiring harness connectors, wiring harness and wiring harness connectors, splice points, and ground 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.

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[A]

Stop Light

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



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[A] : System Title

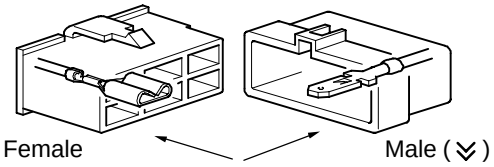
[B] : Indicates a Relay Block. No shading is used and only the Relay Block No. is shown to distinguish it from the J/B

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.



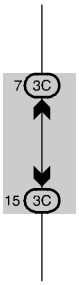
The first letter of the code for each wiring harness and wiring harness connector(s) indicates the component's location, e.g, "E" for the Engine Compartment, "I" for the Instrument Panel and Surrounding area, and "B" for the Body and Surrounding area.

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.

Example:



3C indicates that it is inside Junction Block No.3

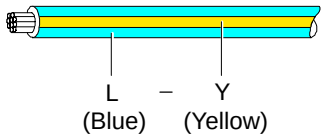
[H] : Indicates the wiring color.

Wire colors are indicated by an alphabetical code.

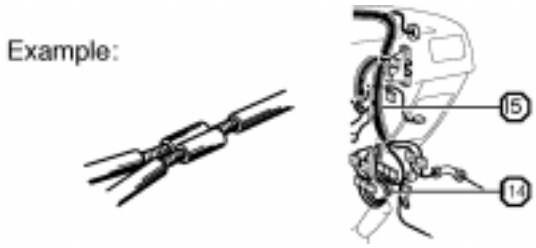
B	= Black	W	= White	BR	= Brown
L	= Blue	V	= Violet	SB	= Sky Blue
R	= Red	G	= Green	LG	= Light Green
P	= Pink	Y	= Yellow	GR	= Gray
O	= Orange				

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

Example: L – Y

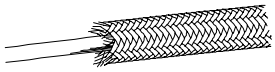


[I] : Indicates a wiring Splice Point (Codes are "E" for the Engine Room, "I" for the Instrument Panel, and "B" for the Body).



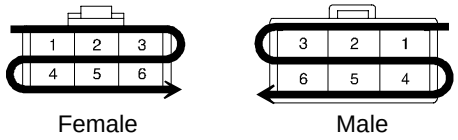
The Location of splice Point I 5 is indicated by the shaded section.

[J] : Indicates a shielded cable.



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

Example:



[L] : 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.

[M] : Page No.

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[N] **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.

[O] **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

[P] **: Parts Location**

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

[Q] **: Relay Blocks**

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

[R] **: 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 Brace LH)

[S] **: 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 Room Left)

[T] **: Ground Points**

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

[U] **: 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

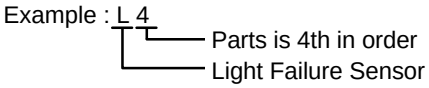
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[N] : Explains the system outline.

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

[P] : 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.



[Q] : 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.

[R] : 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.

[S] : 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.

[T] : 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.

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

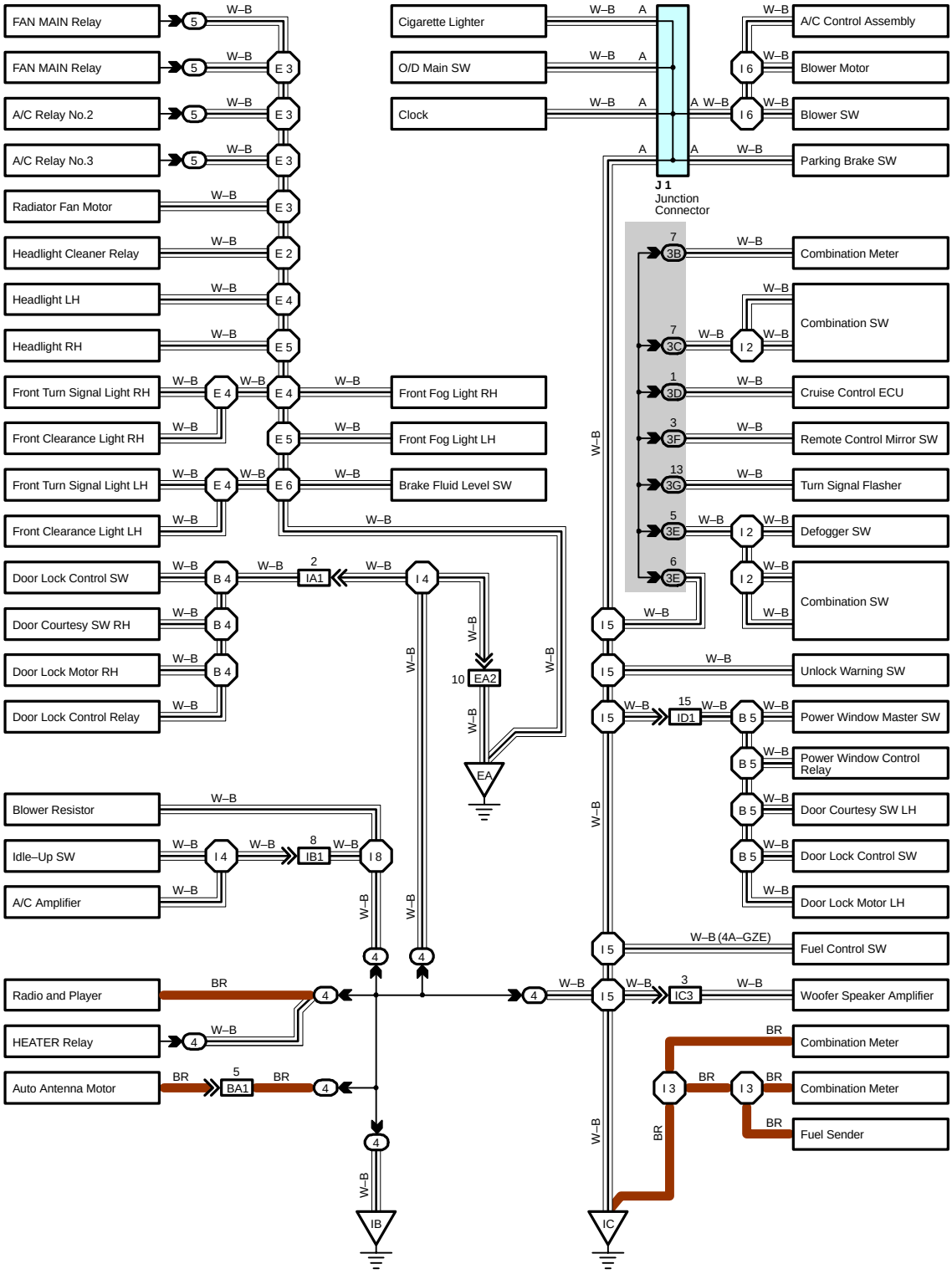
Example : Splice point ”I5” is on the Cowl Wire Harness and is described on page 44 of this manual.

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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



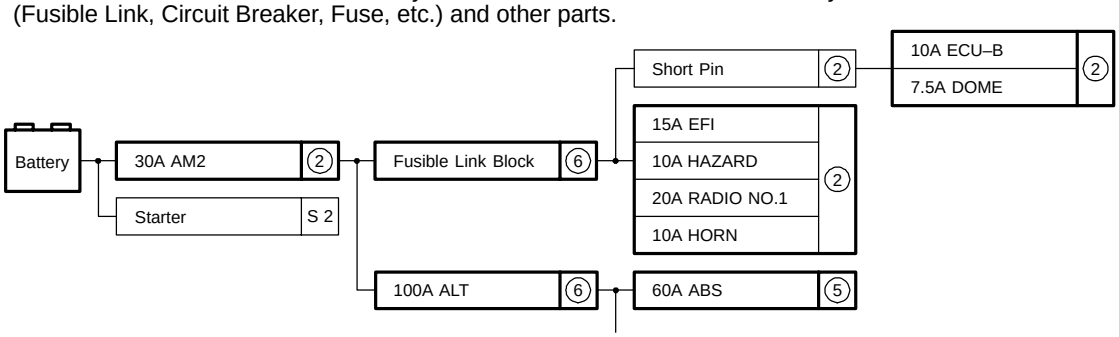
* The system shown here is an EXAMPLE ONLY. It is different to the actual circuit shown in the SYSTEM CIRCUITS SECTION.

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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)

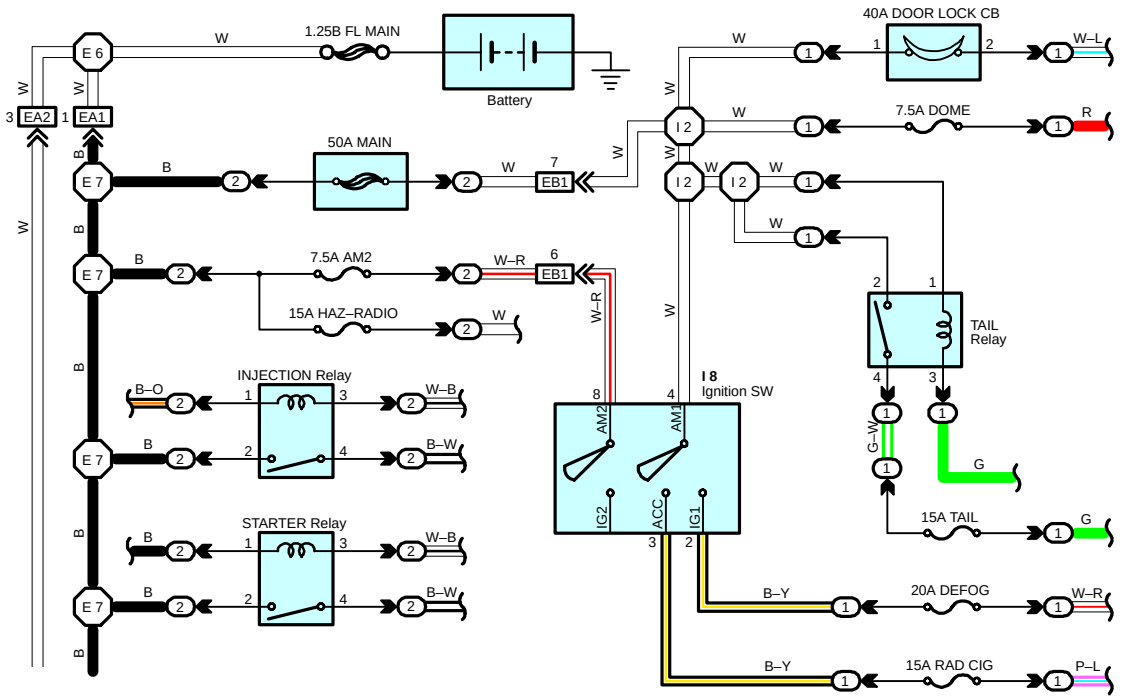
The chart below shows the route by which current flows from the battery to each electrical source (Fusible Link, Circuit Breaker, Fuse, etc.) and other parts.



Engine Room R/B (See Page 20)

Fuse		System	Page
20A	STOP	ABS ABS and Traction Control Cruise Control Electronically Controlled Transmission Multiplex Communication System	194 187 180 166 210
10A	DOME	Cigarette Lighter Combination Meter Headlight Interior Light Key Reminder and Seat Belt Warning Light Auto Turn Off	214 230 112 122

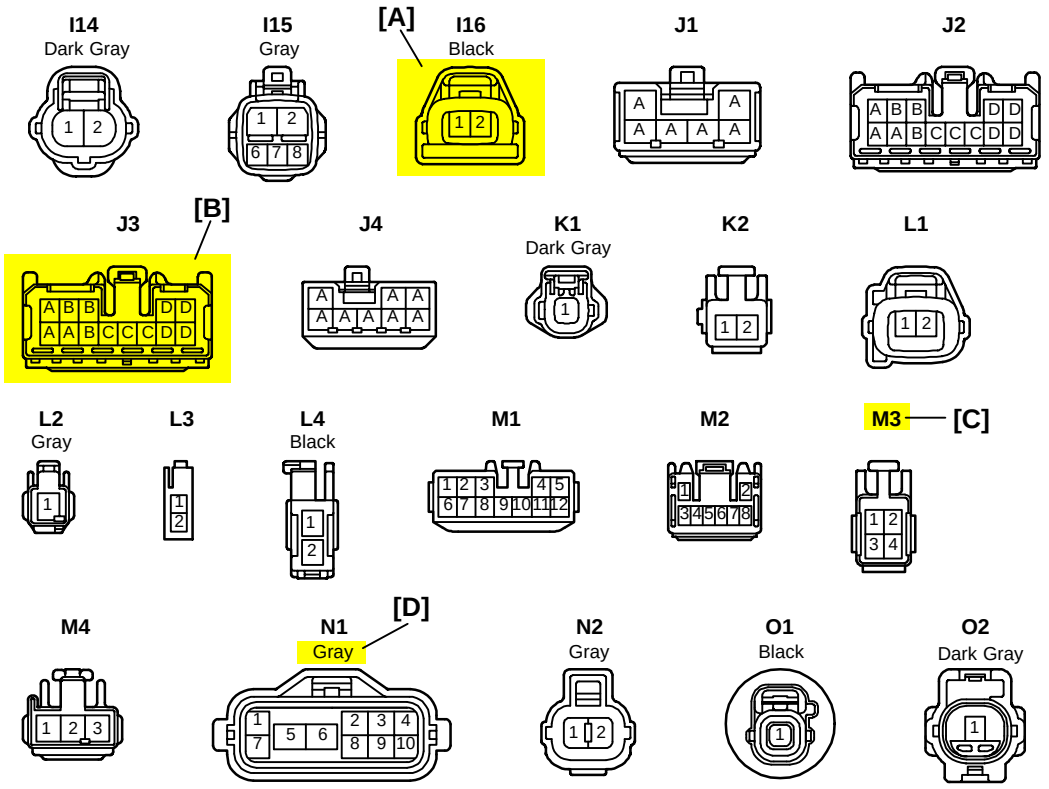
Power Source



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

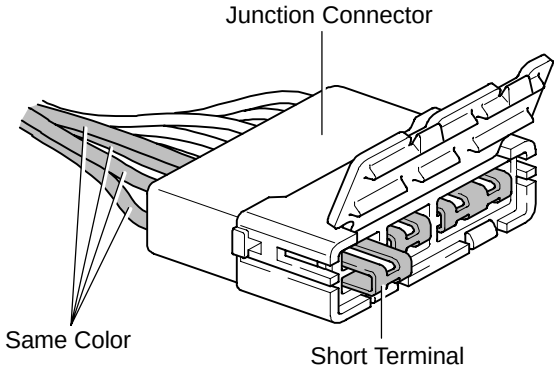
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K CONNECTOR LIST



[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.

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L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number
A 1	A/C Ambient Temp. Sensor	90980–11070
A 2	A/C Condenser Fan Motor	90980–11237
A 3	A/C Condenser Fan Relay	90980–10940
A 4	A/C Condenser Fan Resistor	90980–10928
A 5	A/C Magnetic Clutch	90980–11271
A 6	A/T Oil Temp. Sensor	90980–11413
A 7	ABS Actuator	90980–11151
A 8	ABS Actuator	90980–11009
A 9	ABS Speed Sensor Front LH	90980–10941
A10	ABS Speed Sensor Front RH	90980–11002
A11	Airbag Sensor Front LH	90980–11856
A12	Airbag Sensor Front RH	
A13	Airbag Coil	90980–11194
		90980–11[illegible]

Code	Part Name	Part Number
D 4	Diode (Courtesy)	90980–11608
D 5	Diode (Interior Light)	90980–10962
D 6	Diode (Moon Roof)	90980–11608
D 7	Door Lock Control Relay	90980–10848
D 8	Door Lock Control SW LH	90980–11148
D 9	Door Lock Control SW RH	
D10	Door Courtesy SW LH	90980–11097
D11	Door Courtesy SW RH	
D12	Door Courtesy SW Front LH	90980–11156
D13	Door Courtesy SW Front RH	
D14	Door Courtesy SW Rear LH	
D15	Door Courtesy SW Rear RH	
D16	Door Key Unlock and Unlock SW LH	90980–11170
	[illegible] RH	

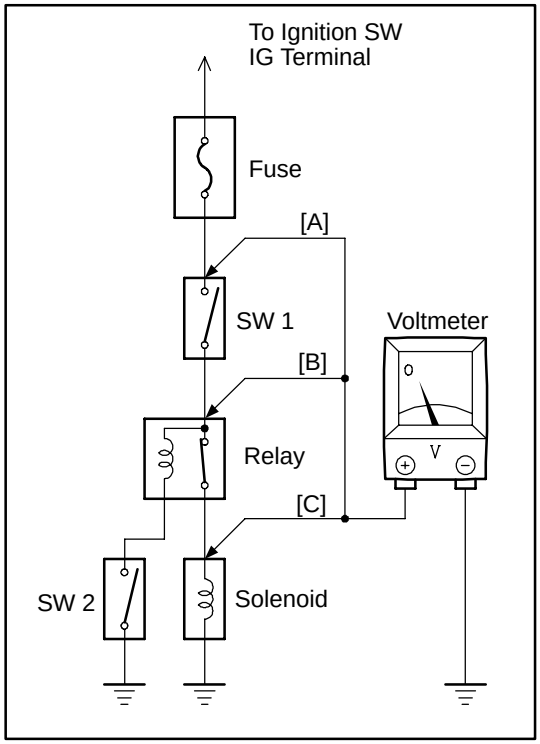
[A] : Part Code

[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.

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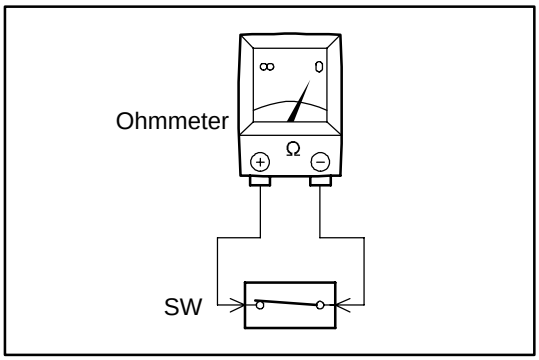


VOLTAGE CHECK

(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)

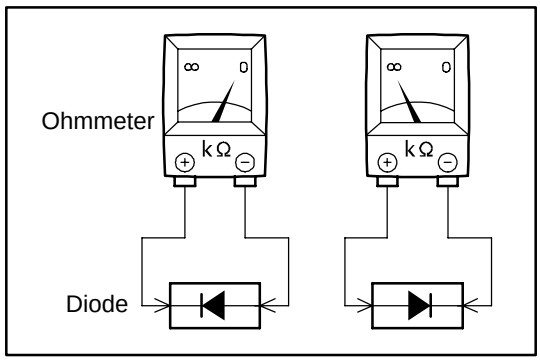
(b) Using a voltmeter, connect the negative lead to a good ground point or negative battery terminal, and the positive lead to the connector or component terminal.
This check can be done with a test light instead of a voltmeter.



CONTINUITY AND RESISTANCE CHECK

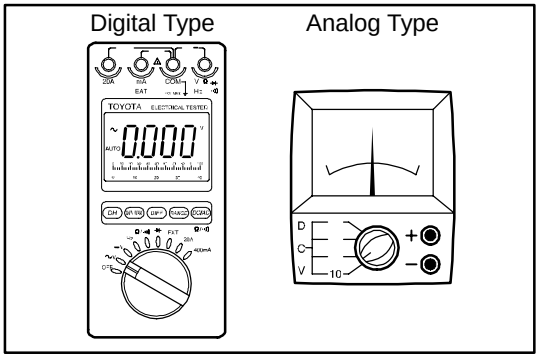
(a) Disconnect the battery terminal or wire so there is no voltage between the check points.

(b) Contact the two leads of an ohmmeter to each of the check points.

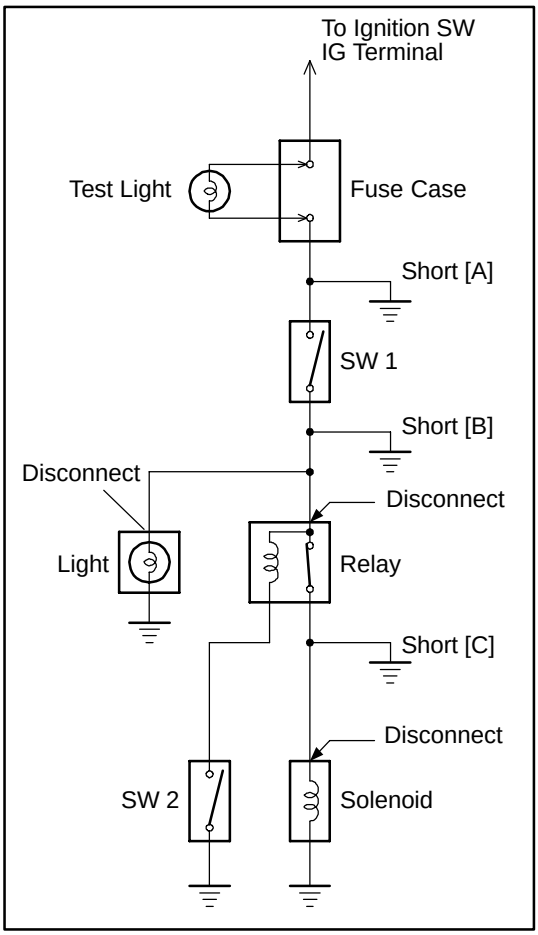


If the circuit has diodes, reverse the two leads and check again.
When contacting the negative lead to the diode positive side and the positive lead to the negative side, there should be continuity.
When contacting the two leads in reverse, there should be no continuity.

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



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FINDING A SHORT CIRCUIT

(a) Remove the blown fuse and disconnect all loads of the fuse.

(b) Connect a test light in place of the fuse.

(c) 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)

(d) 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.

(e) Find the exact location of the short by lightly shaking the problem wire along the body.

CAUTION:

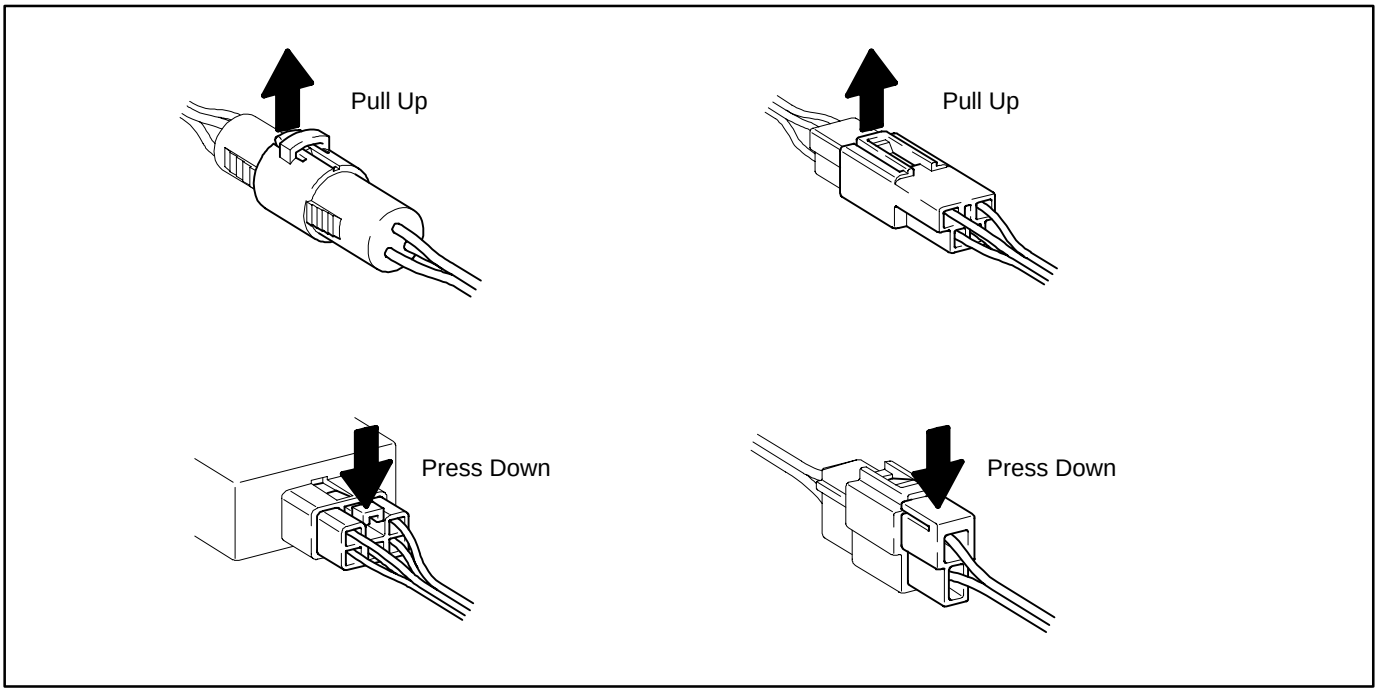
(a) Do not open the cover or the case of the ECU unless absolutely necessary. (If the IC terminals are touched, the IC may be destroyed by static electricity.)

(b) 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).

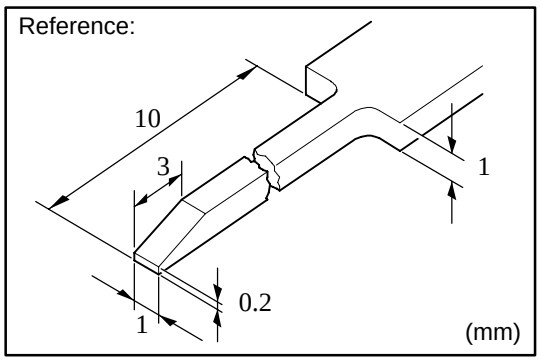
DISCONNECTION OF MALE AND FEMALE CONNECTORS

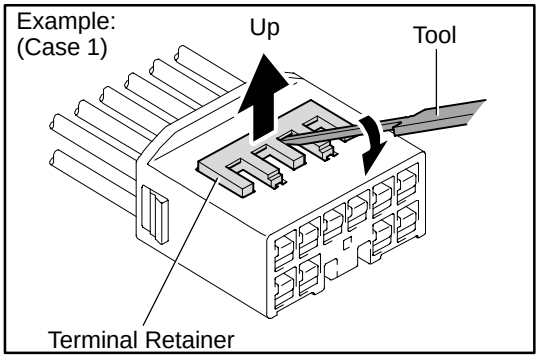
To pull apart the connectors, pull on the connector itself, not the wire harness.

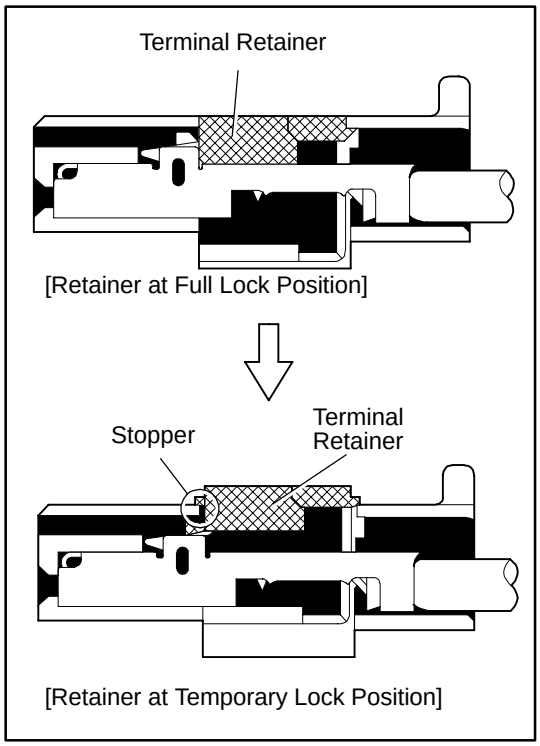
HINT : Check to see what kind of connector you are disconnecting before pulling apart.

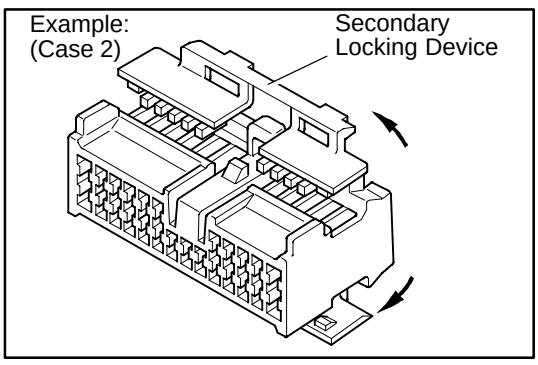


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HOW TO REPLACE TERMINAL (with terminal retainer or secondary locking device)

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.

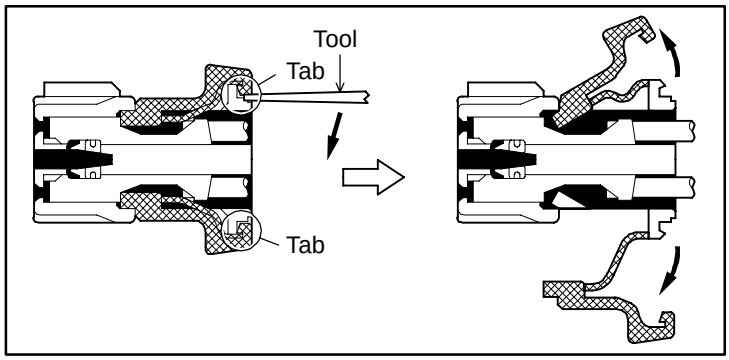
   "Case 1"

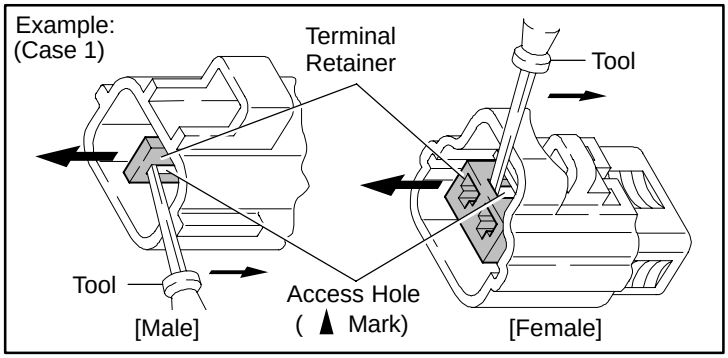
   Raise the terminal retainer up to the temporary lock position.

   "Case 2"

   Open the secondary locking device.

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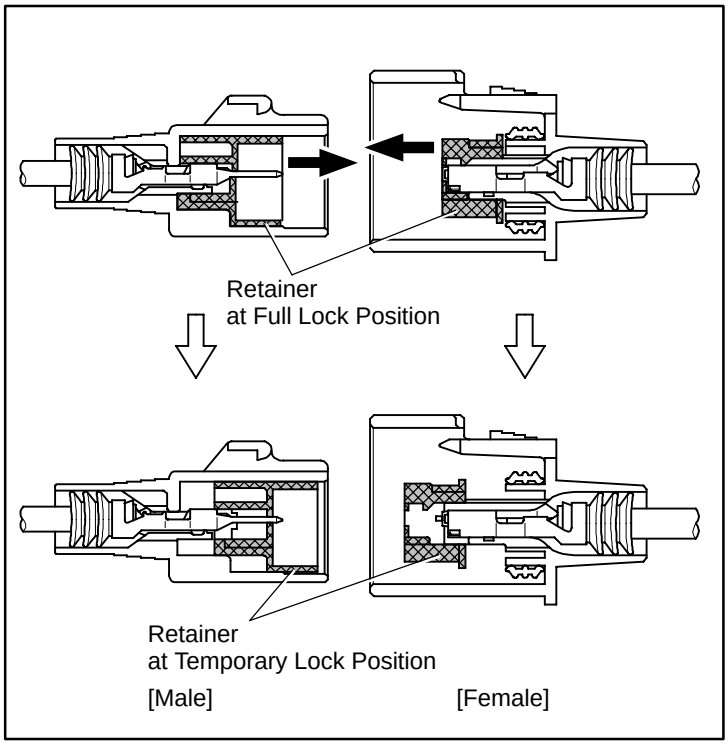


[B] For Waterproof Type Connector

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

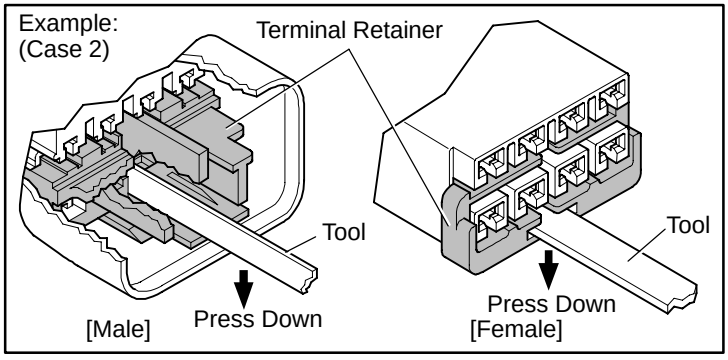


”Case 1”

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.

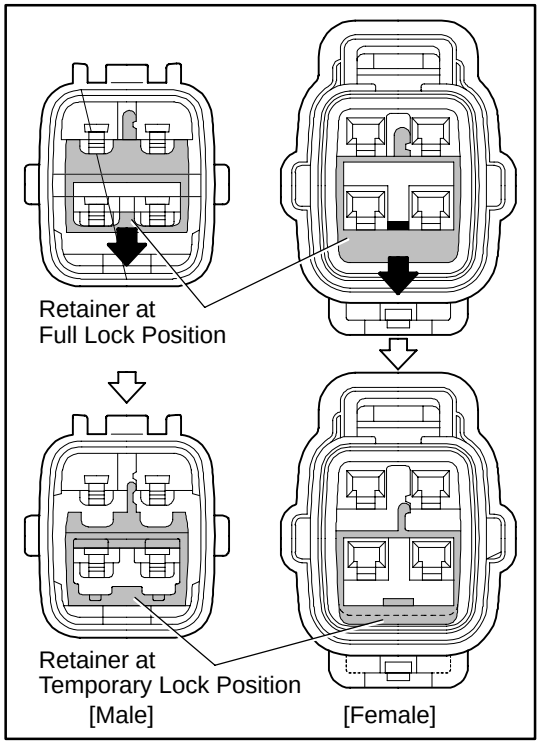
HINT : The needle insertion position varies according to the connector’s shape (Number of terminals etc.), so check the position before inserting it.



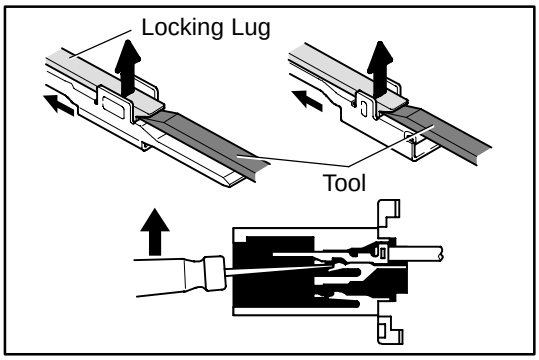
”Case 2”

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

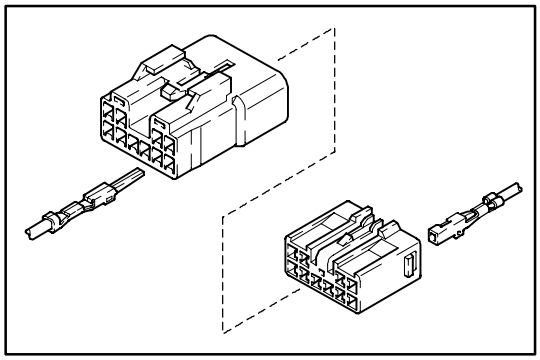
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Push the terminal retainer down to the temporary lock position.



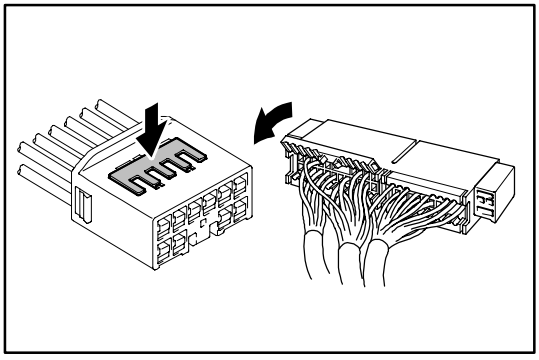
(c) Release the locking lug from terminal and pull the terminal out from rear.



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

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ABBREVIATIONS

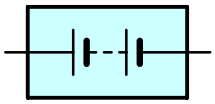
The following abbreviations are used in this manual.

A/C	=	Air Conditioning
ABS	=	Anti–Lock Brake System
ACIS	=	Acoustic Control Induction System
BA	=	Brake Assist
BEAN	=	Body Electronics Area Network
CAN	=	Controller Area Network
CHS	=	Coolant Heat Storage System
DC	=	Direct Current
EB	=	Electrical Brake
ECU	=	Electronic Control Unit
EPS	=	Electric Motor Power Steering
ESA	=	Electronic Spark Advance
EVAP	=	Evaporative Emission
HID	=	High Intensity Discharge
HV	=	Hybrid Vehicle
IC	=	Integrated Circuit
J/B	=	Junction Block
LH	=	Left–Hand
MPX	=	Multiplex
PTC	=	Positive Temperature Coefficient
R/B	=	Relay Block
RH	=	Right–Hand
SFI	=	Sequential Multiport Fuel Injection
SOC	=	State of Charge
SRS	=	Supplemental Restraint System
SW	=	Switch
TEMP.	=	Temperature
TRAC	=	Traction Control
VSC	=	Vehicle Stability Control
VSV	=	Vacuum Switching Valve
VVT–i	=	Variable Valve Timing–intelligent
w/	=	With
w/o	=	Without

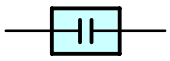
* The titles given inside the components are the names of the terminals (terminal codes) and are not treated as being abbreviations.

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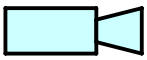
E GLOSSARY OF TERMS AND SYMBOLS



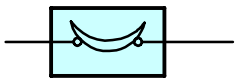
BATTERY
Stores chemical energy and converts it into electrical energy. Provides DC current for the auto's various electrical circuits.



CAPACITOR (Condenser)
A small holding unit for temporary storage of electrical voltage.



CIGARETTE LIGHTER
An electric resistance heating element.

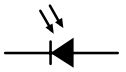


CIRCUIT BREAKER
Basically a reusable fuse, a circuit breaker will heat and open if too much current flows through it. Some units automatically reset when cool, others must be manually reset.

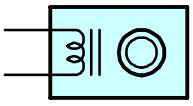
DIODE
A semiconductor which allows current flow in only one direction.



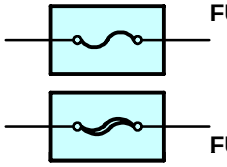
DIODE, ZENER
A diode which allows current flow in one direction but blocks reverse flow only up to a specific voltage. Above that potential, it passes the excess voltage. This acts as a simple voltage regulator.



PHOTODIODE
The photodiode is a semiconductor which controls the current flow according to the amount of light.



DISTRIBUTOR, IIA
Channels high–voltage current from the ignition coil to the individual spark plugs.



(for Medium Current Fuse)

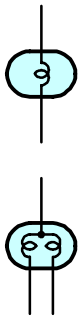
(for High Current Fuse or Fusible Link)

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.

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.



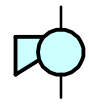
GROUND
The point at which wiring attaches to the Body, thereby providing a return path for an electrical circuit; without a ground, current cannot flow.



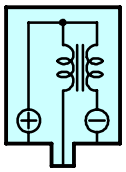
1. SINGLE FILAMENT

2. DOUBLE FILAMENT

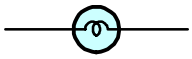
HEADLIGHTS
Current flow causes a headlight filament to heat up and emit light. A headlight may have either a single (1) filament or a double (2) filament



HORN
An electric device which sounds a loud audible signal.



IGNITION COIL
Converts low–voltage DC current into high–voltage ignition current for firing the spark plugs.



LIGHT
Current flow through a filament causes the filament to heat up and emit light.



LED (LIGHT EMITTING DIODE)
Upon current flow, these diodes emit light without producing the heat of a comparable light.



METER, ANALOG
Current flow activates a magnetic coil which causes a needle to move, thereby providing a relative display against a background calibration.



METER, DIGITAL
Current flow activates one or many LED's, LCD's, or fluorescent displays, which provide a relative or digital display.

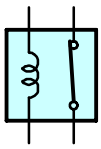


MOTOR
A power unit which converts electrical energy into mechanical energy, especially rotary motion.

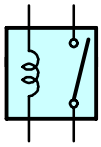
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RELAY

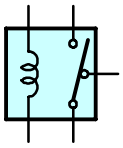
Basically, an electrically operated switch which may be normally closed (1) or open (2). Current flow through a small coil creates a magnetic field which either opens or closes an attached switch.



1. NORMALLY CLOSED

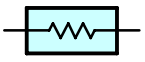


2. NORMALLY OPEN



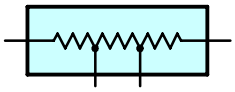
RELAY, DOUBLE THROW

A relay which passes current through one set of contacts or the other.



RESISTOR

An electrical component with a fixed resistance, placed in a circuit to reduce voltage to a specific value.



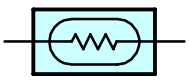
RESISTOR, TAPPED

A resistor which supplies two or more different non adjustable resistance values.



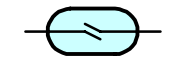
RESISTOR, VARIABLE or RHEOSTAT

A controllable resistor with a variable rate of resistance.
Also called a potentiometer or rheostat.



SENSOR (Thermistor)

A resistor which varies its resistance with temperature.



(Reed Switch Type)

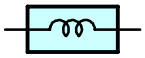
SENSOR, SPEED

Uses magnetic impulses to open and close a switch to create a signal for activation of other components.



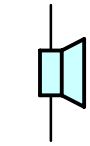
SHORT PIN

Used to provide an unbroken connection within a junction block.



SOLENOID

An electromagnetic coil which forms a magnetic field when current flows, to move a plunger, etc.

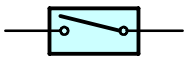


SPEAKER

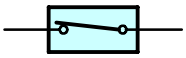
An electromechanical device which creates sound waves from current flow.

SWITCH, MANUAL

Opens and closes circuits, thereby stopping (1) or allowing (2) current flow.



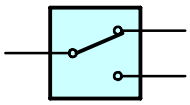
1. NORMALLY OPEN



2. NORMALLY CLOSED

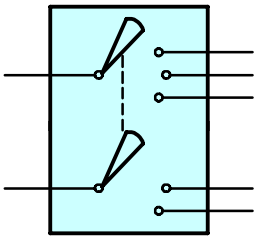
SWITCH, DOUBLE THROW

A switch which continuously passes current through one set of contacts or the other.



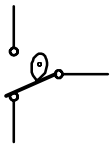
SWITCH, IGNITION

A key operated switch with several positions which allows various circuits, particularly the primary ignition circuit, to become operational.



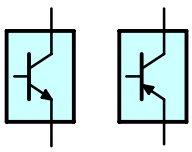
SWITCH, WIPER PARK

Automatically returns wipers to the stop position when the wiper switch is turned off.



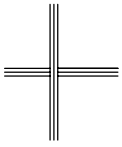
TRANSISTOR

A solidstate device typically used as an electronic relay; stops or passes current depending on the voltage applied at "base".

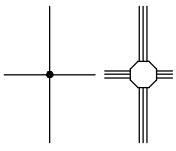


WIRES

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.



(1) NOT CONNECTED

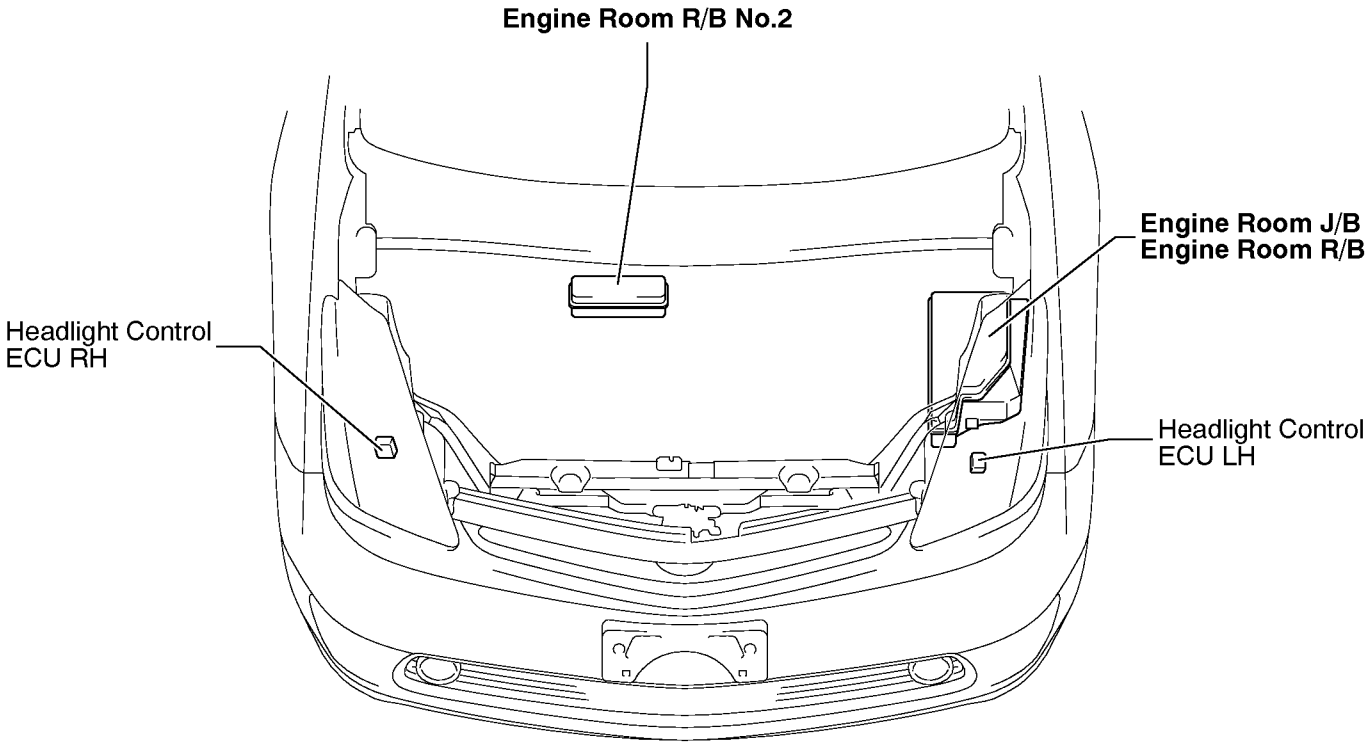


(2) SPLICED

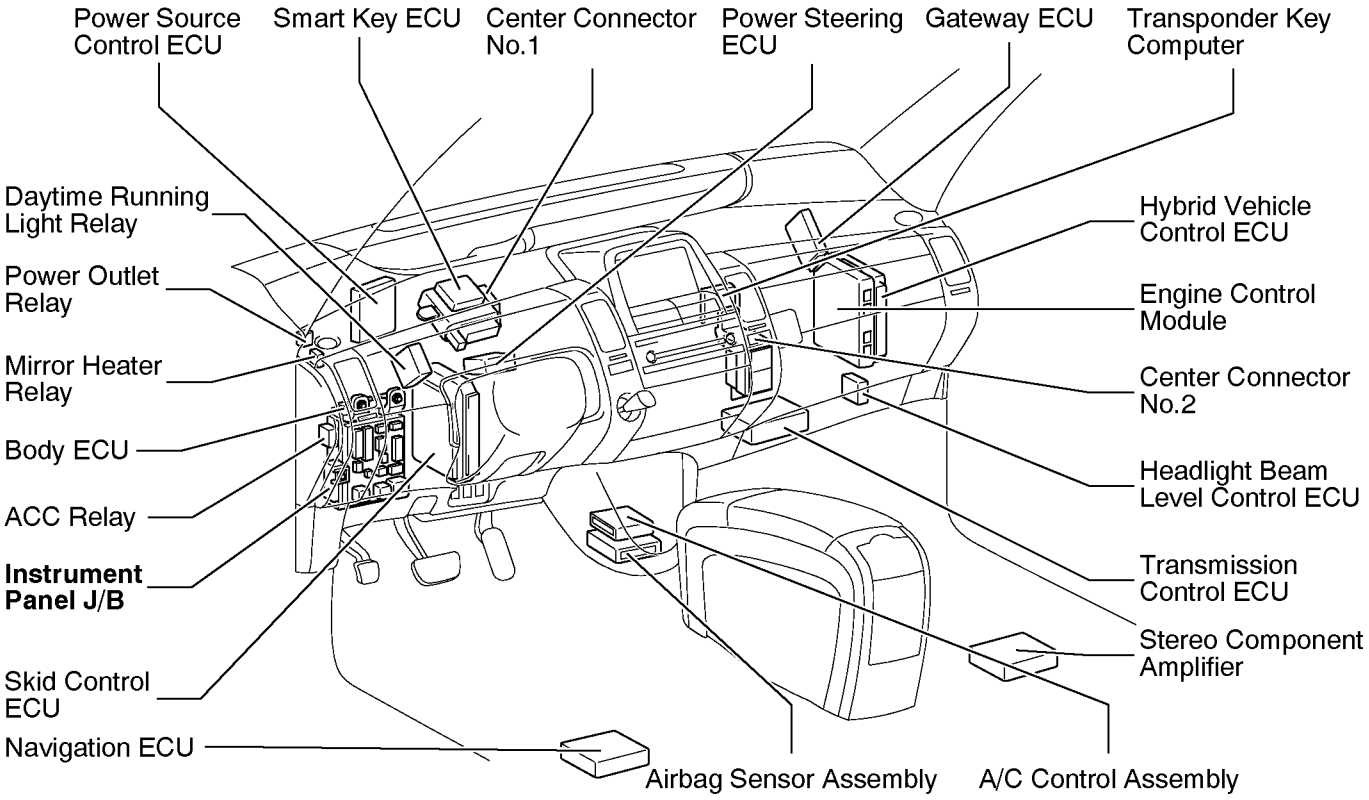
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F RELAY LOCATIONS

[Engine Compartment]

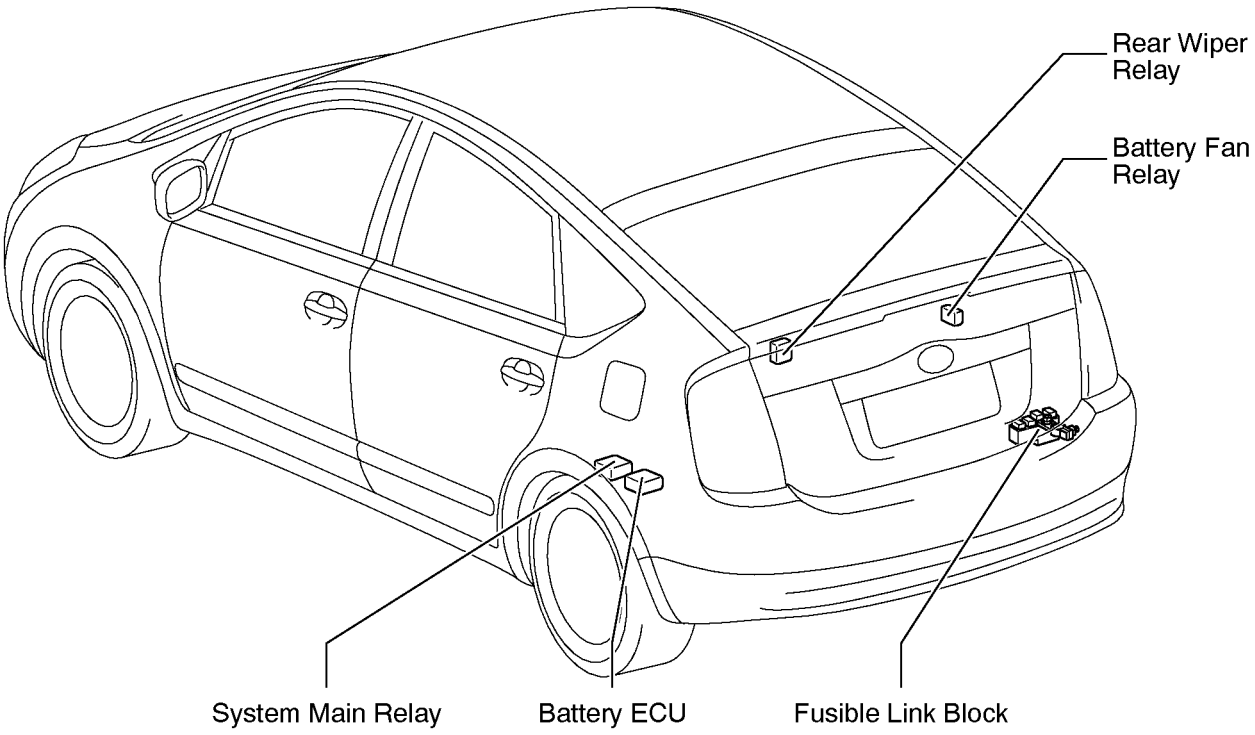


[Instrument Panel]



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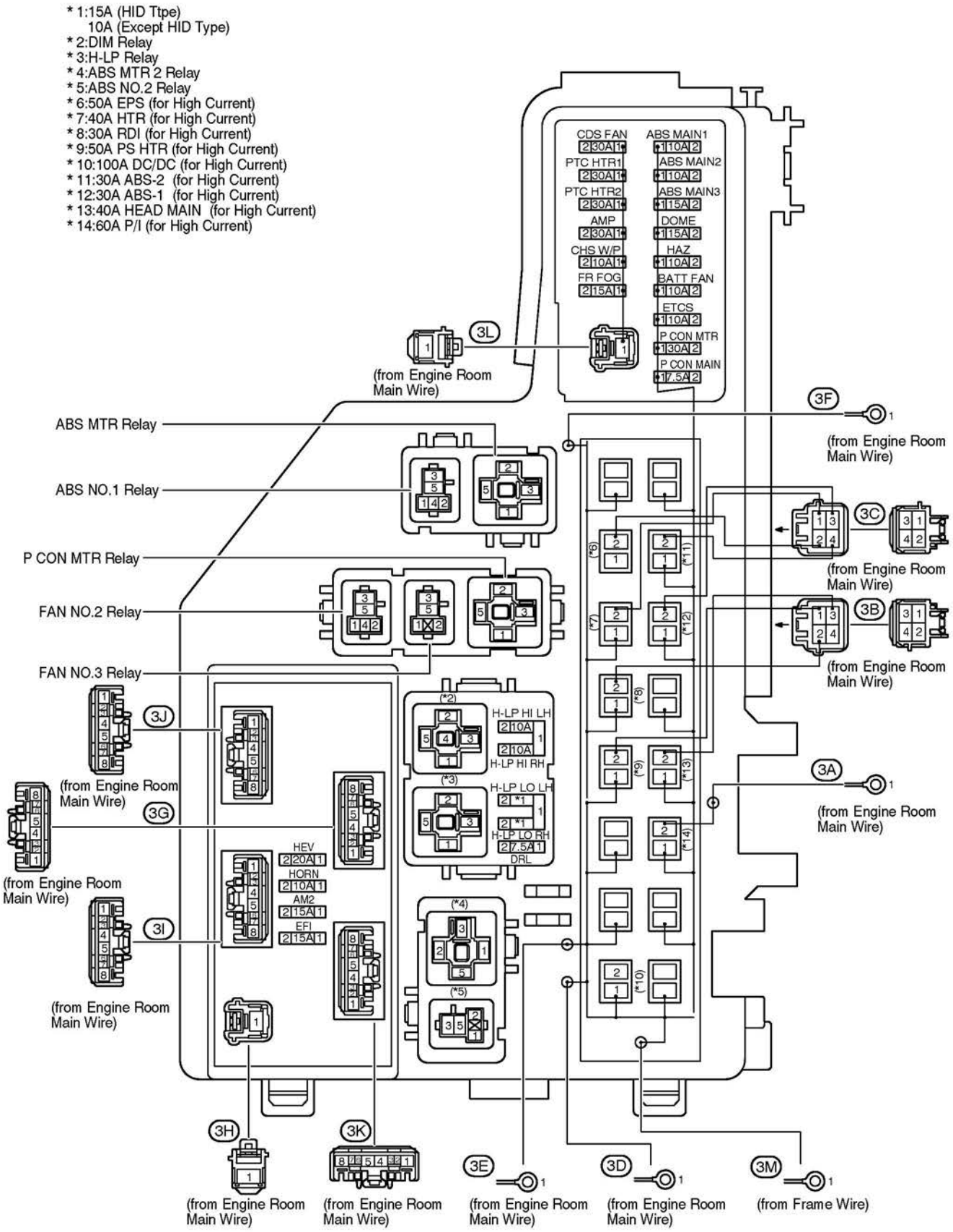
[Body]



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F RELAY LOCATIONS

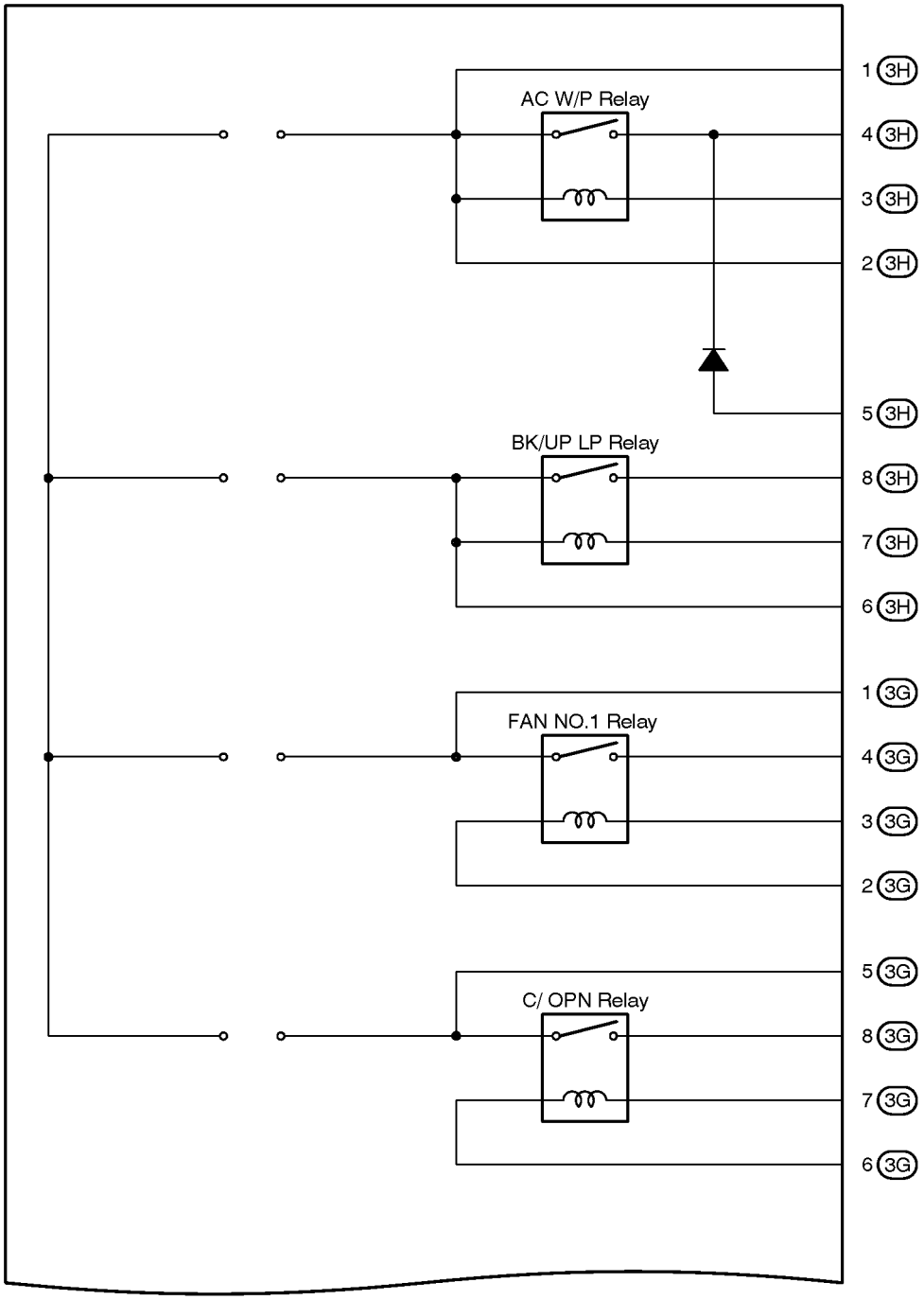
③ : Engine Room R/B ⬭ : Engine Room J/B	Engine Compartment Left (See Page 20)



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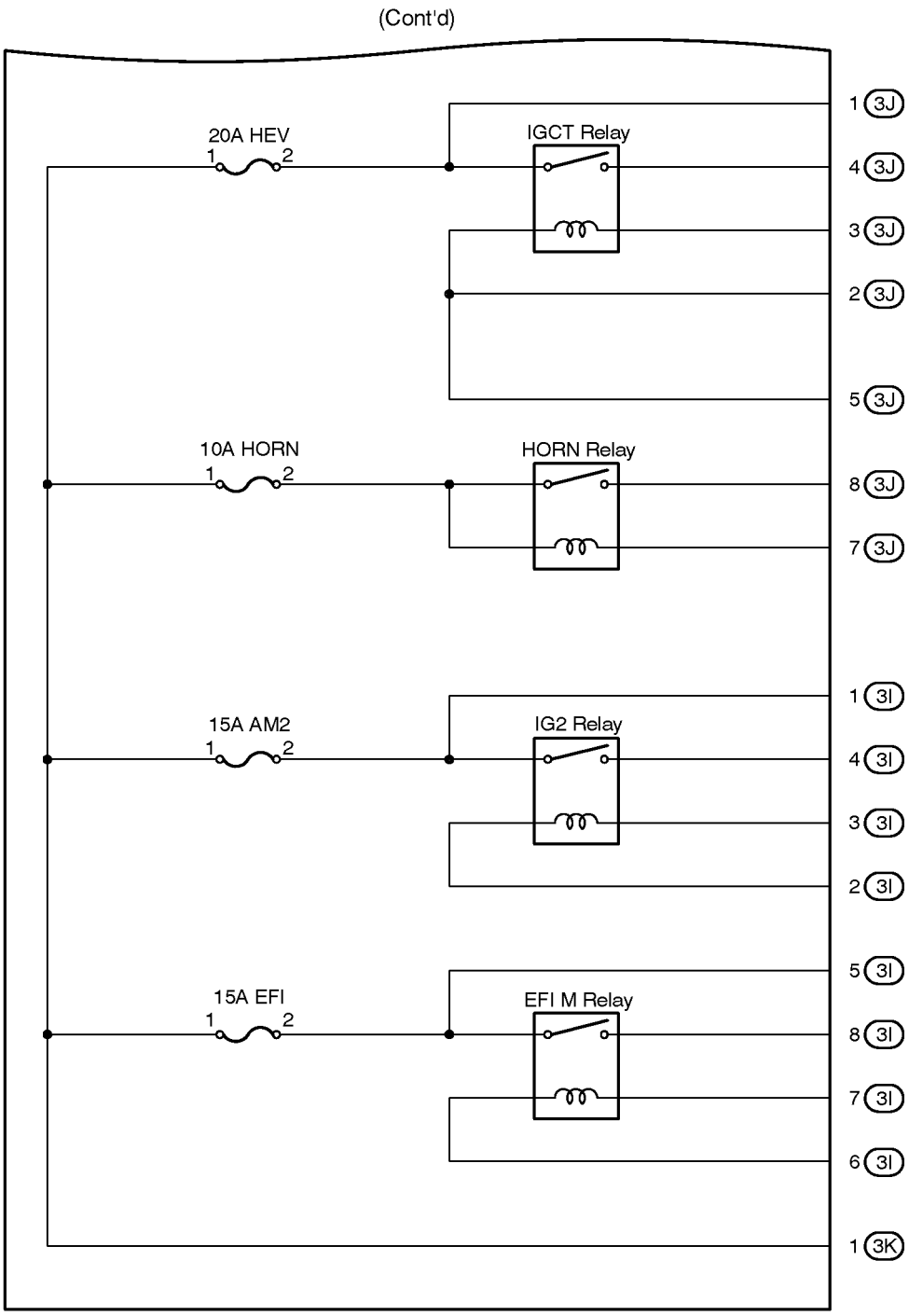
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[Engine Room J/B Inner Circuit]



(Cont. Next Page)

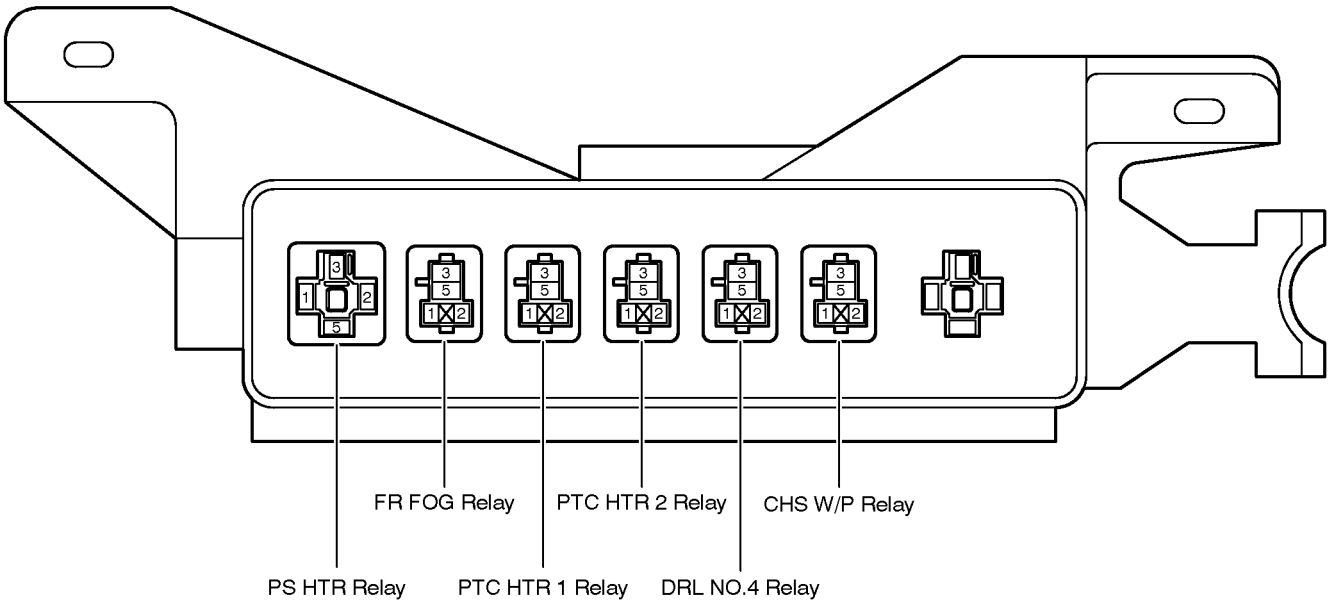
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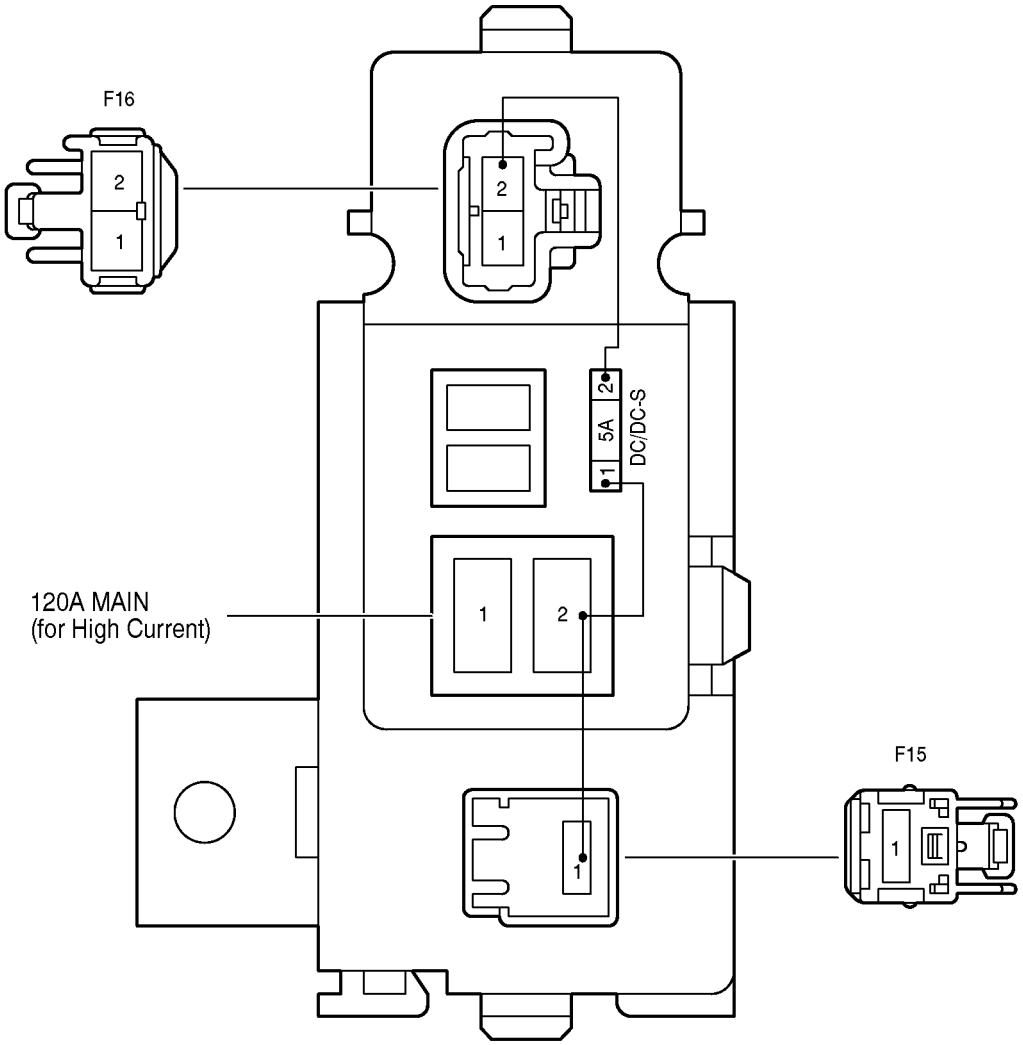
F RELAY LOCATIONS

② : Engine Room R/B No.2	Right Side of Reserve Tank (See Page 20)



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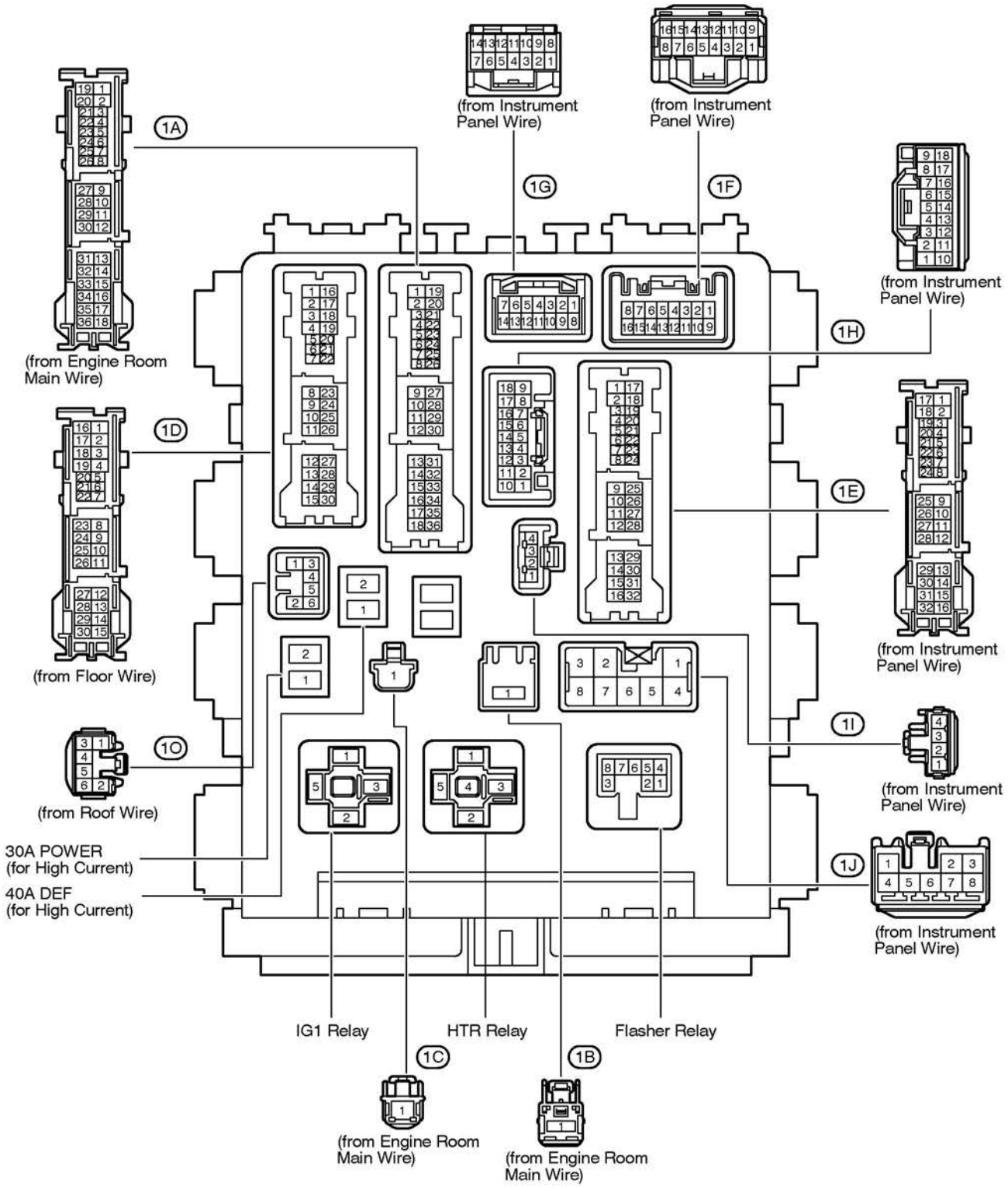
Fusible Link Block	Luggage Room Right (See Page 21)



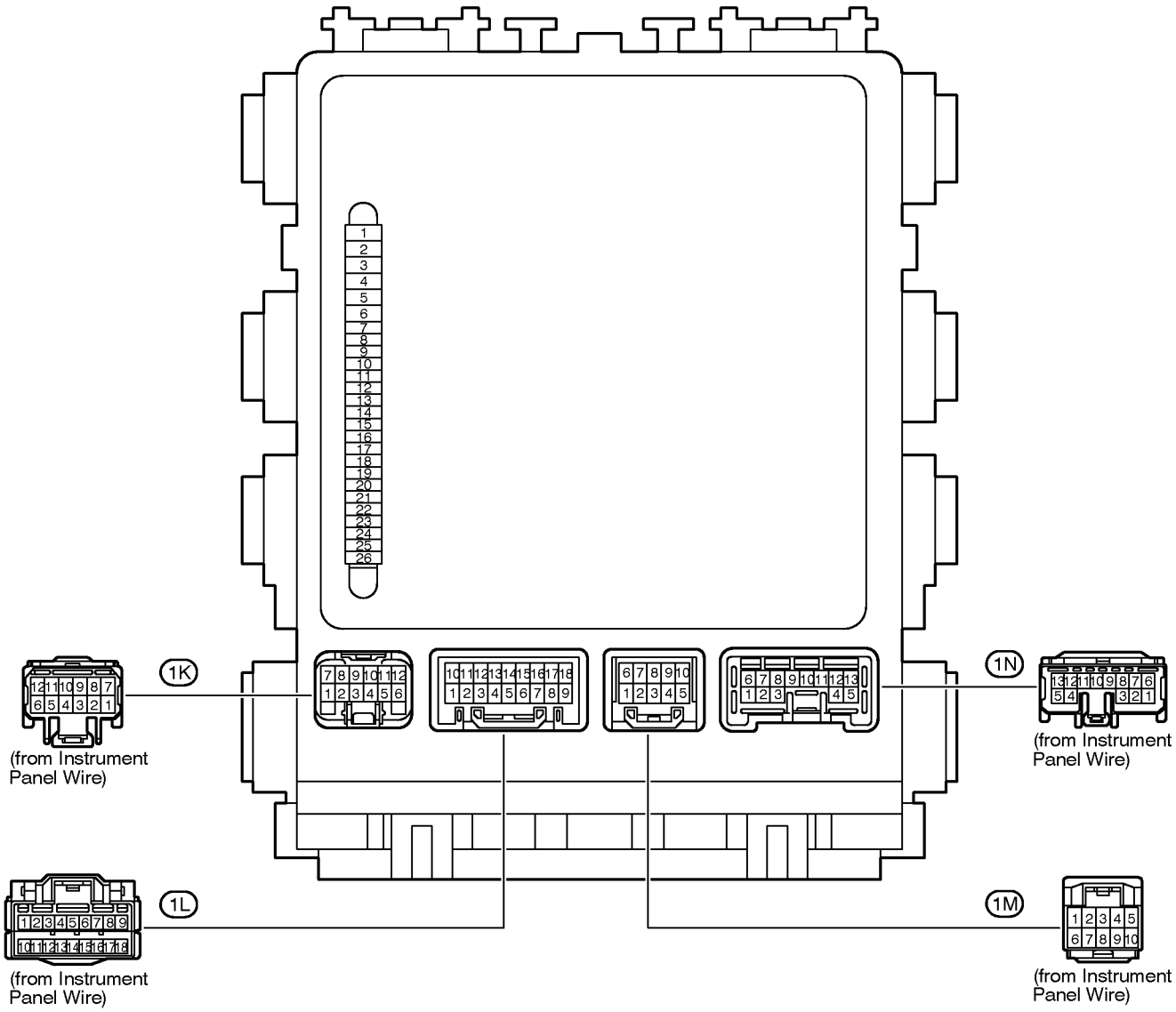
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F RELAY LOCATIONS

: Driver Side J/B	Lower Finish Panel (See Page 20)



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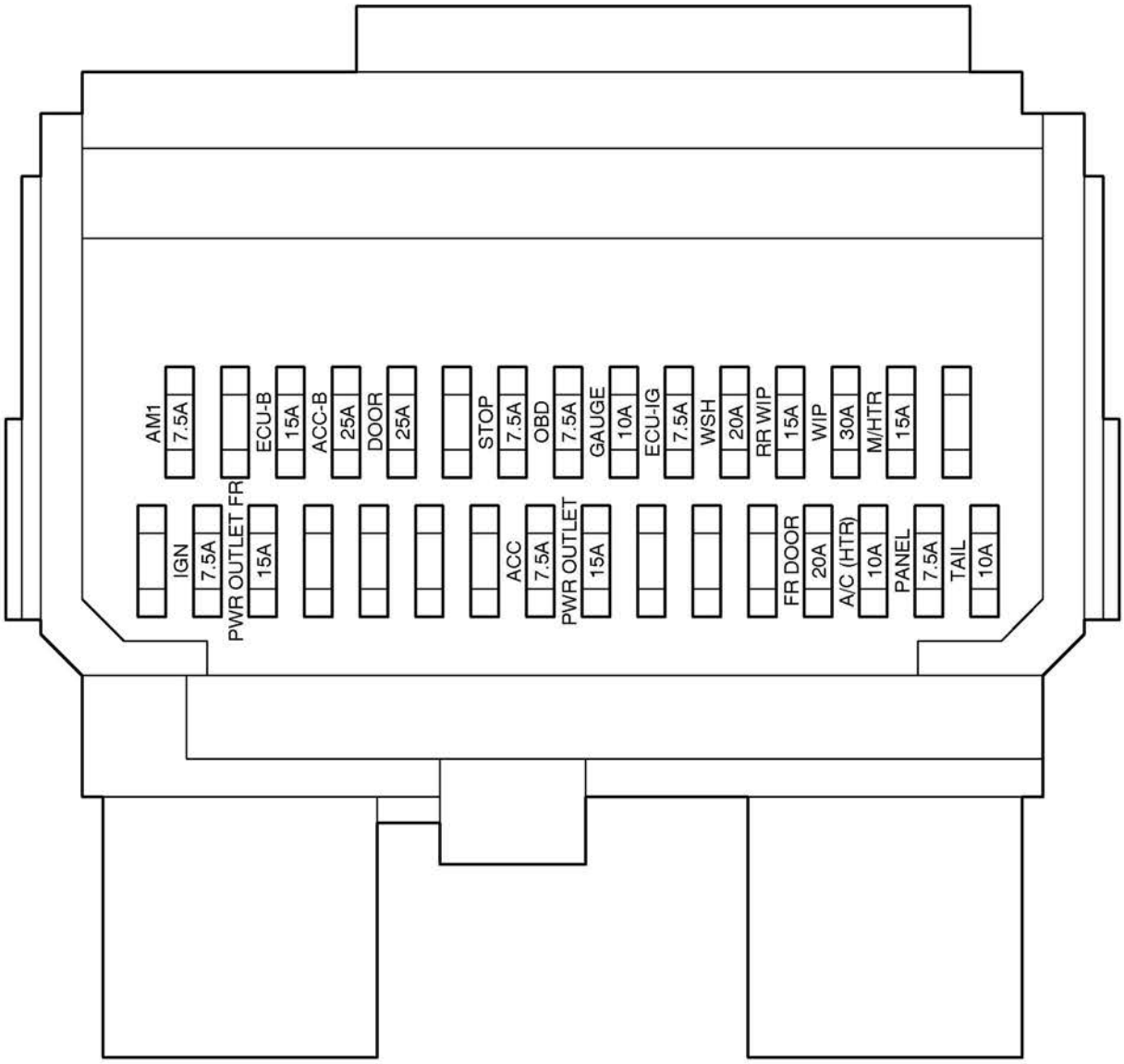


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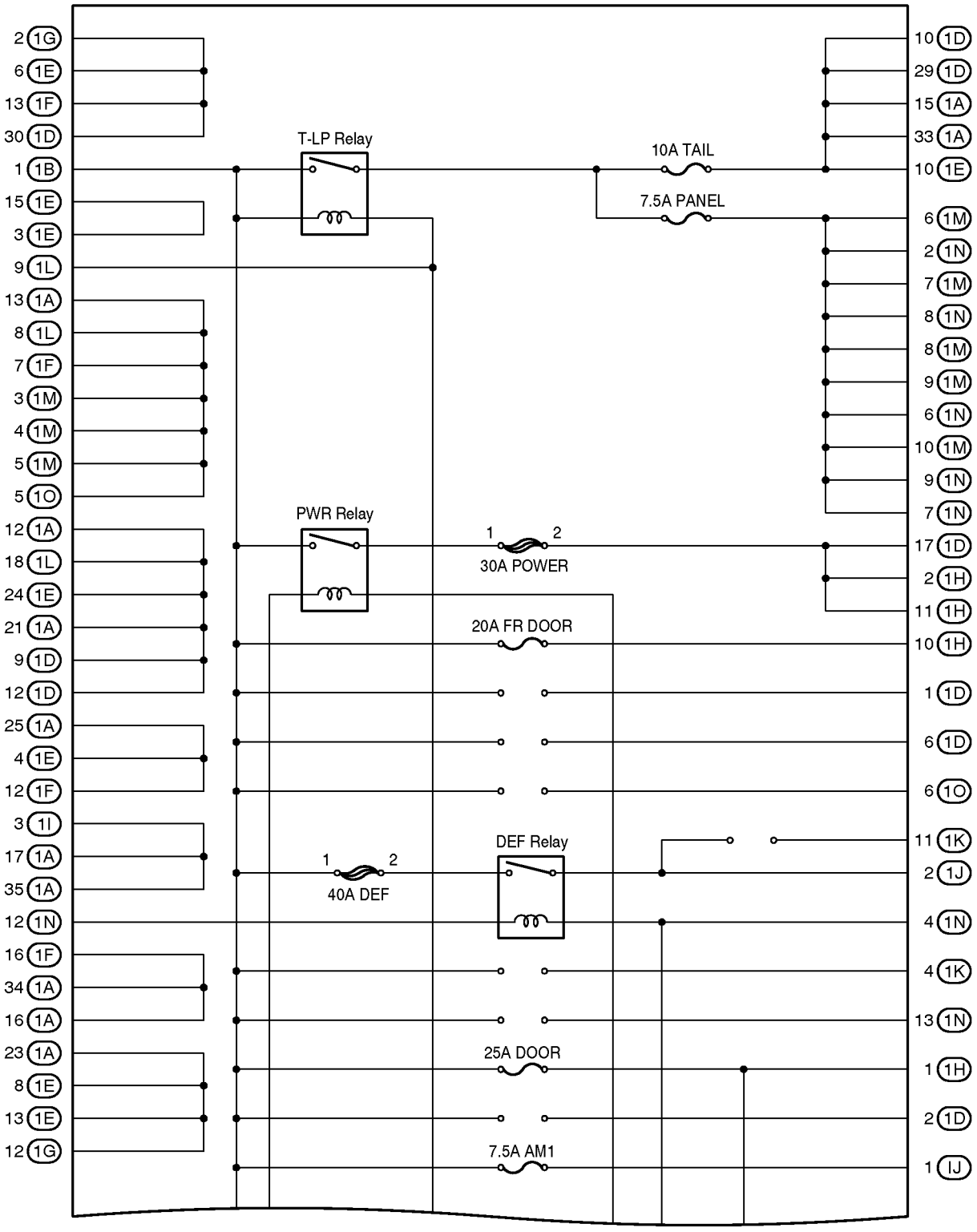
F RELAY LOCATIONS

: Driver Side J/B	Lower Finish Panel (See Page 20)



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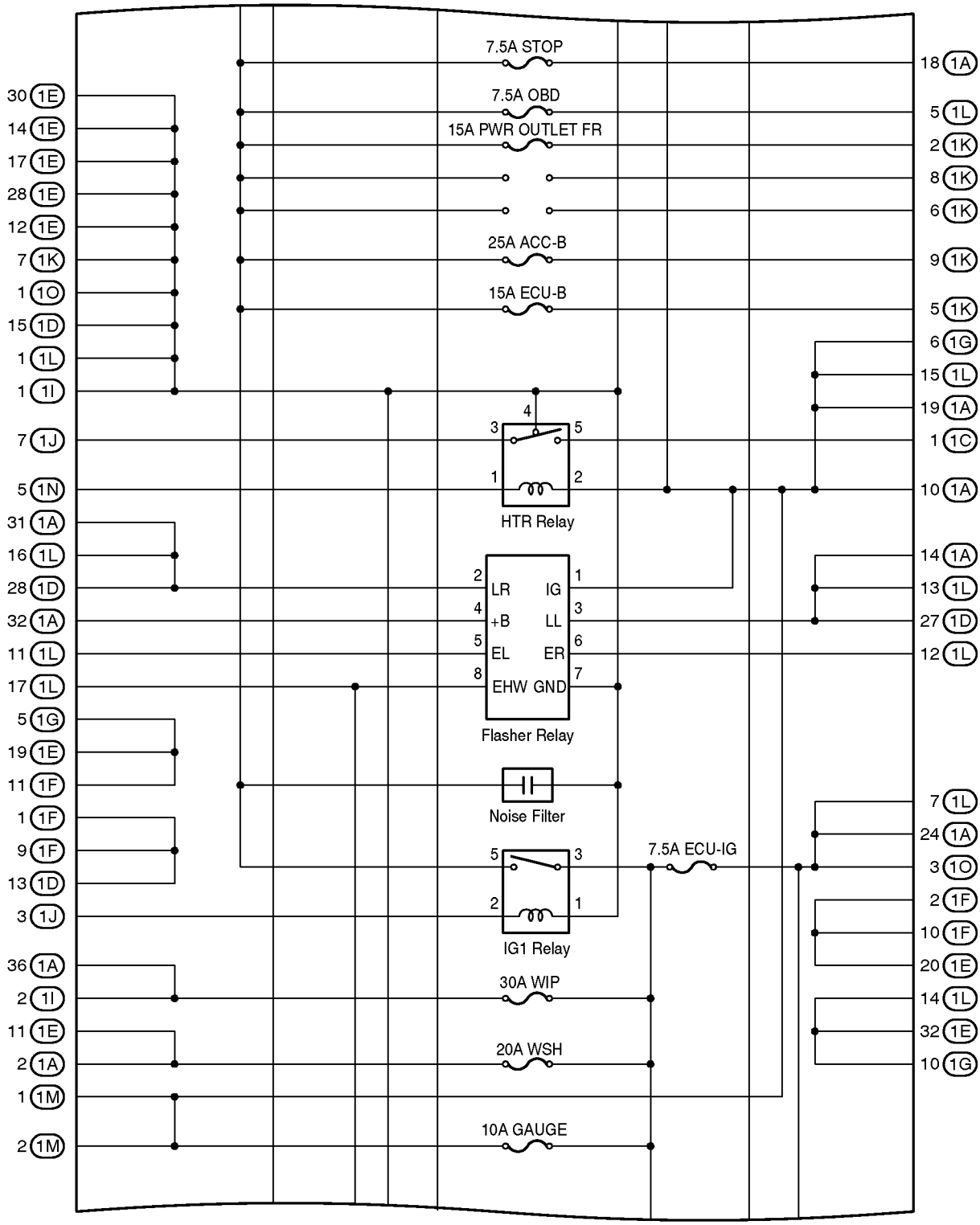
[Driver Side J/B Inner Circuit]



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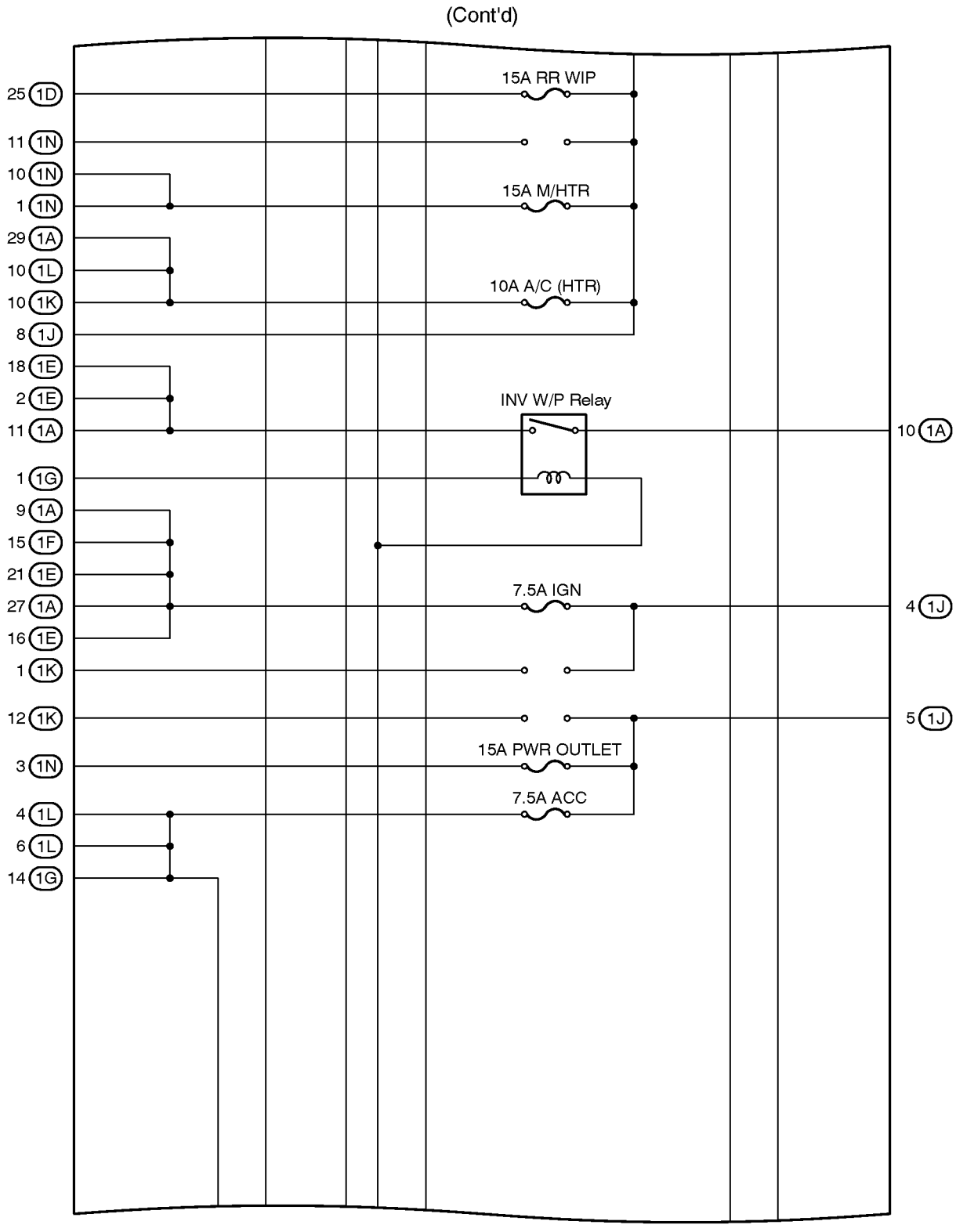
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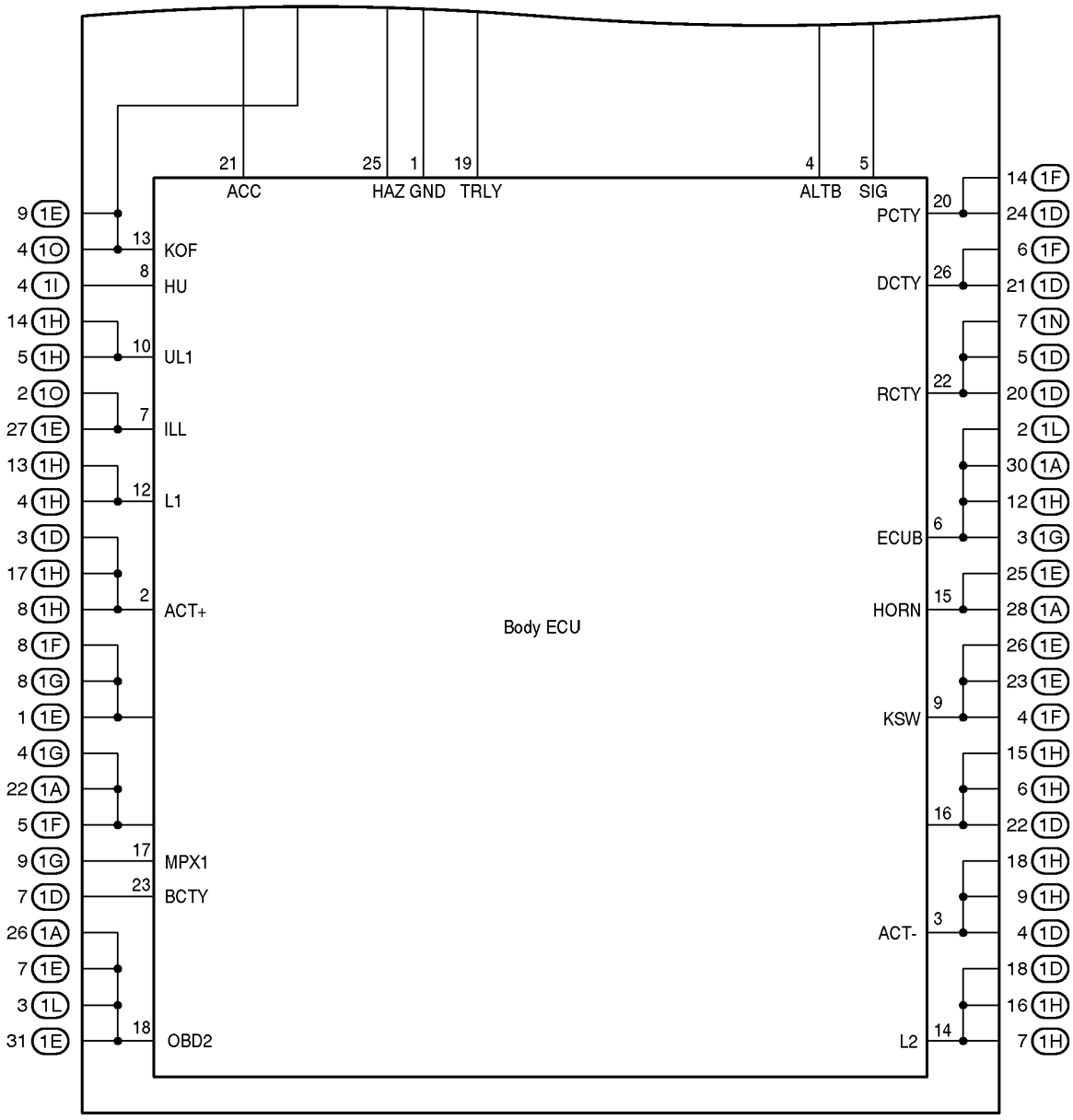
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[Driver Side J/B Inner Circuit]



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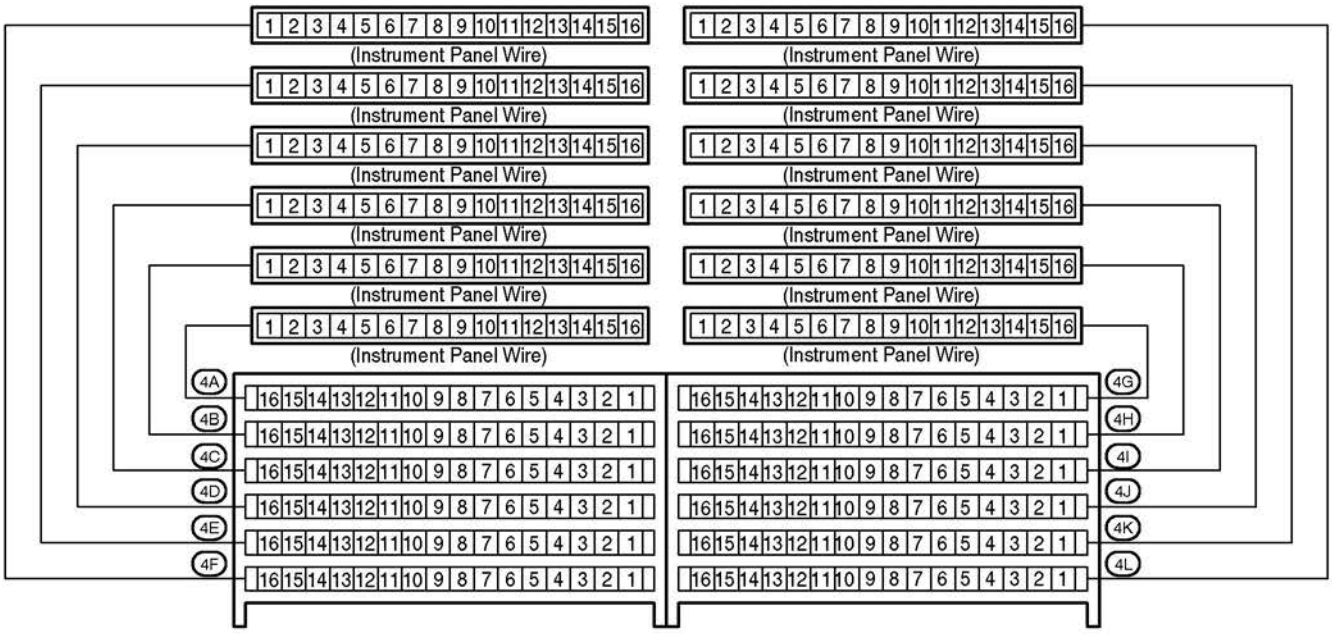
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F RELAY LOCATIONS

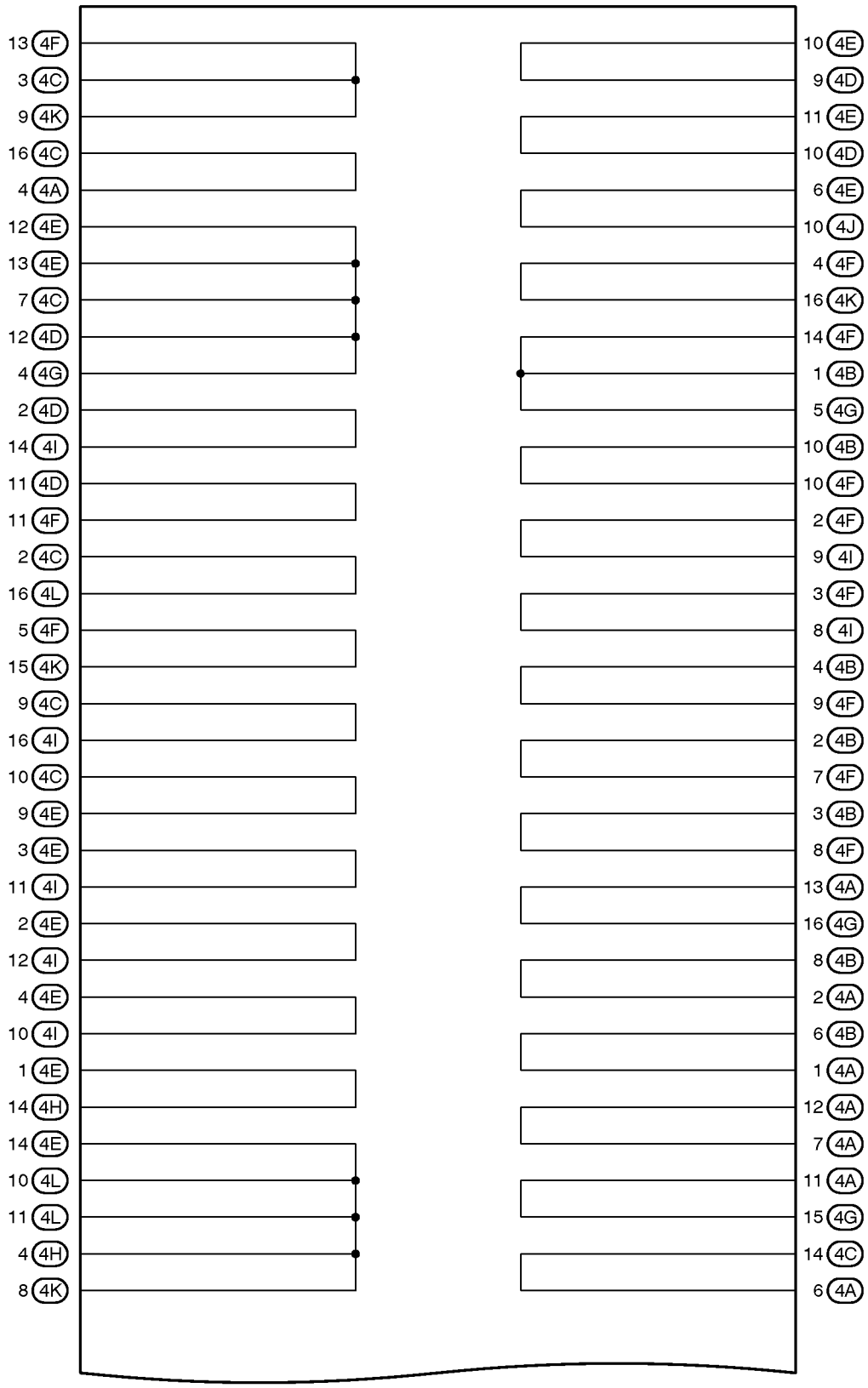
: Center Connector No.1	Behind the Combination Meter (See Page 20)



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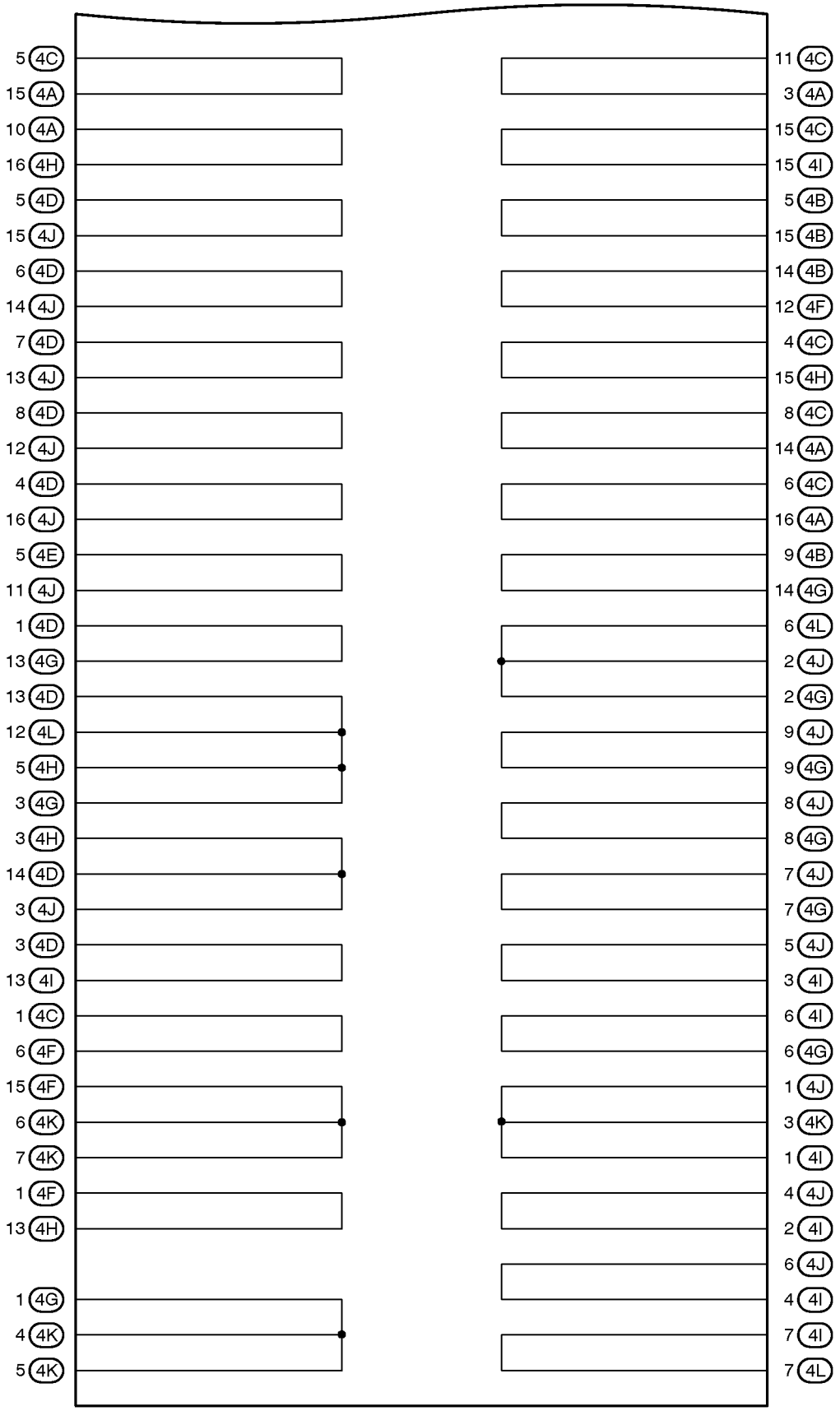
[Center Connector No.1 Inner Circuit]



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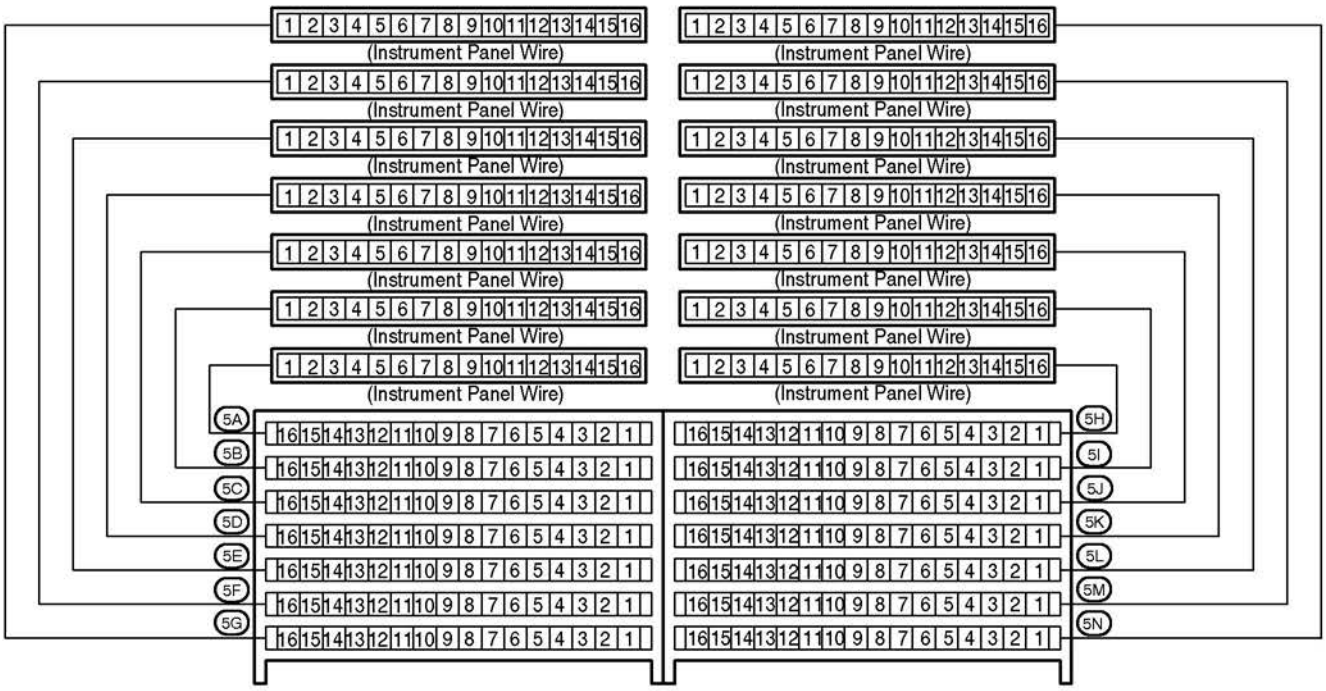
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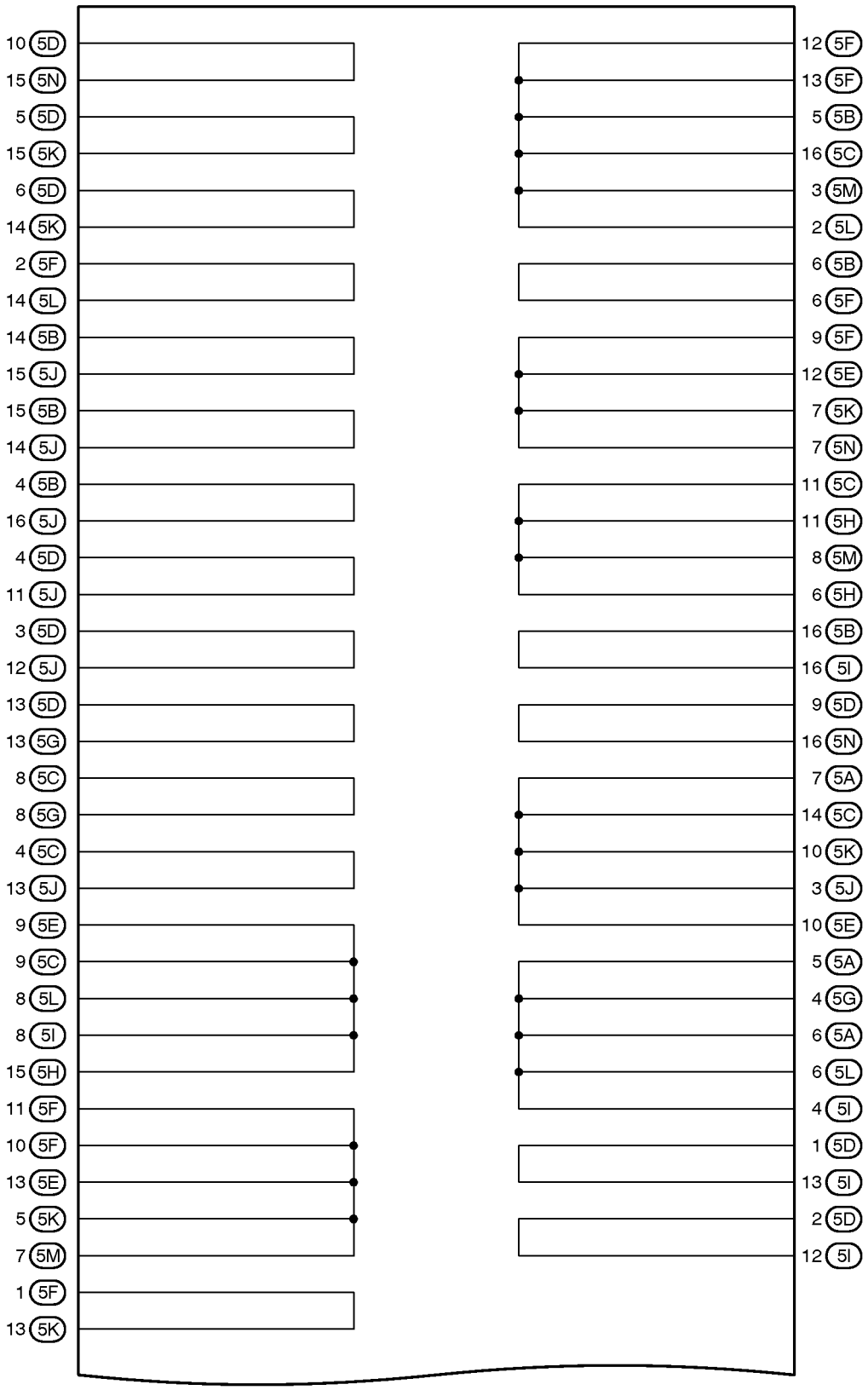
F RELAY LOCATIONS

: Center Connector No.2	Instrument Panel Brace RH (See Page 20)



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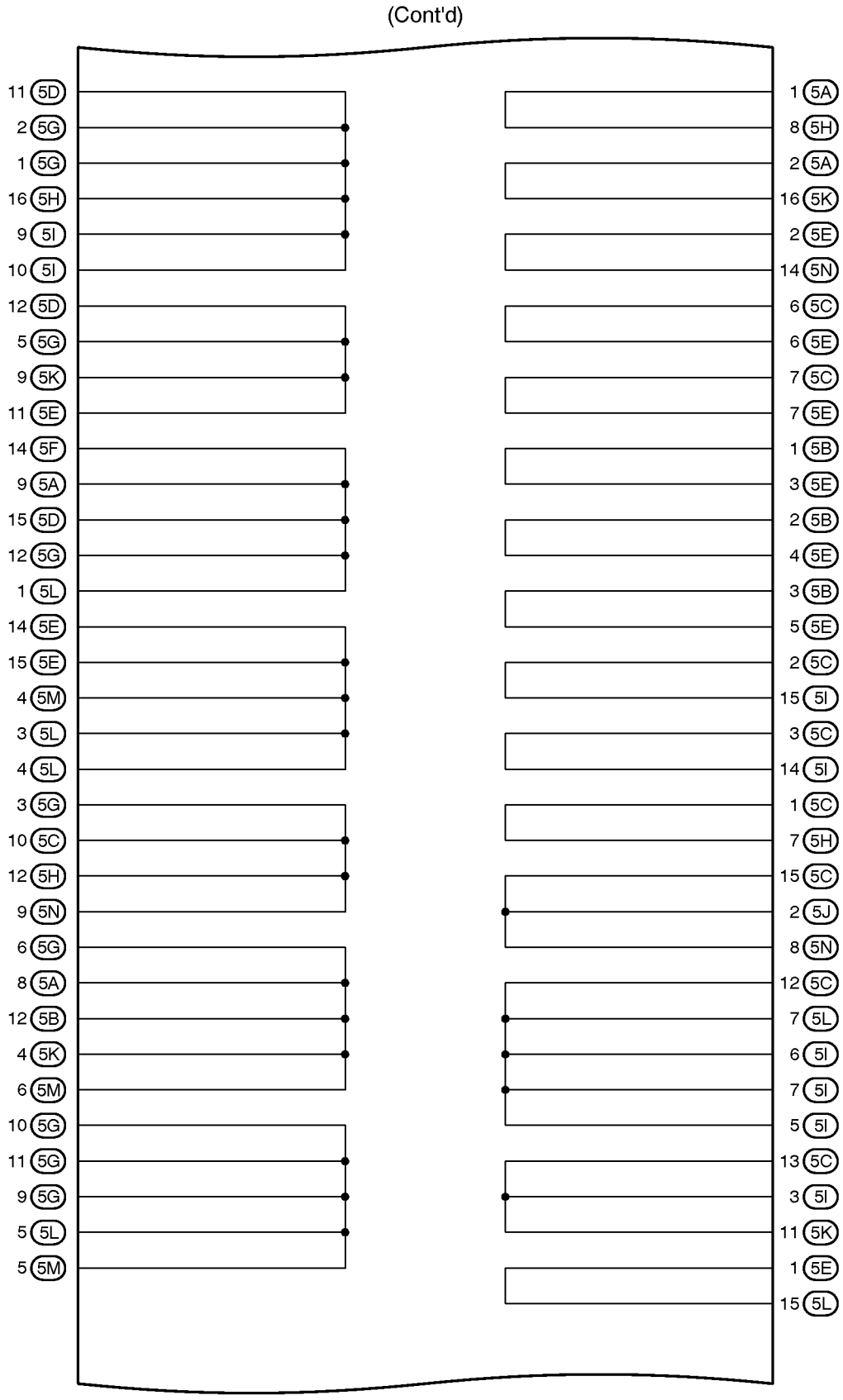
[Center Connector No.2 Inner Circuit]



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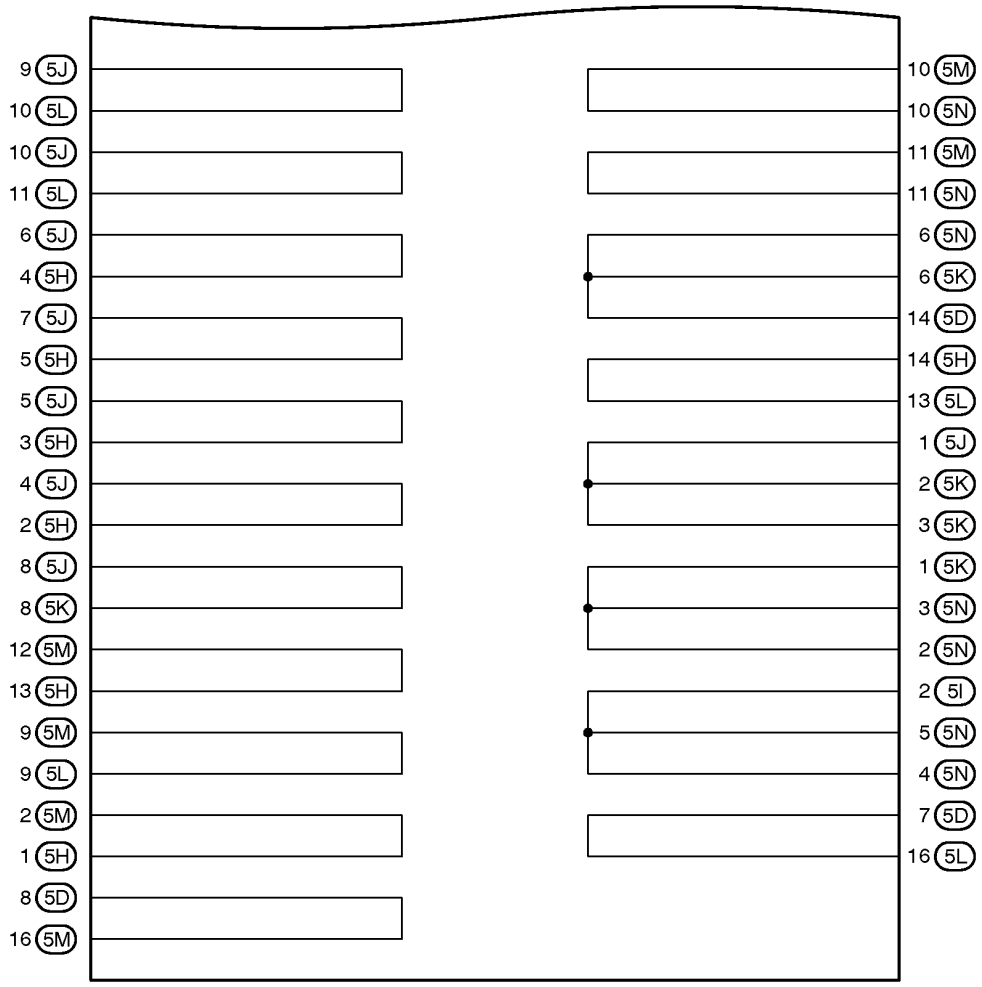
[Center Connector No.2 Inner Circuit]



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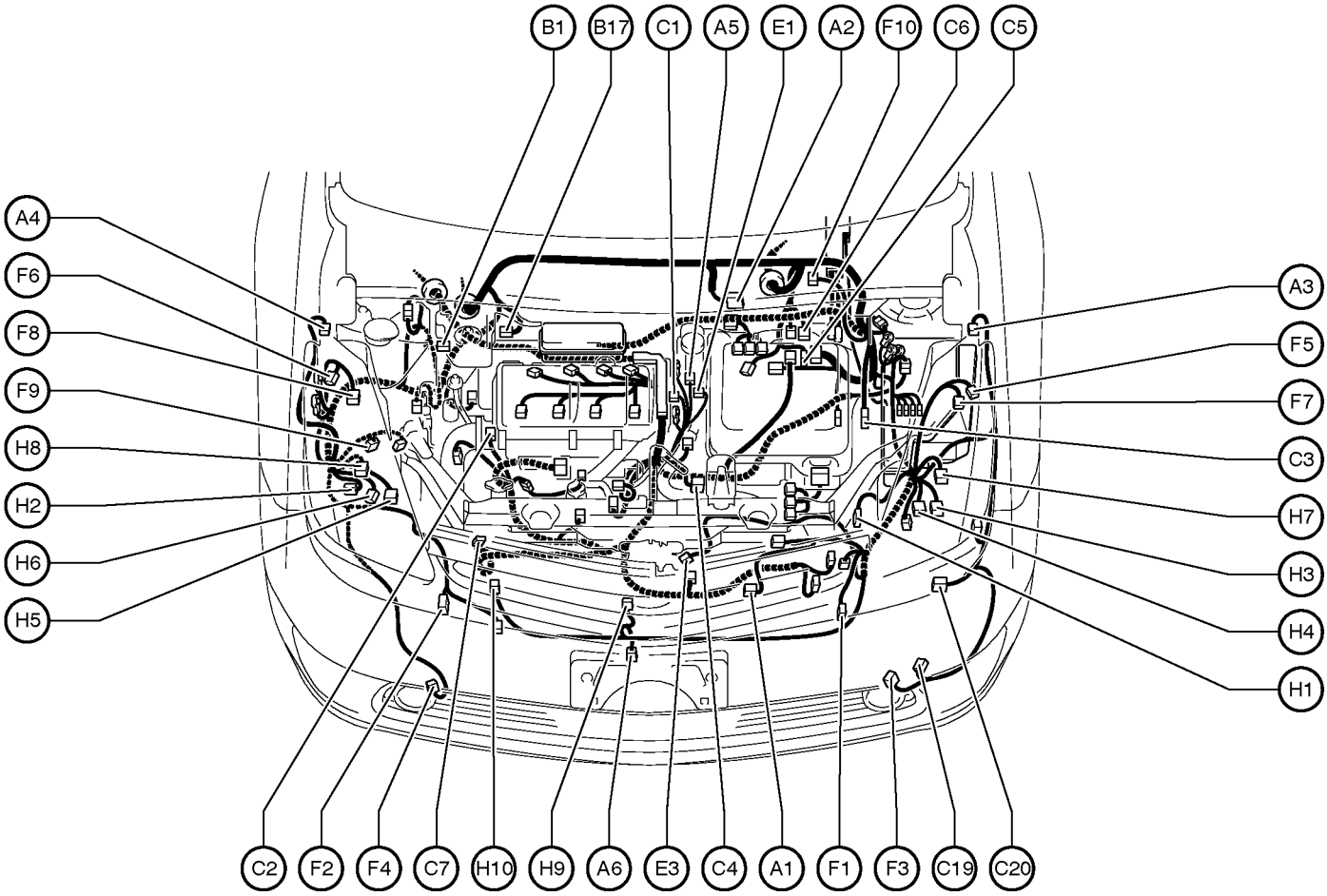
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Position of Parts in Engine Compartment



A 1 A/C Condenser Fan Motor
A 2 ABS & BA & TRAC & VSC Actuator
A 3 ABS Speed Sensor Front LH
A 4 ABS Speed Sensor Front RH
A 5 Air Fuel Ratio Sensor (Bank 1 Sensor 1)
A 6 Ambient Temp. Sensor

B 1 Brake Fluid Level Warning SW
B17 Brake Master Stroke Simulator Cylinder Assembly

C 1 Camshaft Position Sensor
C 2 Camshaft Timing Oil Control Valve
C 3 Circuit Breaker Sensor
C 4 Compressor Assembly (Motor)
C 5 Converter
C 6 Converter
C 7 Crankshaft Position Sensor
C19 Coolant Heat Storage Tank Outlet Temp. Sensor
C20 Coolant Heat Storage Water Pump

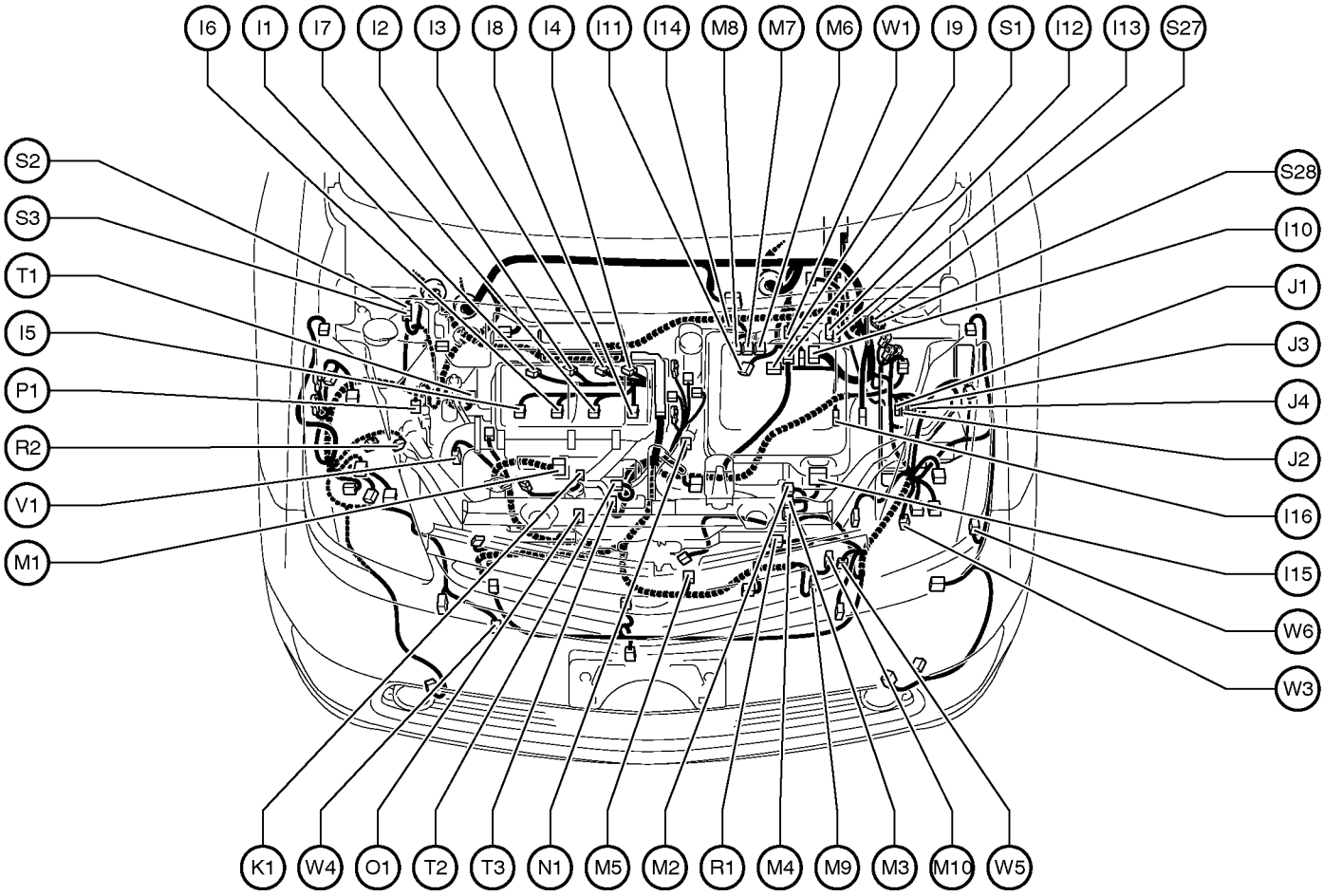
E 1 Engine Coolant Temp. Sensor
E 3 Engine Hood Courtesy SW

F 1 Front Airbag Sensor LH
F 2 Front Airbag Sensor RH
F 3 Front Fog Light LH
F 4 Front Fog Light RH
F 5 Front Side Marker Light LH
F 6 Front Side Marker Light RH
F 7 Front Turn Signal Light LH
F 8 Front Turn Signal Light RH
F 9 Front Washer Motor
F10 Front Wiper Motor

H 1 Headlight Beam Level Control Actuator LH
H 2 Headlight Beam Level Control Actuator RH
H 3 Headlight Control ECU LH
H 4 Headlight Control ECU LH
H 5 Headlight Control ECU RH
H 6 Headlight Control ECU RH
H 7 Headlight LH
H 8 Headlight RH
H 9 Horn (High)
H10 Horn (Lo)

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Position of Parts in Engine Compartment



I 1 Ignition Coil and Igniter No.1
I 2 Ignition Coil and Igniter No.2
I 3 Ignition Coil and Igniter No.3
I 4 Ignition Coil and Igniter No.4
I 5 Injector No.1
I 6 Injector No.2
I 7 Injector No.3
I 8 Injector No.4
I 9 Inverter
I 10 Inverter
I 11 Inverter
I 12 Inverter
I 13 Inverter
I 14 Inverter
I 15 Inverter
I 16 Inverter

J 1 Junction Connector
J 2 Junction Connector
J 3 Junction Connector
J 4 Junction Connector

K 1 Knock Sensor

M 1 Mass Air Flow Meter
M 2 Motor Generator No.1
M 3 Motor Generator No.1
M 4 Motor Generator No.1
M 5 Motor Generator No.1
M 6 Motor Generator No.2
M 7 Motor Generator No.2
M 8 Motor Generator No.2
M 9 Motor Generator No.2
M10 Motor Generator No.2

N 1 Noise Filter (Ignition)

O 1 Oil Pressure SW

P 1 Pressure SW

R 1 Radiator Fan Motor
R 2 Rear Washer Motor

S 1 Shift Control Actuator
S 2 Short Connector
S 3 Short Connector
S27 Short Connector (Water Pump)
S28 Short Connector (Water Pump)

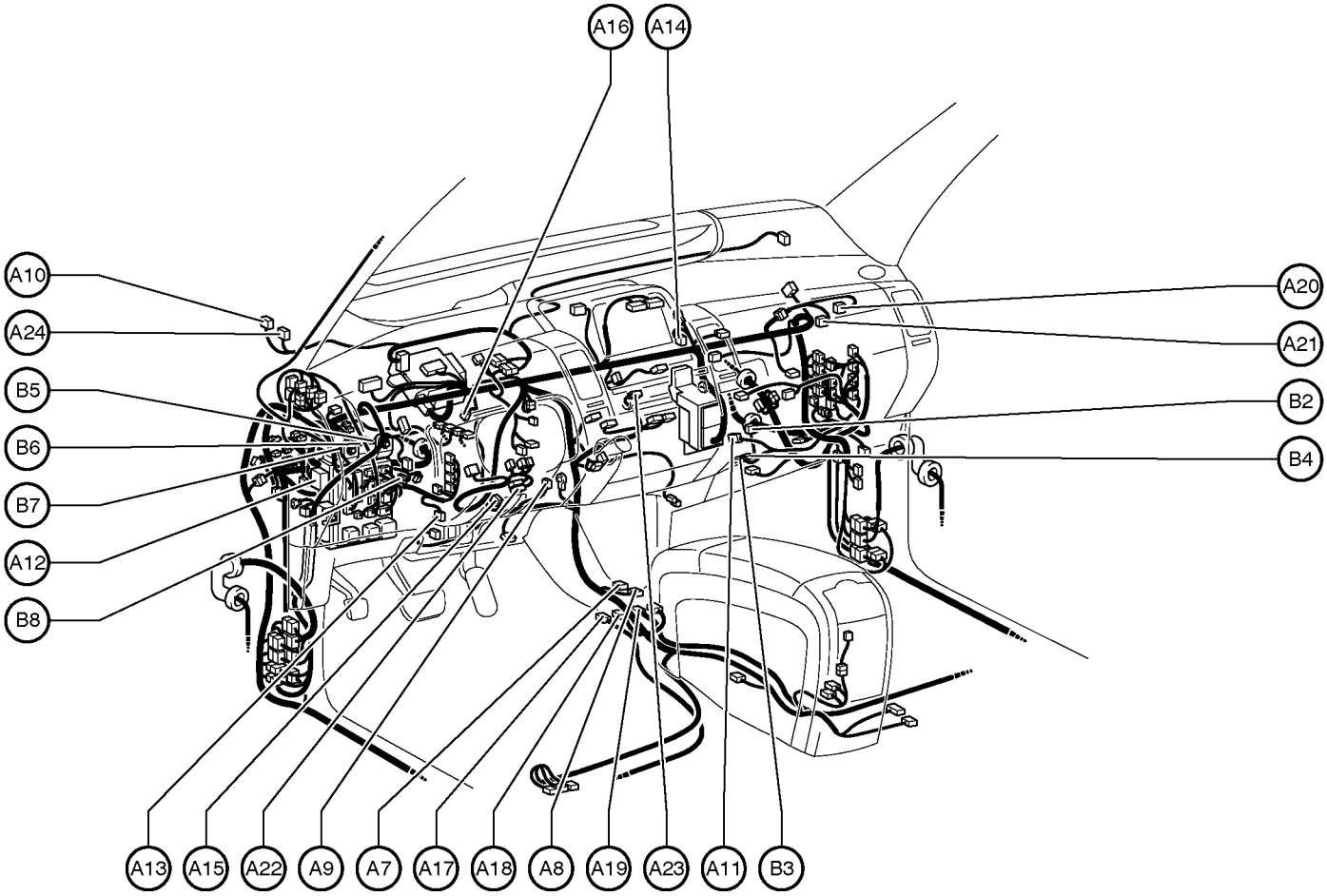
T 1 Theft Deterrent Horn
T 2 Throttle Control Motor
T 3 Throttle Position Sensor

V 1 VSV (EVAP)

W 1 Water Pump Motor (A/C)
W 3 Water Pump Motor (Inverter)
W 4 Water Temp. SW
W 5 Water Valve
W 6 Wireless Door Lock Buzzer

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Position of Parts in Instrument Panel

