

FOREWORD

This wiring diagram manual has been prepared to provide information on the electrical system of the 2005 CELICA.

Applicable models: ZTZ230, 231 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.
▲ 2005 CELICA Repair Manual	RM1131U
▲ 2005 TOYOTA New Car Features	NCF275U

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

TOYOTA MOTOR CORPORATION

NOTICE

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

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2005 CELICA ELECTRICAL WIRING DIAGRAM

	Section Code	Page
INTRODUCTION	A	2
HOW TO USE THIS MANUAL	B	3
TROUBLESHOOTING	C	12
ABBREVIATIONS	D	17
GLOSSARY OF TERMS AND SYMBOLS	E	18
RELAY LOCATIONS	F	20
ELECTRICAL WIRING ROUTING	G	32
SYSTEM CIRCUITS	H	51
GROUND POINT	I	218
POWER SOURCE (Current Flow Chart)	J	226
CONNECTOR LIST	K	234
PART NUMBER OF CONNECTORS	L	242
OVERALL ELECTRICAL WIRING DIAGRAM .	M	246

A INTRODUCTION

This manual consists of the following 13 sections:

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

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

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

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

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

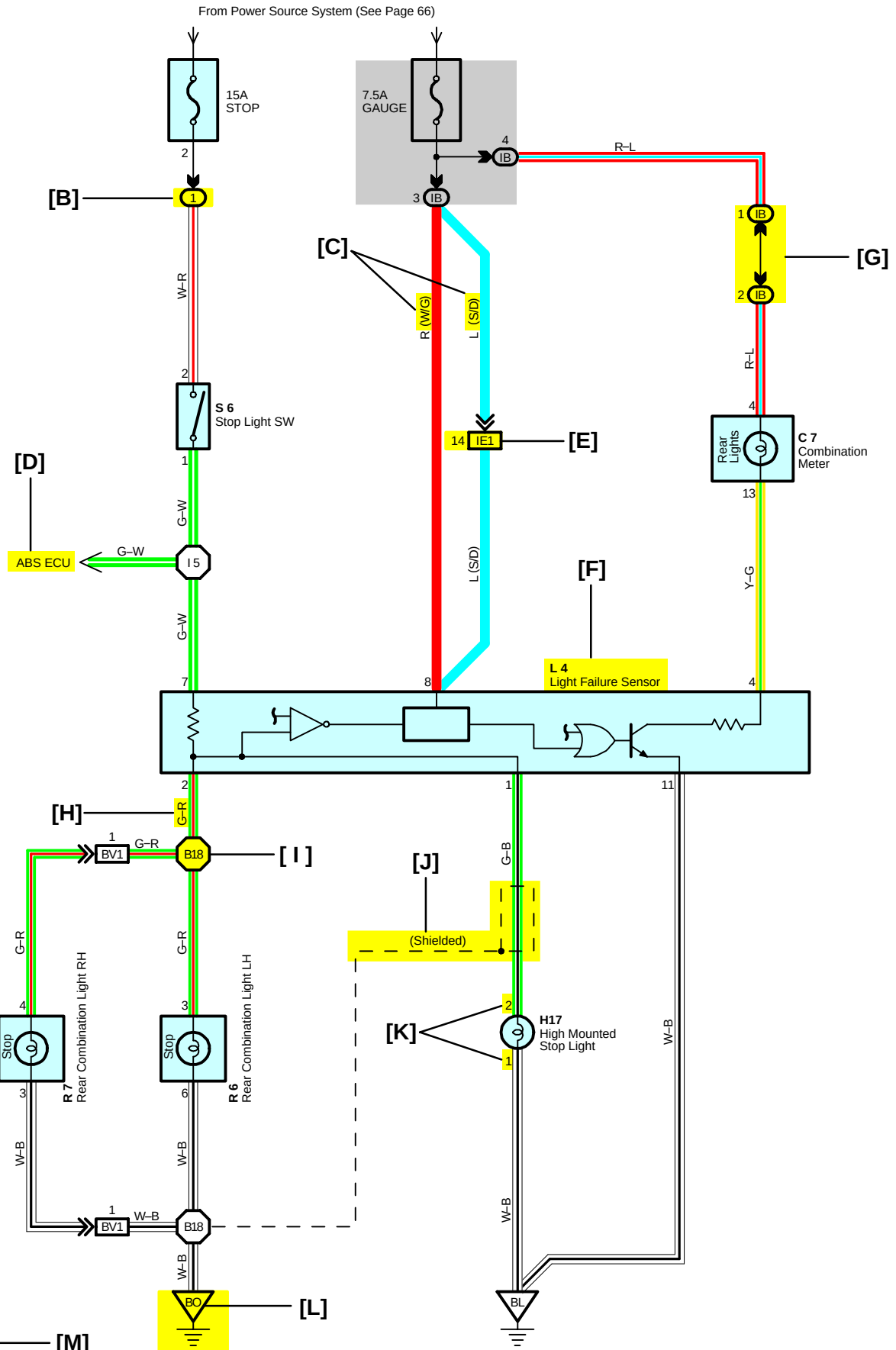
Wiring related to each system is indicated in each system circuit by arrows (from__, to__). When overall connections are required, see the Overall Electrical Wiring Diagram at the end of this manual.

B HOW TO USE THIS MANUAL

[A]

Stop Light

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



[A] : System Title

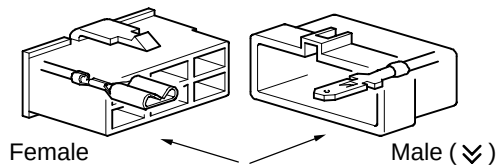
[B] : Indicates a Relay Block. No shading is used and only the Relay Block No. is shown to distinguish it from the J/B

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.



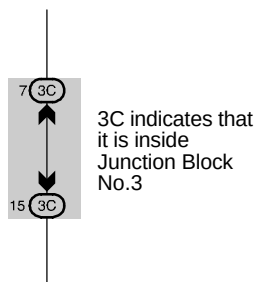
The first letter of the code for each wiring harness and wiring harness connector(s) indicates the component's location, e.g, "E" for the Engine Compartment, "I" for the Instrument Panel and Surrounding area, and "B" for the Body and Surrounding area.

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:



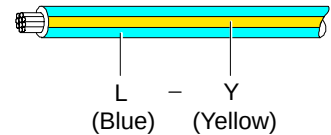
[H] : Indicates the wiring color.

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		

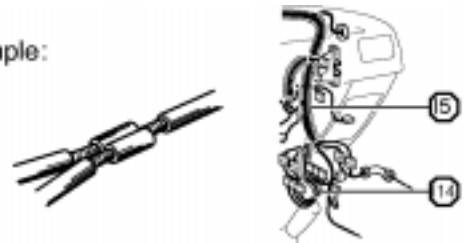
The first letter indicates the basic wire color and the second letter indicates the color of the stripe.

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).

Example:



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

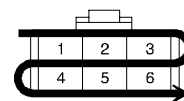
[J] : Indicates a shielded cable.



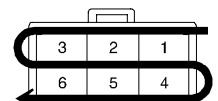
[K] : Indicates the pin number of the connector. The numbering system is different for female and male connectors.

Example: Numbered in order from upper left to lower right

Numbered in order from upper right to lower left



Female



Male

[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.

B HOW TO USE THIS MANUAL

[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

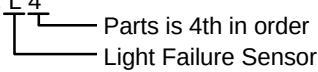
[N] : Explains the system outline.

[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.

Example : L 4


[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.

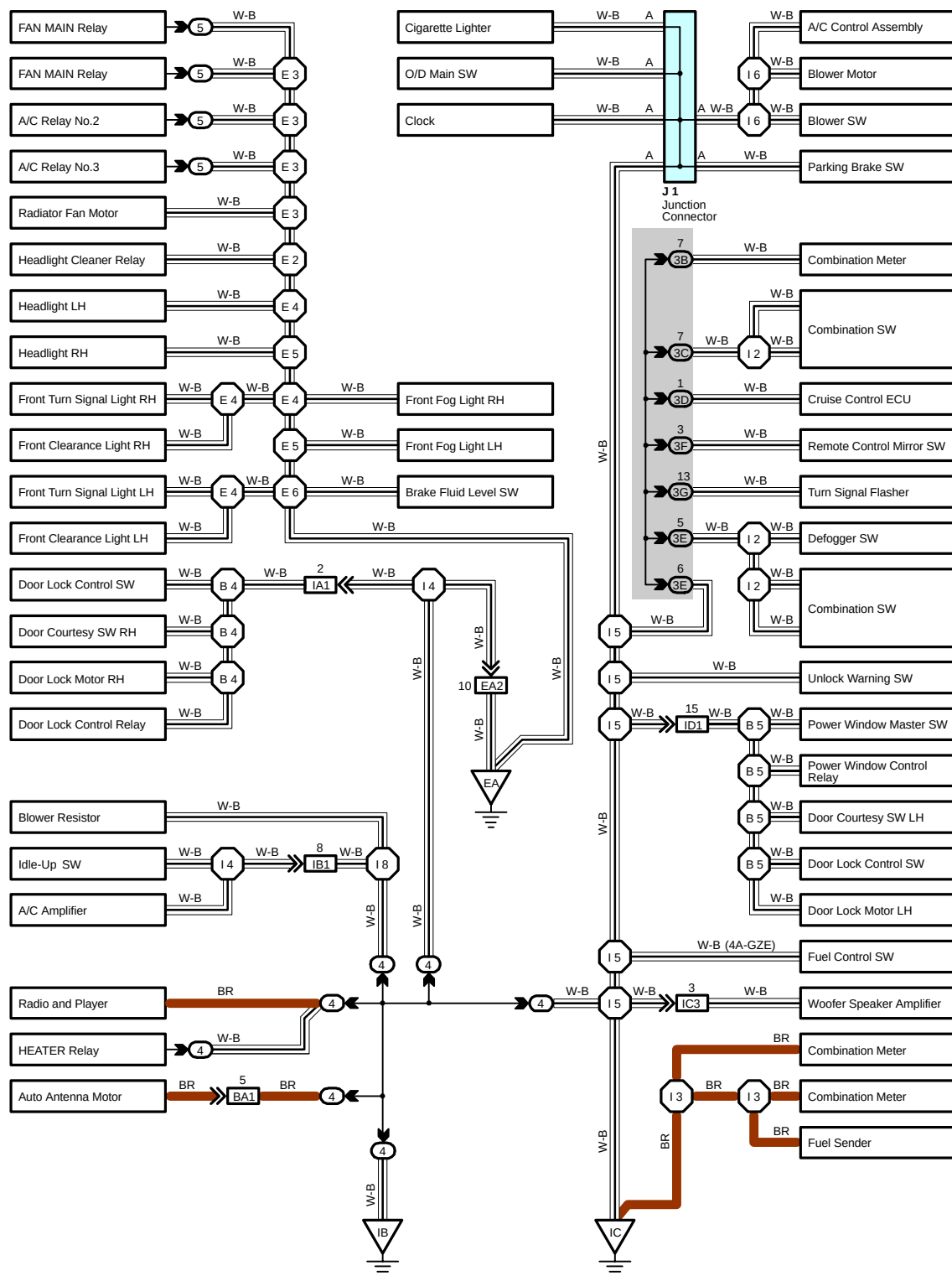
[U] : Indicates the reference page showing the position of the splice points on the vehicle.

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

B HOW TO USE THIS MANUAL

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

I GROUND POINT

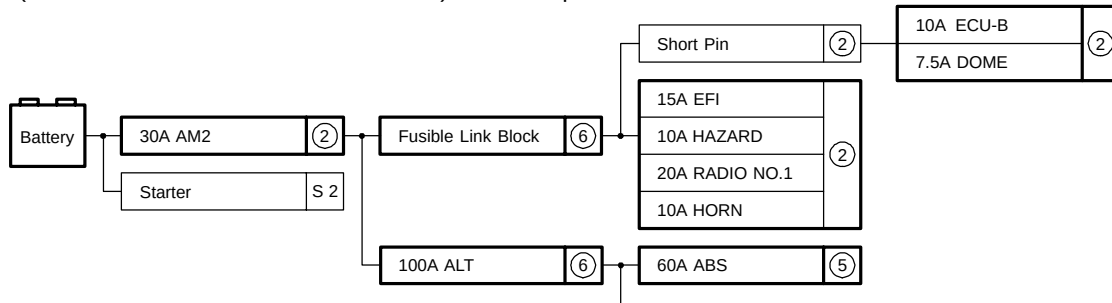


* The system shown here is an EXAMPLE ONLY. It is different to the actual circuit shown in the SYSTEM CIRCUITS SECTION.

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

J POWER SOURCE (Current Flow Chart)

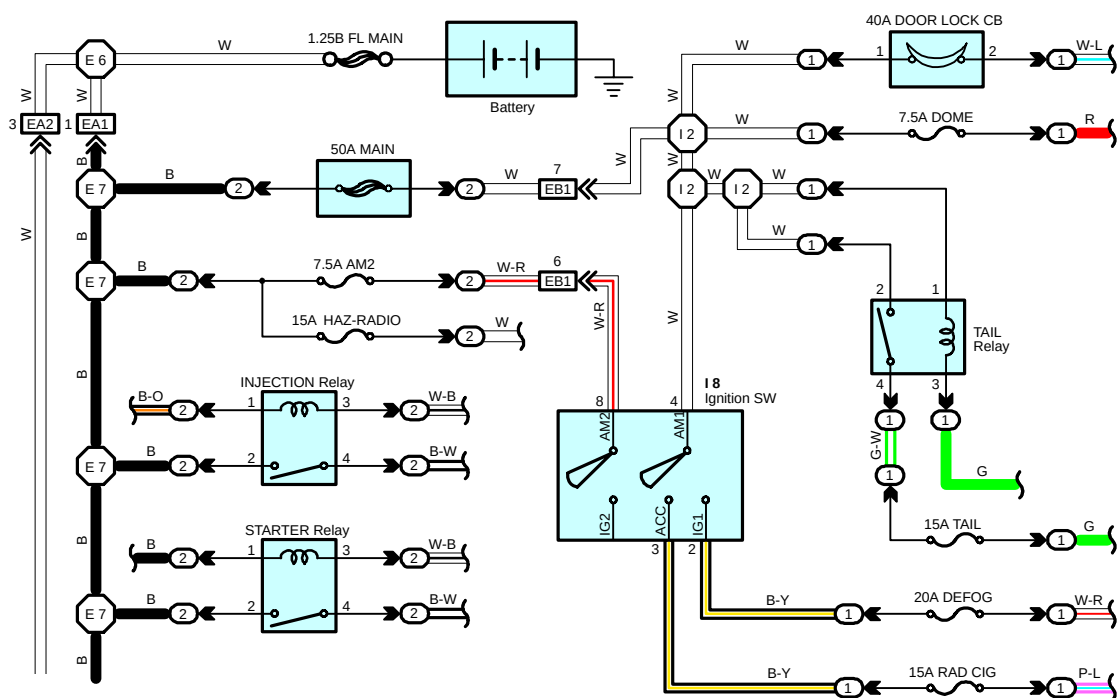
The chart below shows the route by which current flows from the battery to each electrical source (Fusible Link, Circuit Breaker, Fuse, etc.) and other parts.



Engine Room R/B (See Page 20)

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

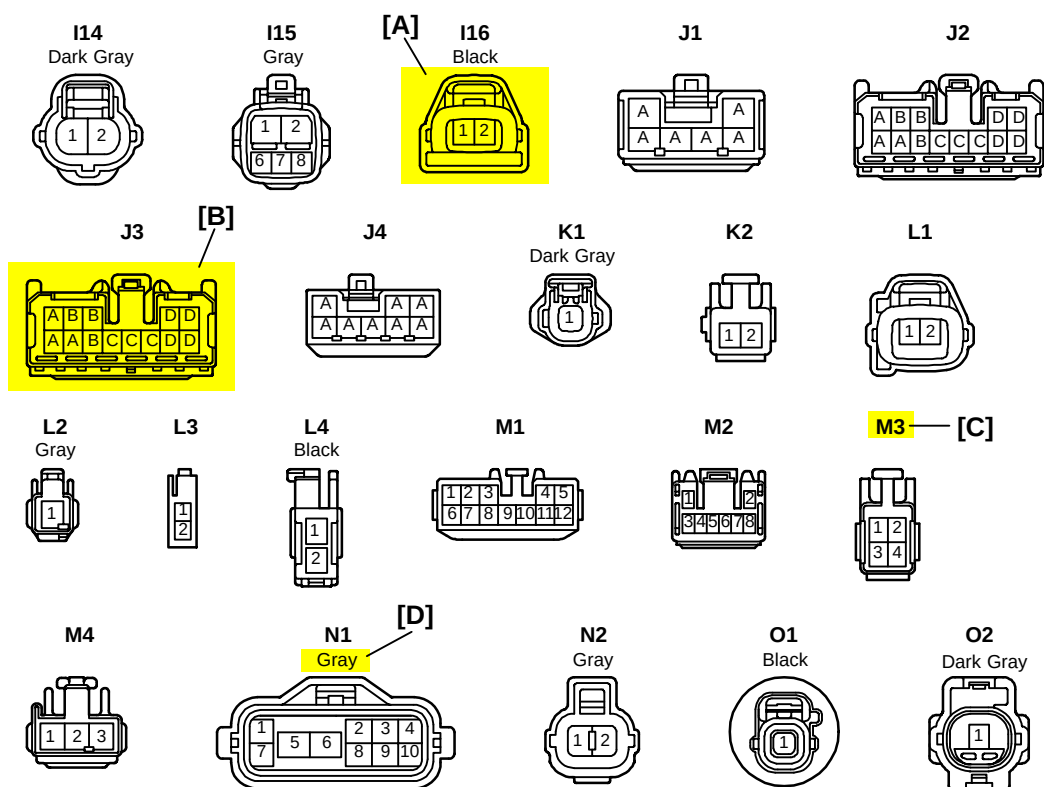
Power Source



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

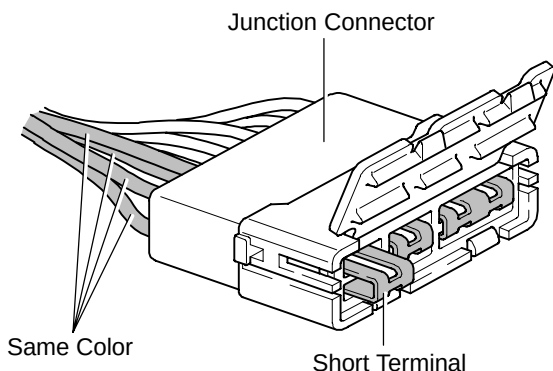
B HOW TO USE THIS MANUAL

K CONNECTOR LIST



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

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



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

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

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

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

L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number
A 1	A/C Ambient Temp. Sensor	90980-11070	D 4	Diode (Courtesy)	90980-11608
A 2	A/C Condenser Fan Motor	90980-11237	D 5	Diode (Interior Light)	90980-10962
A 3	A/C Condenser Fan Relay	90980-10940	D 6	Diode (Moon Roof)	90980-11608
A 4	A/C Condenser Fan Resistor	90980-10928	D 7	Door Lock Control Relay	90980-10848
A 5	A/C Magnetic Clutch	90980-11271	D 8	Door Lock Control SW LH	90980-11148
A 6	A/T Oil Temp. Sensor	90980-11413	D 9	Door Lock Control SW RH	
[A]	ABS Actual [B]	909-151	D10	Door Courtesy SW LH	90980-11097
A 8	ABS Actuator	90980-11009	D11	Door Courtesy SW RH	
A 9	ABS Speed Sensor Front LH	90980-10941	D12	Door Courtesy SW Front LH	90980-11156
A10	ABS Speed Sensor Front RH	90980-11002	D13	Door Courtesy SW Front RH	
A11	Airbag Sensor Front LH	90980-11856	D14	Door Courtesy SW Rear LH	
A12	Airbag Sensor Front RH		D15	Door Courtesy SW Rear RH	90980-11170
A13	Airbag Sensor Front LH	90980-11194	D16	Door Lock and Unlock SW LH	
		90980-11194			

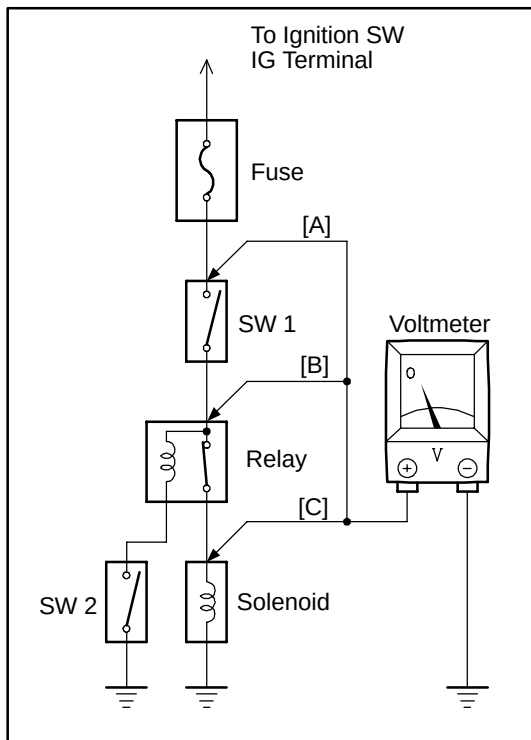
[A] : Part Code

[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.

C TROUBLESHOOTING



VOLTAGE CHECK

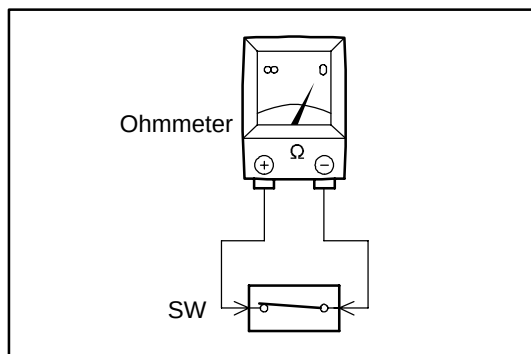
- (a) Establish conditions in which voltage is present at the check point.

Example:

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

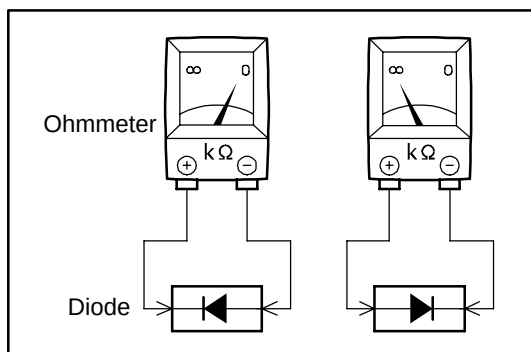
- (b) Using a voltmeter, connect the negative lead to a good ground point or negative battery terminal, and the positive lead to the connector or component terminal.

This check can be done with a test light instead of a voltmeter.



CONTINUITY AND RESISTANCE CHECK

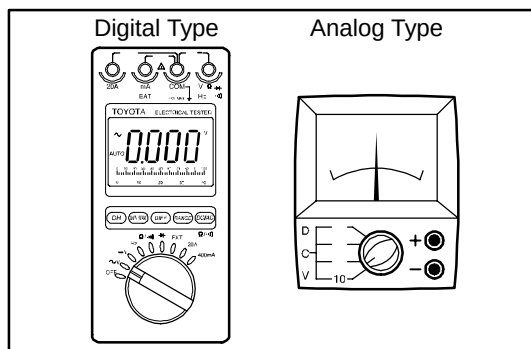
- (a) Disconnect the battery terminal or wire so there is no voltage between the check points.
- (b) Contact the two leads of an ohmmeter to each of the check points.



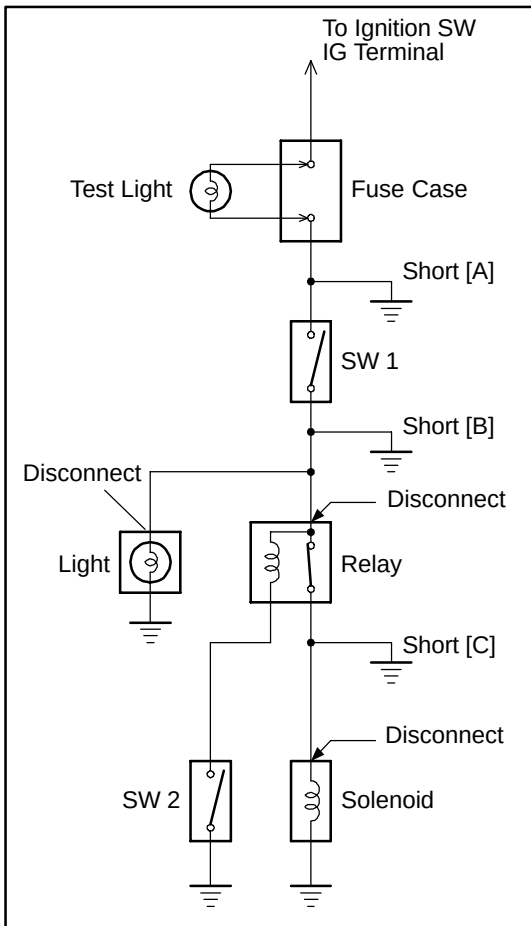
If the circuit has diodes, reverse the two leads and check again.

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

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



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



FINDING A SHORT CIRCUIT

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

Example:

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

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

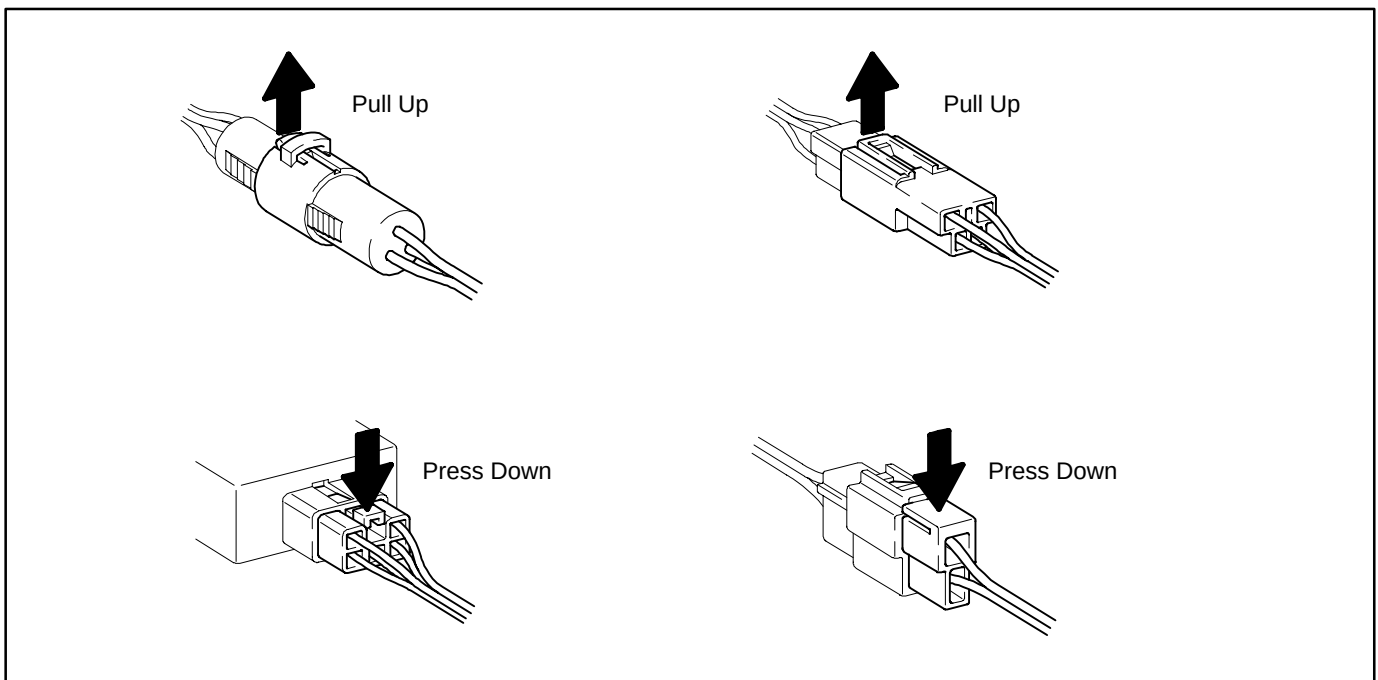
CAUTION:

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

DISCONNECTION OF MALE AND FEMALE CONNECTORS

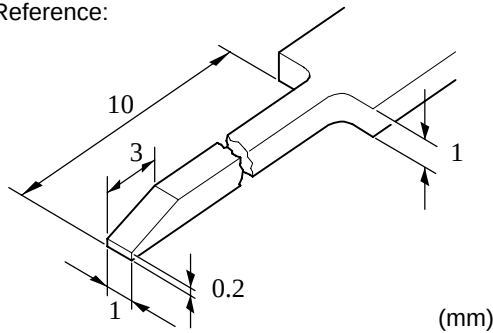
To pull apart the connectors, pull on the connector itself, not the wire harness.

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



C TROUBLESHOOTING

Reference:



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.

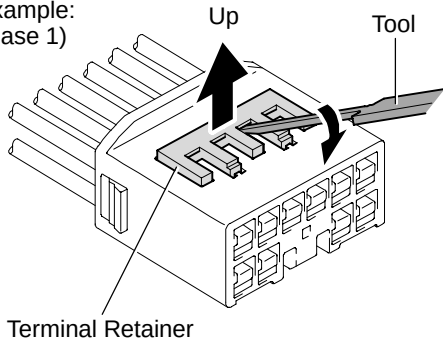
(a) Locking device must be disengaged before the terminal locking clip can be released and the terminal removed from the connector.

(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.

Example:
(Case 1)

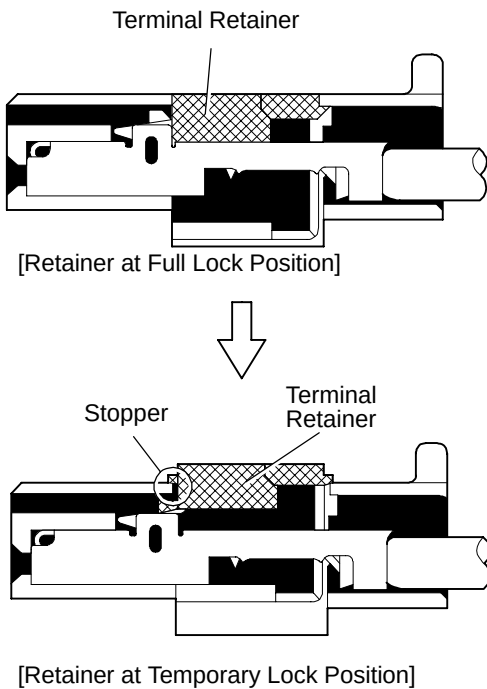


[A] For Non-Waterproof Type Connector

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"

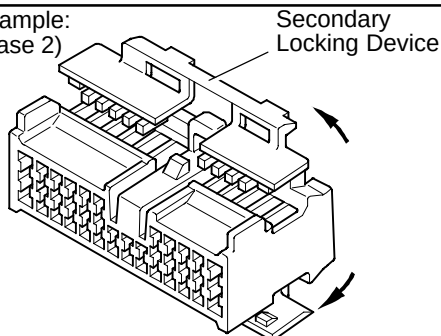
Raise the terminal retainer up to the temporary lock position.

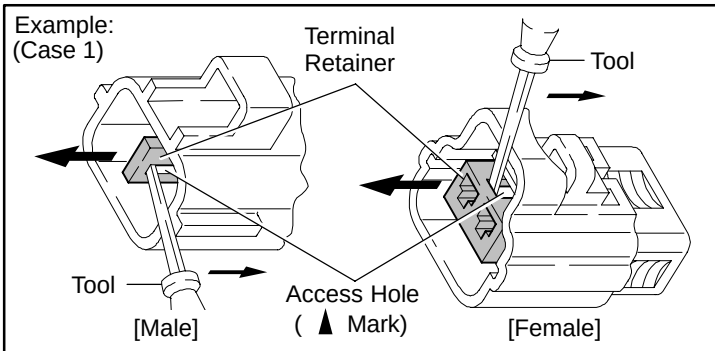
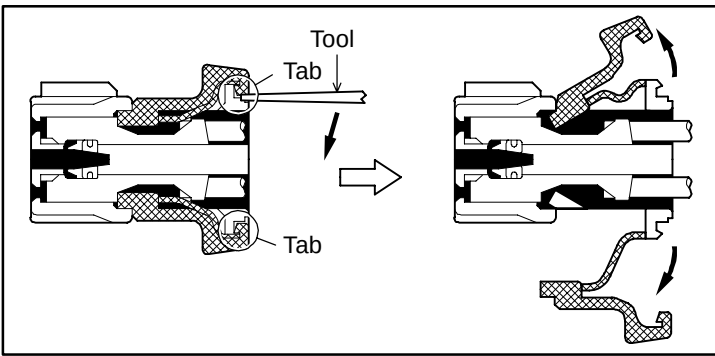


"Case 2"

Open the secondary locking device.

Example:
(Case 2)





[B] For Waterproof Type Connector

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

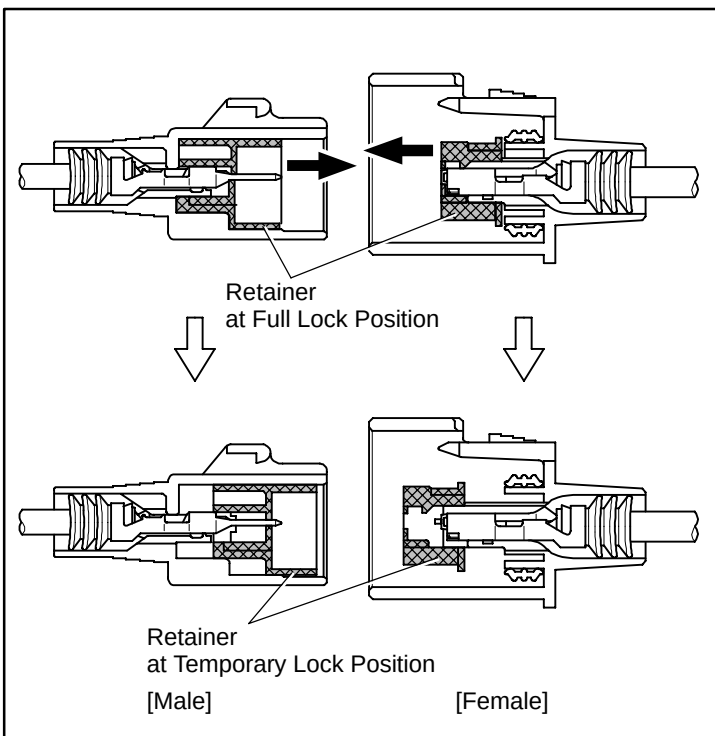
Example:

Terminal Retainer : Connector Body

Black or White : Gray

Black or White : Dark Gray

Gray or White : Black

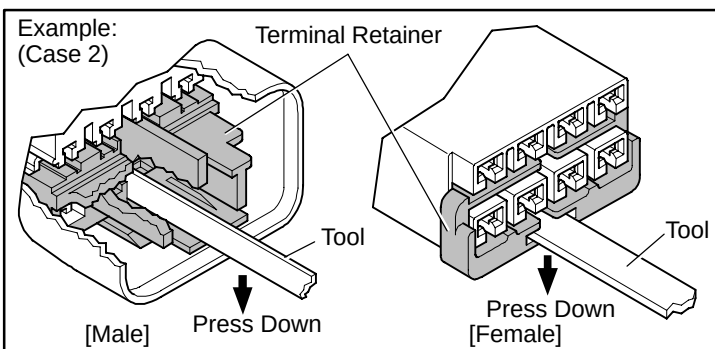


"Case 1"

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

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

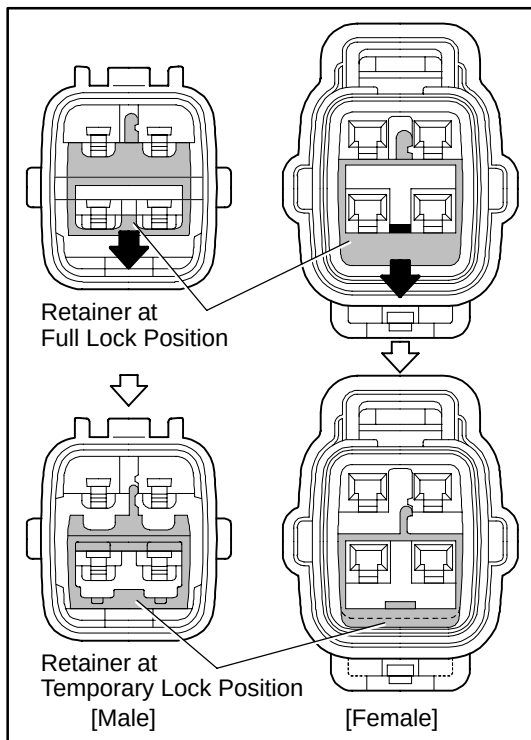
HINT : The needle insertion position varies according to the connector's shape (Number of terminals etc.), so check the position before inserting it.



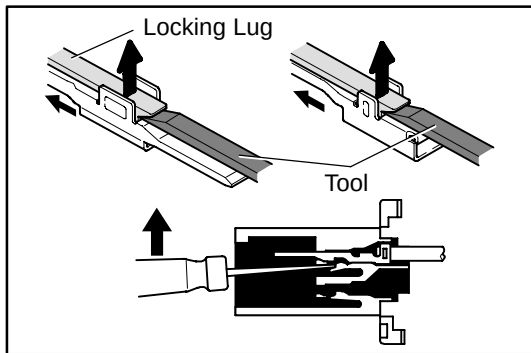
"Case 2"

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

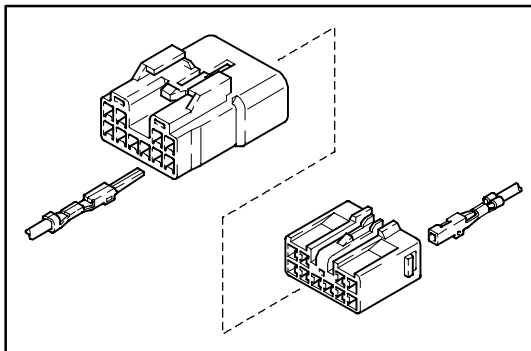
C TROUBLESHOOTING



Push the terminal retainer down to the temporary lock position.



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



4. INSTALL TERMINAL TO CONNECTOR

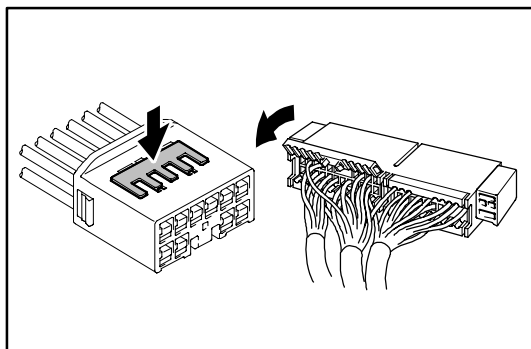
(a) Insert the terminal.

HINT:

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

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

5. CONNECT CONNECTOR



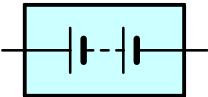
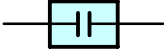
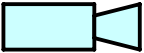
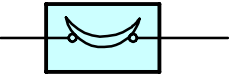
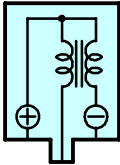
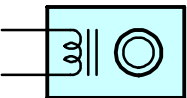
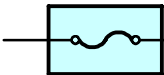
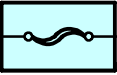
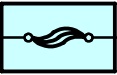
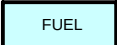
ABBREVIATIONS

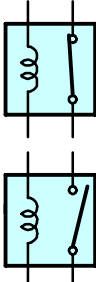
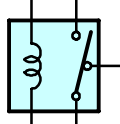
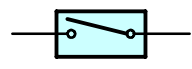
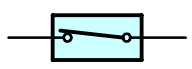
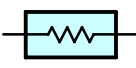
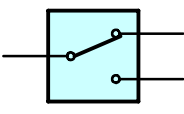
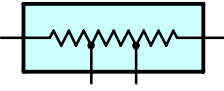
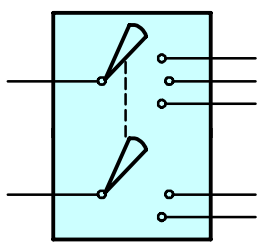
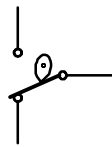
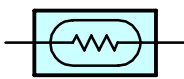
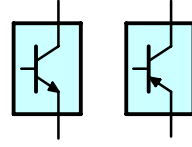
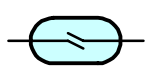
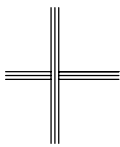
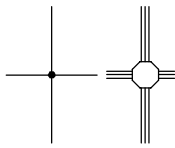
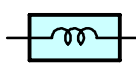
The following abbreviations are used in this manual.

A/C	=	Air Conditioning
A/T	=	Automatic Transaxle
ABS	=	Anti-Lock Brake System
ACIS	=	Acoustic Control Induction System
ECU	=	Electronic Control Unit
ESA	=	Electronic Spark Advance
EVAP	=	Evaporative Emission
FL	=	Fusible Link
HID	=	High Intensity Discharge
IC	=	Integrated Circuit
J/B	=	Junction Block
LH	=	Left-Hand
M/T	=	Manual Transaxle
MPX	=	Multiplex
O/D	=	Overdrive
R/B	=	Relay Block
RH	=	Right-Hand
SFI	=	Sequential Multiport Fuel Injection
SRS	=	Supplemental Restraint System
SW	=	Switch
TEMP.	=	Temperature
VSV	=	Vacuum Switching Valve
VVL	=	Variable Valve Lift
VVT	=	Variable Valve Timing
VVTL	=	Variable Valve Timing and Lift
w/	=	With
w/o	=	Without

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

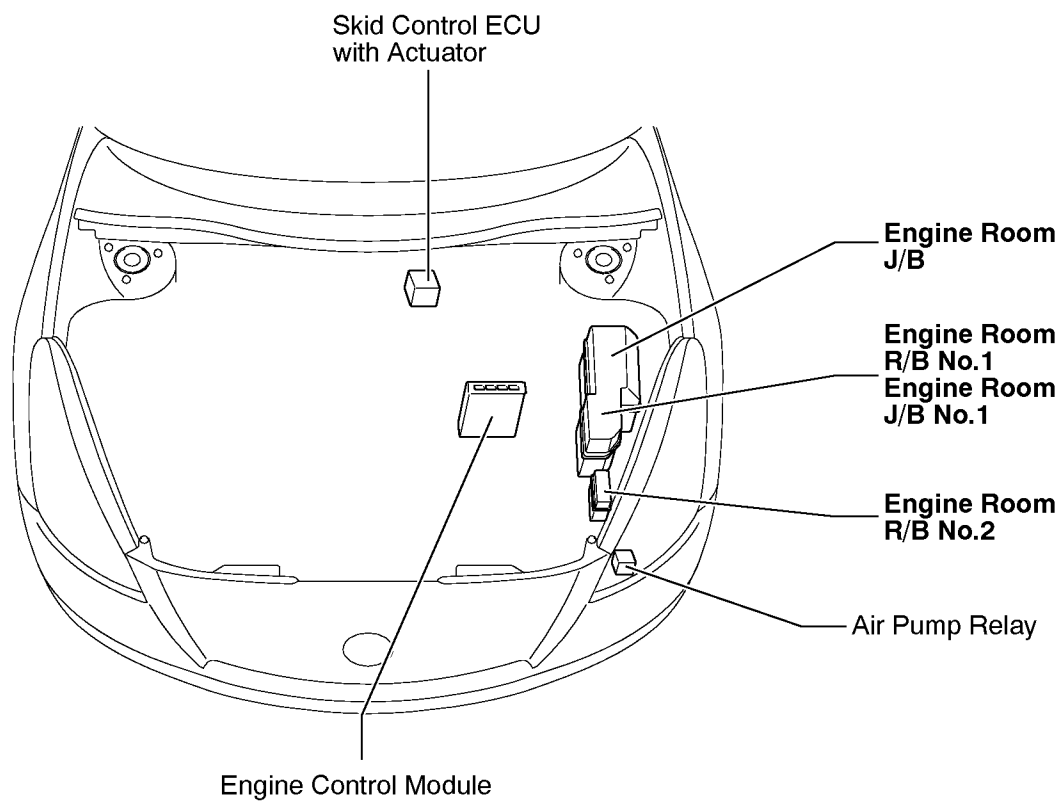
E GLOSSARY OF TERMS AND SYMBOLS

 BATTERY Stores chemical energy and converts it into electrical energy. Provides DC current for the auto's various electrical circuits.	 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.
 CAPACITOR (Condenser) A small holding unit for temporary storage of electrical voltage.	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 1. SINGLE FILAMENT  2. DOUBLE FILAMENT 
 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.	 HORN An electric device which sounds a loud audible signal.
 DIODE A semiconductor which allows current flow in only one direction.	 IGNITION COIL Converts low-voltage DC current into high-voltage ignition current for firing the spark plugs.
 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.	 LIGHT Current flow through a filament causes the filament to heat up and emit light.
 PHOTODIODE The photodiode is a semiconductor which controls the current flow according to the amount of light.	 LED (LIGHT EMITTING DIODE) Upon current flow, these diodes emit light without producing the heat of a comparable light.
 DISTRIBUTOR, IIA Channels high-voltage current from the ignition coil to the individual spark plugs.	 METER, ANALOG Current flow activates a magnetic coil which causes a needle to move, thereby providing a relative display against a background calibration.
 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.  (for Medium Current Fuse) (for High Current Fuse or Fusible Link)	 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.

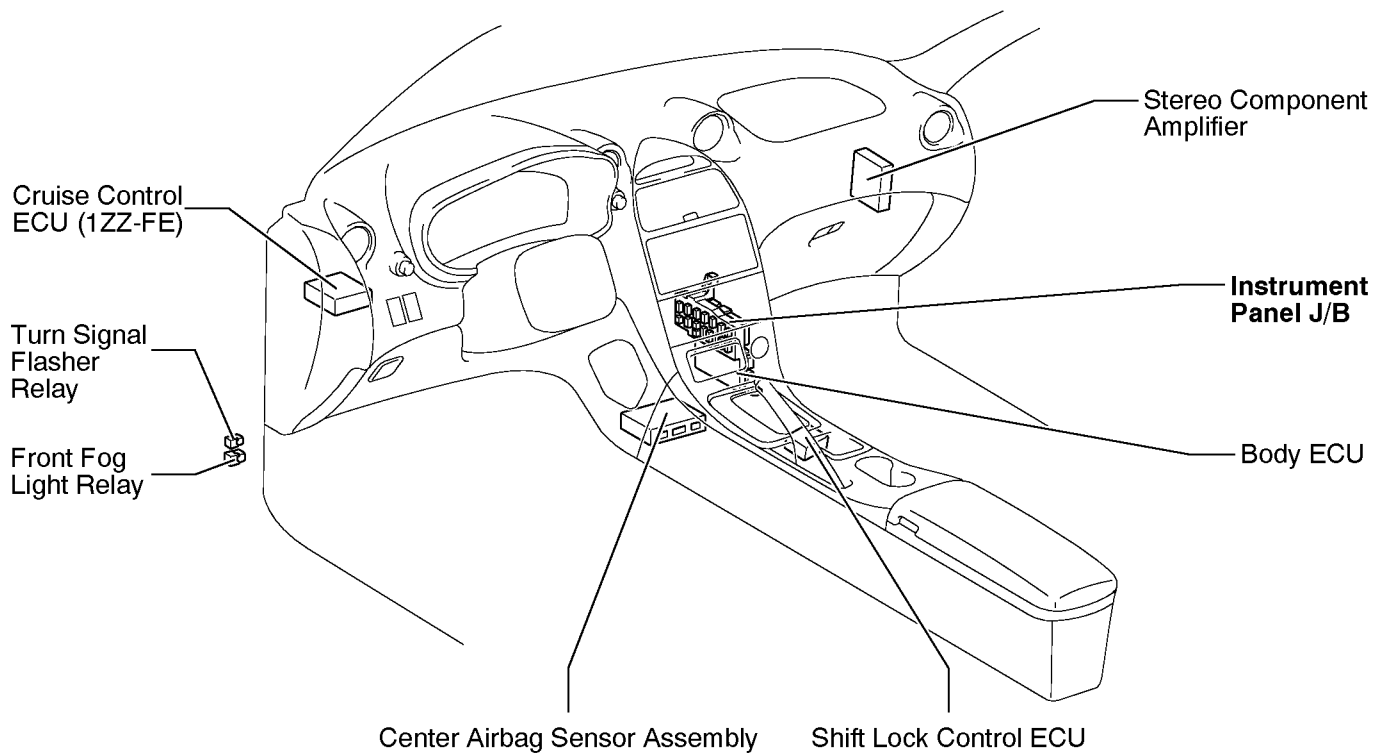
 RELAY Basically, an electrically operated switch which may be normally closed (1) or open (2). Current flow through a small coil creates a magnetic field which either opens or closes an attached switch.	 SPEAKER An electromechanical device which creates sound waves from current flow.
 RELAY, DOUBLE THROW A relay which passes current through one set of contacts or the other.	SWITCH, MANUAL Opens and closes circuits, thereby stopping (1) or allowing (2) current flow.  
 RESISTOR An electrical component with a fixed resistance, placed in a circuit to reduce voltage to a specific value.	SWITCH, DOUBLE THROW A switch which continuously passes current through one set of contacts or the other. 
 RESISTOR, TAPPED A resistor which supplies two or more different non adjustable resistance values.	SWITCH, IGNITION A key operated switch with several positions which allows various circuits, particularly the primary ignition circuit, to become operational. 
 RESISTOR, VARIABLE or RHEOSTAT A controllable resistor with a variable rate of resistance. Also called a potentiometer or rheostat.	SWITCH, WIPER PARK Automatically returns wipers to the stop position when the wiper switch is turned off. 
 SENSOR (Thermistor) A resistor which varies its resistance with temperature.	TRANSISTOR A solidstate device typically used as an electronic relay; stops or passes current depending on the voltage applied at "base". 
 SENSOR, SPEED Uses magnetic impulses to open and close a switch to create a signal for activation of other components. (Reed Switch Type)	WIRES (1) NOT CONNECTED  (2) SPLICED  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.
 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.	

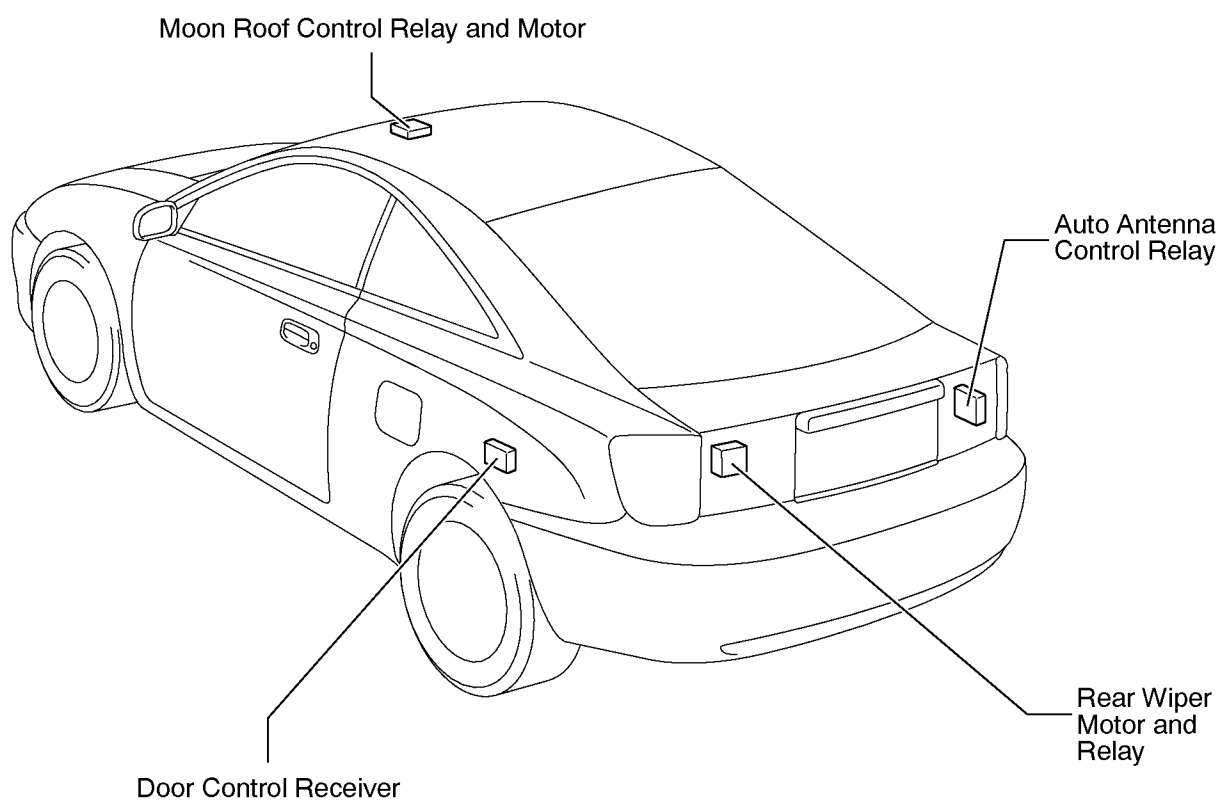
F RELAY LOCATIONS

[Engine Compartment]



[Instrument Panel]

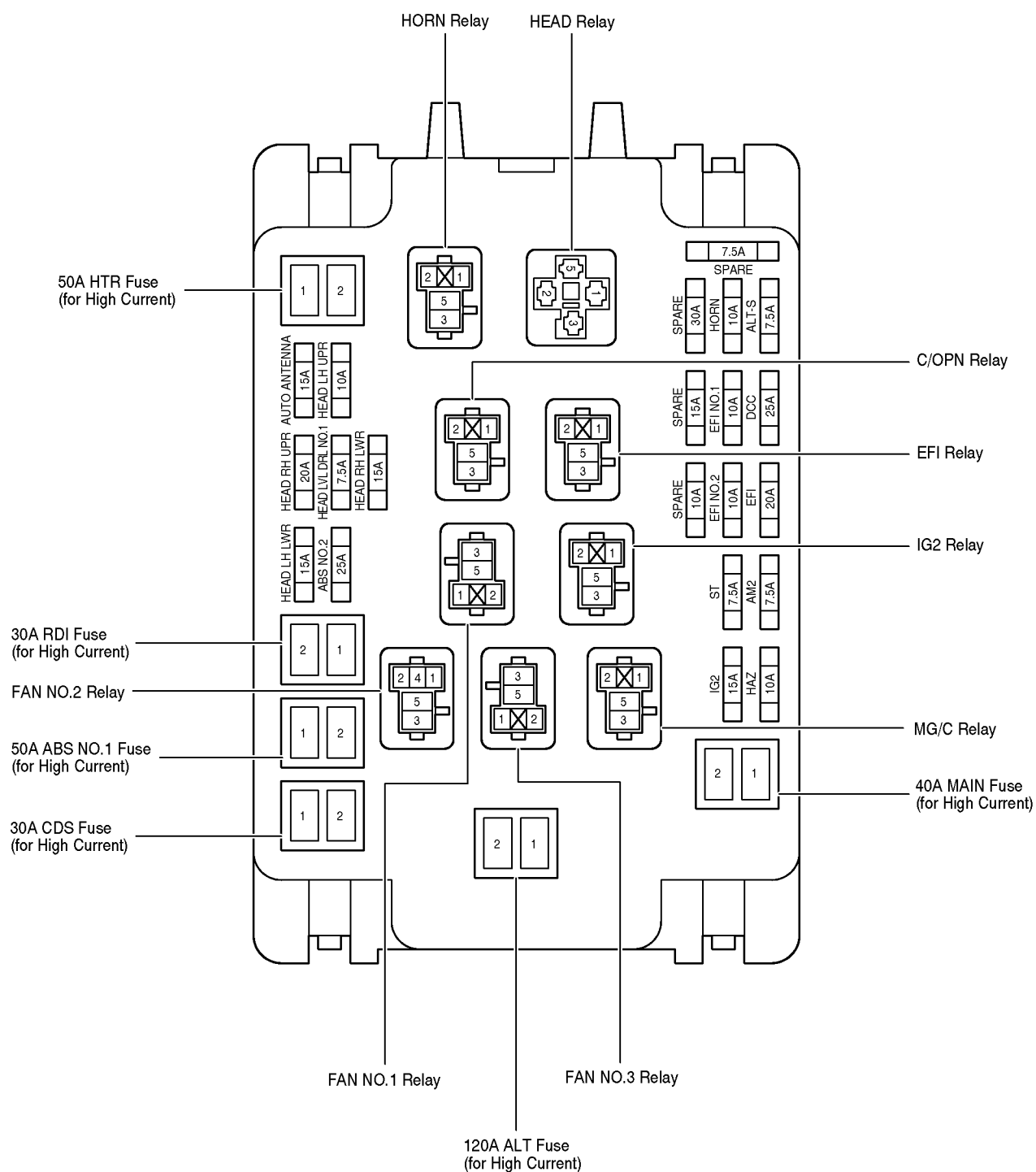


[Body]

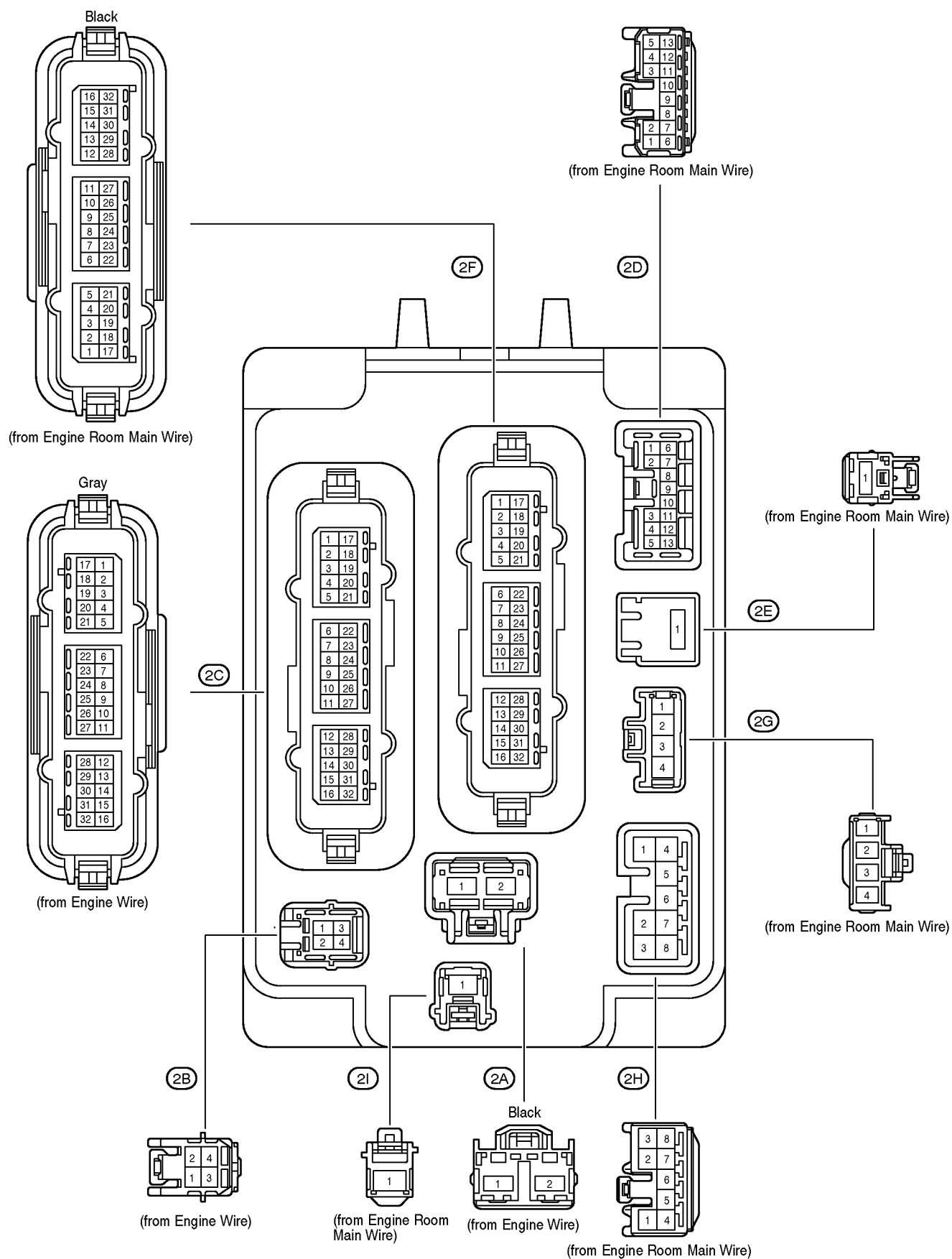
F RELAY LOCATIONS

○ : Engine Room J/B

Engine Compartment Left (See Page 20)



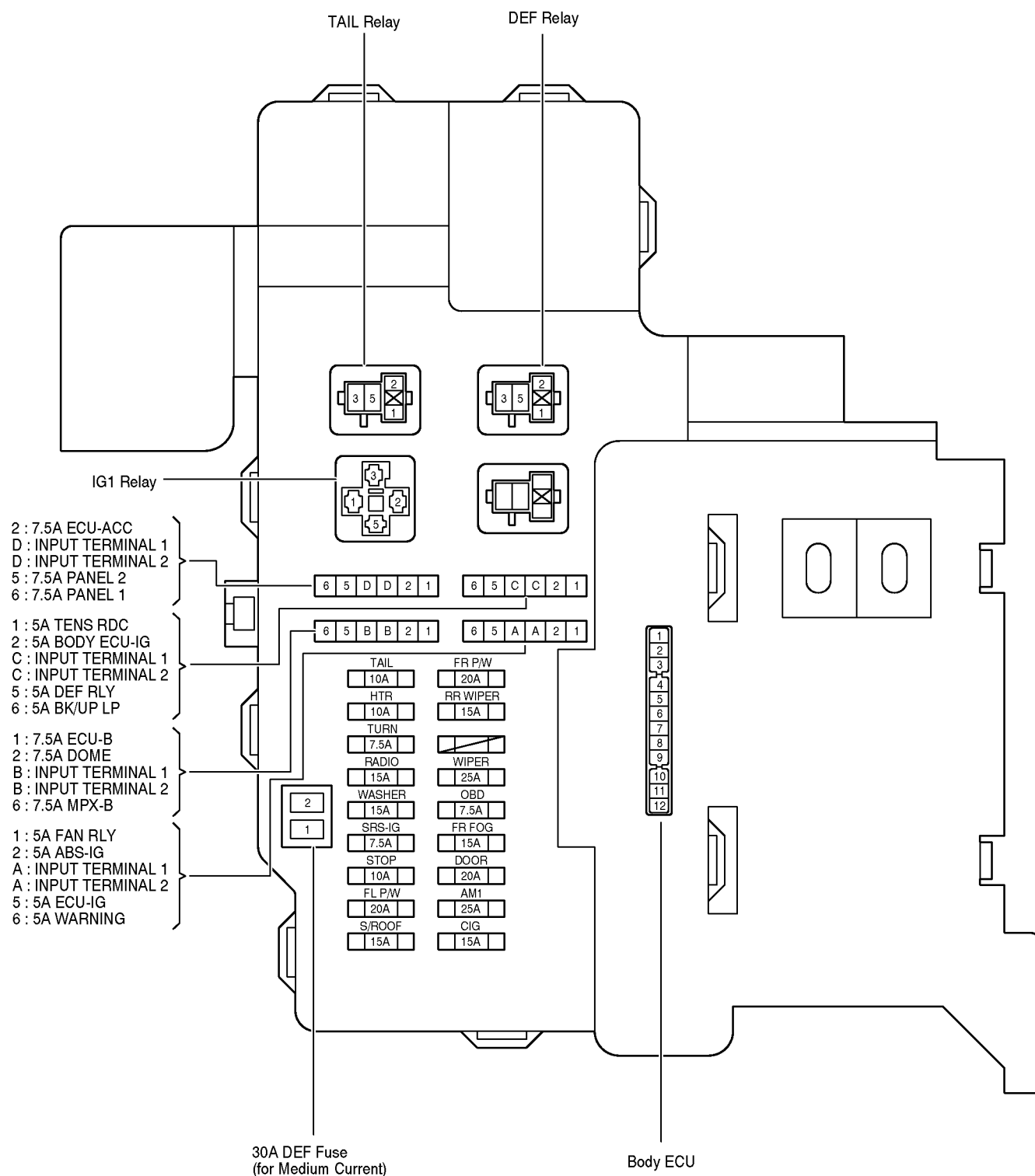
(Inner Circuit : See Page 28)



F RELAY LOCATIONS

○ : Instrument Panel J/B

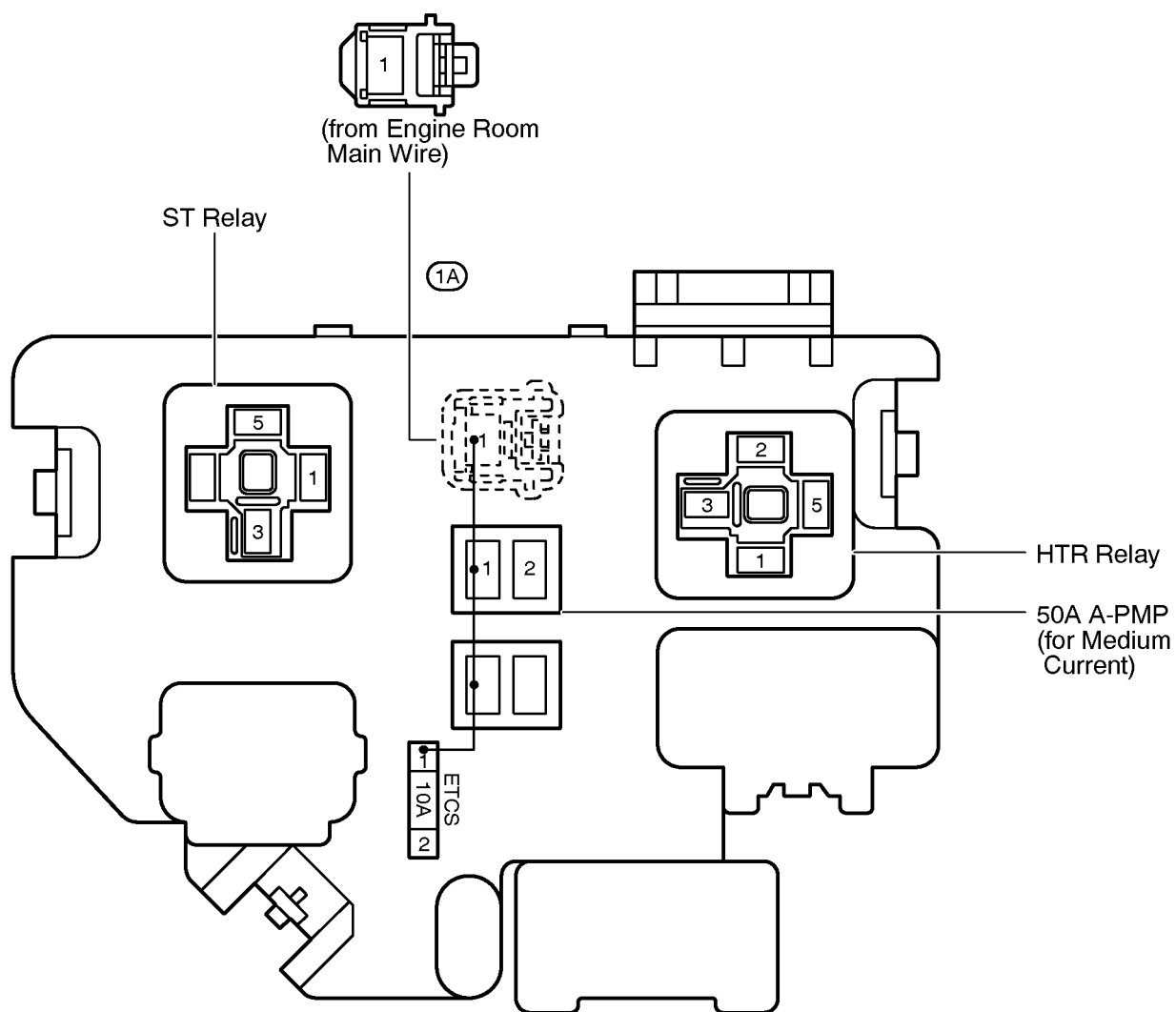
Instrument Panel Brace RH (See Page 20)



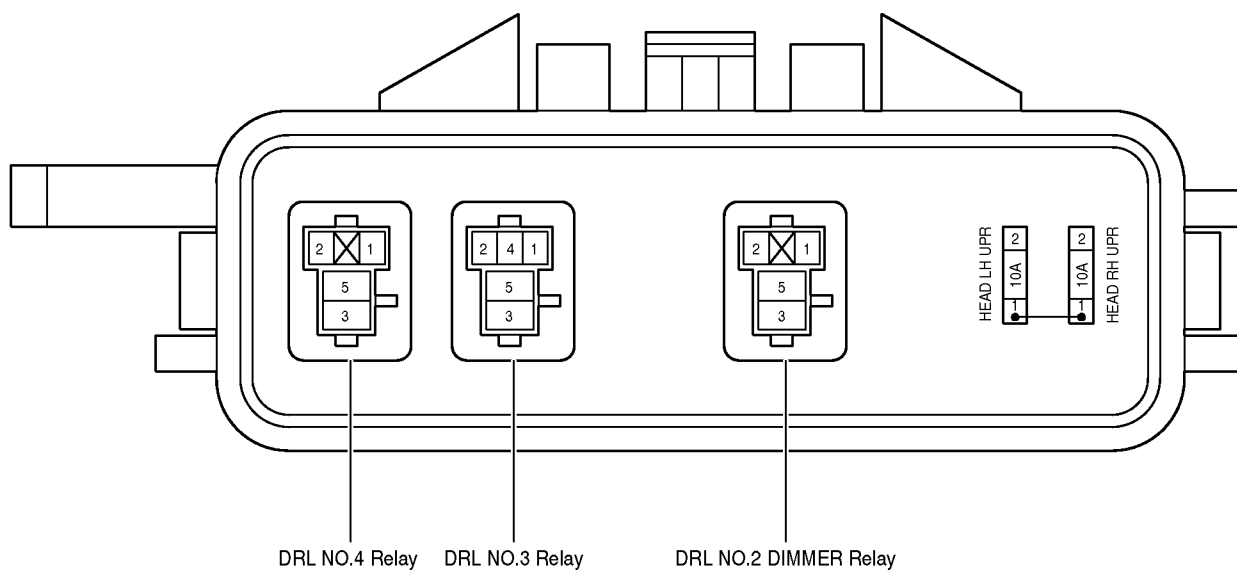


F RELAY LOCATIONS

① : Engine Room R/B No.1	Engine Compartment Left (See Page 20)
○ : Engine Room J/B No.1	

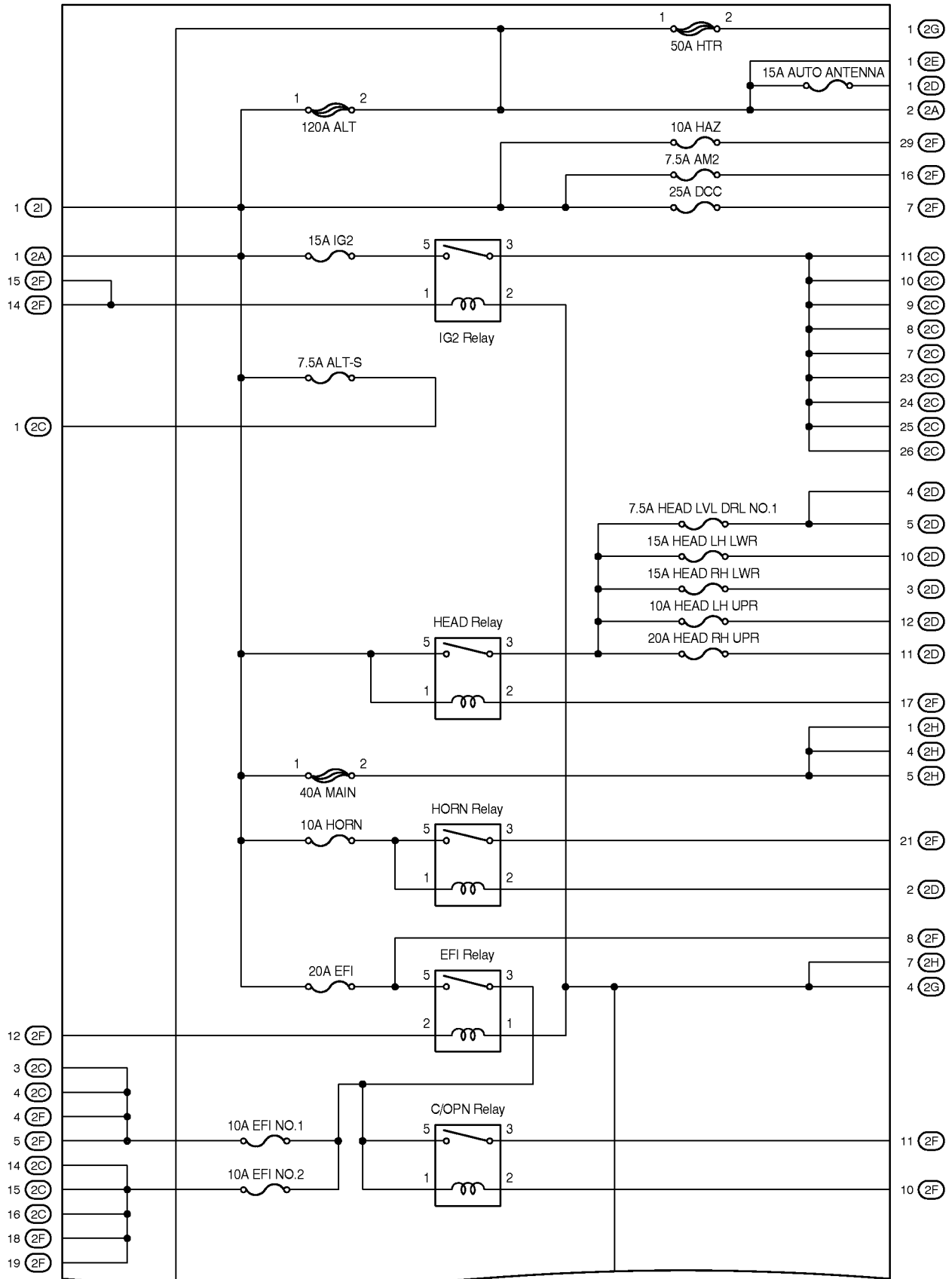


② : Engine Room R/B No.2	Engine Compartment Left (See Page 20)
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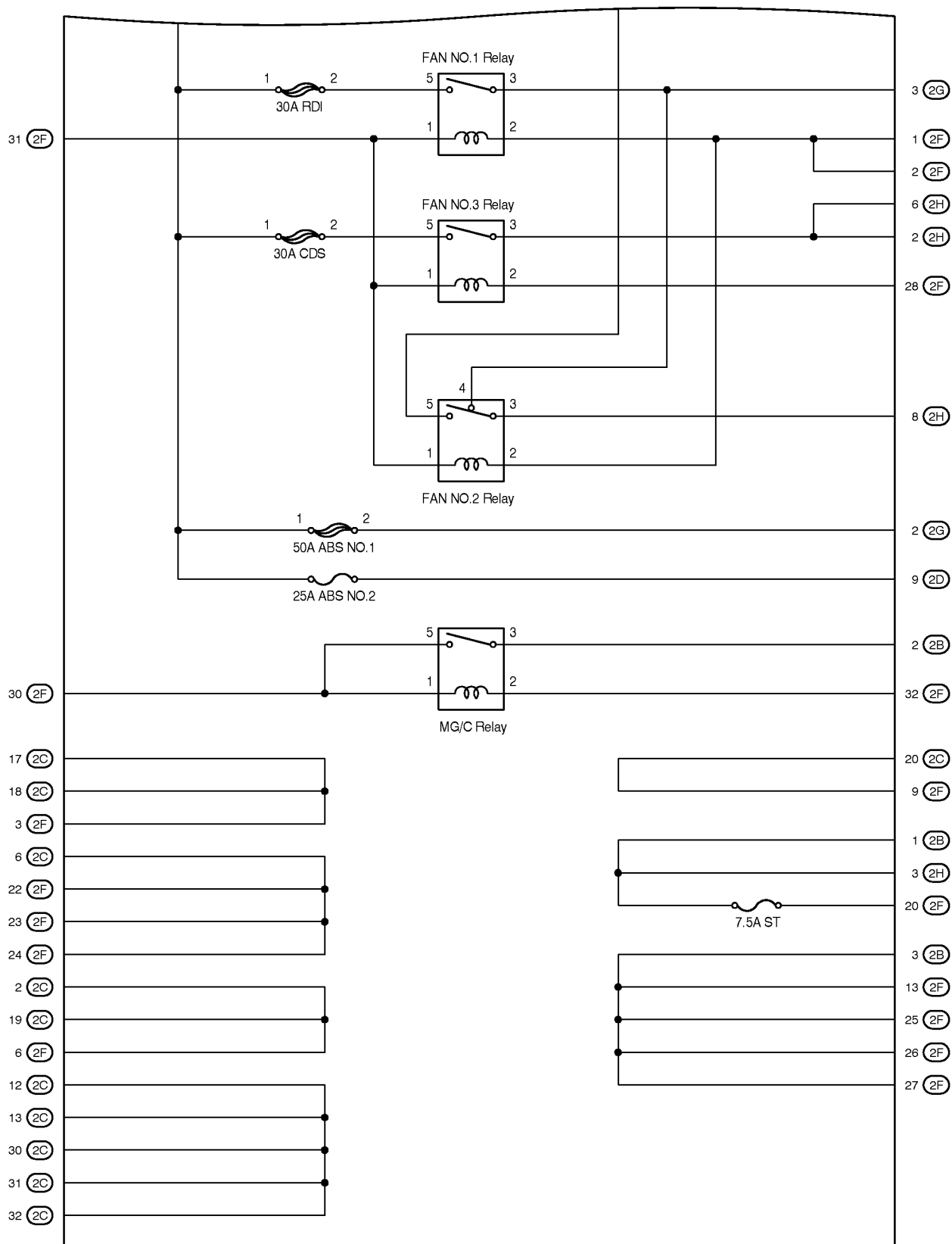
F RELAY LOCATIONS

[Engine Room J/B Inner Circuit]



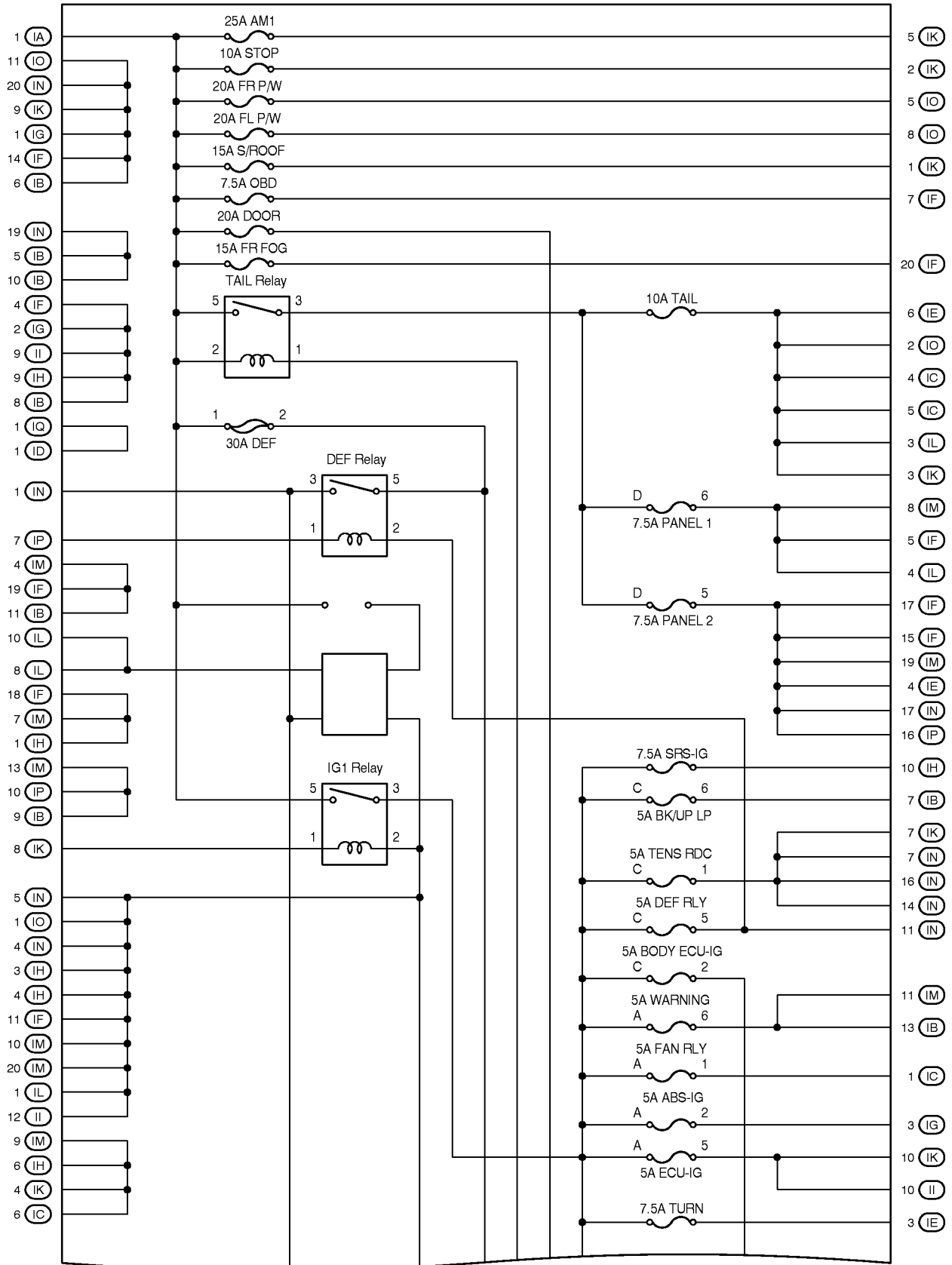
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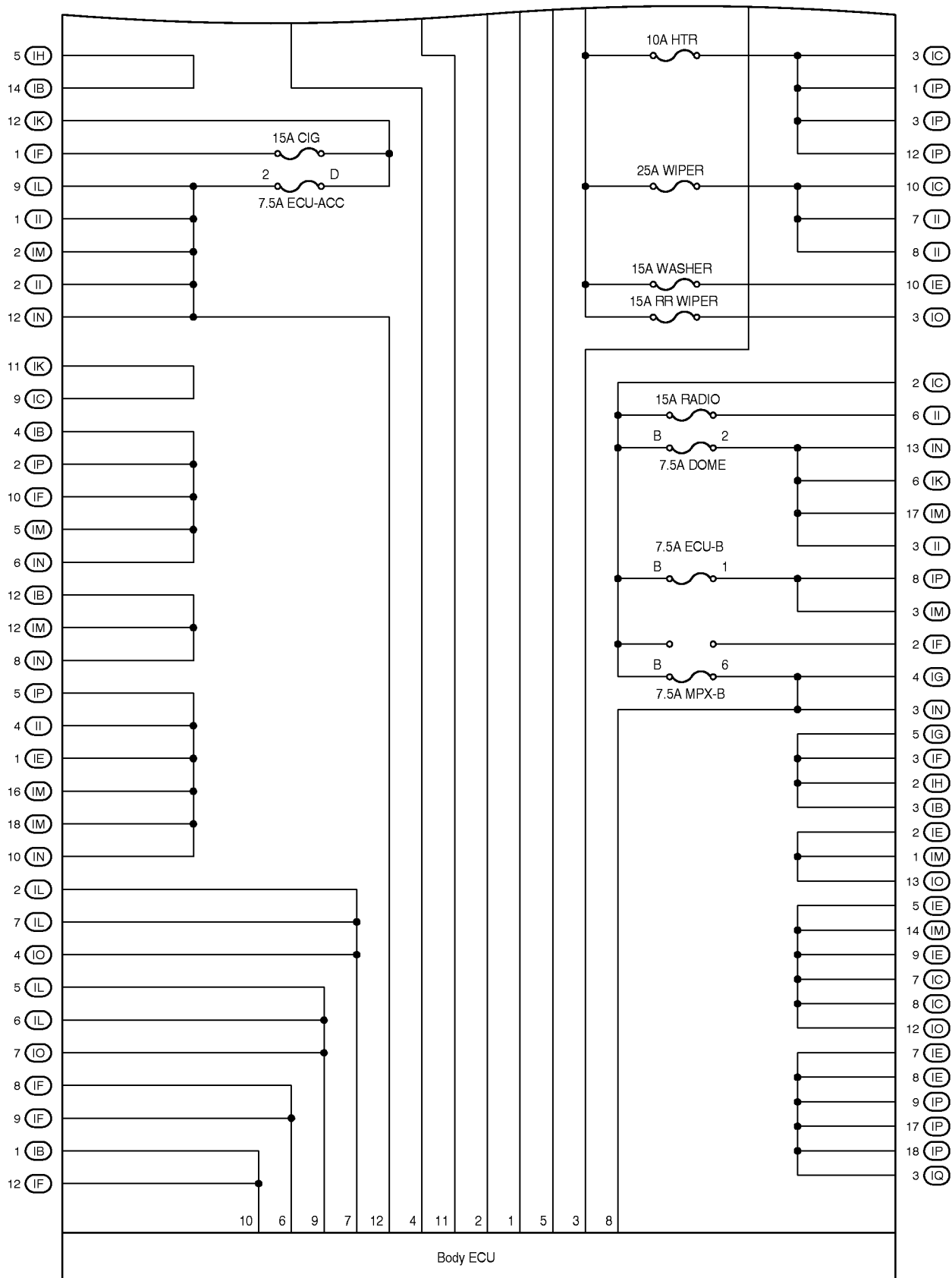
F RELAY LOCATIONS

[Instrument Panel J/B Inner Circuit]



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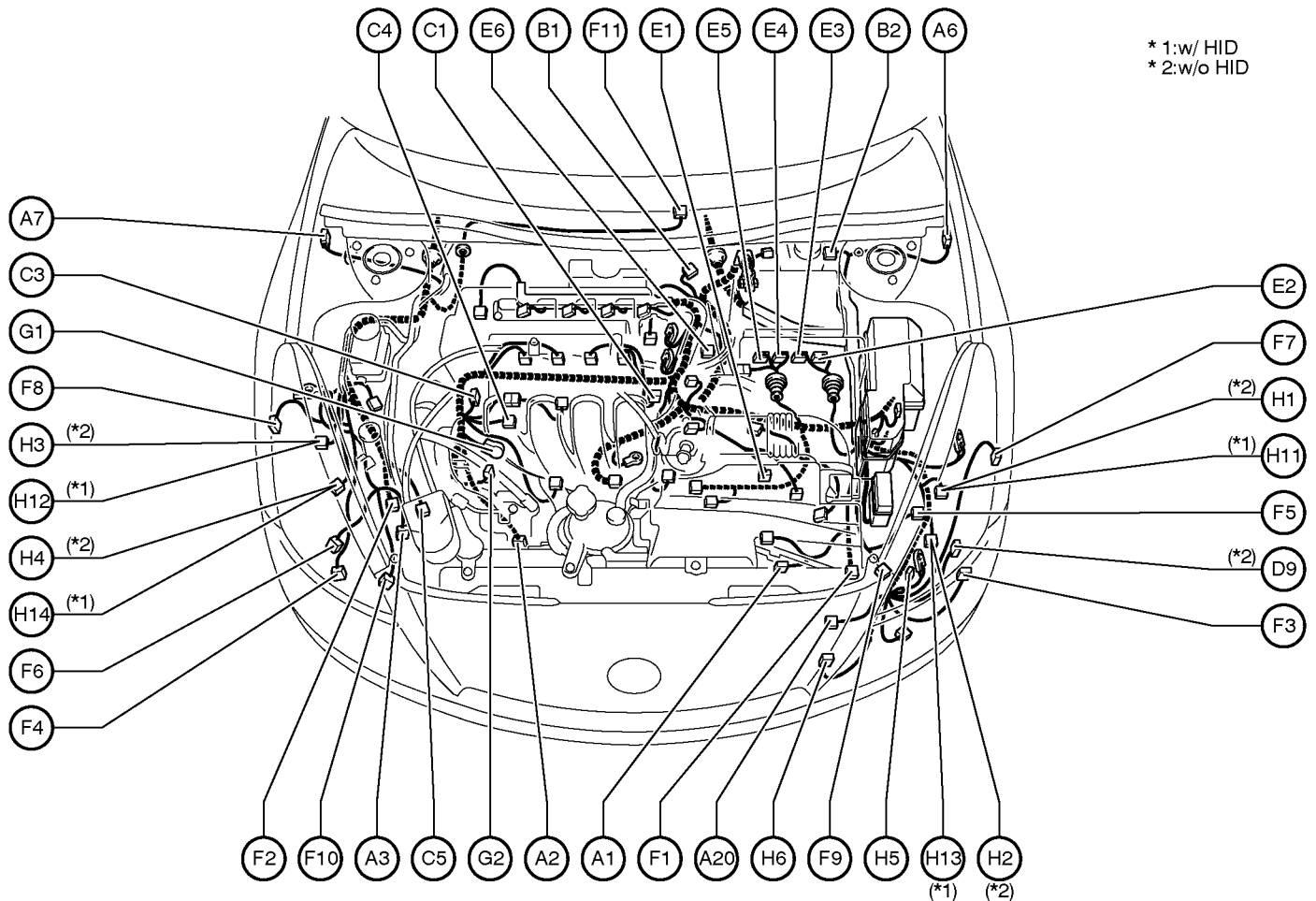
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G ELECTRICAL WIRING ROUTING

Position of Parts in Engine Compartment

[1ZZ-FE]



- A 1 A/C Condenser Fan Motor
- A 2 A/C Lock Sensor
A/C Magnetic Clutch
- A 3 Pressure SW
- A 6 ABS Speed Sensor Front LH
- A 7 ABS Speed Sensor Front RH
- A20 Ambient Temp. Sensor

- B 1 Back-Up Light SW
- B 2 Brake Fluid Level Warning SW

- C 1 Camshaft Position Sensor
- C 3 Camshaft Timing Oil Control Valve (VVT)
- C 4 Crankshaft Position Sensor
- C 5 Cruise Control Actuator

- D 9 Daytime Running Light Resistor

- E 1 Electronically Controlled Transmission Solenoid
- E 2 Engine Control Module
- E 3 Engine Control Module
- E 4 Engine Control Module
- E 5 Engine Control Module
- E 6 Engine Coolant Temp. Sensor

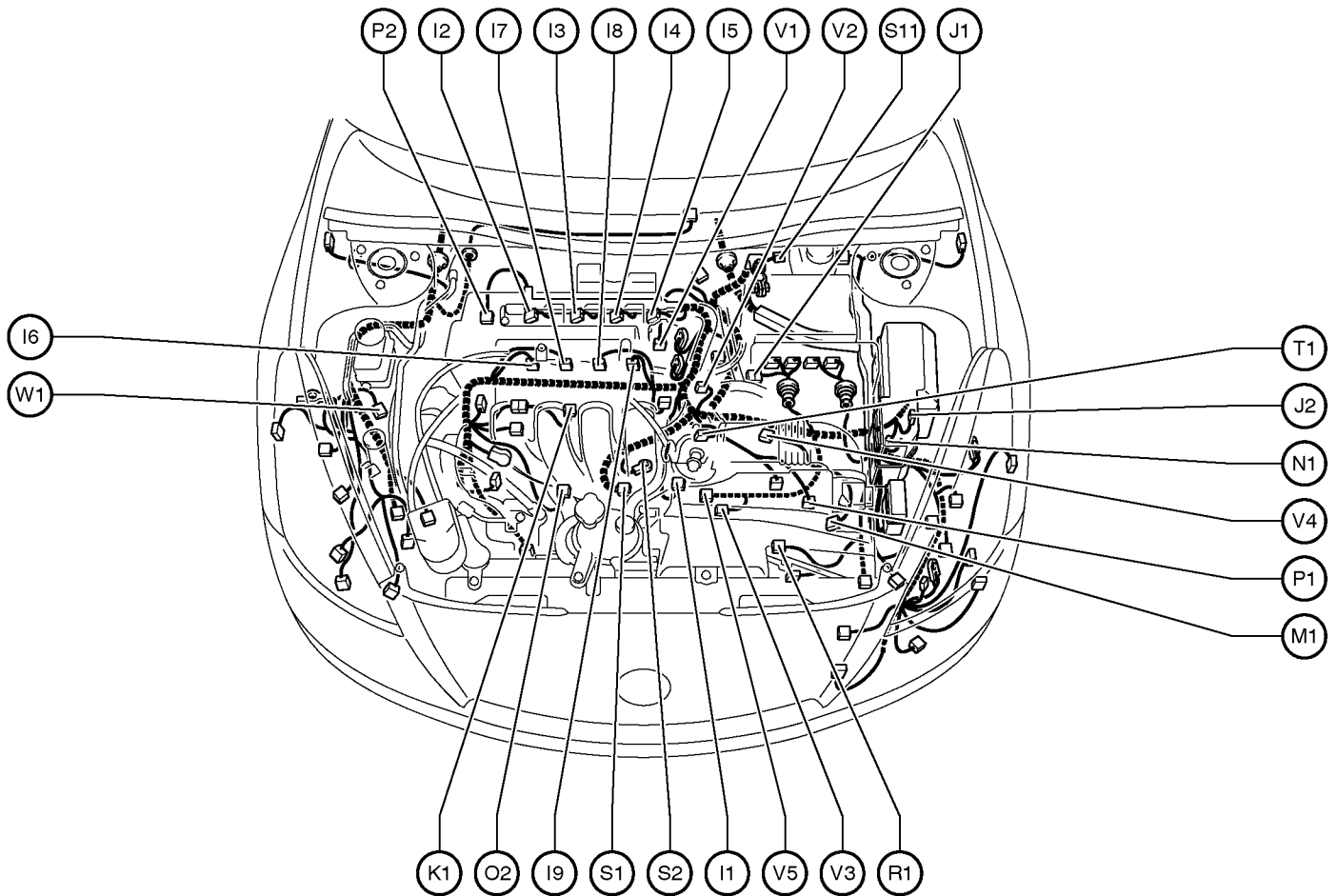
- F 1 Front Airbag Sensor LH
- F 2 Front Airbag Sensor RH
- F 3 Front Fog Light LH
- F 4 Front Fog Light RH
- F 5 Front Parking Light LH
- F 6 Front Parking Light RH
- F 7 Front Side Marker Light LH
- F 8 Front Side Marker Light RH
- F 9 Front Turn Signal Light LH
- F10 Front Turn Signal Light RH
- F11 Front Wiper Motor

- G 1 Generator
- G 2 Generator

- H 1 Headlight LH (High)
- H 2 Headlight LH (Low)
- H 3 Headlight RH (High)
- H 4 Headlight RH (Low)
- H 5 Horn (High)
- H 6 Horn (Low)
- H11 Headlight Beam Level Control Actuator LH
- H12 Headlight Beam Level Control Actuator RH
- H13 Headlight Assembly LH
- H14 Headlight Assembly RH

Position of Parts in Engine Compartment

[1ZZ-FE]



- I 1 Idle Air Control Valve
- I 2 Ignition Coil and Igniter No.1
- I 3 Ignition Coil and Igniter No.2
- I 4 Ignition Coil and Igniter No.3
- I 5 Ignition Coil and Igniter No.4
- I 6 Injector No.1
- I 7 Injector No.2
- I 8 Injector No.3
- I 9 Injector No.4

- J 1 Junction Connector
- J 2 Junction Connector

- K 1 Knock Sensor (Bank 1)

- M 1 Mass Air Flow Meter

- N 1 Noise Filter (Ignition System)

