

FOREWORD

This wiring diagram manual has been prepared to provide information on the electrical system of the 2007 CAMRY.

Applicable models: GSV40 Series
ACV40 Series

Refer to the following manuals for additional service specifications and repair procedures for these models:

Manual Name	Pub. No.
● 2007 CAMRY Repair Manual	RM0250U
● 2007 CAMRY New Car Features	NM0250U

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

Always follow the directions given in the above repair manuals when handling supplemental restraint system components (such as removal, installation, inspection, etc.) in order to prevent accidents and supplemental restraint system malfunction.

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2007 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.

HOW TO USE THIS MANUAL B

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.)

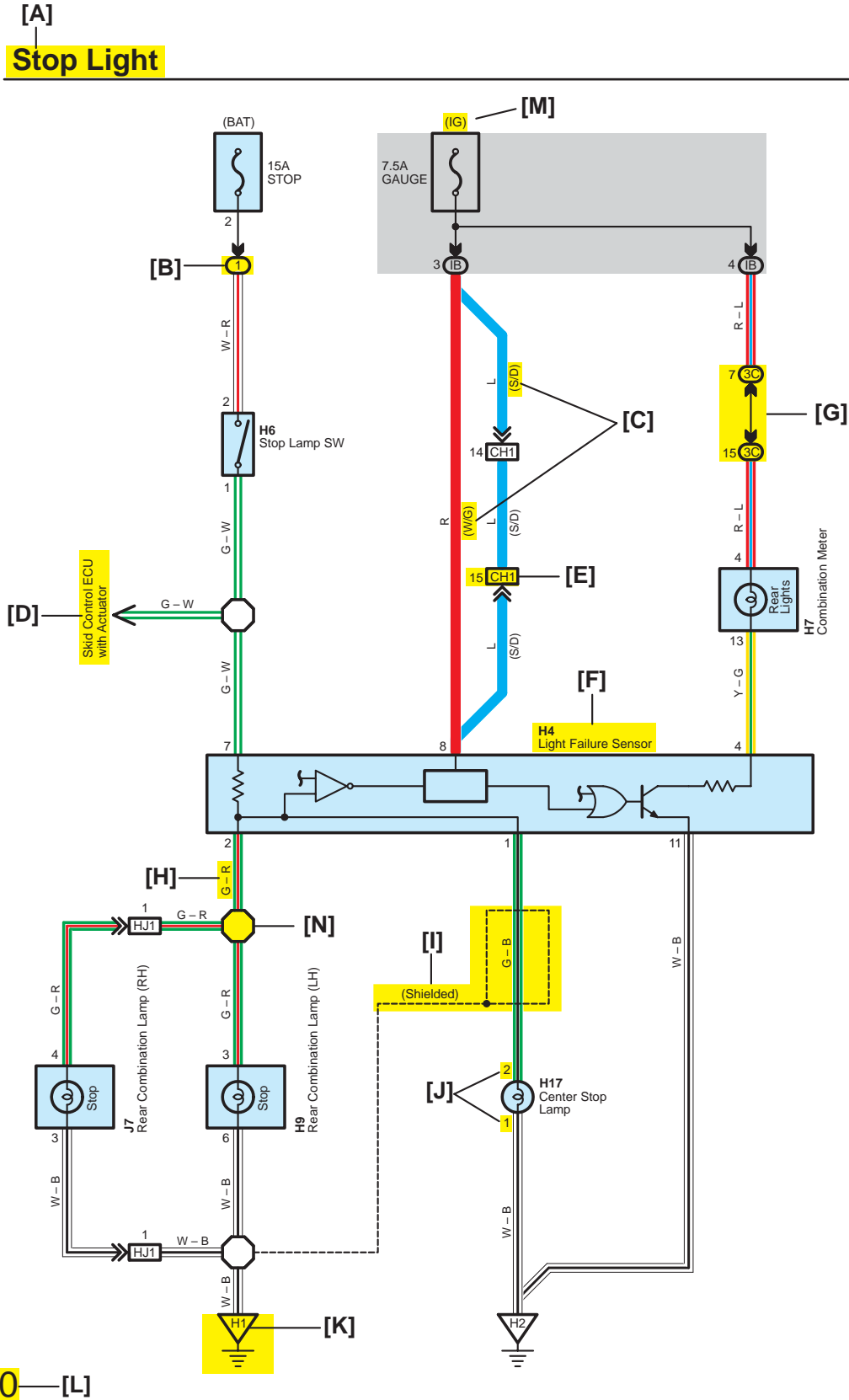
When troubleshooting any problem, first understand the operation of the circuit where the problem was detected (see System Circuit section), the power source supplying power to that circuit (see Power Source section), and the ground points (see Ground Point section). See the System Outline to understand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

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



[A] : System Title

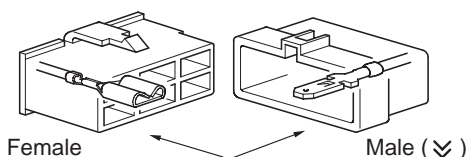
[B] : Indicates a Relay Block. No shading is used and only the Relay Block No. is shown to distinguish it from the J/B

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 code for the (male and female) connectors which are used to join two wire harnesses. The connector code consists of two alphabetical and one numerical characters.



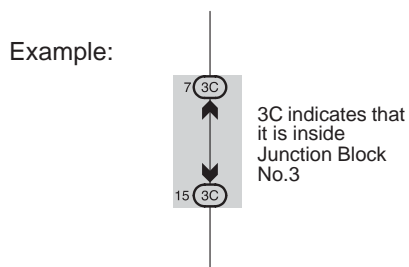
The first character of the connector code indicates the alphabetical code allocated to the wire harness which has the female connector, and the second shows that of the wire harness which has the male connector.

The third character indicates a serial number used to distinguish between the wire harness combinations in cases when more than one of the same combination of wire harnesses exist (e.g. CH1 and CH2).

Symbol (∇) indicates the male terminal connector. Numbers outside connector codes indicate the pin numbers of both male and female connectors.

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

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



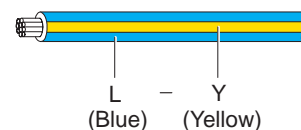
[H] : Indicates the wiring color.

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

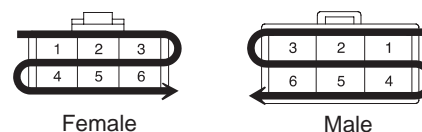


[I] : Indicates a shielded cable.



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

Example: Numbered in other from upper left to lower right Numbered in other from upper right to lower left



[K] : Indicates the ground point. The code consists of the two characters: A letter and number.

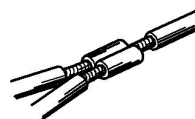
The first character of the code indicates the alphabetical code allocated to the wire harness. The second character indicates a serial number used to distinguish between the ground points in cases when more than one ground point exist on the same wire harness.

[L] : Page No.

[M] : Indicates the ignition key position(s) when the power is supplied to the fuse(s).

[N] : Indicates a wiring Splice Point.

Example:



B HOW TO USE THIS MANUAL

[O] **System Outline**

Current is applied at all times through the STOP fuse to TERMINAL 2 of the stop lamp 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 lamp SW on), if the stop light circuit is open, the current flowing from TERMINAL 7 of the light failure sensor to TERMINALS 1, 2 changes, so the light failure sensor detects the disconnection and the warning circuit of the light failure sensor is activated.

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

[P] **○ : Parts Location**

Code	See Page	Code	See Page	Code	See Page
H4	36	H7	36	H17	38
H6	36	H9	38	J7	38

[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)
3C	22	Instrument Panel Wire and J/B No.3 (Instrument Panel Brace LH)
IB	20	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)

[S] **□ : Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
CH1	42	Engine Room Main Wire and Instrument Panel Wire (Left Kick Panel)
HJ1	50	Instrument Panel Wire and Floor Wire (Right Kick Panel)

[T] **▽ : Ground Points**

Code	See Page	Ground Points Location
H1	50	Under the Left Center Pillar
H2	50	Back Panel Center

[O] : Explains the system outline.

[P] : Indicates reference pages showing the parts locations in the system circuit on the vehicle.

Example : Code "H4" (Light Failure Sensor) is on page 36 of the manual.

* The first character of the code indicates the alphabetical code allocated to the wire harness, and the second character indicates the serial number of the parts connected to the wire harness.

Example : H 4
└──┬── Serial number for the connected parts
 └── Code for the wire harness

[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 "CH1" connects the Engine Room Main 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.

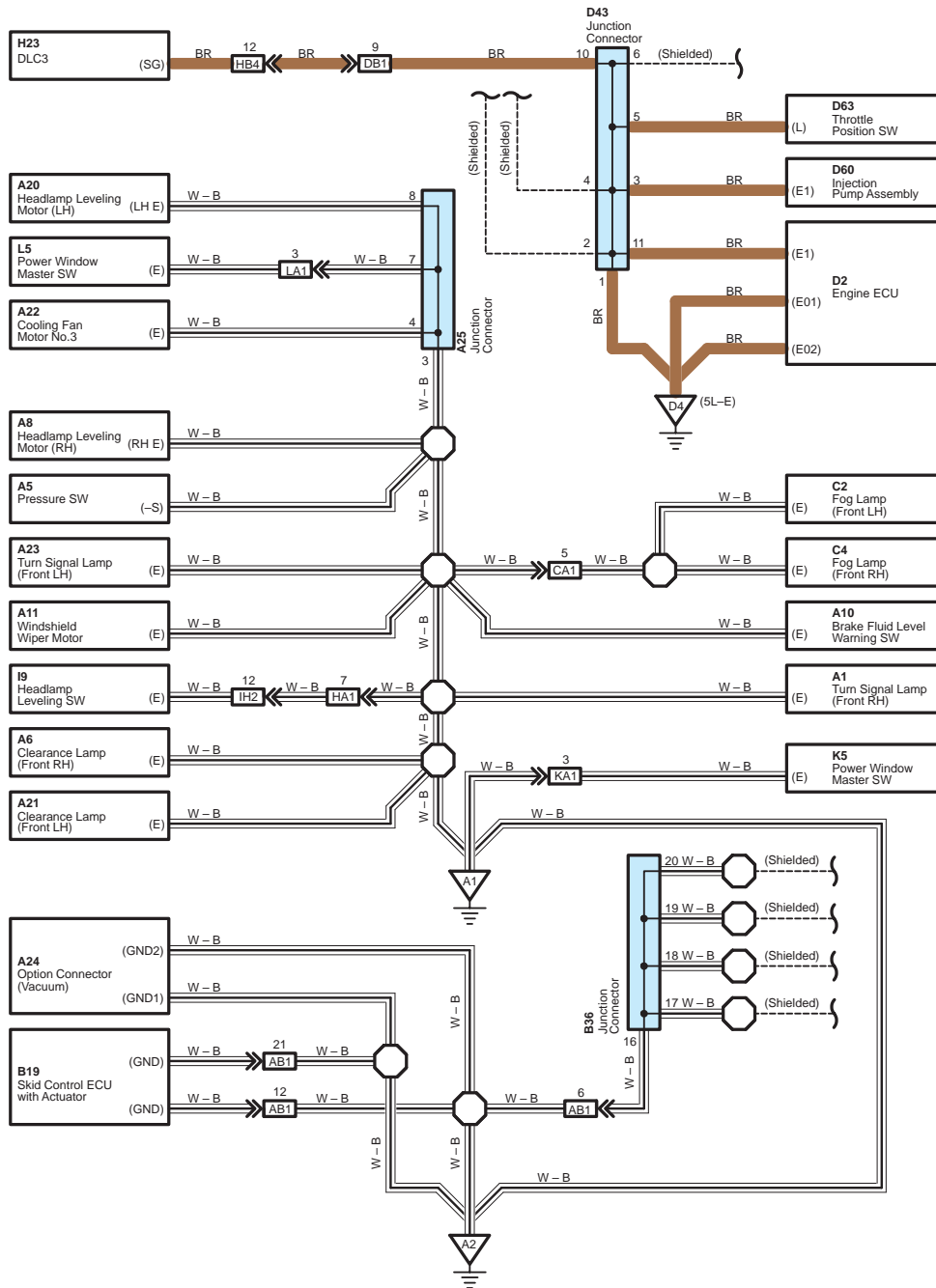
[T] : Indicates the reference page showing the position of the ground points on the vehicle.

Example : Ground point "H2" is described on page 50 of this manual and is installed on the back panel center.

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 ($\nabla A1$, $\nabla A2$ and $\nabla D4$ shown below) can also be checked this way.

I GROUND POINT

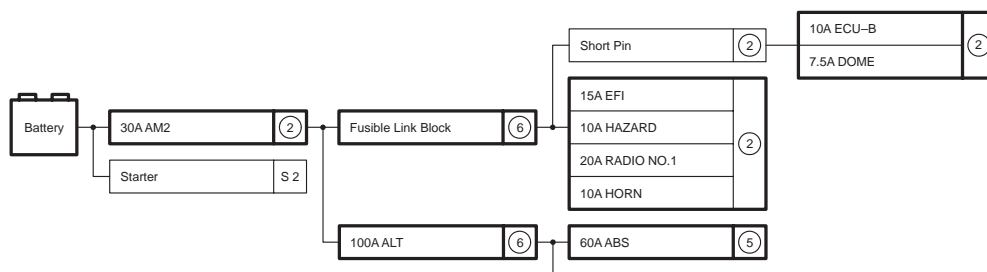


* The system shown here is an EXAMPLE ONLY. It is different to the actual circuit shown in the SYSTEM CIRCUITS SECTION.

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)

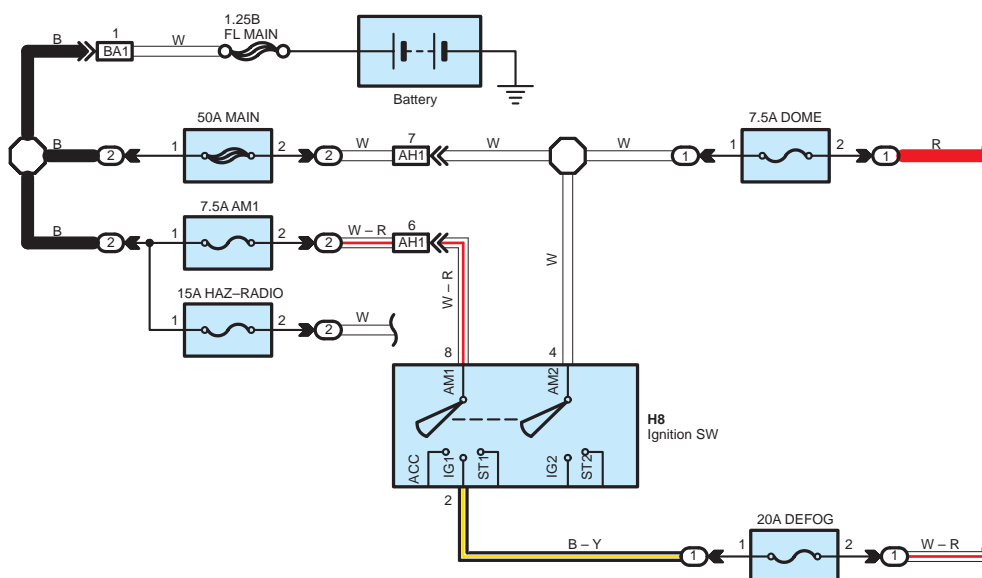
The chart below shows the route by which current flows from the battery to each electrical source (Fusible Link, Circuit Breaker, Fuses, etc.) and other parts



Engine Room R/B (See Page 20)

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

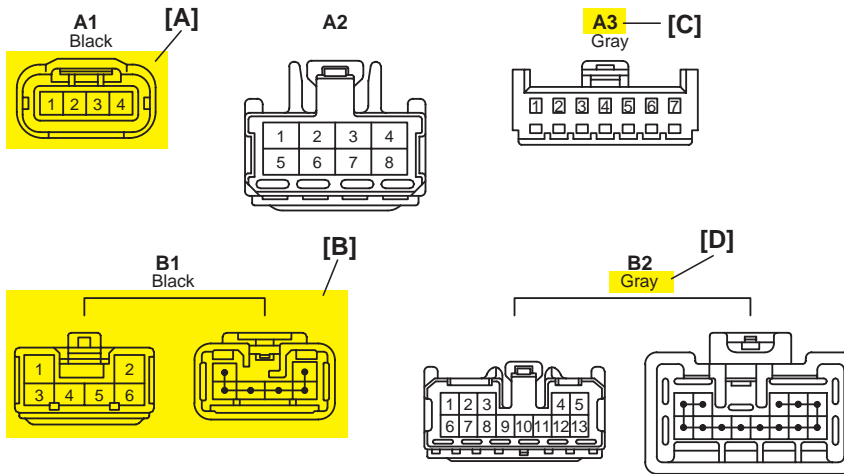
Power Source



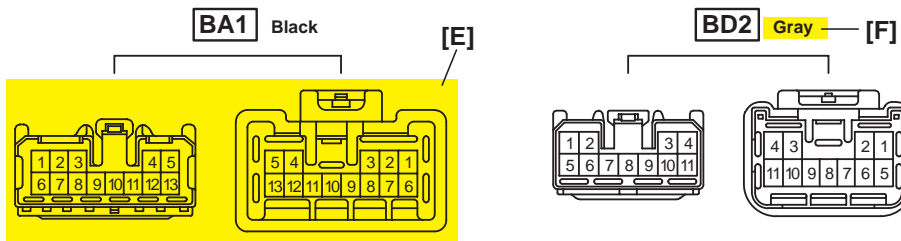
* The system shown here is an EXAMPLE ONLY. It is different to the actual circuit shown in the SYSTEM CIRCUITS SECTION.

B HOW TO USE THIS MANUAL

K CONNECTOR LIST

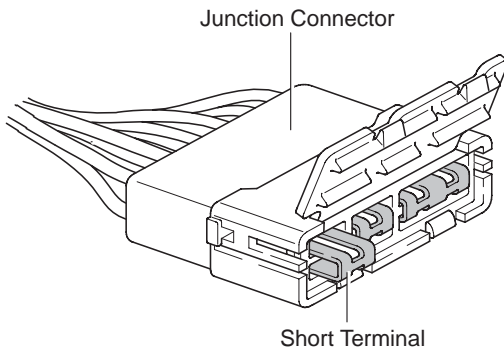


K CONNECTOR LIST



[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.

[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.

[E] : Indicates the connector shapes which are used to join wire harnesses.
On Left : Female connector shapes
On Right : Male connector shapes
Numbers indicate pin numbers.

[F] : Indicates connector colors. (Connectors with not indicated colors are white)

L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number
A1	Turn Signal Lamp (Front RH)	90980-11019	B22	Door Courtesy SW (Front LH)	90980-12470
A2	Inlet Air Temp. Sensor	90980-11163	B23	Front Seat Outer Belt (LH)	90980-12253
A3	Air Flow Meter	90980-12292	B24	Blower SW (Rear Heater)	90980-10463
A4	A/C Pressure Sensor	90980-10845	B25	Front Seat Outer Belt (RH)	90980-12253
A5	Pressure SW	90980-10943	B26	Door Courtesy SW (Front RH)	90980-12470
A6	Clearance Lamp (Front RH)	90980-11156	B27	Cooling Fan ECU No.1	90980-10841
[A]	Headla [B] H)	909 [C] 314	B28	Cooling Fan ECU No.2	
A8	Headlamp Leveling Motor (RH)	90980-11016	B29	Water Temp. Sensor (Radiator)	90980-10735
A9	Brake Vacuum Warning SW	90980-11252	B30	Fuel Filter Warning SW	90980-11003
A10	Brake Fluid Level Warning SW	90980-11207	B32	Door Control Relay (LH)	90980-10789
A11	Windshield Washer Motor	90980-11599	B33	Step Lamp (LH)	90980-10121
A12	Airbag Sensor (Front RH)	90980-11856	B34	Junction Connector	
A13	Airbag Sensor (Front LH)	90980-12490	B35	Junction Connector	90980-11398

[A] : Part Code

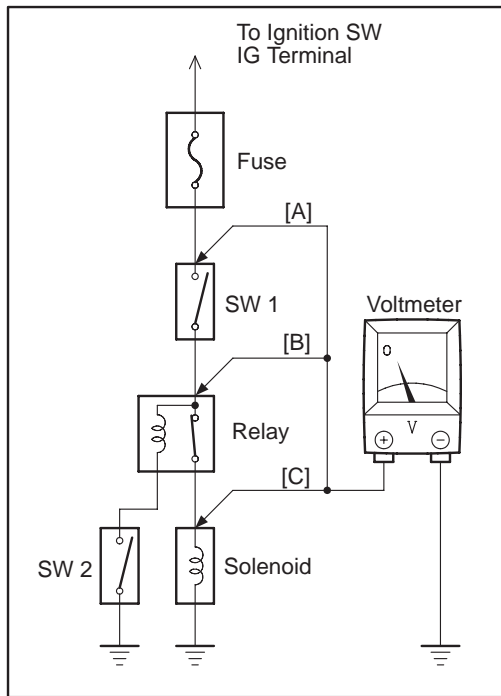
[B] : Part Name

[C] : Part Number

Toyota Part Number are indicated.

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

C TROUBLESHOOTING



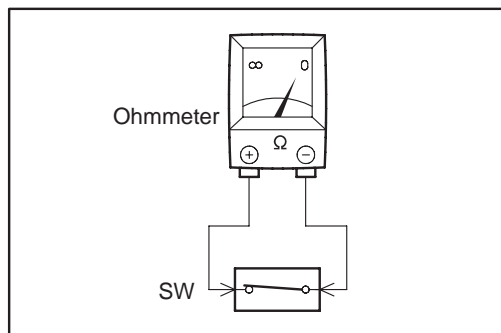
VOLTAGE CHECK

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

Example:

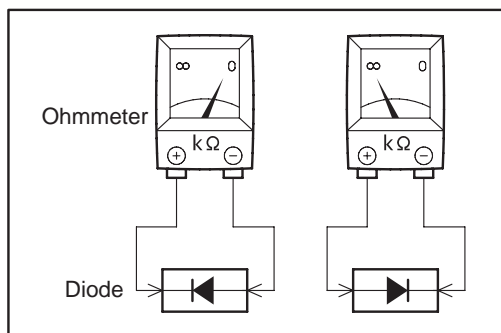
- [A] – Ignition SW on
- [B] – Ignition SW and SW 1 on
- [C] – Ignition SW, SW 1 and Relay on (SW 2 off)

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



CONTINUITY AND RESISTANCE CHECK

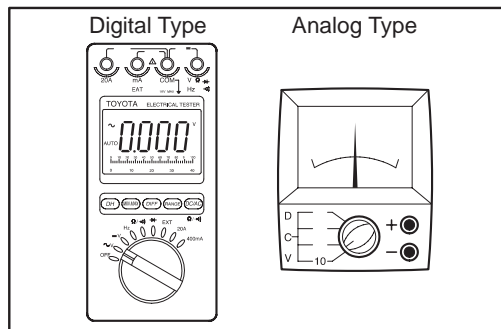
- (a) Disconnect the battery terminal or wire so there is no voltage between the check points.
- (b) Contact the two leads of an ohmmeter to each of the check points.



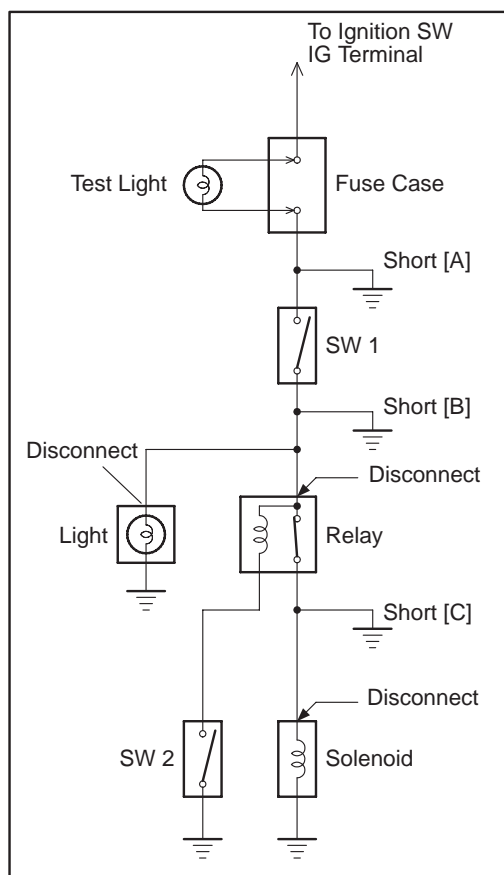
If the circuit has diodes, reverse the two leads and check again.

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

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



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



FINDING A SHORT CIRCUIT

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

Example:

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

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

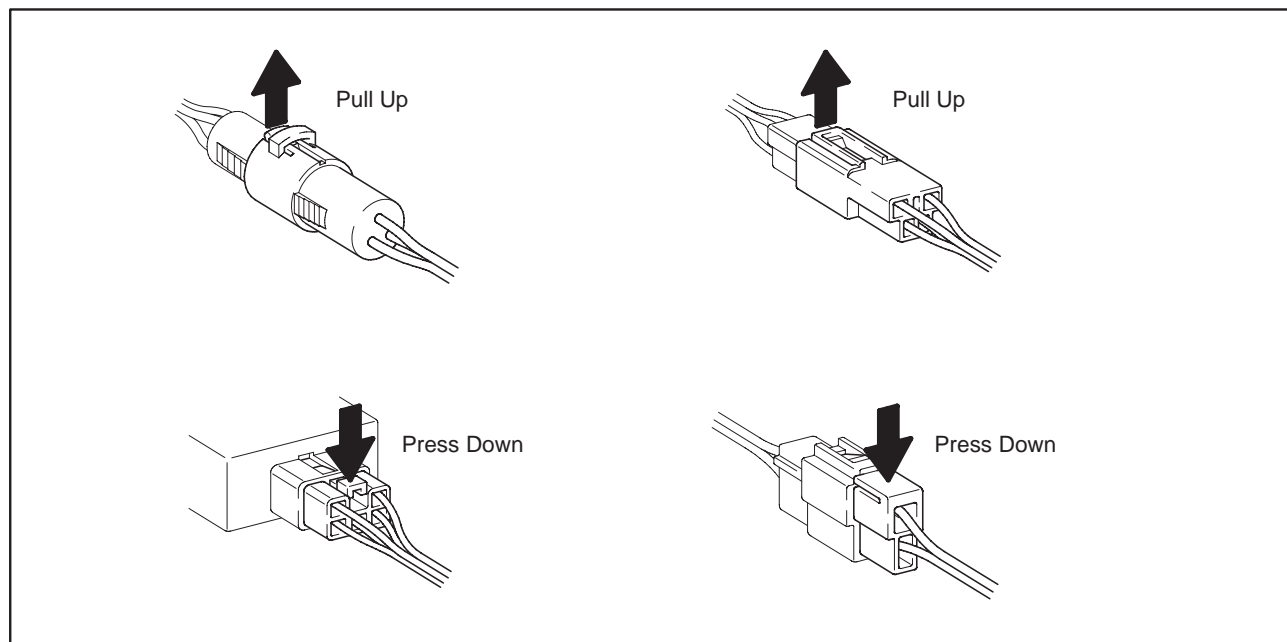
CAUTION:

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

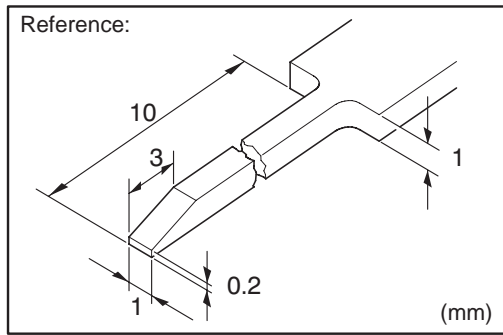
DISCONNECTION OF MALE AND FEMALE CONNECTORS

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

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



C TROUBLESHOOTING

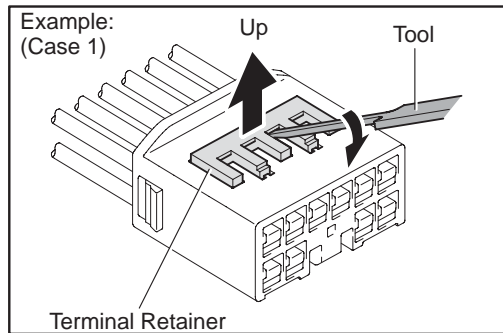


HOW TO REPLACE TERMINAL (with terminal retainer or secondary locking device)

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

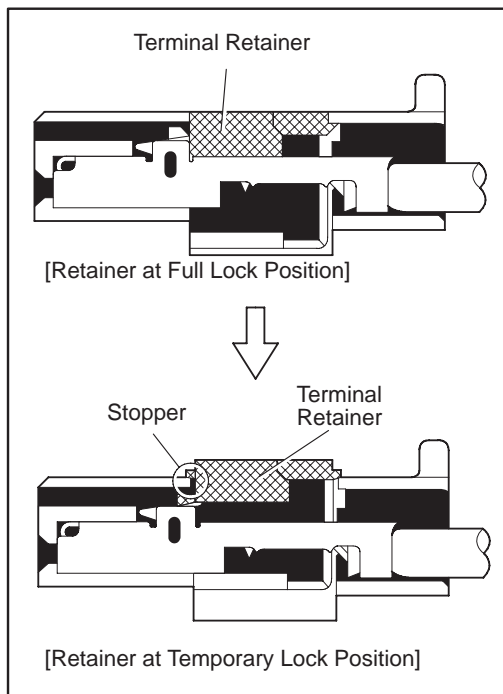


3. DISENGAGE THE SECONDARY LOCKING DEVICE OR TERMINAL RETAINER.

- (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.

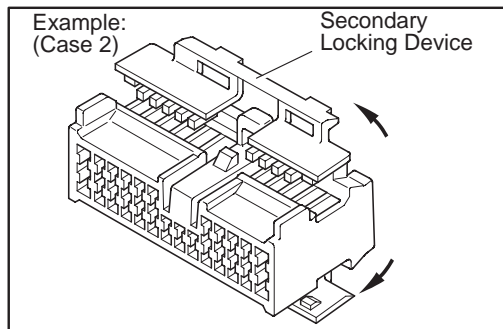


[A] For Non-Waterproof Type Connector

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

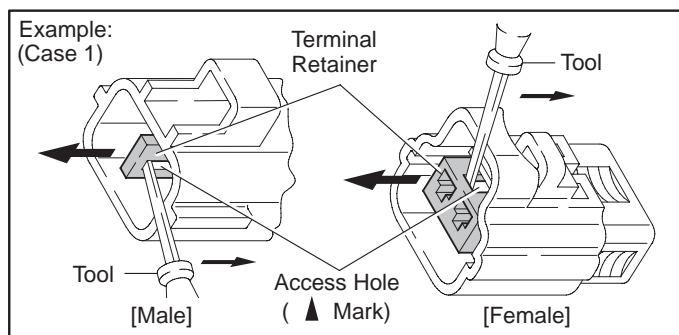
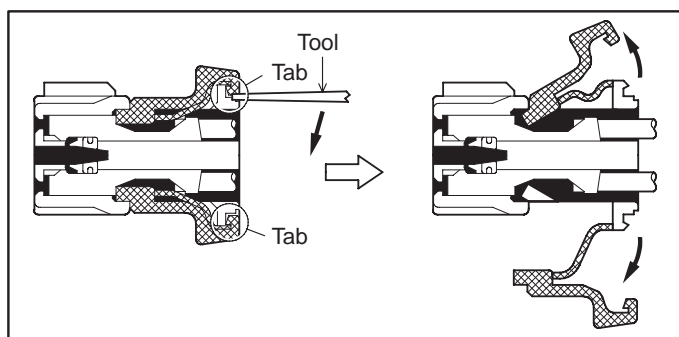
"Case 1"

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.

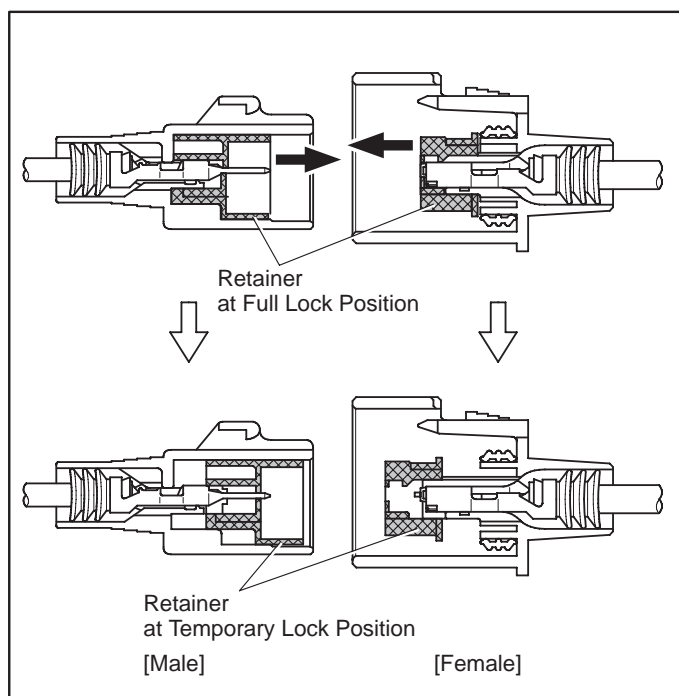
Example:

Terminal Retainer : Connector Body

Black or White : Gray

Black or White : Dark Gray

Gray or White : Black

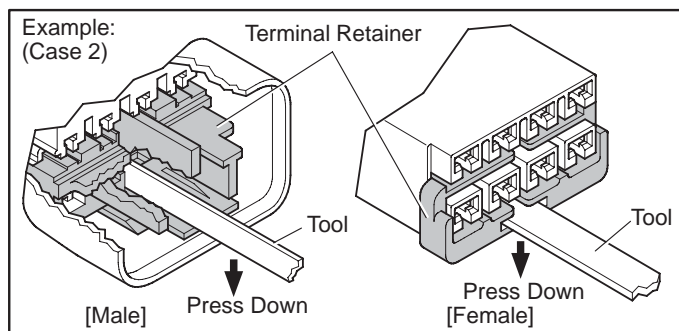


"Case 1"

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.

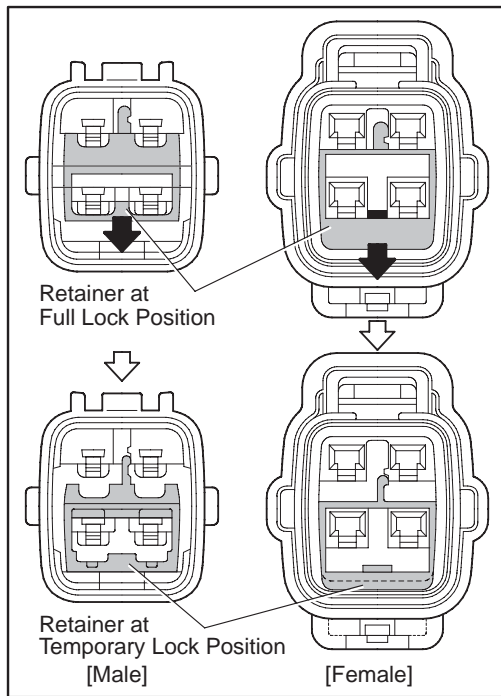
HINT: The needle insertion position varies according to the connector's shape (Number of terminals etc.), so check the position before inserting it.



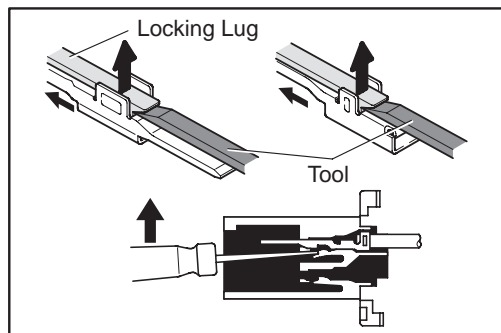
"Case 2"

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

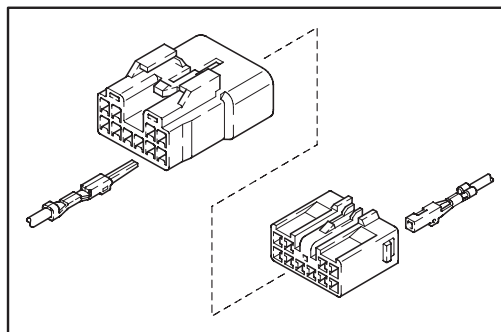
C TROUBLESHOOTING



Push the terminal retainer down to the temporary lock position.



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

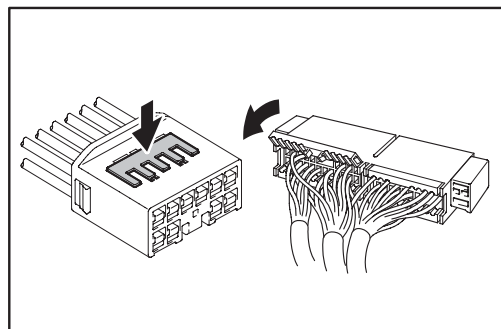


4. INSTALL TERMINAL TO CONNECTOR

(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

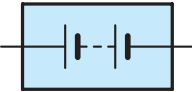

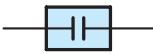






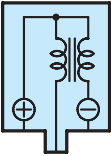




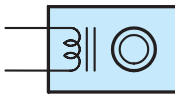

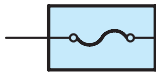
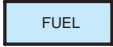
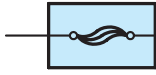
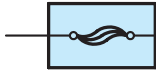

ABBREVIATIONS

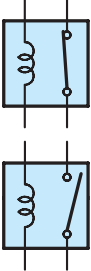

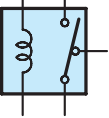
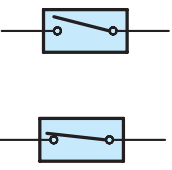
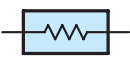
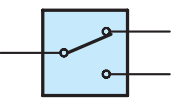
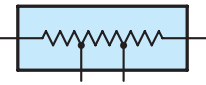
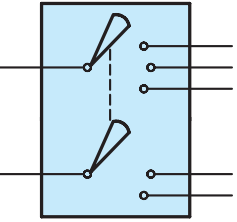

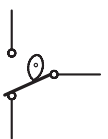

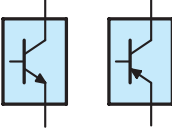

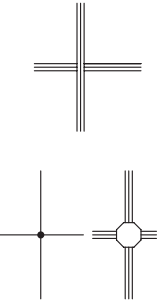
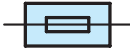
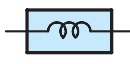
The following abbreviations are used in this manual.

A/C	=	Air Conditioning
A/T	=	Automatic Transaxle
ABS	=	Anti-Lock Brake System
ACIS	=	Acoustic Control Induction System
ACM	=	Active Control Engine Mount
CAN	=	Controller Area Network
EC	=	Electrochromic
ECU	=	Electronic Control Unit
ESA	=	Electronic Spark Advance
ETCS-i	=	Electronic Throttle Control System-intelligent
FL	=	Fusible Link
IC	=	Integrated Circuit
J/B	=	Junction Block
LCD	=	Liquid Crystal Display
LH	=	Left-Hand
M/T	=	Manual Transaxle
R/B	=	Relay Block
RH	=	Right-Hand
SFI	=	Sequential Multiport Fuel Injection
SRS	=	Supplemental Restraint System
SW	=	Switch
TEMP.	=	Temperature
TRAC	=	Traction Control
VSC	=	Vehicle Stability Control
VSV	=	Vacuum Switching Valve
VVT	=	Variable Valve Timing
VVT-i	=	Variable Valve Timing-intelligent
w/	=	With
w/o	=	Without

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

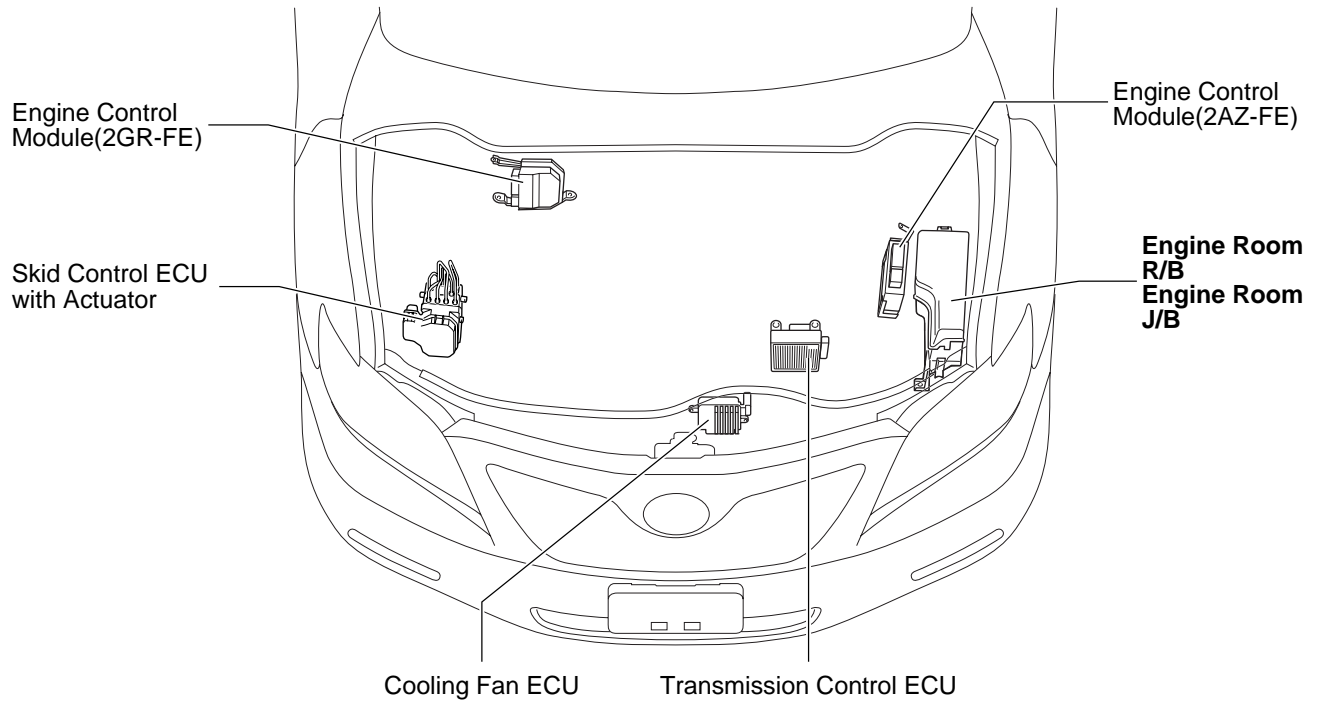
E GLOSSARY OF TERMS AND SYMBOLS

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

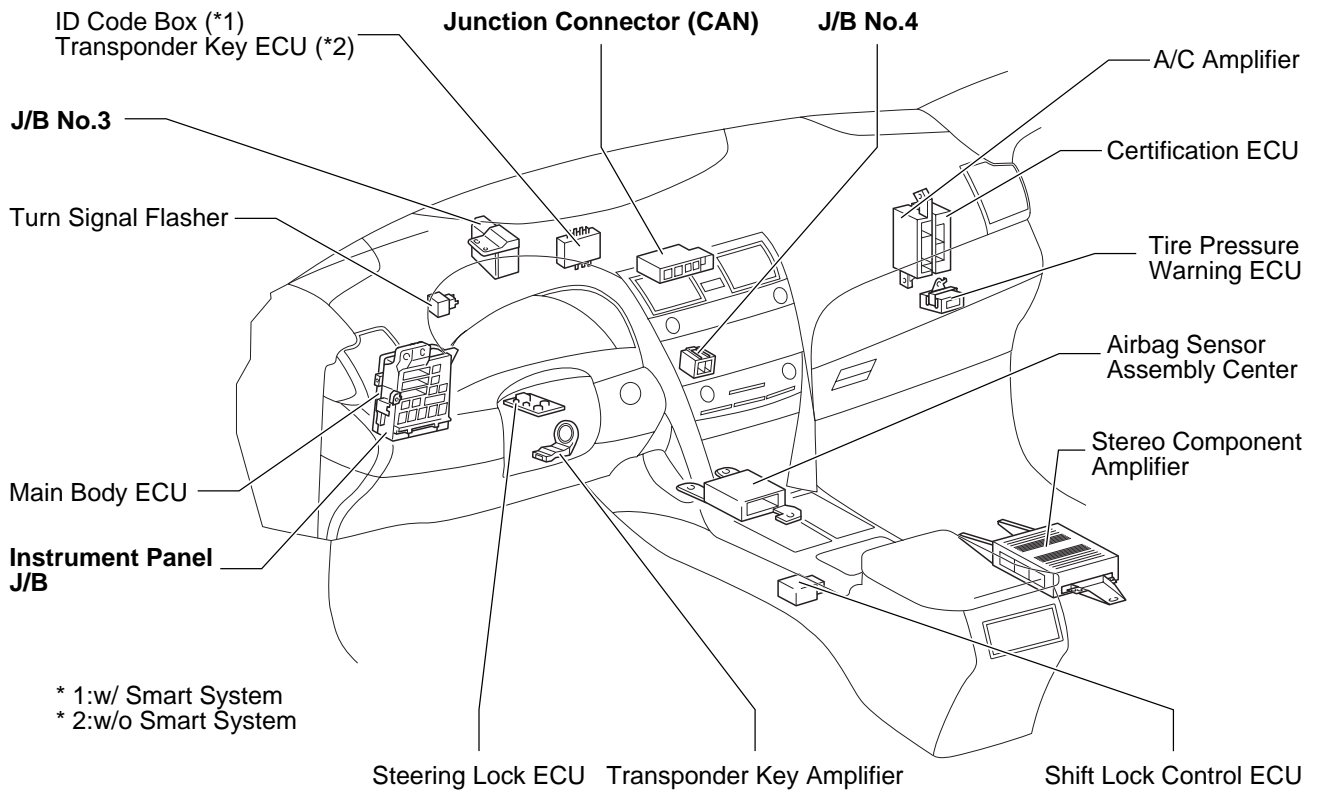
 <p>RELAY Basically, an electrically operated switch which may be normally closed (1) or open (2). Current flow through a small coil creates a magnetic field which either opens or closes an attached switch.</p> <p>1. NORMALLY CLOSED</p> <p>2. NORMALLY OPEN</p>	 <p>SPEAKER An electromechanical device which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

F RELAY LOCATIONS

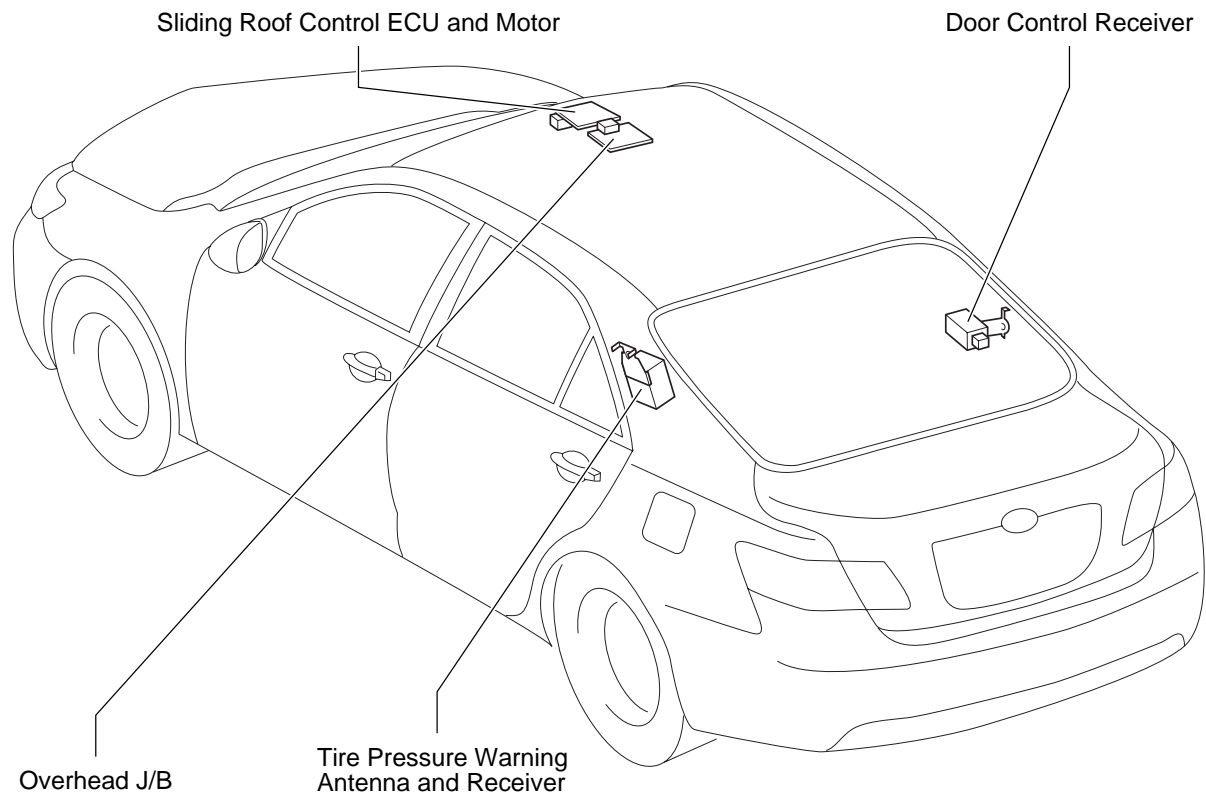
[Engine Compartment]



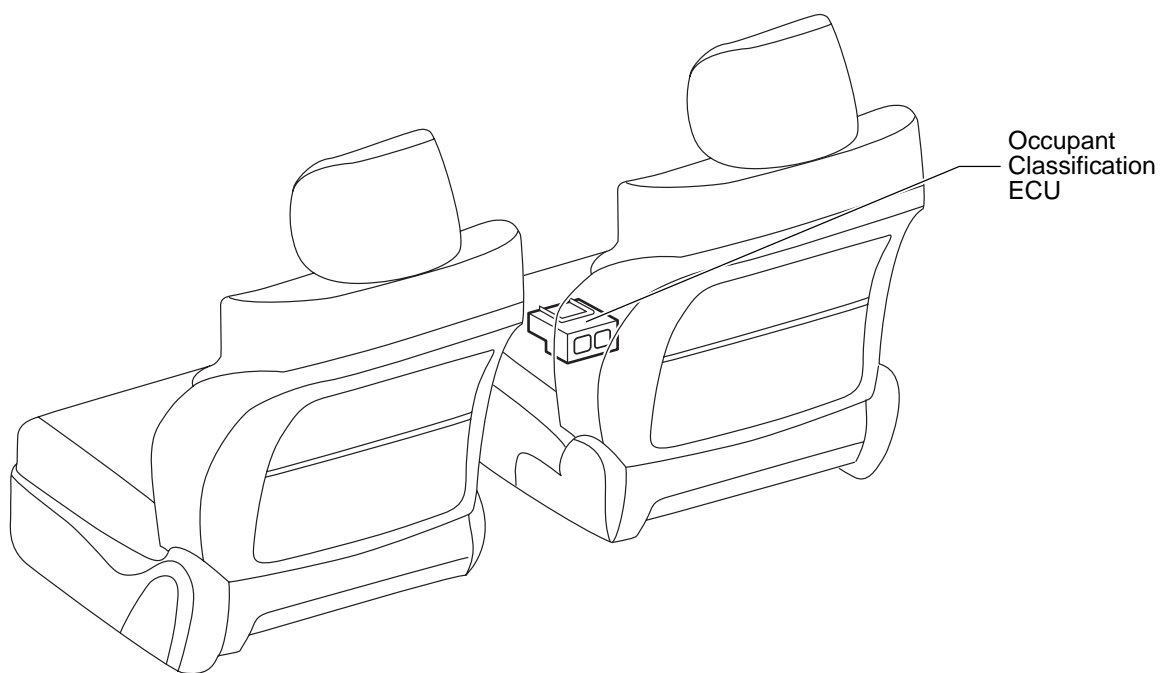
[Instrument Panel]



[Body]



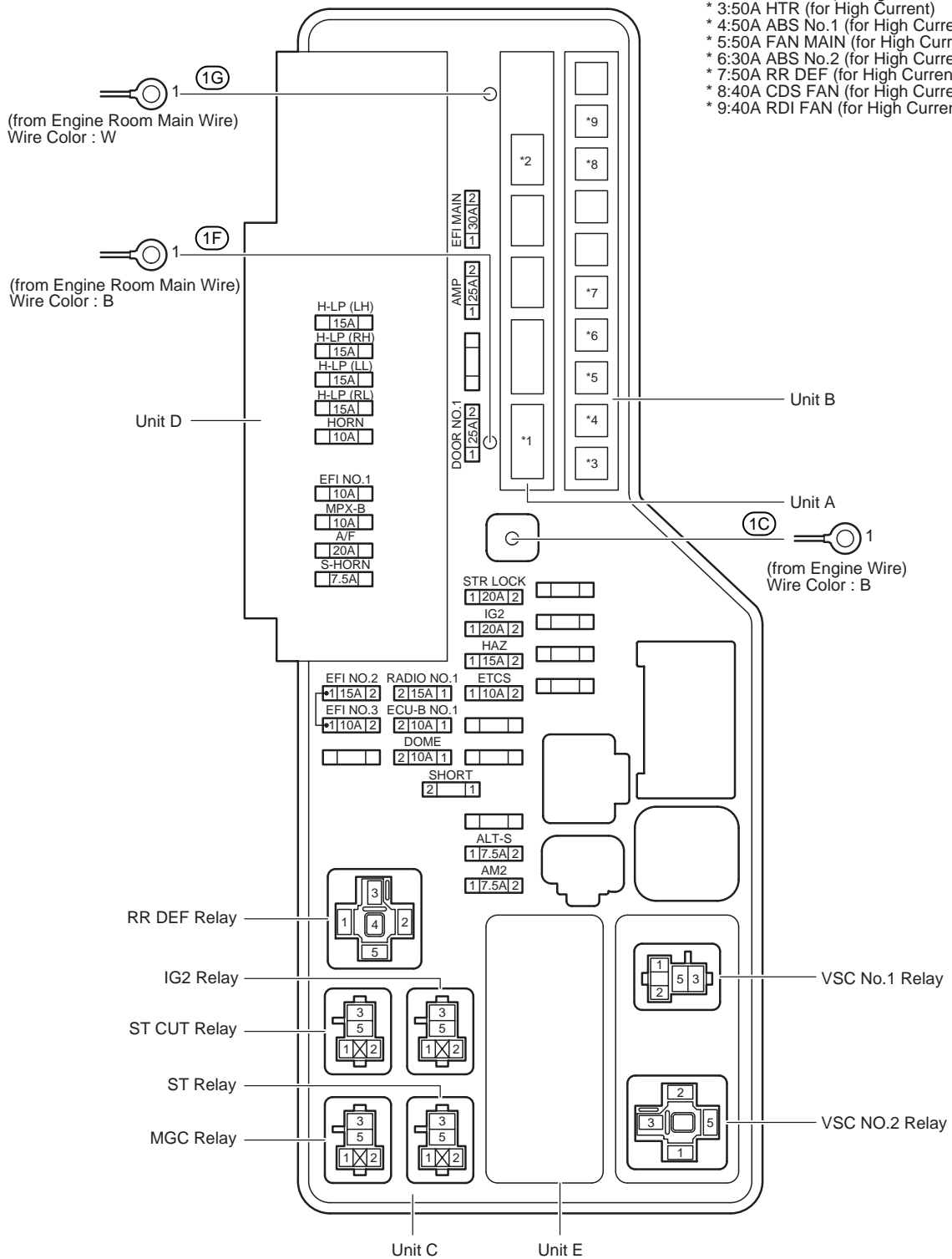
[Seat]



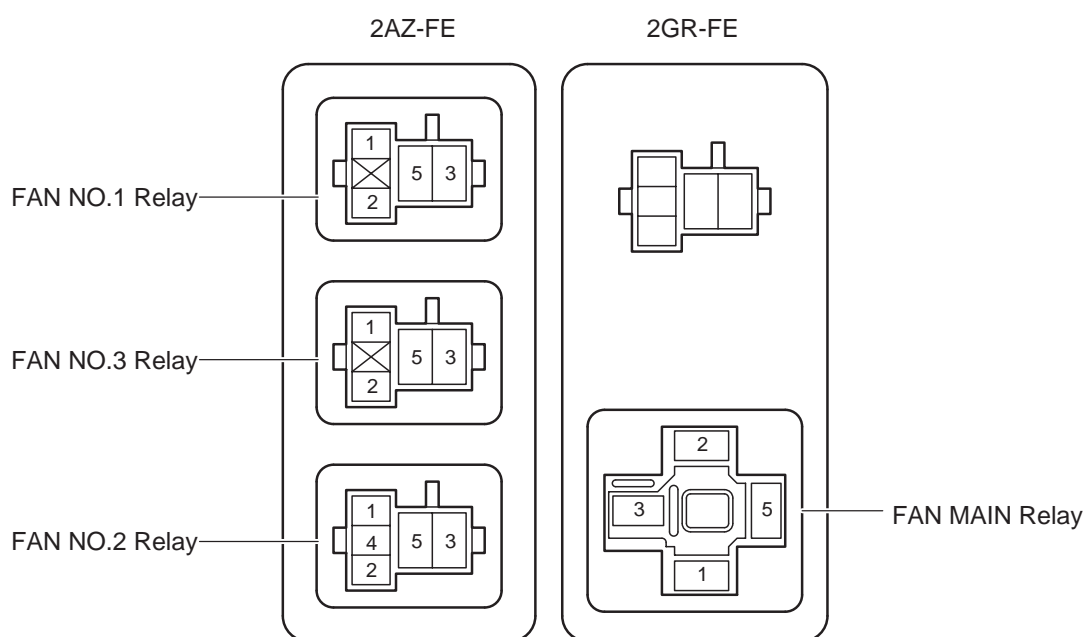
F RELAY LOCATIONS

① : Engine Room R/B ○ : Engine Room J/B	Engine Compartment Left (See Page 20)
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- * 1:120A ALT (for High Current)
- * 2:30A ST/AM2 (for High Current)
- * 3:50A HTR (for High Current)
- * 4:50A ABS No.1 (for High Current)
- * 5:50A FAN MAIN (for High Current)
- * 6:30A ABS No.2 (for High Current)
- * 7:50A RR DEF (for High Current)
- * 8:40A CDS FAN (for High Current)
- * 9:40A RDI FAN (for High Current)



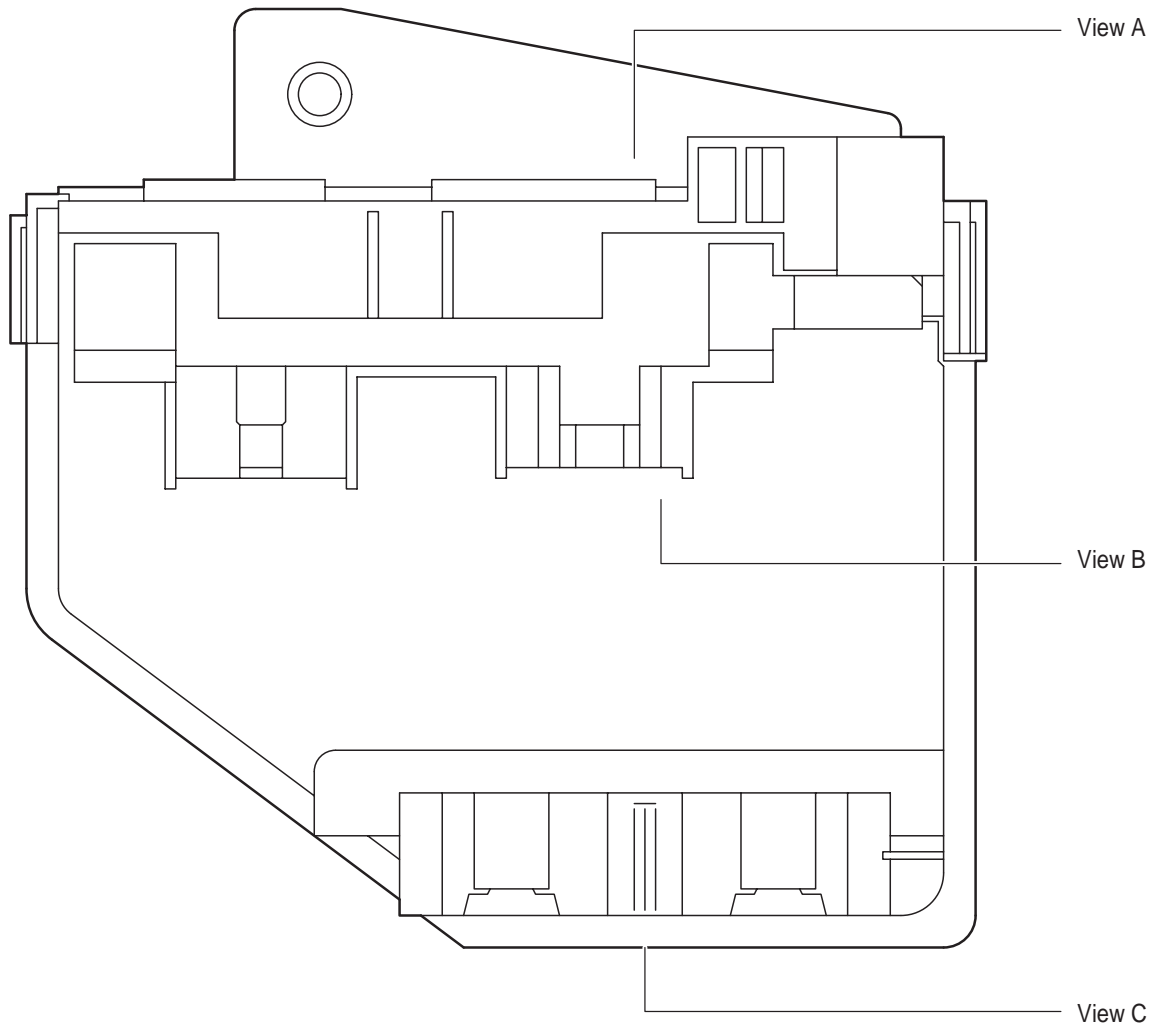
Unit E

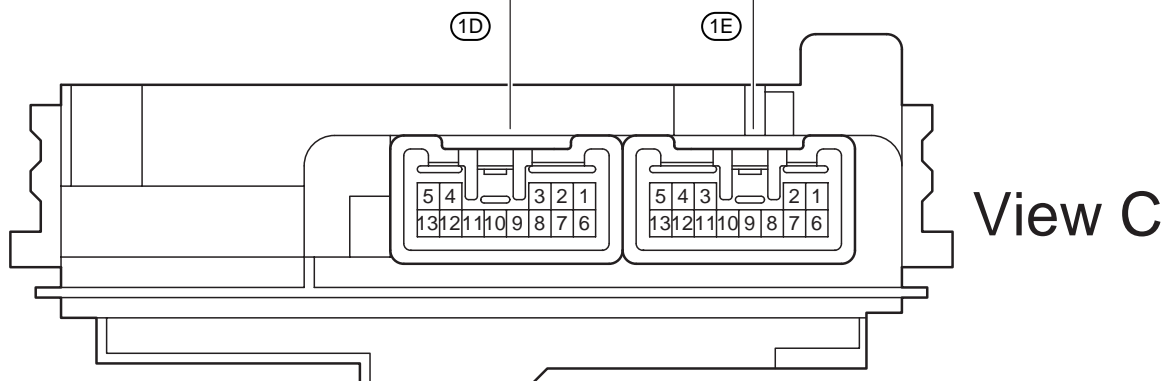
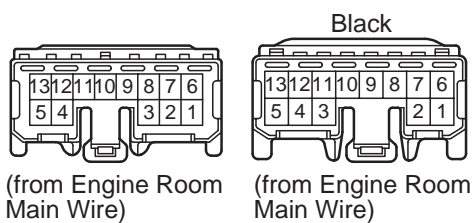
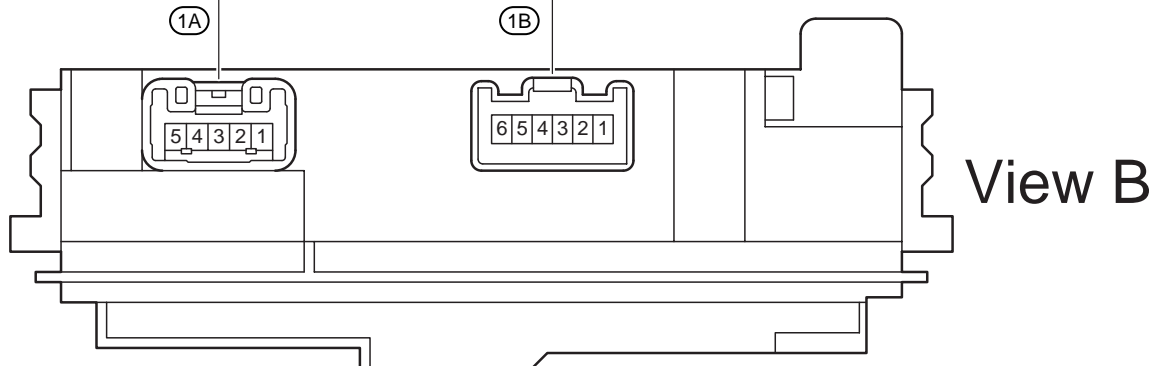
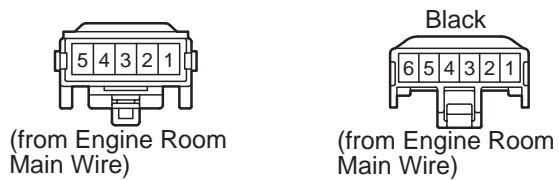
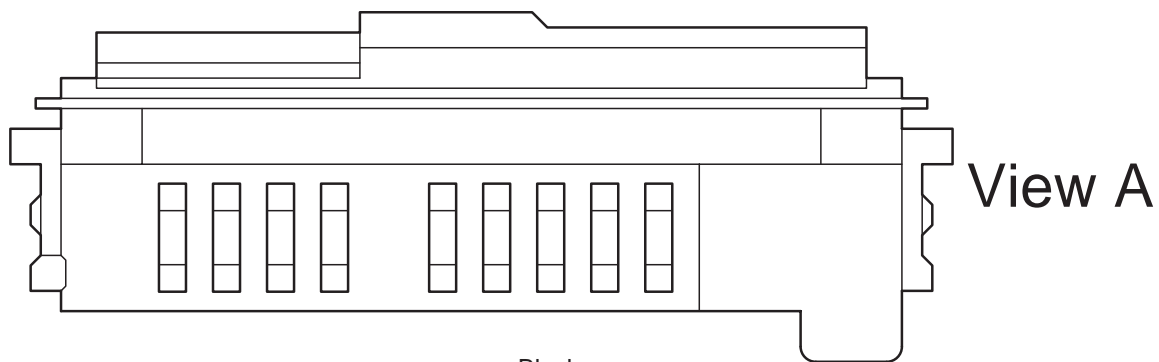


F RELAY LOCATIONS

① : Engine Room R/B	Engine Compartment Left (See Page 20)
○ : Engine Room J/B	

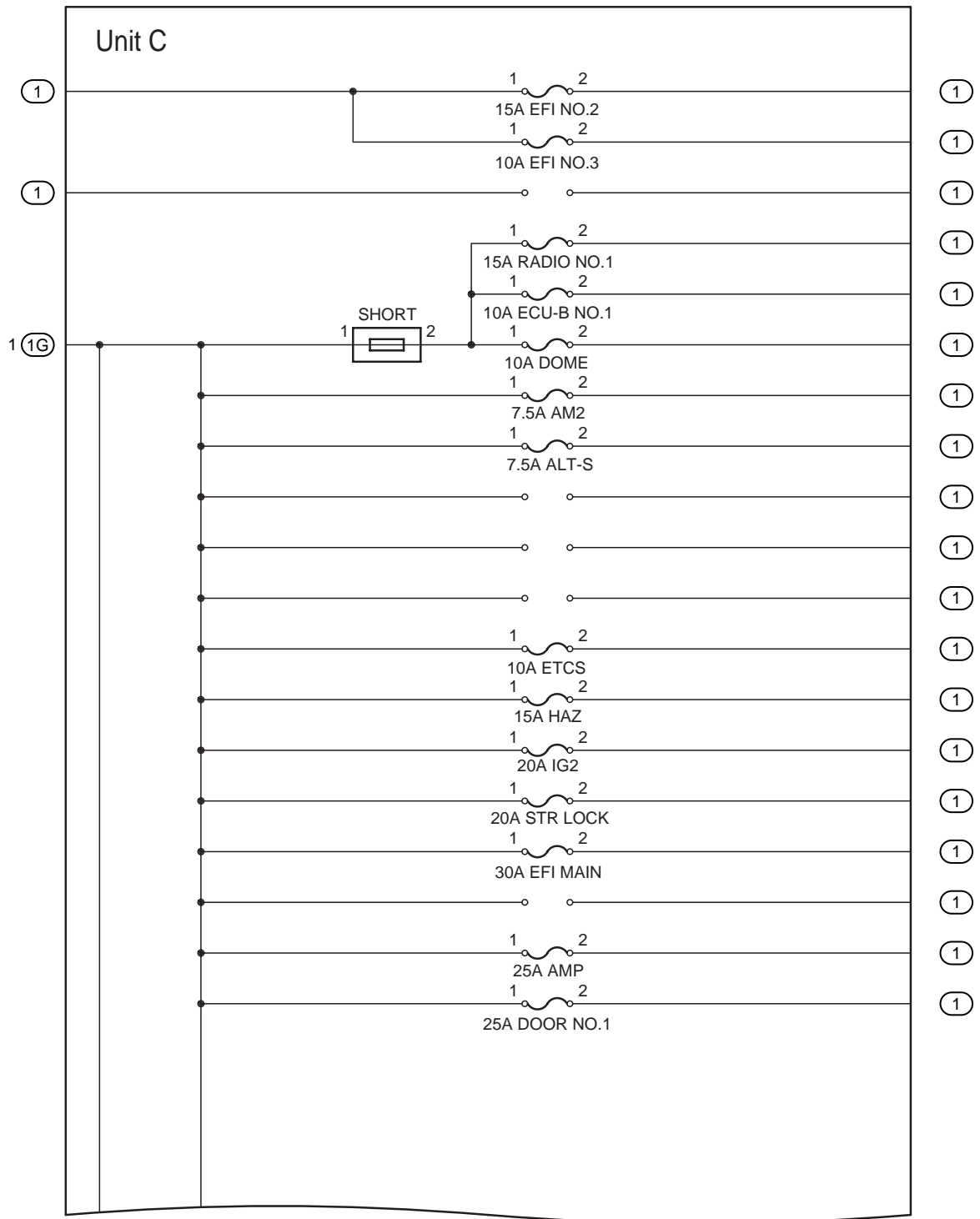
Unit D





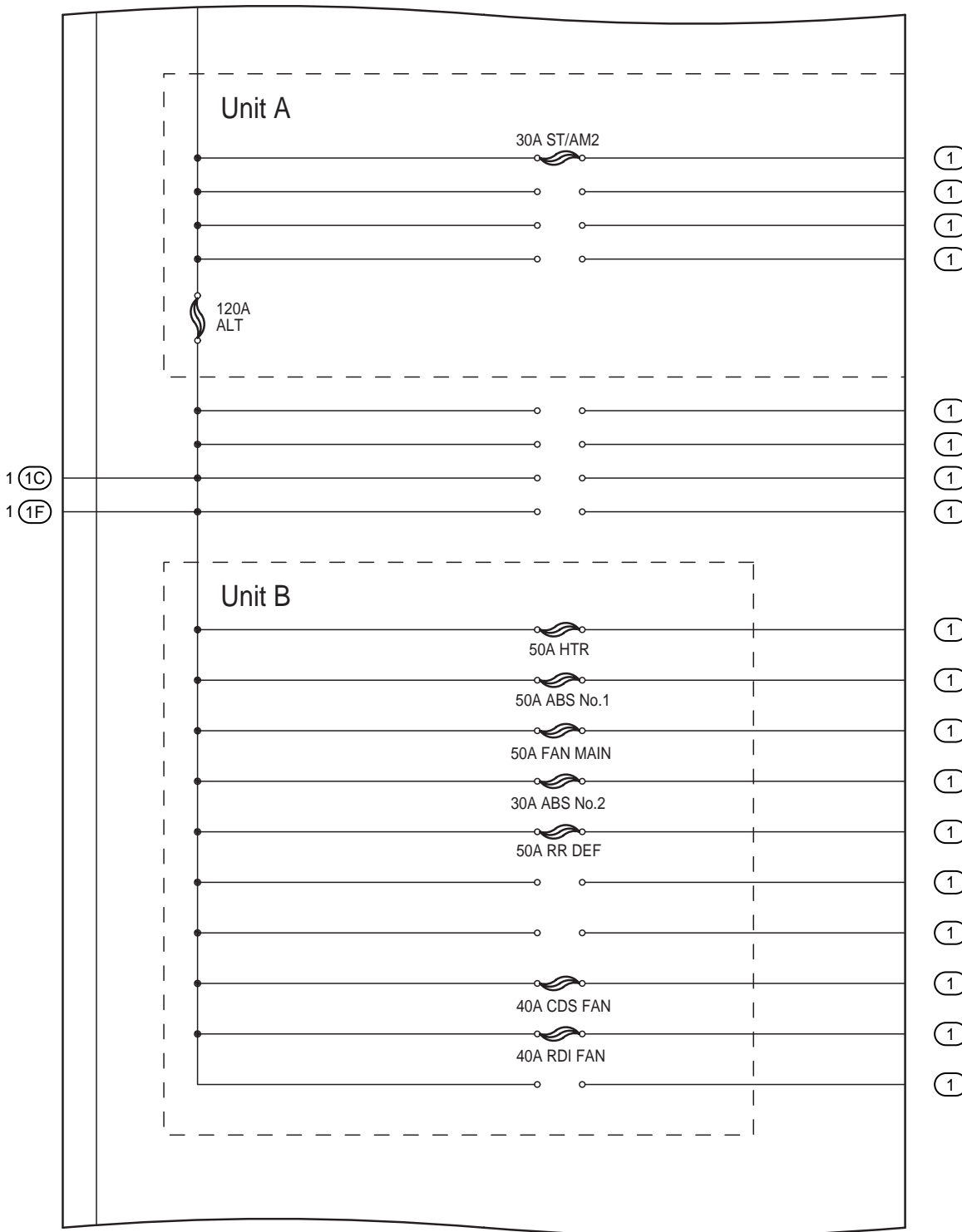
F RELAY LOCATIONS

[Engine Room R/B and Engine Room J/B Inner Circuit]



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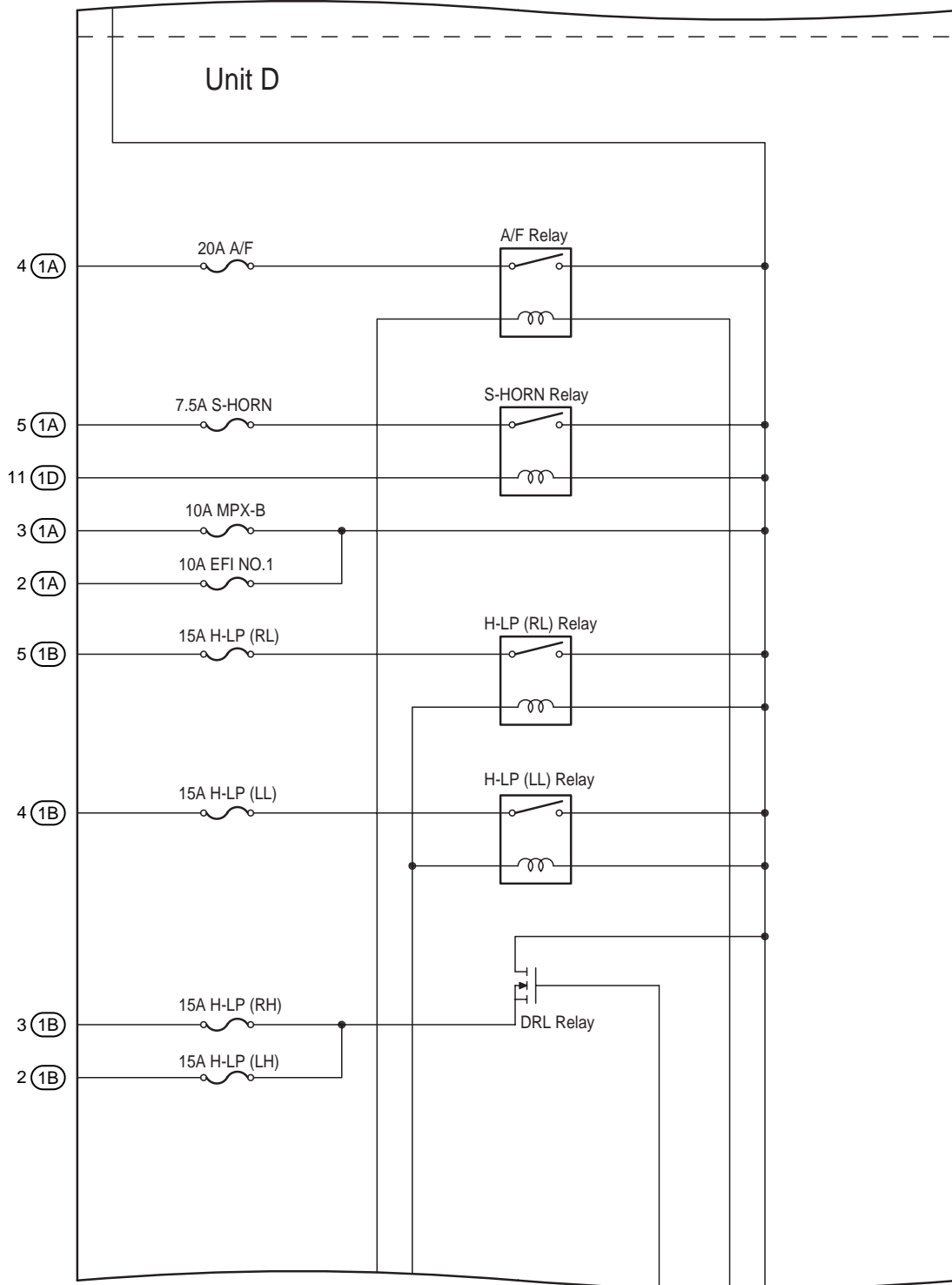


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F RELAY LOCATIONS

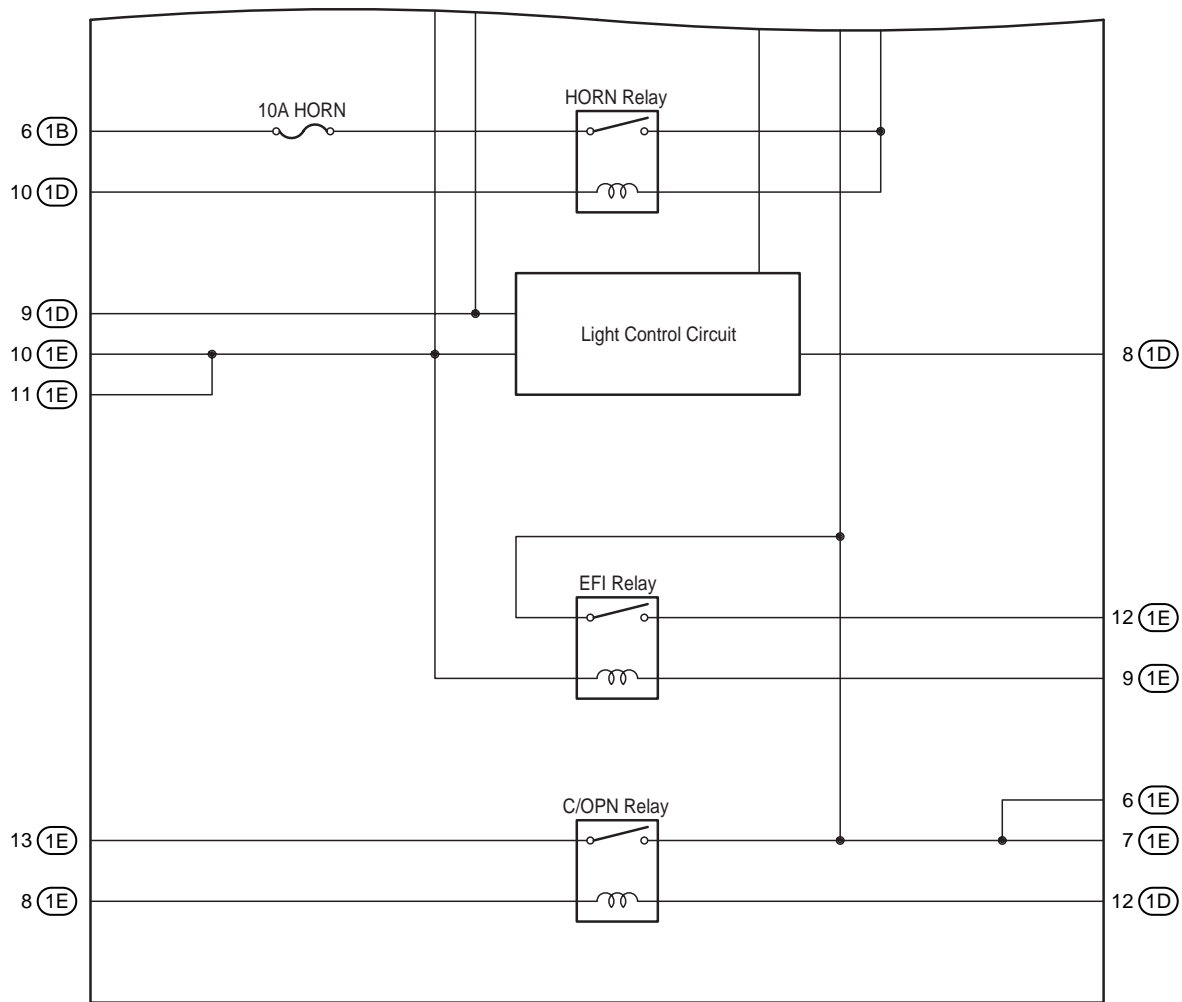
[Engine Room R/B and Engine Room J/B Inner Circuit]

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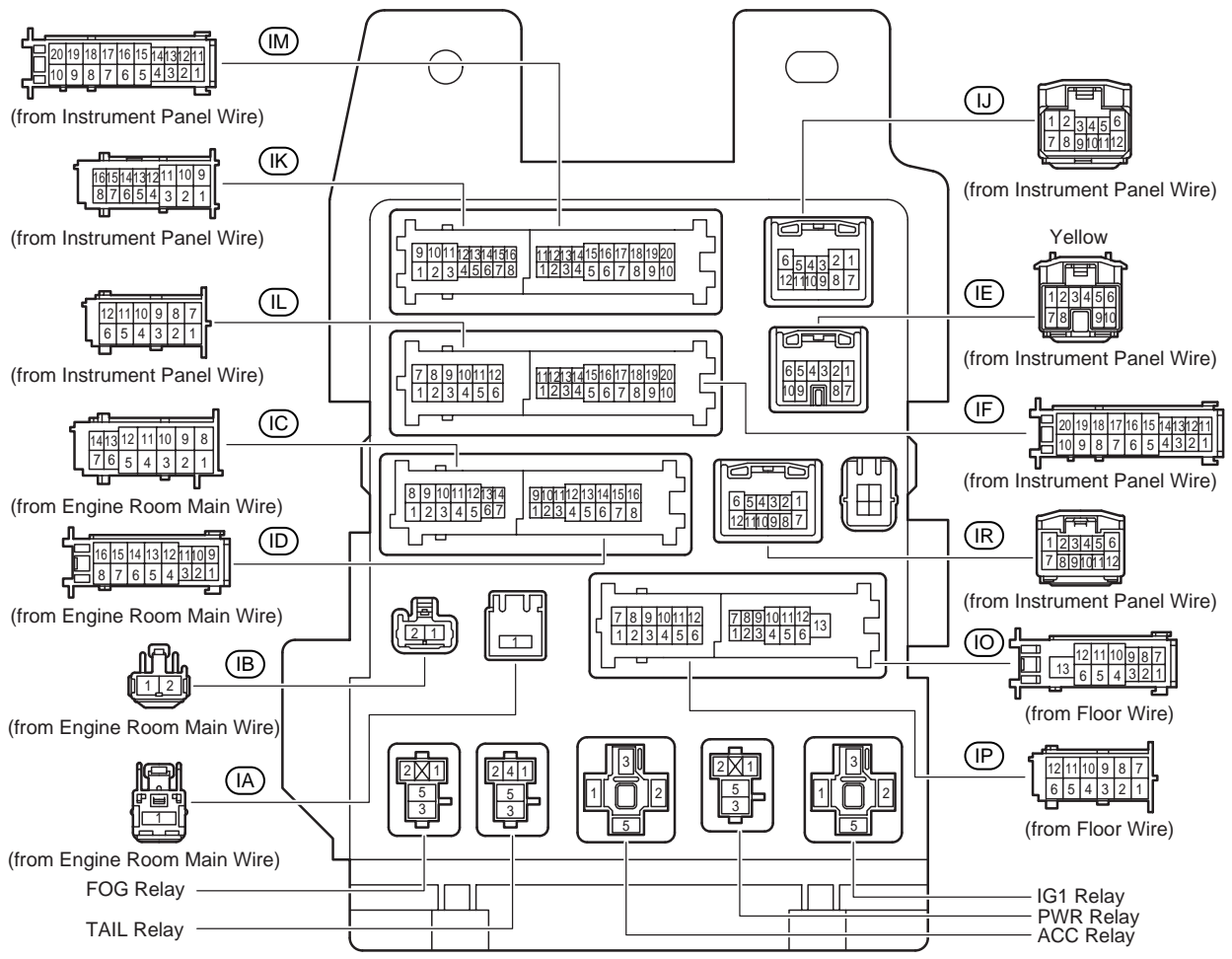
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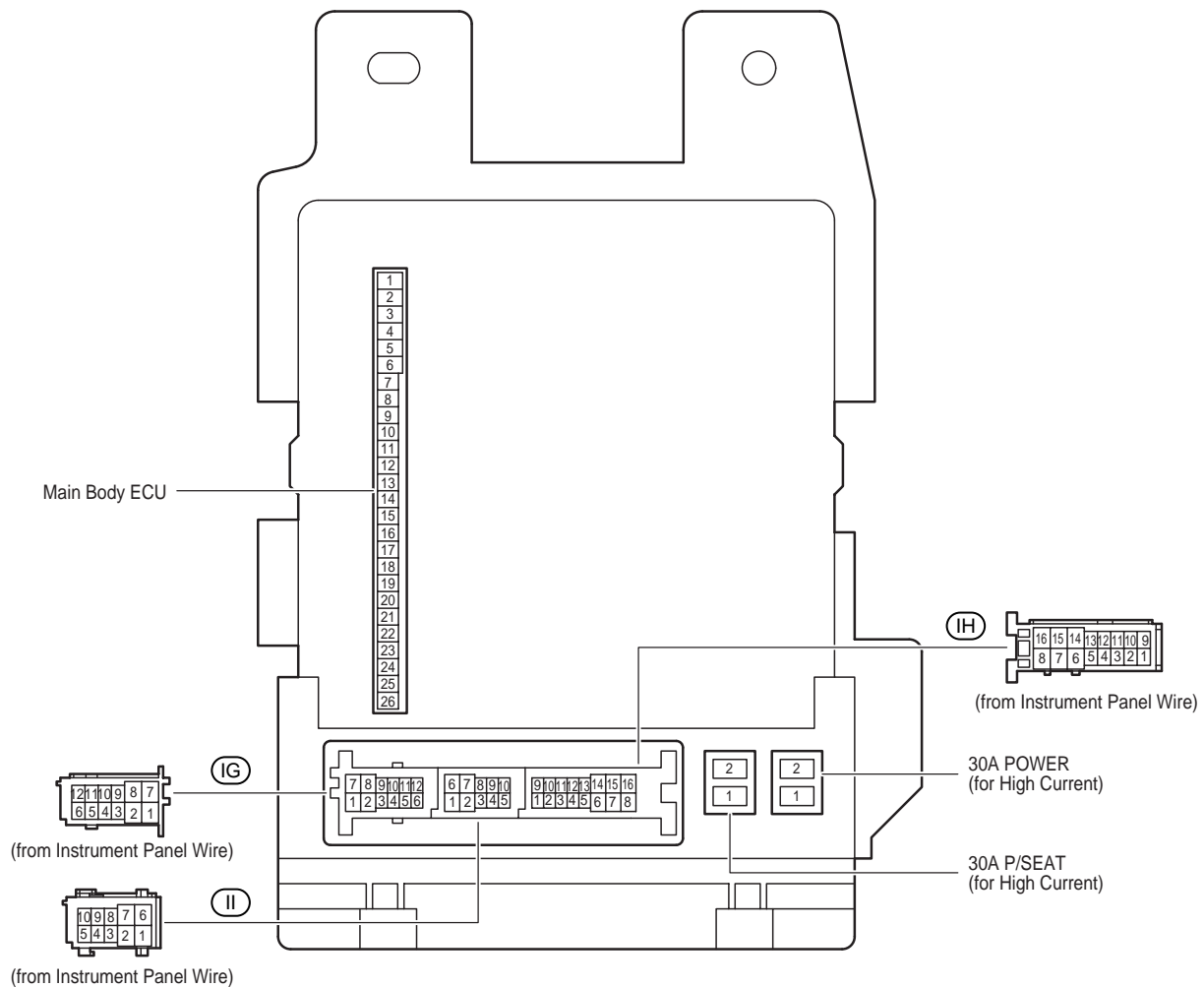
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F RELAY LOCATIONS

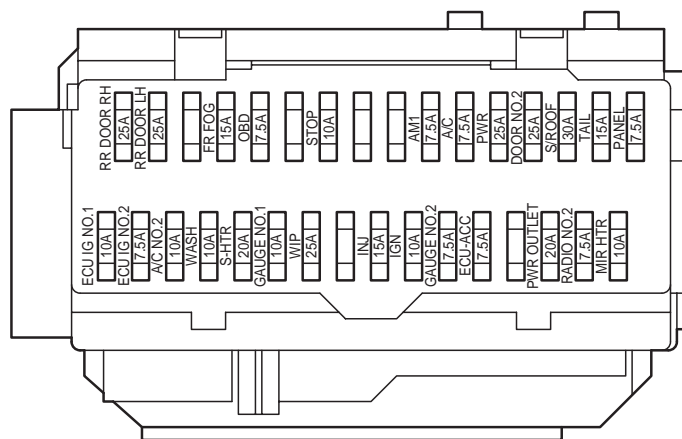
○ : Instrument Panel J/B Cowl Side Left (See Page 20)



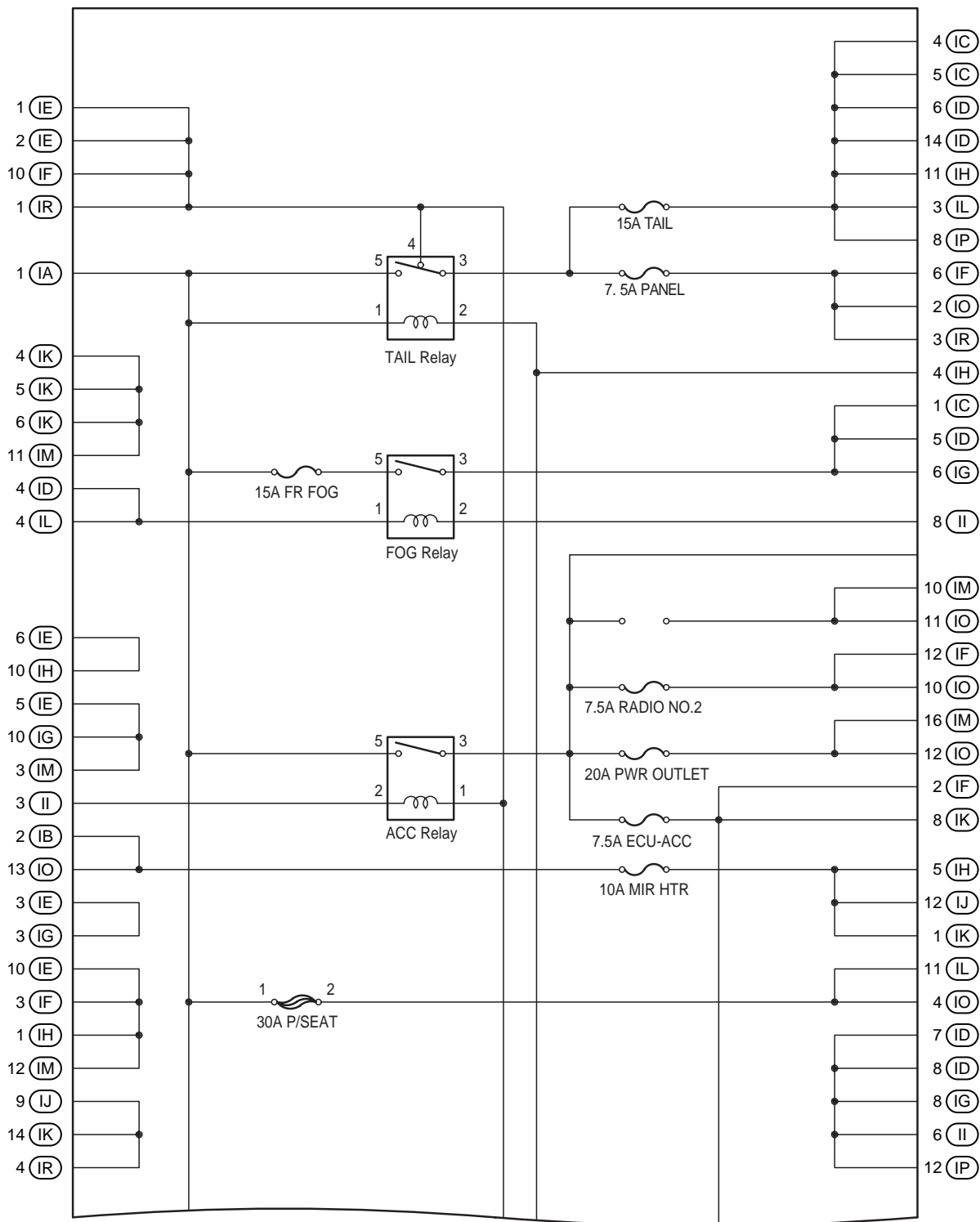


F RELAY LOCATIONS

○ : Instrument Panel J/B	Cowl Side Left (See Page 20)
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[Instrument Panel J/B Inner Circuit]

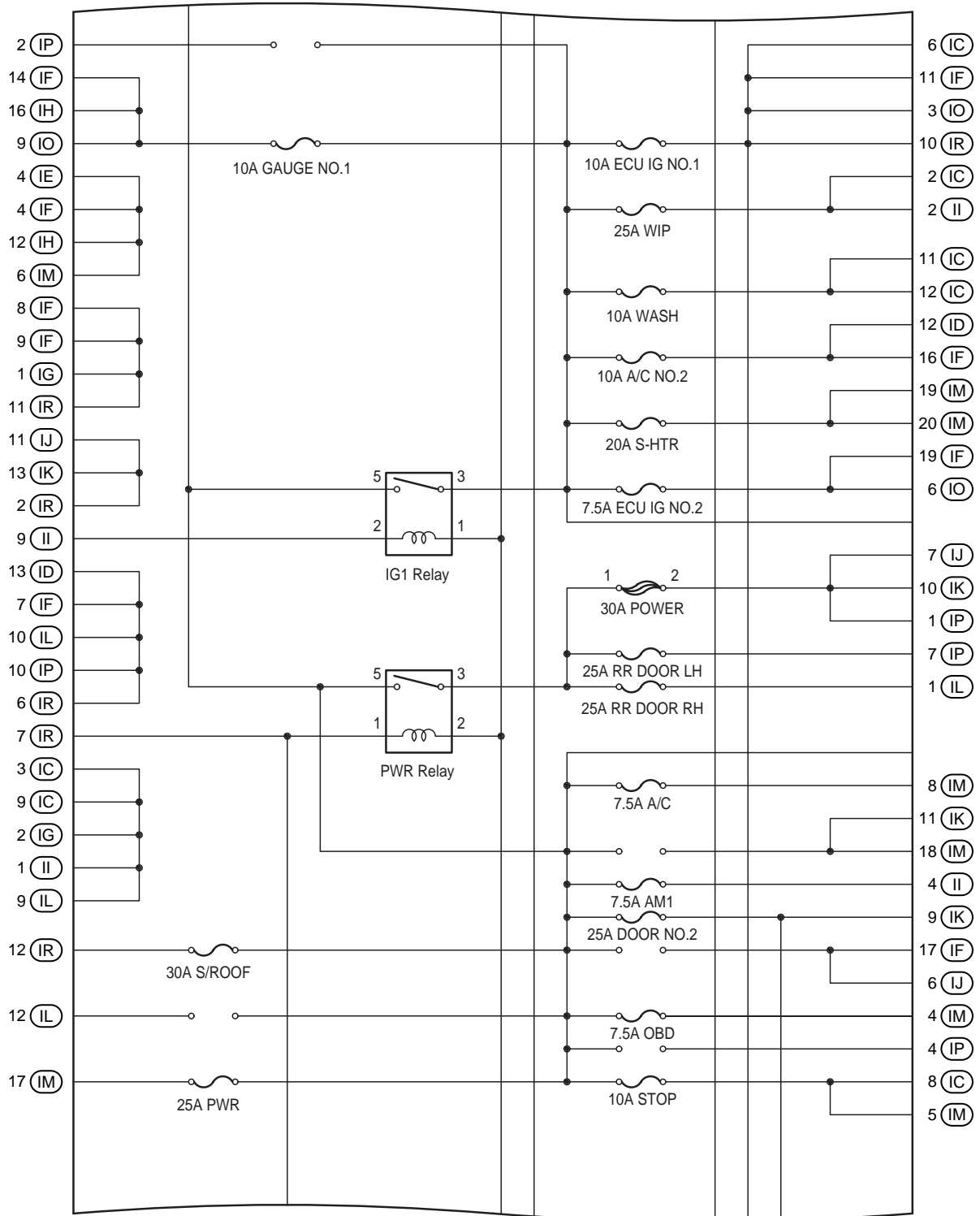


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F RELAY LOCATIONS

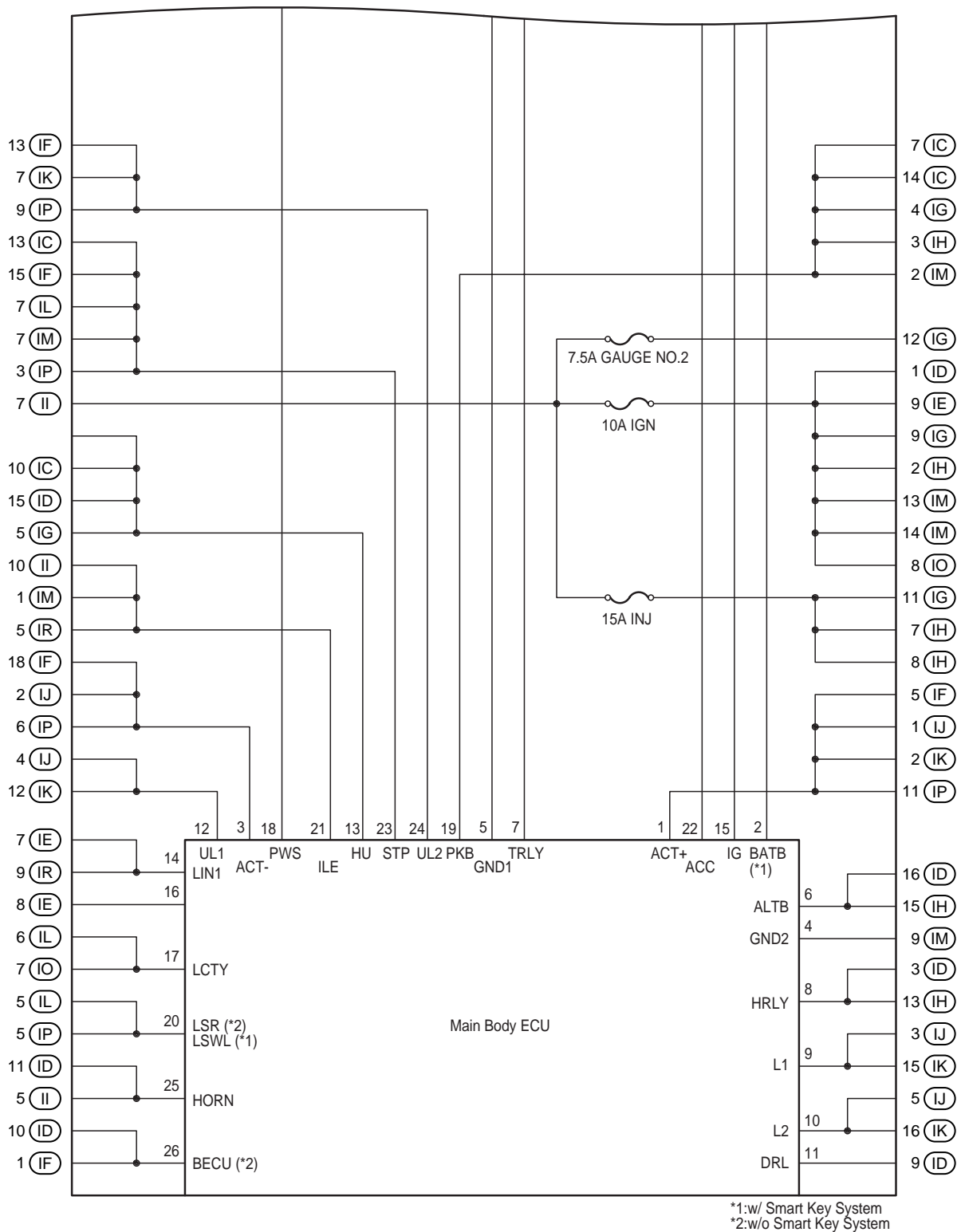
[Instrument Panel J/B Inner Circuit]

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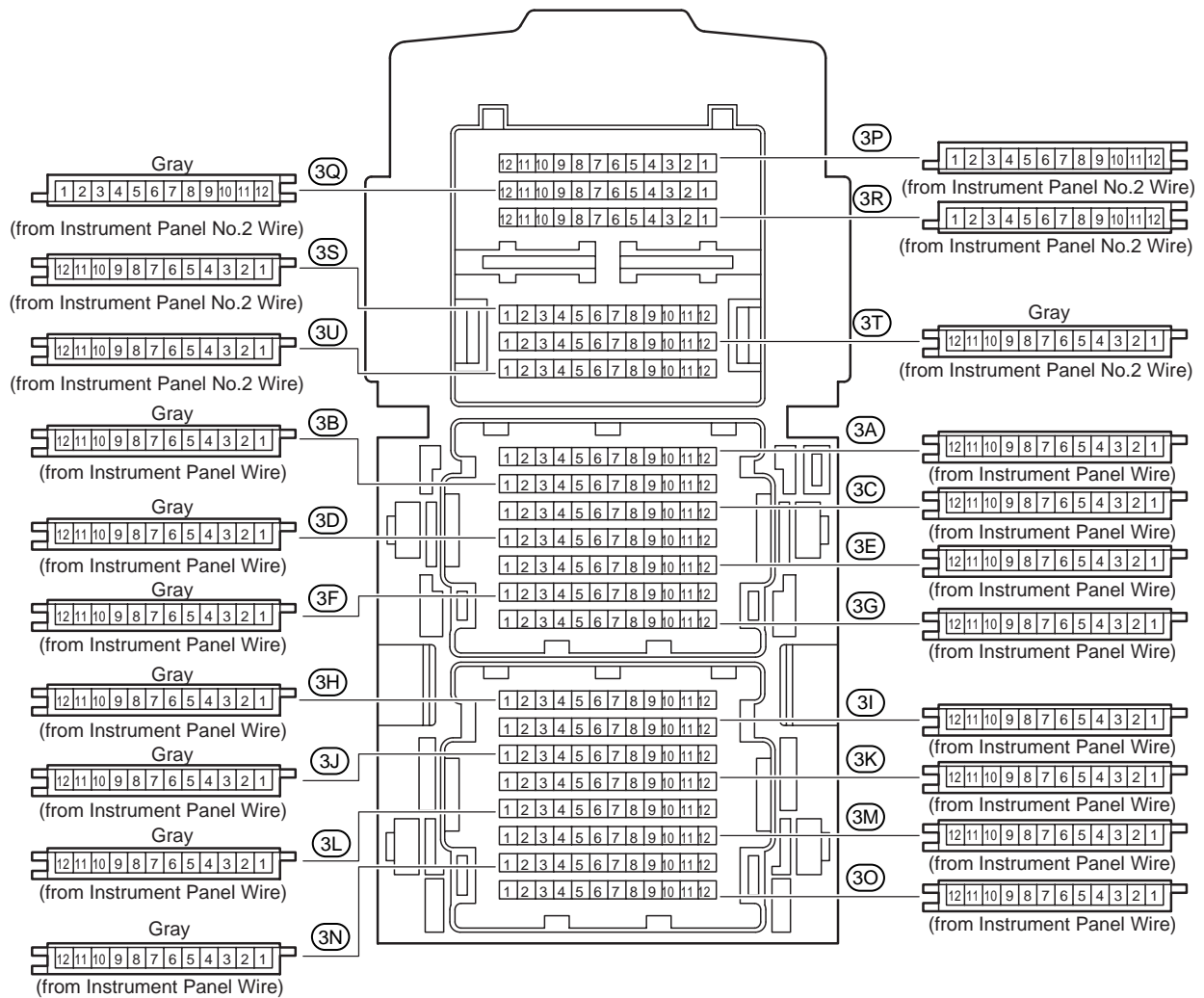
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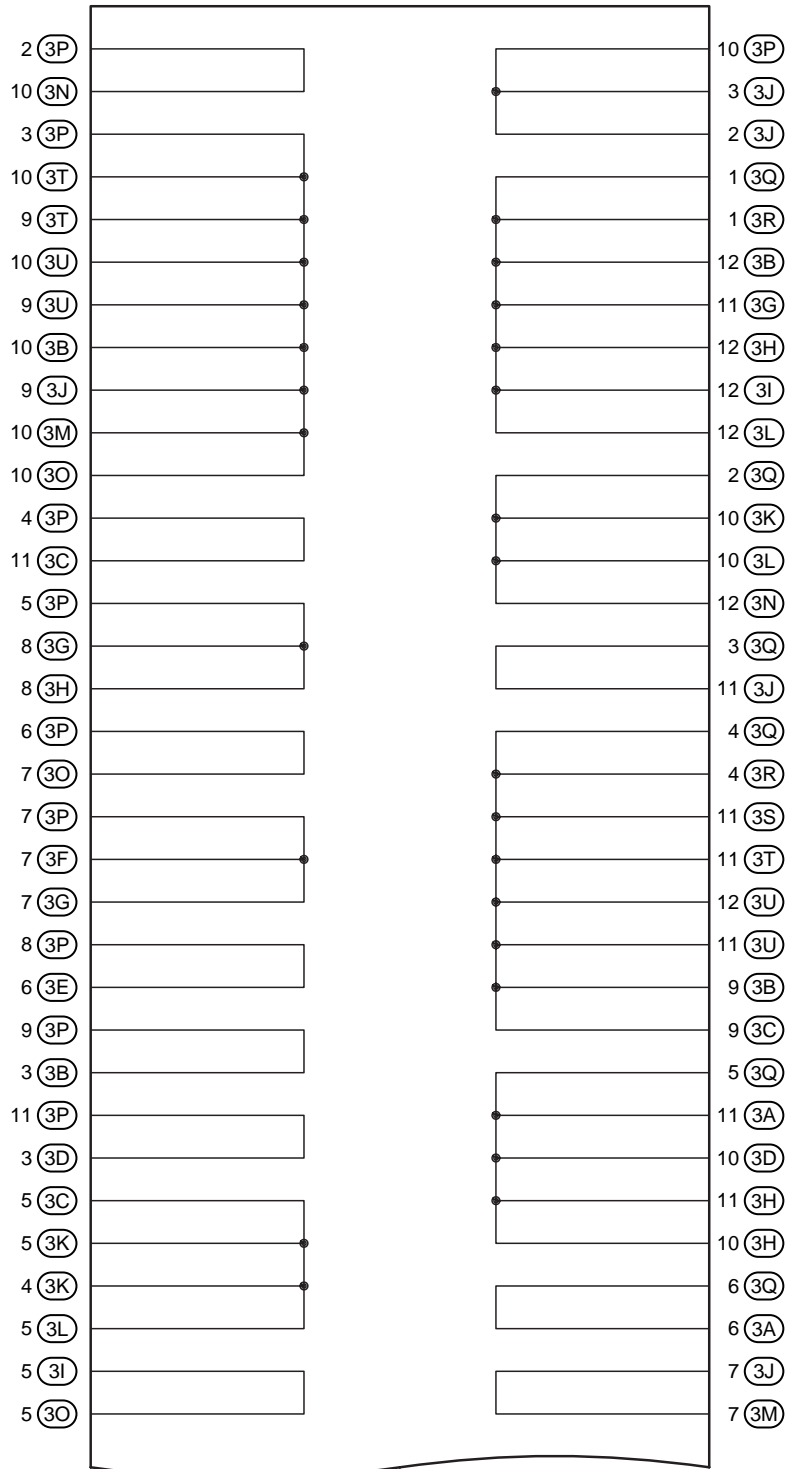
F RELAY LOCATIONS