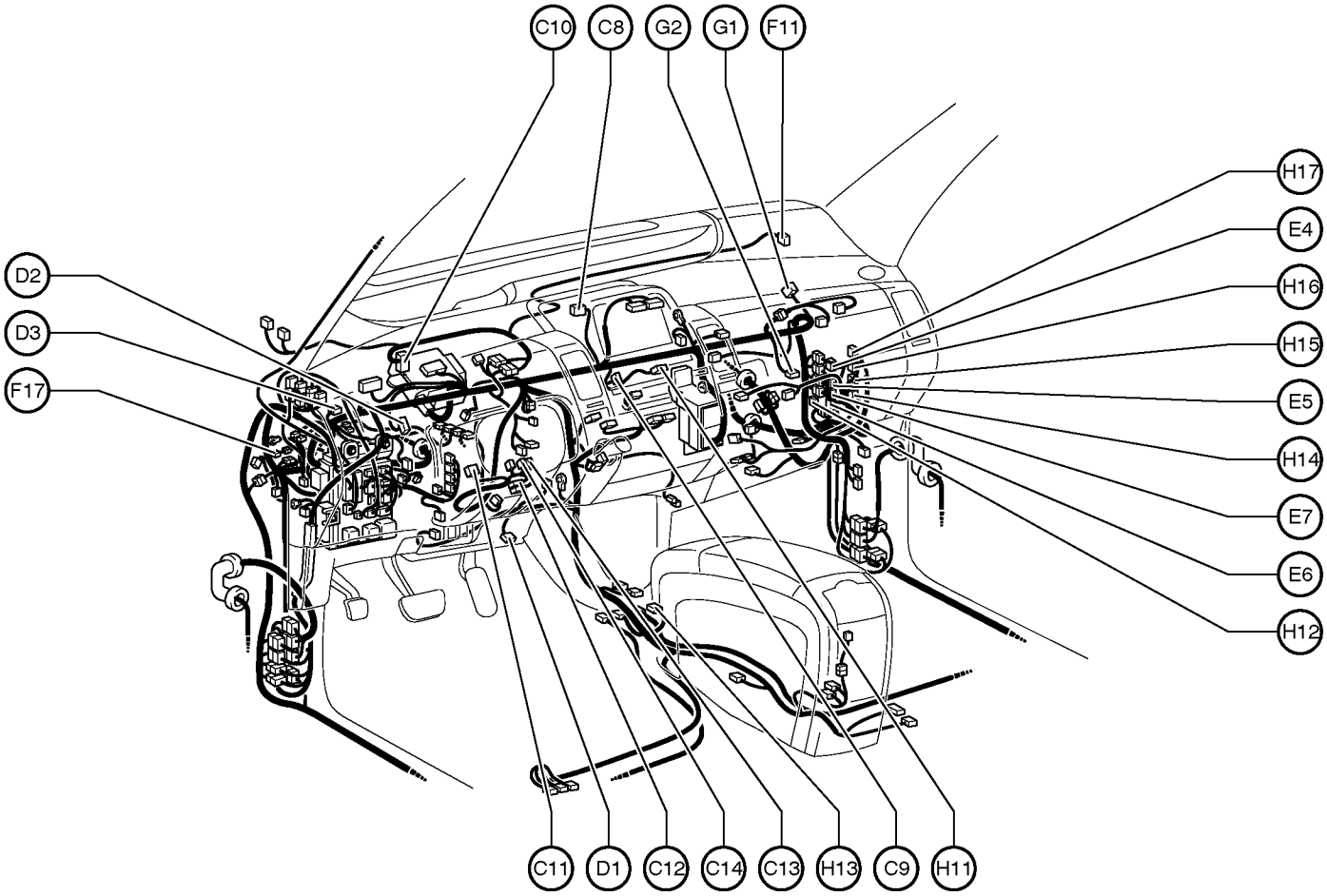


A 7 A/C Control Assembly
A 8 A/C Control Assembly
A 9 A/C Room Temp. Sensor
A10 A/C Solar Sensor
A11 A/C Thermistor
A12 ACC Relay
A13 Accel Position Sensor
A14 Air Inlet Control Servo Motor
A15 Air Mix Control Servo Motor
A16 Air Vent Mode Control Servo Motor
A17 Airbag Sensor Assembly
A18 Airbag Sensor Assembly
A19 Airbag Sensor Assembly
A20 Airbag Squib (Front Passenger Airbag Assembly No.1)
A21 Airbag Squib (Front Passenger Airbag Assembly No.2)
A22 Airbag Squib (Steering Wheel Pad)
A23 Antenna Amplifier
A24 Automatic Light Control Sensor

B 2 Blower Motor
B 3 Blower Motor Controller
B 4 Blower Motor Controller
B 5 Body ECU
B 6 Body ECU
B 7 Body ECU
B 8 Brake Pedal Stroke Sensor

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Position of Parts in Instrument Panel



C 8 Center Speaker
C 9 Clock
C10 Combination Meter
C11 Combination SW
C12 Combination SW
C13 Combination SW
C14 Combination SW

D 1 Data Link Connector 3
D 2 Daytime Running Light Relay
D 3 Diode (Daytime Running Light)

E 4 Engine Control Module
E 5 Engine Control Module
E 6 Engine Control Module
E 7 Engine Control Module

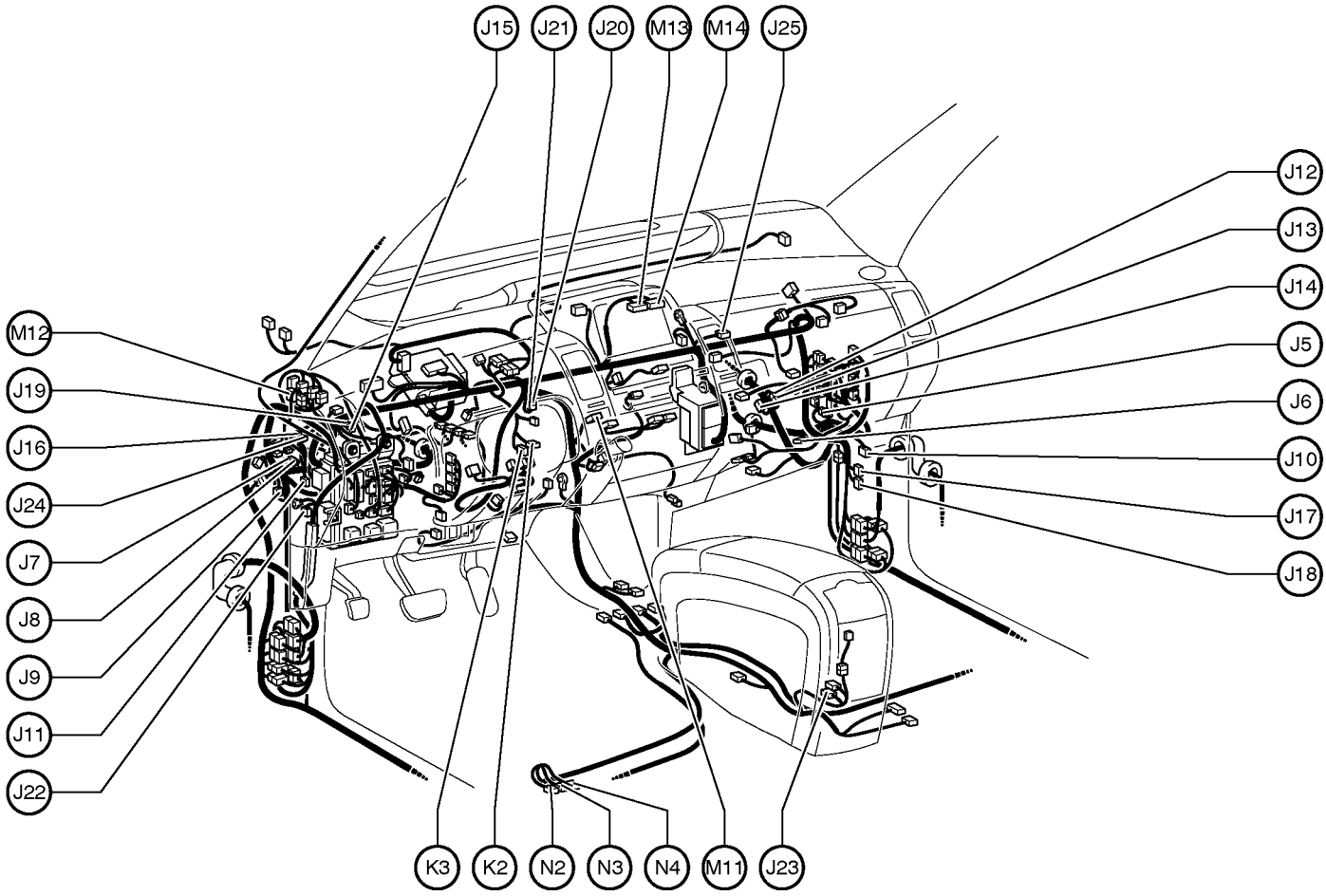
F 11 Front Passenger Seat Belt Warning Light
F 17 Fuse Holder

G 1 Gateway ECU
G 2 Glove Box Light

H 11 Hazard SW
ODO/TRIP SW
H12 Headlight Beam Level Control ECU
H13 Heated Oxygen Sensor (Bank 1 Sensor 2)
H14 Hybrid Vehicle Control ECU
H15 Hybrid Vehicle Control ECU
H16 Hybrid Vehicle Control ECU
H17 Hybrid Vehicle Control ECU

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Position of Parts in Instrument Panel



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

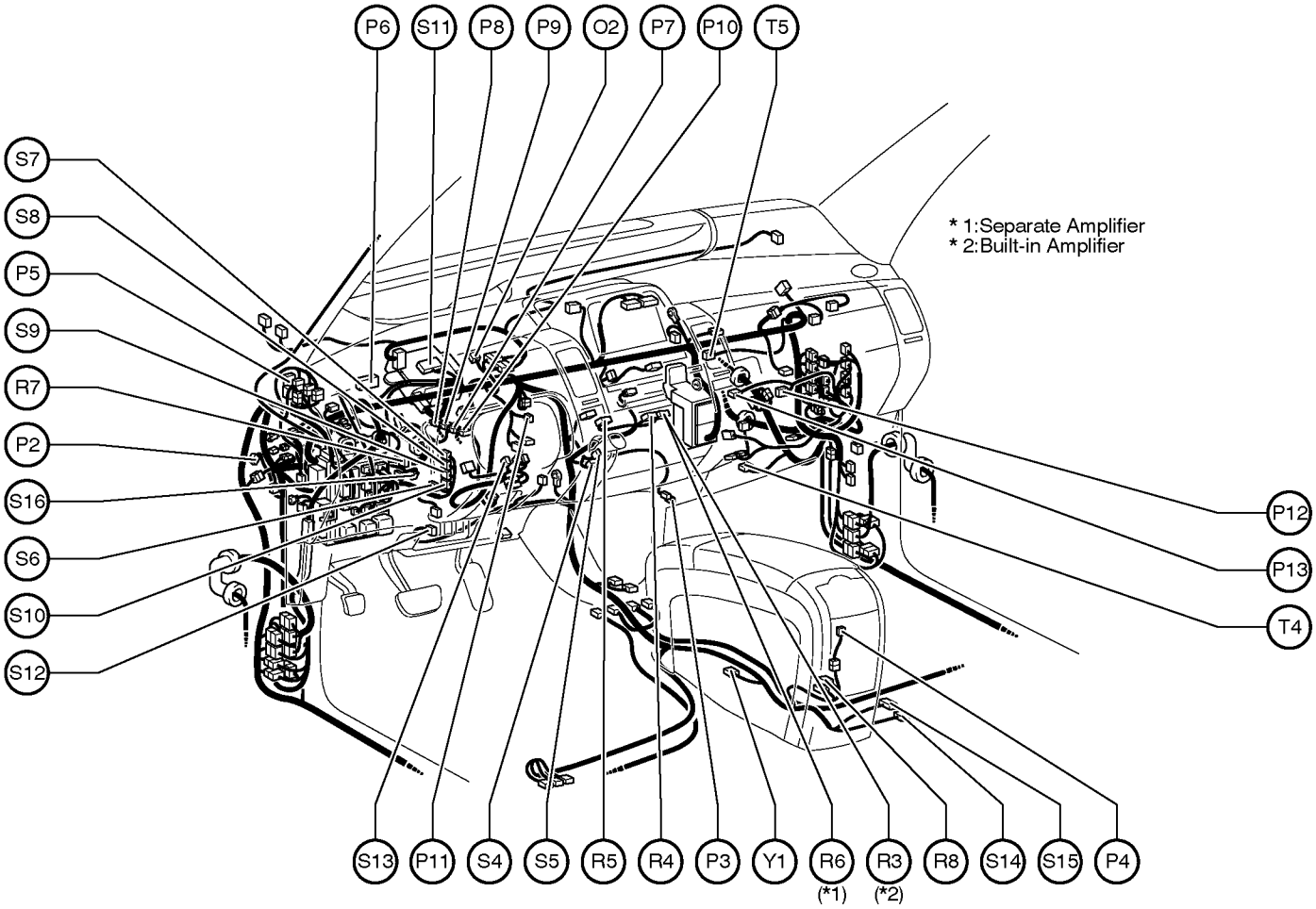
K 2 Key Slot
K 3 Key Slot

M11 Main SW
M12 Mirror Heater Relay
M13 Multi–Display
M14 Multi–Display

N 2 Navigation ECU
N 3 Navigation ECU
N 4 Navigation ECU

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Position of Parts in Instrument Panel



O 2 Option Connector (Glass Breakage Sensor)

P 2 Parking Brake SW
P 3 Power Outlet No.1
P 4 Power Outlet No.2
P 5 Power Outlet Relay
P 6 Power Source Control ECU
P 7 Power Steering ECU
P 8 Power Steering ECU
P 9 Power Steering Motor
P 10 Power Steering Torque Sensor
P 11 Power SW
P 12 PTC Heater
P 13 PTC Heater

R 3 Radio and Player
R 4 Radio and Player
R 5 Radio and Player
R 6 Radio and Player
R 7 Rheostat
R 8 Room Oscillator

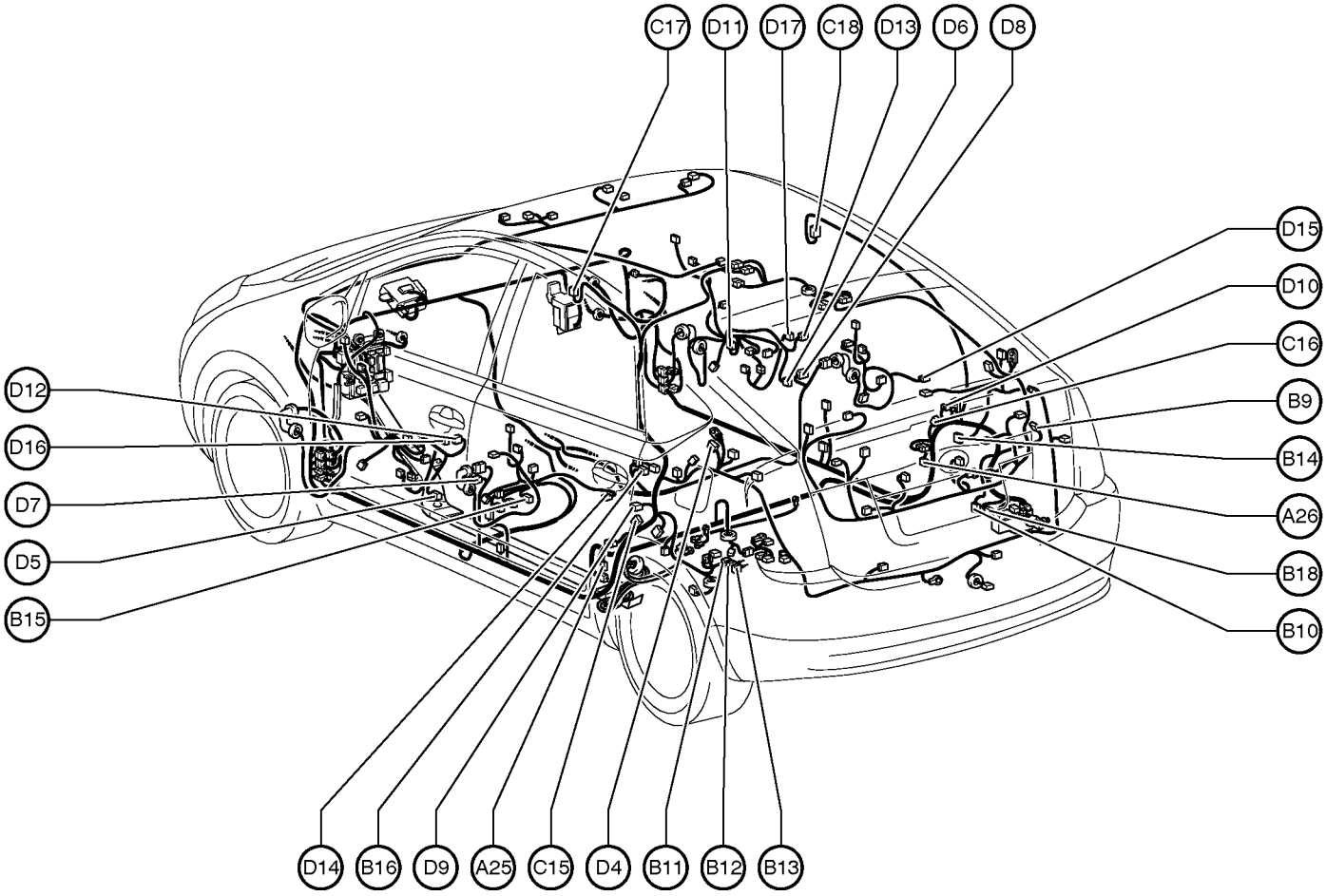
S 4 Shift Lever Position Sensor
S 5 Shift Lever Position Sensor
S 6 Skid Control Buzzer
S 7 Skid Control ECU
S 8 Skid Control ECU
S 9 Skid Control ECU
S 10 Skid Control ECU
S 11 Smart Key ECU
S 12 Smart Key System Cancel SW
S 13 Steering Sensor
S 14 Stereo Component Amplifier
S 15 Stereo Component Amplifier
S 16 Stop Light SW

T 4 Transmission Control ECU
T 5 Transponder Key Computer

Y 1 Yaw Rate Sensor

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Position of Parts in Body



A25 ABS Speed Sensor Rear LH
A26 ABS Speed Sensor Rear RH

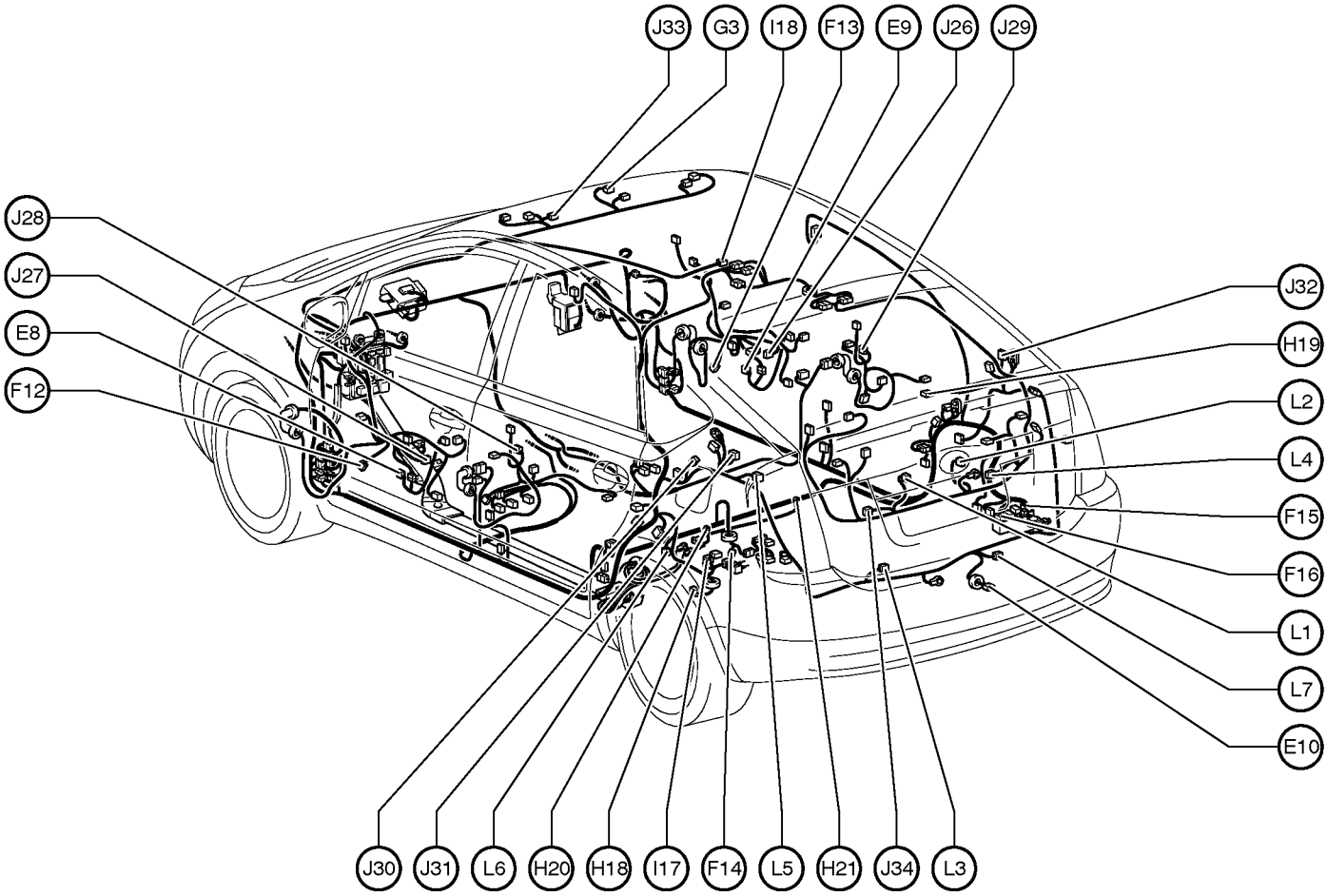
B 9 Battery Blower Motor
B10 Battery Blower Motor Controller
B11 Battery ECU
B12 Battery ECU
B13 Battery ECU
B14 Battery Fan Relay
B15 Buckle SW Front LH
B16 Buckle SW Front RH
B18 Brake Control Power Supply

C15 Curtain Shield Airbag Sensor LH
C16 Curtain Shield Airbag Sensor RH
C17 Curtain Shield Airbag Squib LH
C18 Curtain Shield Airbag Squib RH

D 4 Door Control Receiver
D 5 Door Courtesy Light Front LH
D 6 Door Courtesy Light Front RH
D 7 Door Courtesy SW Front LH
D 8 Door Courtesy SW Front RH
D 9 Door Courtesy SW Rear LH
D10 Door Courtesy SW Rear RH
D11 Door Lock Control SW Front RH
D12 Door Lock Motor Front LH
Door Unlock Detection SW Front LH
D13 Door Lock Motor Front RH
Door Unlock Detection SW Front RH
D14 Door Lock Motor Rear LH
Door Unlock Detection SW Rear LH
D15 Door Lock Motor Rear RH
Door Unlock Detection SW Rear RH
D16 Door Oscillator Front LH (w/ Sensor)
D17 Door Oscillator Front RH (w/ Sensor)

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Position of Parts in Body



E 8 Electrical Key Antenna (Driver's Side)
E 9 Electrical Key Antenna (Front Passenger's Side)
E10 Electrical Key Antenna (Luggage Compartment Door)

F12 Front Door Speaker LH
F13 Front Door Speaker RH
F14 Fuel Pump
Fuel Sender
F15 Fusible Link Block
F16 Fusible Link Block

G 3 Garage Door Opener
Inner Mirror

H18 Height Control Sensor
H19 High Mounted Stop Light
H20 Hybrid Vehicle Battery
H21 Hybrid Vehicle Battery

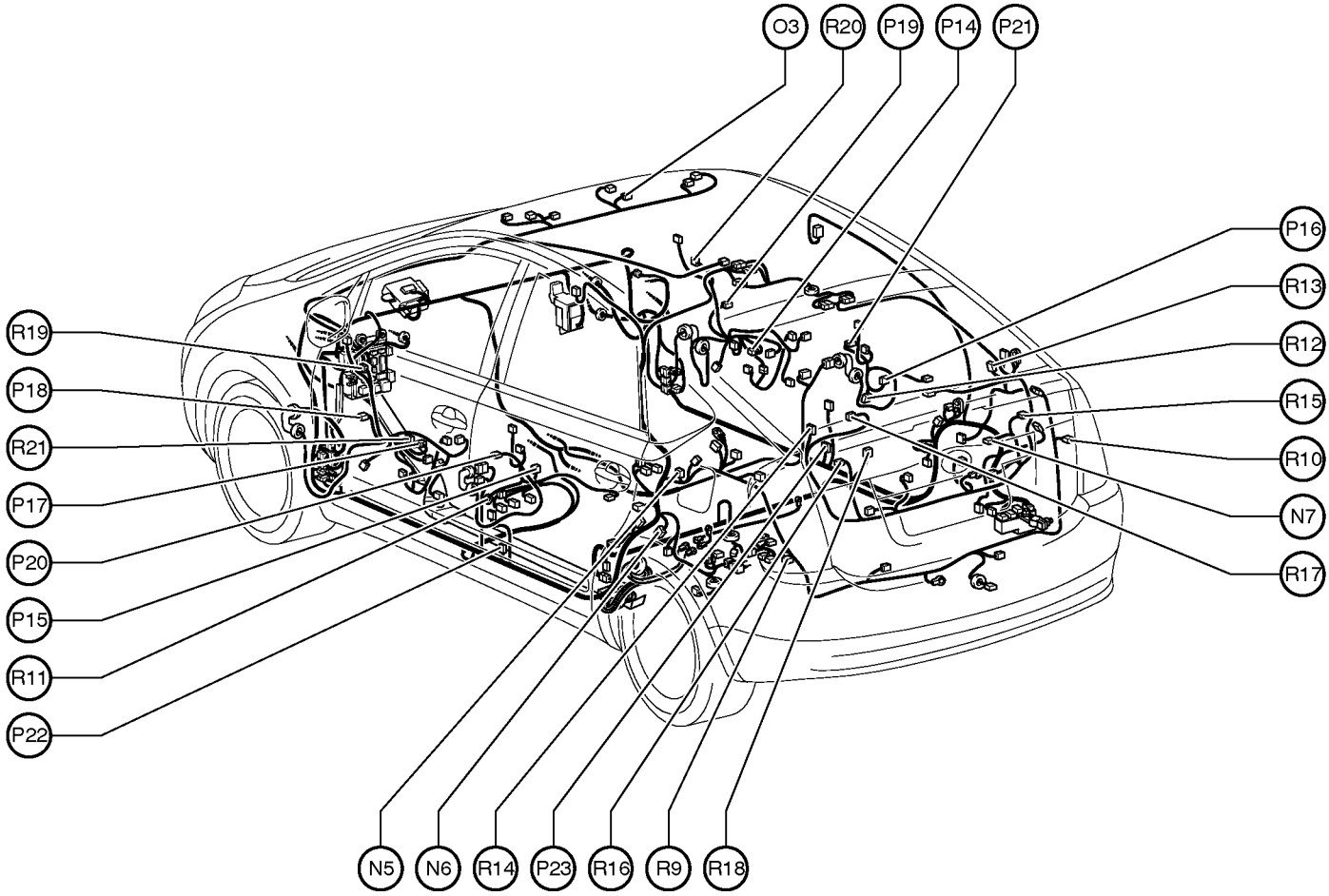
I 17 Inter Lock SW
I 18 Interior Light

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

L 1 License Plate Light LH
L 2 License Plate Light RH
L 3 Luggage Compartment Courtesy SW
Luggage Compartment Door Opener Motor
L 4 Luggage Compartment Door Lock SW
Luggage Compartment Door Opener SW
L 5 Luggage Compartment Light
L 6 Luggage Oscillator (Inner)
L 7 Luggage Oscillator (Outer)

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Position of Parts in Body



N 5 Noise Filter (High Mounted Stop Light)
N 6 Noise Filter (Rear Window Defogger)
N 7 Noise Filter (Rear Window Defogger)

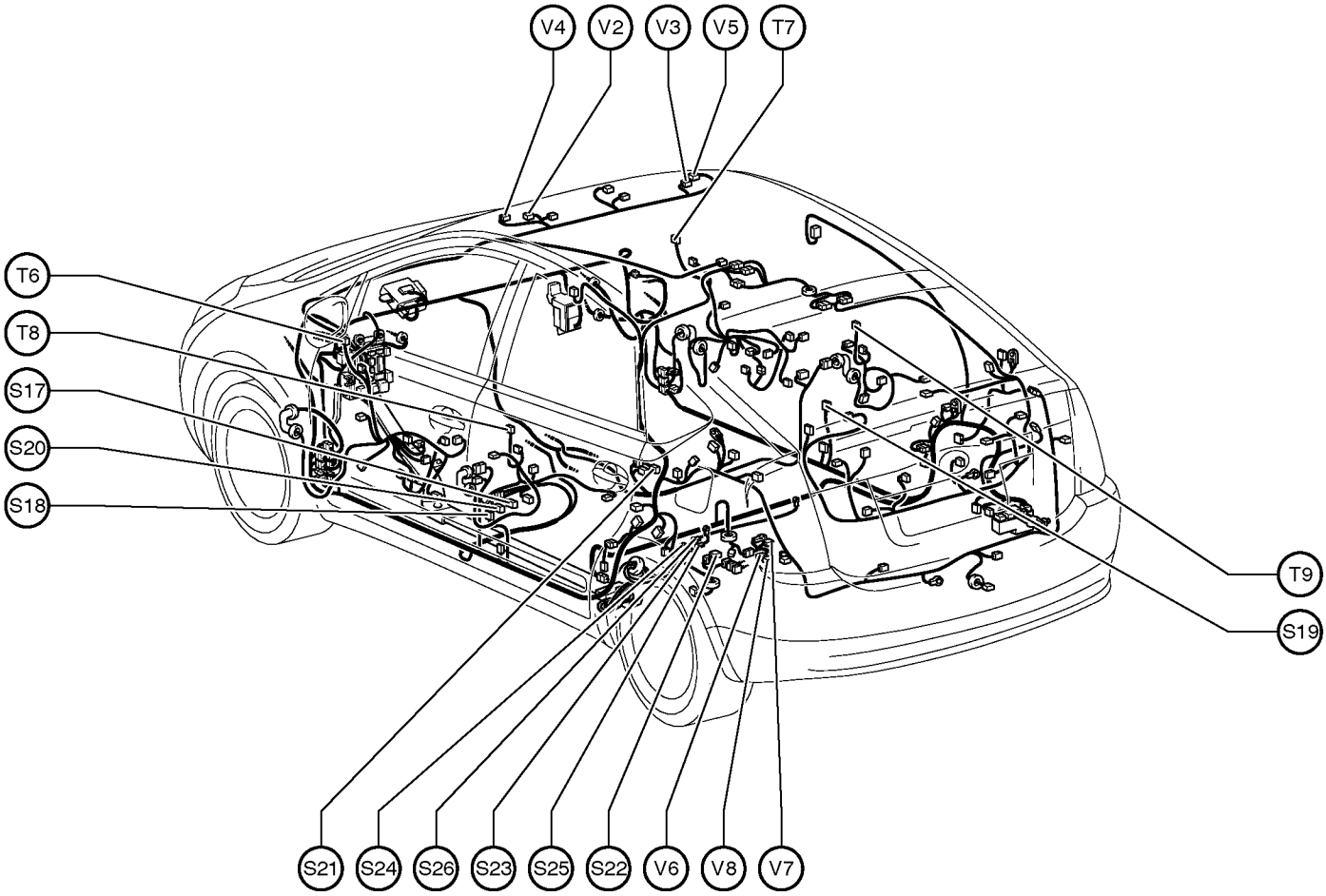
O 3 Overhead J/B

P 14 Power Window Control SW Front RH
P 15 Power Window Control SW Rear LH
P 16 Power Window Control SW Rear RH
P 17 Power Window Master SW
P 18 Power Window Motor Front LH
P 19 Power Window Motor Front RH
P 20 Power Window Motor Rear LH
P 21 Power Window Motor Rear RH
P 22 Pretensioner LH
P 23 Pretensioner RH

R 9 Rear Combination Light LH
R 10 Rear Combination Light RH
R 11 Rear Door Speaker LH
R 12 Rear Door Speaker RH
R 13 Rear Window Defogger
R 14 Rear Window Defogger
R 15 Rear Window Defogger
R 16 Rear Window Defogger
R 17 Rear Wiper Motor
R 18 Rear Wiper Relay
R 19 Mirror Heater LH
Remote Control Mirror LH
R 20 Mirror Heater RH
Remote Control Mirror RH
R 21 Remote Control Mirror SW

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Position of Parts in Body



S17 Seat Position Airbag Sensor
S18 Side Airbag Sensor LH
S19 Side Airbag Sensor RH
S20 Side Airbag Squib LH
S21 Side Airbag Squib RH
S22 System Main Relay
S23 System Main Relay
S24 System Main Relay
S25 System Main Relay
S26 System Main Relay

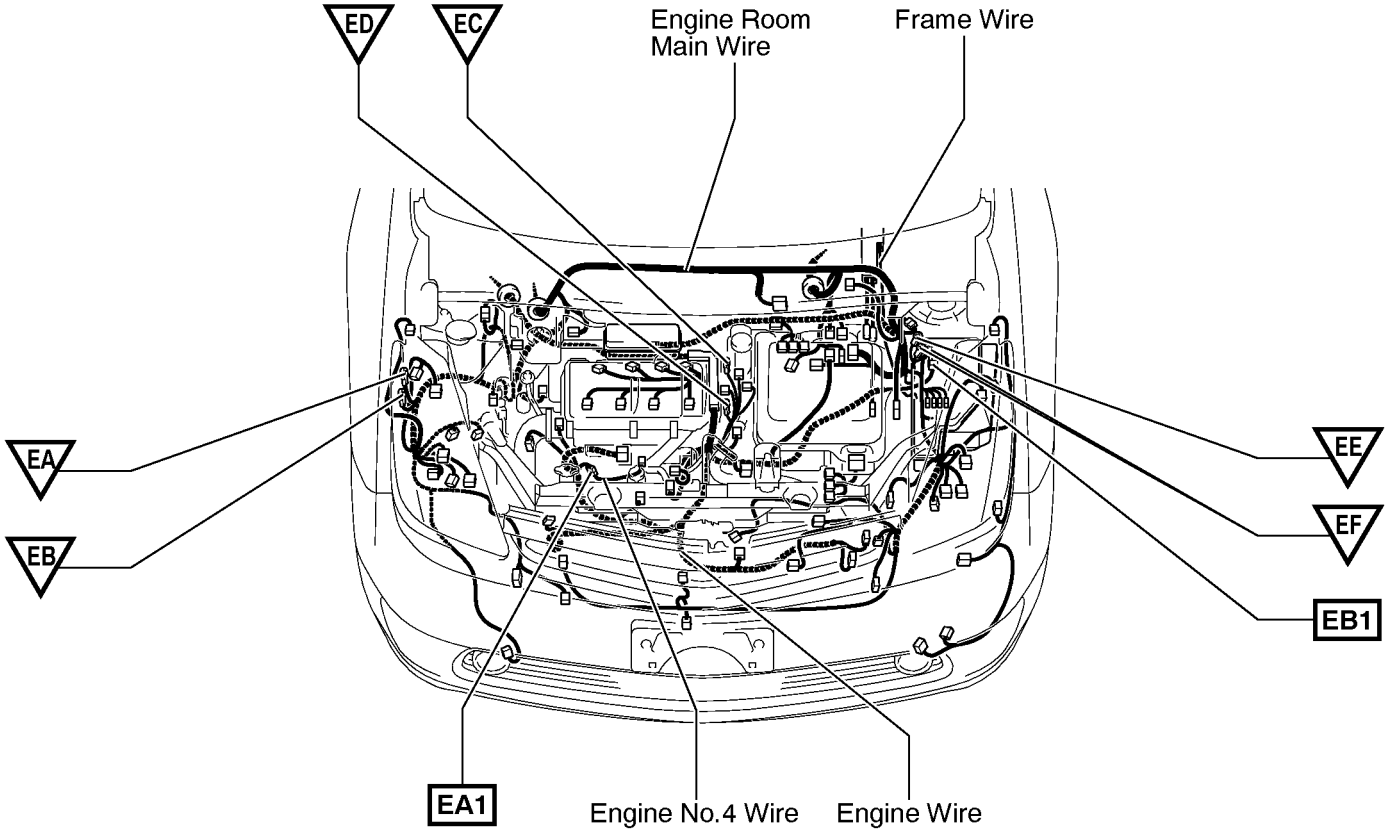
T 6 Tweeter Front LH
T 7 Tweeter Front RH
T 8 Tweeter Rear LH
T 9 Tweeter Rear RH

V 2 Vanity Light LH
V 3 Vanity Light RH
V 4 Vanity Light SW LH
V 5 Vanity Light SW RH
V 6 Vapor Pressure Sensor
V 7 VSV (Canister Closed Valve)
V 8 VSV (Parge Flow Switching Valve)

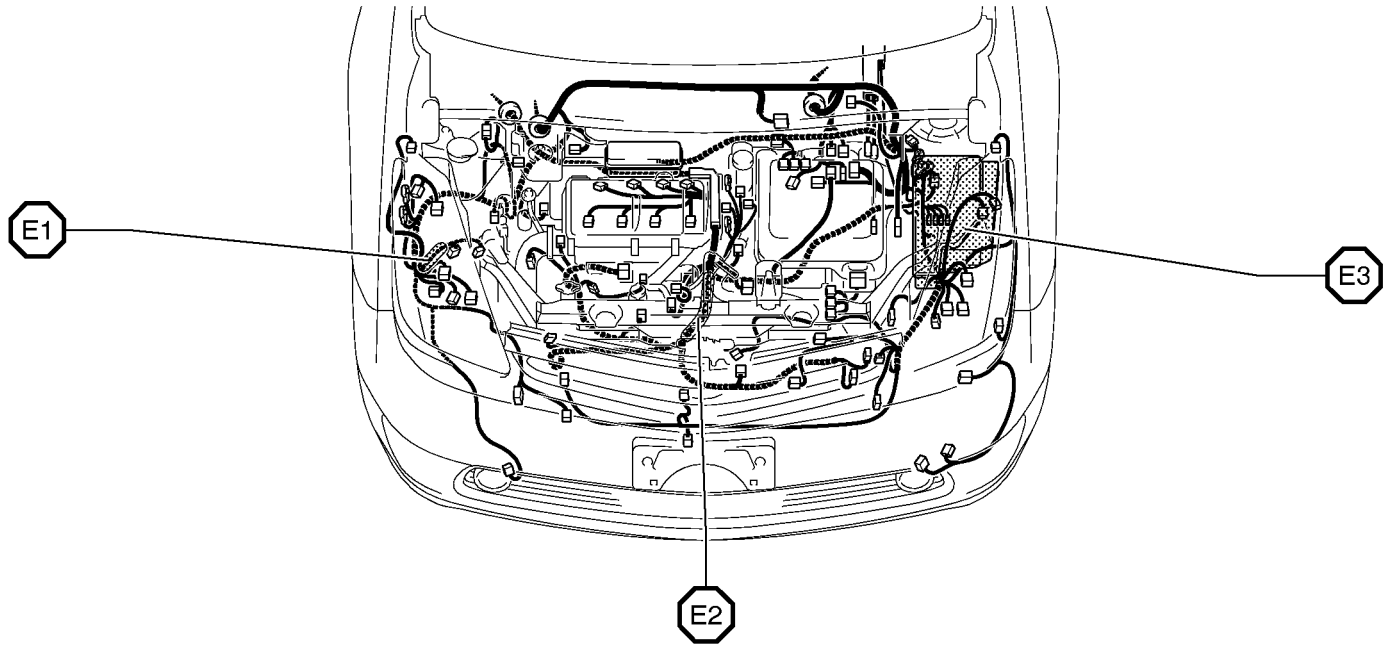
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G ELECTRICAL WIRING ROUTING

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

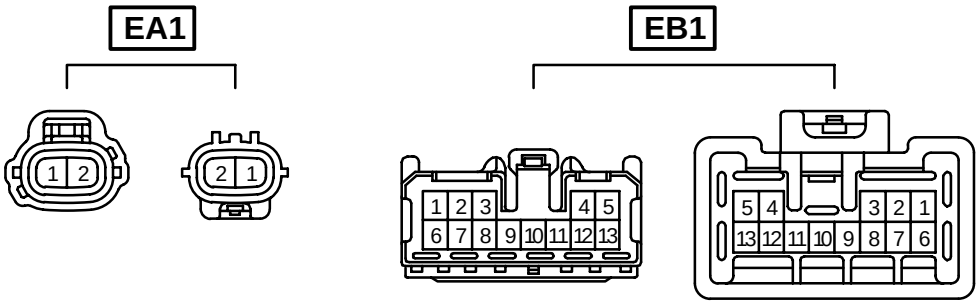


⬡ : Location of Splice Points



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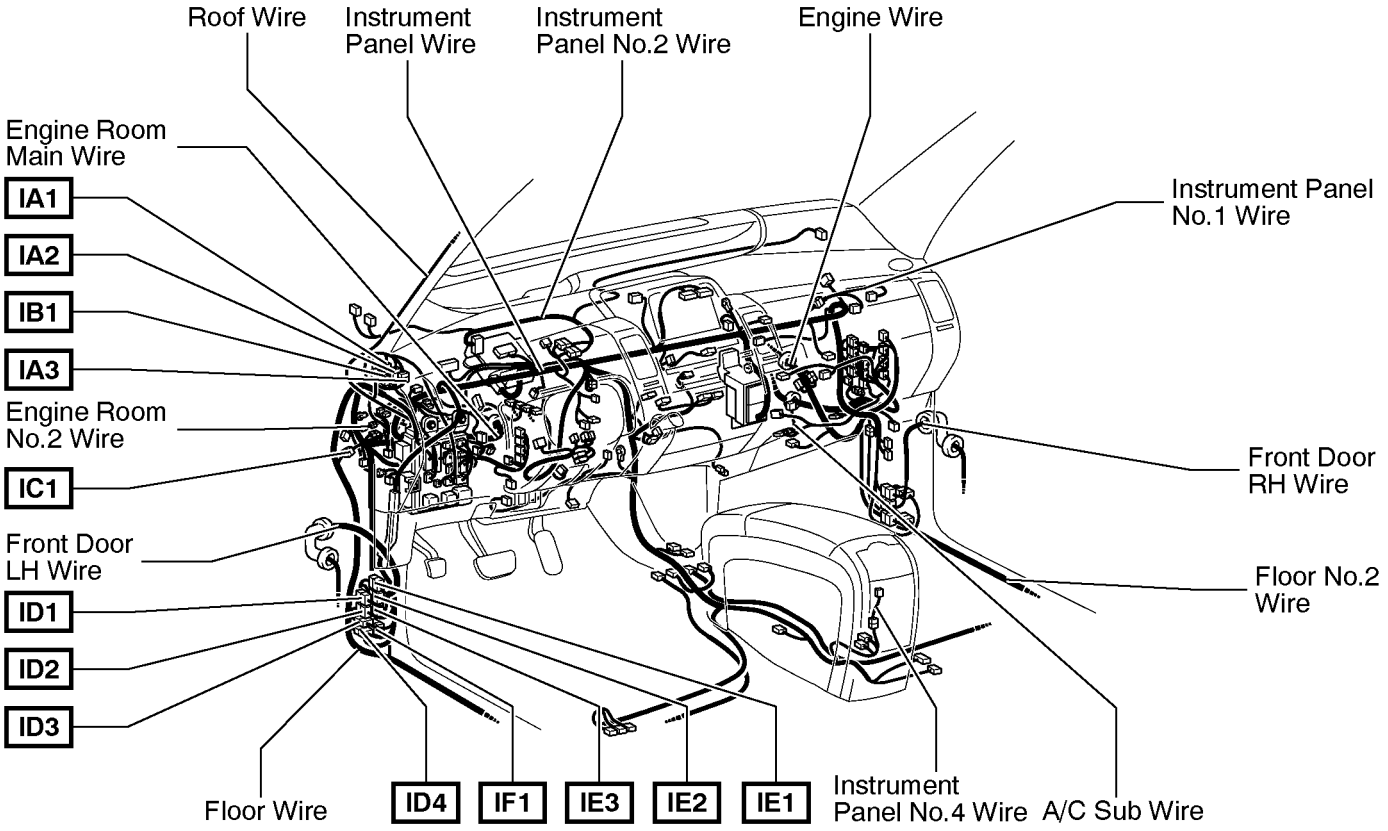
Connector Joining Wire Harness and Wire Harness



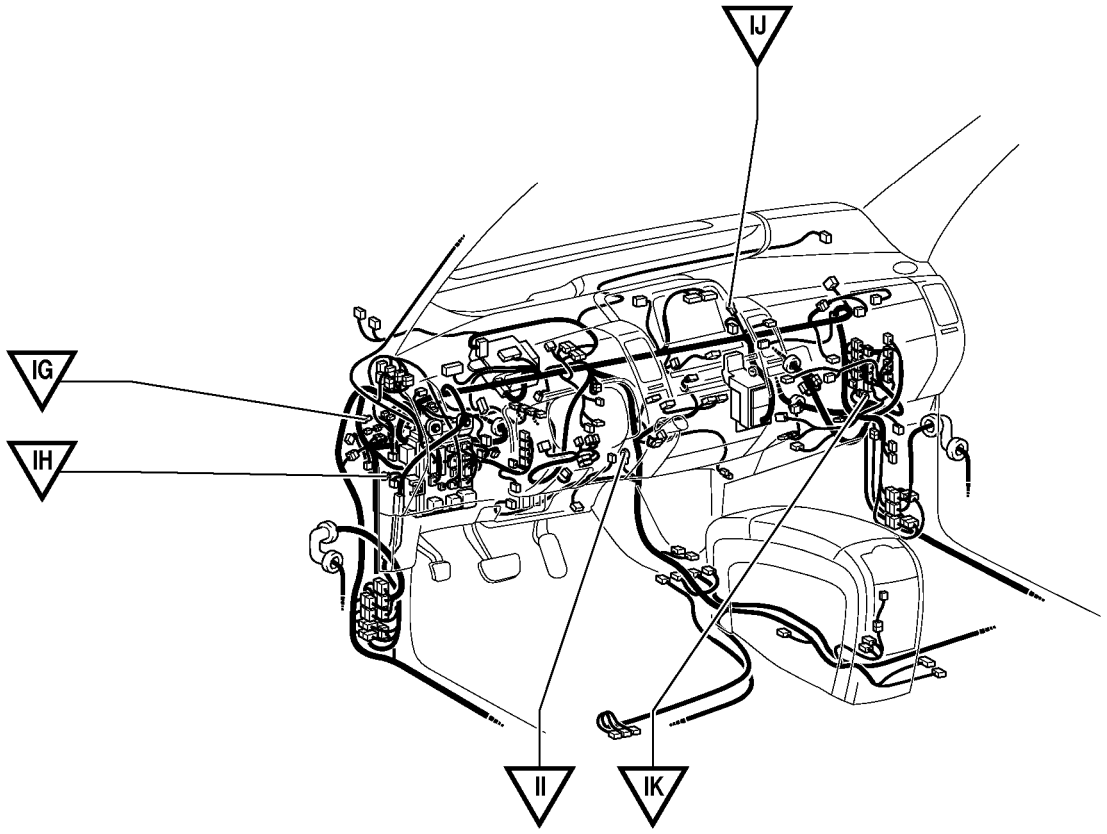
Code	Joining Wire Harness and Wire Harness (Connector Location)
EA1	Engine Wire and Engine No.4 Wire (Near the Radiator Fan)
EB1	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B)

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: Location of Connector Joining Wire Harness and Wire Harness

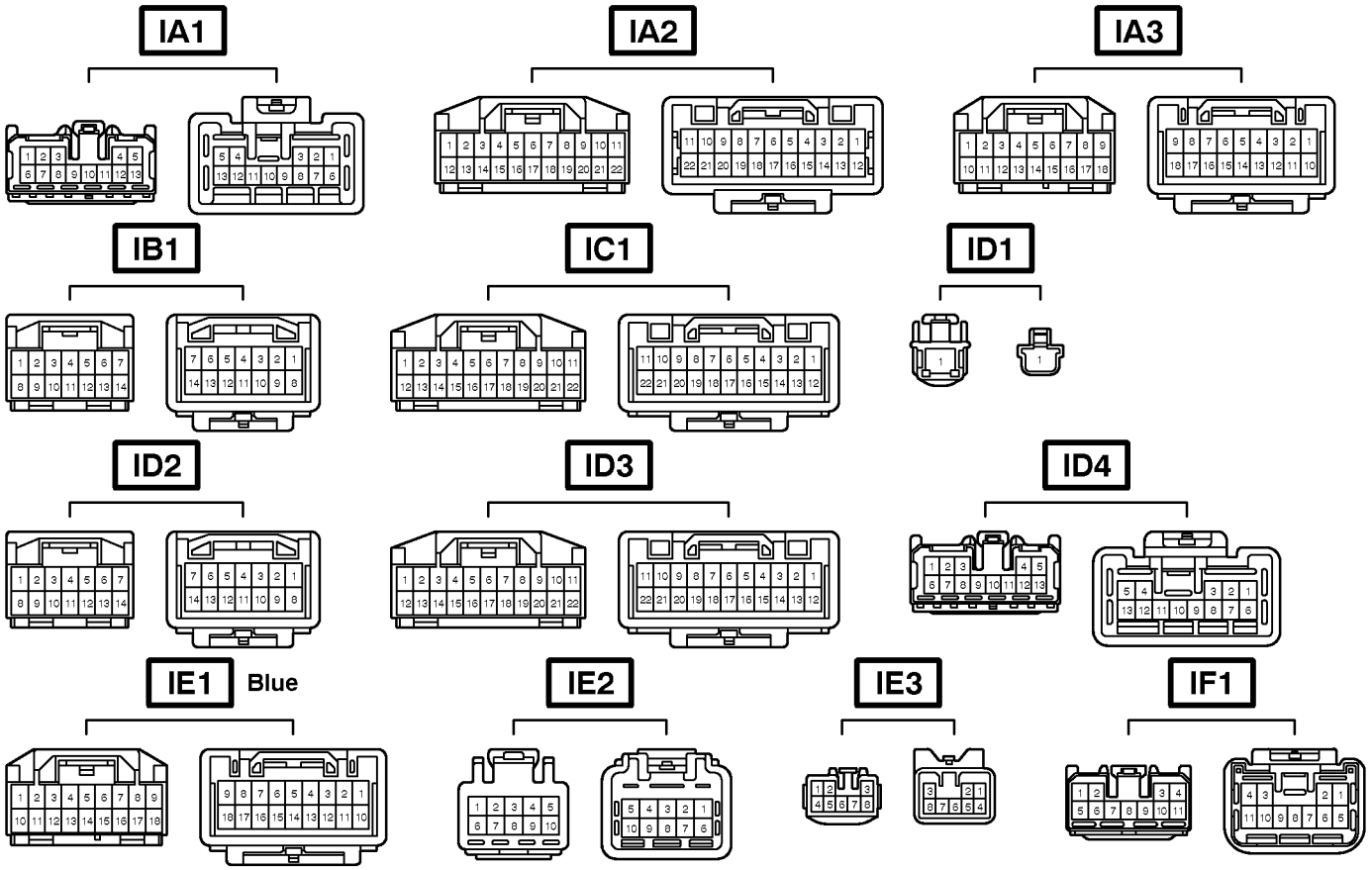


: Location of Ground Points



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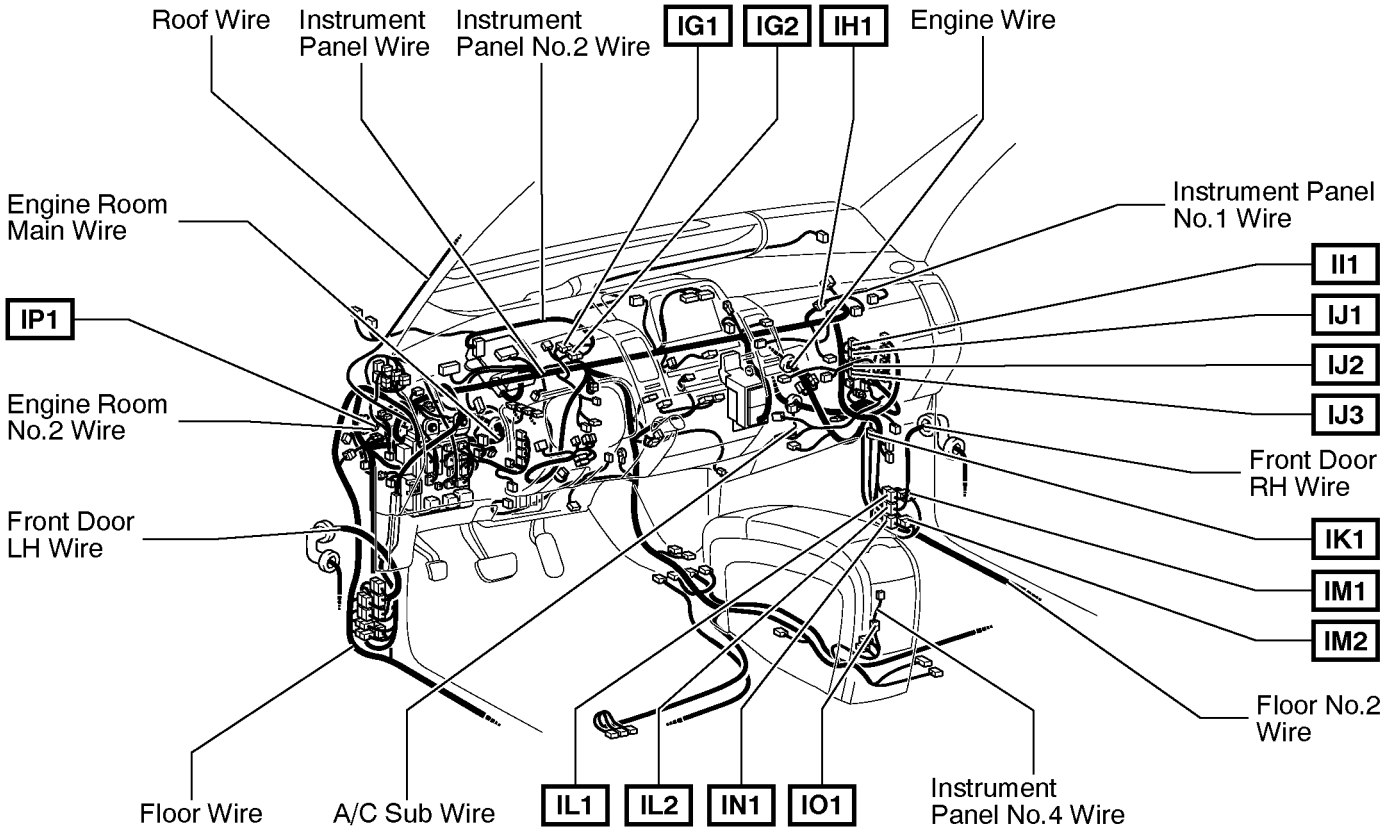
Connector Joining Wire Harness and Wire Harness



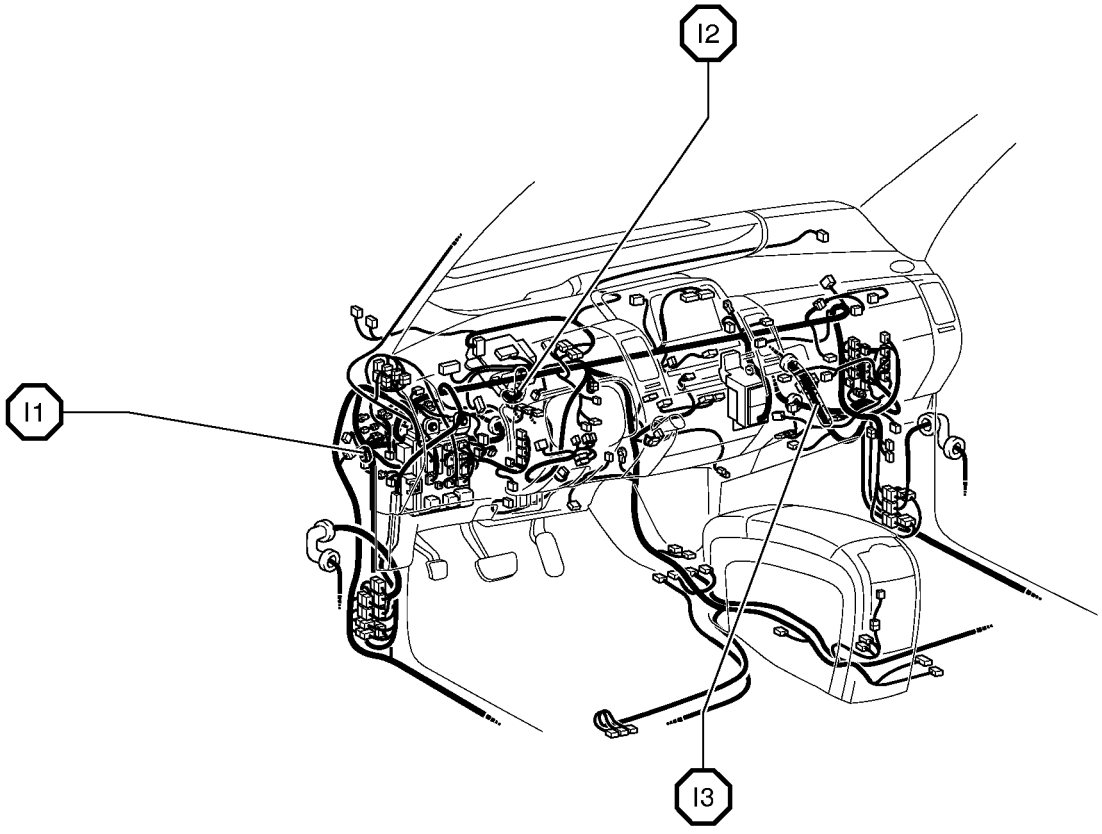
Code	Joining Wire Harness and Wire Harness (Connector Location)
IA1	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IA2	
IA3	
IB1	Roof Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IC1	Engine Room Main Wire and Floor Wire (Cowl Side Panel LH)
ID1	Instrument Panel Wire and Floor Wire (Left Kick Panel)
ID2	
ID3	
ID4	
IE1	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IE2	
IE3	
IF1	Floor Wire and Engine Room Main Wire (Left Kick Panel)

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: Location of Connector Joining Wire Harness and Wire Harness

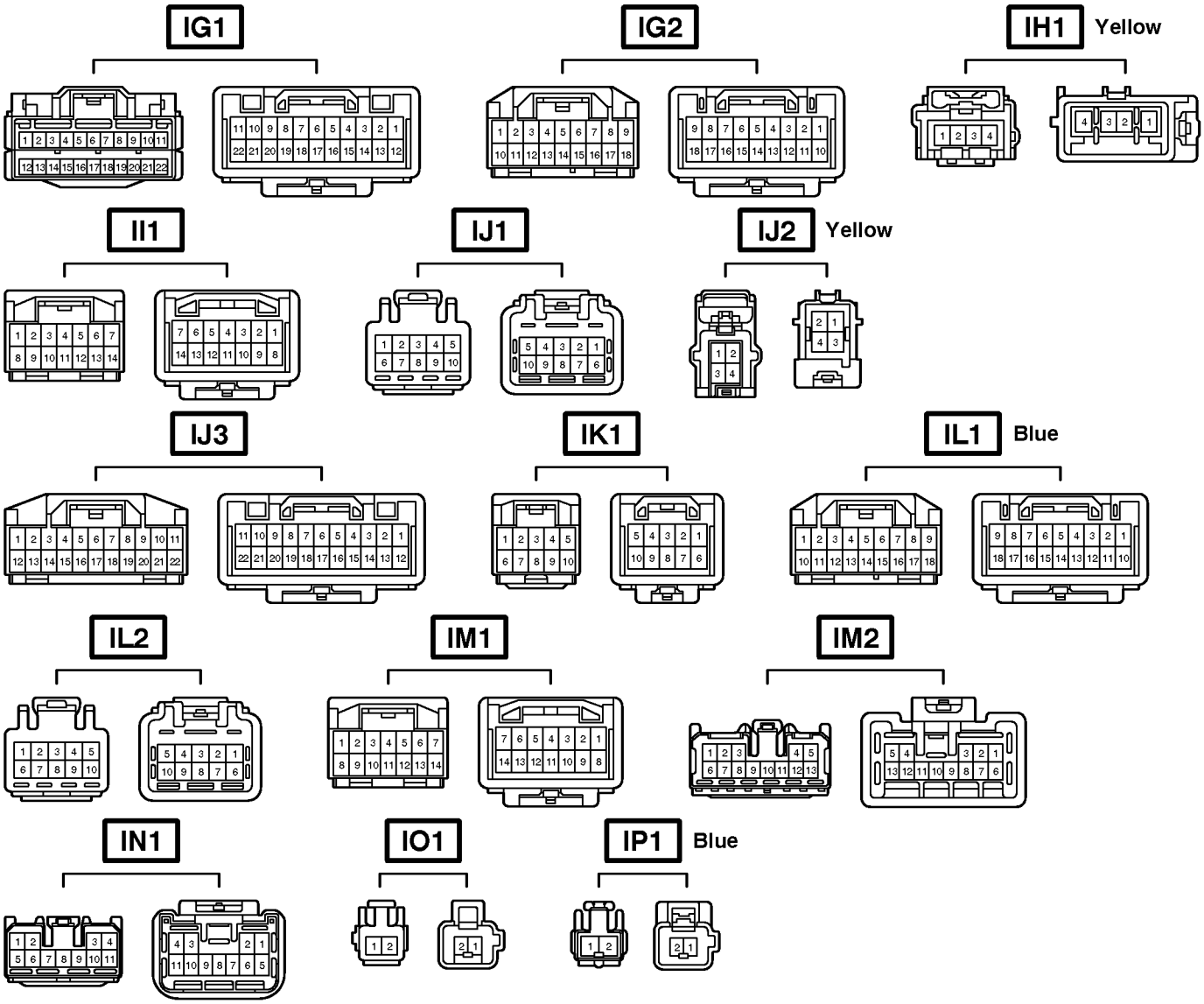


: Location of Splice Points



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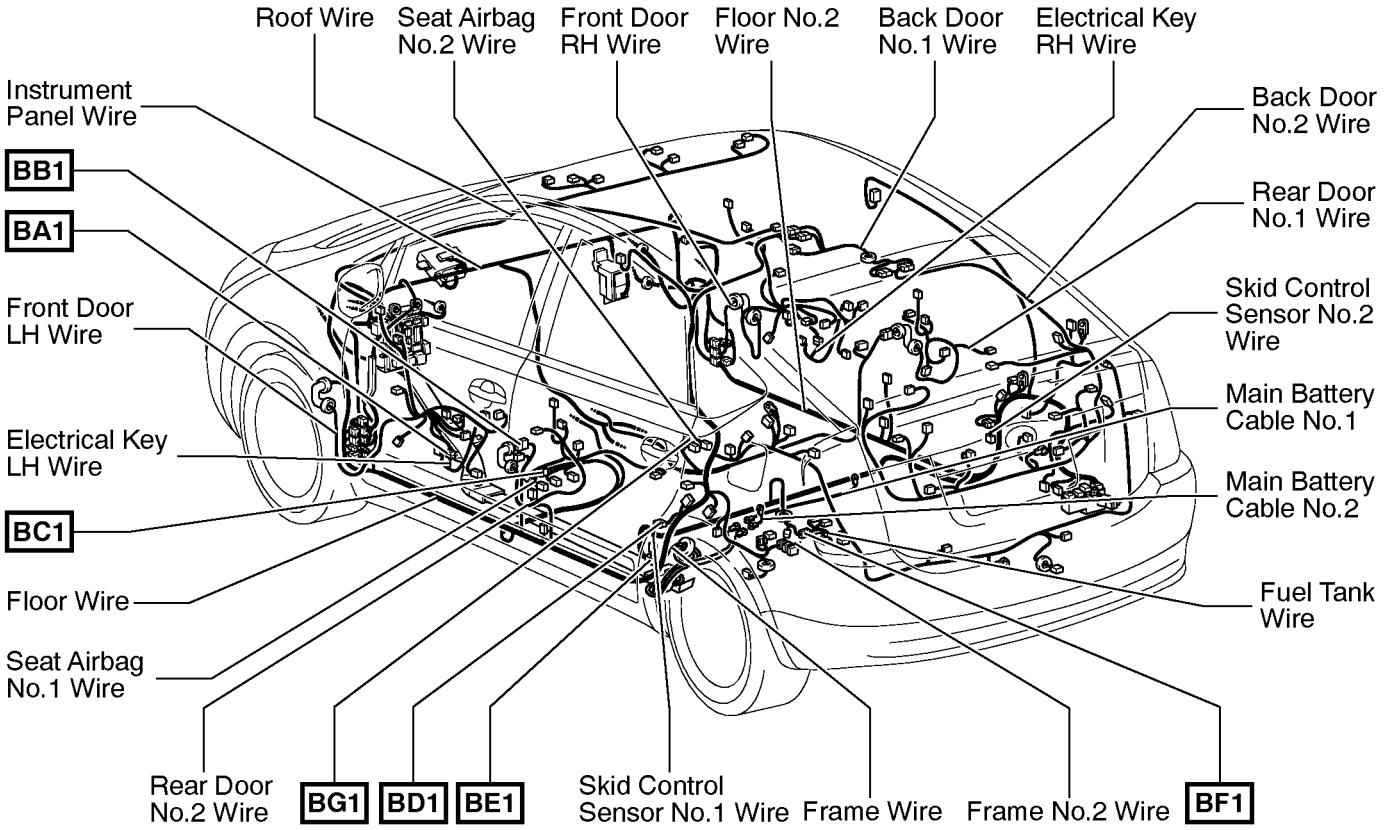
Connector Joining Wire Harness and Wire Harness



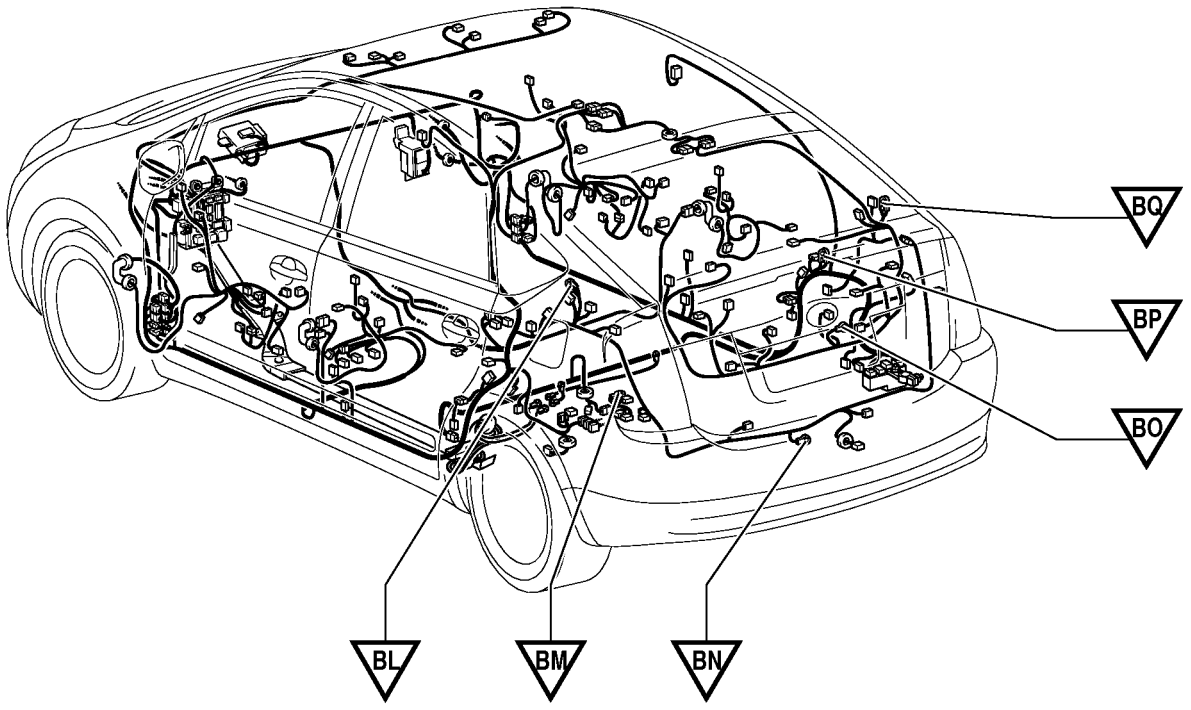
Code	Joining Wire Harness and Wire Harness (Connector Location)
IG1	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2	
IH1	Instrument Panel Wire and Instrument Panel No.1 Wire (Behind the Glove Box)
II1	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IJ1	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)
IJ2	
IJ3	
IK1	Engine Room Main Wire and Floor No.2 Wire (Cowl Side Panel RH)
IL1	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IL2	
IM1	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
IM2	
IN1	Floor No.2 Wire and Engine Room Main Wire (Right Kick Panel)
IO1	Instrument Panel Wire and Instrument Panel No.4 Wire (Front Console Box LH)
IP1	Engine Room No.2 Wire and Engine Room Main Wire (Upper Parts of Front Body Pillar LH)

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: Location of Connector Joining Wire Harness and Wire Harness

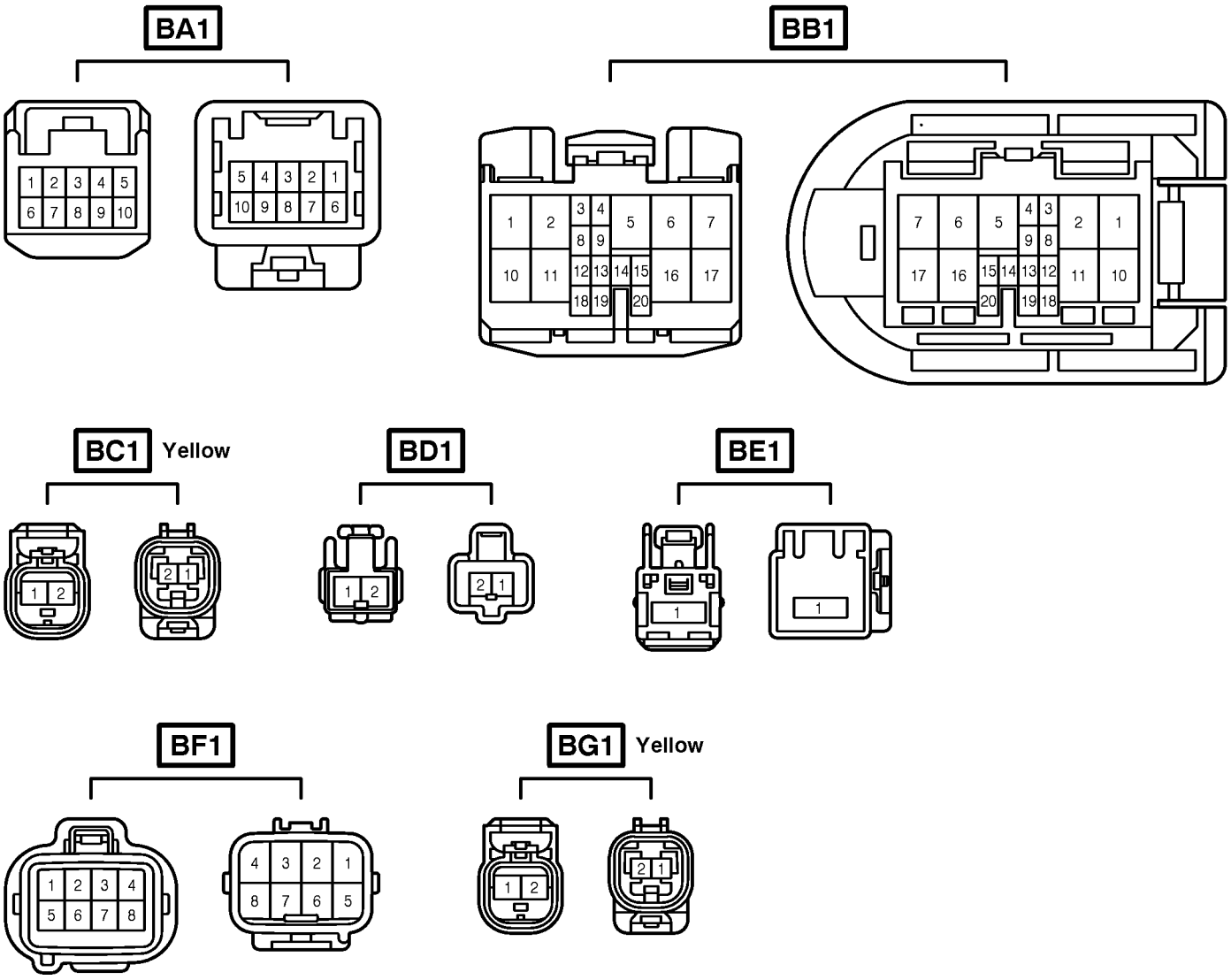


: Location of Ground Points



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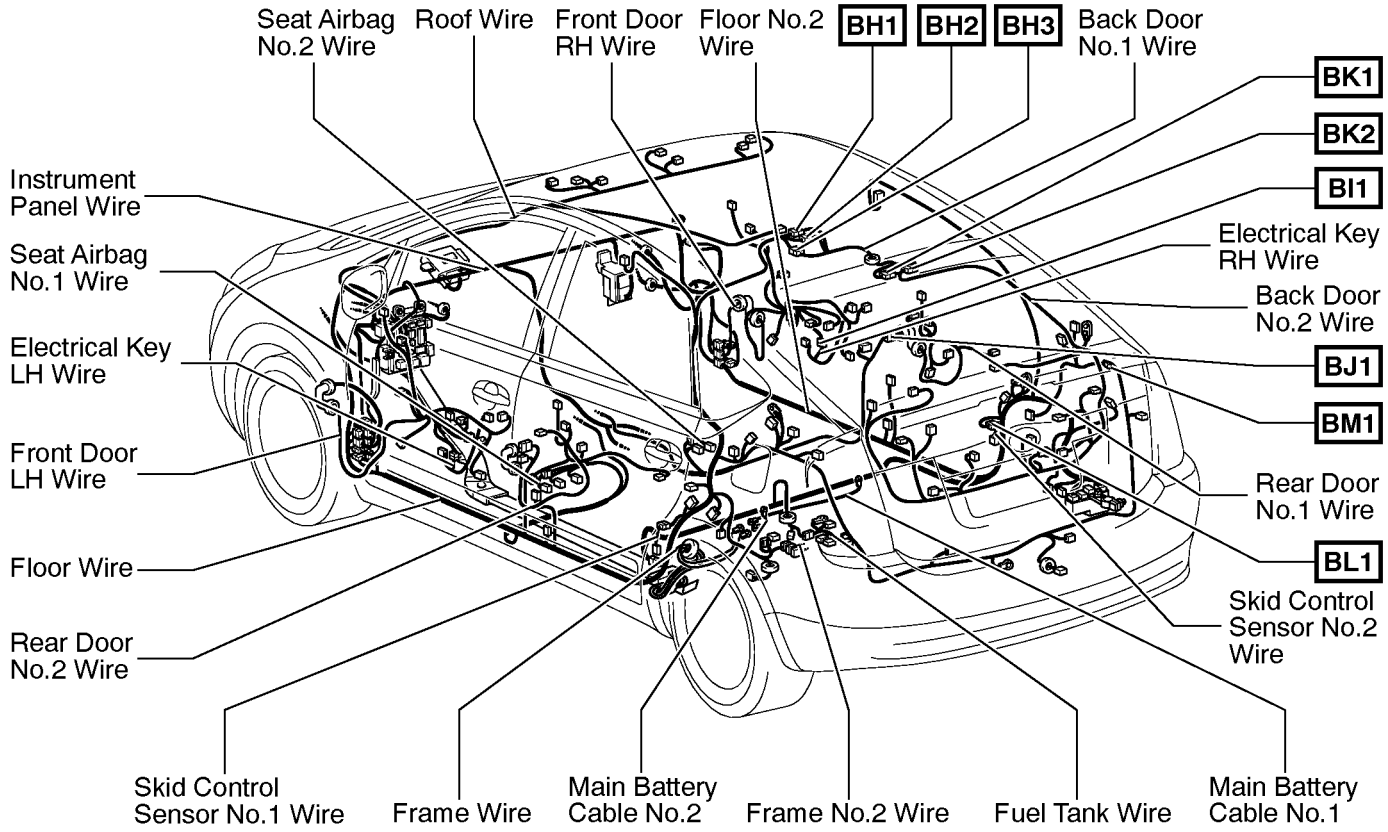
Connector Joining Wire Harness and Wire Harness



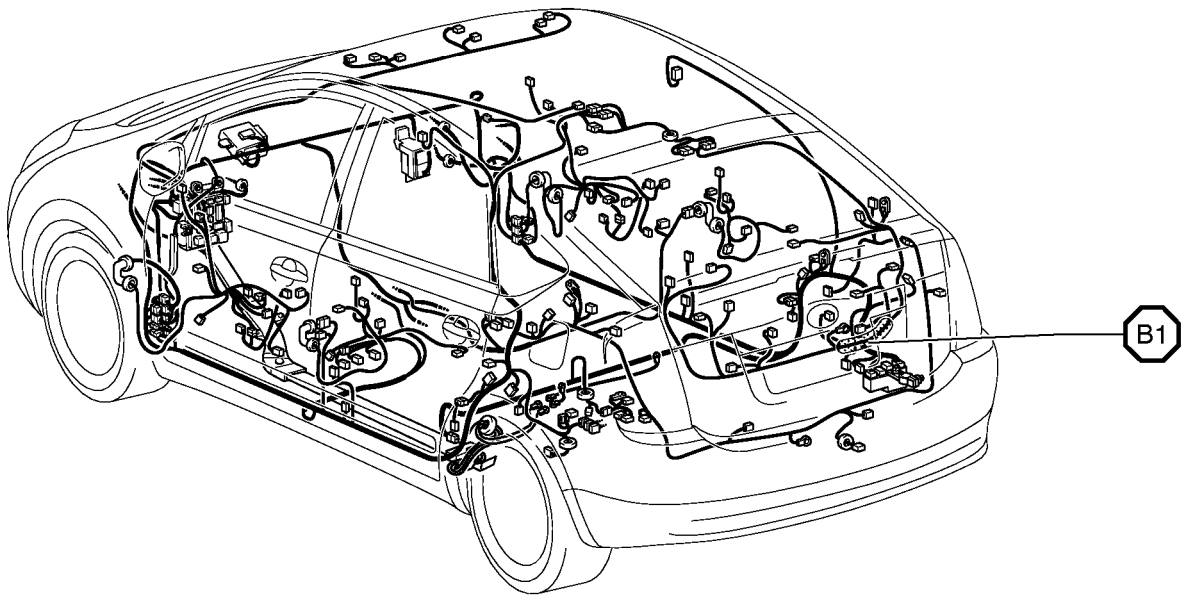
Code	Joining Wire Harness and Wire Harness (Connector Location)
BA1	Front Door LH Wire and Electrical Key LH Wire (Near the Front Door Outside Handle LH)
BB1	Rear Door No.2 Wire and Floor Wire (Left Center Pillar)
BC1	Floor Wire and Seat Airbag No.1 Wire (Under the Driver's Seat)
BD1	Skid Control Sensor No.1 Wire and Floor Wire (Front Side of Left Quarter Panel)
BE1	Frame Wire and Floor No.2 Wire (Front Side of Left Quarter Panel)
BF1	Floor No.2 Wire and Fuel Tank Wire (Near the Fuel Tank)
BG1	Floor No.2 Wire and Seat Airbag No.2 Wire (Under the Front Passenger's Seat)

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▭ : Location of Connector Joining Wire Harness and Wire Harness

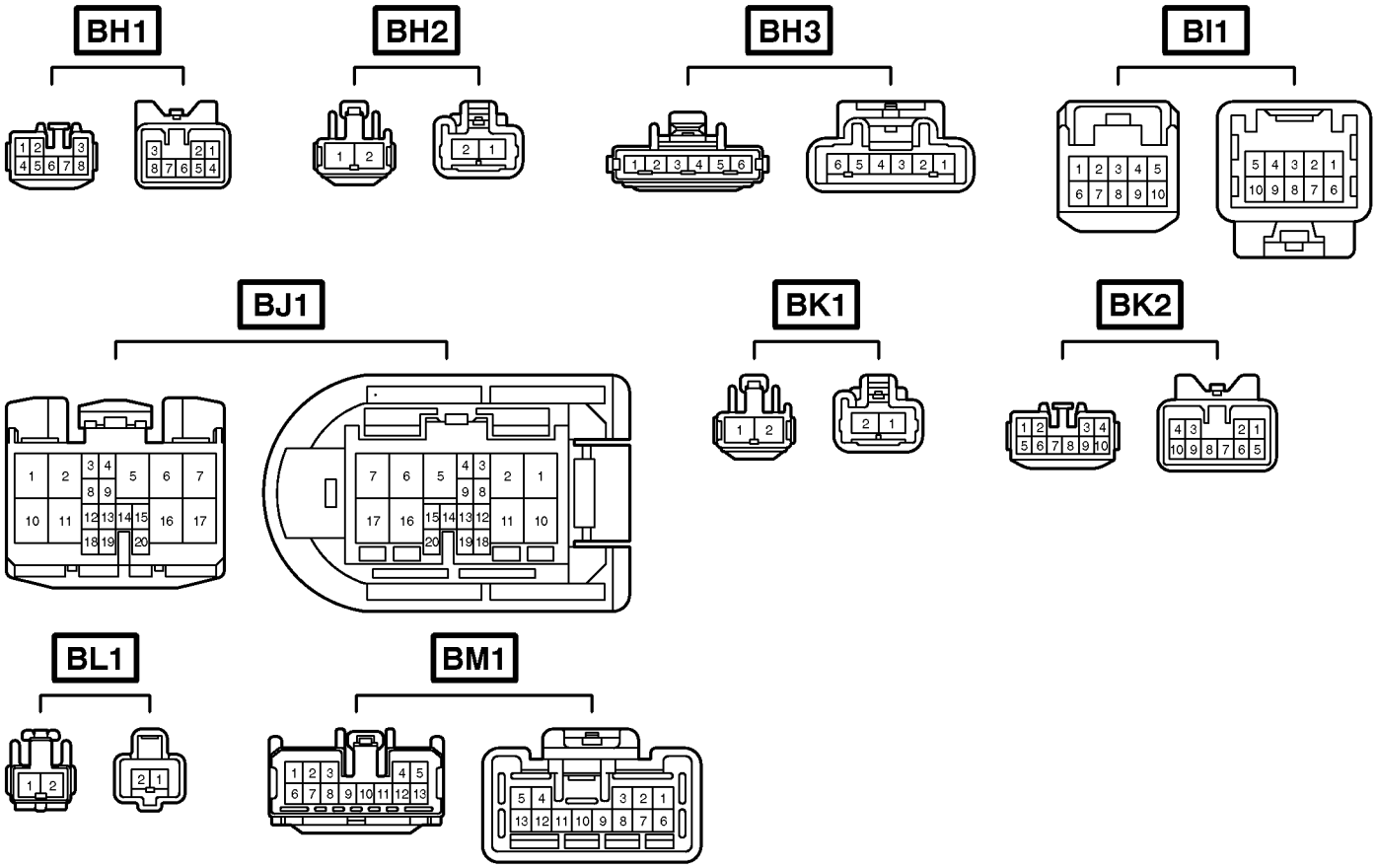


⬡ : Location of Splice Points



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Connector Joining Wire Harness and Wire Harness



Code	Joining Wire Harness and Wire Harness (Connector Location)
BH1	Back Door No.1 Wire and Floor Wire (Rear Side of Roof Panel)
BH2	
BH3	
BI1	Front Door RH Wire and Electrical Key RH Wire (Near the Front Door Outside Handle RH)
BJ1	Rear Door No.1 Wire and Floor No.2 Wire (Right Center Pillar)
BK1	Back Door No.1 Wire and Back Door No.2 Wire (Rear Side of Roof Panel)
BK2	
BL1	Skid Control Sensor No.2 Wire and Floor No.2 Wire (Front Side of Right Quarter Panel)
BM1	Floor No.2 Wire and Floor Wire (Rear Side of Right Quarter Panel)

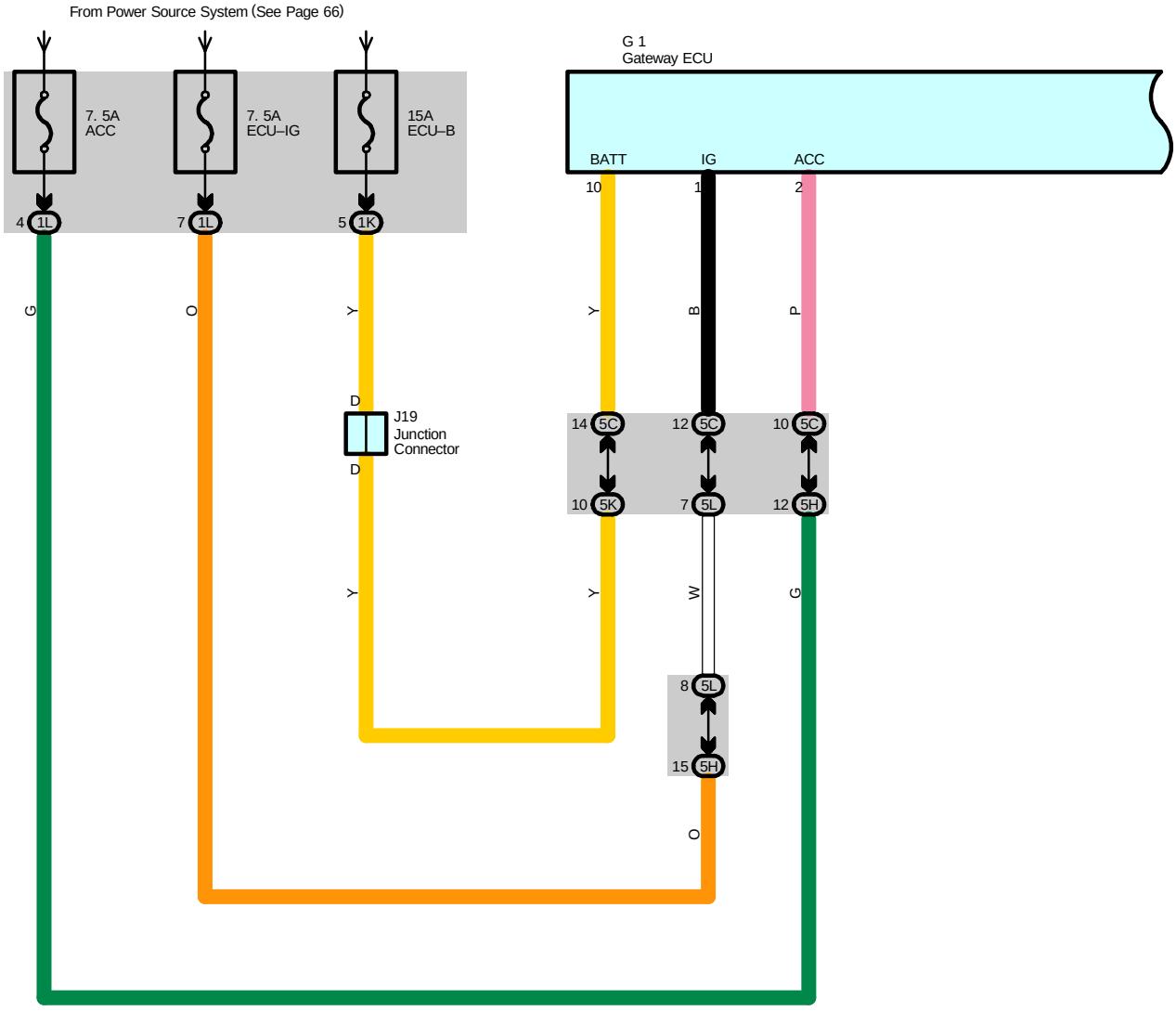
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Memo

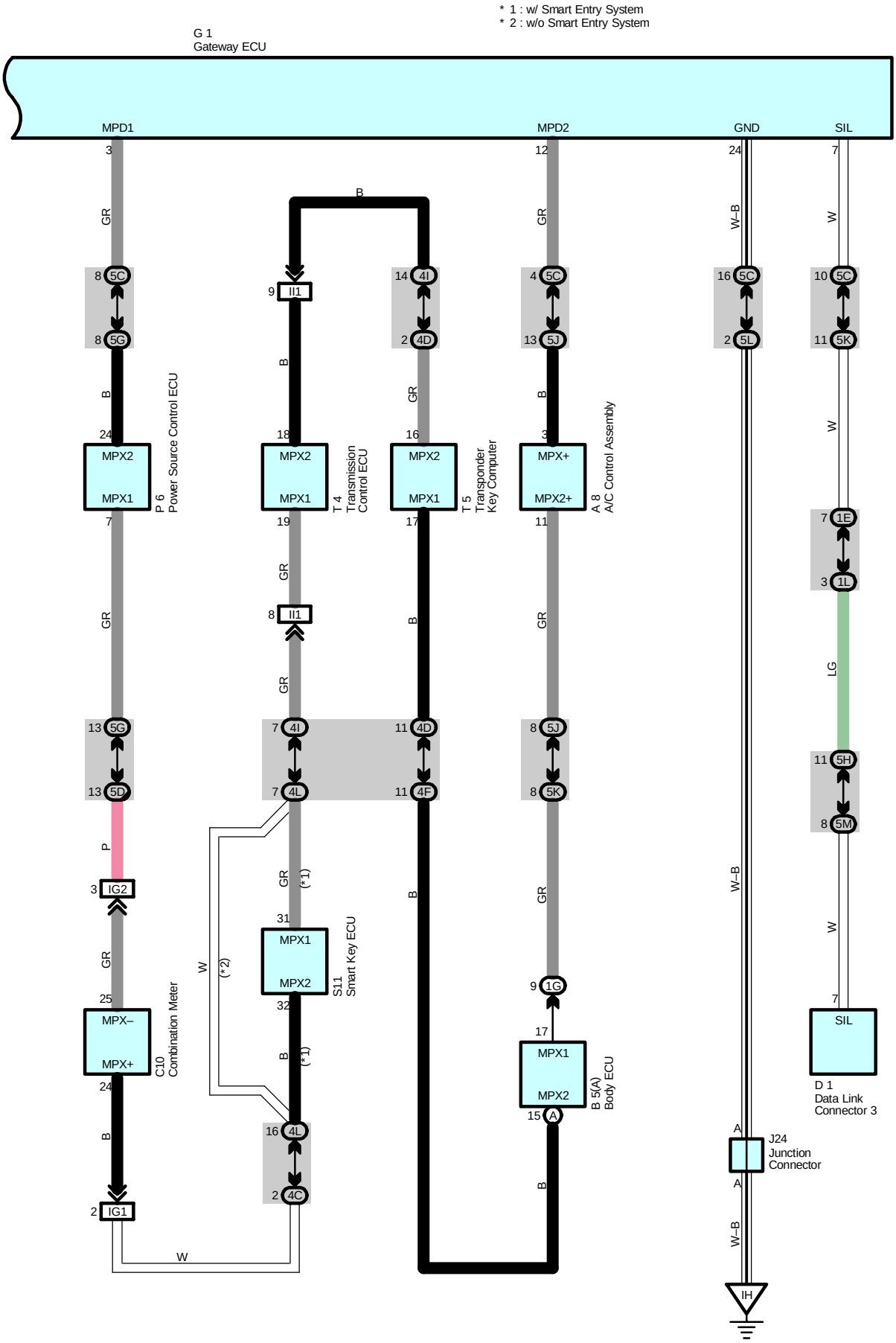
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2004 PRIUS
ELECTRICAL WIRING DIAGRAM
SYSTEM CIRCUITS

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System Outline

BEAN consists of body electrical systems such as body ECU, A/C control assembly, power source control ECU, combination meter, smart key ECU*, transmission control ECU, transponder key computer and gateway ECU. Gateway ECU has communication circuit to correspond with different types of communication data. Different types of communication data can be shared among communication parts after it goes through gateway ECU. Vehicle information is input to body ECU at an assembling plant as a representative ECU which delivers the information to other ECUs through multiplex communication.

* Optional equipment

This system is working for the following systems:

* Air Conditioning
* Audio System
* Brake Control System
* Combination Meter
* Cruise Control
* Engine Control
* EPS
* Headlight
* Hybrid Vehicle Immobilizer System
* Illumination
* Interior Light
* Key Reminder
* Luggage Compartment Door Opener
* Mirror Heater
* Multi–Display
* Push Button Start System
* Rear Window Defogger
* Shift Control System
* Smart Entry System
* Taillight
* TOYOTA Hybrid System

Service Hints

G1 Gateway ECU

10–Ground : Always approx. 12 volts
1–Ground : Approx. 12 volts with the power SW at IG ON position
2–Ground : Approx. 12 volts with the power SW at ACC ON or IG ON position
24–Ground : Always continuity

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A8	46	G1	47	S11	49
B5 A	46	J19	48	T4	49
C10	47	J24	48	T5	49
D1	47	P6	49		

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: **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1G		
1K		
1L		
4C	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4D		
4F		
4I		
4L		
5C	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5D		
5G		
5H		
5J		
5K		
5L		
5M		

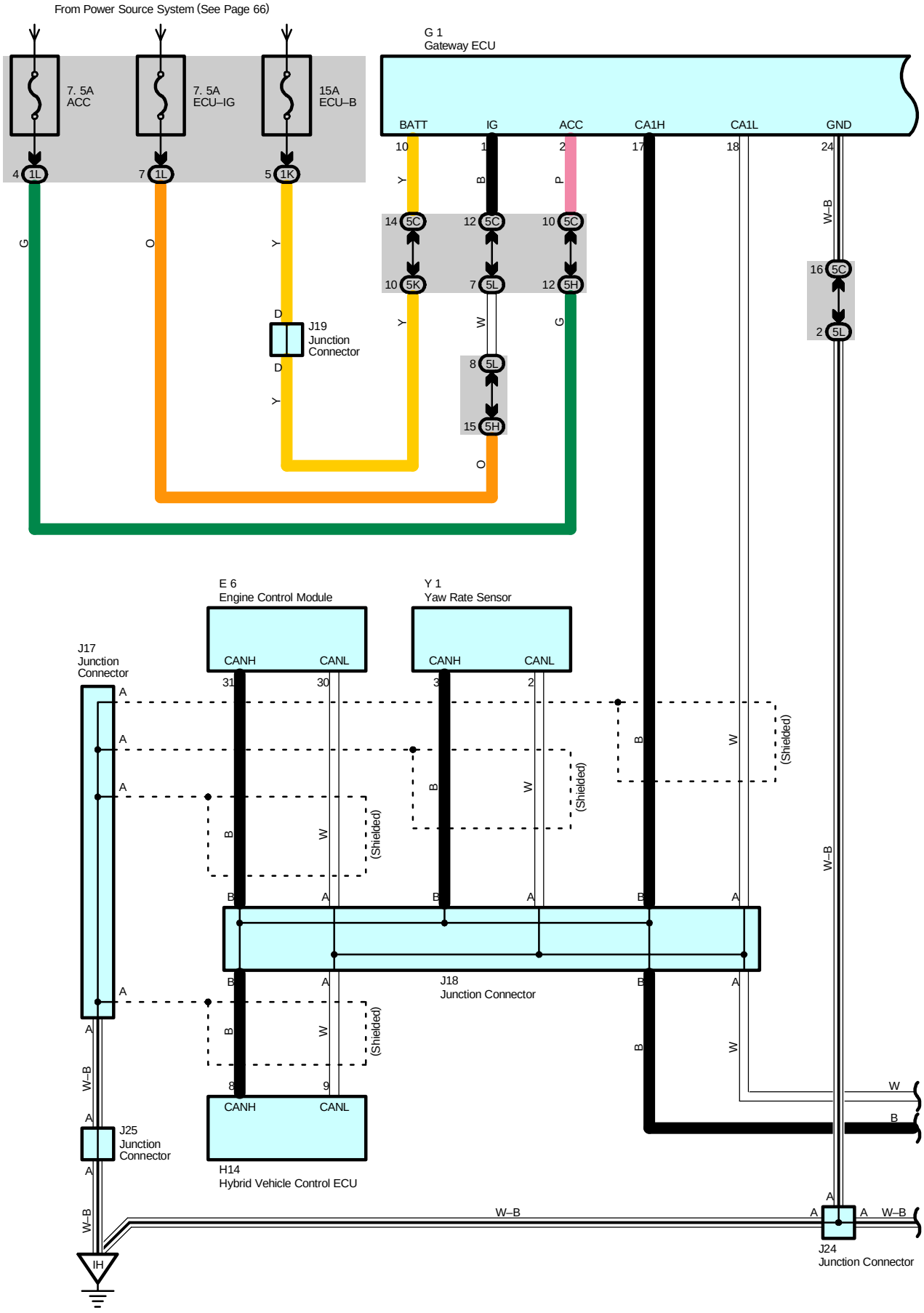
: **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)

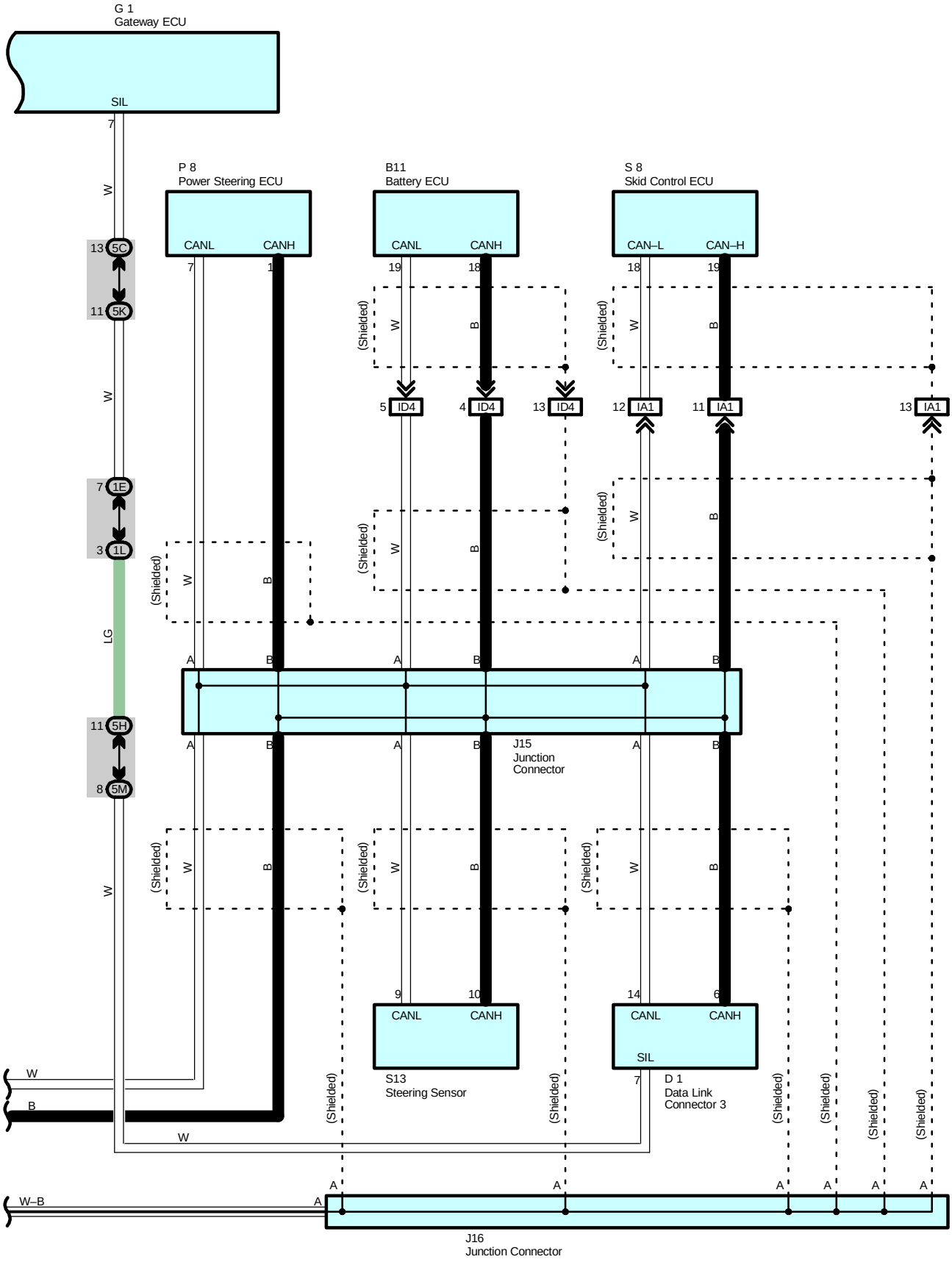
: **Ground Points**

Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH

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Multiplex Communication System – CAN Bus

System Outline

CAN has two lines as a pair which make communication with operating voltage. CAN has excellent data speed and error detecting capacity. It consists of vehicle control systems such as hybrid vehicle control ECU, engine control module, yaw rate sensor, battery ECU, power steering ECU, skid control ECU, power steering torque sensor, data link connector 3 and gateway ECU. Gateway ECU has communication circuit to correspond with different types of communication data. Different types of communication data can be shared among communication parts after it goes through gateway ECU.
This system is working for the following systems:

* Air Conditioning
* Audio System
* Back–Up Light
* Brake Control System
* Combination Meter
* Cruise Control
* Engine Control
* EPS
* Headlight
* Hybrid Vehicle Immobilizer System
* Multi–Display
* Push Button Start System
* Shift Control System
* Smart Entry System
* Theft Deterrent
* TOYOTA Hybrid System

Service Hints

G1 Gateway ECU

10–Ground : Always approx. 12 volts
1–Ground : Approx. 12 volts with the power SW at IG ON position
2–Ground : Approx. 12 volts with the power SW at ACC ON or IG ON position
24–Ground : Always continuity

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
B11	50	J16	48	P8	49
D1	47	J17	48	S8	49
E6	47	J18	48	S13	49
G1	47	J19	48	Y1	49
H14	47	J24	48		
J15	48	J25	48		

⬭ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1K		
1L		
5C	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5H		
5K		
5L		
5M		

▭ : Connector Joining Wire Harness and Wire Harness

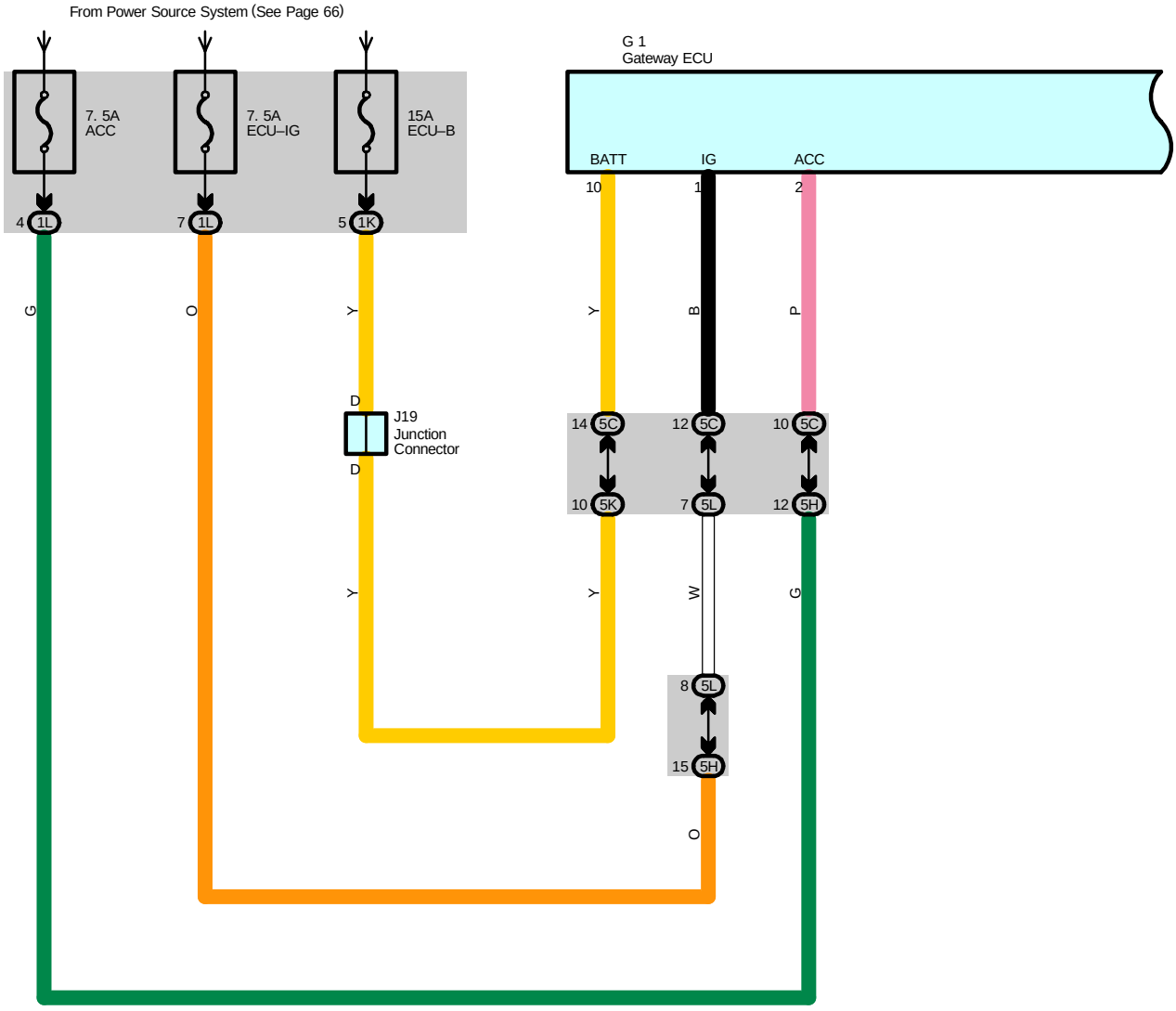
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
ID4	56	Instrument Panel Wire and Floor Wire (Left Kick Panel)

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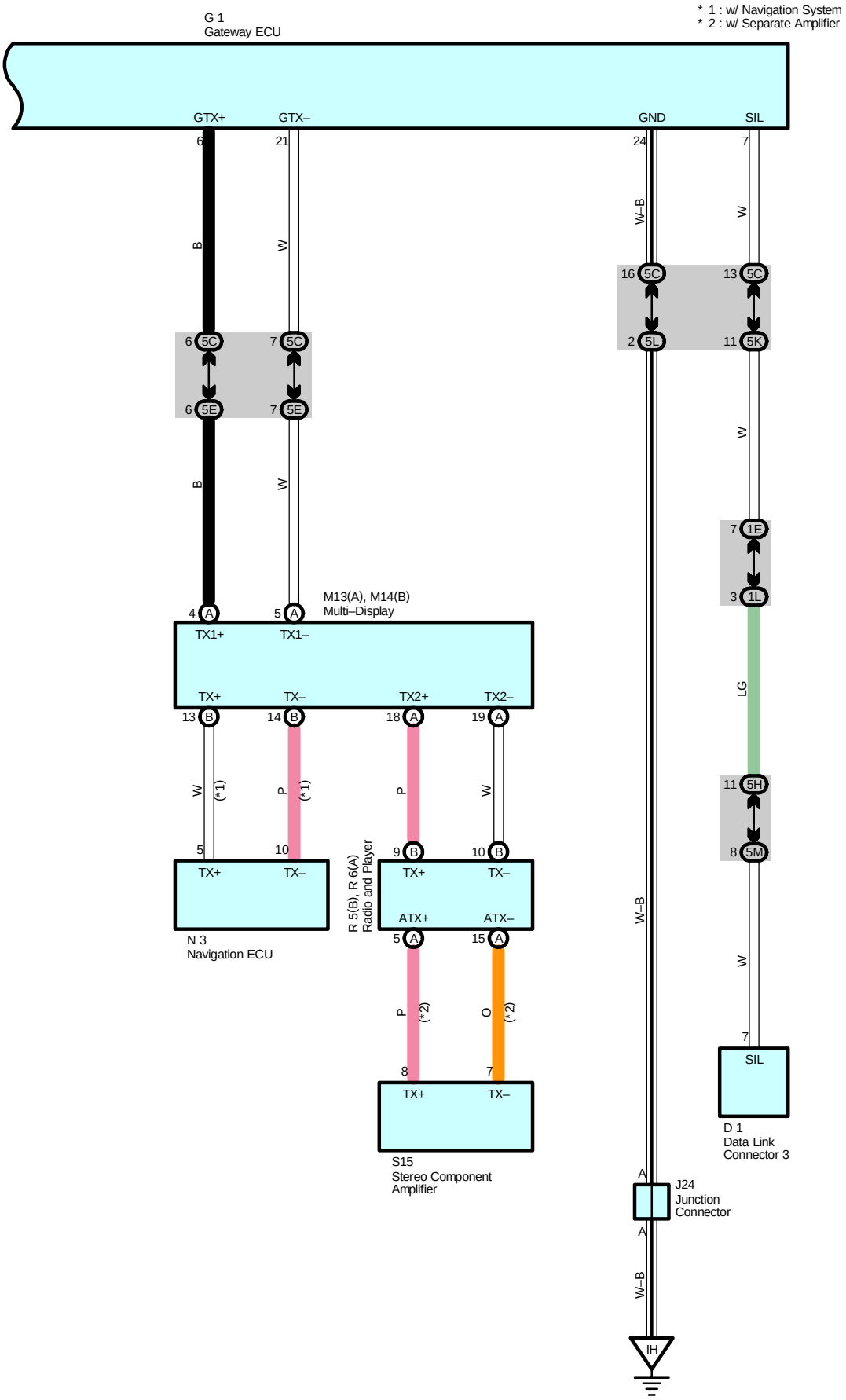
: **Ground Points**

Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH

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Multiplex Communication System – AVC–LAN Bus

System Outline

AVC–LAN consists of audio visual systems such as multi–display, navigation ECU*, radio and player, stereo component amplifier* and gateway ECU. Gateway ECU has communication circuit to correspond with different types of communication data. Different types of communication data can be shared among communication parts after it goes through gateway ECU.

* Optional equipment

This system is working for the following systems:

* Air Conditioning
* Audio System
* Brake Control System
* Combination Meter
* Engine Control
* EPS
* Hybrid Vehicle Immobilizer System
* Mirror Heater
* Multi–Display
* Push Button Start System
* Rear Wiper and Washer
* Shift Control System
* TOYOTA Hybrid System

Service Hints

G1 Gateway ECU

10–Ground : Always approx. 12 volts
1–Ground : Approx. 12 volts with the power SW at IG ON position
2–Ground : Approx. 12 volts with the power SW at ACC ON or IG ON position
24–Ground : Always continuity

: Parts Location

Code	See Page	Code	See Page	Code	See Page
D1	47	M13 A	48	R6 B	49
G1	47	M14 B	48	S15	49
J19	48	N3	48		
J24	48	R5 A	49		

: Junction Block and Wire Harness Connector

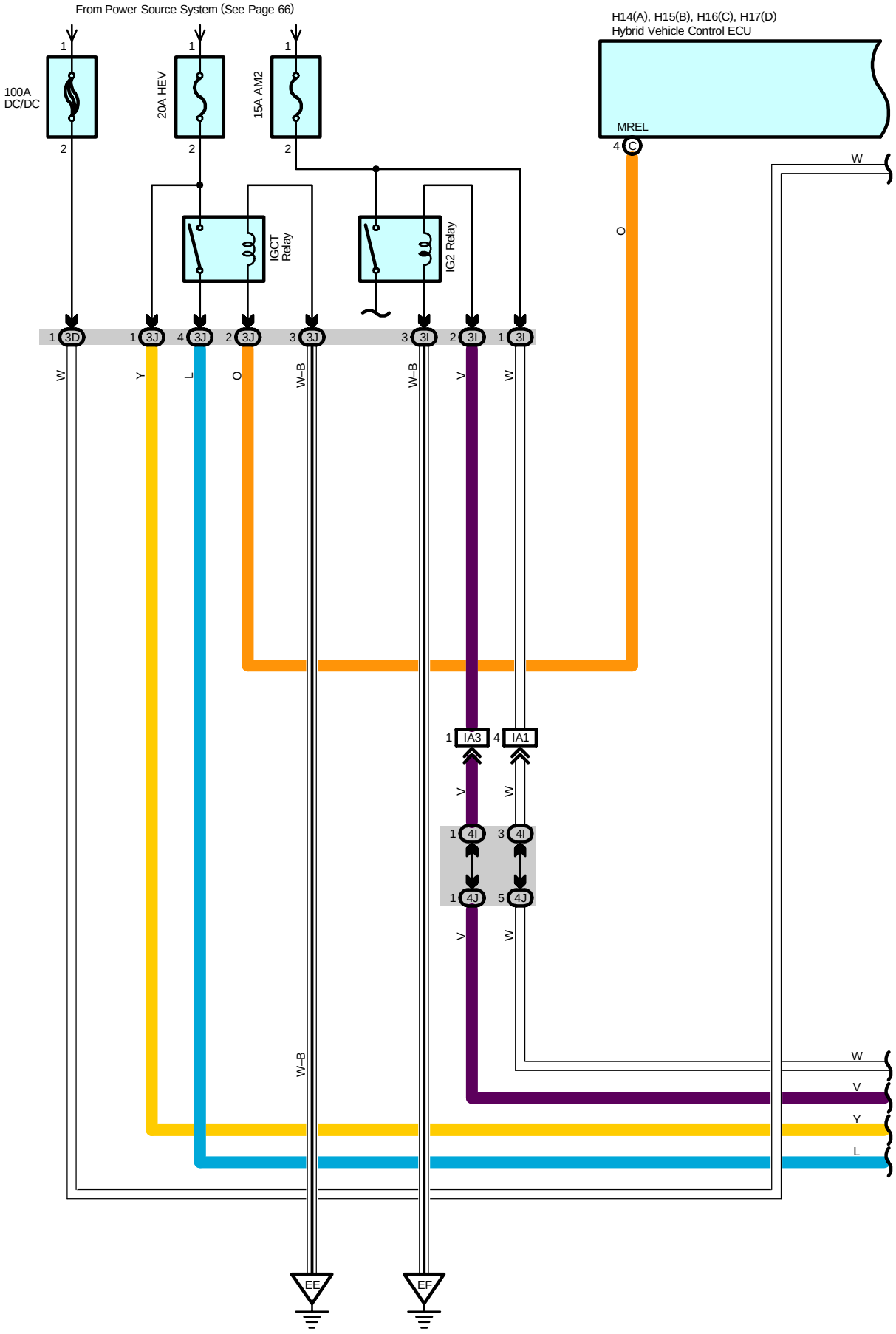
Code	See Page	Junction Block and Wire Harness (Connector Location)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1K		
1L		
5C	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5E		
5H		
5K		
5L		
5M		

: Ground Points

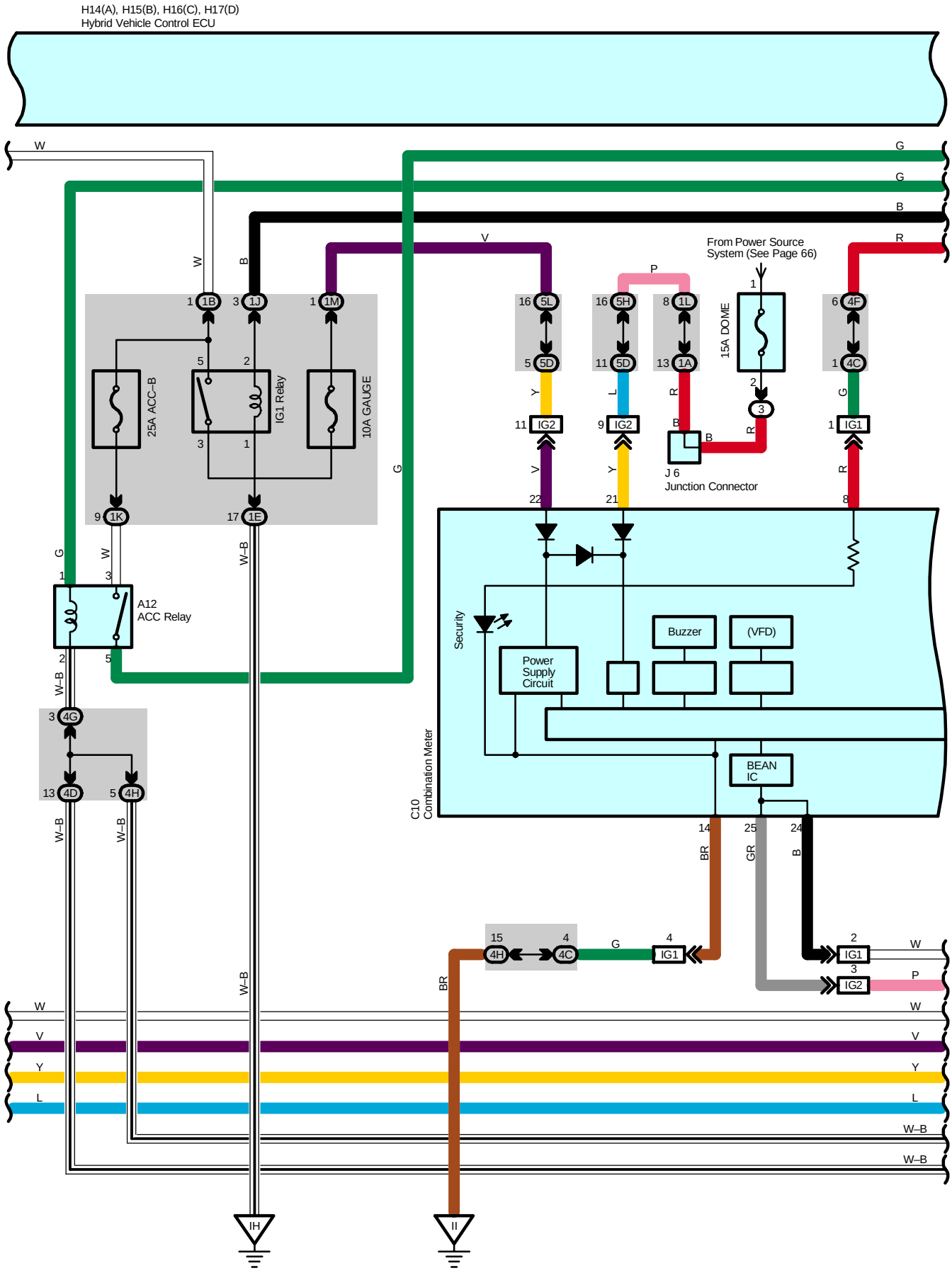
Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH

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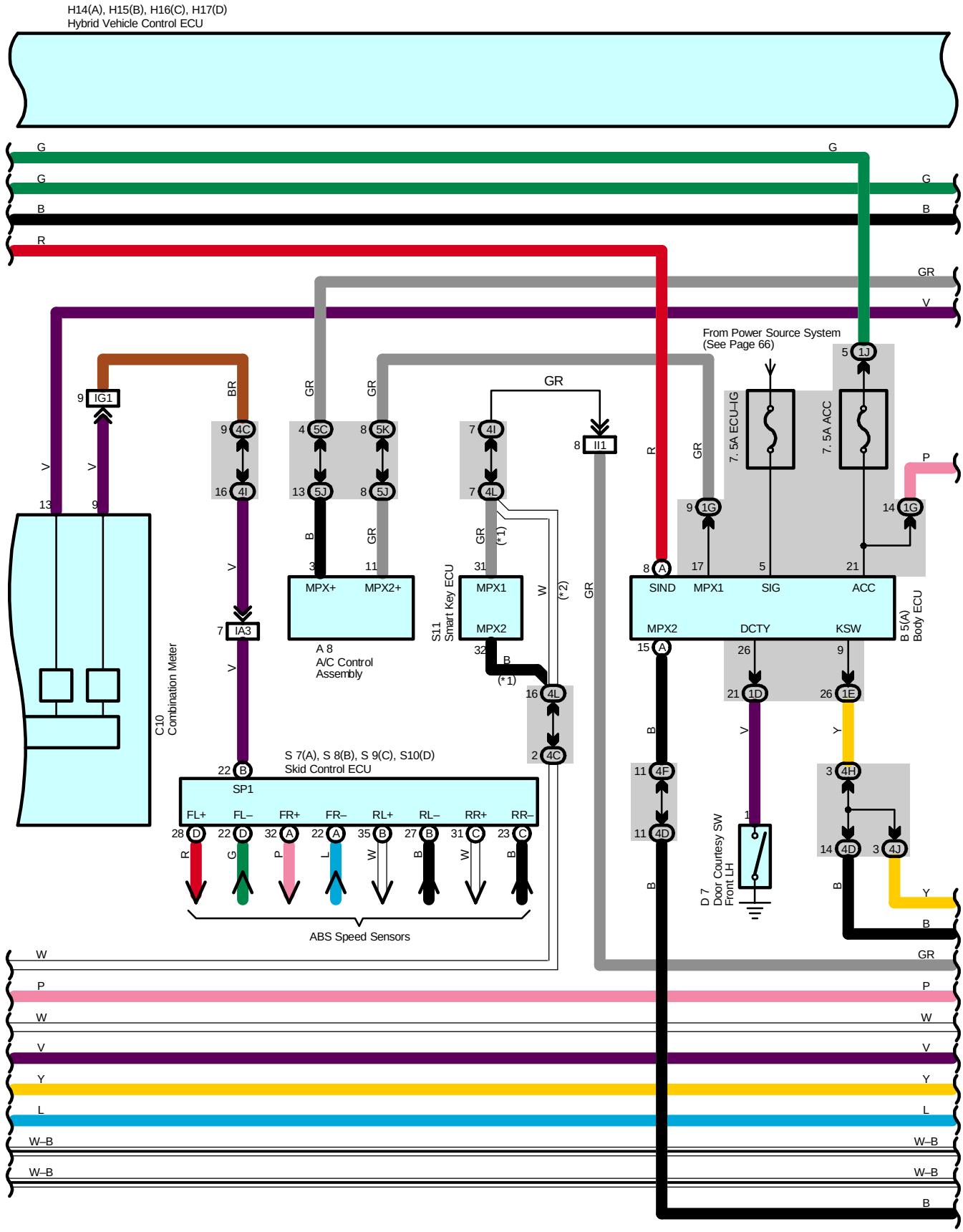
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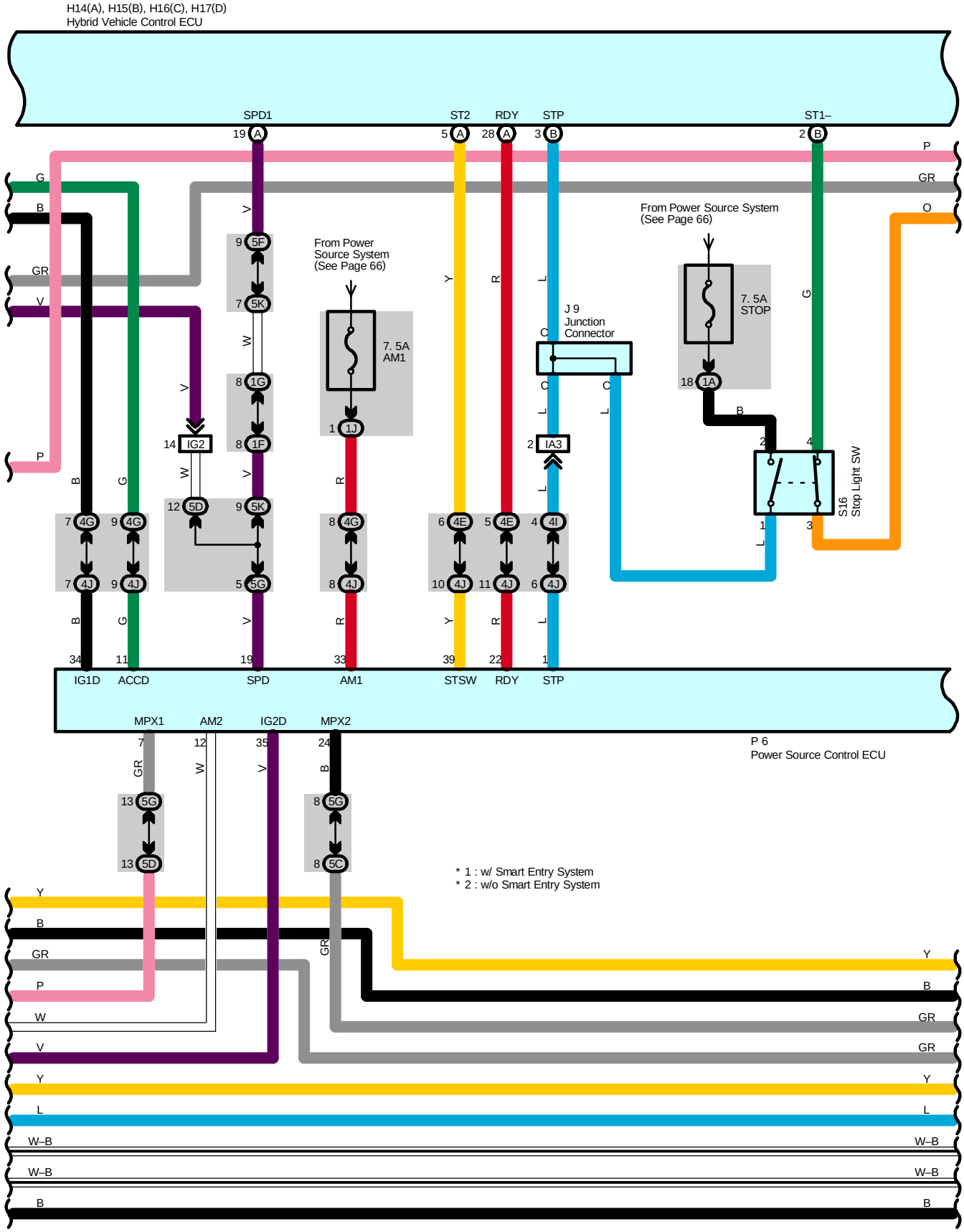
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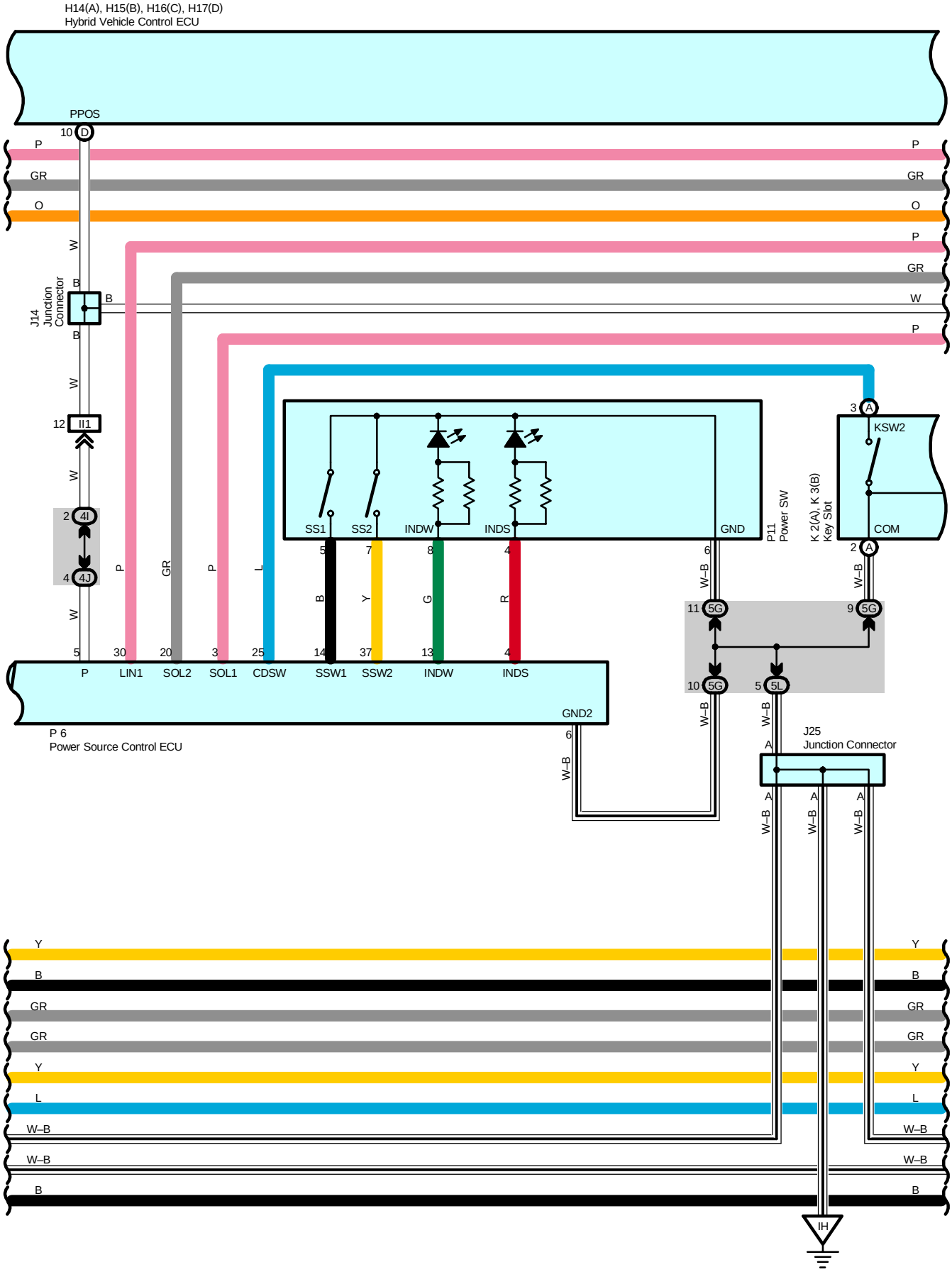
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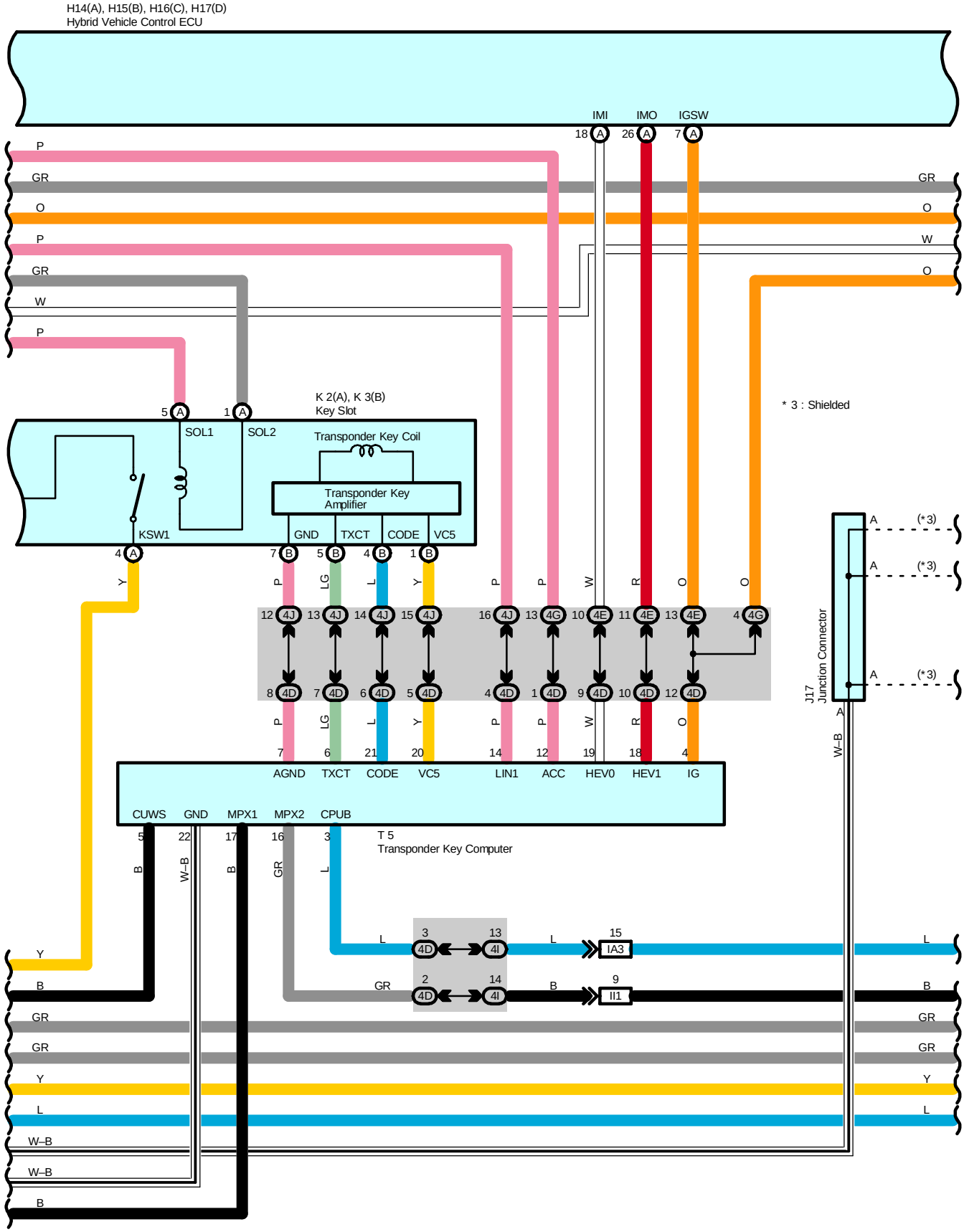
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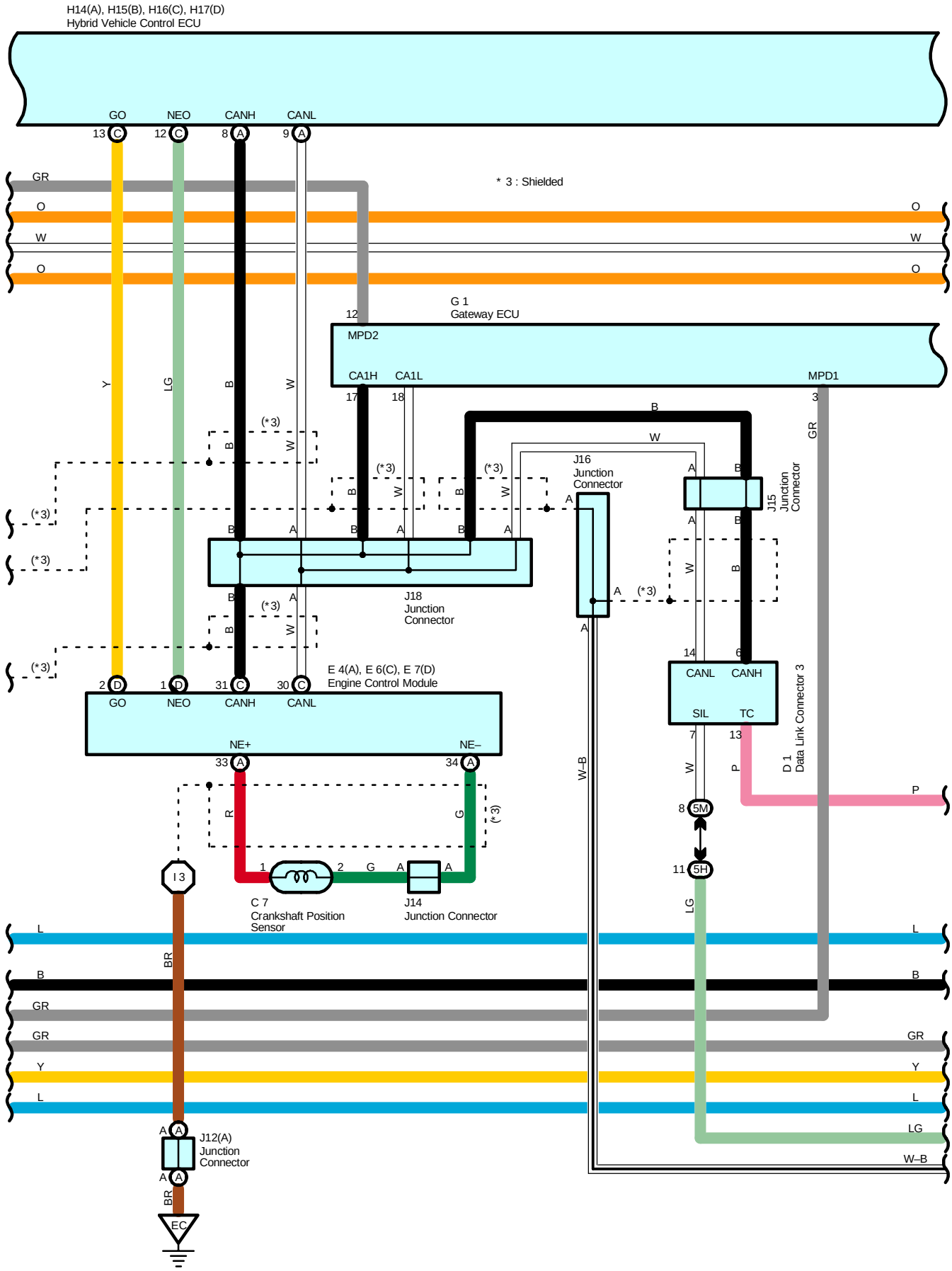
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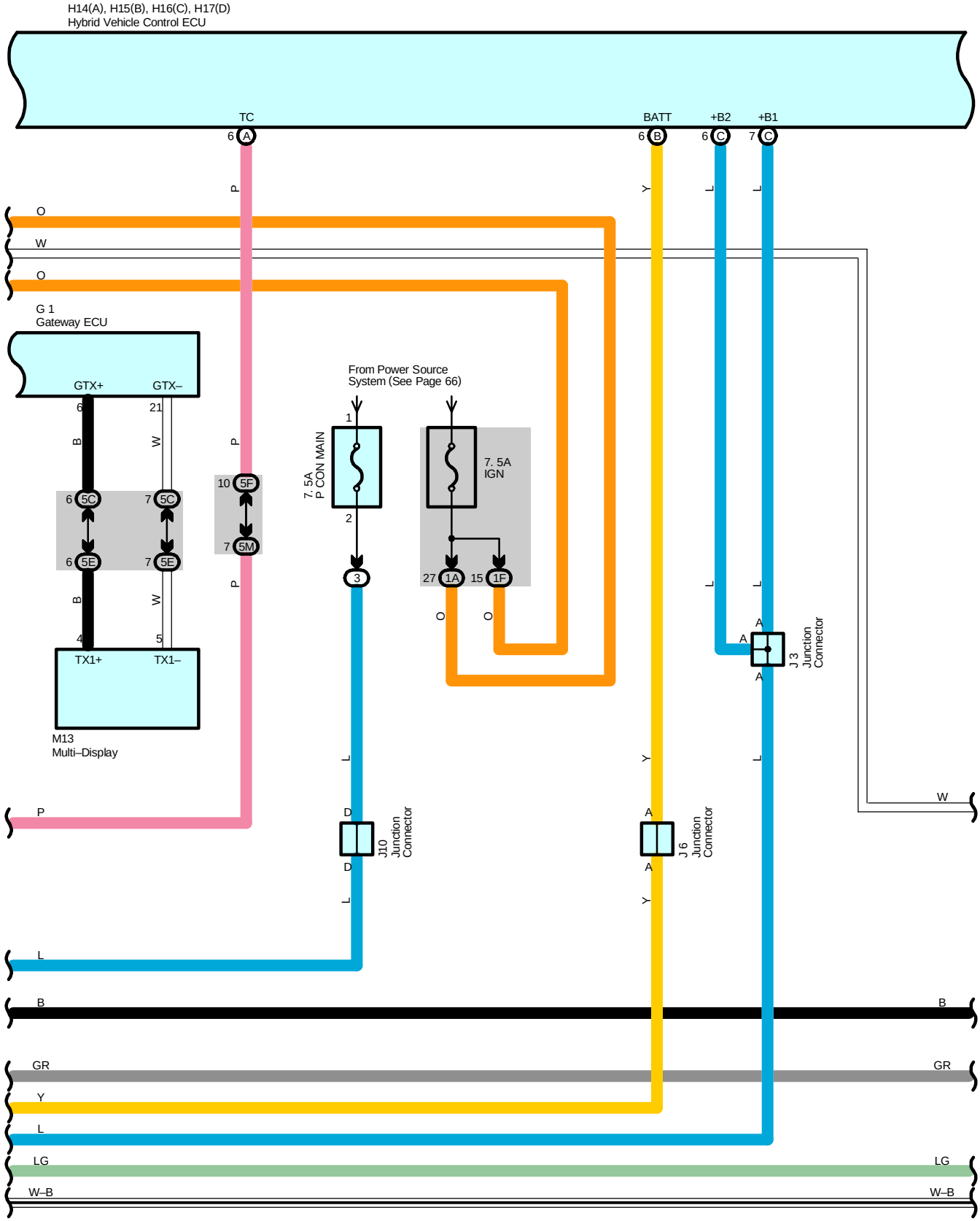
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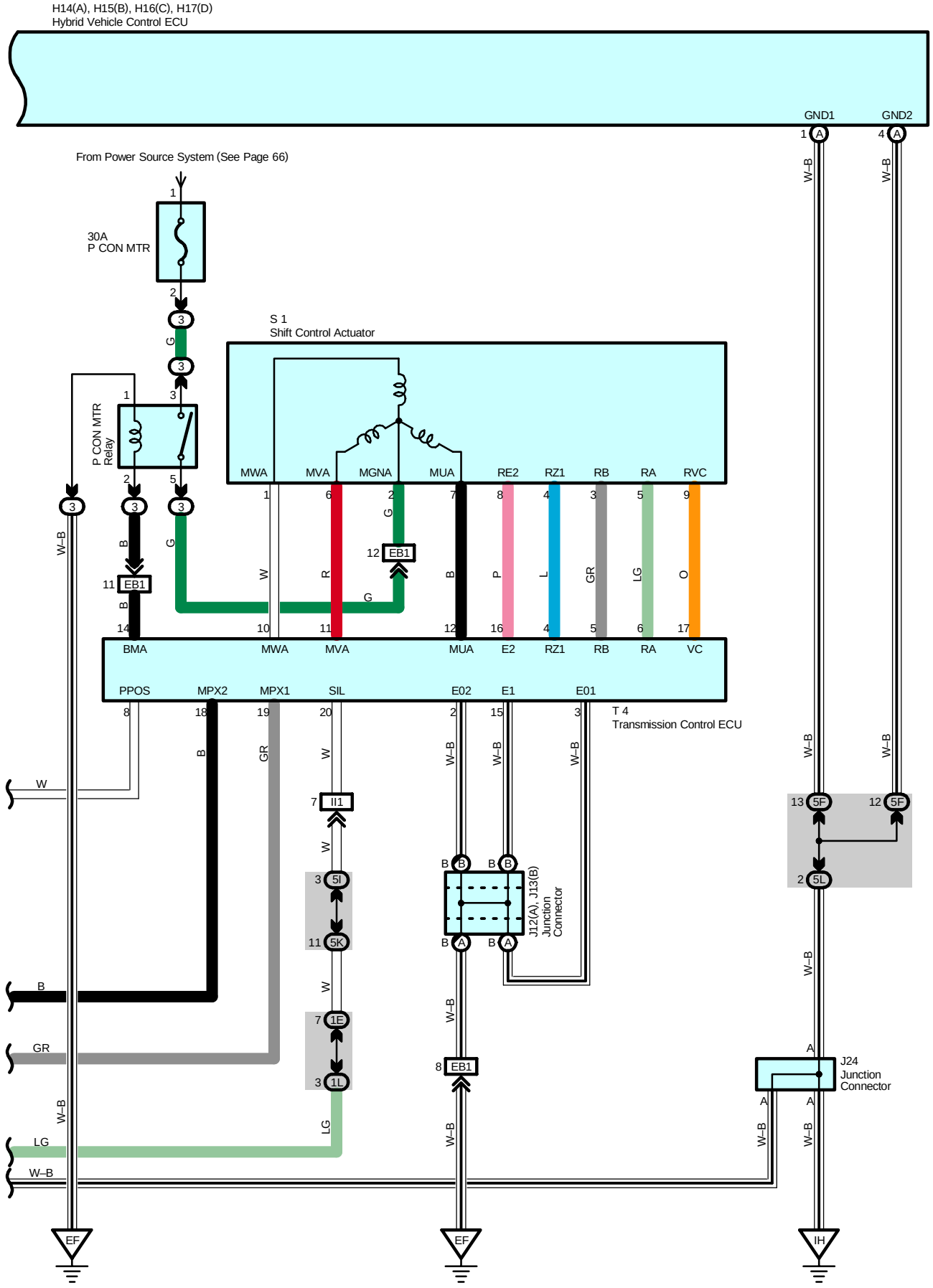
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System Outline

This is the system to change power supply mode by pushing power SW and to start hybrid system by operating power SW and brake pedal simultaneously. It also has function to hold the electrical key in the key slot and not to release the key from it unless the power supply condition and shift range position are met. If there is abnormality in the system, amber portion of power SW blinks to warn the driver.