- O 2 Oil Pressure SW

- P 1 Park/Neutral Position SW
- P 2 Power Steering Oil Pressure SW

- R 1 Radiator Fan Motor

- S 1 Starter
- S 2 Starter
- S11 Skid Control ECU with Actuator

- T 1 Throttle Position Sensor

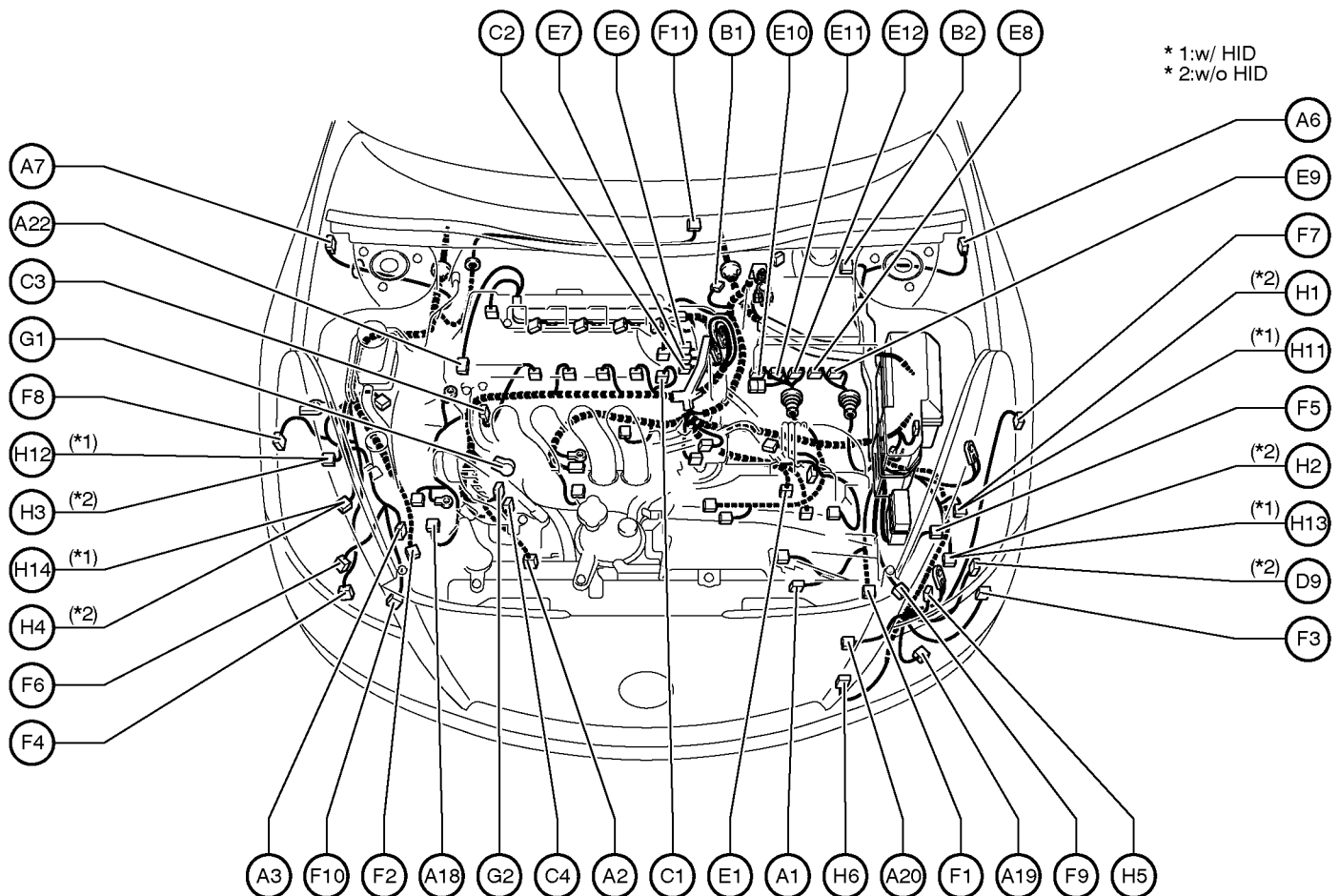
- V 1 Vehicle Speed Sensor (Combination Meter)
- V 2 Vehicle Speed Sensor
(Electronically Controlled Transmission)
- V 3 VSV (ACIS)
- V 4 VSV (Canister Closed Valve)
- V 5 VSV (EVAP)

- W 1 Washer Motor

G ELECTRICAL WIRING ROUTING

Position of Parts in Engine Compartment

[2ZZ-GE]



A 1 A/C Condenser Fan Motor
A 2 A/C Lock Sensor
A/C Magnetic Clutch
A 3 Pressure SW
A 6 ABS Speed Sensor Front LH
A 7 ABS Speed Sensor Front RH
A18 Air Pump Motor
A19 Air Pump Relay
A20 Ambient Temp. Sensor
A22 Air Pump Pressure Sensor

B 1 Back-Up Light SW
B 2 Brake Fluid Level Warning SW

C 1 Camshaft Position Sensor
C 2 Camshaft Timing Oil Control Valve (VVL)
C 3 Camshaft Timing Oil Control Valve (VVT)
C 4 Crankshaft Position Sensor

D 9 Daytime Running Light Resistor

E 1 Electronically Controlled Transmission Solenoid
E 6 Engine Coolant Temp. Sensor
E 7 Oil Pressure SW (VVTL)
E 8 Engine Control Module
E 9 Engine Control Module
E10 Engine Control Module
E11 Engine Control Module
E12 Engine Control Module

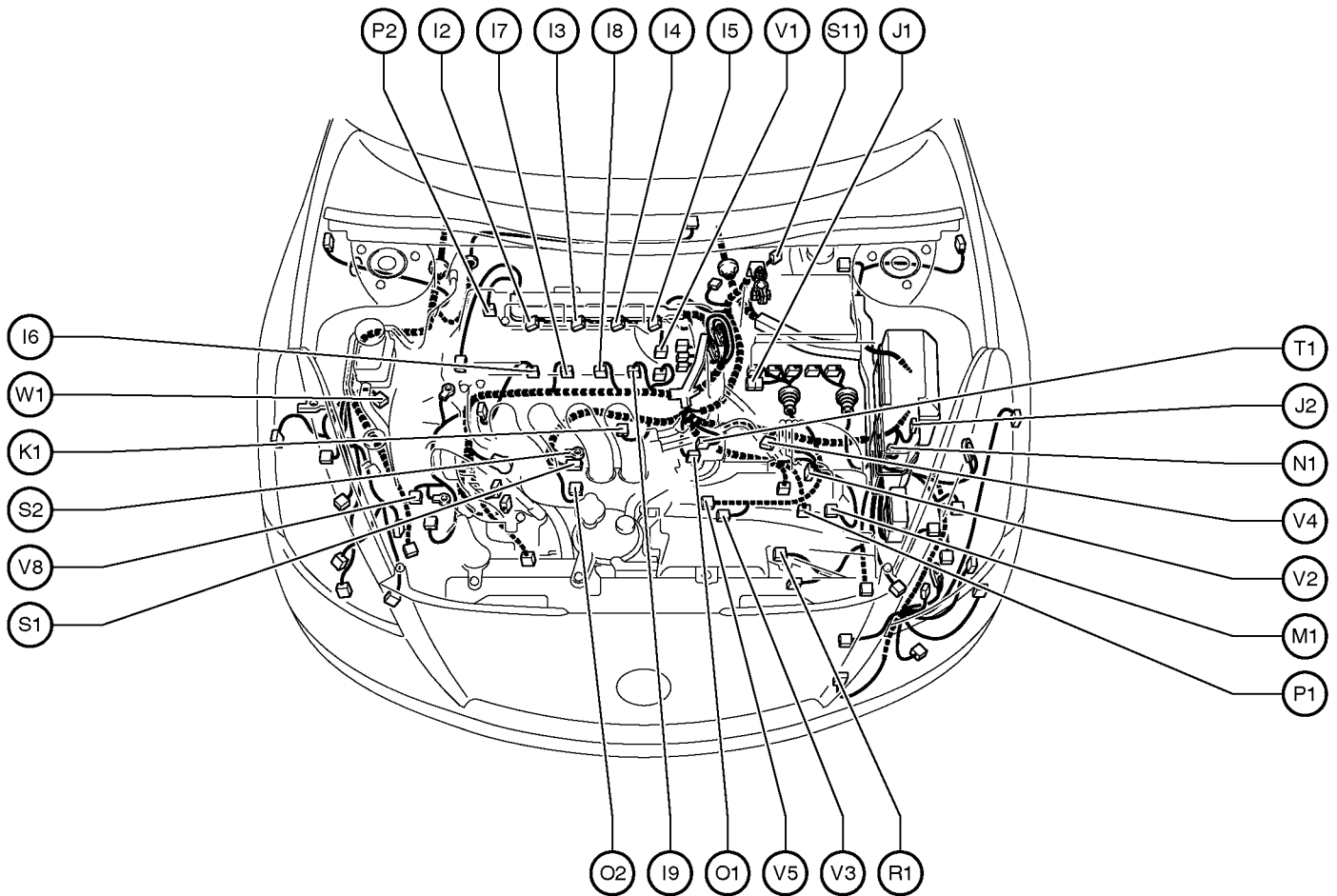
F 1 Front Airbag Sensor LH
F 2 Front Airbag Sensor RH
F 3 Front Fog Light LH
F 4 Front Fog Light RH
F 5 Front Parking Light LH
F 6 Front Parking Light RH
F 7 Front Side Marker Light LH
F 8 Front Side Marker Light RH
F 9 Front Turn Signal Light LH
F10 Front Turn Signal Light RH
F11 Front Wiper Motor

G 1 Generator
G 2 Generator

H 1 Headlight LH (High)
H 2 Headlight LH (Low)
H 3 Headlight RH (High)
H 4 Headlight RH (Low)
H 5 Horn (High)
H 6 Horn (Low)
H11 Headlight Beam Level Control Actuator LH
H12 Headlight Beam Level Control Actuator RH
H13 Headlight Assembly LH
H14 Headlight Assembly RH

Position of Parts in Engine Compartment

[2ZZ-GE]



I 2 Ignition Coil and Igniter No.1
 I 3 Ignition Coil and Igniter No.2
 I 4 Ignition Coil and Igniter No.3
 I 5 Ignition Coil and Igniter No.4
 I 6 Injector No.1
 I 7 Injector No.2
 I 8 Injector No.3
 I 9 Injector No.4

J 1 Junction Connector
 J 2 Junction Connector

K 1 Knock Sensor (Bank 1)

M 1 Mass Air Flow Meter

N 1 Noise Filter (Ignition System)

O 1 O/D Direct Clutch Speed Sensor
 O 2 Oil Pressure SW

P 1 Park/Neutral Position SW
 P 2 Power Steering Oil Pressure SW

R 1 Radiator Fan Motor

S 1 Starter
 S 2 Starter
 S11 Skid Control ECU with Actuator

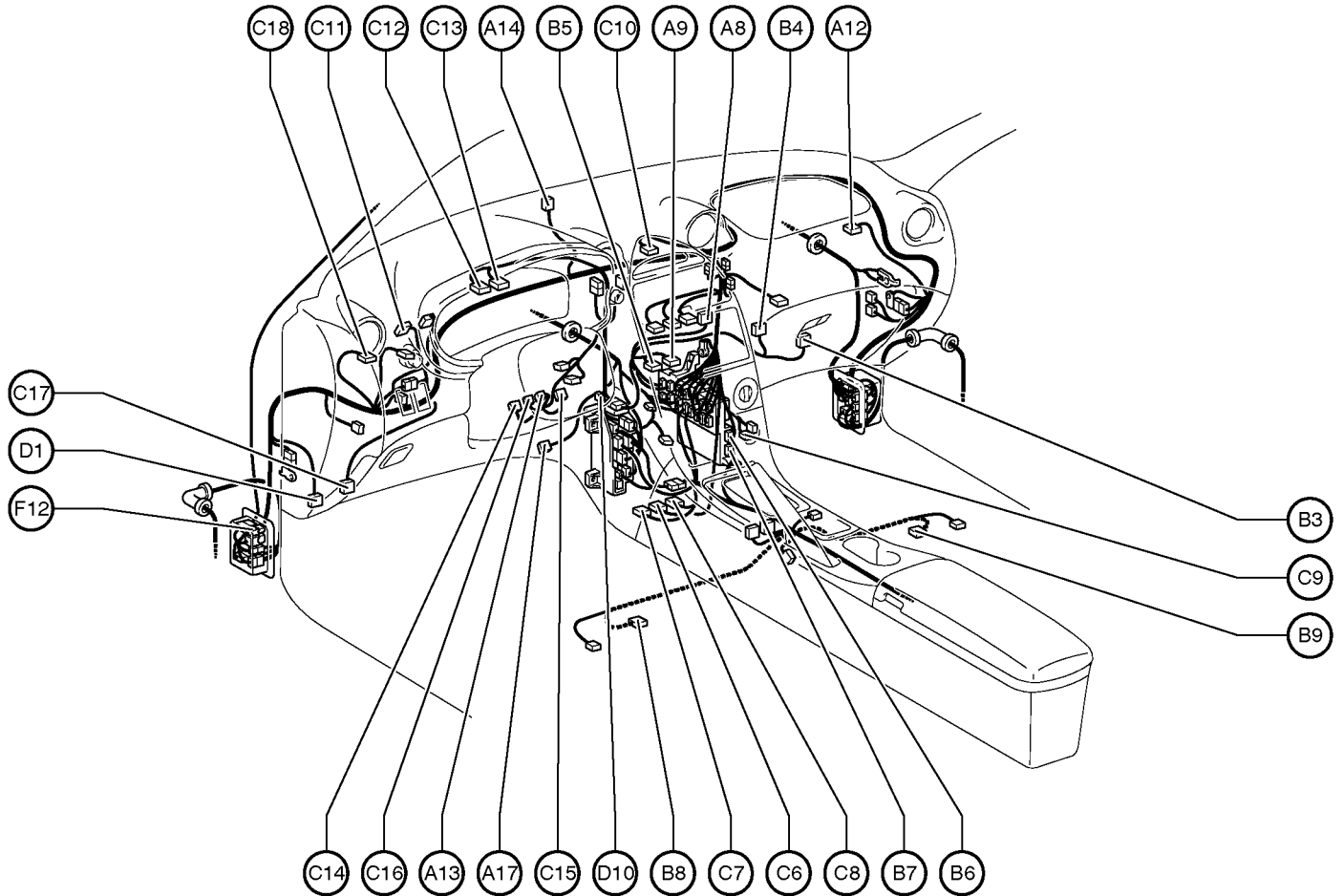
T 1 Throttle Position Sensor

V 1 Vehicle Speed Sensor (Combination Meter)
 V 2 Vehicle Speed Sensor
 (Electronically Controlled Transmission)
 V 3 VSV (ACIS)
 V 4 VSV (Canister Closed Valve)
 V 5 VSV (EVAP)
 V 8 VSV (Air Pump)

W 1 Washer Motor

G ELECTRICAL WIRING ROUTING

Position of Parts in Instrument Panel



A 8 A/C Evaporator Temp. Sensor
 A 9 A/C SW
 A12 Airbag Squib (Front Passenger Airbag Assembly)
 A13 Airbag Squib (Steering Wheel Pad)
 A14 Automatic Light Control Sensor
 A17 Accelerator Pedal Position Sensor

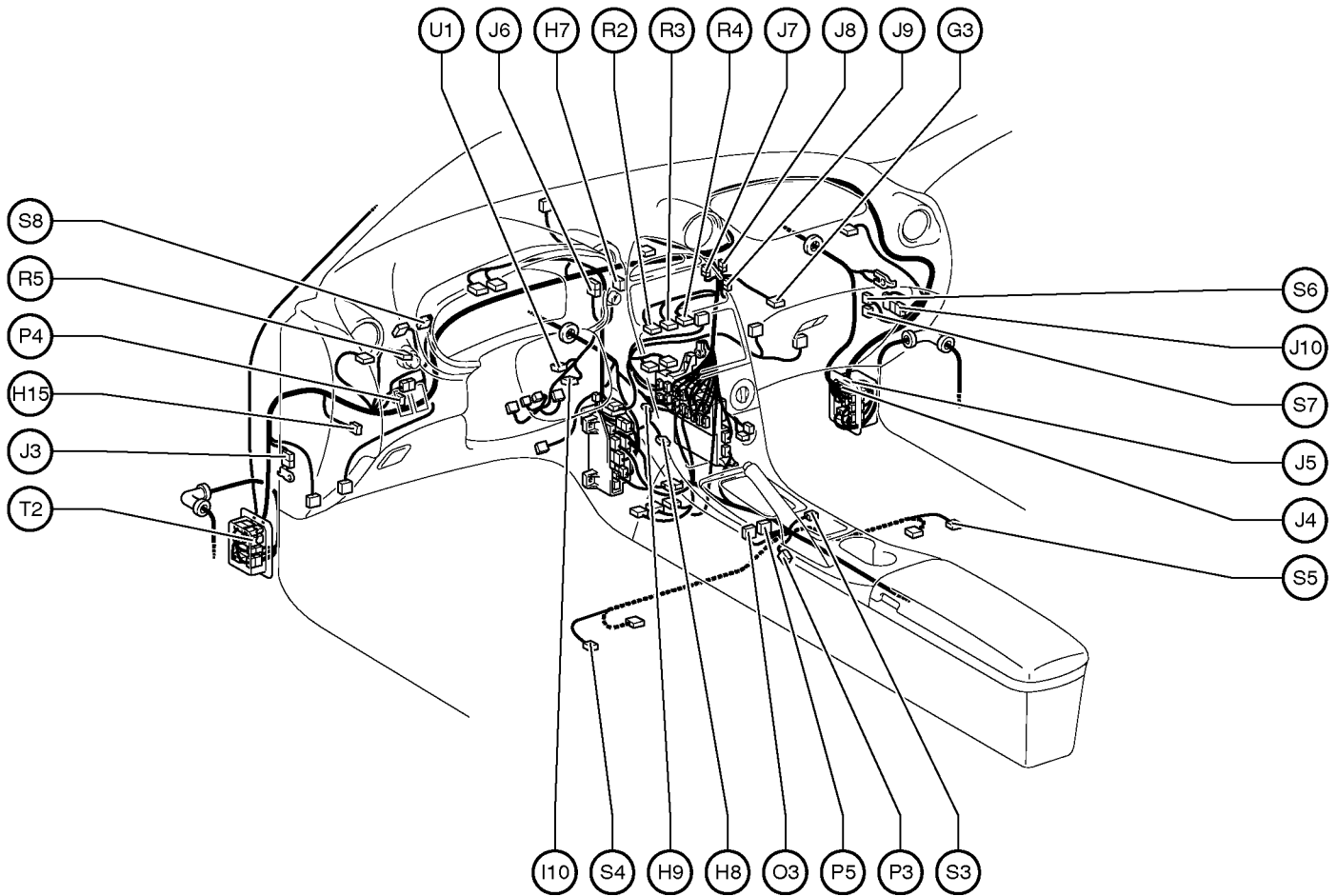
B 3 Blower Motor
 B 4 Blower Resistor
 B 5 Blower SW
 B 6 Body ECU
 B 7 Body ECU
 B 8 Buckle SW LH
 B 9 Buckle SW RH

C 6 Center Airbag Sensor Assembly
 C 7 Center Airbag Sensor Assembly
 C 8 Center Airbag Sensor Assembly
 C 9 Cigarette Lighter
 C10 Clock
 C11 Clutch Start SW
 C12 Combination Meter
 C13 Combination Meter
 C14 Combination SW
 C15 Combination SW
 C16 Combination SW
 C17 Cruise Control Clutch SW
 C18 Cruise Control ECU

D 1 Data Link Connector 3
 D10 Diode (Rear Wiper)

F12 Front Fog Light Relay

Position of Parts in Instrument Panel



G 3 Glove Box Light and SW

H 7 Hazard SW

H 8 Heated Oxygen Sensor (Bank 1 Sensor 1)

H 9 Heated Oxygen Sensor (Bank 1 Sensor 2)

H15 Headlight Beam Level Control SW

I 10 Ignition SW

J 3 Junction Connector

J 4 Junction Connector

J 5 Junction Connector

J 6 Junction Connector

J 7 Junction Connector

J 8 Junction Connector

J 9 Junction Connector

J 10 Junction Connector

O 3 O/D Main SW

P 3 Parking Brake SW

P 4 Power Window Lock SW

P 5 Power Window Master SW

R 2 Radio and Player

R 3 Radio and Player

R 4 Radio and Player

R 5 Rheostat

S 3 Shift Lock Control ECU

S 4 Side Airbag Squib LH

S 5 Side Airbag Squib RH

S 6 Stereo Component Amplifier

S 7 Stereo Component Amplifier

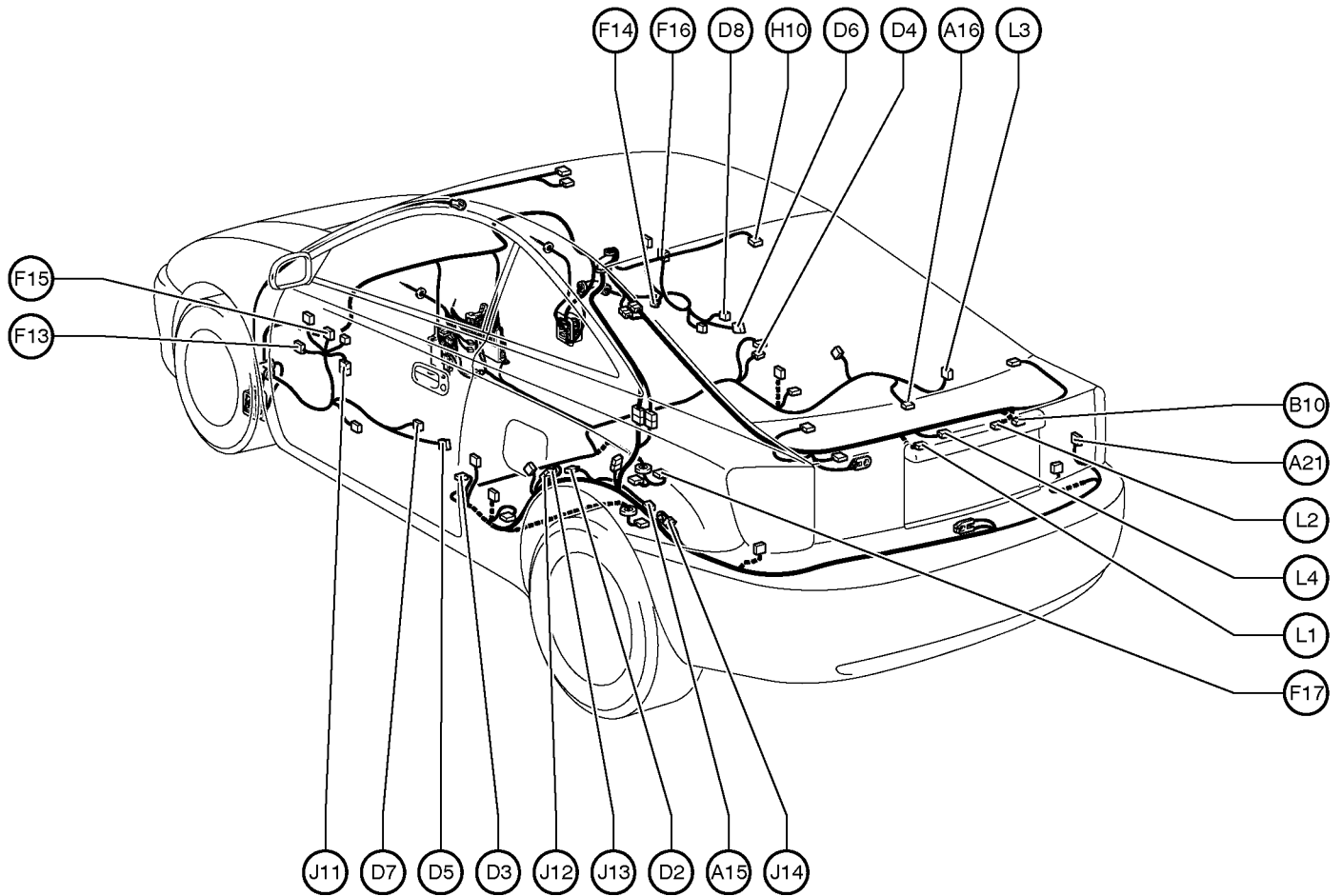
S 8 Stop Light SW

T 2 Turn Signal Flasher Relay

U 1 Unlock Warning SW

G ELECTRICAL WIRING ROUTING

Position of Parts in Body



A15 ABS Speed Sensor Rear LH
 A16 ABS Speed Sensor Rear RH
 A21 Auto Antenna Control Relay

B10 Back Door Lock Motor

D 2 Door Control Receiver
 D 3 Door Courtesy SW LH
 D 4 Door Courtesy SW RH
 D 5 Door Key Lock and Unlock SW LH
 Door Lock Detection SW LH
 Door Lock Motor LH
 D 6 Door Key Lock and Unlock SW RH
 Door Lock Detection SW RH
 Door Lock Motor RH
 D 7 Door Side Airbag Sensor LH
 D 8 Door Side Airbag Sensor RH

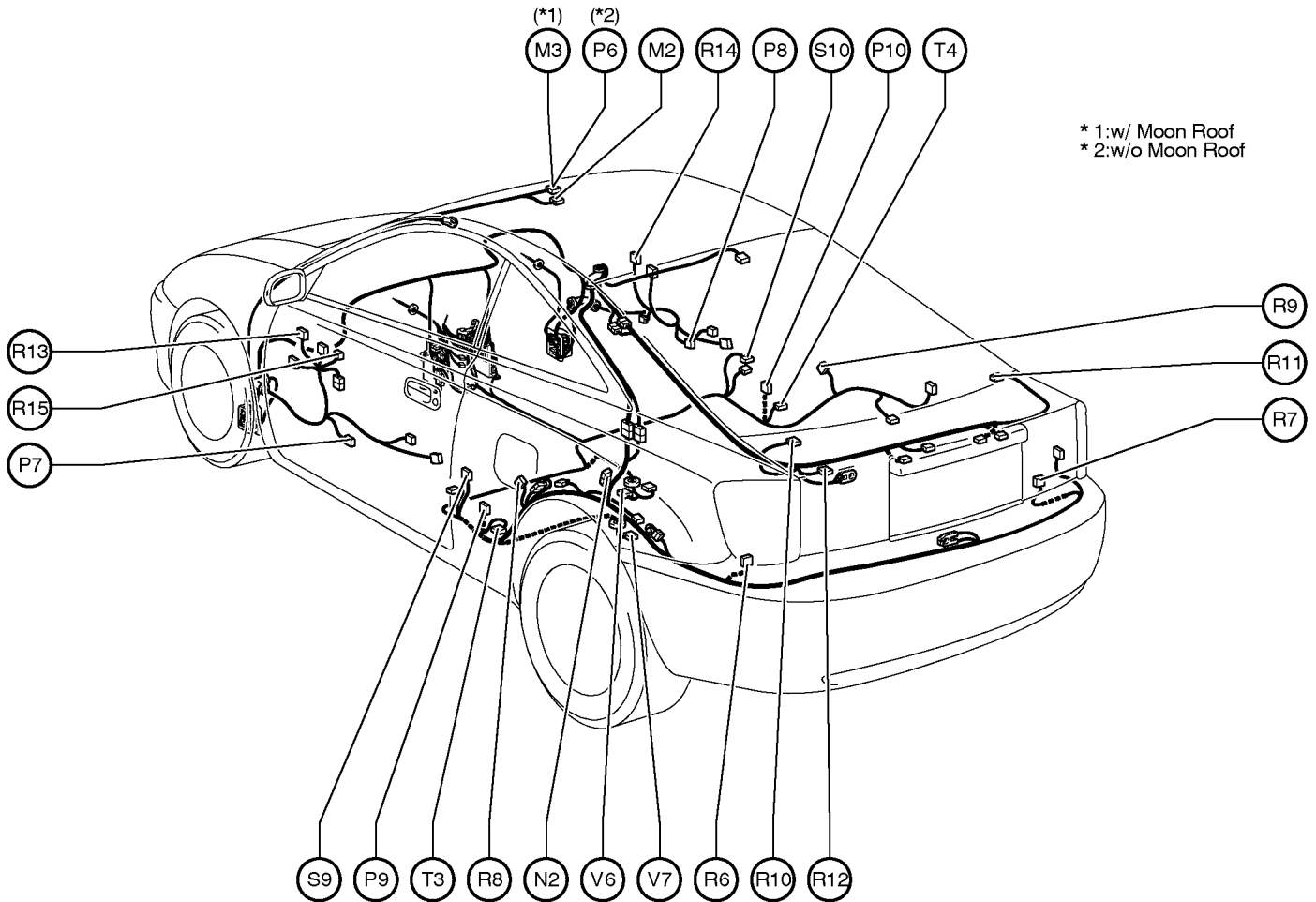
F13 Front Door Speaker LH
 F14 Front Door Speaker RH
 F15 Front Door Tweeter Speaker LH
 F16 Front Door Tweeter Speaker RH
 F17 Fuel Pump
 Fuel Sender

H10 High Mounted Stop Light

J11 Junction Connector
 J12 Junction Connector
 J13 Junction Connector
 J14 Junction Connector

L 1 License Plate Light LH
 L 2 License Plate Light RH
 L 3 Luggage Compartment Light
 L 4 Luggage Compartment Light SW

Position of Parts in Body



M 2 Moon Roof Control Relay and Motor
M 3 Moon Roof Control SW
Personal Light

N 2 Noise Filter (Rear Window Defogger)

P 6 Personal Light
P 7 Power Window Motor LH
P 8 Power Window Motor RH
P 9 Pretensioner LH
P10 Pretensioner RH

R 6 Rear Combination Light LH
R 7 Rear Combination Light RH
R 8 Rear Speaker LH
R 9 Rear Speaker RH
R10 Rear Window Defogger
R11 Rear Window Defogger
R12 Rear Wiper Motor and Relay
R13 Remote Control Mirror LH
R14 Remote Control Mirror RH
R15 Remote Control Mirror SW

S 9 Side Airbag Sensor LH
S10 Side Airbag Sensor RH

T 3 Tension Reducer Solenoid LH
T 4 Tension Reducer Solenoid RH

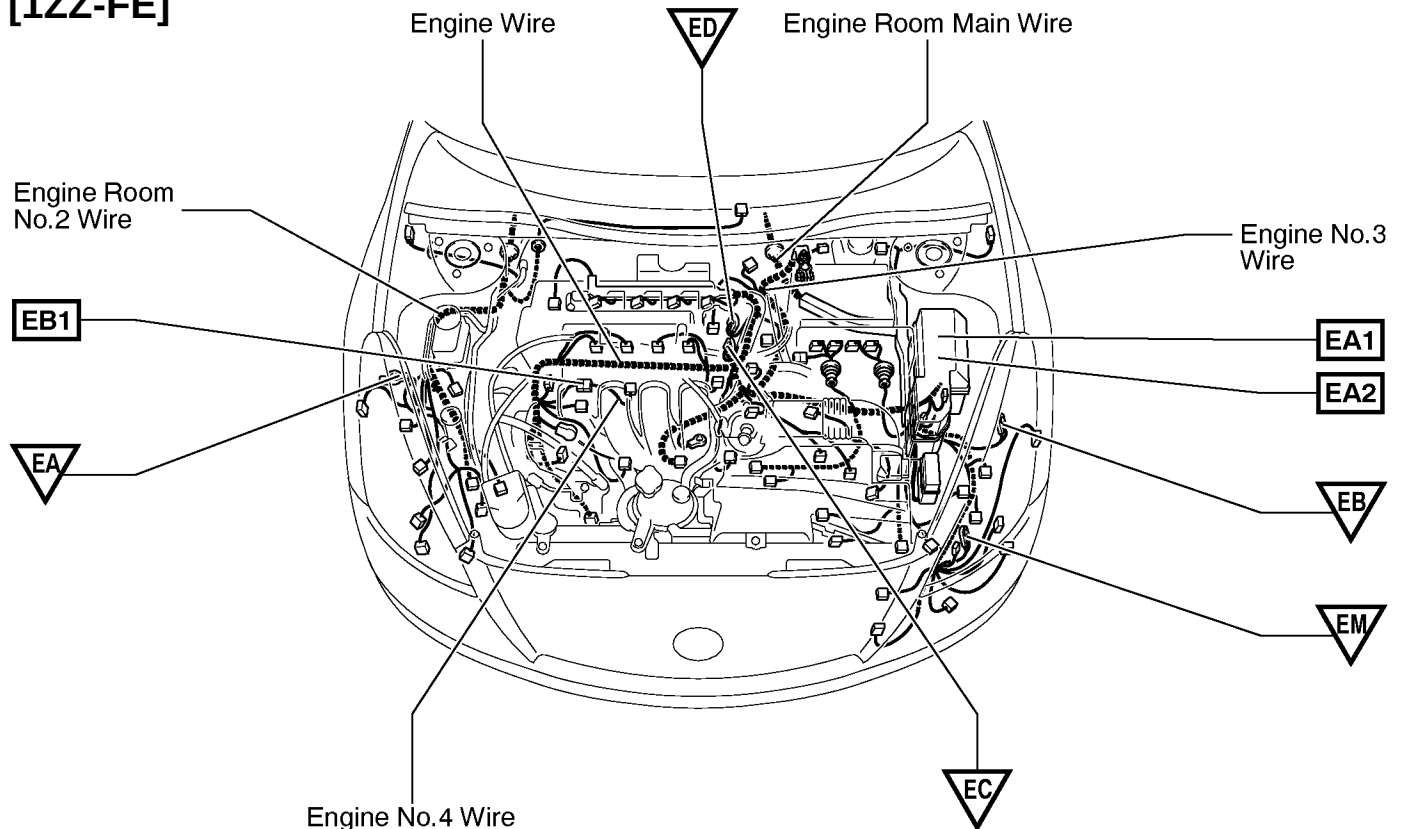
V 6 Vapor Pressure Sensor
V 7 VSV (Pressure Switching Valve)

G ELECTRICAL WIRING ROUTING

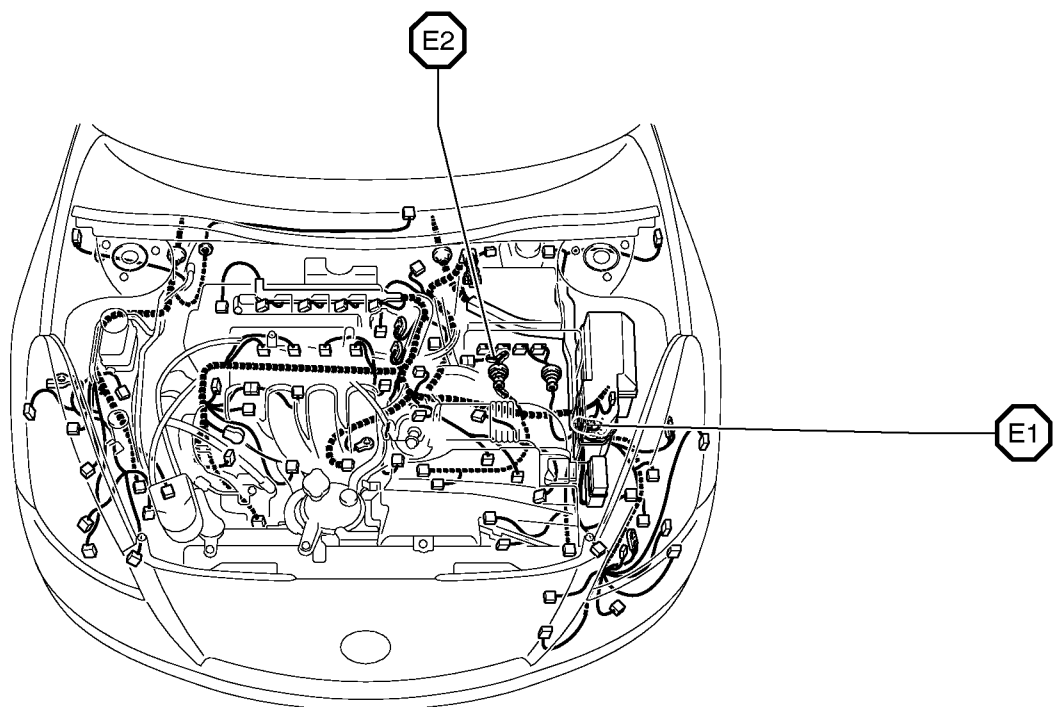
□ : Location of Connector Joining Wire Harness and Wire Harness

▽ : Location of Ground Points

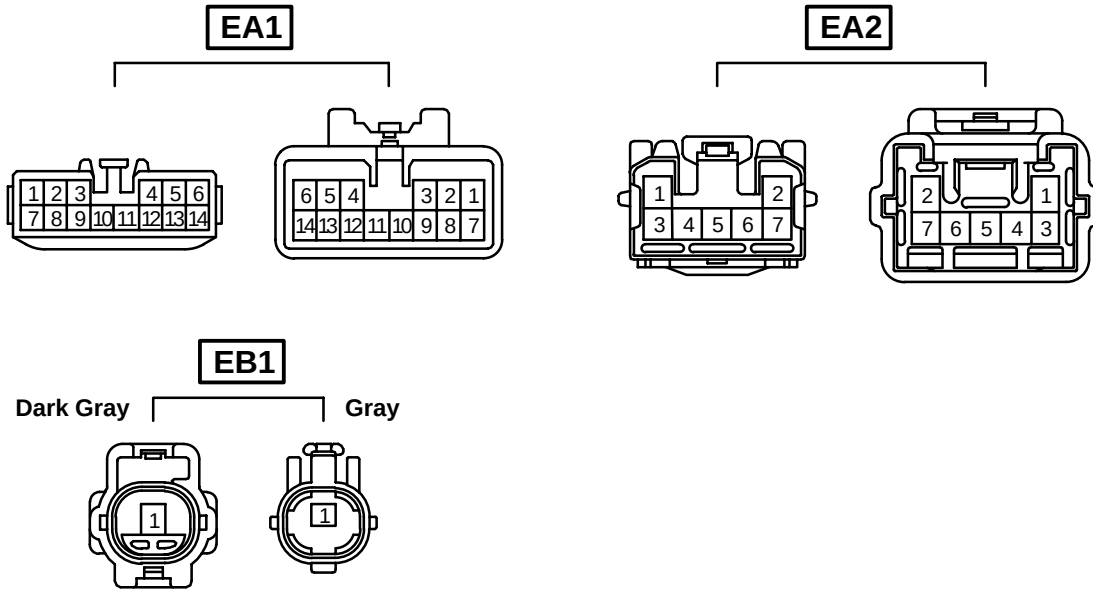
[1ZZ-FE]



○ : Location of Splice Points



Connector Joining Wire Harness and Wire Harness



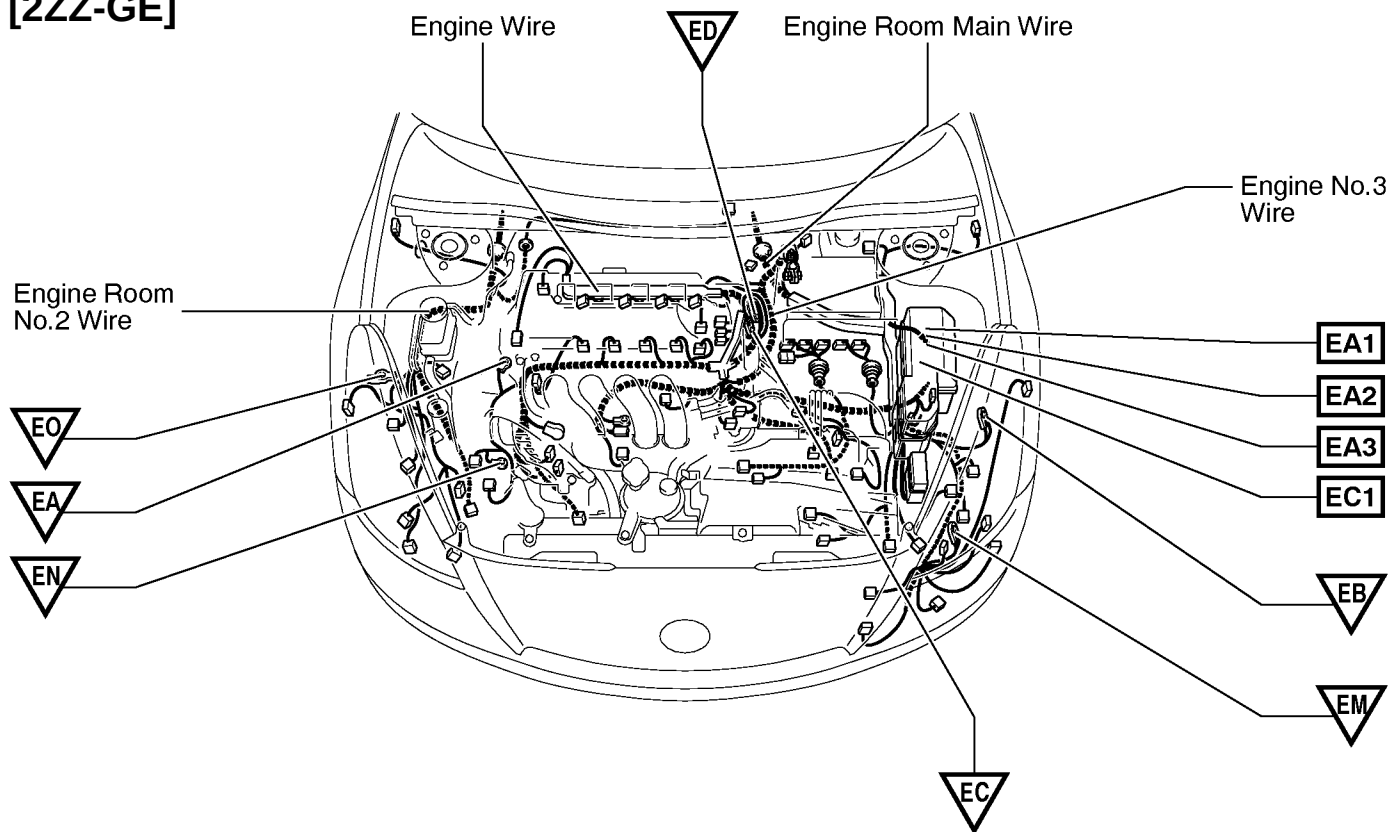
Code	Joining Wire Harness and Wire Harness (Connector Location)
EA1	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B No.1)
EA2	
EB1	Engine No.4 Wire and Engine Wire (Under the Intake Manifold)

G ELECTRICAL WIRING ROUTING

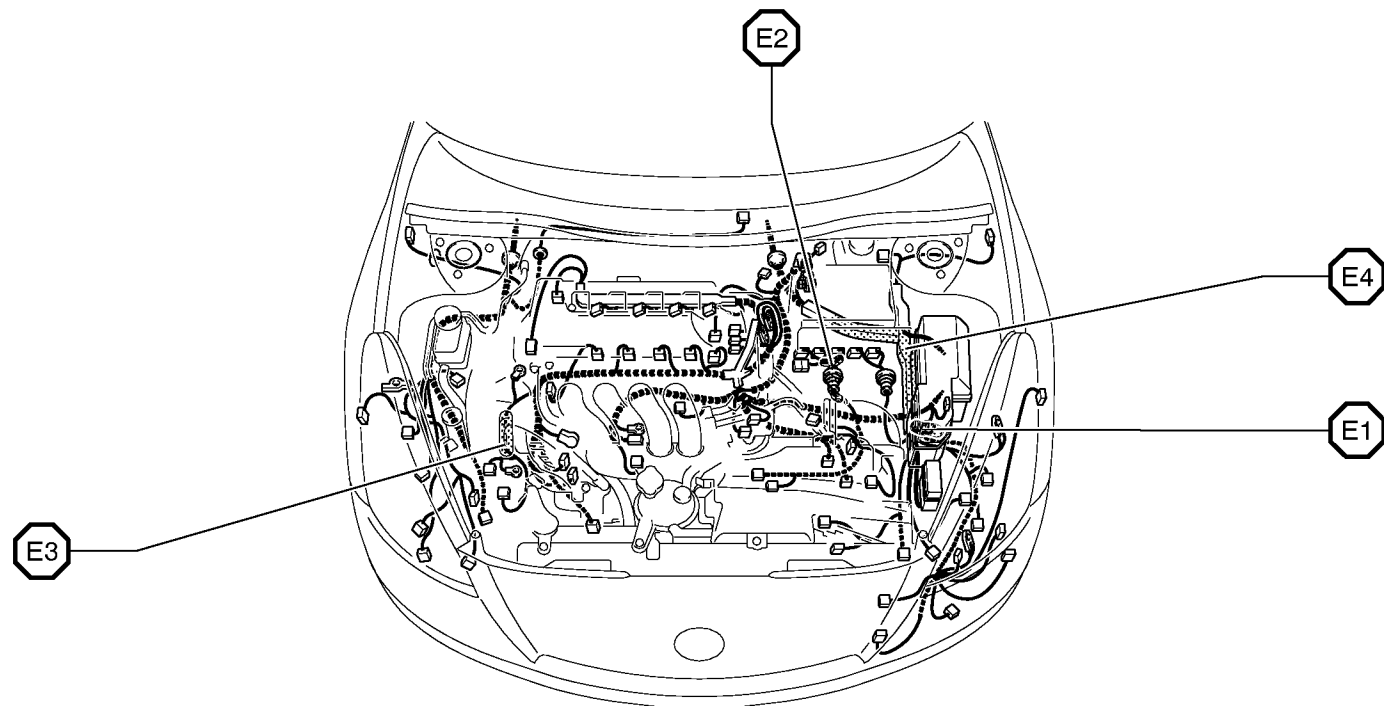
□ : Location of Connector Joining Wire Harness and Wire Harness

▽ : Location of Ground Points

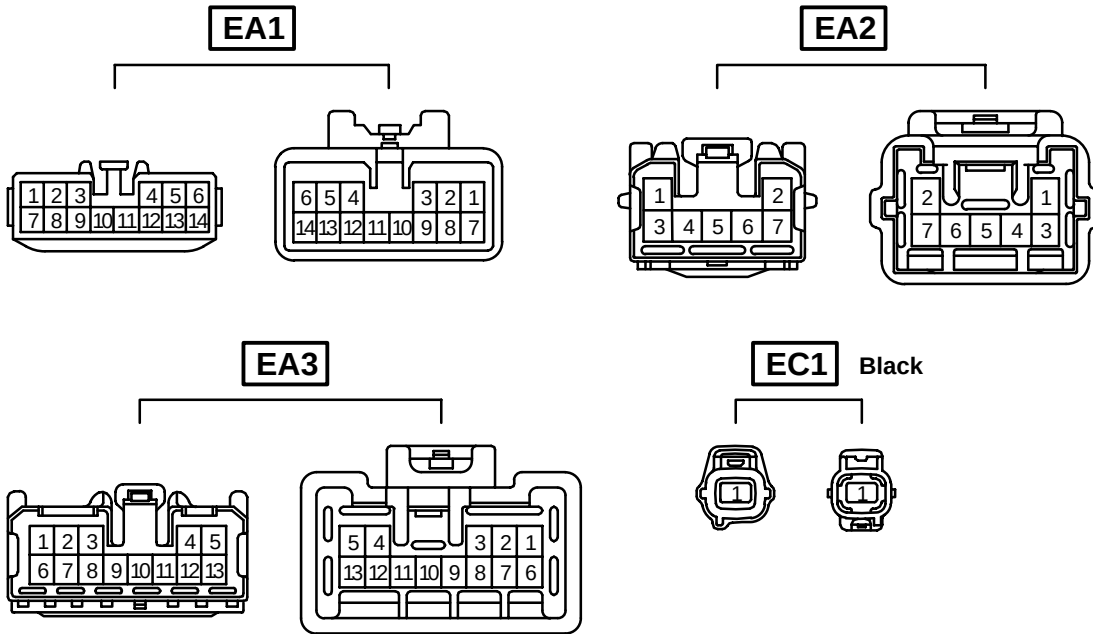
[2ZZ-GE]



○ : Location of Splice Points



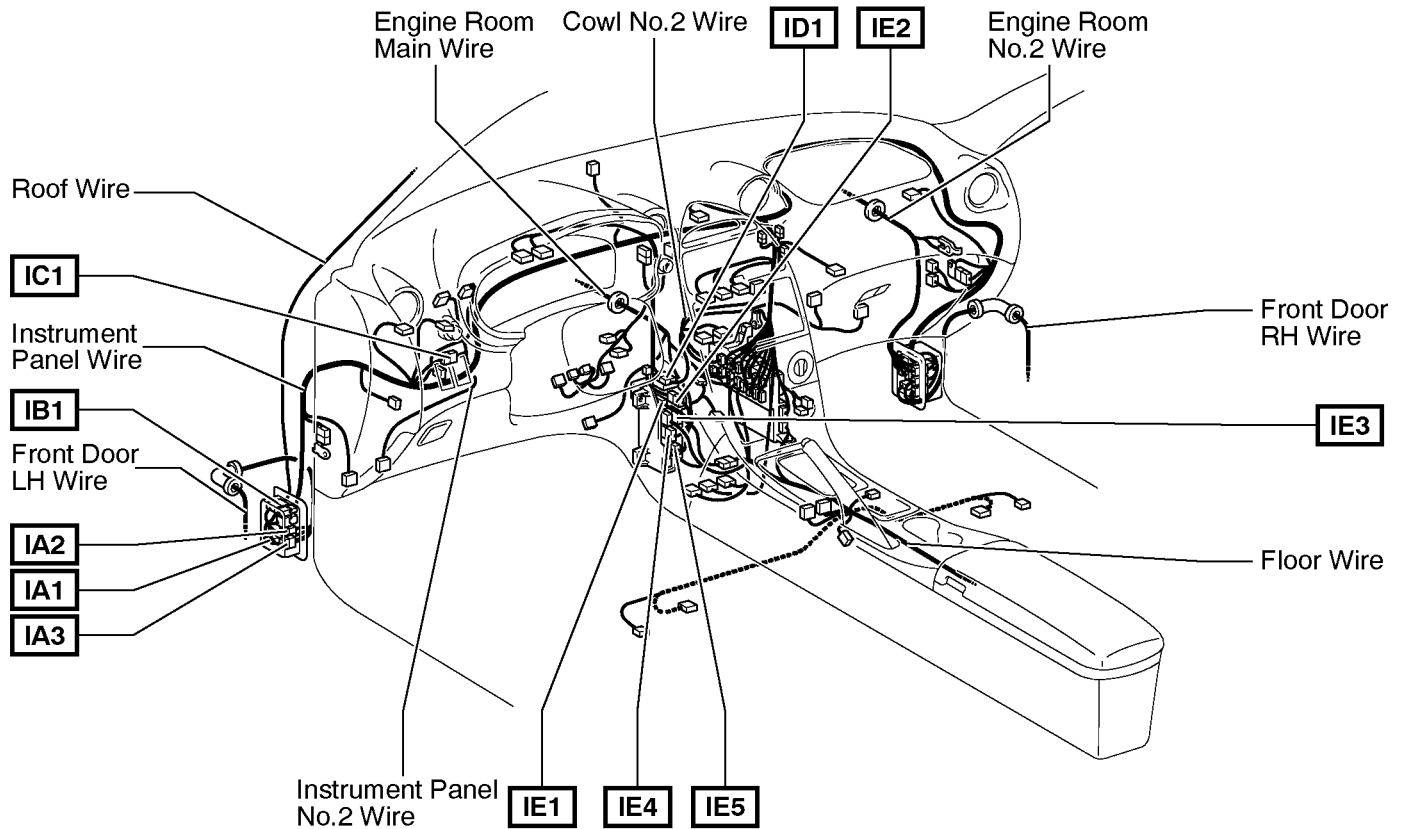
Connector Joining Wire Harness and Wire Harness



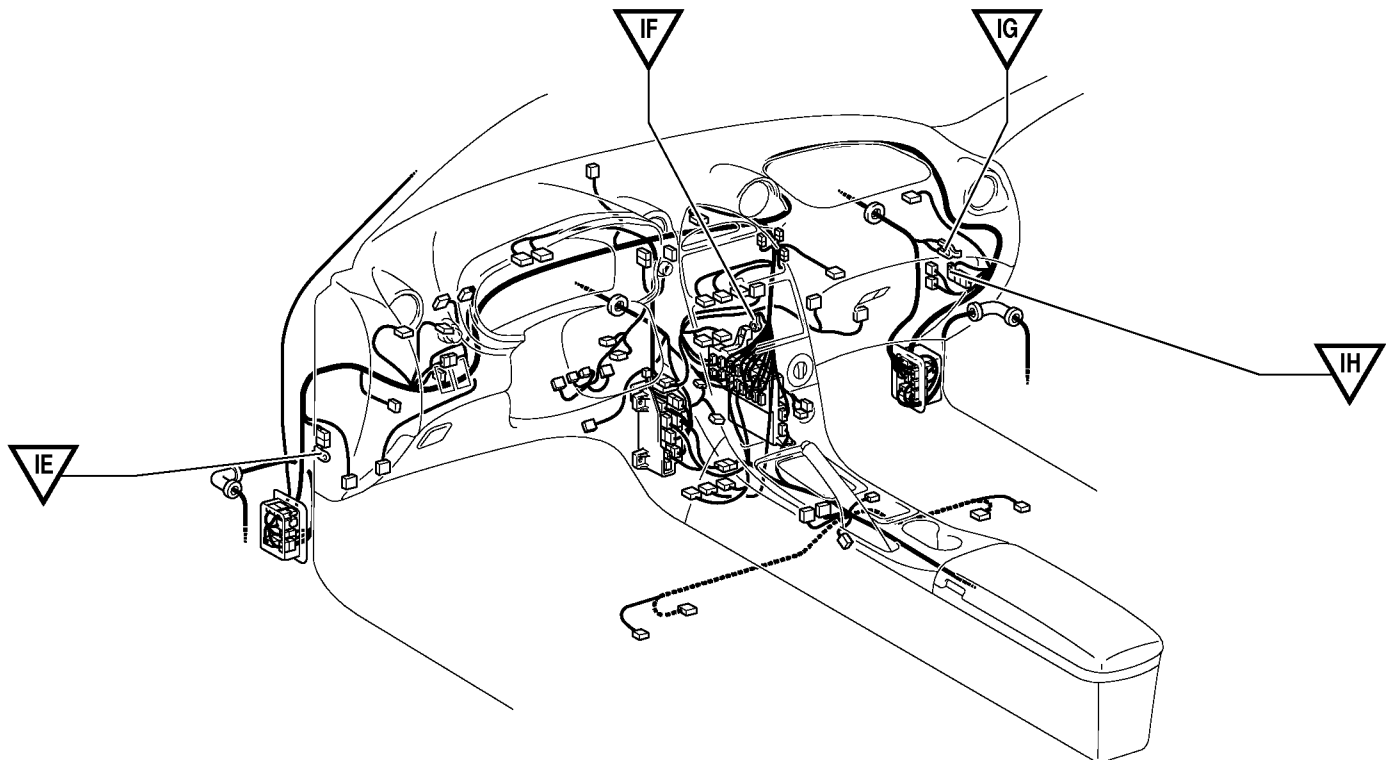
Code	Joining Wire Harness and Wire Harness (Connector Location)
EA1	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B No.1)
EA2	
EA3	
EC1	Engine Room Main Wire and Engine Wire (Inside of Engine Room R/B No.1)

G ELECTRICAL WIRING ROUTING

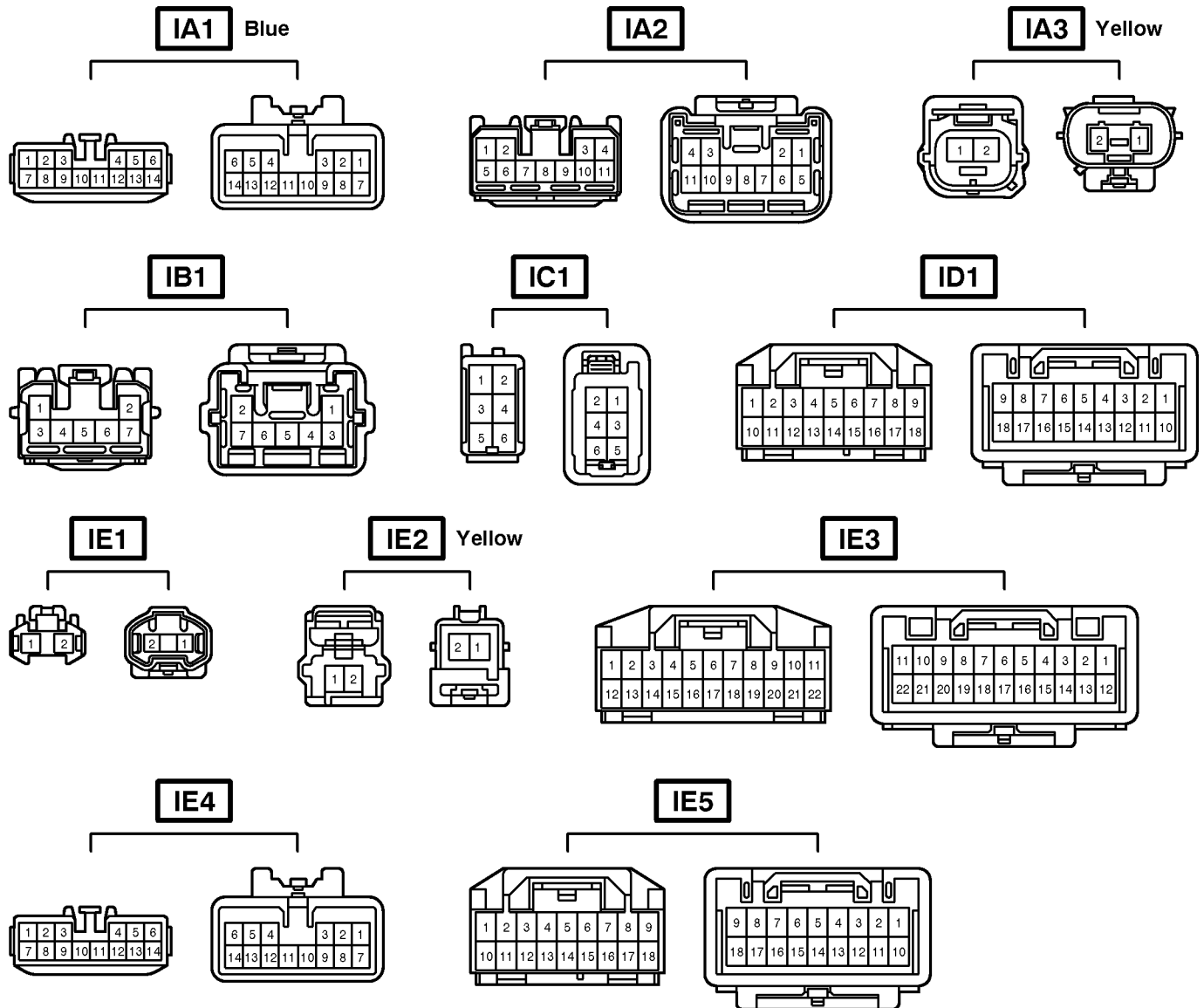
□ : Location of Connector Joining Wire Harness and Wire Harness



▽ : Location of Ground Points



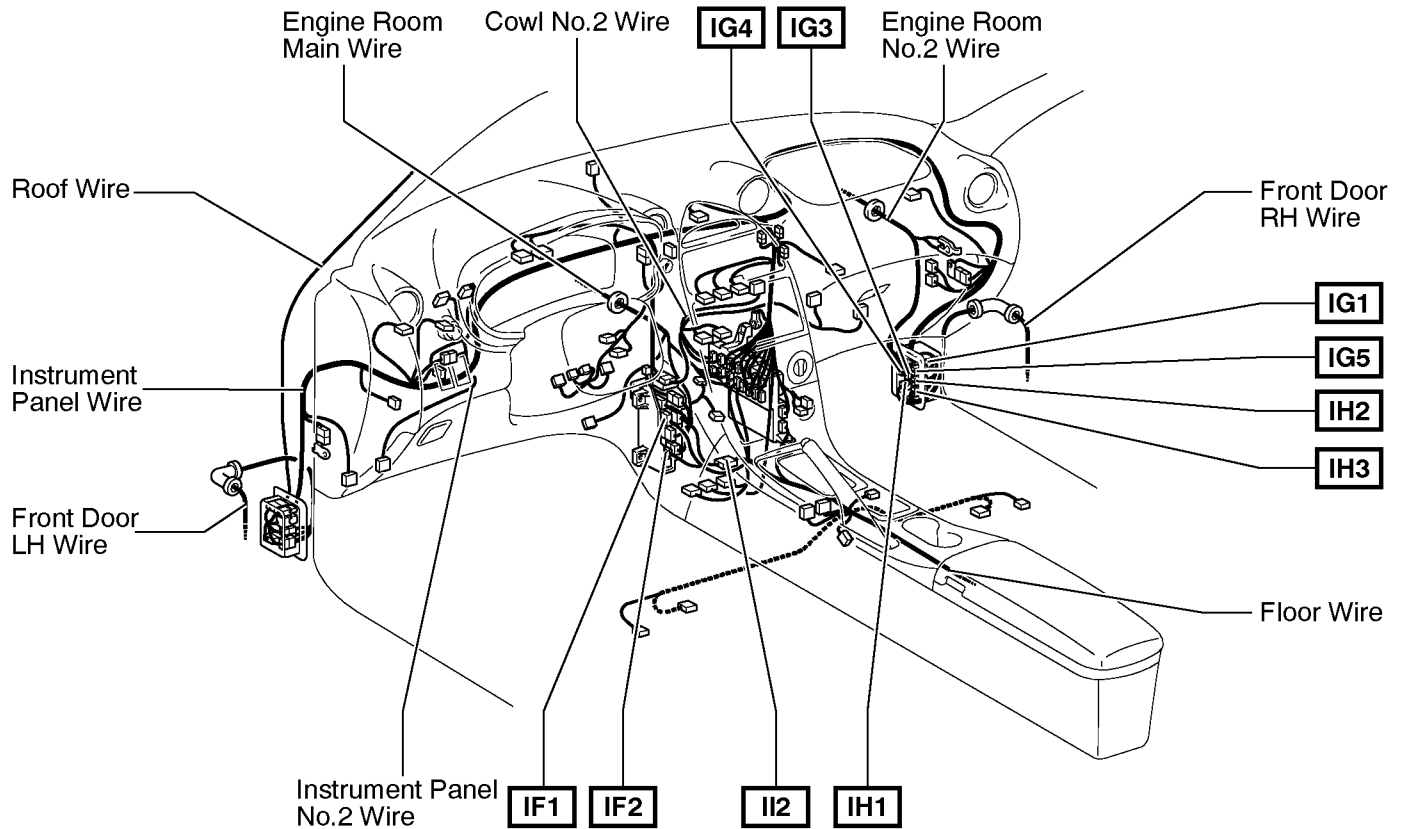
Connector Joining Wire Harness and Wire Harness



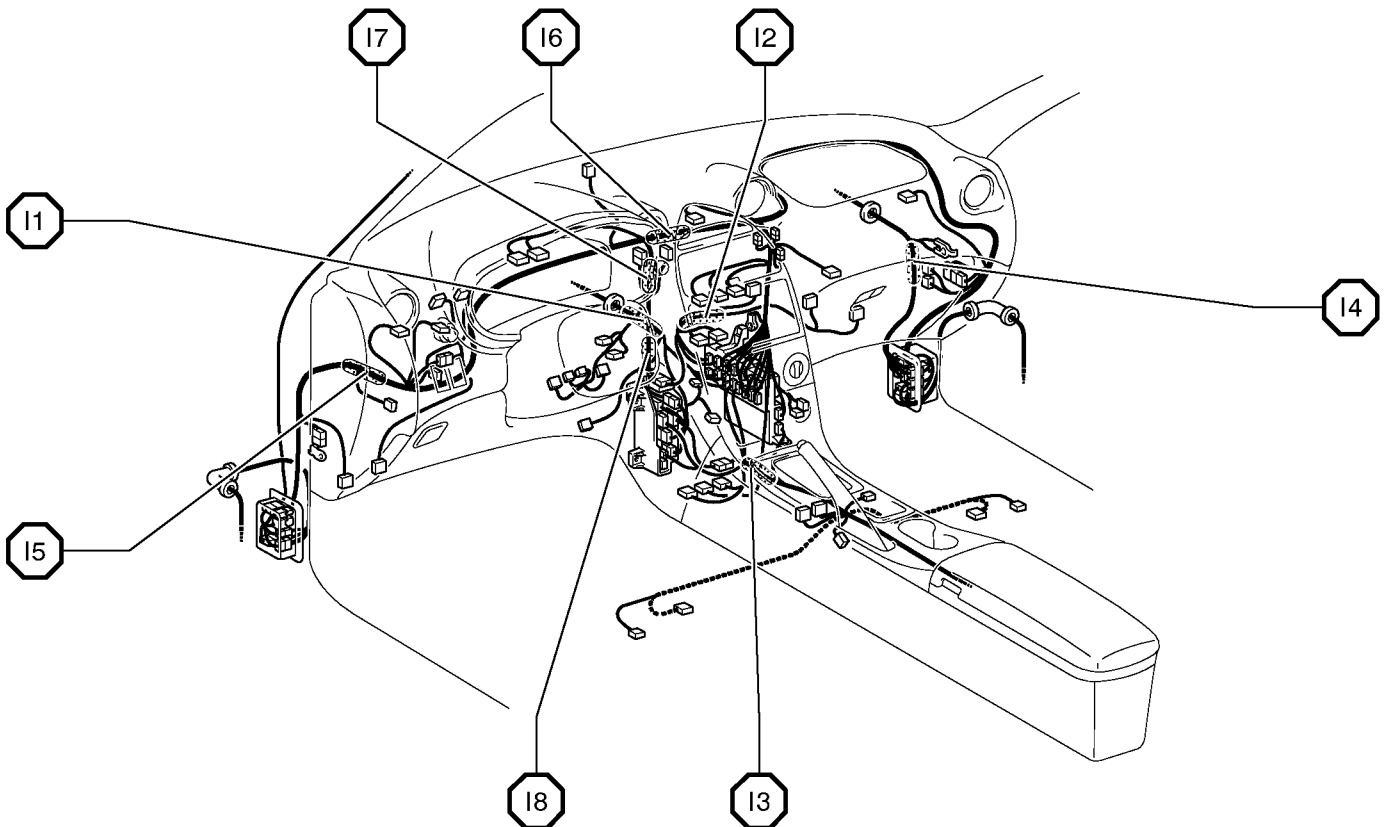
Code	Joining Wire Harness and Wire Harness (Connector Location)
IA1	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IA2	
IA3	
IB1	Roof Wire and Instrument Panel Wire (Left Kick Panel)
IC1	Instrument Panel Wire and Instrument Panel No.2 Wire (Instrument Panel Reinforcement LH)
ID1	Cowl No.2 Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IE1	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IE2	
IE3	
IE4	
IE5	

G ELECTRICAL WIRING ROUTING

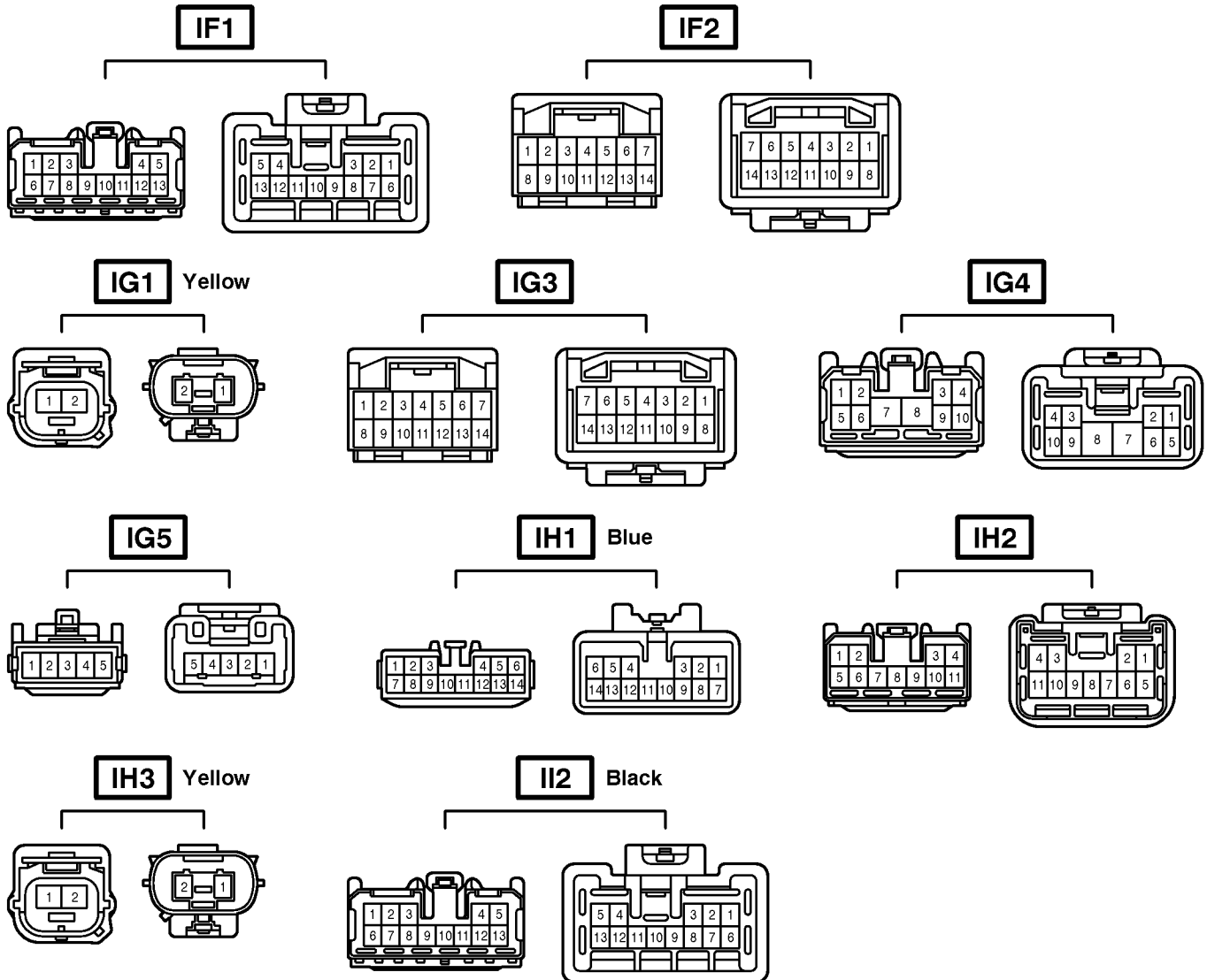
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○ : Location of Splice Points



Connector Joining Wire Harness and Wire Harness

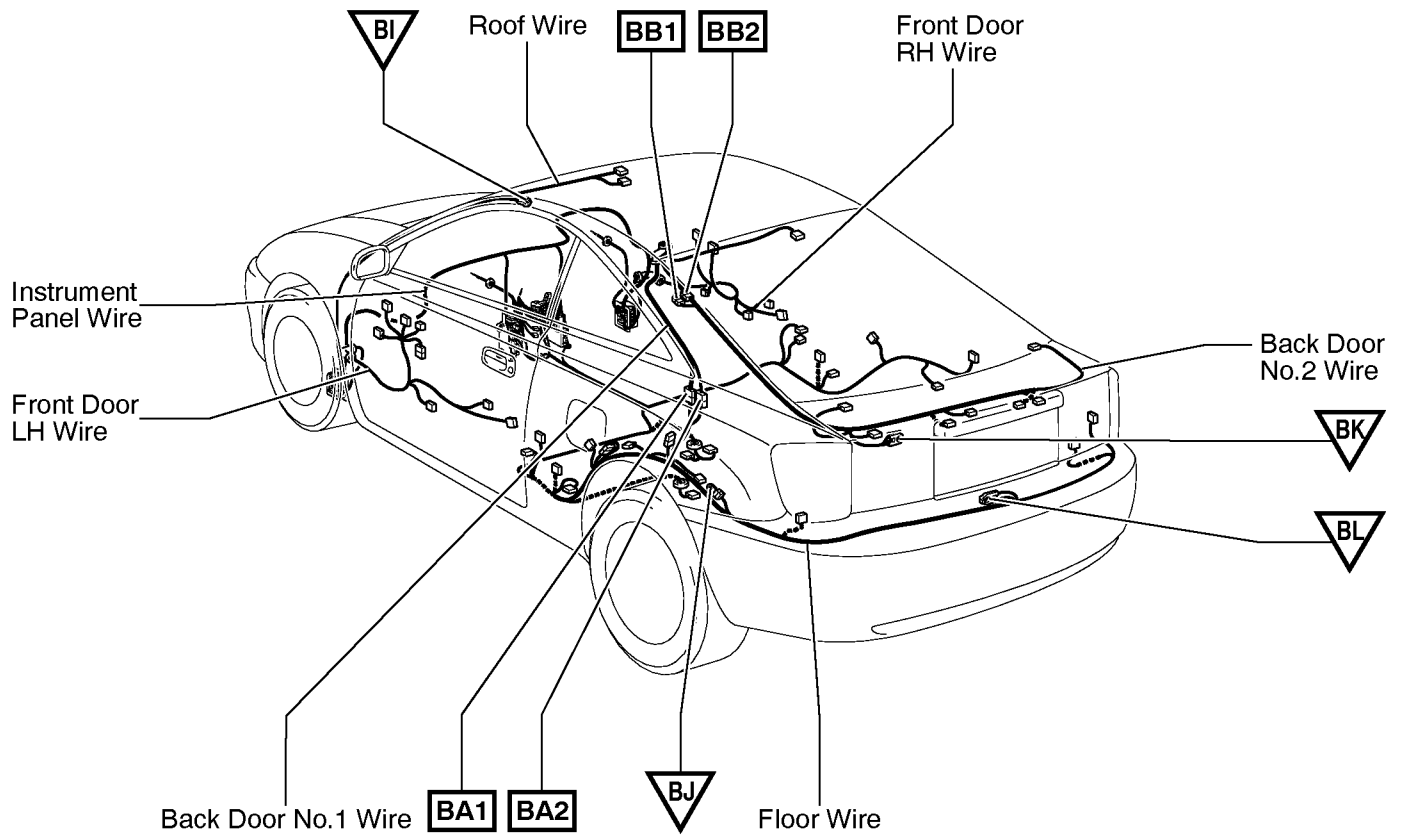


Code	Joining Wire Harness and Wire Harness (Connector Location)
IF1	Floor Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IF2	
IG1	
IG3	
IG4	
IG5	Engine Room No.2 Wire and Instrument Panel Wire (Right Kick Panel)
IH1	
IH2	
IH3	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
II2	
	Engine Room Main Wire and Floor Wire (Instrument Panel Brace LH)

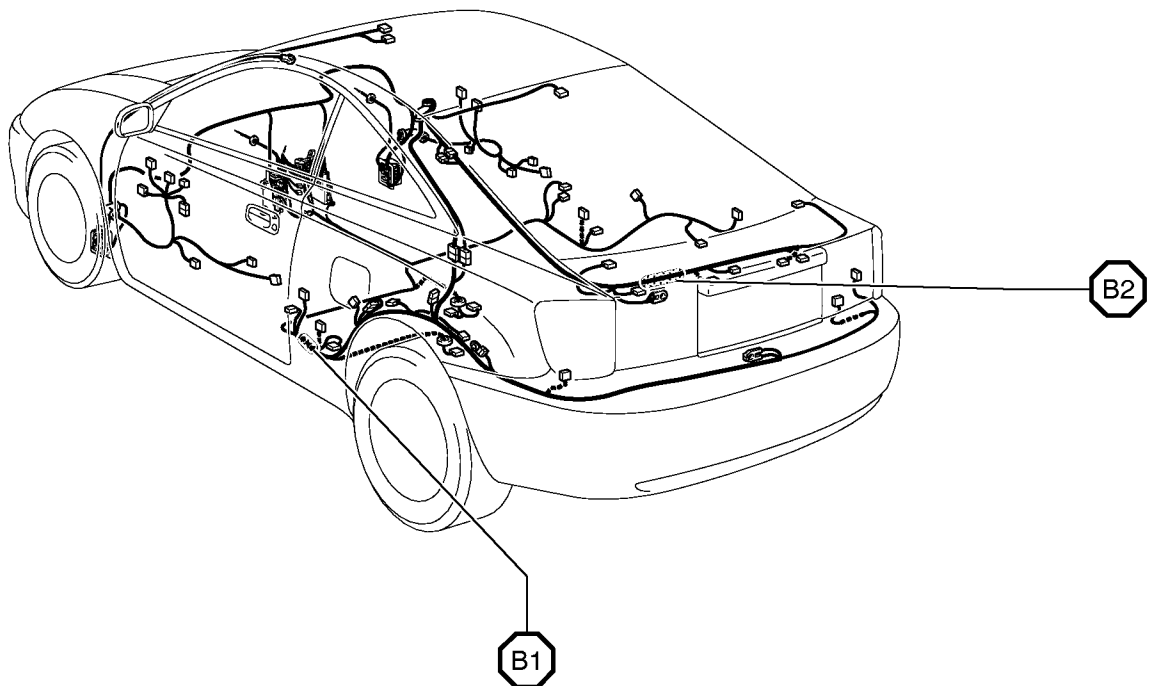
G ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness

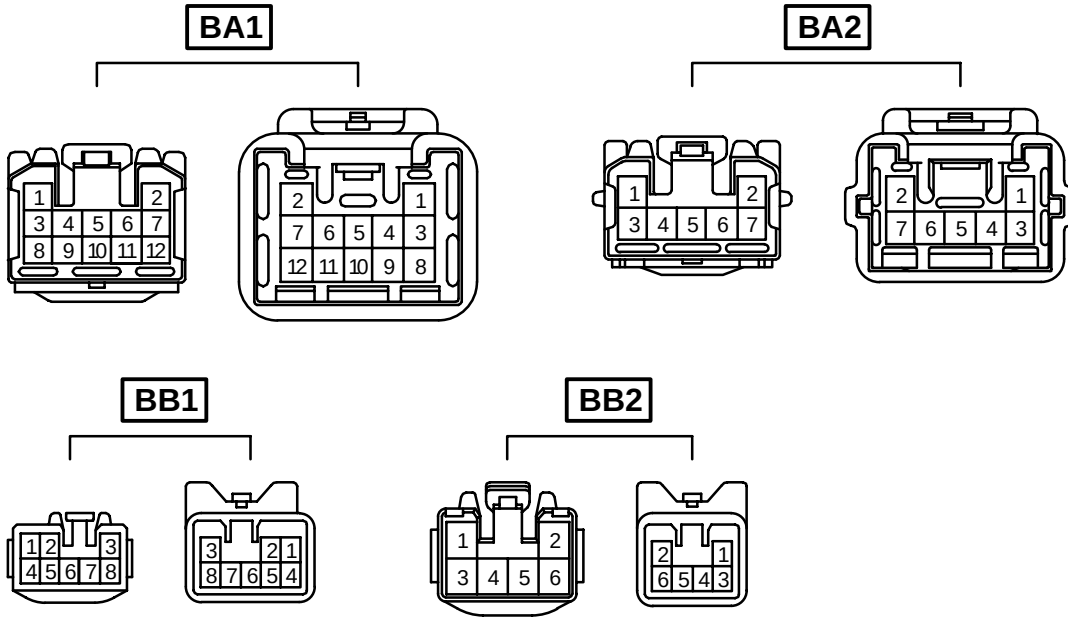
▽ : Location of Ground Points



○ : Location of Splice Points



Connector Joining Wire Harness and Wire Harness



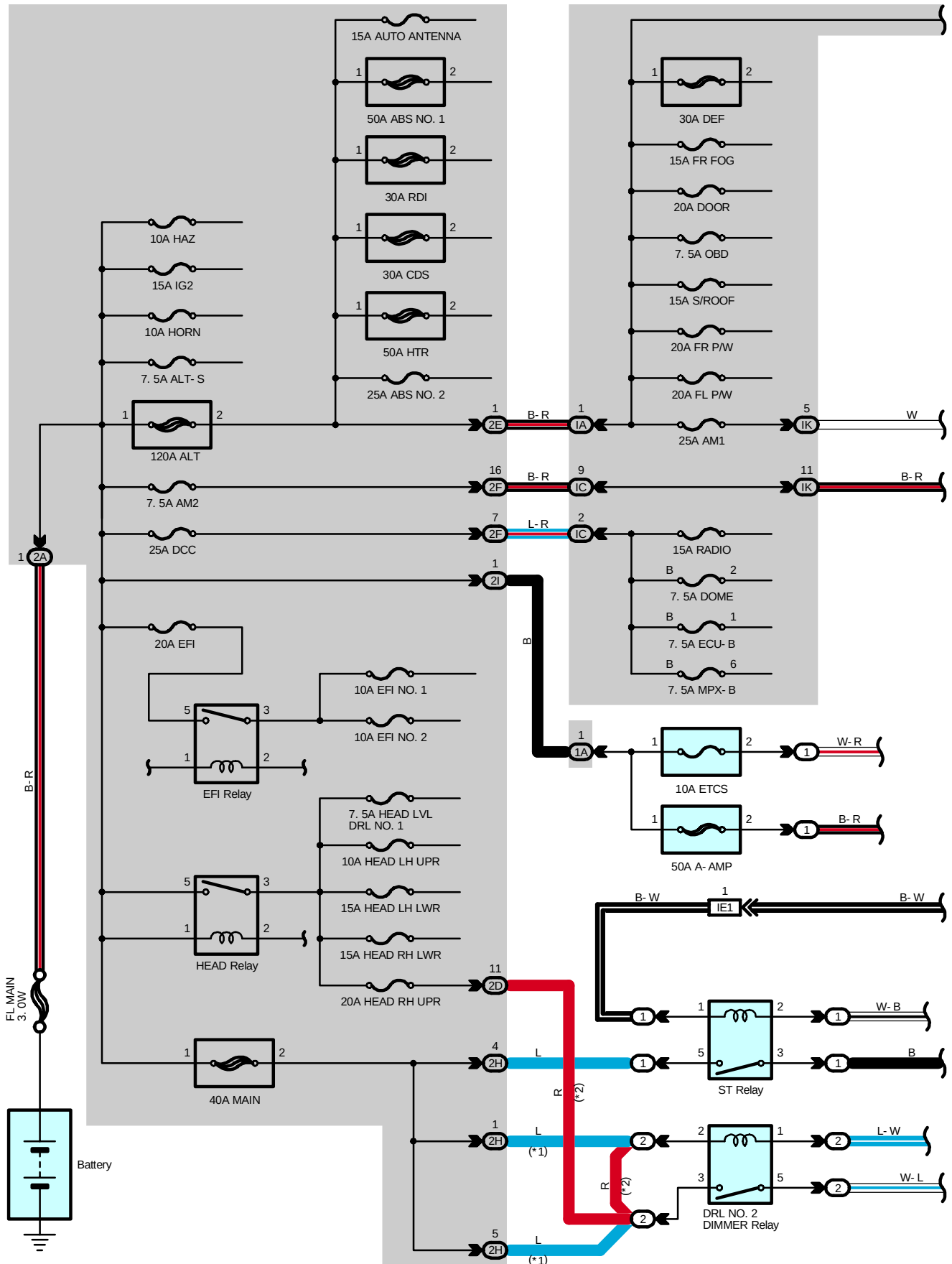
Code	Joining Wire Harness and Wire Harness (Connector Location)
BA1	Back Door No.1 Wire and Floor Wire (Quarter Panel LH)
BA2	
BB1	Back Door No.2 Wire and Back Door No.1 Wire (Back Door Upper Left)
BB2	

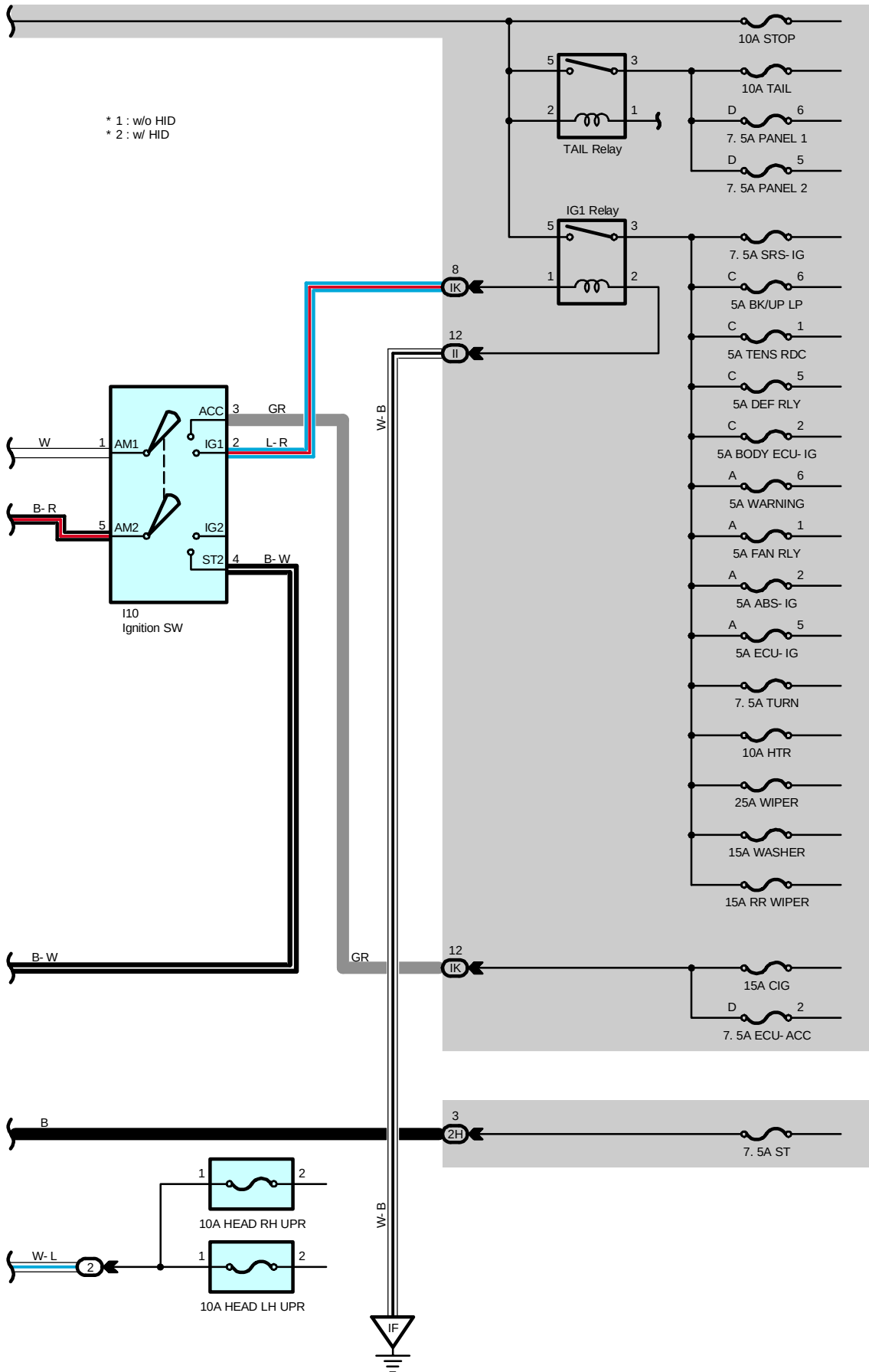
2005 CELICA

ELECTRICAL WIRING DIAGRAM

SYSTEM CIRCUITS

	Page
ABS	154
Air Conditioning	214
Audio System (Built-in Type Amplifier)	202
Audio System (Separate Type Amplifier)	198
Auto Antenna	204
Back-Up Light	110
Charging	64
Cigarette Lighter	184
Clock (Canada)	186
Clock (USA)	184
Combination Meter	206
Cruise Control (1ZZ-FE)	158
Cruise Control (2ZZ-GE)	162
Door Lock Control	134
Electric Tension Reducer	144
Electronically Controlled Transmission and A/T Indicator (1ZZ-FE)	168
Electronically Controlled Transmission and A/T Indicator (2ZZ-GE)	174
Engine Control (1ZZ-FE)	66
Engine Control (2ZZ-GE)	76
Fog Light	98
Front Wiper and Washer	190
Headlight Beam Level Control	96
Headlight (w/ HID)	88
Headlight (w/o HID)	92
Horn	182
Ignition (1ZZ-FE)	56
Ignition (2ZZ-GE)	60
Illumination	104
Interior Light	108
Key Reminder	146
Light Reminder	116
Moon Roof	142
Multiplex Communication System	120
Multiplex Communication System (Communication Bus)	118
Power Source	52
Power Window	138
Radiator Fan and Condenser Fan	212
Rear Window Defogger	196
Rear Wiper and Washer	194
Remote Control Mirror	188
Seat Belt Warning	146
Shift Lock	180
SRS	149
Starting (1ZZ-FE)	56
Starting (2ZZ-GE)	60
Stop Light	112
Taillight	100
Turn Signal and Hazard Warning Light	114
Wireless Door Lock Control	130





Power Source

Service Hints

HEAD Relay

- 5-3 : Closed with the light control SW at HEAD position or the dimmer SW at FLASH position
 Closed with the engine running and the parking brake lever released (Parking brake SW off)

TAIL Relay

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

I10 Ignition SW

- 1-3 : Closed with the ignition key at ACC or ON position
 1-2 : Closed with the ignition key at ON or ST position
 5-4 : Closed with the ignition key at ST position

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
I10	37				

: RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	26	Engine Room R/B No.1 (Engine Compartment Left)
2	27	Engine Room R/B No.2 (Engine Compartment Left)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IA	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IC		
II	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IK		
1A	26	Engine Room Main Wire and Engine Room J/B No.1 (Engine Compartment Left)
2A	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2D	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2E		
2F		
2H		
2I		

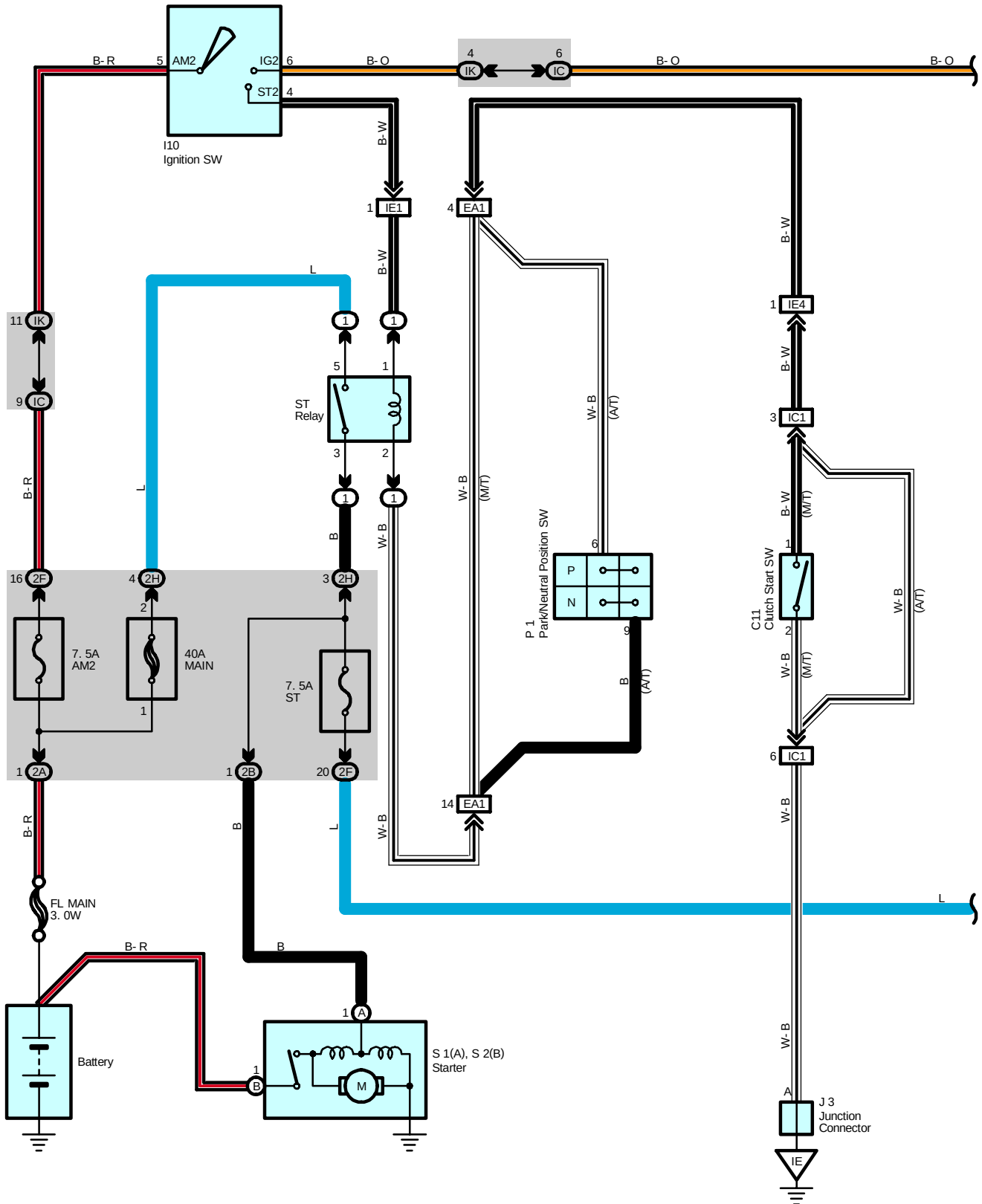
: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

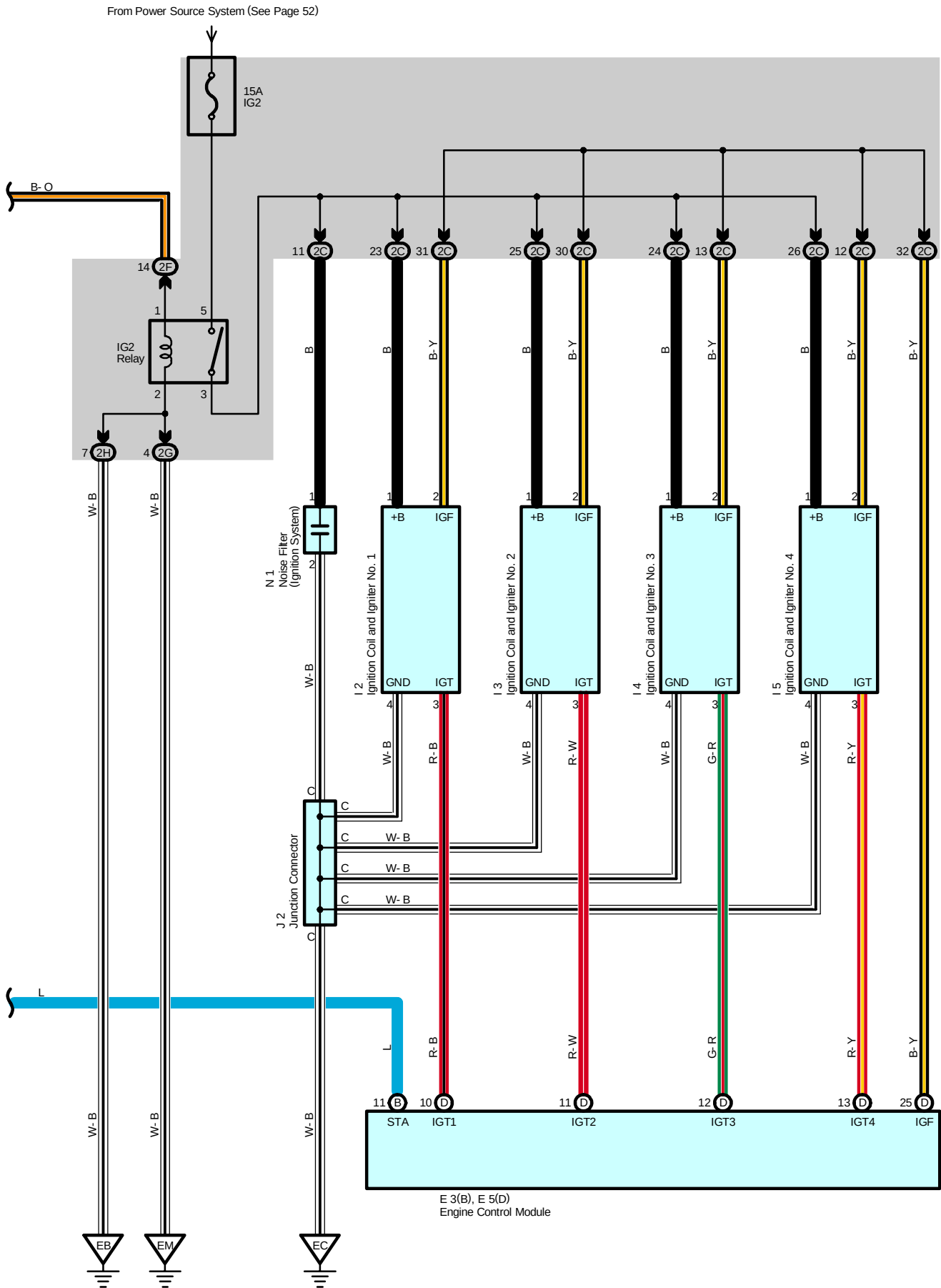
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE1	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)

: GROUND POINTS

Code	See Page	Ground Points Location
IF	44	Instrument Panel Brace RH

Starting and Ignition for 1ZZ-FE





Starting and Ignition for 1ZZ-FE

Service Hints

I10 Ignition SW

5-6 : Closed with the ignition SW at ON or ST position

5-4 : Closed with the ignition SW at ST position

C11 Clutch Start SW (M/T)

