

FOREWORD

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

Applicable models: MCV30, 31 Series
ACV30 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 CAMRY Repair Manual	RM1121U
● 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 CAMRY ELECTRICAL WIRING DIAGRAM

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A INTRODUCTION

This manual consists of the following 13 sections:

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

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.

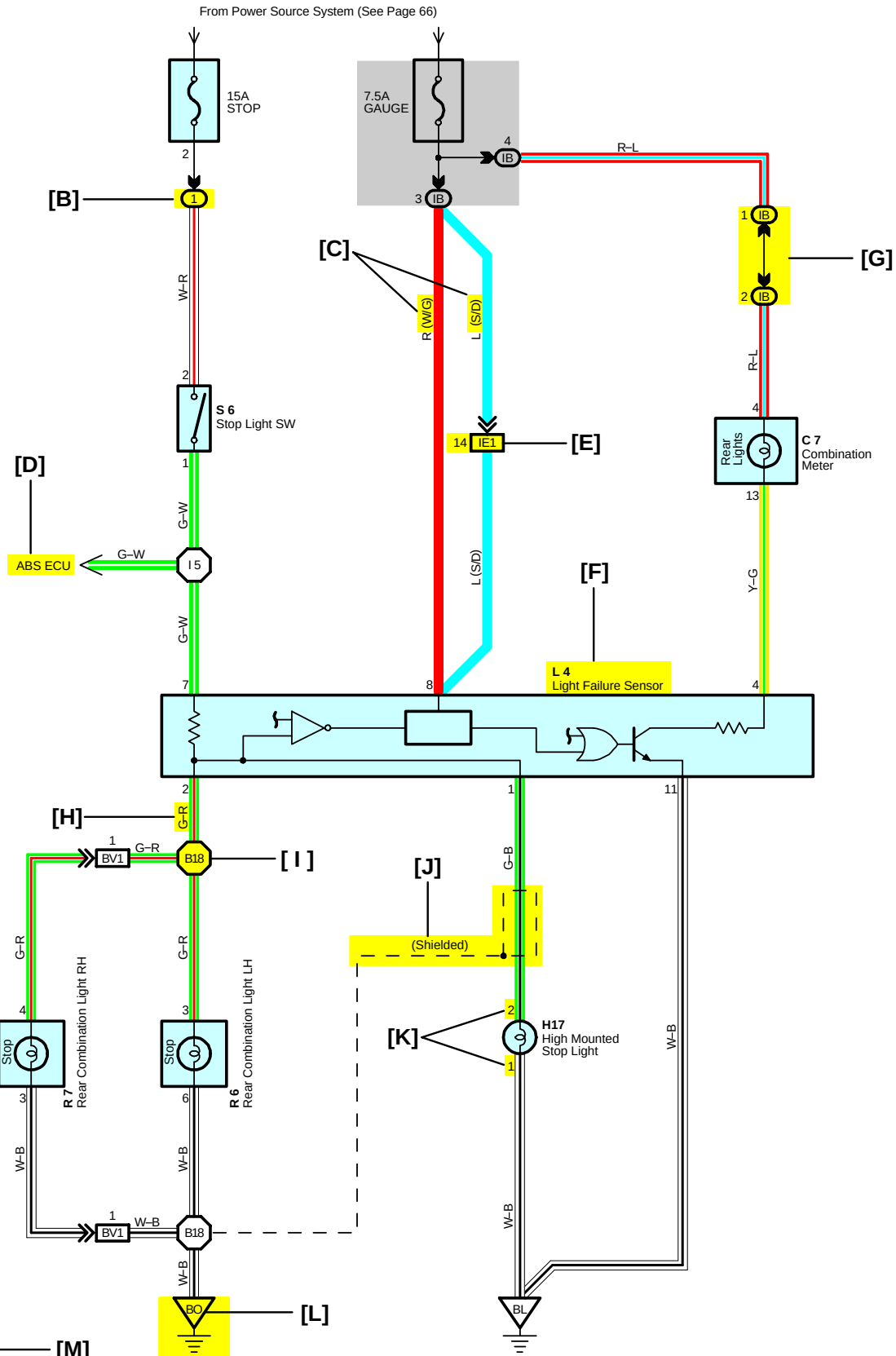
Wiring related to each system is indicated in each system circuit by arrows (from__, to__). When overall connections are required, see the Overall Electrical Wiring Diagram at the end of this manual.

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

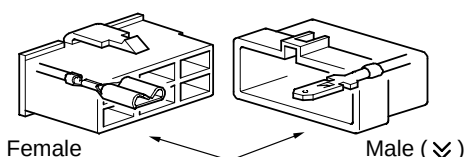
Example: ① Indicates Relay Block No.1

[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.



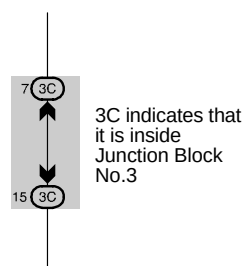
The first letter of the code for each wiring harness and wiring harness connector(s) indicates the component's location, e.g. "E" for the Engine Compartment, "I" for the Instrument Panel and Surrounding area, and "B" for the Body and Surrounding area.

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

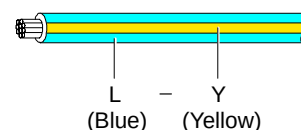
R = Red G = Green LG = Light Green

P = Pink Y = Yellow GR = Gray

O = Orange

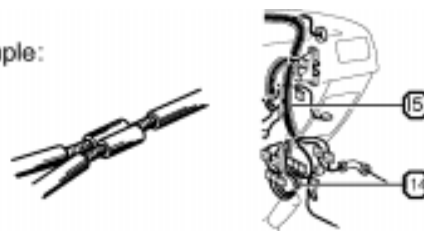
The first letter indicates the basic wire color and the second letter indicates the color of the stripe.

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.

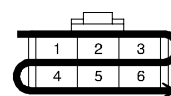
[J] : Indicates a shielded cable.



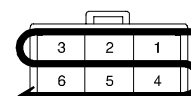
[K] : Indicates the pin number of the connector. The numbering system is different for female and male connectors.

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

 Parts is 4th in order
 Light Failure Sensor

[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.

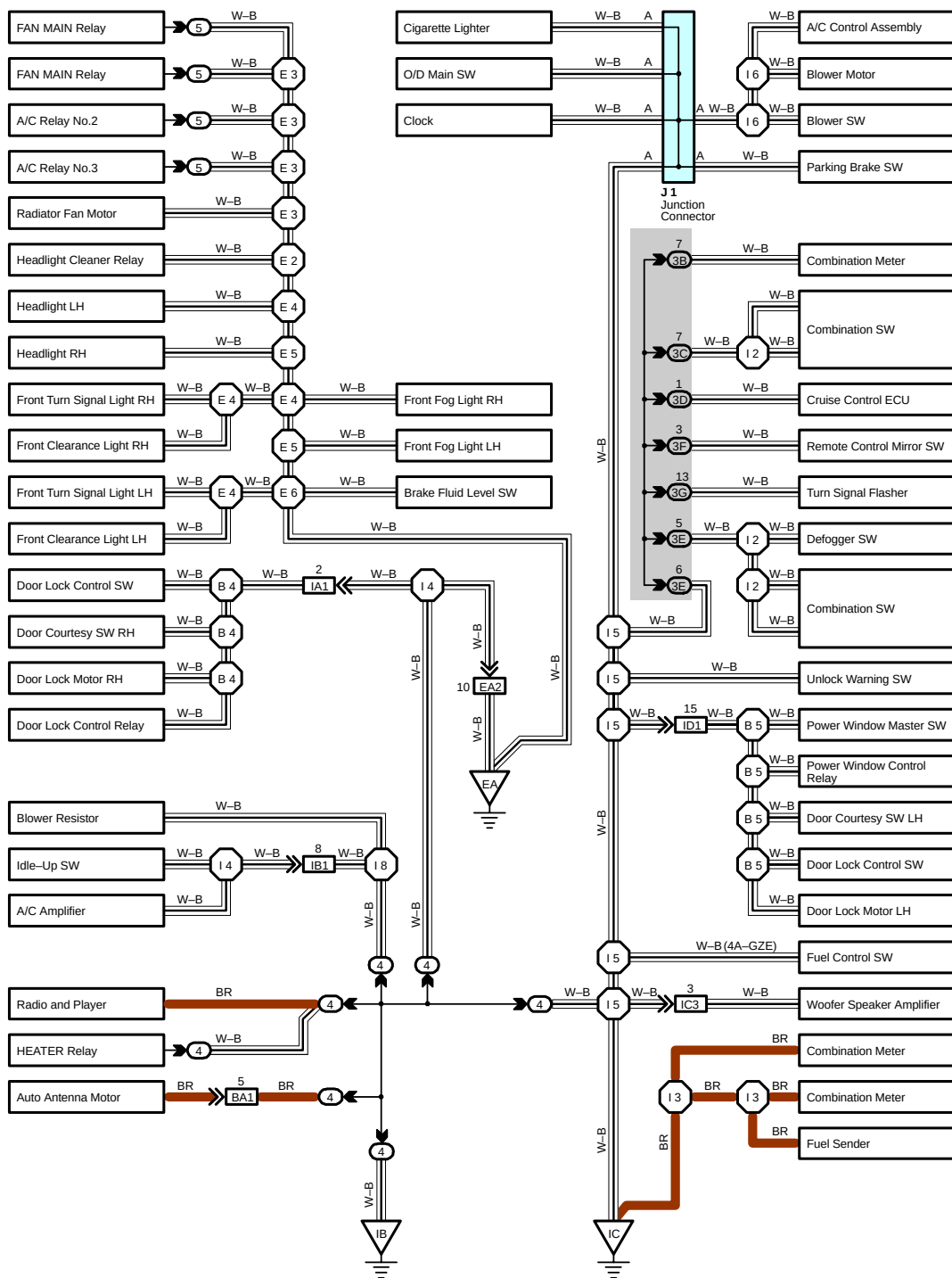
[U] : Indicates the reference page showing the position of the splice points on the vehicle.

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

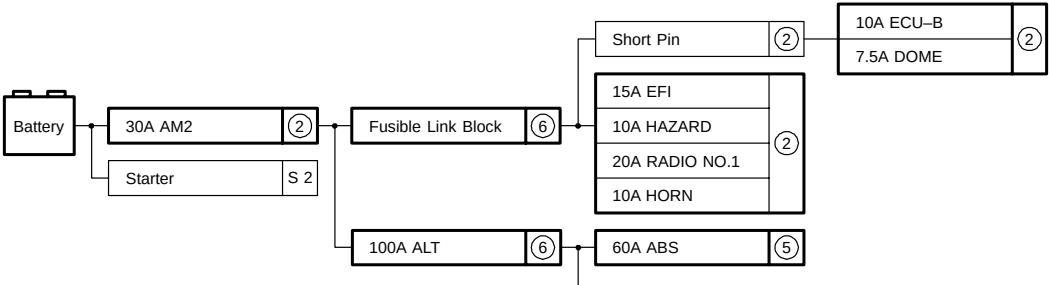


* The system shown here is an EXAMPLE ONLY. It is different to the actual circuit shown in the SYSTEM CIRCUITS SECTION.

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)

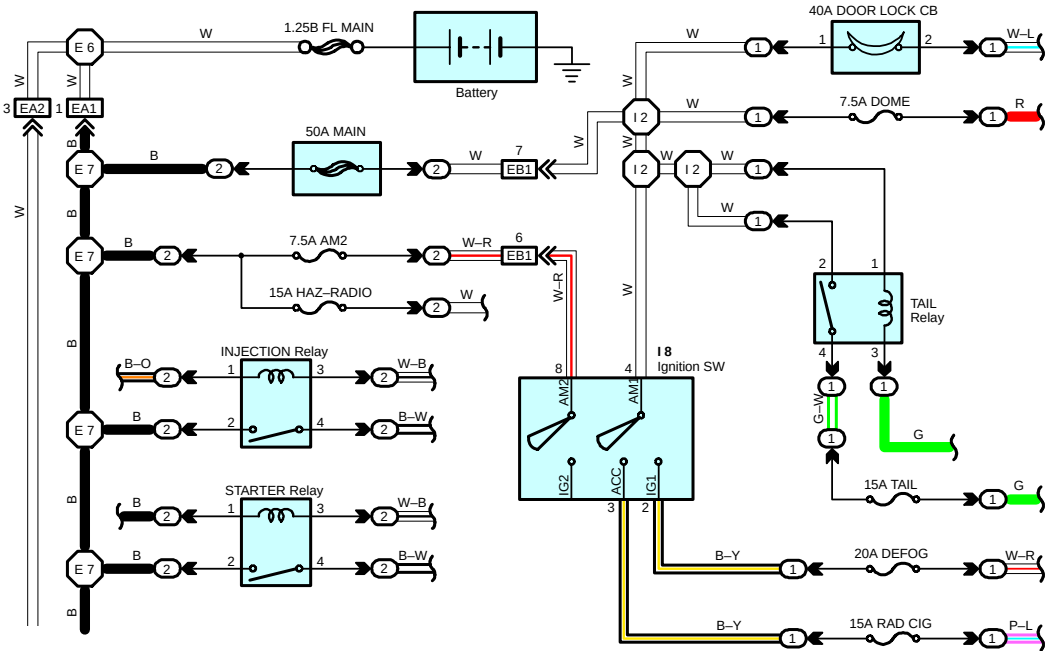
The chart below shows the route by which current flows from the battery to each electrical source (Fusible Link, Circuit Breaker, Fuse, etc.) and other parts.



Engine Room R/B (See Page 20)

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

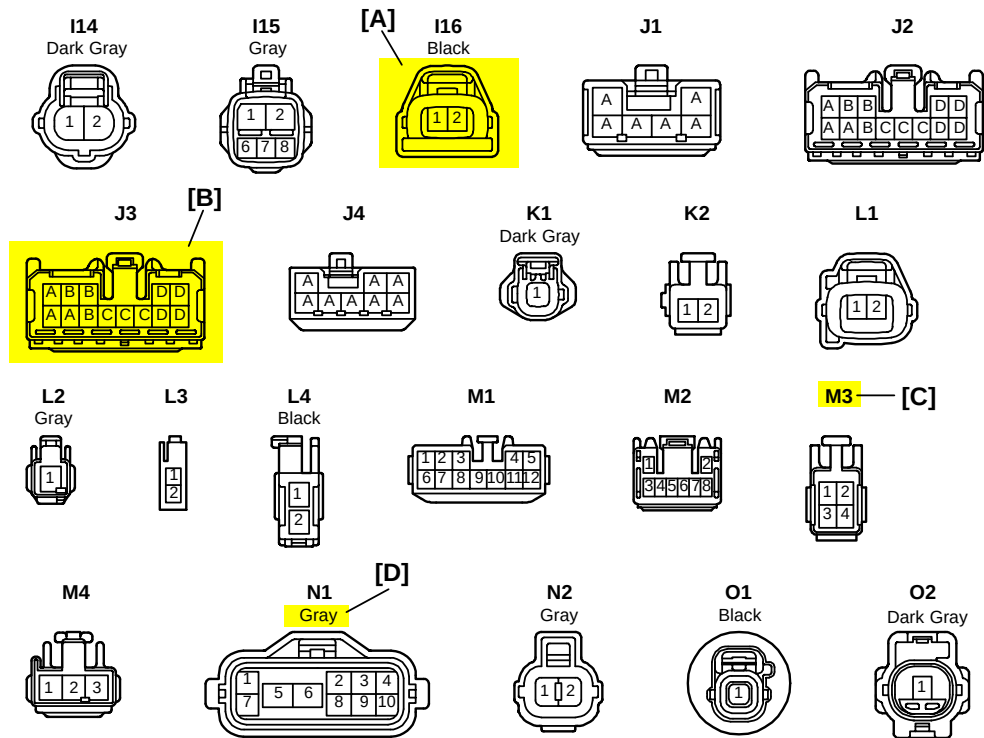
Power Source



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

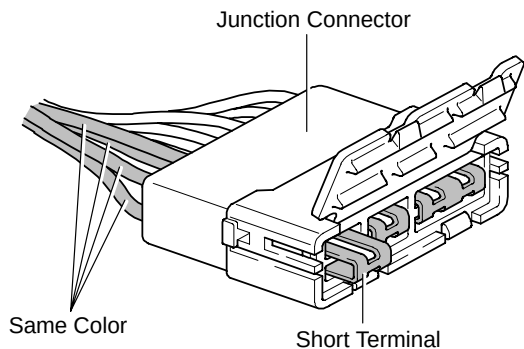
B HOW TO USE THIS MANUAL

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 Actuator [B]	90980-151	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	
A13	Airbag Sensor Front LH	90980-11194	D16	Door Lock and Unlock SW LH	90980-11170
		90980-11194			

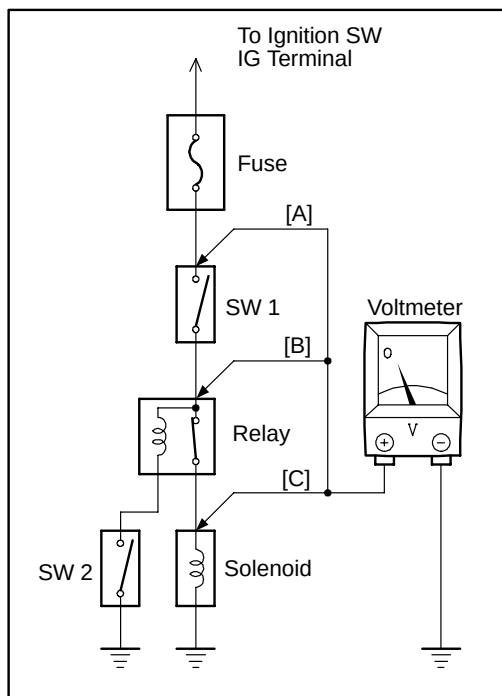
[A] : Part Code

[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



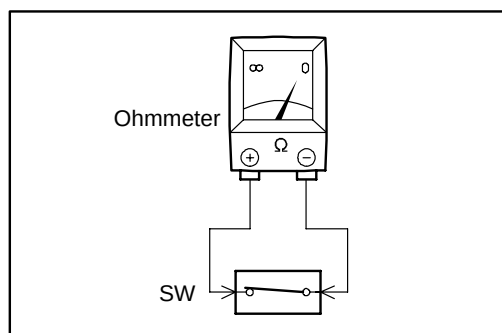
VOLTAGE CHECK

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

Example:

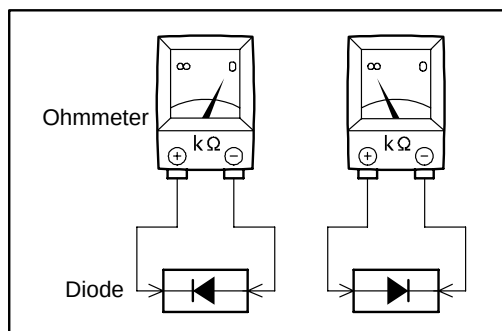
- [A] – Ignition SW on
- [B] – Ignition SW and SW 1 on
- [C] – Ignition SW, SW 1 and Relay on (SW 2 off)

- 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

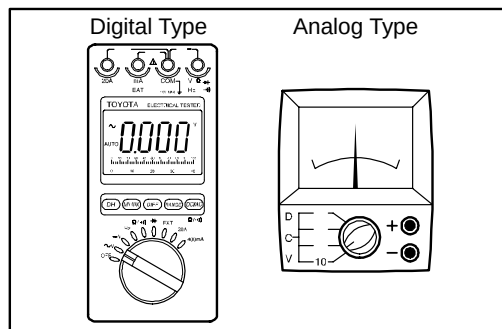
- Disconnect the battery terminal or wire so there is no voltage between the check points.
- Contact the two leads of an ohmmeter to each of the check points.



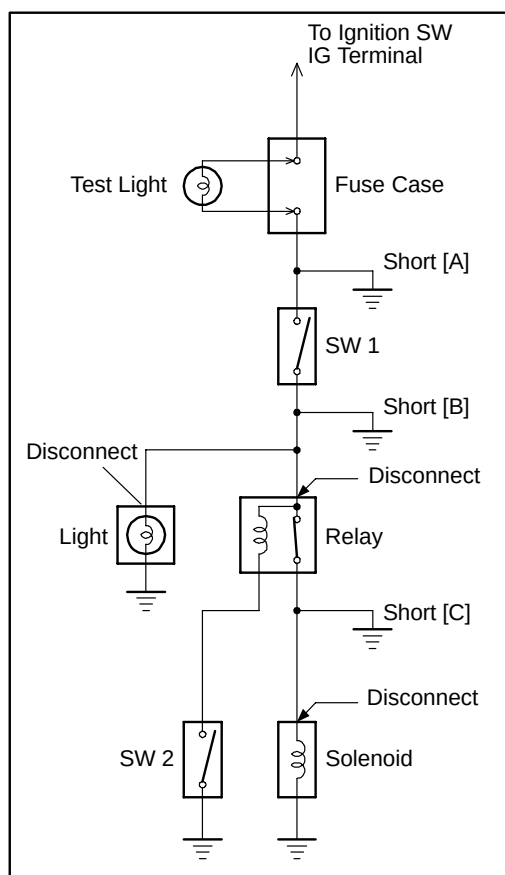
If the circuit has diodes, reverse the two leads and check again.

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.



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



FINDING A SHORT CIRCUIT

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

Example:

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

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

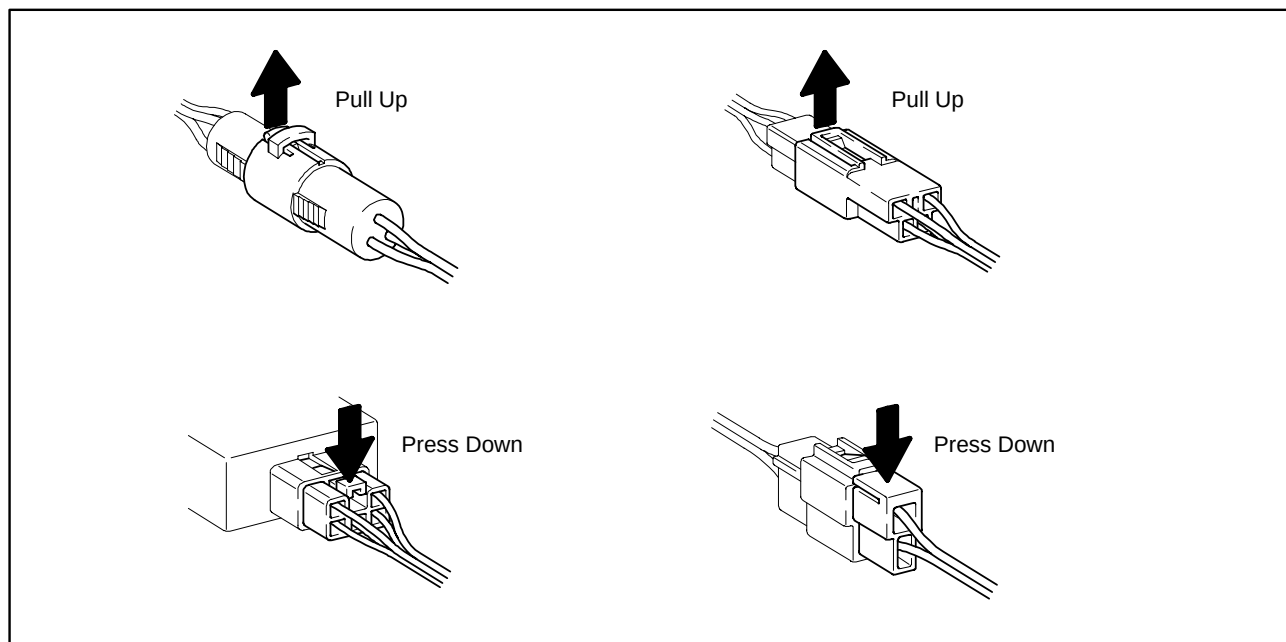
CAUTION:

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

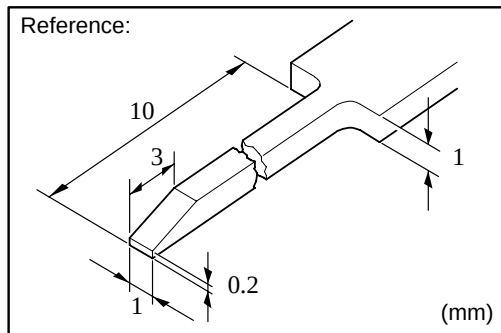
DISCONNECTION OF MALE AND FEMALE CONNECTORS

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

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



C TROUBLESHOOTING



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

1. PREPARE THE SPECIAL TOOL

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

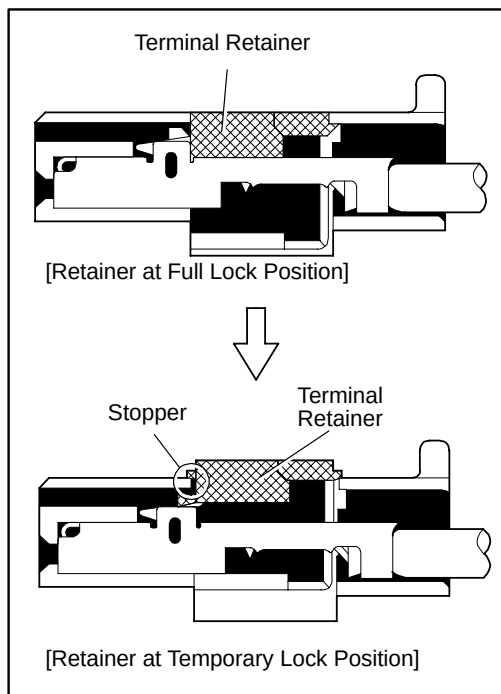
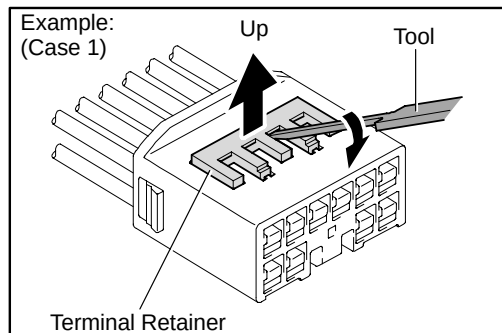
2. DISCONNECT CONNECTOR

3. DISENGAGE THE SECONDARY LOCKING DEVICE OR TERMINAL RETAINER.

- (a) Locking device must be disengaged before the terminal locking clip can be released and the terminal removed from the connector.
- (b) Use a special tool or the terminal pick to unlock the secondary locking device or terminal retainer.

NOTICE:

Do not remove the terminal retainer from connector body.



[A] For Non-Waterproof Type Connector

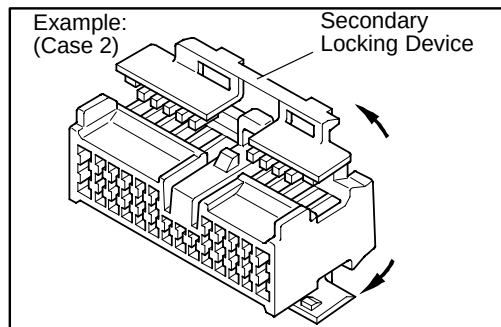
HINT : The needle insertion position varies according to the connector's shape (number of terminals etc.), so check the position before inserting it.

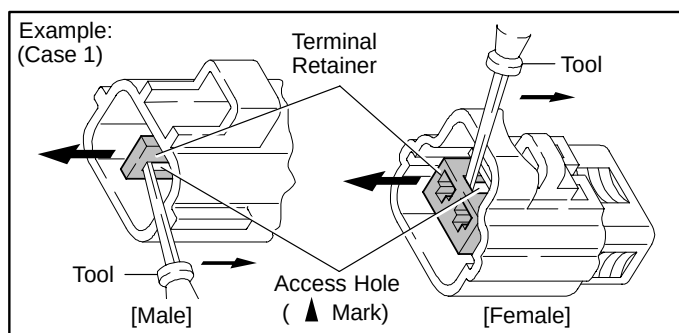
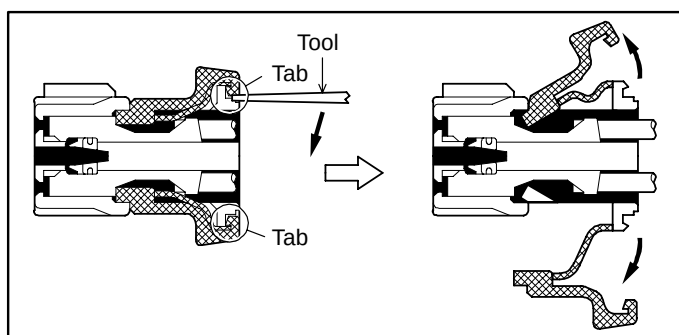
"Case 1"

Raise the terminal retainer up to the temporary lock position.

"Case 2"

Open the secondary locking device.





[B] For Waterproof Type Connector

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

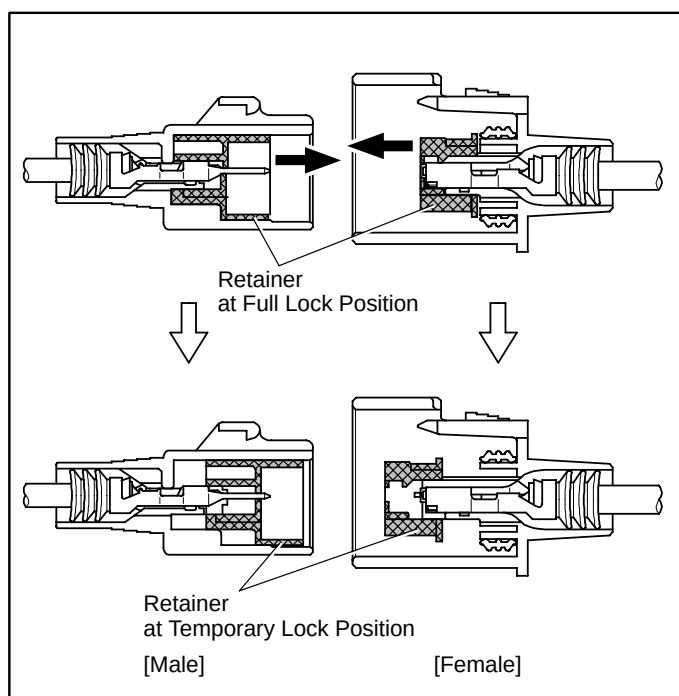
Example:

Terminal Retainer : Connector Body

Black or White : Gray

Black or White : Dark Gray

Gray or White : Black

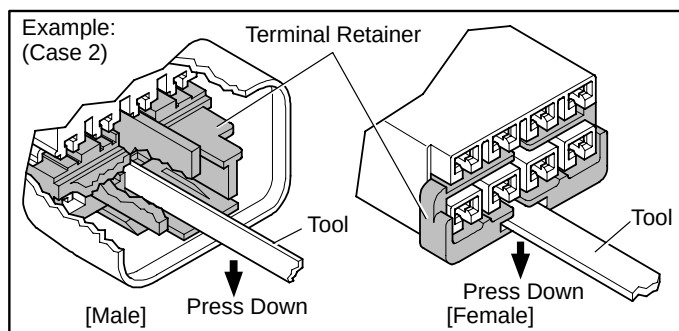


"Case 1"

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

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

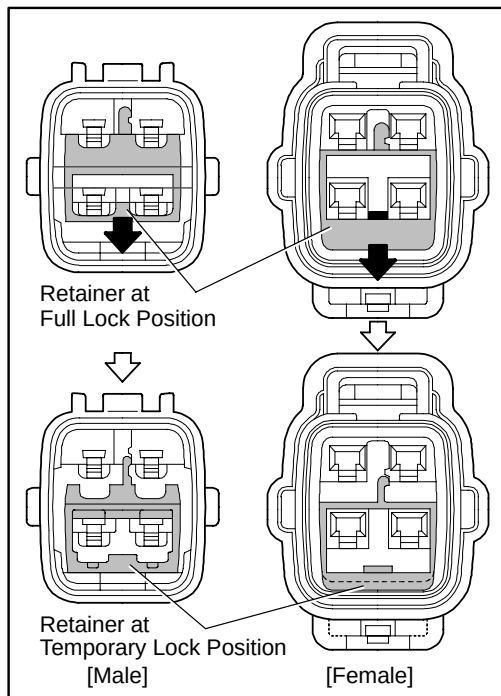
HINT : The needle insertion position varies according to the connector's shape (Number of terminals etc.), so check the position before inserting it.



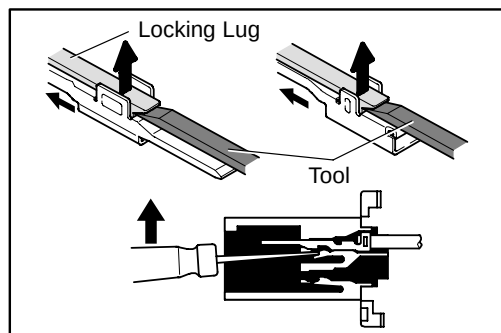
"Case 2"

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

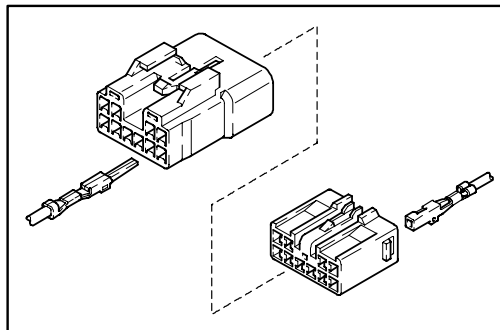
C TROUBLESHOOTING



Push the terminal retainer down to the temporary lock position.



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



4. INSTALL TERMINAL TO CONNECTOR

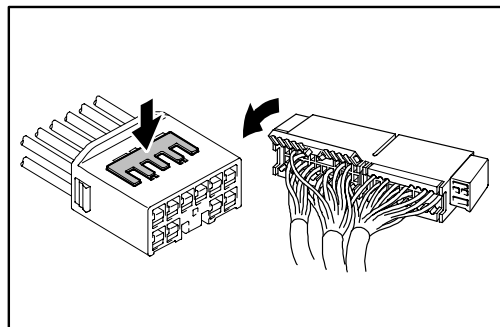
(a) Insert the terminal.

HINT:

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

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

5. CONNECT CONNECTOR



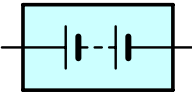
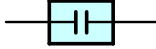
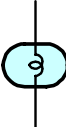
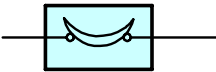
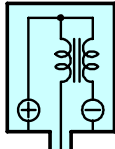
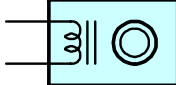
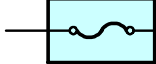
ABBREVIATIONS

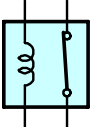
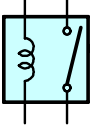
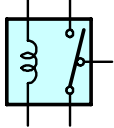
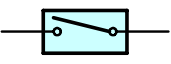
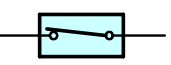
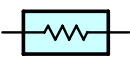
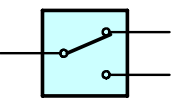
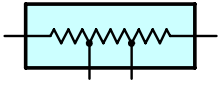
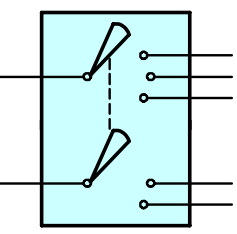
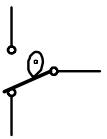
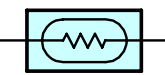
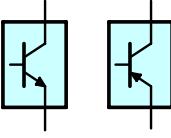
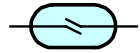
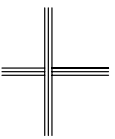
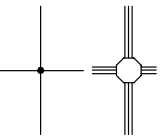
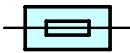
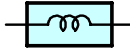
The following abbreviations are used in this manual.

A/C	=	Air Conditioning
A/T	=	Automatic Transaxle
ABS	=	Anti-Lock Brake System
ACIS	=	Acoustic Control Induction System
ACM	=	Active Control Engine Mount
AICV	=	Air Intake Control Valve
EC	=	Electrochromic
ECU	=	Electronic Control Unit
ESA	=	Electronic Spark Advance
EVAP	=	Evaporative Emission
FL	=	Fusible Link
J/B	=	Junction Block
LH	=	Left-Hand
M/T	=	Manual Transaxle
O/D	=	Overdrive
R/B	=	Relay Block
RH	=	Right-Hand
SFI	=	Sequential Multiport Fuel Injection
SRS	=	Supplemental Restraint System
SW	=	Switch
TEMP.	=	Temperature
TRAC	=	Traction Control
TVIP	=	TOYOTA Vehicle Intrusion Protection
VSC	=	Vehicle Stability Control
VSV	=	Vacuum Switching Valve
VVT	=	Variable Valve Timing
w/	=	With
w/o	=	Without

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

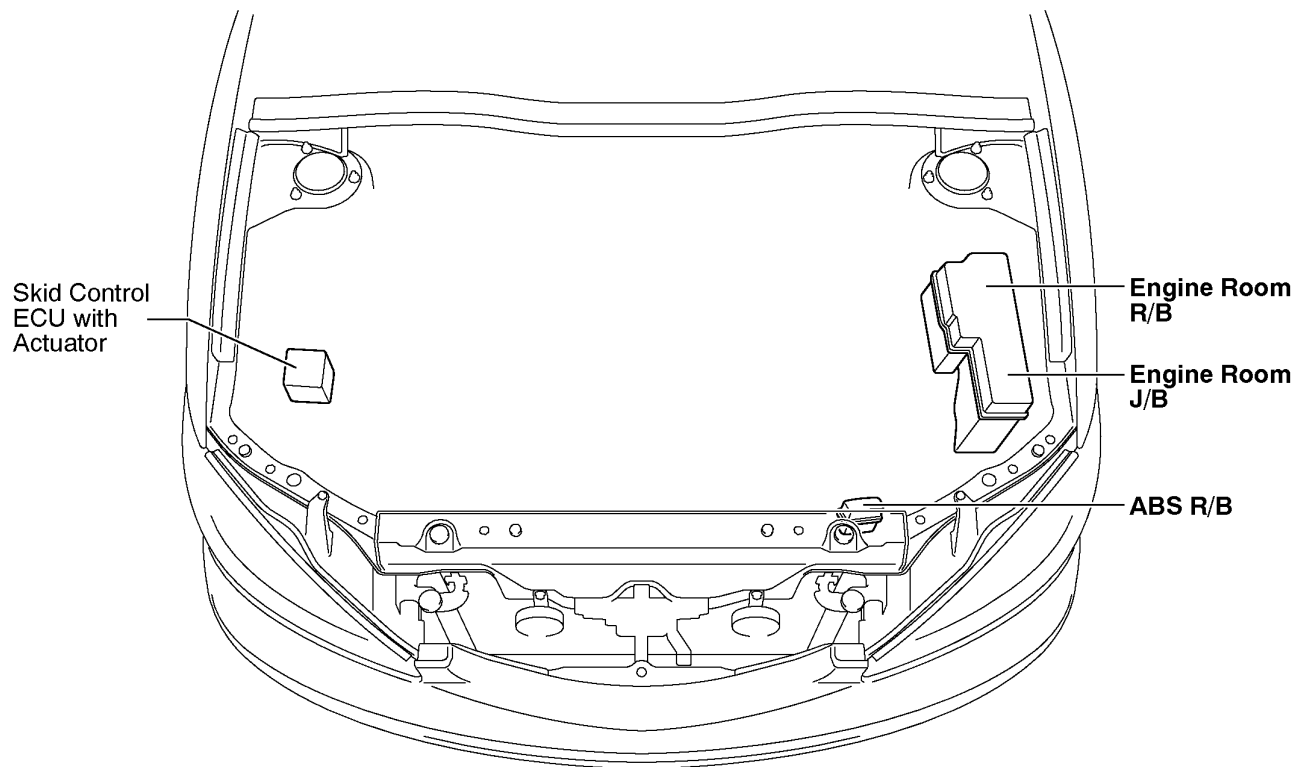
E GLOSSARY OF TERMS AND SYMBOLS

 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.

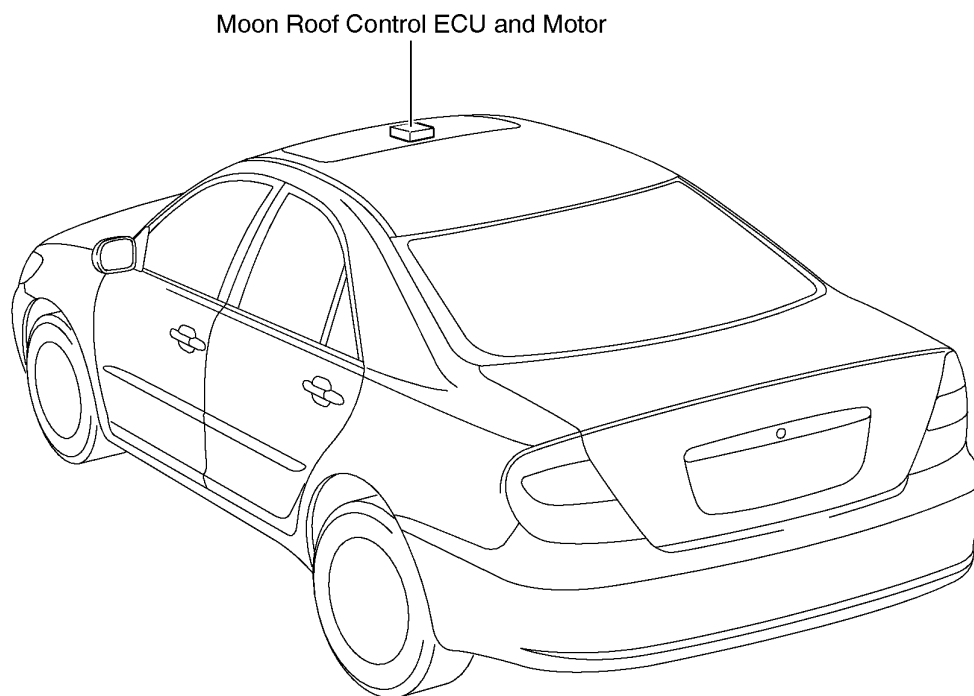
RELAY Basically, an electrically operated switch which may be normally closed (1) or open (2). Current flow through a small coil creates a magnetic field which either opens or closes an attached switch. 1. NORMALLY CLOSED  2. NORMALLY OPEN 	SPEAKER An electromechanical device which creates sound waves 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. 1. NORMALLY OPEN  2. NORMALLY CLOSED 
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 Wires are always drawn as straight lines on wiring diagrams. Crossed wires (1) without a black dot at the junction are not joined; crossed wires (2) with a black dot or octagonal mark at the junction are spliced (joined) connections. (1) NOT CONNECTED  (2) SPLICED 
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

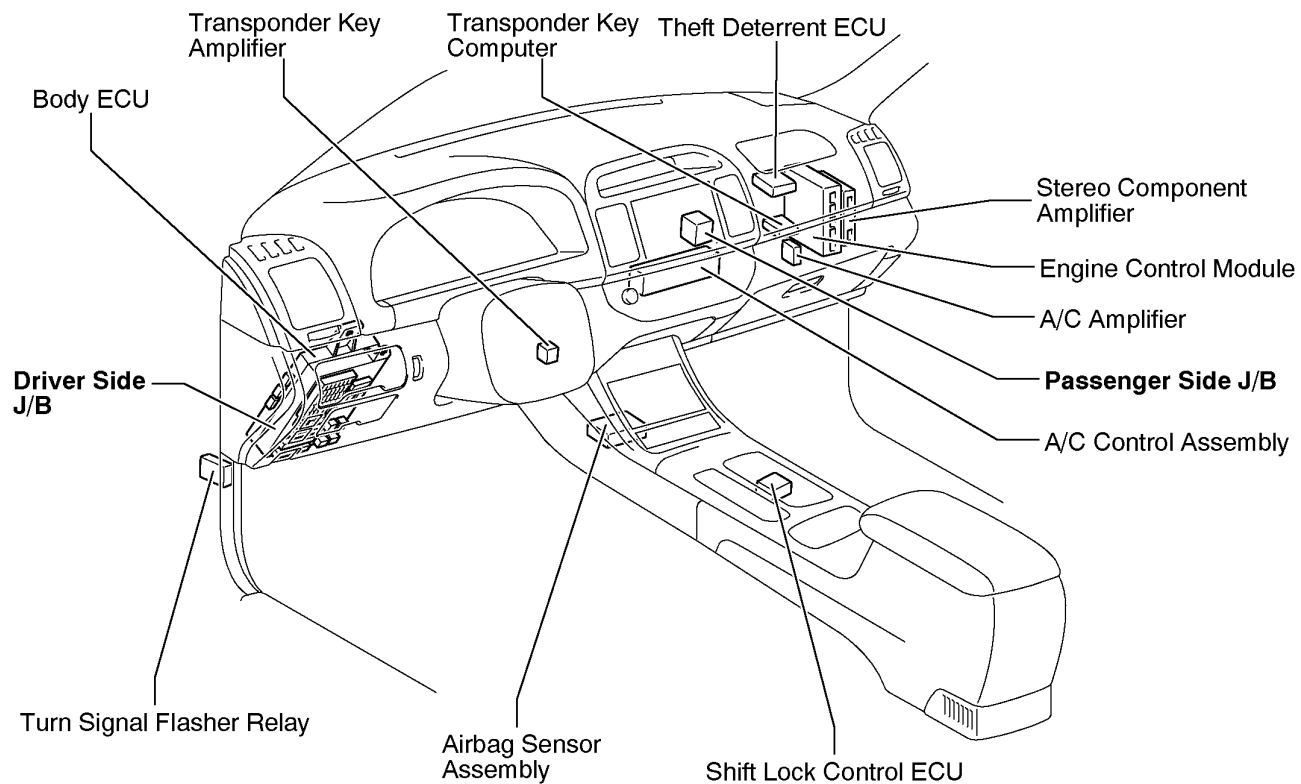
[Engine Compartment]



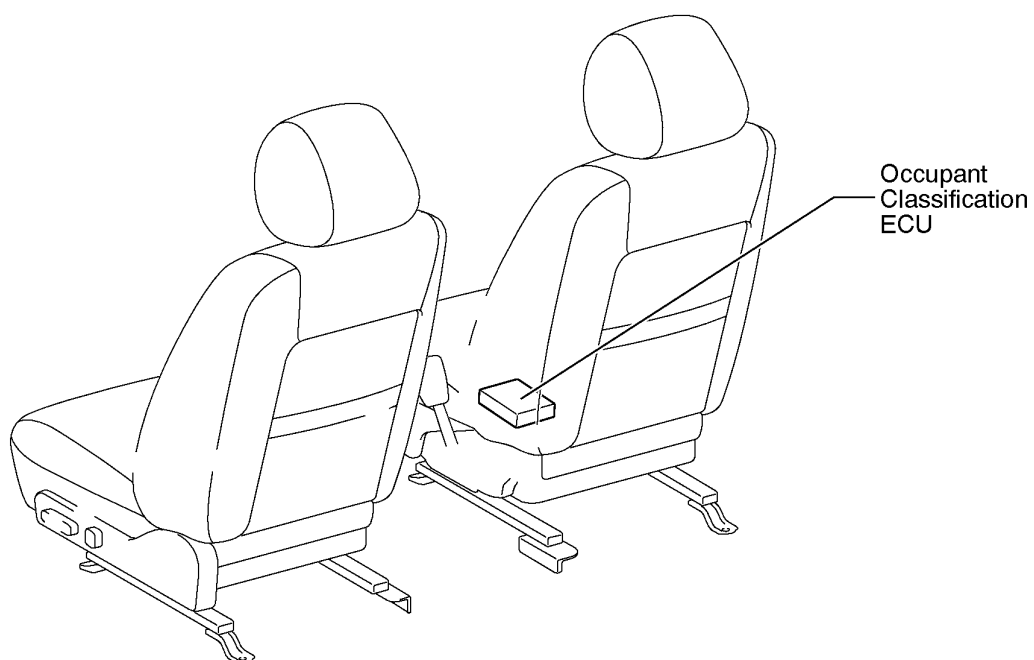
[Body]



[Instrument Panel]



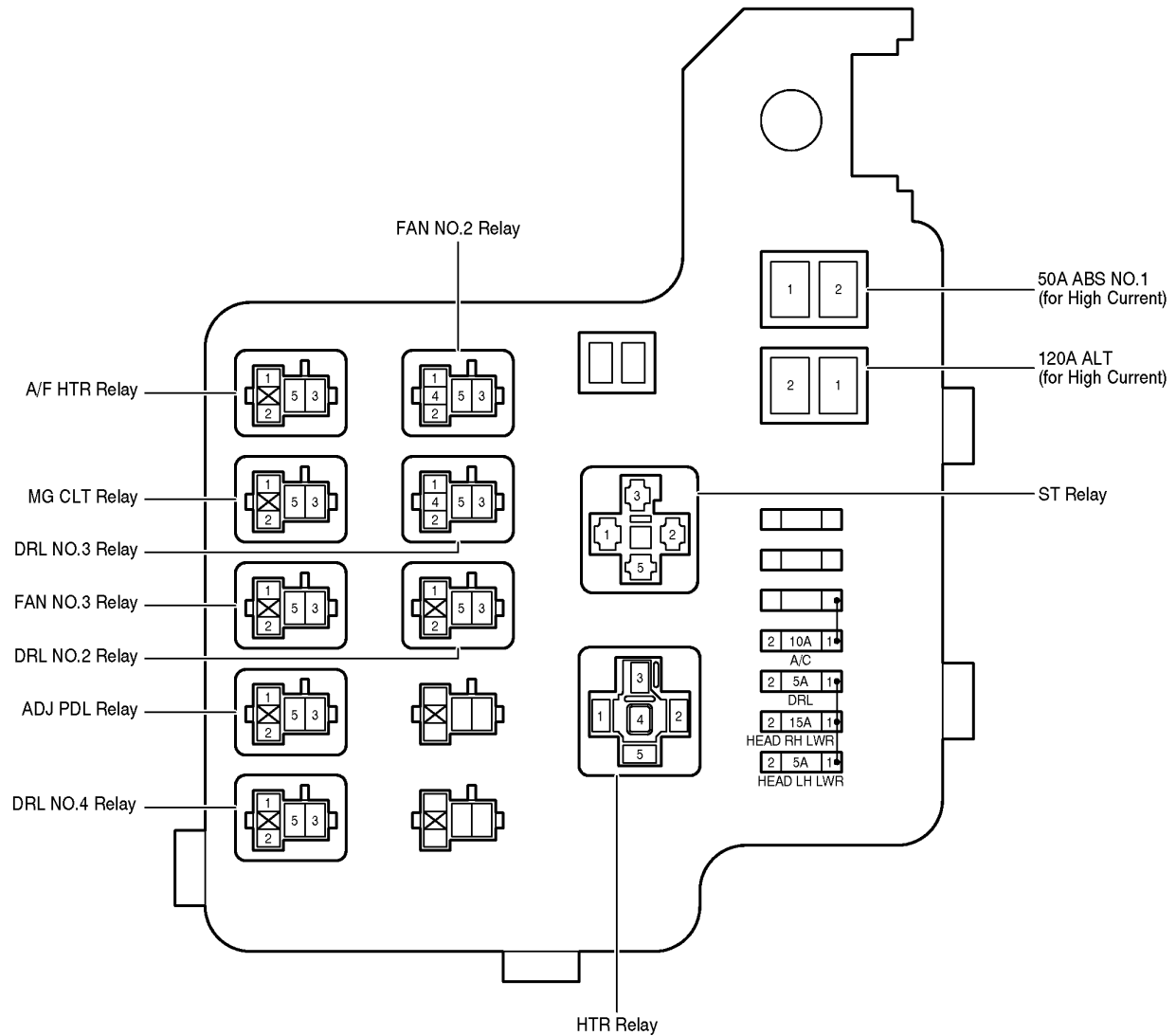
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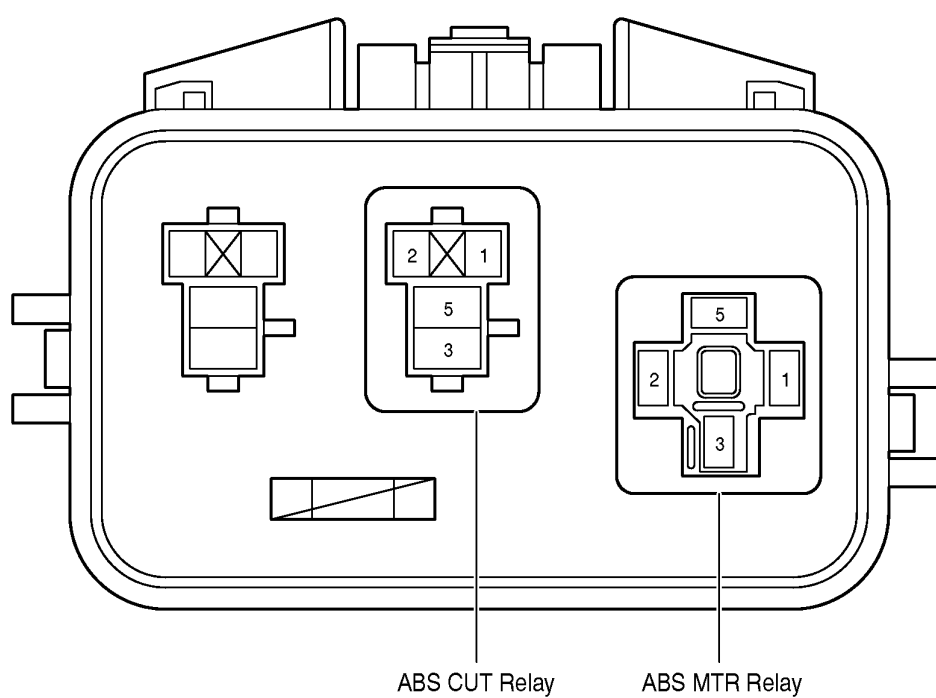


F RELAY LOCATIONS

① : Engine Room R/B

Engine Compartment Left (See Page 20)

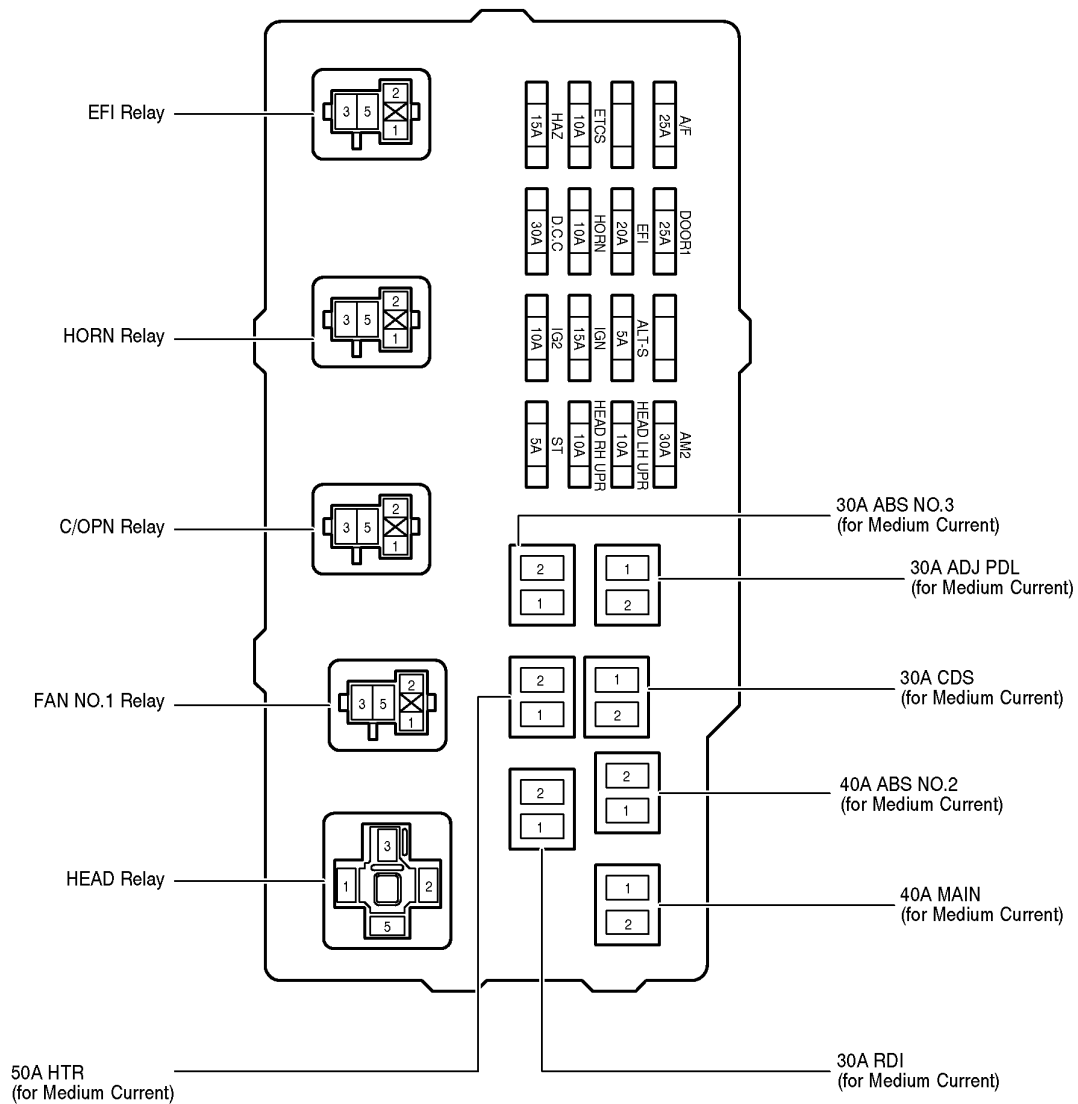


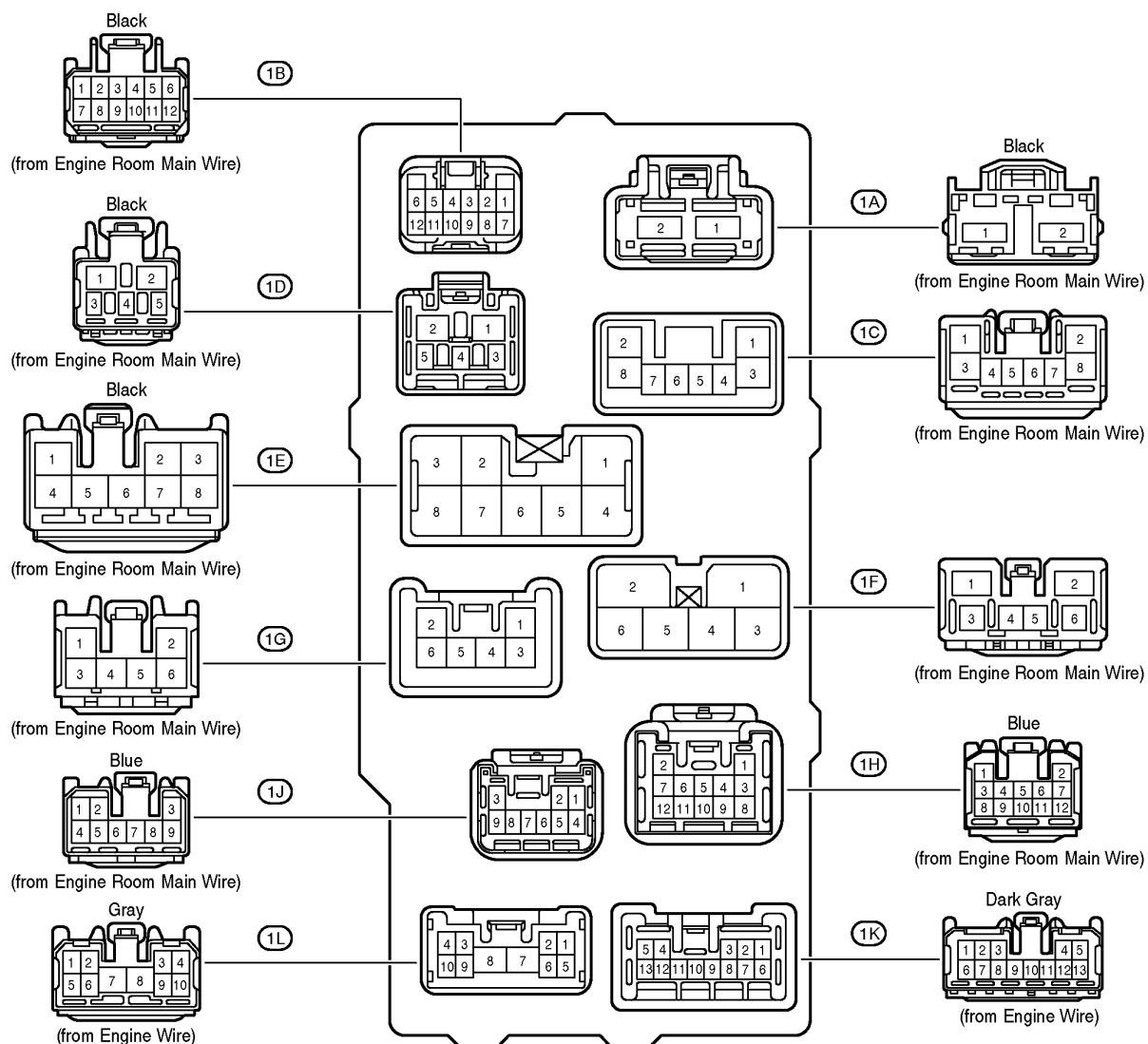


F RELAY LOCATIONS

○ : Engine Room J/B

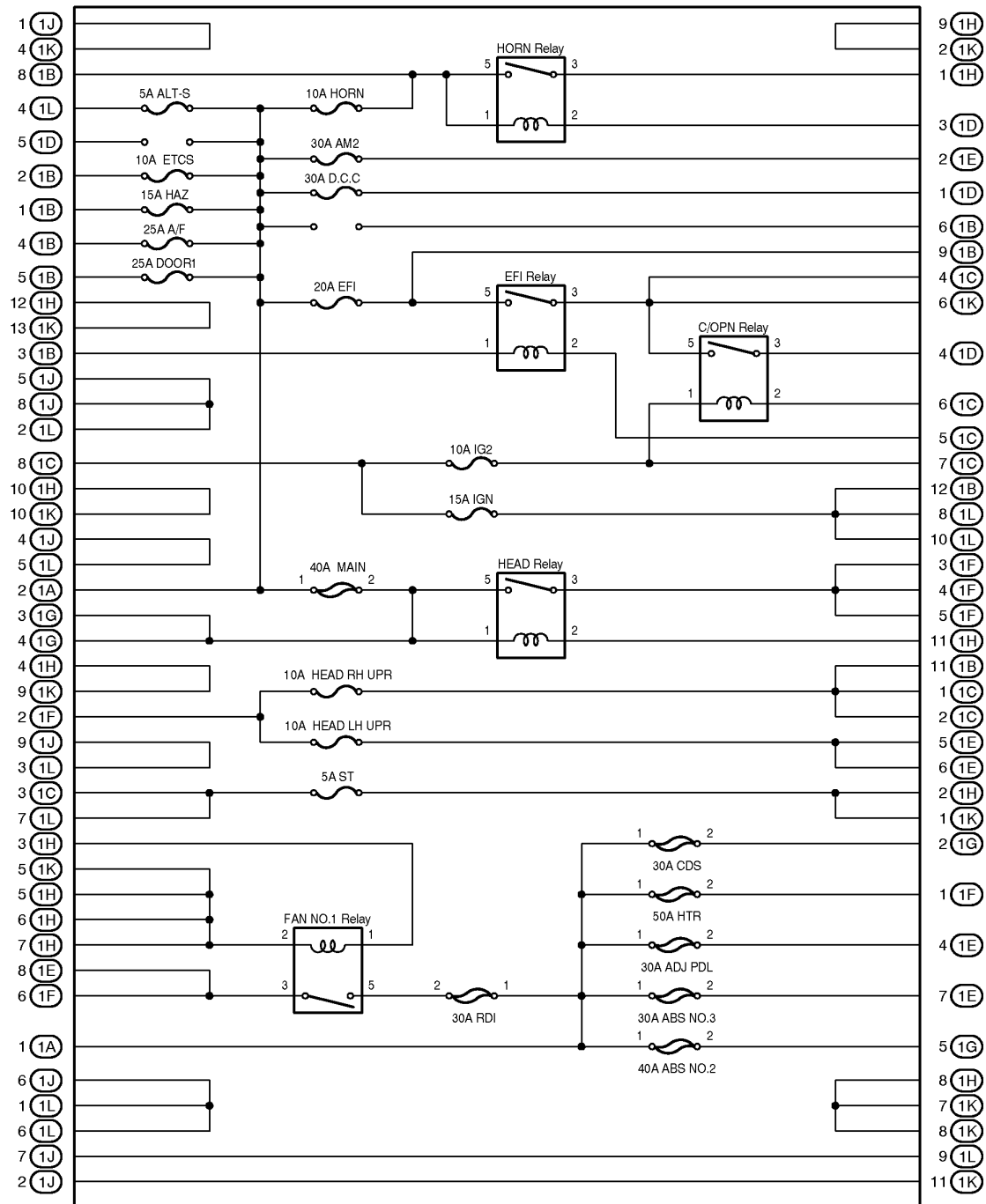
Engine Compartment Left (See Page 20)





F RELAY LOCATIONS

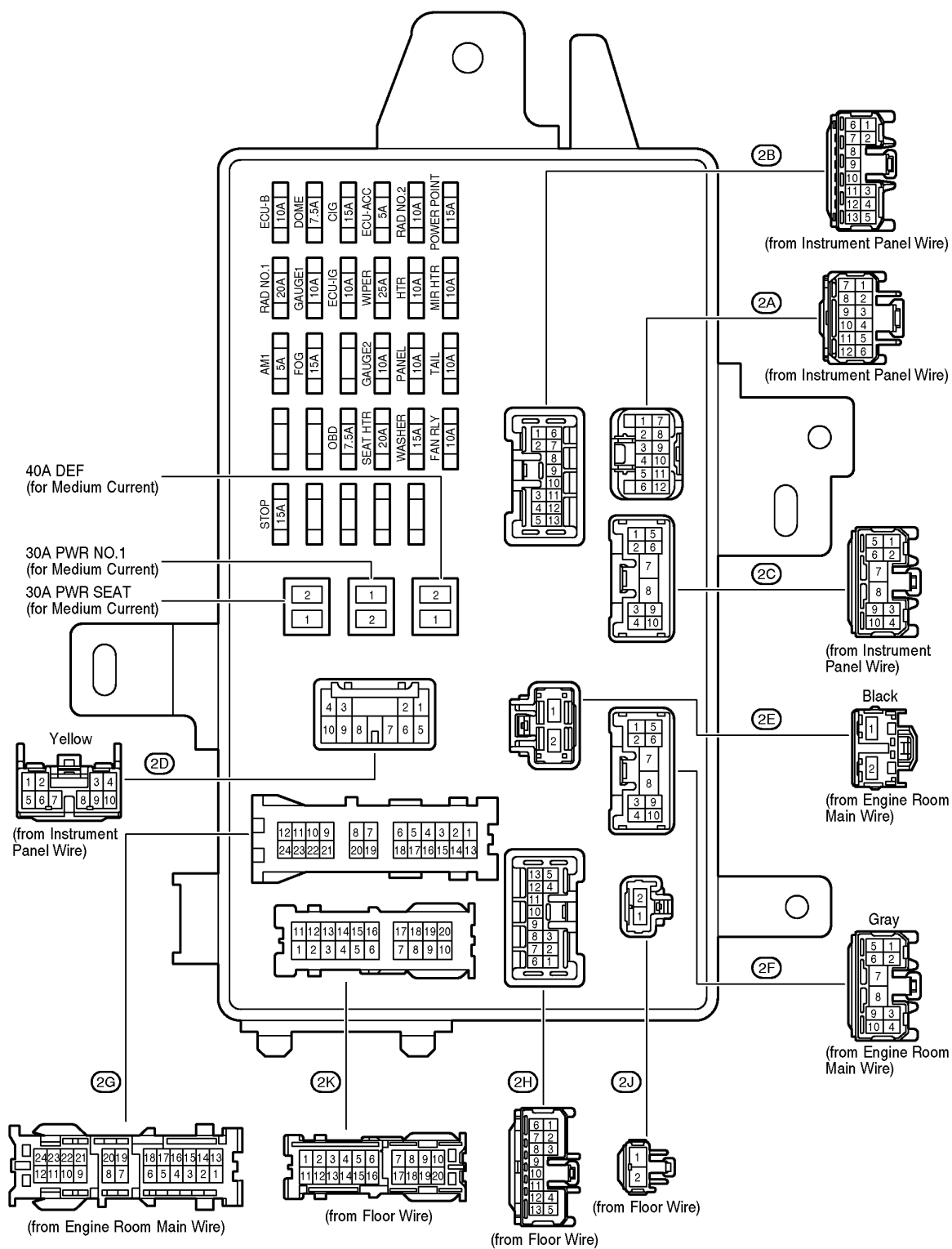
[Engine Room J/B Inner Circuit]

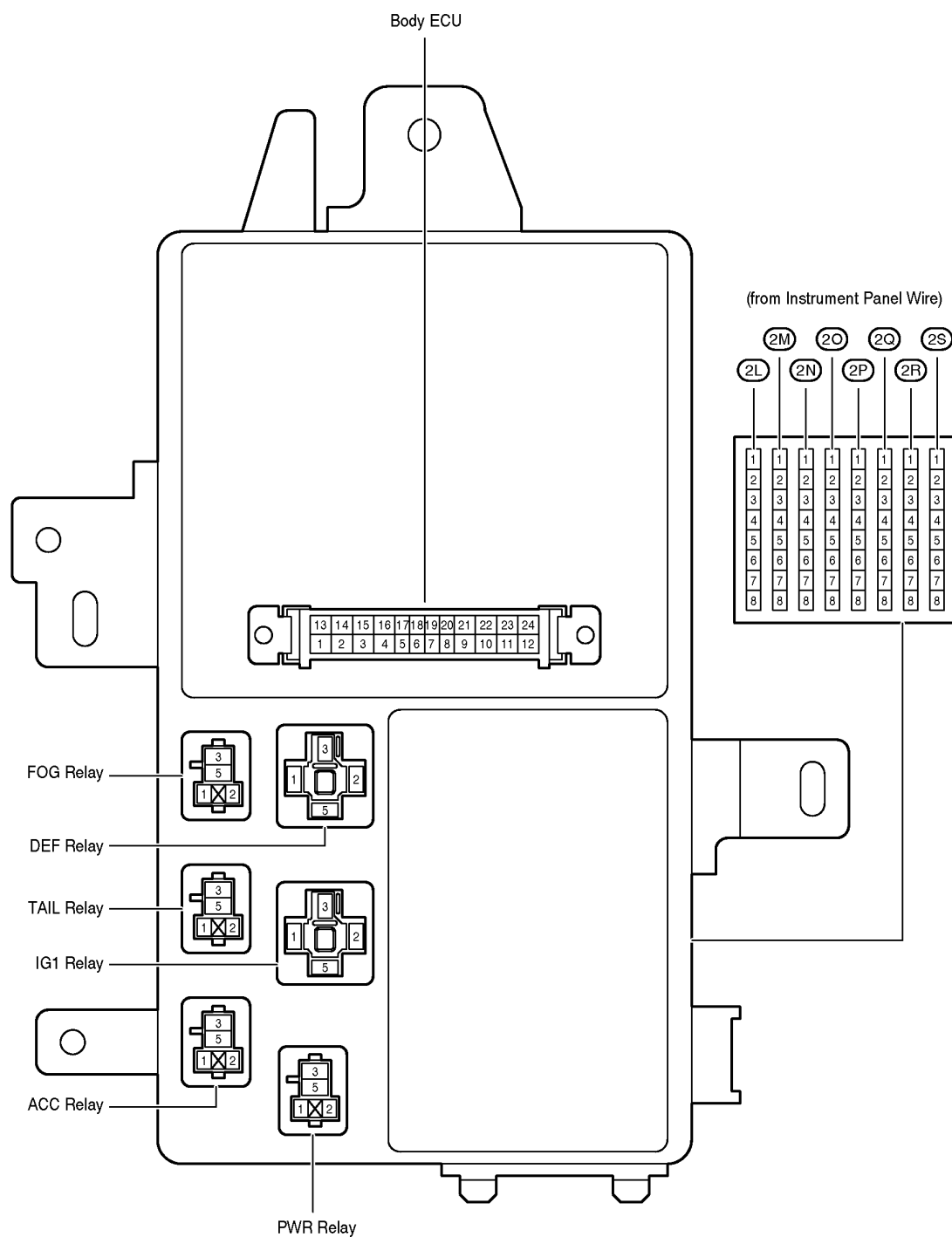


F RELAY LOCATIONS

○ : Driver Side J/B

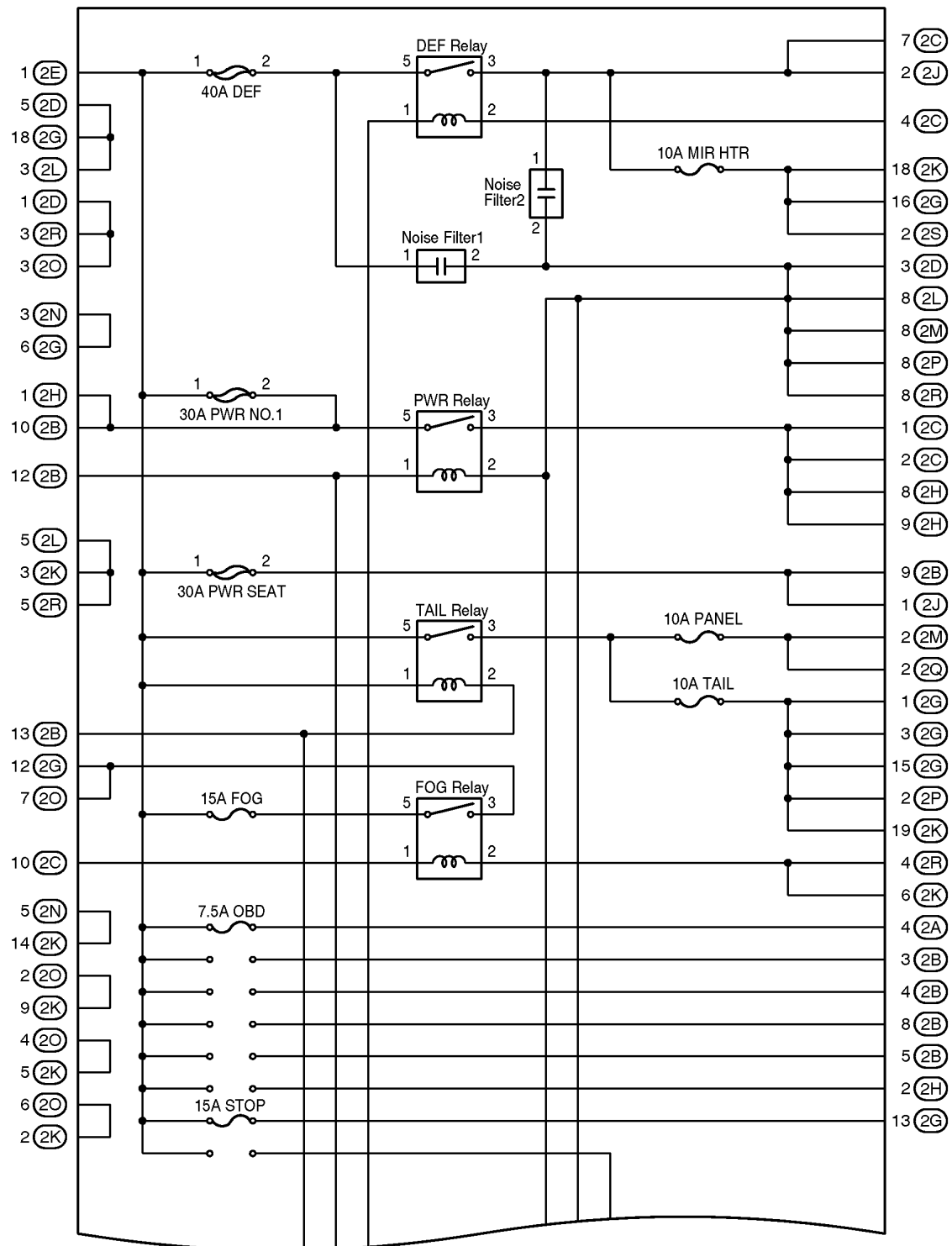
Lower Finish Panel (See Page 21)



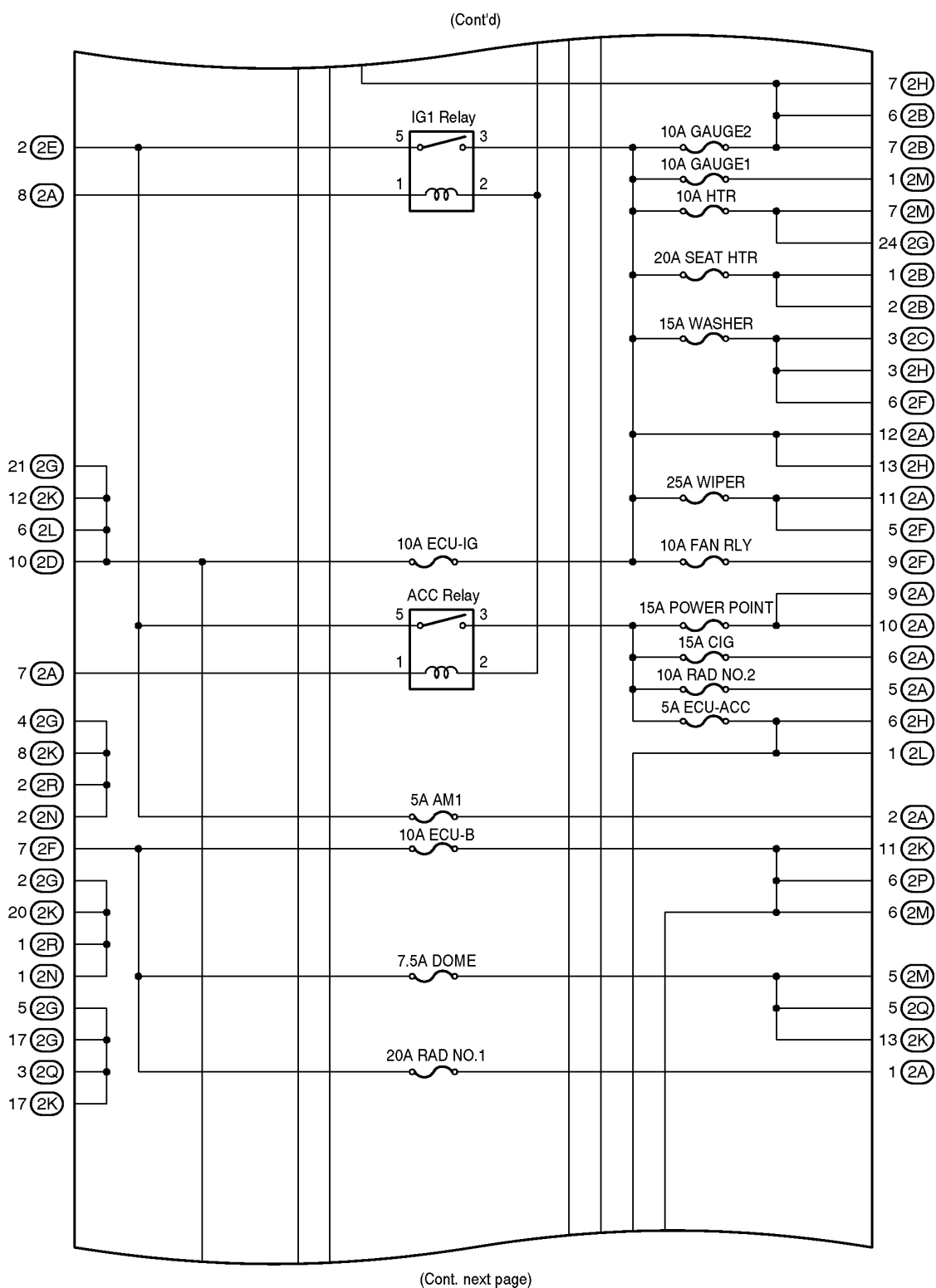


F RELAY LOCATIONS

[Driver Side J/B Inner Circuit]