1. ACC ON Operation

When the electrical key turns on half–inserted SW and deep–inserted SW after inserting in the key slot, transponder key computer activates transponder key amplifier incorporated in key slot to identify ID. After the identification, if power SW is pushed without depressing brake pedal, power source control ECU starts. The ECU confirms that the brake pedal is not depressed from signal of stop light SW and also requests transponder key computer for ID identification result. If the ID identification is normal, power source control ECU turns on ACC relay and changes indicator of power SW to green lighting. In consequence, power supply is set to ACC ON condition.

2. IG ON Operation

If power SW is pushed without depressing brake pedal when ACC ON, power source control ECU confirms that the brake pedal is not depressed, and then turns on IG1 relay and IG2 relay as well as change indicator of power SW to amber lighting. Power supply is IG ON condition then.

3. Hybrid Start–Up Operation (READY)

When the electrical key turns on half–inserted SW and deep–inserted SW after inserting in the key slot, transponder key computer activates transponder key amplifier incorporated in key slot to identify ID. After the identification, if power SW is pushed with depressing brake pedal, power source control ECU starts. The ECU confirms that the brake pedal is depressed from signal of stop light SW and also requests transponder key computer for ID identification result. If the ID identification is normal, the ECU turns on ACC relay, IG1 relay and IG2 relay, and changes indicator of power SW to amber lighting. Power supply is IG ON condition then.

After that, power source control ECU sends start–up signal to hybrid vehicle control ECU. Hybrid vehicle control ECU and transponder key computer make communication for start–up permission. Hybrid vehicle control ECU controls to start–up hybrid system (READY).

At starting up hybrid system, power source control ECU controls to light off indicator of power SW.

4. Power Supply Off Operation

∗ When shift range is in P range

If power SW is pushed with power supply at READY condition while the vehicle is stationary, power source control ECU confirms that shift range is in P range, and then turns off ACC relay, IG1 relay and IG2 relay to put power supply in OFF condition. The ECU also controls to light off indicator of power SW.

If power SW is pushed with power supply at IG ON condition and without depressing brake pedal while the vehicle is stationary, power source control ECU confirms that shift range is in P range, and then turns off ACC relay, IG1 relay and IG2 relay to put power supply in OFF condition. The ECU also controls to light off indicator of power SW.

If electrical key is taken off from key slot with power supply at ACC ON condition while the vehicle is stationary, power source control ECU controls to put power supply in OFF condition automatically, which lights off indicator of power SW.

∗ When shift range is in other than P range

If power SW is pushed with power supply at IG ON (Including READY) condition while the vehicle is stationary, parking lock operation is carried out. After that, power source control ECU confirms that shift range is in P range and then turns off ACC relay, IG1 relay and IG2 relay to put power supply in OFF condition. The ECU controls to light off indicator of power SW.

5. Key Interlock Operation

Power source control ECU controls to hold the electrical key in the key slot and not to release the key from it unless the power supply condition and shift range position are met. Power supply condition and shift range position during the key interlock in operation are as follows;

∗ At starting–up hybrid system
∗ At power supply at IG ON
∗ At power supply at ACC ON and shift range at other than P range

6. Emergency Stop Operation of Hybrid System

If power SW is kept pushed more than three seconds during driving, hybrid system stops and power supply is changed to ACC ON.

7. Power Supply Resuming Control

Power source control ECU always stores power supply condition (OFF, ACC ON, IG ON)

When power supply is resumed after shutting off power supply by disconnecting battery terminal, original power supply condition returns due to control of power source control ECU.

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Service Hints

P6 Power Source Control ECU

12, 33–Ground : Always approx. 12 volts
34, 35–Ground : Approx. 12 volts with the power SW at IG ON position
11–Ground : Approx. 12 volts with the power SW at ACC ON or IG ON position
6–Ground : Always continuity
1–Ground : Approx. 12 volts with the brake pedal depressed

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A8	46	H17 D	47	K2 A	48
A12	46	J3	45	K3 B	48
B5 A	46	J6	48	M13	48
C7	44	J9	48	P6	49
C10	47	J10	48	P11	49
D1	47	J12 A	48	S1	45
D7	50	J13 B	48	S7 A	49
E4 A	47	J14	48	S8 B	49
E6 C	47	J15	48	S9 C	49
E7 D	47	J16	48	S10 D	49
G1	47	J17	48	S11	49
H14 A	47	J18	48	S16	49
H15 B	47	J24	48	T4	49
H16 C	47	J25	48	T5	49

▭ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

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: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1B		
1D	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1F		
1G		
1J		
1K		
1L		
1M		
3D	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3I		
3J		
4C	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4D		
4E		
4F		
4G		
4H		
4I		
4J		
4L		
5C	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5D		
5E		
5F		
5G		
5H		
5I		
5J		
5K		
5L		
5M		

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	54	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B)
IA1	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IA3		
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)

: Ground Points

Code	See Page	Ground Points Location
EC	54	Engine Block
EE	54	Left Side of the Suspension Tower
EF		
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH

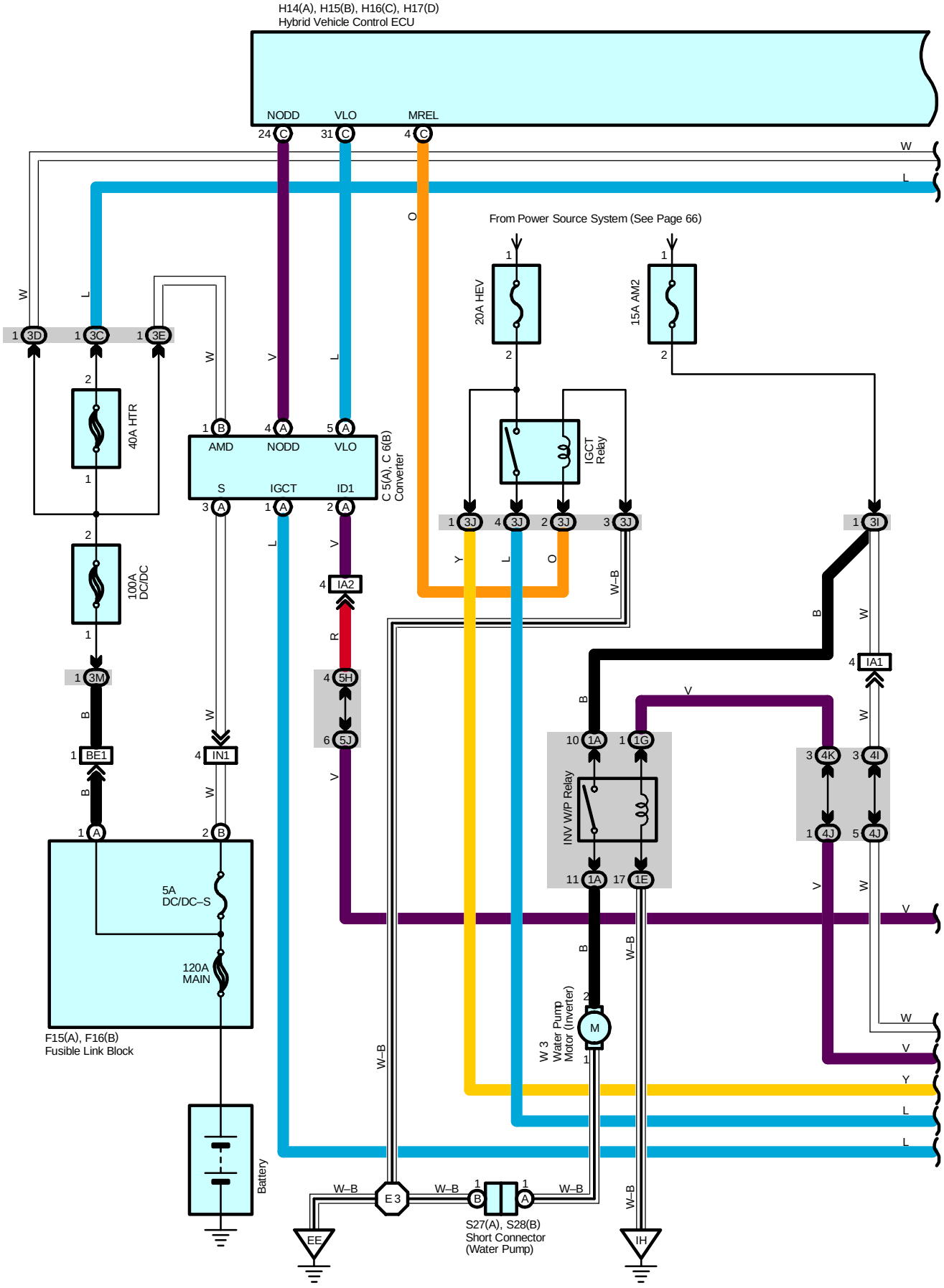
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 : **Splice Points**

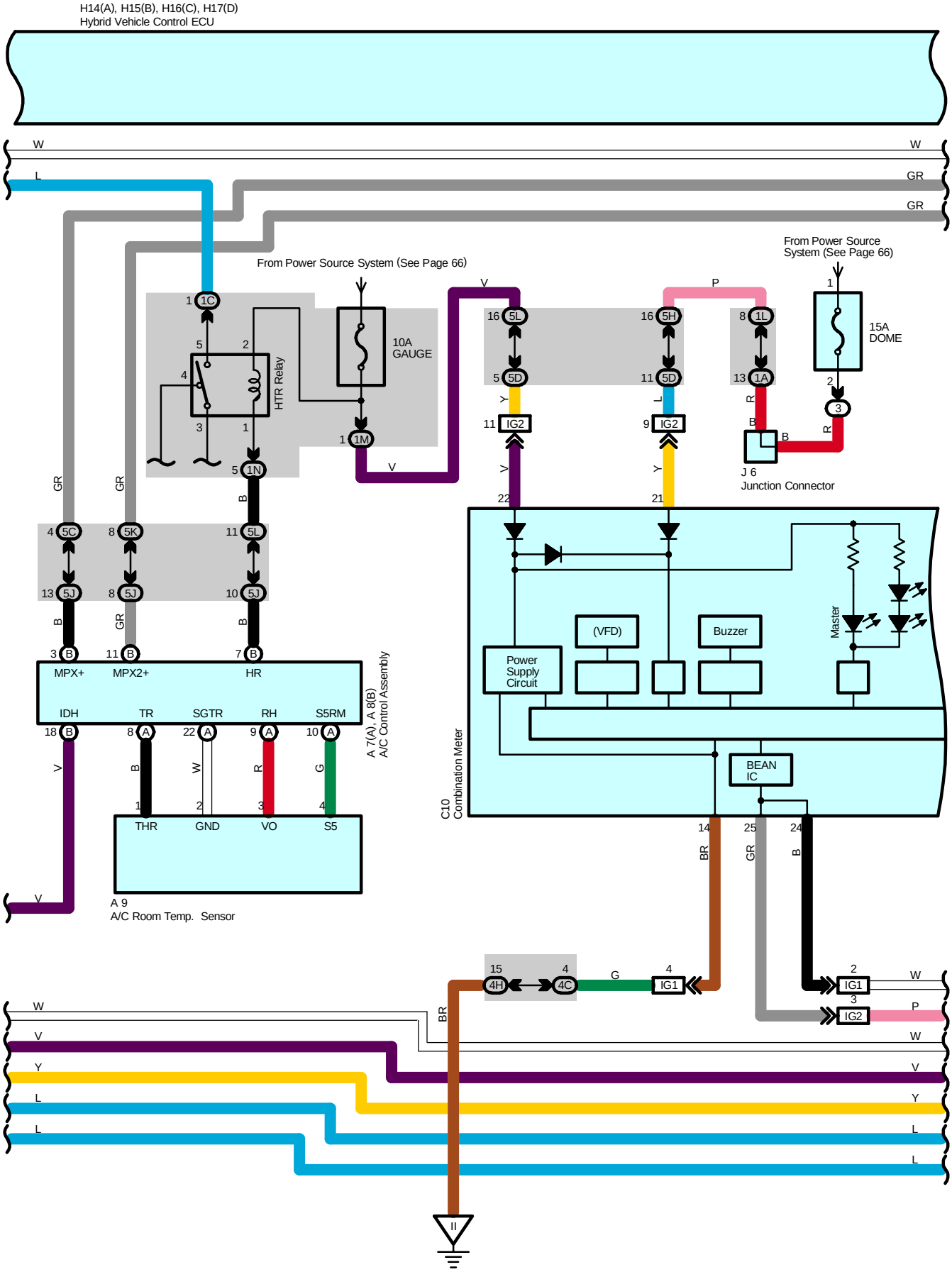
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I3	58	Engine Wire			

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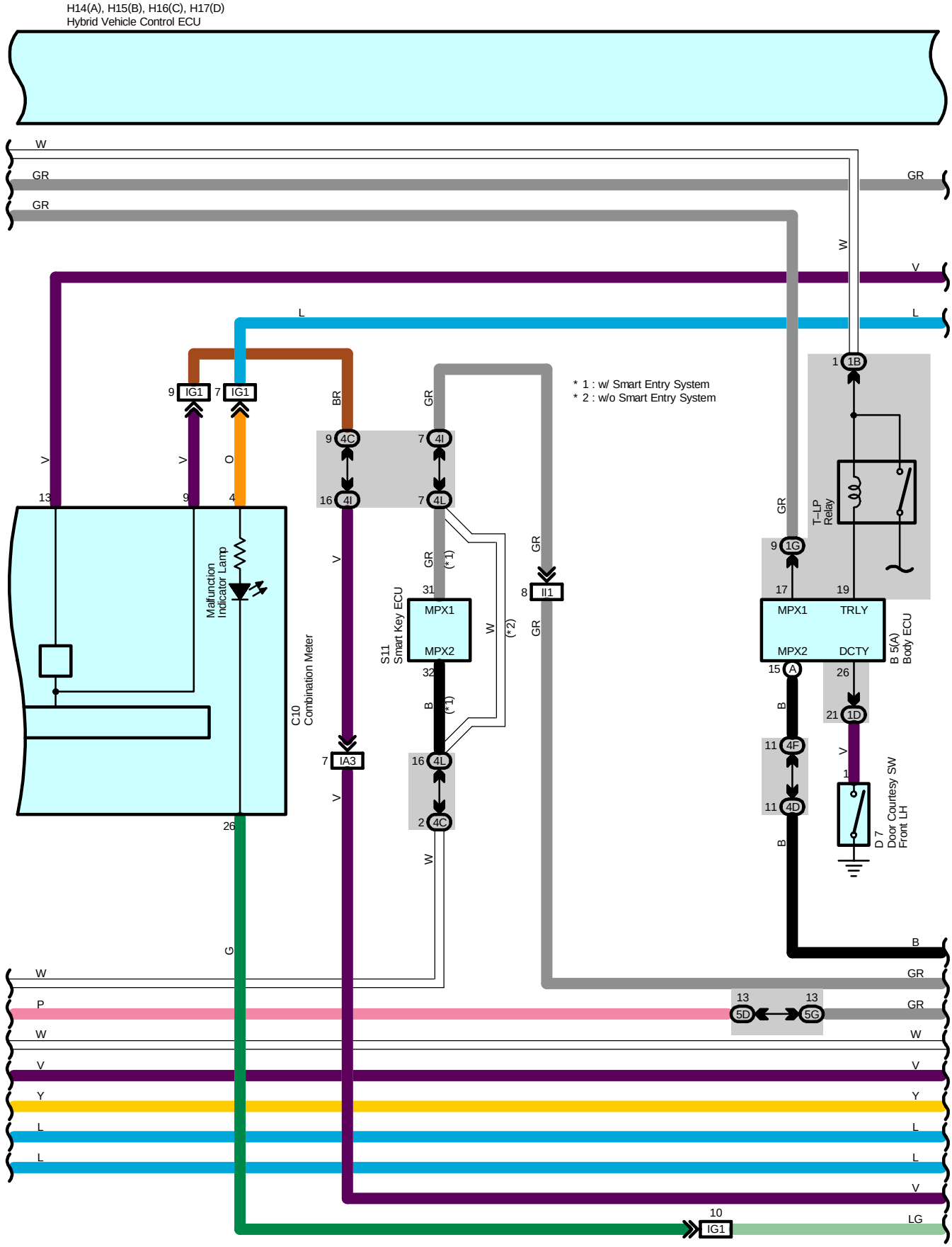
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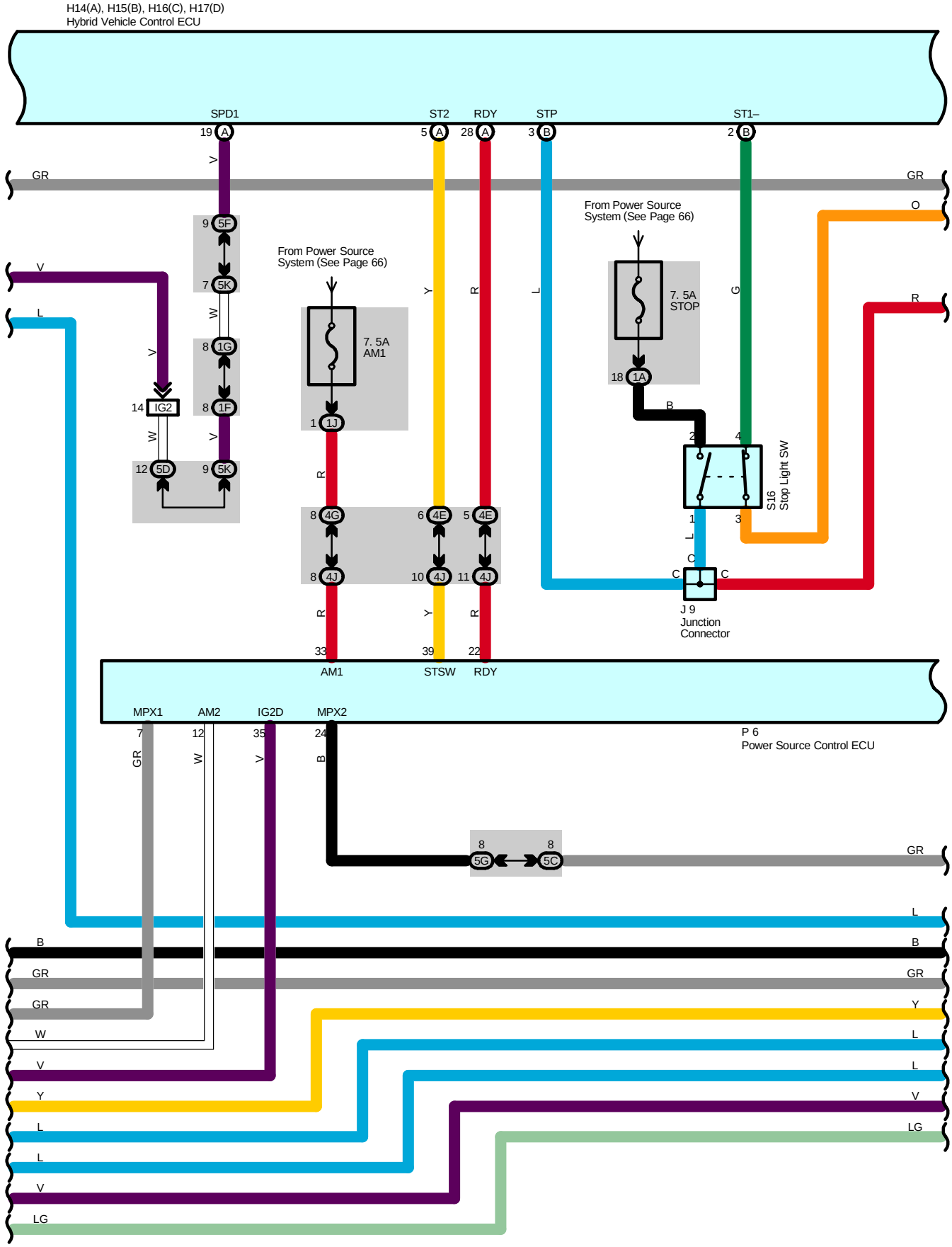
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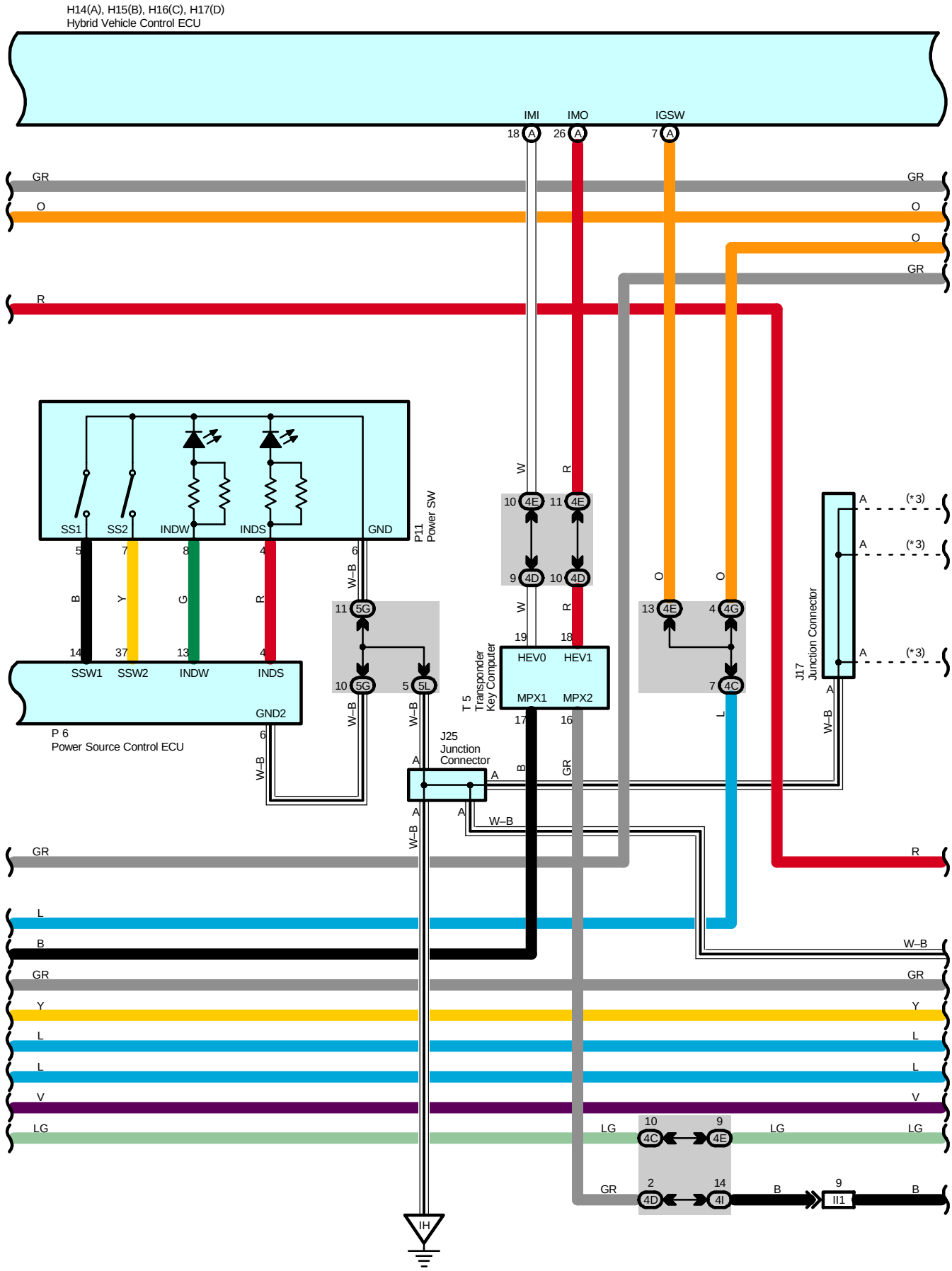
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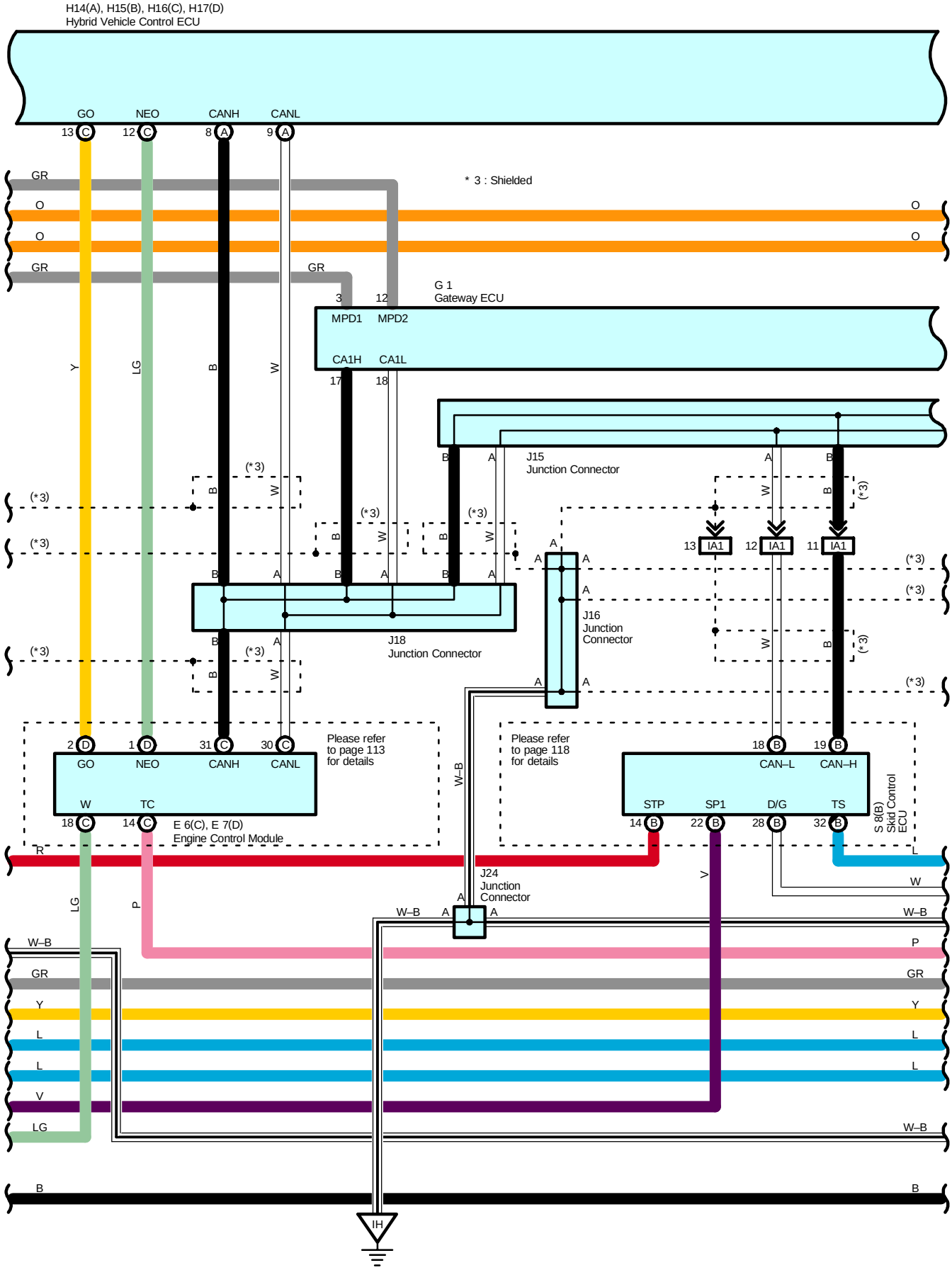
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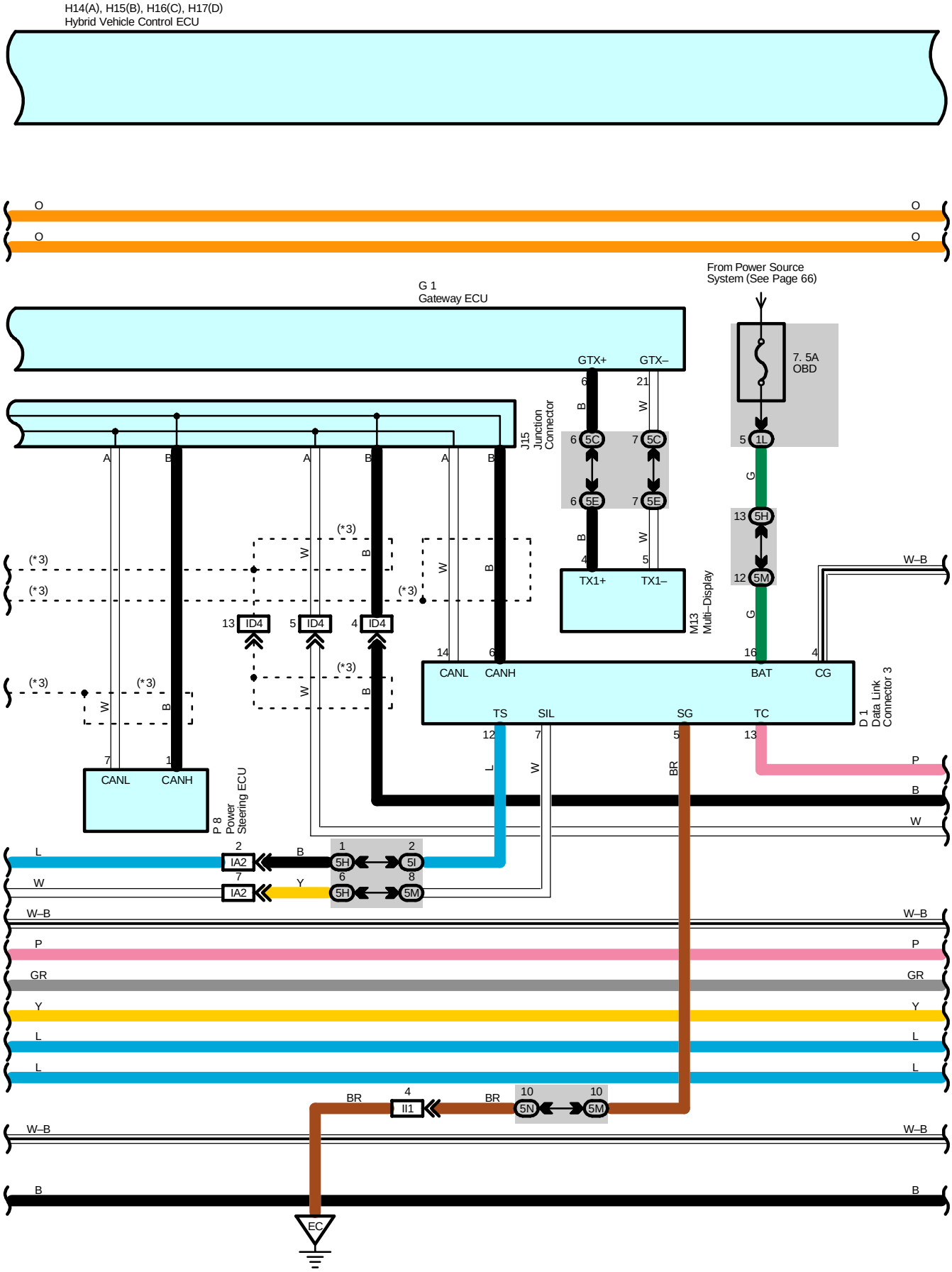
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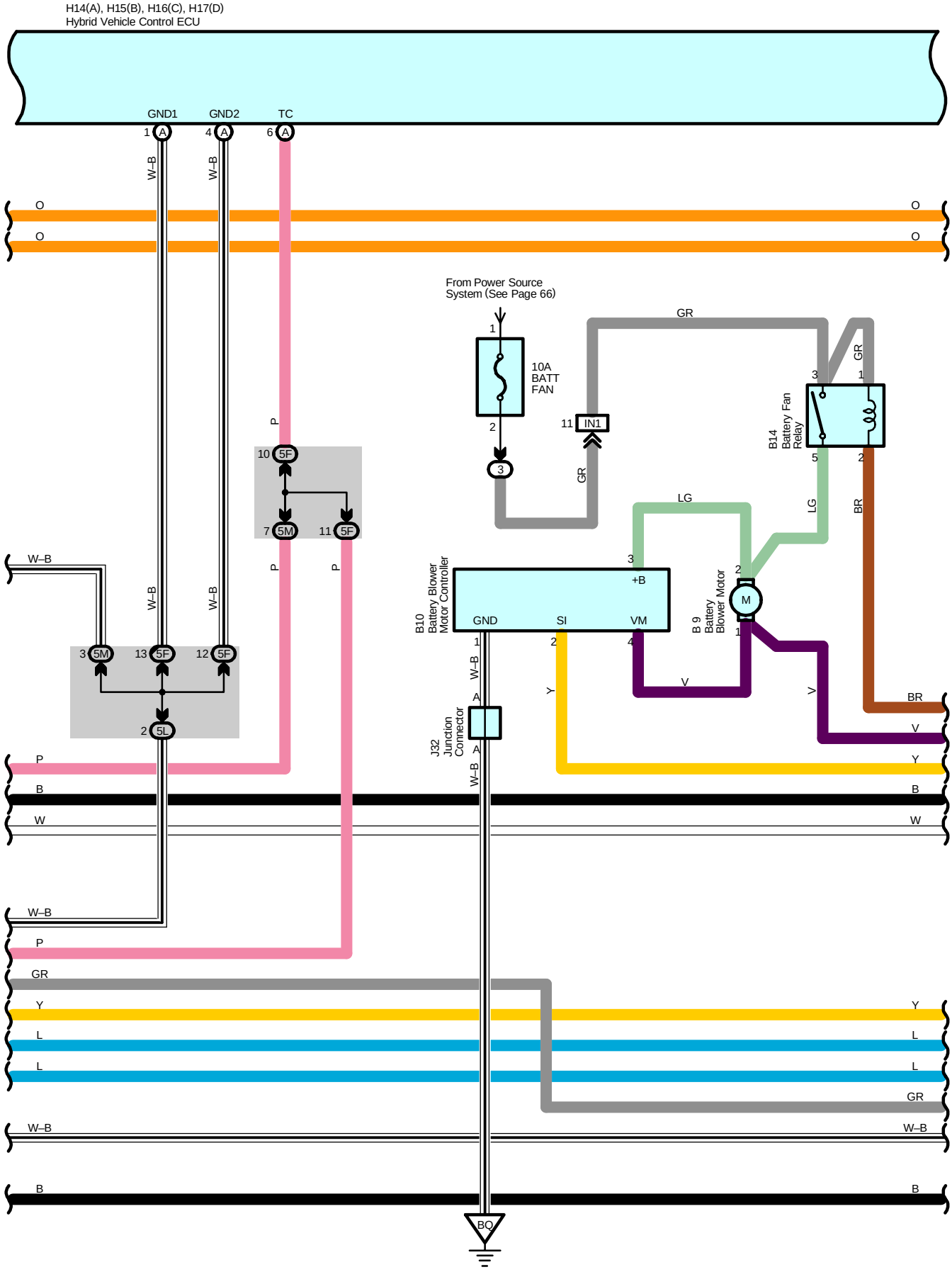
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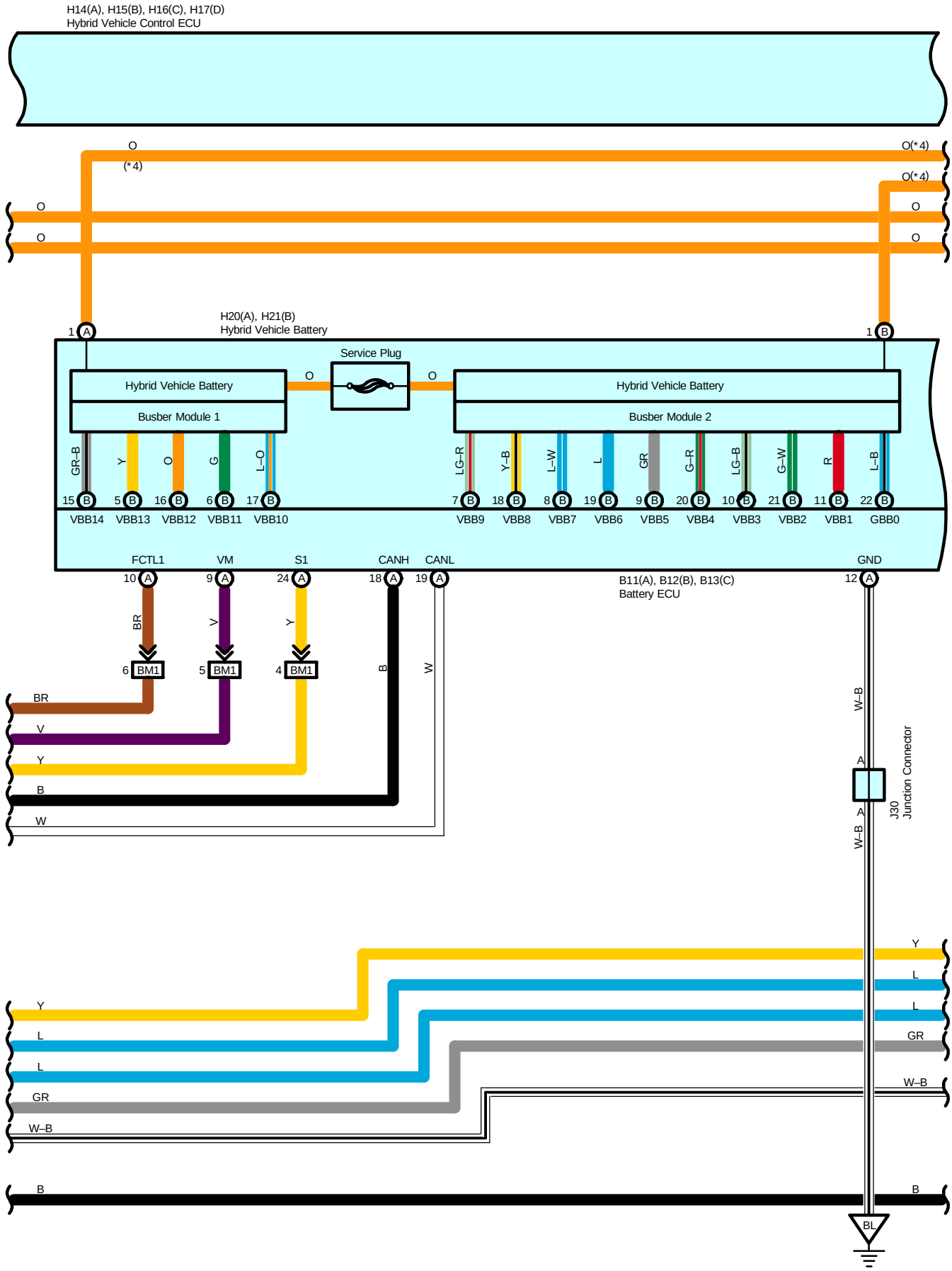
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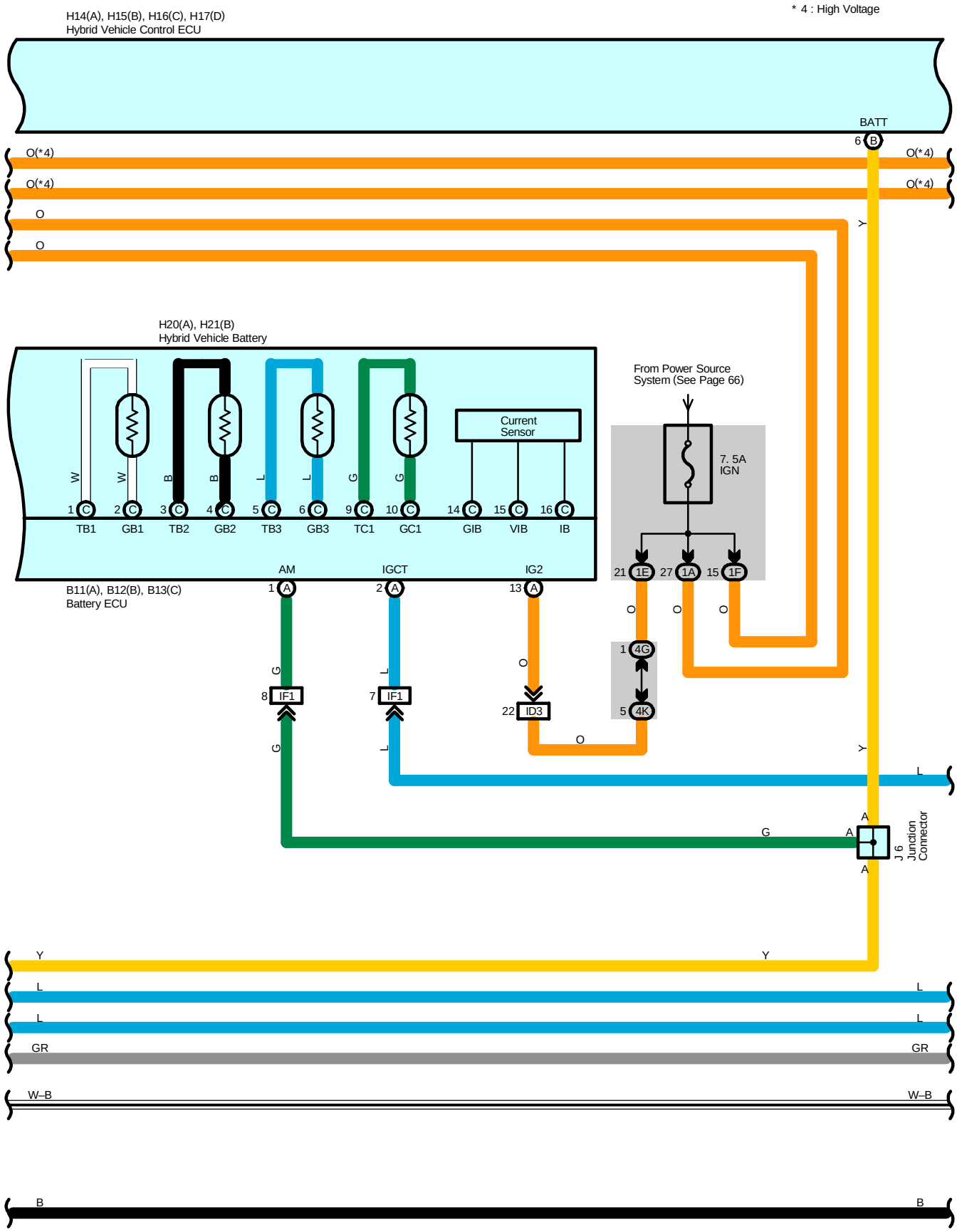
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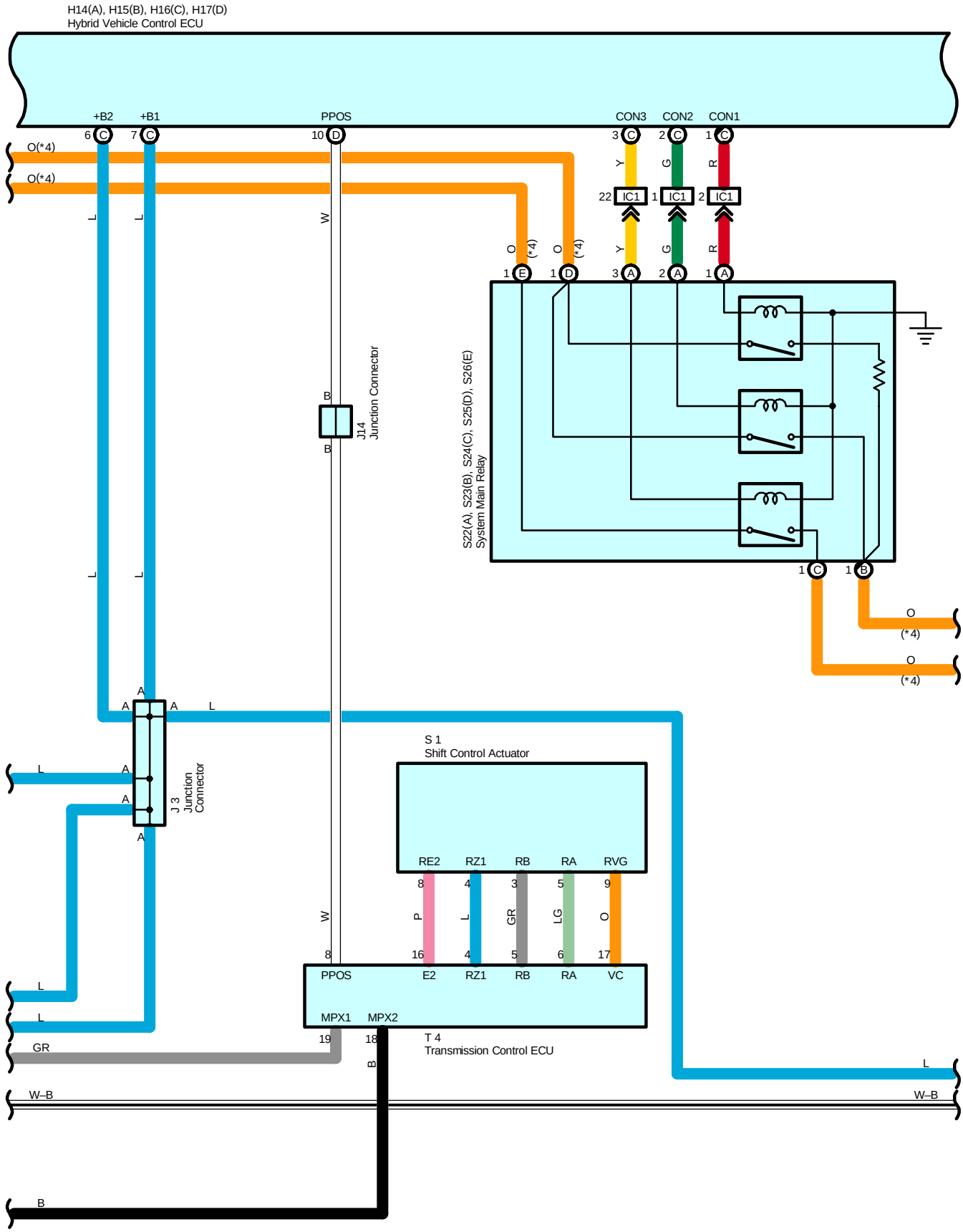
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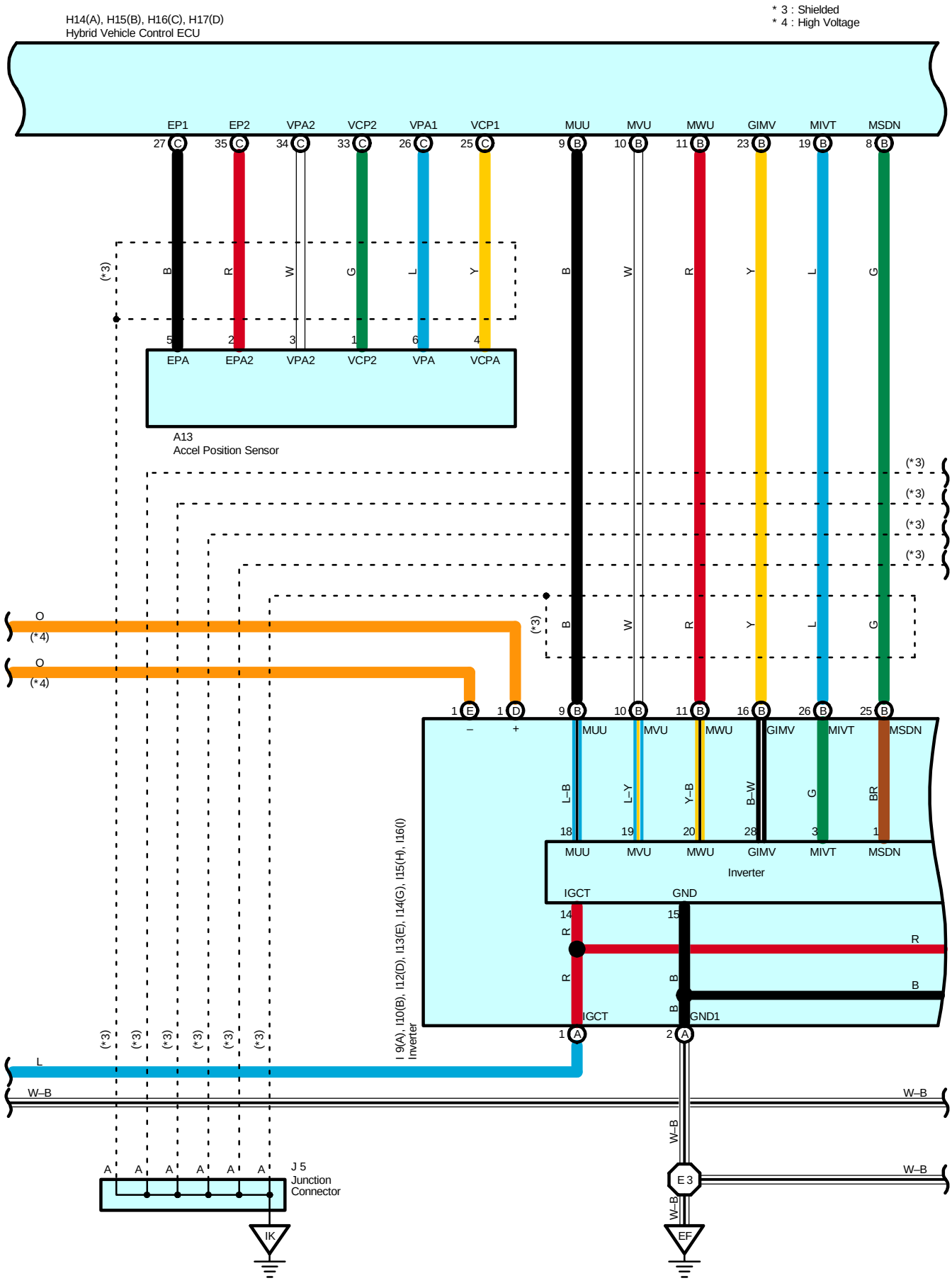
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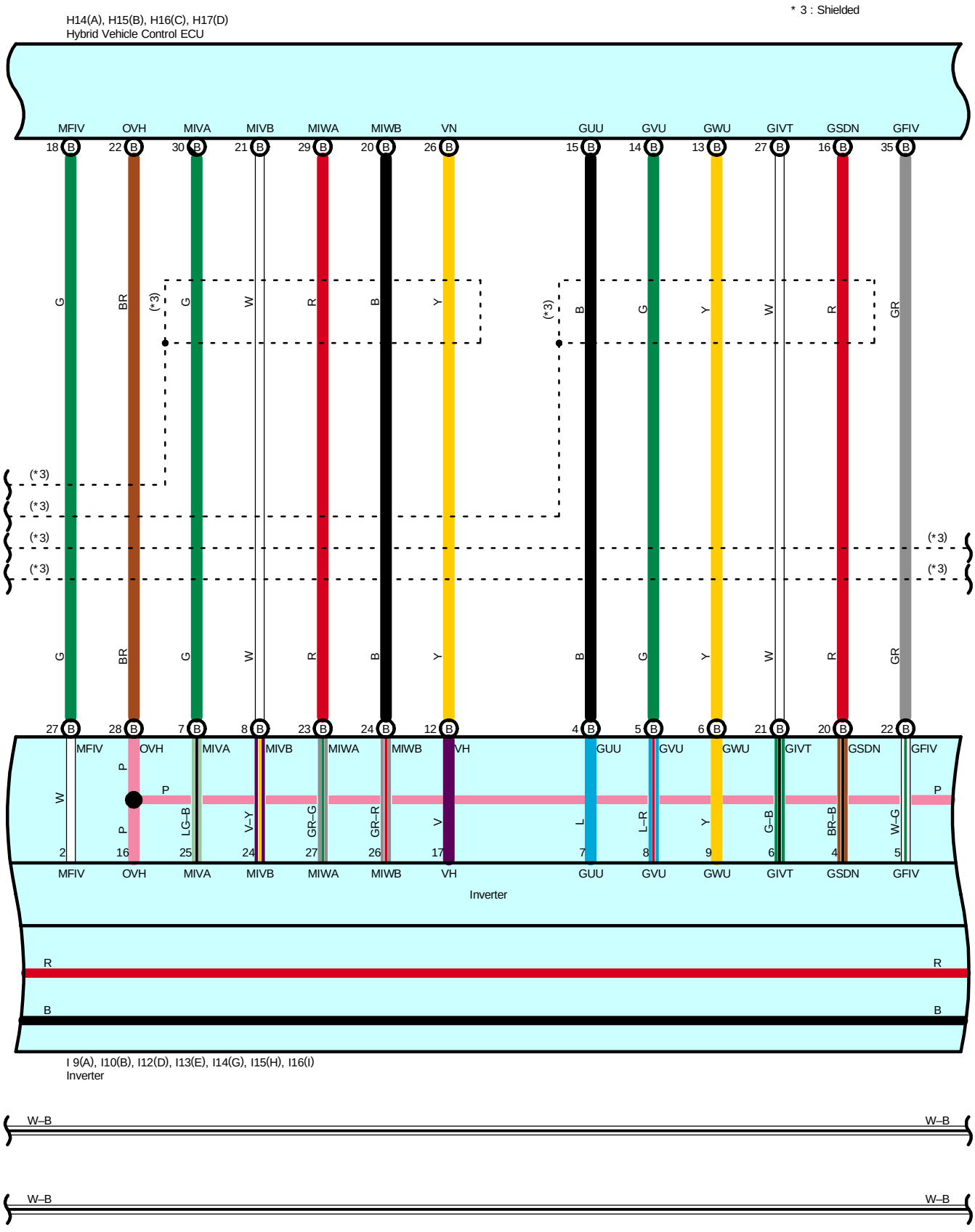
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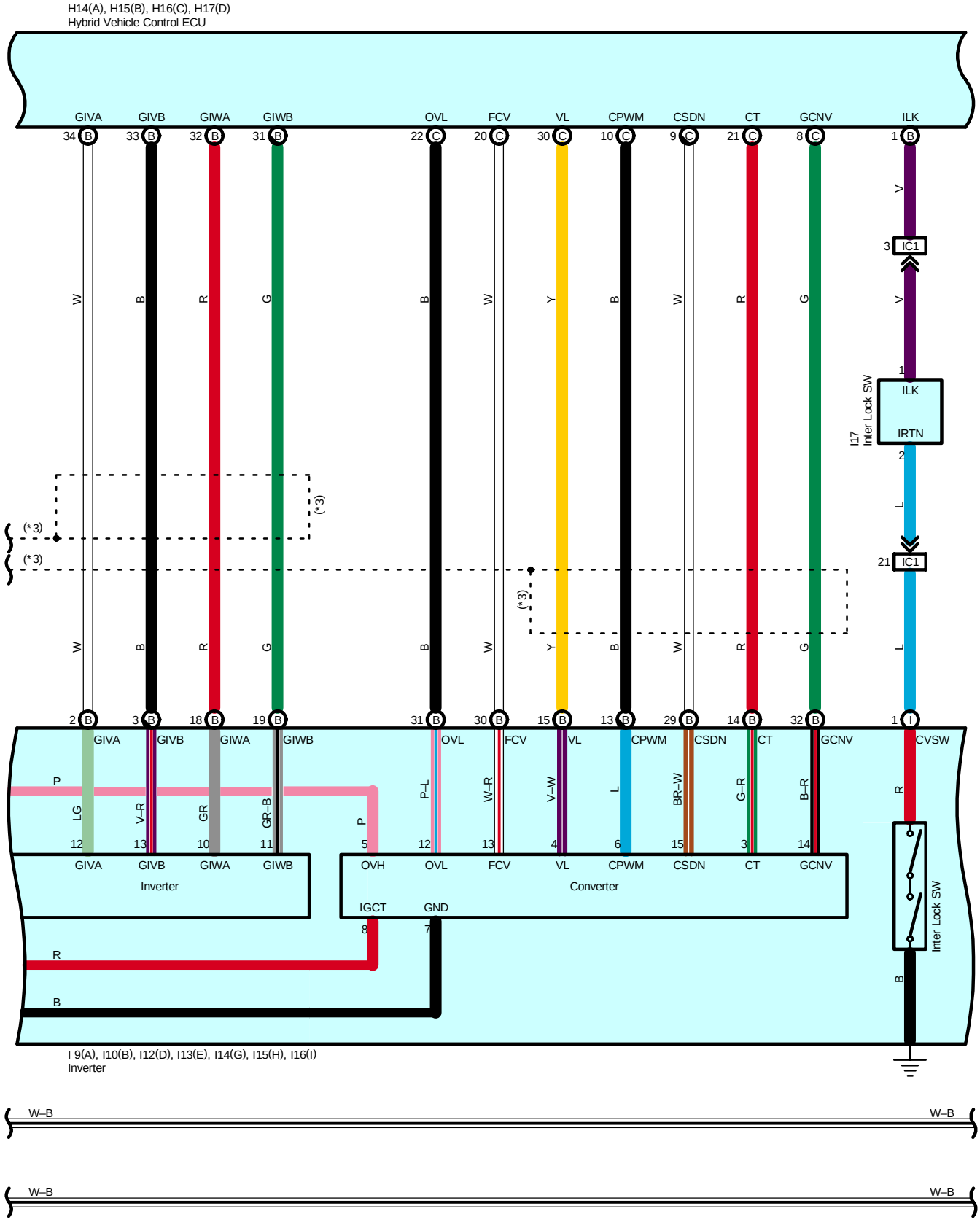
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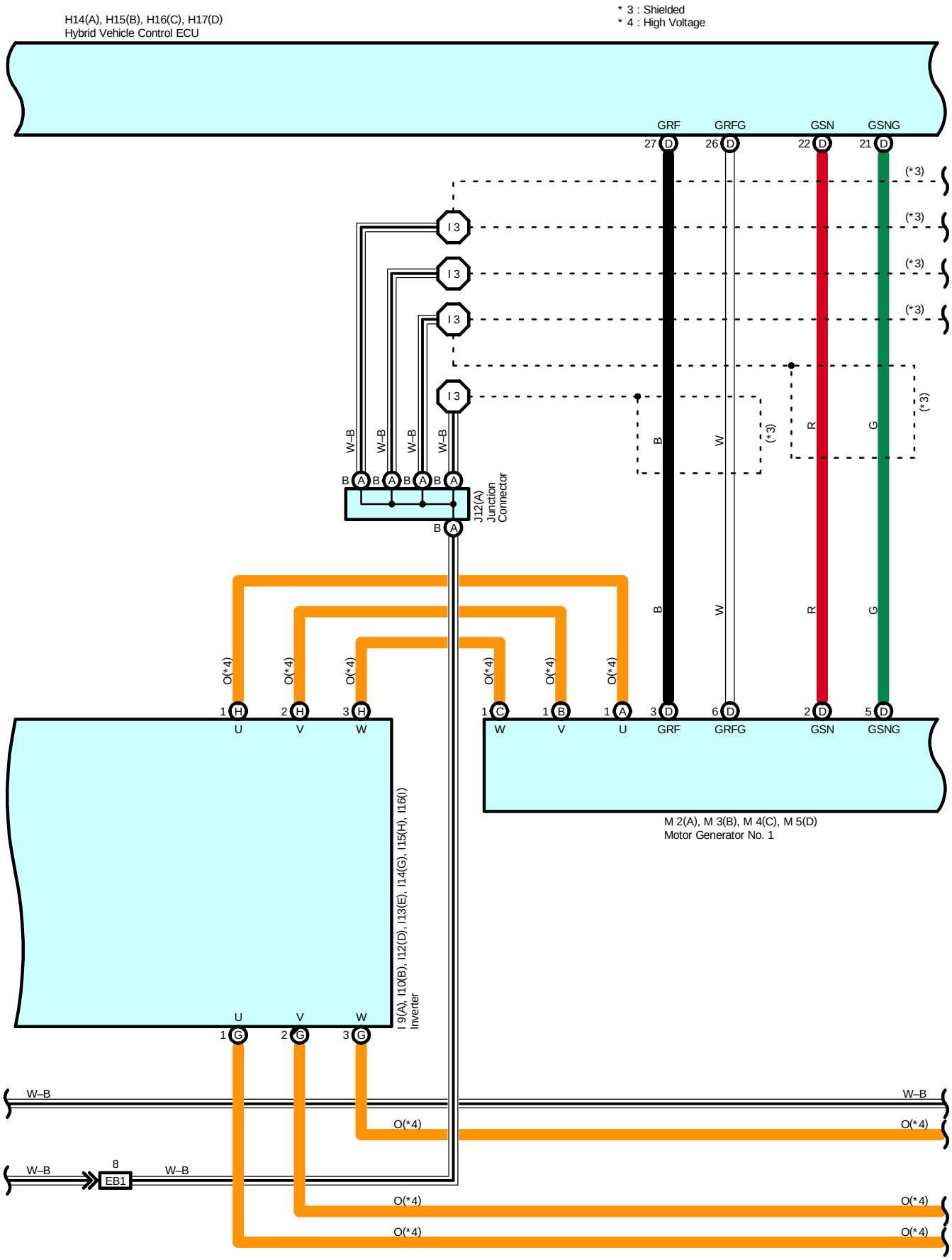
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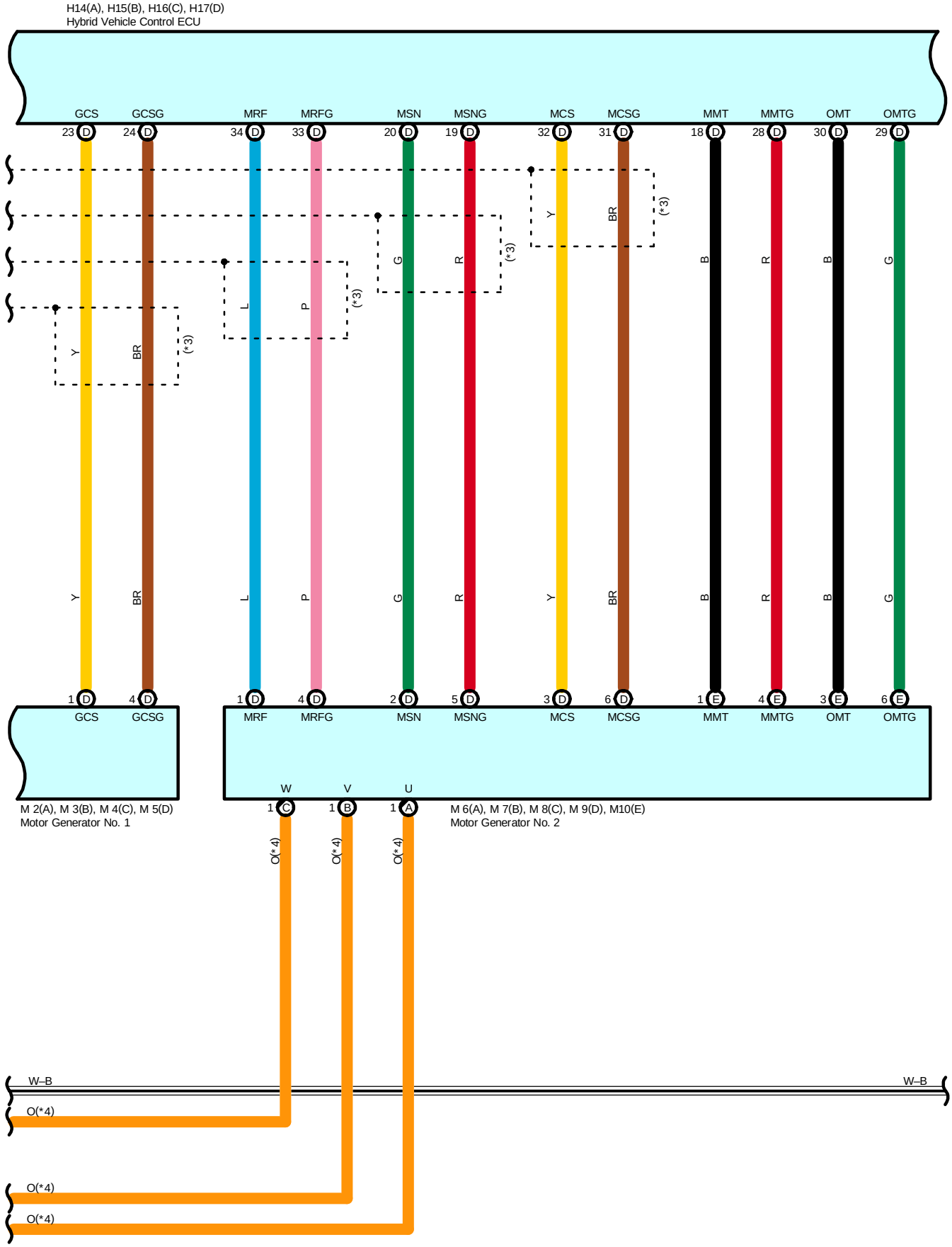
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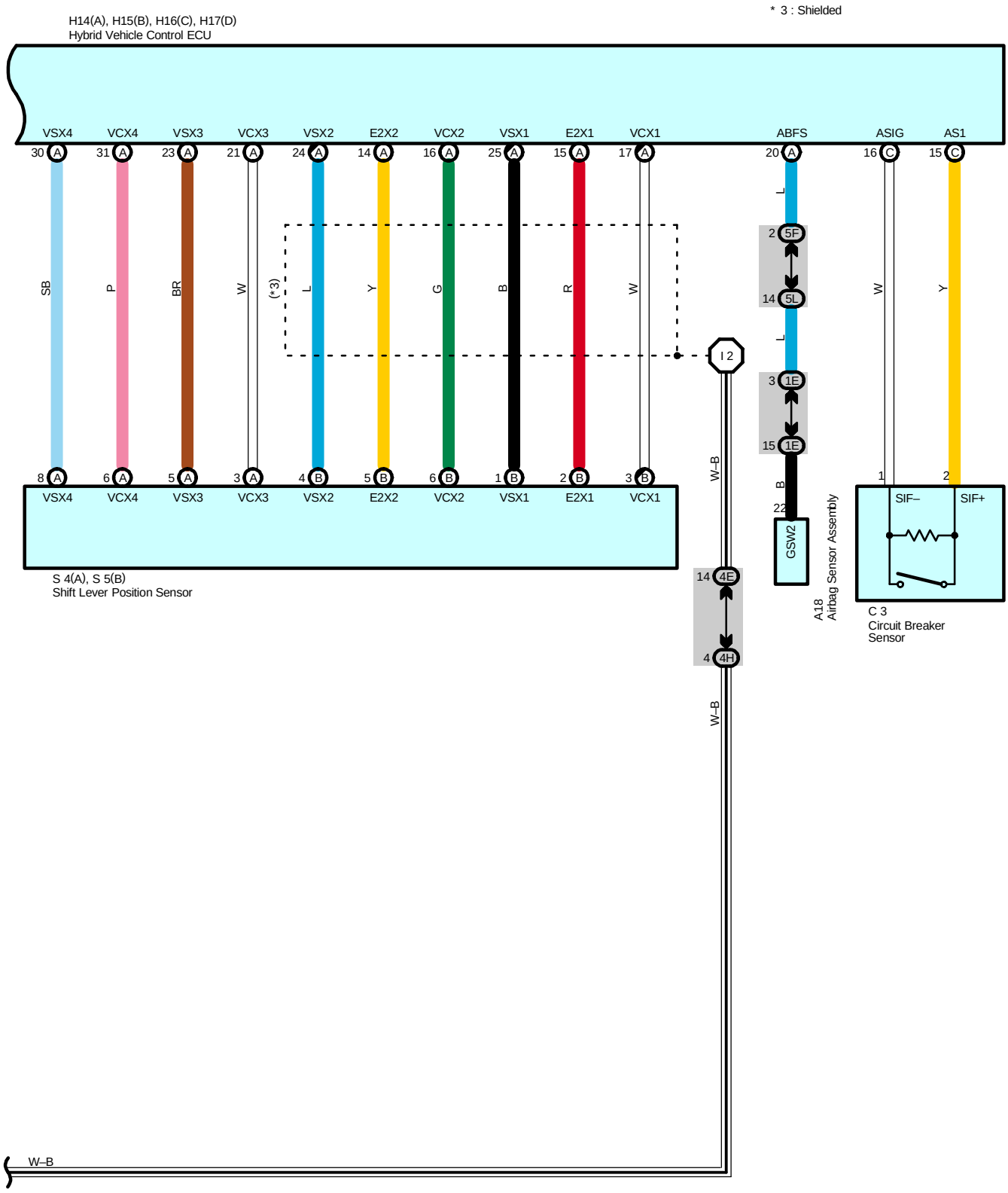
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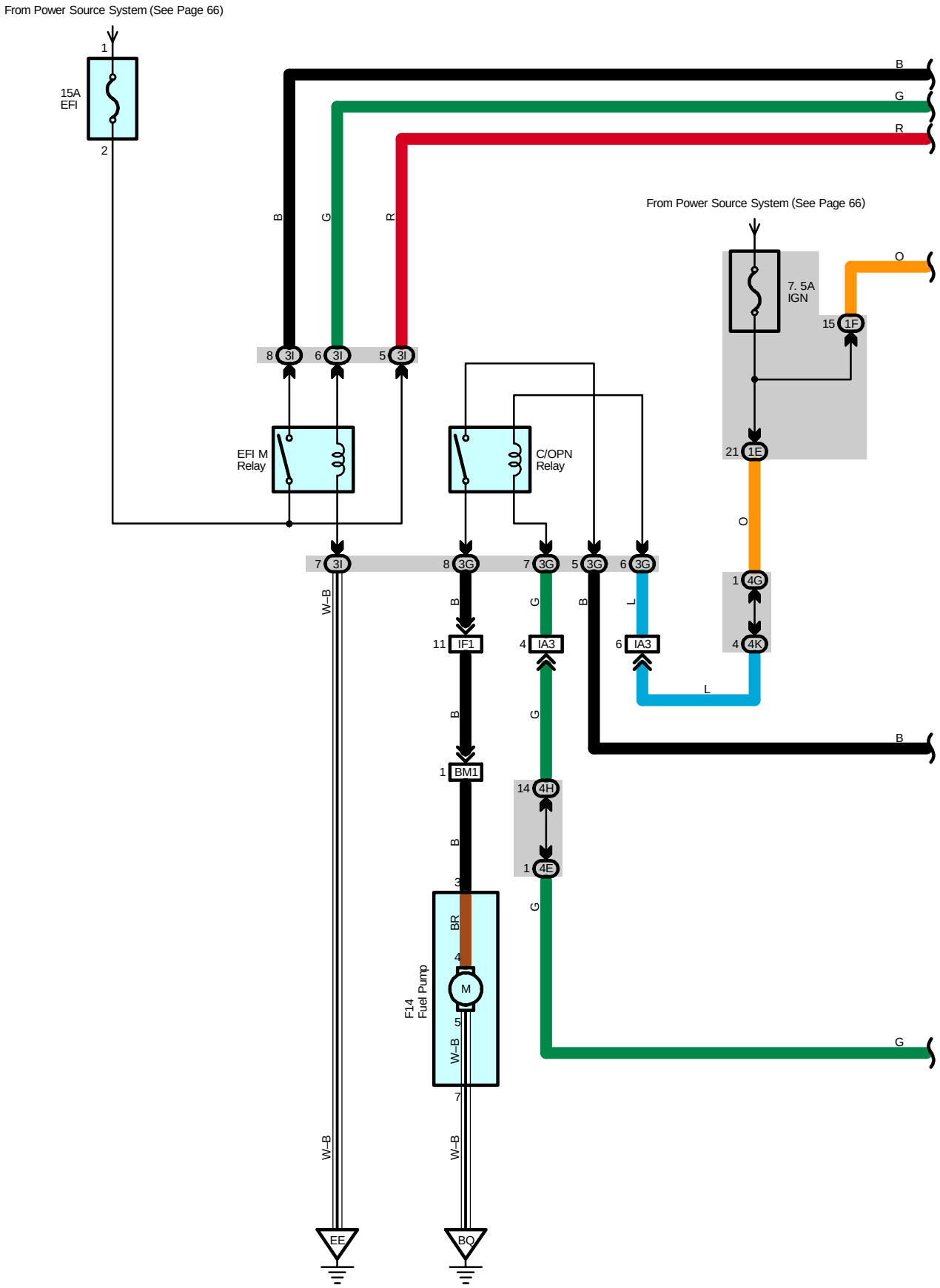


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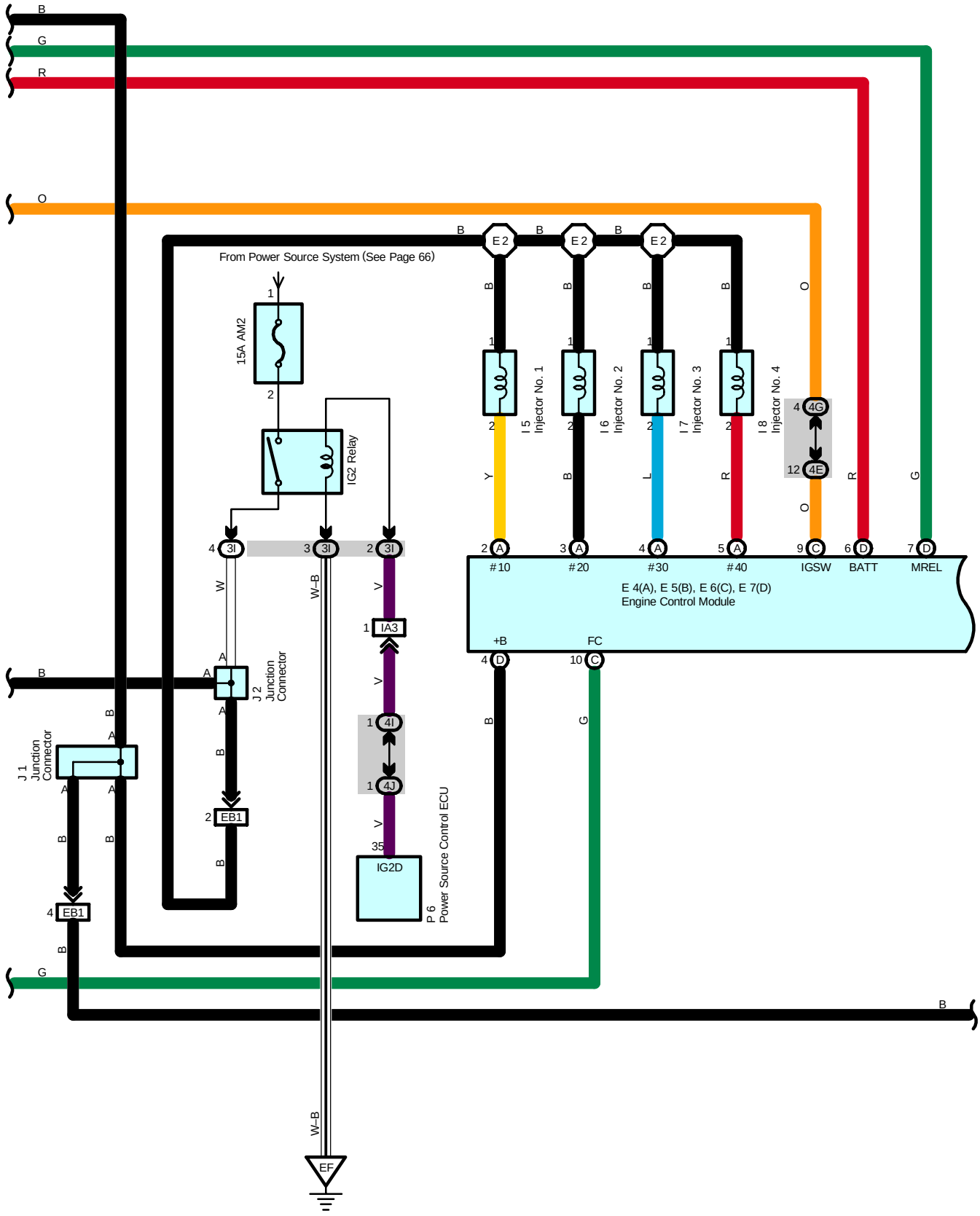
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[Details of Engine Control Module Section]

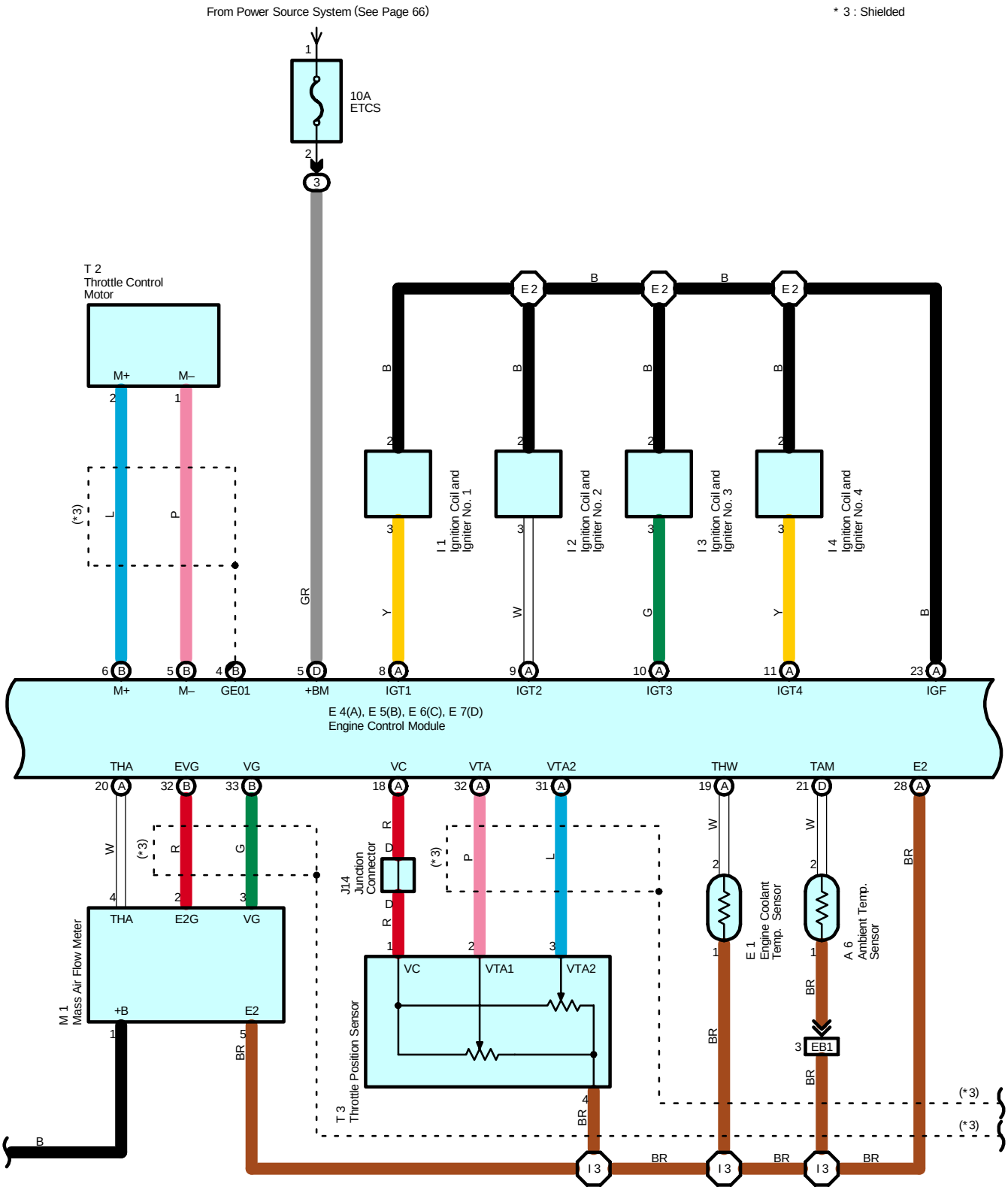


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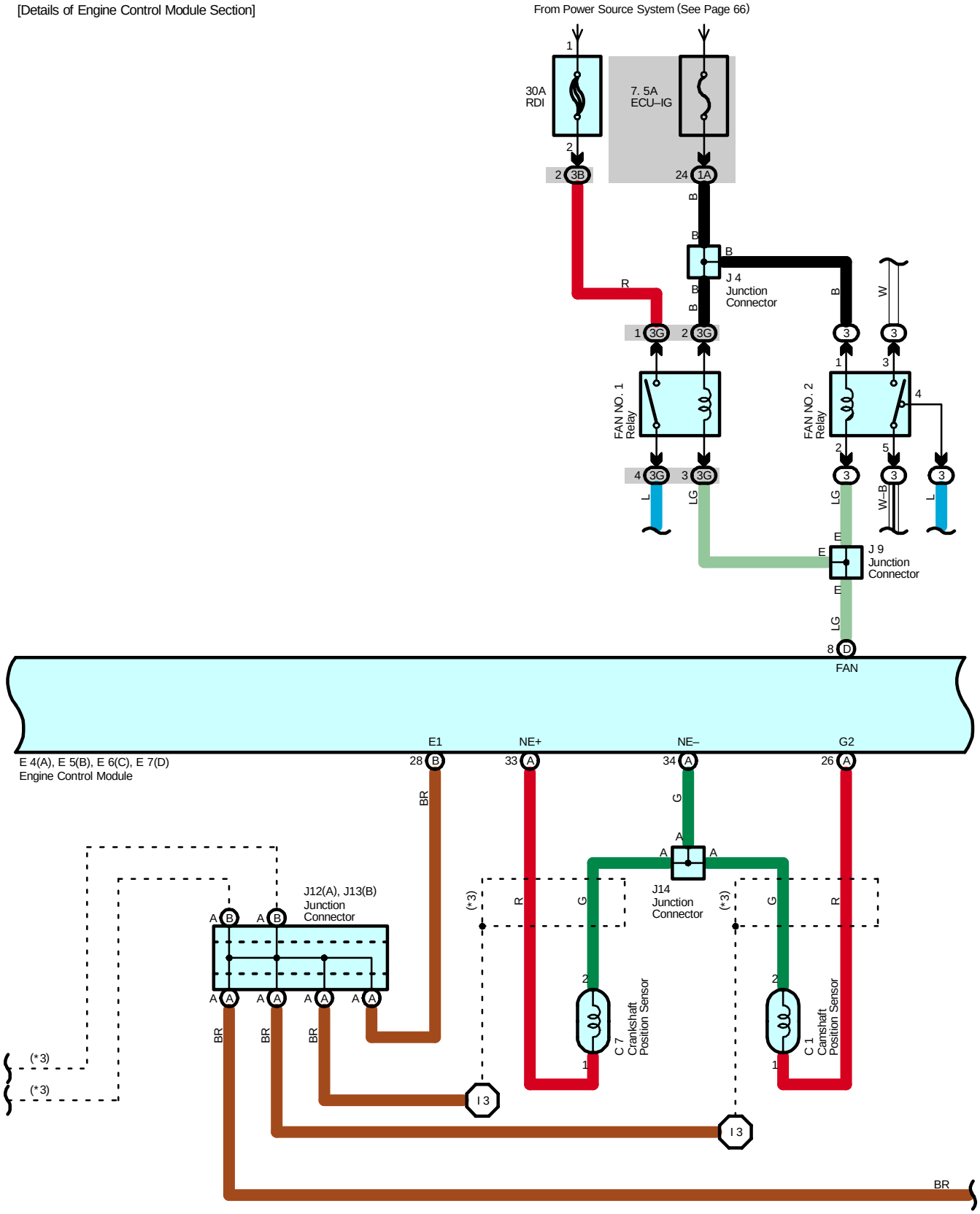


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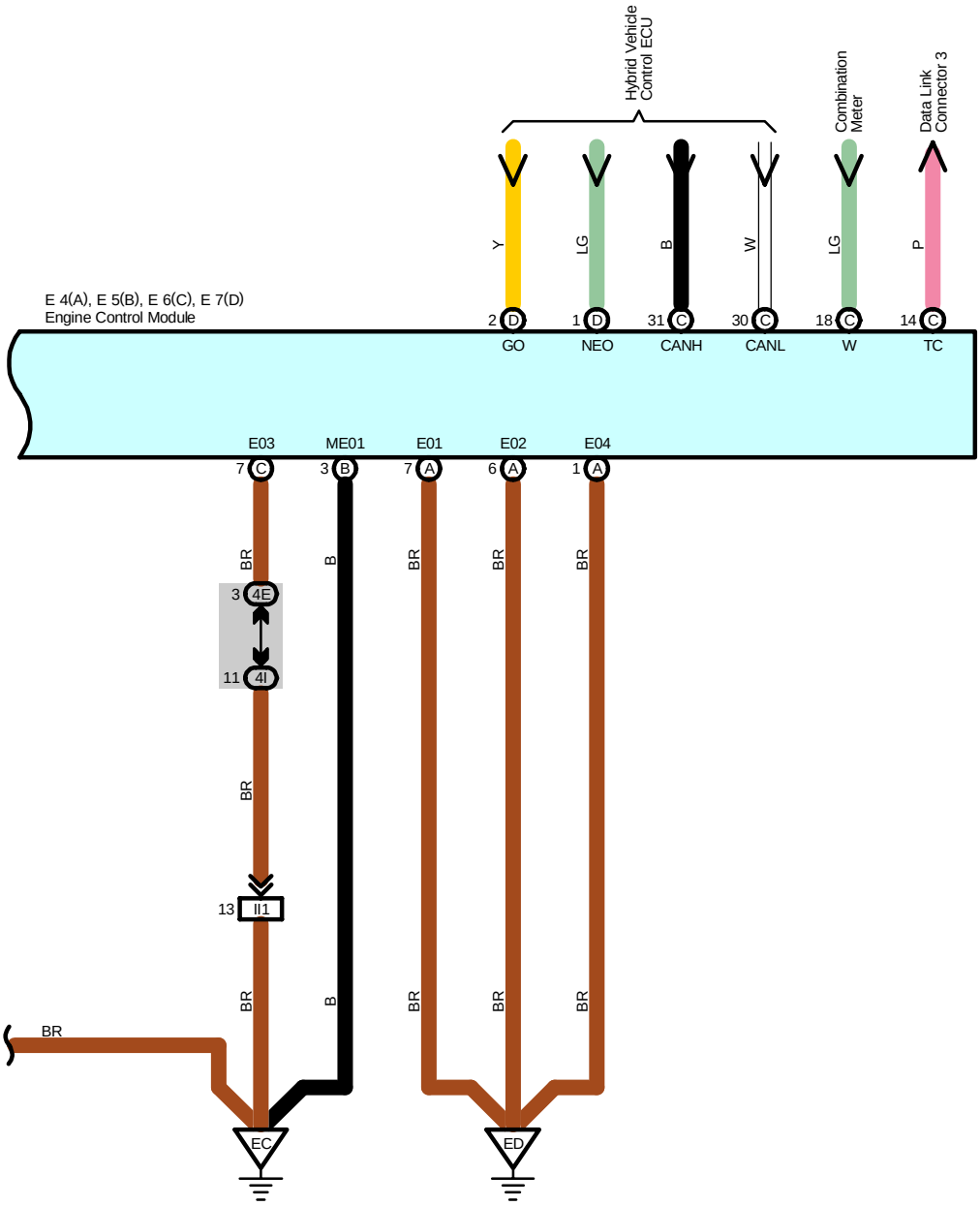
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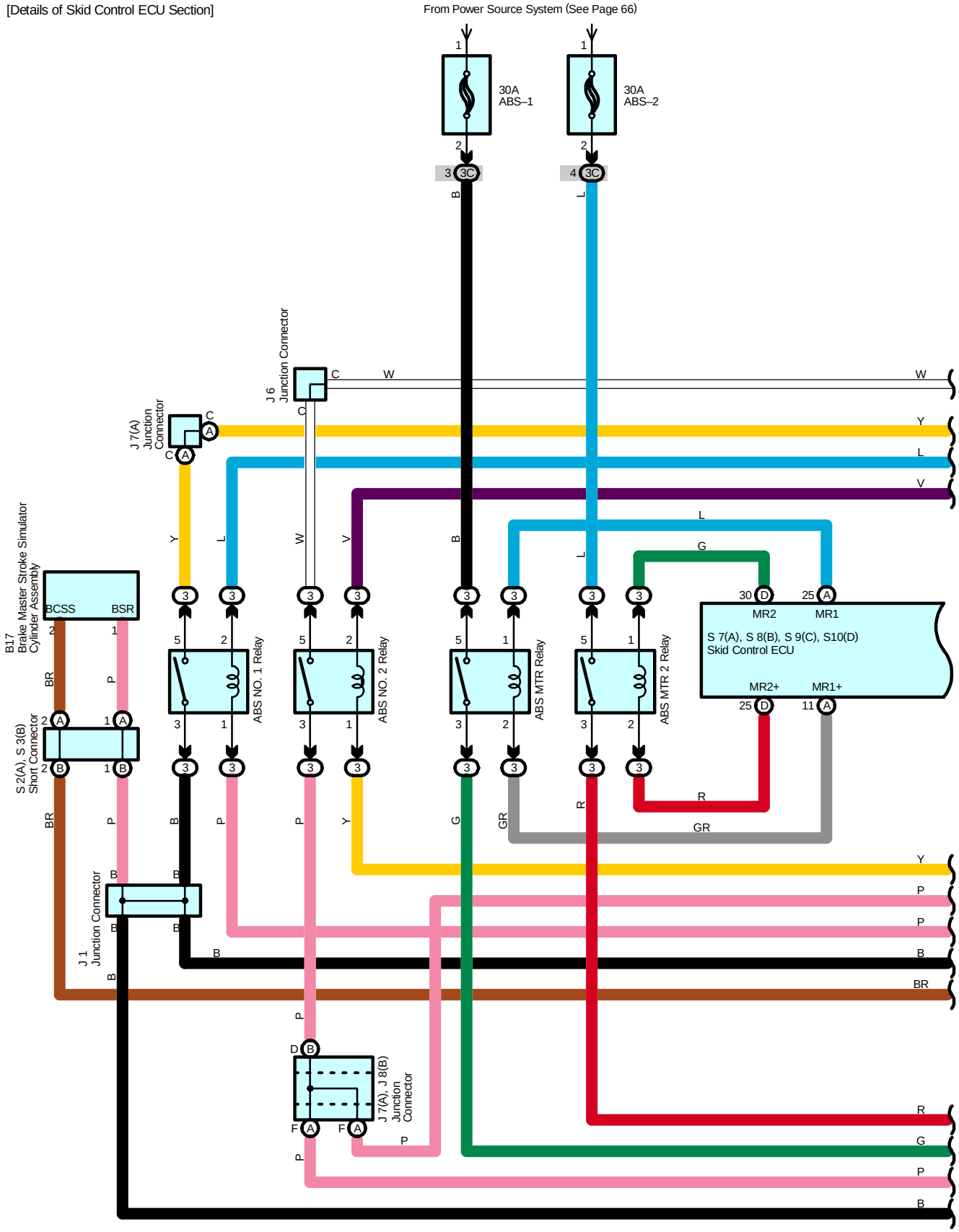
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* 3 : Shielded

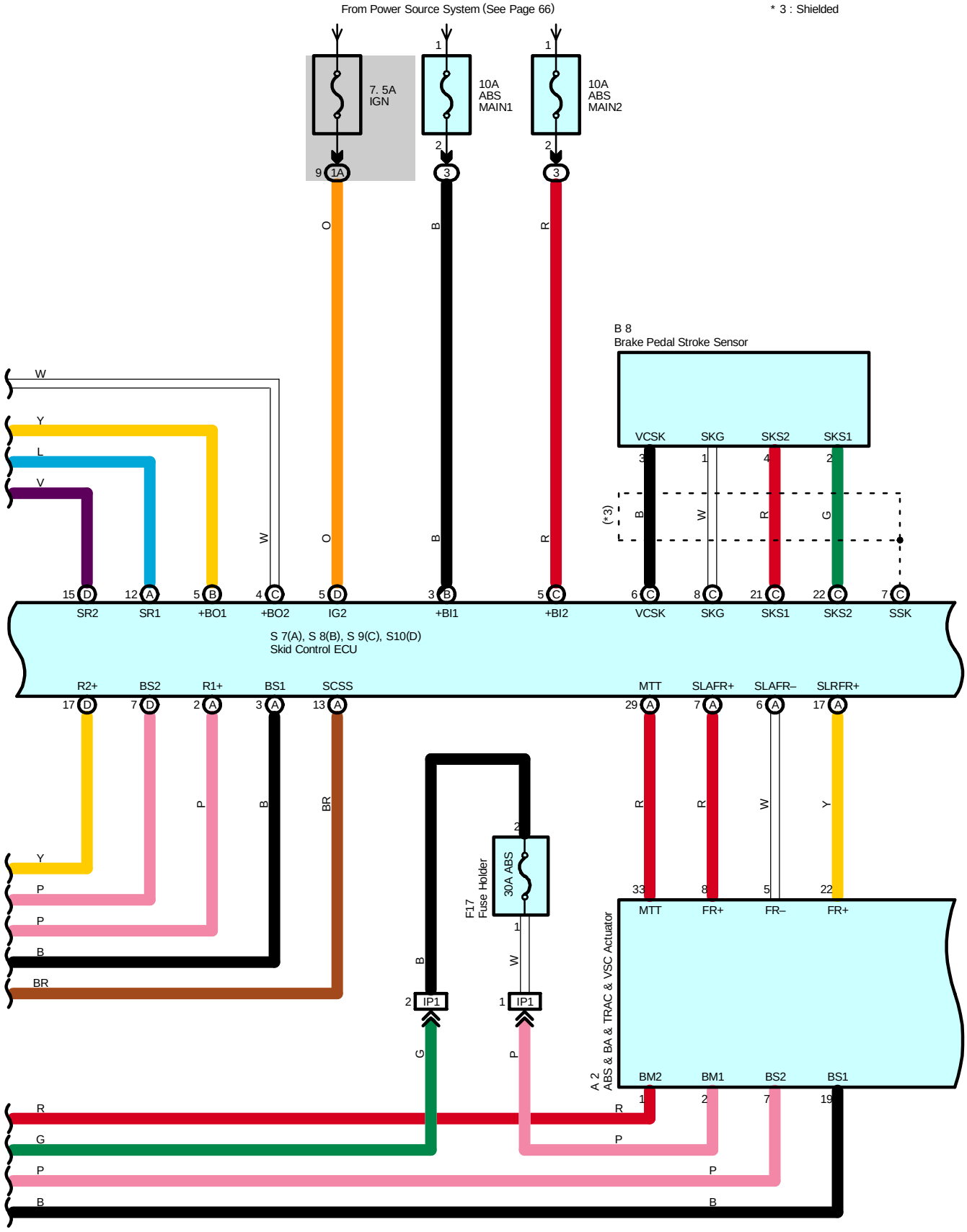


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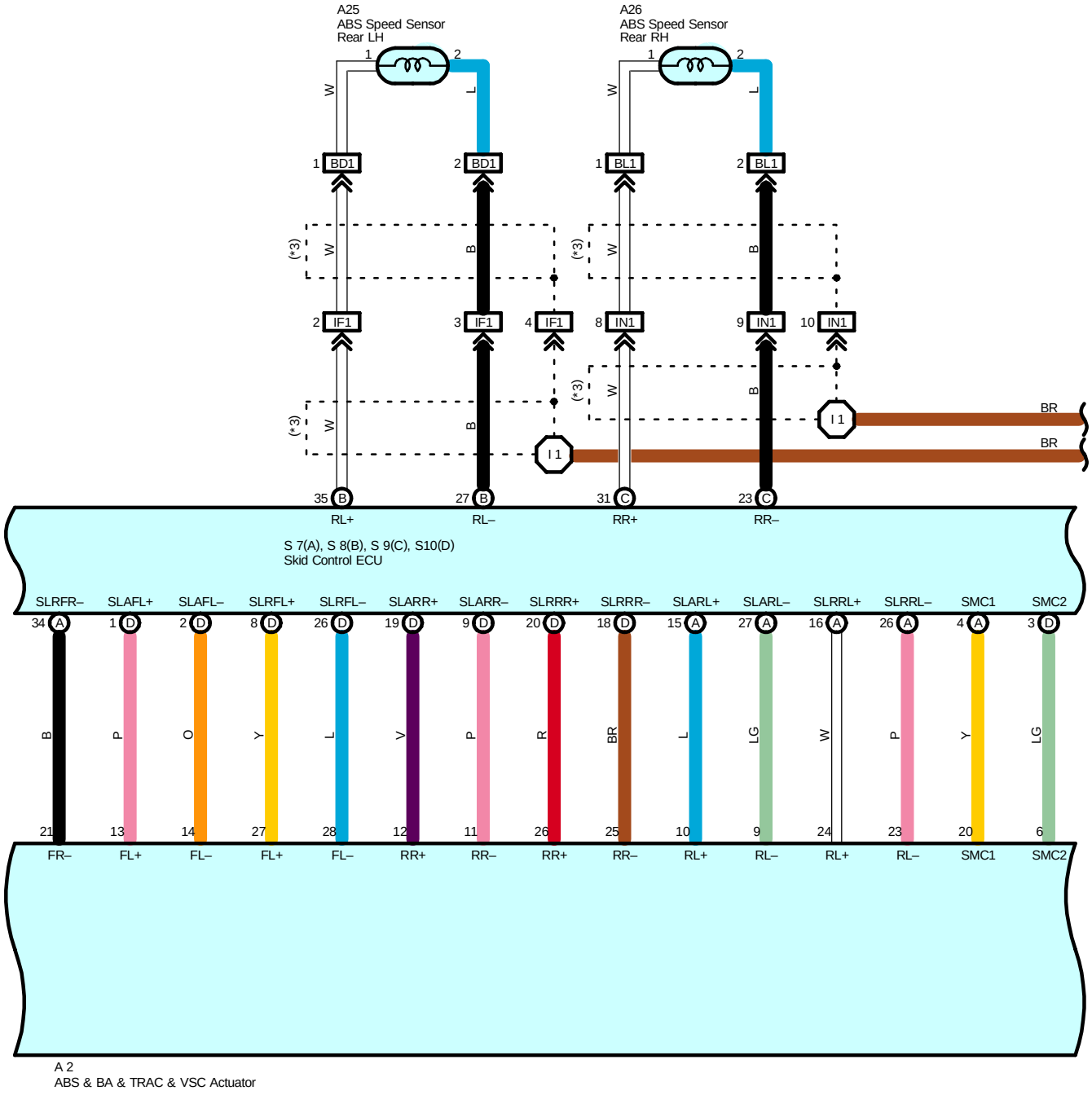


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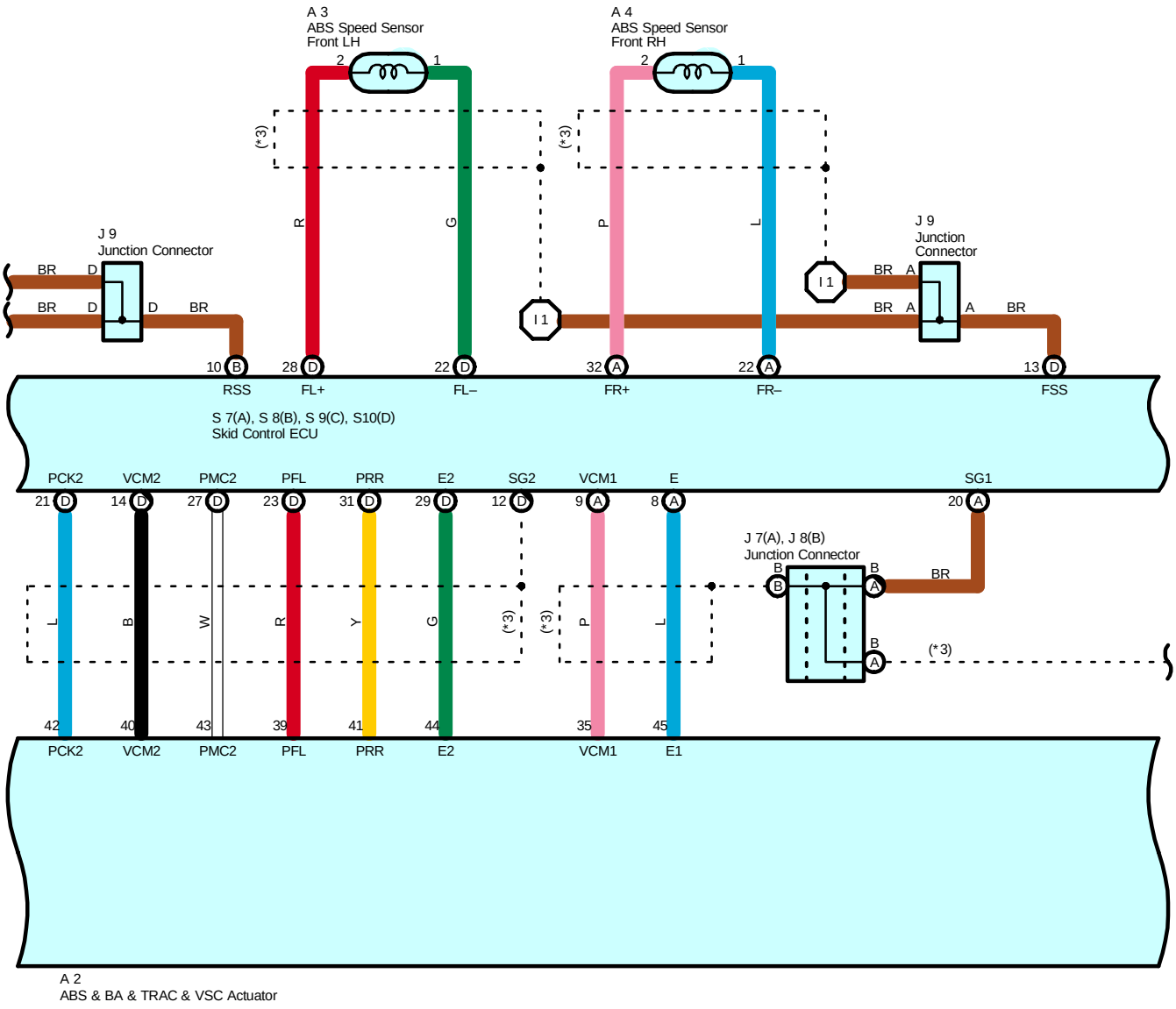
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[Details of Skid Control ECU Section]



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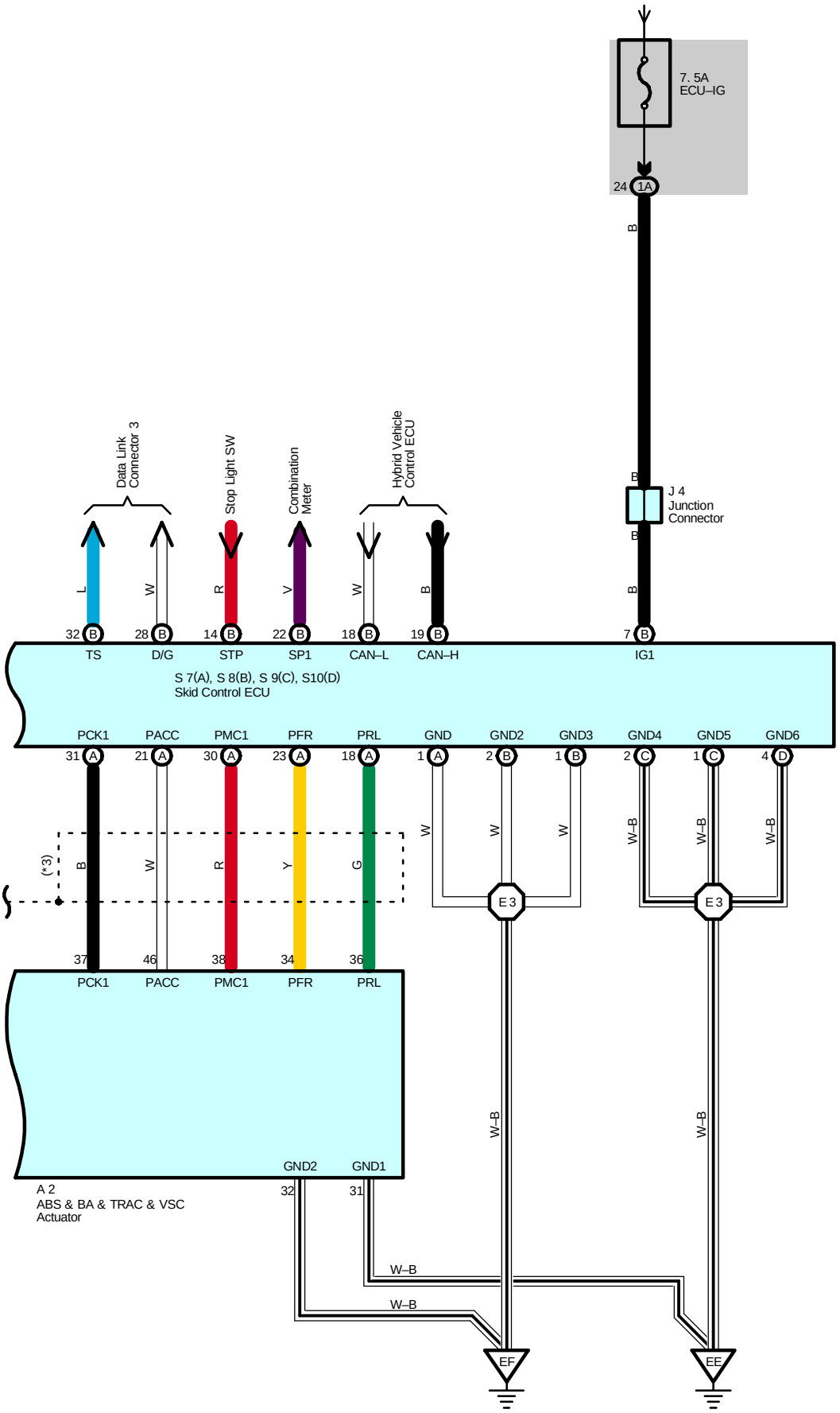


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[Details of Skid Control ECU Section]

From Power Source System (See Page 66)

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System Outline

This system controls the following modes in order to achieve the most efficient operations to match the driving conditions.

1. Motor Generator Condition

(1) Supply of electrical power from the HV battery to motor generator no.2 provides force to drive the wheels.

(2) While the tires are driven by the engine via the planetary gears, motor generator no.1 activates to supply electricity via the planetary gears to motor generator no.2 to drive the wheels.

(3) When the vehicle is decelerating, kinetic energy from the wheels is recovered into electrical energy and used to recharge the HV battery by motor generator no.2.

The hybrid vehicle control ECU switches between these modes (1, 2, 1+2, or 3) according to the driving conditions. However, when the state of charge of the HV battery is low, the HV battery is charged by the engine turning motor generator no.1.

2. Inverter

* The inverter converts high–voltage direct current of HV battery to three–phase alternating current for driving motor generator no.1 and motor generator no.2.
* The activation of the power transistors is controlled by the HV ECU. In addition, the inverter transmits necessary information for current control, such as the output amperage or voltage, to the HV ECU.
* Along with motor generator no.1 and motor generator no.2, the inverter is cooled by the exclusive radiator of the coolant system that is separated from that of the engine.
* In vehicle collision, circuit breaker sensor installed in the inverter outputs collision signal to stop the system.
* Boost converter has been adopted in the inverter, which increases rated voltage output from HV battery of DC 201.6V to DC 500V. After increasing voltage, the inverter converts direct current to alternating current.

3. Converter

The power source for auxiliary equipment of the vehicle such as the lights, audio system, and the air conditioning system, as well as the ECUs, is based on a rated voltage of DC 12V system. Because the generator outputs at DC 201.6V, the converter is used to transform the voltage from rated voltage of DC 201.6V to DC 12V in order to recharge the auxiliary battery. The converter is installed on the underside of the inverter.

4. HV Battery

* In Prius, the sealed nickel hydride (Ni–MH) battery has been adopted. This HV battery has high power density, lightweight and longevity to match characteristics of TOYOTA hybrid system. Because TOYOTA hybrid system controls charge/discharge to maintain charge/discharge control to maintain SOC (State of charge) at constant level while the vehicle is operating normally, it does not have to rely on the use of external recharges.
* The HV battery, battery ECU, system main relay and the cooling fan are put in a signal case which is placed in the luggage compartment behind the rear seat to make more effective use of vehicle space.
* A service plug that shuts off circuit is provided in the middle of the 28 modules (Rated battery capacity = 201.6V). Before servicing any portion of the high–voltage circuits, make sure to remove the service plug.
  Please do not READY ON when you remove the service plug. There is a possibility that battery ECU breaks down.
* To ensure the HV battery's performance, the battery ECU controls the operation of the cooling fan to avoid the heat that is generated in the HV battery during charging and discharging.

5. Regenerative System Operation

This system operates the motor as a generator to change the kinetic energy of the vehicle into the electricity when accel pedal is released or foot braking decelerates the vehicle speed, and store the electricity in the battery.