1-2 : Closed with the clutch pedal fully depressed

ST Relay

5-3 : Closed with the clutch start SW on (M/T), Park/Neutral position SW on (A/T) and the ignition SW at ST position

S1 (A), S2 (B) Starter

Points closed with the clutch start SW on and the ignition SW at ST position (M/T)

Points closed with the Park/Neutral position SW at P or N position and the ignition SW at ST position (A/T)

P1 Park/Neutral Position SW (A/T)

6-9 : Closed with the A/T shift lever at P or N position

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C11	36	I4	33 (1ZZ-FE)	N1	33 (1ZZ-FE)
E3	B	I5	33 (1ZZ-FE)	P1	33 (1ZZ-FE)
E5	D	I10	37	S1	A
I2	33 (1ZZ-FE)	J2	33 (1ZZ-FE)	S2	B
I3	33 (1ZZ-FE)	J3	37		

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	26	Engine Room R/B No.1 (Engine Compartment Left)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IC	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IK	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
2A	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2B		
2C		
2F	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2G		
2H		

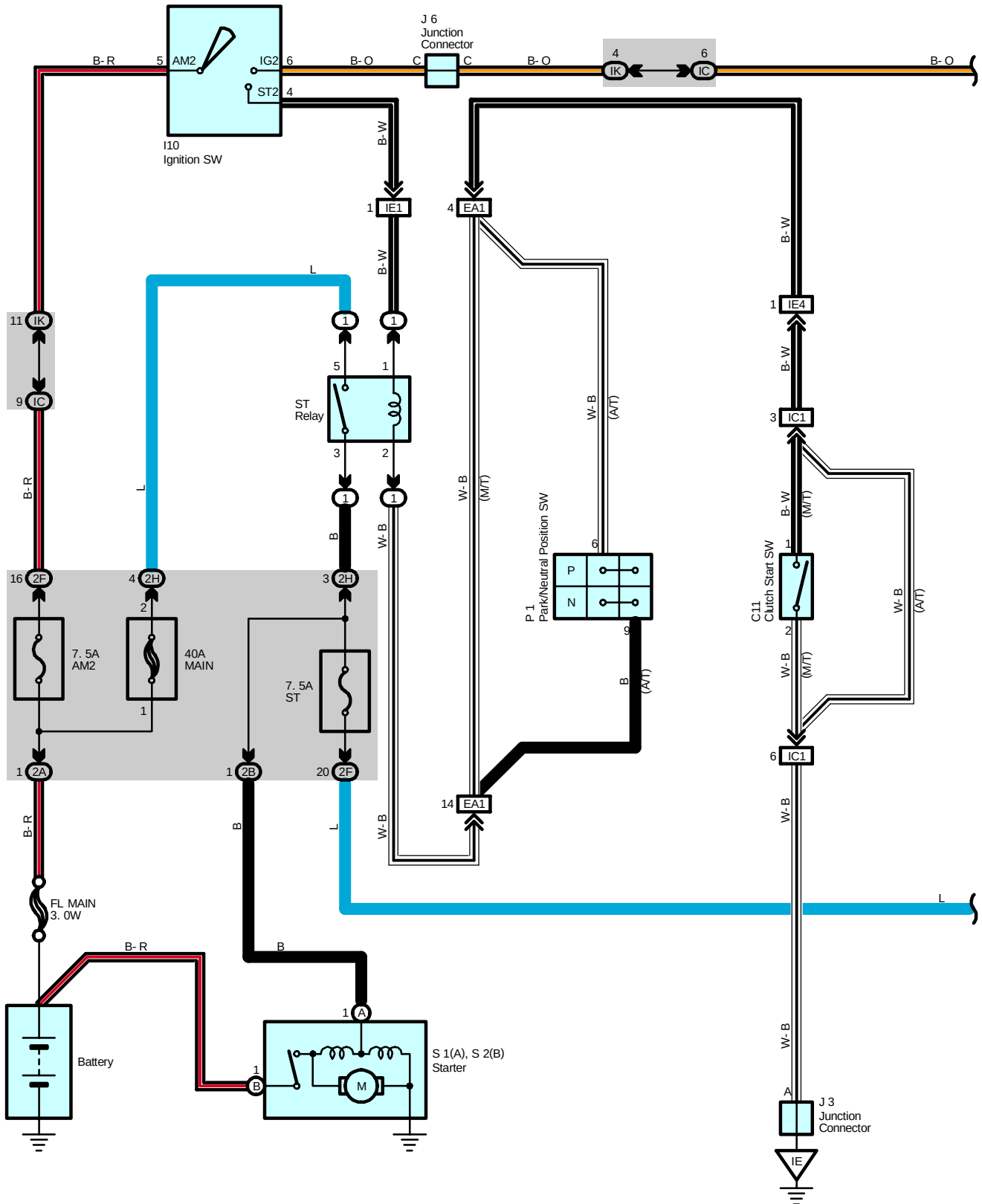
□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

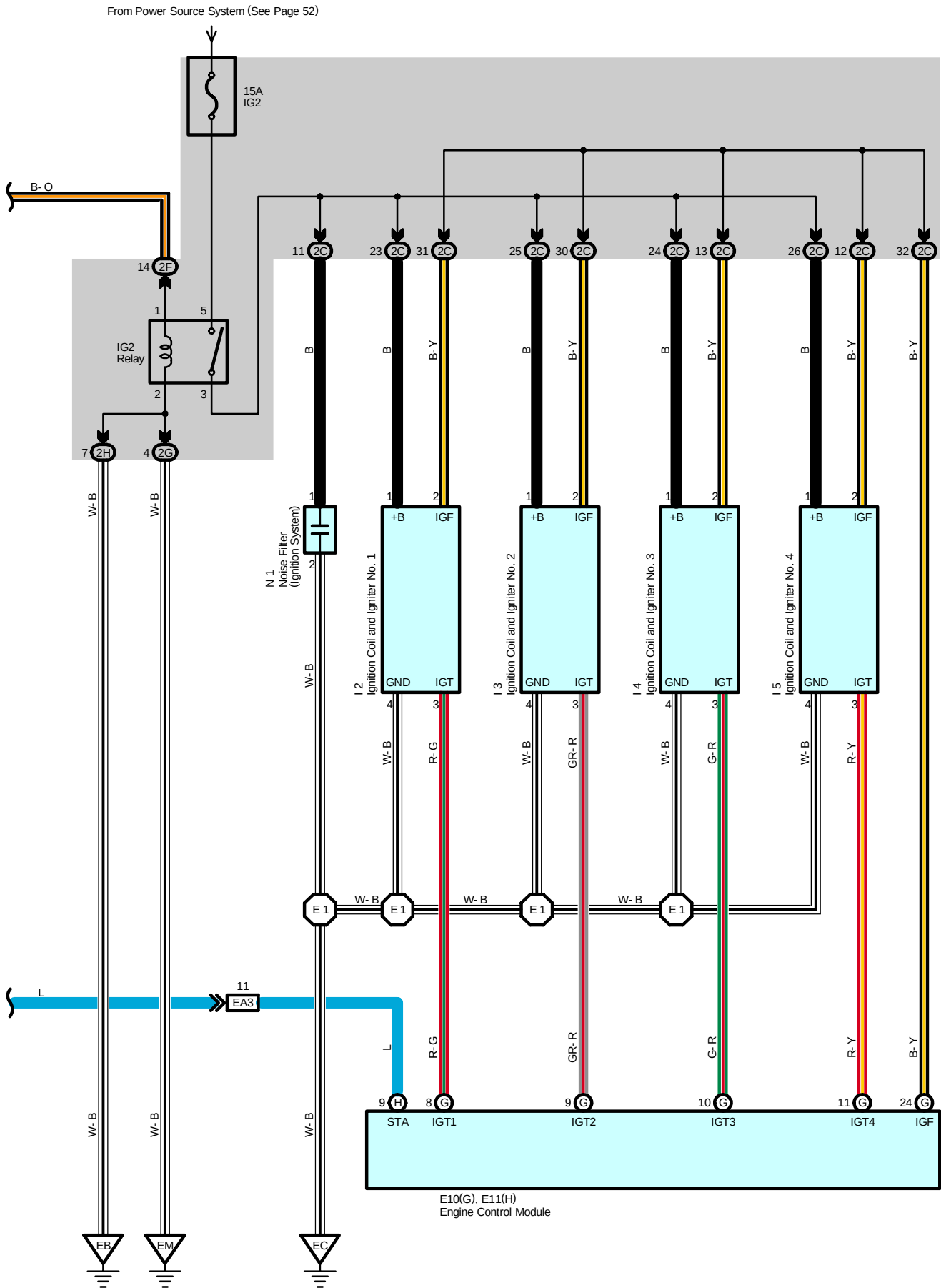
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	40 (1ZZ-FE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B No.1)
IC1	44	Instrument Panel Wire and Instrument Panel No.2 Wire (Instrument Panel Reinforcement LH)
IE1	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IE4		

▽ : GROUND POINTS

Code	See Page	Ground Points Location
EB	40 (1ZZ-FE)	Front Left Fender
EC	40 (1ZZ-FE)	Cylinder Head Cover LH
EM	40 (1ZZ-FE)	Front Left Fender
IE	44	Cowl Side Panel LH

Starting and Ignition for 2ZZ-GE





Starting and Ignition for 2ZZ-GE

Service Hints

I10 Ignition SW

5-6 : Closed with the ignition SW at ON or ST position

5-4 : Closed with the ignition SW at ST position

C11 Clutch Start SW (M/T)

1-2 : Closed with the clutch pedal fully depressed

ST Relay

5-3 : Closed with the clutch start SW on (M/T), Park/Neutral position SW on (A/T) and the ignition SW at ST position

S1 (A), S2 (B) Starter

Points closed with the clutch start SW on and the ignition SW at ST position (M/T)

Points closed with the Park/Neutral position SW at P or N position and the ignition SW at ST position (A/T)

P1 Park/Neutral Position SW (A/T)

6-9 : Closed with the A/T shift lever at P or N position

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C11	36	I4	35 (2ZZ-GE)	N1	35 (2ZZ-GE)
E10	G 34 (2ZZ-GE)	I5	35 (2ZZ-GE)	P1	35 (2ZZ-GE)
E11	H 34 (2ZZ-GE)	I10	37	S1	A 35 (2ZZ-GE)
I2	35 (2ZZ-GE)	J3	37	S2	B 35 (2ZZ-GE)
I3	35 (2ZZ-GE)	J6	37		

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	26	Engine Room R/B No.1 (Engine Compartment Left)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IC	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IK	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
2A	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2B		
2C		
2F	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2G		
2H		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

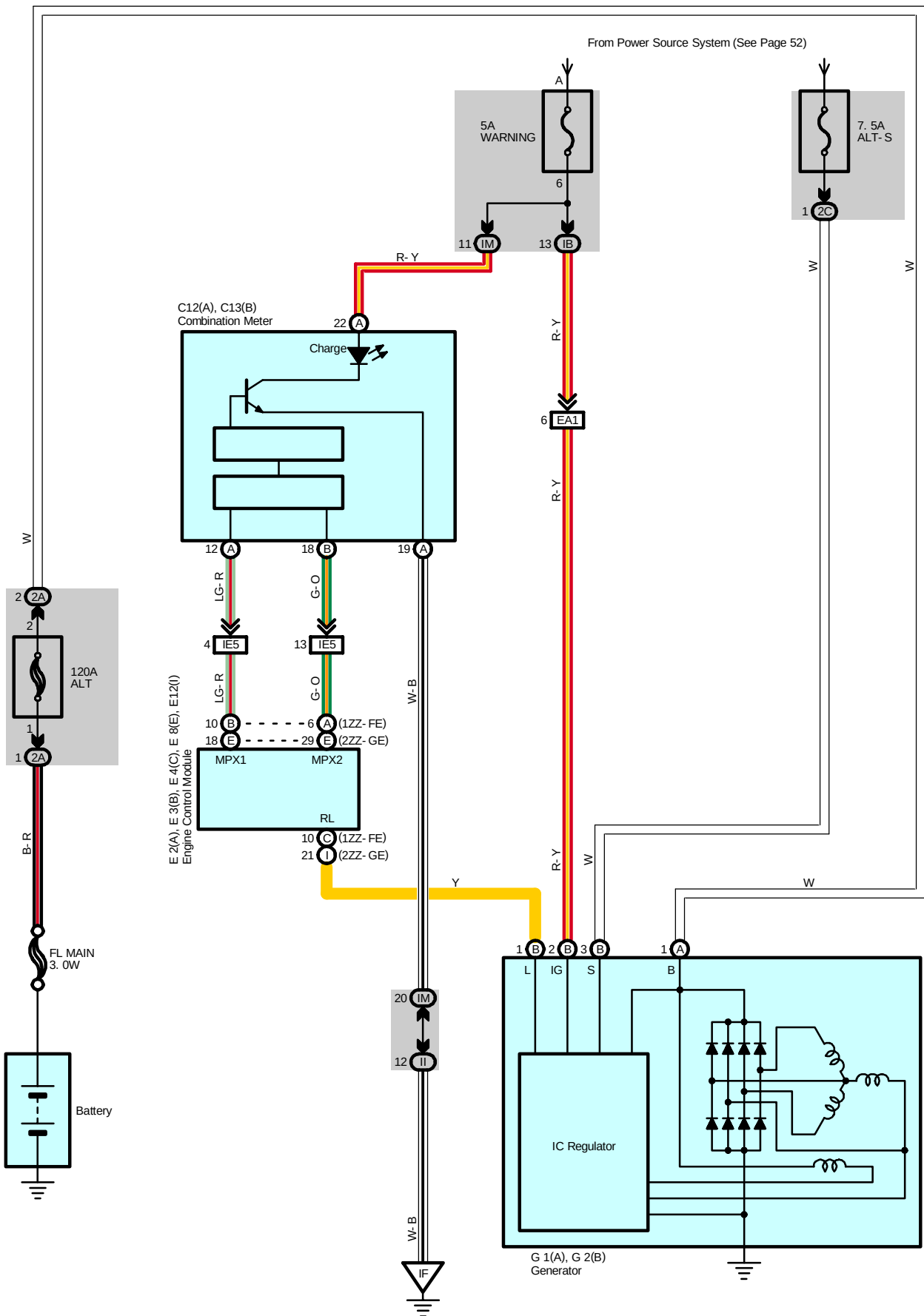
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	42 (2ZZ-GE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B No.1)
EA3		
IC1	44	Instrument Panel Wire and Instrument Panel No.2 Wire (Instrument Panel Reinforcement LH)
IE1	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IE4		

▽ : GROUND POINTS

Code	See Page	Ground Points Location
EB	42 (2ZZ-GE)	Front Left Fender
EC	42 (2ZZ-GE)	Cylinder Head Cover LH
EM	42 (2ZZ-GE)	Front Left Fender
IE	44	Cowl Side Panel LH

**: SPLICE POINTS**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	42 (2ZZ-GE)	Engine Room Main Wire			



Service Hints

G2 (B) Generator

- (B) 3-Ground : 13.9-15.1 volts with the engine running at 2000 rpm and 25°C (77°F)
 13.5-14.3 volts with the engine running at 5000 rpm and 115°C (239°F)
 (B) 1-Ground : 0-4 volts with the ignition SW at ON position and the engine not running

○ : PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
C12	A	36	E4	C	32 (1ZZ-FE)	G1	A	34 (2ZZ-GE)
C13	B	36	E8	E	34 (2ZZ-GE)	G2	B	32 (1ZZ-FE)
E2	A	32 (1ZZ-FE)	E12	I	34 (2ZZ-GE)			34 (2ZZ-GE)
E3	B	32 (1ZZ-FE)	G1	A	32 (1ZZ-FE)			

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IB	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
II	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IM		
2A	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2C		

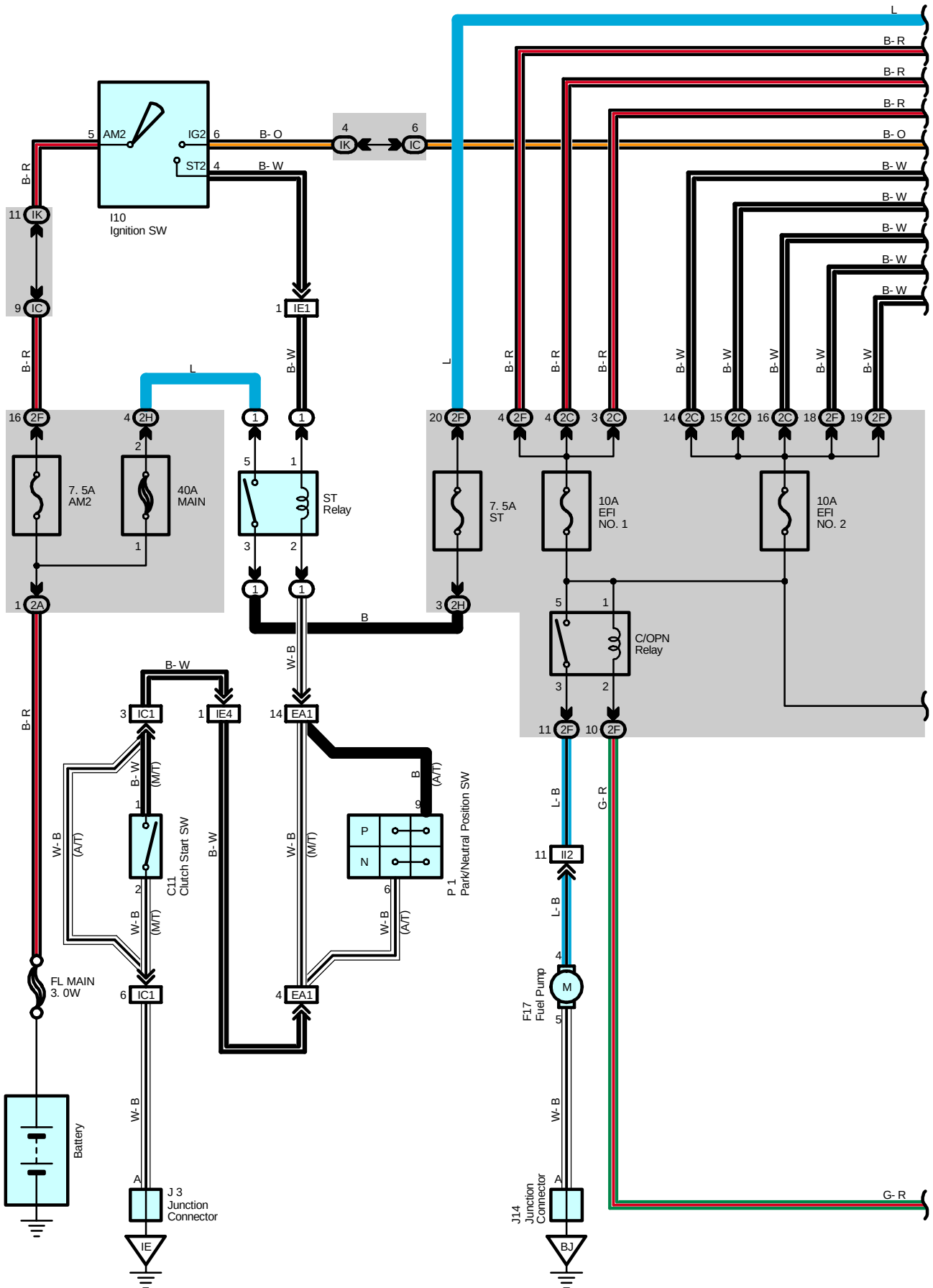
□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	40 (1ZZ-FE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B No.1)
	42 (2ZZ-GE)	
IE5	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)

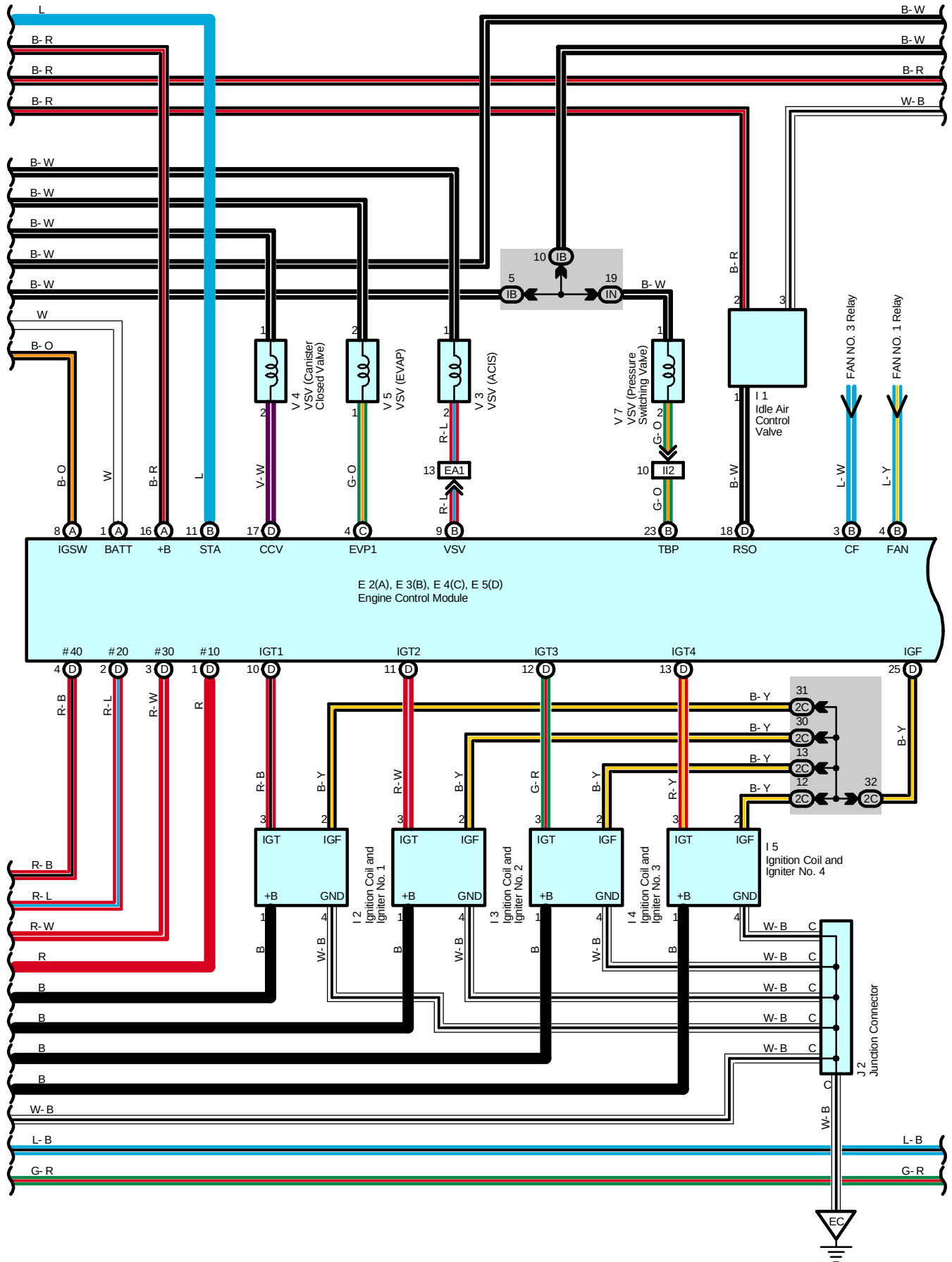
▽ : GROUND POINTS

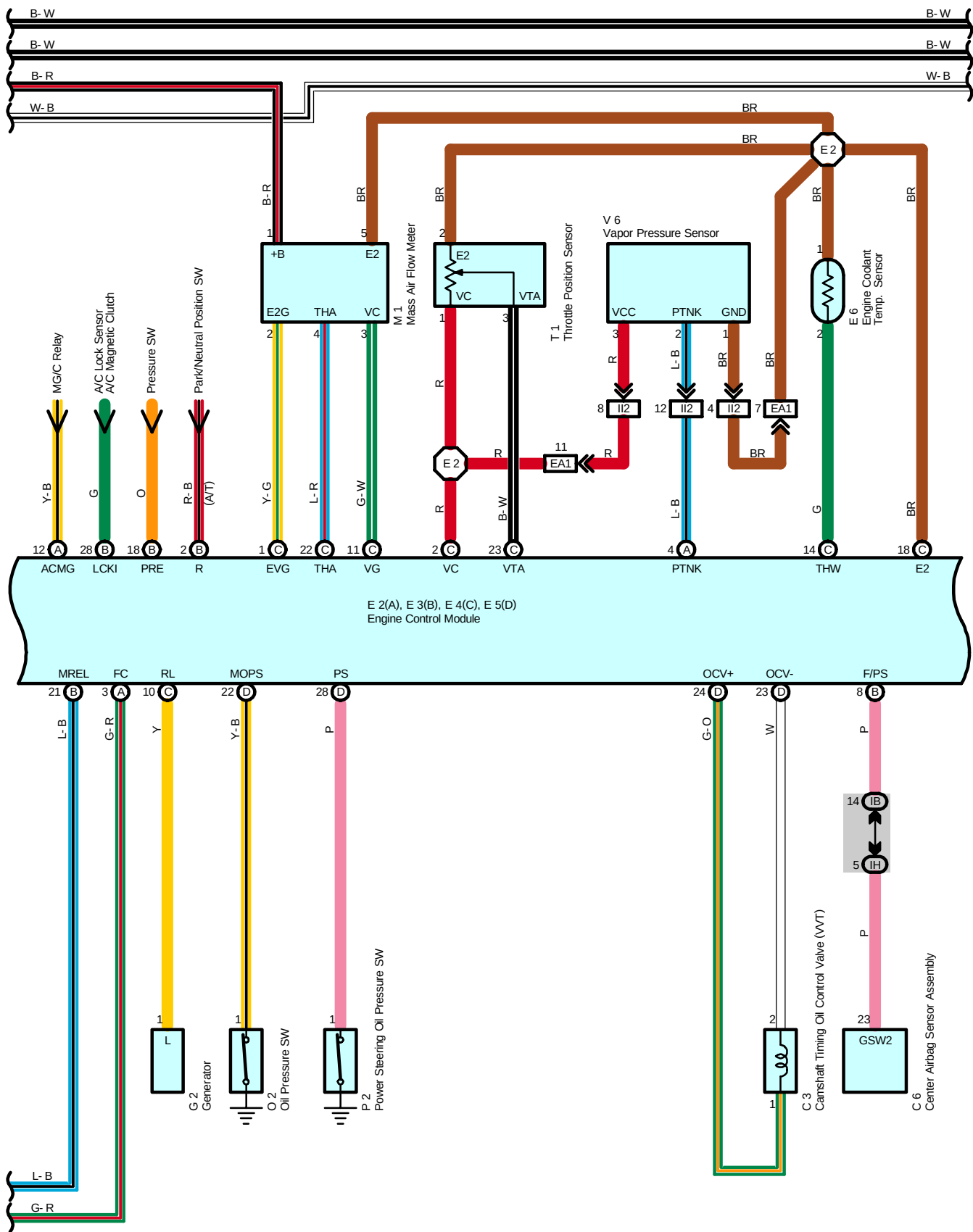
Code	See Page	Ground Points Location
IF	44	Instrument Panel Brace RH

Engine Control for 1ZZ-FE

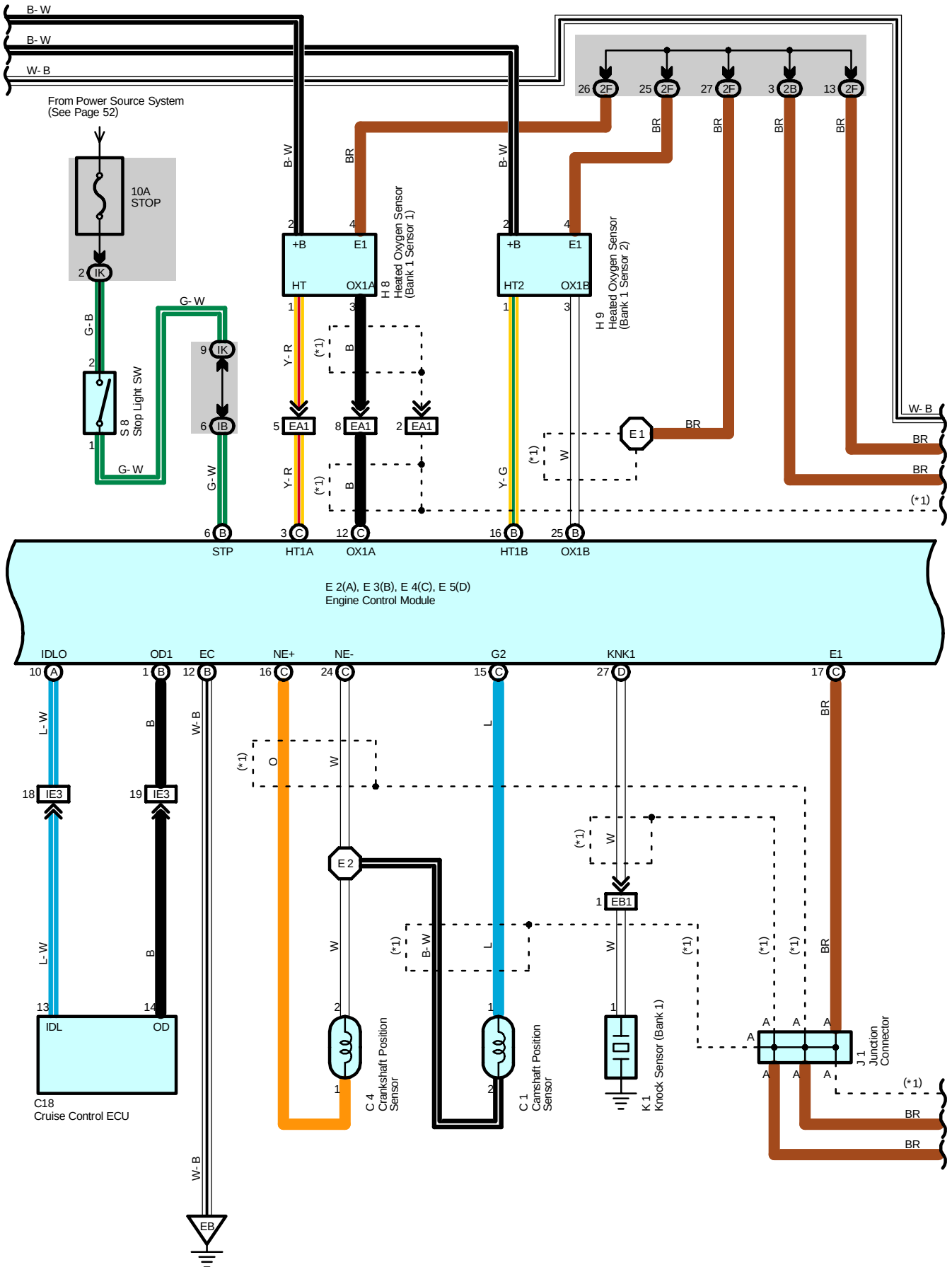


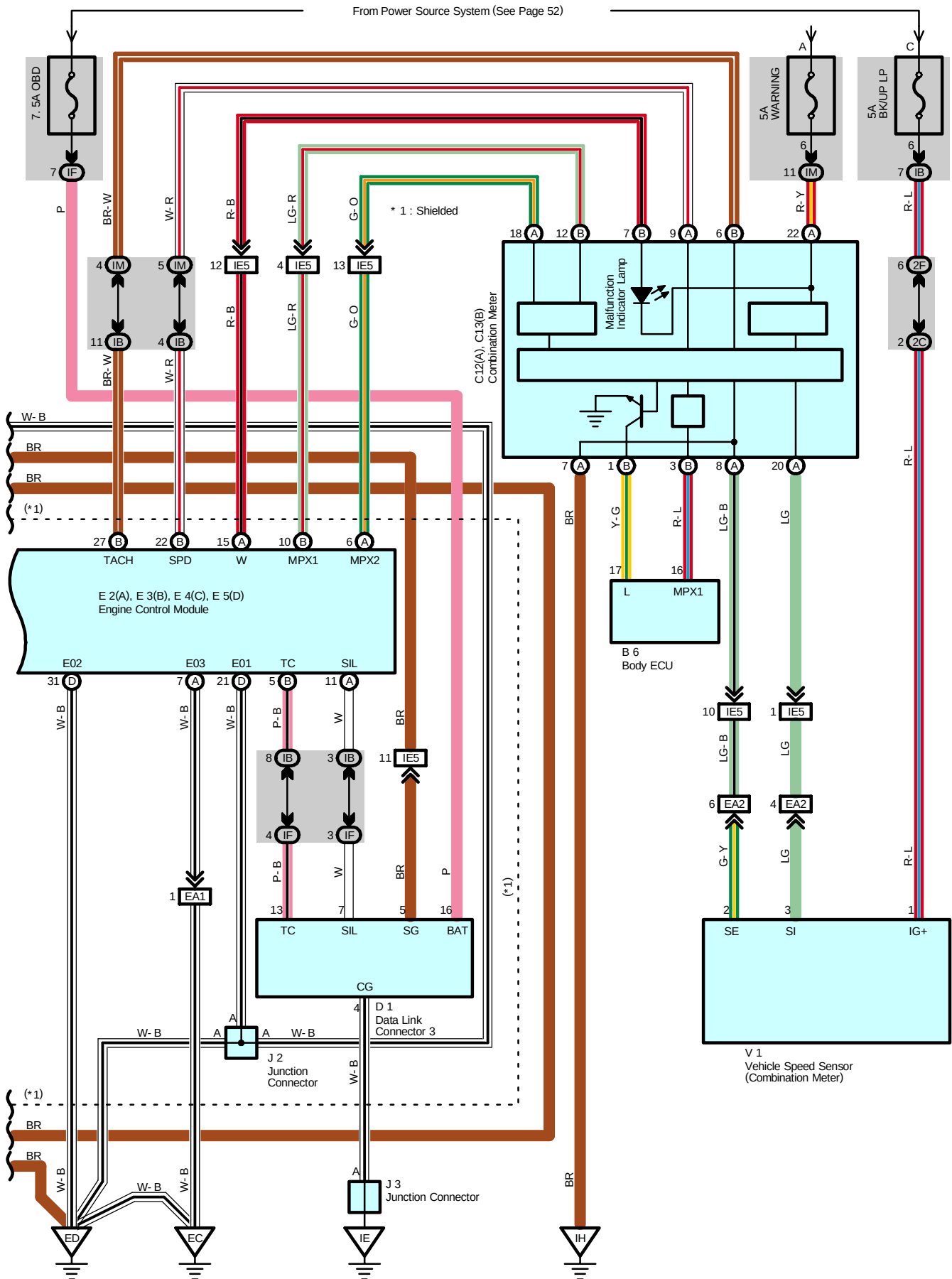
Engine Control for 1ZZ-FE





Engine Control for 1ZZ-FE





System Outline

This system utilizes an engine control module and maintains overall control of the engine, transmission and so on. An outline of the engine control is explained here.

1. Input Signals

(1) Engine coolant temp. signal circuit

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

(2) Intake air temp. signal circuit

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

(3) Oxygen sensor signal circuit

The oxygen density in the exhaust emission is detected and is input as a control signal from the heated oxygen sensors (Bank 1 sensor 1, bank 1 sensor 2) to TERMINALS OX1A, OX1B of the engine control module.

To stabilize detection performance by the heated oxygen sensors, the heated oxygen sensors are warmed. This heater is also controlled by the engine control module (HT1A, HT1B).

(4) RPM signal circuit

Camshaft position is detected by the camshaft position sensor and its signal is input to TERMINAL G2 of the engine control module as a control signal. Also, the engine RPM is detected by the crankshaft position sensor installed in the cylinder block and the signal is input into TERMINAL NE+ of the engine control module as a control signal.

(5) Throttle signal circuit

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

(6) Vehicle speed circuit

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

(7) A/C SW signal circuit

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

(8) Battery signal circuit

Voltage is constantly applied to TERMINAL BATT of the engine control module. With the ignition SW turned on, Voltage for engine control module start-up power supply is applied to TERMINAL +B of the engine control module via the EFI relay.

(9) Intake air volume signal circuit

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

(10) Stop light SW signal circuit

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

(11) Starter signal circuit

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

(12) Engine knock signal circuit

Engine knocking is detected by knock sensor (Bank 1) and the signal is input into TERMINAL KNK1 as a control signal.

2. Control System

* SFI system

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

* ESA system

The ESA system monitors the engine condition through the signals input to the engine control module from each sensor (Input signals from (1), (2), (4) to (12) etc.). The best ignition timing is decided according to this data and the memorized data in the engine control module, and the control signal is output to TERMINALS IGT1, IGT2, IGT3 and IGT4. This signal controls the igniter to provide the best ignition timing for the driving conditions.

* Heated oxygen sensor heater control system

The heated oxygen sensor heater control system turns the heater on when the intake air volume is low (Temp. of exhaust emissions is low), and warms up the heated oxygen sensors (Bank 1 sensor 1, bank 1 sensor 2) to improve detection performance of the sensors.

The engine control module evaluates the signals from each sensor (Input signals from (1), (2), (4), (8) to (10) etc.), and outputs current to TERMINALS HT1A, HT1B to control the heater.

* ACIS

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

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

* MPX

The MPX communicates with the combination meter, as well as body ECU of the multiplex communication system

3. Diagnosis System

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

4. Fail-Safe System

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

Engine Control for 1ZZ-FE

Service Hints

E2 (A), E3 (B), E4 (C), E5 (D) Engine Control Module

BATT-E1 : Always 9.0-14.0 volts
 +B-E1 : 9.0-14.0 volts (Ignition SW at ON position)
 VC-E2 : 4.5-5.5 volts (Ignition SW at ON position)
 VTA-E2 : 0.3-0.8 volts (Ignition SW ON and throttle valve fully closed)
 3.2-4.9 volts (Ignition SW ON and throttle valve open)
 THA-E2 : 0.5-3.4 volts (Ignition SW ON and intake air temp. 20°C, 68°F)
 THW-E2 : 0.2-1.0 volts (Ignition SW ON and coolant temp. 80°C, 176°F)
 STA-E1 : 6.0-14.0 volts (Engine cranking)
 W-E1 : 9.0-14.0 volts (No trouble and engine running)
 STP-E1 : 9.0-14.0 volts (Brake pedal depress)
 IGT1, IGT2, IGT3, IGT4-E1 : 0.8-1.2 volts (Engine cranking or idling)
 #10, #20, #30, #40-E01, E02 : 9.0-14.0 volts (Ignition SW at ON position)

Resistance of ECU Wiring Connectors

(Disconnect wiring connector)

VTA-E2 : 3.3-10.0 kΩ (Throttle valve fully open)
 0.2-0.8 kΩ (Throttle valve fully closed)
 VC-E2 : 3.0-7.0 kΩ
 THA-E2 : 2.0-3.0 kΩ (Intake air temp. 20°C, 68°F)
 THW-E2 : 0.2-0.4 kΩ (Coolant temp. 80°C, 176°F)

C/OPN Relay

5-3 : Closed with the starter cranking and engine running

EFI Relay

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

E6 Engine Coolant Temp. Sensor

1-2 : 10.0-20.0 kΩ (-20°C, -4°F)
 4.0-7.0 kΩ (0°C, 32°F)
 2.0-3.0 kΩ (20°C, 68°F)
 0.9-1.3 kΩ (40°C, 104°F)
 0.4-0.7 kΩ (60°C, 140°F)
 0.2-0.4 kΩ (80°C, 176°F)

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B6	36	G2	32 (1ZZ-FE)	J14	38
C1	32 (1ZZ-FE)	H8	37	K1	33 (1ZZ-FE)
C3	32 (1ZZ-FE)	H9	37	M1	33 (1ZZ-FE)
C4	32 (1ZZ-FE)	I1	33 (1ZZ-FE)	N1	33 (1ZZ-FE)
C6	36	I2	33 (1ZZ-FE)	O2	33 (1ZZ-FE)
C11	36	I3	33 (1ZZ-FE)	P1	33 (1ZZ-FE)
C12	A 36	I4	33 (1ZZ-FE)	P2	33 (1ZZ-FE)
C13	B 36	I5	33 (1ZZ-FE)	S8	37
C18	36	I6	33 (1ZZ-FE)	T1	33 (1ZZ-FE)
D1	36	I7	33 (1ZZ-FE)	V1	33 (1ZZ-FE)
E2	A 32 (1ZZ-FE)	I8	33 (1ZZ-FE)	V3	33 (1ZZ-FE)
E3	B 32 (1ZZ-FE)	I9	33 (1ZZ-FE)	V4	33 (1ZZ-FE)
E4	C 32 (1ZZ-FE)	I10	37	V5	33 (1ZZ-FE)
E5	D 32 (1ZZ-FE)	J1	33 (1ZZ-FE)	V6	39
E6	32 (1ZZ-FE)	J2	33 (1ZZ-FE)	V7	39
F17	38	J3	37		

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	26	Engine Room R/B No.1 (Engine Compartment Left)

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IB	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IC		
IF	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IH		
IK		
IM		
IN	25	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)
2A	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2B		
2C		
2F	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2G		
2H		

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	40 (1ZZ-FE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B No.1)
EA2		
EB1	40 (1ZZ-FE)	Engine No.4 Wire and Engine Wire (Under the Intake Manifold)
IC1	44	Instrument Panel Wire and Instrument Panel No.2 Wire (Instrument Panel Reinforcement LH)
IE1	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IE3		
IE4		
IE5		
II2	46	Engine Room Main Wire and Floor Wire (Instrument Panel Brace LH)

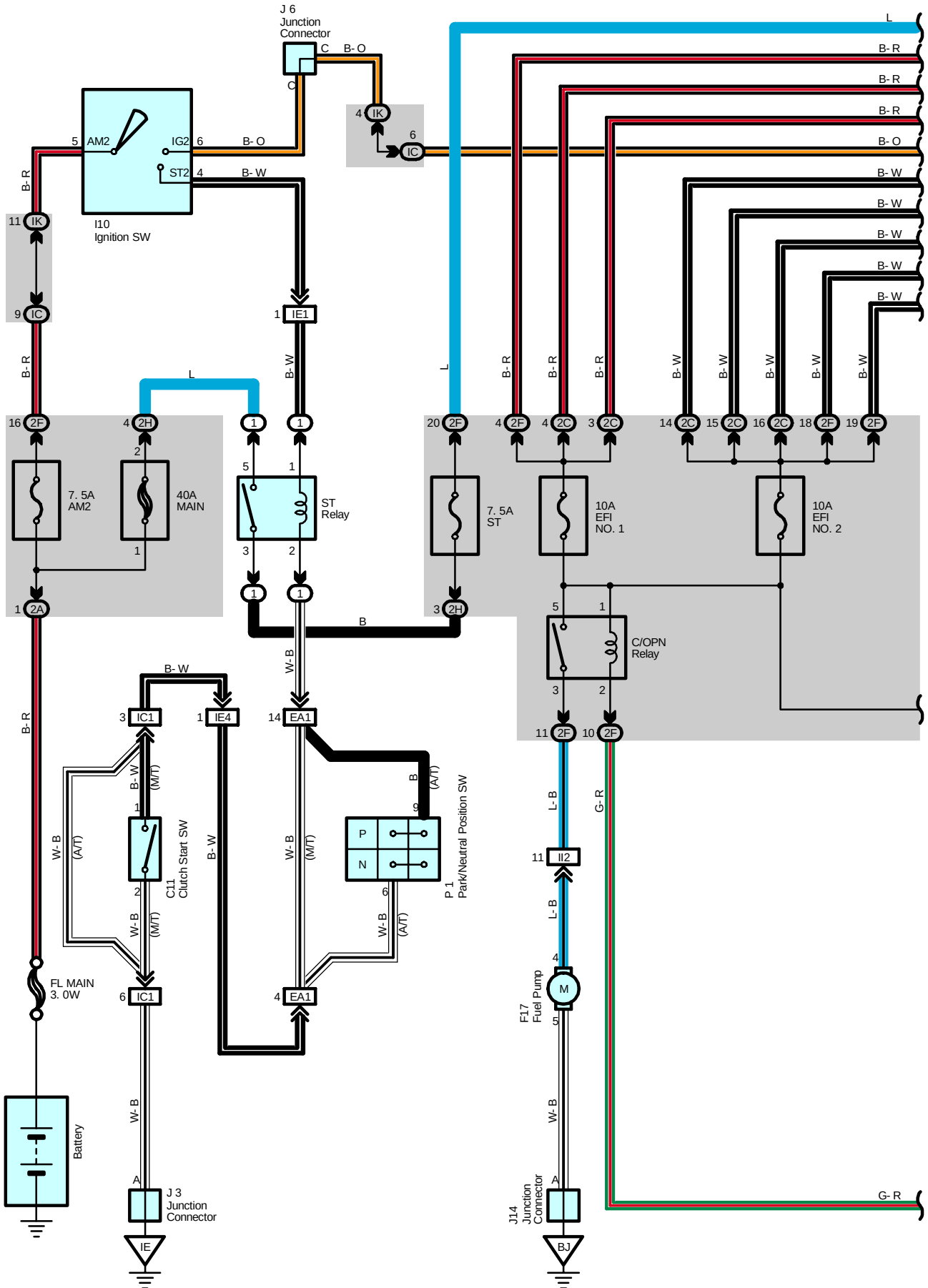
 : GROUND POINTS

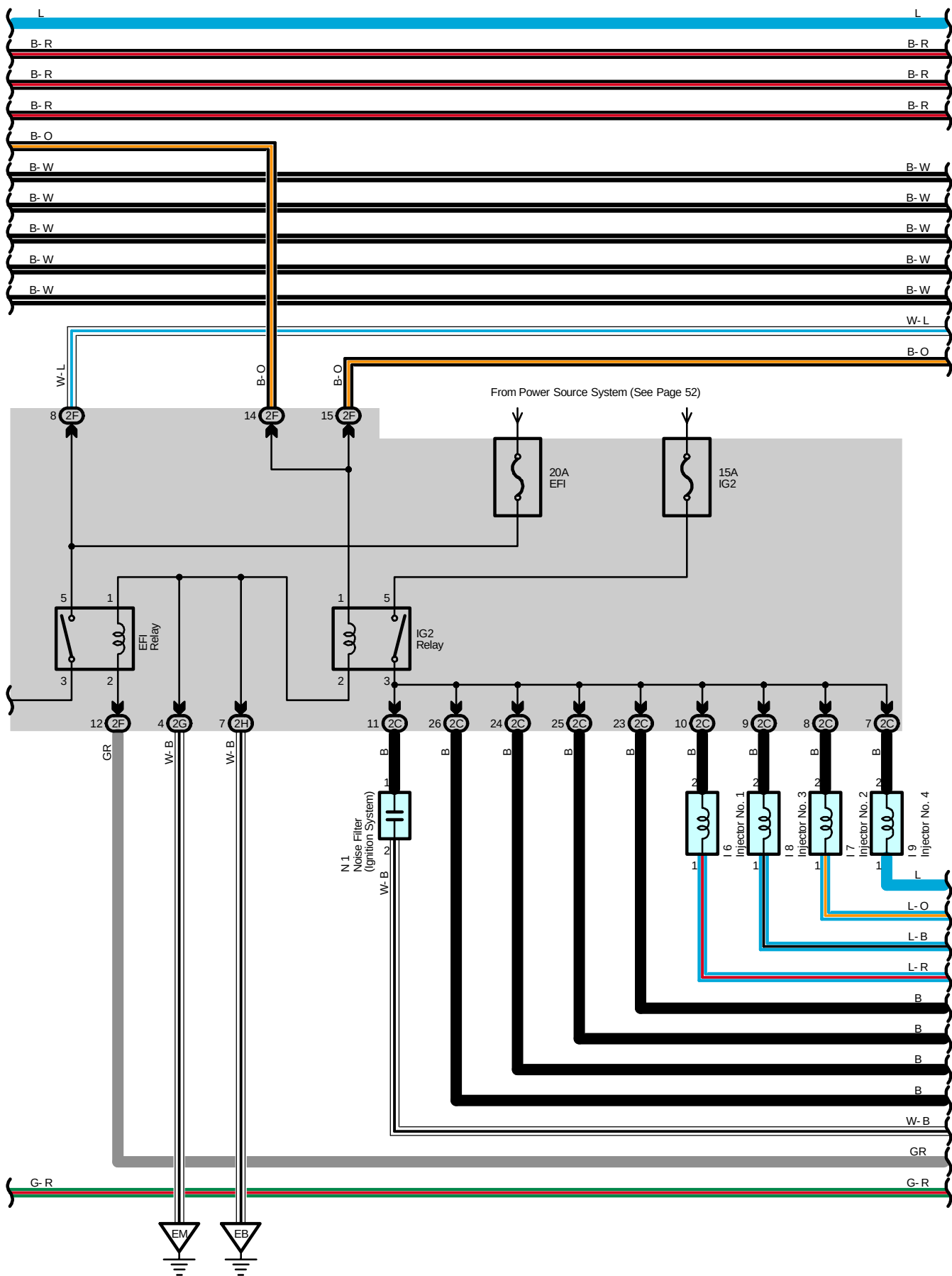
Code	See Page	Ground Points Location
EB	40 (1ZZ-FE)	Front Left Fender
EC	40 (1ZZ-FE)	Cylinder Head Cover LH
ED		
EM	40 (1ZZ-FE)	Front Left Fender
IE	44	Cowl Side Panel LH
IH	44	Cowl Side Panel RH
BJ	48	Luggage Room Left

 : SPLICE POINTS

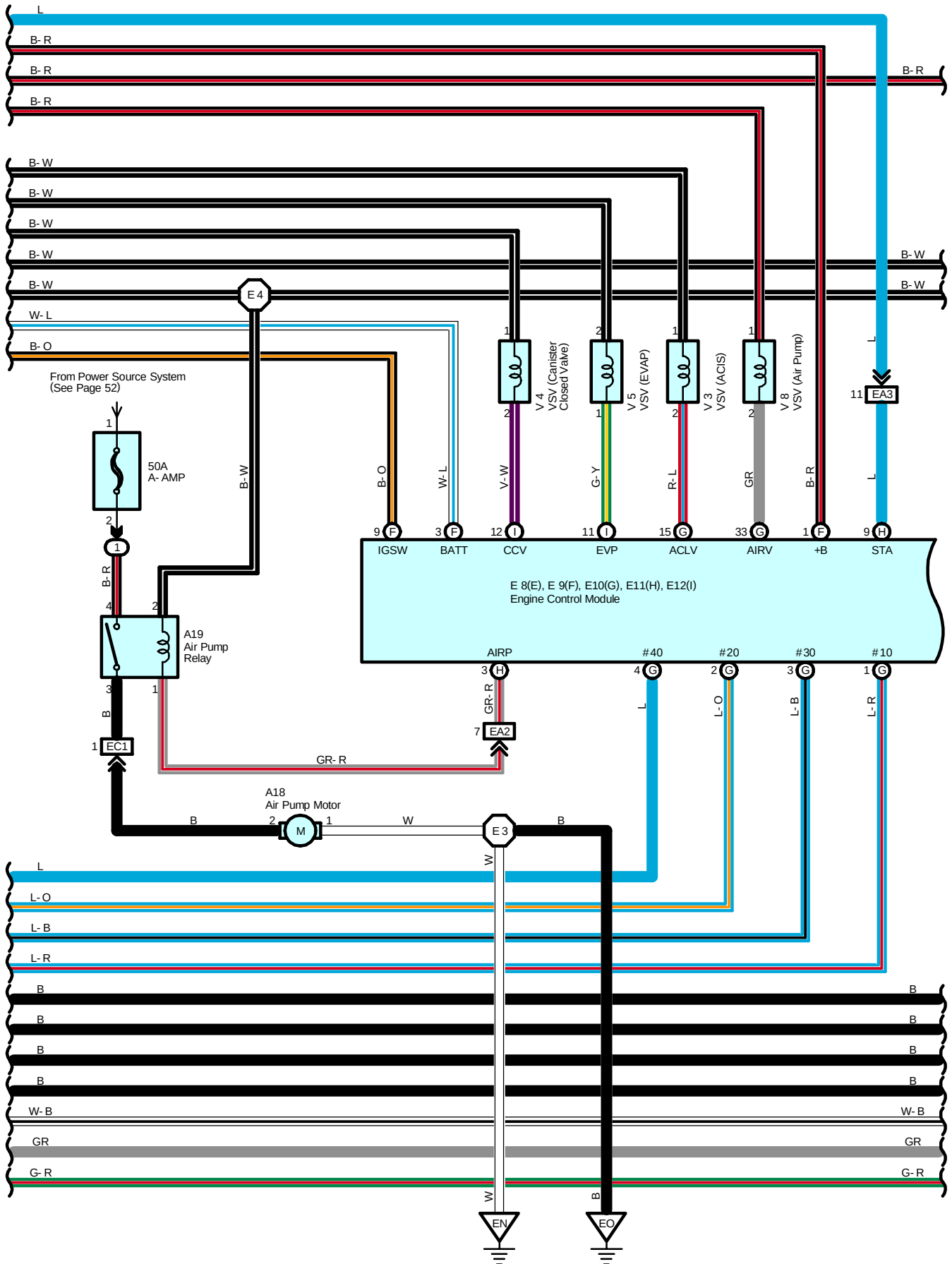
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	40 (1ZZ-FE)	Engine Room Main Wire	E2	40 (1ZZ-FE)	Engine Wire

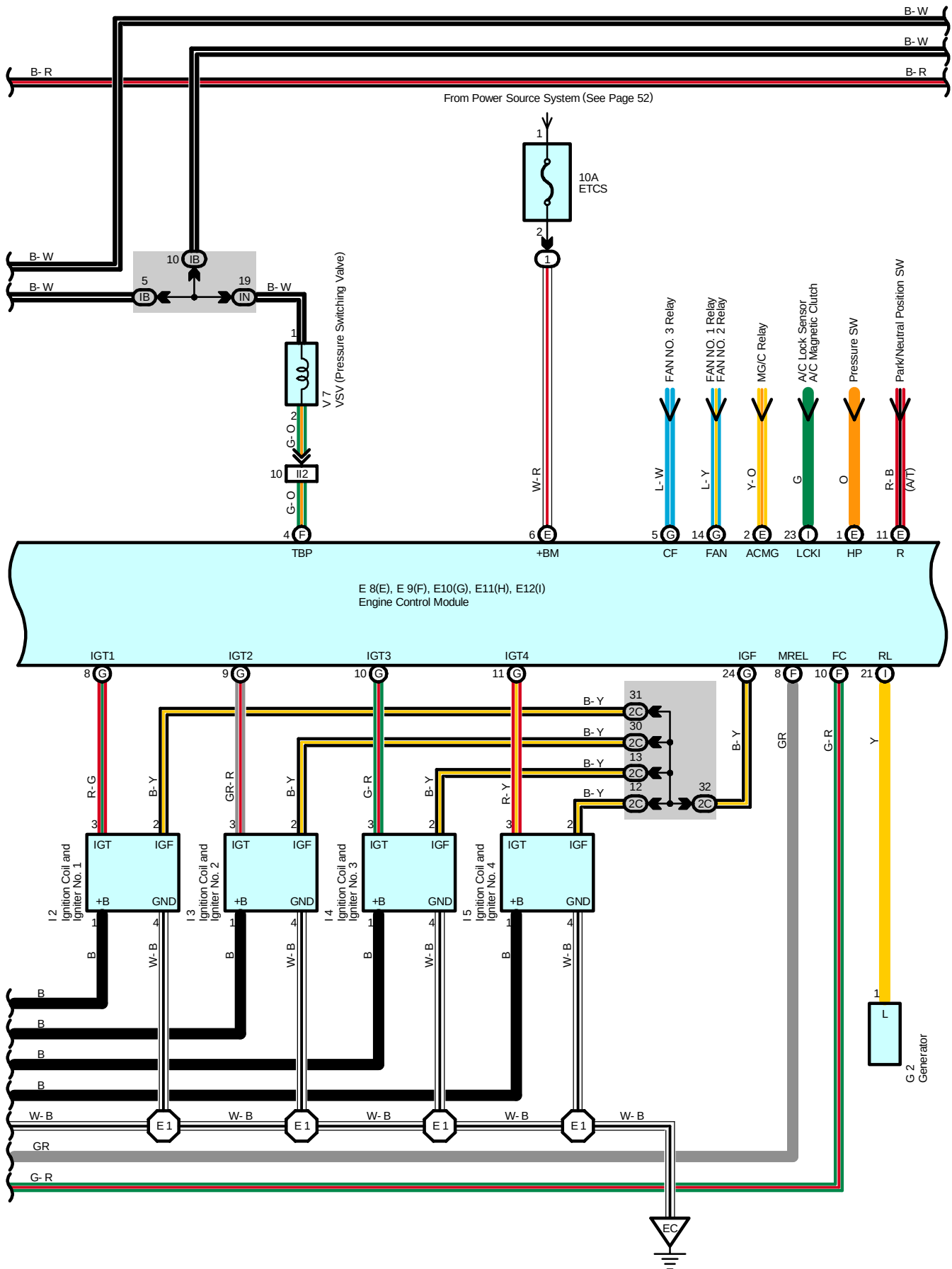
Engine Control for 2ZZ-GE



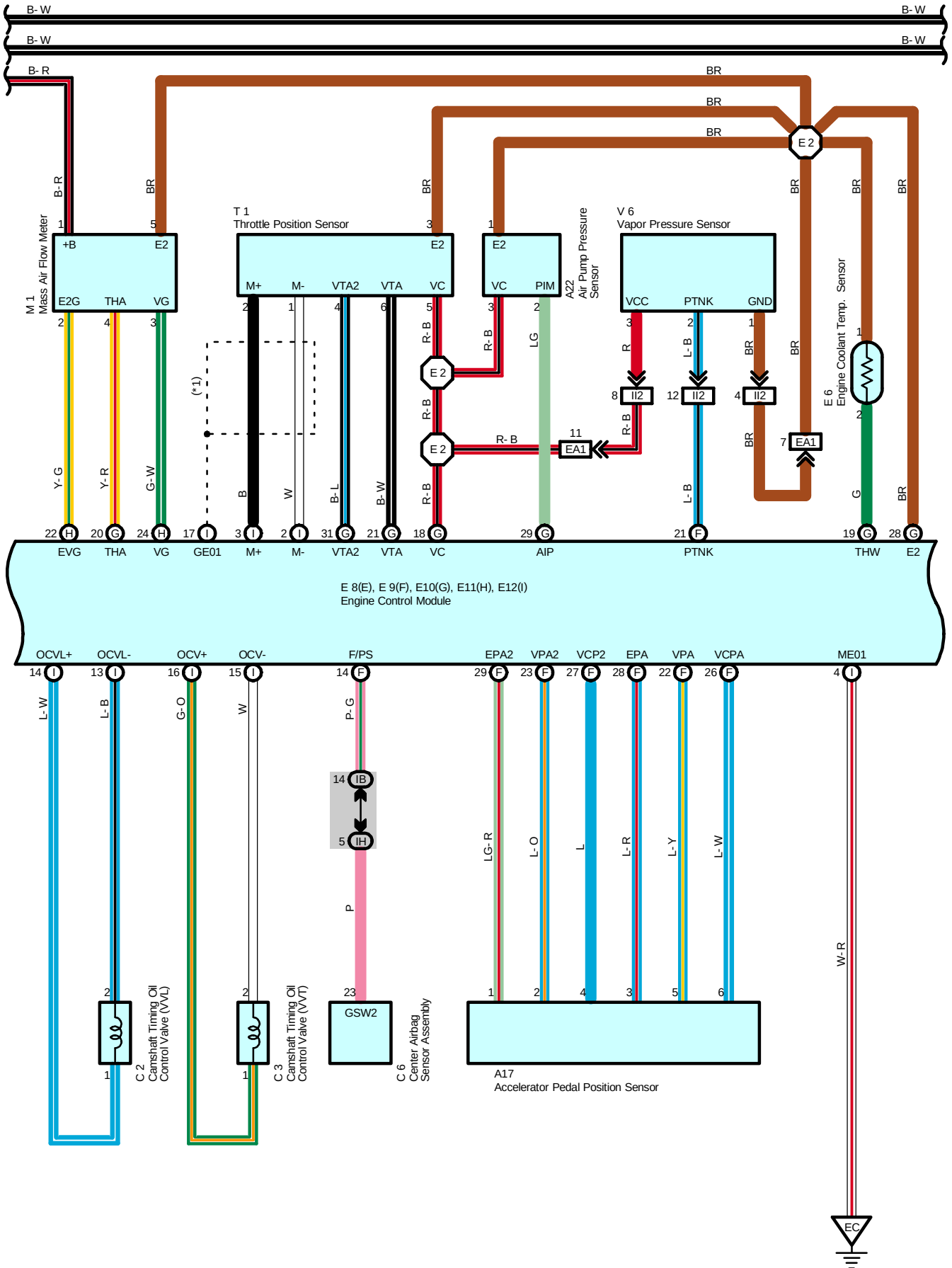


Engine Control for 2ZZ-GE

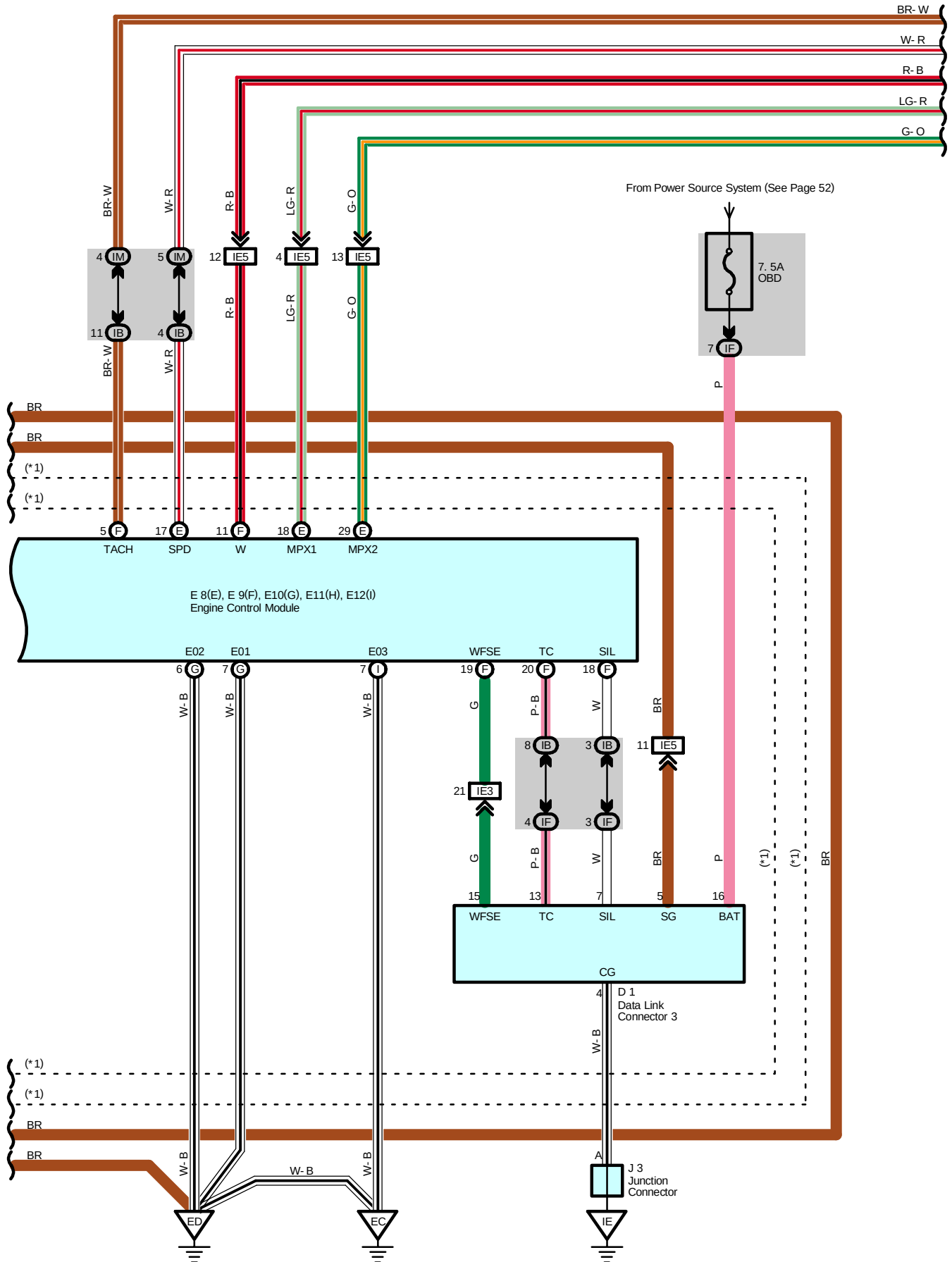


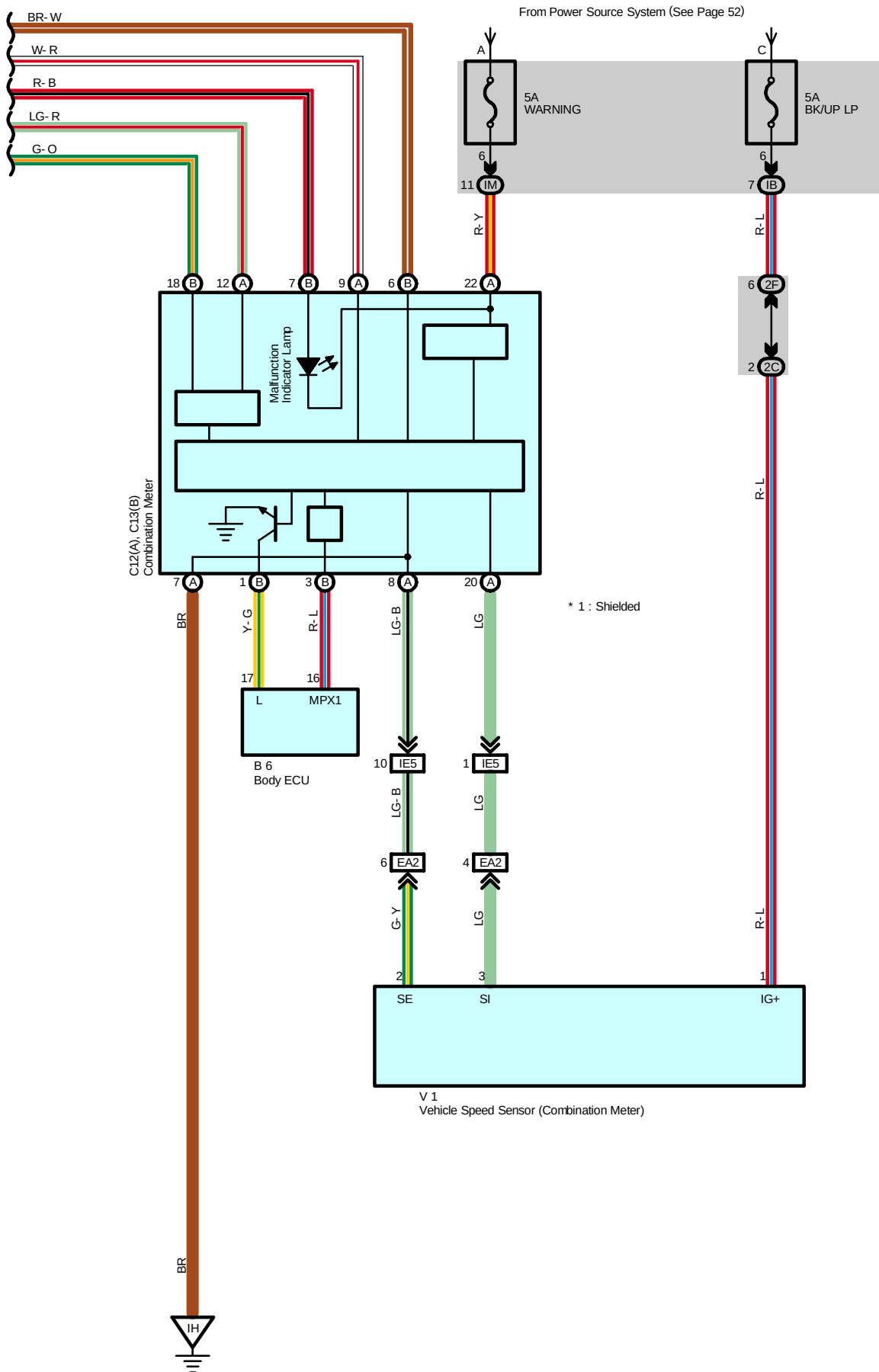


Engine Control for 2ZZ-GE



Engine Control for 2ZZ-GE





System Outline

This system utilizes an engine control module and maintains overall control of the engine, transmission and so on. An outline of the engine control is explained here.

1. Input Signals

(1) Engine coolant temp. signal circuit

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

(2) Intake air temp. signal circuit

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

(3) Oxygen sensor signal circuit

The oxygen density in the exhaust emission is detected and is input as a control signal from the heated oxygen sensors (Bank 1 sensor 1, bank 1 sensor 2) to TERMINALS OX1A, OX1B of the engine control module.

To stabilize detection performance by the heated oxygen sensors, the heated oxygen sensors are warmed. This heater is also controlled by the engine control module (HT1A, HT1B).

(4) RPM signal circuit

Camshaft position is detected by the camshaft position sensor and its signal is input to TERMINAL G2 of the engine control module as a control signal. Also, the engine RPM is detected by the crankshaft position sensor installed in the cylinder block and the signal is input into TERMINAL NE+ of the engine control module as a control signal.

(5) Throttle signal circuit

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

(6) Vehicle speed circuit

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

(7) A/C SW signal circuit

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

(8) Battery signal circuit

Voltage is constantly applied to TERMINAL BATT of the engine control module. With the ignition SW turned on, Voltage for engine control module start-up power supply is applied to TERMINAL +B of the engine control module via the EFI relay.

(9) Intake air volume signal circuit

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

(10) Stop light SW signal circuit

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

(11) Starter signal circuit

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

(12) Engine knock signal circuit

Engine knocking is detected by knock sensor (Bank 1) and the signal is input into TERMINAL KNK1 as a control signal.

2. Control System

* SFI system

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

* ESA system

The ESA system monitors the engine condition through the signals input to the engine control module from each sensor (Input signals from (1), (2), (4) to (12) etc.). The best ignition timing is decided according to this data and the memorized data in the engine control module, and the control signal is output to TERMINALS IGT1, IGT2, IGT3 and IGT4. This signal controls the igniter to provide the best ignition timing for the driving conditions.

* Heated oxygen sensor heater control system

The heated oxygen sensor heater control system turns the heater on when the intake air volume is low (Temp. of exhaust emissions is low), and warms up the heated oxygen sensors (Bank 1 sensor 1, bank 1 sensor 2) to improve detection performance of the sensors.

The engine control module evaluates the signals from each sensor (Input signals from (1), (2), (4), (8) to (10) etc.), and outputs current to TERMINALS HT1A, HT1B to control the heater.

* ACIS

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

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

* MPX

The MPX communicates with the combination meter, as well as body ECU of the multiplex communication system

3. Diagnosis System

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

4. Fail-Safe System

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

Engine Control for 2ZZ-GE

Service Hints

E8 (E), E9 (F), E10 (G), E11 (H), E12 (I) Engine Control Module

BATT-E1 : Always 9.0-14.0 volts
 +B-E1 : 9.0-14.0 volts (Ignition SW at ON position)
 VC-E2 : 4.5-5.5 volts (Ignition SW at ON position)
 VTA-E2 : 0.3-0.8 volts (Ignition SW ON and throttle valve fully closed)
 3.2-4.9 volts (Ignition SW ON and throttle valve open)
 THA-E2 : 0.5-3.4 volts (Ignition SW ON and intake air temp. 20°C, 68°F)
 THW-E2 : 0.2-1.0 volts (Ignition SW ON and coolant temp. 80°C, 176°F)
 STA-E1 : 6.0-14.0 volts (Engine cranking)
 W-E1 : 9.0-14.0 volts (No trouble and engine running)
 STP-E1 : 9.0-14.0 volts (Brake pedal depress)
 IGT1, IGT2, IGT3, IGT4-E1 : 0.8-1.2 volts (Engine cranking or idling)
 #10, #20, #30, #40-E01, E02 : 9.0-14.0 volts (Ignition SW at ON position)

Resistance of ECU Wiring Connectors

(Disconnect wiring connector)

VTA-E2 : 3.3-10.0 kΩ (Throttle valve fully open)
 0.2-0.8 kΩ (Throttle valve fully closed)
 VC-E2 : 3.0-7.0 kΩ
 THA-E2 : 2.0-3.0 kΩ (Intake air temp. 20°C, 68°F)
 THW-E2 : 0.2-0.4 kΩ (Coolant temp. 80°C, 176°F)

C/OPN Relay

5-3 : Closed with the starter cranking and engine running

EFI Relay

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

E6 Engine Coolant Temp. Sensor

1-2 : 10.0-20.0 kΩ (-20°C, -4°F)
 4.0-7.0 kΩ (0°C, 32°F)
 2.0-3.0 kΩ (20°C, 68°F)
 0.9-1.3 kΩ (40°C, 104°F)
 0.4-0.7 kΩ (60°C, 140°F)
 0.2-0.4 kΩ (80°C, 176°F)

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A17	36	E10	G 34 (2ZZ-GE)	J6	37
A18	34 (2ZZ-GE)	E11	H 34 (2ZZ-GE)	J14	38
A19	34 (2ZZ-GE)	E12	I 34 (2ZZ-GE)	K1	35 (2ZZ-GE)
A22	34 (2ZZ-GE)	F17	38	M1	35 (2ZZ-GE)
B6	36	G2	34 (2ZZ-GE)	N1	35 (2ZZ-GE)
C1	34 (2ZZ-GE)	H8	37	O2	35 (2ZZ-GE)
C2	34 (2ZZ-GE)	H9	37	P1	35 (2ZZ-GE)
C3	34 (2ZZ-GE)	I2	35 (2ZZ-GE)	P2	35 (2ZZ-GE)
C4	34 (2ZZ-GE)	I3	35 (2ZZ-GE)	S8	37
C6	36	I4	35 (2ZZ-GE)	T1	35 (2ZZ-GE)
C11	36	I5	35 (2ZZ-GE)	V1	35 (2ZZ-GE)
C12	A 36	I6	35 (2ZZ-GE)	V3	35 (2ZZ-GE)
C13	B 36	I7	35 (2ZZ-GE)	V4	35 (2ZZ-GE)
D1	36	I8	35 (2ZZ-GE)	V5	35 (2ZZ-GE)
E6	34 (2ZZ-GE)	I9	35 (2ZZ-GE)	V6	39
E7	34 (2ZZ-GE)	I10	37	V7	39
E8	E 34 (2ZZ-GE)	J1	35 (2ZZ-GE)	V8	35 (2ZZ-GE)
E9	F 34 (2ZZ-GE)	J3	37		

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	26	Engine Room R/B No.1 (Engine Compartment Left)

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IB	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IC		
IF	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IH		
IK		
IM		
IN	25	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)
2A	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2B		
2C		
2F	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2G		
2H		

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	42 (2ZZ-GE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B No.1)
EA2		
EA3		
EC1	42 (2ZZ-GE)	Engine Room Main Wire and Engine Wire (Inside of Engine Room R/B No.1)
IC1	44	Instrument Panel Wire and Instrument Panel No.2 Wire (Instrument Panel Reinforcement LH)
IE1	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IE3		
IE4		
IE5		
II2	46	Engine Room Main Wire and Floor Wire (Instrument Panel Brace LH)

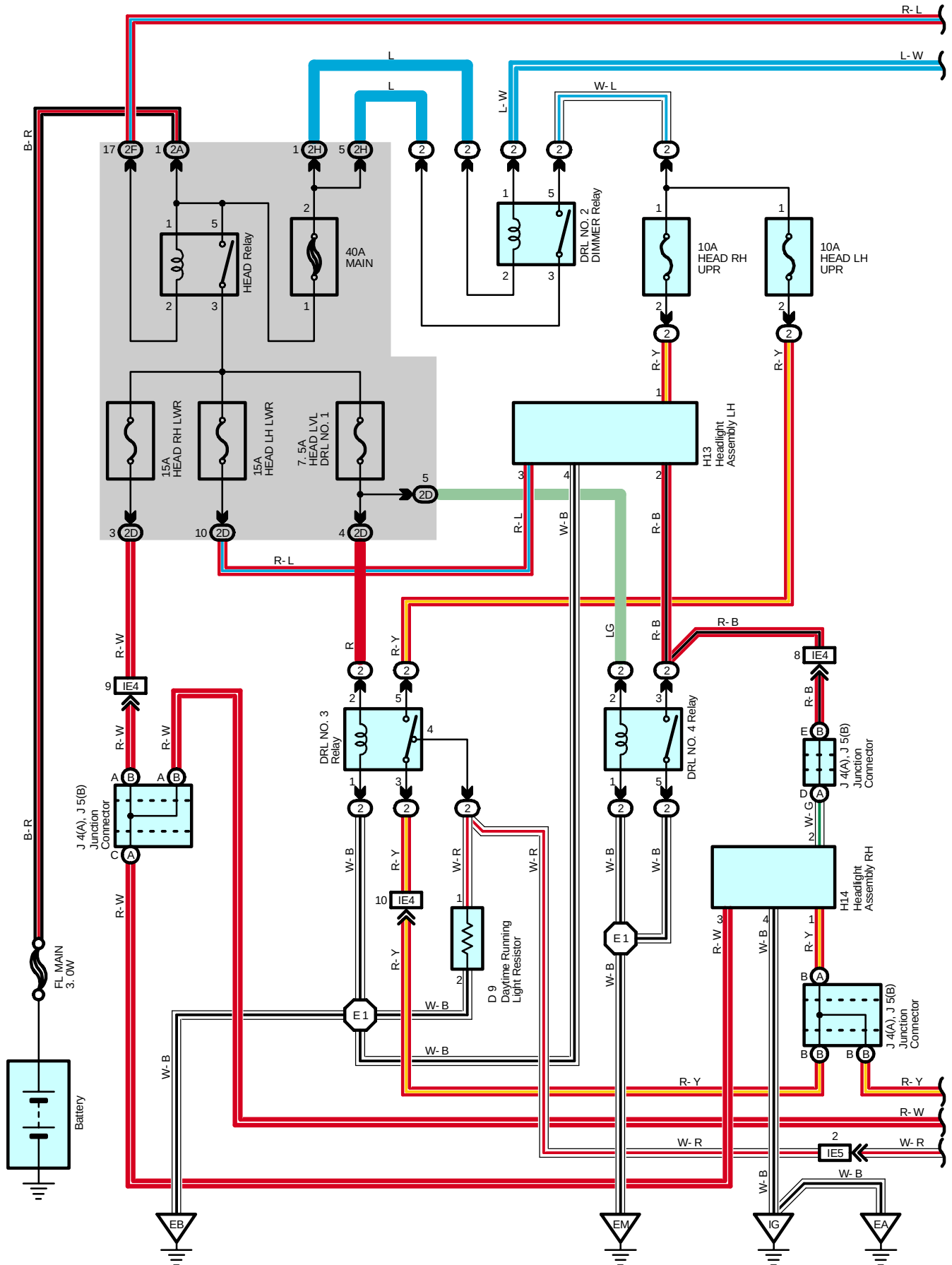
 : GROUND POINTS

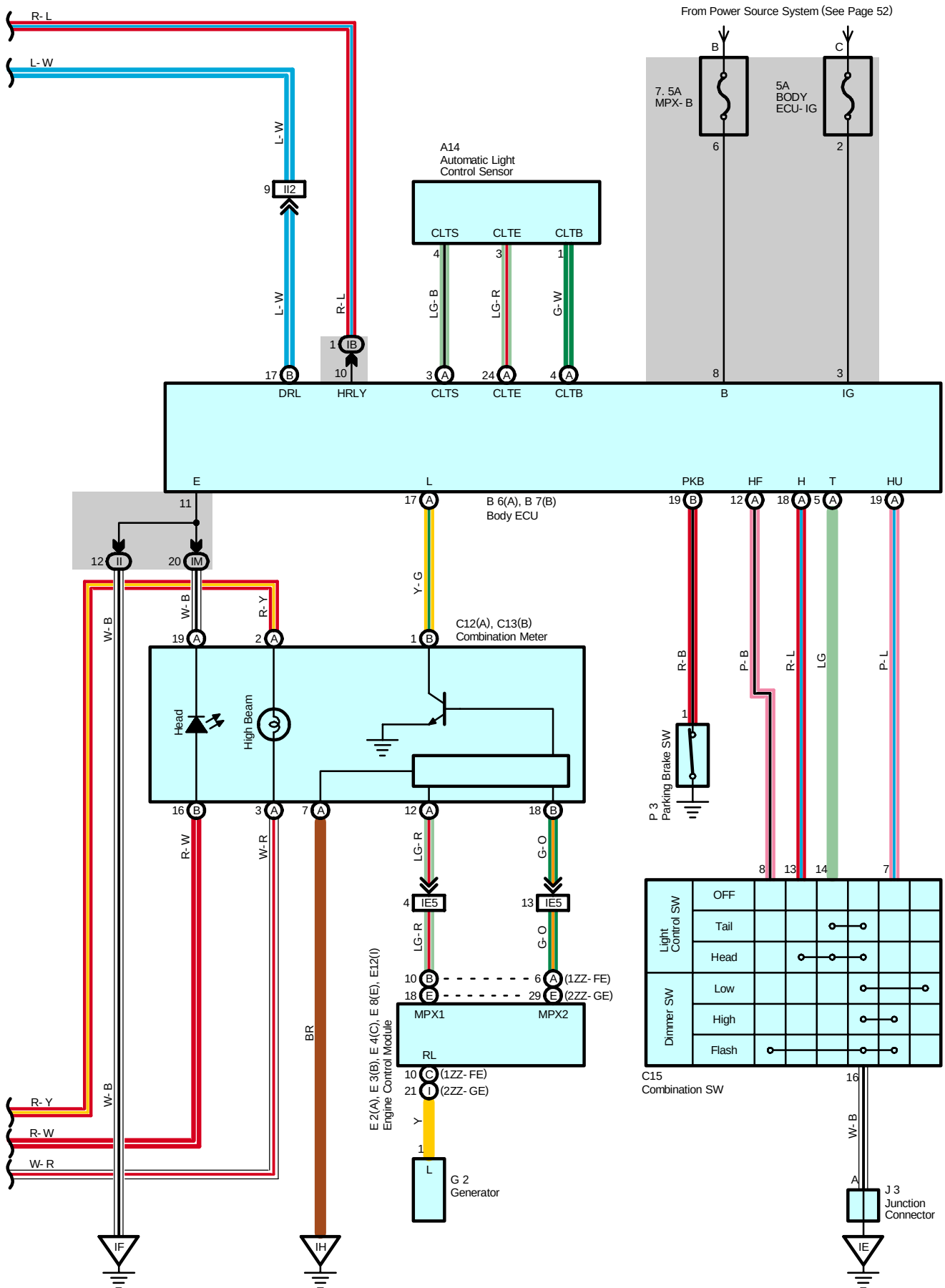
Code	See Page	Ground Points Location
EB	42 (2ZZ-GE)	Front Left Fender
EC	42 (2ZZ-GE)	Cylinder Head Cover LH
ED		
EM	42 (2ZZ-GE)	Front Left Fender
EN	42 (2ZZ-GE)	Air Pump Bracket
EO	42 (2ZZ-GE)	Engine Mount Brace RH
IE	44	Cowl Side Panel LH
IH	44	Cowl Side Panel RH
BJ	48	Luggage Room Left

 : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	42 (2ZZ-GE)	Engine Room Main Wire	E3	42 (2ZZ-GE)	Engine Wire
E2	42 (2ZZ-GE)	Engine Wire	E4	42 (2ZZ-GE)	Engine Room Main Wire

Headlight with HID





Headlight with HID

System Outline

When the following conditions are met while the ignition SW is ON, and if the light control SW is at OFF or TAIL position, the daytime running light is controlled.

- * Parking brake lever is released (Parking brake SW is OFF)
- * Input signal from the generator

If any of the following conditions are met, the daytime running light control is canceled.

- * Ignition SW is turned OFF.
- * Light control SW is at HEAD position.

Service Hints

HEAD Relay

- 5-3 : Closed with the light control SW at HEAD position or the dimmer SW at FLASH position
- Closed with the engine running and the parking brake lever released (Parking brake SW off)

C15 Combination SW

- 13-16 : Closed with the light control SW at HEAD position
- 8-16 : Closed with the dimmer SW at FLASH position
- 7-16 : Closed with the dimmer SW at FLASH or HIGH position

P3 Parking Brake SW

- 1-Ground : Closed with the parking brake lever pulled up

○ : PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
A14		36	E2	A	32 (1ZZ-FE)	H13		34 (2ZZ-GE)
B6	A	36	E3	B	32 (1ZZ-FE)	H14		32 (1ZZ-FE)
B7	B	36	E4	C	32 (1ZZ-FE)			34 (2ZZ-GE)
C12	A	36	E8	E	34 (2ZZ-GE)	J3		37
C13	B	36	E12	I	34 (2ZZ-GE)	J4	A	37
C15		36	G2		32 (1ZZ-FE)	J5	B	37
D9		32 (1ZZ-FE)			34 (2ZZ-GE)	P3		37
		34 (2ZZ-GE)	H13	32 (1ZZ-FE)				

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
2	27	Engine Room R/B No.2 (Engine Compartment Left)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IB	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
II	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IM		
2A	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2D	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2F		
2H		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE4	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IE5		
II2	46	Engine Room Main Wire and Floor Wire (Instrument Panel Brace LH)

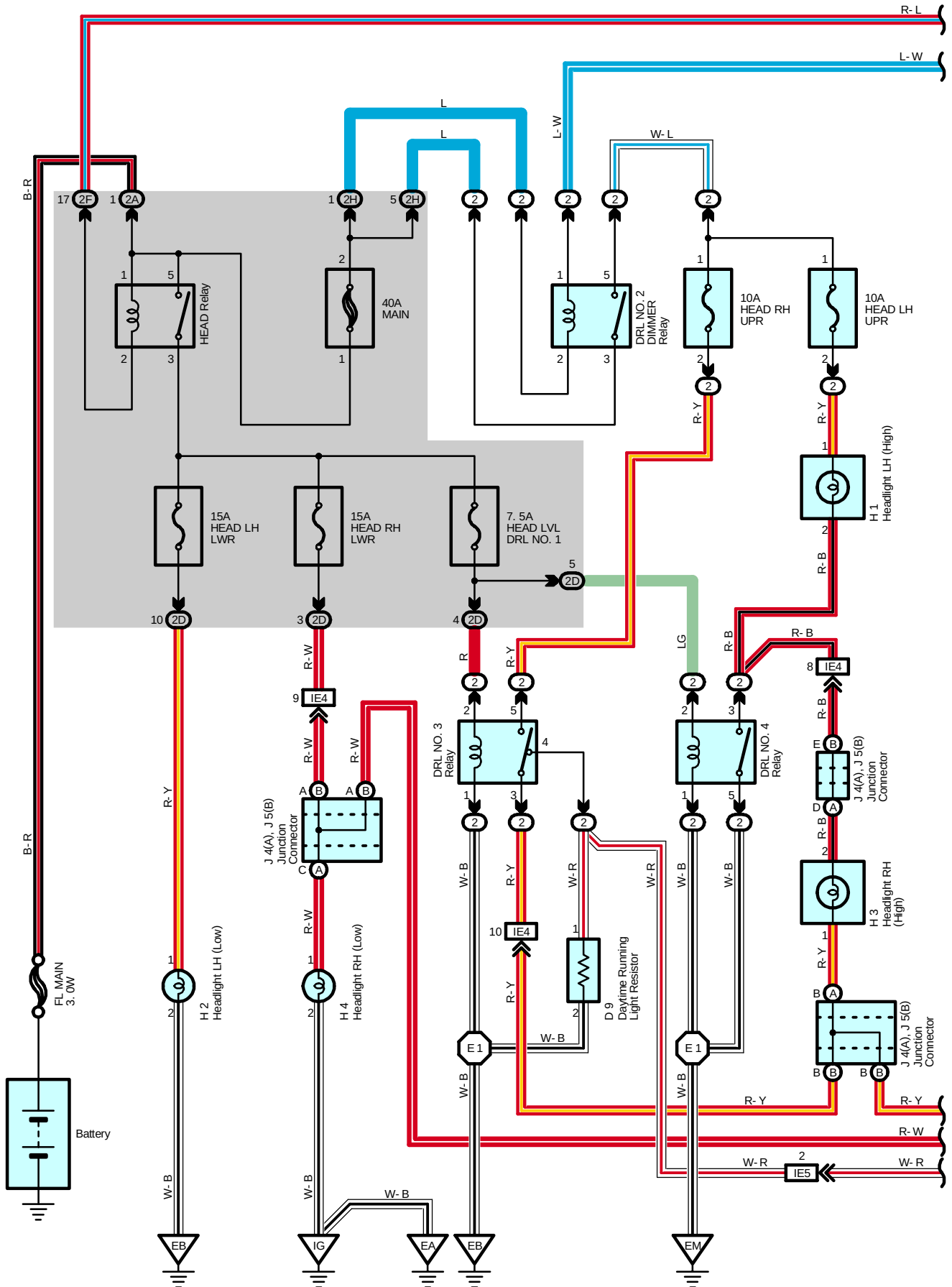
**: GROUND POINTS**

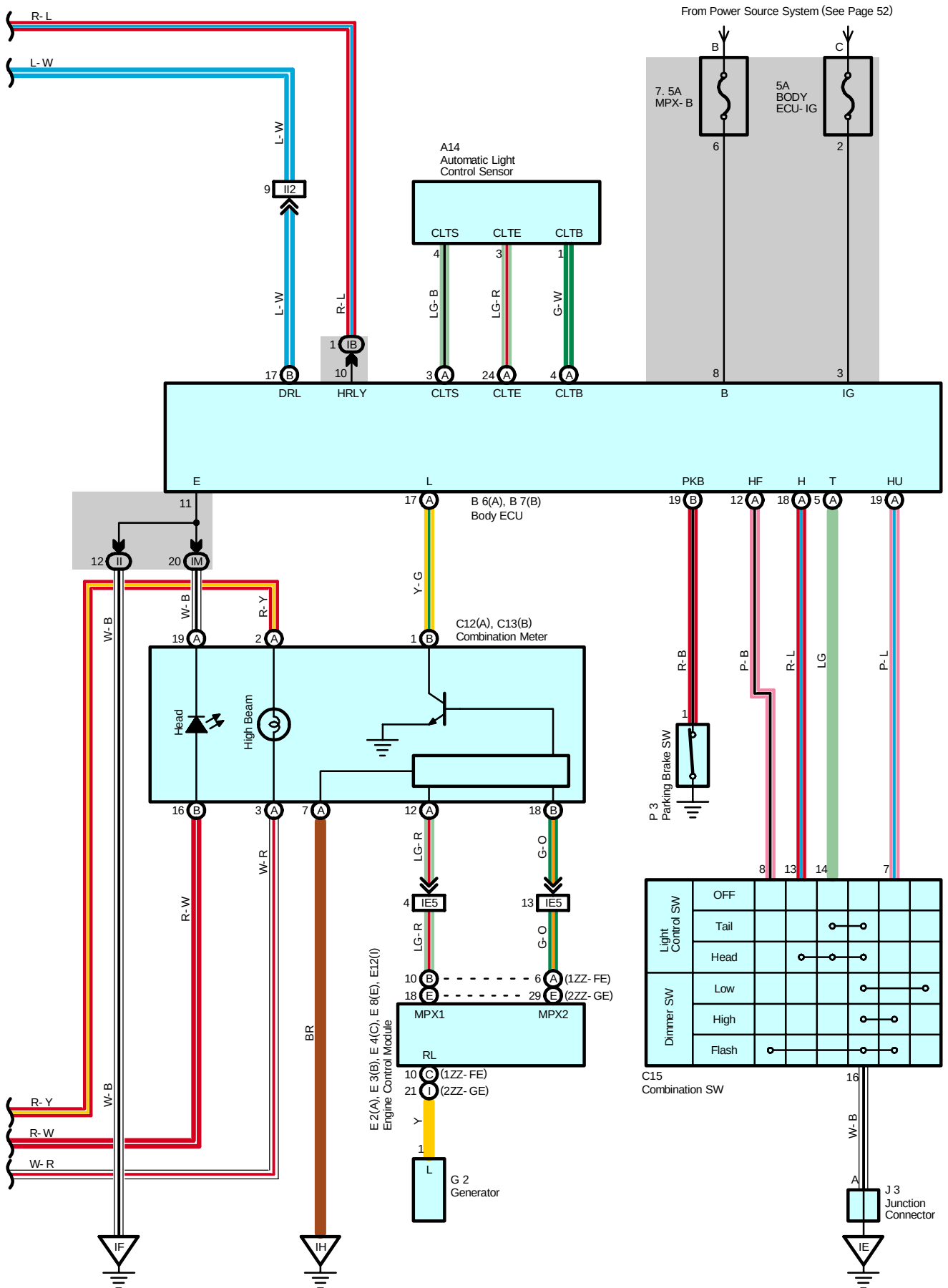
Code	See Page	Ground Points Location
EA	40 (1ZZ-FE)	Front Right Fender
	42 (2ZZ-GE)	
EB	40 (1ZZ-FE)	Front Left Fender
	42 (2ZZ-GE)	
EM	40 (1ZZ-FE)	
	42 (2ZZ-GE)	
IE	44	Cowl Side Panel LH
IF	44	Instrument Panel Brace RH
IG	44	Cowl Side Panel RH
IH		

**: SPLICE POINTS**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	40 (1ZZ-FE)	Engine Room Main Wire	I4	46	Engine Room No.2 Wire
	42 (2ZZ-GE)				

Headlight without HID





Headlight without HID

System Outline

When the following conditions are met while the ignition SW is ON, and if the light control SW is at OFF or TAIL position, the daytime running light is controlled.

- * Parking brake lever is released (Parking brake SW is OFF)
- * Input signal from the generator

If any of the following conditions are met, the daytime running light control is canceled.

- * Ignition SW is turned OFF.
- * Light control SW is at HEAD position.