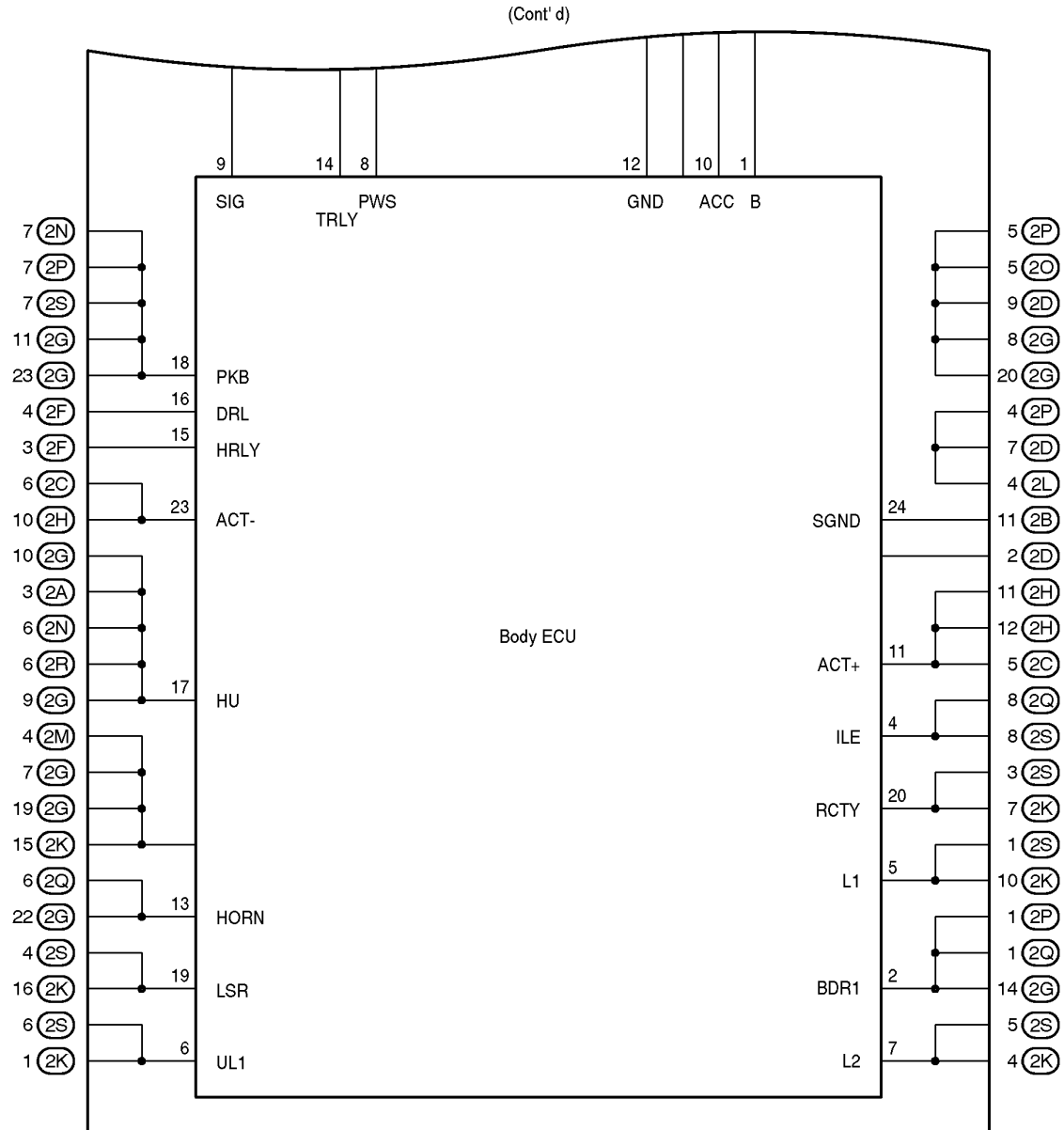


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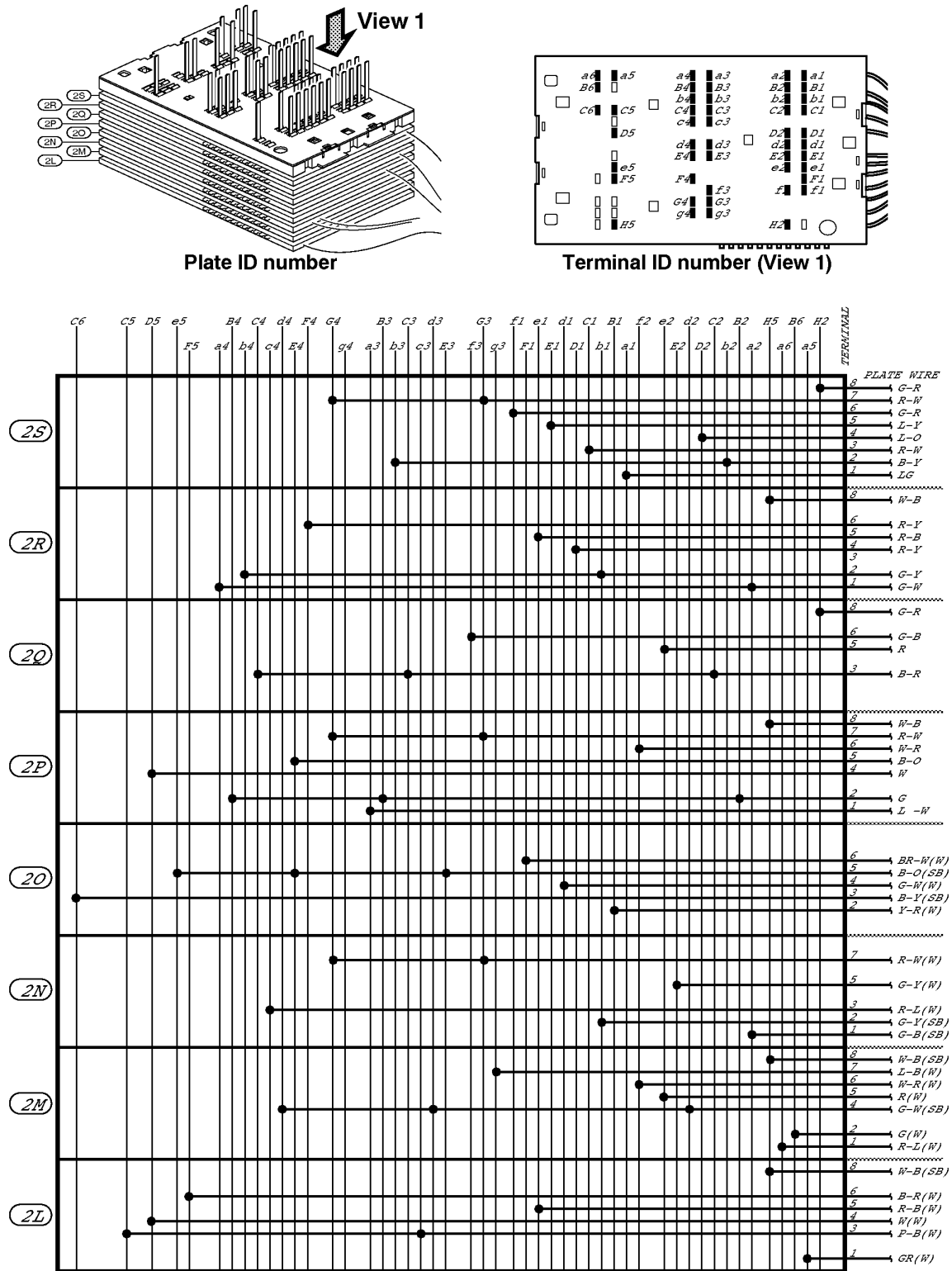
F RELAY LOCATIONS

[Driver Side J/B Inner Circuit]



Inside-the-Plate Wiring Connection Diagram

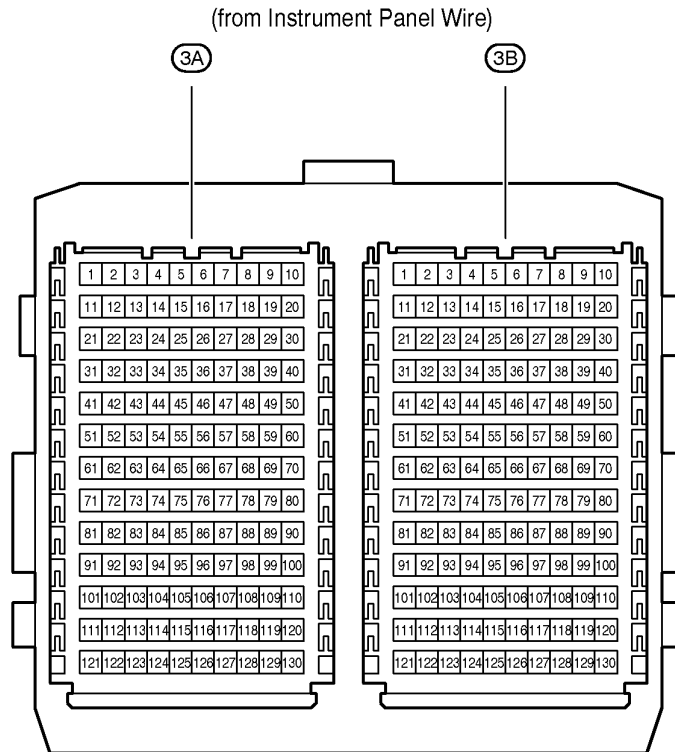
When conducting continuity test inside the plate, see the plate and terminal ID number (View 1) shown below as well as the inside-the-plate wiring connection diagram



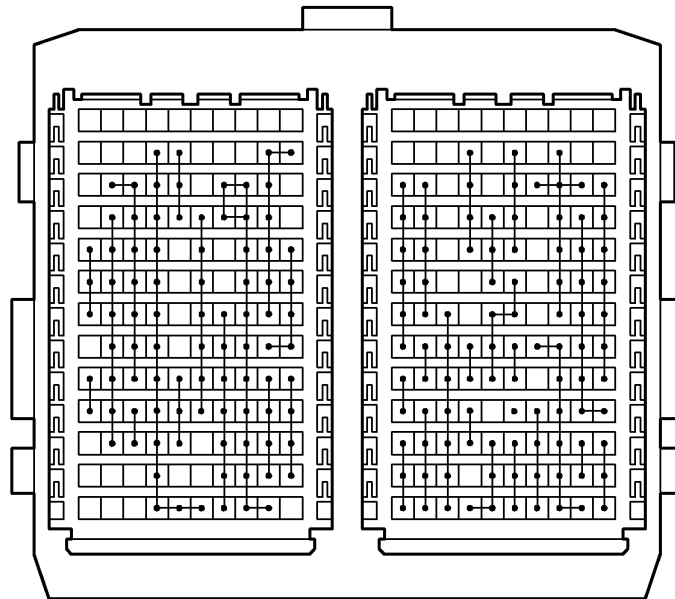
F RELAY LOCATIONS

 : Passenger Side J/B

Instrument Panel Brace RH (See Page 21)



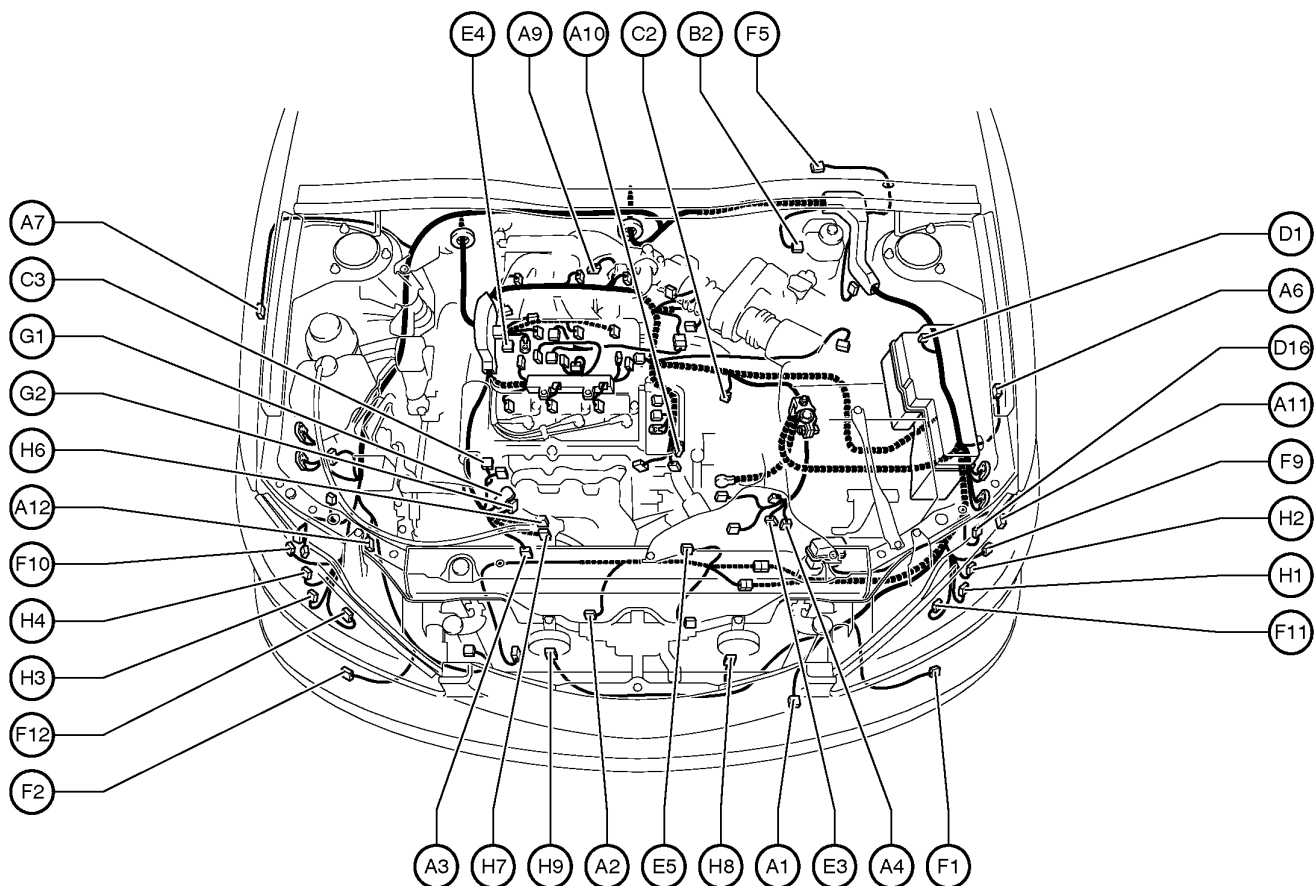
Short Terminal Grouping



G ELECTRICAL WIRING ROUTING

Position of Parts in Engine Compartment

[1MZ-FE, 3MZ-FE]



A 1 A/C Ambient Temp. Sensor

A 2 A/C Condenser Fan Motor

A 3 A/C Lock Sensor
A/C Magnetic Clutch

A 4 A/T Indicator Light SW
Back-Up Light SW
Park/Neutral Position SW

A 6 ABS Speed Sensor Front LH

A 7 ABS Speed Sensor Front RH

A 9 Air Fuel Ratio Sensor (Bank 1 Sensor 1)

A 10 Air Fuel Ratio Sensor (Bank 2 Sensor 1)

A 11 Airbag Sensor Front LH

A 12 Airbag Sensor Front RH

B 2 Brake Fluid Level Warning SW

C 2 Counter Gear Speed Sensor

C 3 Crankshaft Position Sensor

D 1 Diode (A/C No.1)

D16 Daytime Running Light Resistor

E 3 Electronically Controlled Transmission Solenoid

E 4 Engine Coolant Temp. Sensor

E 5 Engine Hood Courtesy SW

F 1 Front Fog Light LH

F 2 Front Fog Light RH

F 5 Front Wiper Motor

F 9 Front Parking Light LH

F10 Front Parking Light RH

F 11 Front Turn Signal Light LH

F12 Front Turn Signal Light RH

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 6 Heated Oxygen Sensor (Bank 1 Sensor 2)

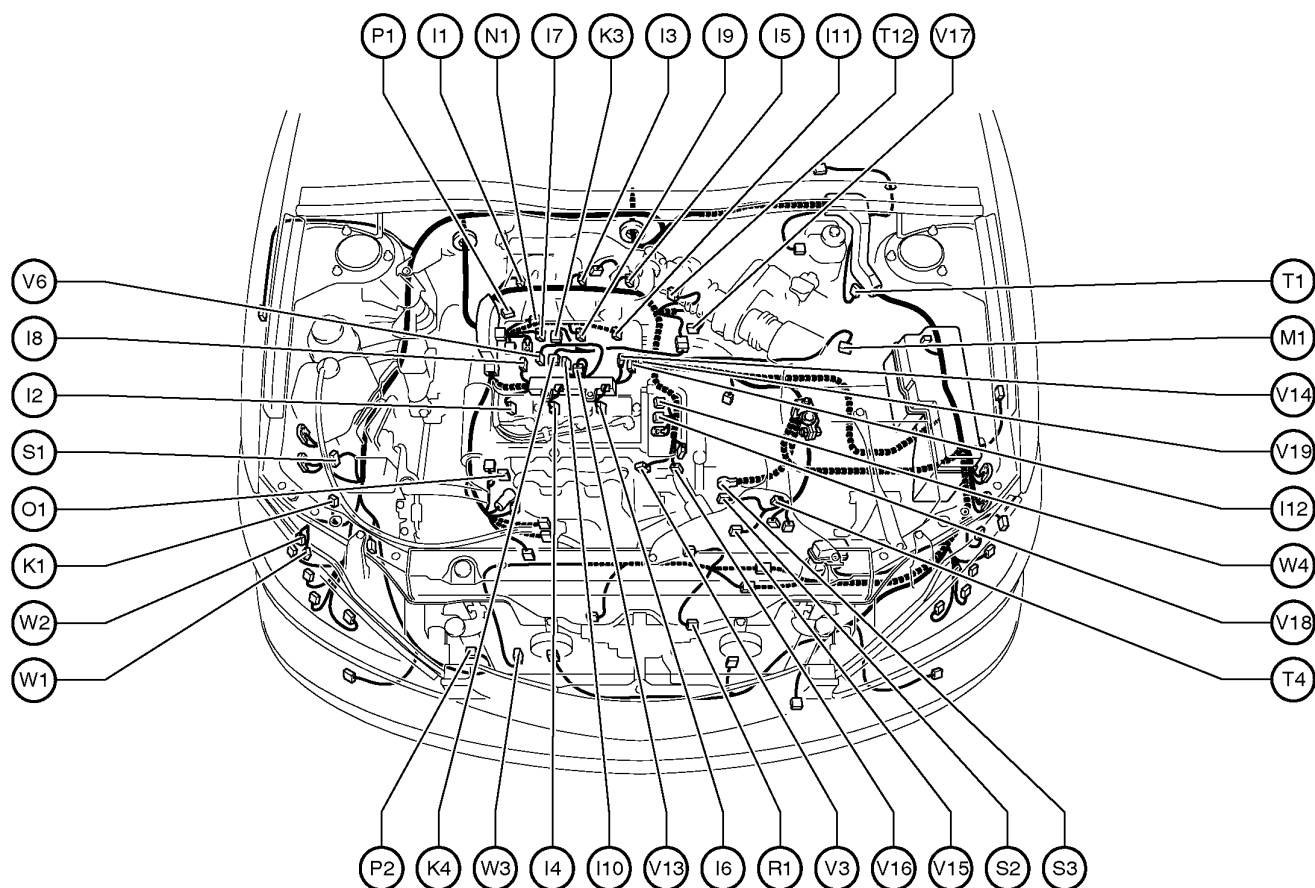
H 7 Heated Oxygen Sensor (Bank 2 Sensor 2)

H 8 Horn (High)

H 9 Horn (Low)

Position of Parts in Engine Compartment

[1MZ-FE, 3MZ-FE]



- I 1 Ignition Coil and Igniter No.1
- I 2 Ignition Coil and Igniter No.2
- I 3 Ignition Coil and Igniter No.3
- I 4 Ignition Coil and Igniter No.4
- I 5 Ignition Coil and Igniter No.5
- I 6 Ignition Coil and Igniter No.6
- I 7 Injector No.1
- I 8 Injector No.2
- I 9 Injector No.3
- I 10 Injector No.4
- I 11 Injector No.5
- I 12 Injector No.6

- K 1 Keyless Buzzer
- K 3 Knock Sensor (Bank 1)
- K 4 Knock Sensor (Bank 2)

M 1 Mass Air Flow Meter

N 1 Noise Filter (Ignition)

O 1 Oil Pressure SW

P 1 Power Steering Oil Pressure SW

P 2 Pressure SW

R 1 Radiator Fan Motor

S 1 Skid Control ECU with Actuator

S 2 Starter

S 3 Starter

T 1 Theft Deterrent Horn

T 4 Turbine Speed Sensor

T 12 Throttle Control Motor
Throttle Position Sensor

V 3 VSV (AICV)

V 6 VSV (EVAP)

V13 VSV (ACIS No.1)

V14 VSV (ACIS No.2)

V15 VSV (ACM)

V16 VVT Sensor LH

V17 VVT Sensor RH

V18 VVT Solenoid LH

V19 VVT Solenoid RH

W 1 Washer Level Sensor

W 2 Washer Motor

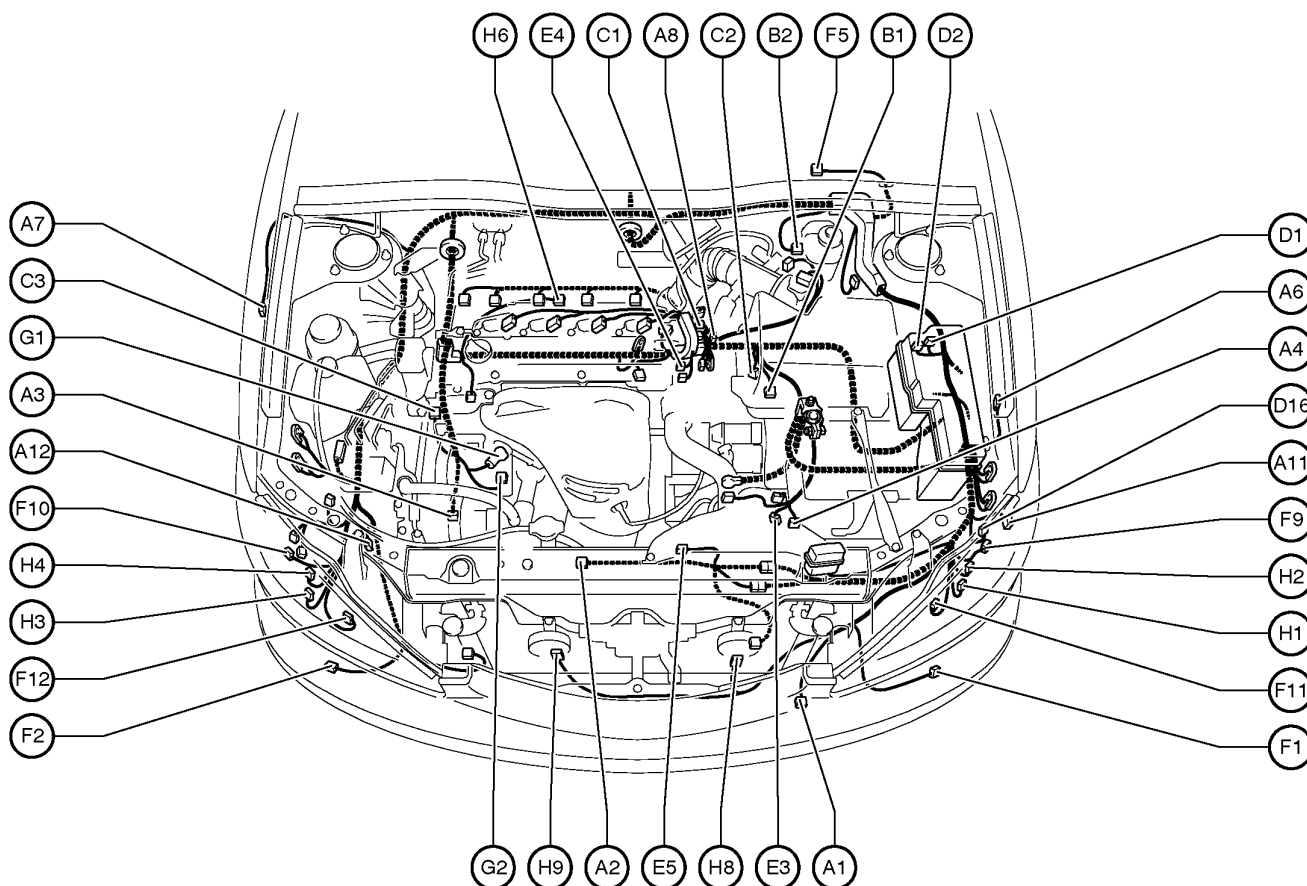
W 3 Water Temp. SW No.1

W 4 Water Temp. SW No.2

G ELECTRICAL WIRING ROUTING

Position of Parts in Engine Compartment

[2AZ-FE]



- A 1 A/C Ambient Temp. Sensor
- A 2 A/C Condenser Fan Motor
- A 3 A/C Lock Sensor
A/C Magnetic Clutch
- A 4 A/T Indicator Light SW
Back-Up Light SW
Park/Neutral Position SW
- A 6 ABS Speed Sensor Front LH
- A 7 ABS Speed Sensor Front RH
- A 8 Air Fuel Ratio Sensor (Bank 1 Sensor 1)
- A 11 Airbag Sensor Front LH
- A 12 Airbag Sensor Front RH

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

- C 1 Camshaft Position Sensor
- C 2 Counter Gear Speed Sensor
- C 3 Crankshaft Position Sensor

- D 1 Diode (A/C No.1)
- D 2 Diode (A/C No.2)
- D16 Daytime Running Light Resistor

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

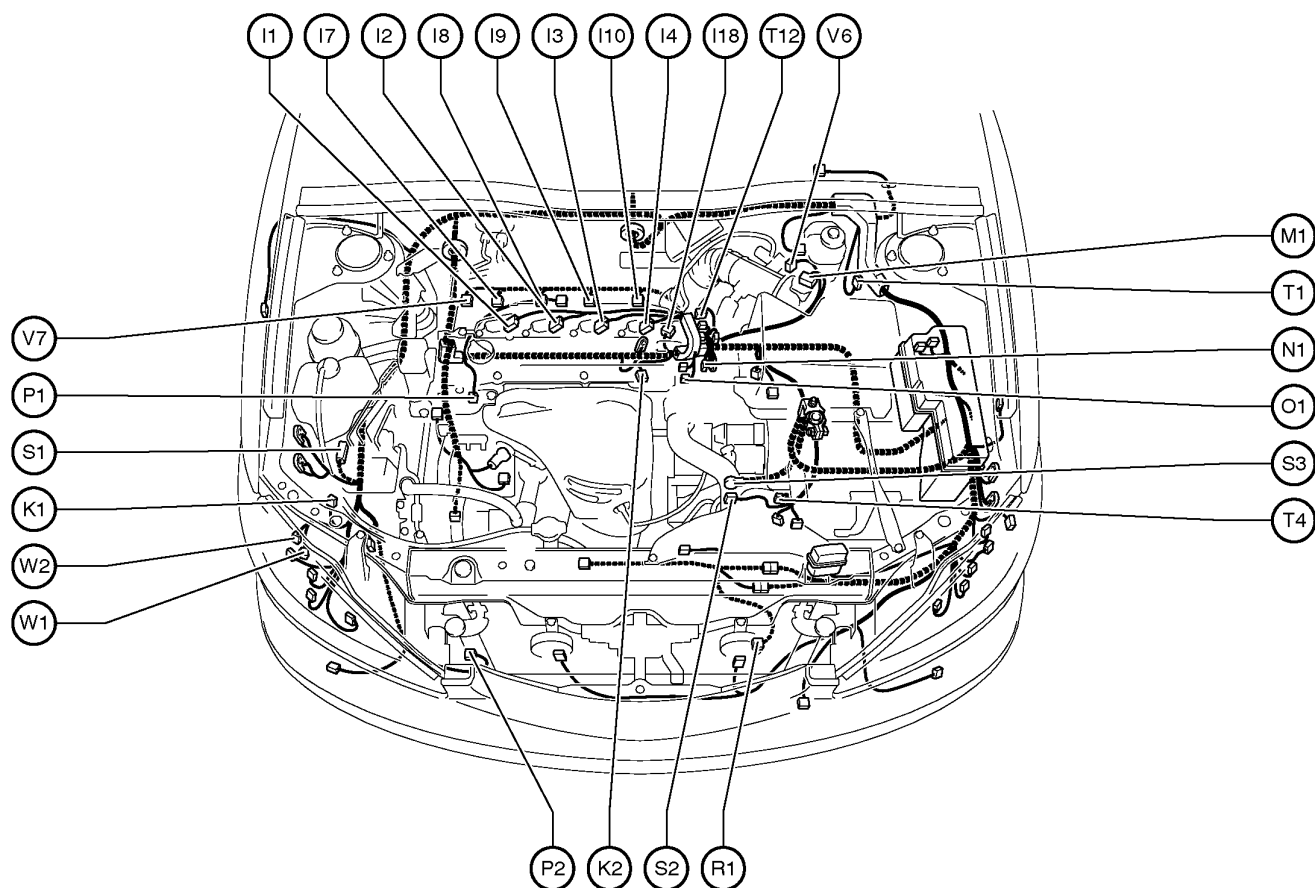
- F 1 Front Fog Light LH
- F 2 Front Fog Light RH
- F 5 Front Wiper Motor
- F 9 Front Parking Light LH
- F10 Front Parking Light RH
- F 11 Front Turn Signal Light LH
- F12 Front Turn Signal Light RH

- 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 6 Heated Oxygen Sensor (Bank 1 Sensor 2)
- H 8 Horn (High)
- H 9 Horn (Low)

Position of Parts in Engine Compartment

[2AZ-FE]



I 1 Ignition Coil and Igniter No.1
 I 2 Ignition Coil and Igniter No.2
 I 3 Ignition Coil and Igniter No.3
 I 4 Ignition Coil and Igniter No.4
 I 7 Injector No.1
 I 8 Injector No.2
 I 9 Injector No.3
 I 10 Injector No.4
 I 18 Intake Air Control Valve

K 1 Keyless Buzzer
 K 2 Knock Sensor (Bank 1)

M 1 Mass Air Flow Meter

N 1 Noise Filter (Ignition)

O 1 Oil Pressure SW

P 1 Power Steering Oil Pressure SW
 P 2 Pressure SW

R 1 Radiator Fan Motor

S 1 Skid Control ECU with Actuator
 S 2 Starter
 S 3 Starter

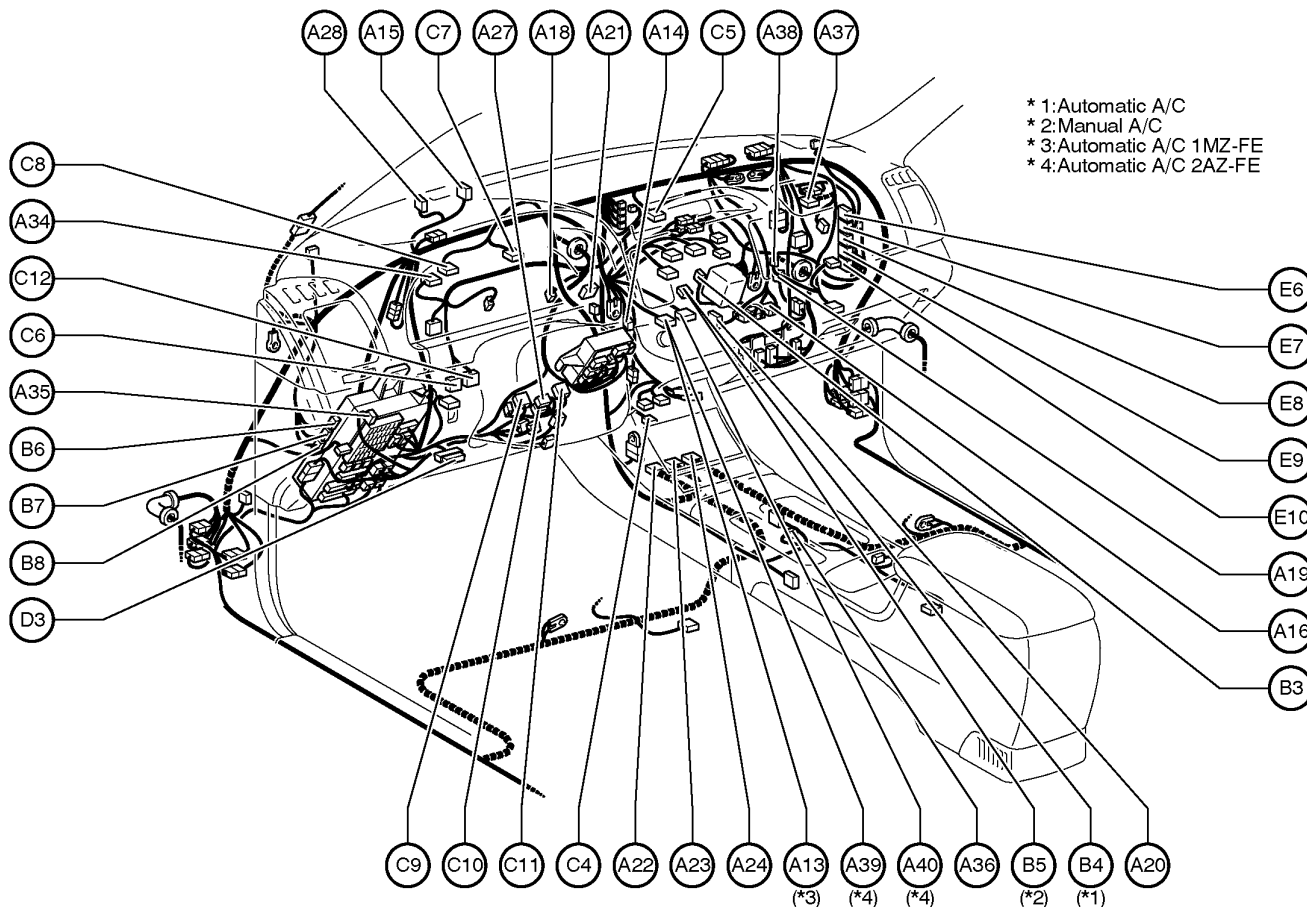
T 1 Theft Deterrent Horn
 T 4 Turbine Speed Sensor
 T 12 Throttle Control Motor
 Throttle Position Sensor

V 6 VSV (EVAP)
 V 7 VVT Solenoid

W 1 Washer Level Sensor
 W 2 Washer Motor

G ELECTRICAL WIRING ROUTING

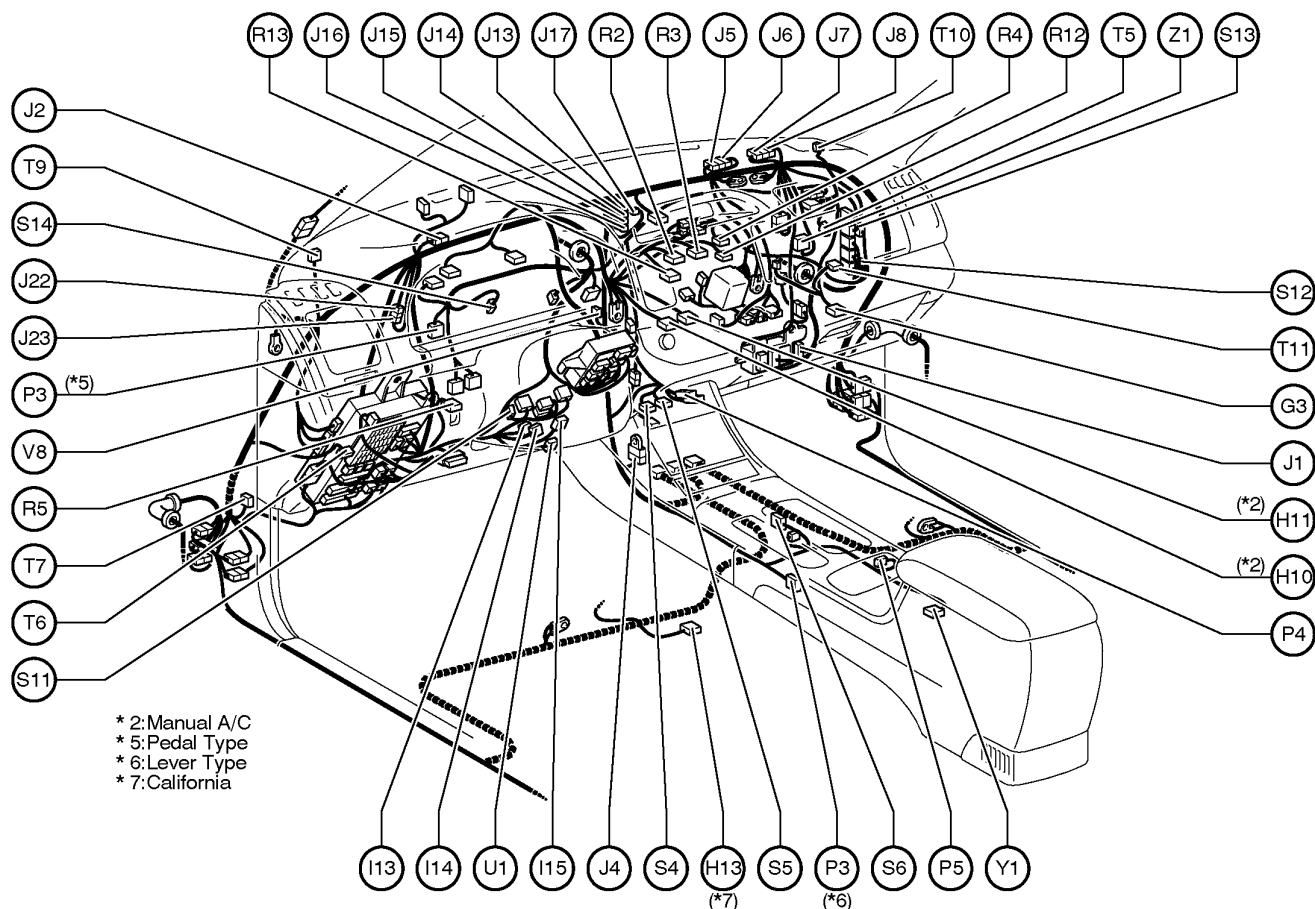
Position of Parts in Instrument Panel



A13 A/C Control Assembly
 A14 A/C Room Temp. Sensor
 A15 A/C Solar Sensor
 A16 A/C Thermistor
 A18 Accelerator Position Sensor
 A19 Air Inlet Control Servo Motor
 A20 Air Mix Control Servo Motor
 A21 Air Vent Mode Servo Motor
 A22 Airbag Sensor Assembly
 A23 Airbag Sensor Assembly
 A24 Airbag Sensor Assembly
 A27 Airbag Squib (Steering Wheel Pad)
 A28 Automatic Light Control Sensor
 A34 Adjustable Pedal Motor
 A35 Adjustable Pedal SW
 A36 A/T Shift Lever Illumination
 Transmission Control SW
 A37 Airbag Squib (Front Airbag Sensor Assembly)
 A38 A/C Amplifier
 A39 A/C Control Assembly
 A40 A/C Control Assembly

B 3 Blower Motor
 B 4 Blower Motor Controller
 B 5 Blower Resistor
 B 6 Body ECU
 B 7 Body ECU
 B 8 Body ECU
 C 4 Cigarette Lighter
 Cigarette Lighter Illumination
 C 5 Clock
 C 6 Clutch Start SW
 C 7 Combination Meter
 C 8 Combination Meter
 C 9 Combination SW
 C10 Combination SW
 C11 Combination SW
 C12 Cruise Control Clutch SW
 D 3 Data Link Connector 3
 E 6 Engine Control Module
 E 7 Engine Control Module
 E 8 Engine Control Module
 E 9 Engine Control Module
 E10 Engine Control Module

Position of Parts in Instrument Panel



G 3 Glove Box Light and SW

H10 Heater Control SW
 H11 Heater Control SW
 H13 Heated Oxygen Sensor (Bank 1 Sensor 3)

I 13 Ignition Key Cylinder Light
 I 14 Ignition Key Cylinder Light
 Transponder Key Amplifier
 I 15 Ignition SW

J 1 Junction Connector
 J 2 Junction Connector
 J 4 Junction Connector
 J 5 Junction Connector
 J 6 Junction Connector
 J 7 Junction Connector
 J 8 Junction Connector
 J 13 Junction Connector
 J 14 Junction Connector
 J 15 Junction Connector
 J 16 Junction Connector
 J 17 Junction Connector
 J 22 Junction Connector
 J 23 Junction Connector

P 3 Parking Brake SW
 P 4 Power Outlet (Front)
 P 5 Power Outlet (Rear)

R 2 Radio and Player
 R 3 Radio and Player
 R 4 Radio and Player with Display (w/ Navigation System)
 Radio and Player (w/o Navigation System)
 R 5 Rheostat
 R12 Radio and Player with Display
 R13 Radio and Player with Display (w/ Navigation System)
 Radio and Player (w/o Navigation System)

S 4 Seat Heater SW (Driver's Seat)
 S 5 Seat Heater SW (Front Passenger's Seat)
 S 6 Shift Lock Control ECU
 S11 Steering Sensor
 S12 Stereo Component Amplifier
 S13 Stereo Component Amplifier
 S14 Stop Light SW

T 5 Theft Deterrent ECU
 T 6 TRAC OFF SW
 T 7 Turn Signal Flasher Relay
 T 9 Tweeter LH
 T10 Tweeter RH
 T11 Transponder Key Computer

U 1 Unlock Warning SW

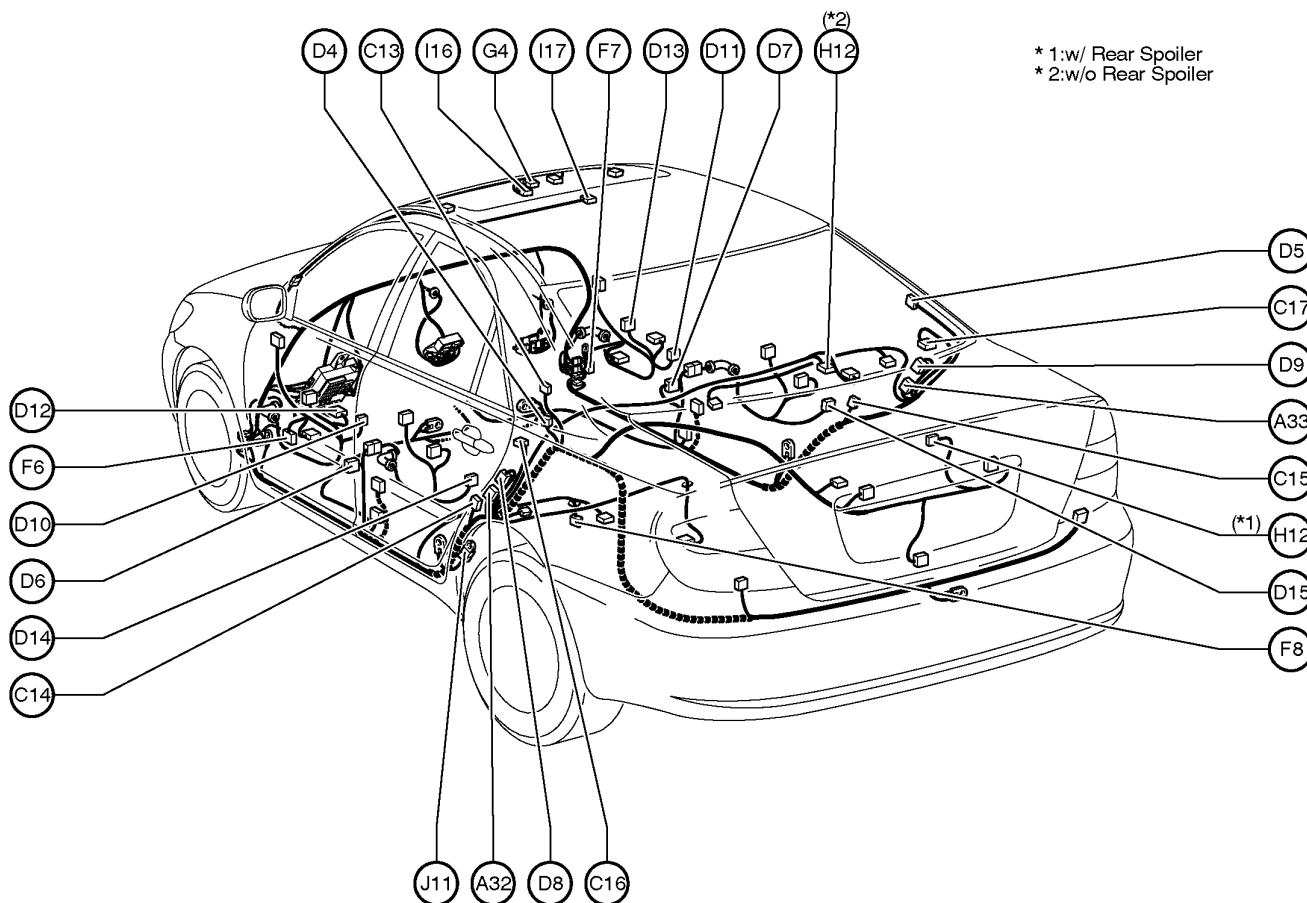
V 8 VSC Warning Buzzer

Y 1 Yaw Rate Sensor

Z 1 Option Connector (TVIP ECU)

G ELECTRICAL WIRING ROUTING

Position of Parts in Body



A32 ABS Speed Sensor Rear LH
A33 ABS Speed Sensor Rear RH

C13 Choke Coil
C14 Curtain Shield Airbag Sensor LH
C15 Curtain Shield Airbag Sensor RH
C16 Curtain Shield Airbag Squib LH
C17 Curtain Shield Airbag Squib RH

D 4 Diode
D 5 Door Control Receiver
D 6 Door Courtesy SW Front LH
D 7 Door Courtesy SW Front RH
D 8 Door Courtesy SW Rear LH
D 9 Door Courtesy SW Rear RH
D10 Door Key Lock and Unlock SW Front LH
Door Lock Motor Front LH
Door Unlock Detection SW Front LH
D11 Door Key Lock and Unlock SW Front RH
Door Lock Motor Front RH
Door Unlock Detection SW Front RH
D12 Door Lock Control SW Front LH
Power Window Master SW

D13 Door Lock Control SW RH
D14 Door Lock Motor Rear LH
Door Unlock Detection SW Rear LH
D15 Door Lock Motor Rear RH
Door Unlock Detection SW Rear RH

F 6 Front Door Speaker LH
F 7 Front Door Speaker RH
F 8 Fuel Pump
Fuel Sender

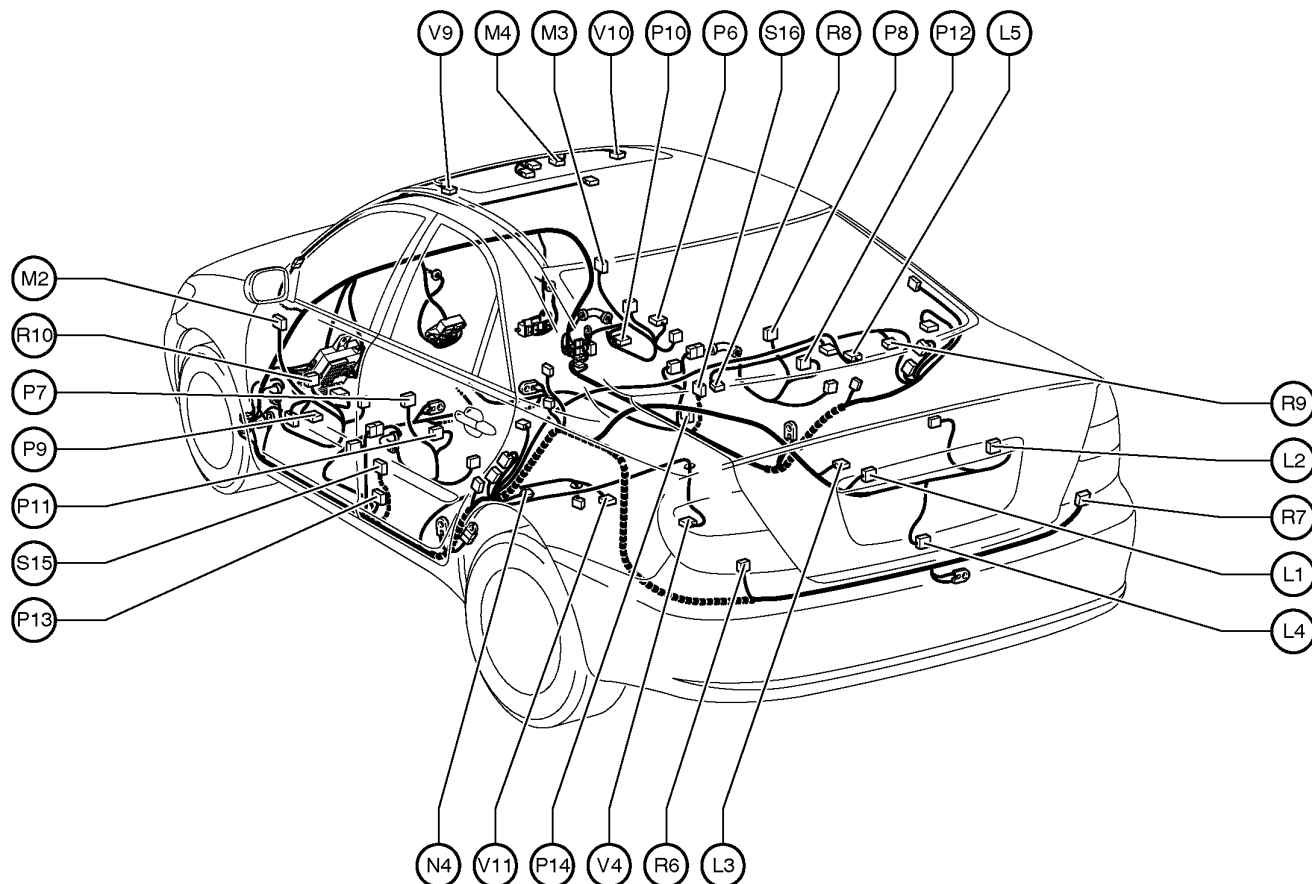
G 4 Garage Door Opener
Moon Roof Control SW
Personal Light

H12 High Mounted Stop Light

I 16 Inner Mirror
I 17 Interior Light

J 11 Junction Connector

Position of Parts in Body



- L 1 License Plate Light LH
- L 2 License Plate Light RH
- L 3 Luggage Compartment Door Key Unlock SW
- L 4 Luggage Compartment Door Opener Motor
- Luggage Compartment Light SW
- L 5 Luggage Compartment Light

- M 2 Mirror Heater LH
- Remote Control Mirror LH

- M 3 Mirror Heater RH
- Remote Control Mirror RH

- M 4 Moon Roof Control ECU and Motor

- N 4 Noise Filter

- P 6 Power Window Control SW Front RH
- P 7 Power Window Control SW Rear LH
- P 8 Power Window Control SW Rear RH
- P 9 Power Window Motor Front LH
- P10 Power Window Motor Front RH
- P11 Power Window Motor Rear LH
- P12 Power Window Motor Rear RH
- P13 Pretensioner LH
- P14 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 Remote Control Mirror SW

- S15 Side Airbag Sensor LH

- S16 Side Airbag Sensor RH

- V 4 VSV (Canister Closed Valve)

- V 9 Vanity Light LH

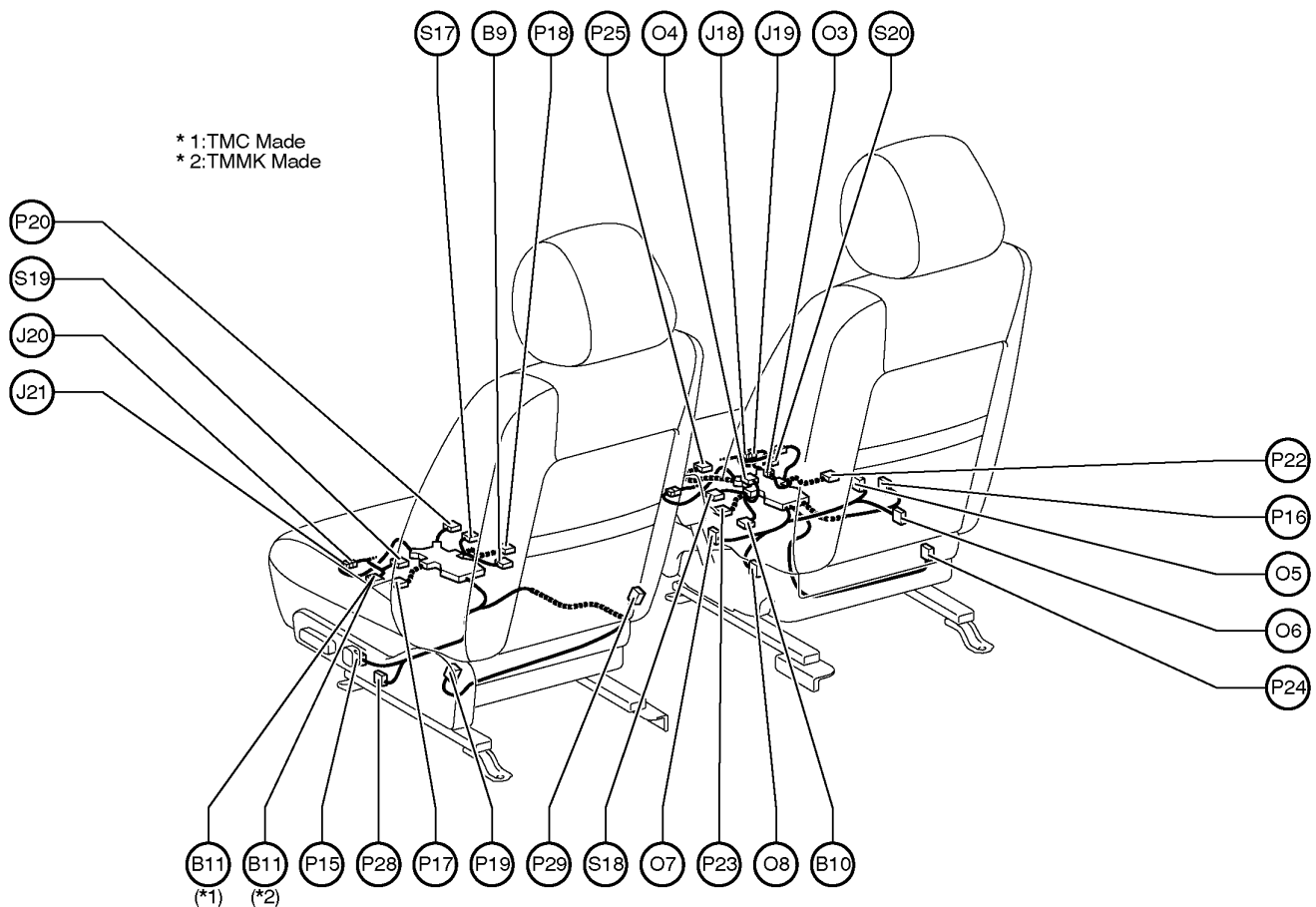
- V10 Vanity Light RH

- V11 Vapor Pressure Sensor

G ELECTRICAL WIRING ROUTING

Position of Parts in Seat

[w/ Power Seat]



B 9 Buckle SW LH
B10 Buckle SW (Front Passenger's Side)
B11 Buckle SW LH
Seat Position Airbag Sensor

J18 Junction Connector
J19 Junction Connector
J20 Junction Connector
J21 Junction Connector

O 3 Occupant Classification ECU
O 4 Occupant Classification ECU
O 5 Occupant Classification Sensor Front RH
O 6 Occupant Classification Sensor Rear RH
O 7 Occupant Classification Sensor Front LH
O 8 Occupant Classification Sensor Rear LH

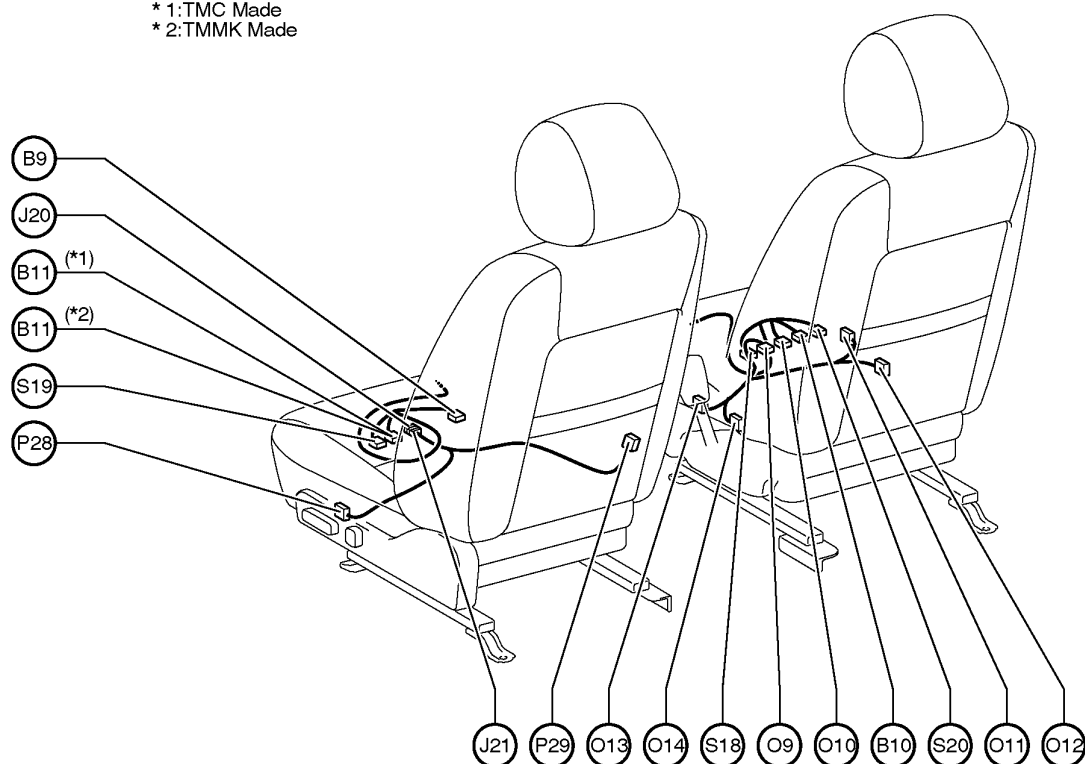
P15 Power Seat Control SW (Driver's Seat)
P16 Power Seat Control SW (Front Passenger's Seat)
P17 Power Seat Motor (Driver's Seat Front Vertical Control)
P18 Power Seat Motor (Driver's Seat Lifter Control)
P19 Power Seat Motor (Driver's Seat Reclining Control)
P20 Power Seat Motor (Driver's Seat Slide Control)
P22 Power Seat Motor
(Front Passenger's Seat Front Vertical Control)
P23 Power Seat Motor
(Front Passenger's Seat Lifter Control)
P24 Power Seat Motor
(Front Passenger's Seat Reclining Control)
P25 Power Seat Motor
(Front Passenger's Seat Slide Control)
P28 Power Seat Control SW
(Driver's Seat Lumbar Support Control)
P29 Power Seat Motor
(Driver's Seat Lumbar Support Control)

S17 Seat Heater LH
S18 Seat Heater RH
S19 Side Airbag Squib LH
S20 Side Airbag Squib RH

Position of Parts in Seat

[w/o Power Seat]

* 1:TMC Made
* 2:TMMK Made



B 9 Buckle SW LH
B10 Buckle SW (Front Passenger's Side)
B 11 Buckle SW LH
Seat Position Airbag Sensor

J 20 Junction Connector
J 21 Junction Connector

O 9 Occupant Classification ECU
O10 Occupant Classification ECU
O11 Occupant Classification Sensor Front RH
O12 Occupant Classification Sensor Rear RH
O13 Occupant Classification Sensor Front LH
O14 Occupant Classification Sensor Rear LH

P28 Power Seat Control SW
(Driver's Seat Lumbar Support Control)
P29 Power Seat Motor
(Driver's Seat Lumbar Support Control)

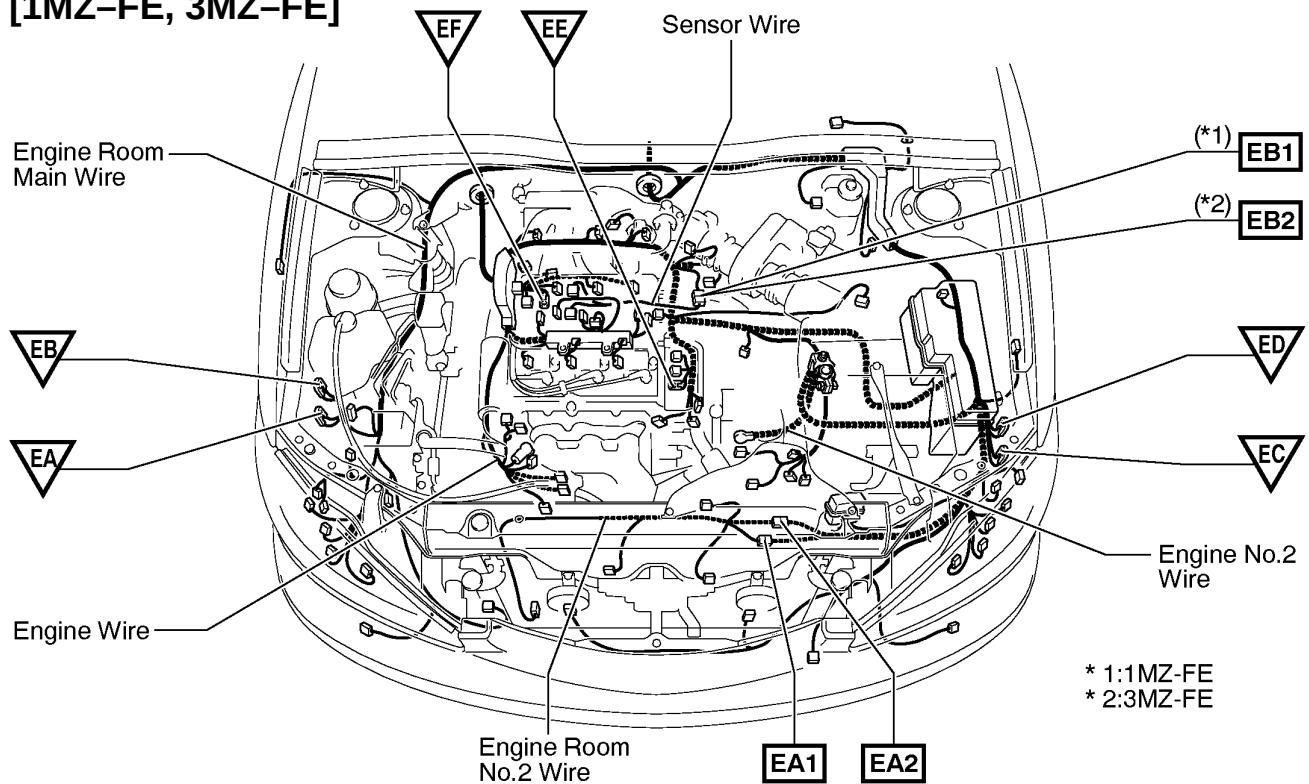
S18 Seat Heater RH
S19 Side Airbag Squib LH
S20 Side Airbag Squib RH

G ELECTRICAL WIRING ROUTING

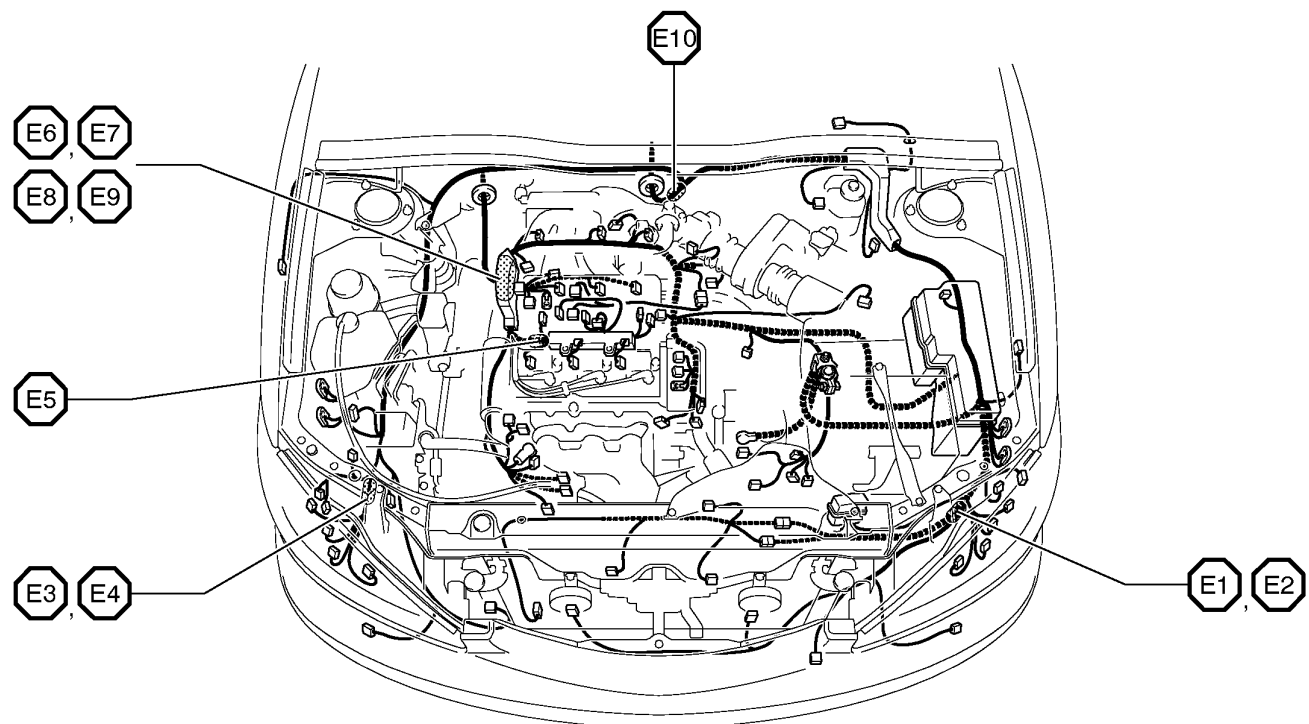
□ : Location of Connector Joining Wire Harness and Wire Harness

▽ : Location of Ground Points

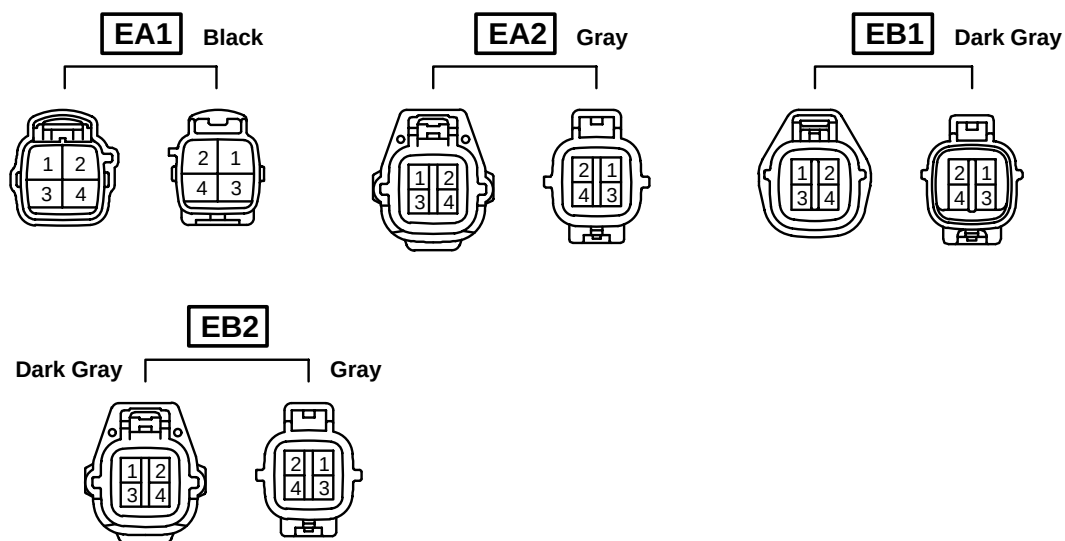
[1MZ-FE, 3MZ-FE]



○ : Location of Splice Points



Connector Joining Wire Harness and Wire Harness



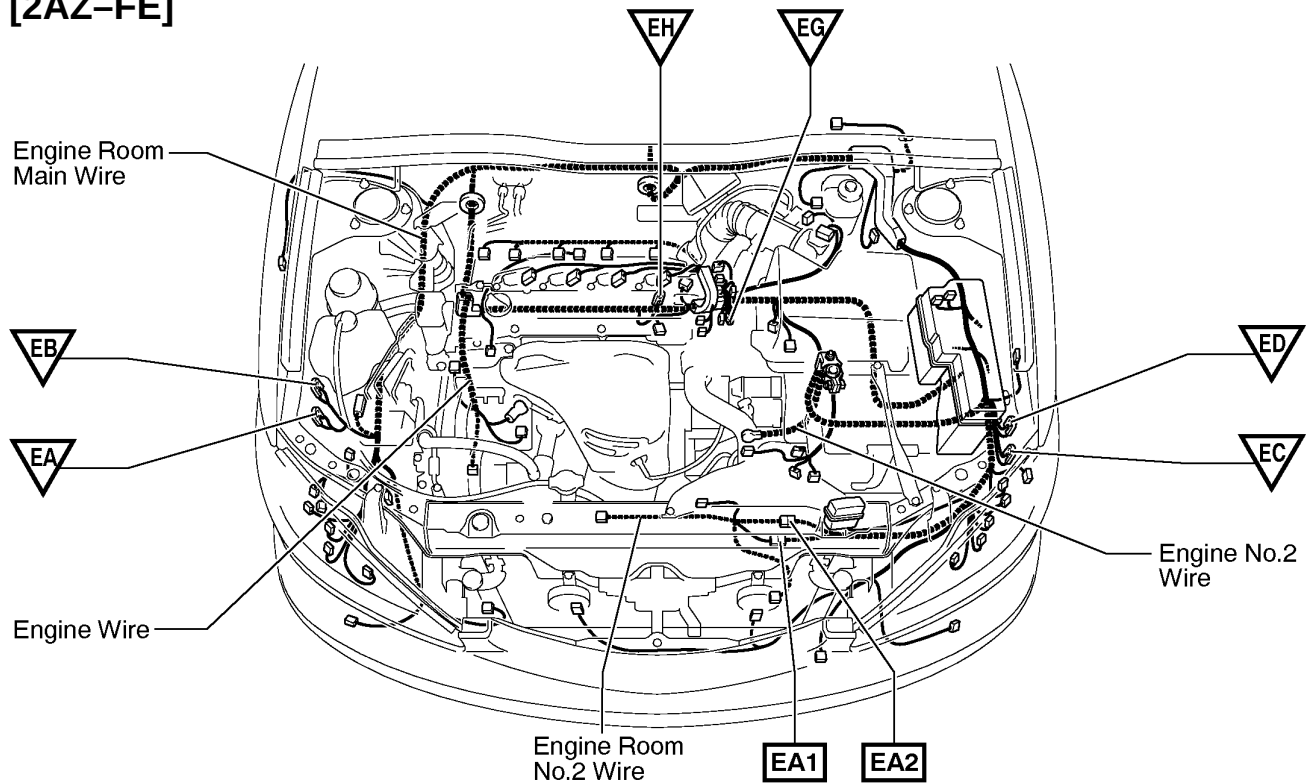
Code	Joining Wire Harness and Wire Harness (Connector Location)
EA1	Engine Room Main Wire and Engine Room No.2 Wire (Radiator Side Support LH)
EA2	
EB1	Engine Wire and Sensor Wire (Left Bank of Cylinder Head)
EB2	

G ELECTRICAL WIRING ROUTING

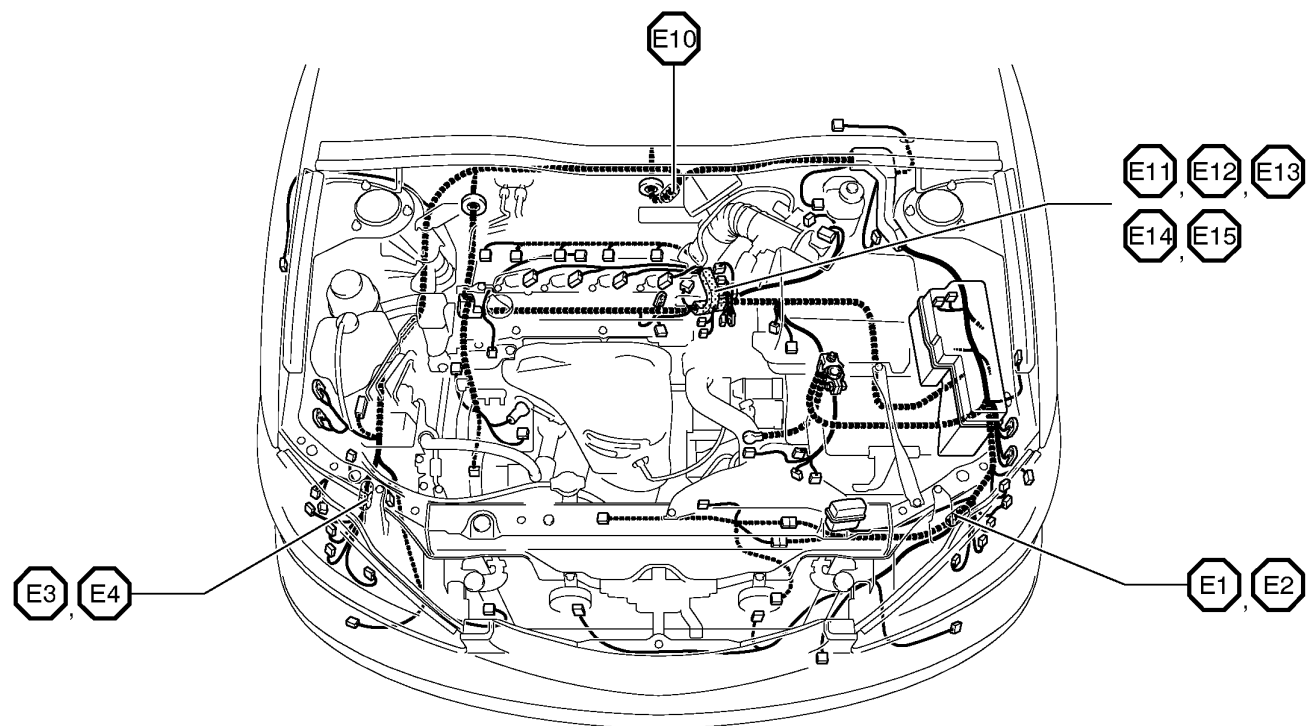
□ : Location of Connector Joining Wire Harness and Wire Harness

▽ : Location of Ground Points

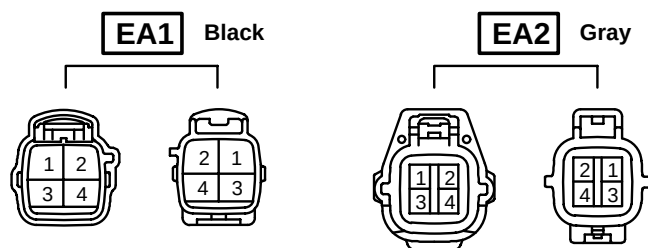
[2AZ-FE]



○ : Location of Splice Points



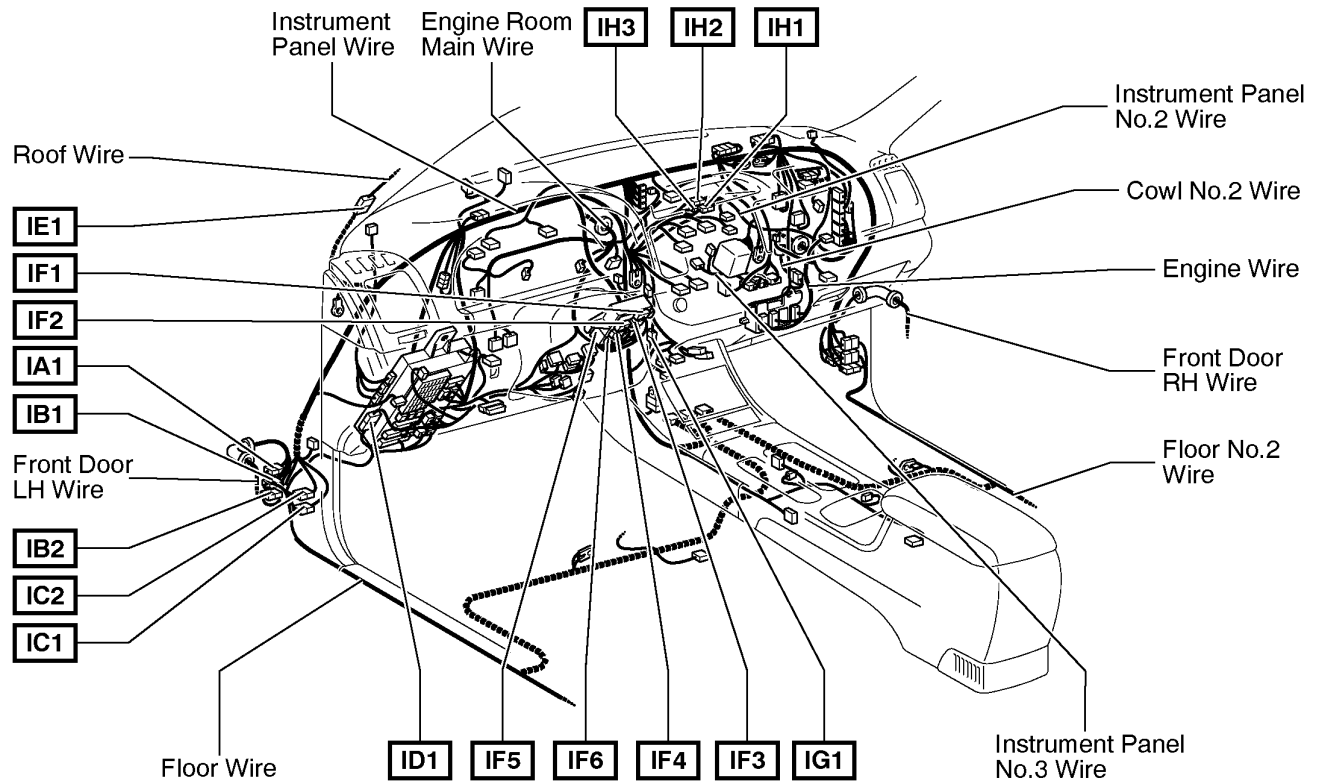
Connector Joining Wire Harness and Wire Harness