Service Hints

H14 (A), H15 (B), H16 (C) Hybrid Vehicle Control ECU

(B) 6–Ground : Always approx. 12 volts
(C) 6, (C) 7–Ground : Approx. 12 volts with the hybrid system at ON (READY) position
(A) 7–Ground : Approx. 12 volts with the power SW at IG ON position
(B) 3–Ground : Approx. 12 volts with the brake pedal depressed
(A) 1, (A) 4–Ground : Always continuity

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○ : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
A2	44	H15 B	47	J30	51
A3	44	H16 C	47	J32	51
A4	44	H17 D	47	M1	45
A6	44	H20 A	51	M2 A	45
A7 A	46	H21 B	51	M3 B	45
A8 B	46	I1	45	M4 C	45
A9	46	I2	45	M5 D	45
A13	46	I3	45	M6 A	45
A18	46	I4	45	M7 B	45
A25	50	I5	45	M8 C	45
A26	50	I6	45	M9 D	45
B5 A	46	I7	45	M10 E	45
B8	46	I8	45	M13	48
B9	50	I9 A	45	P6	49
B10	50	I10 B	45	P8	49
B11 A	50	I12 D	45	P11	49
B12 B	50	I13 E	45	S1	45
B13 C	50	I14 G	45	S2 A	45
B14	50	I15 H	45	S3 B	45
B17	44	I16 I	45	S4 A	49
C1	44	I17	51	S5 B	49
C3	44	J1	45	S7 A	49
C5 A	44	J2	45	S8 B	49
C6 B	44	J3	45	S9 C	49
C7	44	J4	45	S10 D	49
C10	47	J5	48	S11	49
D1	47	J6	48	S16	49
D7	50	J7 A	48	S22 A	53
E1	44	J8 B	48	S23 B	53
E4 A	47	J9	48	S24 C	53
E5 B	47	J12 A	48	S25 D	53
E6 C	47	J13 B	48	S26 E	53
E7 D	47	J14	48	S27	45
F14	51	J15	48	S28	45
F15 A	51	J16	48	T2	45
F16 B	51	J17	48	T3	45
F17	47	J18	48	T4	49
G1	47	J24	48	T5	49
H14 A	47	J25	48	W3	45

▭ : **Relay Blocks**

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

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: **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1B		
1C		
1D	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1F		
1G		
1J		
1L		
1M		
1N		
3B	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3C		
3D		
3E		
3G		
3I		
3J		
3M	22	Frame Wire and Engine Room J/B (Engine Compartment Left)
4C	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4D		
4E		
4F		
4G		
4H		
4I		
4J		
4K		
4L		
5C	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5D		
5E		
5F		
5G		
5H		
5I		
5J		
5K		
5L		
5M		
5N		

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: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	54	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B)
IA1	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IA2		
IA3		
IC1	56	Engine Room Main Wire and Floor Wire (Cowl Side Panel LH)
ID3	56	Instrument Panel Wire and Floor Wire (Left Kick Panel)
ID4		
IF1	56	Floor Wire and Engine Room Main Wire (Left Kick Panel)
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IN1	58	Floor No.2 Wire and Engine Room Main Wire (Right Kick Panel)
IP1	58	Engine Room No.2 Wire and Engine Room Main Wire (Upper Parts of Front Body Pillar LH)
BD1	60	Skid Control Sensor No.1 Wire and Floor Wire (Front Side of Left Quarter Panel)
BE1	60	Frame Wire and Floor No.2 Wire (Front Side of Left Quarter Panel)
BL1	62	Skid Control Sensor No.2 Wire and Floor No.2 Wire (Front Side of Right Quarter Panel)
BM1	62	Floor No.2 Wire and Floor Wire (Rear Side of Right Quarter Panel)

: Ground Points

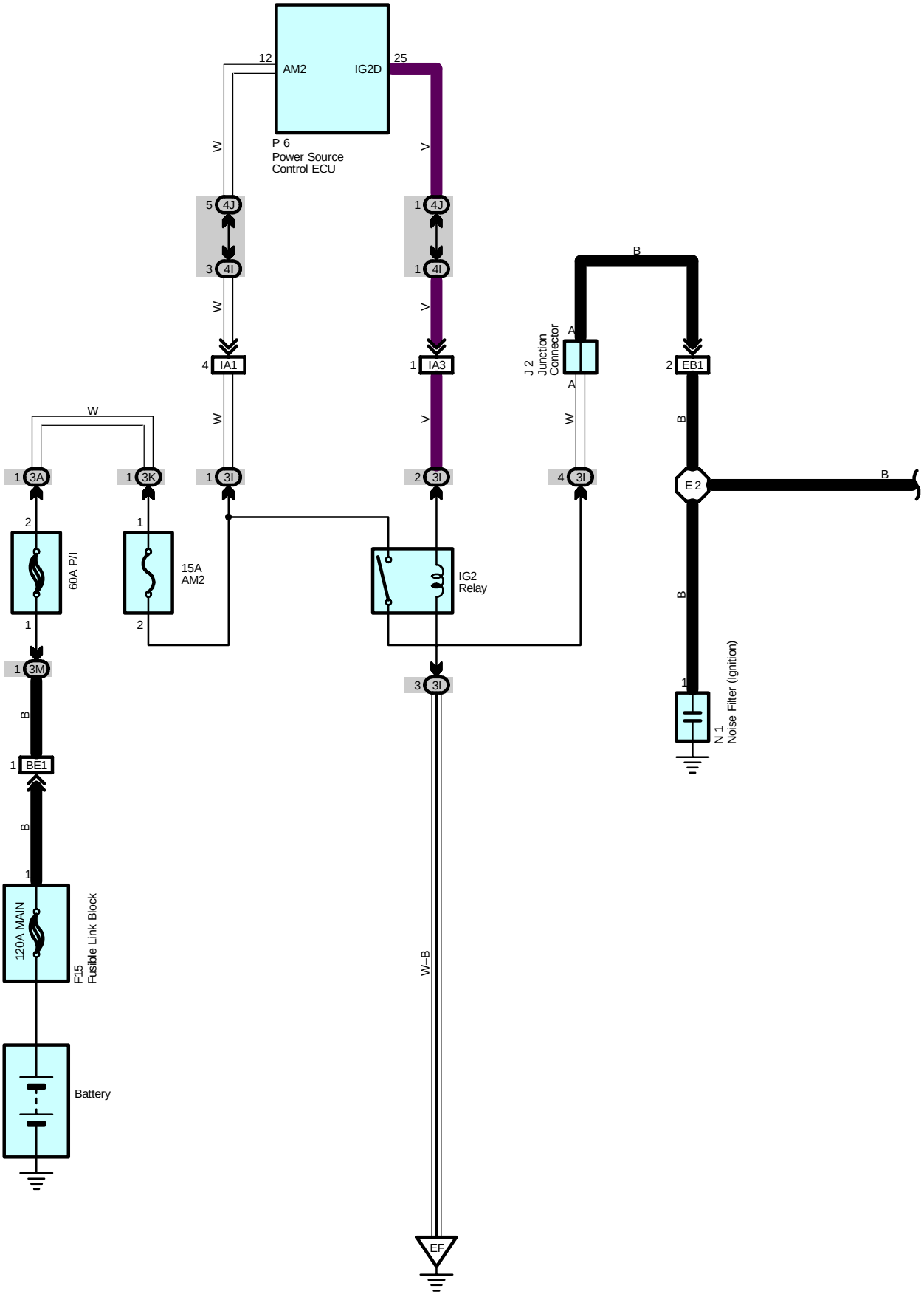
Code	See Page	Ground Points Location
EC	54	Engine Block
ED		
EE	54	Left Side of the Suspension Tower
EF		
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH
IK	56	Cowl Side Panel RH
BL	60	Rear Side of Left Quarter Panel
BQ	60	Rear Side of Right Quarter Panel

: Splice Points

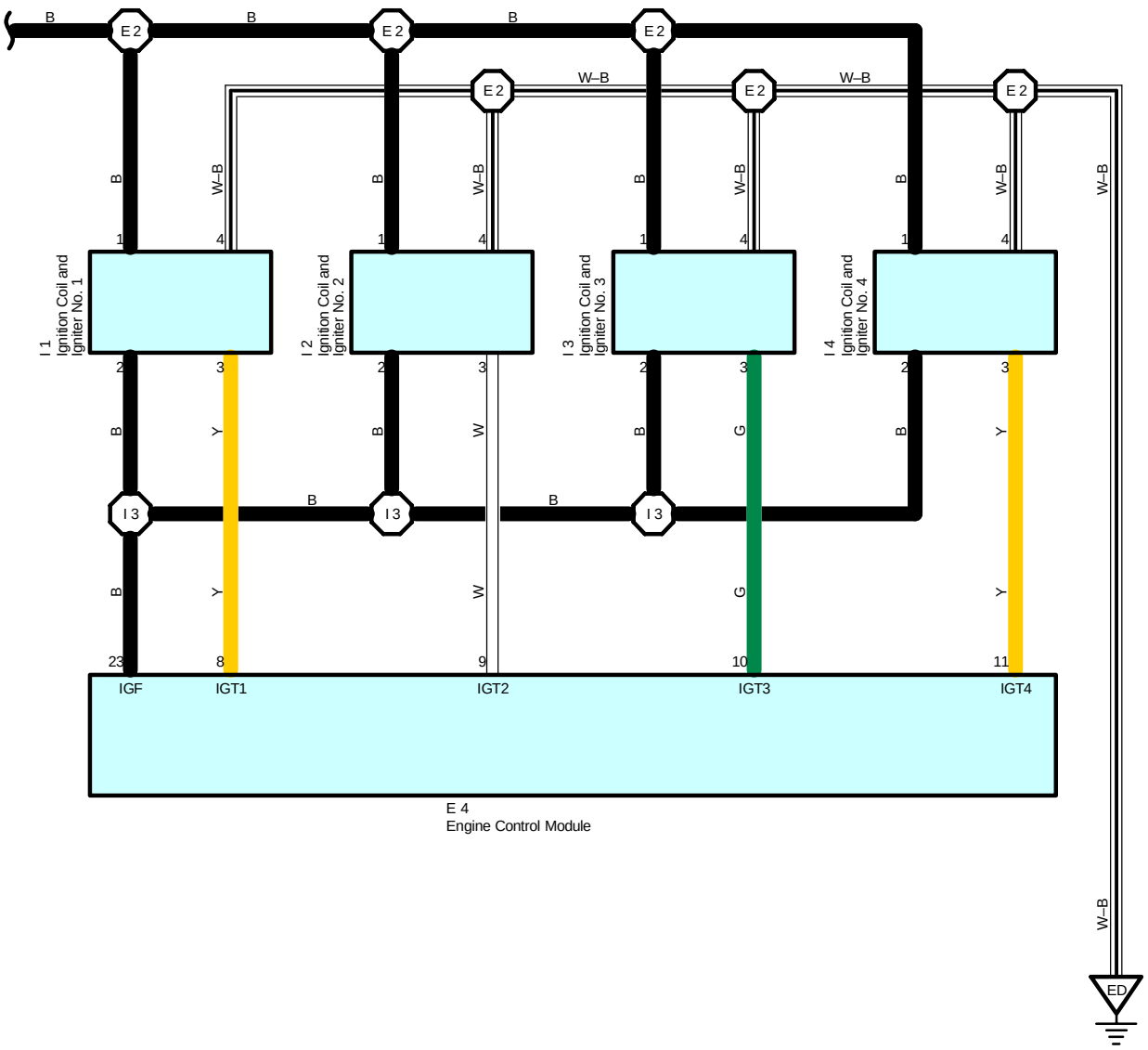
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	54	Engine Wire	I2	58	Instrument Panel Wire
E3	54	Engine Room Main Wire	I3	58	Engine Wire
I1	58	Instrument Panel Wire			

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Ignition

Service Hints

I1, I2, I3, I4 Ignition Coil and Igniter No.1, No.2, No.3, No.4

1–Ground : Approx. 12 volts with the power SW at IG ON position

4–Ground : Always continuity

: Parts Location

Code	See Page	Code	See Page	Code	See Page
E4	47	I2	45	J2	45
F15	51	I3	45	N1	45
I1	45	I4	45	P6	49

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
3A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3I		
3K		
3M	22	Frame Wire and Engine Room J/B (Engine Compartment Left)
4I	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4J		

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	54	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B)
IA1	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IA3		
BE1	60	Frame Wire and Floor No.2 Wire (Front Side of Left Quarter Panel)

: Ground Points

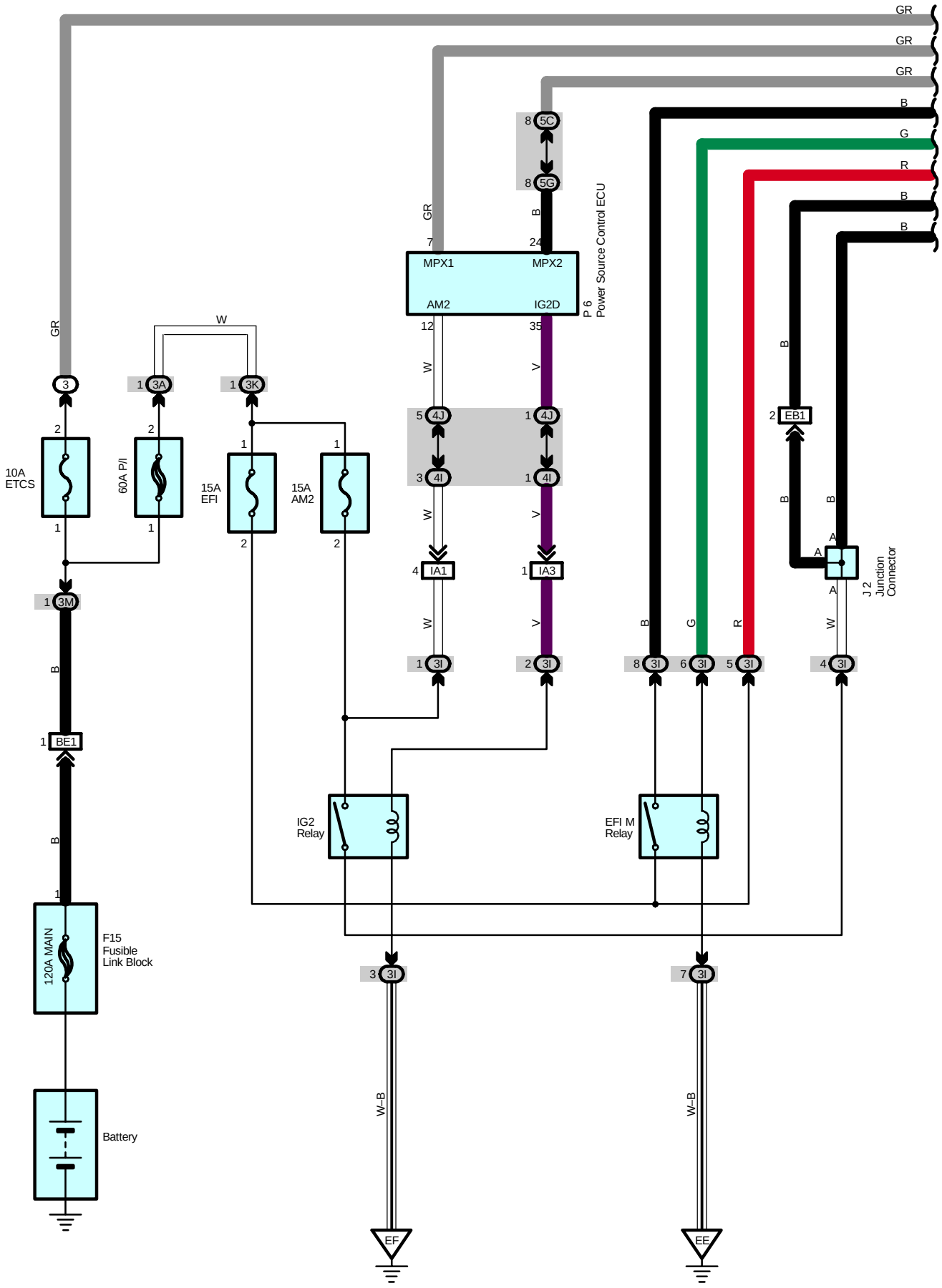
Code	See Page	Ground Points Location
ED	54	Engine Block
EF	54	Left Side of the Suspension Tower

: Splice Points

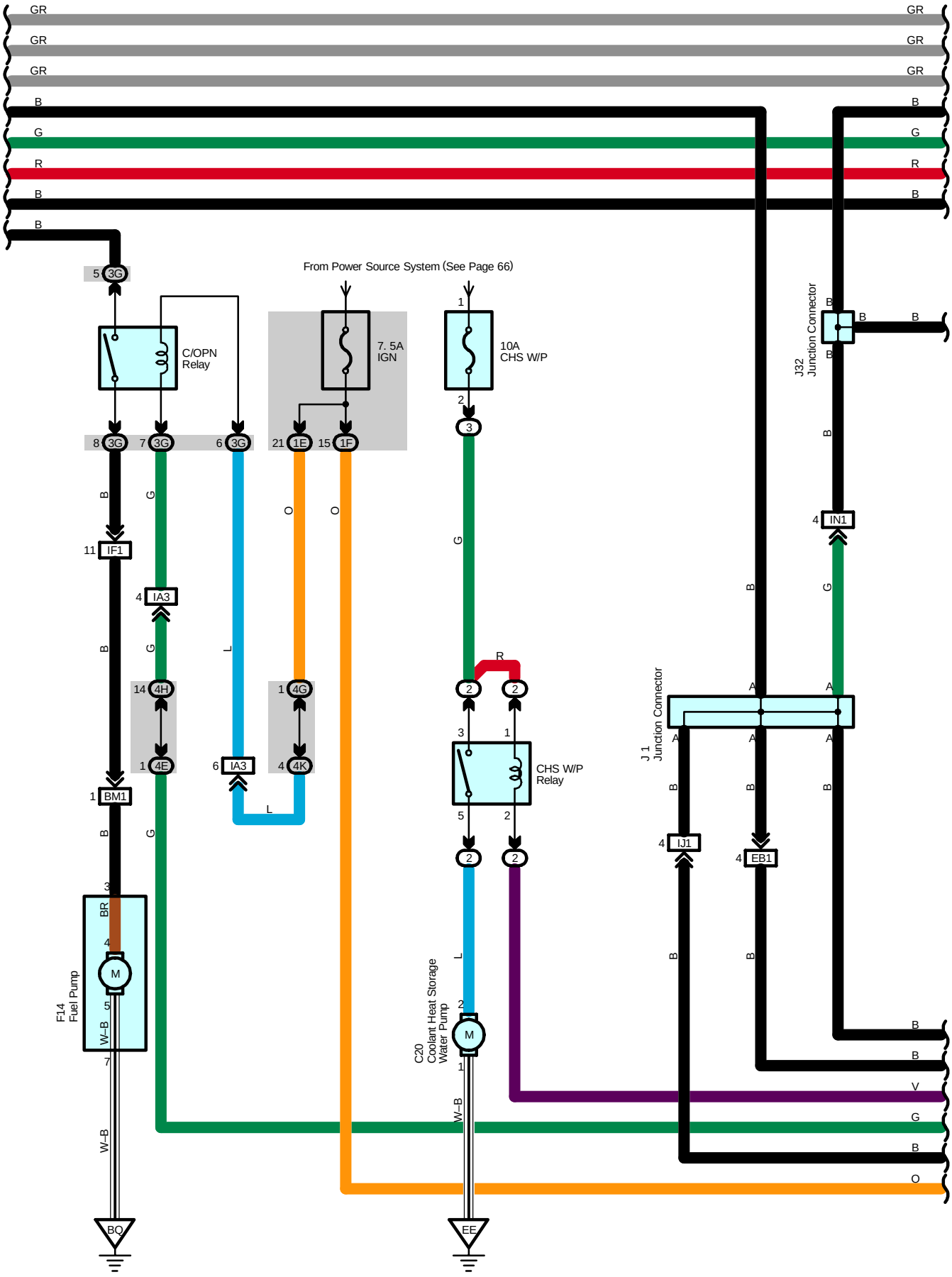
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	54	Engine Wire	I3	58	Engine Wire

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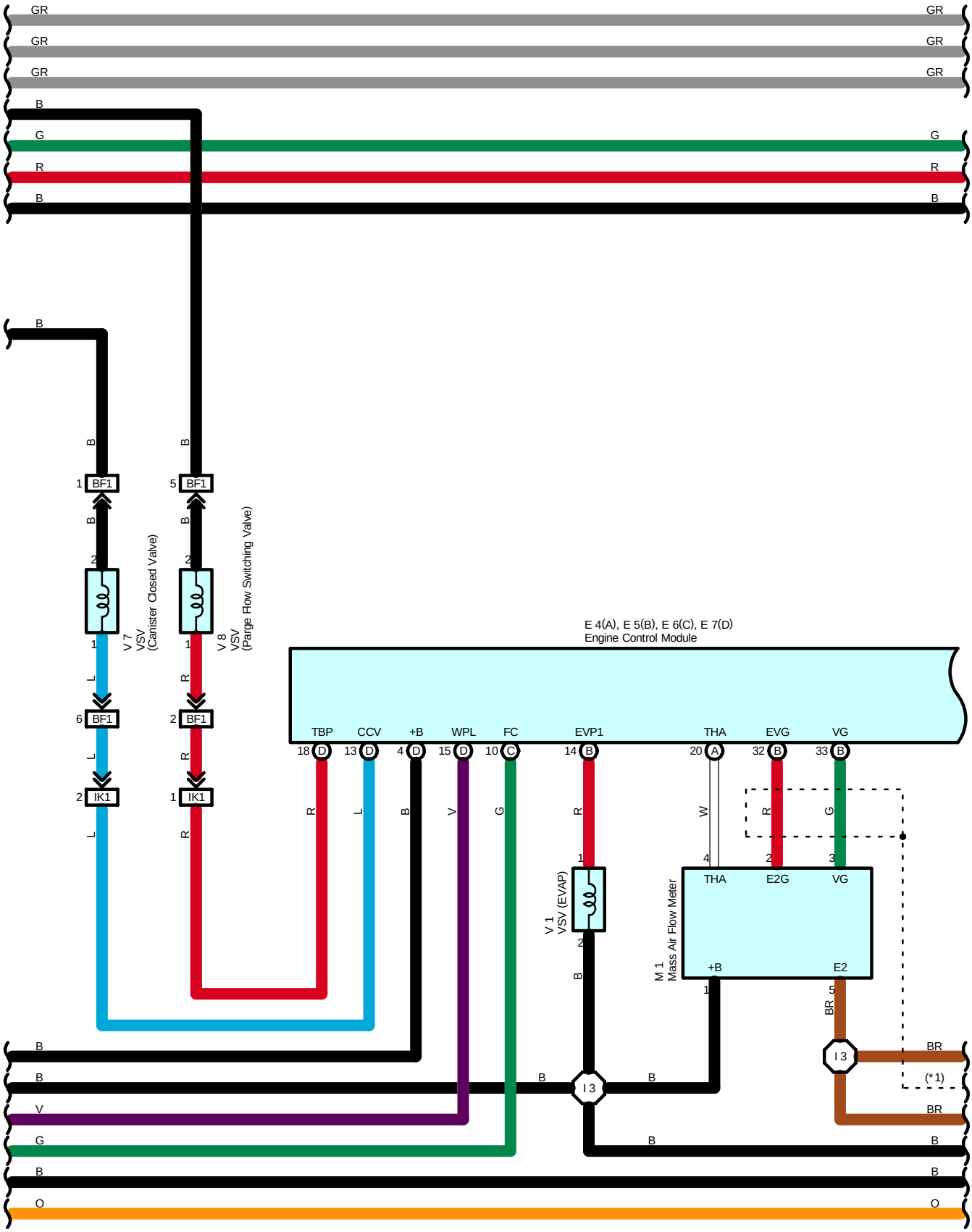
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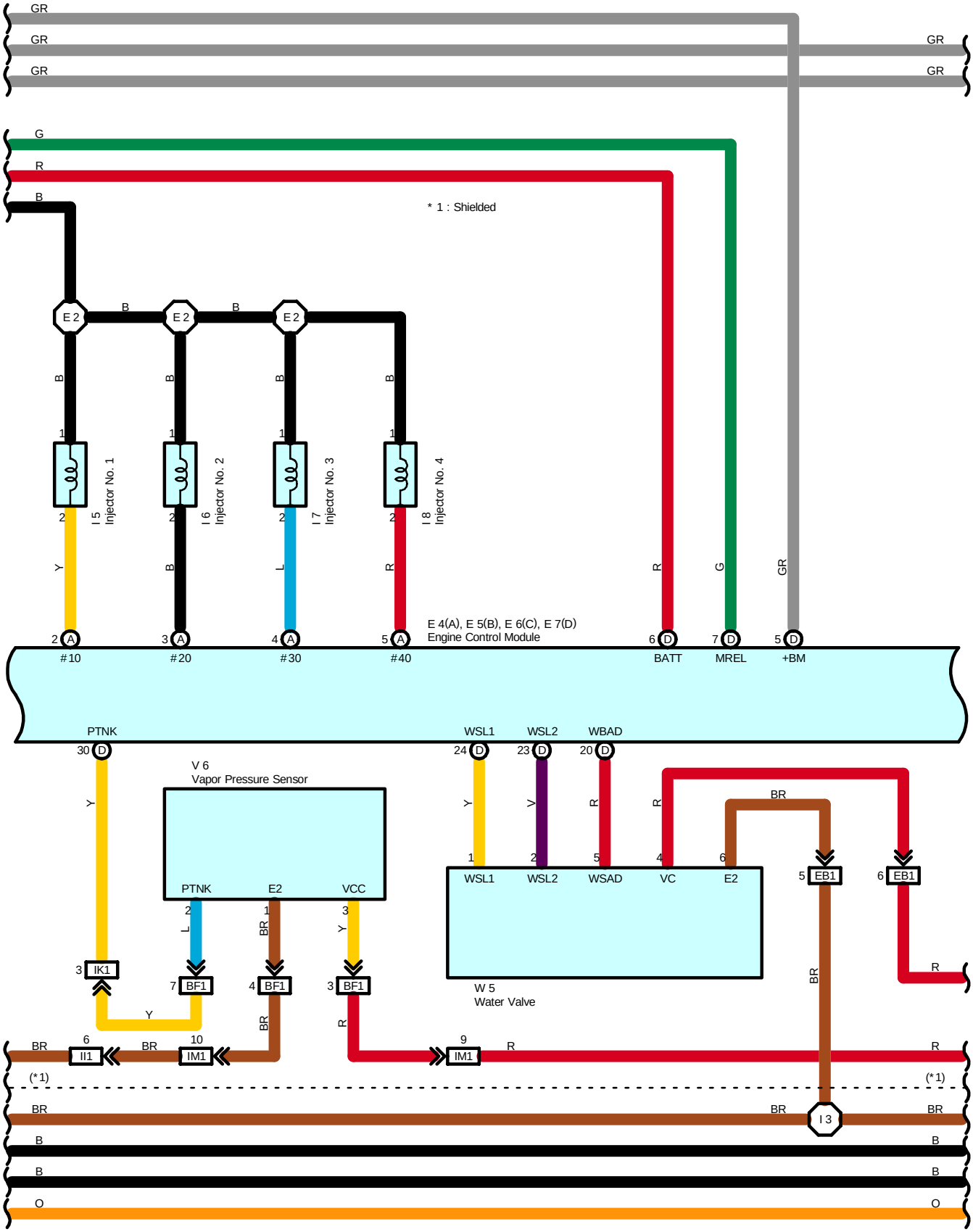
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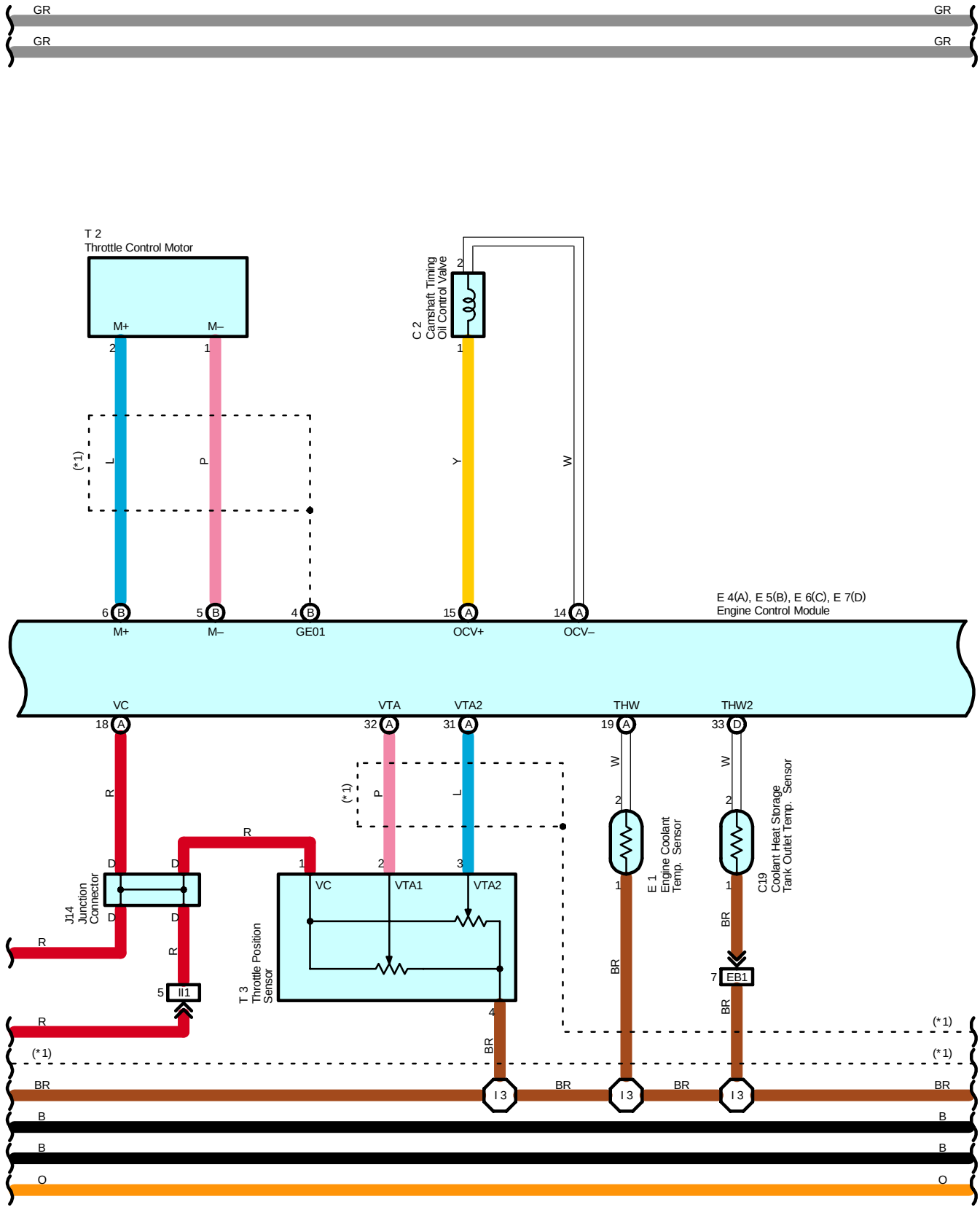
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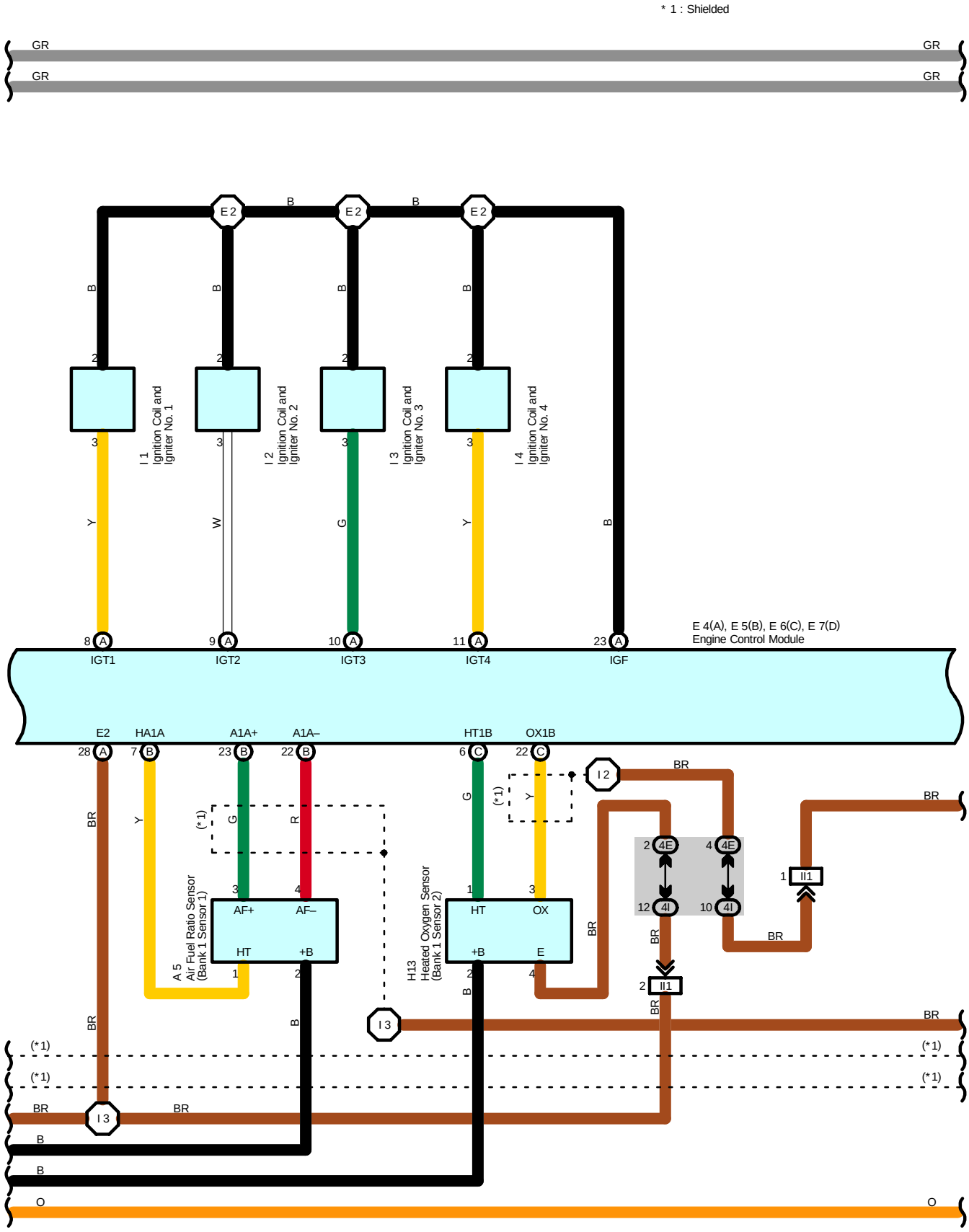
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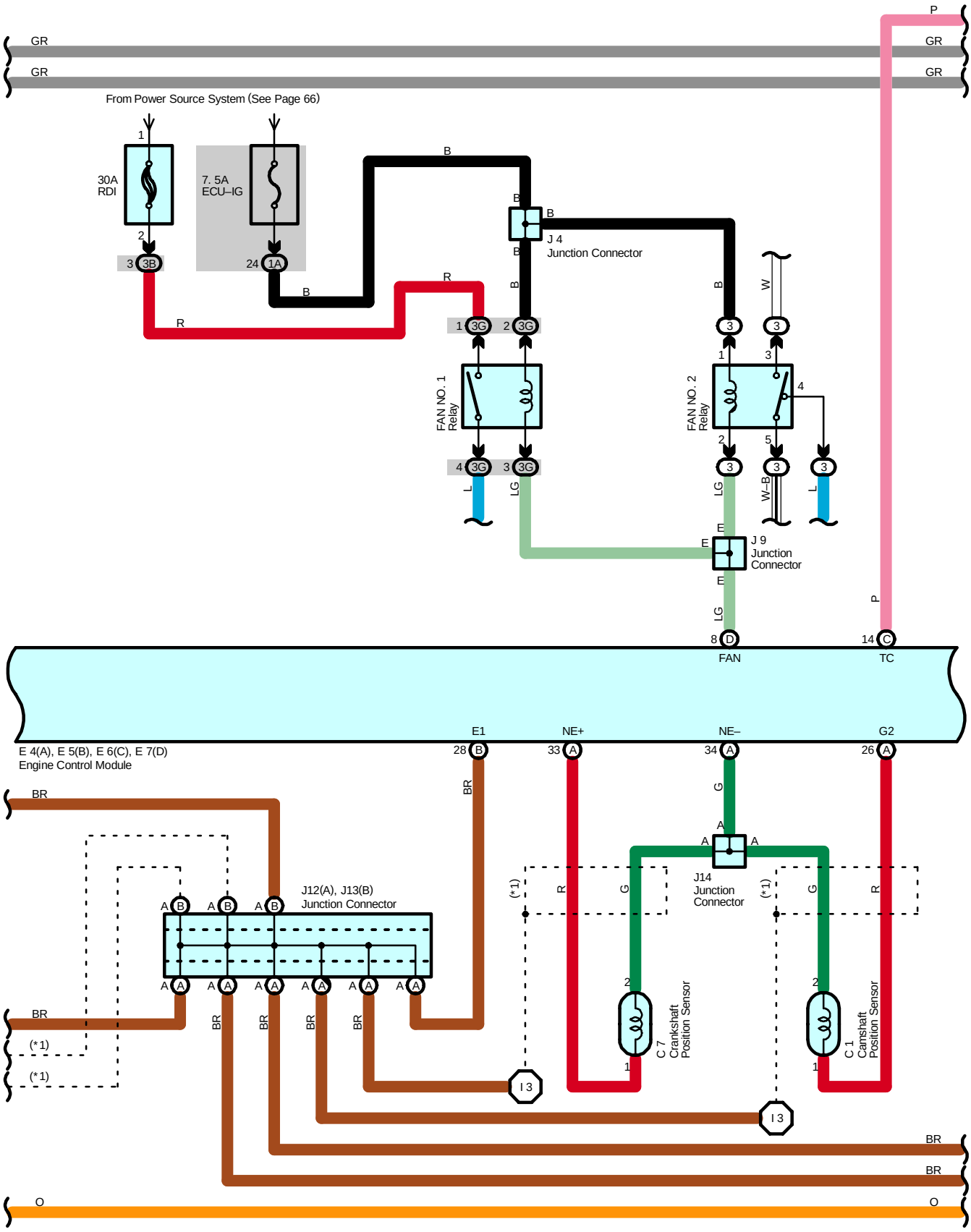
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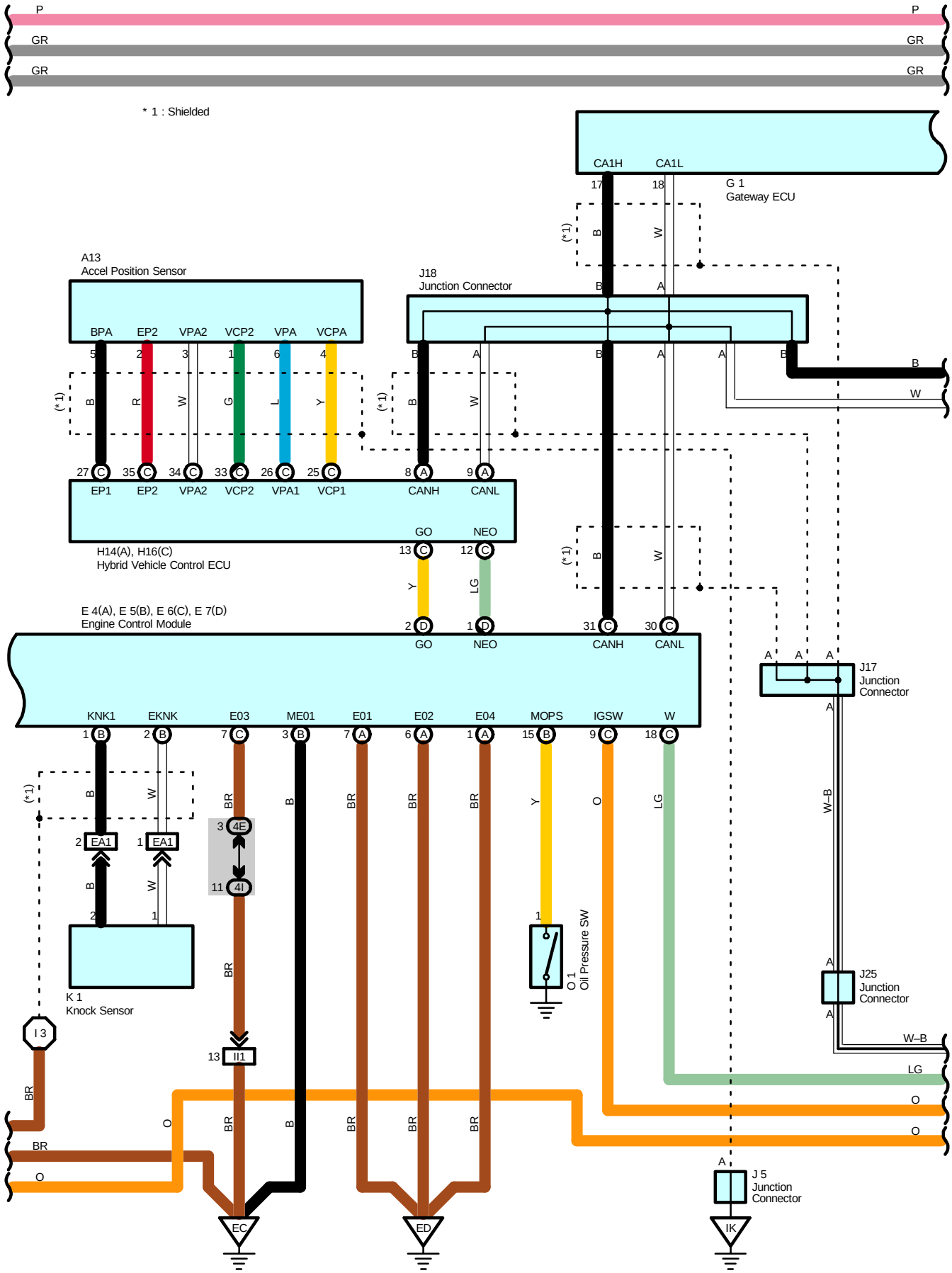
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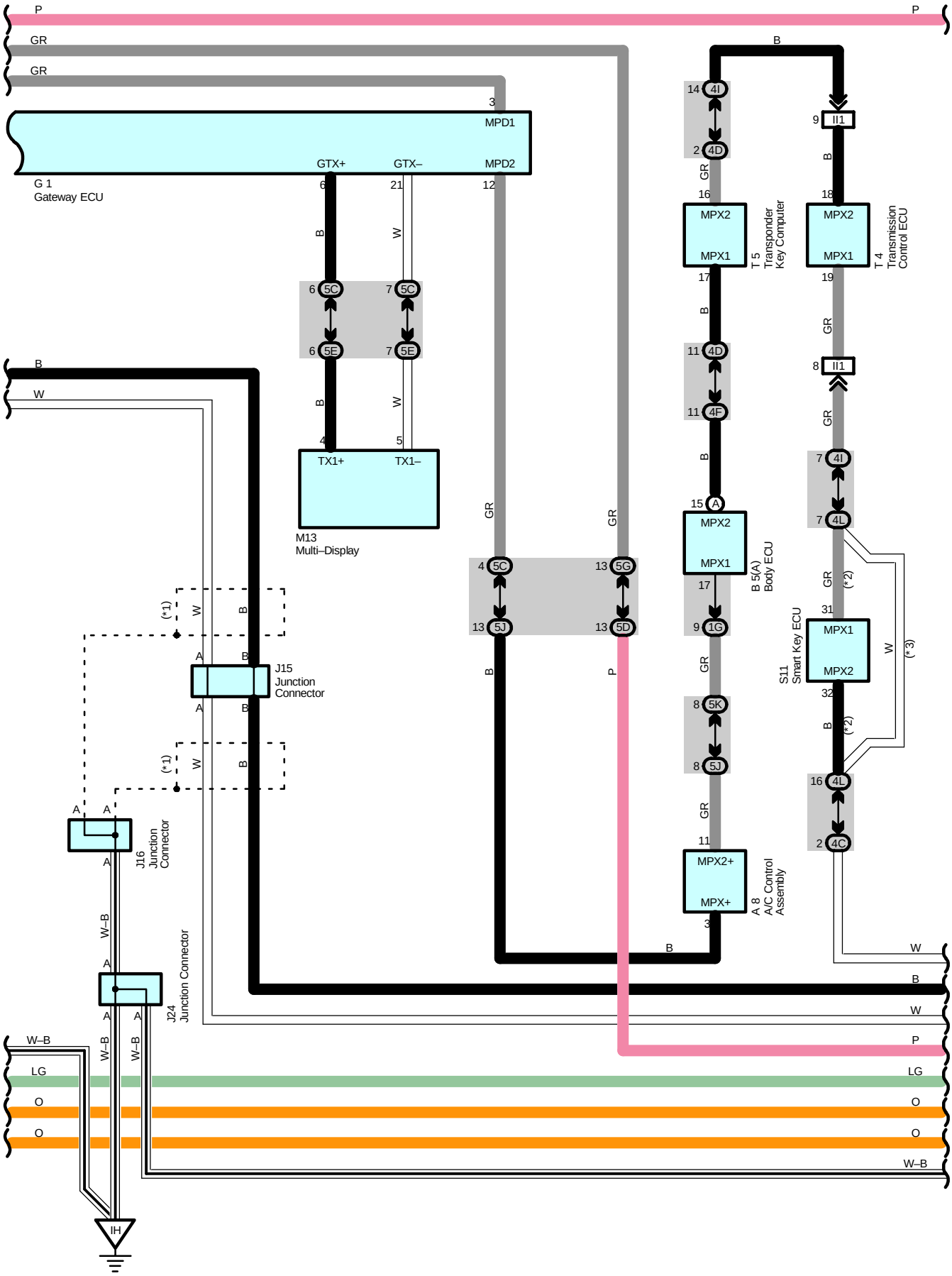
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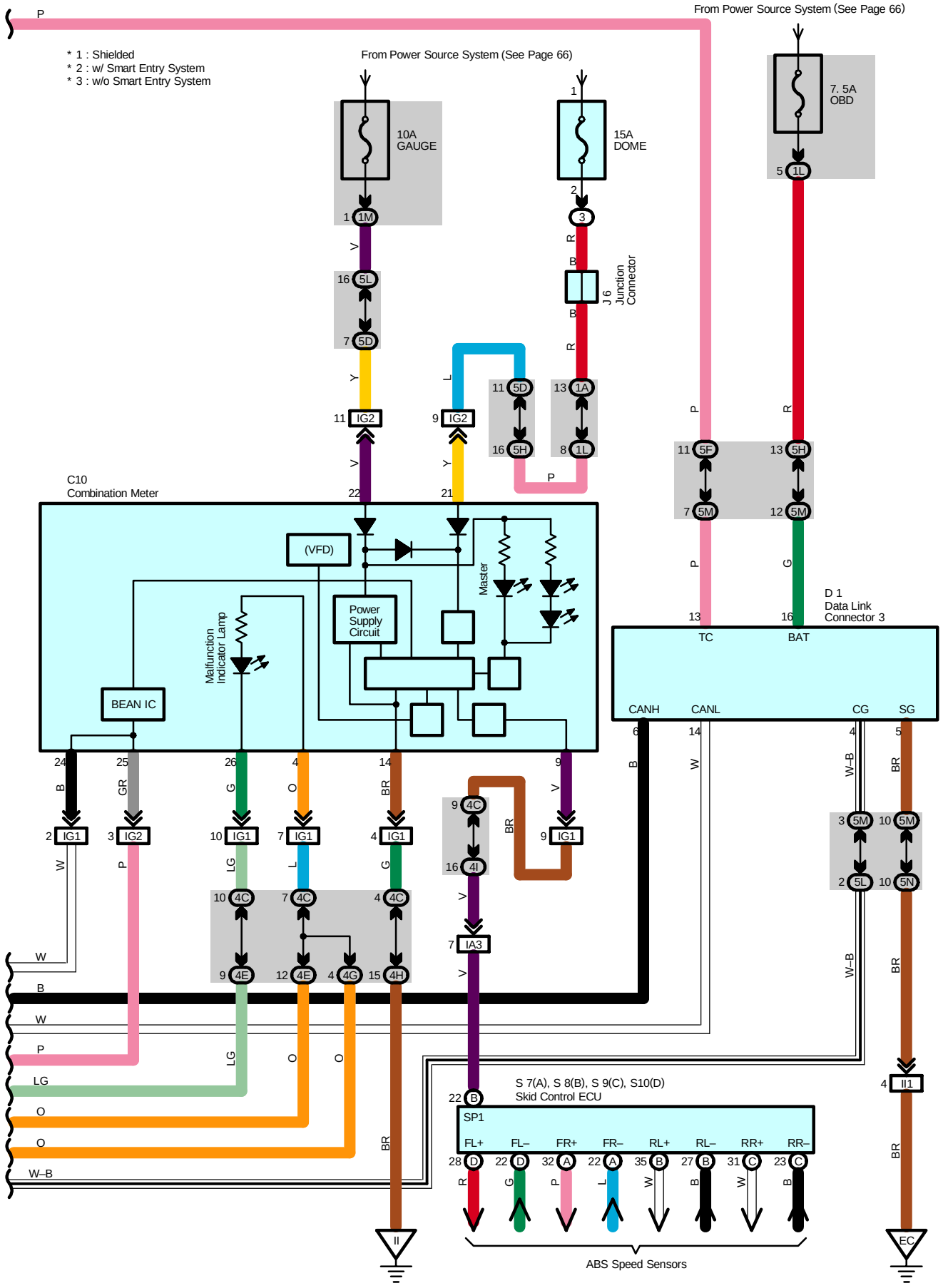
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System Outline

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

1. Input Signals

(1) Engine coolant temp. signal circuit

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

(2) Intake air temp. signal circuit

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

(3) Oxygen sensor signal circuit

The oxygen density in the exhaust emission is detected and is input from the heated oxygen sensors to TERMINAL OX1B of the engine control module as a control signal.

(4) RPM signal circuit

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

(5) Throttle position sensor signal circuit

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

(6) Vehicle speed signal circuit

ABS speed sensor detects vehicle speed and the speed signal is input from skid control ECU to engine control module.

(7) Battery signal circuit

Voltage is constantly applied to TERMINAL BATT of the engine control module. When the power SW is pushed on, the voltage for engine control module starts up power supply which is applied through the EFI M relay, to TERMINAL +B of the engine control module. The current from the IGN fuse flows to TERMINAL IGSW of the engine control module, and voltage is constantly applied to TERMINAL +BM.

(8) Intake air volume signal circuit

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

(9) Water temp. (CHS) signal circuit

The water temp. (CHS) sensor detects the water temp. (CHS) and has a built–in thermistor with a resistance which varies according to the water temp. (CHS). The water temp. (CHS) is input into TERMINAL THW2 of the engine control module as a control signal.

(10) Engine knock signal circuit

Engine knocking is detected by the knock sensor, and is input into TERMINAL KNK1 of the engine control module as a control signal.

(11) Air fuel ratio signal circuit

The air fuel ratio is detected and input into TERMINAL A1A+ of the engine control module as a control signal.

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2. Control System

* SFI system
  The SFI system monitors the engine condition through the signals input from each sensors to the engine control module. The control signal is sent to the engine control module TERMINALS #10, #20, #30 and #40 to operate the injector (Fuel injection). The SFI system controls the fuel injection with the engine control module according to the driving conditions.
* ESA system
  The ESA system monitors the engine condition through the signals input from each sensors to the engine control module. The best ignition timing is decided according to this data and the data stored in the engine control module. The control signal is output to TERMINALS IGT1, IGT2, IGT3 and IGT4, and these signals control the igniter to provide the best ignition timing.
* Heater control system of heated oxygen sensor
  The heater control system of heated oxygen sensor turns the heater on when the intake air volume is low (Temp. of exhaust emission is low), and warms up the heated oxygen sensors to improve their detecting performance. The engine control module evaluates the signals from each sensors, and outputs current to TERMINAL HT1B to control the heater.
* Heater control system of air fuel ratio sensor
  The heater control system of air fuel ratio sensor turns the heater on when the intake air volume is low (Temp. of exhaust emission is low), and warms up the air fuel ratio sensor to improve detecting performance of the sensor.
  The engine control module evaluates the signals from each sensor, current is output to TERMINAL HA1A, controlling the heater.
* Fuel pump control system
  The engine control module supplies current to TERMINAL FC, and controls the operation of the fuel pump with the C/OPN relay.
* VVT–i
  VVT–i controls the intake camshaft to optimal valve timing in accordance with the engine condition.
* CHS system
  Engine control module controls CHS W/P relay to run electric pump to supply heated water stored in CHS tank to engine head. The electric pump stops when the water reaches certain temperature or certain time goes by. Warming engine head optimizes combustion conditions at engine start to reduce emission of incomplete combustion gas.

3. Diagnosis System

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

4. Fail–Safe System

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

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Service Hints

E4 (A), E5 (B), E6 (C), E7 (D) Engine Control Module

BATT–E1 : Always approx. 9–14 volts
+B–E1 : 9–14 volts with the power SW at IG ON position
VC–E2 : 4.5–5.5 volts with the power SW at IG ON position
IGF–E1 : Pulse generation with the engine idling
THA–E2 : 0.5–3.4 volts with the engine idling and the intake air temp. 0~80˚C (32~176˚F)
THW–E2 : 0.2–1.0 volts with the engine idling and the engine coolant temp. 60~120˚C (140~248˚F)
W–E1 : 9–14 volts with the engine idling and malfunction indicator lamp off
FC–E1 : 9–14 volts with the power SW at IG ON position and the engine stopping
: 0–3 volts with the engine idling
+BM–E1 : Always approx. 9–14 volts
MREL–E1 : 9–14 volts with the power SW at IG ON position
EVP1–E1 : 9–14 volts with the power SW at IG ON position and the engine not running
TC–E1 : 9–14 volts with the power SW at IG ON position and the engine not running
KNK1–EKNK : Pulse generation with the engine idling
NE+, G2–NE– : Pulse generation with the engine idling
IGT1, IGT2, IGT3, IGT4–E1 : Pulse generation with the engine idling
E01, E02, E03, E04, E1, E2, ME01–Ground : Always continuity

: Parts Location

Code	See Page	Code	See Page	Code	See Page
A5	44	I1	45	J25	48
A8	46	I2	45	J32	51
A13	46	I3	45	K1	45
B5 A	46	I4	45	M1	45
C1	44	I5	45	M13	48
C2	44	I6	45	O1	45
C7	44	I7	45	P6	49
C10	47	I8	45	S7 A	49
C19	44	J1	45	S8 B	49
C20	44	J2	45	S9 C	49
D1	47	J4	45	S10 D	49
E1	44	J5	48	S11	49
E4 A	47	J6	48	T2	45
E5 B	47	J9	48	T3	45
E6 C	47	J12 A	48	T4	49
E7 D	47	J13 B	48	T5	49
F14	51	J14	48	V1	45
F15	51	J15	48	V6	53
G1	47	J16	48	V7	53
H13	47	J17	48	V8	53
H14 A	47	J18	48	W5	45
H16 C	47	J24	48		

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	26	Engine Room R/B No.2 (Right Side of Reserve Tank)
3	22	Engine Room R/B (Engine Compartment Left)

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: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1F		
1G		
1L		
1M		
3A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3B		
3G		
3I		
3K		
3M	22	Frame Wire and Engine Room J/B (Engine Compartment Left)
4C	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4D		
4E		
4F		
4G		
4H		
4I		
4J		
4K		
4L		
5C	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5D		
5E		
5F		
5G		
5H		
5J		
5K		
5L		
5M		
5N		

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	54	Engine Wire and Engine No.4 Wire (Near the Radiator Fan)
EB1	54	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B)
IA1	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IA3		
IF1	56	Floor Wire and Engine Room Main Wire (Left Kick Panel)
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IJ1	58	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)
IK1	58	Engine Room Main Wire and Floor No.2 Wire (Cowl Side Panel RH)
IM1	58	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
IN1	58	Floor No.2 Wire and Engine Room Main Wire (Right Kick Panel)
BE1	60	Frame Wire and Floor No.2 Wire (Front Side of Left Quarter Panel)
BF1	60	Floor No.2 Wire and Fuel Tank Wire (Near the Fuel Tank)
BM1	62	Floor No.2 Wire and Floor Wire (Rear Side of Right Quarter Panel)

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 : **Ground Points**

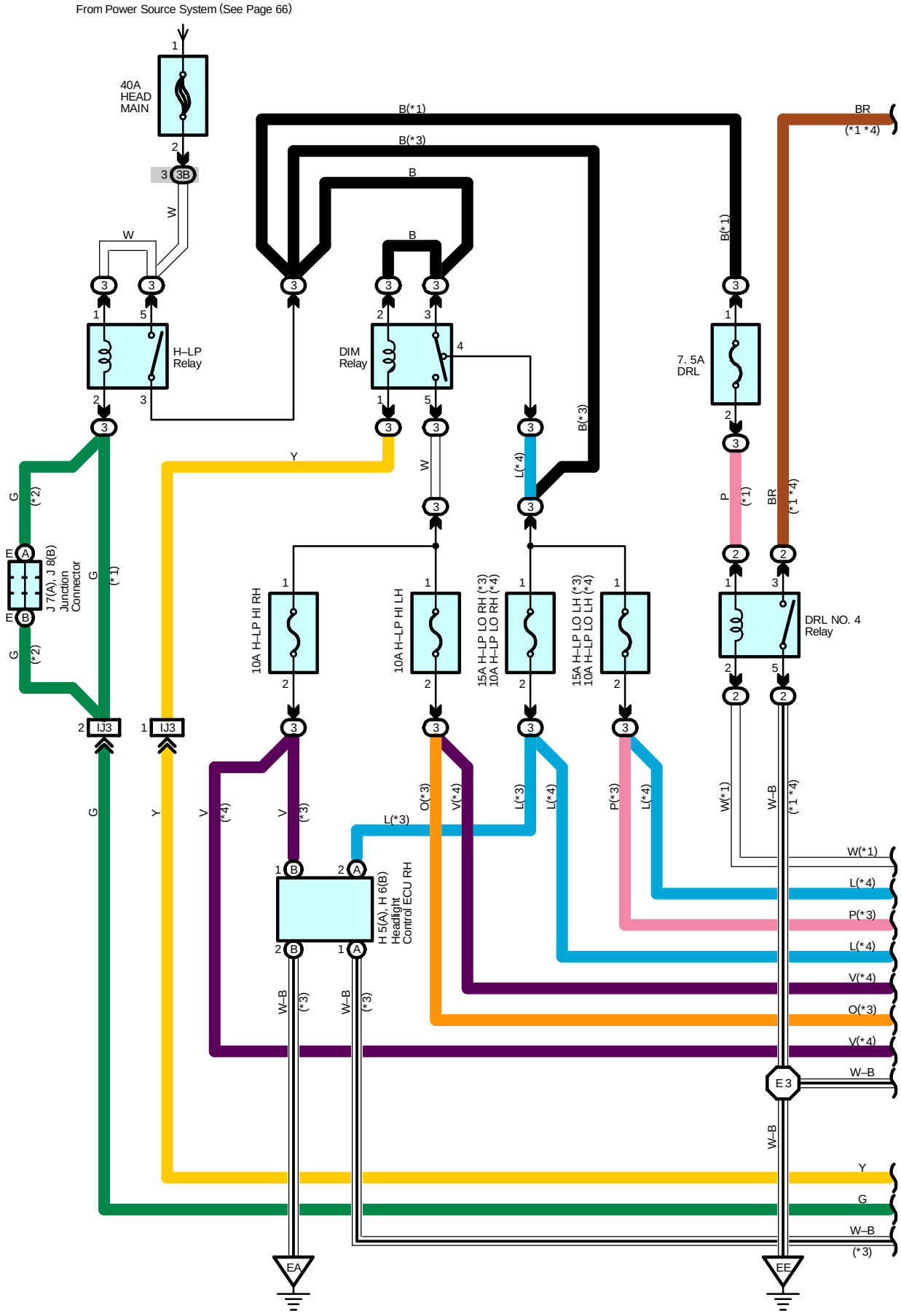
Code	See Page	Ground Points Location
EC	54	Engine Block
ED		
EE	54	Left Side of the Suspension Tower
EF		
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH
IK	56	Cowl Side Panel RH
BQ	60	Rear Side of Right Quarter Panel

 : **Splice Points**

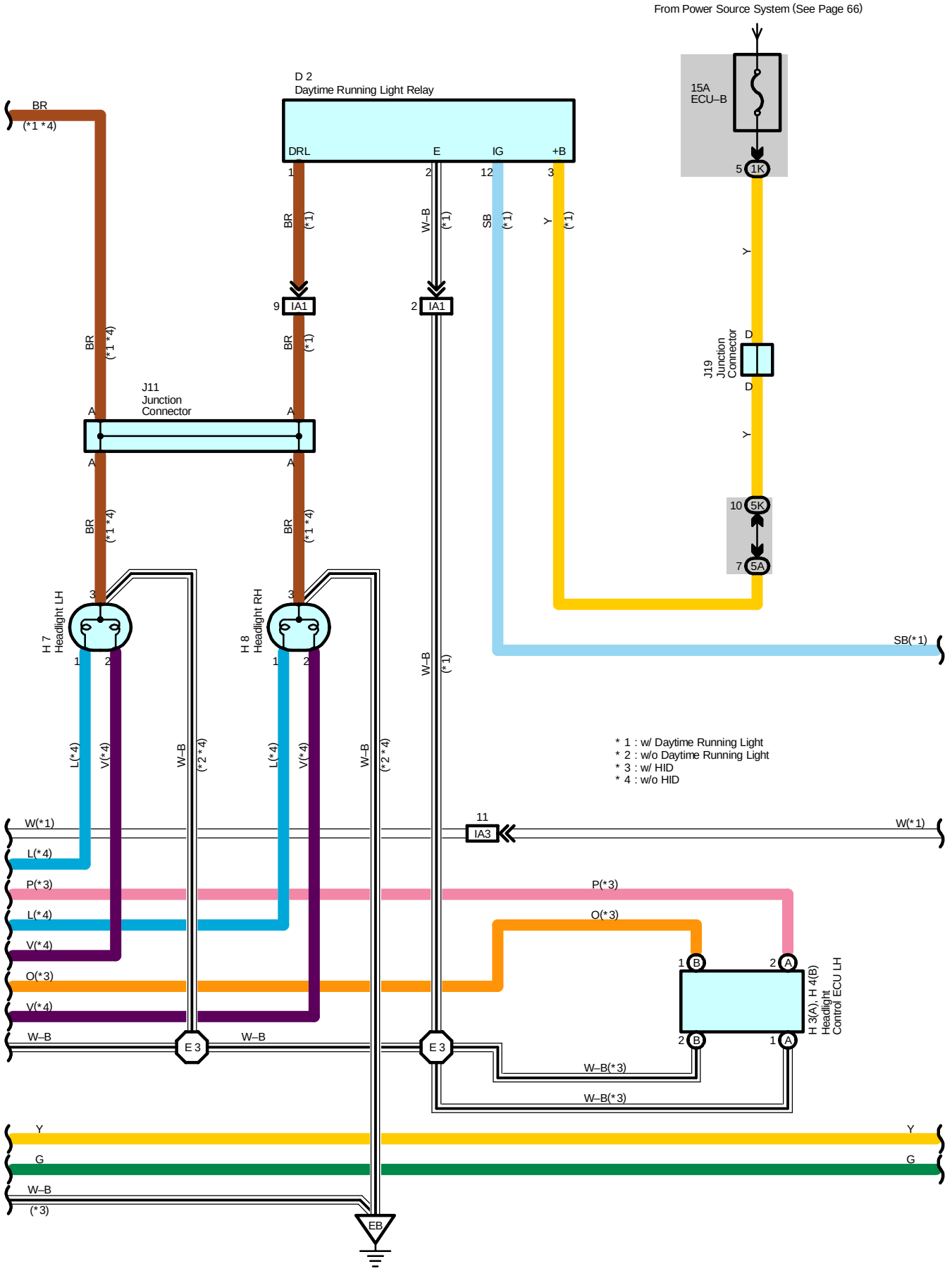
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	54	Engine Wire	I3	58	Engine Wire
I2	58	Instrument Panel Wire			

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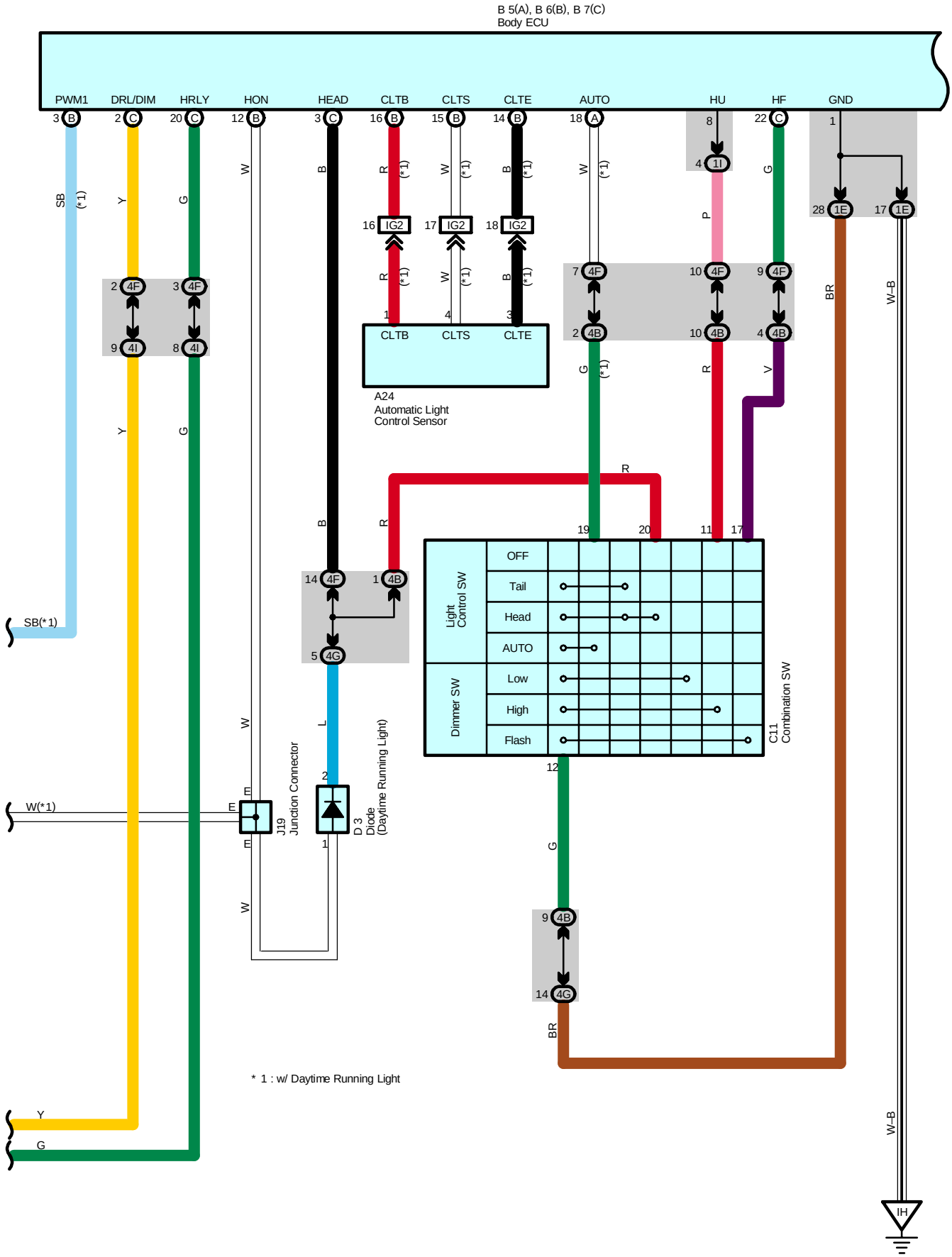
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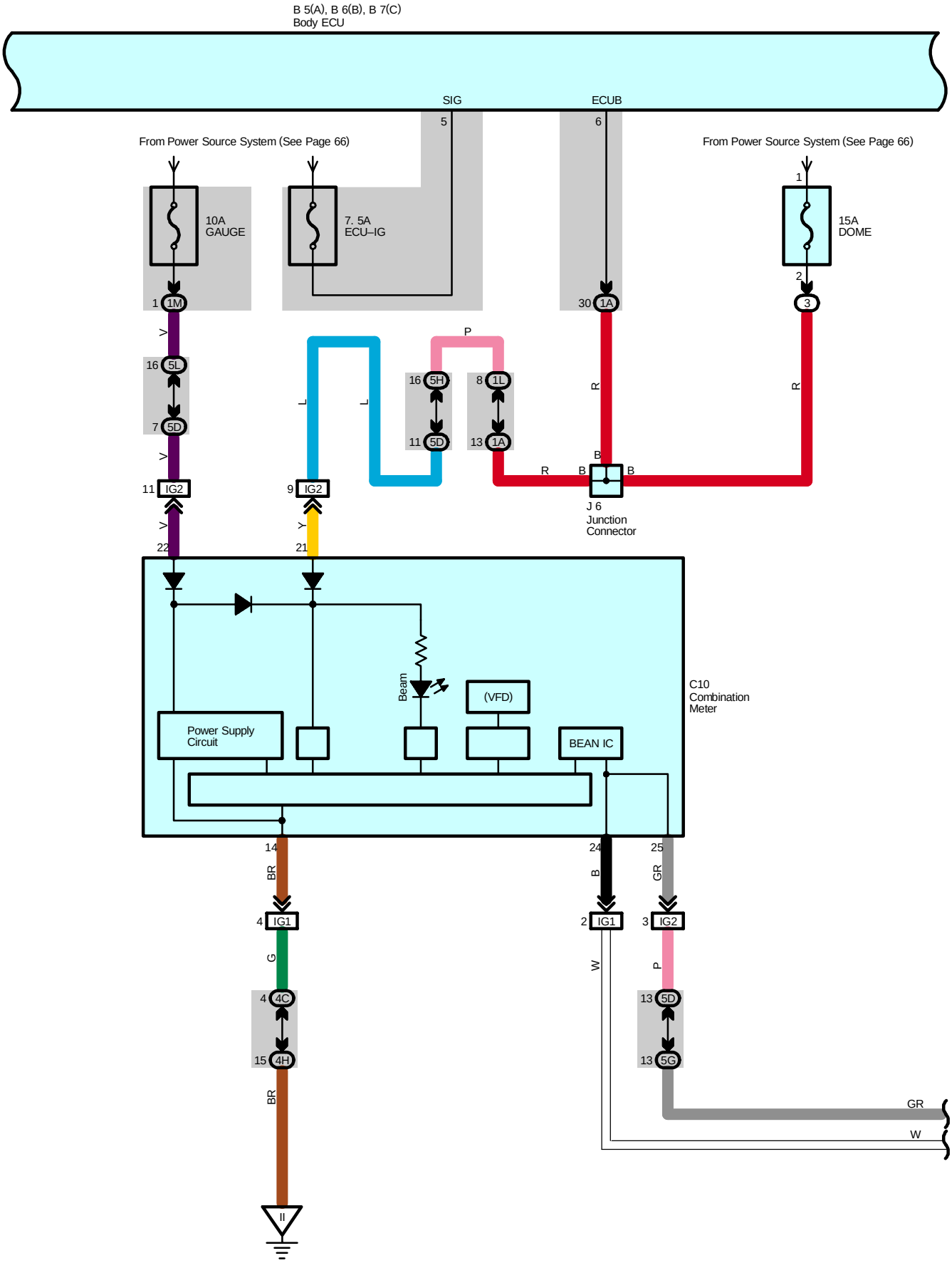
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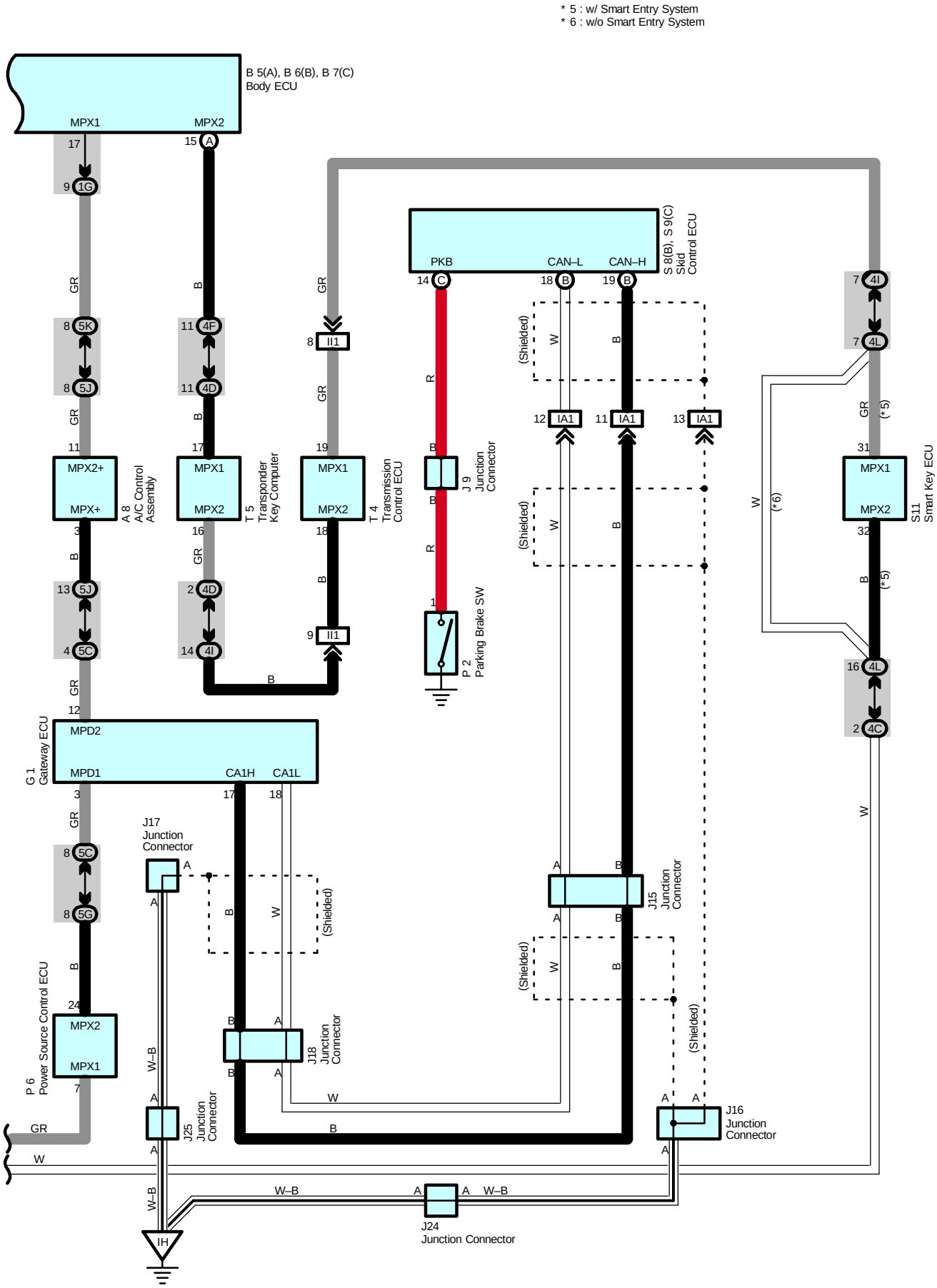
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System Outline

Daytime Running Light Function

When power SW is at IG ON position and the vehicle is ready to drive (READY lamp on the display in combination meter is on), releasing parking brake makes signal go into TERMINAL PKB of body ECU. In this condition, when light control SW is at Off/Tail/AUTO position (Headlight is not lit), body ECU sends daytime operation request from TERMINAL DRL/DIM to daytime running light relay. As a result, daytime running light relay duty–operates headlights (Dimmer than regular lighting)

Service Hints

C11 Combination SW

20–12 : Continuity with the light control SW at HEAD position
17–12 : Continuity with the dimmer SW at FLASH position
11–12 : Continuity with the dimmer SW at HIGH position

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A8	46	H5 A	44	J18	48
A24	46	H6 B	44	J19	48
B5 A	46	H7	44	J24	48
B6 B	46	H8	44	J25	48
B7 C	46	J6	48	P2	49
C10	47	J7 A	48	P6	49
C11	47	J8 B	48	S8 B	49
D2	47	J9	48	S9 C	49
D3	47	J11	48	S11	49
G1	47	J15	48	T4	49
H3 A	44	J16	48	T5	49
H4 B	44	J17	48		

▭ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	26	Engine Room R/B No.2 (Right Side of Reserve Tank)
3	22	Engine Room R/B (Engine Compartment Left)

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: **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1G		
1I		
1K		
1L		
1M		
3B	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
4B	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4C		
4D		
4F		
4G		
4H		
4I		
4L		
5A	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5C		
5D		
5G		
5H		
5J		
5K		
5L		

: **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IA3		
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IJ3	58	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)

: **Ground Points**

Code	See Page	Ground Points Location
EA	54	Right Side of the Fender Apron
EB		
EE	54	Left Side of the Suspension Tower
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH

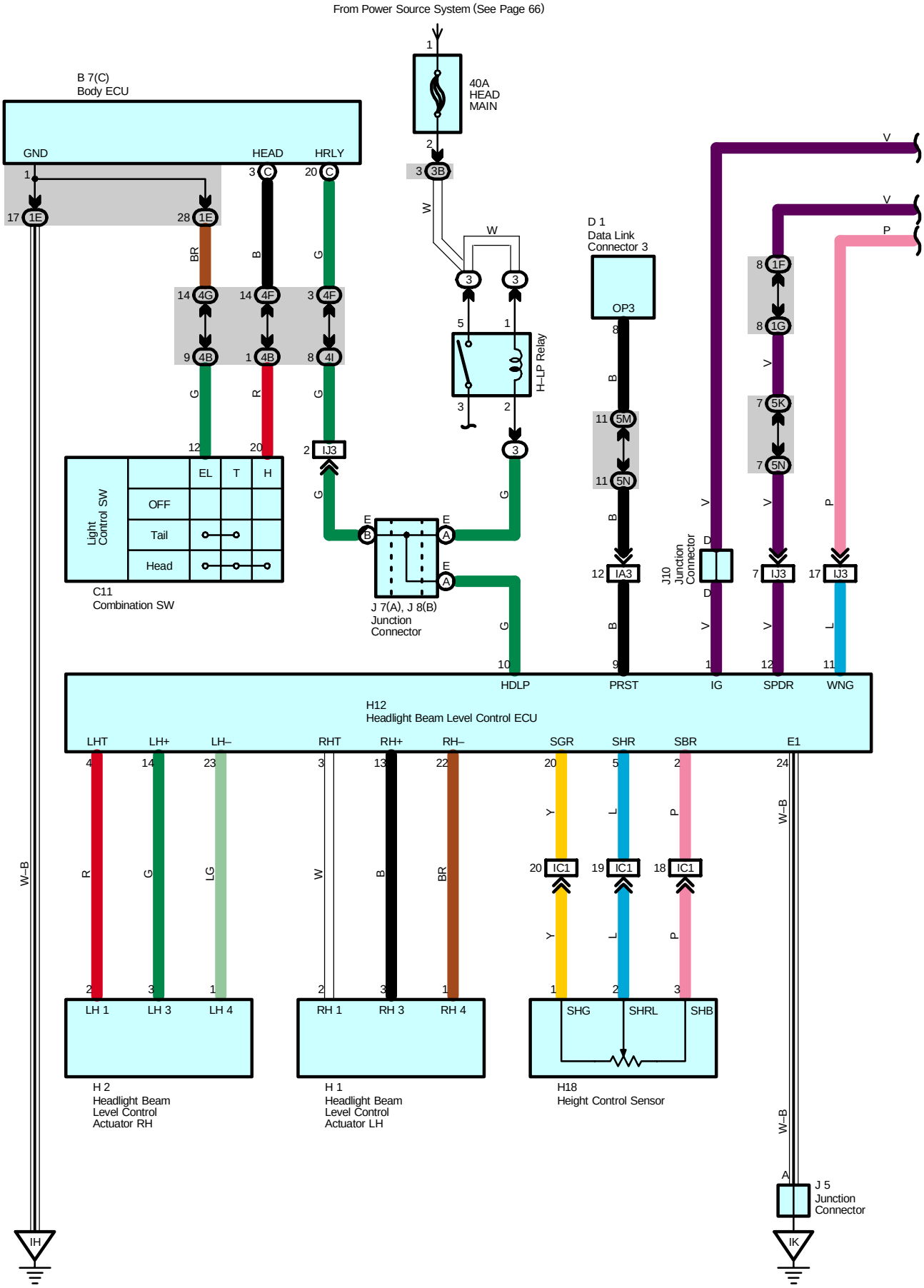
: **Splice Points**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E3	54	Engine Room Main Wire			

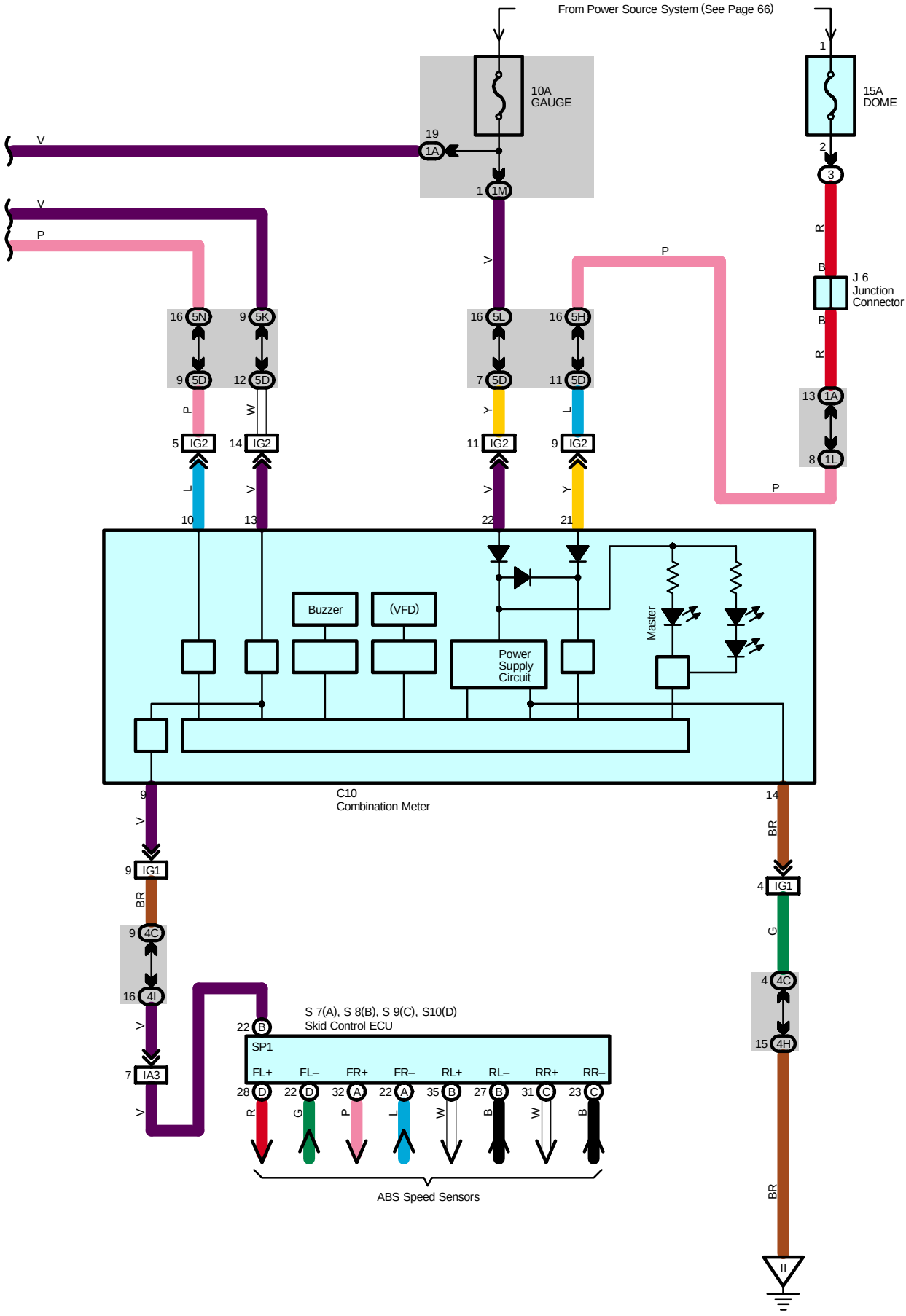
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Headlight Beam Level Control



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Headlight Beam Level Control

System Outline

This system adjusts the illuminating angle from changes in the vehicle height and axle distance, based on the information of the vehicle height detected by the height sensors installed at the rear of the vehicle and on information of the vehicle speed and acceleration output from the VSC system which operates the reflector with 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 and warning buzzer goes on to warn the driver.

Service Hints

H12 Headlight Beam Level Control ECU

1–Ground : Approx. 12 volts with the power SW at IG ON position
24–Ground : Always continuity
10–Ground : Always Approx. 12 volts

C11 Combination SW

20–12 : Continuity with the light control SW at HEAD position

: Parts Location

Code	See Page	Code	See Page	Code	See Page
B7 C	46	H12	47	J10	48
C10	47	H18	51	S7 A	49
C11	47	J5	48	S8 B	49
D1	47	J6	48	S9 C	49
H1	44	J7 A	48	S10 D	49
H2	44	J8 B	48		

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1F		
1G		
1L		
1M		
3B	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
4B	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4C		
4F		
4G		
4H		
4I		
5D	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5H		
5K		
5L		
5M		
5N		

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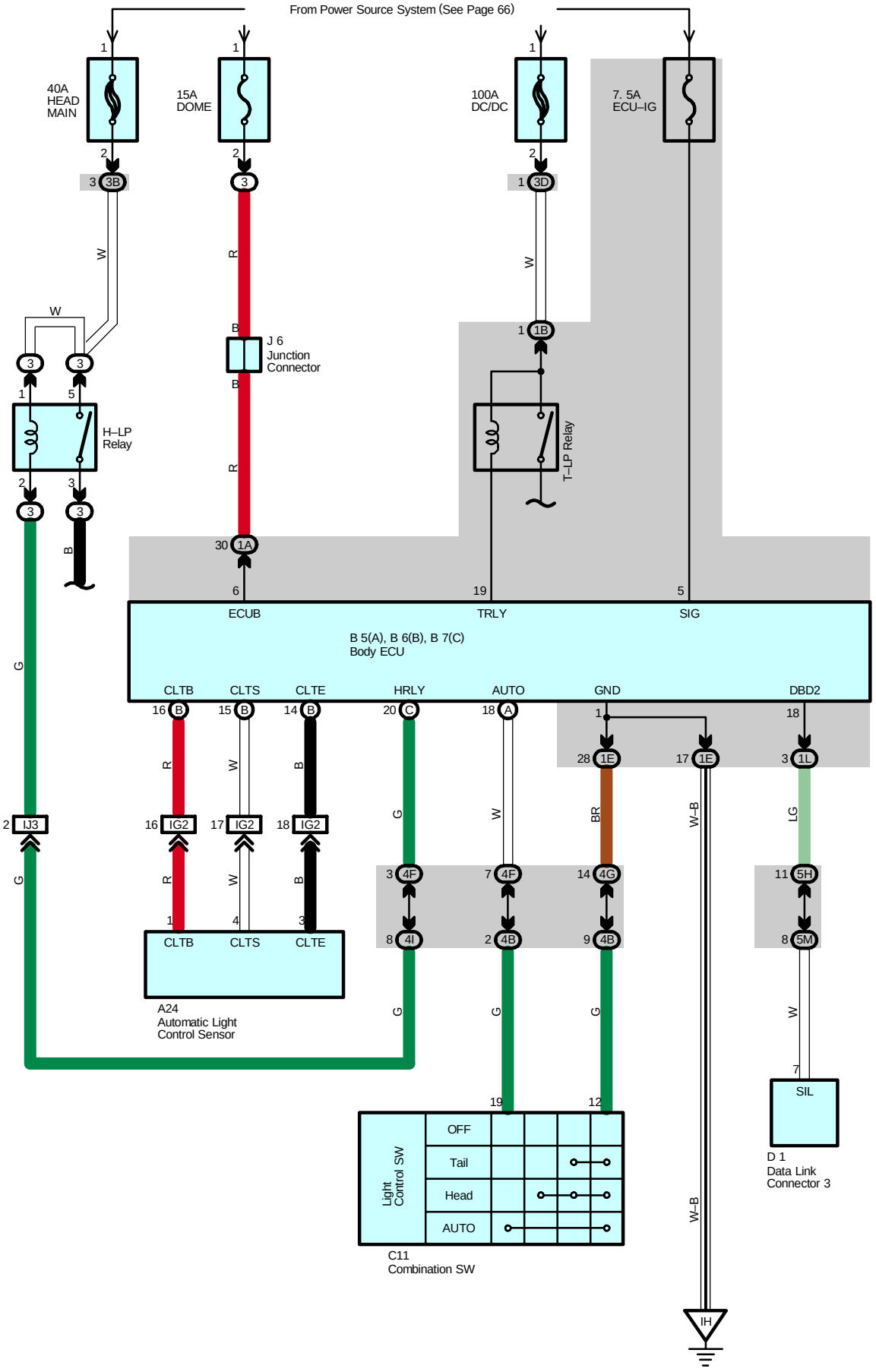
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA3	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IC1	56	Engine Room Main Wire and Floor Wire (Cowl Side Panel LH)
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
IJ3	58	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)

: Ground Points

Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH
IK	56	Cowl Side Panel RH

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System Outline

The automatic light control system works when the light control SW is turned to AUTO. The automatic light control sensor detects the brightness around the vehicle. By this function, the system automatically turns on the taillight and headlight if the brightness is below the certain level and turns off the taillight and headlight when the surroundings become brighter than the certain level.

Service Hints

C11 Combination SW

19–12 : Continuity with the light control SW at AUTO position

Body ECU

5–Ground : Approx. 12 volts with the power SW at IG ON position
6–Ground : Always approx. 12 volts
1–Ground : Always continuity

: Parts Location

Code		See Page	Code		See Page	Code	See Page
A24		46	B7	C	46	J6	48
B5	A	46	C11		47		
B6	B	46	D1		47		

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1B		
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1L		
3B	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3D		
4B	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4F		
4G		
4I		
5H	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5M		

: Connector Joining Wire Harness and Wire Harness

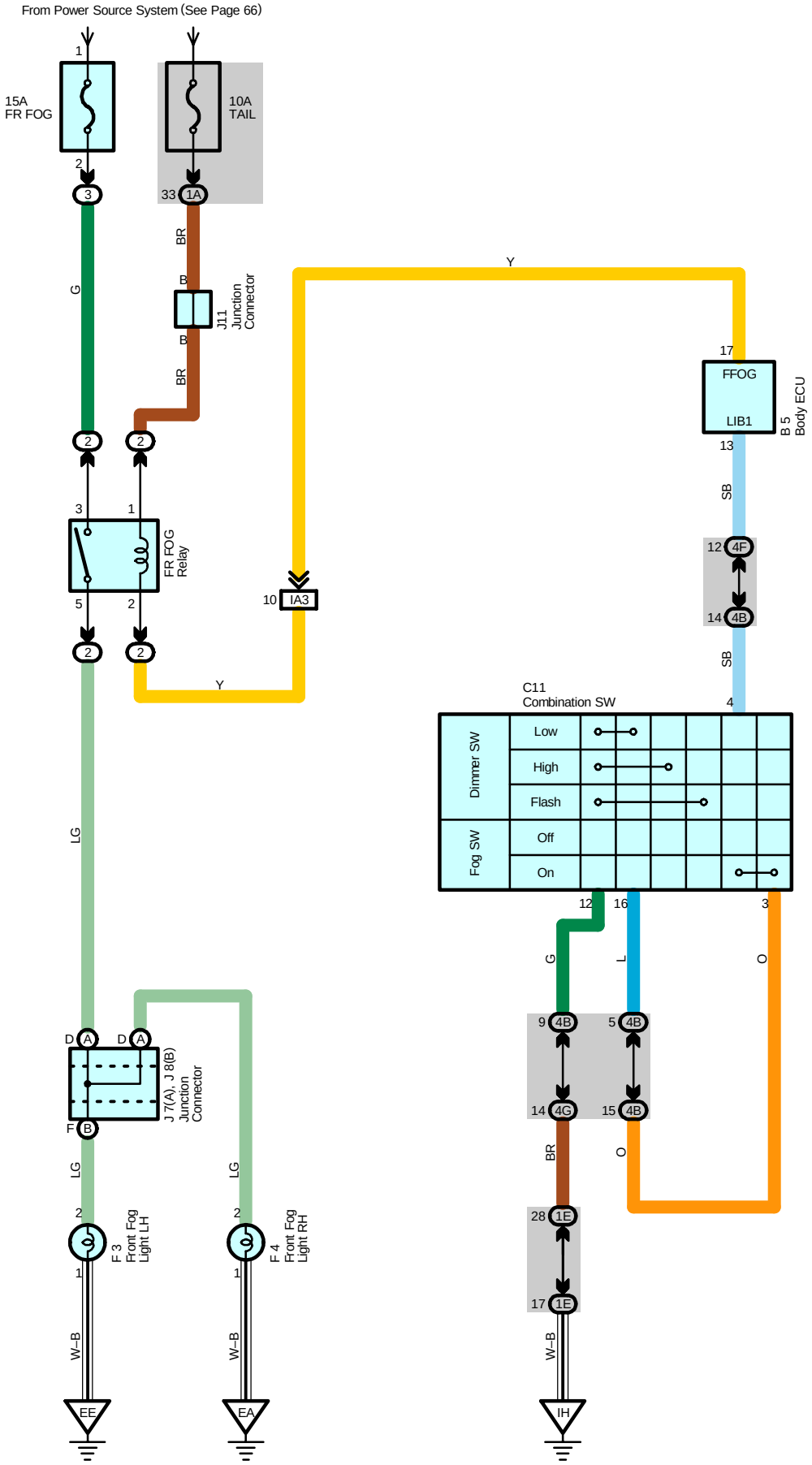
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG2	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IJ3	58	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)

: Ground Points

Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH

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Front Fog Light



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Service Hints

FR FOG Relay

3–5 : Closed with the light control SW at TAIL position, dimmer SW at LOW position and fog light SW at ON position

: Parts Location

Code	See Page	Code		See Page	Code	See Page
B5	46	F4		44	J11	48
C11	47	J7	A	48		
F3	44	J8	B	48		

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	26	Engine Room R/B No.2 (Right Side of Reserve Tank)
3	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
4B	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4F		
4G		

: Connector Joining Wire Harness and Wire Harness

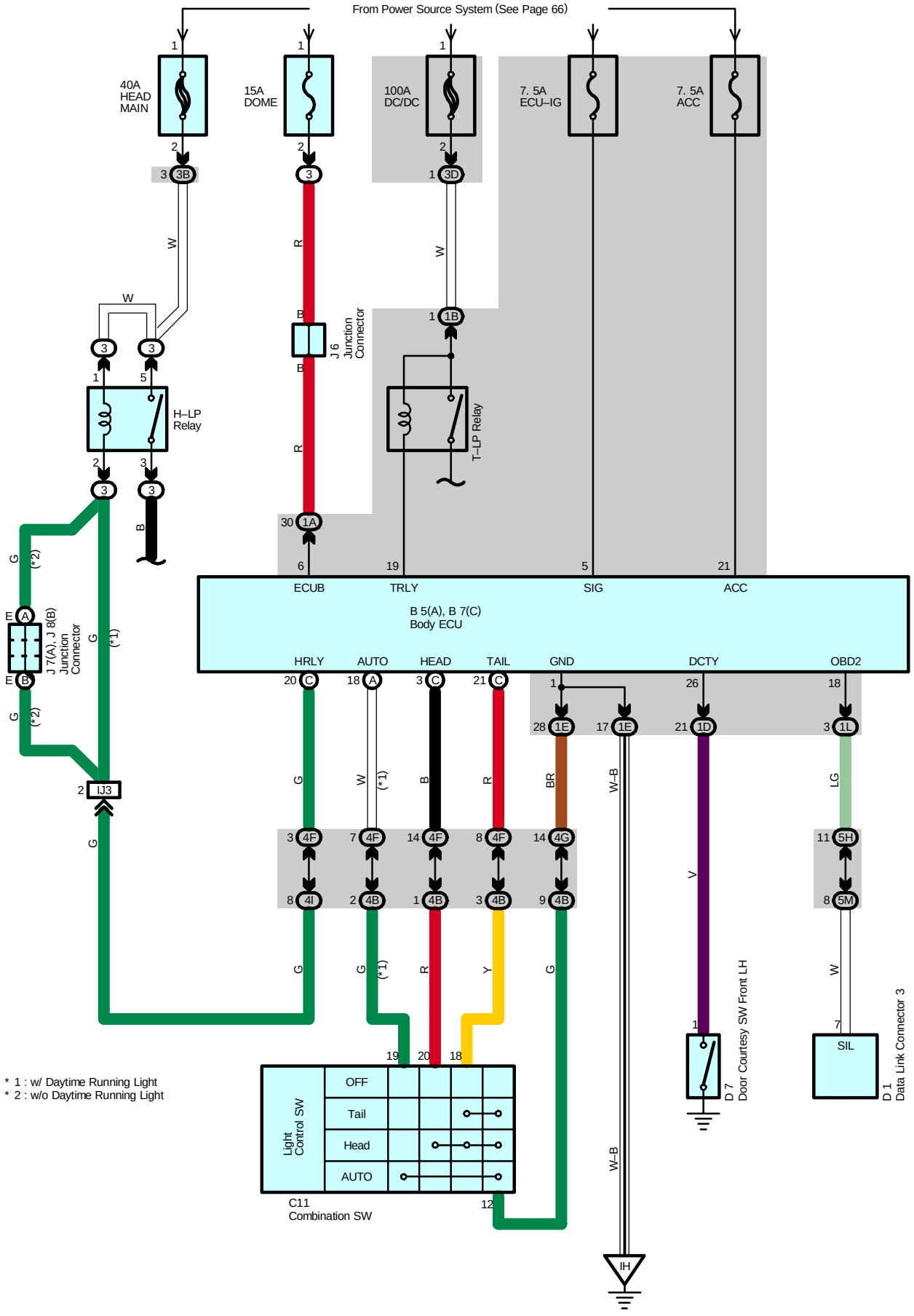
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA3	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)

: Ground Points

Code	See Page	Ground Points Location
EA	54	Right Side of the Fender Apron
EE	54	Left Side of the Suspension Tower
IH	56	Cowl Side Panel LH

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Light Auto Turn Off System



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System Outline

"The light auto turn off system" automatically turns off the taillights or headlights when the driver's side door is opened, which prevents the lights from being left on.
If the power SW is pushed to OFF from IG ON with the headlights or taillights on, signal is input to the TERMINAL SIG of the body ECU. If the driver's side door is opened at that time, the signal from the door courtesy SW front LH is sent to the TERMINAL DCTY of the body ECU. The signal turns off the headlights, front fog lights or taillights.

Service Hints

Body ECU

6–Ground : Always approx. 12 volts
5–Ground : Approx. 12 volts with the power SW at IG ON position
1–Ground : Always continuity

: Parts Location

Code		See Page	Code	See Page	Code		See Page
B5	A	46	D1	47	J7	A	48
B7	C	46	D7	50	J8	B	48
C11		47	J6	48			

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1B		
1D	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1L		
3B	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3D		
4B	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4F		
4G		
4I		
5H	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5M		

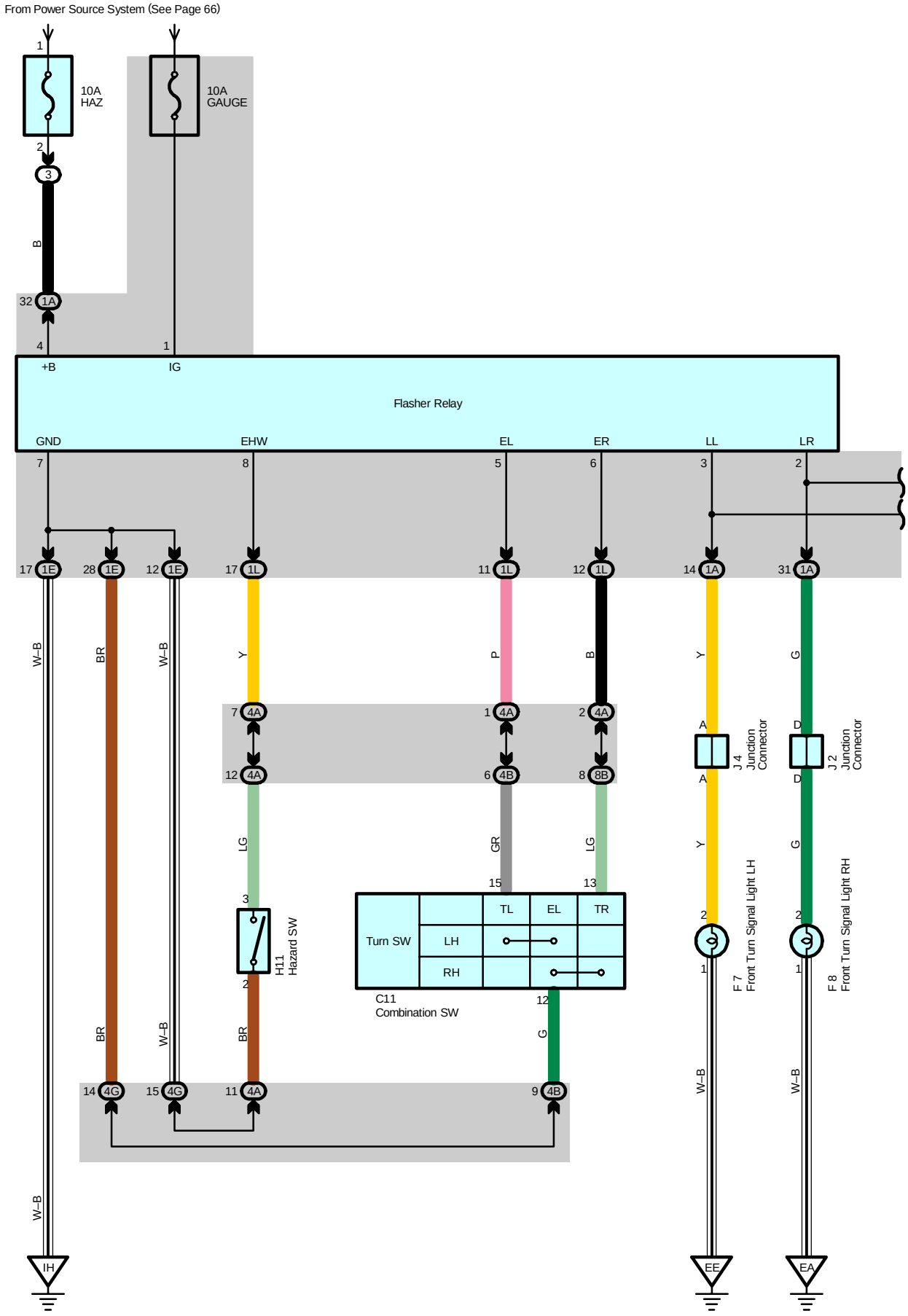
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IJ3	58	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)

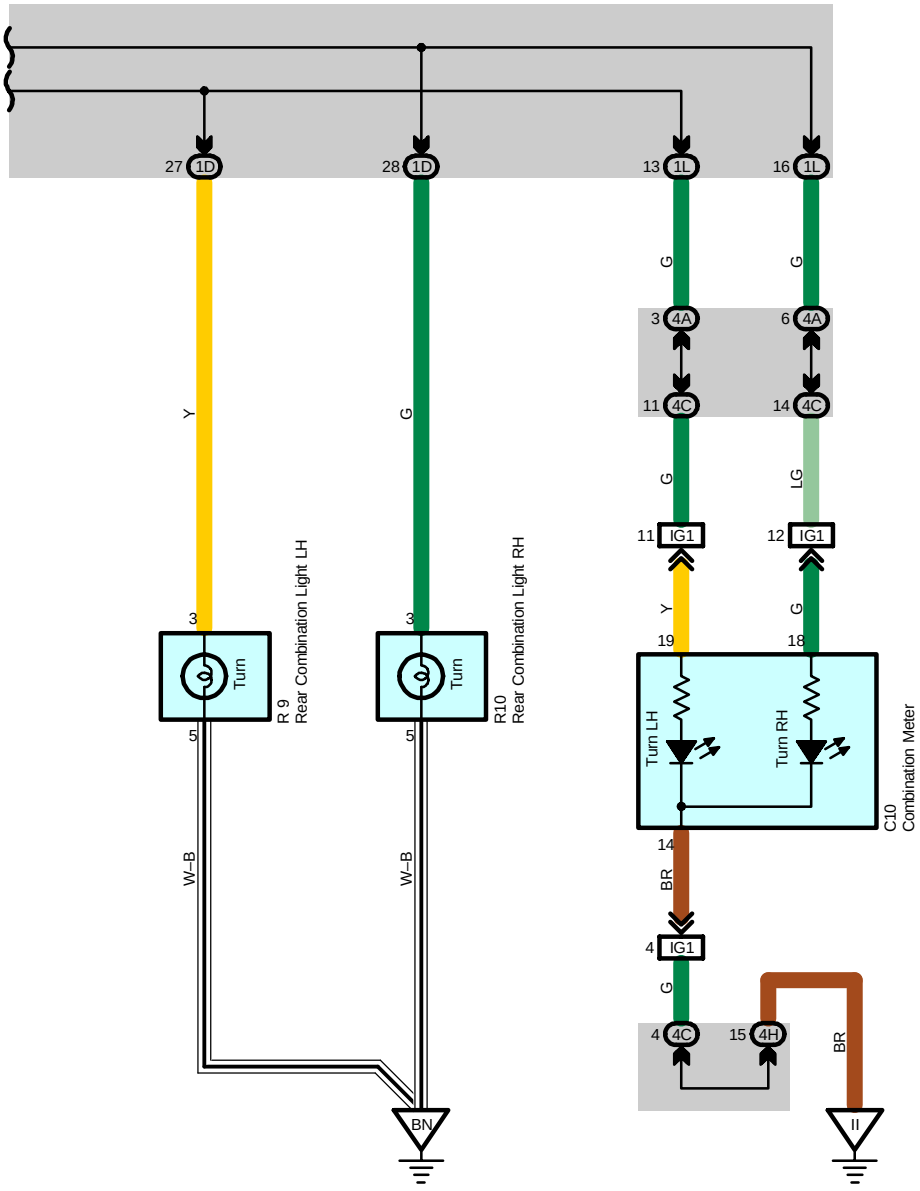
: Ground Points

Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH

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Turn Signal and Hazard Warning Light

Service Hints

Flasher Relay

1–Ground : Approx. 12 volts with the power SW at IG ON position
7–Ground : Always continuity
4–Ground : Always approx. 12 volts

: Parts Location

Code	See Page	Code	See Page	Code	See Page
C10	47	F8	44	J4	45
C11	47	H11	47	R9	52
F7	44	J2	45	R10	52

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1D	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1L		
4A	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4B		
4C		
4G		
4H		

: Connector Joining Wire Harness and Wire Harness

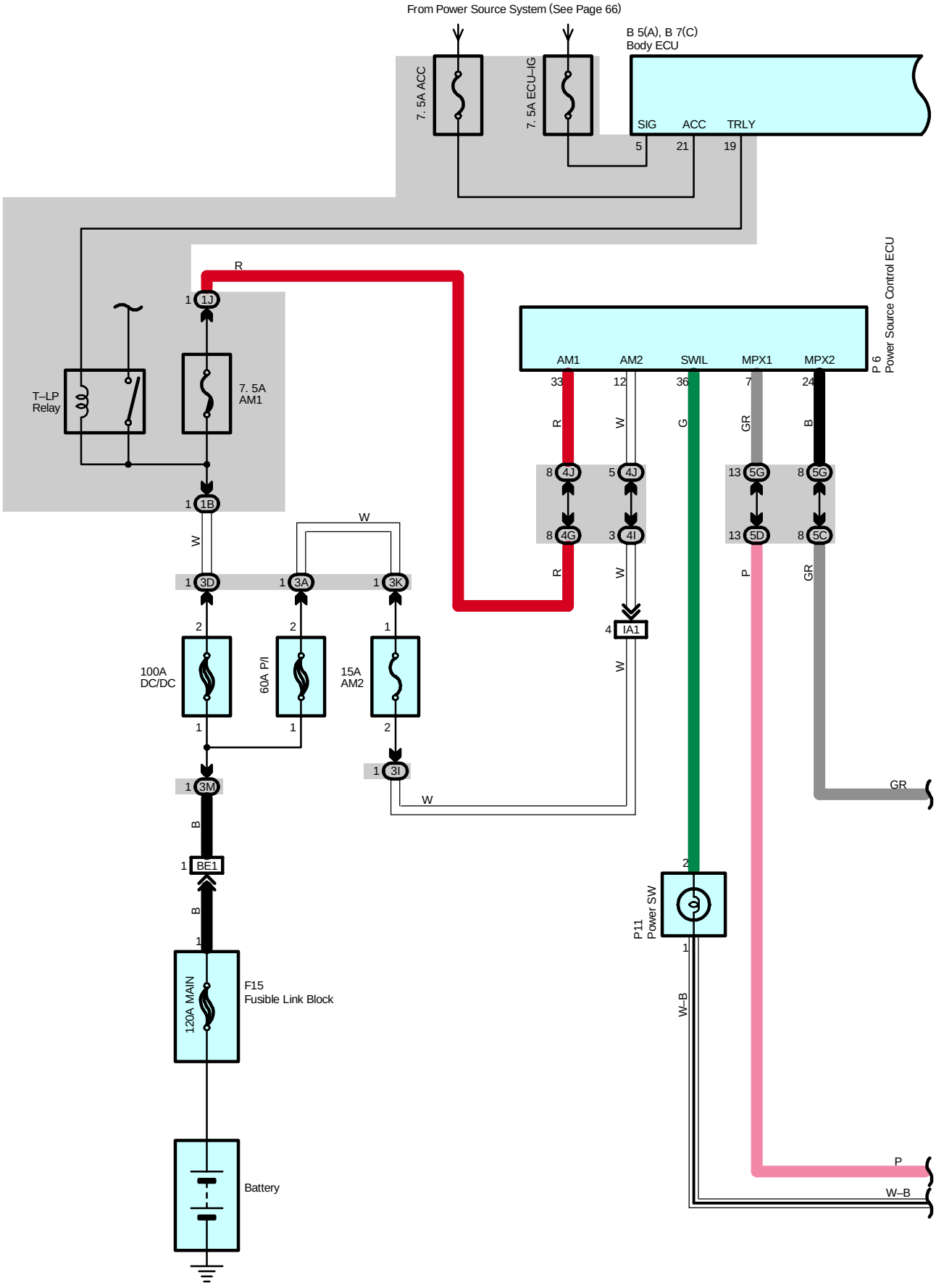
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)

: Ground Points

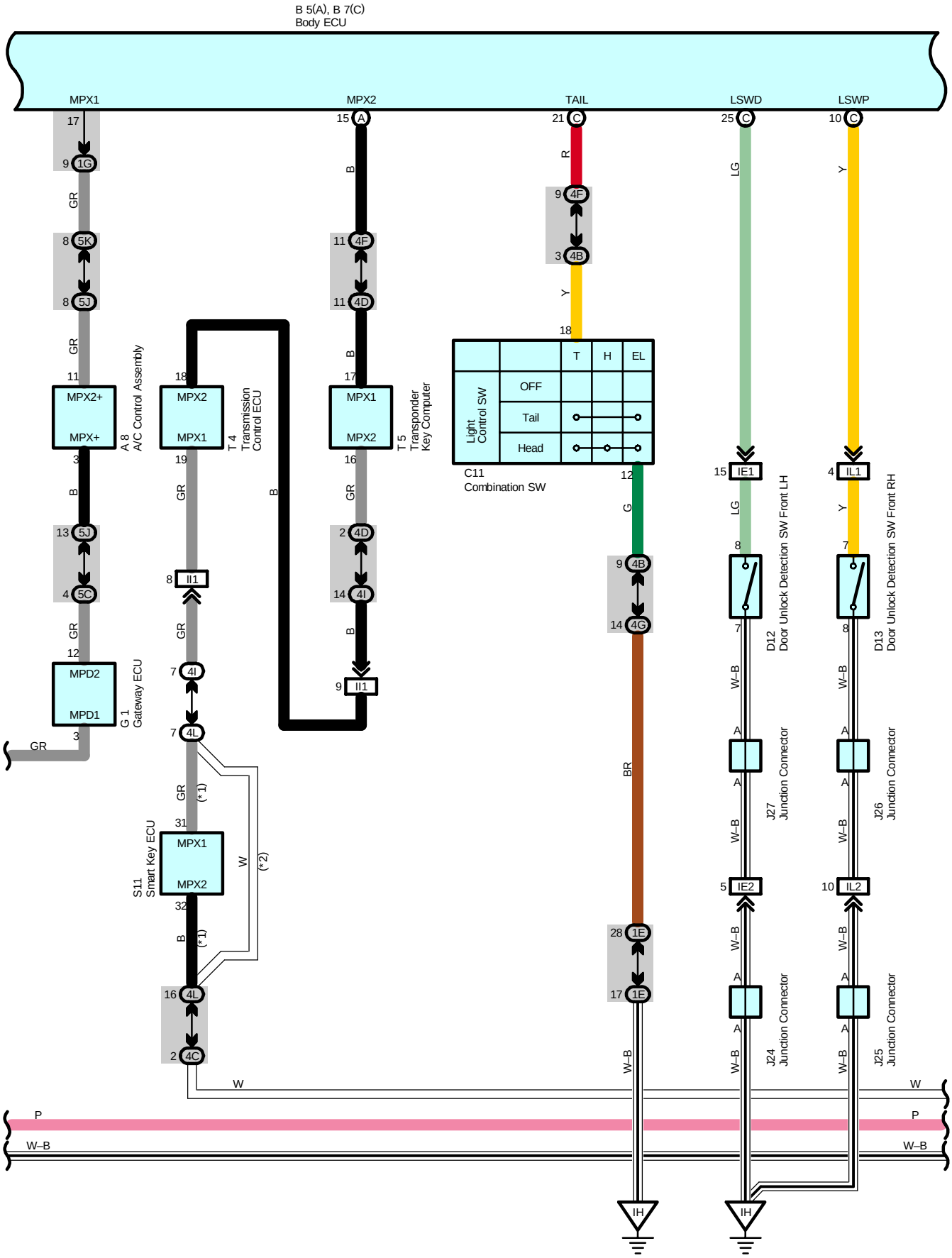
Code	See Page	Ground Points Location
EA	54	Right Side of the Fender Apron
EE	54	Left Side of the Suspension Tower
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH
BN	60	Lower Back Panel Center

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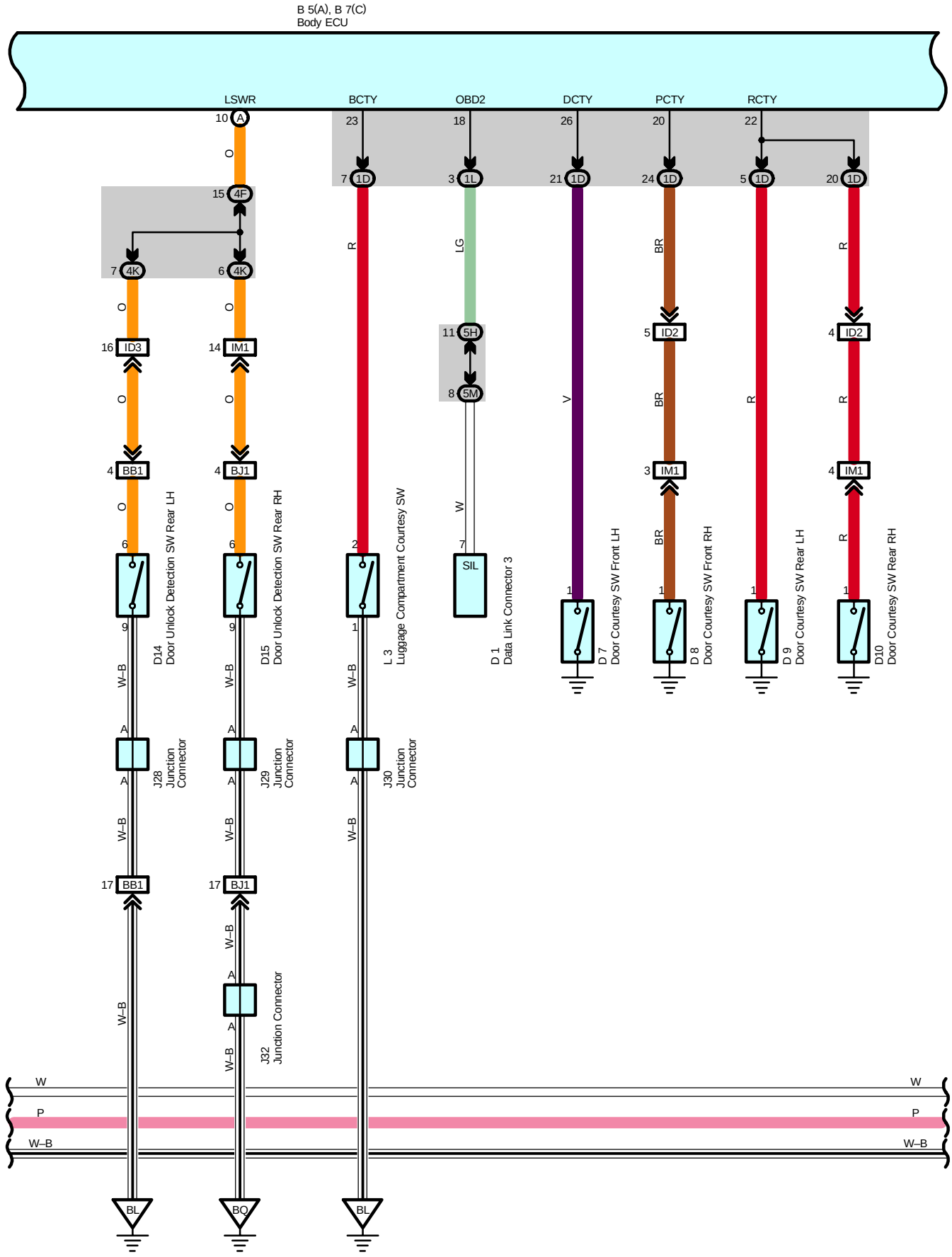
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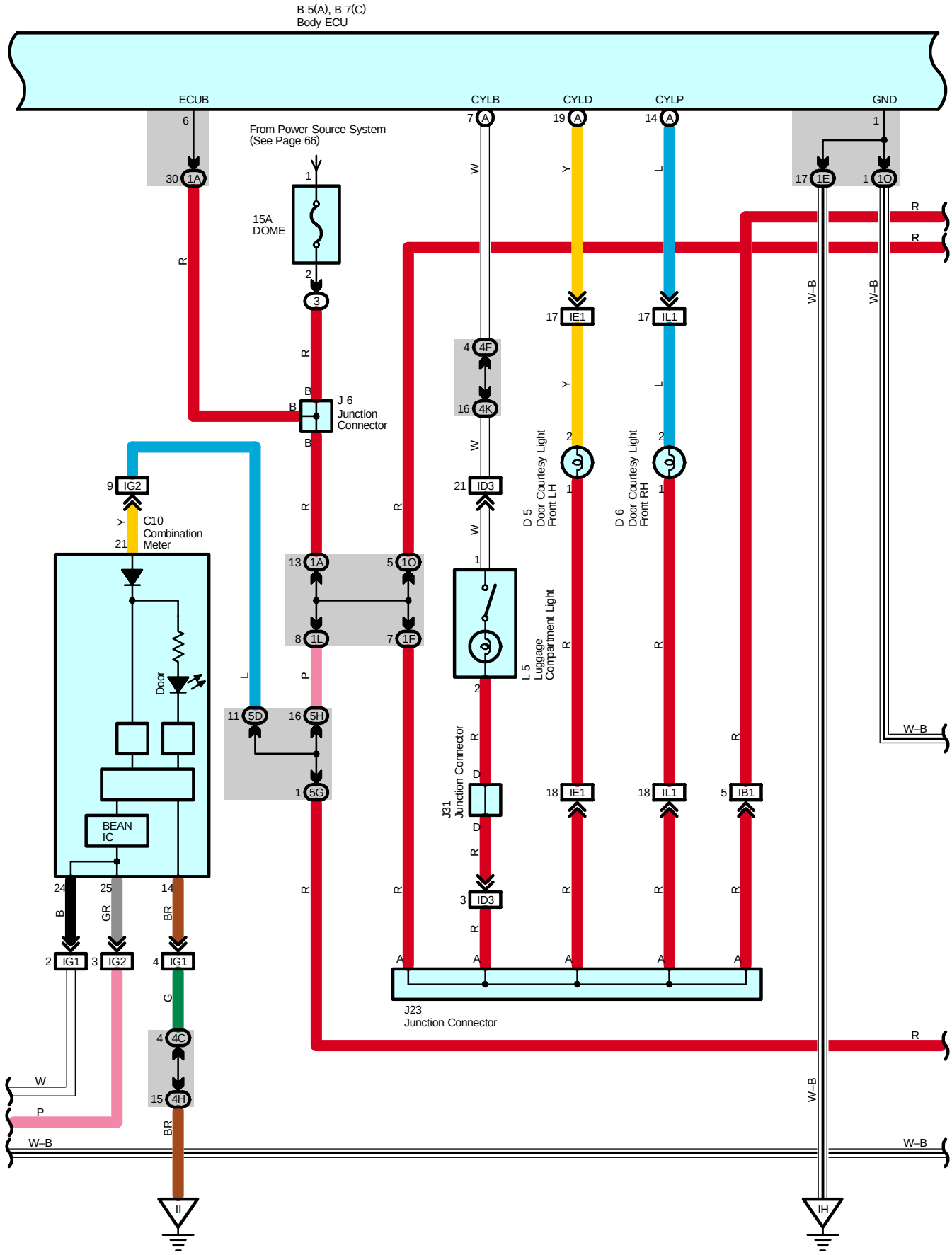
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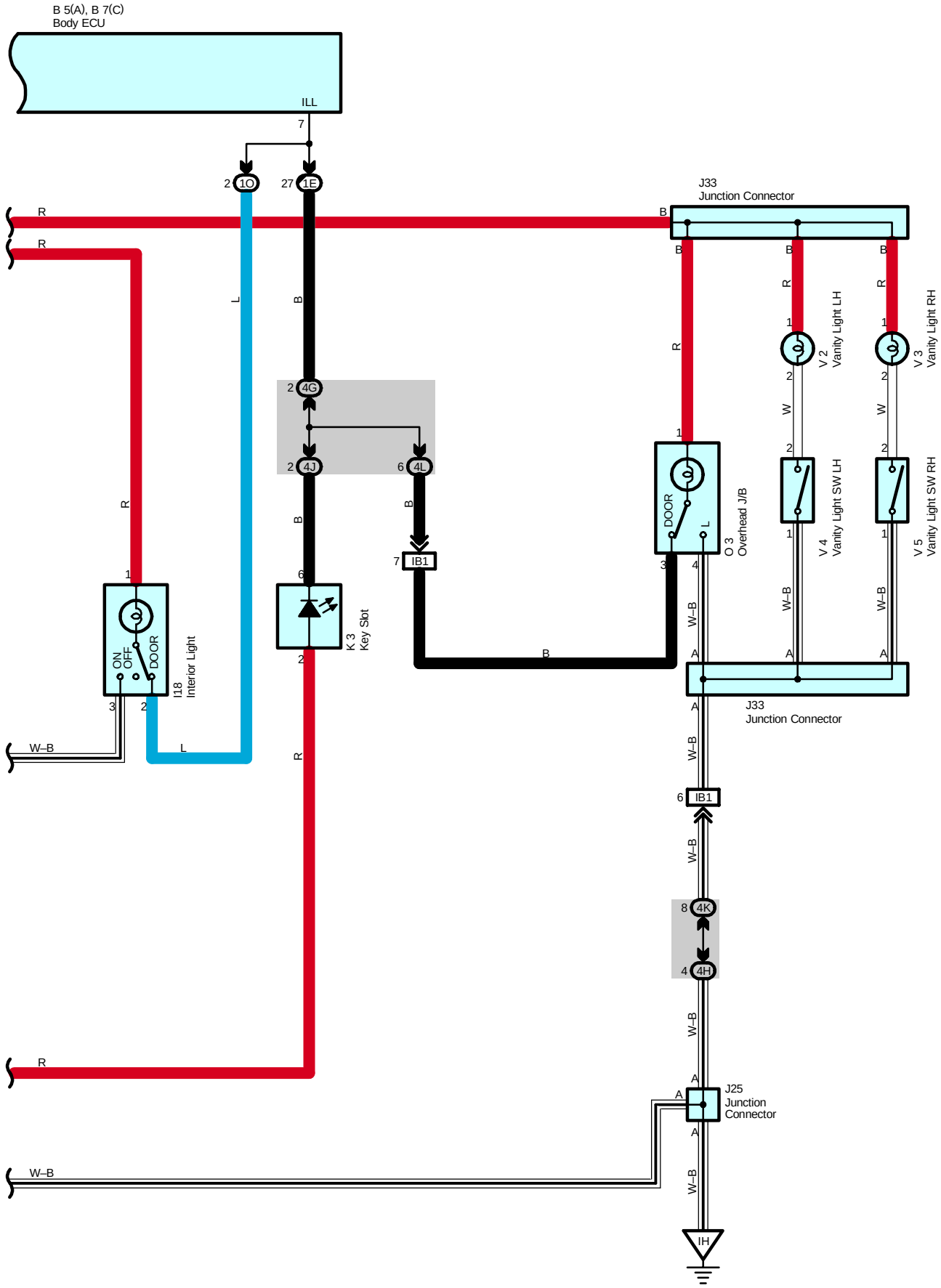


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Interior Light



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System Outline

Interior light operates with control of body ECU.

Illumination Control

Lighting function of interior light, overhead J/B, power SW, electrical key holder

When any door is opened, signal is sent from door courtesy SW to body ECU. Interior light, overhead J/B, power SW, and key slot light on gradually from unlit condition to fully lit condition within 1.5 seconds if lighting SW of interior light and overhead J/B is set for door.

After that, when all the doors are shut and any one of the door is unlocked, interior light, overhead J/B, power SW, and key slot are lit up for about 15 seconds (Timer lighting) and then are lit off gradually.

Under conditions that power SW is set at OFF position and all the doors are closed, when any one of the door is unlocked, interior light, overhead J/B, power SW, and key slot light on gradually from unlit condition to fully lit condition within 1.5 seconds, stay on for the certain time (Timer lighting) and then light off gradually. If power SW is turned from OFF position to ACC ON or IG ON position during timer lighting, the timer lighting function is cut off immediately and the light goes off gradually.

Even though timer lighting conditions are satisfied when power SW is at ACC ON or IG ON position, the light does not stay on for certain time (For 15 sec.) after lighting, but goes off gradually.

All the doors are locked during timer lighting, the timer lighting function is cut off immediately and the light goes off gradually.

Service Hints

Body ECU

5–Ground : Approx. 12 volts with the power SW at IG ON position
21–Ground : Approx. 12 volts with the power SW at ACC ON or IG ON position
6–Ground : Always approx. 12 volts
1–Ground : Always continuity
26–Ground : Continuity with the driver's door open
20–Ground : Continuity with the front passenger's door open
22–Ground : Continuity with the rear LH and/or RH door open

: Parts Location

Code	See Page	Code	See Page	Code	See Page
A8	46	D15	50	J33	51
B5 A	46	F15	51	K3	48
B7 C	46	G1	47	L3	51
C10	47	I18	51	L5	51
C11	47	J6	48	O3	52
D1	47	J23	48	P6	49
D5	50	J24	48	P11	49
D6	50	J25	48	S11	49
D7	50	J26	51	T4	49
D8	50	J27	51	T5	49
D9	50	J28	51	V2	53
D10	50	J29	51	V3	53
D12	50	J30	51	V4	53
D13	50	J31	51	V5	53
D14	50	J32	51		

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

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: **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1B		
1D	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1F		
1G		
1J		
1L		
1O	28	Roof Wire and Driver Side J/B (Lower Finish Panel)
3A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3D		
3I		
3K		
3M	22	Frame Wire and Engine Room J/B (Engine Compartment Left)
4B	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4C		
4D		
4F		
4G		
4H		
4I		
4J		
4K		
4L		
5C	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5D		
5G		
5H		
5J		
5K		
5M		

: **Connector Joining Wire Harness and Wire Harness**

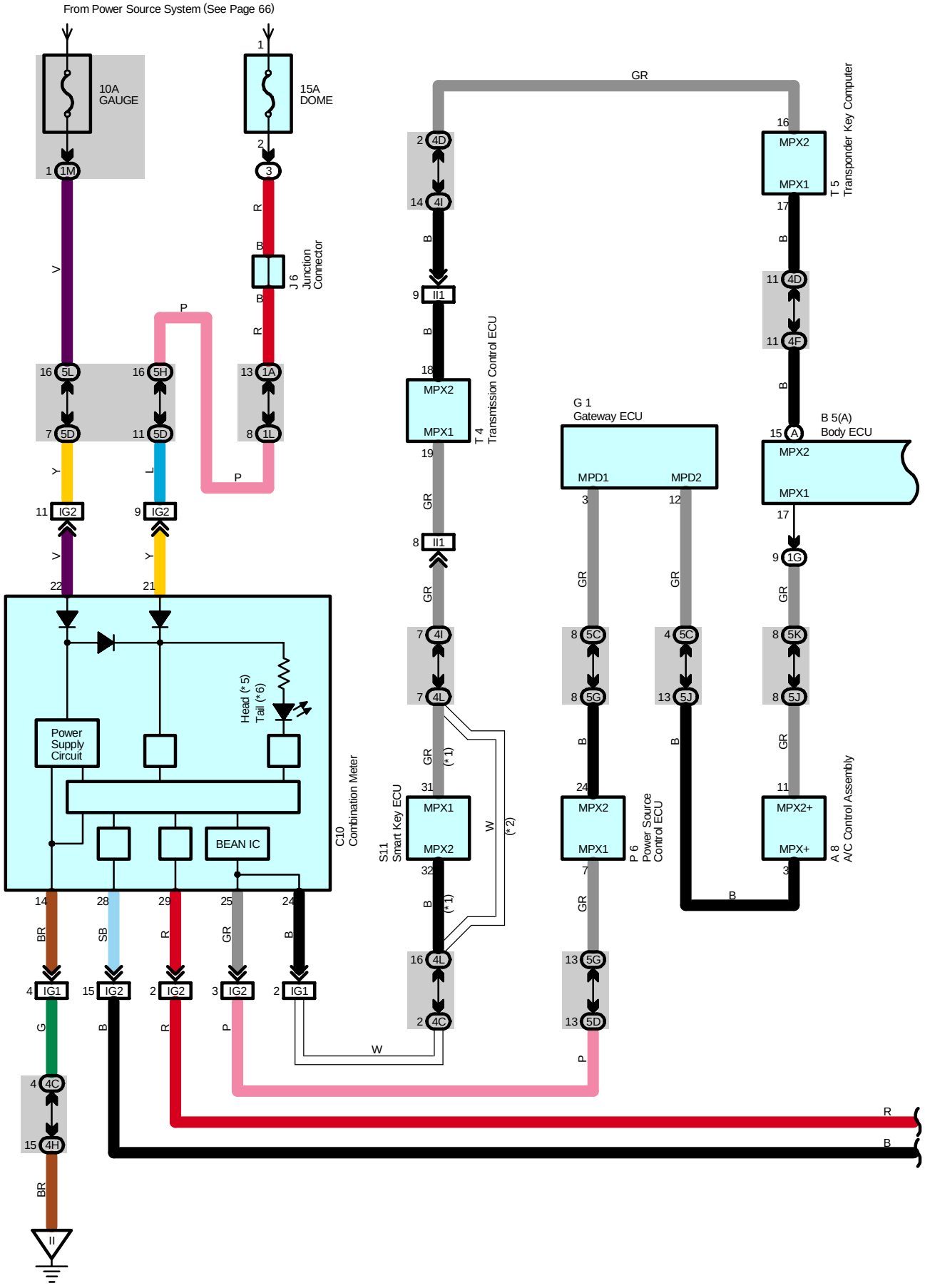
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IB1	56	Roof Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
ID2	56	Instrument Panel Wire and Floor Wire (Left Kick Panel)
ID3		
IE1	56	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IE2		
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IL1	58	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IL2		
IM1	58	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
BB1	60	Rear Door No.2 Wire and Floor Wire (Left Center Pillar)
BE1	60	Frame Wire and Floor No.2 Wire (Front Side of Left Quarter Panel)
BJ1	62	Rear Door No.1 Wire and Floor No.2 Wire (Right Center Pillar)

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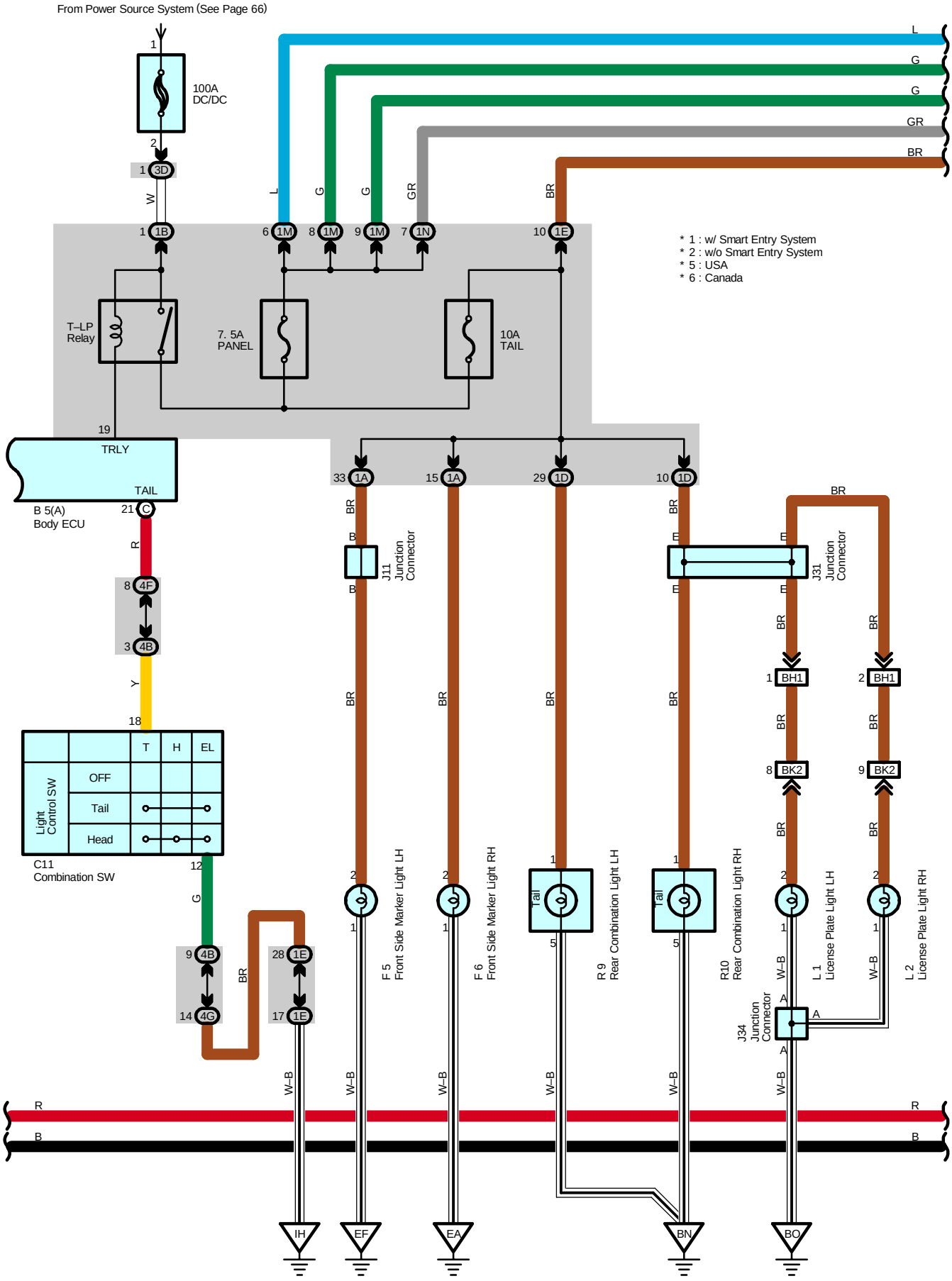
: **Ground Points**

Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH
BL	60	Rear Side of Left Quarter Panel
BQ	60	Rear Side of Right Quarter Panel

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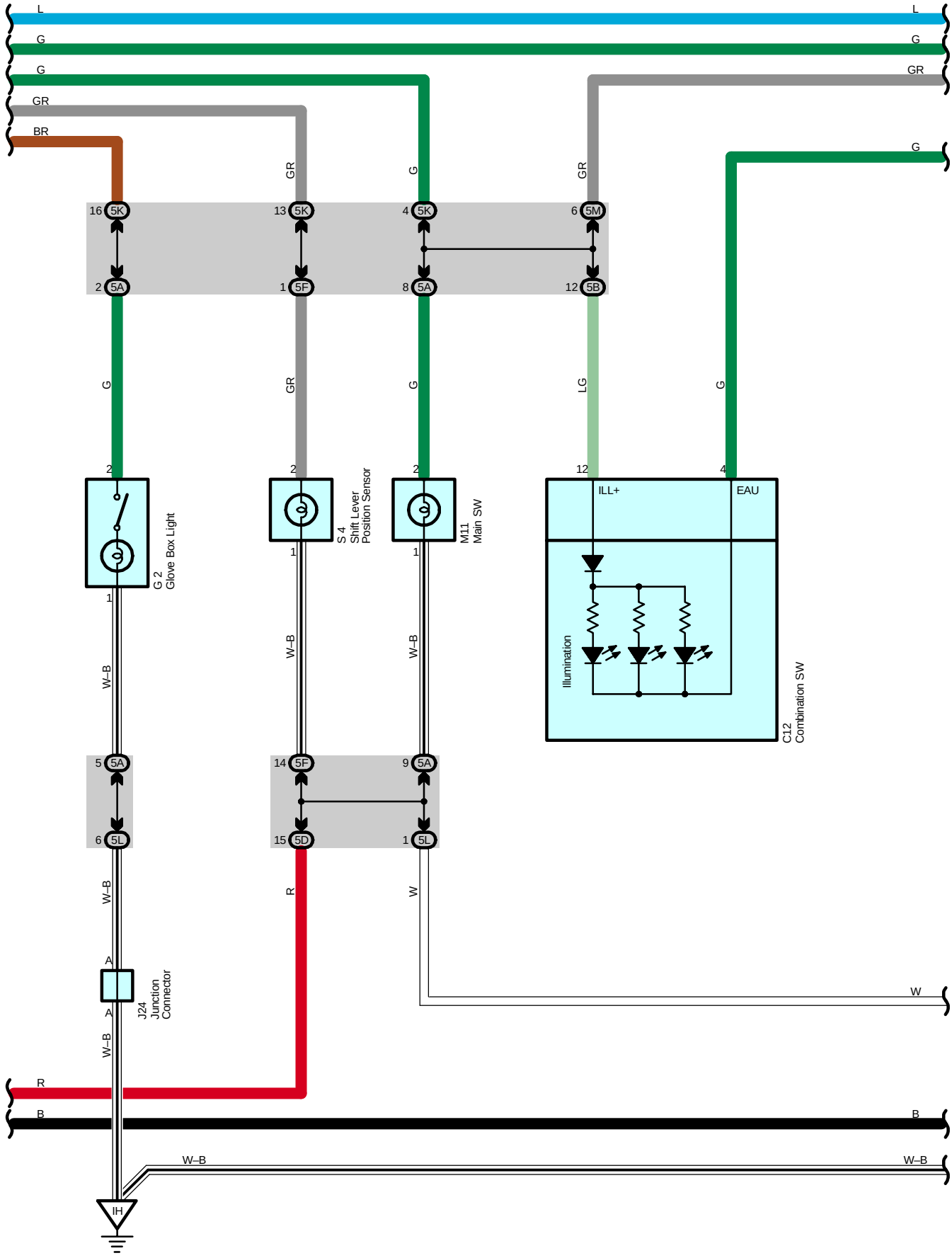


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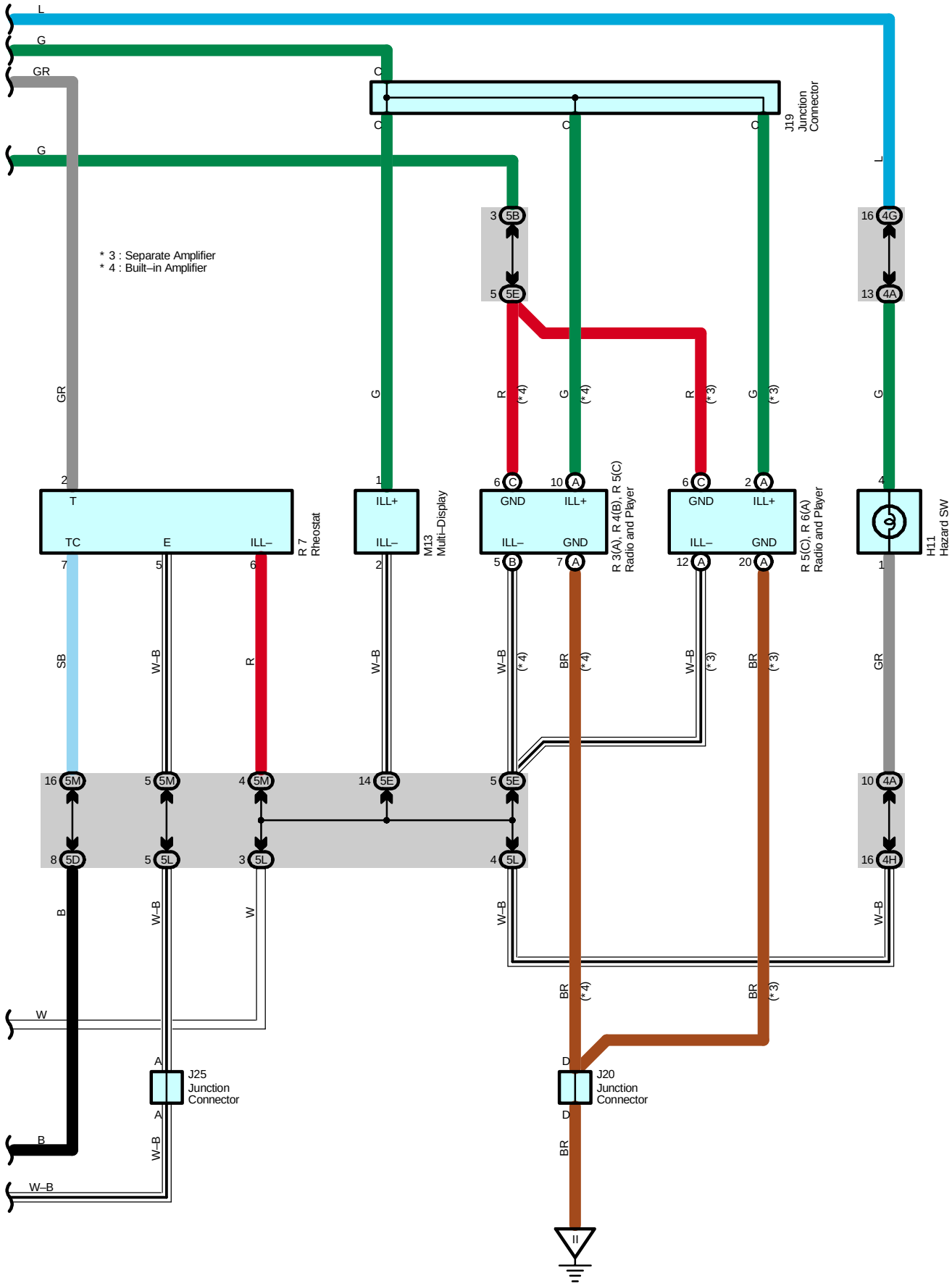


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Taillight and Illumination



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Service Hints

C11 Combination SW

18–12 : Continuity with the light control SW at TAIL or HEAD position

: Parts Location

Code	See Page	Code	See Page	Code	See Page
A8	46	J19	48	R4 B	49
B5 A	46	J20	48	R5 C	49
C10	47	J24	48	R6 A	49
C11	47	J25	48	R7	49
C12	47	J31	51	R9	52
F5	44	J34	51	R10	52
F6	44	L1	51	S4	49
G1	47	L2	51	S11	49
G2	47	M11	48	T4	49
H11	47	M13	48	T5	49
J6	48	P6	49		
J11	48	R3 A	49		

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

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: **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1B		
1D	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1G		
1L		
1M		
1N		
3D	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
4A	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4B		
4C		
4D		
4F		
4G		
4H		
4I		
4L		
5A	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5B		
5C		
5D		
5E		
5F		
5G		
5H		
5J		
5K		
5L		
5M		

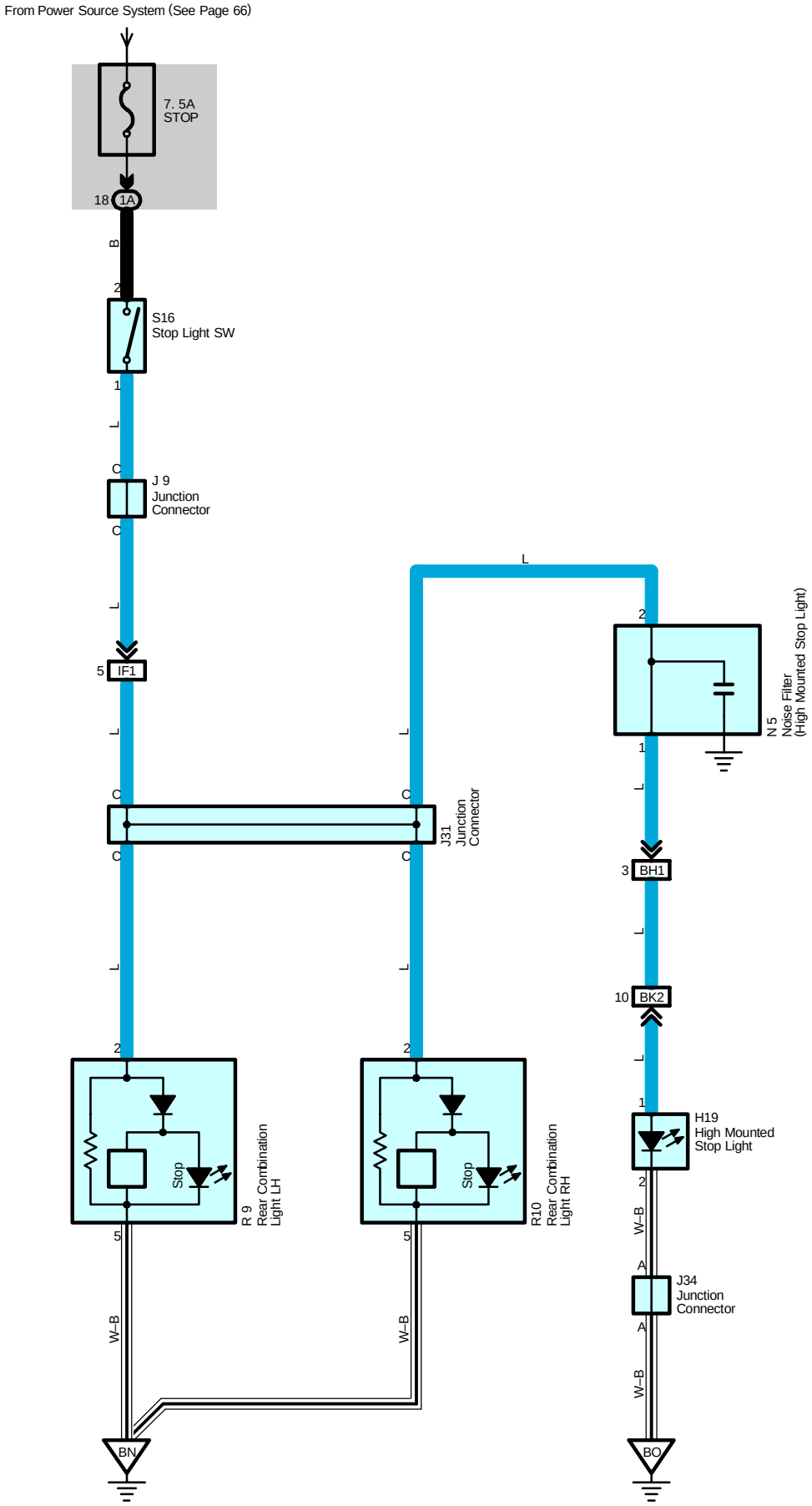
: **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
BH1	62	Back Door No.1 Wire and Floor Wire (Rear Side of Roof Panel)
BK2	62	Back Door No.1 Wire and Back Door No.2 Wire (Rear Side of Roof Panel)

: **Ground Points**

Code	See Page	Ground Points Location
EA	54	Right Side of the Fender Apron
EF	54	Left Side of the Suspension Tower
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH
BN	60	Lower Back Panel Center
BO	60	Center of the Back Door Panel

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Service Hints

S16 Stop Light SW

2–1 : Closed with the brake pedal depressed

: Parts Location

Code	See Page	Code	See Page	Code	See Page
H19	51	J34	51	R10	52
J9	48	N5	52	S16	49
J31	51	R9	52		

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)

: Connector Joining Wire Harness and Wire Harness

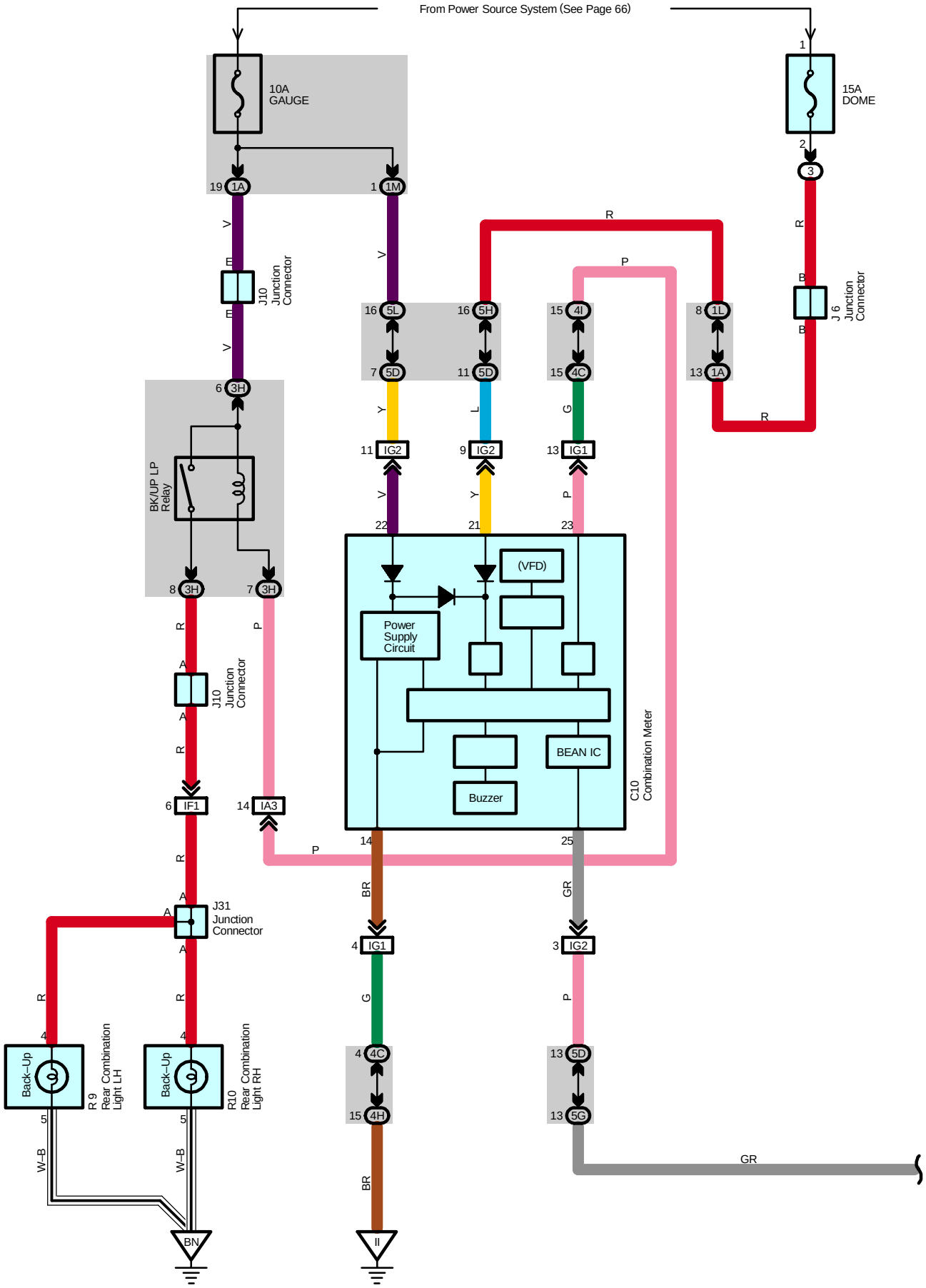
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF1	56	Floor Wire and Engine Room Main Wire (Left Kick Panel)
BH1	62	Back Door No.1 Wire and Floor Wire (Rear Side of Roof Panel)
BK2	62	Back Door No.1 Wire and Back Door No.2 Wire (Rear Side of Roof Panel)

: Ground Points

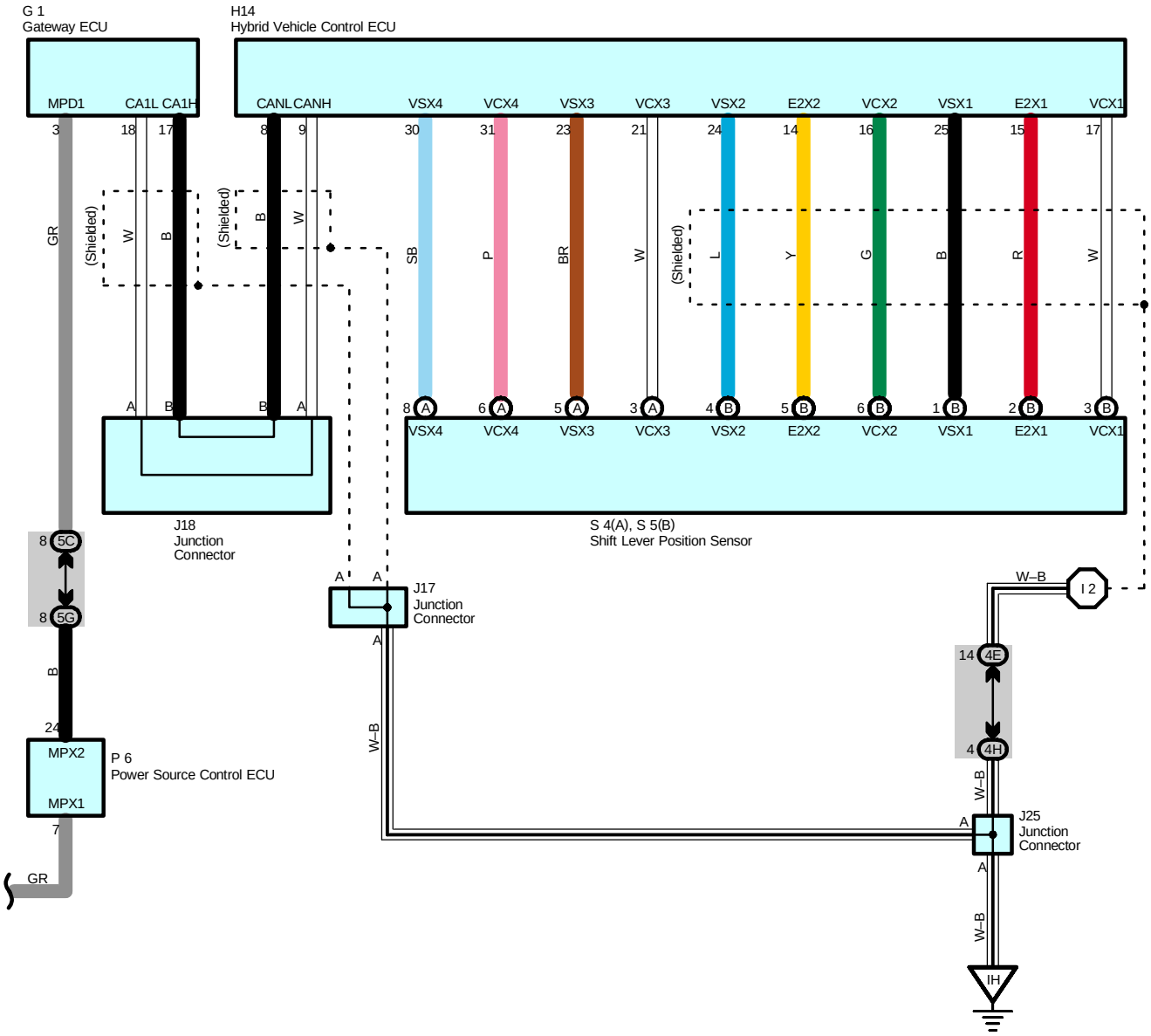
Code	See Page	Ground Points Location
BN	60	Lower Back Panel Center
BO	60	Center of the Back Door Panel

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Back–Up Light



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Back–Up Light

Service Hints

C10 Combination Meter

22–Ground : Approx. 12 volts with the power SW at IG ON position
21–Ground : Always approx. 12 volts
14–Ground : Always continuity

: Parts Location

Code	See Page	Code	See Page	Code		See Page
C10	47	J17	48	R9		52
G1	47	J18	48	R10		52
H14	47	J25	48	S4	A	49
J6	48	J31	51	S5	B	49
J10	48	P6	49			

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1L	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1M		
3H	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
4C	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4E		
4H		
4I		
5C	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5D		
5G		
5H		
5L		

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA3	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IF1	56	Floor Wire and Engine Room Main Wire (Left Kick Panel)
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		

: Ground Points

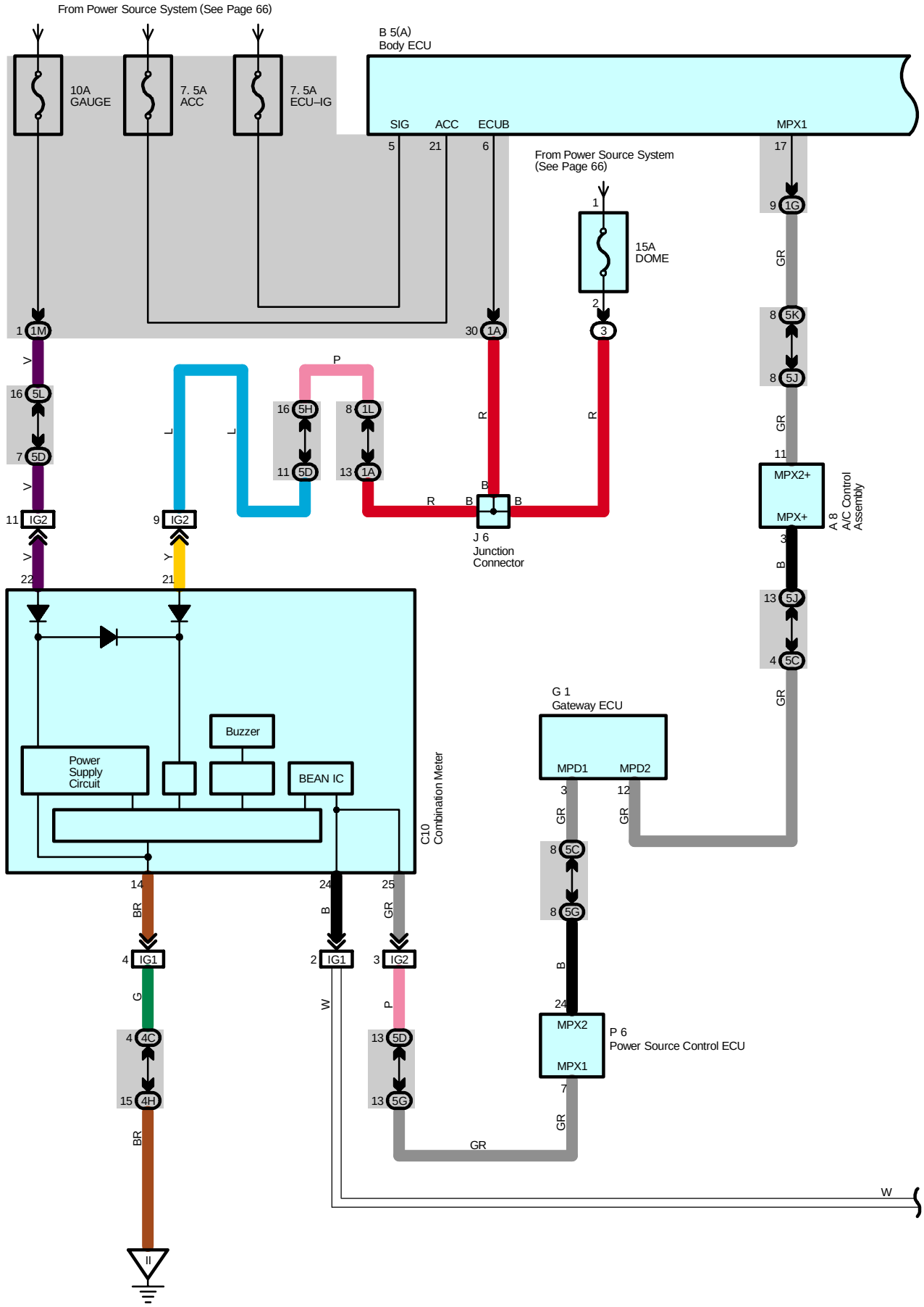
Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH
BN	60	Lower Back Panel Center

: Splice Points

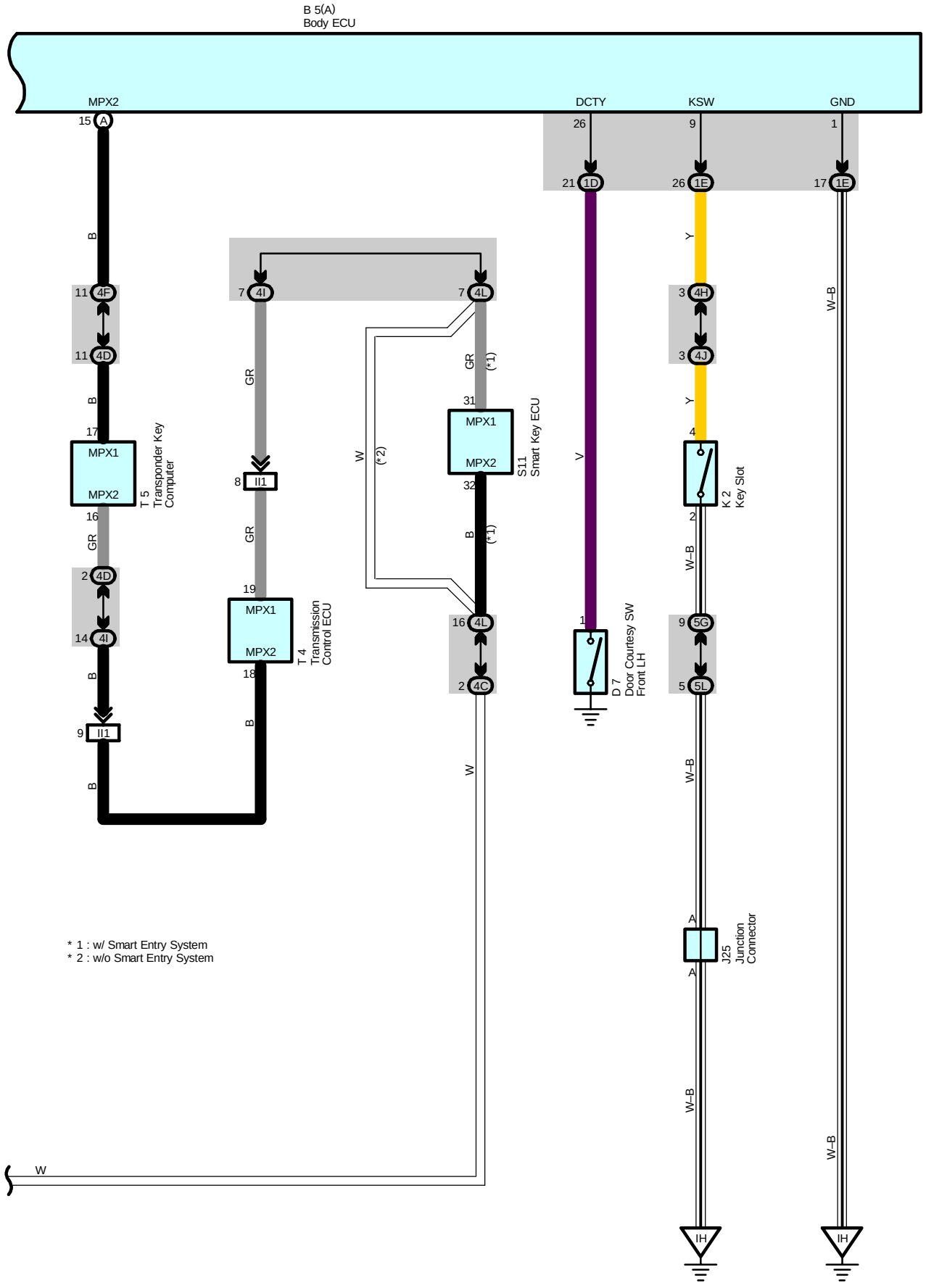
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I2	58	Instrument Panel Wire			

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Key Reminder

System Outline

Key Reminder System

If the driver's side door is opened with the power supply set at ACC or OFF position and with the electrical key remained in the key slot, signal from key slot is input to TERMINAL KSW of body ECU and that from courtesy SW at driver's side is input to TERMINAL DCTY of body ECU. The signal from body ECU to combination meter activates warning buzzer to send a message to the driver that electrical key remains in the key slot.