Service Hints

HEAD Relay

- 5-3 : Closed with the light control SW at HEAD position or the dimmer SW at FLASH position
- Closed with the engine running and the parking brake lever released (Parking brake SW off)

C15 Combination SW

- 13-16 : Closed with the light control SW at HEAD position
- 8-16 : Closed with the dimmer SW at FLASH position
- 7-16 : Closed with the dimmer SW at FLASH or HIGH position

P3 Parking Brake SW

- 1-Ground : Closed with the parking brake lever pulled up

○ : PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
A14		36	E3	B	32 (1ZZ-FE)	H2		34 (2ZZ-GE)
B6	A	36	E4	C	32 (1ZZ-FE)	H3		32 (1ZZ-FE)
B7	B	36	E8	E	34 (2ZZ-GE)			34 (2ZZ-GE)
C12	A	36	E12	I	34 (2ZZ-GE)	H4		32 (1ZZ-FE)
C13	B	36	G2		32 (1ZZ-FE)			34 (2ZZ-GE)
C15		36			34 (2ZZ-GE)	J3		37
D9		32 (1ZZ-FE)	H1		32 (1ZZ-FE)	J4	A	37
		34 (2ZZ-GE)			34 (2ZZ-GE)	J5	B	37
E2	A	32 (1ZZ-FE)	H2		32 (1ZZ-FE)	P3		37

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
2	27	Engine Room R/B No.2 (Engine Compartment Left)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IB	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
II	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IM		
2A	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2D	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2F		
2H		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

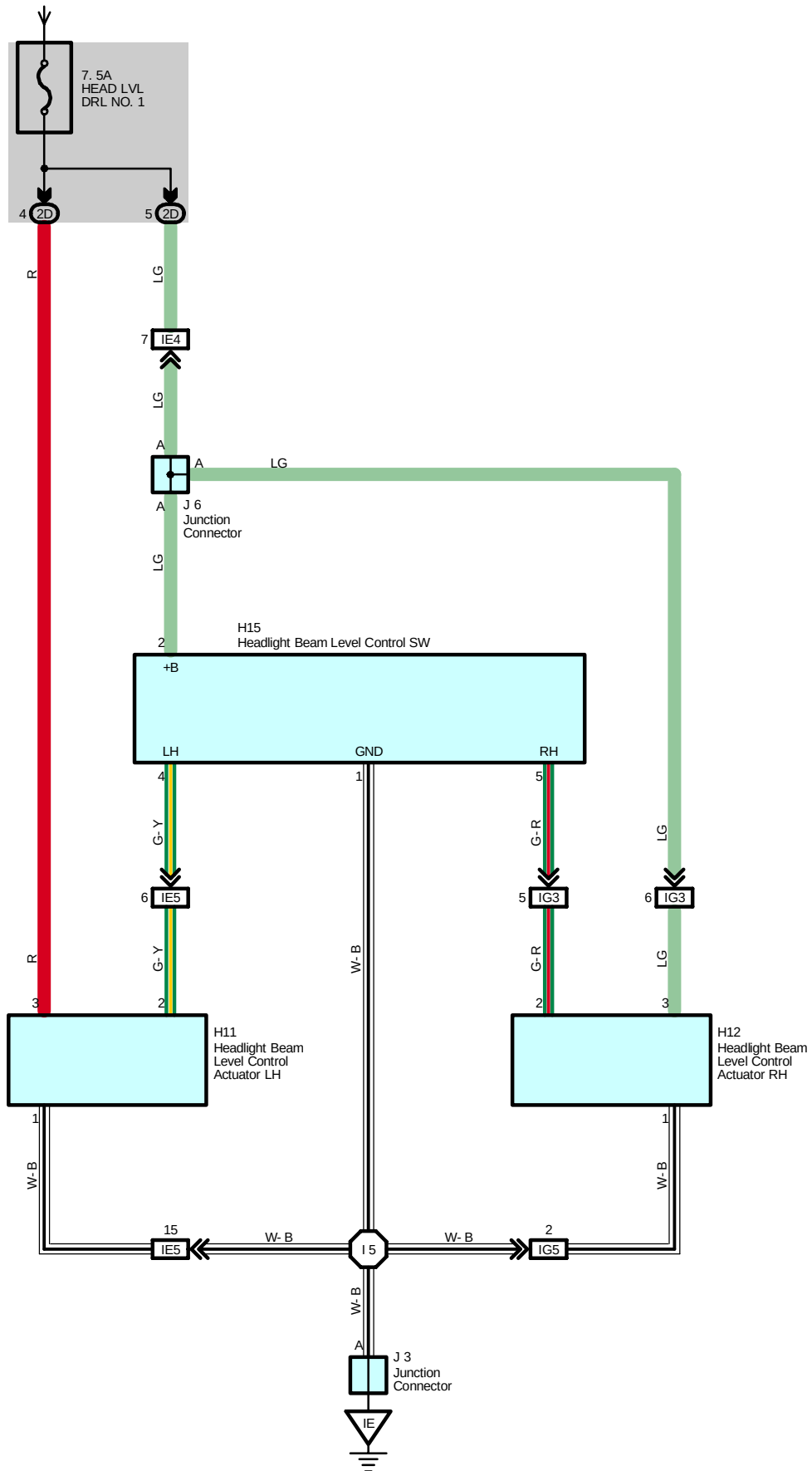
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE4	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IE5		
II2	46	Engine Room Main Wire and Floor Wire (Instrument Panel Brace LH)

**: GROUND POINTS**

Code	See Page	Ground Points Location
EA	40 (1ZZ-FE)	Front Right Fender
	42 (2ZZ-GE)	
EB	40 (1ZZ-FE)	Front Left Fender
	42 (2ZZ-GE)	
EM	40 (1ZZ-FE)	
	42 (2ZZ-GE)	
IE	44	Cowl Side Panel LH
IF	44	Instrument Panel Brace RH
IG	44	Cowl Side Panel RH
IH		

**: SPLICE POINTS**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	40 (1ZZ-FE)	Engine Room Main Wire	E1	42 (2ZZ-GE)	Engine Room Main Wire



Service Hints

H15 Headlight Beam Level Control SW

2-Ground : Always approx. 12 volts

1-Ground : Always continuity

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
H11	32 (1ZZ-FE)	H12	34 (2ZZ-GE)	J6	37
	34 (2ZZ-GE)	H15	37		
H12	32 (1ZZ-FE)	J3	37		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
2D	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE4	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IE5		
IG3	46	Engine Room No.2 Wire and Instrument Panel Wire (Right Kick Panel)
IG5		

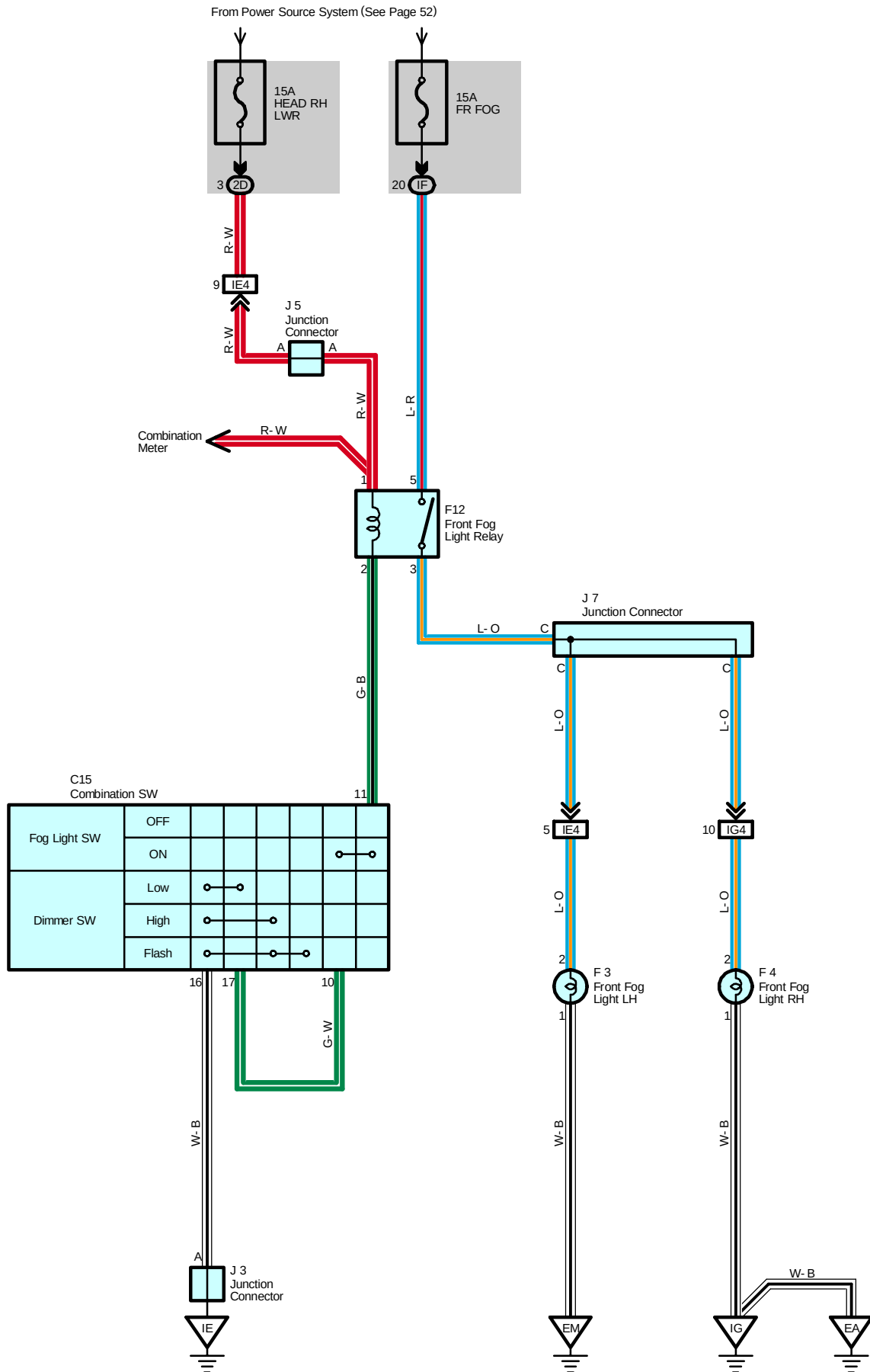
▽ : GROUND POINTS

Code	See Page	Ground Points Location
IE	44	Cowl Side Panel LH

○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I5	46	Instrument Panel Wire			

Fog Light



Service Hints

F12 Front Fog Light Relay

5-3 : Closed with the dimmer SW at LOW position and the fog light SW at ON position

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C15	36	F4	32 (1ZZ-FE)	J3	37
F3	32 (1ZZ-FE)		34 (2ZZ-GE)	J5	37
	34 (2ZZ-GE)	F12	36	J7	37

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

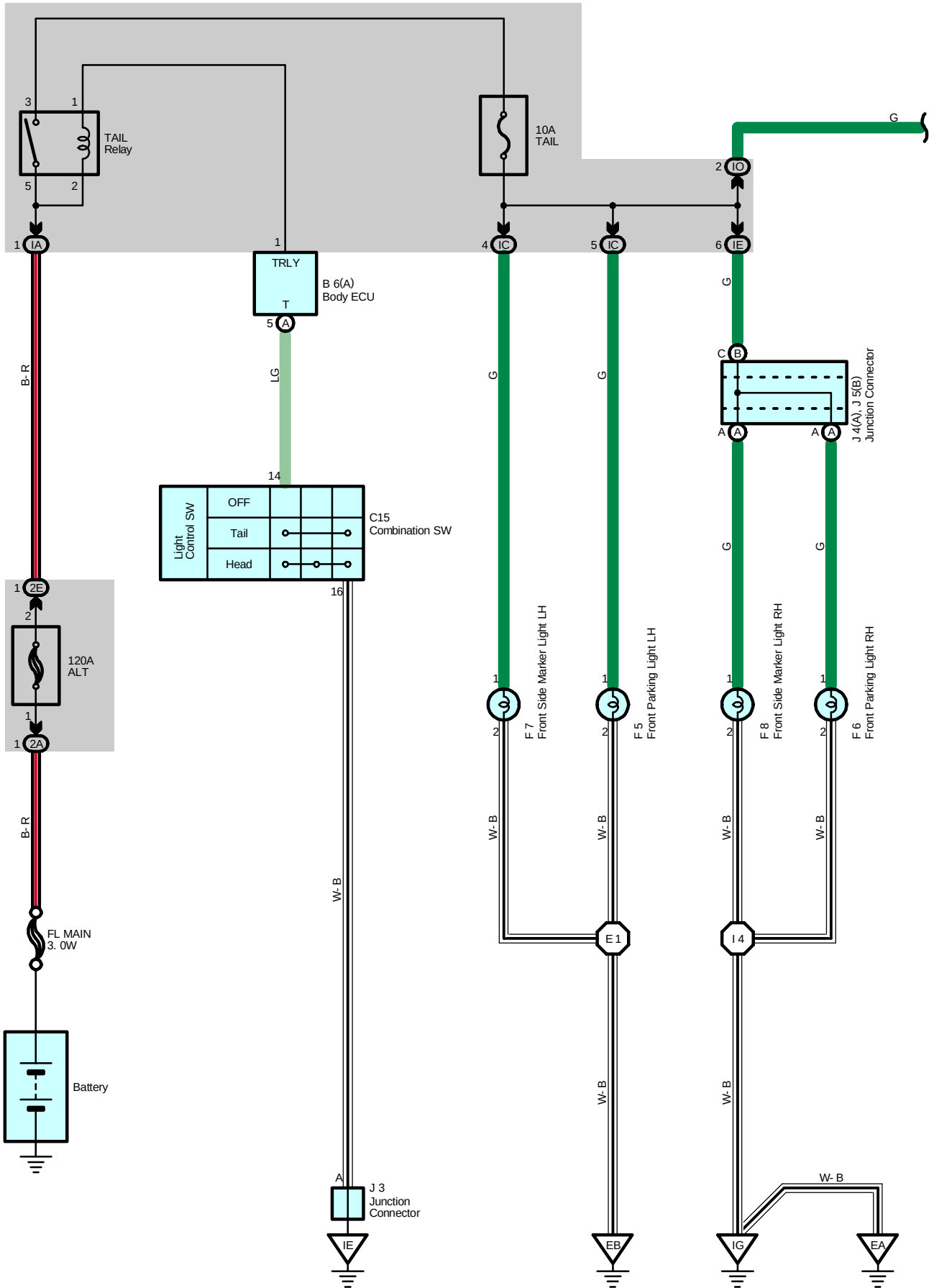
Code	See Page	Junction Block and Wire Harness (Connector Location)
IF	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
2D	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)

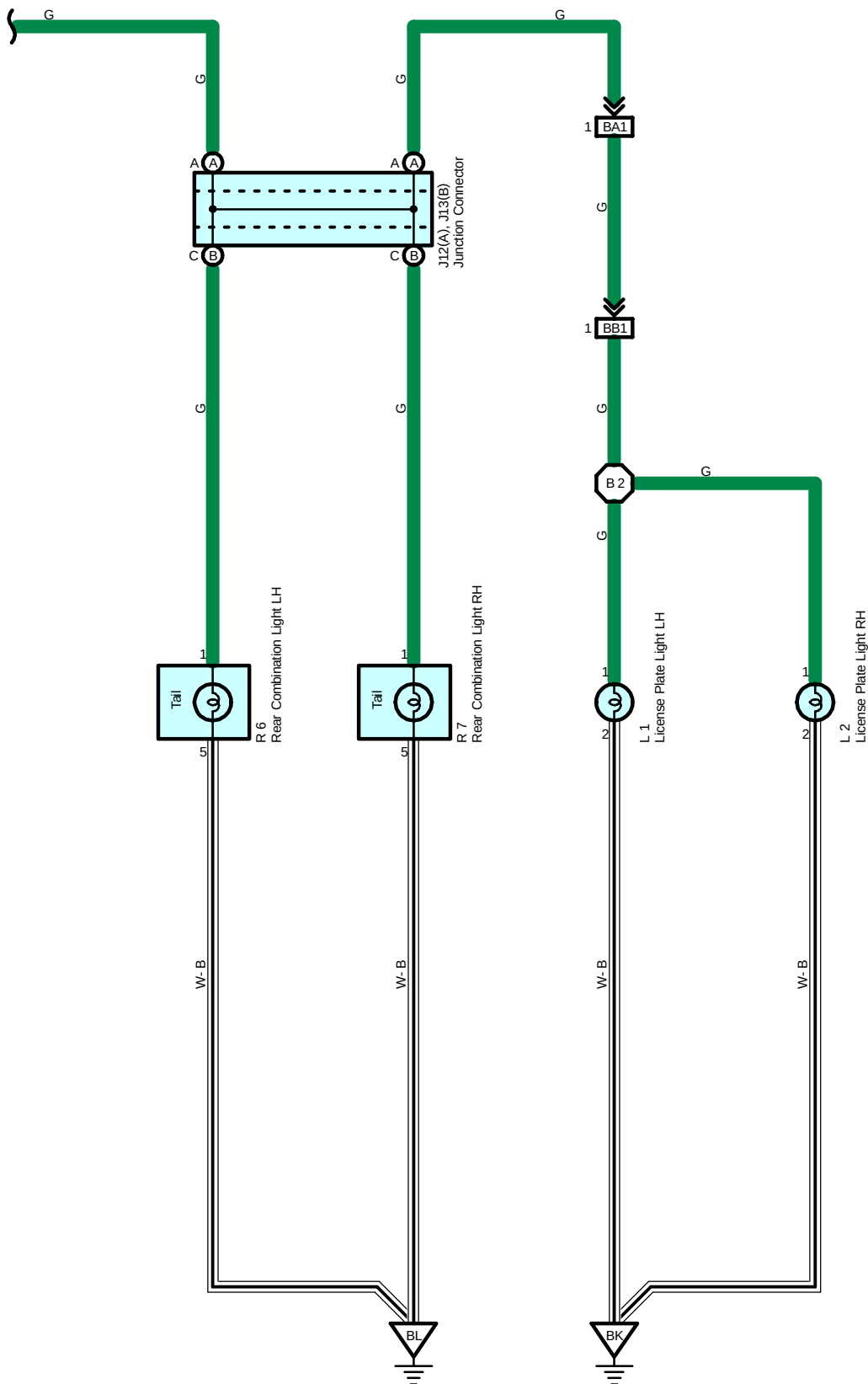
: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE4	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IG4	46	Engine Room No.2 Wire and Instrument Panel Wire (Right Kick Panel)

: GROUND POINTS

Code	See Page	Ground Points Location
EA	40 (1ZZ-FE)	Front Right Fender
	42 (2ZZ-GE)	
EM	40 (1ZZ-FE)	Front Left Fender
	42 (2ZZ-GE)	
IE	44	Cowl Side Panel LH
IG	44	Cowl Side Panel RH





Service Hints

TAIL Relay

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

C15 Combination SW

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

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B6 A	36	F7	34 (2ZZ-GE)	J13 B	38
C15	36	F8	32 (1ZZ-FE)	L1	38
F5	32 (1ZZ-FE)		34 (2ZZ-GE)	L2	38
	34 (2ZZ-GE)	J3	37	R6	39
F6	32 (1ZZ-FE)	J4 A	37	R7	39
	34 (2ZZ-GE)	J5 B	37		
F7	32 (1ZZ-FE)	J12 A	38		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IA	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IC		
IE	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IO	25	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)
2A	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2E	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

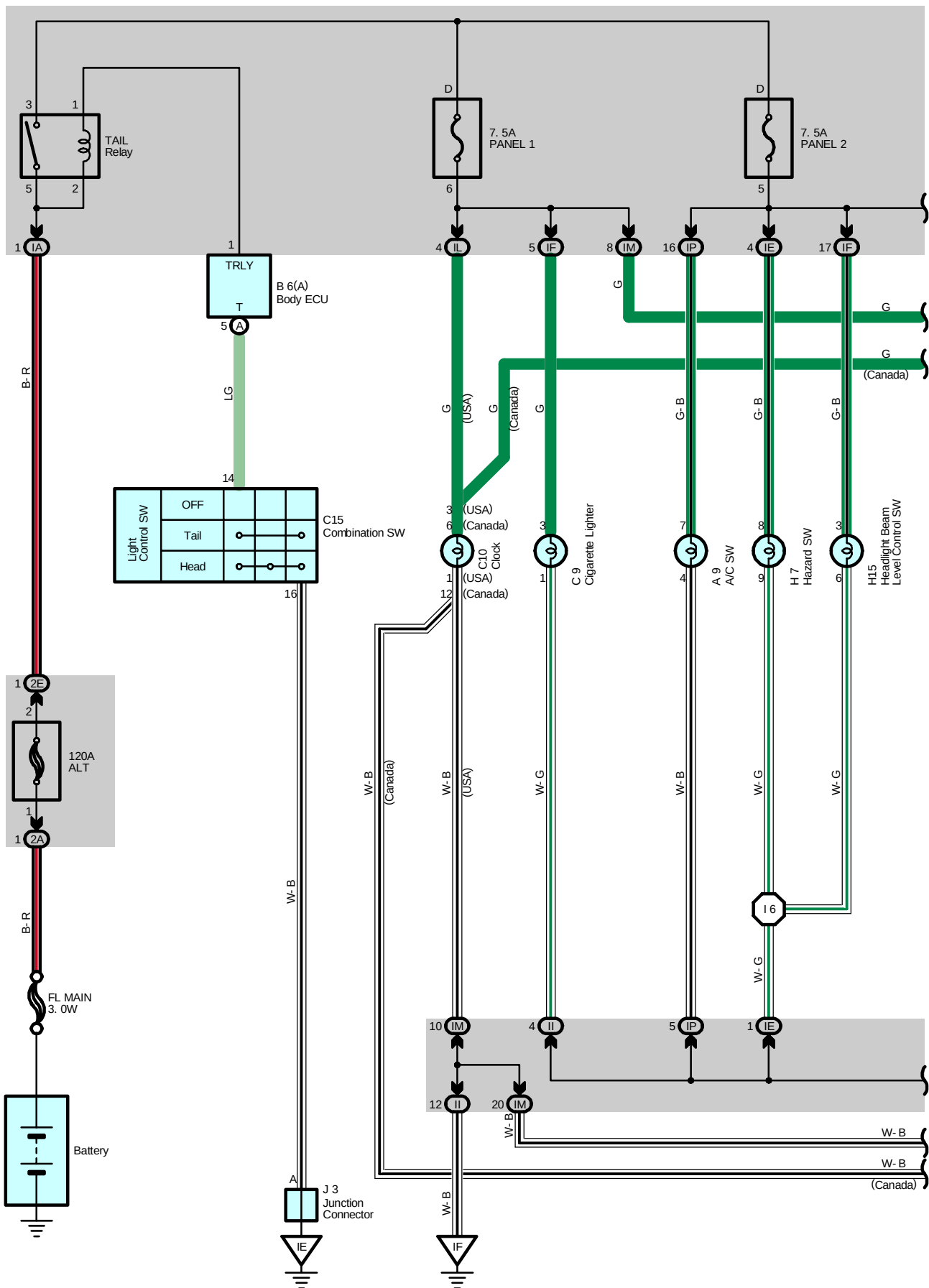
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
BA1	48	Back Door No.1 Wire and Floor Wire (Quarter Panel LH)
BB1	48	Back Door No.2 Wire and Back Door No.1 Wire (Back Door Upper Left)

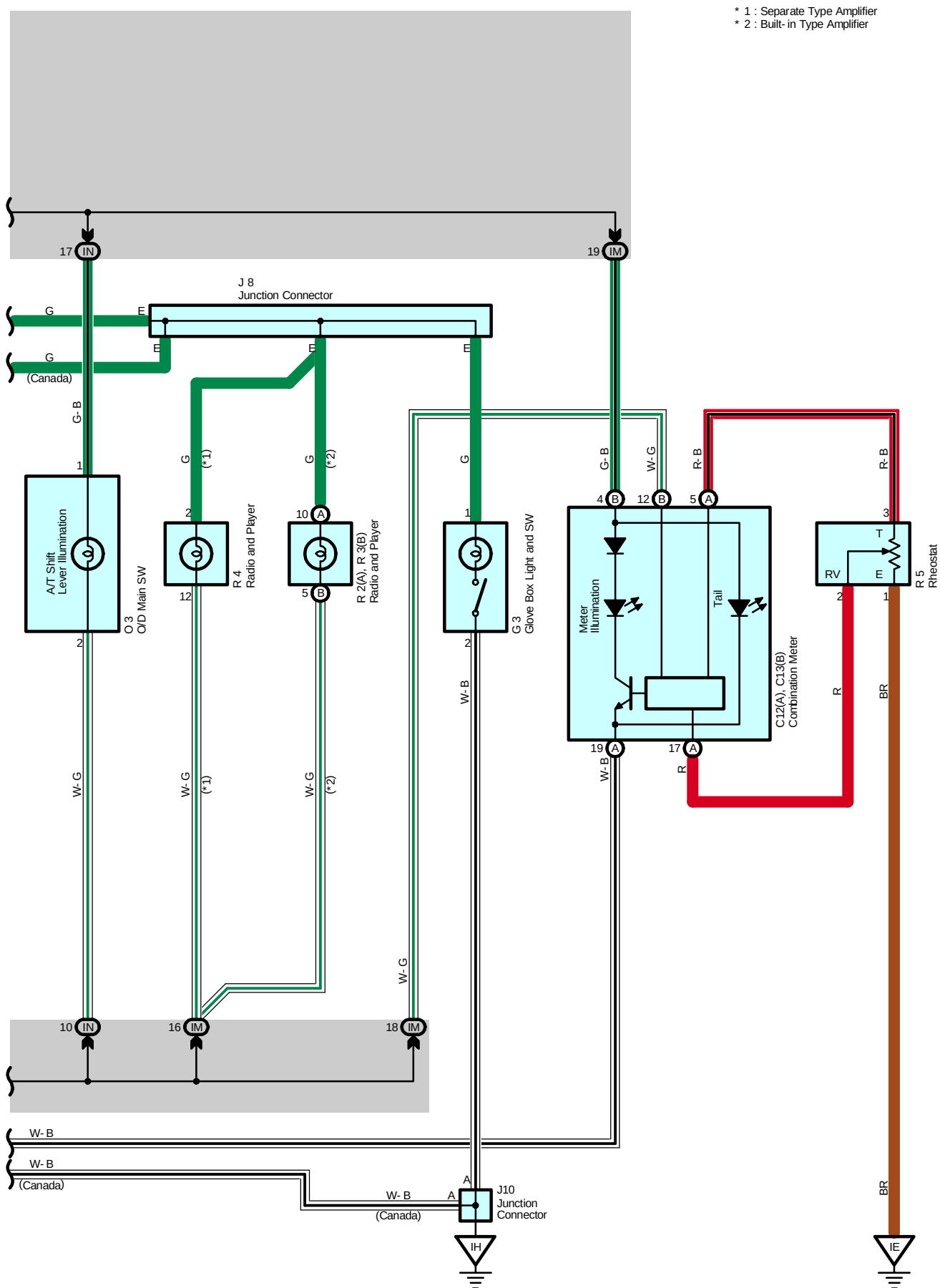
▽ : GROUND POINTS

Code	See Page	Ground Points Location
EA	40 (1ZZ-FE)	Front Right Fender
	42 (2ZZ-GE)	
EB	40 (1ZZ-FE)	Front Left Fender
	42 (2ZZ-GE)	
IE	44	Cowl Side Panel LH
IG	44	Cowl Side Panel RH
BK	48	Back Door Left
BL	48	Back Panel Center

○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	40 (1ZZ-FE)	Engine Room Main Wire	I4	46	Engine Room No.2 Wire
	42 (2ZZ-GE)		B2	48	Back Door No.2 Wire





Illumination

Service Hints

TAIL Relay

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

C15 Combination SW

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

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A9	36	C15	36	J10	37
B6	A 36	G3	37	O3	37
C9	36	H7	37	R2	A 37
C10	36	H15	37	R3	B 37
C12	A 36	J3	37	R4	37
C13	B 36	J8	37	R5	37

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IA	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IE	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IF		
II		
IL		
IM		
IN	25	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IP	25	Cowl No.2 Wire and Instrument Panel J/B (Instrument Panel Brace RH)
2A	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2E	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)

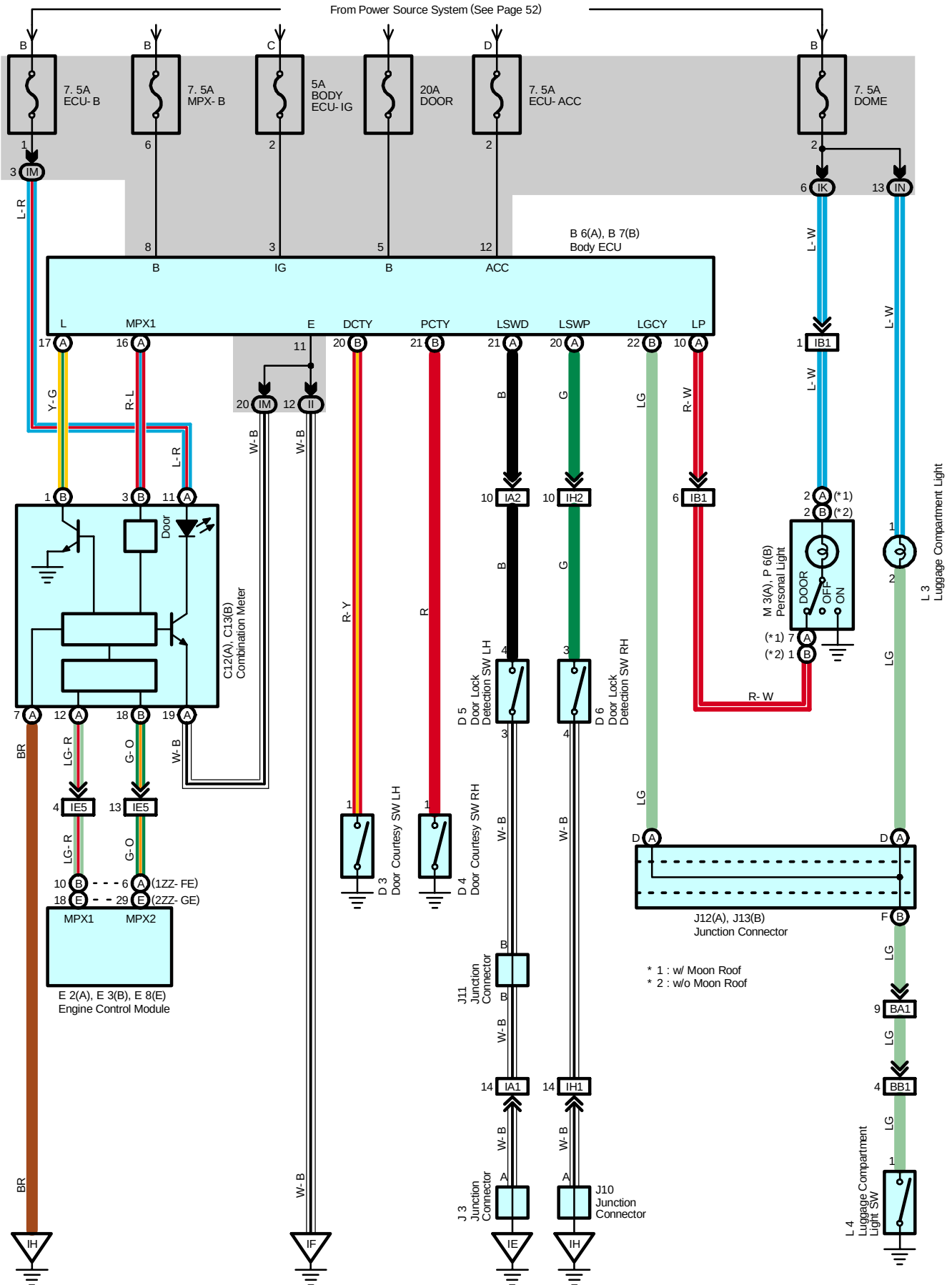
▽ : GROUND POINTS

Code	See Page	Ground Points Location
IE	44	Cowl Side Panel LH
IF	44	Instrument Panel Brace RH
IH	44	Cowl Side Panel RH

○ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I6	46	Instrument Panel Wire			

Interior Light



System Outline

Illuminated Entry System

* Lights ON condition

When any door (Driver's side, front passenger's side, or back door etc.) is opened.

* Lights OFF condition

If any of the following conditions are met while the dome light is ON, the light fades out and is turned OFF.

When approximately 15 seconds have elapsed after all doors are closed.

When all doors are closed and the driver's side door and the front passenger's side door is locked.

When all the doors are closed with the ignition SW at ACC or ON position.

Service Hints

D3, D4 Door Courtesy SW LH, RH

1-Ground : Closed with door open

L4 Luggage Compartment Light SW

1-Ground : Luggage compartment door open

○ : PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
B6	A	36	D6		38	J12	A	38
B7	B	36	E2	A	32 (1ZZ-FE)	J13	B	38
C12	A	36	E3	B	32 (1ZZ-FE)	L3		38
C13	B	36	E8	E	34 (2ZZ-GE)	L4		38
D3		38	J3		37	M3	A	39
D4		38	J10		37	P6	B	39
D5		38	J11		38			

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
II	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IK		
IM		
IN	25	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)

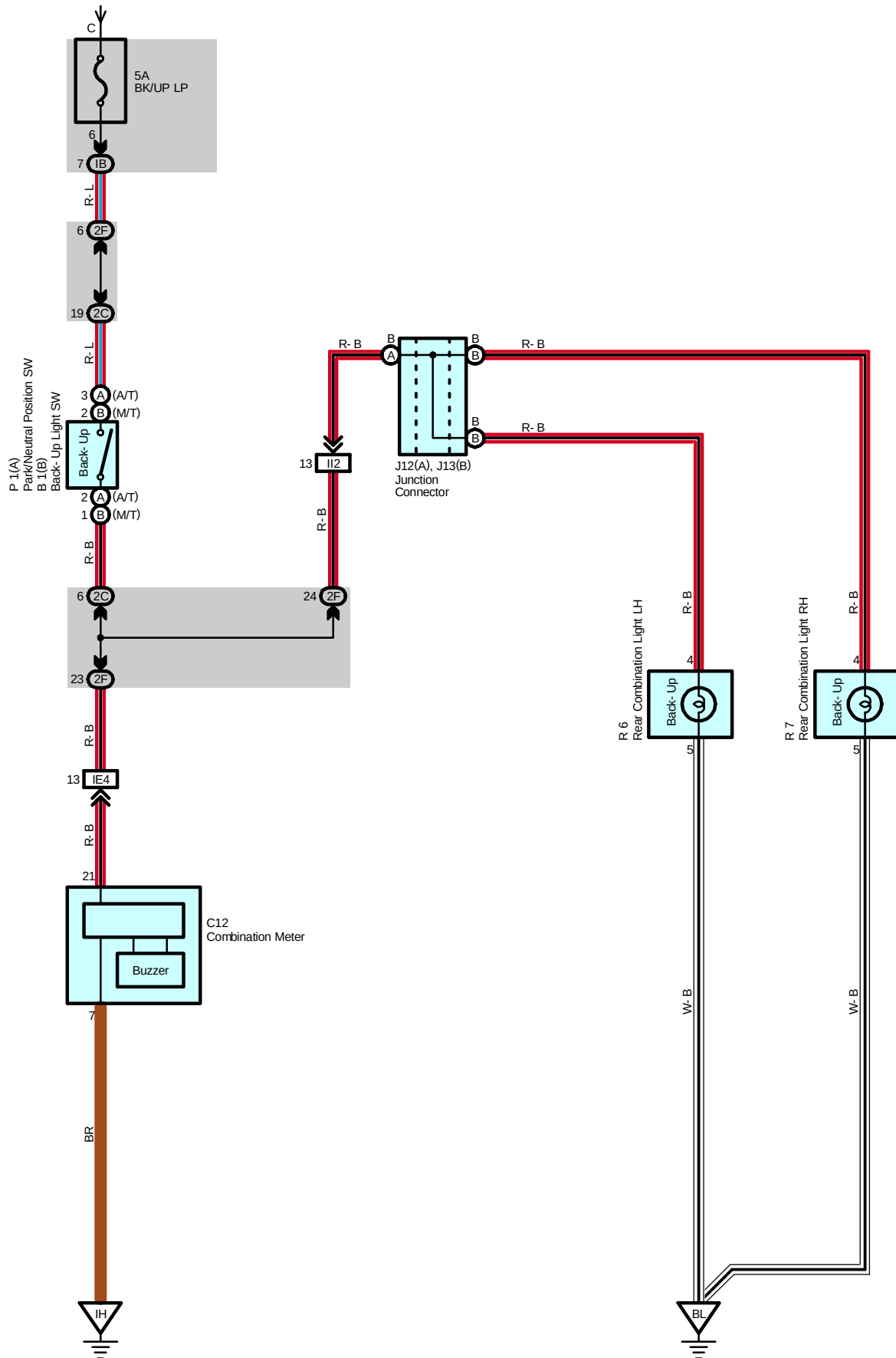
□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	44	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IA2		
IB1	44	Roof Wire and Instrument Panel Wire (Left Kick Panel)
IE5	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IH1	46	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IH2		
BA1	48	Back Door No.1 Wire and Floor Wire (Quarter Panel LH)
BB1	48	Back Door No.2 Wire and Back Door No.1 Wire (Back Door Upper Left)

▽ : GROUND POINTS

Code	See Page	Ground Points Location
IE	44	Cowl Side Panel LH
IF	44	Instrument Panel Brace RH
IH	44	Cowl Side Panel RH

From Power Source System (See Page 52)



Service Hints

P1 Park/Neutral Position SW (A/T)

3-2 : Closed with the shift lever at R position

B1 Back-Up Light SW (M/T)

2-1 : Closed with the shift lever in R position

○ : PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
B1	B	32 (1ZZ-FE)	J12	A	38	P1	A	35 (2ZZ-GE)
		34 (2ZZ-GE)	J13	B	38	R6		39
C12		36	P1	A	33 (1ZZ-FE)	R7		39

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IB	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
2C	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2F	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

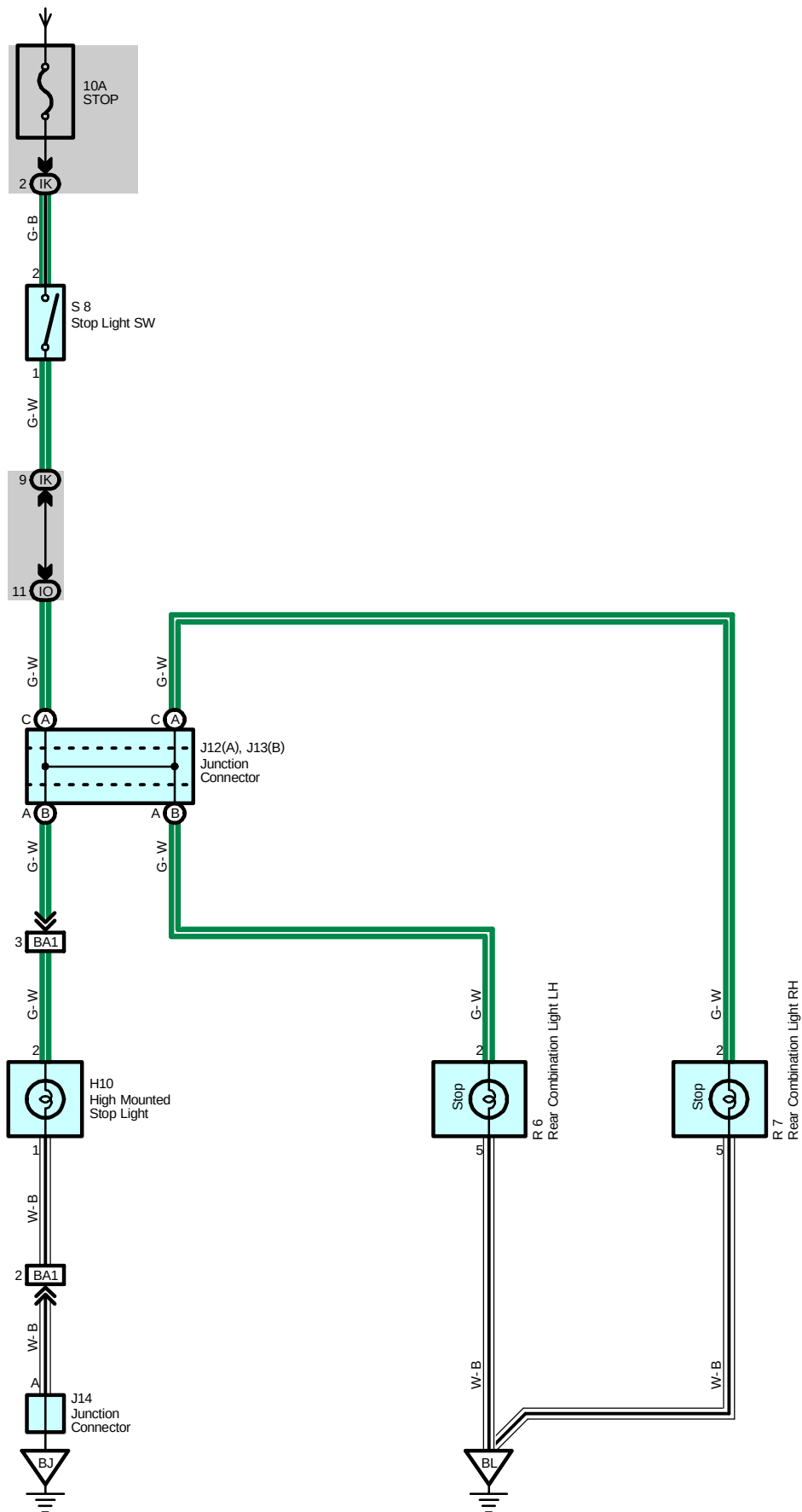
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE4	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
II2	46	Engine Room Main Wire and Floor Wire (Instrument Panel Brace LH)

▽ : GROUND POINTS

Code	See Page	Ground Points Location
IH	44	Cowl Side Panel RH
BL	48	Back Panel Center

Stop Light

From Power Source System (See Page 52)



Service Hints

S8 Stop Light SW

2-1 : Closed with the brake pedal depressed

: PARTS LOCATION

Code		See Page	Code		See Page
H10		38	J14		38
J12	A	38	R6	39	
J13	B	38	R7	39	

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

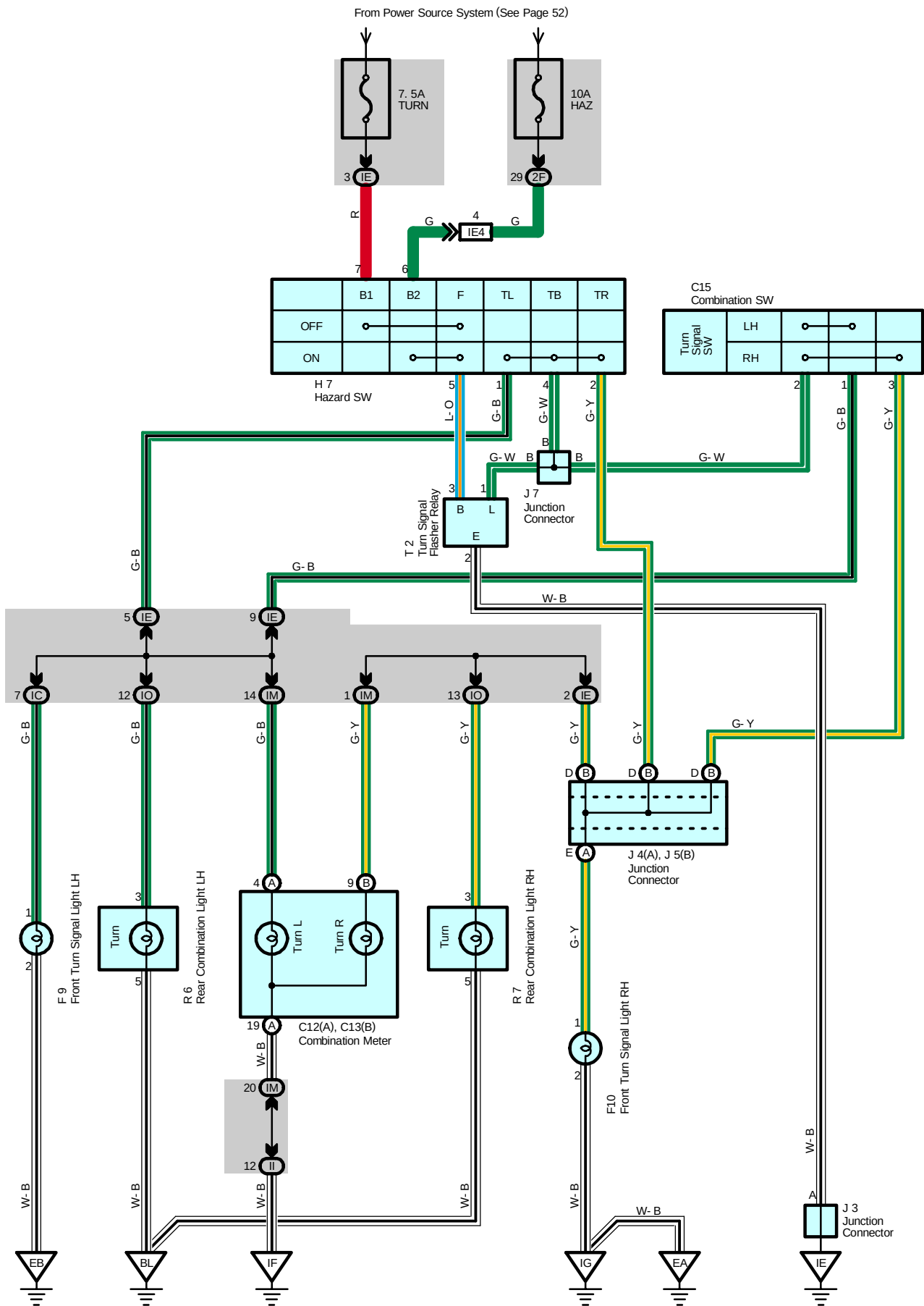
Code	See Page	Junction Block and Wire Harness (Connector Location)
IK	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IO	25	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
BA1	48	Back Door No.1 Wire and Floor Wire (Quarter Panel LH)

: GROUND POINTS

Code	See Page	Ground Points Location
BJ	48	Luggage Room Left
BL	48	Back Panel Center



Service Hints

T2 Turn Signal Flasher Relay

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

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C12	A	36	F10	32 (1ZZ-FE)	J5 B 37
C13	B	36		34 (2ZZ-GE)	J7 37
C15	36	H7	37	R6	39
F9	32 (1ZZ-FE)	J3	37	R7	39
	34 (2ZZ-GE)	J4 A	37	T2	37

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

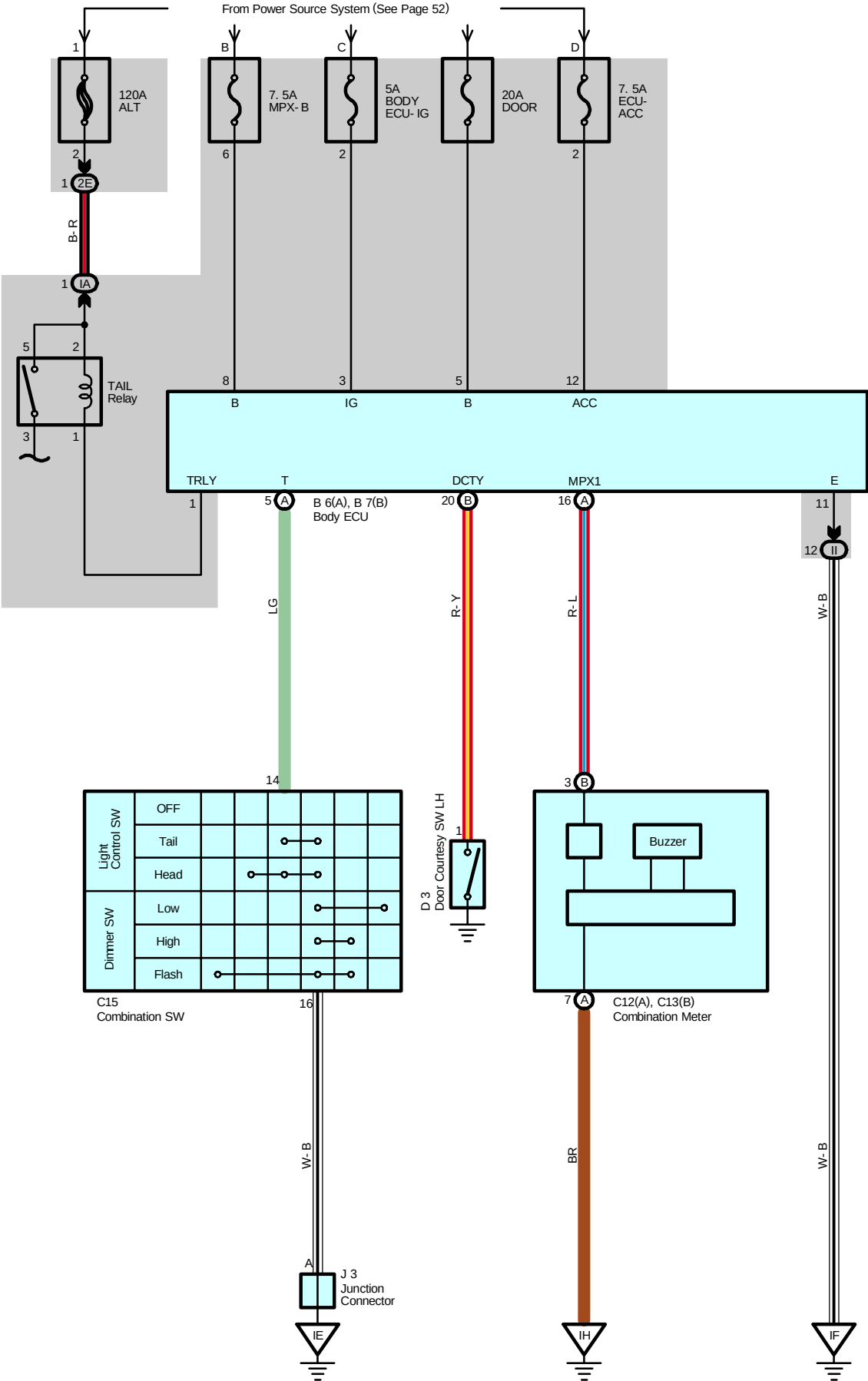
Code	See Page	Junction Block and Wire Harness (Connector Location)
IC	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IE	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
II		
IM		
IO	25	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)
2F	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE4	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)

▽ : GROUND POINTS

Code	See Page	Ground Points Location
EA	40 (1ZZ-FE)	Front Right Fender
	42 (2ZZ-GE)	
EB	40 (1ZZ-FE)	Front Left Fender
	42 (2ZZ-GE)	
IE	44	Cowl Side Panel LH
IF	44	Instrument Panel Brace RH
IG	44	Cowl Side Panel RH
BL	48	Back Panel Center



System Outline

When the ignition SW is OFF and the driver's side door is opened (Door courtesy SW ON) and the light control SW is at TAIL or HEAD position, the light reminder buzzer comes ON.

Service Hints

D3 Door Courtesy SW LH

1-Ground : Driver's door open

: PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
B6	A	36	C13	B	36	J3	37	
B7	B	36	C15		36			
C12	A	36	D3		38			

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

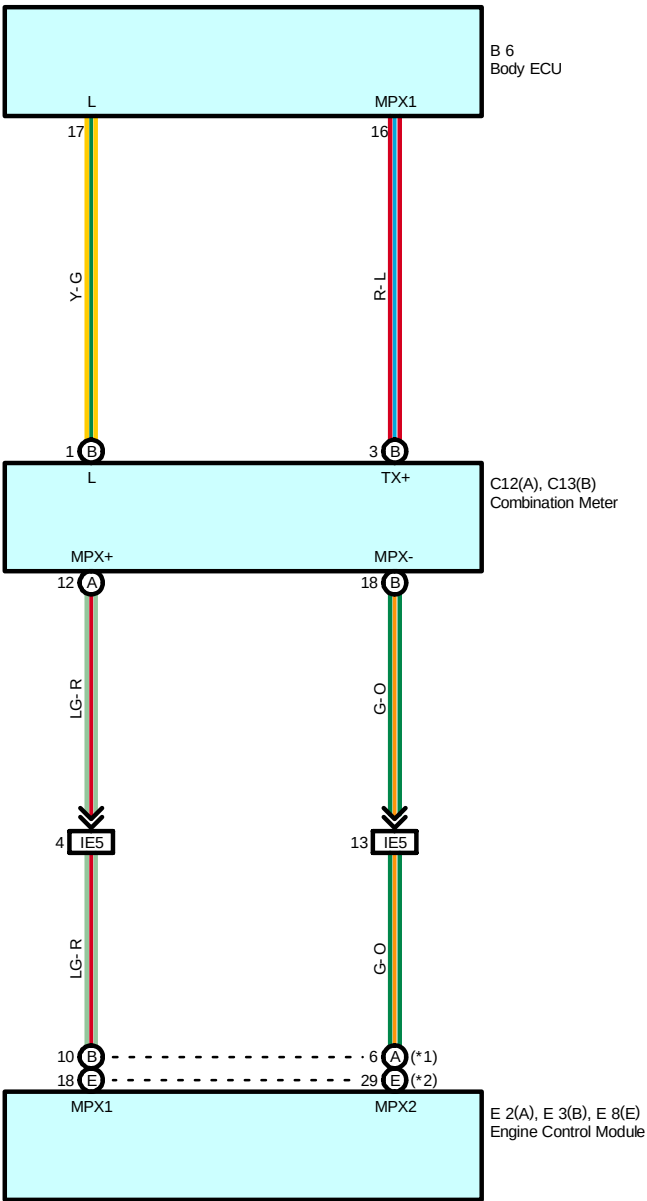
Code	See Page	Junction Block and Wire Harness (Connector Location)
IA	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
II	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
2E	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)

: GROUND POINTS

Code	See Page	Ground Points Location
IE	44	Cowl Side Panel LH
IF	44	Instrument Panel Brace RH
IH	44	Cowl Side Panel RH

Multiplex Communication System - Communication Bus

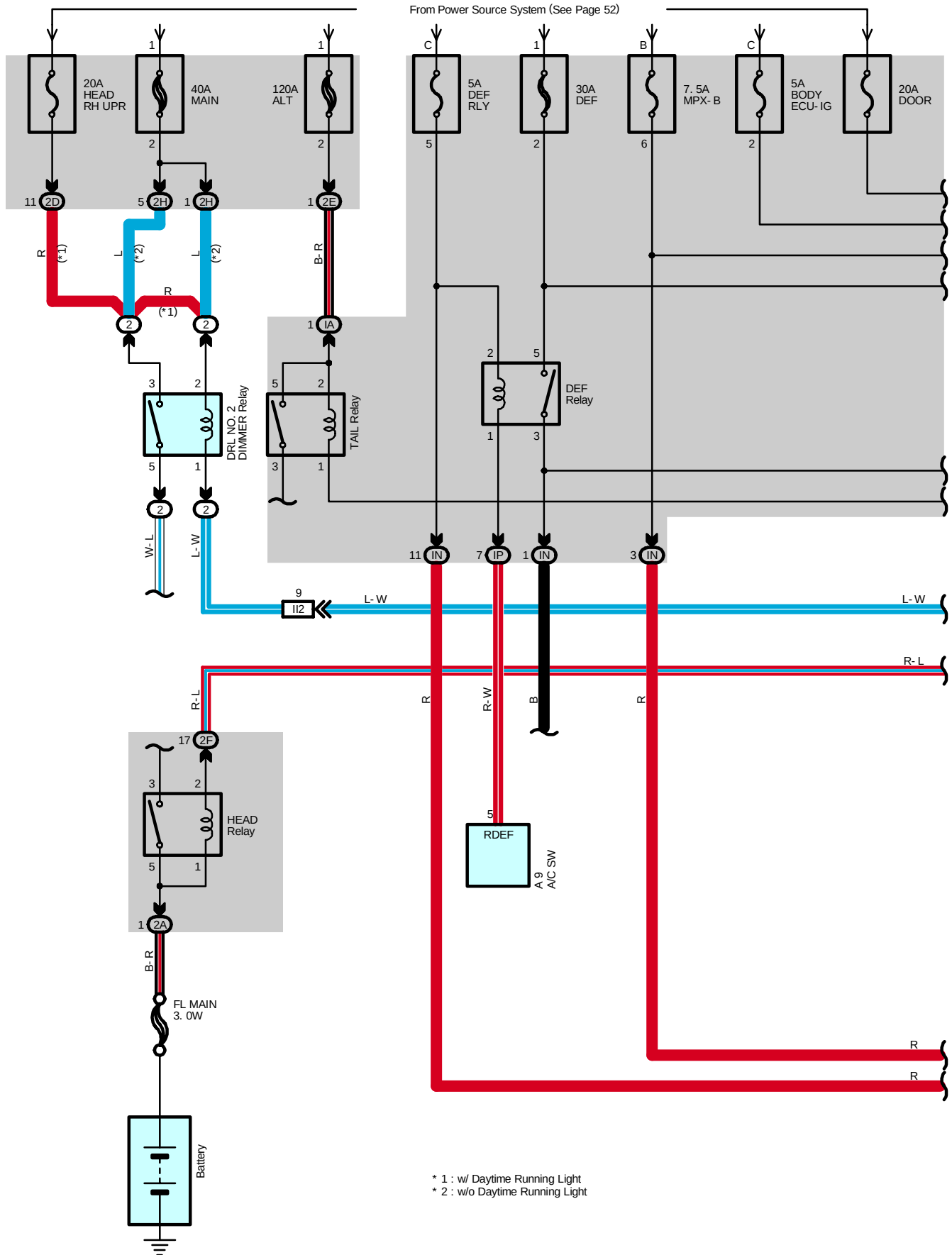
* 1 : 1ZZ- FE
* 2 : 2ZZ- GE

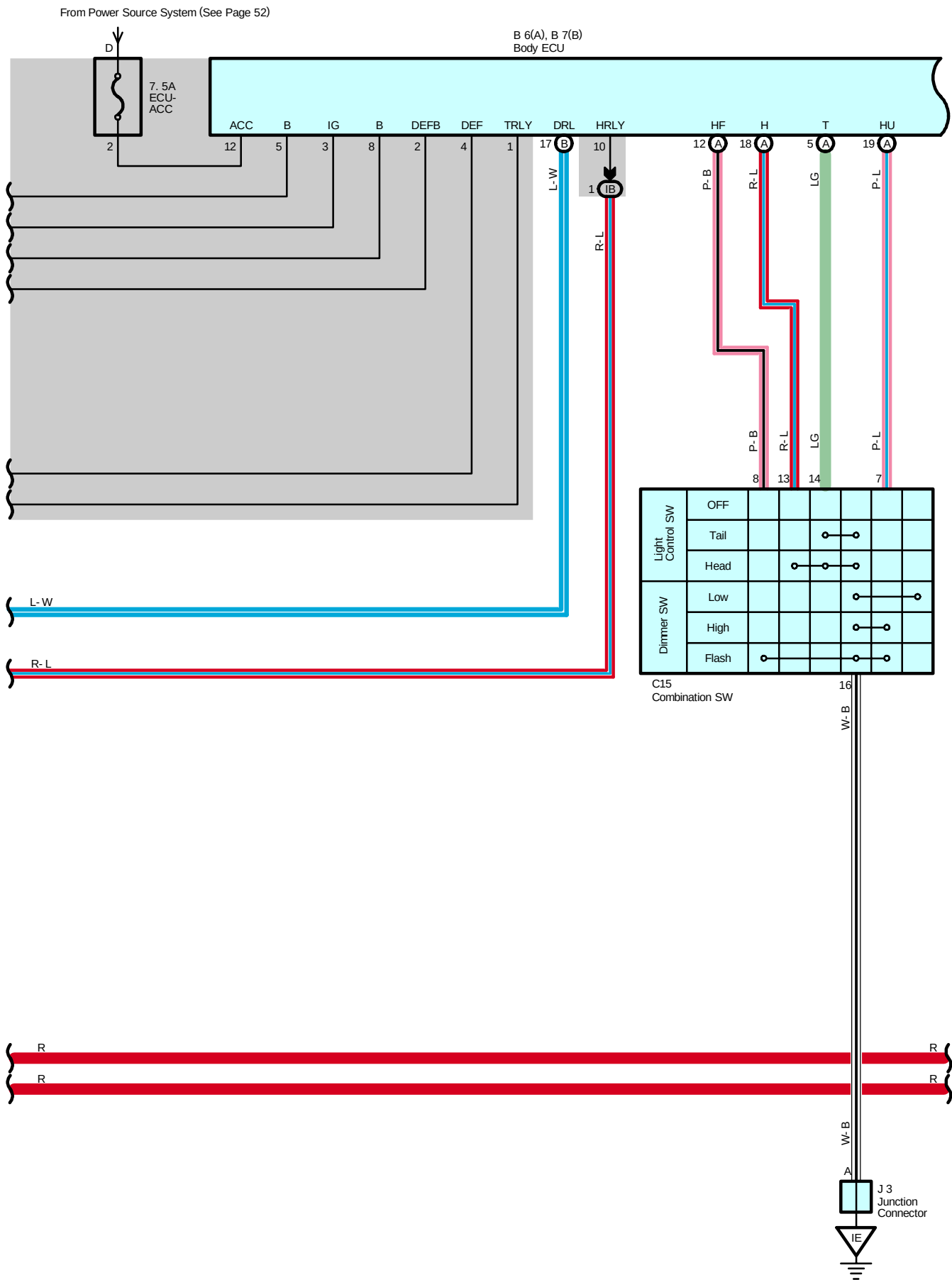


Multiplex Communication System Includes Following Systems

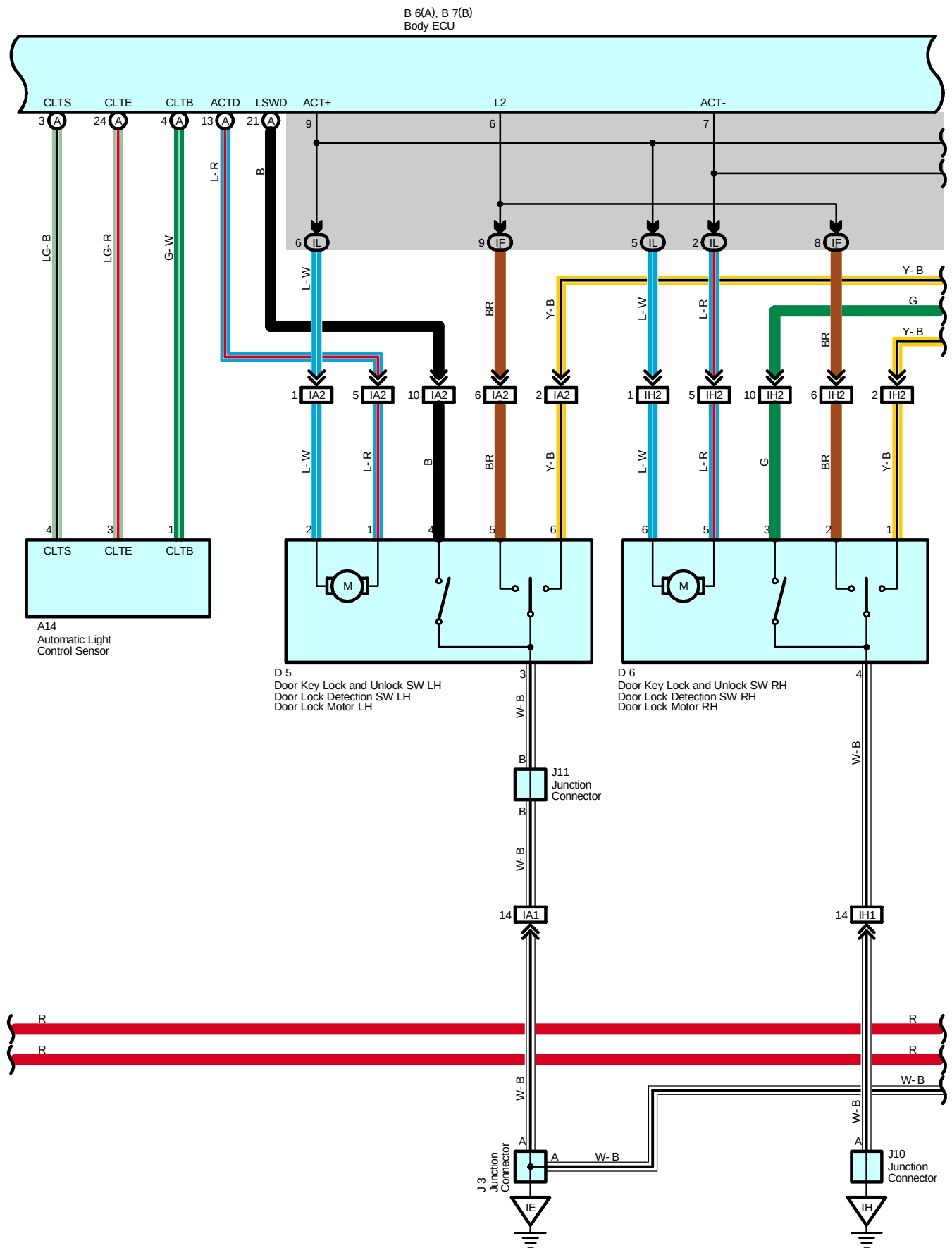
- * **Door Lock Control**
- * **Electronic Tension Reducer**
- * **Headlight**
- * **Interior Light**
- * **Key Reminder**
- * **Light Reminder**
- * **Moon Roof**
- * **Power Window**
- * **Seat Belt Warning**
- * **Wireless Door Lock Control**

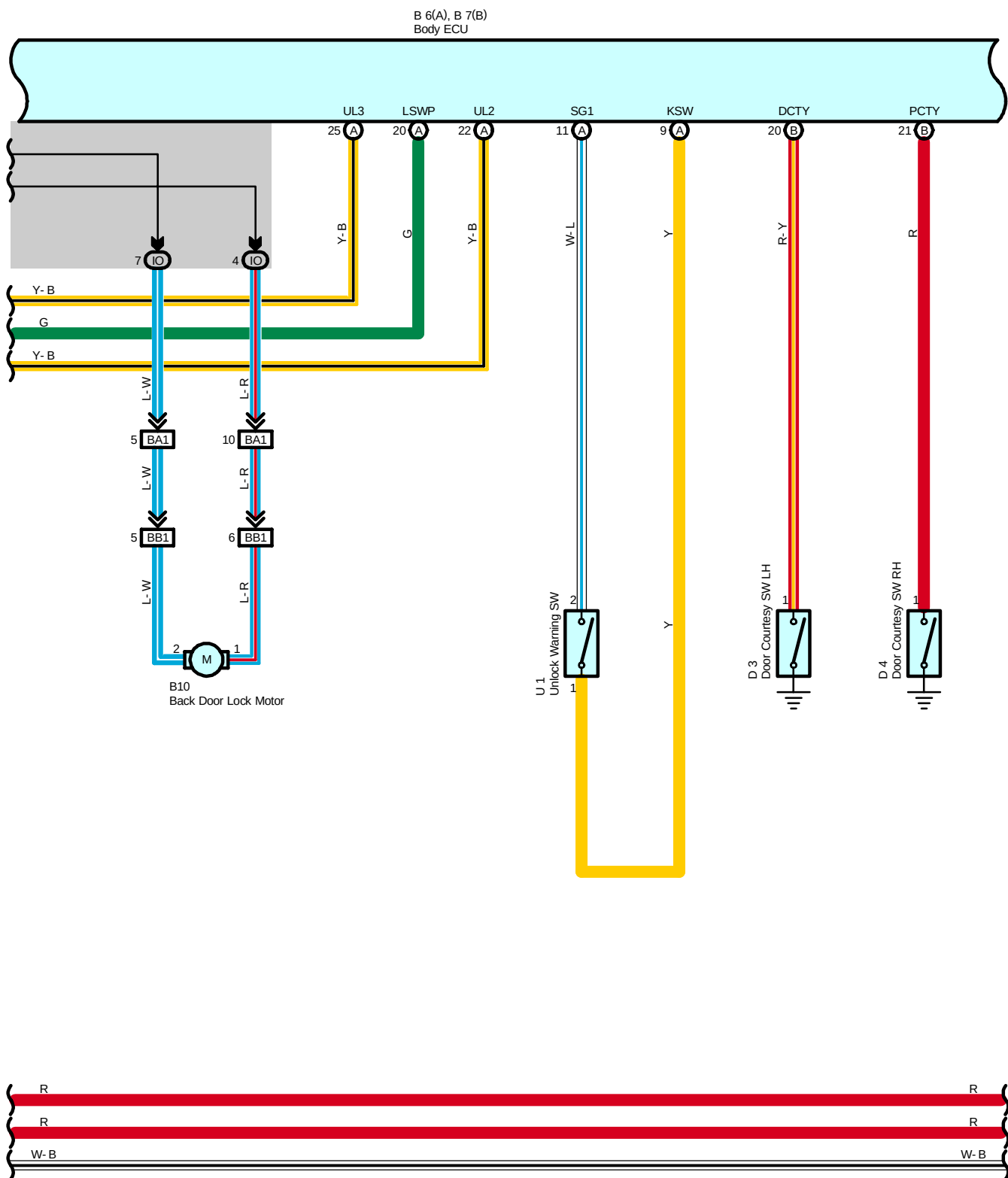
Multiplex Communication System



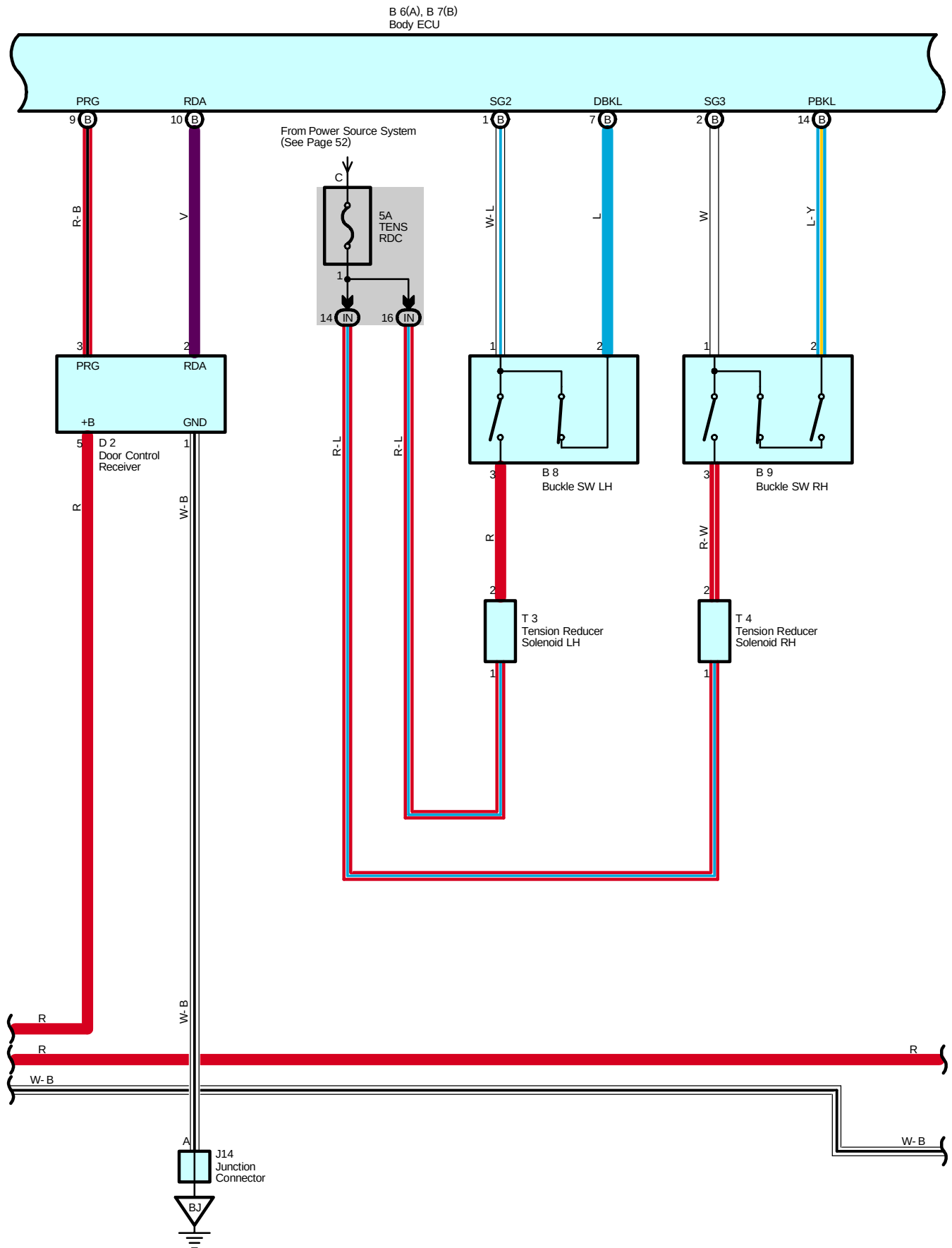


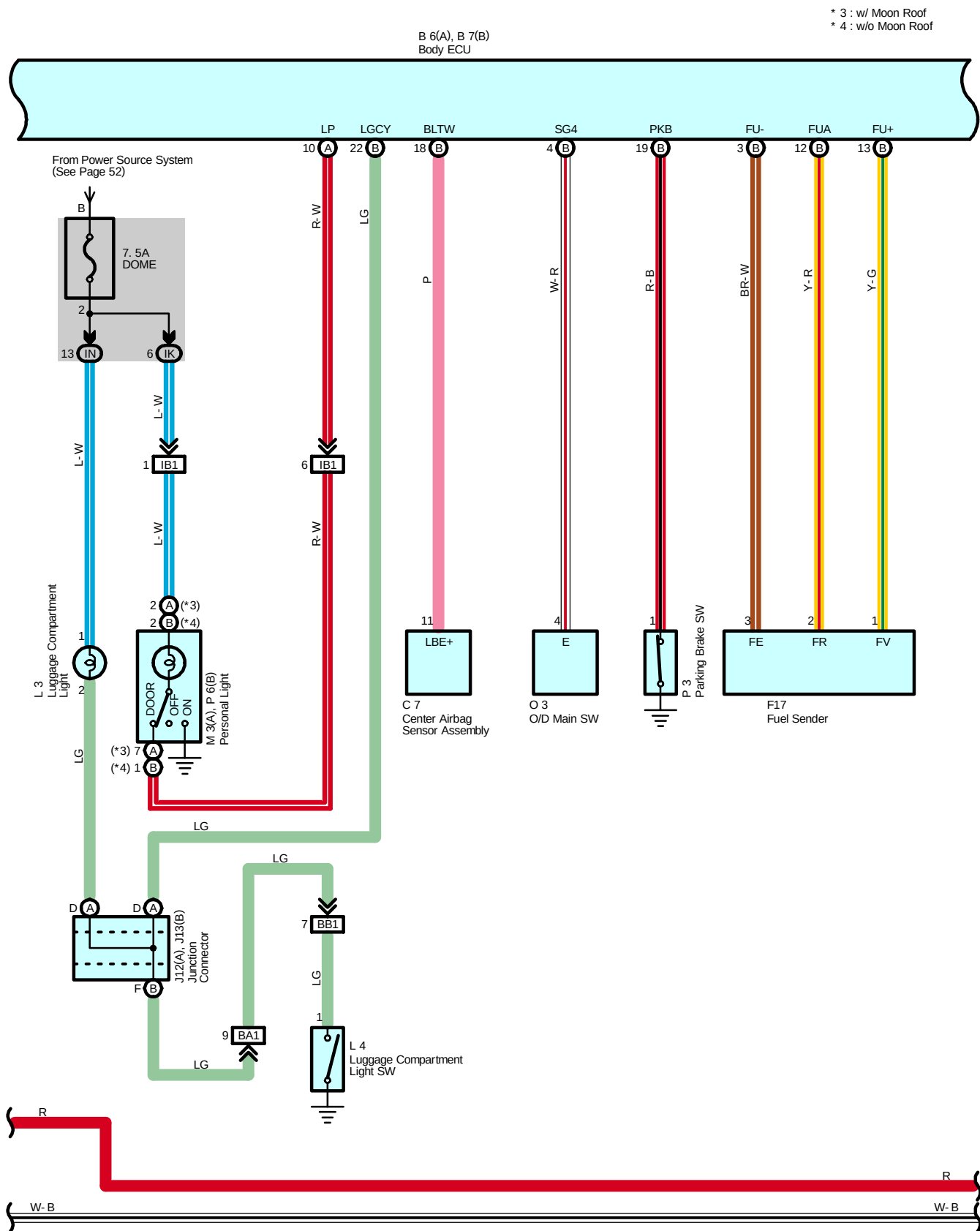
Multiplex Communication System



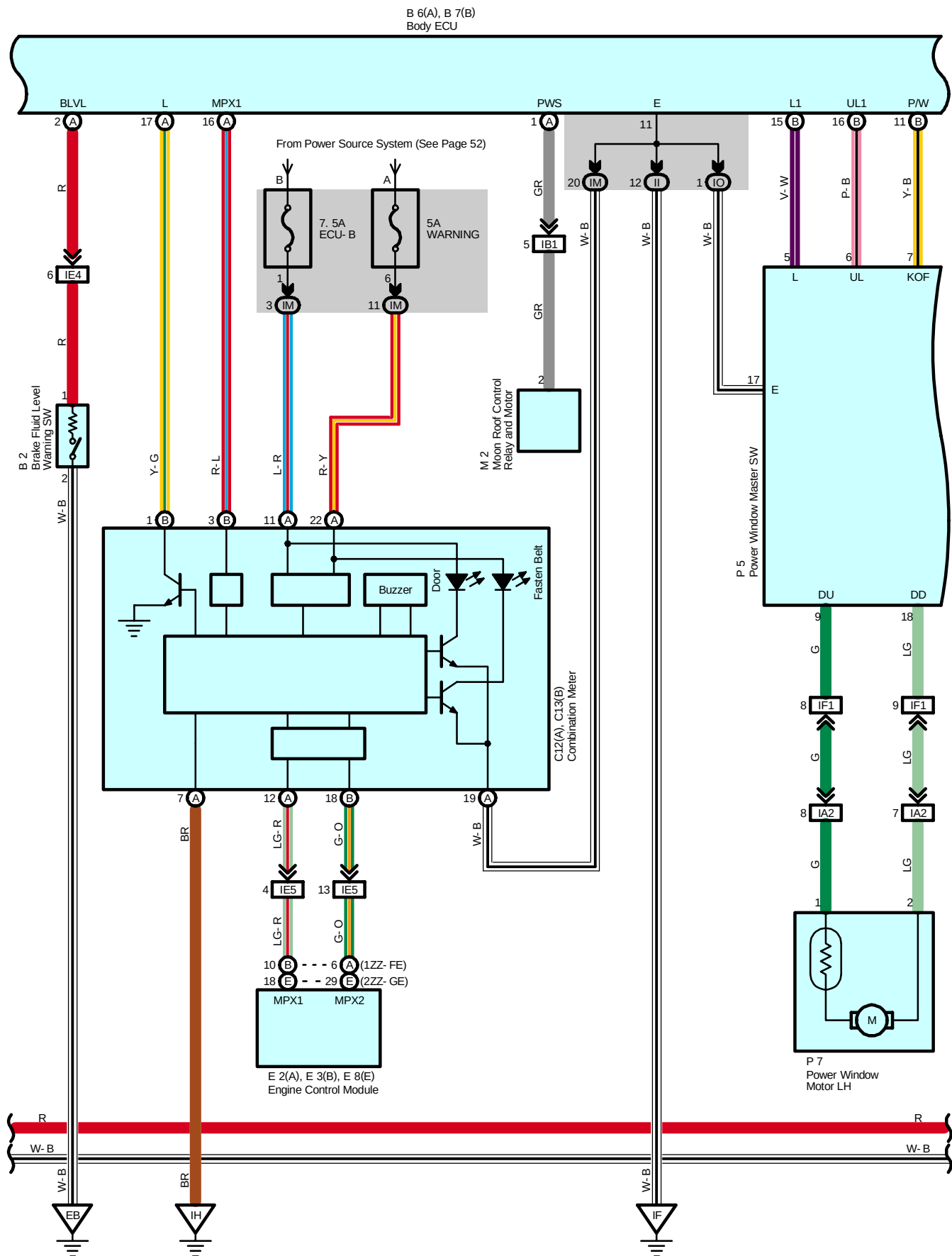


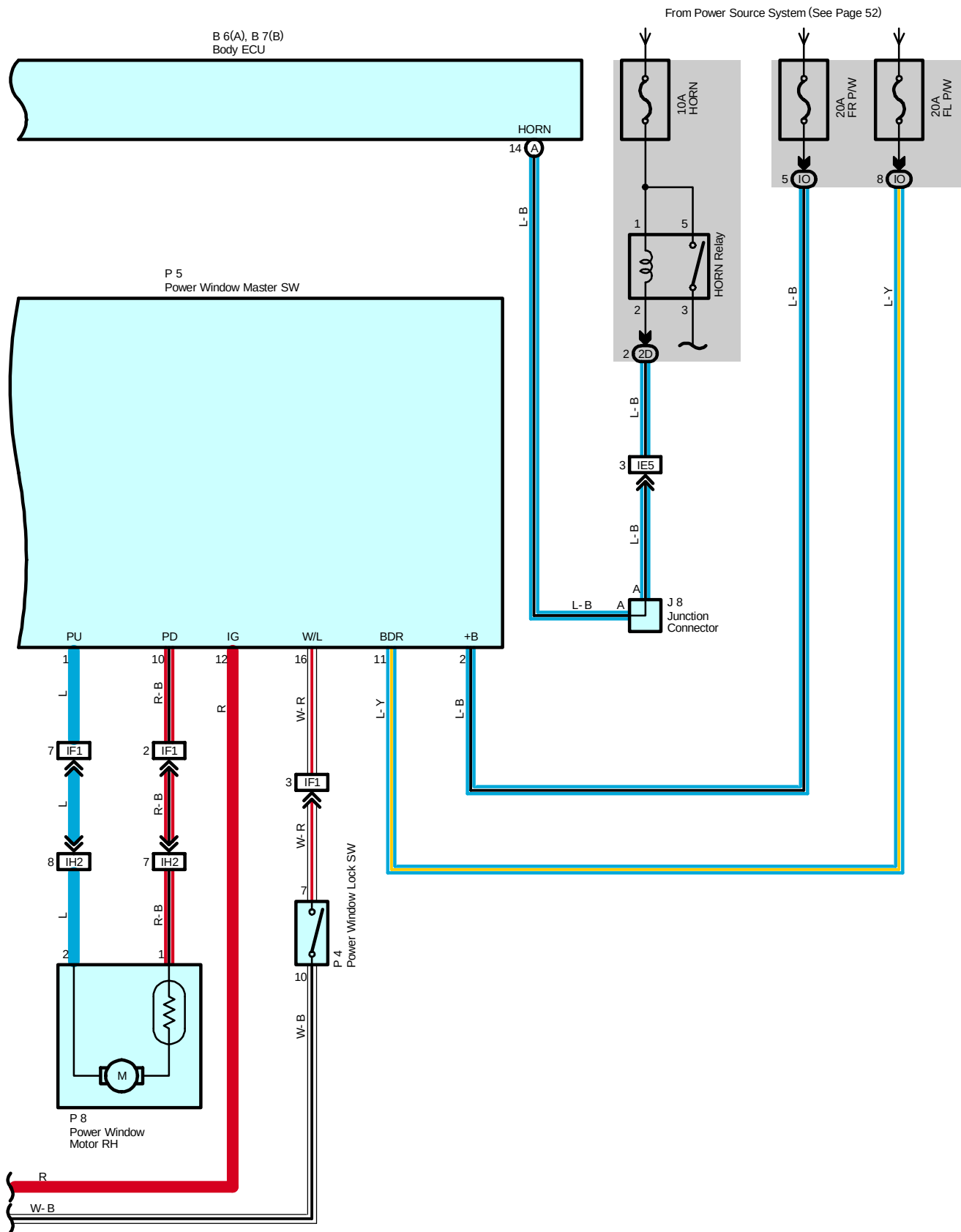
Multiplex Communication System





Multiplex Communication System





Multiplex Communication System

Service Hints

Body ECU

- 3-Ground : Approx. 12 volts with ignition SW at ON or ST position
- 8-Ground : Always approx. 12 volts
- 5-Ground : Always approx. 12 volts
- 11-Ground : Always continuity
- 12-Ground : Approx. 12 volts with ignition SW at ACC or ON position

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A9	36	D4	38	L4	38
A14	36	D5	38	M2	39
B2	32 (1ZZ-FE)	D6	38	M3	A
	34 (2ZZ-GE)	E2	A	O3	37
B6	A	E3	B	P3	37
B7	B	E8	E	P4	37
B8	36	F17	38	P5	37
B9	36	J3	37	P6	B
B10	38	J8	37	P7	39
C7	36	J10	37	P8	39
C12	A	J11	38	T3	39
C13	B	J12	A	T4	39
C15	36	J13	B	U1	37
D2	38	J14	38		
D3	38	L3	38		

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
2	27	Engine Room R/B No.2 (Engine Compartment Left)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IA	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IB		
IF	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
II		
IK		
IL		
IM		
IN	25	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IO		
IP	25	Cowl No.2 Wire and Instrument Panel J/B (Instrument Panel Brace RH)
2A	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2D	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2E		
2F		
2H		

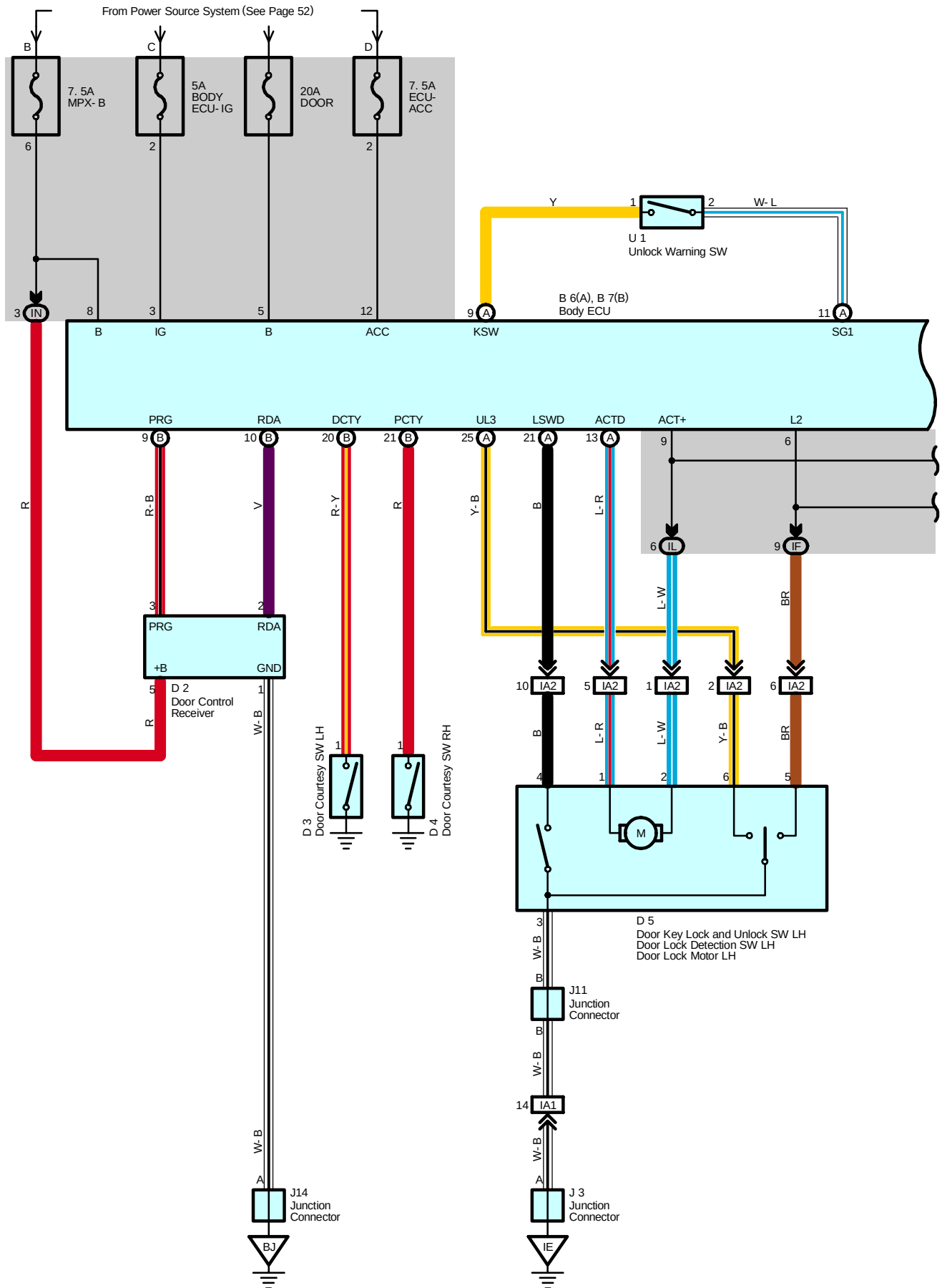
 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

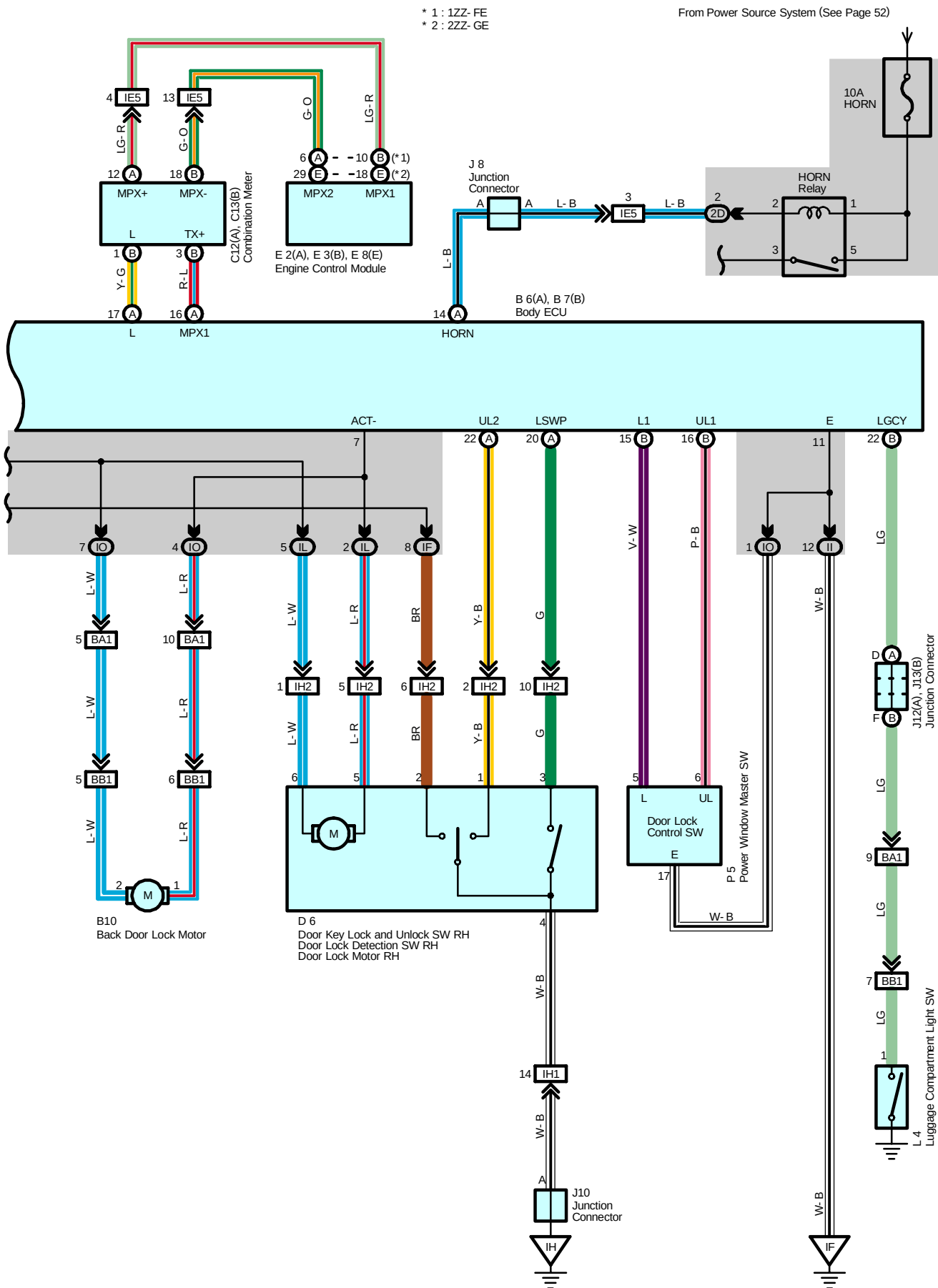
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	44	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IA2		
IB1	44	Roof Wire and Instrument Panel Wire (Left Kick Panel)
IE4	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IE5		
IF1	46	Floor Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IH1	46	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IH2		
II2	46	Engine Room Main Wire and Floor Wire (Instrument Panel Brace LH)
BA1	48	Back Door No.1 Wire and Floor Wire (Quarter Panel LH)
BB1	48	Back Door No.2 Wire and Back Door No.1 Wire (Back Door Upper Left)

 : GROUND POINTS

Code	See Page	Ground Points Location
EB	40 (1ZZ-FE)	Front Left Fender
	42 (2ZZ-GE)	
IE	44	Cowl Side Panel LH
IF	44	Instrument Panel Brace RH
IH	44	Cowl Side Panel RH
BJ	48	Luggage Room Left

Wireless Door Lock Control





Wireless Door Lock Control

System Outline

In this system, the door control receiver receives weak radio wave transmitted from the transmitter built into the ignition key, and outputs signals to the body ECU. Through communication control of the body ECU, all the doors can be locked and unlocked by remote control.

1. Normal Operation

* Lock operation

When the lock SW on the transmitter is pressed, all doors are locked.

* Unlock operation

When the unlock SW on the transmitter is pressed once, only the driver door is unlocked. When the unlock SW is pressed again within 3 seconds, all the doors are unlocked.

2. Auto Lock Function

If the door is not opened within 30 seconds after the door has been unlocked by pressing the unlock SW on the transmitter, all the doors will be locked automatically.

3. Wireless Door Lock Stop Function

If any of the following conditions is detected, the wireless door lock does not function.

* Lock operation

Any door is open (The door courtesy SW is on). The ignition key is inserted into the ignition key cylinder (The unlock warning SW is on). The ignition SW is turned to the ON position.

* Unlock operation

The ignition SW is turned to the ON position.

4. Buzzer Sound Function

The buzzer emits a sound when operating the transmitter, once for lock operation and twice for unlock operation.

When the lock SW is pressed while any door is open, the keyless buzzer goes on for 10 seconds. The buzzer will stop when all the doors are closed, or when unlocked with the unlock SW.

5. Illuminated Entry Function

When the ECU detects the unlock state after the unlock operation has been made, it turns on the front interior light, such as the ignition key cylinder light for 15 sec. If all the doors are locked during this operation, lighting is cancelled and the lights immediately fade out.

6. Repeat Function

If the lock detection signal in response to the output signal is not received after the body ECU has output the lock signal, the lock signal is output again after approximately 2 sec.

7. Panic Function

When the panic SW on the transmitter is pressed, the panic mode is activated. The panic mode is canceled when the unlock SW or panic SW is pressed.