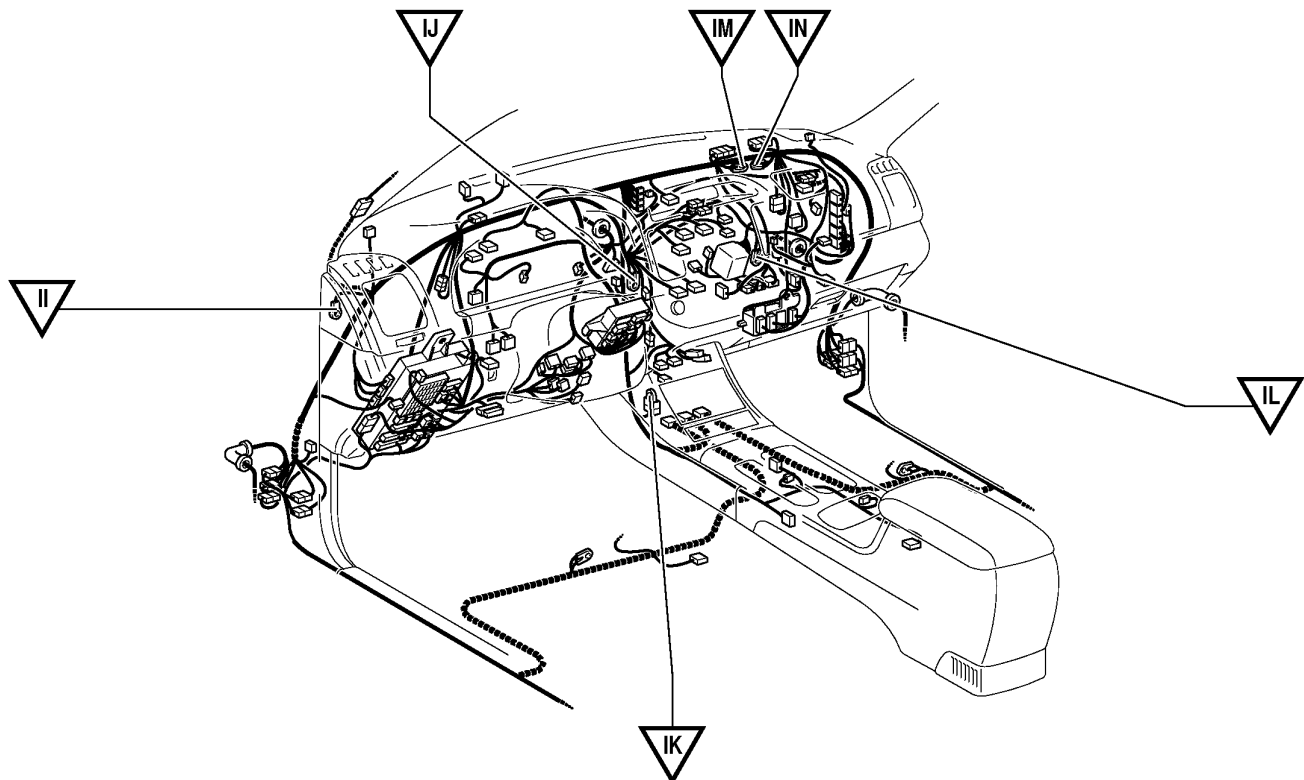
Code	Joining Wire Harness and Wire Harness (Connector Location)
EA1	Engine Room Main Wire and Engine Room No.2 Wire (Radiator Side Support LH)
EA2	

G ELECTRICAL WIRING ROUTING

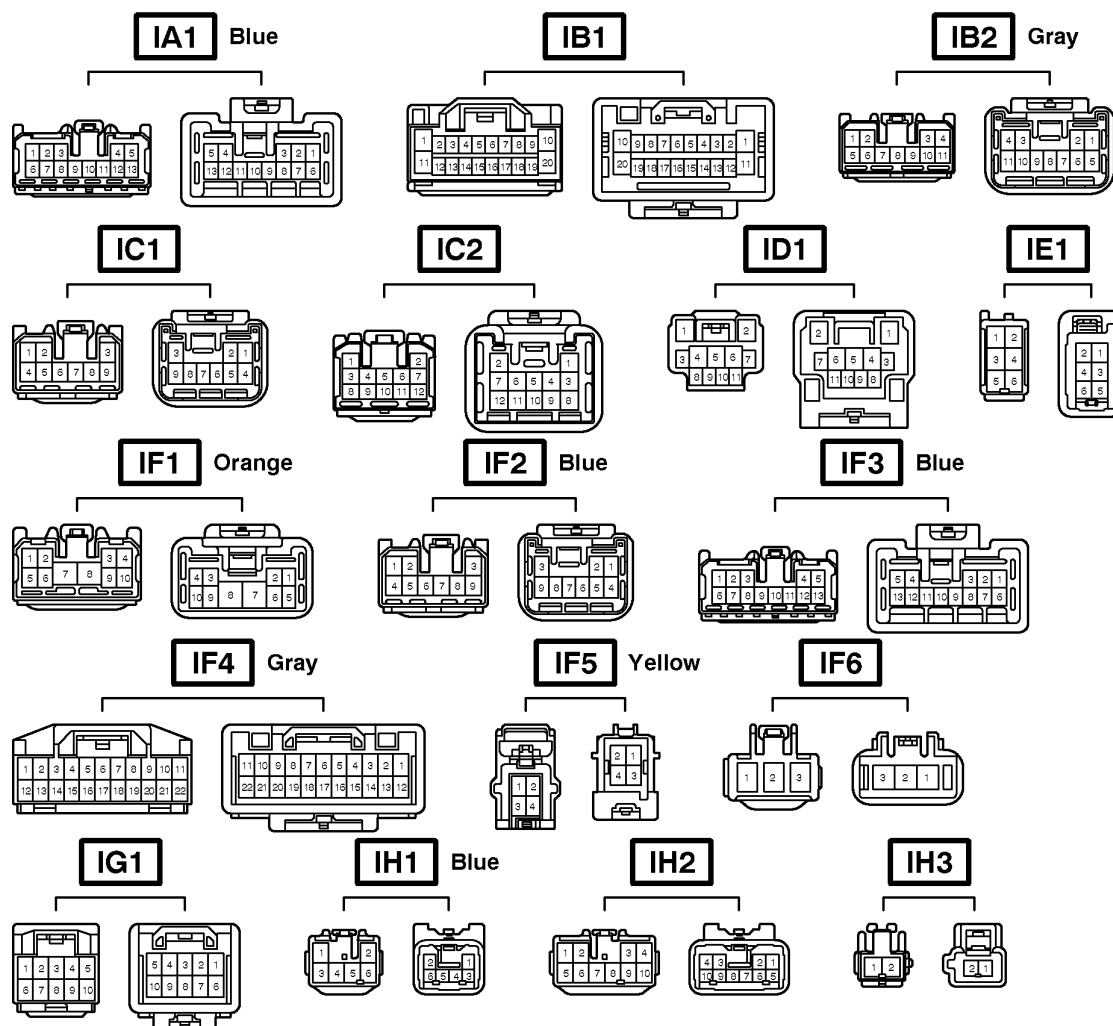
□ : Location of Connector Joining Wire Harness and Wire Harness



▽ : Location of Ground Points



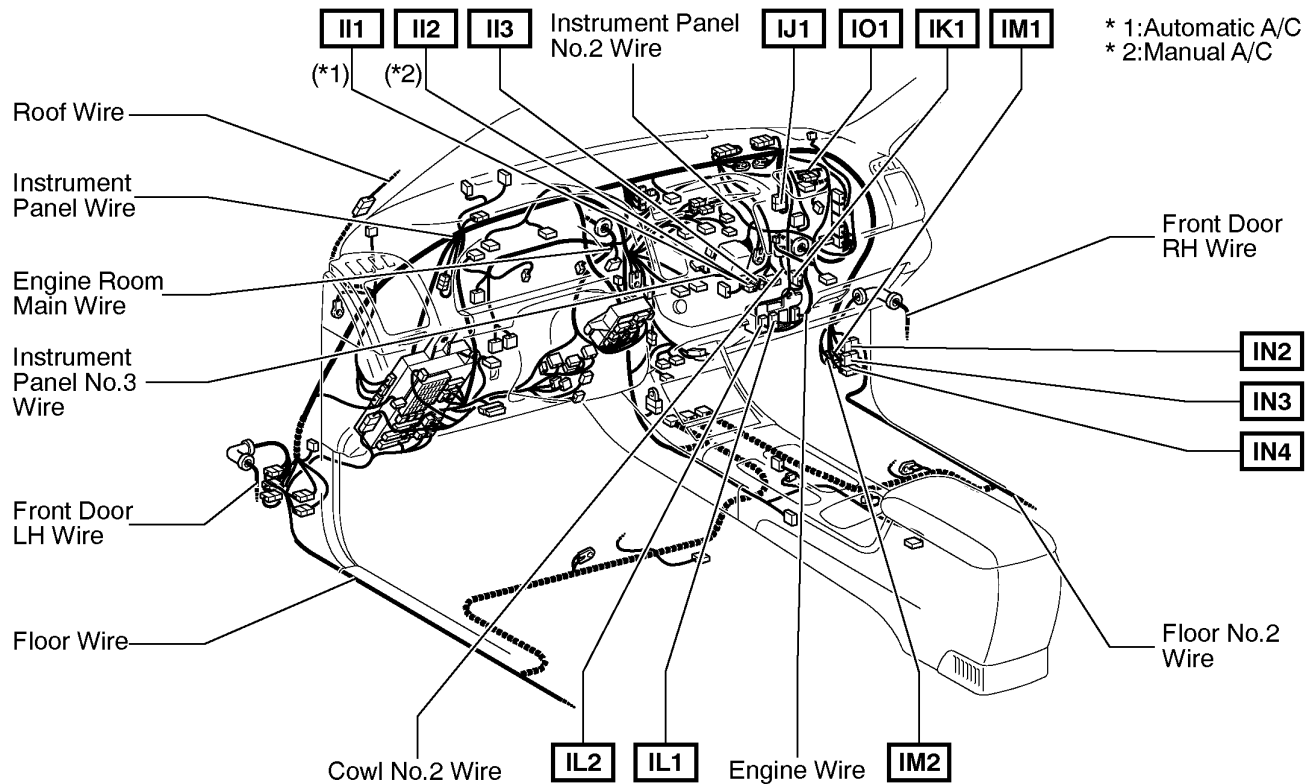
Connector Joining Wire Harness and Wire Harness



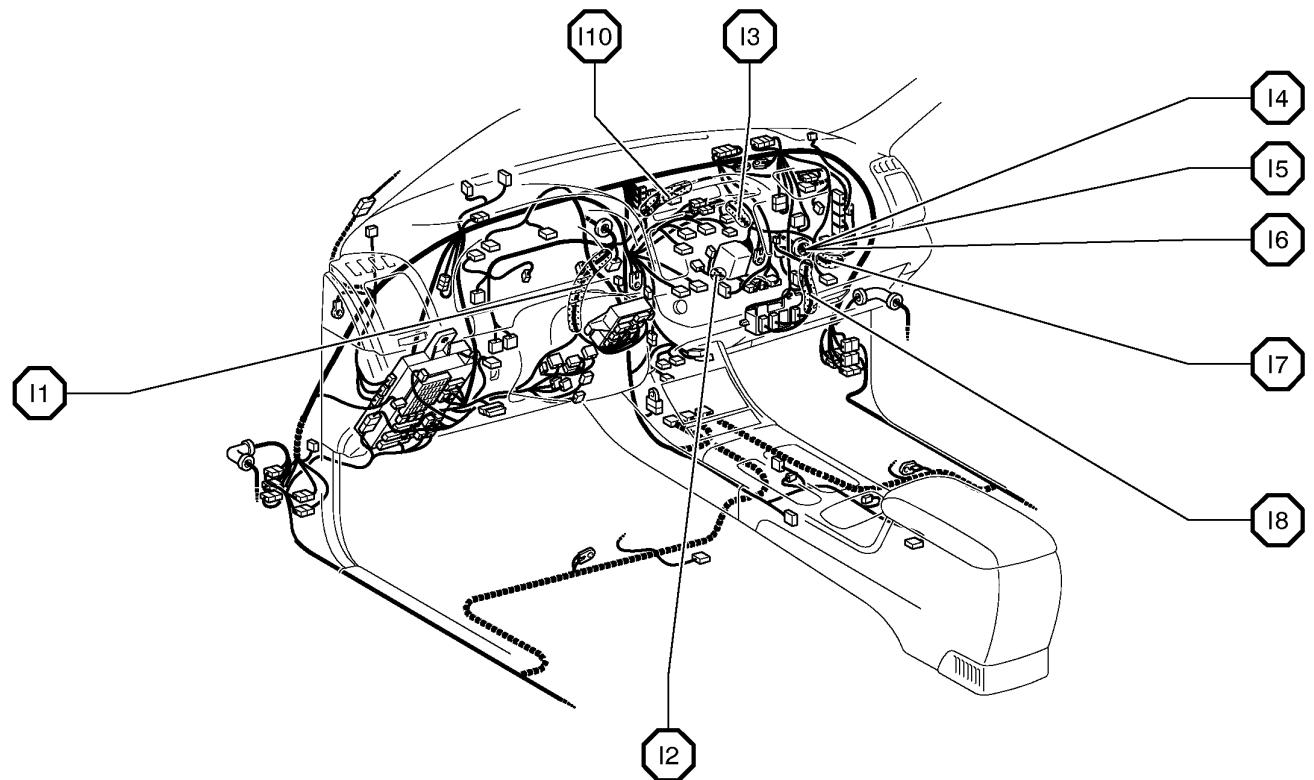
Code	Joining Wire Harness and Wire Harness (Connector Location)
IA1	Front Door LH Wire and Floor Wire (Left Kick Panel)
IB1	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IB2	
IC1	Instrument Panel Wire and Floor Wire (Left Kick Panel)
IC2	
ID1	Engine Room Main Wire and Floor Wire (Left Side of Driver Side J/B)
IE1	Instrument Panel Wire and Roof Wire (Inside of Front Left Pillar)
IF1	Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube)
IF2	
IF3	
IF4	
IF5	
IF6	
IG1	Instrument Panel Wire and Engine Room Main Wire (Instrument Panel Brace LH)
IH1	Instrument Panel Wire and Instrument Panel No.2 Wire (Instrument Panel Brace RH)
IH2	
IH3	

G ELECTRICAL WIRING ROUTING

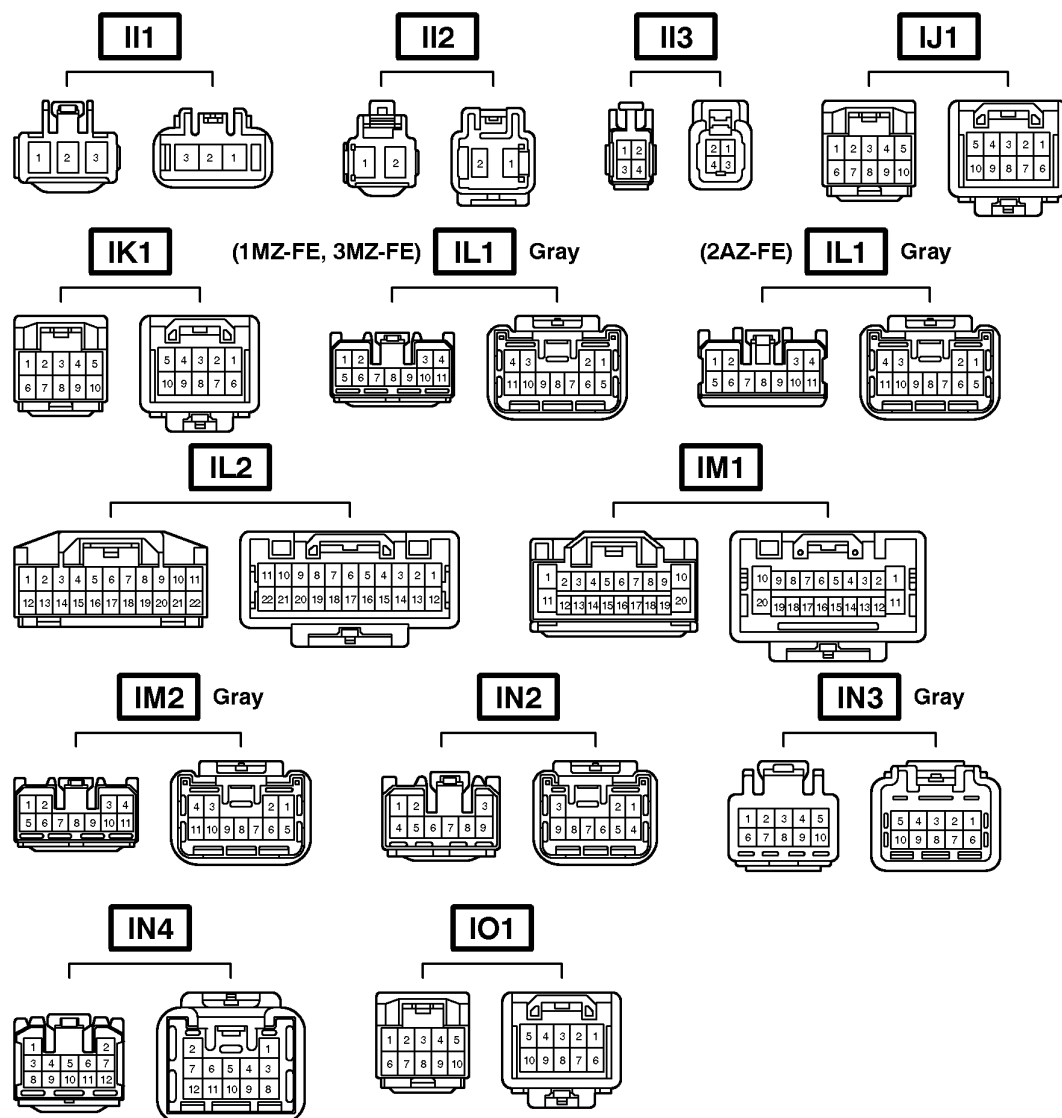
□ : Location of Connector Joining Wire Harness and Wire Harness



○ : Location of Splice Points



Connector Joining Wire Harness and Wire Harness

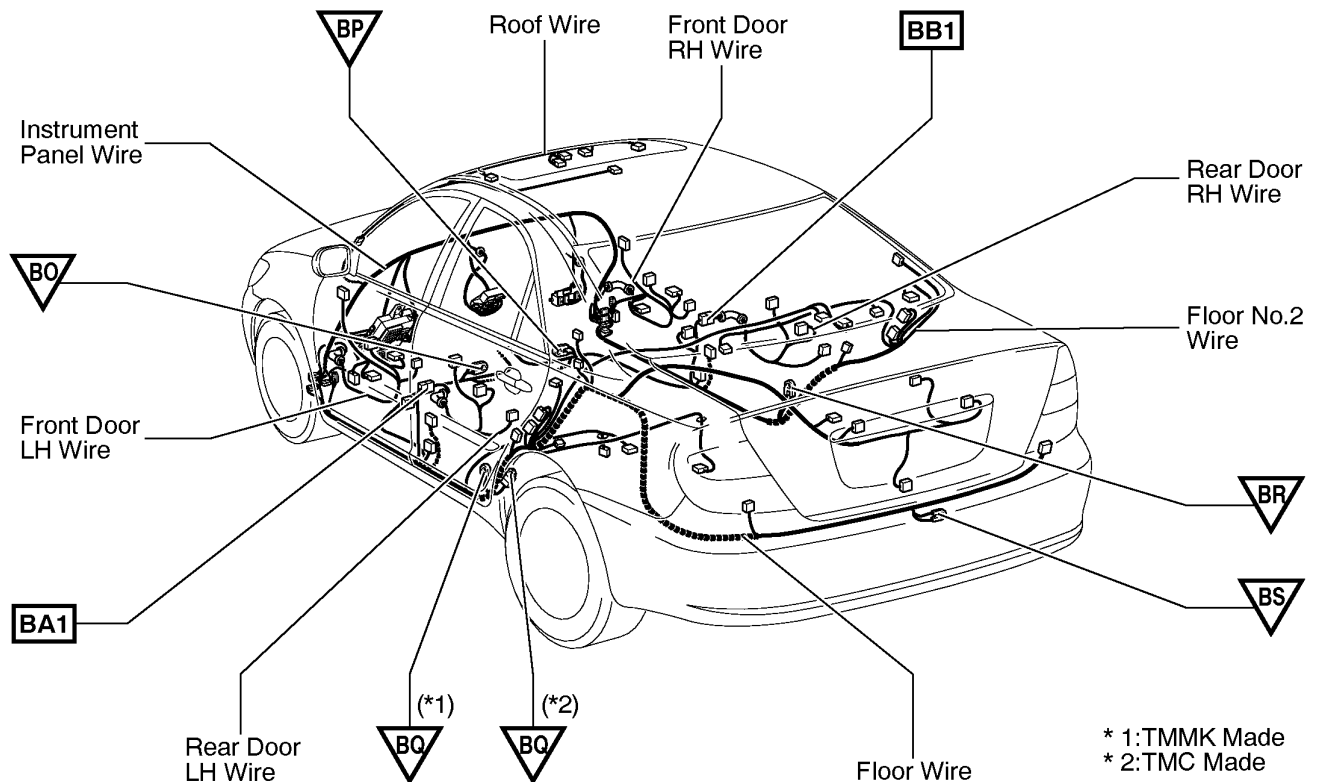


Code	Joining Wire Harness and Wire Harness (Connector Location)
II1	Instrument Panel Wire and Instrument Panel No.3 Wire (Behind the Glove Box)
II2	
II3	
IJ1	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement RH)
IK1	Instrument Panel Wire and Cowl No.2 Wire (Behind the Glove Box)
IL1	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IL2	
IM1	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IM2	
IN2	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
IN3	
IN4	
IO1	Engine Room Main Wire and Engine Room Main Wire (Right Side of the Instrument Panel)

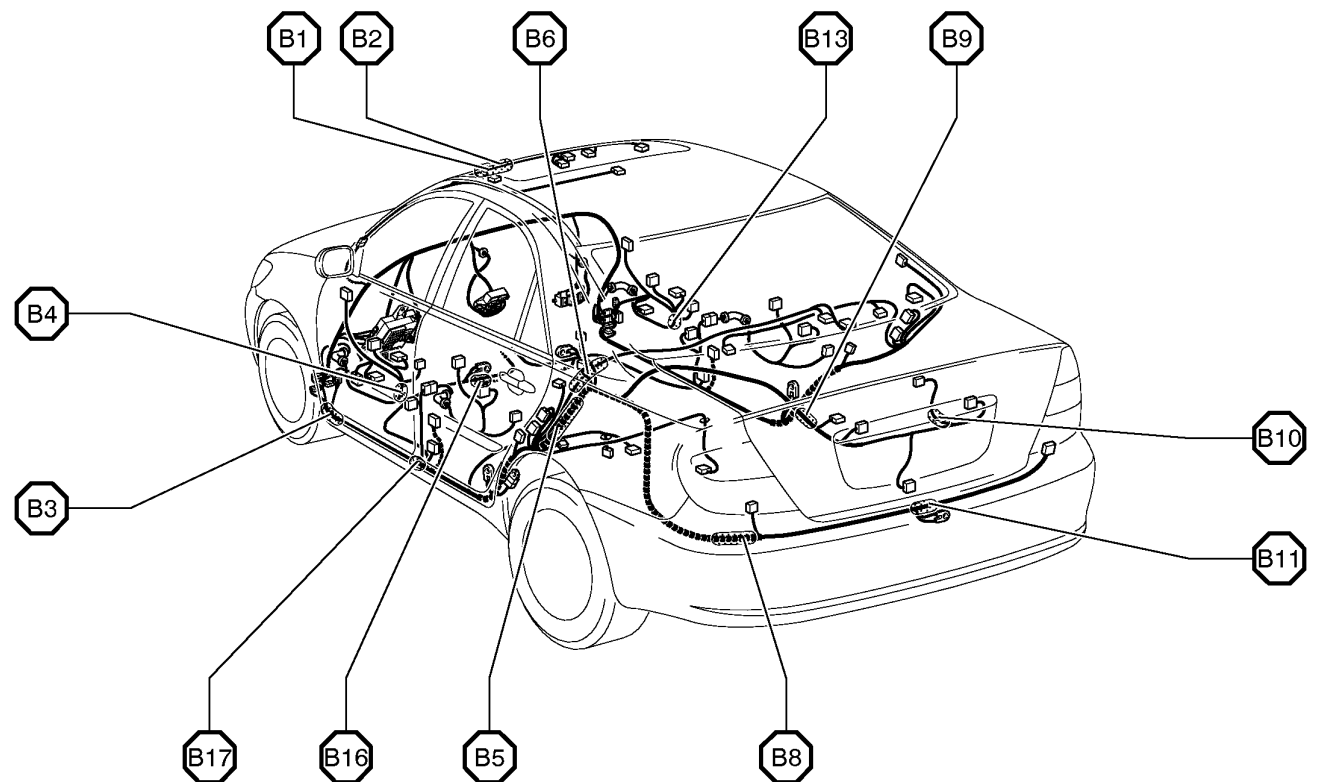
G ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness

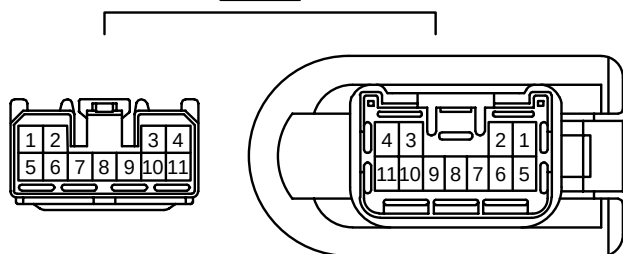
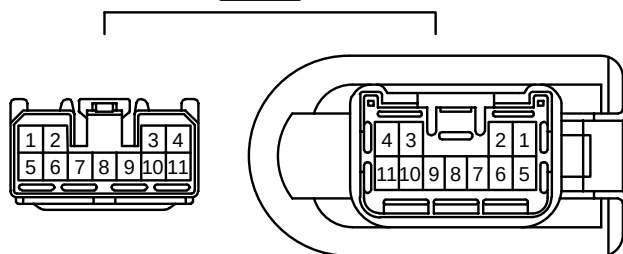
▽ : Location of Ground Points



○ : Location of Splice Points



Connector Joining Wire Harness and Wire Harness

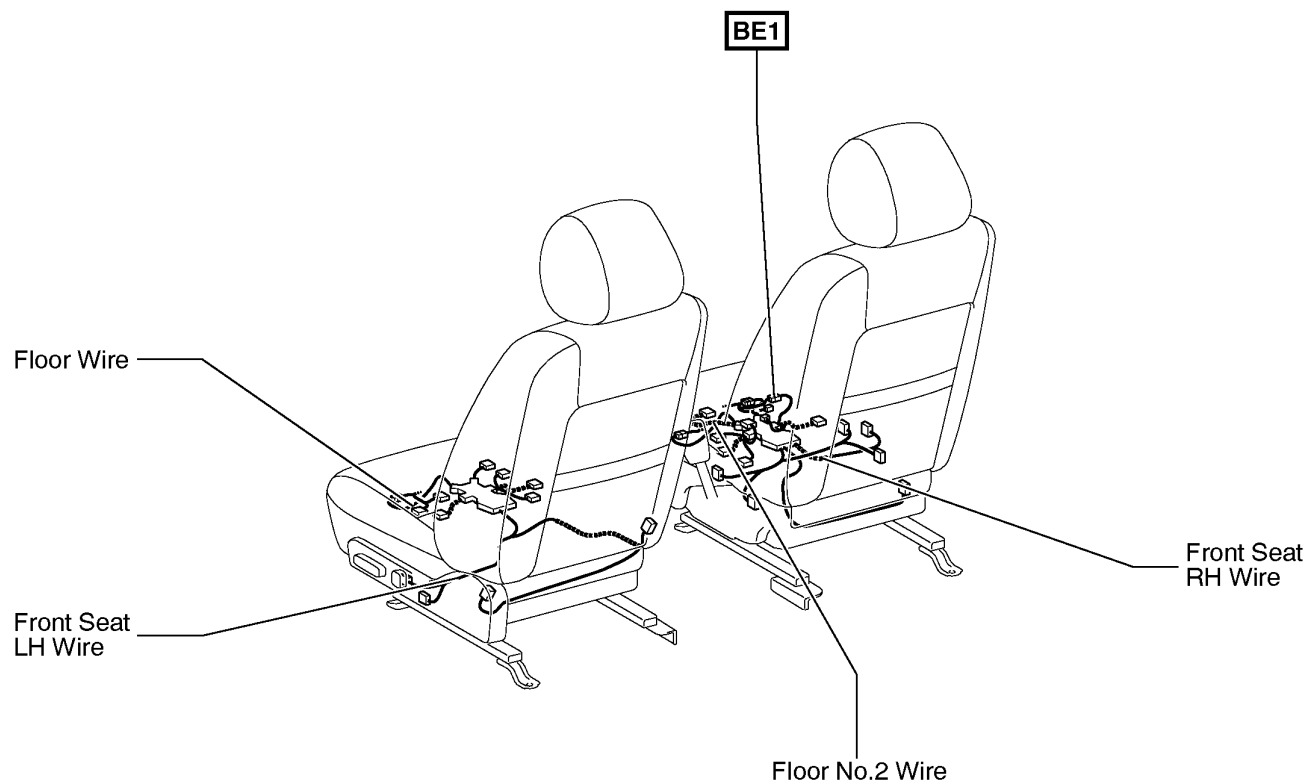
BA1**BB1**

Code	Joining Wire Harness and Wire Harness (Connector Location)
BA1	Rear Door LH Wire and Floor Wire (Left Center Pillar)
BB1	Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)

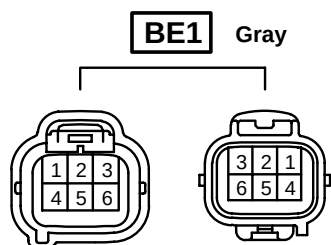
G ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness

[w/ Power Seat]



Connector Joining Wire Harness and Wire Harness

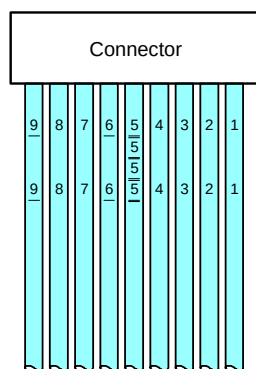


Code	Joining Wire Harness and Wire Harness (Connector Location)
BE1	Floor No.2 Wire and Front Seat RH Wire (Under the Front Passenger's Seat)

2005 CAMRY ELECTRICAL WIRING DIAGRAM SYSTEM CIRCUITS

	Page
ABS (TMC Made)	176
ABS (TMMK Made)	180
Audio System (Built-in Type Amplifier w/o Navigation System)	258
Audio System (Separate Type Amplifier w/o Navigation System)	254
Audio System (w/ Navigation System)	250
Automatic Air Conditioning (1MZ-FE)	272
Automatic Air Conditioning (2AZ-FE)	278
Automatic Glare-Resistant EC Mirror	230
Automatic Light Control	128
Back-Up Light	148
Charging	72
Cigarette Lighter	234
Clock	246
Combination Meter	260
Cruise Control (1MZ-FE, 3MZ-FE)	192
Cruise Control (2AZ-FE)	198
Door Lock Control	152
Electronically Controlled Transmission and A/T Indicator (1MZ-FE, 3MZ-FE)	204
Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	210
Engine Control (1MZ-FE, 3MZ-FE)	74
Engine Control (2AZ-FE)	86
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Headlight	120
Horn	236
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Ignition (2AZ-FE)	68
Illumination	138
Interior Light	134
Key Reminder	150
Light Auto Turn Off System	130
Manual Air Conditioning (1MZ-FE, 3MZ-FE)	284
Manual Air Conditioning (2AZ-FE)	290
Mirror Heater	242
Moon Roof	164
Multiplex Communication System (BEAN)	104
Multiplex Communication System (BEAN Bus)	102
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Navigation System	250
Power Adjustable Pedals	244
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	Page
Radiator Fan and Condenser Fan	266
Rear Window Defogger	242
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Seat Belt Warning	224
Seat Heater	222
Shift Lock	216
SRS	185
Starting (1MZ-FE, 3MZ-FE)	64
Starting (2AZ-FE)	68
Stop Light	146
Taillight	144
Theft Deterrent	152
Turn Signal and Hazard Warning Light	142
VSC	170
Wiper and Washer	238
Wireless Door Lock Control	158

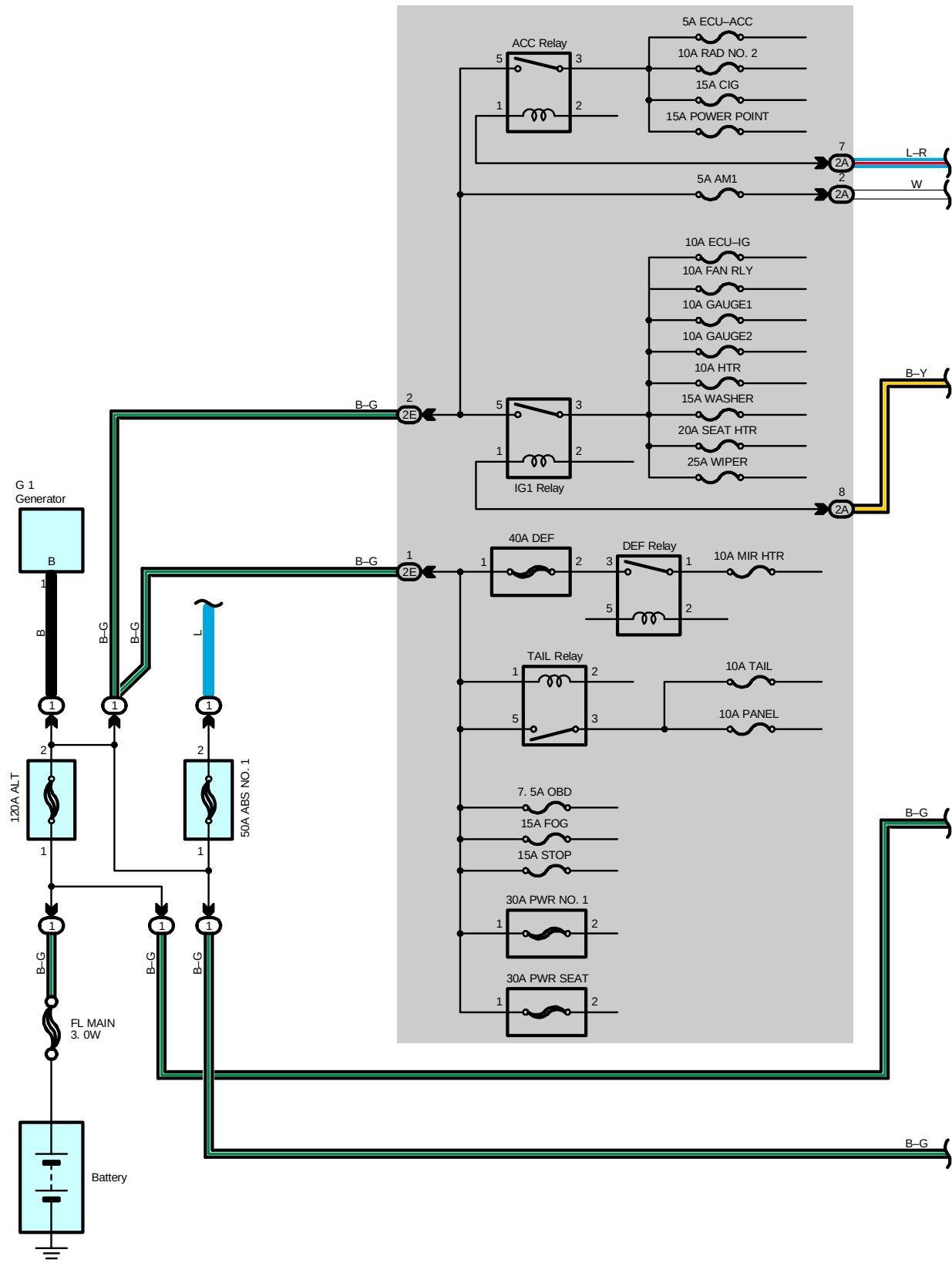


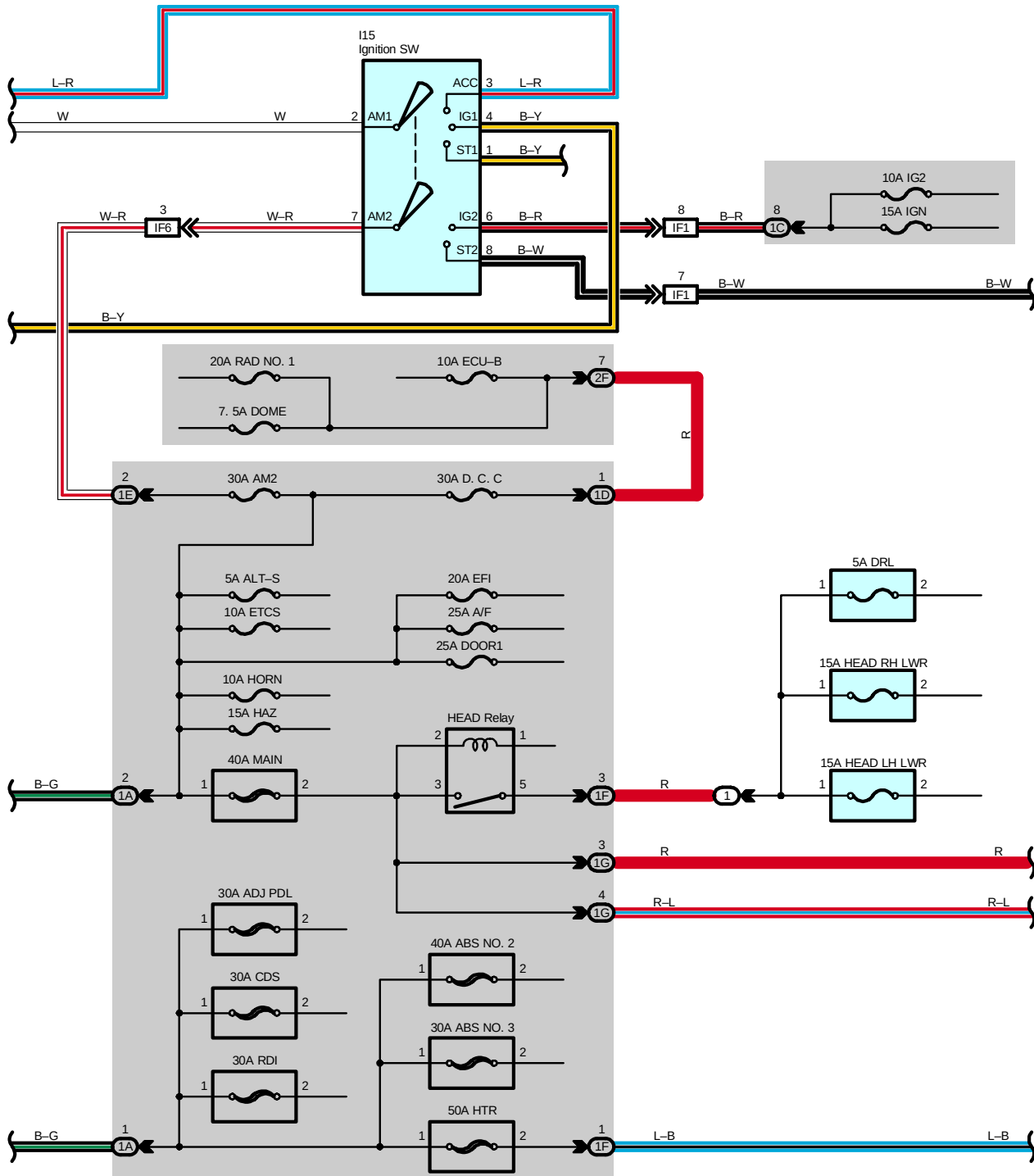
There are two types of wire harness for the instrument panel on CARMY.

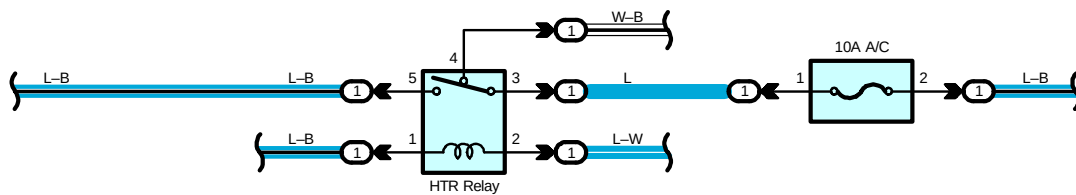
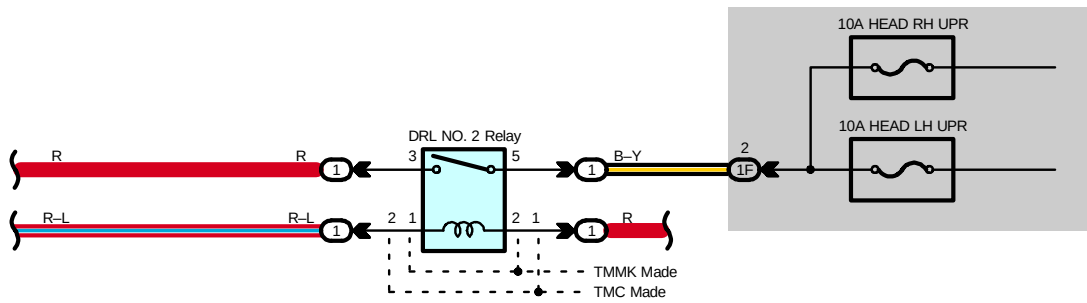
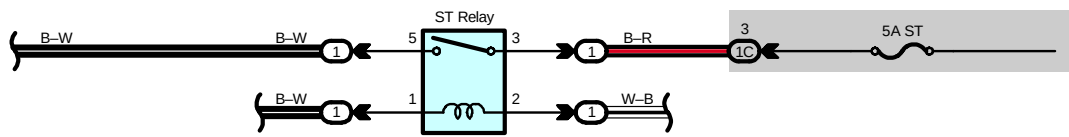
Type A : The wire harness that uses the color-coded wire.

Type B : The wire harness that uses the same colored wire. (Not color-coded)

In case of using the same colored wires, each terminal number is printed on the wire as shown in the illustration on the left in order to distinguish each wiring. Be sure to connect the terminal to the same place as indicated by the terminal number printed on the wire after disconnecting the terminal from the connector.







Service Hints

I15 Ignition SW

- 2-3 : Closed with the ignition SW at ACC or ON position
- 2-4 : Closed with the ignition SW at ON or ST position
- 2-1 : Closed with the ignition SW at ST position
- 7-6 : Closed with the ignition SW at ON or ST position
- 7-8 : Closed with the ignition SW at ST position

TAIL Relay

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

HEAD Relay

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

: Parts Location

Code	See Page	Code	See Page	Code	See Page
G1	36 (*1)	G1	38 (*2)	I15	41

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

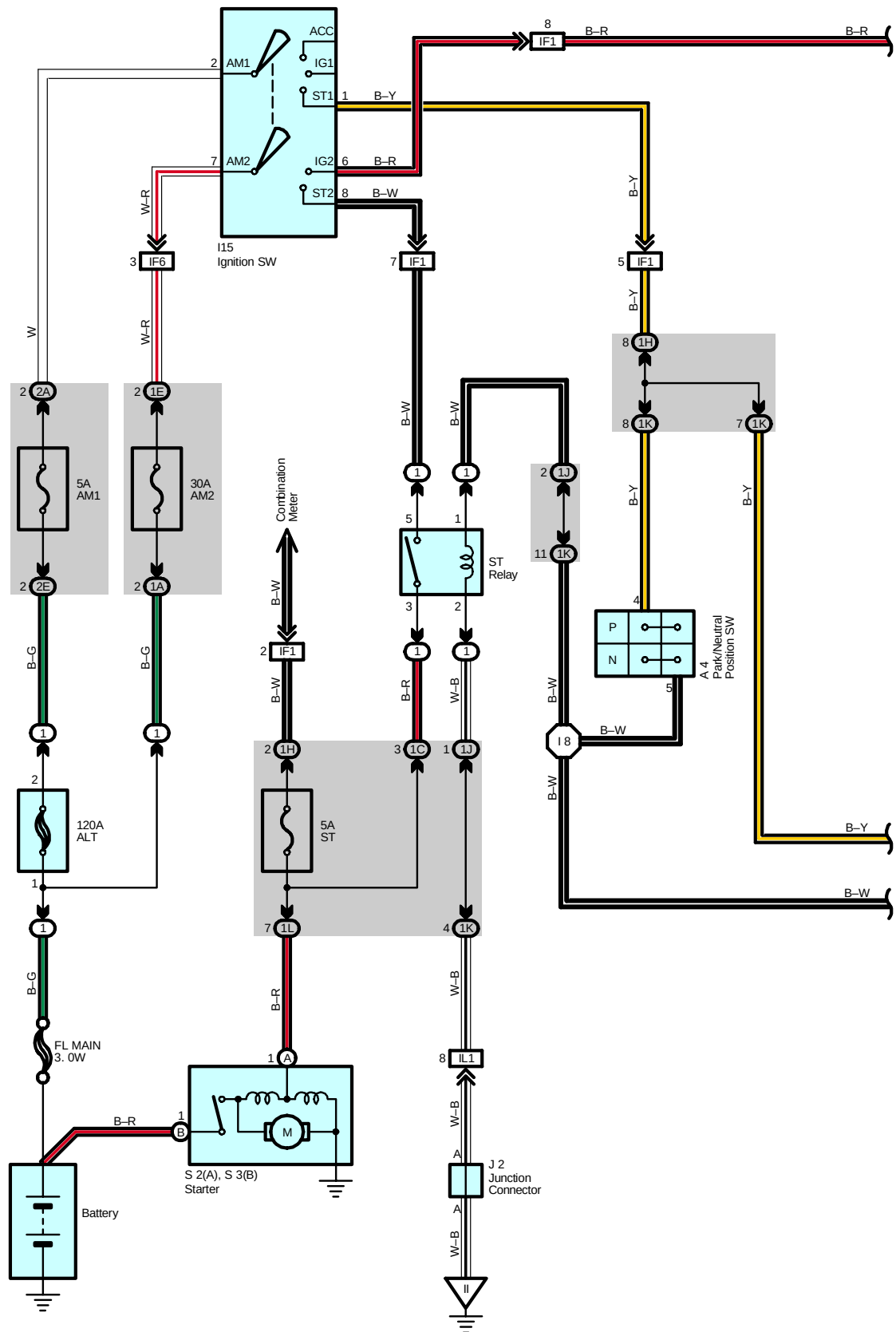
Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1C		
1D		
1E		
1F		
1G		
2A	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2E	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2F		

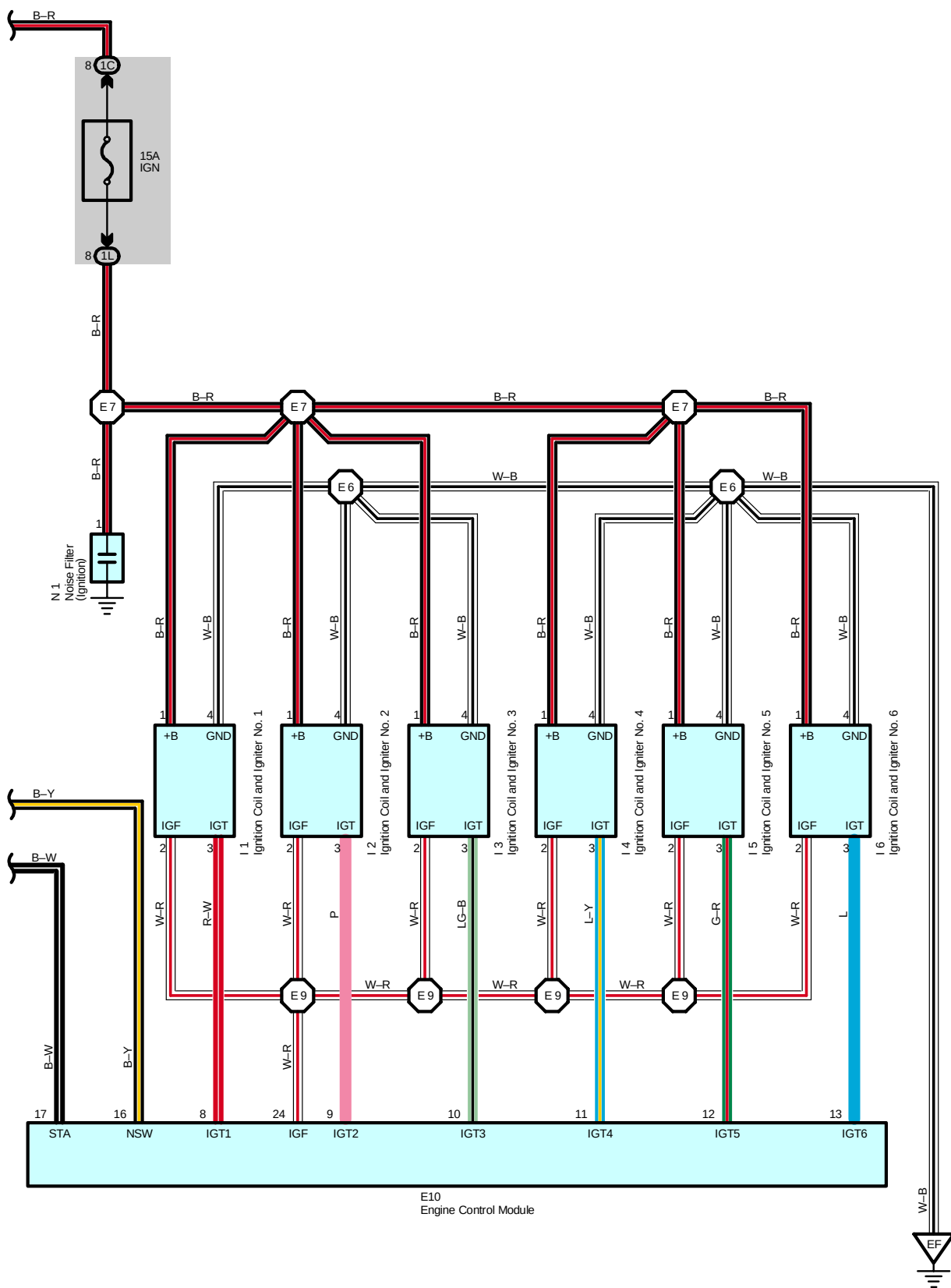
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF1	50	Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube)
IF6		

* 1 : 1MZ-FE, 3MZ-FE * 2 : 2AZ-FE * 3 : w/ Power Seat * 4 : w/o Power Seat

Starting and Ignition for 1MZ-FE and 3MZ-FE





Starting and Ignition for 1MZ-FE and 3MZ-FE

Service Hints

I15 Ignition SW

- 2-1 : Closed with the ignition SW at ST position
- 7-6 : Closed with the ignition SW at ON or ST position
- 7-8 : Closed with the ignition SW at ST position

A4 Park/Neutral Position SW

- 4-5 : Closed with the A/T shift lever in P or N position

S2 (A), S3 (B) Starter

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

: Parts Location

Code	See Page	Code	See Page	Code	See Page
A4	36 (*1)	I4	37 (*1)	N1	37 (*1)
E10	40	I5	37 (*1)	S2	37 (*1)
I1	37 (*1)	I6	37 (*1)	S3	37 (*1)
I2	37 (*1)	I15	41		
I3	37 (*1)	J2	41		

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1C		
1E		
1H		
1J	25	Engine Wire and Engine Room J/B (Engine Compartment Left)
1K		
1L	25	
2A	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2E	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF1	50	Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube)
IF6		
IL1	52	Engine Wire and Instrument Panel Wire (Behind the Glove Box)

: Ground Points

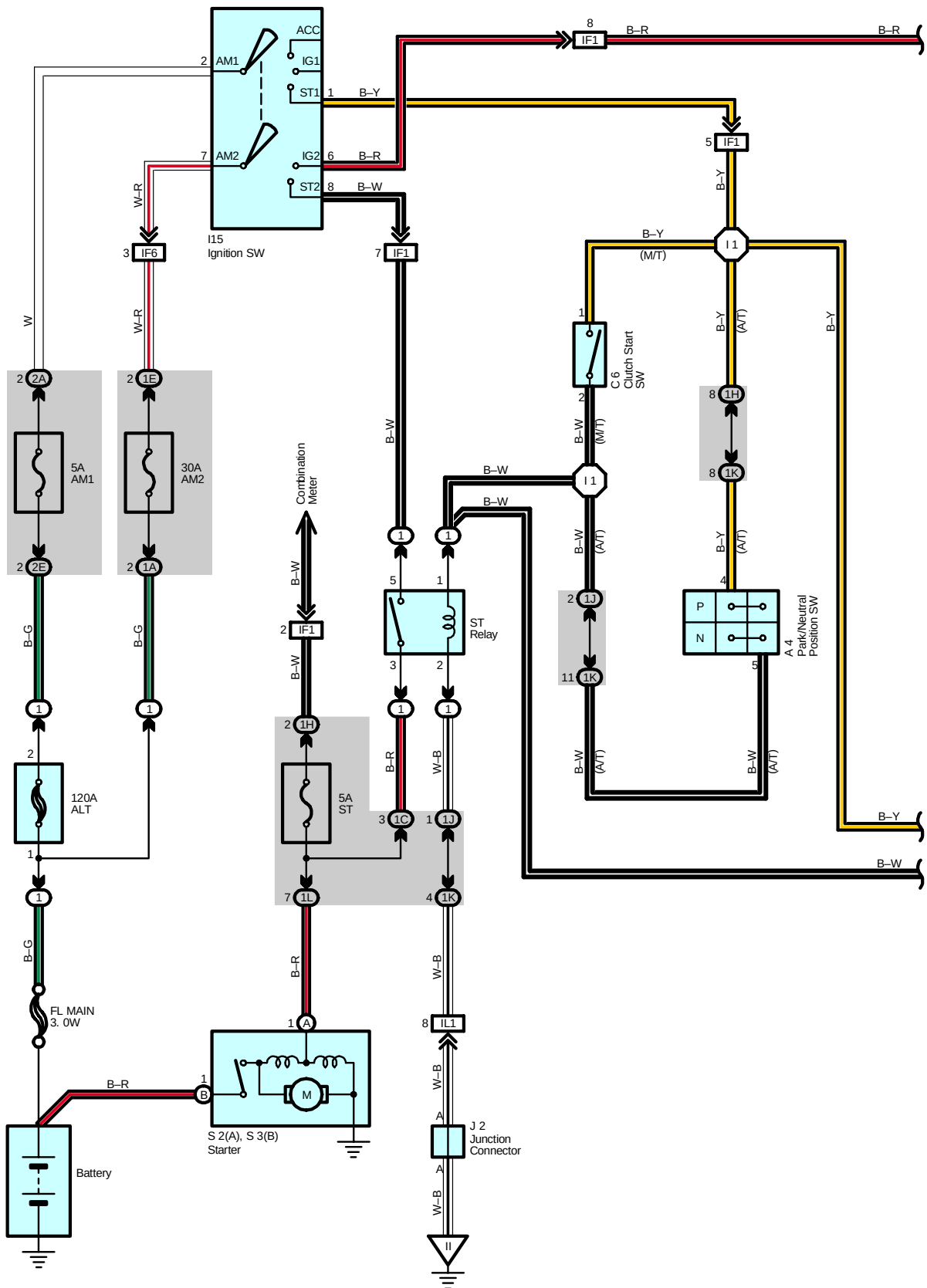
Code	See Page	Ground Points Location
EF	46 (*1)	Right Side of Cylinder Head
II	50	Cowl Side Panel LH

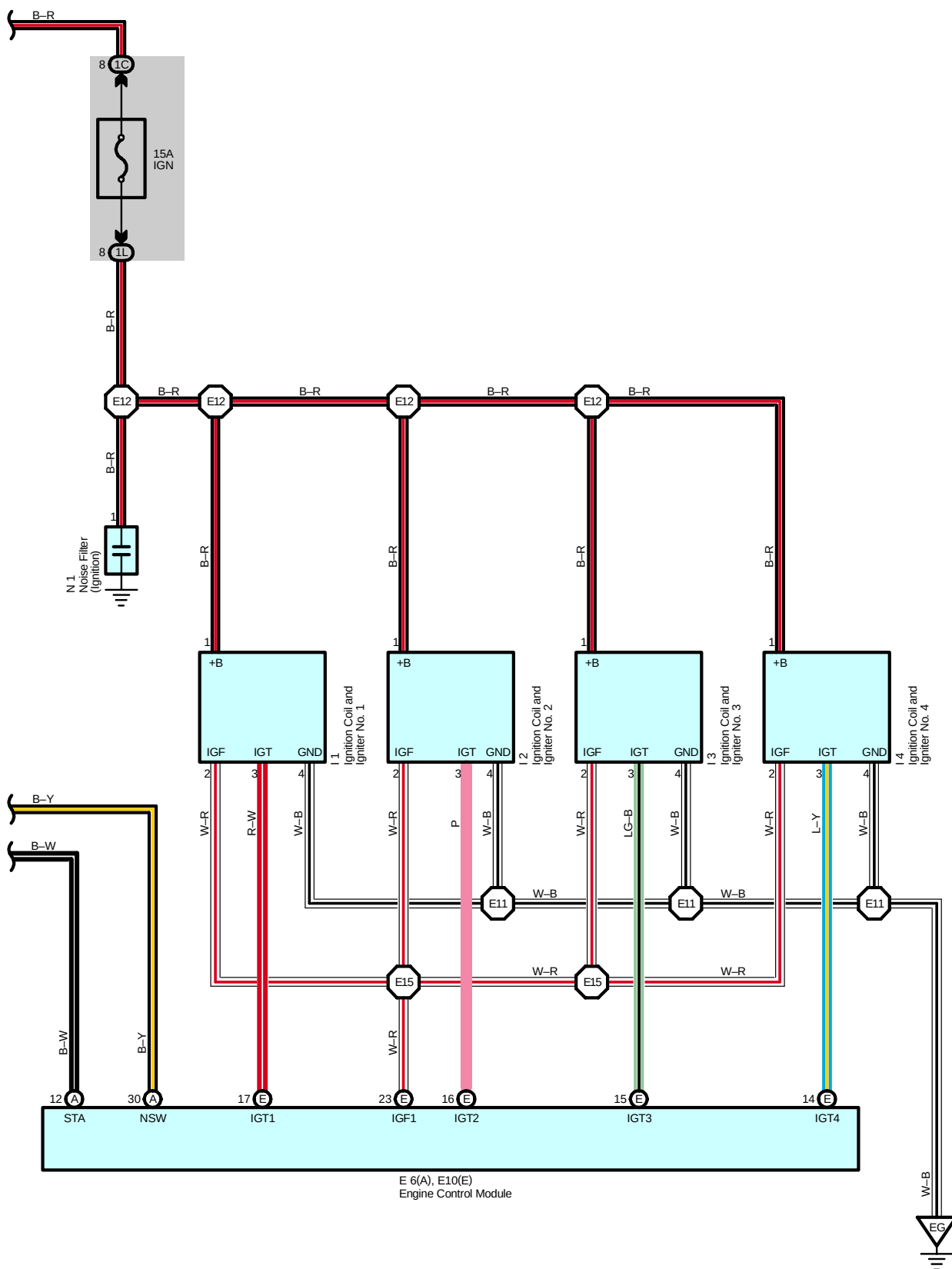
: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E6	46 (*1)	Engine Wire	E9	46 (*1)	Engine Wire
E7			I8	52	

* 1 : 1MZ-FE, 3MZ-FE * 2 : 2AZ-FE * 3 : w/ Power Seat * 4 : w/o Power Seat

Starting and Ignition for 2AZ-FE





Starting and Ignition for 2AZ-FE

Service Hints

I15 Ignition SW

- 2-1 : Closed with the ignition SW at ST position
- 7-6 : Closed with the ignition SW at ON or ST position
- 7-8 : Closed with the ignition SW at ST position

A4 Park/Neutral Position SW (A/T)

- 4-5 : Closed with the A/T shift lever in P or N position

S2 (A), S3 (B) Starter

- Point closed with the Park/Neutral position SW at P or N position and the ignition SW at ST position (A/T)
- Point closed with the clutch start SW on and the ignition SW at ST position (M/T)

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A4	38 (*2)	I2	39 (*2)	N1	39 (*2)
C6	40	I3	39 (*2)	S2	A 39 (*2)
E6	A 40	I4	39 (*2)	S3	B 39 (*2)
E10	E 40	I15	41		
I1	39 (*2)	J2	41		

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	22	Engine Room R/B (Engine Compartment Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1C		
1E		
1H		
1J		
1K	25	Engine Wire and Engine Room J/B (Engine Compartment Left)
1L		
2A	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2E	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF1	50	Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube)
IF6		
IL1	52	Engine Wire and Instrument Panel Wire (Behind the Glove Box)

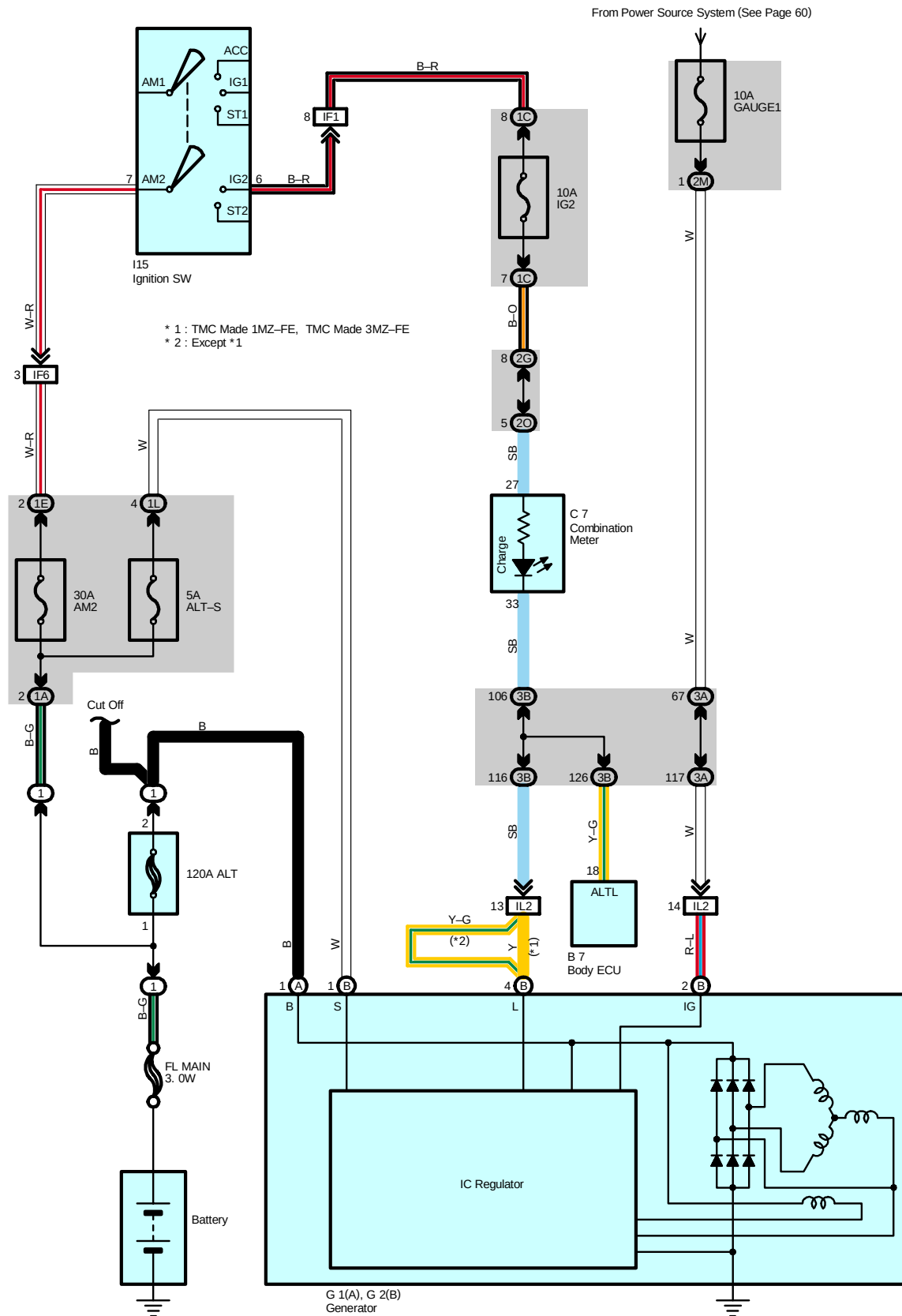
▽ : Ground Points

Code	See Page	Ground Points Location
EG	48 (*2)	Left Side of Cylinder Head
II	50	Cowl Side Panel LH

○ : Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E11	48 (*2)	Engine Wire	E15	48 (*2)	Engine Wire
E12			I1	52	Engine Room Main Wire

* 1 : 1MZ-FE, 3MZ-FE * 2 : 2AZ-FE * 3 : w/ Power Seat * 4 : w/o Power Seat



Service Hints

G2 (B) Generator

- (B) 1—Ground : 13.9–15.1 volts with the engine running at 2000 rpm and 25°C (77°F)
13.5–14.3 volts with the engine running at 5000 rpm and 115°C (239°F)
(B) 4—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	
B7		40		G1	A	38 (*2)		I15		41	
C7		40		G2	B	36 (*1)					
G1	A	36 (*1)				38 (*2)					

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

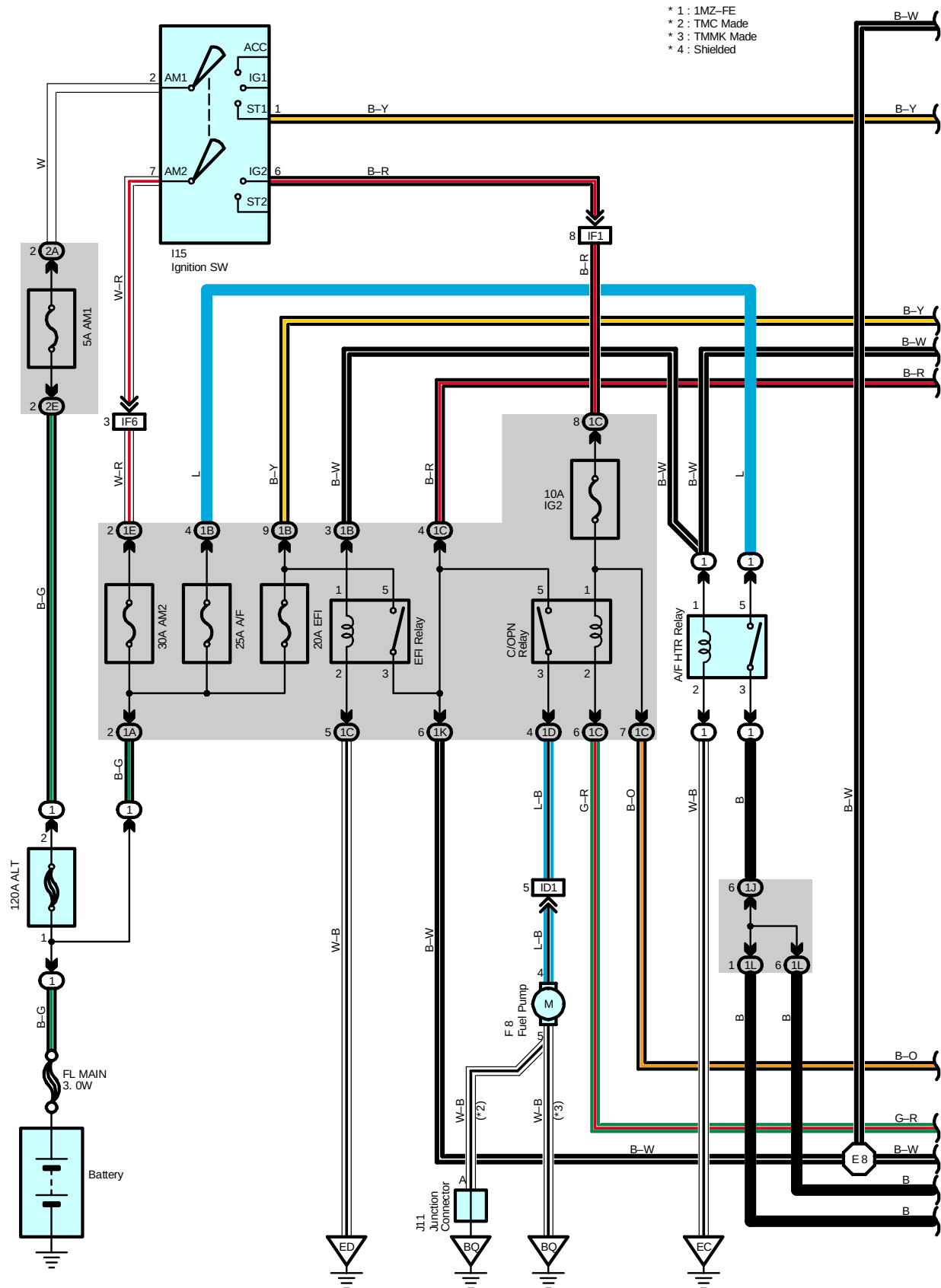
Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1C		
1E		
1L	25	Engine Wire and Engine Room J/B (Engine Compartment Left)
2G	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2M	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2O		
3A	34	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)
3B		

: Connector Joining Wire Harness and Wire Harness

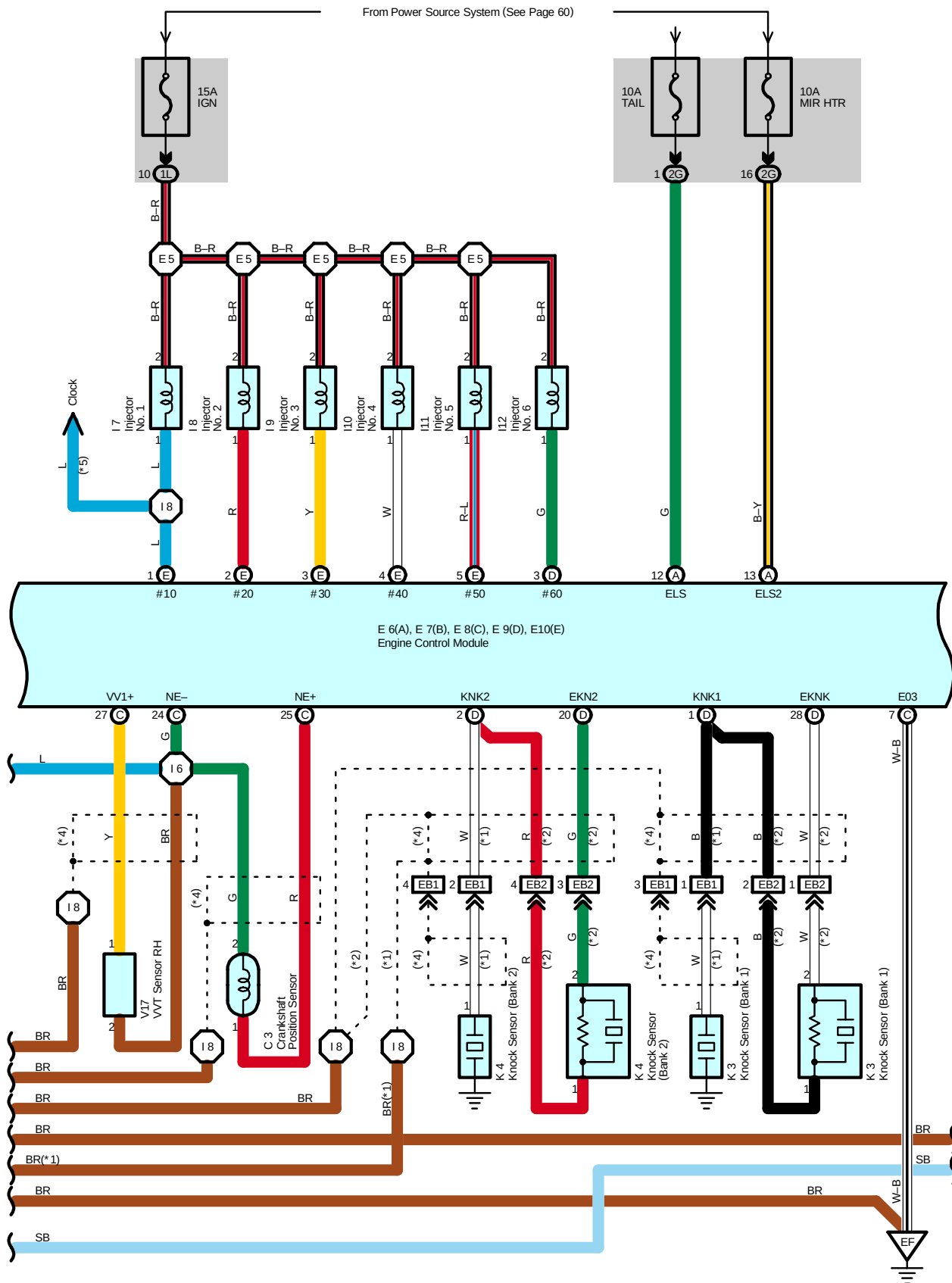
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF1	50	Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube)
IF6		
IL2	52	Engine Wire and Instrument Panel Wire (Behind the Glove Box)

* 1 : 1MZ–FE, 3MZ–FE * 2 : 2AZ–FE * 3 : w/ Power Seat * 4 : w/o Power Seat

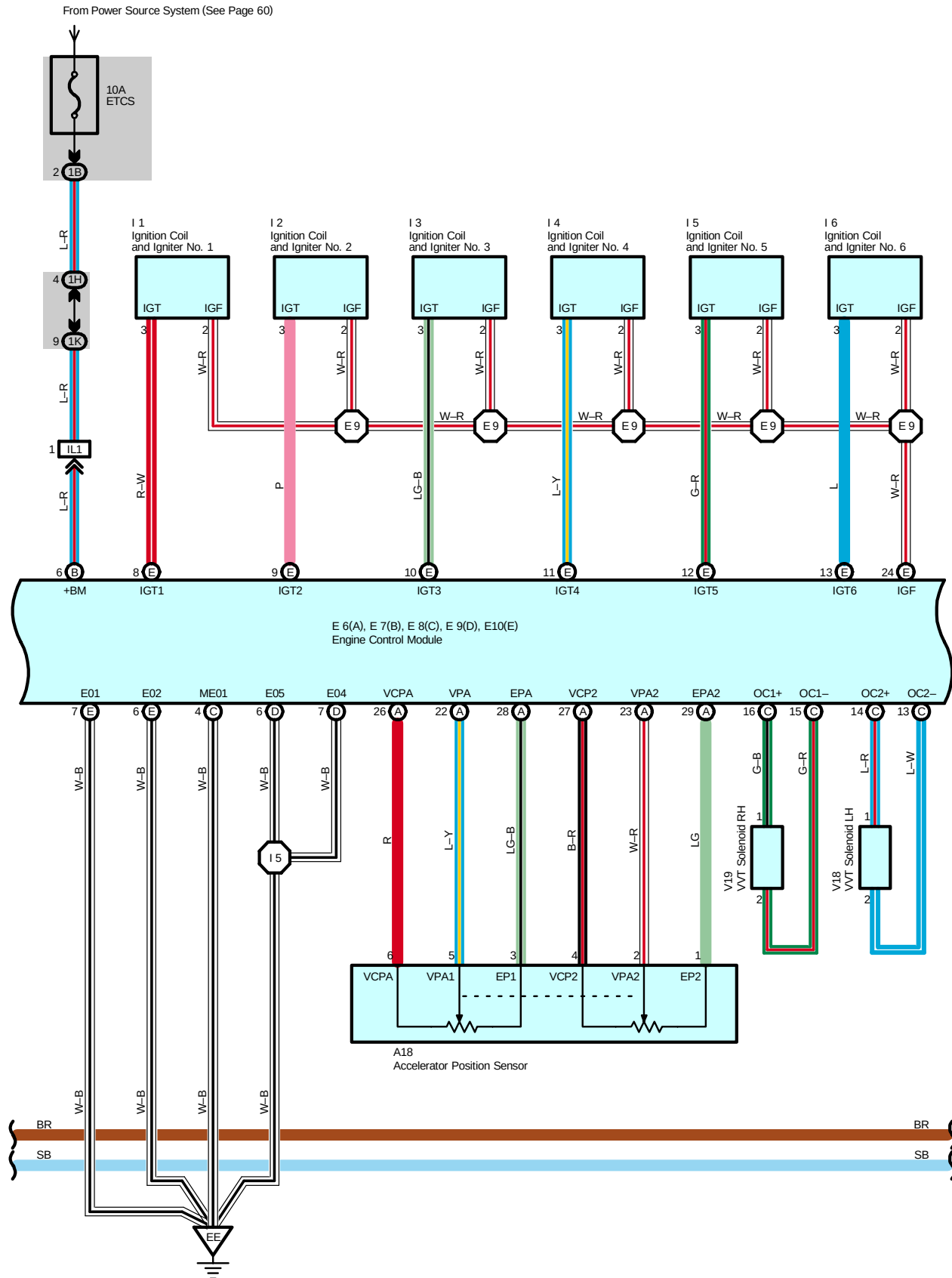
Engine Control for 1MZ-FE and 3MZ-FE



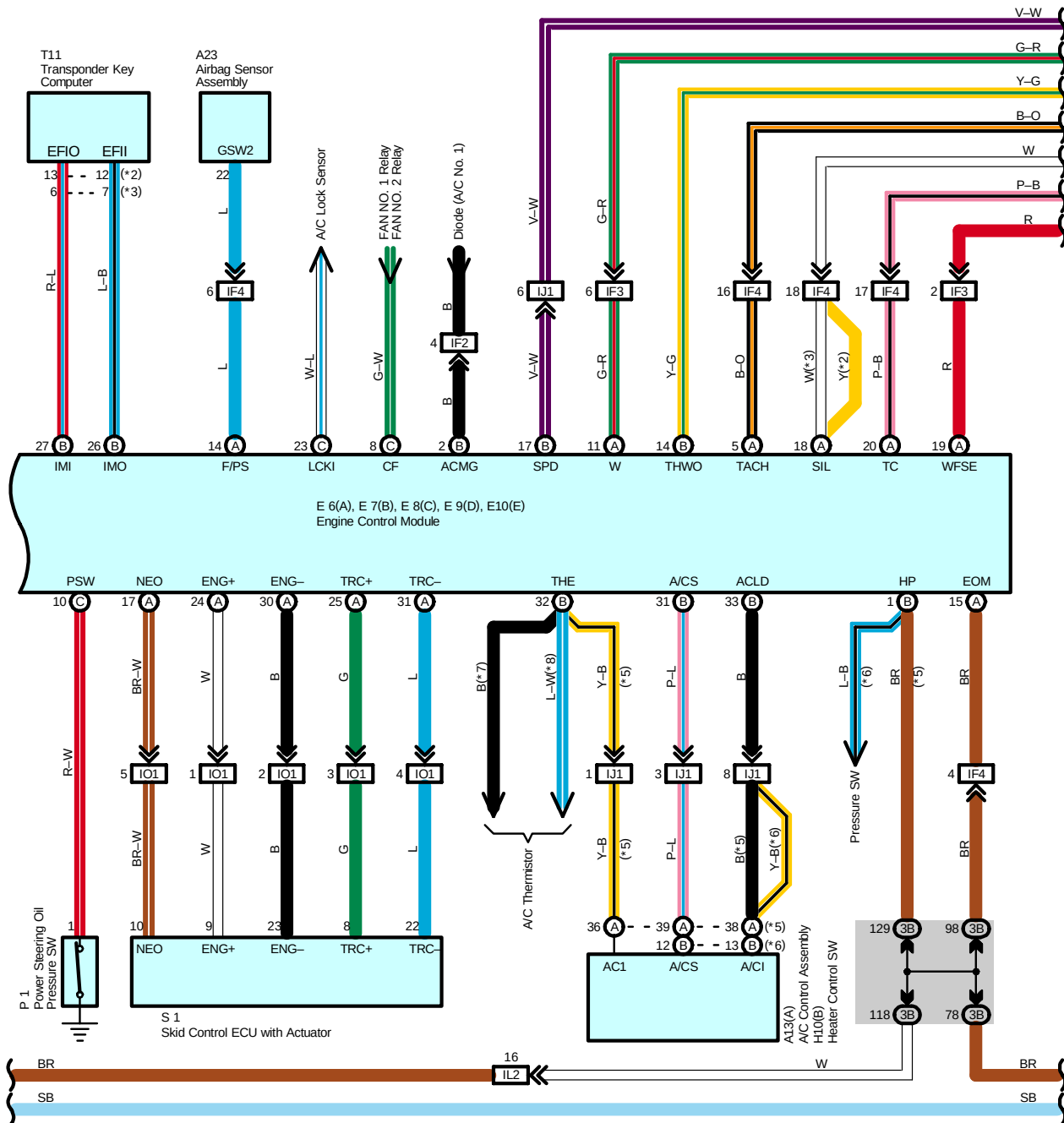




Engine Control for 1MZ-FE and 3MZ-FE



- * 2 : TMC Made
- * 3 : TMMK Made
- * 5 : Automatic A/C
- * 6 : Manual A/C
- * 7 : Manual A/C TMMK Made USA
- * 8 : Manual A/C TMMK Made Canada, Manual A/C TMC Made





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 water temp. is input into TERMINAL THW of the engine control module as a control signal.