○ : J/B No.3 Behind the Combination Meter (See Page 20)



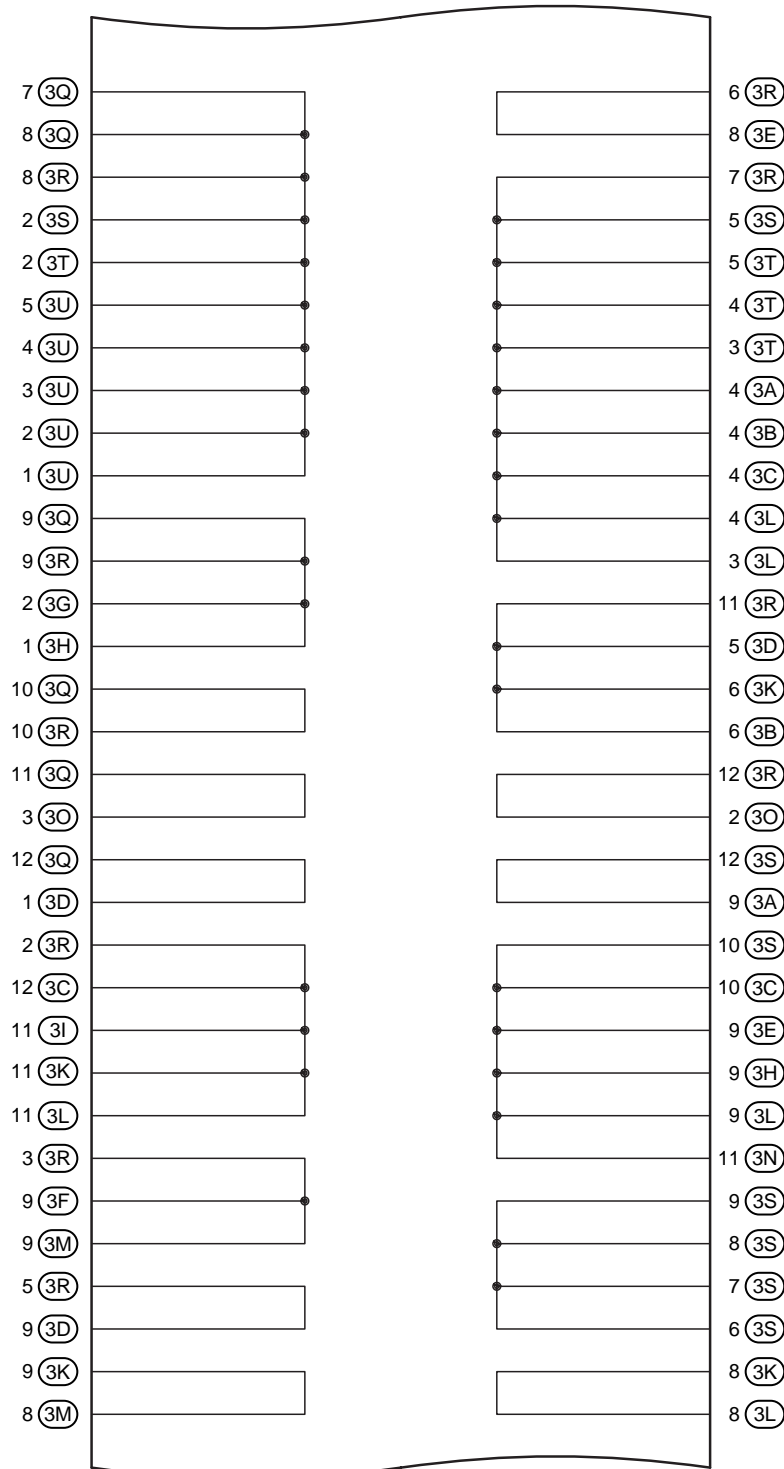
F RELAY LOCATIONS

[J/B No.3 Inner Circuit]



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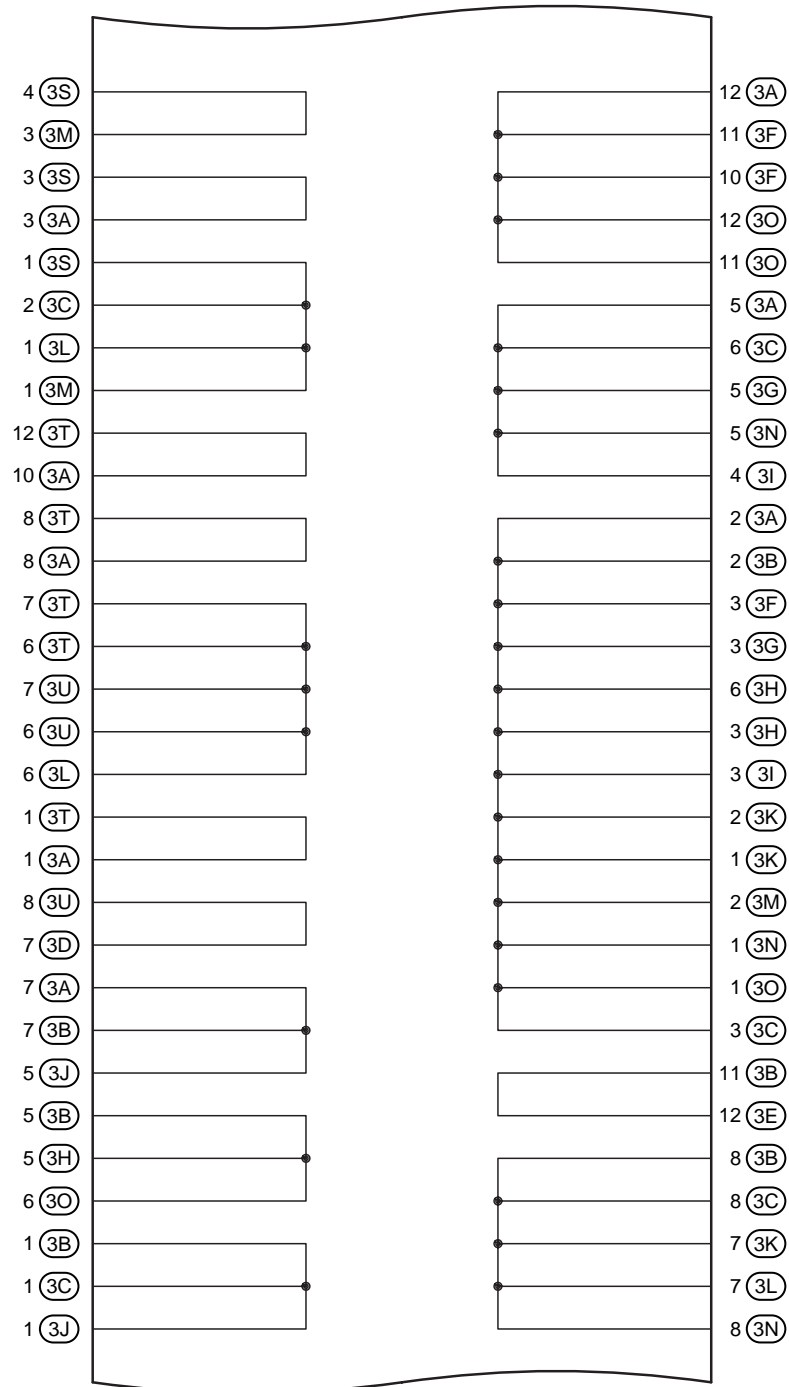


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F RELAY LOCATIONS

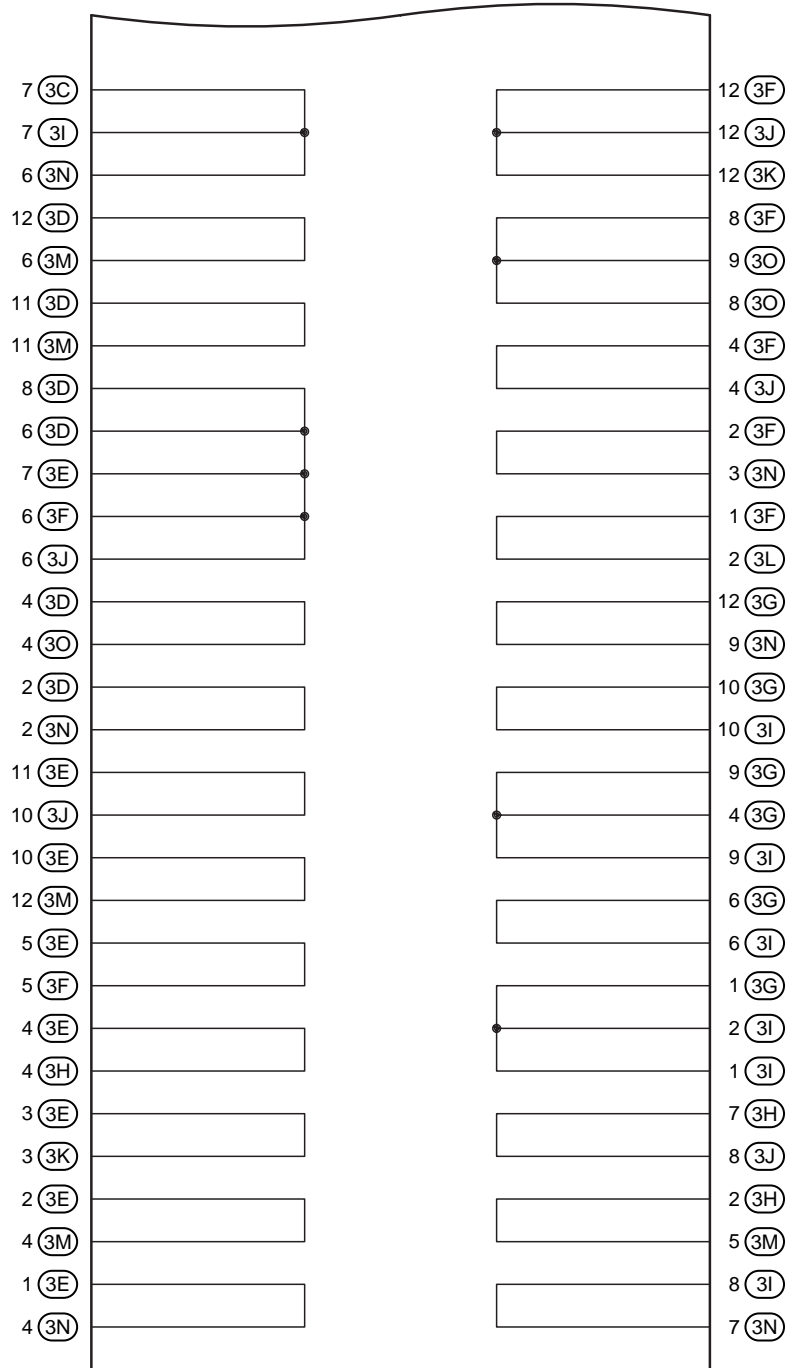
[J/B No.3 Inner Circuit]

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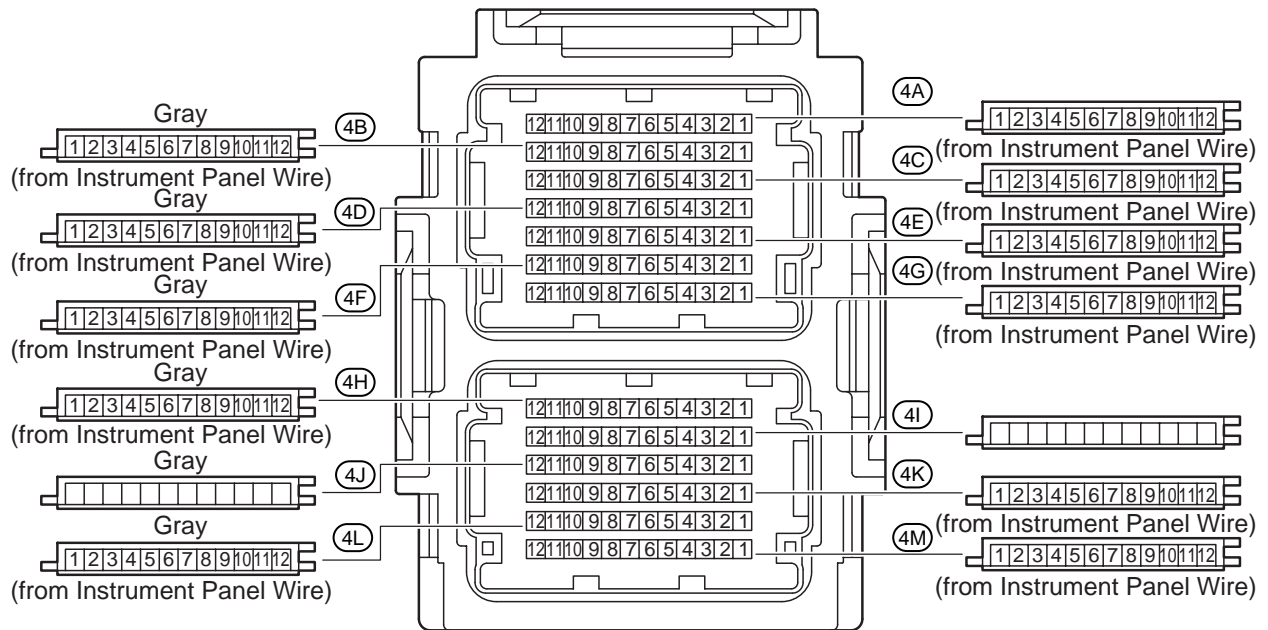
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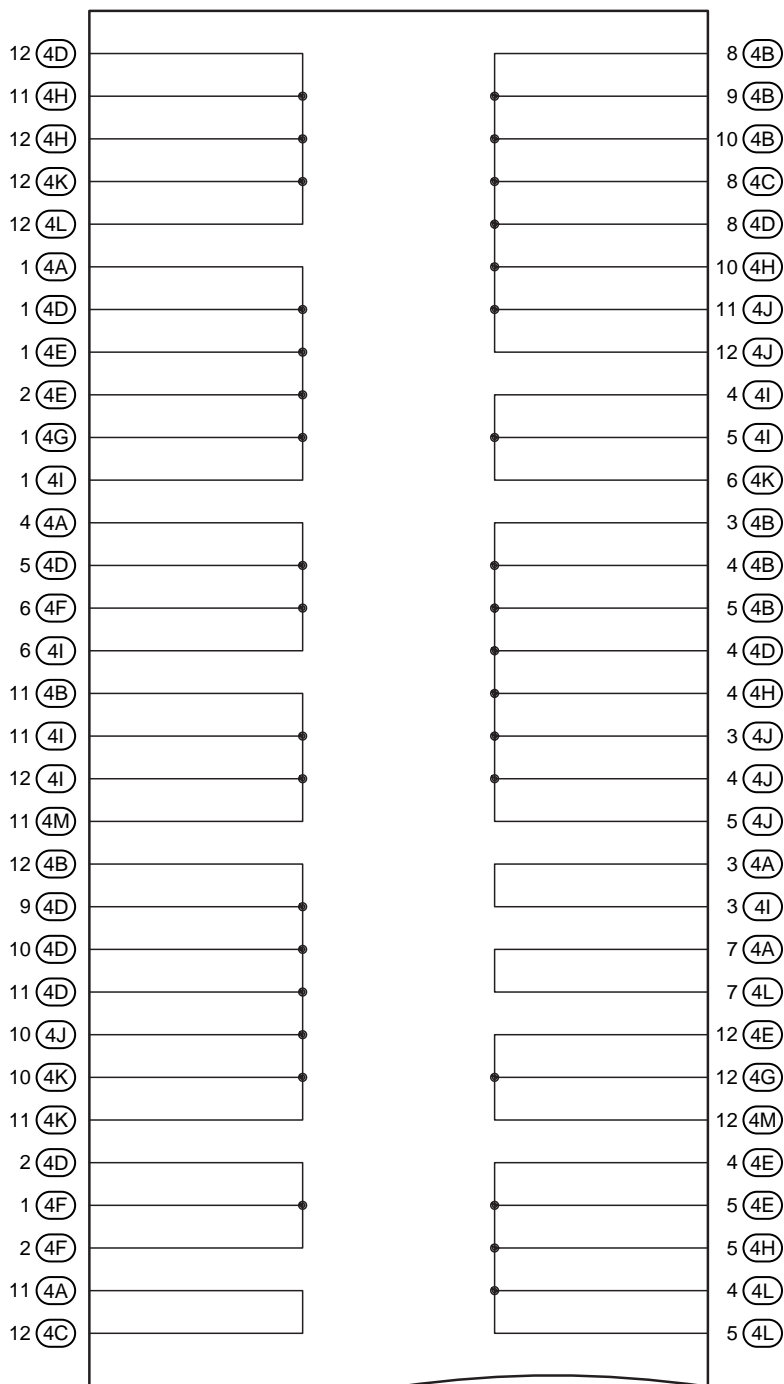


F RELAY LOCATIONS

○ : J/B No.4 Instrument Panel Brace Center (See Page 20)



[J/B No.4 Inner Circuit]

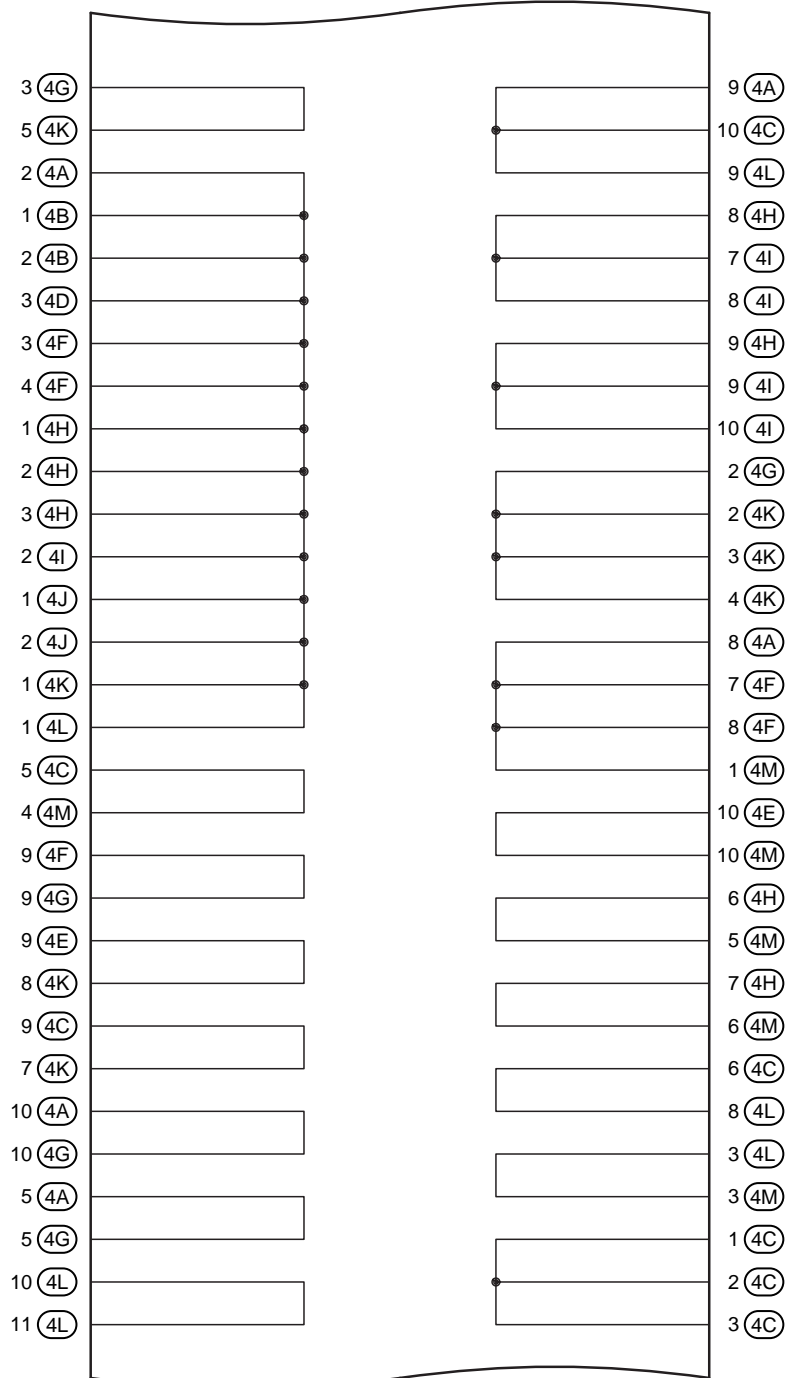


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F RELAY LOCATIONS

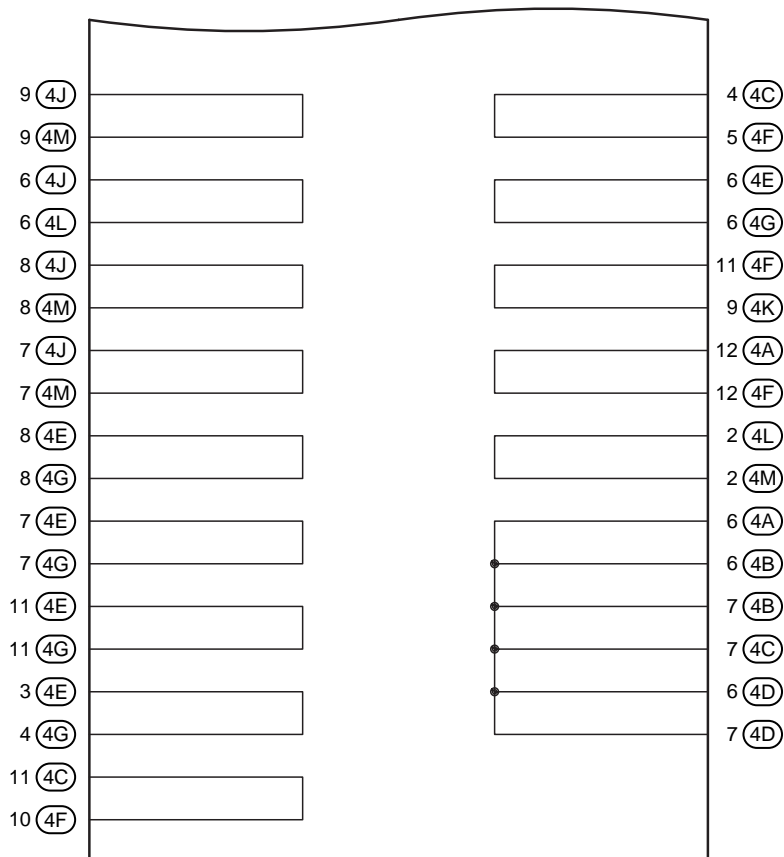
[J/B No.4 Inner Circuit]

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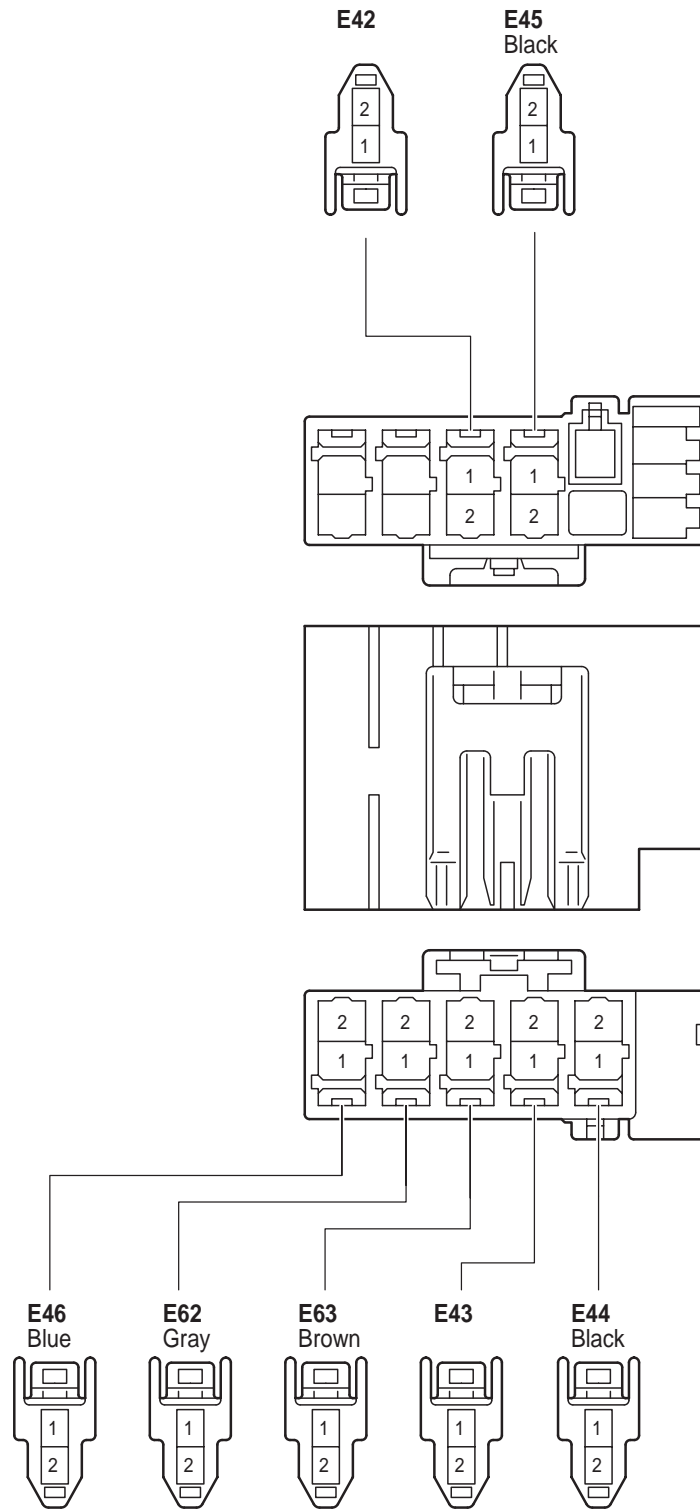
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F RELAY LOCATIONS

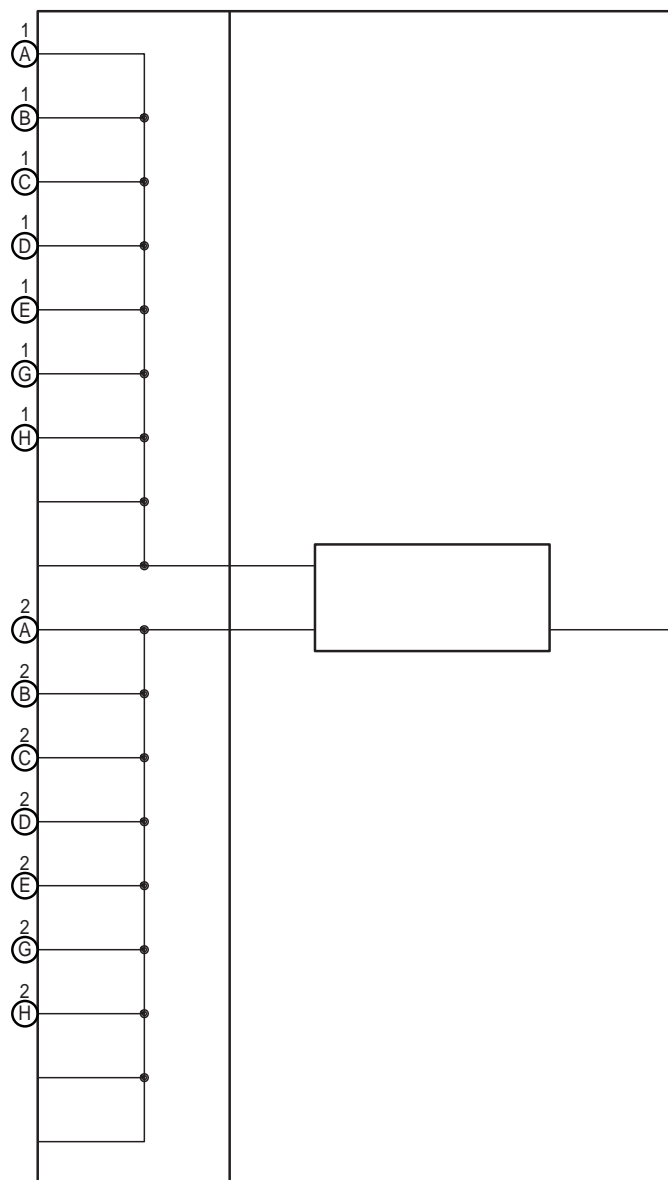
Junction Connector (CAN)

Instrument Panel Brace Center (See Page 20)



[Junction Connector (CAN) Inner Circuit]

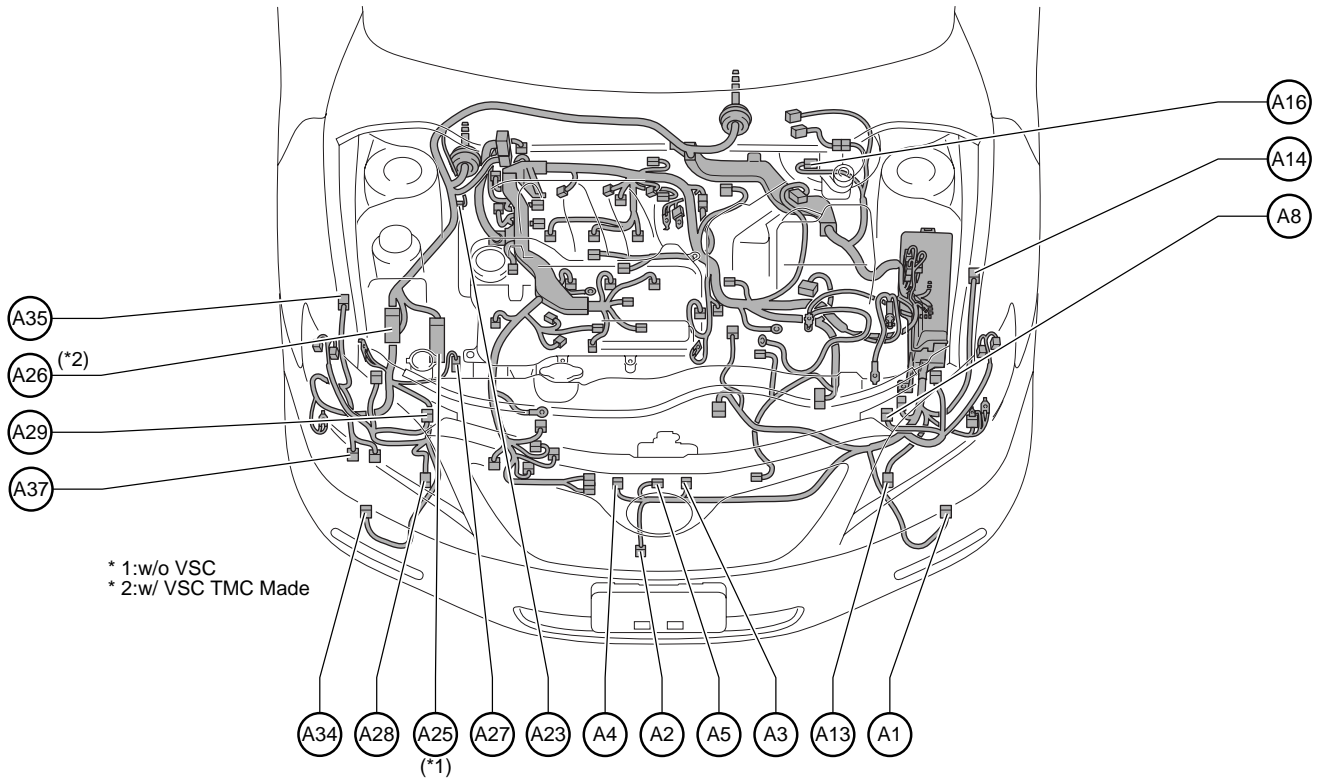
E42(A), E43(B), E44(C), E45(D),
E46(E), E62(G), E63(H)



G ELECTRICAL WIRING ROUTING

Position of Parts in Engine Compartment

[2GR-FE]

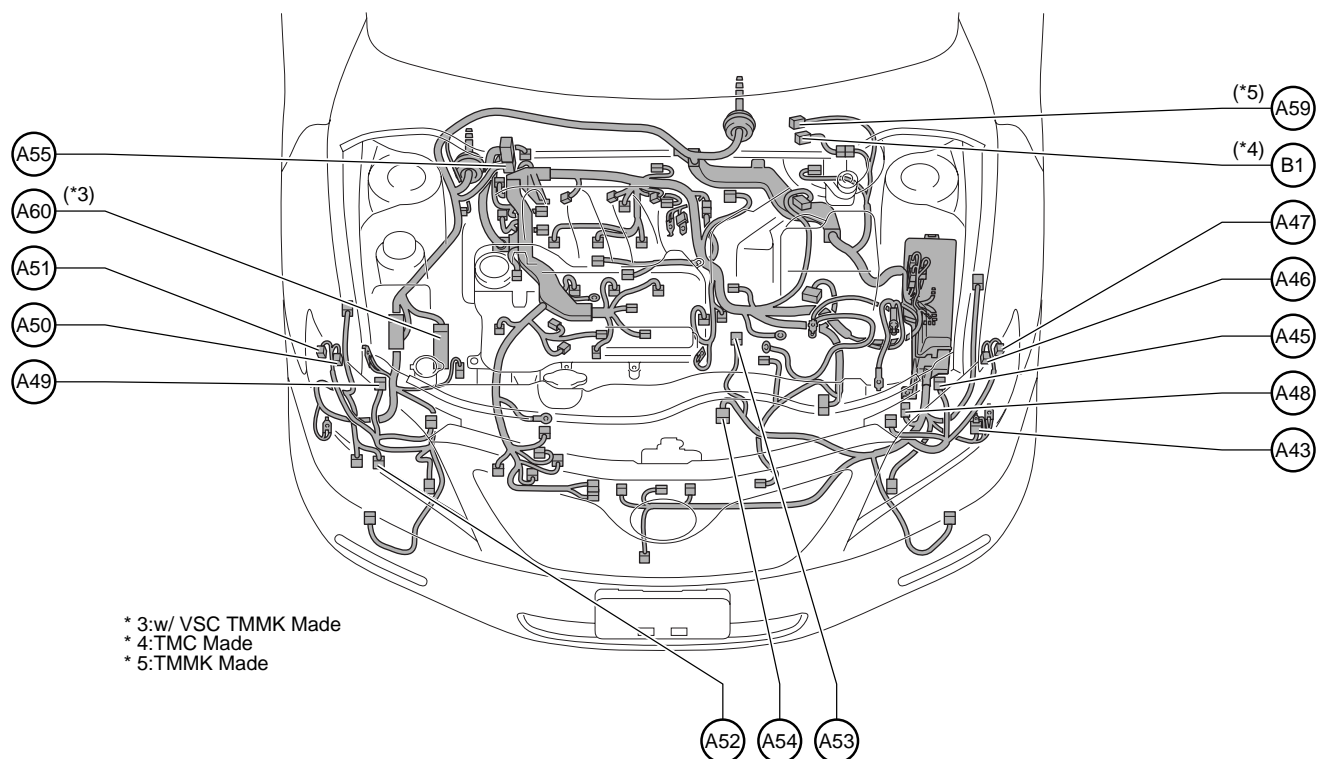


- A 1 Fog Lamp (Front LH)
- A 2 Ambient Temp. Sensor
- A 3 Horn (High)
- A 4 Horn (Low)
- A 5 Engine Hood Courtesy SW
- A 8 Headlamp (LH High)
- A 13 Airbag Sensor (Front LH)
- A 14 Speed Sensor (Front LH)
- A 16 Brake Fluid Level Warning SW

- A 23 Security Horn
- A 25 Skid Control ECU with Actuator
- A 26 Skid Control ECU with Actuator
- A 27 A/C Pressure Sensor
- A 28 Airbag Sensor (Front RH)
- A 29 Headlamp (RH High)
- A 34 Fog Lamp (Front RH)
- A 35 Speed Sensor (Front RH)
- A 37 Windshield Washer Motor

Position of Parts in Engine Compartment

[2GR-FE]



* 3:w/ VSC TMMK Made
 * 4:TMC Made
 * 5:TMMK Made

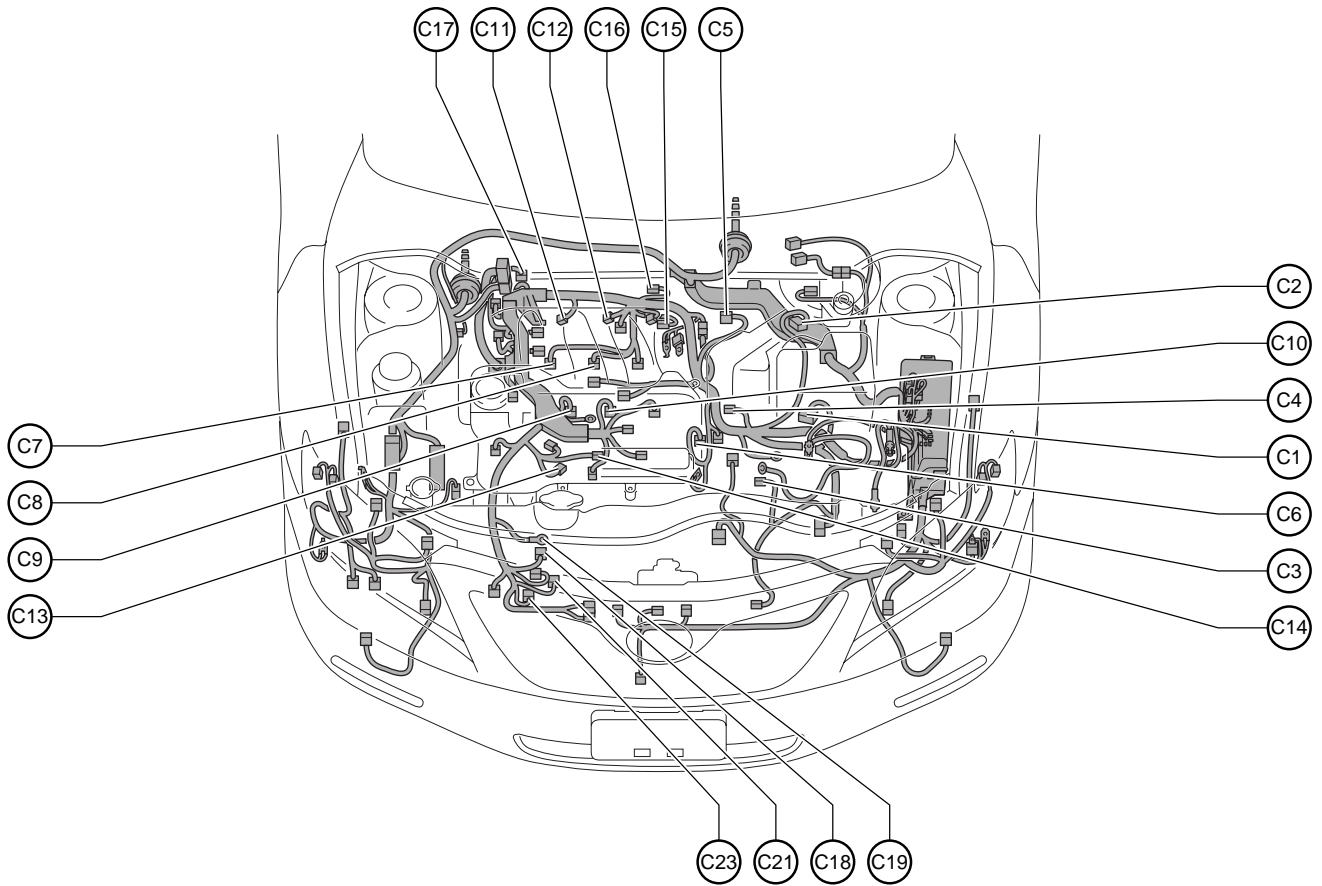
- A 43 Junction Connector
- A 45 Headlamp (LH Low)
- A 46 Turn Signal and Parking Lamp (Front LH)
- A 47 Side Marker Lamp (Front LH)
- A 48 Wireless Door Lock Buzzer
- A 49 Headlamp (RH Low)
- A 50 Turn Signal and Parking Lamp (Front RH)
- A 51 Side Marker Lamp (Front RH)
- A 52 Washer Level Warning SW
- A 53 VSV (Air Intake Control)
- A 54 Cooling Fan ECU
- A 55 Engine Control Module
- A 59 Windshield Wiper Motor
- A 60 Skid Control ECU with Actuator

B 1 Windshield Wiper Motor

G ELECTRICAL WIRING ROUTING

Position of Parts in Engine Compartment

[2GR-FE]

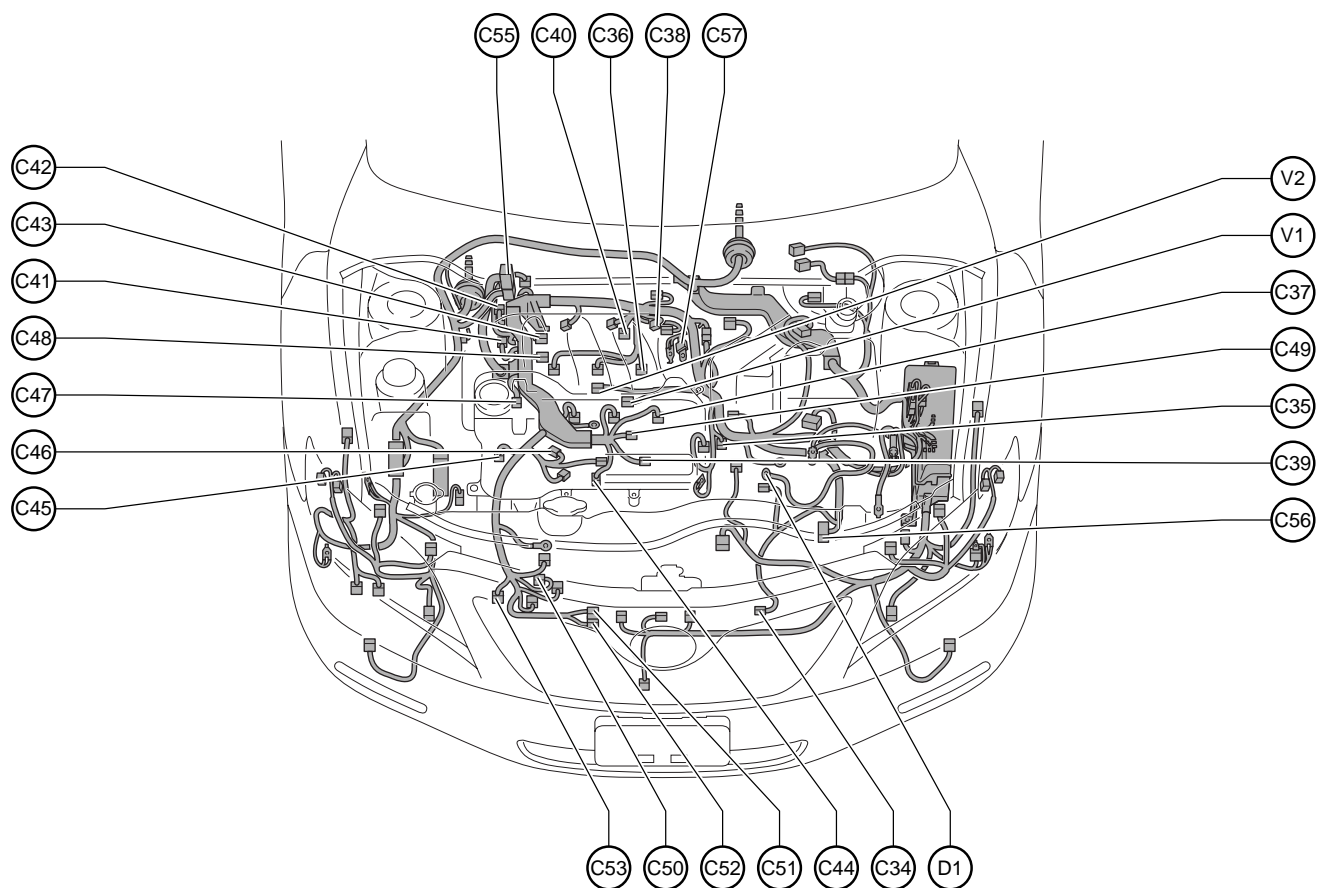


- C 1 Park/Neutral Position SW
- C 2 Mass Air Flow Meter
- C 3 Starter
- C 4 Engine Coolant Temp. Sensor
- C 5 Throttle Body Assembly
- C 6 VSV (Purge)
- C 7 Fuel Injector (No.1)
- C 8 Fuel Injector (No.3)
- C 9 Fuel Injector (No.2)
- C 10 Fuel Injector (No.4)
- C 11 Ignition Coil (No.1)

- C 12 Ignition Coil (No.3)
- C 13 Ignition Coil (No.2)
- C 14 Ignition Coil (No.4)
- C 15 Air Fuel Ratio Sensor (Bank 1 Sensor 1)
- C 16 Noise Filter (Ignition RH)
- C 17 Power Steering Oil Pressure SW
- C 18 Generator
- C 19 Generator
- C 21 A/C Compressor
- C 23 Engine Oil Pressure SW

Position of Parts in Engine Compartment

[2GR-FE]



- C34 VSV (ACM)
- C35 Air Fuel Ratio Sensor (Bank 2 Sensor 1)
- C36 Fuel Injector (No.5)
- C37 Fuel Injector (No.6)
- C38 Ignition Coil (No.5)
- C39 Ignition Coil (No.6)
- C40 VVT Sensor (Bank 1 Exhaust Side)
- C41 VVT Sensor (Bank 1 Intake Side)
- C42 Camshaft Timing Oil Control Valve (RH Exhaust Side)
- C43 Camshaft Timing Oil Control Valve (RH Intake Side)
- C44 VVT Sensor (Bank 2 Exhaust Side)
- C45 VVT Sensor (Bank 2 Intake Side)
- C46 Camshaft Timing Oil Control Valve (LH Exhaust Side)
- C47 Camshaft Timing Oil Control Valve (LH Intake Side)
- C48 VSV (ACIS)
- C49 Noise Filter (Ignition LH)
- C50 Crankshaft Position Sensor
- C51 Heated Oxygen Sensor (Bank 2 Sensor 2)
- C52 Heated Oxygen Sensor (Bank 1 Sensor 2)
- C53 A/C Compressor
- C55 Engine Control Module
- C56 Transmission Control ECU
- C57 Junction Connector

D 1 Starter

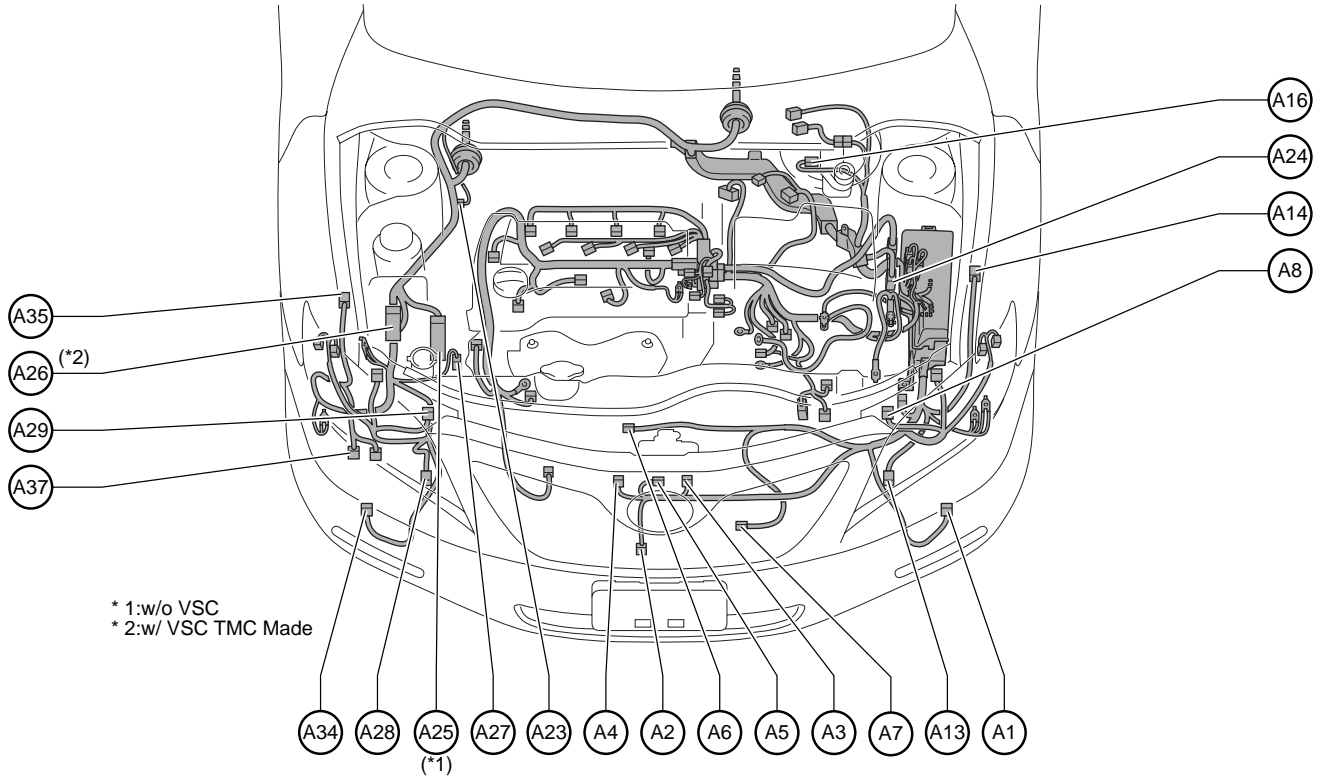
V 1 Knock Control Sensor (Bank 2)

V 2 Knock Control Sensor (Bank 1)

G ELECTRICAL WIRING ROUTING

Position of Parts in Engine Compartment

[2AZ-FE]

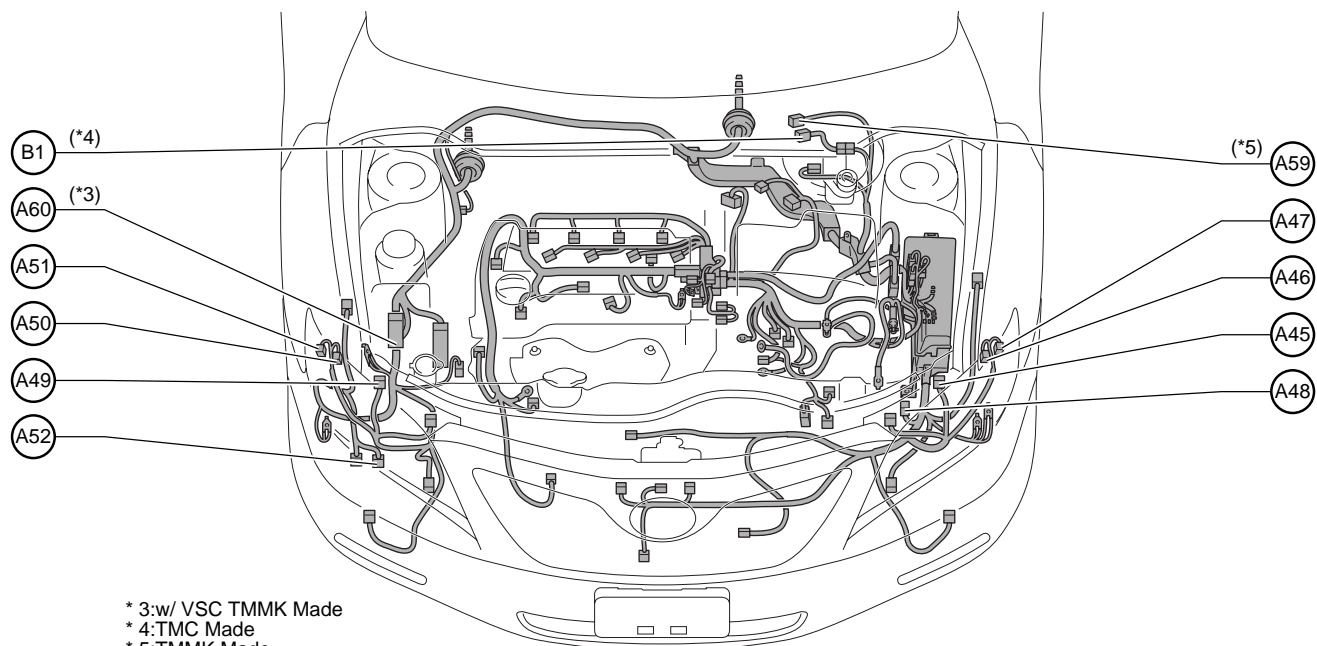


- A 1 Fog Lamp (Front LH)
- A 2 Ambient Temp. Sensor
- A 3 Horn (High)
- A 4 Horn (Low)
- A 5 Engine Hood Courtesy SW
- A 6 A/C Condenser Fan Motor
- A 7 Radiator Fan Motor
- A 8 Headlamp (LH High)
- A 13 Airbag Sensor (Front LH)
- A 14 Speed Sensor (Front LH)
- A 16 Brake Fluid Level Warning SW

- A 23 Security Horn
- A 24 Engine Control Module
- A 25 Skid Control ECU with Actuator
- A 26 Skid Control ECU with Actuator
- A 27 A/C Pressure Sensor
- A 28 Airbag Sensor (Front RH)
- A 29 Headlamp (RH High)
- A 34 Fog Lamp (Front RH)
- A 35 Speed Sensor (Front RH)
- A 37 Windshield Washer Motor

Position of Parts in Engine Compartment

[2AZ-FE]



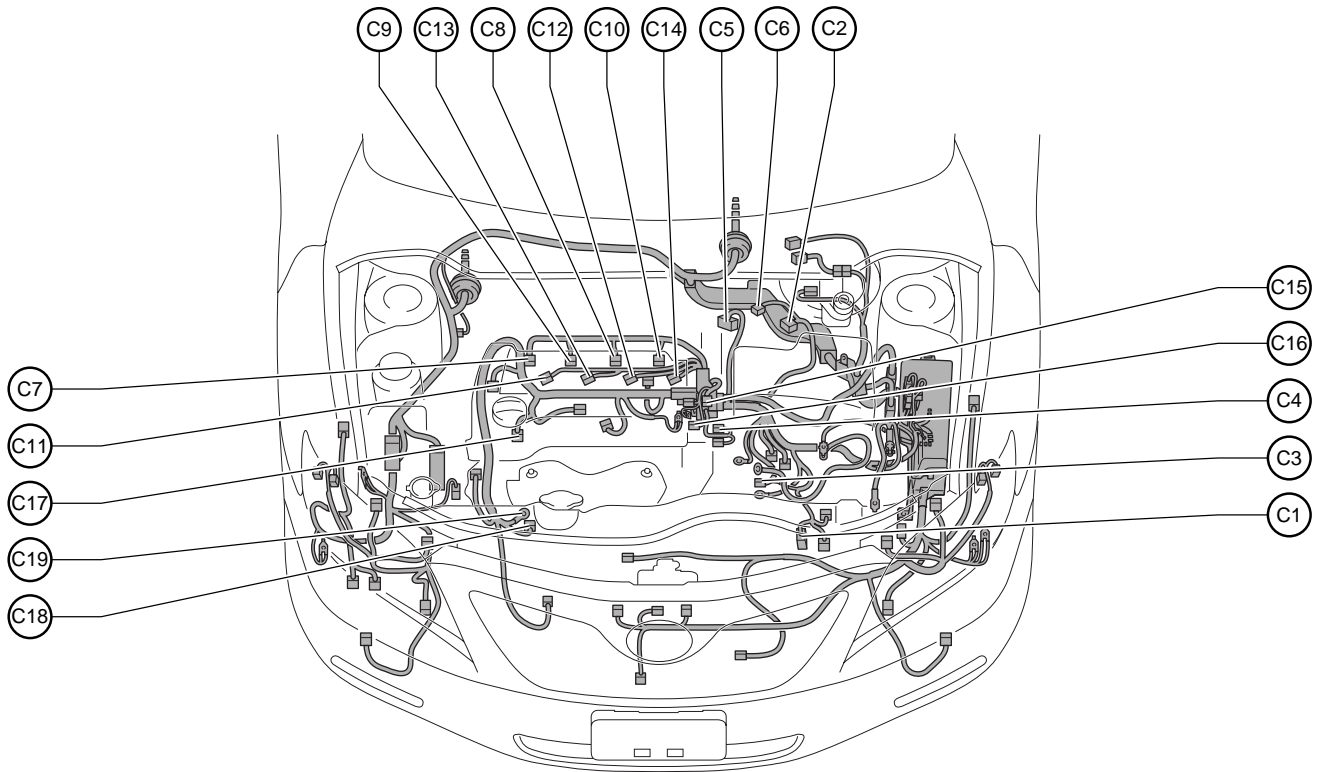
- A45 Headlamp (LH Low)
- A46 Turn Signal and Parking Lamp (Front LH)
- A47 Side Marker Lamp (Front LH)
- A48 Wireless Door Lock Buzzer
- A49 Headlamp (RH Low)
- A50 Turn Signal and Parking Lamp (Front RH)
- A51 Side Marker Lamp (Front RH)
- A52 Washer Level Warning SW
- A59 Windshield Wiper Motor
- A60 Skid Control ECU with Actuator

B 1 Windshield Wiper Motor

G ELECTRICAL WIRING ROUTING

Position of Parts in Engine Compartment

[2AZ-FE]

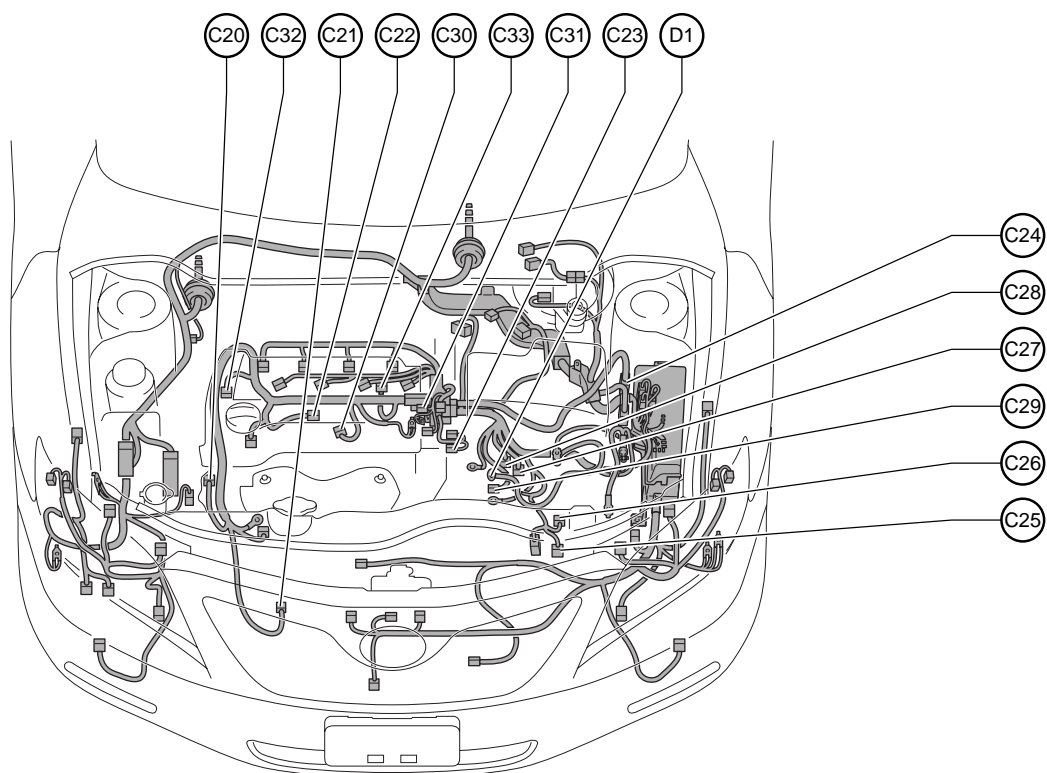


- C 1 Park/Neutral Position SW
- C 2 Mass Air Flow Meter
- C 3 Starter
- C 4 Engine Coolant Temp. Sensor
- C 5 Throttle Body Assembly
- C 6 VSV (Purge)
- C 7 Fuel Injector (No.1)
- C 8 Fuel Injector (No.3)
- C 9 Fuel Injector (No.2)
- C 10 Fuel Injector (No.4)

- C 11 Ignition Coil (No.1)
- C 12 Ignition Coil (No.3)
- C 13 Ignition Coil (No.2)
- C 14 Ignition Coil (No.4)
- C 15 Air Fuel Ratio Sensor (Bank 1 Sensor 1)
- C 16 Noise Filter (Ignition RH)
- C 17 Power Steering Oil Pressure SW
- C 18 Generator
- C 19 Generator

Position of Parts in Engine Compartment

[2AZ-FE]

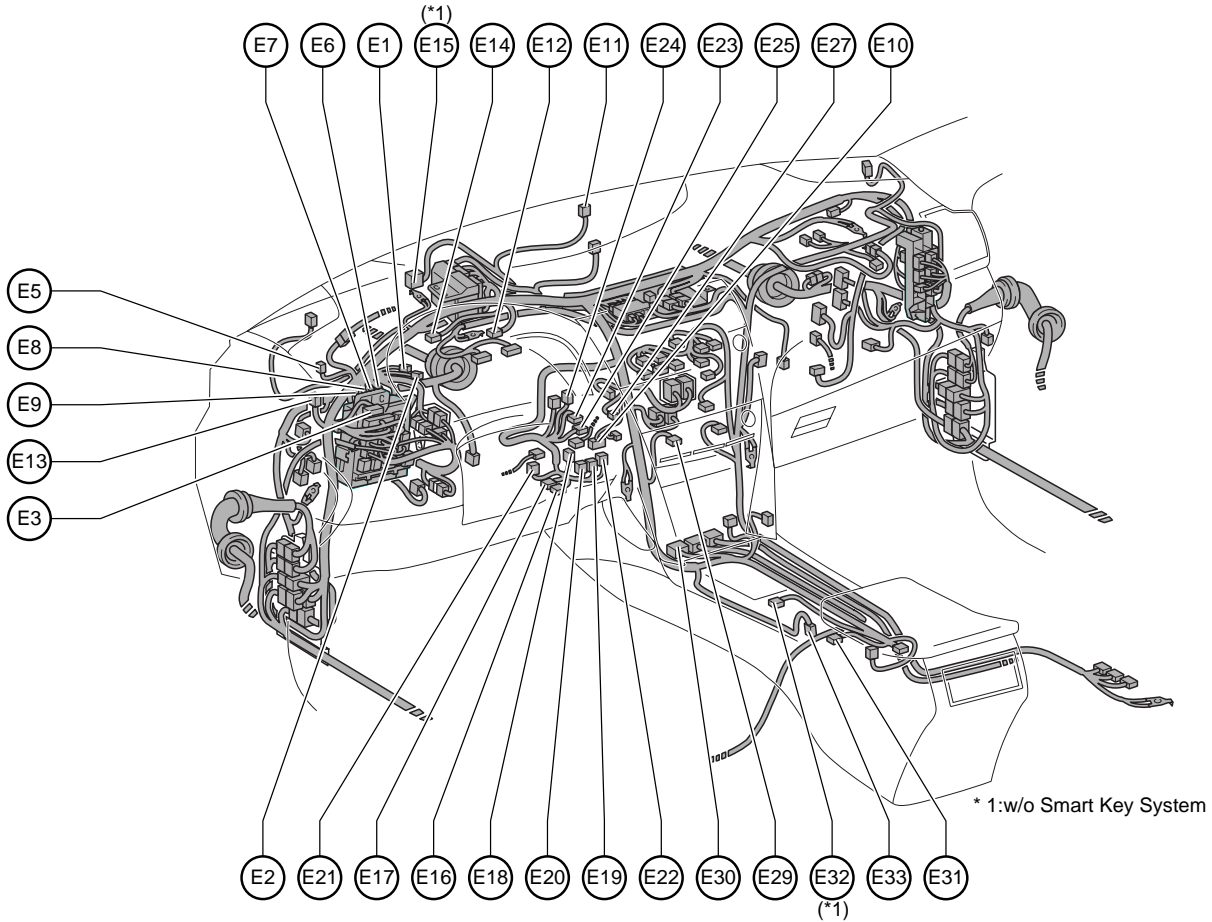


- C20 Crankshaft Position Sensor
- C21 A/C Compressor
- C22 Heated Oxygen Sensor (Bank 1 Sensor 2)
- C23 Engine Oil Pressure SW
- C24 Engine Control Module
- C25 Electronically Controlled Transmission Solenoid
- C26 Transmission Revolution Sensor (Turbine)
- C27 Transmission Revolution Sensor (Counter Gear)
- C28 Back-Up Lamp SW
- C29 Starter
- C30 Knock Control Sensor (Bank 1)
- C31 Camshaft Position Sensor
- C32 Camshaft Timing Oil Control Valve
- C33 Intake Air Control Valve

D 1 Starter

G ELECTRICAL WIRING ROUTING

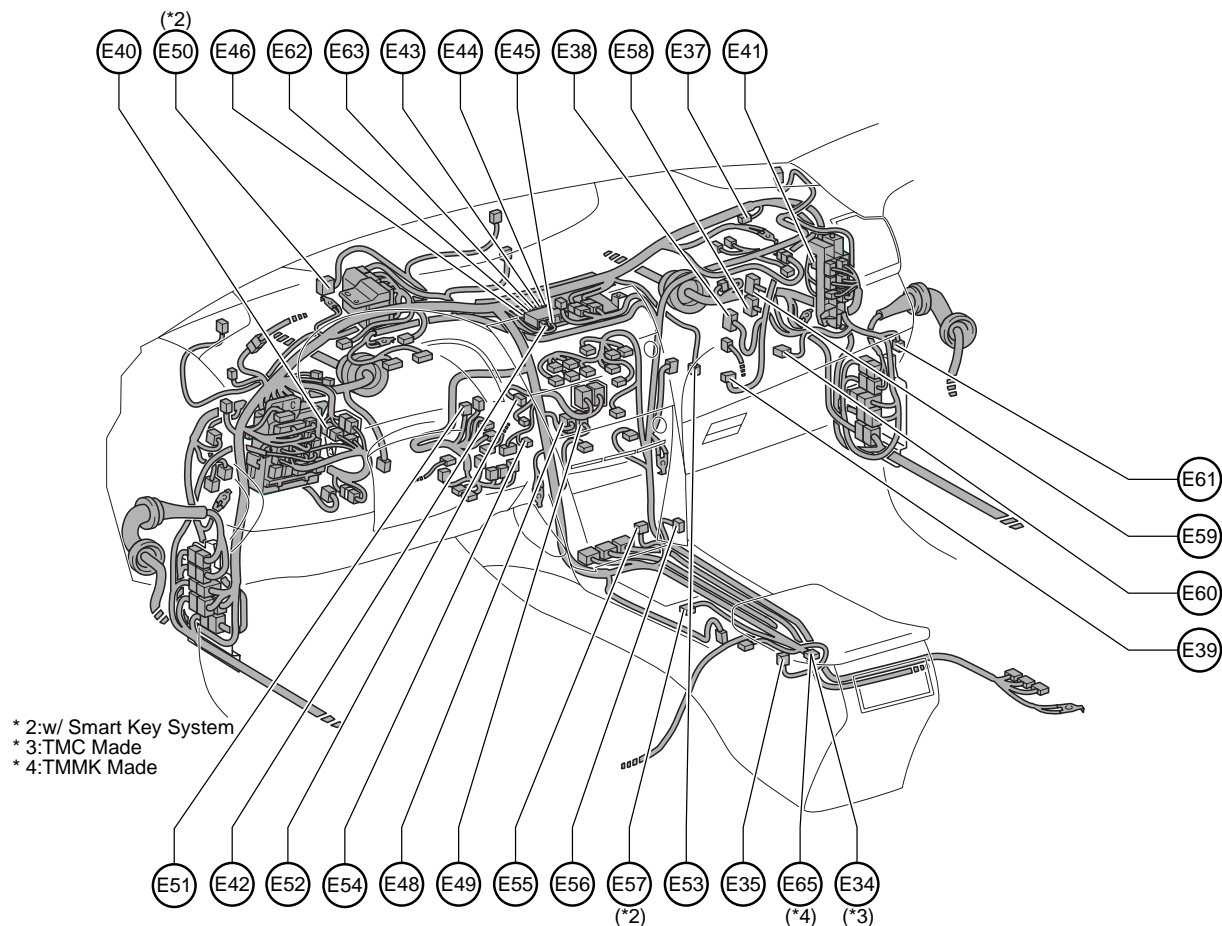
Position of Parts in Instrument Panel



- E 1 Diode (Door Courtesy Rear LH)
- E 2 Diode (Door Courtesy Rear RH)
- E 3 Outer Mirror SW
- E 5 Diode (Door Courtesy Front LH)
- E 6 Main Body ECU
- E 7 Main Body ECU
- E 8 Main Body ECU
- E 9 Main Body ECU
- E 10 Data Link Connector 3
- E 11 Automatic Light Control Sensor
- E 12 Ion Generator
- E 13 VSC Warning Buzzer
- E 14 Turn Signal Flasher
- E 15 Transponder Key ECU
- E 16 Airbag Squib (Steering Wheel Pad)

- E 17 Steering Sensor
- E 18 Spiral Cable
- E 19 Windshield Wiper SW Assembly
- E 20 Windshield Wiper SW Assembly
- E 21 Headlamp Dimmer SW Assembly
- E 22 Unlock Warning SW
- E 23 Ignition SW
- E 24 Key Interlock Solenoid
- E 25 Transponder Key Amplifier
- E 27 A/C Room Temp. Sensor
- E 29 Power Outlet Socket (Front)
- E 30 Airbag Sensor Assembly Center
- E 31 Transmission Control SW
- E 32 Shift Lock Control ECU
- E 33 Parking Brake SW

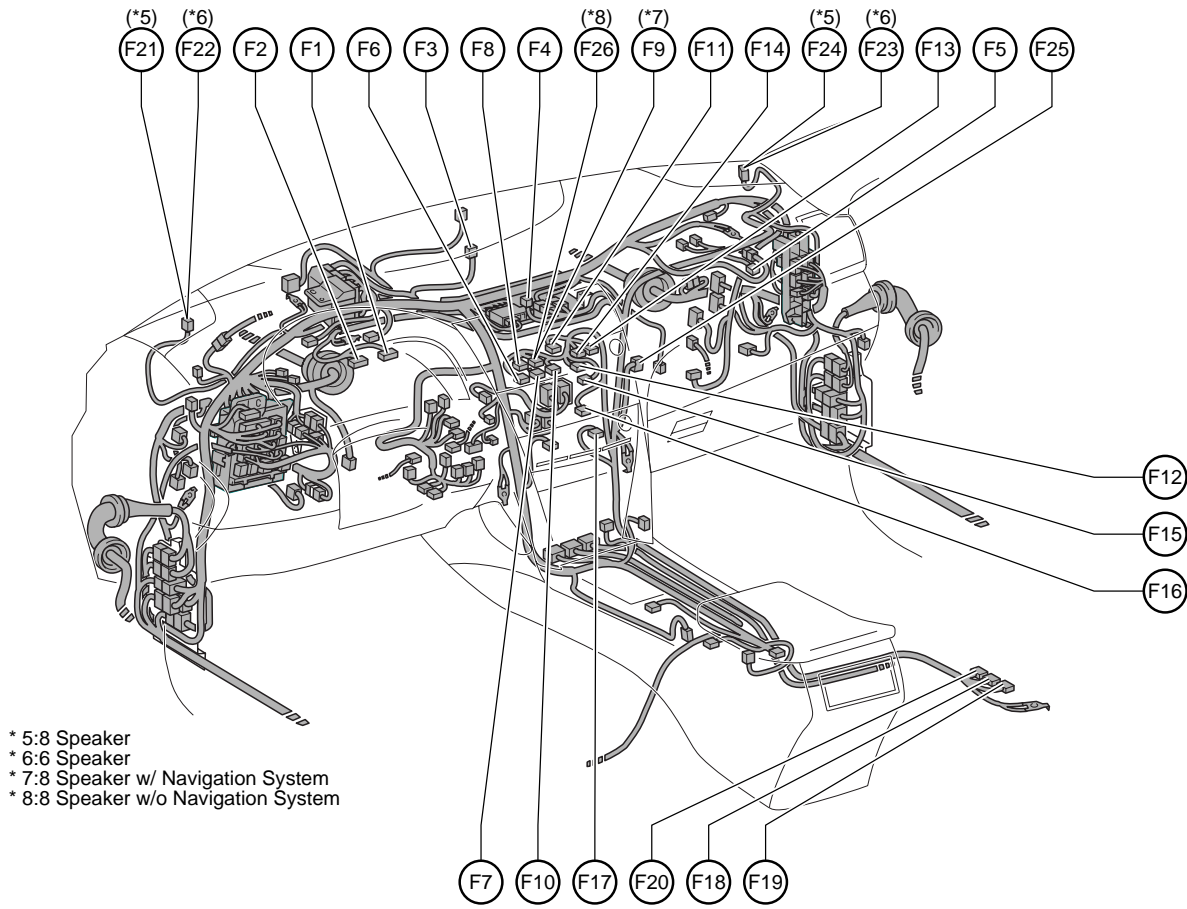
Position of Parts in Instrument Panel



E34	Yaw Rate Sensor	E51	Steering Lock ECU
E35	Power Outlet Socket (Rear)	E52	Power SW
E37	Diode (Door Courtesy Front RH)	E53	Tire Pressure Warning SW (Reset)
E38	A/C Amplifier	E54	Airbag Squib (Knee Airbag)
E39	Blower Motor	E55	Seat Heater SW
E40	Junction Connector	E56	Electrical Key Oscillator (Console)
E41	Junction Connector	E57	Shift Lock Control ECU
E42	Junction Connector	E58	Certification ECU
E43	Junction Connector	E59	Certification ECU
E44	Junction Connector	E60	Tire Pressure Warning ECU
E45	Junction Connector	E61	Option Connector (Bus Buffer)
E46	Junction Connector	E62	Junction Connector
E48	Junction Connector	E63	Junction Connector
E49	Junction Connector	E65	Yaw Rate Sensor
E50	ID Code Box		

G ELECTRICAL WIRING ROUTING

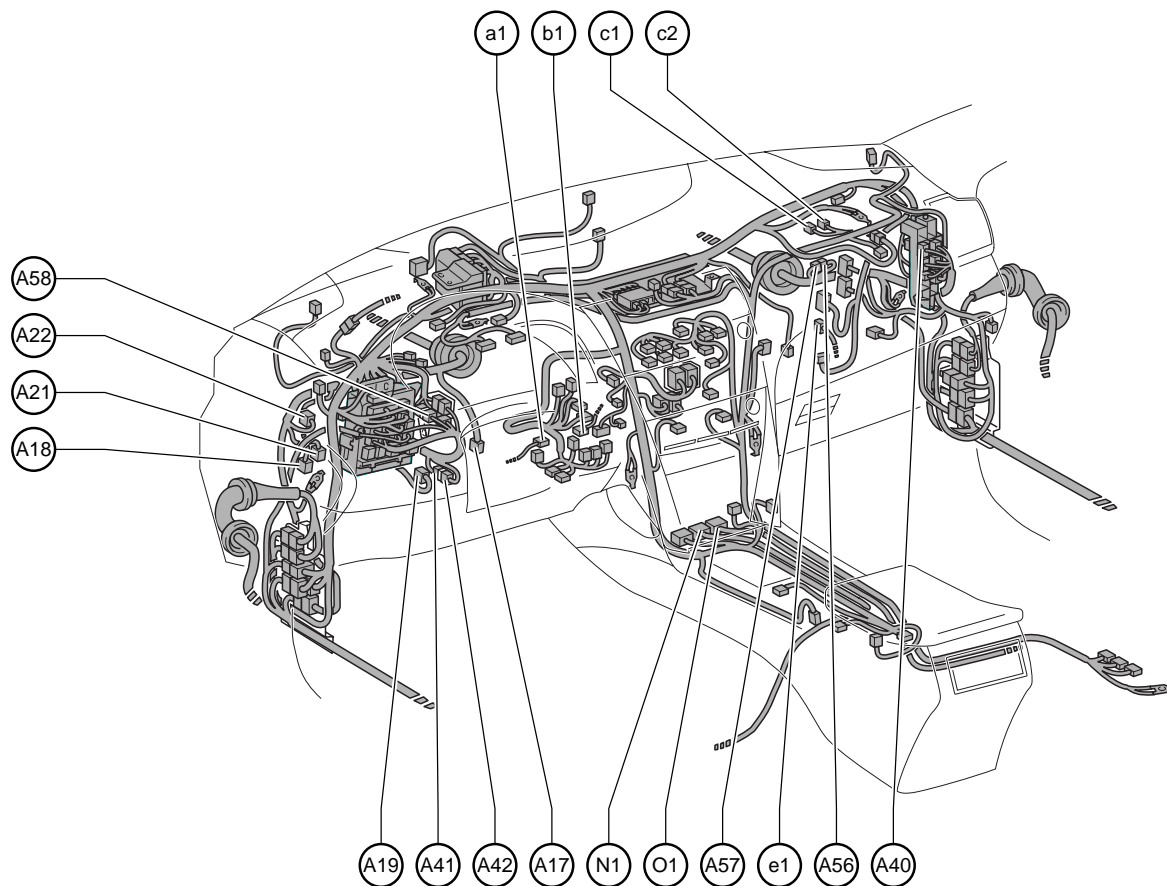
Position of Parts in Instrument Panel



- F 1 Combination Meter
- F 2 Combination Meter
- F 3 Clock
- F 4 Hazard Warning Signal SW
- F 5 Glove Box Lamp
- F 6 Radio Receiver Assembly
- F 7 Radio Receiver Assembly
- F 8 Radio Receiver Assembly
- F 9 Navigation Receiver Assembly
- F 10 Navigation Receiver Assembly
- F 11 Radio Receiver Assembly
- F 12 Navigation Receiver Assembly
- F 13 Navigation Receiver Assembly

- F 14 Navigation Receiver Assembly
- F 15 Antenna Amplifier
- F 16 A/C Control Assembly
- F 17 Stereo Jack Adapter
- F 18 Stereo Component Amplifier
- F 19 Stereo Component Amplifier
- F 20 Stereo Component Amplifier
- F 21 Tweeter (Front LH)
- F 22 Tweeter (Front LH)
- F 23 Tweeter (Front RH)
- F 24 Tweeter (Front RH)
- F 25 Junction Connector
- F 26 Radio Receiver Assembly

Position of Parts in Instrument Panel

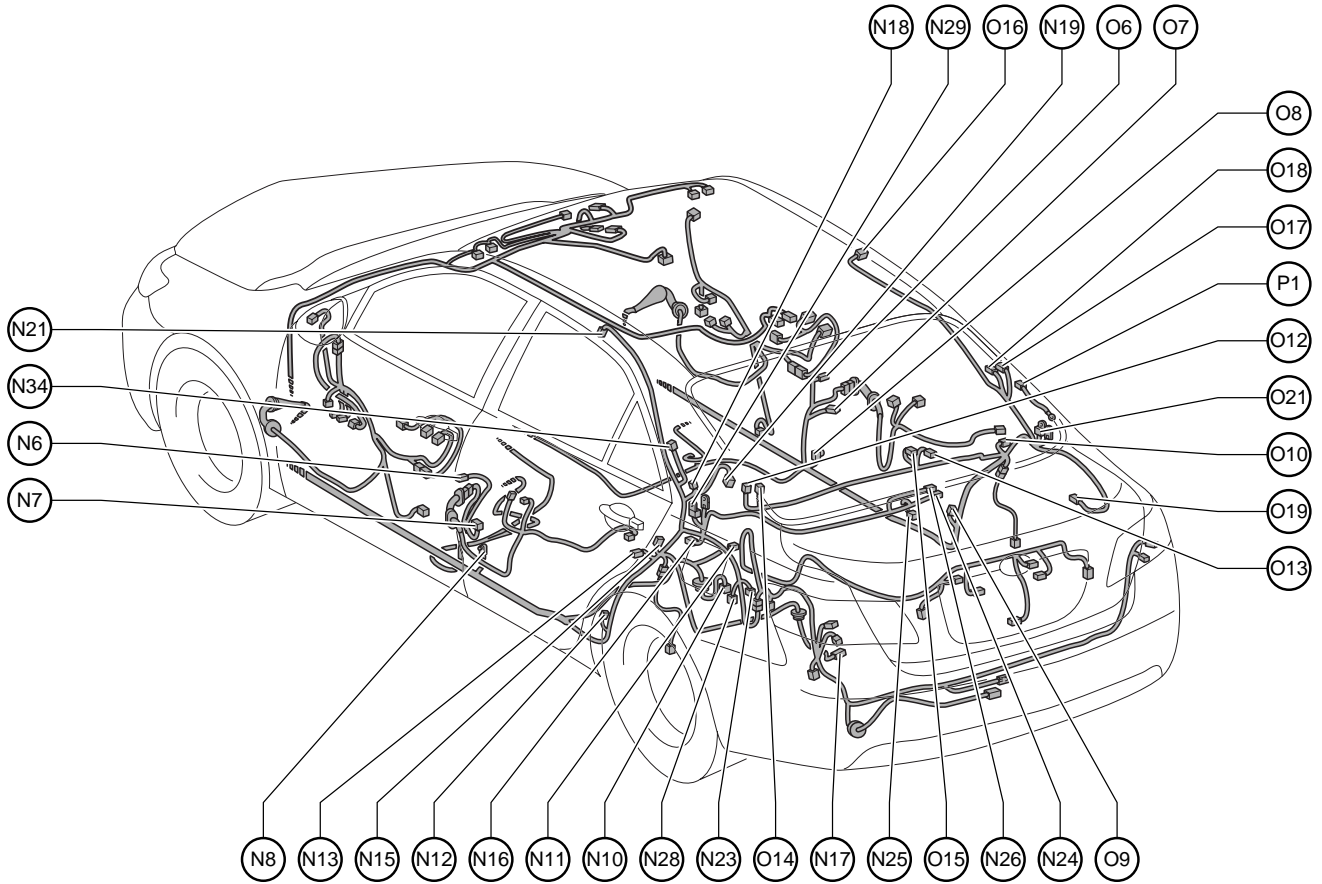


A17 Accelerator Position Sensor
 A18 Parking Brake SW
 A19 Stop Lamp SW
 A21 Cruise Control Clutch SW
 A22 Clutch Start SW
 A40 Junction Connector
 A41 Junction Connector
 A42 Junction Connector
 A56 Short Connector
 A57 Short Connector
 A58 Junction Connector
 N 1 Airbag Sensor Assembly Center

O 1 Airbag Sensor Assembly Center
 a 1 Spiral Cable
 Steering Pad SW
 b 1 Cruise Control SW
 Spiral Cable
 c 1 Airbag Squib (Front Passenger's Airbag Assembly)
 c 2 Airbag Squib (Front Passenger's Airbag Assembly)
 e 1 A/C Amplifier
 A/C Blower Assembly

G ELECTRICAL WIRING ROUTING

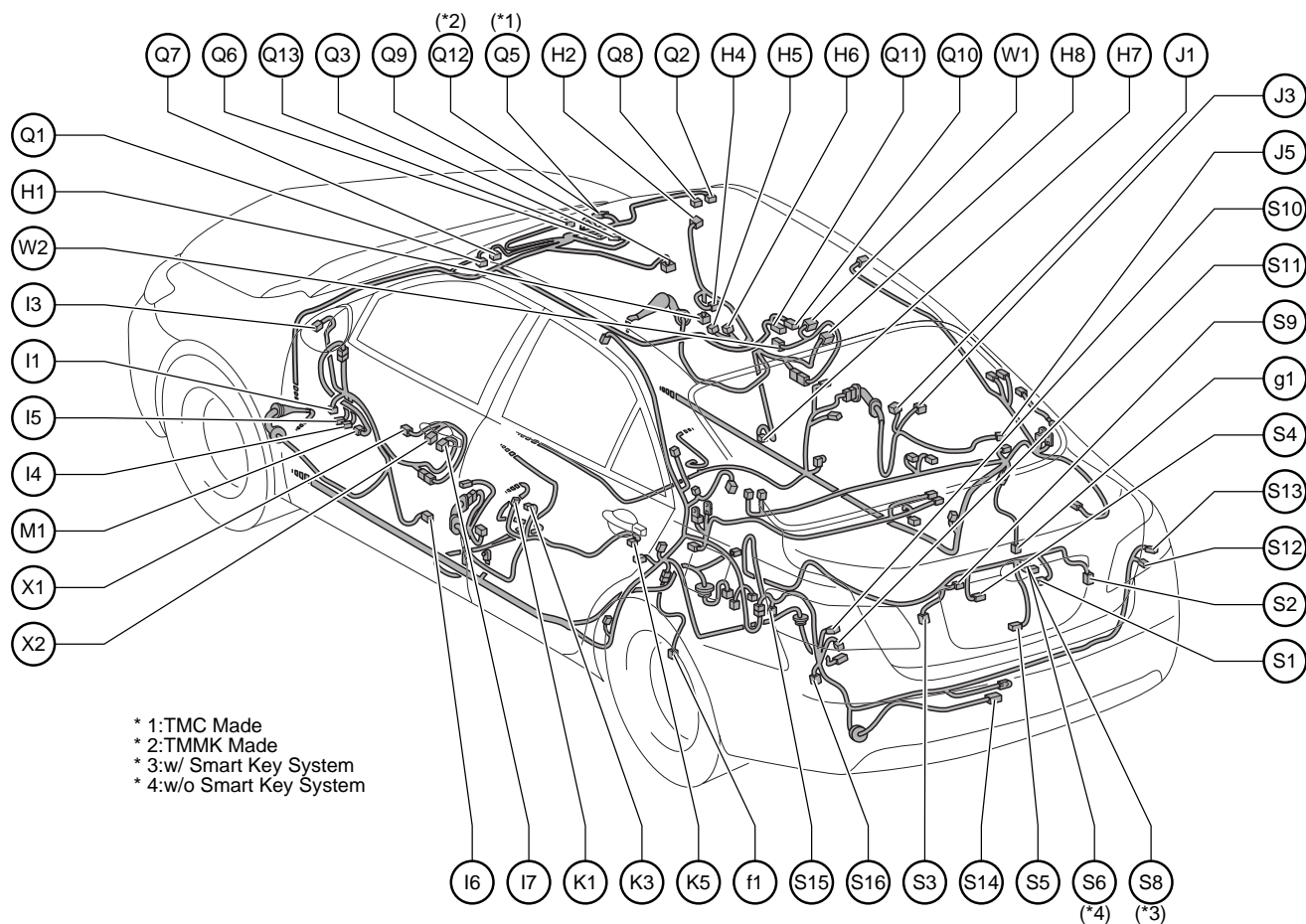
Position of Parts in Body



- N 6 Door Courtesy SW (Driver's Side)
- N 7 Side Airbag Sensor (Front LH)
- N 8 Pretensioner (LH)
- N10 Fuel Suction Pump and Gage Assembly
- N11 Electrical Key Oscillator (Rear Seat)
- N12 Side Airbag Sensor (Rear LH)
- N13 Door Courtesy SW (Rear LH)
- N15 Noise Filter (Dome and Stop)
- N16 Center Stop Lamp
- N17 Canister Pump Module
- N18 Noise Filter (Rear Window Defogger)
- N19 Rear Window Defogger
- N21 Curtain Shield Airbag Squib (LH)
- N23 Diode (Luggage Compartment Lamp)
- N24 Luggage Compartment Lamp
- N25 Electrical Key Oscillator (Inside Luggage Room)
- N26 Luggage Compartment Lamp
- N28 Junction Connector
- N29 Junction Connector
- N34 Tire Pressure Warning Antenna and Receiver

- O 6 Door Courtesy SW (Front Passenger's Side)
- O 7 Side Airbag Sensor (Front RH)
- O 8 Pretensioner (RH)
- O 9 Side Airbag Sensor (Rear RH)
- O10 Door Courtesy SW (Rear RH)
- O12 Speaker (Rear LH)
- O13 Speaker (Rear RH)
- O14 Speaker (Rear LH)
- O15 Speaker (Rear RH)
- O16 Curtain Shield Airbag Squib (RH)
- O17 Door Control Receiver
- O18 Door Control Receiver
- O19 Electrical Key Antenna
- O21 Junction Connector
- P 1 Rear Window Defogger

Position of Parts in Body



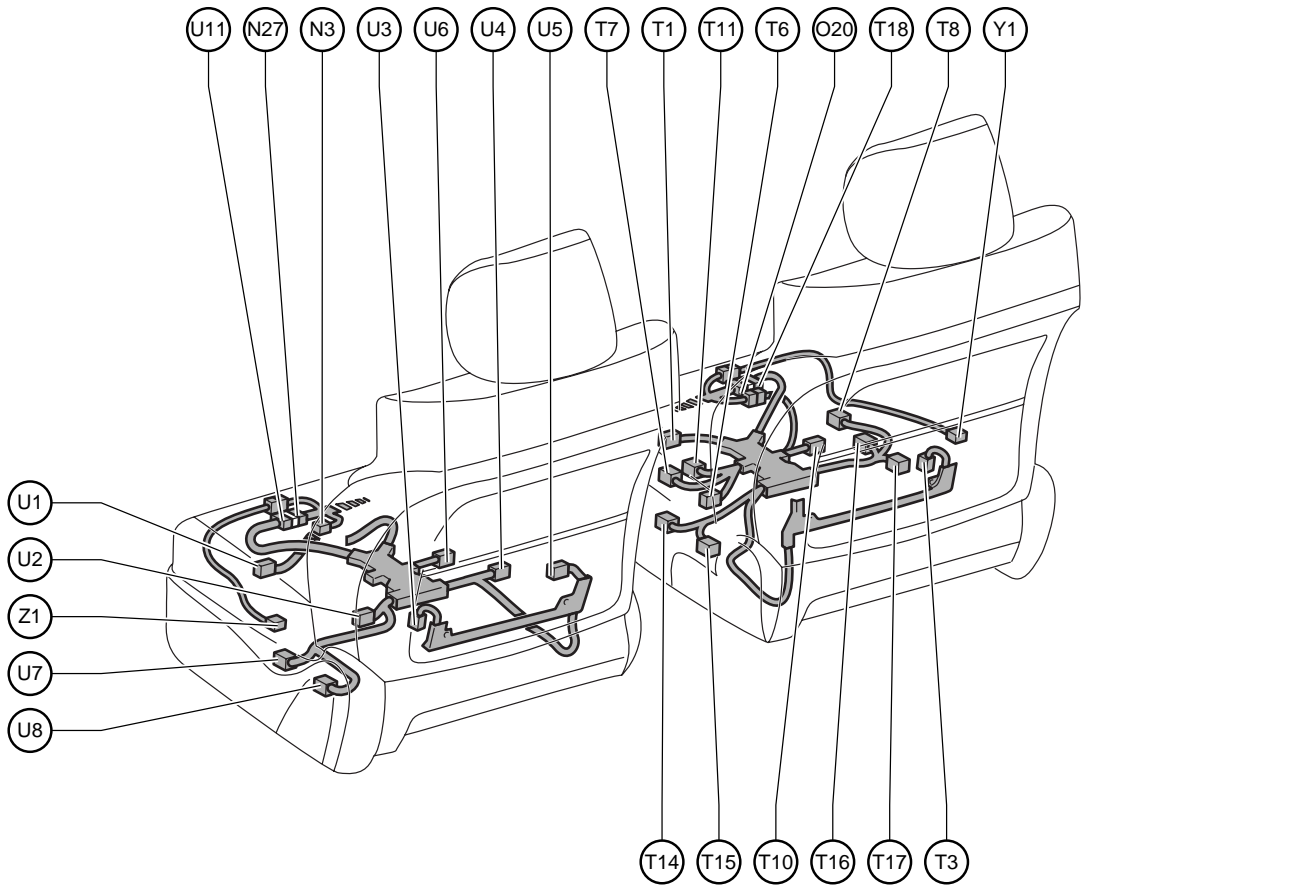
- * 1:TMC Made
- * 2:TMMK Made
- * 3:w/ Smart Key System
- * 4:w/o Smart Key System

- | | |
|--|---|
| <p>H 1 Speaker (Front Door RH)
 H 2 Outer Rear View Mirror (RH)
 H 4 Power Window Regulator Motor (Front Passenger's Side)
 H 5 Door Lock Control SW
 H 6 Power Window SW (Front Passenger's Side)
 H 7 Courtesy Lamp (Front Door RH)
 H 8 Door Lock Assembly (Front Passenger's Side)</p> <p>I 1 Speaker (Front Door LH)
 I 3 Outer Rear View Mirror (LH)
 I 4 Power Window Regulator Motor (Front LH)
 I 5 Power Window Regulator Motor (Front LH)
 I 6 Courtesy Lamp (Front Door LH)
 I 7 Door Lock Assembly (Driver's Side)</p> <p>J 1 Power Window SW (Rear RH)
 J 3 Power Window Regulator Motor (Rear RH)
 J 5 Door Lock Assembly (Rear RH)</p> <p>K 1 Power Window SW (Rear LH)
 K 3 Power Window Regulator Motor (Rear LH)
 K 5 Door Lock Assembly (Rear LH)</p> <p>M 1 Power Window Master SW</p> <p>Q 1 Vanity Lamp SW (LH)
 Q 2 Vanity Lamp SW (RH)
 Q 3 Inner Rear View Mirror
 Q 5 Microphone (Navigation)
 Q 6 Overhead J/B
 Q 7 Vanity Lamp (LH)</p> | <p>Q 8 Vanity Lamp (RH)
 Q 9 Room Lamp (Center)
 Q10 Map Lamp (RH)
 Q11 Map Lamp (LH)
 Q12 Microphone (Navigation)
 Q13 Sliding Roof Control ECU and Motor</p> <p>S 1 License Plate Lamp (RH)
 S 2 Rear Combination Lamp (RH)
 S 3 Rear Combination Lamp (LH)
 S 4 License Plate Lamp (LH)
 S 5 Door Lock Assembly (Luggage)
 S 6 Luggage Compartment Door Lock Cylinder
 S 8 Luggage Compartment Door Lock Cylinder
 S 9 Luggage Electrical Key SW
 S10 Turn Signal Lamp (Rear LH)
 S11 Rear Combination Lamp (LH)
 S12 Rear Combination Lamp (RH)
 S13 Turn Signal Lamp (Rear RH)
 S14 Electrical Key Oscillator (Outside Luggage Room)
 S15 Junction Connector
 S16 Junction Connector</p> <p>W 1 Door Outside Handle (Front RH)
 W 2 Electrical Key Oscillator (Front Door RH)</p> <p>X 1 Door Outside Handle (Front LH)
 X 2 Electrical Key Oscillator (Front Door LH)</p> <p>f 1 Speed Sensor (Rear LH)
 g 1 Speed Sensor (Rear RH)</p> |
|--|---|

G ELECTRICAL WIRING ROUTING

Position of Parts in Seat

[w/ Power Seat]



- N 3 Front Seat Inner Belt (Driver's Side)
- N27 Junction Connector

- O20 Junction Connector

- T 1 Power Seat Motor
(Front Passenger's Seat Slide Control)
- T 3 Power Seat Motor
(Front Passenger's Seat Reclining Control)
- T 6 Seat Heater (RH)
- T 7 Front Seat Inner Belt (Front Passenger's Side)
- T 8 Power Seat SW (Front Passenger's Seat)
- T10 Occupant Classification ECU
- T11 Occupant Classification ECU
- T14 Occupant Classification Sensor (Front LH)
- T15 Occupant Classification Sensor (Rear LH)
- T16 Occupant Classification Sensor (Front RH)
- T17 Occupant Classification Sensor (Rear RH)
- T18 Junction Connector

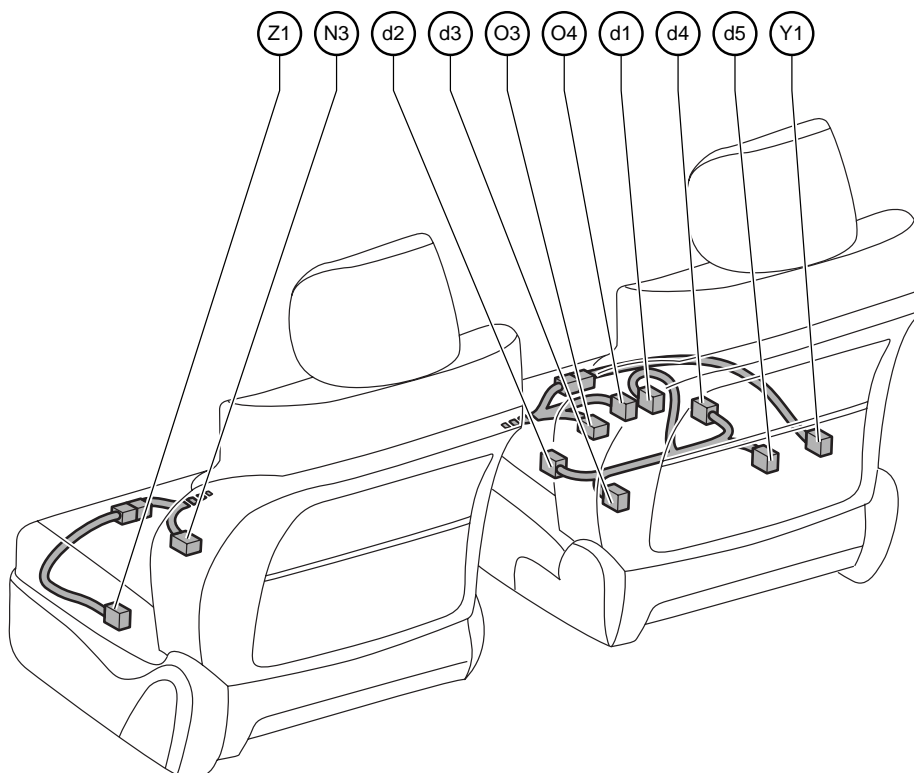
- U 1 Power Seat Motor (Driver's Seat Slide Control)
- U 2 Power Seat Motor (Driver's Seat Front Vertical Control)
- U 3 Power Seat Motor (Driver's Seat Reclining Control)
- U 4 Power Seat Motor (Driver's Seat Lifter Control)
- U 5 Power Seat Motor
(Driver's Seat Lumbar Support Control)
- U 6 Seat Heater (LH)
- U 7 Power Seat SW (Driver's Seat)
- U 8 Power Seat SW (Driver's Seat Lumbar Support Control)
- U11 Junction Connector

- Y 1 Side Airbag Squib (RH)

- Z 1 Side Airbag Squib (LH)

Position of Parts in Seat

[w/o Power Seat]



N 3 Front Seat Inner Belt (Driver's Side)

O 3 Front Seat Inner Belt (Front Passenger's Side)

O 4 Occupant Classification ECU

Y 1 Side Airbag Squib (RH)

Z 1 Side Airbag Squib (LH)

d 1 Occupant Classification ECU

d 2 Occupant Classification Sensor (Front LH)

d 3 Occupant Classification Sensor (Rear LH)

d 4 Occupant Classification Sensor (Front RH)

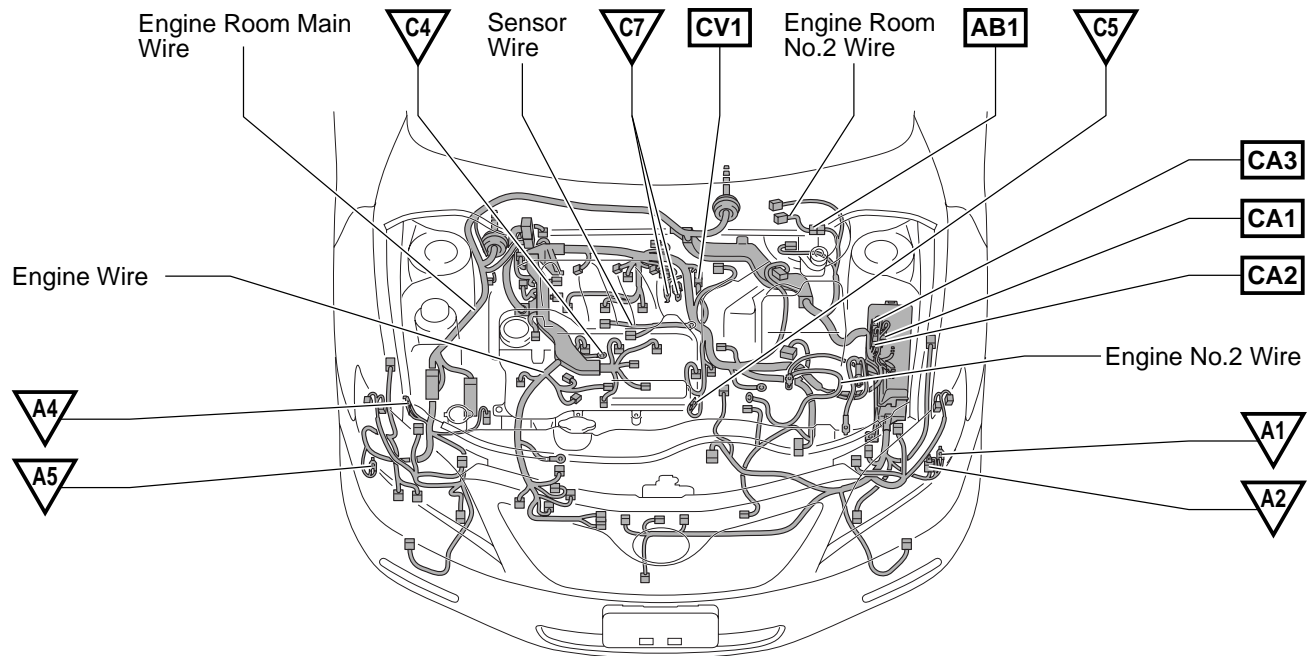
d 5 Occupant Classification Sensor (Rear RH)

G ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness

▽ : Location of Ground Points

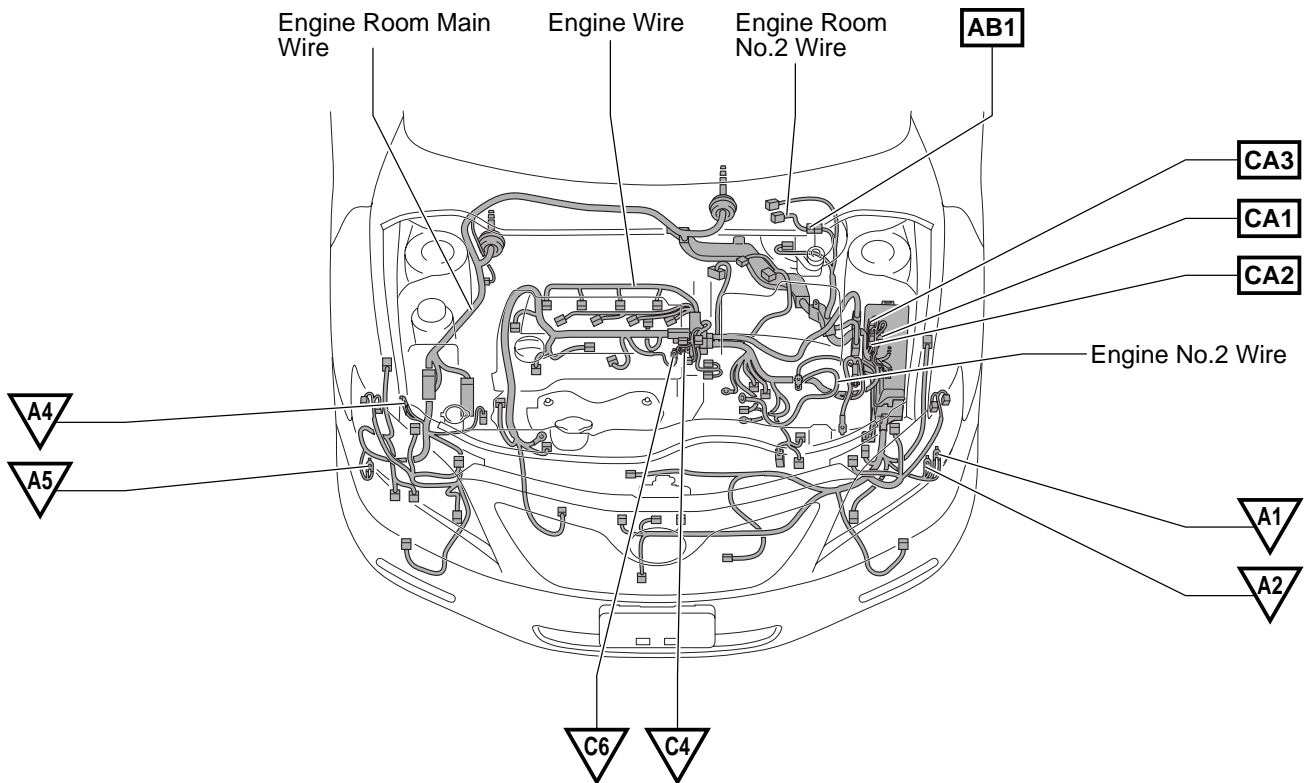
[2GR-FE]



□ : Location of Connector Joining Wire Harness and Wire Harness

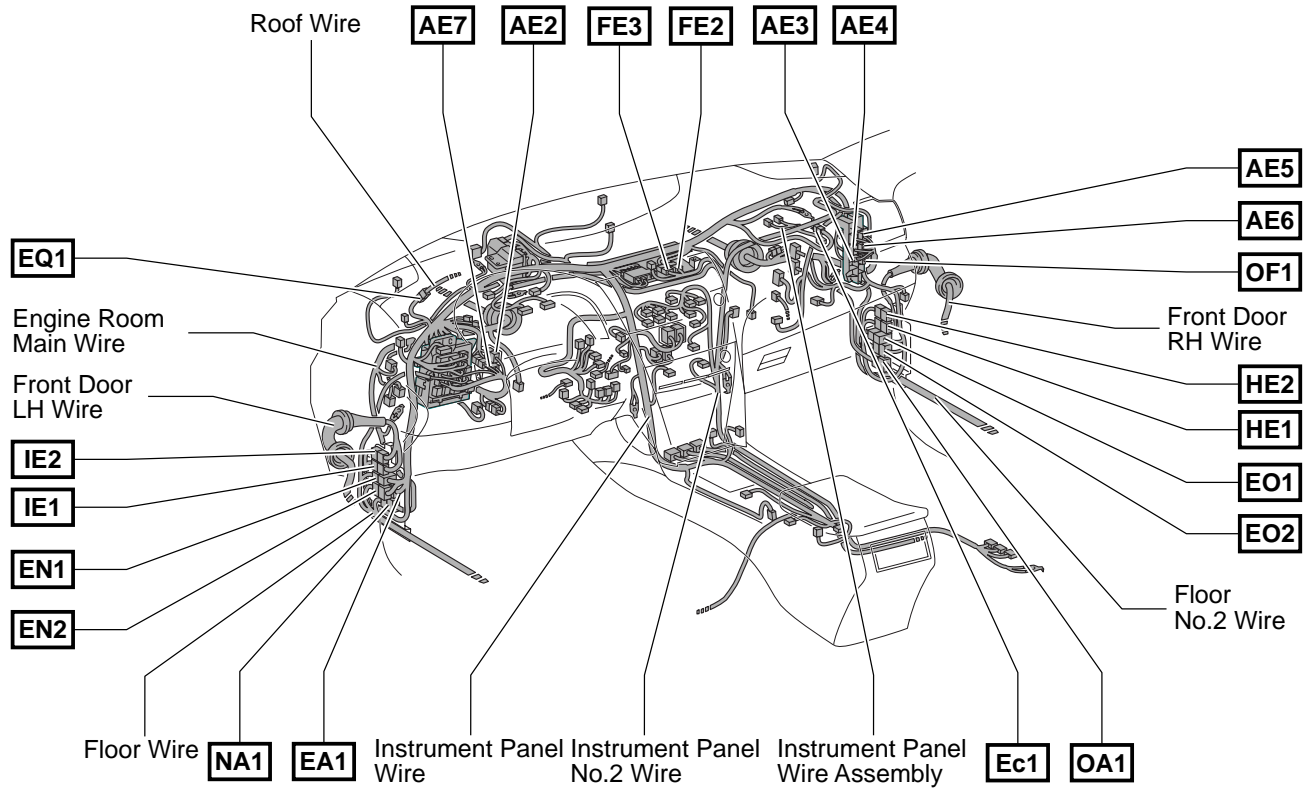
▽ : Location of Ground Points

[2AZ-FE]