Service Hints

Body ECU

21–Ground : Approx. 12 volts with the power SW at ACC ON or IG ON position
5–Ground : Approx. 12 volts with the power SW at IG ON position
6–Ground : Always approx. 12 volts
1–Ground : Always continuity
26–Ground : Continuity with the driver's door open

: Parts Location

Code	See Page	Code	See Page	Code	See Page
A8	46	G1	47	P6	49
B5 A	46	J6	48	S11	49
C10	47	J25	48	T4	49
D7	50	K2	48	T5	49

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1D	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1G		
1L		
1M		
4C	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4D		
4F		
4H		
4I		
4J		
4L		
5C	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5D		
5G		
5H		
5J		
5K		
5L		

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)

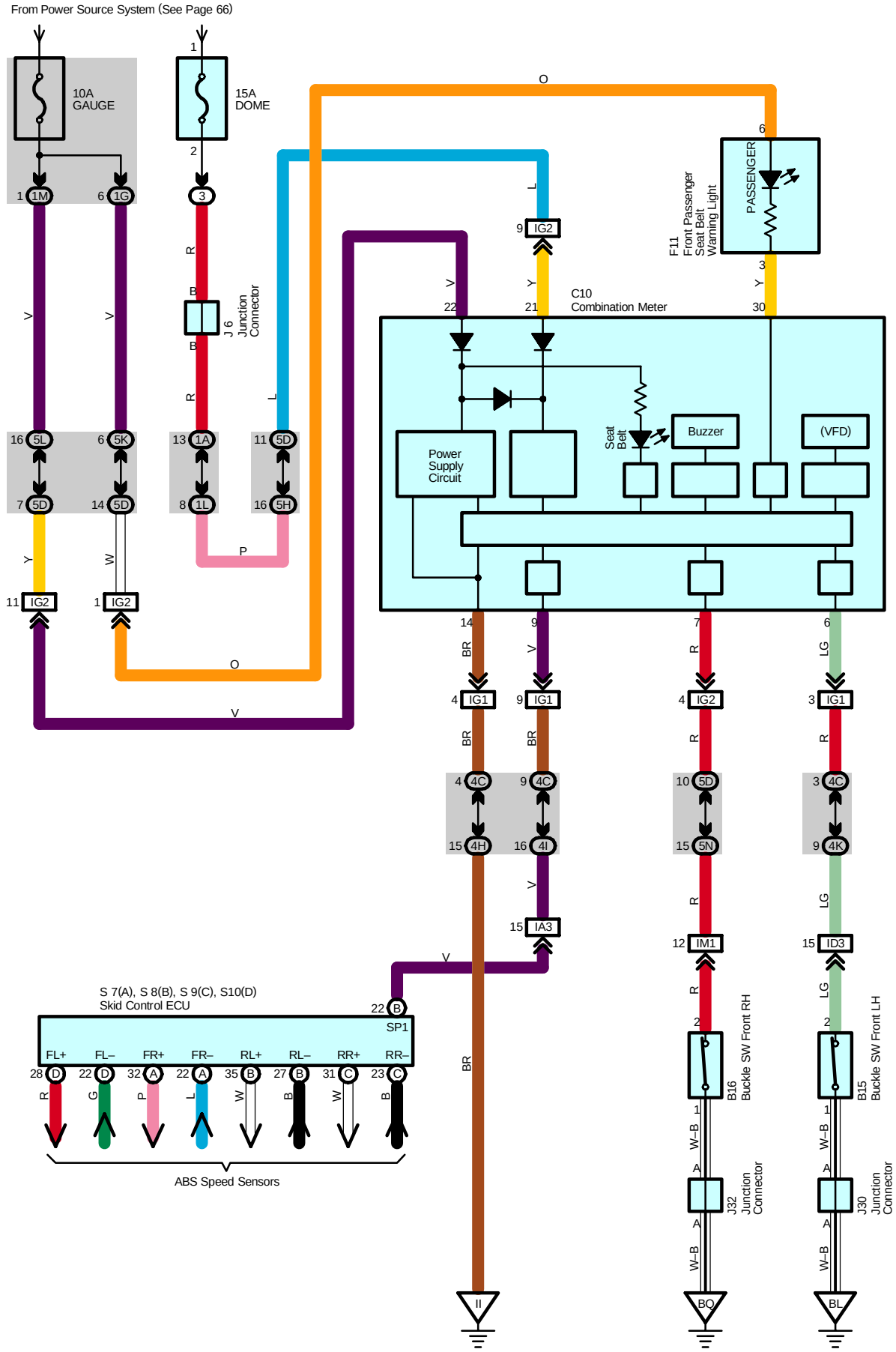
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: **Ground Points**

Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH

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Seat Belt Warning



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System Outline

If the driver does not have seat belt fastened when power SW is turned to IG ON position, the indicator in combination meter lights up. Buzzer sound for 6 seconds reminds the driver of seat belt fastening. After that, if seat belt has not been fastened yet, another buzzer sound goes on for 30 seconds when vehicle speed is 15 km/h or more. The buzzer sound also goes on when the driver unfastens seat belt from fastening condition with vehicle speed over 15 km/h.
Sensor installed in front passenger seat detects whether passenger(s) is(are) seated on front passenger seat(s). If a passenger does not have seat belt fastened in front seat, passenger seat belt warning light blinks.

Service Hints

C10 Combination Meter

22–Ground : Approx. 12 volts with the power SW at IG ON position
21–Ground : Always approx. 12 volts
14–Ground : Always continuity
6–Ground : Continuity with the driver's seat belt not in use
7–Ground : Continuity with front passenger sitting on front passenger seat and front passenger's seat belt not in use

: Parts Location

Code	See Page	Code	See Page	Code	See Page
B15	50	J6	48	S8 B	49
B16	50	J30	51	S9 C	49
C10	47	J32	51	S10 D	49
F11	47	S7 A	49		

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1G	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1L		
1M		
4C	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4H		
4I		
4K		
5D	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5H		
5K		
5L		
5N		

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA3	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
ID3	56	Instrument Panel Wire and Floor Wire (Left Kick Panel)
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
IM1	58	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)

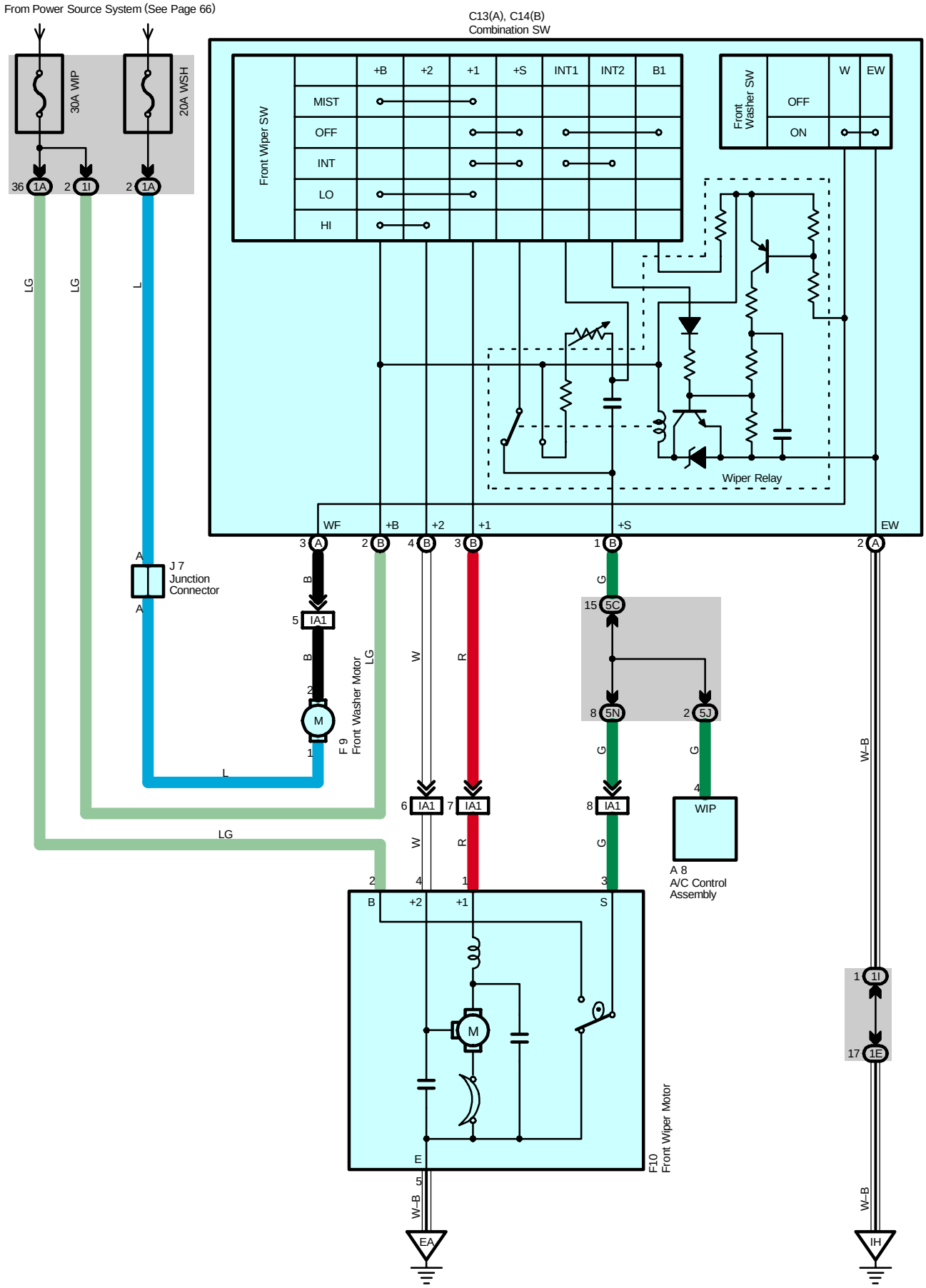
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▽ : **Ground Points**

Code	See Page	Ground Points Location
II	56	Instrument Panel Brace LH
BL	60	Rear Side of Left Quarter Panel
BQ	60	Rear Side of Right Quarter Panel

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System Outline

With the power SW pushed to IG ON position, the current flows to TERMINAL (B) 2 of the wiper and washer SW, and TERMINAL 2 of the front wiper motor through the WIP fuse.

1. Low Speed Position

With the wiper and washer SW turned to LO position, the current flows from TERMINAL (B) 2 of the wiper and washer SW to TERMINAL (B) 3 to TERMINAL 5 of the front wiper motor to TERMINAL 4 to GROUND, which runs the front wiper motor at low speed.

2. High Speed Position

With the wiper and washer SW turned to HI position, the current flows from TERMINAL (B) 2 of the wiper and washer SW to TERMINAL (B) 4 to TERMINAL 3 of the front wiper motor to TERMINAL 4 to GROUND, which runs the front wiper motor at high speed.

3. INT Position

With the wiper and washer SW turned to INT position, the wiper relay operates and current flows from TERMINAL (B) 2 of the wiper and washer SW to TERMINAL (A) 2 to GROUND. This activates the intermittent circuit and the current flows from TERMINAL (B) 2 of the wiper and washer SW to TERMINAL (B) 3 to TERMINAL 5 of the front wiper motor to TERMINAL 4 to GROUND and then the wiper operates. Intermittent operation is controlled by a condenser's charge and discharge function in the relay.

4. Washer Interlocking Operation

With the wiper and washer SW pulled to washer position (Washer SW ON position), the current flows from the WSH fuse to TERMINAL 1 of the front washer motor to TERMINAL 2 to TERMINAL (A) 3 of the wiper and washer SW to TERMINAL (A) 2 to GROUND and runs the washer motor and the window washer to spray. Simultaneously, current flows from the WIP fuse to TERMINAL (B) 2 of the wiper and washer SW to TERMINAL (B) 3 to TERMINAL 5 of the front wiper motor to TERMINAL 4 to GROUND, which activates the wiper.

Service Hints

C13 (A), C14 (B) Combination SW

(A) 2–Ground : Always continuity
(B) 2–Ground : Approx. 12 volts with the power SW at IG ON position
(B) 3–Ground : Approx. 12 volts with the power SW at IG ON position and the wiper and washer SW at LO position
Approx. 12 volts every 1 to 10 seconds intermittently with the power SW at IG ON position and the wiper and washer SW at INT position
(B) 1–Ground : Approx. 12 volts with the power SW at IG ON position and unless the front wiper motor at STOP position
(B) 4–Ground : Approx. 12 volts with the power SW at IG ON position and the wiper and washer SW at HI position

F10 Front Wiper Motor

2–1 : Closed unless the front wiper motor at STOP position

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A8	46	C14 B	47	F10	44
C13 A	47	F9	44	J7	48

⬭ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
5C	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5J		
5N		

▭ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)

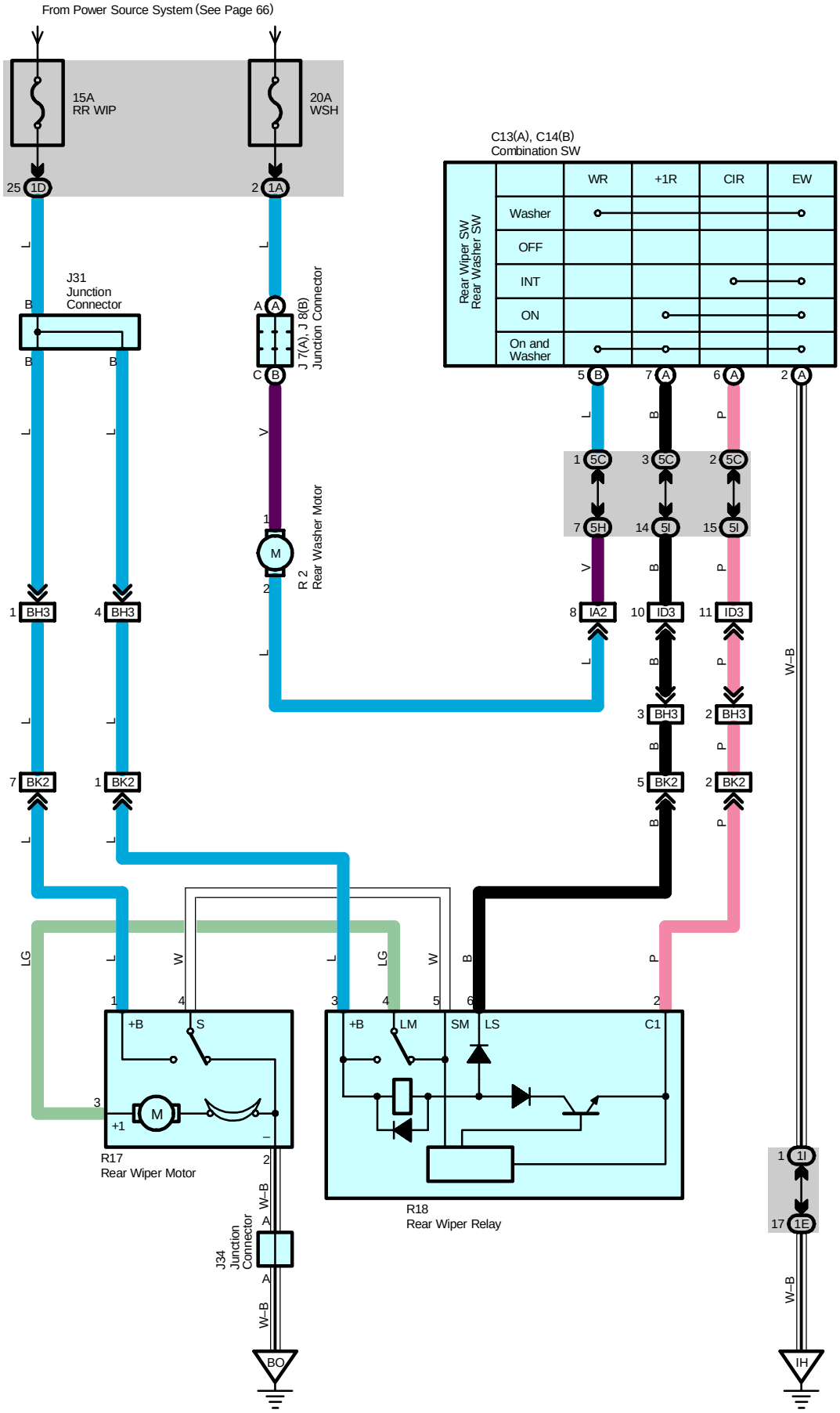
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: **Ground Points**

Code	See Page	Ground Points Location
EA	54	Right Side of the Fender Apron
IH	56	Cowl Side Panel LH

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System Outline

When the power SW is pushed to IG ON position, the current flows from the WSH fuse to rear washer motor TERMINAL 1, and the current flows from the RR WIP fuse to rear wiper relay TERMINAL 3, and to the rear wiper motor TERMINAL 1 respectively.

1. Rear Wiper Normal Operation

When the power SW is pushed to IG ON position, and the rear wiper and washer SW is turned to ON position, the current flows from the rear wiper relay TERMINAL 3 to TERMINAL 6 to the rear wiper and washer SW TERMINAL (A) 7 to TERMINAL (A) 2 to GROUND, and turns on the rear wiper relay. As a result, the current flows from the rear wiper relay TERMINAL 3 to TERMINAL 4 to the rear wiper motor TERMINAL 3 to TERMINAL 2 to GROUND, and operates the rear wiper.

2. Rear Wiper Intermittent Operation

When the power SW is pushed to IG ON position, and the rear wiper and washer SW is turned to INT position, the current flows from the rear wiper relay TERMINAL 3 to TERMINAL 2 to the rear wiper and washer SW TERMINAL (A) 6 to TERMINAL (A) 2 to GROUND, and the intermittent circuit in the rear wiper relay is controlled to operate the wiper intermittently.

3. Washer Operation

When the power SW is pushed to IG ON position, and the rear wiper and washer SW is turned from OFF to WASHER position, the current flows from the WSH fuse to the rear washer motor TERMINAL 1 to TERMINAL 2 to the rear wiper and washer SW TERMINAL (B) 5 to TERMINAL (A) 2 to GROUND. This activates the rear washer motor, and the window washer sprays washer liquid. When the rear wiper and washer SW is turned to ON position, the window washer sprays washer liquid during normal operation of rear wiper.

Service Hints

R2 Rear Washer Motor

1–Ground : Approx. 12 volts with the power SW at IG ON position
2–Ground : Continuity with the rear wiper and washer SW at WASHER position

R17 Rear Wiper Motor

1–Ground : Approx. 12 volts with the power SW at IG ON position
2–Ground : Always continuity

: Parts Location

Code		See Page	Code		See Page	Code	See Page
C13	A	47	J8	B	48	R2	45
C14	B	47	J31		51	R17	52
J7	A	48	J34		51	R18	52

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1D	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
5C	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5H		
5I		

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA2	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
ID3	56	Instrument Panel Wire and Floor Wire (Left Kick Panel)
BH3	62	Back Door No.1 Wire and Floor Wire (Rear Side of Roof Panel)
BK2	62	Back Door No.1 Wire and Back Door No.2 Wire (Rear Side of Roof Panel)

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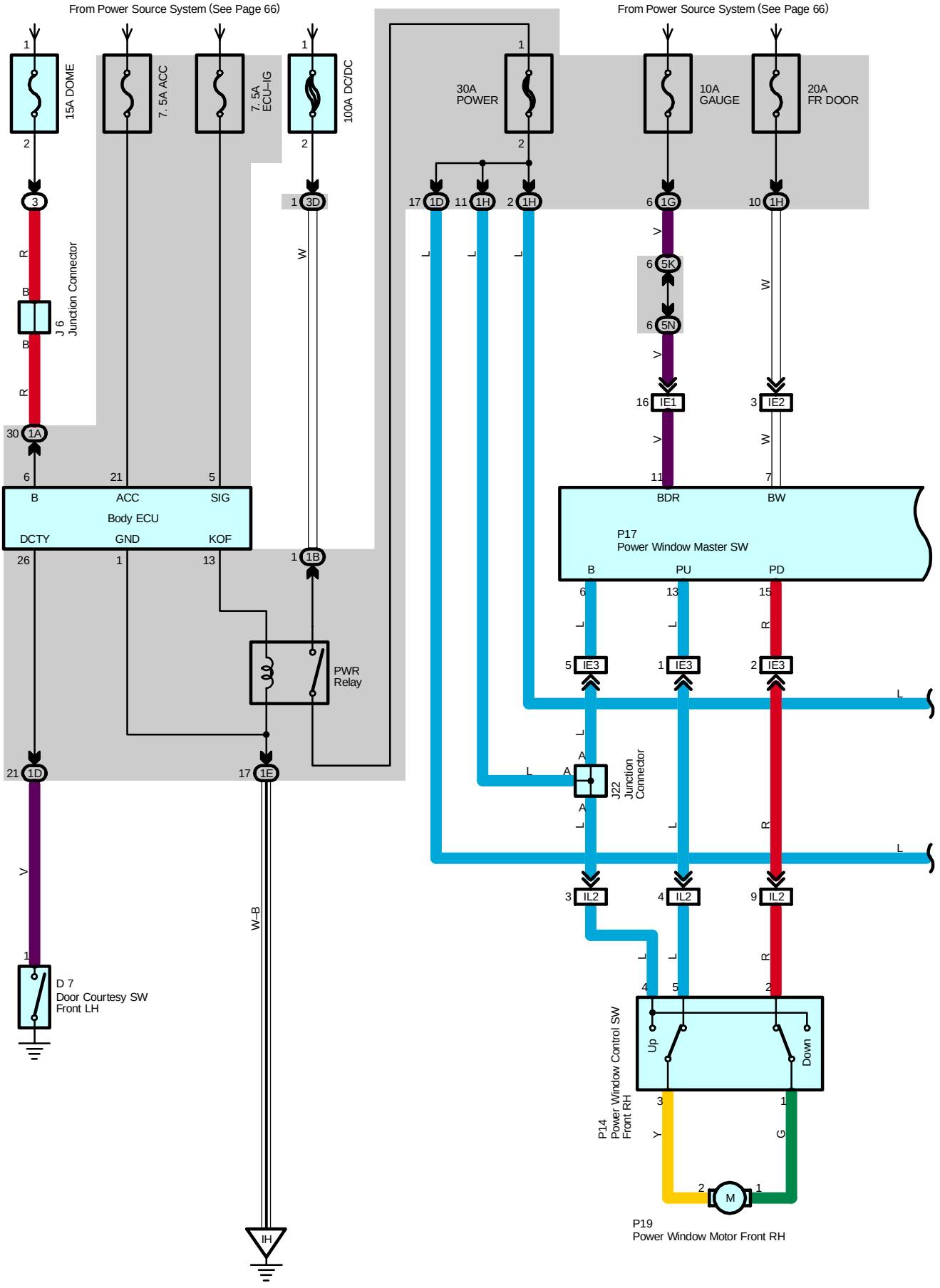
Rear Wiper and Washer

 **: Ground Points**

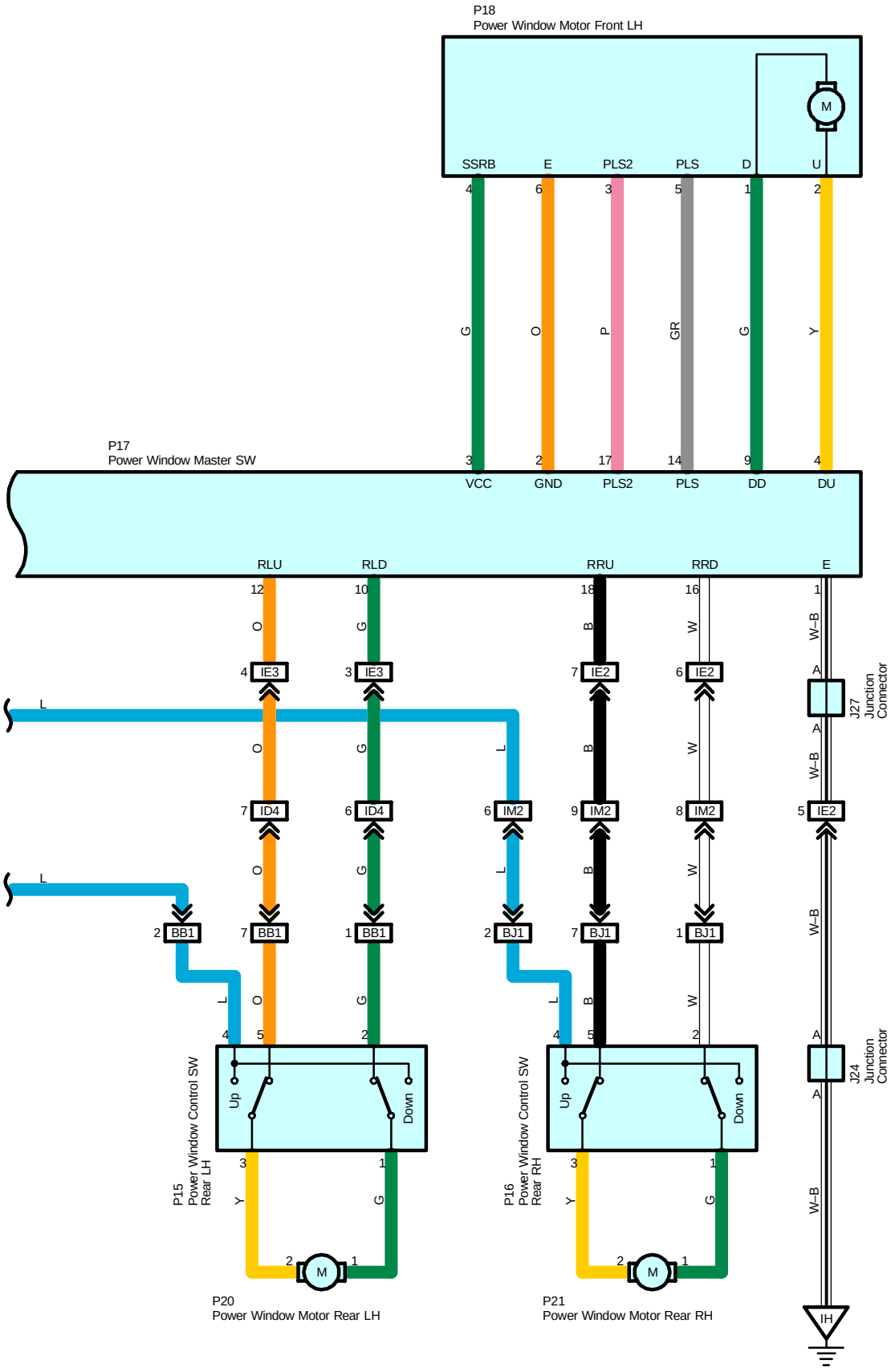
Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH
BO	60	Center of the Back Door Panel

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Power Window

System Outline

1. Manual Up and Down Function

This function operates the window to open or close while the power window switch is being pulled up or pushed down (Driver's SW should be pulled up and down halfway for manual operation.). The window stops as soon as the switch is released.

2. Driver's Door One–Touch Auto Up and Down Function

"The driver's door one–touch auto up and down function" enables the window of front doors to be fully opened or closed with a touch of the power window switch.

3. Jam Protection Function (Driver's Door)

The jam protection function automatically stops the power window and moves it downward if a foreign object gets jammed in the course of the window during one–touch auto–up operation.

4. Remote Control Function

The up and down operation of the front passenger door windows and the rear door windows can be controlled by operating the power window master switch.

5. Key–Off Operation Function

For about 45 seconds after pushing OFF the power SW or opening the driver's side door, this function enables the power window master switch to operate all the door windows and enables the switch of each passenger's door to operate each window manually. Please note that the function becomes unavailable if the driver's side door is shut. (The one–touch auto up and down operation of the driver's side door is included as well)

* When the battery terminal or fuse is disconnected, the glass position of all door windows have to be reset to the initial positions, one by one, with the power window control switch by following the procedure below:

A) Reconnect the battery terminal or fuse.

B) Push the power SW to IG ON position

C) Lower the window of each door halfway or more with the power window switch.

D) Then close the window fully with the power window switch.
Do not release the switch for at least one second after the window is fully closed.

Service Hints

P17 Power Window Master SW

7–Ground : Always approx. 12 volts
11–Ground : Approx. 12 volts with the push start SW at IG ON position
1–Ground : Always continuity

Body ECU

6–Ground : Always approx. 12 volts
5–Ground : Approx. 12 volts with the push start SW at IG ON position
21–Ground : Approx. 12 volts with the push start SW at ACC ON or IG ON position
26–Ground : Continuity with the driver's door open
1–Ground : Always continuity
13–Ground : Approx. 12 volts with the key off operation

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
D7	50	P14	52	P19	52
J6	48	P15	52	P20	52
J22	48	P16	52	P21	52
J24	48	P17	52		
J27	51	P18	52		

▭ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

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: **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1B		
1D	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1G		
1H		
3D	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
5K	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5N		

: **Connector Joining Wire Harness and Wire Harness**

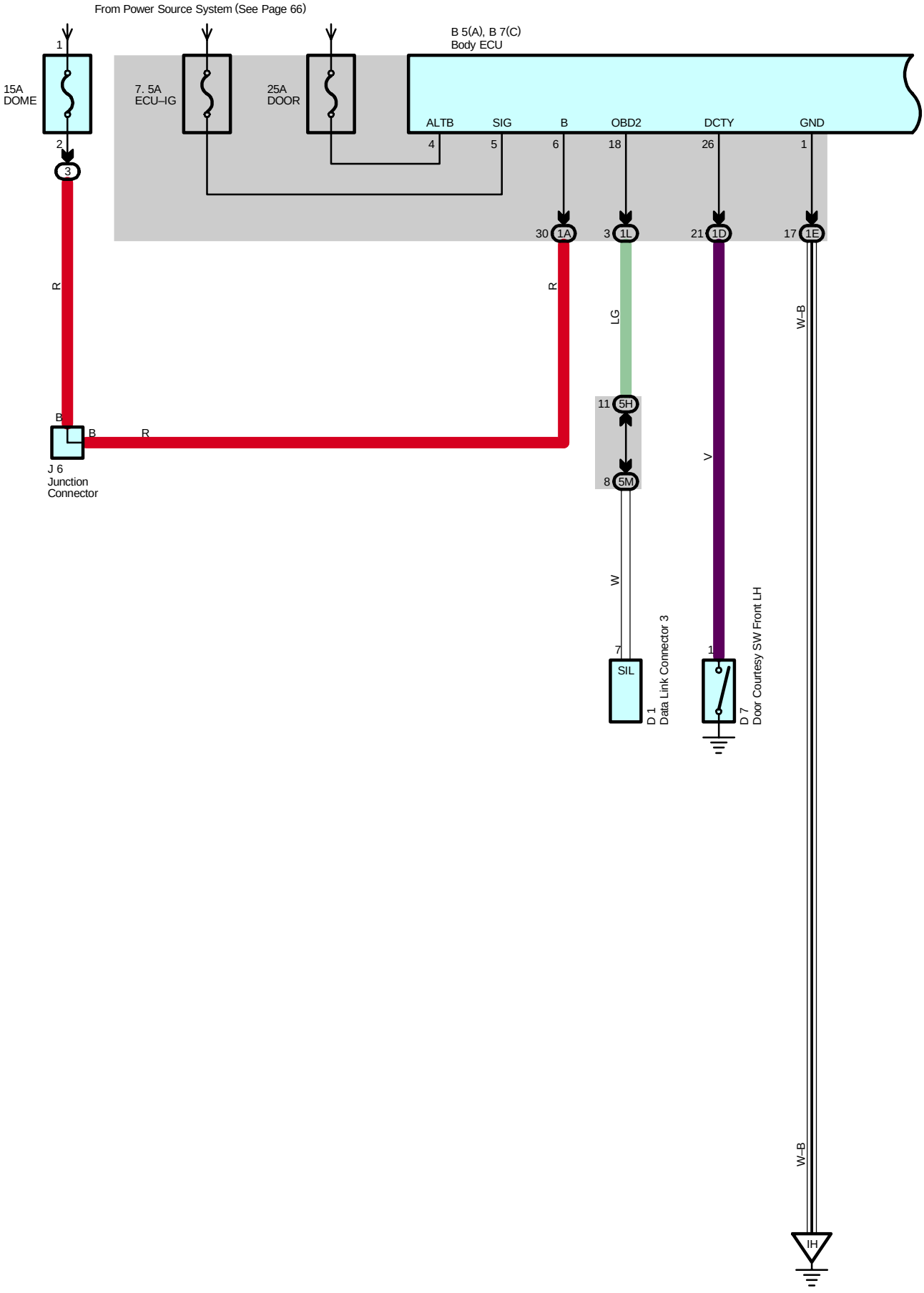
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ID4	56	Instrument Panel Wire and Floor Wire (Left Kick Panel)
IE1	56	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IE2		
IE3		
IL2	58	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IM2	58	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
BB1	60	Rear Door No.2 Wire and Floor Wire (Left Center Pillar)
BJ1	62	Rear Door No.1 Wire and Floor No.2 Wire (Right Center Pillar)

: **Ground Points**

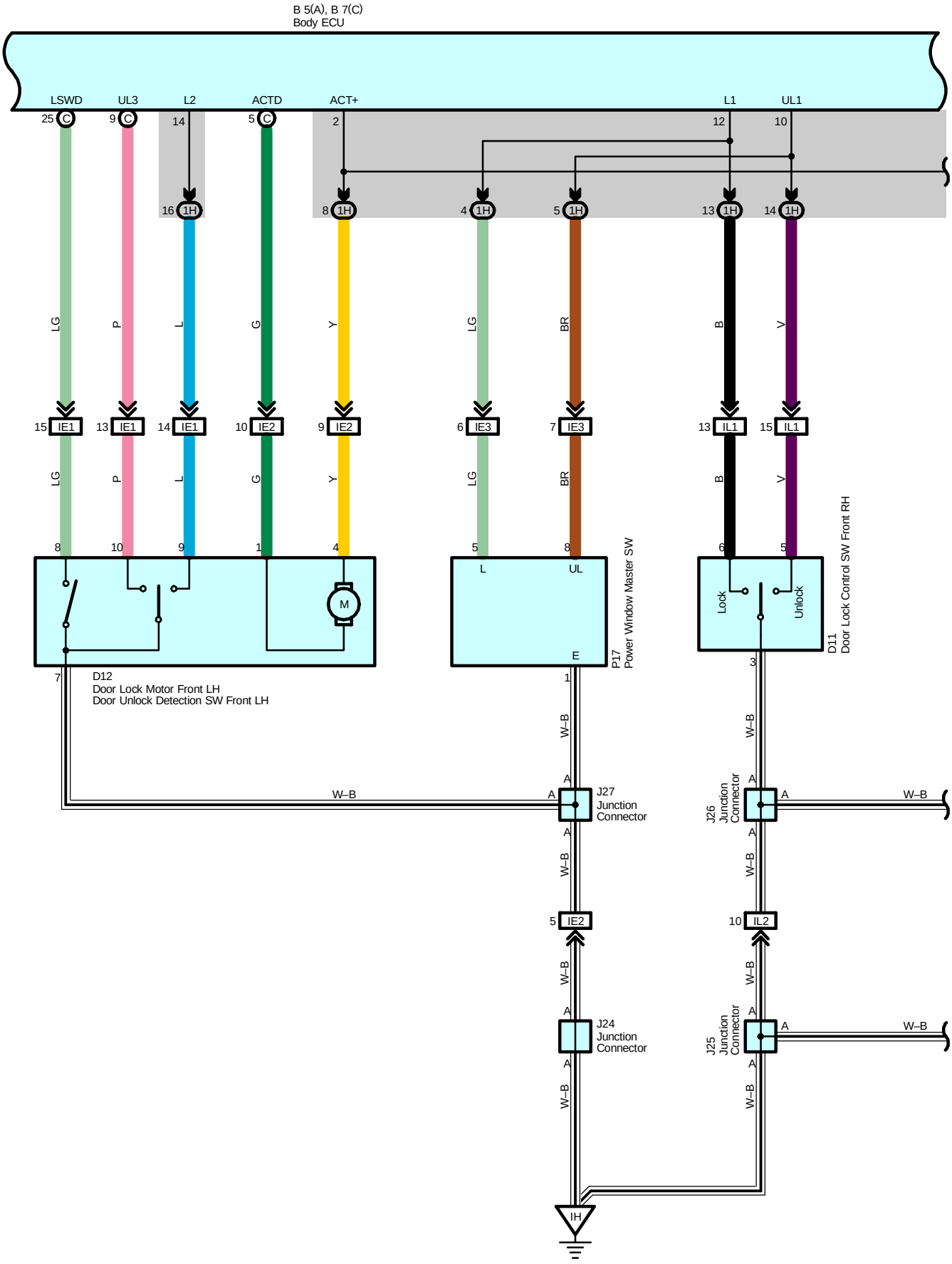
Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH

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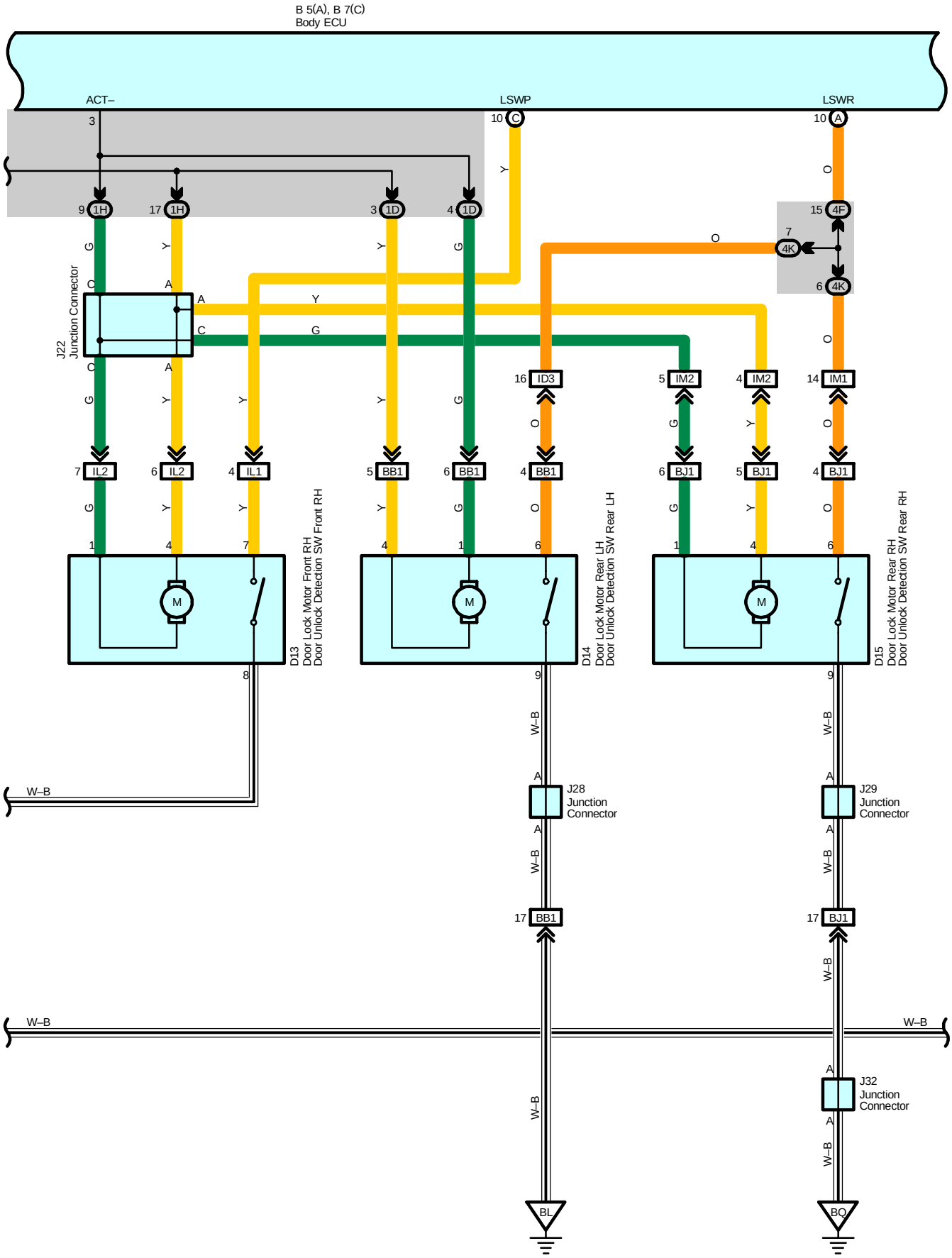
Door Lock Control



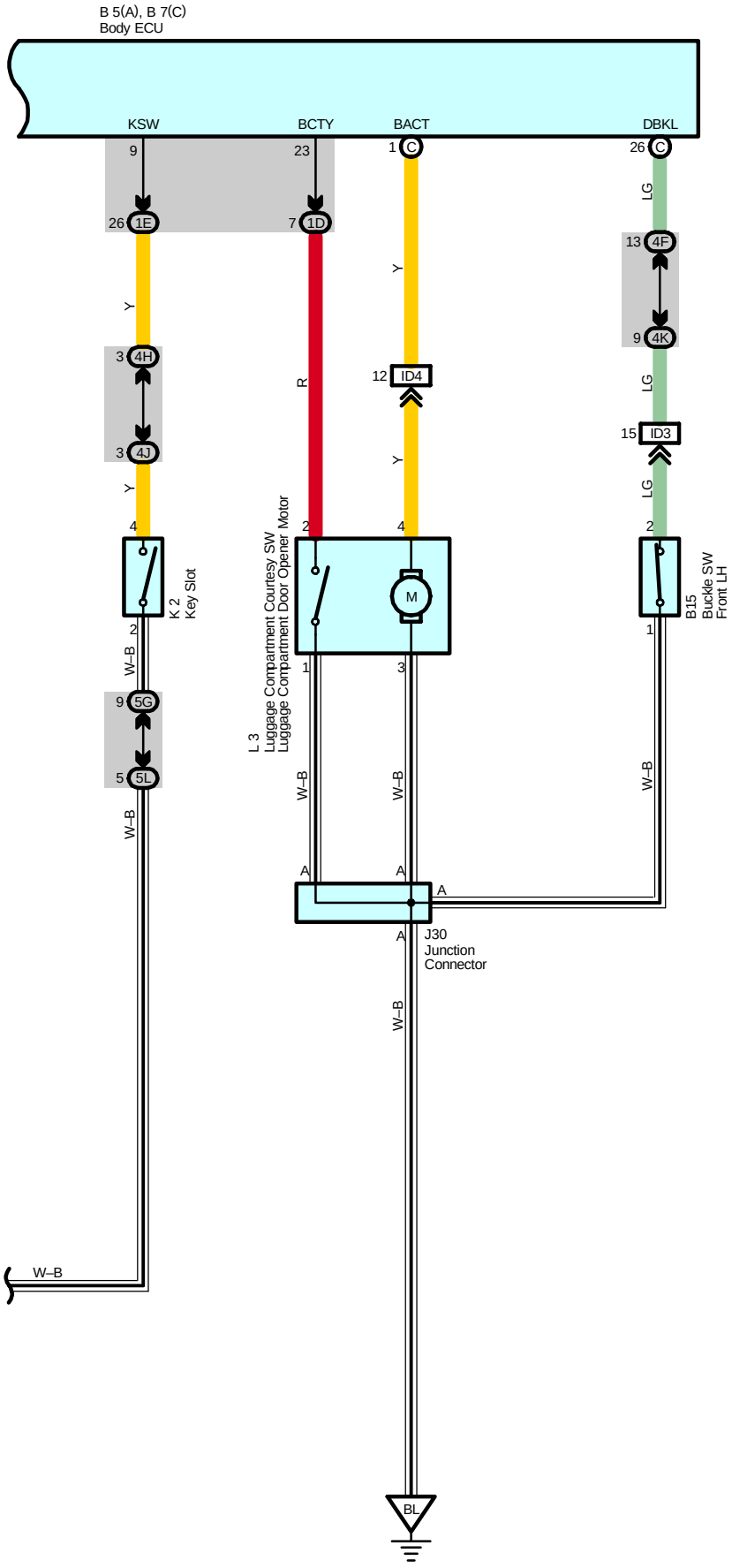
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Door Lock Control

System Outline

The door lock control is a system controlled by various signals input into the body ECU through communication control of the body ECU etc.

1. Manual Unlock Operation

When the door lock control SW of the driver's or passenger's side door is pushed to UNLOCK, the door unlocks.

2. Manual Lock Operation

When the door lock control SW of the driver's or passenger's side door is pushed to LOCK, the door locks.

3. Door Key Unlock Operation

* Unlock operation from driver's side door
  When the driver's side door is unlocked once using the mechanical key, only the driver's side door unlocks. If this operation is repeated within 3 seconds, all the other doors also unlock.

4. Ignition Key Reminder Operation

Under condition that the electrical key remains inserted in the key slot and driver's side door is open, locking operation with door knob of driver's door is not effective but automatically unlocks the door. When the door is locked with the manual door lock SW of driver's door or door key SW of driver's door, the door locks once but right after that, the door unlocks automatically.

Service Hints

Body ECU

4, 6–Ground : Always approx. 12 volts
5–Ground : Approx. 12 volts with the power SW at IG ON position
1–Ground : Always continuity

○ : Parts Location

Code		See Page	Code	See Page	Code	See Page
B5	A	46	D14	50	J28	51
B7	C	46	D15	50	J29	51
B15		50	J6	48	J30	51
D1		47	J22	48	J32	51
D7		50	J24	48	K2	48
D11		50	J25	48	L3	51
D12		50	J26	51	P17	52
D13		50	J27	51		

▭ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

▭ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1D	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1H		
1L		
4F	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4H		
4J		
4K		
5G	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5H		
5L		
5M		

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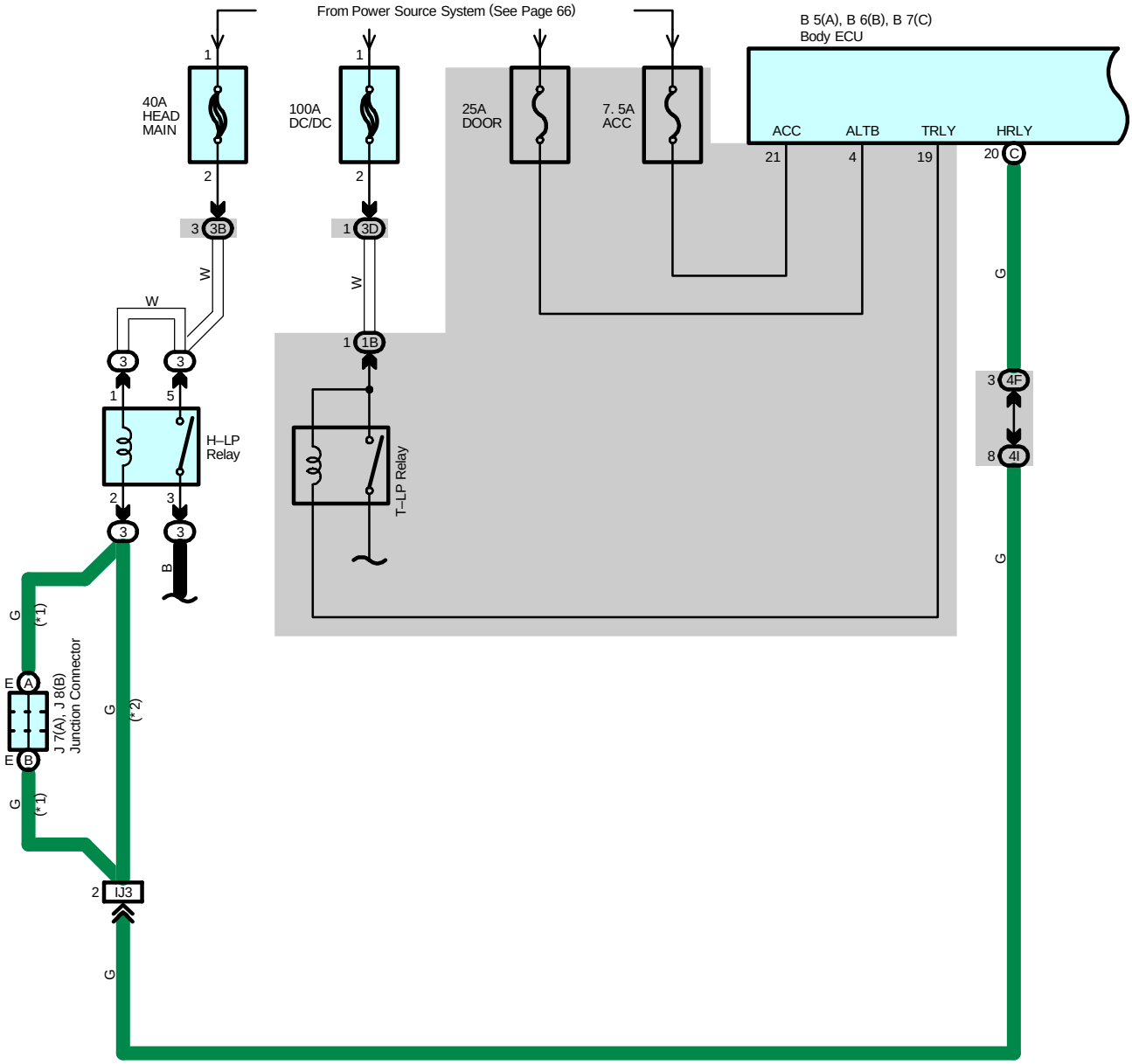
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ID3	56	Instrument Panel Wire and Floor Wire (Left Kick Panel)
ID4		
IE1	56	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IE2		
IE3		
IL1	58	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IL2		
IM1	58	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
IM2		
BB1	60	Rear Door No.2 Wire and Floor Wire (Left Center Pillar)
BJ1	62	Rear Door No.1 Wire and Floor No.2 Wire (Right Center Pillar)

: Ground Points

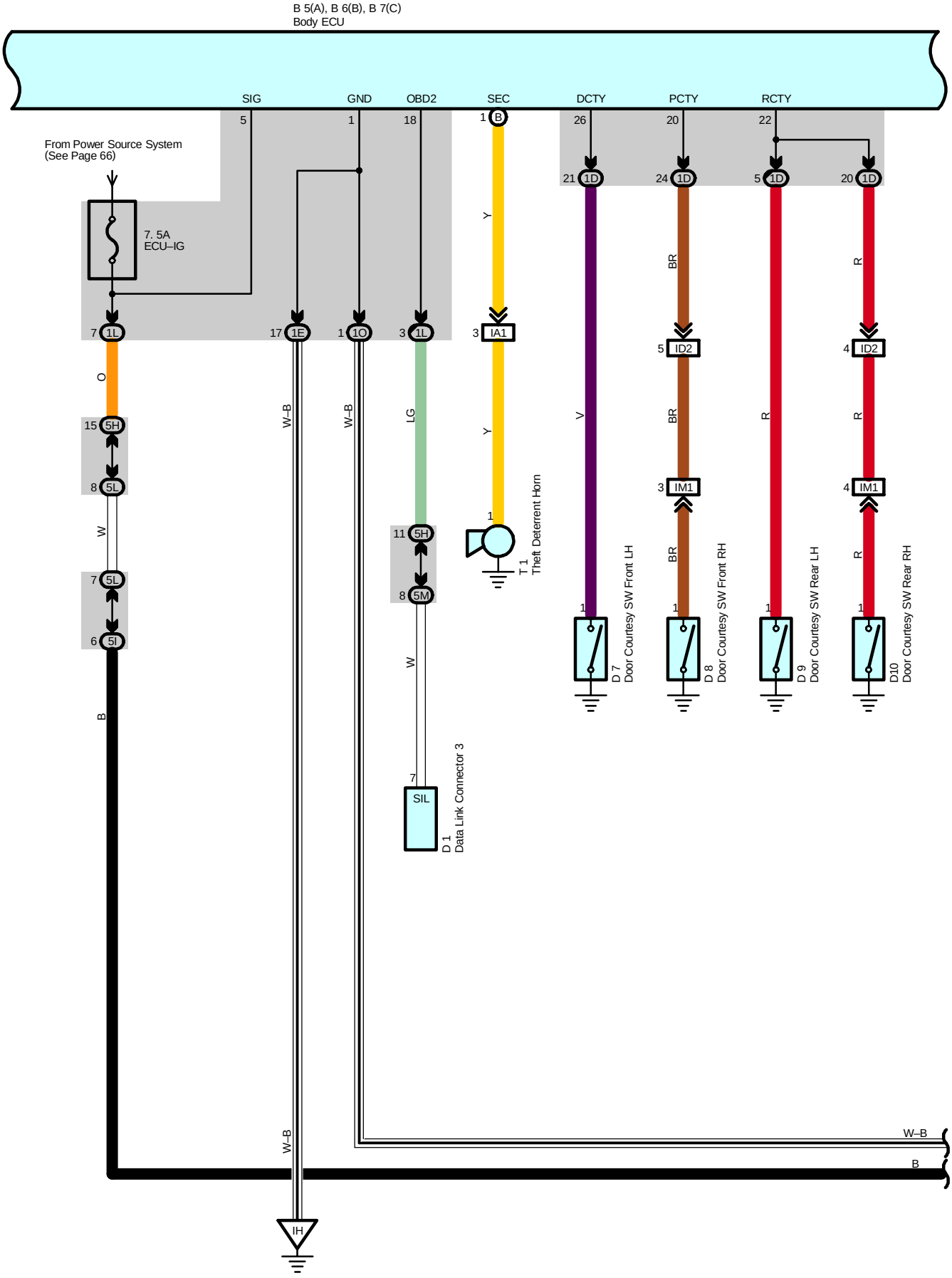
Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH
BL	60	Rear Side of Left Quarter Panel
BQ	60	Rear Side of Right Quarter Panel

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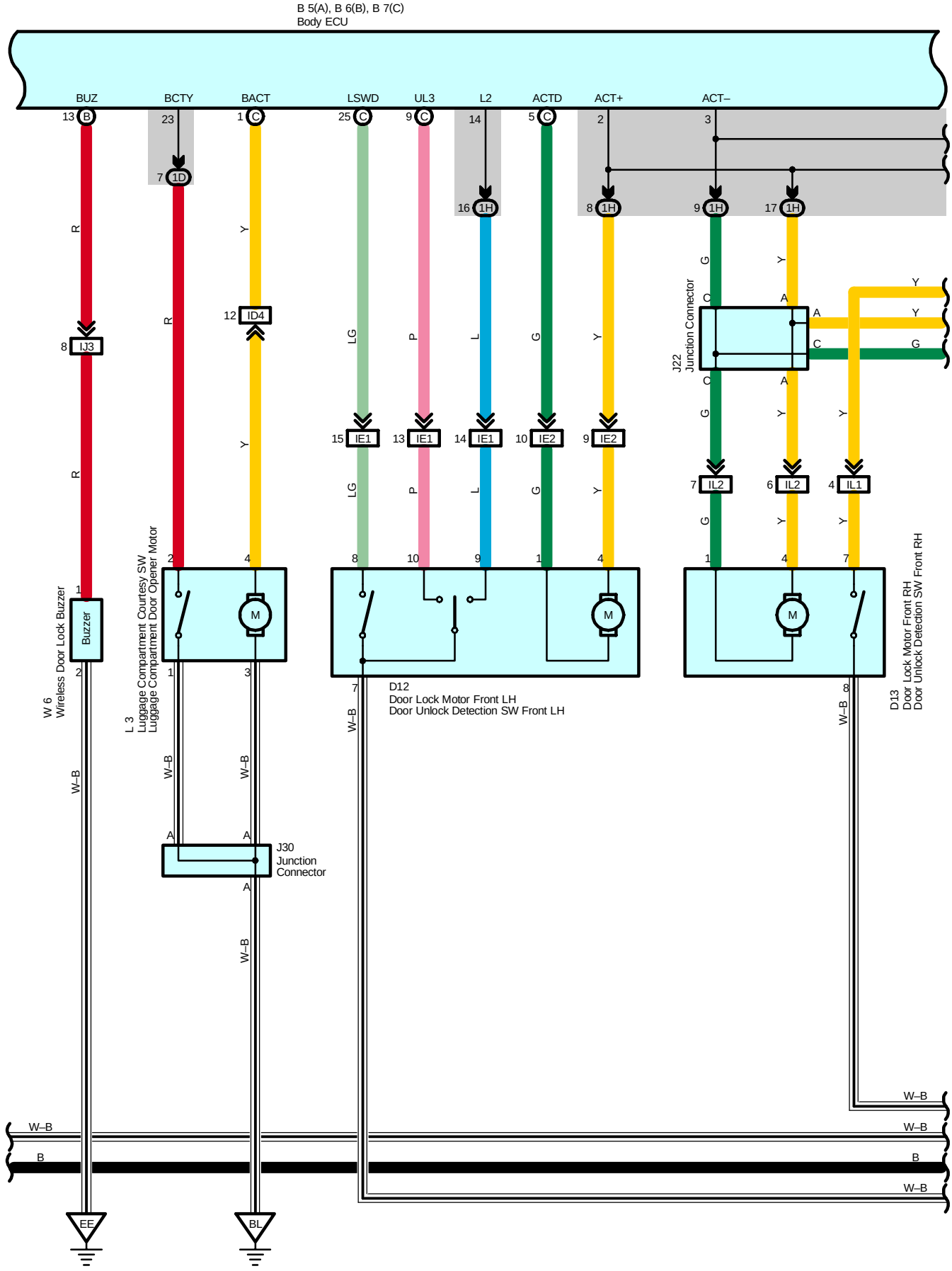
* 1 : w/ HID
* 2 : w/o HID

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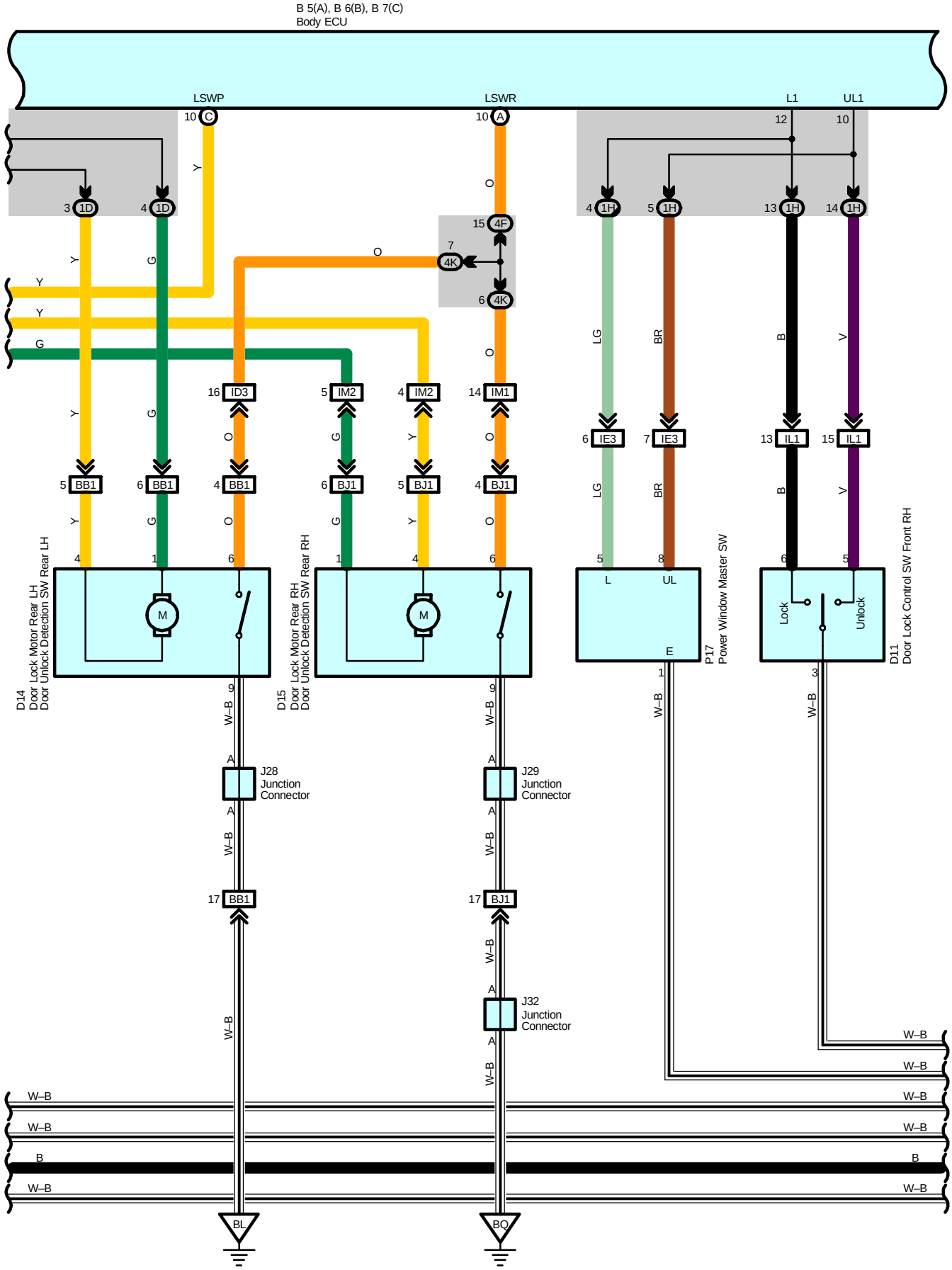


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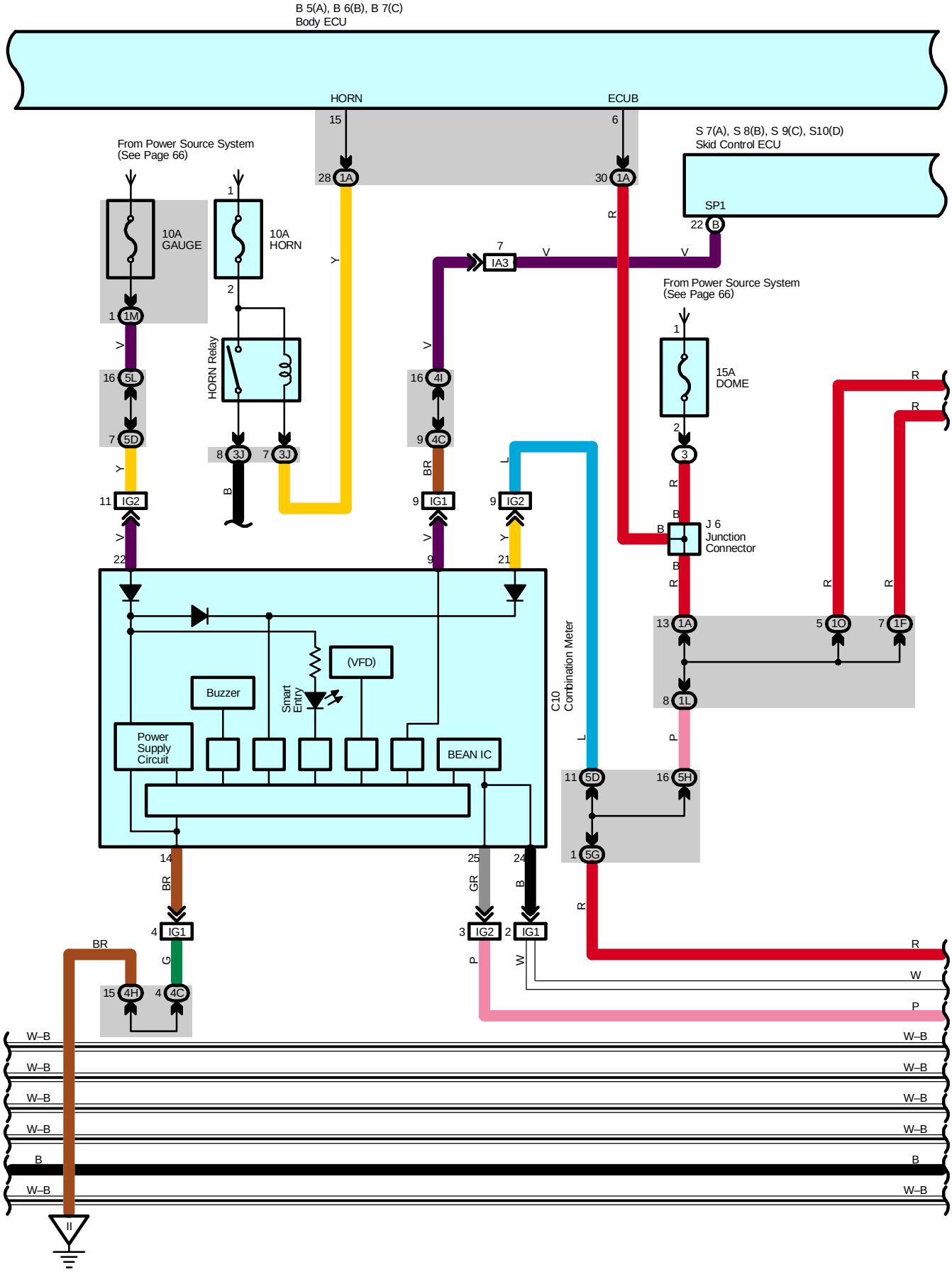
Smart Entry System and Wireless Door Lock Control



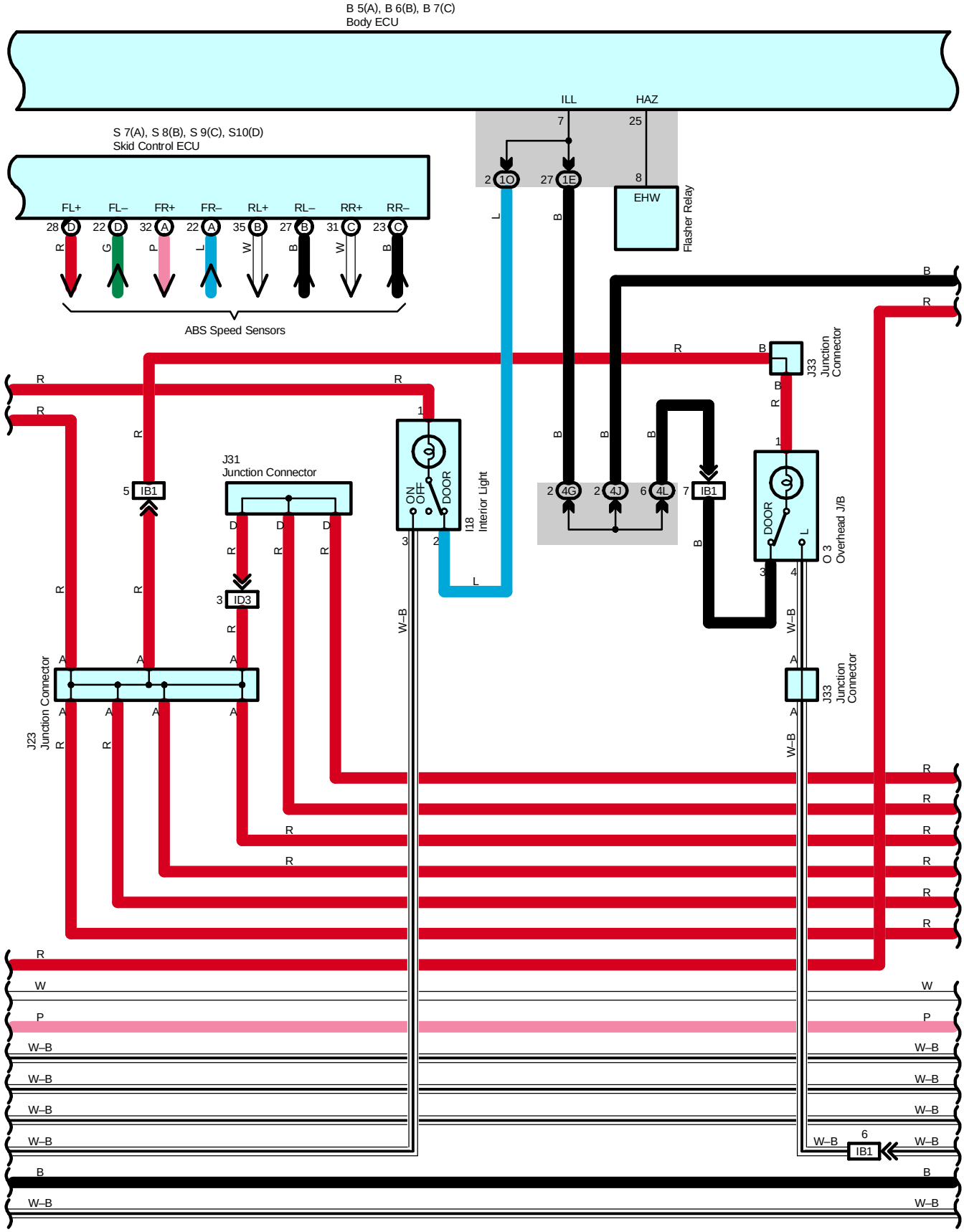
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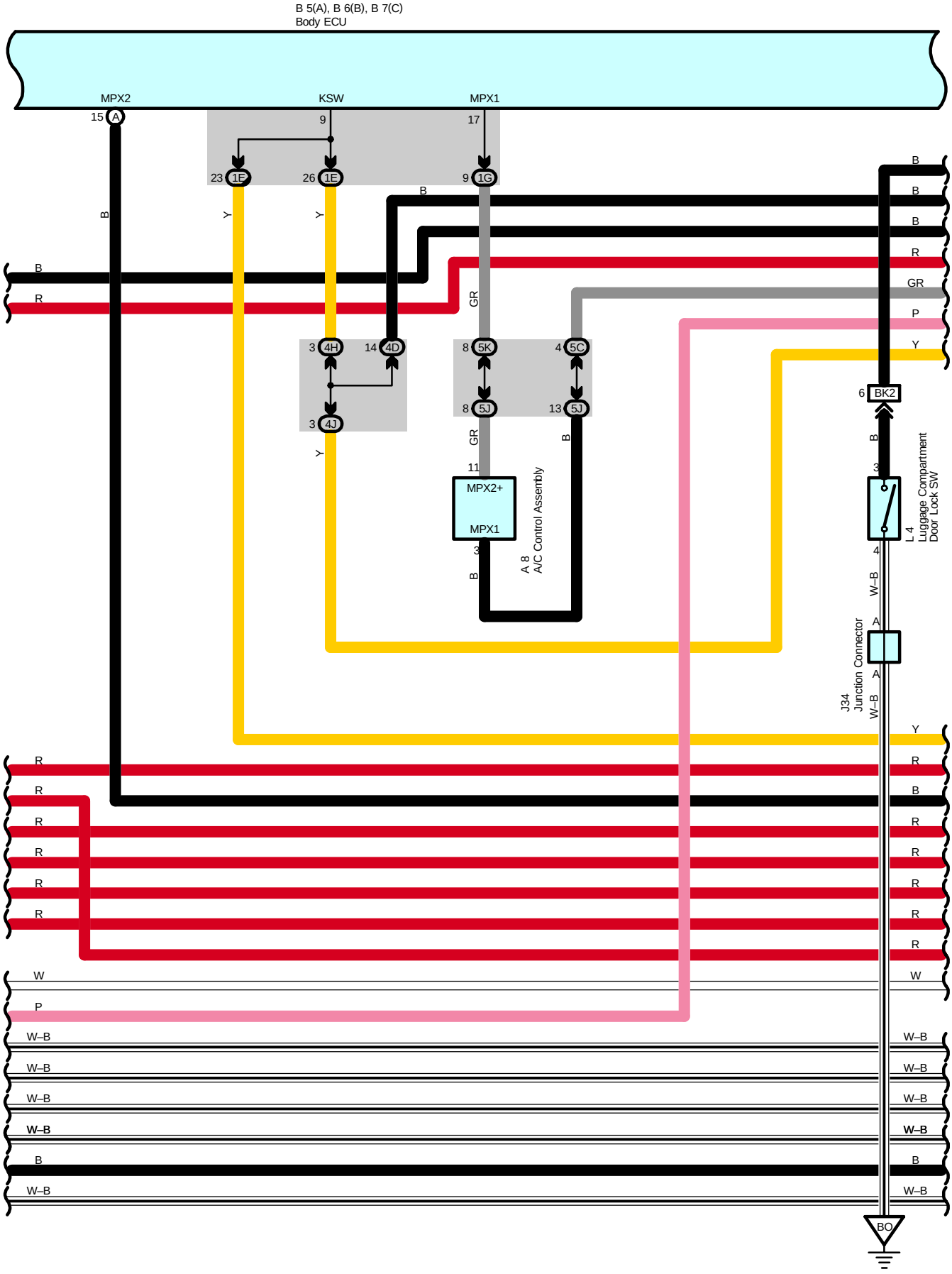


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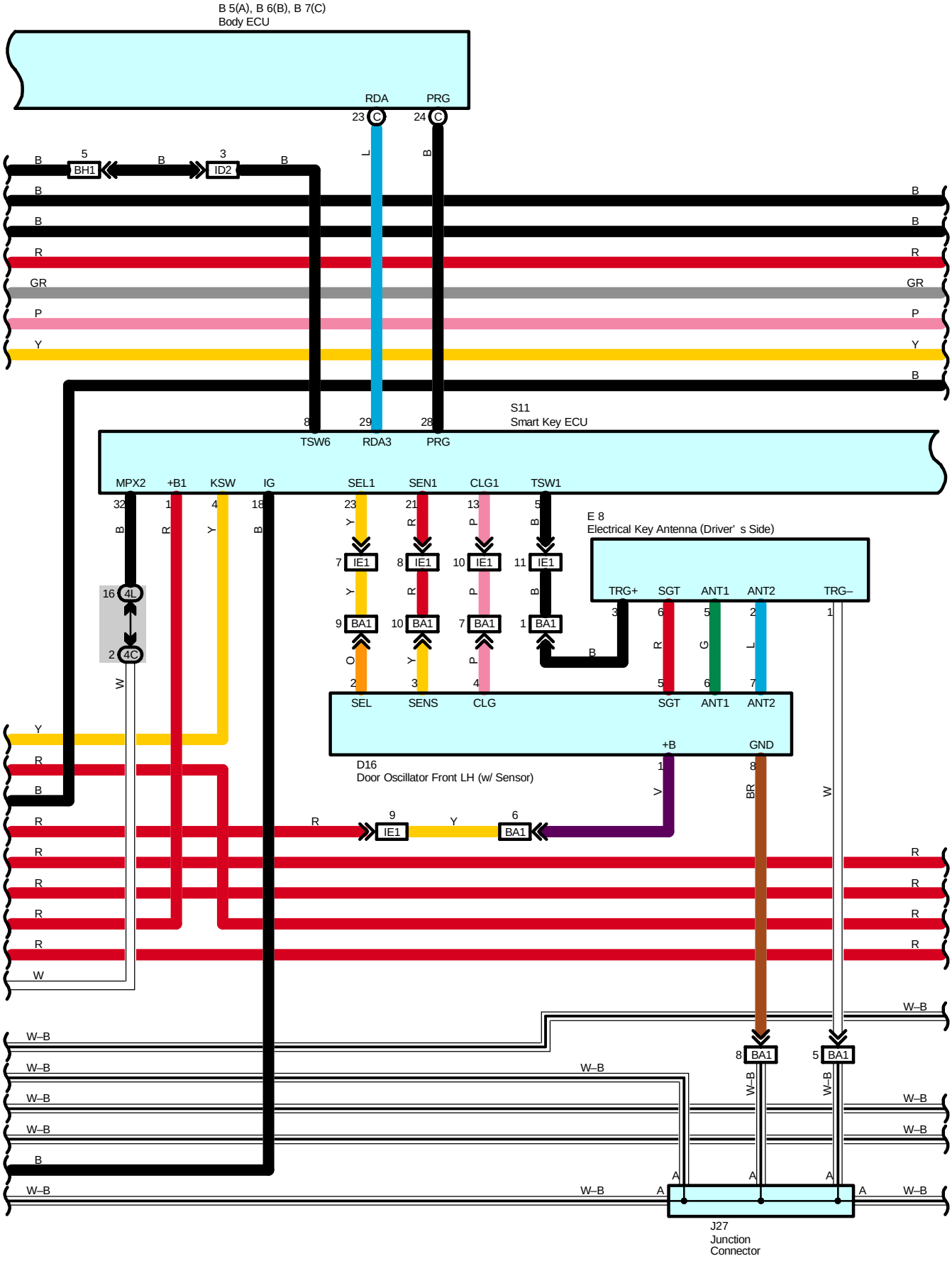


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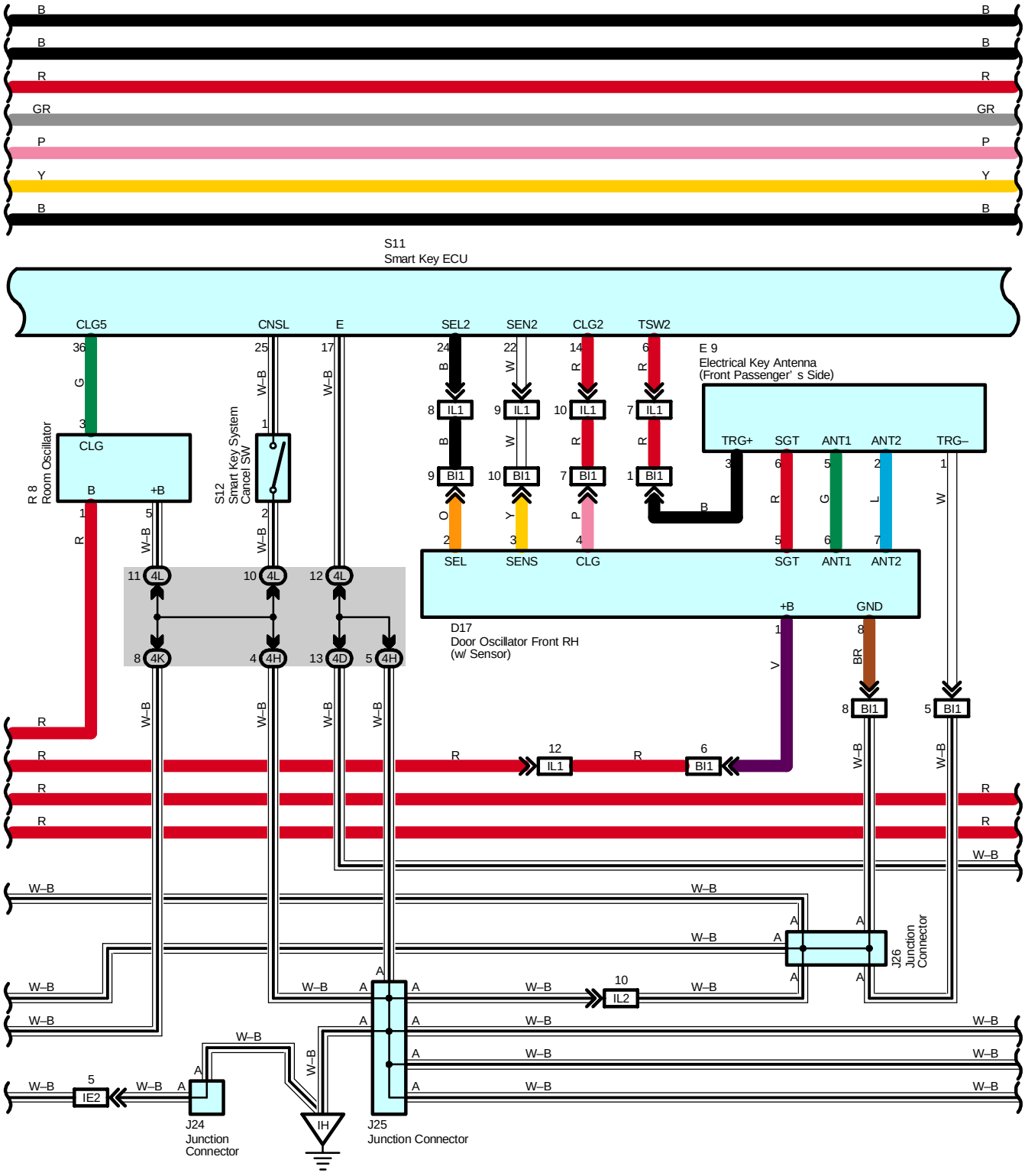
Smart Entry System and Wireless Door Lock Control



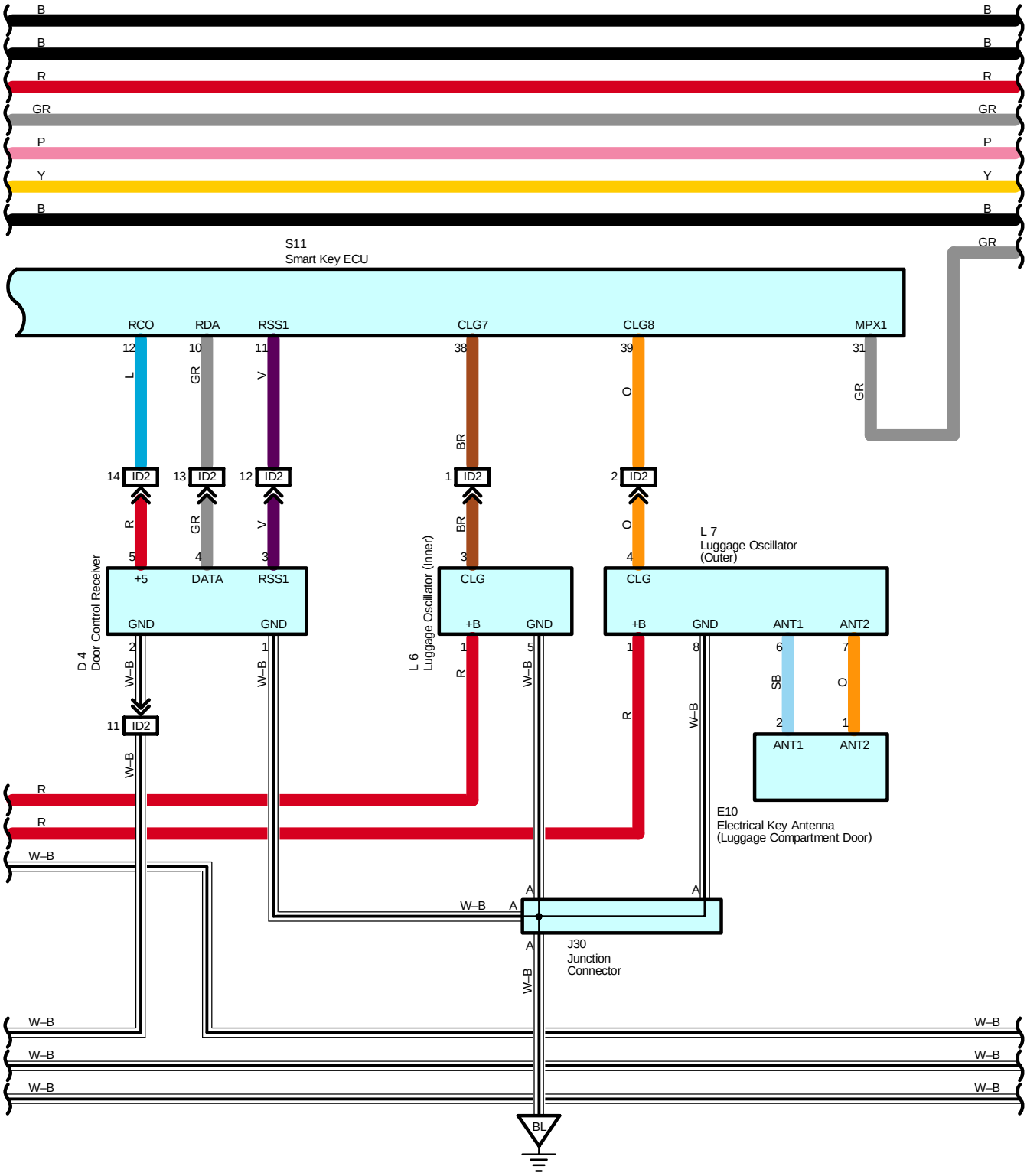
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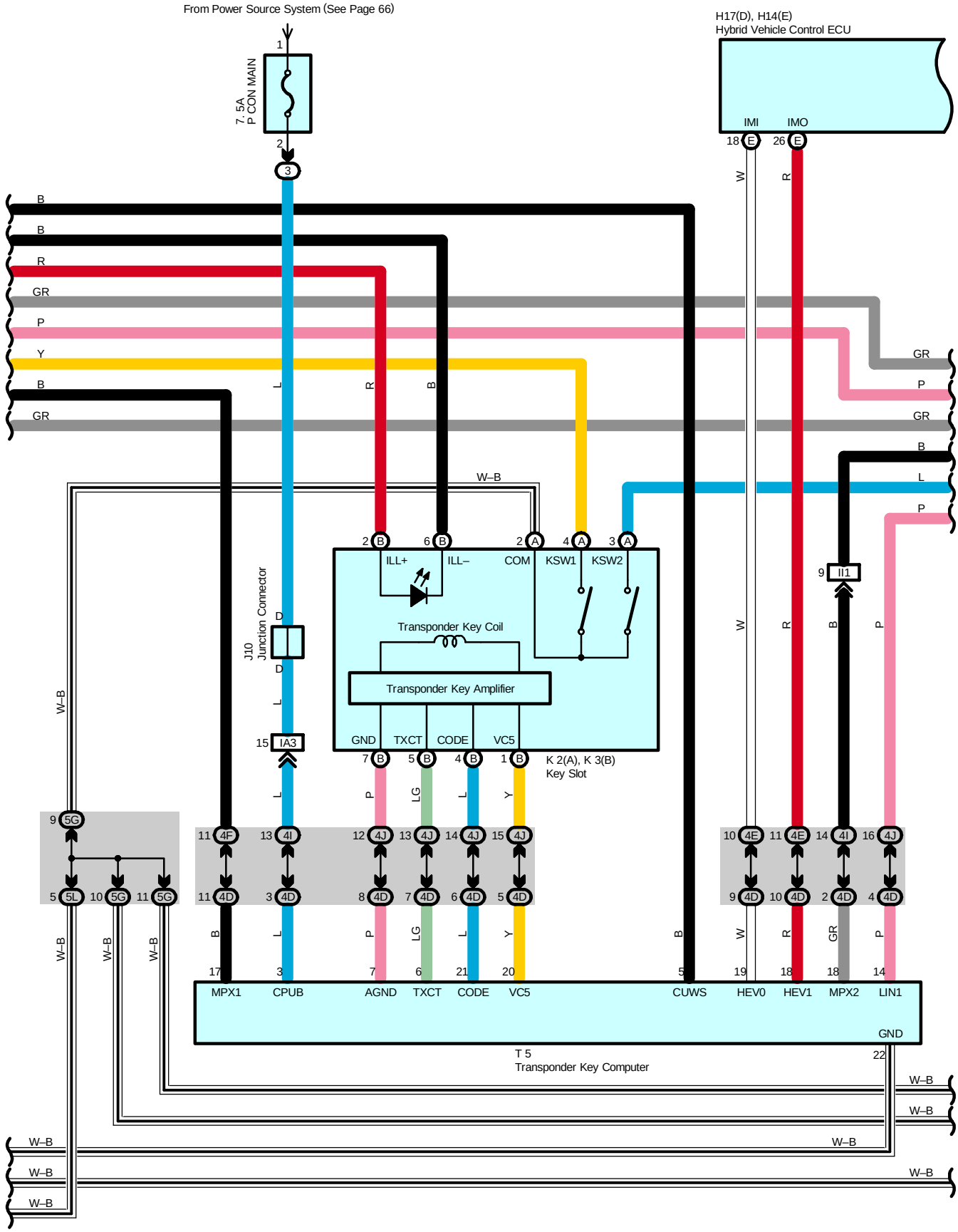
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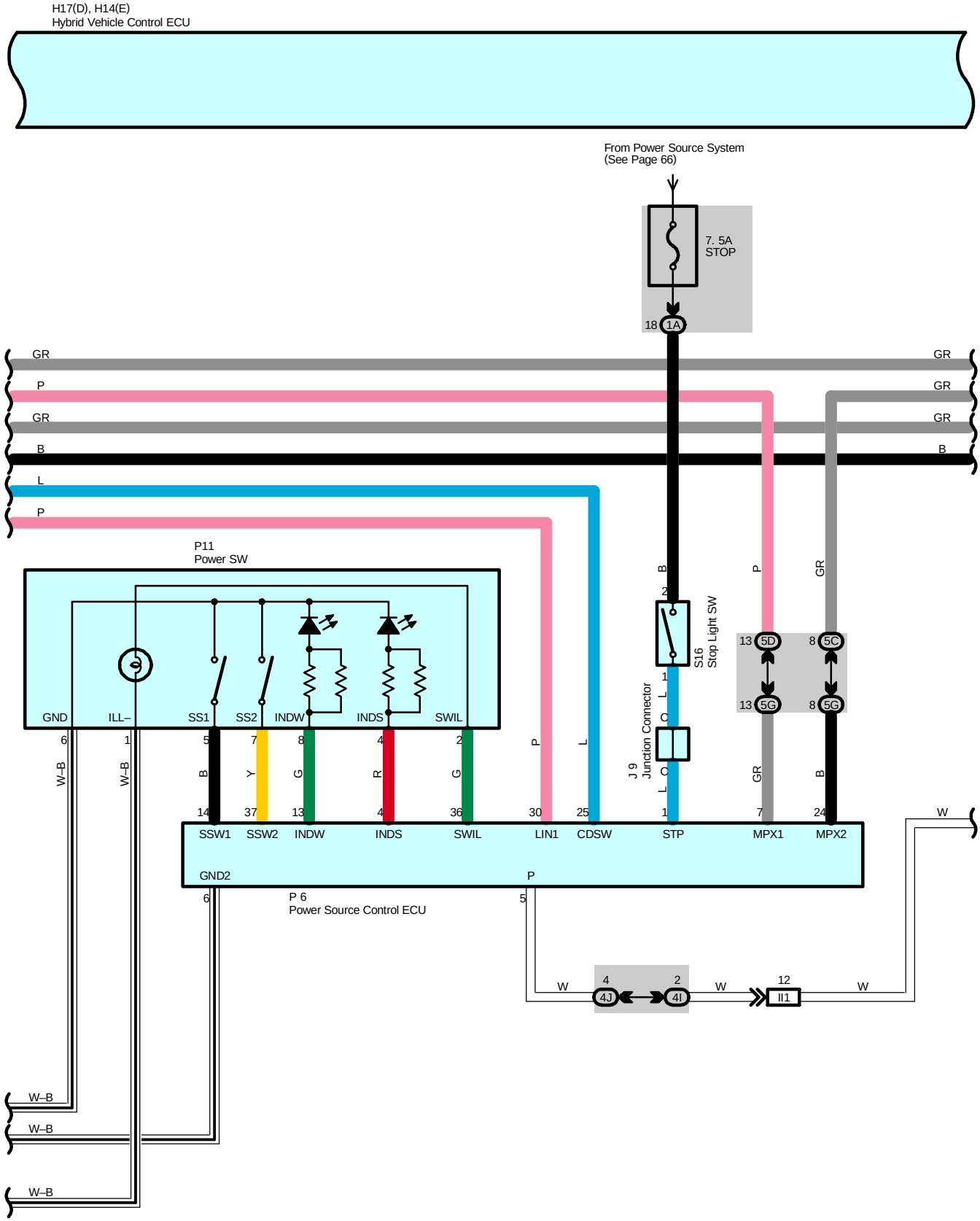
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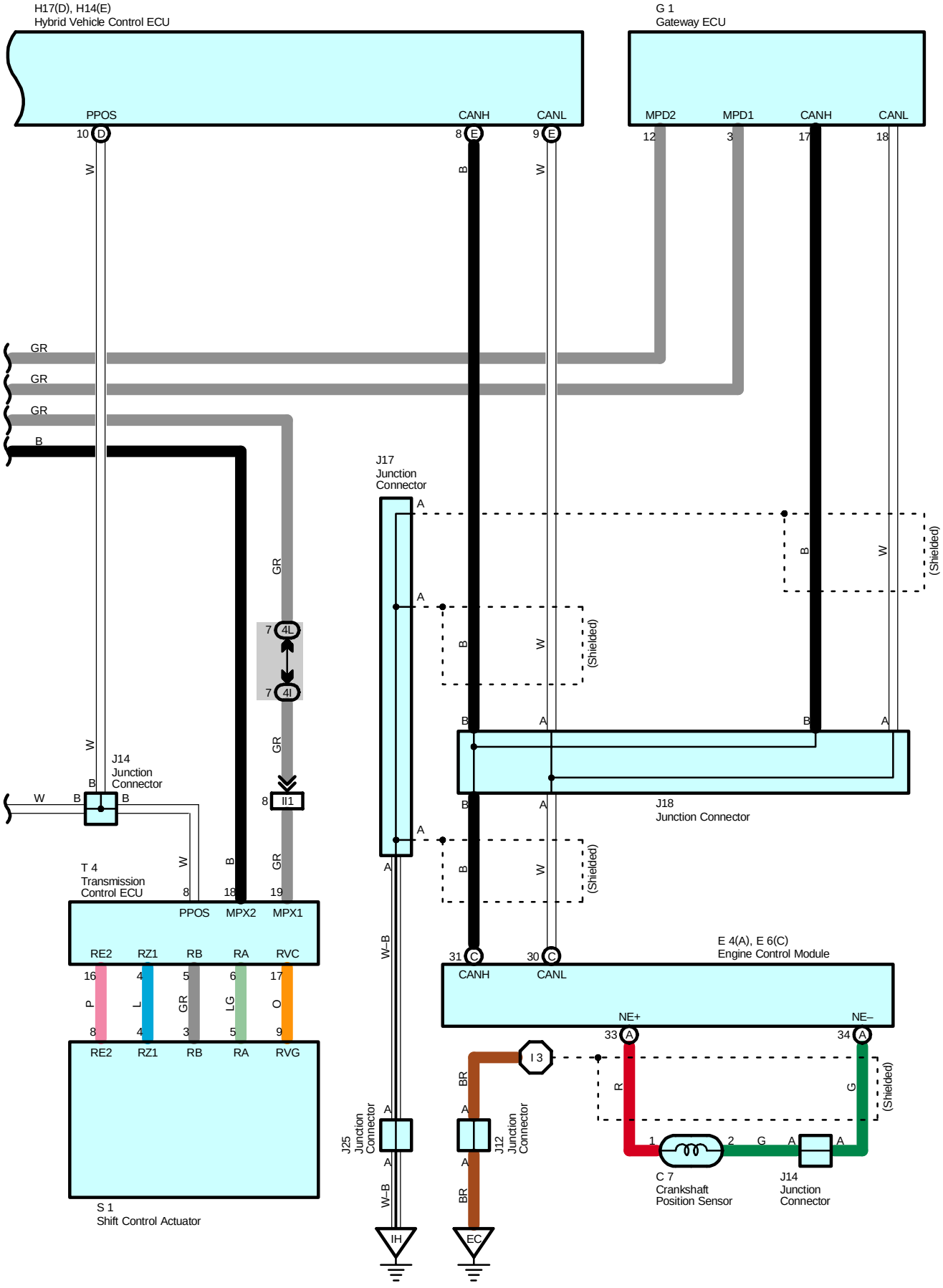
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System Outline

Smart entry system is a system to enable, without operating the key, to lock/unlock doors, to unlatch luggage compartment door, to start engine (Motor). It owes interactive communication function of electrical key, which makes the vehicle to recognize where the key is. All that driver has to do is to have the key with him or her. If the electrical key runs out of dry battery, the key operates as normal key without the smart key system.

1. Smart Door Unlock Function

When all the doors are locked, oscillator of each door sends signal regularly and forms detecting area outside of passenger room around 0.7 to 1m from each door handle. After forming the area, driver goes in the area with the electrical key, the key sends ID code signal. Smart key ECU receives the signal through electrical key antenna and identifies ID code. After identifying ID code, doors in the area get into unlock stand–by condition. At this time, sensors installed in door handles activate. Touching back of door handles unlocks the door locks, lights up hazard lamp and sounds wireless door lock buzzer (Except European vehicles). If any door is not opened within 30 seconds after unlocking the door lock, the doors lock again.

2. Smart Door Lock Function

If driver gets off the vehicle with the electrical key and pushes lock SW of door handles when all doors are locked, smart key ECU sends signal to inside and outside of passenger room to identify the electrical key. In case identification with inside of the passenger room is NG and that with outside of it is OK, doors lock. Door ajar alarm sounds to tell a door is not shut properly when lock SW of door handle is pushed with any door opened.

3. Smart Luggage Compartment Door Unlatch Function

If the driver stands in front of luggage compartment door with the electrical key and pushes unlock SW of luggage compartment door, ID code of the electrical key is identified with smart key ECU through luggage oscillator (Outer). After the ID code is identified, luggage compartment door is unlocked. To keep pushing luggage compartment door opener SW unlatches luggage compartment door.

4. Smart Ignition (READY) Function

When the driver pushes the power SW with the electrical key with him or her, ID code of the electrical key is identified with smart key ECU by room oscillator in passenger room. After the ID code is identified, hybrid vehicle immobilizer is released and electric power is set at ACC ON to enable to start engine. Then pushing the power SW sets power supply at IG ON and another pushing sets it at OFF. Condition circulates from ACC ON to/from IG ON to/from OFF and to ACC ON. The vehicle gets READY to drive when the driver pushes power SW with applying brake pedal at any power supply condition.

5. Smart Alarm Function

- If any door is opened and then shut with shift at P range and the power SW at other than OFF position, smart key ECU identifies ID code with inside of passenger room twice. In case the identification result is NG, buzzer in combination meter alarms (Once) and wireless door lock buzzer alarms (Three times), and smart warning light in combination meter lights up. If power supply is pushed OFF with power SW or identification of the electrical key with inside of passenger room is confirmed at the second time, the warning stops.
- If all the doors are closed with shift at P range and power SW at other than OFF position, pushing lock SW of door handle starts smart key ECU to identify ID code with inside and outside of passenger room. In case result of identification with inside is NG and that with outside is confirmed, wireless door lock buzzer alarms (For two seconds) and doors do not lock.
- If driver's side door is opened and then shut with shift at other than P range and power SW at other than OFF position, smart key ECU identifies ID code with inside of passenger room twice. In case the identification result is NG, buzzer in combination meter and wireless door lock buzzer alarm continuously as well as smart warning light in combination meter lights up. Then, if shift is put into P range or the identification with inside is confirmed at the second time, the continuos alarming stops. If the driver turns electric power OFF with power SW or the identification with inside is confirmed at the second time, smart warning light goes off.
- If other doors than driver's side door is opened and then shut with shift at other than P range and power SW at other than OFF position, smart key ECU identifies ID code with inside of passenger room twice. In case the identification result is NG, buzzer in combination meter alarms (Once) and wireless door lock buzzer alarms (Three times), and smart warning light in combination meter lights up. If power supply is pushed OFF with power SW or identification with inside of passenger room is confirmed at the second time, the warning stops.
- If lock SW of door handle is pushed with all the doors shut and power SW at OFF position, smart key ECU identifies ID code with inside of passenger room twice. In case the identification is confirmed then, wireless door lock buzzer alarms (For two seconds) but doors do not lock.
- If power supply is turned OFF with power SW after "READY to drive" condition are kept for about 20 minutes, smart key ECU identifies ID code of the electrical key with inside of passenger room. In case the ECU recognizes code of battery voltage decrease, buzzer in combination meter alarms once.
- If power SW is pushed ON, smart key ECU identifies ID code with inside of passenger room twice. In case the identification result is NG, buzzer in combination meter alarms once and smart warning light lights up for about five seconds. Then, driver's operation of power SW is cancelled.

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6. Smart Door Unlock Mode Change Function

If lock button and PANIC button of electrical key are pushed simultaneously for about five seconds with power SW at off position and electrical key not in key holder, smart door unlock mode changes to all door unlock mode or to each door unlock mode (At front passenger door, it changes only to all door unlock condition). The unlock modes circulate. Wireless door lock buzzer and buzzer in combination meter sound to inform mode change.

7. Power Saving Function for Battery

In case the electrical key does not send signal for five days or longer, interval between identification time is extended from about 300 ms to 600 ms.

In case the electrical key does not send signal for 14 days or longer, or the key is in detected area outside of vehicle for ten minutes or longer, smart function stops its operation. Smart function resumes under following conditions.

* When lock and unlock signal of wireless function of the key is input and its ID code is identified.
* When doors are locked with lock SW ON.
* When doors are locked or unlocked with door key SW operation.

8. Manual Operation Function

Electrical key has lock, unlock, and PANIC buttons. It can operate wireless door locking manually. Its operation is the same as one without smart key system.

9. Smart Illumination Function

When driver goes in detected area outside of passenger room with electrical key with him or her and its ID code is identified, interior light, overhead J/B, power SW and key slot light up for about 15 seconds by timer.

10. Smart Entry System Cancelled

Smart key system is cancelled under following conditions.

* When smart key system cancel SW is turned on.
* When electrical key is inserted in key slot.
* When battery of electrical key is dead.

Service Hints

S11 Smart Key ECU

1–Ground : Always approx. 12 volts
18–Ground : Approx. 12 volts with the power SW at IG ON position
17–Ground : Always continuity
25–Ground : Continuity with the smart key system cancel SW at ON position

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○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A8	46	H14 E	47	K2 A	48
B5 A	46	H17 D	47	K3 B	48
B6 B	46	I18	51	L3	51
B7 C	46	J6	48	L4	51
C7	44	J7 A	48	L6	51
C10	47	J8 B	48	L7	51
D1	47	J9	48	O3	52
D4	50	J10	48	P6	49
D7	50	J12	48	P11	49
D8	50	J14	48	P17	52
D9	50	J17	48	R8	49
D10	50	J18	48	S1	45
D11	50	J22	48	S7 A	49
D12	50	J23	48	S8 B	49
D13	50	J24	48	S9 C	49
D14	50	J25	48	S10 D	49
D15	50	J26	51	S11	49
D16	50	J27	51	S12	49
D17	50	J28	51	S16	49
E4 A	47	J29	51	T1	45
E6 C	47	J30	51	T4	49
E8	51	J31	51	T5	49
E9	51	J32	51	W6	45
E10	51	J33	51		
G1	47	J34	51		

⬭ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

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: **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1B		
1D	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1F		
1G		
1H		
1L		
1M		
1O	28	Roof Wire and Driver Side J/B (Lower Finish Panel)
3B	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3D		
3J		
4C	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4D		
4E		
4F		
4G		
4H		
4I		
4J		
4K		
4L		
5C	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5D		
5G		
5H		
5I		
5J		
5K		
5L		
5M		

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: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IA3		
IB1	56	Roof Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
ID2	56	Instrument Panel Wire and Floor Wire (Left Kick Panel)
ID3		
ID4		
IE1	56	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IE2		
IE3		
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IJ3	58	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)
IL1	58	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IL2		
IM1	58	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
IM2		
BA1	60	Front Door LH Wire and Electrical Key LH Wire (Near the Front Door Outside Handle LH)
BB1	60	Rear Door No.2 Wire and Floor Wire (Left Center Pillar)
BH1	62	Back Door No.1 Wire and Floor Wire (Rear Side of Roof Panel)
BI1	62	Front Door RH Wire and Electrical Key RH Wire (Near the Front Door Outside Handle RH)
BJ1	62	Rear Door No.1 Wire and Floor No.2 Wire (Right Center Pillar)
BK2	62	Back Door No.1 Wire and Back Door No.2 Wire (Rear Side of Roof Panel)

: Ground Points

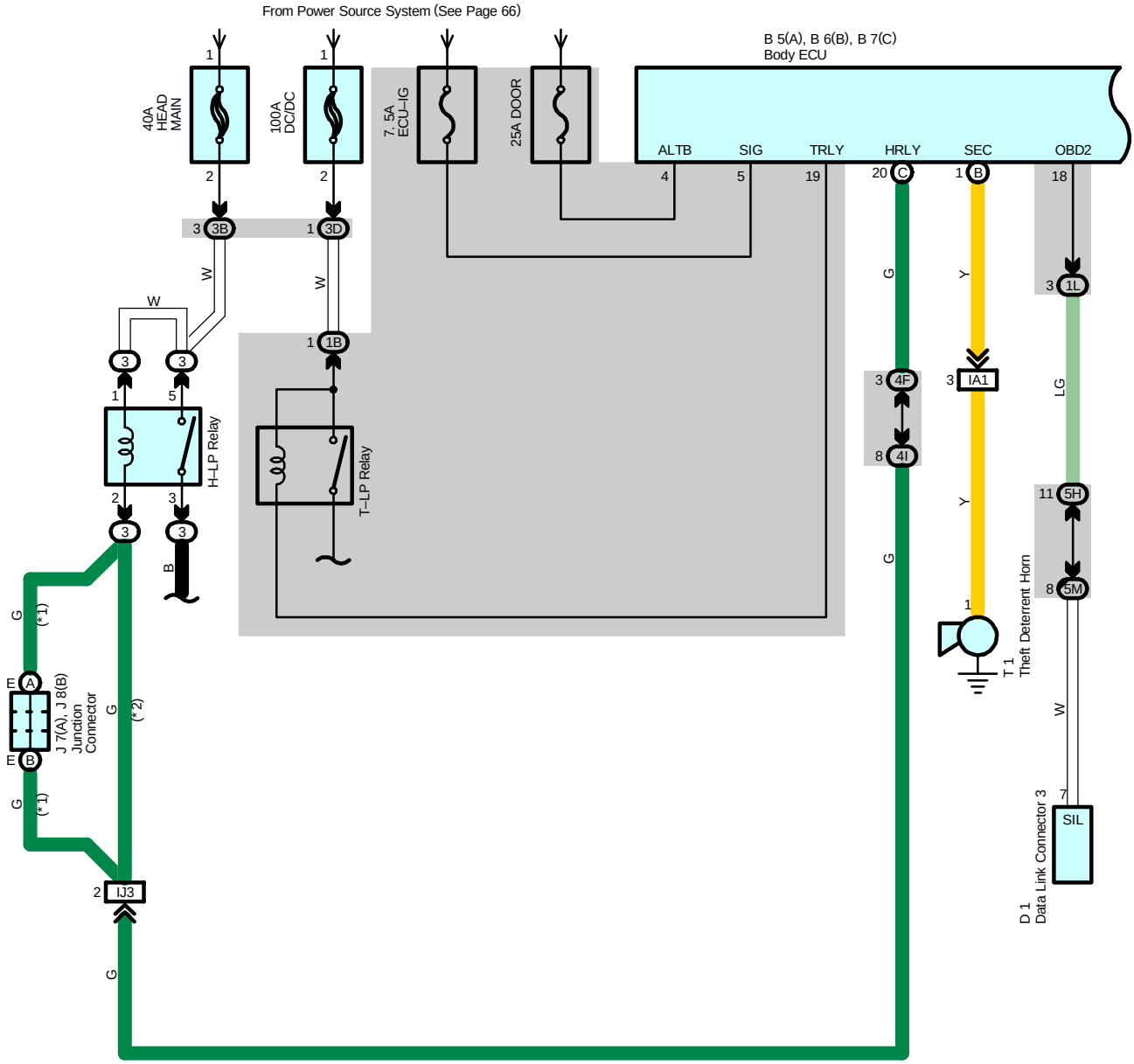
Code	See Page	Ground Points Location
EC	54	Engine Block
EE	54	Left Side of the Suspension Tower
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH
BL	60	Rear Side of Left Quarter Panel
BO	60	Center of the Back Door Panel
BQ	60	Rear Side of Right Quarter Panel

: Splice Points

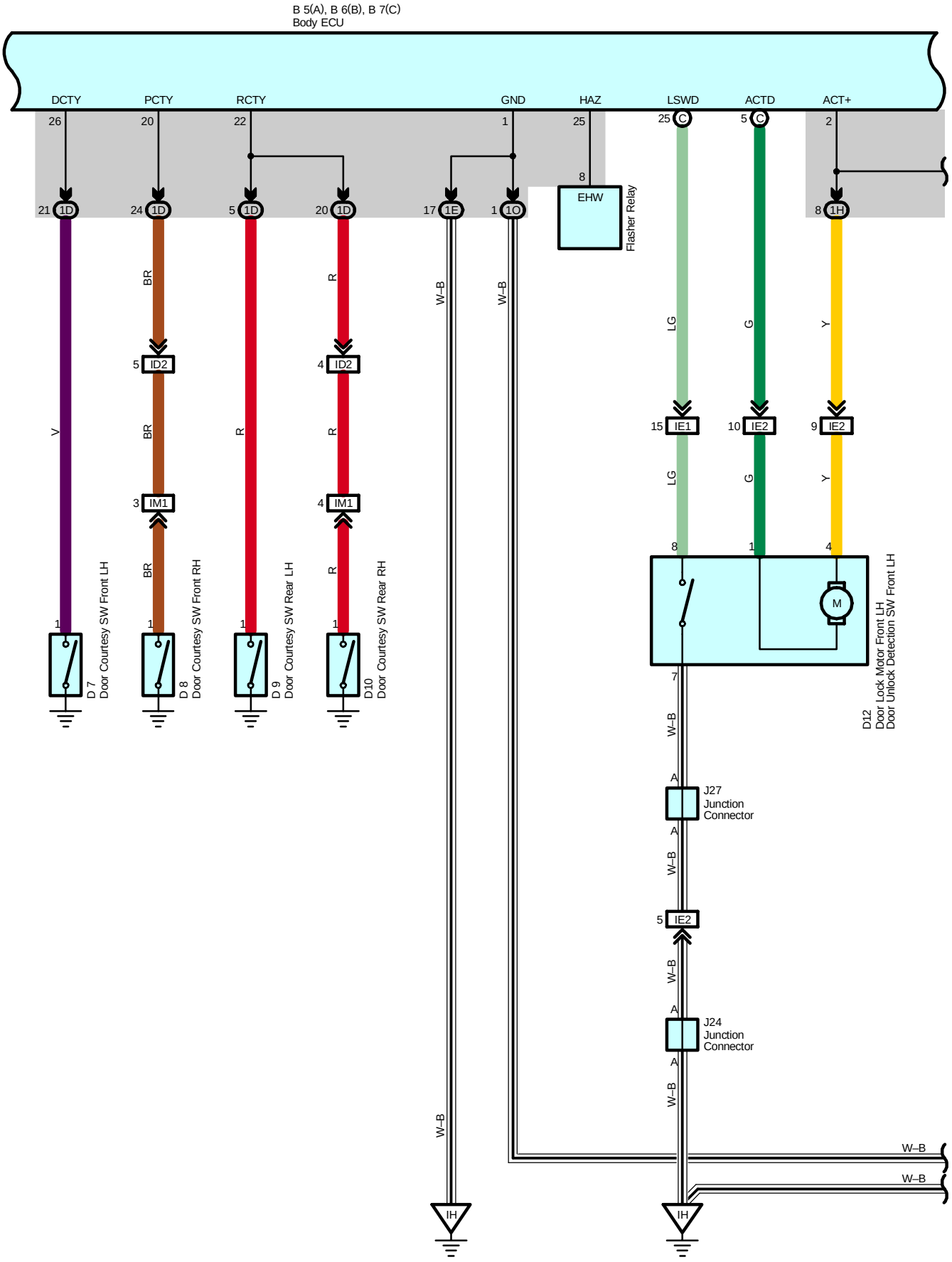
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I3	58	Engine Wire			

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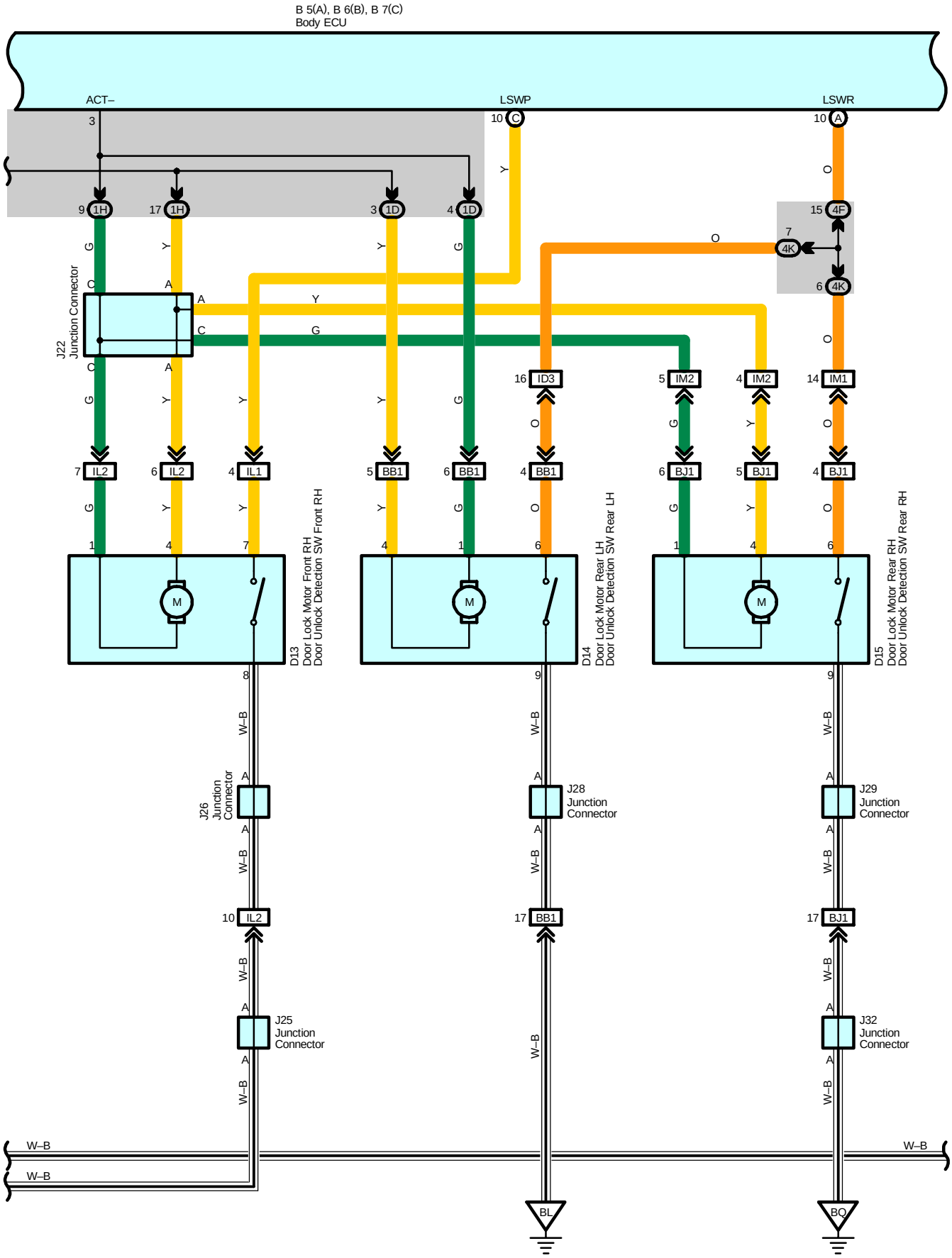
Wireless Door Lock Control without Smart Entry System



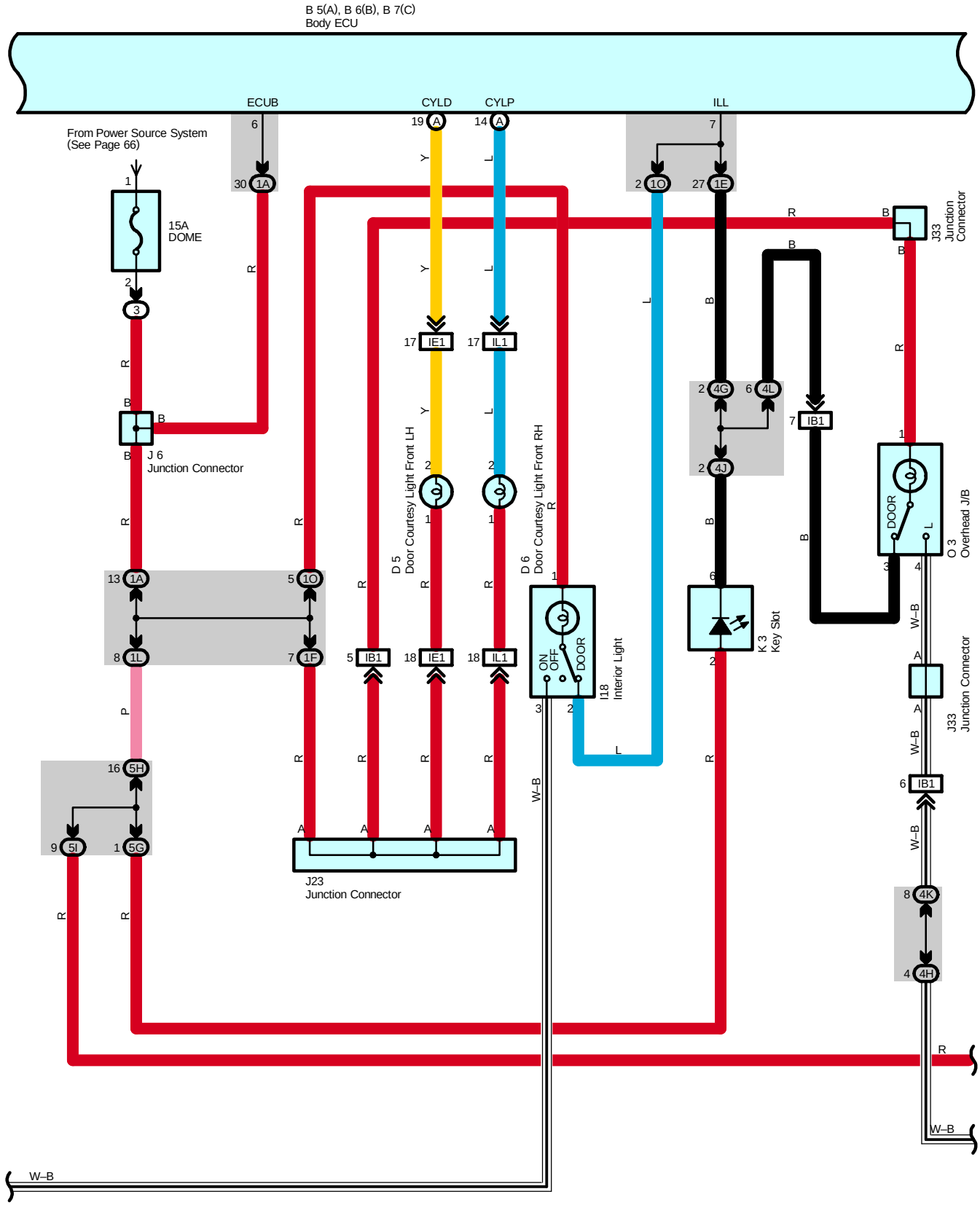
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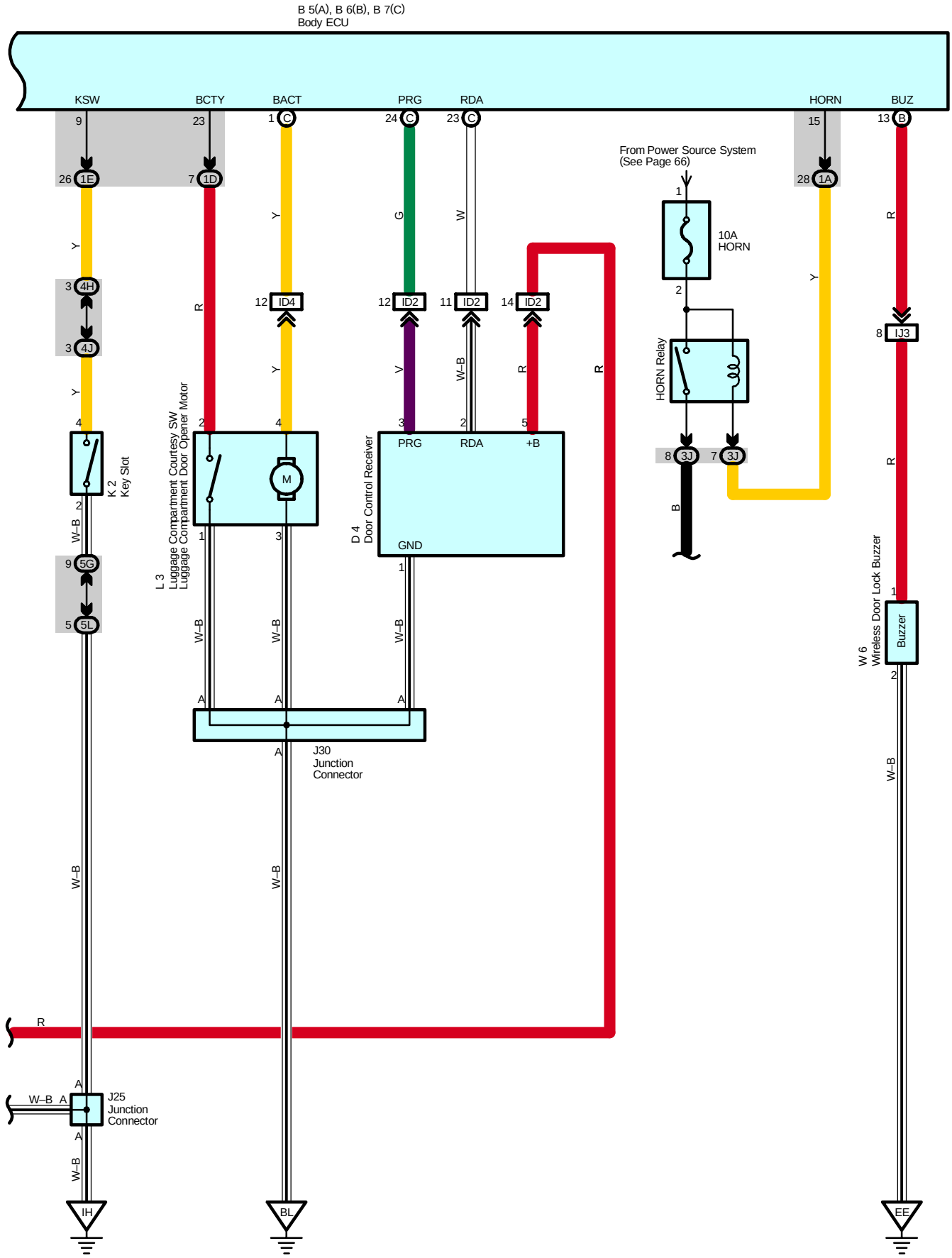


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Wireless Door Lock Control without Smart Entry System



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System Outline

Door lock control (Lock and unlock) and panic control (Theft alarm and flash) is performed by remote control, without the key inserted in the door key cylinder, using low–power electrical waves emitted from a transmitter.

1. Normal Operation

∗ Lock operation
When the lock SW on the transmitter is pressed, all the doors will lock.
∗ Unlock operation
When the unlock SW on the transmitter is pressed once, only the driver door will unlocks. When the unlock SW is pressed again within 3 seconds, all the doors will unlock.

2. Auto Lock Function

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

∗ Any door is opened.
∗ The electrical key is inserted in the key slot.
∗ Power SW is on

3. Wireless Door Lock Stop Function

If any one of the following conditions is detected, the wireless door lock does not function.
Lock operation
∗ When any door is open (Door courtesy SW on)
∗ The electrical key is inserted in the key slot (Unlock warning SW on)
∗ Power SW is on
Unlock operation
∗ Power SW is on
∗ The electrical key is inserted in the key slot

4. Visual Confirmation of Lock or Unlock

During lock operation, when the body ECU receives a lock signal from the door lock detection SW, the turn signal light flashes once. During unlock operation, when the body ECU receives an unlock signal from the door lock detection SW, the turn signal light flashes twice.

5. Remote Panic Operation

Panic will function when doors are locked or unlocked, open or closed. When the panic button (Transmitter) is pushed once, interior lights light up, and theft alarm and horn sounds and turn signal lights, headlights and taillights flash. Then, any one of the button (Transmitter) is pushed once again, interior lights turn off, sounding and flashing will stop. Panic will not function when power SW is on.

6. Repeat Function

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

7. Illuminated Entry Function

When the body ECU detects the unlock state after the unlock operation has been made, it lights up the key slot, overhead J/B, power SW and interior light for approx. 15 sec. If all the doors are locked during this operation, lighting is cancelled and the lights immediately fade out.