(2) Intake air temp. signal circuit

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

(3) Oxygen sensor signal circuit

The oxygen density in the exhaust gases is detected and input as a control signal into TERMINALS OX1B and OX2B of the engine control module. To maintain stable detection performance by the heated oxygen sensor, a heater is used for warming the sensor. The heater is also controlled by the engine control module (HT1B and HT2B).

(4) Throttle signal circuit

The throttle position sensor detects the throttle valve opening angle as a control signal, which is input into TERMINALS VTA1 and VTA2 of the engine control module.

(5) Vehicle speed signal circuit

The vehicle speed sensor, detects the vehicle speed and input to ABS speed sensor of the skid control ECU with actuator, from skid control ECU with actuator to TERMINAL SPD of the engine control module, Via combination meter.

(6) Park/Neutral position SW signal circuit

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

(7) A/C SW signal circuit

The A/C control assembly (Automatic A/C) or heater control SW (Manual A/C) inputs the A/C operations into TERMINAL A/CS of the engine control module as a control signal.

(8) Battery signal circuit

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

If you turn on the ignition SW, the current goes from TERMINAL MREL of the engine control module to the EFI relay and put on the relay, and the voltage related to the engine control module operation is supplied to TERMINALS +B and +B2 of the engine control module through the EFI relay.

(9) Intake air volume signal circuit

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

(10) 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.

(11) Engine knock signal circuit

Engine knocking is detected by the knock sensor No.1 and No.2, then the signals are input into TERMINALS KNC1 and KNC2 of the engine control module as a control signal.

(12) Air fuel ratio signal circuit

The air fuel ratio is detected and input as a control signal into TERMINALS A1A+, A2A+ of the engine control module.

2. Control System

* SFI system

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

* ESA system

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

* Heated oxygen sensor heater control system

The heated oxygen sensor heater control system turns the heater on when the intake air volume is low (Temp. of exhaust emissions is low), and warms up the heated oxygen sensor to improve detection performance of the sensor. The engine control module evaluates the signals from each sensor, current is output to TERMINALS HT1B and HT2B, controlling the heater.

* Air fuel ratio sensor heater control system

The air fuel ratio sensor heater control system turns the heater on when the intake air volume is low (Temp. of exhaust emission is low), and warms up the air fuel ratio sensor to improve detection performance of the sensor. The engine control module evaluates the signals from each sensor, current is output to TERMINALS HA1A and HA2A, controlling 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 from each sensor and outputs current to the TERMINAL ACIS to control the VSV (ACIS No.1).

3. Diagnosis System

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

4. Fail-Safe System

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

Service Hints

E4 Engine Coolant Temp. Sensor

- 1-2 : Approx. 15.04 k Ω (-20°C, -4°F)
- Approx. 5.74 k Ω (0°C, 32°F)
- Approx. 2.45 k Ω (20°C, 68°F)
- Approx. 1.15 k Ω (40°C, 104°F)
- Approx. 0.584 k Ω (60°C, 140°F)
- Approx. 0.318 k Ω (80°C, 176°F)

E6 (A), E7 (B), E8 (C), E9 (D), E10 (E) Engine Control Module

Voltage at engine control module wiring connector

- BATT-E1 : Always 9.0-14.0 volts
- +B, +B2-E1 : 9.0-14.0 volts (Ignition SW at ON position)
 - VC-E2 : Always 4.5-5.5 volts (Ignition SW at ON position)
- VTA1-E2 : 0.3-0.8 volts (Ignition SW on and throttle valve fully closed)
 - : 3.2-4.9 volts (Ignition SW on and throttle valve fully open)
- VG-E2G : 1.1-1.5 volts (Engine idling and A/C SW OFF position)
- THA-E2 : 0.5-3.4 volts (Engine idling and intake air temp. 20°C, 68°F)
- THW-E2 : 0.2-1.0 volts (Engine idling and engine coolant temp. 80°C, 176°F)
- IGF-E1 : 4.5-5.5 volts (Ignition SW at ON position)
 - Pulse generation (Engine idling)
- NE+-NE- : Pulse generation (Engine idling)
- NSW-E1 : 9.0-14.0 volts (Ignition SW on and other shift position in P or N position)
 - Below 3.0 volts (Ignition SW on and shift position in P or N position)
- SPD-E1 : Pulse generation (Ignition SW on and rotate driving wheel slowly)
- W-E1 : Below 3.0 volts
- ACLD-E1 : Below 2.0 volts (Engine idling and A/C SW on)
 - 9.0-14.0 volts (A/C SW off)
- A/CS-E1 : 9.0-14.0 volts (Engine idling and A/C SW on)
 - Below 2.0 volts (A/C SW off)
- ACIS-E01 : 9.0-14.0 volts (Ignition SW at ON position)
 - STA-E1 : 6.0 volts or more (Engine cranking)
 - ELS-E1 : 7.5-14.0 volts (Taillight SW at ON position)
 - 0-1.5 volts (Taillight SW at OFF position)
- ELS2-E1 : 7.5-14.0 volts (Defogger SW at ON position)
 - 0-1.5 volts (Defogger SW at OFF position)
- FC-E1 : 9.0-14.0 volts (Ignition SW at ON position)
 - 0-3.0 volts (Engine idling)
- PRG-E01 : 9.0-14.0 volts (Ignition SW at ON position)
 - CF-E1 : 9.0-14.0 volts (Electric cooling fan is operating on high speed)
 - 0-2.0 volts (Electric cooling fan is operating on low speed or off)
- TACH-E1 : Pulse generation (Engine idling)
- PTNK-E1 : 3.0-3.6 volts (Ignition SW at ON position)
 - 1.3-2.1 volts (Ignition SW on and apply vacuum 2.0 kpa (15.0 mmHg, 0.6 in.Hg)
- STP-E1 : 7.5-14.0 volts (Ignition SW on and brake pedal depressed)
 - Below 1.5 volts (Ignition SW on and brake pedal released)
- SIL-E1 : Pulse generation (During transmission)
- KNK1, KNK2-E1 : Pulse generation (Engine idling)
- HT1B, HT2B-E03 : 9.0-14.0 volts (Ignition SW at ON position)
 - 0-3.0 volts (Engine idling)
- OX1B, OX2B-E1 : Pulse generation (Maintain engine speed at 2500 rpm for two minutes after warning up)
- IGT1, IGT2, IGT3, IGT4, IGT5, IGT6-E1 : Pulse generation (Engine idling)
 - #10, #20, #30, #40, #50, #60-E01 : 9.0-14.0 volts (Ignition SW at ON position)
 - Pulse generation (Engine idling)

I7, I8, I9, I10, I11, I12 Injector

- 2-1 : Approx. 13.8 Ω

C/OPN Relay

- 3-5 : Closed with the starter running

EFI Relay

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

Engine Control for 1MZ-FE and 3MZ-FE

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A4	36 (*1)	H10 B	41	K3	37 (*1)
A9	36 (*1)	I1	37 (*1)	K4	37 (*1)
A10	36 (*1)	I2	37 (*1)	M1	37 (*1)
A13 A	40	I3	37 (*1)	P1	37 (*1)
A18	40	I4	37 (*1)	S1	37 (*1)
A23	40	I5	37 (*1)	S14	41
C3	36 (*1)	I6	37 (*1)	T11	41
C7 A	40	I7	37 (*1)	T12	37 (*1)
C8 B	40	I8	37 (*1)	V3	37 (*1)
D3	40	I9	37 (*1)	V4	43
E4	36 (*1)	I10	37 (*1)	V6	37 (*1)
E6 A	40	I11	37 (*1)	V11	43
E7 B	40	I12	37 (*1)	V13	37 (*1)
E8 C	40	I15	41	V14	37 (*1)
E9 D	40	J1	41	V15	37 (*1)
E10 E	40	J2	41	V16	37 (*1)
F8	42	J11	42	V17	37 (*1)
H6	36 (*1)	J22 A	41	V18	37 (*1)
H7	36 (*1)	J23 B	41	V19	37 (*1)

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	22	Engine Room R/B (Engine Compartment Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B		
1C		
1D		
1E		
1H		
1J	25	Engine Wire and Engine Room J/B (Engine Compartment Left)
1K		
1L	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2E		
2G	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
2K	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2L		
2M		
2O		
2P		
2R		
3A	34	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)
3B		

* 1 : 1MZ-FE, 3MZ-FE * 2 : 2AZ-FE * 3 : w/ Power Seat * 4 : w/o Power Seat

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

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	46 (1MZ-FE)	Engine Wire and Sensor Wire (Left Bank of Cylinder Head)
EB2	46 (3MZ-FE)	
IC2	50	Instrument Panel Wire and Floor Wire (Left Kick Panel)
ID1	50	Engine Room Main Wire and Floor Wire (Left Side of Driver Side J/B)
IF1	50	Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube)
IF2		
IF3		
IF4		
IF6		
IJ1	52	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement RH)
IL1	52	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IL2		
IO1	52	Engine Room Main Wire and Engine Room Main Wire (Right Side of the Instrument Panel)

 : **Ground Points**

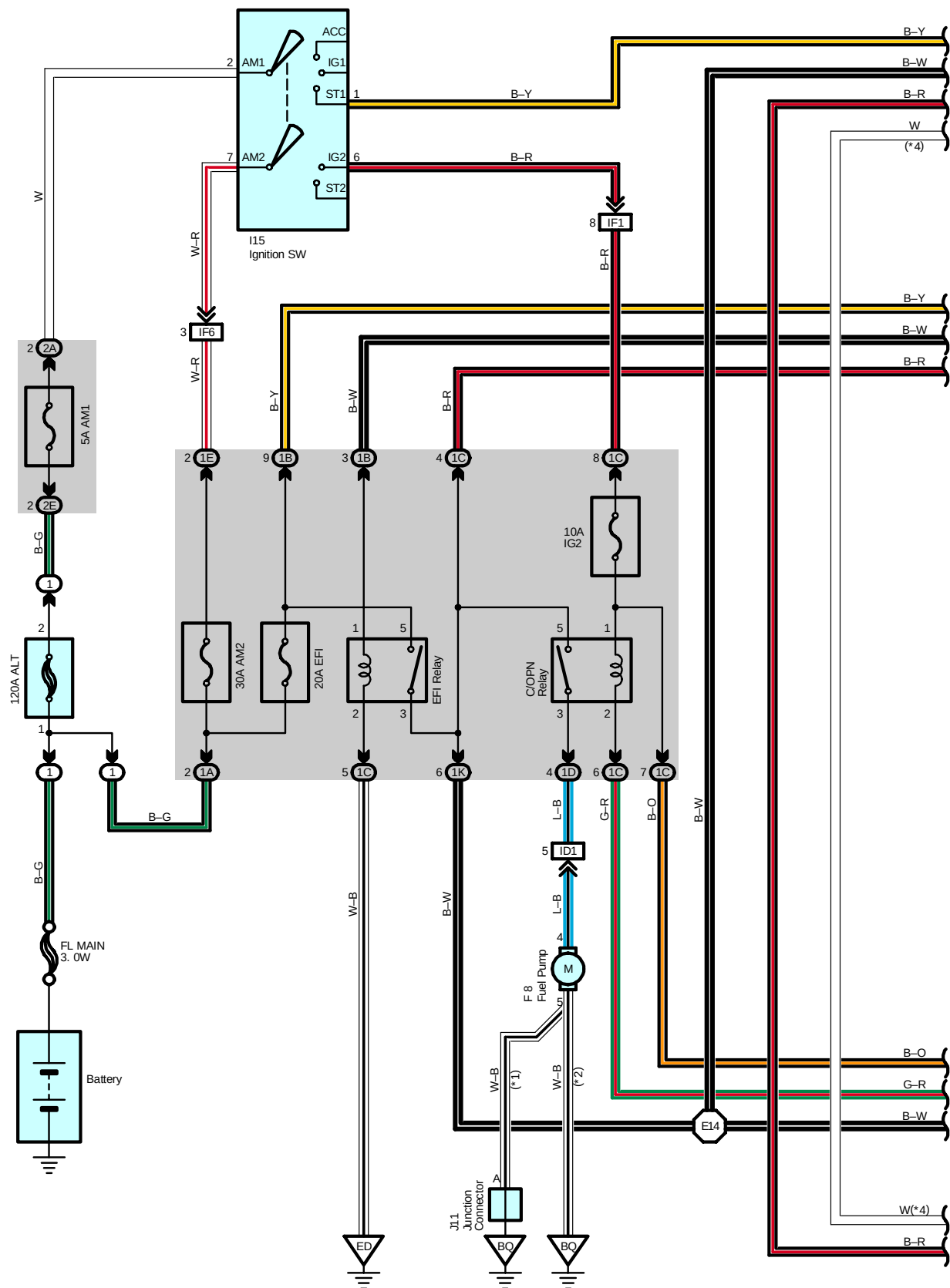
Code	See Page	Ground Points Location
EC	46 (*1)	Left Fender
ED		
EE	46 (*1)	Left Side of Cylinder Head
EF	46 (*1)	Right Side of Cylinder Head
II	50	Cowl Side Panel LH
BQ	54	Front Side of Rear Quarter Wheel House LH

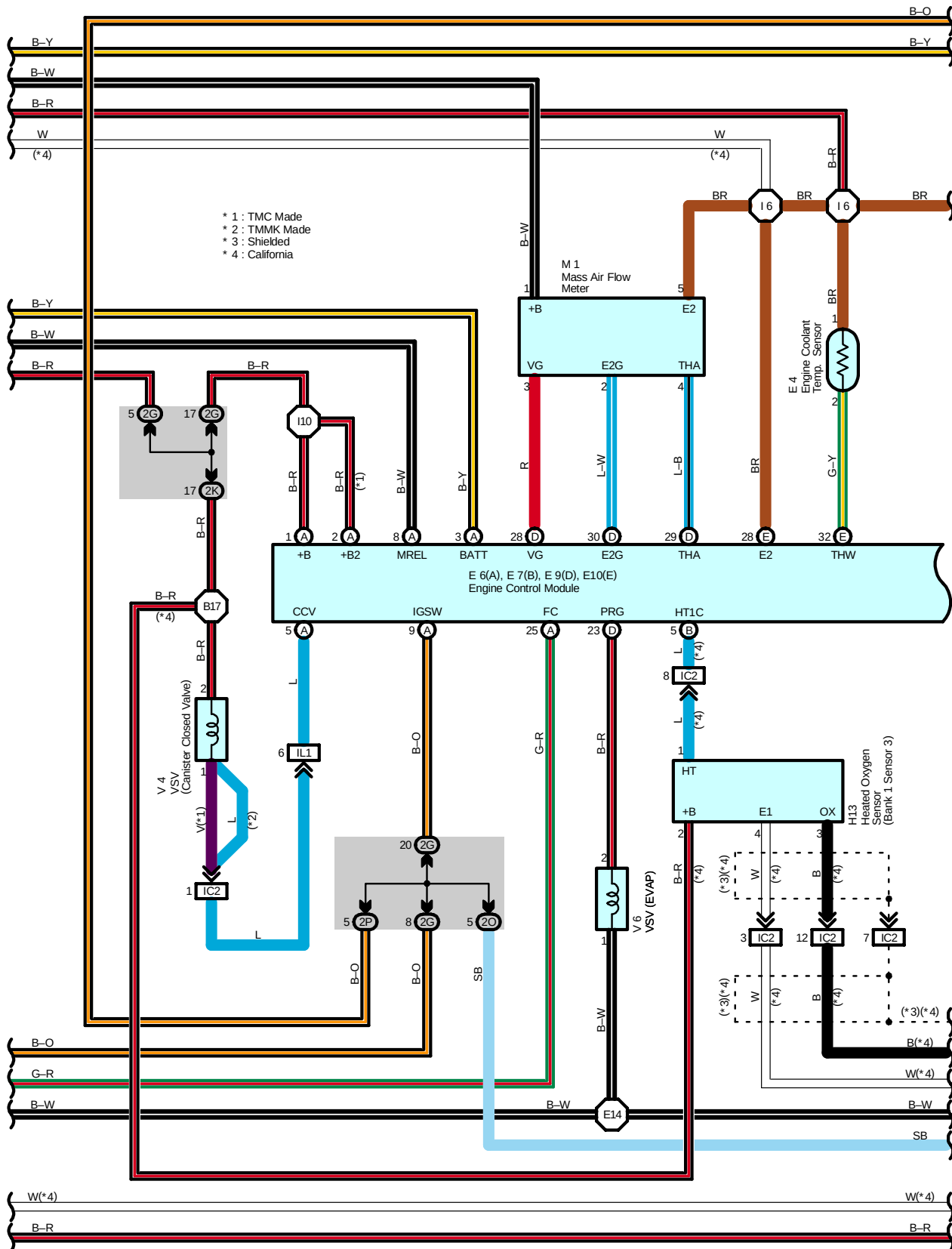
 : **Splice Points**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E5	46 (*1)	Engine Wire	I6	52	Engine Wire
E8			I7		
E9			I8		
I4	52		I10	52	Engine Room Main Wire
I5					

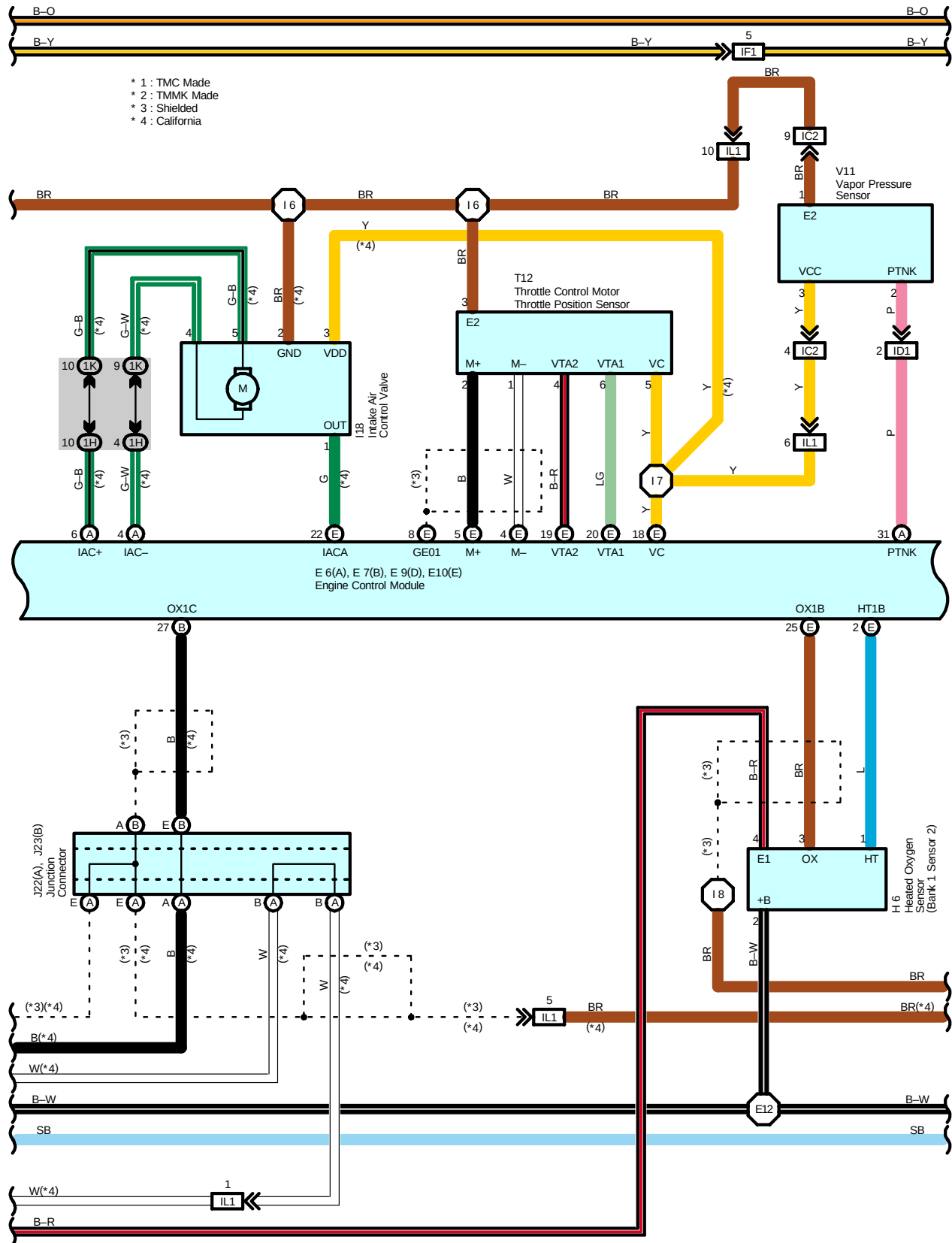
* 1 : 1MZ-FE, 3MZ-FE * 2 : 2AZ-FE * 3 : w/ Power Seat * 4 : w/o Power Seat

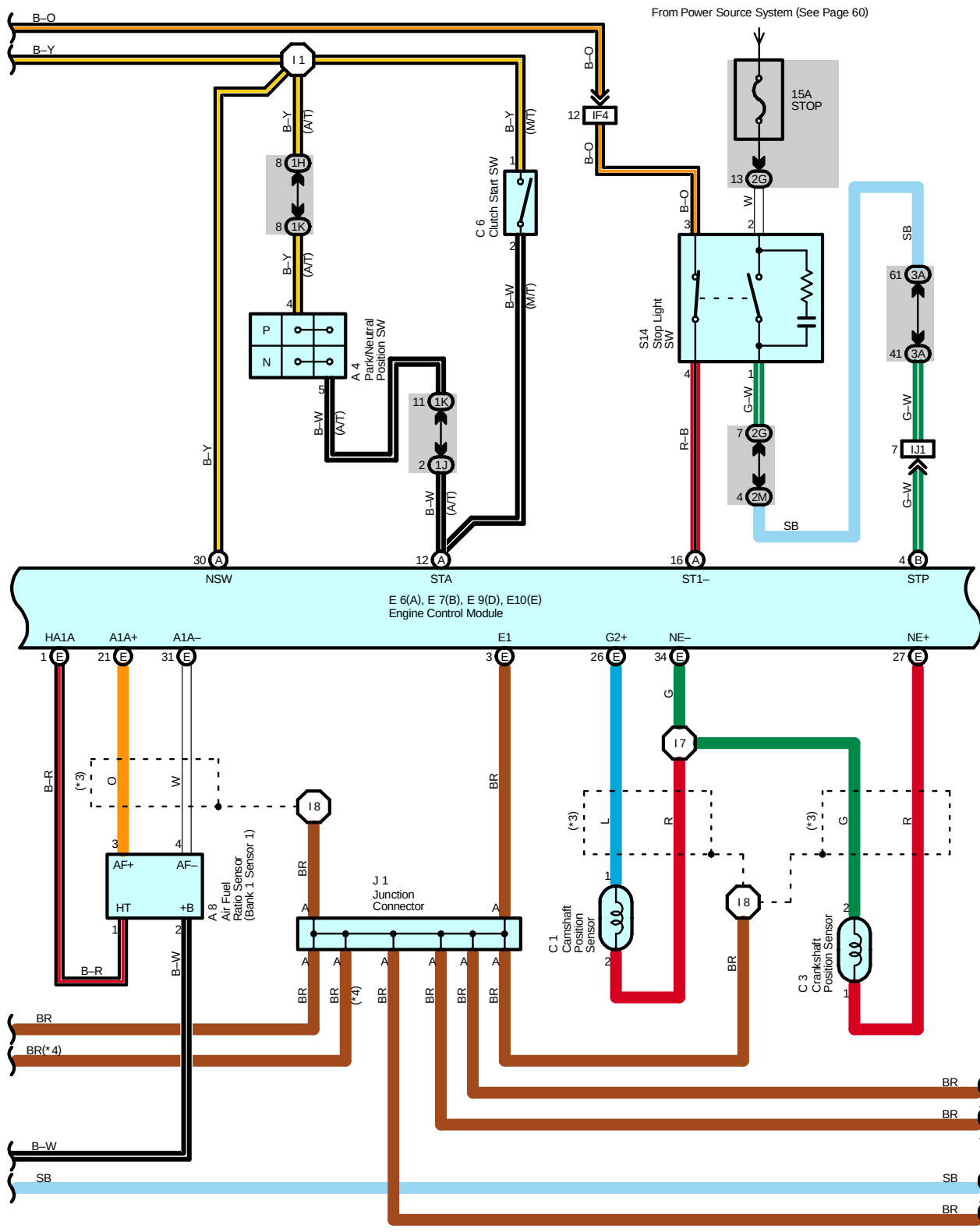
Engine Control for 2AZ-FE



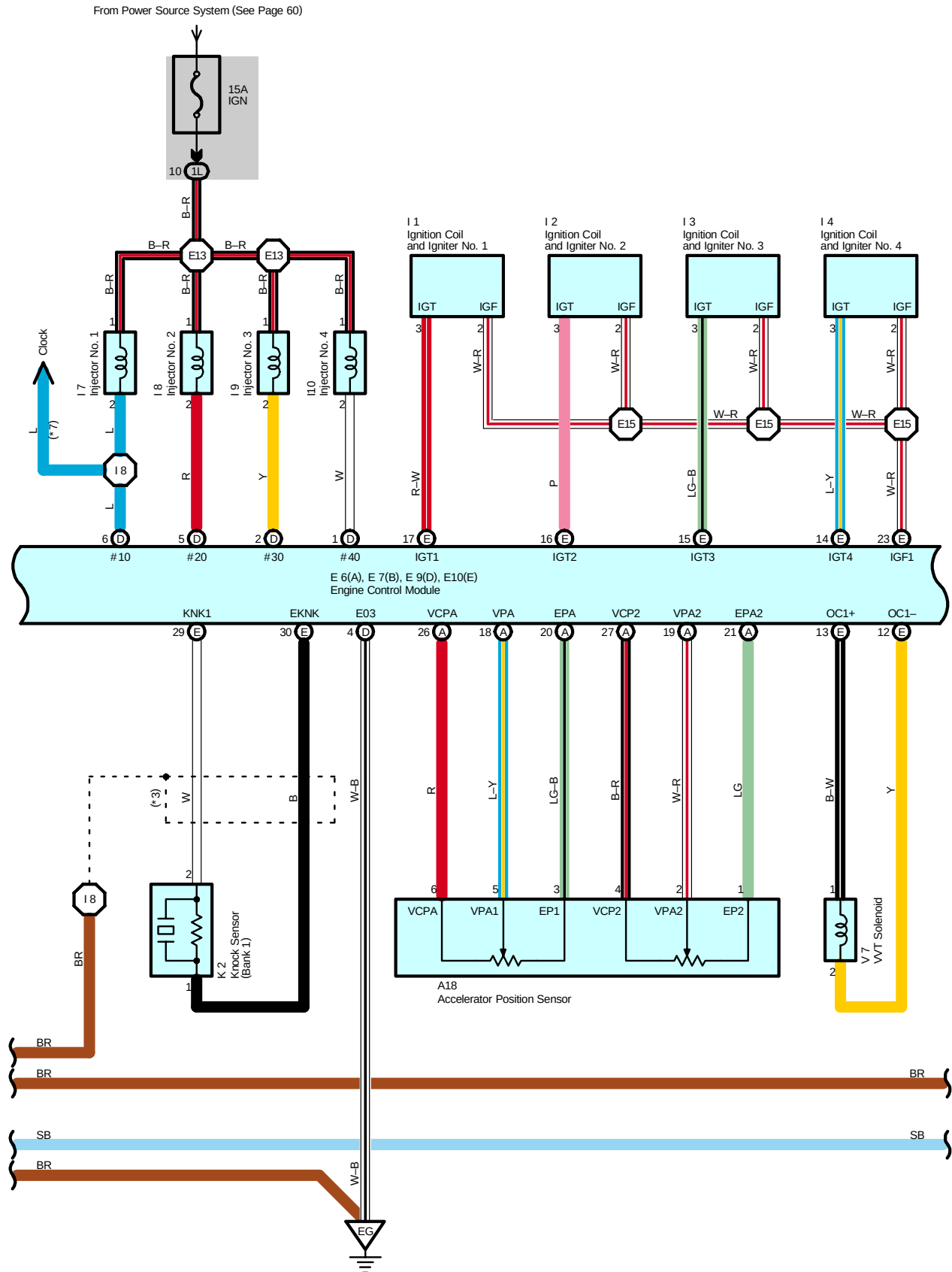


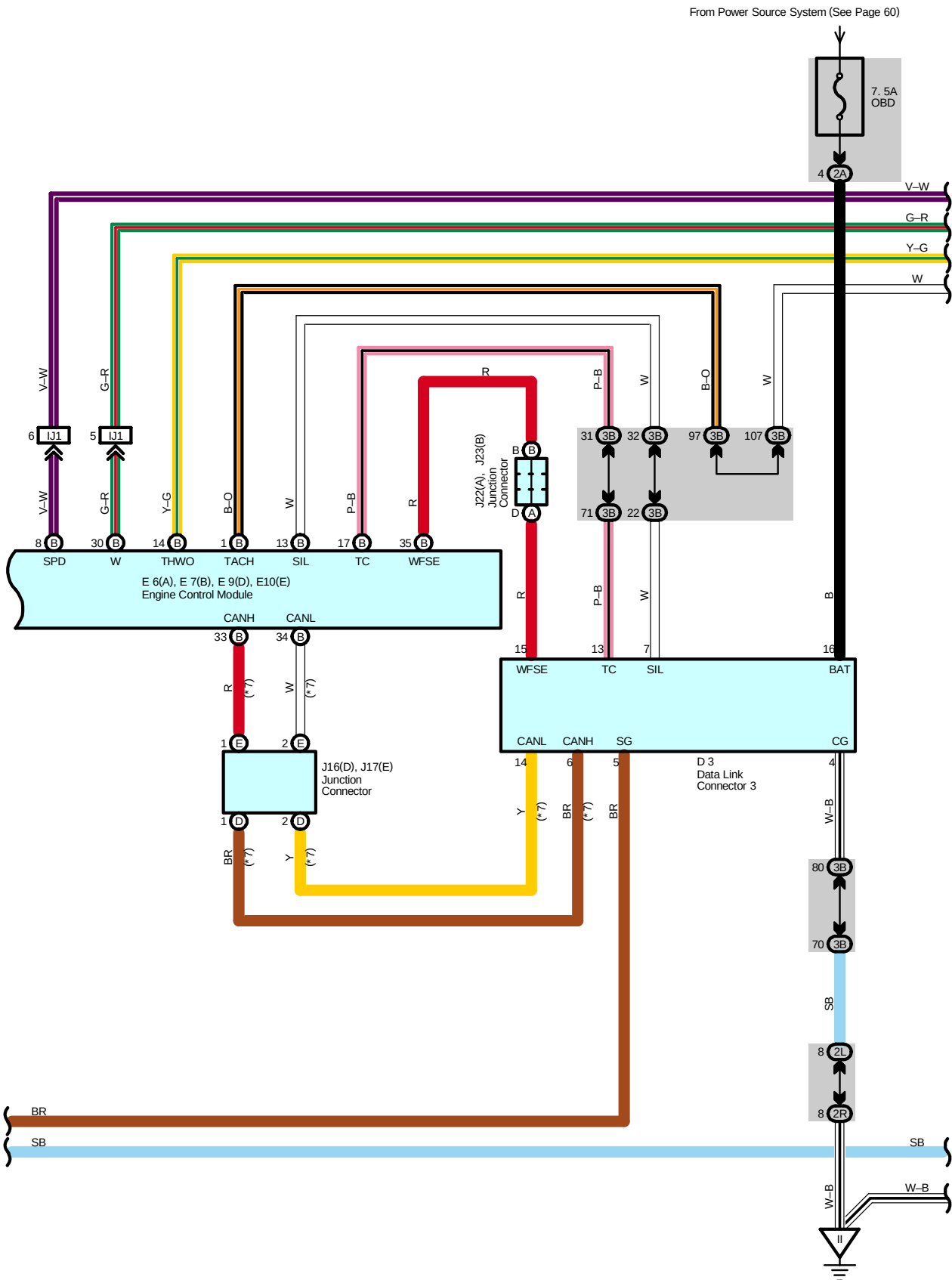
Engine Control for 2AZ-FE

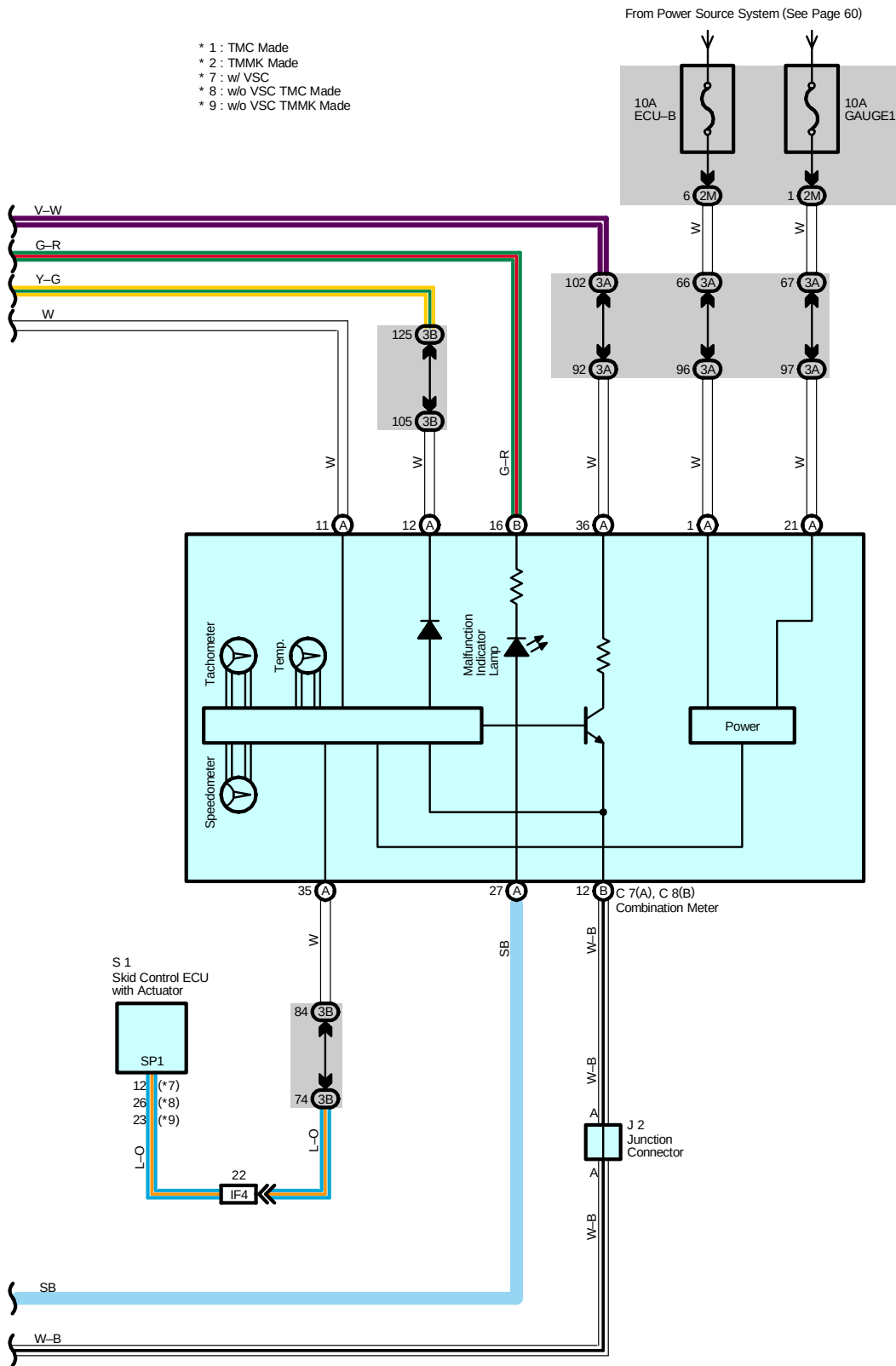




Engine Control for 2AZ-FE







System Outline

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

1. Input Signals

(1) Engine coolant temp. signal circuit

The engine coolant temp. sensor detects the engine coolant temp. and has a built-in thermistor with a resistance, which varies according to the engine coolant temp.. The engine coolant temp. which 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 density signal circuit

The oxygen density in the exhaust emission is detected by the heated oxygen sensor and input as a control signal to TERMINALS OX1B and OX1C of the engine control module (HT1B and HT1C)

(4) RPM signal circuit

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

(5) Throttle position signal circuit

The throttle position sensor detects the throttle valve opening angle as a control signal, which is input into TERMINALS VTA1 and VTA2 of the engine control module.

(6) Vehicle speed circuit

The vehicle speed sensor, detects the vehicle speed and input to ABS speed sensor of the skid control ECU with actuator, from skid control ECU with actuator to TERMINAL SPD of the engine control module, Via combination meter.

(7) Battery signal circuit

Voltage is constantly applied to TERMINAL BATT of the engine control module. With the ignition SW turned on, the voltage for engine control module start-up power supply is applied to TERMINALS +B and +B2 of the engine control module via the EFI relay.

(8) A/C SW signal circuit

The A/C control assembly (Automatic A/C) or A/C amplifier (Manual A/C) inputs the A/C operations into TERMINAL AC1 of the engine control module.

(9) Stop light SW signal circuit

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

(10) Starter signal circuit

To confirm whether the engine is cranking, the voltage is 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.

(11) Engine knock signal circuit

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

(12) Air fuel ratio signal system

The air fuel ratio is detected and input as a control signal into TERMINAL AF1A+ of the engine control module.

2. Control System

*** SFI system**

The SFI system monitors the engine condition through the signals input from each sensor to the engine control module. And the control signal is output to TERMINALS #10, #20, #30, #40 of the engine control module to operate the injector (Inject the fuel). The SFI 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. The best ignition timing is decided according to this data and the memorized data in the engine control module and the control signal is output to TERMINALS IGT1, IGT2, IGT3, IGT4. This signal controls the igniter to provide the best ignition timing for the driving conditions.

*** Heated oxygen sensor heater control system**

The heated oxygen sensor heater control system turns the heater on when the intake air volume is low (Temp. of exhaust emissions is low), and warms up the heated oxygen sensor to improve detection performance of the sensor. The engine control module evaluates the signals from each sensor, and outputs current to TERMINALS HT1B and HT1C (California) to control the heater.

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 2AZ-FE

Service Hints

E6 (A), E7 (B), E9 (D), E10 (E) Engine Control Module

- BATT-E1 : Always 9.0–14.0 volts
- VC-E2 : 4.5–5.5 volts (Ignition SW at ON position)
- VTA1-E2 : 0.3–1.0 volts (Ignition SW on and throttle valve fully closed)
3.2–4.9 volts (Ignition SW on and throttle valve fully open)
- VG-E2G : 1.1–1.5 volts (Engine idling and A/C SW off)
- THA-E2 : 0.5–3.4 volts (Engine idling and intake air temp. 20°C, 68°F)
- THW-E2 : 0.2–1.0 volts (Engine idling and coolant temp. 80°C, 176°F)
- IGF1-E1 : 4.5–5.5 volts (Ignition SW at ON position)
Pulse generation (Engine idling)
- SIL-E1 : Pulse generation (During transmission)
- TACH-E1 : Pulse generation (Engine idling)
- STA-E1 : 6.0 volts or more (Engine cranking)
- FC-E01 : 9.0–14.0 volts (Ignition SW at ON position)
- SPD-E1 : Pulse generation (Ignition SW on and rotate driving wheel slowly)
- W-E01 : Below 3.0 volts (Ignition SW at ON position)
- NSW-E1 : 9.0–14.0 volts (Ignition SW on and other shift position in P or N position)
0–3.0 volts (Ignition SW on and shift position in P or N position)
- PRG-E01 : 9.0–14.0 volts (Ignition SW at ON position)
- STP-E1 : 7.5–14.0 volts (Ignition SW on and brake pedal depressed)
Below 1.5 volts (Ignition SW on and brake pedal released)
- KNK1-E1 : Pulse generation (Engine idling)
- PSW-E1 : 9.0–14.0 volts (Ignition SW at ON position)
- HA1A-E04 : Below 3.0 volts (Engine idling)
- IGSW-E1 : 9.0–14.0 volts (Ignition SW at ON position)
- MREL-E1 : 9.0–14.0 volts (Ignition SW at ON position)
- G2+, NE+ –NE– : Pulse generation (Engine idling)
- OC1+ –OC1– : Pulse generation (Ignition SW at ON position)
- HT1B-E1 : 9.0–14.0 volts (Engine idling)
Below 3.0 volts (Ignition SW at ON position)
- HT1C-E1 : 9.0–14.0 volts (Engine idling)
Below 3.0 volts (Ignition SW at ON position)
- AFA+ –E1 : 3.3 volts (Ignition SW at ON position)
- AFA– –E1 : 3.0 volts (Ignition SW at ON position)
- OX1B-E1 : Pulse generation (Maintain engine speed at 2500 rpm for 90 sec. after warming up)
- OX1C-E1 : Pulse generation (Maintain engine speed at 2500 rpm for 90 sec. after warming up)
- IGT1, IGT2, IGT3, IGT4-E1 : Pulse generation (Engine idling)
#10, #20, #30, #40-E01 : 9.0–14.0 volts (Ignition SW at ON position)
Pulse generation (Engine idling)

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A4	38 (*2)	F8	42	J11	42
A8	38 (*2)	H6	38 (*2)	J16	D 41
A18	40	H13	41	J17	E 41
A23	40	I1	39 (*2)	J22	A 41
A38	B 40	I2	39 (*2)	J23	B 41
A40	A 40	I3	39 (*2)	K2	39 (*2)
C1	38 (*2)	I4	39 (*2)	M1	39 (*2)
C3	38 (*2)	I7	39 (*2)	P1	39 (*2)
C6	40	I8	39 (*2)	S1	39 (*2)
C7	A 40	I9	39 (*2)	S14	41
C8	B 40	I10	39 (*2)	T11	41
D3	40	I15	41	T12	39 (*2)
E4	38 (*2)	I18	39 (*2)	V4	43
E6	A 40	J1	41	V6	39 (*2)
E7	B 40	J2	41	V7	39 (*2)
E9	D 40	J5	A 41	V11	43
E10	E 40	J6	B 41		

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	22	Engine Room R/B (Engine Compartment Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B		
1C		
1D		
1E		
1H		
1J		
1K	25	Engine Wire and Engine Room J/B (Engine Compartment Left)
1L		
2A	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2E	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2G		
2K	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
2L	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2M		
2O		
2P		
2R		
2S		
3A	34	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)
3B		

* 1 : 1MZ-FE, 3MZ-FE * 2 : 2AZ-FE * 3 : w/ Power Seat * 4 : w/o Power Seat

Engine Control for 2AZ-FE

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC2	50	Instrument Panel Wire and Floor Wire (Left Kick Panel)
ID1	50	Engine Room Main Wire and Floor Wire (Left Side of Driver Side J/B)
IF1	50	Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube)
IF4		
IF6		
IJ1	52	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement RH)
IL1	52	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IL2		

: Ground Points

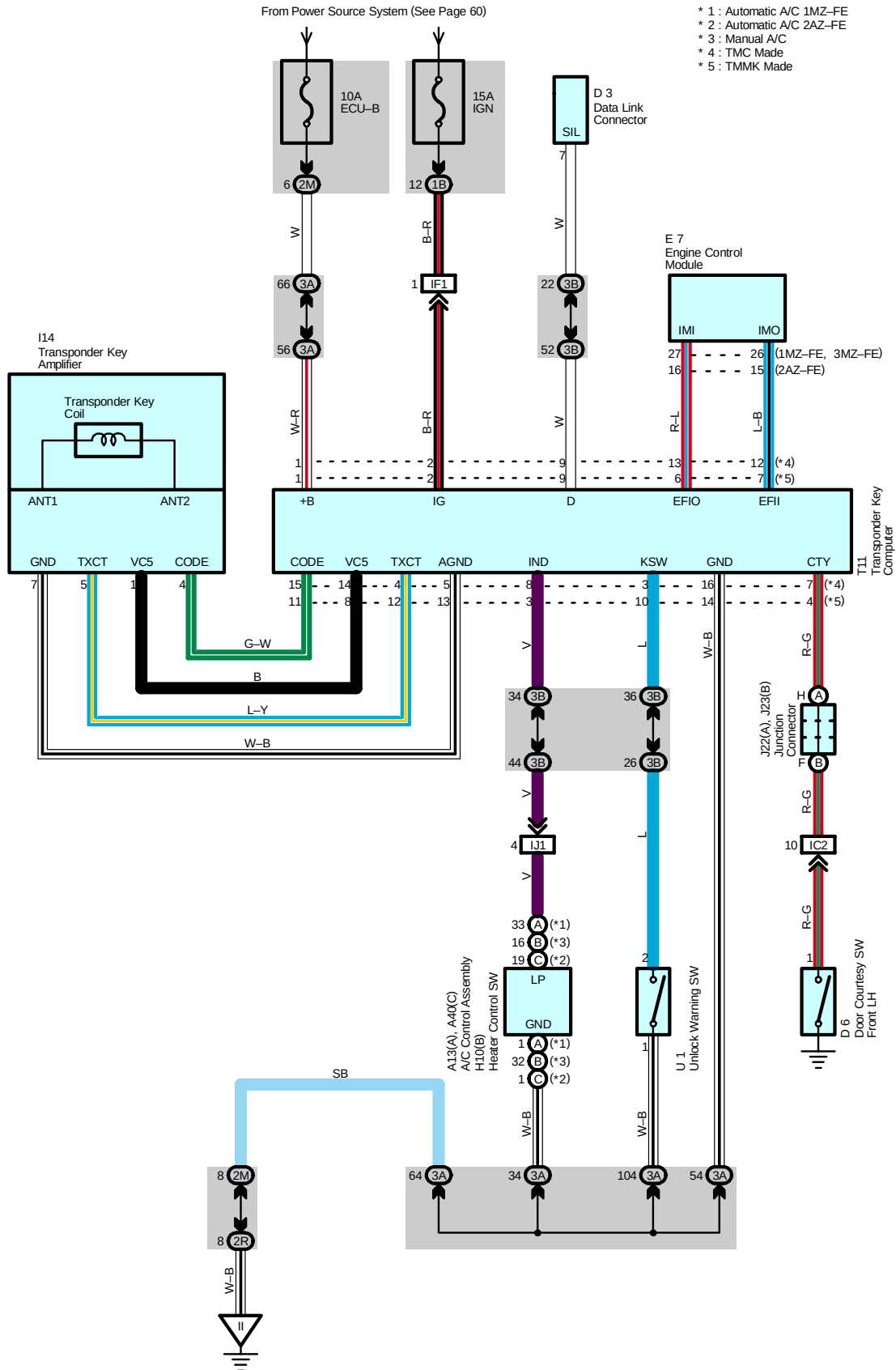
Code	See Page	Ground Points Location
EC	48 (*2)	Left Fender
ED		
EG	48 (*2)	Left Side of Cylinder Head
EH	48 (*2)	Intake Side of Cylinder Block
II	50	Cowl Side Panel LH
BQ	54	Front Side of Rear Quarter Wheel House LH

: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E12	48 (*2)	Engine Wire	I6	52	Engine Wire
E13			I7		
E14			I8		
E15			I10	52	Engine Room Main Wire
I1	52	Engine Room Main Wire	B17	54	Floor Wire

* 1 : 1MZ-FE, 3MZ-FE * 2 : 2AZ-FE * 3 : w/ Power Seat * 4 : w/o Power Seat

Engine Immobilizer System



Service Hints

T11 Transponder Key Computer

- 1–Ground : Always approx. 12 volts
- 2–Ground : Approx. 12 volts with ignition SW at ON or ST position
- 14 (TMMK Made), 16 (TMC Made)–Ground : Always continuity
- 10 (TMMK Made), 3 (TMC Made)–Ground : Continuity with the key in cylinder

: Parts Location

Code		See Page	Code		See Page	Code		See Page
A13	A	40	E7		40	J23	B	41
A40	C	40	H10	B	41	T11		41
D3		40	I14		41	U1		41
D6		42	J22	A	41			

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2M	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2R		
3A	34	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)
3B		

: Connector Joining Wire Harness and Wire Harness

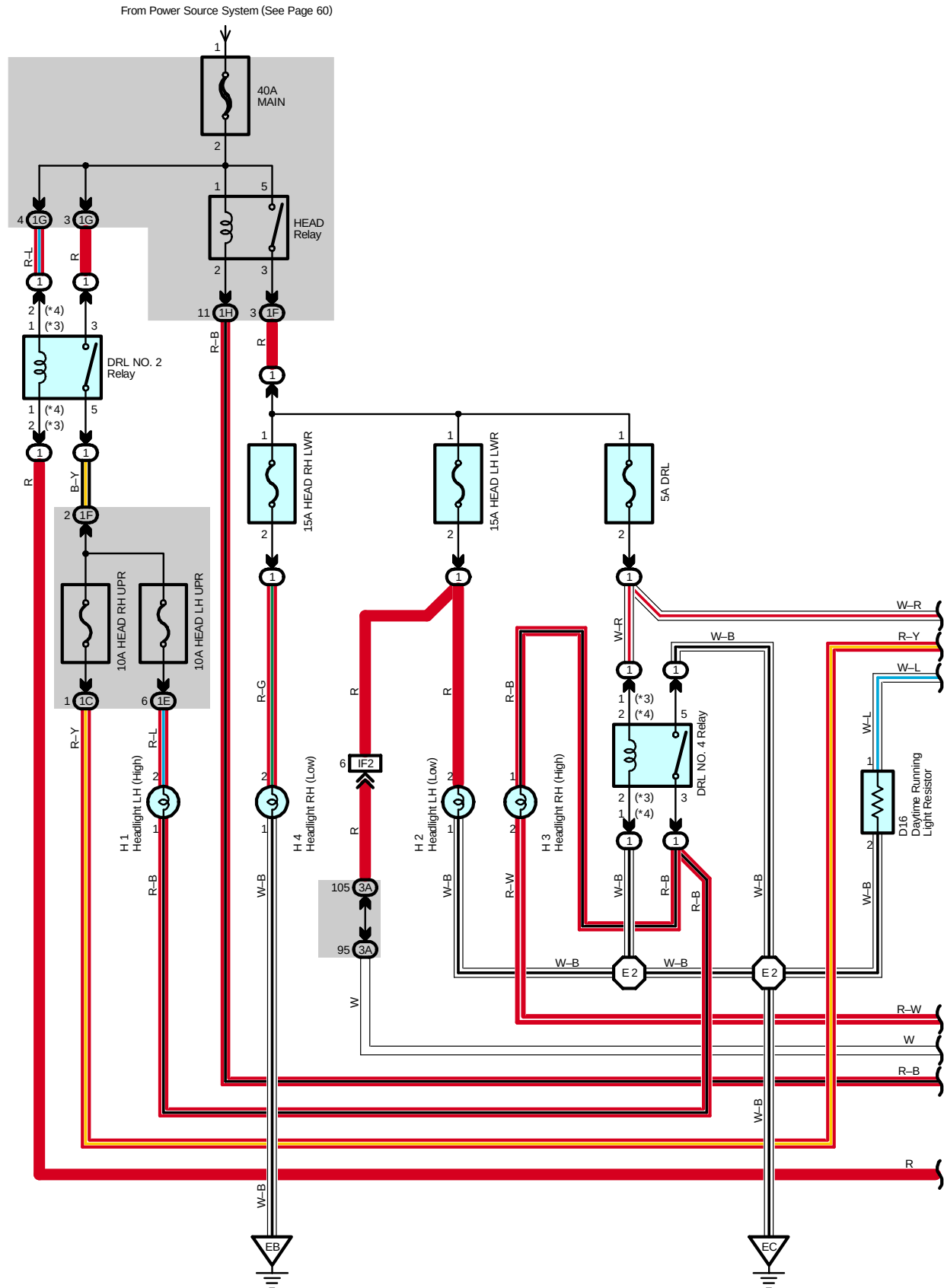
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC2	50	Instrument Panel Wire and Floor Wire (Left Kick Panel)
IF1	50	Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube)
IJ1	52	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement RH)

: Ground Points

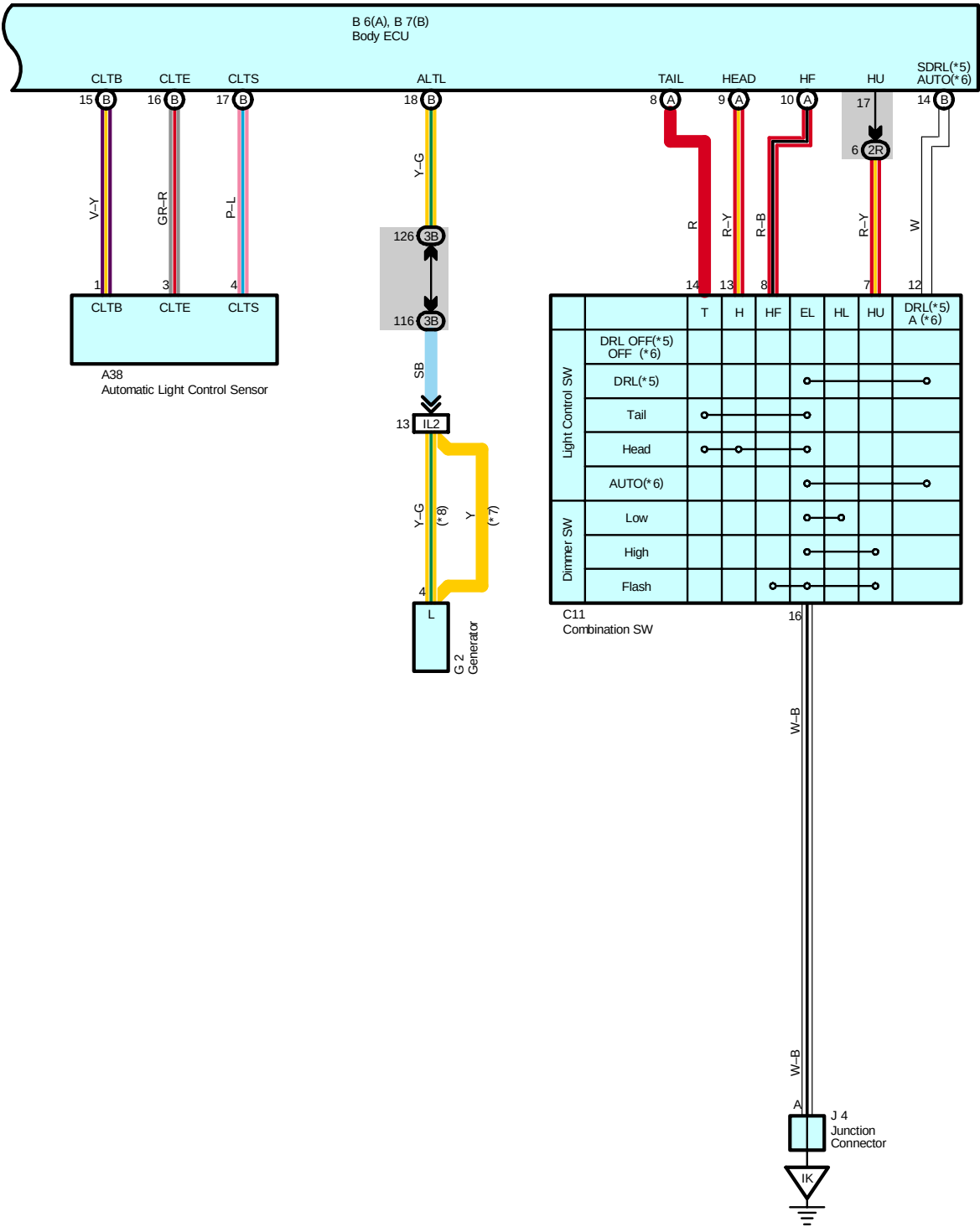
Code	See Page	Ground Points Location
II	50	Cowl Side Panel LH

* 1 : 1MZ–FE, 3MZ–FE * 2 : 2AZ–FE * 3 : w/ Power Seat * 4 : w/o Power Seat

Headlight



* 5 : USA
* 6 : Canada
* 7 : TMC Made 1MZ-FE, TMC Made 3MZ-FE
* 8 : Except * 7



System Outline

Daytime Running Light Operation

When the engine is started, a signal from the generator is input into TERMINAL (B) 18 of the body ECU. At this time, if the parking brake pedal is depressed or parking brake lever is pulled (Parking brake SW ON), the body ECU is not activated, and the daytime running light system does not operate.

When the parking brake pedal or parking lever is released (Parking brake SW OFF), a signal is input into TERMINAL 18 of the body ECU. This activates the body ECU and the headlight turns on.

Service Hints

Body ECU

- 9-Ground : Approx. 12 volts with the ignition SW at ON or ST position
- 12, 24-Ground : Always continuity
- 1-Ground : Always approx. 12 volts

P3 Parking Brake SW

- 1-Ground : Continuity with the parking brake pedal depressed (Pedal type)
- Continuity with the parking brake lever pulled up (Lever type)

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A38	40	G2	36 (*1) 38 (*2)	H4	36 (*1) 38 (*2)
B6	A 40				
B7	B 40	H1	36 (*1) 38 (*2)	J4	41
C7	A 40			J22	A 41
C8	B 40	H2	36 (*1) 38 (*2)	J23	B 41
C11	40			P3	41
D16	36 (*1) 38 (*2)	H3	36 (*1) 38 (*2)		

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	22	Engine Room R/B (Engine Compartment Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1E		
1F		
1G		
1H		
2B	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2F	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2G		
2L	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2R		
2S		
3A	34	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)
3B		

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF2	50	Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube)
IF3		
IL2	52	Engine Wire and Instrument Panel Wire (Behind the Glove Box)

* 1 : 1MZ-FE, 3MZ-FE * 2 : 2AZ-FE * 3 : w/ Power Seat * 4 : w/o Power Seat

Headlight



: Ground Points

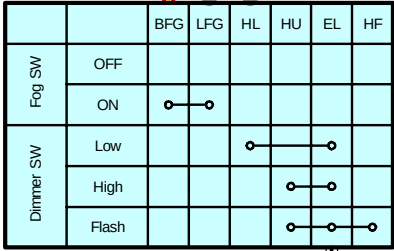
Code	See Page	Ground Points Location
EB	46 (*1)	Right Fender
	48 (*2)	
EC	46 (*1)	Left Fender
	48 (*2)	
II	50	Cowl Side Panel LH
IJ	50	Instrument Panel Brace LH
IK		



: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	46 (*1)	Engine Room Main Wire	E2	48 (*2)	Engine Room Main Wire

* 1 : 1MZ-FE, 3MZ-FE * 2 : 2AZ-FE * 3 : w/ Power Seat * 4 : w/o Power Seat



Service Hints

FOG Relay

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

: Parts Location

Code	See Page	Code	See Page	Code	See Page
C11	40	F1	38 (*2)	F2	38 (*2)
F1	36 (*1)	F2	36 (*1)	J4	41

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2C	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2G	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2R	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
3A	34	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF2	50	Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube)

: Ground Points

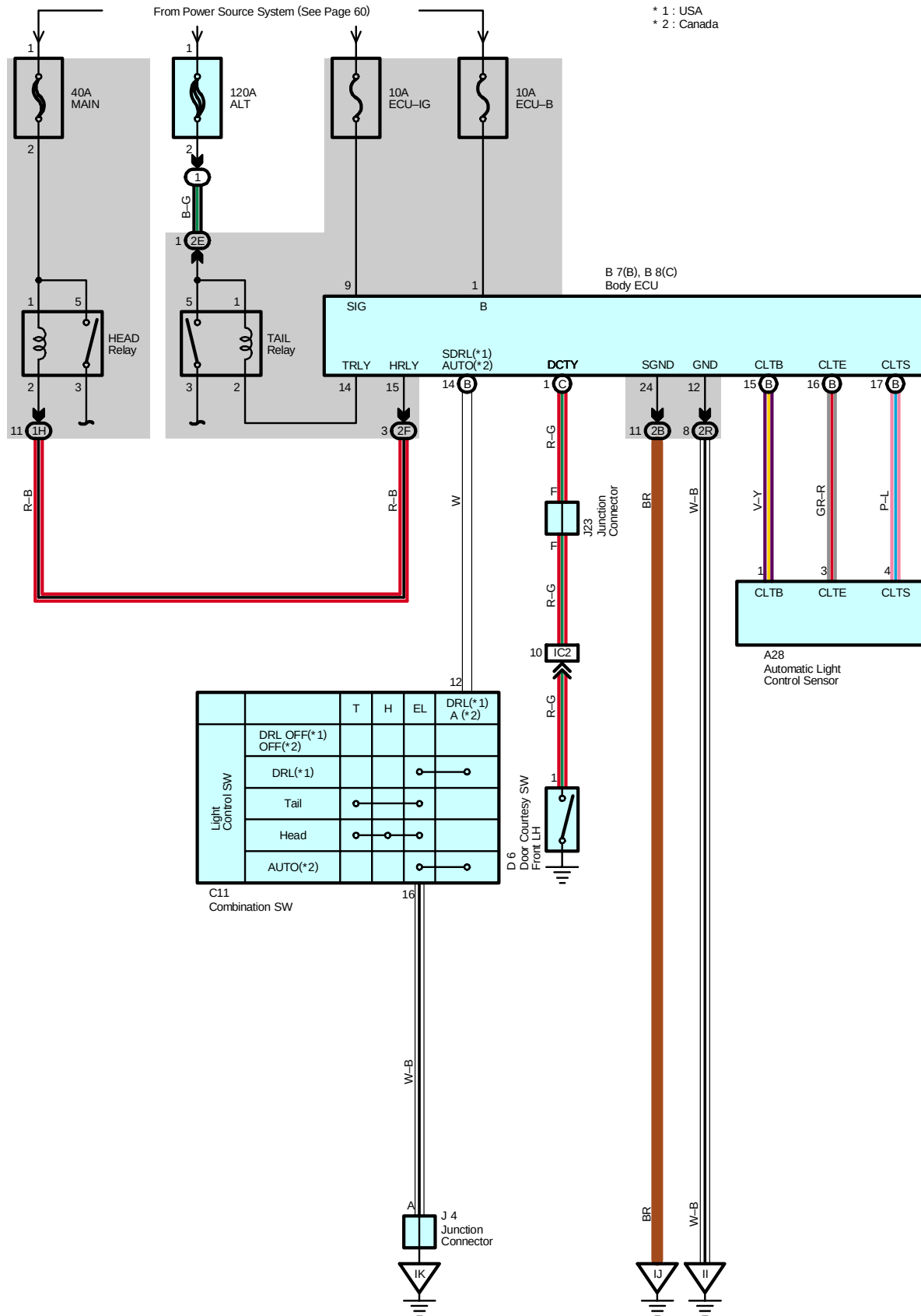
Code	See Page	Ground Points Location
EB	46 (*1)	Right Fender
	48 (*2)	
EC	46 (*1)	Left Fender
	48 (*2)	
IK	50	Instrument Panel Brace LH

: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E10	46 (*1)	Engine Room Main Wire	E10	48 (*2)	Engine Room Main Wire

* 1 : 1MZ-FE, 3MZ-FE * 2 : 2AZ-FE * 3 : w/ Power Seat * 4 : w/o Power Seat

Automatic Light Control



System Outline

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

Service Hints

Body ECU

- 9-Ground : Approx. 12 volts with the ignition SW at ON or ST position
- 12, 24-Ground : Always continuity
- 1-Ground : Always approx. 12 volts

D6 Door Courtesy SW Front LH

- 1-Ground : Continuity with the driver's door open

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A28		40	C11		40	J23		41
B7	B	40	D6		42			
B8	C	40	J4		41			

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	22	Engine Room R/B (Engine Compartment Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1H	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2E	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2F		
2R	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)

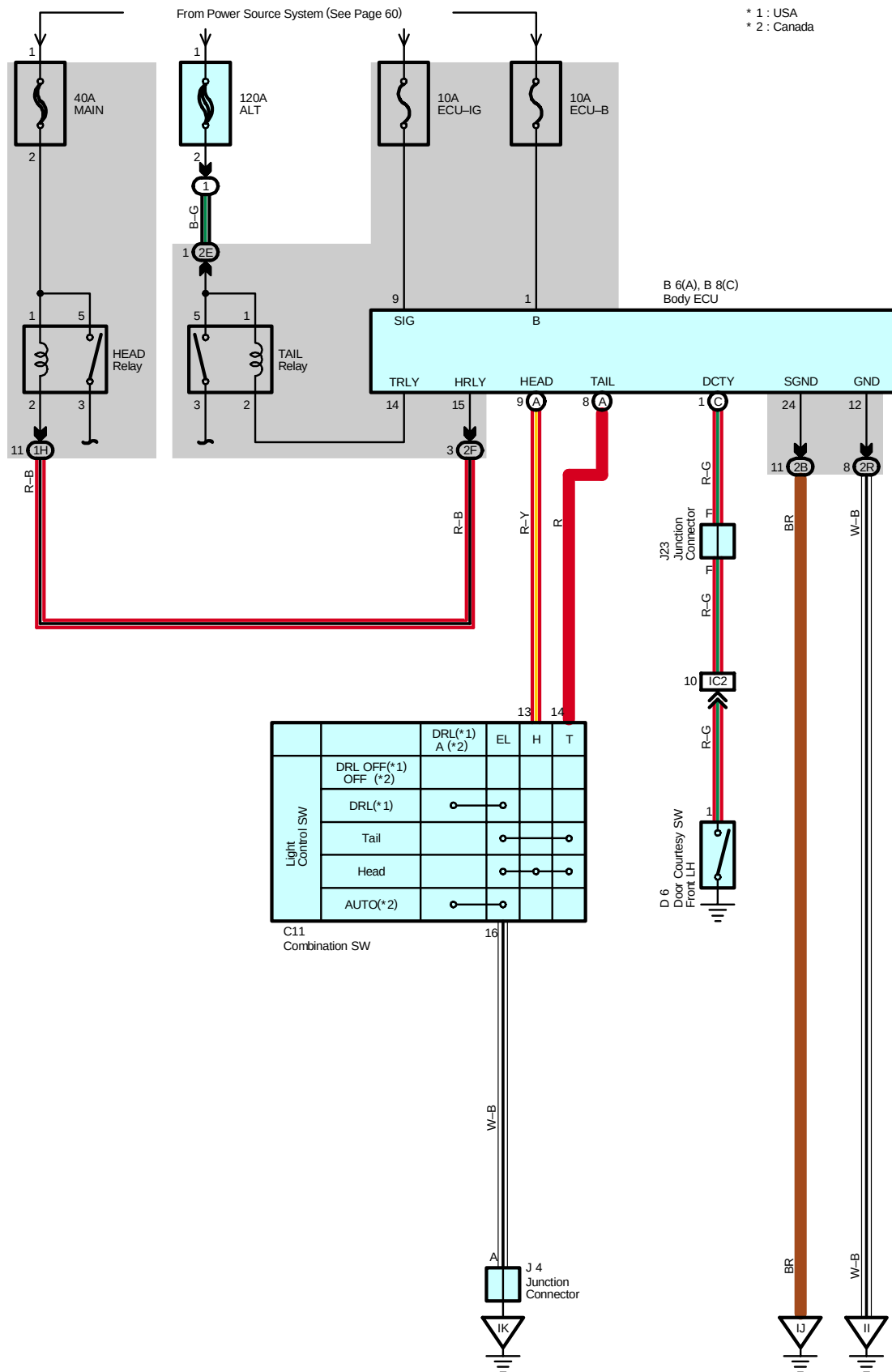
□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC2	50	Instrument Panel Wire and Floor Wire (Left Kick Panel)

▽ : Ground Points

Code	See Page	Ground Points Location
II	50	Cowl Side Panel LH
IJ		Instrument Panel Brace LH
IK		

Light Auto Turn Off System



System Outline

1. Normal Lighting Operation

<Turn taillight on>

With the light control SW turned to TAIL position, a signal is input into TERMINAL (A) 8 of the body ECU. Due to this signal, the current flowing to TERMINAL 14 of the ECU flows to TERMINAL (A) 8 to TERMINAL 14 of the light control SW to TERMINAL 16 to GROUND, and TAIL relay causes taillights to turn on.

<Turn headlight on>

With the light control SW turned to HEAD position, a signal is input into TERMINALS (A) 8 and (A) 9 of the body ECU. Due to this signal, the current flowing to TERMINAL 15 of the ECU flows to TERMINAL (A) 9 to TERMINAL 13 of the light control SW to TERMINAL 16 to GROUND in the headlight circuit, and causes taillight and HEAD relay to turn the lights on. The taillight circuit is same as above.

2. Light Auto Turn Off Operation

With light on and ignition SW turned off (Input signal goes to TERMINAL 9 of the ECU), when the driver's door is opened (Input signal goes to TERMINAL (C) 1 of the ECU), the body ECU operates and the current is cut off which flows from TERMINAL 14 of the ECU to TERMINAL (A) 8 in taillight circuit and from TERMINAL 15 to TERMINAL (A) 9 in headlight circuit.

As a result, all lights are turned off automatically.