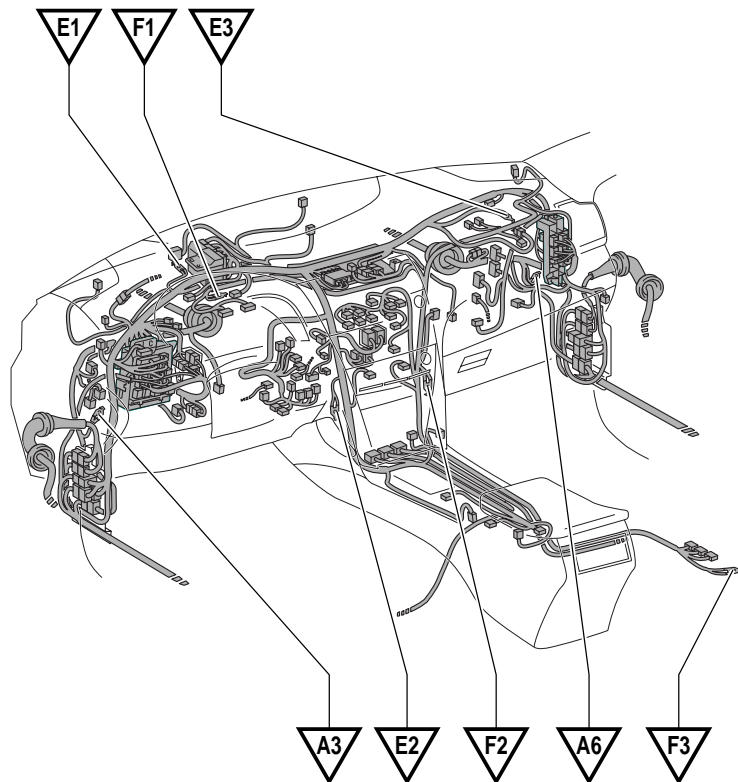


G ELECTRICAL WIRING ROUTING

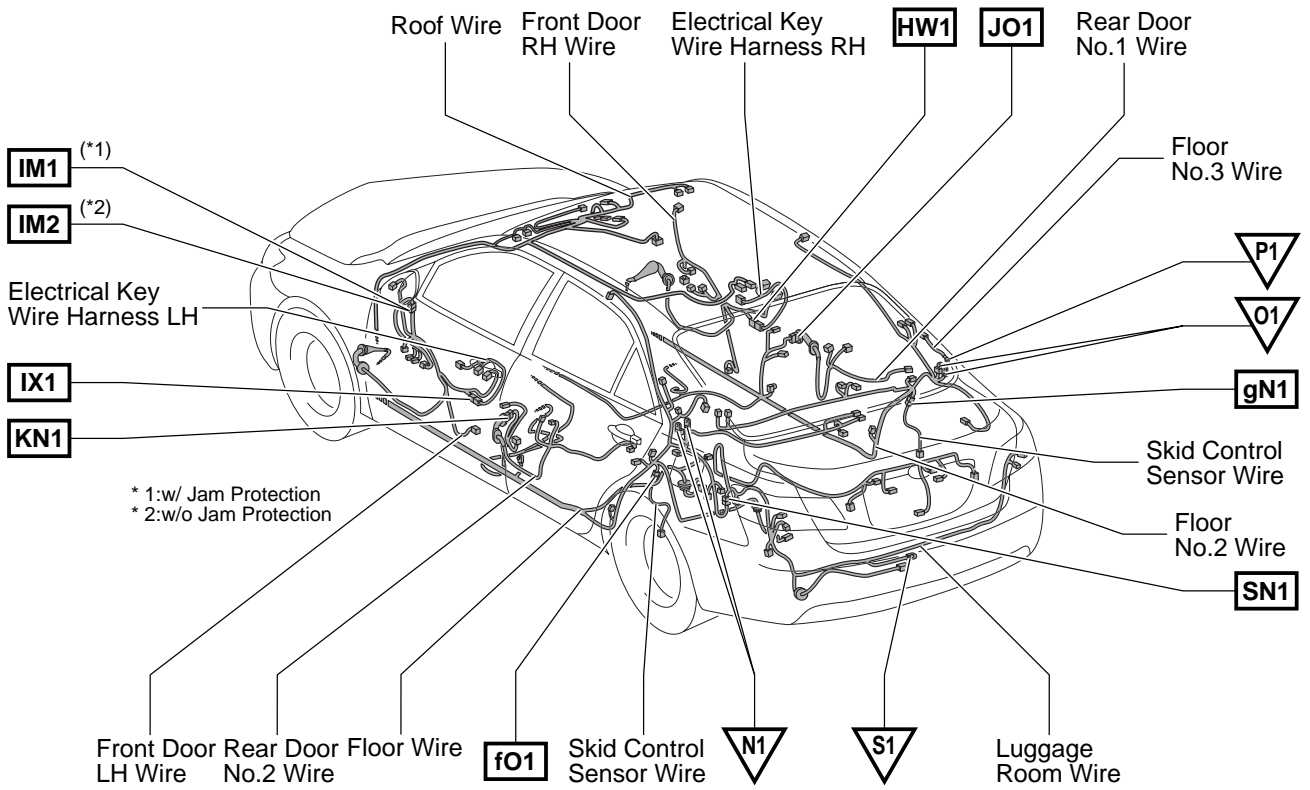
□ : Location of Connector Joining Wire Harness and Wire Harness



▽ : Location of Ground Points



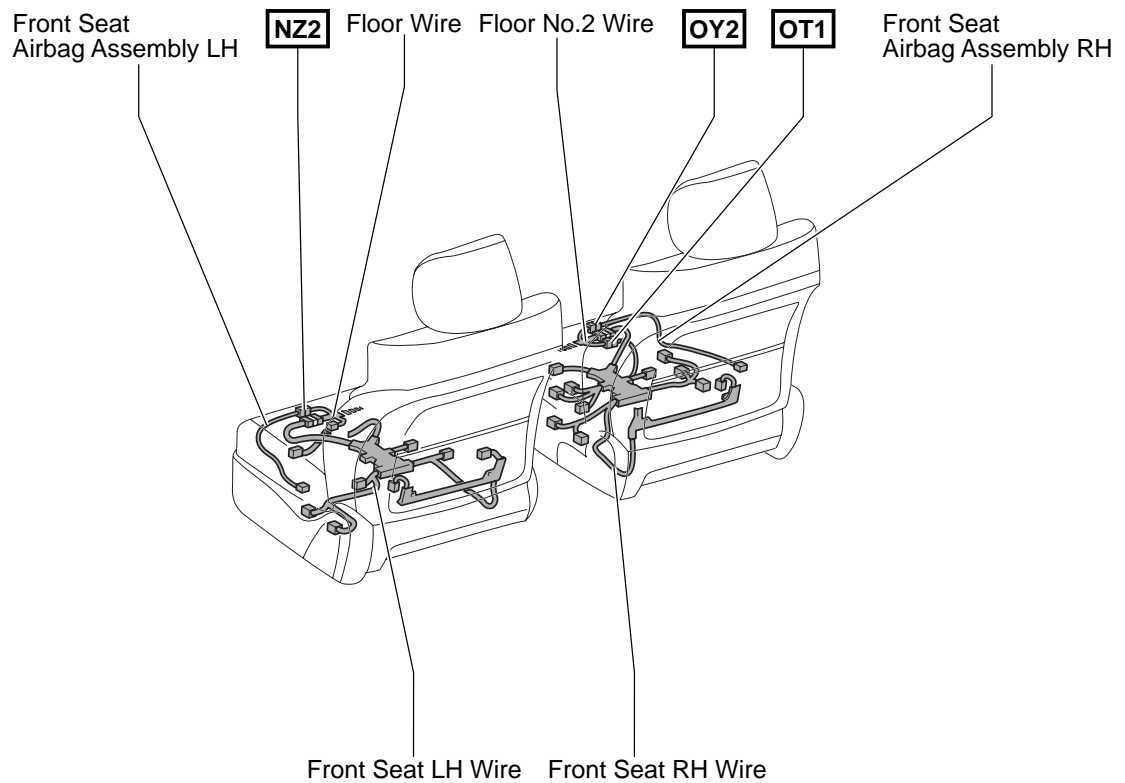
□	: Location of Connector Joining Wire Harness and Wire Harness
▽	: Location of Ground Points



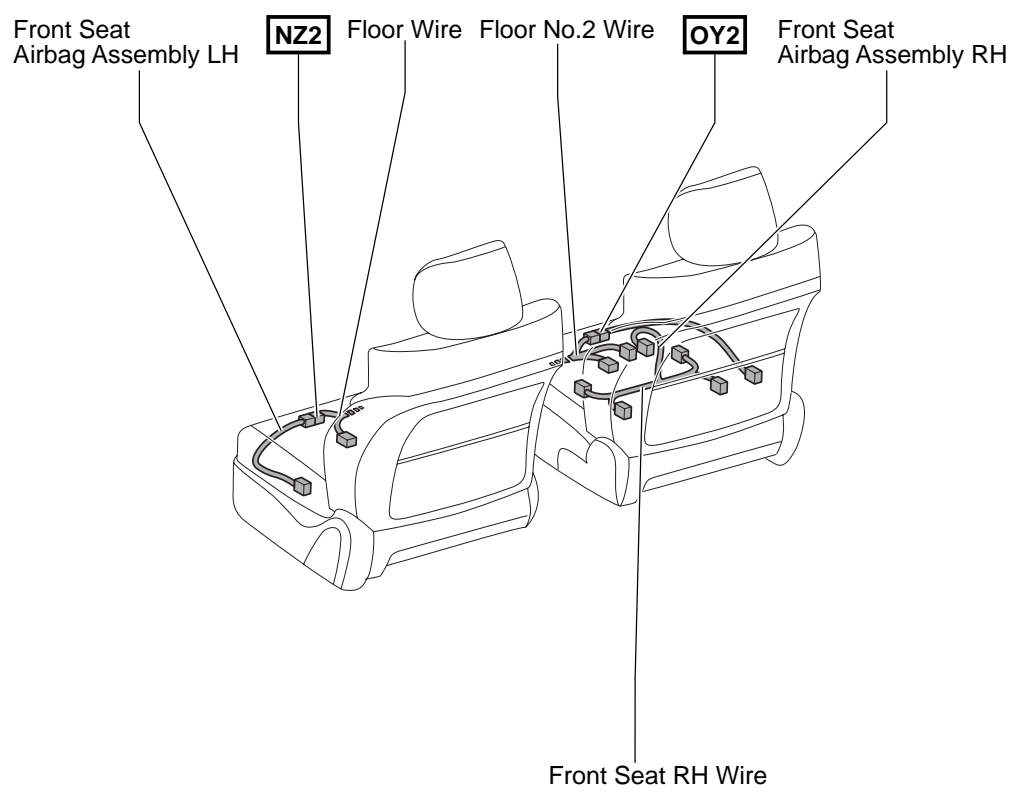
G ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness

[w/ Power Seat]



**□ : Location of Connector Joining Wire Harness and Wire Harness
[w/o Power Seat]**

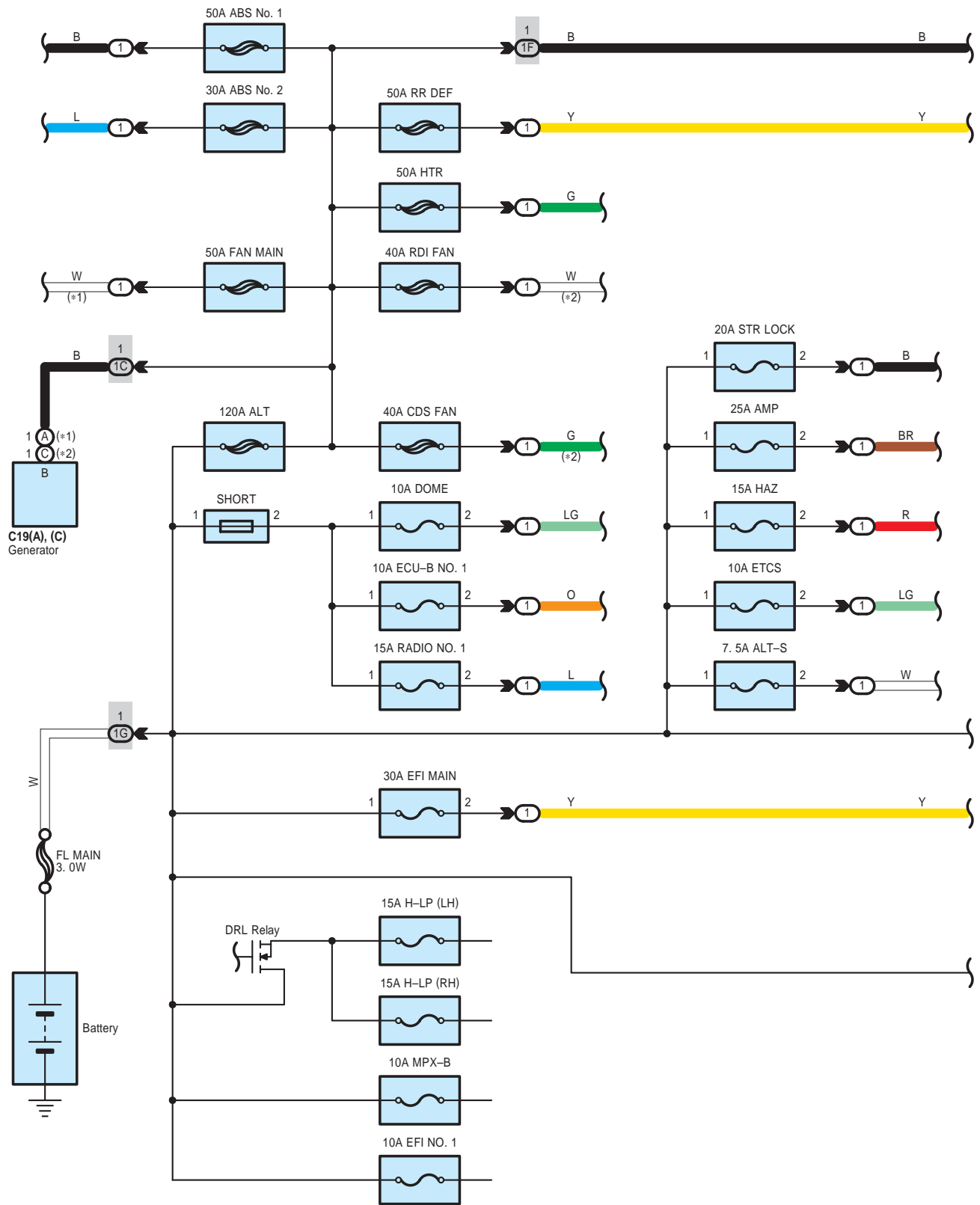


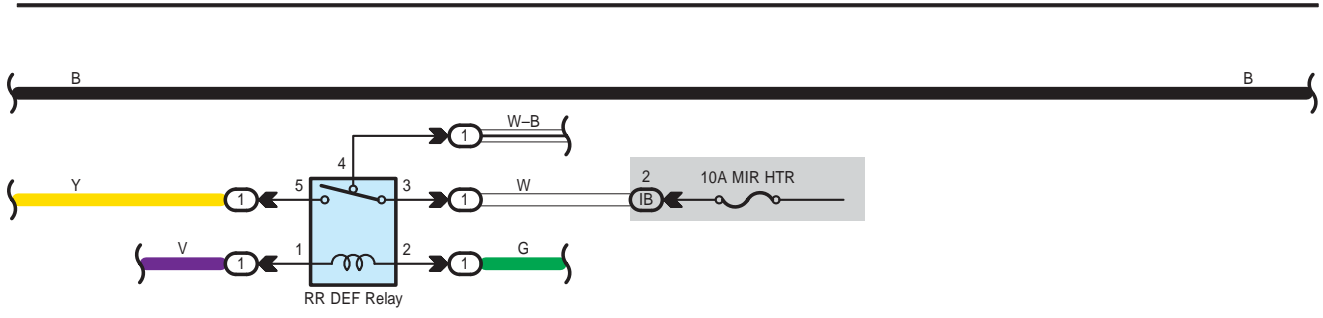
2007 CAMRY ELECTRICAL WIRING DIAGRAM SYSTEM CIRCUITS

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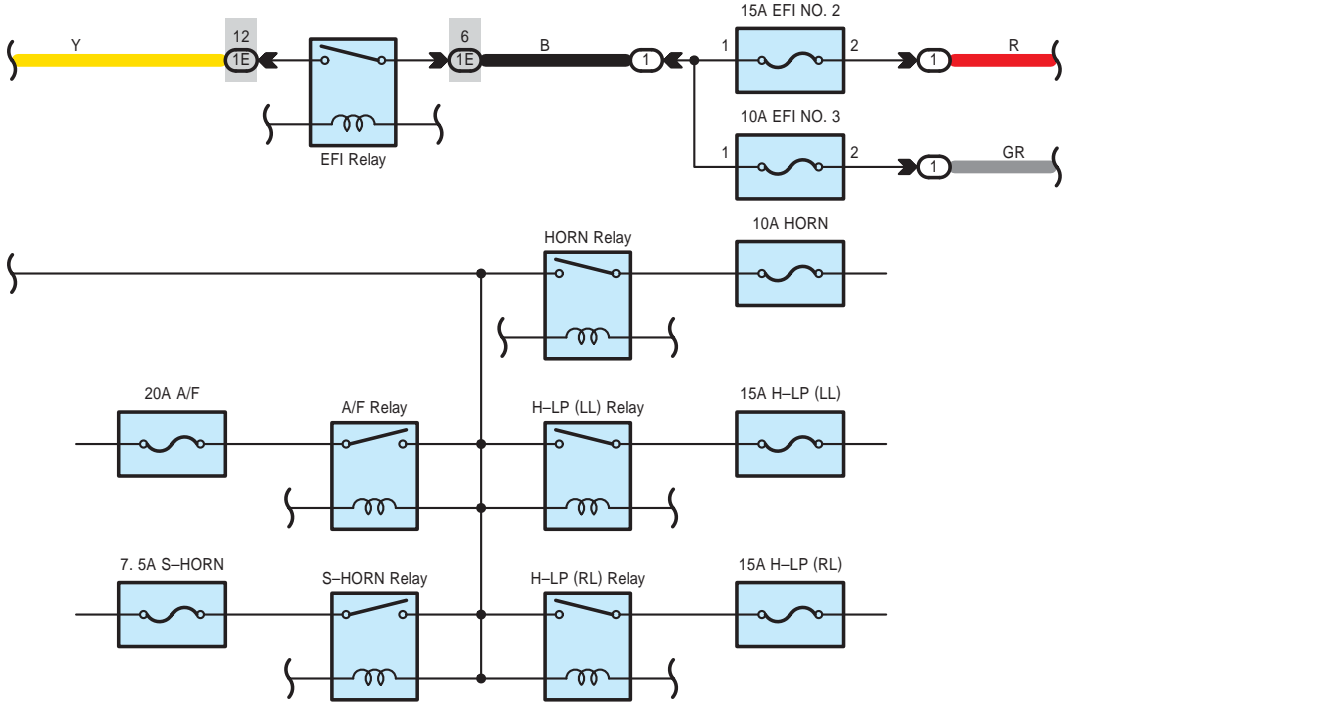
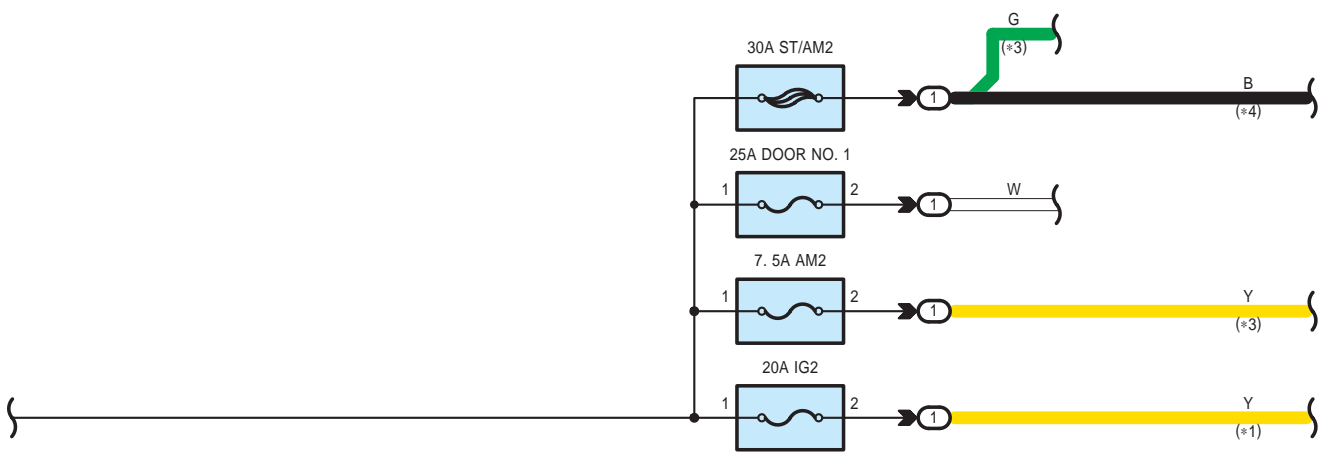
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Power Source

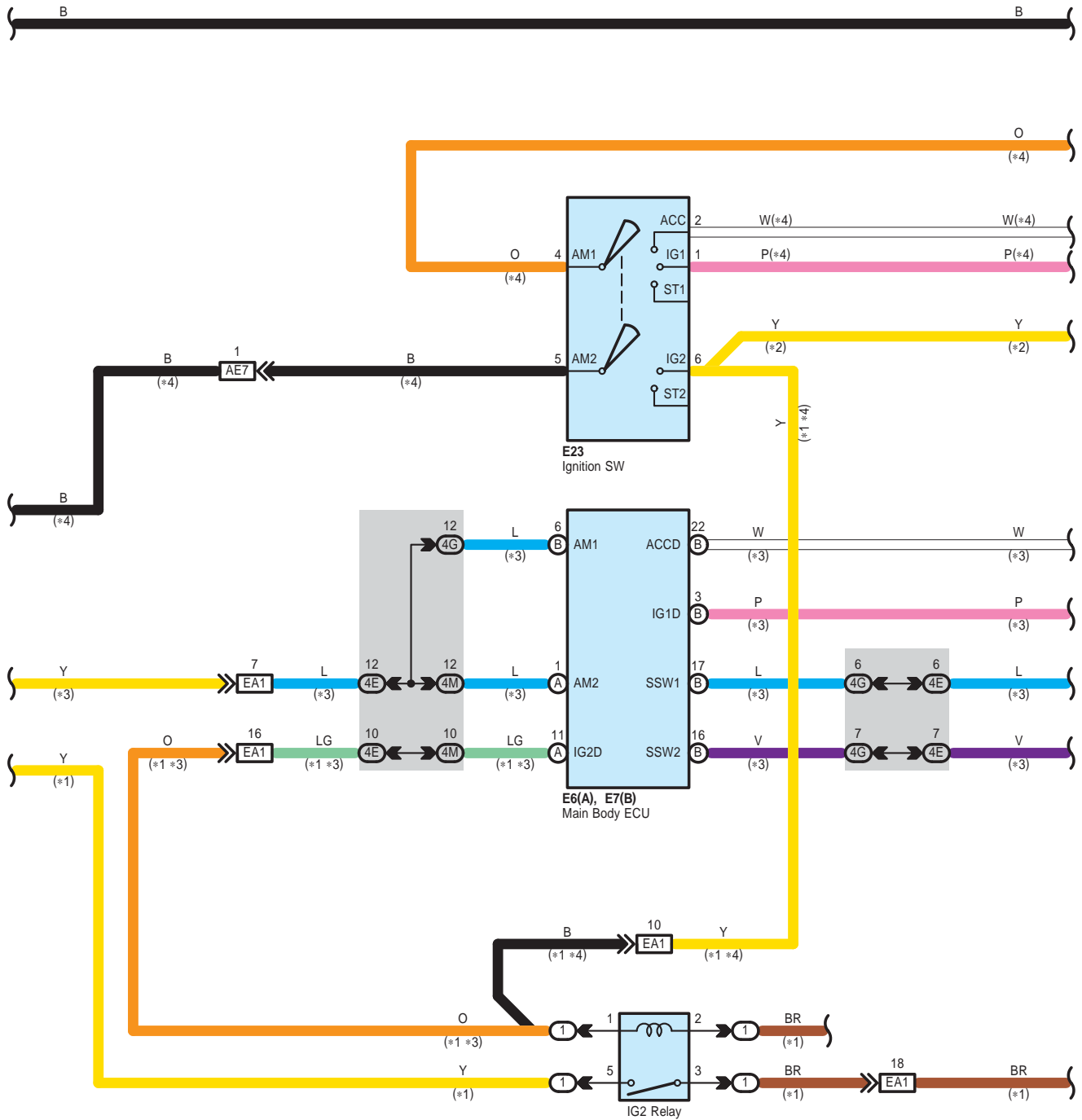


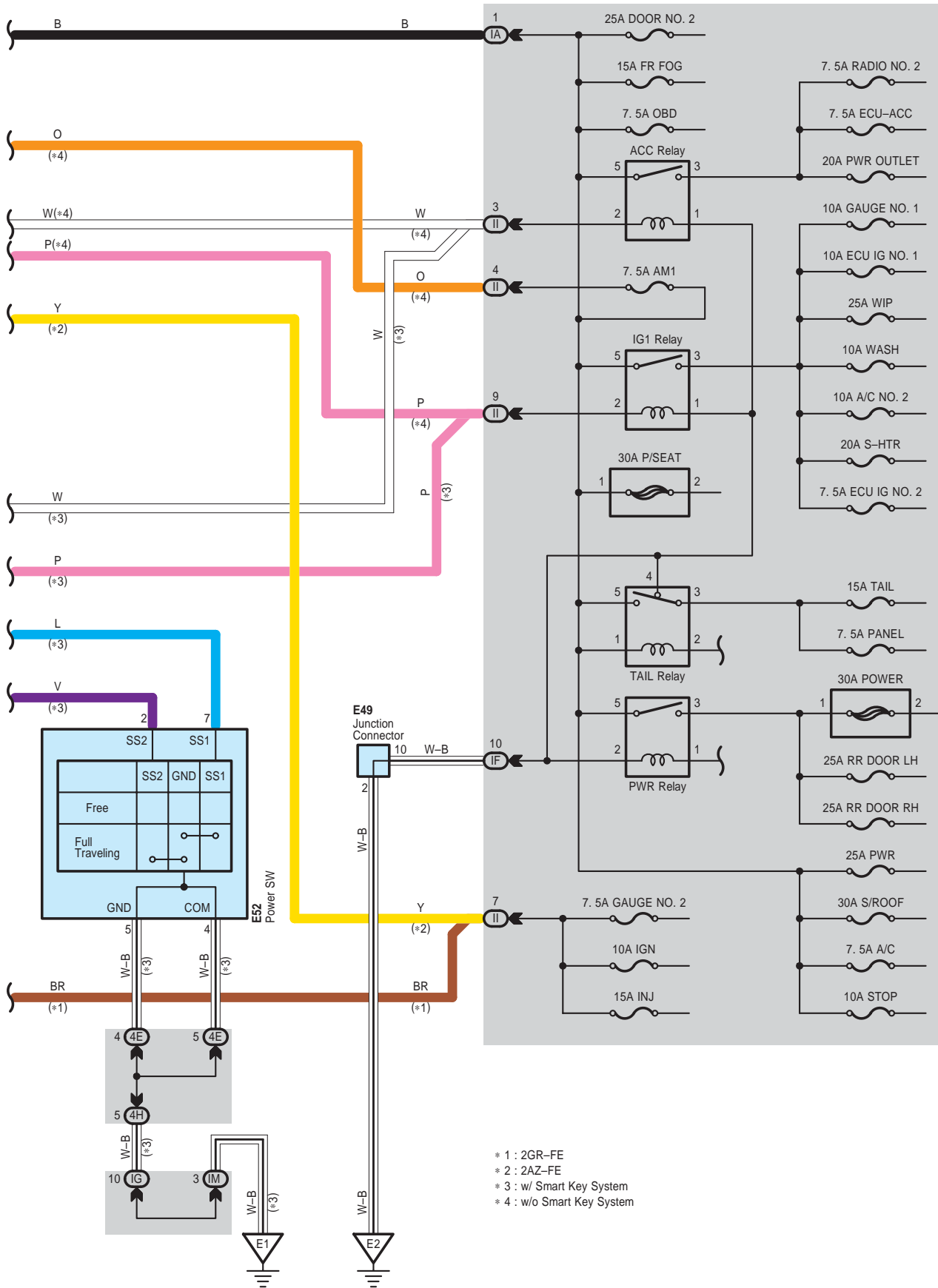


- * 1 : 2GR-FE
- * 2 : 2AZ-FE
- * 3 : w/ Smart Key System
- * 4 : w/o Smart Key System



Power Source





CAMRY (EM0250U)

Power Source

: Parts Location

	Code	See Page	Code	See Page	Code	See Page	
C19	A	50 (2GR-FE)	E7	B	56	E52	57
	C	54 (2AZ-FE)	E23		56		
E6	A	56	E49		57		

: 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	22	Engine Wire and Engine Room J/B (Engine Compartment Left)
1E	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1F	22	
1G		
4E		
4G	42	Instrument Panel Wire and J/B No.4 (Instrument Panel Brace Center)
4H		
4M		
IA	30	
IB	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IG	31	
II		
IM	30	

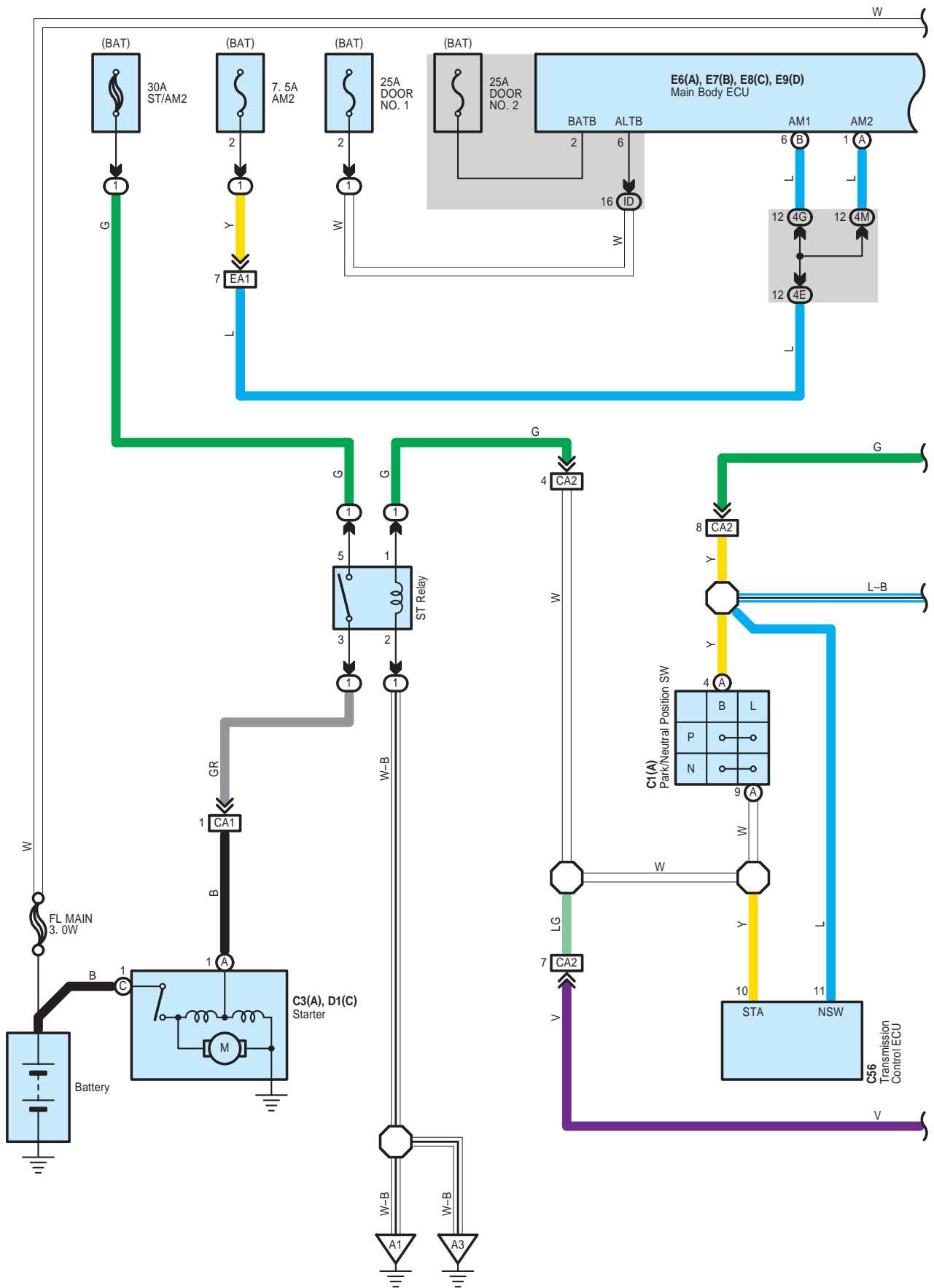
: Connector Joining Wire Harness and Wire Harness

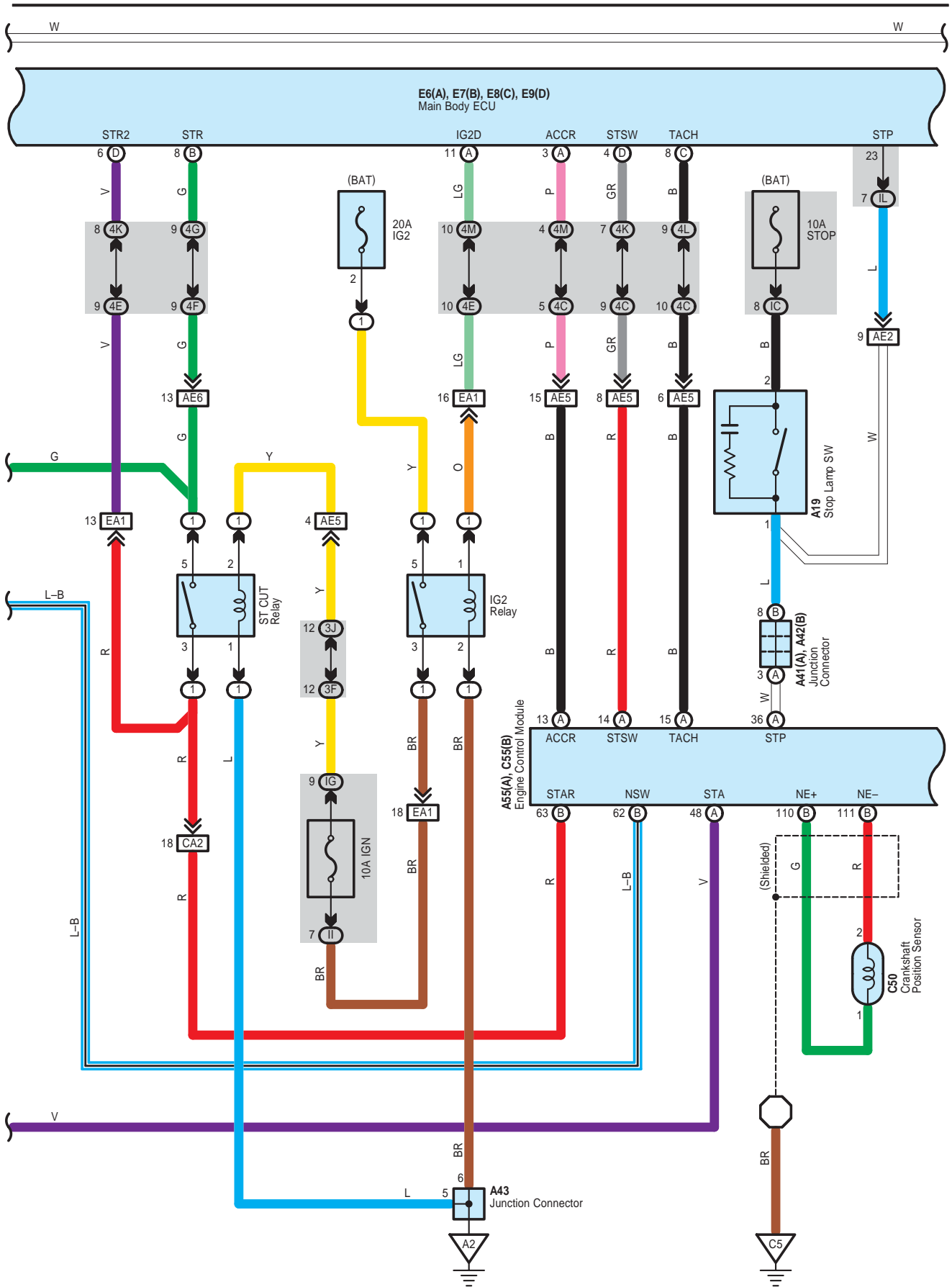
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE7	66	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)

: Ground Points

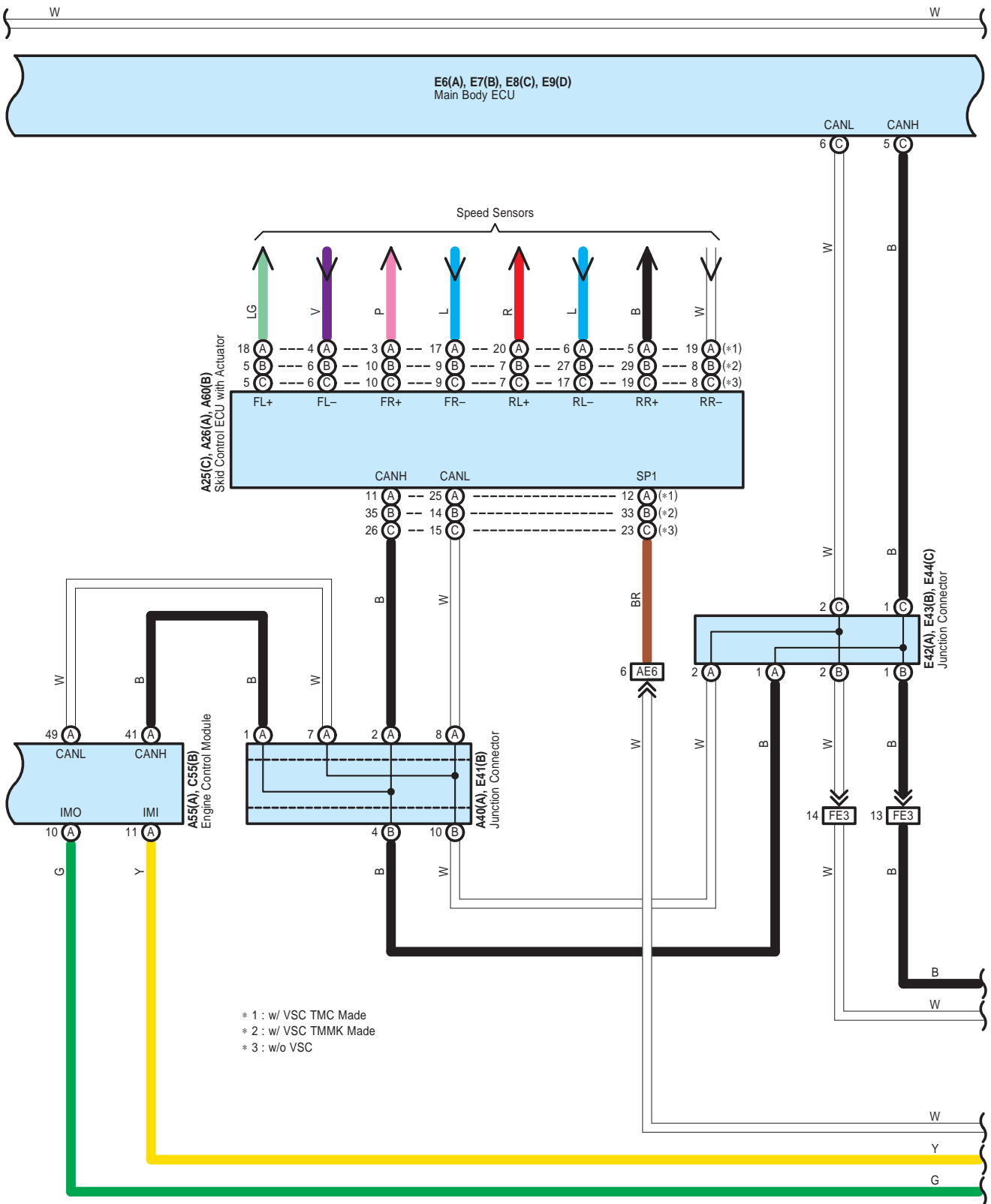
Code	See Page	Ground Points Location
E1	66	Instrument Panel Left
E2	66	Instrument Panel Brace LH

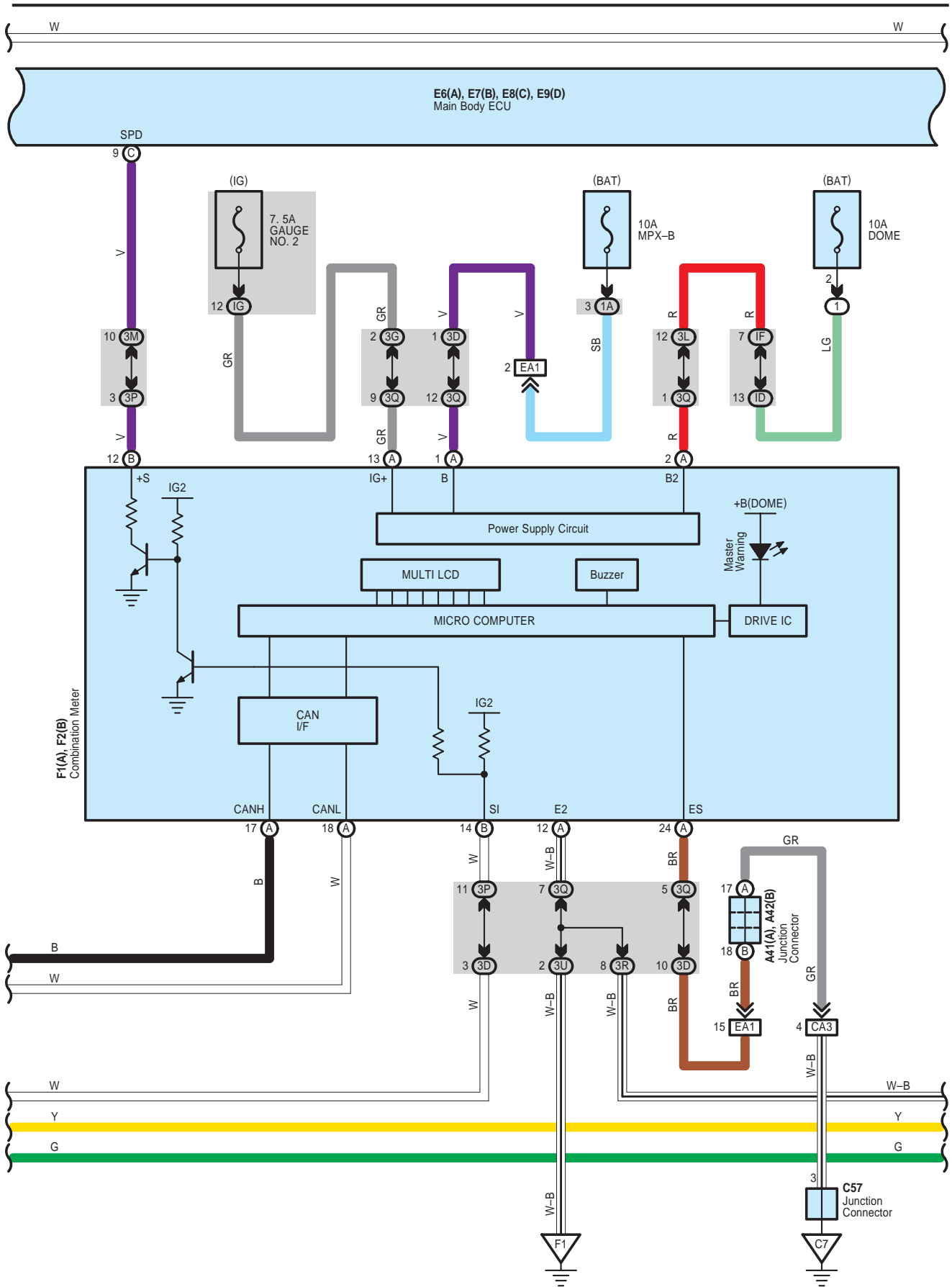
Smart Key System



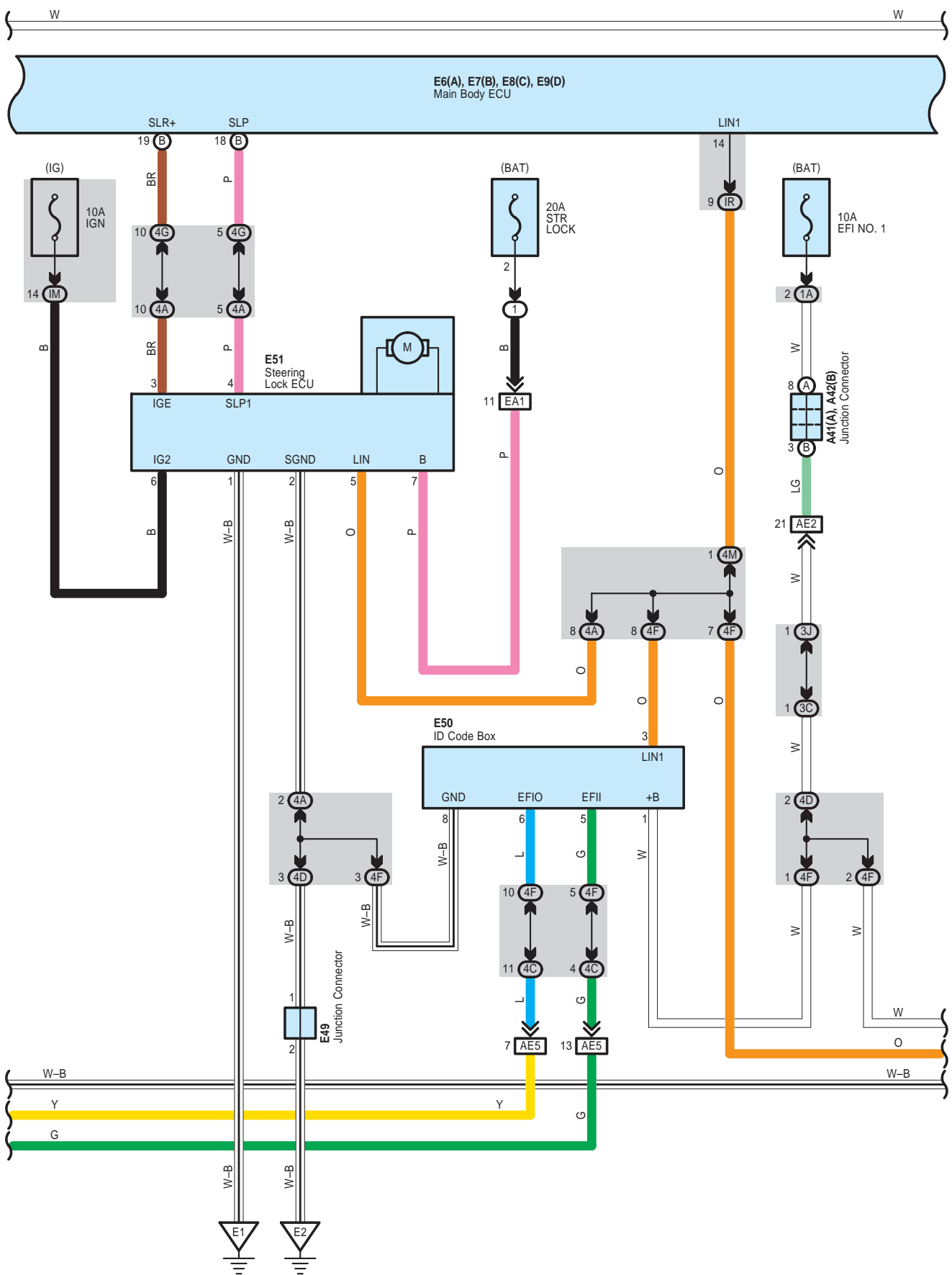


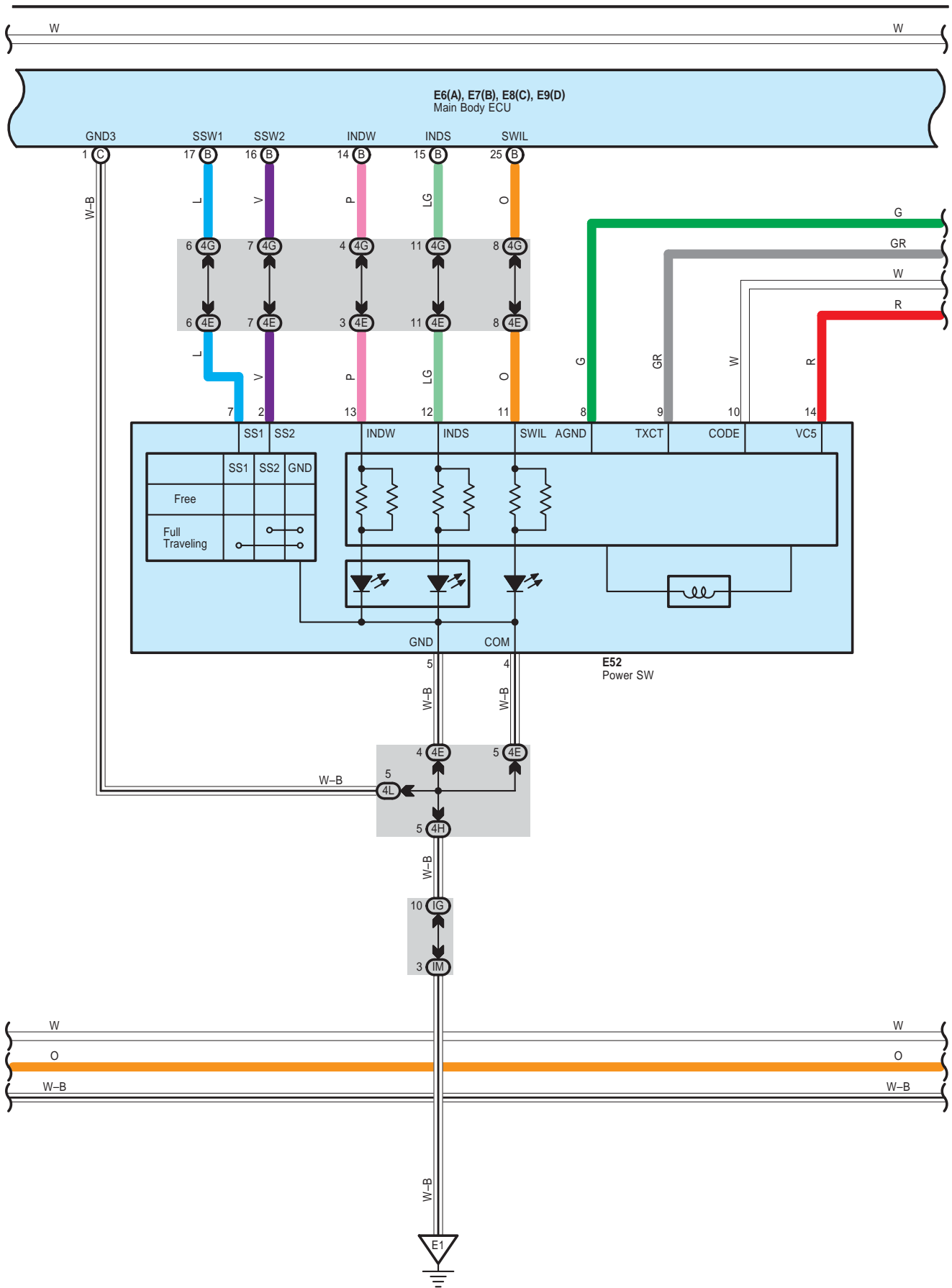
Smart Key System



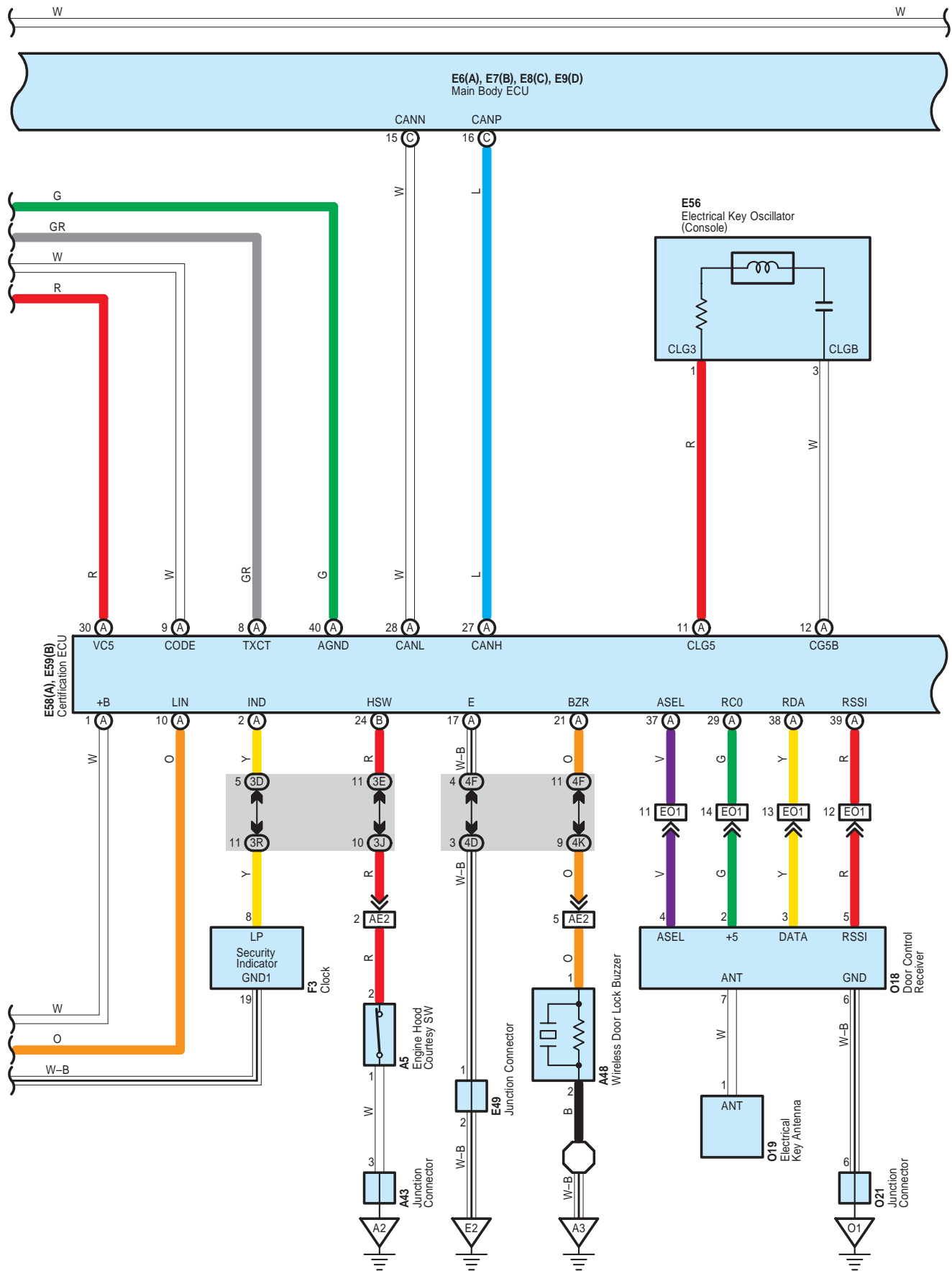


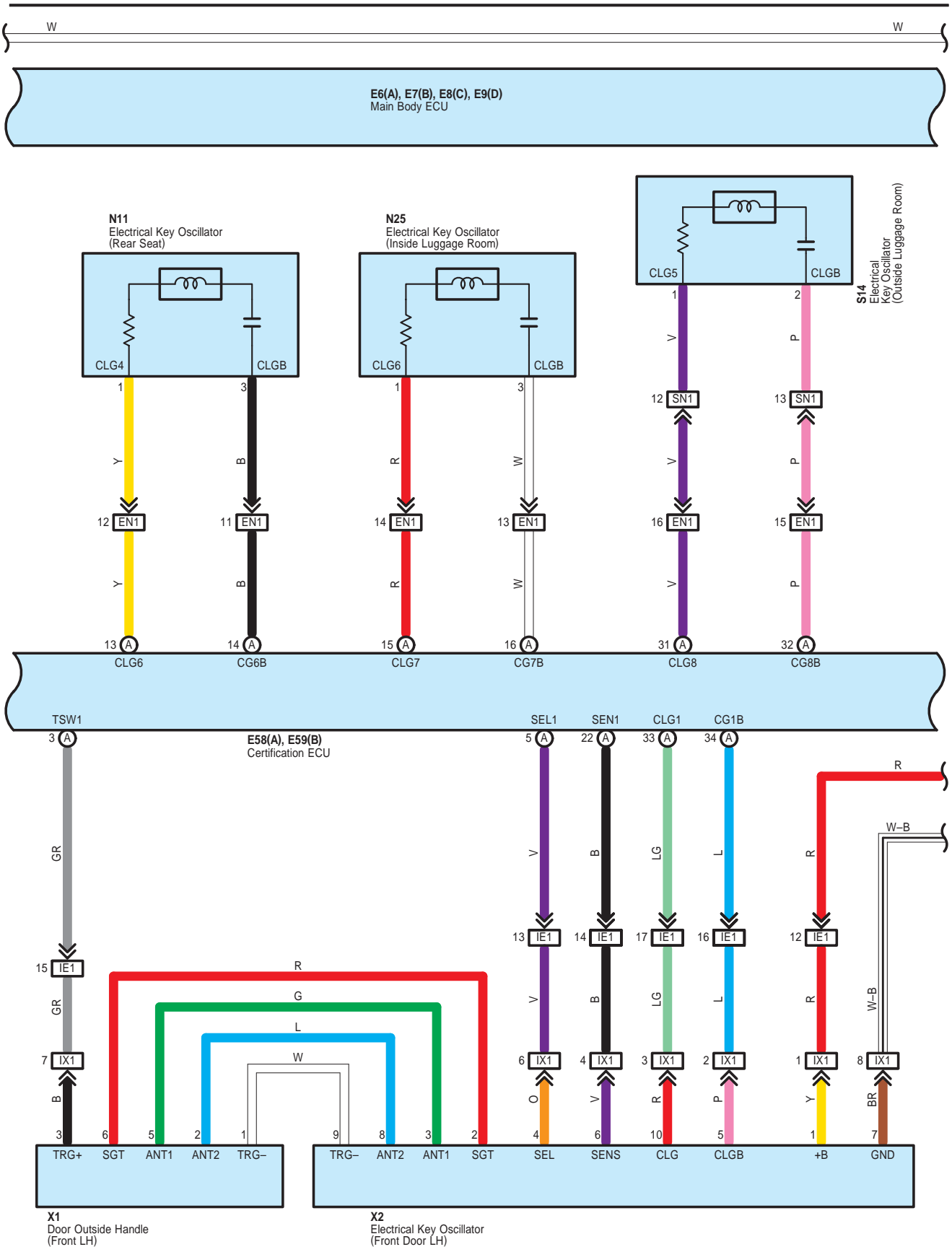
Smart Key System



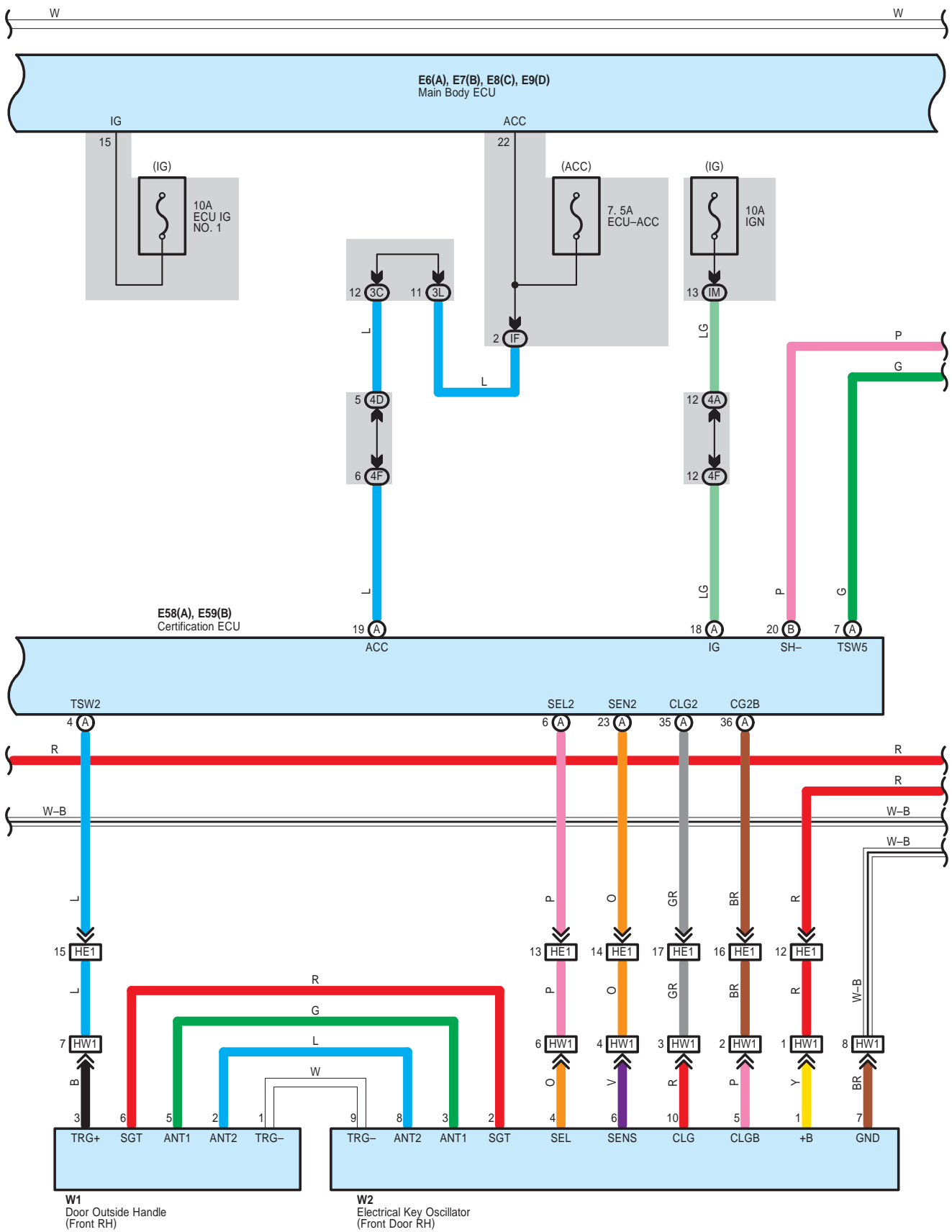


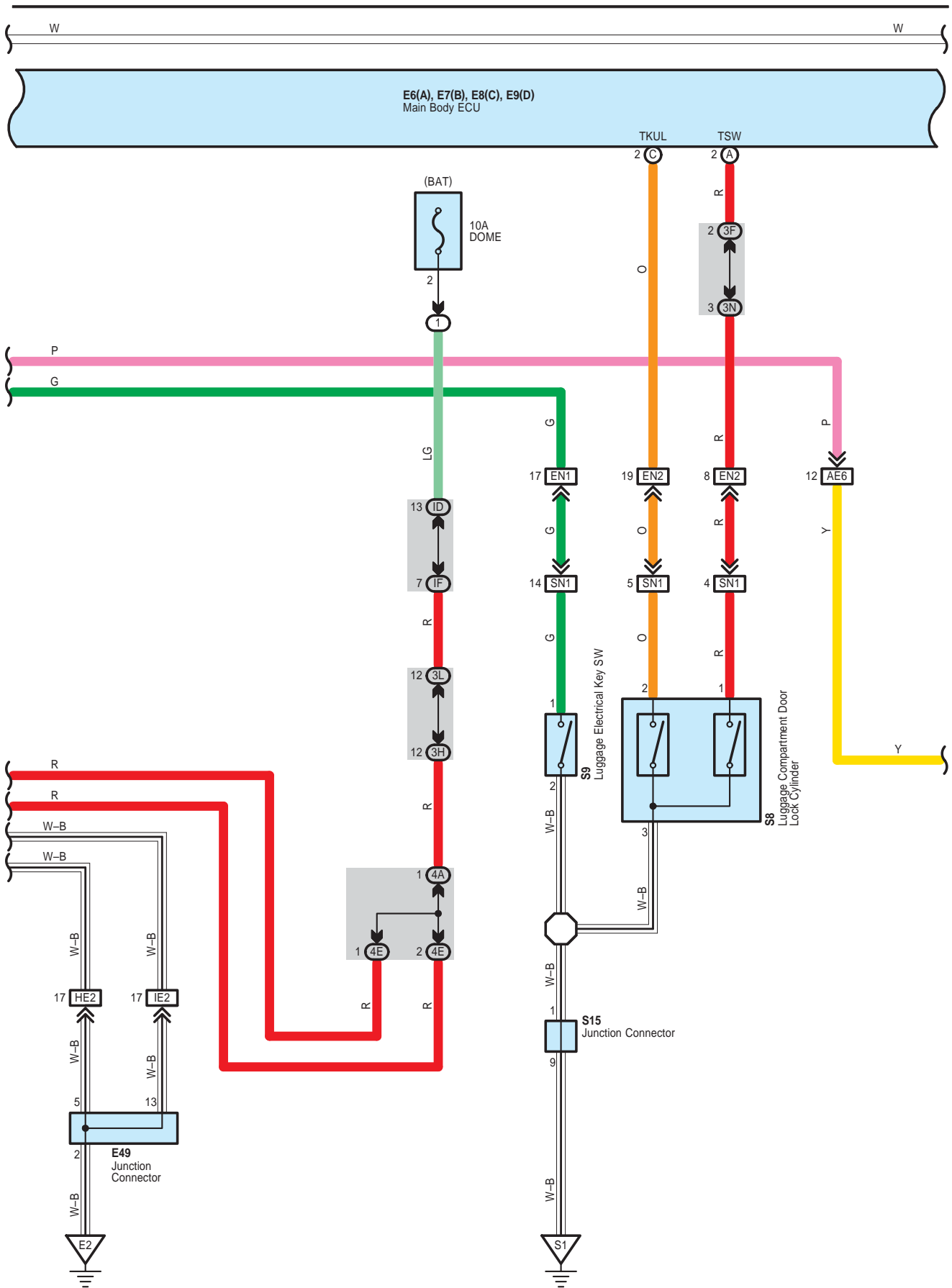
Smart Key System



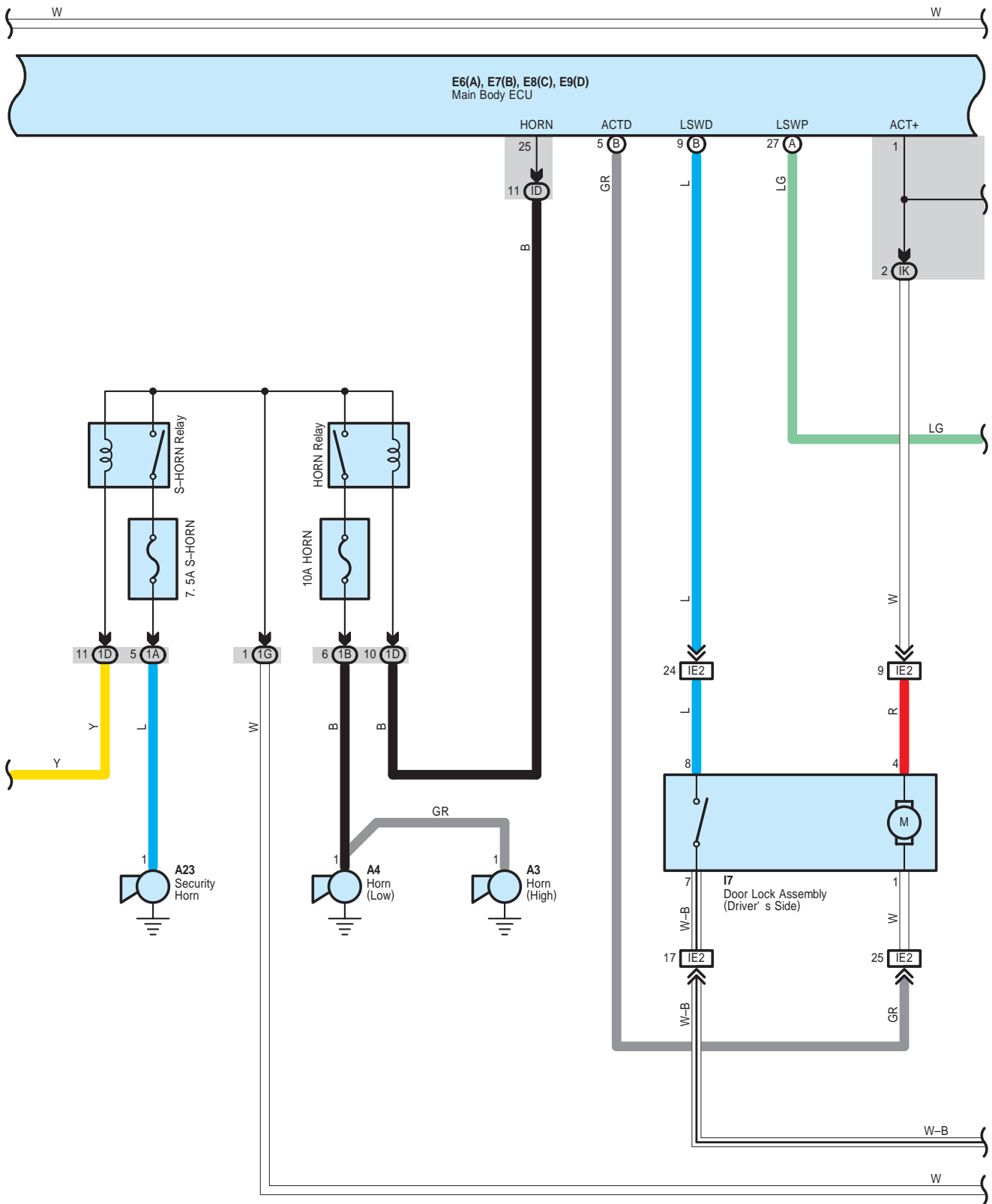


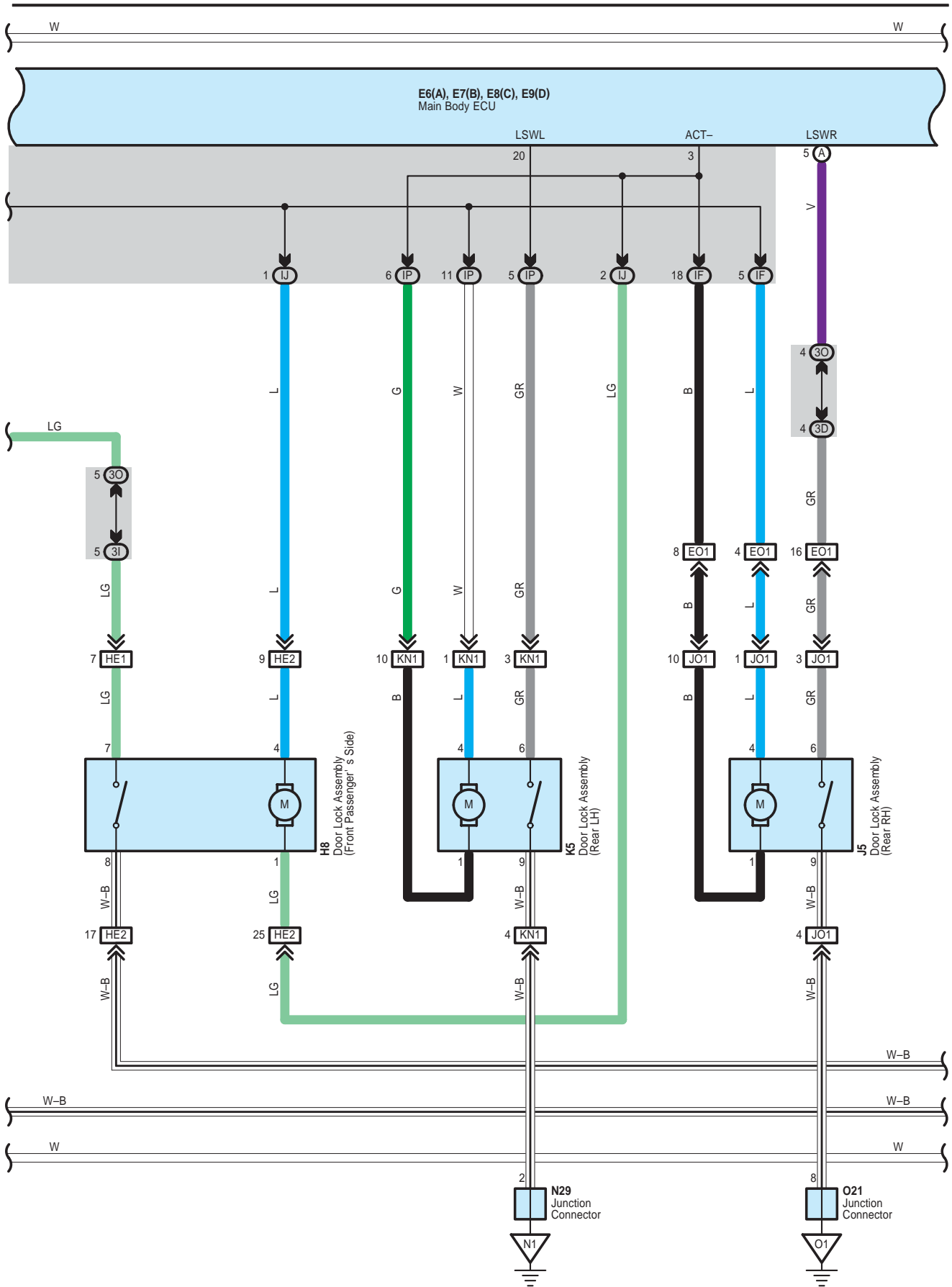
Smart Key System



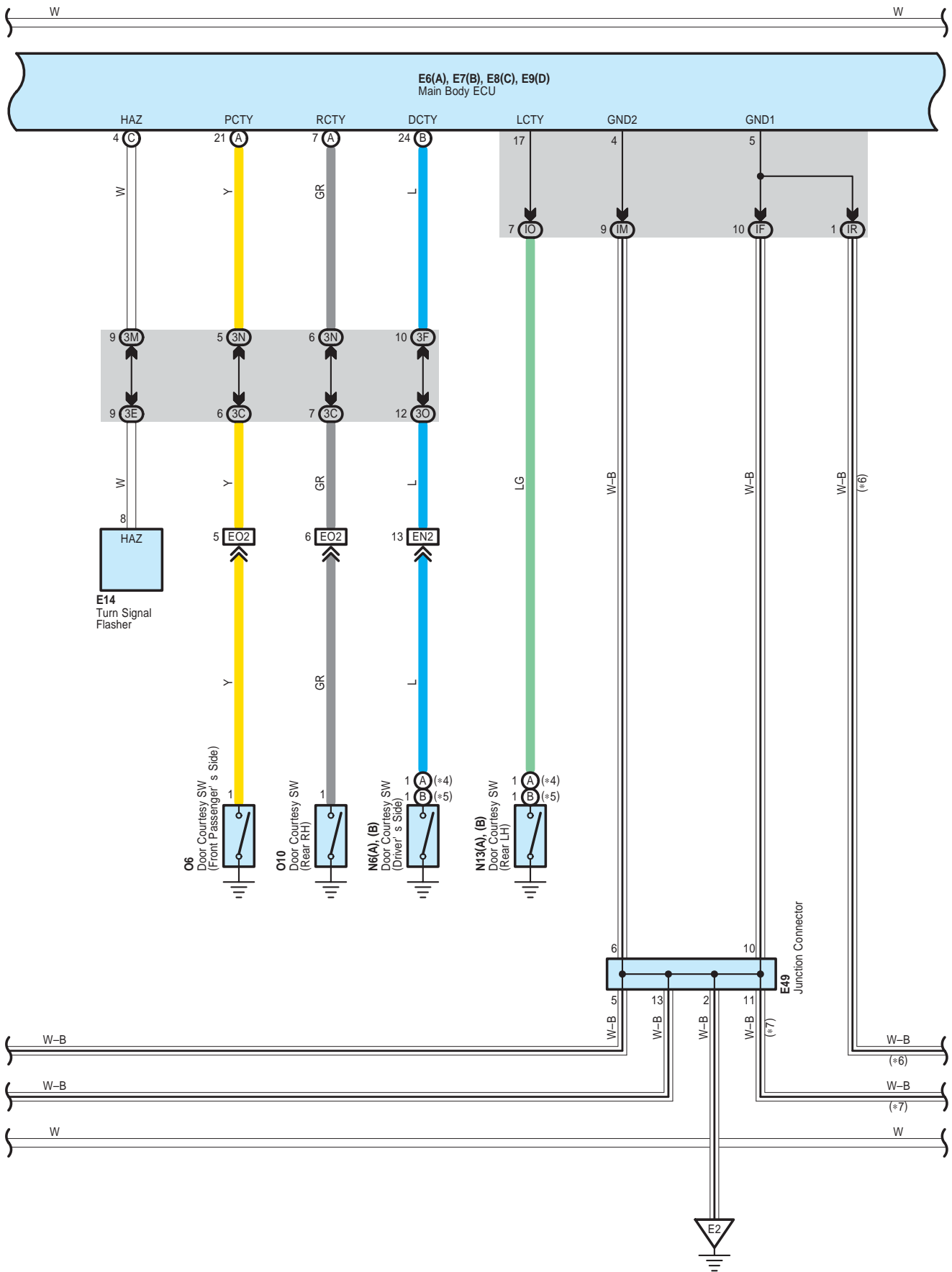


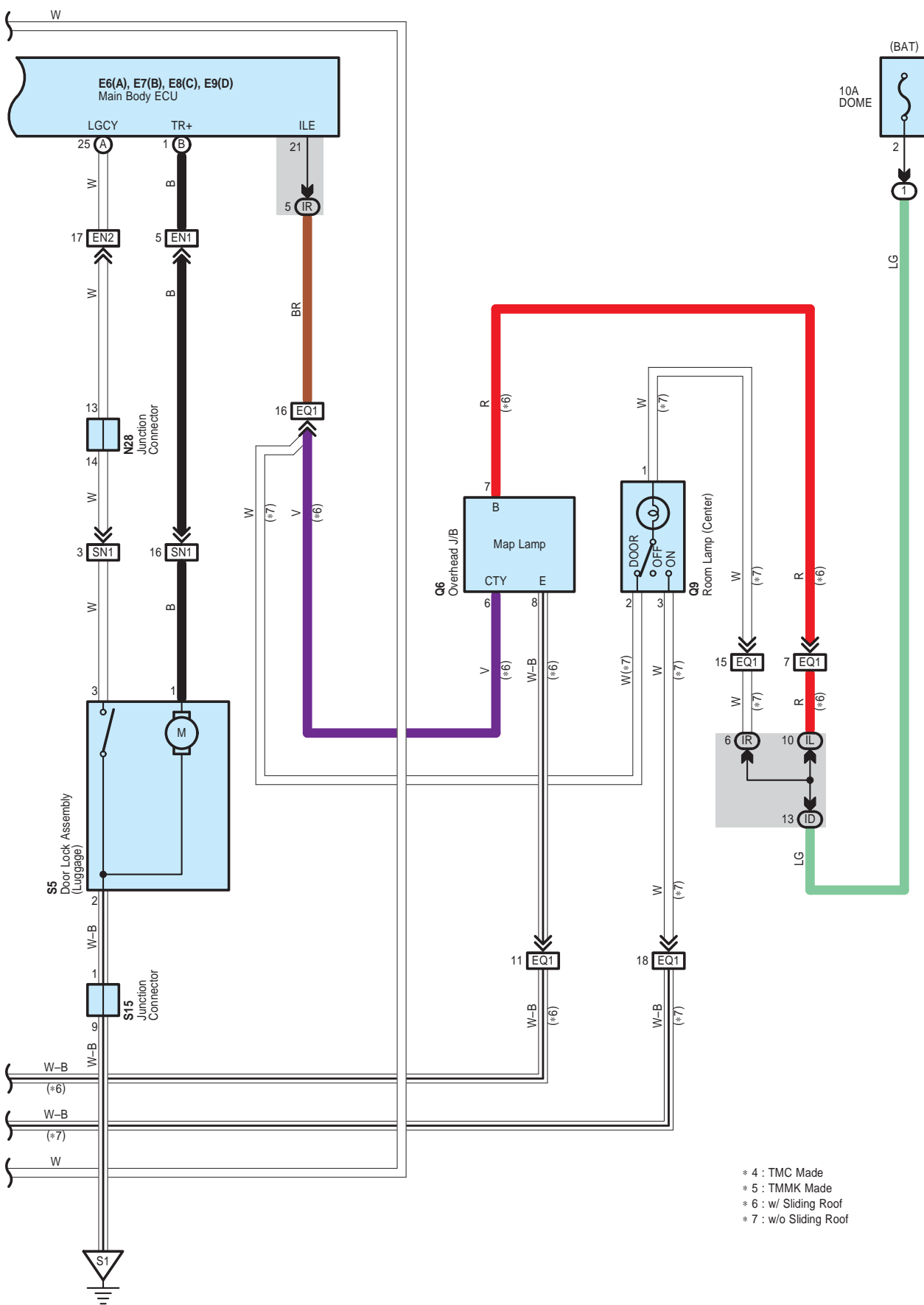
Smart Key System





Smart Key System





Smart Key System

System Outline

* Steering lock

Receiving signals from the power SW and the key, the certification ECU sends instruction for locking and unlocking the steering lock to the steering lock ECU (Built in the steering lock) in order to activate the motor. The steering lock ECU detects position of the lock bar and stops the motor at the specified position.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A3	48 (2GR-FE)	E8	C 56	N11	60
A4	48 (2GR-FE)	E9	D 56	N13	A 60
A5	48 (2GR-FE)	E14	56		B 60
A19	59	E41	B 57	N25	60
A23	48 (2GR-FE)	E42	A 57	N28	60
A25	C 48 (2GR-FE)	E43	B 57	N29	60
A26	A 48 (2GR-FE)	E44	C 57	O6	60
A40	A 59	E49	57	O10	60
A41	A 59	E50	57	O18	60
A42	B 59	E51	57	O19	60
A43	49 (2GR-FE)	E52	57	O21	60
A48	49 (2GR-FE)	E56	57	Q6	61
A55	A 49 (2GR-FE)	E58	A 57	Q9	61
A60	B 49 (2GR-FE)	E59	B 57	S5	61
C1	A 50 (2GR-FE)	F1	A 58	S8	61
C3	A 50 (2GR-FE)	F2	B 58	S9	61
C50	51 (2GR-FE)	F3	58	S14	61
C55	B 51 (2GR-FE)	H8	61	S15	61
C56	51 (2GR-FE)	I7	61	W1	61
C57	51 (2GR-FE)	J5	61	W2	61
D1	C 51 (2GR-FE)	K5	61	X1	61
E6	A 56	N6	A 60	X2	61
E7	B 56		B 60		

○ : 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		
1D		
1G	22	
3C	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3D		
3E		
3F		
3G		
3H		
3I		
3J		
3L		
3M		
3N		
3O		
3P	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3Q		
3R		
3U		
4A	42	Instrument Panel Wire and J/B No.4 (Instrument Panel Brace Center)
4C		
4D		
4E		
4F		
4G		
4H		
4K		
4L		
4M		
IC	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
ID	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IF	31	
IG		
II	30	
IJ		
IK		
IL		
IM		
IO	30	Floor Wire and Instrument Panel J/B (Cowl Side Left)
IP	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IR	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)

Smart Key System

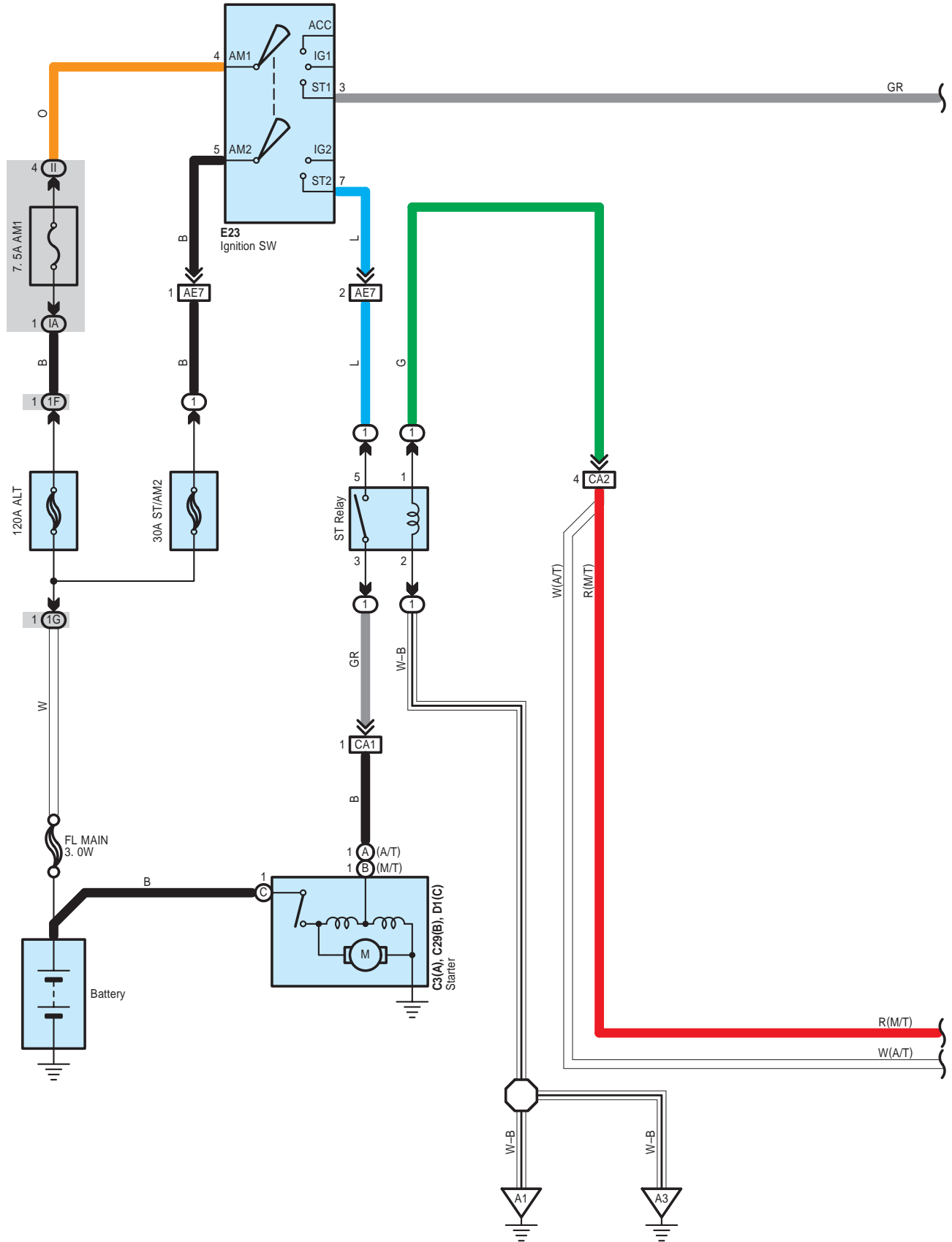
 : Connector Joining Wire Harness and Wire Harness

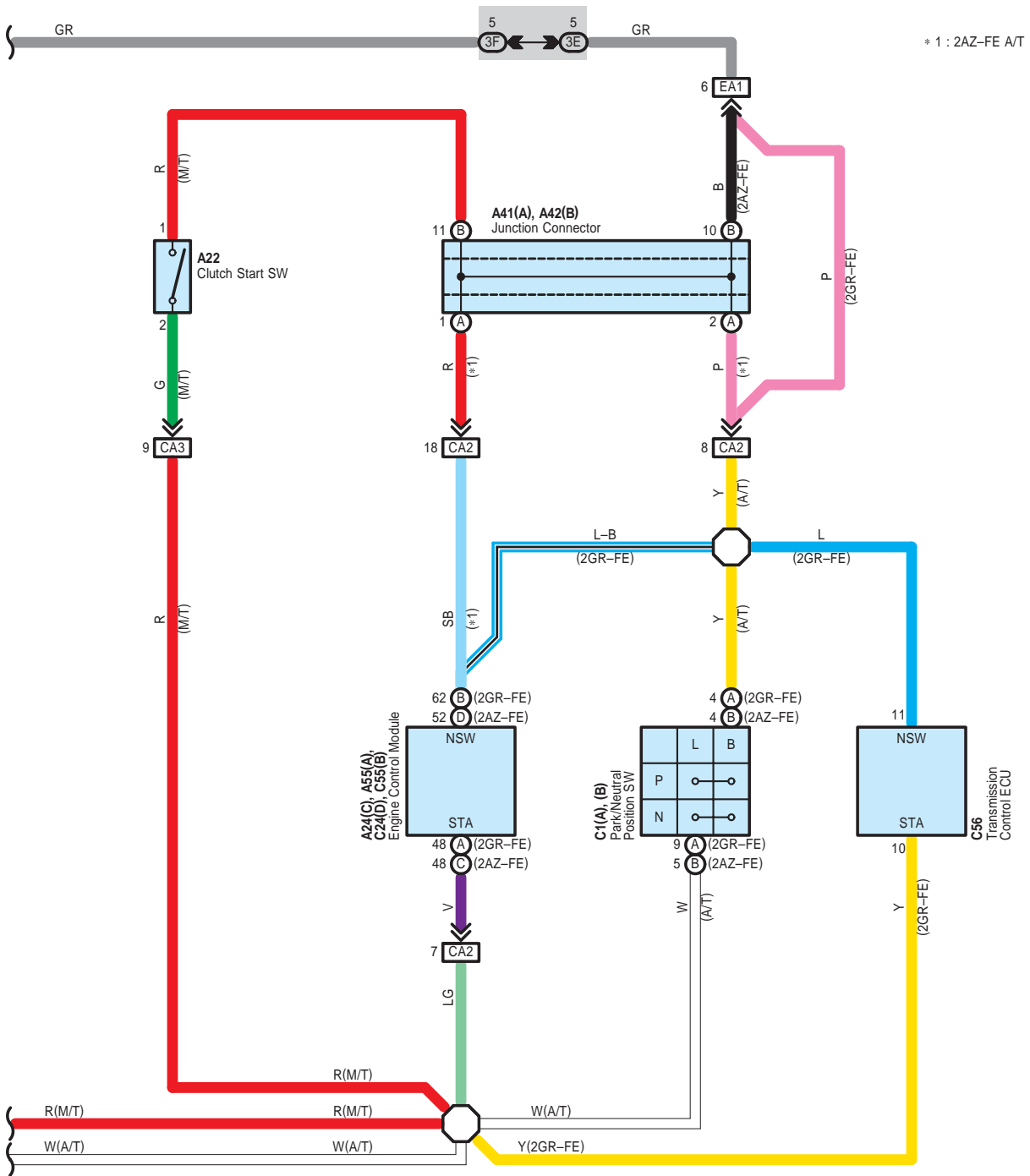
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE2	66	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
AE5	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
AE6		
CA1	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
CA2		
CA3		
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
EN1	66	Instrument Panel Wire and Floor Wire (Left Kick Panel)
EN2		
EO1	66	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
EO2		
EQ1	66	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
HE1	66	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
HE2		
HW1	67	Front Door RH Wire and Electrical Key Wire Harness RH (Inside of the Front Door RH)
IE1	66	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IE2		
IX1	67	Front Door LH Wire and Electrical Key Wire Harness LH (Inside of the Front Door LH)
JO1	67	Rear Door No.1 Wire and Floor No.2 Wire (Right Center Pillar)
KN1	67	Rear Door No.2 Wire and Floor Wire (Left Center Pillar)
SN1	67	Luggage Room Wire and Floor Wire (Luggage Room Left)

 : Ground Points

Code	See Page	Ground Points Location
A1	64 (2GR-FE)	Front Left Fender
A2		
A3	66	Left Cowl Side Panel
C5	64 (2GR-FE)	Right Side of the Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
E1	66	Instrument Panel Left
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left
N1	67	Left Rear Quarter Panel
O1	67	Right Rear Quarter Panel
S1	67	Lower Back Panel Center

Starting without Smart Key System





Starting without Smart Key System

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A22		59	C1	B	54 (2AZ-FE)	C56		51 (2GR-FE)
A24	C	52 (2AZ-FE)	C3	A	50 (2GR-FE)	D1	C	51 (2GR-FE)
A41	A	59			54 (2AZ-FE)			55 (2AZ-FE)
A42	B	59	C24	D	55 (2AZ-FE)	E23		56
A55	A	49 (2GR-FE)	C29	B	55 (2AZ-FE)			
C1	A	50 (2GR-FE)	C55	B	51 (2GR-FE)			

○ : 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)
1F	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1G		
3E	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3F		
IA	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
II	31	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)

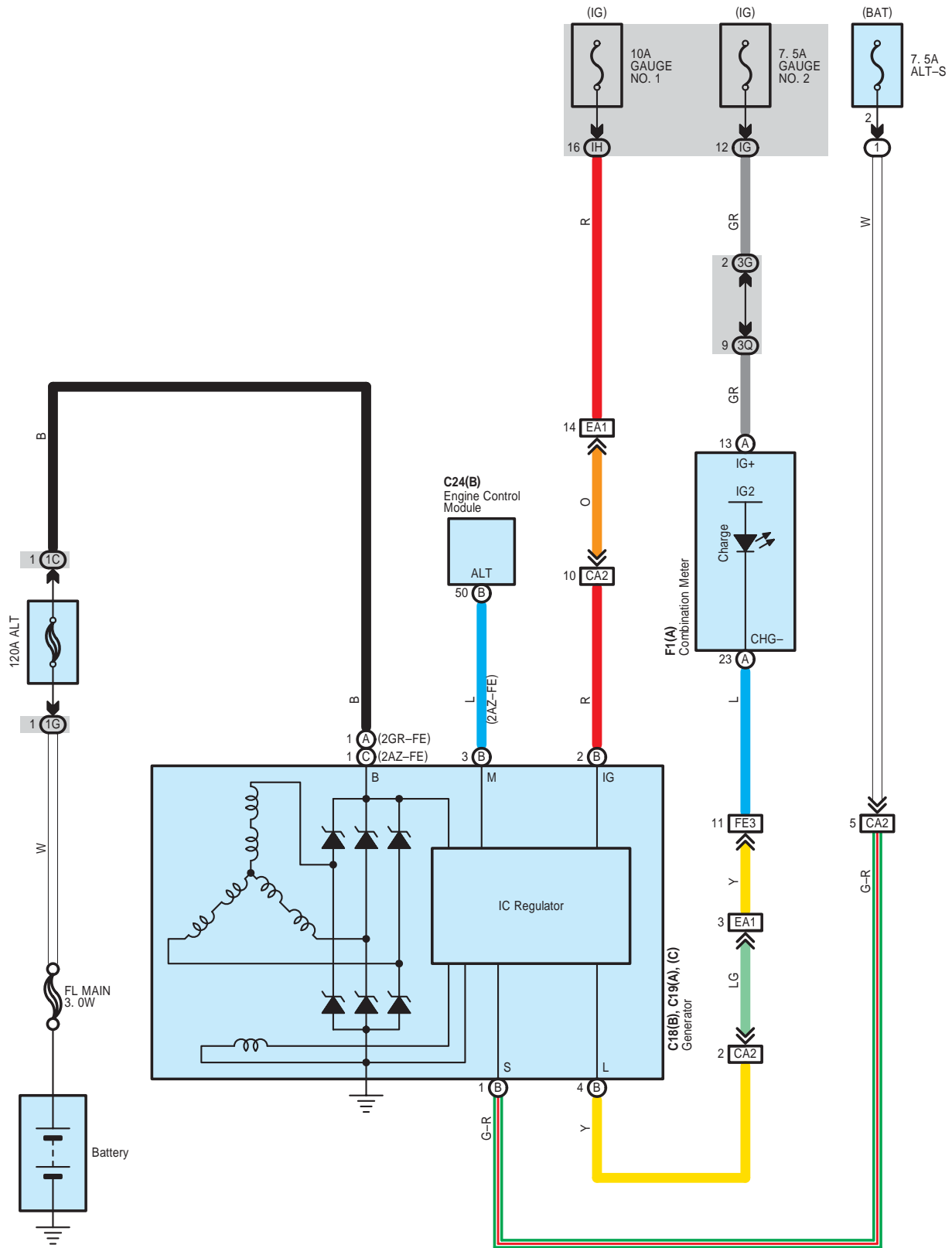
□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE7	66	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
CA1	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
CA2	64 (2GR-FE)	
	65 (2AZ-FE)	
CA3	65 (2AZ-FE)	
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)

▽ : Ground Points

Code	See Page	Ground Points Location
A1	64 (2GR-FE)	Front Left Fender
	65 (2AZ-FE)	
A3	66	Left Cowl Side Panel

Charging



○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
C18	B	50 (2GR-FE)	C19	A	50 (2GR-FE)	C24	B	55 (2AZ-FE)
		54 (2AZ-FE)		C	54 (2AZ-FE)		F1	A

○ : Relay Blocks

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

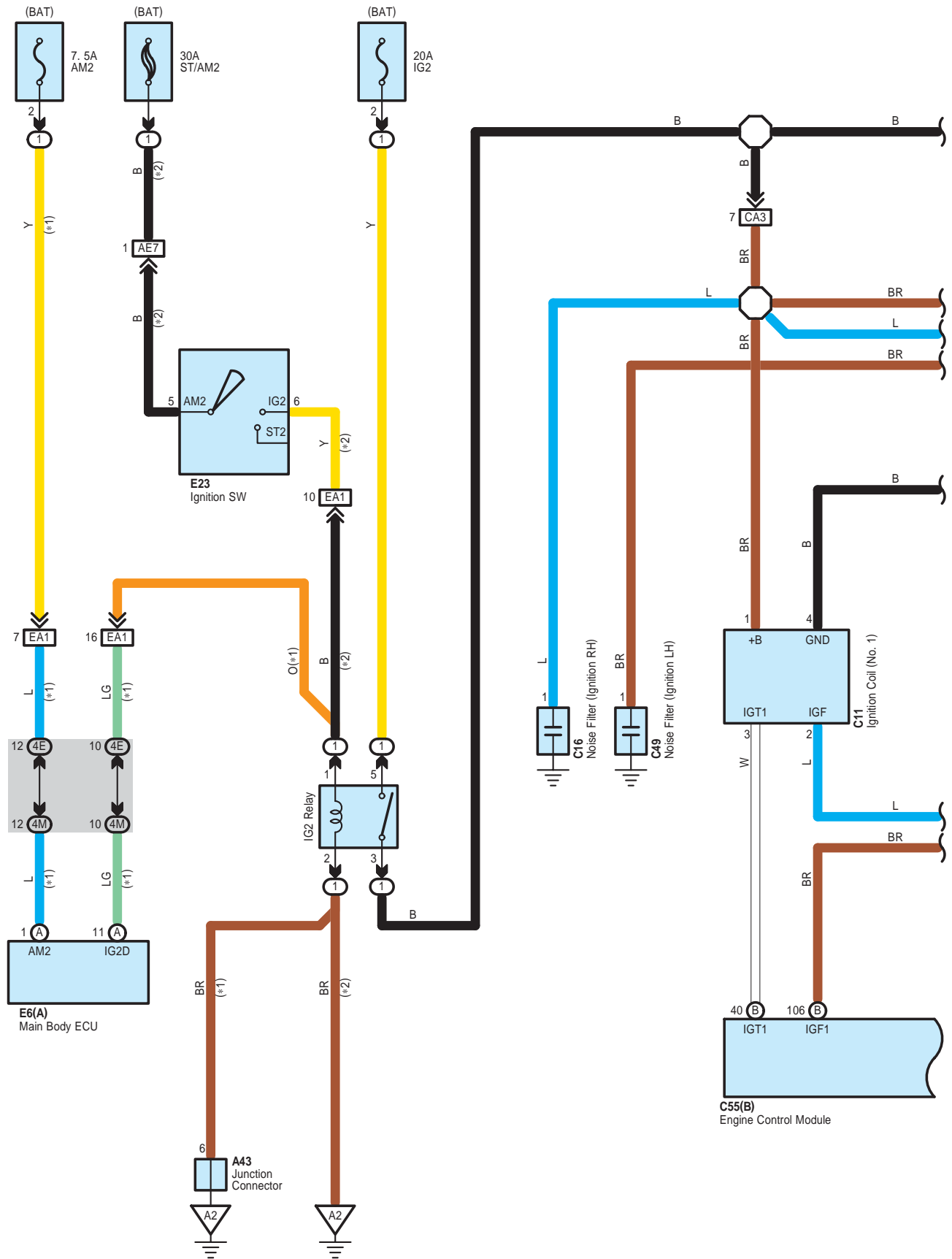
○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	22	Engine Wire and Engine Room J/B (Engine Compartment Left)
1G	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3G	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3Q	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
IG	31	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IH		

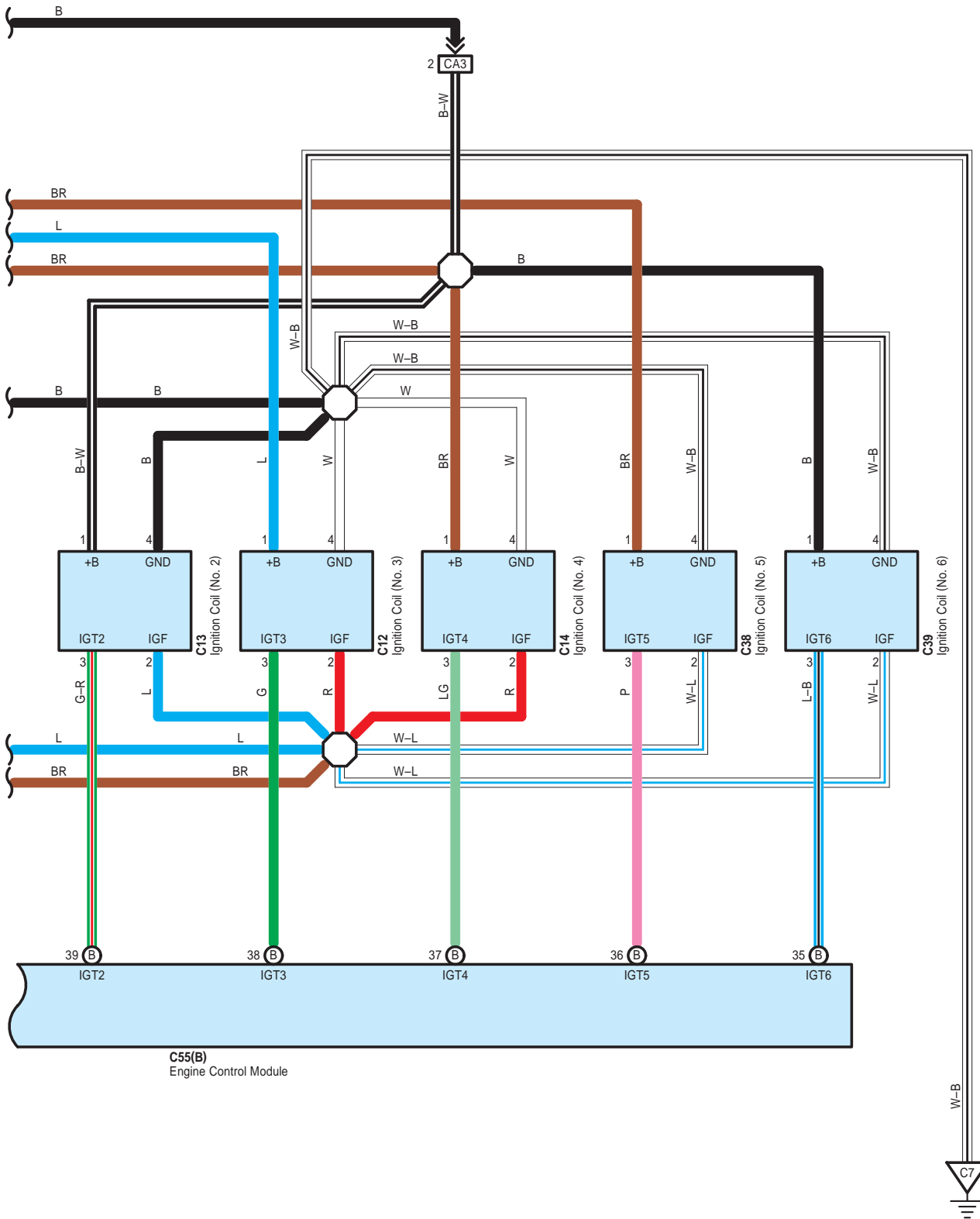
□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
CA2	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)

Ignition for 2GR-FE



- * 1 : w/ Smart Key System
- * 2 : w/o Smart Key System



Ignition for 2GR-FE

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A43	49 (2GR-FE)	C14	50 (2GR-FE)	C49	51 (2GR-FE)
C11	50 (2GR-FE)	C16	50 (2GR-FE)	C55	B 51 (2GR-FE)
C12	50 (2GR-FE)	C38	51 (2GR-FE)	E6	A 56
C13	50 (2GR-FE)	C39	51 (2GR-FE)	E23	56

○ : 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)
4E	42	Instrument Panel Wire and J/B No.4 (Instrument Panel Brace Center)
4M		

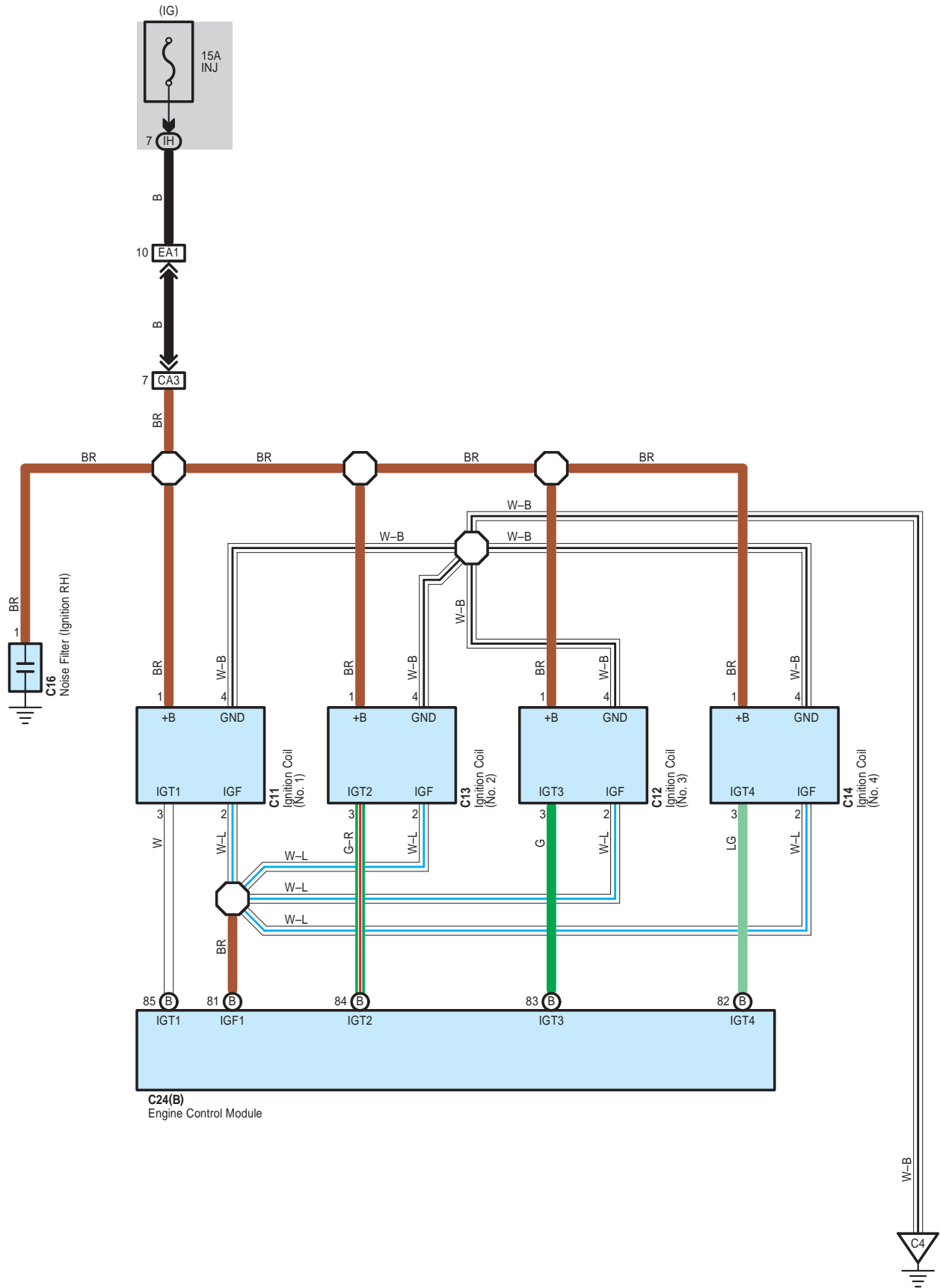
□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE7	66	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
CA3	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)