Service Hints

Body ECU

4, 6–Ground : Always approx. 12 volts
5–Ground : Approx. 12 volts with the power SW at IG ON position
1–Ground : Always continuity

D4 Door Control Receiver

5–Ground : Always approx. 12 volts
1–Ground : Always continuity

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Wireless Door Lock Control without Smart Entry System

: Parts Location

Code	See Page	Code	See Page	Code	See Page
B5 A	46	D13	50	J27	51
B6 B	46	D14	50	J28	51
B7 C	46	D15	50	J29	51
D1	47	I18	51	J30	51
D4	50	J6	48	J32	51
D5	50	J7 A	48	J33	51
D6	50	J8 B	48	K2	48
D7	50	J22	48	K3	48
D8	50	J23	48	L3	51
D9	50	J24	48	O3	52
D10	50	J25	48	T1	45
D12	50	J26	51	W6	45

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1B		
1D	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1F		
1H		
1L		
1O	28	Roof Wire and Driver Side J/B (Lower Finish Panel)
3B	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3D		
3J		
4F	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4G		
4H		
4I		
4J		
4K		
4L		
5G	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5H		
5I		
5L		
5M		

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: **Connector Joining Wire Harness and Wire Harness**

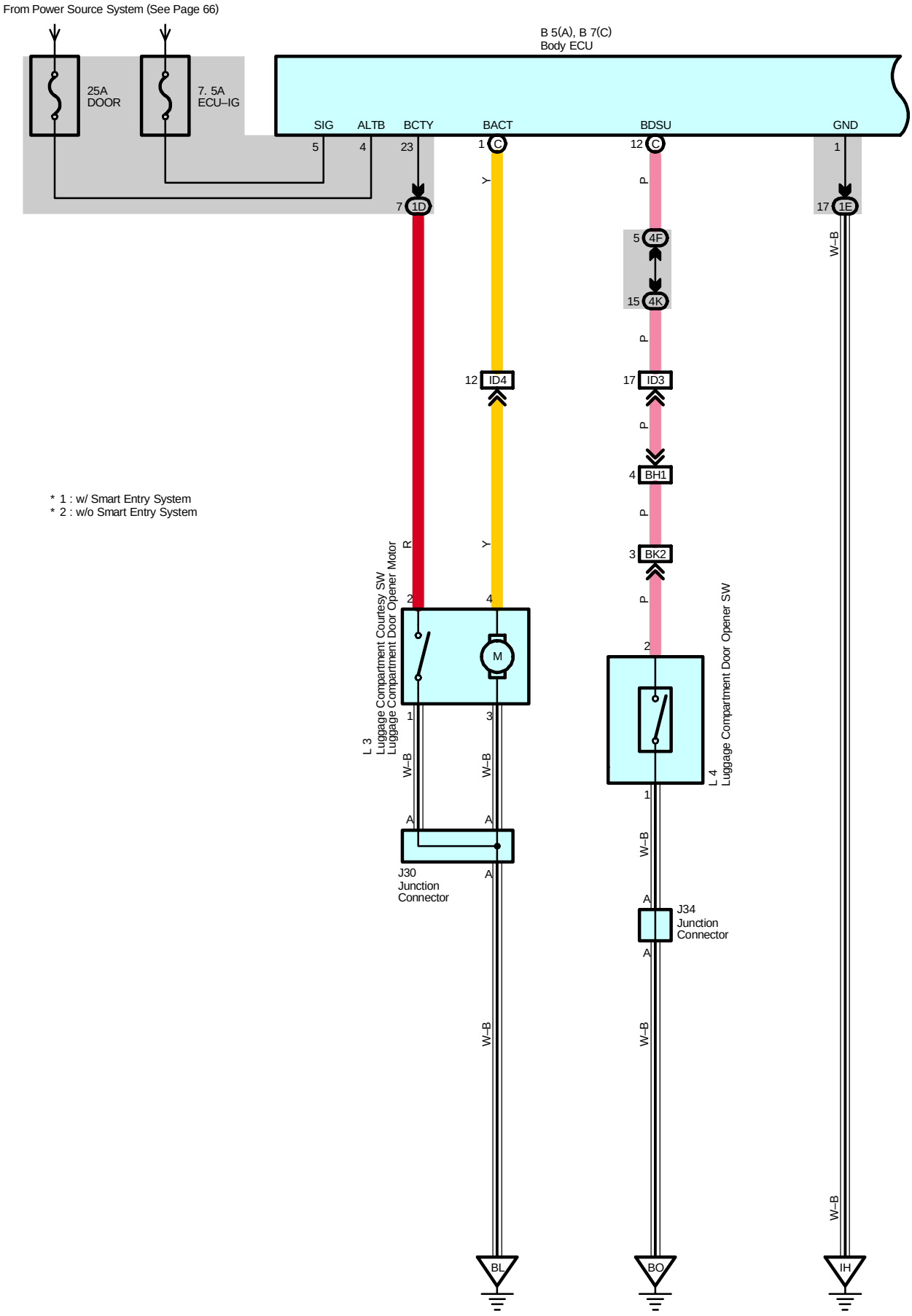
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IB1	56	Roof Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
ID2	56	Instrument Panel Wire and Floor Wire (Left Kick Panel)
ID3		
ID4		
IE1	56	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IE2		
IJ3	58	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)
IL1	58	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IL2		
IM1	58	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
IM2		
BB1	60	Rear Door No.2 Wire and Floor Wire (Left Center Pillar)
BJ1	62	Rear Door No.1 Wire and Floor No.2 Wire (Right Center Pillar)

: **Ground Points**

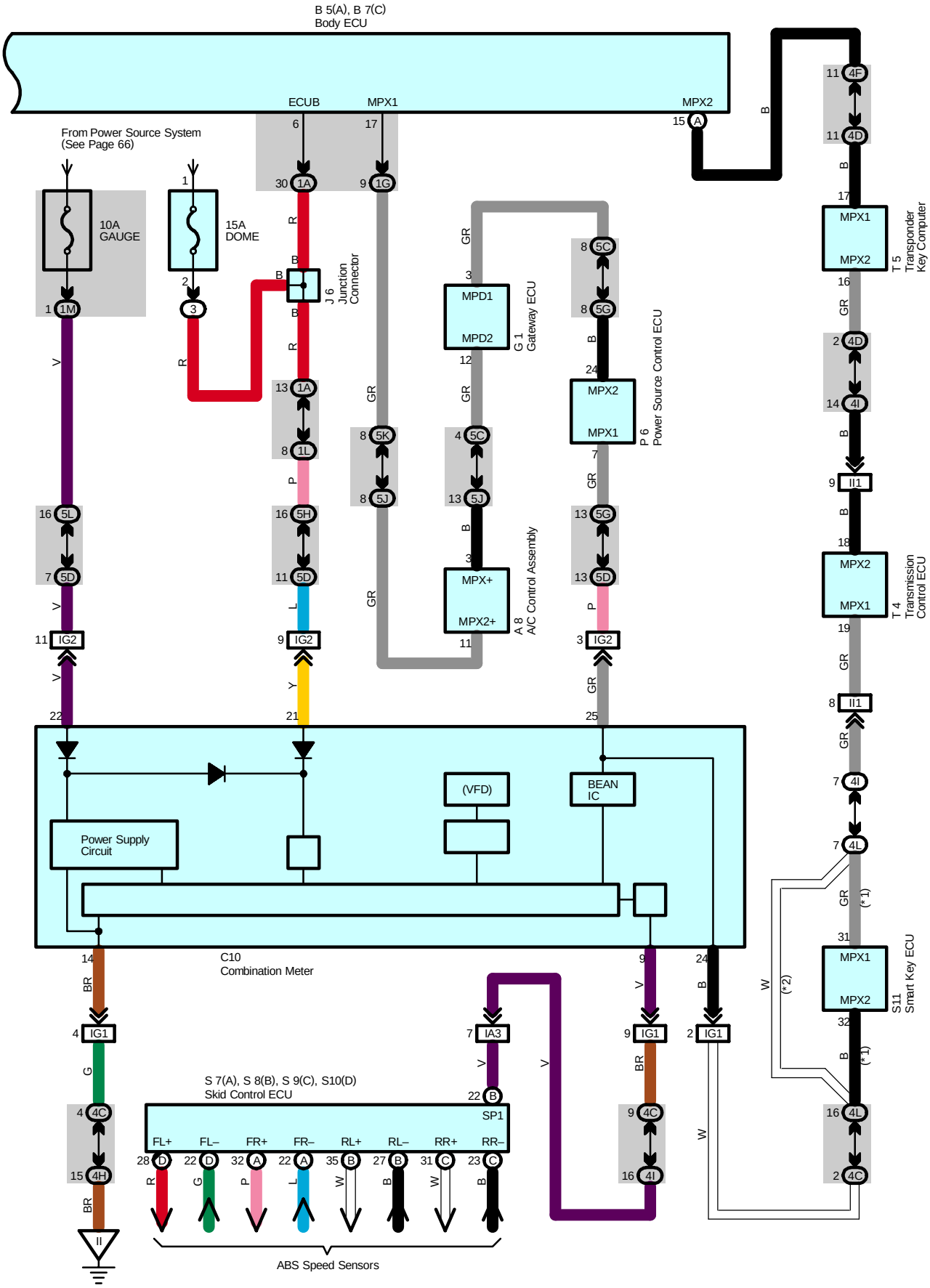
Code	See Page	Ground Points Location
EE	54	Left Side of the Suspension Tower
IH	56	Cowl Side Panel LH
BL	60	Rear Side of Left Quarter Panel
BQ	60	Rear Side of Right Quarter Panel

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Luggage Compartment Door Opener



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Luggage Compartment Door Opener

System Outline

If the vehicle is stationary (Slower than 5 km/h) and luggage compartment door is unlocked, the luggage compartment door opener motor activates with control of body ECU when luggage compartment door opener SW is pushed. It results in releasing latch of luggage compartment door to open luggage compartment door.

Service Hints

Body ECU

4, 6–Ground : Always approx. 12 volts
1–Ground : Always continuity
5–Ground : Approx. 12 volts with the power SW at IG ON position
23–Ground : Continuity with the luggage compartment door open

: Parts Location

Code	See Page	Code	See Page	Code	See Page
A8	46	J30	51	S8 B	49
B5 A	46	J34	51	S9 C	49
B7 C	46	L3	51	S10 D	49
C10	47	L4	51	S11	49
G1	47	P6	49	T4	49
J6	48	S7 A	49	T5	49

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1D	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1G		
1L		
1M		
4C	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4D		
4F		
4H		
4I		
4K		
4L		
5C	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5D		
5G		
5H		
5J		
5K		
5L		

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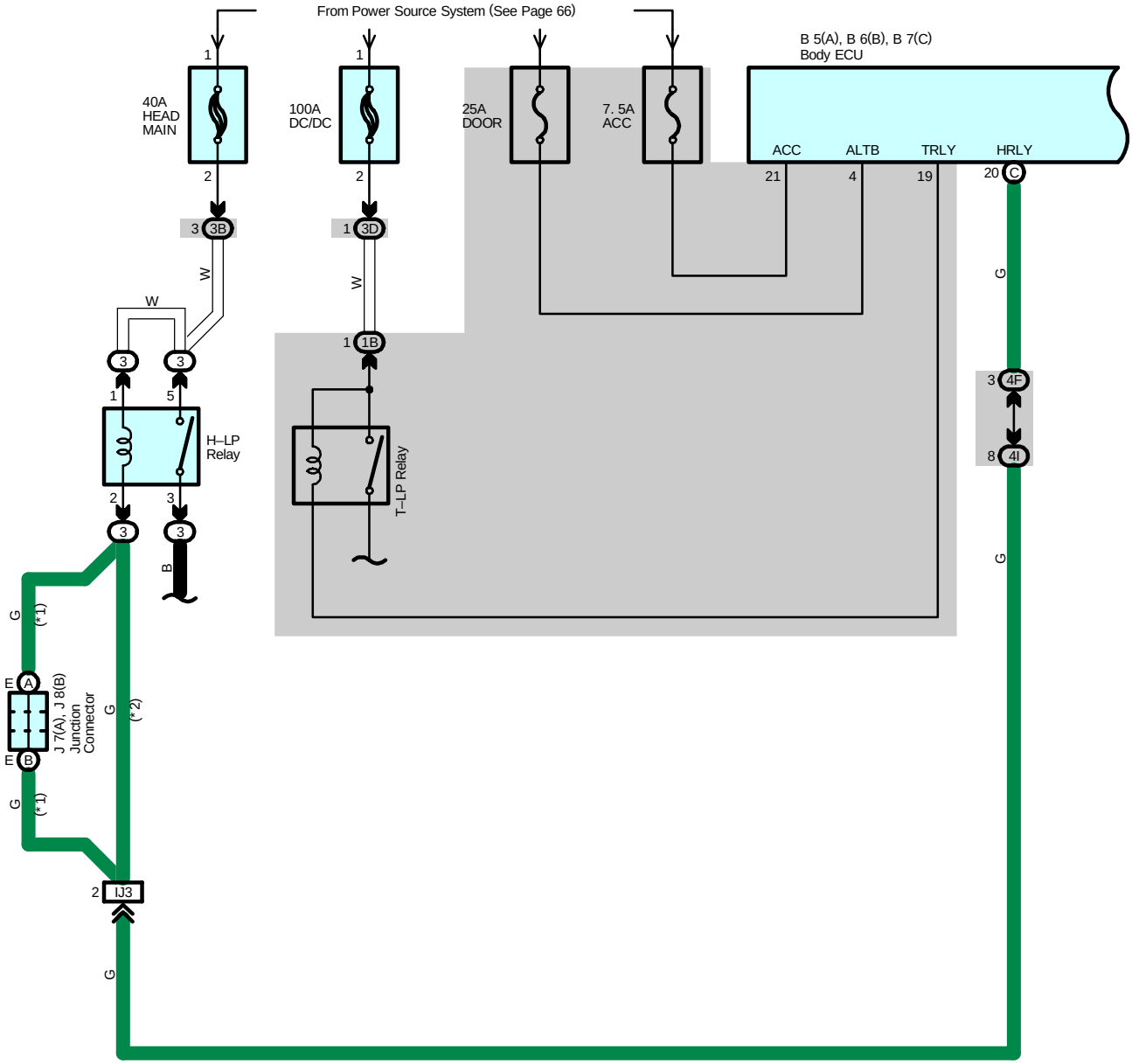
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA3	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
ID3	56	Instrument Panel Wire and Floor Wire (Left Kick Panel)
ID4		
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
BH1	62	Back Door No.1 Wire and Floor Wire (Rear Side of Roof Panel)
BK2	62	Back Door No.1 Wire and Back Door No.2 Wire (Rear Side of Roof Panel)

: Ground Points

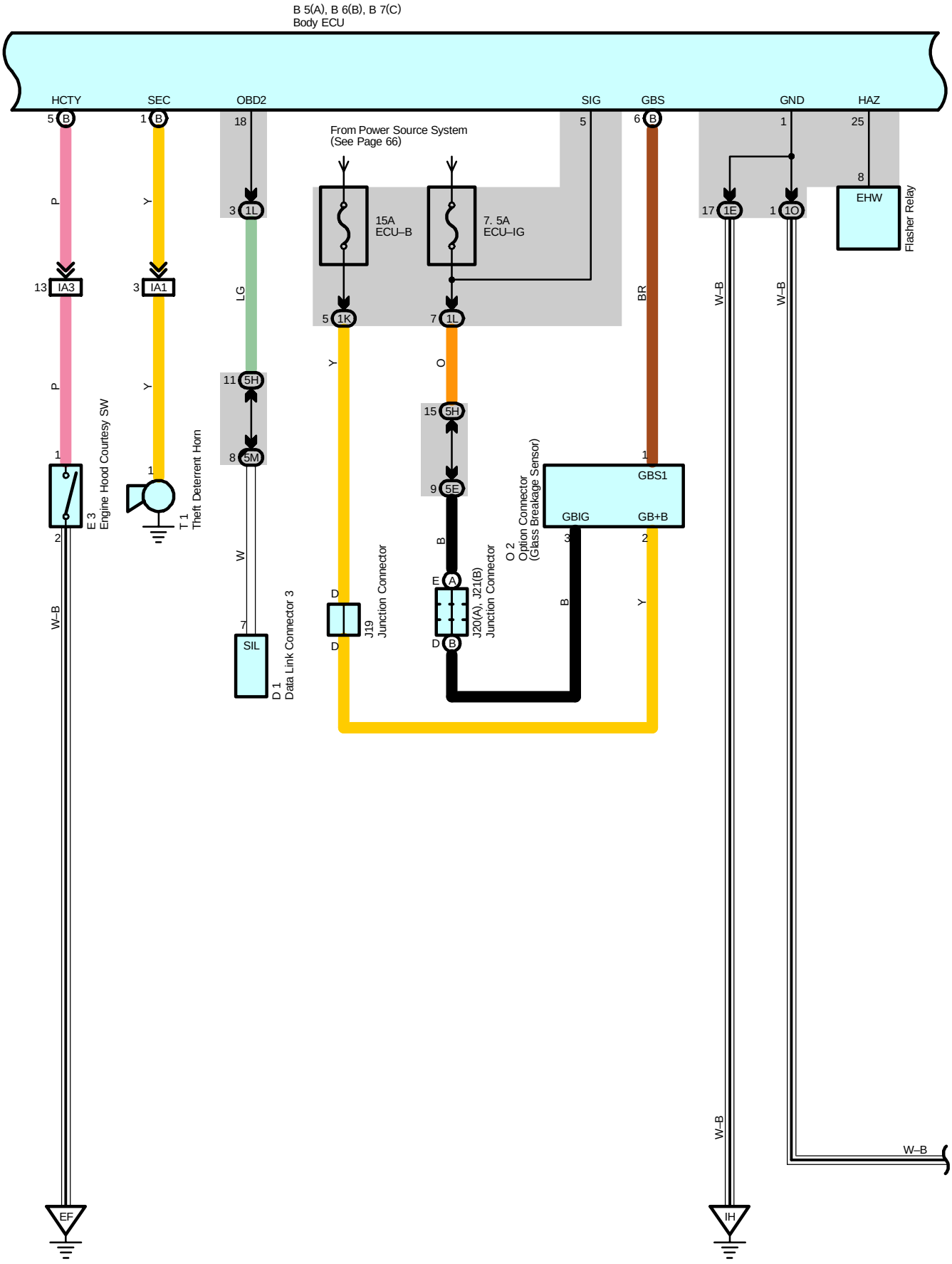
Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH
BL	60	Rear Side of Left Quarter Panel
BO	60	Center of the Back Door Panel

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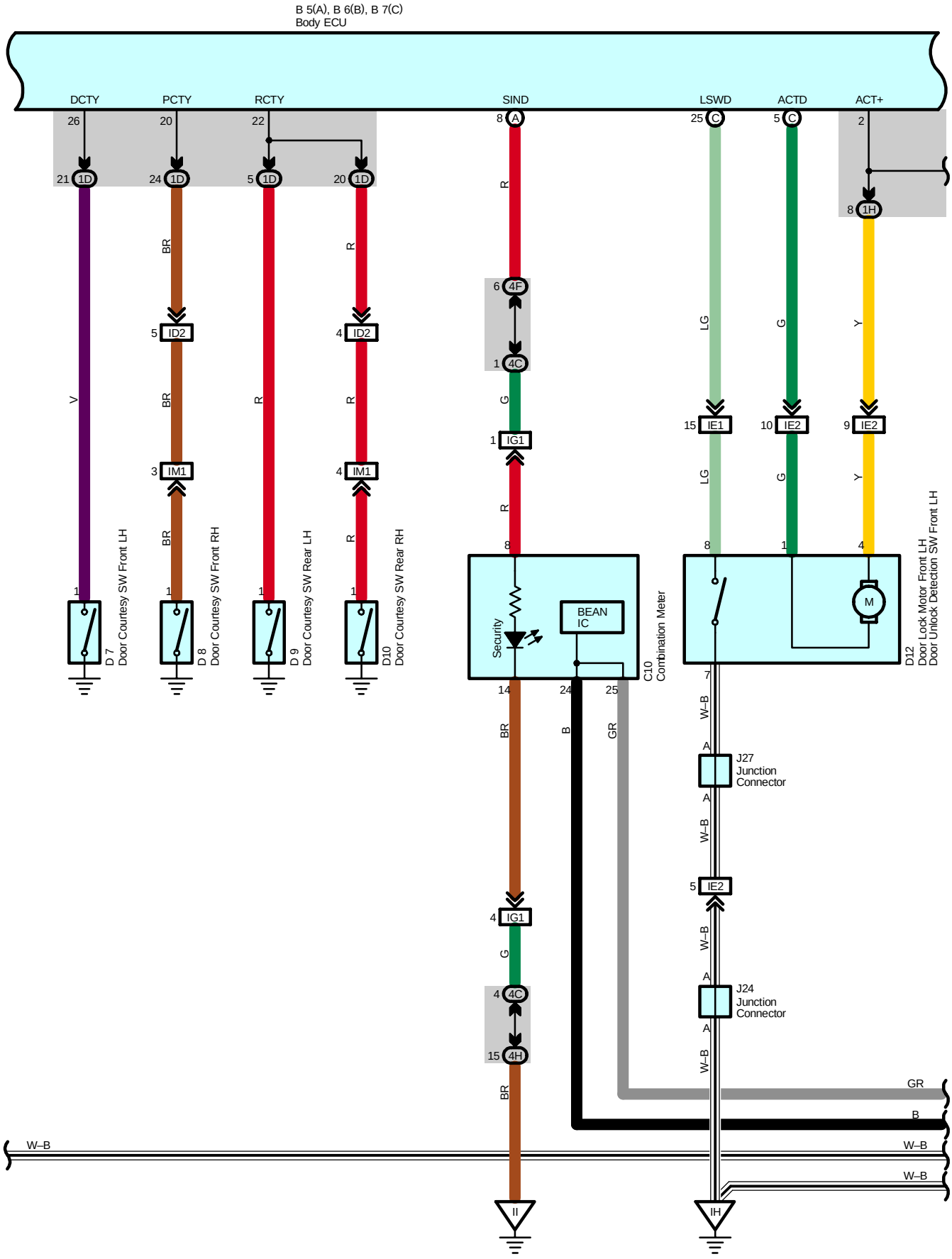


* 1 : w/ HID
* 2 : w/o HID

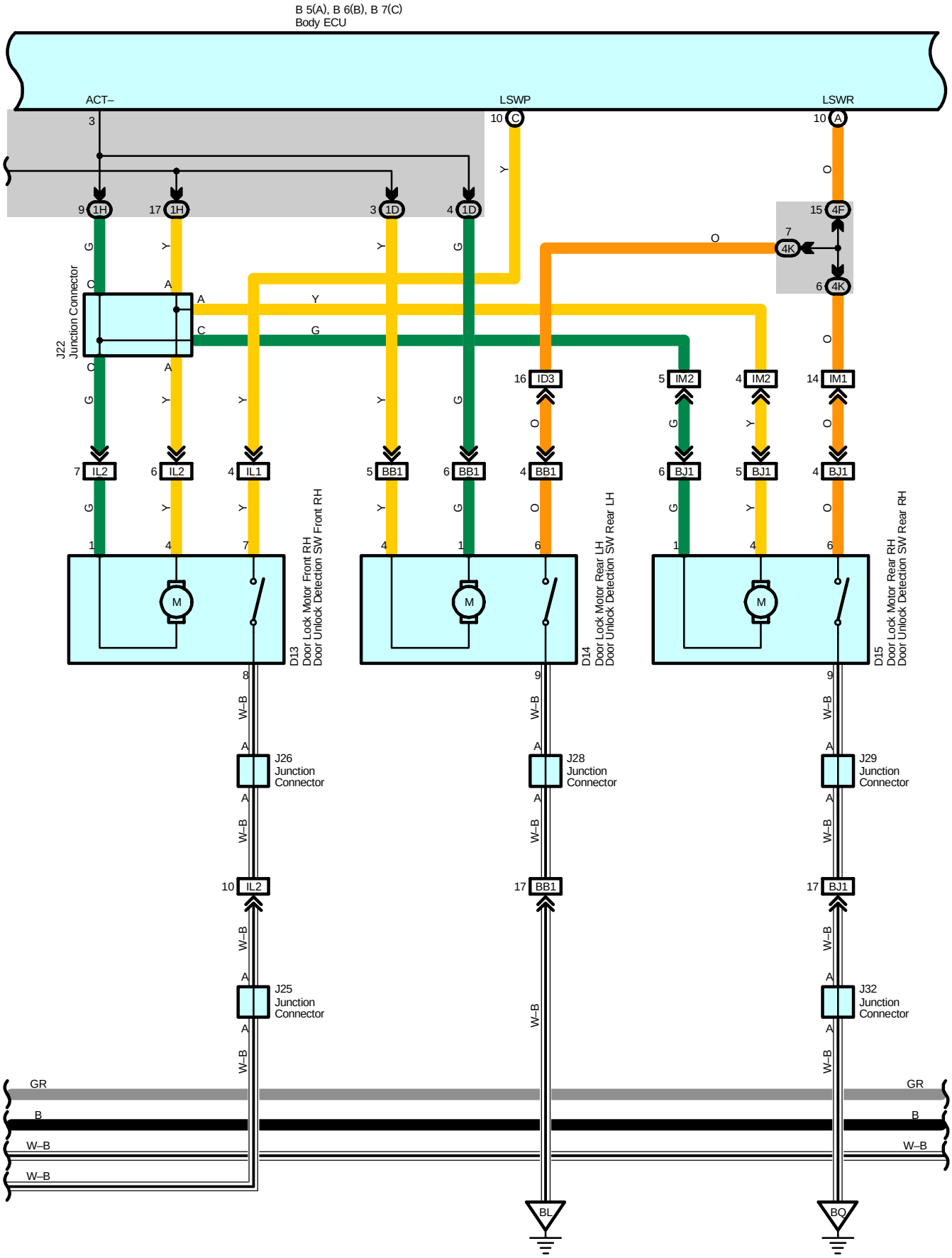
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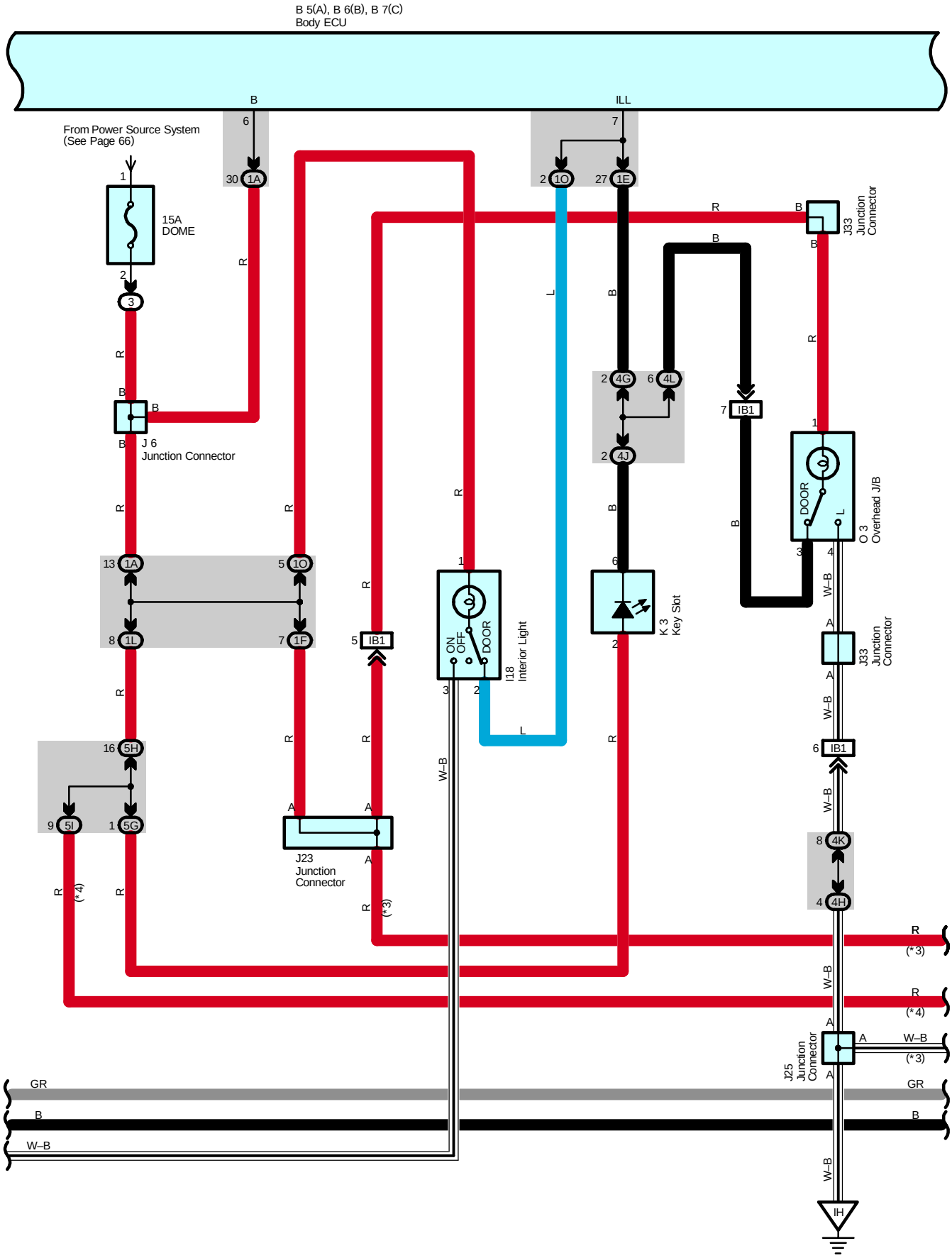
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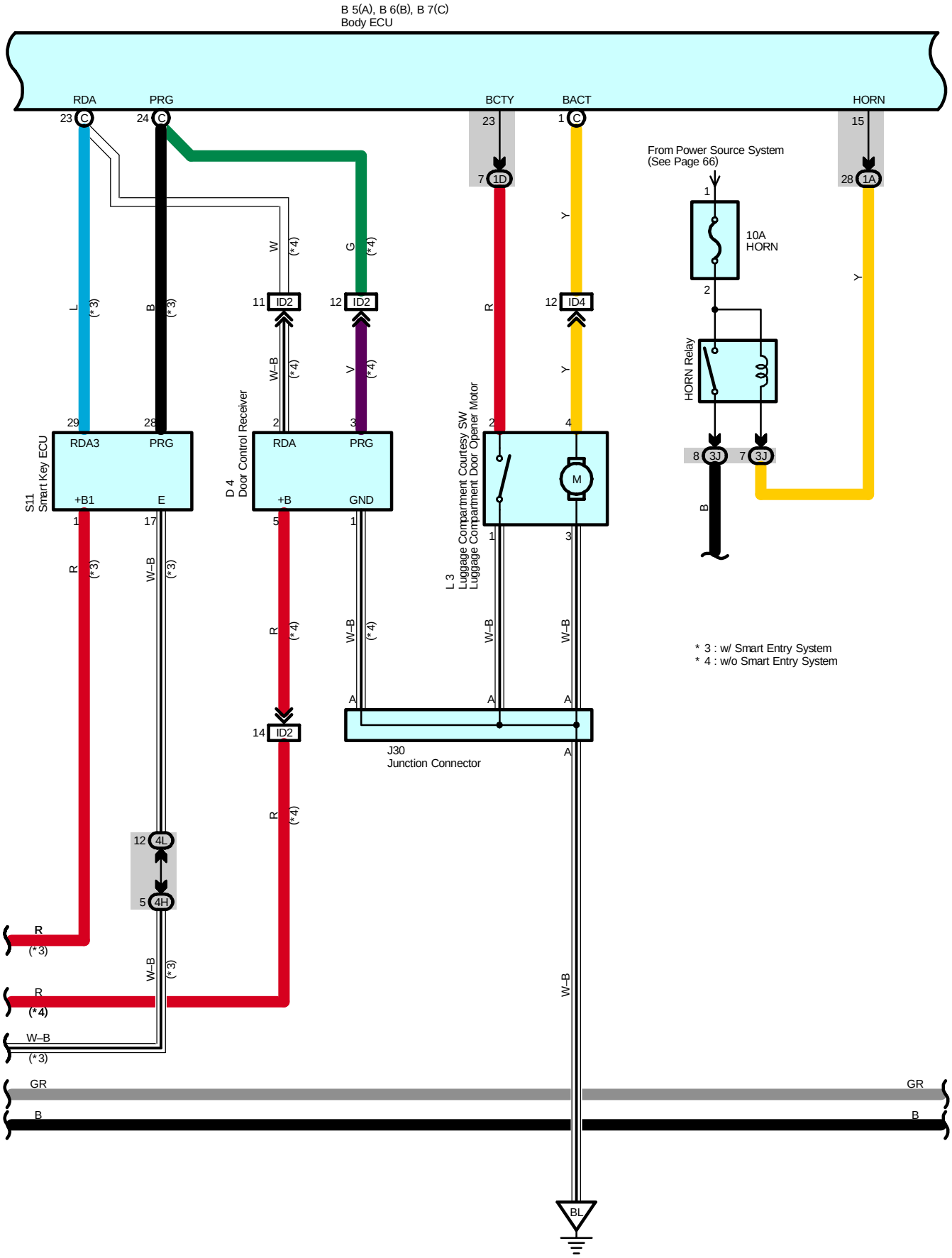
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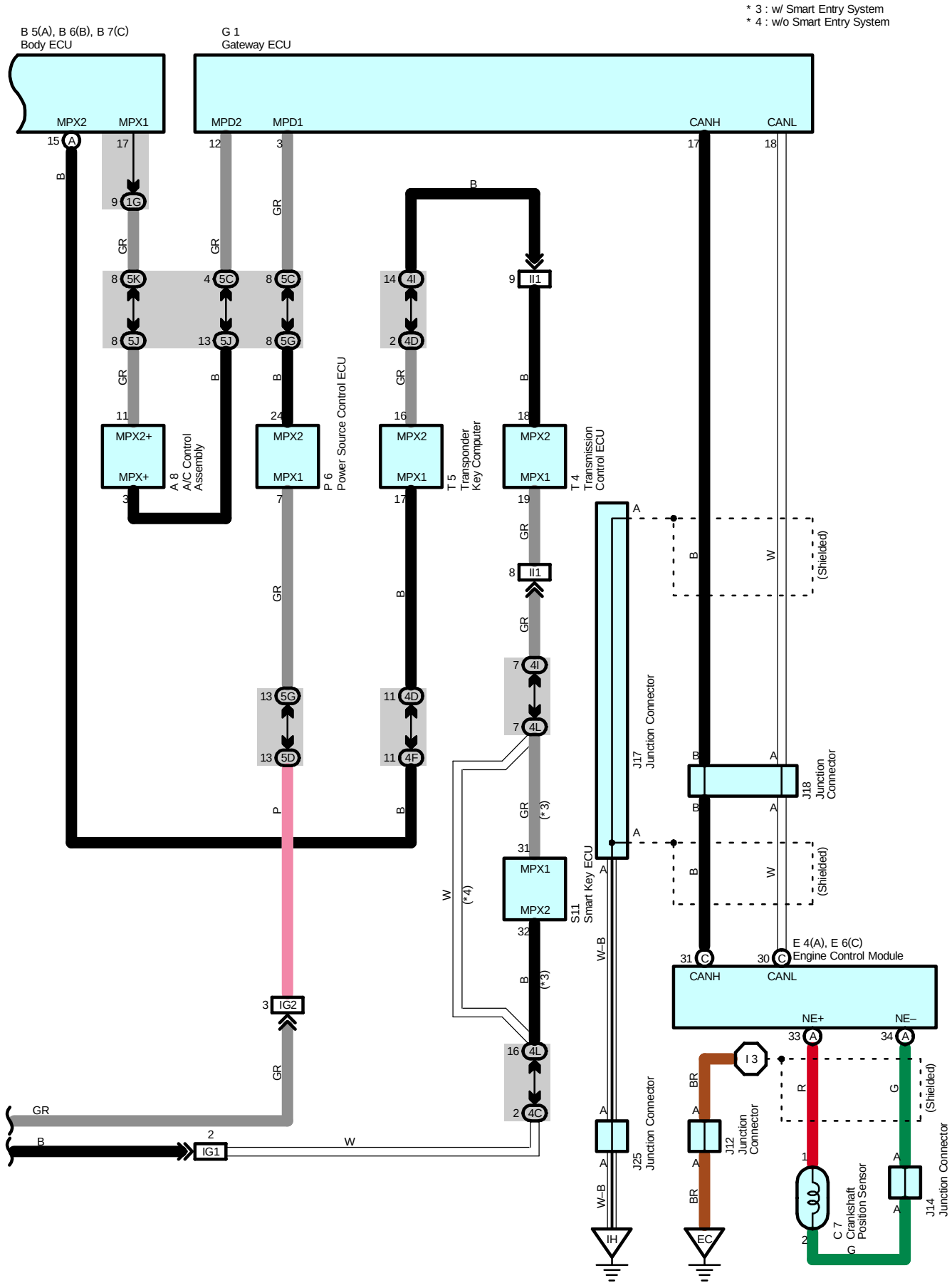
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Service Hints

Body ECU

1–Ground : Always continuity
4, 6–Ground : Always approx. 12 volts
21–Ground : Approx. 12 volts with the power SW at ACC ON or IG ON position
5–Ground : Approx. 12 volts with the power SW at IG ON position

: Parts Location

Code	See Page	Code	See Page	Code	See Page
A8	46	E4 A	47	J25	48
B5 A	46	E6 C	47	J26	51
B6 B	46	G1	47	J27	51
B7 C	46	I18	51	J28	51
C7	44	J6	48	J29	51
C10	47	J7 A	48	J30	51
D1	47	J8 B	48	J32	51
D4	50	J12	48	J33	51
D7	50	J14	48	K3	48
D8	50	J17	48	L3	51
D9	50	J18	48	O2	49
D10	50	J19	48	O3	52
D12	50	J20 A	48	P6	49
D13	50	J21 B	48	S11	49
D14	50	J22	48	T1	45
D15	50	J23	48	T4	49
E3	44	J24	48	T5	49

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

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: **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1B		
1D	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1F		
1G		
1H		
1K		
1L		
1O	28	Roof Wire and Driver Side J/B (Lower Finish Panel)
3B	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3D		
3J		
4C	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4D		
4F		
4G		
4H		
4I		
4J		
4K		
4L		
5C	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5D		
5E		
5G		
5H		
5I		
5J		
5K		
5M		

: **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IA3		
IB1	56	Roof Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
ID2	56	Instrument Panel Wire and Floor Wire (Left Kick Panel)
ID3		
ID4		
IE1	56	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IE2		
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IJ3	58	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)
IL1	58	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IL2		
IM1	58	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
IM2		
BB1	60	Rear Door No.2 Wire and Floor Wire (Left Center Pillar)
BJ1	62	Rear Door No.1 Wire and Floor No.2 Wire (Right Center Pillar)

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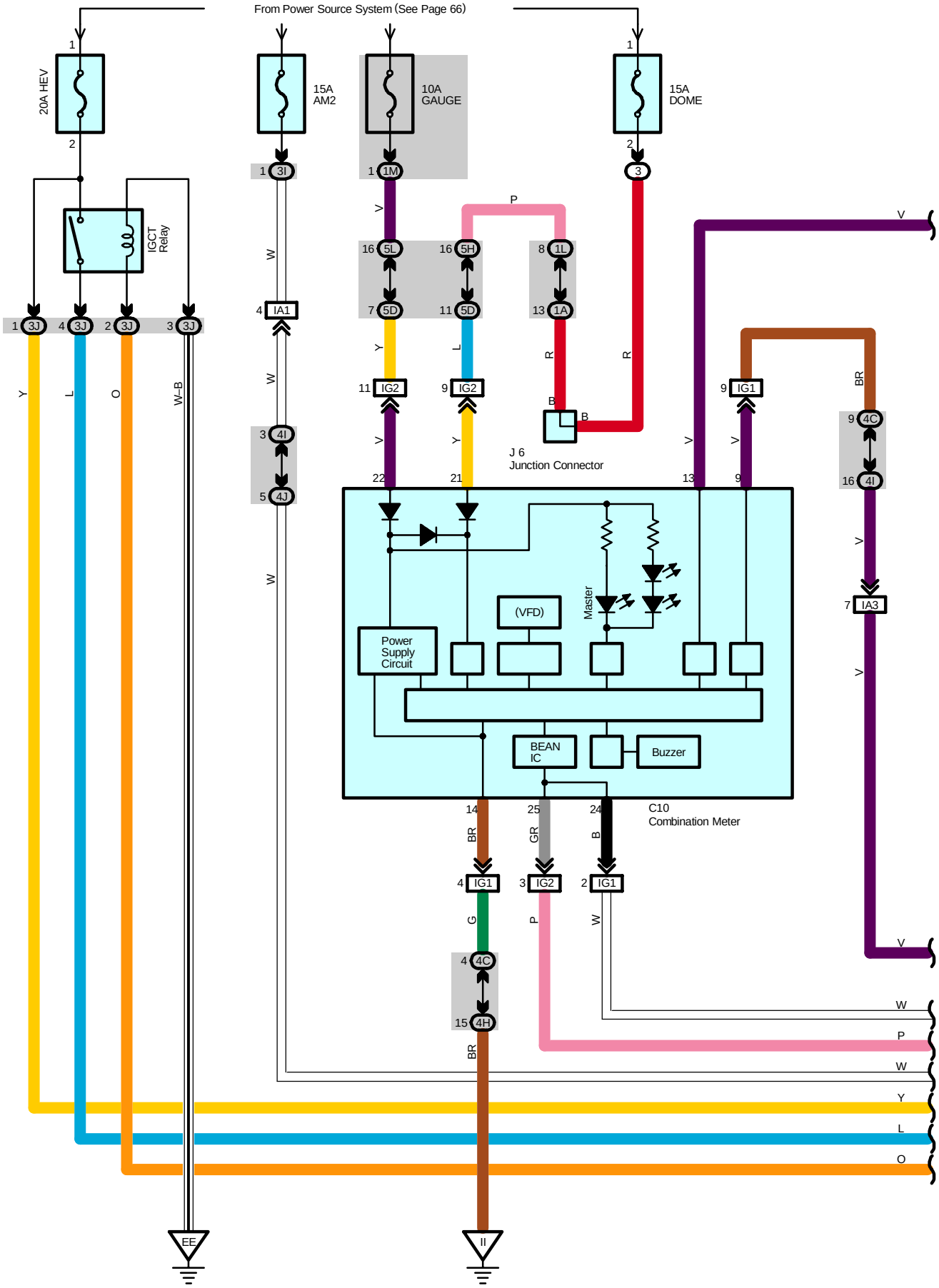
 : **Ground Points**

Code	See Page	Ground Points Location
EC	54	Engine Block
EF	54	Left Side of the Suspension Tower
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH
BL	60	Rear Side of Left Quarter Panel
BQ	60	Rear Side of Right Quarter Panel

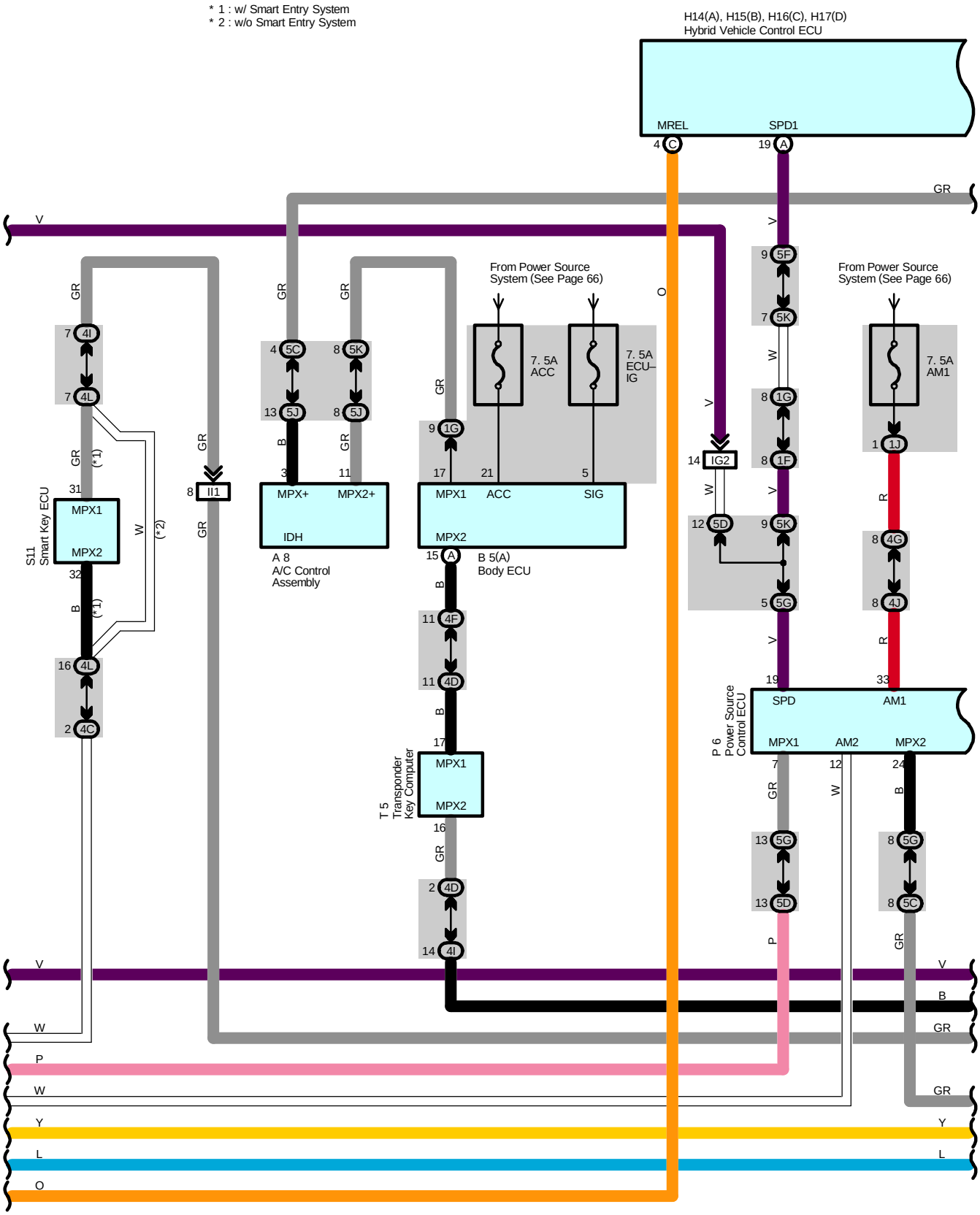
 : **Splice Points**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I3	58	Engine Wire			

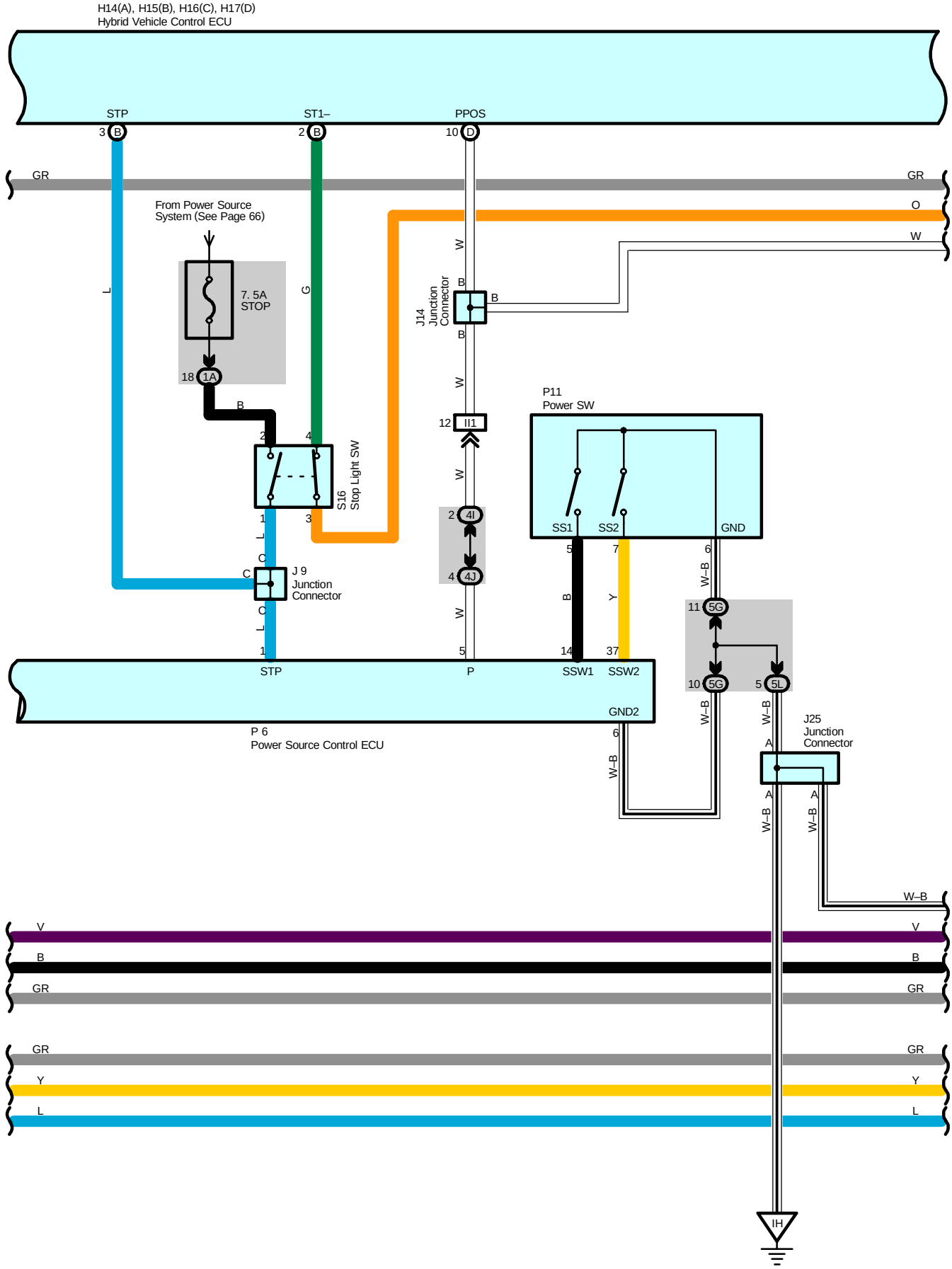
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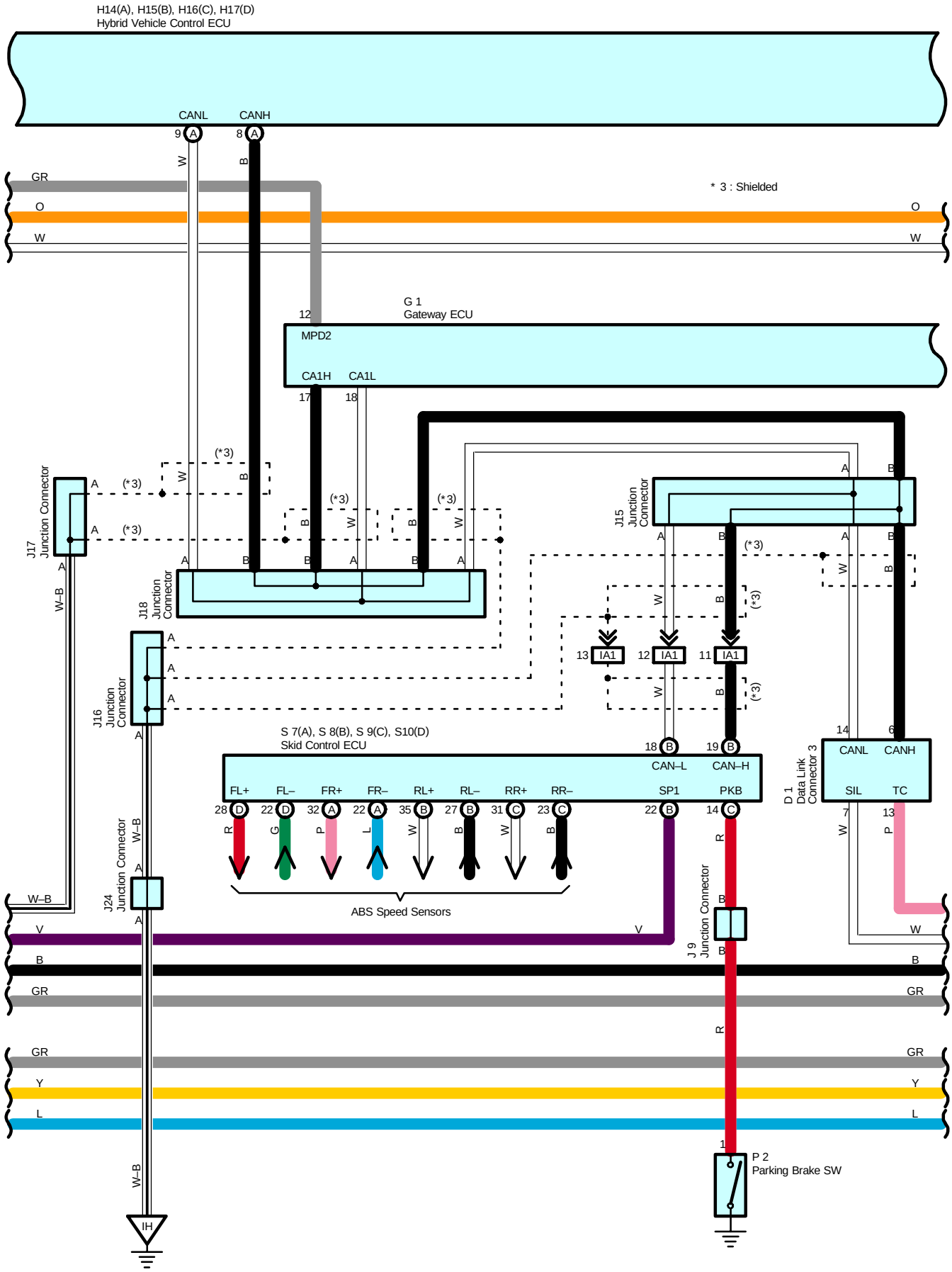
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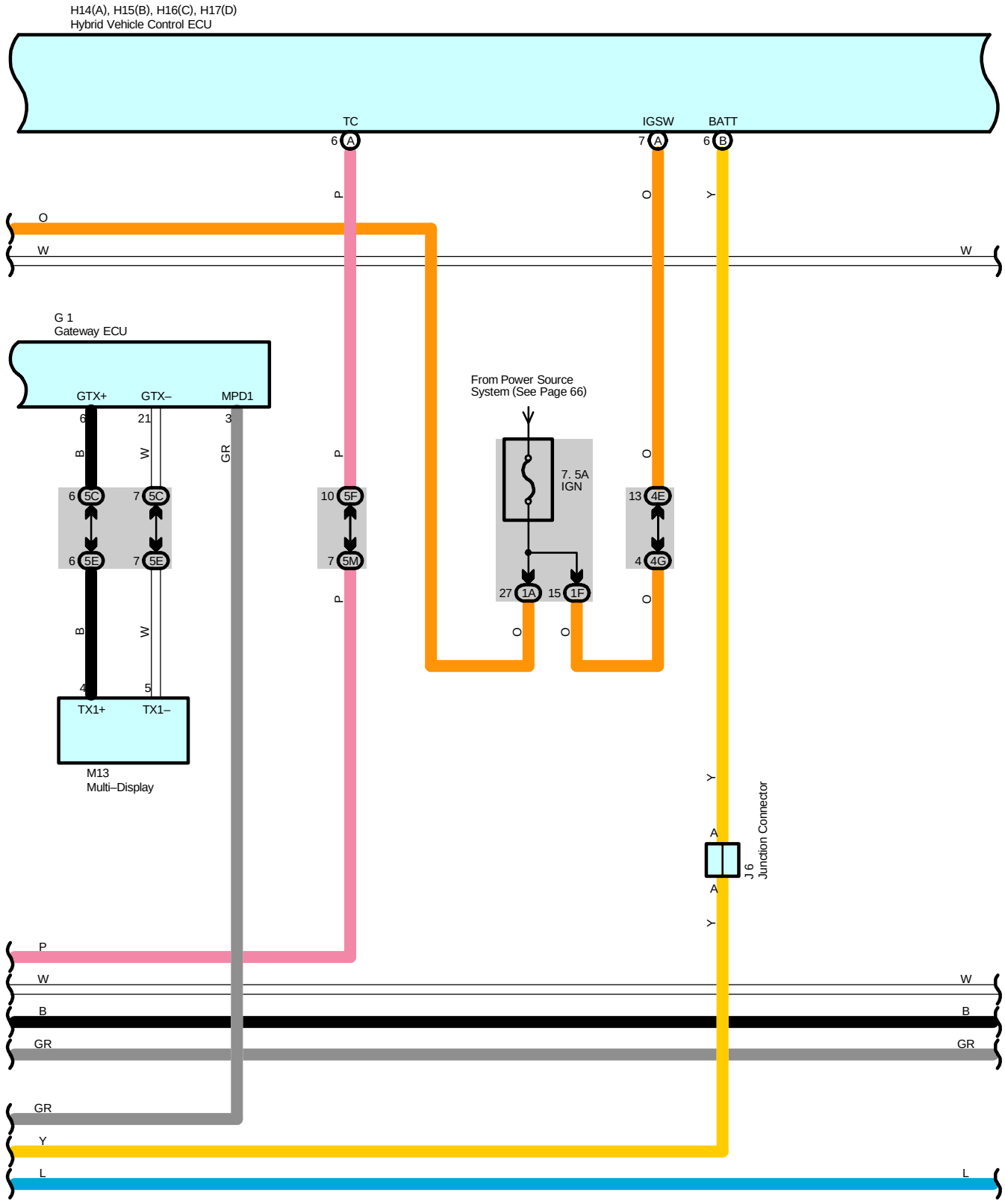


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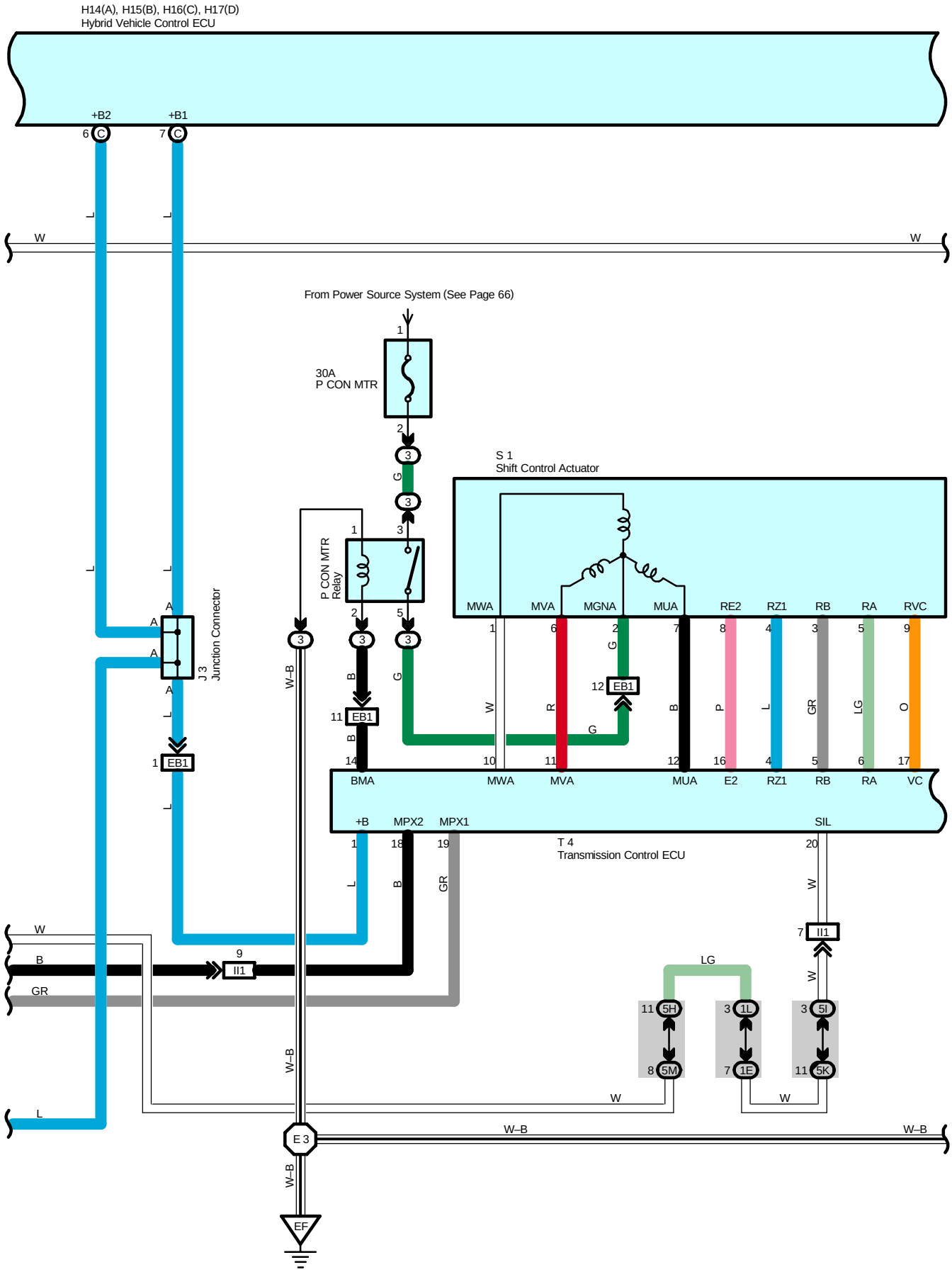


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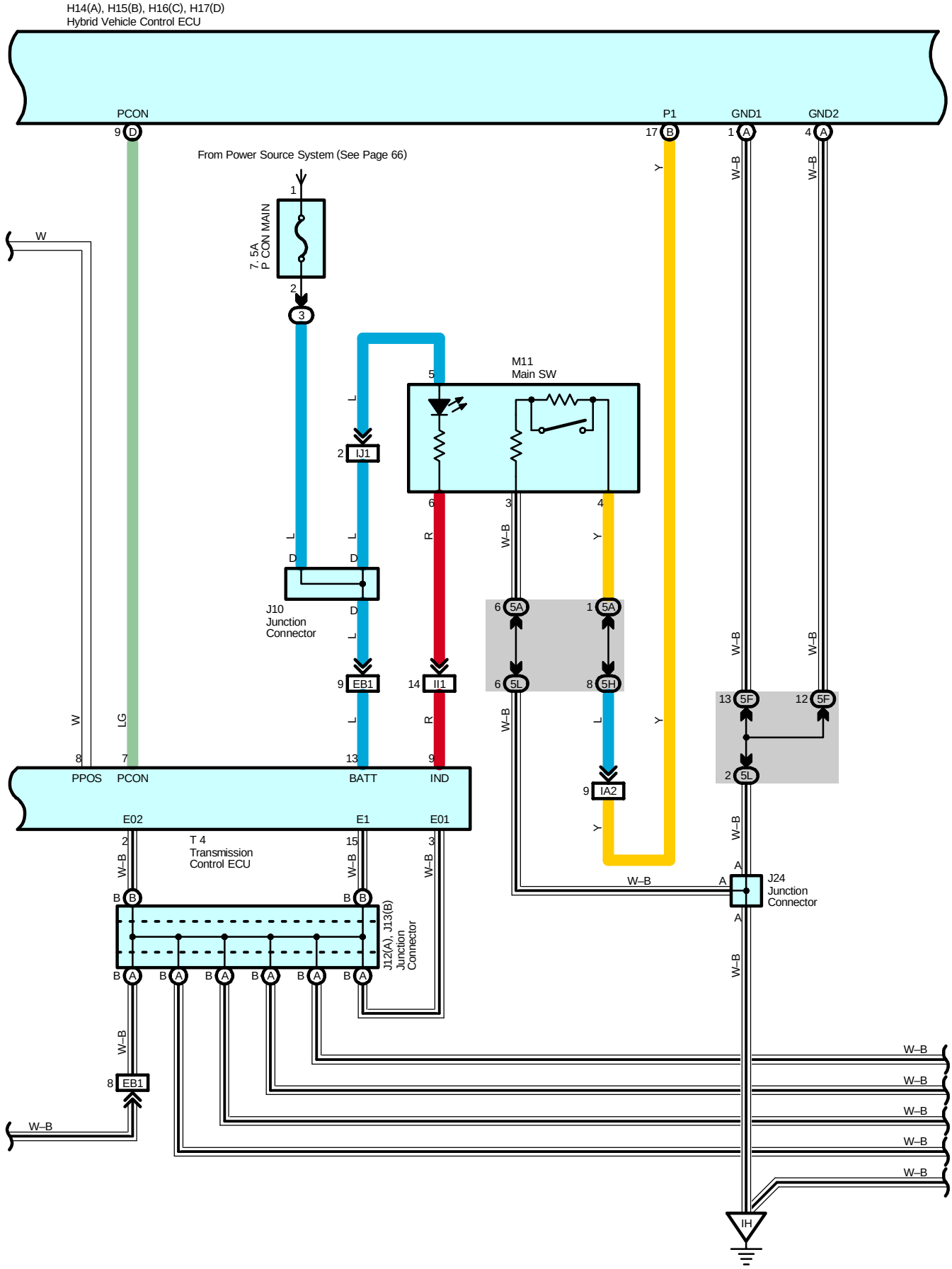
Shift Control System



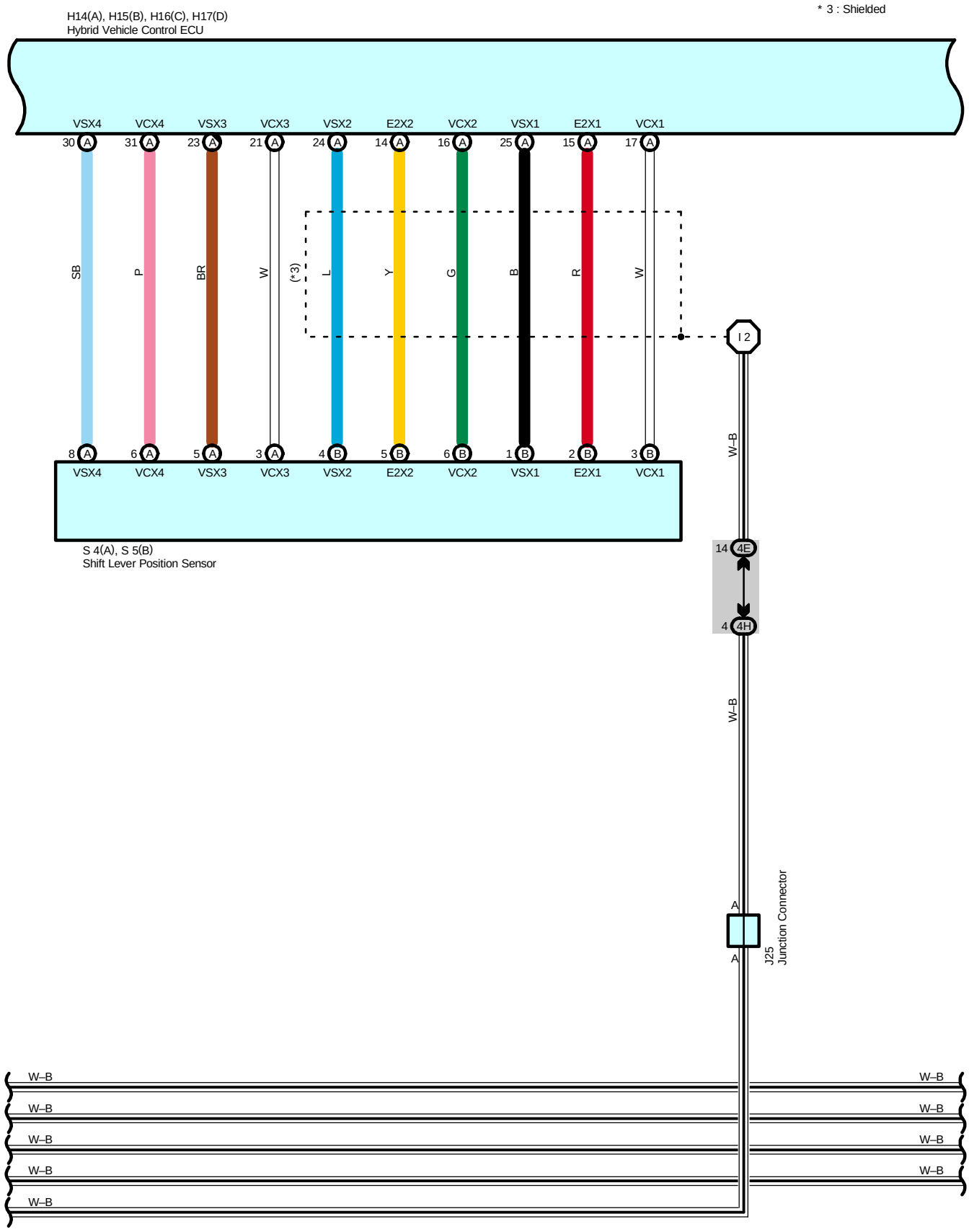
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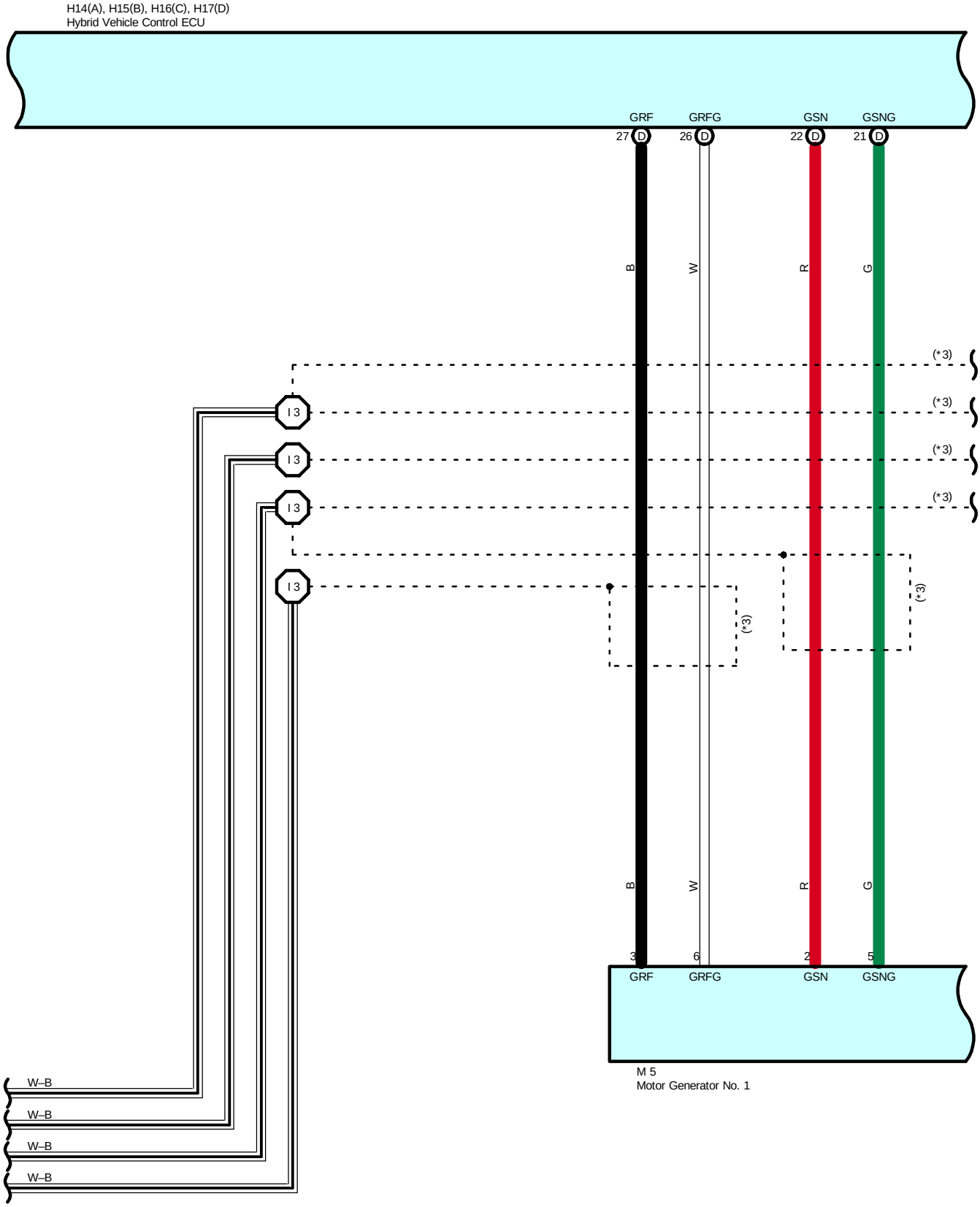
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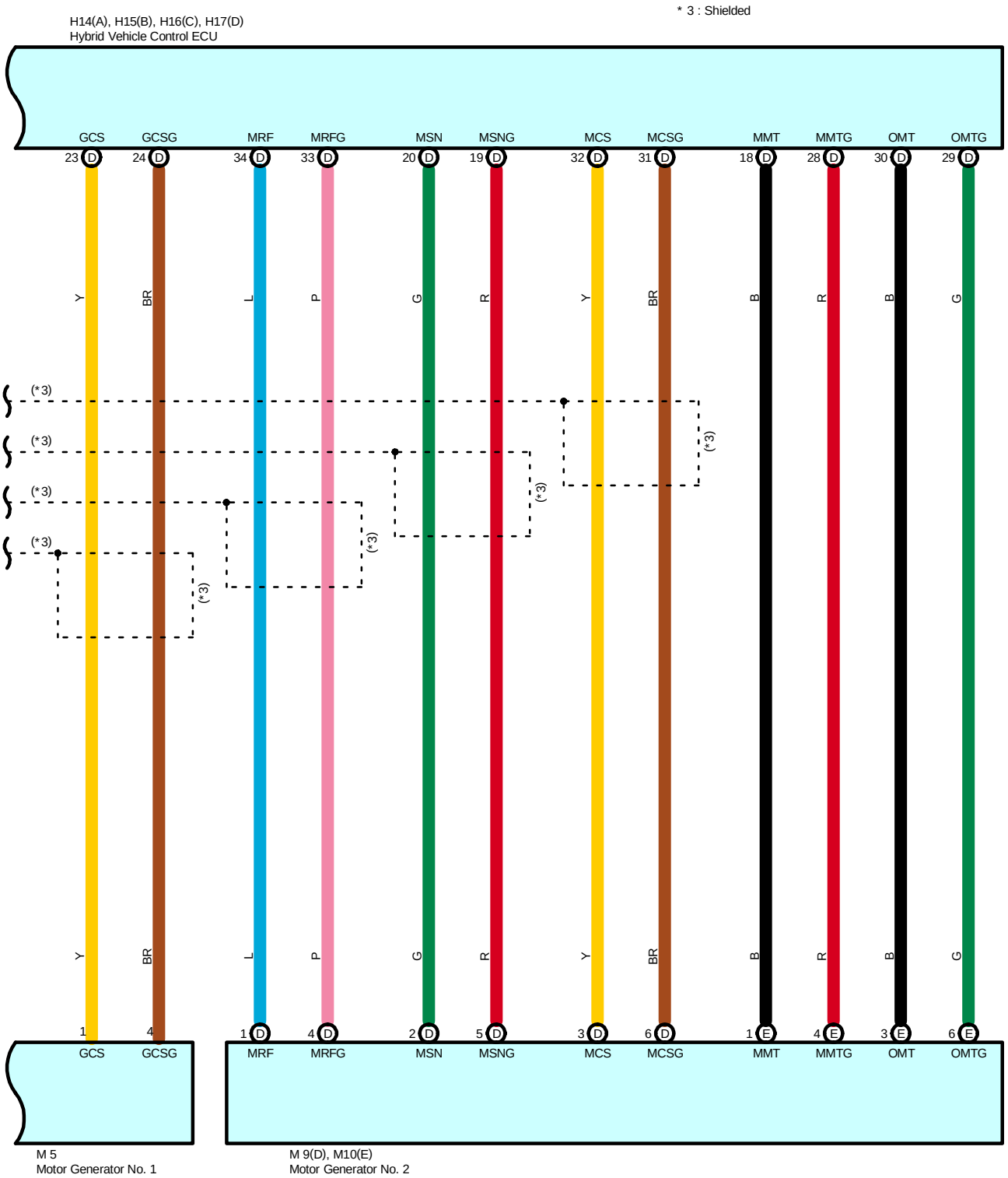
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Shift Control System

System Outline

Under this system, operating signal of shift lever is sent to hybrid vehicle control ECU to control hybrid motor, which changes shift ranges (R, N, D, B) electrically. When shift is put in P range, transmission control ECU receives operating signal from hybrid vehicle control ECU and activates parking lock electrically.

1. Shift Range Change Function

Gear can be shifted to any shift range under condition when vehicle can drive except when reject function is in operation.
When vehicle cannot drive with power SW at IG ON position, gear can be shifted only to P and N range.
When vehicle cannot drive with power SW at ACC ON position, gear can be shifted only to P range.
When power SW is at OFF position, gear cannot be shifted to any range.
When main SW is operated at vehicle stop after starting hybrid system, gear is automatically changed to P range from any other gear range and turns off power supply.

2. Reject Function

Changing gear may not effect to change range under certain vehicle condition. Under such condition, warning buzzer of combination meter sounds to show the rejection and call for driver's attention. Followings are shift operations and shift range conditions under which reject function is activated.

* When gear is shifted from P range to other range without applying brake pedal, gear stays in P range.
* Main SW cannot put gear in P range during driving but changes to N range.
* Shift change to forward or backward during driving changes gear to N range.
* When gear is changed from other range than D range to B range, gear is changed to N range automatically.

3. Combination Meter Indication

The combination meter shows present shift range position. Other shift range positions than D or B range are not shown in lighting in the combination meter. This is to avoid unnecessary shifting operation to B range from other shift position except D range.

4. Operation of Parking Lock

Operation signal from/to P range is sent from main SW or power SW to transmission control ECU through hybrid vehicle control ECU. At that time the transmission control ECU operates P CON MTR relay, activates parking lock actuator with appropriate control of electric current, and lights up main SW when shift is at P range. If the system has abnormality on parking lock operation, it tells the system abnormality to the driver by lighting up master warning light on combination meter, displaying warning of the system abnormality on the multi–display, and blinking indicator light of main SW.

5. Operation at Electric Power OFF

Under electric power OFF, transmission control ECU receives signal from power source control ECU by multi–communication, and sends shift range position information to hybrid vehicle control ECU. The hybrid vehicle control ECU sends signal to power source control ECU to tell whether it is right or wrong condition to turn off electric power. Accepted conditions for electric power OFF are as follows;

* When hybrid vehicle control ECU is not sending request signal for parking lock release with shift range in P range position.
* With shift range is at other range than P range, when hybrid vehicle control ECU is outputting signal that hybrid system is not running or request signal for parking lock.
* When there is abnormal motor's not running condition with paring lock in operation, and hybrid system is not running and parking brake is being applied.

Service Hints

T4 Transmission Control ECU

1–Ground : Approx. 12 volts with the power SW at IG ON position
13–Ground : Always approx. 12 volts
2, 3, 15–Ground : Always continuity

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○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A8	46	J13 B	48	P6	49
B5 A	46	J14	48	P11	49
C10	47	J15	48	S1	45
D1	47	J16	48	S4 A	49
G1	47	J17	48	S5 B	49
H14 A	47	J18	48	S7 A	49
H15 B	47	J24	48	S8 B	49
H16 C	47	J25	48	S9 C	49
H17 D	47	M5	45	S10 D	49
J3	45	M9 D	45	S11	49
J6	48	M10 E	45	S16	49
J9	48	M11	48	T4	49
J10	48	M13	48	T5	49
J12 A	48	P2	49		

▭ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

▭ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1F		
1G		
1J		
1L		
1M		
3I	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3J		
4C	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4D		
4E		
4F		
4G		
4H		
4I		
4J		
4L		
5A	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5C		
5D		
5E		
5F		
5G		
5H		
5I		
5J		
5K		
5L		
5M		

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: **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	54	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B)
IA1	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IA2		
IA3		
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IJ1	58	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)

: **Ground Points**

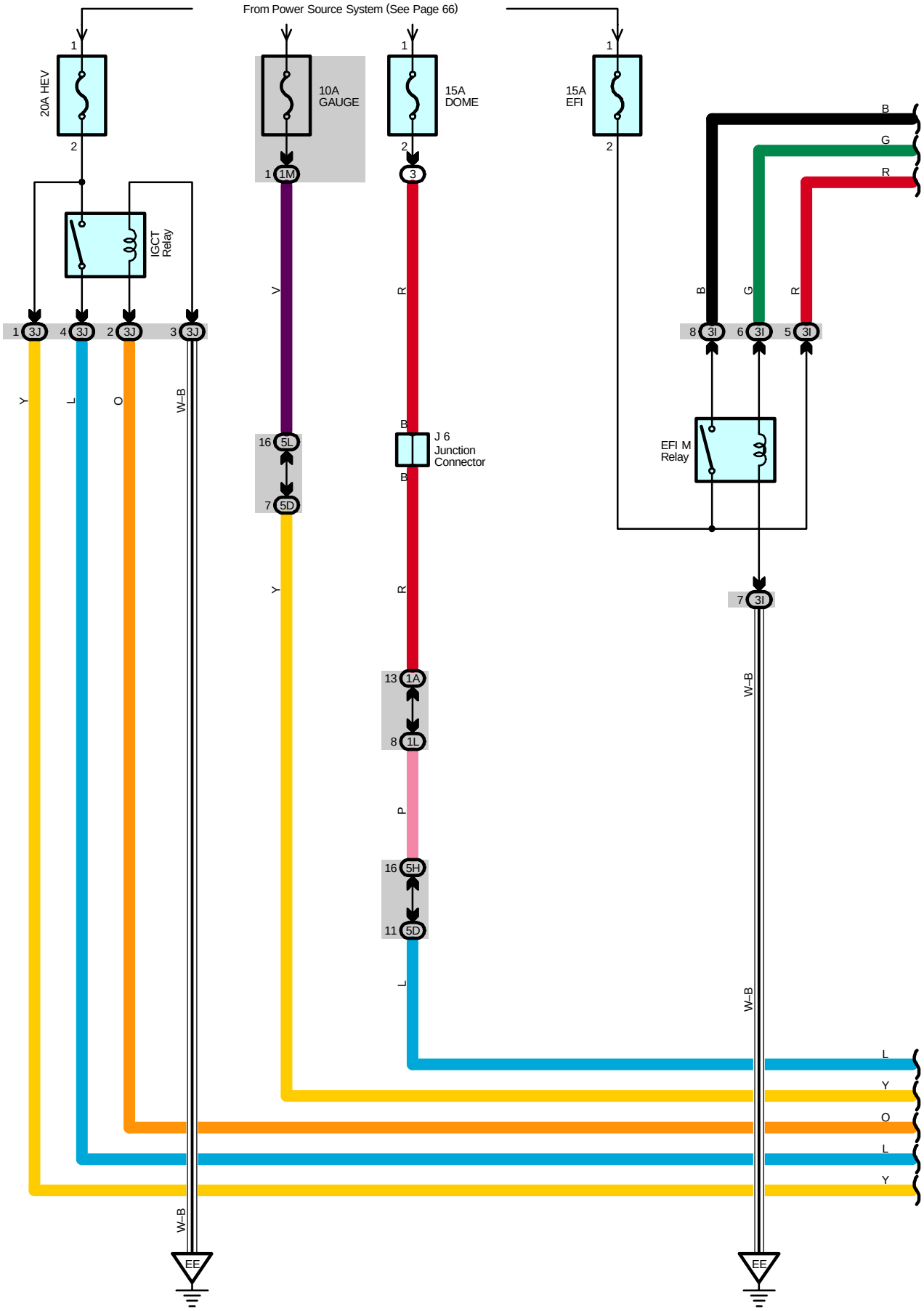
Code	See Page	Ground Points Location
EE	54	Left Side of the Suspension Tower
EF		
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH

: **Splice Points**

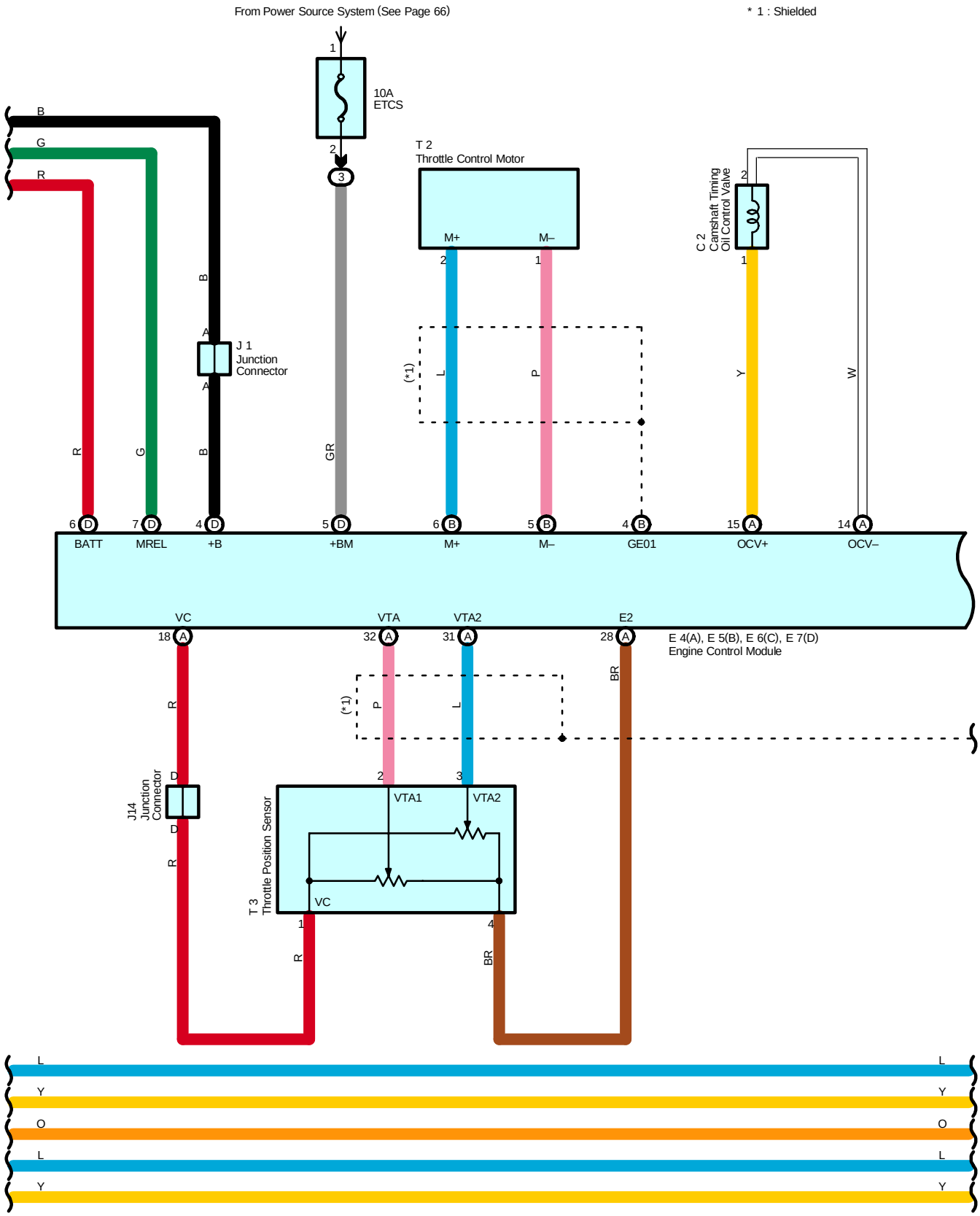
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E3	54	Engine Room Main Wire	I3	58	Engine Wire
I2	58	Instrument Panel Wire			

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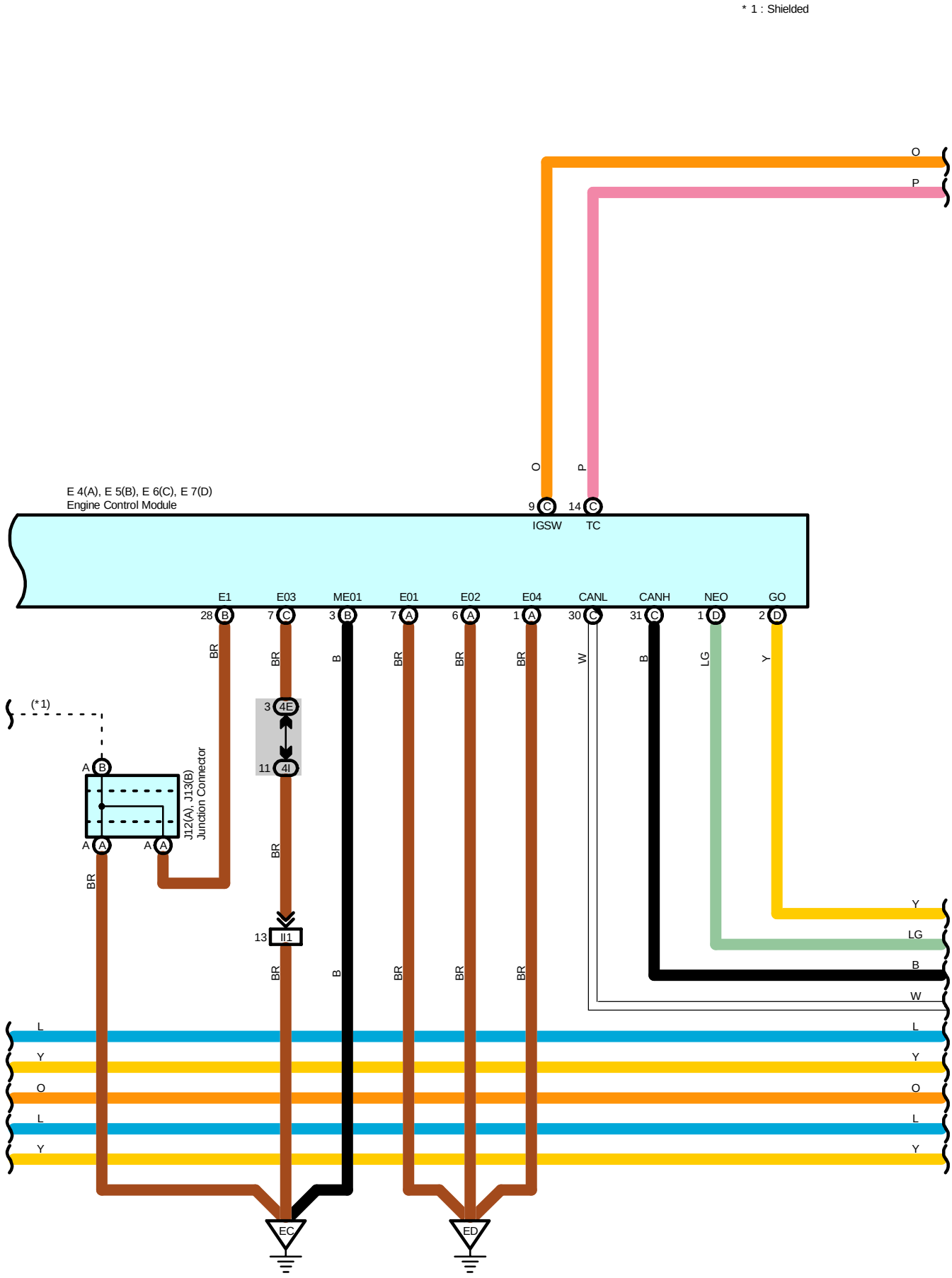
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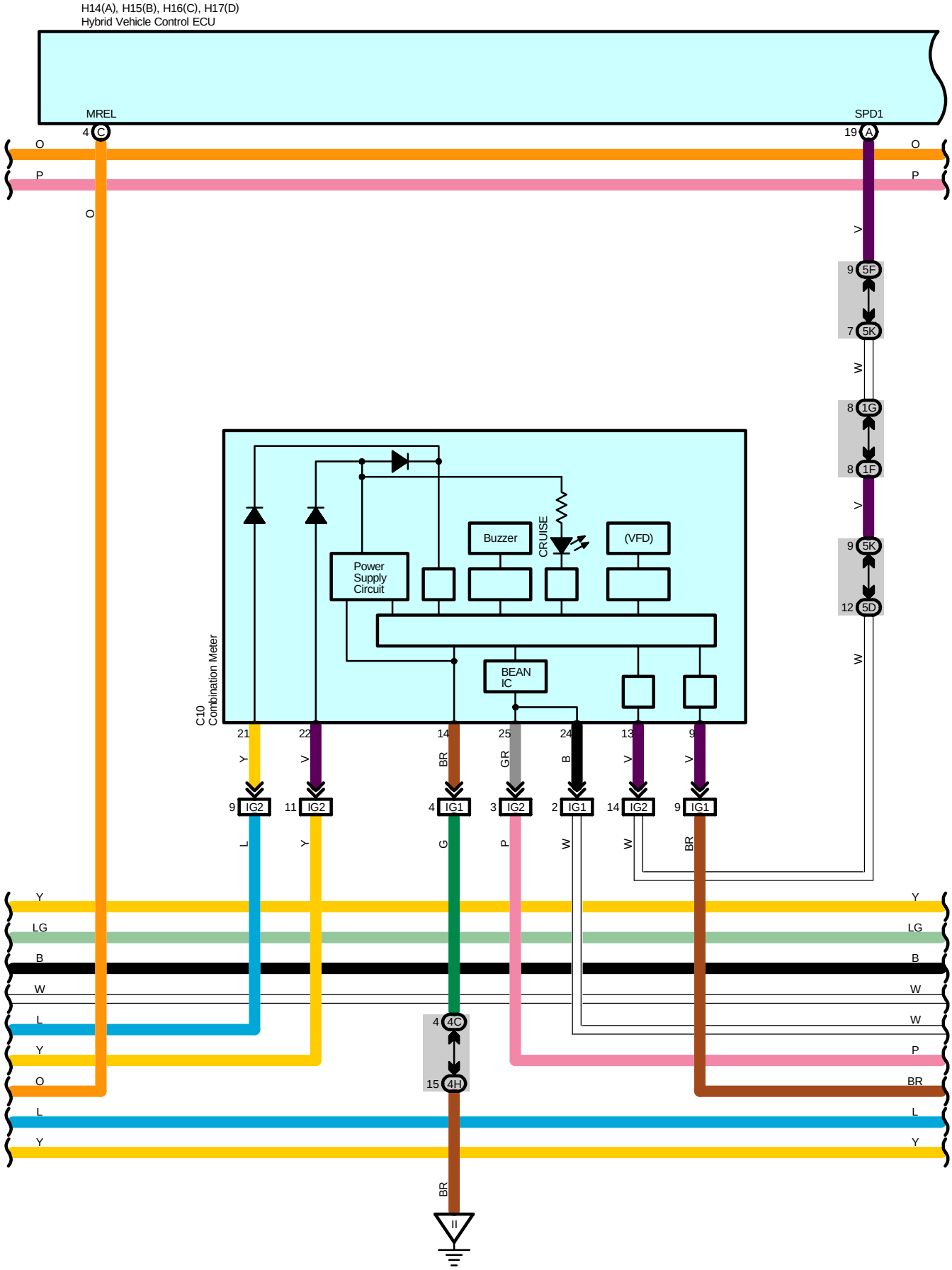
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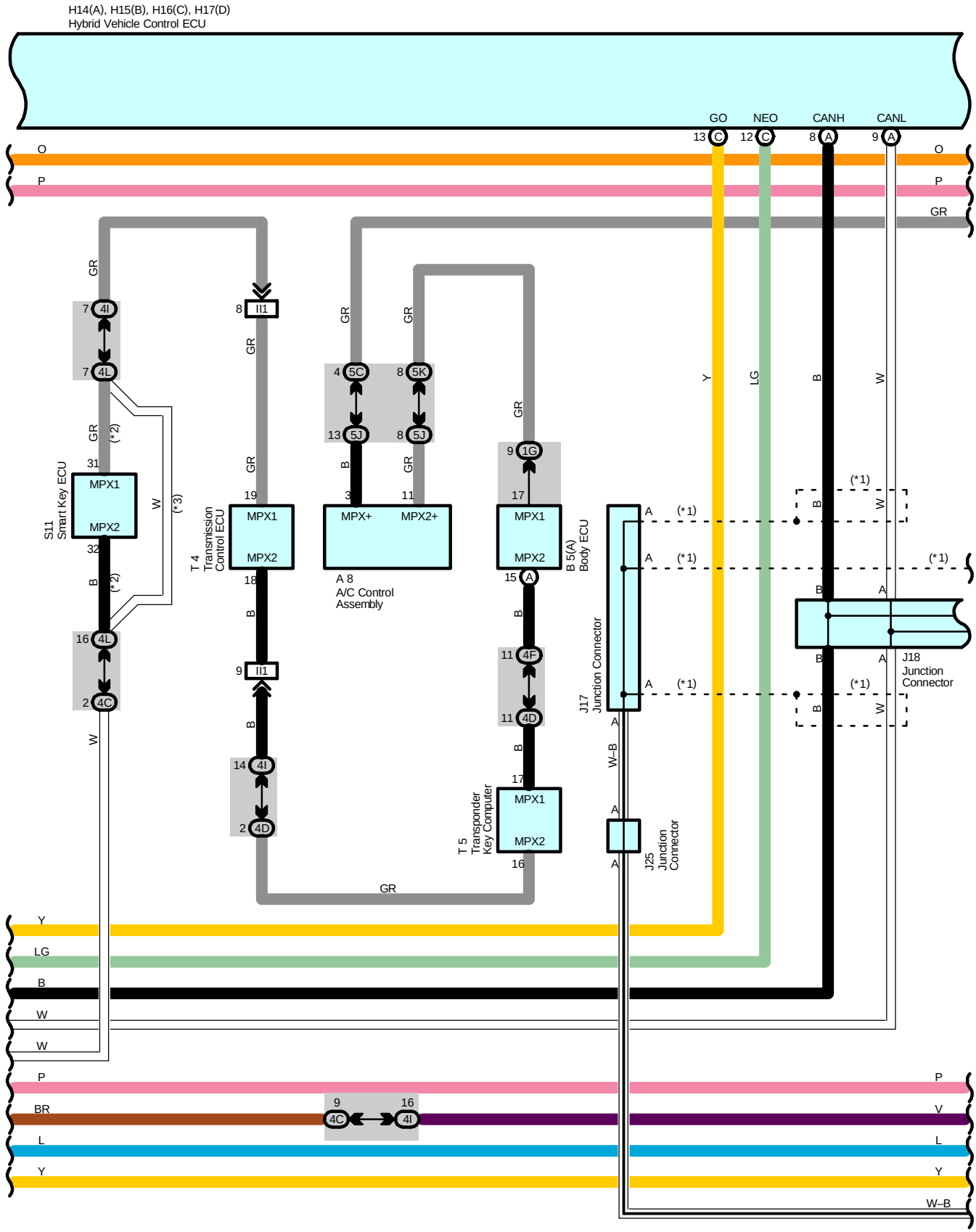
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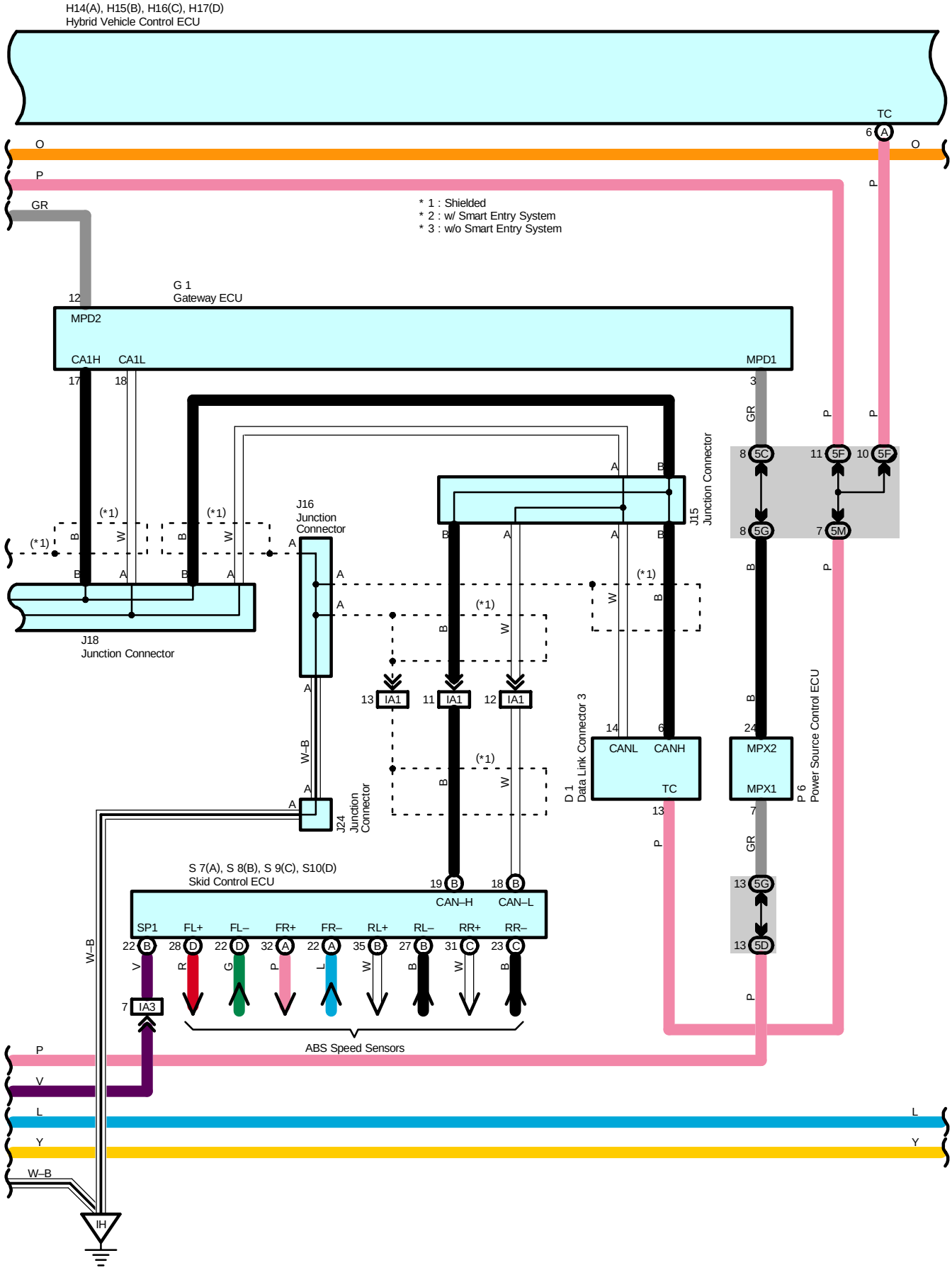
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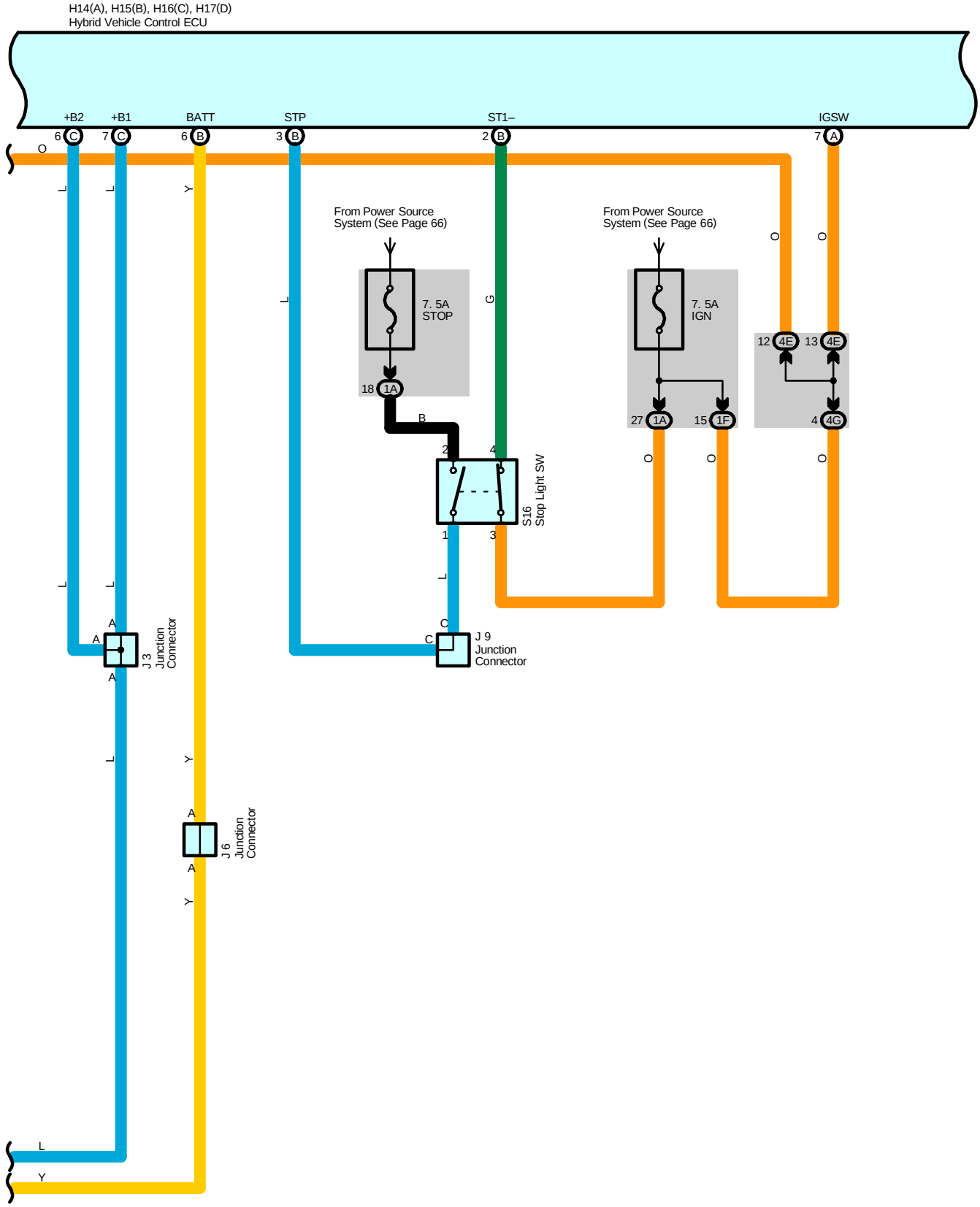
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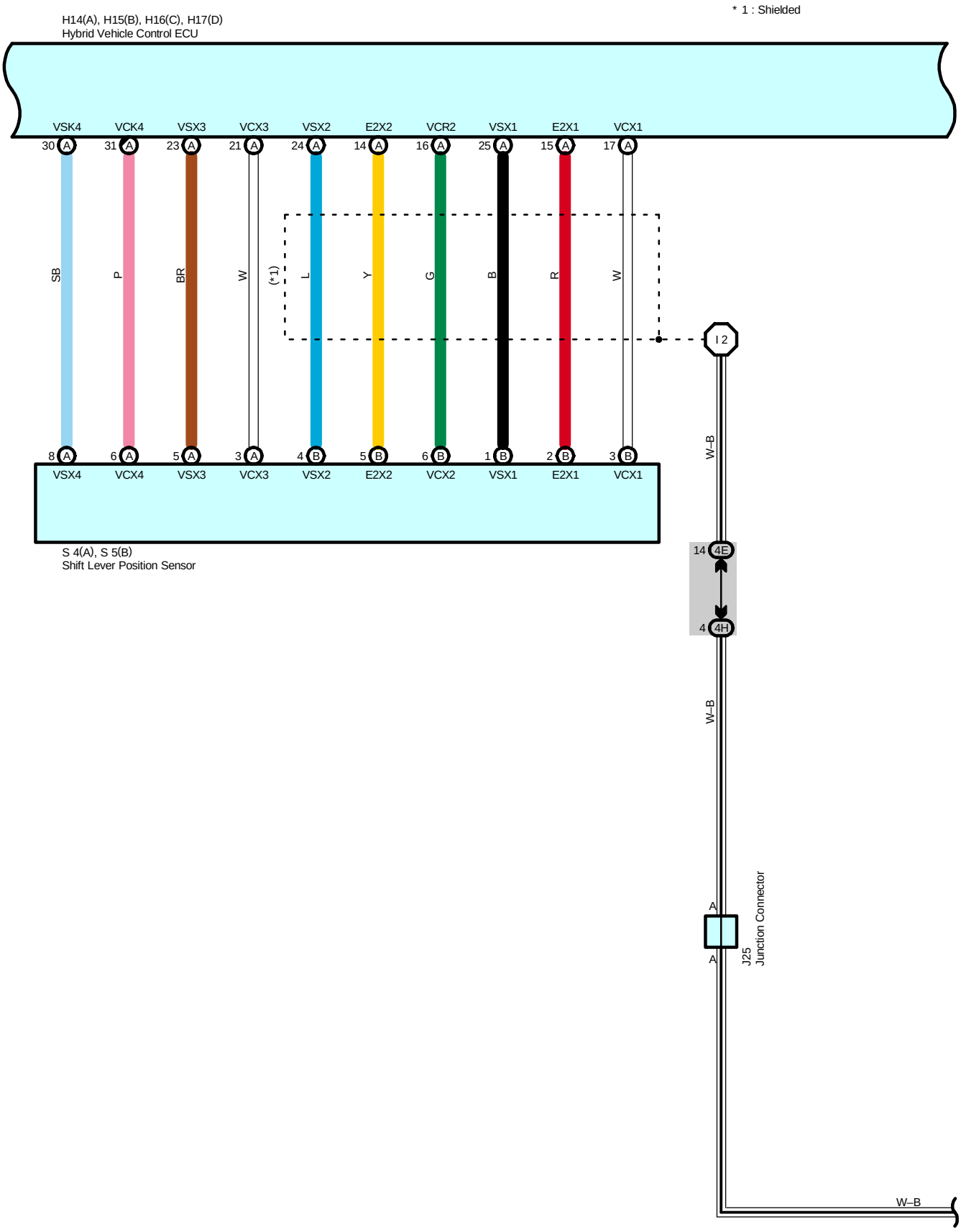
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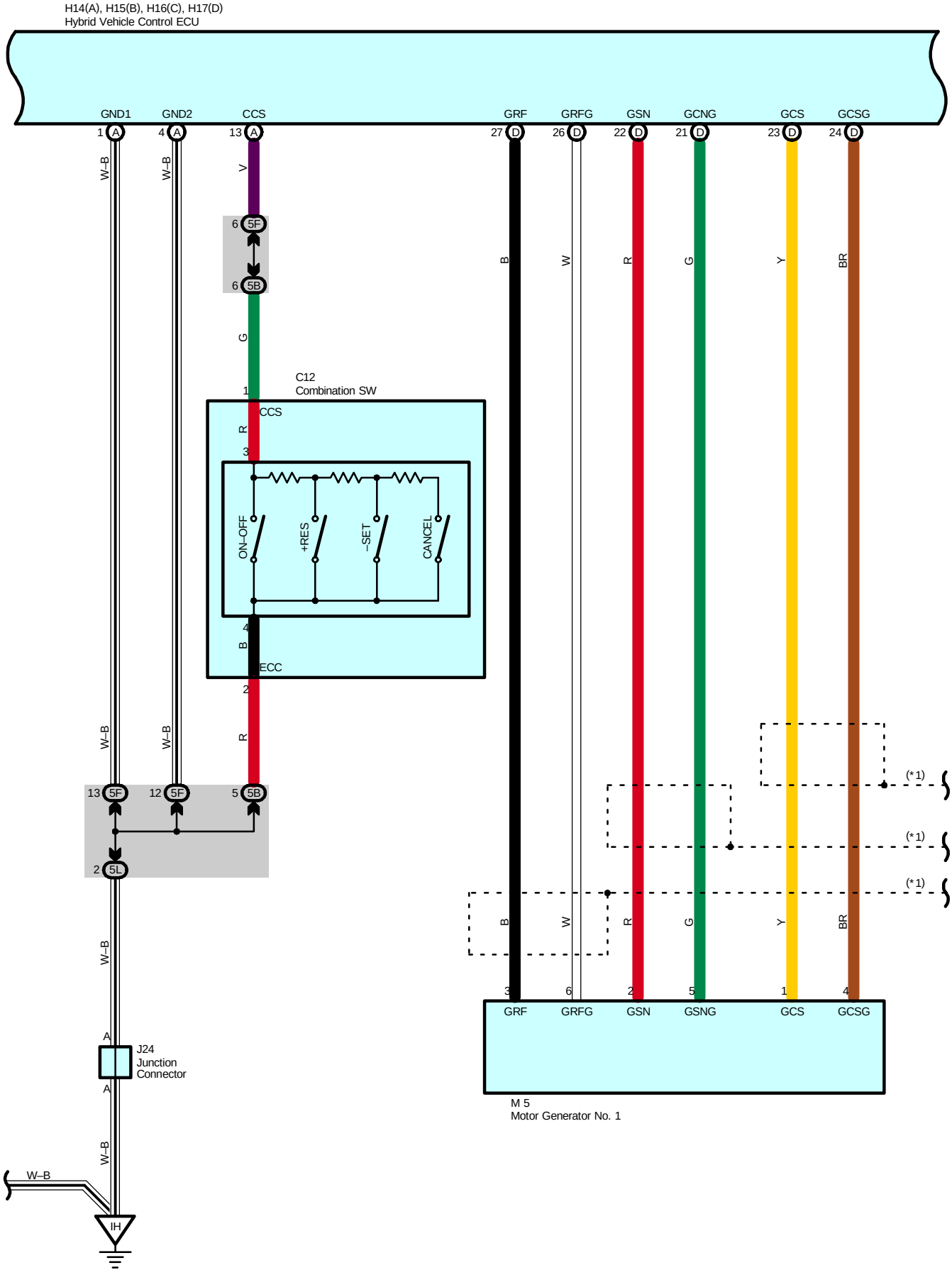
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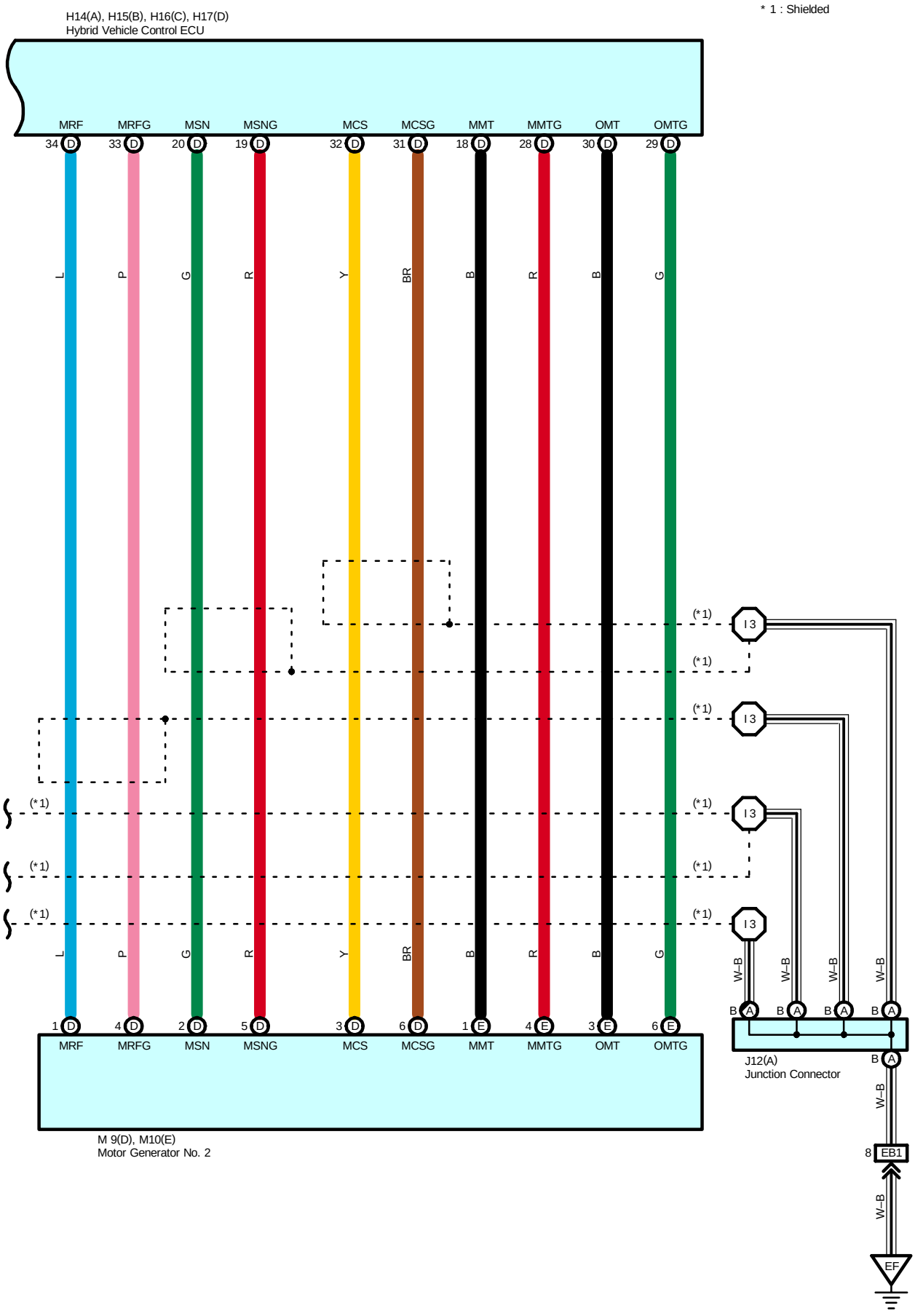
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Cruise Control

System Outline

Cruise control is the speed control device, which can set desired speed by just operating the switch on the control panel without applying the accelerator pedal. The device can be used when driver would like to drive the vehicle at fixed speed.

1. Set Control

If the cruise control switch is pushed to – SET side and hand is released from the switch during driving, (The available range of set speed: between 40 and 200 km/h) with the ON–OFF switch at ON (Power indicator comes on), the device stores vehicle speed at that time and controls it constantly at the set speed.

2. Set Speed Control

The device compares the actual vehicle speed with the set speed, and controls the driving power of the motor and the engine by calculating the cruise control requirements to drive it constantly at the set speed.

3. Coast Control

If the cruise control switch is kept pushed to the – SET side during driving in the cruise control mode, the device recognizes the cruise control requirement is at zero and decelerates the vehicle speed. When hand is released from the cruise control switch, the device stores the vehicle speed while the vehicle speed is decelerating. From then on, vehicle speed is controlled to stay at that speed.

Every time the switch is operated to – SET side momentarily (For about 0.5 seconds), the set speed is decreased by about 1.6 km/h. However, in case of tap–down operation to make more than 5 km/h gap between the set speed and the actual vehicle speed, the device recalls the original set speed and controls it at the speed constantly.

4. Accel Control

If the cruise control switch is kept pushed to the + RES side during driving in the cruise control mode, the device recognizes the cruise control is on the acceleration side and accelerates the vehicle speed. When hand is released from the cruise control switch, the device stores the vehicle speed at that time and controls it with the set speed constantly.

Every time the switch is operated to + RES side momentarily (For about 0.5 seconds), the set speed is increased by about 1.6 km/h. However, in case of tap–up operation to make more than 5 km/h gap between the set speed and the actual vehicle speed, the device does not change the set speed. (Tap–up operation is not available.)

5. Resume Control

After the cruise control mode is cancelled by any one the cancel switches, the mode can be resumed and controlled at the set speed by operating the cruise control switch in the + RES direction providing that the vehicle speed has not dropped below the low speed limit [Approx. 40 km/h (25 mph)].

The mode cannot be resumed if the vehicle speed once drops below the low speed limit, because the speed in the memory is cleared.

6. Manual Cancel Control

If any of the following signals is sent to the device while the vehicle is running in the cruise control, the cruise control is cancelled accordingly.

* Stop light switch: ON (Depressing the brake pedal)
* CANCEL switch of control switch: ON
* ON–OFF switch: OFF

7. Auto Cancel Function

A) The set speed is cleared and the cruise control is canceled under the following conditions. The cruise main indicator blinks until the main switch is turned OFF. The speed control is unavailable unless the main switch is turned ON again.

* When the stop light switch open or short–circuits.
* When signal of sudden change in the vehicle speed is sent.

B) The set speed is cleared and the cruise control is canceled under the following conditions.

* When there is malfunction of the stop light switch input circuit.
* When the vehicle speed becomes lower than 40 km/h.
* When the vehicle speed becomes lower than the speed that 16 km/h is subtracted from the set speed.

Service Hints

C12 Combination SW

1–2 : Approx. 1540 Ω with the CANCEL SW on
Approx. 240 Ω with the + RES SW on
Approx. 630 Ω with the – SET SW on

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○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A8	46	J1	45	M10 E	45
B5 A	46	J3	45	P6	49
C2	44	J6	48	S4 A	49
C10	47	J9	48	S5 B	49
C12	47	J12 A	48	S7 A	49
D1	47	J13 B	48	S8 B	49
E4 A	47	J14	48	S9 C	49
E5 B	47	J15	48	S10 D	49
E6 C	47	J16	48	S11	49
E7 D	47	J17	48	S16	49
G1	47	J18	48	T2	45
H14 A	47	J24	48	T3	45
H15 B	47	J25	48	T4	49
H16 C	47	M5	45	T5	49
H17 D	47	M9 D	45		

▭ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

▭ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1G		
1L		
1M		
3I	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3J		
4C	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4D		
4E		
4F		
4G		
4H		
4I		
4L		
5B	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5C		
5D		
5F		
5G		
5H		
5J		
5K		
5L		
5M		

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: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	54	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B)
IA1	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IA3		
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)

: Ground Points

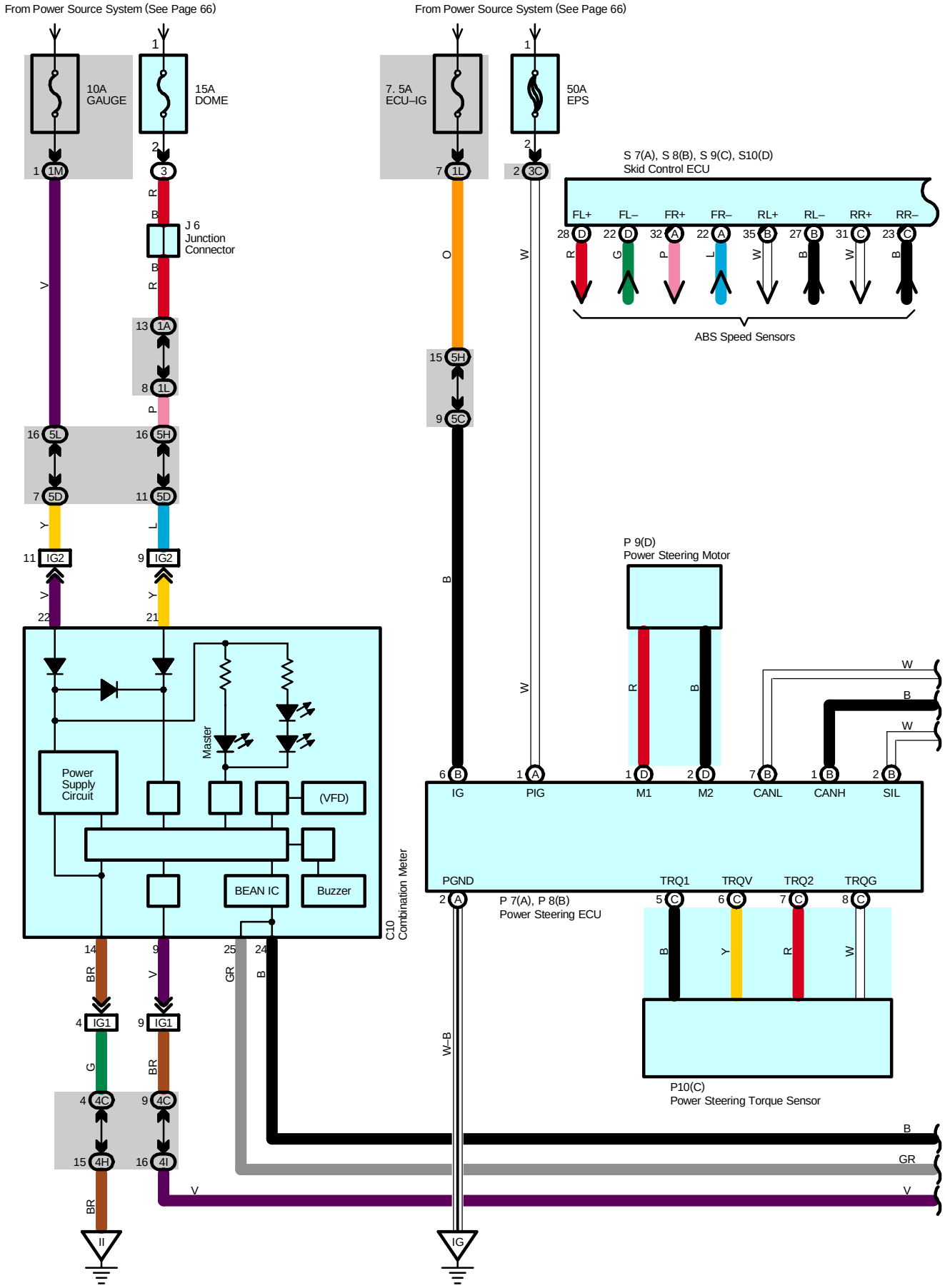
Code	See Page	Ground Points Location
EC	54	Engine Block
ED		
EE	54	Left Side of the Suspension Tower
EF		
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH

: Splice Points

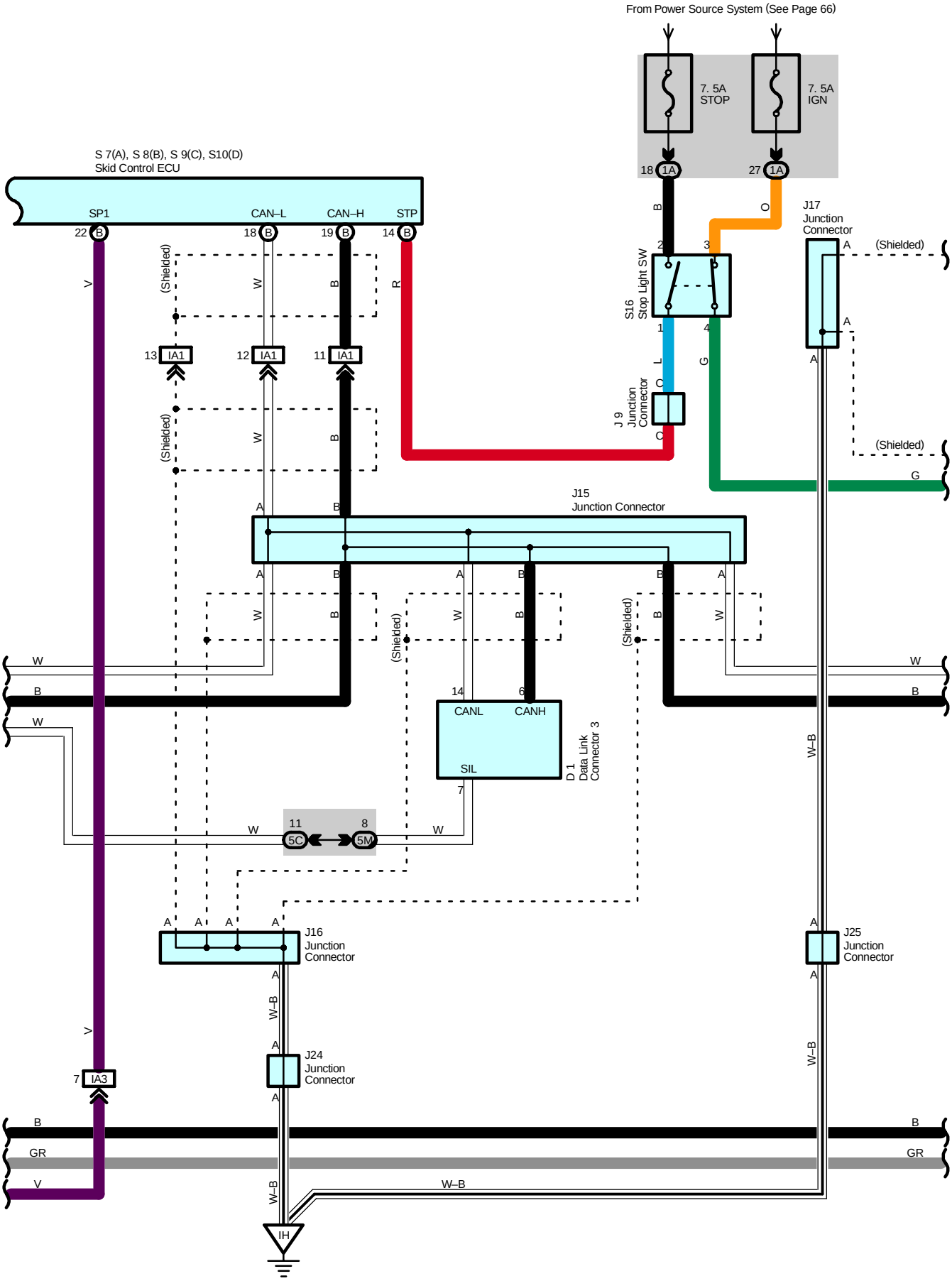
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I2	58	Instrument Panel Wire	I3	58	Engine Wire

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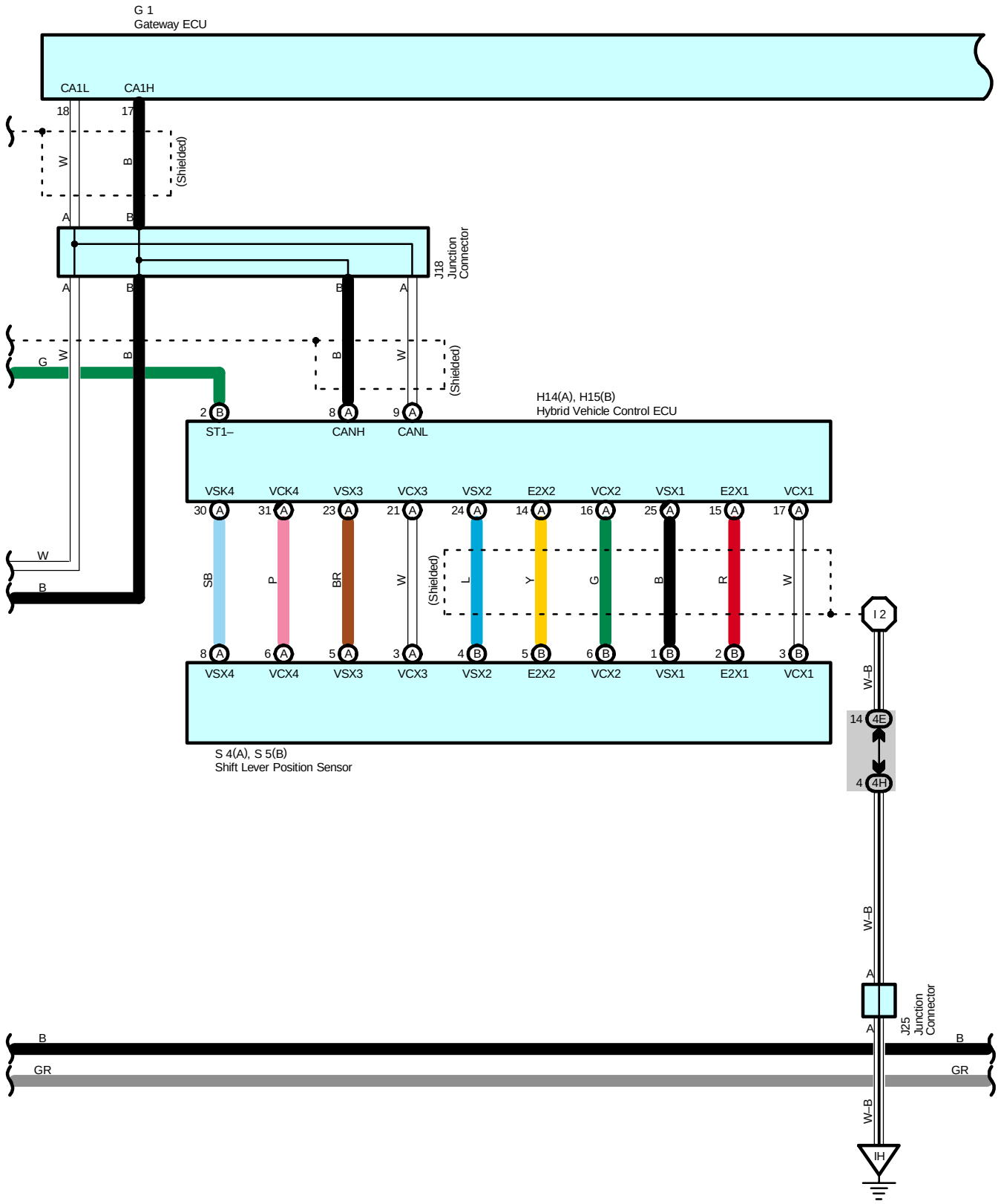


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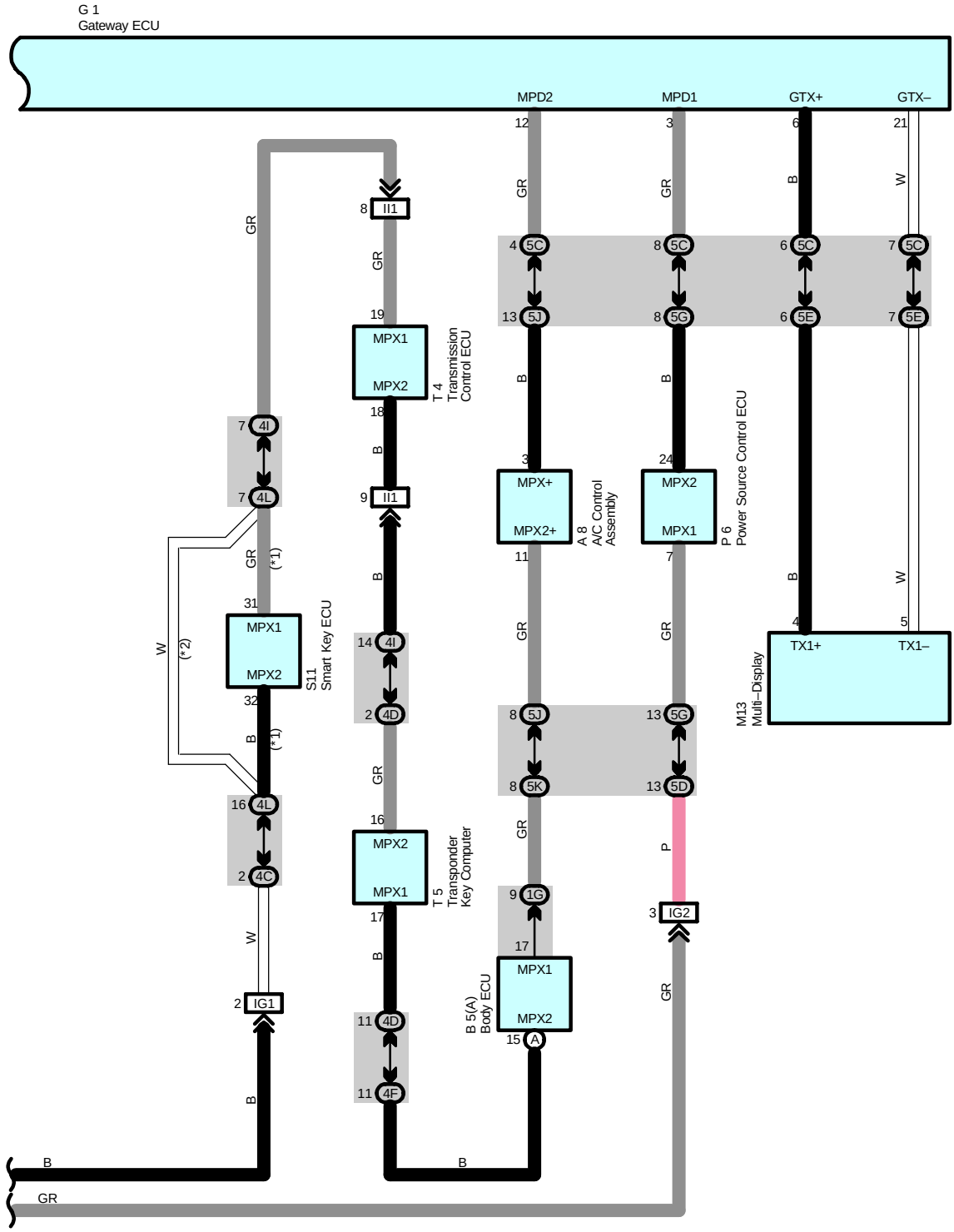


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* 1 : w/ Smart Entry System
* 2 : w/o Smart Entry System



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System Outline

This is a system to assist the driver to steer the vehicle with easy steering force. Based on torque signal of steering from power steering torque sensor, and vehicle speed and other vehicle information from skid control ECU, power steering ECU calculates assisting current to control power steering motor.
Under the system in abnormality, power source relay and motor relay in power steering ECU is shut down and master warning lamp on combination meter blinks as well as P/S warning is indicated, resulting to stop the assistance.