Service Hints

TAIL Relay

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

HEAD Relay

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

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

Body ECU

9-Ground : Approx. 12 volts with the ignition SW at ON or ST position

12, 24-Ground : Always continuity

1-Ground : Always approx. 12 volts

D6 Door Courtesy SW Front LH

1-Ground : Closed with the driver door open



: Parts Location

Code		See Page	Code	See Page	Code	See Page
B6	A	40	C11	40	J4	41
B8	C	40	D6	42	J23	41



: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	22	Engine Room R/B (Engine Compartment Left)



: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1H	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2E	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2F		
2R	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)



: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC2	50	Instrument Panel Wire and Floor Wire (Left Kick Panel)

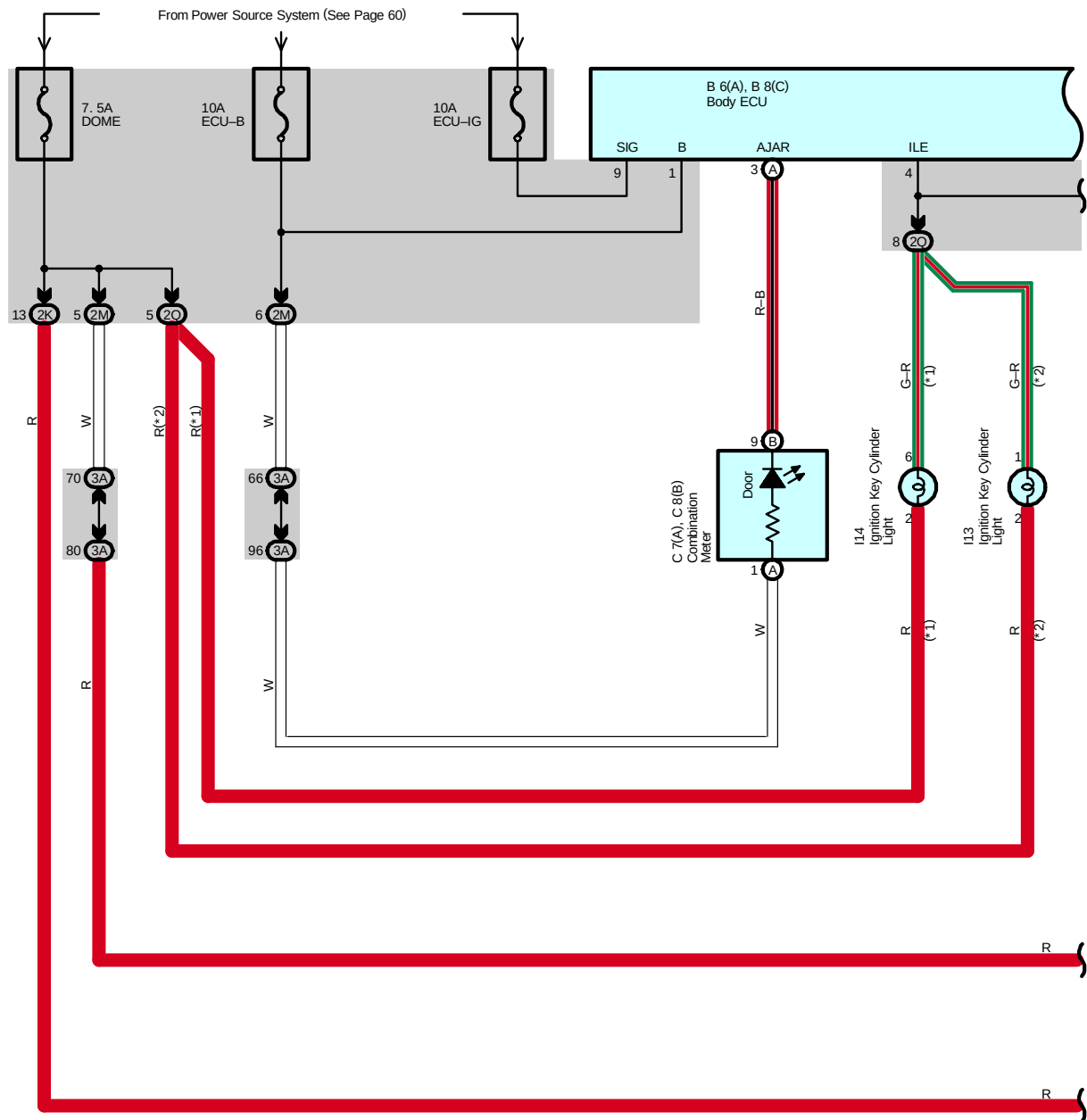
Light Auto Turn Off System



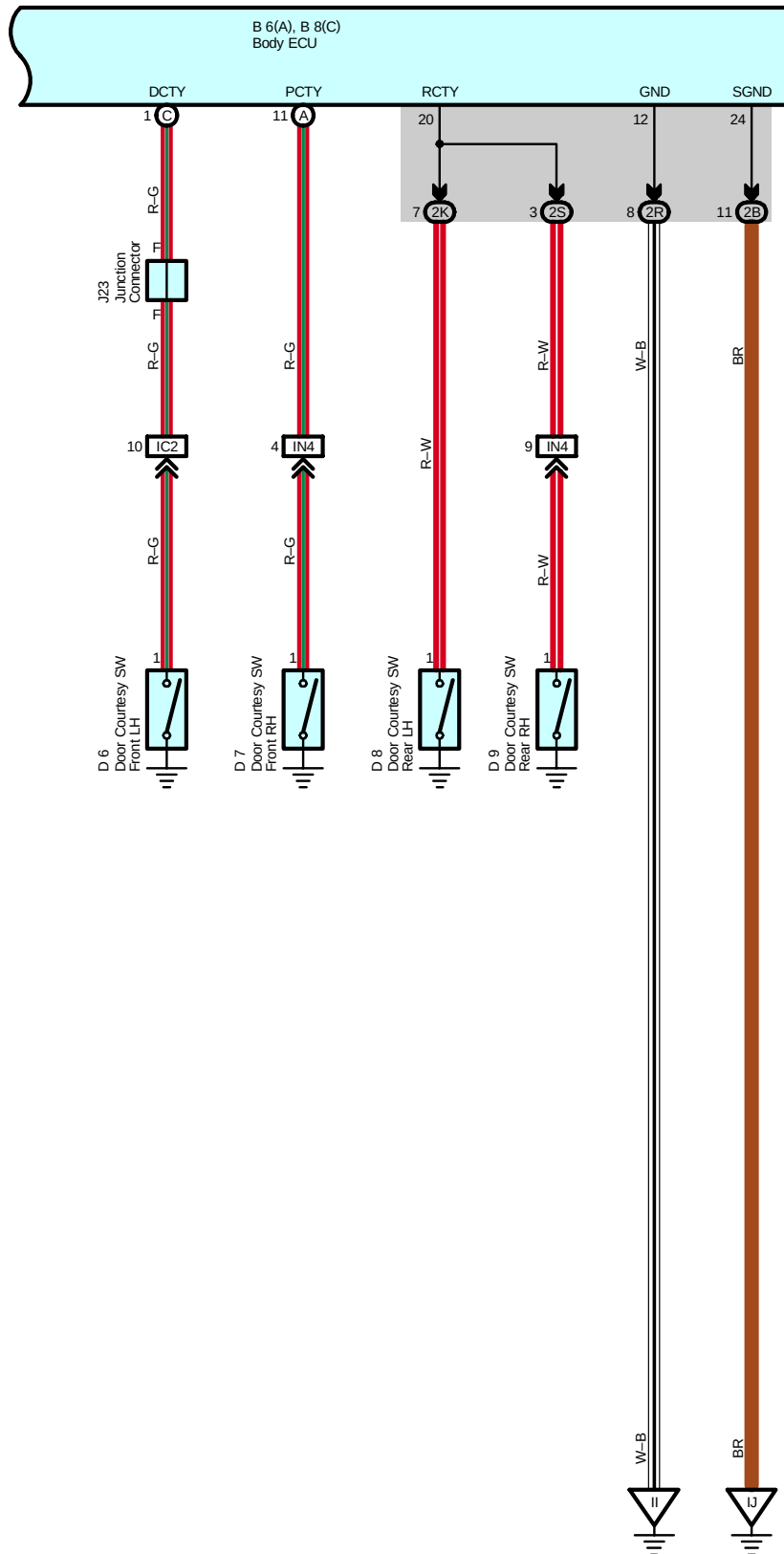
: Ground Points

Code	See Page	Ground Points Location
II	50	Cowl Side Panel LH
IJ	50	Instrument Panel Brace LH
IK		

Interior Light



Interior Light



Service Hints

Body ECU

- 9-Ground : Approx. 12 volts with the ignition SW at ON or ST position
- 12, 24-Ground : Always continuity
- 1-Ground : Always approx. 12 volts

D6, D7, D8, D9 Door Courtesy SW Front LH, RH, Rear LH, RH

- 1-Ground : Closed with each of the door open

: Parts Location

Code	See Page	Code	See Page	Code	See Page
B6	A 40	D8	42	L4	43
B8	C 40	D9	42	L5	43
C7	A 40	G4	42	N4	43
C8	B 40	I13	41	V9	43
D4	42	I14	41	V10	43
D6	42	I17	42		
D7	42	J23	41		

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2B	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2K	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
2M	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2Q		
2R		
2S		
3A	34	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC2	50	Instrument Panel Wire and Floor Wire (Left Kick Panel)
IE1	50	Instrument Panel Wire and Roof Wire (Inside of Front Left Pillar)
IN4	52	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)

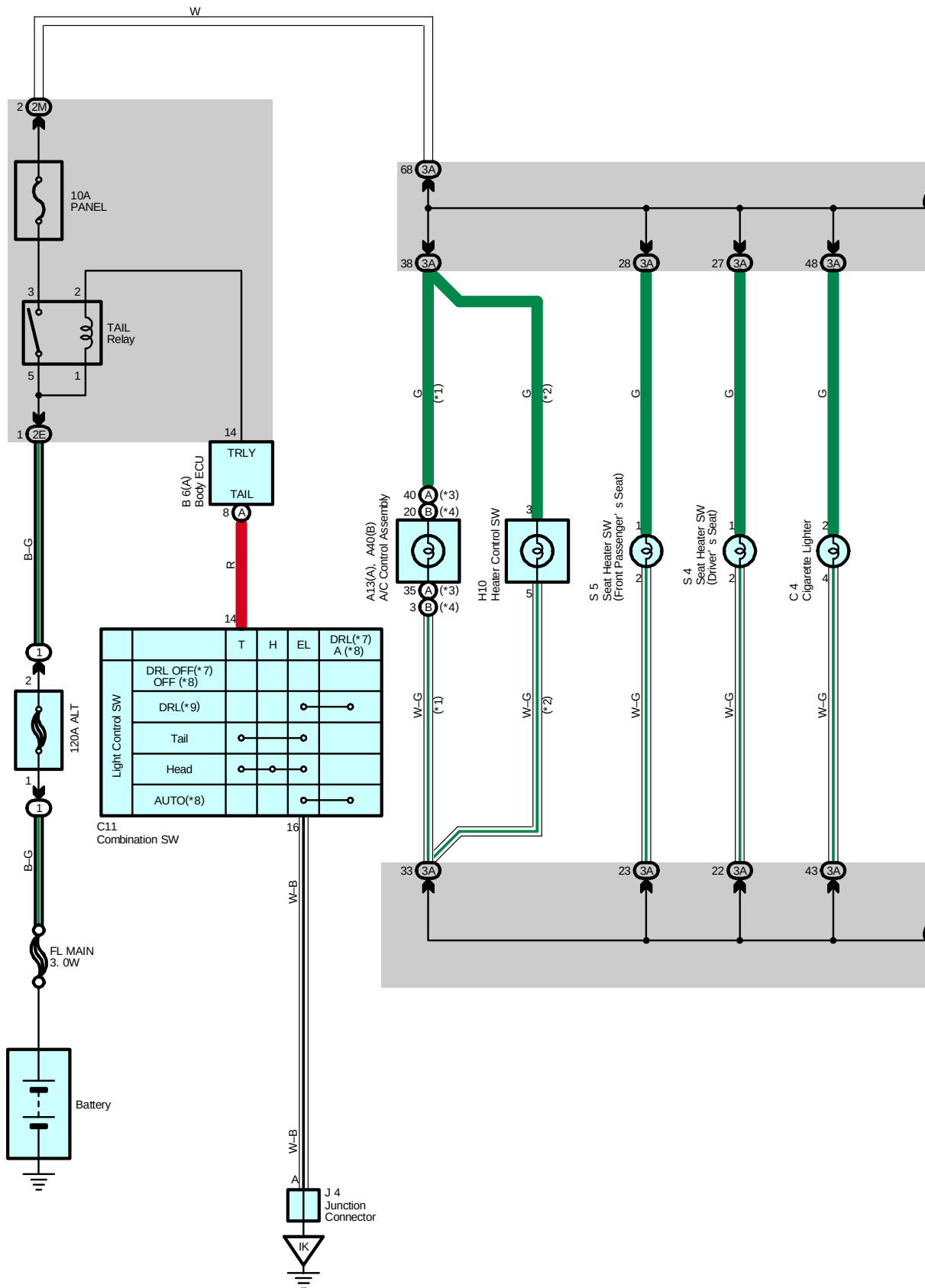
: Ground Points

Code	See Page	Ground Points Location
II	50	Cowl Side Panel LH
IJ	50	Instrument Panel Brace LH
IM	50	Instrument Panel Reinforcement RH

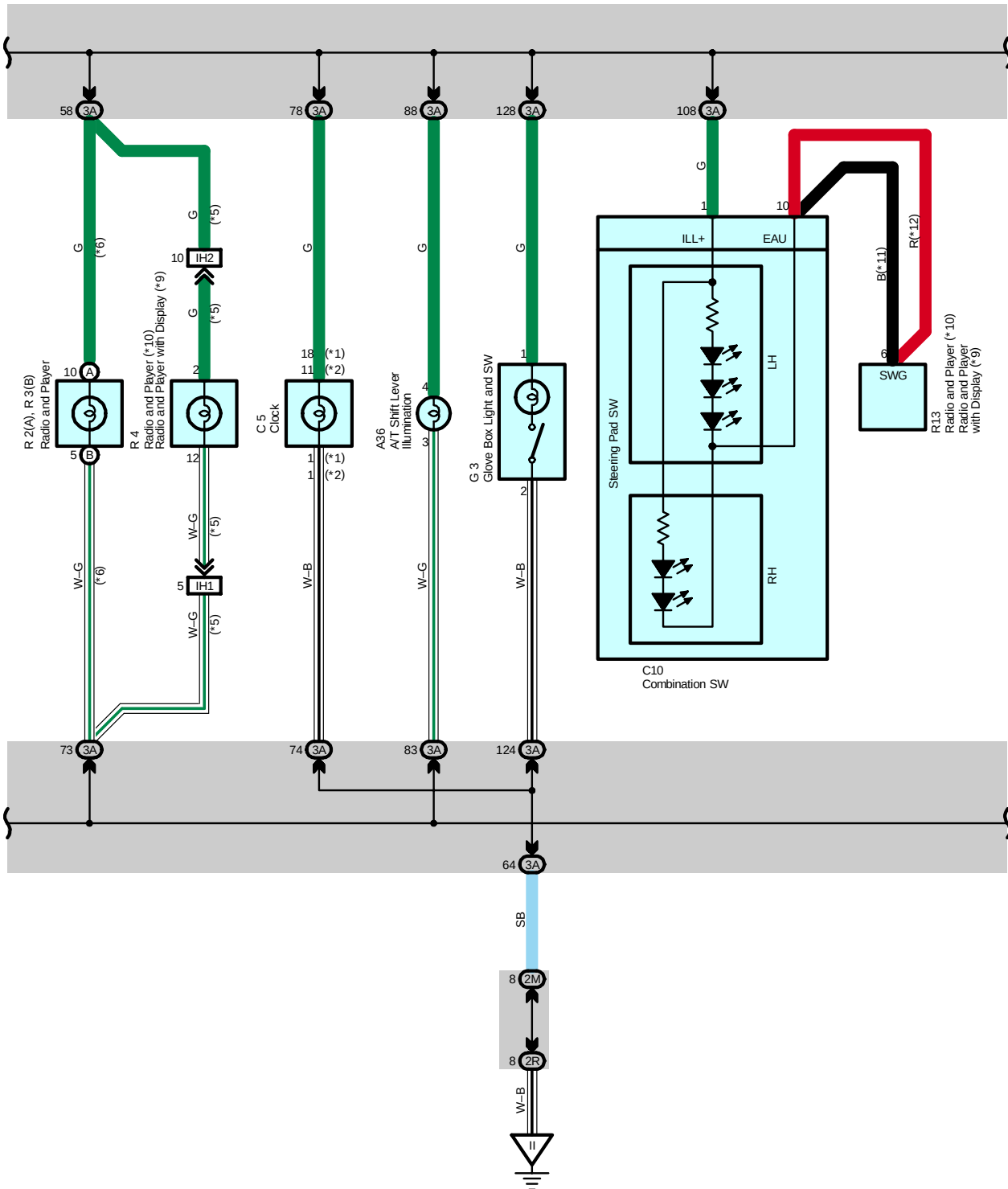
: Splice Points

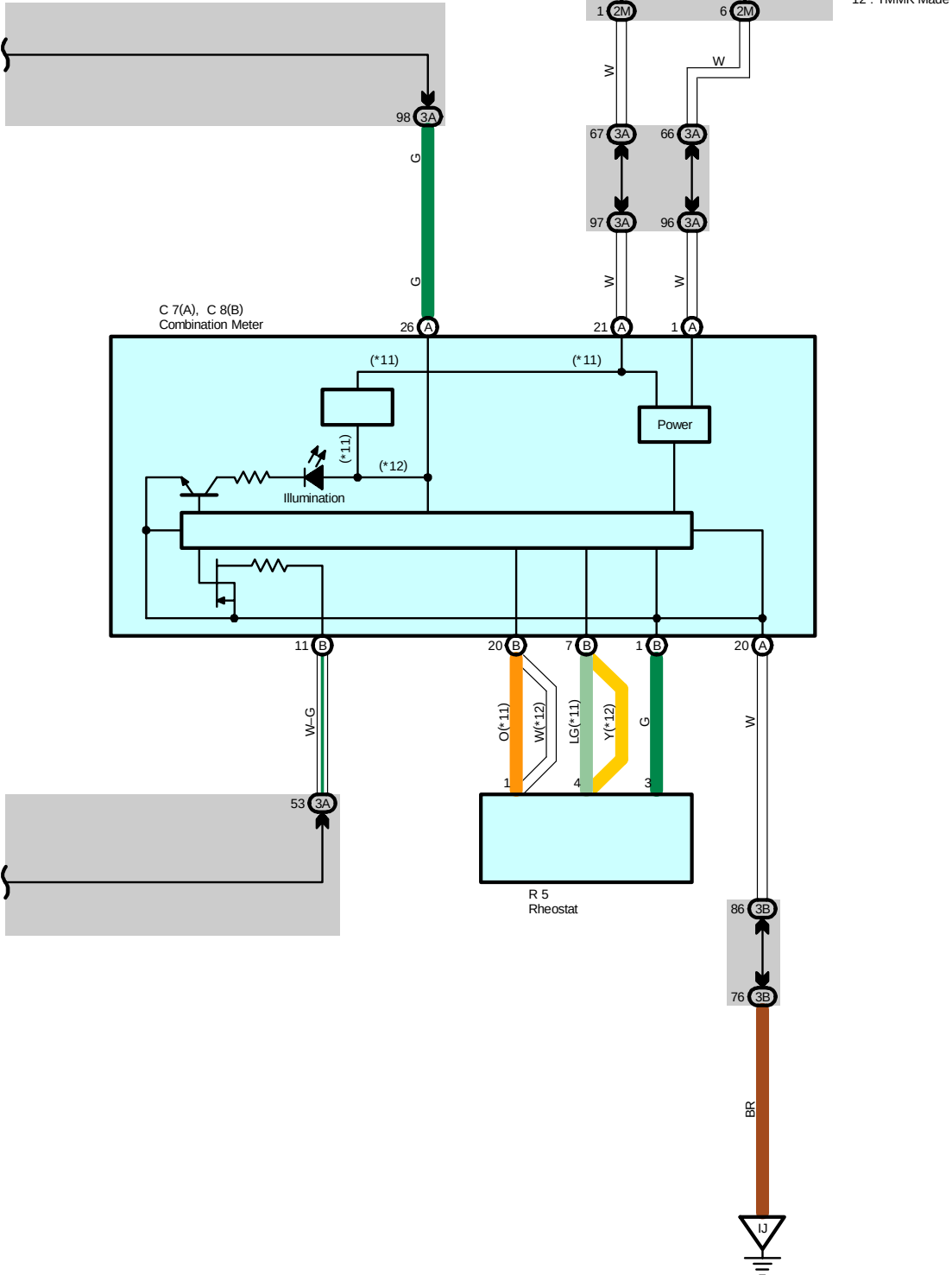
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B1	54	Roof Wire	B5	54	Floor Wire
B2					

* 1 : 1MZ-FE, 3MZ-FE * 2 : 2AZ-FE * 3 : w/ Power Seat * 4 : w/o Power Seat



- * 1 : Automatic A/C
- * 2 : Manual A/C
- * 3 : 1MZ-FE
- * 4 : 2AZ-FE
- * 5 : Separate Type Amplifier
- * 6 : Built-In Type Amplifier
- * 7 : USA
- * 8 : Canada
- * 9 : w/ Navigation System
- * 10 : w/o Navigation System
- * 11 : TMC Made
- * 12 : TMMK Made





Service Hints

TAIL Relay

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

C11 Combination SW

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

: Parts Location

Code		See Page	Code		See Page	Code		See Page
A13	A	40	C8	B	40	R3	B	41
A36		40	C10		40	R4		41
A40	B	40	C11		40	R5		41
B6	A	40	G3		41	R13		41
C4		40	H10		41	S4		41
C5		40	J4		41	S5		41
C7	A	40	R2	A	41			

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2E	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2M	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2R		
3A	34	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)
3B		

: Connector Joining Wire Harness and Wire Harness

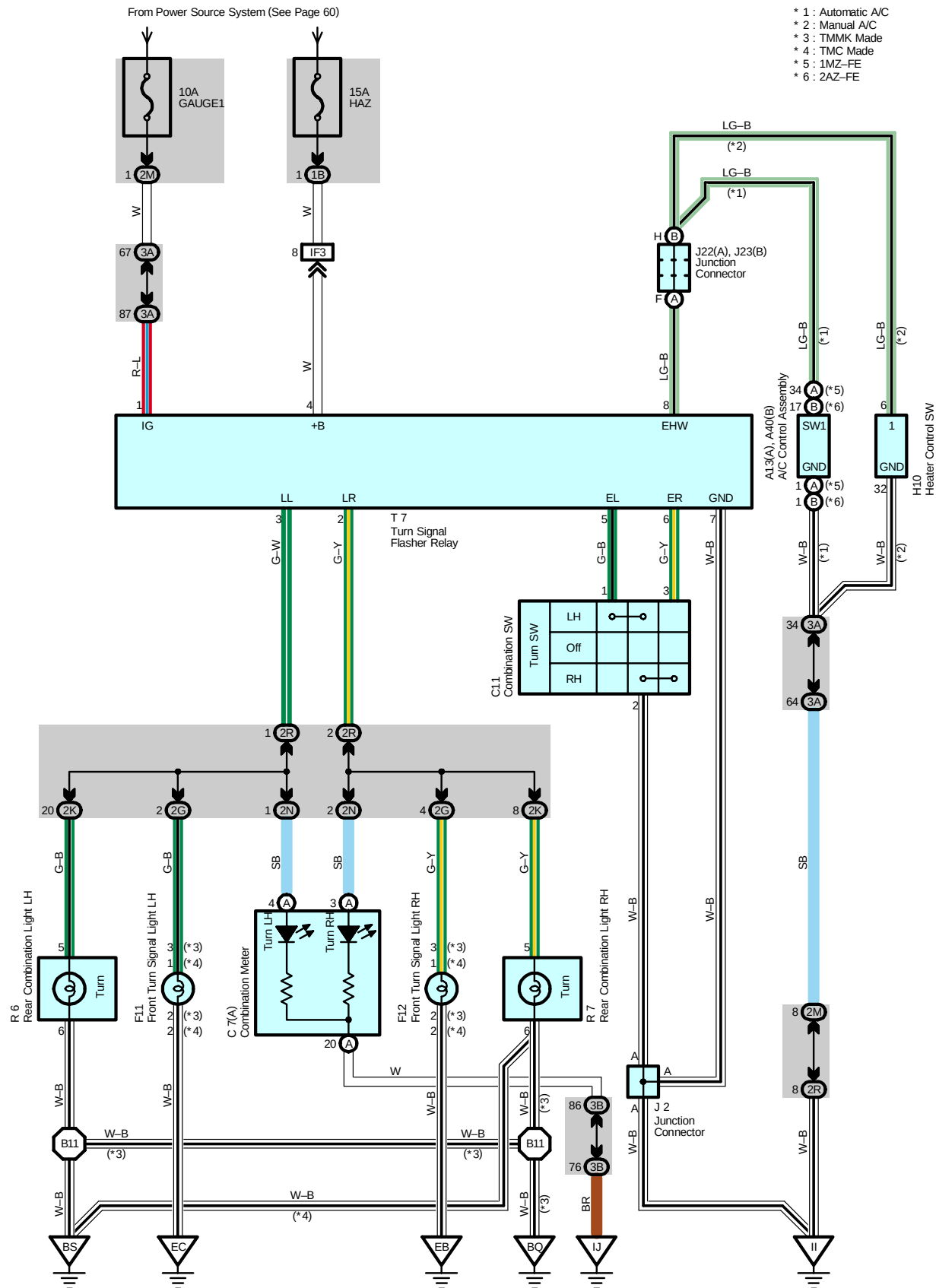
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IH1	50	Instrument Panel Wire and Instrument Panel No.2 Wire (Instrument Panel Brace RH)
IH2		

: Ground Points

Code	See Page	Ground Points Location
II	50	Cowl Side Panel LH
IJ	50	Instrument Panel Brace LH
IK		

* 1 : 1MZ-FE, 3MZ-FE * 2 : 2AZ-FE * 3 : w/ Power Seat * 4 : w/o Power Seat

Turn Signal and Hazard Warning Light



Service Hints

T7 Turn Signal Flasher Relay

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

○ : Parts Location

Code		See Page	Code	See Page	Code		See Page
A13	A	40	F11	38 (*2)	J22	A	41
A40	B	40	F12	36 (*1)	J23	B	41
C7	A	40		38 (*2)	R6		43
C11		40	H10	41	R7		43
F11		36 (*1)	J2	41	T7		41

□ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2G	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2K	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
2M	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2N		
2R		
3A	34	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)
3B		

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF3	50	Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube)

▽ : Ground Points

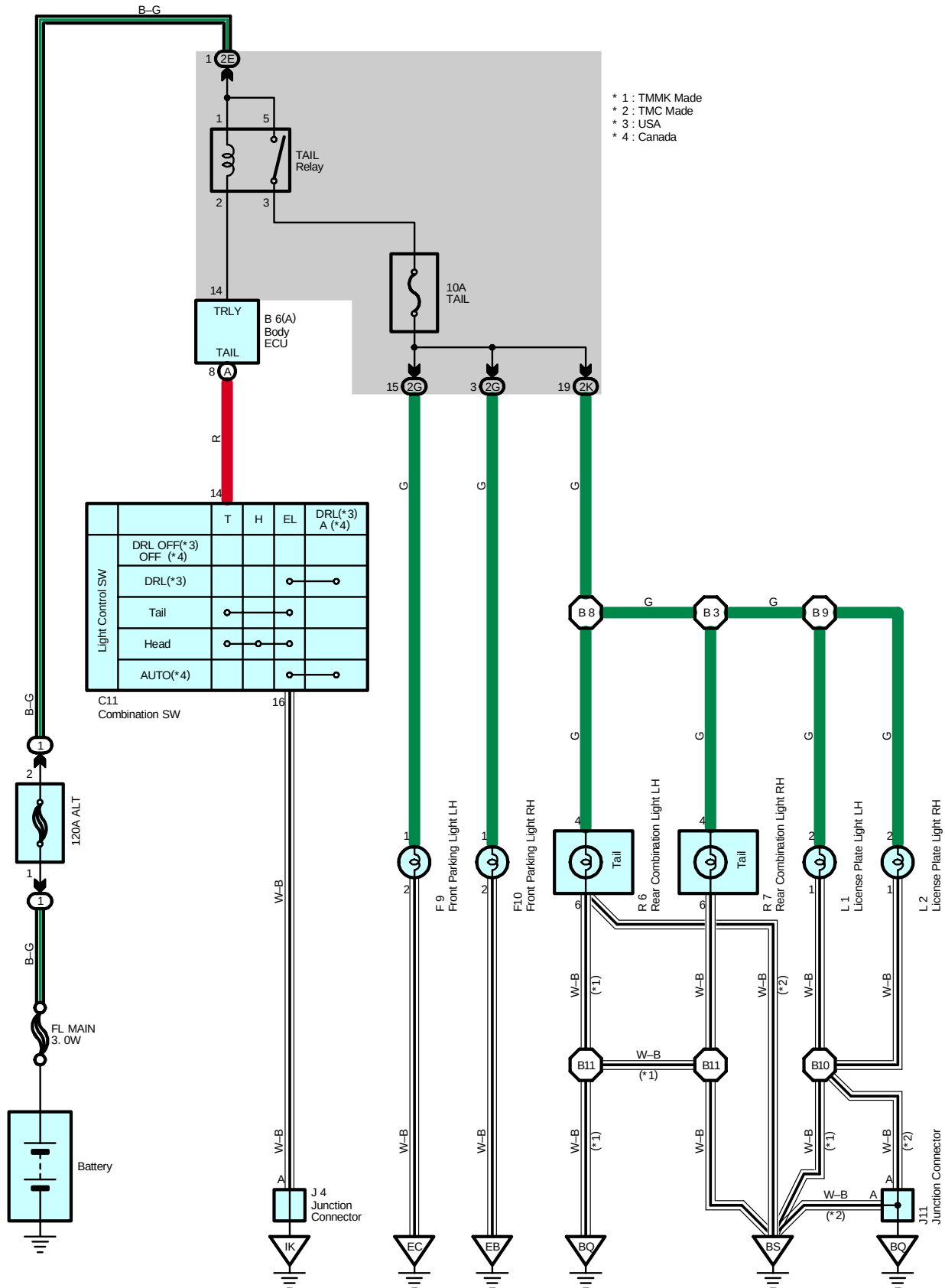
Code	See Page	Ground Points Location
EB	46 (*1)	Right Fender
	48 (*2)	
EC	46 (*1)	Left Fender
	48 (*2)	
II	50	Cowl Side Panel LH
IJ	50	Instrument Panel Brace LH
BQ	54	Front Side of Rear Quarter Wheel House LH
BS	54	Lower Back Panel Center

○ : Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B11	54	Floor Wire			

* 1 : 1MZ-FE, 3MZ-FE * 2 : 2AZ-FE * 3 : w/ Power Seat * 4 : w/o Power Seat

Taillight



Service Hints

TAIL Relay

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

C11 Combination SW

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

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
B6	A	40		L1	43
C11	40	F10	36 (*1)	L2	43
			38 (*2)		
F9	36 (*1)	J4	41	R6	43
	38 (*2)	J11	42	R7	43

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	22	Engine Room R/B (Engine Compartment Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2E		
2G	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2K	28	Floor Wire and Driver Side J/B (Lower Finish Panel)

▽ : Ground Points

Code	See Page	Ground Points Location
EB	46 (*1)	
	48 (*2)	Right Fender
EC	46 (*1)	
	48 (*2)	Left Fender
IK	50	Instrument Panel Brace LH
BQ	54	Front Side of Rear Quarter Wheel House LH
BS	54	Lower Back Panel Center

○ : Splice Points

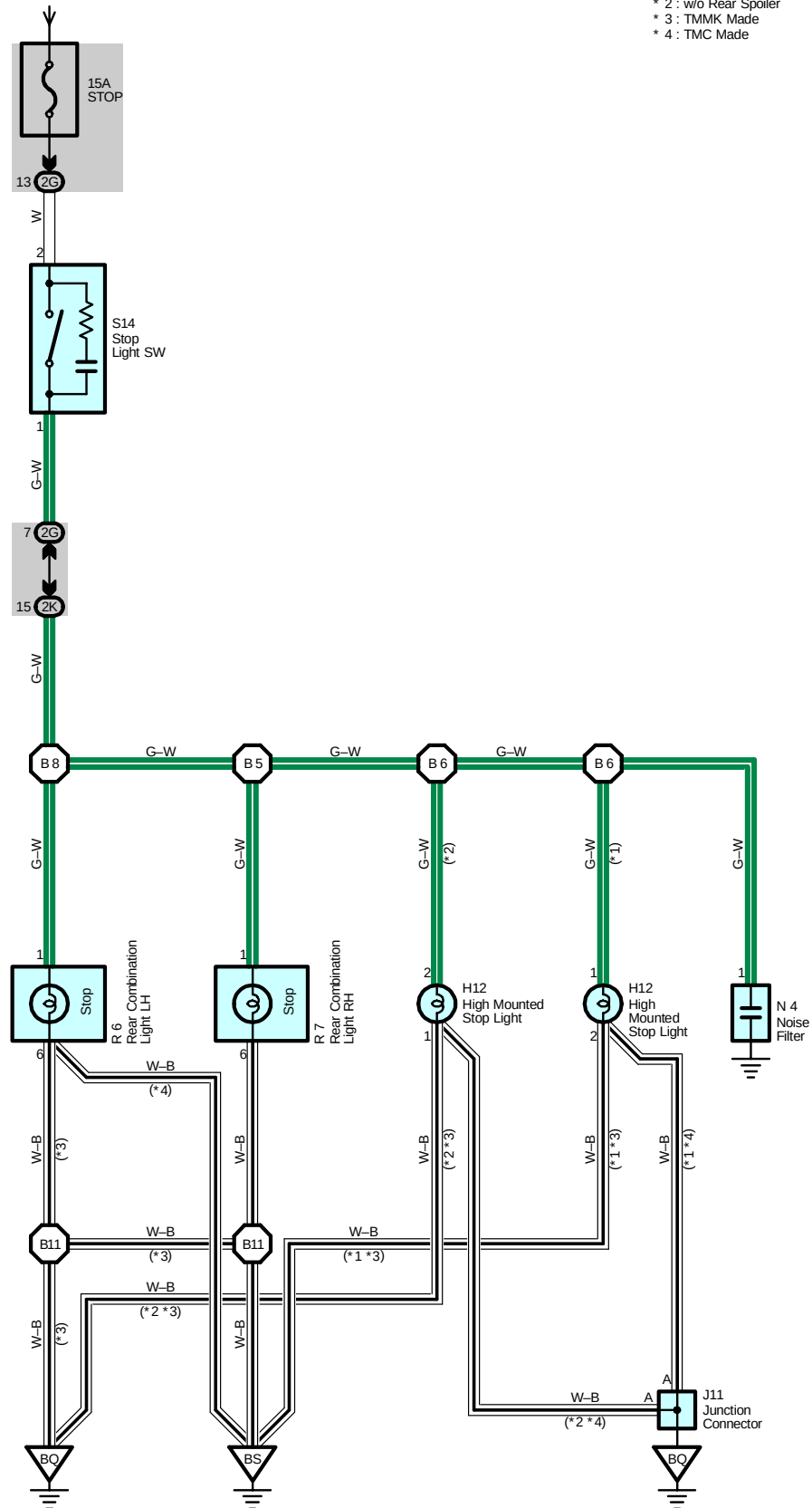
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B3			B10		
B8	54	Floor Wire	B11	54	Floor Wire
B9					

* 1 : 1MZ-FE, 3MZ-FE * 2 : 2AZ-FE * 3 : w/ Power Seat * 4 : w/o Power Seat

Stop Light

From Power Source System (See Page 60)

- * 1 : w/ Rear Spoiler
- * 2 : w/o Rear Spoiler
- * 3 : TMMK Made
- * 4 : TMC Made



Service Hints**S14 Stop Light SW**

2-1 : Closed with the brake pedal depressed

 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
H12	42	N4	43	R7	43
J11	42	R6	43	S14	41

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
2G	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2K	28	Floor Wire and Driver Side J/B (Lower Finish Panel)

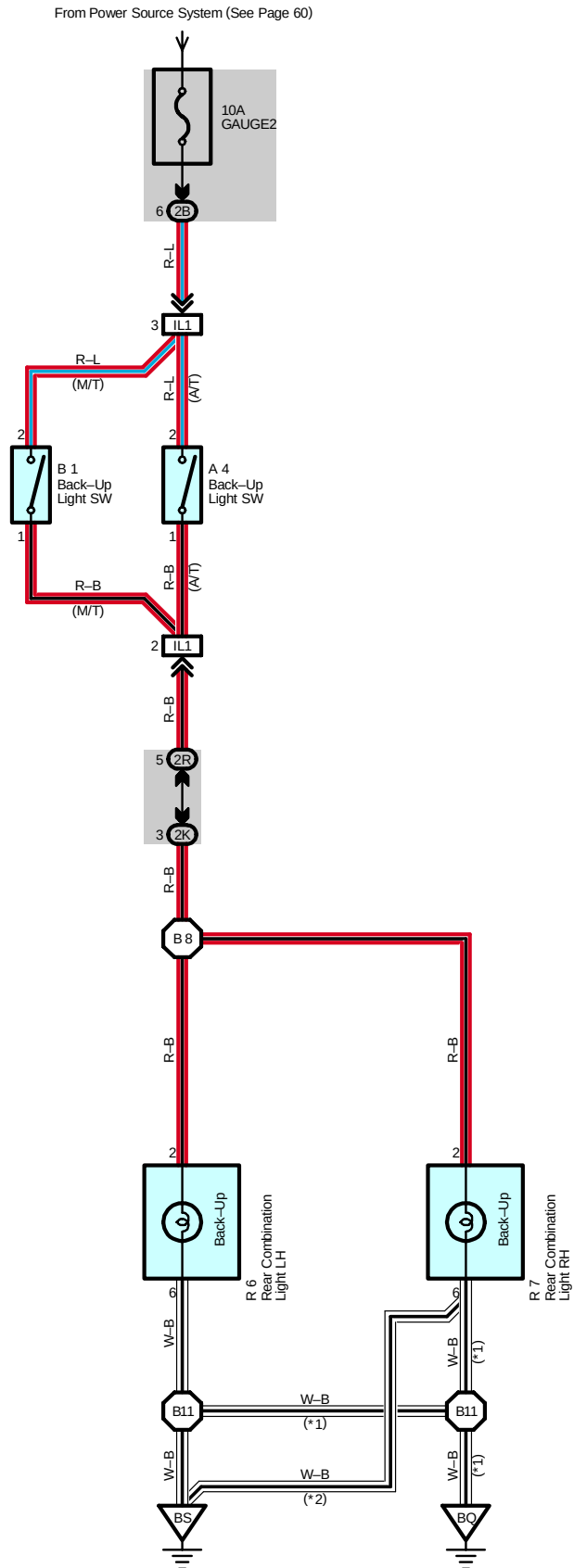
 : **Ground Points**

Code	See Page	Ground Points Location
BQ	54	Front Side of Rear Quarter Wheel House LH
BS	54	Lower Back Panel Center

 : **Splice Points**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B5	54	Floor Wire	B8	54	Floor Wire
B6			B11		

Back-Up Light



Service Hints

B1 Back-Up Light SW (M/T)

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

A4 Back-Up Light SW (A/T)

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

: Parts Location

Code	See Page	Code	See Page	Code	See Page
A4	36 (*1)	B1	38 (*2)	R7	43
	38 (*2)	R6	43		

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2B	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2K	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
2R	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IL1	52	Engine Wire and Instrument Panel Wire (Behind the Glove Box)

: Ground Points

Code	See Page	Ground Points Location
BQ	54	Front Side of Rear Quarter Wheel House LH
BS	54	Lower Back Panel Center

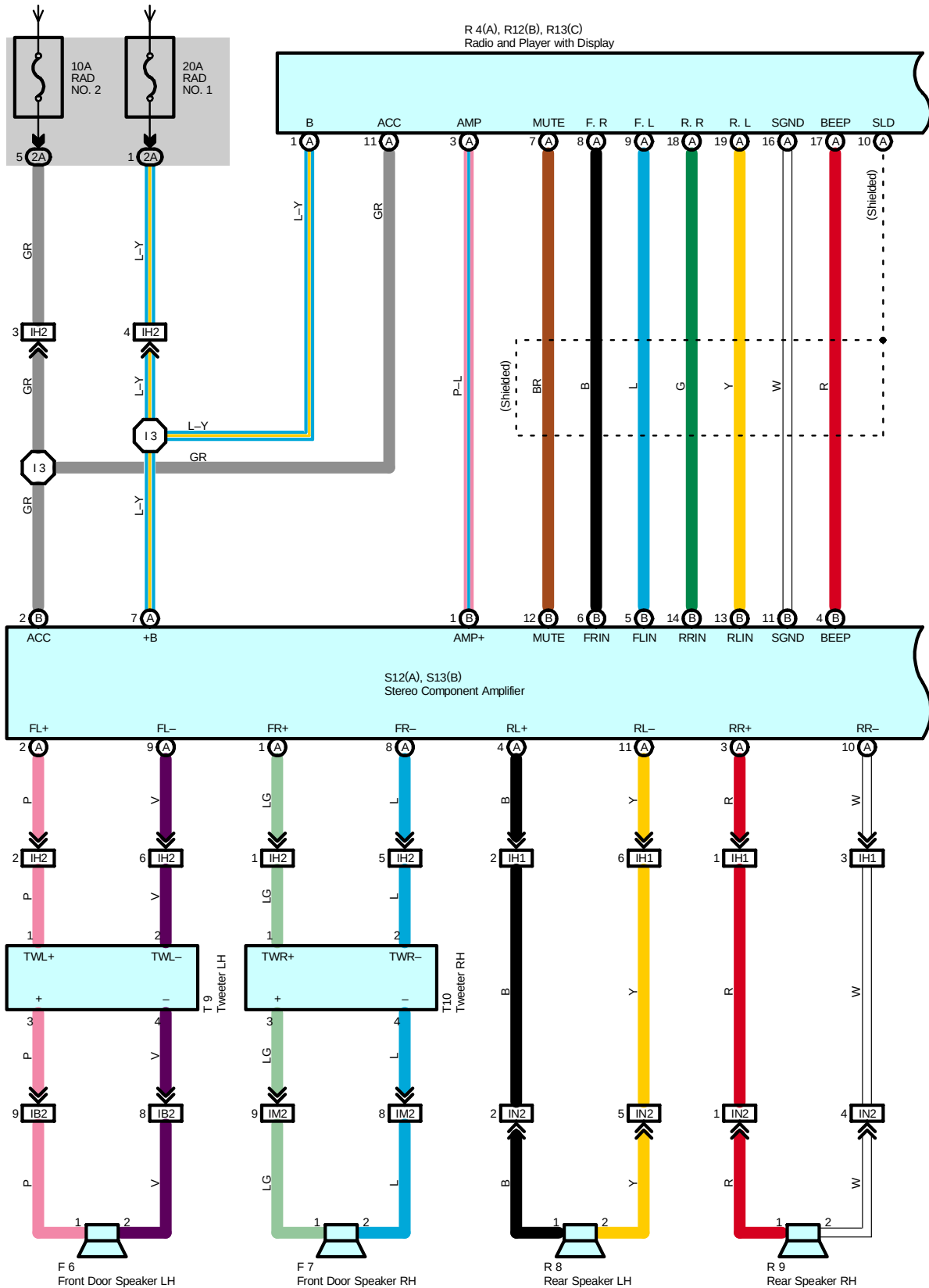
: Splice Points

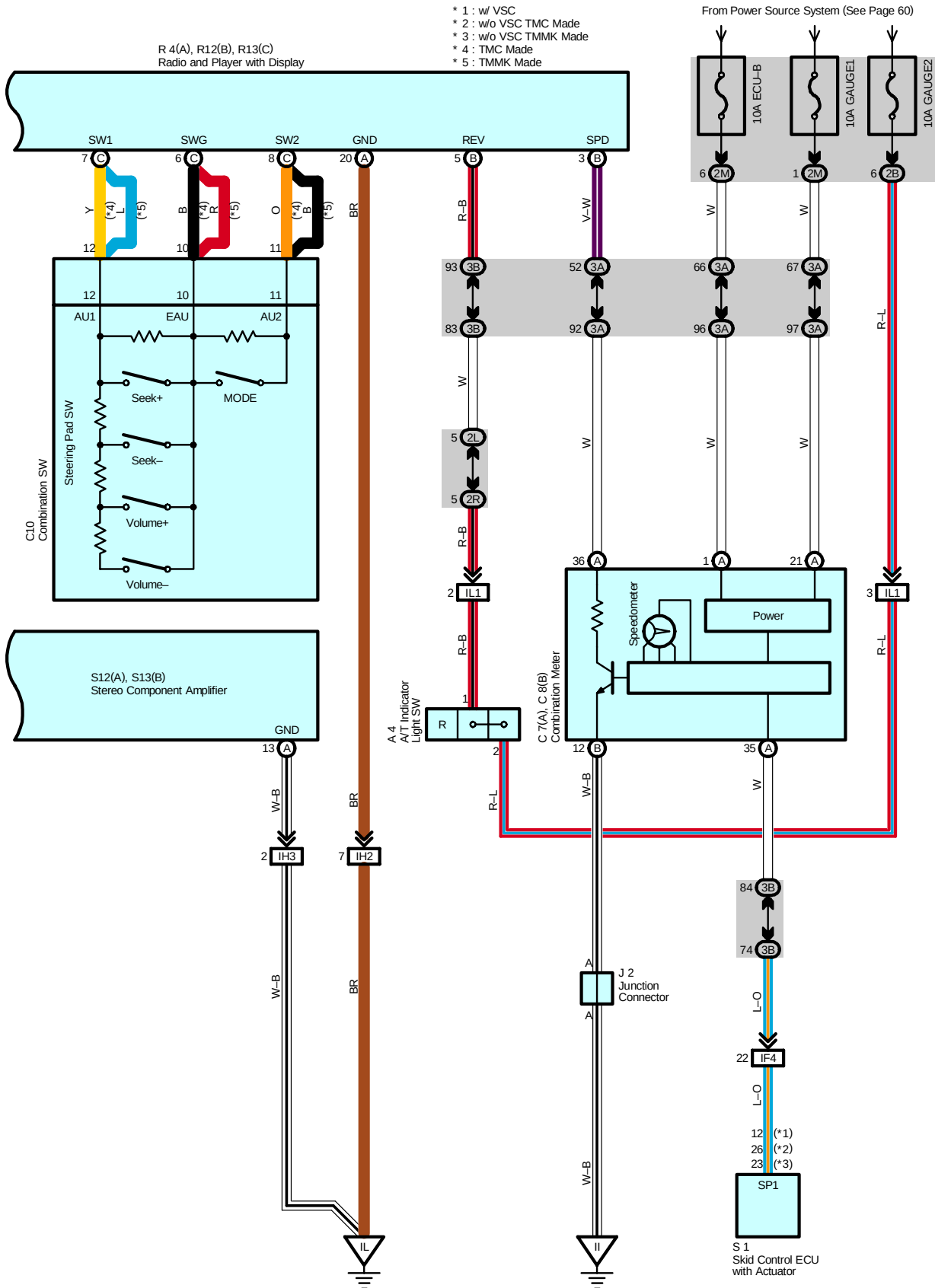
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B8	54	Floor Wire	B11	54	Floor Wire

* 1 : 1MZ-FE, 3MZ-FE * 2 : 2AZ-FE * 3 : w/ Power Seat * 4 : w/o Power Seat

Navigation and Audio System

From Power Source System (See Page 60)





Navigation and Audio System

System Outline

The navigation system displays the operating status and instructions for the radio and player with display. Additionally, the navigation system precisely measures the current vehicle position, displays the map obtained from the map database on the screen, and informs the route to the destination shown on the map using voice guidance.

Service Hints

R4 (A) Radio and Player with Display

(A) 11–Ground : Approx. 12 volts with the ignition SW at ON or ACC position

(A) 1–Ground : Always approx. 12 volts

(A) 20–Ground : Always continuity

S12 (A), S13 (B) Stereo Component Amplifier

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

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

(A) 13–Ground : Always continuity

○ : Parts Location

Code		See Page		Code		See Page		Code		See Page	
A4		36 (*1)		J2		41		S1		39 (*2)	
		38 (*2)		R4	A	41		S12	A	41	
C7	A	40		R8		43		S13	B	41	
C8	B	40		R9		43		T9		41	
C10		40		R12	B	41		T10		41	
F6		42		R13	C	41					
F7		42		S1		37 (*1)					

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2A	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2B		
2L	29	
2M		
2R		
3A	34	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)
3B		

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IB2	50	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IF4	50	Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube)
IH1	50	Instrument Panel Wire and Instrument Panel No.2 Wire (Instrument Panel Brace RH)
IH2		
IH3		
IL1	52	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IM2	52	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IN2	52	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)

▽ : Ground Points

Code	See Page	Ground Points Location
II	50	Cowl Side Panel LH
IL	50	Instrument Panel Brace RH

* 1 : 1MZ–FE, 3MZ–FE * 2 : 2AZ–FE * 3 : w/ Power Seat * 4 : w/o Power Seat

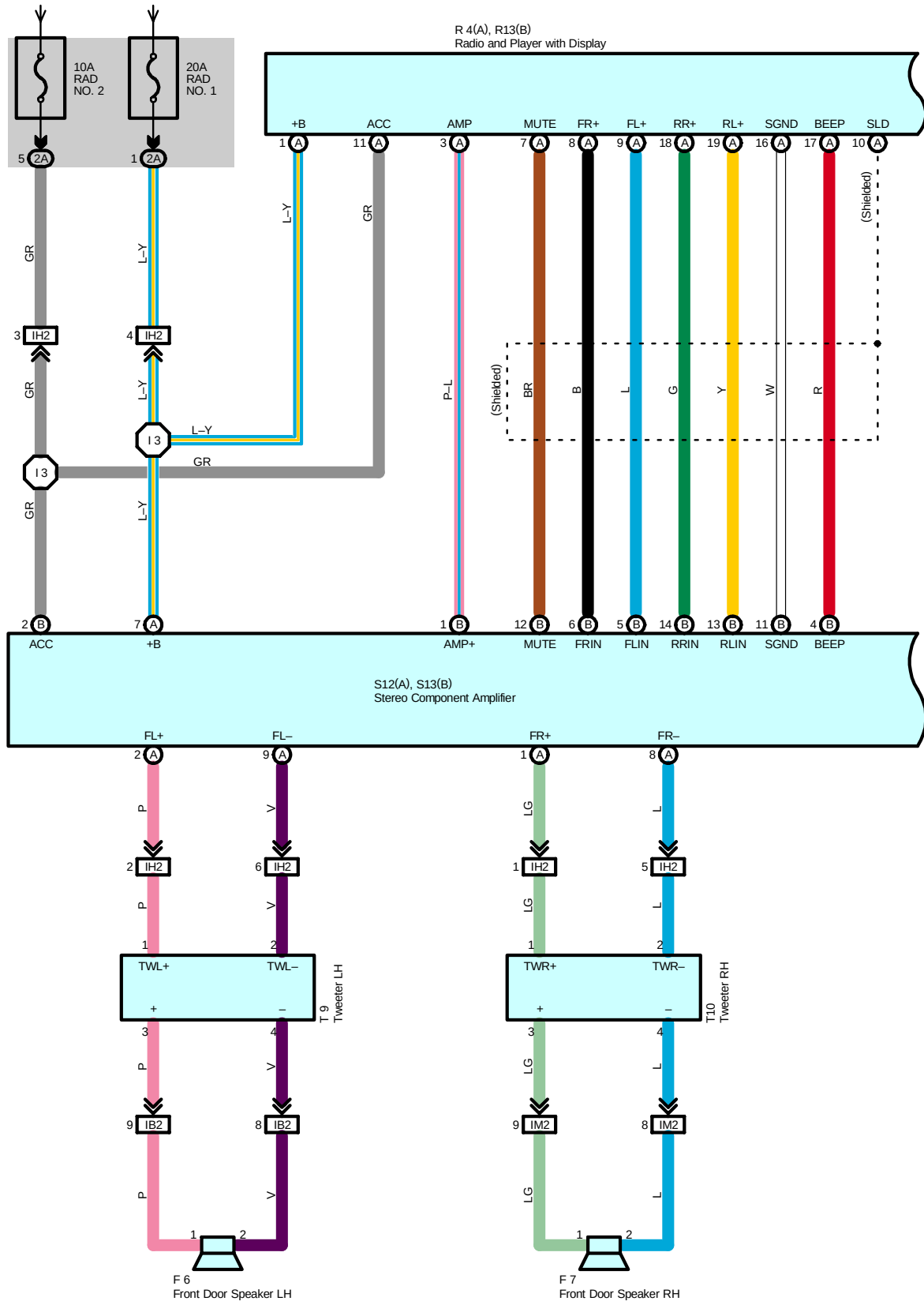


: Splice Points

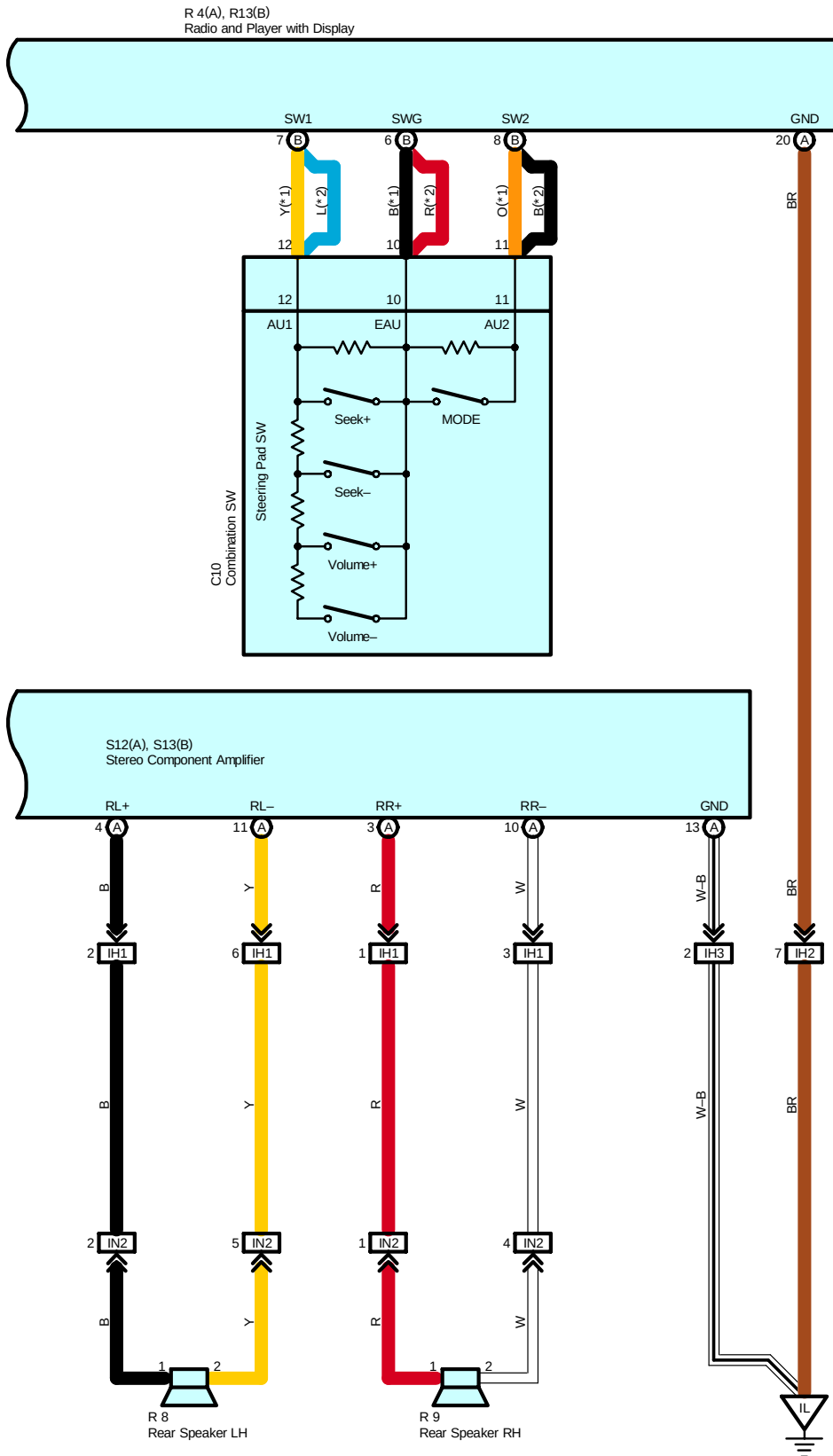
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I3	52	Instrument Panel No.2 Wire			

Audio System for Separate Type Amplifier

From Power Source System (See Page 60)



* 1 : TMC Made
 * 2 : TMMK Made



Audio System for Separate Type Amplifier

Service Hints

R4 (A) Radio and Player

(A)11–Ground : Approx. 12 volts with the ignition SW at ACC or ON position

(A) 1–Ground : Always approx. 12 volts

(A)20–Ground : Always continuity

S12 (A), S13 (B) Stereo Component Amplifier

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

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

(A)13–Ground : Always continuity

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
C10	40	R8	43	S13	41
F6	42	R9	43	T9	41
F7	42	R13	41	T10	41
R4	41	S12	41		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2A	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IB2	50	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IH1	50	Instrument Panel Wire and Instrument Panel No.2 Wire (Instrument Panel Brace RH)
IH2		
IH3		
IM2	52	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IN2	52	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)

▽ : Ground Points

Code	See Page	Ground Points Location
IL	50	Instrument Panel Brace RH

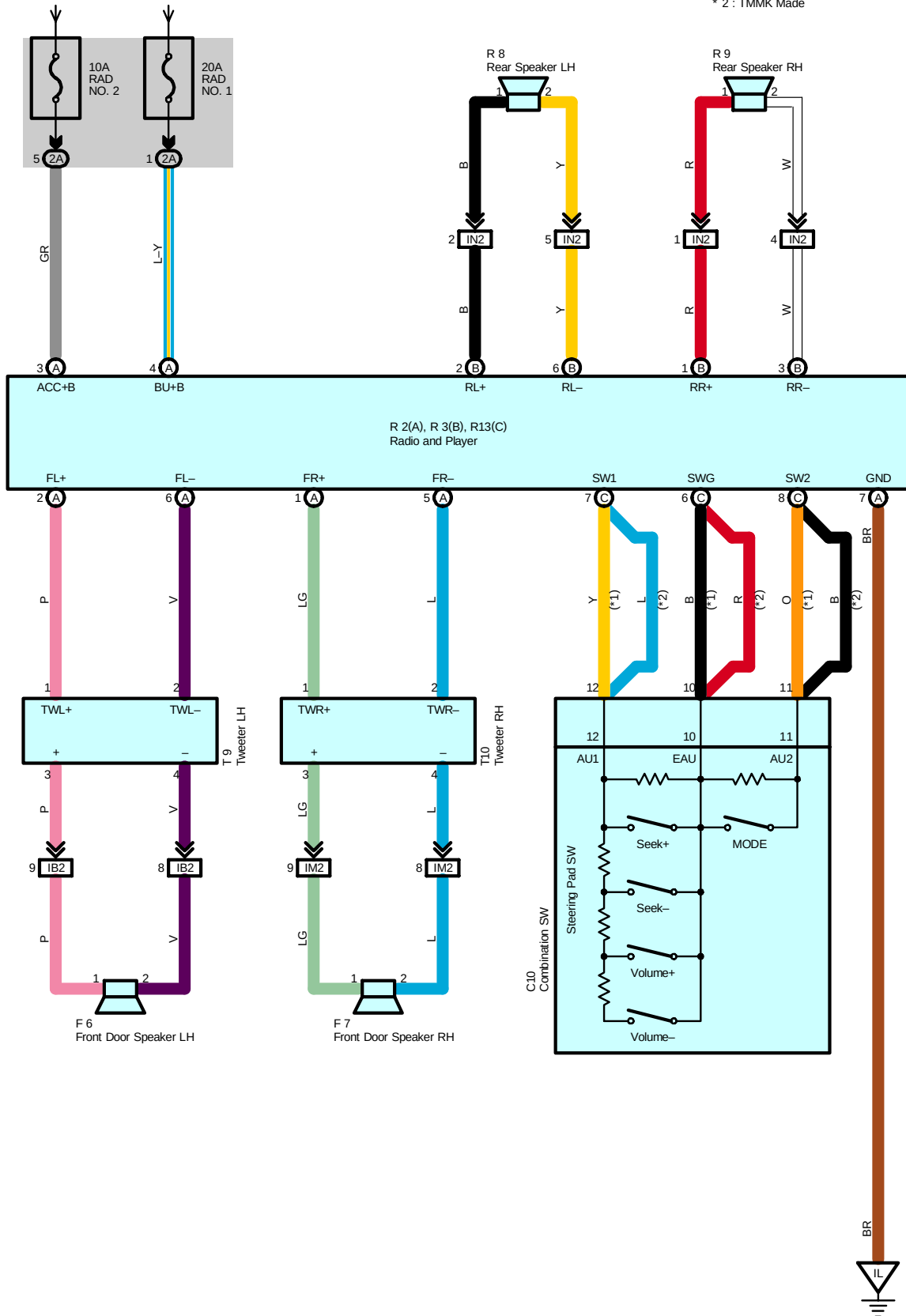
○ : Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I3	52	Instrument Panel No.2 Wire			

Audio System for Built-In Type Amplifier

From Power Source System (See Page 60)

* 1 : TMC Made
* 2 : TMMK Made



Service Hints

R2 (A) Radio and Player

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

○ : Parts Location

Code		See Page		Code		See Page		Code		See Page	
C10		40		R3	B	41		T9		41	
F6		42		R8		43		T10		41	
F7		42		R9		43					
R2	A	41		R13	C	41					

□ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2A	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)

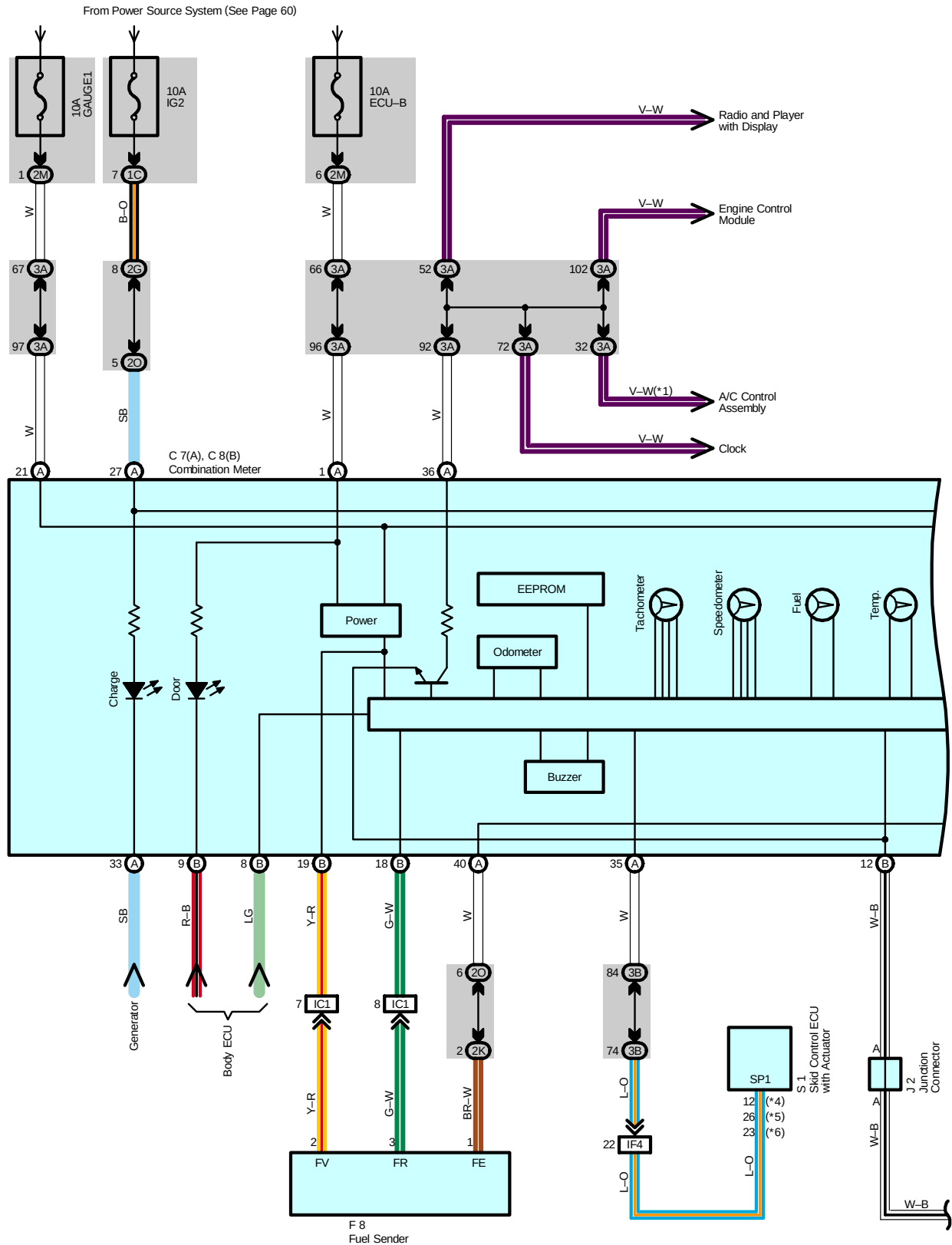
□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IB2	50	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IM2	52	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IN2	52	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)

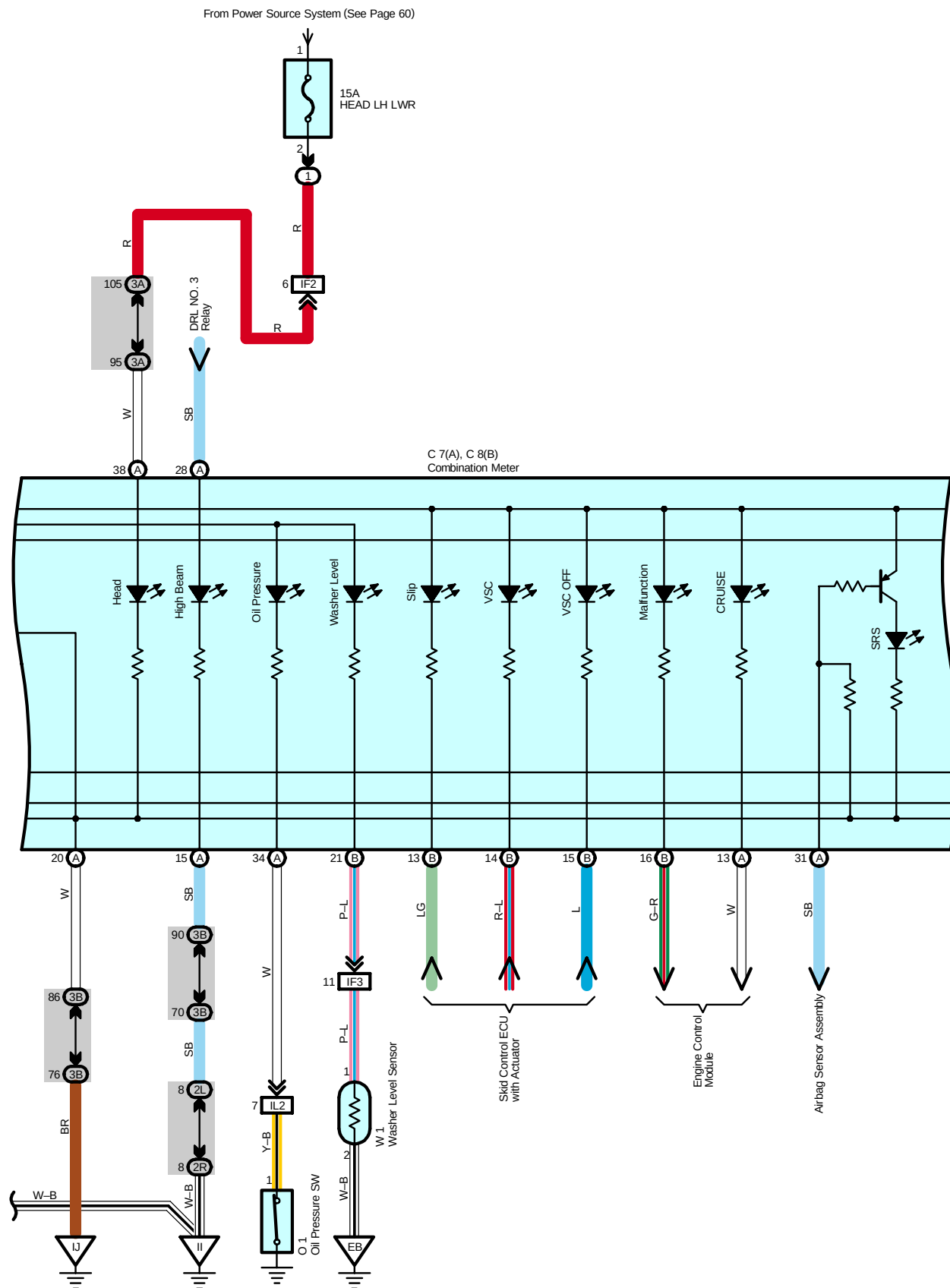
▽ : Ground Points

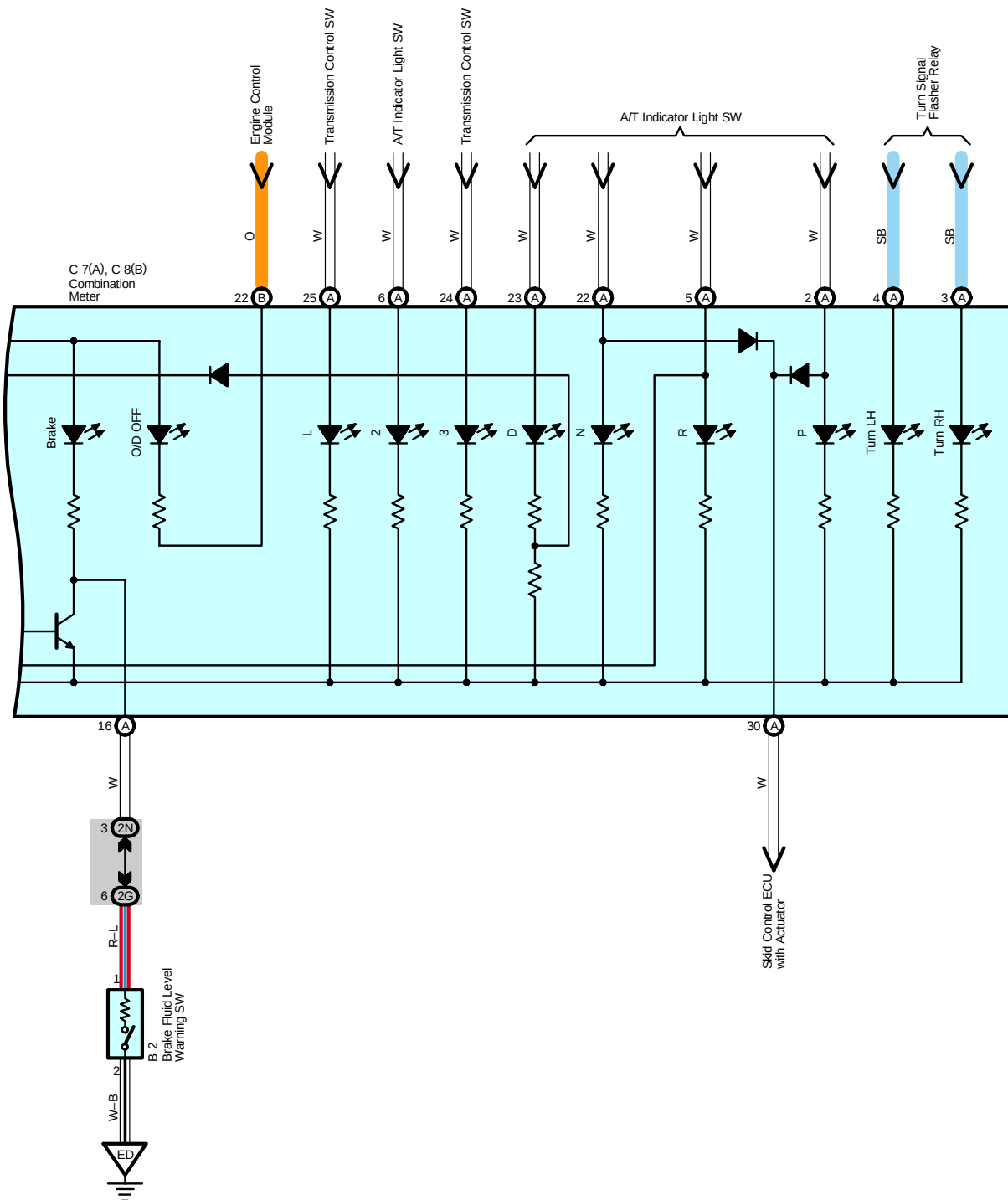
Code	See Page	Ground Points Location
IL	50	Instrument Panel Brace RH

Combination Meter



Combination Meter





Combination Meter

Service Hints

B2 Brake Fluid Level Warning SW

1-2 : Closed with the float down

C7 (A) Combination Meter

(A) 21, (A) 27-Ground : Approx. 12 volts with the ignition SW at ON or ST position

(A) 1-Ground : Always approx. 12 volts

(A)15, (A) 20, (B) 12-Ground : Always continuity

O1 Oil Pressure SW

1-Ground : Continuity with the oil pressure above approx. 20 kpa (2.8 psi, 0.2 kgf/cm²)

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
B2	36 (*1)	J2	41	S1	39 (*2)
	38 (*2)	O1	37 (*1)	W1	37 (*1)
C7	A 40		39 (*2)		39 (*2)
C8	B 40	R5	41		
F8	42	S1	37 (*1)		

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	22	Engine Room R/B (Engine Compartment Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1H		
2G	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2K	28	Floor Wire and Driver Side J/B (Lower Finish Panel)
2L	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2M		
2N		
2O		
2R		
3A	34	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)
3B		

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC1	50	Instrument Panel Wire and Floor Wire (Left Kick Panel)
IF1	50	Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube)
IF2		
IF3		
IF4		
IL2	52	Engine Wire and Instrument Panel Wire (Behind the Glove Box)

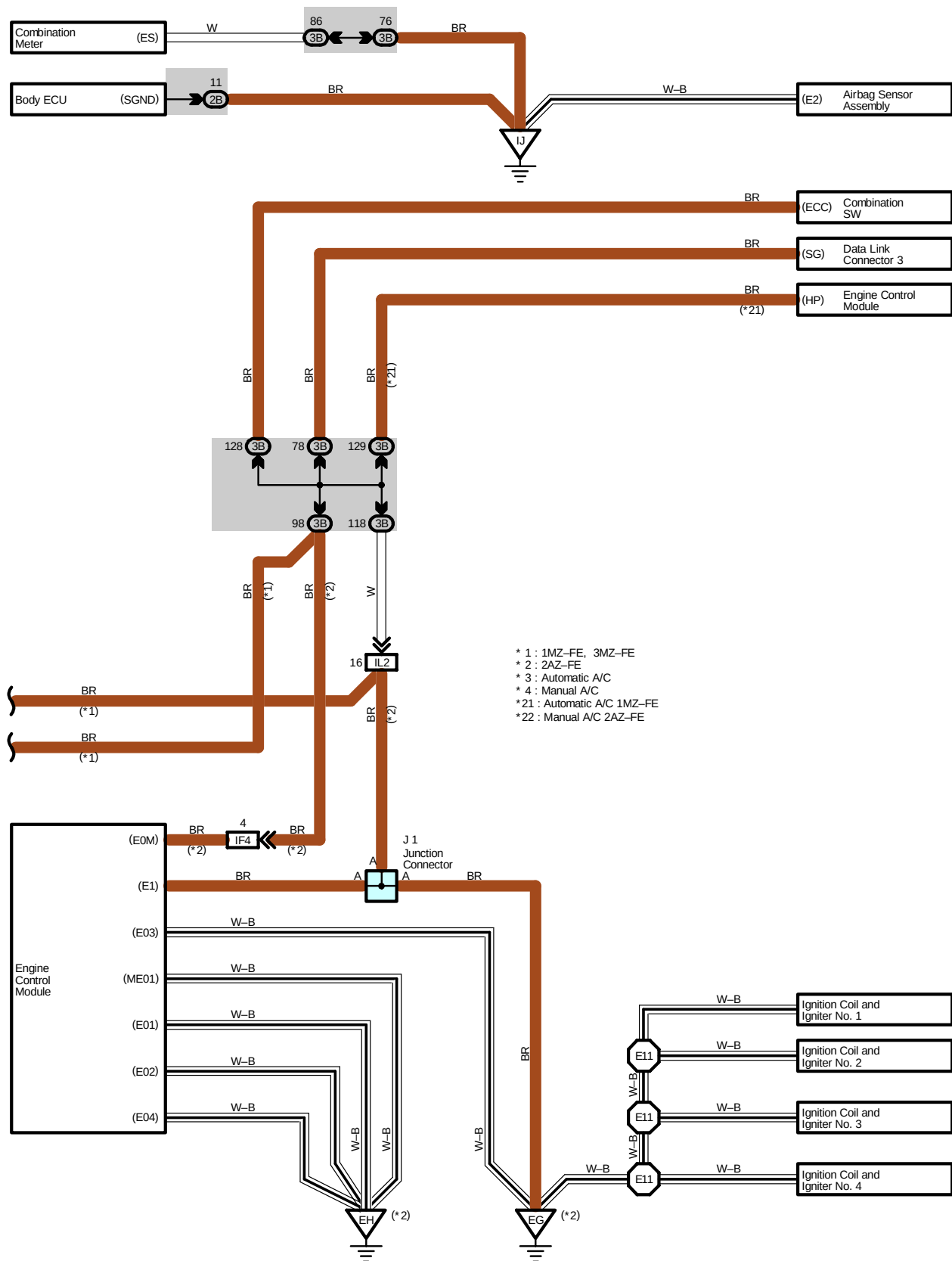
▽ : Ground Points

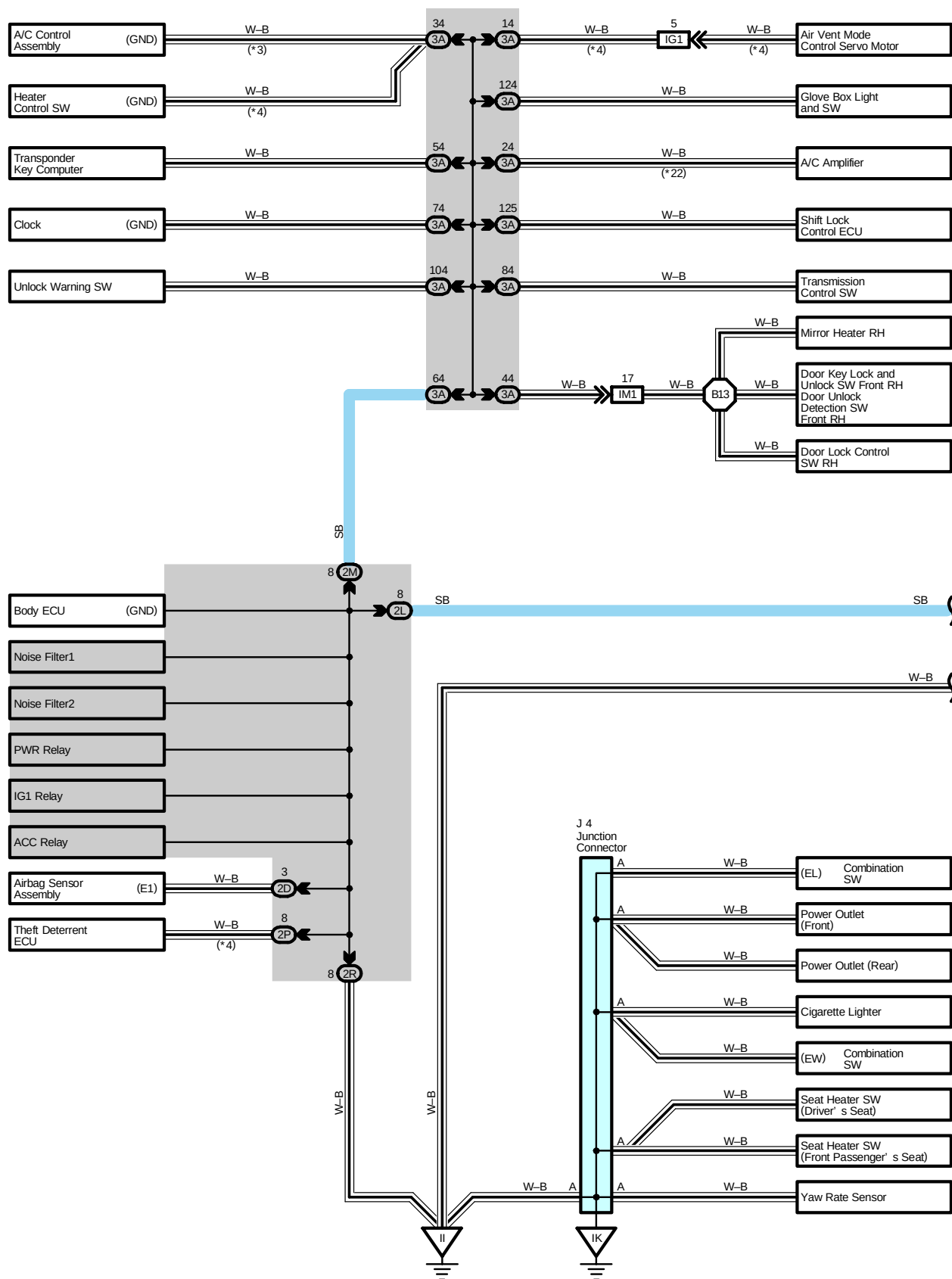
Code	See Page	Ground Points Location
EB	46 (*1)	Right Fender
	48 (*2)	
ED	46 (*1)	Left Fender
	48 (*2)	
II	50	Cowl Side Panel LH
IJ	50	Instrument Panel Brace LH

* 1 : 1MZ-FE, 3MZ-FE * 2 : 2AZ-FE * 3 : w/ Power Seat * 4 : w/o Power Seat



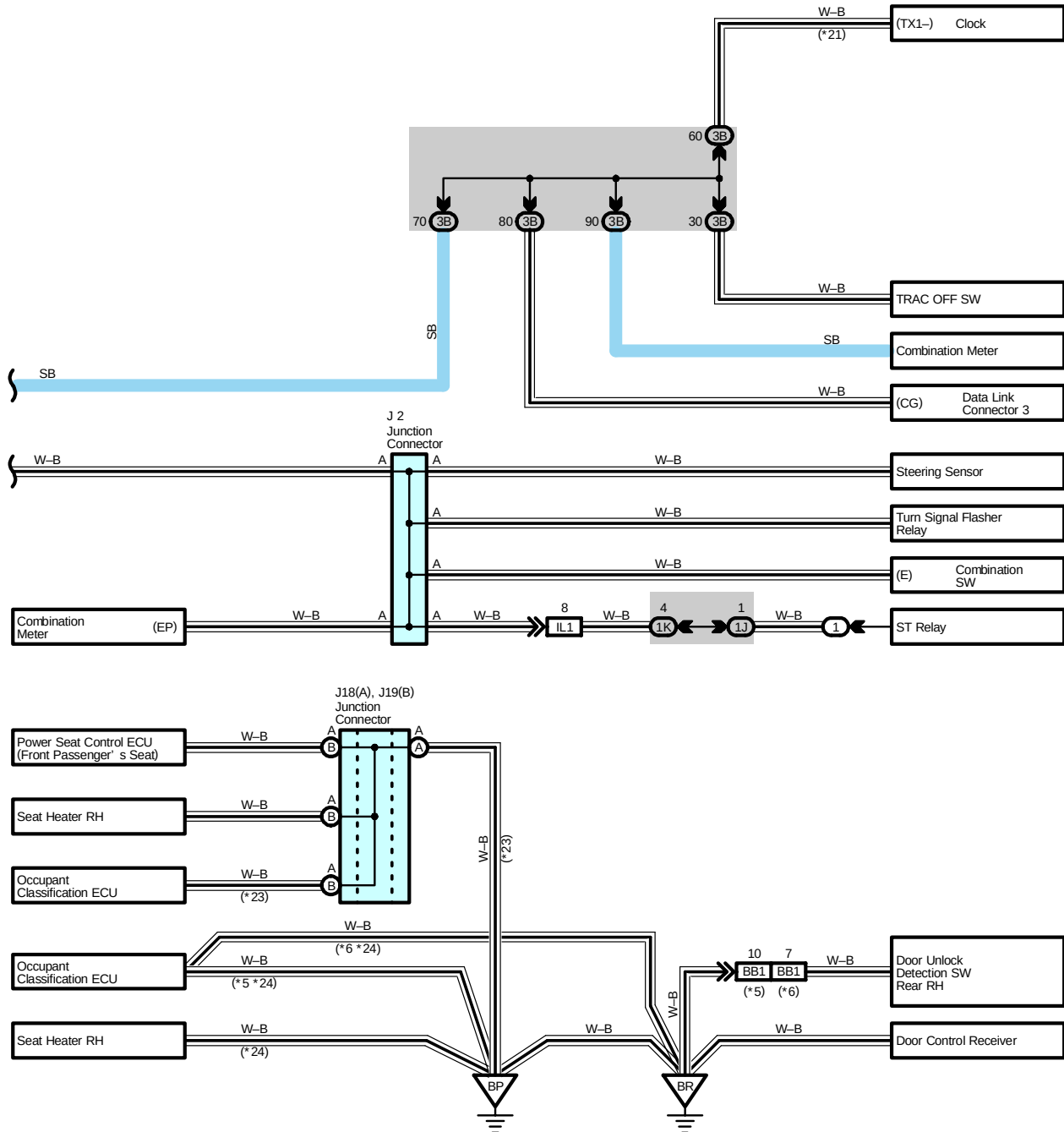
I GROUND POINT

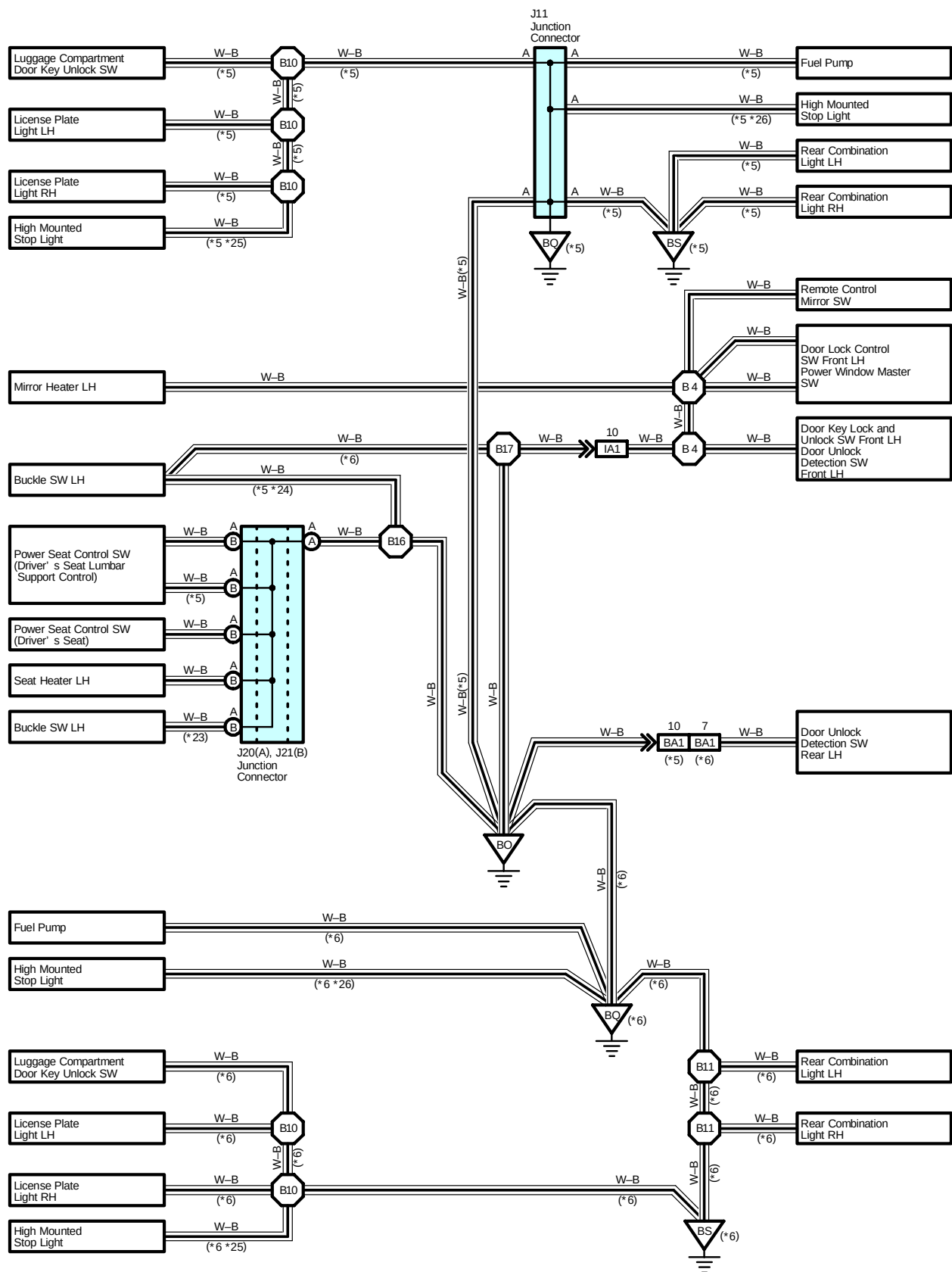




I GROUND POINT

- * 5 : TMC Made
- * 6 : TMMK Made
- * 21 : Automatic A/C 1MZ-FE
- * 23 : w/ Power Seat
- * 24 : w/o Power Seat
- * 25 : w/ Rear Spoiler
- * 26 : w/o Rear Spoiler





I GROUND POINT

: Parts Location

Code	See Page	Code	See Page	Code	See Page
J1	41	J18	A 44 (*3)	J21	B 44 (*3)
J2	41	J19	B 44 (*3)		45 (*4)
J4	41	J20	A 44 (*3)		
J11	42		45 (*4)		

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	22	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1J		
1K	25	Engine Wire and Engine Room J/B (Engine Compartment Left)
2B	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2D		
2L	29	
2M		
2P		
2R		
3A	34	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)
3B		

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	46 (*1)	Engine Room Main Wire and Engine Room No.2 Wire (Radiator Side Support LH)
	48 (*2)	
EA2	46 (*1)	
	48 (*2)	
IA1	50	Front Door LH Wire and Floor Wire (Left Kick Panel)
IE1	50	Instrument Panel Wire and Roof Wire (Inside of Front Left Pillar)
IF4	50	Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube)
IG1	50	Instrument Panel Wire and Engine Room Main Wire (Instrument Panel Brace LH)
IH2	50	Instrument Panel Wire and Instrument Panel No.2 Wire (Instrument Panel Brace RH)
IH3		
II1	52	Instrument Panel Wire and Instrument Panel No.3 Wire (Behind the Glove Box)
II3		
IL1	52	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IL2		
IM1	52	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
BA1	54	Rear Door LH Wire and Floor Wire (Left Center Pillar)
BB1	54	Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)

* 1 : 1MZ-FE, 3MZ-FE * 2 : 2AZ-FE * 3 : w/ Power Seat * 4 : w/o Power Seat

**: Ground Points**

Code	See Page	Ground Points Location
EA	46 (*1)	Right Fender
	48 (*2)	
EB	46 (*1)	
	48 (*2)	
EC	46 (*1)	Left Fender
	48 (*2)	
ED	46 (*1)	
	48 (*2)	
EE	46 (*1)	Left Side of Cylinder Head
EF	46 (*1)	Right Side of Cylinder Head
EG	48 (*2)	Left Side of Cylinder Head
EH	48 (*2)	Intake Side of Cylinder Block
II	50	Cowl Side Panel LH
IJ	50	Instrument Panel Brace LH
IK		
IL	50	Instrument Panel Brace RH
IM	50	Instrument Panel Reinforcement RH
IN		
BO	54	Under the Driver's Seat
BP	54	Under the Front Passenger's Seat
BQ	54	Front Side of Rear Quarter Wheel House LH
BR	54	Front Side of Rear Quarter Wheel House RH
BS	54	Lower Back Panel Center

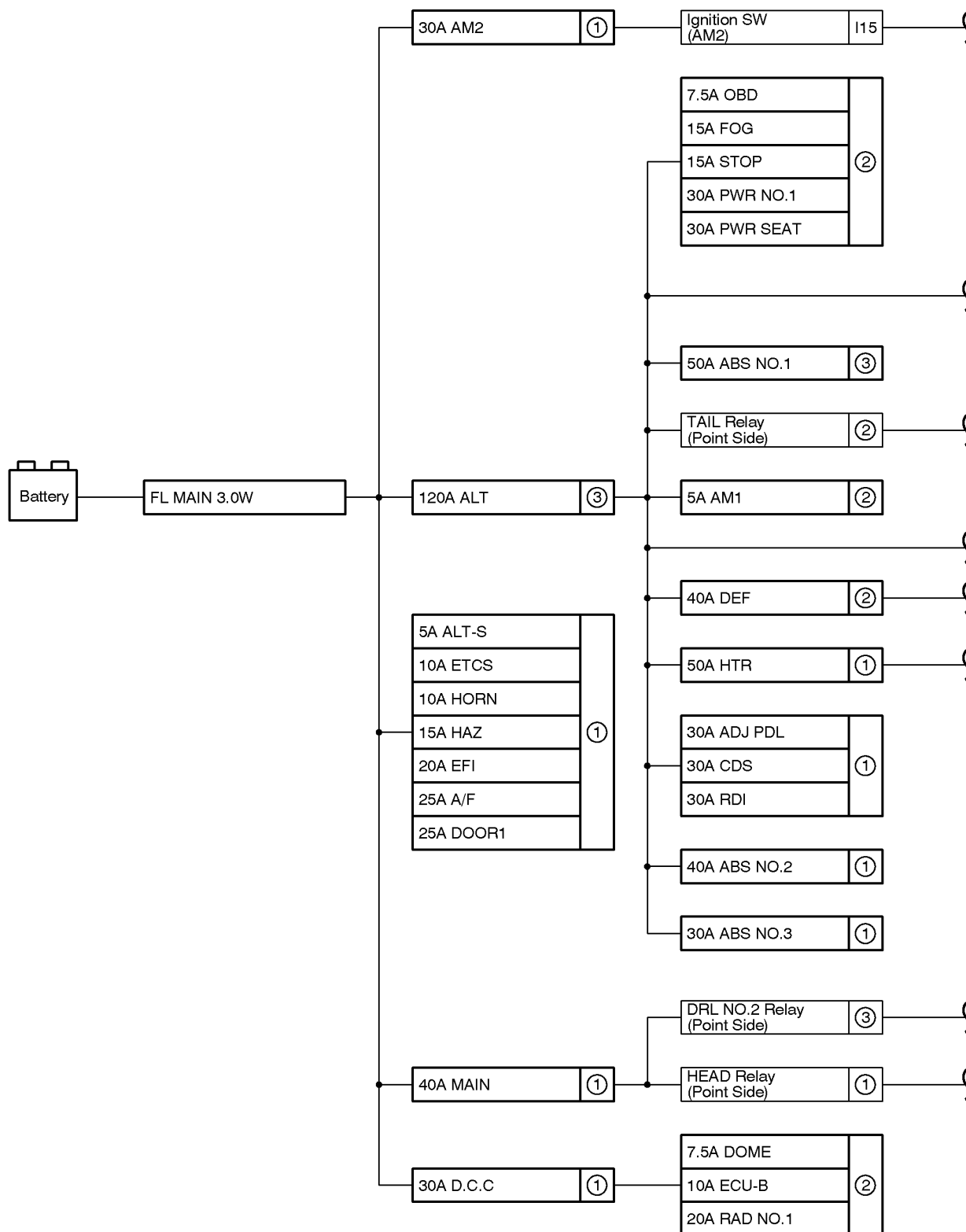
**: Splice Points**

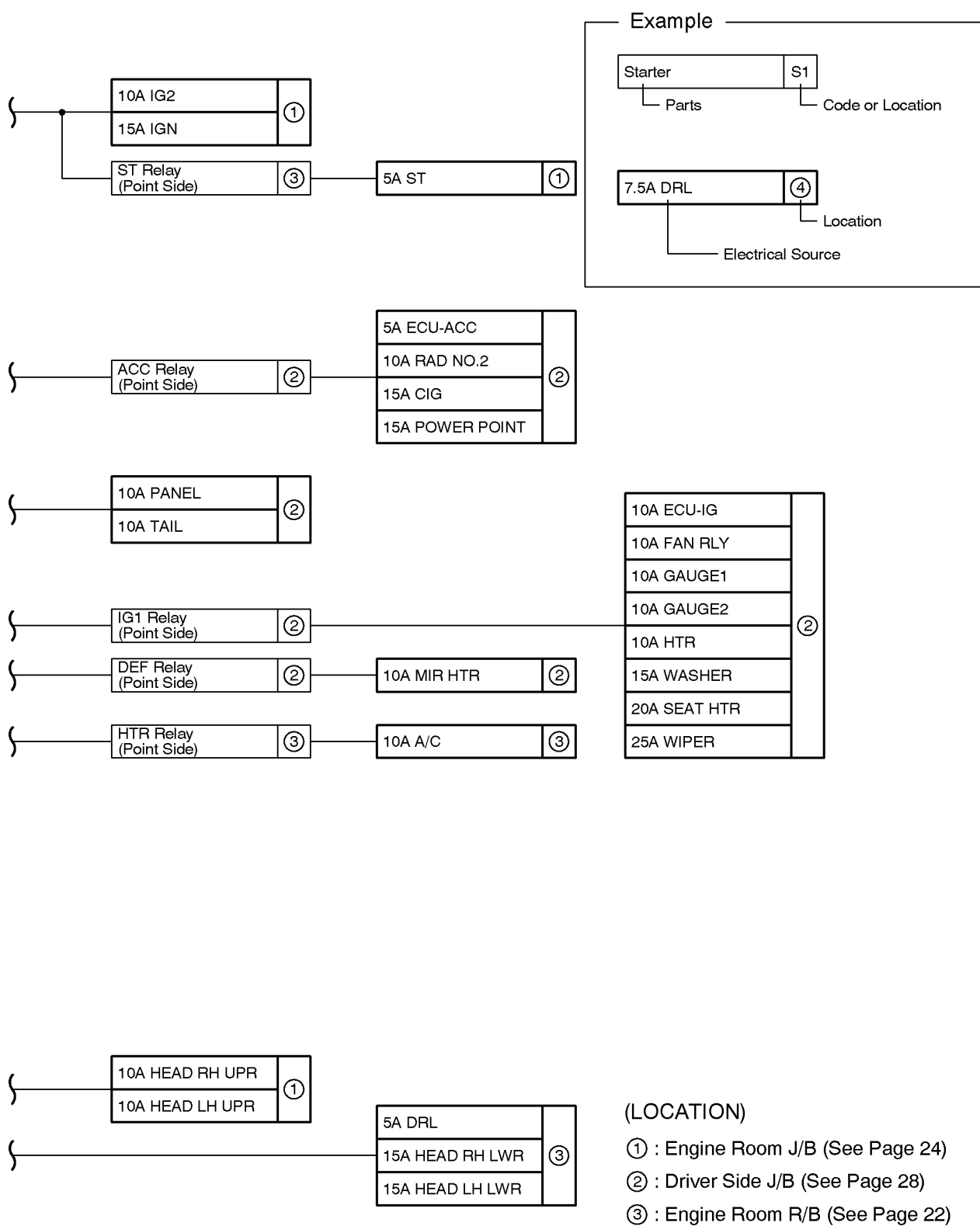
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	46 (*1)	Engine Room Main Wire	I5	52	Engine Wire
	48 (*2)		I6		
E2	46 (*1)		B1	54	Roof Wire
	48 (*2)		B4	54	Front Door LH Wire
E3	46 (*1)		B10	54	Floor Wire
	48 (*2)		B11		
E4	46 (*1)		B13	54	Front Door RH Wire
	48 (*2)		B16	54	Floor Wire
E6	46 (*1)	Engine Wire	B17		
E11	48 (*2)				

* 1 : 1MZ-FE, 3MZ-FE * 2 : 2AZ-FE * 3 : w/ Power Seat * 4 : w/o Power Seat

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.