▽ : Ground Points

Code	See Page	Ground Points Location
A2	64 (2GR-FE)	Front Left Fender
C7	64 (2GR-FE)	Left Side of the Cylinder Block

Ignition for 2AZ-FE



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
C11	54 (2AZ-FE)	C13	54 (2AZ-FE)	C16	54 (2AZ-FE)
C12	54 (2AZ-FE)	C14	54 (2AZ-FE)	C24	B 55 (2AZ-FE)

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
IH	31	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)

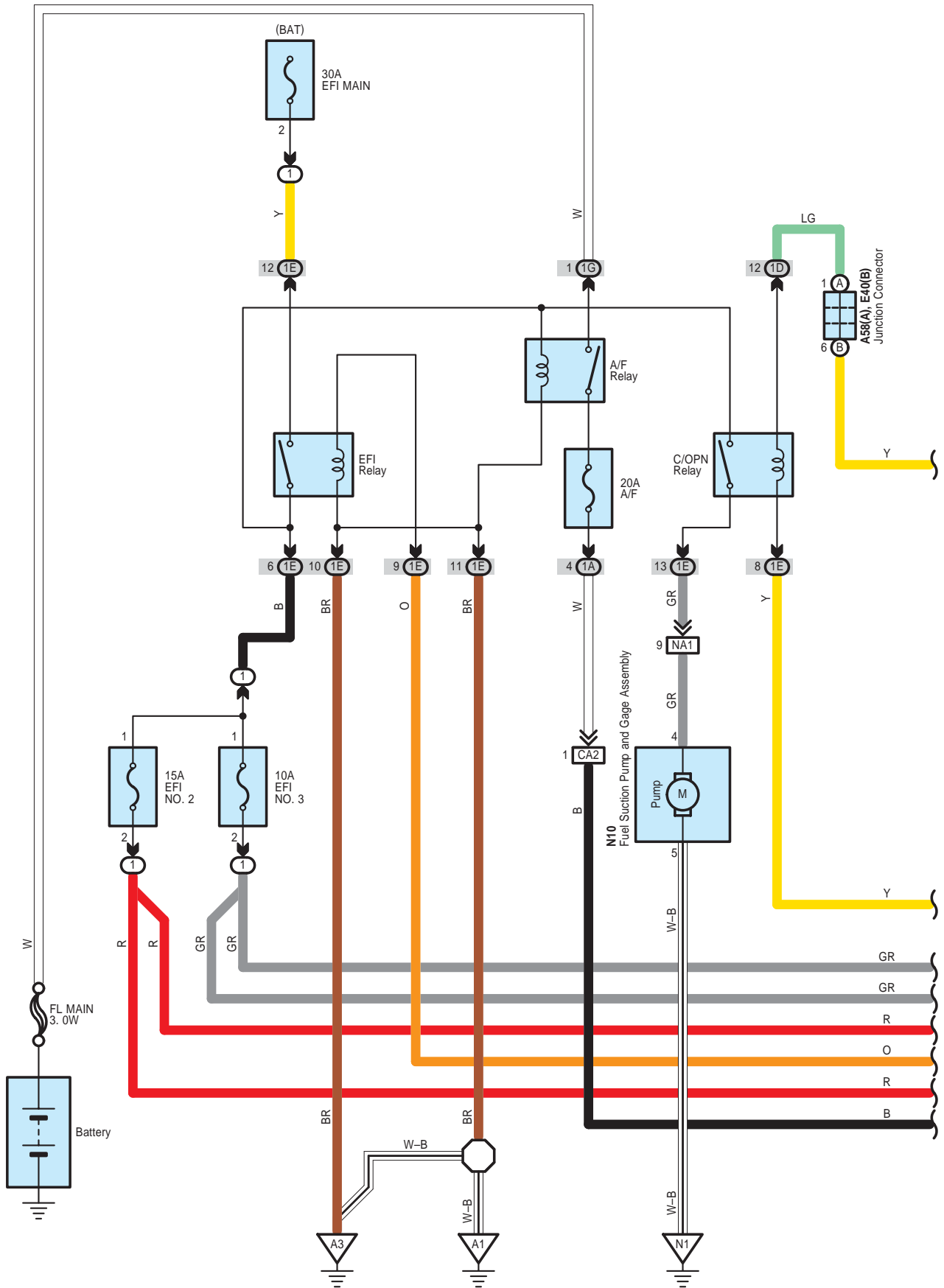
 : **Connector Joining Wire Harness and Wire Harness**

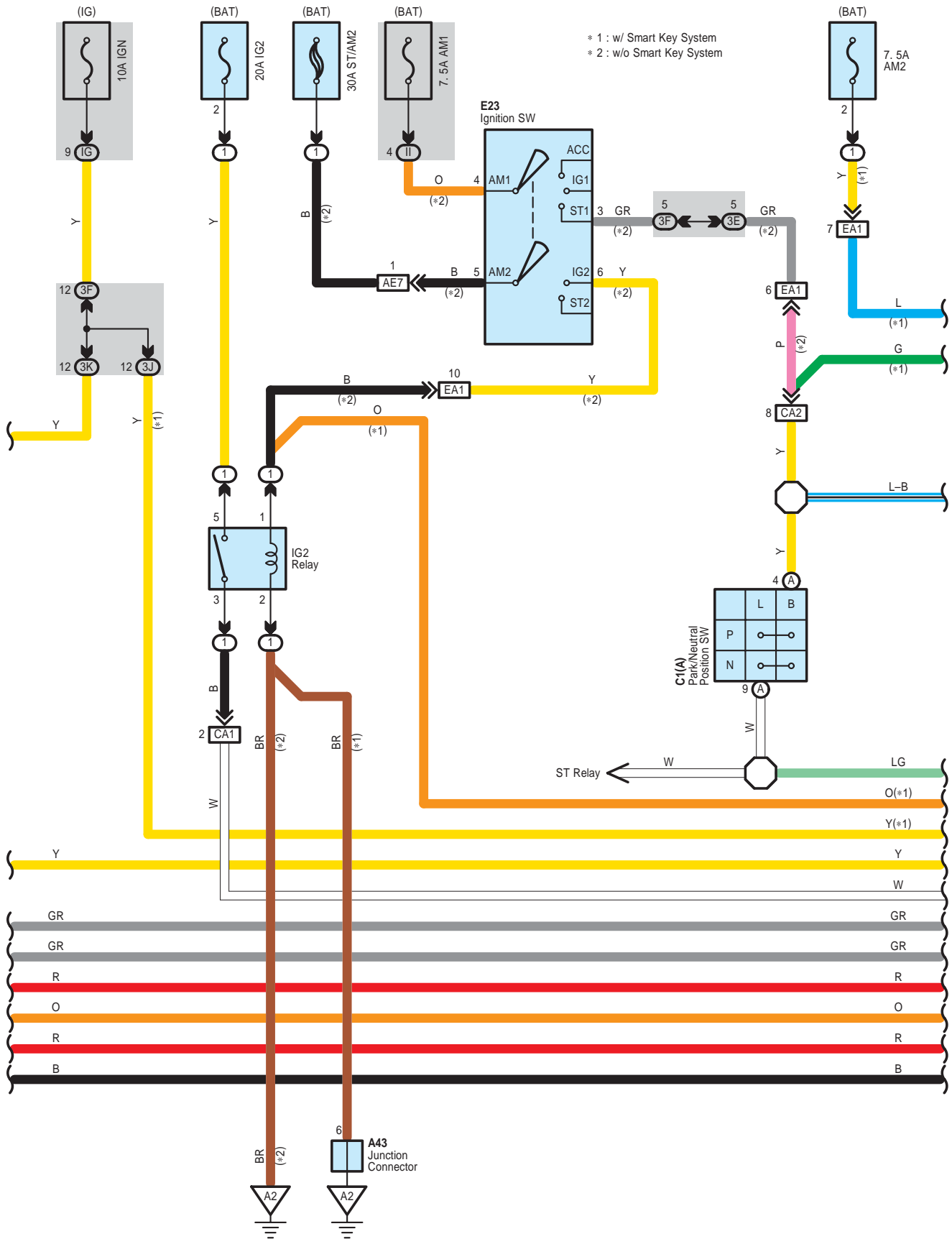
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
CA3	65 (2AZ-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)

 : **Ground Points**

Code	See Page	Ground Points Location
C4	65 (2AZ-FE)	Cylinder Block

Engine Control for 2GR-FE



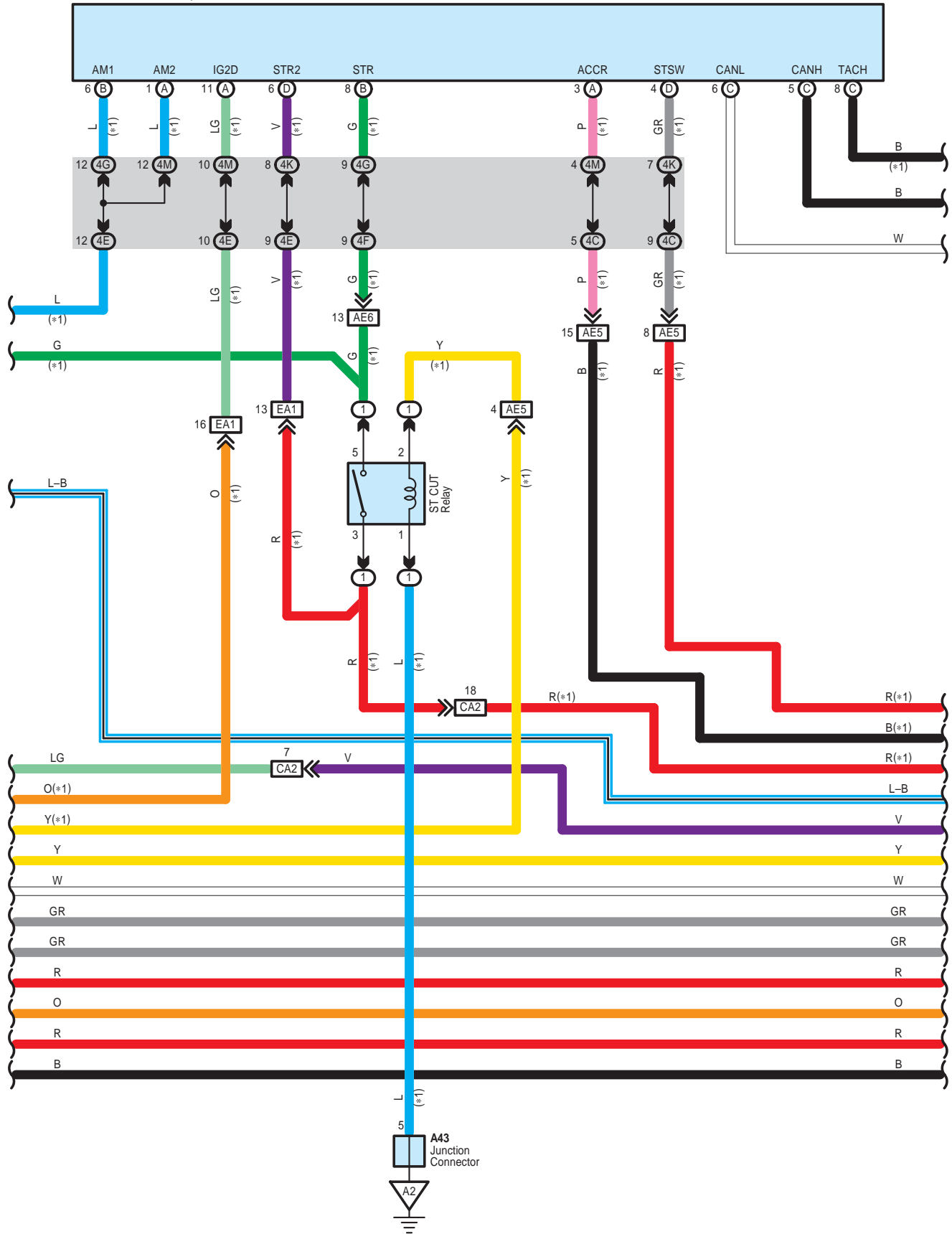


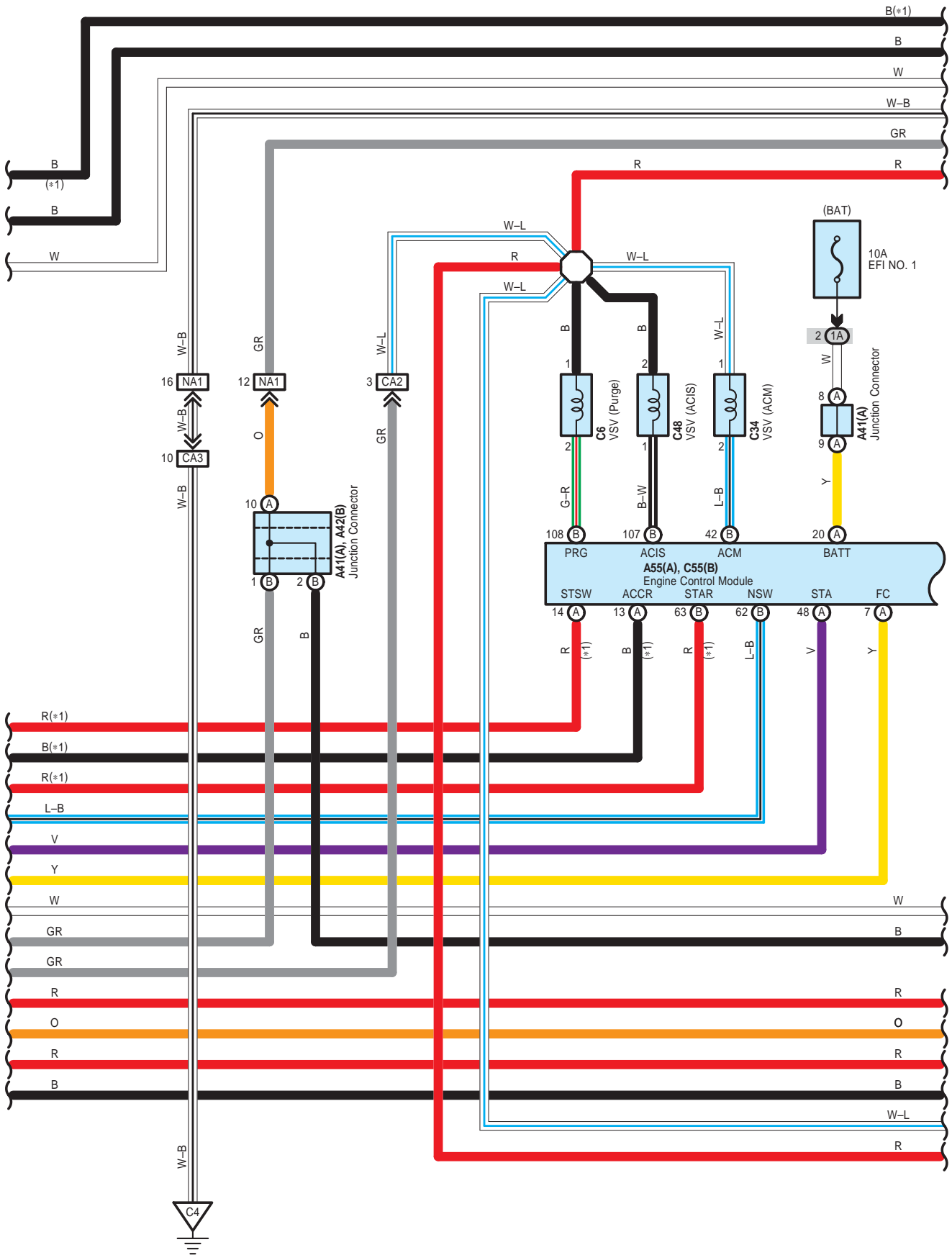
CAMRY (EM0250U)

Engine Control for 2GR-FE

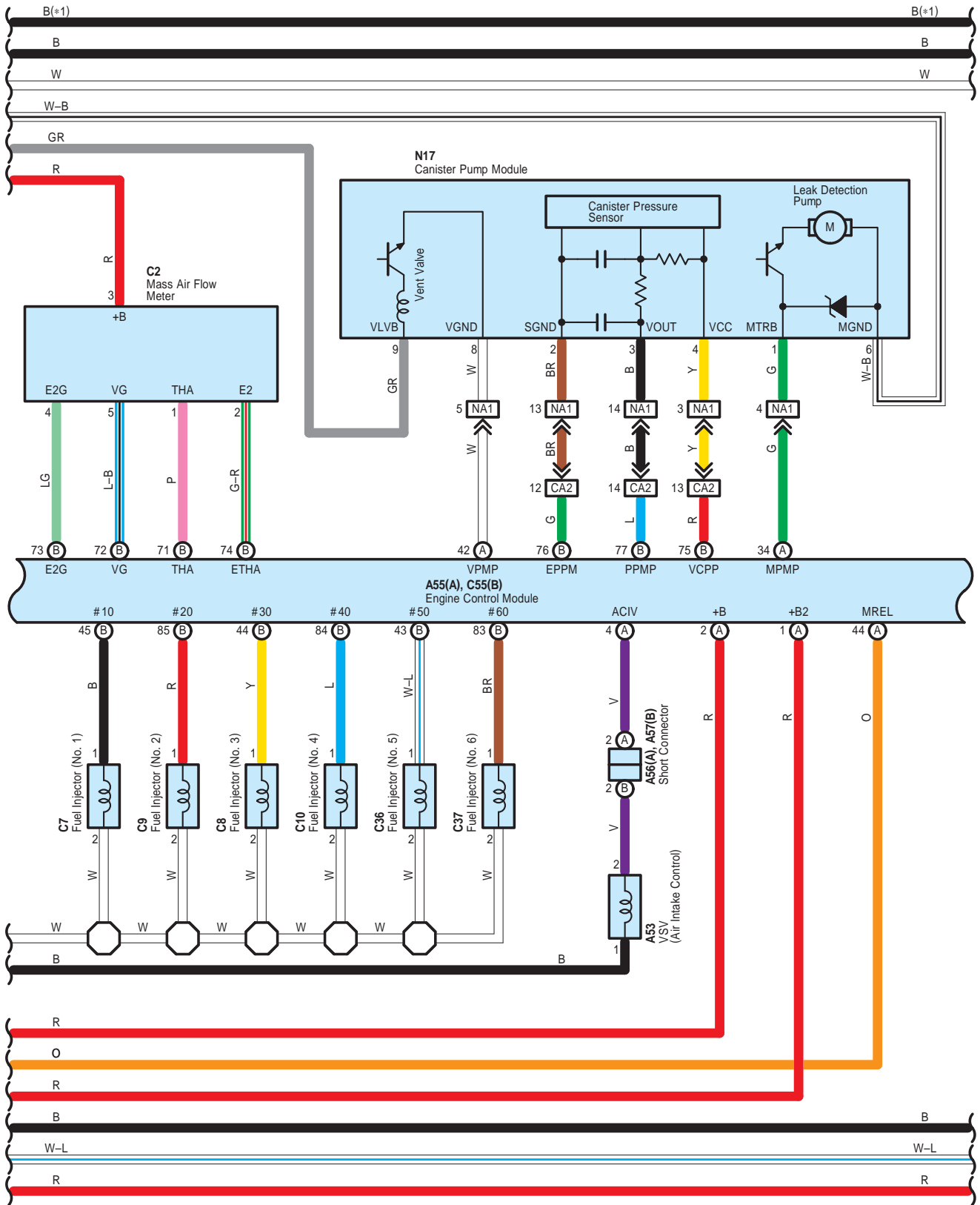
E6(A), E7(B), E8(C), E9(D)
Main Body ECU

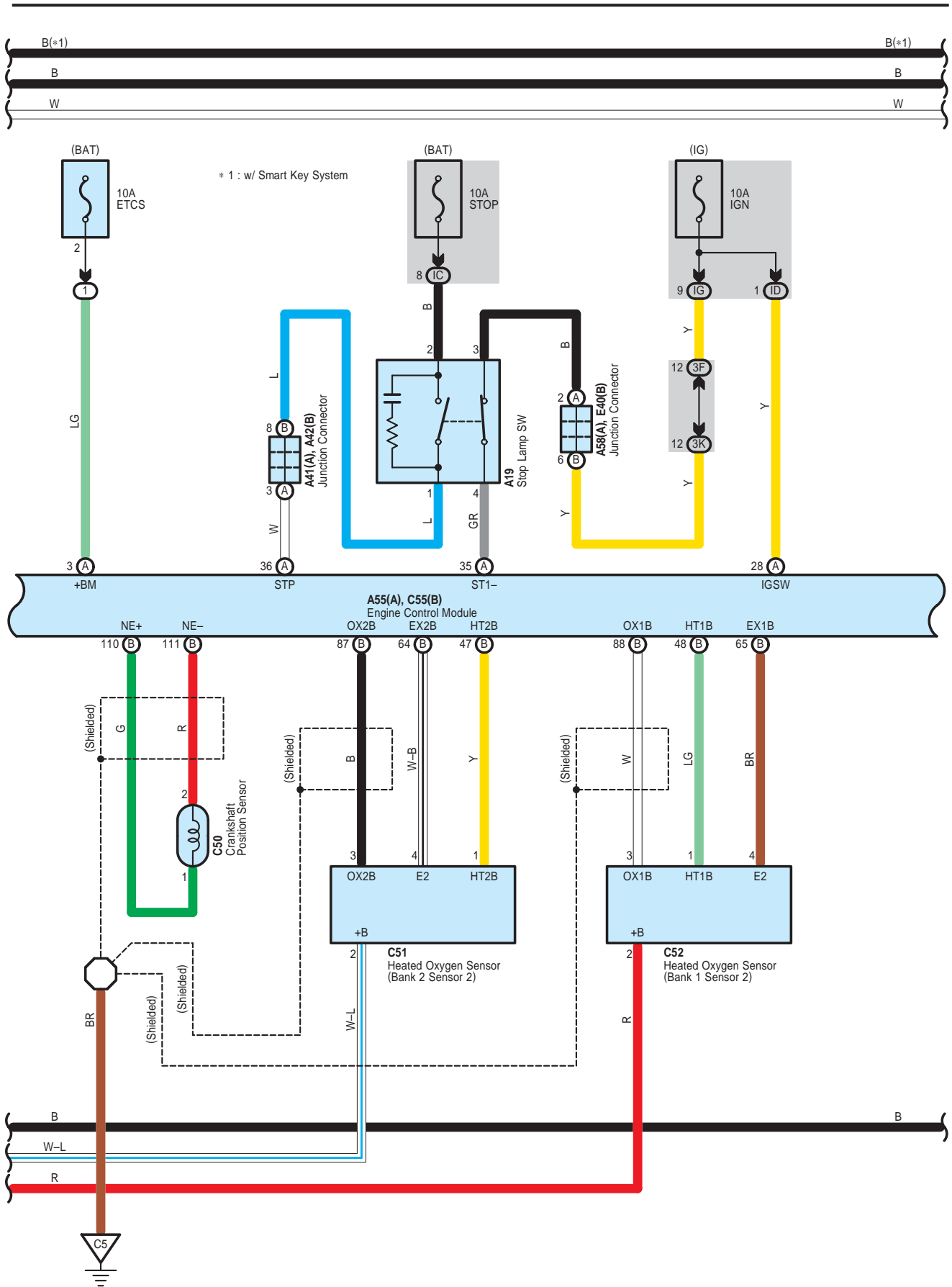
* 1 : w/ Smart Key System



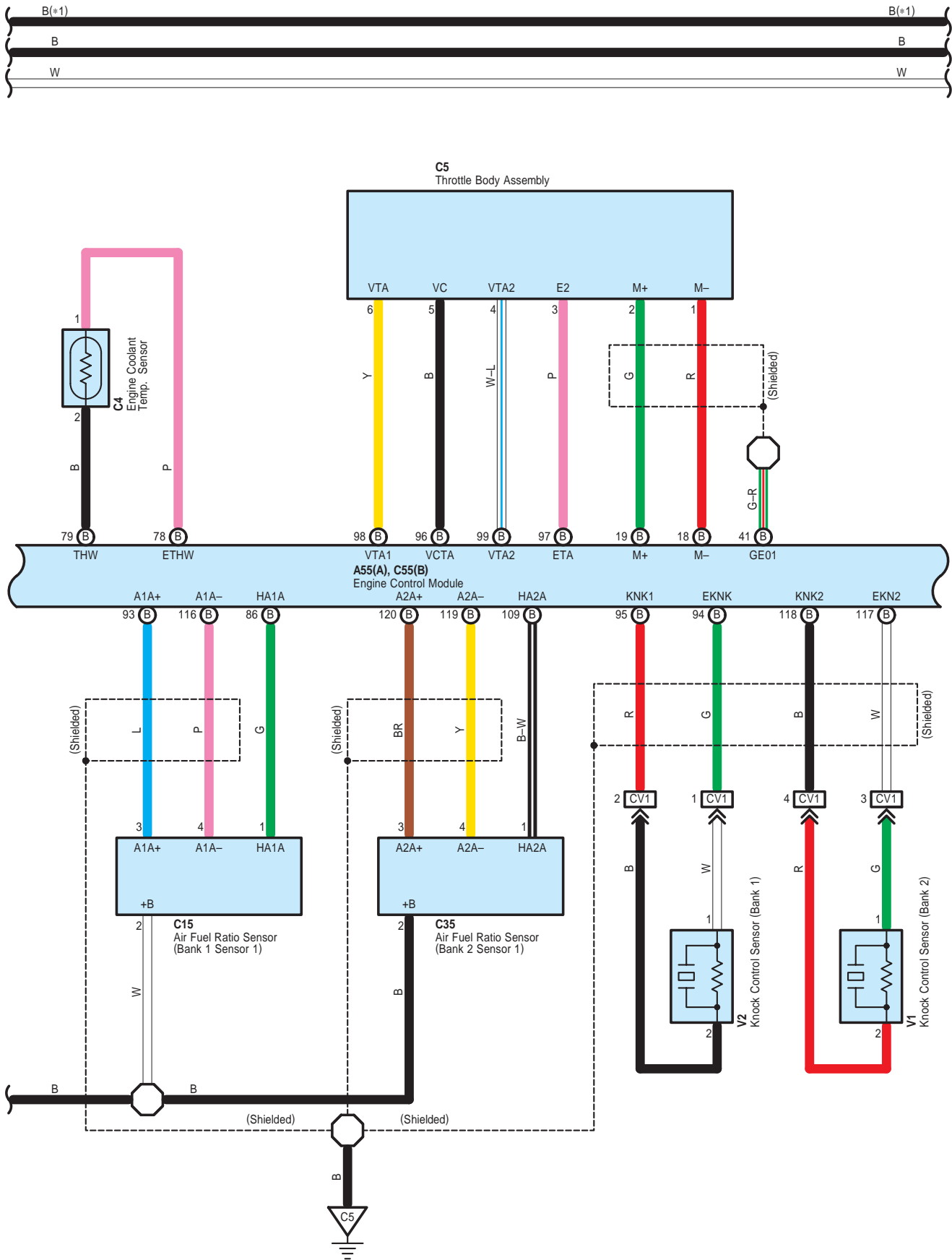


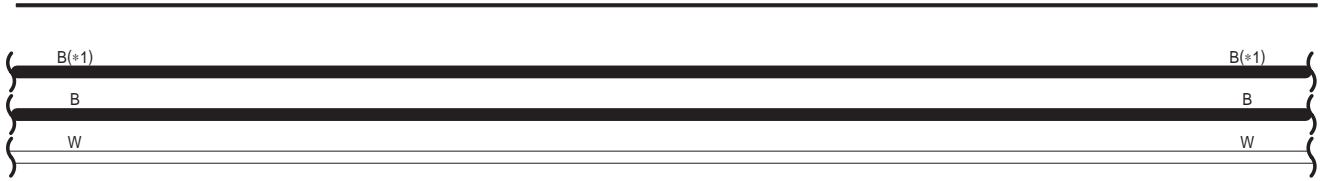
Engine Control for 2GR-FE



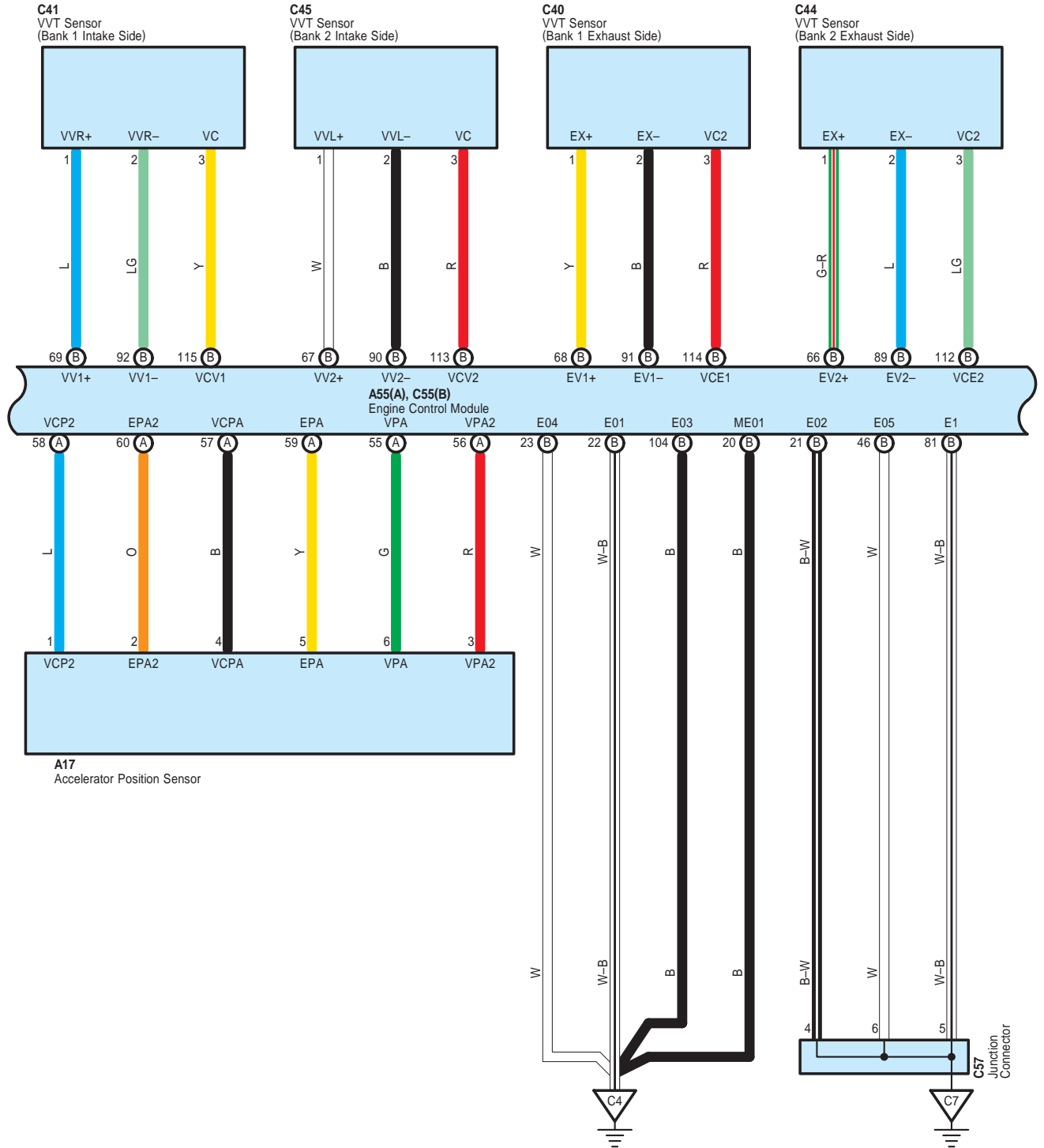


Engine Control for 2GR-FE

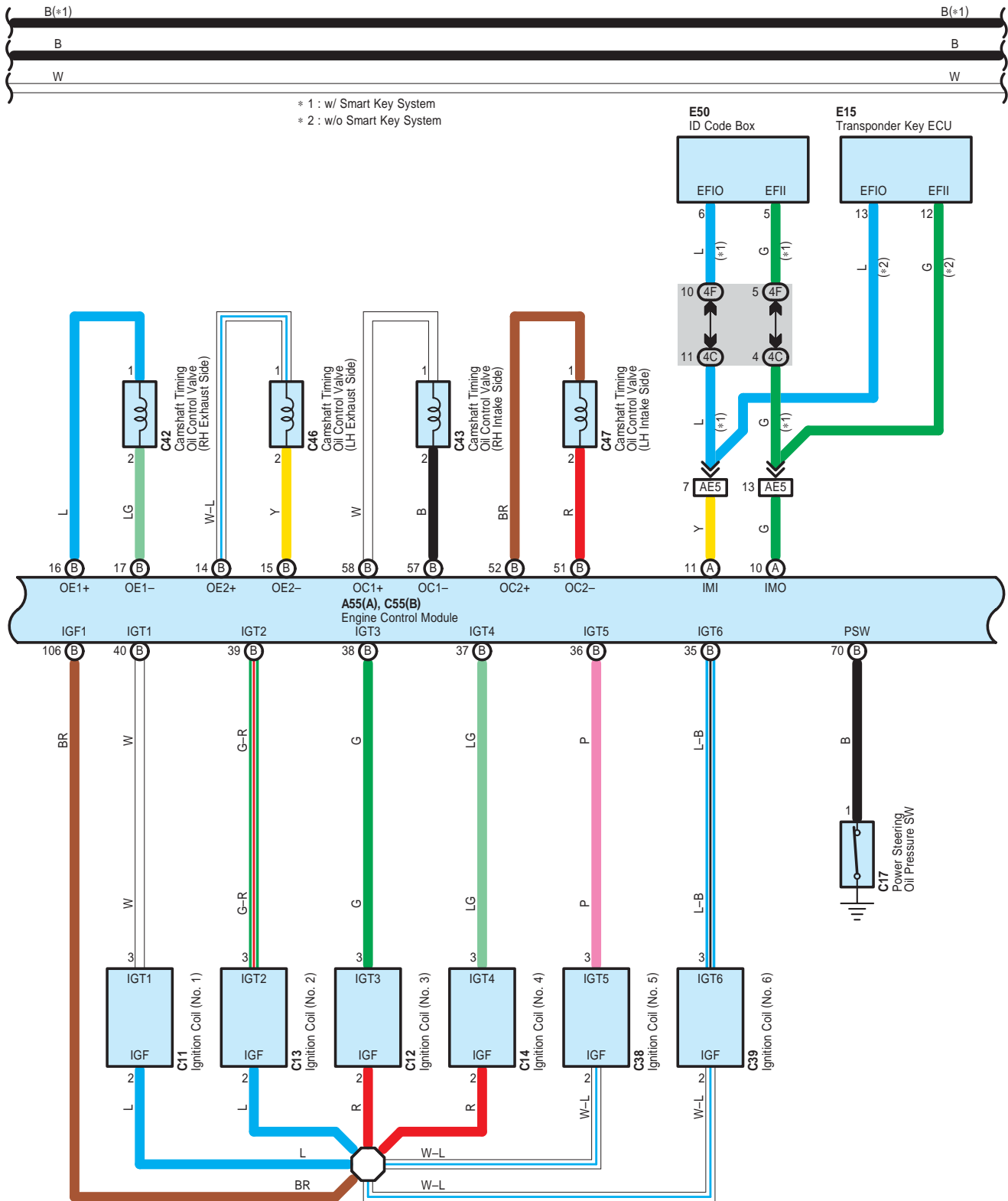


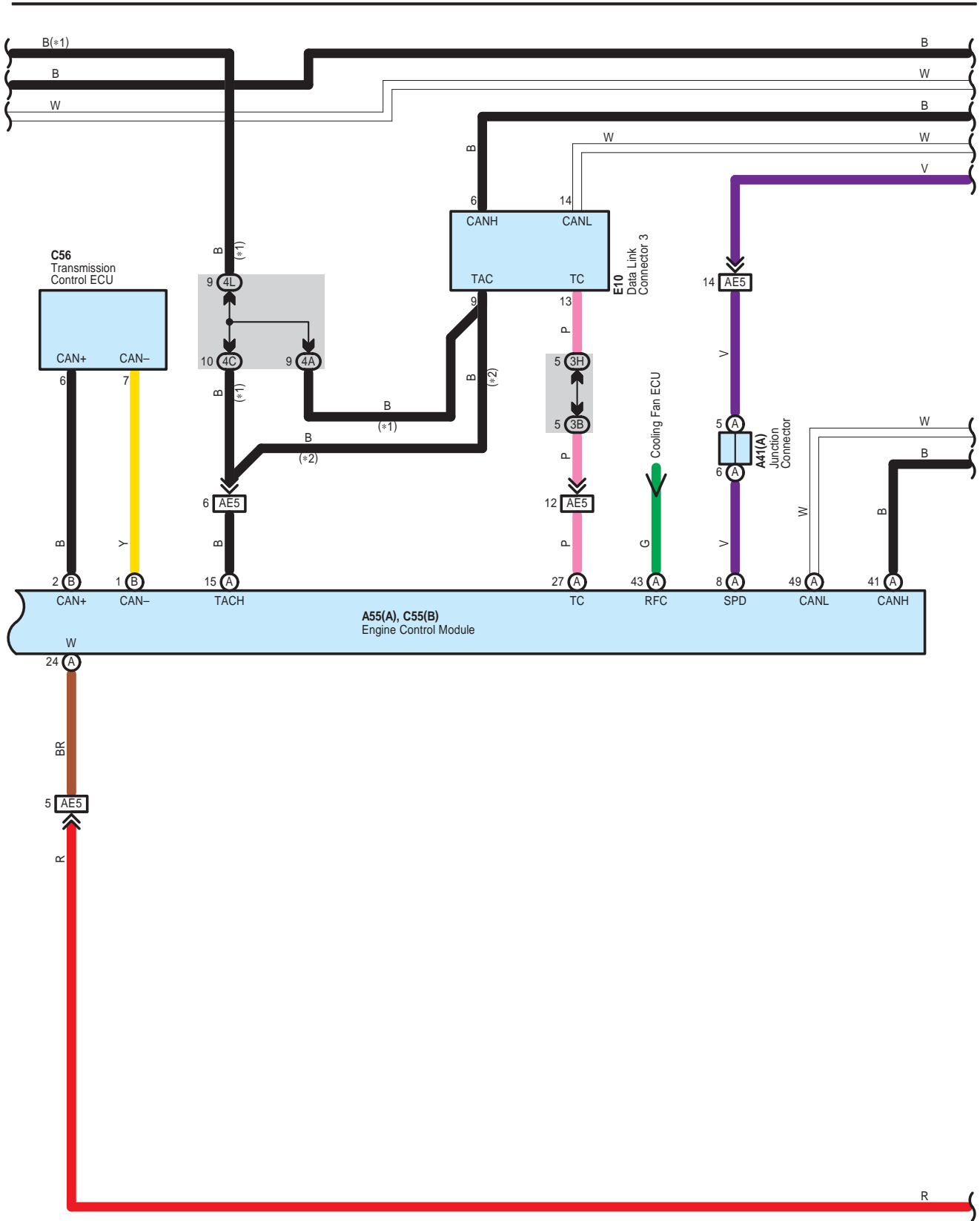


* 1 : w/ Smart Key System

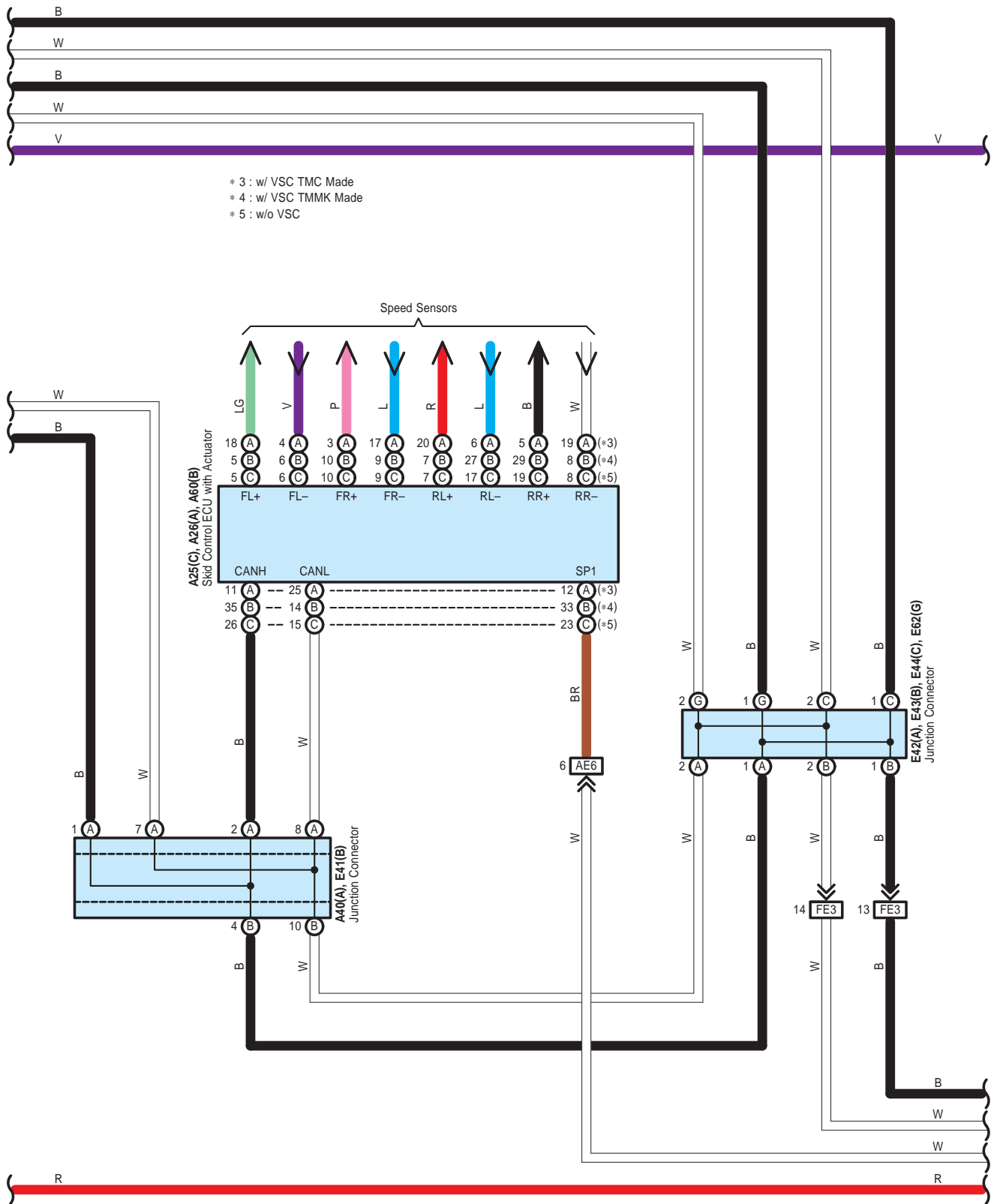


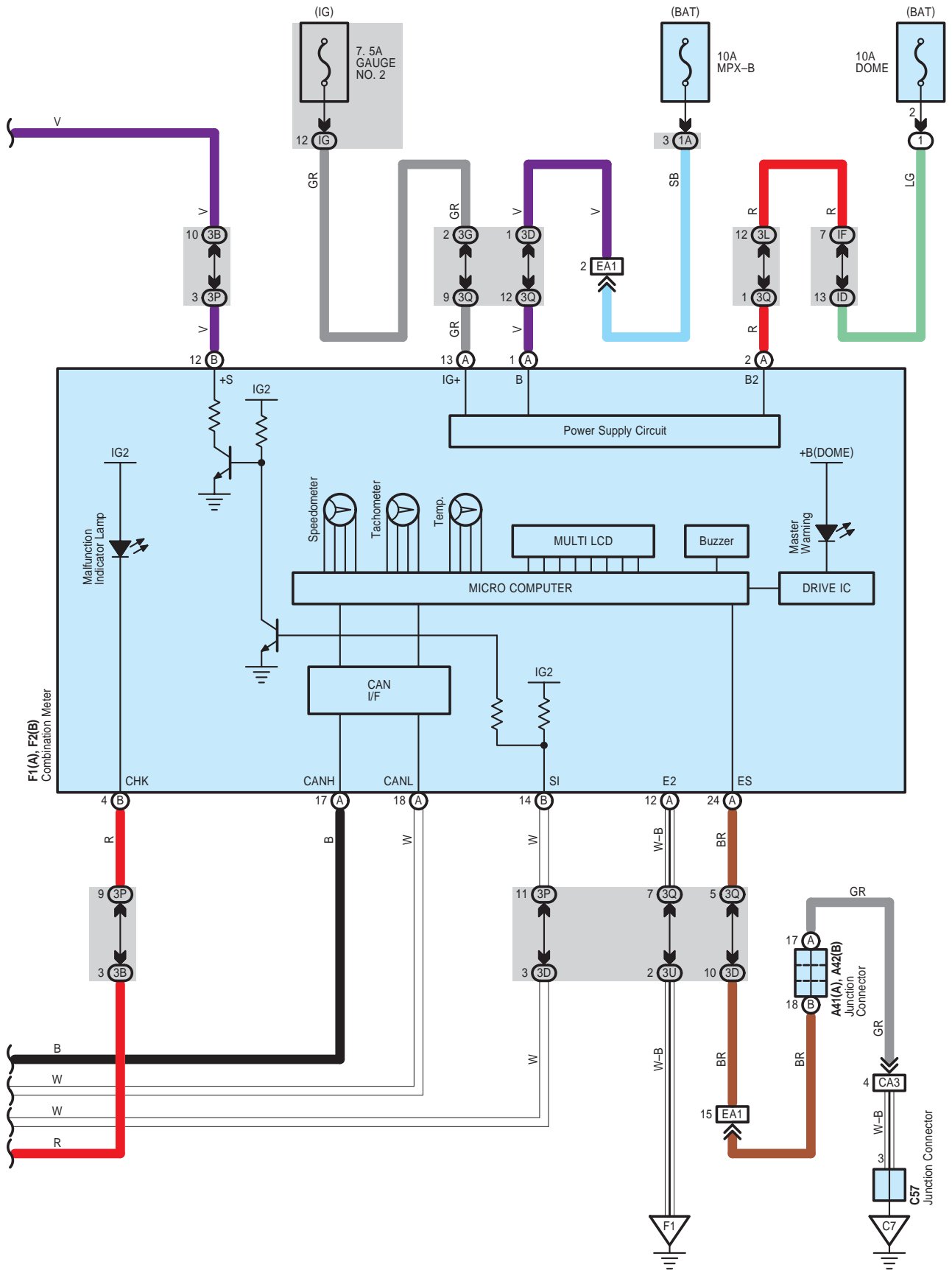
Engine Control for 2GR-FE





Engine Control for 2GR-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. is input into TERMINAL THW of the engine control module as a control signal.

(2) Intake air temp. signal circuit

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

(3) Oxygen sensor signal circuit

The oxygen density in the exhaust emission is detected and is input as a control signal from the heated oxygen sensors to TERMINALS OX1B and OX2B of the engine control module.

(4) RPM signal circuit

Camshaft position is detected by the VVT sensor (Bank 1 exhaust side, bank 1 intake side, bank 2 exhaust side and bank 2 intake side), and their signals are input to TERMINALS EV1+, EV2+, VV1+ and VV2+ of the engine control module as control signals. Also, the engine RPM is detected by the crankshaft position sensor installed in the cylinder block and the signal is input into TERMINAL NE+ of the engine control module as a control signal.

(5) Throttle position sensor 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 the signal is input into TERMINAL SPD of the engine control module via the combination meter, from TERMINAL SP1 of the skid control ECU with actuator.

(7) Battery signal circuit

Voltage is constantly applied to TERMINAL BATT of the engine control module. When the power SW is pushed on (Power SW type), or when the ignition SW is turned on (Ignition SW type), the voltage for engine control module start-up power supply is applied to TERMINAL +B and +B2 of engine control module via EFI relay.

(8) Intake air volume signal circuit

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

(9) Stop lamp SW signal circuit

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

(10) Starter signal circuit

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

(11) Engine knock signal circuit

Engine knocking is detected by the knock control sensors, and is input into TERMINALS KNK1 and KNK2 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 input from each sensors to the engine control module. The control signal is sent to the engine control module TERMINALS #10, #20, #30, #40, #50 and #60 to operate the injector (Fuel injection). The SFI system controls the fuel injection by the engine control module in response to the driving conditions.

* ESA system

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

* Heated oxygen sensor heater control system

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

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

* ETCS-i

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

* Dual VVT-i

Dual VVT-i controls the intake and exhaust valve timing to the most appropriate levels in accordance with the engine conditions.

3. Diagnosis System

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

4. Fail-Safe System

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

Engine Control for 2GR-FE

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A17	59	C12	50 (2GR-FE)	C56	51 (2GR-FE)
A19	59	C13	50 (2GR-FE)	C57	51 (2GR-FE)
A25	C 48 (2GR-FE)	C14	50 (2GR-FE)	E6	A 56
A26	A 48 (2GR-FE)	C15	50 (2GR-FE)	E7	B 56
A40	A 59	C17	50 (2GR-FE)	E8	C 56
A41	A 59	C34	51 (2GR-FE)	E9	D 56
A42	B 59	C35	51 (2GR-FE)	E10	56
A43	49 (2GR-FE)	C36	51 (2GR-FE)	E15	56
A53	49 (2GR-FE)	C37	51 (2GR-FE)	E23	56
A55	A 49 (2GR-FE)	C38	51 (2GR-FE)	E40	B 57
A56	A 59	C39	51 (2GR-FE)	E41	B 57
A57	B 59	C40	51 (2GR-FE)	E42	A 57
A58	A 59	C41	51 (2GR-FE)	E43	B 57
A60	B 49 (2GR-FE)	C42	51 (2GR-FE)	E44	C 57
C1	A 50 (2GR-FE)	C43	51 (2GR-FE)	E50	57
C2	50 (2GR-FE)	C44	51 (2GR-FE)	E62	G 57
C4	50 (2GR-FE)	C45	51 (2GR-FE)	F1	A 58
C5	50 (2GR-FE)	C46	51 (2GR-FE)	F2	B 58
C6	50 (2GR-FE)	C47	51 (2GR-FE)	N10	60
C7	50 (2GR-FE)	C48	51 (2GR-FE)	N17	60
C8	50 (2GR-FE)	C50	51 (2GR-FE)	V1	51 (2GR-FE)
C9	50 (2GR-FE)	C51	51 (2GR-FE)	V2	51 (2GR-FE)
C10	50 (2GR-FE)	C52	51 (2GR-FE)		
C11	50 (2GR-FE)	C55	B 51 (2GR-FE)		

○ : 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)
1D		
1E		
1G	22	
3B	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3D		
3E		
3F		
3G		
3H		
3J		
3K		
3L		
3P	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3Q		
3U		
4A	42	Instrument Panel Wire and J/B No.4 (Instrument Panel Brace Center)
4C		
4E		
4F		
4G		
4K		
4L		
4M		
IC	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
ID	30	
IF	31	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IG		
II		

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

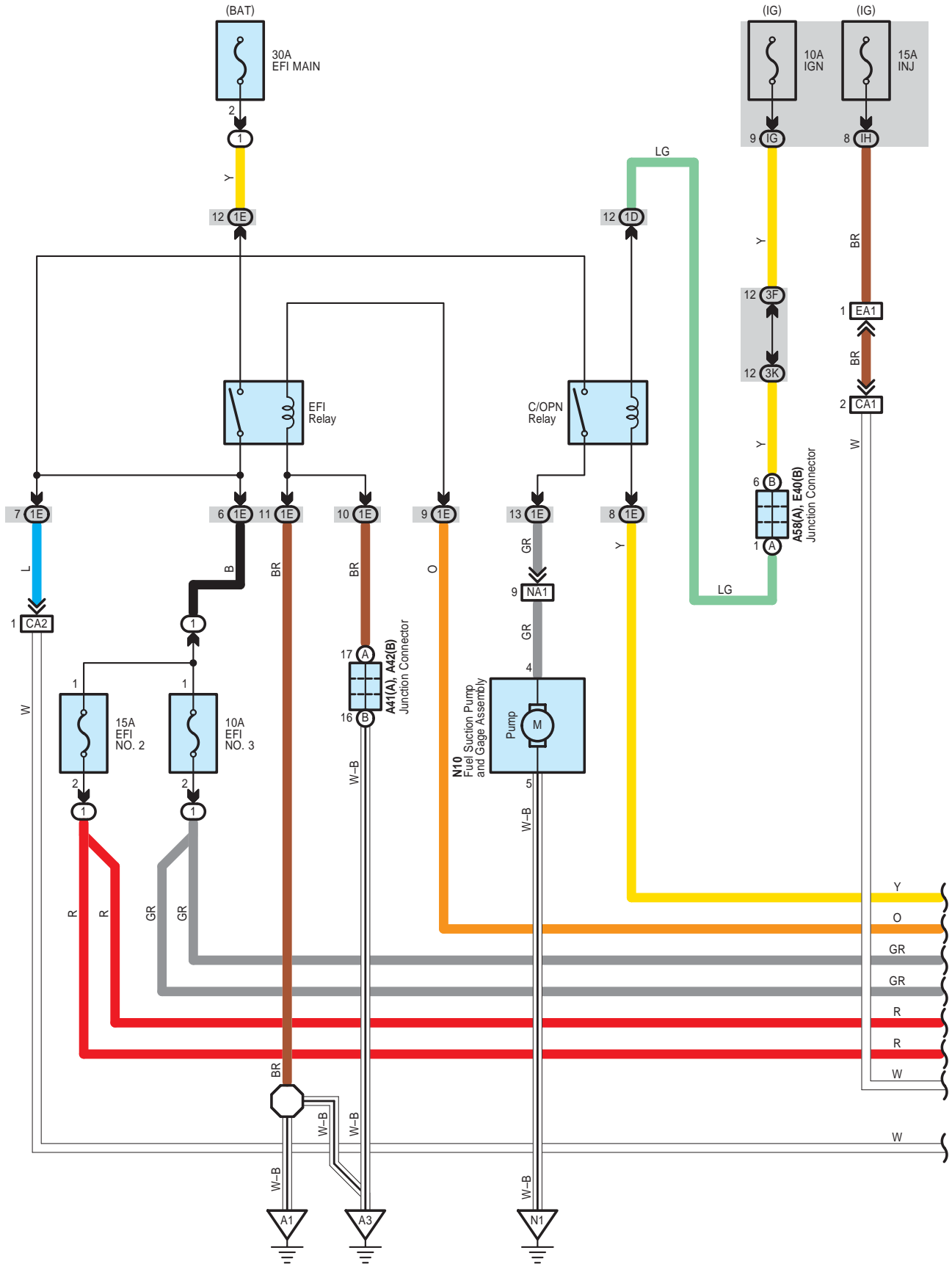
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE5	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
AE6		
AE7	66	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
CA1	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
CA2		
CA3		
CV1	64 (2GR-FE)	Engine Wire and Sensor Wire (Left Side of the Cylinder Block)
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
NA1	66	Floor Wire and Engine Room Main Wire (Left Kick Panel)

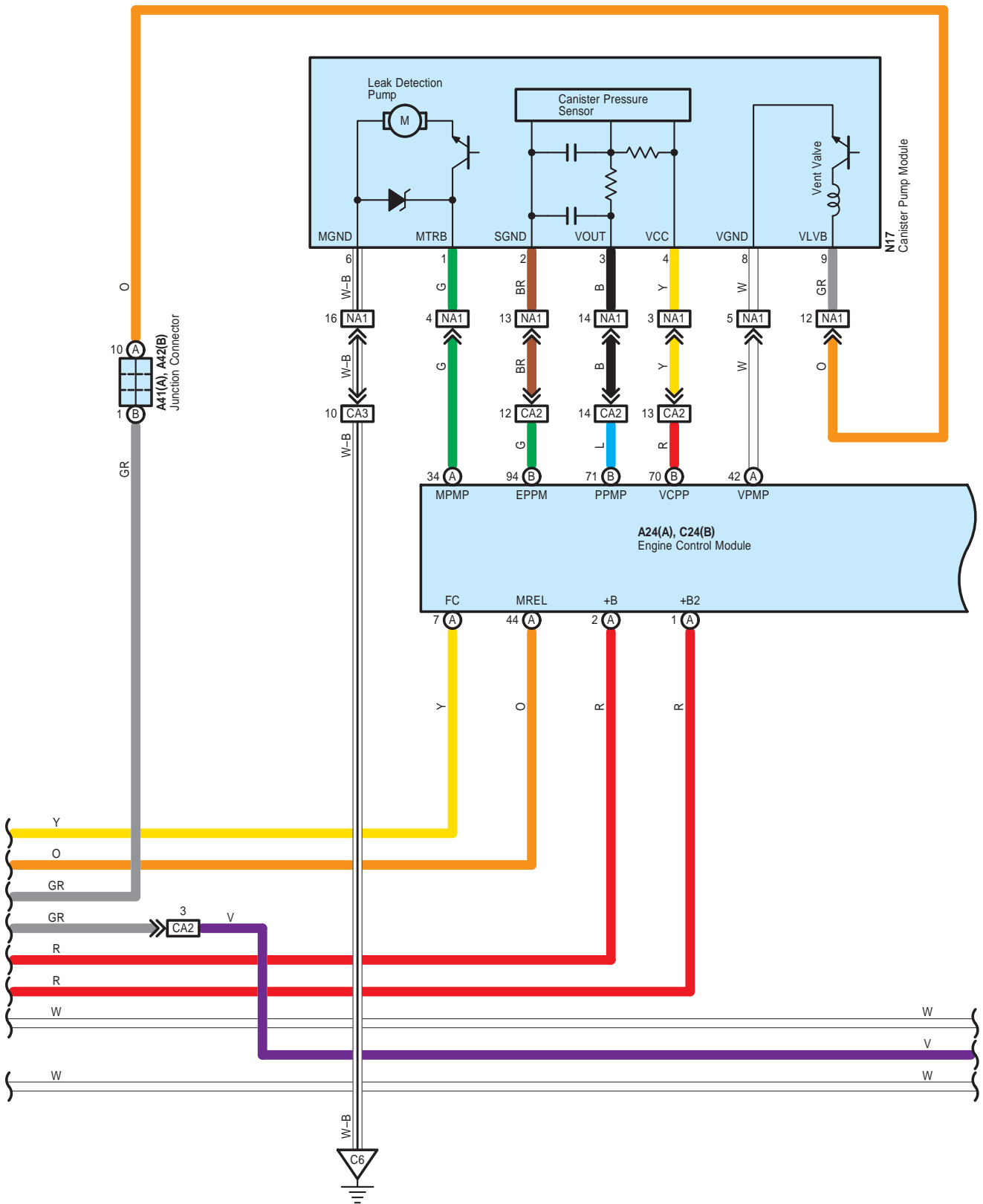
Engine Control for 2GR-FE

 : Ground Points

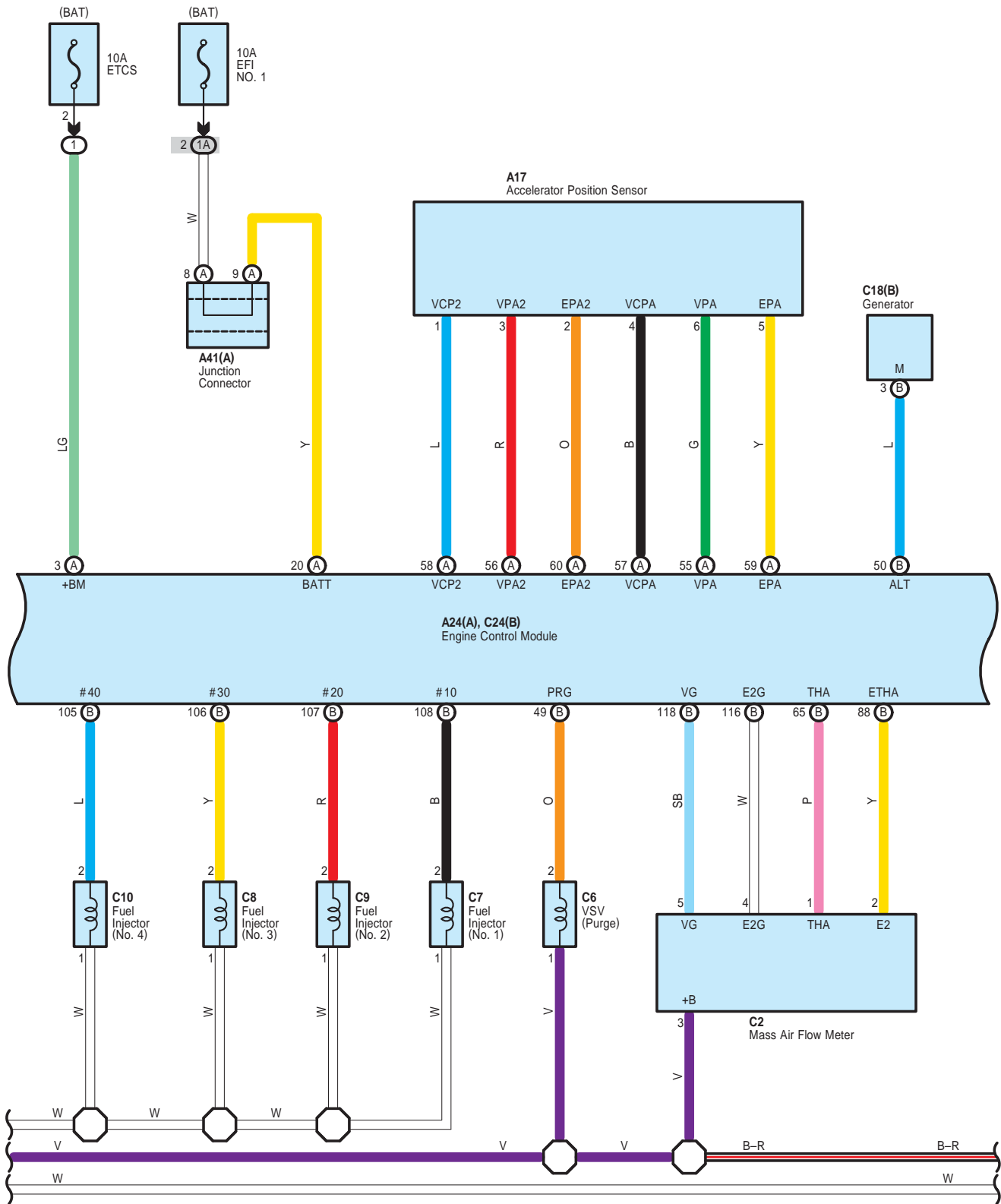
Code	See Page	Ground Points Location
A1	64 (2GR-FE)	Front Left Fender
A2		
A3	66	Left Cowl Side Panel
C4	64 (2GR-FE)	Cylinder Head
C5	64 (2GR-FE)	Right Side of the Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
F1	66	Instrument Panel Left
N1	67	Left Rear Quarter Panel

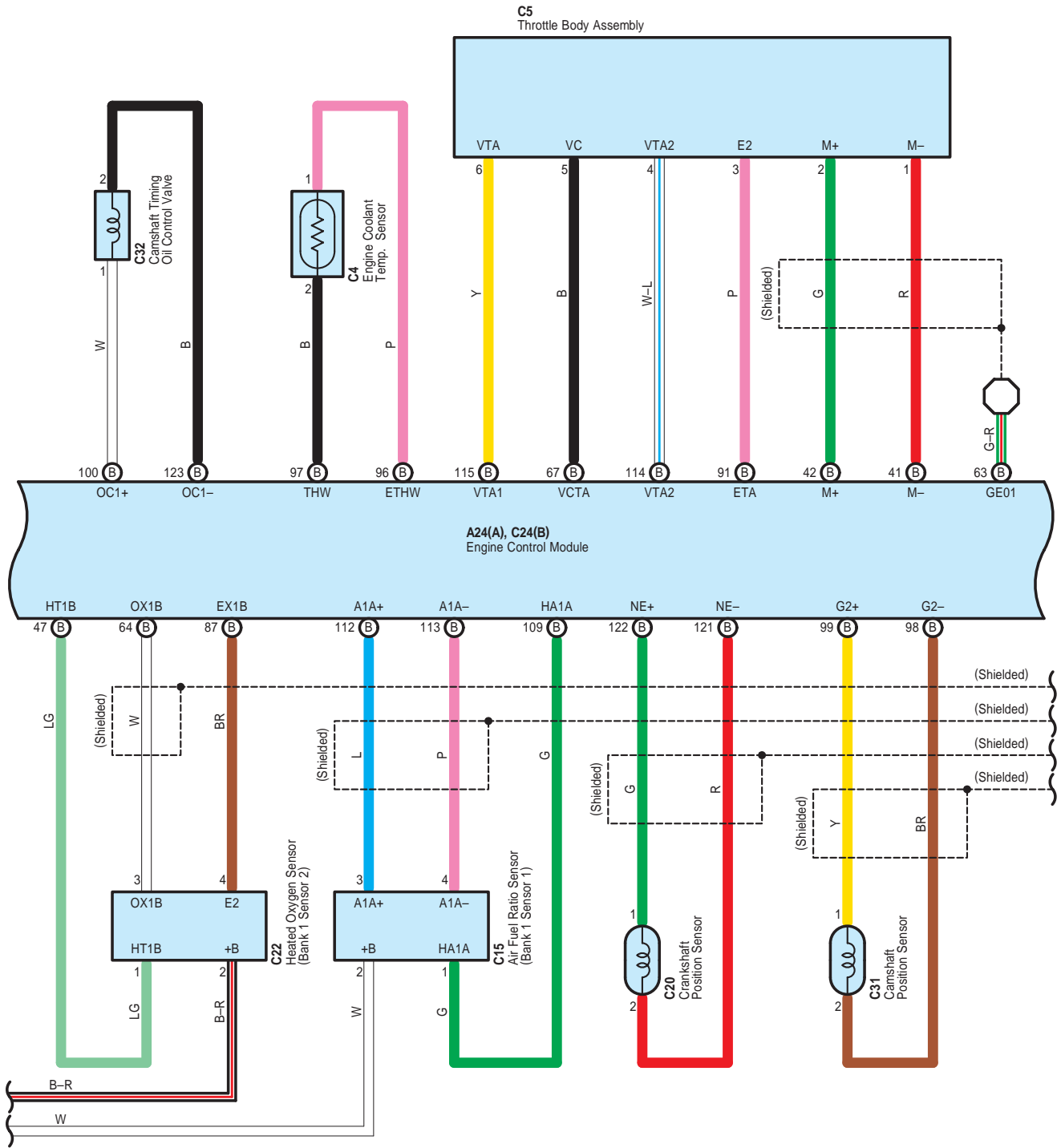
Engine Control for 2AZ-FE





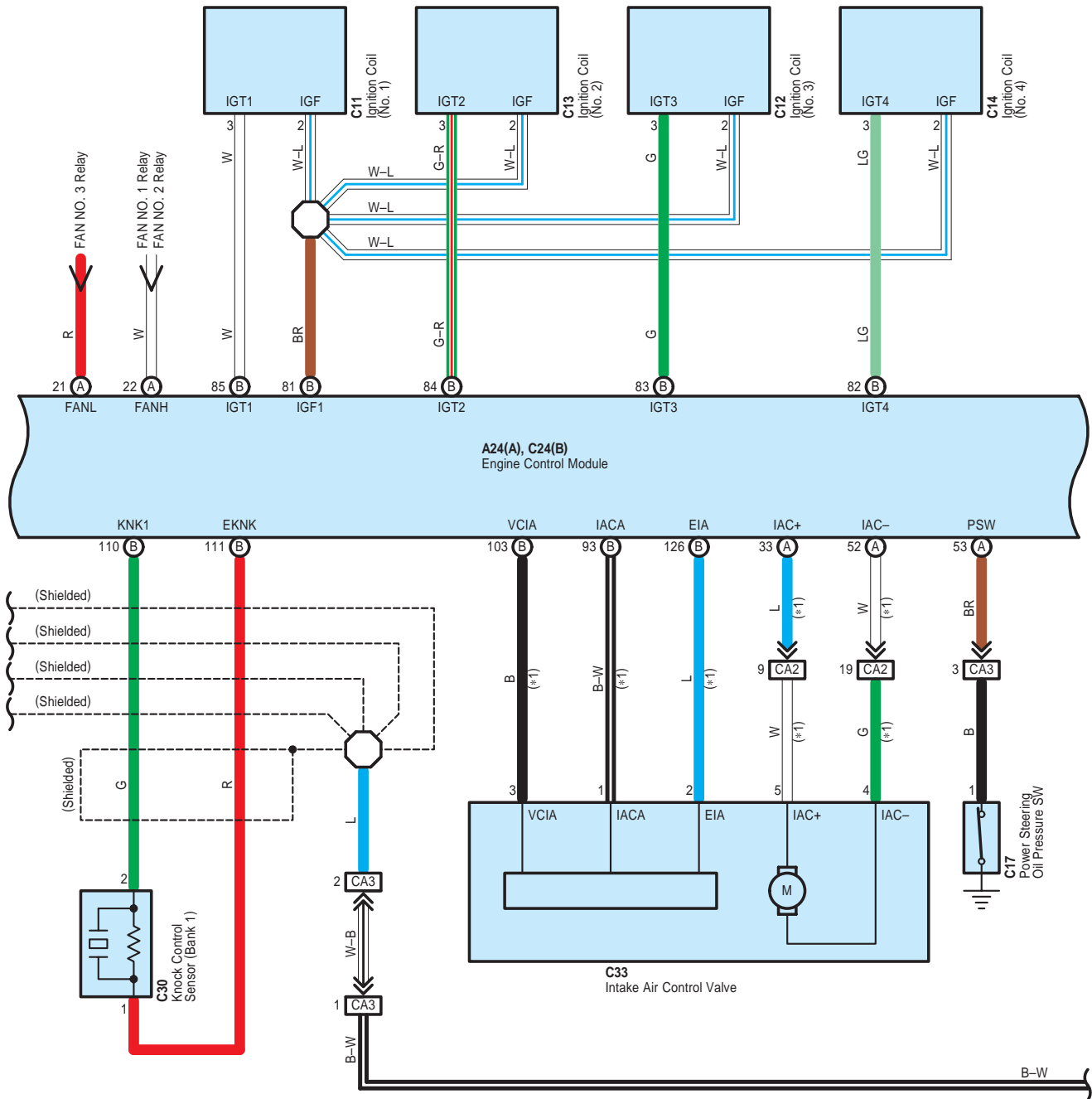
Engine Control for 2AZ-FE

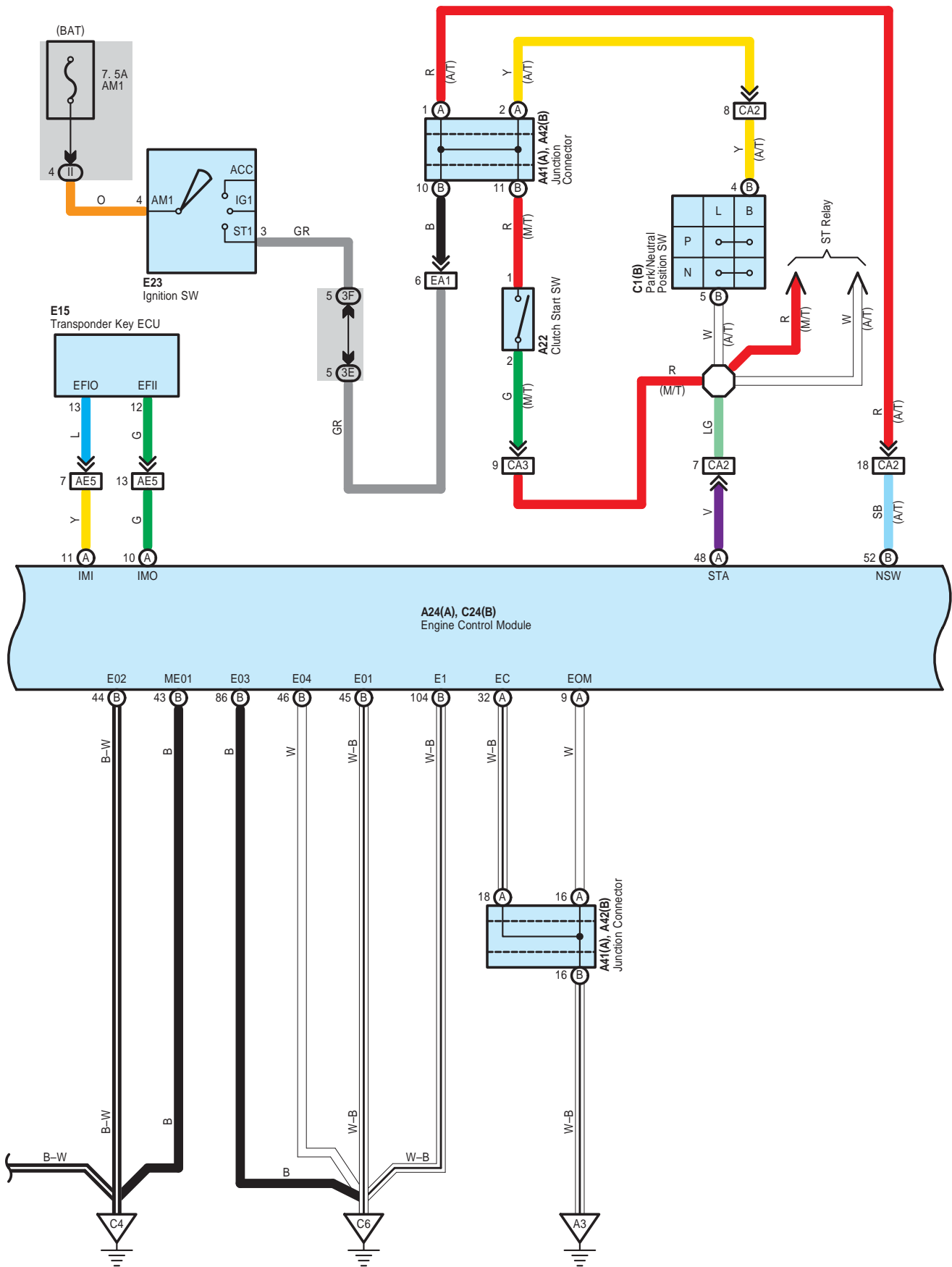




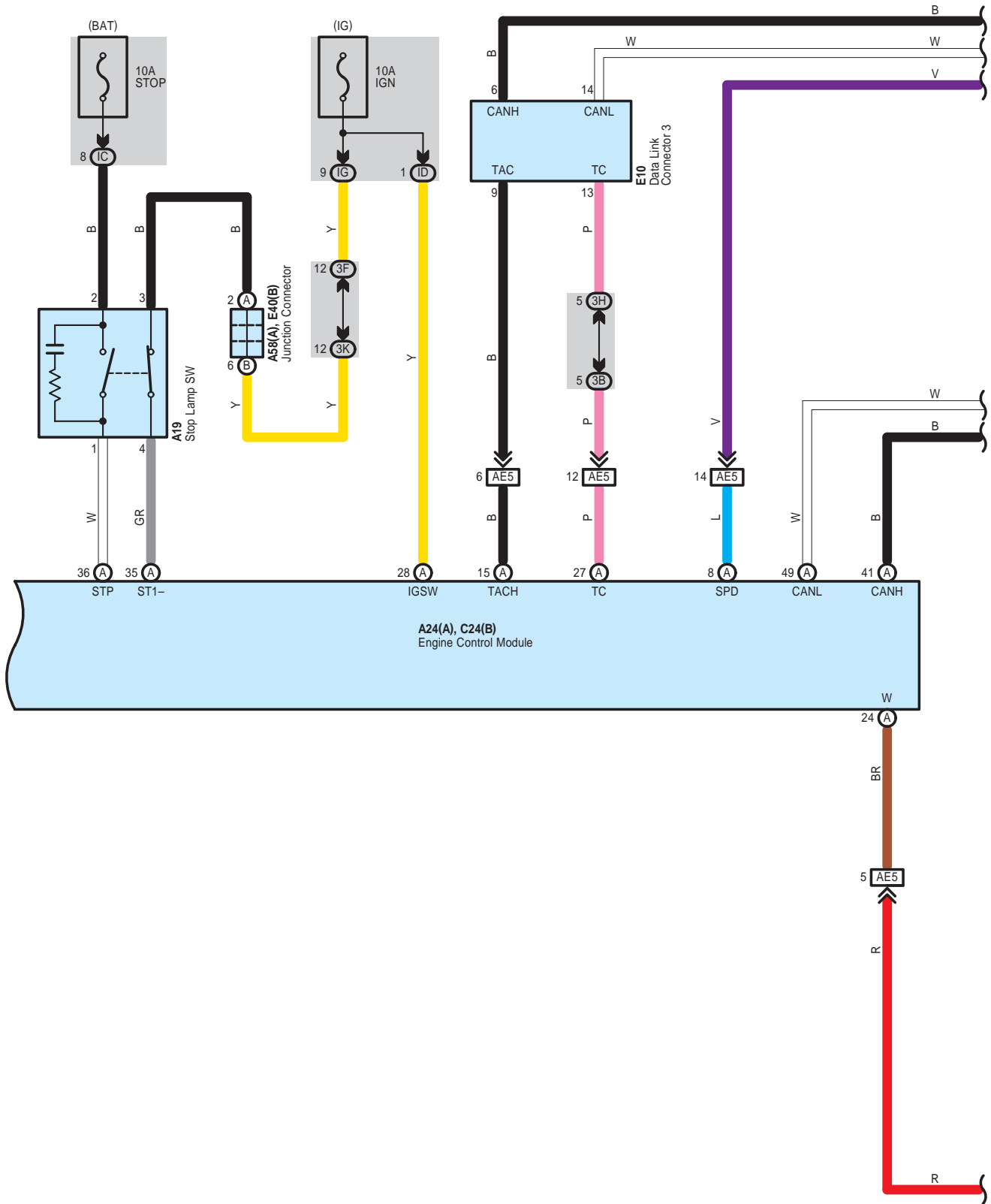
Engine Control for 2AZ-FE

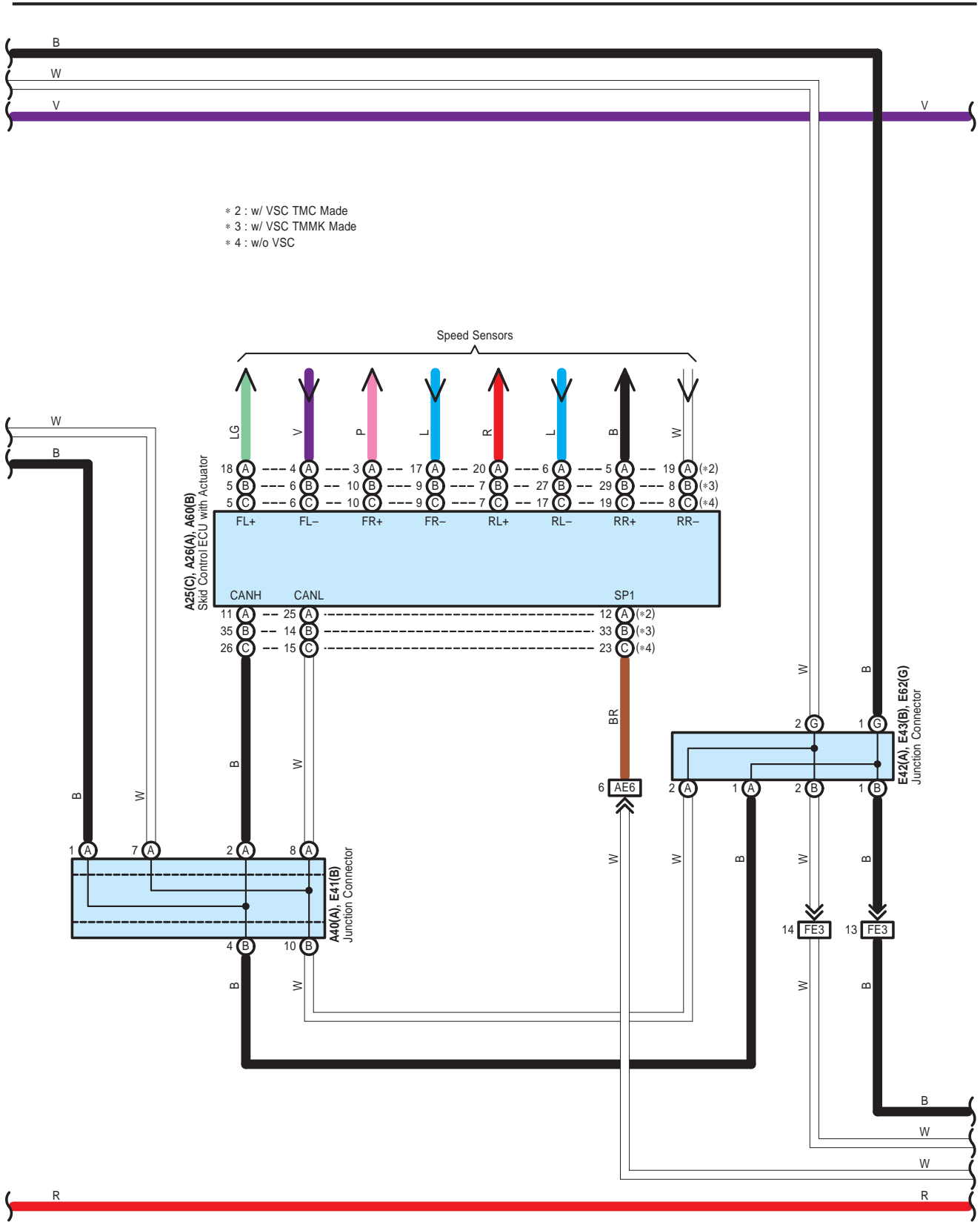
* 1 : California





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 TERMINAL OX1B of the engine control module.

(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 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) Stop lamp SW signal circuit

The stop lamp 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.

(9) 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.

(10) Engine knock signal circuit

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

(11) Air fuel ratio signal system

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

Engine Control for 2AZ-FE

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 fuel 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 TERMINAL HT1B 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.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A17	59	C7	54 (2AZ-FE)	C32	55 (2AZ-FE)
A19	59	C8	54 (2AZ-FE)	C33	55 (2AZ-FE)
A22	59	C9	54 (2AZ-FE)	E10	56
A24	A 52 (2AZ-FE)	C10	54 (2AZ-FE)	E15	56
A25	C 52 (2AZ-FE)	C11	54 (2AZ-FE)	E23	56
A26	A 52 (2AZ-FE)	C12	54 (2AZ-FE)	E40	B 57
A40	A 59	C13	54 (2AZ-FE)	E41	B 57
A41	A 59	C14	54 (2AZ-FE)	E42	A 57
A42	B 59	C15	54 (2AZ-FE)	E43	B 57
A58	A 59	C17	54 (2AZ-FE)	E62	G 57
A60	B 53 (2AZ-FE)	C18	B 54 (2AZ-FE)	F1	A 58
C1	B 54 (2AZ-FE)	C20	55 (2AZ-FE)	F2	B 58
C2	54 (2AZ-FE)	C22	55 (2AZ-FE)	N10	60
C4	54 (2AZ-FE)	C24	B 55 (2AZ-FE)	N17	60
C5	54 (2AZ-FE)	C30	55 (2AZ-FE)		
C6	54 (2AZ-FE)	C31	55 (2AZ-FE)		

○ : 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)
1D		
1E		
3B	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3D		
3E		
3F		
3G		
3H		
3K		
3L		
3P	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3Q		
3U		
IC	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IG	31	
IH		
II		

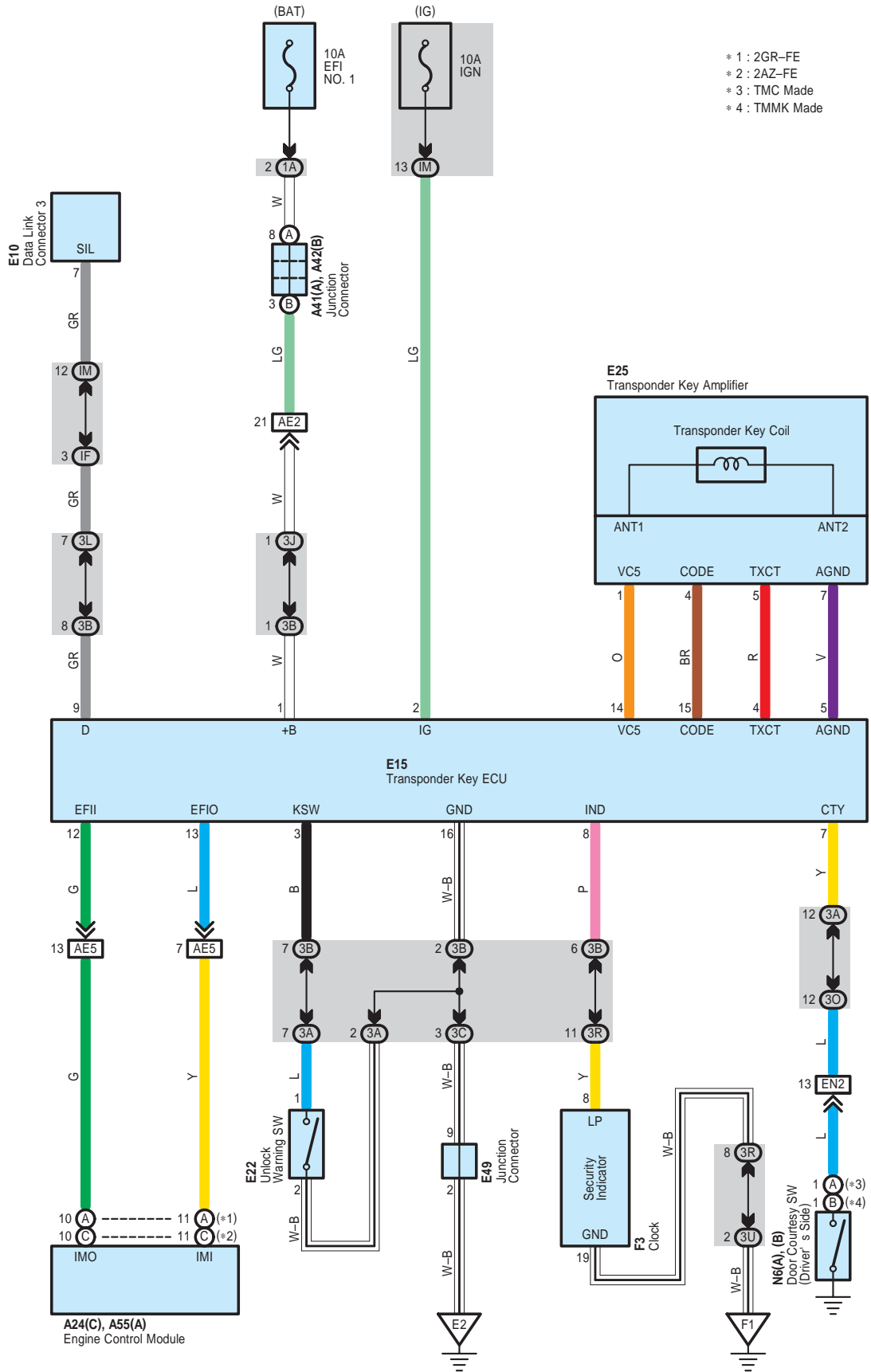
 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE5	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
AE6		
CA1	65 (2AZ-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
CA2		
CA3		
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
NA1	66	Floor Wire and Engine Room Main Wire (Left Kick Panel)

 : Ground Points

Code	See Page	Ground Points Location
A1	65 (2AZ-FE)	Front Left Fender
A3	66	Left Cowl Side Panel
C4	65 (2AZ-FE)	Cylinder Block
C6		
F1	66	Instrument Panel Left
N1	67	Left Rear Quarter Panel

Engine Immobiliser System without Smart Key System



 : **Parts Location**

Code		See Page	Code		See Page	Code		See Page
A24	C	52 (2AZ-FE)	E10	56	E49	57		
A41	A	59	E15	56	F3	58		
A42	B	59	E22	56	N6	A	60	
A55	A	49 (2GR-FE)	E25	56		B	60	

 : **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)
3A	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3B		
3C		
3J		
3L		
3O		
3R	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3U		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IM		

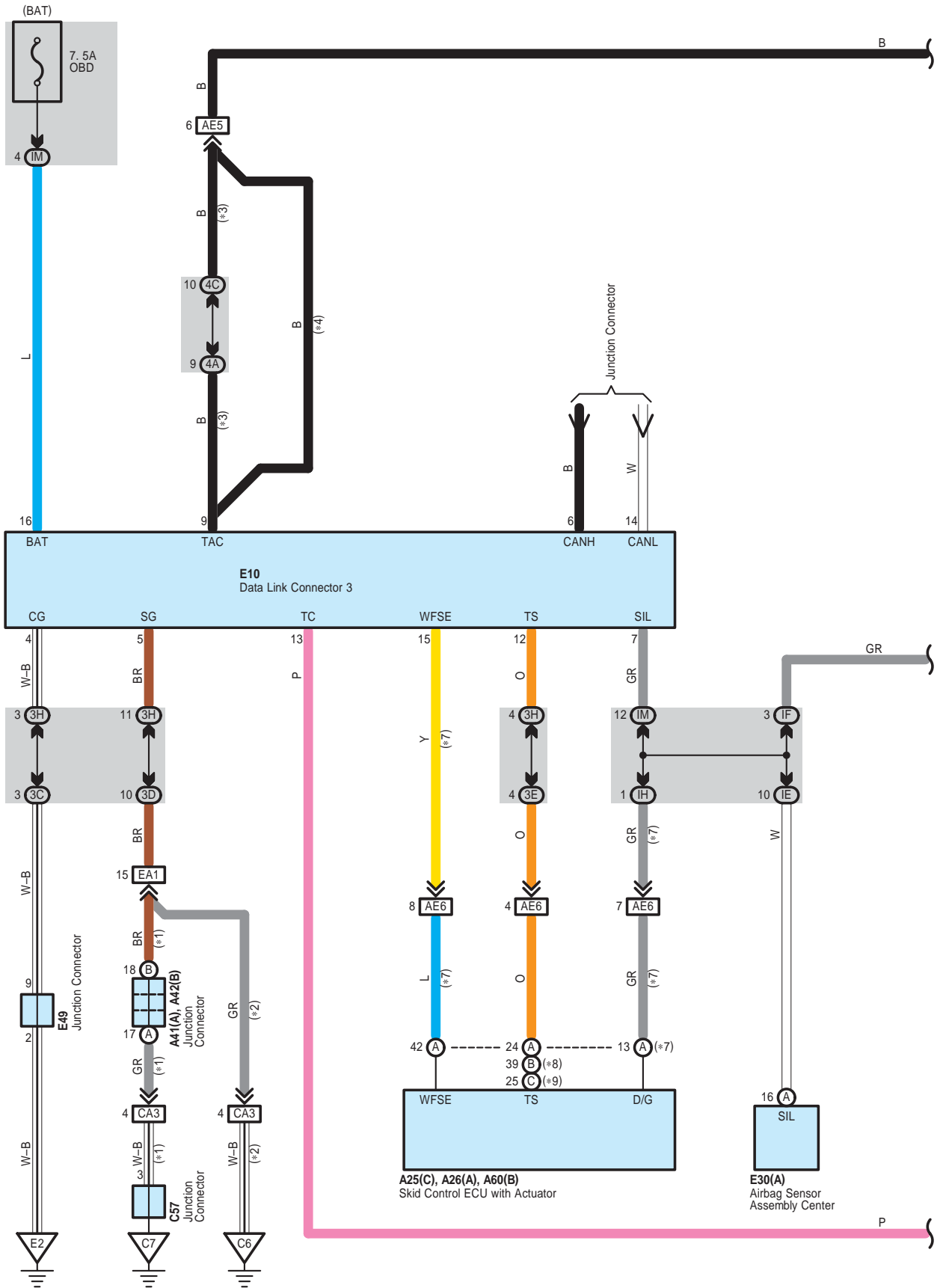
 : **Connector Joining Wire Harness and Wire Harness**

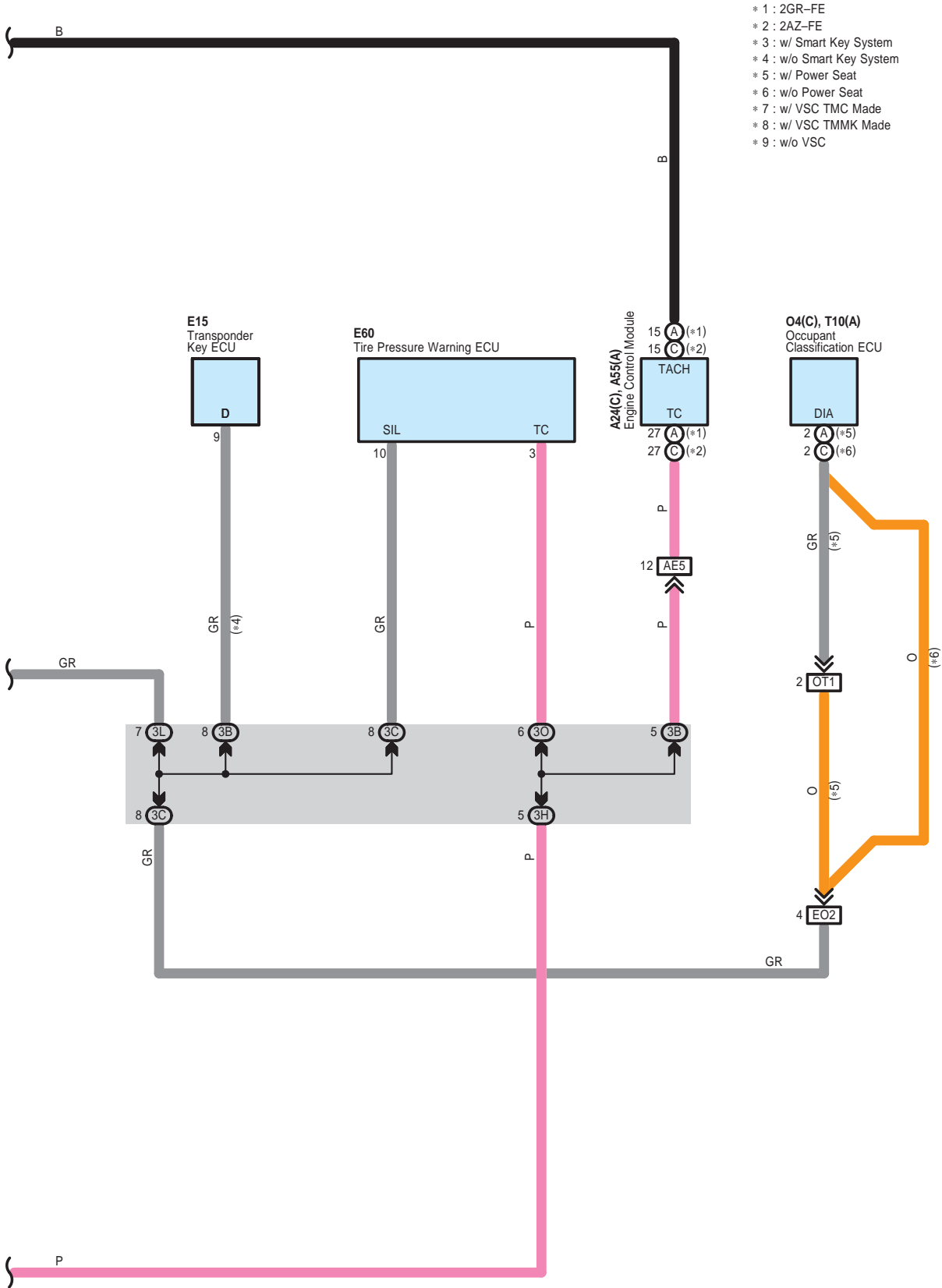
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE2	68	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
AE5	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
EN2	66	Instrument Panel Wire and Floor Wire (Left Kick Panel)

 : **Ground Points**

Code	See Page	Ground Points Location
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left

Data Link Connector 3





Data Link Connector 3

: Parts Location

Code	See Page	Code	See Page	Code	See Page
A24	C	52 (2AZ-FE)	A42	B	59
A25	C	48 (2GR-FE)	A55	A	49 (2GR-FE)
		52 (2AZ-FE)	A60	B	49 (2GR-FE)
A26	A	48 (2GR-FE)			53 (2AZ-FE)
		52 (2AZ-FE)	C57	51 (2GR-FE)	O4
A41	A	59	E10	56	T10

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
3B	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3C		
3D		
3E		
3H		
3L		
3O		
4A	42	Instrument Panel Wire and J/B No.4 (Instrument Panel Brace Center)
4C		
IE	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IF		
IH		
IM	30	

: Connector Joining Wire Harness and Wire Harness

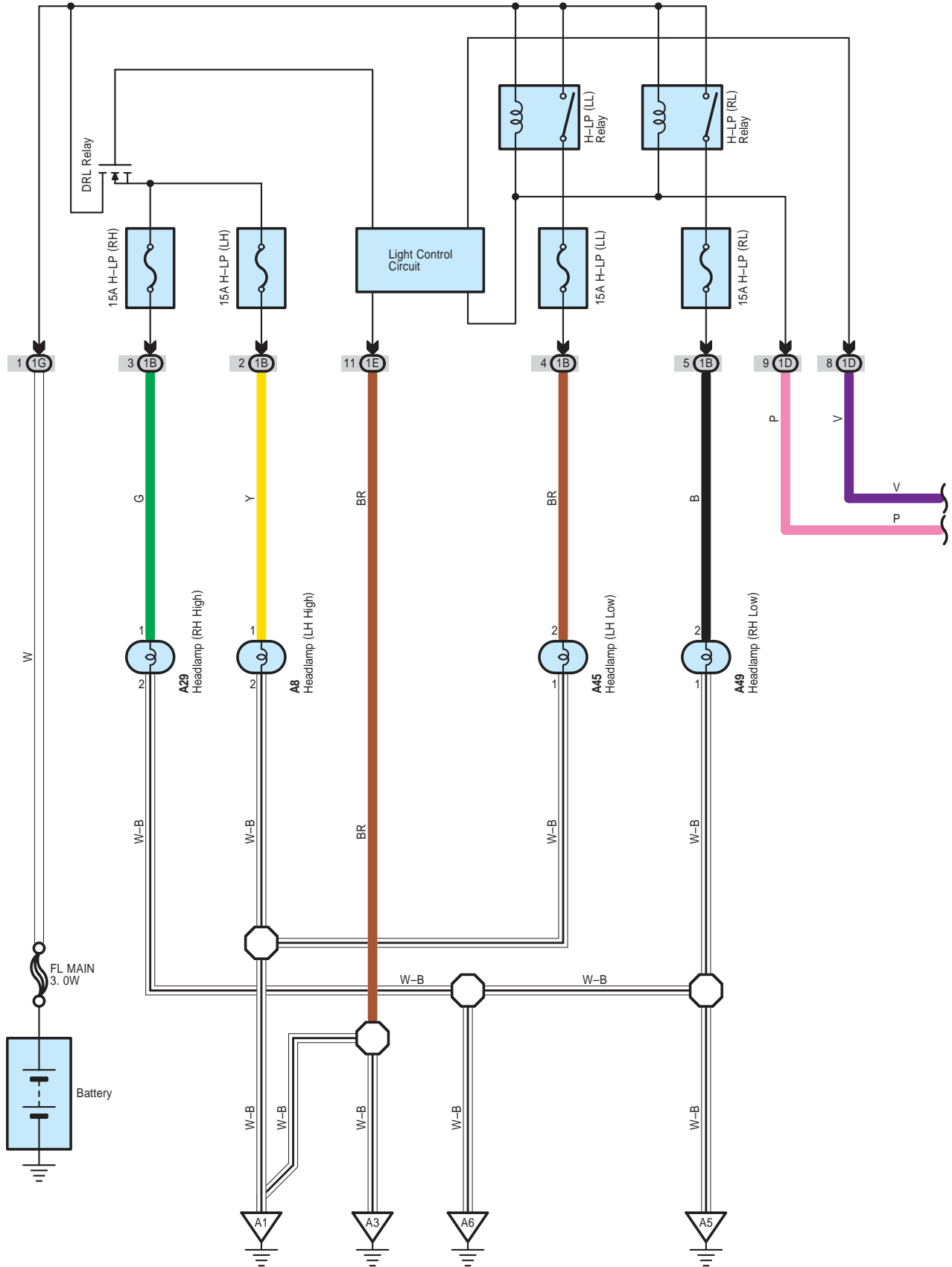
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE5	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
AE6		
CA3	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
EO2	66	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
OT1	68 (*1)	Floor No.2 Wire and Front Seat RH Wire (Under the Front Passenger's Seat)

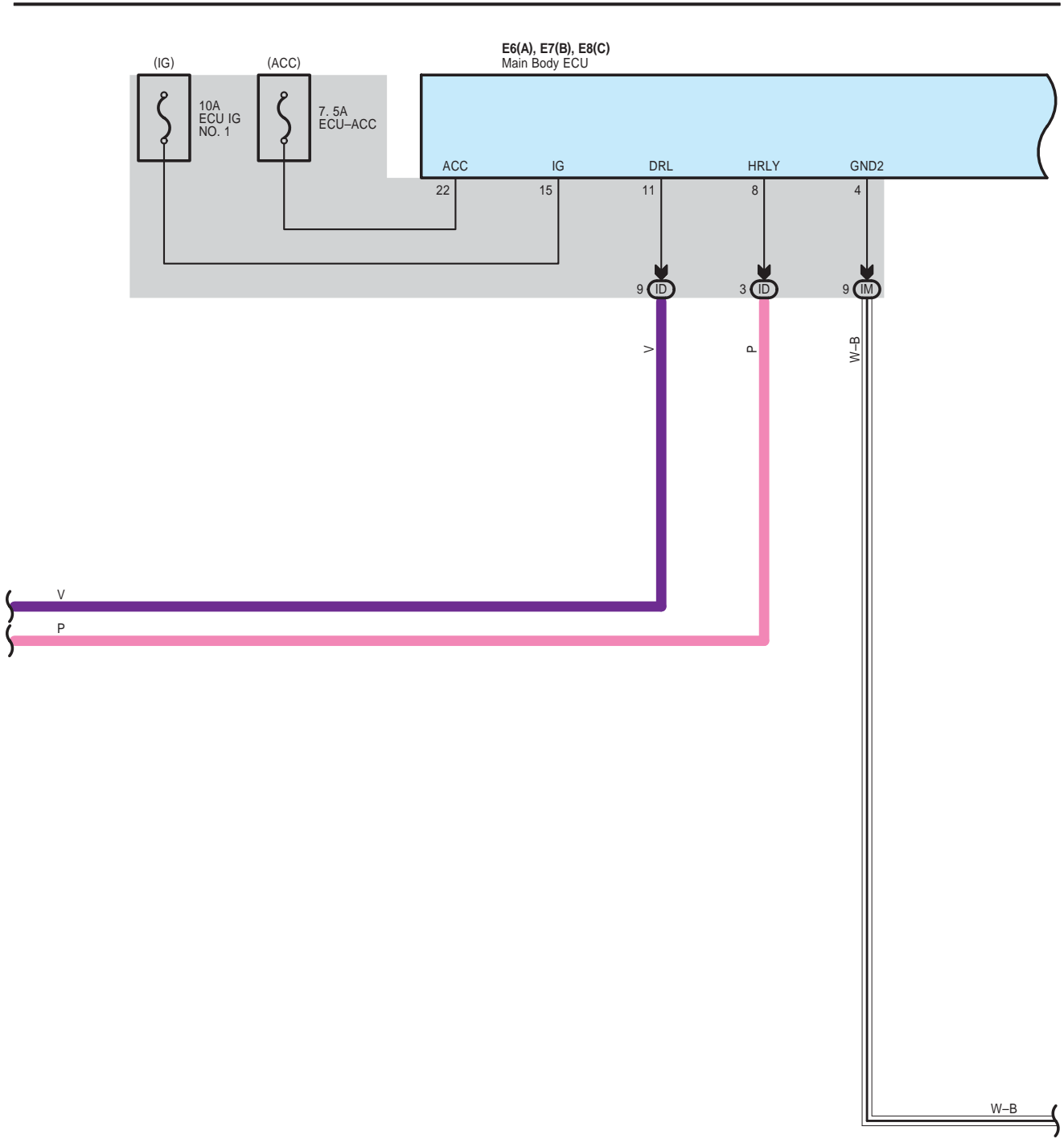
: Ground Points

Code	See Page	Ground Points Location
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
E2	66	Instrument Panel Brace LH

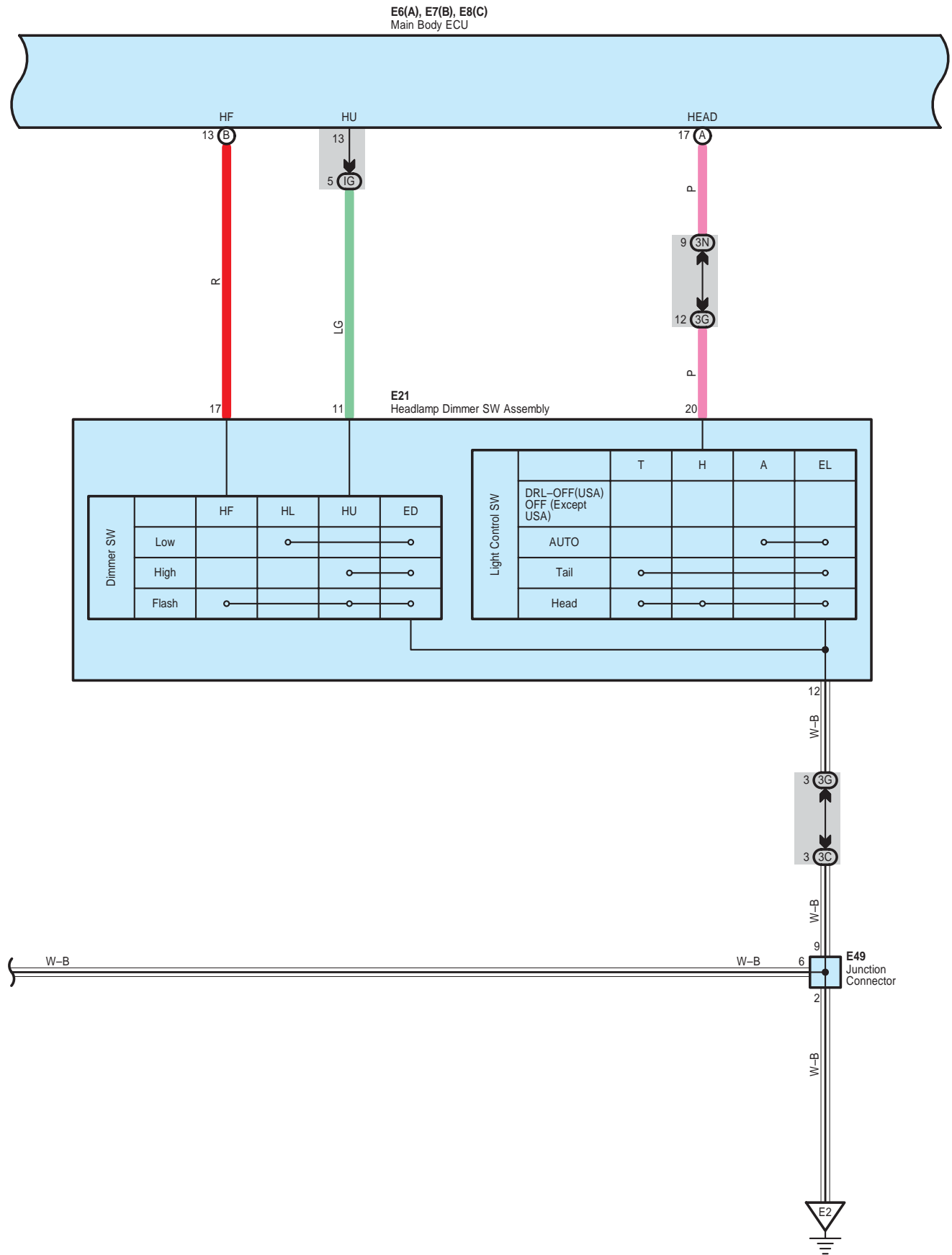
* 1 : w/ Power Seat * 2 : w/o Power Seat