Service Hints

U1 Unlock Warning SW

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

D2 Door Control Receiver

5-Ground : Always approx. 12 volts

1-Ground : Always continuity

○ : PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
B6	A	36	D5		38	J11		38
B7	B	36	D6		38	J12	A	38
B10		38	E2	A	32 (1ZZ-FE)	J13	B	38
C12	A	36	E3	B	32 (1ZZ-FE)	J14		38
C13	B	36	E8	E	34 (2ZZ-GE)	L4		38
D2		38	J3		37	P5		37
D3		38	J8		37	U1		37
D4		38	J10		37			

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

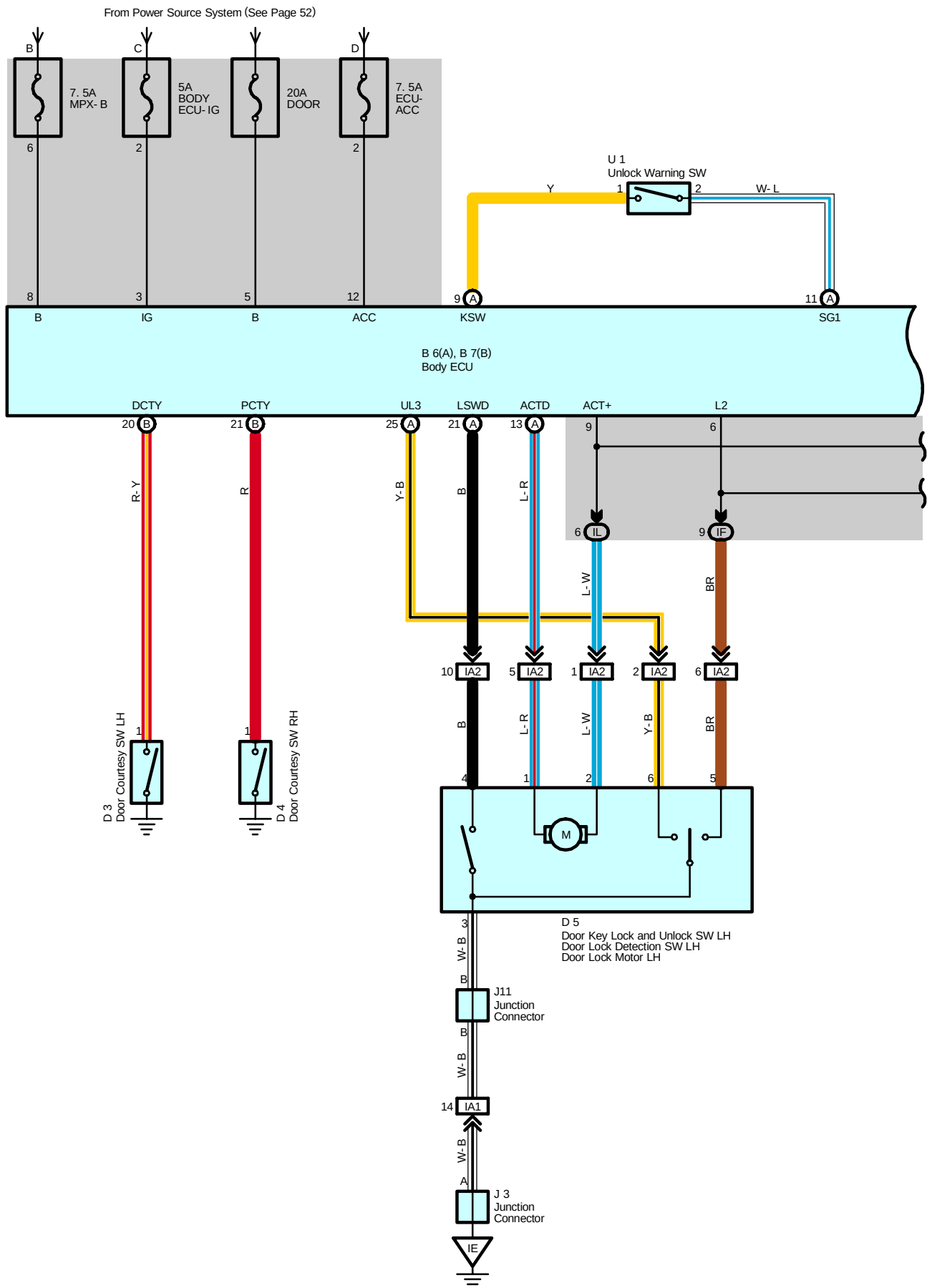
Code	See Page	Junction Block and Wire Harness (Connector Location)
IF	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
II		
IL		
IN	25	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IO		
2D	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)

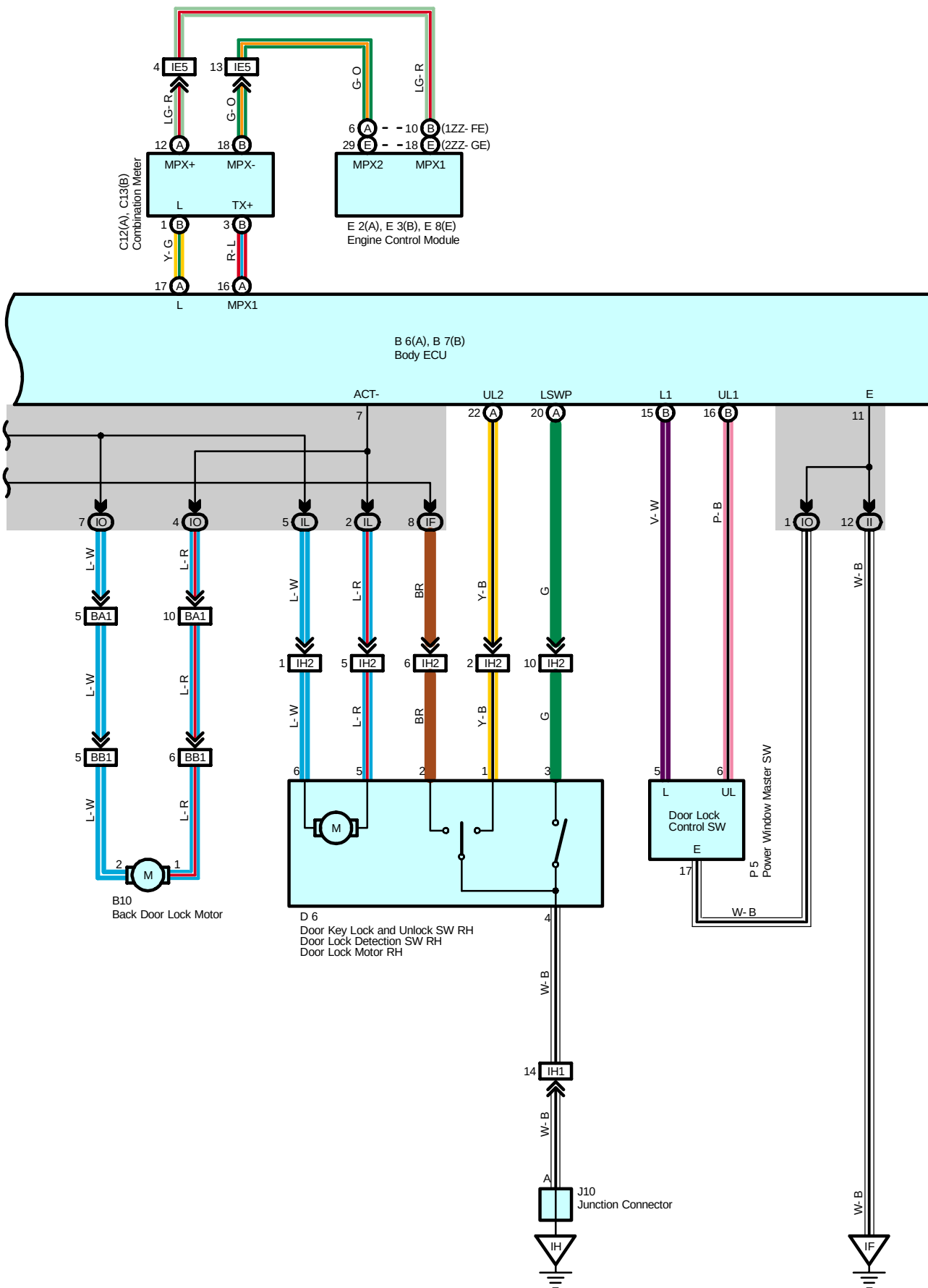
 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	44	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IA2		
IE5	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IH1	46	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IH2		
BA1	48	Back Door No.1 Wire and Floor Wire (Quarter Panel LH)
BB1	48	Back Door No.2 Wire and Back Door No.1 Wire (Back Door Upper Left)

 : GROUND POINTS

Code	See Page	Ground Points Location
IE	44	Cowl Side Panel LH
IF	44	Instrument Panel Brace RH
IH	44	Cowl Side Panel RH
BJ	48	Luggage Room Left





Door Lock Control

System Outline

1. Manual Unlock Operation

When the door lock control SW on the center console is pressed to the UNLOCK, the signal is input to TERMINAL UL1 of the body ECU. The current flows from TERMINAL ACT- of the body ECU into the door lock motor to TERMINAL ACT+ of the body ECU to GROUND, to unlock the door.

2. Manual Lock Operation

When the door lock control SW on the center console is pressed to LOCK, signal is input to TERMINAL L1 of the body ECU. The current flows from TERMINAL ACT+ of the body ECU to door lock motor to TERMINAL ACT- of the body ECU to GROUND, to lock the door.

3. Door Key Unlock Operation

Unlock operation from driver door

When the door is unlocked once by the ignition key from the driver side, the signal from the door key lock and unlock SW in the door lock motor front LH is input to TERMINAL UL3 of the body ECU. This signal activates the body ECU to flow the current from TERMINAL ACT+ of the body ECU into the door lock motor front LH to TERMINAL ACT- of the body ECU to GROUND, to unlock only the driver door. Accordingly, if the second unlock operation is made within 3 sec. after the above unlock operation.

Unlock operation from passenger door

When the door is unlocked by the ignition key from the passenger side, the signal from the door key lock and unlock SW in the door lock motor front RH is input to TERMINAL UL2 of the body ECU. The current flows from TERMINAL ACT- of the body ECU into the door lock motor front RH to TERMINAL ACT+ of the body ECU to GROUND, to unlock all the doors at once.

4. Ignition Key Reminder Operation

When the door lock operation is made using the door knob with the ignition key remained inserted in the key cylinder and the door open, unlock operation is automatically made. Additionally, if lock operation is made with the door lock control SW or door key lock and unlock SW, unlock operation is automatically made after the lock operation has been completed.

Service Hints

D3, D4 Door Courtesy SW LH, RH

1-Ground : Closed with door open

P5 Power Window Master SW

5-17 : Closed with LOCK position

6-17 : Closed with UNLOCK position

D5 Door Key Lock and Lock SW, Door Lock Detection SW and Door Lock Motor LH

2-Ground : Approx. 12 volts with door lock motor at lock operate

1-Ground : Approx. 12 volts with door lock motor at unlock operate

5-3 : Closed with door lock cylinder locked with key

6-3 : Closed with door lock cylinder unlocked with key

D6 Door Key Lock and Lock SW, Door Lock Detection SW and Door Lock Motor RH

6-Ground : Approx. 12 volts with door lock motor at lock operate

5-Ground : Approx. 12 volts with door lock motor at unlock operate

2-4 : Closed with door lock cylinder locked with key

1-4 : Closed with door lock cylinder unlocked with key

○ : PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
B6	A	36	D4		38	J3		37
B7	B	36	D5		38	J10		37
B10		38	D6		38	J11		38
C12	A	36	E2	A	32 (1ZZ-FE)	P5		37
C13	B	36	E3	B	32 (1ZZ-FE)	U1		37
D3		38	E8	E	34 (2ZZ-GE)			

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

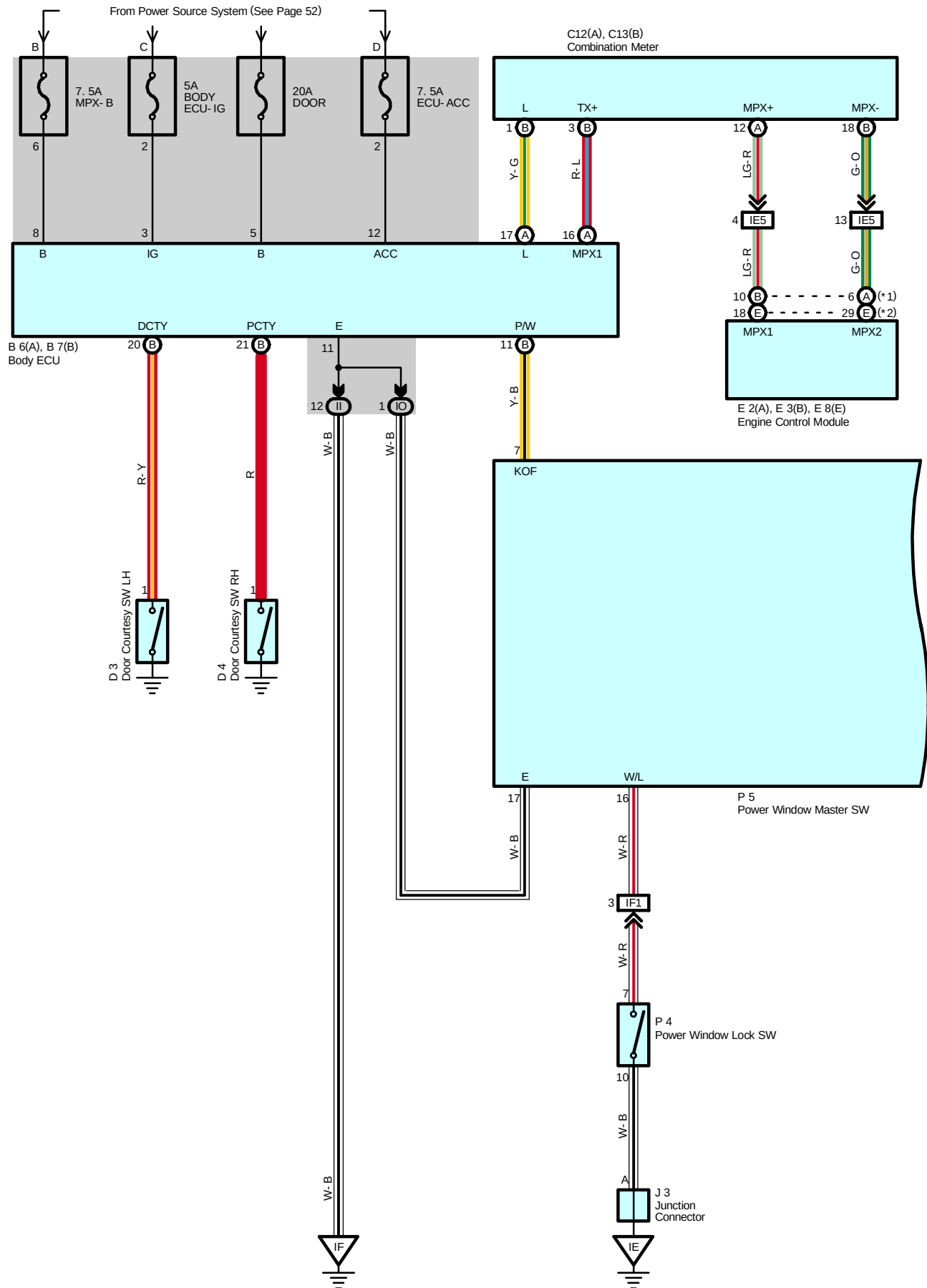
Code	See Page	Junction Block and Wire Harness (Connector Location)
IF	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
II		
IL		
IO	25	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)

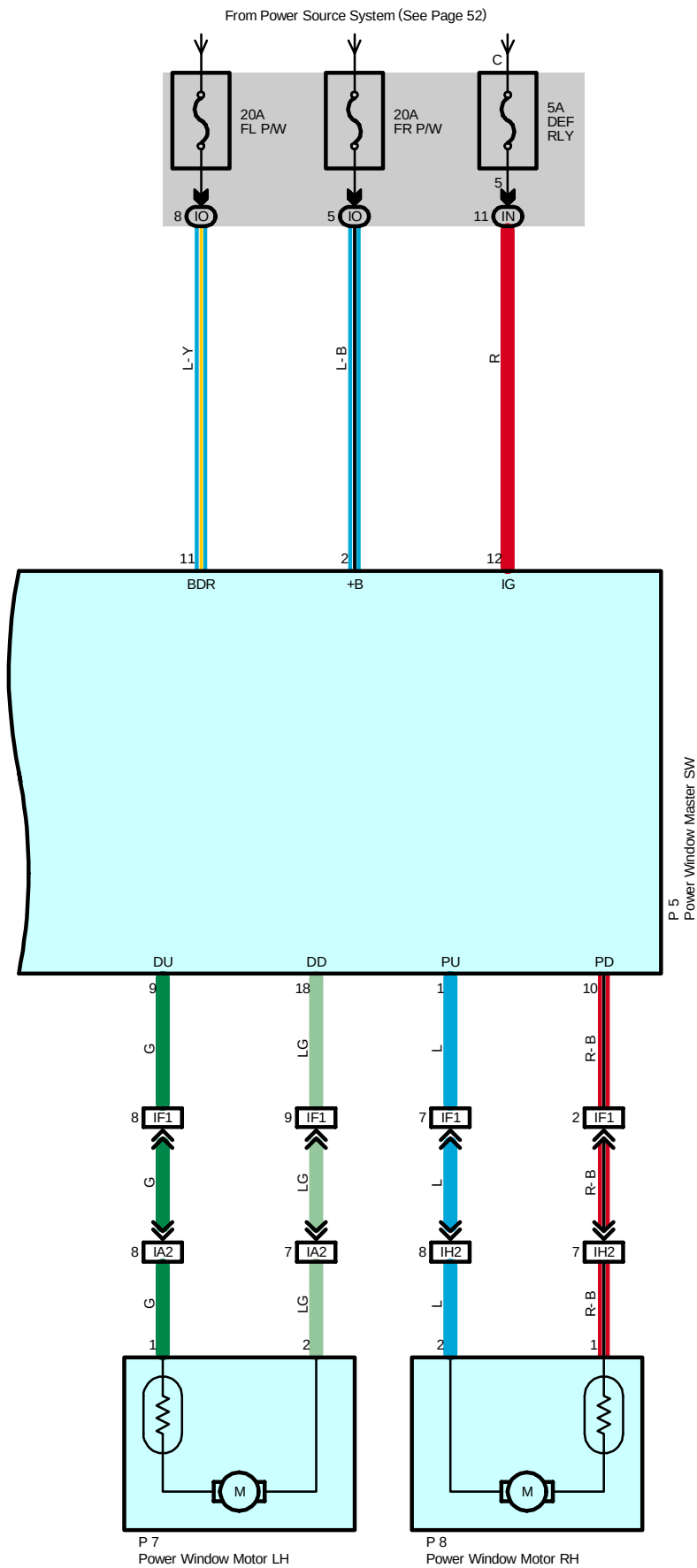
 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	44	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IA2		
IE5	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IH1	46	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IH2		
BA1	48	Back Door No.1 Wire and Floor Wire (Quarter Panel LH)
BB1	48	Back Door No.2 Wire and Back Door No.1 Wire (Back Door Upper Left)

 : GROUND POINTS

Code	See Page	Ground Points Location
IE	44	Cowl Side Panel LH
IF	44	Instrument Panel Brace RH
IH	44	Cowl Side Panel RH





Power Window

System Outline

1. Manual Operation by Power Window SW (Driver's Window)

With the ignition SW turned on and with the power window master SW (Driver's side) in UP position, current to TERMINAL 2 of the power window master SW flows to TERMINAL 9 of the master SW to TERMINAL 1 of the power window motor LH to motor to TERMINAL 2 to TERMINAL 17 of the master SW to GROUND, causing the power window motor to rotate in the up direction. The window ascends only while the SW is being pushed. In down operation, the flow of current from TERMINAL 2 of the power window master SW to TERMINAL 18 of the master SW causes the flow of current from TERMINAL 2 of the motor to motor to TERMINAL 1 to TERMINAL 9 of the master SW to TERMINAL 17 to GROUND, flowing in the opposite direction to manual up operation, causing the motor to rotate in reverse and lowering the window.

2. Auto Down Operation (Driver's Window)

With the ignition SW on and the driver's SW of the power window master SW in DOWN position, current to TERMINAL 2 of the master SW flows to TERMINAL 18 of the master SW to TERMINAL 2 of the power window motor LH to motor to TERMINAL 1 to TERMINAL 9 of the master SW to TERMINAL 17 to GROUND, causing the motor to rotate towards the down side. Then the control unit in the master SW is activated and it locks the driver's SW being pushed, causing the motor to continue to rotate in auto down operation.

When the window has completely descended, the current flowing between TERMINAL 9 of the master SW and TERMINAL 17 increases. As a result, the solenoid stops operating, the driver's SW turns off and the flow from TERMINAL 2 of the master SW to TERMINAL 18 is cut off, stopping the motor so that auto stop occurs.

3. Stopping of Auto Down Operation (Driver's Window)

When the driver's SW is pushed to the up side during auto down operation, a ground circuit opens in the master SW and current does not flow from TERMINAL 9 of the master SW to TERMINAL 16, so the motor stops, causing auto down operation to stop. If the driver's SW is pushed continuously, the motor rotates in the up direction in manual up operation.

4. Manual Operation by Power Window SW (Passenger's Window)

With power window master SW (Passenger's side) pushed to the up side, current from TERMINAL 11 of the power window master SW flows to TERMINAL 1 of the power window master SW to TERMINAL 2 of the window motor RH to motor to TERMINAL 1 to TERMINAL 10 of the power window master SW to TERMINAL 16 to TERMINAL 7 of the window lock SW to TERMINAL 10 to GROUND, causing the power window motor RH to rotate in the up direction. Up operation continues only while the power window master SW is pushed to the up side. When the window descends, current to the motor flows in the opposite direction, from TERMINAL 1 to motor to TERMINAL 2, and the motor rotates in reverse. When the window lock SW is pushed out to the normal side, the ground circuit to the passenger's window becomes open.

As a result, even if Open/Close operation of the passenger's window is tried, current from TERMINAL 11 of the power window master SW is not grounded and the motor does not rotate, so the passenger's window cannot be operated and window lock occurs.

5. Key Off Power Window Operation

Within approx. 43 sec. after the ignition SW is turned from on to off, the power window can be operated. However, if the driver or passenger door is opened during this period of time, the power window operation is stopped even though 43 sec. have not elapsed.

Service Hints

D3, D4 Door Courtesy SW LH, RH

1-Ground : Closed with the door open

P5 Power Window Master SW

17-Ground : Always continuity

12-Ground : Approx. 12 volts with the ignition SW on

9-Ground : Approx. 12 volts with the ignition SW at ON position and the master SW at UP position

18-Ground : Approx. 12 volts with the ignition SW at ON position and the master SW at DOWN or AUTO DOWN position

P4 Power Window Lock SW

7-10 : Open with the window lock SW at LOCK position

○ : PARTS LOCATION

Code		See Page	Code		See Page	Code	See Page
B6	A	36	D4		38	P4	37
B7	B	36	E2	A	32 (1ZZ-FE)	P5	37
C12	A	36	E3	B	32 (1ZZ-FE)	P7	39
C13	B	36	E8	E	34 (2ZZ-GE)	P8	39
D3		38	J3		37		

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
II	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IN	25	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IO		

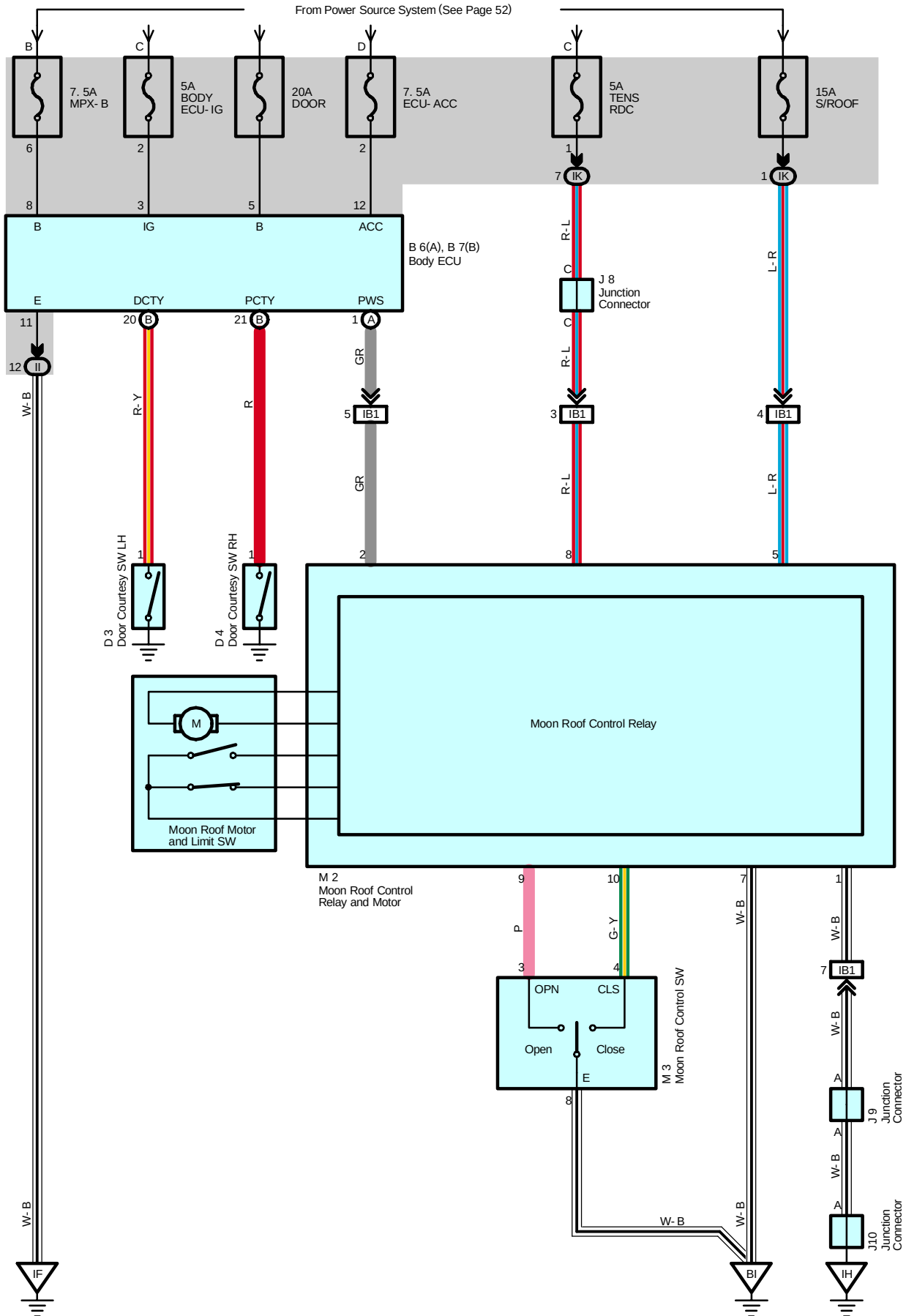
 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA2	44	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IE5	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IF1	46	Floor Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IH2	46	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)

 : GROUND POINTS

Code	See Page	Ground Points Location
IE	44	Cowl Side Panel LH
IF	44	Instrument Panel Brace RH

Moon Roof



System Outline

Key Off Moon Roof Operation

Within approx. 43 sec. after the ignition SW is turned from on to off, the moon roof can be operated. However, if the driver or passenger door is opened during this period of time, the moon roof operation is stopped even through 43 sec. have not elapsed.

Service Hints

M2 Moon Roof Control Relay and Motor

- 1, 7-Ground : Always continuity
- 8-Ground : Approx. 12 volts with the ignition SW at ON position
- 10-Ground : Approx. 12 volts with the ignition SW on and the moon roof control SW at CLOSE or UP position
- 9-Ground : Approx. 12 volts with the ignition SW on and the moon roof control SW at OPEN or DOWN position

M3 Moon Roof Control SW

- 4-8 : Closed with the moon roof control SW at CLOSE position
- 3-8 : Closed with the moon roof control SW at OPEN position
- 8-Ground : Always continuity

○ : PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
B6	A	36	D4	38		J10	37	
B7	B	36	J8	37		M2	39	
D3		38	J9	37		M3	39	

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

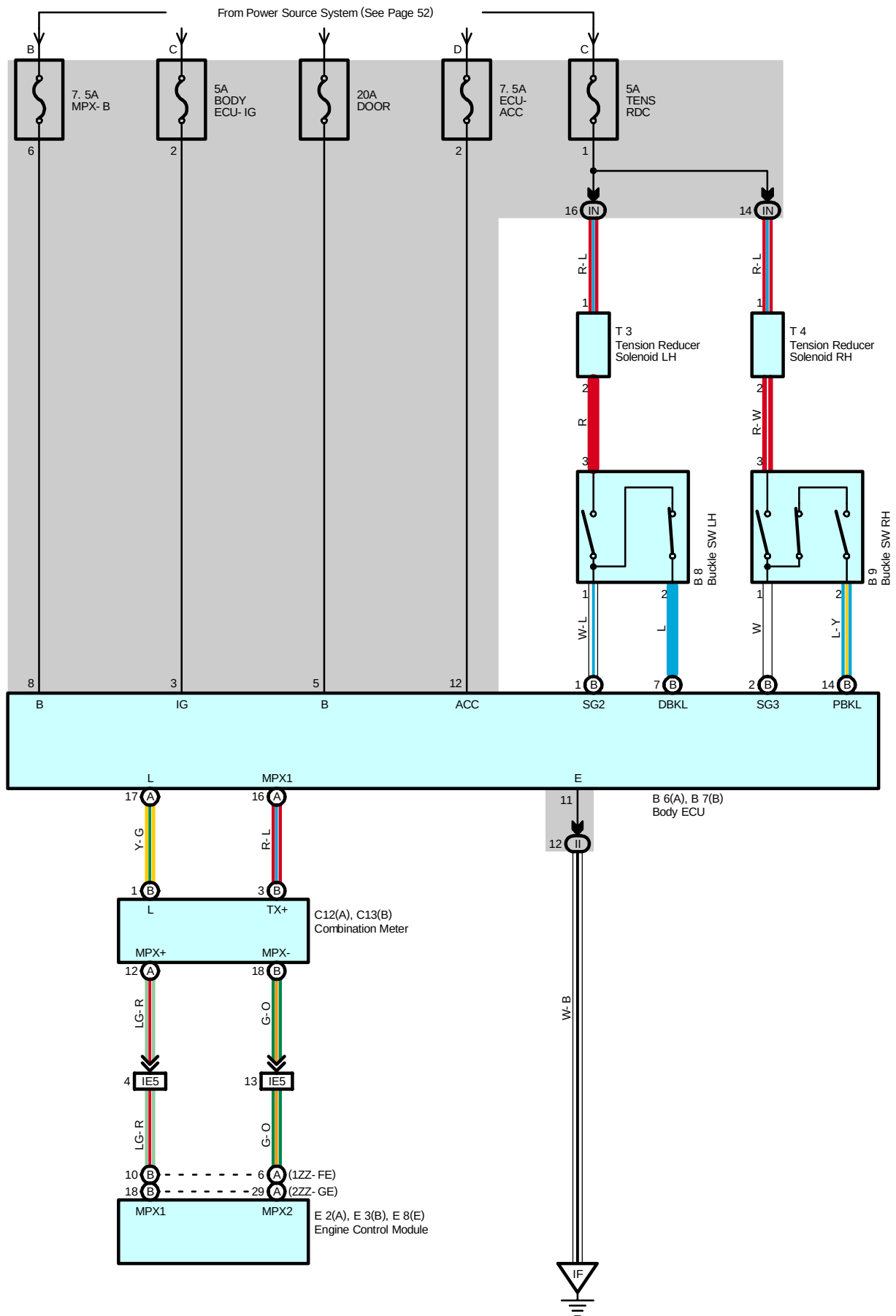
Code	See Page	Junction Block and Wire Harness (Connector Location)
II	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IK		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IB1	44	Roof Wire and Instrument Panel Wire (Left Kick Panel)

▽ : GROUND POINTS

Code	See Page	Ground Points Location
IF	44	Instrument Panel Brace RH
IH	44	Cowl Side Panel RH
BI	48	Roof Left



Service Hints

B8 Buckle SW LH

1-3 : Closed with the driver's seat belt in use

B9 Buckle SW RH

1-3 : Closed with the passenger's seat belt in use

T3, T4 Tension Reducer Solenoid LH, RH

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

: PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
B6	A	36	C12	A	36	E8	E	34 (2ZZ-GE)
B7	B	36	C13	B	36	T3		39
B8		36	E2	A	32 (1ZZ-FE)	T4		39
B9		36	E3	B	32 (1ZZ-FE)			

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

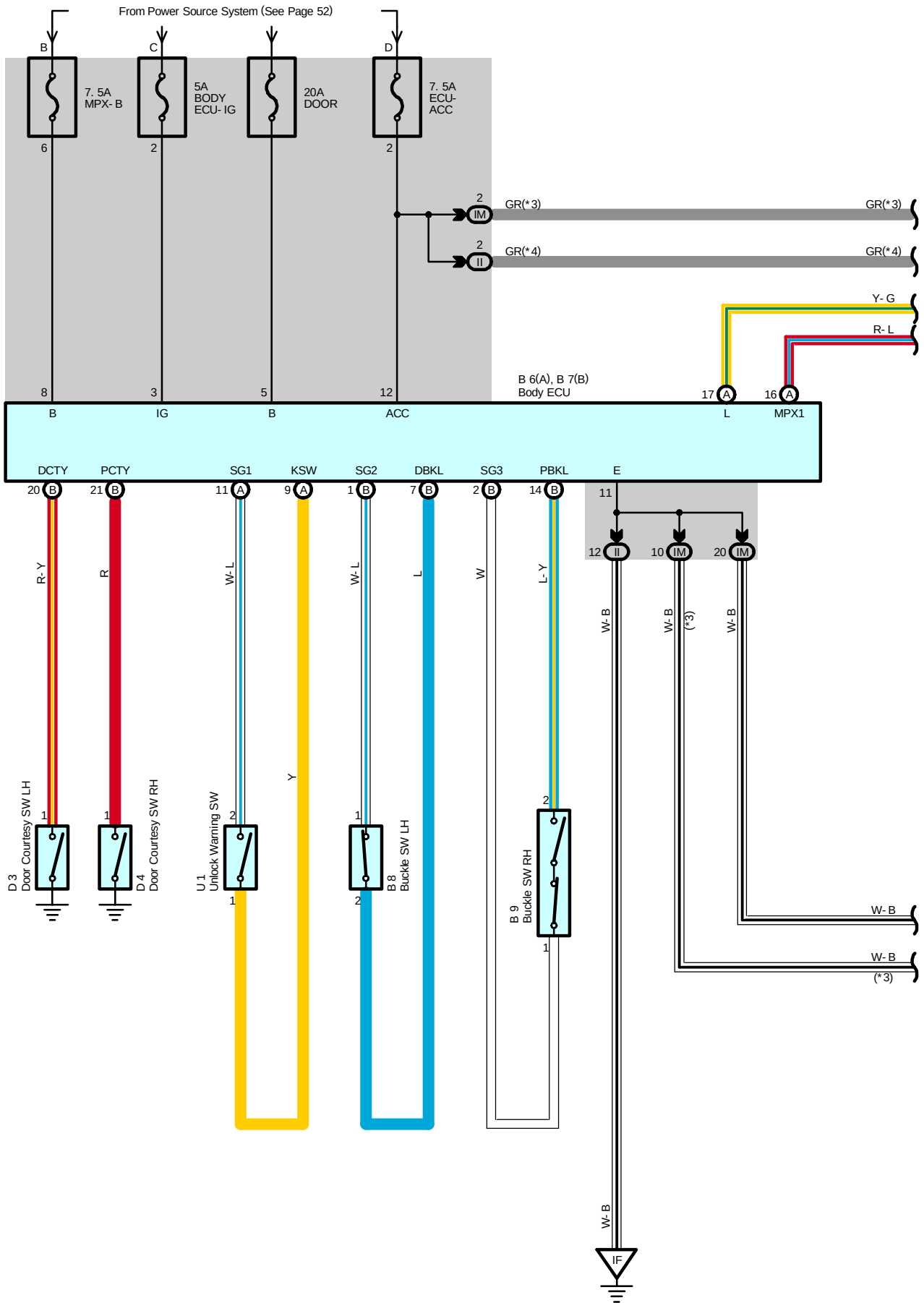
Code	See Page	Junction Block and Wire Harness (Connector Location)
II	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IN	25	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

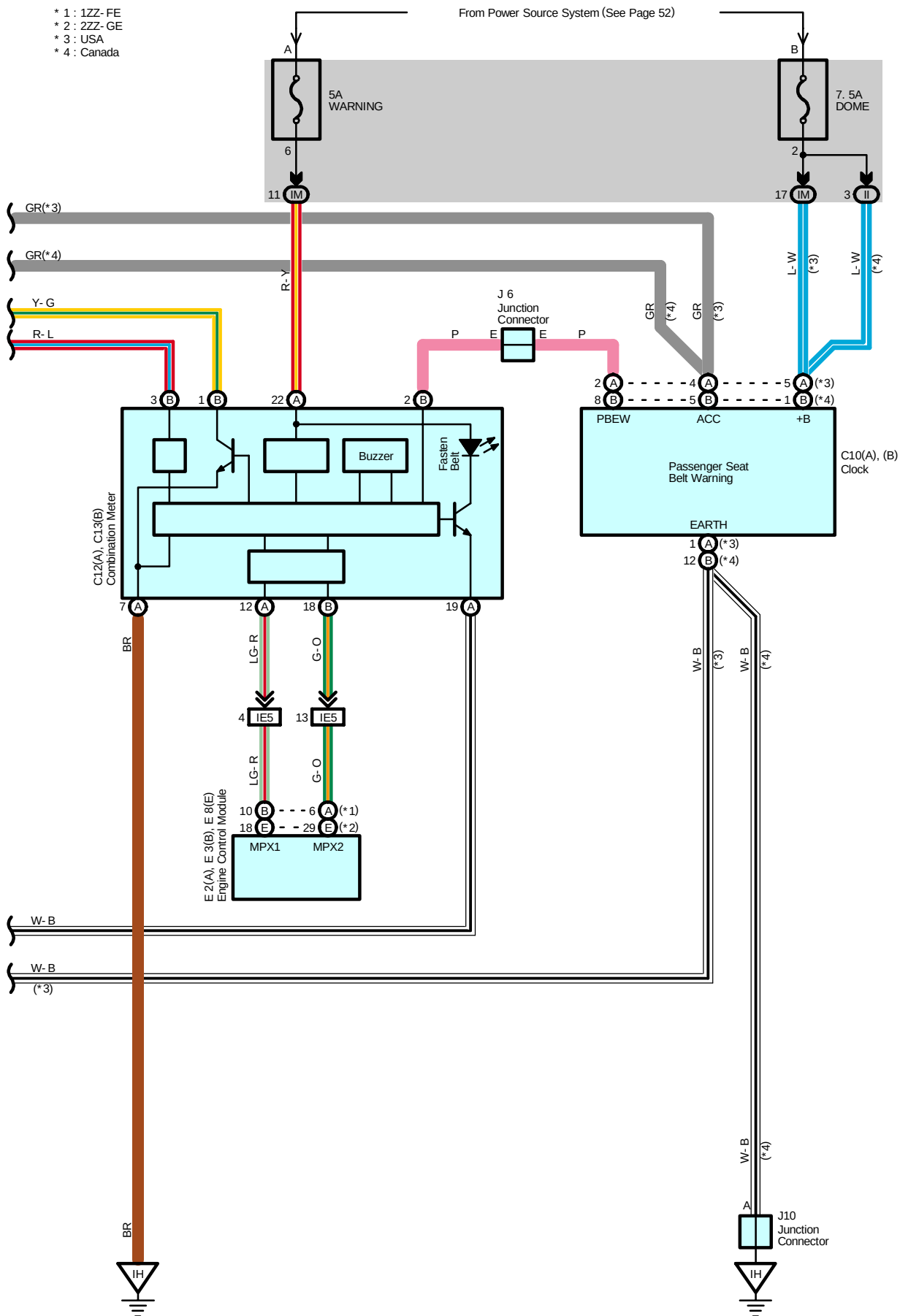
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE5	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)

: GROUND POINTS

Code	See Page	Ground Points Location
IF	44	Instrument Panel Brace RH



- * 1 : 1ZZ-FE
- * 2 : 2ZZ-GE
- * 3 : USA
- * 4 : Canada



Key Reminder and Seat Belt Warning

System Outline

1. Seat Belt Warning System

When the ignition SW is turned to the ON position, the signal is input to the body ECU. At this time, to determine whether or not the driver fastens the seat belt, the signal from the buckle SW LH is input to TERMINAL DBKL of the body ECU. If the driver does not fasten the seat belt, the seat belt warning light in the combination meter flashes and the alarm buzzer goes on, in response to the communication control of the body ECU etc.

Additionally, the sensor (Inside of buckle SW RH) installed on the front passenger seat detects the passenger and determines whether or not the passenger fastens the seat belt.

If the passenger does not fasten the seat belt, the front passenger seat belt warning light is flashed.

2. Key Reminder System

If the driver door is opened with the ignition SW set at the ACC or OFF position and the ignition key remained inserted into the key cylinder (The unlock warning SW is on), the signal from the unlock warning SW is input to TERMINAL KSW of the body ECU and the signal from the door courtesy SW LH is input to TERMINAL DCTY of body ECU. As a result, through communication control of the body ECU etc. the buzzer in the combination meter goes on to warn the driver that the ignition key is still inserted.

Service Hints

B8 Buckle SW LH

1-2 : Opened with the driver's seat belt in use

D3 Door Courtesy SW LH

1-Ground : Closed with the LH door open

U1 Unlock Warning SW

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

○ : PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
B6	A	36	C12	A	36	E8	E	34 (2ZZ-GE)
B7	B	36	C13	B	36	J6		37
B8		36	D3		38	J10		37
B9		36	D4		38	U1		37
C10	A	36	E2	A	32 (1ZZ-FE)			
	B	36	E3	B	32 (1ZZ-FE)			

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
II	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IM		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE5	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)

▽ : GROUND POINTS

Code	See Page	Ground Points Location
IF	44	Instrument Panel Brace RH
IH	44	Cowl Side Panel RH

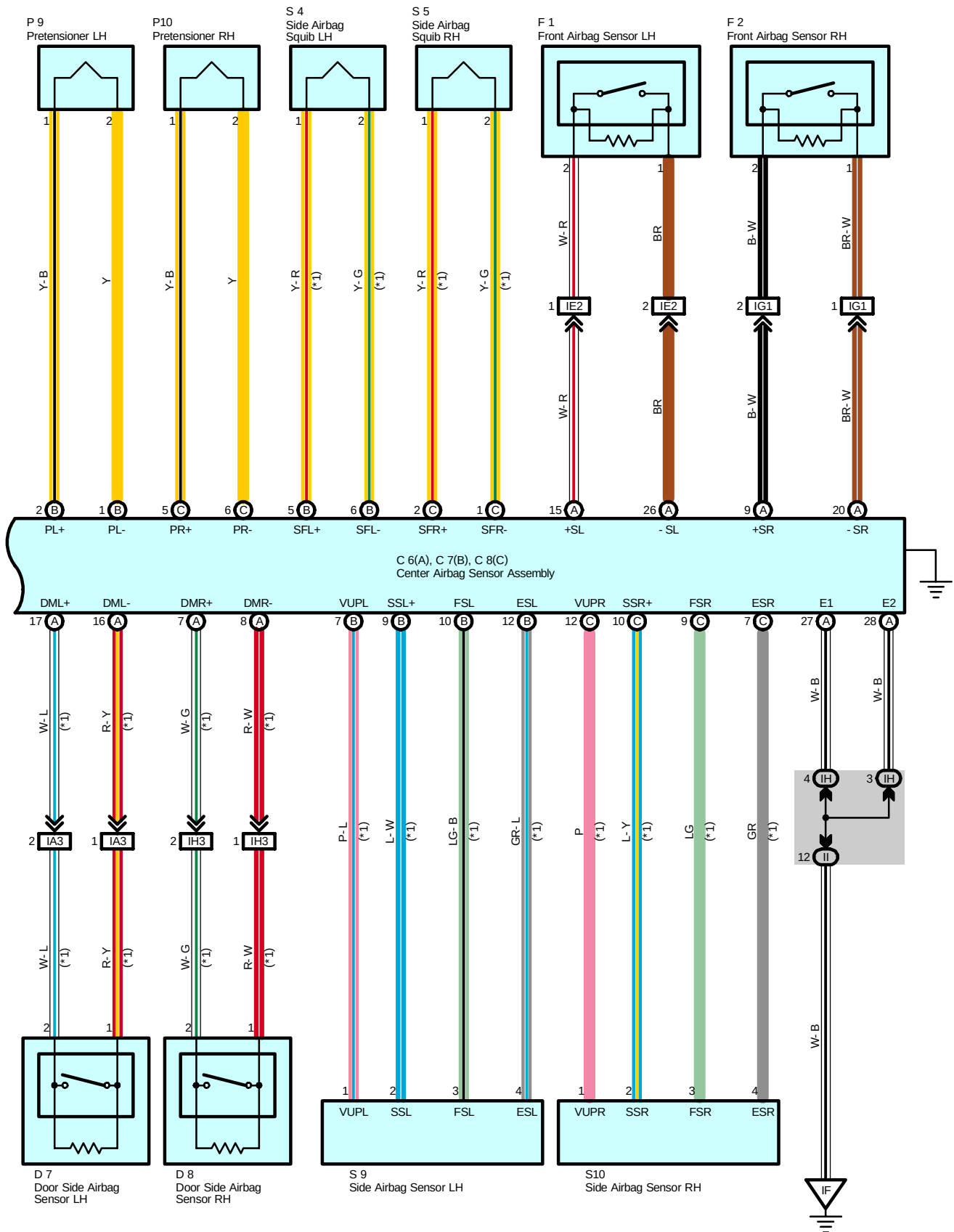
NOTICE: When inspecting or repairing the SRS, perform service in accordance with the following precautionary instructions and the procedure, and precautions in the Repair Manual applicable for the model year.

- 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 ignition SW is turned to the "LOCK" position and the negative (-) terminal cable is disconnected from the battery.**
(The SRS is equipped with a back-up power source so that if work is started within 90 seconds from disconnecting the negative (-) terminal cable of the battery, the SRS may 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 k Ω /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
- * Seat belt pretensioner
- * Center airbag sensor assembly
- * Front airbag sensor assembly
- * Door side airbag sensor assembly
- * Side airbag sensor assembly



- * 1 : w/ Side Airbag
- * 2 : 2ZZ- GE
- * 3 : 1ZZ- FE



System Outline

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

When the ignition SW is on does, current from the SRS-IG fuse flows to TERMINAL (A) 6.

If an accident occurs while driving, deceleration caused by a frontal impact is detected by each of the sensor and the switch, in the center airbag sensor assembly and when the frontal impact exceeds a set level (When the safing sensor built into the center airbag sensor assembly is on and the center airbag sensor is on, the front airbag sensor are off), current from the SRS-IG fuse flows to TERMINALS (A) 14, (A) 10 of the center airbag sensor assembly to TERMINAL 1 of the airbag squib to TERMINAL 2 to TERMINALS (A) 13, (A) 11 of the center airbag sensor assembly to TERMINAL (A) 27, TERMINAL (A) 28 or BODY GROUND to GROUND.

When the safing sensor built into the center airbag sensor assembly is on and the front airbag sensor LH or RH is on, the center airbag sensor is off and current from the SRS-IG fuse flows to TERMINALS (A) 14, (A) 10 of the center airbag sensor assembly to TERMINAL 1 of the airbag squib to TERMINAL 2 to TERMINALS (A) 13, (A) 11 of the center airbag sensor assembly to TERMINAL (A) 9 or (A) 15 to TERMINAL 2 of the front airbag sensor to TERMINAL 1 to TERMINAL (A) 20 or (A) 26 of the center airbag sensor assembly to TERMINAL (A) 27, TERMINAL (A) 28 or BODY GROUND to GROUND, when the safing sensor built into the center airbag sensor assembly is on, and the front airbag sensor LH or RH is on and the center airbag sensor is on, one of the above-mentioned circuits is activated so that current flows to the airbag squibs, causing it to operate.

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

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

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A12	36	D7	38	I10	37
A13	36	D8	38	J6	37
B7	36	E3	B	P9	39
C6	A	E9	F	P10	39
C7	B	F1	32 (1ZZ-FE)	S4	37
C8	C		34 (2ZZ-GE)	S5	37
C12	36	F2	32 (1ZZ-FE)	S9	39
D1	36		34 (2ZZ-GE)	S10	39

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

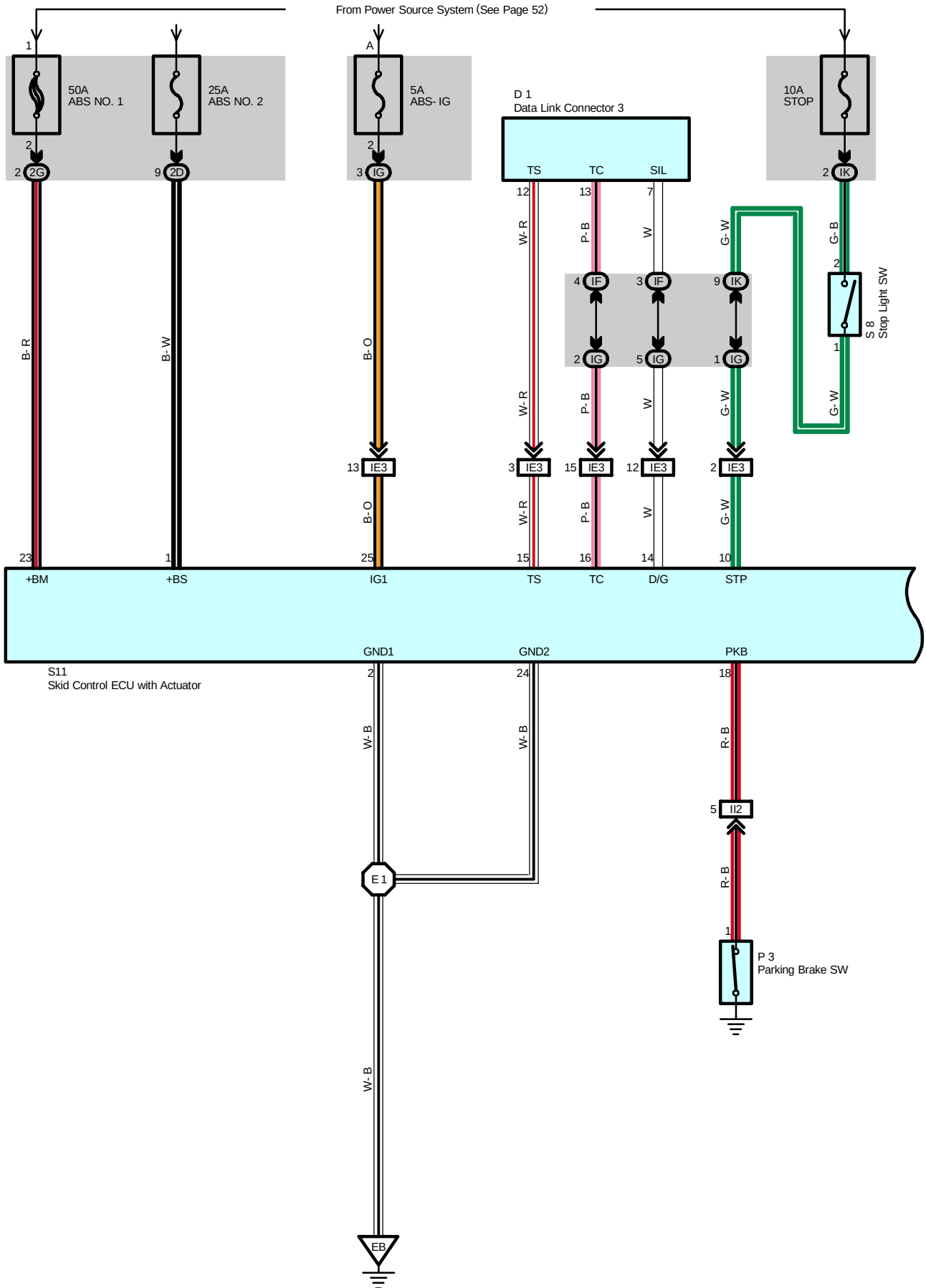
Code	See Page	Junction Block and Wire Harness (Connector Location)
IB	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IC		
IF	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IH		
II		
IK		
IM		
2A	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2F	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)

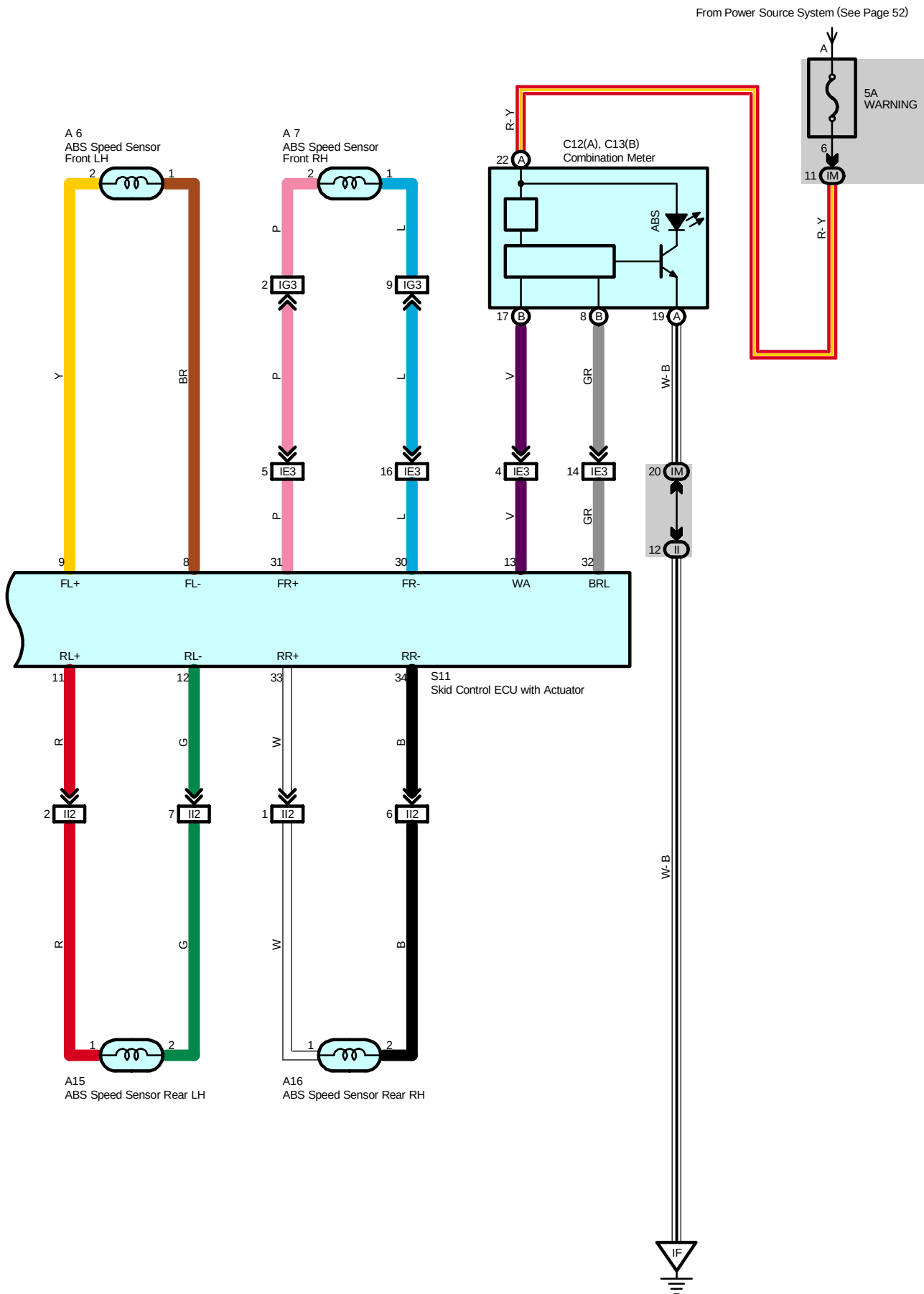
□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA3	44	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IE2	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IG1	46	Engine Room No.2 Wire and Instrument Panel Wire (Right Kick Panel)
IH3	46	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)

▽ : GROUND POINTS

Code	See Page	Ground Points Location
IF	44	Instrument Panel Brace RH





System Outline

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

1. Input Signals

(1) Speed sensor signal

The speed of the wheels is detected and input to TERMINALS FL+, FR+, RL+ and RR+ of the skid control ECU with actuator.

(2) Stop light SW signal

A signal is input to TERMINAL STP of the skid control ECU with actuator when the brake pedal depressed.

2. System Operation

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

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

Service Hints

S11 Skid Control ECU with Actuator

- 1, 23-Ground : Always approx. 12 volts
- 2, 24-Ground : Always continuity
- 25-Ground : Approx. 12 volts with the ignition SW at ON position
- 10-Ground : Approx. 12 volts with the brake pedal depressed

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A6	32 (1ZZ-FE)	A16	38	S8	37
	34 (2ZZ-GE)	C12	A	S11	32 (1ZZ-FE)
A7	32 (1ZZ-FE)	C13	B		34 (2ZZ-GE)
	34 (2ZZ-GE)	D1	36		
A15	38	P3	37		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IF	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IG		
II		
IK		
IM		
2D	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2G		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE3	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IG3	46	Engine Room No.2 Wire and Instrument Panel Wire (Right Kick Panel)
II2	46	Engine Room Main Wire and Floor Wire (Instrument Panel Brace LH)

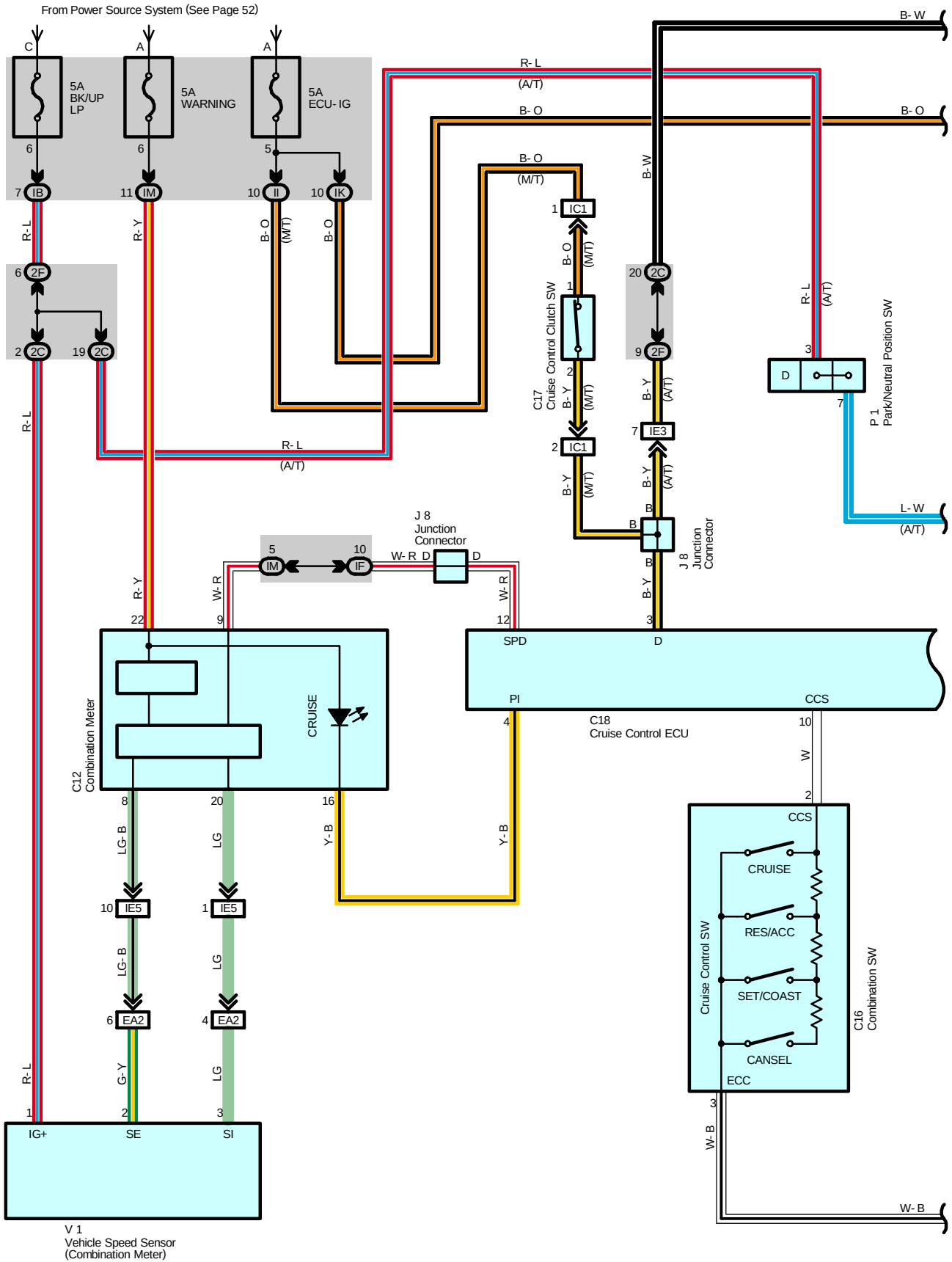
**: GROUND POINTS**

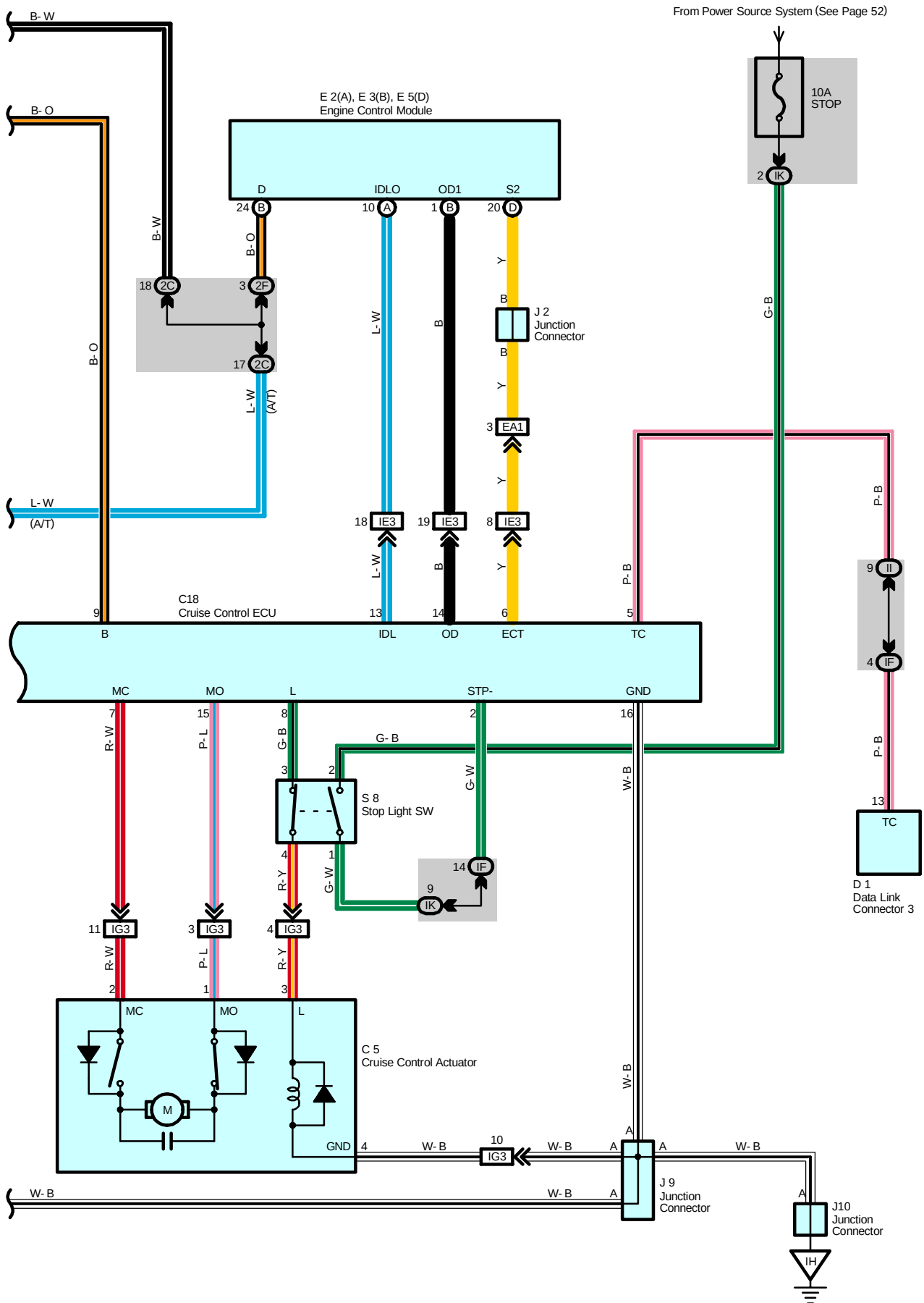
Code	See Page	Ground Points Location
EB	40 (1ZZ-FE)	Front Left Fender
	42 (2ZZ-GE)	
IF	44	Instrument Panel Brace RH

**: SPLICE POINTS**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	40 (1ZZ-FE)	Engine Room Main Wire	E1	42 (2ZZ-GE)	Engine Room Main Wire

Cruise Control for 1ZZ-FE





Cruise Control for 1ZZ-FE

System Outline

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

1. Set Operation

When the cruise control main SW is turned ON, the cruise control system enters into standby mode, and the indicator light in the combination meter is turned ON.

2. Set Speed Control

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

3. Coast Control

When the SET/COAST switch is operated to ON, the motor in the actuator rotates the throttle valve until it is closed fully to decrease the vehicle speed, and the speed when the switch is operated to OFF is memorized, and the vehicle speed is controlled at that speed.

Furthermore, every time the SET/COAST switch is operated momentarily (Approximately 0.5 sec.) to ON, the memorized vehicle speed is decreased by approximately 1.5km/h.

4. Accel Control

When the RES/ACC switch is operated to ON, the motor in the actuator rotates the throttle valve to open direction to increase the vehicle speed, and the speed when the switch is operated to OFF is memorized, and the vehicle speed is controlled at that speed.

Furthermore, every time the RES/ACC switch is operated momentarily (Approximately 0.5 sec.) to ON, the memorized vehicle speed is increased by approximately 1.5km/h.

5. Manual Cancel Mechanism

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

- (1) Stop light SW is ON (Brake pedal is depressed)
- (2) Park/Neutral Position SW D circuit is turned from ON to OFF (A/T)
- (3) Cruise control clutch SW is ON (Clutch pedal is depressed) (M/T)
- (4) The CANCEL SW of the control SW is ON
- (5) The CRUISE SW is turned OFF

6. Resume Control

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

7. Electronically Controlled Transmission Control

During cruise control traveling, communication control is made to fix the electronically controlled transmission in normal pattern. However, in this case the indicator of the electronically controlled transmission does not change.

8. Overdrive Function

While traveling with the cruise control, if the overdrive cut speed is reached on an upgrade hill, the overdrive is released (O/D OFF) immediately.

This function increases the vehicle's traction so that the vehicle speed does not drop.

9. Auto Cancel Operation

If any of the following conditions are detected, the set speed is erased and the control is canceled.

- (1) Disconnection or short in the Stop Light SW
- (2) Abnormality in vehicle speed signal
- (3) Abnormality in the actuator
- (4) The actual vehicle speed becomes slower than the minimum speed limit

Service Hints

C16 Combination SW

- 2-3 : Continuity with the CRUISE SW on
- 2-3 : Approx. 1540 Ω with the CANCEL SW on
- Approx. 630 Ω with the SET/COAST SW on
- Approx. 240 Ω with the RES/ACC SW on

C18 Cruise Control ECU

- 9-Ground : Approx. 12 volts with the ignition SW at ON position
- 12-Ground : 4 pulses with 1 rotation of the rotor shaft
- 10-Ground : Approx. 1540 Ω with the CANCEL SW on in the control SW
- Approx. 630 Ω with the SET/COAST SW on in the control SW
- Approx. 240 Ω with the RES/ACC SW on in the control SW
- 16-Ground : Always continuity

: PARTS LOCATION

Code	See Page	Code		See Page	Code	See Page
C5	32 (1ZZ-FE)	E2	A	32 (1ZZ-FE)	J10	37
C12	36	E3	B	32 (1ZZ-FE)	P1	33 (1ZZ-FE)
C16	36	E5	D	32 (1ZZ-FE)	S8	37
C17	36	J2		33 (1ZZ-FE)	V1	33 (1ZZ-FE)
C18	36	J8		37		
D1	36	J9		37		

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

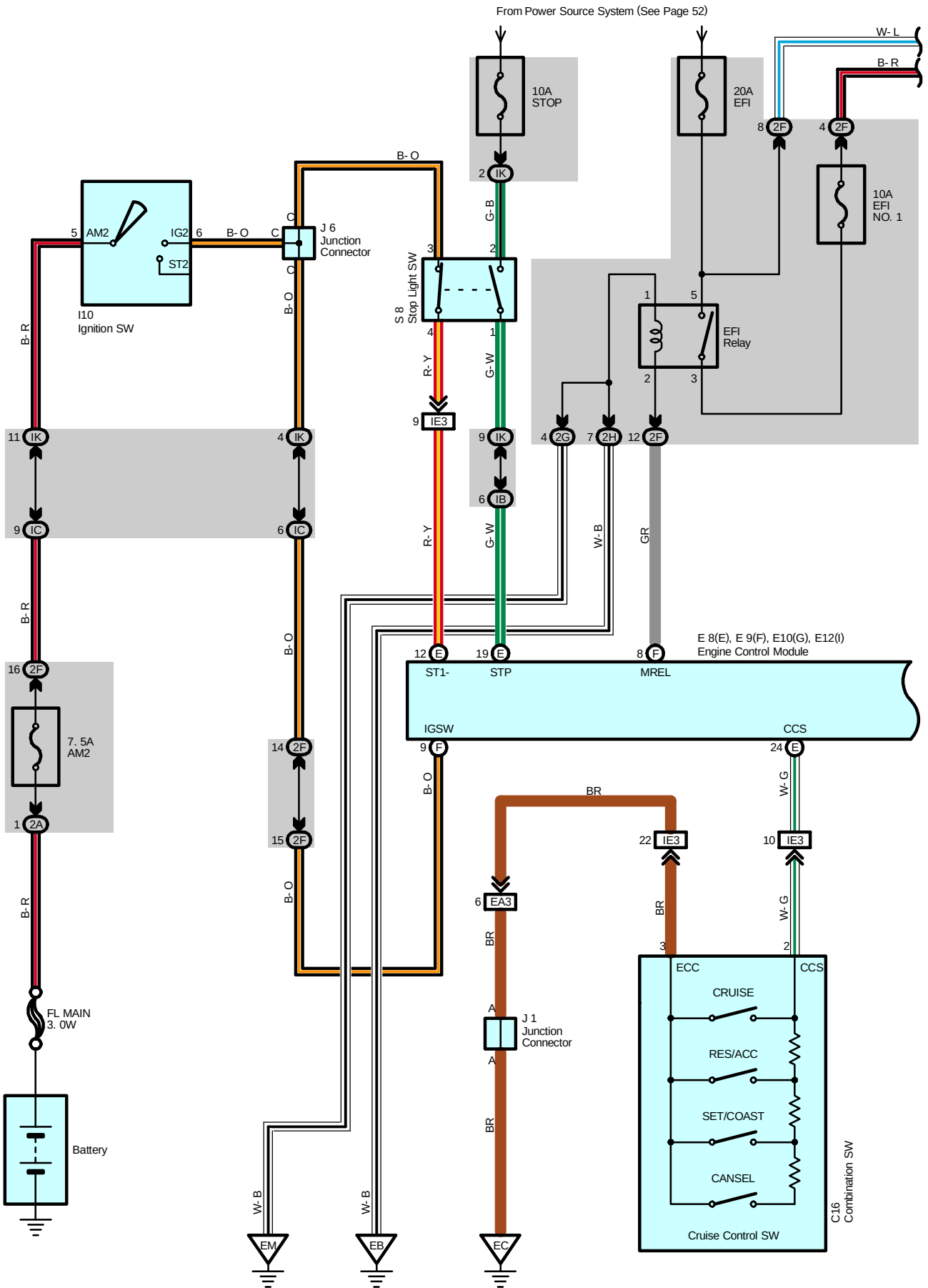
Code	See Page	Junction Block and Wire Harness (Connector Location)
IB	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IF	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
II		
IK		
IM		
2C	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2F	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	40 (1ZZ-FE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B No.1)
EA2		
IC1	44	Instrument Panel Wire and Instrument Panel No.2 Wire (Instrument Panel Reinforcement LH)
IE3	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IE5		
IG3	46	Engine Room No.2 Wire and Instrument Panel Wire (Right Kick Panel)

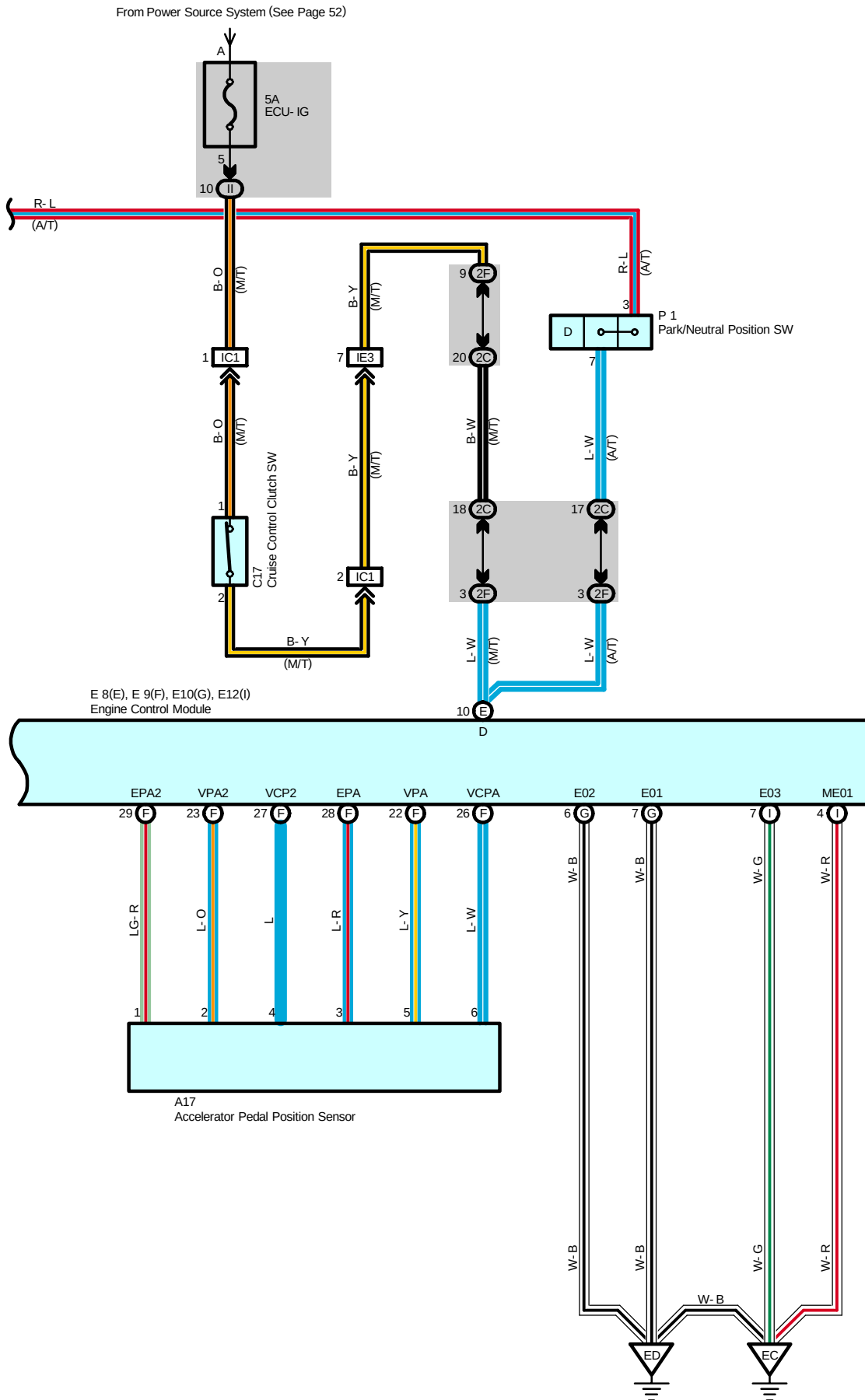
: GROUND POINTS

Code	See Page	Ground Points Location
IH	44	Cowl Side Panel RH





Cruise Control for 2ZZ-GE



System Outline

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

1. Set Operation

When the cruise control main SW is turned ON, the cruise control system enters into standby mode, and the indicator light in the combination meter is turned ON.

2. Set Speed Control

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

3. Coast Control

When the SET/COAST switch is operated to ON, the motor in the actuator rotates the throttle valve until it is closed fully to decrease the vehicle speed, and the speed when the switch is operated to OFF is memorized, and the vehicle speed is controlled at that speed.

Furthermore, every time the SET/COAST switch is operated momentarily (Approximately 0.5 sec.) to ON, the memorized vehicle speed is decreased by approximately 1.5km/h.

4. Accel Control

When the RES/ACC switch is operated to ON, the motor in the actuator rotates the throttle valve to open direction to increase the vehicle speed, and the speed when the switch is operated to OFF is memorized, and the vehicle speed is controlled at that speed.

Furthermore, every time the RES/ACC switch is operated momentarily (Approximately 0.5 sec.) to ON, the memorized vehicle speed is increased by approximately 1.5km/h.

5. Manual Cancel Mechanism

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

- (1) Stop light SW is ON (Brake pedal is depressed)
- (2) Park/Neutral Position SW D circuit is turned from ON to OFF (A/T)
- (3) Cruise control clutch SW is ON (Clutch pedal is depressed) (M/T)
- (4) The CANCEL SW of the control SW is ON
- (5) The CRUISE SW is turned OFF

6. Resume Control

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

7. Electronically Controlled Transmission Control

During cruise control traveling, communication control is made to fix the electronically controlled transmission in normal pattern. However, in this case the indicator of the electronically controlled transmission does not change.

8. Overdrive Function

While traveling with the cruise control, if the overdrive cut speed is reached on an upgrade hill, the overdrive is released (O/D OFF) immediately.

This function increases the vehicle's traction so that the vehicle speed does not drop.

9. Auto Cancel Operation

If any of the following conditions are detected, the set speed is erased and the control is canceled.

- (1) Disconnection or short in the Stop Light SW
- (2) Abnormality in vehicle speed signal
- (3) Abnormality in the actuator
- (4) The actual vehicle speed becomes slower than the minimum speed limit

Cruise Control for 2ZZ-GE

Service Hints

C16 Combination SW

- 2-3 : Continuity with the CRUISE SW on
- 2-3 : Approx. 1540 Ω with the CANCEL SW on
- Approx. 630 Ω with the SET/COAST SW on
- Approx. 240 Ω with the RES/ACC SW on

E8 (E), E9 (F), E10 (G), E12 (I) Engine Control Module

- (F) 9-Ground : Approx. 12 volts with the ignition SW at ON position
- (E) 6, (F) 3-Ground : Always approx. 12 volts
- (G) 6, (G) 7, (I) 4, (I) 7, (I) 30-Ground : Always continuity
- (E) 19-Ground : Approx. 12 volts with the stop light SW at on
- (E) 24-Ground : Continuity with the MAIN SW on
- Approx. 1540 Ω with the CANCEL SW on
- Approx. 630 Ω with the SET/COAST SW on
- Approx. 240 Ω with the RES/ACC SW on

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A17	36	E9	F	34 (2ZZ-GE)	P1
C12	A	E10	G	34 (2ZZ-GE)	S8
C13	B	E12	I	34 (2ZZ-GE)	T1
C16	36	I10	37	V1	35 (2ZZ-GE)
C17	36	J1	35 (2ZZ-GE)		
E8	E	J6	37		

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	26	Engine Room R/B No.1 (Engine Compartment Left)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

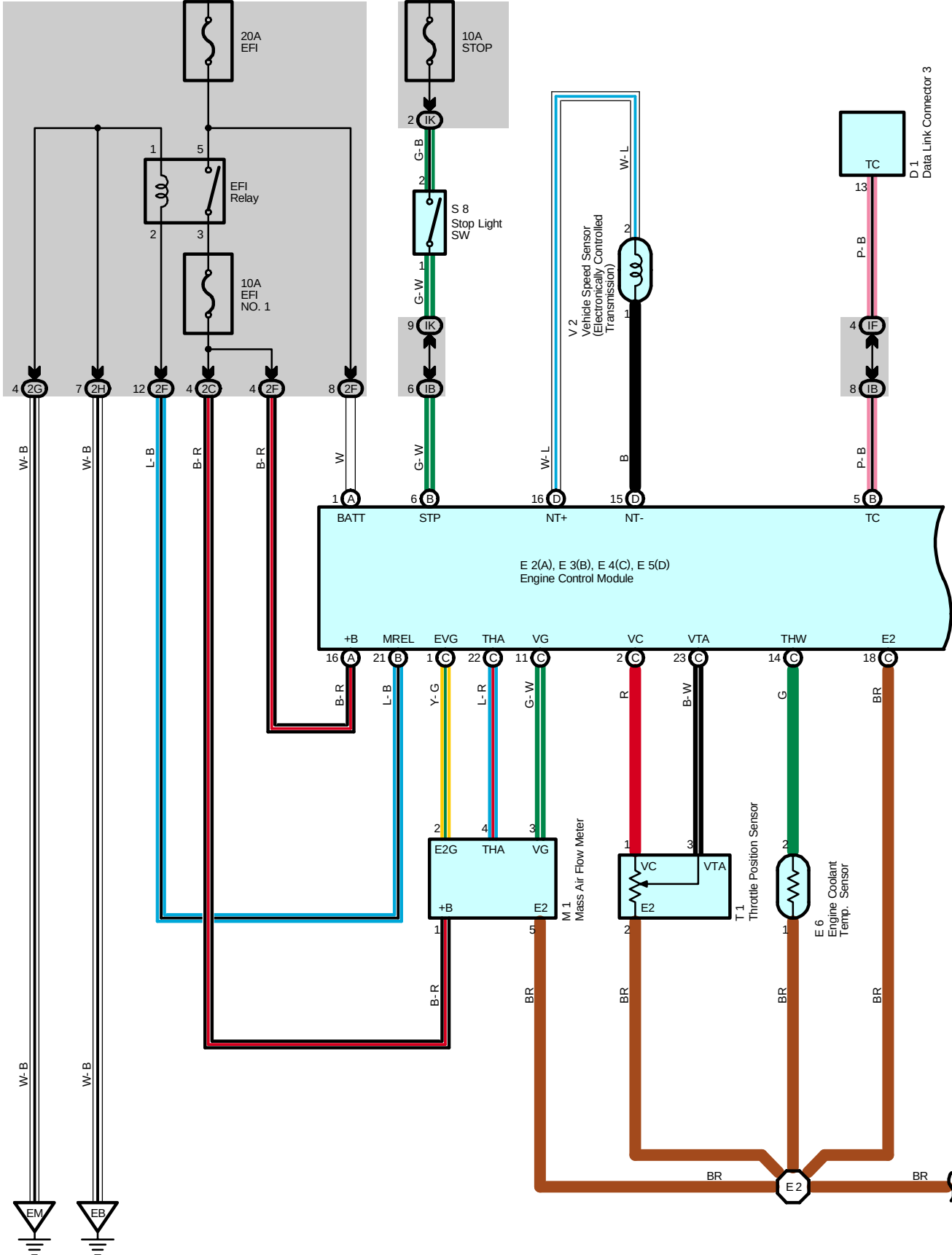
Code	See Page	Junction Block and Wire Harness (Connector Location)
IB	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IC		
II	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IK		
IM		
2A	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2C		
2F	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2G		
2H		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

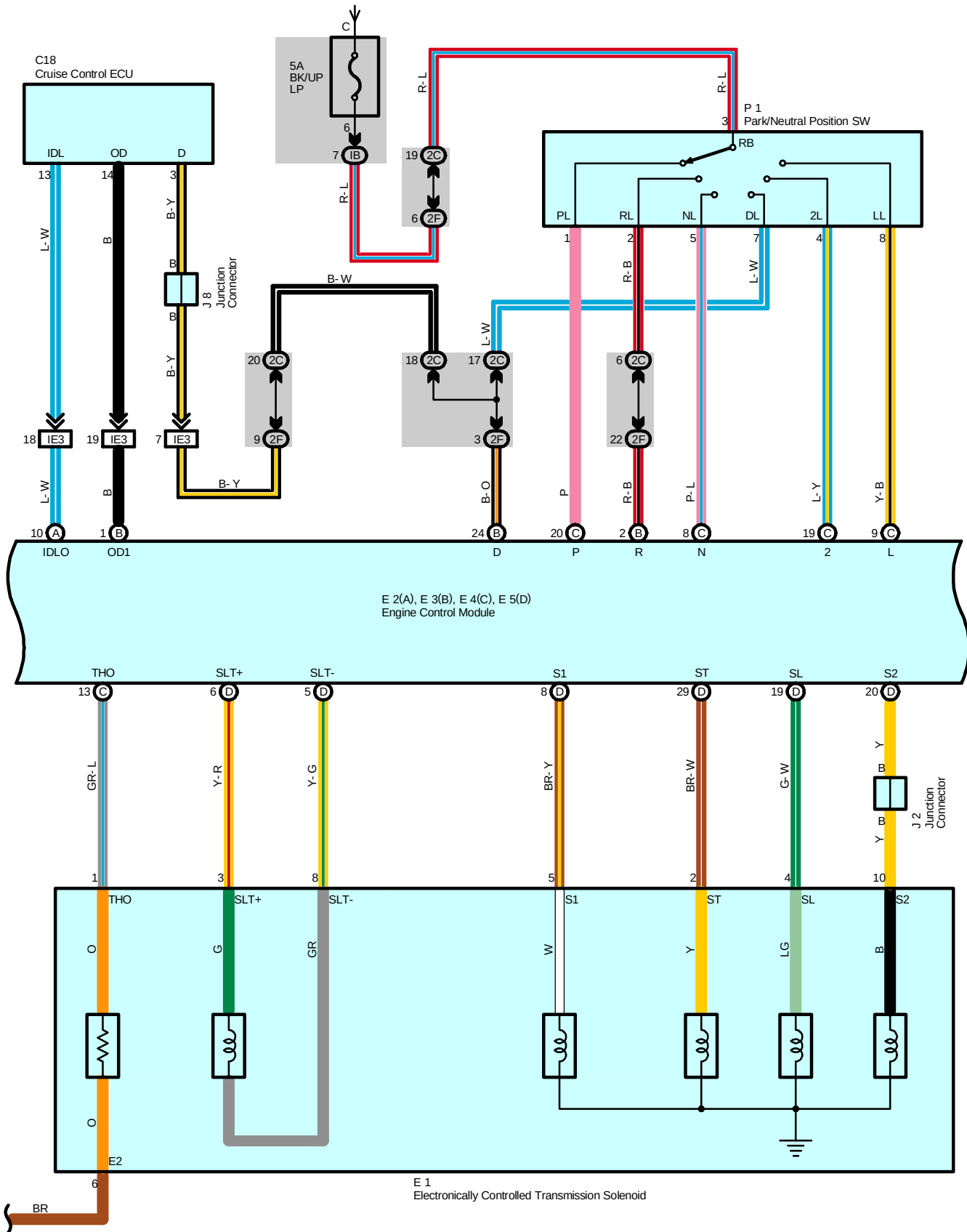
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA2	42 (2ZZ-GE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B No.1)
EA3		
IC1	44	Instrument Panel Wire and Instrument Panel No.2 Wire (Instrument Panel Reinforcement LH)
IE3	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IE5		

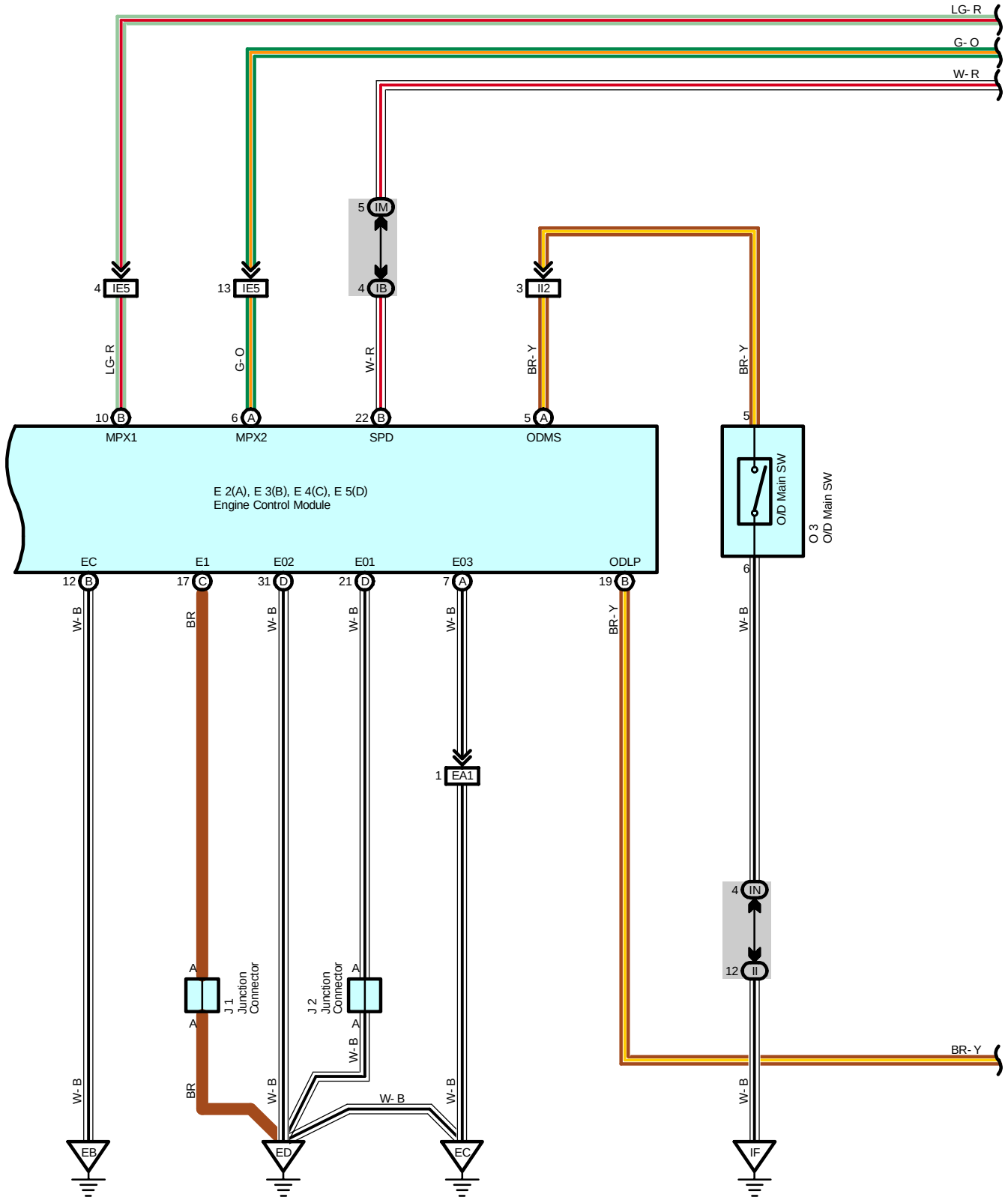
**: GROUND POINTS**

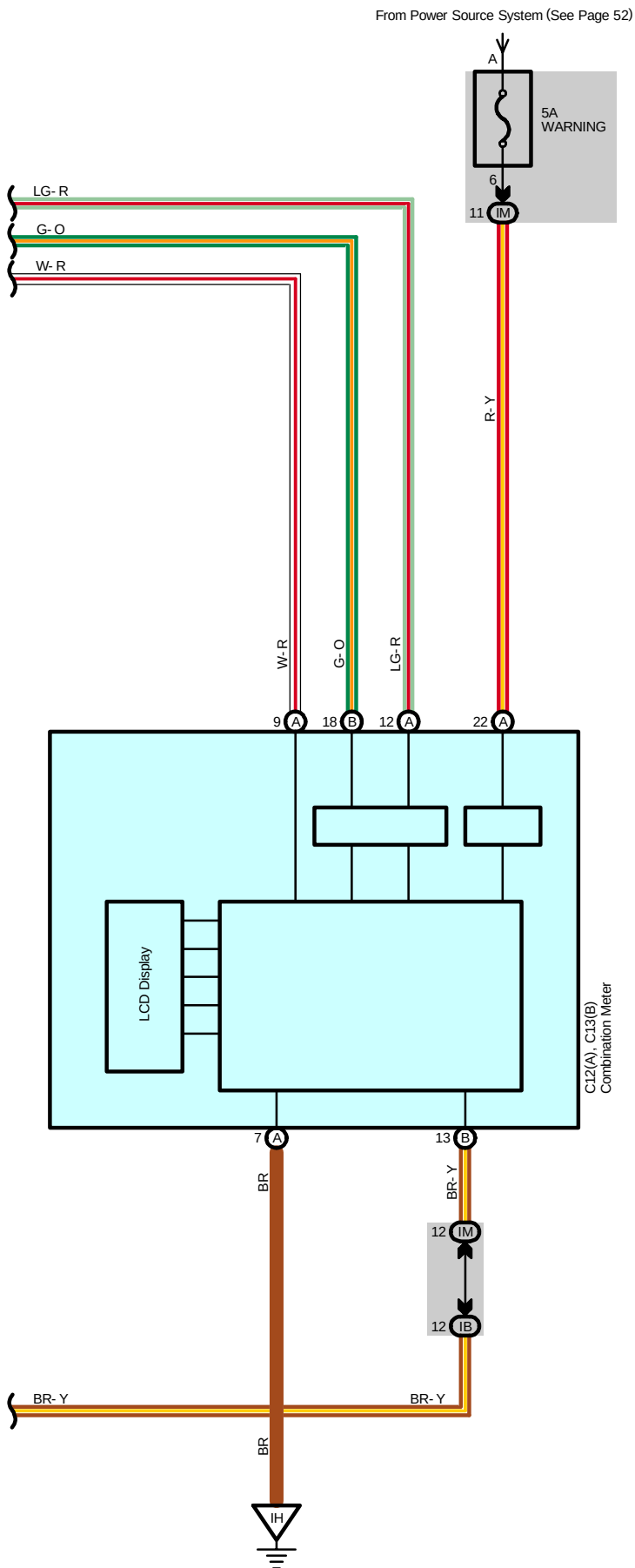
Code	See Page	Ground Points Location
EB	42 (2ZZ-GE)	Front Left Fender
EC	42 (2ZZ-GE)	Cylinder Head Cover LH
ED		
EM	42 (2ZZ-GE)	Front Left Fender
IH	44	Cowl Side Panel RH



FROM POWER SOURCE SYSTEM (SEE PAGE 52)







ECT and A/T Indicator for 1ZZ-FE

System Outline

Gear Shift Operation

When driving, the engine warm up condition is input as a signal to TERMINAL THW of the engine control module from the engine coolant temp. sensor and the vehicle speed signal from vehicle speed sensor is input to TERMINAL NT+ of the engine control module. At the same time, the throttle valve opening signal from the throttle position sensor is input to TERMINAL VTA of the engine control module as throttle angle signal.

Based on these signals, the engine control module selects the best shift position for the driving conditions and sends current to the electronically controlled transmission solenoid.