J POWER SOURCE (Current Flow Chart)

Engine Room J/B (See Page 24)

Fuse		System	Page
5A	ALT-S	Charging	72
5A	ST	Combination Meter	260
		Starting and ignition (1MZ-FE, 3MZ-FE)	64
		Starting and ignition (2AZ-FE)	68
10A	ETCS	Cruise Control (1MZ-FE, 3MZ-FE)	192
		Cruise Control (2AZ-FE)	198
		Engine Control (1MZ-FE, 3MZ-FE)	74
		Engine Control (2AZ-FE)	86
10A	HEAD LH UPR	Headlight	120
		Multiplex Communication System (BEAN)	104
10A	HEAD RH UPR	Headlight	120
		Multiplex Communication System (BEAN)	104
10A	HORN	Horn	236
		Multiplex Communication System (BEAN)	104
		Theft Deterrent and Door Lock Control	152
10A	IG2	ABS (TMC Made)	176
		ABS (TMMK Made)	180
		Charging	72
		Combination Meter	260
		Cruise Control (1MZ-FE, 3MZ-FE)	192
		Cruise Control (2AZ-FE)	198
		Electronically Controlled Transmission and A/T Indicator (1MZ-FE, 3MZ-FE)	204
		Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	210
		Engine Control (1MZ-FE, 3MZ-FE)	74
		Engine Control (2AZ-FE)	86
		Seat Belt Warning	224
15A	HAZ	SRS	185
		VSC	170
15A	HAZ	Turn Signal and Hazard Warning Light	142
15A	IGN	Clock	246
		Engine Control (1MZ-FE, 3MZ-FE)	74
		Engine Control (2AZ-FE)	86
		Engine Immobilizer System	100
		Starting and ignition (1MZ-FE, 3MZ-FE)	64
		Starting and ignition (2AZ-FE)	68
20A	EFI	Cruise Control (1MZ-FE, 3MZ-FE)	192
		Cruise Control (2AZ-FE)	198
		Electronically Controlled Transmission and A/T Indicator (1MZ-FE, 3MZ-FE)	204
		Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	210
		Engine Control (1MZ-FE, 3MZ-FE)	74
		Engine Control (2AZ-FE)	86

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

Fuse		System	Page
25A	A/F	Engine Control (1MZ-FE, 3MZ-FE)	74
25A	DOOR1	Multiplex Communication System (BEAN)	104
		Theft Deterrent and Door Lock Control	152
		Wireless Door Lock Control	158
30A	ABS NO.3	ABS (TMMK Made)	180
		VSC	170
30A	ADJ PDL	Power Adjustable Pedals	244
30A	AM2	Charging	72
		Engine Control (1MZ-FE, 3MZ-FE)	74
		Engine Control (2AZ-FE)	86
		Starting and ignition (1MZ-FE, 3MZ-FE)	64
		Starting and ignition (2AZ-FE)	68
30A	CDS	Radiator Fan and Condenser Fan	266
30A	RDI	Radiator Fan and Condenser Fan	266
40A	ABS NO.2	ABS (TMC Made)	176
40A	MAIN	Automatic Light Control	128
		Headlight	120
		Light Auto Turn Off System	130
		Multiplex Communication System (BEAN)	104
50A	HTR	Automatic Air Conditioning (1MZ-FE)	272
		Automatic Air Conditioning (2AZ-FE)	278
		Manual Air Conditioning (1MZ-FE, 3MZ-FE)	284
		Manual Air Conditioning (2AZ-FE)	290

Driver Side J/B (See Page 28)

Fuse		System	Page
5A	AM1	Electronically Controlled Transmission and A/T Indicator (1MZ-FE, 3MZ-FE)	204
		Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	210
		Engine Control (1MZ-FE, 3MZ-FE)	74
		Engine Control (2AZ-FE)	86
		Starting and ignition (1MZ-FE, 3MZ-FE)	64
		Starting and ignition (2AZ-FE)	68
5A	ECU-ACC	Clock	246
		Combination Meter	260
		Multiplex Communication System (BEAN)	104
		Remote Control Mirror	228
7.5A	DOME	Clock	246
		Garage Door Opener	232
		Interior Light	134
		Multiplex Communication System (BEAN)	104
		Wireless Door Lock Control	158
7.5A	OBD	Engine Control (1MZ-FE, 3MZ-FE)	74
		Engine Control (2AZ-FE)	86

* 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
10A	ECU-B	ABS (TMC Made)	176
		ABS (TMMK Made)	180
		Automatic Air Conditioning (1MZ-FE)	272
		Automatic Air Conditioning (2AZ-FE)	278
		Automatic Light Control	128
		Clock	246
		Combination Meter	260
		Cruise Control (1MZ-FE, 3MZ-FE)	192
		Cruise Control (2AZ-FE)	198
		Electronically Controlled Transmission and A/T Indicator (1MZ-FE, 3MZ-FE)	204
		Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	210
		Engine Control (1MZ-FE, 3MZ-FE)	74
		Engine Control (2AZ-FE)	86
		Engine Immobilizer System	100
		Headlight	120
		Illumination	138
		Interior Light	134
		Key Reminder	150
		Light Auto Turn Off System	130
		Manual Air Conditioning (1MZ-FE, 3MZ-FE)	284
		Manual Air Conditioning (2AZ-FE)	290
		Moon Roof	164
		Multiplex Communication System (BEAN)	104
		Navigation System, Audio System	250
		Power Window	166
		Seat Belt Warning	224
		SRS	185
		Theft Deterrent and Door Lock Control	152
		VSC	170
		Wireless Door Lock Control	158
10A	ECU-IG	ABS (TMC Made)	176
		ABS (TMMK Made)	180
		Automatic Light Control	128
		Headlight	120
		Interior Light	134
		Key Reminder	150
		Light Auto Turn Off System	130
		Moon Roof	164
		Multiplex Communication System (BEAN)	104
		Power Window	166
		Theft Deterrent and Door Lock Control	152
		VSC	170
10A	FAN RLY	Radiator Fan and Condenser Fan	266

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

Fuse		System	Page
10A	GAUGE1	Charging	72
		Clock	246
		Combination Meter	260
		Cruise Control (1MZ–FE, 3MZ–FE)	192
		Cruise Control (2AZ–FE)	198
		Electronically Controlled Transmission and A/T Indicator (1MZ–FE, 3MZ–FE)	204
		Electronically Controlled Transmission and A/T Indicator (2AZ–FE)	210
		Engine Control (1MZ–FE, 3MZ–FE)	74
		Engine Control (2AZ–FE)	86
		Illumination	138
		Key Reminder	150
		Multiplex Communication System (BEAN)	104
		Navigation System, Audio System	250
		Seat Belt Warning	224
		Shift Lock	216
		SRS	185
		Turn Signal and Hazard Warning Light	142
10A	GAUGE2	ABS (TMC Made)	176
		ABS (TMMK Made)	180
		Automatic Glare–Resistant EC Mirror	230
		Back–Up Light	148
		Cruise Control (1MZ–FE, 3MZ–FE)	192
		Cruise Control (2AZ–FE)	198
		Electronically Controlled Transmission and A/T Indicator (1MZ–FE, 3MZ–FE)	204
		Electronically Controlled Transmission and A/T Indicator (2AZ–FE)	210
		Moon Roof	164
		Multiplex Communication System (BEAN)	104
		Navigation System, Audio System	250
		Power Adjustable Pedals	244
		Rear Window Defogger and Mirror Heater	242
		VSC	170
10A	HTR	Automatic Air Conditioning (1MZ–FE)	272
		Automatic Air Conditioning (2AZ–FE)	278
		Manual Air Conditioning (1MZ–FE, 3MZ–FE)	284
		Manual Air Conditioning (2AZ–FE)	290
10A	MIR HTR	Engine Control (1MZ–FE, 3MZ–FE)	74
		Engine Control (2AZ–FE)	86
		Rear Window Defogger and Mirror Heater	242
10A	PANEL	Clock	246
		Illumination	138
10A	RAD NO.2	Audio System (Built–In Type Amplifier w/o Navigation System)	258
		Audio System (Separate Type Amplifier w/o Navigation System)	254
		Navigation System, Audio System	250

* 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
10A	TAIL	Engine Control (1MZ-FE, 3MZ-FE)	74
		Engine Control (2AZ-FE)	86
		Taillight	144
15A	CIG	Power Outlet and Cigarette Lighter	234
15A	FOG	Fog Light	126
15A	POWER POINT	Power Outlet and Cigarette Lighter	234
15A	STOP	ABS (TMC Made)	176
		ABS (TMMK Made)	180
		Cruise Control (1MZ-FE, 3MZ-FE)	192
		Cruise Control (2AZ-FE)	198
		Electronically Controlled Transmission and A/T Indicator (1MZ-FE, 3MZ-FE)	204
		Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	210
		Engine Control (1MZ-FE, 3MZ-FE)	74
		Engine Control (2AZ-FE)	86
		Shift Lock	216
		Stop Light	146
		VSC	170
15A	WASHER	Wiper and Washer	238
20A	RAD NO.1	Audio System (Built-In Type Amplifier w/o Navigation System)	258
		Audio System (Separate Type Amplifier w/o Navigation System)	254
		Navigation System, Audio System	250
20A	SEAT HTR	Seat Heater	222
25A	WIPER	Wiper and Washer	238
30A	PWR NO.1	Moon Roof	164
		Multiplex Communication System (BEAN)	104
		Power Window	166
30A	PWR SEAT	Power Seat	218
40A	DEF	Rear Window Defogger and Mirror Heater	242

Engine Room R/B (See Page 22)

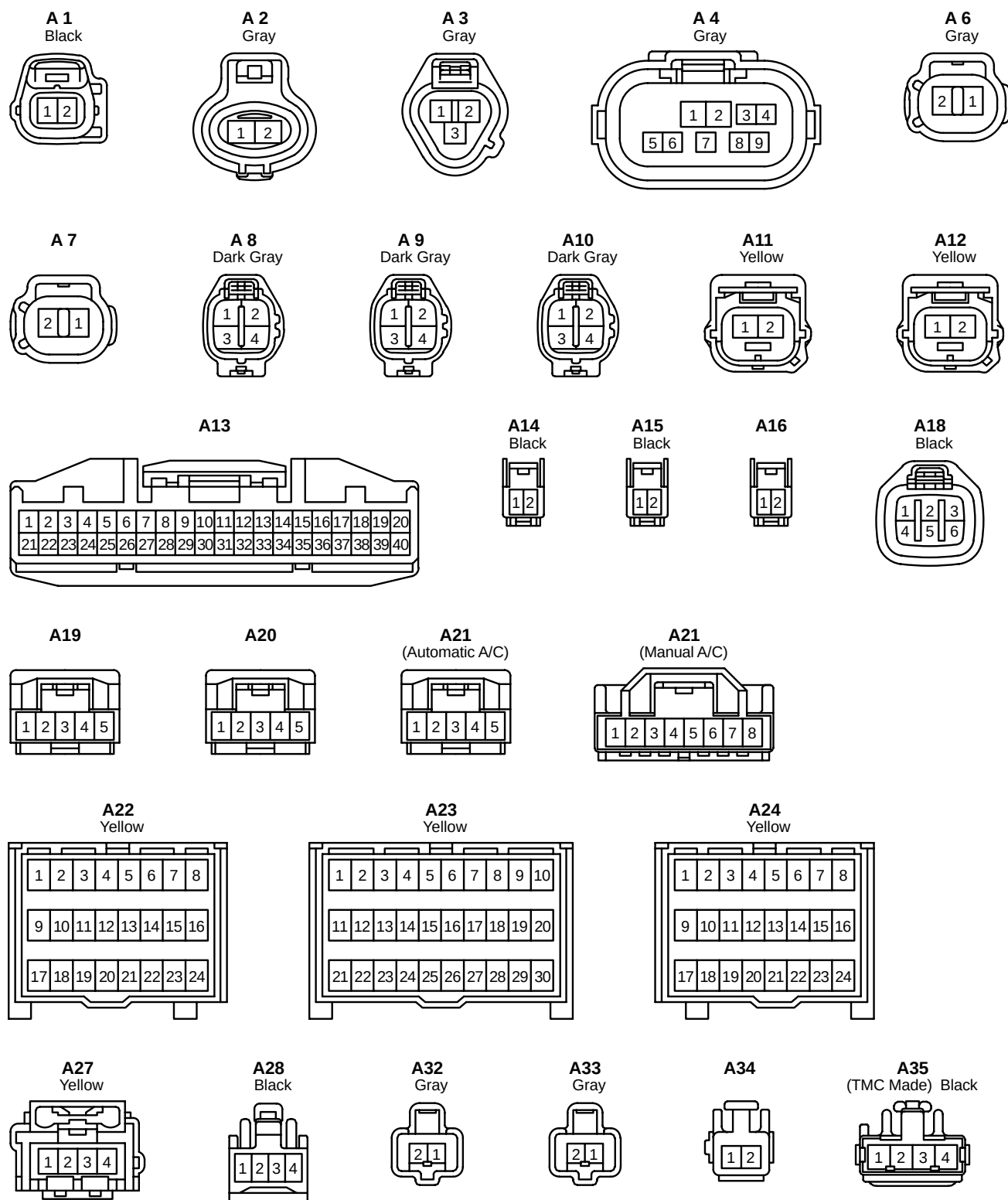
Fuse		System	Page
5A	DRL	Headlight	120
		Multiplex Communication System (BEAN)	104
10A	A/C	Manual Air Conditioning (1MZ-FE, 3MZ-FE)	284
		Manual Air Conditioning (2AZ-FE)	290
15A	HEAD LH LWR	Combination Meter	260
		Fog Light	126
		Headlight	120
		Multiplex Communication System (BEAN)	104
15A	HEAD RH LWR	Headlight	120
		Multiplex Communication System (BEAN)	104

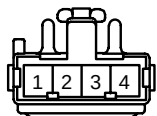
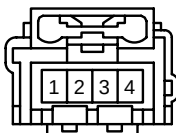
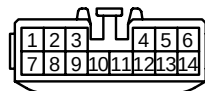
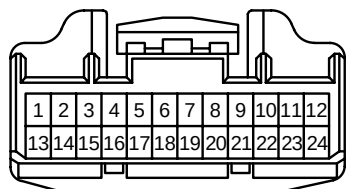
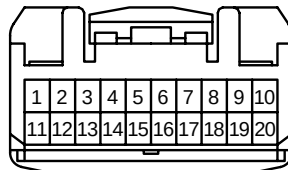
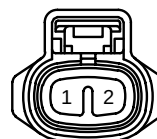
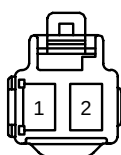
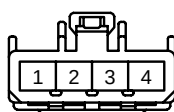
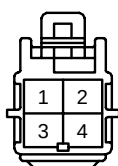
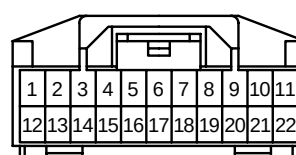
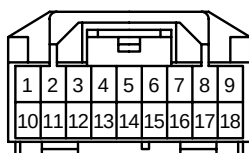
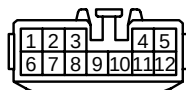
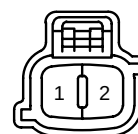
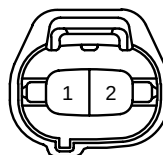
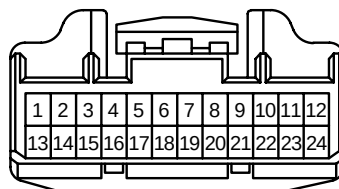
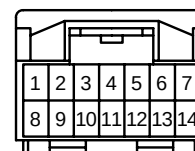
* These are the page numbers of the first page on which the related system is shown.

Fuse		System	Page
50A	ABS NO.1	ABS (TMC Made)	176
		ABS (TMMK Made)	180
		VSC	170
120A	ALT	Automatic Light Control	128
		Charging	72
		Electronically Controlled Transmission and A/T Indicator (1MZ-FE, 3MZ-FE)	204
		Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	210
		Engine Control (1MZ-FE, 3MZ-FE)	74
		Engine Control (2AZ-FE)	86
		Illumination	138
		Light Auto Turn Off System	130
		Multiplex Communication System (BEAN)	104
		Starting and ignition (1MZ-FE, 3MZ-FE)	64
		Starting and ignition (2AZ-FE)	68
		Taillight	144

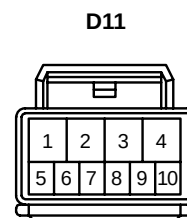
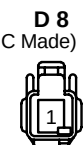
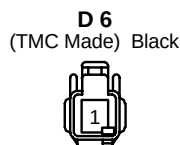
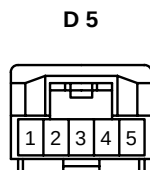
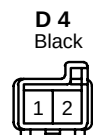
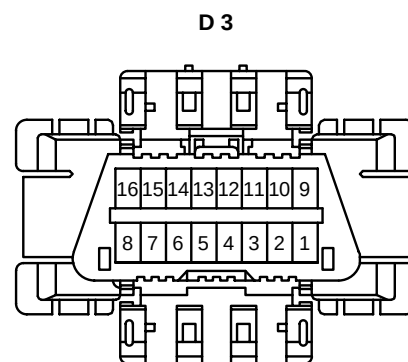
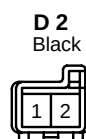
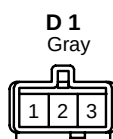
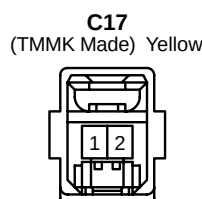
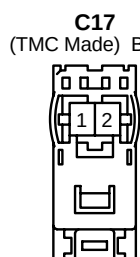
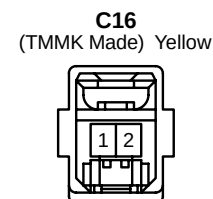
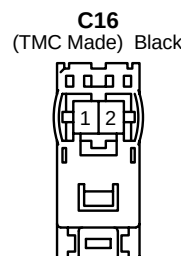
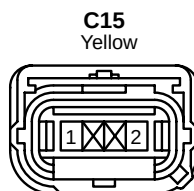
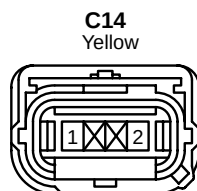
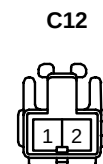
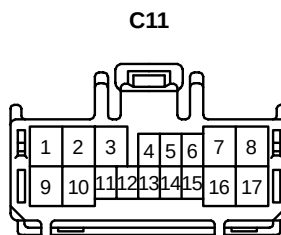
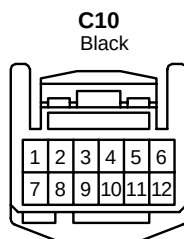
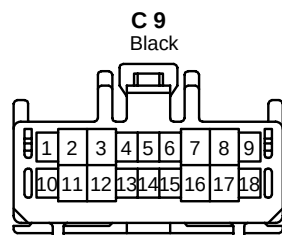
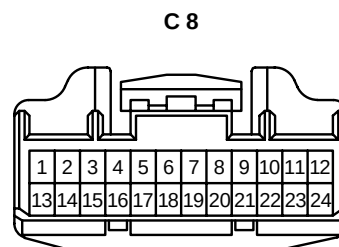
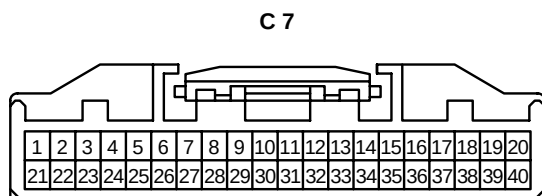
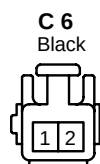
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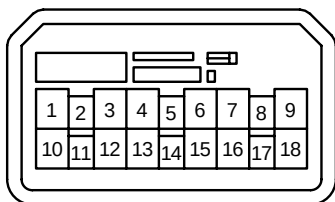
K CONNECTOR LIST



A35
(TMMK Made)**A36****A37**
Yellow**A38****A39****A40****B 1**
Gray**B 2**
Gray**B 3****B 4**
Black**B 5**
Black**B 6****B 7****B 8****B 9****B10**
(TMC Made)**B10**
(TMMK Made)**B11**
(TMC Made)**B11**
(TMMK Made) Gray**C 1**
Black**C 2**
Black**C 3**
(1MZ-FE, 3MZ-FE) Black**C 3**
(2AZ-FE) Dark Gray**C 4****C 5**
(Automatic A/C)**C 5**
(Manual A/C)

K CONNECTOR LIST

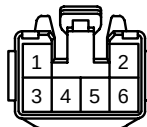
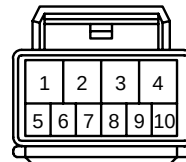
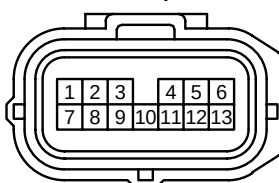
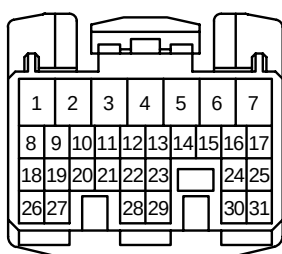
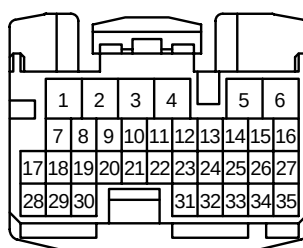
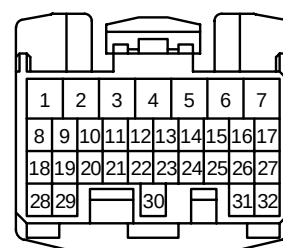
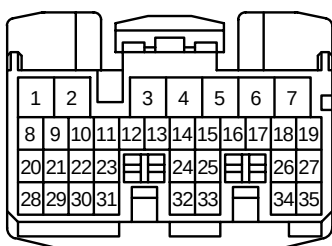
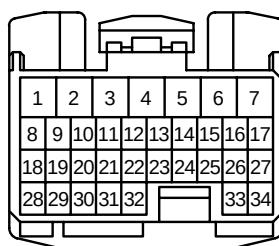


D12**D13**

(TMC Made)

**D13**

(TMMK Made) Black

**D14****D15****D16**
Gray**E 3**
Gray**E 4**
(1MZ-FE, 3MZ-FE) Dark Gray**E 4**
(2AZ-FE) Black**E 5**
Black**E 6****E 7****E 8****E 9****E10****F 1**
Brown**F 2**
Brown**F 5**

(TMC Made) Gray

**F 5**

(TMMK Made) Black

**F 6**

(TMC Made)

**F 6**

(TMMK Made)

**F 7**

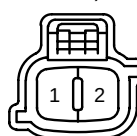
(TMC Made)

**F 7**

(TMMK Made)

**F 8****F 9**
Gray**F10**
Gray**F11**

(TMC Made) Black

**F11**

(TMMK Made) Black



K CONNECTOR LIST

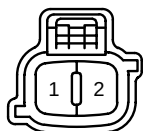
*1 : w/ Rear Spoiler

*3 : 2AZ-FE California TMC Made

*2 : w/o Rear Spoiler

*4 : 2AZ-FE California TMMK Made

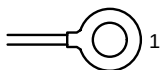
F12
(TMC Made) Black



F12
(TMMK Made) Black



G 1



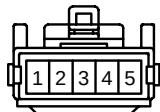
G 2
Black



G 3
Black



G 4



H 1
Black



H 2
Brown



H 3
Black



H 4
Brown



H 6
(1MZ-FE, 3MZ-FE) Dark Gray



H 6
(2AZ-FE)



H 7
Black



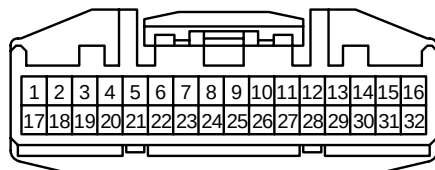
H 8
Black



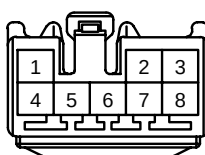
H 9
Black



H10



H11



H12
(*1)



H12
(*2) Gray



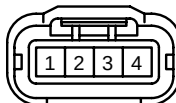
H13
(*3) Dark Gray



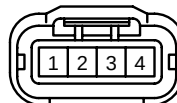
H13
(*4) Black



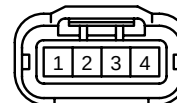
I 1
Black



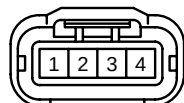
I 2
Black



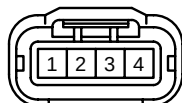
I 3
Black



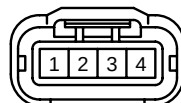
I 4
Black



I 5
Black



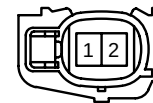
I 6
Black



I 7
(1MZ-FE, 3MZ-FE) Gray



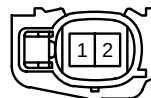
I 7
(2AZ-FE) Gray



I 8
(1MZ-FE, 3MZ-FE) Gray



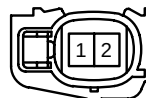
I 8
(2AZ-FE) Gray



I 9
(1MZ-FE, 3MZ-FE) Gray



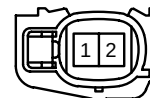
I 9
(2AZ-FE) Gray

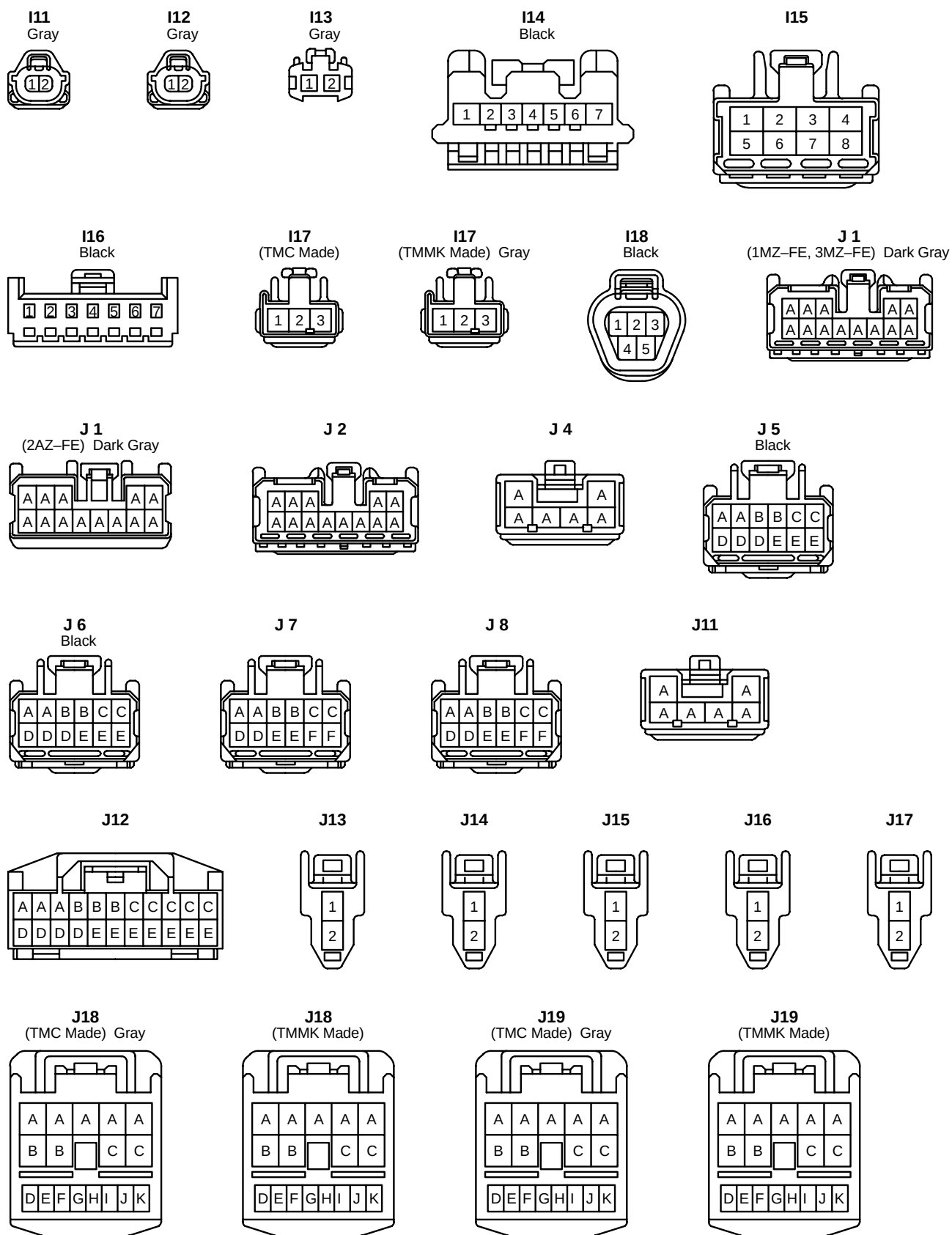


I10
(1MZ-FE, 3MZ-FE) Gray



I10
(2AZ-FE) Gray

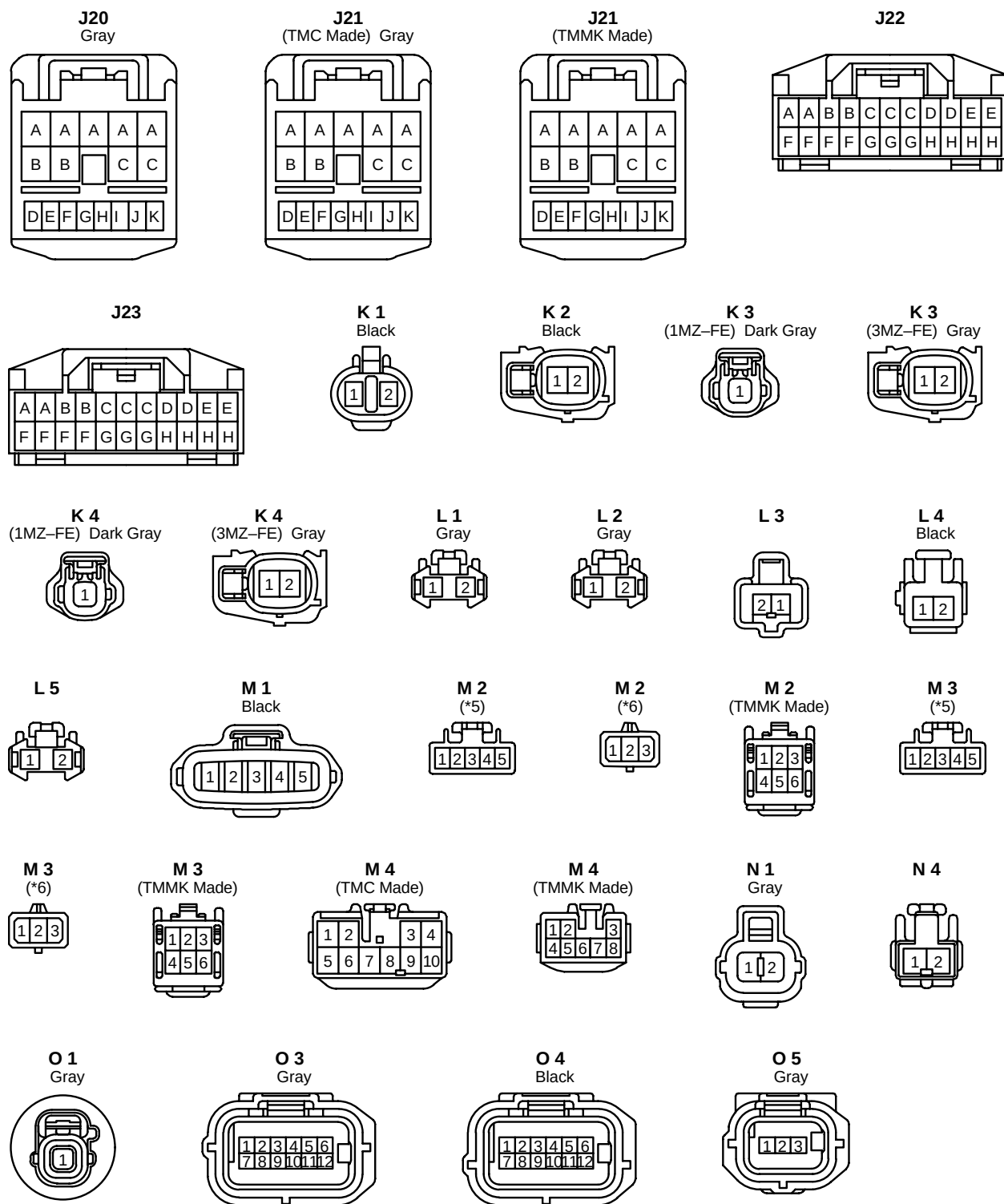




K CONNECTOR LIST

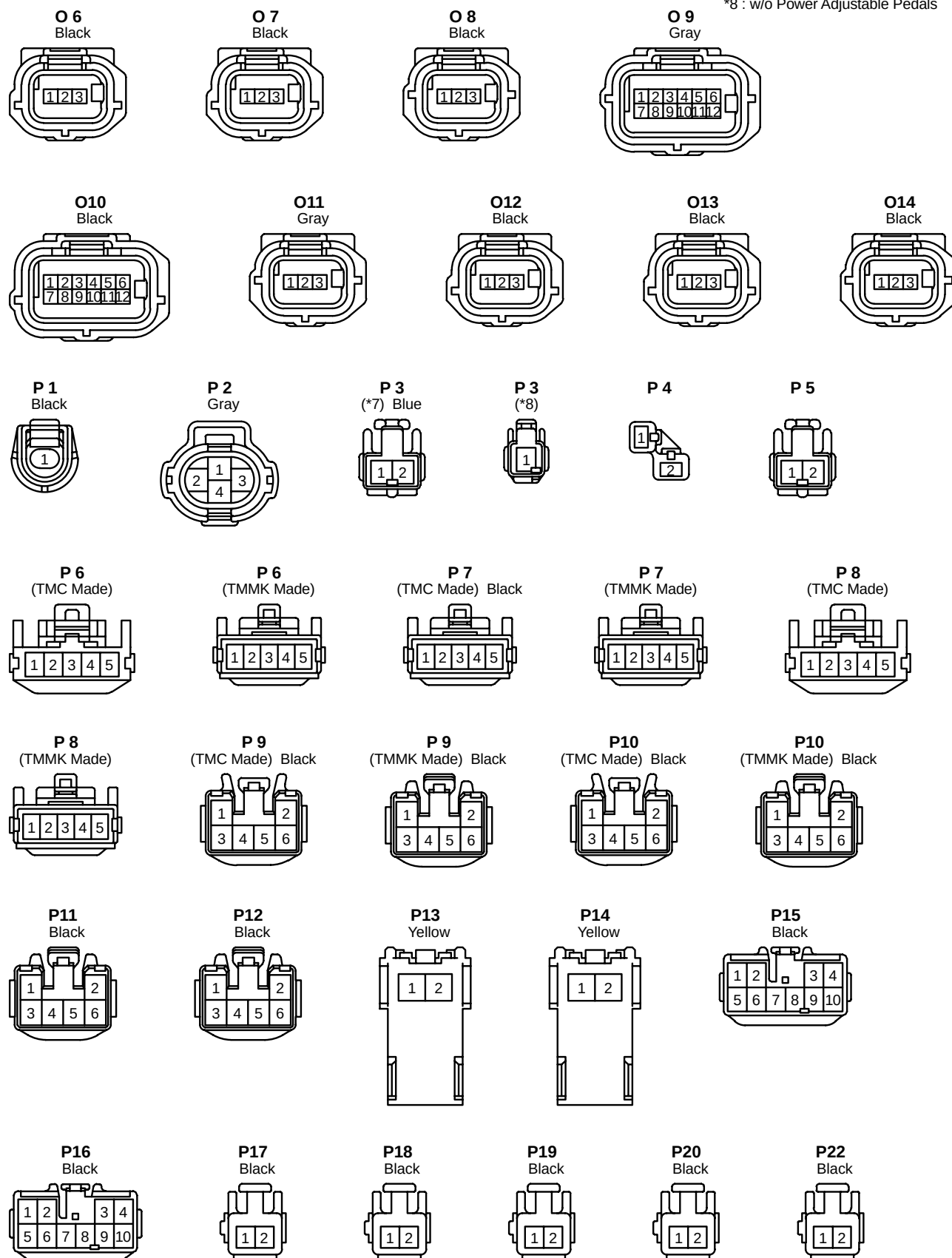
*5 : TMC Made w/ Mirror Heater

*6 : TMC Made w/o Mirror Heater



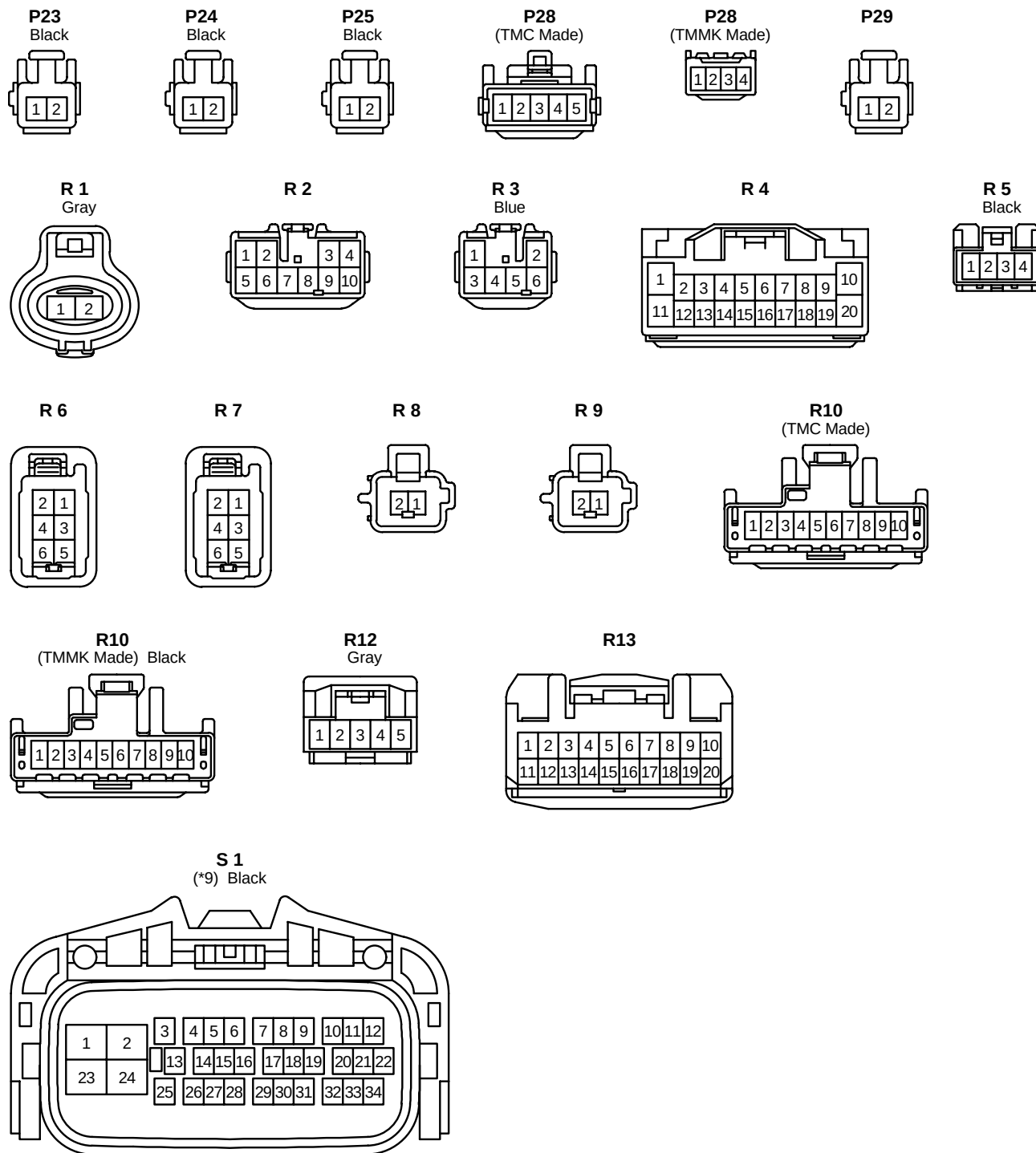
*7 : w/ Power Adjustable Pedals

*8 : w/o Power Adjustable Pedals

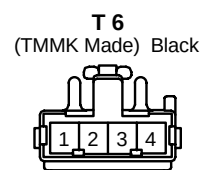
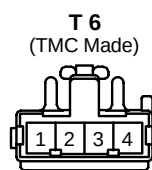
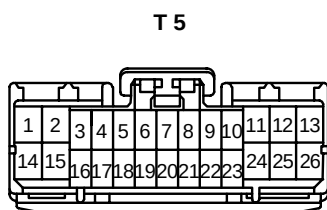
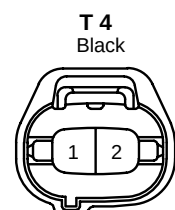
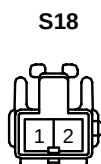
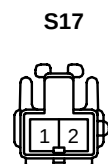
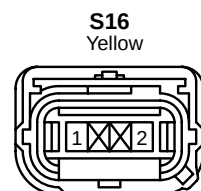
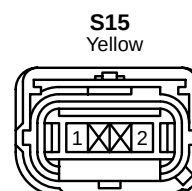
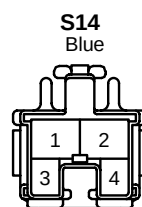
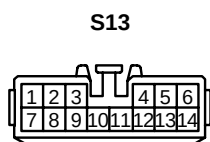
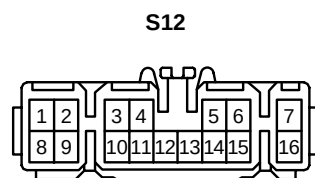
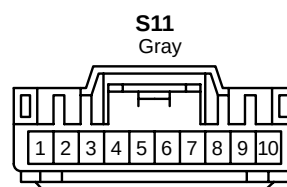
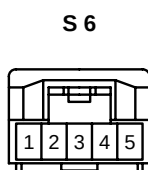
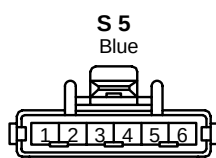
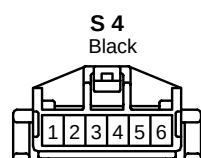
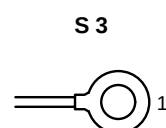
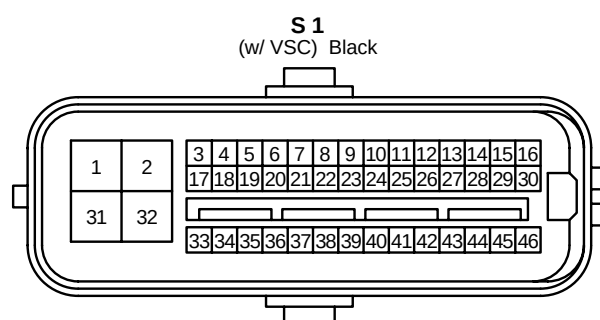
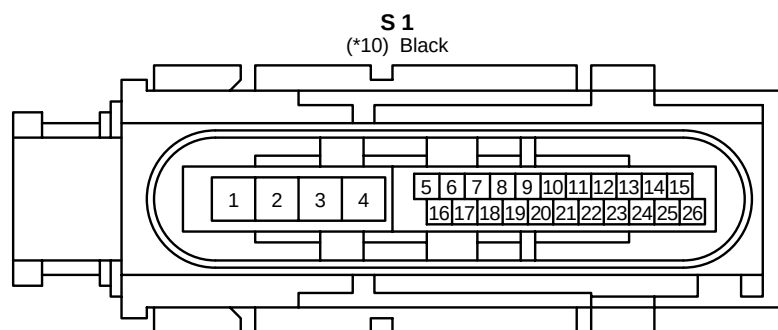


K CONNECTOR LIST

*9 : TMC Made w/o VSC



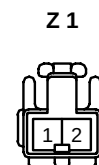
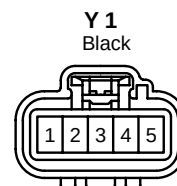
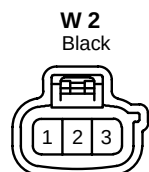
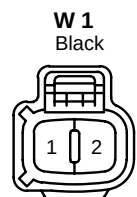
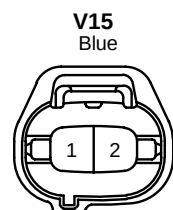
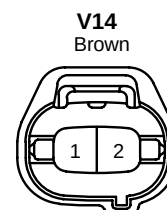
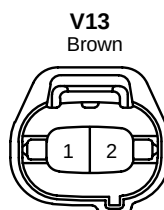
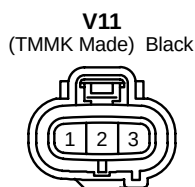
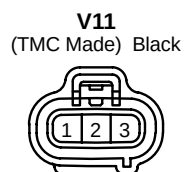
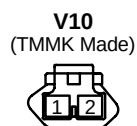
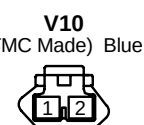
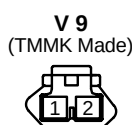
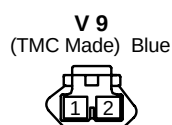
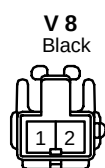
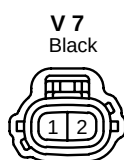
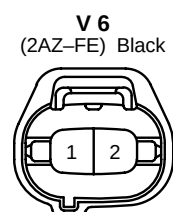
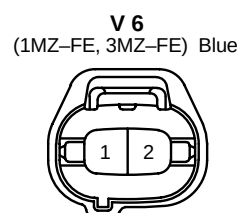
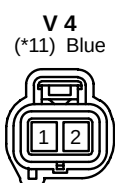
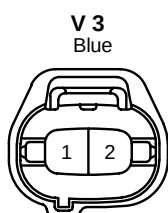
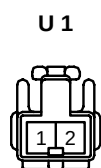
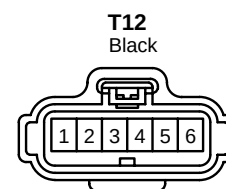
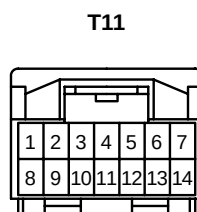
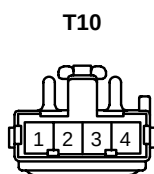
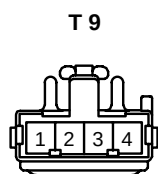
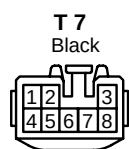
*10 : TMMK Made w/o VSC



K CONNECTOR LIST

*11 : TMMK Made Except 2AZ-FE California

*12 : TMMK Made 2AZ-FE California, TMC Made



L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number
A 1	A/C Ambient Temp. Sensor	90980-11070	B 8	Body ECU	90980-10803
A 2	A/C Condenser Fan Motor	90980-10928	B 9	Buckle SW LH	90980-11950
A 3	A/C Lock Sensor	90980-11016	B10	Buckle SW (Front Passenger's Side) (TMC Made)	90980-11019
	A/C Magnetic Clutch			Buckle SW (Front Passenger's Side) (TMMK Made)	90980-10947
A 4	A/T Indicator Light SW	90980-12362	B11	Buckle SW LH (TMC Made)	90980-10942
	Back-Up Light SW			Buckle SW LH (TMMK Made)	90980-11034
	Park/Neutral Position SW			Seat Position Airbag Sensor (TMC Made)	90980-10942
A 6	ABS Speed Sensor Front LH	90980-11002		Seat Position Airbag Sensor (TMMK Made)	90980-11034
A 7	ABS Speed Sensor Front RH		C 1	Camshaft Position Sensor	90980-10947
A 8	Air Fuel Ratio Sensor (Bank 1 Sensor 1)		C 2	Counter Gear Speed Sensor	90980-11156
A 9	Air Fuel Ratio Sensor (Bank 1 Sensor 1)	90980-11178	C 3	Crankshaft Position Sensor	90980-10947
A10	Air Fuel Ratio Sensor (Bank 2 Sensor 1)		C 4	Cigarette Lighter	90980-11606
A11	Airbag Sensor Front LH			Cigarette Lighter Illumination	
A12	Airbag Sensor Front RH	90980-11856	C 5	Clock (Automatic A/C)	90980-12200
A13	A/C Control Assembly			Clock (Manual A/C)	90980-11911
A14	A/C Room Temp. Sensor	90980-11918	C 6	Clutch Start SW	90980-10825
A15	A/C Solar Sensor		C 7	Combination Meter	90980-12170
A16	A/C Thermistor		C 8	Combination Meter	90980-12200
A18	Accelerator Position Sensor	90980-11144	C 9	Combination SW	90980-11594
A19	Air Inlet Control Servo Motor	90980-11909	C10	Combination SW	90980-12183
A20	Air Mix Control Servo Motor		C11	Combination SW	90980-11672
A21	Air Vent Mode Servo Motor (Automatic A/C)	90980-11909	C12	Cruise Control Clutch SW	90980-10906
	Air Vent Mode Servo Motor (Manual A/C)	90980-11989	C13	Choke Coil	90980-11259
A22	Airbag Sensor Assembly	90980-12392	C14	Curtain Shield Airbag Sensor LH	90980-12241
A23	Airbag Sensor Assembly	90980-12391	C15	Curtain Shield Airbag Sensor RH	
A24	Airbag Sensor Assembly	90980-12390	C16	Curtain Shield Airbag Squib LH (TMC Made)	90980-12219
A27	Airbag Squib (Steering Wheel Pad)	90980-12160		Curtain Shield Airbag Squib LH (TMMK Made)	90980-11884
A28	Automatic Light Control Sensor	90980-11107	C17	Curtain Shield Airbag Squib RH (TMC Made)	90980-12219
A32	ABS Speed Sensor Rear LH	90980-11060		Curtain Shield Airbag Squib RH (TMMK Made)	90980-11884
A33	ABS Speed Sensor Rear RH		D 1	Diode (A/C No.1)	90980-11071
A34	Adjustable Pedal Motor	90980-10825	D 2	Diode (A/C No.2)	90980-10962
A35	Adjustable Pedal SW	90980-11090	D 3	Data Link Connector 3	90980-11665
A36	A/T Shift Lever Illumination	90980-12221	D 4	Diode	90980-10962
	Transmission Control SW		D 5	Door Control Receiver	90980-11909
A37	Airbag Squib (Front Airbag Sensor Assembly)	90980-12160	D 6	Door Courtesy SW Front LH	90980-10871
A38	A/C Amplifier	90980-10807	D 7	Door Courtesy SW Front RH	
A39	A/C Control Assembly	90980-12200	D 8	Door Courtesy SW Rear LH	
A40	A/C Control Assembly	90980-12259	D 9	Door Courtesy SW Rear RH	
B 1	Back-Up Light SW	90980-11250	D10	Door Key Lock and Unlock SW Front LH	90980-12226
B 2	Brake Fluid Level Warning SW	90980-11207		Door Lock Motor Front LH	
B 3	Blower Motor	90980-10903		Door Unlock Detection SW Front LH	
B 4	Blower Motor Controller	90980-11676			
B 5	Blower Resistor	90980-11136			
B 6	Body ECU	90980-11915			
B 7	Body ECU	90980-11913			

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
D11	Door Key Lock and Unlock SW Front RH	90980-12226	H 3	Headlight RH (High)	90980-11095
	Door Lock Motor Front RH		H 4	Headlight RH (Low)	90980-11096
	Door Unlock Detection SW Front RH		H 6	Heated Oxygen Sensor (Bank 1 Sensor 2) (1MZ-FE, 3MZ-FE)	90980-10869
D12	Door Lock Control SW Front LH	Heated Oxygen Sensor (Bank 1 Sensor 2) (2AZ-FE)		90980-11028	
D13	Power Window Master SW	90980-12122	H 7	Heated Oxygen Sensor (Bank 2 Sensor 2)	90980-11028
	Door Lock Control SW RH (TMC Made)		82824-12270	H 8	Horn (High)
D14	Door Lock Control SW RH (TMMK Made)	90980-10797	H 9	Horn (Low)	
	Door Lock Motor Rear LH	90980-12226	H10	Heater Control SW	90980-12153
D15	Door Lock Motor Rear RH		H11	Heater Control SW	90980-11686
	Door Unlock Detection SW Rear RH		H12	High Mounted Stop Light (w/ Rear Spoiler)	90980-11060
D16	Daytime Running Light Resistor			90980-10928	High Mounted Stop Light (w/o Rear Spoiler)
E 3	Electronically Controlled Transmission Solenoid	90980-12326	H13	Heated Oxygen Sensor (Bank 1 Sensor 3)	90980-11028
E 4	Engine Coolant Temp. Sensor (1MZ-FE, 3MZ-FE)	90980-10737	I 1	Ignition Coil and Igniter No.1	90980-11885
	Engine Coolant Temp. Sensor (2AZ-FE)	90980-10735	I 2	Ignition Coil and Igniter No.2	
E 5	Engine Hood Courtesy SW	90980-11003	I 3	Ignition Coil and Igniter No.3	
E 6	Engine Control Module	90980-12525	I 4	Ignition Coil and Igniter No.4	
E 7	Engine Control Module	90980-12146	I 5	Ignition Coil and Igniter No.5	
E 8	Engine Control Module	90980-12143	I 6	Ignition Coil and Igniter No.6	
E 9	Engine Control Module	90980-12145	I 7	Injector No.1 (1MZ-FE, 3MZ-FE)	90980-11153
E10	Engine Control Module	90980-12144		Injector No.1 (2AZ-FE)	90980-11875
F 1	Front Fog Light LH	90980-11096	I 8	Injector No.2 (1MZ-FE, 3MZ-FE)	90980-11153
F 2	Front Fog Light RH			Injector No.2 (2AZ-FE)	90980-11875
F 5	Front Wiper Motor	90980-11599	I 9	Injector No.3 (1MZ-FE, 3MZ-FE)	90980-11153
F 6	Front Door Speaker LH (TMC Made)	82824-12260		Injector No.3 (2AZ-FE)	90980-11875
	Front Door Speaker LH (TMMK Made)	90980-10935	I10	Injector No.4 (1MZ-FE, 3MZ-FE)	90980-11153
F 7	Front Door Speaker RH (TMC Made)	82824-12260		Injector No.4 (2AZ-FE)	90980-11875
	Front Door Speaker RH (TMMK Made)	90980-10935	I11	Injector No.5	90980-11153
F 8	Fuel Pump	90980-11077	I12	Injector No.6	
	Fuel Sender		I13	Ignition Key Cylinder Light	90980-10679
F 9	Front Parking Light LH	90980-10887	I14	Ignition Key Cylinder Light	90980-12092
F10	Front Parking Light RH			Transponder Key Amplifier	
F11	Front Turn Signal Light LH (TMC Made)	90980-11019	I15	Ignition SW	90980-11615
	Front Turn Signal Light LH (TMMK Made)	90980-11020	I16	Inner Mirror	90980-11794
F12	Front Turn Signal Light RH (TMC Made)	90980-11019	I17	Interior Light	90980-10908
	Front Turn Signal Light RH (TMMK Made)	90980-11020	I18	Intake Air Control Valve	90980-11599
G 1	Generator	90980-09213	J 1	Junction Connector (1MZ-FE, 3MZ-FE)	90980-11542
G 2	Generator	90980-11964		Junction Connector (2AZ-FE)	90980-12346
G 3	Glove Box Light and SW	90980-11098	J 2	Junction Connector	90980-11542
G 4	Garage Door Opener	90980-10789	J 4	Junction Connector	90980-10976
	Moon Roof Control SW		J 5	Junction Connector	90980-11661
	Personal Light		J 6	Junction Connector	
H 1	Headlight LH (High)	90980-11095	J 7	Junction Connector	
H 2	Headlight LH (Low)	90980-11096	J 8	Junction Connector	
			J11	Junction Connector	90980-10976

L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number	
J12	Junction Connector	90980-11915	M 4	Moon Roof Control ECU and Motor (TMC Made)	90980-10997	
J13	Junction Connector	90980-12355		Moon Roof Control ECU and Motor (TMMK Made)	90980-10799	
J14	Junction Connector					
J15	Junction Connector					
J16	Junction Connector					
J17	Junction Connector					
J18	Junction Connector					
J19	Junction Connector	90980-12374		N 1	Noise Filter (Ignition)	90980-10843
J20	Junction Connector			N 4	Noise Filter	90980-10860
J21	Junction Connector			O 1	Oil Pressure SW	90980-11363
J22	Junction Connector		O 3	Occupant Classification ECU	90980-12357	
J23	Junction Connector		O 4	Occupant Classification ECU	90980-12356	
K 1	Keyless Buzzer		90980-11142	O 5	Occupant Classification Sensor Front RH	90980-12354
K 2	Knock Sensor (Bank 1)	90980-11875	O 6	Occupant Classification Sensor Rear RH	90980-12353	
K 3	Knock Sensor (Bank 1) (1MZ-FE)	90980-11166	O 7	Occupant Classification Sensor Front LH		
	Knock Sensor (Bank 1) (3MZ-FE)	90980-11875	O 8	Occupant Classification Sensor Rear LH	90980-12354	
K 4	Knock Sensor (Bank 2) (1MZ-FE)	90980-11166	O 9	Occupant Classification ECU	90980-12357	
	Knock Sensor (Bank 2) (3MZ-FE)	90980-11875	O10	Occupant Classification ECU	90980-12356	
L 1	License Plate Light LH	90980-11148	O11	Occupant Classification Sensor Front RH	90980-12354	
L 2	License Plate Light RH		O12	Occupant Classification Sensor Rear RH	90980-12353	
L 3	Luggage Compartment Door Key Unlock SW	90980-11060	O13	Occupant Classification Sensor Front LH		
L 4	Luggage Compartment Door Opener Motor	90980-10825	O14	Occupant Classification Sensor Rear LH	90980-12354	
	Luggage Compartment Light SW		P 1	Power Steering Oil Pressure SW	90980-11428	
L 5	Luggage Compartment Light	90980-11148	P 2	Pressure SW	90980-10943	
M 1	Mass Air Flow Meter	90980-11317	P 3	Parking Brake SW (w/ Power Adjustable Pedals)	90980-10860	
M 2	Mirror Heater LH (TMC Made w/ Mirror Heater)	90980-10558		Parking Brake SW (w/o Power Adjustable Pedals)	90980-10871	
	Mirror Heater LH (TMC Made w/o Mirror Heater)	90980-10395	P 4	Power Outlet (Front)	90980-10760	
	Mirror Heater LH (TMMK Made)	90980-11488	P 5	Power Outlet (Rear)	90980-10860	
	Remote Control Mirror LH (TMC Made w/ Mirror Heater)	90980-10558	P 6	Power Window Control SW Front RH (TMC Made)	82824-12230	
	Remote Control Mirror LH (TMC Made w/o Mirror Heater)	90980-10395		Power Window Control SW Front RH (TMMK Made)	90980-10789	
	Remote Control Mirror LH (TMMK Made)	90980-11488	P 7	Power Window Control SW Rear LH	90980-10789	
M 3	Mirror Heater RH (TMC Made w/ Mirror Heater)	90980-10558	P 8	Power Window Control SW Rear RH (TMC Made)	82824-12230	
	Mirror Heater RH (TMC Made w/o Mirror Heater)	90980-10395		Power Window Control SW Rear RH (TMMK Made)	90980-10789	
	Mirror Heater RH (TMMK Made)	90980-11488	P 9	Power Window Motor Front LH (TMC Made)	82824-12270	
	Remote Control Mirror RH (TMC Made w/ Mirror Heater)	90980-10558		Power Window Motor Front LH (TMMK Made)	90980-10797	
	Remote Control Mirror RH (TMC Made w/o Mirror Heater)	90980-10395	P10	Power Window Motor Front RH (TMC Made)	82824-12270	
	Remote Control Mirror RH (TMMK Made)	90980-11488		Power Window Motor Front RH (TMMK Made)	90980-10797	
			P11	Power Window Motor Rear LH	90980-10797	
			P12	Power Window Motor Rear RH		

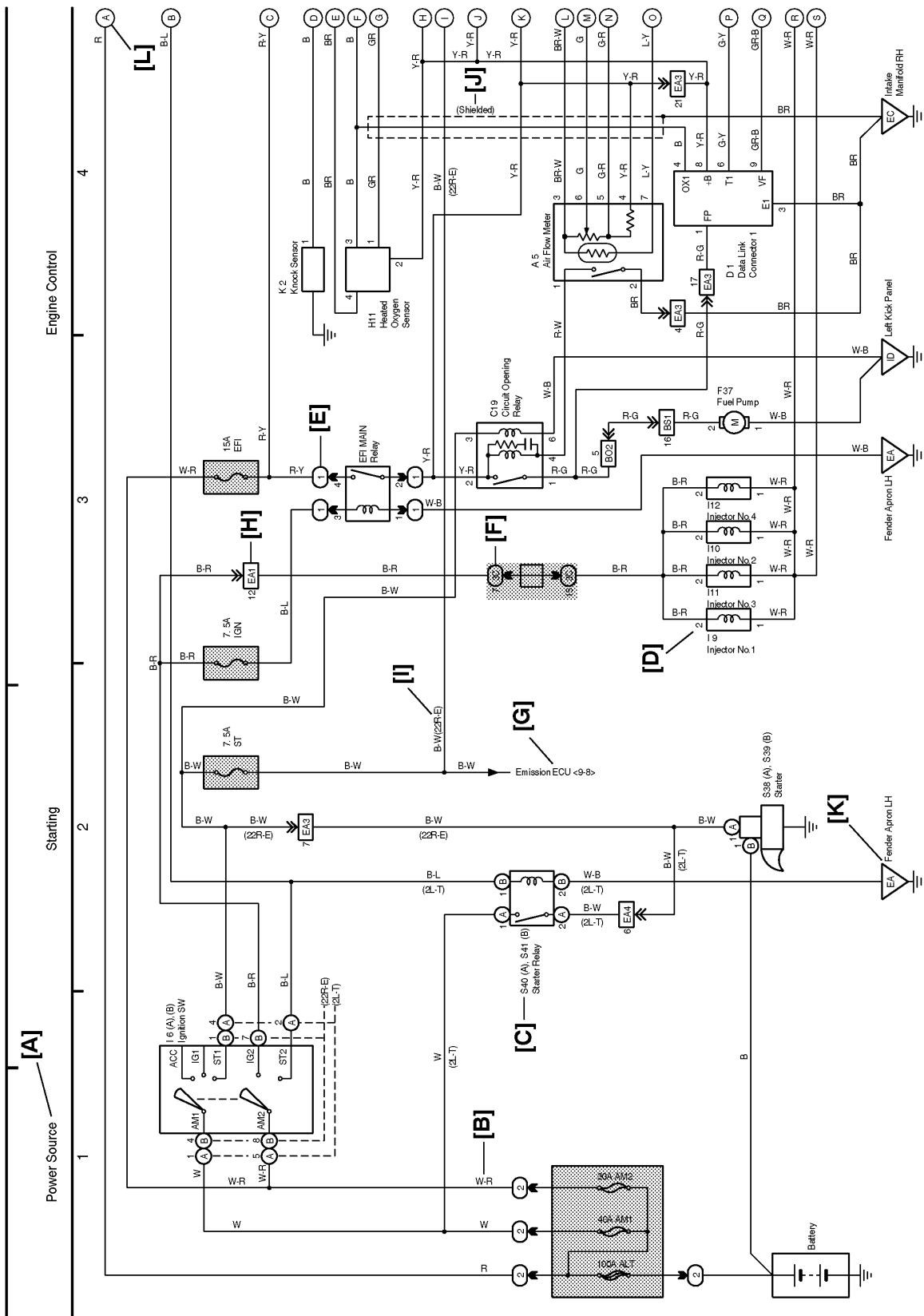
Note: Not all of the above part numbers of the connector are established for the supply.

Code	Part Name	Part Number	Code	Part Name	Part Number
P13	Pretensioner LH	90980-12253	S 5	Seat Heater SW (Front Passenger's Seat)	90980-10933
P14	Pretensioner RH		S 6	Shift Lock Control ECU	90980-11909
P15	Power Seat Control SW (Driver's Seat)	90980-10997	S11	Steering Sensor	82824-45030
P16	Power Seat Control SW (Front Passenger's Seat)		S12	Stereo Component Amplifier	90980-10848
P17	Power Seat Motor (Driver's Seat Front Vertical Control)	90980-10825	S13	Stereo Component Amplifier	90980-10807
P18	Power Seat Motor (Driver's Seat Lifter Control)		S14	Stop Light SW	90980-11118
P19	Power Seat Motor (Driver's Seat Reclining Control)		S15	Side Airbag Sensor LH	90980-12241
P20	Power Seat Motor (Driver's Seat Slide Control)		S16	Side Airbag Sensor RH	
P22	Power Seat Motor (Front Passenger's Seat Front Vertical Control)		S17	Seat Heater LH	90980-10906
P23	Power Seat Motor (Front Passenger's Seat Lifter Control)		S18	Seat Heater RH	
P24	Power Seat Motor (Front Passenger's Seat Reclining Control)		S19	Side Airbag Squib LH	90980-11864
P25	Power Seat Motor (Front Passenger's Seat Slide Control)		S20	Side Airbag Squib RH	
P28	Power Seat Control SW (Driver's Seat Lumbar Support Control) (TMC Made)	90980-10789	T 1	Theft Deterrent Horn	90980-10619
	Power Seat Control SW (Driver's Seat Lumbar Support Control) (TMMK Made)	90980-10601	T 4	Turbine Speed Sensor	90980-11156
P29	Power Seat Motor (Driver's Seat Lumbar Support Control)	90980-10825	T 5	Theft Deterrent ECU	90980-11423
R 1	Radiator Fan Motor	90980-10928	T 6	TRAC OFF SW	90980-11013
R 2	Radio and Player	90980-10997	T 7	Turn Signal Flasher Relay	90980-10799
R 3	Radio and Player	90980-10996	T 9	Tweeter LH	90980-11013
R 4	Radio and Player with Display (w/ Navigation System)	90980-12038	T10	Tweeter RH	
	Radio and Player (w/o Navigation System)		T11	Transponder Key Computer	90980-11911
R 5	Rheostat	90980-11950	T12	Throttle Control Motor	90980-11858
R 6	Rear Combination Light LH	90980-11587		Throttle Position Sensor	
R 7	Rear Combination Light RH		U 1	Unlock Warning SW	90980-10860
R 8	Rear Speaker LH	90980-11299	V 3	VSV (AICV)	90980-11156
R 9	Rear Speaker RH		V 4	VSV (Canister Closed Valve)	90980-11859
R10	Remote Control Mirror SW	90980-11657	V 6	VSV (EVAP)	90980-11156
R12	Radio and Player with Display	90980-11909	V 7	VVT Solenoid	90980-11162
R13	Radio and Player with Display (w/ Navigation System)	90980-12259	V 8	VSC Warning Buzzer	90980-10906
	Radio and Player (w/o Navigation System)		V 9	Vanity Light LH	90980-10621
S 1	Skid Control ECU with Actuator (TMC Made w/o VSC)	90980-12020	V10	Vanity Light RH	
	Skid Control ECU with Actuator (TMMK Made w/o VSC)	90080-98317	V11	Vapor Pressure Sensor (TMC Made)	90980-11143
	Skid Control ECU with Actuator (w/ VSC)	90980-12297		Vapor Pressure Sensor (TMMK Made)	90980-11860
S 2	Starter	90980-11400	V13	VSV (ACIS No.1)	90980-11149
S 3	Starter	90980-09463	V14	VSV (ACIS No.2)	
S 4	Seat Heater SW (Driver's Seat)	90980-10964	V15	VSV (ACM)	90980-11156
			V16	VVT Sensor LH	90980-10947
			V17	VVT Sensor RH	
			V18	VVT Solenoid LH	90980-11162
			V19	VVT Solenoid RH	
			W 1	Washer Level Sensor	90980-11068
			W 2	Washer Motor	90980-10981
			W 3	Water Temp. SW No.1	90980-11235
			W 4	Water Temp. SW No.2	90980-11243
			Y 1	Yaw Rate Sensor	90980-11904
			Z 1	Option Connector (TVIP ECU)	90980-10860

M OVERALL ELECTRICAL WIRING DIAGRAM

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

HOW TO READ THIS SECTION



[A] : System Title

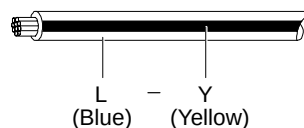
[B] : Indicates the wiring color.

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

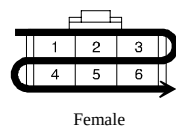


[C] : The position of the parts is the same as shown in the wiring diagram and wire routing.

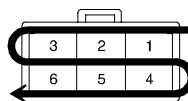
[D] : Indicates the pin number of the connector. The numbering system is different for female and male connectors.

Example : Numbered in order from upper left to lower right

Numbered in order from upper right to lower left



Female



Male

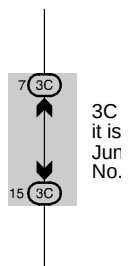
The numbering system for the overall wiring diagram is the same as above

[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

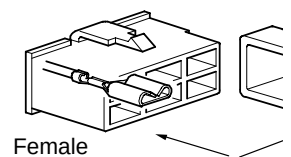
[F] : Junction Block (The number and the connector code. Junction Blocks are shared from other parts.