Headlight

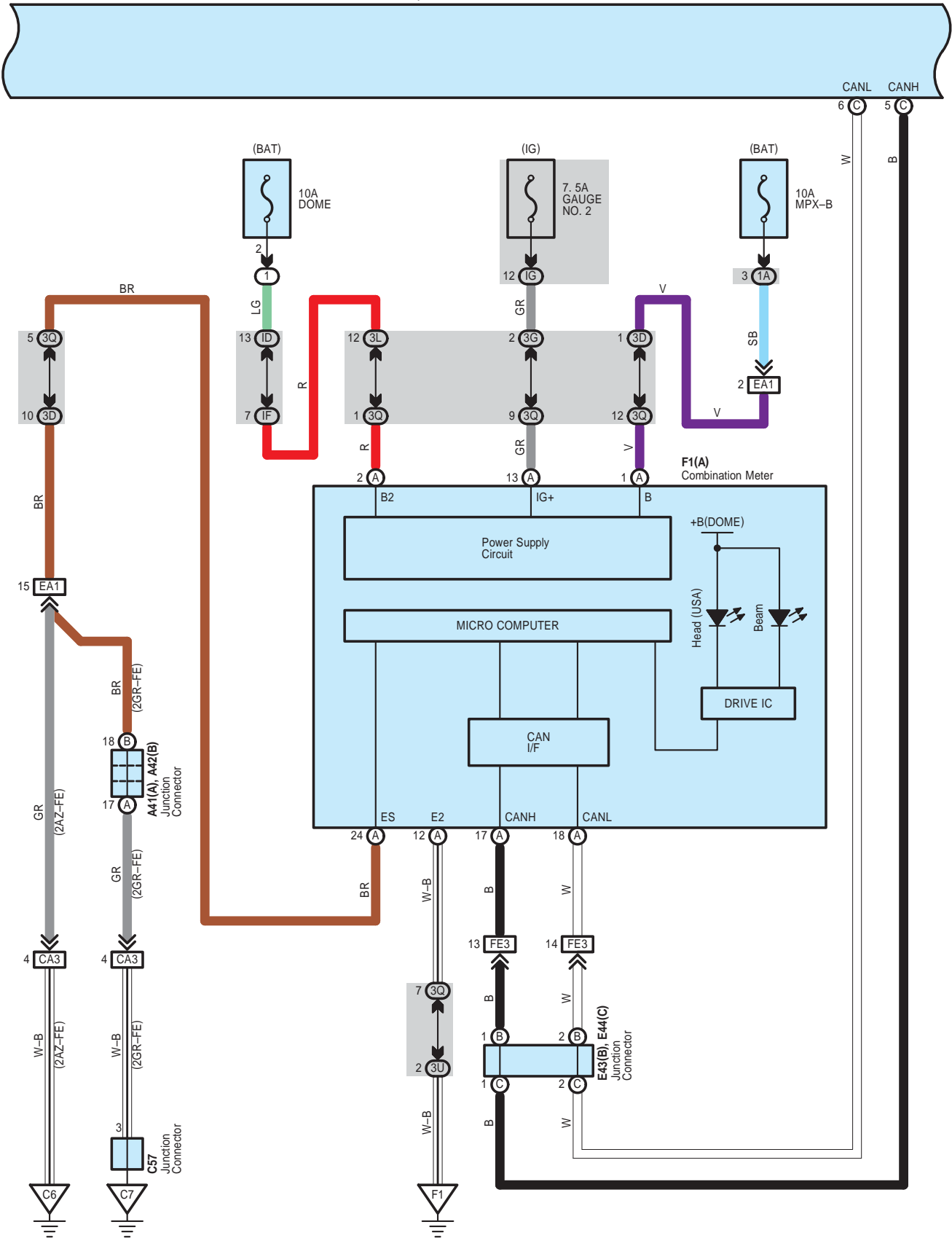




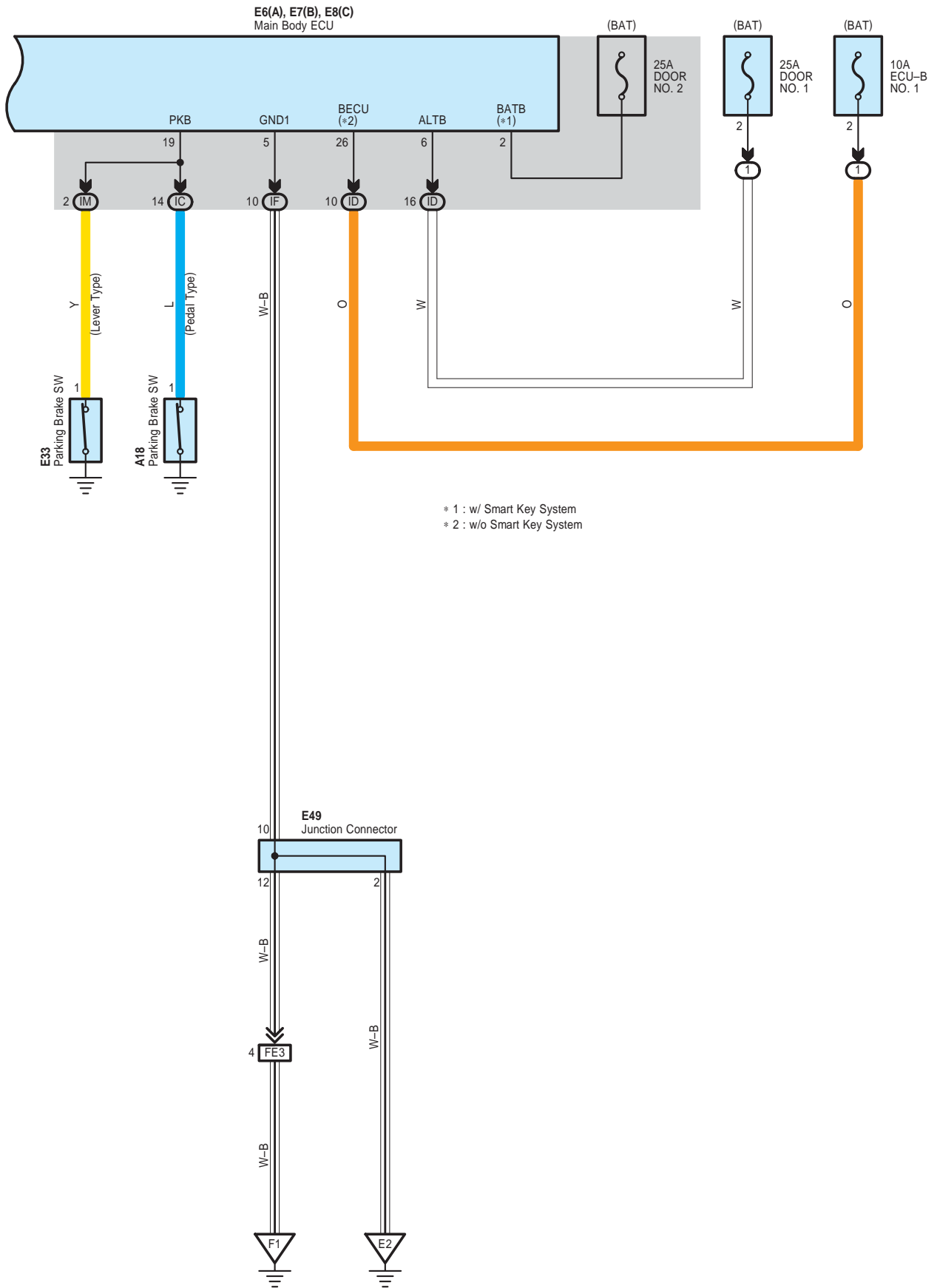
Headlight



E6(A), E7(B), E8(C)
Main Body ECU



Headlight



 : **Parts Location**

Code		See Page	Code		See Page	Code		See Page
A8	48 (2GR-FE)		A45	49 (2GR-FE)		E8	C	56
	52 (2AZ-FE)			53 (2AZ-FE)		E21		56
A18	59		A49	49 (2GR-FE)		E33		56
A29	48 (2GR-FE)			53 (2AZ-FE)		E43	B	57
	52 (2AZ-FE)		C57	51 (2GR-FE)		E44	C	57
A41	A	59	E6	A	56	E49		57
A42	B	59	E7	B	56	F1	A	58

 : **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		
1D		
1E		
1G	22	
3C	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3D		
3G		
3L		
3N		
3Q	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3U		
IC	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IG	31	
IM	30	

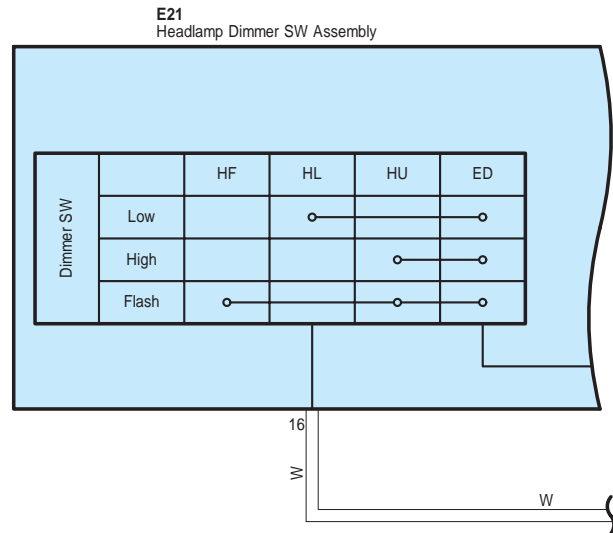
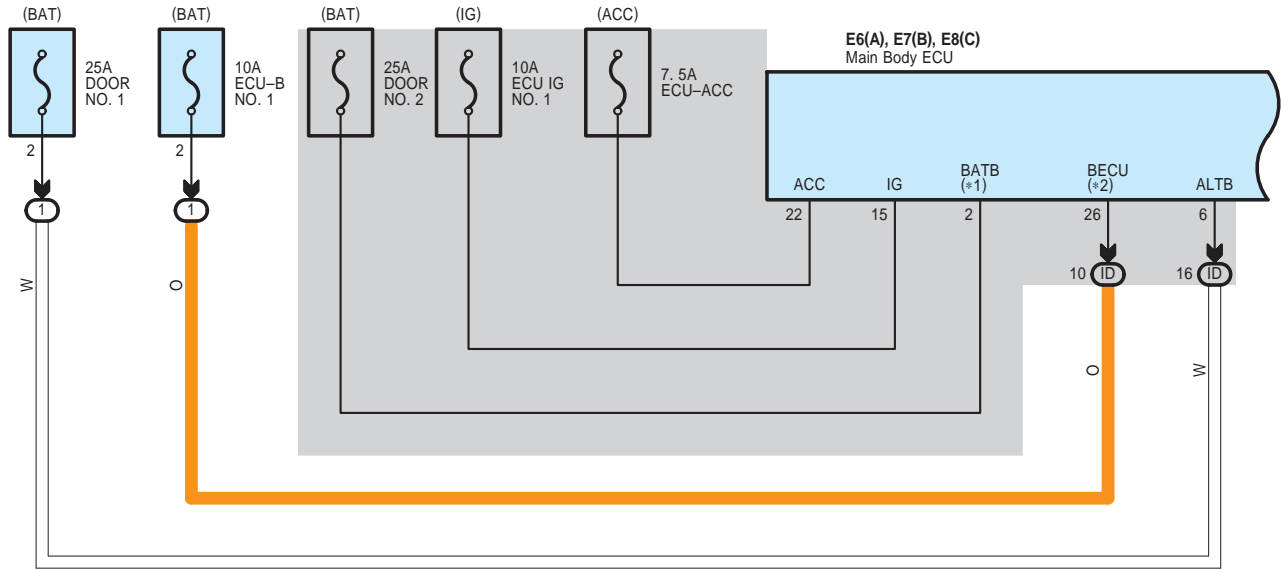
 : **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
CA3	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)

 : **Ground Points**

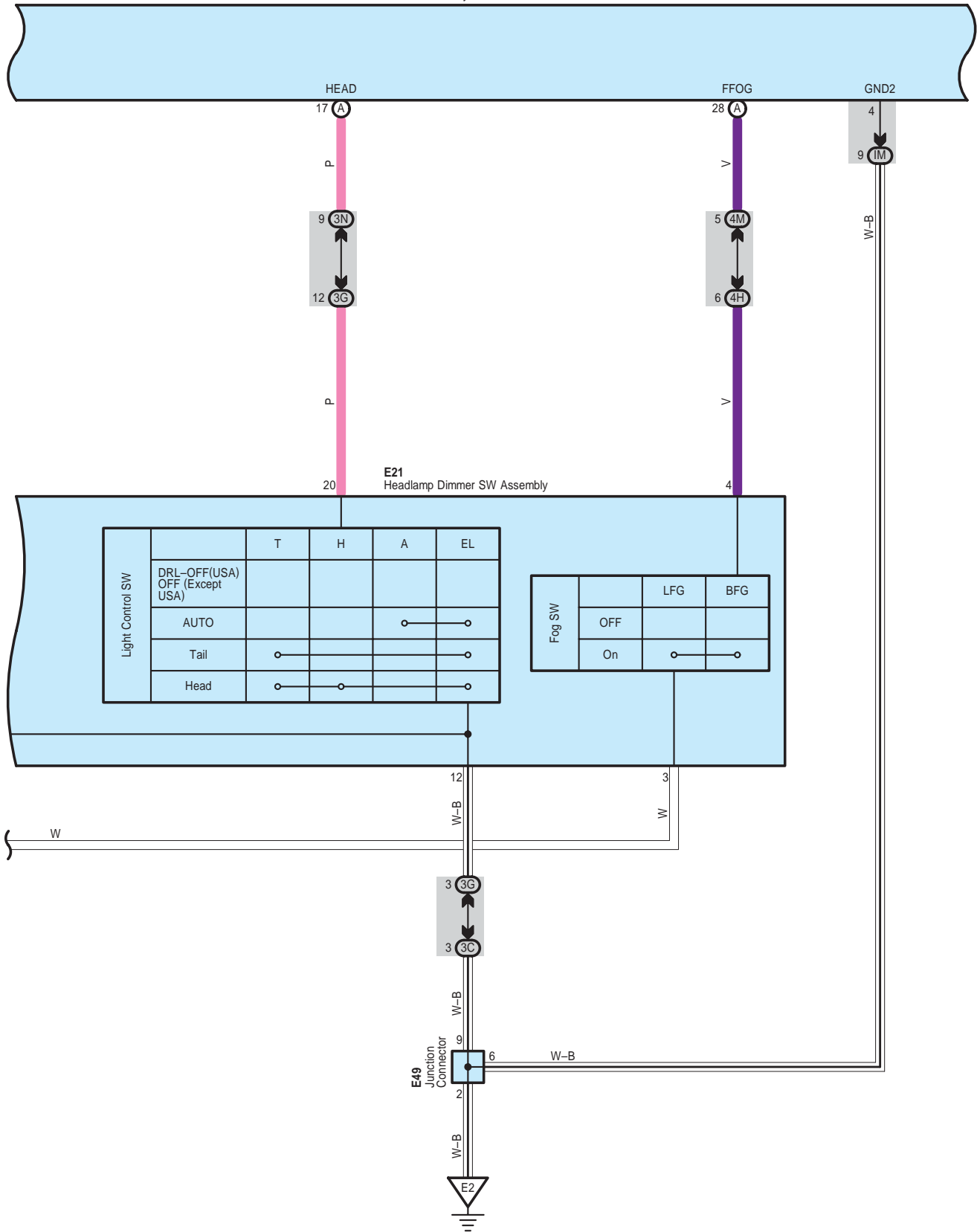
Code	See Page	Ground Points Location
A1	64 (2GR-FE)	Front Left Fender
	65 (2AZ-FE)	
A3	66	Left Cowl Side Panel
A5	64 (2GR-FE)	Front Right Fender
	65 (2AZ-FE)	
A6	66	Right Cowl Side Panel
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left

Fog Light



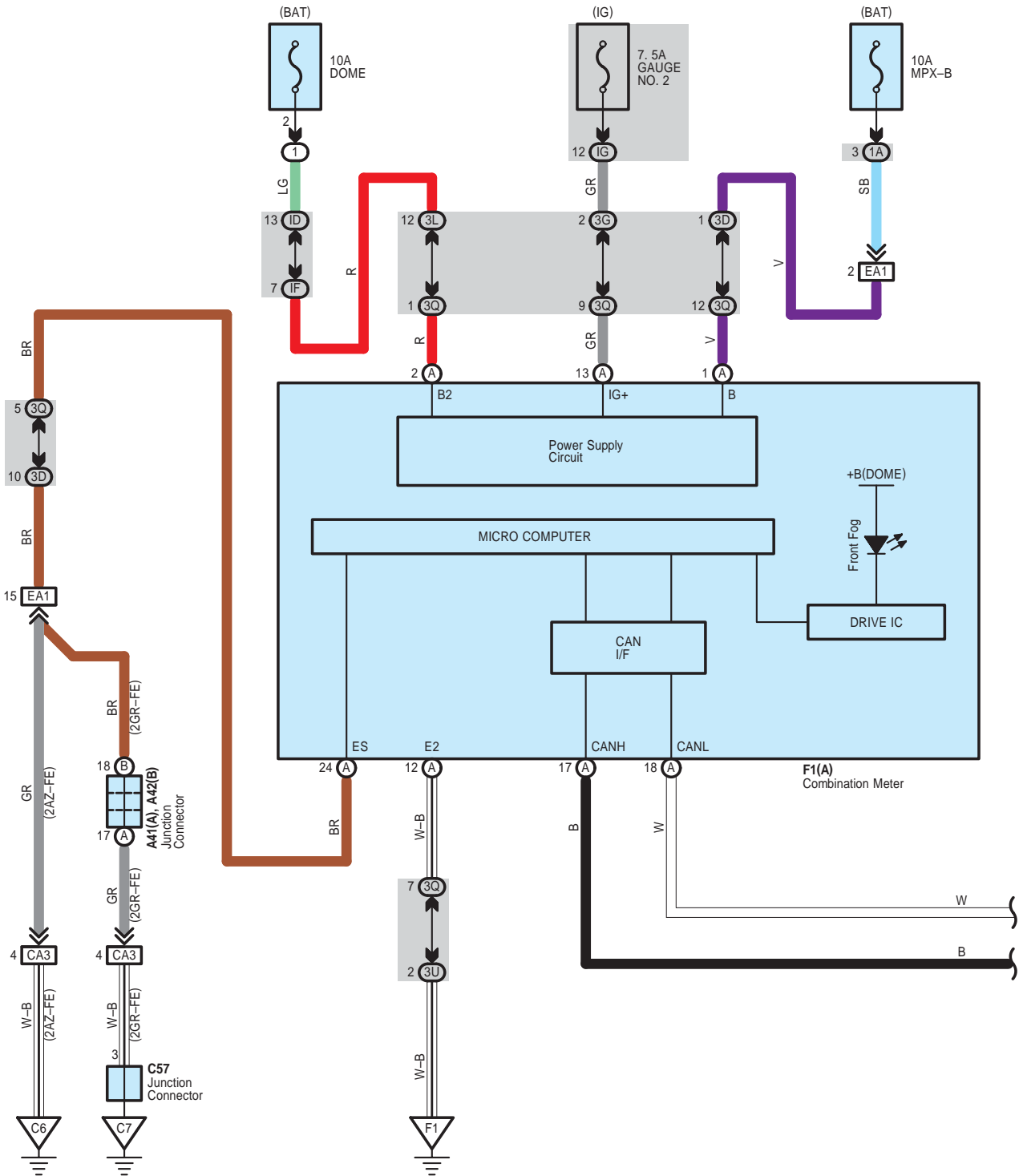
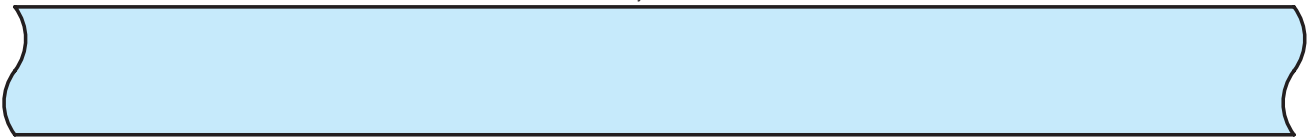
* 1 : w/ Smart Key System
 * 2 : w/o Smart Key System

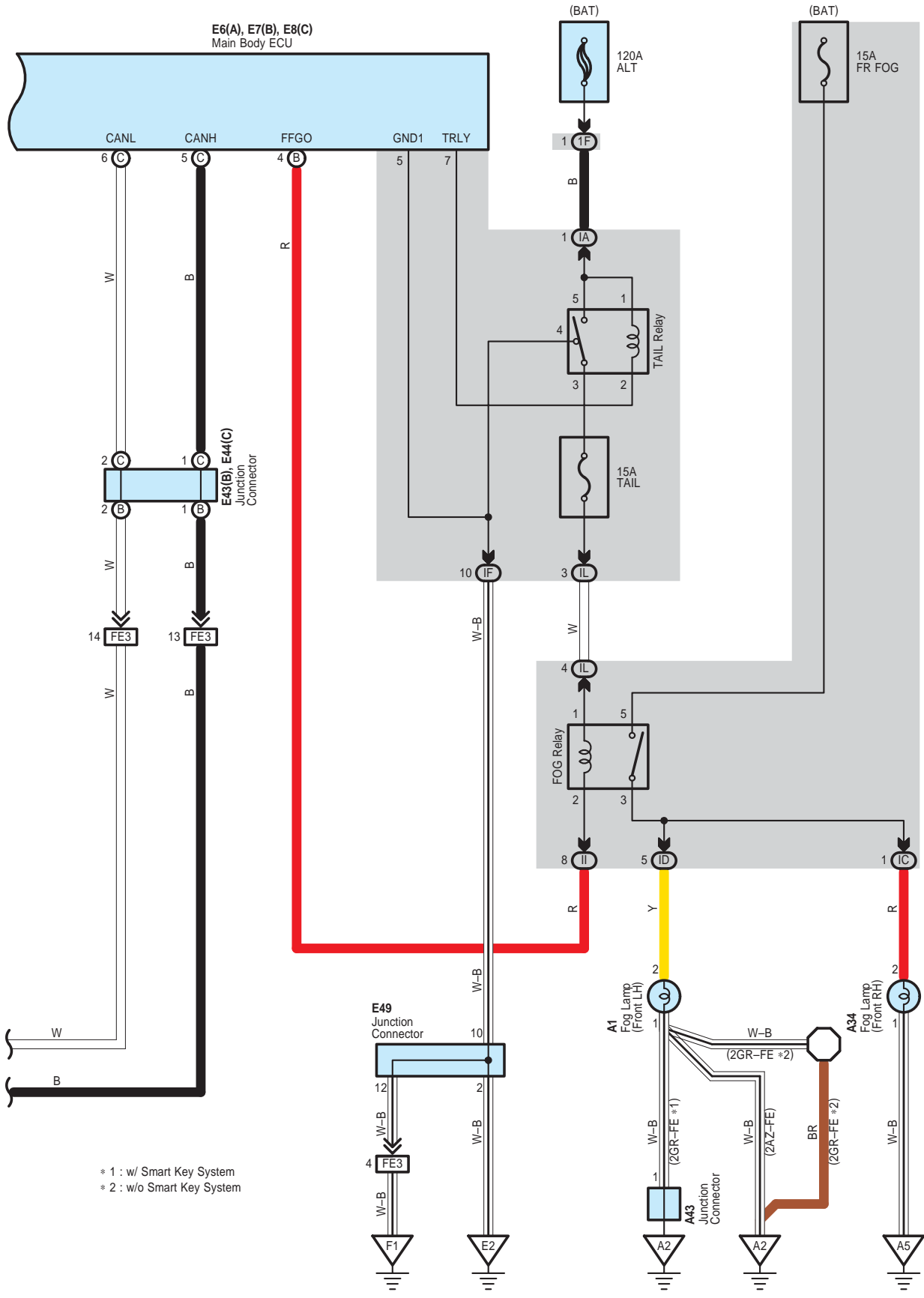
E6(A), E7(B), E8(C)
 Main Body ECU



Fog Light

E6(A), E7(B), E8(C)
Main Body ECU





CAMRY (EM0250U)

Fog Light

: Parts Location

Code		See Page	Code		See Page	Code		See Page
A1		48 (2GR-FE)	A43		49 (2GR-FE)	E43	B	57
		52 (2AZ-FE)	C57		51 (2GR-FE)	E44	C	57
A34		48 (2GR-FE)	E6	A	56	E49		57
		52 (2AZ-FE)	E7	B	56	F1	A	58
A41	A	59	E8	C	56			
A42	B	59	E21		56			

: 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)
1F	22	
3C	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3D		
3G		
3L		
3N		
3Q	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3U		
4H	42	Instrument Panel Wire and J/B No.4 (Instrument Panel Brace Center)
4M		
IA	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IC		
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IG	31	
II		
IL	30	
IM		

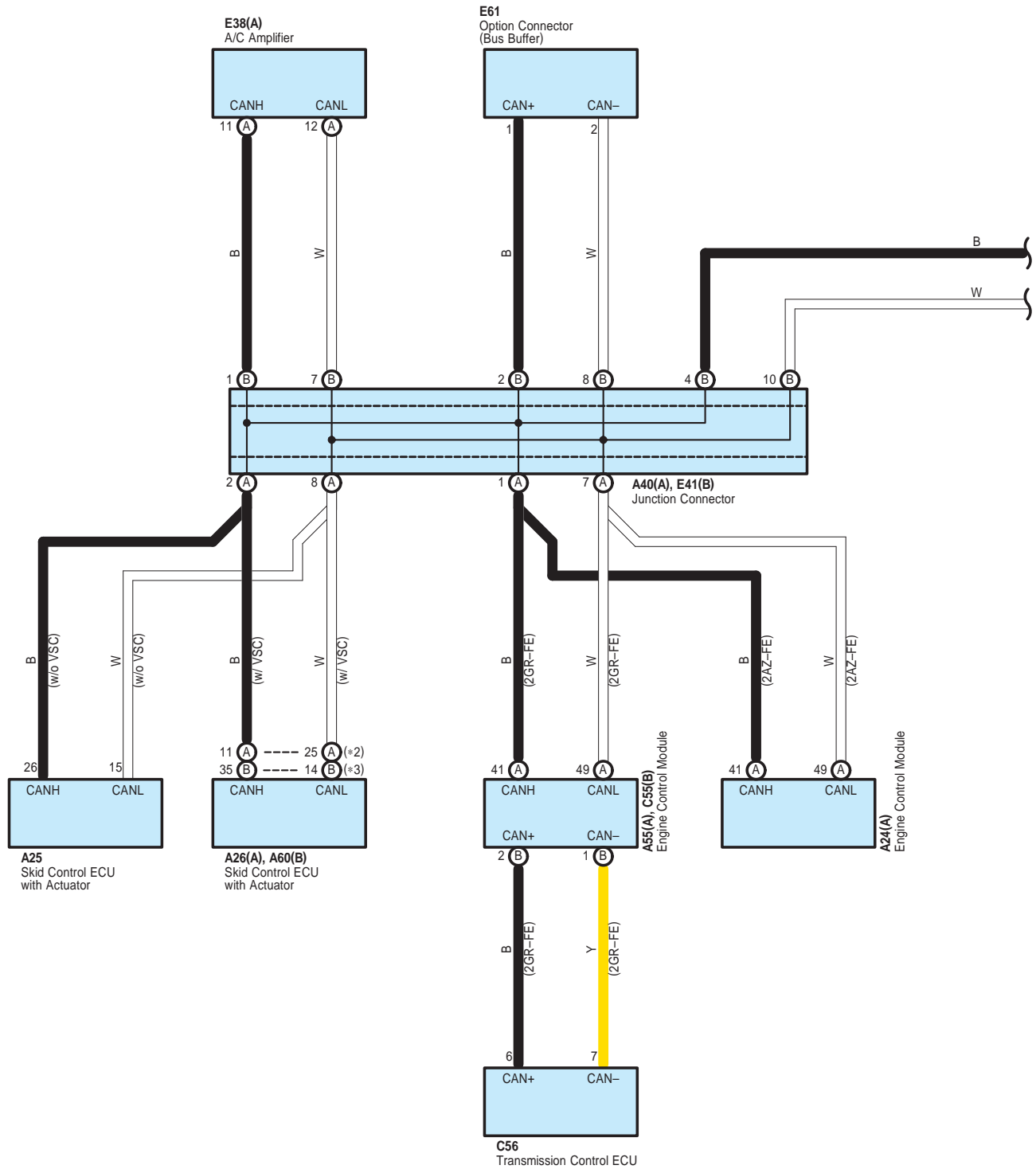
: Connector Joining Wire Harness and Wire Harness

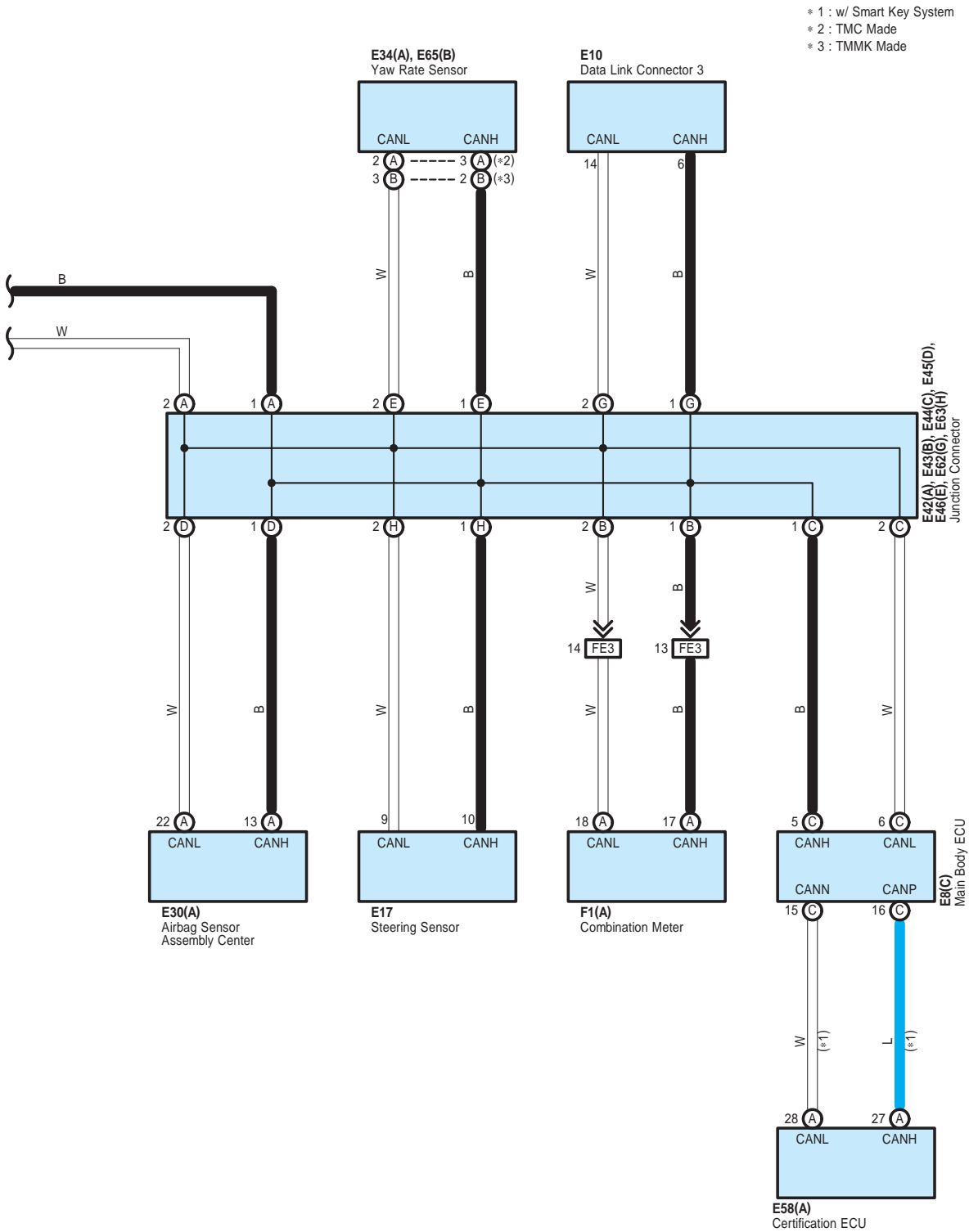
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
CA3	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)

: Ground Points

Code	See Page	Ground Points Location
A2	64 (2GR-FE)	Front Left Fender
	65 (2AZ-FE)	
A5	64 (2GR-FE)	Front Right Fender
	65 (2AZ-FE)	
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left

Multiplex Communication System – CAN





Multiplex Communication System – CAN

System Outline

CAN has two lines as a pair which make communication with operating voltage. CAN has excellent data speed and error detecting capacity. It consists of vehicle control systems such as engine control module, yaw rate sensor, skid control ECU with actuator, steering sensor, data link connector 3, A/C amplifier, transmission control ECU, airbag sensor assembly center, combination meter, certification ECU and main body ECU.

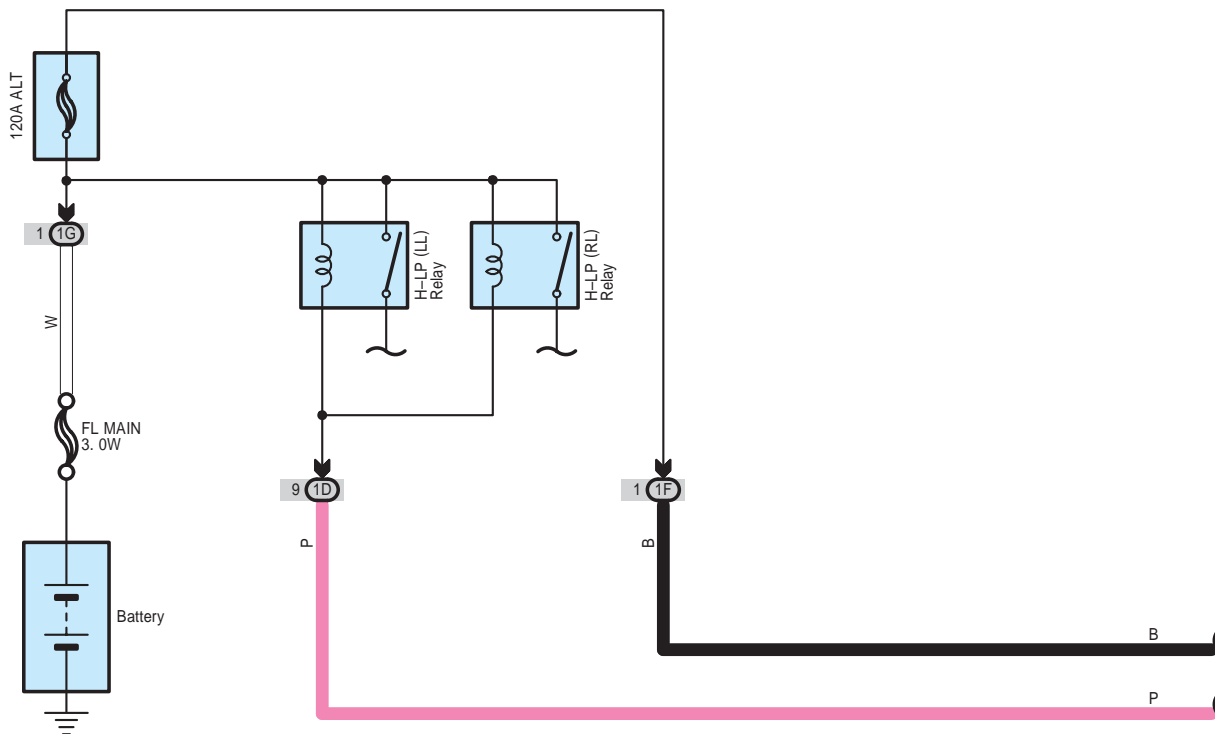
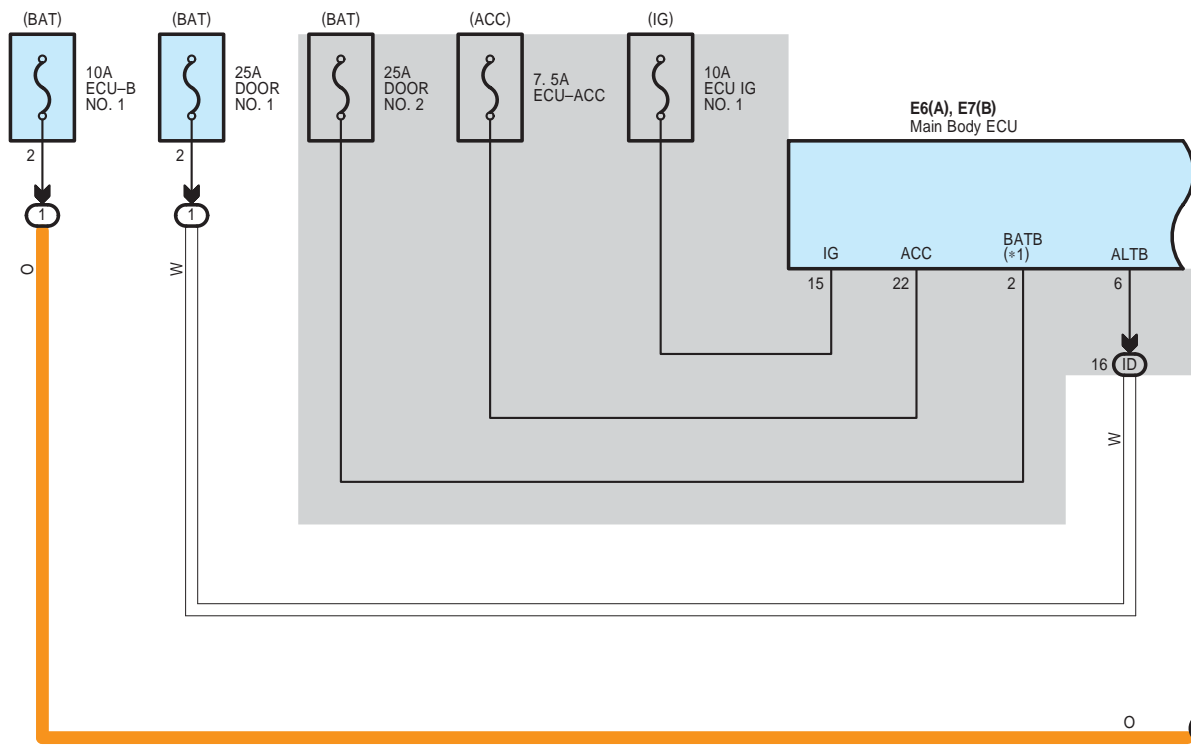
○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A24	A	52 (2AZ-FE)	C56		51 (2GR-FE)	E44	C	57
A25		48 (2GR-FE)	E8	C	56	E45	D	57
		52 (2AZ-FE)	E10		56	E46	E	57
A26	A	48 (2GR-FE)	E17		56	E58	A	57
		52 (2AZ-FE)	E30	A	56	E61		57
A40	A	59	E34	A	57	E62	G	57
A55	A	49 (2GR-FE)	E38	A	57	E63	H	57
A60	B	49 (2GR-FE)	E41	B	57	E65	B	57
		53 (2AZ-FE)	E42	A	57	F1	A	58
C55	B	51 (2GR-FE)	E43	B	57			

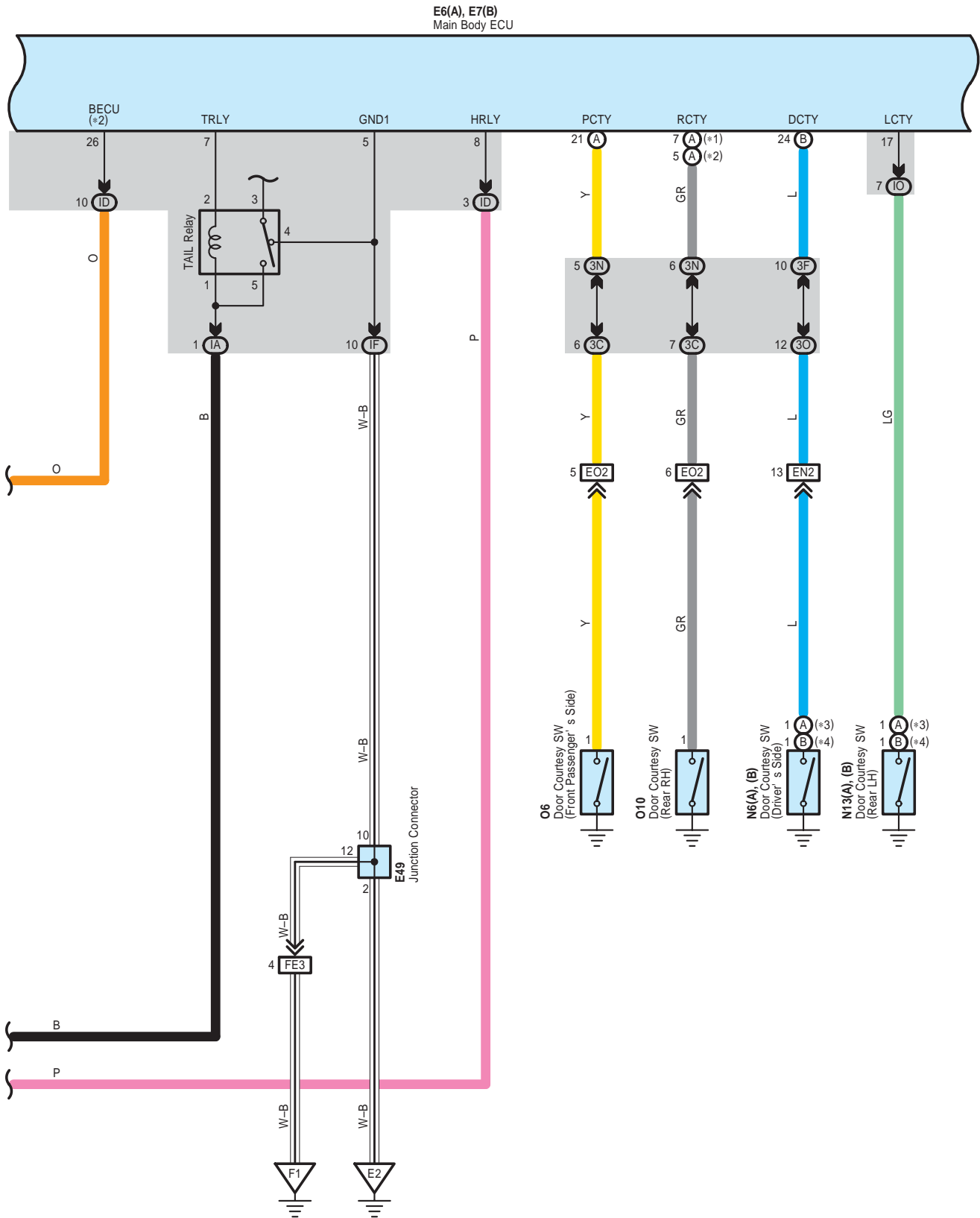
□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)

Automatic Light Control and Light Auto Turn Off System

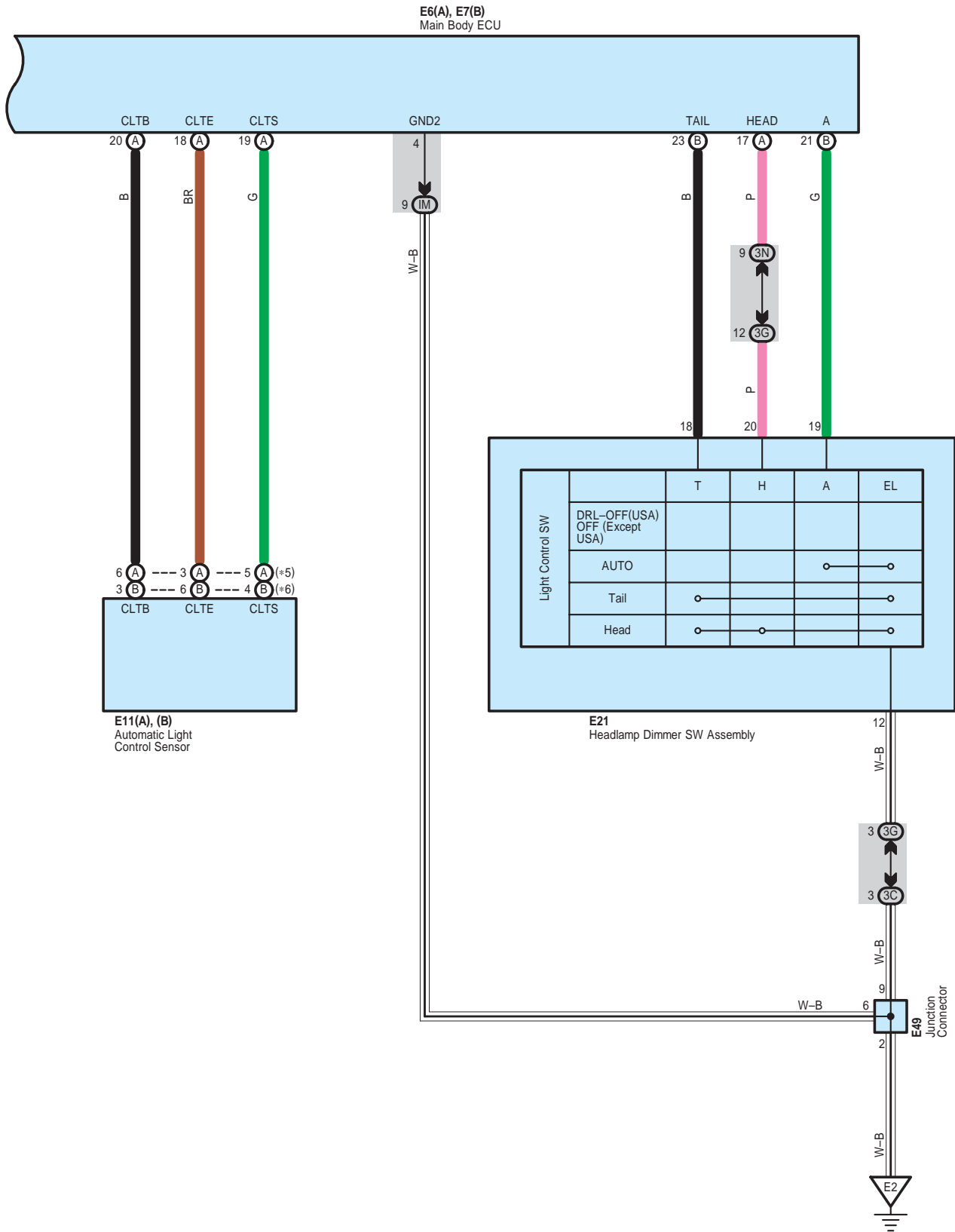


- * 1 : w/ Smart Key System
- * 2 : w/o Smart Key System
- * 3 : TMC Made
- * 4 : TMMK Made



Automatic Light Control and Light Auto Turn Off System

* 5 : Automatic A/C
 * 6 : Manual A/C



System Outline

Automatic Light Control Operation

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 tail lamp and headlamp on if the brightness is below the regular level and turns the tail lamp and headlamp off when the surroundings become brighter than the regular level.

Light Auto Turn Off Operation

- * When the other lamps than headlamps are lit under 'TAIL' or 'AUTO' condition of the light control SW, the tail lamps and front fog lamps are turned OFF if the power SW is changed from 'IG ON' to 'IG OFF' (Power SW type) or the ignition SW is turned from ON to OFF (Ignition SW type), and the driver side door is opened from closed condition.
- * When the headlamps are lit under 'HEAD' or 'AUTO' condition of the light control SW, if the power SW is changed from 'IG ON' to 'IG OFF' (Power SW type) or the ignition SW is turned from ON to OFF (Ignition SW type), and the light OFF delay time (30 seconds) has passed since all the doors are closed from open condition or under all the door locked condition, operating the wireless door lock function turns OFF the headlamps, tail lamps and front fog lamps.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
E6	A 56	E21	56	N13	A 60
E7	B 56	E49	57		B 60
E11	A 56	N6	A 60	O6	60
	B 56		B 60	O10	60

○ : 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)
1D	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1F	22	
1G		
3C	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3F		
3G		
3N		
3O		
IA	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IM		
IO	30	Floor Wire and Instrument Panel J/B (Cowl Side Left)

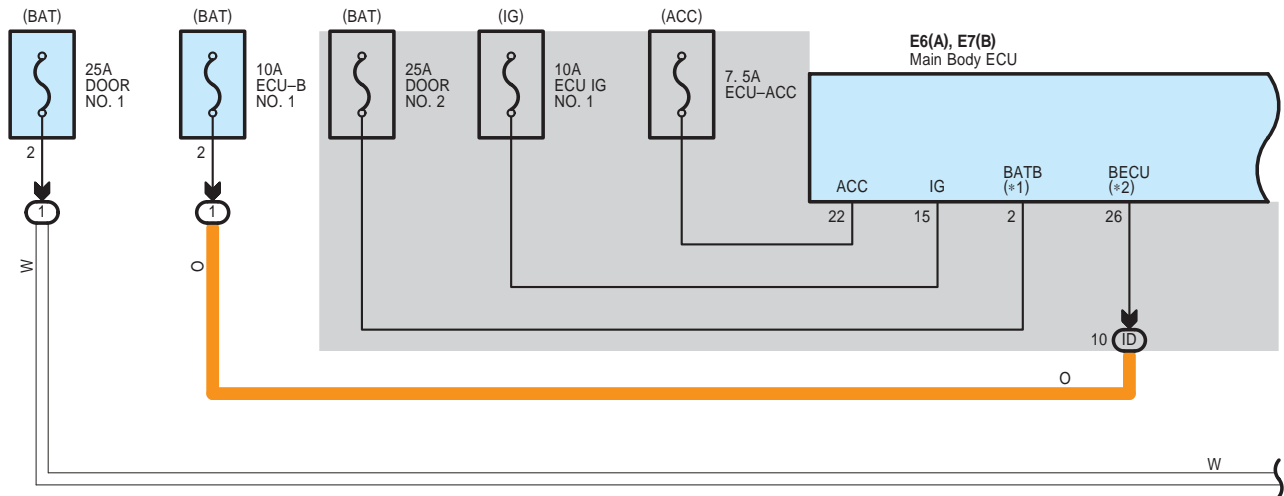
□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EN2	66	Instrument Panel Wire and Floor Wire (Left Kick Panel)
EO2	66	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)

▽ : Ground Points

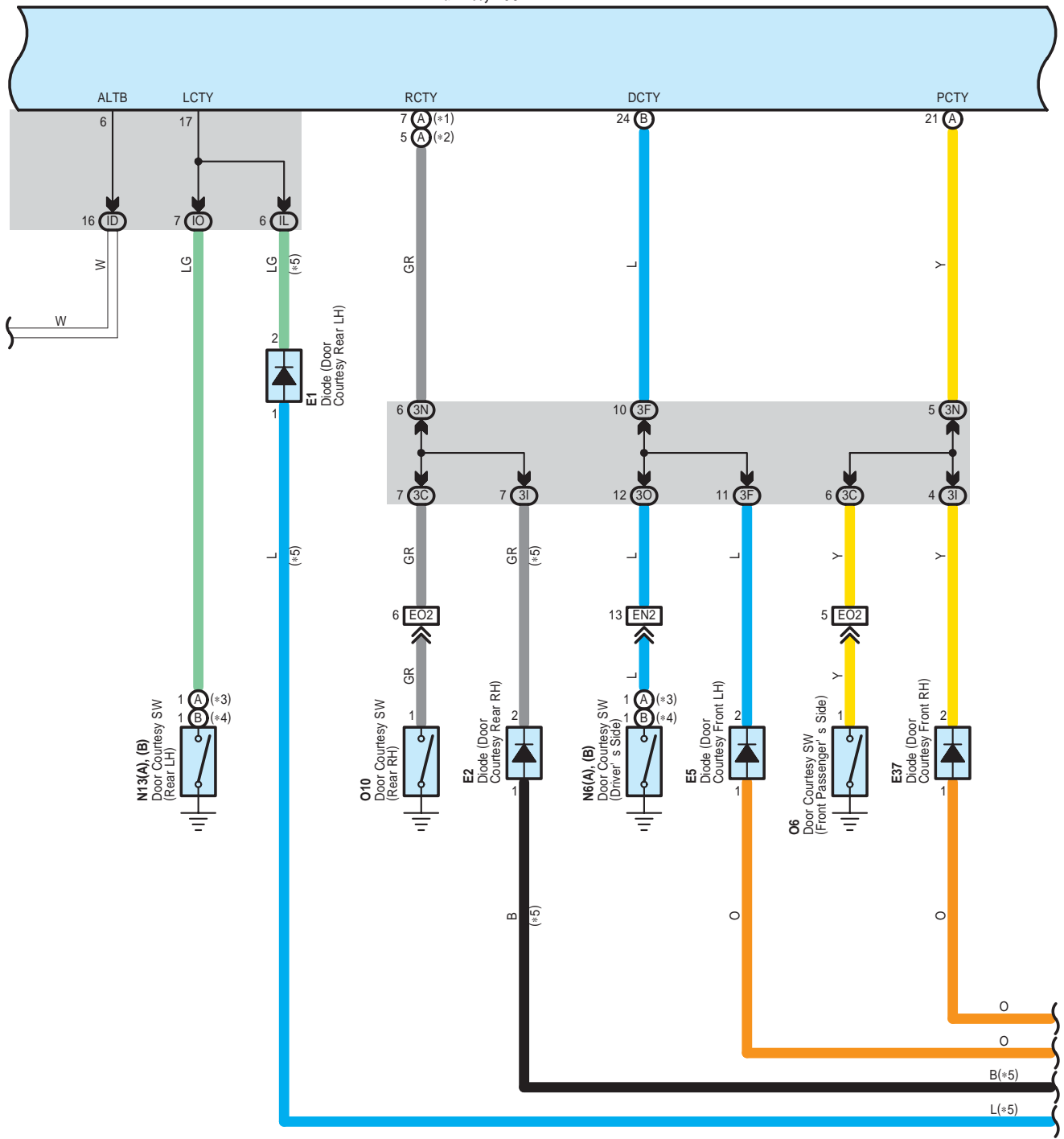
Code	See Page	Ground Points Location
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left

Interior Light

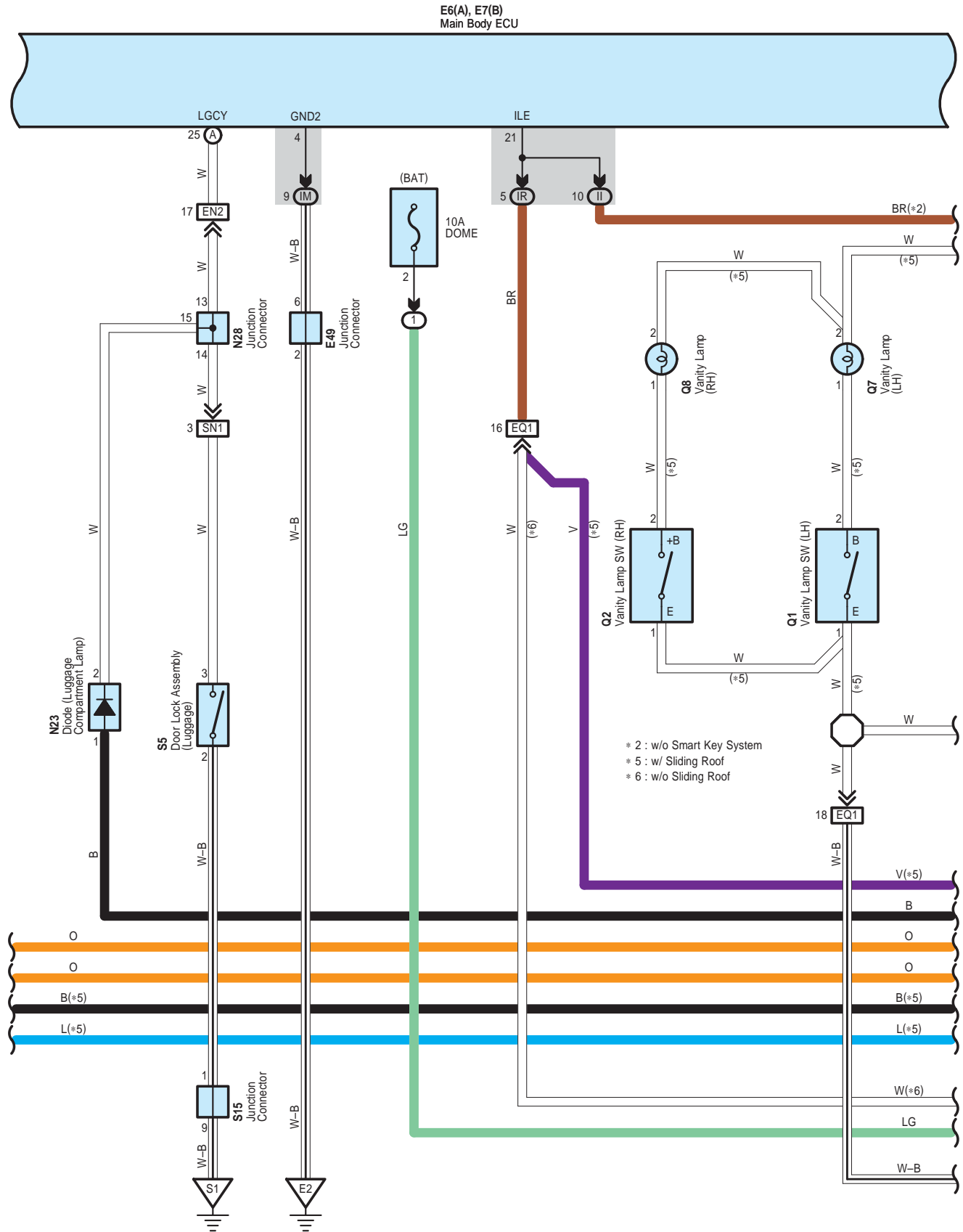


- * 1 : w/ Smart Key System
- * 2 : w/o Smart Key System
- * 3 : TMC Made
- * 4 : TMMK Made
- * 5 : w/ Sliding Roof

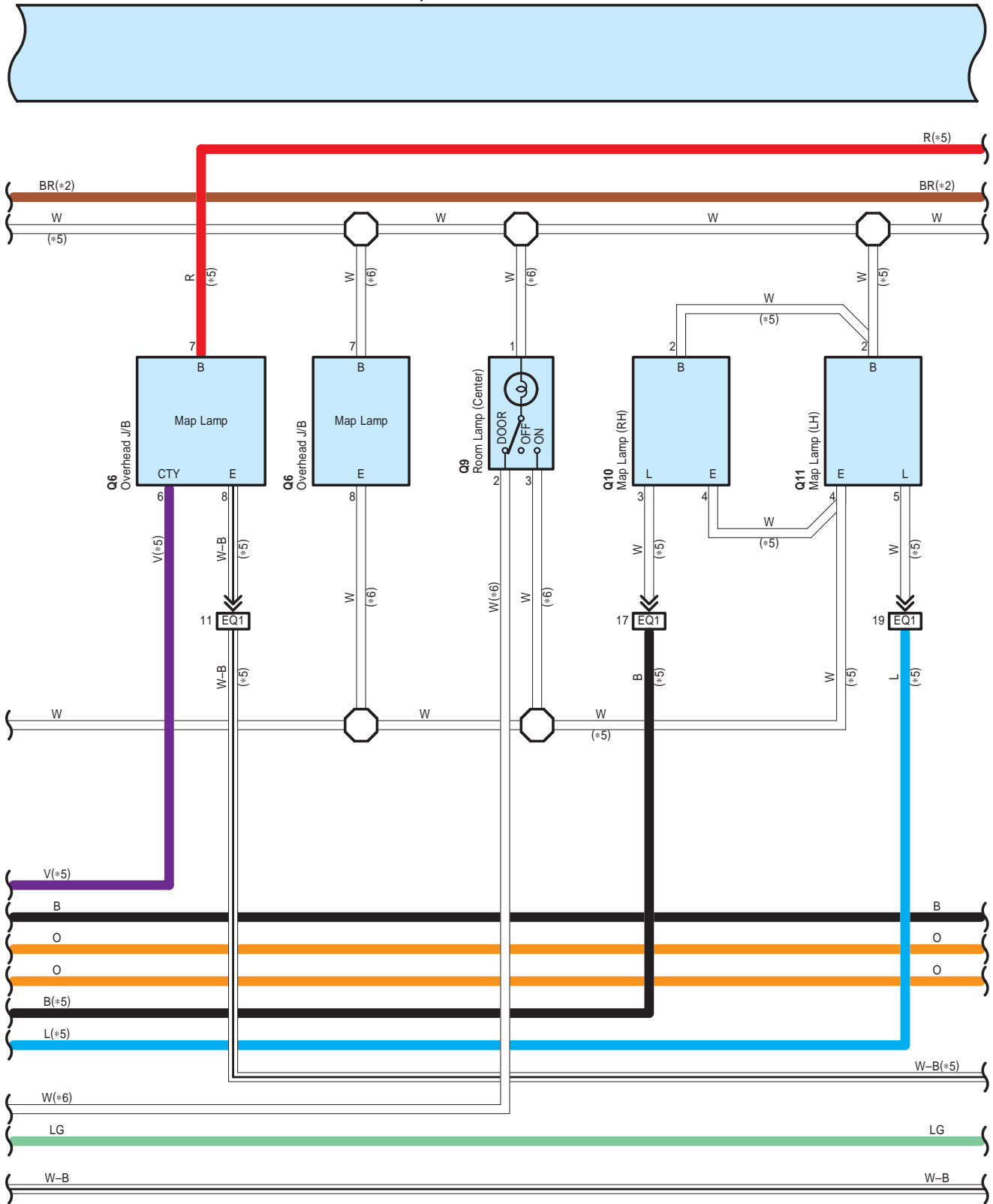
E6(A), E7(B)
Main Body ECU



Interior Light

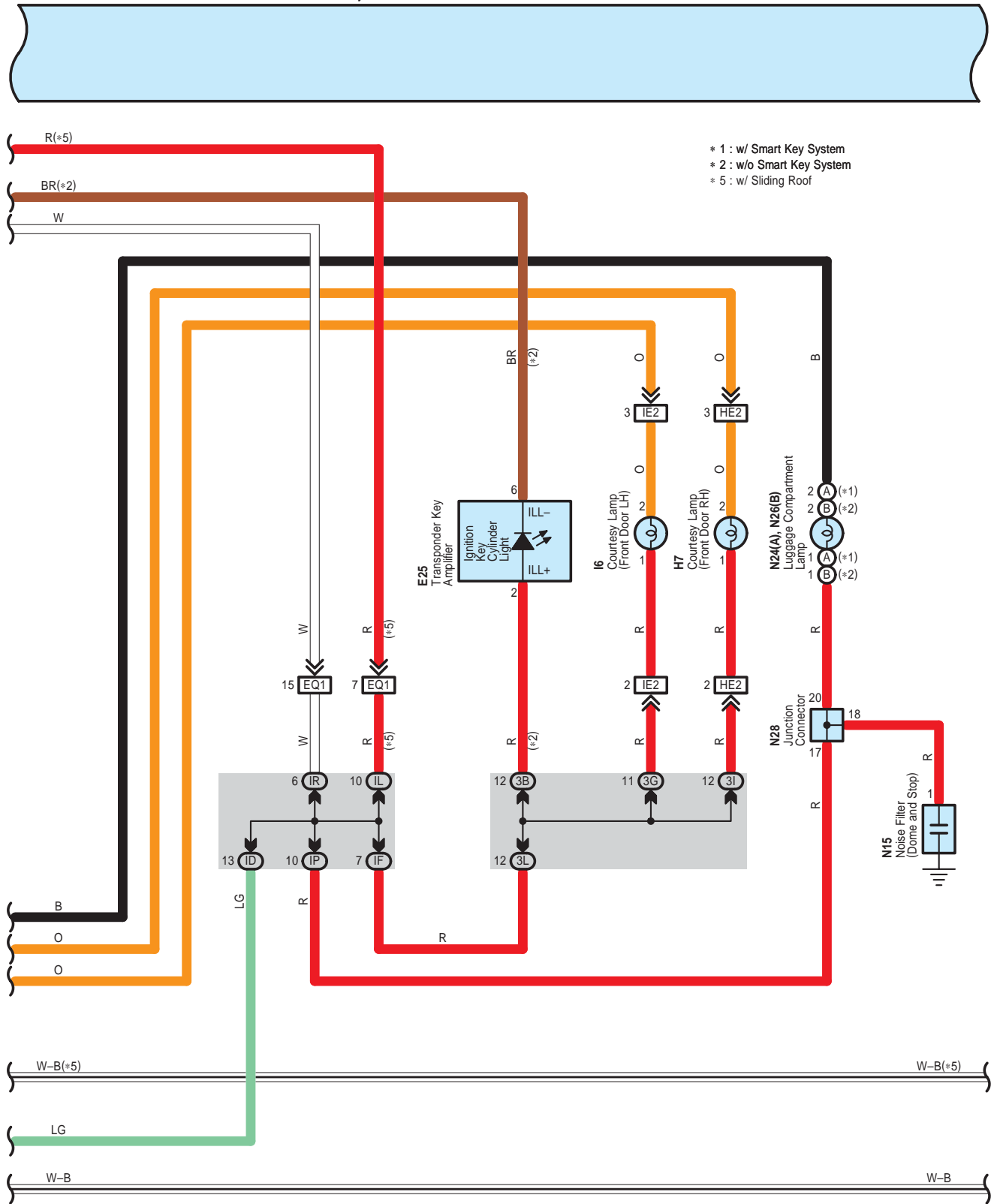


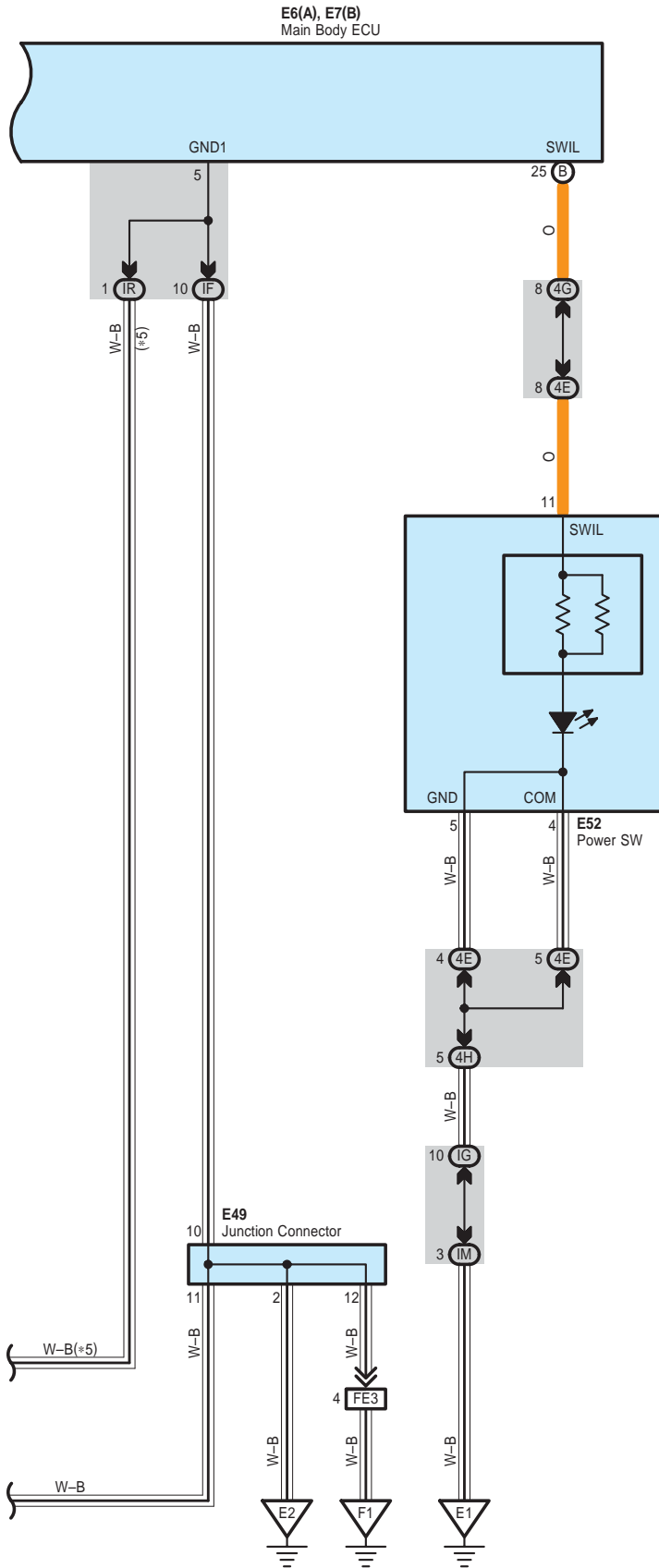
E6(A), E7(B)
Main Body ECU



Interior Light

E6(A), E7(B)
Main Body ECU





Interior Light

System Outline

1. Dome Light and Ignition Key Illumination Function

When any door is opened, the dome light (If SW is set to 'DOOR') and ignition key cylinder light are lit in fade-in manner. Then when all the doors are closed (Any door is unlocked), the illumination is kept ON with the timer for approximately for 15 seconds and then is turned OFF in fade-out manner when the timer is completed.

2. Battery Saver Function

If the illumination is kept on for 20 minutes with a door open, it is turned OFF automatically.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
E1	56	N6	A 60	Q1	61
E2	56		B 60	Q2	61
E5	56	N13	A 60	Q6	61
E6	A 56		B 60	Q7	61
E7	B 56	N15	60	Q8	61
E25	56	N23	60	Q9	61
E37	57	N24	A 60	Q10	61
E49	57	N26	B 60	Q11	61
E52	57	N28	60	S5	61
H7	61	O6	60	S15	61
I6	61	O10	60		

○ : 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)
3B	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3C		
3F		
3G		
3I		
3L		
3N		
3O		
4E	42	Instrument Panel Wire and J/B No.4 (Instrument Panel Brace Center)
4G		
4H		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IG	31	
II		
IL	30	
IM		
IO	30	Floor Wire and Instrument Panel J/B (Cowl Side Left)
IP		
IR	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)

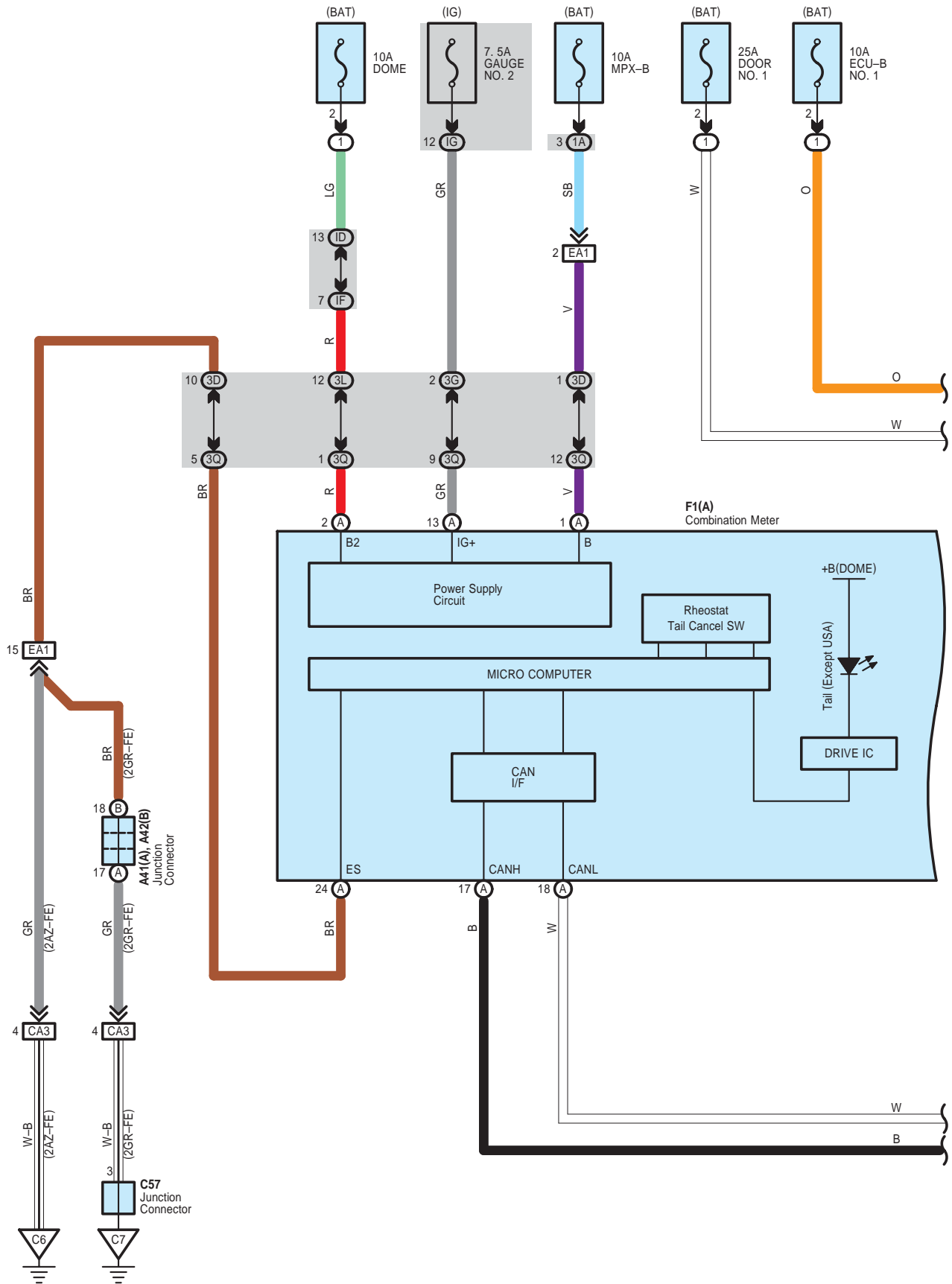
 : Connector Joining Wire Harness and Wire Harness

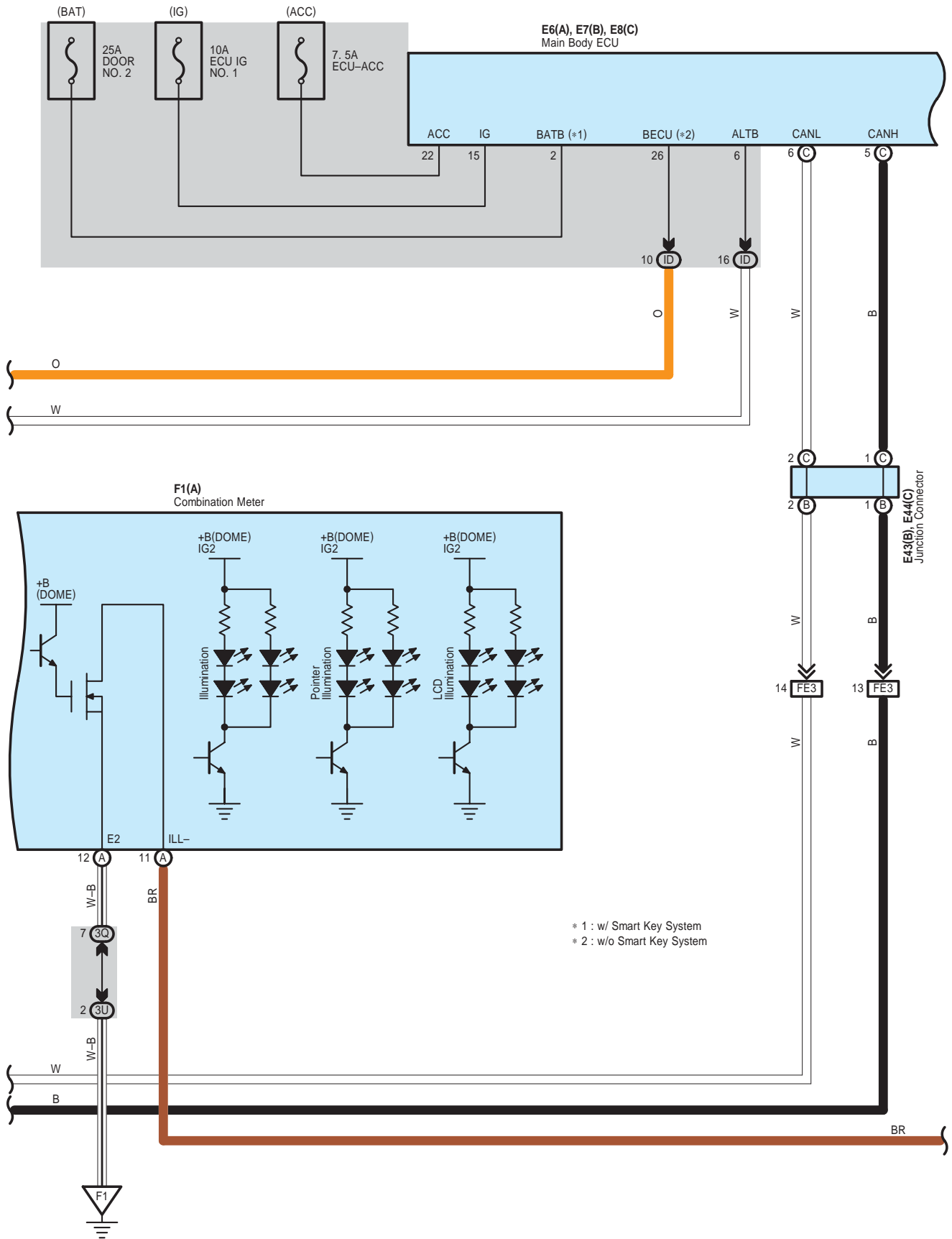
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EN2	66	Instrument Panel Wire and Floor Wire (Left Kick Panel)
EO2	66	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
EQ1	66	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
HE2	66	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IE2	66	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
SN1	67	Luggage Room Wire and Floor Wire (Luggage Room Left)

 : Ground Points

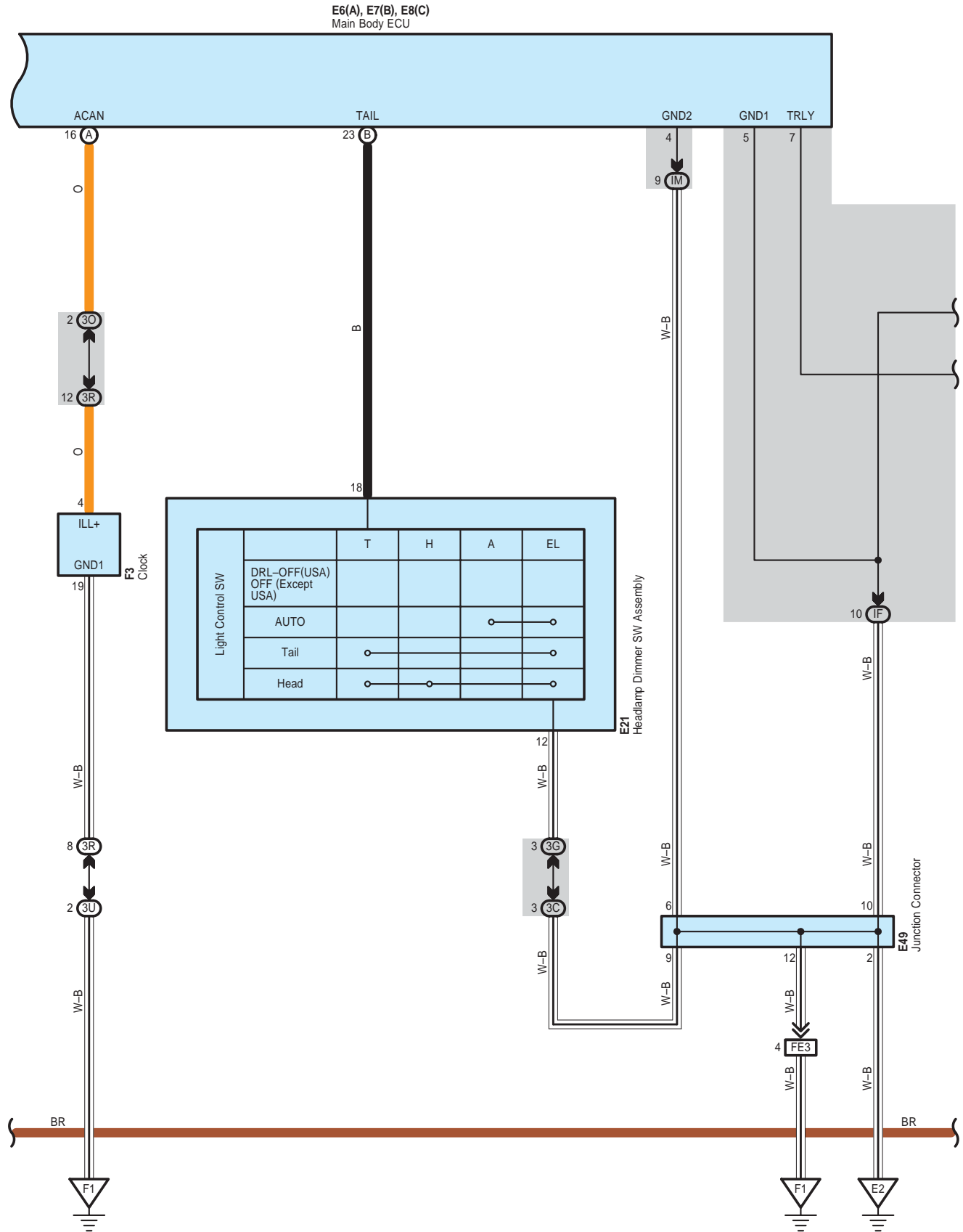
Code	See Page	Ground Points Location
E1	66	Instrument Panel Left
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left
S1	67	Lower Back Panel Center

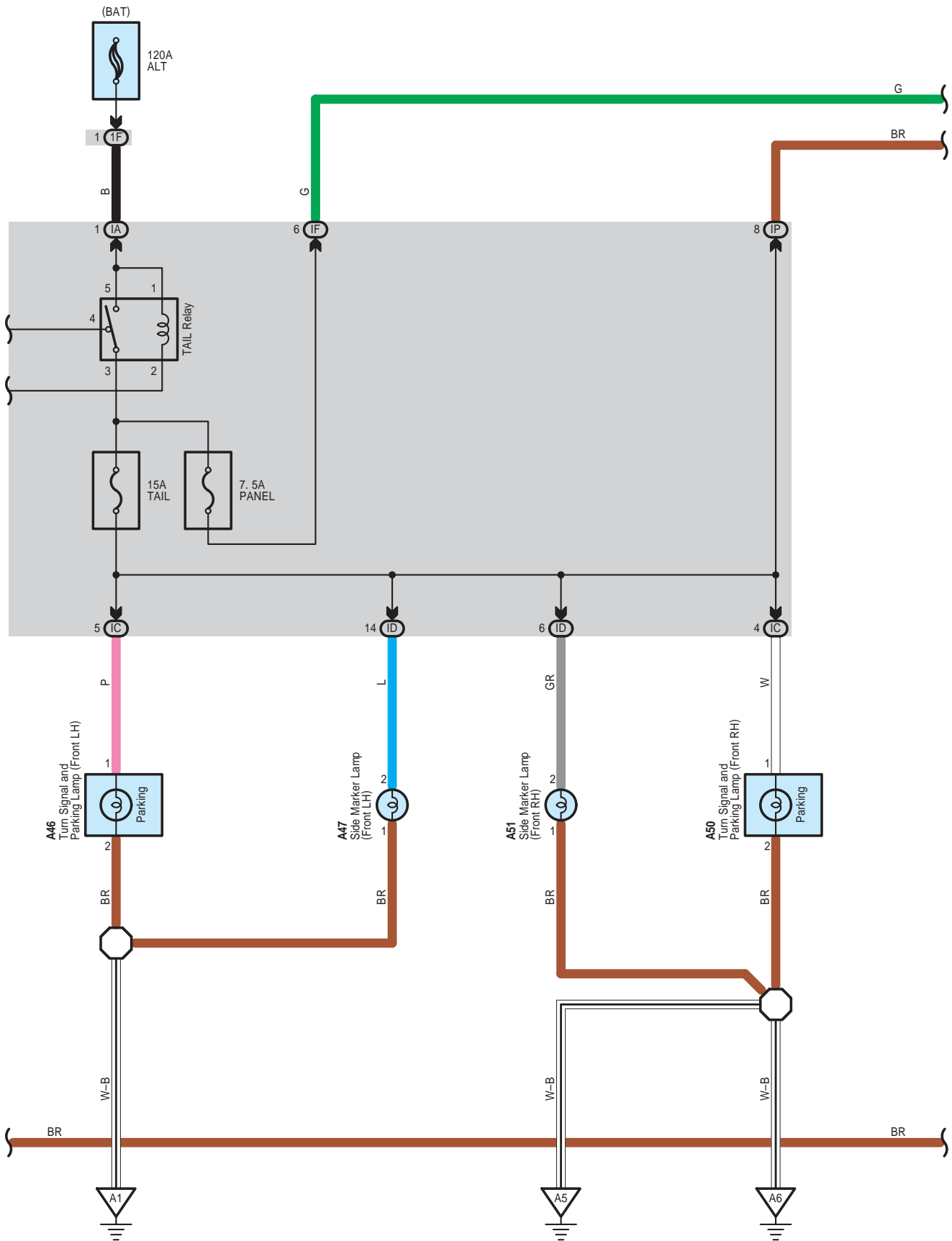
Taillight and Illumination



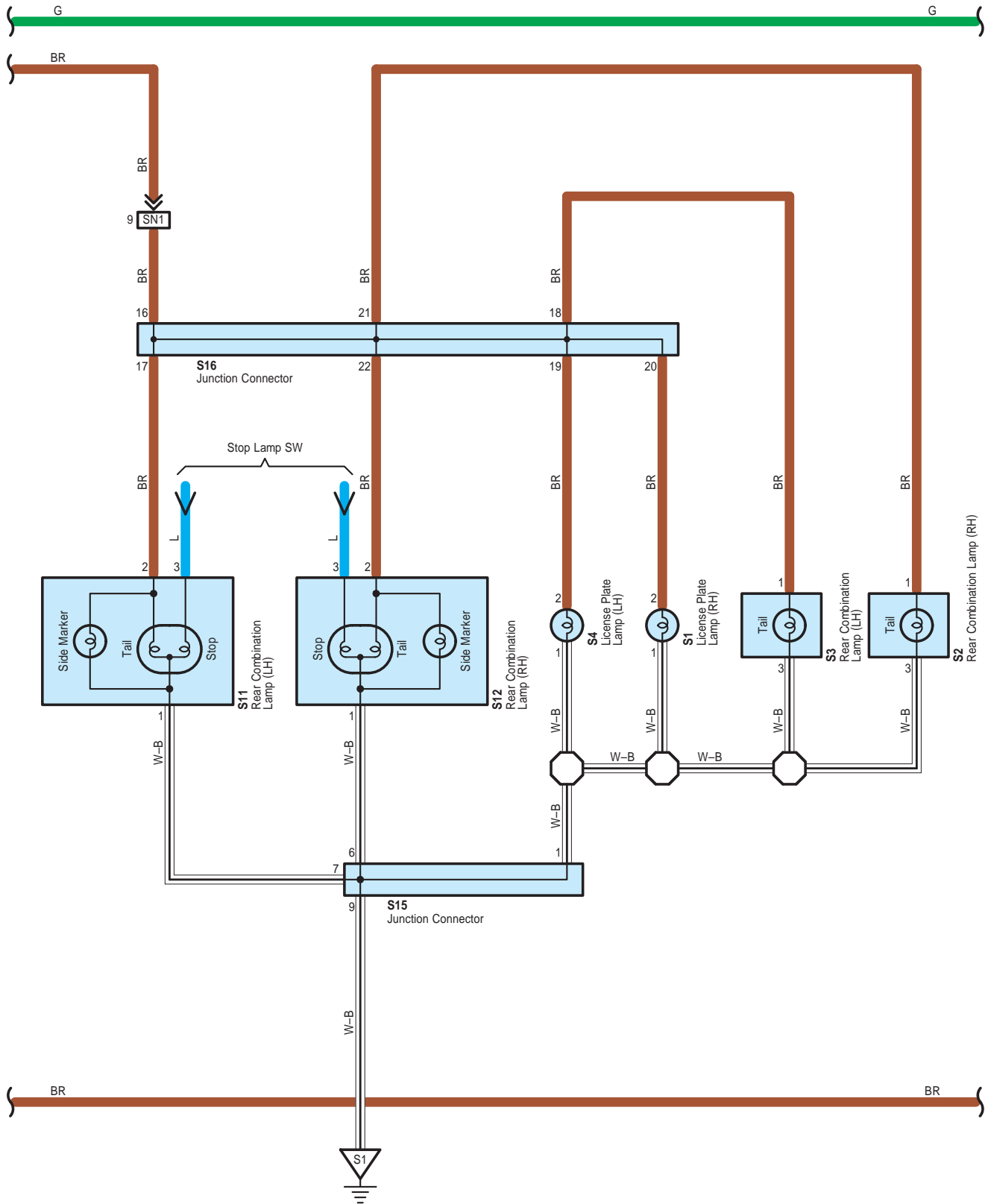


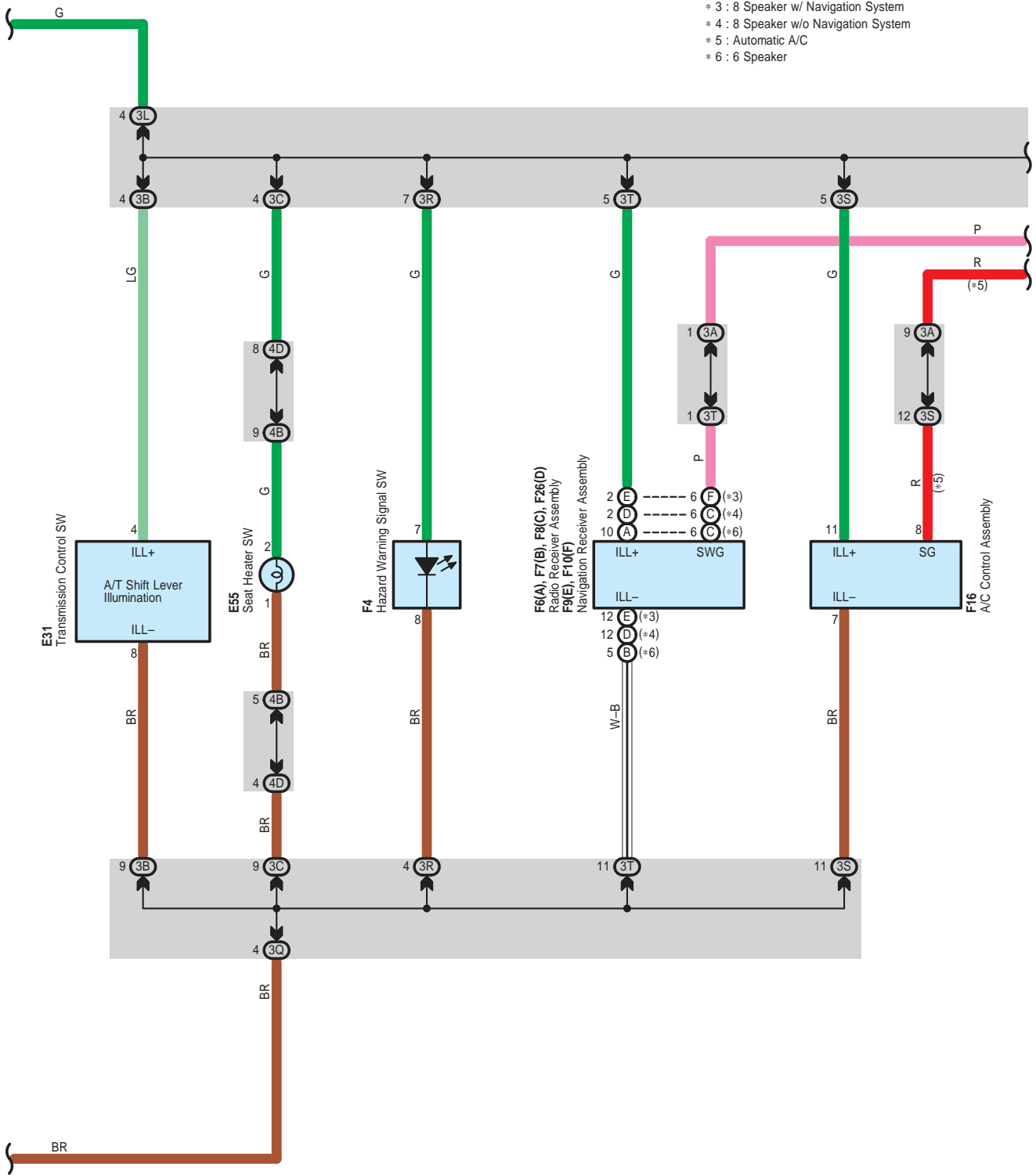
Taillight and Illumination





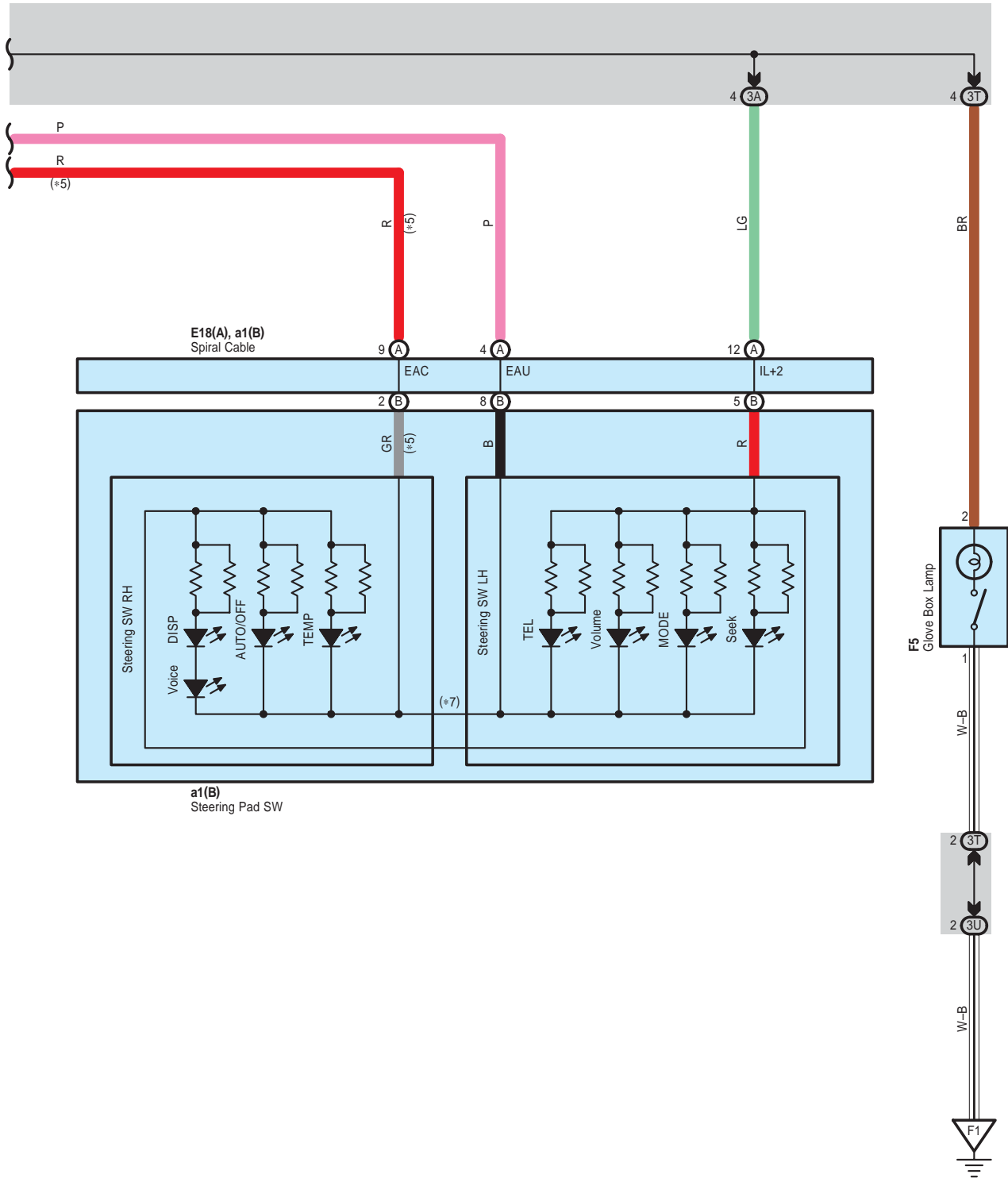
Taillight and Illumination





Taillight and Illumination

* 5 : Automatic A/C
 * 7 : Manual A/C



○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A41	A	59	E18	A	56	F9	E	58
A42	B	59	E21		56	F10	F	58
A46		49 (2GR-FE)	E31		56	F16		58
		53 (2AZ-FE)	E43	B	57	F26	D	58
A47		49 (2GR-FE)	E44	C	57	S1		61
		53 (2AZ-FE)	E49		57	S2		61
A50		49 (2GR-FE)	E55		57	S3		61
		53 (2AZ-FE)	F1	A	58	S4		61
A51		49 (2GR-FE)	F3		58	S11		61
		53 (2AZ-FE)	F4		58	S12		61
C57		51 (2GR-FE)	F5		58	S15		61
E6	A	56	F6	A	58	S16		61
E7	B	56	F7		58	a1	B	59
E8	C	56	F8	C	58			

○ : 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)
1F	22	
3A	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3B		
3C		
3D		
3G		
3L		
3O		
3Q	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3R		
3S		
3T		
3U		
4B	42	Instrument Panel Wire and J/B No.4 (Instrument Panel Brace Center)
4D		
IA	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IC		
ID		
IF		
IG	31	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IM	30	
IP	30	
		Floor Wire and Instrument Panel J/B (Cowl Side Left)

□ : Connector Joining Wire Harness and Wire Harness

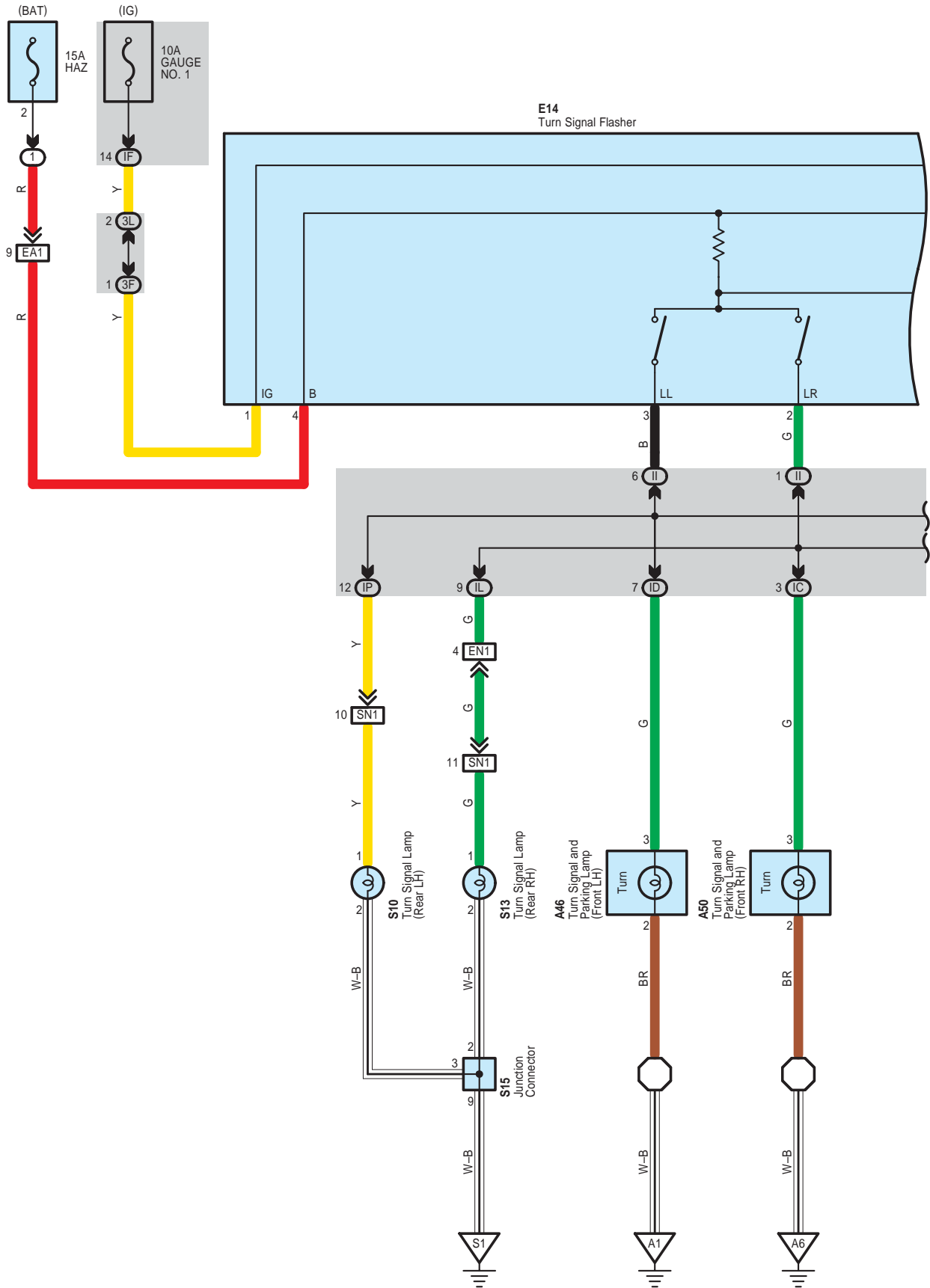
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
CA3	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
SN1	67	Luggage Room Wire and Floor Wire (Luggage Room Left)

Taillight and Illumination

 : Ground Points

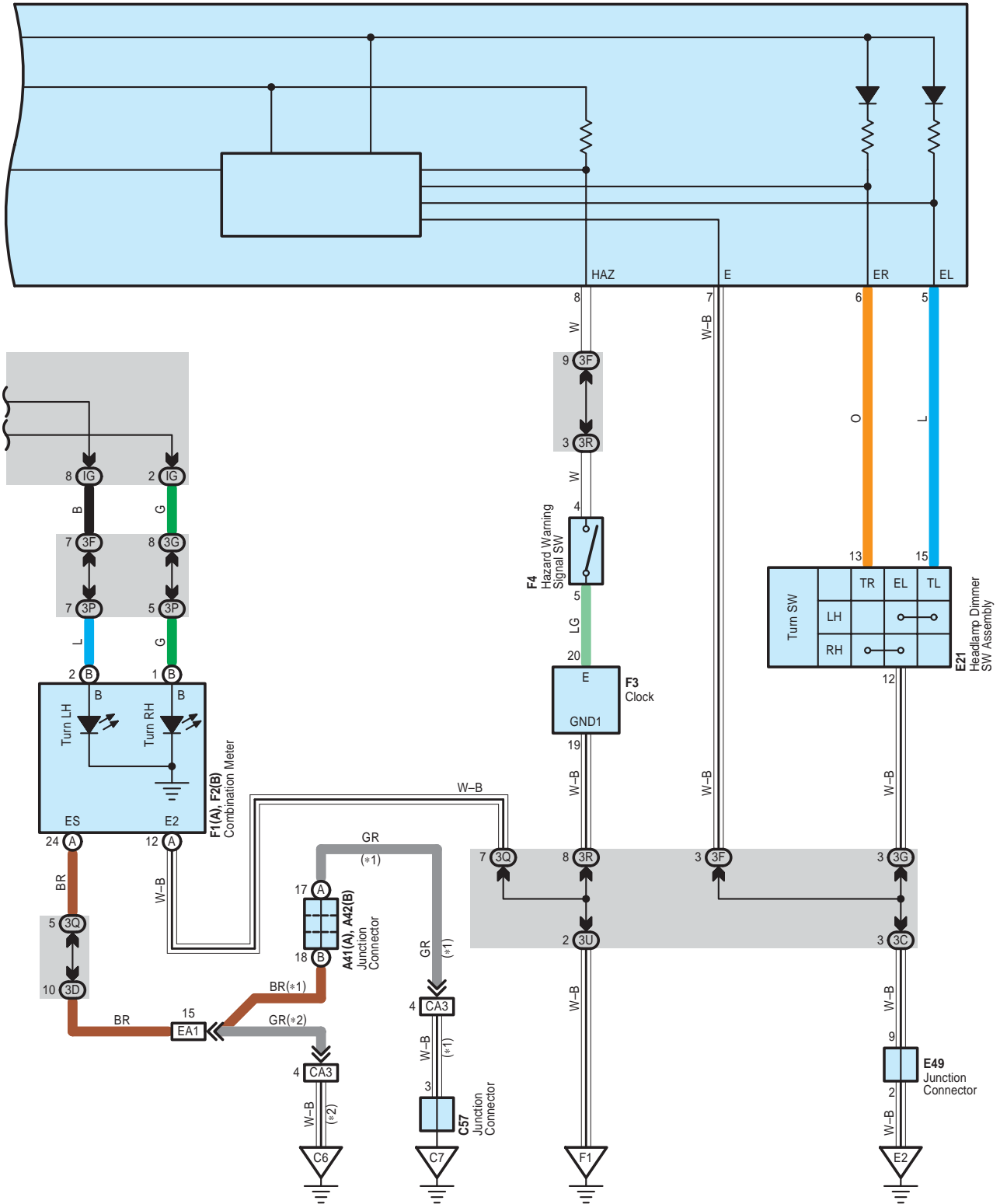
Code	See Page	Ground Points Location
A1	64 (2GR-FE)	Front Left Fender
	65 (2AZ-FE)	
A5	64 (2GR-FE)	Front Right Fender
	65 (2AZ-FE)	
A6	66	Right Cowl Side Panel
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left
S1	67	Lower Back Panel Center

Turn Signal and Hazard Warning Light



* 1 : 2GR-FE
 * 2 : 2AZ-FE

E14
 Turn Signal Flasher



Turn Signal and Hazard Warning Light

: Parts Location

Code		See Page	Code		See Page	Code		See Page
A41	A	59	C57	51 (2GR-FE)	F3	58		
A42	B	59	E14	56	F4	58		
A46		49 (2GR-FE)	E21	56	S10	61		
		53 (2AZ-FE)	E49	57	S13	61		
A50		49 (2GR-FE)	F1	A	58	S15	61	
		53 (2AZ-FE)	F2	B	58			

: 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)
3C	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3D		
3F		
3G		
3L		
3P	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3Q		
3R		
3U		
IC	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
ID	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	
IG	31	
II	31	
IL	30	Floor Wire and Instrument Panel J/B (Cowl Side Left)
IP	30	

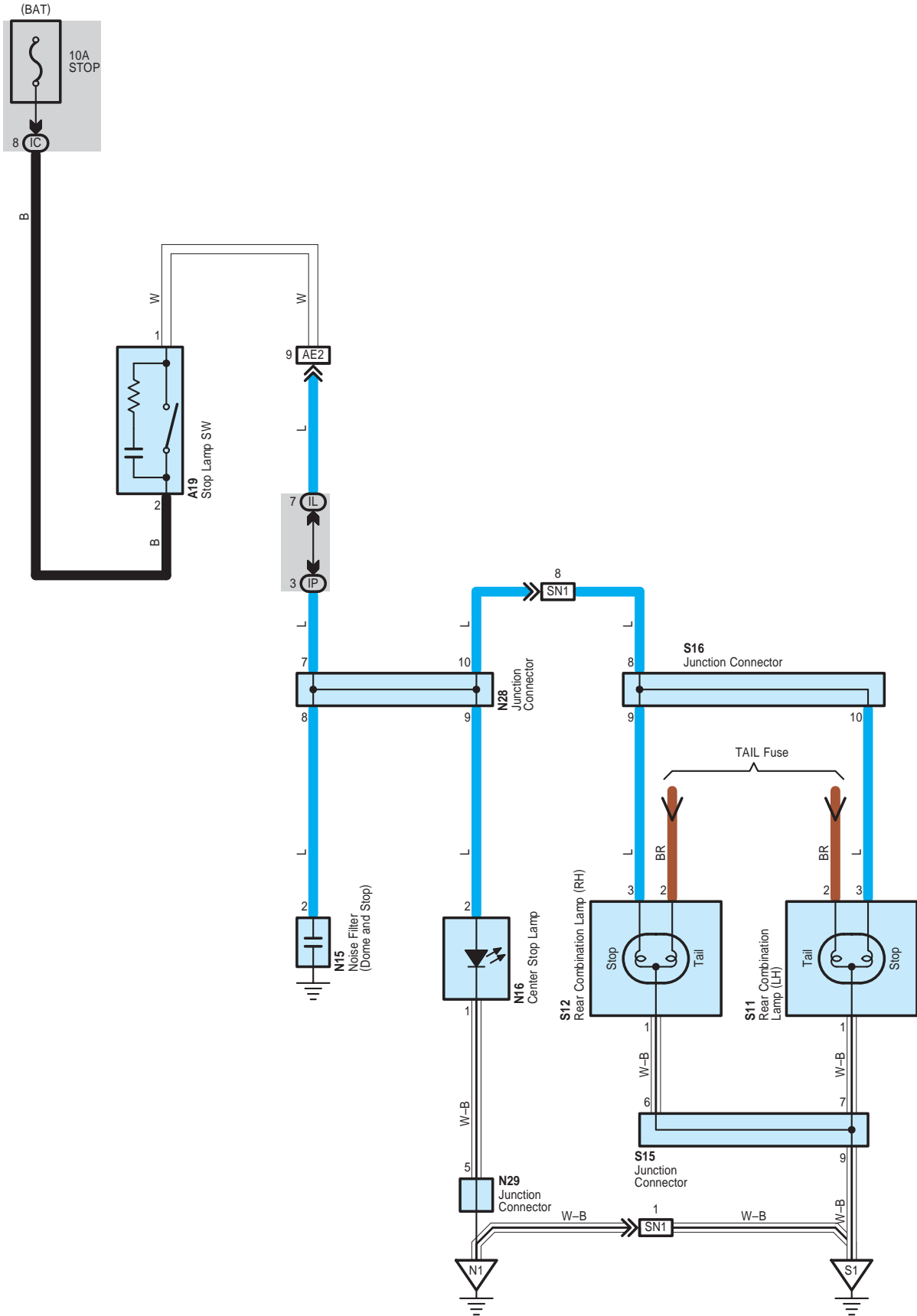
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
CA3	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
EN1	66	Instrument Panel Wire and Floor Wire (Left Kick Panel)
SN1	67	Luggage Room Wire and Floor Wire (Luggage Room Left)