Service Hints

P7 (A), P8 (B) Power Steering ECU

(B) 6–Ground : Approx. 12 volts with the power SW at IG ON position
(A) 1–Ground : Always approx. 12 volts
(A) 2–Ground : Always continuity

: Parts Location

Code	See Page	Code	See Page	Code	See Page
A8	46	J17	48	S5 B	49
B5 A	46	J18	48	S7 A	49
C10	47	J24	48	S8 B	49
D1	47	J25	48	S9 C	49
G1	47	M13	48	S10 D	49
H14 A	47	P6	49	S11	49
H15 B	47	P7 A	49	S16	49
J6	48	P8 B	49	T4	49
J9	48	P9 D	49	T5	49
J15	48	P10 C	49		
J16	48	S4 A	49		

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1G	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1L		
1M		
3C	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
4C	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4D		
4E		
4F		
4H		
4I		
4L		
5C	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5D		
5E		
5G		
5H		
5J		
5K		
5L		
5M		

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: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IA3		
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)

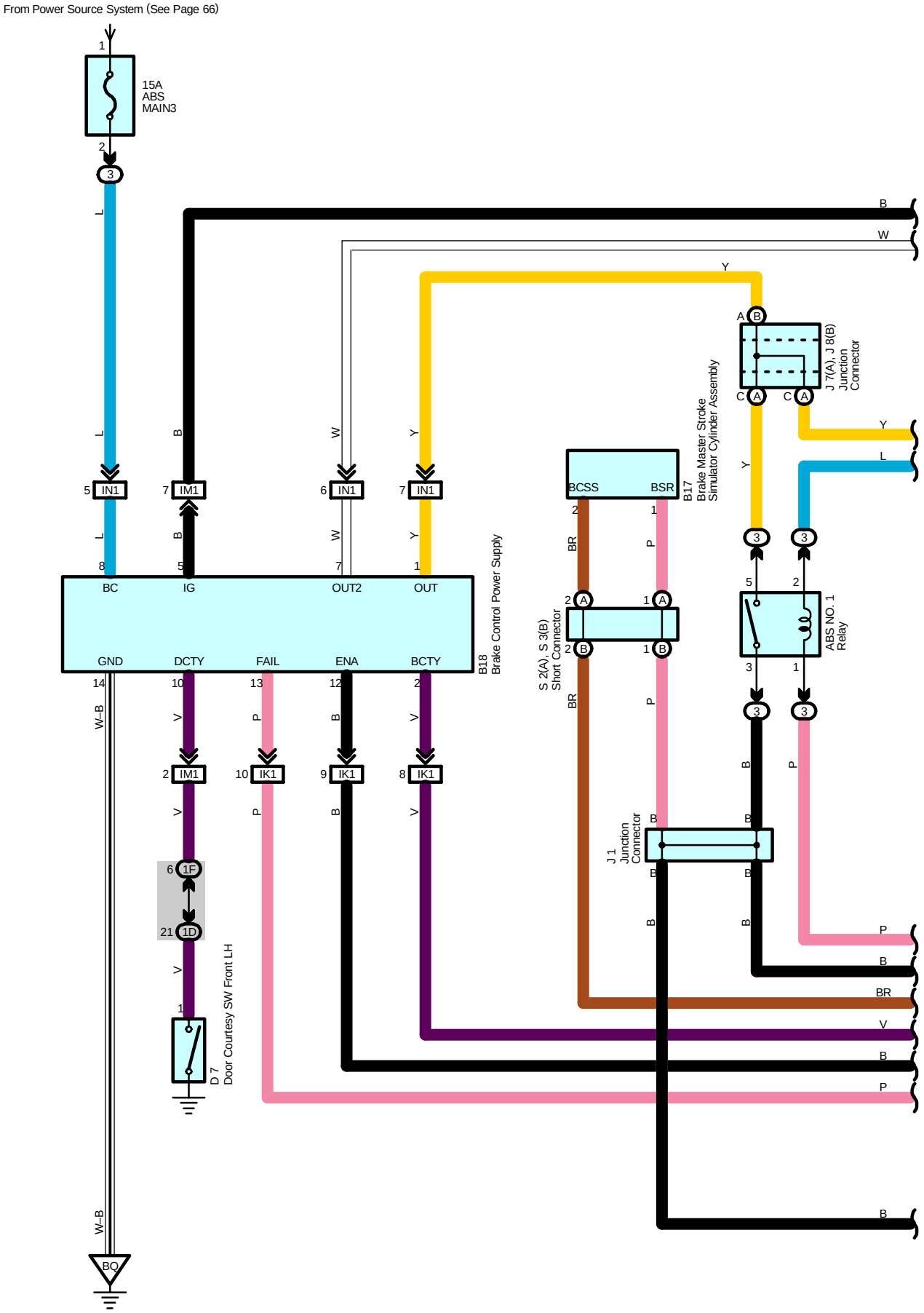
: Ground Points

Code	See Page	Ground Points Location
IG	56	Cowl Side Panel LH
IH		
II	56	Instrument Panel Brace LH

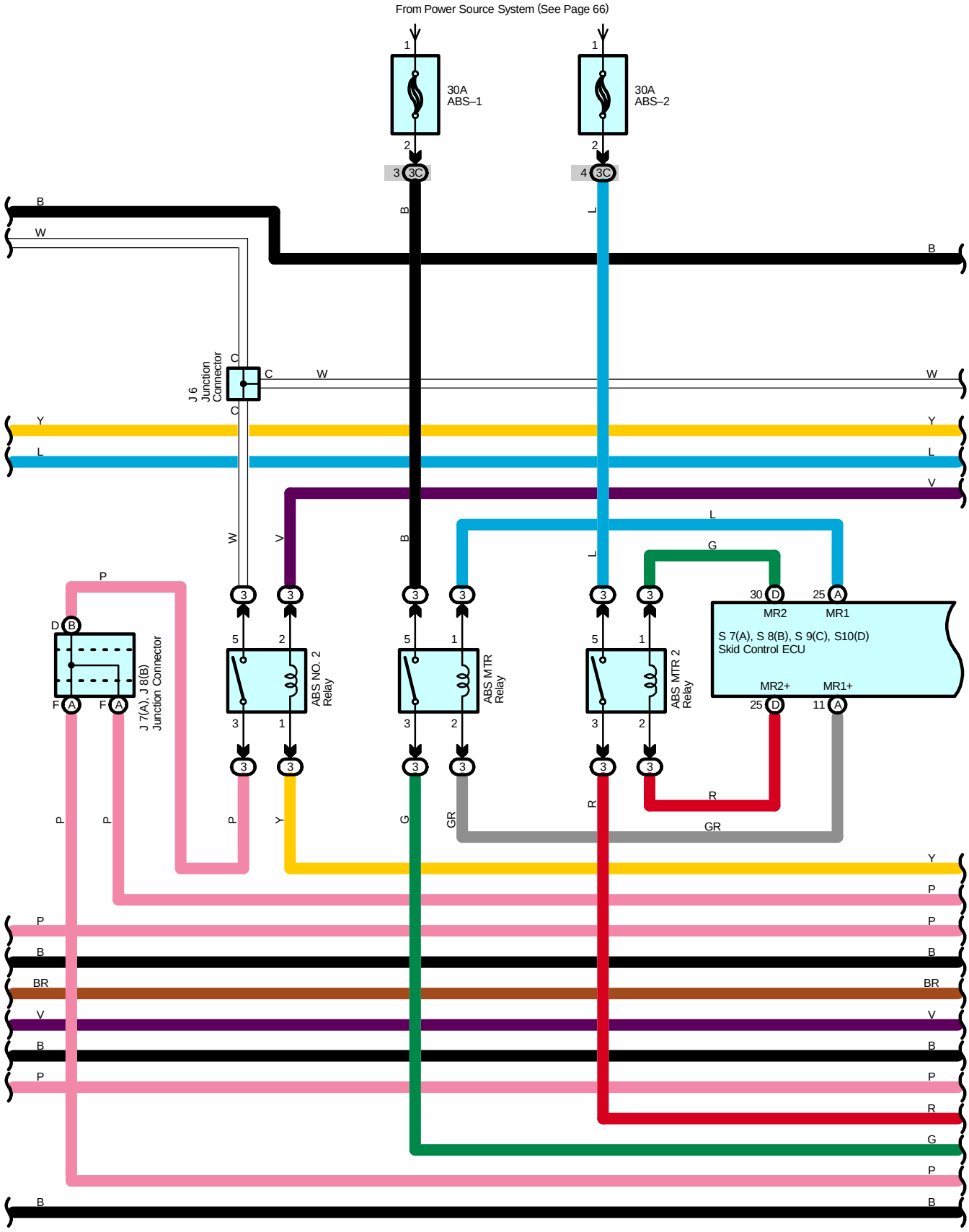
: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I2	58	Instrument Panel Wire			

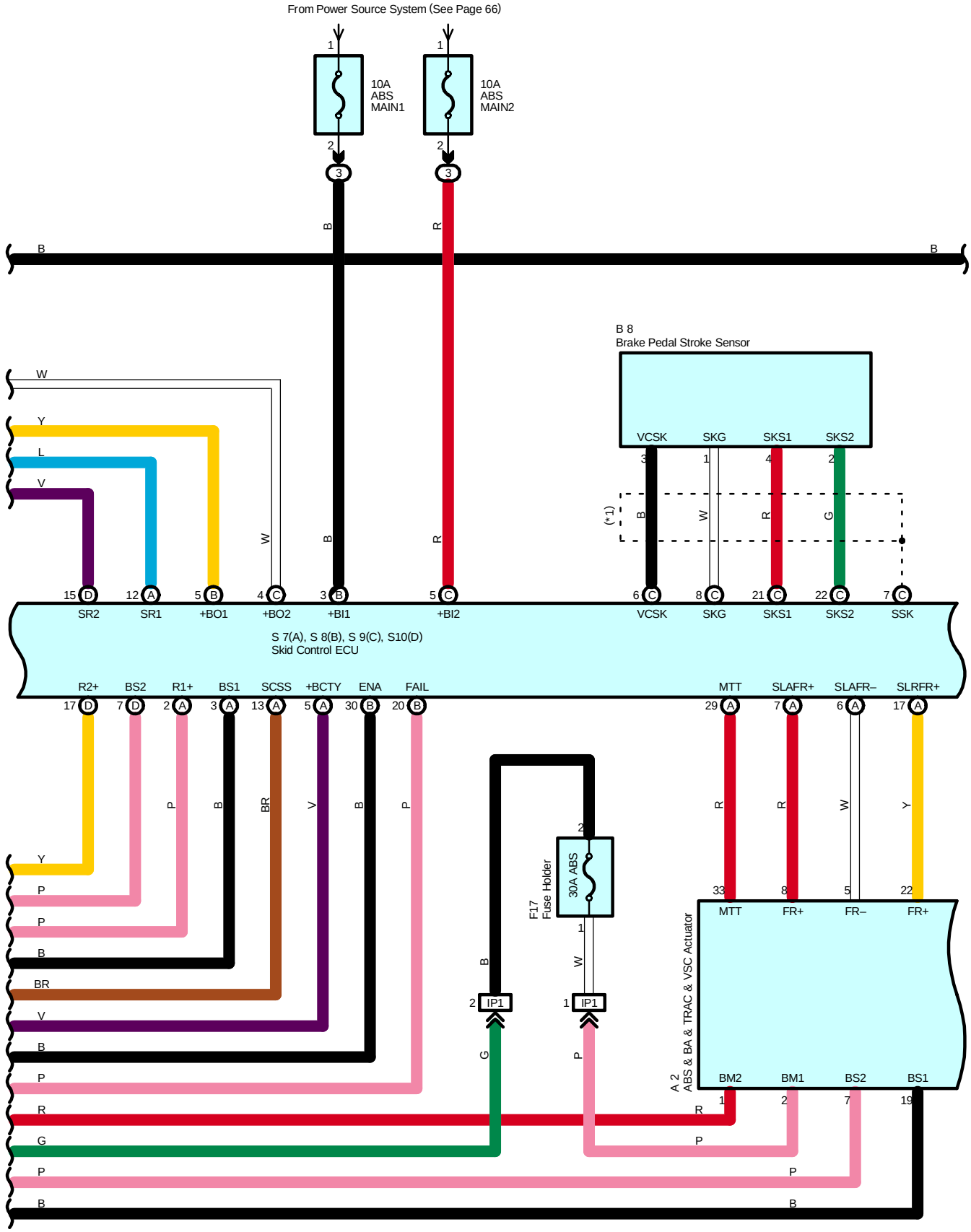
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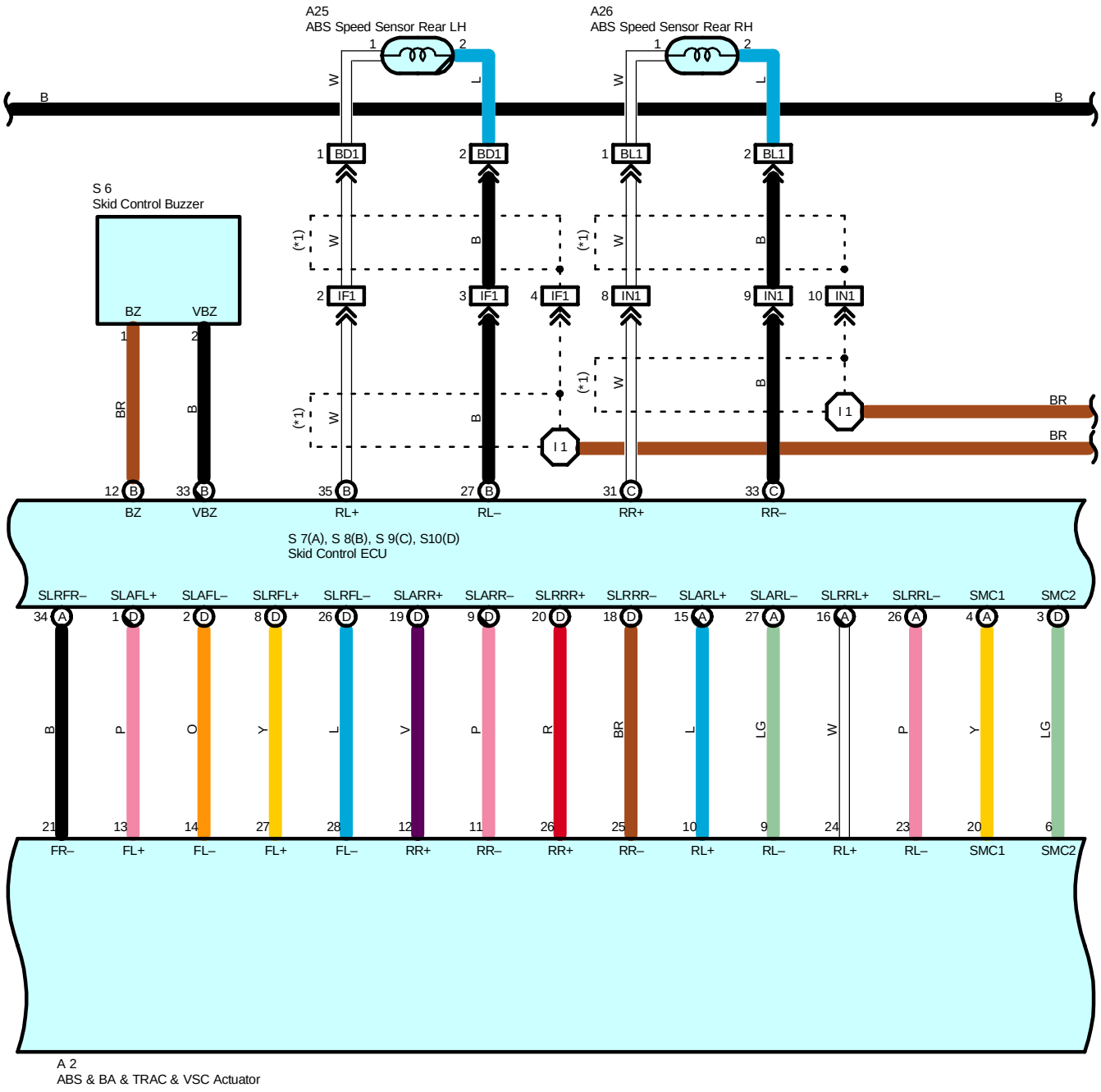


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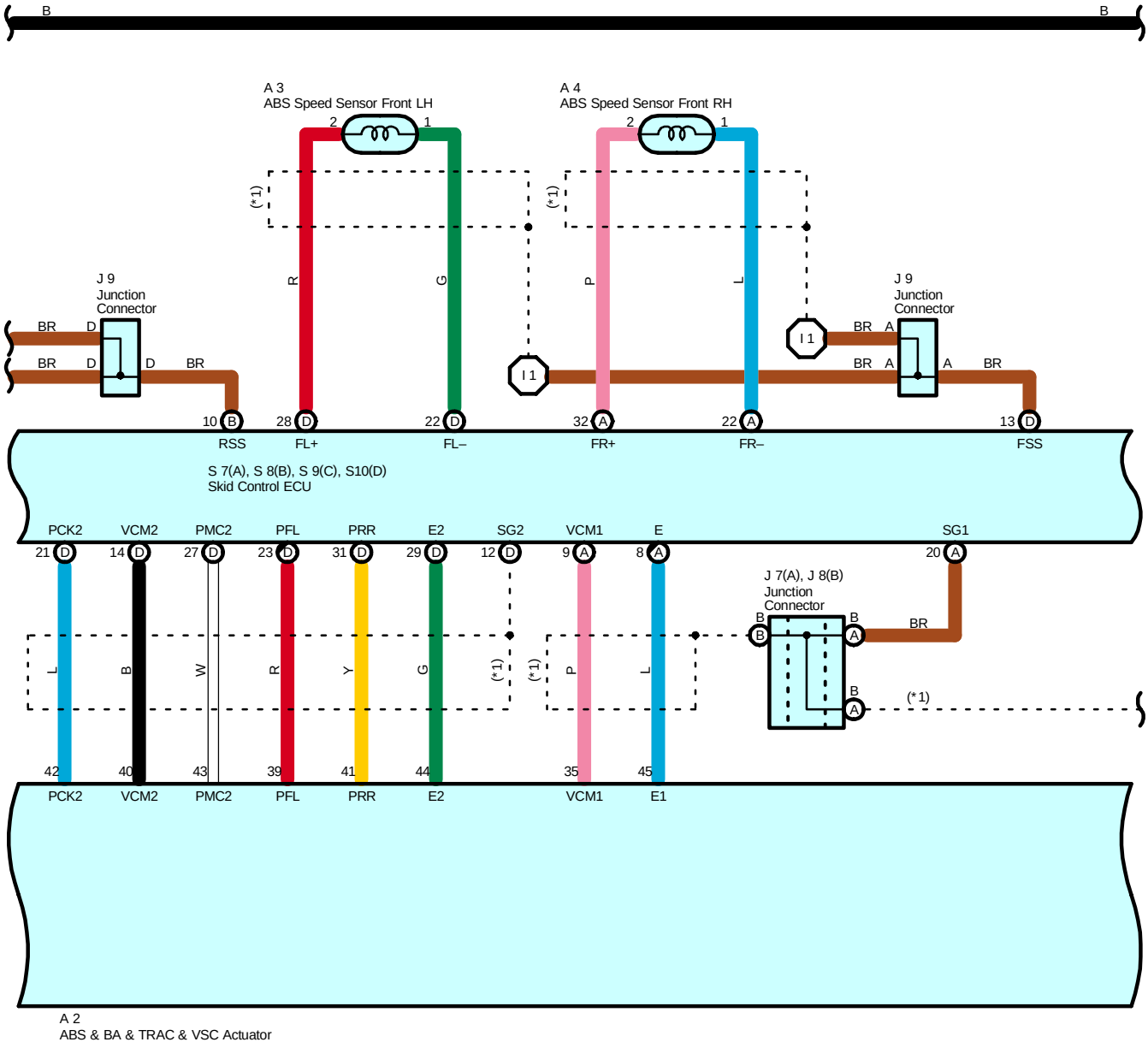


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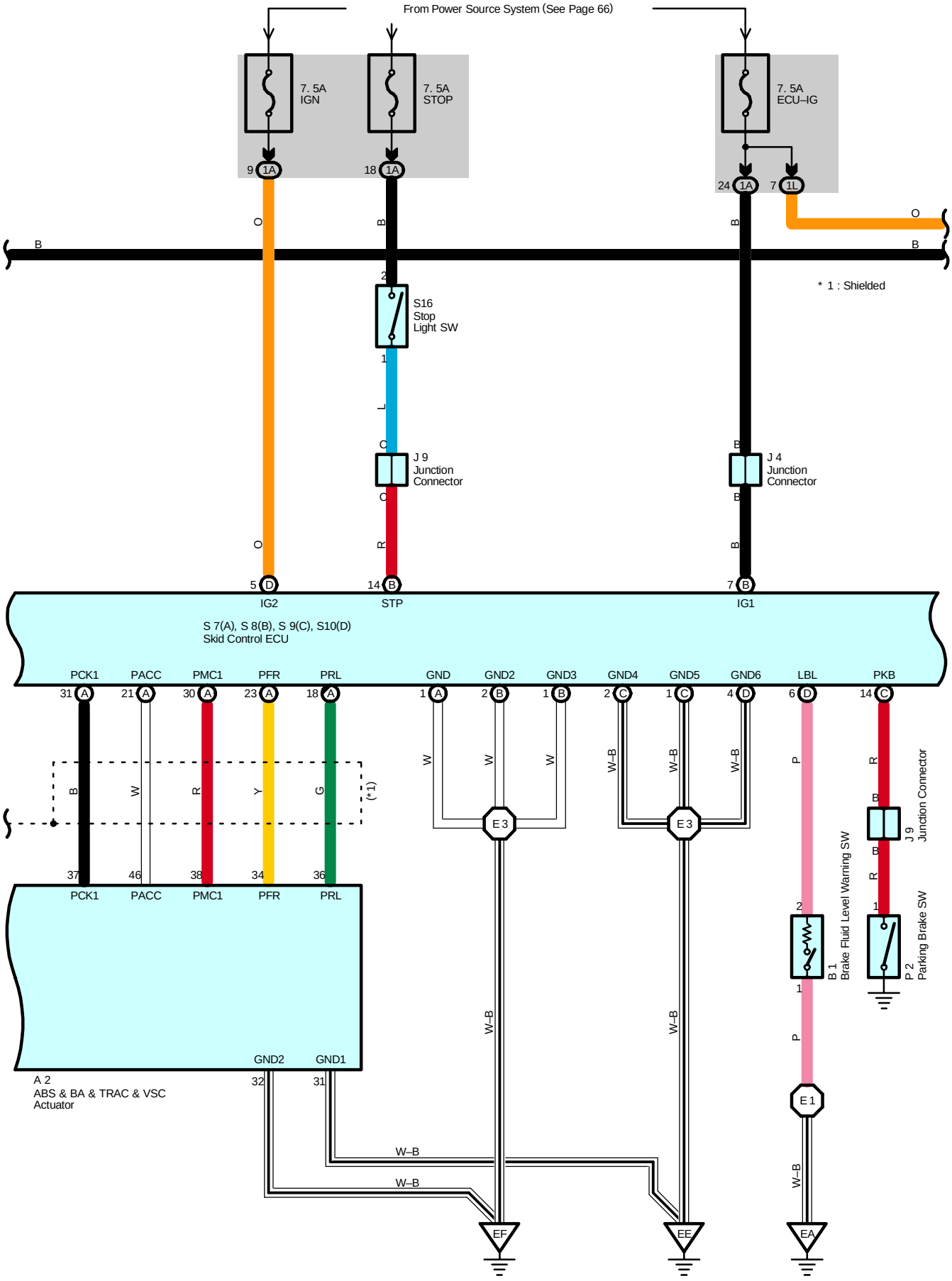
* 1 : Shielded



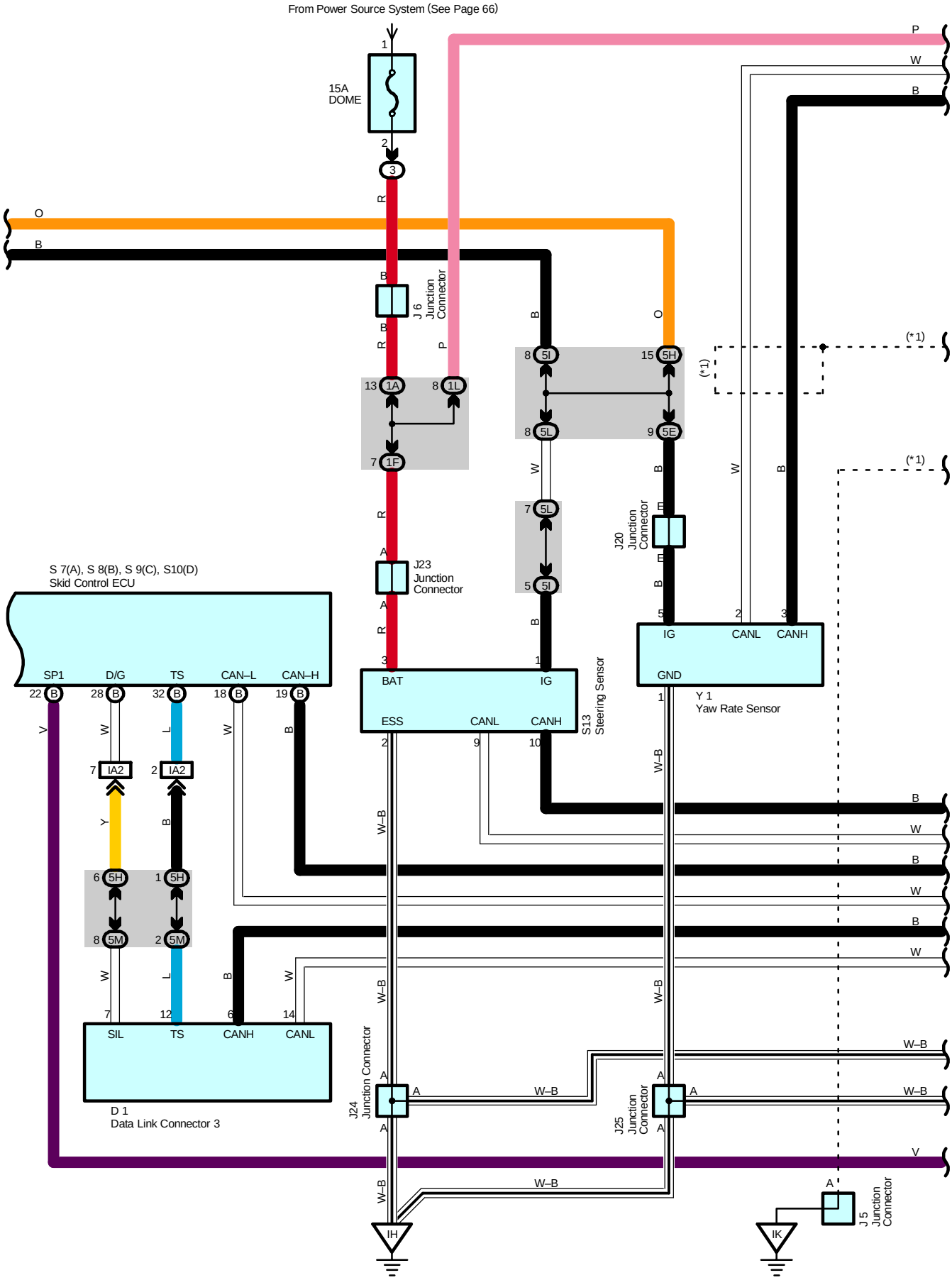
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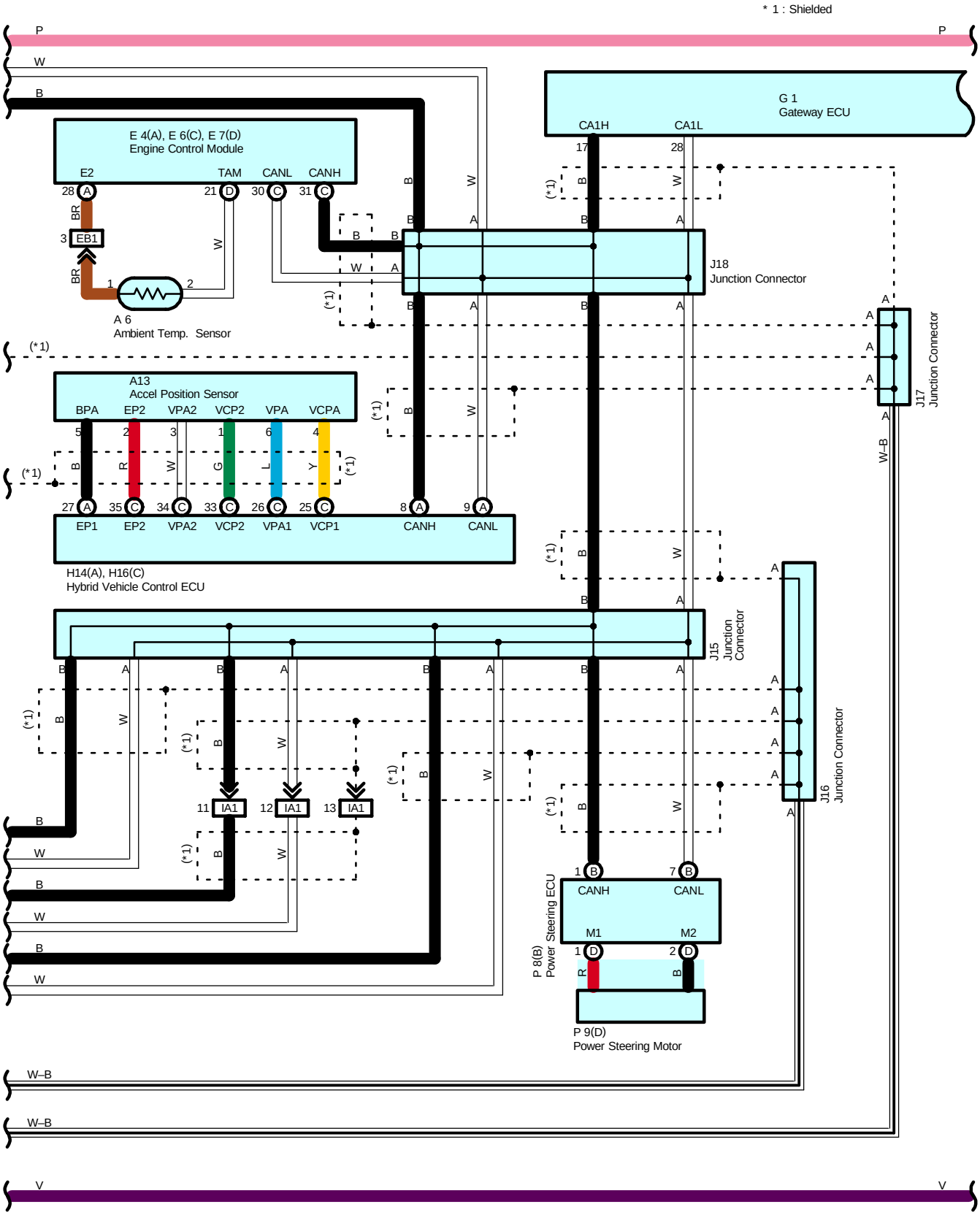
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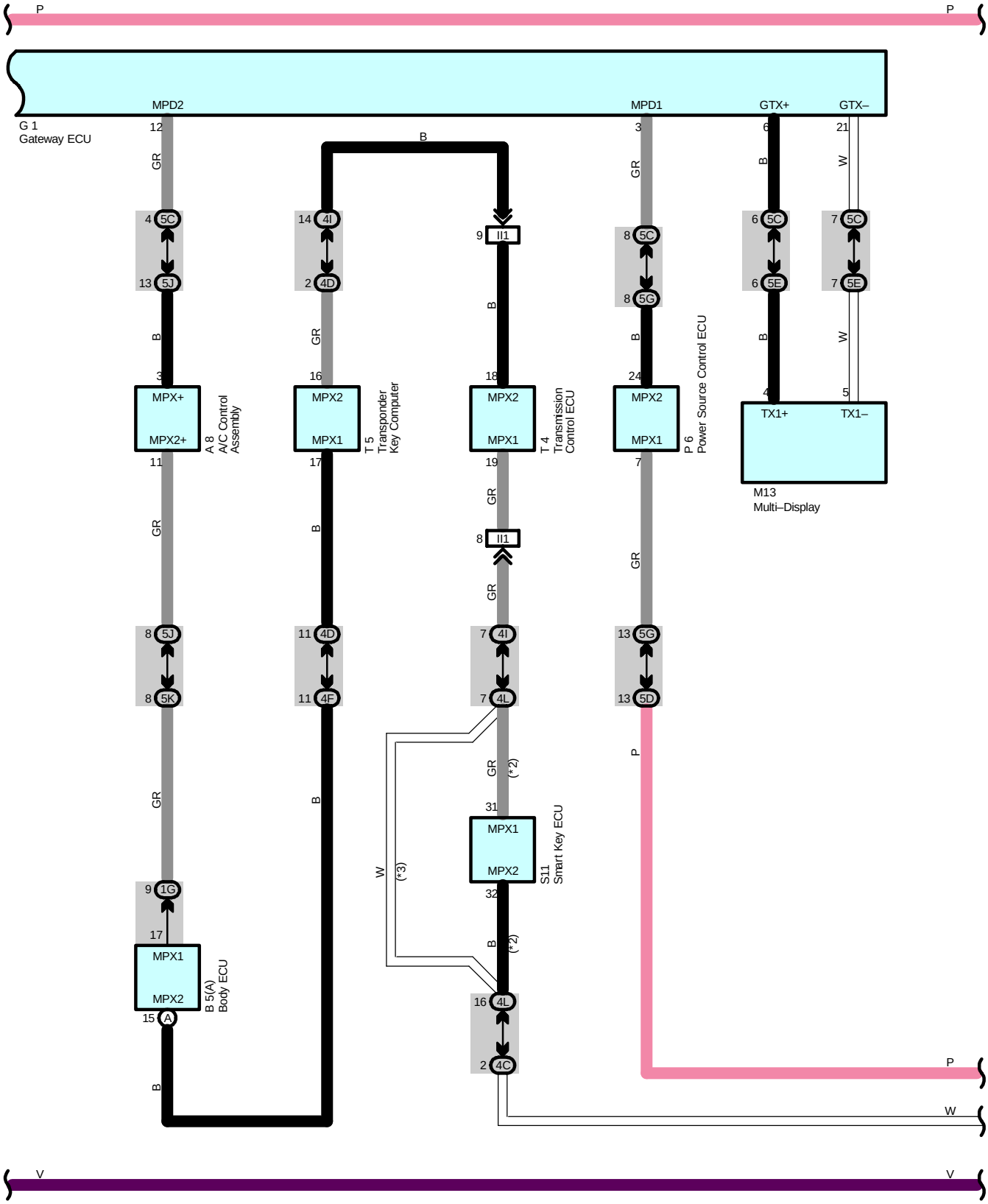
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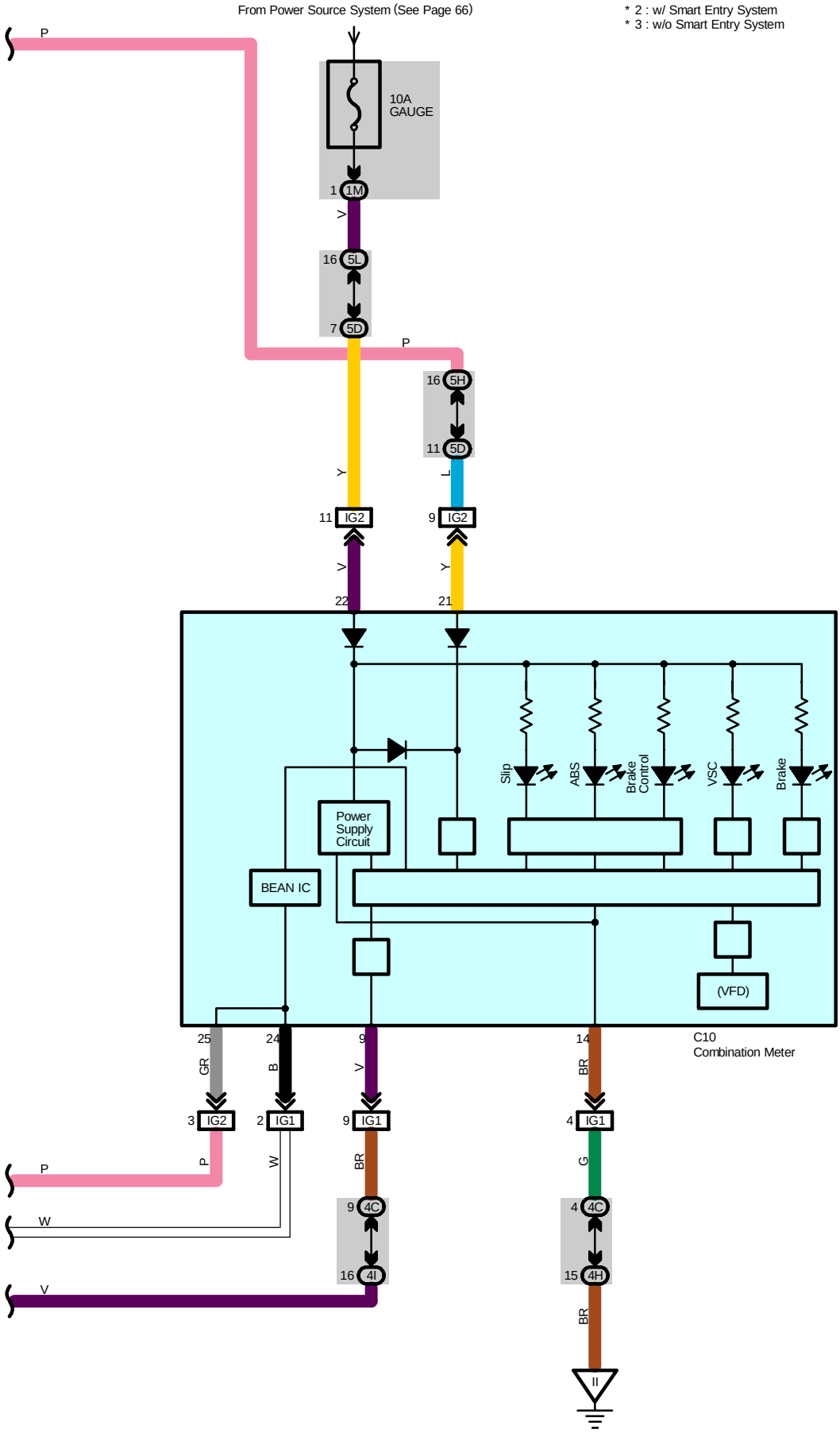
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System Outline

1. ABS Operation

If the brake pedal is depressed suddenly, the ABS controls the hydraulic pressure of all the four wheel cylinders to automatically avoid wheel locking and to ensure the directional and steering stability of the vehicle. Under the situation, the skid control 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 skid control 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. Electronic Brake–Force Distribution

Skid control ECU distributes appropriate brake–force to front and rear wheels (Control of brake–force distribution to front and rear wheels) corresponding to the vehicle driving conditions. It also makes effective use of rear wheel brake–force to match loading condition and decelerating of the vehicle, resulting to reduce depressing of brake pedal and to ensure effective braking. In braking during making a turn, the ECU controls appropriate brake–force distribution to right and left wheels (Control of brake–force distribution to right and left wheels) to ensure stability and braking of the vehicle.

3. Brake Assist System

Skid control ECU recognizes emergency braking from detecting applying speed of brake pedal and brake travel, and controls braking effectiveness to supply strong brake–force for the emergency braking.

4. VSC Operation (w/ VSC)

Unexpected road conditions, emergency situation, and any other external factors may cause large under– or over–steering of the vehicle. If they occur, the VSC system automatically controls the driving power and wheel brakes to reduce the under– or over–steering.

To reduce large over–steering :

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

To reduce large under–steering :

If the VSC system determines that the under–steering is large, it controls the driving power and activates the front wheel brakes and rear inner side wheel brake to reduce the under–steering.

If there is malfunction in the VSC system, the VSC indicator lights up to warn the driver.

5. Mutual System Control

Due to cooperative control with hybrid vehicle control ECU, skid control ECU controls hydraulic brake to collect much electrical energy by making the most use of regenerative brake.

Skid control ECU also improves stability of the vehicle, performing cooperative control with power steering ECU to give steering torque assistance, corresponding to driving conditions. (w/ VSC)

6. Electric Source Backup Function

Electric charge is stored in brake control power supply. If voltage of vehicle electricity is declined, electric charge is released to cover electric supply to the system.

7. Fail Safe Function

Skid control ECU monitors the system component parts electrically. In case there is abnormality in ECU, sensor signal and actuator, normal parts except parts with abnormality continue braking operation.

Even in case braking is shut off due to malfunction of oil pressure source, braking is secured as master cylinder pressure made by manpower works on wheel cylinder.

In case only regenerative brake is not effective due to abnormality in communication with hybrid vehicle control ECU, control will be changed to have oil pressure brake generate all the braking force

Service Hints

S7 (A), S8 (B), S9 (C), S10 (D) Skid Control ECU

(B) 3, (C) 5–Ground : Always approx. 12 volts

(B) 7, (D) 5–Ground : Approx. 12 volts with the power SW at IG ON position

(B)14–Ground : Approx. 12 volts with the brake pedal depressed

(A) 1, (B) 1, (B) 2, (C) 1, (C) 2, (D) 4–Ground : Always continuity

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: Parts Location

Code	See Page	Code	See Page	Code	See Page
A2	44	F17	47	M13	48
A3	44	G1	47	P2	49
A4	44	H14 A	47	P6	49
A6	44	H16 C	47	P8 B	49
A8	46	J1	45	P9 D	49
A13	46	J4	45	S2 A	45
A25	50	J5	48	S3 B	45
A26	50	J6	48	S6	49
B1	44	J7 A	48	S7 A	49
B5 A	46	J8 B	48	S8 B	49
B8	46	J9	48	S9 C	49
B17	44	J15	48	S10 D	49
B18	50	J16	48	S11	49
C10	47	J17	48	S13	49
D1	47	J18	48	S16	49
D7	50	J20	48	T4	49
E4 A	47	J23	48	T5	49
E6 C	47	J24	48	Y1	49
E7 D	47	J25	48		

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1D	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
1F	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1G		
1L		
1M		
3C	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
4C	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4D		
4F		
4H		
4I		
4L		
5C	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5D		
5E		
5G		
5H		
5I		
5J		
5K		
5L		
5M		

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: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	54	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B)
IA1	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IA2		
IF1	56	Floor Wire and Engine Room Main Wire (Left Kick Panel)
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IK1	58	Engine Room Main Wire and Floor No.2 Wire (Cowl Side Panel RH)
IM1	58	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
IN1	58	Floor No.2 Wire and Engine Room Main Wire (Right Kick Panel)
IP1	58	Engine Room No.2 Wire and Engine Room Main Wire (Upper Parts of Front Body Pillar LH)
BD1	60	Skid Control Sensor No.1 Wire and Floor Wire (Front Side of Left Quarter Panel)
BL1	62	Skid Control Sensor No.2 Wire and Floor No.2 Wire (Front Side of Right Quarter Panel)

: Ground Points

Code	See Page	Ground Points Location
EA	54	Right Side of the Fender Apron
EE	54	Left Side of the Suspension Tower
EF		
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH
IK	56	Cowl Side Panel RH
BQ	60	Rear Side of Right Quarter Panel

: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	54	Engine Room Main Wire	I1	58	Instrument Panel Wire
E3					

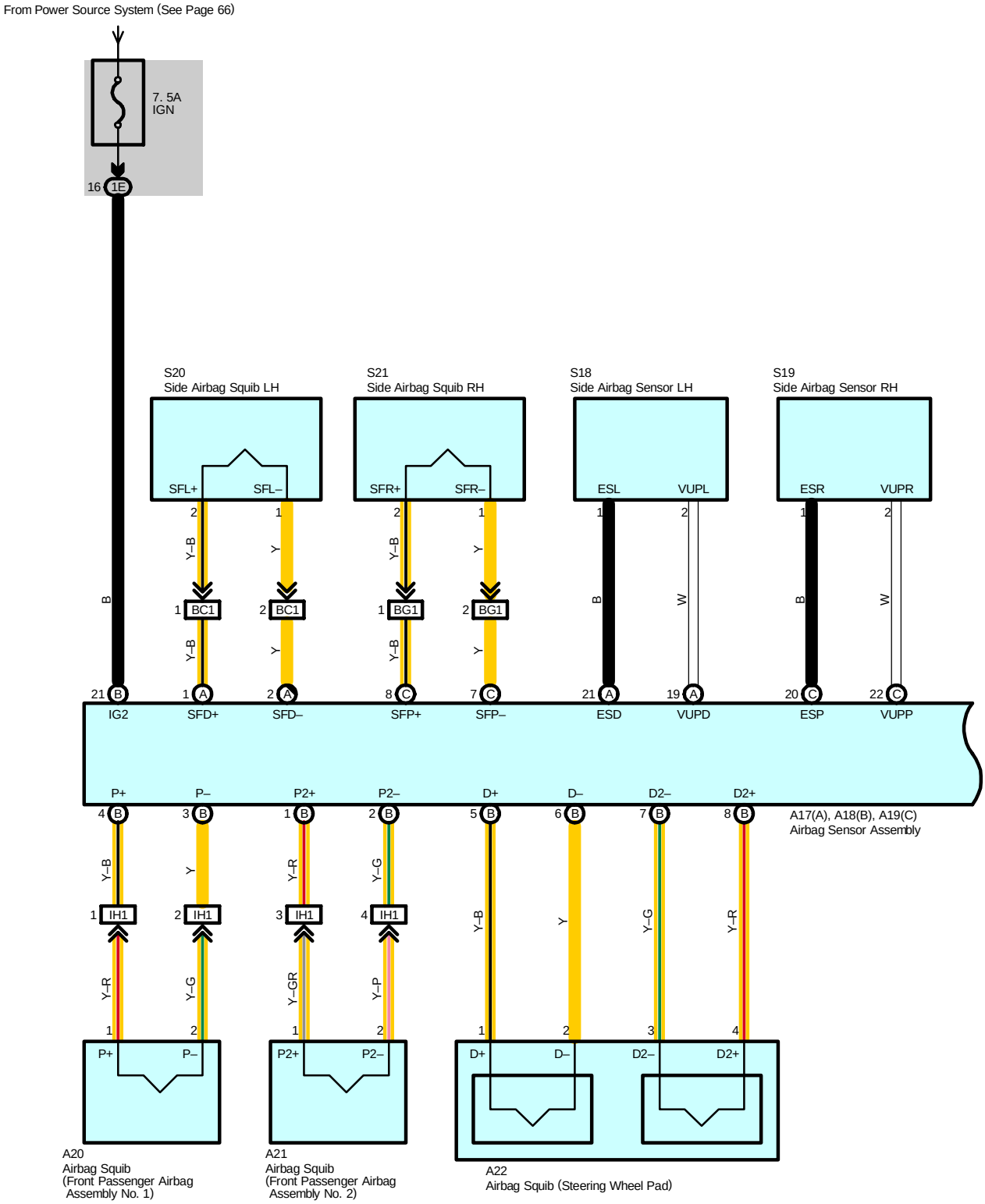
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NOTICE: When inspecting or repairing the SRS, perform service in accordance with the following precautionary instructions and the procedure, and precautions in the Repair Manual applicable for the model year.

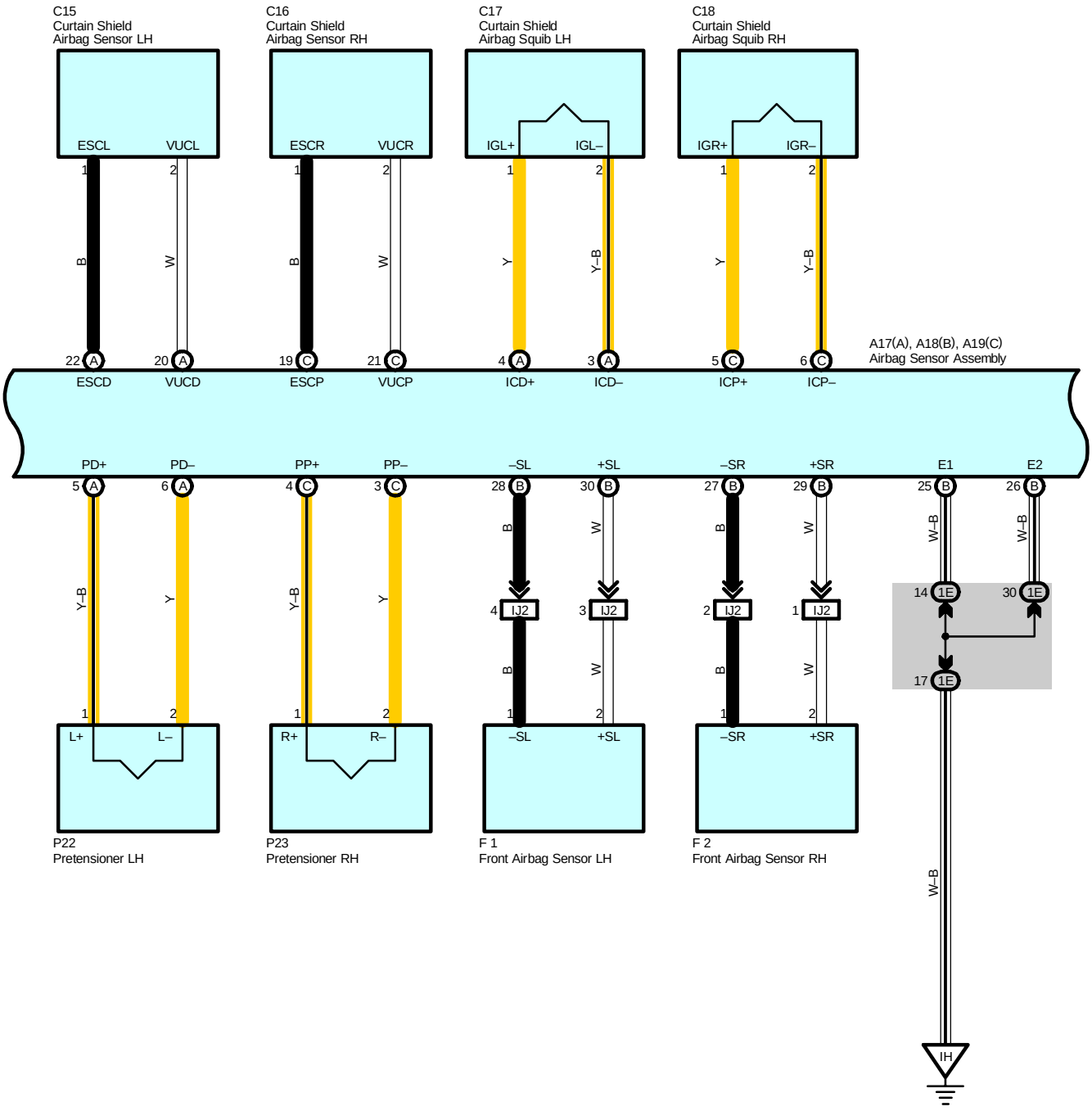
- Malfunction symptoms of the SRS are difficult to confirm, so the DTCs become the most important source of information when troubleshooting. When troubleshooting the SRS, always inspect the DTCs before disconnecting the battery.
- **Work must be started more than 90 seconds after the power SW is pushed to the "OFF" 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 deploy.)
- When the negative (–) terminal cable is disconnected from the battery, the memory of the clock and audio system will be cleared. So before starting work, make a record of the contents in the audio memory system. When work is finished, reset the audio systems as they were before and adjust the clock. Some vehicles have power tilt steering, power telescopic steering, power seat and power outside rear view mirror which are all equipped with memory function. However, it is not possible to make a record of these memory contents. So when the work is finished, it will be necessary to explain it to your customer, and ask the customer to adjust the features and reset the memory. To avoid erasing the memory in each system, never use a back–up power supply from outside the vehicle.
- Before repair, remove the airbag sensor if shocks are likely to be applied to the sensor during repair.
- Do not expose the following parts directly to hot air or flame;
- Even in cases of a minor collision where the SRS does not deploy, the following parts should be inspected;
- Never use SRS parts from another vehicle. When replacing parts, replace with new parts.
- For the purpose of reuse, never disassemble and repair the following parts.
- If the following parts have been dropped, or have cracks, dents and other defects in their case, bracket, and connector, replace with new one.
- Use a volt/ohmmeter with high impedance (10 kΩ/V minimum) for troubleshooting electrical circuits of the system.
- Information labels are attached to the periphery of the SRS components. Follow the instructions of the notice.
- After work on the SRS is completed, check the SRS warning light.
- If the vehicle is equipped with a mobile communication system, refer to the precaution in the IN section of the Repair Manual.

* Steering wheel pad
* Front Passenger airbag assembly
* Side airbag assembly
* Curtain shield airbag assembly
* Seat belt pretensioner
* Airbag sensor assembly
* Front airbag sensor assembly
* Curtain shield airbag sensor assembly
* Side airbag sensor assembly

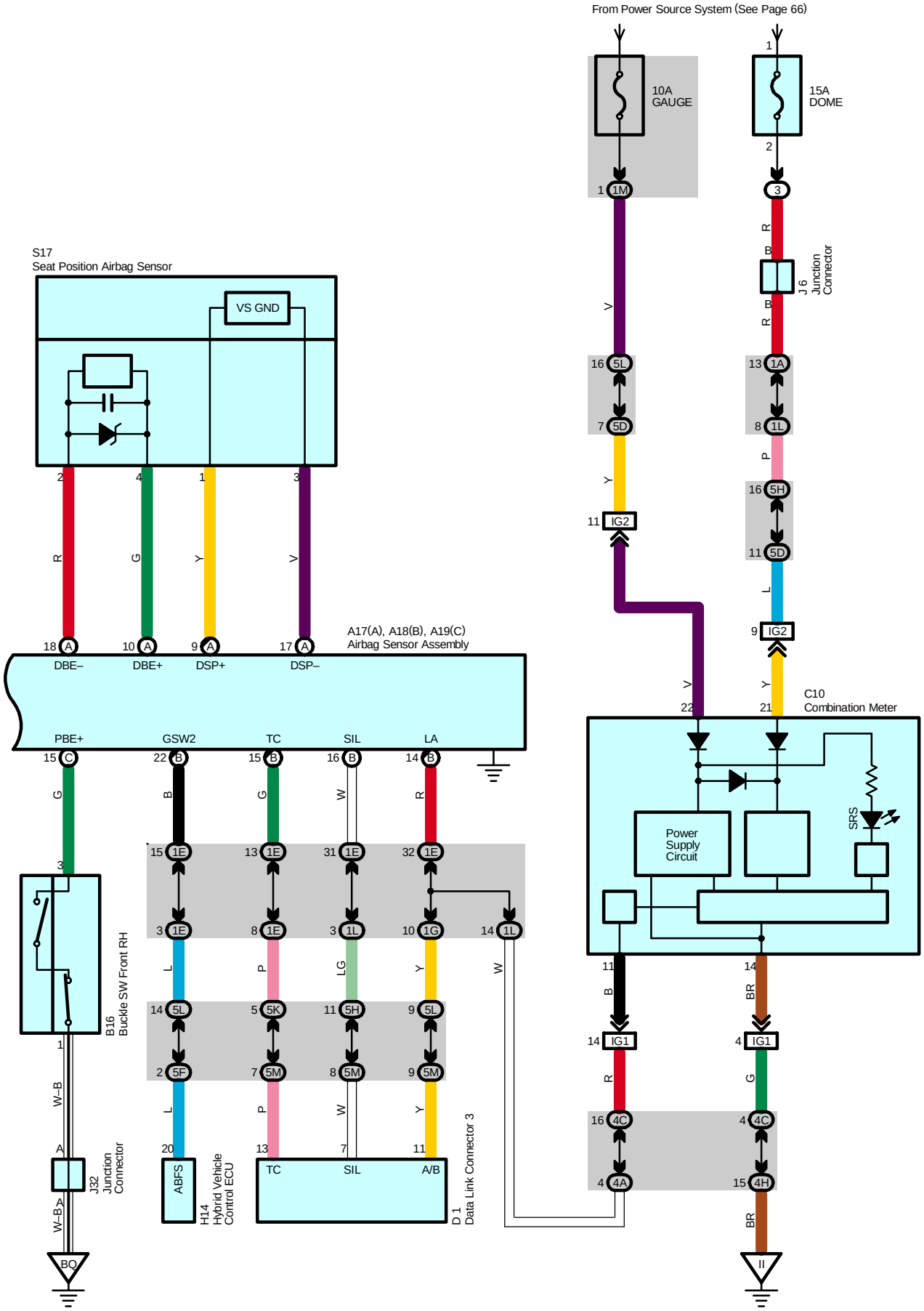
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System Outline

The SRS is a protection device for a driver and front passenger which has a supplemental role to the seat belts.
When the power SW is pushed to IG ON position, the current from the IGN fuse flows to TERMINAL (B) 21 of the airbag sensor assembly.
If an accident occurs while driving, when the frontal impact exceeds set level, the current from the IGN fuse flows to TERMINALS (B) 5, (B) 8, (B) 4, (B) 1, (A) 5 and (C) 4 of the airbag sensor assembly to the airbag squibs and the pretensioners to TERMINALS (B) 6, (B) 7, (B) 3, (B) 2, (A) 6 and (C) 3 of the airbag sensor assembly to TERMINAL (B) 25, (B) 26 or BODY GROUND to GROUND. The flowing current activates the airbag squibs and the pretensioners.
When the side impact exceeds set level, the current from the SRS fuse flows to TERMINALS (A) 1, (C) 8, (A) 4 and (C) 5 of the airbag sensor assembly to the side airbag squibs and the curtain shield airbag squibs TERMINALS (A) 2, (C) 7, (A) 3 and (C) 6 of the airbag sensor assembly to TERMINAL (B) 25, (B) 26 or BODY GROUND to GROUND, which activates side airbag squibs and curtain shield airbag squibs.
The airbag stored inside the steering wheel pad is instantaneously expanded to reduce the shock to the driver.
The airbag stored inside the passenger's instrument panel expands instantaneously to reduce shock to the front passenger.
Side airbags expand instantaneously to reduce side shock to the driver and front passenger.
The curtain shield airbag can reduce impact on the head of the front and rear passengers and reduce risk of injury.
The pretensioner helps to maximize the seat belt restraint.

: Parts Location

Code		See Page	Code	See Page	Code	See Page
A17	A	46	C16	50	P22	52
A18	B	46	C17	50	P23	52
A19	C	46	C18	50	S17	53
A20		46	D1	47	S18	53
A21		46	F1	44	S19	53
A22		46	F2	44	S20	53
B16		50	H14	47	S21	53
C10		47	J6	48		
C15		50	J32	51		

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1G		
1L		
1M		
4A	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4C		
4H		
5D	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5F		
5H		
5K		
5L		
5M		

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: **Connector Joining Wire Harness and Wire Harness**

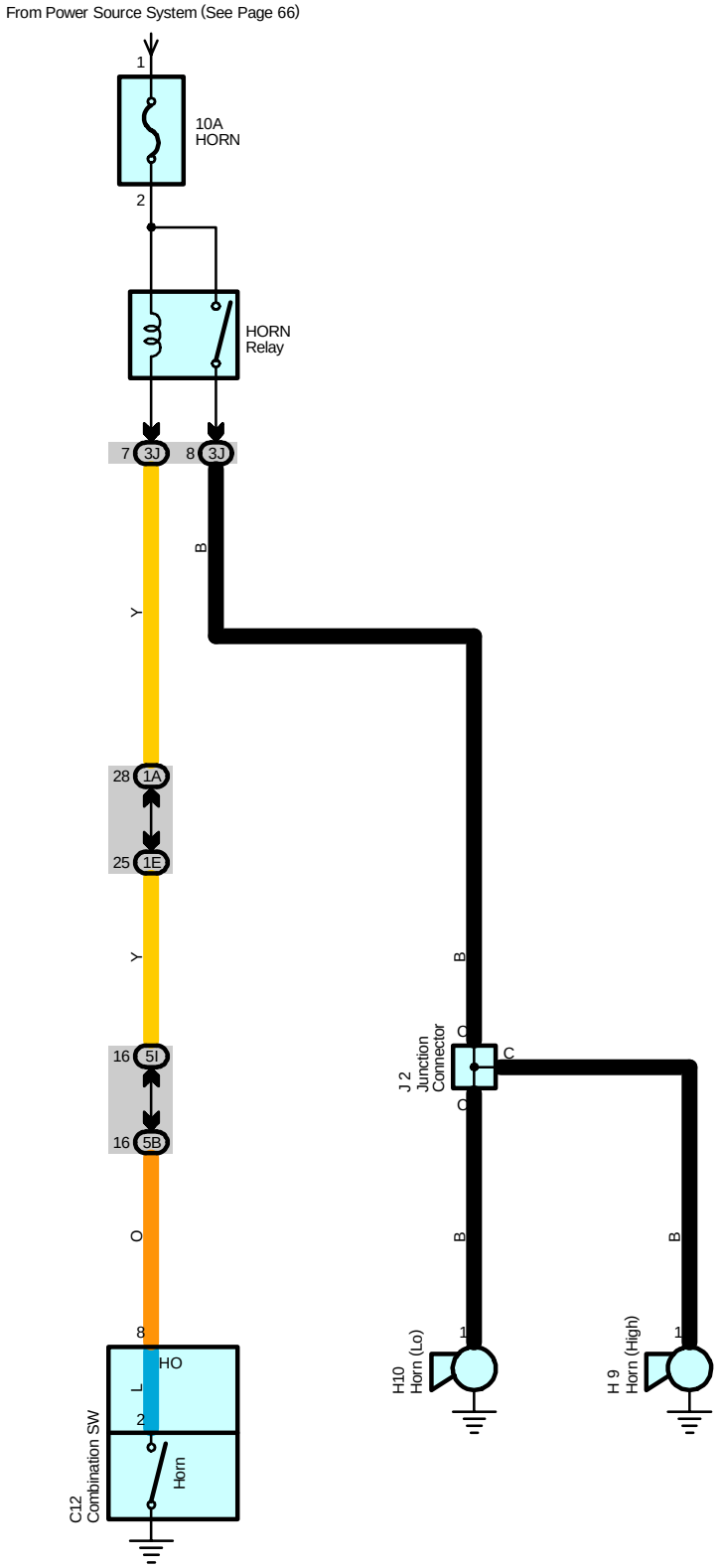
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
IH1	58	Instrument Panel Wire and Instrument Panel No.1 Wire (Behind the Glove Box)
IJ2	58	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)
BC1	60	Floor Wire and Seat Airbag No.1 Wire (Under the Driver's Seat)
BG1	60	Floor No.2 Wire and Seat Airbag No.2 Wire (Under the Front Passenger's Seat)

: **Ground Points**

Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH
BQ	60	Rear Side of Right Quarter Panel

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Service Hints

H9, H10 Horn (Low), (High)

1–Ground : Approx. 12 volts with the horn SW on

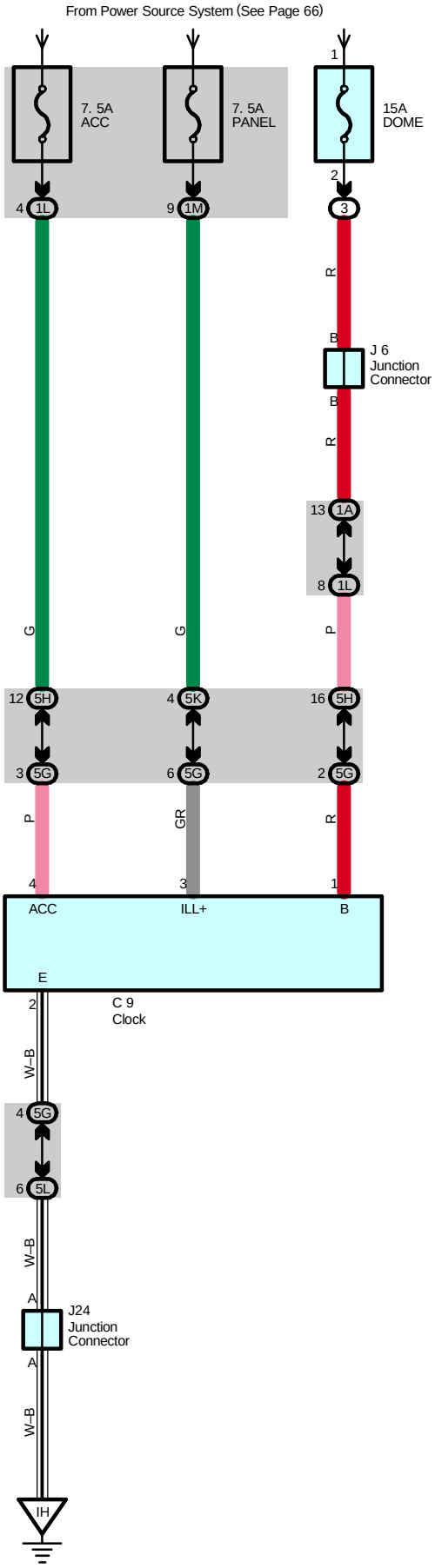
○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
C12	47	H10	44		
H9	44	J2	45		

⬭ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
3J	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
5B	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5I		

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Service Hints

C9 Clock

1–Ground : Always approx. 12 volts
4–Ground : Approx. 12 volts with the power SW at ACC ON or IG ON position
2–Ground : Always continuity

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
C9	47	J6	48	J24	48

⬭ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

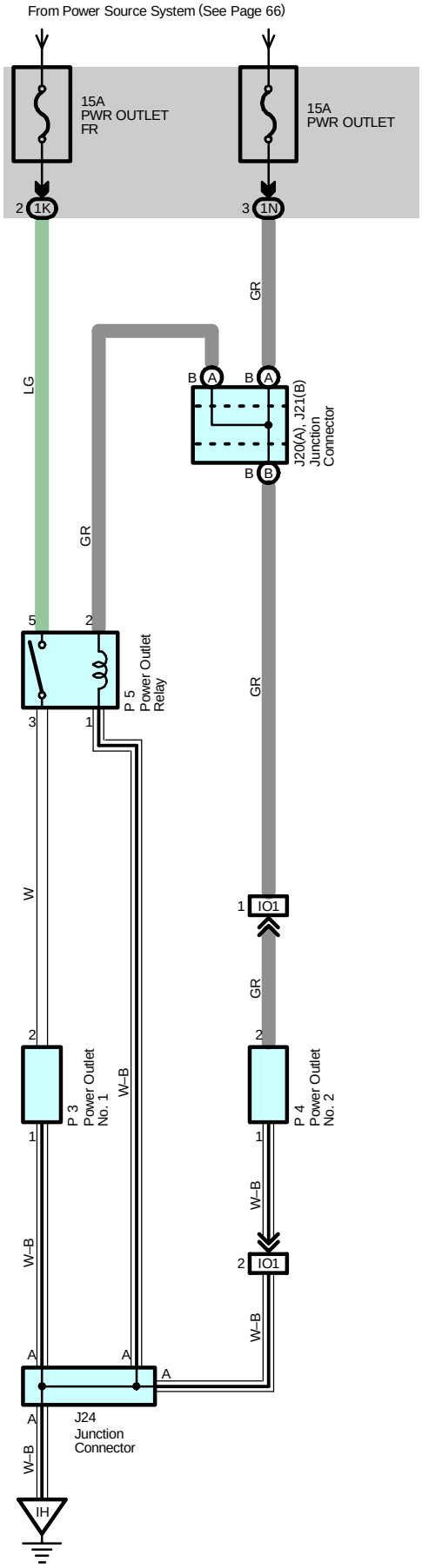
⬭ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1L	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1M		
5G	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5H		
5K		
5L		

▽ : Ground Points

Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH

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Service Hints

P5 Power Outlet Relay

3–5 : Closed with the power SW at ACC ON or IG ON position

: Parts Location

Code		See Page	Code	See Page	Code	See Page
J20	A	48	J24	48	P4	49
J21	B	48	P3	49	P5	49

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1K	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1N		

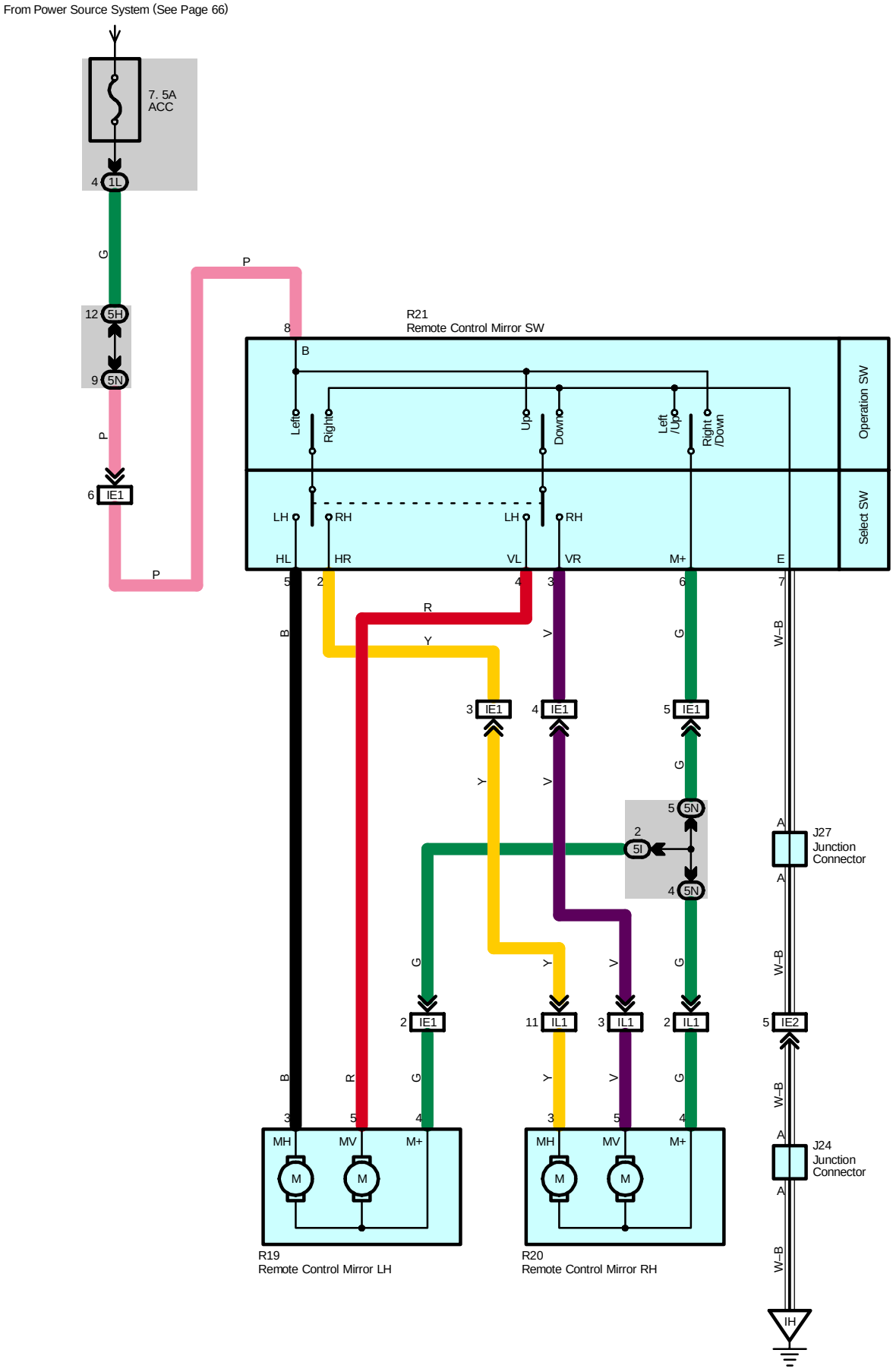
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IO1	58	Instrument Panel Wire and Instrument Panel No.4 Wire (Front Console Box LH)

: Ground Points

Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH

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Service Hints

R21 Remote Control Mirror SW

8–6 : Continuity with the operation SW at DOWN or RIGHT position
6–7 : Continuity with the operation SW at UP or LEFT position
8–Ground : Approx. 12 volts with the power SW at ACC ON or IG ON position
7–Ground : Always continuity

: Parts Location

Code	See Page	Code	See Page	Code	See Page
J24	48	R19	52	R21	52
J27	51	R20	52		

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1L	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
5H	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5I		
5N		

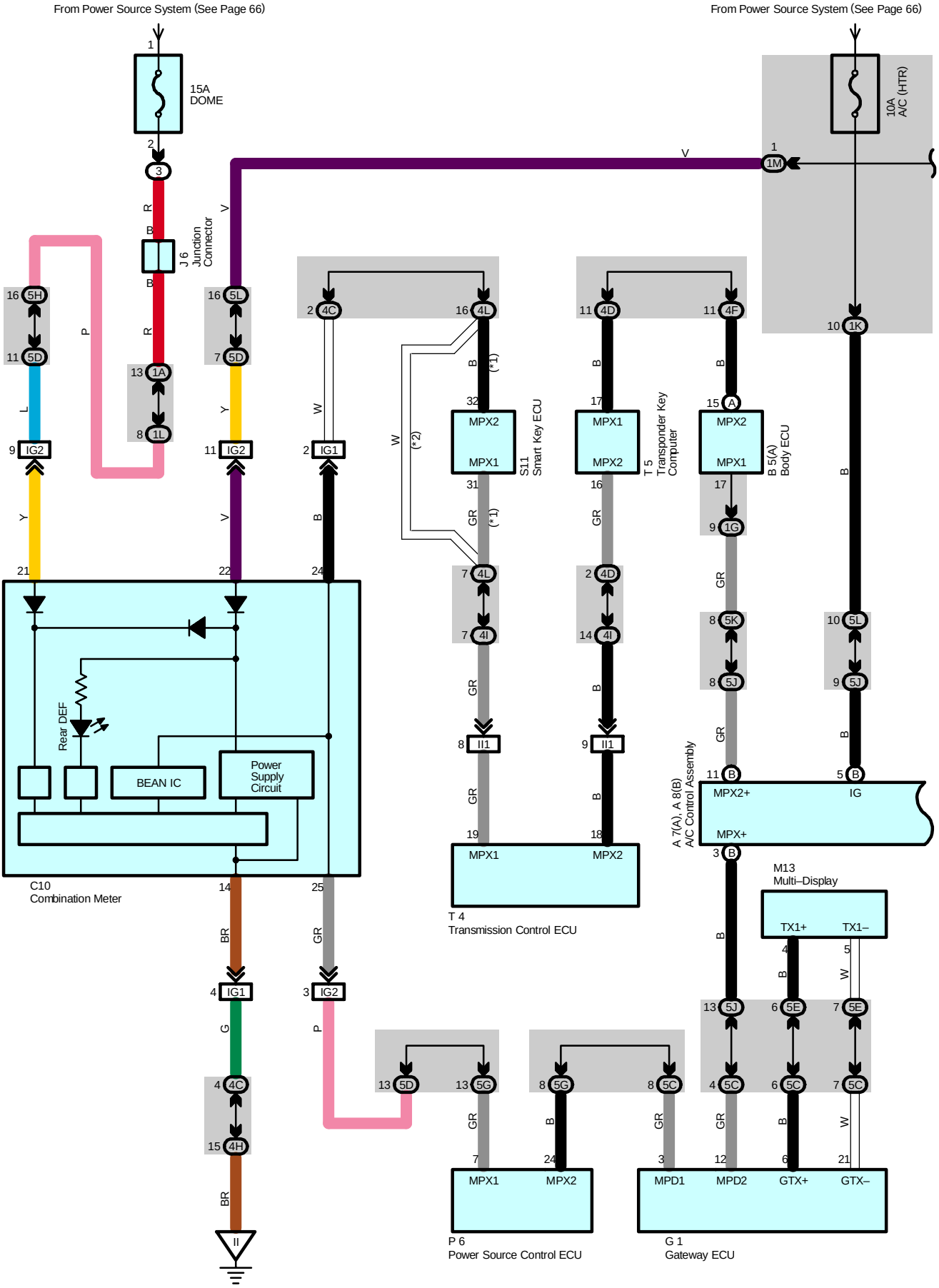
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE1	56	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IE2		
IL1	58	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)

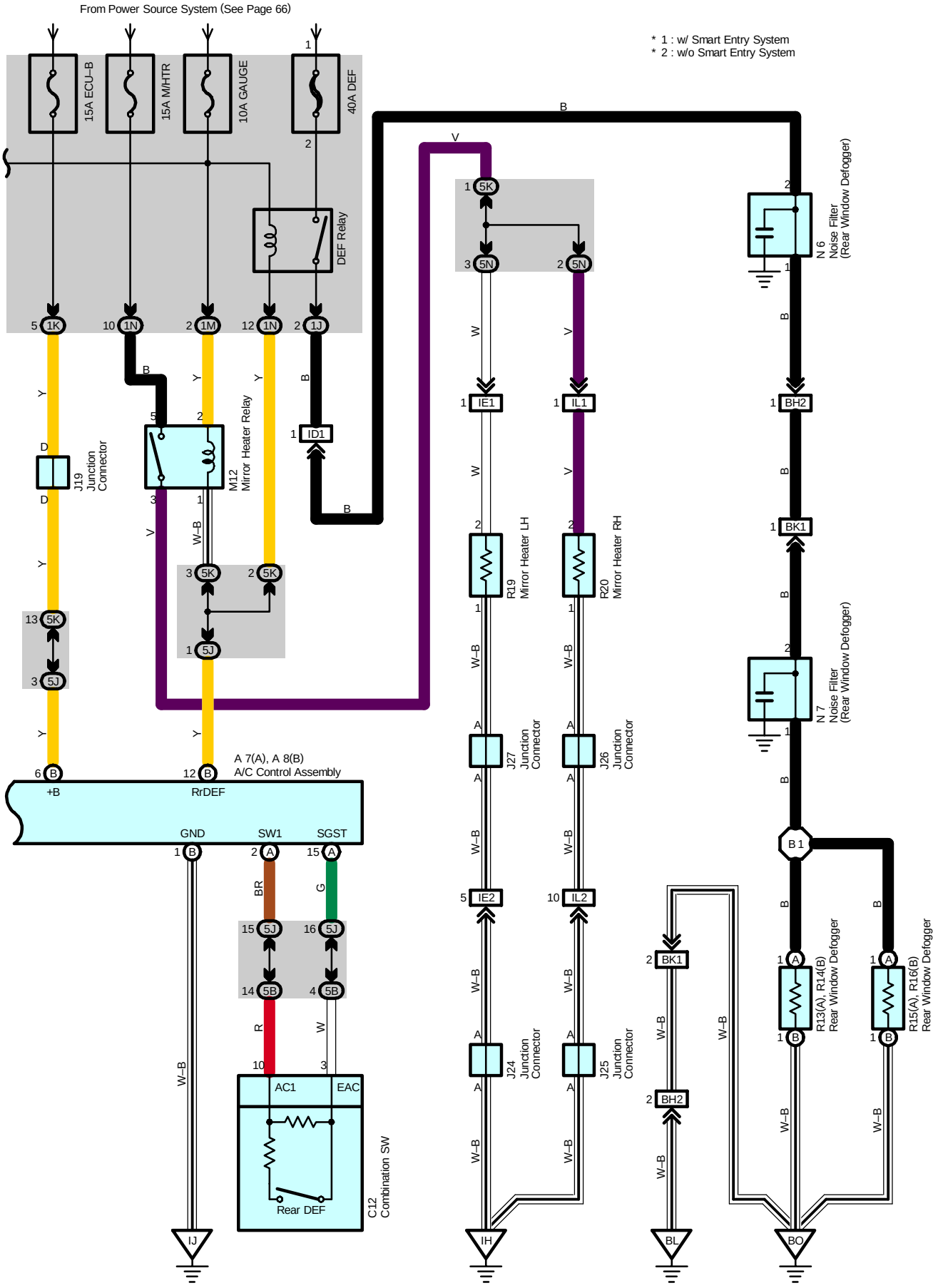
: Ground Points

Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH

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Rear Window Defogger and Mirror Heater

System Outline

When power SW is at IG ON position, turning ON rear DEF SW on the steering wheel sends signal to A/C control assembly. Then A/C control assembly flows electricity in TERMINAL Rr DEF, which activates DEF relay and mirror heater relay. As a result, rear DEF SW and mirror heater is turned on.
Turning ON rear DEF SW of multi–display sends signal to A/C control assembly. Then the same action follows as above.
During rear window defogger and mirror heater in operation, signal is input in combination meter, lighting rear DEF indicator in combination meter.

Service Hints

R13 (A), R15 (A) Rear Window Defogger

1–Ground : Approx. 12 volts with the push start SW at IG ON position and rear window defogger SW on

R19, R20 Mirror Heater LH, RH

2–Ground : Approx. 12 volts with the push start SW at IG ON position and rear window defogger SW on

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A7	A	46	J25		48	R14	B	52
A8	B	46	J26		51	R15	A	52
B5	A	46	J27		51	R16	B	52
C10		47	M12		48	R19		52
C12		47	M13		48	R20		52
G1		47	N6		52	S11		49
J6		48	N7		52	T4		49
J19		48	P6		49	T5		49
J24		48	R13	A	52			

▭ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

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: **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1G	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1J		
1K		
1L		
1M		
1N		
4C	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4D		
4F		
4H		
4I		
4L		
5B	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5C		
5D		
5E		
5G		
5H		
5J		
5K		
5L		
5N		

: **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ID1	56	Instrument Panel Wire and Floor Wire (Left Kick Panel)
IE1	56	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IE2		
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IL1	58	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IL2		
BH2	62	Back Door No.1 Wire and Floor Wire (Rear Side of Roof Panel)
BK1	62	Back Door No.1 Wire and Back Door No.2 Wire (Rear Side of Roof Panel)

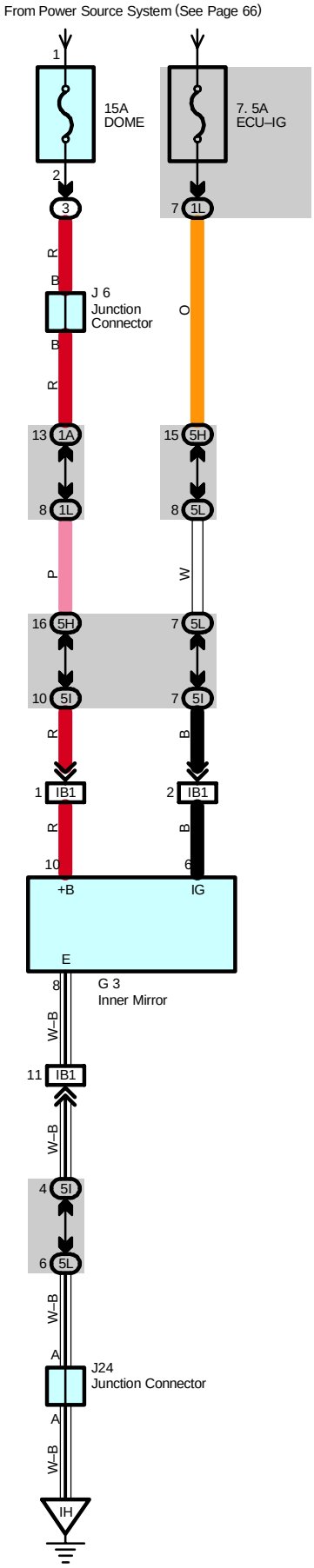
: **Ground Points**

Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH
IJ	56	Instrument Panel Brace RH
BL	60	Rear Side of Left Quarter Panel
BO	60	Center of the Back Door Panel

: **Splice Points**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B1	62	Back Door No.2 Wire			

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Service Hints

G3 Inner Mirror

10–Ground : Always approx. 12 volts
8–Ground : Always continuity
6–Ground : Approx. 12 volts with the power SW at IG ON position

: Parts Location

Code	See Page	Code	See Page	Code	See Page
G3	51	J6	48	J24	48

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1L	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
5H	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5I		
5L		

: Connector Joining Wire Harness and Wire Harness

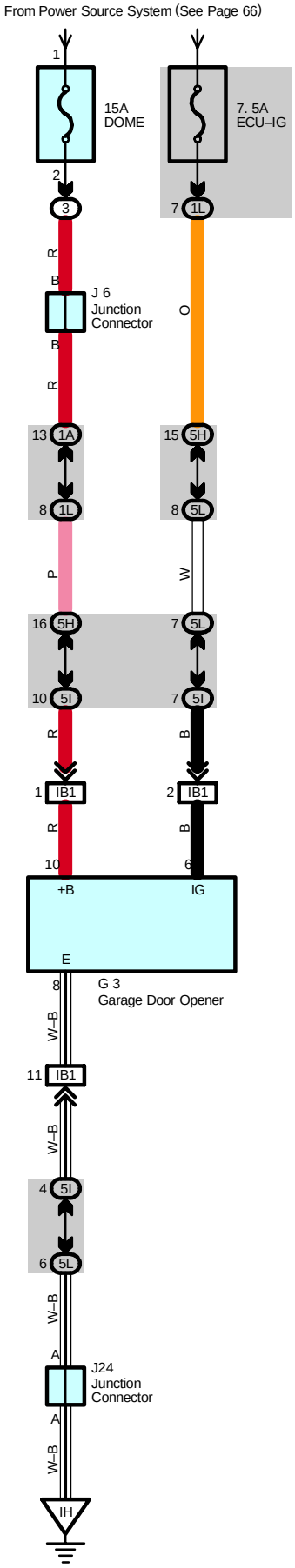
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IB1	56	Roof Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)

: Ground Points

Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH

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Garage Door Opener



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Service Hints

G3 Garage Door Opener

10–Ground : Always approx. 12 volts
8–Ground : Always continuity
6–Ground : Approx. 12 volts with the power SW at IG ON position

: Parts Location

Code	See Page	Code	See Page	Code	See Page
G3	51	J6	48	J24	48

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1L	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
5H	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5I		
5L		

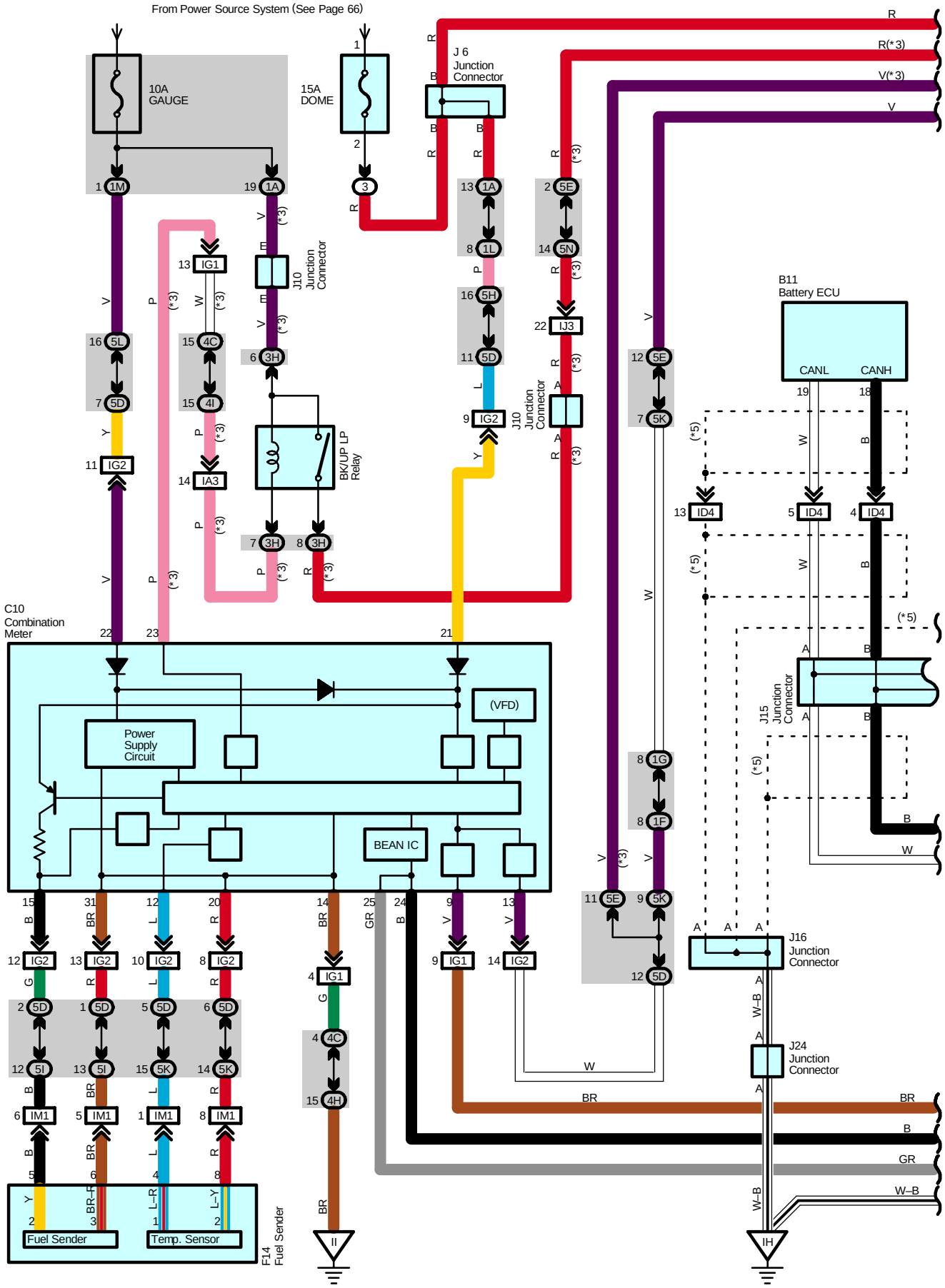
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IB1	56	Roof Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)

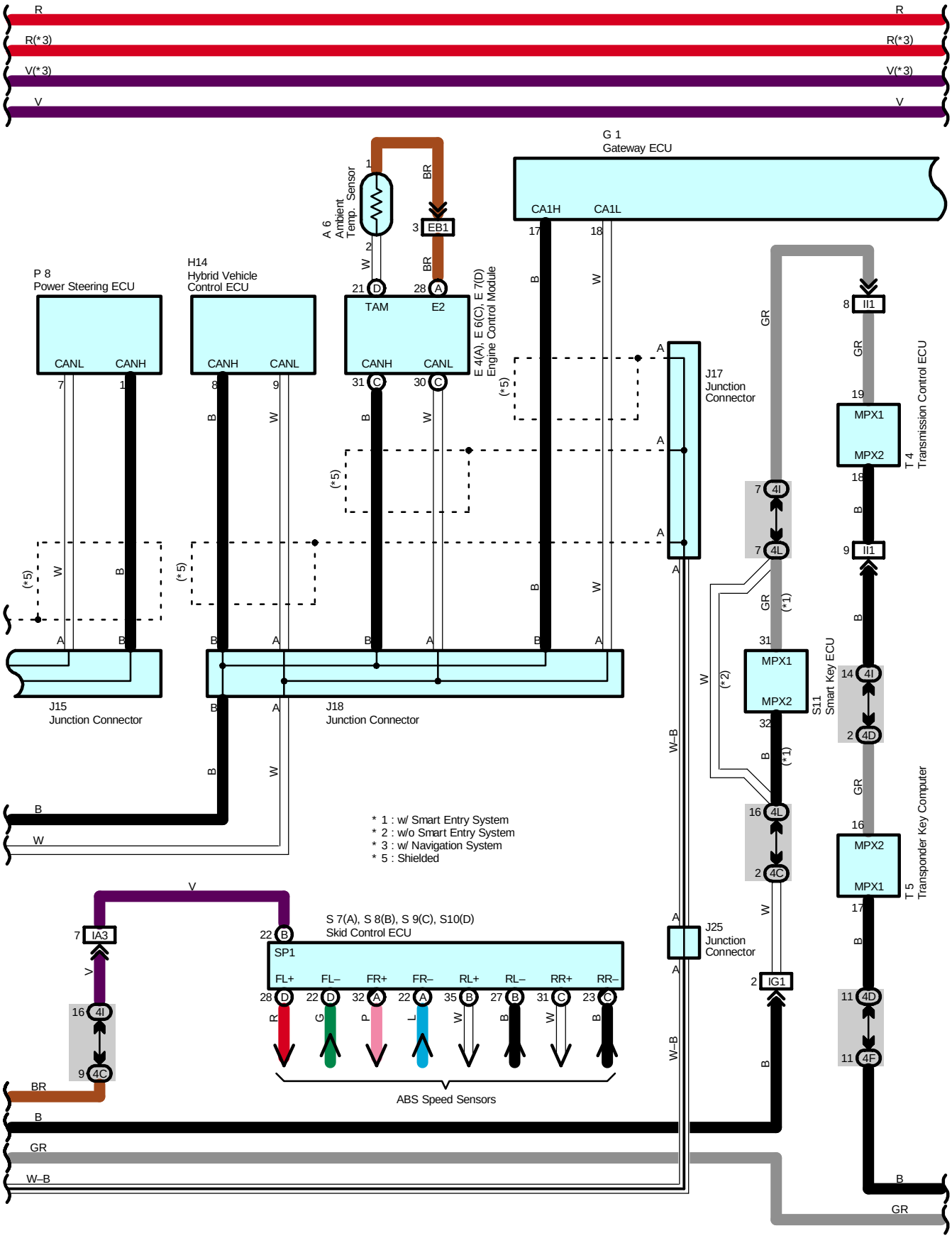
: Ground Points

Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH

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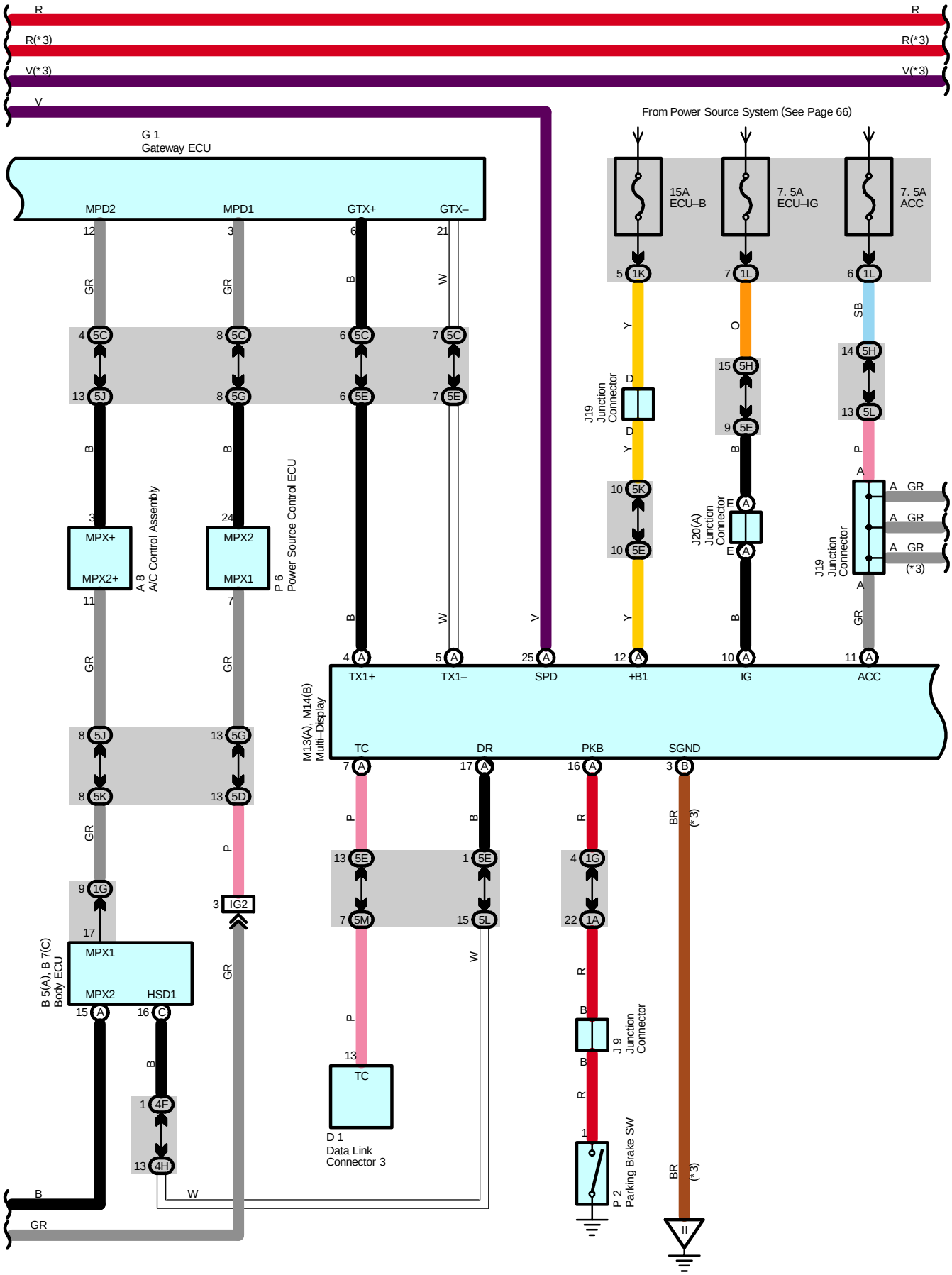


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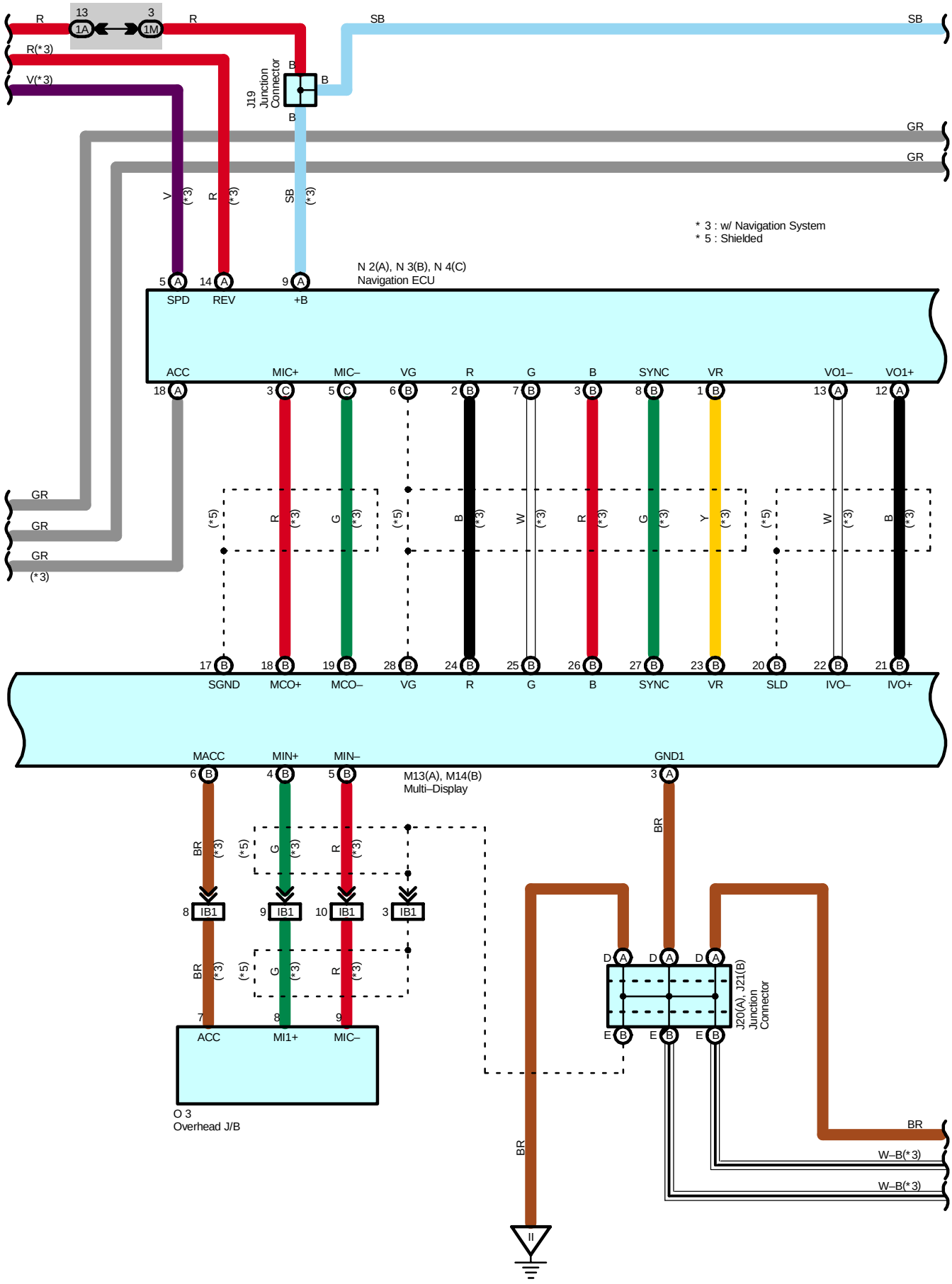


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Multi–Display and Audio System with Separate Amplifier

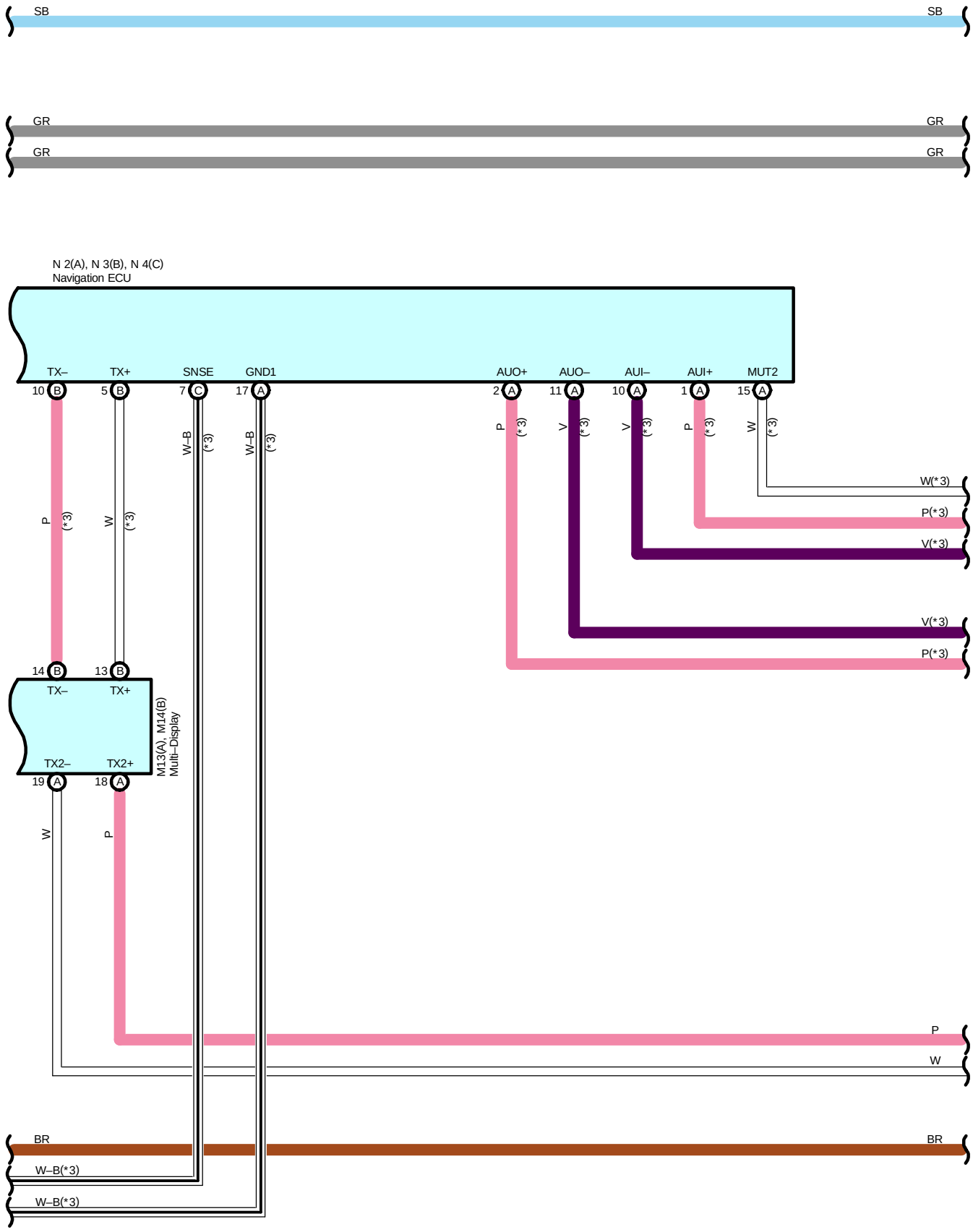


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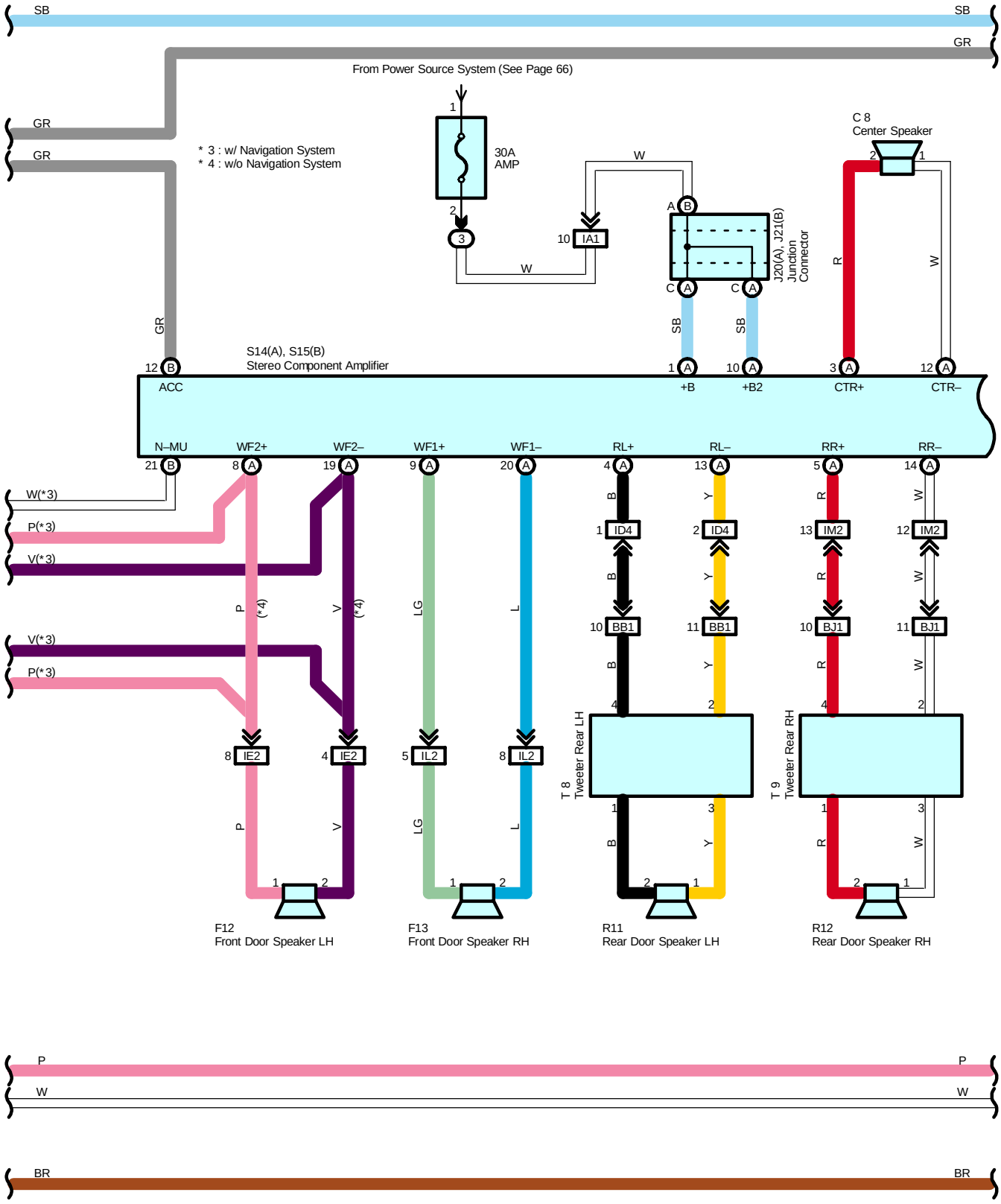


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Multi–Display and Audio System with Separate Amplifier

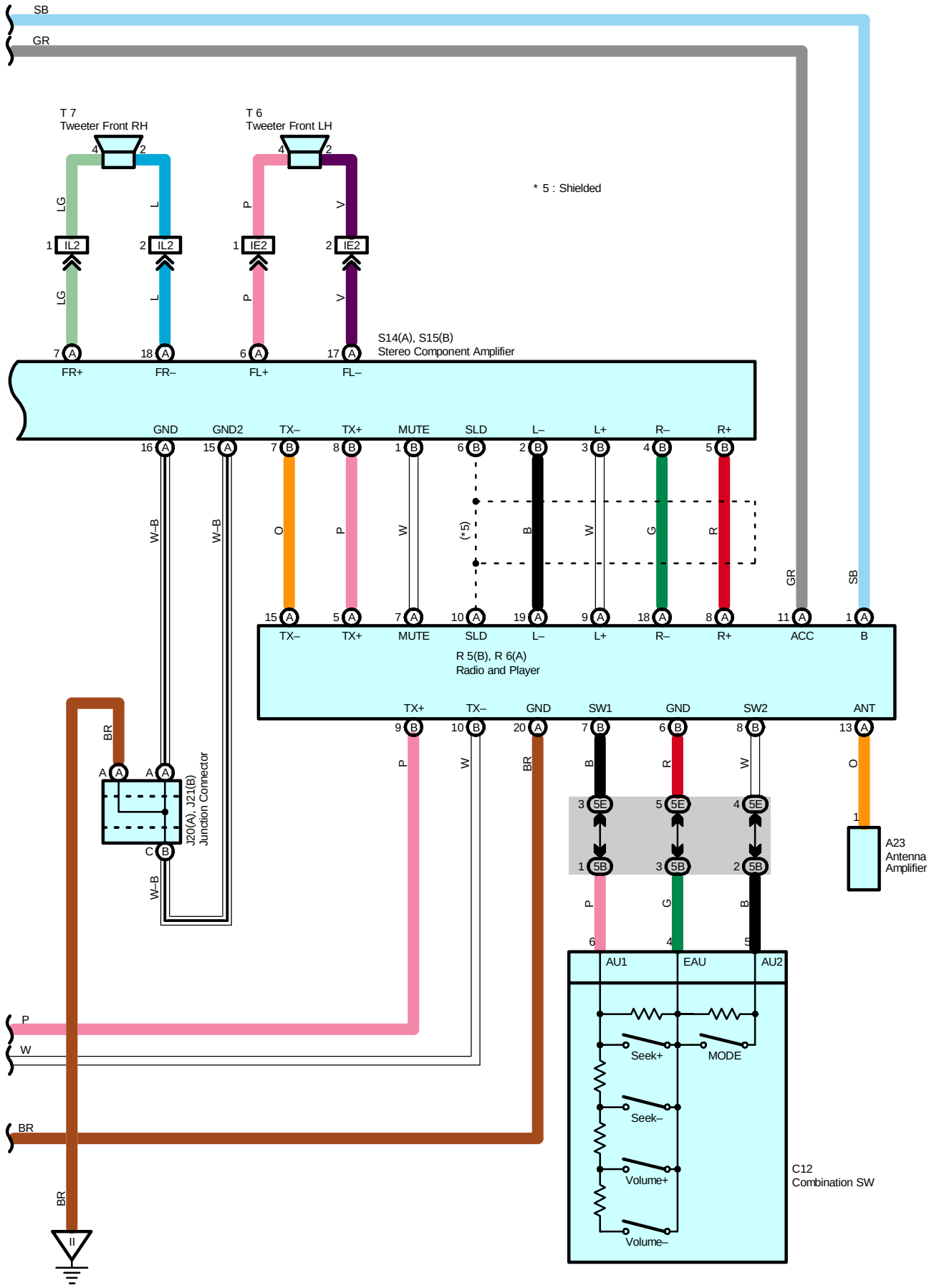


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Multi–Display and Audio System with Separate Amplifier



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Service Hints

R6 (A) Radio and Player

(A) 11–Ground : Approx. 12 volts with the power SW at ACC ON or IG ON position
(A) 1–Ground : Always approx. 12 volts
(A) 20–Ground : Always continuity

S14 (A), S15 (B) Stereo Component Amplifier

(B) 12–Ground : Approx. 12 volts with the power SW at ACC ON or IG ON position
(A) 1, (A) 10–Ground : Always approx. 12 volts
(A) 15, (A) 16–Ground: Always continuity

N2 (A), N4 (C) Navigation ECU

(A) 18–Ground : Approx. 12 volts with the power SW at ACC ON or IG ON position
(A) 9–Ground : Always approx. 12 volts
(A) 17, (C) 7–Ground : Always continuity

M13 (A), M14 (B) Multi–Display

(A) 12–Ground : Always approx. 12 volts
(A) 10–Ground : Approx. 12 volts with the power SW at IG ON position
(A) 11–Ground : Approx. 12 volts with the power SW at ACC ON or IG ON position
(A) 3, (B) 3–Ground : Always continuity

: Parts Location

Code	See Page	Code	See Page	Code	See Page
A6	44	J9	48	P8	49
A8	46	J10	48	R5 B	49
A23	46	J15	48	R6 A	49
B5 A	46	J16	48	R11	52
B7 C	46	J17	48	R12	52
B11	50	J18	48	S7 A	49
C8	47	J19	48	S8 B	49
C10	47	J20 A	48	S9 C	49
C12	47	J21 B	48	S10 D	49
D1	47	J24	48	S11	49
E4 A	47	J25	48	S14 A	49
E6 C	47	M13 A	48	S15 B	49
E7 D	47	M14 B	48	T4	49
F12	51	N2 A	48	T5	49
F13	51	N3 B	48	T6	53
F14	51	N4 C	48	T7	53
G1	47	O3	52	T8	53
H14	47	P2	49	T9	53
J6	48	P6	49		

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

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: **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1G		
1K		
1L		
1M		
3H	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
4C	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4D		
4F		
4H		
4I		
4L		
5B	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5C		
5D		
5E		
5G		
5H		
5I		
5J		
5K		
5L		
5M		
5N		

: **Connector Joining Wire Harness and Wire Harness**

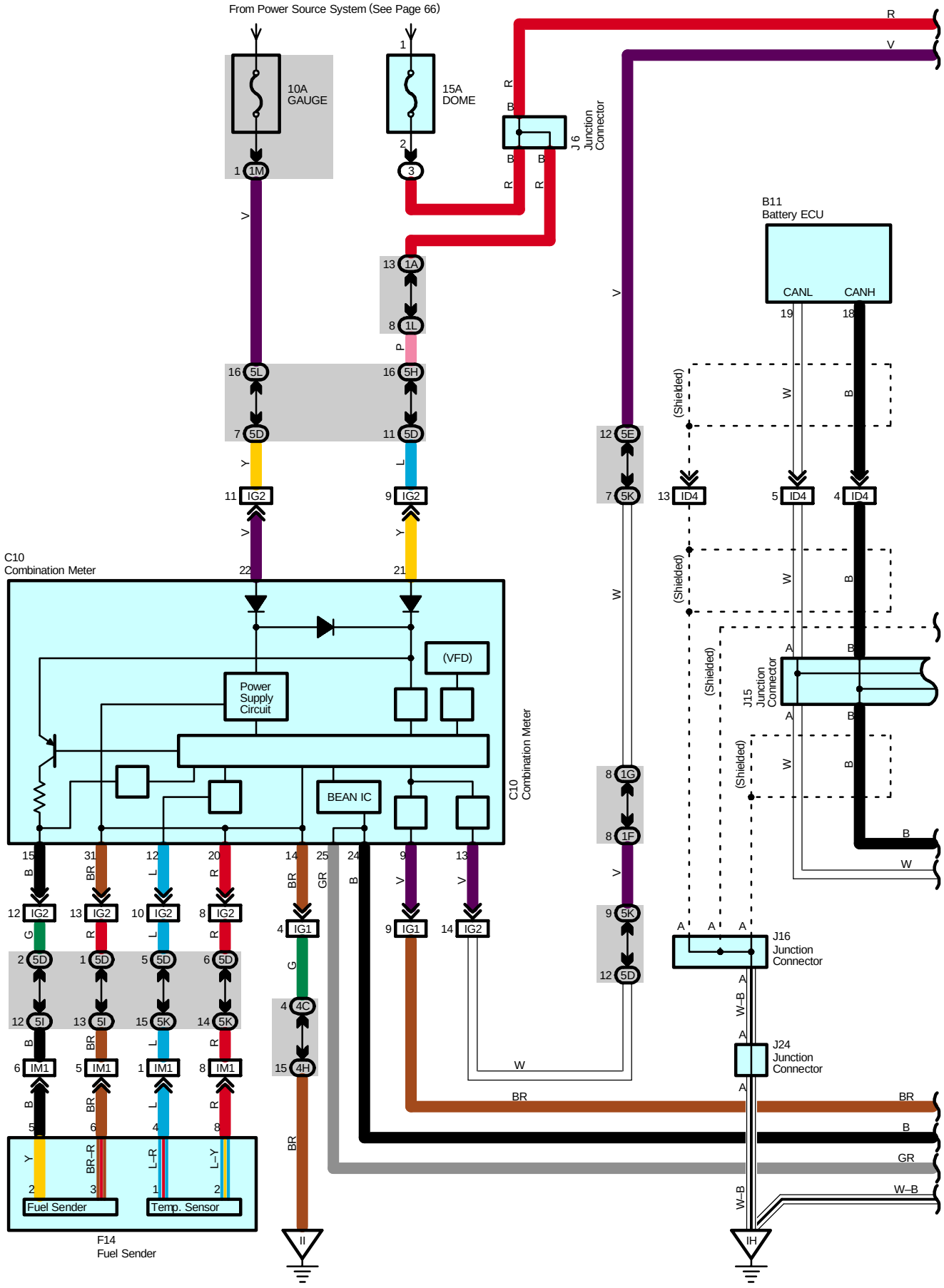
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	54	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B)
IA1	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IA3		
IB1	56	Roof Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
ID4	56	Instrument Panel Wire and Floor Wire (Left Kick Panel)
IE2	56	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IJ3	58	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)
IL2	58	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IM1	58	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
IM2		
BB1	60	Rear Door No.2 Wire and Floor Wire (Left Center Pillar)
BJ1	62	Rear Door No.1 Wire and Floor No.2 Wire (Right Center Pillar)

: **Ground Points**

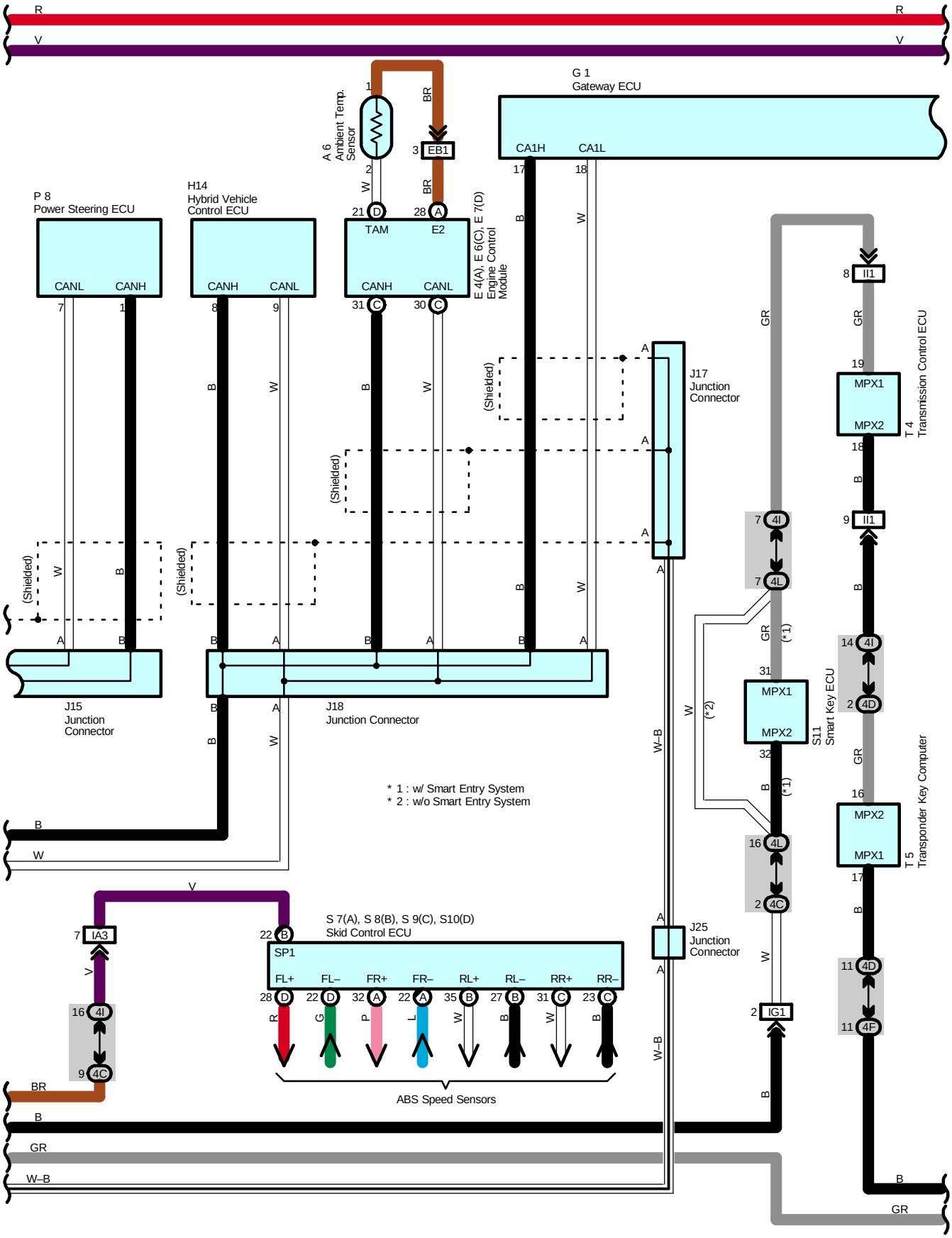
Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH

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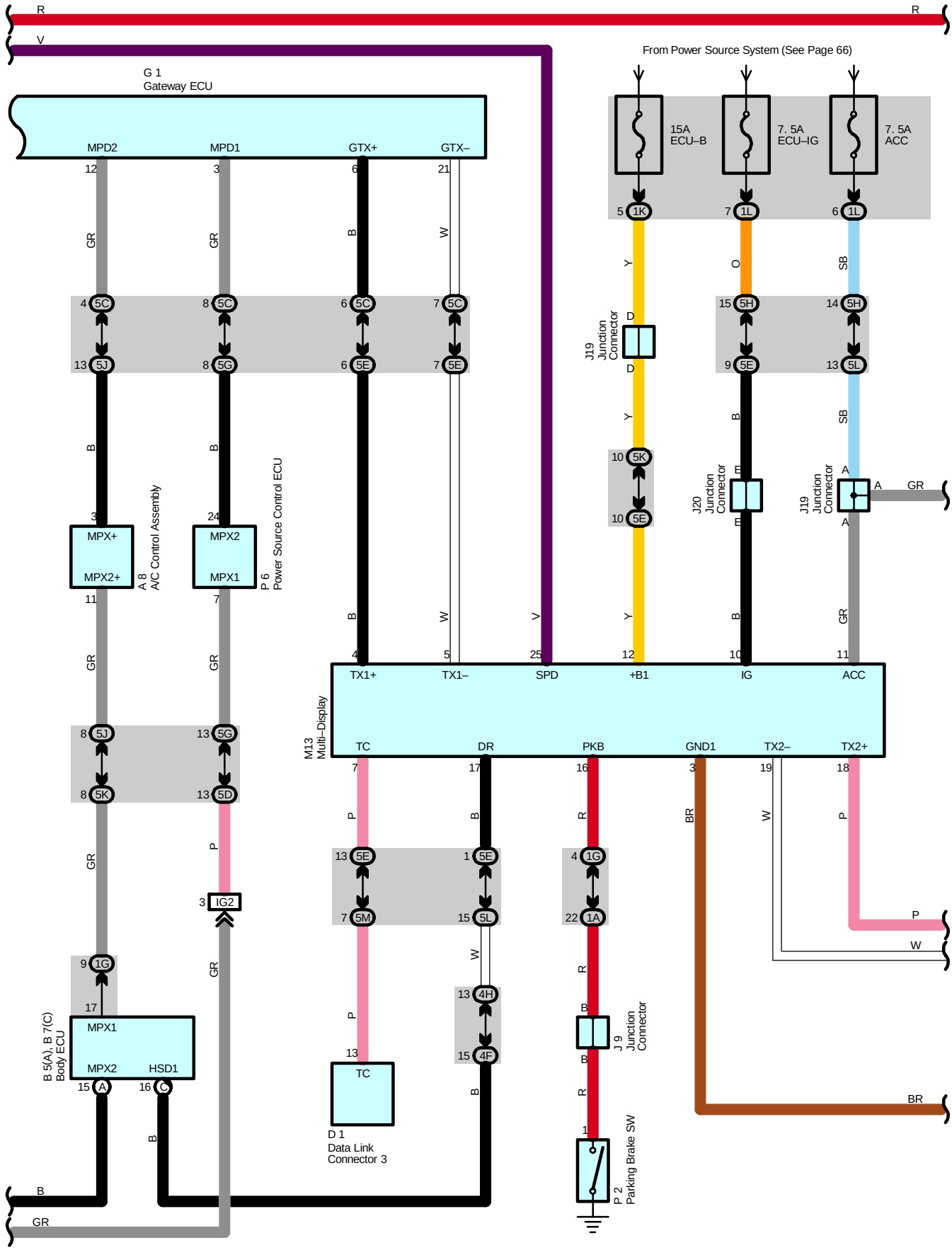


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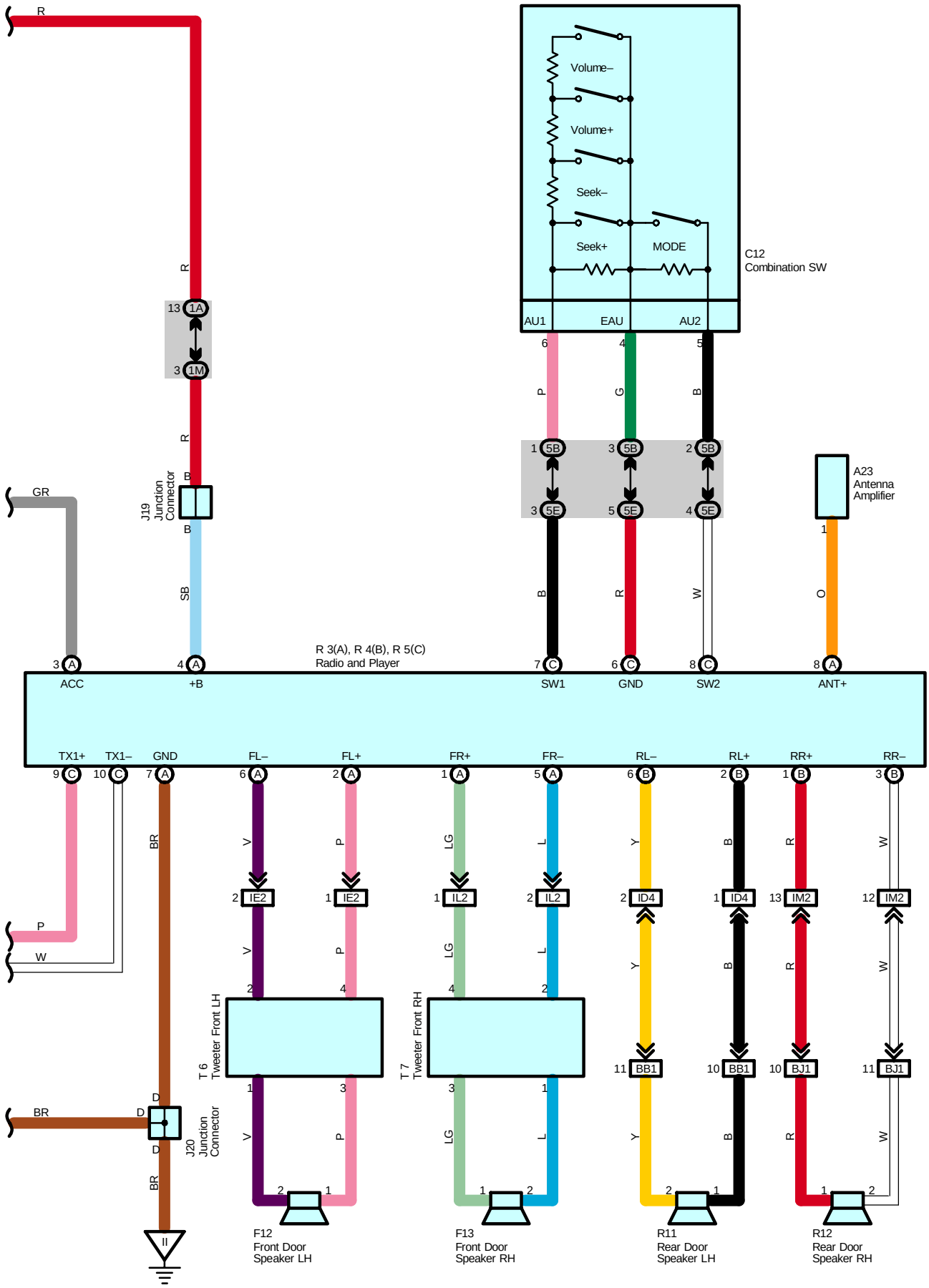


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Multi–Display and Audio System with Built–in Amplifier



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Service Hints

R3 (A) Radio and Player

(A) 3–Ground : Approx. 12 volts with the power SW at ACC ON or IG ON position
(A) 4–Ground : Always approx. 12 volts
(A) 7–Ground : Always continuity

M13 Multi–Display

12–Ground : Always approx. 12 volts
10–Ground : Approx. 12 volts with the power SW at IG ON position
11–Ground : Approx. 12 volts with the power SW at ACC ON or IG ON position
3–Ground : Always continuity

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A6	44	G1	47	P8	49
A8	46	H14	47	R3 A	49
A23	46	J6	48	R4 B	49
B5 A	46	J9	48	R5 C	49
B7 C	46	J15	48	R11	52
B11	50	J16	48	R12	52
C10	47	J17	48	S7 A	49
C12	47	J18	48	S8 B	49
D1	47	J19	48	S9 C	49
E4 A	47	J20	48	S10 D	49
E6 C	47	J24	48	S11	49
E7 D	47	J25	48	T4	49
F12	51	M13	48	T5	49
F13	51	P2	49	T6	53
F14	51	P6	49	T7	53

▭ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

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: **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1G		
1K		
1L		
1M		
4C	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4D		
4F		
4H		
4I		
4L		
5B	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5C		
5D		
5E		
5G		
5H		
5I		
5J		
5K		
5L		
5M		

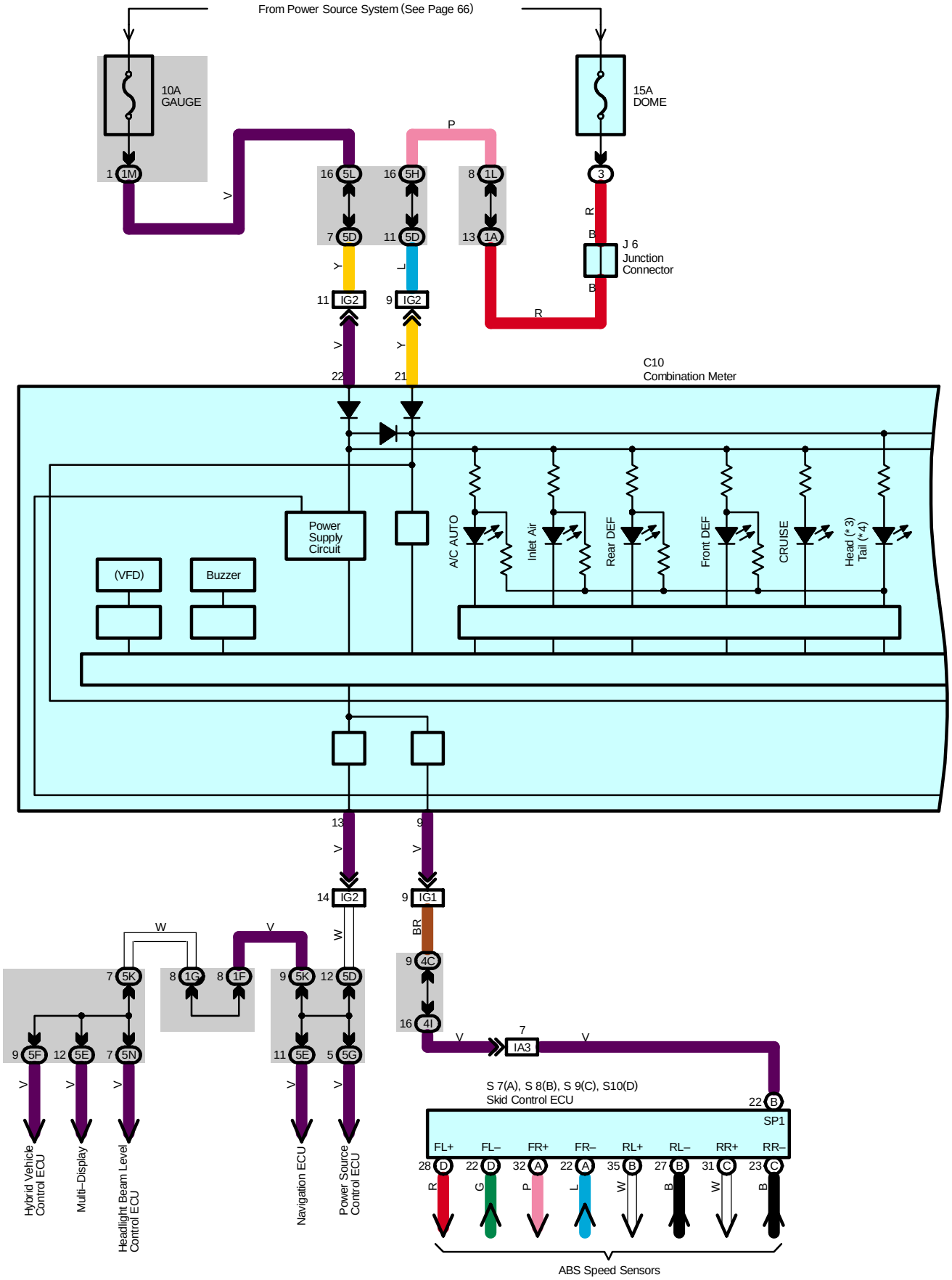
: **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	54	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B)
IA3	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
ID4	56	Instrument Panel Wire and Floor Wire (Left Kick Panel)
IE2	56	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IL2	58	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IM1	58	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
IM2		
BB1	60	Rear Door No.2 Wire and Floor Wire (Left Center Pillar)
BJ1	62	Rear Door No.1 Wire and Floor No.2 Wire (Right Center Pillar)

: **Ground Points**

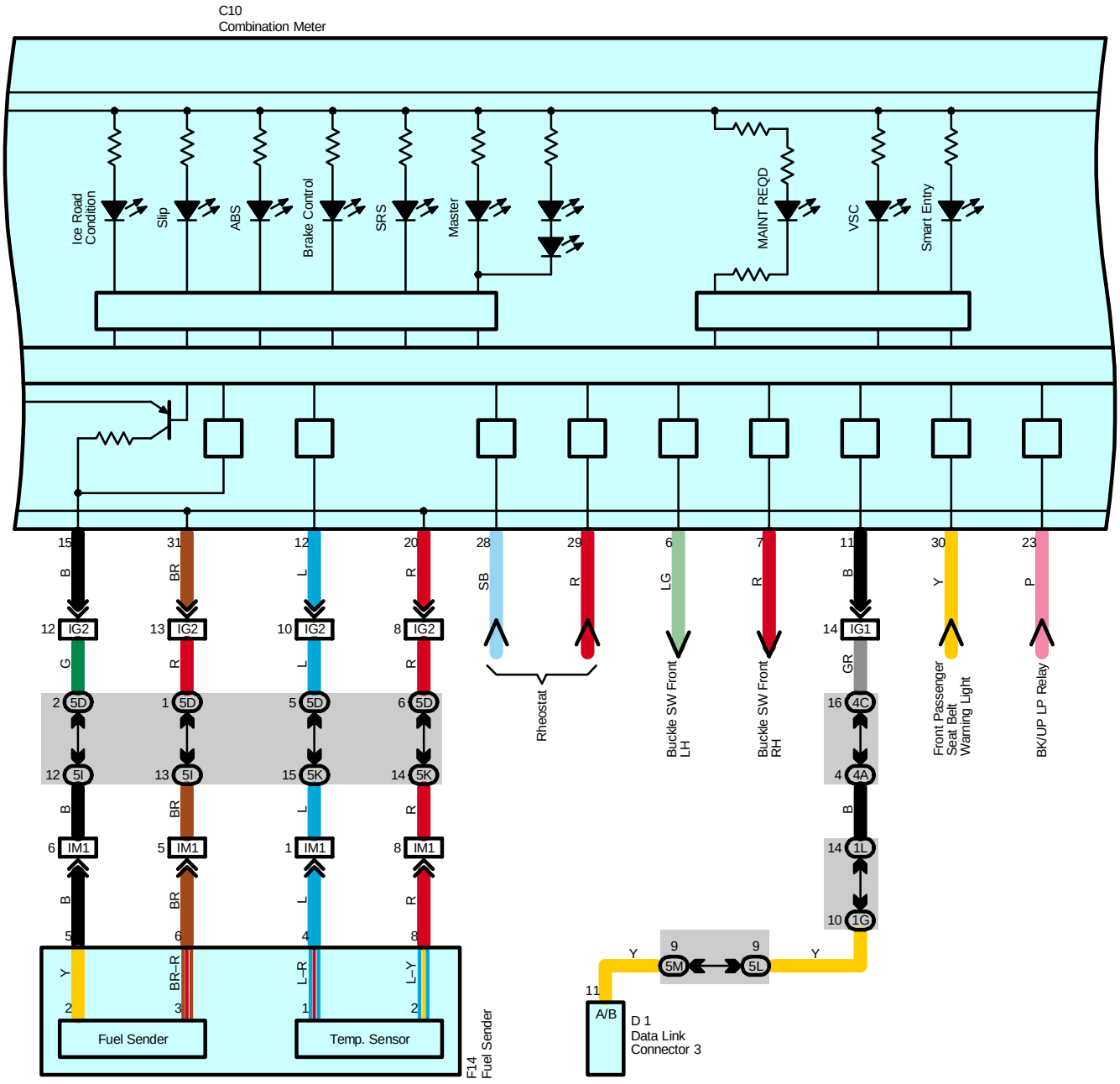
Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH

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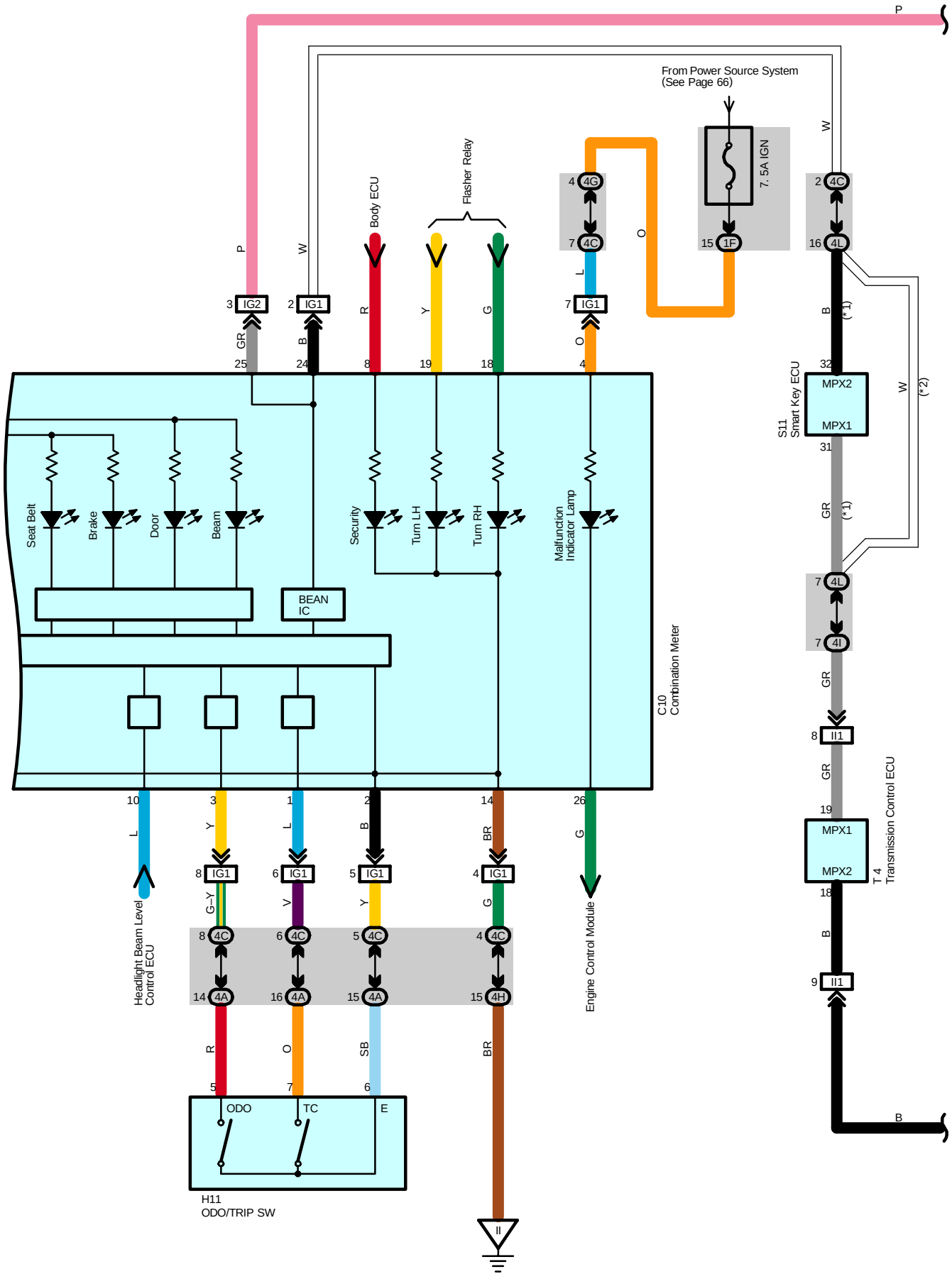


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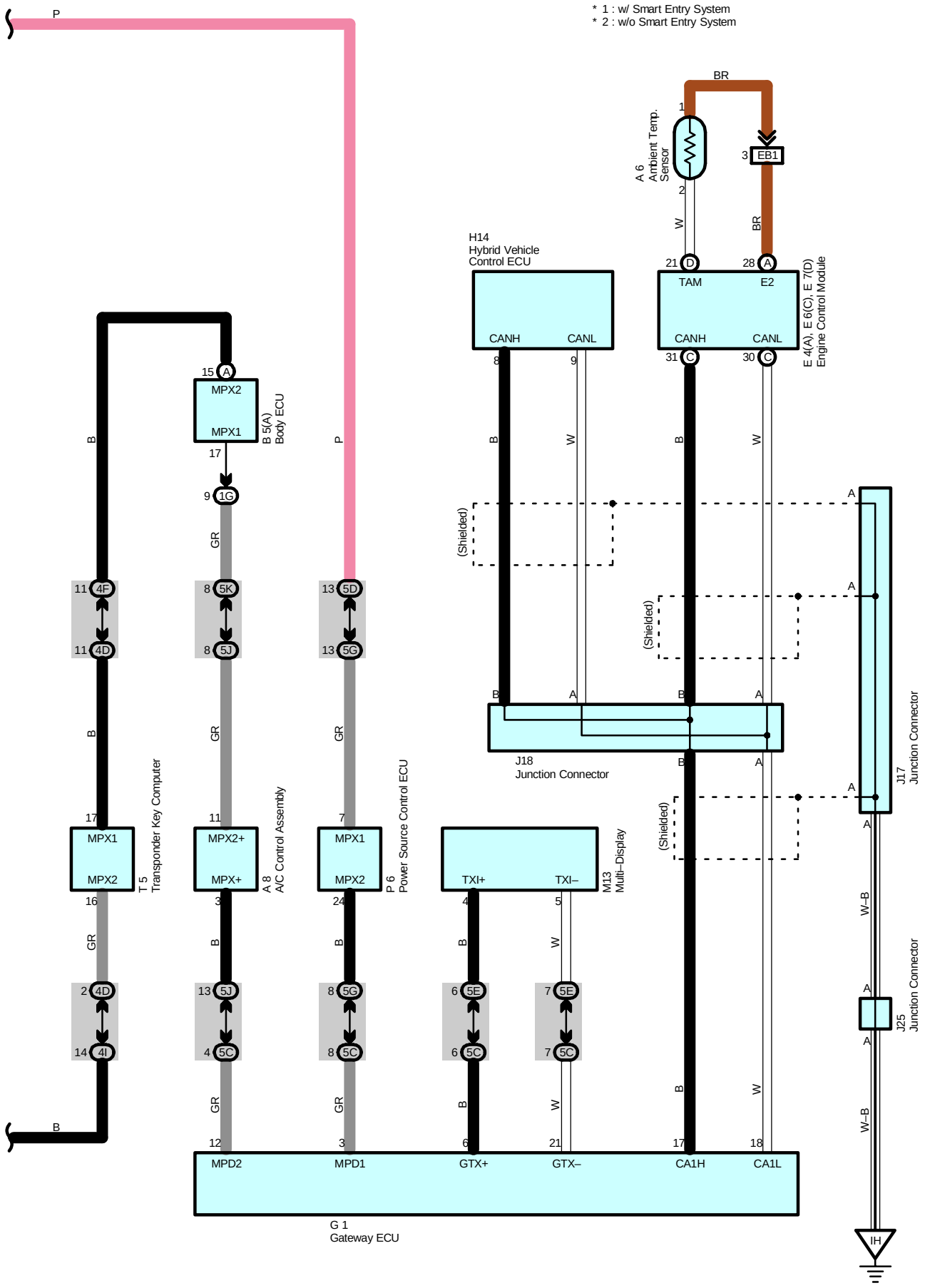
* 3 : USA
* 4 : Canada



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Combination Meter

Service Hints

C10 Combination Meter

22–Ground : Approx. 12 volts with the power SW at IG ON position
21–Ground : Always approx. 12 volts
14–Ground : Always continuity

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A6	44	G1	47	S7 A	49
A8	46	H11	47	S8 B	49
B5 A	46	H14	47	S9 C	49
C10	47	J6	48	S10 D	49
D1	47	J17	48	S11	49
E4 A	47	J18	48	T4	49
E6 C	47	J25	48	T5	49
E7 D	47	M13	48		
F14	51	P6	49		

▭ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

▭ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1G		
1L		
1M		
4A	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4C		
4D		
4F		
4G		
4H		
4I		
4L		
5C	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5D		
5E		
5F		
5G		
5H		
5I		
5J		
5K		
5L		
5M		
5N		

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: Connector Joining Wire Harness and Wire Harness

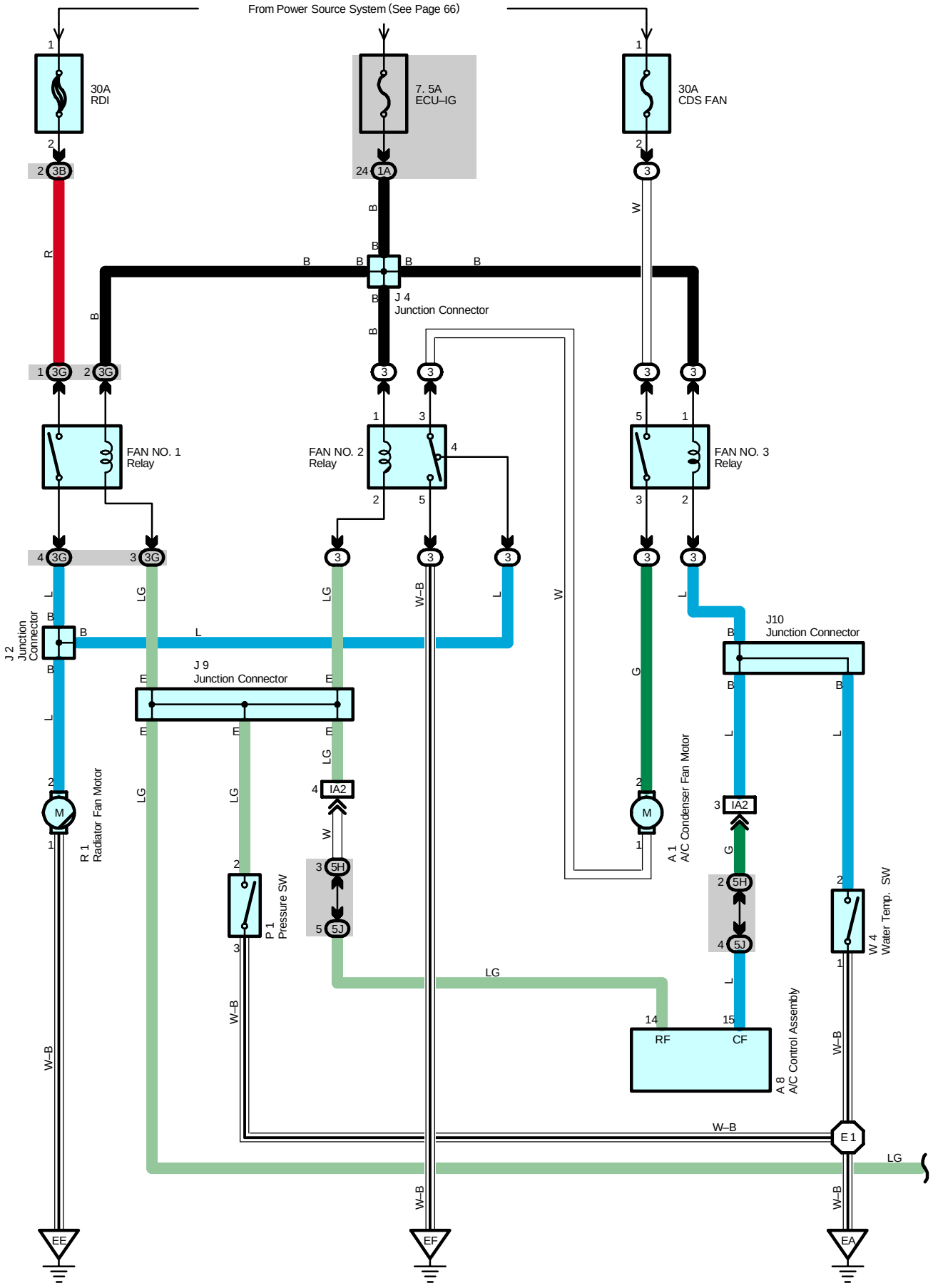
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	54	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B)
IA3	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IM1	58	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)

: Ground Points

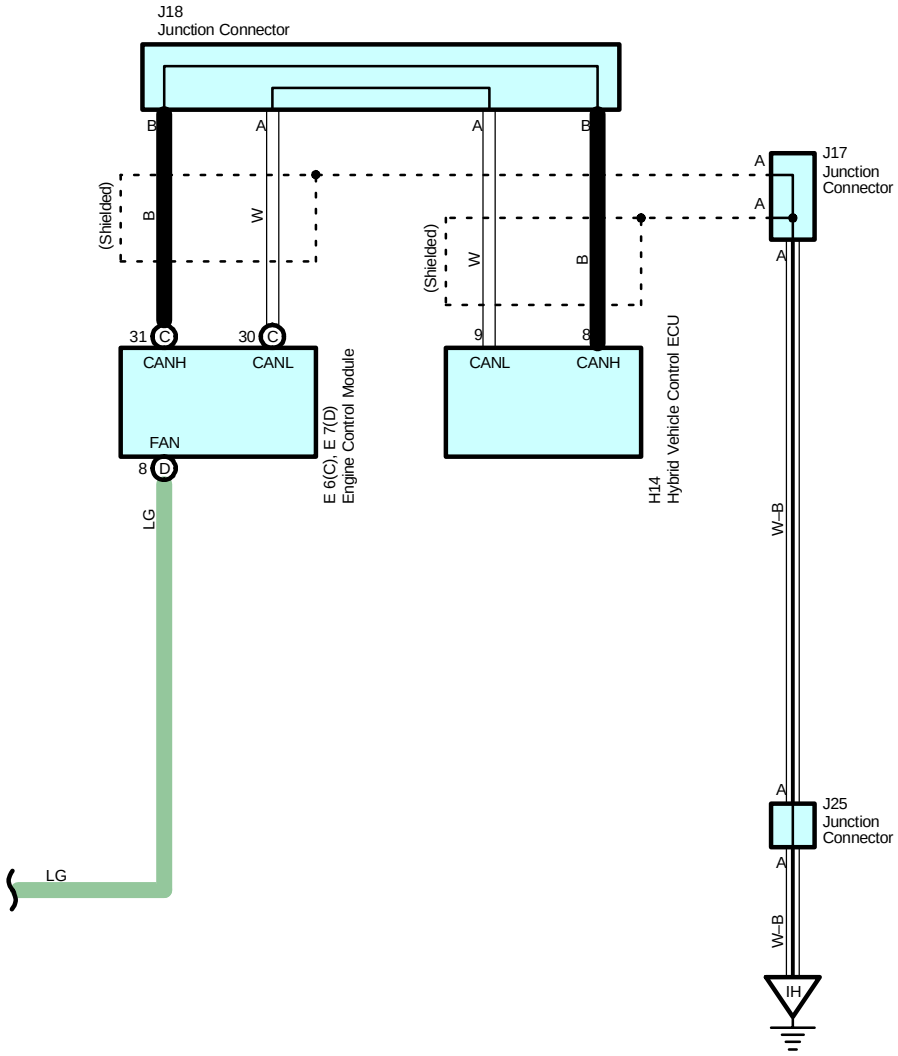
Code	See Page	Ground Points Location
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH

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Radiator Fan and Condenser Fan



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Radiator Fan and Condenser Fan

System Outline

The radiator fan motor and A/C condenser fan motor operate according to the water temp. SW (Inverter), A/C single pressure SW, engine coolant temp. and the A/C system condition. The FAN NO.1 relay, FAN NO.2 relay, FAN NO.3 relay are turned on/off, to operate the fan motors at low speed (In series), or high speed (In parallel).