Service Hints

V2 Vehicle Speed Sensor (Electronically Controlled Transmission)

1-2 : 560-680 Ω

E2 (A), E3 (B), E4 (C) Engine Control Module

BATT-E1 : Always approx. 12 volts

+B-E1 : Approx. 12 volts with ignition SW ON or ST position

MREL-E1 : Approx. 12 volts with ignition SW ON or ST position

P1 Park/Neutral Position SW

3-1 : Closed with shift lever in P position

3-2 : Closed with shift lever in R position

3-5 : Closed with shift lever in N position

3-7 : Closed with shift lever in D position

3-4 : Closed with shift lever in 2 position

3-8 : Closed with shift lever in L position

○ : PARTS LOCATION

Code			See Page			Code			See Page		
C12	A	36	E4	C	32 (1ZZ-FE)	O3		37			
C13	B	36	E5	D	32 (1ZZ-FE)	P1		33 (1ZZ-FE)			
C18		36	E6		32 (1ZZ-FE)	S8		37			
D1		36	J1		33 (1ZZ-FE)	T1		33 (1ZZ-FE)			
E1		32 (1ZZ-FE)	J2		33 (1ZZ-FE)	V2		33 (1ZZ-FE)			
E2	A	32 (1ZZ-FE)	J8		37						
E3	B	32 (1ZZ-FE)	M1		33 (1ZZ-FE)						

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IB	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IF	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
II		
IK		
IM		
IN	25	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)
2C	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2F	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2G		
2H		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	40 (1ZZ-FE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B No.1)
IE3	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IE5		
II2	46	Engine Room Main Wire and Floor Wire (Instrument Panel Brace LH)

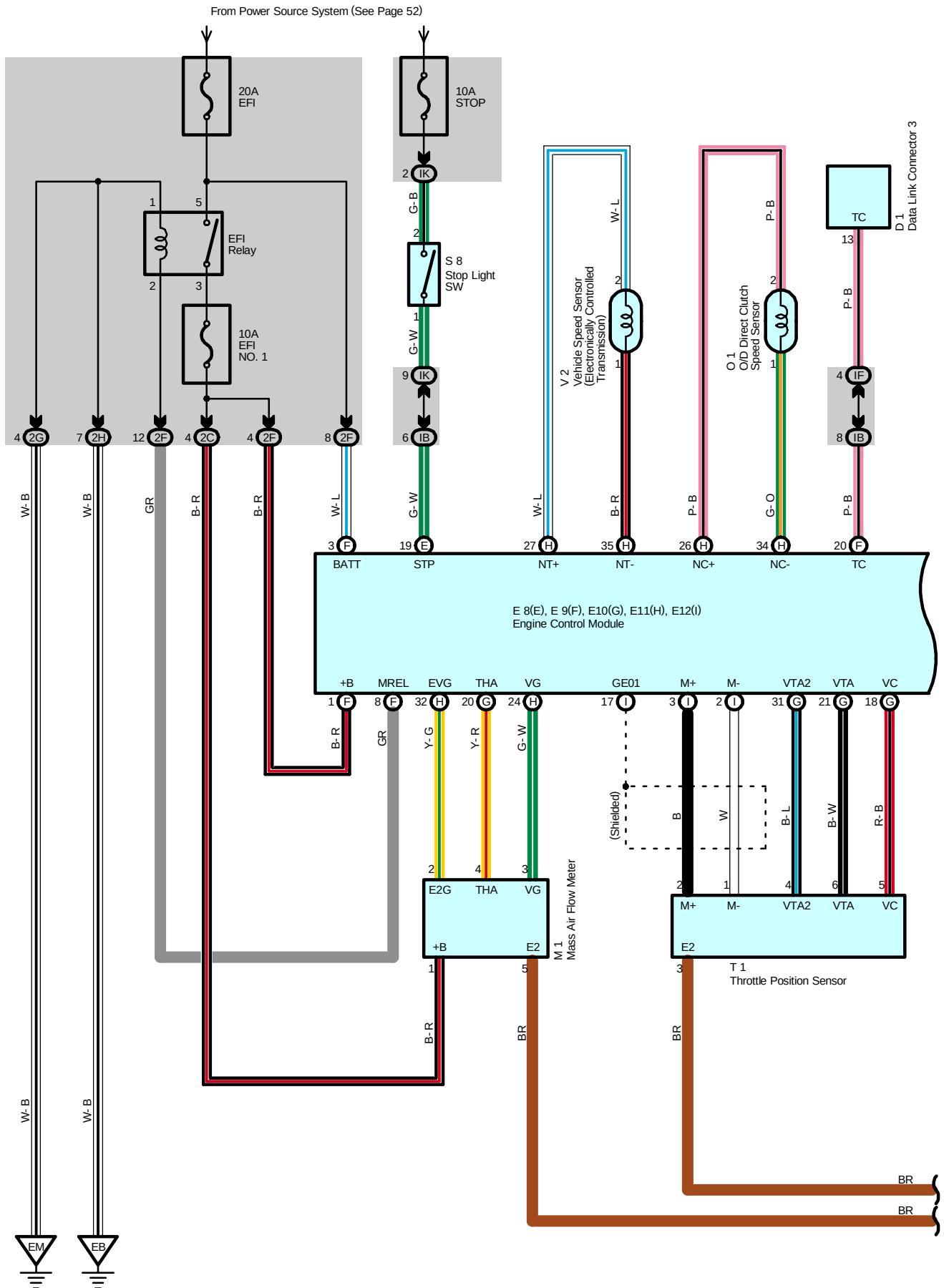
**: GROUND POINTS**

Code	See Page	Ground Points Location
EB	40 (1ZZ-FE)	Front Left Fender
EC	40 (1ZZ-FE)	Cylinder Head Cover LH
ED		
EM	40 (1ZZ-FE)	Front Left Fender
IF	44	Instrument Panel Brace RH
IH	44	Cowl Side Panel RH

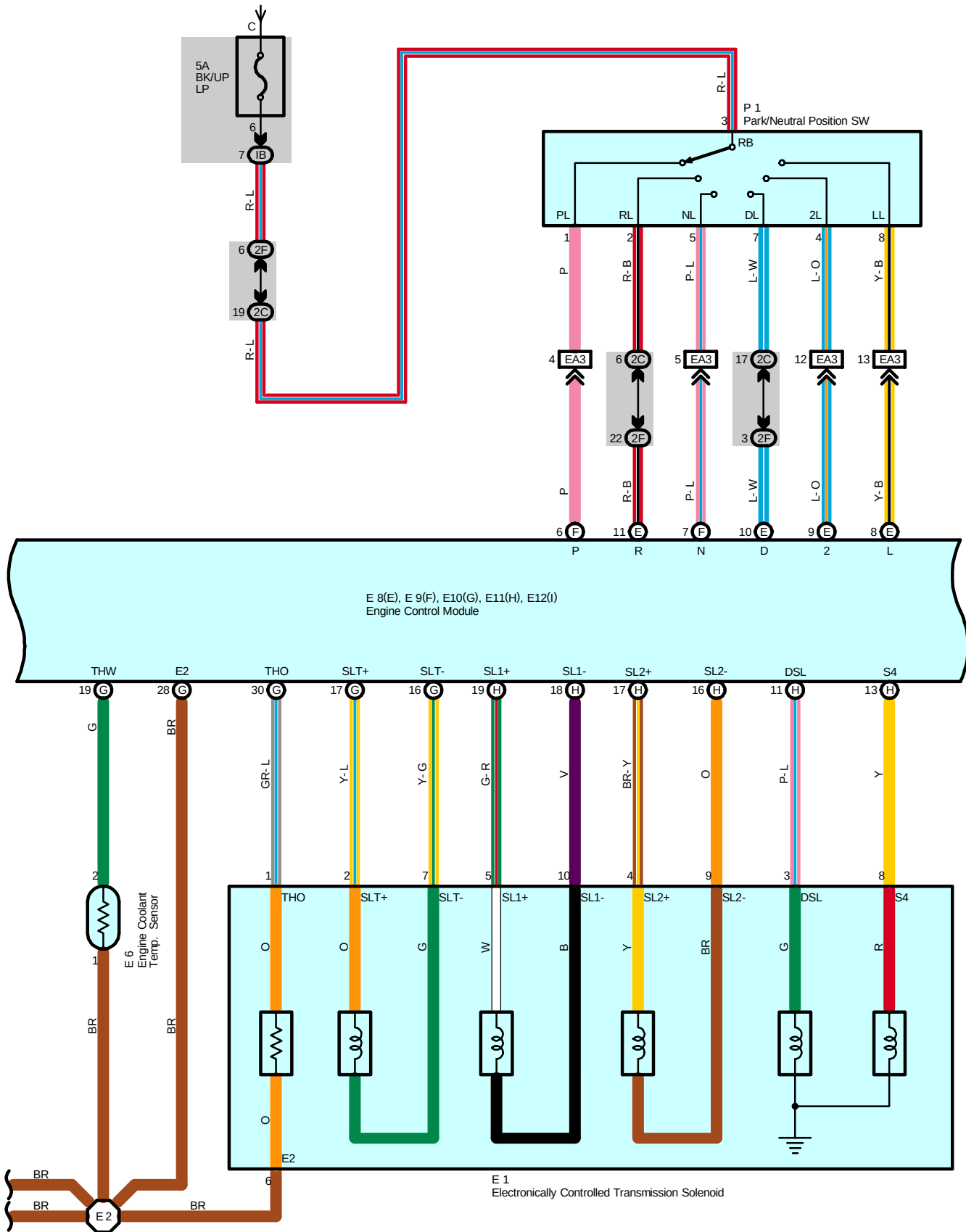
**: SPLICE POINTS**

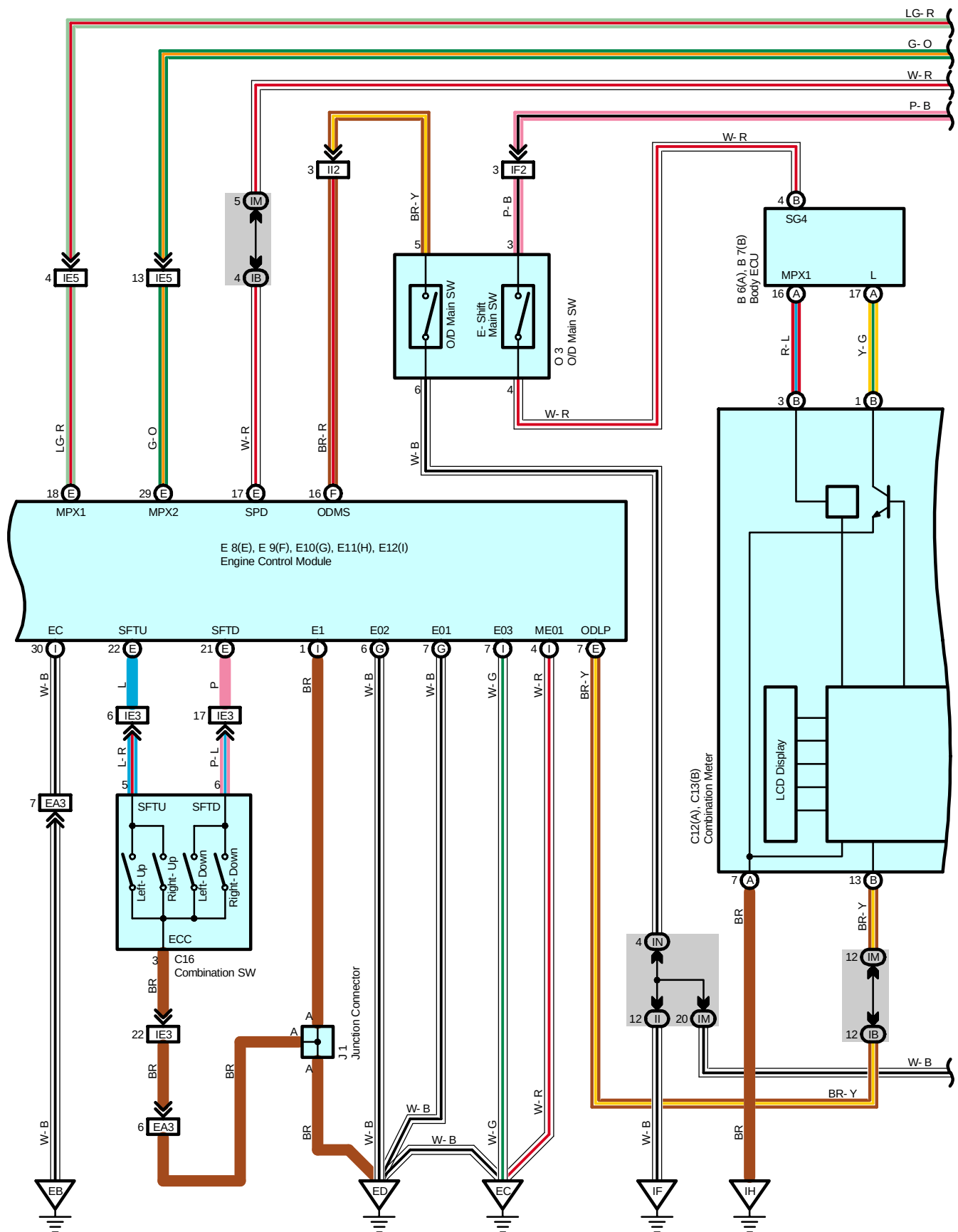
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	40 (1ZZ-FE)	Engine Wire			

ECT and A/T Indicator for 2ZZ-GE

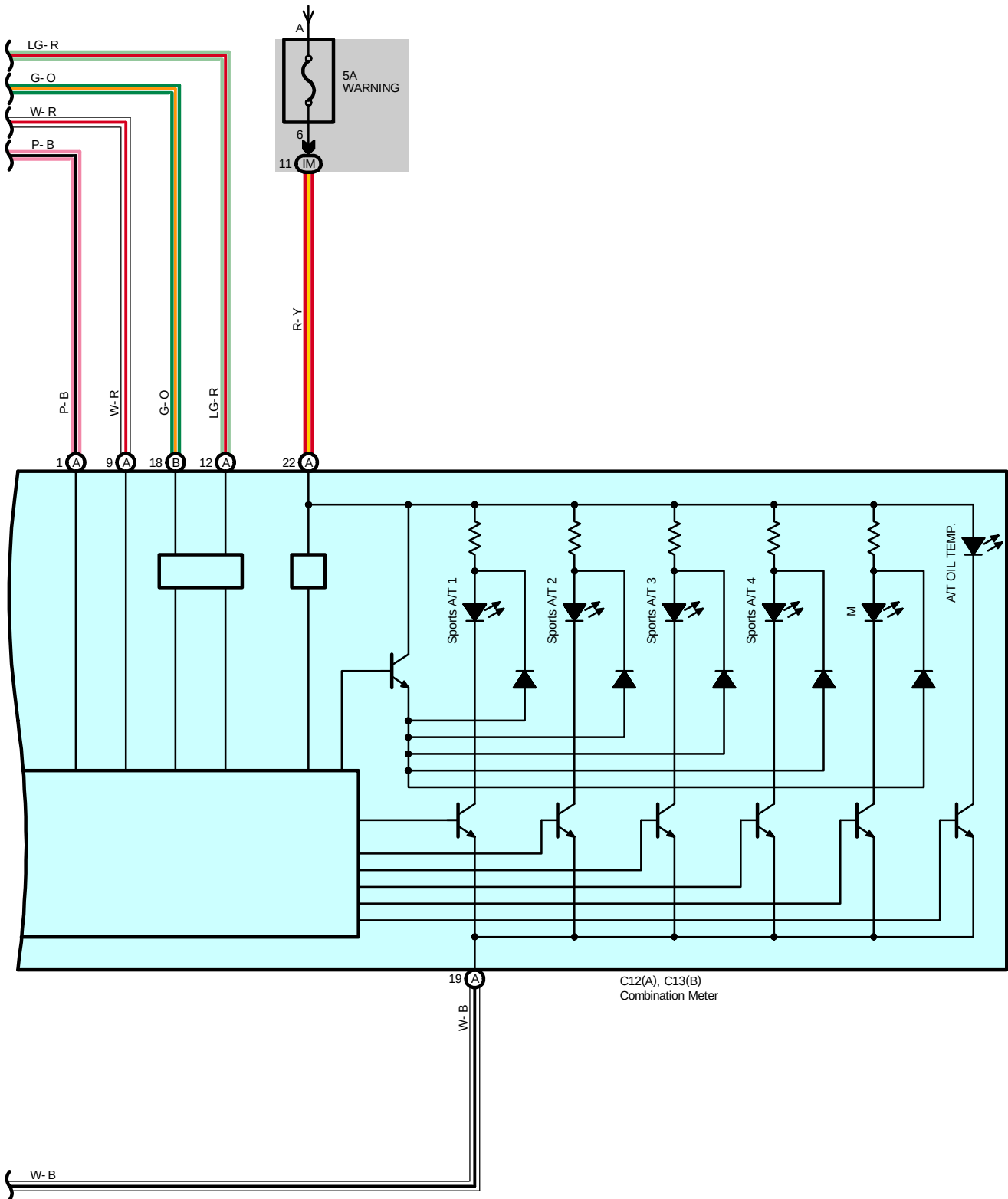


From Power Source System (See Page 52)





From Power Source System (See Page 52)



ECT and A/T Indicator for 2ZZ-GE

System Outline

1. Gear Shift Operation

When driving, the engine warm up condition is input as a signal to TERMINAL THW of the engine control module from the engine coolant temp. sensor and the vehicle speed signal from vehicle speed sensor is input to TERMINAL NT+ of the engine control module. At the same time, the throttle valve opening signal from the throttle position sensor is input to TERMINAL VTA of the engine control module as throttle angle signal.

Based on these signals, the engine control module selects the best shift position for the driving conditions and sends current to the electronically controlled transmission solenoid.

2. E-Shift System

When the shift lever is set to the M position, the shift range can be switched with the UP or DOWN switch on the steering. (This limits to the maximum gear step and enables automatic shift-up and shift-down within the allowable range.)

Service Hints

V2 Vehicle Speed Sensor (Electronically Controlled Transmission)

1-2 : 560-680 Ω

O1 O/D Direct Clutch Speed Sensor

1-2 : 560-680 Ω

E9 (F), E12 (I) Engine Control Module

BATT-E1 : Always approx. 12 volts

+B-E1 : Approx. 12 volts with ignition SW ON or ST position

MREL-E1 : Approx. 12 volts with ignition SW ON or ST position

P1 Park/Neutral Position SW

3-1 : Closed with shift lever in P position

3-2 : Closed with shift lever in R position

3-5 : Closed with shift lever in N position

3-7 : Closed with shift lever in D position

3-4 : Closed with shift lever in 2 position

3-8 : Closed with shift lever in L position

○ : PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
B6	A	36	E6		34 (2ZZ-GE)	M1		35 (2ZZ-GE)
B7	B	36	E8	E	34 (2ZZ-GE)	O1		35 (2ZZ-GE)
C12	A	36	E9	F	34 (2ZZ-GE)	O3		37
C13	B	36	E10	G	34 (2ZZ-GE)	P1		35 (2ZZ-GE)
C16		36	E11	H	34 (2ZZ-GE)	S8		37
D1		36	E12	I	34 (2ZZ-GE)	T1		35 (2ZZ-GE)
E1		34 (2ZZ-GE)	J1		35 (2ZZ-GE)	V2		35 (2ZZ-GE)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IB	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IF	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
II		
IK		
IM		
IN	25	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)
2C	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2F	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2G		
2H		

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA3	42 (2ZZ-GE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B No.1)
IE3 IE5	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IF2	46	Floor Wire and Instrument Panel Wire (Instrument Panel Brace LH)
II2	46	Engine Room Main Wire and Floor Wire (Instrument Panel Brace LH)

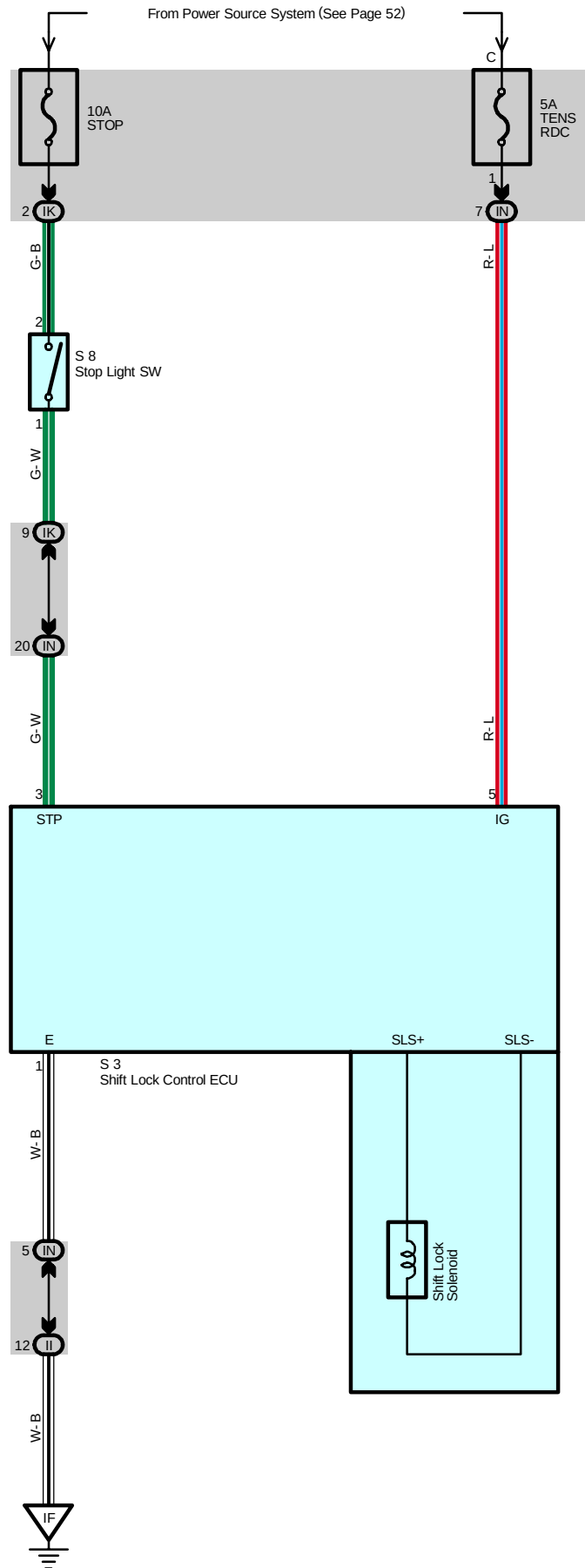
 : GROUND POINTS

Code	See Page	Ground Points Location
EB	42 (2ZZ-GE)	Front Left Fender
EC ED	42 (2ZZ-GE)	Cylinder Head Cover LH
EM	42 (2ZZ-GE)	Front Left Fender
IF	44	Instrument Panel Brace RH
IH	44	Cowl Side Panel RH

 : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	42 (2ZZ-GE)	Engine Wire			

Shift Lock



Service Hints

S3 Shift Lock Control ECU

5-Ground : Approx. 12 volts with the ignition SW at ON position

1-Ground : Always continuity

3-Ground : Approx. 12 volts with the brake pedal depressed

: PARTS LOCATION

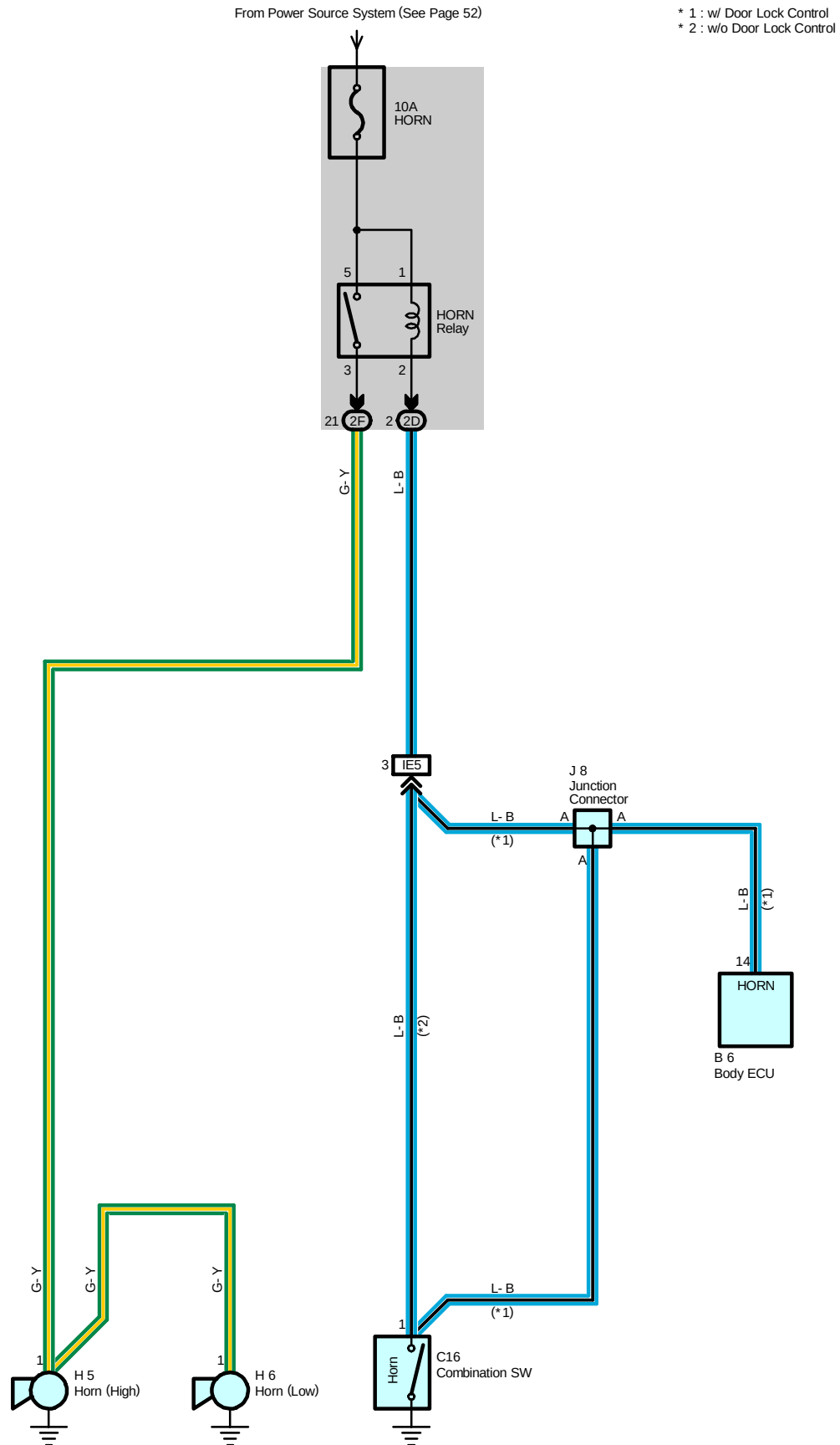
Code	See Page	Code	See Page	Code	See Page
S3	37	S8	37		

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
II	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IK		
IN	25	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)

: GROUND POINTS

Code	See Page	Ground Points Location
IF	44	Instrument Panel Brace RH



Service Hints

HORN Relay

5-3 : Closed with the horn SW on

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B6	36	H5	34 (2ZZ-GE)	J8	37
C16	36	H6	32 (1ZZ-FE)		
H5	32 (1ZZ-FE)		34 (2ZZ-GE)		

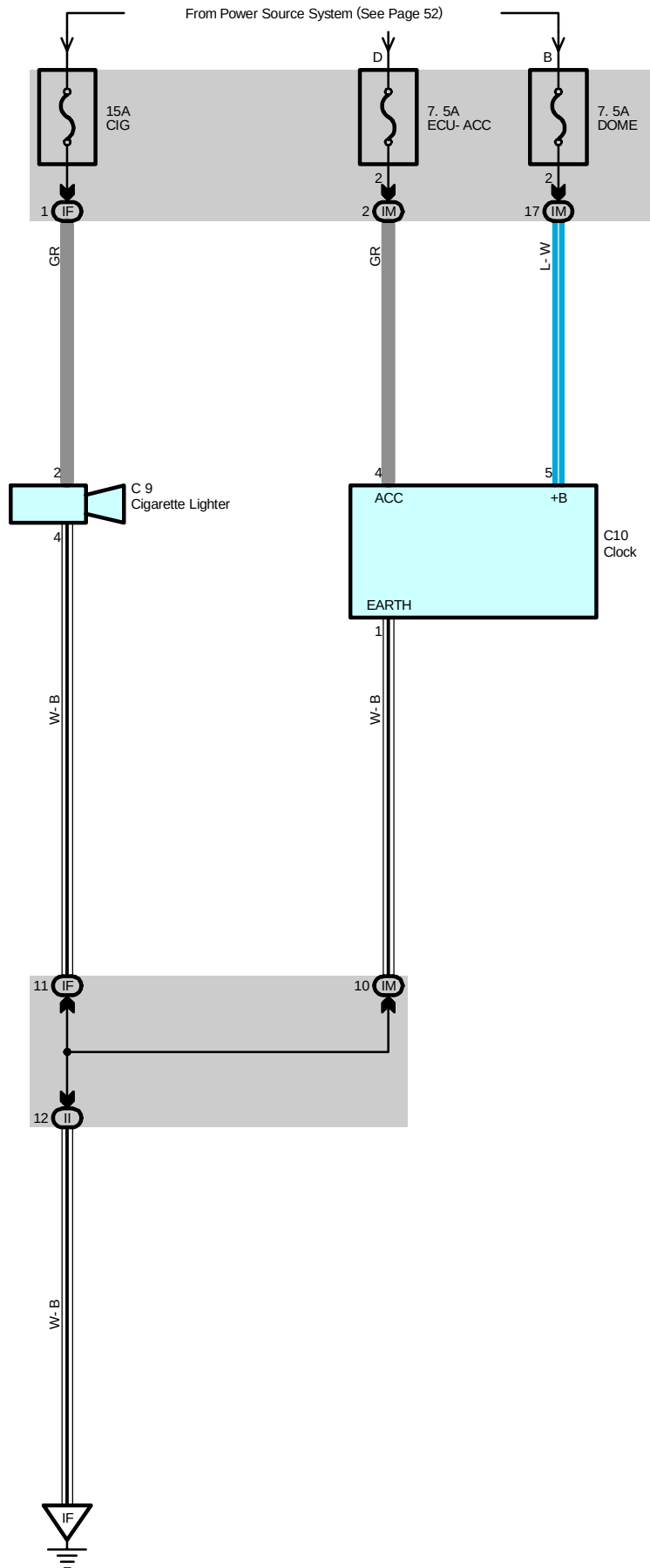
: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
2D	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2F		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE5	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)

Cigarette Lighter and Clock for USA



Service Hints

C9 Cigarette Lighter

2-Ground : Approx. 12 volts with the ignition SW at ACC or ON position

4-Ground : Always continuity

C10 Clock

5-Ground : Always 12 volts (Power for clock)

4-Ground : Approx. 12 volts with the ignition SW at ACC or ON position (Power for indication)

1-Ground : Always continuity

: PARTS LOCATION

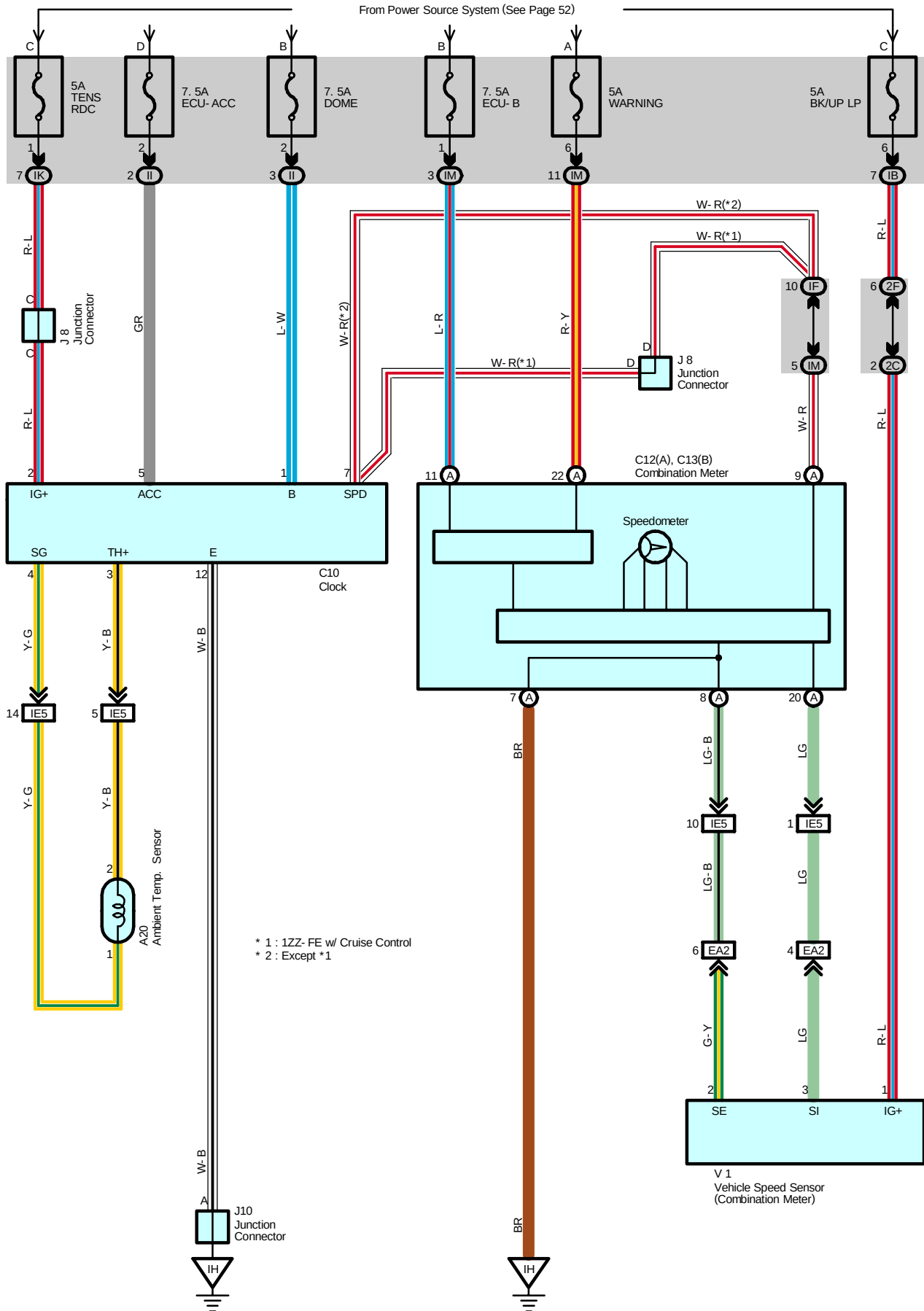
Code	See Page	Code	See Page	Code	See Page
C9	36	C10	36		

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IF	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
II		
IM		

: GROUND POINTS

Code	See Page	Ground Points Location
IF	44	Instrument Panel Brace RH



Service Hints

C10 Clock

- 1-Ground : Always approx. 12 volts
- 12-Ground : Always continuity
- 5-Ground : Approx. 12 volts with the ignition SW at ACC or ON position

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A20	32 (1ZZ-FE)	C12	A	36	J10
	34 (2ZZ-GE)	C13	B	36	37
C10	36	J8	37	V1	33 (1ZZ-FE)
					35 (2ZZ-GE)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IB	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IF	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
II		
IK		
IM		
2C	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2F	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)

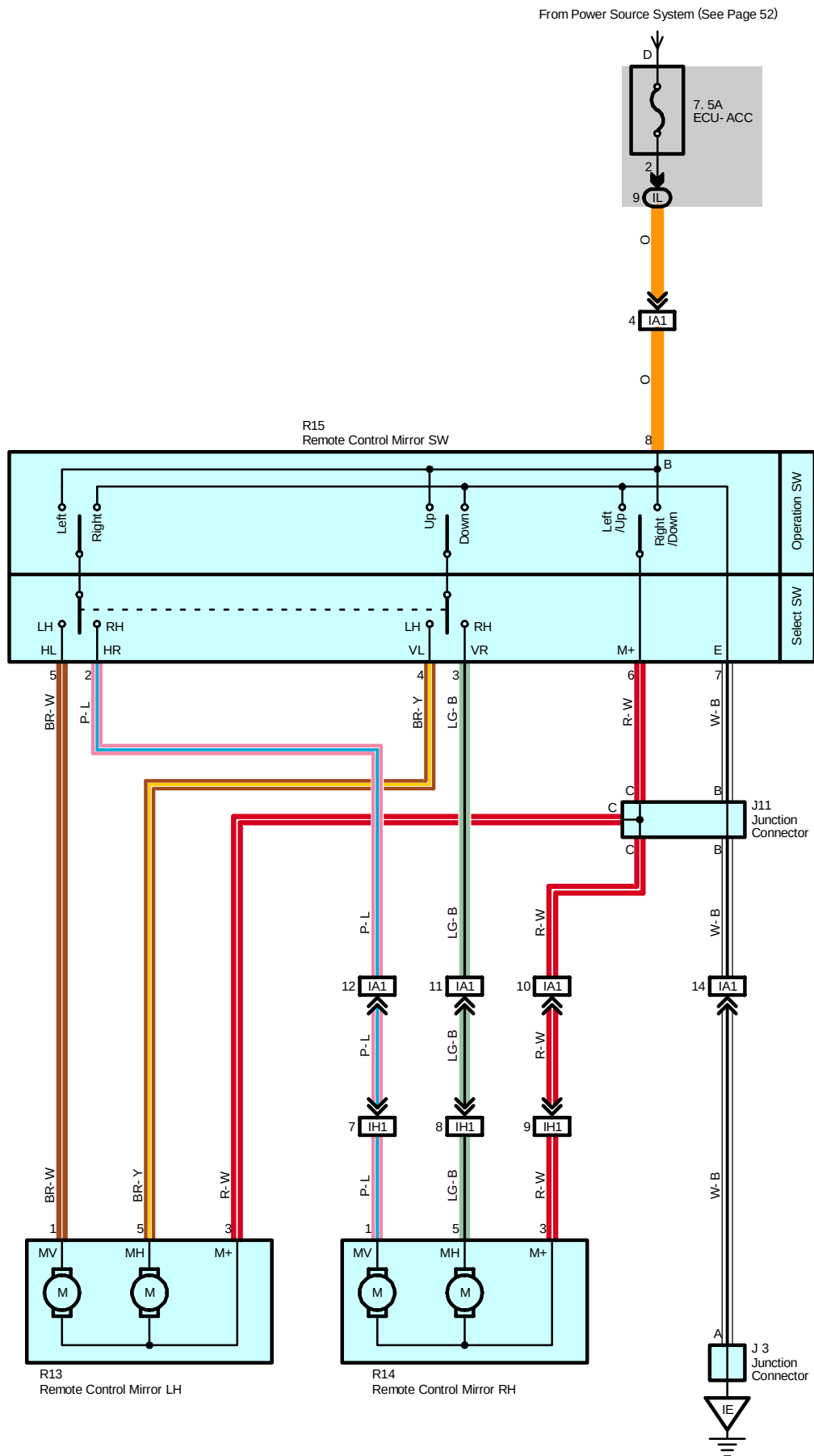
: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA2	40 (1ZZ-FE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B No.1)
	42 (2ZZ-GE)	
IE5	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)

: GROUND POINTS

Code	See Page	Ground Points Location
IH	44	Cowl Side Panel RH

Remote Control Mirror



Service Hints

R15 Remote Control Mirror SW

- 8-Ground : Approx. 12 volts with the ignition SW at ACC or ON position
- 6-7 : Continuity with the operation SW at UP or LEFT position
- 5-7 : Continuity with the operation SW at RIGHT position and the select SW at LH position
- 4-7 : Continuity with the operation SW at DOWN position and the select SW at LH position
- 2-7 : Continuity with the operation SW at RIGHT position and the select SW at RH position
- 3-7 : Continuity with the operation SW at DOWN position and the select SW at RH position

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
J3	37	R13	39	R15	39
J11	38	R14	39		

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IL	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)

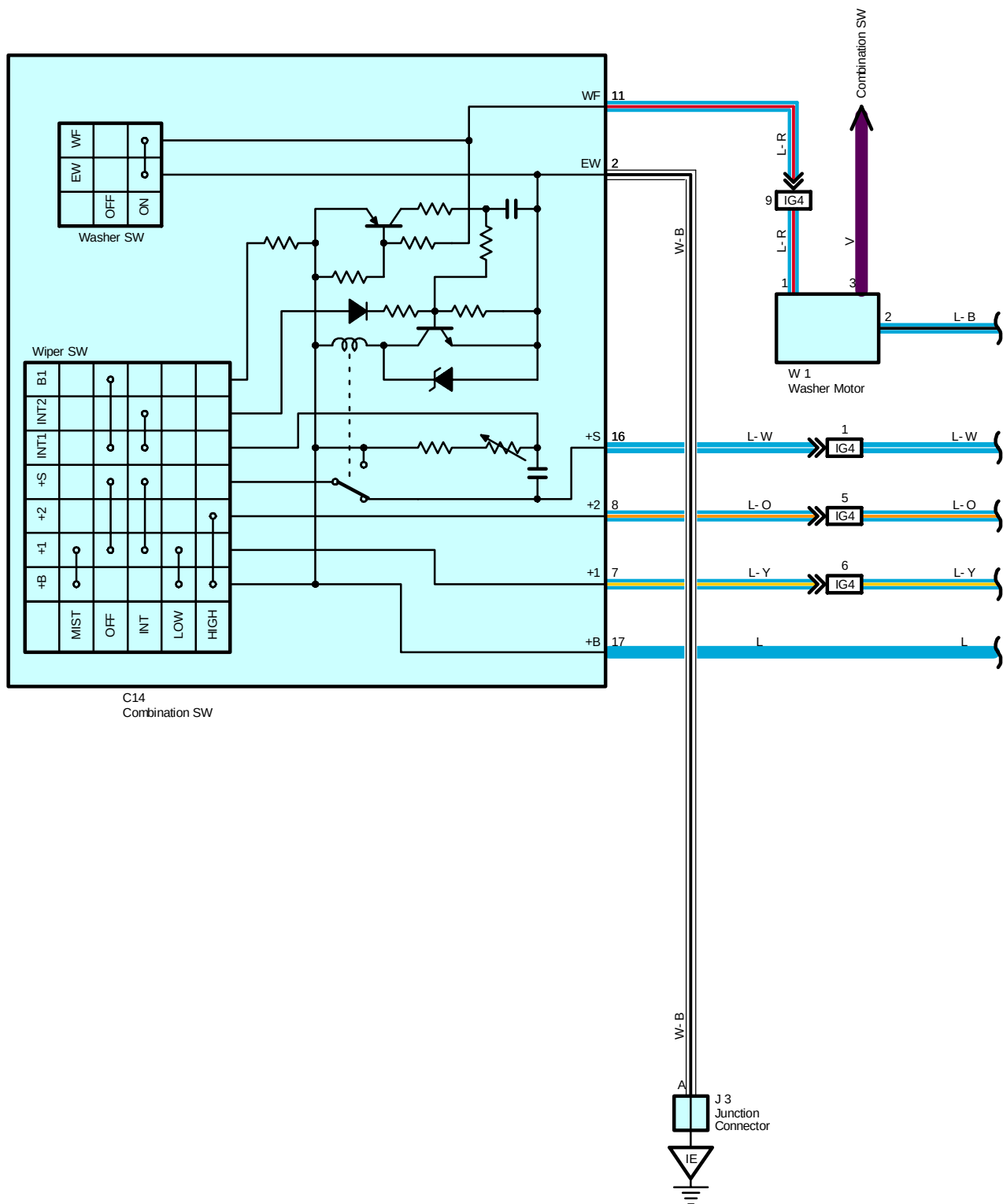
: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

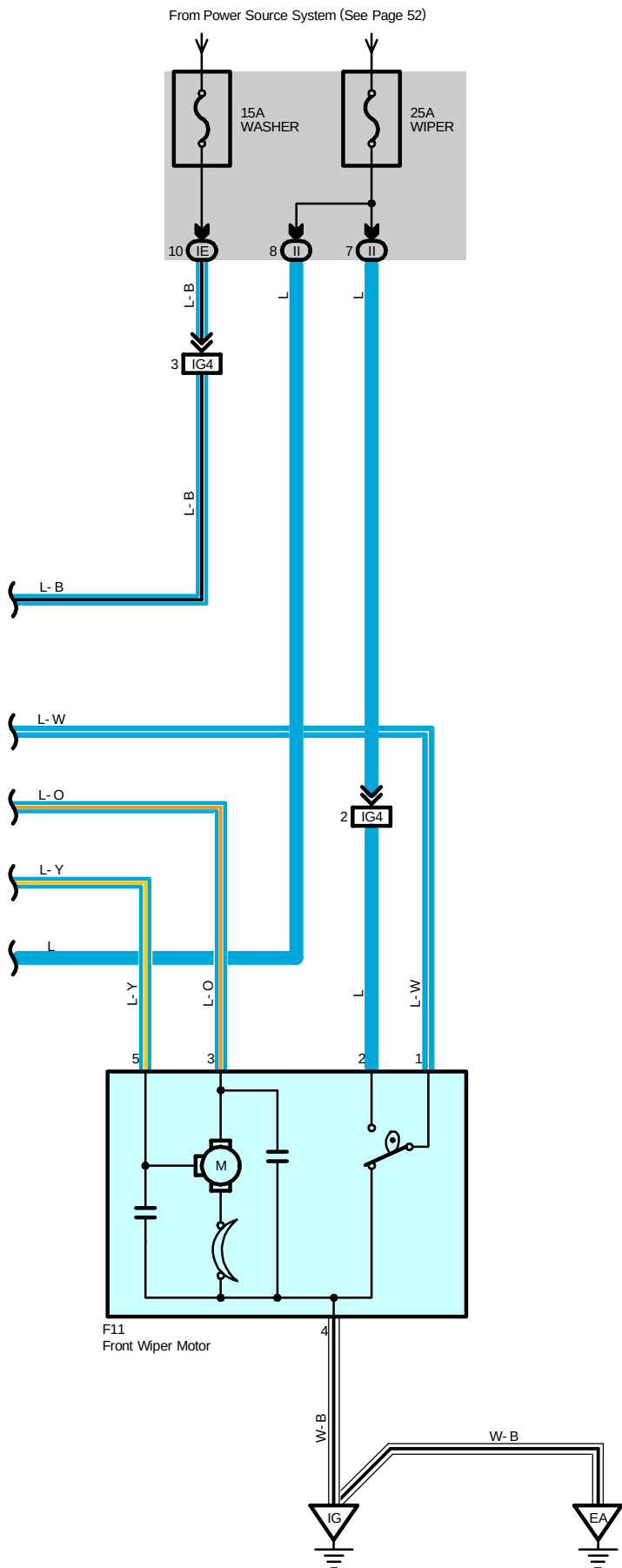
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	44	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IH1	46	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)

: GROUND POINTS

Code	See Page	Ground Points Location
IE	44	Cowl Side Panel LH

Front Wiper and Washer





Front Wiper and Washer

System Outline

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

1. Low Speed Position

With the wiper SW turned to LOW position, current flows from TERMINAL 17 of the front wiper and washer SW to TERMINAL 7 to TERMINAL 5 of the front wiper motor to wiper motor to TERMINAL 4 to GROUND, causing the front wiper motor to run at low speed.

2. High Speed Position

With the wiper SW turned to HIGH position, current flows from TERMINAL 17 of the front wiper and washer SW to TERMINAL 8 to TERMINAL 3 of the front wiper motor to wiper motor to TERMINAL 4 to GROUND, causing the front wiper motor to run at high speed.

3. INT Position

With the wiper SW turned to INT position, the relay operates and the current which is connected by relay function flows from TERMINAL 17 of the front wiper and washer SW to TERMINAL 2 to GROUND. This operates the intermittent circuit and current flows from TERMINAL 17 of the front wiper and washer SW to TERMINAL 7 to TERMINAL 5 of the front wiper motor to wiper motor to TERMINAL 4 to GROUND, and operating the wiper.

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

4. MIST Position

With the wiper SW turned to MIST position, current flows from TERMINAL 17 of the front wiper and washer SW to front wiper mist SW to TERMINAL 2 to GROUND, and current flows from TERMINAL 17 to TERMINAL 7 to TERMINAL 5 of the wiper motor to wiper motor to TERMINAL 4 to GROUND, causing the front wiper motor to run at low speed.

5. Washer Interlocking Operation

With the washer SW pushed to on, current flows from TERMINAL 2 of the washer motor to TERMINAL 1 to TERMINAL 11 of the front wiper and washer SW to TERMINAL 2 to GROUND, causing the washer motor to run, and the window washer emits a water spray. This causes current to flow to washer continuity operation circuit in TERMINAL 17 of the front wiper and washer SW to TERMINAL 7 to TERMINAL 5 of the front wiper motor to wiper motor to TERMINAL 4 to GROUND, operating the wiper.

Service Hints

C14 Combination SW

2-Ground : Always continuity

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

7-Ground : Approx. 12 volts with the wiper and washer SW at LOW or MIST position

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

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

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

F11 Front Wiper Motor

1-2 : Closed unless the wiper motor at STOP position

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C14	36	F11	34 (2ZZ-GE)	W1	33 (1ZZ-FE)
F11	32 (1ZZ-FE)	J3	37		35 (2ZZ-GE)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IE	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
II		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

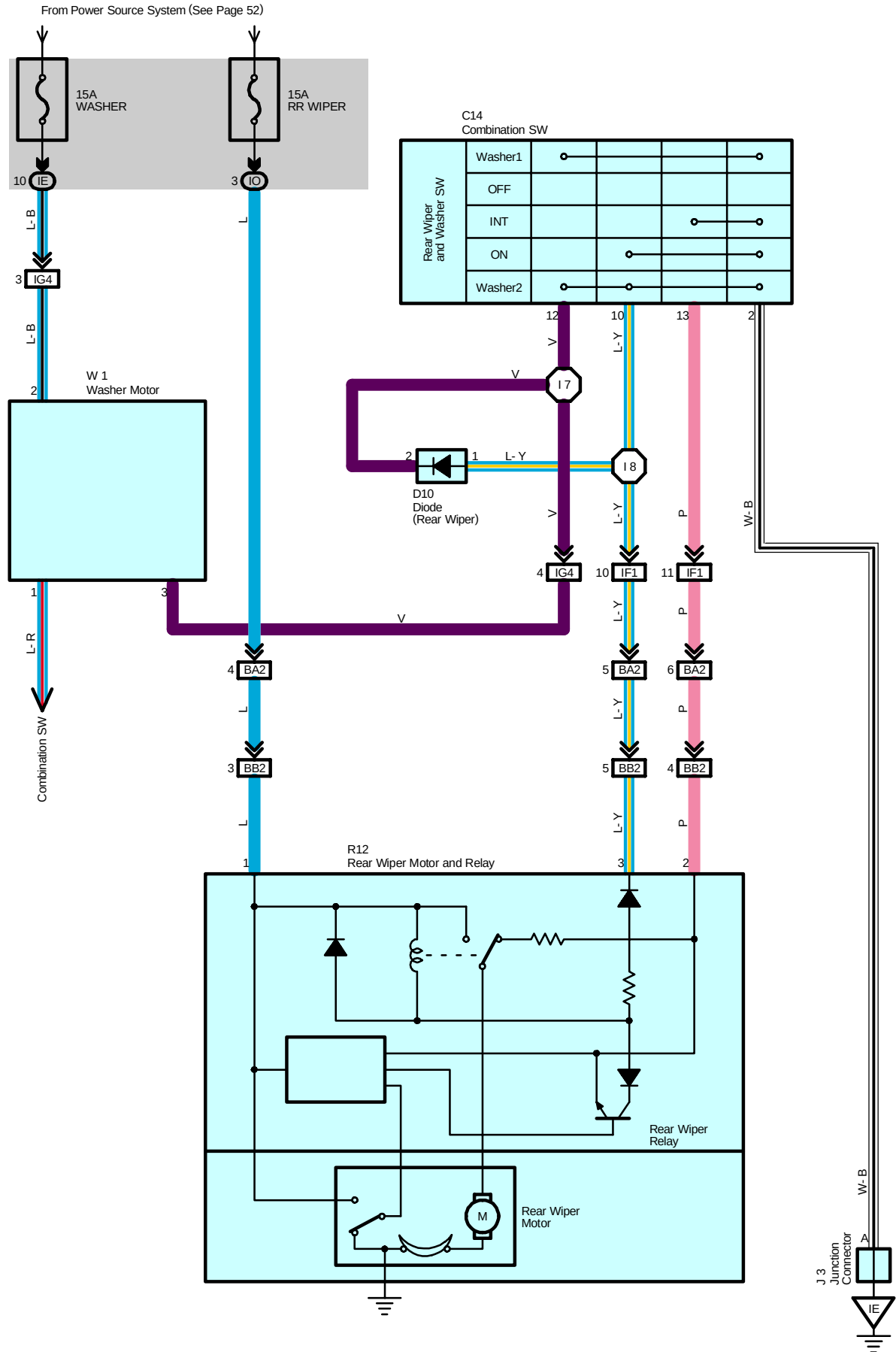
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG4	46	Engine Room No.2 Wire and Instrument Panel Wire (Right Kick Panel)



: GROUND POINTS

Code	See Page	Ground Points Location
EA	40 (1ZZ-FE)	Front Right Fender
	42 (2ZZ-GE)	
IE	44	Cowl Side Panel LH
IG	44	Cowl Side Panel RH

Rear Wiper and Washer



System Outline

When the ignition SW is turned on, current flows to TERMINAL 2 of the washer motor, TERMINAL 1 of the rear wiper motor and relay through the RR WIPER fuse.

1. Rear Wiper Normal Operation

With the ignition SW turned on and rear wiper and washer SW turned on, current to TERMINAL 1 of the rear wiper motor and relay flows to TERMINAL 3 of the rear wiper motor and relay to TERMINAL 10 of the rear wiper and washer SW to TERMINAL 2 to GROUND. Thus, the relay coil is activated and current to the rear wiper motor to motor to GROUND, causing the motor to operate the wiper.

2. Rear Wiper Intermittent Operation

When the ignition SW is turned on and the rear wiper and washer SW is turned to INT position, current to TERMINAL 1 of the rear wiper motor and relay flows to TERMINAL 2 of the rear wiper motor and relay to TERMINAL 13 of the rear wiper and washer SW to TERMINAL 2 to GROUND.

This causes the motor to operate (The point changes) and the intermittent circuit of the relay operates. Intermittent operation of the circuit is controlled by the charging and discharging of the condenser installed inside the relay.

3. Washer Operation

With the ignition SW turned on and the rear wiper and washer SW turned to ON position, when the washer is turned ON (to Wiper ON side), current to TERMINAL 2 of the washer motor flows to TERMINAL 3 of the motor to TERMINAL 12 of the rear wiper and washer SW to TERMINAL 2 to GROUND so that the washer motor rotates and the window washer emits water.

With the ignition SW turned on and the rear wiper and washer SW turned to OFF position, when the washer is turned ON (to Wiper OFF side), current flows as above so that the washer motor rotates and the window washer emits water as well as the wiper operates.

Service Hints

W1 Washer Motor

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

3-Ground : Continuity with the washer SW turned on

R12 Rear Wiper Motor and Relay

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

2-Ground : Continuity with the rear wiper and washer SW at INT position

3-Ground : Continuity with the rear wiper and washer SW at ON position

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
C14	36	J3	37	W1	33 (1ZZ-FE)
D10	36	R12	39		35 (2ZZ-GE)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IE	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IO	25	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF1	46	Floor Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IG4	46	Engine Room No.2 Wire and Instrument Panel Wire (Right Kick Panel)
BA2	48	Back Door No.1 Wire and Floor Wire (Quarter Panel LH)
BB2	48	Back Door No.2 Wire and Back Door No.1 Wire (Back Door Upper Left)

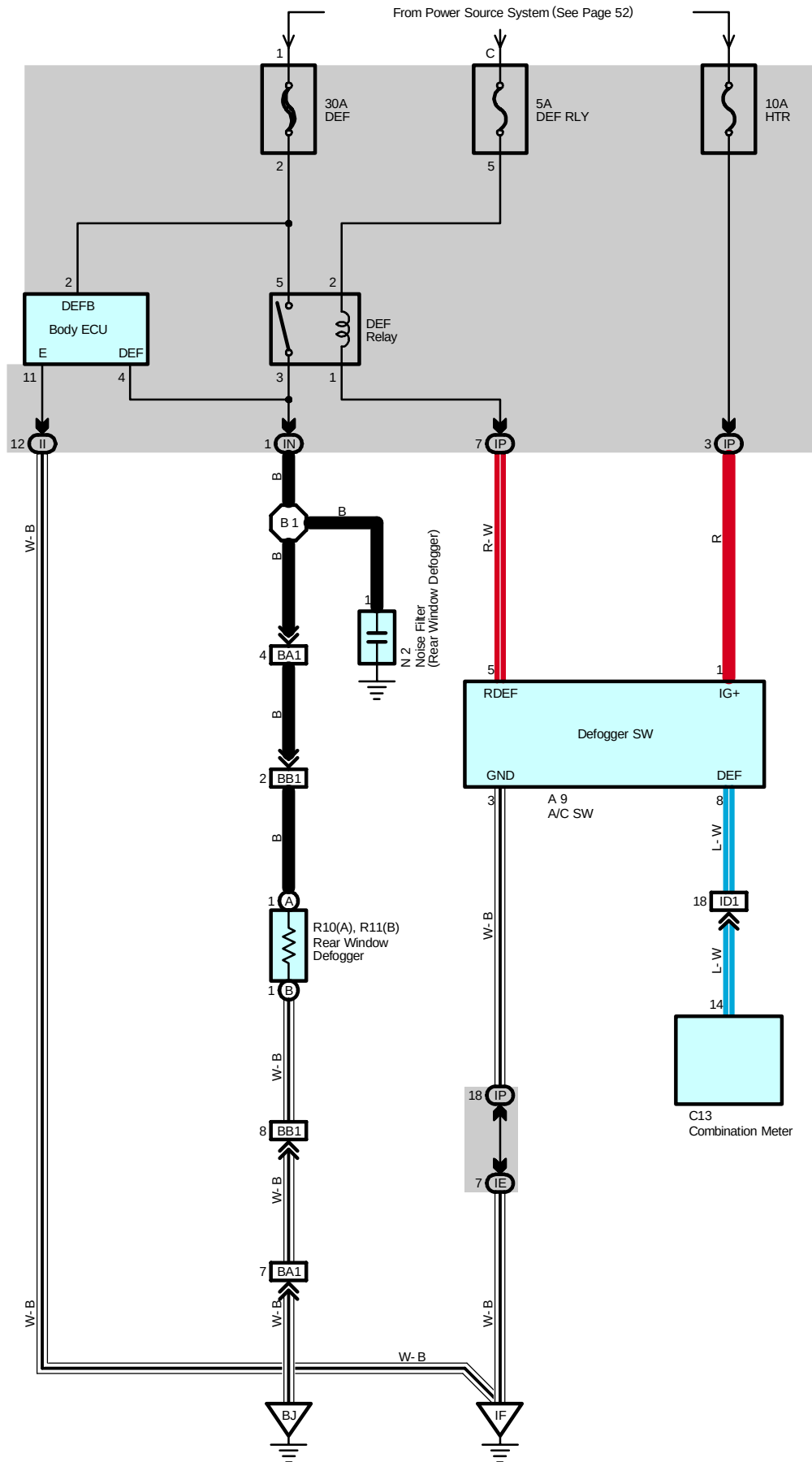
: GROUND POINTS

Code	See Page	Ground Points Location
IE	44	Cowl Side Panel LH

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I7	46	Instrument Panel Wire	I8	46	Instrument Panel Wire

Rear Window Defogger



Service Hints

DEF Relay

5-3 : Closed with the ignition SW at ON position and the defogger SW on

A9 A/C SW

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

3-Ground : Always continuity

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A9	36	N2	39	R11	B
C13	36	R10	A	39	

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IE	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
II		
IN	25	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IP	25	Cowl No.2 Wire and Instrument Panel J/B (Instrument Panel Brace RH)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ID1	44	Cowl No.2 Wire and Instrument Panel Wire (Instrument Panel Brace LH)
BA1	48	Back Door No.1 Wire and Floor Wire (Quarter Panel LH)
BB1	48	Back Door No.2 Wire and Back Door No.1 Wire (Back Door Upper Left)

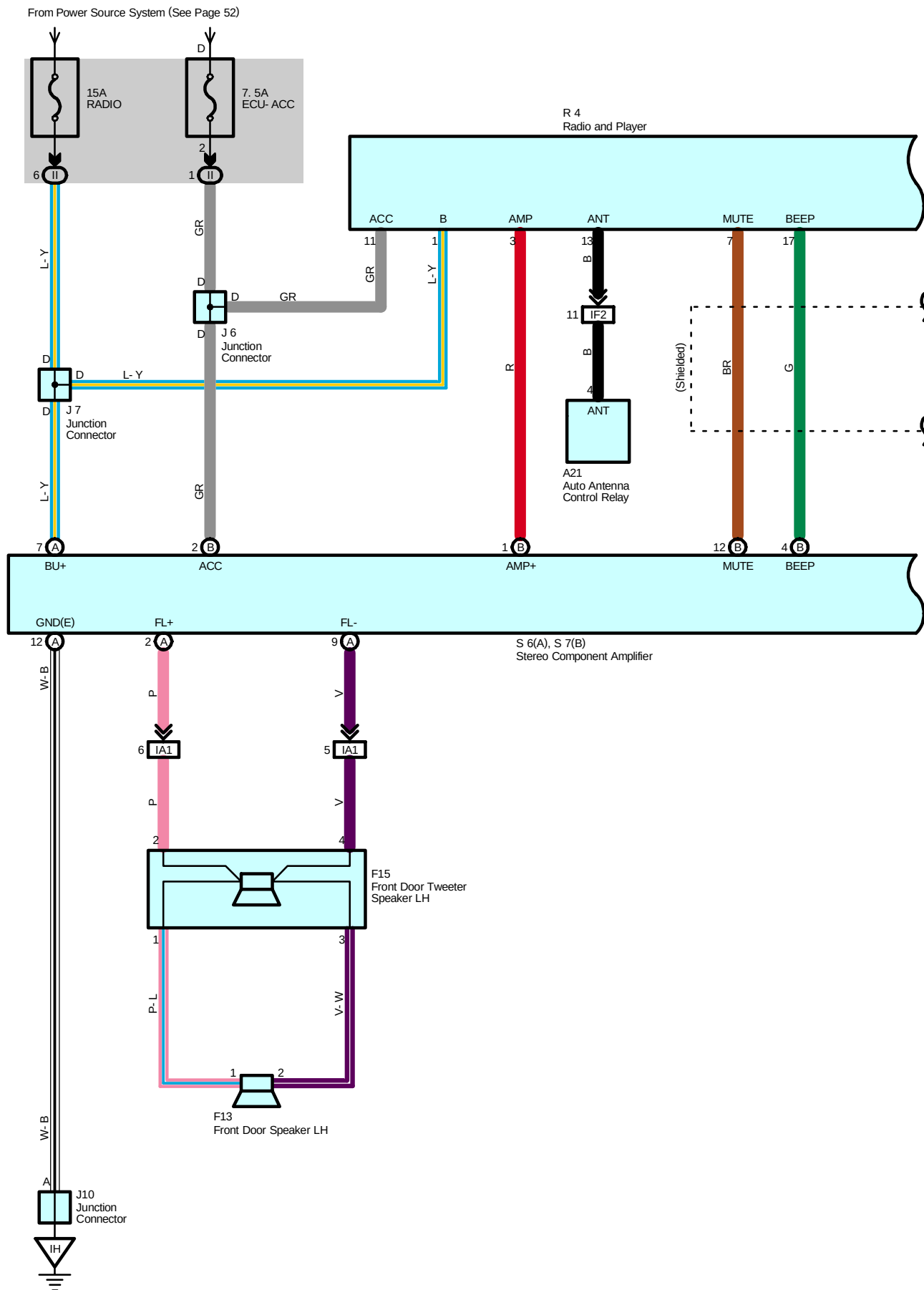
: GROUND POINTS

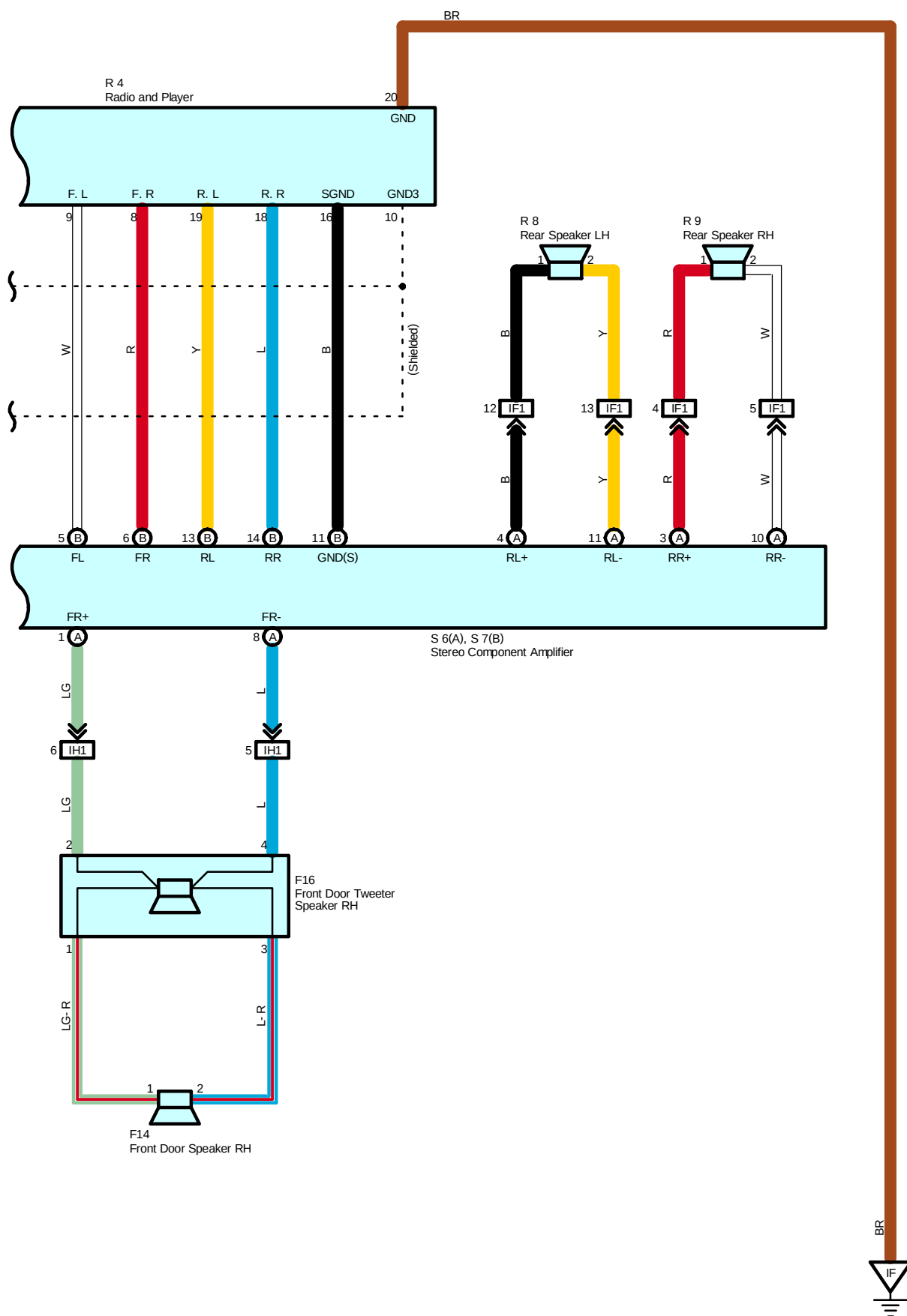
Code	See Page	Ground Points Location
IF	44	Instrument Panel Brace RH
BJ	48	Luggage Room Left

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B1	48	Floor Wire			

Audio System for Separate Type Amplifier





Audio System for Separate Type Amplifier

Service Hints

S6 (A), S7 (B) Stereo Component Amplifier

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

(A)12-Ground : Always continuity

(A) 7-Ground : Always approx. 12 volts

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A21	38	J6	37	R9	39
F13	38	J7	37	S6	A 37
F14	38	J10	37	S7	B 37
F15	38	R4	37		
F16	38	R8	39		

□ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

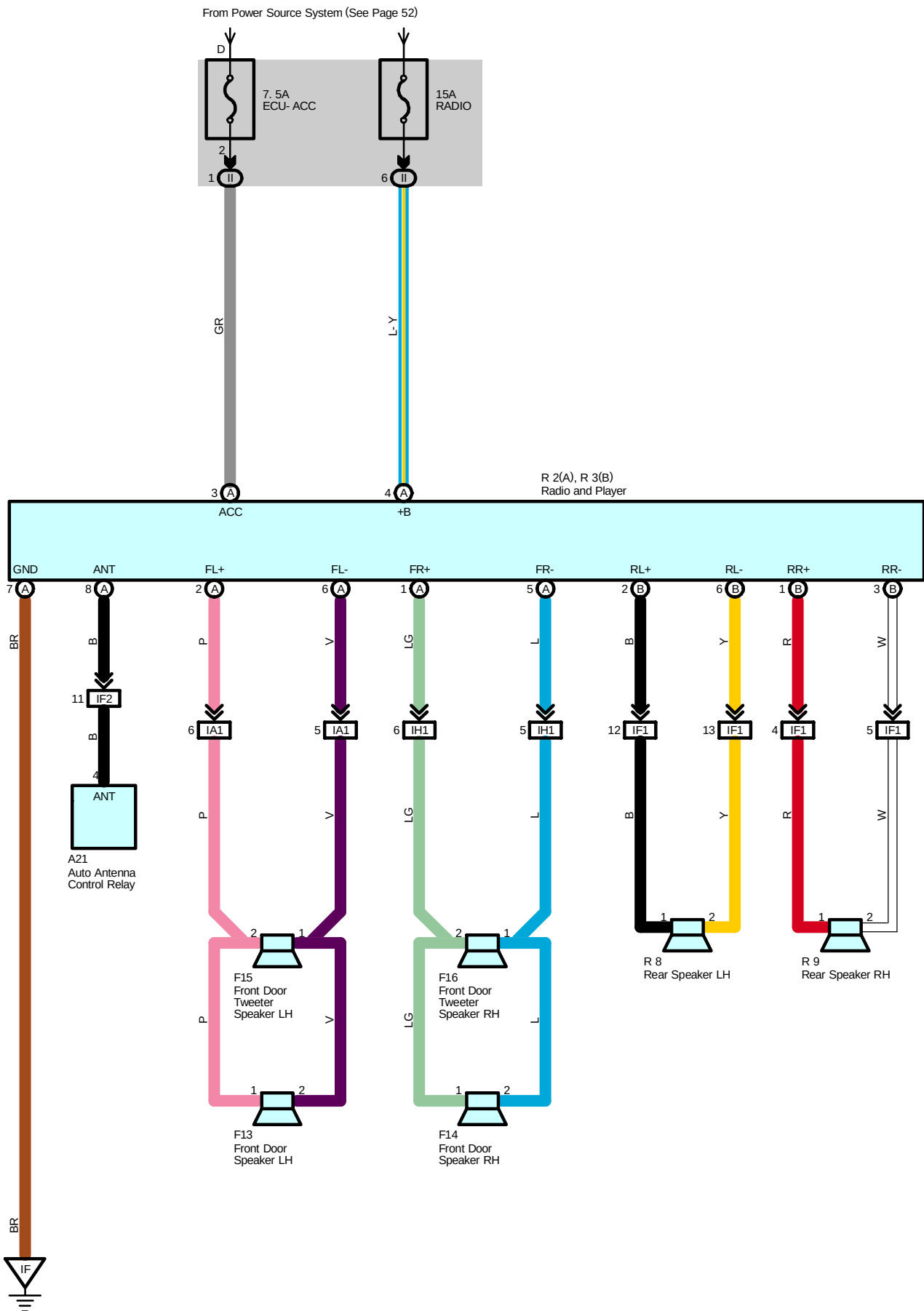
Code	See Page	Junction Block and Wire Harness (Connector Location)
II	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	44	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IF1	46	Floor Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IF2		
IH1	46	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)

▽ : GROUND POINTS

Code	See Page	Ground Points Location
IF	44	Instrument Panel Brace RH
IH	44	Cowl Side Panel RH



Service Hints

R2 (A) Radio and Player

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

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A21	38	F15	38	R3	B 37
F13	38	F16	38	R8	39
F14	38	R2	A 37	R9	39

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
II	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)

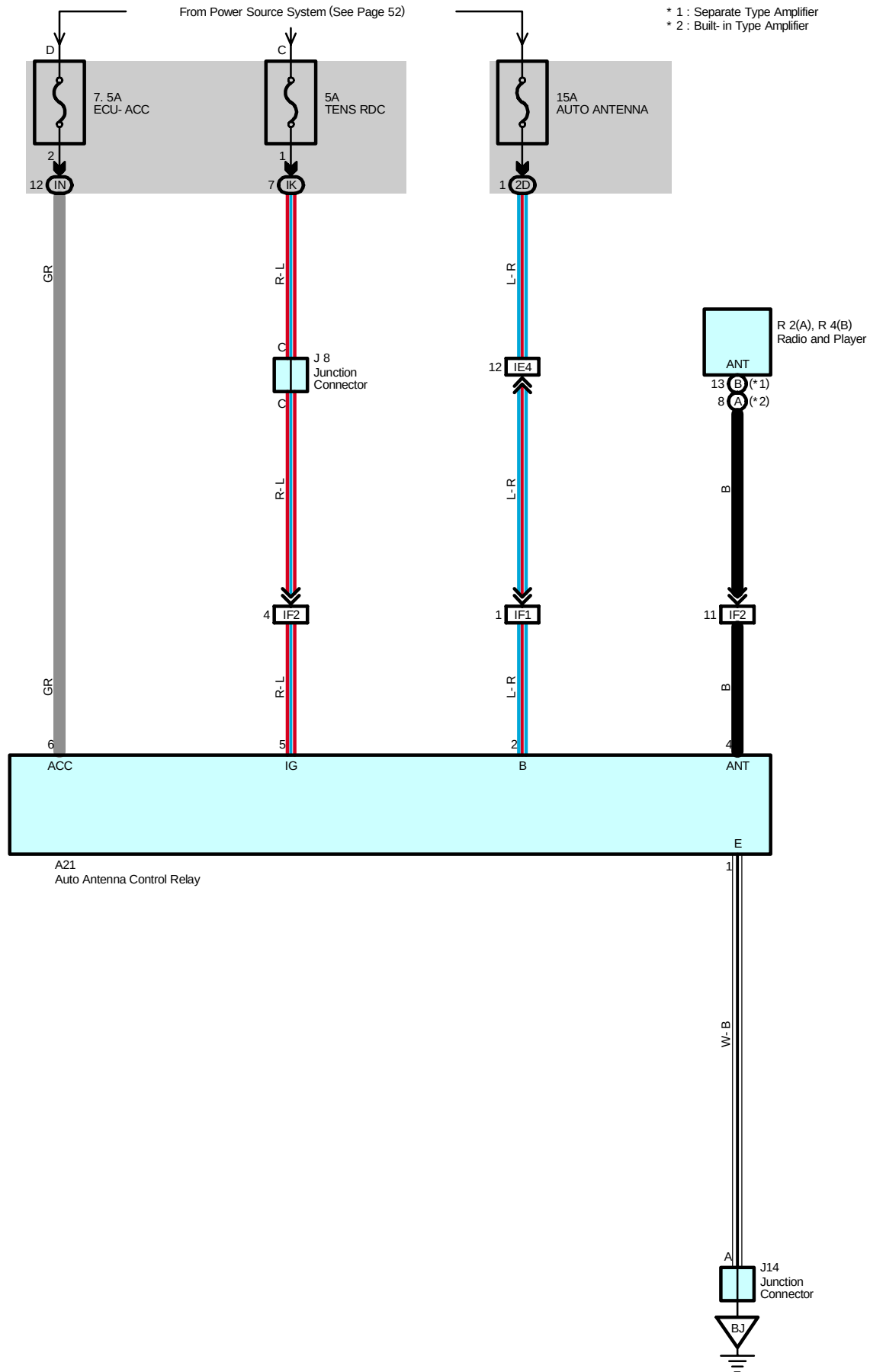
□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	44	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IF1	46	Floor Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IF2		
IH1	46	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)

▽ : GROUND POINTS

Code	See Page	Ground Points Location
IF	44	Instrument Panel Brace RH

Auto Antenna



Service Hints

A21 Auto Antenna Control Relay

- 1-Ground : Always continuity
- 2-Ground : Always approx. 12 volts
- 6-Ground : Approx. 12 volts with the ignition SW at ACC or ON position
- 5-Ground : Approx. 12 volts with the ignition SW at ON or ST position

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A21	38	J14	38	R4	B
J8	37	R2	A	37	

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
II	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IK		
2D	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)

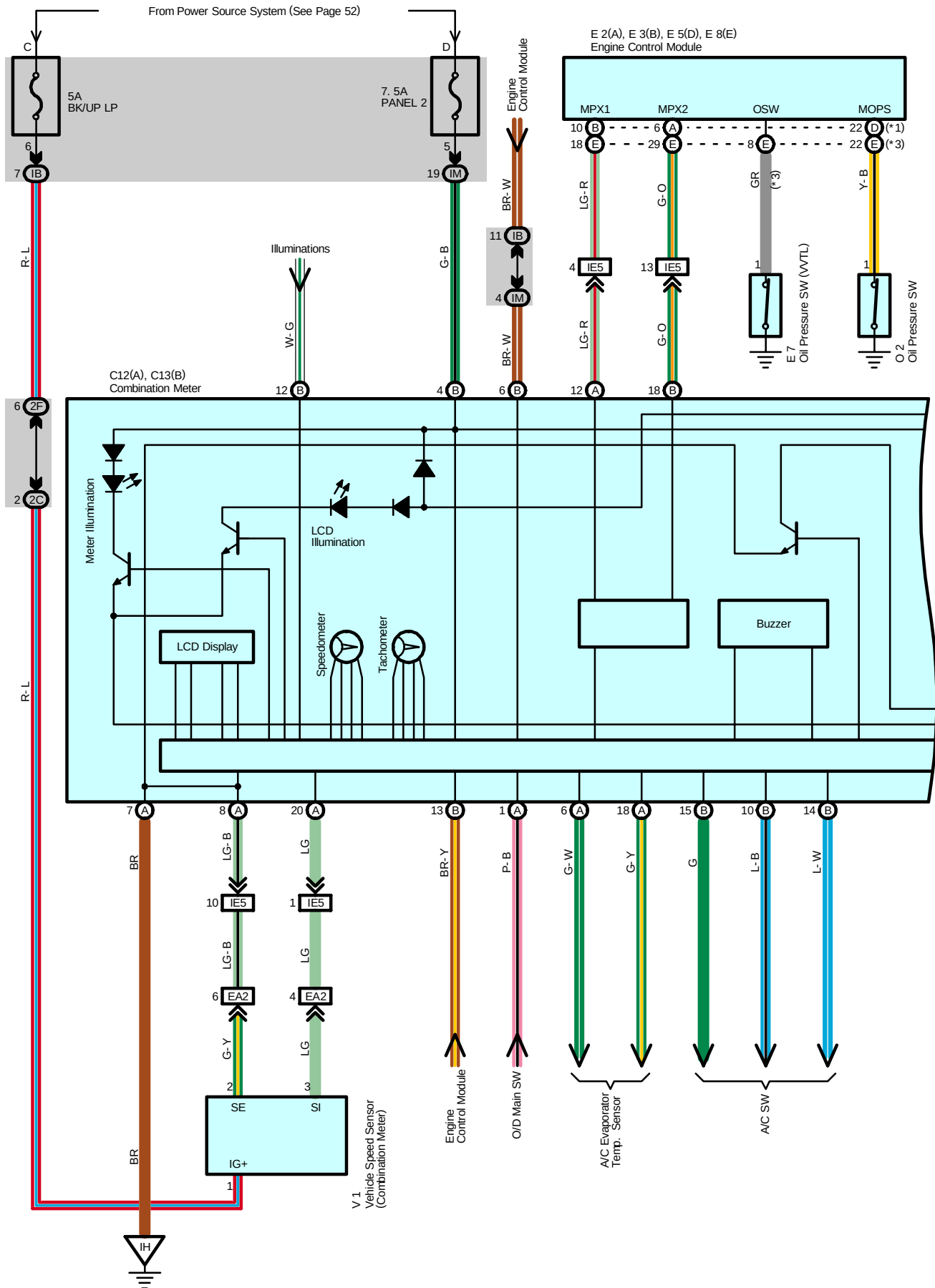
: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE4	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IF1	46	Floor Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IF2		

: GROUND POINTS

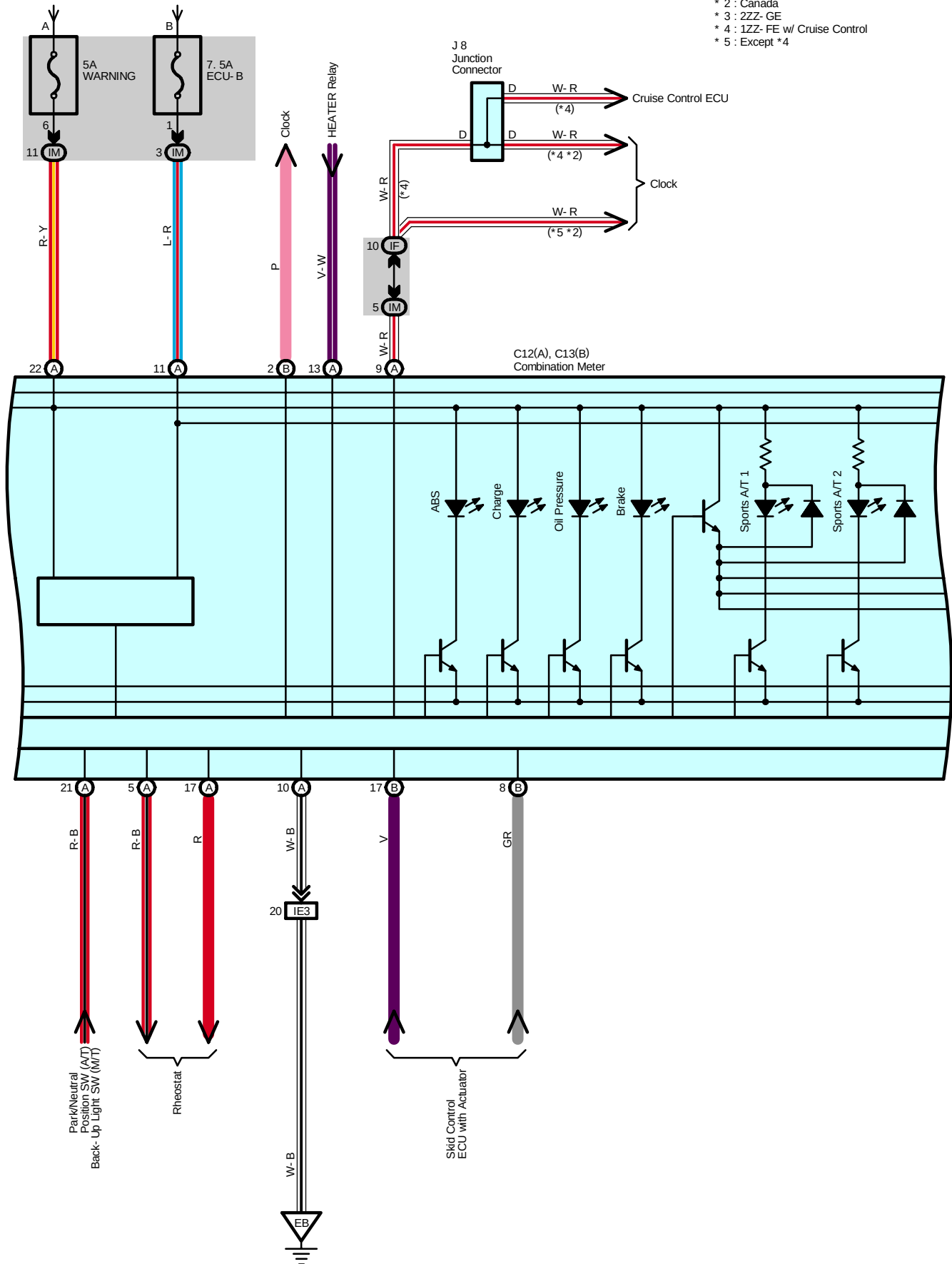
Code	See Page	Ground Points Location
BJ	48	Luggage Room Left

Combination Meter

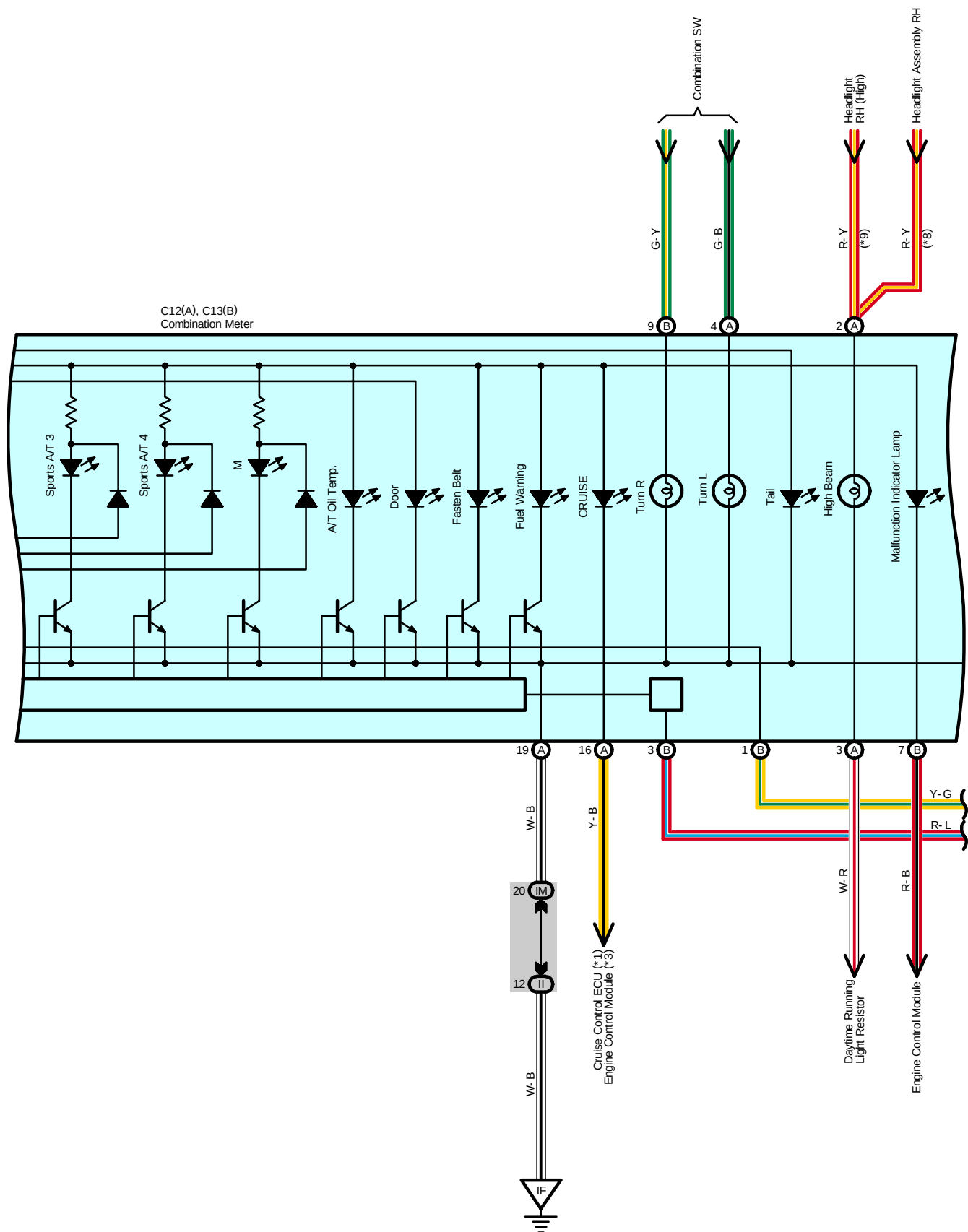


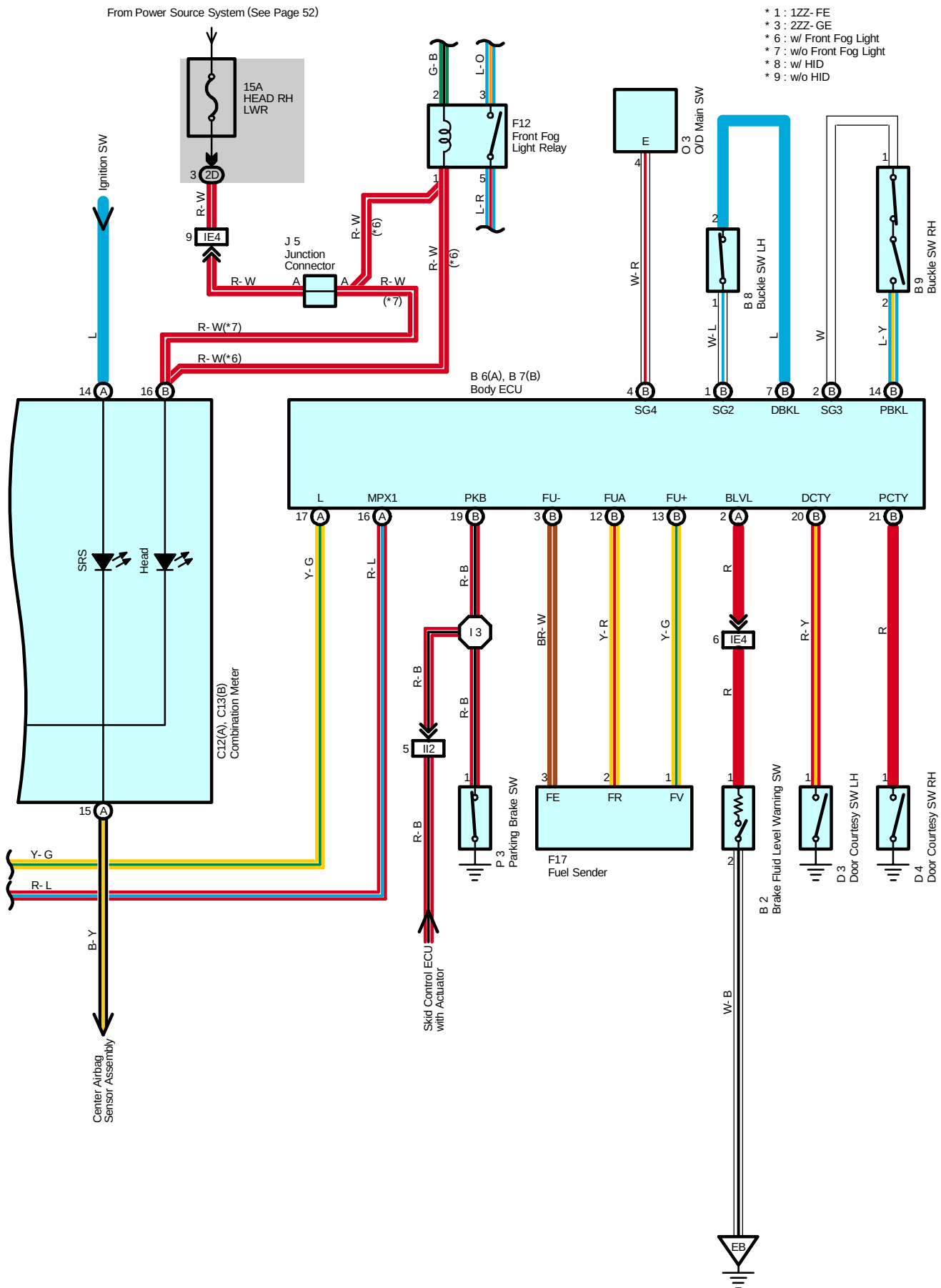
From Power Source System (See Page 52)

- * 1 : 1ZZ- FE
- * 2 : Canada
- * 3 : 2ZZ- GE
- * 4 : 1ZZ- FE w/ Cruise Control
- * 5 : Except *4



Combination Meter





Combination Meter

Service Hints

B2 Brake Fluid Level Warning SW

1-2 : Closed with the float down

P3 Parking Brake SW

1-Ground : Closed with the parking brake lever pulled up

O2 Oil Pressure SW

1-Ground : Opened with the oil pressure above approx. 0.2 kgf/cm² (2.8 psi, 19.6 kpa)

C12 (A) Combination Meter

(A)22-Ground : Approx. 12 volts with the ignition SW at ON position

(A)11-Ground : Always approx. 12 volts

(A) 7, (A) 10, (A) 19-Ground : Always continuity

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
B2	32 (1ZZ-FE)	D4	38	J8	37
	34 (2ZZ-GE)	E2	A	O2	33 (1ZZ-FE)
B6	A	E3	B		35 (2ZZ-GE)
B7	B	E5	D	O3	37
B8	36	E7	34 (2ZZ-GE)	P3	37
B9	36	E8	E	V1	33 (1ZZ-FE)
C12	A	F12	36		35 (2ZZ-GE)
C13	B	F17	38		
D3	38	J5	37		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IB	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IF	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
II		
IM		
2C	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2D	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2F		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA2	40 (1ZZ-FE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B No.1)
	42 (2ZZ-GE)	
IE3	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IE4		
IE5		
II2	46	Engine Room Main Wire and Floor Wire (Instrument Panel Brace LH)

▽ : GROUND POINTS

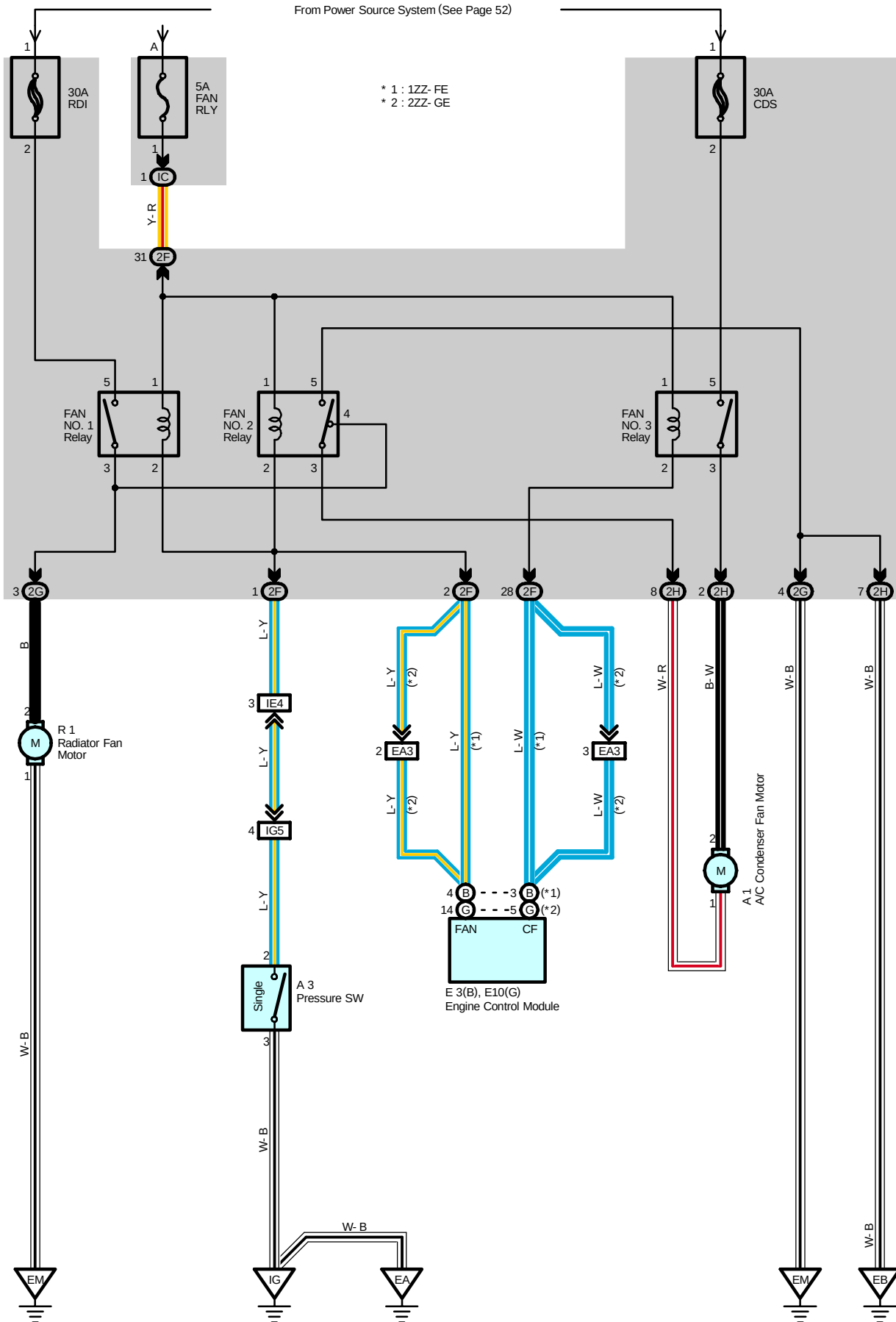
Code	See Page	Ground Points Location
EB	40 (1ZZ-FE)	Front Left Fender
	42 (2ZZ-GE)	
IF	44	Instrument Panel Brace RH
IH	44	Cowl Side Panel RH



: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	40 (1ZZ-FE)	Engine Room Main Wire	I3	46	Floor Wire
	42 (2ZZ-GE)				

Radiator Fan and Condenser Fan



System Outline

Fan motor operation

The fan motor is operated according to the condition of the A/C operation, water temperature, or abnormality in the A/C system.

Service Hints

A3 Pressure SW

3-2 : Open above approx. 15.5 kgf/cm² (220 psi, 1520 kpa)

Close below approx. 12.5 kgf/cm² (178 psi, 1226 kpa)

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A1	32 (1ZZ-FE)	A3		R1	33 (1ZZ-FE)
	34 (2ZZ-GE)	E3	B		35 (2ZZ-GE)
A3	32 (1ZZ-FE)	E10	G		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

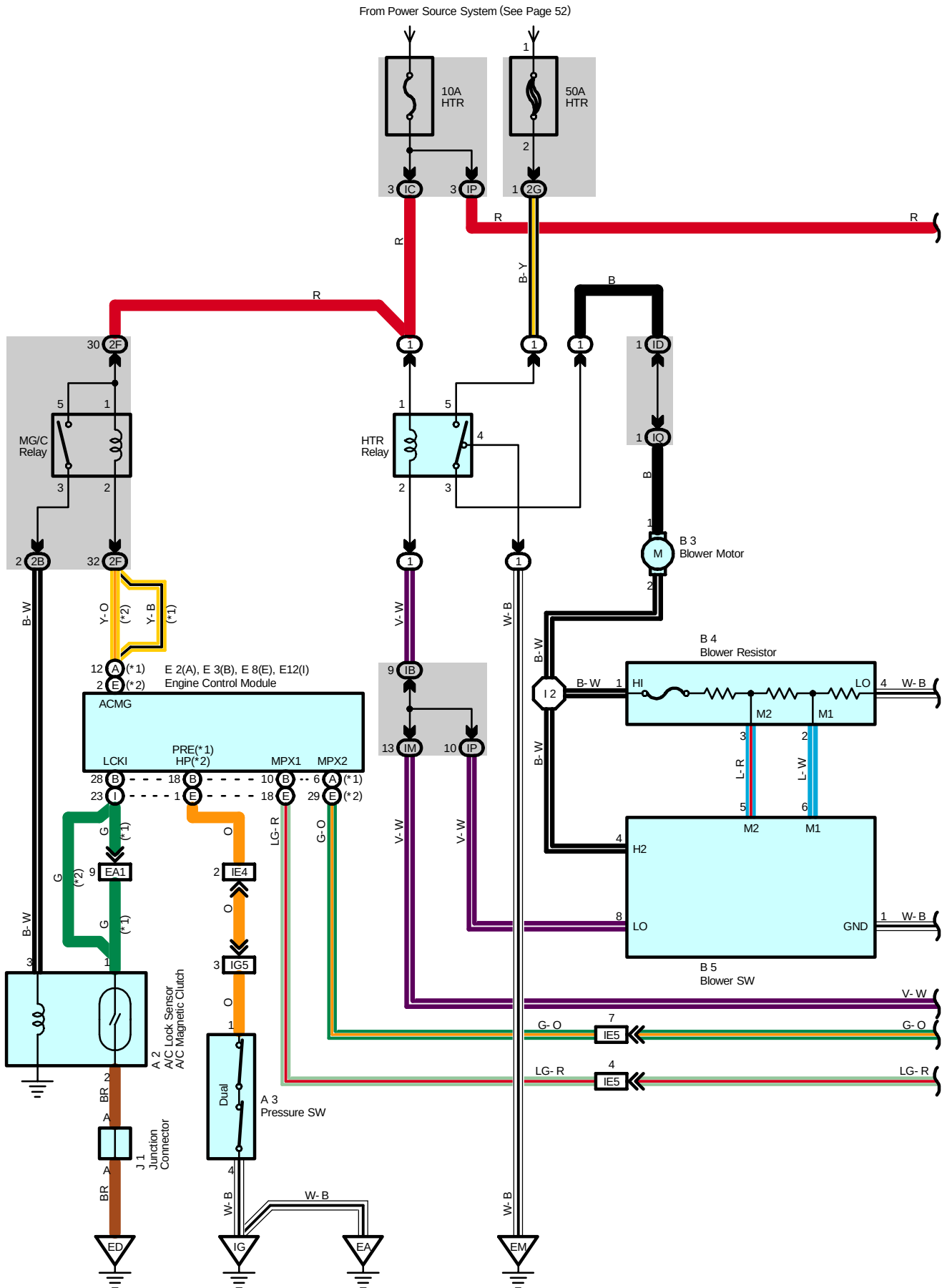
Code	See Page	Junction Block and Wire Harness (Connector Location)
IC	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
2F	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2G		
2H		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA3	42 (2ZZ-GE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B No.1)
IE4	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IG5	46	Engine Room No.2 Wire and Instrument Panel Wire (Right Kick Panel)

▽ : GROUND POINTS

Code	See Page	Ground Points Location
EA	40 (1ZZ-FE)	Front Right Fender
	42 (2ZZ-GE)	
EB	40 (1ZZ-FE)	Front Left Fender
	42 (2ZZ-GE)	
EM	40 (1ZZ-FE)	
	42 (2ZZ-GE)	
IG	44	Cowl Side Panel RH



Air Conditioning

System Outline

1. Heater Blower Motor Operation

Current is applied at all times through the HTR fuse (50A) to TERMINAL 5 of the HTR relay.