: Ground Points

Code	See Page	Ground Points Location
A1	64 (2GR-FE)	Front Left Fender
	65 (2AZ-FE)	
A6	66	Right Cowl Side Panel
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left
S1	67	Lower Back Panel Center

Stop Light



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
A19	59	N28	60	S12	61
N15	60	N29	60	S15	61
N16	60	S11	61	S16	61

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
IC	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IL	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IP	30	Floor Wire and Instrument Panel J/B (Cowl Side Left)

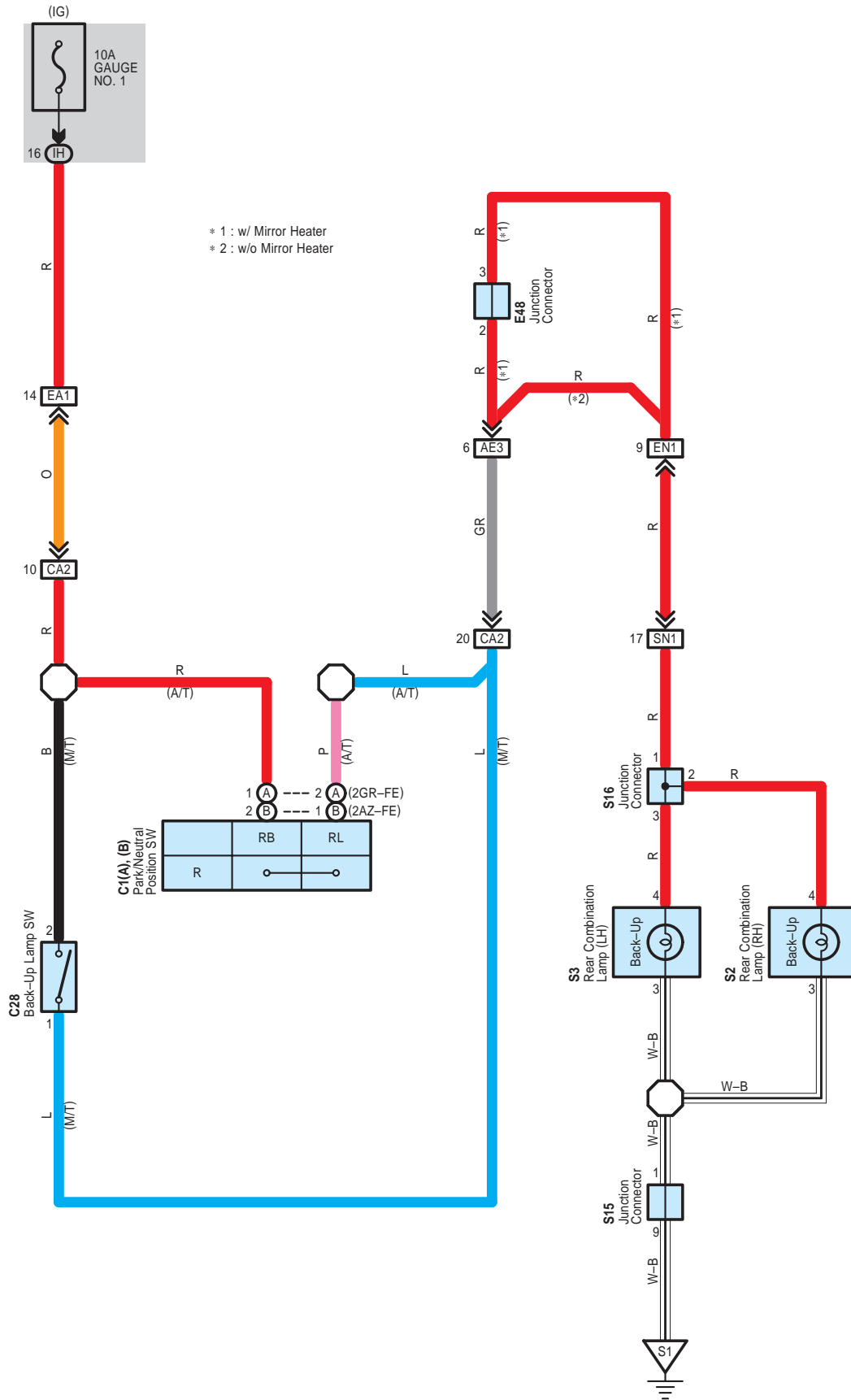
 : **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE2	66	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
SN1	67	Luggage Room Wire and Floor Wire (Luggage Room Left)

 : **Ground Points**

Code	See Page	Ground Points Location
N1	67	Left Rear Quarter Panel
S1	67	Lower Back Panel Center

Back-Up Light



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page	
C1	A	50 (2GR-FE)	E48	57	S15	61
	B	54 (2AZ-FE)	S2	61	S16	61
C28		55 (2AZ-FE)	S3	61		

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
IH	31	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)

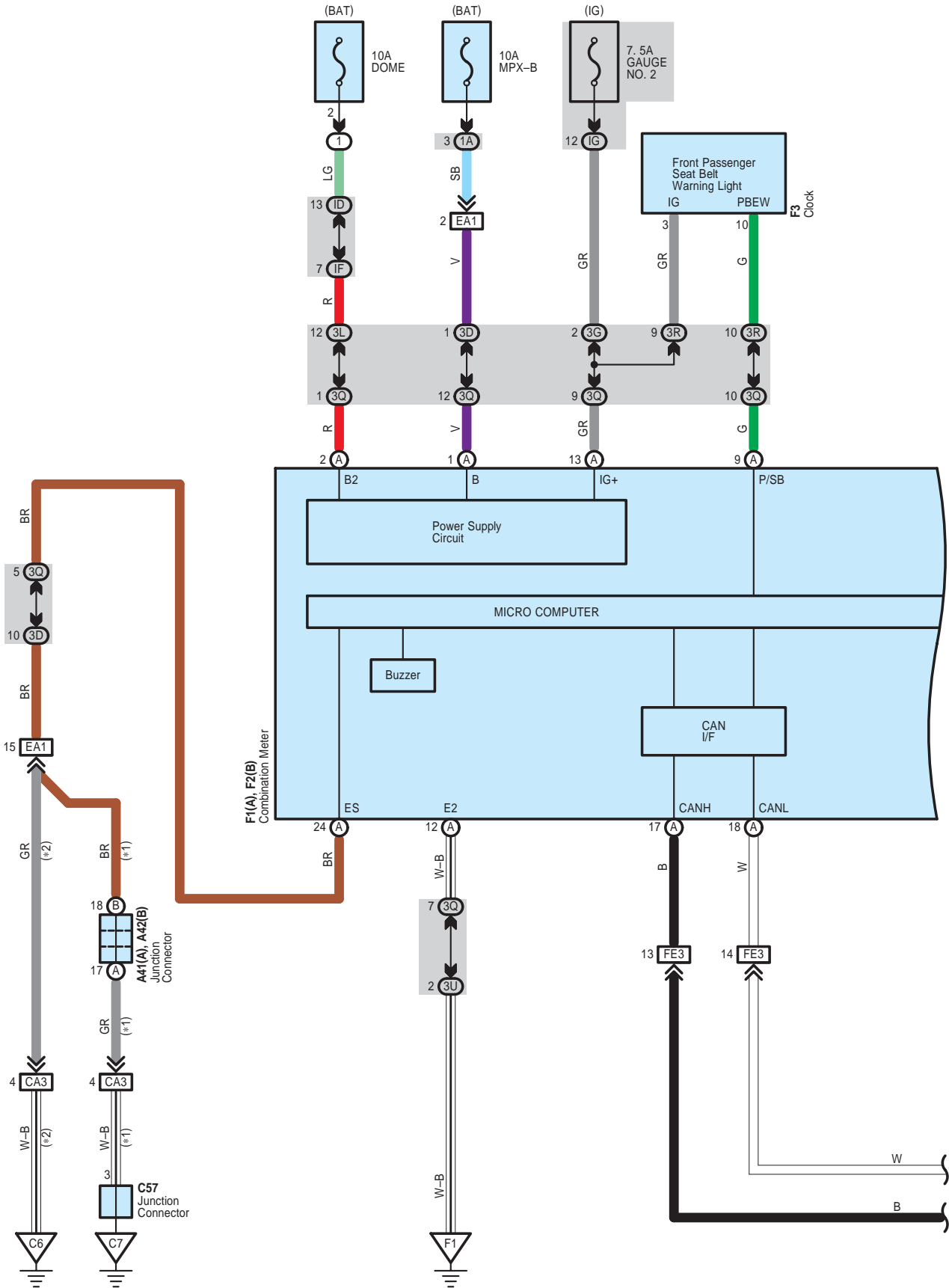
 : **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE3	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
CA2	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
EN1	66	Instrument Panel Wire and Floor Wire (Left Kick Panel)
SN1	67	Luggage Room Wire and Floor Wire (Luggage Room Left)

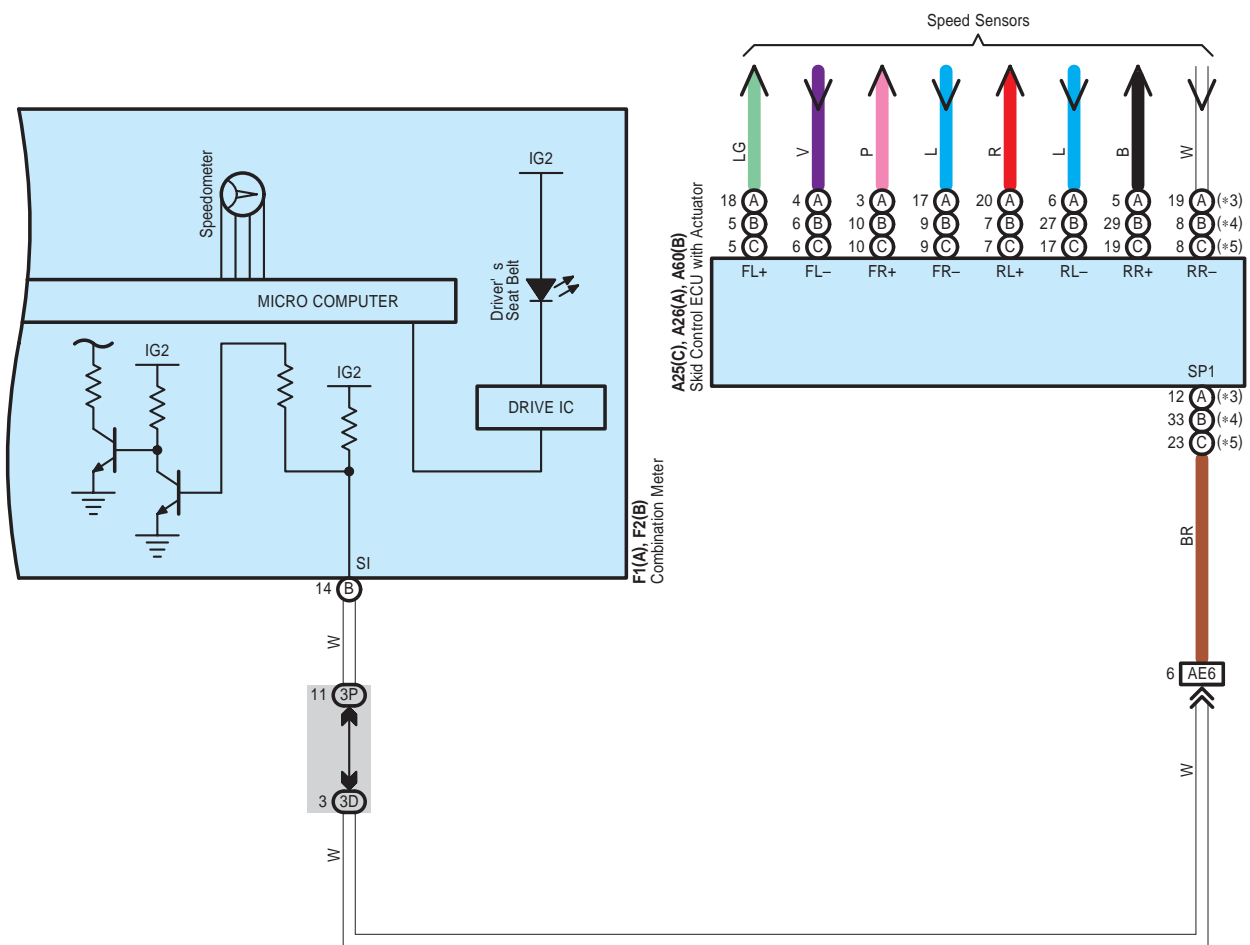
 : **Ground Points**

Code	See Page	Ground Points Location
S1	67	Lower Back Panel Center

Key Reminder without Smart Key System and Seat Belt Warning

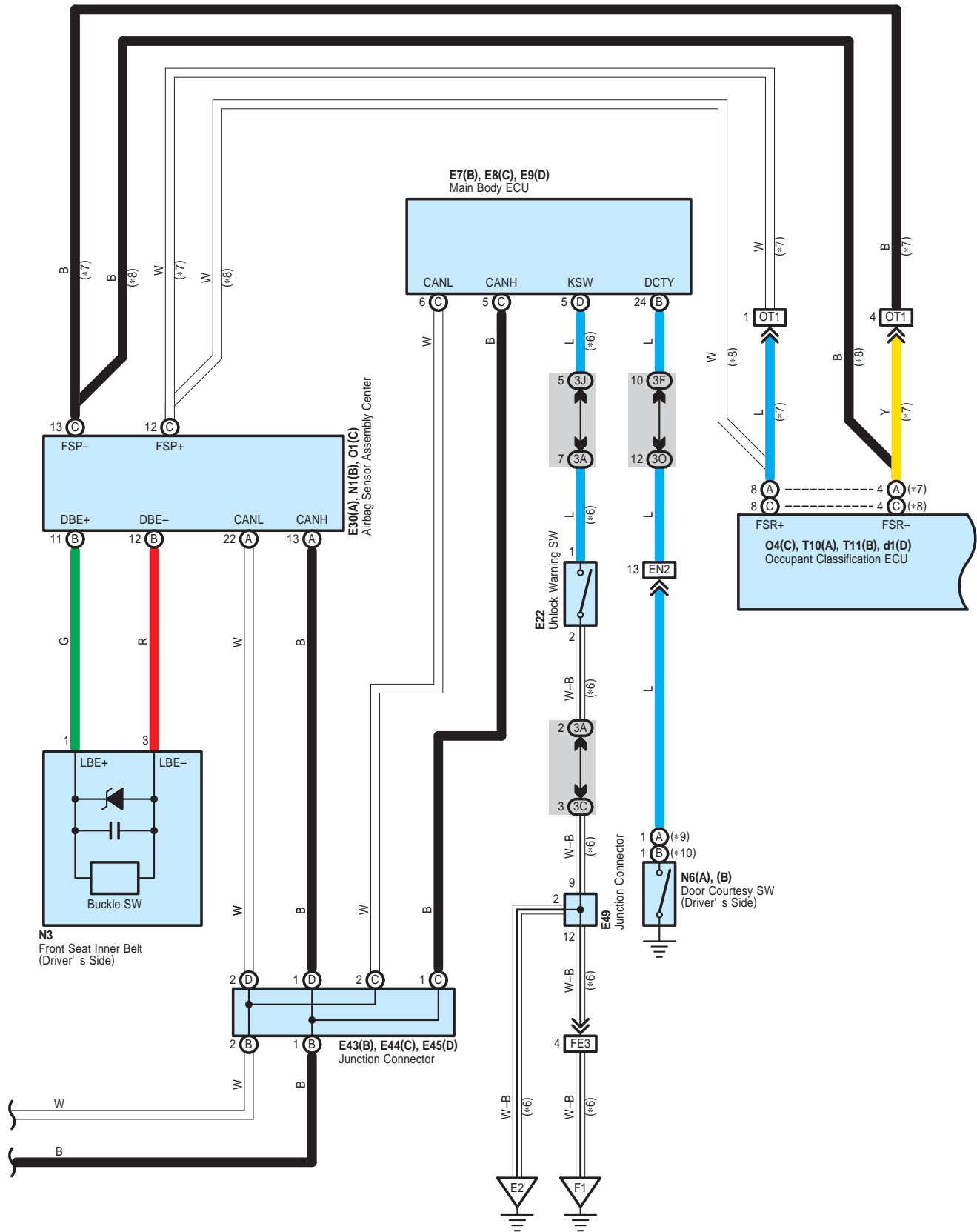


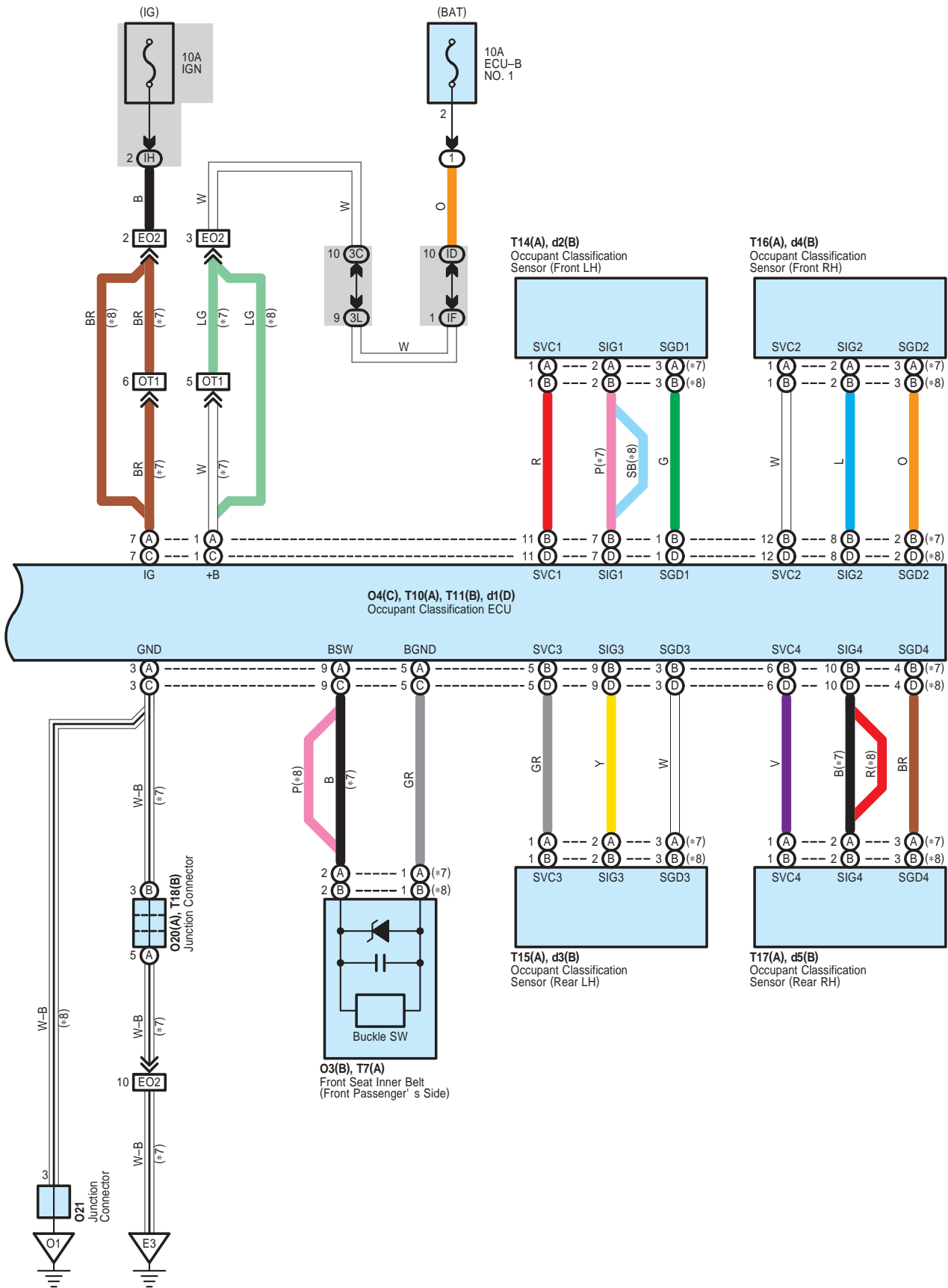
- * 1 : 2GR-FE
- * 2 : 2AZ-FE
- * 3 : w/ VSC TMC Made
- * 4 : w/ VSC TMMK Made
- * 5 : w/o VSC



Key Reminder without Smart Key System and Seat Belt Warning

- * 6 : w/o Smart Key System
- * 7 : w/ Power Seat
- * 8 : w/o Power Seat
- * 9 : TMC Made
- * 10 : TMMK Made





Key Reminder without Smart Key System and Seat Belt Warning

System Outline

Key Reminder Operation

With the ignition key inserted in the key cylinder (Unlock warning SW on), the ignition SW still off and driver's door open (Door courtesy SW on), when a signal is input to the combination meter, the combination meter operates key reminder buzzer sounds.

Seat Belt Warning Operation

When the driver has not fastened the seat belt while the power SW is pushed to IG ON position (Power SW type), or while the ignition SW is ON (Ignition SW type), the driver seat belt warning light blinks, and a warning buzzer comes on.

Also, in the front passenger seat, a sensor recognizes passenger, and when the passenger has not fastened the seat belt, the front passenger seat belt warning light blinks.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A25	C	48 (2GR-FE)	E44	C	57
		52 (2AZ-FE)	E45	D	57
A26	A	48 (2GR-FE)	E49		57
		52 (2AZ-FE)	F1	A	58
A41	A	59	F2	B	58
A42	B	59	F3		58
A60	B	49 (2GR-FE)	N1	B	59
		53 (2AZ-FE)	N3		62 (*1)
C57		51 (2GR-FE)	N3		63 (*2)
E7	B	56	N6	A	60
E8	C	56		B	60
E9	D	56	O1	C	59
E22		56	O3	B	63 (*2)
E30	A	56	O4	C	63 (*2)
E43	B	57	O20	A	62 (*1)
			O21		60
			T7	A	62 (*1)
			T10	A	62 (*1)
			T11	B	62 (*1)
			T14	A	62 (*1)
			T15	A	62 (*1)
			T16	A	62 (*1)
			T17	A	62 (*1)
			T18	B	62 (*1)
			d1	D	63 (*2)
			d2	B	63 (*2)
			d3	B	63 (*2)
			d4	B	63 (*2)
			d5	B	63 (*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)
3A	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3C		
3D		
3F		
3G		
3J		
3L		
3O		
3P	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3Q		
3R		
3U		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IG	31	
IH		

* 1 : w/ Power Seat * 2 : w/o Power Seat

 : Connector Joining Wire Harness and Wire Harness

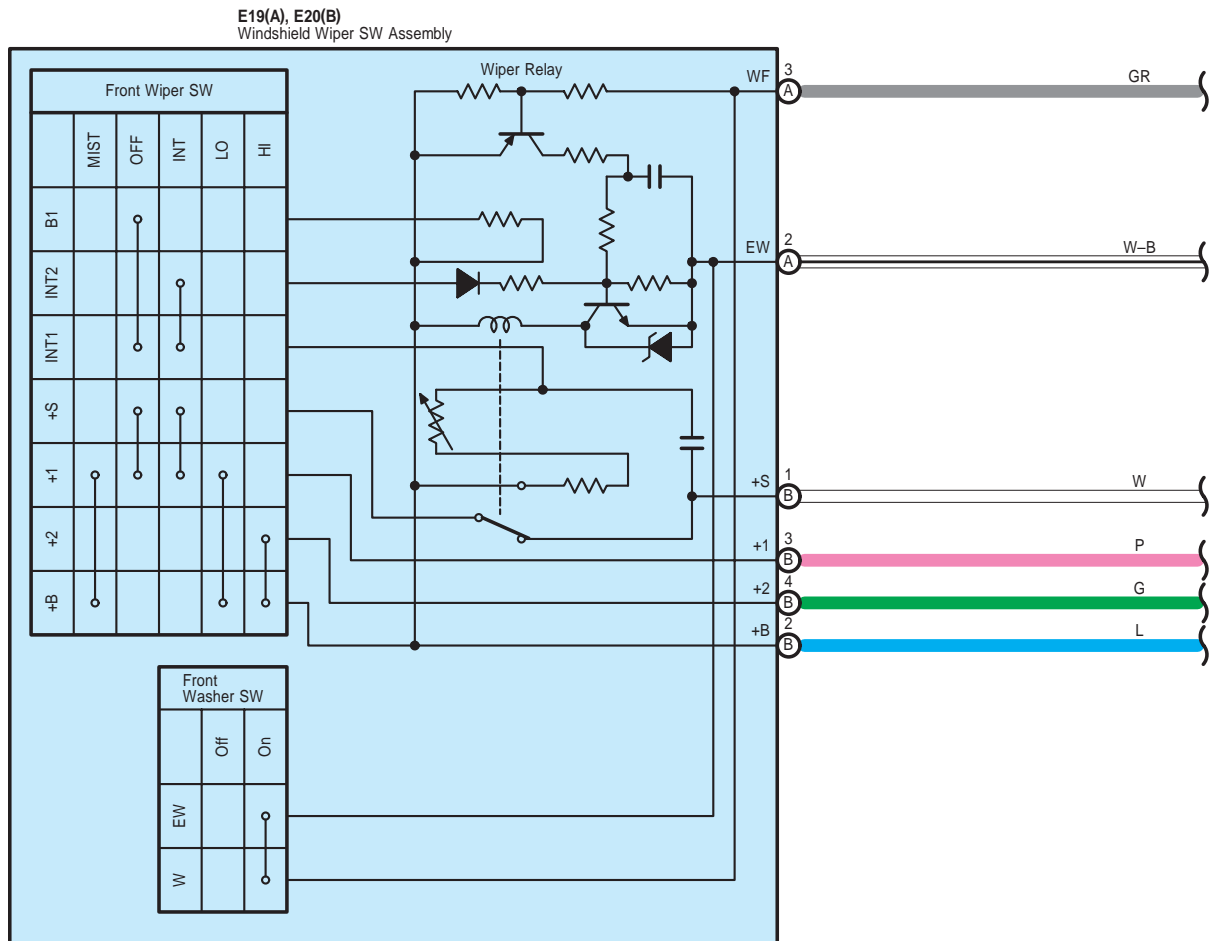
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE6	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
CA3	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
EN2	66	Instrument Panel Wire and Floor Wire (Left Kick Panel)
EO2	66	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
OT1	68 (*1)	Floor No.2 Wire and Front Seat RH Wire (Under the Front Passenger's Seat)

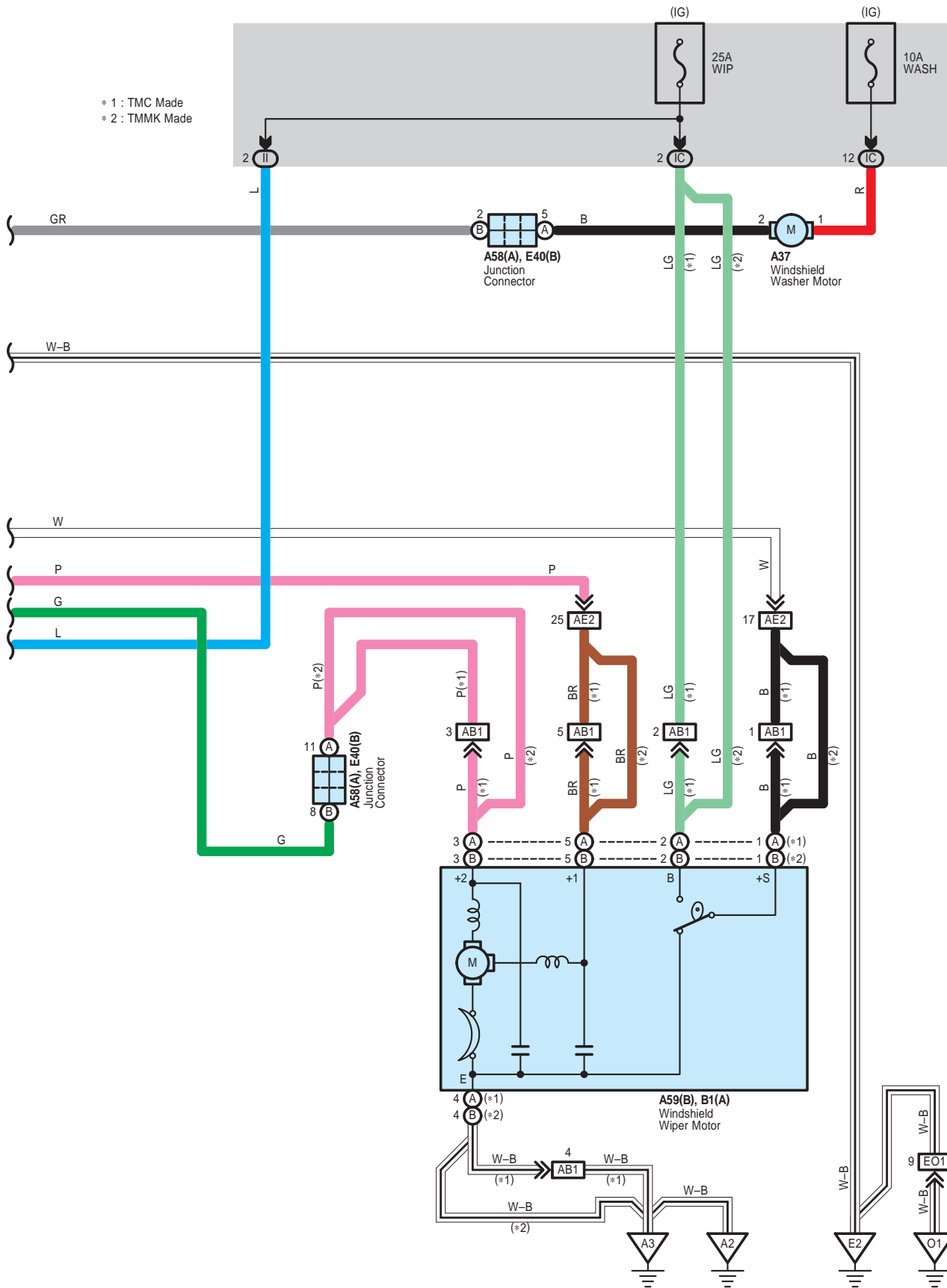
 : Ground Points

Code	See Page	Ground Points Location
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
E2	66	Instrument Panel Brace LH
E3	66	Instrument Panel Right
F1	66	Instrument Panel Left
O1	67	Right Rear Quarter Panel

* 1 : w/ Power Seat * 2 : w/o Power Seat

Wiper and Washer





Wiper and Washer

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A37		48 (2GR-FE)	A59	B	53 (2AZ-FE)	E20	B	56
		52 (2AZ-FE)	B1	A	49 (2GR-FE)	E40	B	57
A58	A	59						
A59	B	49 (2GR-FE)	E19	A	56			

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
IC	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
II	31	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)

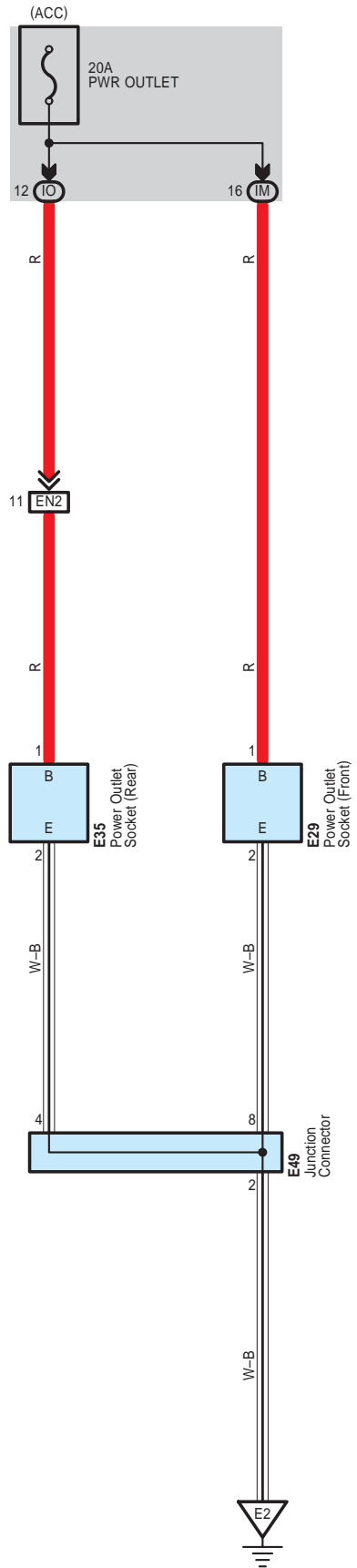
□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AB1	64 (2GR-FE)	Engine Room Main Wire and Engine Room No.2 Wire (Near the Windshield Wiper Motor)
	65 (2AZ-FE)	
AE2	66	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)

▽ : Ground Points

Code	See Page	Ground Points Location
A2	64 (2GR-FE)	Front Left Fender
	65 (2AZ-FE)	
A3	66	Left Cowl Side Panel
E2	66	Instrument Panel Brace LH
O1	67	Right Rear Quarter Panel

Power Outlet



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
E29	56	E35	57	E49	57

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
IM	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IO	30	Floor Wire and Instrument Panel J/B (Cowl Side Left)

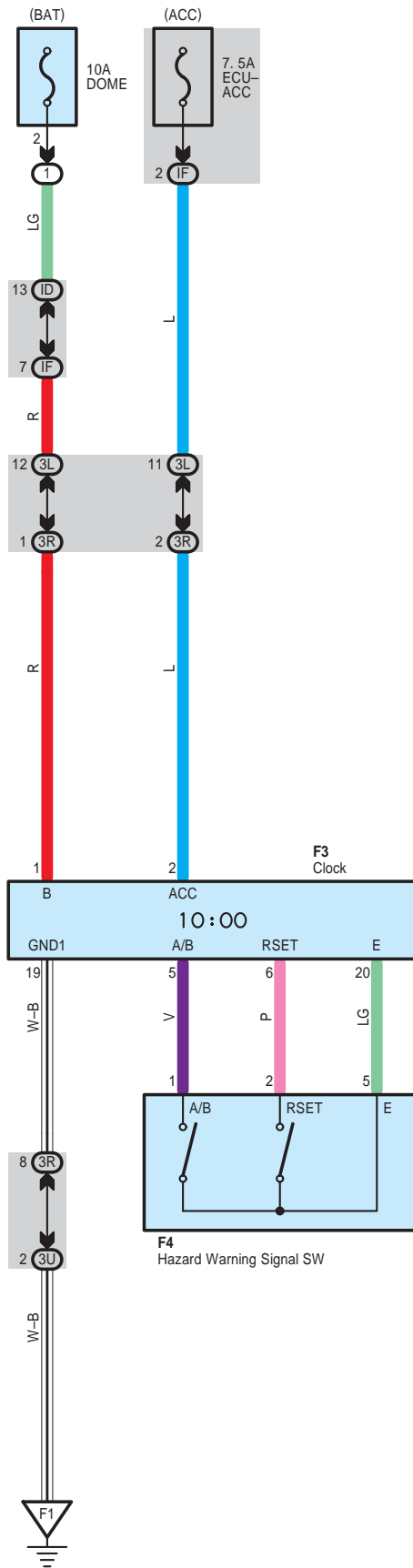
 : **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EN2	66	Instrument Panel Wire and Floor Wire (Left Kick Panel)

 : **Ground Points**

Code	See Page	Ground Points Location
E2	66	Instrument Panel Brace LH

Clock



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
F3	58	F4	58		

 : **Relay Blocks**

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

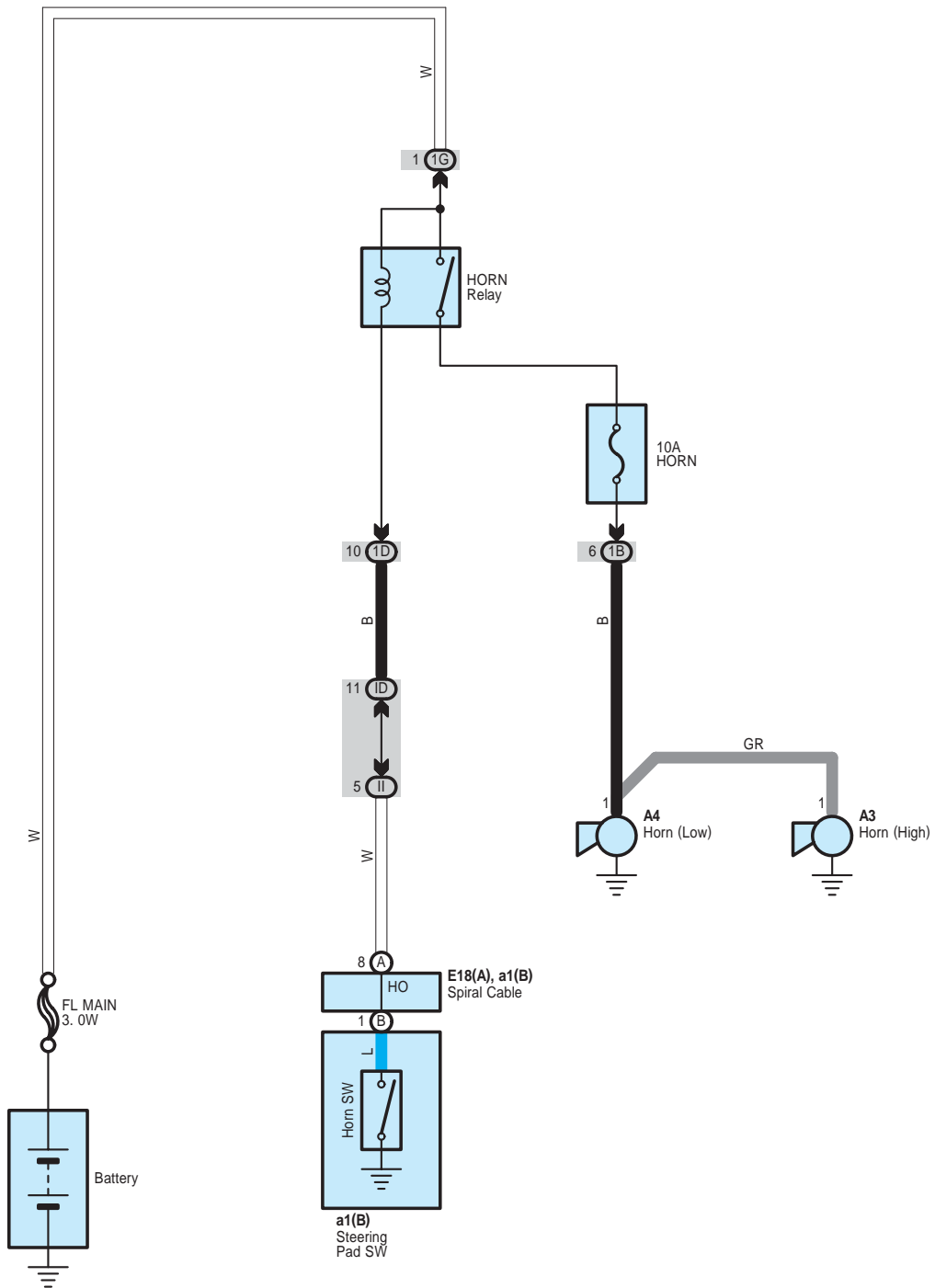
 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
3L	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3R	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3U		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)

 : **Ground Points**

Code	See Page	Ground Points Location
F1	66	Instrument Panel Left

Horn



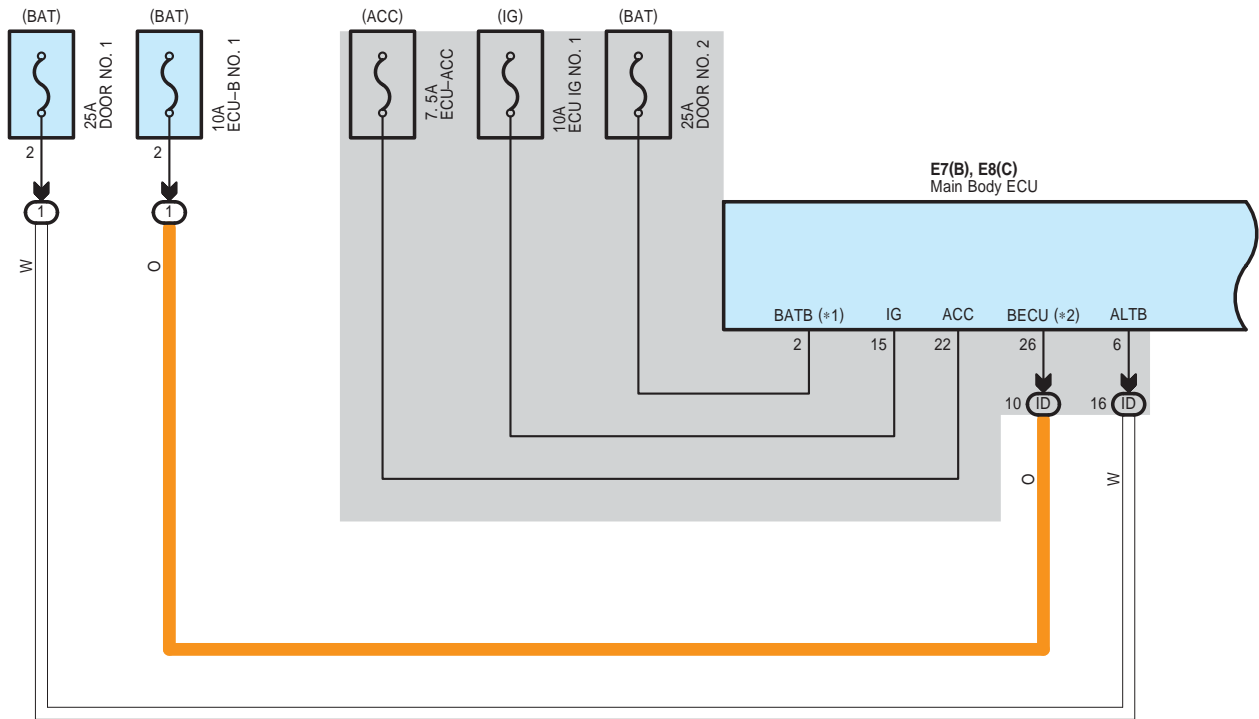
○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A3	48 (2GR-FE)	A4	48 (2GR-FE)	E18	A 56
	52 (2AZ-FE)		52 (2AZ-FE)	a1	B 59

○ : Junction Block and Wire Harness Connector

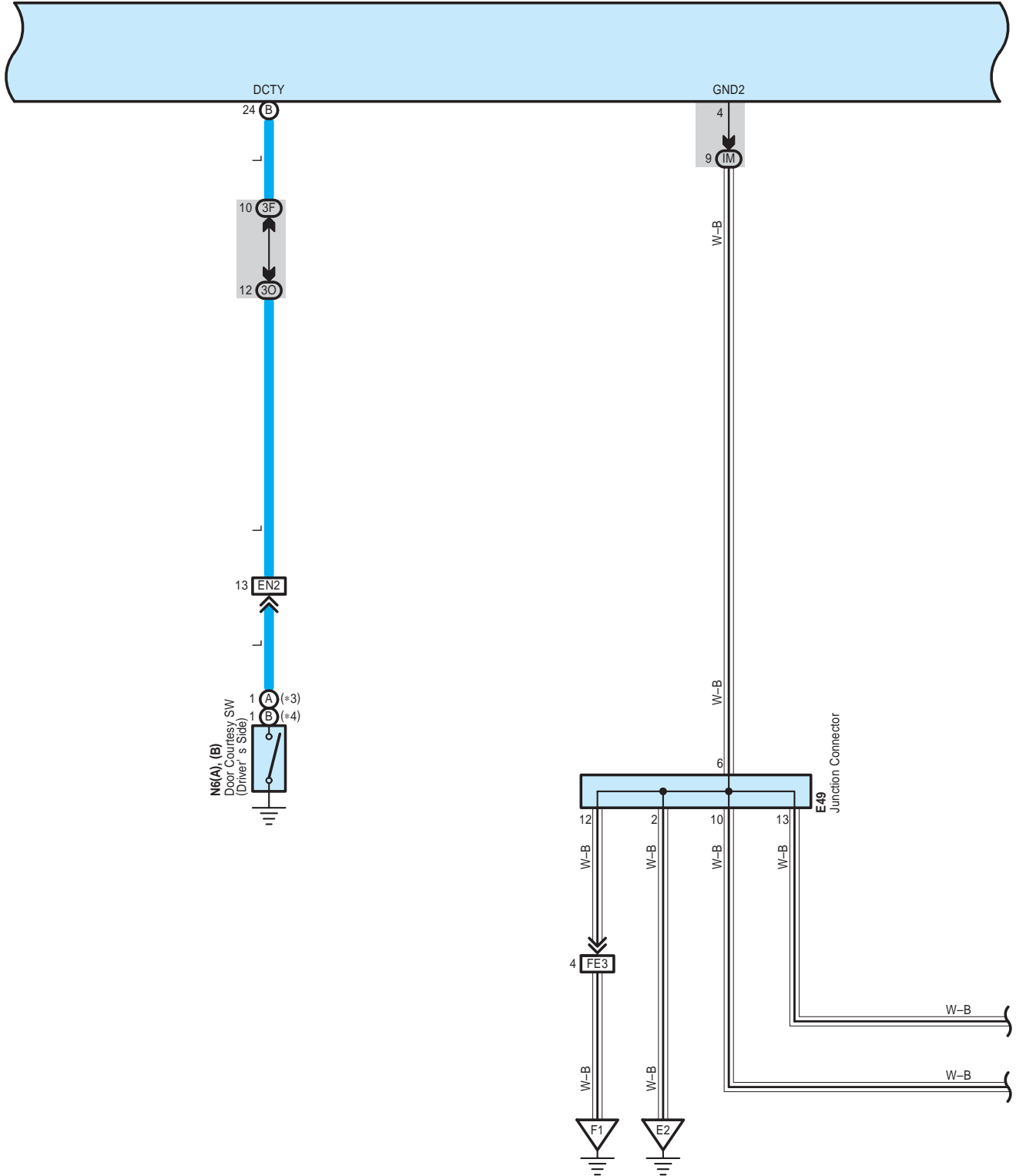
Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1D		
1G	22	
ID	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
II	31	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)

Power Window

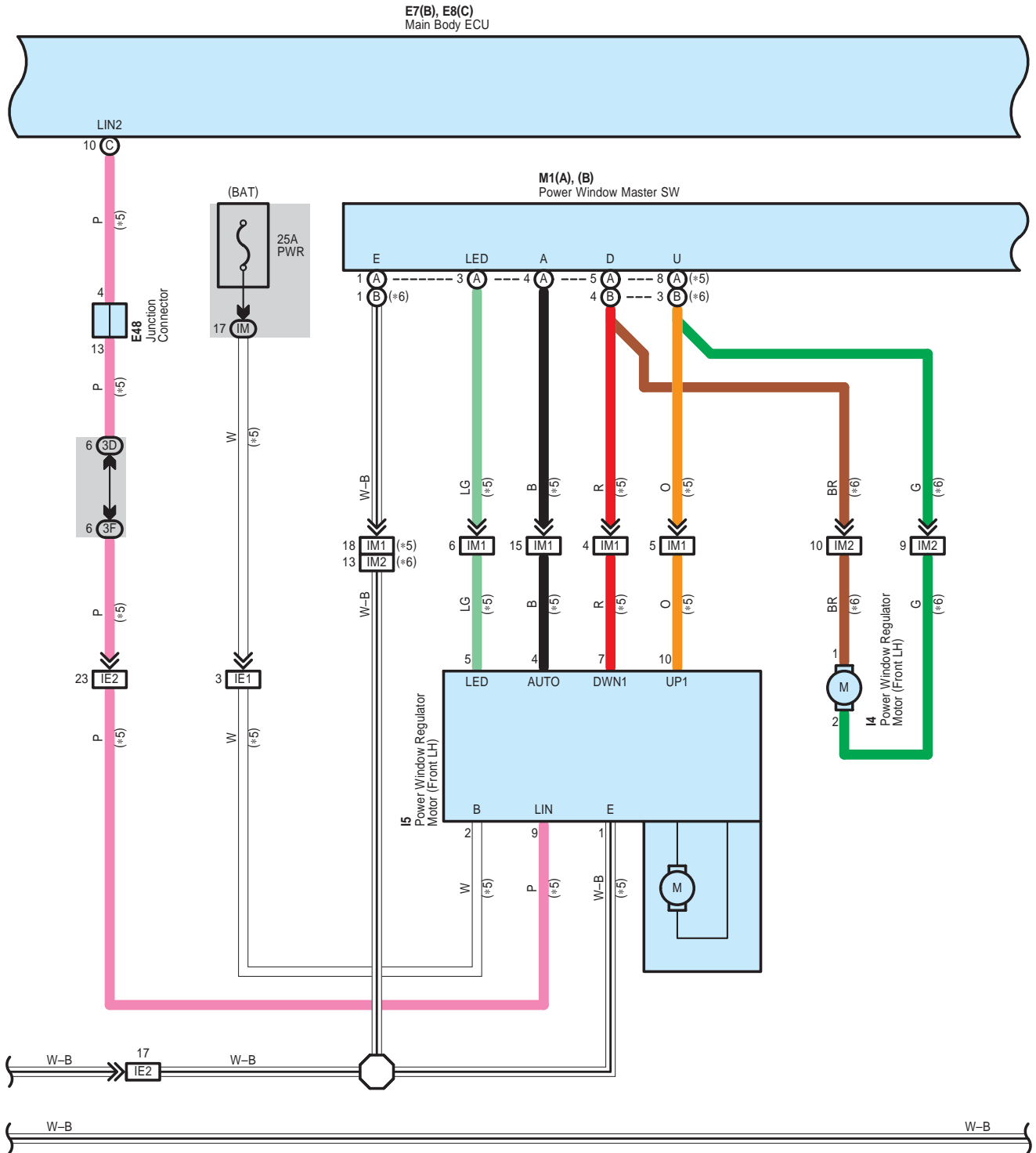


- * 1 : w/ Smart Key System
- * 2 : w/o Smart Key System
- * 3 : TMC Made
- * 4 : TMMK Made

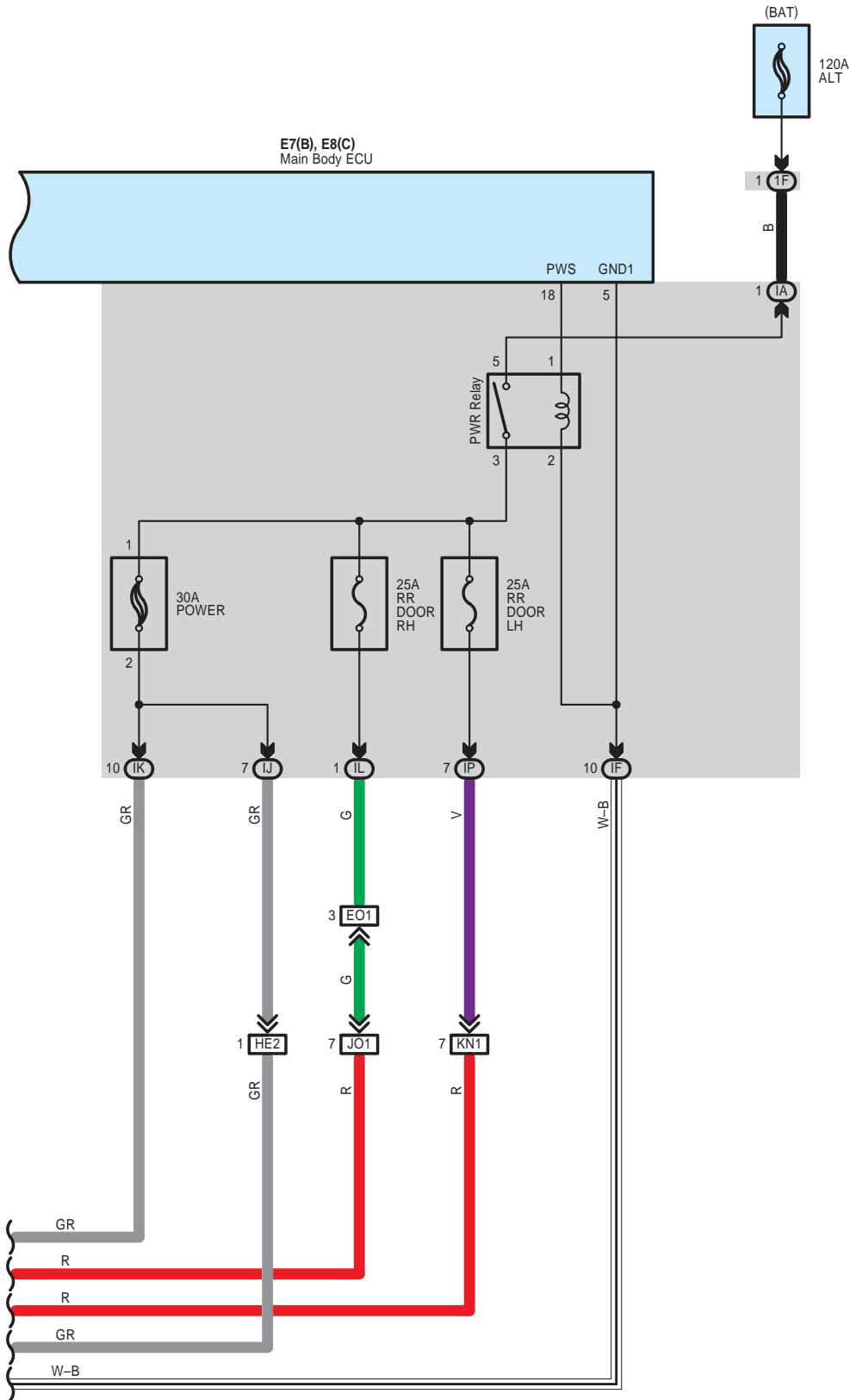
E7(B), E8(C)
Main Body ECU



Power Window



Power Window



System Outline

1. Manual Down or Up Operation

When the power window master SW is pushed one step, the motor rotates to open the window.

When the power window master SW is pulled up one step, the motor rotates in the opposite direction, to close the window.

All the other windows can be opened/closed as well, by the operation of the power window master SW or respective power window SW.

2. Auto Down or Up Operation

When the power window master SW is pushed two steps, the motor rotates to open the window automatically.

When the power window master SW is pulled up two steps, the motor rotates to close the window automatically. (w/ jam protection)

3. Jam Protection Function

When any foreign object gets caught during power window UP operation, the motor rotates in the opposite direction to open the window.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page		
E7	B	56	I4	61	M1	A	61
E8	C	56	I5	61		B	61
E48		57	J1	61	N6	A	60
E49		57	J3	61		B	60
H4		61	K1	61			
H6		61	K3	61			

○ : 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)
1F	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3D	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3F		
3O		
IA	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IJ		
IK		
IL		
IM		
IP	30	Floor Wire and Instrument Panel J/B (Cowl Side Left)

Power Window

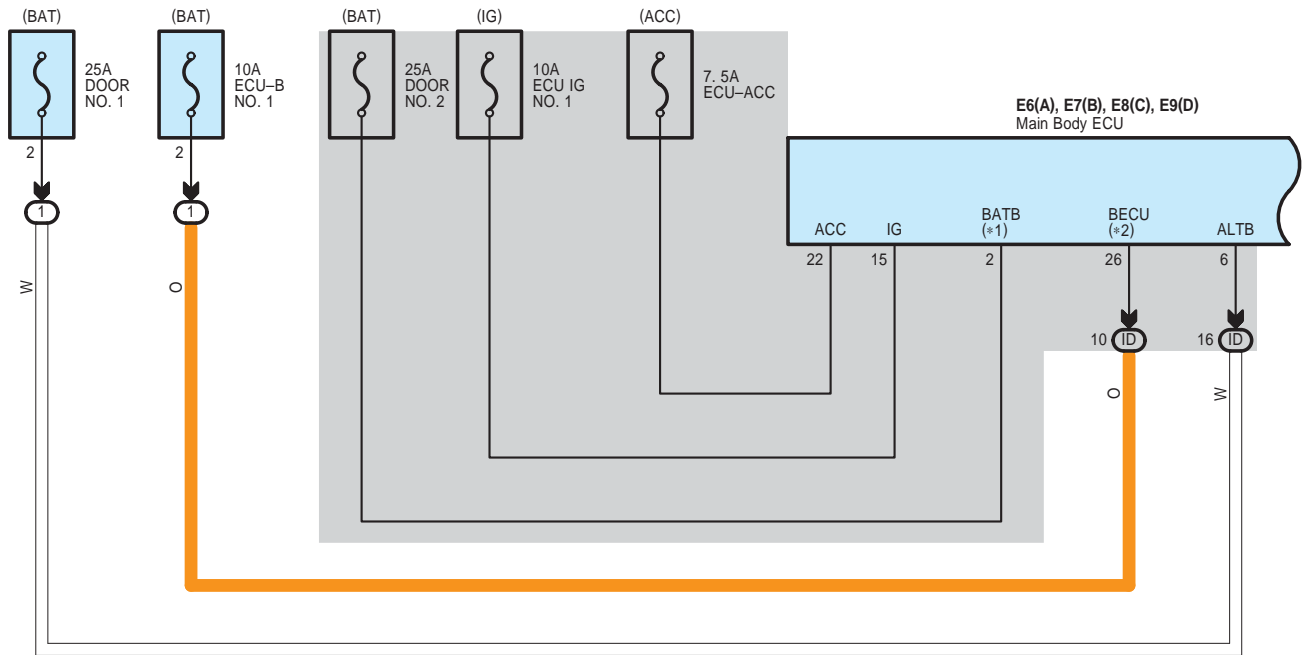
 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EN1	66	Instrument Panel Wire and Floor Wire (Left Kick Panel)
EN2		
EO1	66	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
HE1	66	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
HE2		
IE1	66	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IE2		
IM1	67	Front Door LH Wire and Front Door LH No.2 Wire (Inside of the Front Door LH)
IM2		
JO1	67	Rear Door No.1 Wire and Floor No.2 Wire (Right Center Pillar)
KN1	67	Rear Door No.2 Wire and Floor Wire (Left Center Pillar)

 : Ground Points

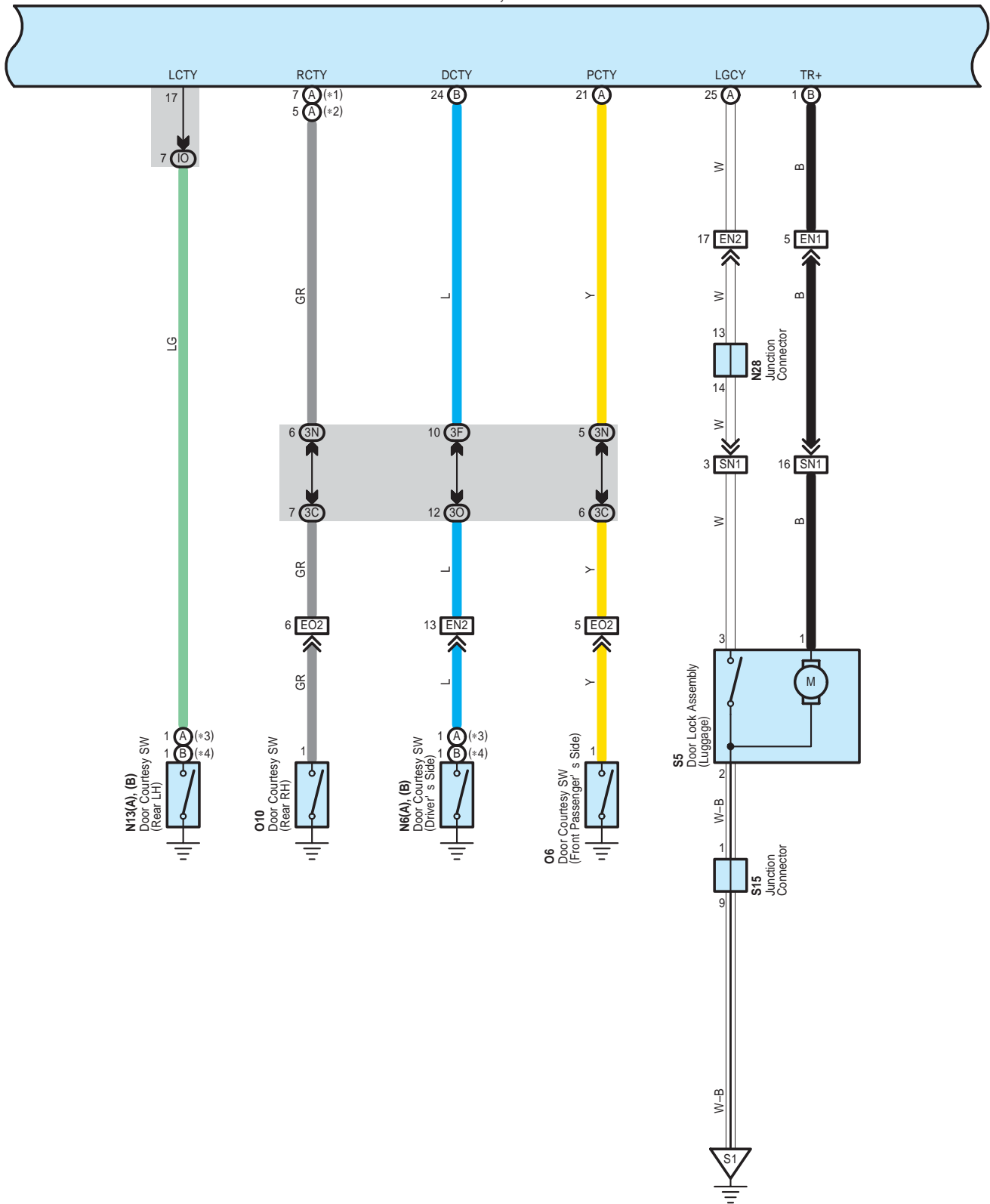
Code	See Page	Ground Points Location
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left

Door Lock Control and Luggage Compartment Door Opener



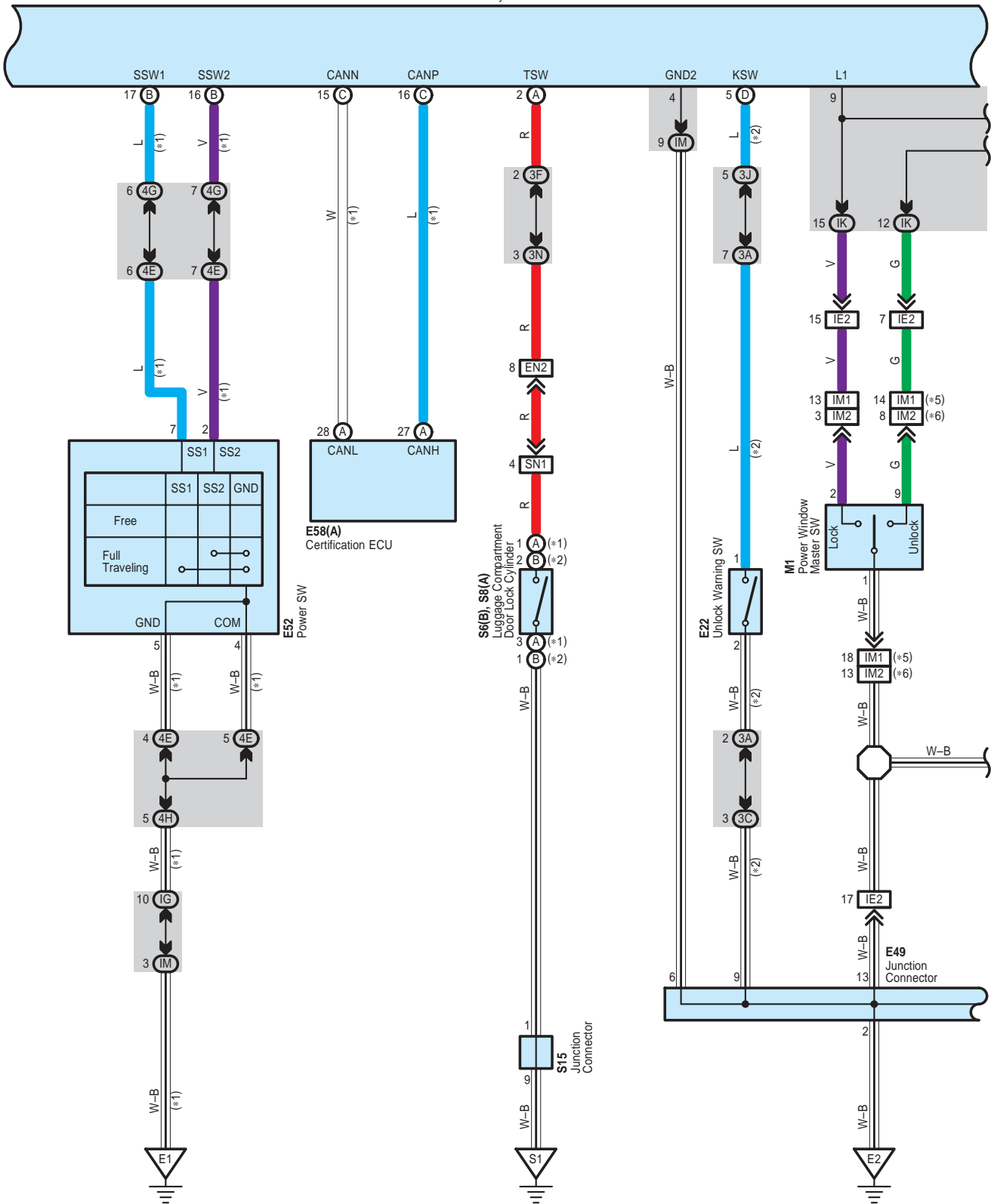
- * 1 : w/ Smart Key System
- * 2 : w/o Smart Key System
- * 3 : TMC Made
- * 4 : TMMK Made

E6(A), E7(B), E8(C), E9(D)
Main Body ECU



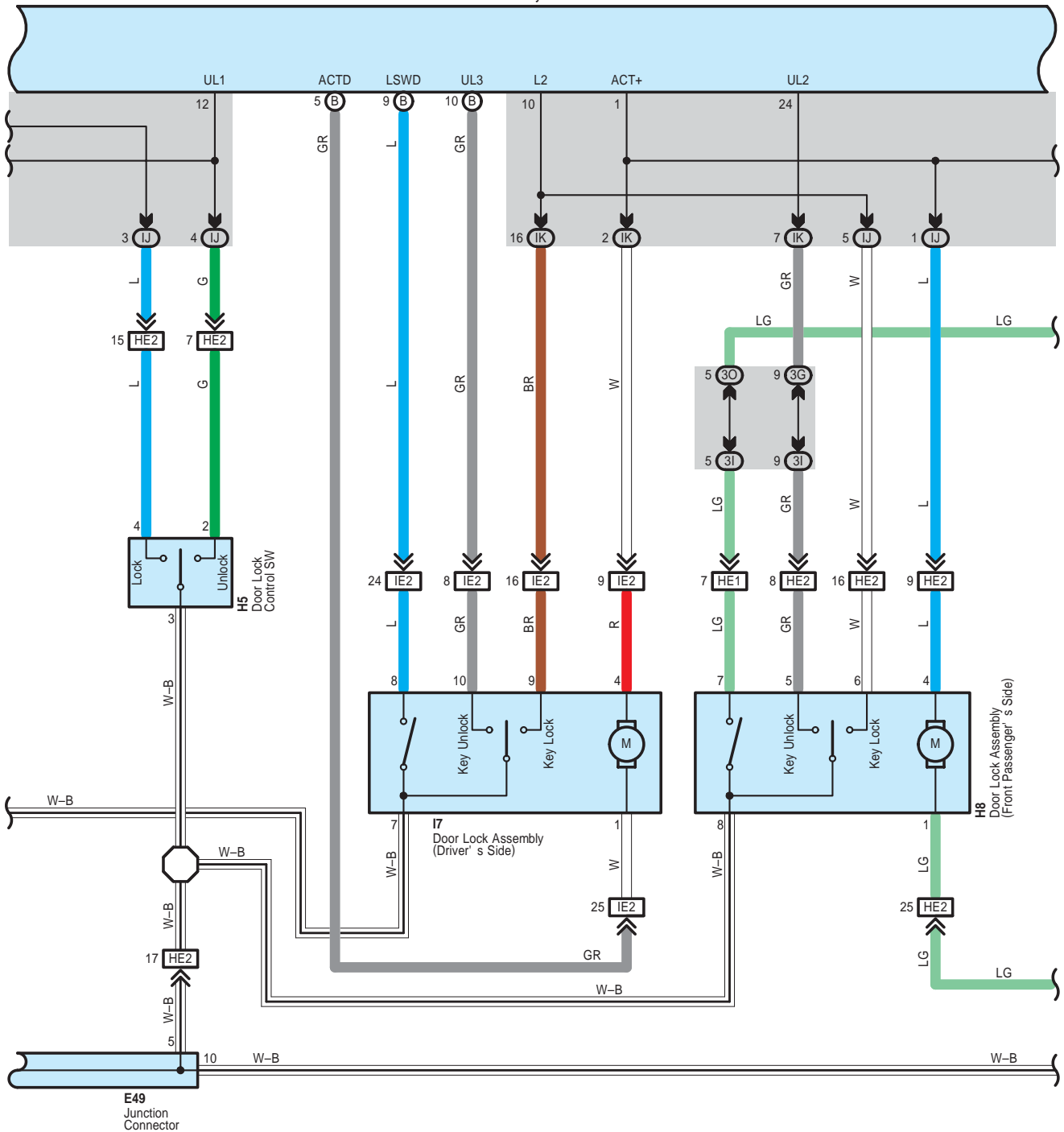
Door Lock Control and Luggage Compartment Door Opener

E6(A), E7(B), E8(C), E9(D)
Main Body ECU



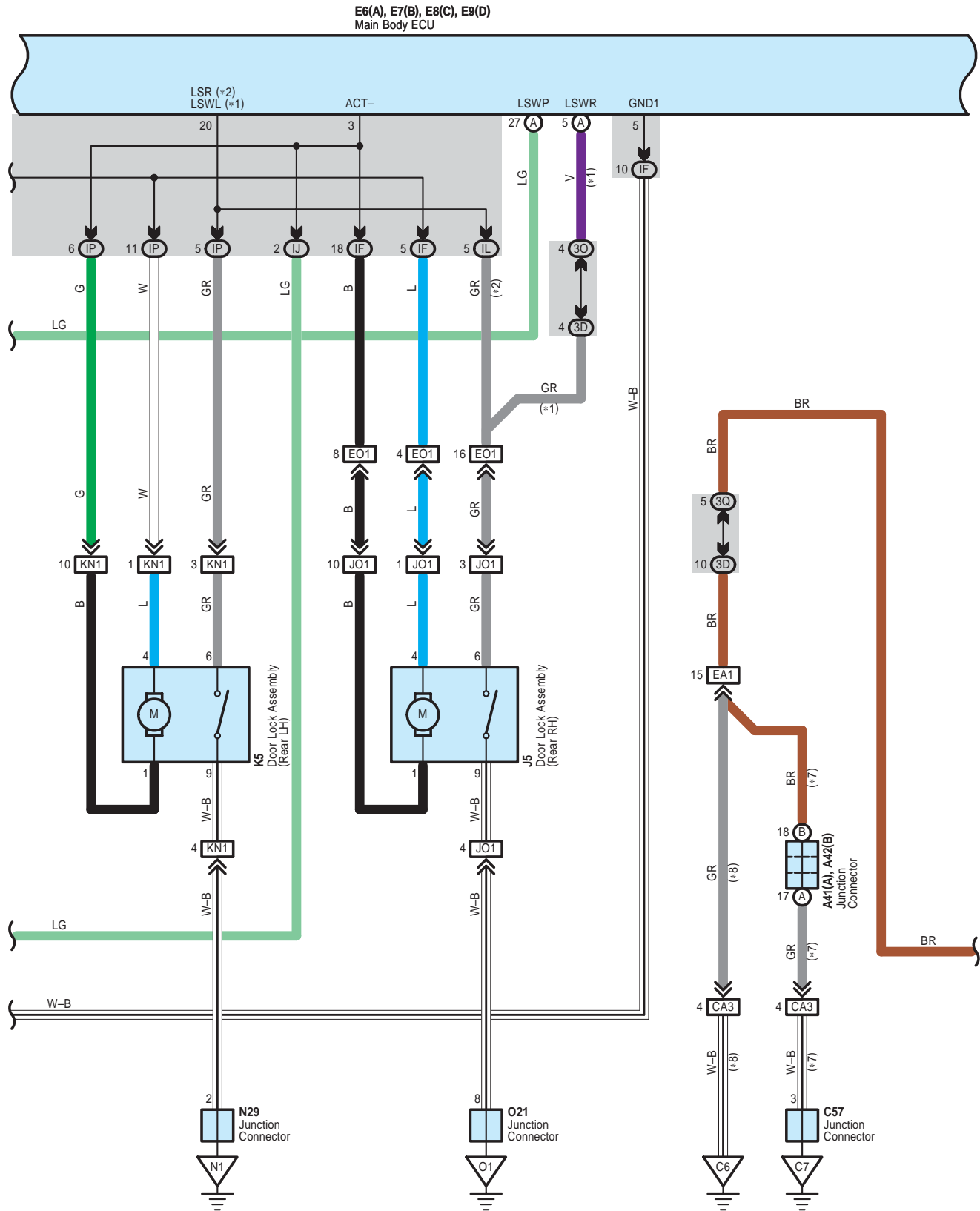
- * 1 : w/ Smart Key System
- * 2 : w/o Smart Key System
- * 5 : w/ Jam Protection
- * 6 : w/o Jam Protection

E6(A), E7(B), E8(C), E9(D)
Main Body ECU

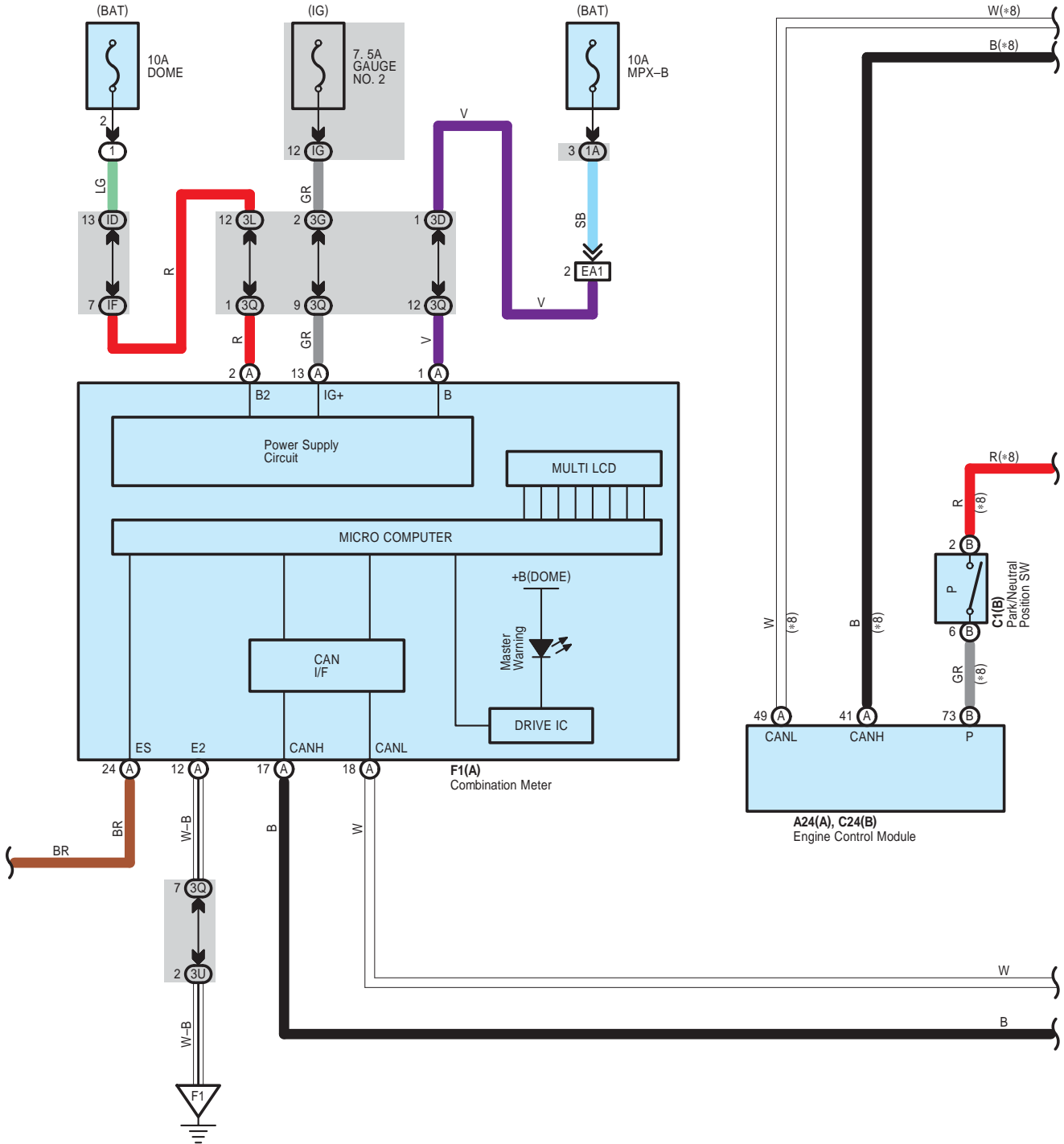


Door Lock Control and Luggage Compartment Door Opener

- * 1 : w/ Smart Key System
- * 2 : w/o Smart Key System
- * 7 : 2GR-FE
- * 8 : 2AZ-FE

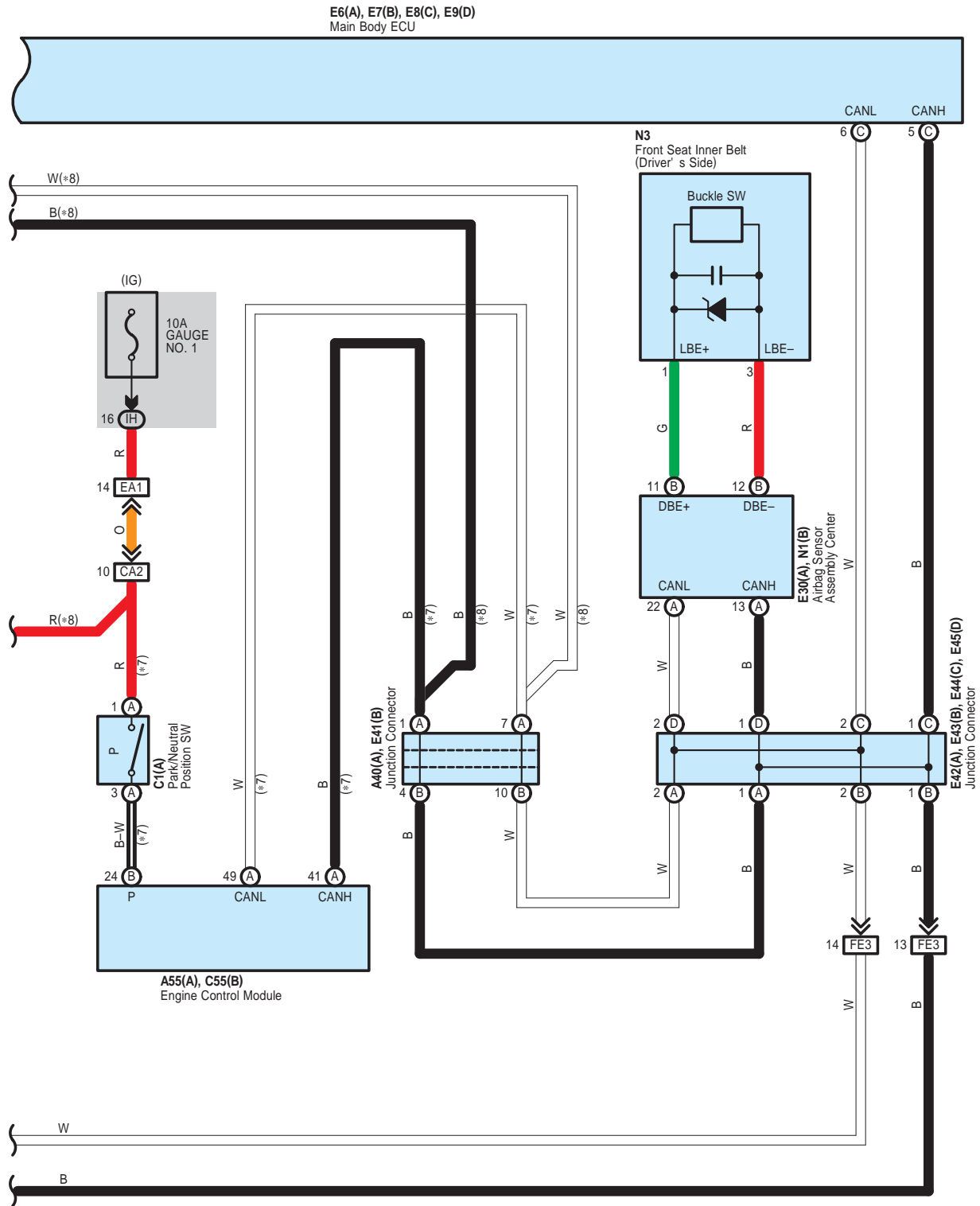


E6(A), E7(B), E8(C), E9(D)
Main Body ECU



Door Lock Control and Luggage Compartment Door Opener

* 7 : 2GR-FE
* 8 : 2AZ-FE



System Outline

1. Manual Unlock Operation

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

2. Manual Lock Operation

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

3. Door Key Unlock Operation

* Unlock operation from driver's side door

When the driver's side door is unlocked once using the ignition key, only the driver's side door is unlocked. If this operation is repeated within 3 seconds, all the other doors are unlocked.

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A24	A	52 (2AZ-FE)	E41	B	57	N3		62 (*1)
A40	A	59	E42	A	57			63 (*2)
A41	A	59	E43	B	57	N6	A	60
A42	B	59	E44	C	57		B	60
A55	A	49 (2GR-FE)	E45	D	57	N13	A	60
C1	A	50 (2GR-FE)	E49		57		B	60
	B	54 (2AZ-FE)	E52		57	N28	60	
C24	B	55 (2AZ-FE)	E58	A	57	N29	60	
C55	B	51 (2GR-FE)	F1	A	58	O6	60	
C57		51 (2GR-FE)	H5		61	O10	60	
E6	A	56	H8		61	O21	60	
E7	B	56	I7		61	S5	61	
E8	C	56	J5		61	S6	B	61
E9	D	56	K5		61	S8	A	61
E22		56	M1		61	S15		61
E30	A	56	N1	B	59			

○ : Relay Blocks

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

* 1 : w/ Power Seat * 2 : w/o Power Seat

Door Lock Control and Luggage Compartment Door Opener

: 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)
3A	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3C		
3D		
3F		
3G		
3I		
3J		
3L		
3N		
3O		
3Q	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3U		
4E	42	Instrument Panel Wire and J/B No.4 (Instrument Panel Brace Center)
4G		
4H		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IG	31	
IH		
IJ	30	
IK		
IL		
IM		
IO	30	Floor Wire and Instrument Panel J/B (Cowl Side Left)
IP		

: Connector Joining Wire Harness and Wire Harness

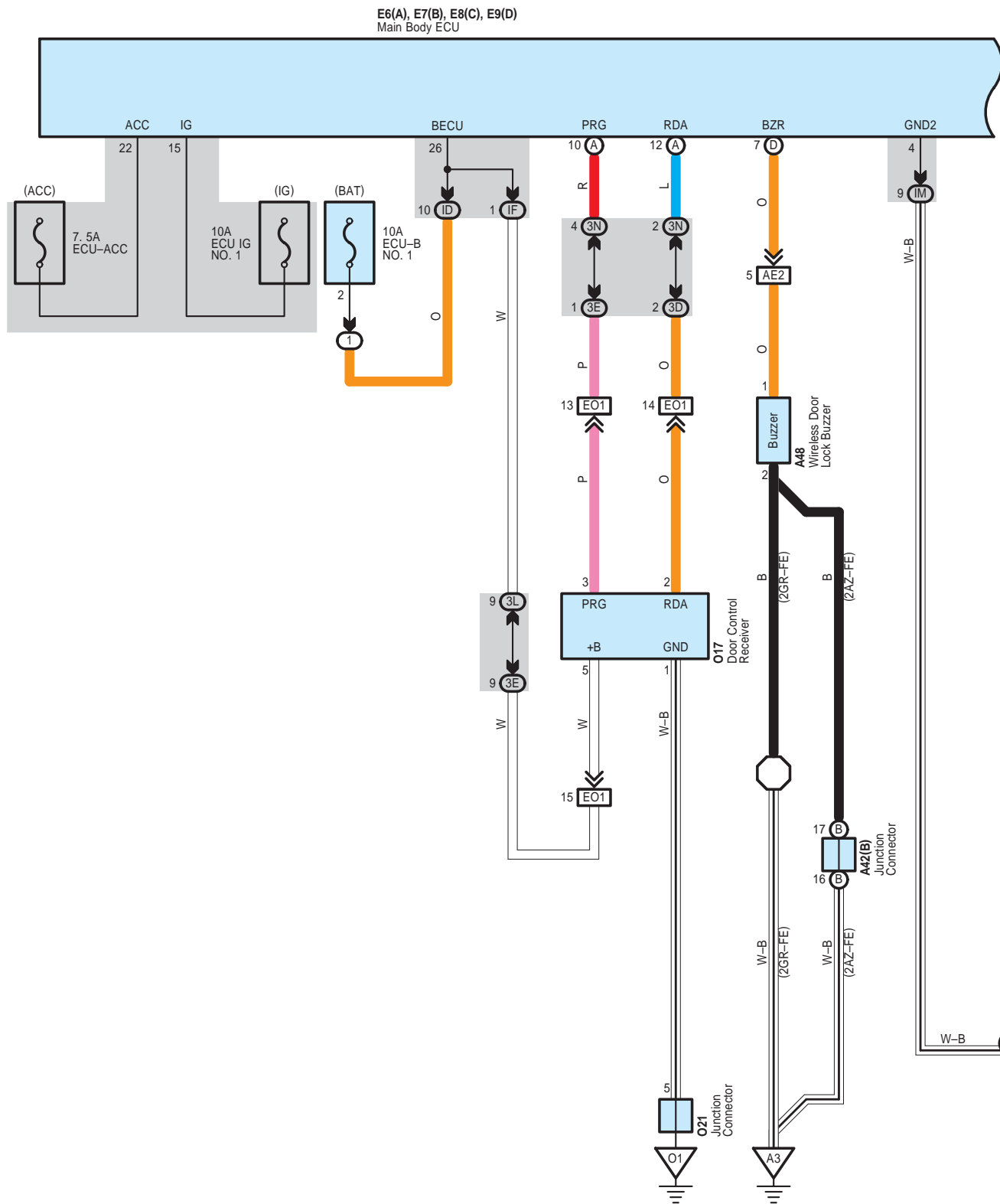
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
CA2	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
CA3	64 (2GR-FE)	
	65 (2AZ-FE)	
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
EN1	66	Instrument Panel Wire and Floor Wire (Left Kick Panel)
EN2		
EO1	66	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
EO2		
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
HE1	66	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
HE2		
IE2	66	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IM1	67	Front Door LH Wire and Front Door LH No.2 Wire (Inside of the Front Door LH)
IM2		
JO1	67	Rear Door No.1 Wire and Floor No.2 Wire (Right Center Pillar)
KN1	67	Rear Door No.2 Wire and Floor Wire (Left Center Pillar)
SN1	67	Luggage Room Wire and Floor Wire (Luggage Room Left)



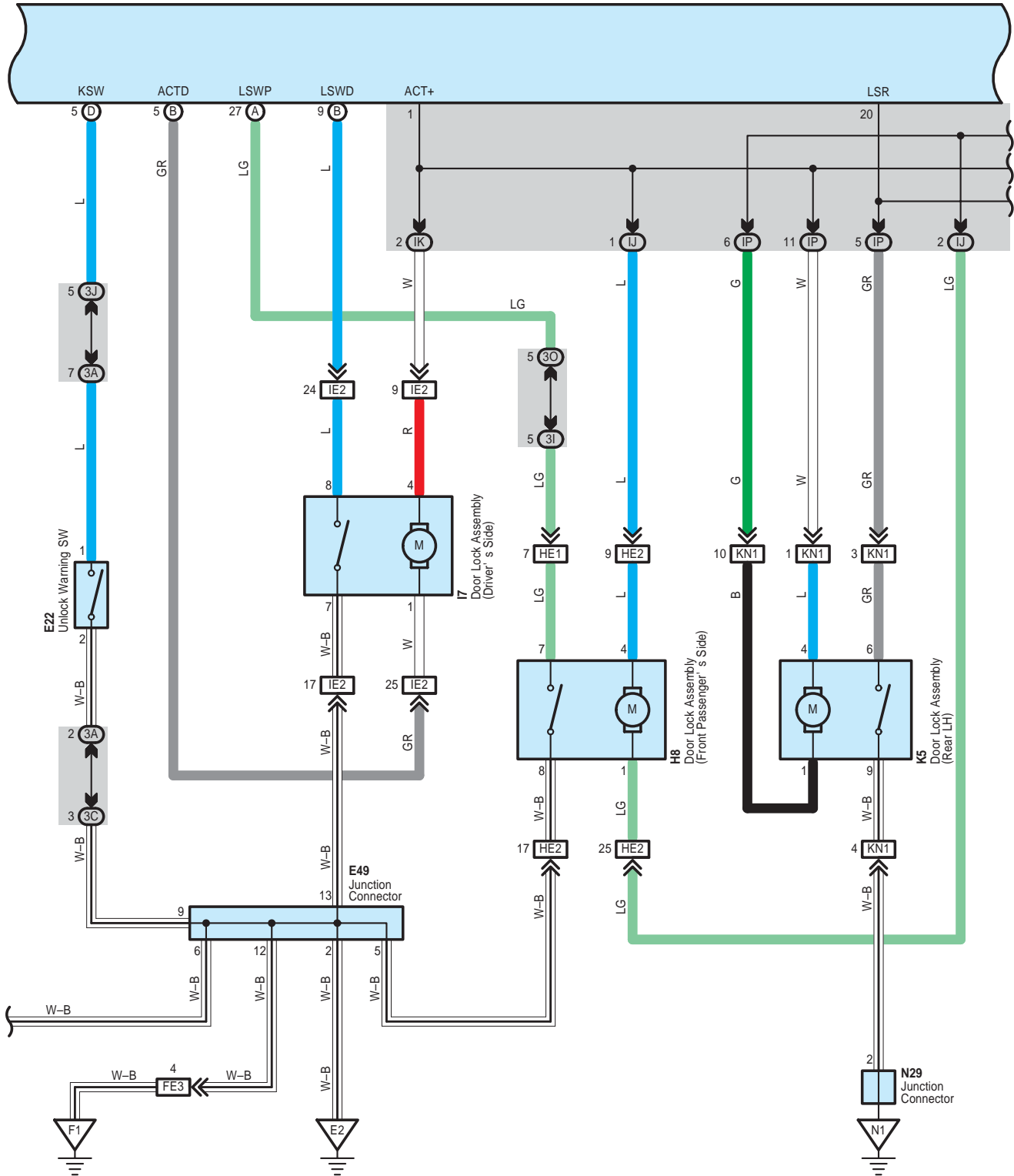
: Ground Points

Code	See Page	Ground Points Location
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
E1	66	Instrument Panel Left
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left
N1	67	Left Rear Quarter Panel
O1	67	Right Rear Quarter Panel
S1	67	Lower Back Panel Center

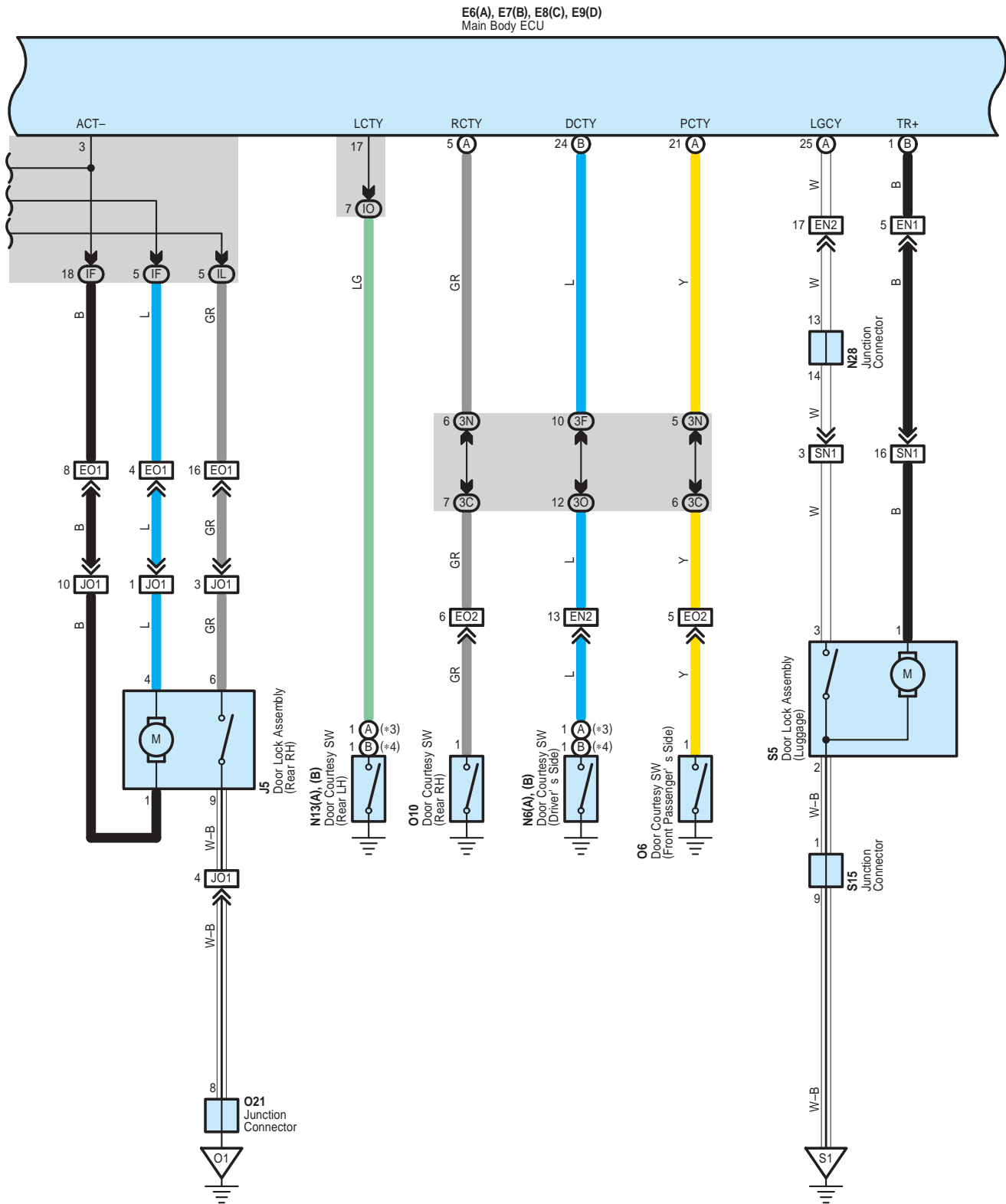
Wireless Door Lock Control without Smart Key System



E6(A), E7(B), E8(C), E9(D)
Main Body ECU



Wireless Door Lock Control without Smart Key System



Wireless Door Lock Control without Smart Key System

System Outline

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

1. Wireless Door Lock or Unlock Normal Operation

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

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

2. Visual Confirmation of Lock or Unlock

If all doors indicate that they are locked after the lock command, turn signal light will flash once. If any door indicates that it is open after the unlock command, turn signal light will flash twice.

3. Buzzer Sound Function

If all doors indicate that they are locked after the lock command, the keyless buzzer goes on once. If any door indicates that it is open after the unlock command, the keyless buzzer goes on twice.

4. Illuminated Entry Function

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

5. Wireless Door Unlock Operation

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

6. Automatic Lock Operation

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

7. Wireless Control Stop Function

If a door is open (Door courtesy SW on), a signal is input from the door courtesy SW to the main body ECU stopping wireless door lock or unlock.

If the ignition key is in the ignition key cylinder (Unlock warning SW on), the unlock warning SW inputs a signal to the main body ECU stopping wireless door lock or unlock.

8. Repeat Function

If the door lock or unlock condition does not change after wireless door lock or unlock operation, 2 seconds later, the main body ECU sends current again to the door lock motor.