1. Low Speed operation

When the water temp. SW (Inverter) is on and/or A/C control assembly is in operation, the radiator fan motor and A/C condenser fan motor operate at low speed.

2. High Speed Operation

When the pressure SW (Single) is on, engine control module and/or A/C control assembly, the radiator fan motor operate and A/C condenser fan motor operates at high speed.

Service Hints

P1 Pressure SW

3–2 : Close above approx. 1520 kpa (15.5 kgf/cm^2. 220 psi)
Open below approx. 1230 kpa (12.5 kgf/cm^2. 178 psi)

: Parts Location

Code		See Page	Code	See Page	Code	See Page
A1		44	J2	45	J18	48
A8		46	J4	45	J25	48
E6	C	47	J9	48	P1	45
E7	D	47	J10	48	R1	45
H14		47	J17	48	W4	45

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
3B	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3G		
5H	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5J		

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA2	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)

: Ground Points

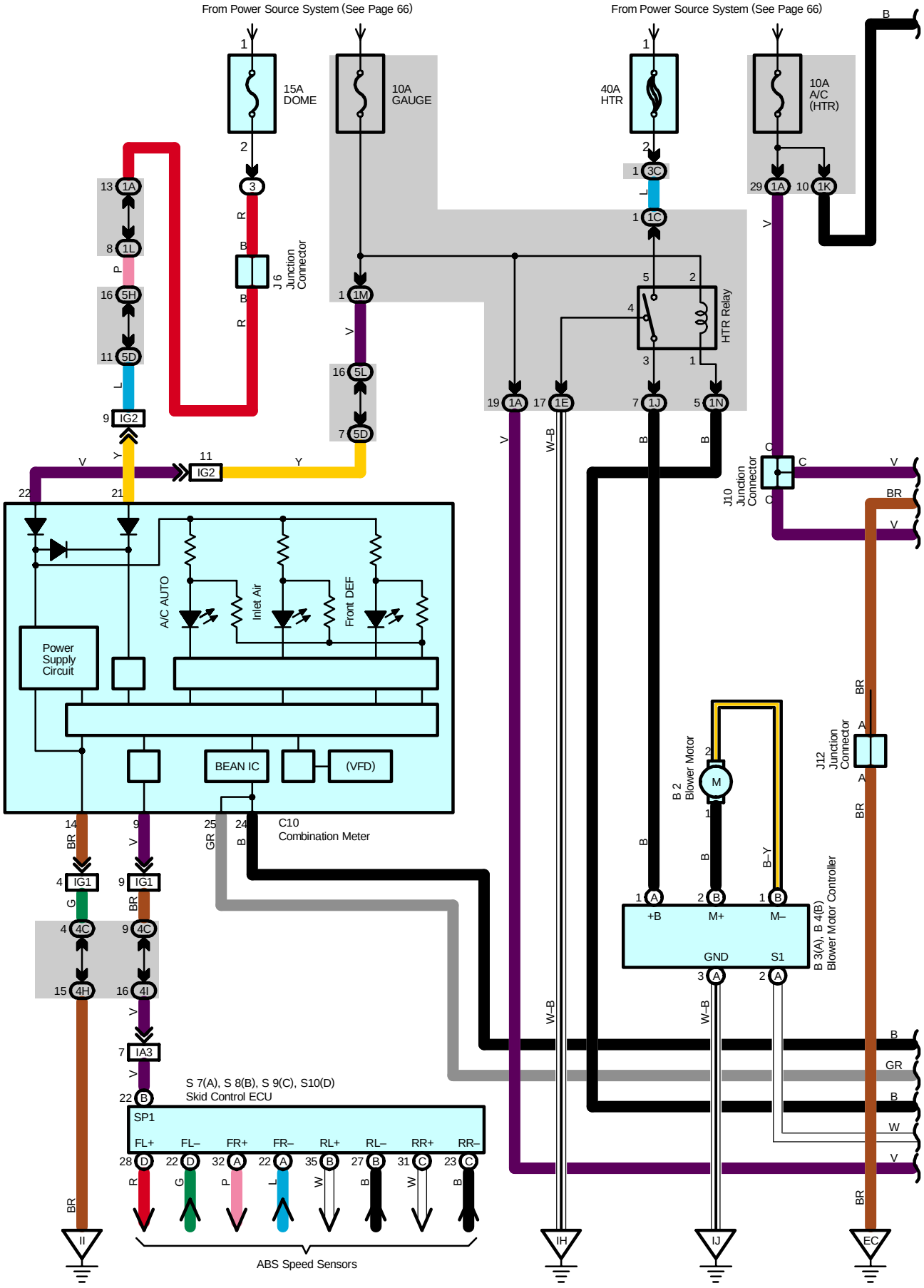
Code	See Page	Ground Points Location
EA	54	Right Side of the Fender Apron
EE	54	Left Side of the Suspension Tower
EF		
IH	56	Cowl Side Panel LH

: Splice Points

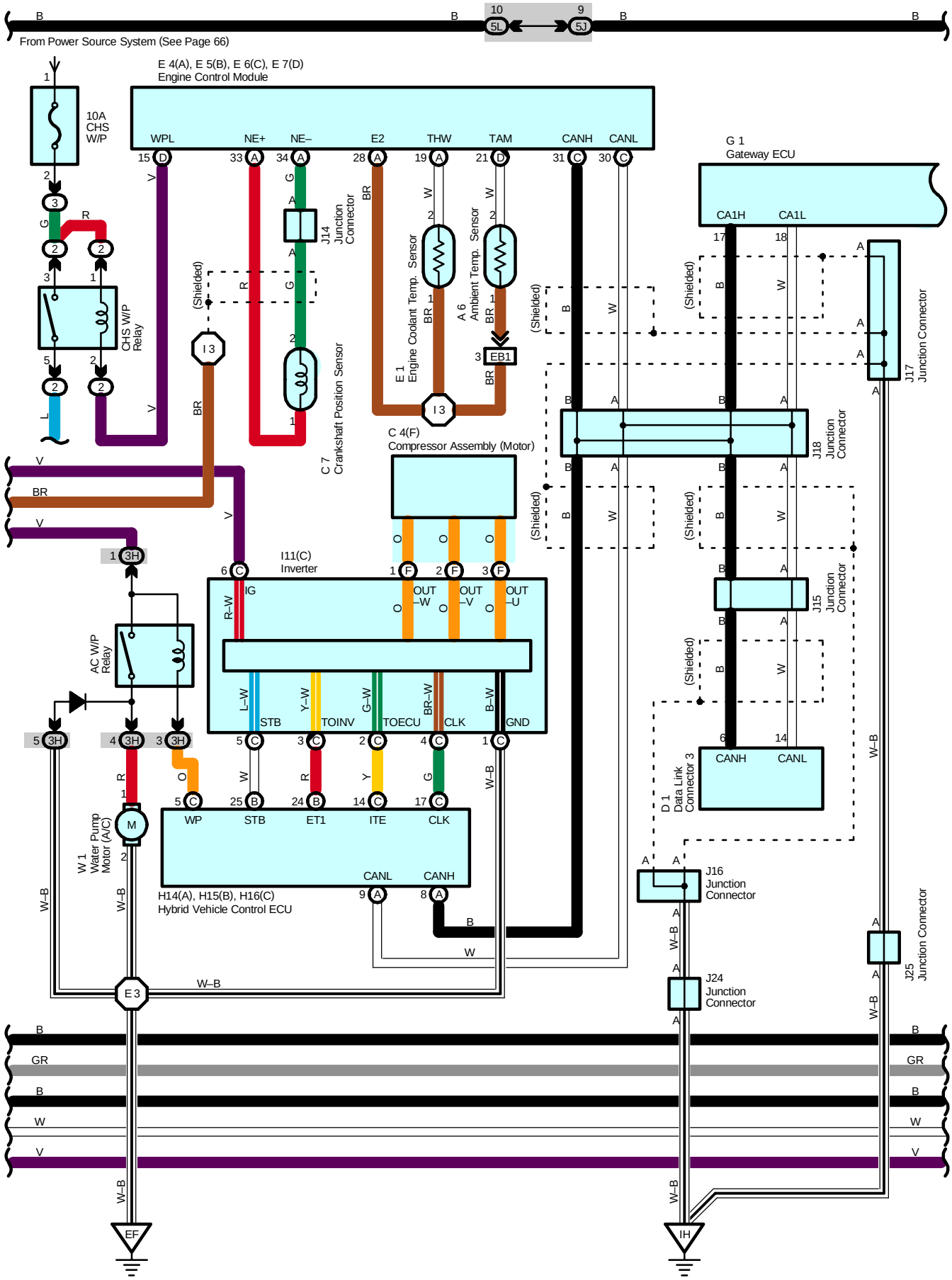
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	54	Engine Room Main Wire			

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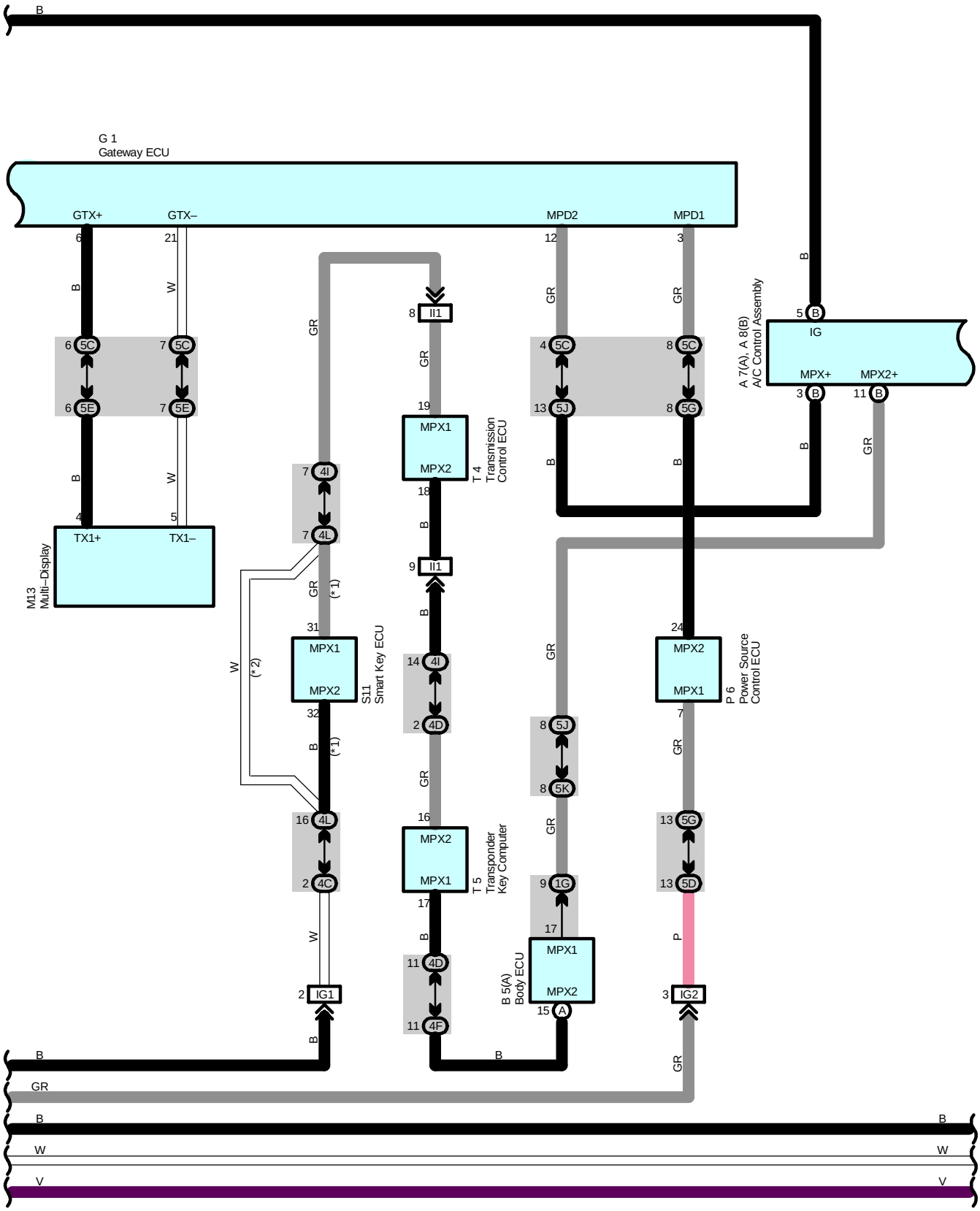
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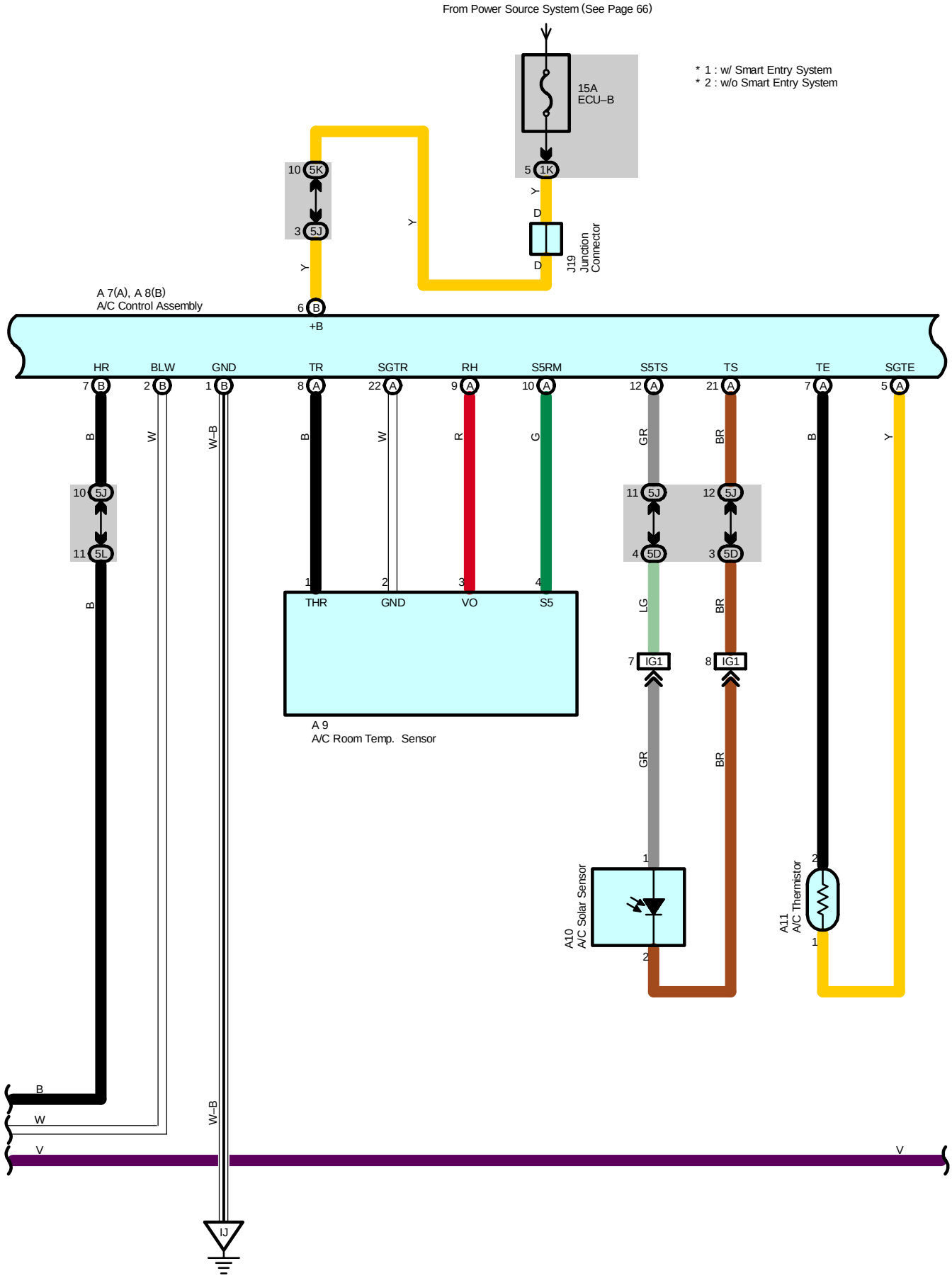
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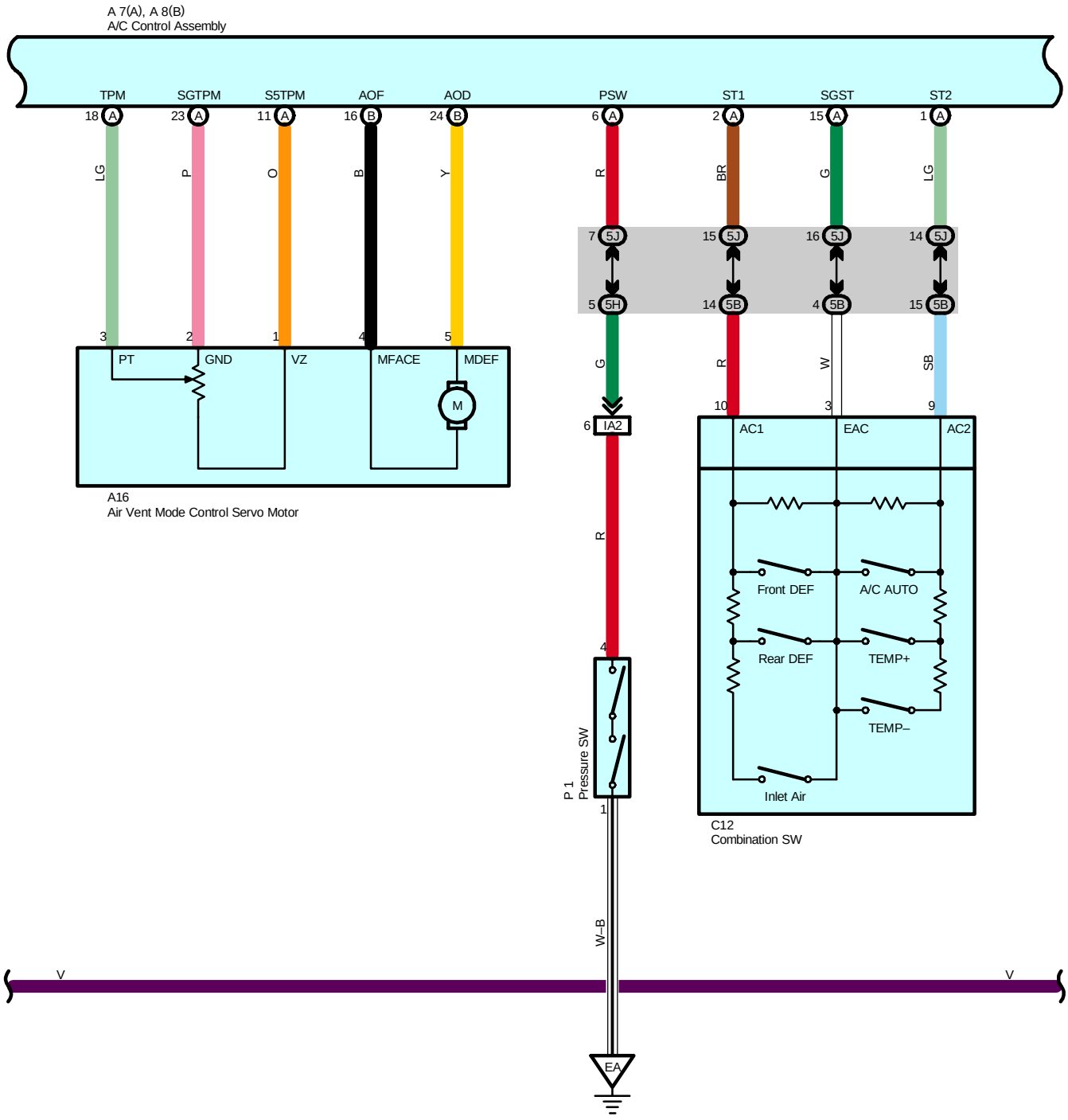
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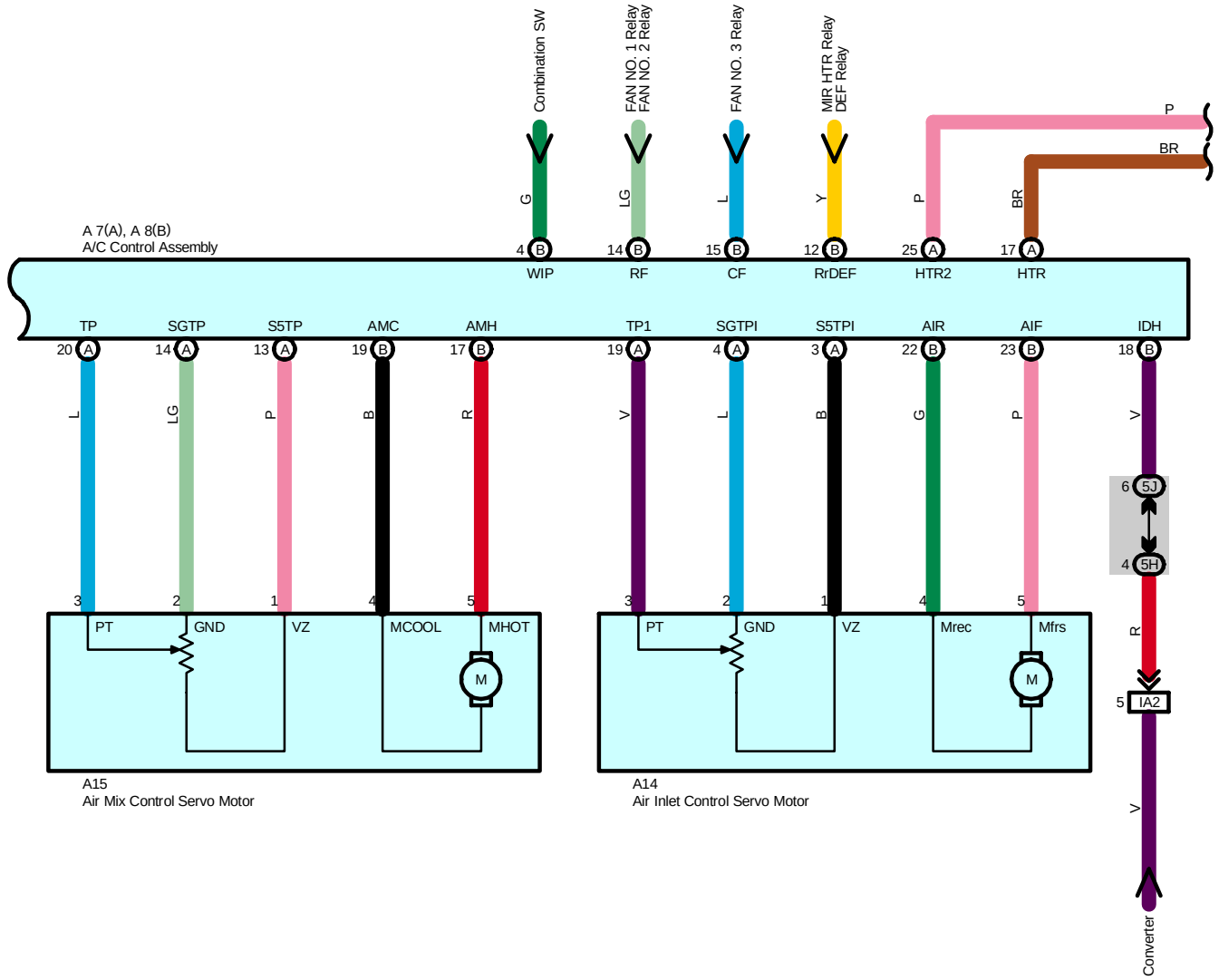
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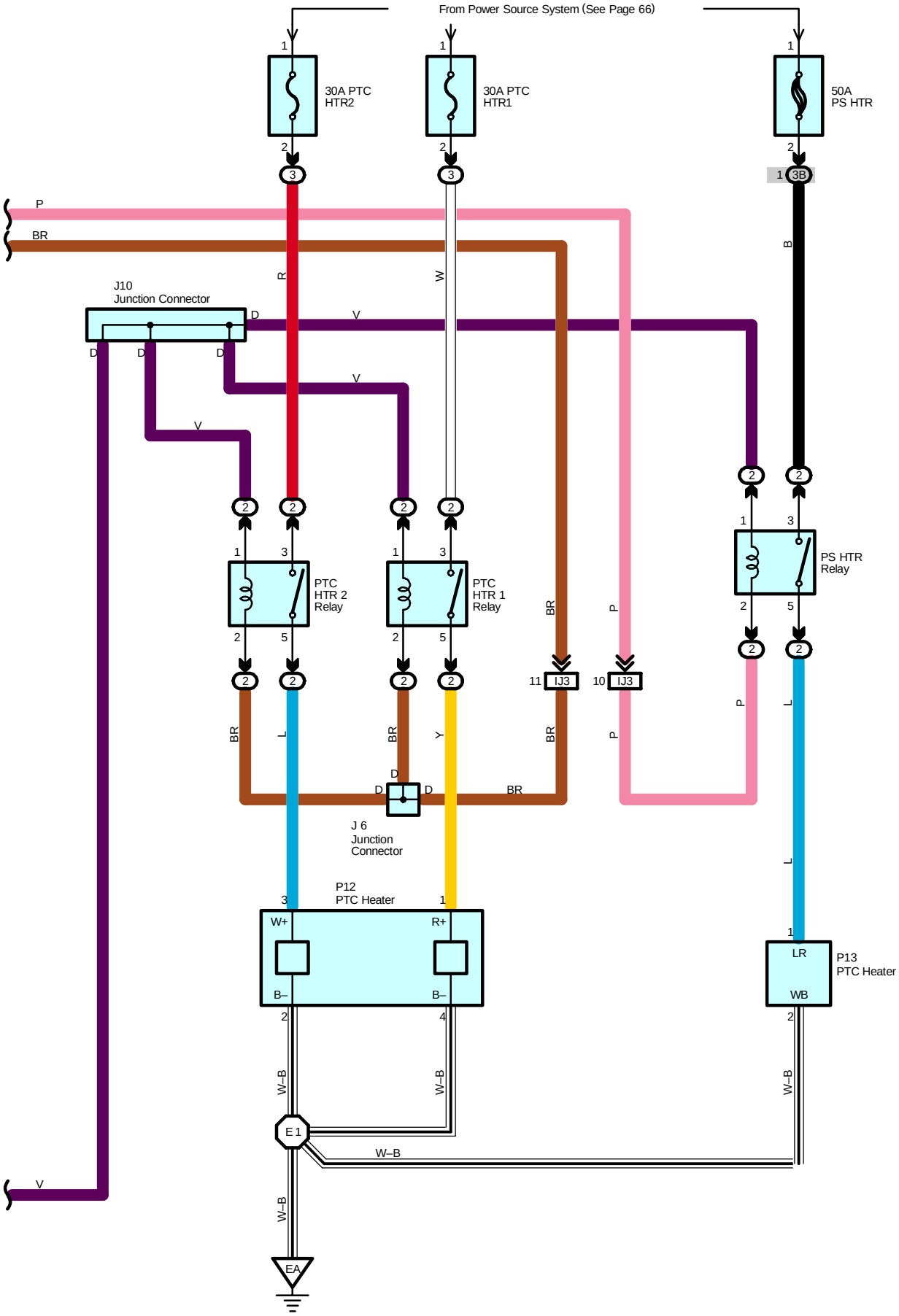


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System Outline

Air conditioning system operates when SW of multi–display or that of steering wheel is turned on. Turning on the SW sends signal to A/C control assembly, running the air conditioning system.

1. Heater Blower Operation

Manual operation
When the blower speed is set to a certain level using the blower control SW, the A/C control assembly sends the signals to the blower control to control the blower motor speed.
Auto operation
When the auto SW is pushed, the A/C control assembly calculates necessary blower speed from setting of SWs and input of the sensors and sends the signals to the blower control to automatically control the blower motor speed.

2. Air Inlet Control Servo Motor Control

When the FRESH/RECIRC select SW is set to RECIRC, the air inlet control servo motor starts rotating to move the damper toward the RECIRC side. The damper position is detected by the TERMINAL TPI of the A/C control assembly. The motor continuously rotates until the damper reaches its stop position. When the FRESH/RECIRC select SW is set to FRESH, the air inlet control servo motor starts rotating to move the damper toward the FRESH side. The damper position is detected by the TERMINAL TPI of the A/C control assembly. The motor continuously rotates until the damper reaches its stop position.
In auto mode, A/C control assembly controls the damper to move to the best position for the conditions without operating the mode select SW.

3. Air Vent Mode Control Servo Motor Control

When the mode select SW is pushed, the ECU in the A/C control assembly activates the air vent mode control servo motor. The servo motor rotates to the position (FACE, BI–LEVEL, FOOT, FOOT/DEF, DEF) selected by using the mode select SW, and moves the damper.
In auto mode, A/C control assembly controls the damper to move to the best position for the conditions without operating the mode select SW.

4. Air Mix Control Servo Motor Control

Based on the set temperature by the temperature control SW, the ECU in the A/C control assembly sends a signal to the air mix control servo motor. This signal drives the motor to reach the temperature set by the temperature control SW, and moves the film damper.

5. Humidity Sensor Control

A/C control assembly detects humidity in passenger room when A/C is turned on, with humidity detecting function of A/C room temp. sensor and controls to dehumidify for comfortable condition

6. Air Conditioning Operation

A/C control assembly calculates target cooled temperature from information such as that of operating SWs, room temperature, humidity, ambient temperature and insolation to have target running speed of compressor assembly (Motor). The calculated control signal is sent to inverter to drive compressor assembly (Motor) (Electric motor) with control of inverter, resulting in operating A/C.

Service Hints

P1 Pressure SW

1–4 : Open with the refrigerant pressure at less than approx. 196 kpa (2.0 kgf/cm^2, 28.4 psi) or more than approx. 3140 kpa (32 kgf/cm^2, 455 psi)

A8 (B) A/C Control Assembly

(B) 6–Ground : Always approx. 12 volts
(B) 5–Ground : Approx. 12 volts with the power SW at IG ON position
(B) 1–Ground : Always continuity

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○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A6	44	E1	44	J19	48
A7 A	46	E4 A	47	J24	48
A8 B	46	E5 B	47	J25	48
A9	46	E6 C	47	M13	48
A10	46	E7 D	47	P1	45
A11	46	G1	47	P6	49
A14	46	H14 A	47	P12	49
A15	46	H15 B	47	P13	49
A16	46	H16 C	47	S7 A	49
B2	46	I11 C	45	S8 B	49
B3 A	46	J6	48	S9 C	49
B4 B	46	J10	48	S10 D	49
B5 A	46	J12	48	S11	49
C4 F	44	J14	48	T4	49
C7	44	J15	48	T5	49
C10	47	J16	48	W1	45
C12	47	J17	48		
D1	47	J18	48		

▭ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	26	Engine Room R/B No.2 (Right Side of Reserve Tank)
3	22	Engine Room R/B (Engine Compartment Left)

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: **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1G		
1J		
1K		
1L		
1M		
1N		
3B	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3C		
3H		
4C	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4D		
4F		
4H		
4I		
4L		
5B	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5C		
5D		
5E		
5G		
5H		
5J		
5K		
5L		

: **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	54	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B)
IA2	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IA3		
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
IG2		
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IJ3	58	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)

: **Ground Points**

Code	See Page	Ground Points Location
EA	54	Right Side of the Fender Apron
EC	54	Engine Block
EF	54	Left Side of the Suspension Tower
IH	56	Cowl Side Panel LH
II	56	Instrument Panel Brace LH
IJ	56	Instrument Panel Brace RH

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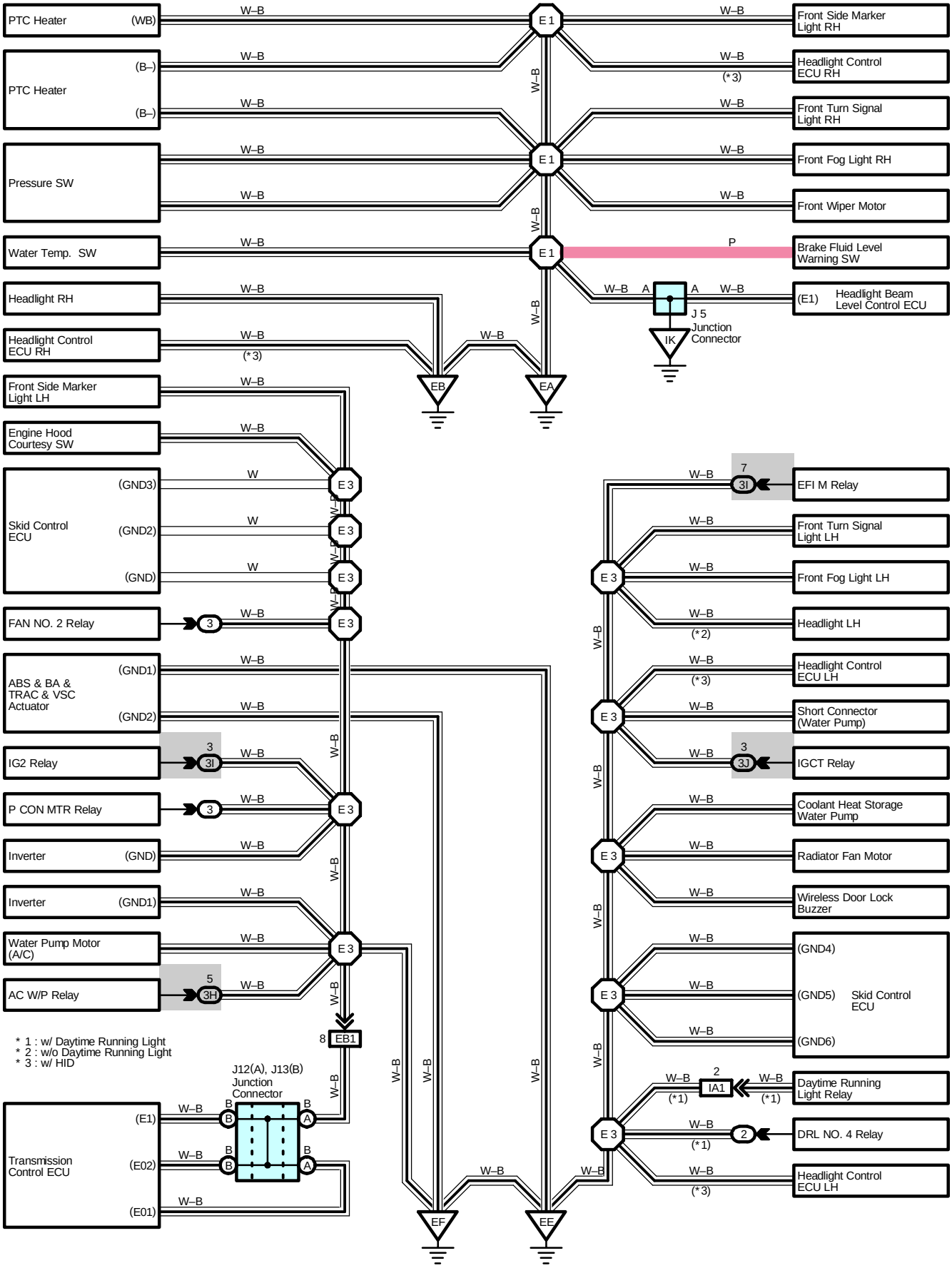
: **Splice Points**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	54	Engine Room Main Wire	I3	58	Engine
E3					

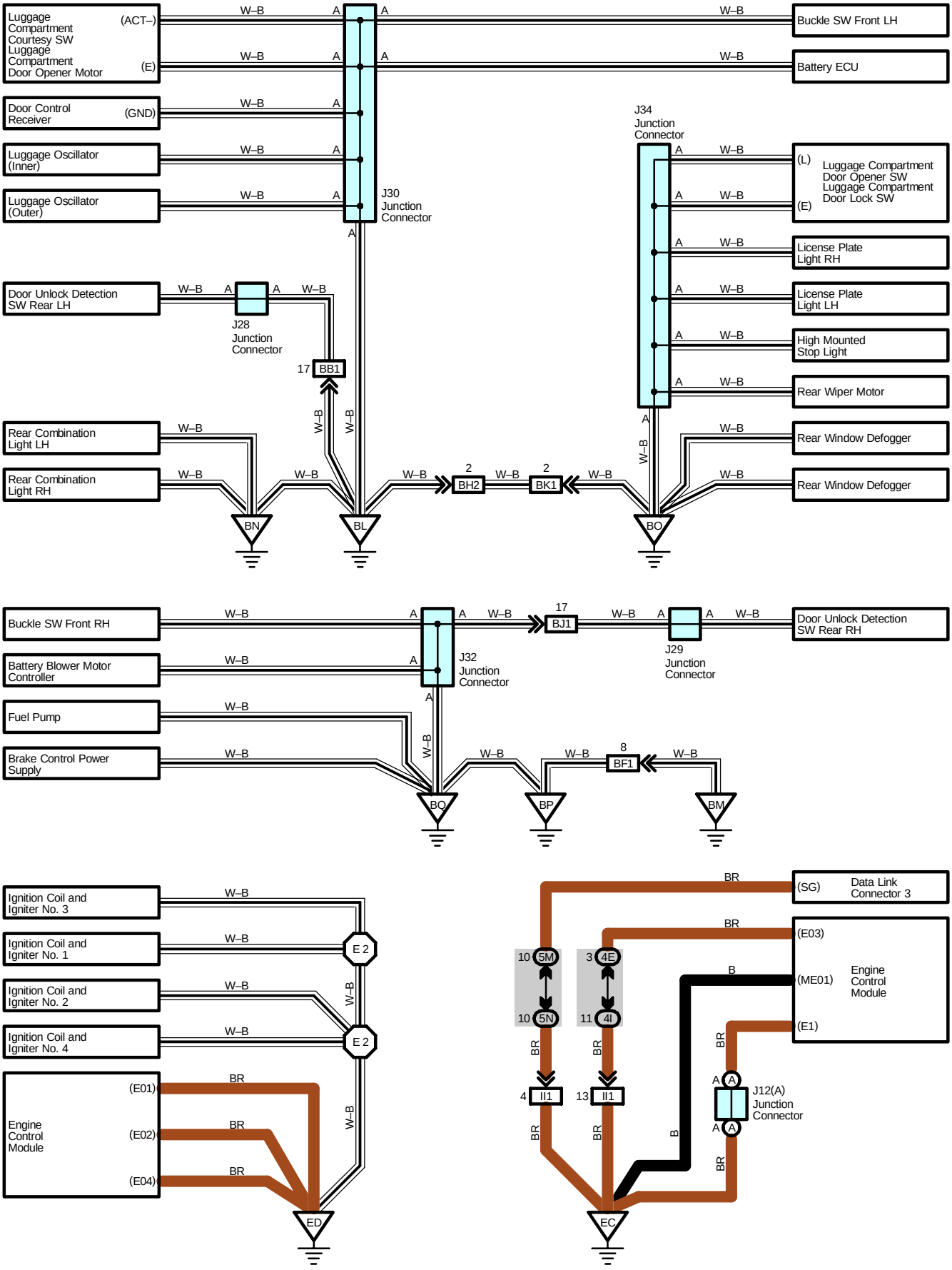
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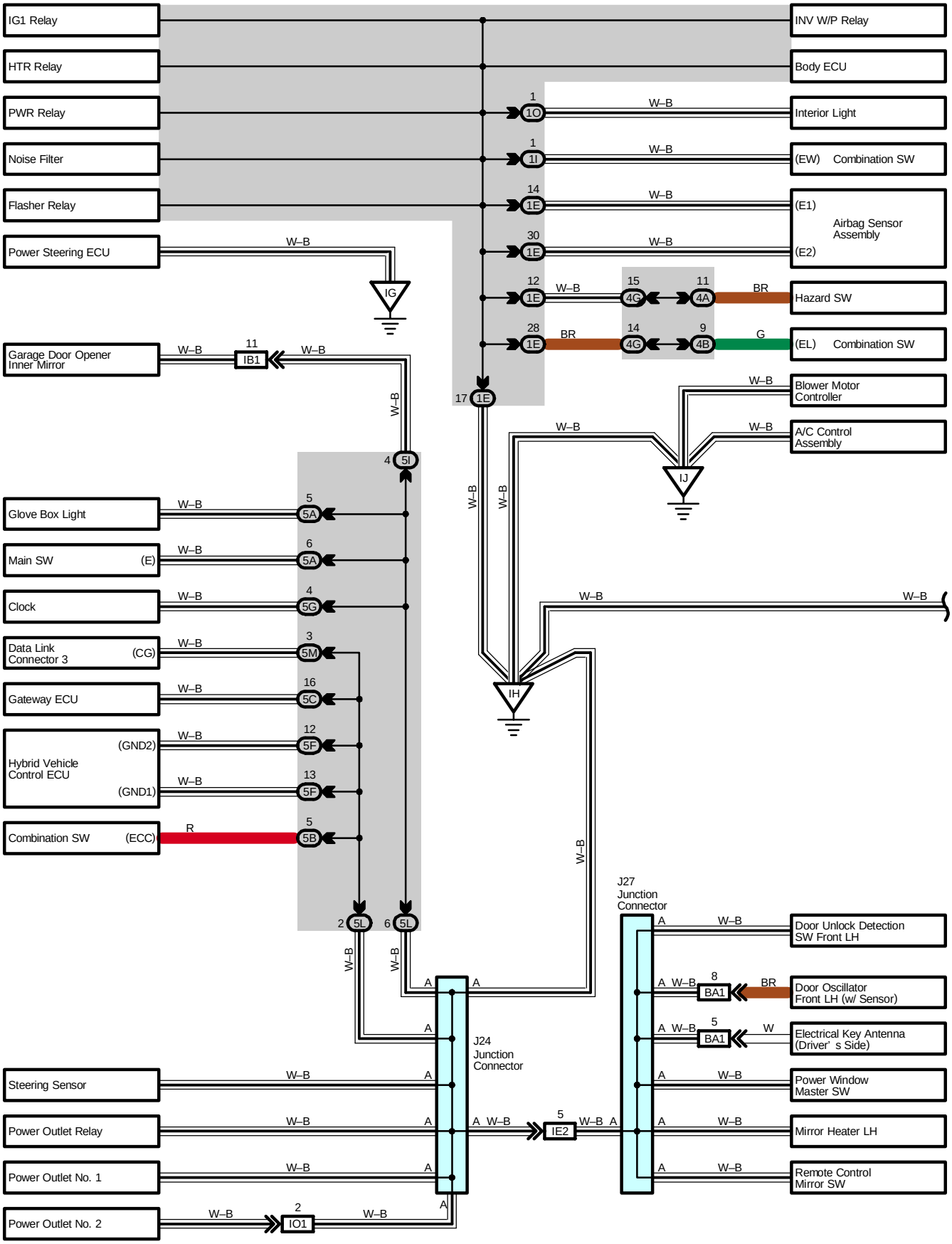
I GROUND POINT



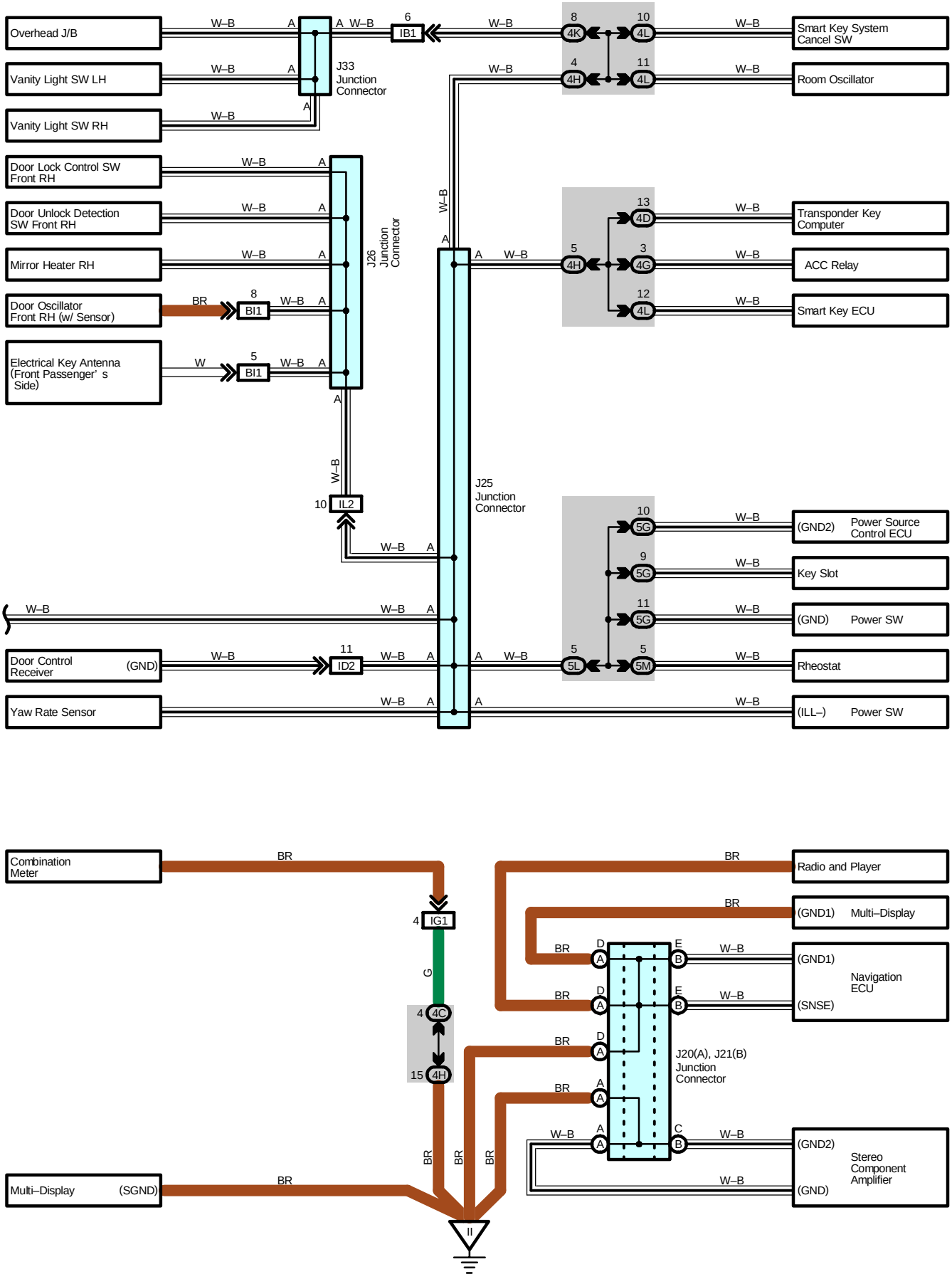
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I GROUND POINT

○ : **Parts Location**

Code		See Page	Code	See Page	Code	See Page
J5		48	J24	48	J29	51
J12	A	48	J25	48	J30	51
J13	B	48	J26	51	J32	51
J20	A	48	J27	51	J33	51
J21	B	48	J28	51	J34	51

▭ : **Relay Blocks**

Code	See Page	Relay Blocks (Relay Block Location)
2	26	Engine Room R/B No.2 (Right Side of Reserve Tank)
3	22	Engine Room R/B (Engine Compartment Left)

▭ : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1E	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
1O	28	Roof Wire and Driver Side J/B (Lower Finish Panel)
3H	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3I		
3J		
4A	36	Instrument Panel Wire and Center Connector No.1 (Behind the Combination Meter)
4B		
4C		
4D		
4E		
4G		
4H		
4I		
4K		
4L		
5A	40	Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH)
5B		
5C		
5F		
5G		
5I		
5L		
5M		
5N		

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: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	54	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B)
IA1	56	Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
IB1	56	Roof Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH)
ID2	56	Instrument Panel Wire and Floor Wire (Left Kick Panel)
IE2	56	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IG1	58	Instrument Panel Wire and Instrument Panel No.2 Wire (Behind the Combination Meter)
II1	58	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IL2	58	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IO1	58	Instrument Panel Wire and Instrument Panel No.4 Wire (Front Console Box LH)
BA1	60	Front Door LH Wire and Electrical Key LH Wire (Near the Front Door Outside Handle LH)
BB1	60	Rear Door No.2 Wire and Floor Wire (Left Center Pillar)
BF1	60	Floor No.2 Wire and Fuel Tank Wire (Near the Fuel Tank)
BH2	62	Back Door No.1 Wire and Floor Wire (Rear Side of Roof Panel)
BI1	62	Front Door RH Wire and Electrical Key RH Wire (Near the Front Door Outside Handle RH)
BJ1	62	Rear Door No.1 Wire and Floor No.2 Wire (Right Center Pillar)
BK1	62	Back Door No.1 Wire and Back Door No.2 Wire (Rear Side of Roof Panel)

: Ground Points

Code	See Page	Ground Points Location
EA	54	Right Side of the Fender Apron
EB		
EC	54	Engine Block
ED		
EE	54	Left Side of the Suspension Tower
EF		
IG	56	Cowl Side Panel LH
IH		
II	56	Instrument Panel Brace LH
IJ	56	Instrument Panel Brace RH
IK	56	Cowl Side Panel RH
BL	60	Rear Side of Left Quarter Panel
BM	60	Near the Fuel Tank
BN	60	Lower Back Panel Center
BO	60	Center of the Back Door Panel
BP	60	Front Side of Right Quarter Panel
BQ	60	Rear Side of Right Quarter Panel

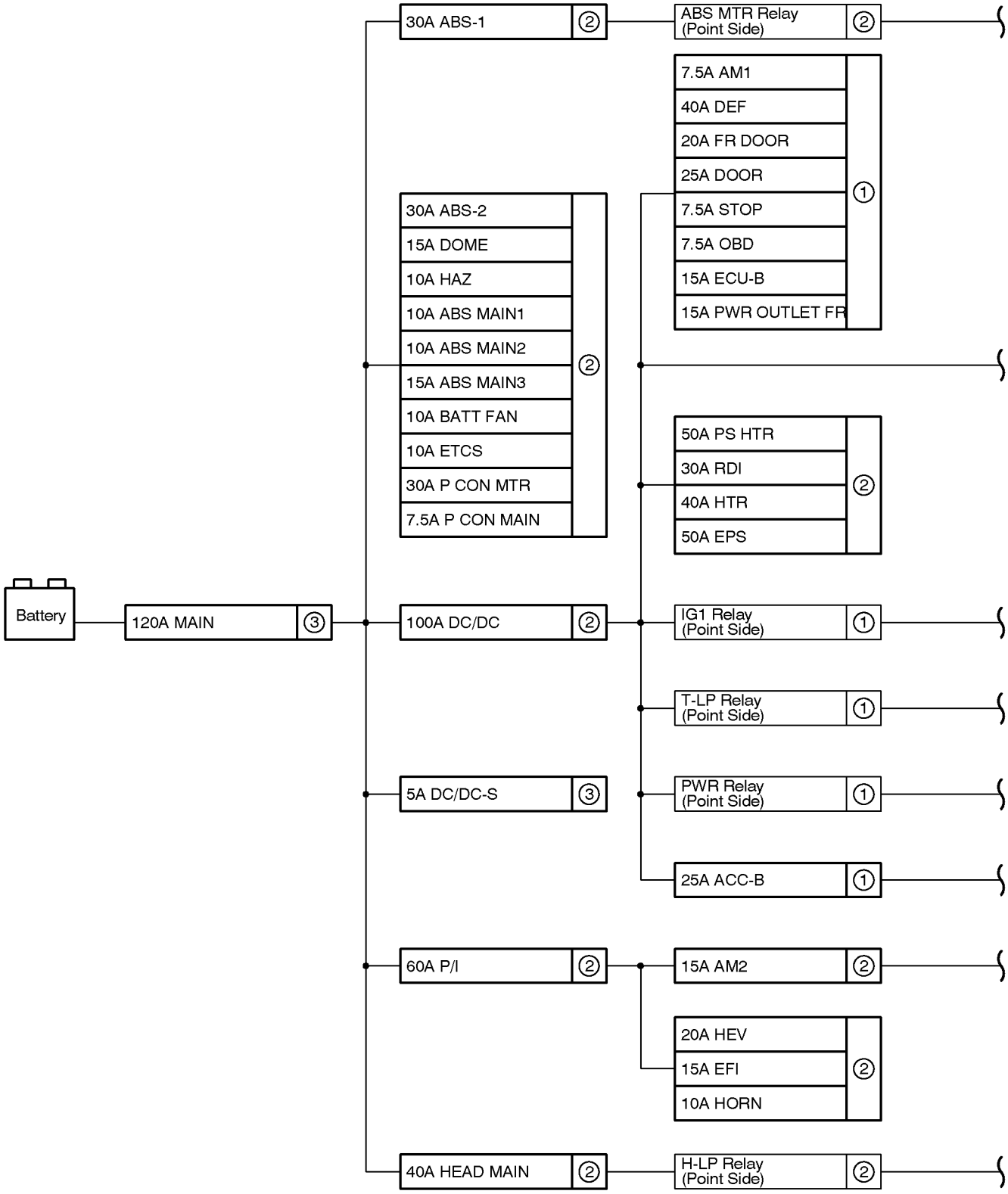
: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	54	Engine Room Main Wire	E3	54	Engine Room Main Wire
E2	54	Engine Wire			

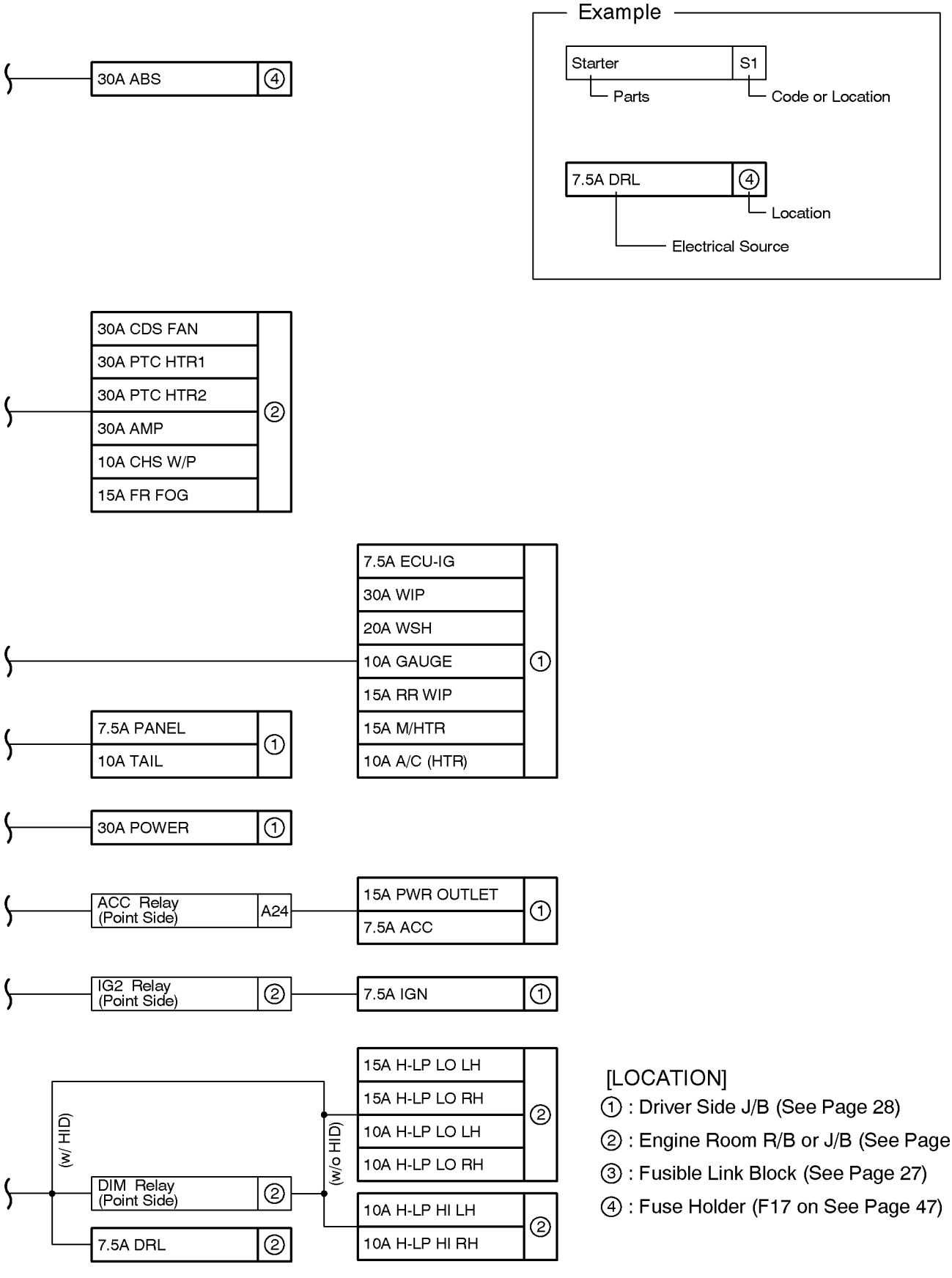
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J POWER SOURCE (Current Flow Chart)

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.



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[LOCATION]

① : Driver Side J/B (See Page 28)

② : Engine Room R/B or J/B (See Page 22)

③ : Fusible Link Block (See Page 27)

④ : Fuse Holder (F17 on See Page 47)

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Engine Room R/B, Engine Room J/B (See Page 22)

Fuse		System	Page
7.5A	DRL	Headlight	148
7.5A	P CON MAIN	Push Button Start System and Hybrid Vehicle Immobilizer System	82
		Shift Control System	256
		Smart Entry System and Wireless Door Lock Control (w/ Smart Entry System)	216
10A	ABS MAIN1	Brake Control System	290
		TOYOTA Hybrid System	96
10A	ABS MAIN2	Brake Control System	290
		TOYOTA Hybrid System	96
10A	BATT FAN	TOYOTA Hybrid System	96
10A	CHS W/P	Air Conditioner	352
		Engine Control	132
10A	ETCS	Cruise Control	270
		Engine Control	132
		TOYOTA Hybrid System	96
10A	HAZ	Turn Signal and Hazard Warning Light	166
10A	H–LP HI LH	Headlight	148
10A	H–LP HI RH	Headlight	148
10A	H–LP LO LH (w/o HID)	Headlight	148
10A	H–LP LO RH (w/o HID)	Headlight	148
10A	HORN	Horn	310
		Smart Entry System and Wireless Door Lock Control (w/ Smart Entry System)	216
		Theft Deterrent	246
		Wireless Door Lock Control (w/o Smart Entry System)	234
15A	ABS MAIN3	Brake Control System	290
15A	AM2	Engine Control	132
		Ignition	128
		Interior Light	170
		Push Button Start System and Hybrid Vehicle Immobilizer System	82
		Shift Control System	256
		TOYOTA Hybrid System	96
15A	DOME	Air Conditioner	352
		Automatic Glare–Resistant EC Mirror	322
		Automatic Light Control	160
		Back–Up Light	186
		Brake Control System	290
		Clock	312
		Combination Meter	342
		Cruise Control	270
		Door Lock Control	210
		Engine Control	132

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

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Fuse		System	Page
15A	DOME	EPS	284
		Garage Door Opener	324
		Headlight	148
		Headlight Beam Level Control	156
		Interior Light	170
		Key Reminder	190
		Light Auto Turn Off System	164
		Luggage Compartment Door Opener	242
		Multi–Display and Audio System (Built–in Amplifier)	336
		Multi–Display and Audio System (Separate Amplifier)	326
		Power Window	206
		Push Button Start System and Hybrid Vehicle Immobilizer System	82
		Rear Window Defogger and Mirror Heater	318
		Seat Belt Warning	194
		Shift Control System	256
		Smart Entry System and Wireless Door Lock Control (w/ Smart Entry System)	216
		SRS	303
		Taillight and Illumination	178
		Theft Deterrent	246
		TOYOTA Hybrid System	96
		Wireless Door Lock Control (w/o Smart Entry System)	234
15A	EFI	Cruise Control	270
		Engine Control	132
		TOYOTA Hybrid System	96
15A	FR FOG	Front Fog Light	162
15A	H–LP LO LH (w/ HID)	Headlight	148
15A	H–LP LO RH (w/ HID)	Headlight	148
20A	HEV	Cruise Control	270
		Push Button Start System and Hybrid Vehicle Immobilizer System	82
		Shift Control System	256
		TOYOTA Hybrid System	96
30A	ABS–1	Brake Control System	290
		TOYOTA Hybrid System	96
30A	ABS–2	Brake Control System	290
		TOYOTA Hybrid System	96
30A	AMP	Multi–Display and Audio System (Separate Amplifier)	326
30A	CDS FAN	Radiator Fan and Condenser Fan	348
30A	P CON MTR	Push Button Start System and Hybrid Vehicle Immobilizer System	82
		Shift Control System	256
30A	PTC HTR1	Air Conditioner	352
30A	PTC HTR2	Air Conditioner	352

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

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J POWER SOURCE (Current Flow Chart)

Fuse		System	Page
30A	RDI	Engine Control	132
		Radiator Fan and Condenser Fan	348
		TOYOTA Hybrid System	96
40A	HEAD MAIN	Automatic Light Control	160
		Headlight	148
		Headlight Beam Level Control	156
		Light Auto Turn Off System	164
		Smart Entry System and Wireless Door Lock Control (w/ Smart Entry System)	216
		Theft Deterrent	246
		Wireless Door Lock Control (w/o Smart Entry System)	234
40A	HTR	Air Conditioner	352
		TOYOTA Hybrid System	96
50A	EPS	EPS	284
50A	PS HTR	Air Conditioner	352
60A	P/I	Engine Control	132
		Ignition	128
		Interior Light	170
100A	DC/DC	Automatic Light Control	160
		Interior Light	170
		Light Auto Turn Off System	164
		Power Window	206
		Push Button Start System and Hybrid Vehicle Immobilizer System	82
		Smart Entry System and Wireless Door Lock Control (w/ Smart Entry System)	216
		Taillight and Illumination	178
		Theft Deterrent	246
		TOYOTA Hybrid System	96
		Wireless Door Lock Control (w/o Smart Entry System)	234

Fusible Link Block (See Page 27)

Fuse		System	Page
5A	DC/DC–S	TOYOTA Hybrid System	96
120A	MAIN	Engine Control	132
		Ignition	128
		Interior Light	170
		TOYOTA Hybrid System	96

Driver Side J/B (See Page 28)

Fuse		System	Page
7.5A	ACC	Clock	312
		Interior Light	170
		Key Reminder	190
		Light Auto Turn Off System	164
		Multi–Display and Audio System (Built–in Amplifier)	336

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

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Fuse		System	Page
7.5A	ACC	Multi–Display and Audio System (Separate Amplifier)	326
		Multiplex Communication System (AVC–LAN Bus)	78
		Multiplex Communication System (BEAN Bus)	70
		Multiplex Communication System (CAN Bus)	74
		Power Window	206
		Push Button Start System and Hybrid Vehicle Immobilizer System	82
		Remote Control Mirror	316
		Shift Control System	256
		Smart Entry System and Wireless Door Lock Control (w/ Smart Entry System)	216
		Theft Deterrent	246
7.5A	AM1	Interior Light	170
		Push Button Start System and Hybrid Vehicle Immobilizer System	82
		Shift Control System	256
		TOYOTA Hybrid System	96
7.5A	ECU–IG	Automatic Glare–Resistant EC Mirror	322
		Automatic Light Control	160
		Brake Control System	290
		Door Lock Control	210
		Engine Control	132
		EPS	284
		Garage Door Opener	324
		Headlight	148
		Interior Light	170
		Key Reminder	190
		Light Auto Turn Off System	164
		Luggage Compartment Door Opener	242
		Multi–Display and Audio System (Built–in Amplifier)	336
		Multi–Display and Audio System (Separate Amplifier)	326
		Multiplex Communication System (AVC–LAN Bus)	78
		Multiplex Communication System (BEAN Bus)	70
		Multiplex Communication System (CAN Bus)	74
		Power Window	206
		Push Button Start System and Hybrid Vehicle Immobilizer System	82
		Radiator Fan and Condenser Fan	348
		Shift Control System	256
		Smart Entry System and Wireless Door Lock Control (w/ Smart Entry System)	216
		Theft Deterrent	246
		TOYOTA Hybrid System	96
		Wireless Door Lock Control (w/o Smart Entry System)	234
7.5A	IGN	Brake Control System	290
		Combination Meter	342
		Cruise Control	270
		Engine Control	132

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

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J POWER SOURCE (Current Flow Chart)

Fuse		System	Page
7.5A	IGN	EPS	284
		Push Button Start System and Hybrid Vehicle Immobilizer System	82
		Shift Control System	256
		SRS	303
		TOYOTA Hybrid System	96
7.5A	OBD	Engine Control	132
		TOYOTA Hybrid System	96
7.5A	PANEL	Clock	312
		Taillight and Illumination	178
7.5A	STOP	Brake Control System	290
		Cruise Control	270
		EPS	284
		Push Button Start System and Hybrid Vehicle Immobilizer System	82
		Shift Control System	256
		Smart Entry System and Wireless Door Lock Control (w/ Smart Entry System)	216
		Stop Light	184
		TOYOTA Hybrid System	96
10A	A/C(HTR)	Air Conditioning	352
		Rear Window Defogger and Mirror Heater	318
10A	GAUGE	Air Conditioning	352
		Back–Up Light	186
		Brake Control System	290
		Combination Meter	342
		Cruise Control	270
		Engine Control	132
		EPS	284
		Headlight	148
		Headlight Beam Level Control	156
		Key Reminder	190
		Luggage Compartment Door Opener	242
		Multi–Display and Audio System (Built–in Amplifier)	336
		Multi–Display and Audio System (Separate Amplifier)	326
		Power Window	206
		Push Button Start System and Hybrid Vehicle Immobilizer System	82
		Rear Window Defogger and Mirror Heater	318
		Seat Belt Warning	194
		Shift Control System	256
		Smart Entry System and Wireless Door Lock Control (w/ Smart Entry System)	216
		SRS	303
		Taillight and Illumination	178
		TOYOTA Hybrid System	96
		Turn Signal and Hazard Warning Light	166

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

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Fuse		System	Page
10A	TAIL	Front Fog Light	162
		Taillight and Illumination	178
15A	ECU–B	Air Conditioning	352
		Headlight	148
		Multi–Display and Audio System (Built–in Amplifier)	336
		Multi–Display and Audio System (Separate Amplifier)	326
		Multiplex Communication System (AVC–LAN Bus)	78
		Multiplex Communication System (BEAN Bus)	70
		Multiplex Communication System (CAN Bus)	74
		Rear Window Defogger and Mirror Heater	318
		Theft Deterrent	246
15A	M/HTR	Rear Window Defogger and Mirror Heater	318
15A	PWR OUTLET	Power Outlet	314
15A	PWR OUTLET FR	Power Outlet	314
15A	RR WIP	Rear Wiper and Washer	202
20A	FR DOOR	Power Window	206
20A	WSH	Front Wiper and Washer	198
		Rear Wiper and Washer	202
25A	ACC–B	Push Button Start System and Hybrid Vehicle Immobilizer System	82
25A	DOOR	Door Lock Control	210
		Luggage Compartment Door Opener	242
		Smart Entry System and Wireless Door Lock Control (w/ Smart Entry System)	216
		Theft Deterrent	246
		Wireless Door Lock Control (w/o Smart Entry System)	234
30A	POWER	Power Window	206
30A	WIP	Front Wiper and Washer	198
40A	DEF	Rear Window Defogger and Mirror Heater	318

Fuse Holder (F17 on See Page 47)

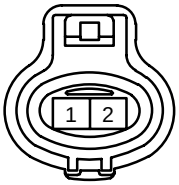
Fuse		System	Page
30A	ABS	Brake Control System	290
		TOYOTA Hybrid System	96

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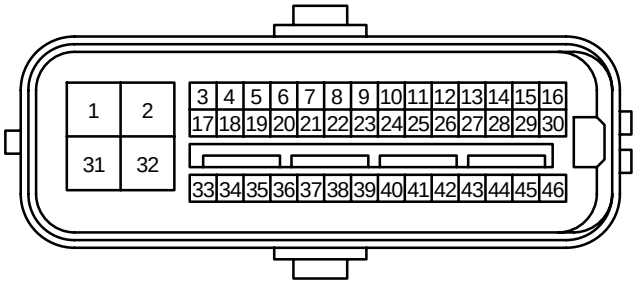
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K CONNECTOR LIST

A 1
Gray



A 2
Gray



A 3
Gray



A 4
Gray



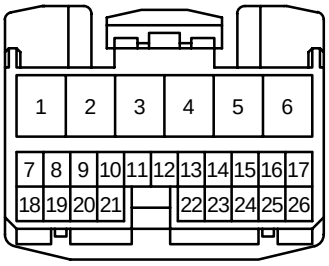
A 5
Dark Gray



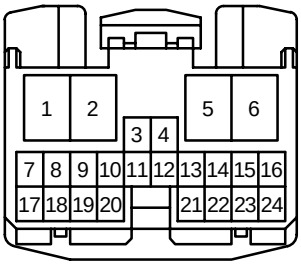
A 6
Black



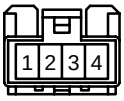
A 7



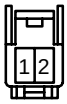
A 8



A 9
Black



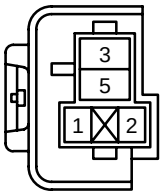
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Black



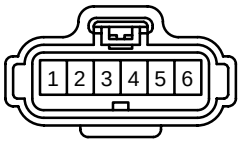
A11



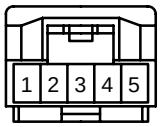
A12
Brown



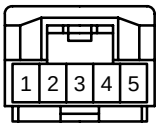
A13
Black



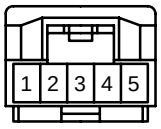
A14
Black



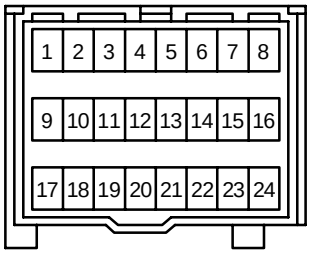
A15
Black



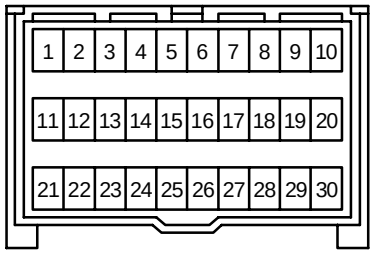
A16
Black



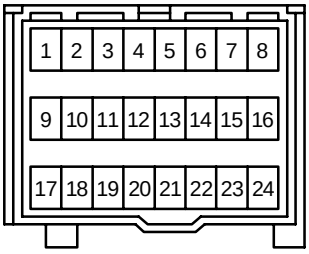
A17
Yellow



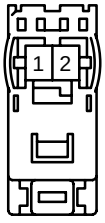
A18
Yellow



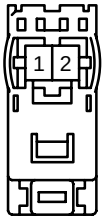
A19
Yellow



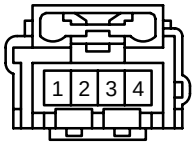
A20
Orange



A21
Black



A22
Yellow

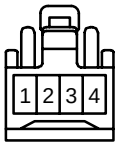


A23



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A24



A25
Black



A26
Black



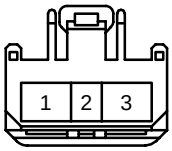
B 1
Black



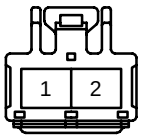
B 2
Black



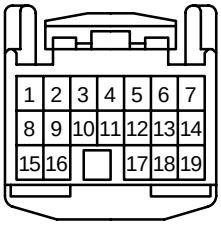
B 3
Black



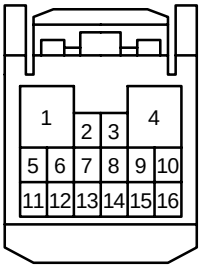
B 4
Black



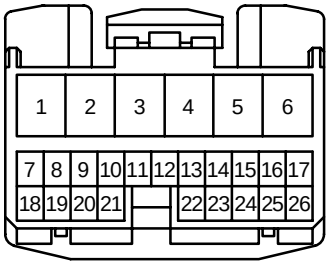
B 5



B 6



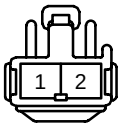
B 7



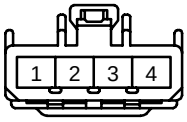
B 8
Black



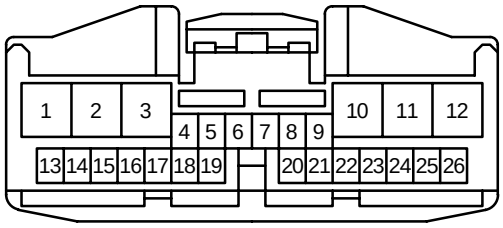
B 9



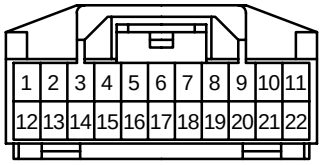
B10
Black



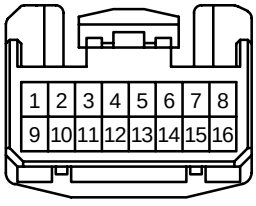
B11



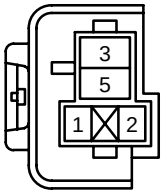
B12
Orange



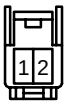
B13



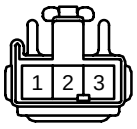
B14



B15



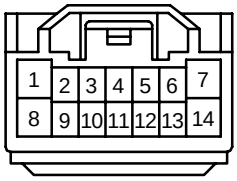
B16



B17
Gray



B18



C 1



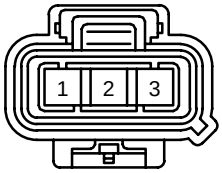
C 2
Black



C 3
Yellow



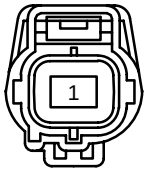
C 4
Orange



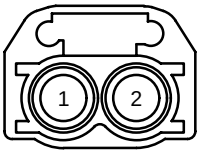
C 5
Gray



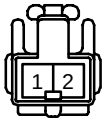
C 6
Gray



C 7
Black



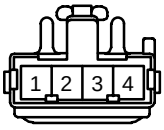
C 8



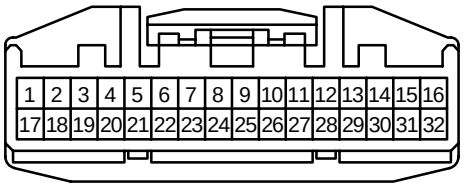
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K CONNECTOR LIST

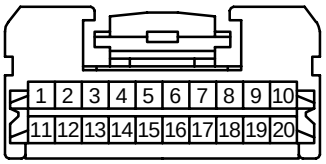
C 9
Black



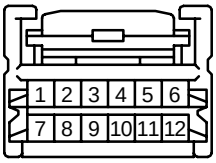
C10



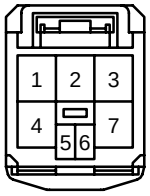
C11



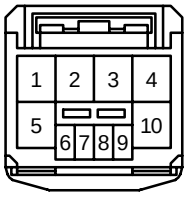
C12



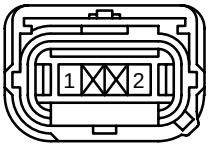
C13



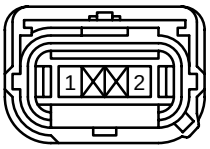
C14



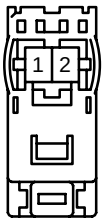
C15
Yellow



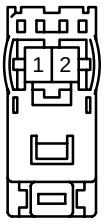
C16
Yellow



C17
Black



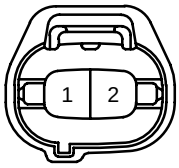
C18
Black



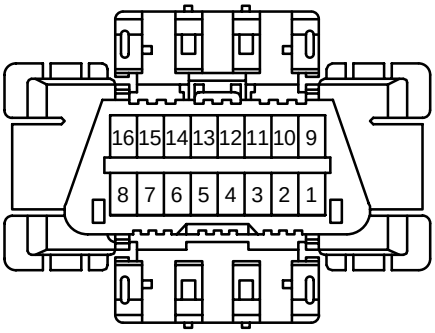
C19
Dark Gray



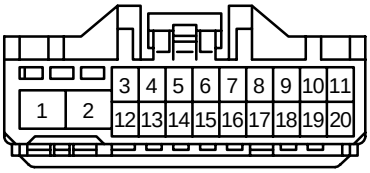
C20
Gray



D 1



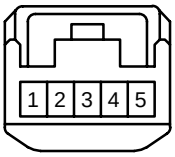
D 2



D 3
Black



D 4



D 5



D 6



D 7



D 8



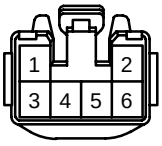
D 9



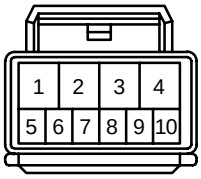
D10



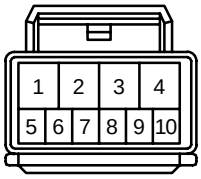
D11



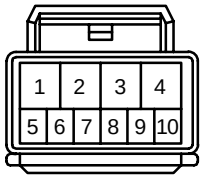
D12



D13

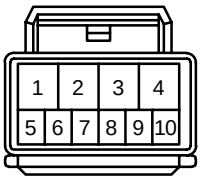


D14

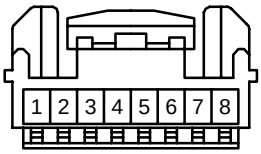


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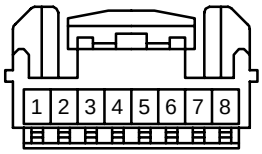
D15



D16



D17



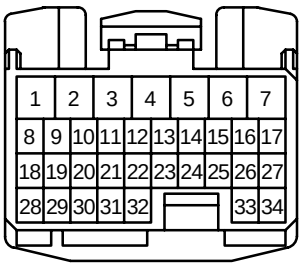
E 1
Dark Gray



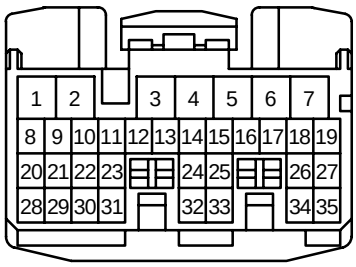
E 3



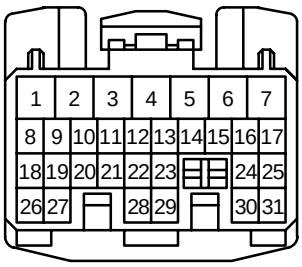
E 4



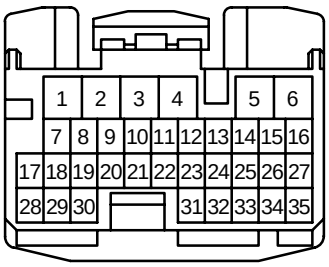
E 5



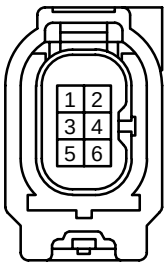
E 6



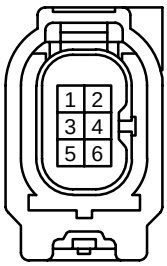
E 7



E 8



E 9



E10



F 1
Yellow



F 2
Yellow



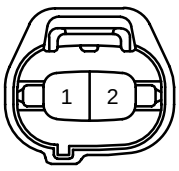
F 3
Brown



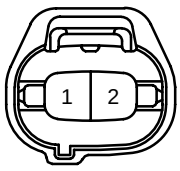
F 4
Brown



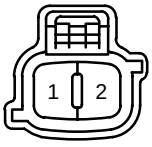
F 5
Black



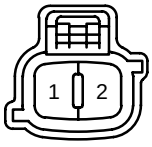
F 6
Black



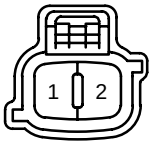
F 7
Gray



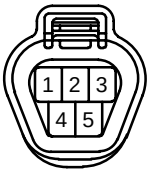
F 8
Gray



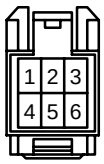
F 9
Black



F10



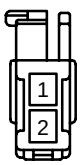
F11



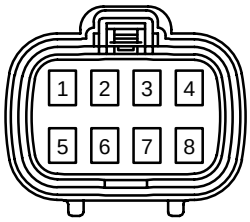
F12



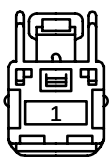
F13



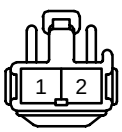
F14
Gray



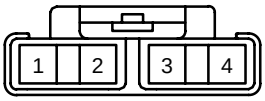
F15



F16



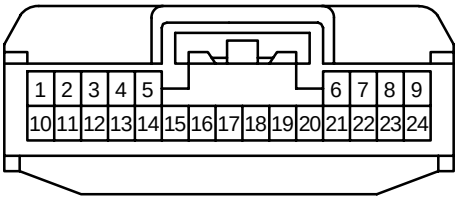
F17



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K CONNECTOR LIST

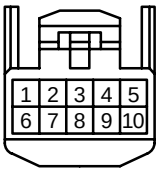
G 1



G 2



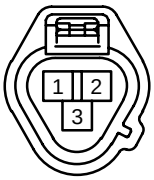
G 3
Black



H 1
Black



H 2
Black



H 3



H 4



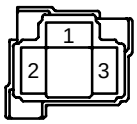
H 5



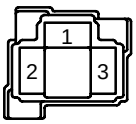
H 6



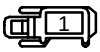
H 7



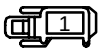
H 8



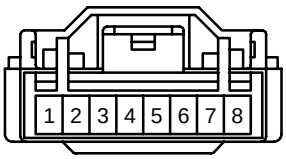
H 9
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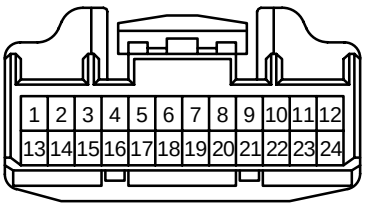
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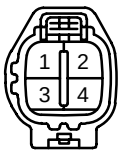
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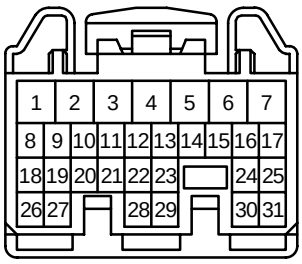
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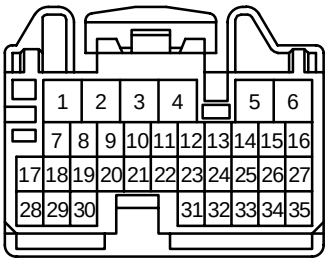
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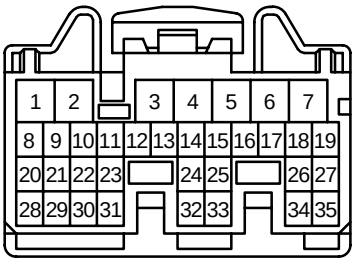
H14
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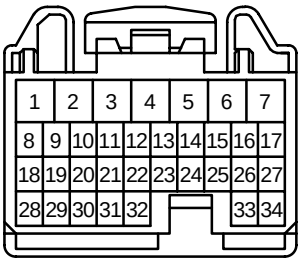
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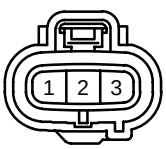
H16
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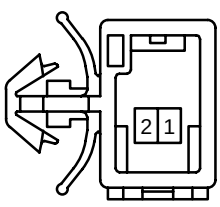
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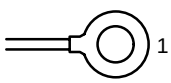
H18
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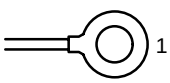
H19



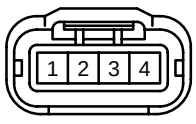
H20



H21

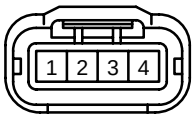


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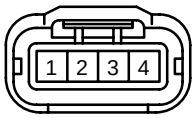


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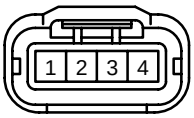
I 2
Gray



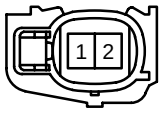
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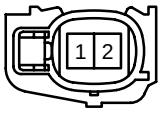
I 4
Gray



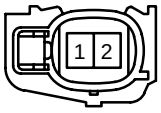
I 5
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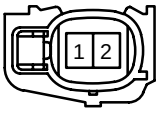
I 6
Gray



I 7
Gray



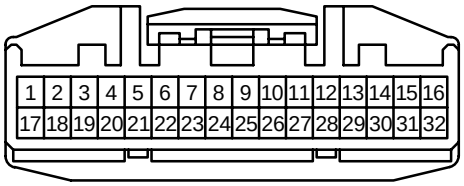
I 8
Gray



I 9



I10



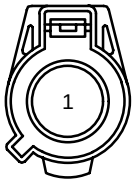
I11
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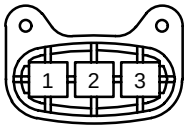
I12
Orange



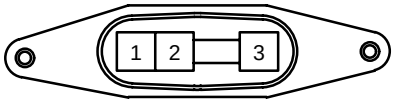
I13
Orange



I14
Orange



I15
Orange



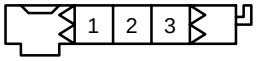
I16



I17



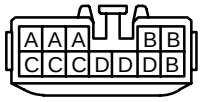
I18



J 1



J 2



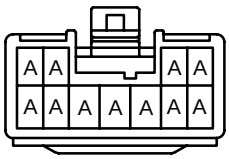
J 3



J 4



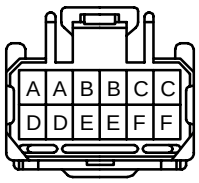
J 5



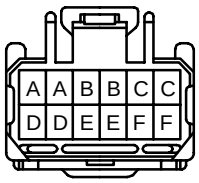
J 6



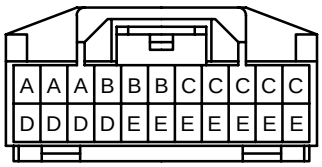
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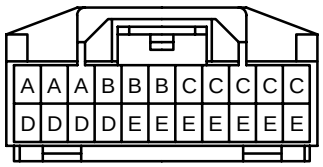
J 8



J 9



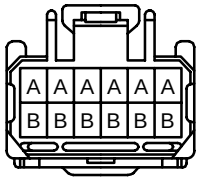
J10



J11



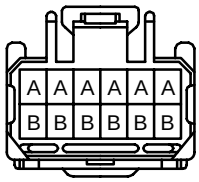
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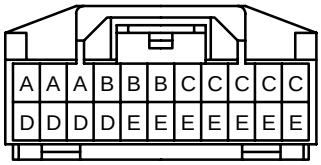
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K CONNECTOR LIST

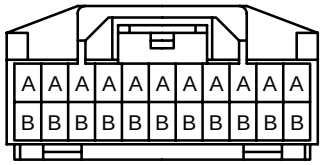
J13



J14



J15



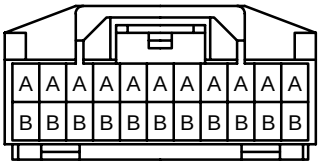
J16



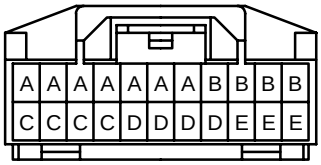
J17



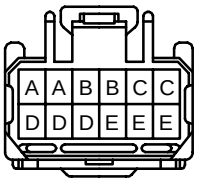
J18



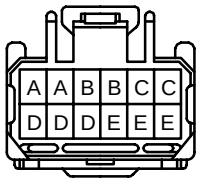
J19



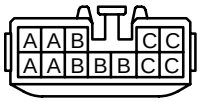
J20



J21



J22



J23



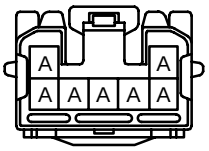
J24



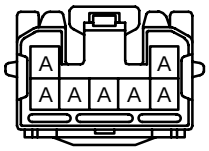
J25



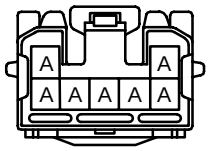
J26



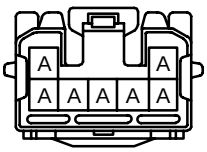
J27



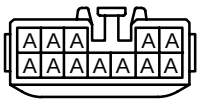
J28



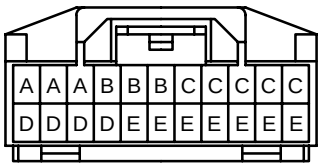
J29



J30



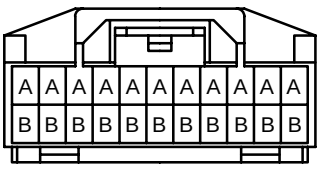
J31



J32



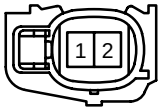
J33



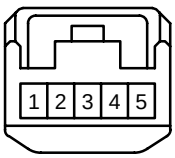
J34



K 1
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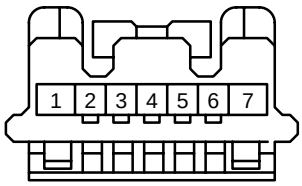


K 2



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K 3
Black



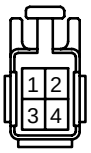
L 1
Gray



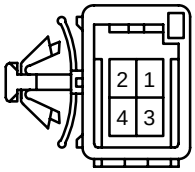
L 2
Gray



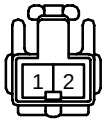
L 3



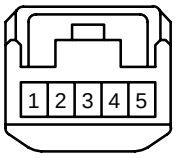
L 4



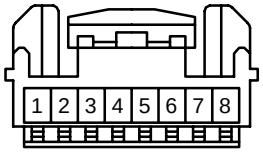
L 5



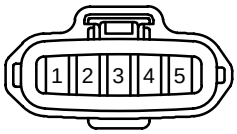
L 6



L 7



M 1
Black



M 2
Black



M 3
Black



M 4
Black



M 5
Gray



M 6
Black



M 7
Black



M 8
Black



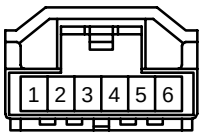
M 9
Gray



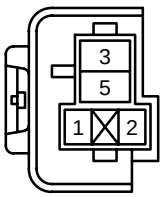
M10
Black



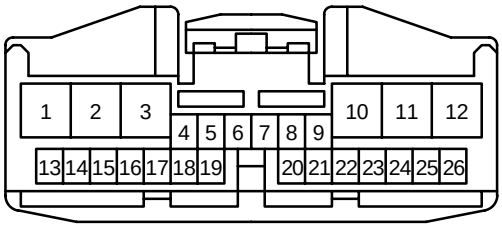
M11
Black



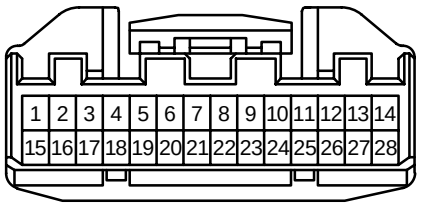
M12



M13



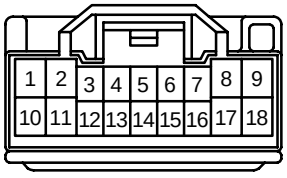
M14



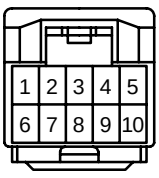
N 1
Gray



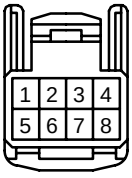
N 2



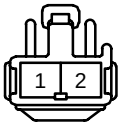
N 3



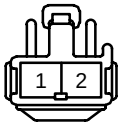
N 4
Black



N 5
Black



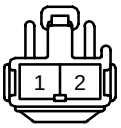
N 6
Black



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N 7



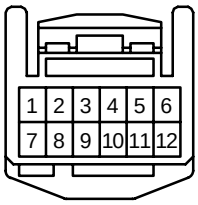
O 1
Gray



O 2



O 3



P 1
Dark Gray



P 2



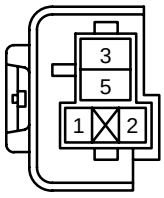
P 3



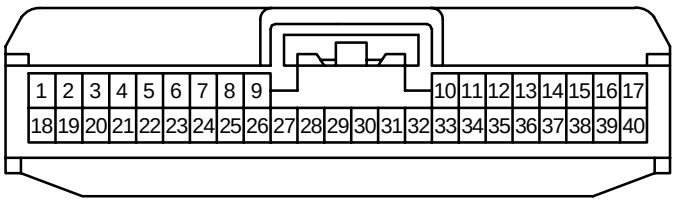
P 4



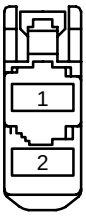
P 5



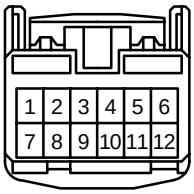
P 6



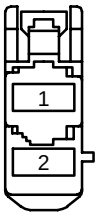
P 7
Gray



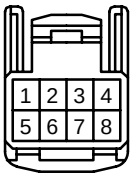
P 8



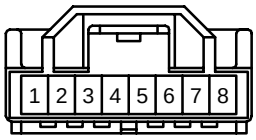
P 9



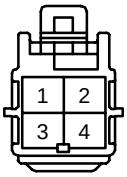
P10



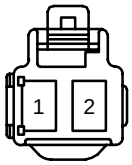
P11
Black



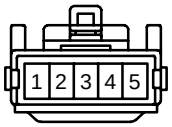
P12



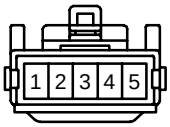
P13



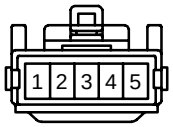
P14



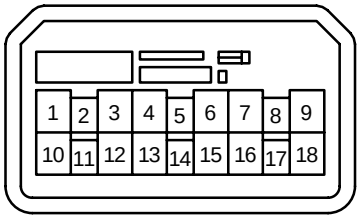
P15



P16



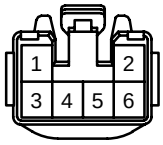
P17



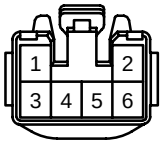
P18
Black



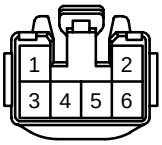
P19
Black



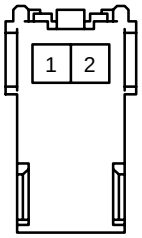
P20
Black



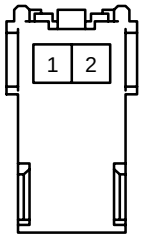
P21
Black



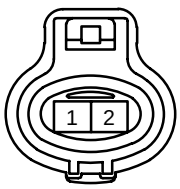
P22
Yellow



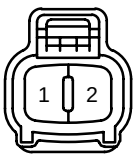
P23
Yellow



R 1
Gray

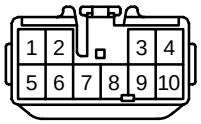


R 2
Black



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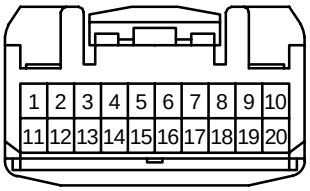
R 3



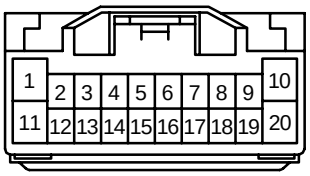
R 4



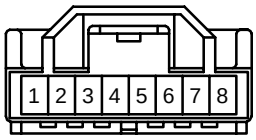
R 5



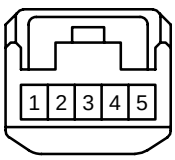
R 6



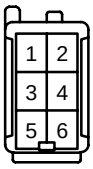
R 7
Black



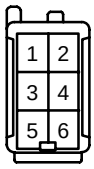
R 8



R 9



R10



R11



R12



R13



R14



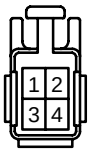
R15



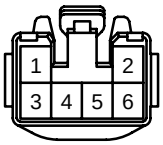
R16



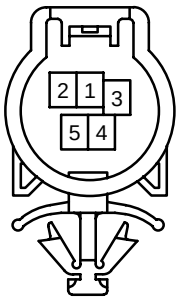
R17



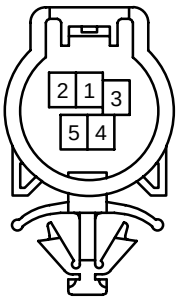
R18



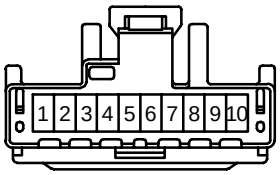
R19



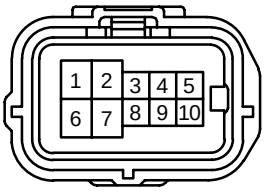
R20



R21



S 1
Black



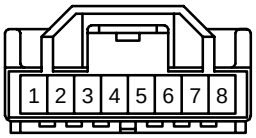
S 2
Gray



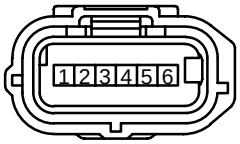
S 3
Gray



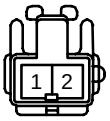
S 4



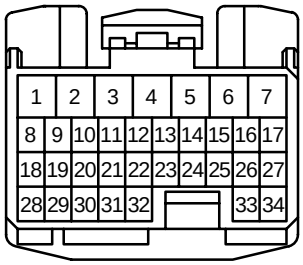
S 5
Black



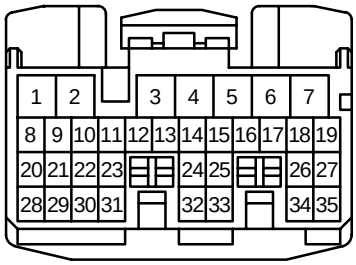
S 6
Black



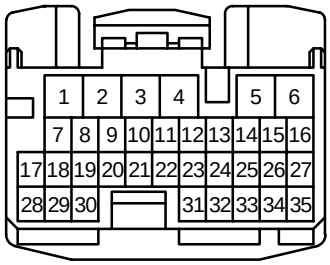
S 7



S 8



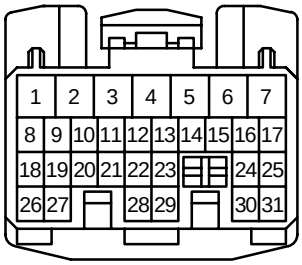
S 9



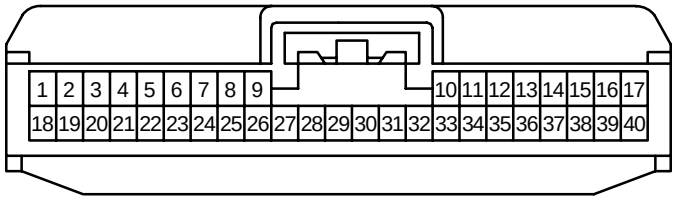
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K CONNECTOR LIST

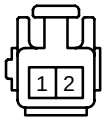
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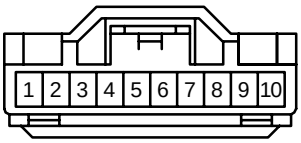
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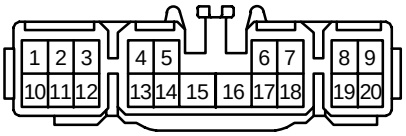
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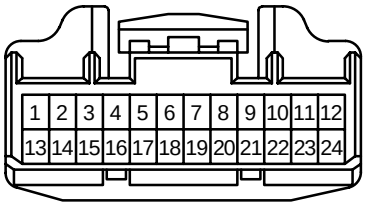
S13
Gray



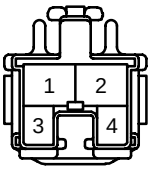
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S15



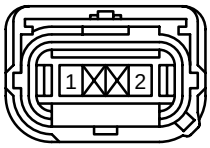
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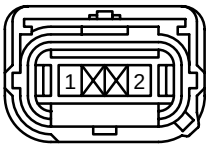
S17



S18
Yellow



S19
Yellow



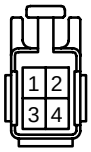
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Yellow



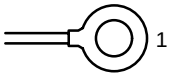
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Yellow



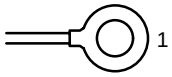
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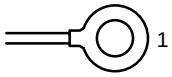
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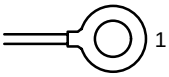
S24



S25



S26



S27
Black



S28
Black



T 1
Black



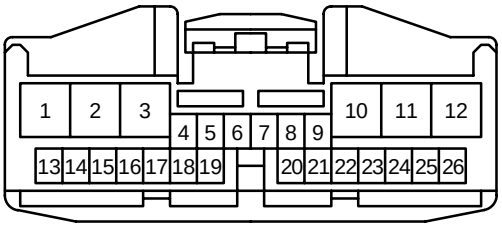
T 2
Gray



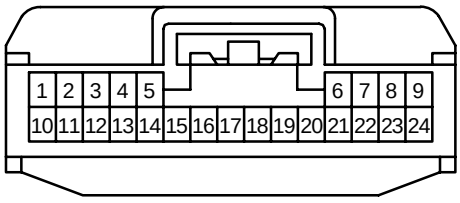
T 3
Black



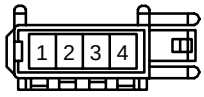
T 4



T 5

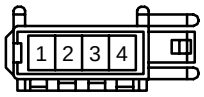


T 6

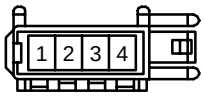


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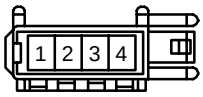
T 7



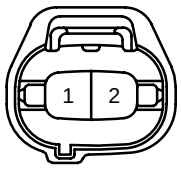
T 8



T 9



V 1
Black



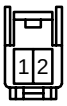
V 2



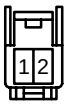
V 3



V 4



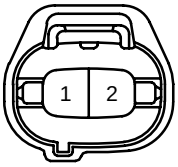
V 5



V 6
Black



V 7
Black



V 8
Blue



W 1
Black



W 3
Black



W 4
Gray



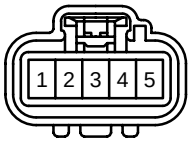
W 5
Black



W 6
Black



Y 1
Black



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L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number
A 1	A/C Condenser Fan Motor	90980–10928
A 2	ABS & BA & TRAC & VSC Actuator	90980–12297
A 3	ABS Speed Sensor Front LH	90980–11003
A 4	ABS Speed Sensor Front RH	
A 5	Air Fuel Ratio Sensor (Bank 1 Sensor 1)	90980–10869
A 6	Ambient Temp. Sensor	90980–11070
A 7	A/C Control Assembly	90980–12150
A 8	A/C Control Assembly	90980–12149
A 9	A/C Room Temp. Sensor	90980–11950
A10	A/C Solar Sensor	90980–11918
A11	A/C Thermistor	
A12	ACC Relay	82660–20340
A13	Accel Position Sensor	90980–11858
A14	Air Inlet Control Servo Motor	90980–11909
A15	Air Mix Control Servo Motor	
A16	Air Vent Mode Control Servo Motor	
A17	Airbag Sensor Assembly	90980–12392
A18	Airbag Sensor Assembly	90980–12391
A19	Airbag Sensor Assembly	90980–12390
A20	Airbag Squib (Front Passenger Airbag Assembly No.1)	90980–12224
A21	Airbag Squib (Front Passenger Airbag Assembly No.2)	90980–12219
A22	Airbag Squib (Steering Wheel Pad)	90980–12160
A23	Antenna Amplifier	90980–10871
A24	Automatic Light Control Sensor	90980–11107
A25	ABS Speed Sensor Rear LH	90980–11900
A26	ABS Speed Sensor Rear RH	
B 1	Brake Fluid Level Warning SW	90980–11207
B 2	Blower Motor	90980–10214
B 3	Blower Motor Controller	90980–11667
B 4	Blower Motor Controller	90980–11579
B 5	Body ECU	90980–12458
B 6	Body ECU	90980–12329
B 7	Body ECU	90980–12150
B 8	Brake Pedal Stroke Sensor	90980–11150
B 9	Battery Blower Motor	90980–10916
B10	Battery Blower Motor Controller	90980–11676
B11	Battery ECU	90980–12203
B12	Battery ECU	90980–11915
B13	Battery ECU	90980–12155
B14	Battery Fan Relay	82660–20340
B15	Buckle SW Front LH	90980–11918
B16	Buckle SW Front RH	90980–10908
B17	Brake Master Stroke Simulator Cylinder Assembly	90980–11003
B18	Brake Control Power Supply	82824–50190

Code	Part Name	Part Number
C 1	Camshaft Position Sensor	90980–10947
C 2	Camshaft Timing Oil Control Valve	90980–11162
C 3	Circuit Breaker Sensor	90980–11898
C 4	Compressor Assembly (Motor)	6189–1164
C 5	Converter	90980–11034
C 6	Converter	90980–11963
C 7	Crankshaft Position Sensor	90980–12028
C 8	Center Speaker	90980–10860
C 9	Clock	90980–11013
C10	Combination Meter	90980–12153
C11	Combination SW	90980–12266
C12	Combination SW	90980–12265
C13	Combination SW	90980–12358
C14	Combination SW	90980–12359
C15	Curtain Shield Airbag Sensor LH	90980–12241
C16	Curtain Shield Airbag Sensor RH	
C17	Curtain Shield Airbag Squib LH	90980–12219
C18	Curtain Shield Airbag Squib RH	
C19	Coolant Heat Storage Tank Outlet Temp. Sensor	90980–11061
C20	Coolant Heat Storage Water Pump	90980–11156
D 1	Data Link Connector 3	90980–11665
D 2	Daytime Running Light Relay	90980–12034
D 3	Diode (Daytime Running Light)	90980–10962
D 4	Door Control Receiver	90980–12366
D 5	Door Courtesy Light Front LH	90980–11148
D 6	Door Courtesy Light Front RH	
D 7	Door Courtesy SW Front LH	90980–10871
D 8	Door Courtesy SW Front RH	
D 9	Door Courtesy SW Rear LH	
D10	Door Courtesy SW Rear RH	
D11	Door Lock Control SW Front RH	90980–10797
D12	Door Lock Motor Front LH	90980–12226
	Door Unlock Detection SW Front LH	
D13	Door Lock Motor Front RH	
	Door Unlock Detection SW Front RH	
D14	Door Lock Motor Rear LH	
	Door Unlock Detection SW Rear LH	
D15	Door Lock Motor Rear RH	
	Door Unlock Detection SW Rear RH	
D16	Door Oscillator Front LH (w/ Sensor)	90980–12217
D17	Door Oscillator Front RH (w/ Sensor)	
E 1	Engine Coolant Temp. Sensor	90980–10735
E 3	Engine Hood Courtesy SW	90980–11003
E 4	Engine Control Module	90980–12144
E 5	Engine Control Module	90980–12145

Note: Not all of the above part numbers of the connector are established for the supply.

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Code	Part Name	Part Number
E 6	Engine Control Module	90980–12142
E 7	Engine Control Module	90980–12146
E 8	Electrical Key Antenna (Driver's Side)	90980–12382
E 9	Electrical Key Antenna (Front Passenger's Side)	
E10	Electrical Key Antenna (Luggage Compartment Door)	90980–10824
F 1	Front Airbag Sensor LH	90980–11856
F 2	Front Airbag Sensor RH	
F 3	Front Fog Light LH	90980–11096
F 4	Front Fog Light RH	
F 5	Front Side Marker Light LH	90980–11156
F 6	Front Side Marker Light RH	
F 7	Front Turn Signal Light LH	90980–11019
F 8	Front Turn Signal Light RH	
F 9	Front Washer Motor	
F10	Front Wiper Motor	90980–11599
F11	Front Passenger Seat Belt Warning Light	90980–12012
F12	Front Door Speaker LH	90980–10935
F13	Front Door Speaker RH	
F14	Fuel Pump	82824–47160
	Fuel Sender	
F15	Fusible Link Block	90980–11775
F16	Fusible Link Block	90980–10916
F17	Fuse Holder	X–186
G 1	Gateway ECU	90980–12404
G 2	Glove Box Light	90980–11918
G 3	Garage Door Opener	82824–47180
	Inner Mirror	
H 1	Headlight Beam Level Control Actuator LH	90980–11016
H 2	Headlight Beam Level Control Actuator RH	
H 3	Headlight Control ECU LH	90980–11255
H 4	Headlight Control ECU LH	90980–10869
H 5	Headlight Control ECU RH	90980–11255
H 6	Headlight Control ECU RH	90980–10869
H 7	Headlight LH	90980–11314
H 8	Headlight RH	
H 9	Horn (High)	90980–10619
H10	Horn (Lo)	
H11	Hazard SW	90980–12091
	ODO/TRIP SW	
H12	Headlight Beam Level Control ECU	90980–12200
H13	Heated Oxygen Sensor (Bank 1 Sensor 2)	90980–11028
H14	Hybrid Vehicle Control ECU	90980–12431
H15	Hybrid Vehicle Control ECU	90980–12429
H16	Hybrid Vehicle Control ECU	90980–12428
H17	Hybrid Vehicle Control ECU	90980–12430

Code	Part Name	Part Number
H18	Height Control Sensor	90980–11860
H19	High Mounted Stop Light	90980–11967
H20	Hybrid Vehicle Battery	82675–47060
H21	Hybrid Vehicle Battery	82675–47070
I 1	Ignition Coil and Igniter No.1	90980–11885
I 2	Ignition Coil and Igniter No.2	
I 3	Ignition Coil and Igniter No.3	
I 4	Ignition Coil and Igniter No.4	
I 5	Injector No.1	90980–11875
I 6	Injector No.2	
I 7	Injector No.3	
I 8	Injector No.4	
I 9	Inverter	90980–11148
I10	Inverter	90980–12153
I11	Inverter	90980–10988
I12	Inverter	90980–12465
I13	Inverter	90980–12464
I14	Inverter	90980–12434
I15	Inverter	90980–12433
I16	Inverter	90980–11147
I17	Inter Lock SW	90980–11918
I18	Interior Light	81366–68010
J 1	Junction Connector	90980–10803
J 2	Junction Connector	
J 3	Junction Connector	
J 4	Junction Connector	
J 5	Junction Connector	90980–10830
J 6	Junction Connector	90980–10803
J 7	Junction Connector	90980–11661
J 8	Junction Connector	
J 9	Junction Connector	90980–11915
J10	Junction Connector	
J11	Junction Connector	90980–10803
J12	Junction Connector	90980–11661
J13	Junction Connector	
J14	Junction Connector	90980–11915
J15	Junction Connector	
J16	Junction Connector	90980–10803
J17	Junction Connector	
J18	Junction Connector	90980–11915
J19	Junction Connector	
J20	Junction Connector	90980–11661
J21	Junction Connector	
J22	Junction Connector	90980–10803
J23	Junction Connector	
J24	Junction Connector	

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L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number
J25	Junction Connector	90980–10803
J26	Junction Connector	90980–11529
J27	Junction Connector	
J28	Junction Connector	
J29	Junction Connector	
J30	Junction Connector	90980–10803
J31	Junction Connector	90980–11915
J32	Junction Connector	90980–10803
J33	Junction Connector	90980–11915
J34	Junction Connector	90980–10799
K 1	Knock Sensor	90980–11875
K 2	Key Slot	90980–12366
K 3	Key Slot	90980–12092
L 1	License Plate Light LH	90980–11148
L 2	License Plate Light RH	
L 3	Luggage Compartment Courtesy SW	90980–10795
	Luggage Compartment Door Opener Motor	
L 4	Luggage Compartment Door Lock SW	90980–12212
	Luggage Compartment Door Opener SW	
L 5	Luggage Compartment Light	90980–10860
L 6	Luggage Oscillator (Inner)	90980–12366
L 7	Luggage Oscillator (Outer)	90980–12217
M 1	Mass Air Flow Meter	90980–11317
M 2	Motor Generator No.1	90980–12432
M 3	Motor Generator No.1	
M 4	Motor Generator No.1	
M 5	Motor Generator No.1	90980–11034
M 6	Motor Generator No.2	90980–12432
M 7	Motor Generator No.2	
M 8	Motor Generator No.2	
M 9	Motor Generator No.2	90980–11034
M10	Motor Generator No.2	
M11	Main SW	90980–11986
M12	Mirror Heater Relay	82660–20340
M13	Multi–Display	90980–12203
M14	Multi–Display	90980–12410
N 1	Noise Filter (Ignition)	90980–10843
N 2	Navigation ECU	90980–11973
N 3	Navigation ECU	90980–11923
N 4	Navigation ECU	90980–12221
N 5	Noise Filter (High Mounted Stop Light)	90980–10916
N 6	Noise Filter (Rear Window Defogger)	
N 7	Noise Filter (Rear Window Defogger)	
O 1	Oil Pressure SW	90980–11363
O 2	Option Connector (Glass Breakage Sensor)	90980–10908
O 3	Overhead J/B	90980–12183

Code	Part Name	Part Number
P 1	Pressure SW	90980–10943
P 2	Parking Brake SW	90980–10871
P 3	Power Outlet No.1	90980–10760
P 4	Power Outlet No.2	
P 5	Power Outlet Relay	82660–20340
P 6	Power Source Control ECU	90980–12388
P 7	Power Steering ECU	90980–12300
P 8	Power Steering ECU	90980–12290
P 9	Power Steering Motor	90980–12299
P10	Power Steering Torque Sensor	90980–12221
P11	Power SW	90980–11989
P12	PTC Heater	90980–11136
P13	PTC Heater	90980–10903
P14	Power Window Control SW Front RH	90980–10789
P15	Power Window Control SW Rear LH	
P16	Power Window Control SW Rear RH	
P17	Power Window Master SW	90980–12122
P18	Power Window Motor Front LH	90980–10797
P19	Power Window Motor Front RH	
P20	Power Window Motor Rear LH	
P21	Power Window Motor Rear RH	
P22	Pretensioner LH	90980–12253
P23	Pretensioner RH	
R 1	Radiator Fan Motor	90980–10928
R 2	Rear Washer Motor	90980–11051
R 3	Radio and Player	90980–10997
R 4	Radio and Player	90980–10996
R 5	Radio and Player	90980–12259
R 6	Radio and Player	90980–12038
R 7	Rheostat	90980–11989
R 8	Room Oscillator	90980–12366
R 9	Rear Combination Light LH	90980–11011
R10	Rear Combination Light RH	
R11	Rear Door Speaker LH	90980–10935
R12	Rear Door Speaker RH	
R13	Rear Window Defogger	90980–10914
R14	Rear Window Defogger	90980–10913
R15	Rear Window Defogger	90980–10914
R16	Rear Window Defogger	90980–10913
R17	Rear Wiper Motor	90980–10795
R18	Rear Wiper Relay	90980–10797
R19	Mirror Heater LH	90980–12189
	Remote Control Mirror LH	
R20	Mirror Heater RH	
	Remote Control Mirror RH	
R21	Remote Control Mirror SW	90980–11657

Note: Not all of the above part numbers of the connector are established for the supply.

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Code	Part Name	Part Number
S 1	Shift Control Actuator	90980–12446
S 2	Short Connector	90980–11002
S 3	Short Connector	90980–11003
S 4	Shift Lever Position Sensor	90980–11989
S 5	Shift Lever Position Sensor	90980–12303
S 6	Skid Control Buzzer	90980–10906
S 7	Skid Control ECU	90980–12144
S 8	Skid Control ECU	90980–12145
S 9	Skid Control ECU	90980–12146
S10	Skid Control ECU	90980–12142
S11	Smart Key ECU	90980–12388
S12	Smart Key System Cancel SW	90980–10825
S13	Steering Sensor	90980–12162
S14	Stereo Component Amplifier	90980–10821
S15	Stereo Component Amplifier	90980–12200
S16	Stop Light SW	90980–11118
S17	Seat Position Airbag Sensor	90980–10942
S18	Side Airbag Sensor LH	90980–12241
S19	Side Airbag Sensor RH	
S20	Side Airbag Squib LH	90980–11864
S21	Side Airbag Squib RH	
S22	System Main Relay	90980–10795
S23	System Main Relay	90980–09938
S24	System Main Relay	
S25	System Main Relay	82675–28380
S26	System Main Relay	

Code	Part Name	Part Number
S27	Short Connector (Water Pump)	90980–11162
S28	Short Connector (Water Pump)	90980–11168
T 1	Theft Deterrent Horn	90980–10619
T 2	Throttle Control Motor	90980–11162
T 3	Throttle Position Sensor	90980–10711
T 4	Transmission Control ECU	90980–12203
T 5	Transponder Key Computer	90980–12404
T 6	Tweeter Front LH	90980–12304
T 7	Tweeter Front RH	
T 8	Tweeter Rear LH	
T 9	Tweeter Rear RH	
V 1	VSV (EVAP)	90980–11156
V 2	Vanity Light LH	90980–10935
V 3	Vanity Light RH	
V 4	Vanity Light SW LH	90980–11918
V 5	Vanity Light SW RH	
V 6	Vapor Pressure Sensor	90980–11143
V 7	VSV (Canister Closed Valve)	90980–11156
V 8	VSV (Parge Flow Switching Valve)	90980–11859
W 1	Water Pump Motor (A/C)	90980–10887
W 3	Water Pump Motor (Inverter)	90980–11162
W 4	Water Temp. SW	90980–11235
W 5	Water Valve	90980–10988
W 6	Wireless Door Lock Buzzer	90980–11142
Y 1	Yaw Rate Sensor	90980–11904

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