When the ignition SW is turned on, current flows through the HTR fuse (10A) to TERMINAL 1 of the HTR relay to the coil side to TERMINAL 2 to TERMINAL 8 of the blower SW.

* Low speed operation

When the blower SW is moved to LO position, current flows to TERMINAL 8 of the blower SW to TERMINAL 1 to GROUND, causing the HTR relay to switch on. This causes the current to flow from the HTR fuse (50A) to TERMINAL 5 of the HTR relay to TERMINAL 3 to TERMINAL 1 of the blower motor to TERMINAL 2 to TERMINAL 1 of the blower resistor to TERMINAL 4 to GROUND, causing the blower motor to rotate at low speed.

* Medium speed operation (Operation at M1, M2)

When the blower SW is moved to M1 position, current flows to TERMINAL 8 of the blower SW to TERMINAL 1 to GROUND, turning the HTR relay to switch on. This causes the current to flow from the HTR fuse (50A) to TERMINAL 5 of the HTR relay to TERMINAL 3 to TERMINAL 1 of the blower motor to TERMINAL 2 to TERMINAL 1 of the blower resistor to TERMINAL 2 to TERMINAL 6 of the blower SW to TERMINAL 1 to GROUND. At this time, the blower resistance of the blower resistor is less than at low speed, so the blower motor rotates at medium low speed.

When the blower SW is moved to M2 position, current flows through the motor flows from TERMINAL 1 of the blower resistor to TERMINAL 3 to TERMINAL 5 of the blower SW to TERMINAL 1 to GROUND. At this time, resistance of the blower resistor is less than at M1 position, so the blower motor rotates at medium high speed.

* High speed operation

When the blower SW is moved to HIGH position, current flows to TERMINAL 8 of the blower SW to TERMINAL 1 to GROUND, turning the HTR relay to switch on.

This causes the current to flow from the HTR fuse (50A) to TERMINAL 5 of the HTR relay to TERMINAL 3 to TERMINAL 1 of the blower motor to TERMINAL 2 to TERMINAL 4 of the blower SW to TERMINAL 1 to GROUND, causing the blower motor to rotate at high speed.

Service Hints

B4 Blower Resistor

1-3 : Approx. 0.47 Ω

1-2 : Approx. 1.42 Ω

1-4 : Approx. 2.28 Ω

B5 Blower SW

8-1 : Continuity with the blower SW at LO, M1, M2 and HI position

6-1 : Continuity with the blower SW at M1 position

5-1 : Continuity with the blower SW at M2 position

4-1 : Continuity with the blower SW at HI position

○ : PARTS LOCATION

Code	See Page	Code		See Page	Code		See Page
A2	32 (1ZZ-FE)	B3		36	E3	B	32 (1ZZ-FE)
	34 (2ZZ-GE)	B4		36	E8	E	34 (2ZZ-GE)
A3	32 (1ZZ-FE)	B5		36	E12	I	34 (2ZZ-GE)
	34 (2ZZ-GE)	C12	A	36	J1		33 (1ZZ-FE)
A8	36	C13	B	36			35 (2ZZ-GE)
A9	36	E2	A	32 (1ZZ-FE)			

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	26	Engine Room R/B No.1 (Engine Compartment Left)

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IB	25	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IC		
ID		
IE	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IM		
IP	25	Cowl No.2 Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IQ		
2B	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2F	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2G		

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	40 (1ZZ-FE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B No.1)
	42 (2ZZ-GE)	
ID1	44	Cowl No.2 Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IE4	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IE5		
IG5	46	Engine Room No.2 Wire and Instrument Panel Wire (Right Kick Panel)

 : GROUND POINTS

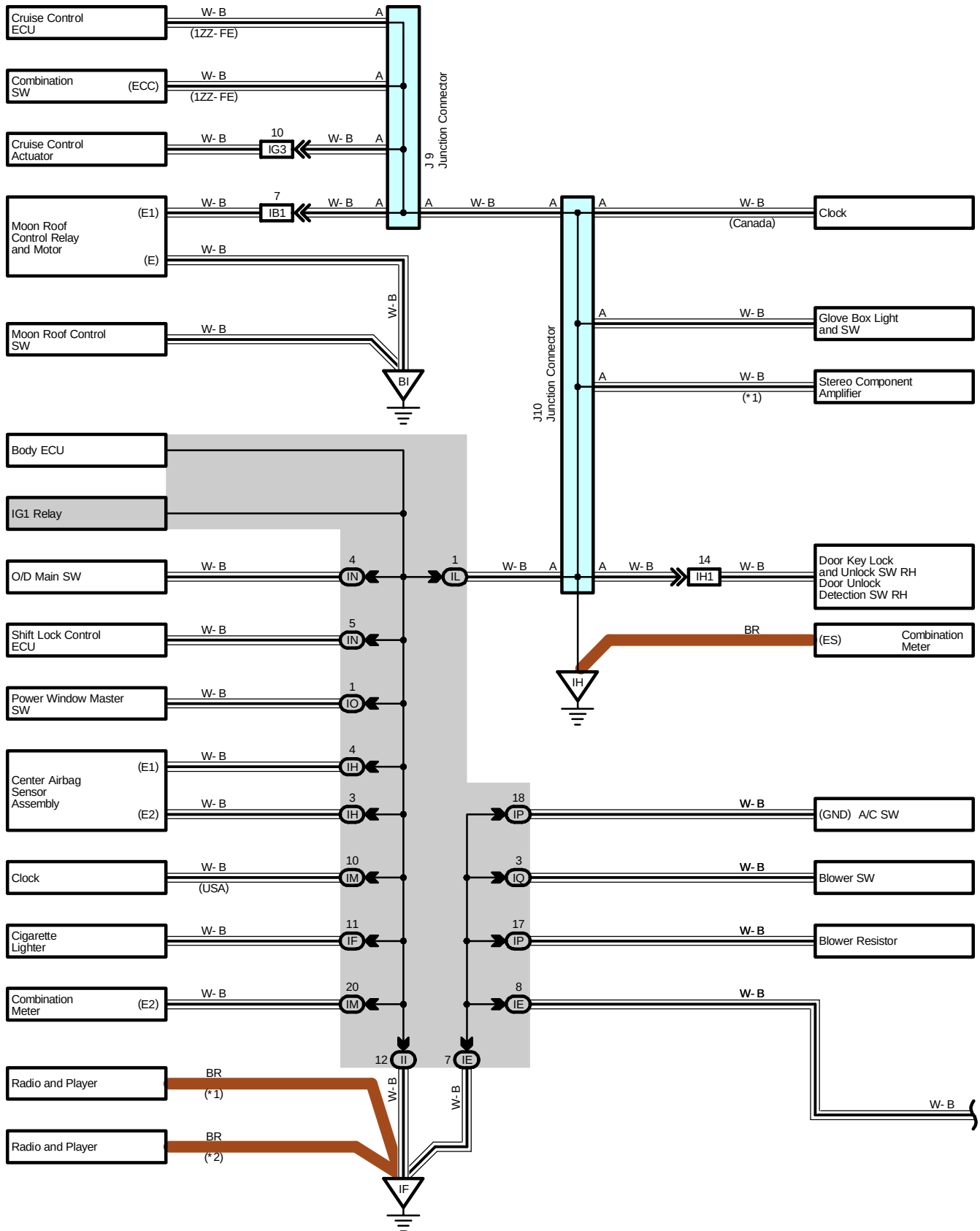
Code	See Page	Ground Points Location
EA	40 (1ZZ-FE)	Front Right Fender
	42 (2ZZ-GE)	
ED	40 (1ZZ-FE)	Cylinder Head Cover LH
	42 (2ZZ-GE)	
EM	40 (1ZZ-FE)	Front Left Fender
	42 (2ZZ-GE)	
IF	44	Instrument Panel Brace RH
IG	44	Cowl Side Panel RH
IH		

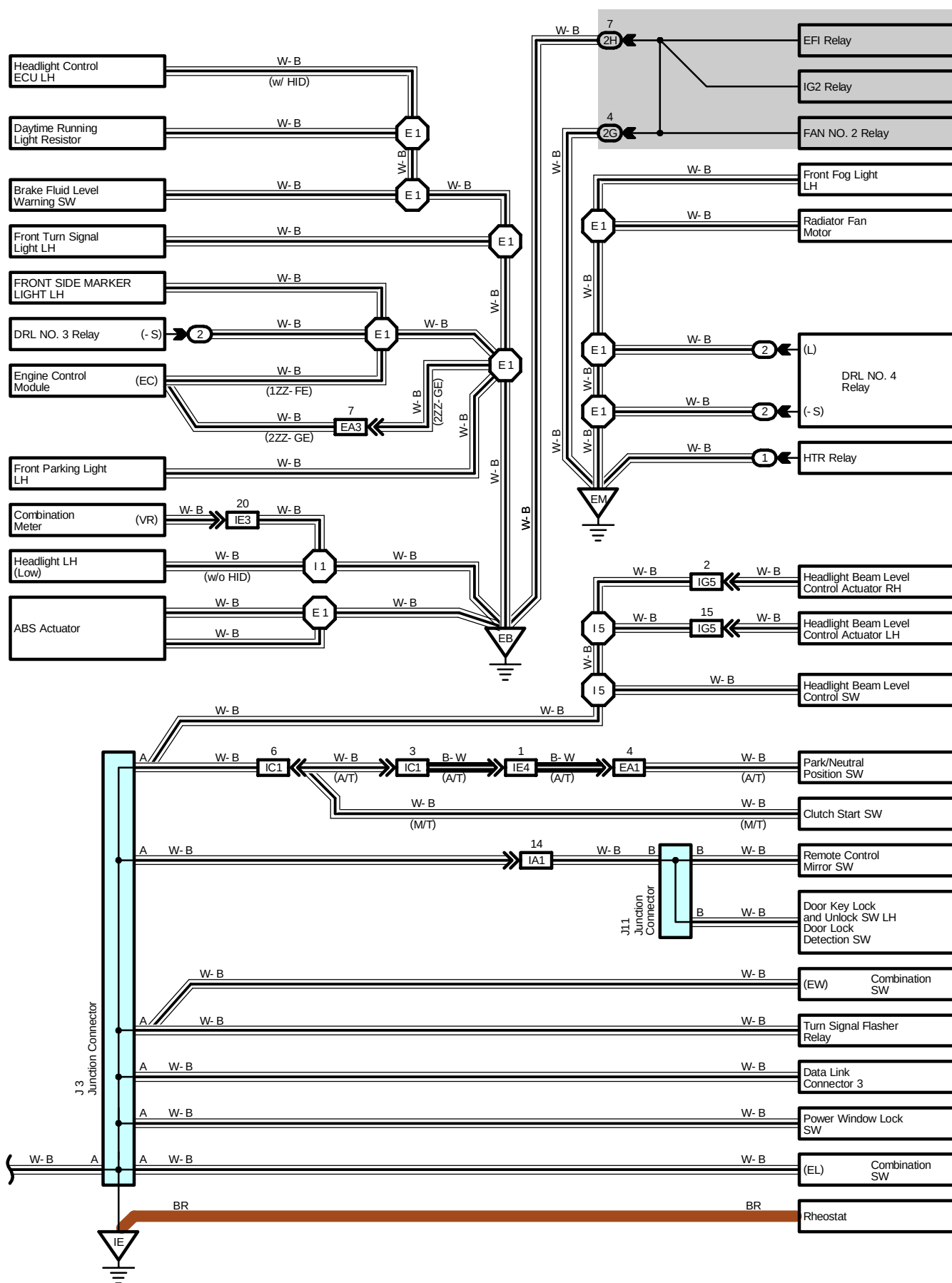
 : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I2	46	Cowl No.2 Wire			

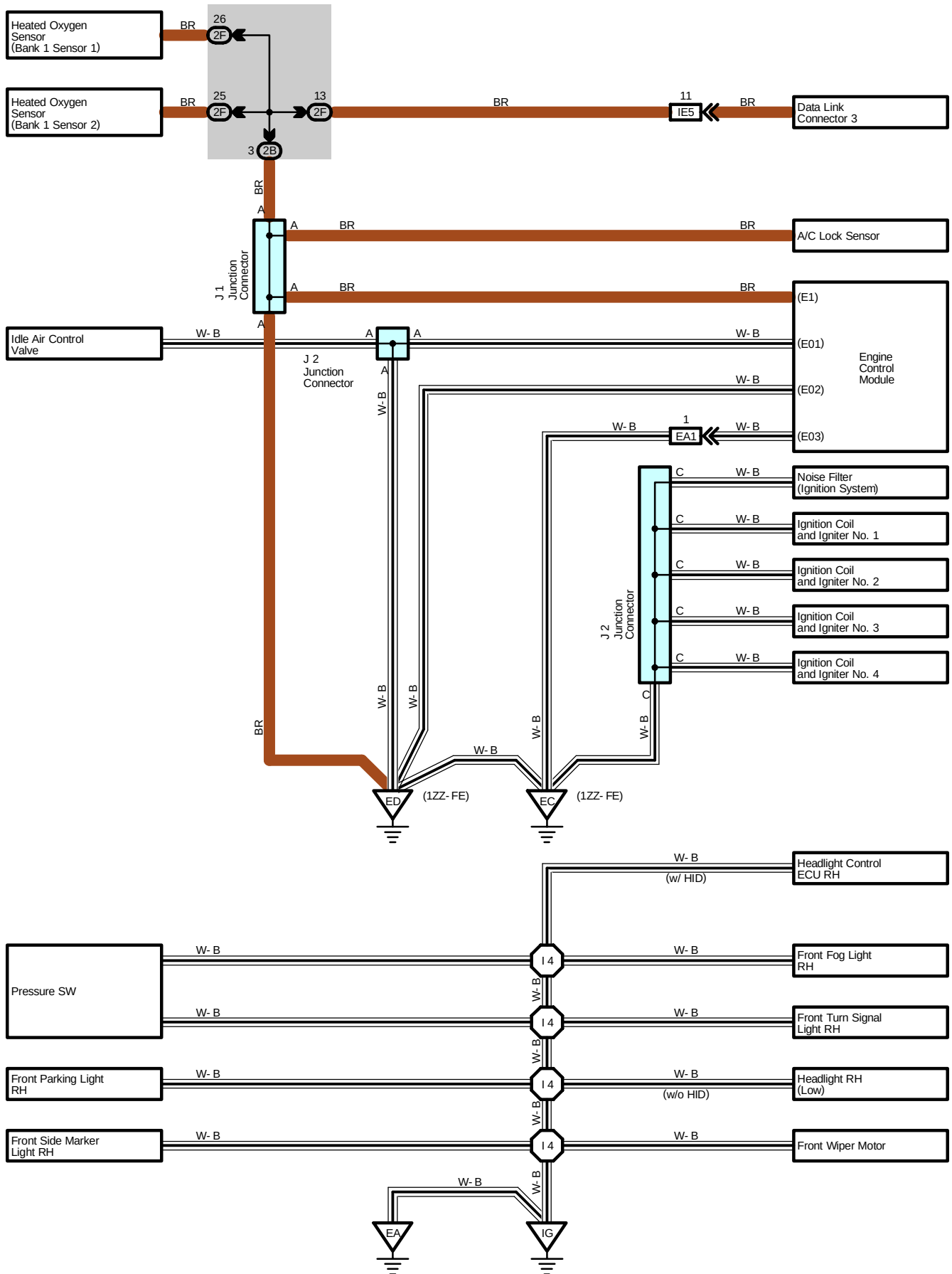
I GROUND POINT

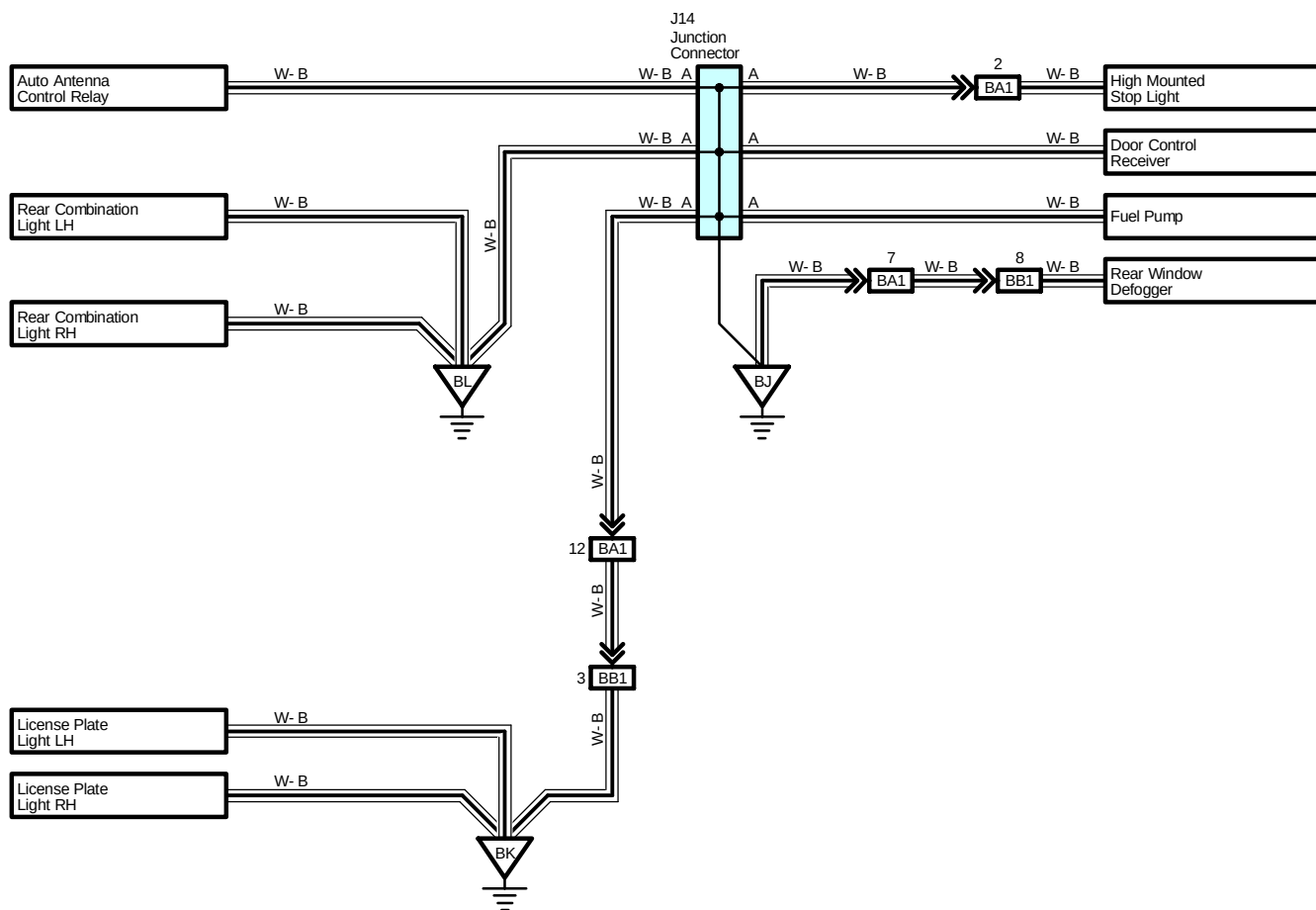
- * 1 : Separate Type Amplifier
- * 2 : Built-in Type Amplifier



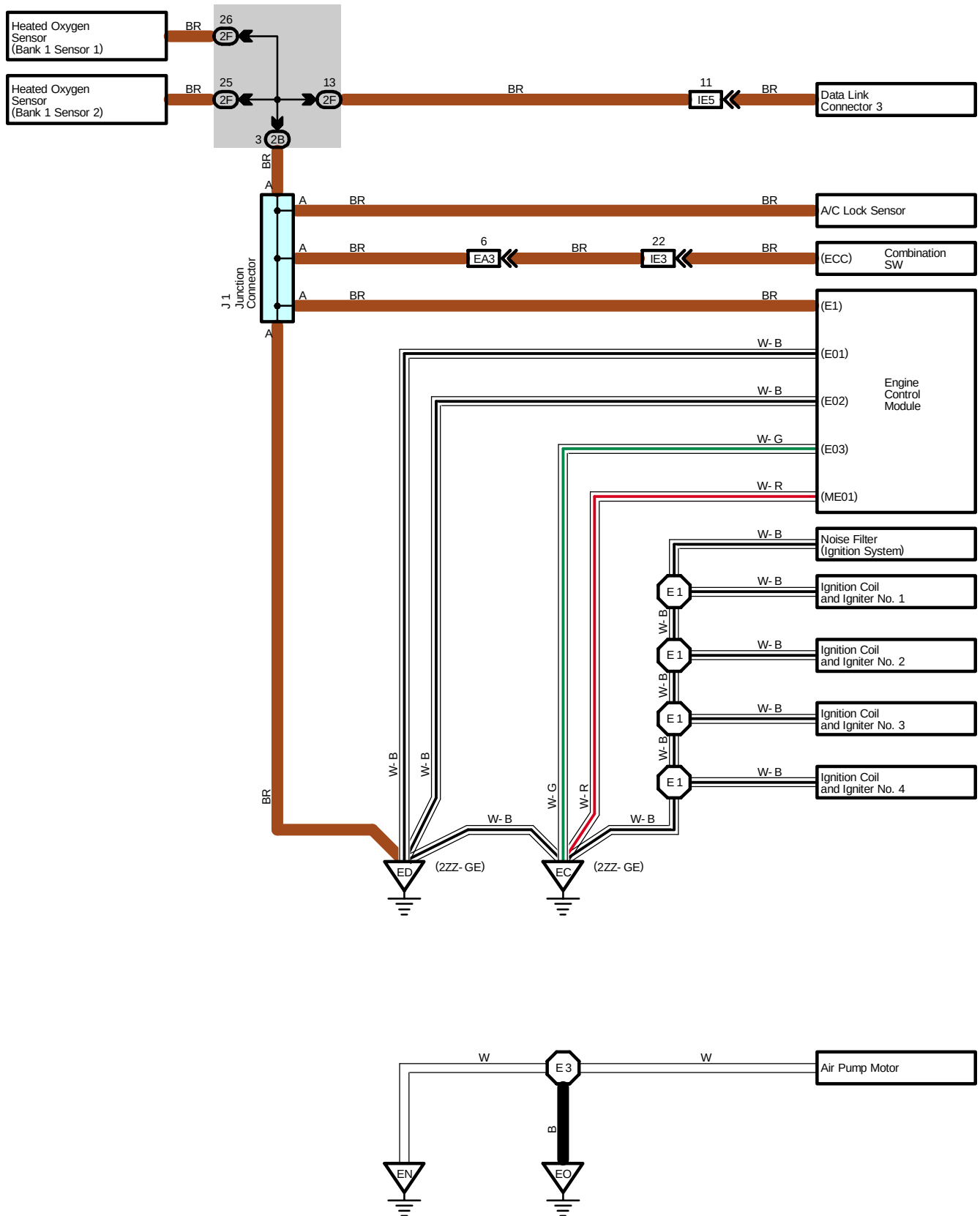


I GROUND POINT





I GROUND POINT



: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
J1	33 (1ZZ-FE)	J2	35 (2ZZ-GE)	J10	37
	35 (2ZZ-GE)	J3	37	J11	38
J2	33 (1ZZ-FE)	J9	37	J14	38

: RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	26	Engine Room R/B No.1 (Engine Compartment Left)
2	27	Engine Room R/B No.2 (Engine Compartment Left)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IE	25	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IF		
IH		
II		
IL		
IM		
IN	25	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IO		
IP	25	Cowl No.2 Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IQ		
2B	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
2F	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2G		
2H		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	40 (1ZZ-FE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B No.1)
	42 (2ZZ-GE)	
EA3	42 (2ZZ-GE)	
IA1	44	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IB1	44	Roof Wire and Instrument Panel Wire (Left Kick Panel)
IC1	44	Instrument Panel Wire and Instrument Panel No.2 Wire (Instrument Panel Reinforcement LH)
IE3	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IE4		
IE5		
IG3	46	Engine Room No.2 Wire and Instrument Panel Wire (Right Kick Panel)
IG5		
IH1	46	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
BA1	48	Back Door No.1 Wire and Floor Wire (Quarter Panel LH)
BB1	48	Back Door No.2 Wire and Back Door No.1 Wire (Back Door Upper Left)

I GROUND POINT



: GROUND POINTS

Code	See Page	Ground Points Location
EA	40 (1ZZ-FE)	Front Right Fender
	42 (2ZZ-GE)	
EB	40 (1ZZ-FE)	Front Left Fender
	42 (2ZZ-GE)	
EC	40 (1ZZ-FE)	Cylinder Head Cover LH
	42 (2ZZ-GE)	
ED	40 (1ZZ-FE)	
	42 (2ZZ-GE)	
EM	40 (1ZZ-FE)	Front Left Fender
	42 (2ZZ-GE)	
EN	42 (2ZZ-GE)	Air Pump Bracket
EO	42 (2ZZ-GE)	Engine Mount Brace RH
IE	44	Cowl Side Panel LH
IF	44	Instrument Panel Brace RH
IG	44	Cowl Side Panel RH
IH		
BI	48	Roof Left
BJ	48	Luggage Room Left
BK	48	Back Door Left
BL	48	Back Panel Center

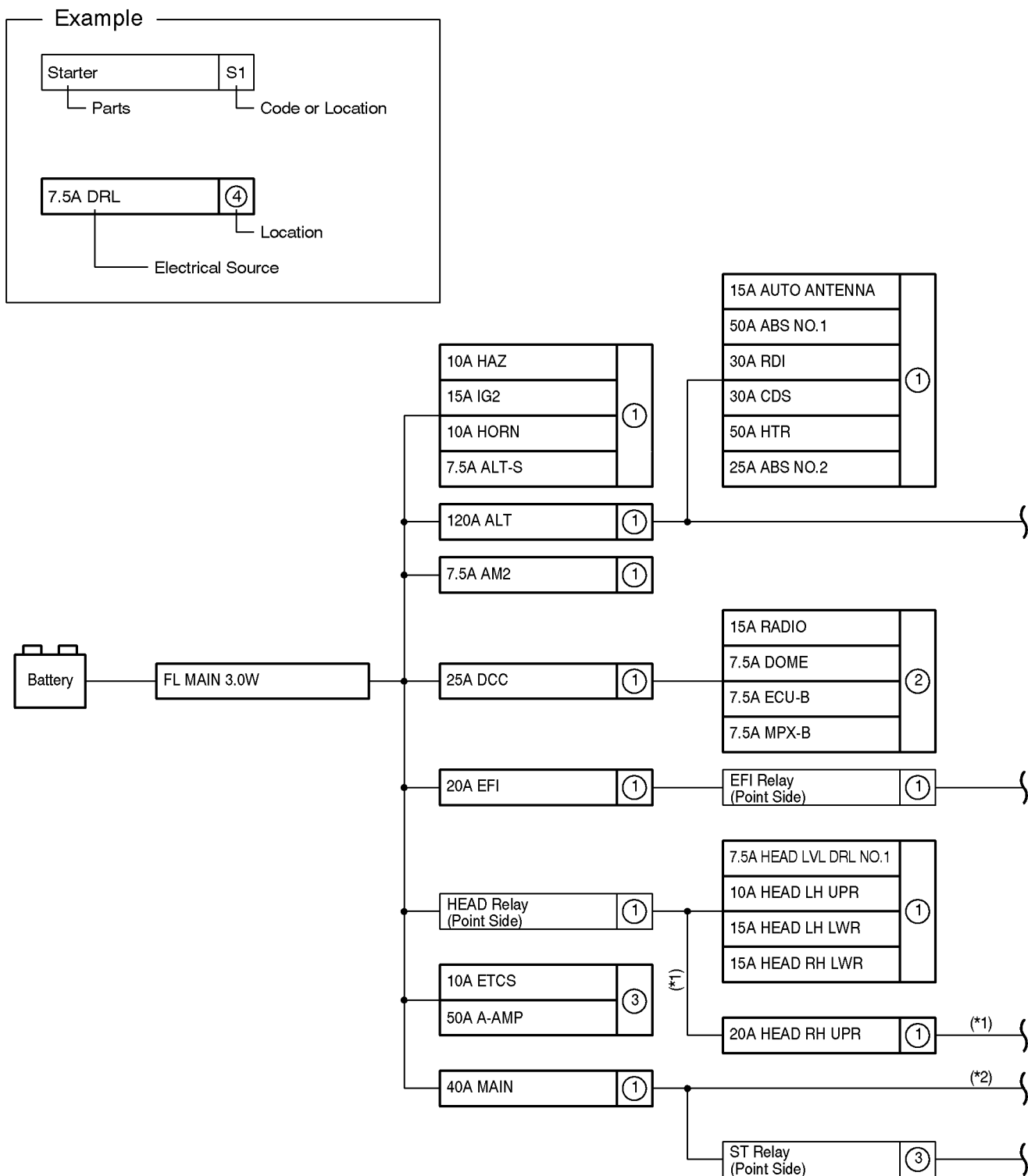


: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	40 (1ZZ-FE)	Engine Room Main Wire	I1	46	Engine Room Main Wire
	42 (2ZZ-GE)		I4	46	Engine Room No.2 Wire
E3	42 (2ZZ-GE)	Engine Wire	I5	46	Instrument Panel Wire

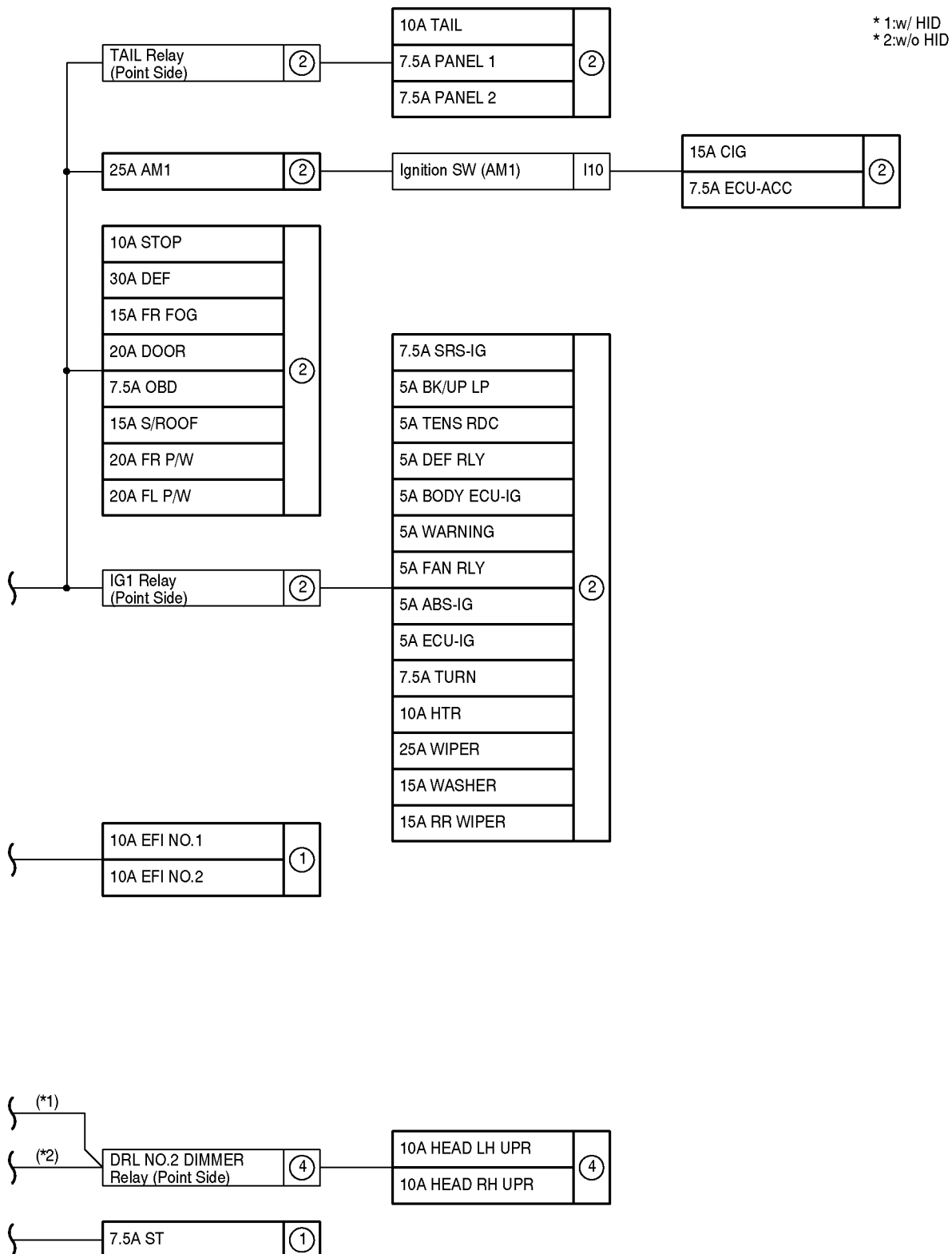
J POWER SOURCE (Current Flow Chart)

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



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

② : Instrument Panel J/B (See page 24)



J POWER SOURCE (Current Flow Chart)

Engine Room J/B (See Page 22)

Fuse		System	Page
7.5A	ALT-S	Charging	64
7.5A	AM2	Cruise Control (2ZZ-GE)	162
		Engine Control (1ZZ-FE)	66
		Engine Control (2ZZ-GE)	76
		SRS	149
		Starting and Ignition (1ZZ-FE)	56
		Starting and Ignition (2ZZ-GE)	60
7.5A	HEAD LVL DRL NO.1	Headlight (w/o HID)	92
		Headlight Beam Level Control	96
7.5A	ST	Engine Control (1ZZ-FE)	66
		Engine Control (2ZZ-GE)	76
		Starting and Ignition (1ZZ-FE)	56
		Starting and Ignition (2ZZ-GE)	60
10A	EFI NO.1	Cruise Control (2ZZ-GE)	162
		Electronically Controlled Transmission and A/T Indicator (1ZZ-FE)	168
		Electronically Controlled Transmission and A/T Indicator (2ZZ-GE)	174
		Engine Control (1ZZ-FE)	66
		Engine Control (2ZZ-GE)	76
10A	EFI NO.2	Engine Control (1ZZ-FE)	66
		Engine Control (2ZZ-GE)	76
10A	HAZ	Turn Signal and Hazard Warning Light	114
10A	HORN	Horn	182
		Multiplex Communication System	120
		Wireless Door Lock Control	130
15A	AUTO ANTENNA	Auto Antenna	204
15A	HEAD LH LWR	Headlight (w/ HID)	88
		Headlight (w/o HID)	92
15A	HEAD RH LWR	Combination Meter	206
		Fog Light	98
		Headlight (w/ HID)	88
		Headlight (w/o HID)	92
15A	IG2	Engine Control (1ZZ-FE)	66
		Engine Control (2ZZ-GE)	76
		Starting and Ignition (1ZZ-FE)	56
		Starting and Ignition (2ZZ-GE)	60
20A	EFI	Cruise Control (2ZZ-GE)	162
		Electronically Controlled Transmission and A/T Indicator (1ZZ-FE)	168
		Electronically Controlled Transmission and A/T Indicator (2ZZ-GE)	174
		Engine Control (1ZZ-FE)	66
		Engine Control (2ZZ-GE)	76
20A	HEAD RH UPR	Headlight (w/ HID)	88
		Multiplex Communication System	120

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

Fuse		System	Page
25A	ABS NO.2	ABS	154
30A	CDS	Radiator Fan and Condenser Fan	212
30A	RDI	Radiator Fan and Condenser Fan	212
40A	MAIN	Engine Control (1ZZ-FE)	66
		Engine Control (2ZZ-GE)	76
		Headlight (w/o HID)	92
		Multiplex Communication System	120
		Starting and Ignition (1ZZ-FE)	56
		Starting and Ignition (2ZZ-GE)	60
50A	ABS NO.1	ABS	154
50A	HTR	Air Conditioning	214
120A	ALT	Charging	64
		Illumination	104
		Light Reminder	116
		Multiplex Communication System	120
		Taillight	100

Instrument Panel J/B (See Page 24)

Fuse		System	Page
5A	ABS-IG	ABS	154
5A	BK/UP LP	Back-Up Light	110
		Clock (CANADA)	186
		Combination Meter	206
		Cruise Control (1ZZ-FE)	158
		Cruise Control (2ZZ-GE)	162
		Electronically Controlled Transmission and A/T Indicator (1ZZ-FE)	168
		Electronically Controlled Transmission and A/T Indicator (2ZZ-GE)	174
		Engine Control (1ZZ-FE)	66
		Engine Control (2ZZ-GE)	76
5A	BODY ECU-IG	Door Lock Control	134
		Electric Tension Reducer	144
		Headlight (w/ HID)	88
		Headlight (w/o HID)	92
		Interior Light	108
		Key Reminder and Seat Belt Warning	146
		Light Reminder	116
		Moon Roof	142
		Multiplex Communication System	120
		Power Window	138
		Wireless Door Lock Control	130
5A	DEF RLY	Multiplex Communication System	120
		Power Window	138
		Rear Window Defogger	196

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

J POWER SOURCE (Current Flow Chart)

Fuse		System	Page
5A	ECU-IG	Cruise Control (1ZZ-FE)	158
		Cruise Control (2ZZ-GE)	162
5A	FAN RLY	Radiator Fan and Condenser Fan	212
5A	TENS RDC	Auto Antenna	204
		Clock (CANADA)	186
		Electric Tension Reducer	144
		Moon Roof	142
		Multiplex Communication System	120
		Shift Lock	180
5A	WARNING	ABS	154
		Air Conditioning	214
		Charging	64
		Clock (CANADA)	186
		Combination Meter	206
		Cruise Control (1ZZ-FE)	158
		Cruise Control (2ZZ-GE)	162
		Electronically Controlled Transmission and A/T Indicator (1ZZ-FE)	168
		Electronically Controlled Transmission and A/T Indicator (2ZZ-GE)	174
		Engine Control (1ZZ-FE)	66
		Engine Control (2ZZ-GE)	76
		Key Reminder and Seat Belt Warning	146
		Multiplex Communication System	120
7.5A	DOME	Cigarette Lighter and Clock (USA)	184
		Clock (CANADA)	186
		Interior Light	108
		Key Reminder and Seat Belt Warning	146
		Multiplex Communication System	120
7.5A	ECU-ACC	Audio System (Built-in Type Amplifier)	202
		Audio System (Separate Type Amplifier)	198
		Auto Antenna	204
		Cigarette Lighter and Clock (USA)	184
		Clock (CANADA)	186
		Door Lock Control	134
		Electric Tension Reducer	144
		Interior Light	108
		Key Reminder and Seat Belt Warning	146
		Light Reminder	116
		Moon Roof	142
		Multiplex Communication System	120
		Power Window	138
		Remote Control Mirror	188
		Wireless Door Lock Control	130
7.5A	ECU-B	Air Conditioning	214
		Clock (CANADA)	186

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

Fuse		System	Page
7.5A	ECU-B	Combination Meter	206
		Interior Light	108
		Multiplex Communication System	120
7.5A	MPX-B	Door Lock Control	134
		Electric Tension Reducer	144
		Headlight (w/ HID)	88
		Headlight (w/o HID)	92
		Interior Light	108
		Key Reminder and Seat Belt Warning	146
		Light Reminder	116
		Moon Roof	142
		Multiplex Communication System	120
		Power Window	138
		Wireless Door Lock Control	130
7.5A	OBD	Engine Control (1ZZ-FE)	66
		Engine Control (2ZZ-GE)	76
7.5A	PANEL 1	Illumination	104
7.5A	PANEL 2	Combination Meter	206
		Illumination	104
7.5A	SRS-IG	SRS	149
7.5A	TURN	Turn Signal and Hazard Warning Light	114
10A	HTR	Air Conditioning	214
		Rear Window Defogger	196
10A	STOP	ABS	154
		Cruise Control (1ZZ-FE)	158
		Cruise Control (2ZZ-GE)	162
		Electronically Controlled Transmission and A/T Indicator (1ZZ-FE)	168
		Electronically Controlled Transmission and A/T Indicator (2ZZ-GE)	174
		Engine Control (1ZZ-FE)	66
		Engine Control (2ZZ-GE)	76
		Shift Lock	180
		Stop Light	112
10A	TAIL	Taillight	100
15A	CIG	Cigarette Lighter and Clock (USA)	184
15A	FR FOG	Fog Light	98
15A	RADIO	Audio System (Built-in Type Amplifier)	202
		Audio System (Separate Type Amplifier)	198
15A	RR WIPER	Rear Wiper and Washer	194
15A	S/ROOF	Moon Roof	142
15A	WASHER	Front Wiper and Washer	190
		Rear Wiper and Washer	194
20A	DOOR	Door Lock Control	134
		Electric Tension Reducer	144

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

J POWER SOURCE (Current Flow Chart)

Fuse		System	Page
20A	DOOR	Interior Light	108
		Key Reminder and Seat Belt Warning	146
		Light Reminder	116
		Moon Roof	142
		Multiplex Communication System	120
		Power Window	138
		Wireless Door Lock Control	130
20A	FL P/W	Multiplex Communication System	120
		Power Window	138
20A	FR P/W	Multiplex Communication System	120
		Power Window	138
25A	WIPER	Front Wiper and Washer	190
30A	DEF	Multiplex Communication System	120
		Rear Window Defogger	196

Engine Room R/B No.1 (See Page 26)

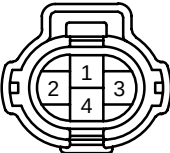
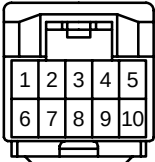
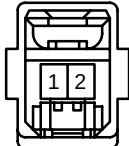
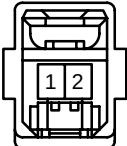
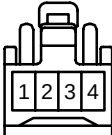
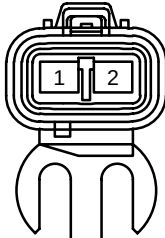
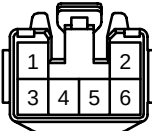
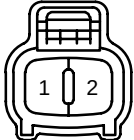
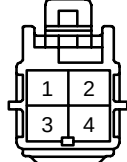
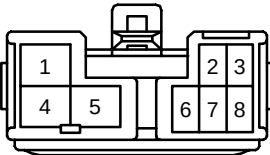
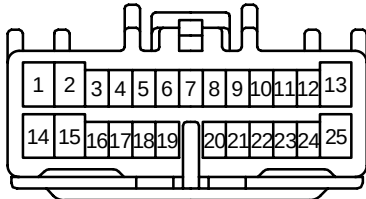
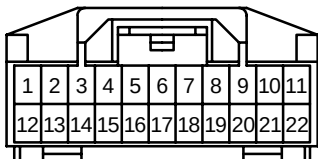
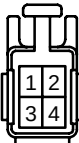
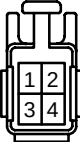
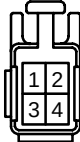
Fuse		System	Page
10A	ETCS	Cruise Control (2ZZ-GE)	162
		Engine Control (2ZZ-GE)	76
50A	A-AMP	Engine Control (2ZZ-GE)	76

Engine Room R/B No.2 (See Page 27)

Fuse		System	Page
10A	HEAD LH UPR	Headlight (w/ HID)	88
		Headlight (w/o HID)	92
10A	HEAD RH UPR	Headlight (w/ HID)	88
		Headlight (w/o HID)	92

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

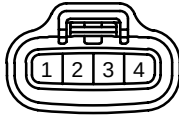
K CONNECTOR LIST

A 1 Black 	A 2 Gray 	A 3 Gray 	A 6 Gray 	A 7 Black 	A 8 
A 9 	A12 Yellow 	A13 Yellow 	A14 Black 	A15 	A16 
A17 Gray 	A18 Dark Gray 	A19 Dark Gray 	A20 Black 	A21 	
A22 Black 	B 1 Gray 	B 2 Gray 	B 3 Black 	B 4 Black 	
B 5 	B 6 	B 7 	B 8 		
B 9 	B10 Black 	C 1 Black 	C 2 Black 	C 3 Black 	C 4 (1ZZ-FE) Gray 

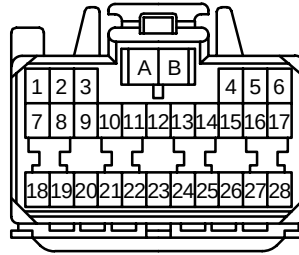
C 4
(2ZZ-GE) Black



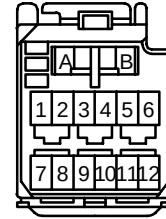
C 5
Black



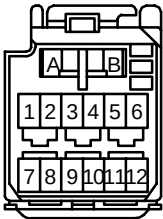
C 6
Yellow



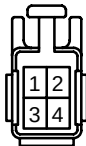
C 7
Yellow



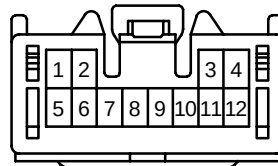
C 8
Yellow



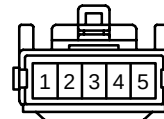
C 9



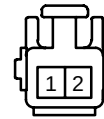
C10
(Canada) Blue



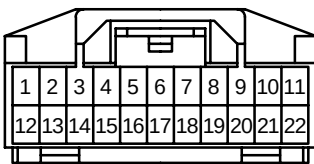
C10
(USA)



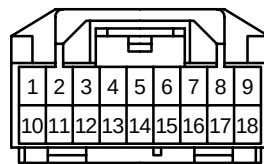
C11



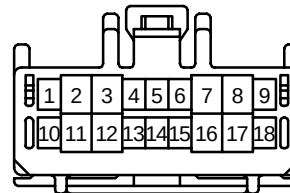
C12



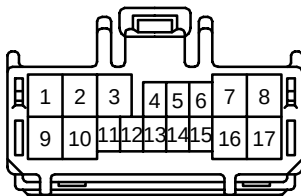
C13
Blue



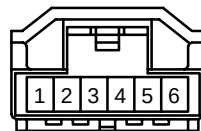
C14
Black



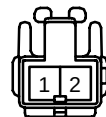
C15



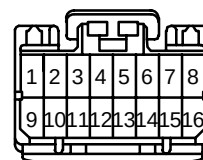
C16
Black



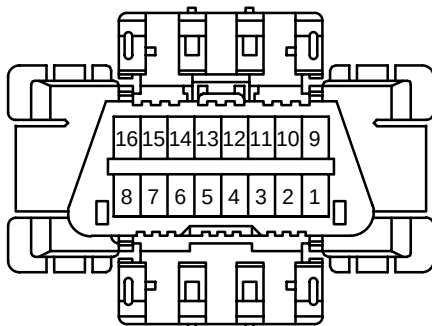
C17



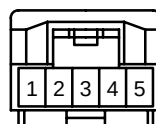
C18



D 1



D 2



D 3

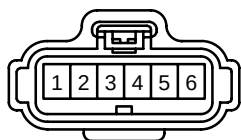


D 4

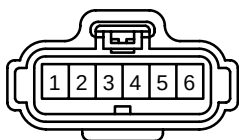


K CONNECTOR LIST

D 5
Black



D 6
Black



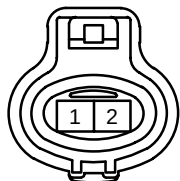
D 7
Yellow



D 8
Yellow



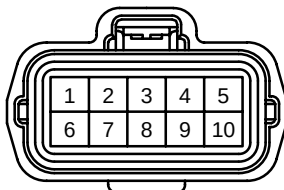
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Gray



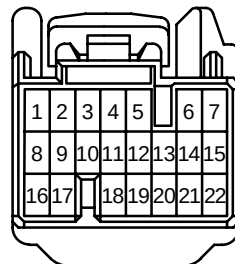
D10
Black



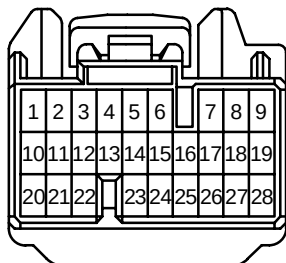
E 1
Gray



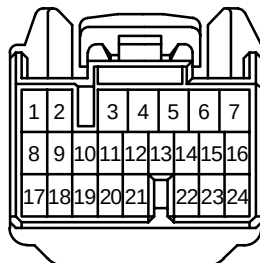
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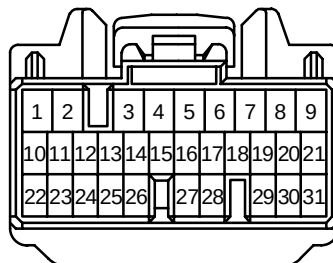
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Black



E 4



E 5



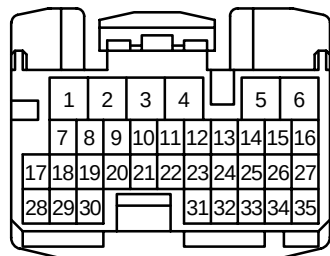
E 6
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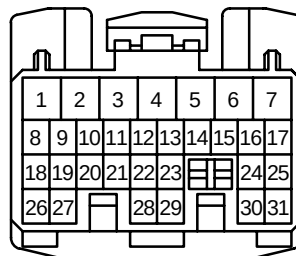
E 7
Gray



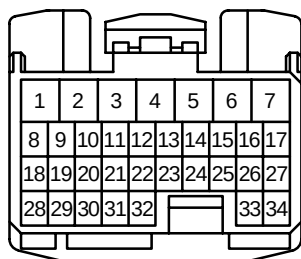
E 8



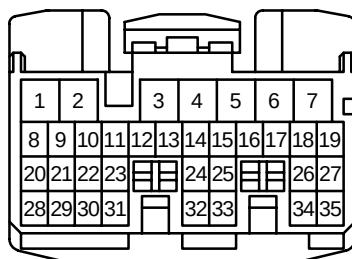
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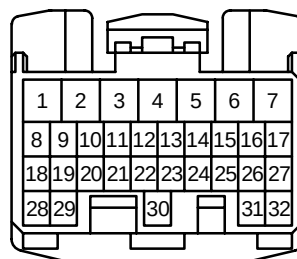
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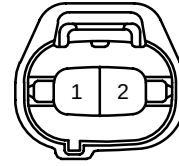
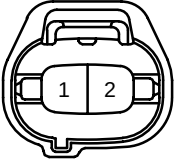
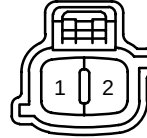
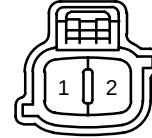
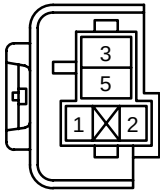
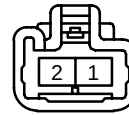
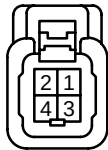
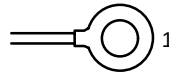
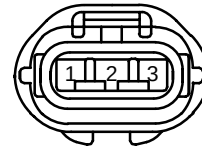
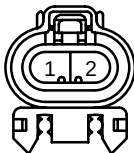
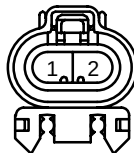
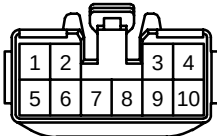


E11

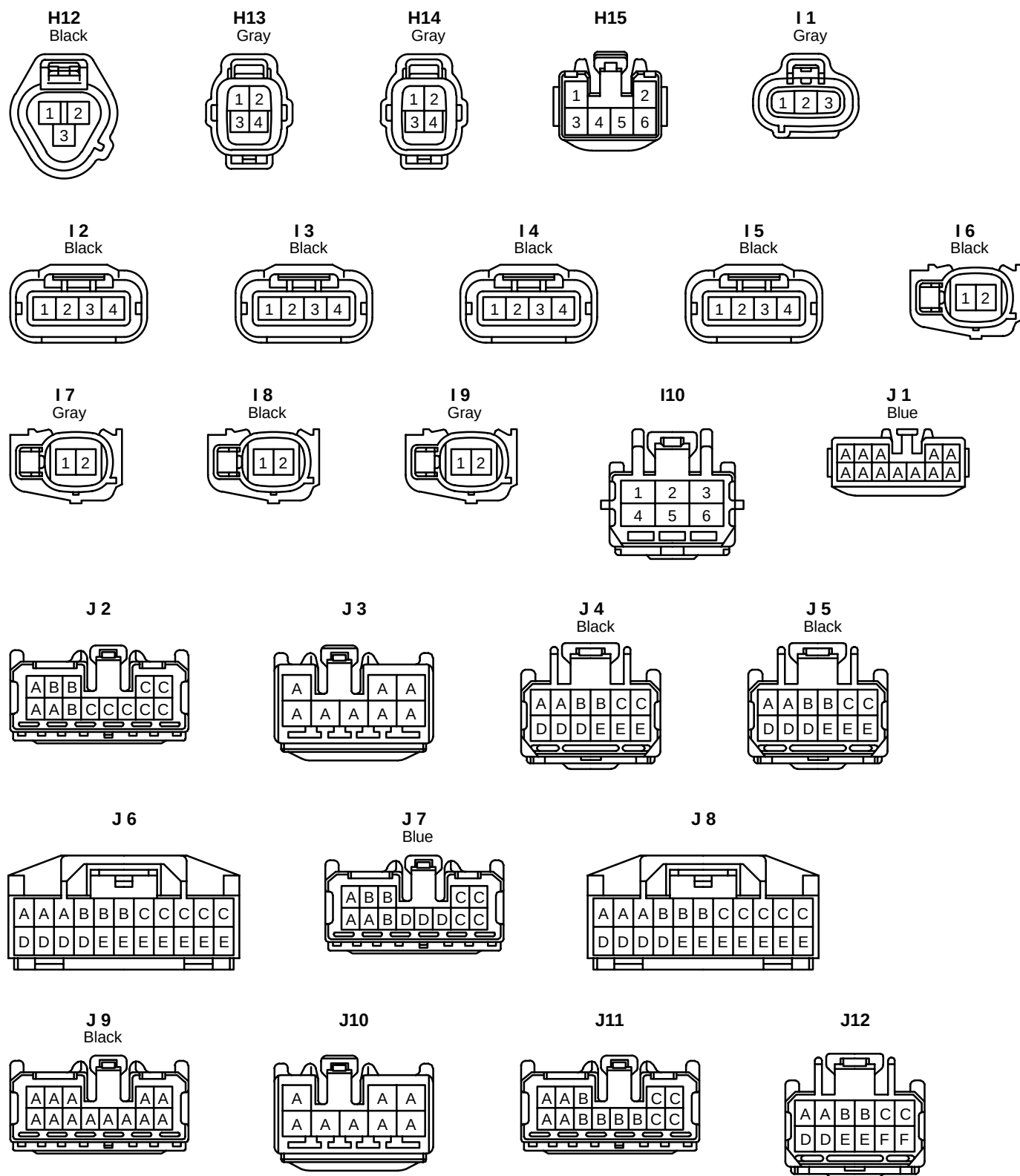


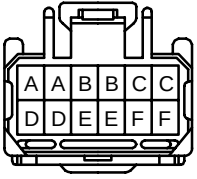
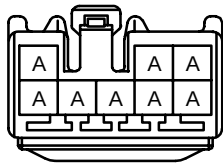
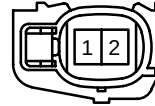
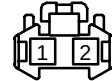
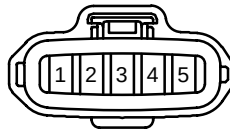
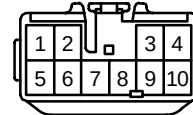
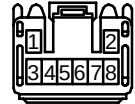
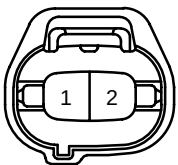
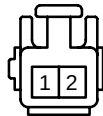
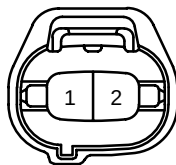
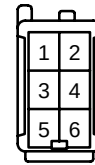
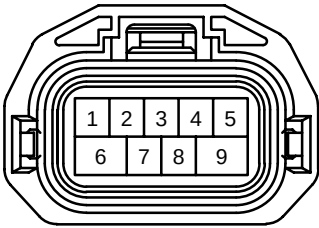
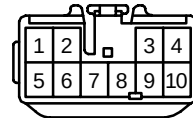
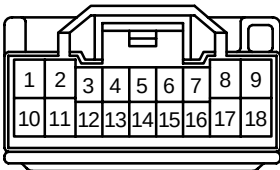
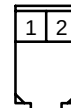
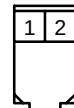
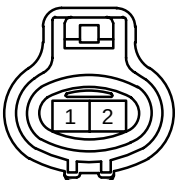
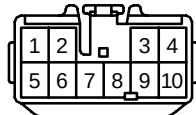
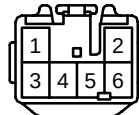
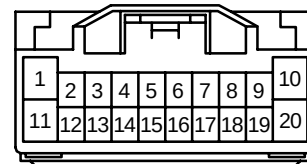
E12



F 1
Yellow**F 2**
Yellow**F 3**
Black**F 4****F 5**
Black**F 6**
Black**F 7****F 8****F 9**
Gray**F10**
Gray**F11**
Black**F12****F13****F14****F15**
(6 Speaker)**F15**
(8 Speaker)**F16**
(6 Speaker)**F16**
(8 Speaker)**F17****G 1****G 2**
Black**G 3**
Black**H 1**
Black**H 2****H 3**
Black**H 4****H 5**
Black**H 6**
Black**H 7**
Black**H 8****H 9**
Gray**H10****H11**
Black

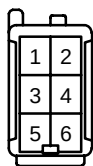
K CONNECTOR LIST



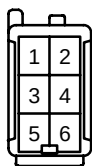
J13**J14****K 1**
(1ZZ-FE) Dark Gray**K 1**
(2ZZ-GE) Black**L 1****L 2****L 3****L 4****M 1**
Black**M 2**
Black**M 3****N 1**
Black**N 2****O 1**
Black**O 2**
Gray**O 3****P 1**
Gray**P 2**
Black**P 3**
Black**P 4**
Blue**P 5****P 6****P 7****P 8****P 9**
Yellow**P10**
Yellow**R 1**
Gray**R 2**
Blue**R 3**
Blue**R 4****R 5**

K CONNECTOR LIST

R 6



R 7



R 8



R 9



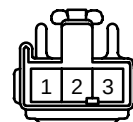
R10
Black



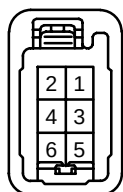
R11
Black



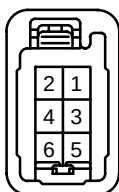
R12
Black



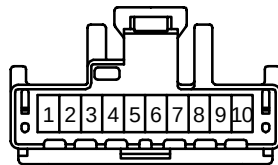
R13



R14



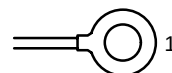
R15



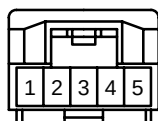
S 1
Black



S 2



S 3



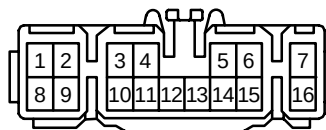
S 4
Yellow



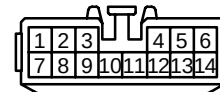
S 5
Yellow



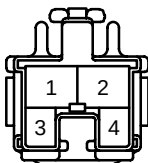
S 6



S 7



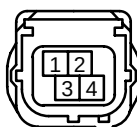
S 8



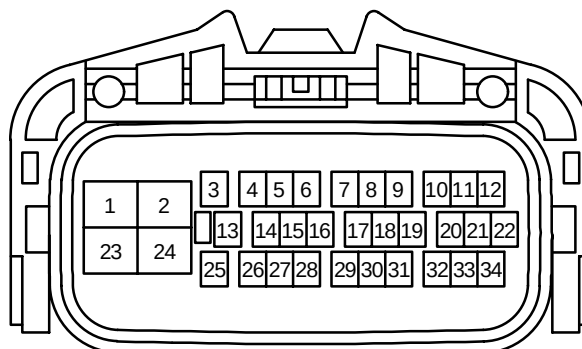
S 9
Yellow



S10
Yellow



S11
Black



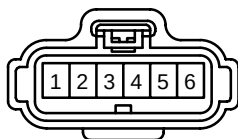
T 1

(1ZZ-FE) Black

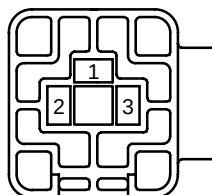


T 1

(2ZZ-GE) Black



T 2



T 3



T 4



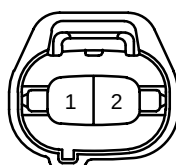
U 1



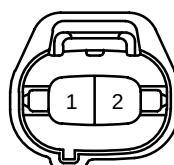
V 1
Black



V 2
Black

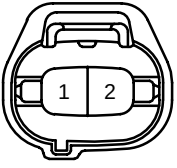
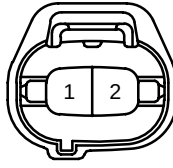


V 3
Blue



V 4
Black



V 5
Black**V 6**
Black**V 7**
Blue**V 8**
Blue**W 1**
Black

L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number
A 1	A/C Condenser Fan Motor	90980-11410	C17	Cruise Control Clutch SW	90980-10906
A 2	A/C Lock Sensor	90980-11016	C18	Cruise Control ECU	90980-11391
	A/C Magnetic Clutch		D 1	Data Link Connector 3	90980-11665
A 3	Pressure SW	90980-10943	D 2	Door Control Receiver	90980-11909
A 6	ABS Speed Sensor Front LH	90980-11003	D 3	Door Courtesy SW LH	90980-10871
A 7	ABS Speed Sensor Front RH		D 4	Door Courtesy SW RH	
A 8	A/C Evaporator Temp. Sensor	90980-11918	D 5	Door Key Lock and Unlock SW LH	90980-11858
A 9	A/C SW	90980-11923		Door Lock Detection SW LH	
A12	Airbag Squib (Front Passenger Airbag Assembly)	90980-11884		Door Lock Motor LH	
A13	Airbag Squib (Steering Wheel Pad)		D 6	Door Key Lock and Unlock SW RH	
A14	Automatic Light Control Sensor	90980-11107		Door Lock Detection SW RH	
A15	ABS Speed Sensor Rear LH	90980-11060		Door Lock Motor RH	
A16	ABS Speed Sensor Rear RH		D 7	Door Side Airbag Sensor LH	90980-11856
A17	Accelerator Pedal Position Sensor	90980-11144	D 8	Door Side Airbag Sensor RH	
A18	Air Pump Motor	82824-20160	D 9	Daytime Running Light Resistor	90980-10928
A19	Air Pump Relay	90980-11288	D10	Diode (Rear Wiper)	90980-10962
A20	Ambient Temp. Sensor	90980-11070	E 1	Electronically Controlled Transmission Solenoid	90980-11658
A21	Auto Antenna Control Relay	90980-10797	E 2	Engine Control Module	90980-11638
A22	Air Pump Pressure Sensor	90980-10845	E 3	Engine Control Module	90980-11637
B 1	Back-Up Light SW	90980-11051	E 4	Engine Control Module	90980-11476
B 2	Brake Fluid Level Warning SW	90980-11207	E 5	Engine Control Module	90980-11421
B 3	Blower Motor	90980-10214	E 6	Engine Coolant Temp. Sensor	90980-11062
B 4	Blower Resistor	90980-11136	E 7	Oil Pressure SW (VVTL)	90980-11363
B 5	Blower SW	90980-10877	E 8	Engine Control Module	90980-12146
B 6	Body ECU	90980-11877	E 9	Engine Control Module	90980-12142
B 7	Body ECU	90980-11915	E10	Engine Control Module	90980-12144
B 8	Buckle SW LH	90980-10795	E11	Engine Control Module	90980-12145
B 9	Buckle SW RH		E12	Engine Control Module	90980-12143
B10	Back Door Lock Motor		F 1	Front Airbag Sensor LH	90980-11898
C 1	Camshaft Position Sensor	90980-10947	F 2	Front Airbag Sensor RH	
C 2	Camshaft Timing Oil Control Valve (VVL)	90980-11162	F 3	Front Fog Light LH	90980-11003
C 3	Camshaft Timing Oil Control Valve (VVT)		F 4	Front Fog Light RH	
C 4	Crankshaft Position Sensor	90980-10947	F 5	Front Parking Light LH	90980-11156
C 5	Cruise Control Actuator	90980-11150	F 6	Front Parking Light RH	
C 6	Center Airbag Sensor Assembly	90980-11872	F 7	Front Side Marker Light LH	90980-11162
C 7	Center Airbag Sensor Assembly	90980-11869	F 8	Front Side Marker Light RH	
C 8	Center Airbag Sensor Assembly	90980-11867	F 9	Front Turn Signal Light LH	90980-11019
C 9	Cigarette Lighter	90980-10795	F10	Front Turn Signal Light RH	
C10	Clock (Canada)	90980-11475	F11	Front Wiper Motor	90980-11599
	Clock (USA)	90980-10789	F12	Front Fog Light Relay	82660-20340
C11	Clutch Start SW	90980-10825	F13	Front Door Speaker LH	90980-10935
C12	Combination Meter	90980-11915	F14	Front Door Speaker RH	
C13	Combination Meter	90980-11913	F15	Front Door Tweeter Speaker LH (6 Speaker)	90980-10915
C14	Combination SW	90980-11594		Front Door Tweeter Speaker LH (8 Speaker)	90980-10794
C15	Combination SW	90980-11672			
C16	Combination SW	90980-11986			

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

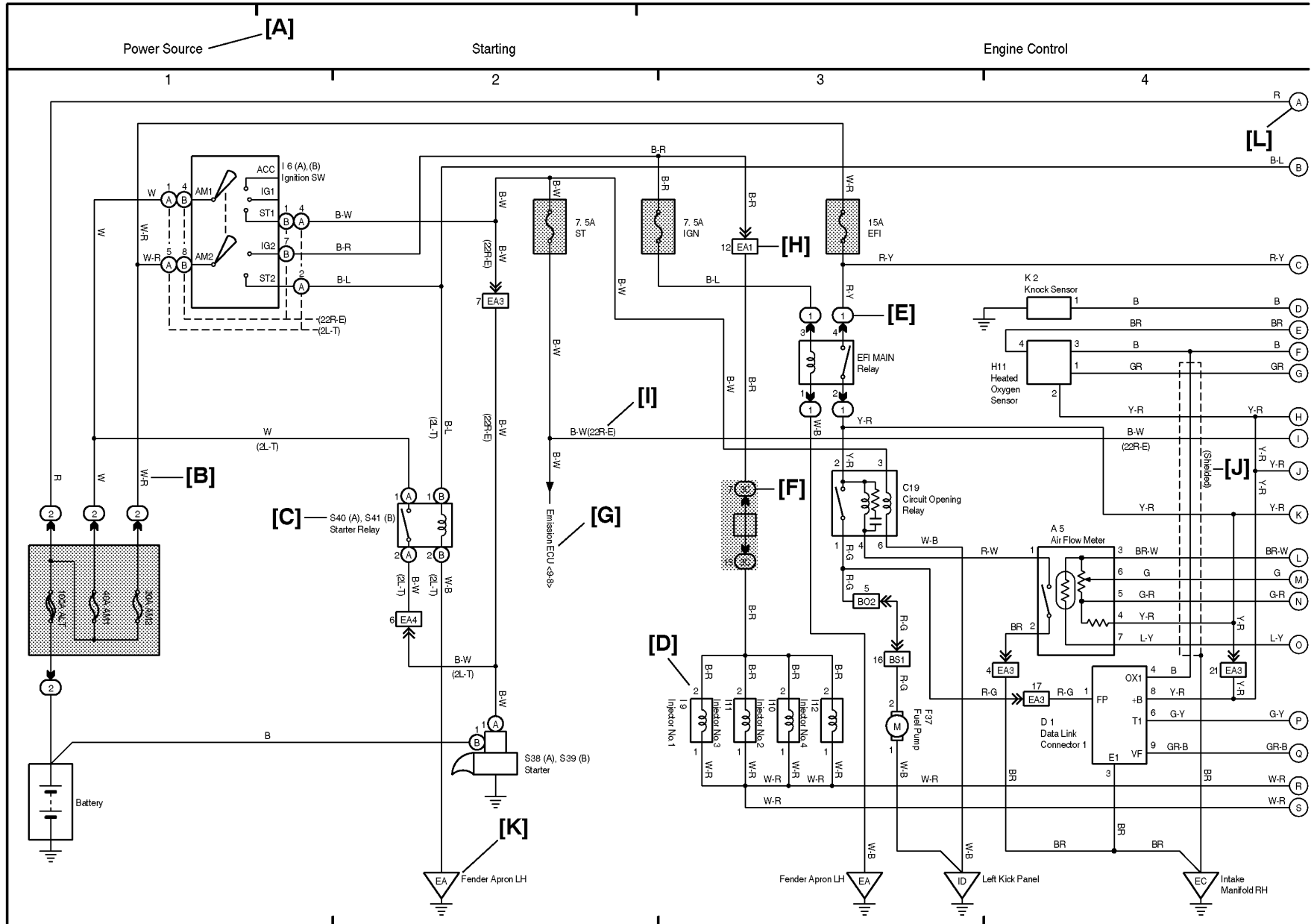
Code	Part Name	Part Number	Code	Part Name	Part Number
F16	Front Door Tweeter Speaker RH (6 Speaker)	90980-10915	J14	Junction Connector	90980-11686
	Front Door Tweeter Speaker RH (8 Speaker)	90980-10794	K 1	Knock Sensor (Bank 1) (1ZZ-FE)	90980-11166
F17	Fuel Pump	90980-11077		Knock Sensor (Bank 1) (2ZZ-GE)	
	Fuel Sender		L 1	License Plate Light LH	90980-11148
G 1	Generator	90980-09212	L 2	License Plate Light RH	
G 2	Generator	90980-11349	L 3	Luggage Compartment Light	90980-10121
G 3	Glove Box Light and SW	90980-11098	L 4	Luggage Compartment Light SW	90980-10871
H 1	Headlight LH (High)	90980-11659	M 1	Mass Air Flow Meter	90980-11317
H 2	Headlight LH (Low)	90980-10481	M 2	Moon Roof Control Relay and Motor	90980-10997
H 3	Headlight RH (High)	90980-11659	M 3	Moon Roof Control SW	90980-11533
H 4	Headlight RH (Low)	90980-10481		Personal Light	
H 5	Horn (High)	90980-10619	N 1	Noise Filter (Ignition System)	90980-11156
H 6	Horn (Low)		N 2	Noise Filter (Rear Window Defogger)	90980-10825
H 7	Hazard SW	90980-10801	O 1	O/D Direct Clutch Speed Sensor	90980-11156
H 8	Heated Oxygen Sensor (Bank 1 Sensor 1)	90980-10869	O 2	Oil Pressure SW	90980-11363
H 9	Heated Oxygen Sensor (Bank 1 Sensor 2)	90980-11028	O 3	O/D Main SW	90980-11011
H10	High Mounted Stop Light	90980-10859	P 1	Park/Neutral Position SW	90980-11784
H11	Headlight Beam Level Control Actuator LH	90980-11016	P 2	Power Steering Oil Pressure SW	90980-11428
H12	Headlight Beam Level Control Actuator RH		P 3	Parking Brake SW	90980-10871
H13	Headlight Assembly LH	90980-10869	P 4	Power Window Lock SW	90980-10997
H14	Headlight Assembly RH		P 5	Power Window Master SW	90980-11973
H15	Headlight Beam Level Control SW	90980-10797	P 6	Personal Light	90980-11148
I 1	Idle Air Control Valve	90980-11145	P 7	Power Window Motor LH	90980-10860
I 2	Ignition Coil and Igniter No.1	90980-11885	P 8	Power Window Motor RH	
I 3	Ignition Coil and Igniter No.2		P 9	Pretensioner LH	90980-11862
I 4	Ignition Coil and Igniter No.3		P10	Pretensioner RH	
I 5	Ignition Coil and Igniter No.4		90980-11875	R 1	Radiator Fan Motor
I 6	Injector No.1	R 2		Radio and Player	90980-10997
I 7	Injector No.2	R 3		Radio and Player	90980-10996
I 8	Injector No.3	R 4		Radio and Player	90980-12038
I 9	Injector No.4	90980-11875	R 5	Rheostat	90980-10908
I10	Ignition SW		90980-11778	R 6	Rear Combination Light LH
J 1	Junction Connector	90980-10803	R 7	Rear Combination Light RH	
J 2	Junction Connector	90980-11542	R 8	Rear Speaker LH	90980-10935
J 3	Junction Connector	90980-11686	R 9	Rear Speaker RH	
J 4	Junction Connector	90980-11661	R10	Rear Window Defogger	90980-10913
J 5	Junction Connector		R11	Rear Window Defogger	90980-10914
J 6	Junction Connector	90980-11915	R12	Rear Wiper Motor and Relay	90980-10908
J 7	Junction Connector	90980-11542	R13	Remote Control Mirror LH	90980-11587
J 8	Junction Connector	90980-11915	R14	Remote Control Mirror RH	
J 9	Junction Connector	90980-11542	R15	Remote Control Mirror SW	90980-11657
J10	Junction Connector	90980-11686	S 1	Starter	90980-11400
J11	Junction Connector	90980-11542	S 2	Starter	90980-09506
J12	Junction Connector	90980-11661	S 3	Shift Lock Control ECU	90980-11909
J13	Junction Connector		S 4	Side Airbag Squib LH	90980-11864
			S 5	Side Airbag Squib RH	

L PART NUMBER OF CONNECTORS

[illegible]

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

HOW TO READ THIS SECTION



[A] : System Title

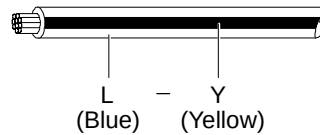
[B] : Indicates the wiring color.

Wire colors are indicated by an alphabetical code.

B = Black W = White BR = Brown
L = Blue V = Violet SB = Sky Blue
R = Red 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

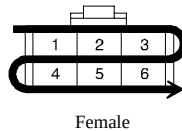


[C] : The position of the parts is the same as shown in the wiring diagram and wire routing.

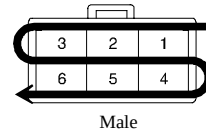
[D] : Indicates the pin number of the connector. The numbering system is different for female and male connectors.

Example : Numbered in order from upper left to lower right

Numbered in order from upper right to lower left



Female



Male

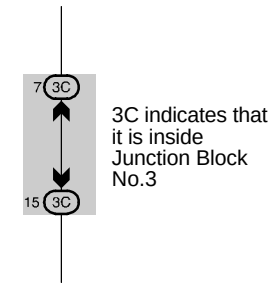
The numbering system for the overall wiring diagram is the same as above

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

Example : ① Indicates Relay Block No.1

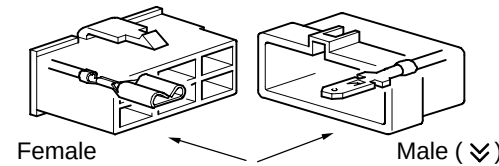
[F] : Junction Block (The number in the circle is the J/B No. and the connector code is shown beside it). Junction Blocks are shaded to clearly separate them from other parts.

Example:



[G] : Indicates related system.

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



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

[J] : Indicates a shielded cable.

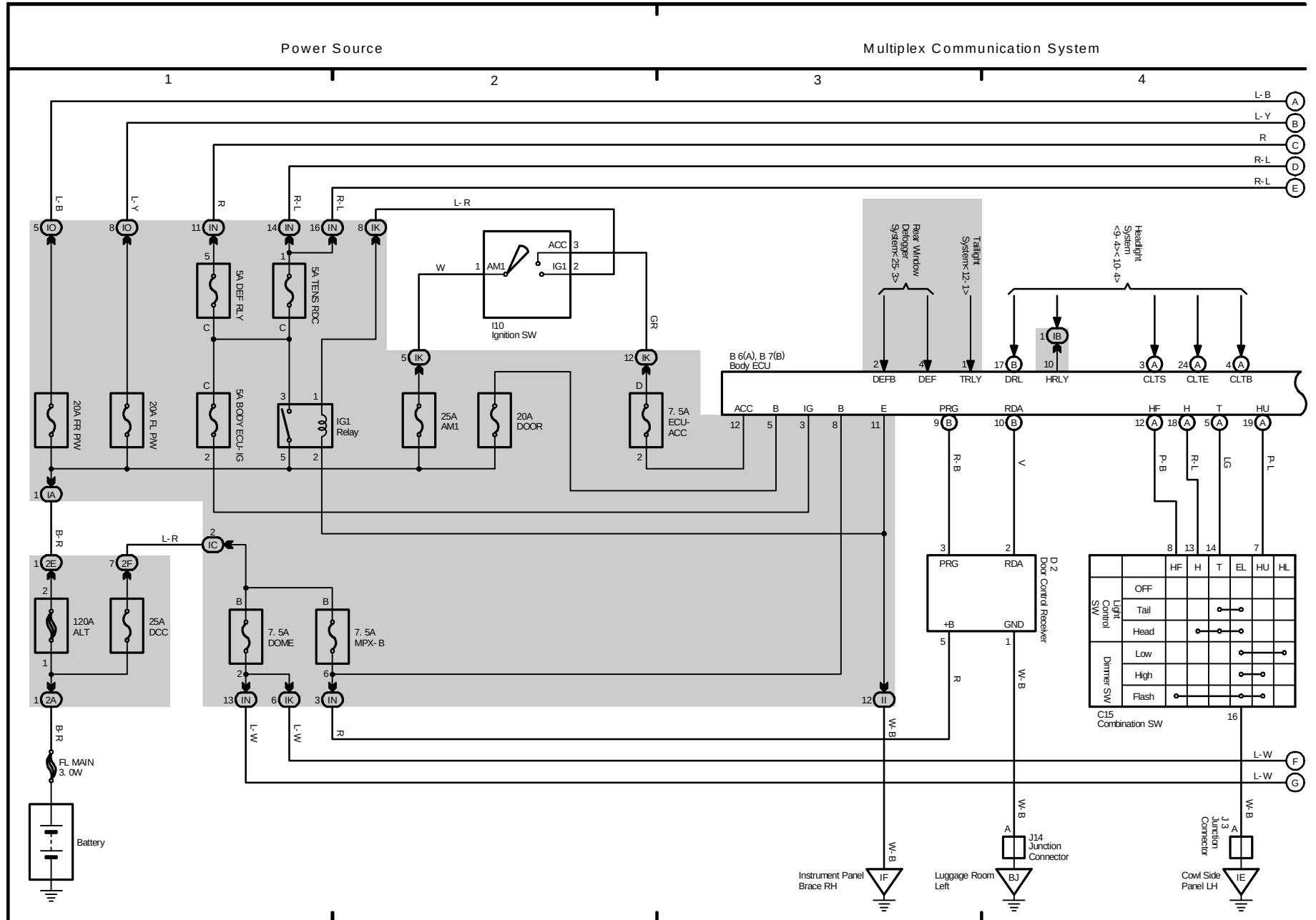


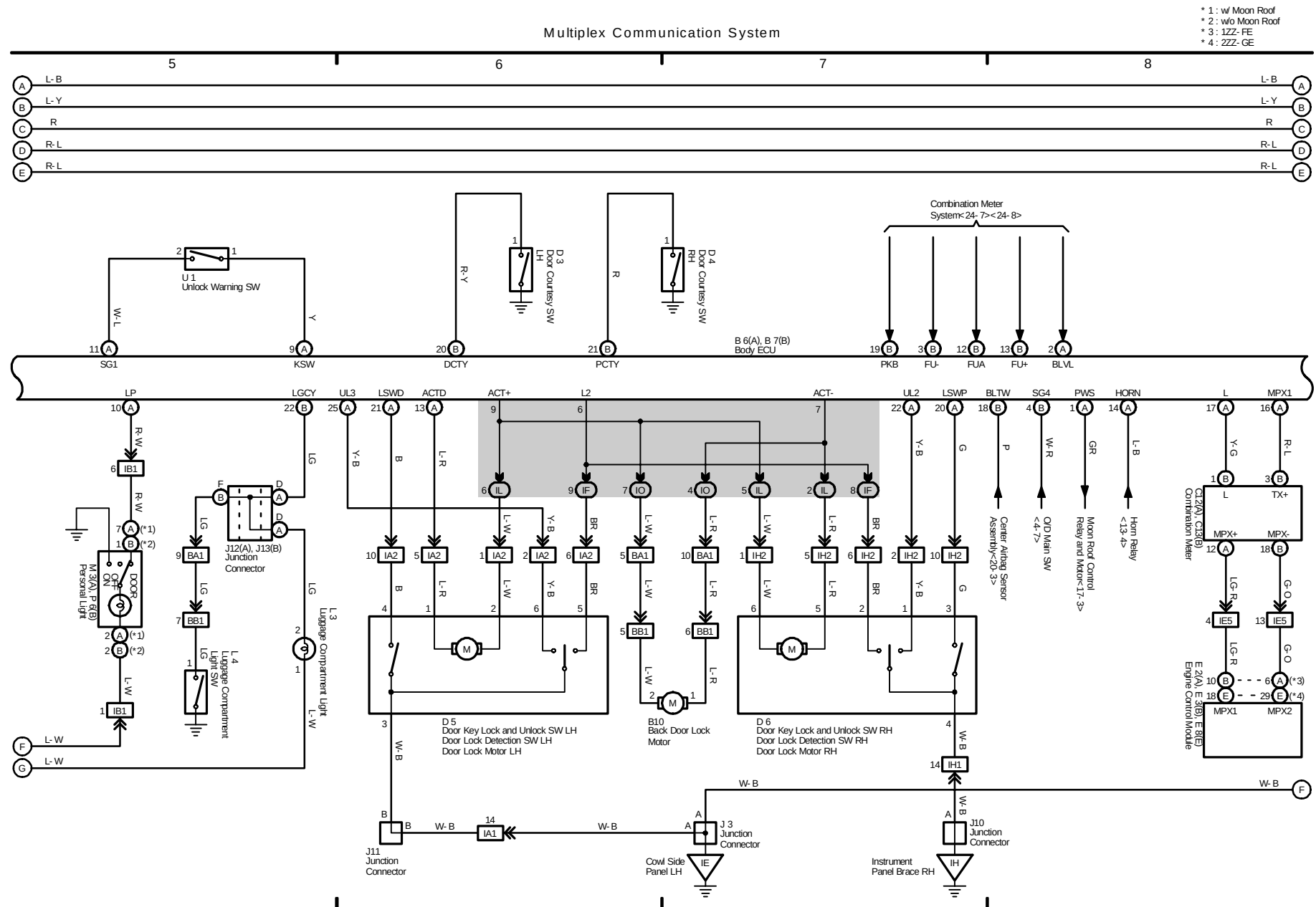
[K] : Indicates and located on ground point.

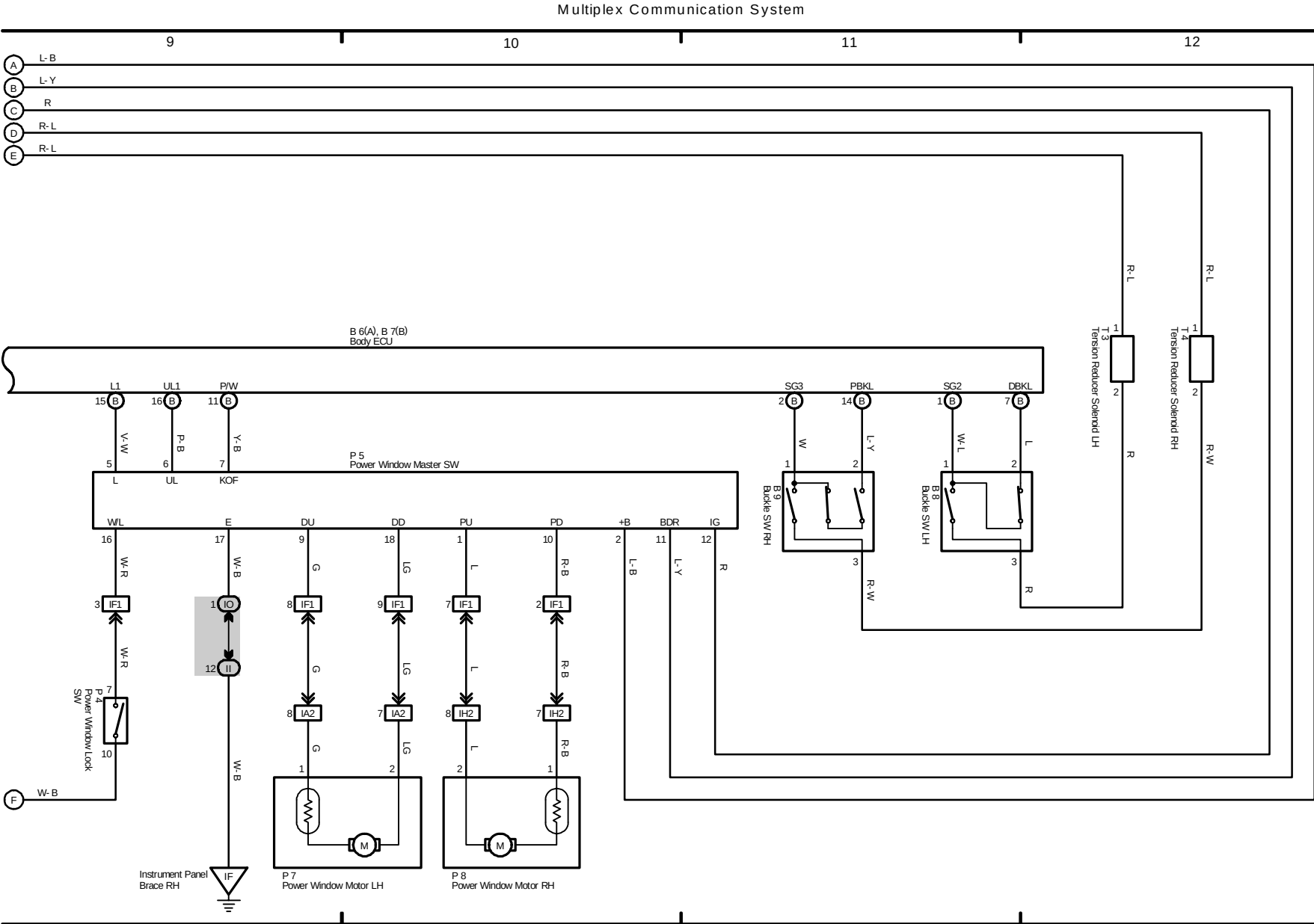
[L] : The same code occurring on the next page indicates that the wire harness is continuous.