9. Remote Panic Operation

Panic will function when doors are locked or unlocked, open or closed. When the panic button (Transmitter) is pushed once, theft alarm and horn sounds and turn signal light, headlights and taillight flash. Then, the panic or the unlock button (Transmitter) is pushed once more, sounding and flashing will stop. Panic will not function when ignition key is in ignition key cylinder.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A42	B 59	E49	57	N29	60
A48	49 (2GR-FE)	H8	61	O6	60
	53 (2AZ-FE)	I7	61	O10	60
E6	A 56	J5	61	O17	60
E7	B 56	K5	61	O21	60
E8	C 56	N6	A 60	Q6	61
E9	D 56		B 60	Q9	61
E14	56	N13	A 60	S5	61
E22	56		B 60	S15	61
E25	56	N28	60		

 : 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)
3A	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3B		
3C		
3D		
3E		
3F		
3I		
3J		
3L		
3M		
3N		
3O		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
II	31	
IJ	30	
IK		
IL		
IM		
IO	30	Floor Wire and Instrument Panel J/B (Cowl Side Left)
IP	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IR		

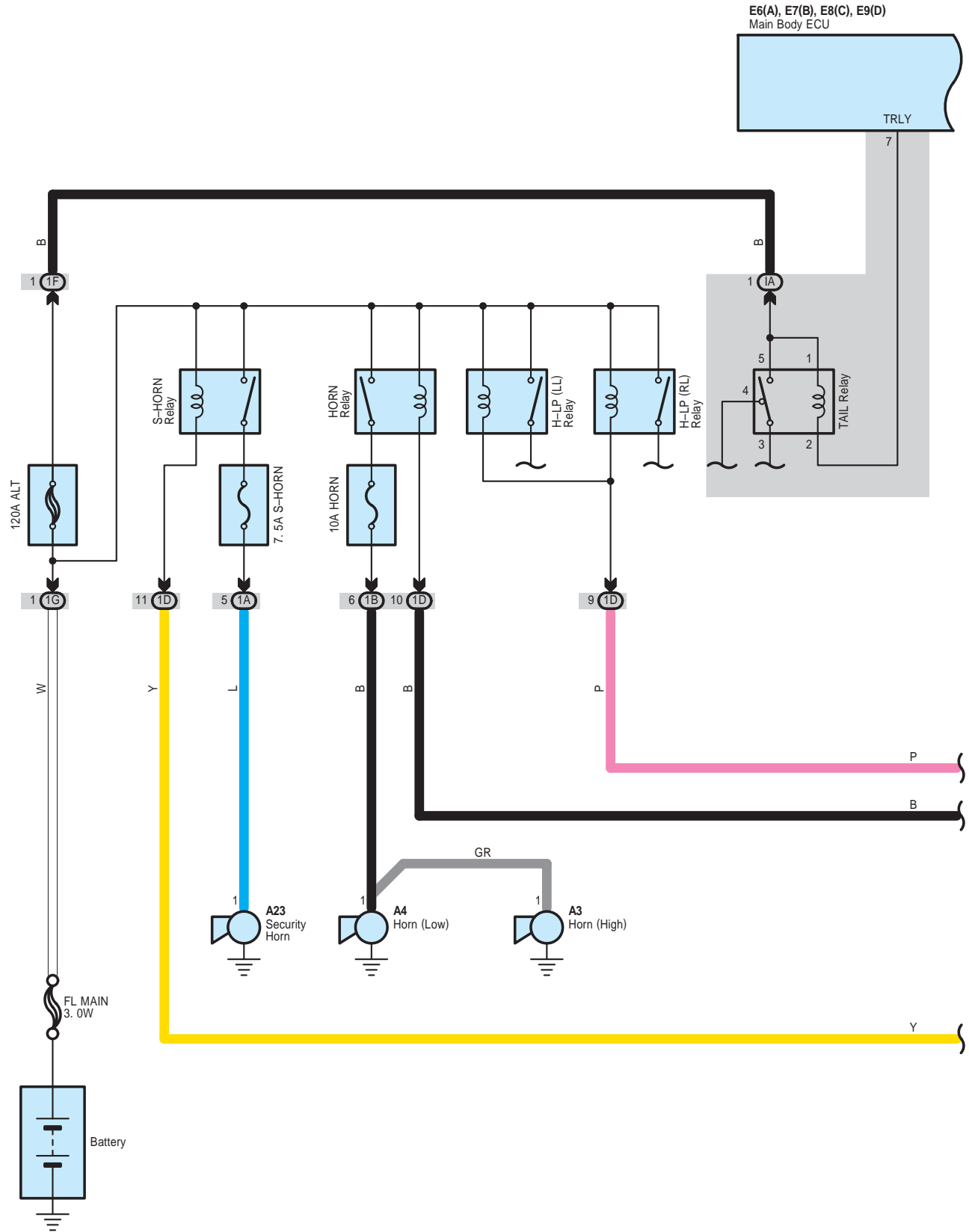
 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE2	66	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
EN1	66	Instrument Panel Wire and Floor Wire (Left Kick Panel)
EN2		
EO1	66	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
EO2		
EQ1	66	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
HE1	66	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
HE2		
IE2	66	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
JO1	67	Rear Door No.1 Wire and Floor No.2 Wire (Right Center Pillar)
KN1	67	Rear Door No.2 Wire and Floor Wire (Left Center Pillar)
SN1	67	Luggage Room Wire and Floor Wire (Luggage Room Left)

 : Ground Points

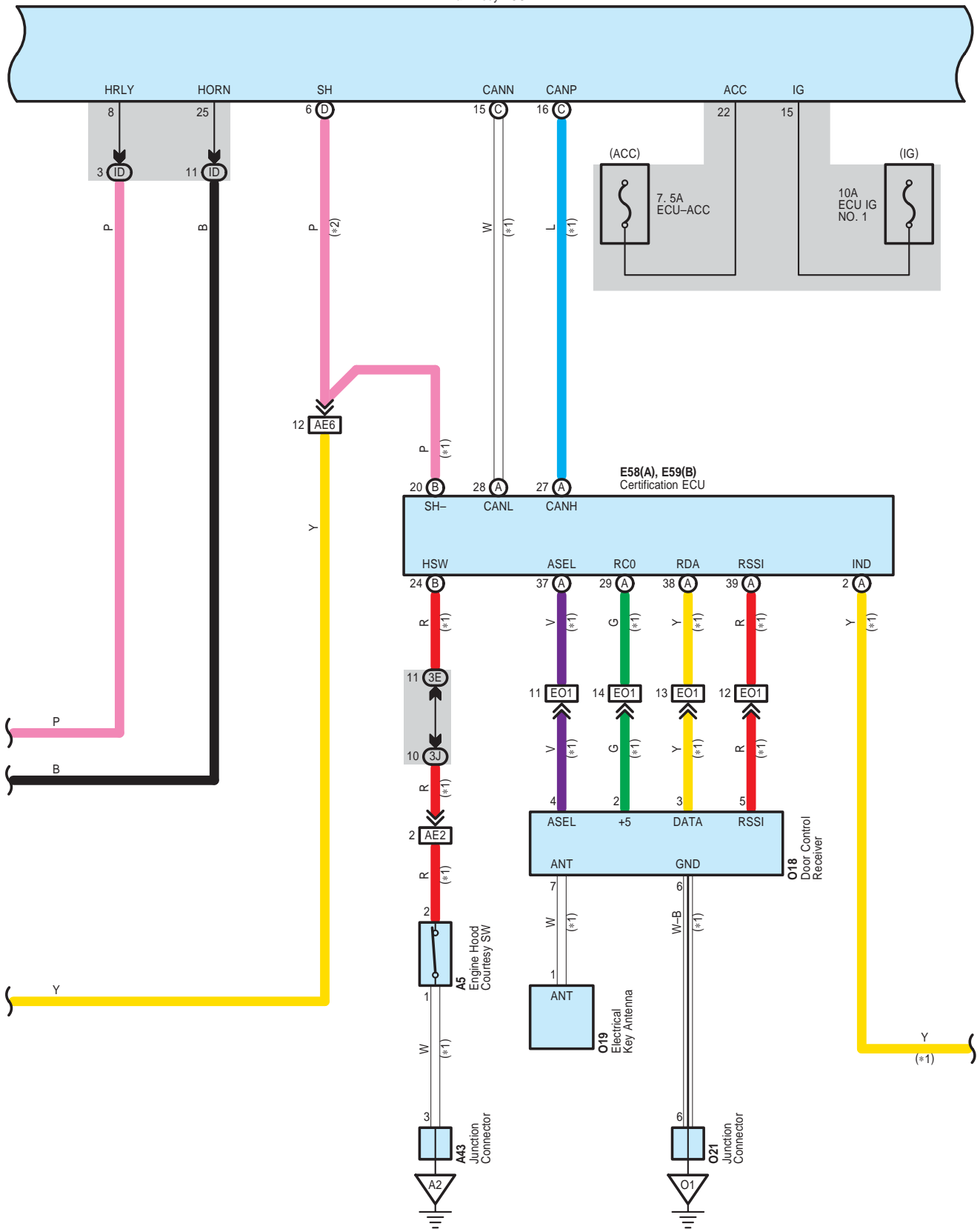
Code	See Page	Ground Points Location
A3	66	Left Cowl Side Panel
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left
N1	67	Left Rear Quarter Panel
O1	67	Right Rear Quarter Panel
S1	67	Lower Back Panel Center

Theft Deterrent



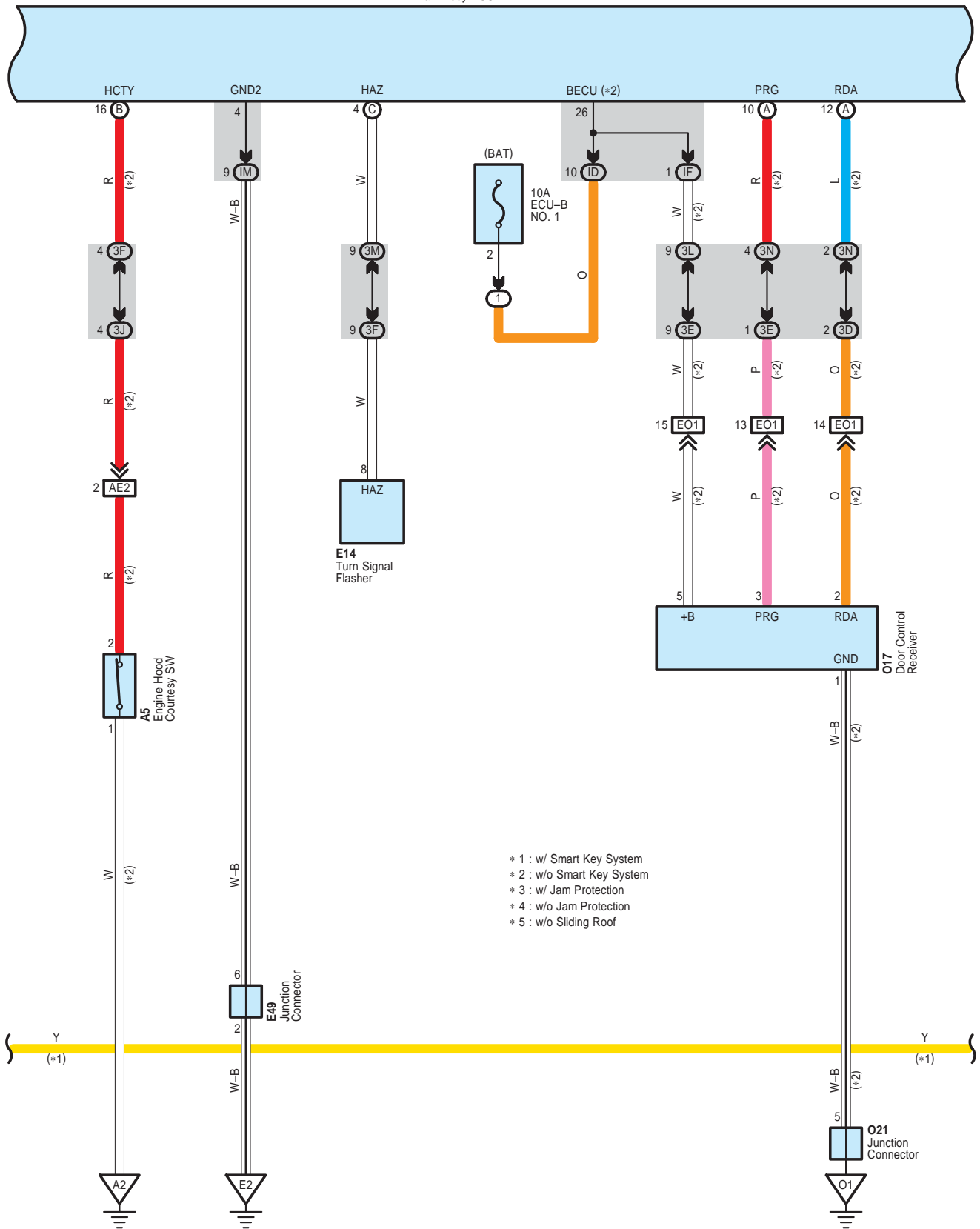
E6(A), E7(B), E8(C), E9(D)
Main Body ECU

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

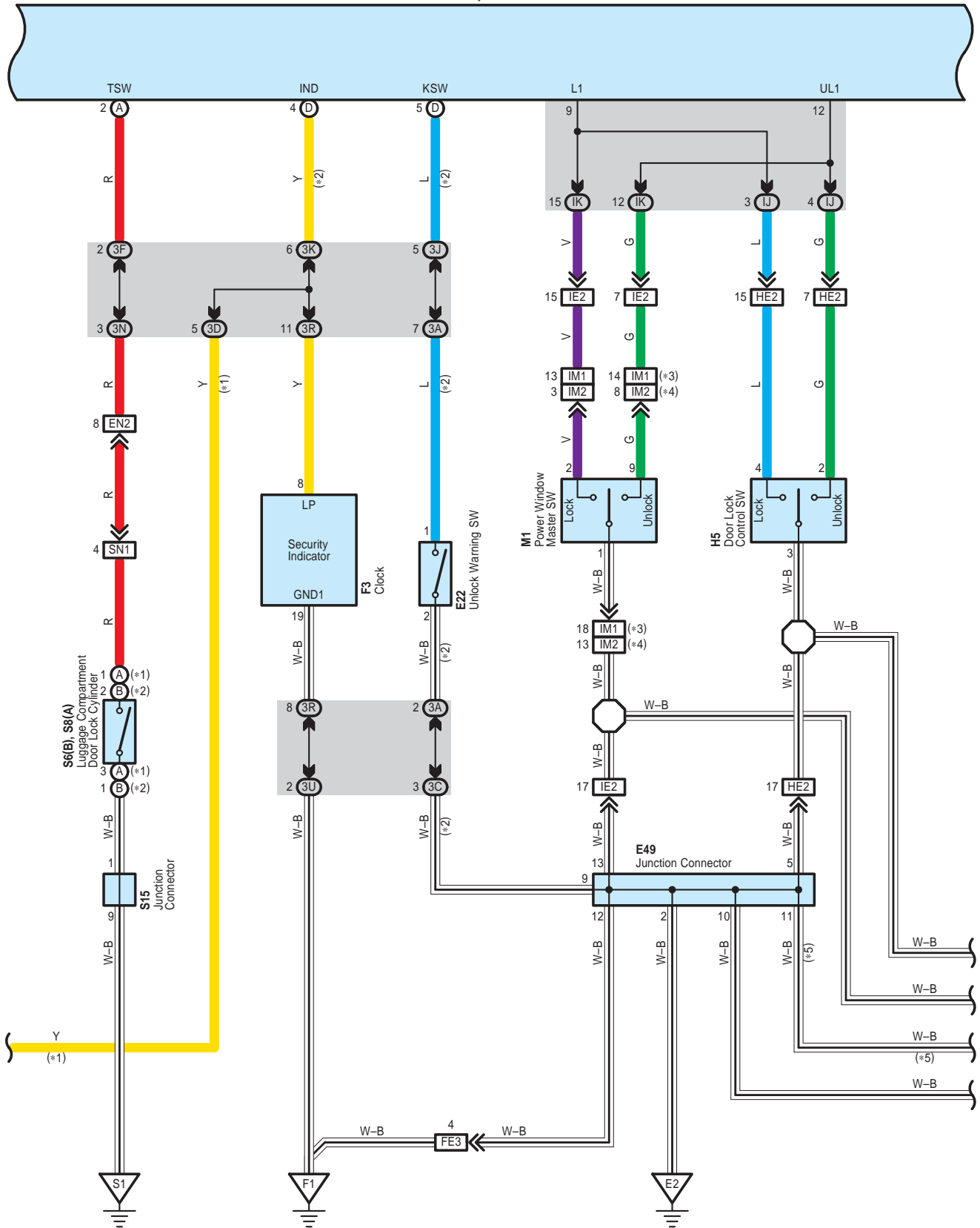


Theft Deterrent

E6(A), E7(B), E8(C), E9(D)
Main Body ECU

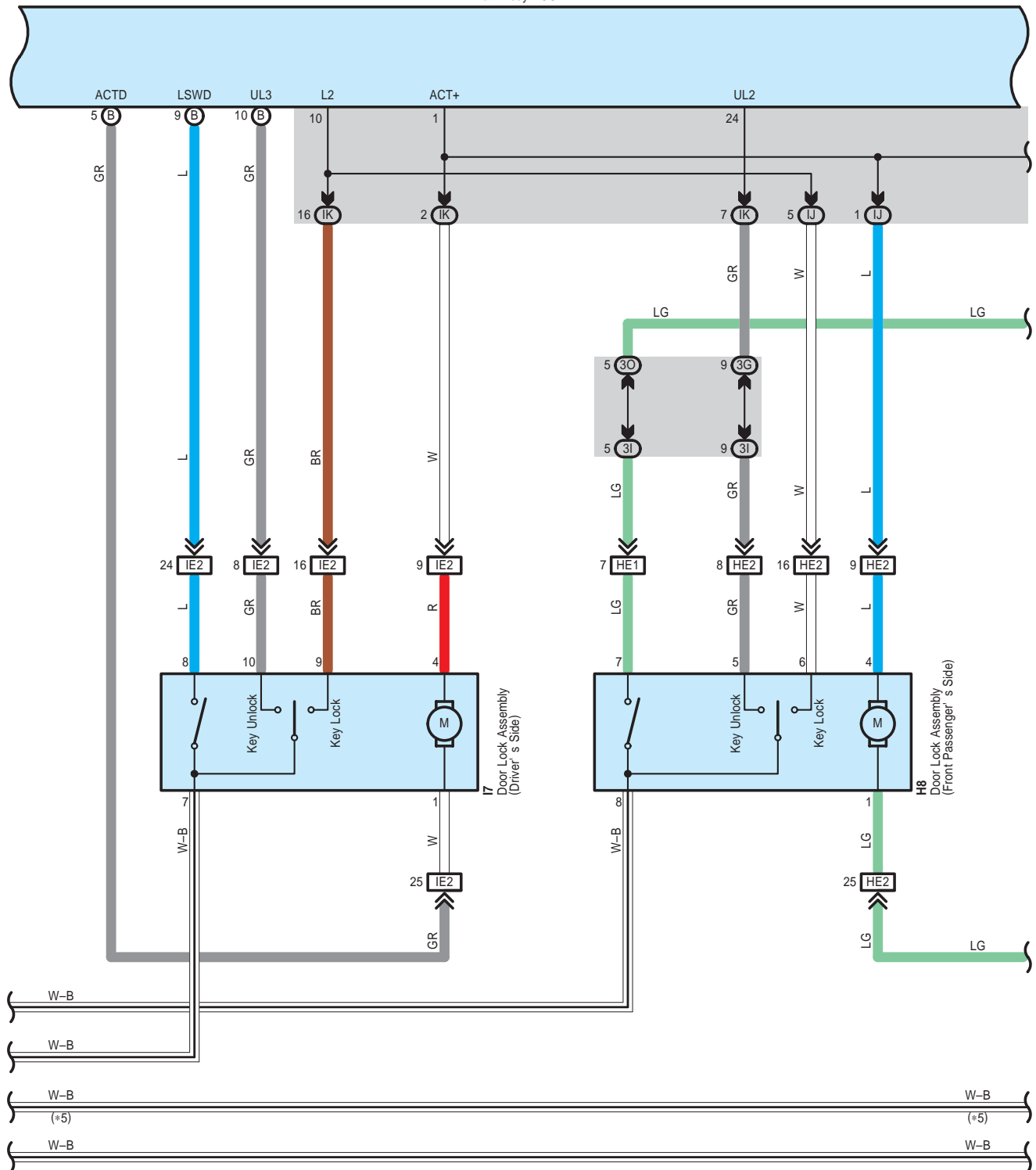


E6(A), E7(B), E8(C), E9(D)
Main Body ECU

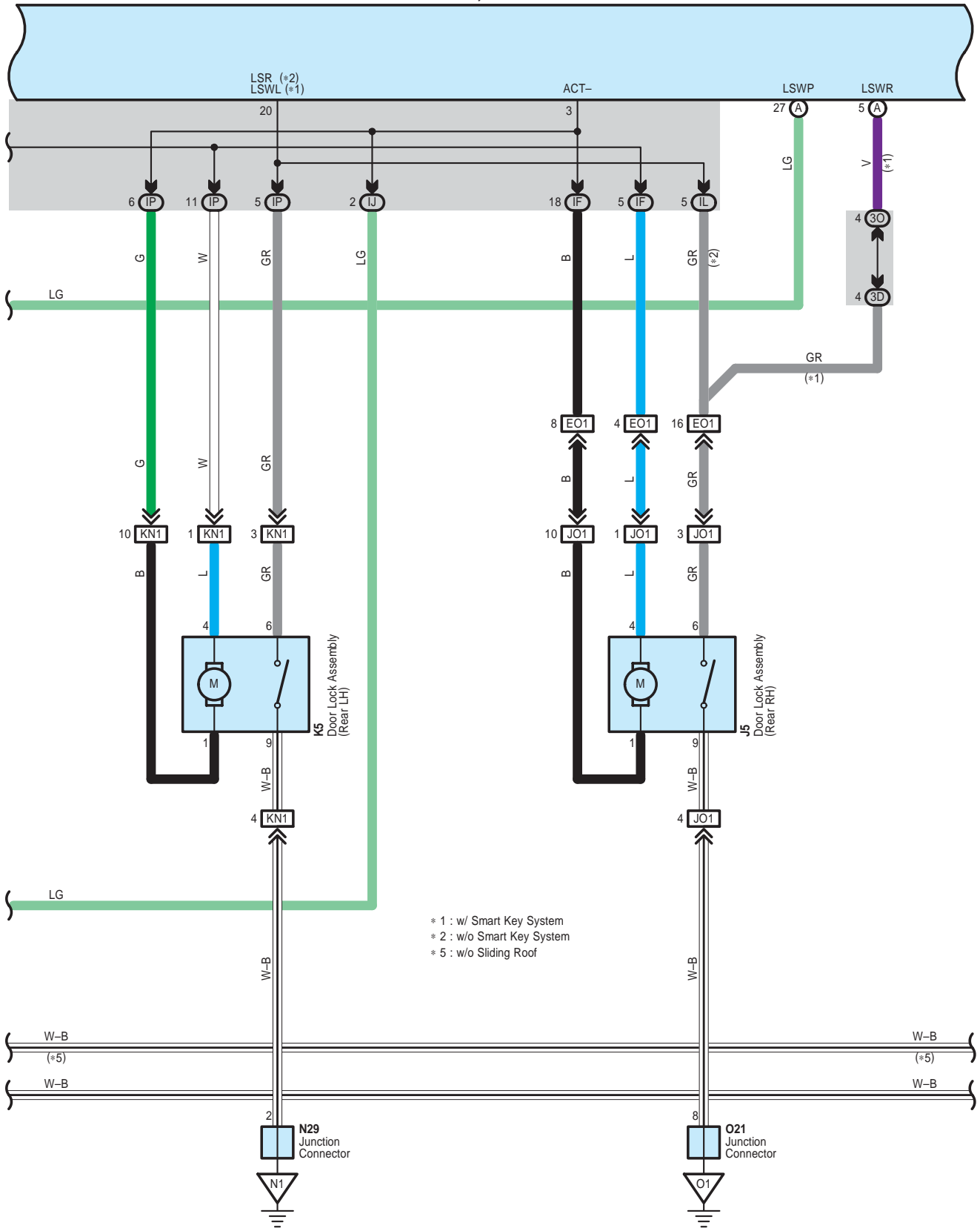


Theft Deterrent

E6(A), E7(B), E8(C), E9(D)
Main Body ECU

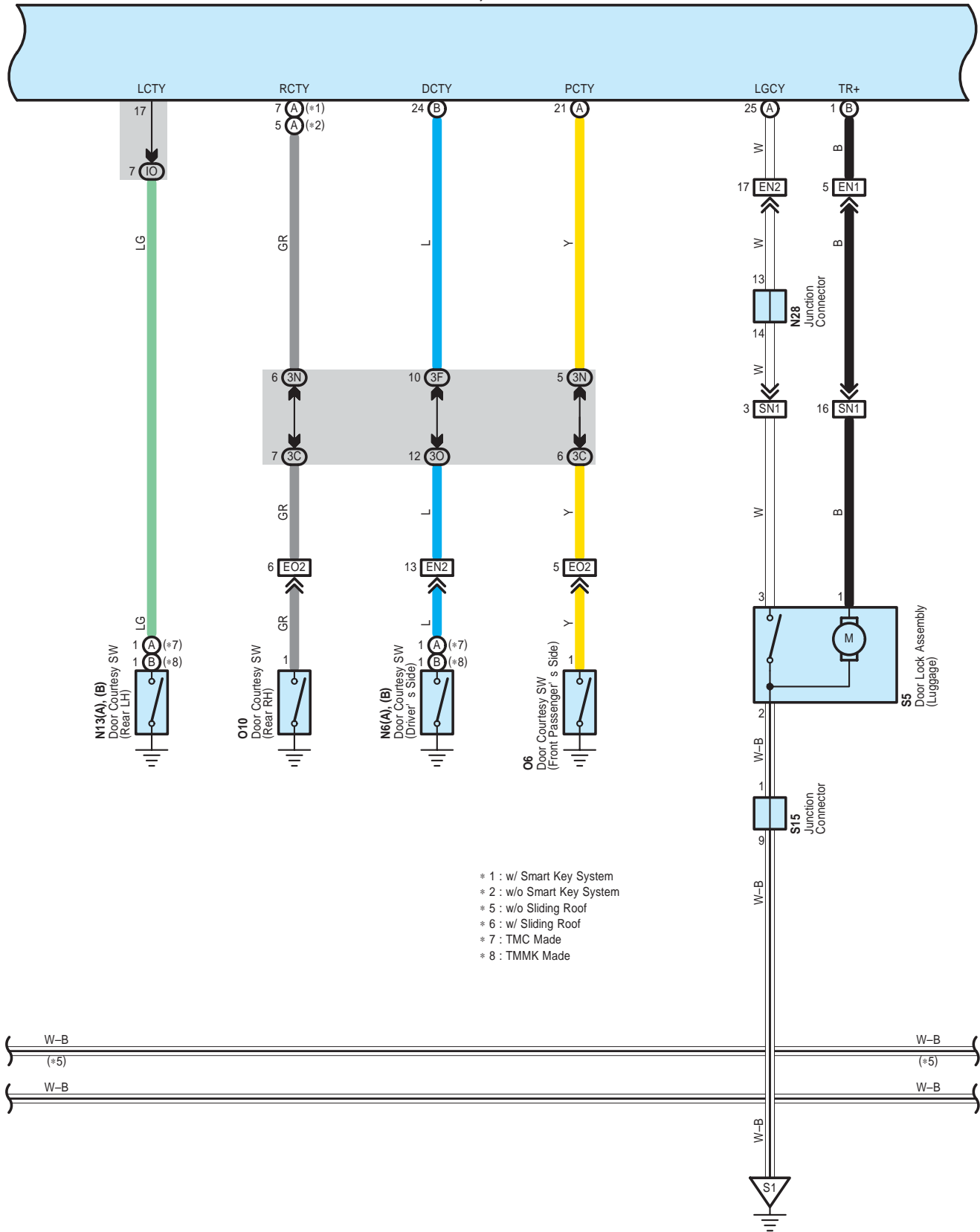


E6(A), E7(B), E8(C), E9(D)
Main Body ECU

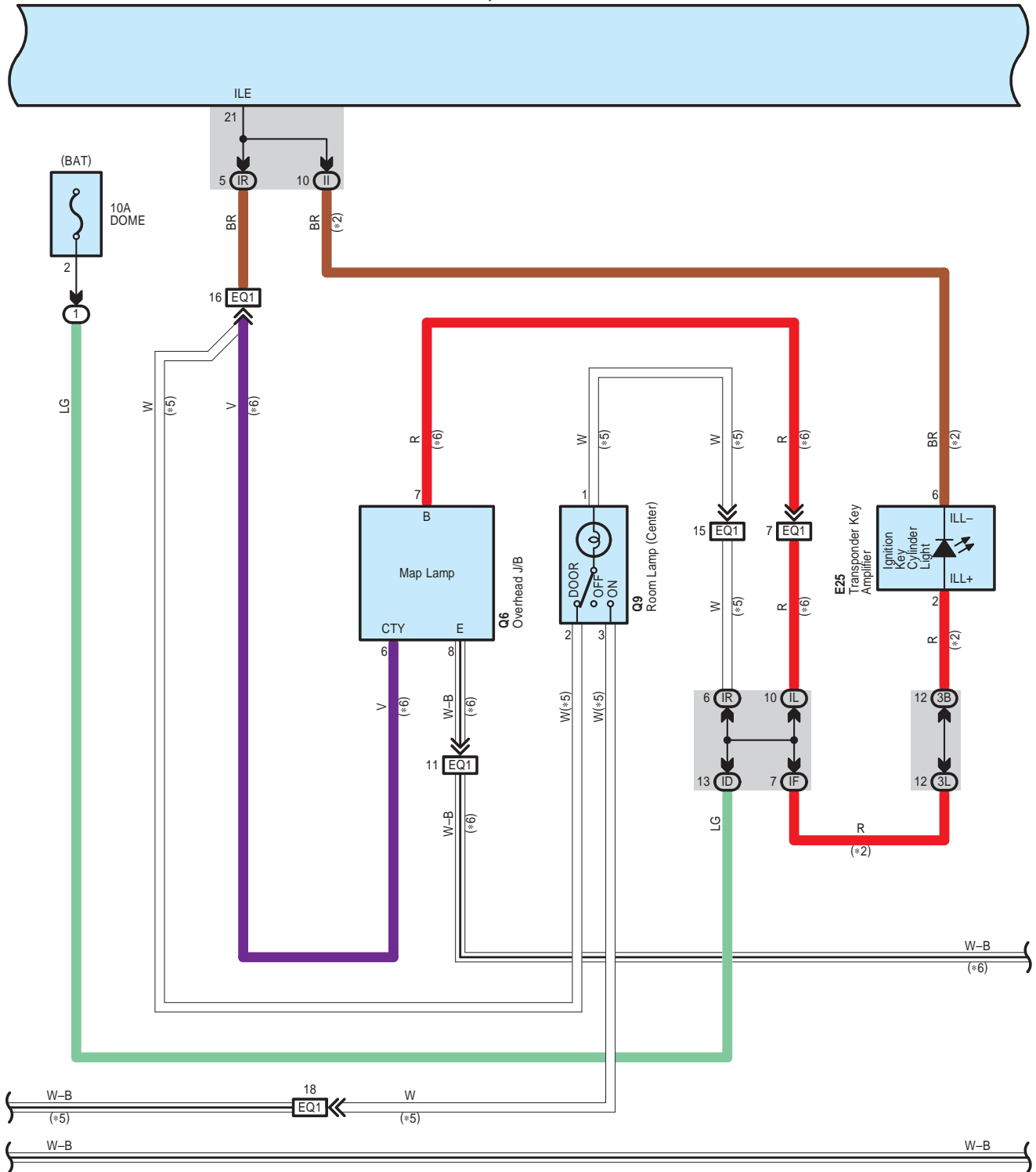


Theft Deterrent

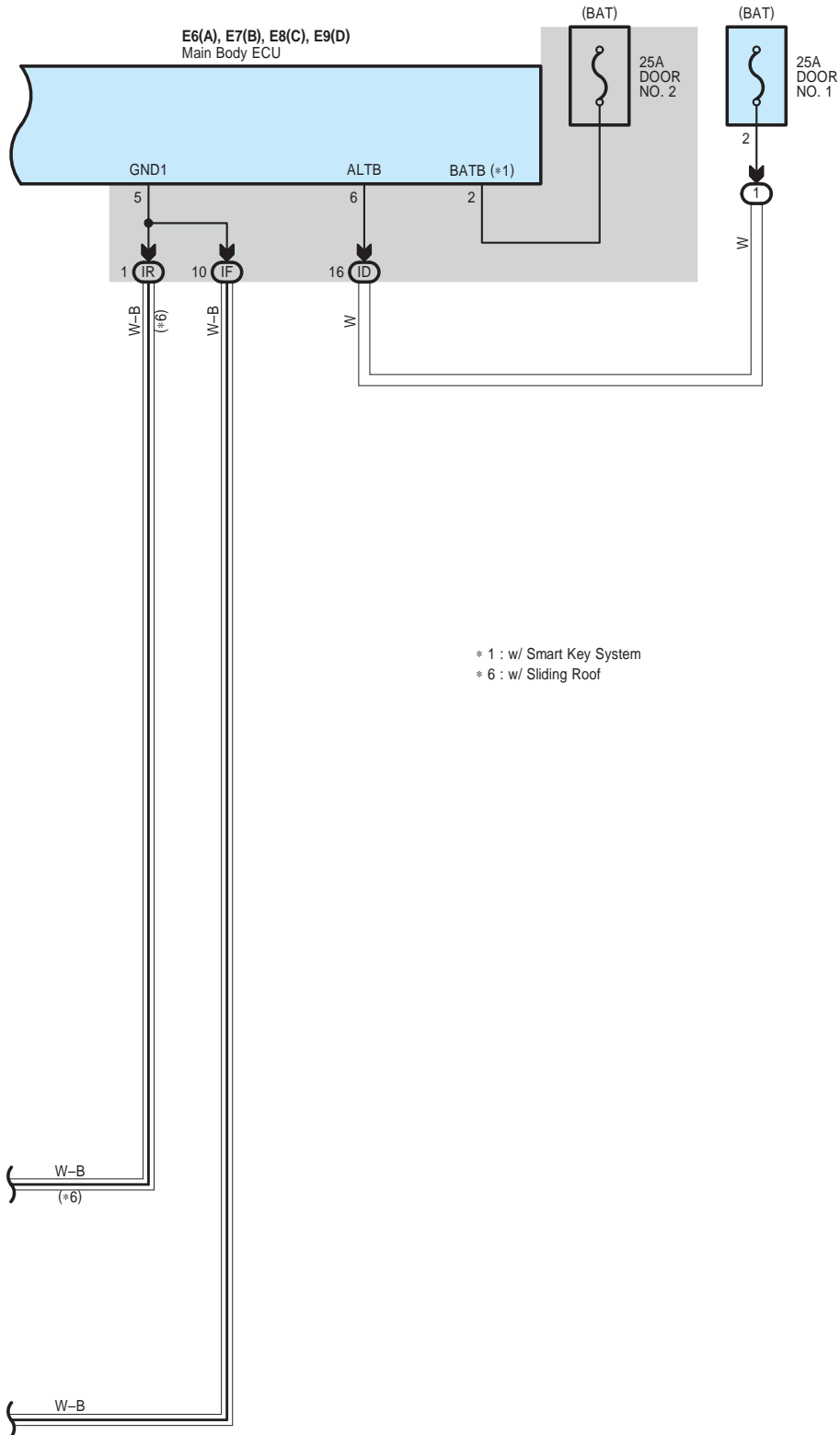
E6(A), E7(B), E8(C), E9(D)
Main Body ECU



E6(A), E7(B), E8(C), E9(D)
Main Body ECU



Theft Deterrent



○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A3	48 (2GR-FE)	E25	56	N28	60
	52 (2AZ-FE)	E49	57	N29	60
A4	48 (2GR-FE)	E58	A 57	O6	60
	52 (2AZ-FE)	E59	B 57	O10	60
A5	48 (2GR-FE)	F3	58	O17	60
	52 (2AZ-FE)	H5	61	O18	60
A23	48 (2GR-FE)	H8	61	O19	60
	52 (2AZ-FE)	I7	61	O21	60
A43	49 (2GR-FE)	J5	61	Q6	61
E6	A 56	K5	61	Q9	61
E7	B 56	M1	61	S5	61
E8	C 56	N6	A 60	S6	B 61
E9	D 56		B 60	S8	A 61
E14	56	N13	A 60	S15	61
E22	56		B 60		

○ : Relay Blocks

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

Theft Deterrent



: 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		
1D		
1F	22	
1G		
3A	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3B		
3C		
3D		
3E		
3F		
3G		
3I		
3J		
3K		
3L		
3M		
3N		
3O		
3R	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3U		
IA	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
II	31	
IJ	30	
IK		
IL		
IM		
IO	30	
IP	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IR		



: Connector Joining Wire Harness and Wire Harness

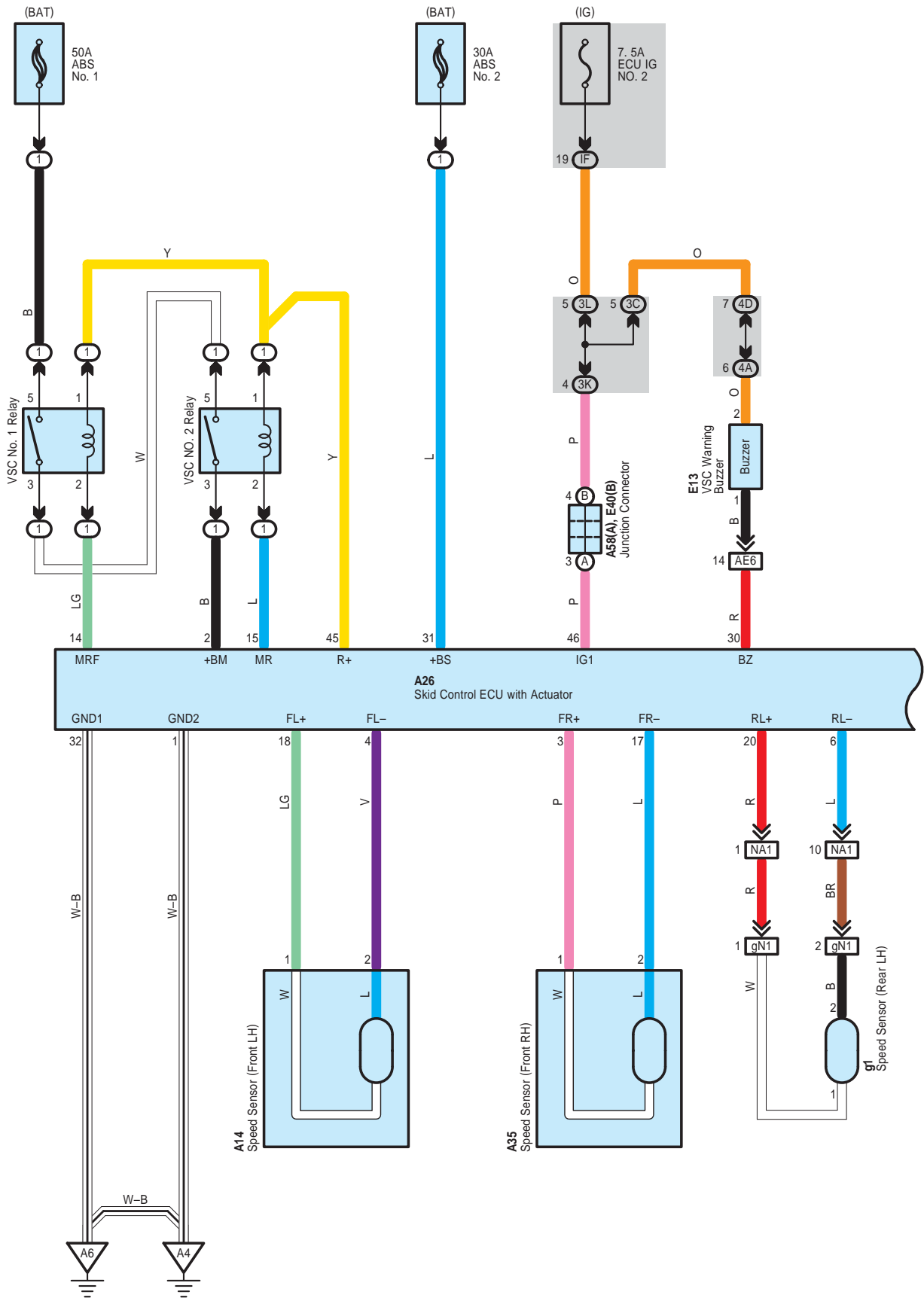
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE2	66	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
AE6	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
EN1	66	Instrument Panel Wire and Floor Wire (Left Kick Panel)
EN2		
EO1	66	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
EO2		
EQ1	66	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
HE1	66	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
HE2		
IE2	66	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IM1	67	Front Door LH Wire and Front Door LH No.2 Wire (Inside of the Front Door LH)
IM2		
JO1	67	Rear Door No.1 Wire and Floor No.2 Wire (Right Center Pillar)
KN1	67	Rear Door No.2 Wire and Floor Wire (Left Center Pillar)
SN1	67	Luggage Room Wire and Floor Wire (Luggage Room Left)

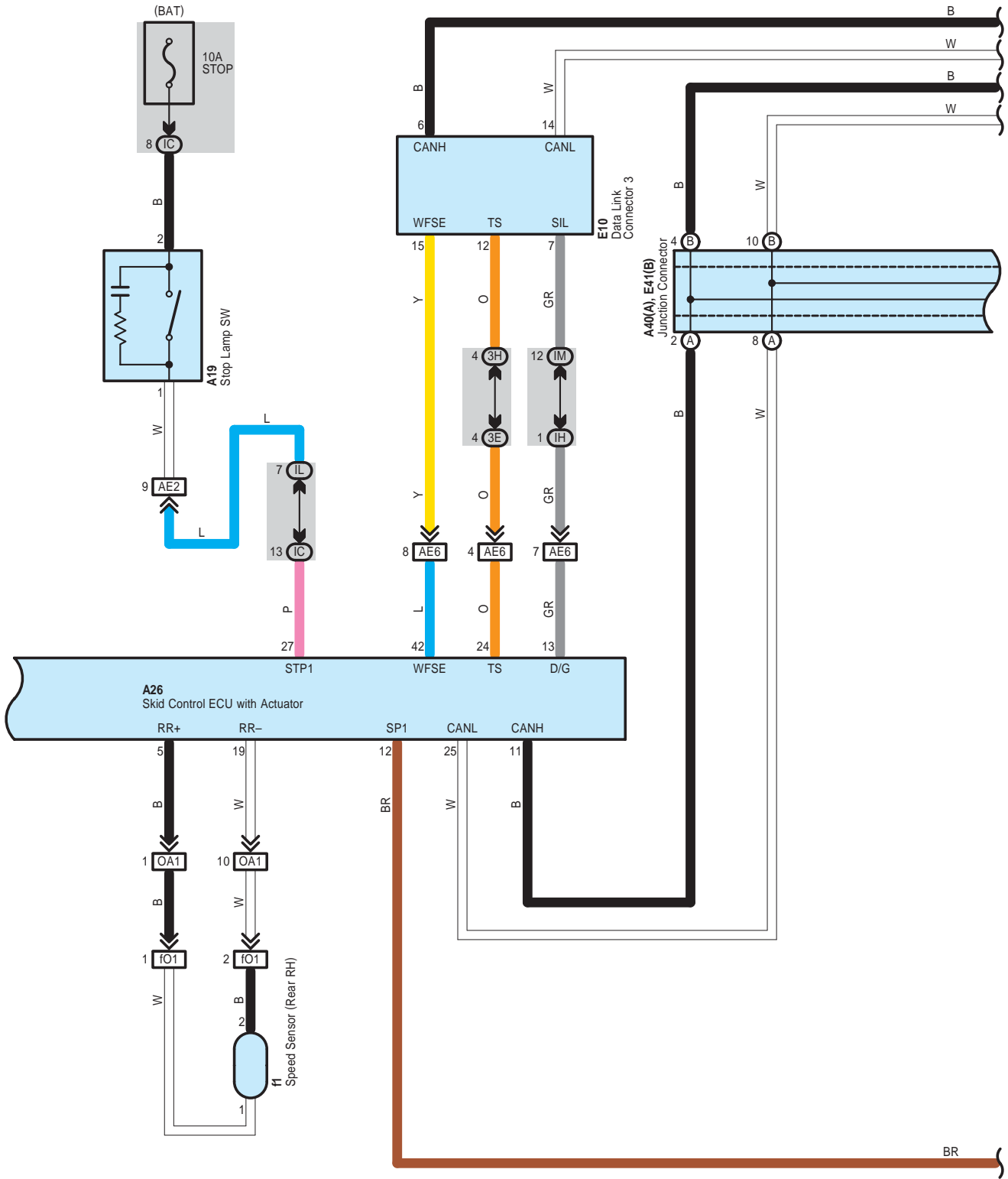


: Ground Points

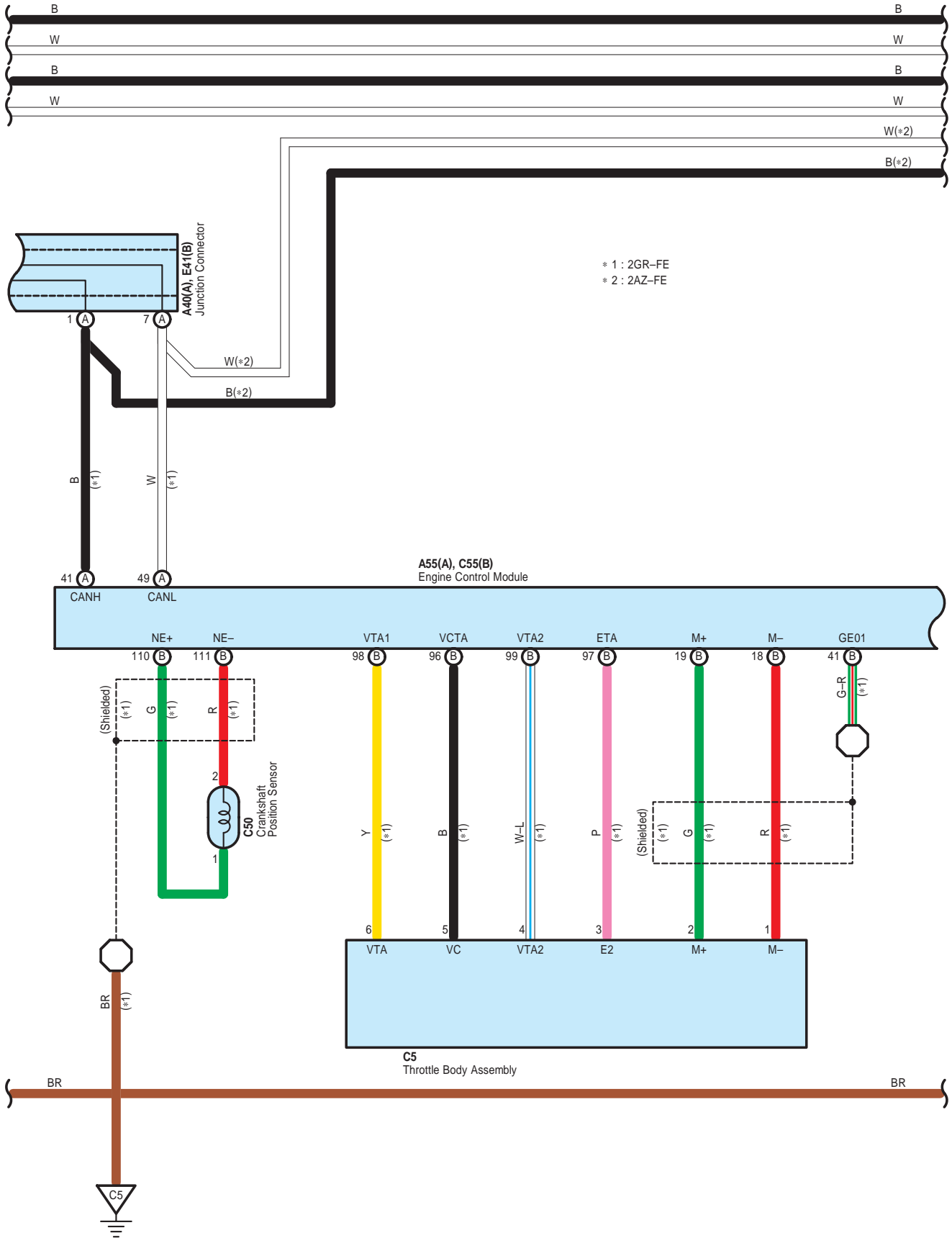
Code	See Page	Ground Points Location
A2	64 (2GR-FE)	Front Left Fender
	65 (2AZ-FE)	
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left
N1	67	Left Rear Quarter Panel
O1	67	Right Rear Quarter Panel
S1	67	Lower Back Panel Center

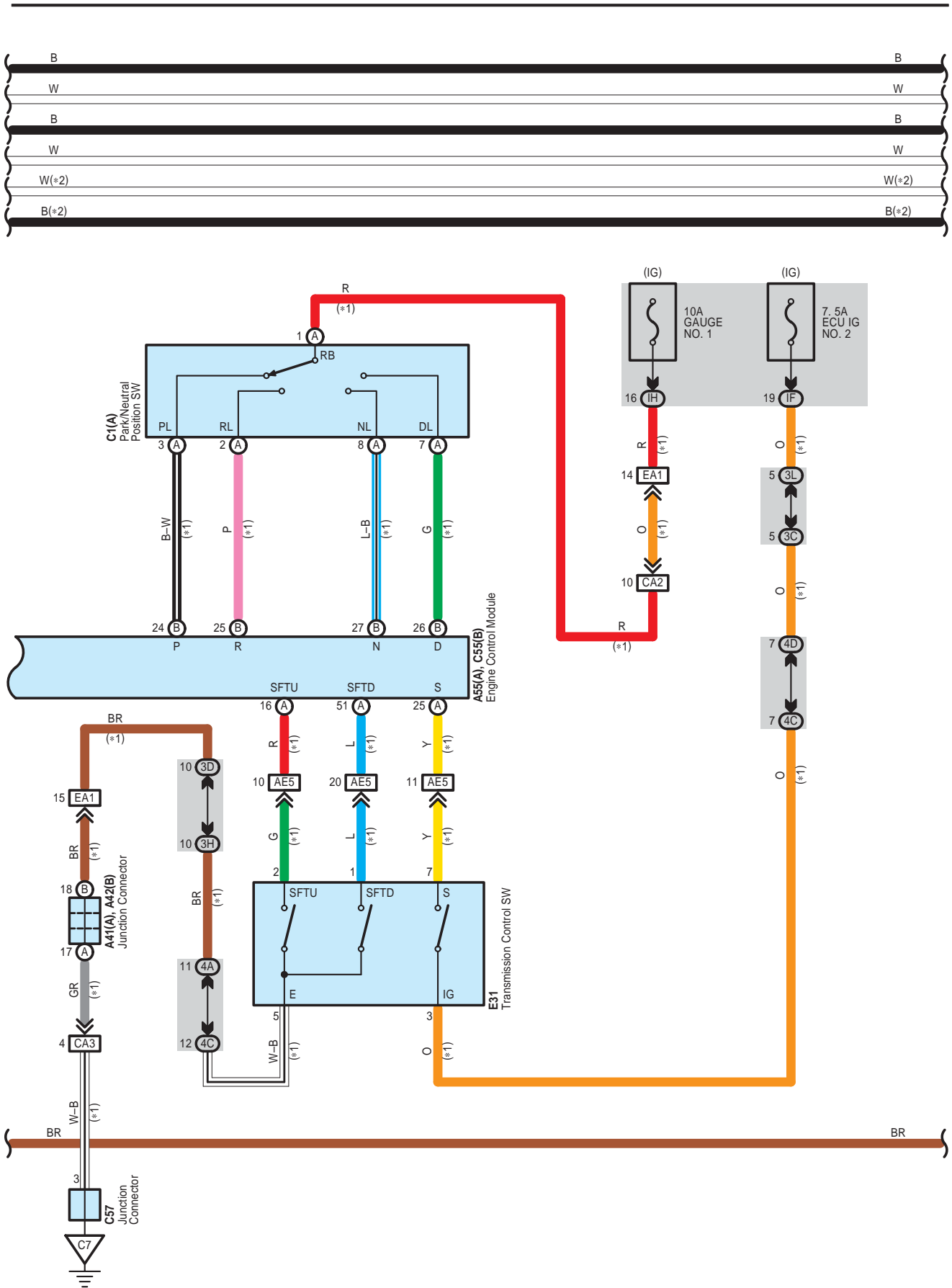
ABS, TRAC and VSC (TMC Made)



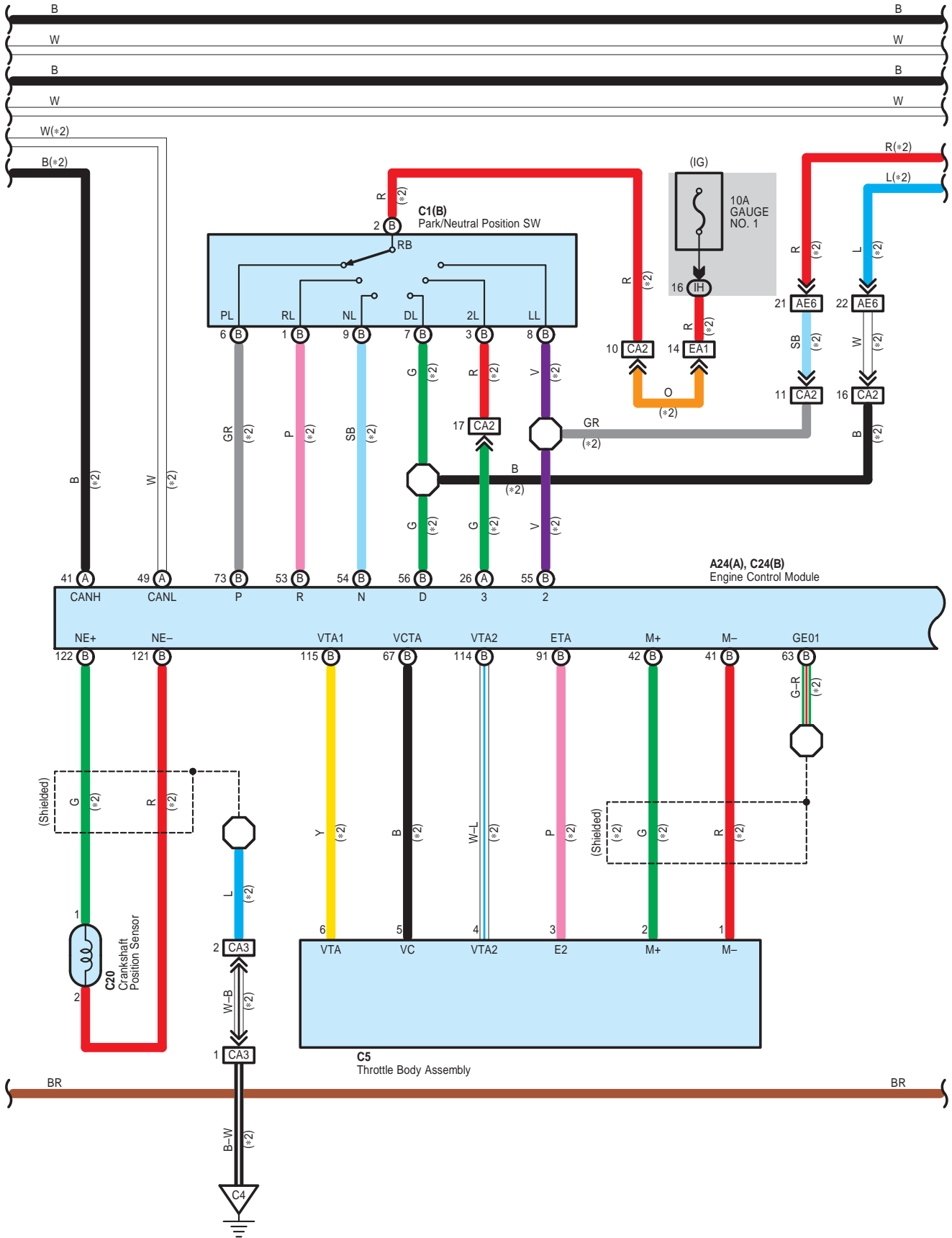


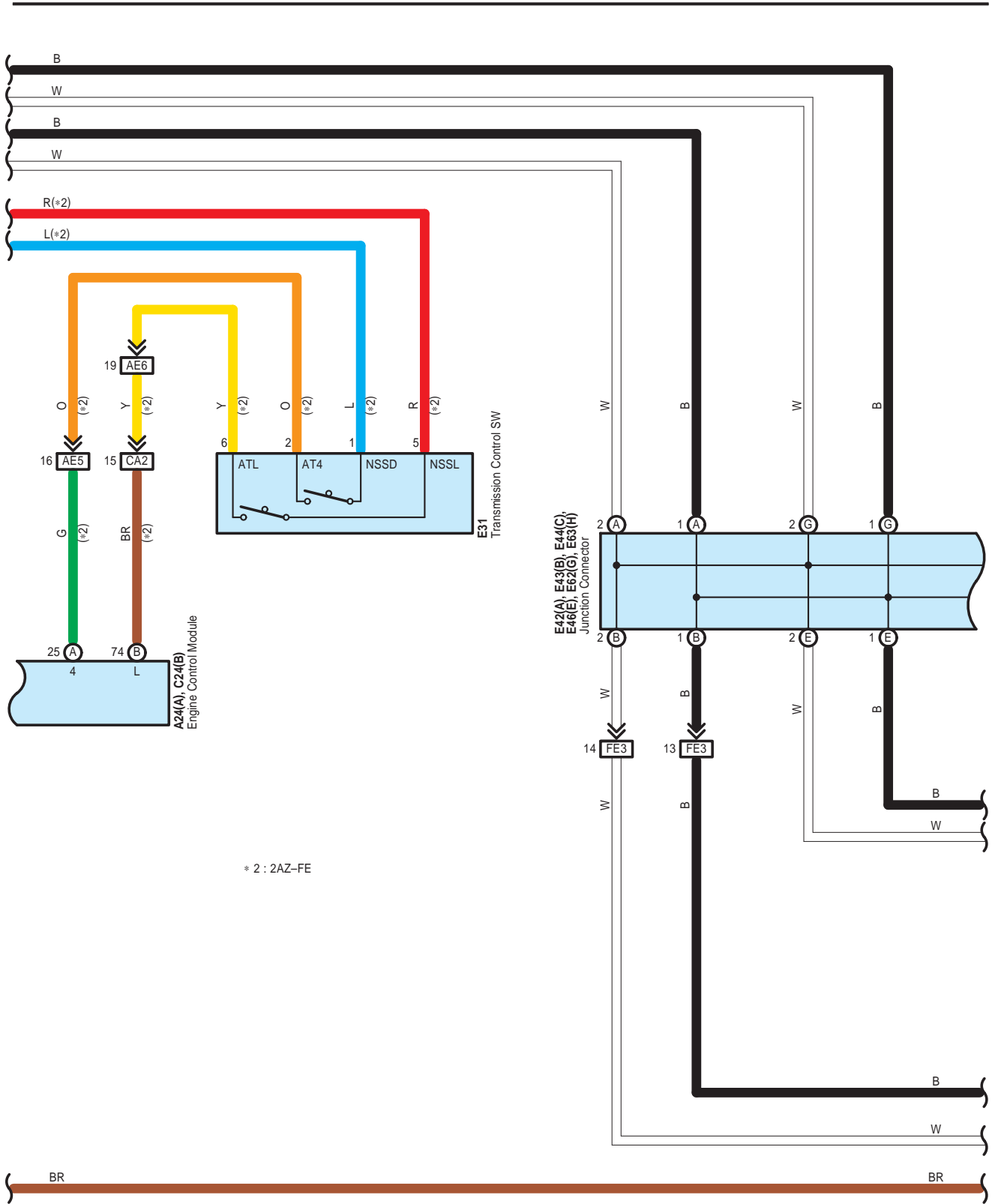
ABS, TRAC and VSC (TMC Made)



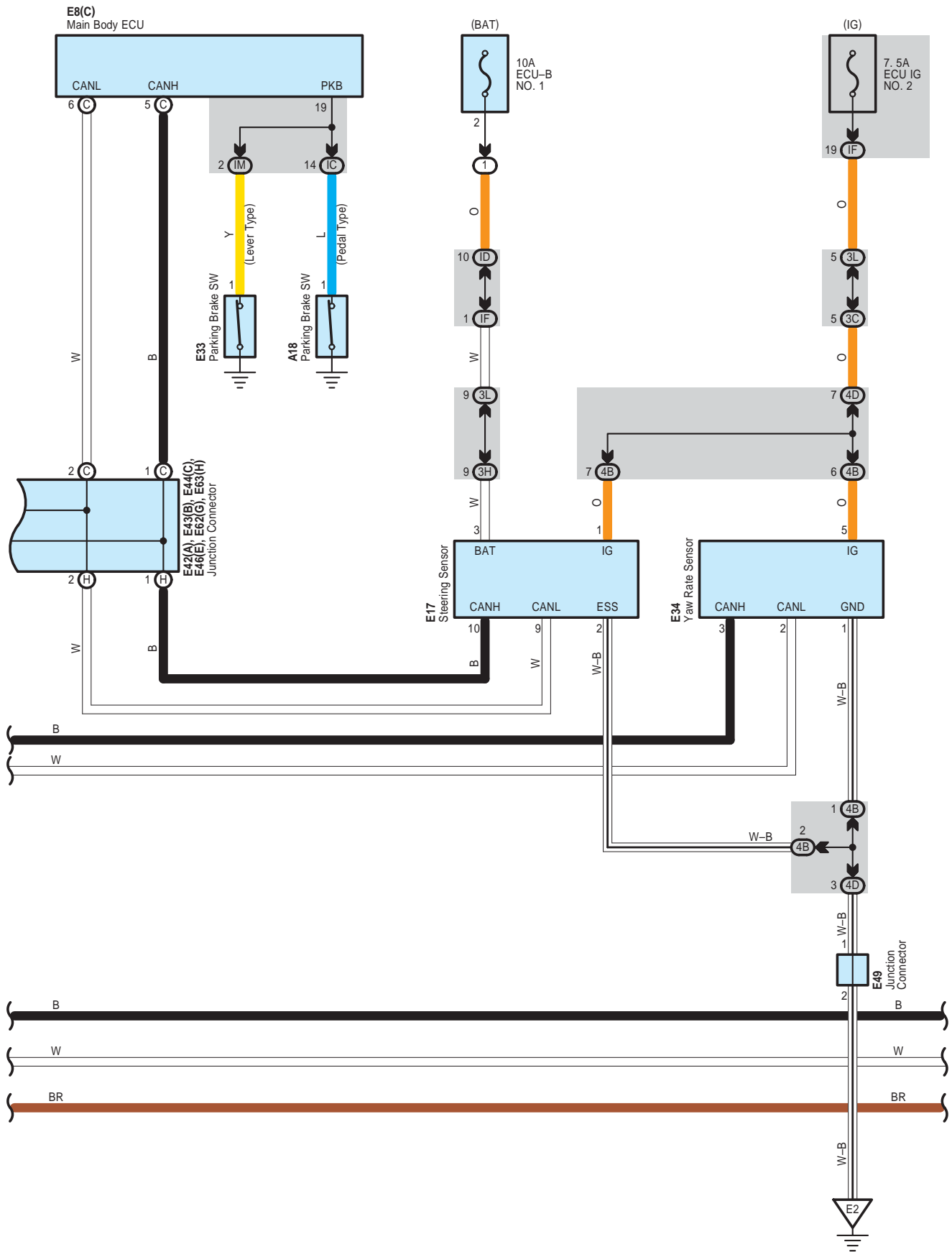


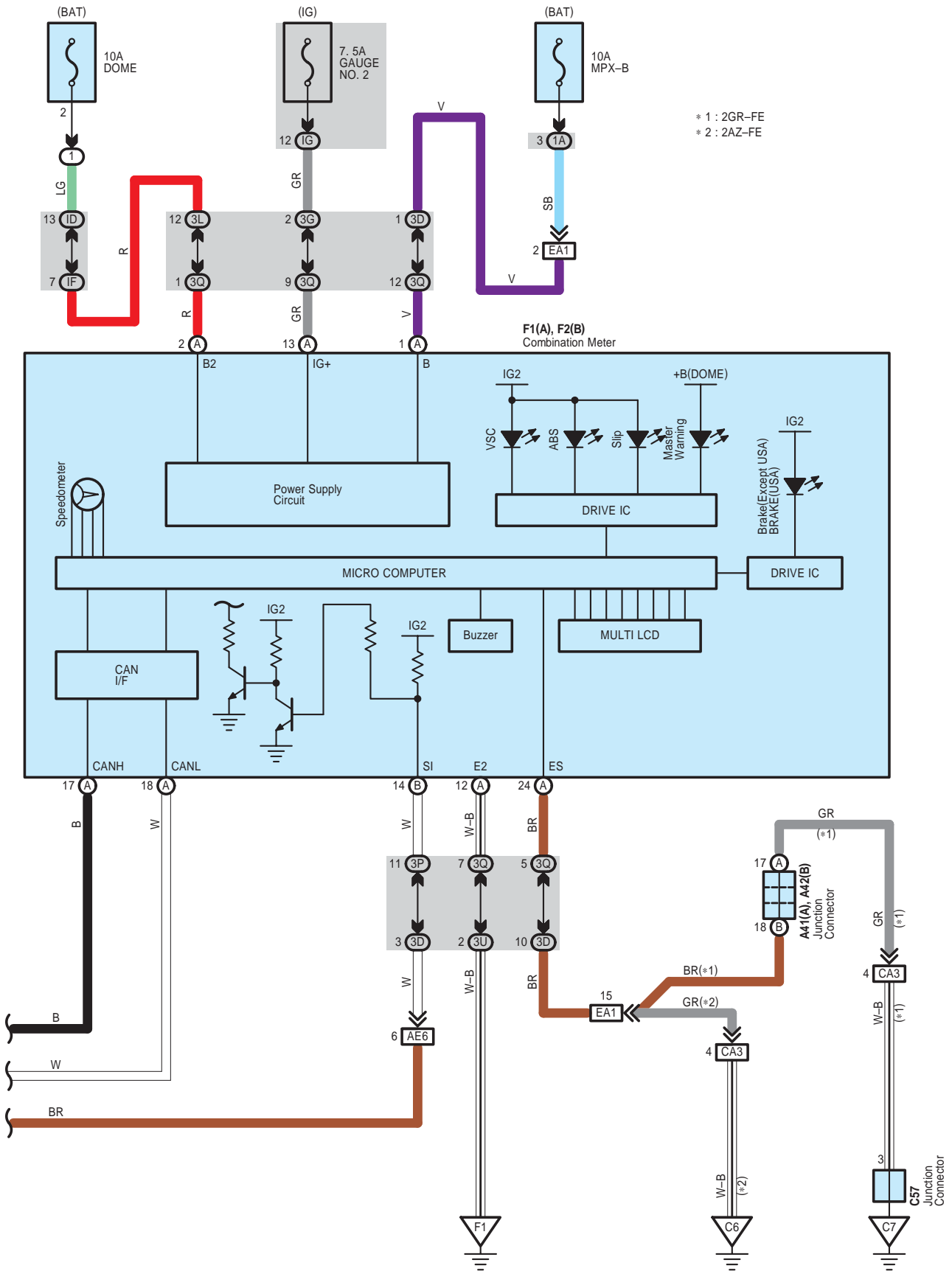
ABS, TRAC and VSC (TMC Made)





ABS, TRAC and VSC (TMC Made)





* 1 : 2GR-FE
 * 2 : 2AZ-FE

CAMRY (EM0250U)

ABS, TRAC and VSC (TMC Made)

System Outline

1. ABS Operation

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

2. Traction Control Operation

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

3. VSC Operation

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

To reduce large over-steering :

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

To reduce large under-steering :

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

4. Fail Safe Function

If an error occurs in the skid control ECU, sensor signals, and/or actuators, the skid control ECU inhibits the brake actuator control and inputs the error signal to the engine control module. According to the error signal, the brake actuator turns off the solenoid and the engine control module rejects any electronically controlled throttle open request from the VSC system. As a result, the vehicle functions regardless of the ABS, TRAC, and VSC systems.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page	
A14	48 (2GR-FE)	C1	B	54 (2AZ-FE)	E40 B 57	
	52 (2AZ-FE)	C5		50 (2GR-FE)	E41 B 57	
A18	59			54 (2AZ-FE)	E42 A 57	
A19	59	C20		55 (2AZ-FE)	E43 B 57	
A24	A	52 (2AZ-FE)	C24	B	55 (2AZ-FE)	E44 C 57
A26	48 (2GR-FE)		C50		51 (2GR-FE)	E46 E 57
	52 (2AZ-FE)		C55	B	51 (2GR-FE)	E49 57
A35	48 (2GR-FE)		C57		51 (2GR-FE)	E62 G 57
	52 (2AZ-FE)		E8	C	56	E63 H 57
A40	A	59	E10		56	F1 A 58
A41	A	59	E13		56	F2 B 58
A42	B	59	E17		56	f1 61
A55	A	49 (2GR-FE)	E31		56	g1 61
A58	A	59	E33		56	
C1	A	50 (2GR-FE)	E34		57	

○ : 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)
3C	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3D		
3E		
3G		
3H		
3K		
3L		
3P	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3Q		
3U		
4A	42	Instrument Panel Wire and J/B No.4 (Instrument Panel Brace Center)
4B		
4C		
4D		
IC	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
ID	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	
IG	31	
IH		
IL	30	
IM		

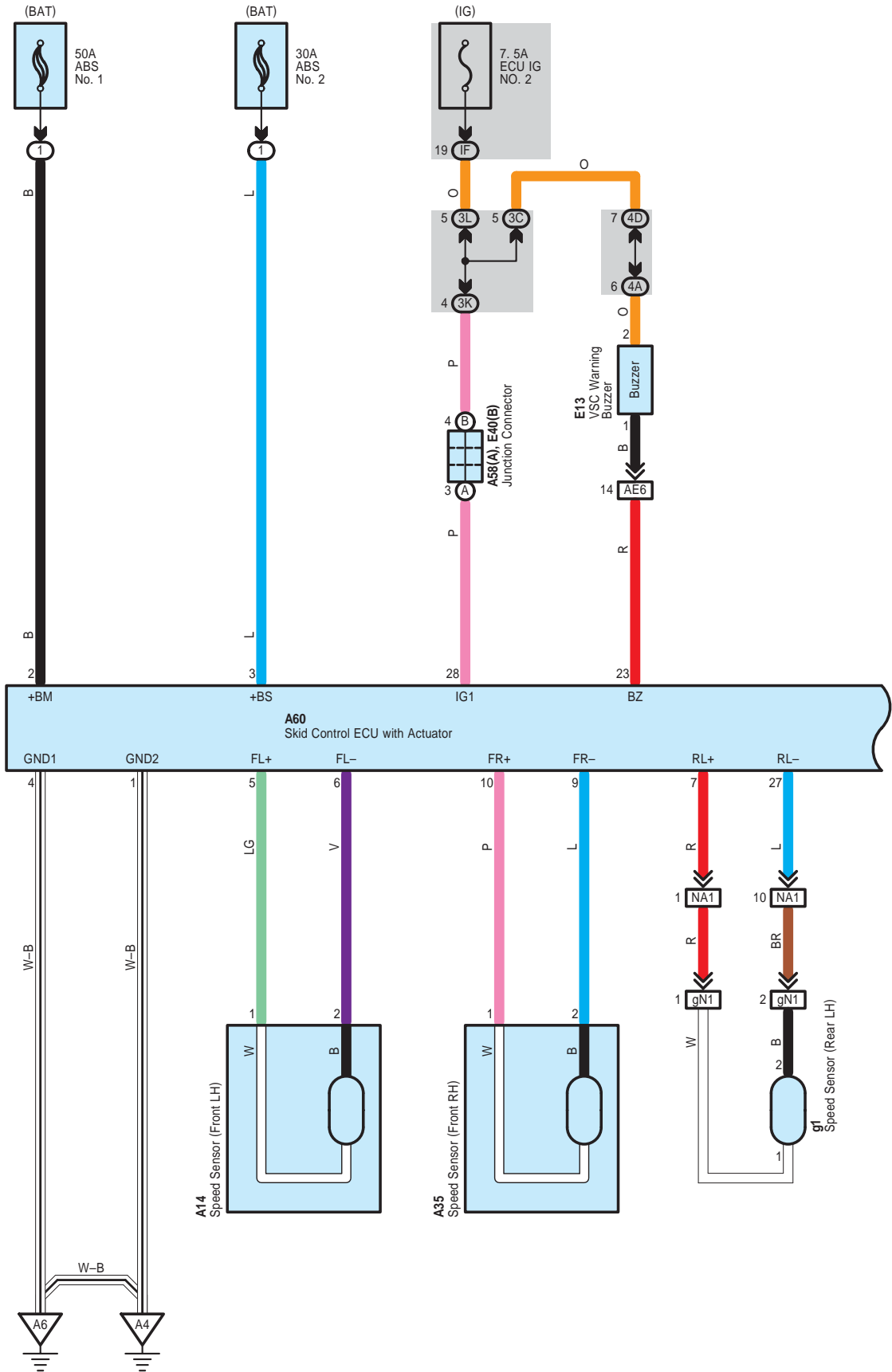
 : Connector Joining Wire Harness and Wire Harness

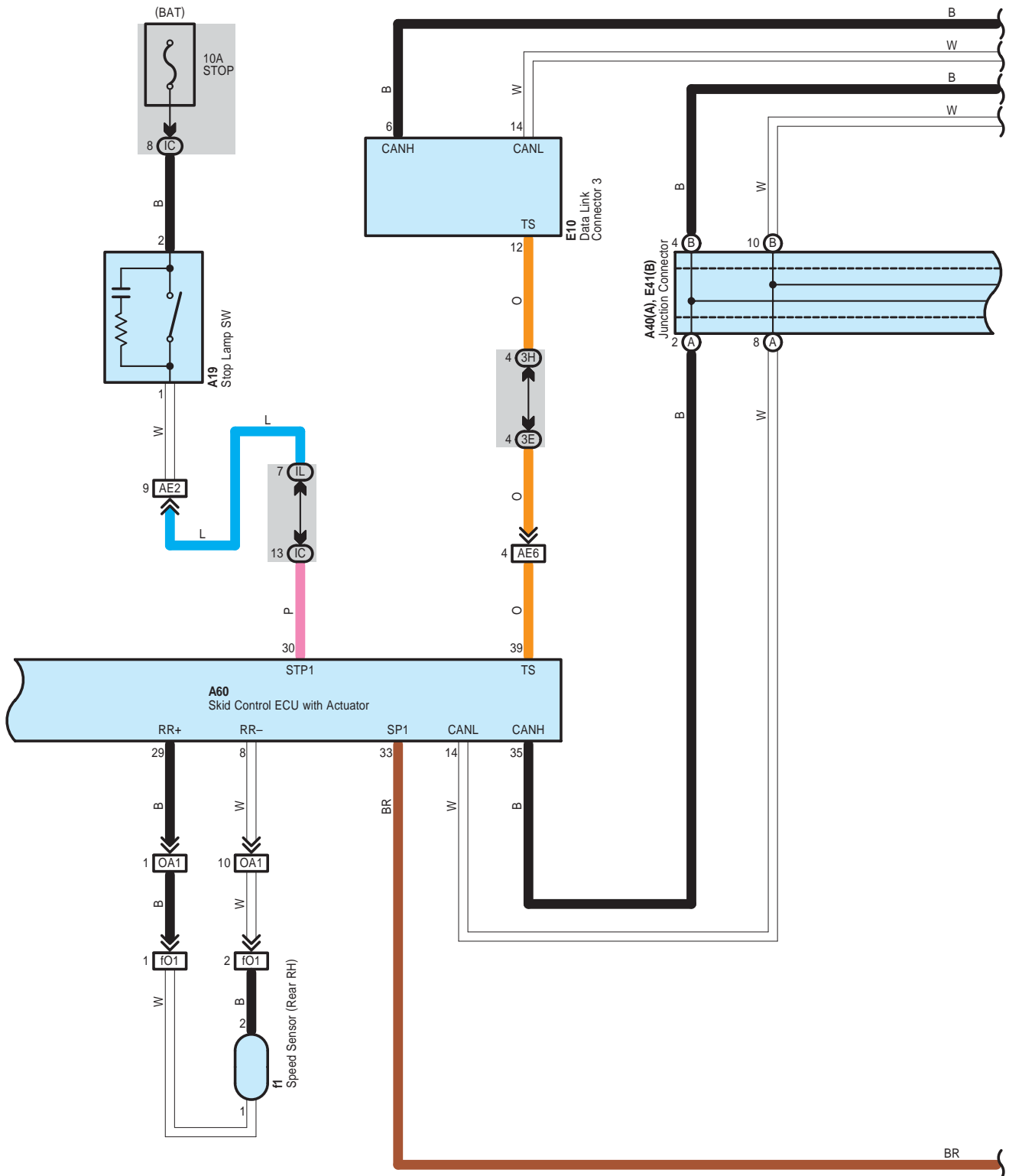
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE2	66	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
AE5	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
AE6		
CA2	64 (2GR-FE) 65 (2AZ-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
CA3	64 (2GR-FE) 65 (2AZ-FE)	
EA1	66	
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
NA1	66	Floor Wire and Engine Room Main Wire (Left Kick Panel)
OA1	66	Floor No.2 Wire and Engine Room Main Wire (Right Kick Panel)
fO1	67	Skid Control Sensor Wire and Floor No.2 Wire (Quarter Wheel House Panel LH)
gN1	67	Skid Control Sensor Wire and Floor Wire (Quarter Wheel House Panel RH)

 : Ground Points

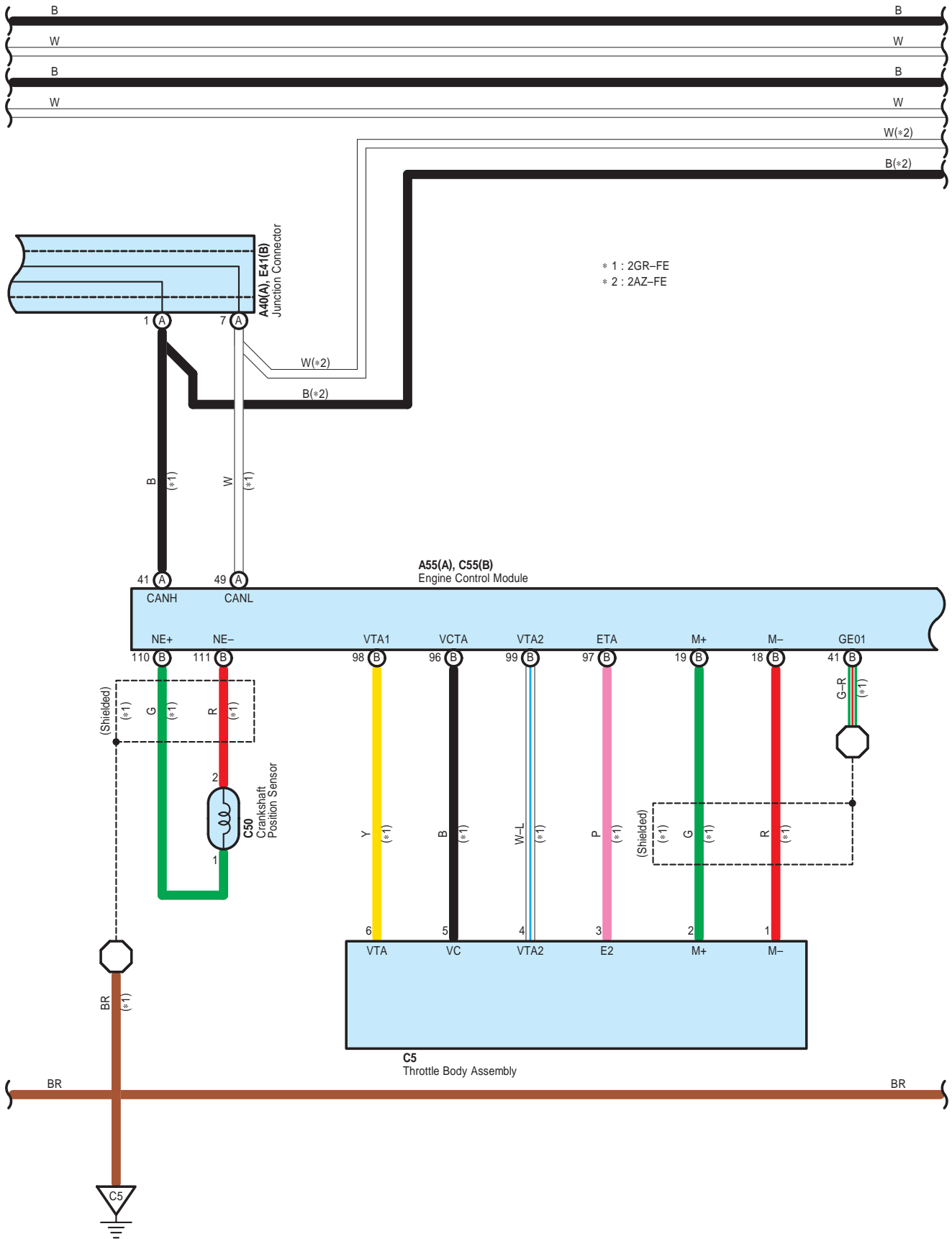
Code	See Page	Ground Points Location
A4	64 (2GR-FE) 65 (2AZ-FE)	Near the Skid Control ECU with Actuator
A6	66	Right Cowl Side Panel
C4	65 (2AZ-FE)	Cylinder Block
C5	64 (2GR-FE)	Right Side of the Cylinder Block
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left

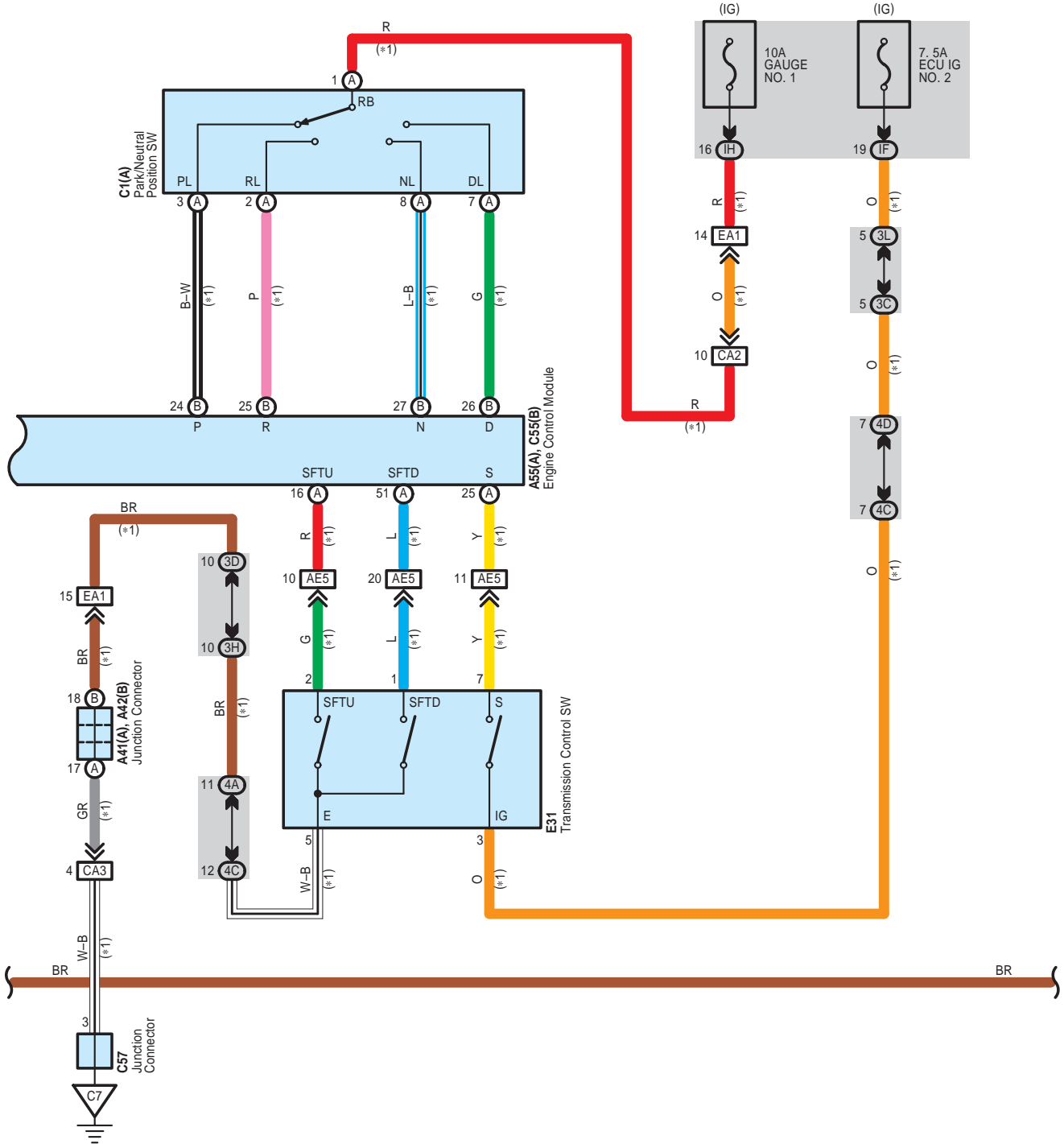
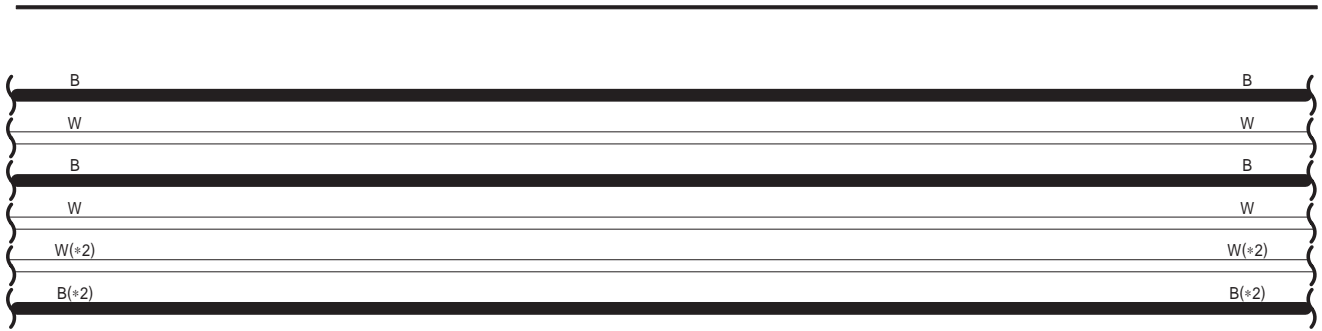
ABS, TRAC and VSC (TMMK Made)



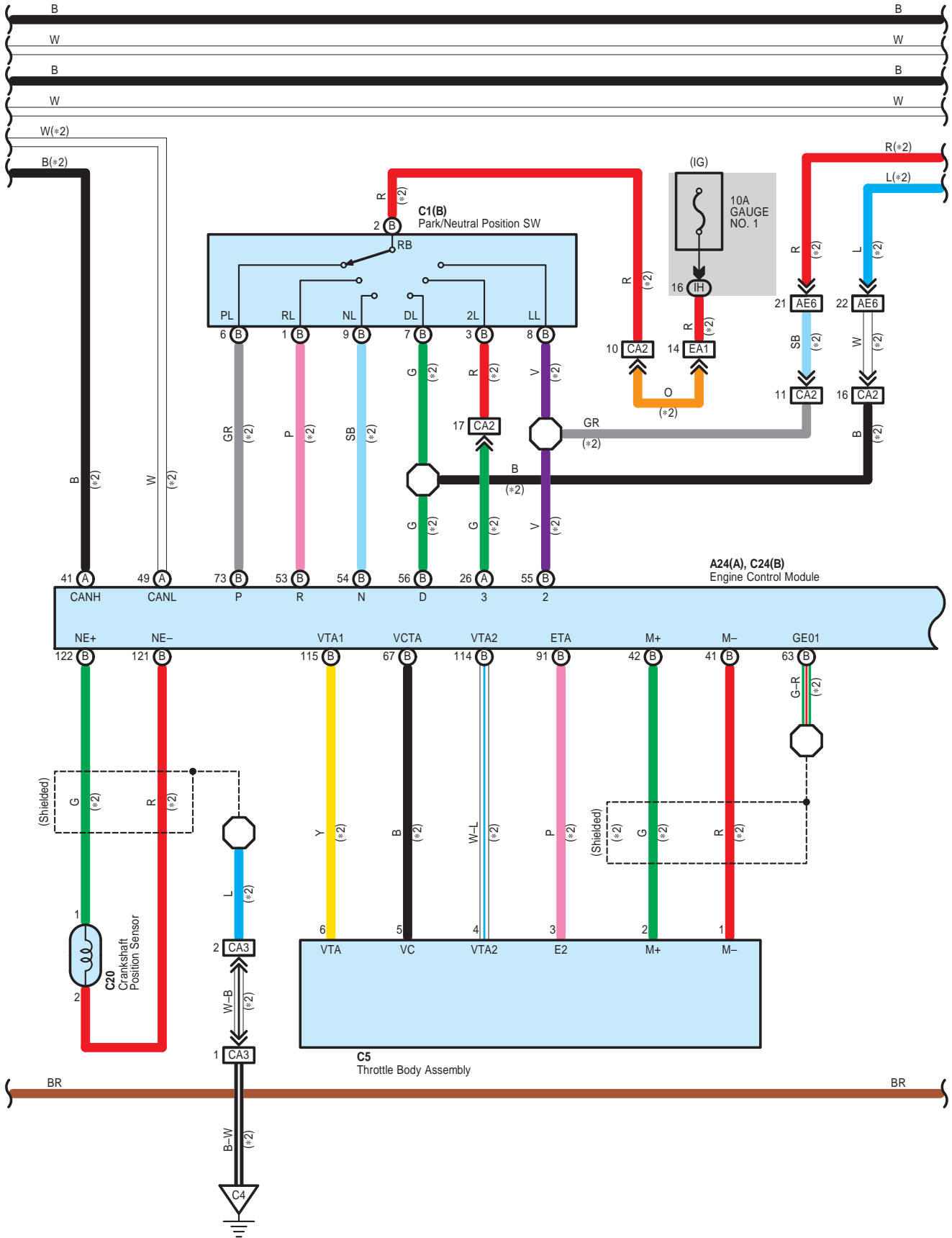


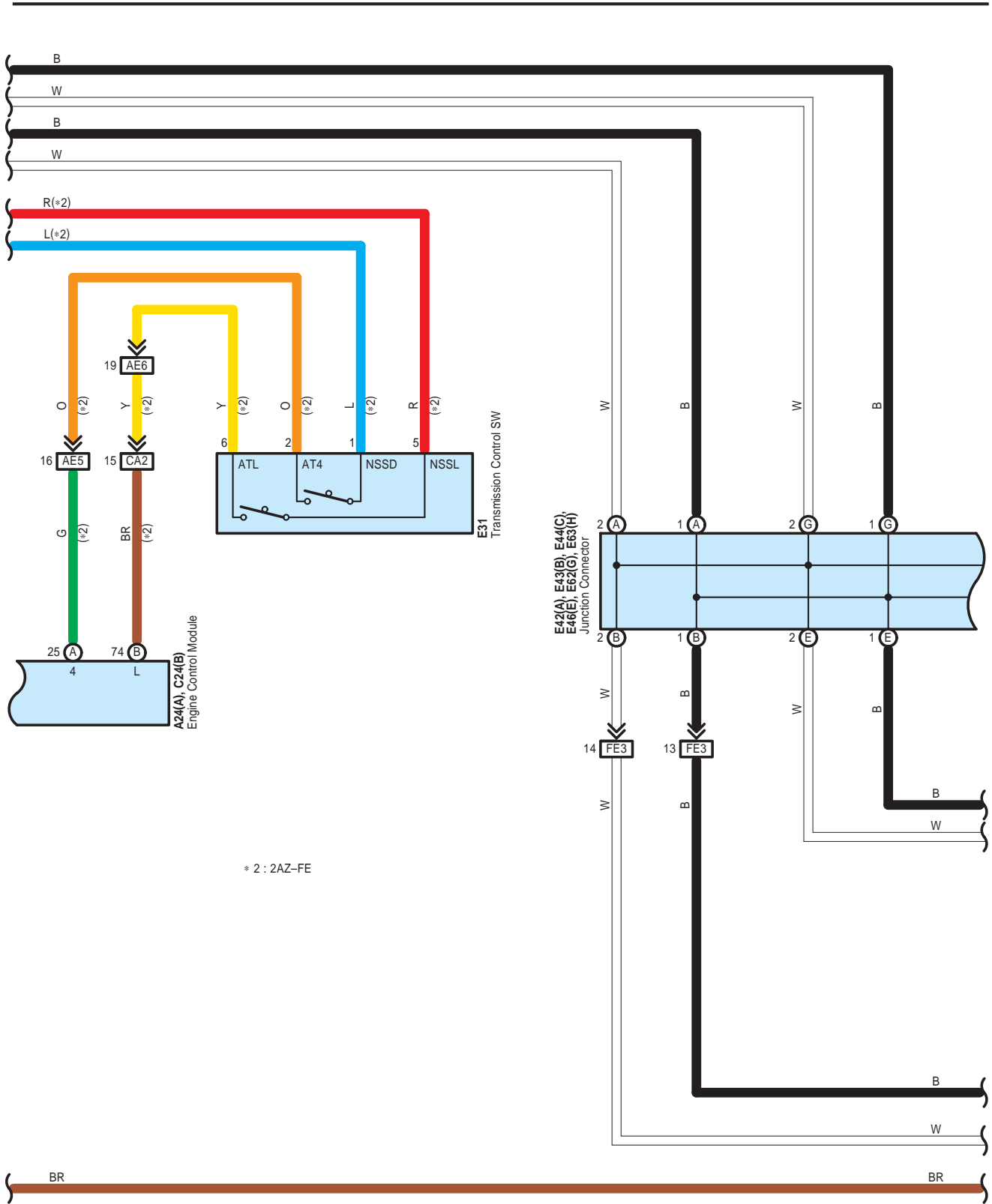
ABS, TRAC and VSC (TMMK Made)



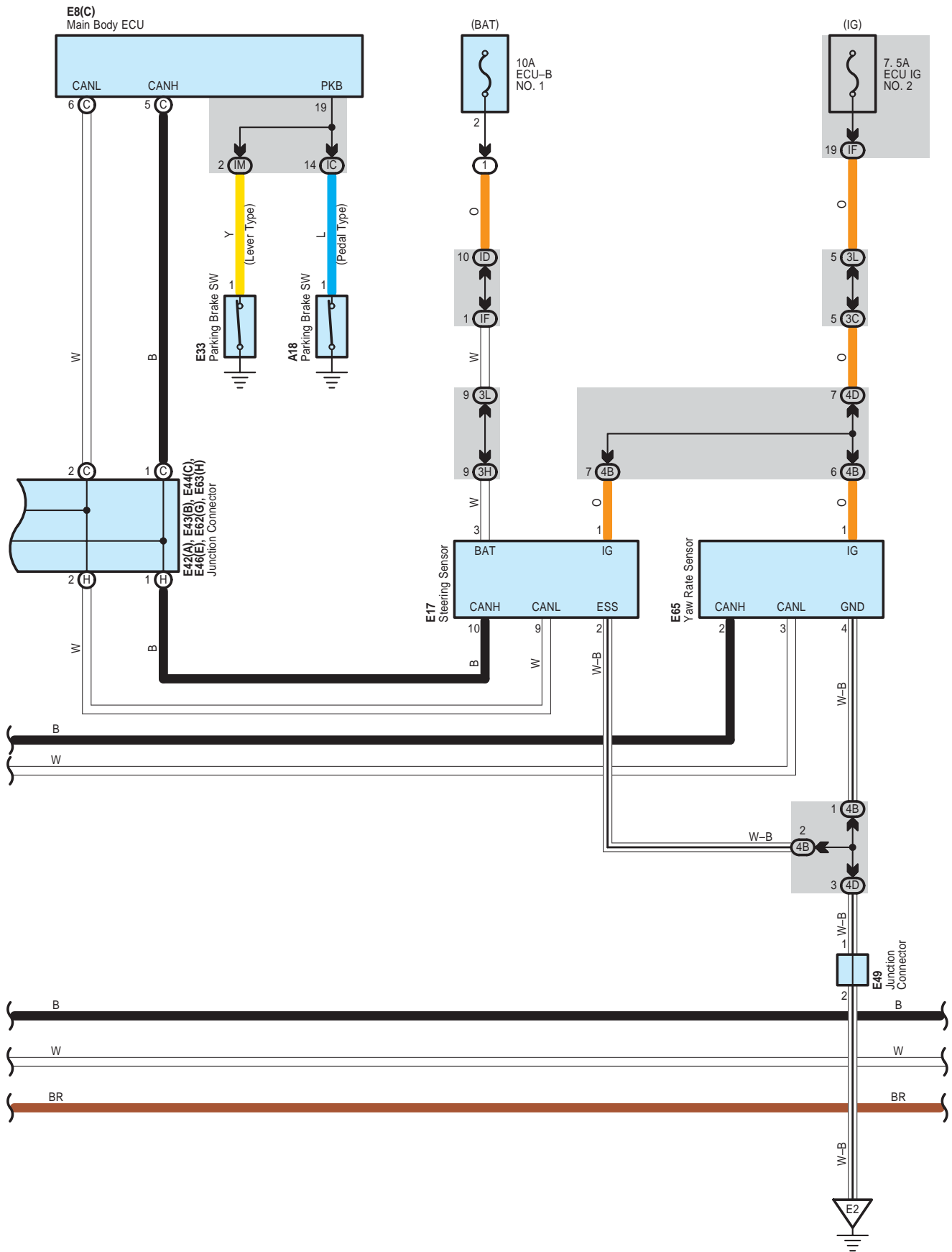


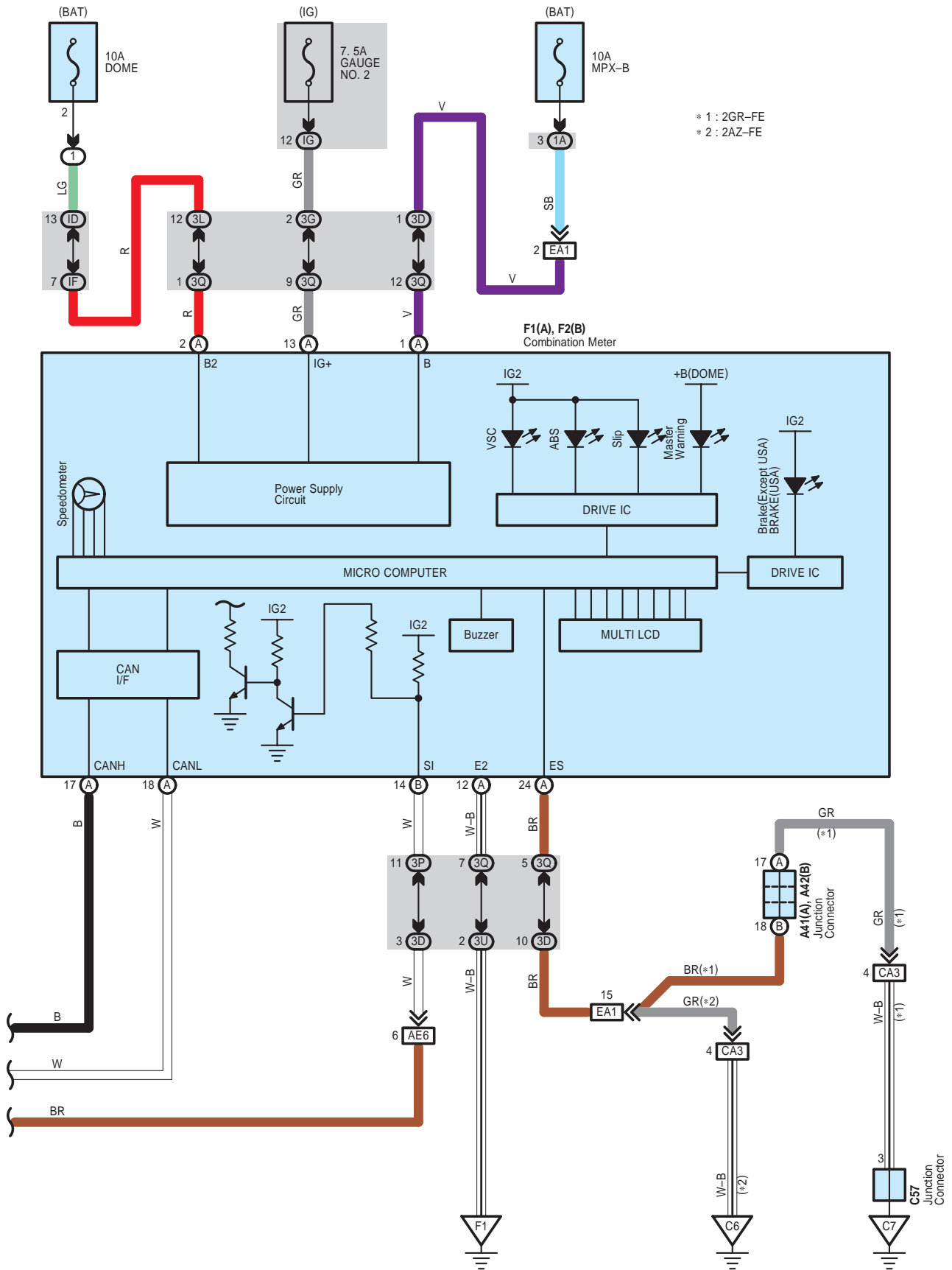
ABS, TRAC and VSC (TMMK Made)





ABS, TRAC and VSC (TMMK Made)





ABS, TRAC and VSC (TMMK Made)

System Outline

1. ABS Operation

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

2. Traction Control Operation

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

3. VSC Operation

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

To reduce large over-steering :

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

To reduce large under-steering :

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

4. Fail Safe Function

If an error occurs in the skid control ECU, sensor signals, and/or actuators, the skid control ECU inhibits the brake actuator control and inputs the error signal to the engine control module. According to the error signal, the brake actuator turns off the solenoid and the engine control module rejects any electronically controlled throttle open request from the VSC system. As a result, the vehicle functions regardless of the ABS, TRAC, and VSC systems.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A14	48 (2GR-FE)	C1	B	54 (2AZ-FE)	E41 B 57
	52 (2AZ-FE)	C5		50 (2GR-FE)	E42 A 57
A18	59			54 (2AZ-FE)	E43 B 57
A19	59	C20		55 (2AZ-FE)	E44 C 57
A24	A 52 (2AZ-FE)	C24	B	55 (2AZ-FE)	E46 E 57
A35	48 (2GR-FE)	C50		51 (2GR-FE)	E49 57
	52 (2AZ-FE)	C55	B	51 (2GR-FE)	E62 G 57
A40	A 59	C57		51 (2GR-FE)	E63 H 57
A41	A 59	E8	C	56	E65 57
A42	B 59	E10		56	F1 A 58
A55	A 49 (2GR-FE)	E13		56	F2 B 58
A58	A 59	E17		56	f1 61
A60	49 (2GR-FE)	E31		56	g1 61
	53 (2AZ-FE)	E33		56	
C1	A 50 (2GR-FE)	E40	B	57	

○ : 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)
3C	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3D		
3E		
3G		
3H		
3K		
3L		
3P	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3Q		
3U		
4A	42	Instrument Panel Wire and J/B No.4 (Instrument Panel Brace Center)
4B		
4C		
4D		
IC	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
ID	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	
IG	31	
IH		
IL	30	
IM		

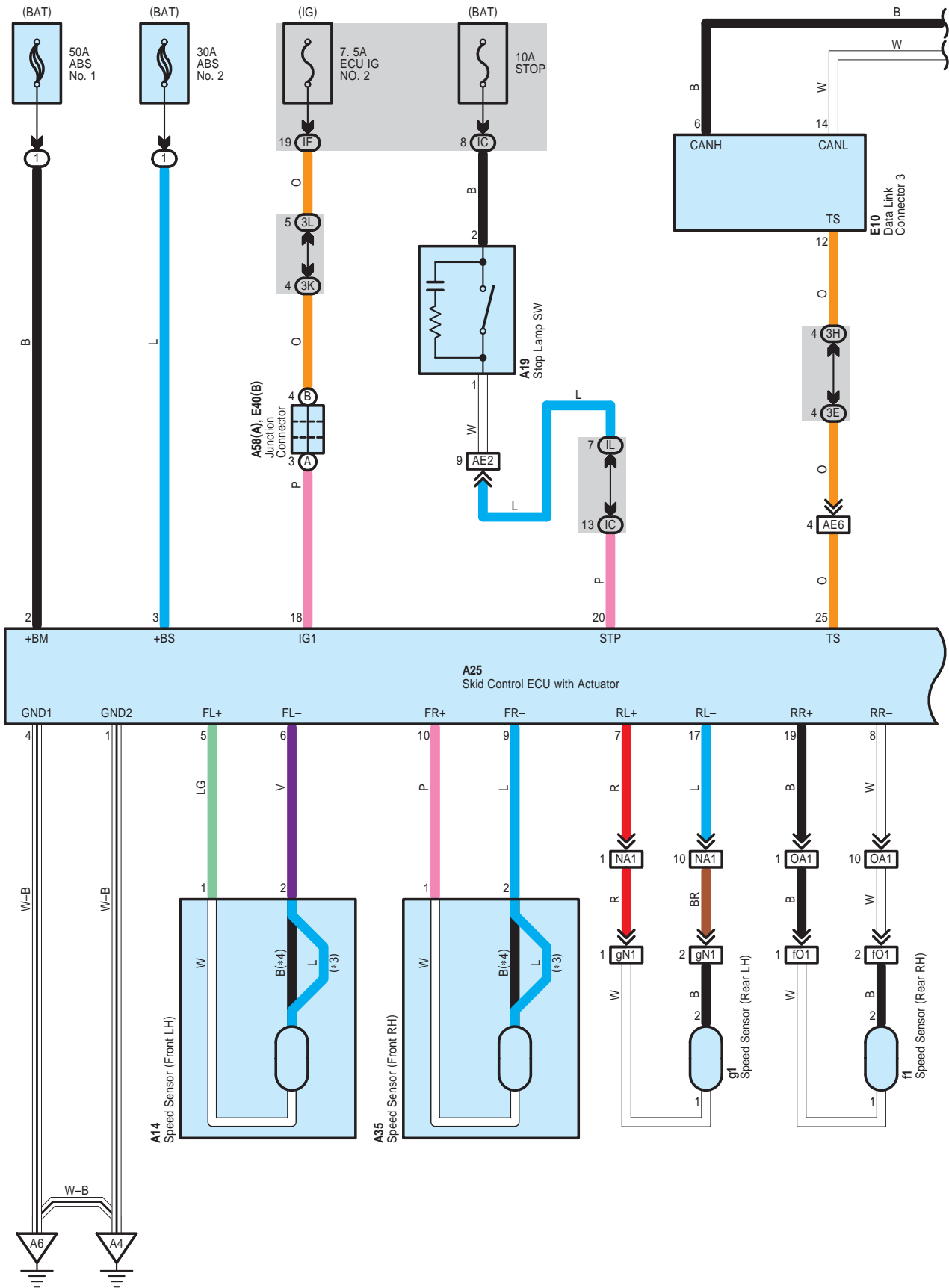
 : Connector Joining Wire Harness and Wire Harness

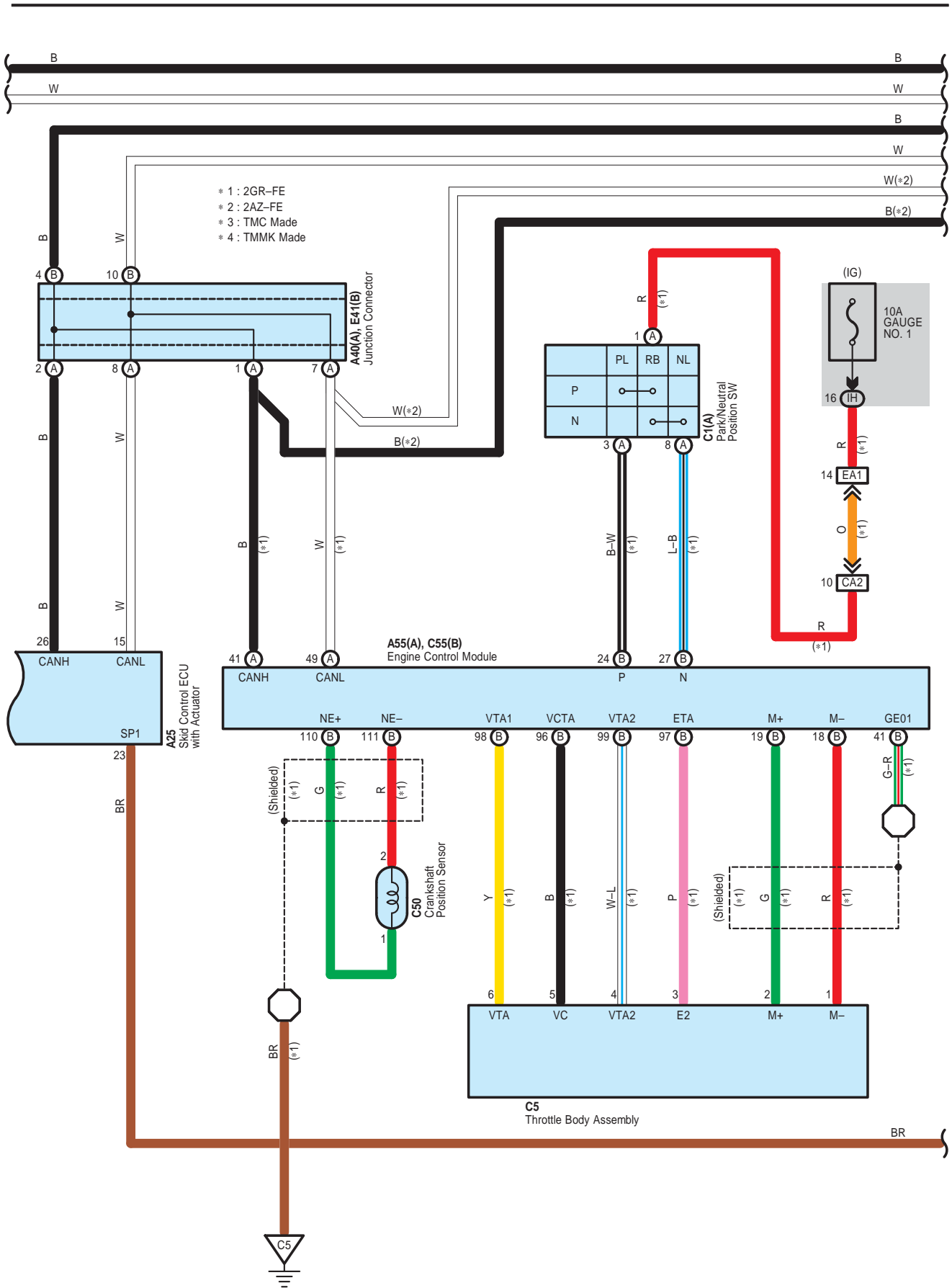
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE2	66	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
AE5	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
AE6		
CA2	64 (2GR-FE) 65 (2AZ-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
CA3	64 (2GR-FE) 65 (2AZ-FE)	
EA1	66	
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
NA1	66	Floor Wire and Engine Room Main Wire (Left Kick Panel)
OA1	66	Floor No.2 Wire and Engine Room Main Wire (Right Kick Panel)
fO1	67	Skid Control Sensor Wire and Floor No.2 Wire (Quarter Wheel House Panel LH)
gN1	67	Skid Control Sensor Wire and Floor Wire (Quarter Wheel House Panel RH)

 : Ground Points

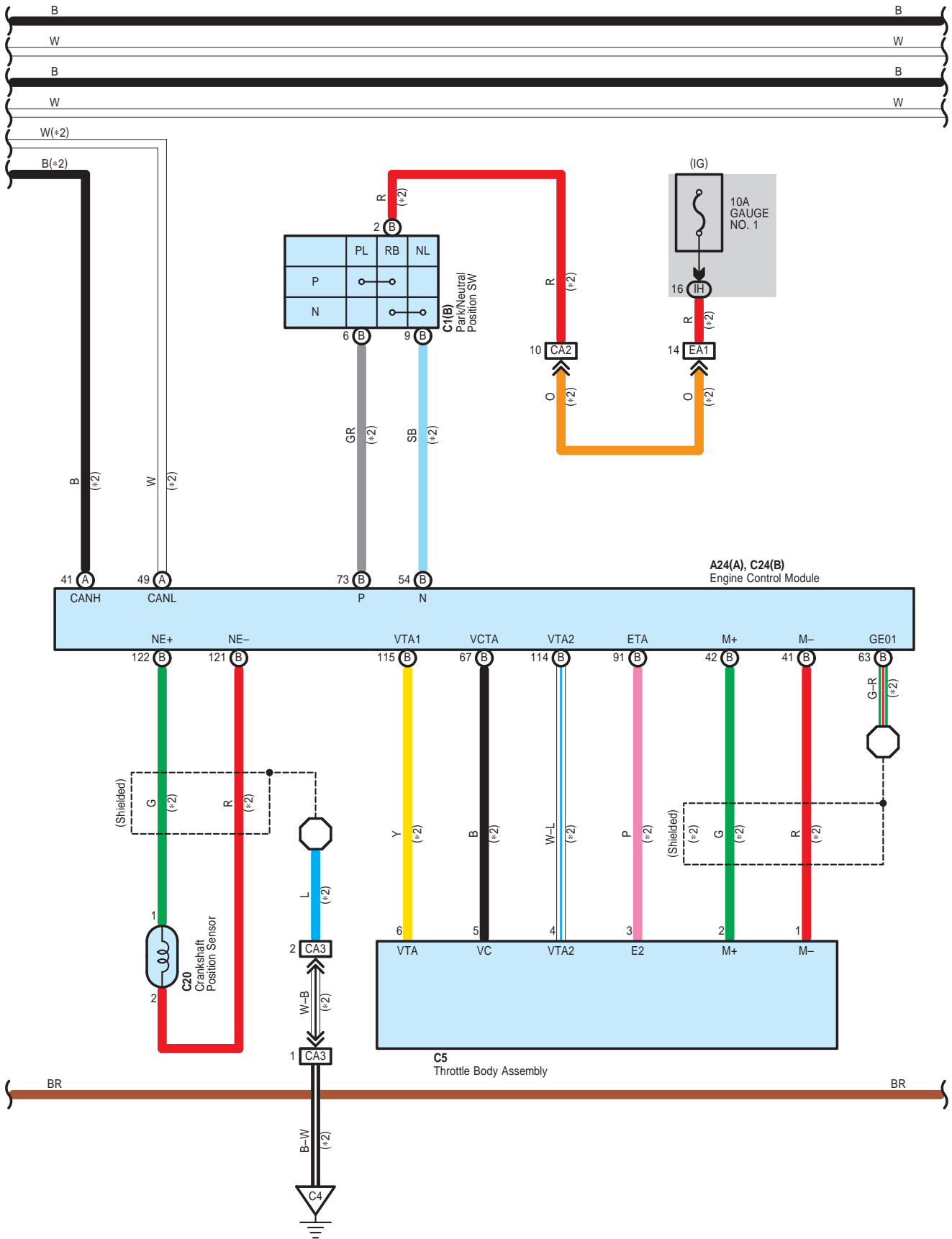
Code	See Page	Ground Points Location
A4	64 (2GR-FE) 65 (2AZ-FE)	Near the Skid Control ECU with Actuator
A6	66	Right Cowl Side Panel
C4	65 (2AZ-FE)	Cylinder Block
C5	64 (2GR-FE)	Right Side of the Cylinder Block
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left

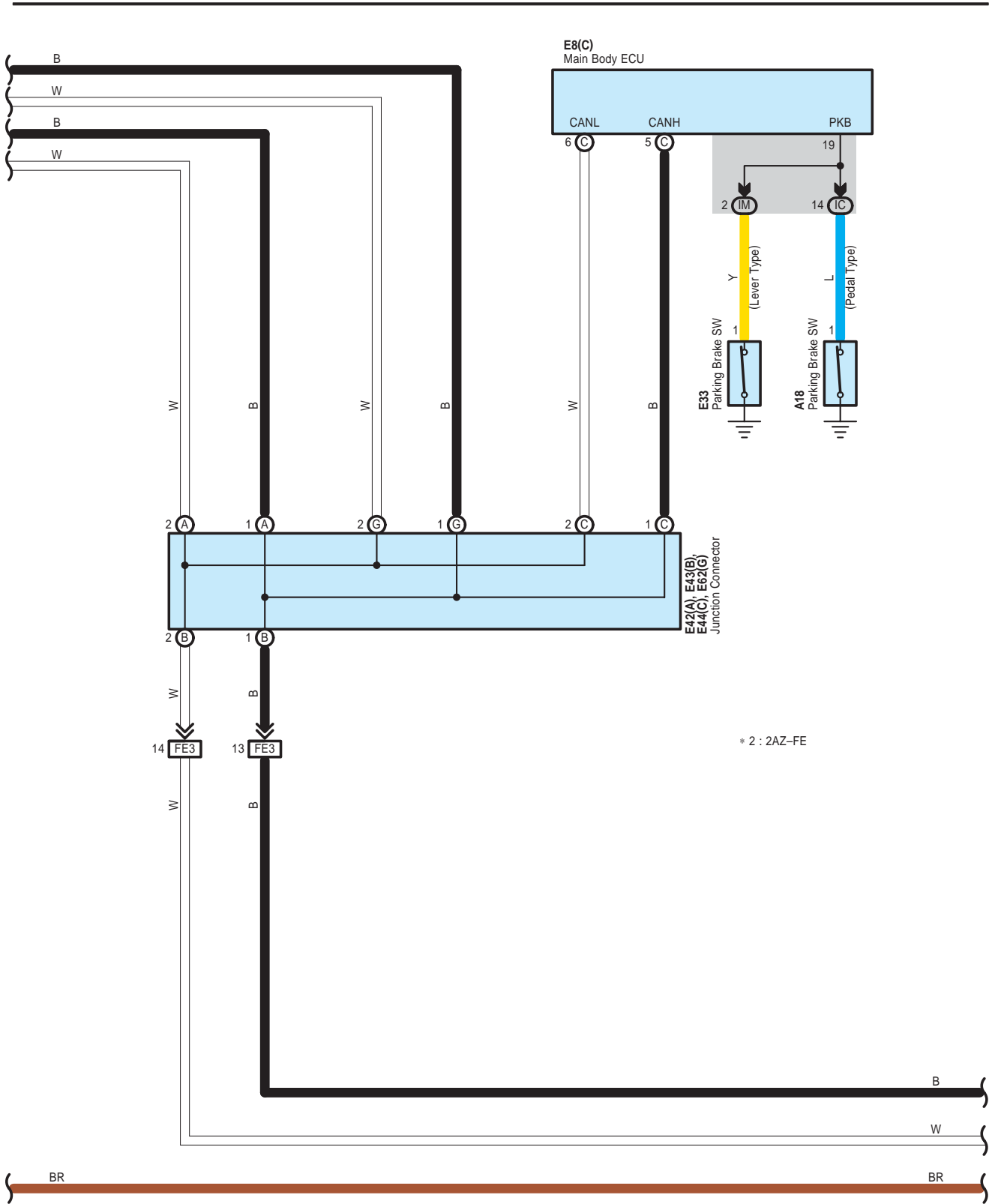
ABS without VSC



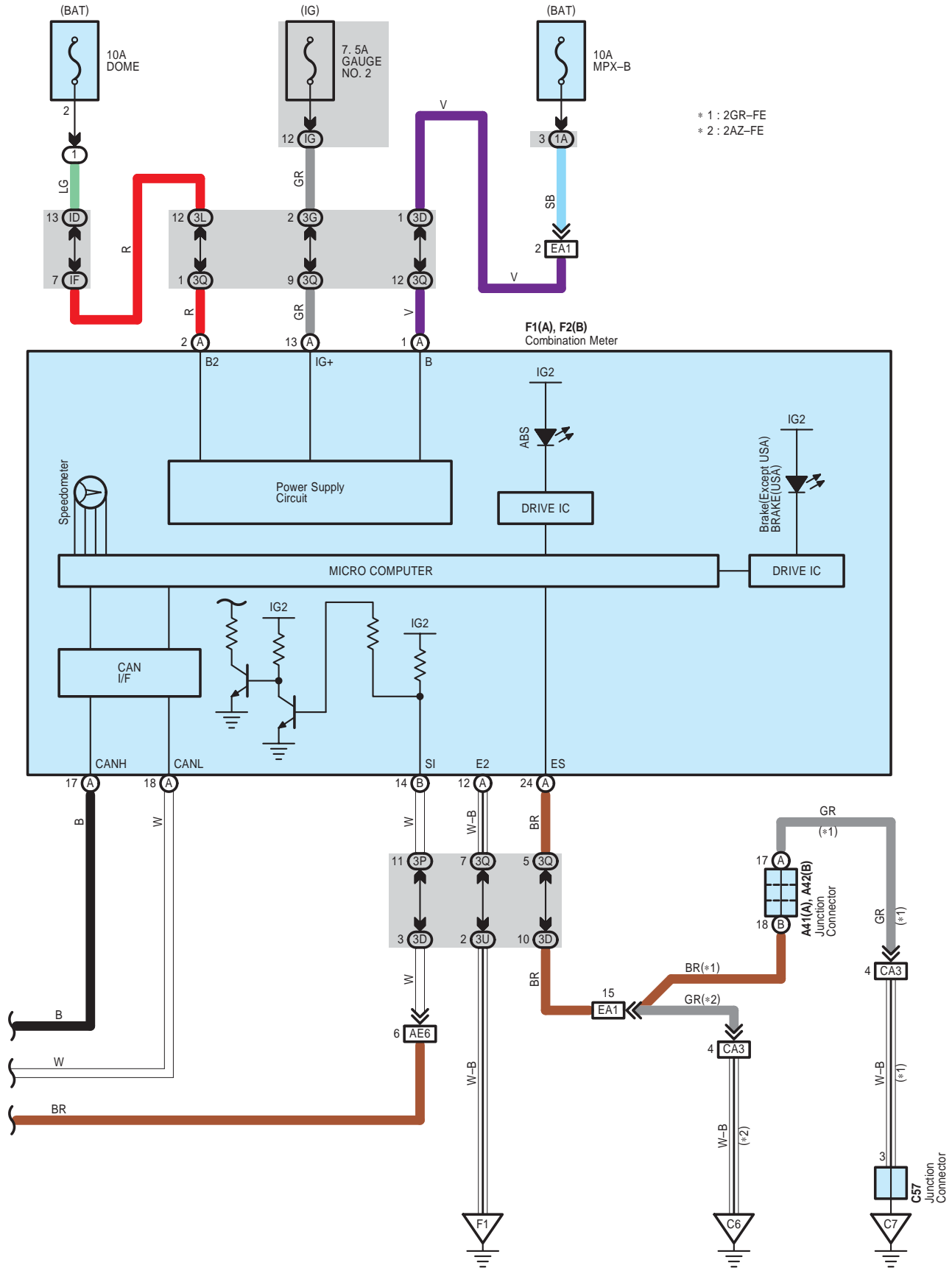


ABS without VSC





ABS without VSC



System Outline

* ABS system

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

* Front and rear braking force distribution system

Using the hydraulic controlling device, this system distributes the braking force to the front and rear wheel in appropriately according to the running condition of the vehicle.