Example:



[G] : Indicates related system

[H] : Indicates the wiring harness connector. The wiring harness terminal is shown with an arrow. Outside numerals are pin



[I] : () is used to indicate a connector, etc. when the specification is different

[J] : Indicates a shielded cable



[K] : Indicates and located on

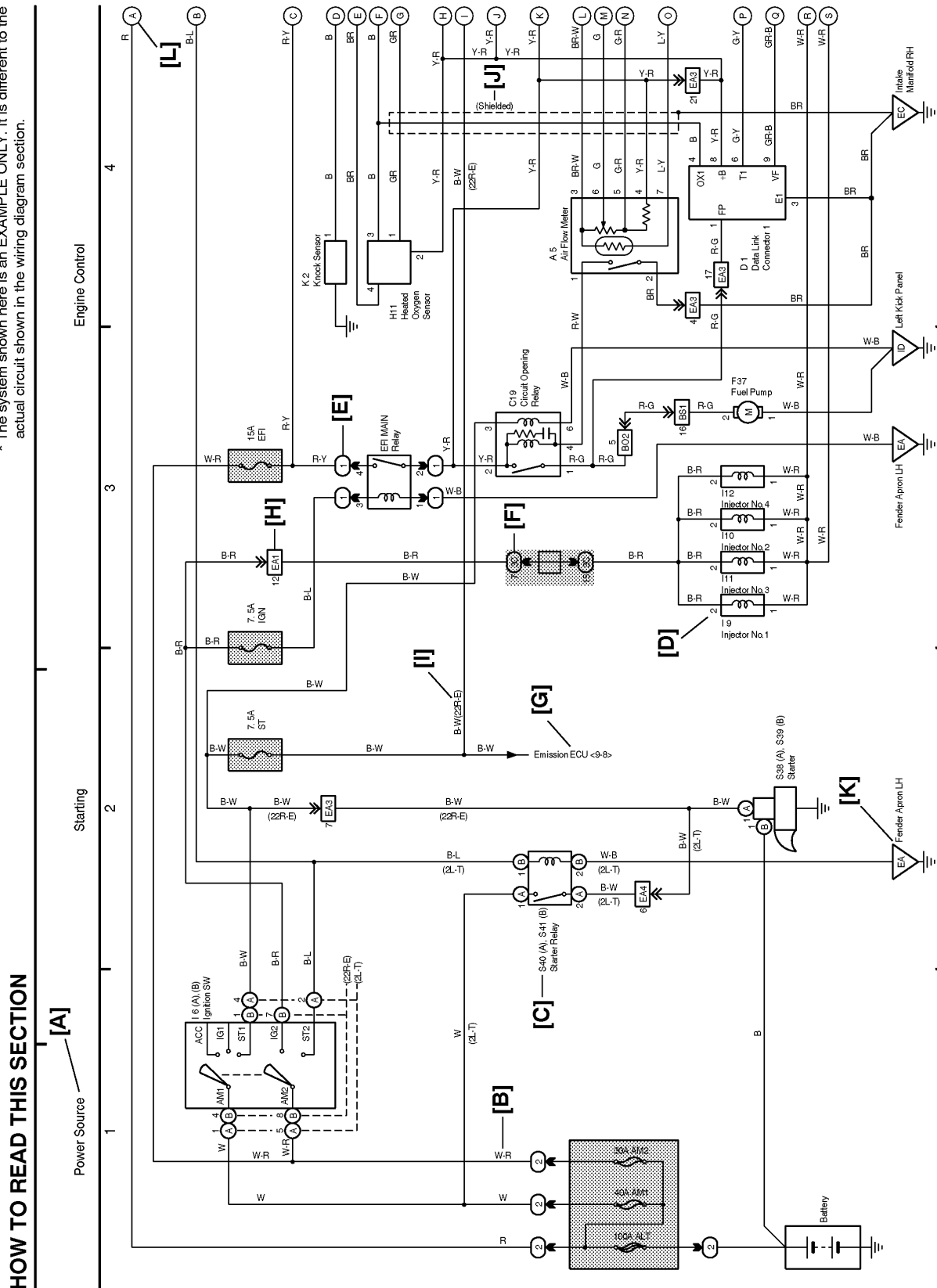
[L] : The same code occurring that the wire harness is

SYSTEM INDEX

SYSTEMS	LOCATION	SYSTEMS
ABS (TMC Made)	14-2	Moon Roof
ABS (TMMK Made)	15-2	Multiplex Communication System
Audio System (Built-in Type Amplifier w/o Navigation System) . . .	29-3	*Automatic Light Control
Audio System (Separate Type Amplifier w/o Navigation System) .	28-2	*Door Lock Control
Audio System (w/ Navigation System)	27-2	*Garage Door Opener
Automatic Air Conditioning (1MZ-FE)	32-2	*Headlight
Automatic Air Conditioning (2AZ-FE)	33-2	*Interior Light
Automatic Glare-Resistant EC Mirror	21-3	*Key Reminder
Back-Up Light	12-2	*Light Auto Turn Off System
Charging	4-2	*Theft Deterrent
Cigarette Lighter	23-2	*Wireless Door Lock Control
Clock	26-2	Multiplex Communication System
Combination Meter	30-2	Navigation System
Cruise Control (1MZ-FE, 3MZ-FE)	5-18	Power Adjustable Pedals
Cruise Control (2AZ-FE)	6-18	Power Outlet
Electronically Controlled Transmission and A/T Indicator		Power Seat
(1MZ-FE, 3MZ-FE)	7-2	Power Source
Electronically Controlled Transmission and A/T Indicator		Power Window
(2AZ-FE)	8-2	Radiator Fan and Condenser Fan
Engine Control (1MZ-FE, 3MZ-FE)	5-8	Rear Window Defogger
Engine Control (2AZ-FE)	6-8	Remote Control Mirror
Engine Immobilizer System (1MZ-FE, 3MZ-FE)	5-3	Seat Belt Warning
Engine Immobilizer System (2AZ-FE)	6-4	Seat Heater
Fog Light	12-4	Shift Lock
Horn	17-4	SRS
Ignition (1MZ-FE, 3MZ-FE)	2-2	Starting (1MZ-FE, 3MZ-FE) . . .
Ignition (2AZ-FE)	3-2	Starting (2AZ-FE)
Illumination	10-2	Stop Light
Manual Air Conditioning (1MZ-FE, 3MZ-FE)	34-3	Taillight
Manual Air Conditioning (2AZ-FE)	35-3	Turn Signal and Hazard Warning
Mirror Heater	20-4	VSC
		Wiper and Washer

M OVERALL ELECTRICAL WIRING DIAGRAM

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



[A] : System Title

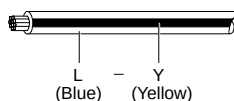
[B] : Indicates the wiring color.

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.

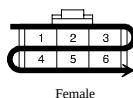
Example: L - Y



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

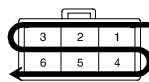
[D] : Indicates the pin number of the connector. The numbering system is different for female and male connectors.

Example : Numbered in order from upper left to lower right



Female

Numbered in order from upper right to lower left



Male

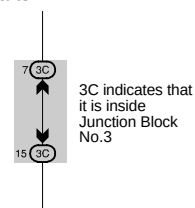
The numbering system for the overall wiring diagram is the same as above

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

Example : Indicates Relay Block No.1

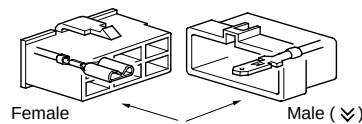
[F] : Junction Block (The number in the circle is the J/B No. and the connector code is shown beside it). Junction Blocks are shaded to clearly separate them from other parts.

Example:



[G] : Indicates related system.

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



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

[J] : Indicates a shielded cable.

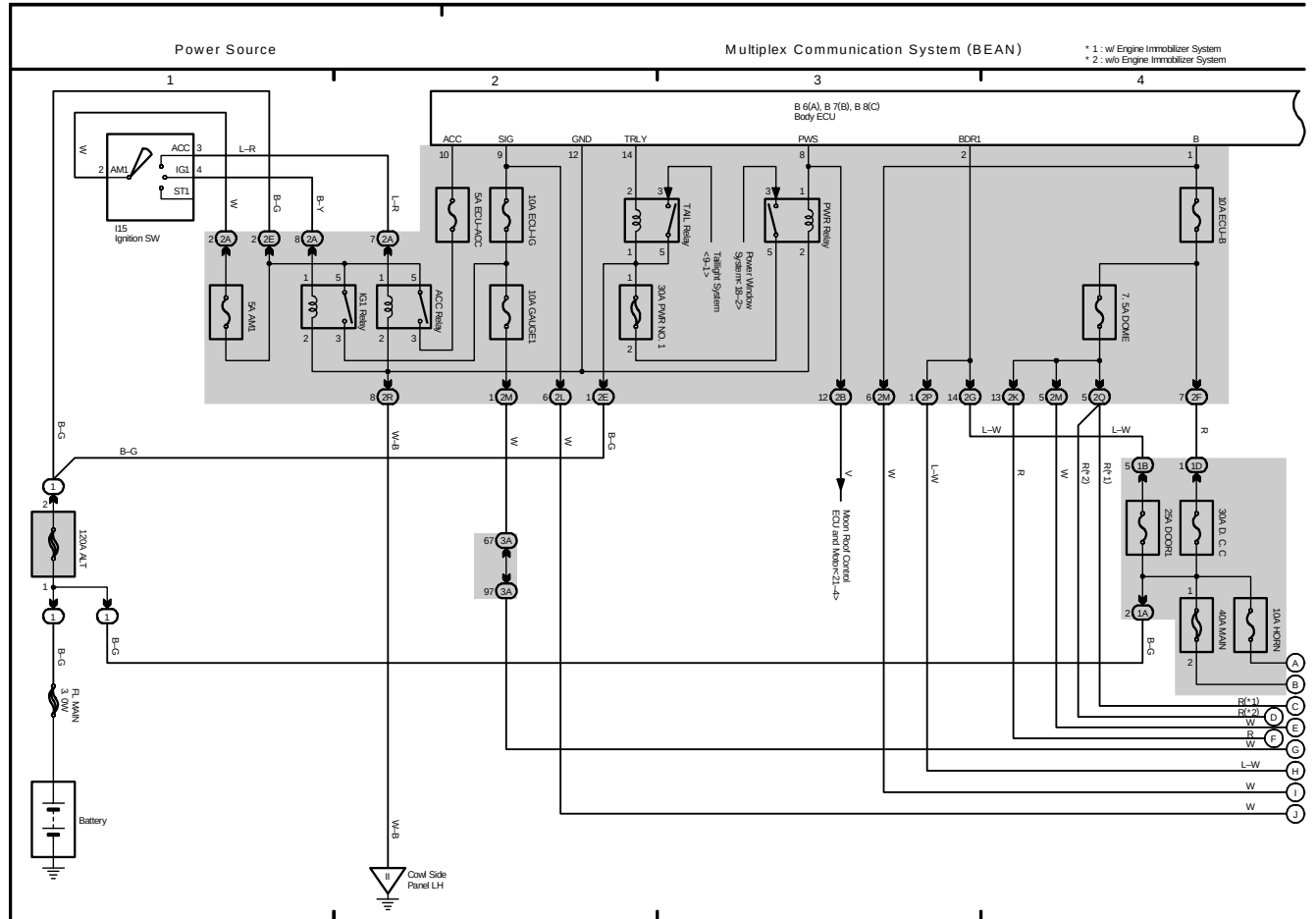


[K] : Indicates and located on ground point.

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

SYSTEM INDEX

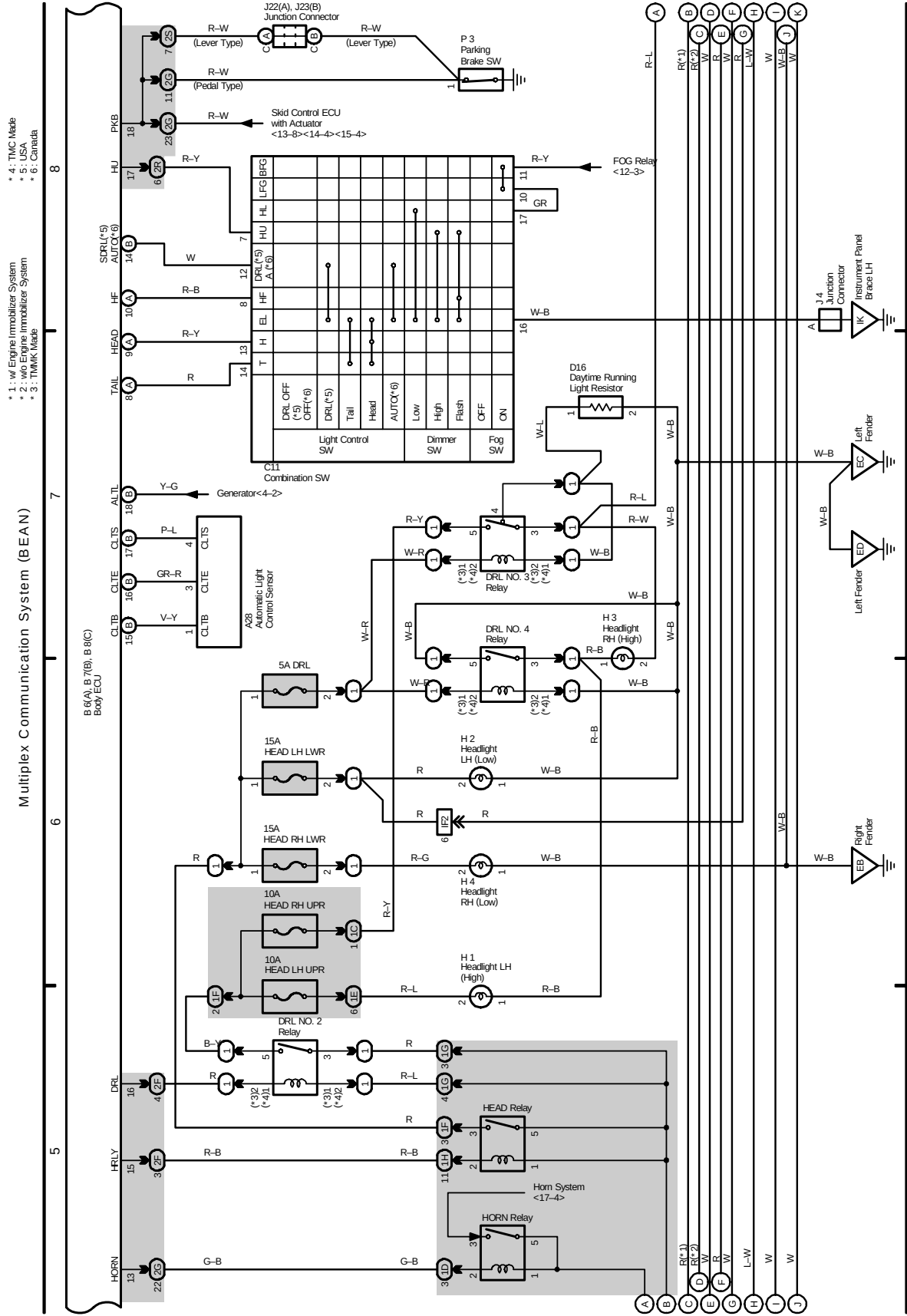
SYSTEMS	LOCATION	SYSTEMS	LOCATION
ABS (TMC Made)	14-2	Moon Roof	21-4
ABS (TMMK Made)	15-2	Multiplex Communication System (BEAN)	1-2
Audio System (Built-in Type Amplifier w/o Navigation System) . . .	29-3	*Automatic Light Control	
Audio System (Separate Type Amplifier w/o Navigation System) . .	28-2	*Door Lock Control	
Audio System (w/ Navigation System)	27-2	*Garage Door Opener	
Automatic Air Conditioning (1MZ-FE)	32-2	*Headlight	
Automatic Air Conditioning (2AZ-FE)	33-2	*Interior Light	
Automatic Glare-Resistant EC Mirror	21-3	*Key Reminder	
Back-Up Light	12-2	*Light Auto Turn Off System	
Charging	4-2	*Theft Deterrent	
Cigarette Lighter	23-2	*Wireless Door Lock Control	
Clock	26-2	Multiplex Communication System (CAN)	13-11
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Cruise Control (1MZ-FE, 3MZ-FE)	5-18	Power Adjustable Pedals	25-2
Cruise Control (2AZ-FE)	6-18	Power Outlet	23-2
Electronically Controlled Transmission and A/T Indicator (1MZ-FE, 3MZ-FE)	7-2	Power Seat	24-2
Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	8-2	Power Source	1-35-1
Engine Control (1MZ-FE, 3MZ-FE)	5-8	Power Window	18-3
Engine Control (2AZ-FE)	6-8	Radiator Fan and Condenser Fan	31-2
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Fog Light	12-4	Seat Belt Warning	17-2
Horn	17-4	Seat Heater	23-4
Ignition (1MZ-FE, 3MZ-FE)	2-2	Shift Lock	23-3
Ignition (2AZ-FE)	3-2	SRS	16-2
Illumination	10-2	Starting (1MZ-FE, 3MZ-FE)	2-2
Manual Air Conditioning (1MZ-FE, 3MZ-FE)	34-3	Starting (2AZ-FE)	3-2
Manual Air Conditioning (2AZ-FE)	35-3	Stop Light	9-3
Mirror Heater	20-4	Taillight	9-2
		Turn Signal and Hazard Warning Light	11-2
		VSC	13-4
		Wiper and Washer	22-3

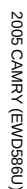


M OVERALL ELECTRICAL WIRING DIAGRAM

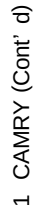
1 CAMRY (Cont' d)

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Multiplex Communication System (BEAN)

* 3 : TMMK Made
* 4 : TMC Made

The diagram illustrates the wiring for the Multiplex Communication System (BEAN) across four chassis sections (17, 18, 19, 20). The central component is the **Body ECU**, which provides power to various components via a **J11 Junction Connector**.

Key Components and Connections:

- Door Lock Motors:**
 - D10:** Door Key Lock and Unlock SW Front LH, Door Lock Motor Front LH, Door Unlock Detection SW Front LH.
 - D11:** Door Key Lock and Unlock SW Front RH, Door Lock Motor Front RH, Door Unlock Detection SW Front RH.
 - D15:** Door Lock Motor Rear RH, Door Unlock Detection SW Rear RH.
 - D14:** Door Lock Motor Rear LH, Door Unlock Detection SW Rear LH.
- Switches:**
 - W-B:** Wiper Switch (Front LH, Front RH, Under Driver's Seat).
 - W-B (*4):** Wiper Switch (Front LH, Front RH).
 - W-B (*3):** Wiper Switch (Front RH).
- Sensors and Indicators:**
 - SGND:** Ground connection for the instrument panel.
 - Instrument Panel:** Includes the instrument panel brace LH.

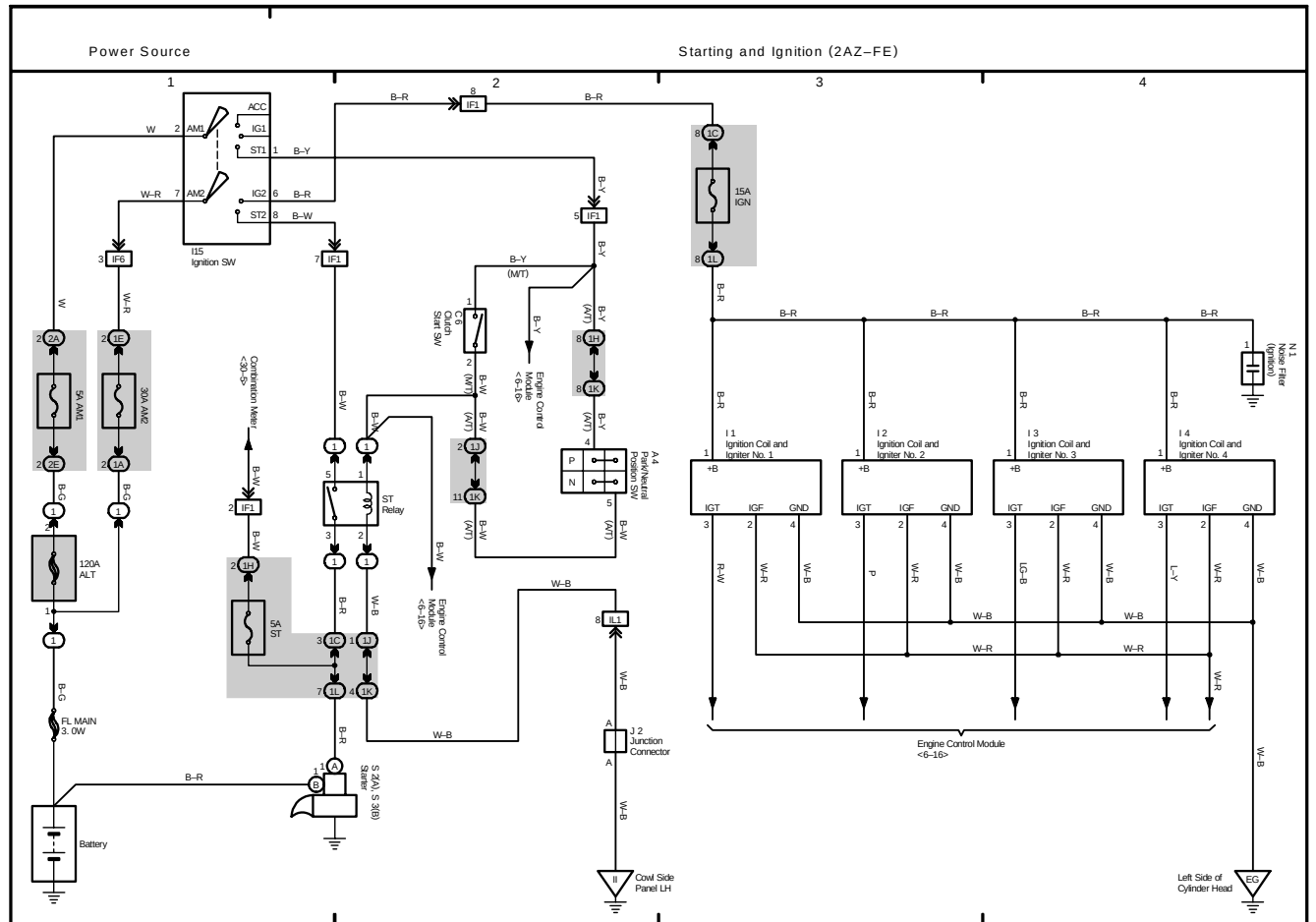
Wiring Details:

- Power Sources:**
 - B 6(A), B 7(B), B 8(C):** Body ECU power inputs.
 - ACTD, UL3, LSWD, L2, UL2, LSWP, ACT+, ACT-, LSR, SGND:** Various control lines from the ECU.
- Connectors:**
 - J11:** Junction Connector for the Body ECU.
 - J1(A), J 8(B):** Connectors for the door lock motors.
- Wiring Paths:**
 - W-B:** Wiper Switch wiring, connecting to the Body ECU and the wiper motor.
 - W-B (*4):** Wiper Switch wiring, connecting to the Body ECU and the wiper motor.
 - W-B (*3):** Wiper Switch wiring, connecting to the Body ECU and the wiper motor.

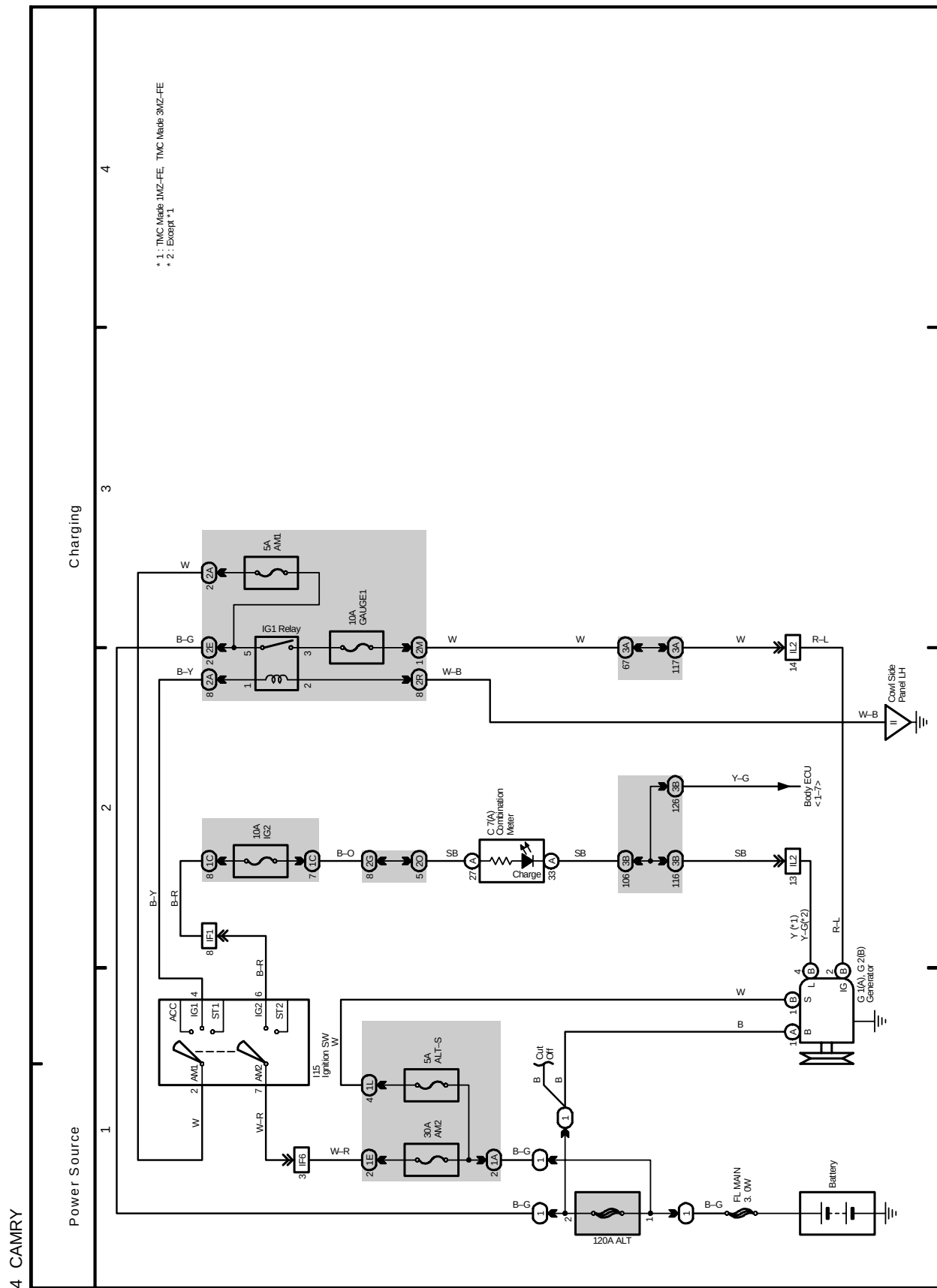
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2 CAMRY

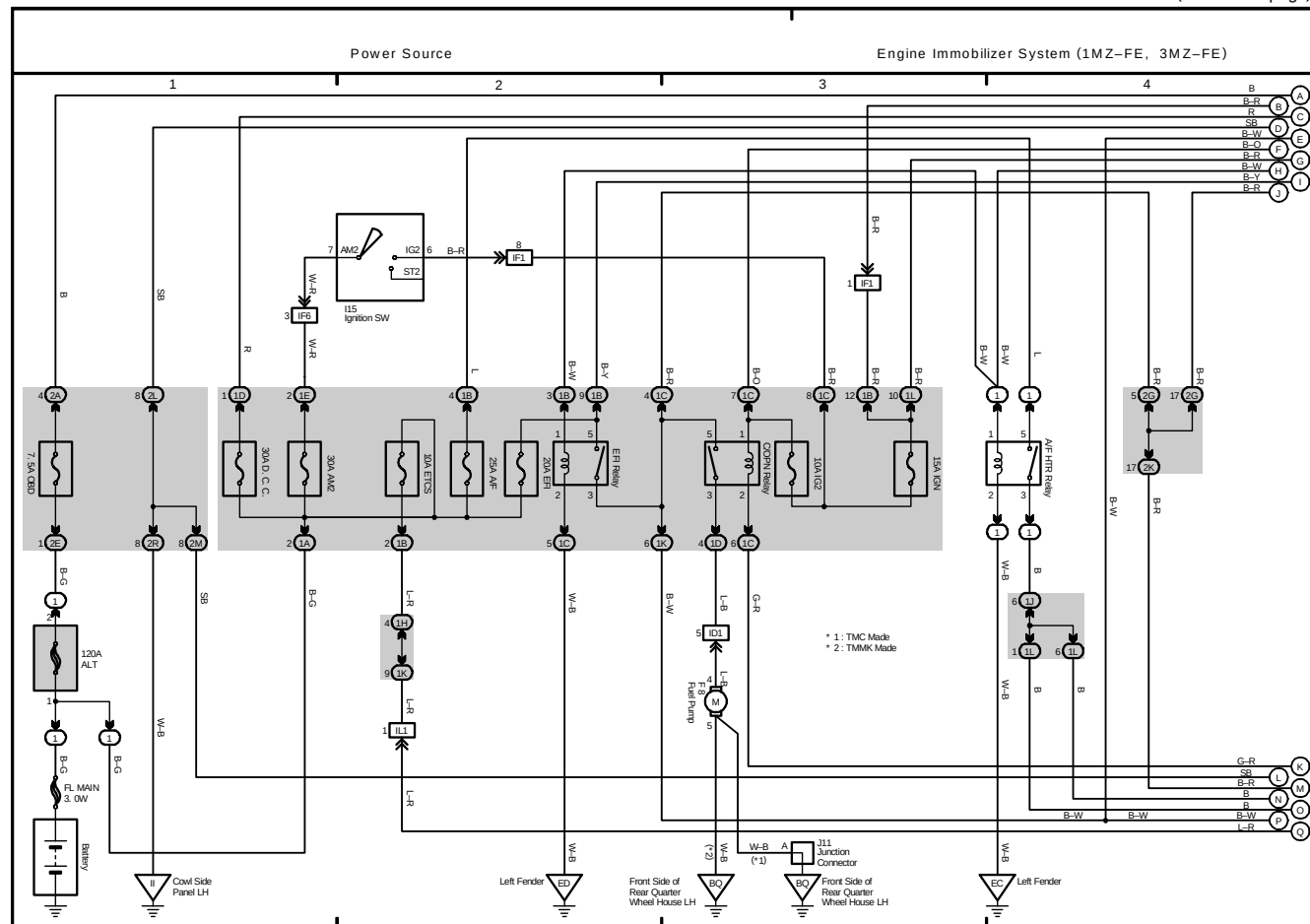




M OVERALL ELECTRICAL WIRING DIAGRAM



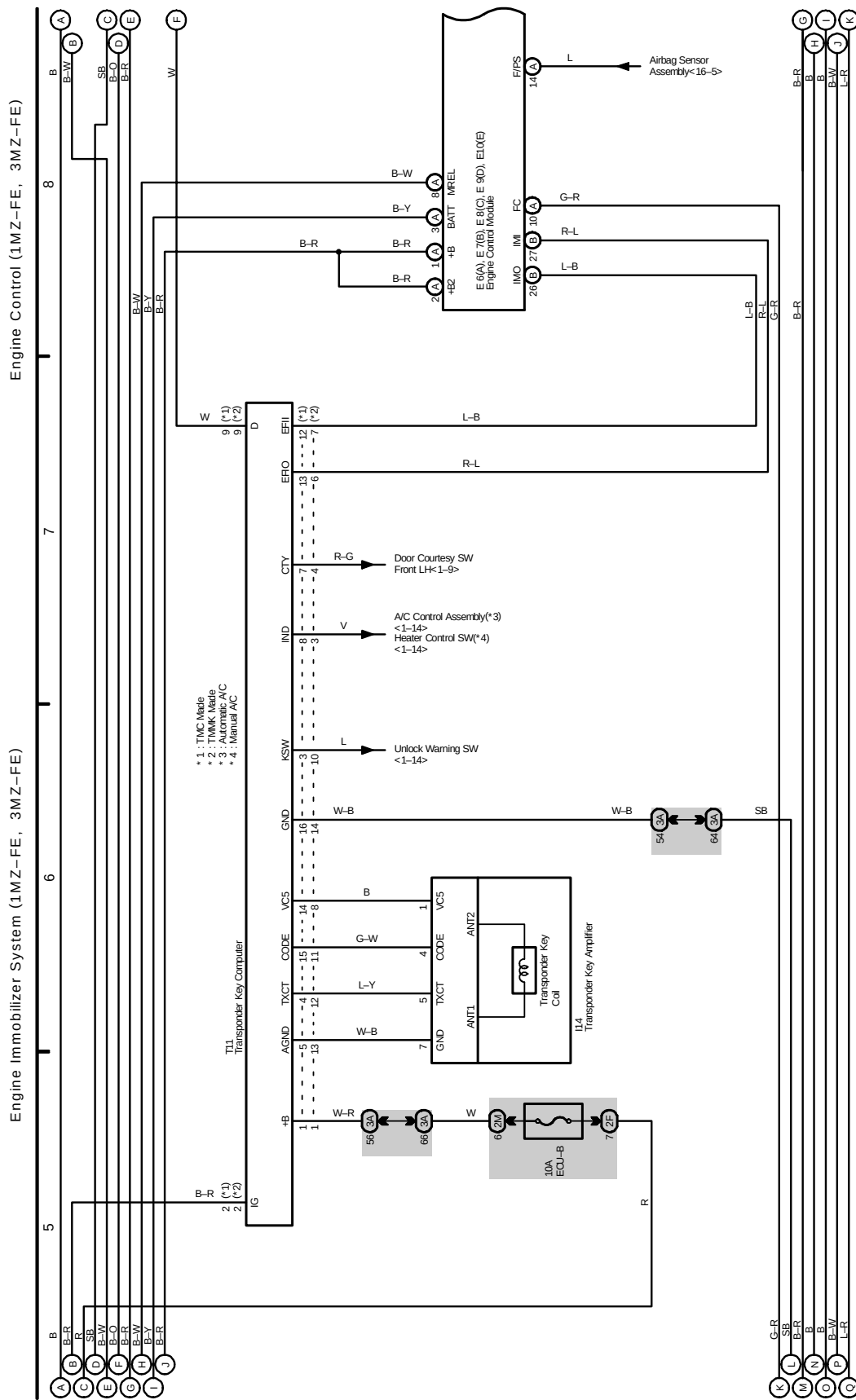
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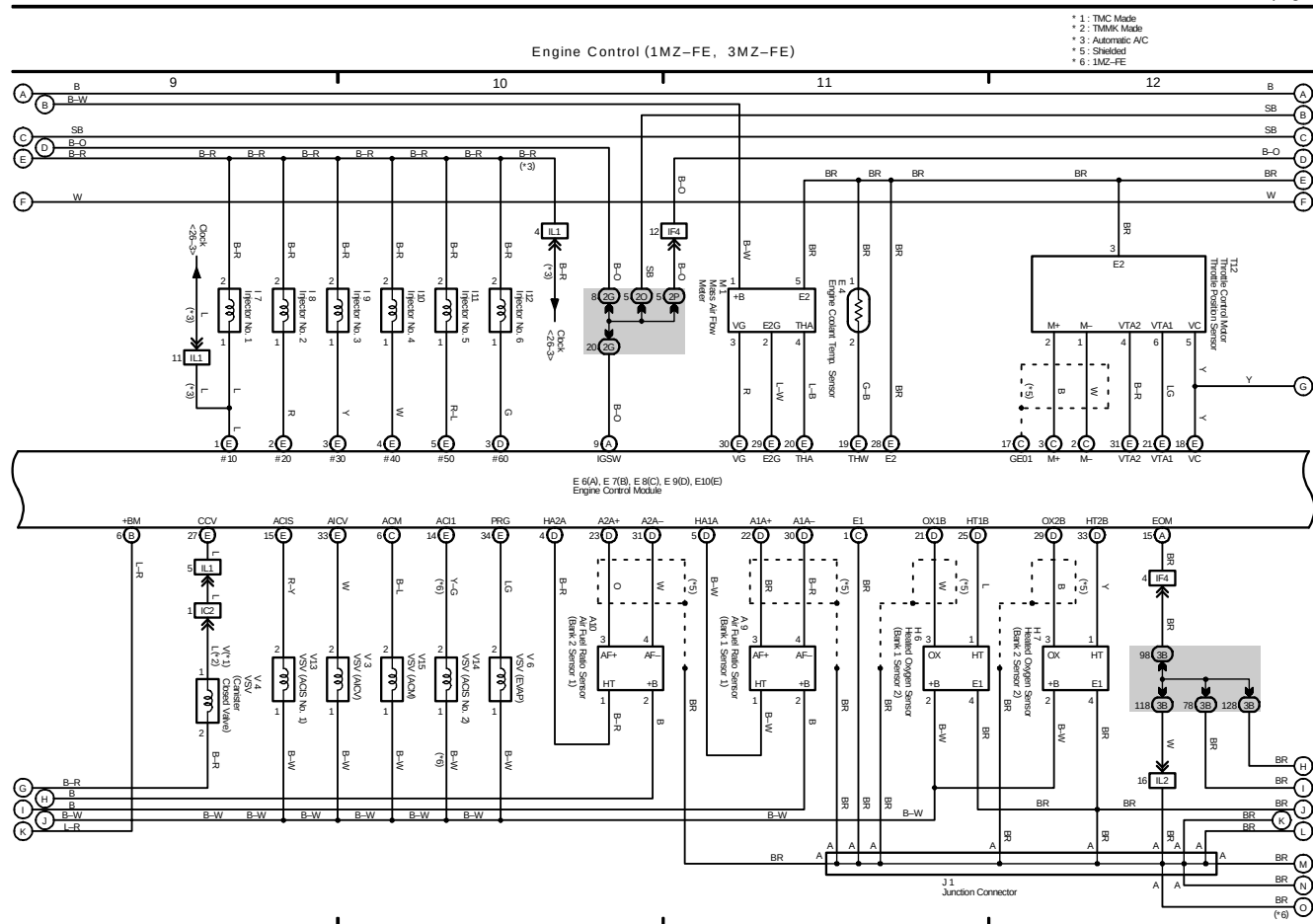


M OVERALL ELECTRICAL WIRING DIAGRAM

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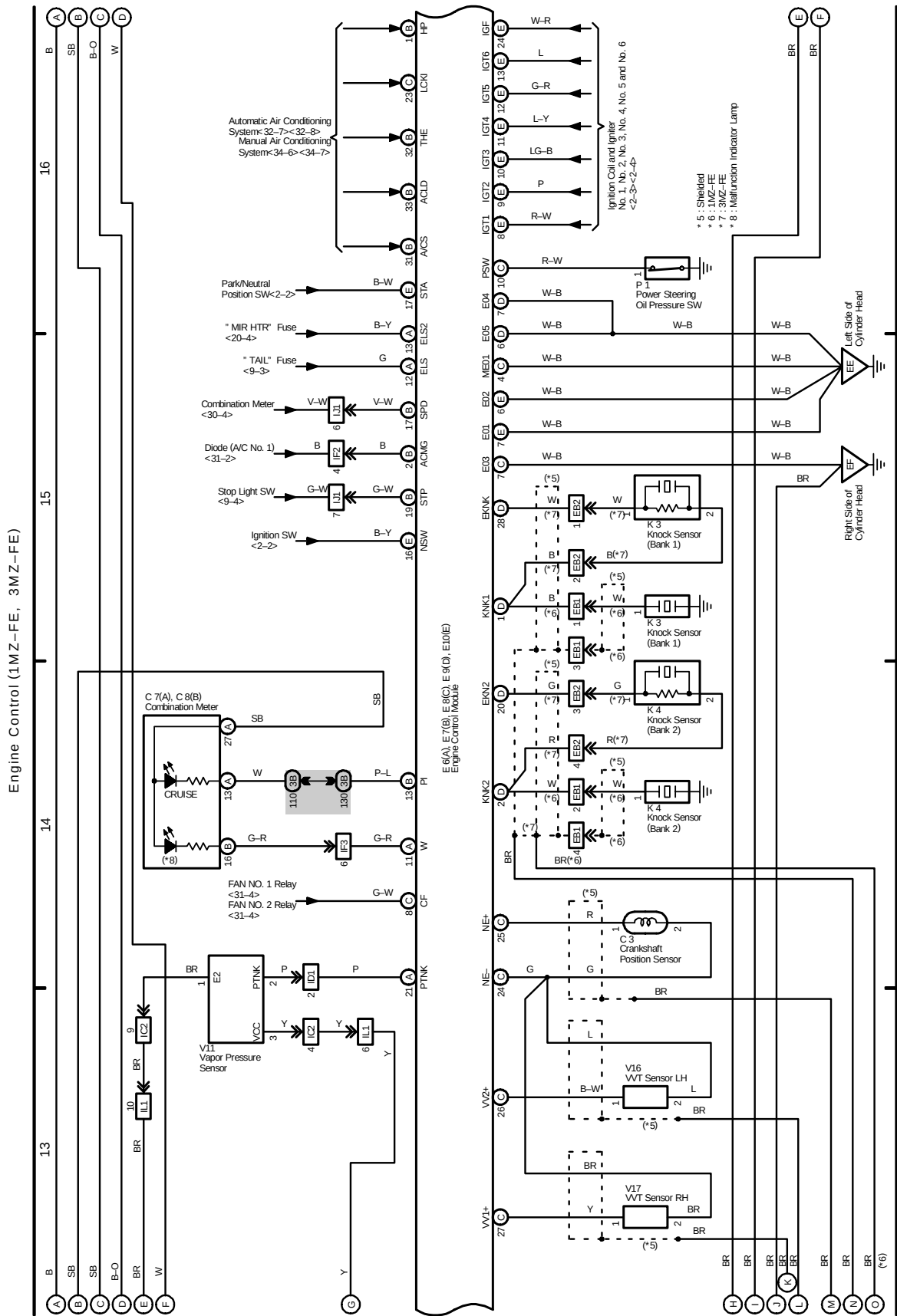


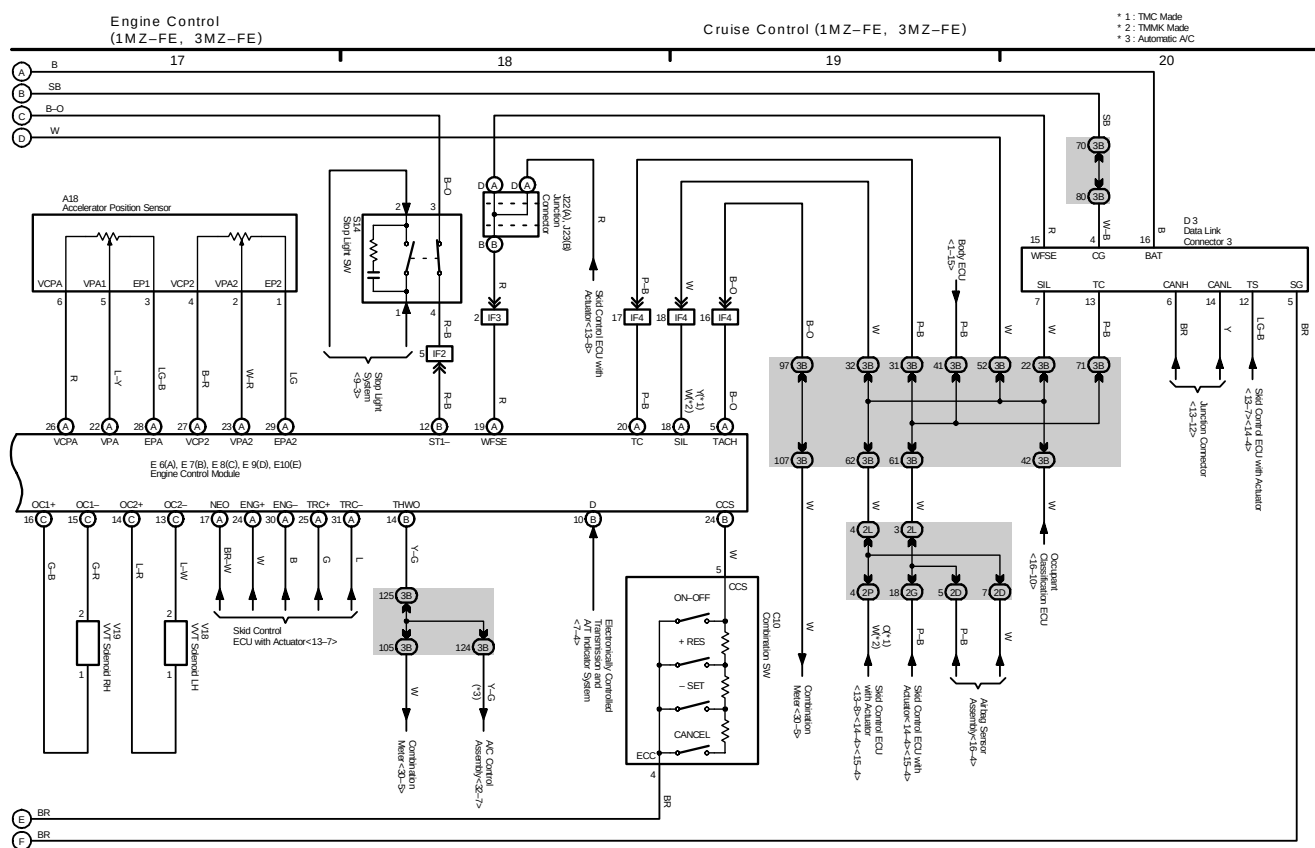


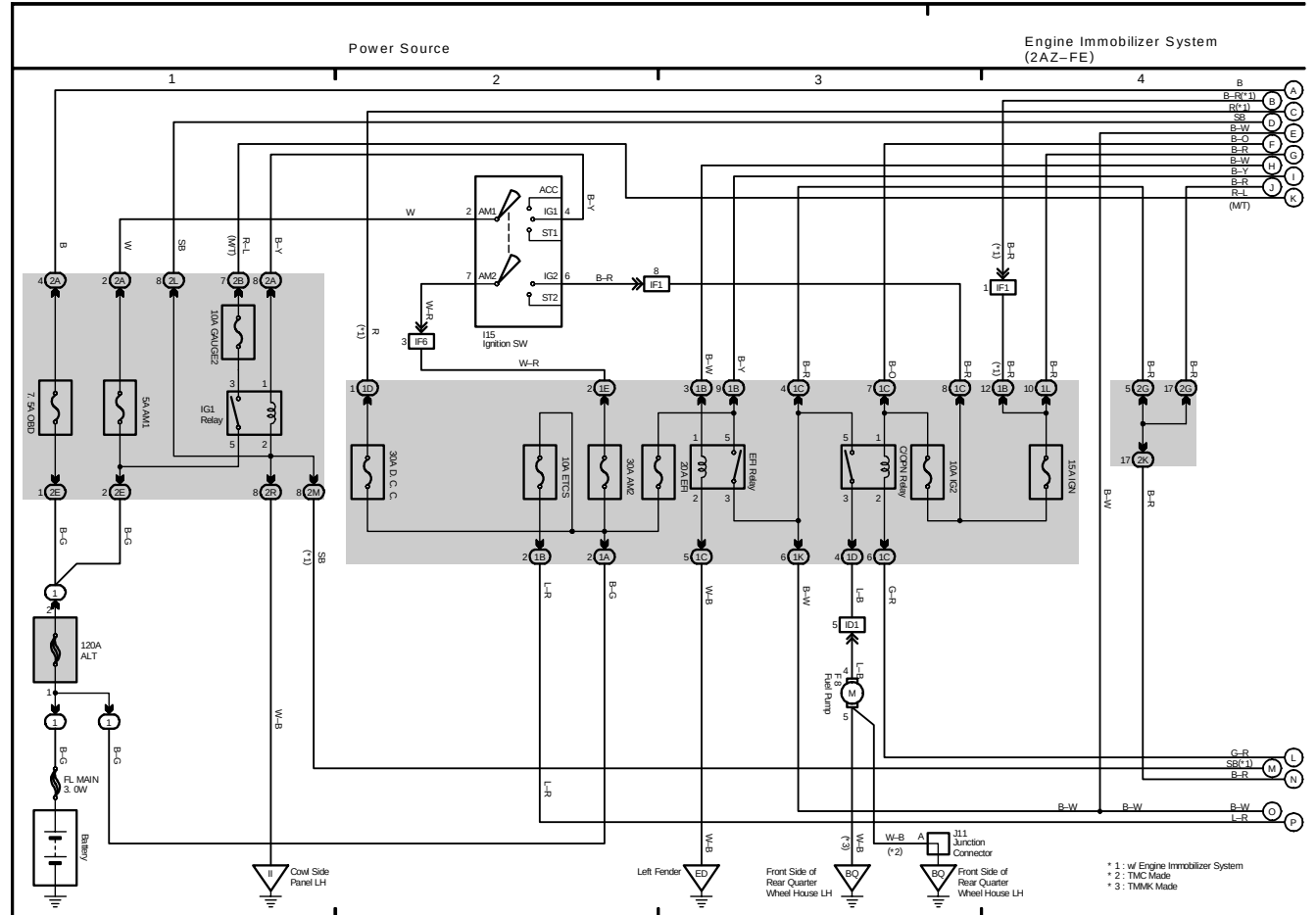
M OVERALL ELECTRICAL WIRING DIAGRAM

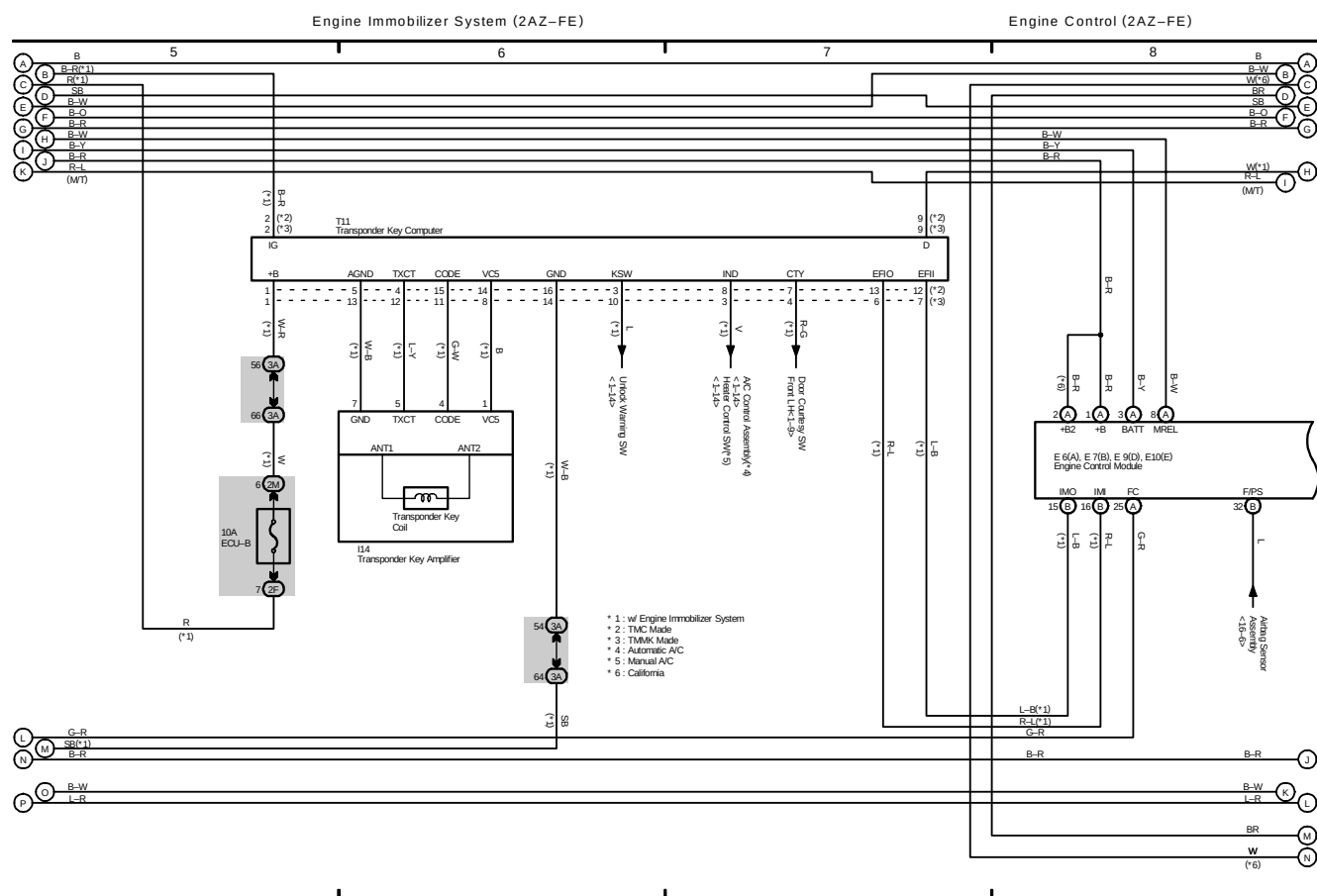
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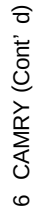




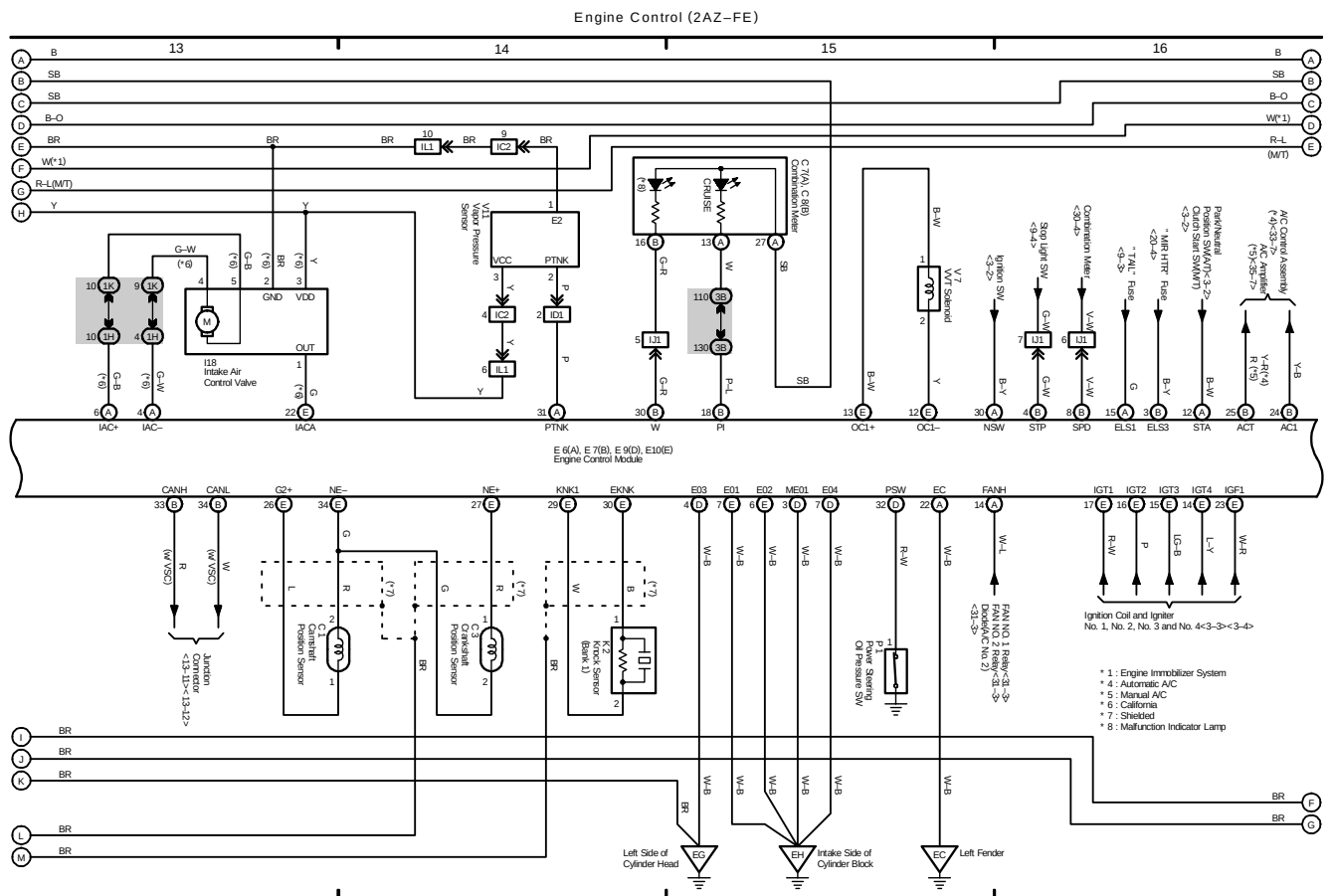




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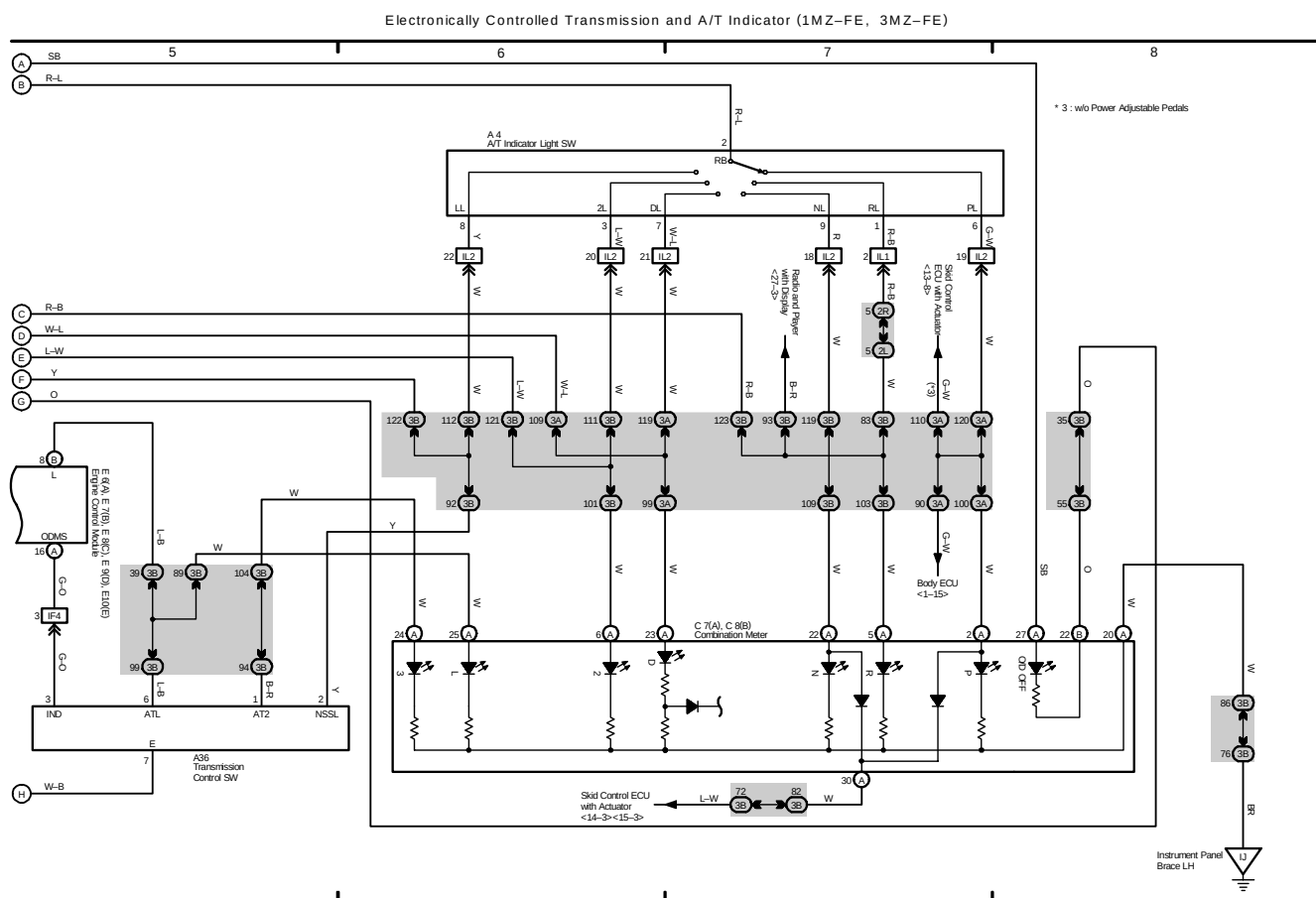
6 CAMRY (Cont' d)



7 CAMRY



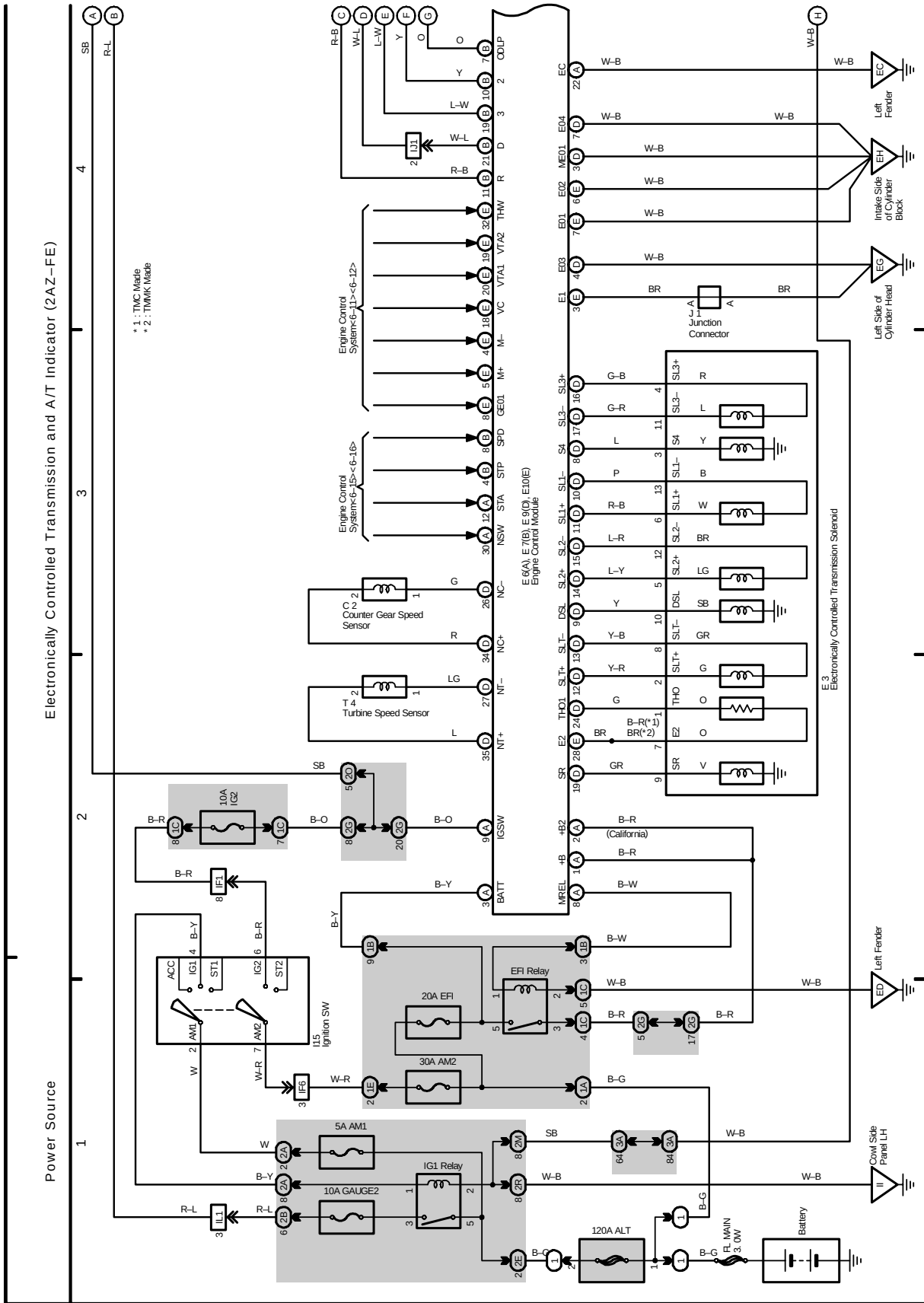
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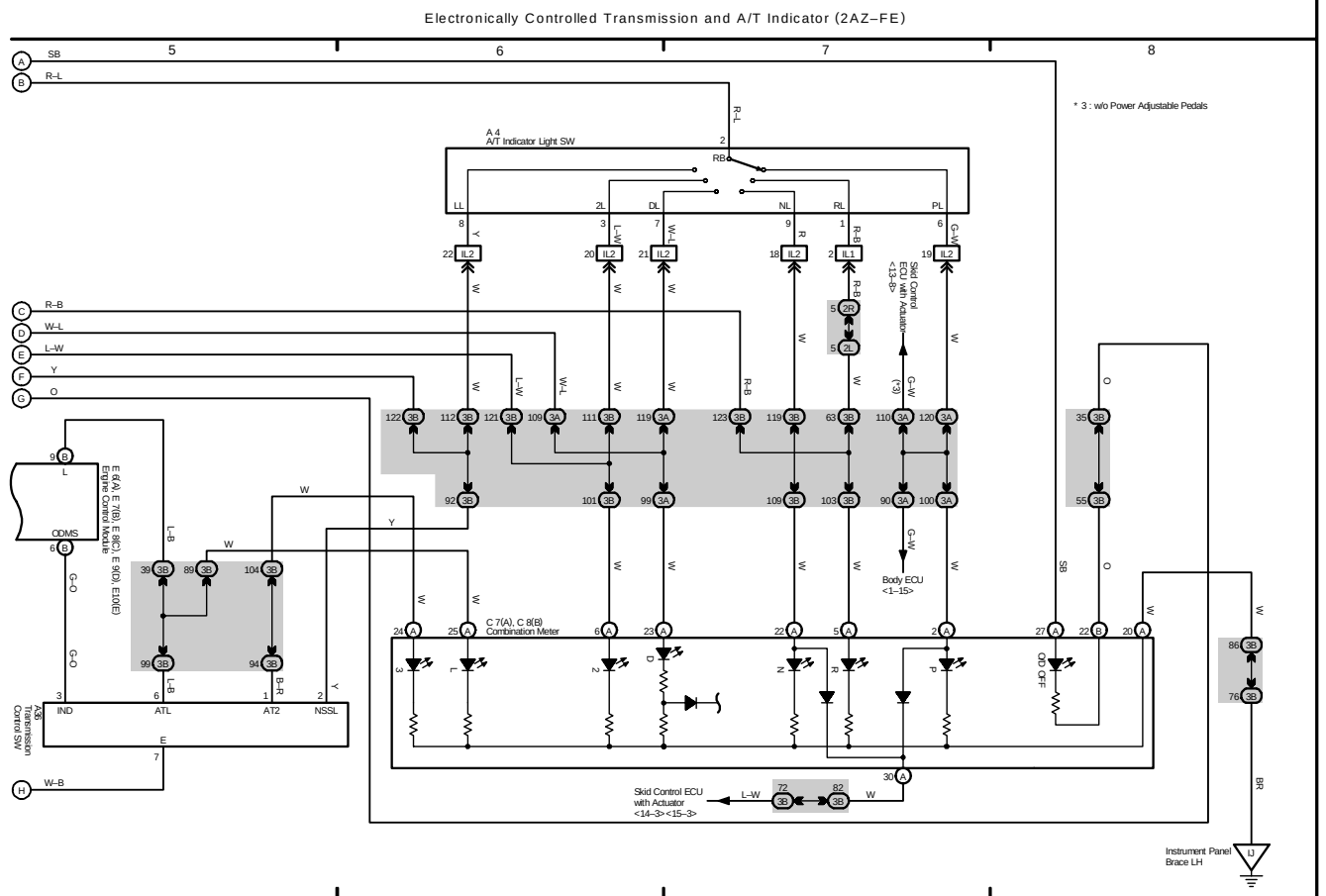
M OVERALL ELECTRICAL WIRING DIAGRAM

8 CAMRY

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8 CAMRY (Cont' d)



9 CAMRY

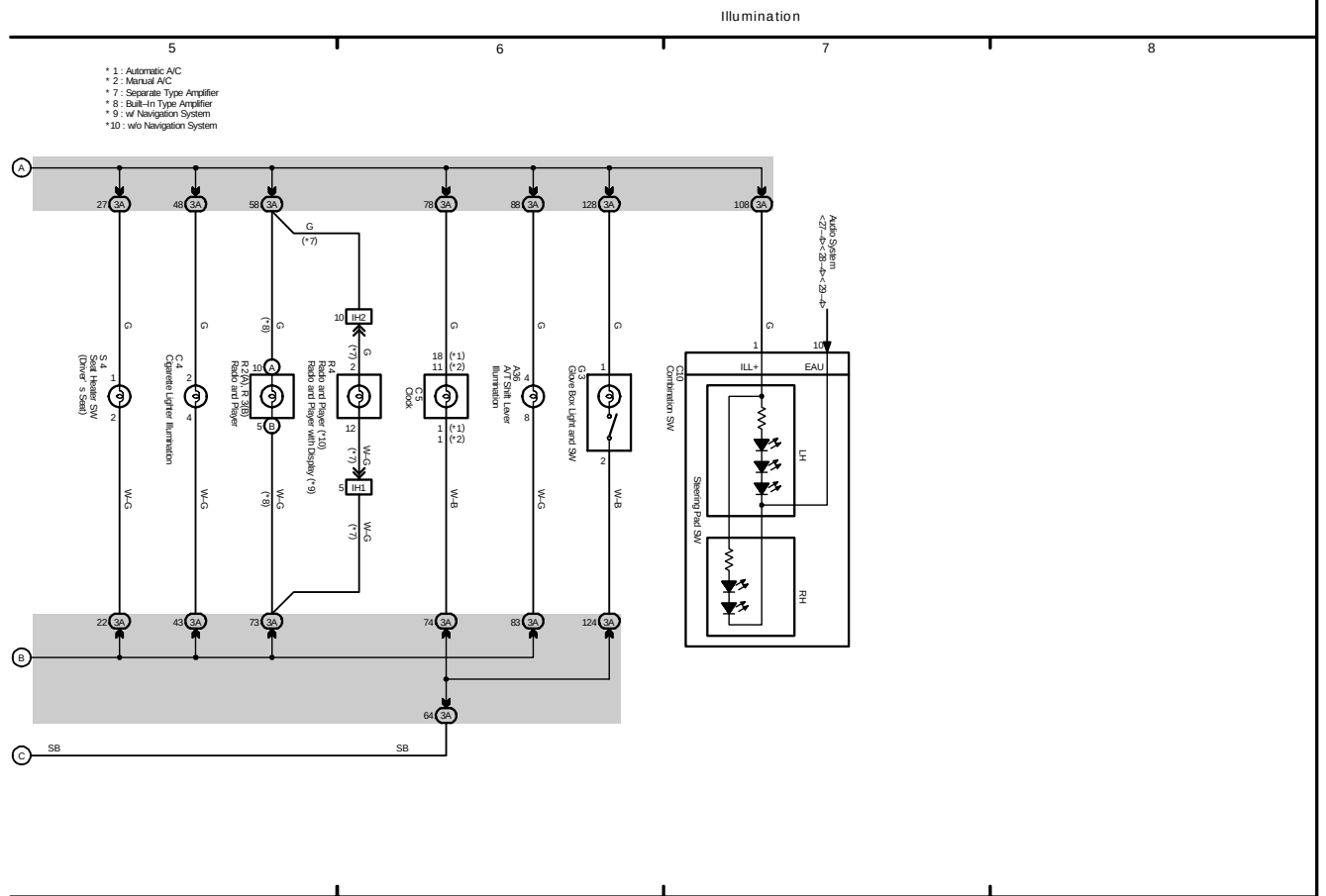


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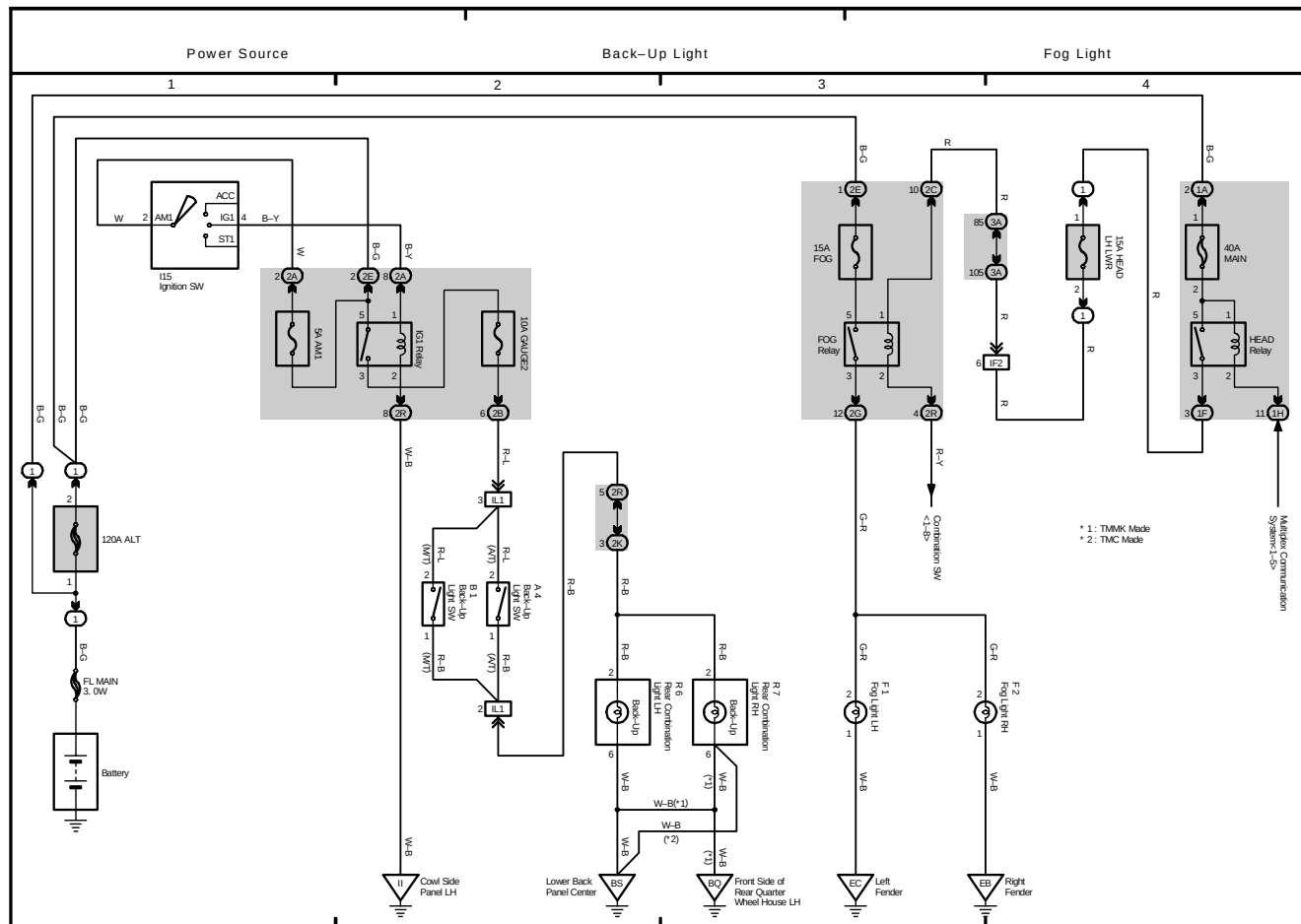
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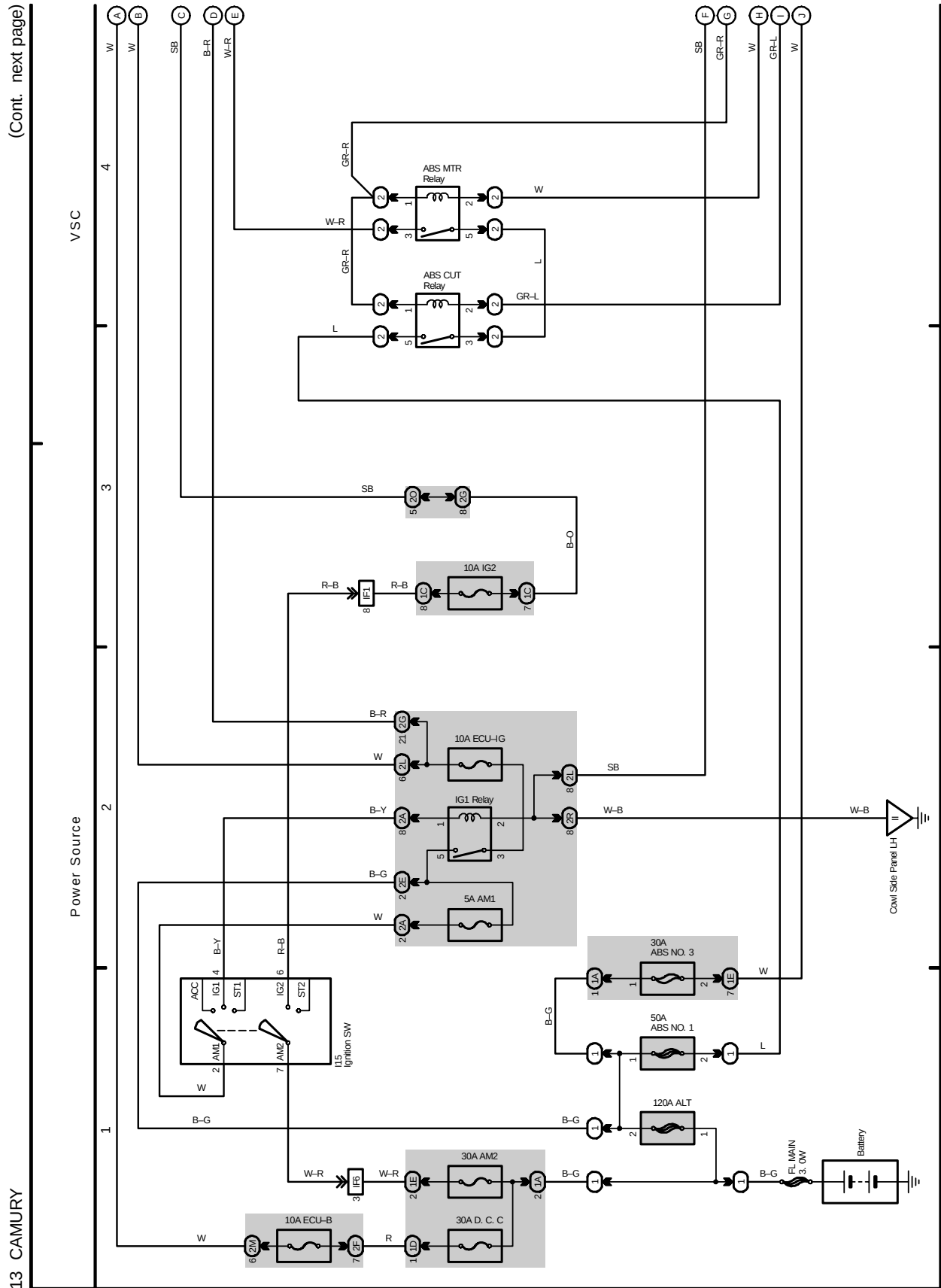