SYSTEM INDEX

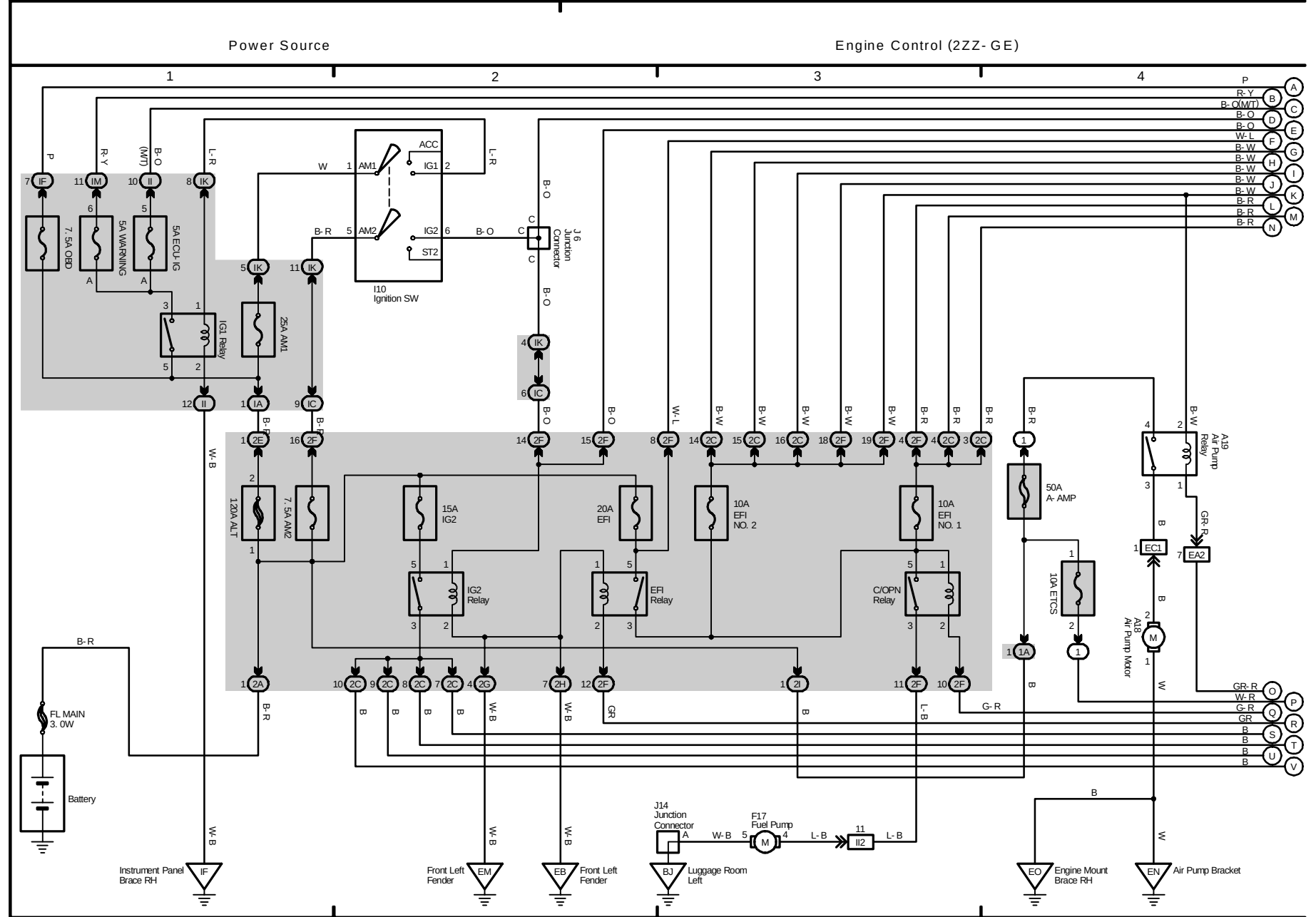
SYSTEMS	LOCATION	SYSTEMS	LOCATION
ABS	19-2	Horn	13-4
Air Conditioning	26-2	Ignition (1ZZ-FE)	6-3
Audio System (Built-in Type Amplifier)	21-3	Ignition (2ZZ-GE)	7-2
Audio System (Separate Type Amplifier)	22-2	Illumination	14-2
Auto Antenna	23-3	Moon Roof	17-2
Back-Up Light	13-2	Multiplex Communication System	1-3
Charging	8-2	* Door Lock Control	
Cigarette Lighter	21-2	* Electronic Tension Reducer	
Clock (Canada)	23-4	* Interior Light	
Clock (USA)	21-2	* Key Reminder	
Combination Meter	24-2	* Light Reminder	
Cruise Control (1ZZ-FE)	18-2	* Power Window	
Cruise Control (2ZZ-GE)	2-15	* Seat Belt Warning	
Electronically Controlled Transmission and A/T Indicator (1ZZ-FE)	5-2	* Tension Reducer	
Electronically Controlled Transmission and A/T Indicator (2ZZ-GE)	4-2	* Wireless Door Lock Control	
Engine Control (1ZZ-FE)	3-3	Power Source	1~26-1
Engine Control (2ZZ-GE)	2-3	Radiator Fan and Condenser Fan	25-2
Fog Light	8-4	Rear Window Defogger	25-3
Front Wiper and Washer	16-2	Rear Wiper and Washer	16-4
Headlight Beam Level Control	11-2	Remote Control Mirror	17-3
Headlight (w/ HID)	9-2	Shift Lock	15-4
Headlight (w/o HID)	10-2	SRS	20-2
		Starting	6-2
		Stop Light	13-3
		Taillight	12-2
		Turn Signal and Hazard Warning Light	15-2



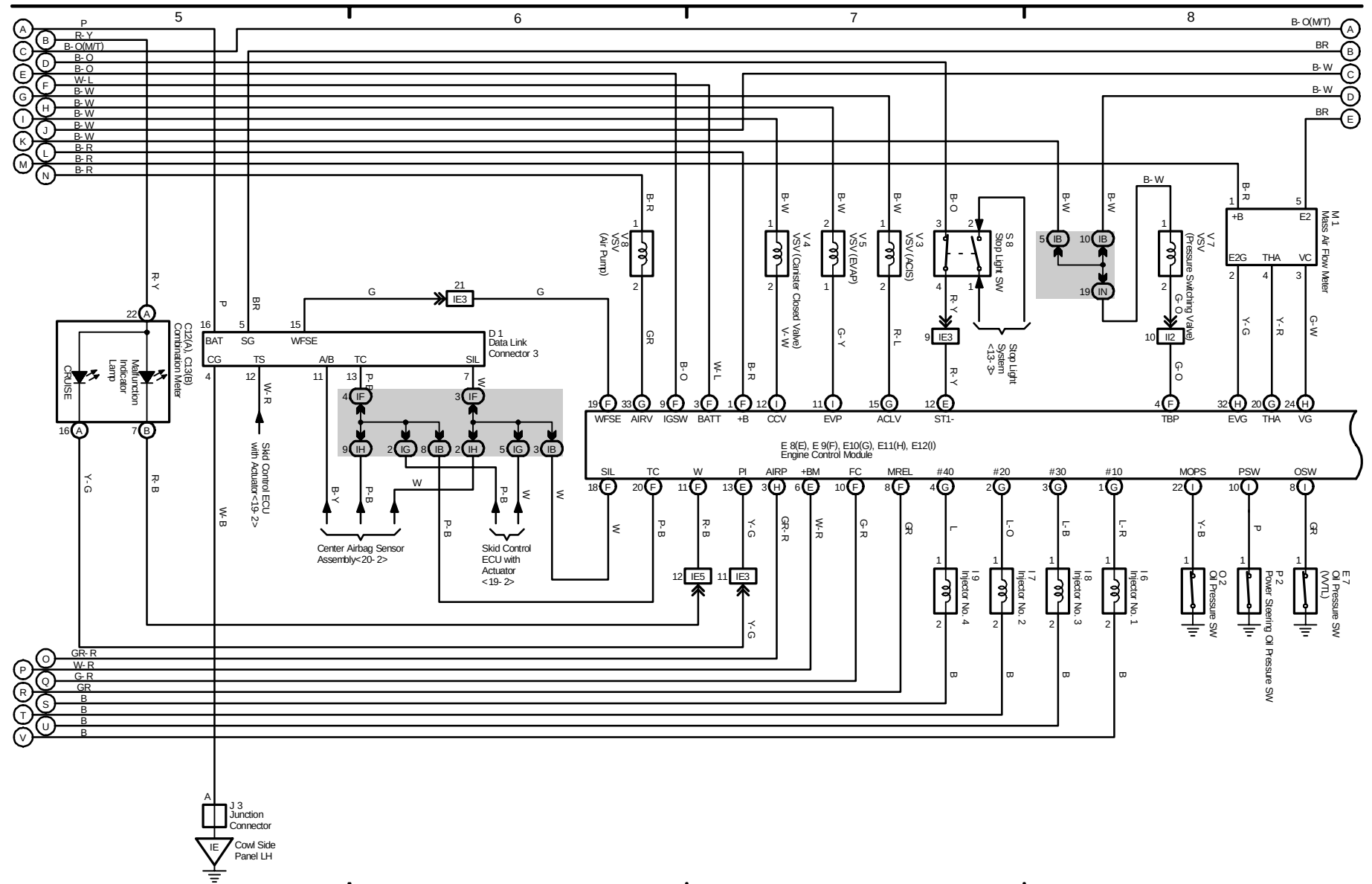


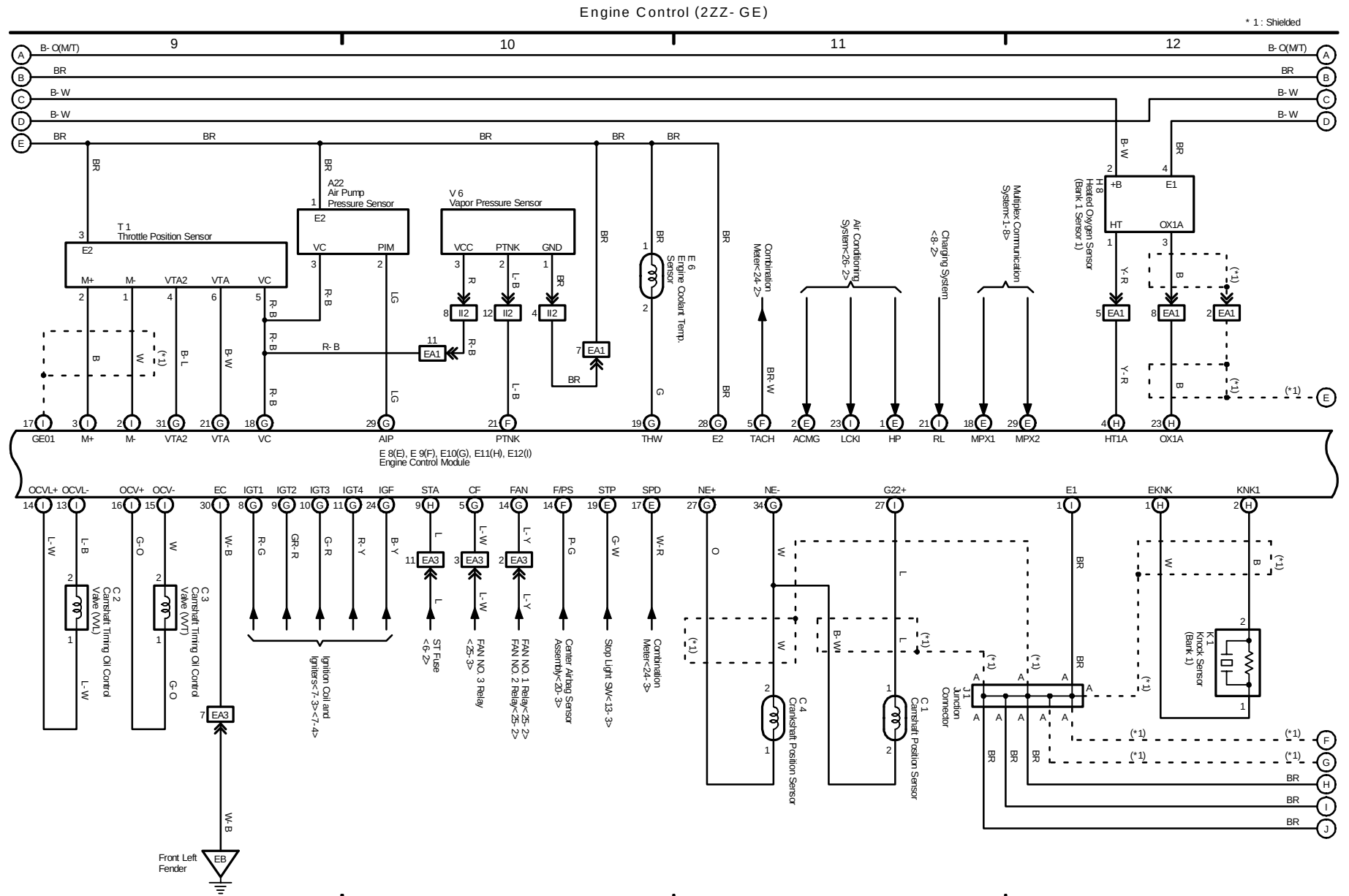


2005 CELICA (EWD590U)



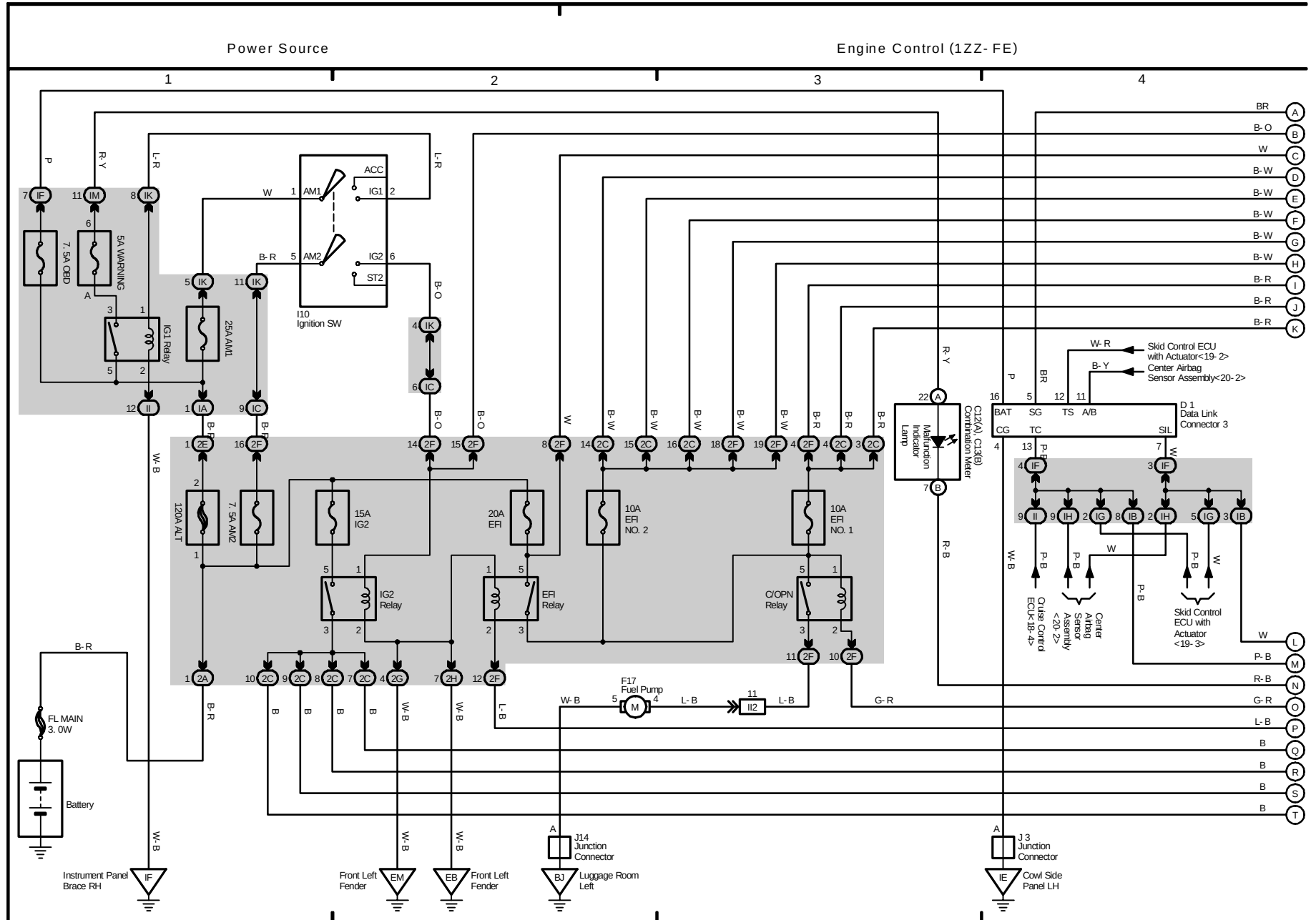
Engine Control (2ZZ- GE)

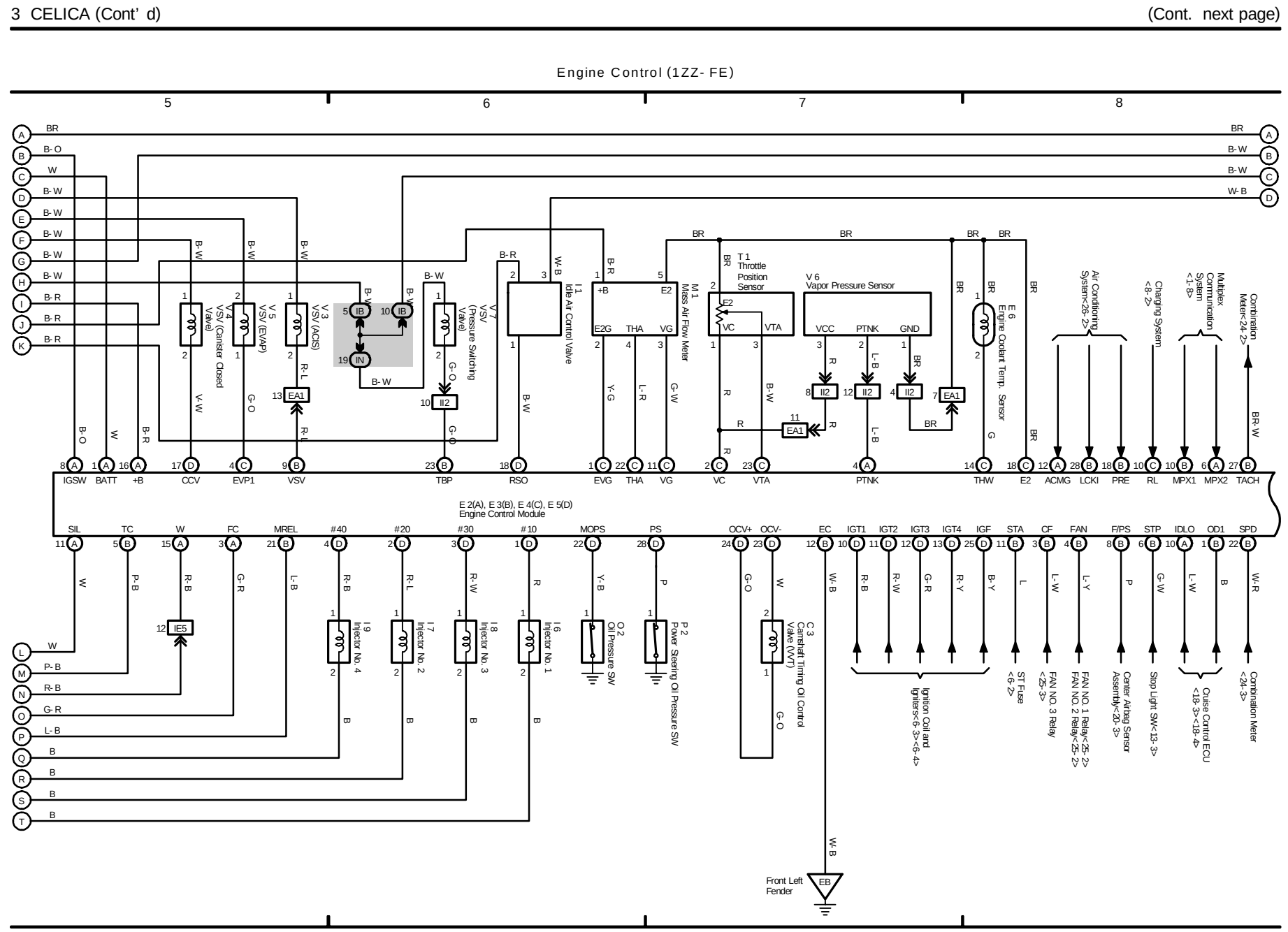




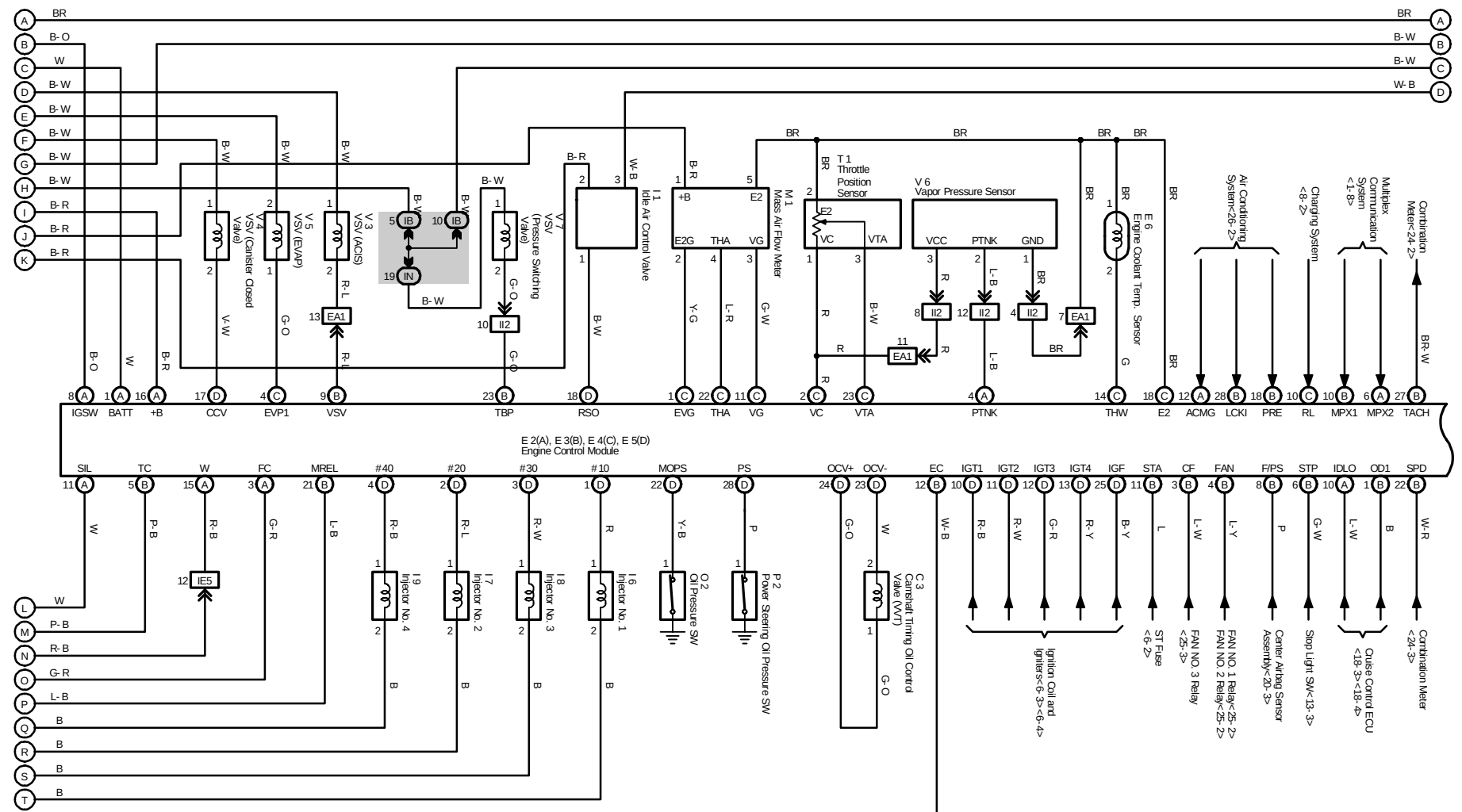
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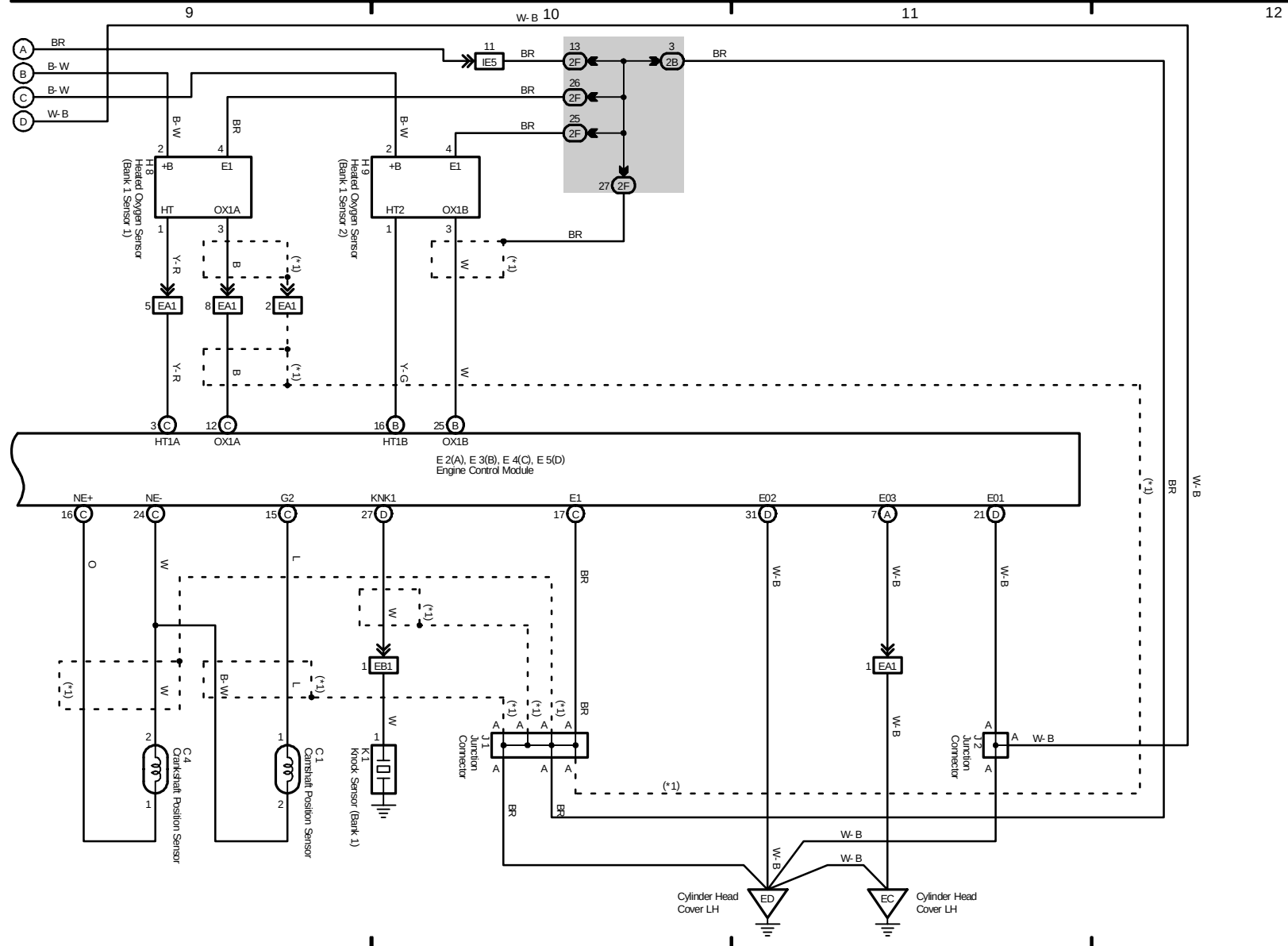
5 6 7 8



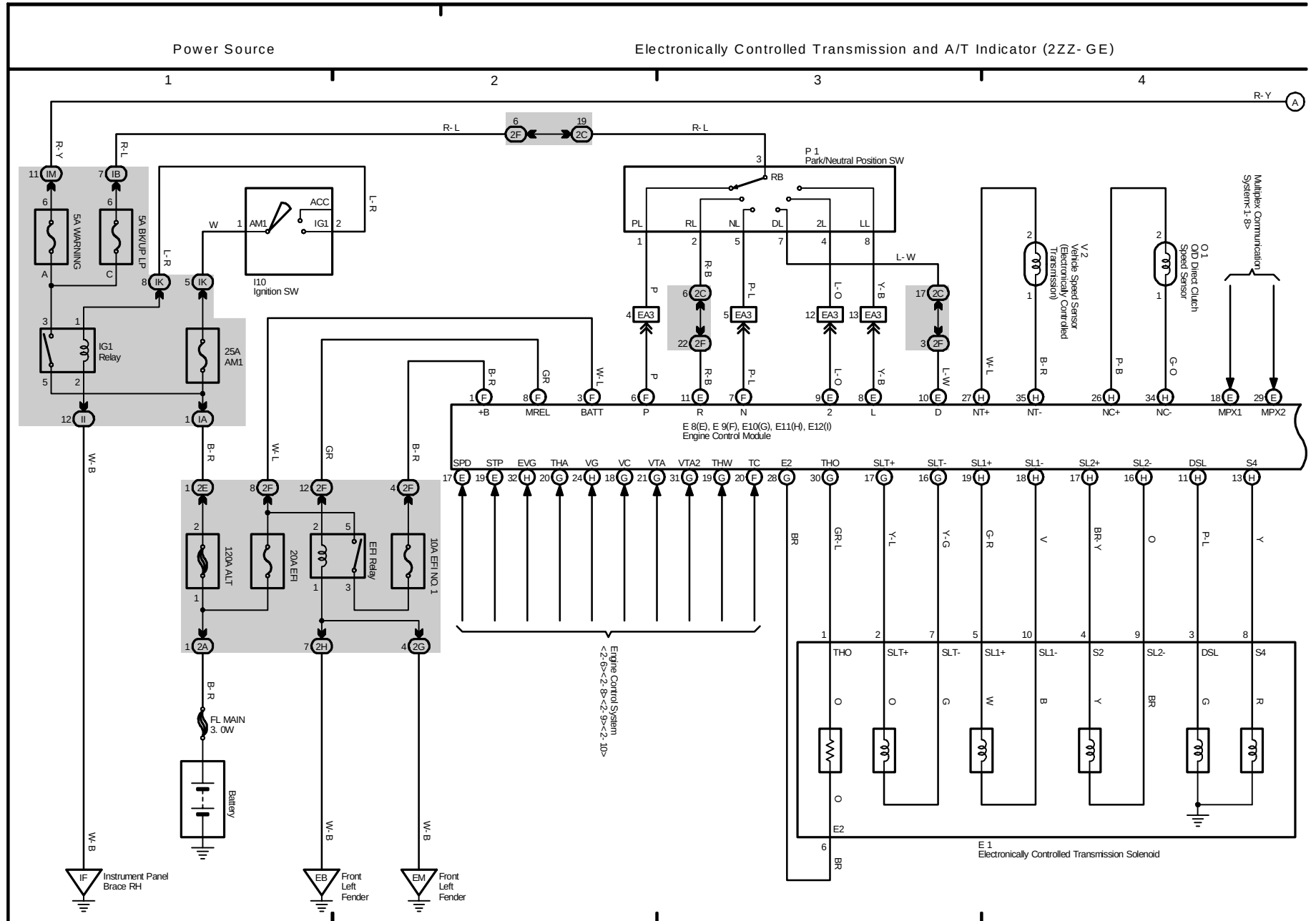
3 CELICA (Cont' d)

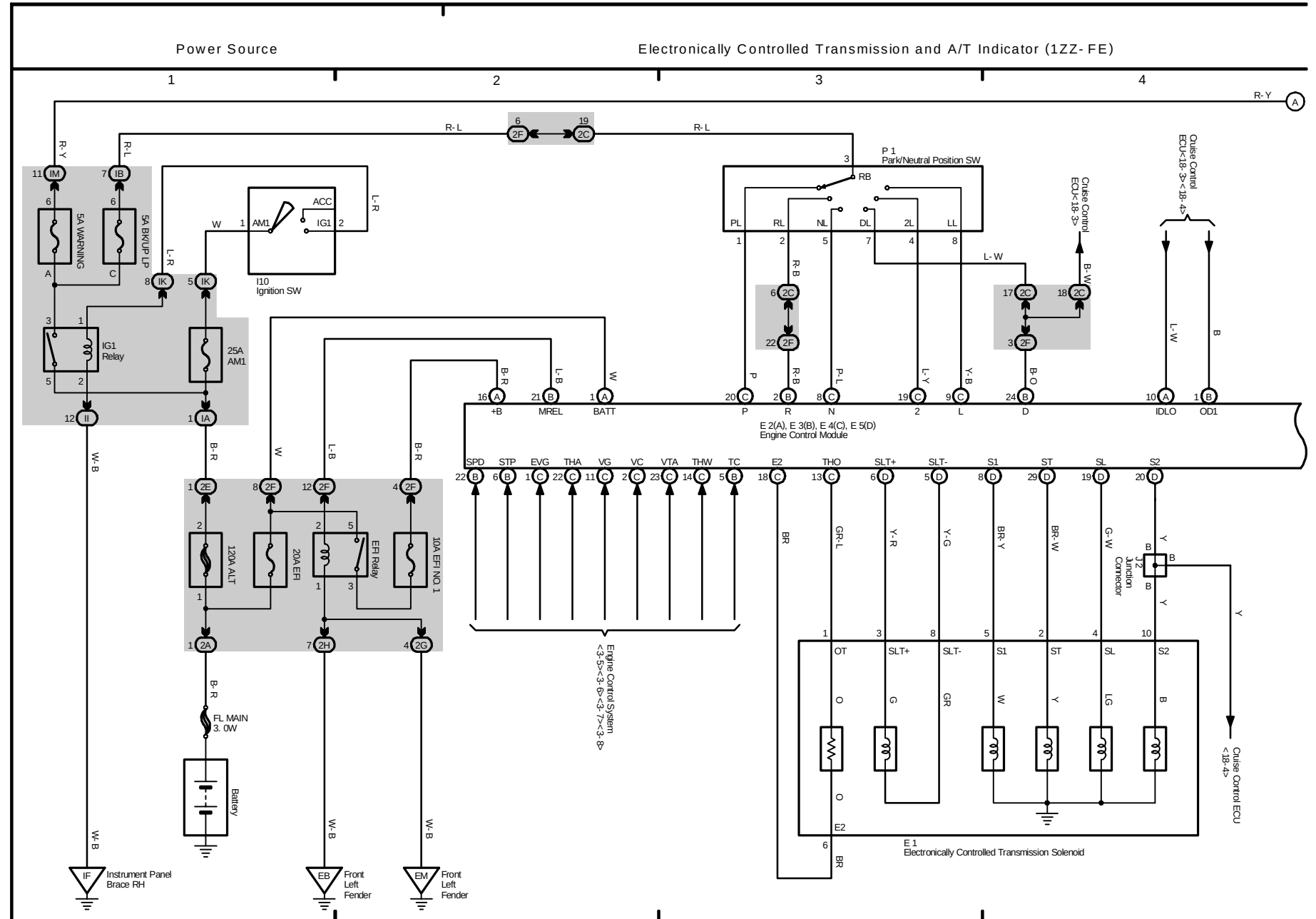
Engine Control (1ZZ- FE)

* 1 : Shielded

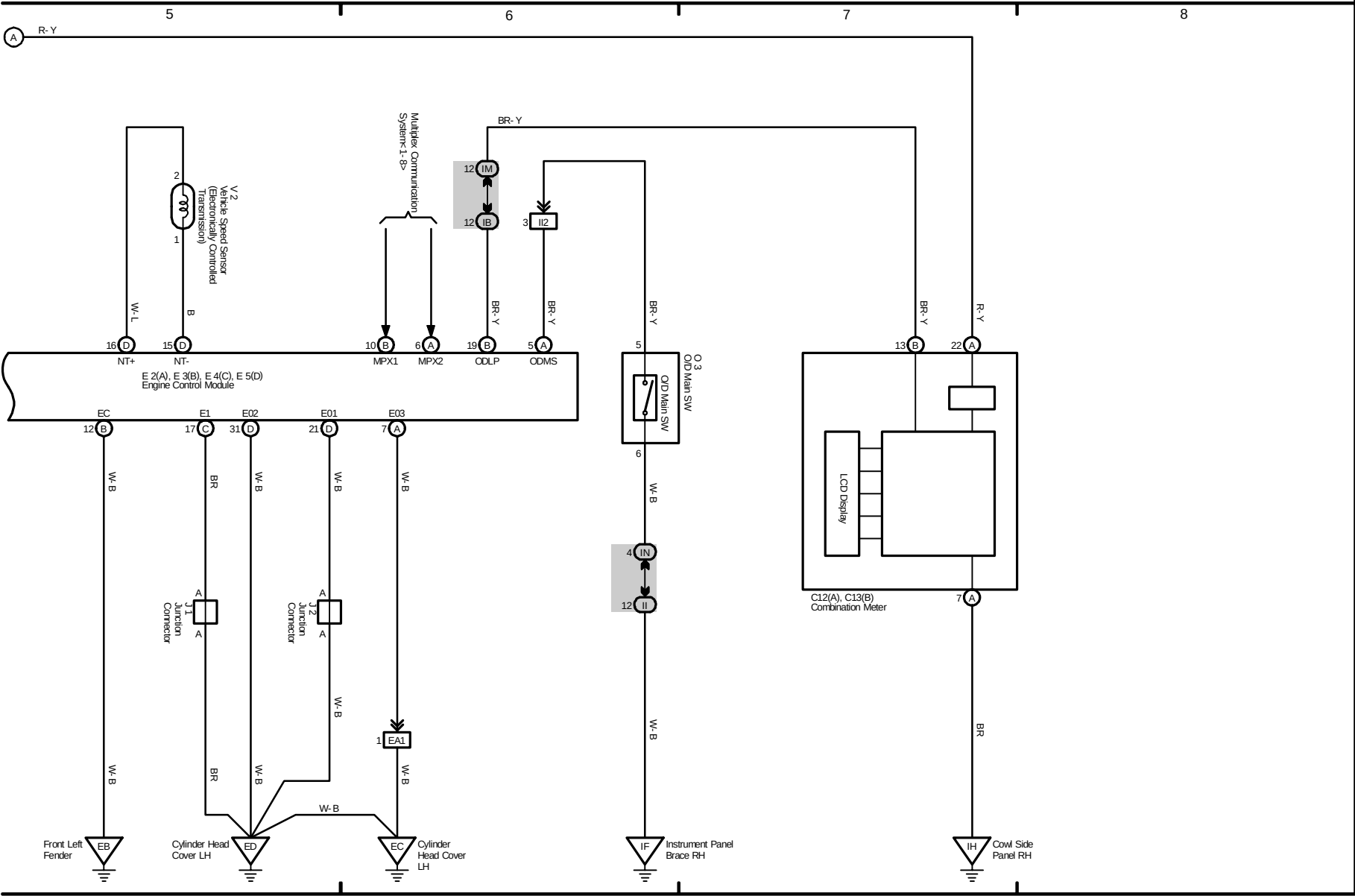


2005 CELICA (EWD590U)



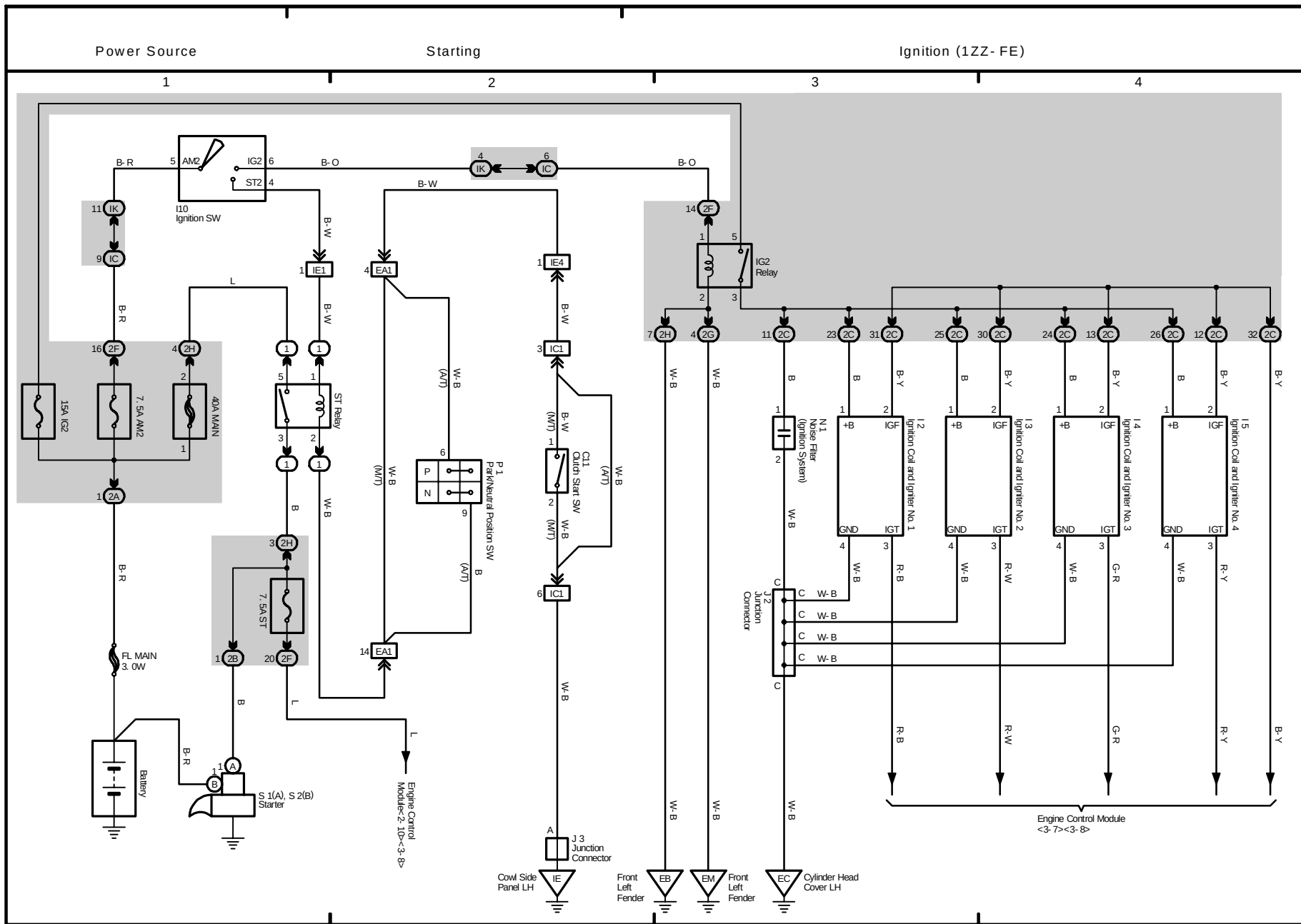


Electronically Controlled Transmission and A/T Indicator (1ZZ- FE)



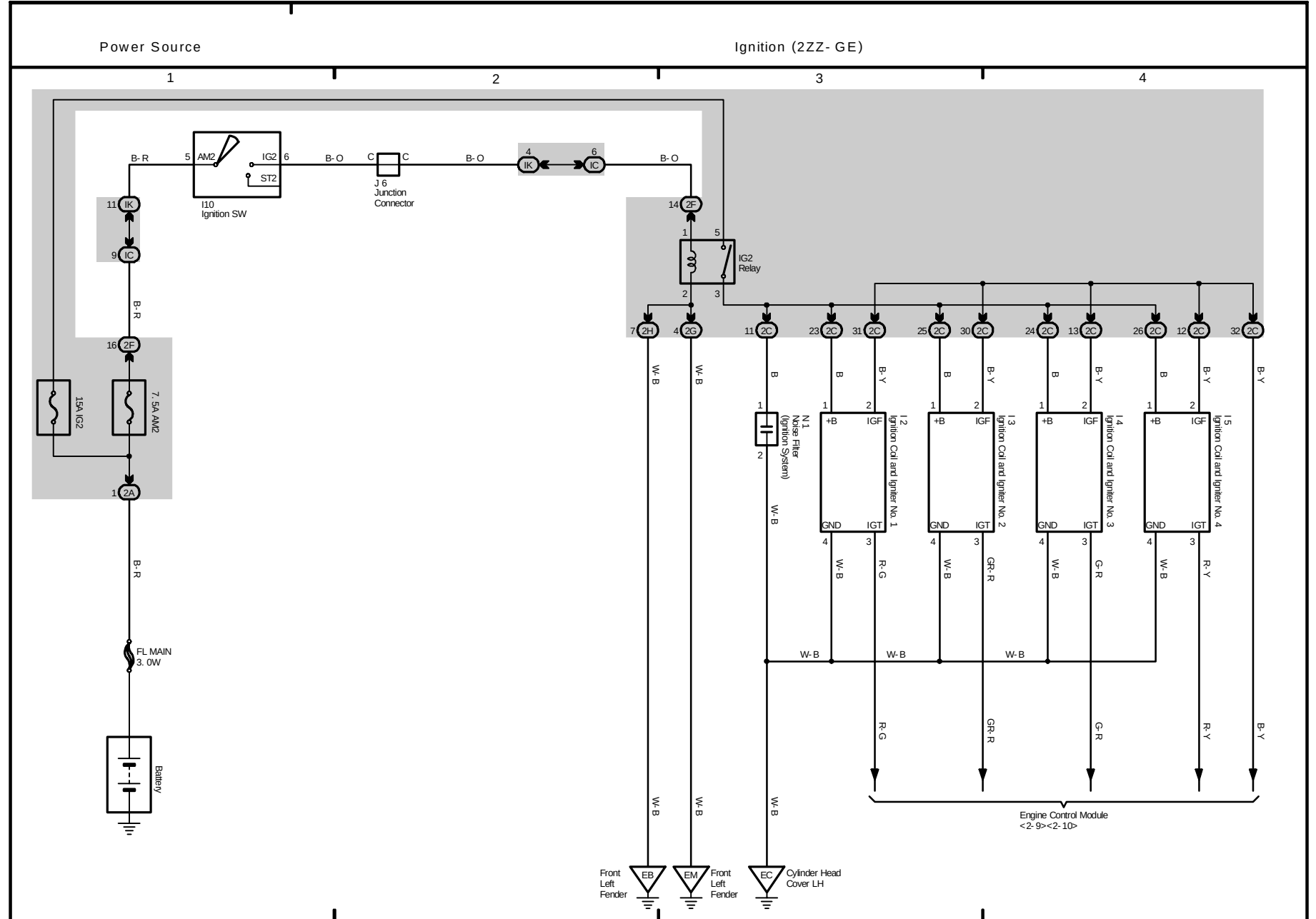
M OVERALL ELECTRICAL WIRING DIAGRAM

6 CELICA



2005 CELICA (EWD590U)

7 CELICA



2005 CELICA (EWD590U)

The diagram is a comprehensive electrical wiring schematic for a vehicle, organized into four main functional areas: Power Source, Charging, Fog Light, and an unlabeled section on the right.

- Power Source:** This section details the battery and its connections. The battery is connected to the main power line (W-B) and the instrument panel brace (RH). It also powers the headlight system (6-1) and the fog light system (9-3, 10-3).
- Charging:** This section shows the charging system, including the alternator (G 1(A), G 2(B)) and the ignition switch (I10). The alternator is connected to the main power line (W-B) and the instrument panel brace (RH). The ignition switch is connected to the main power line (W-B) and the instrument panel brace (RH).
- Fog Light:** This section details the fog light system, including the fog light switch (C15), the fog light relay (F12), and the fog light bulbs (F3, F4). The fog light switch is connected to the main power line (W-B) and the instrument panel brace (RH). The fog light relay is connected to the main power line (W-B) and the instrument panel brace (RH). The fog light bulbs are connected to the main power line (W-B) and the instrument panel brace (RH).
- Unlabeled Section:** This section contains a table for the Fog Light and Dimmer Switch (C15) and a Multiplex Communication System diagram. The table shows the wiring for the fog light switch and the dimmer switch. The Multiplex Communication System diagram shows the connection between the engine control module and the multiplex system.

The diagram uses a color-coded wire system: W (White), B (Black), R (Red), Y (Yellow), G (Green), and L (Blue). It also includes a table for the Fog Light and Dimmer Switch (C15) and a Multiplex Communication System diagram.

	EL	HF	HU	HL	BFG	LFG
Fog Light SW	OFF					
	ON					
Dimmer SW	Low					
	High					
	Flash					

Multiplex Communication System <1-8>

Diagram showing the connection between the Engine Control Module (ECM) and the Multiplex Communication System (MPX1, MPX2).

ECM: E 2(A), E 3(B), E 4(C), E 8(E), E 12(I)

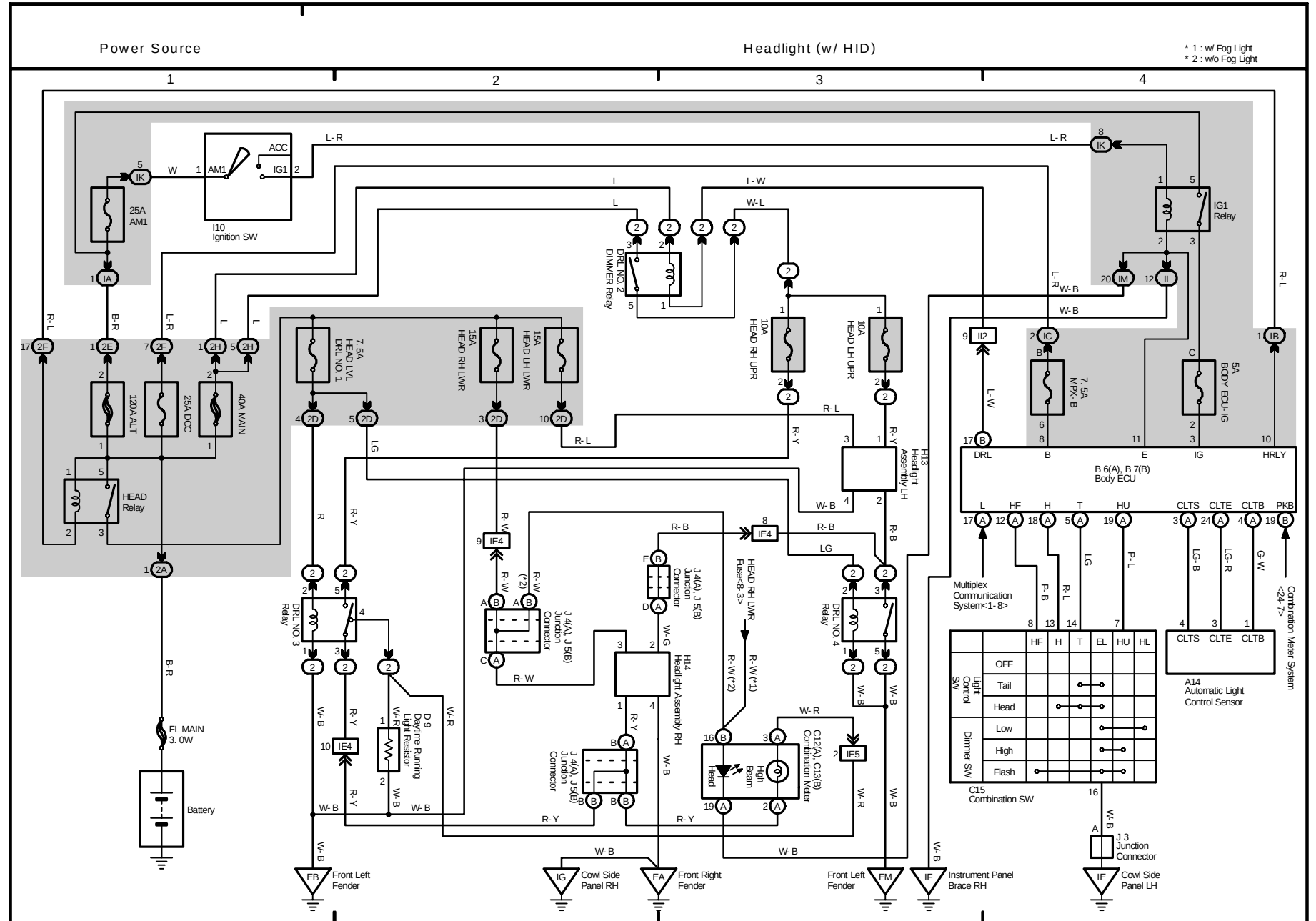
MPX1: 10(B), 18(E)

MPX2: 6(A) (1ZZ- FE), 29(E) (2ZZ- GE)

RL: 10(C) (1ZZ- FE), 21(I) (2ZZ- GE)

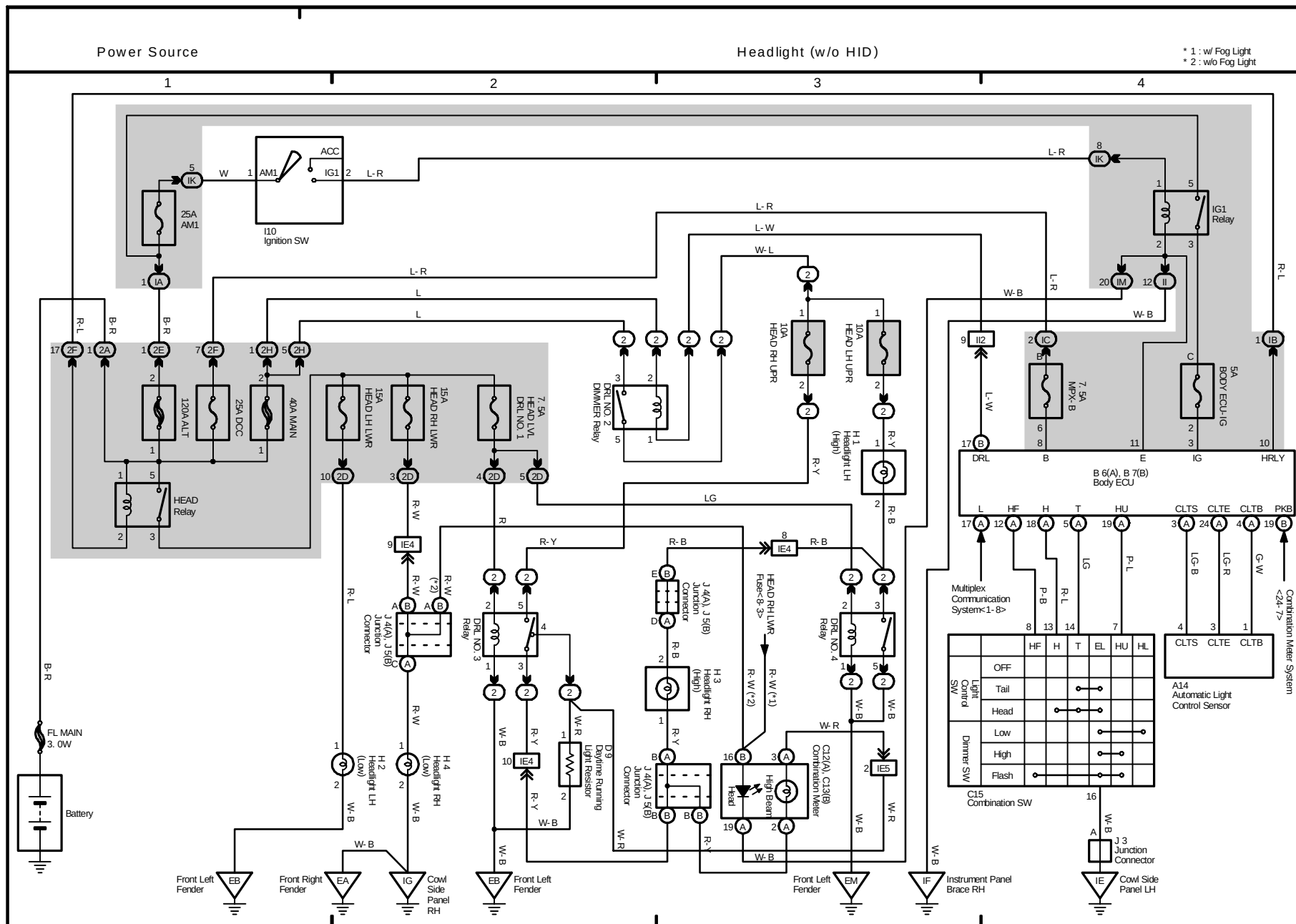
9 CELICA

2005 CELICA (EWD590U)



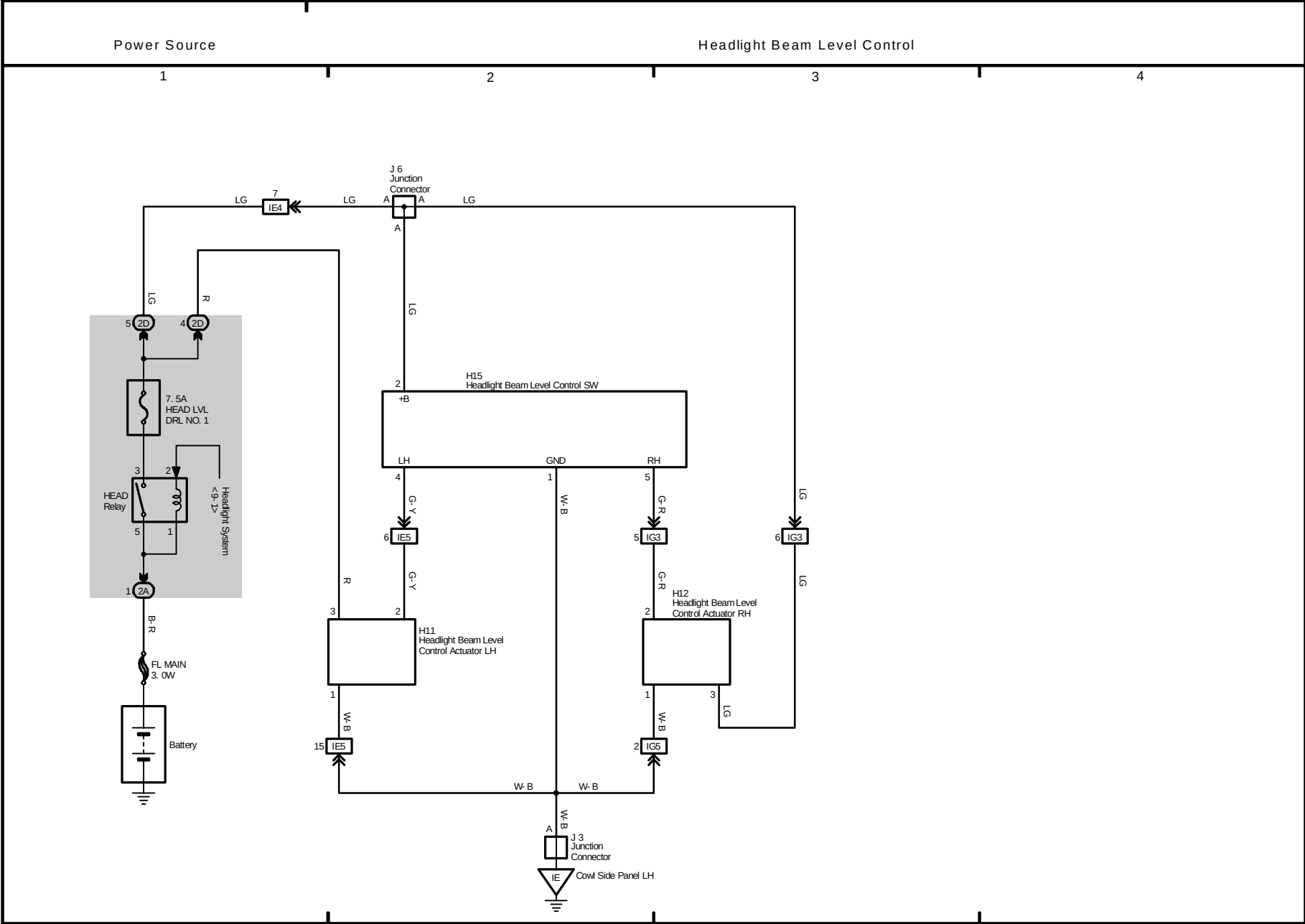
M OVERALL ELECTRICAL WIRING DIAGRAM

10 CELICA



2005 CELICA (EWD590U)

11 CELICA



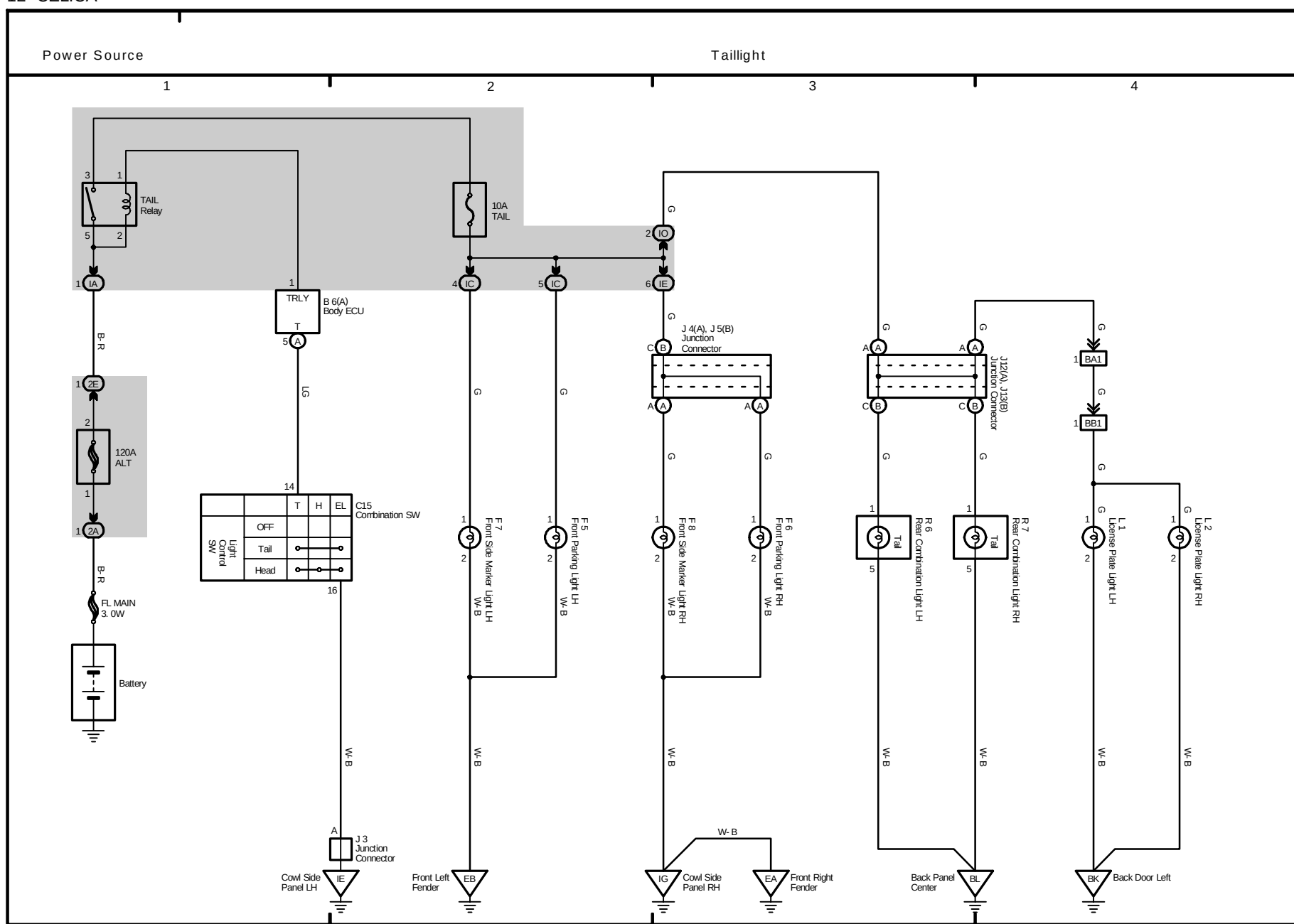
2005 CELICA (EWD590U)

M OVERALL ELECTRICAL WIRING DIAGRAM

12 CELICA

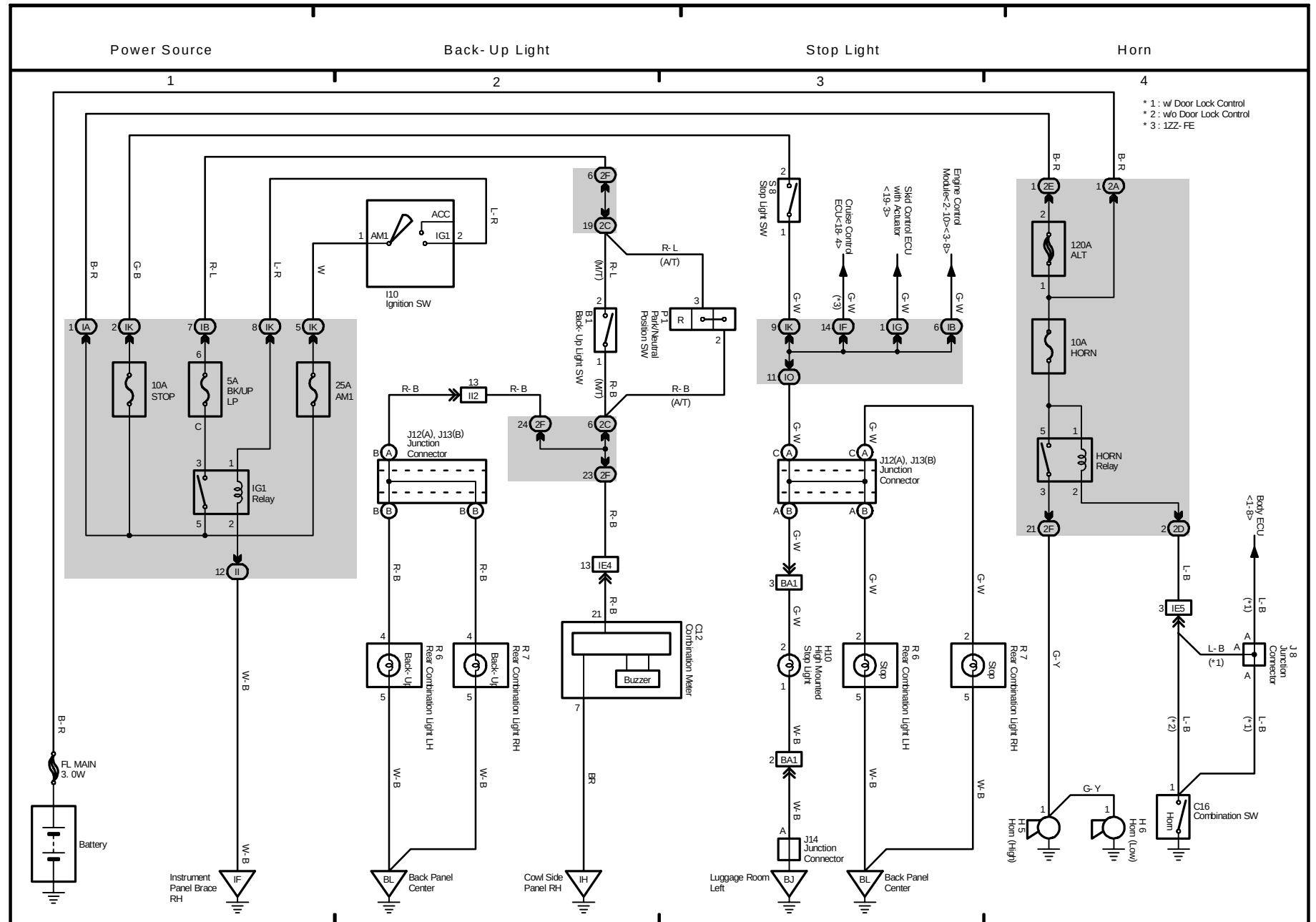
Power S

3
5
1
1A
2E
2
1
2A
1
1
1



2005 CELICA (EWD590U)

2005 CELICA (EWDS590U)



The diagram is a detailed wiring schematic for a vehicle's electrical system, organized into four main sections: Power Source, Illumination, and two unlabeled sections (1 and 2) which likely represent different vehicle configurations or regions.

Power Source Section:

- Battery:** Connected to the system via a 3.0W FL MAIN fuse.
- Lighting Control:** Includes a C15 Combination SW (Head, Tail, OFF) and a C9 Clock.
- Relays and Switches:** Features a TAIL Relay, a TRLY (Tail Relay), and a 120A ALT (Alternator).
- Wiring:** Shows various wire colors and gauges, including 7.5A PANEL 1 and 7.5A PANEL 2.

Illumination Section:

- Lighting Circuits:** Includes circuits for Cigarette Lighter, A/C SW, Headlight Beam Level Control SW, Hazard SW, O/D Main SW, and A/T Shift Lever Illumination.
- Meters and Indicators:** Features a C12(A) C13(B) Combination Meter, a Tail Light, and a Cowl Side Panel LH.
- Wiring:** Shows various wire colors and gauges, including 7.5A PANEL 1 and 7.5A PANEL 2.

Section 1 (Left):

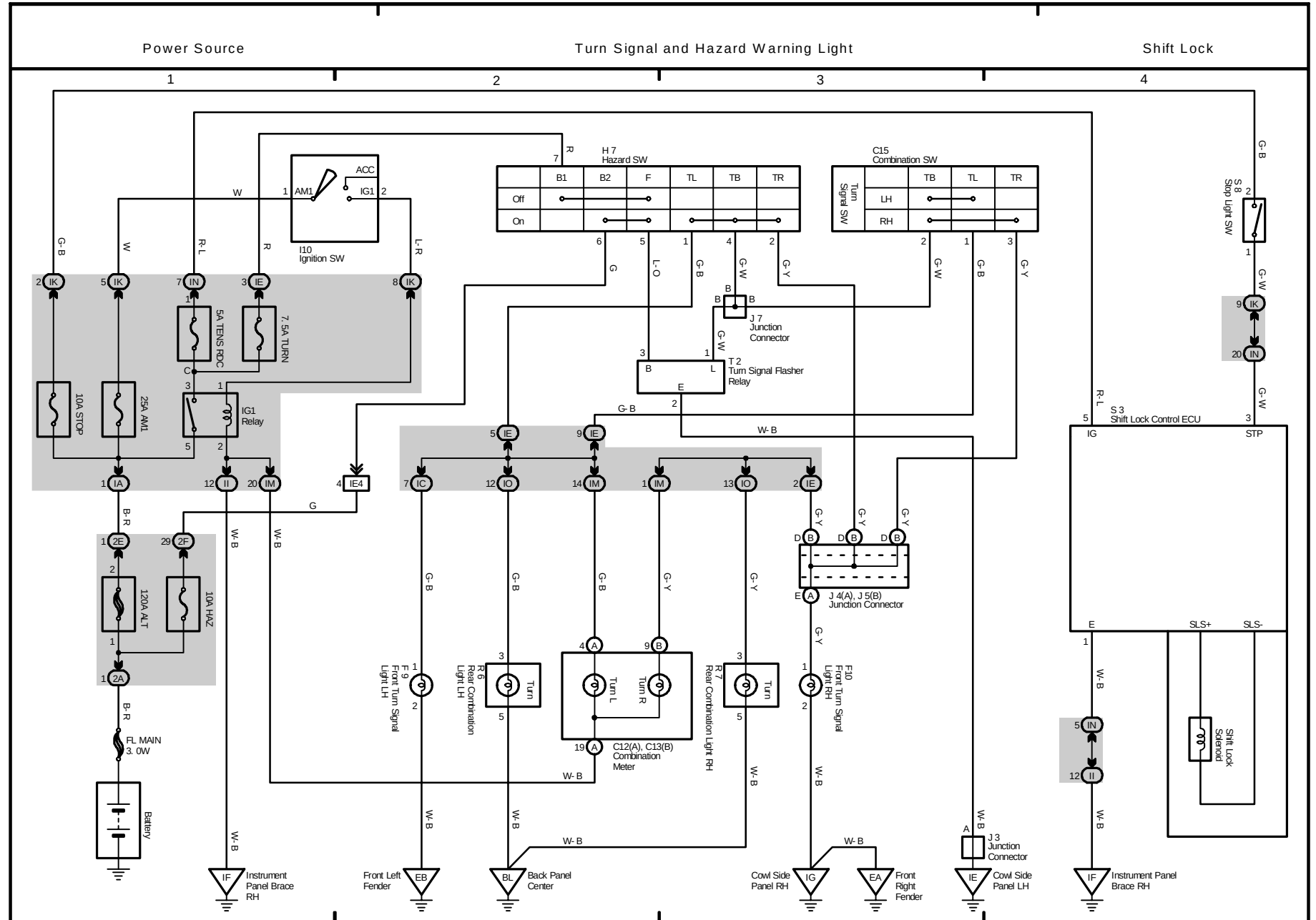
- Lighting:** Includes a C15 Combination SW (Head, Tail, OFF) and a C9 Clock.
- Wiring:** Shows various wire colors and gauges, including 7.5A PANEL 1 and 7.5A PANEL 2.

Section 2 (Right):

- Lighting:** Includes a C15 Combination SW (Head, Tail, OFF) and a C9 Clock.
- Wiring:** Shows various wire colors and gauges, including 7.5A PANEL 1 and 7.5A PANEL 2.

Legend:

- * 1 : Separate Type Amplifier
- * 2 : Built-In Type Amplifier



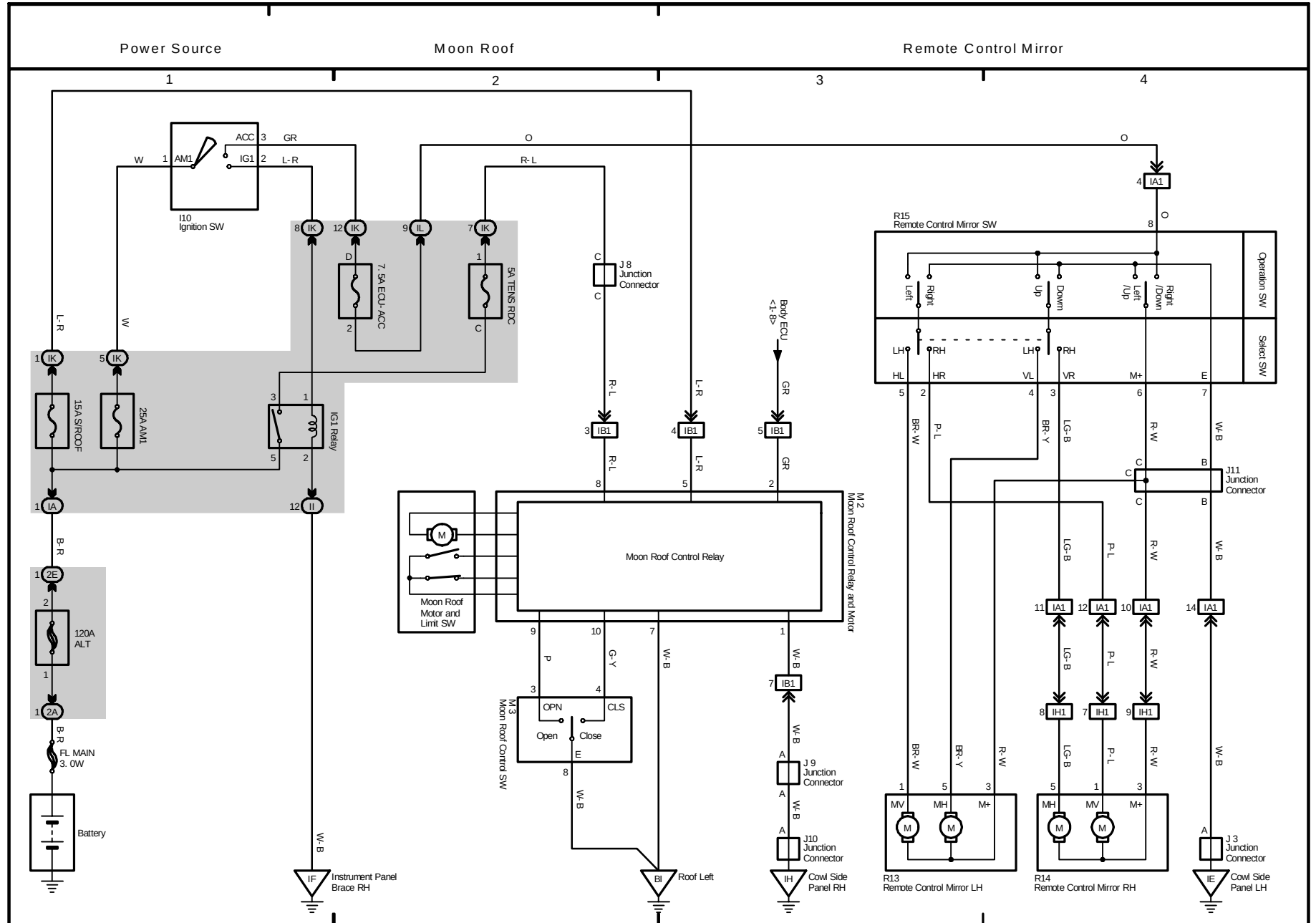
The diagram is a comprehensive electrical wiring schematic for a vehicle's wiper and washer system, organized into four main functional areas:

- Power Source (Section 1):** This section shows the power flow starting from a battery connected to a 3.0V FL MAIN fuse. The power then passes through a 2A fuse and a 120A ALT fuse. It also includes an Ignition Switch (I10) with an ACC terminal and a 25A AM1 fuse. A 25A WIPER fuse is also shown.
- Front Wiper and Washer (Section 2):** This section contains the Front Wiper Motor (F11) and the Front Washer Motor (W1). It details the wiring for the Front Wiper Switch (FSW) and the Front Washer Switch (FWS), including various control points like MIST, OFF, INT, LOW, and HIGH. The diagram also shows the Front Wiper Relay and the Front Washer Relay, along with their respective fuses (15A WIPER, 15A WASH, 15A RR WIPER).
- Rear Wiper and Washer (Section 3):** This section details the Rear Wiper Motor (R12) and the Rear Washer Motor (W1). It shows the wiring for the Rear Wiper Switch (RSW) and the Rear Washer Switch (RWS), including control points like Washer1, OFF, INT, ON, and Washer2. The diagram also includes the Rear Wiper Relay and the Rear Washer Relay, along with their respective fuses (15A WIPER, 15A WASH, 15A RR WIPER).
- Washer and Wiper (Section 4):** This section shows the combination switch (C14) that controls both the washer and wiper functions. It includes the Washer and Wiper Switch (C14) and the Washer and Wiper Relay (C14).

The diagram uses standard electrical symbols for components like switches, relays, motors, fuses, and fuses. Wires are labeled with letters and numbers to indicate their function and connection points. The diagram is a detailed representation of the electrical system, showing the flow of power from the battery through various components and switches.

17 CELICA

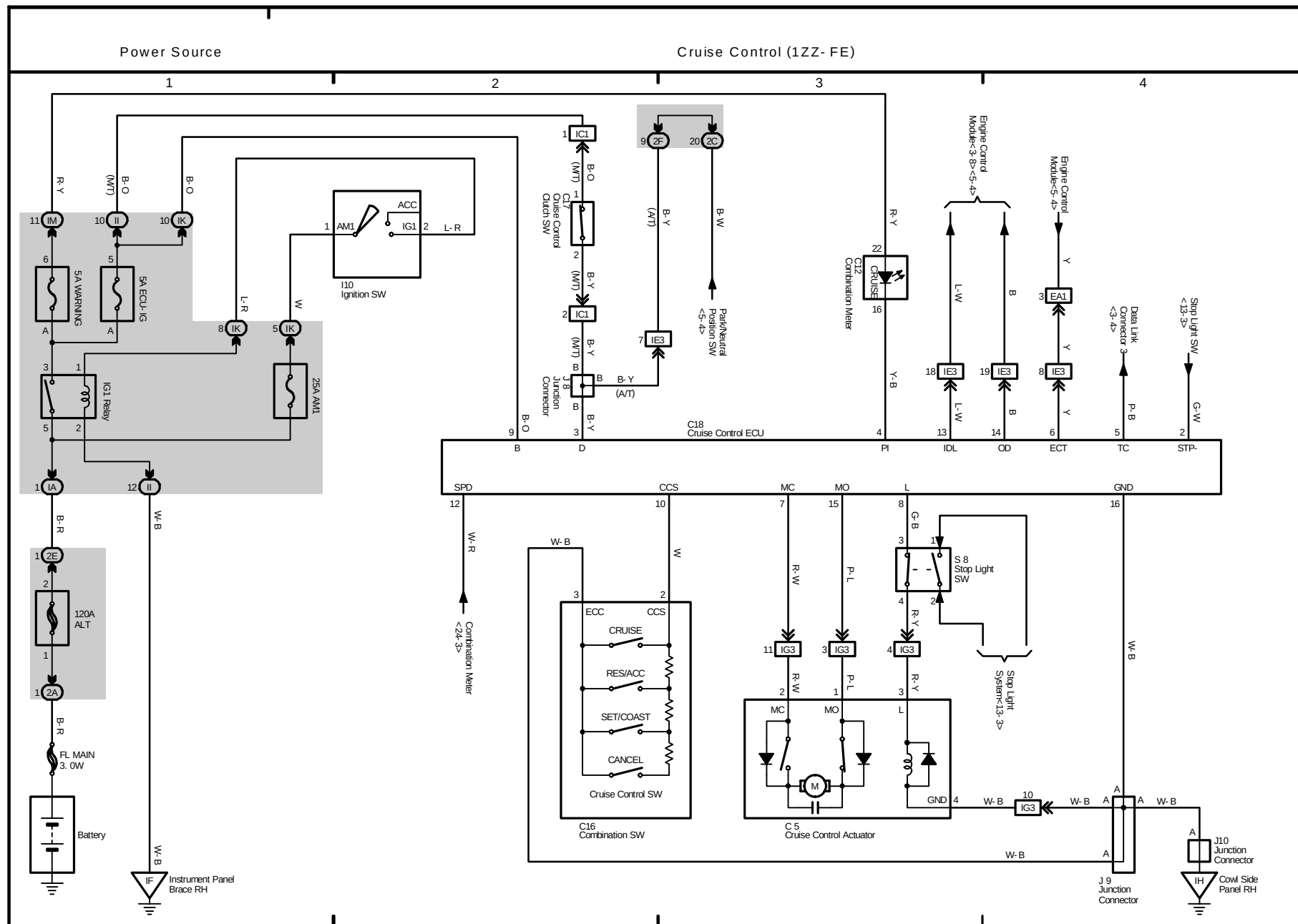
2005 CELICA (EWD590U)

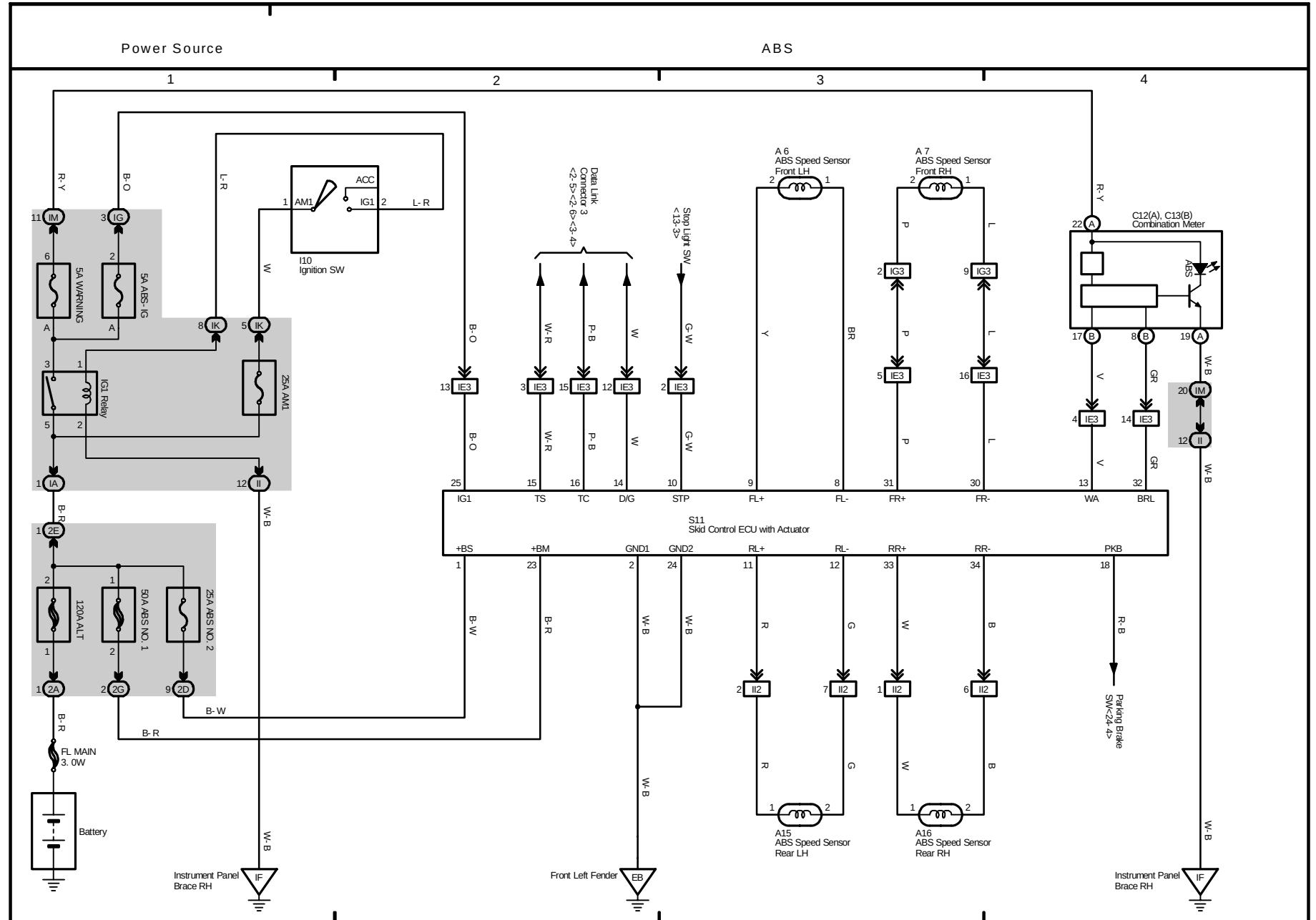


M OVERALL ELECTRICAL WIRING DIAGRAM

18 CELICA

2005 CELICA (EWD590U)

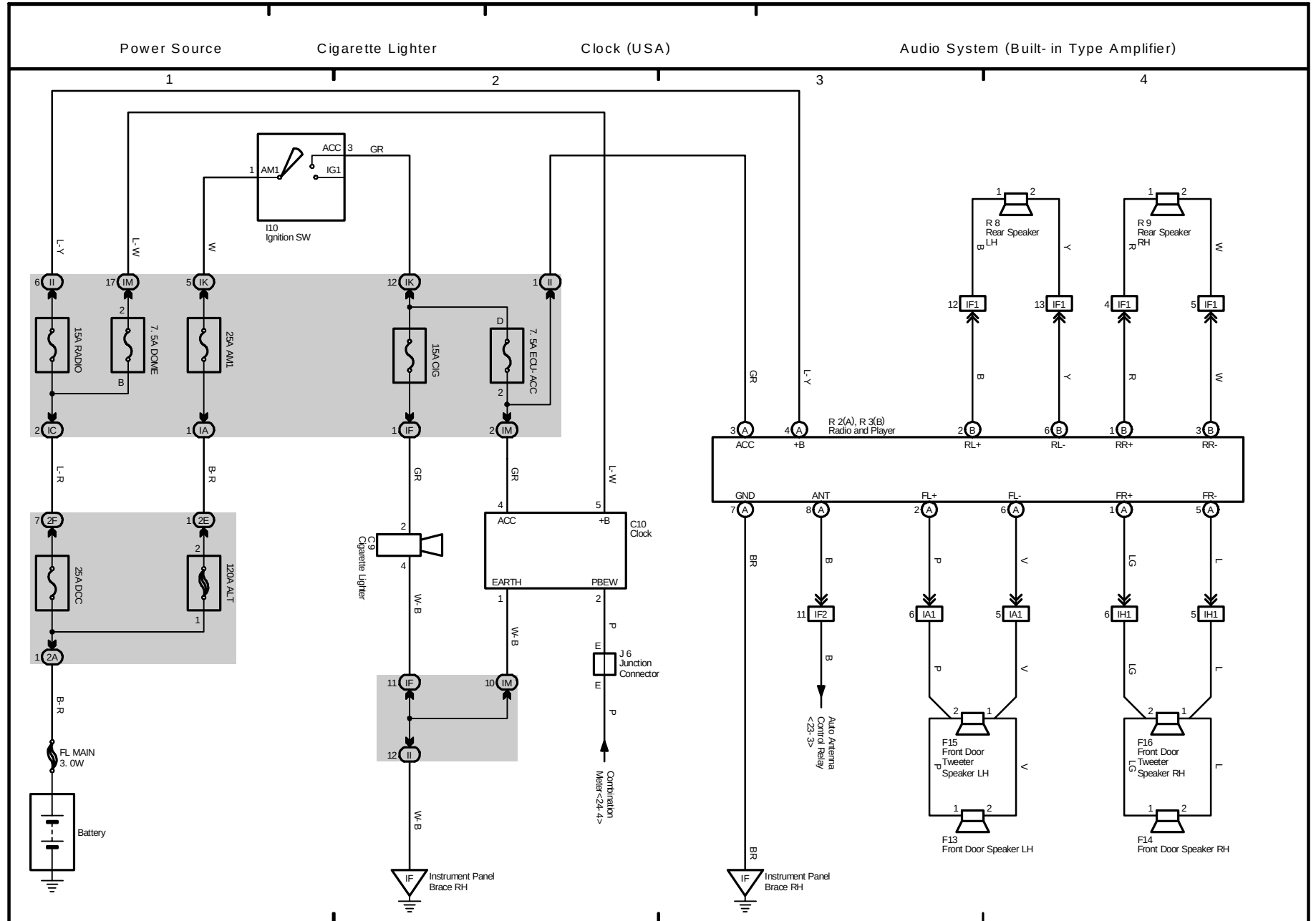




[illegible]

21 CELICA

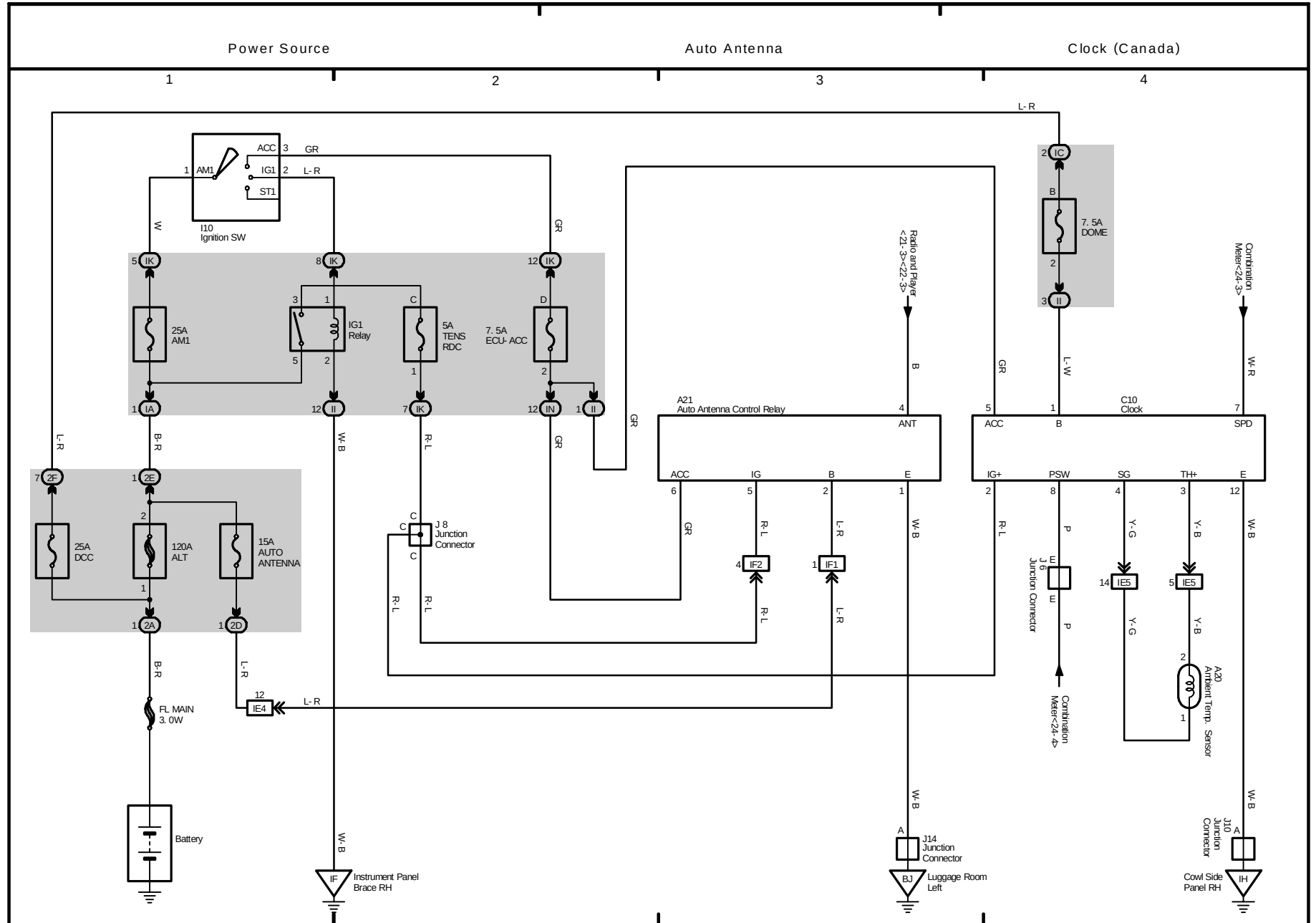
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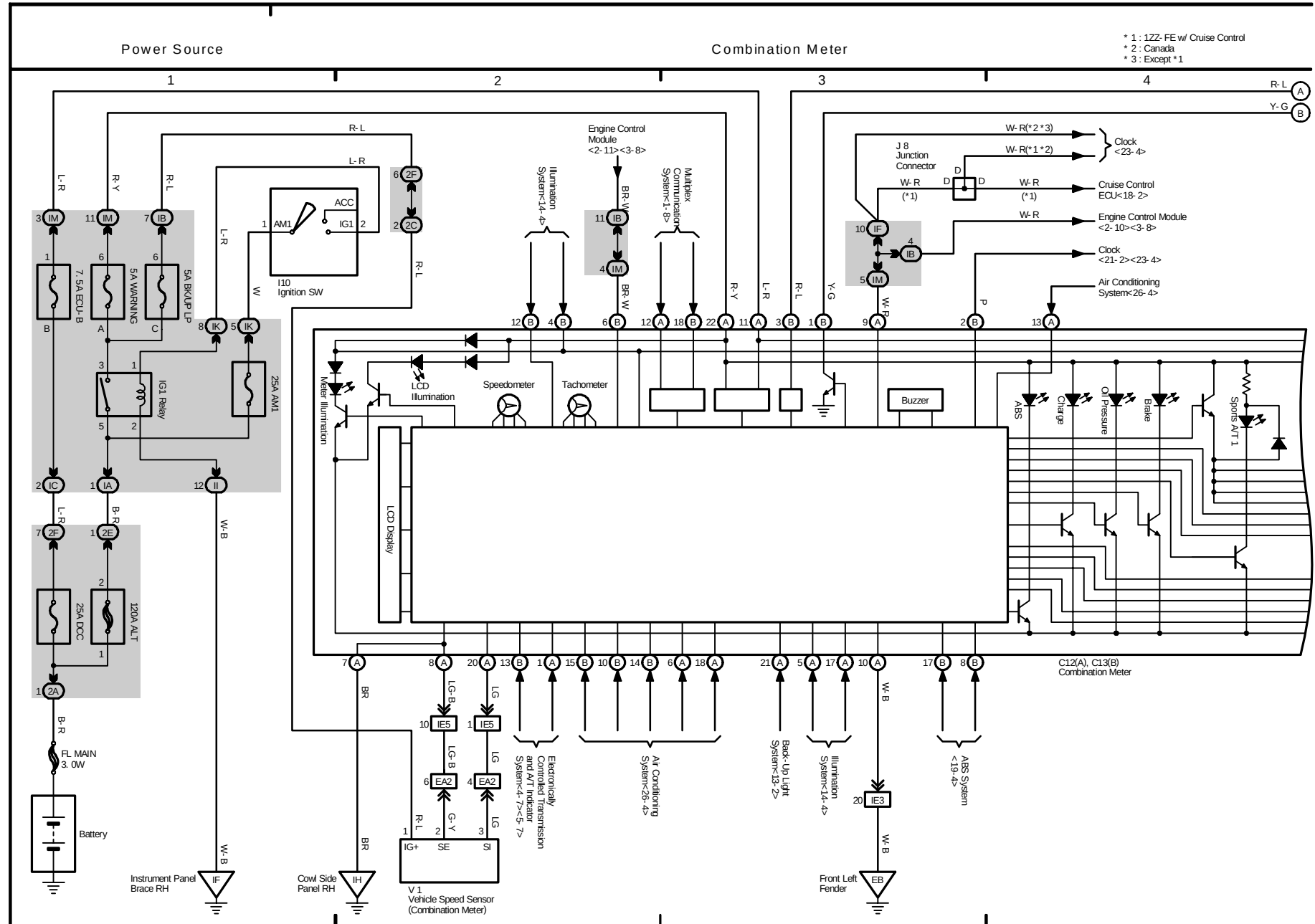


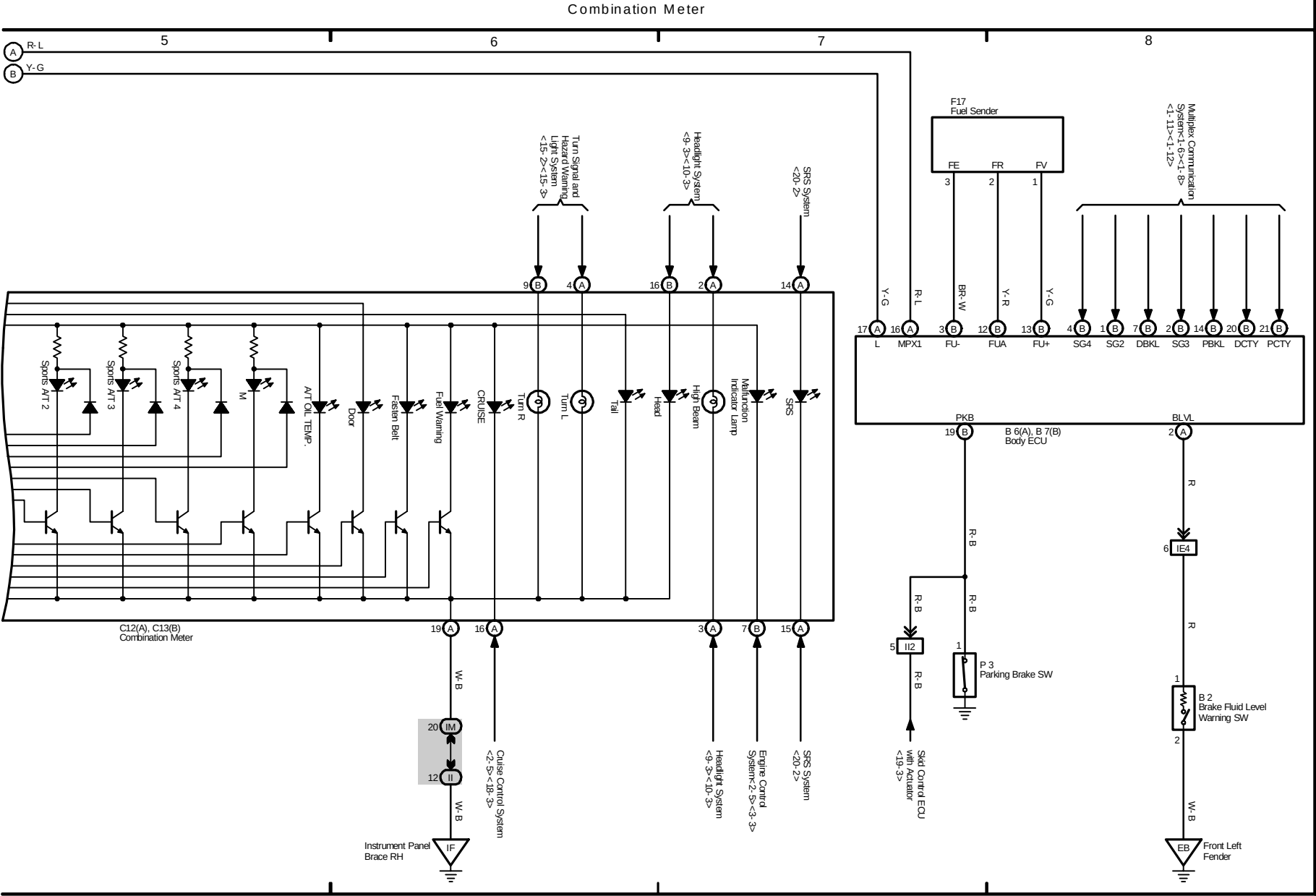
The diagram is a comprehensive wiring schematic for a vehicle's audio system, organized into four main sections:

- Power Source (Section 1):** Shows the battery connection to the ignition switch (I10) and various fuses (15A RADIO, 25A AML, 120A ALT, 3.0W FL MAIN). It includes terminals for L-Y, W, L-R, B-R, and A.
- Audio System (Section 2):** Features the stereo component amplifier (S 6(A), S 7(B)) and the radio and player (R 4). It shows connections for the antenna (ANT), amplifier (AMP), mute, beep, and various speaker outputs (FL, FR, RL, RR, LH, RH).
- Section 3:** Contains the rear speaker (R 8) and the rear speaker (R 9), along with the front door tweeter speakers (F15, F16).
- Section 4:** Shows the front door tweeter speakers (F13, F14) and the front door tweeter speakers (F15, F16).

The diagram uses standard automotive symbols for components like fuses, relays, speakers, and switches. Wire colors and terminal numbers are clearly marked throughout the schematic.



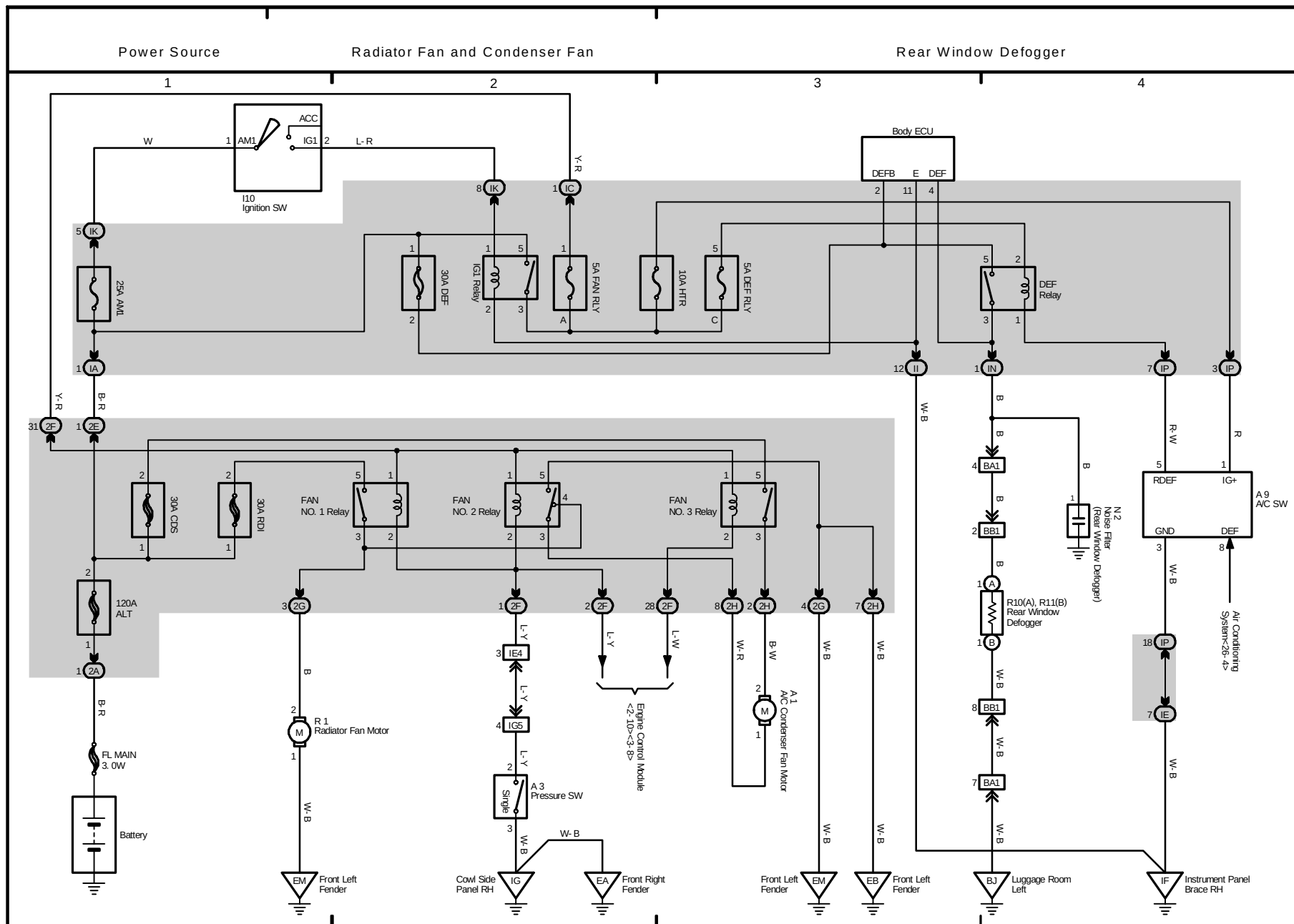




2005 CELICA (EWD590U)

M OVERALL ELECTRICAL WIRING DIAGRAM

25 CELICA



2005 CELICA (EWD590U)