11 CAMRY

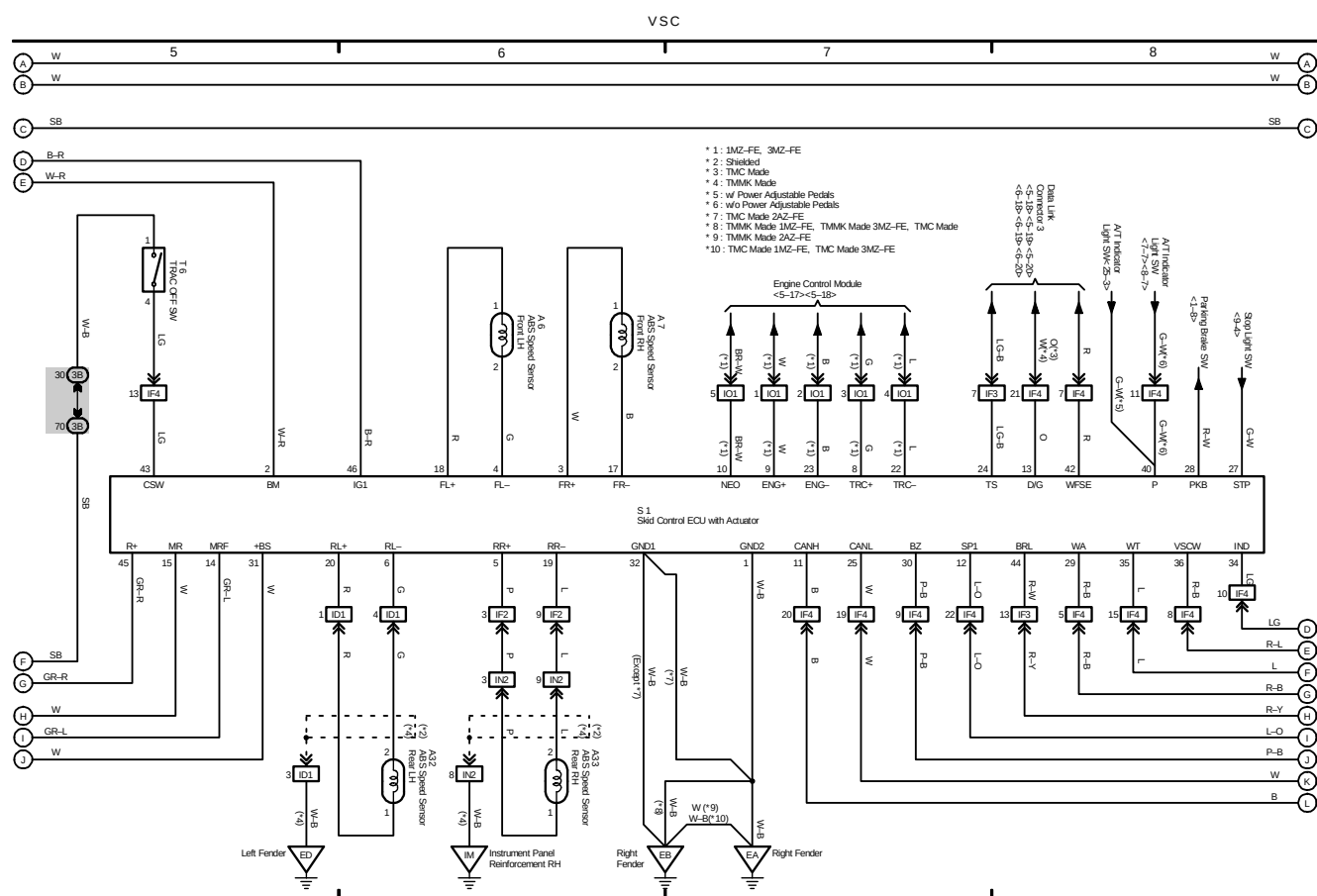




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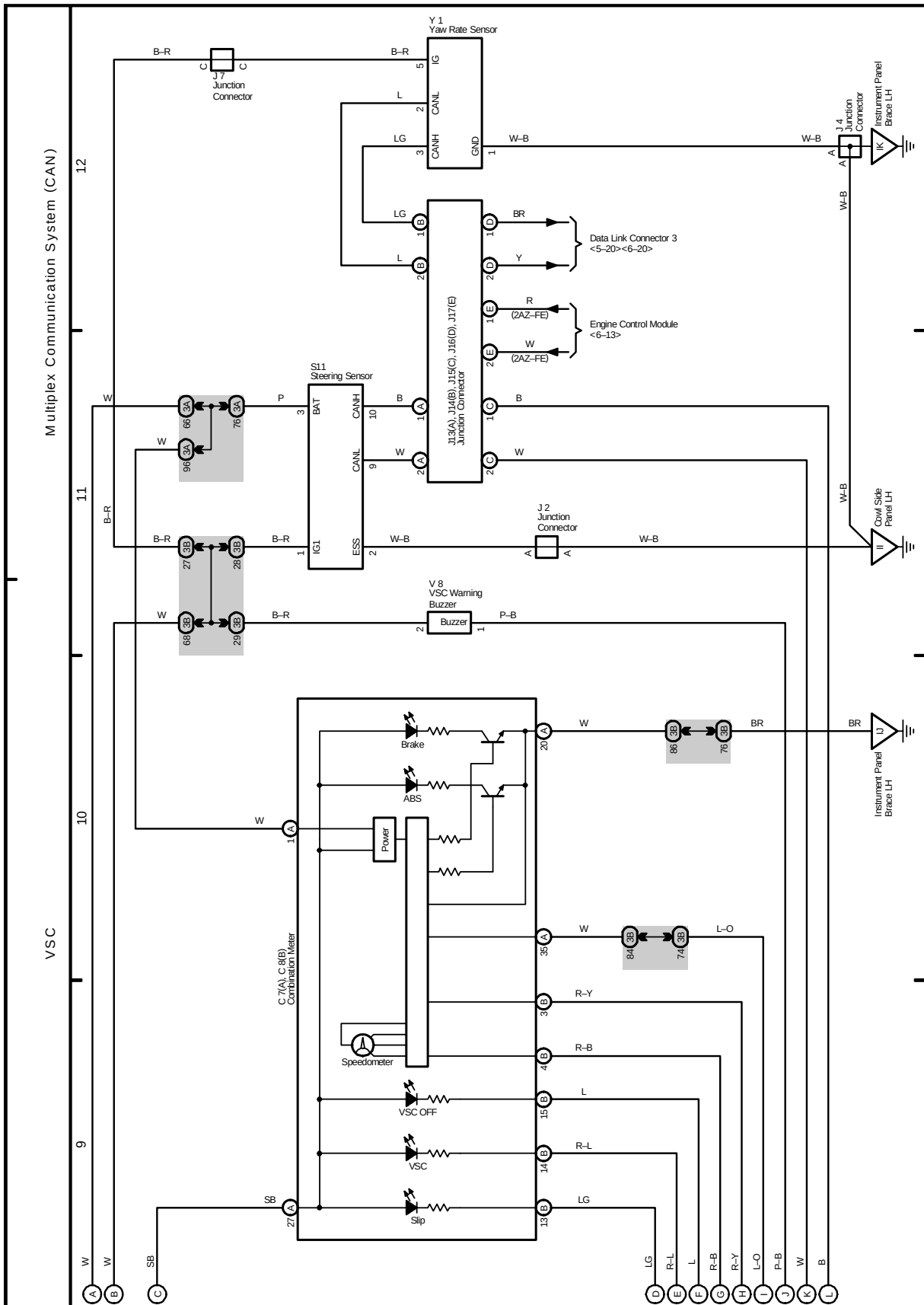


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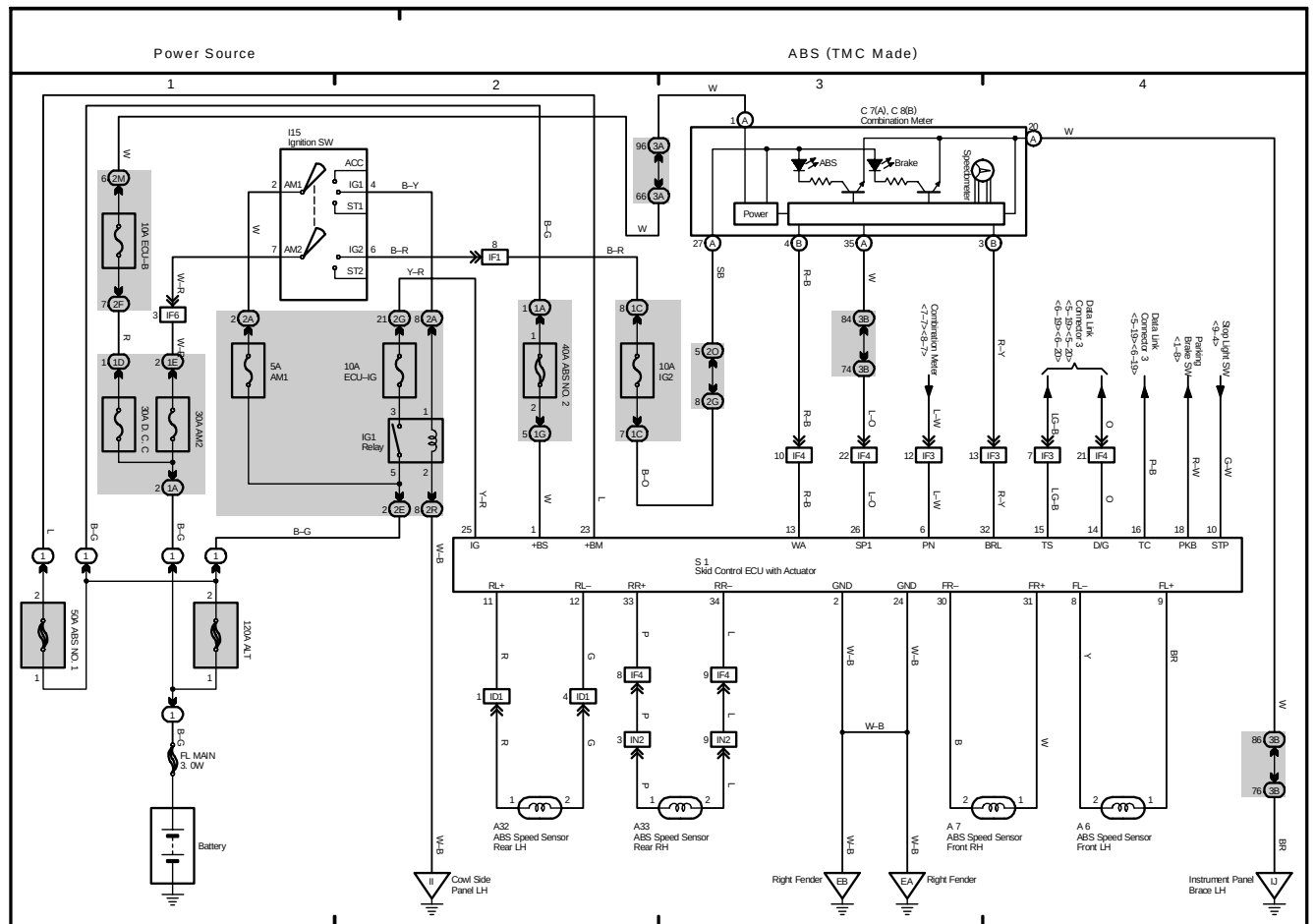


M OVERALL ELECTRICAL WIRING DIAGRAM

13 CAMRY (Cont' d)

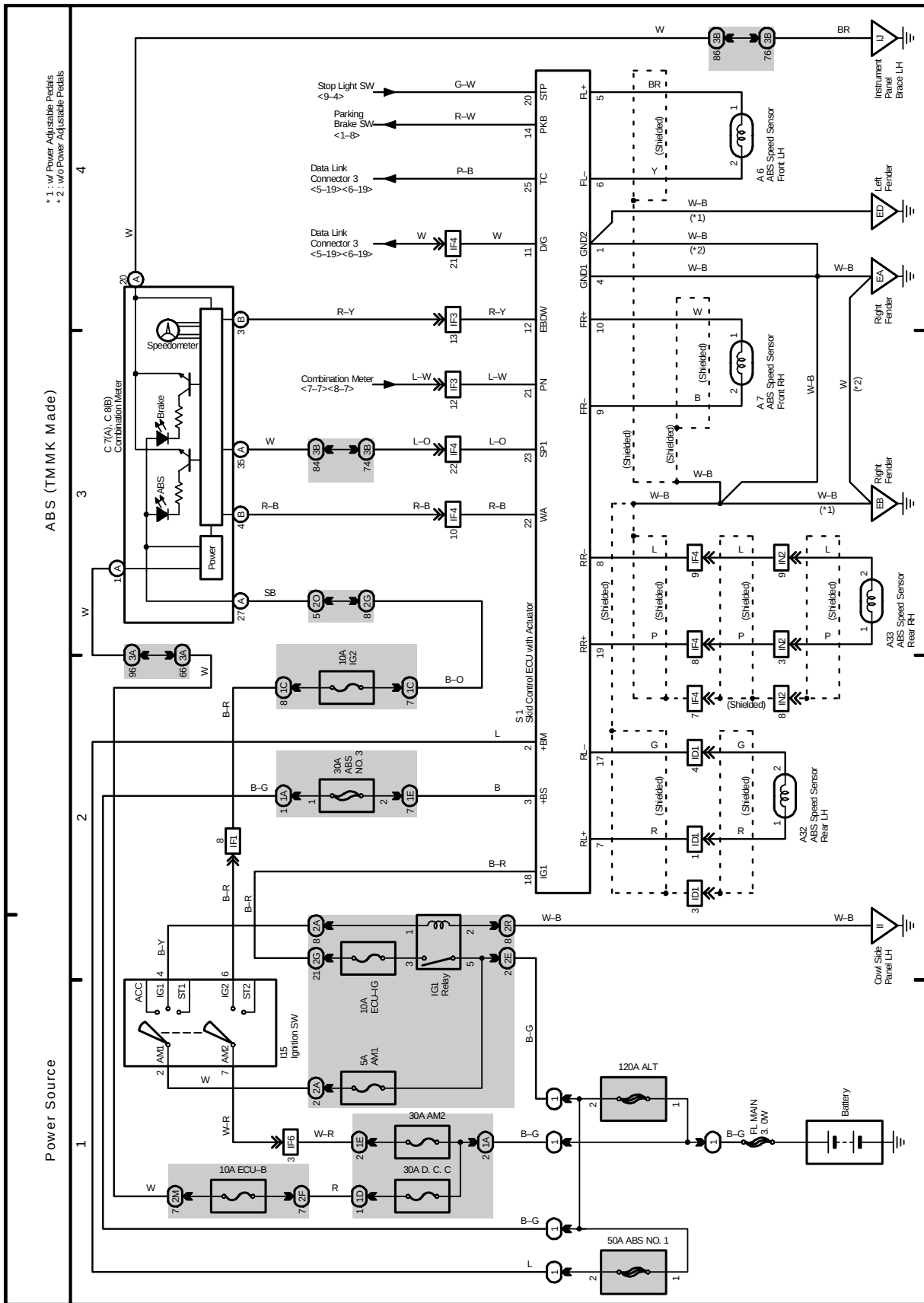


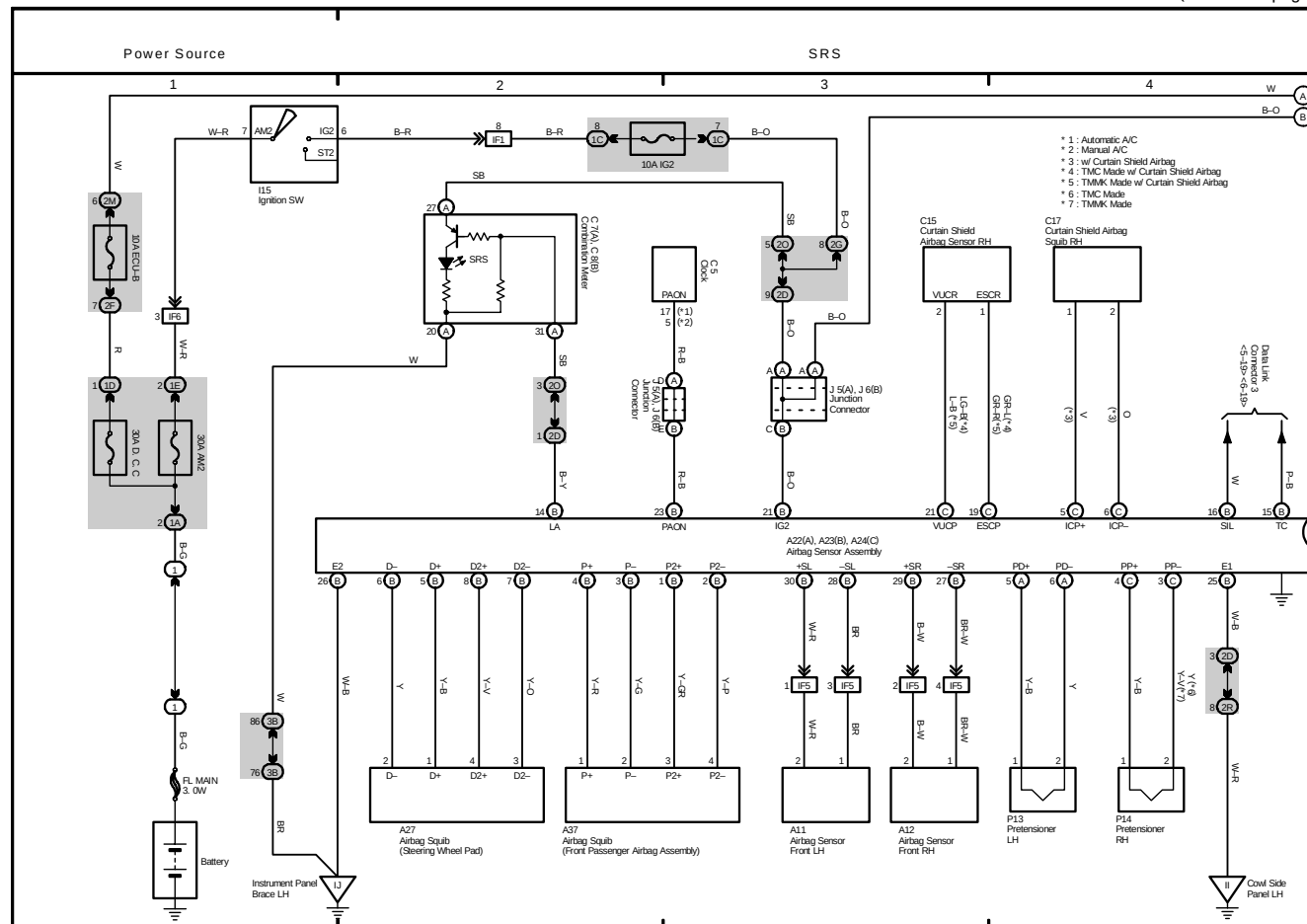
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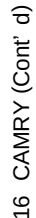
M OVERALL ELECTRICAL WIRING DIAGRAM

15 CAMRY

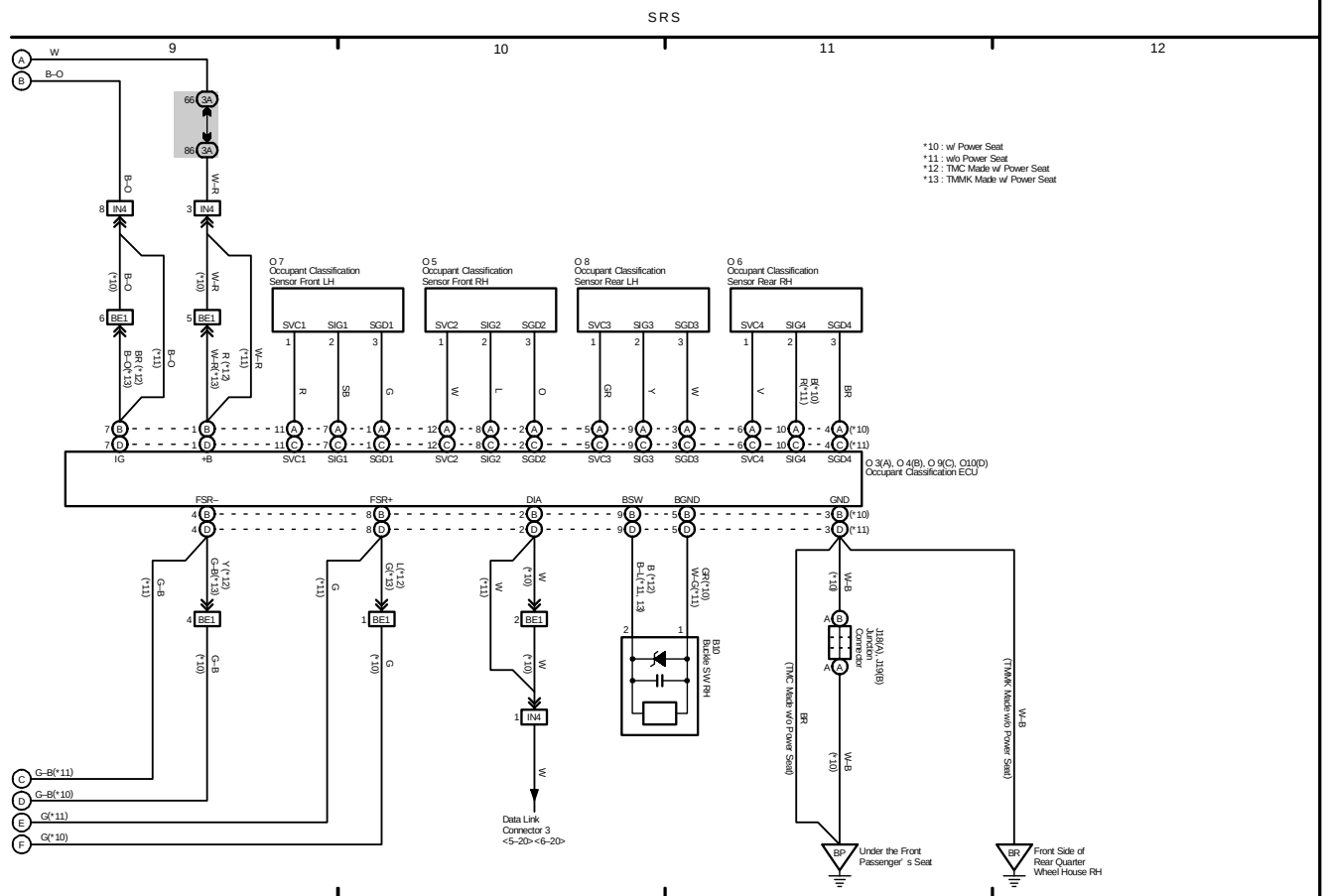




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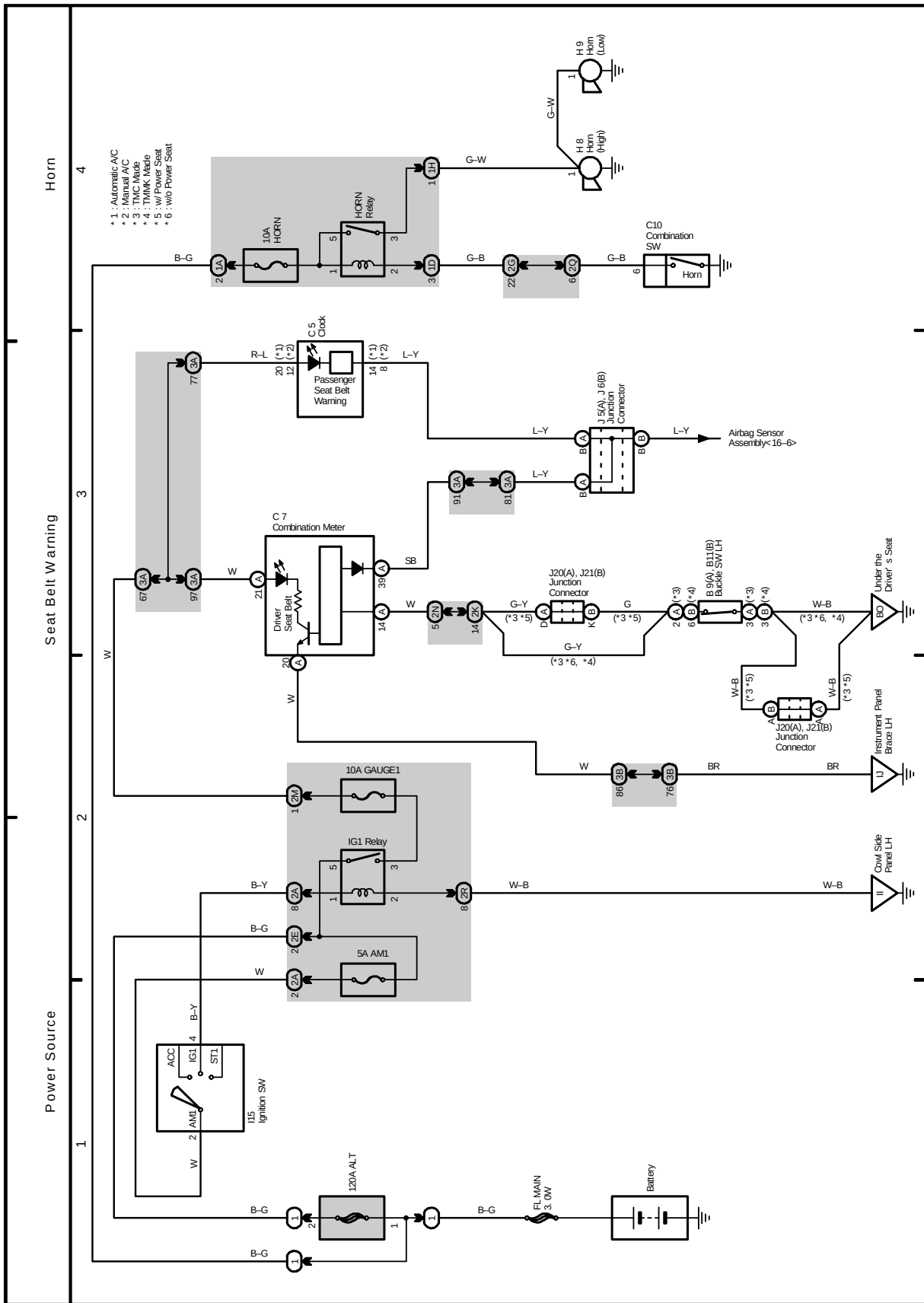


2005 CAMRY (EWD586U)

M

M OVERALL ELECTRICAL WIRING DIAGRAM

17 CAMRY

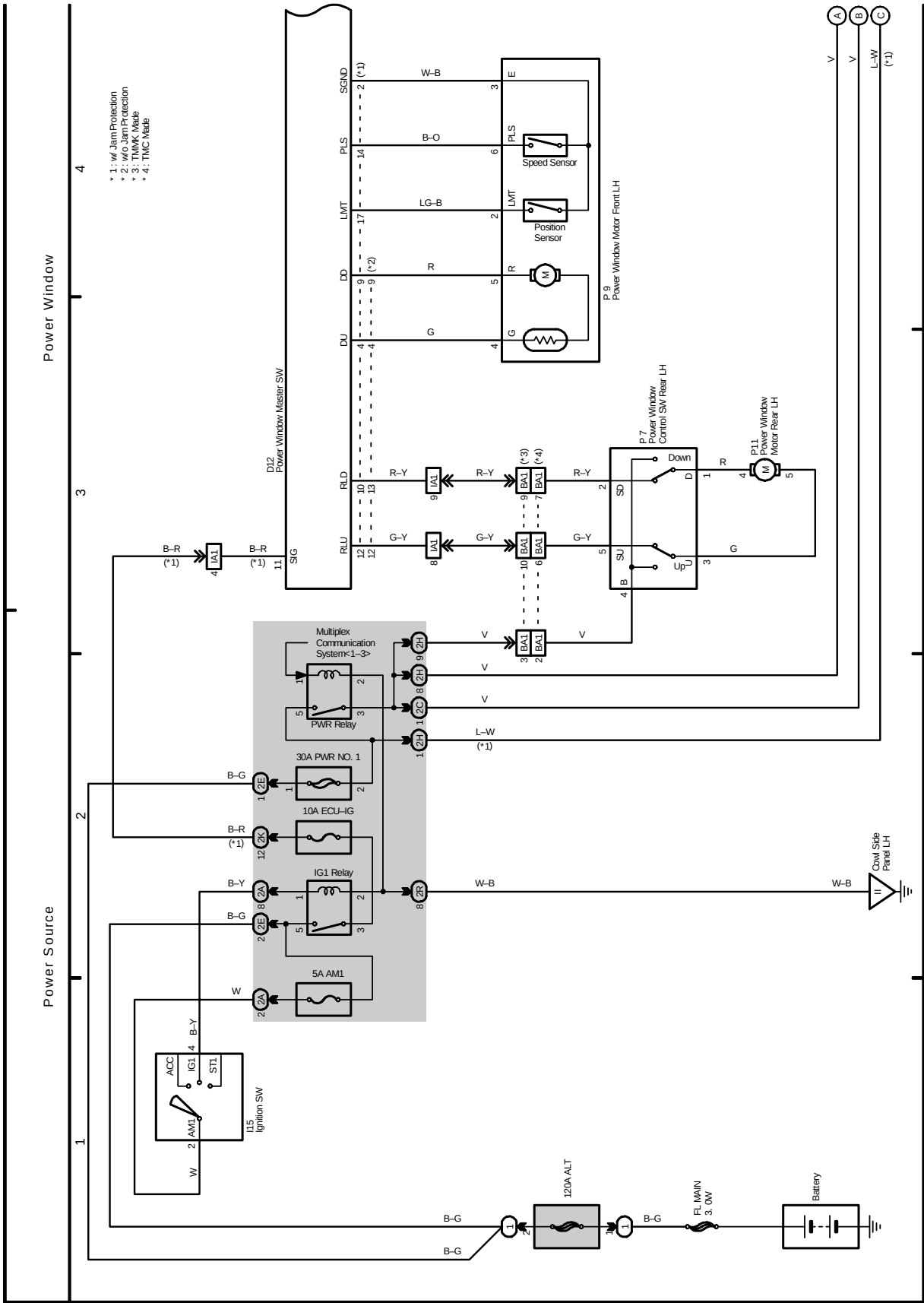


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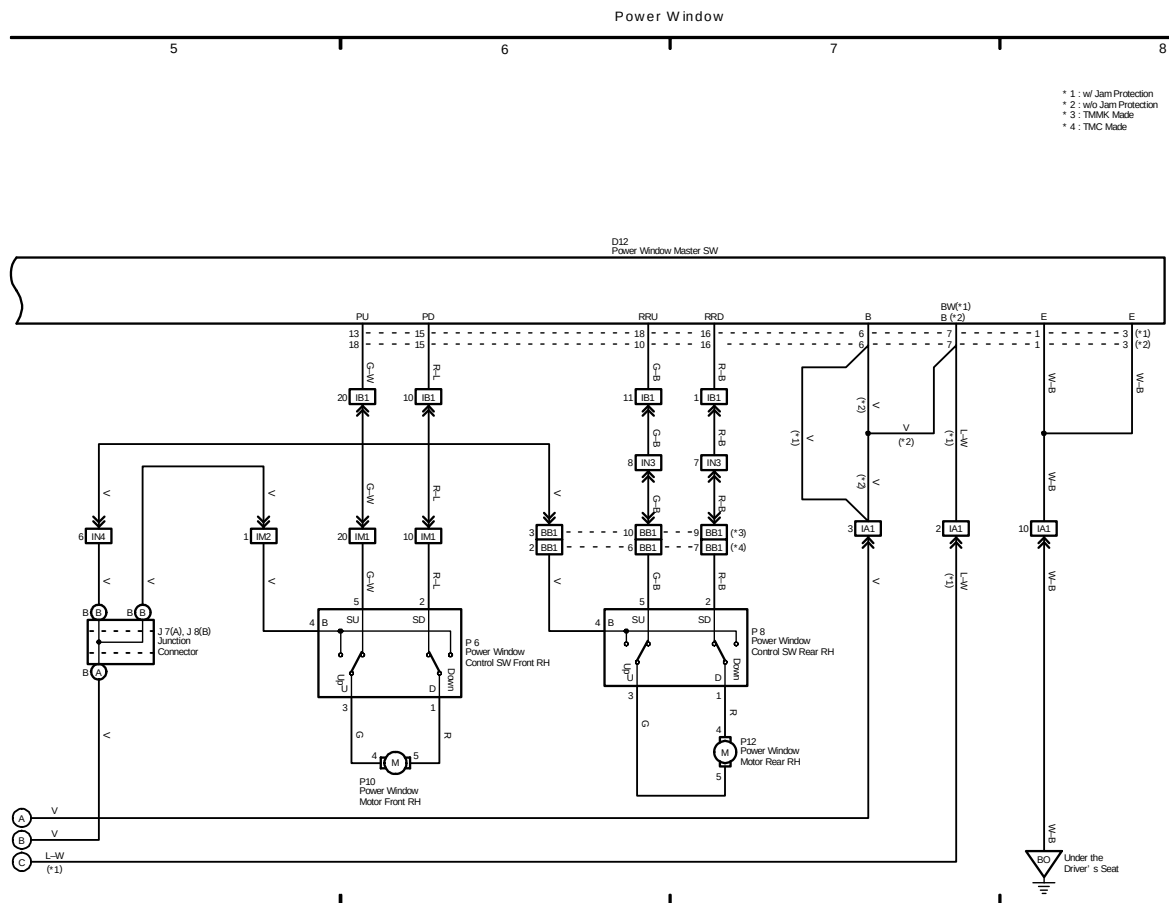
M OVERALL ELECTRICAL WIRING DIAGRAM

18 CAMRY

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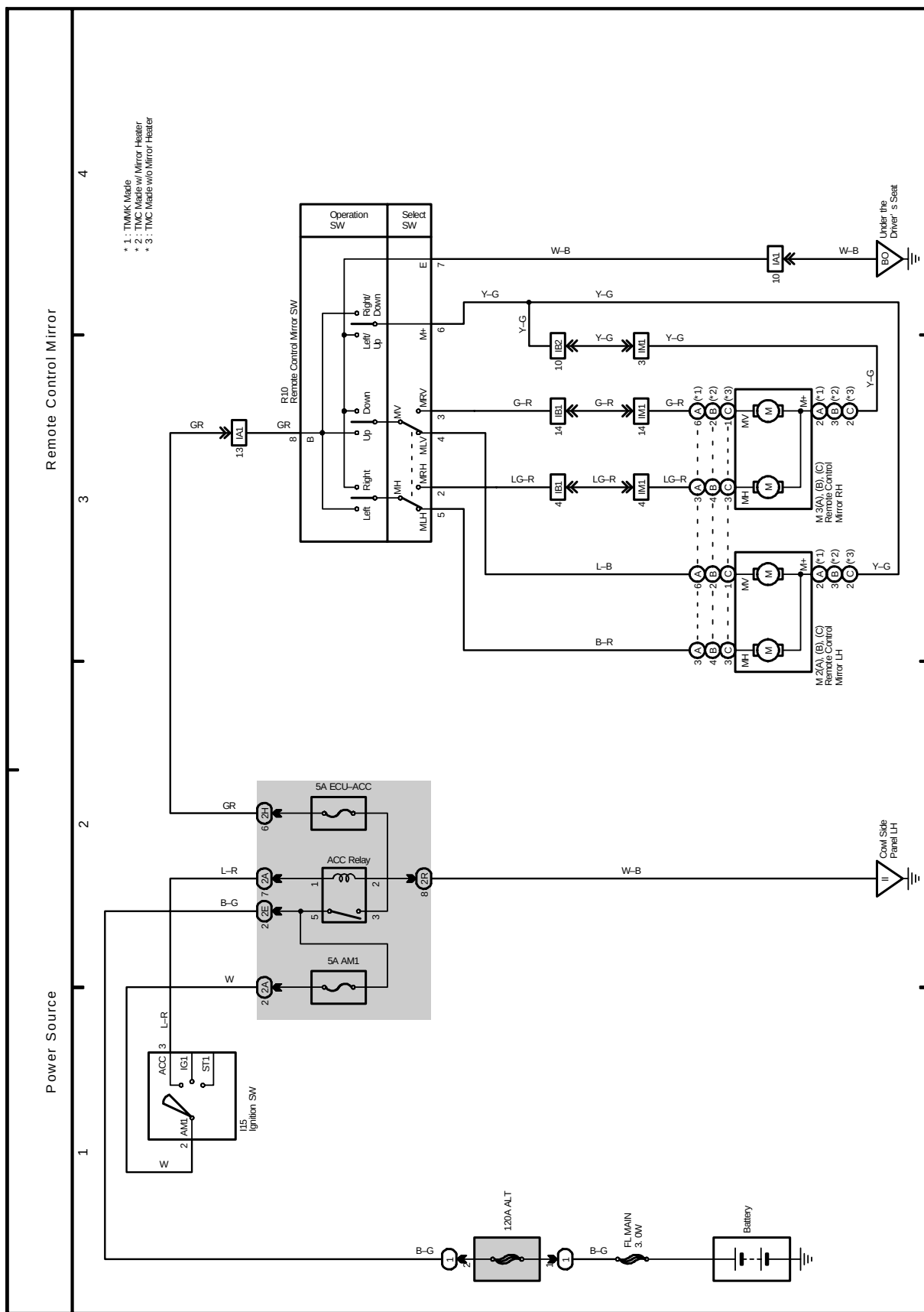
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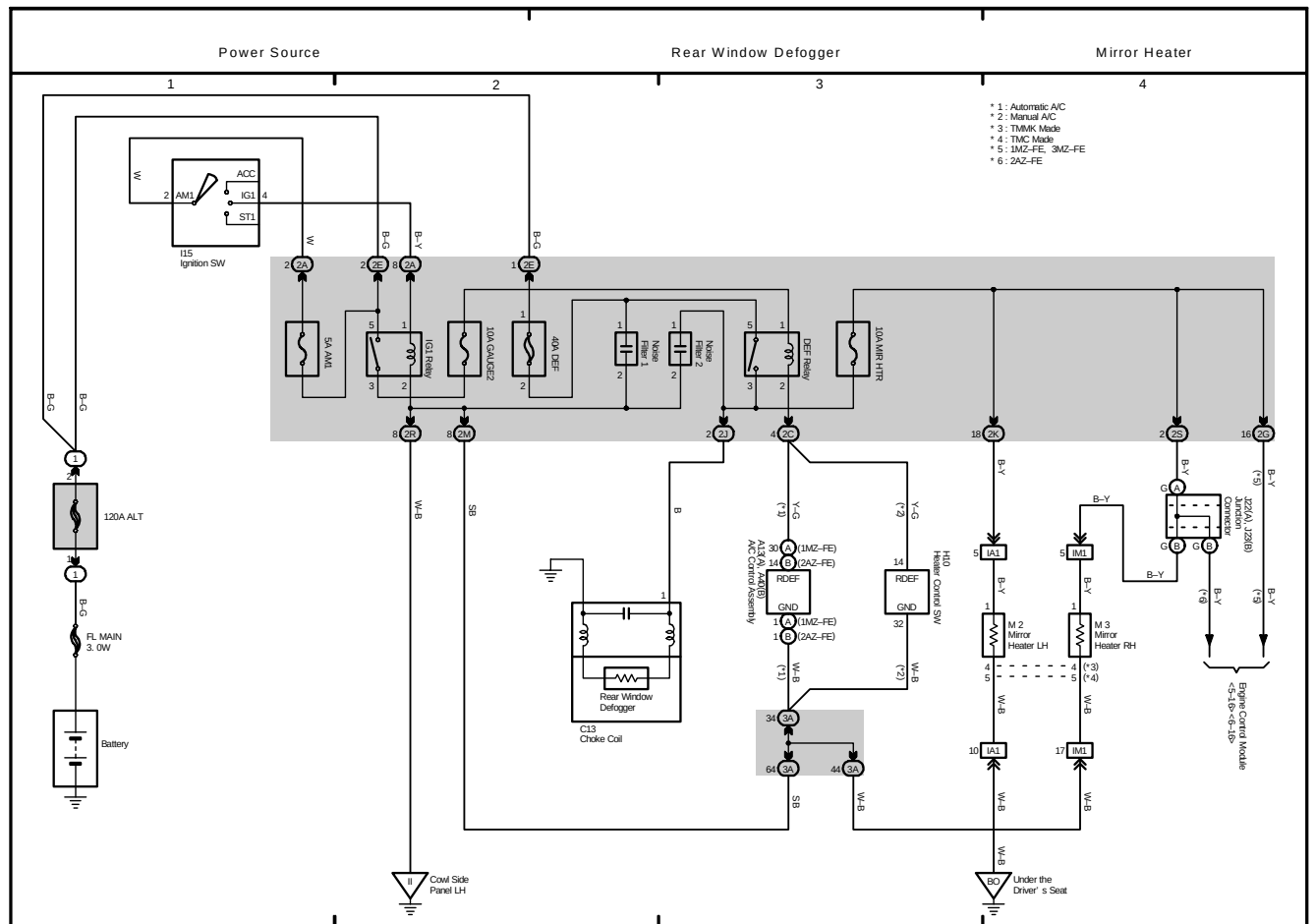
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M OVERALL ELECTRICAL WIRING DIAGRAM

19 CAMRY



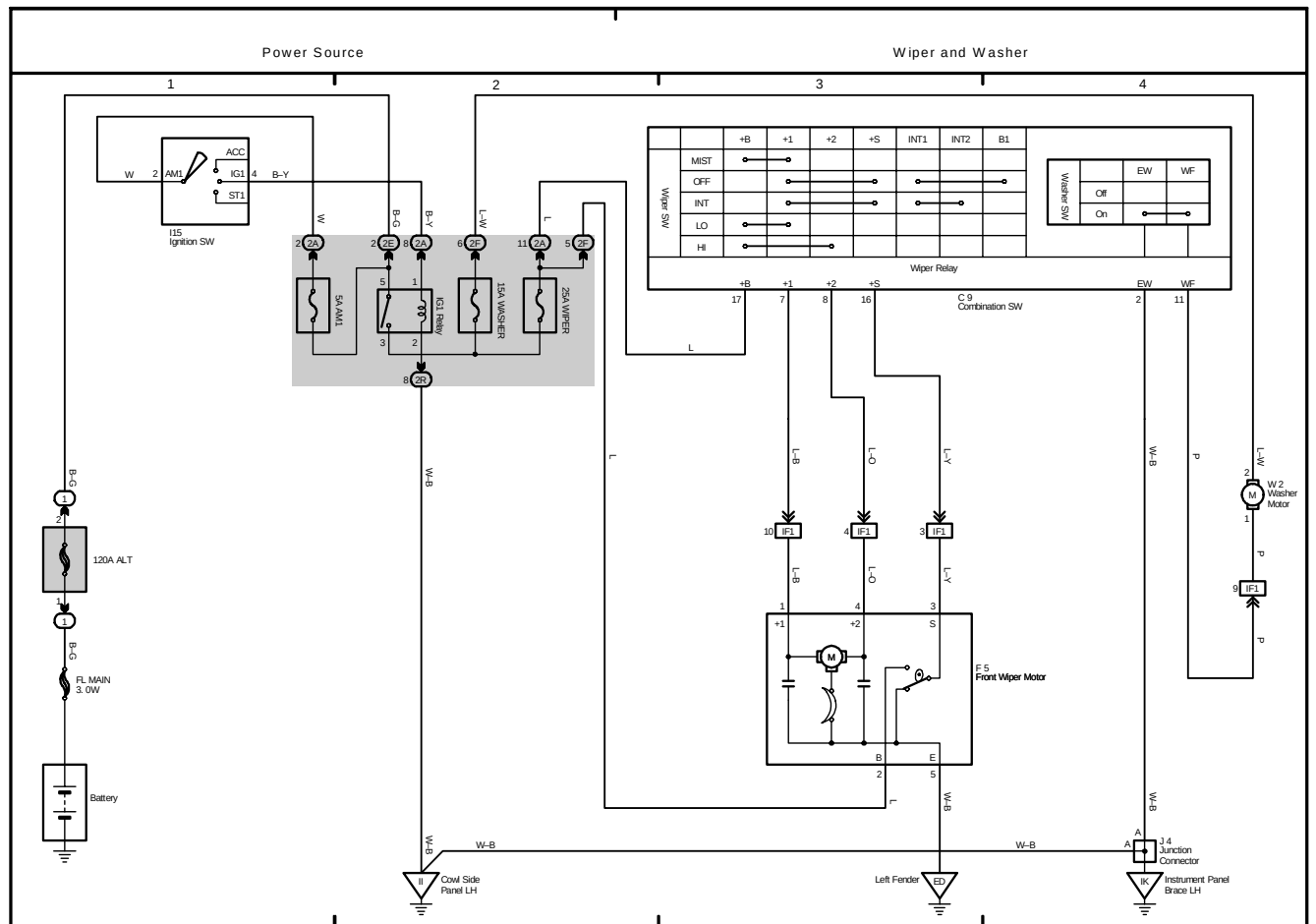
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21 CAMRY



22 CAMRY

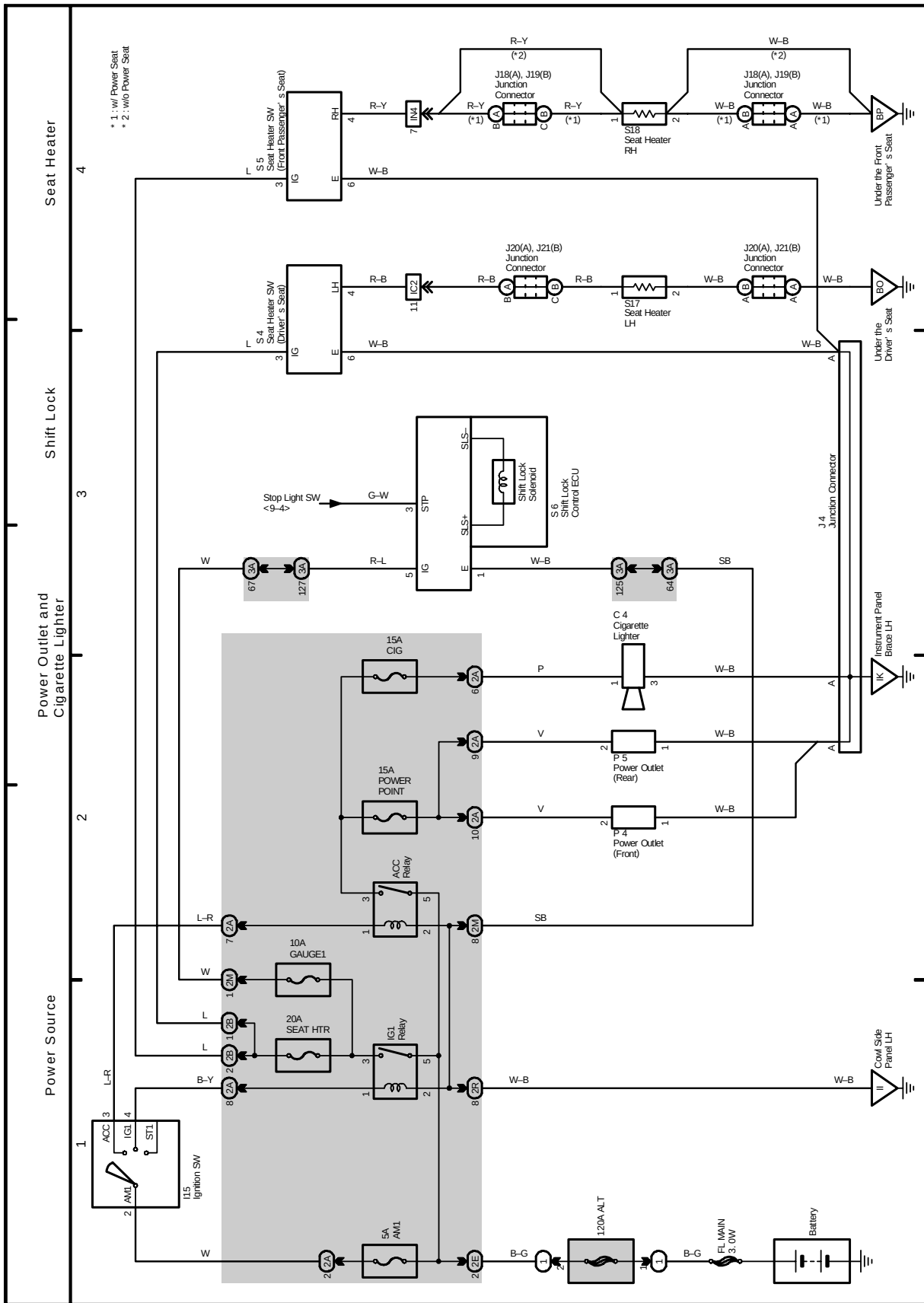


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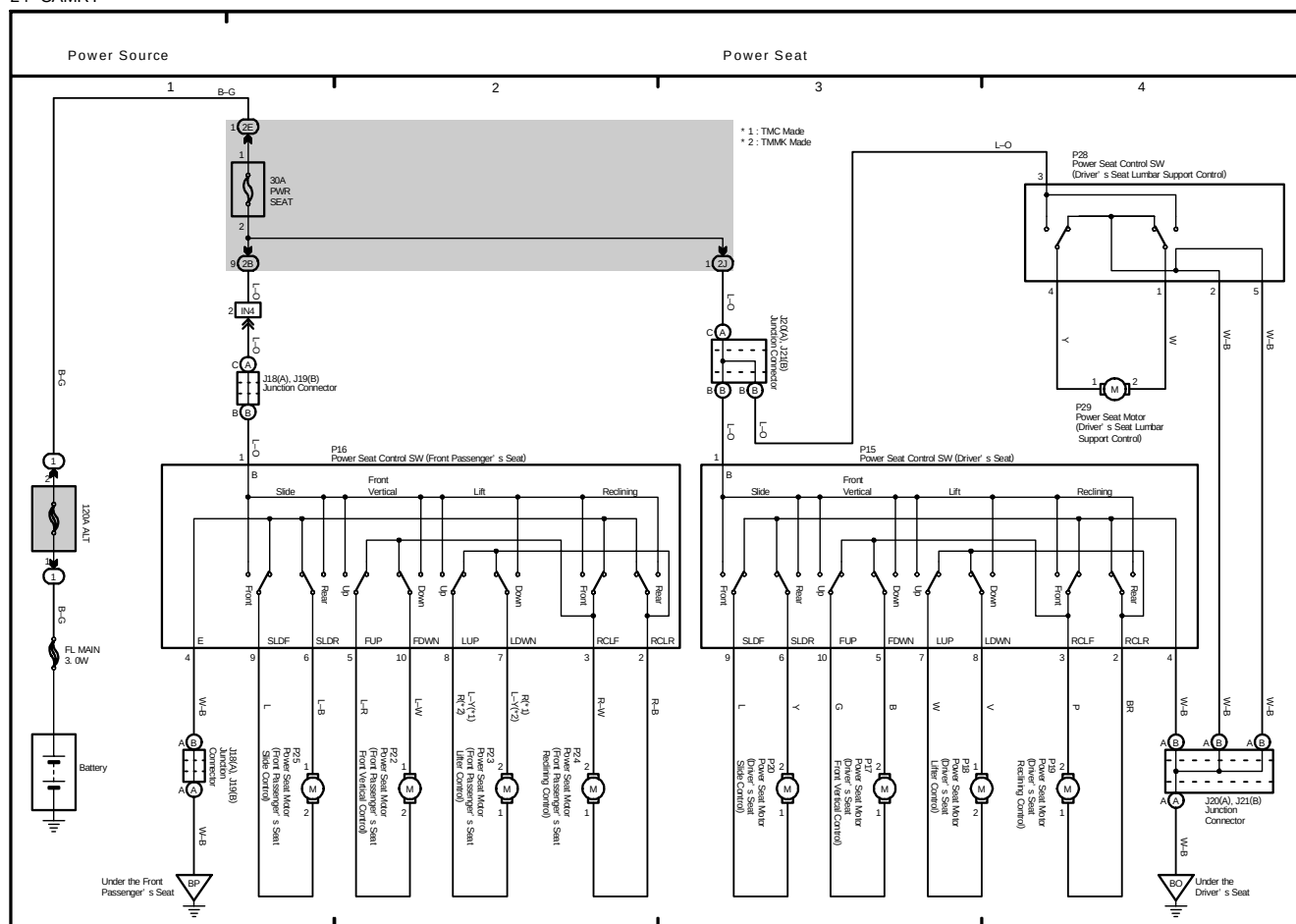
M

M OVERALL ELECTRICAL WIRING DIAGRAM

23 CAMRY

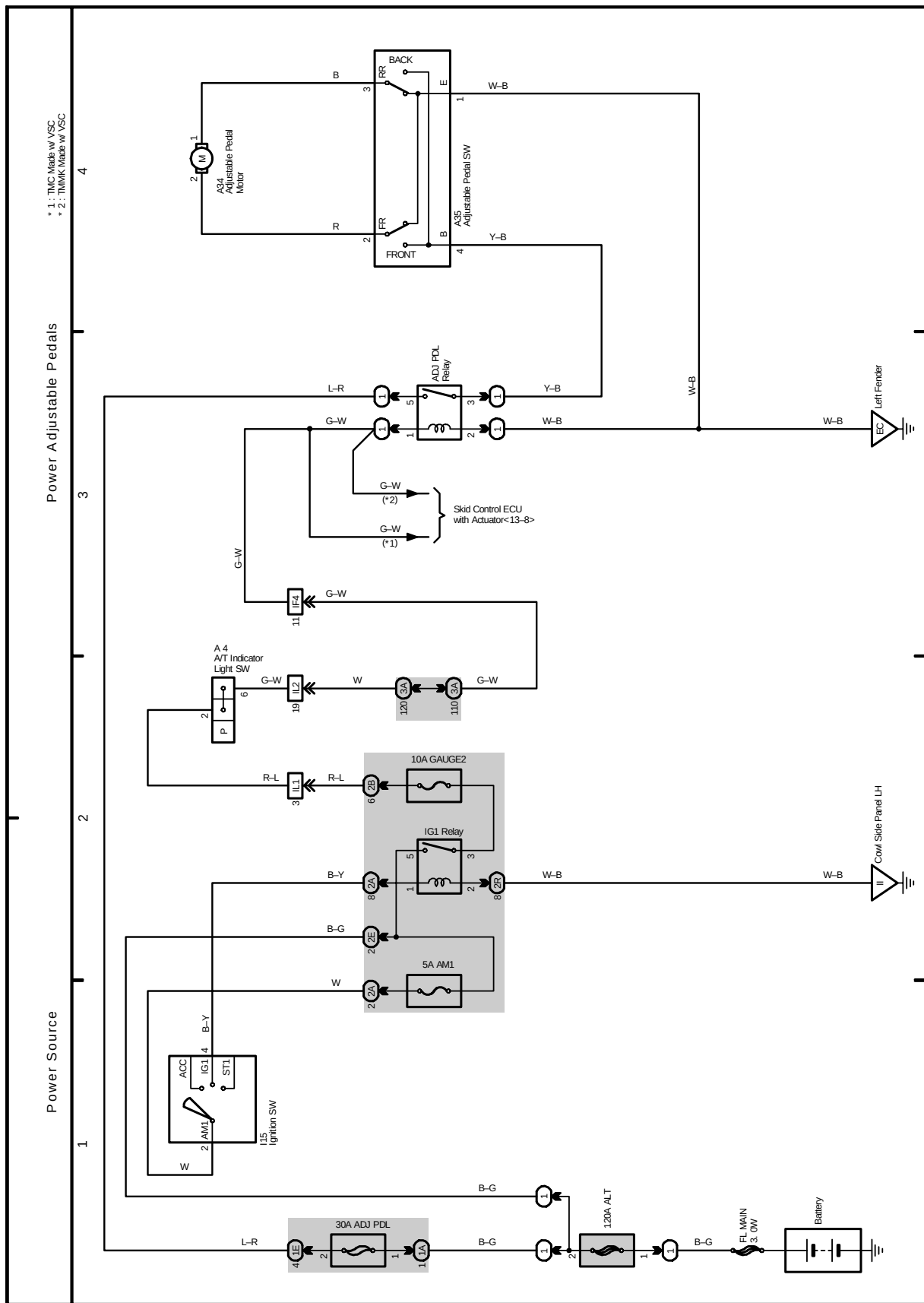


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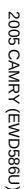


M OVERALL ELECTRICAL WIRING DIAGRAM

25 CAMRY



2005 CAMRY (EWD586U)



27 CAMRY





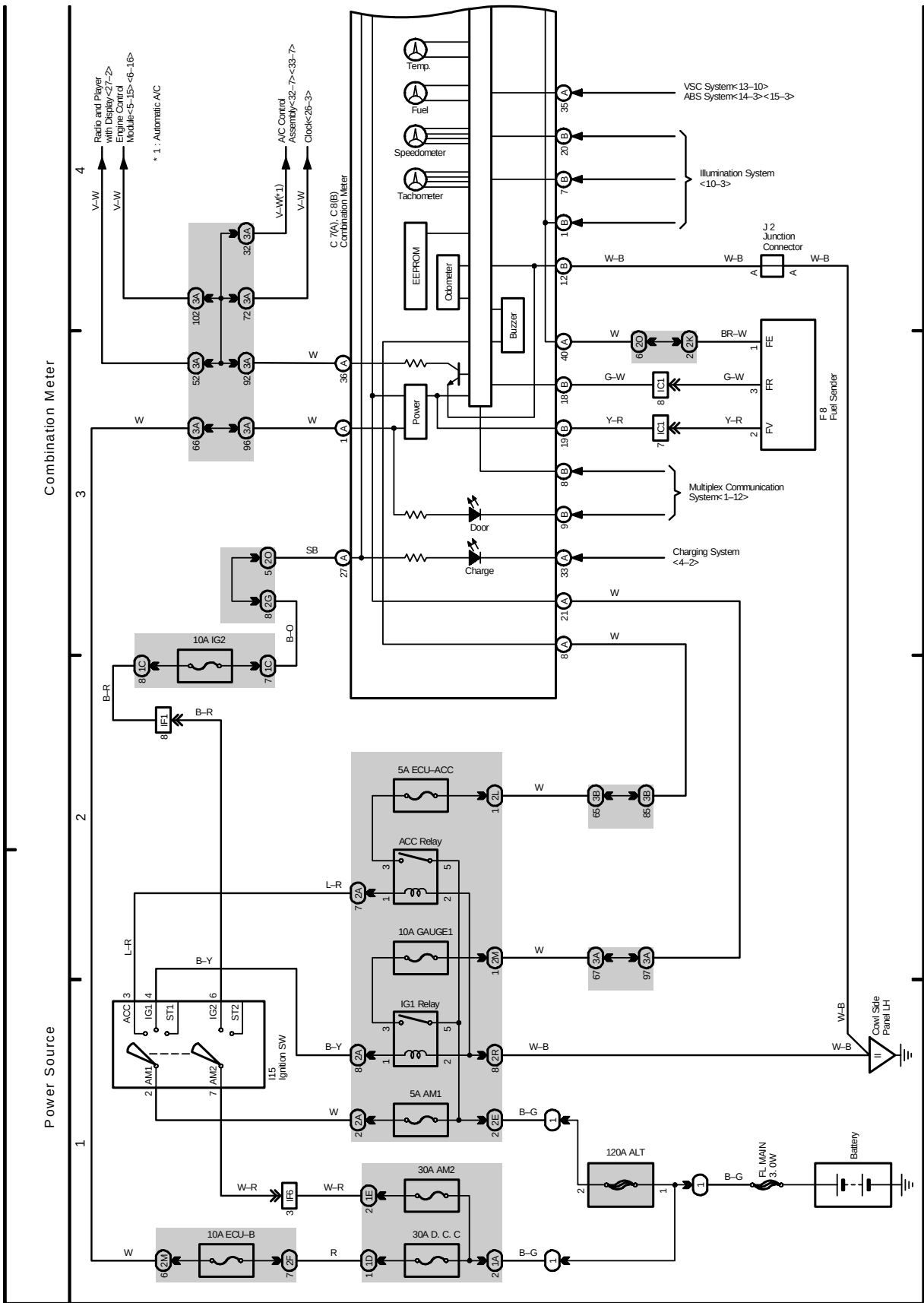
29 CAMRY

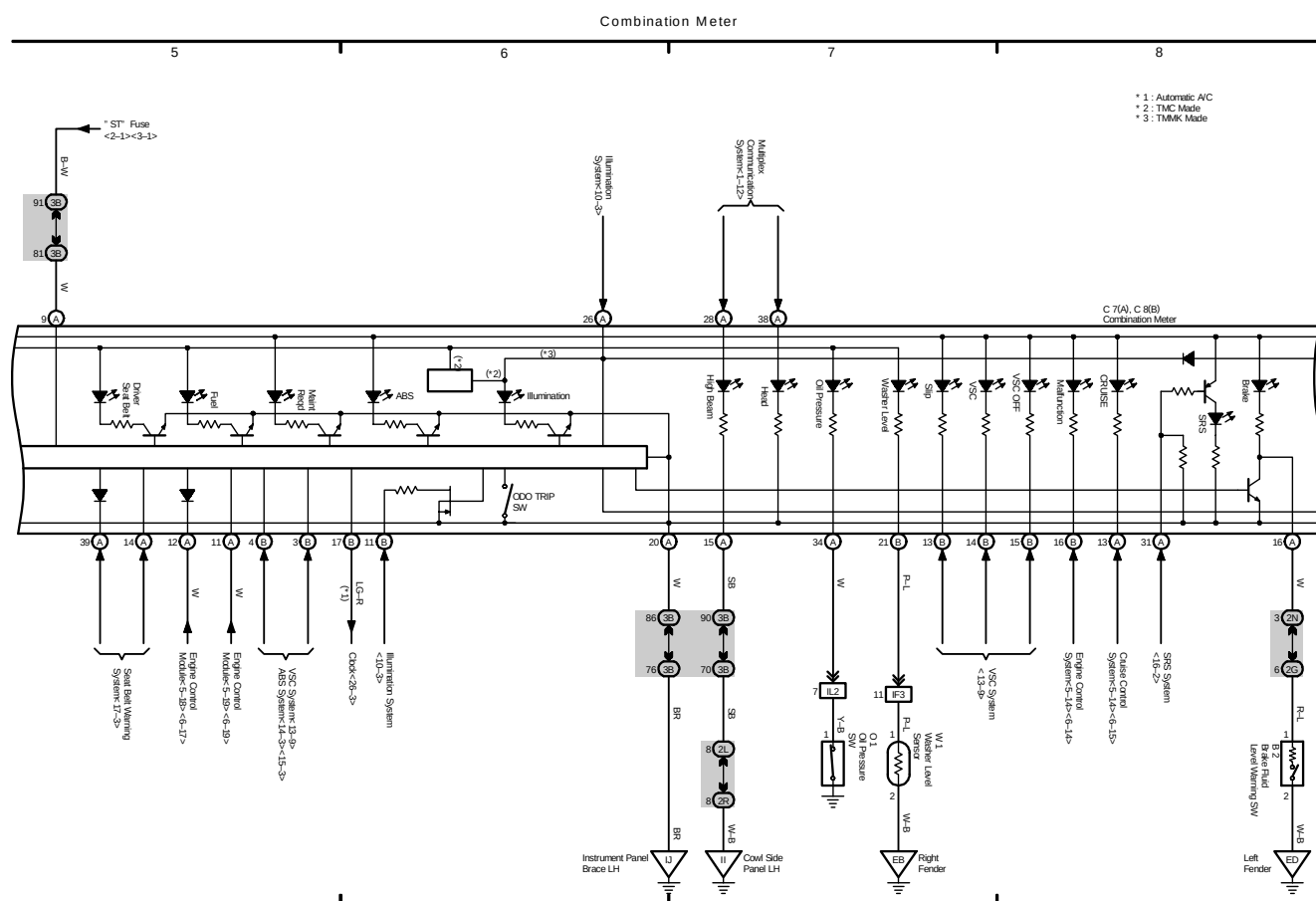


M OVERALL ELECTRICAL WIRING DIAGRAM

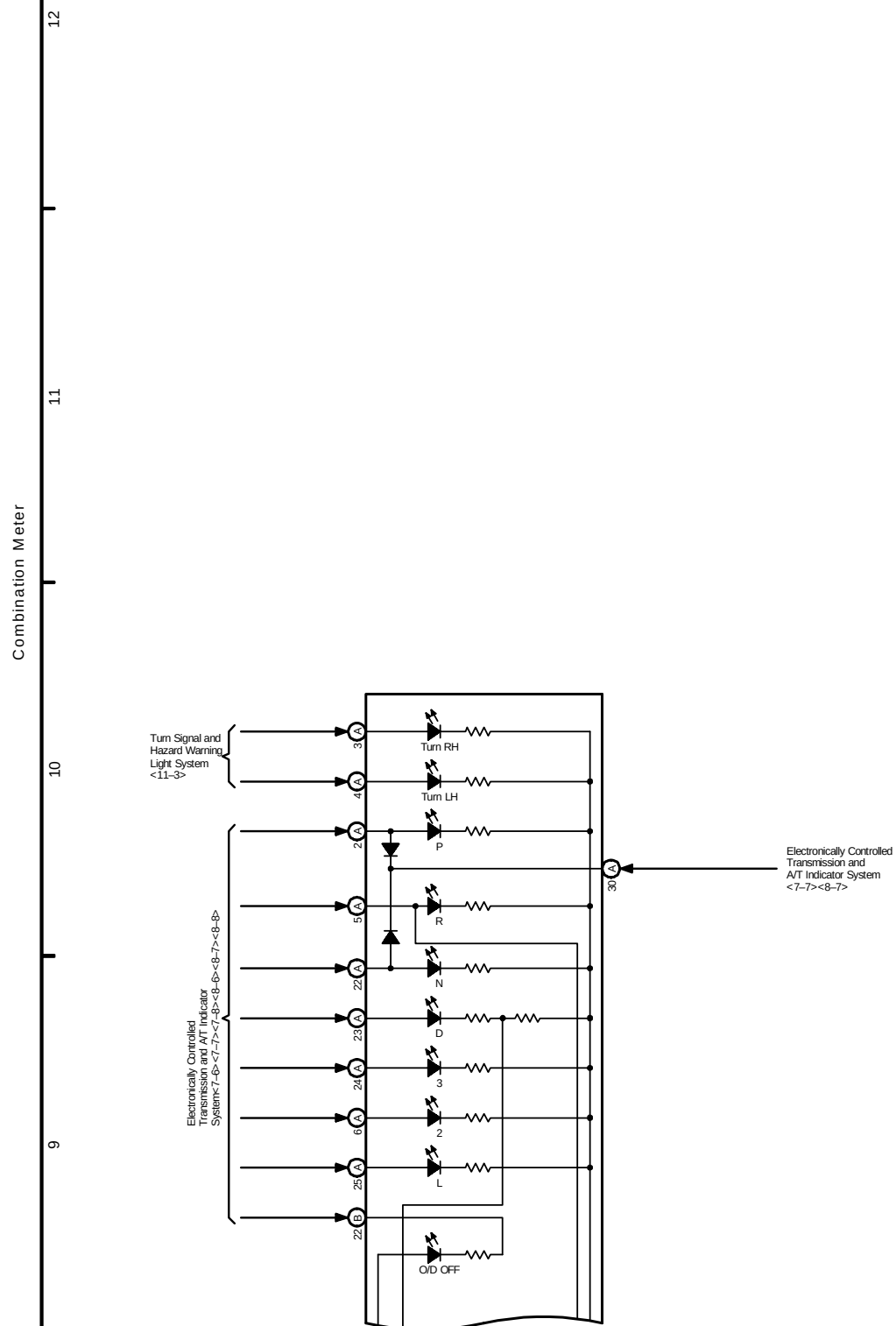
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30 CAMRY



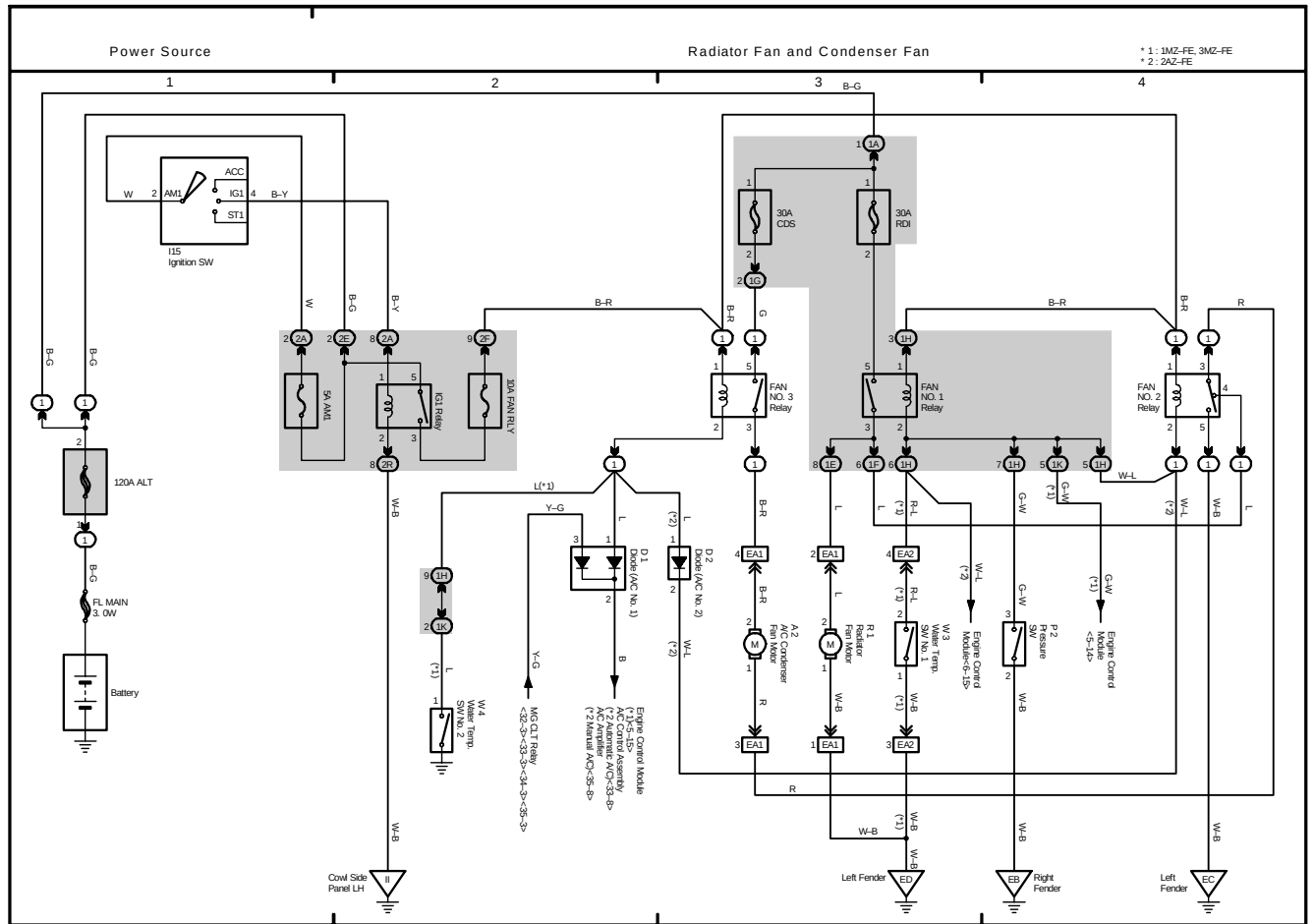


30 CAMRY (Cont' d)



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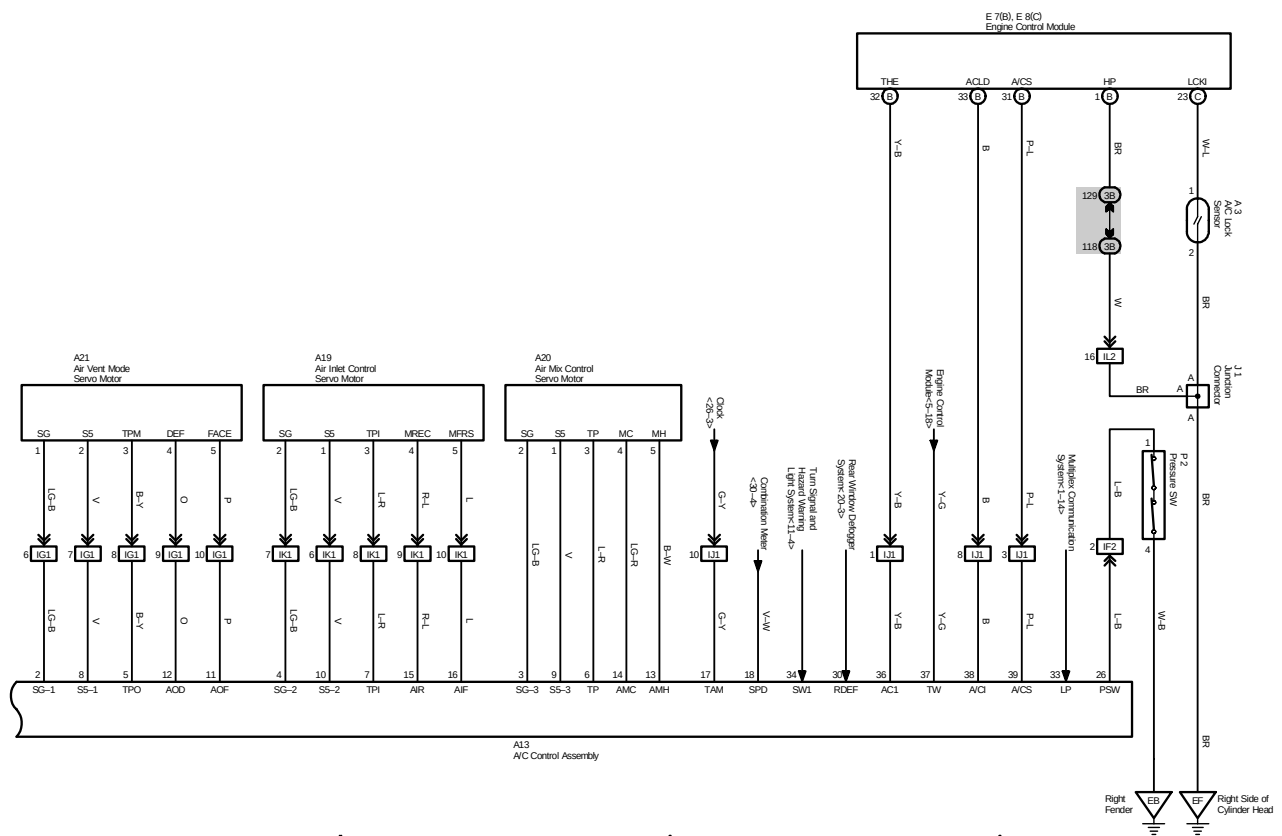
31 CAMRY



2005 CAMRY (EWD586U)

32 CAMRY



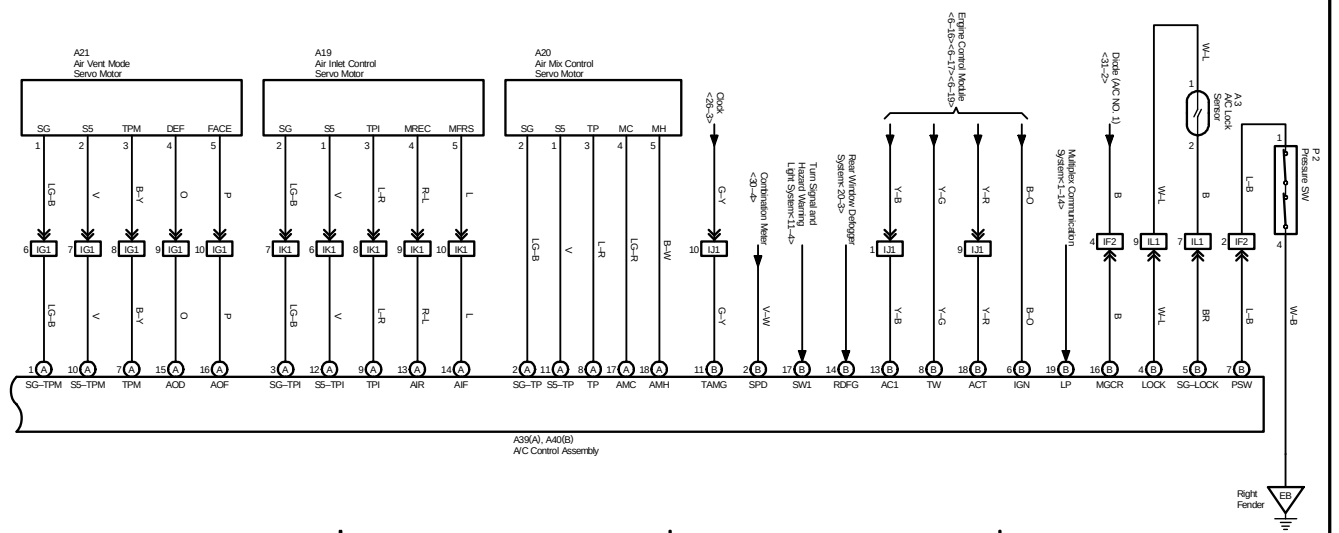


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33 CAMRY (Cont' d)

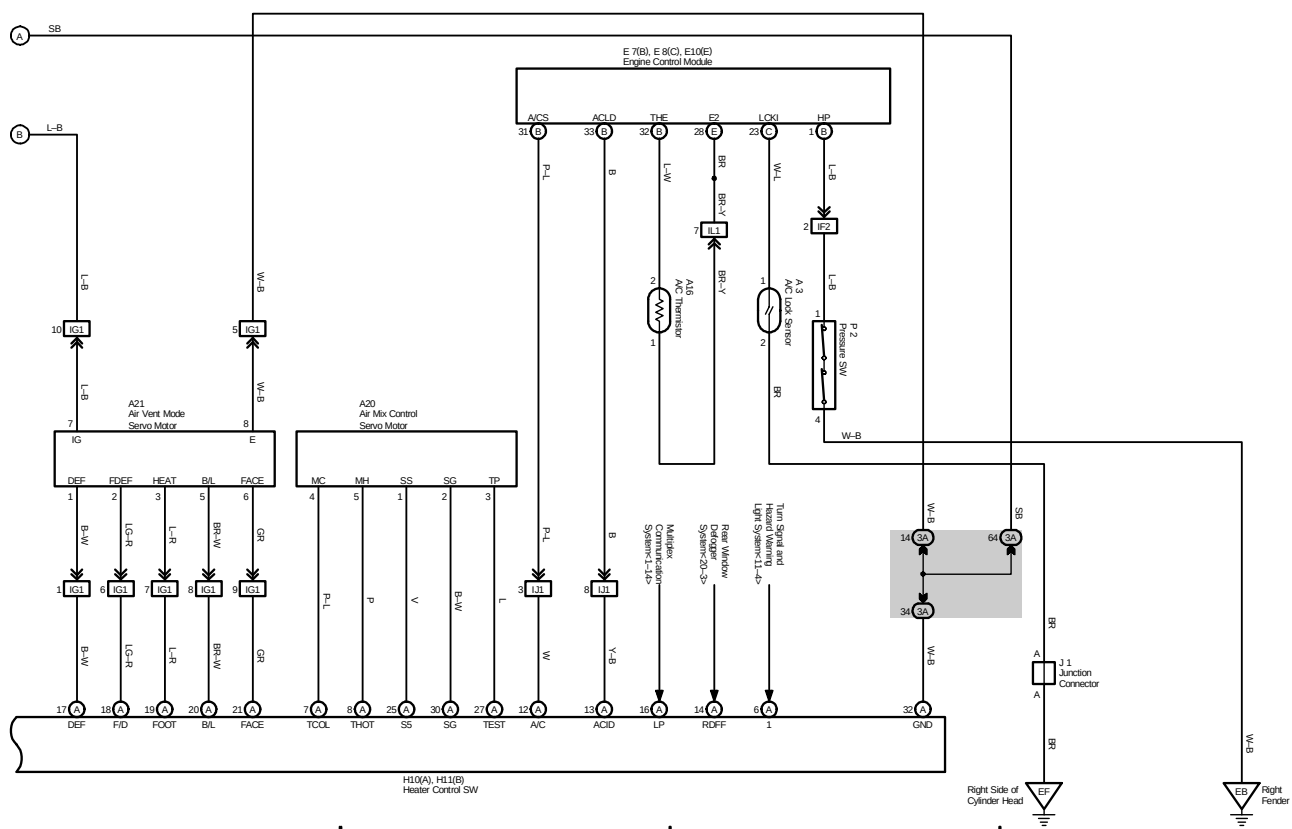
Automatic Air Conditioning (2AZ-FE)



34 CAMRY

34 CAMRY (Cont' d)

Manual Air Conditioning (1MZ-FE, 3MZ-FE)



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