1. Input Signals

(1) Speed sensor signal

The speed of the wheels is detected and input to TERMINALS 5, 7, 10 and 19 of the skid control ECU with actuator.

(2) Stop light SW signal

A signal is input to TERMINAL 20 of the skid control ECU with actuator when the brake pedal is depressed.

2. System Operation

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

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

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page			
A14	48 (2GR-FE)	A55	A	49 (2GR-FE)	E10	56		
	52 (2AZ-FE)	A58	A	59	E33	56		
A18	59	C1	A	50 (2GR-FE)	E40	B	57	
A19	59		B	54 (2AZ-FE)	E41	B	57	
A24	A	52 (2AZ-FE)	C5	50 (2GR-FE)	E42	A	57	
A25	48 (2GR-FE)	54 (2AZ-FE)		E43	B	57		
	52 (2AZ-FE)	C20	55 (2AZ-FE)	E44	C	57		
A35	48 (2GR-FE)	C24	B	55 (2AZ-FE)	E62	G	57	
	52 (2AZ-FE)	C50	51 (2GR-FE)	F1	A	58		
A40	A	59	C55	B	51 (2GR-FE)	F2	B	58
A41	A	59	C57	51 (2GR-FE)	f1	61		
A42	B	59	E8	C	56	g1	61	

○ : Relay Blocks

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

ABS without VSC

: 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)
3D	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3E		
3G		
3H		
3K		
3L		
3P	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3Q		
3U		
IC	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IG	31	
IH		
IL	30	
IM		

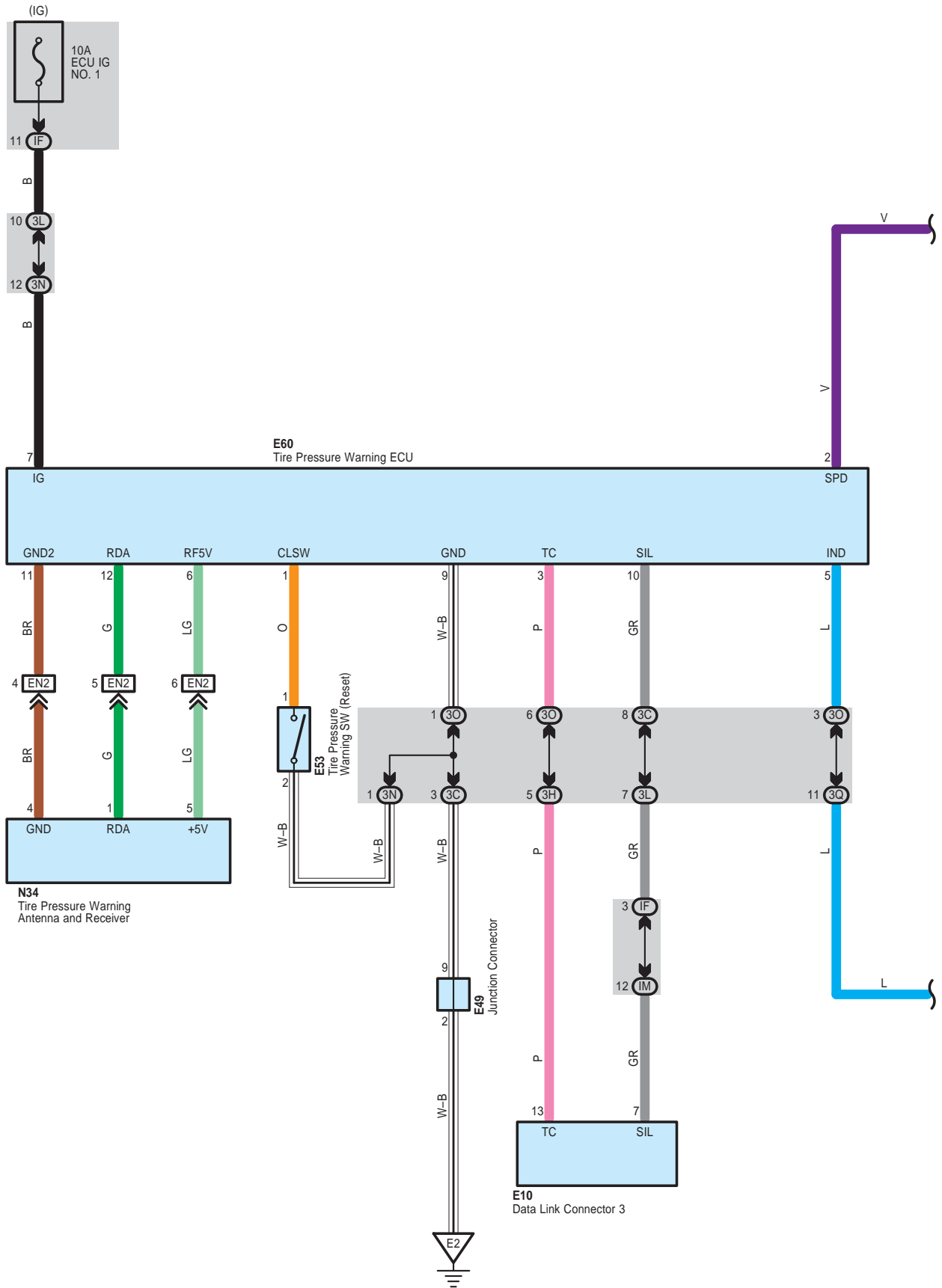
: Connector Joining Wire Harness and Wire Harness

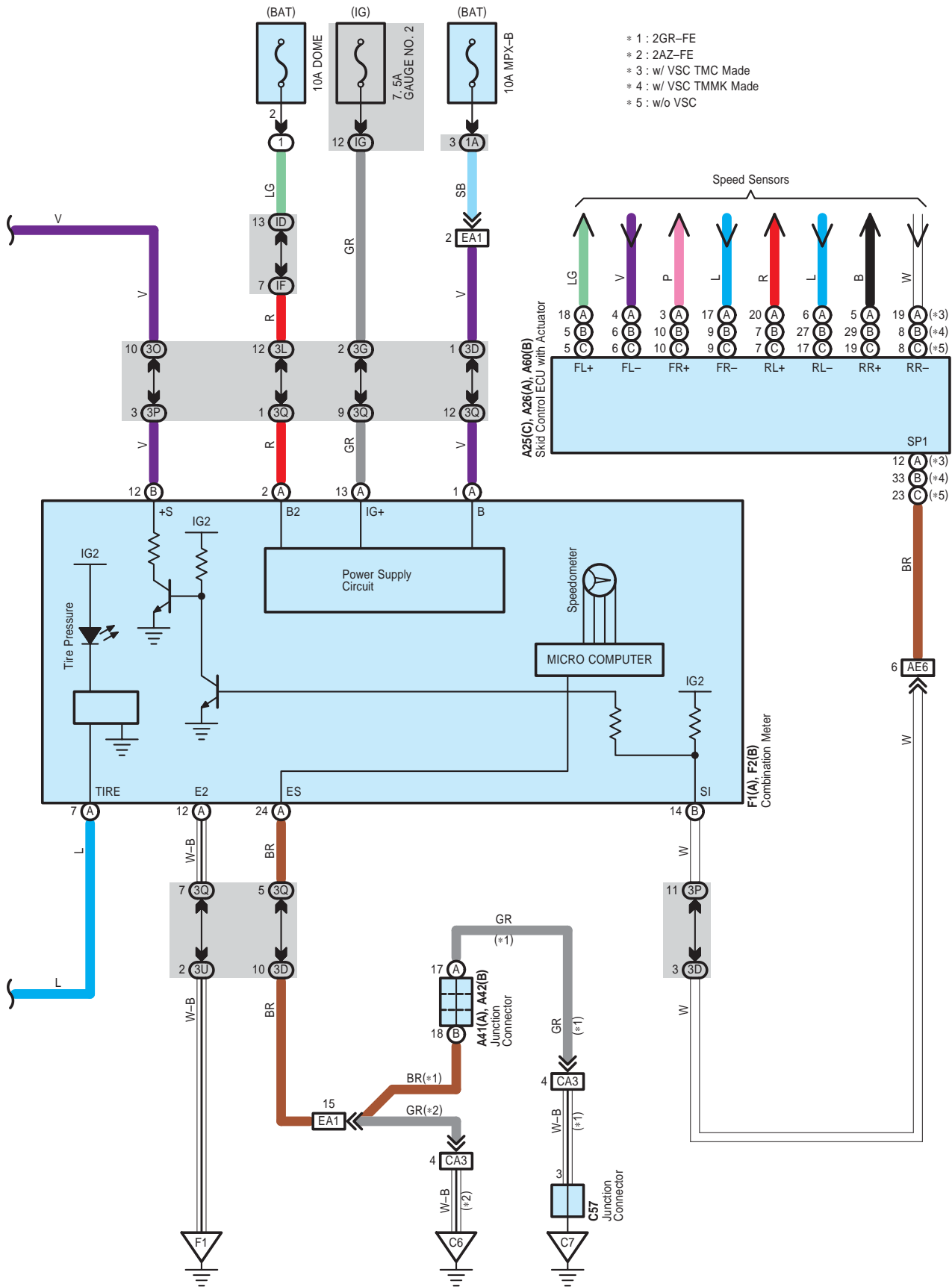
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE2	66	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
AE6	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
CA2	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
CA3	64 (2GR-FE)	
	65 (2AZ-FE)	
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
NA1	66	Floor Wire and Engine Room Main Wire (Left Kick Panel)
OA1	66	Floor No.2 Wire and Engine Room Main Wire (Right Kick Panel)
fO1	67	Skid Control Sensor Wire and Floor No.2 Wire (Quarter Wheel House Panel LH)
gN1	67	Skid Control Sensor Wire and Floor Wire (Quarter Wheel House Panel RH)

: Ground Points

Code	See Page	Ground Points Location
A4	64 (2GR-FE)	Near the Skid Control ECU with Actuator
	65 (2AZ-FE)	
A6	66	Right Cowl Side Panel
C4	65 (2AZ-FE)	Cylinder Block
C5	64 (2GR-FE)	Right Side of the Cylinder Block
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
F1	66	Instrument Panel Left

Tire Pressure Warning System





CAMRY (EM0250U)

Tire Pressure Warning System

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A25	C	48 (2GR-FE)	A60	B	49 (2GR-FE)	E60		57
		52 (2AZ-FE)			53 (2AZ-FE)	F1	A	58
A26	A	48 (2GR-FE)	C57		51 (2GR-FE)	F2	B	58
		52 (2AZ-FE)	E10		56	N34		60
A41	A	59	E49		57			
A42	B	59	E53		57			

○ : 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)
3C	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3D		
3G		
3H		
3L		
3N		
3O		
3P	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3Q		
3U		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IG	31	
IM	30	

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE6	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
CA3	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
EN2	66	Instrument Panel Wire and Floor Wire (Left Kick Panel)

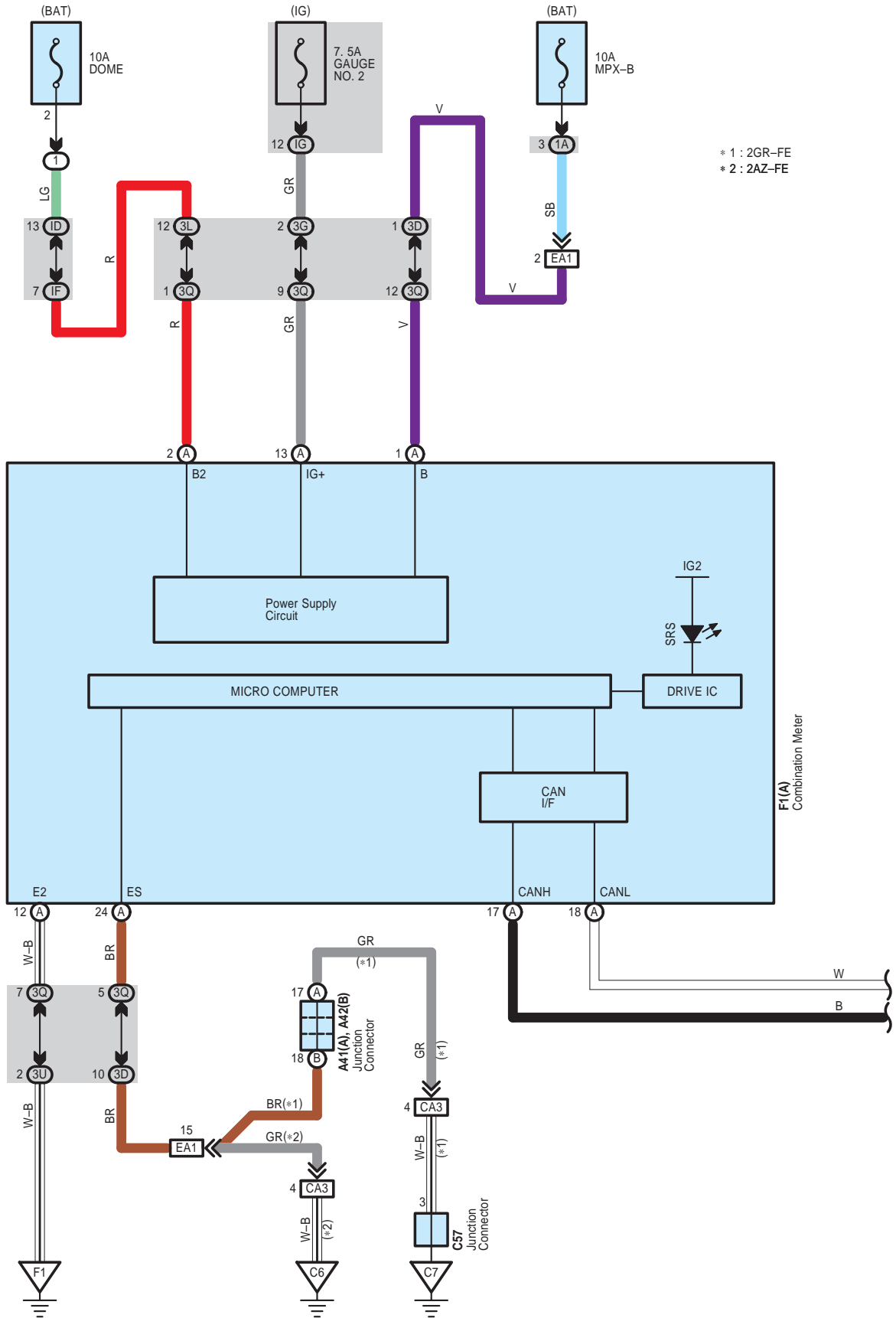
▽ : Ground Points

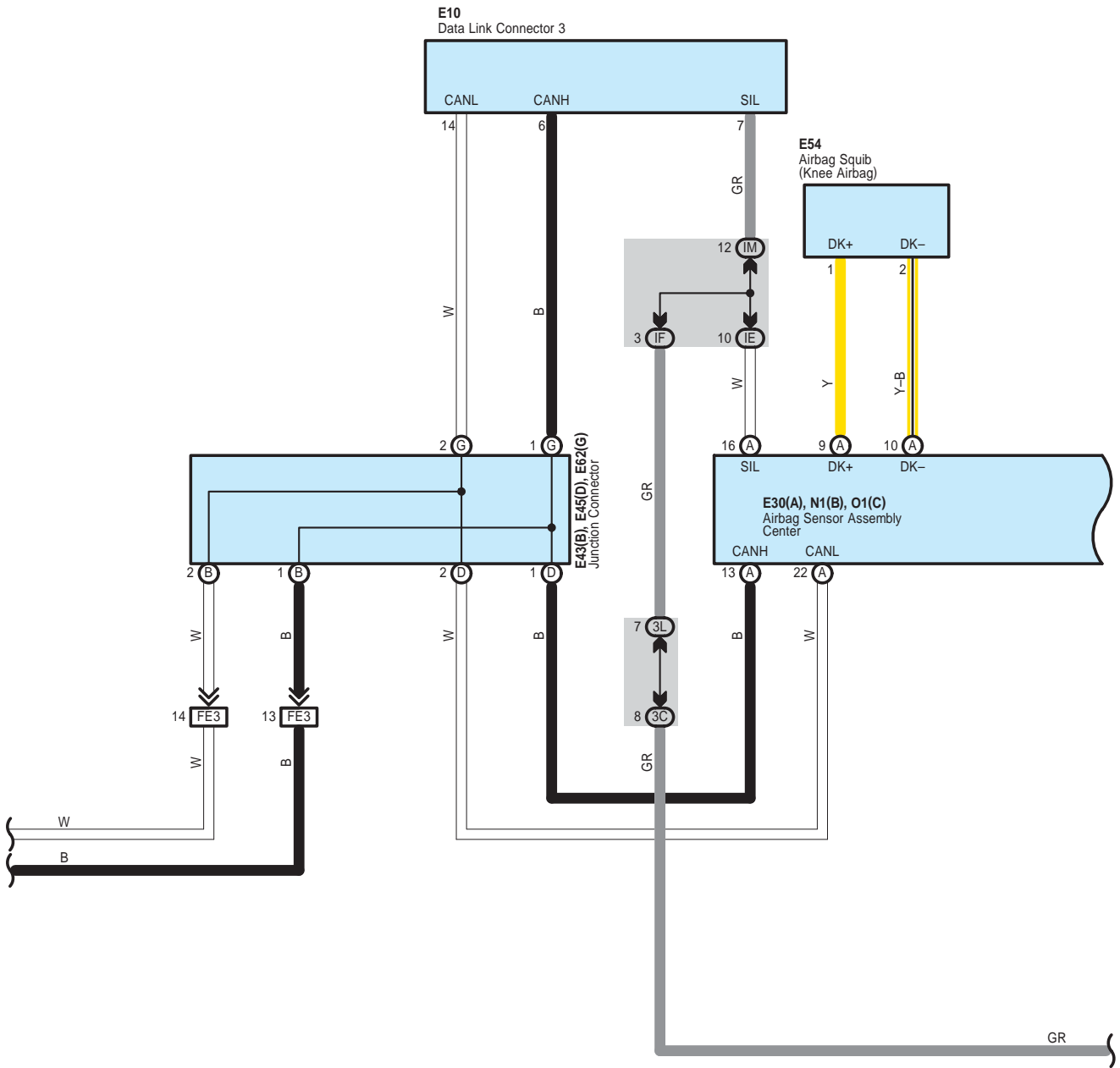
Code	See Page	Ground Points Location
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left

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

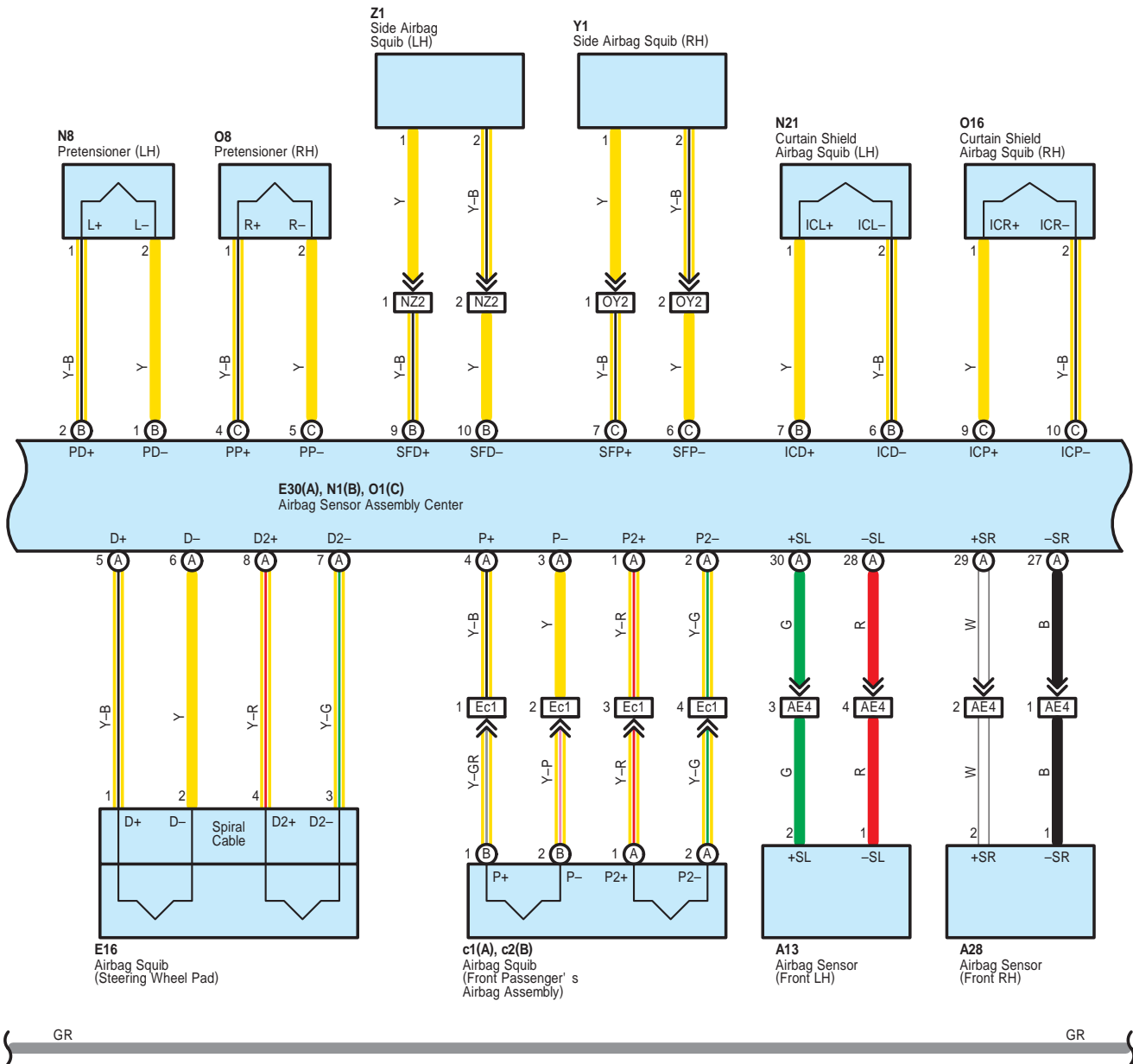
- Malfunction symptoms of the SRS are difficult to confirm, so the DTCs become the most important source of information when troubleshooting. When troubleshooting the SRS, always inspect the DTCs before disconnecting the battery.
- **Work must be started more than 90 seconds after the ignition SW is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

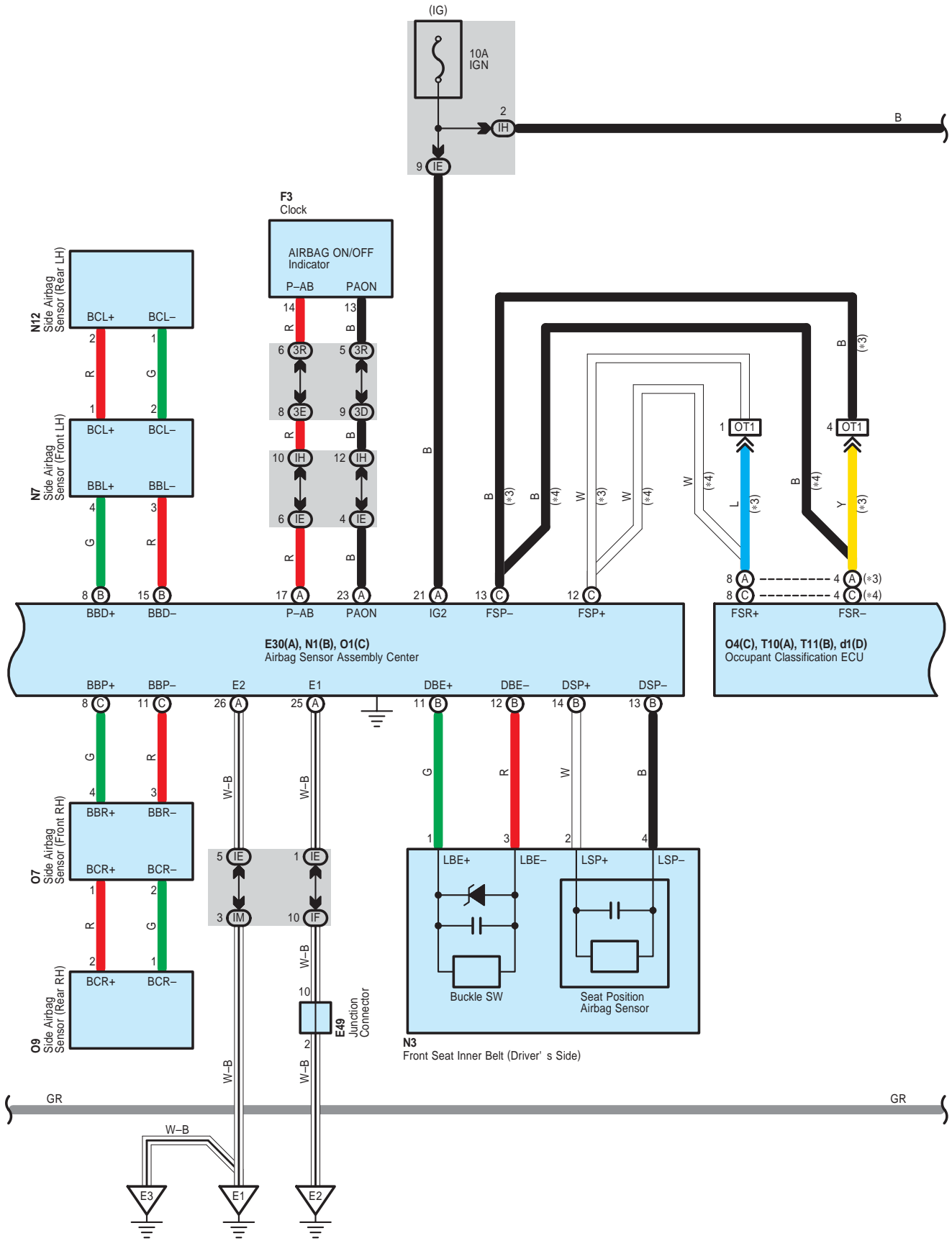
- * Steering wheel pad
- * Front passenger airbag assembly
- * Side airbag assembly
- * Curtain shield airbag assembly
- * Knee airbag assembly
- * Seat belt pretensioner
- * Center airbag sensor assembly
- * Front airbag sensor assembly
- * Side airbag sensor assembly
- * Rear airbag sensor assembly

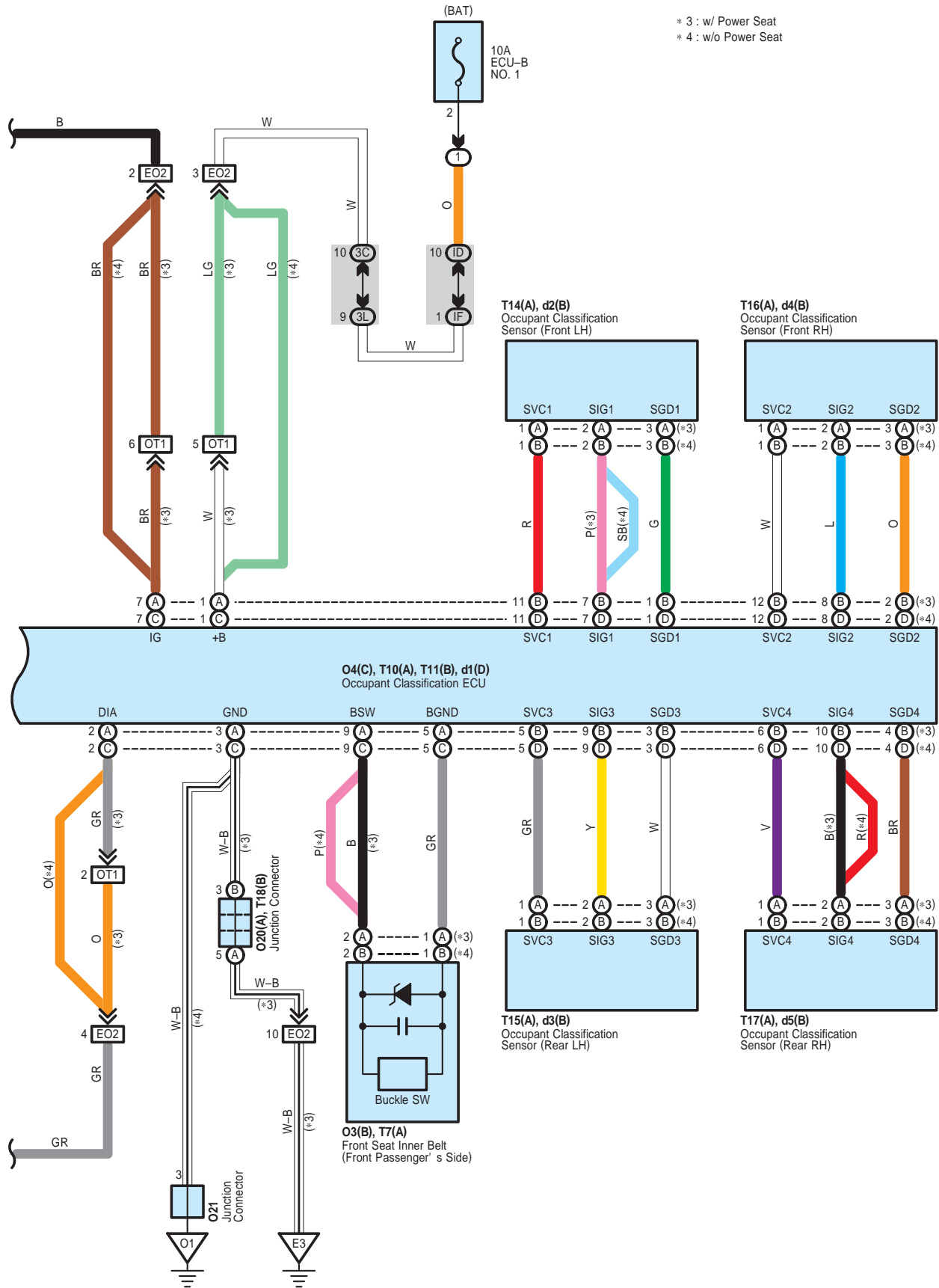




* 3 : w/ Power Seat
 * 4 : w/o Power Seat







System Outline

- * The system reaches an ignition judgment to deploy the following device based on the signals received from the front airbag sensor and deceleration sensor.
 - Driver Airbag
 - Front Passenger Airbag
 - Knee Airbag
 - Seat Belt Pretensioner
- * The system reaches an ignition judgment to deploy the following device based on the signals received from the side airbag sensors.
 - Side Airbags
 - Curtain Shield Airbags
- * The dual-stage SRS airbag system has been used for the driver and front passenger airbags. This system controls the optimal airbag inflation by judging the extent of impact, seat position (driver seat) and whether or not the seat belt is fastened(driver seat) and information from the Front Passenger Occupant Classification System.
- * The front passenger occupant classification system judges whether the front passenger seat is occupied by an adult or child (with child seat) or is unoccupied, according to the load applied to the front passenger seat and whether the seat belt is buckled. Based on the results, it restricts the deployment of the front passenger airbag, front passenger side airbag, and front passenger seat belt pretensioner. In addition, the system informs the driver of the result of the judgment through the use of the AIRBAG ON/OFF indicator lights.


○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A13	48 (2GR-FE)	N3	62 (*1)	T14	A 62 (*1)
	52 (2AZ-FE)		63 (*2)	T15	A 62 (*1)
A28	48 (2GR-FE)	N7	60	T16	A 62 (*1)
	52 (2AZ-FE)	N8	60	T17	A 62 (*1)
A41	A 59	N12	60	T18	B 62 (*1)
A42	B 59	N21	60	Y1	62 (*1)
C57	51 (2GR-FE)	O1	C 59		63 (*2)
E10	56	O3	B 63 (*2)	Z1	62 (*1)
E16	56	O4	C 63 (*2)		63 (*2)
E30	A 56	O7	60	c1	A 59
E43	B 57	O8	60	c2	B 59
E45	D 57	O9	60	d1	D 63 (*2)
E49	57	O16	60	d2	B 63 (*2)
E54	57	O20	A 62 (*1)	d3	B 63 (*2)
E62	G 57	O21	60	d4	B 63 (*2)
F1	A 58	T7	A 62 (*1)	d5	B 63 (*2)
F3	58	T10	A 62 (*1)		
N1	B 59	T11	B 62 (*1)		

○ : Relay Blocks

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

* 1 : w/ Power Seat * 2 : w/o Power Seat

 : 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)
3C	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3D		
3E		
3G		
3L		
3Q	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3R		
3U		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IE	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IF		
IG	31	
IH		
IM	30	

 : Connector Joining Wire Harness and Wire Harness

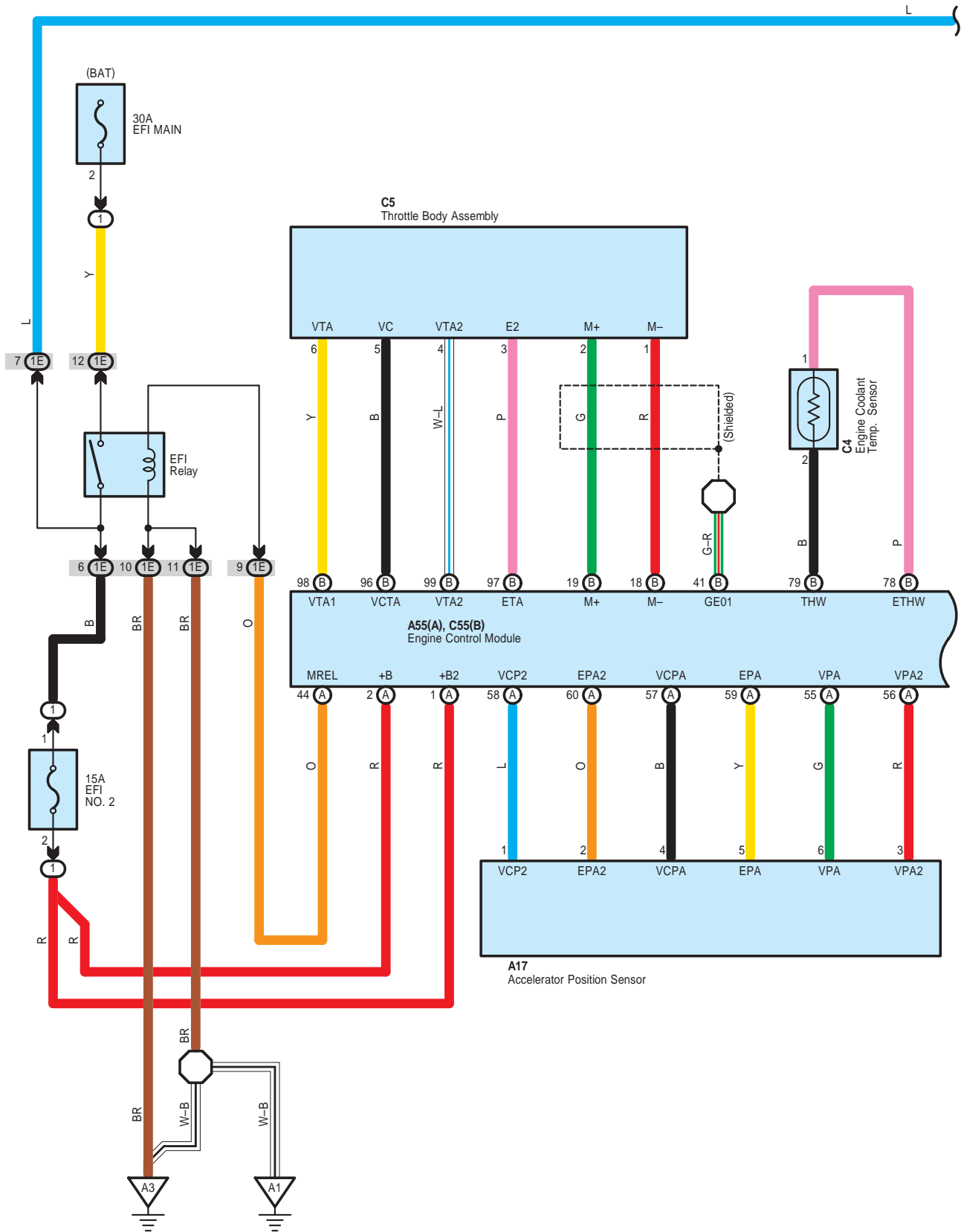
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE4	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
CA3	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
EO2	66	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
Ec1	66	Instrument Panel Wire and Instrument Panel Wire Assembly (Behind The Glove Box)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
NZ2	68 (*1)	Floor Wire and Front Seat Airbag Assembly LH (Under the Driver's Seat)
	69 (*2)	
OT1	68 (*1)	Floor No.2 Wire and Front Seat RH Wire (Under the Front Passenger's Seat)
OY2	68 (*1)	Floor No.2 Wire and Front Seat Airbag Assembly RH (Under the Front Passenger's Seat)
	69 (*2)	

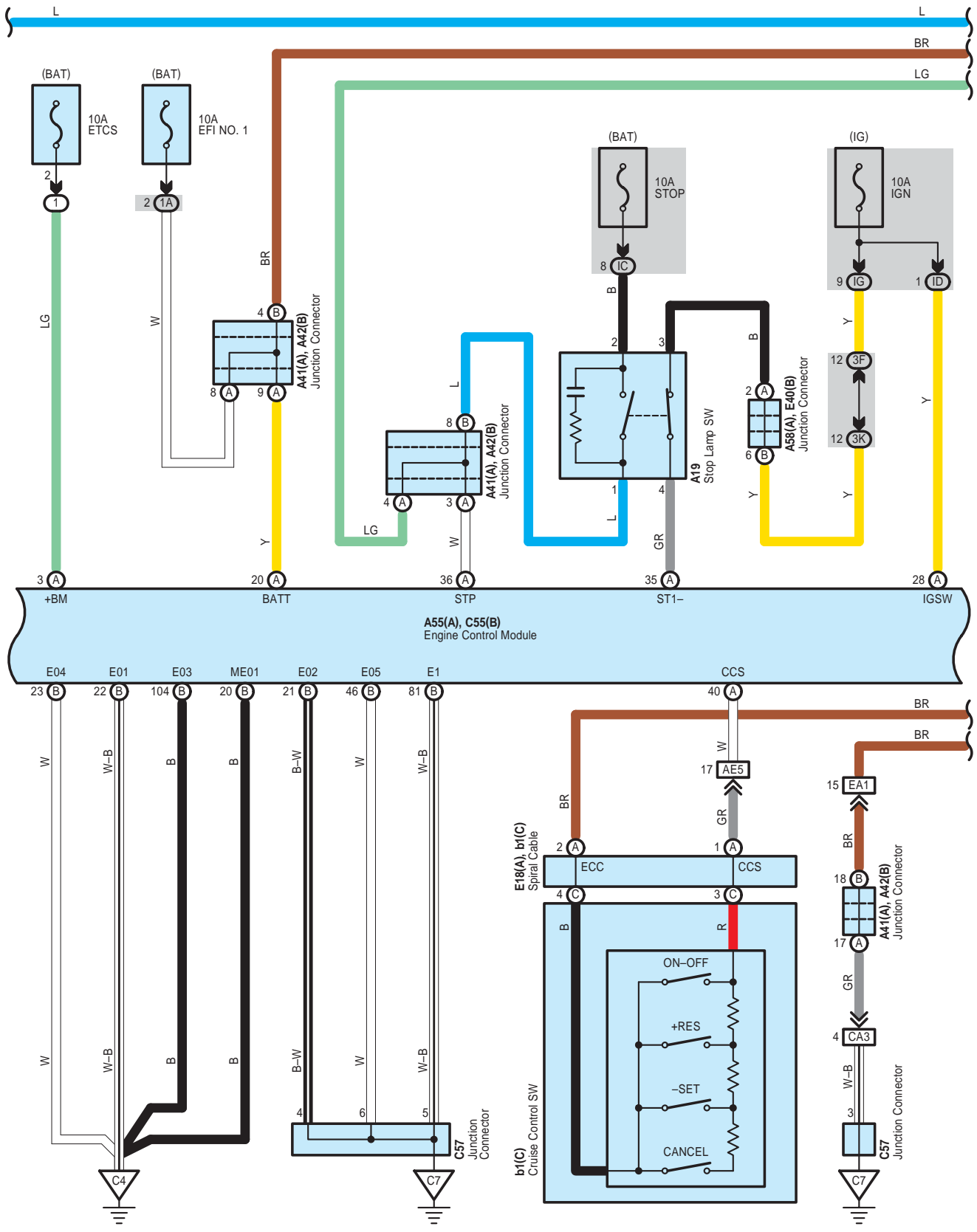
 : Ground Points

Code	See Page	Ground Points Location
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
E1	66	Instrument Panel Left
E2	66	Instrument Panel Brace LH
E3	66	Instrument Panel Right
F1	66	Instrument Panel Left
O1	67	Right Rear Quarter Panel

* 1 : w/ Power Seat * 2 : w/o Power Seat

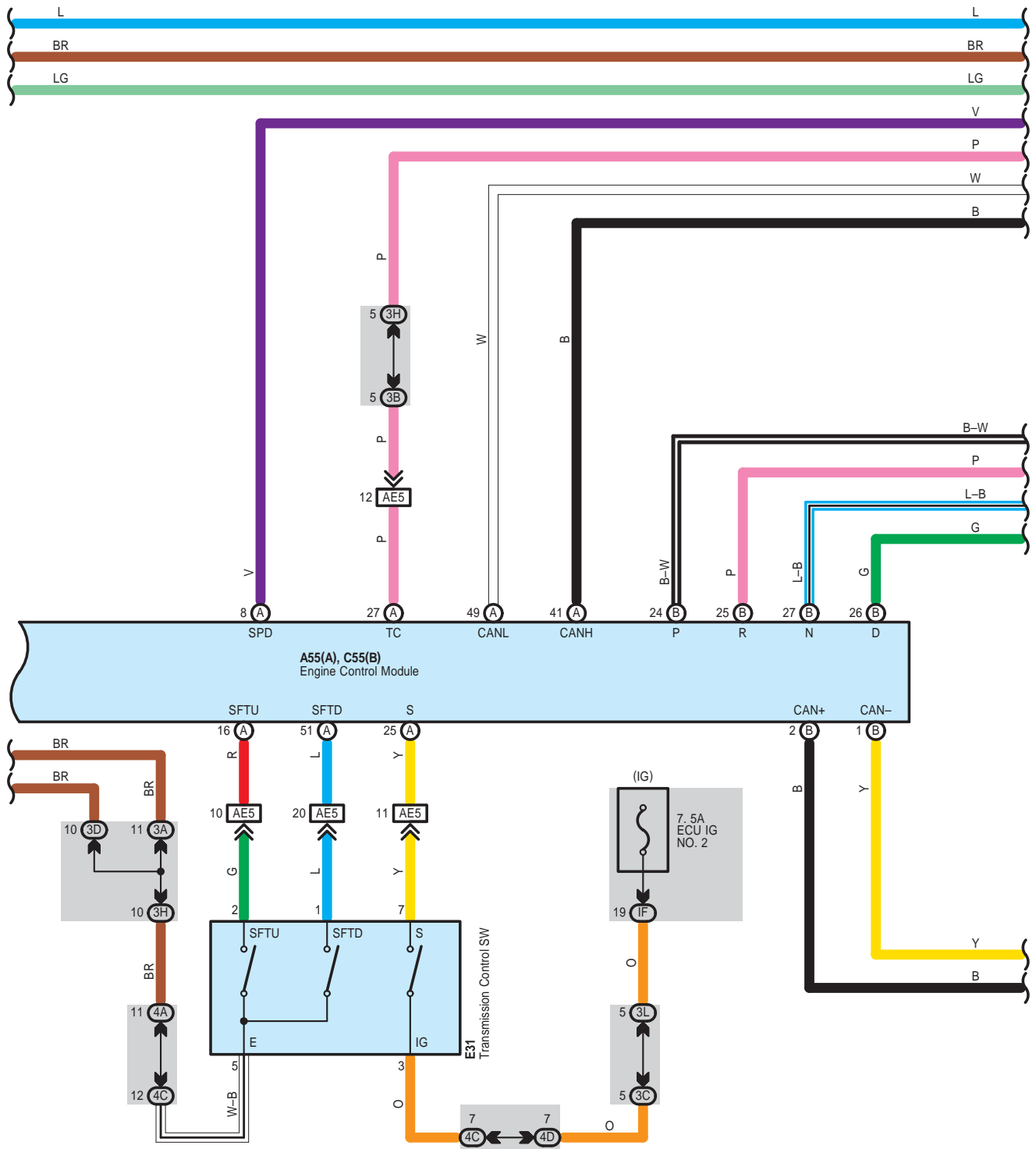
Cruise Control for 2GR-FE

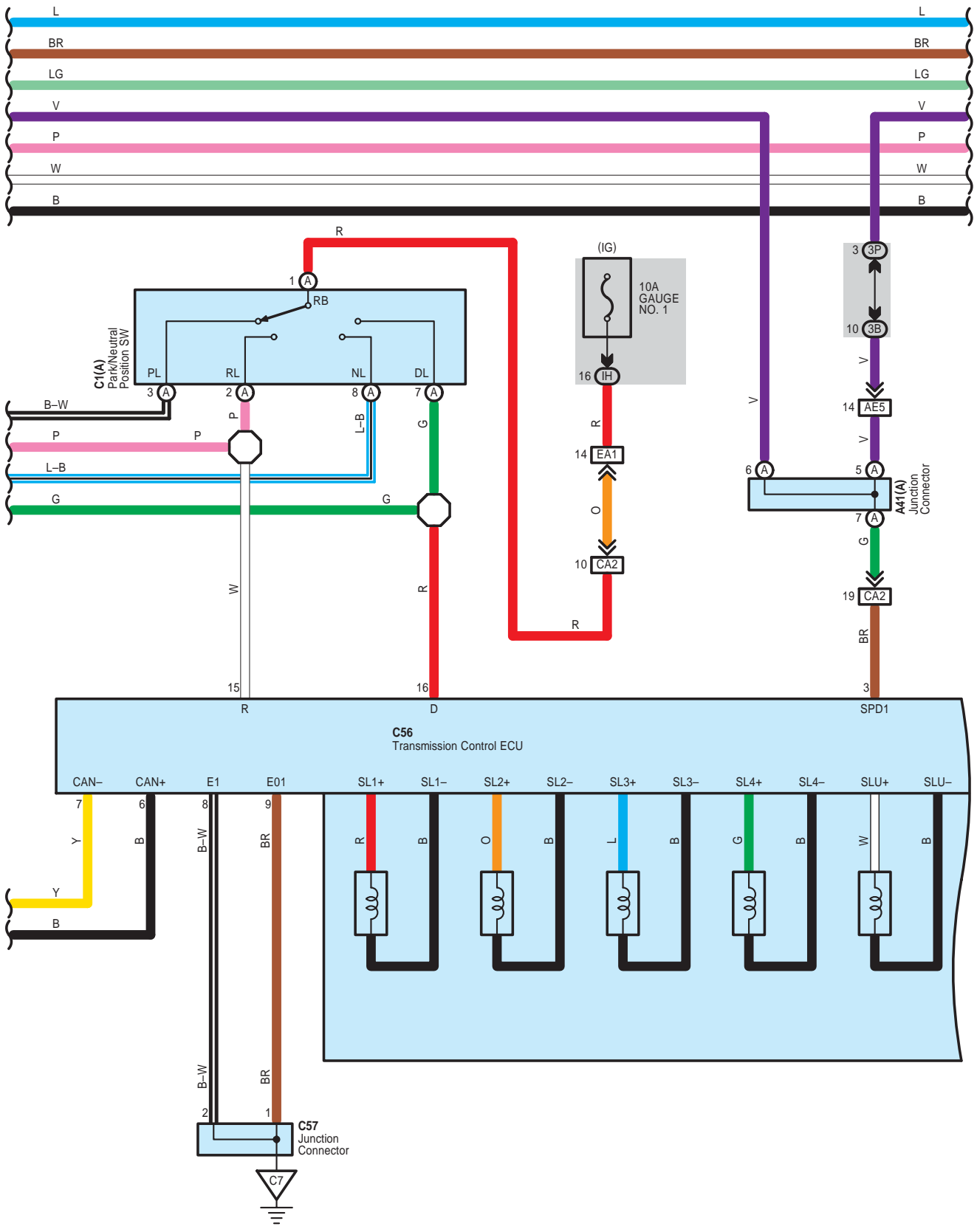




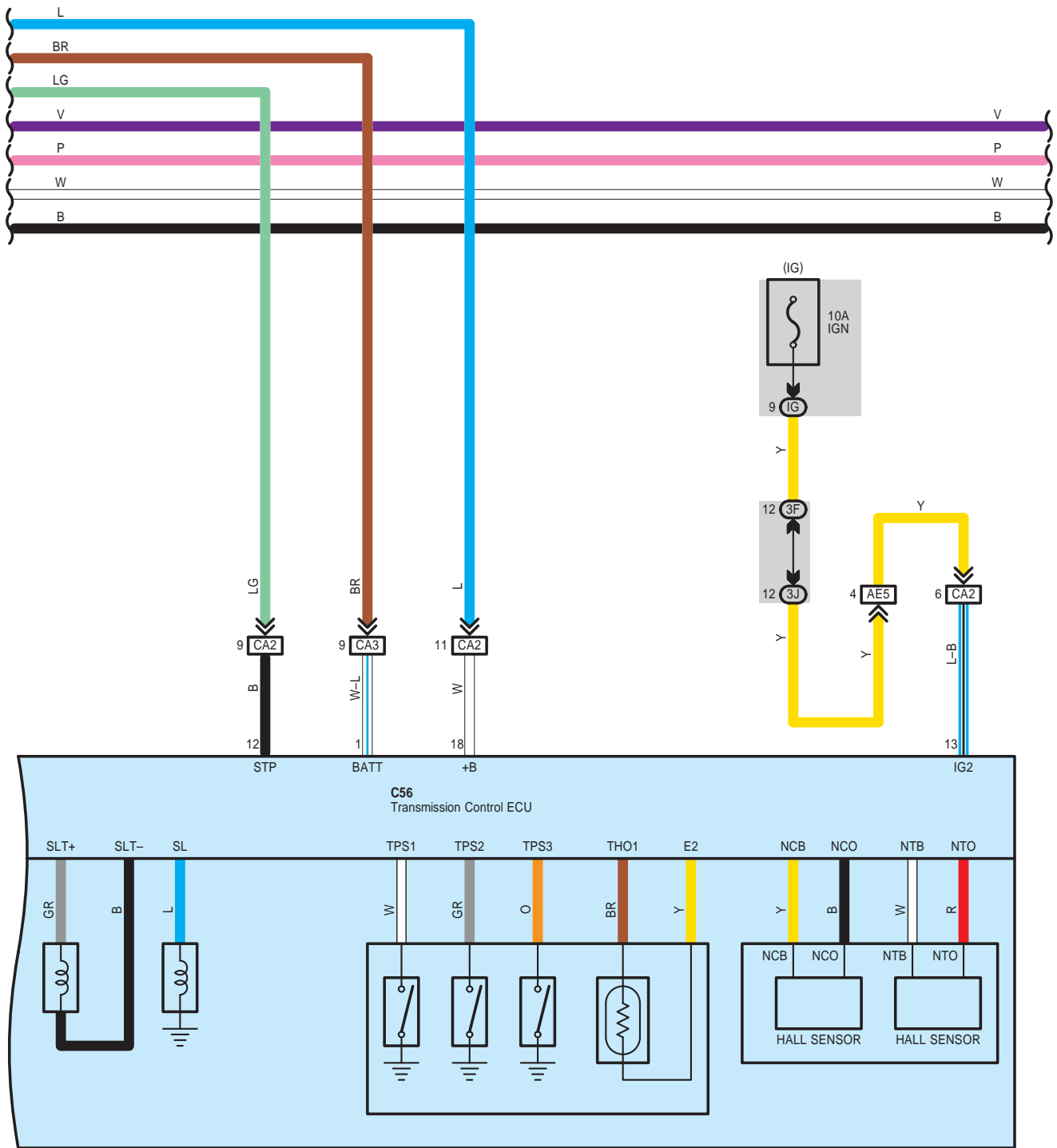
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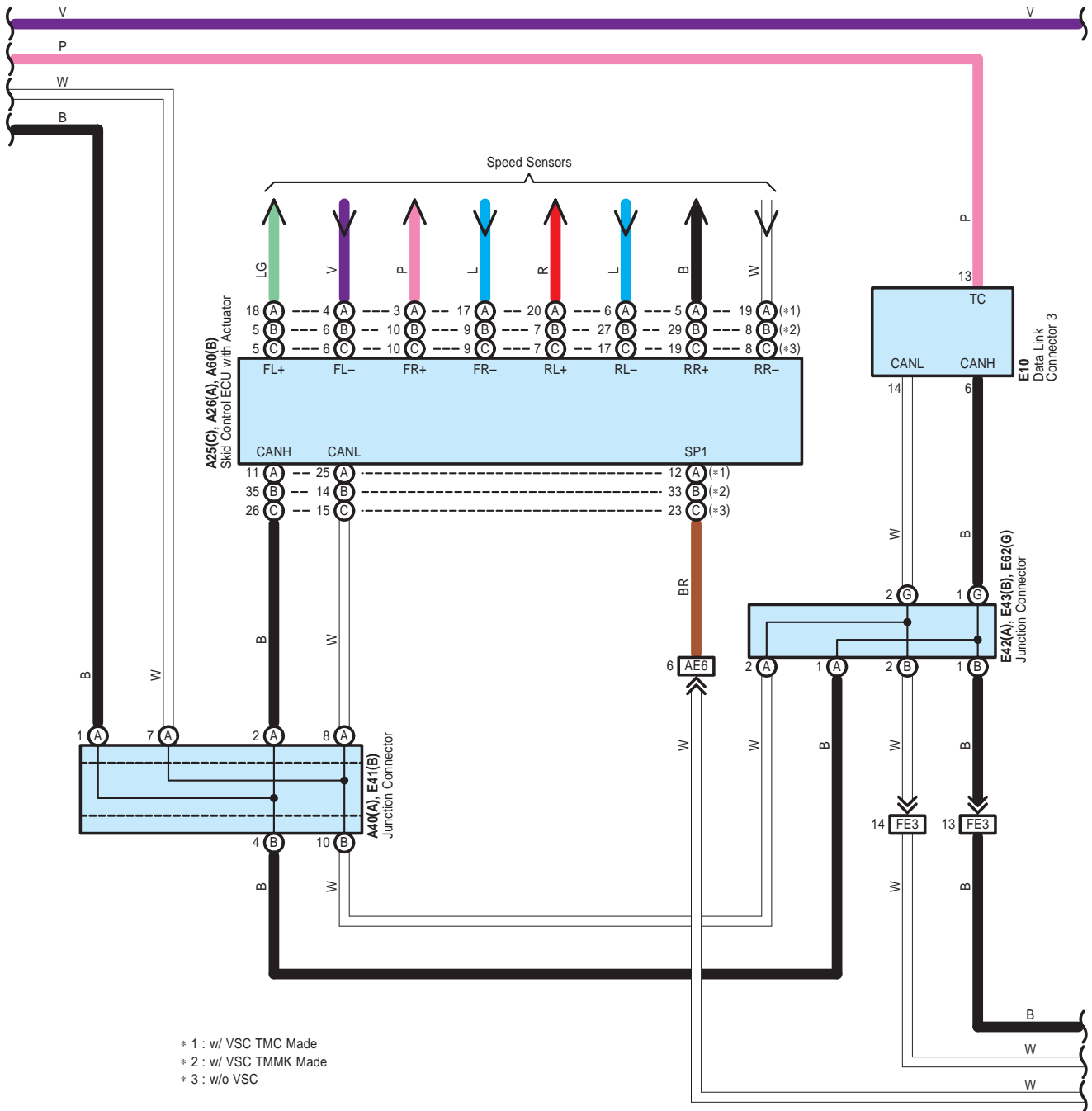
Cruise Control for 2GR-FE





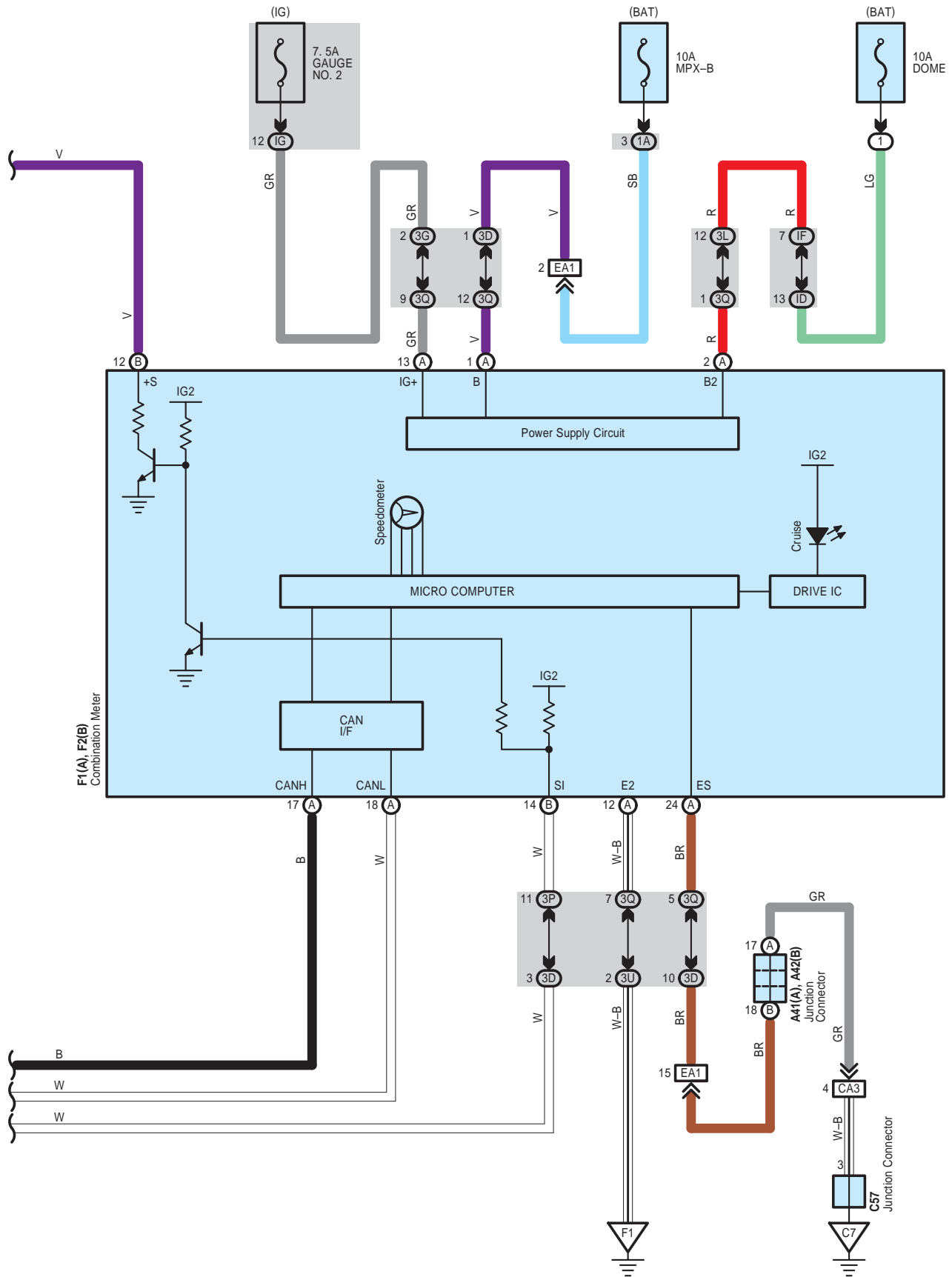
Cruise Control for 2GR-FE





- * 1 : w/ VSC TMC Made
- * 2 : w/ VSC TMMK Made
- * 3 : w/o VSC

Cruise Control for 2GR-FE



System Outline

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

Set Operation

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

Set Speed Control

When the - SET SW is operated with the ON-OFF SW turned on during driving, the speed is controlled at a constant speed.

Coast Control

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

Every time the - SET SW is turned on instantaneously, the vehicle speed is decelerated by approx. 1.6 km/h.

Accel Control

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

Every time the + RES SW is turned on instantaneously, the vehicle speed is accelerated by approx. 1.6 km/h.

Resume Control

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

Manual Cancel Mechanism

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

- * The stop light SW is on
- * The CANCEL SW is turned on
- * The ON-OFF SW is turned off
- * When switching from ON to OFF of "D" position circuit in neutral start switch.

When the transmission is shifted from "D" to "N".

When the transmission is shifted from 5, 4 to 3, 2, 1 in S mode.

Auto Cancel Function

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

- * Failure in the stop light SW wiring
- * Abnormality in the vehicle speed signal
- * Malfunction in the electronically controlled throttle parts
- * When the vehicle speed gets slower than the low speed limit.
- * When the vehicle speed falls to 16 km/h less than the set speed.

Overdrive Function

The overdrive may be canceled if the vehicle travels on a upward slope during cruise control driving. When the throttle opening information indicates the hill climbing is finished after the overdrive is canceled, the vehicle returns to overdrive mode again as the overdrive return timer is completed.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A17	59	A60	B 49 (2GR-FE)	E31	56
A19	59	C1	A 50 (2GR-FE)	E40	B 57
A25	C 48 (2GR-FE)	C4	50 (2GR-FE)	E41	B 57
A26	A 48 (2GR-FE)	C5	50 (2GR-FE)	E42	A 57
A40	A 59	C55	B 51 (2GR-FE)	E43	B 57
A41	A 59	C56	51 (2GR-FE)	E62	G 57
A42	B 59	C57	51 (2GR-FE)	F1	A 58
A55	A 49 (2GR-FE)	E10	56	F2	B 58
A58	A 59	E18	A 56	b1	C 59

○ : Relay Blocks

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

Cruise Control for 2GR-FE

: 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)
1E		
3A	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3B		
3C		
3D		
3F		
3G		
3H		
3J		
3K		
3L		
3P	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3Q		
3U		
4A	42	Instrument Panel Wire and J/B No.4 (Instrument Panel Brace Center)
4C		
4D		
IC	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
ID	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	
IG	31	
IH		

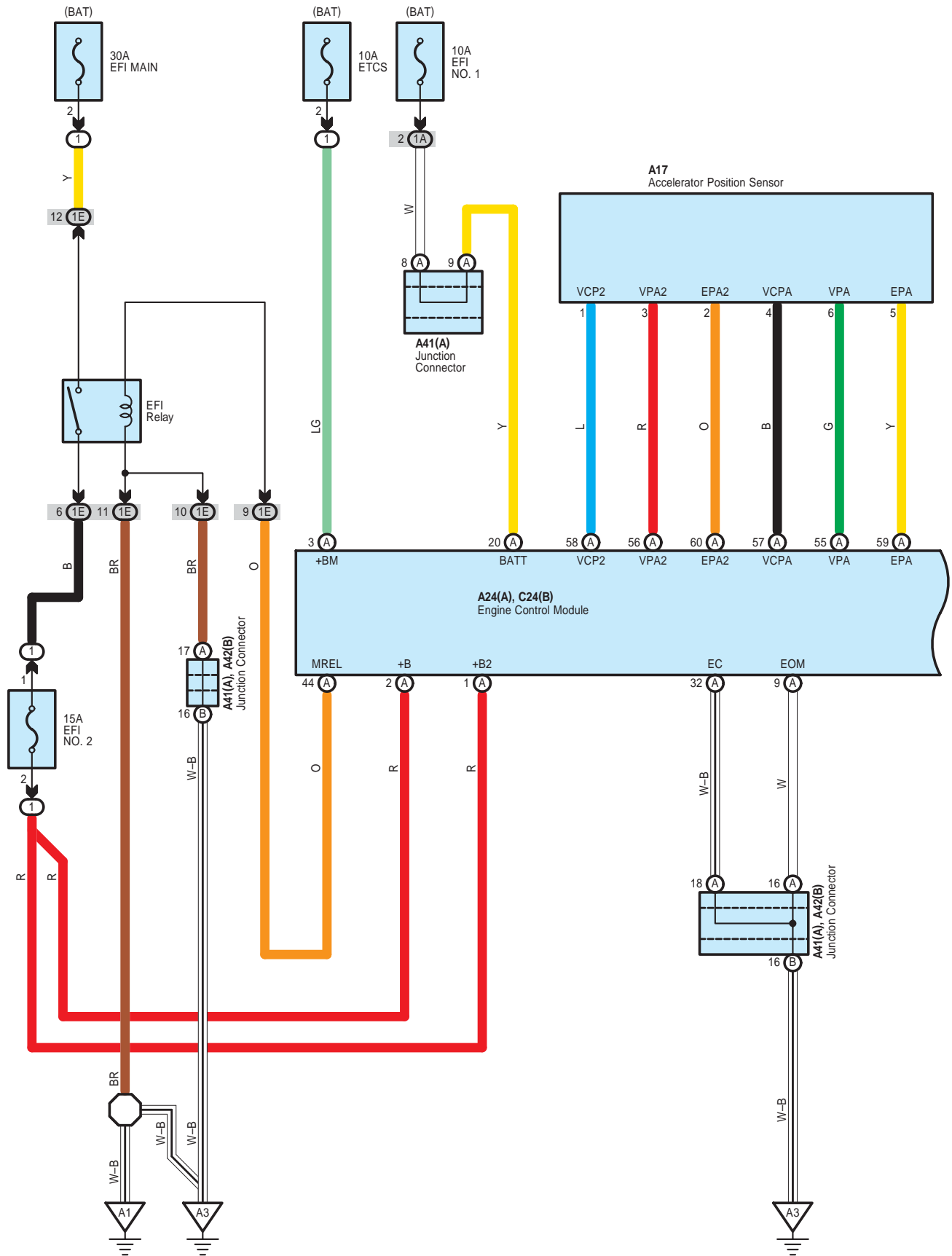
: Connector Joining Wire Harness and Wire Harness

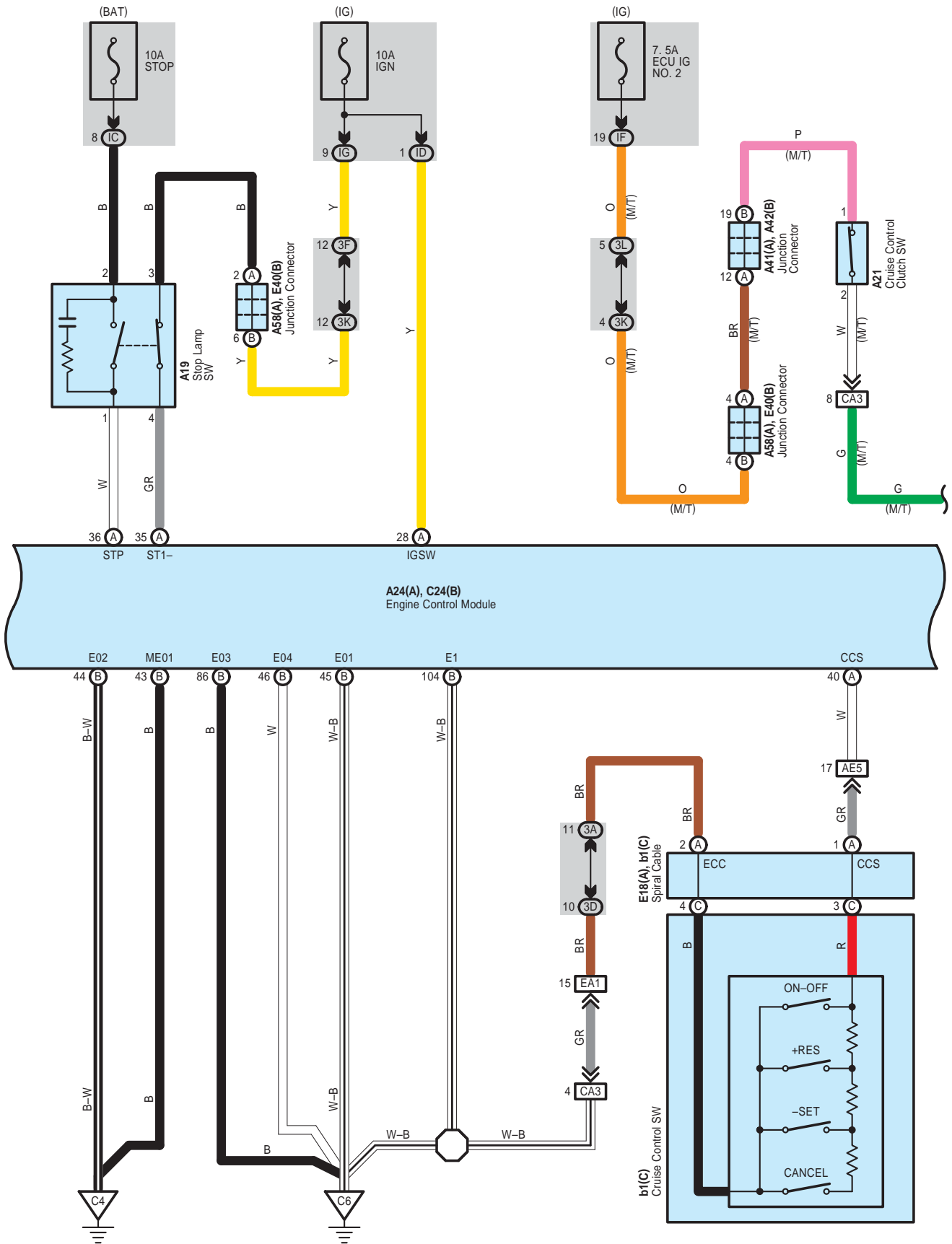
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE5	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
AE6		
CA2	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
CA3		
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)

: Ground Points

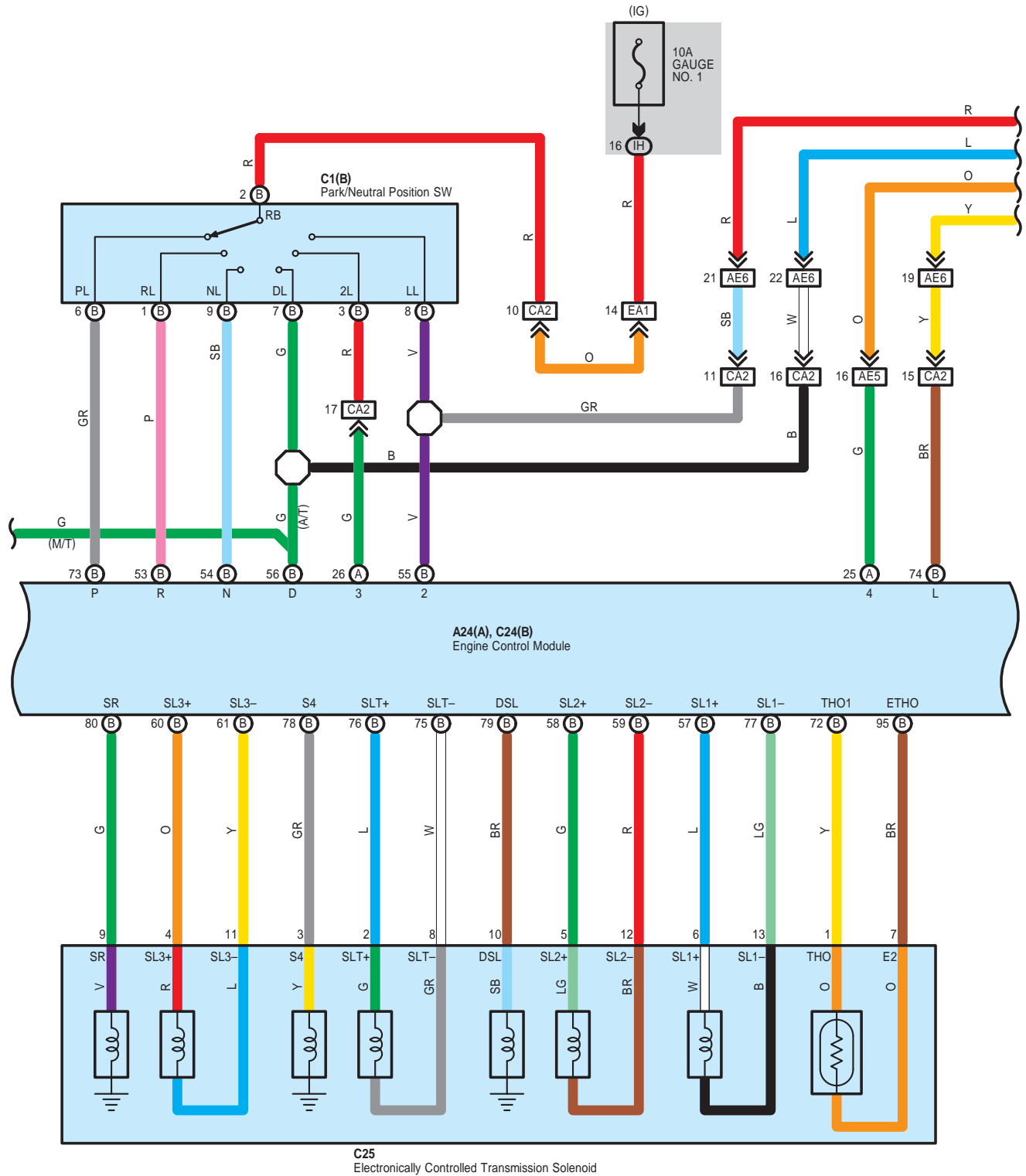
Code	See Page	Ground Points Location
A1	64 (2GR-FE)	Front Left Fender
A3	66	Left Cowl Side Panel
C4	64 (2GR-FE)	Cylinder Head
C7	64 (2GR-FE)	Left Side of the Cylinder Block
F1	66	Instrument Panel Left

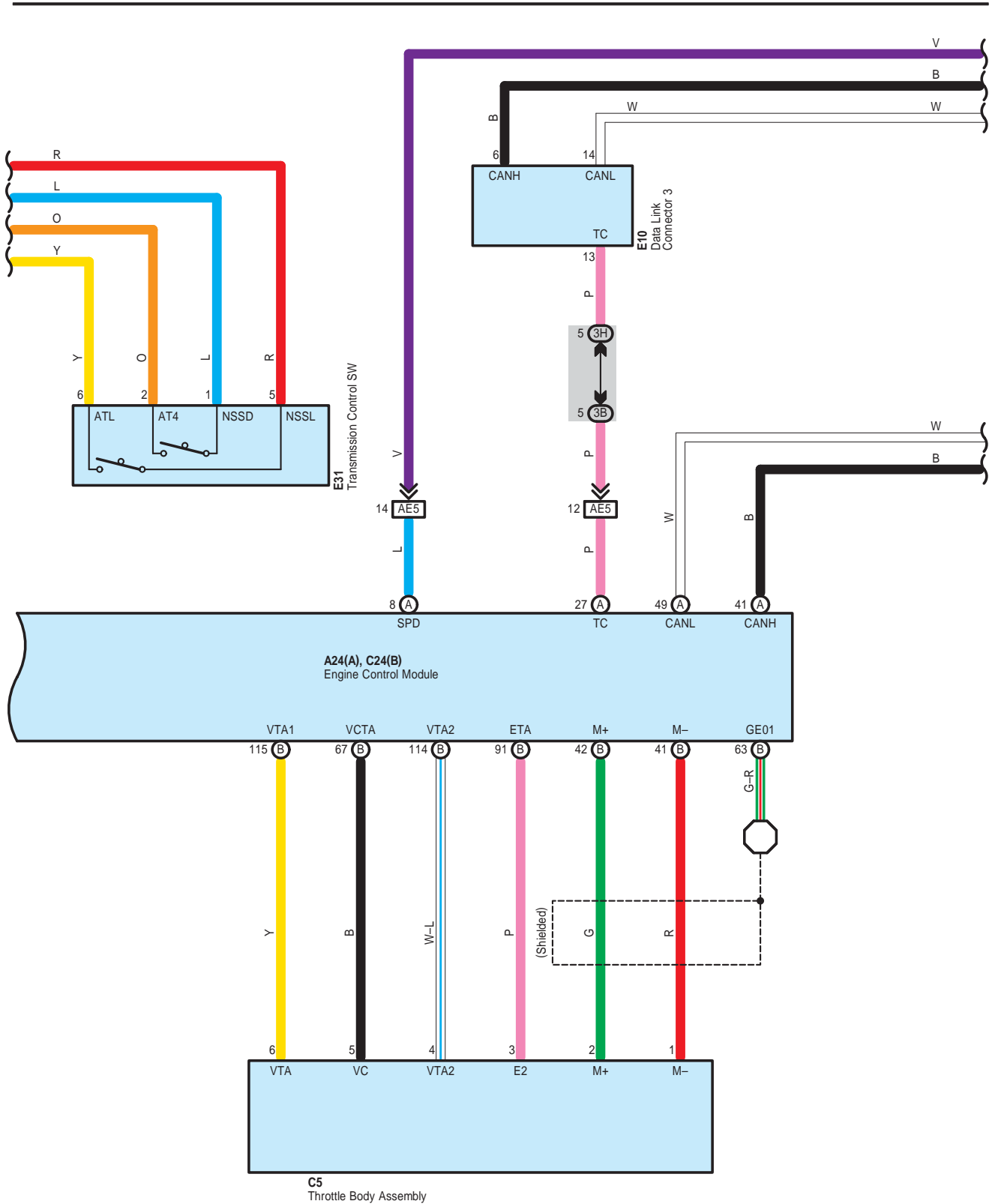
Cruise Control for 2AZ-FE



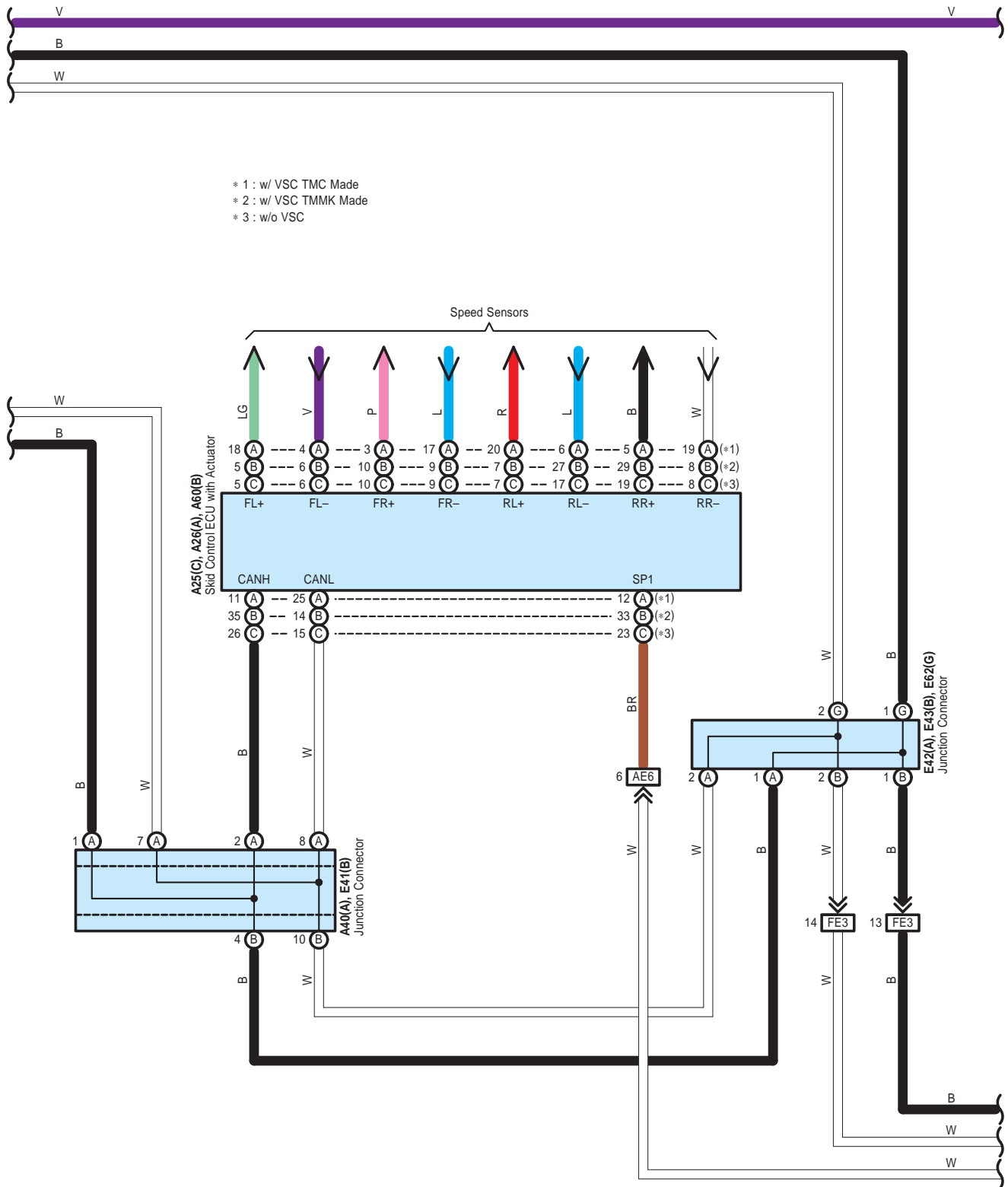


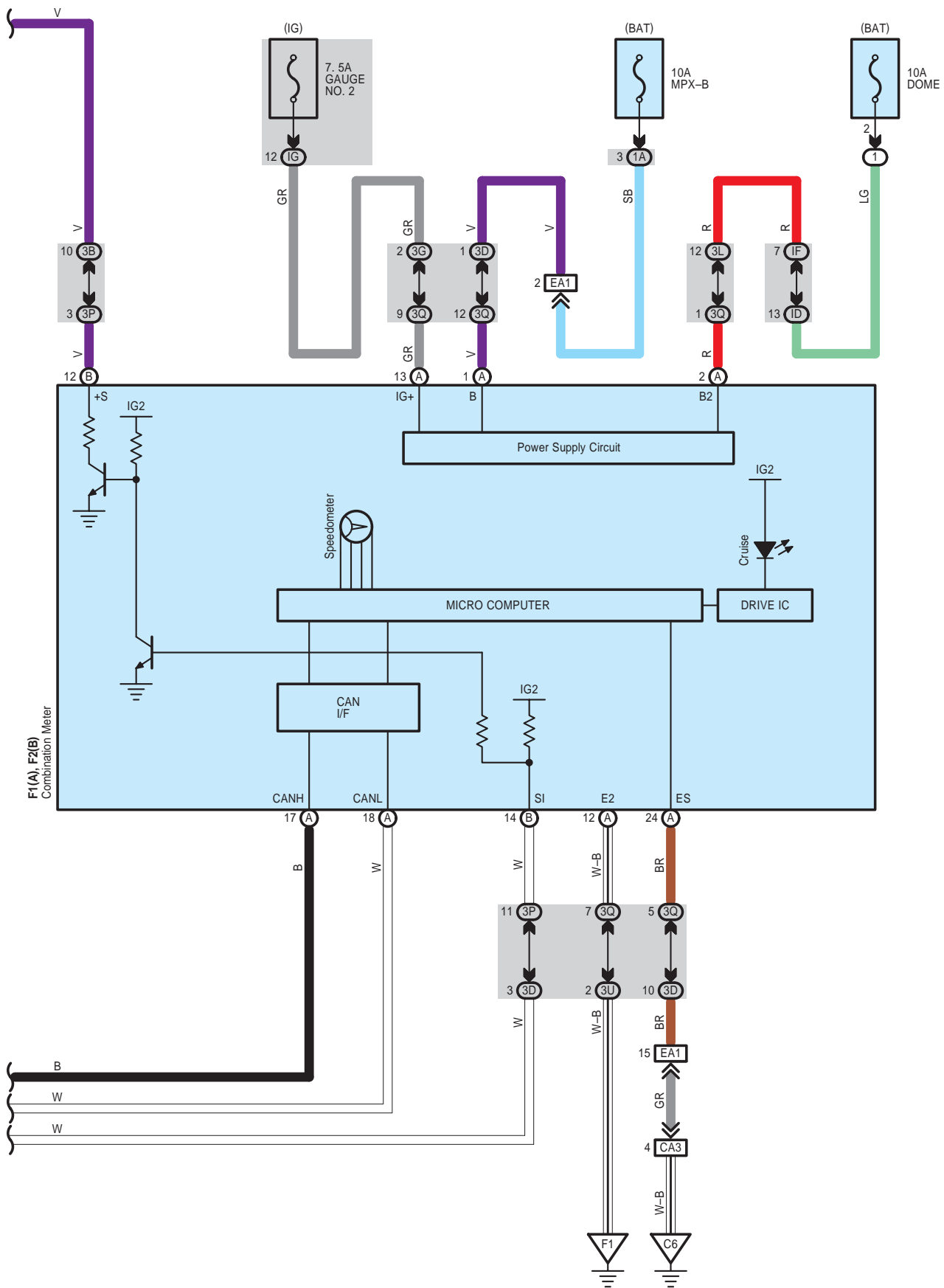
Cruise Control for 2AZ-FE





Cruise Control for 2AZ-FE





Cruise Control for 2AZ-FE

System Outline

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

Set Operation

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

Set Speed Control

When the - SET SW is operated with the ON-OFF SW turned on during driving, the speed is controlled at a constant speed.

Coast Control

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

Every time the - SET SW is turned on instantaneously, the vehicle speed is decelerated by approx. 1.6 km/h.

Accel Control

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

Every time the + RES SW is turned on instantaneously, the vehicle speed is accelerated by approx. 1.6 km/h.

Resume Control

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

Manual Cancel Mechanism

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

- * The stop light SW is on
- * The CANCEL SW is turned on
- * The ON-OFF SW is turned off
- * Gear is shifted D position to other positions than D. (A/T)
- * The clutch pedal is depressed. (M/T)

Auto Cancel Function

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

- * Failure in the stop light SW wiring
- * Abnormality in the vehicle speed signal
- * Malfunction in the electronically controlled throttle parts
- * When the vehicle speed gets slower than the low speed limit.
- * When the vehicle speed falls to 16 km/h less than the set speed.

Overdrive Function

The overdrive may be canceled if the vehicle travels on a upward slope during cruise control driving. When the throttle opening information indicates the hill climbing is finished after the overdrive is canceled, the vehicle returns to overdrive mode again as the overdrive return timer is completed.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page			
A17	59	A58	A	59	E40	B	57	
A19	59	A60	B	53 (2AZ-FE)	E41	B	57	
A21	59	C1	B	54 (2AZ-FE)	E42	A	57	
A24	A	52 (2AZ-FE)	C5	54 (2AZ-FE)	E43	B	57	
A25	C	52 (2AZ-FE)	C24	B	55 (2AZ-FE)	E62	G	57
A26	A	52 (2AZ-FE)	C25	55 (2AZ-FE)	F1	A	58	
A40	A	59	E10	56	F2	B	58	
A41	A	59	E18	A	56	b1	C	59
A42	B	59	E31	56				

○ : 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)
1E		
3A	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3B		
3D		
3F		
3G		
3H		
3K		
3L		
3P	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3Q		
3U		
IC	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IG	31	
IH		

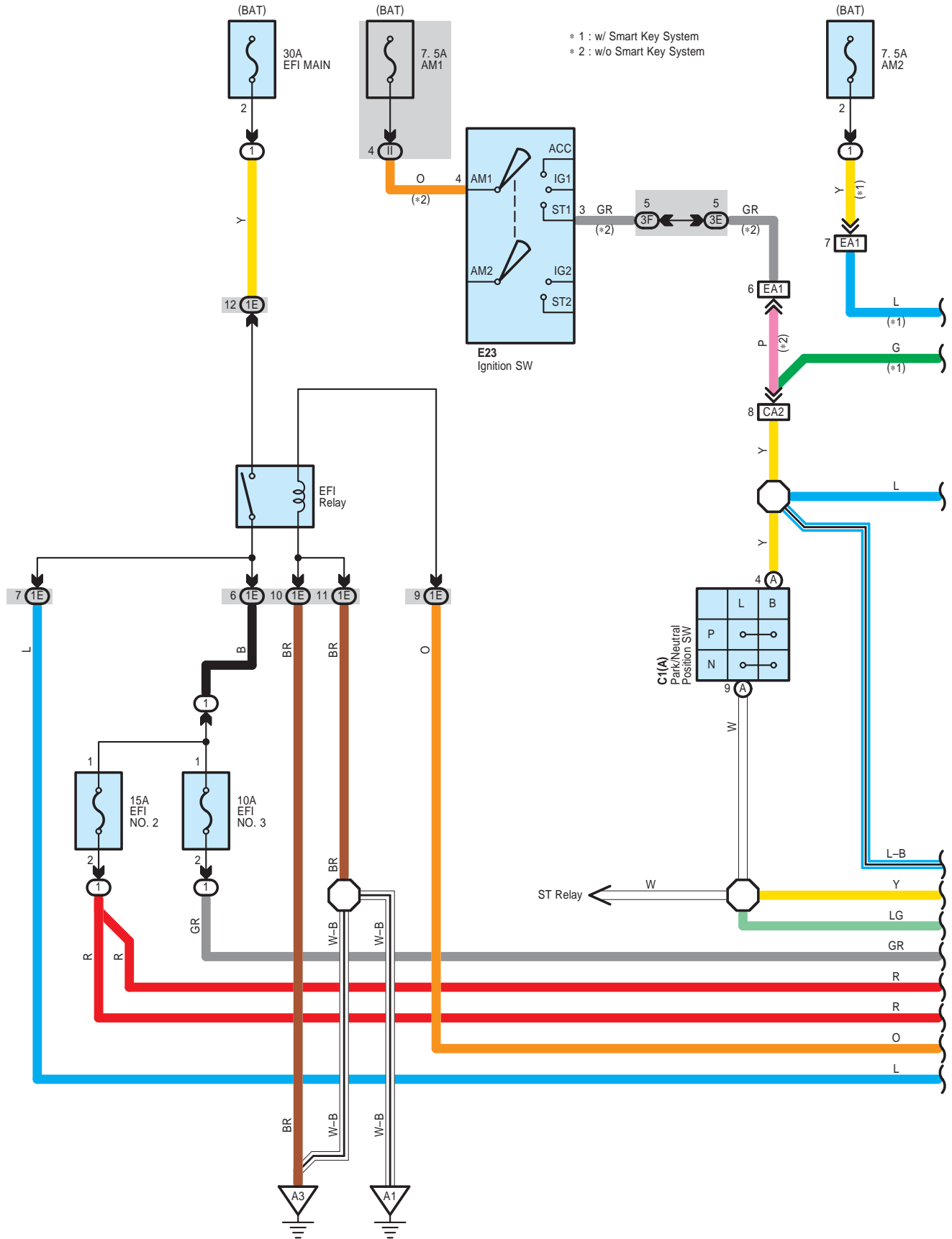
 : Connector Joining Wire Harness and Wire Harness

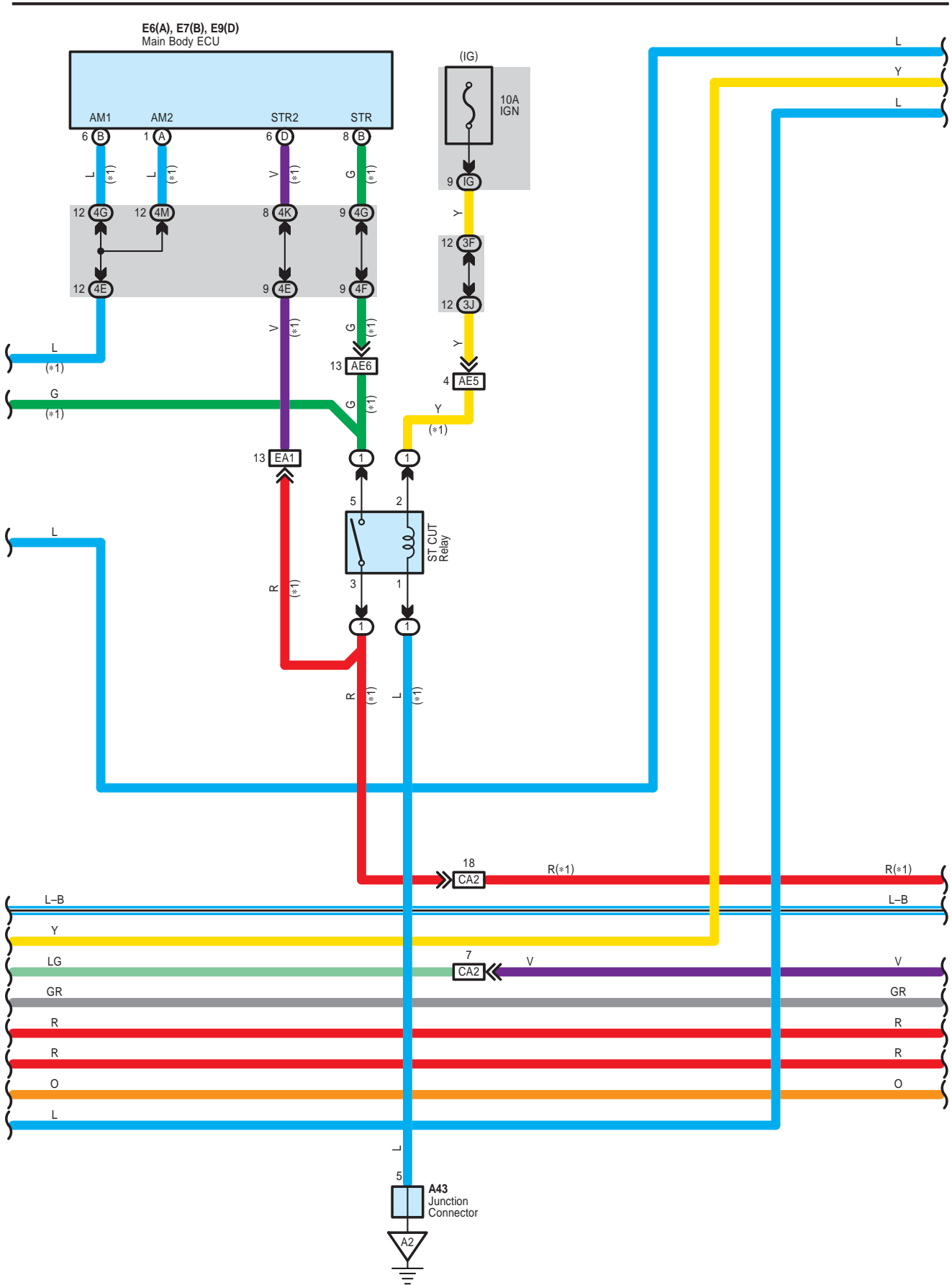
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE5	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
AE6		
CA2	65 (2AZ-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
CA3		
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)

 : Ground Points

Code	See Page	Ground Points Location
A1	65 (2AZ-FE)	Front Left Fender
A3	66	Left Cowl Side Panel
C4	65 (2AZ-FE)	Cylinder Block
C6		
F1	66	Instrument Panel Left

ECT and A/T Indicator for 2GR-FE



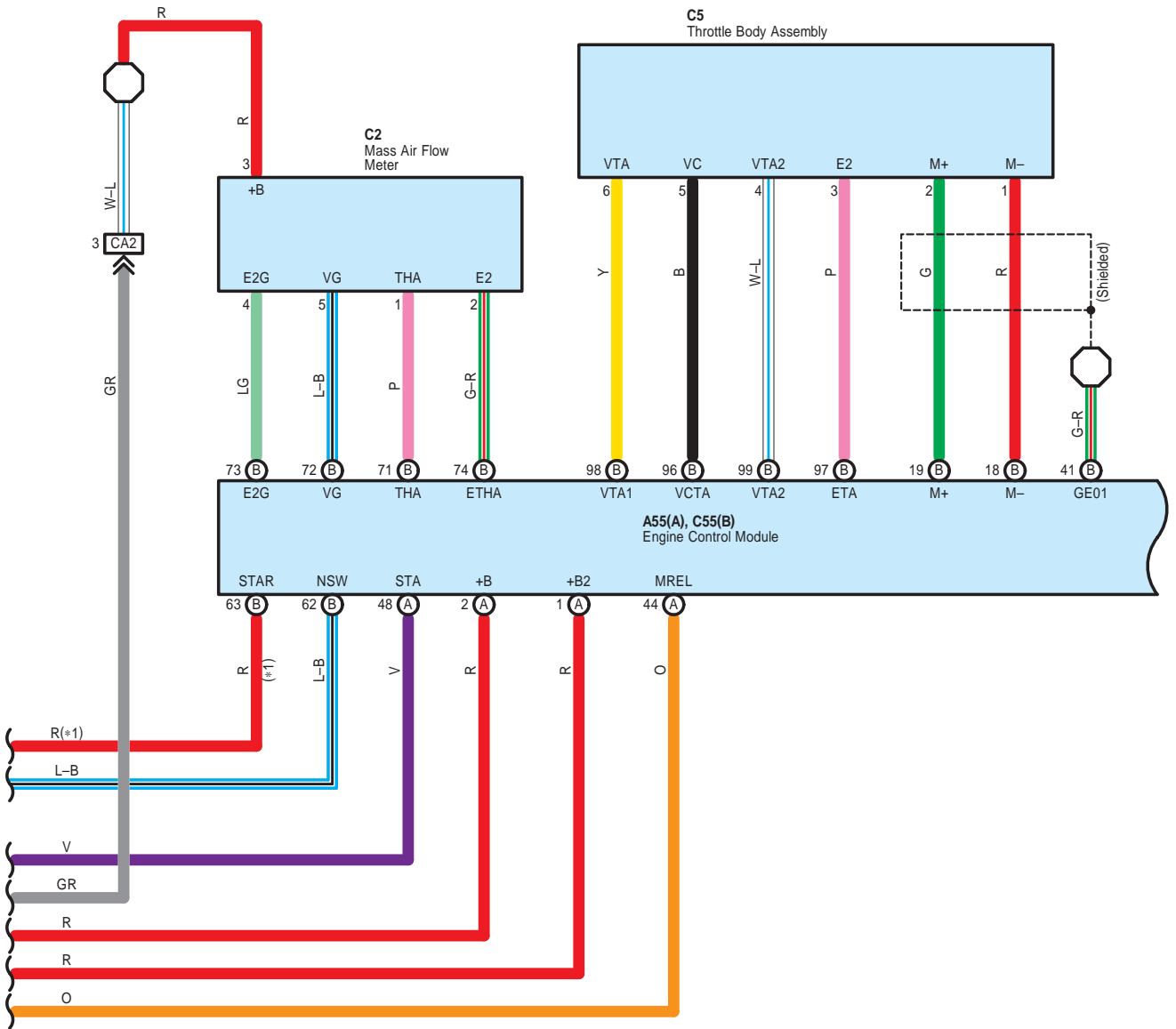


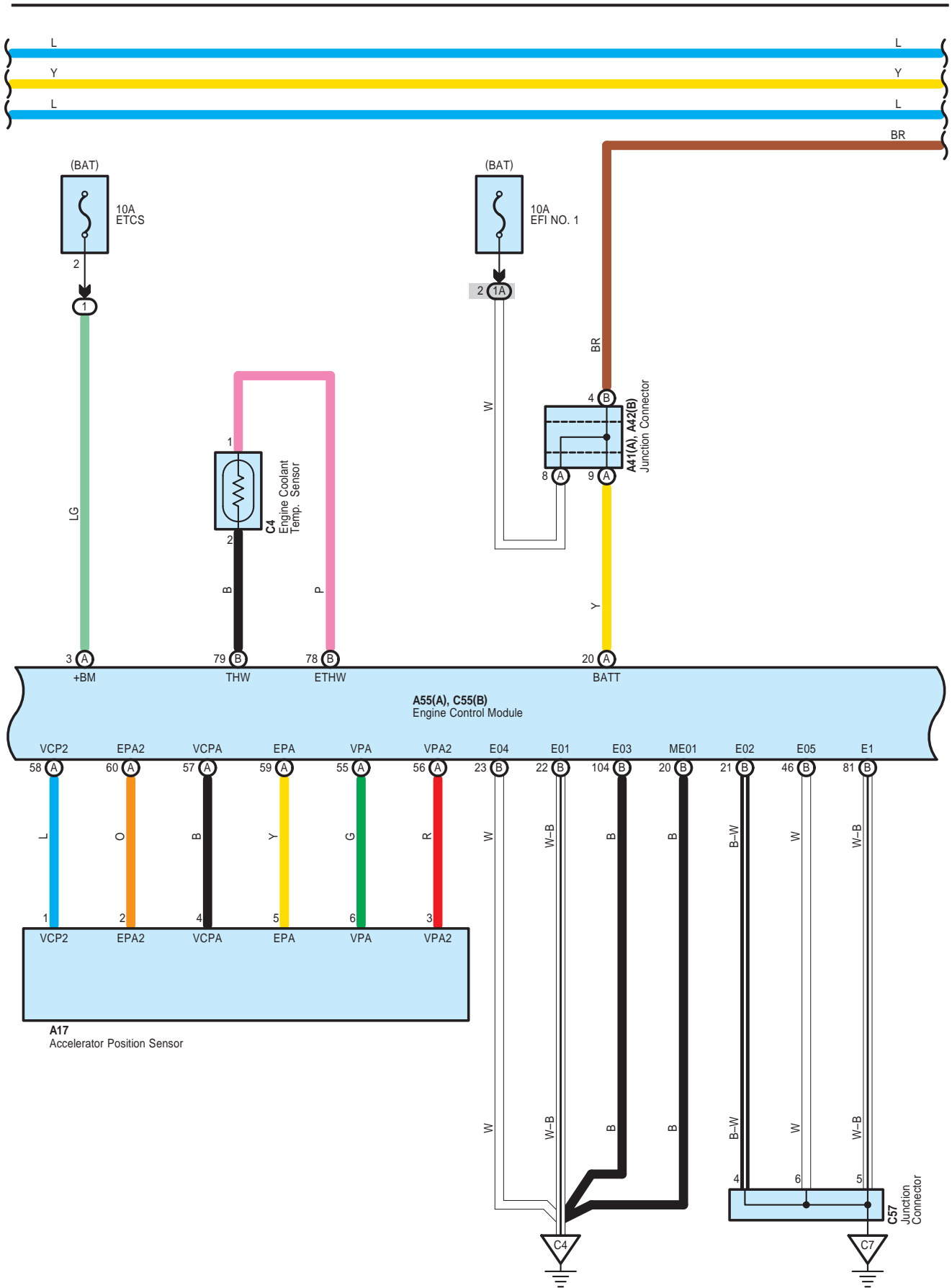
CAMRY (EM0250U)

ECT and A/T Indicator for 2GR-FE

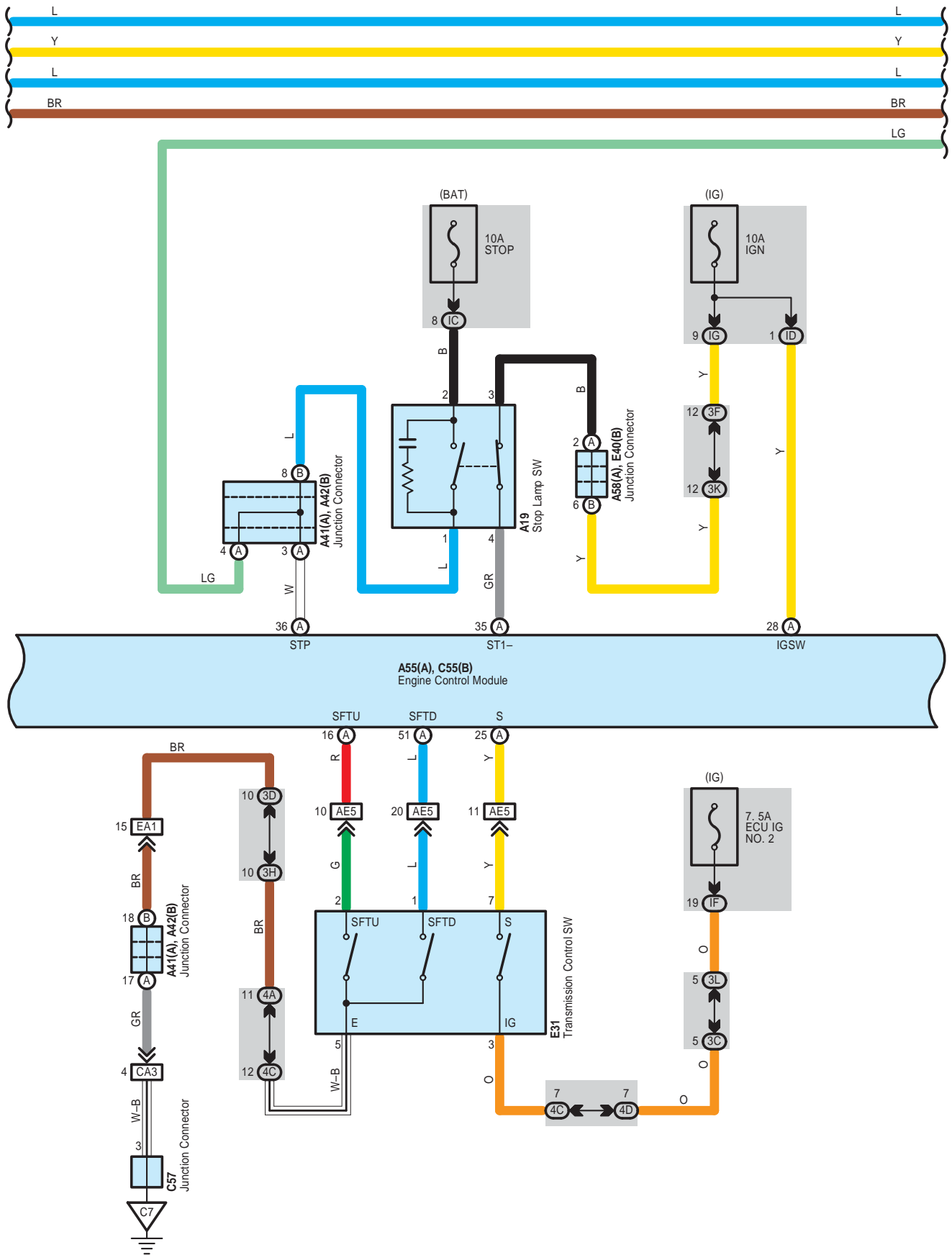


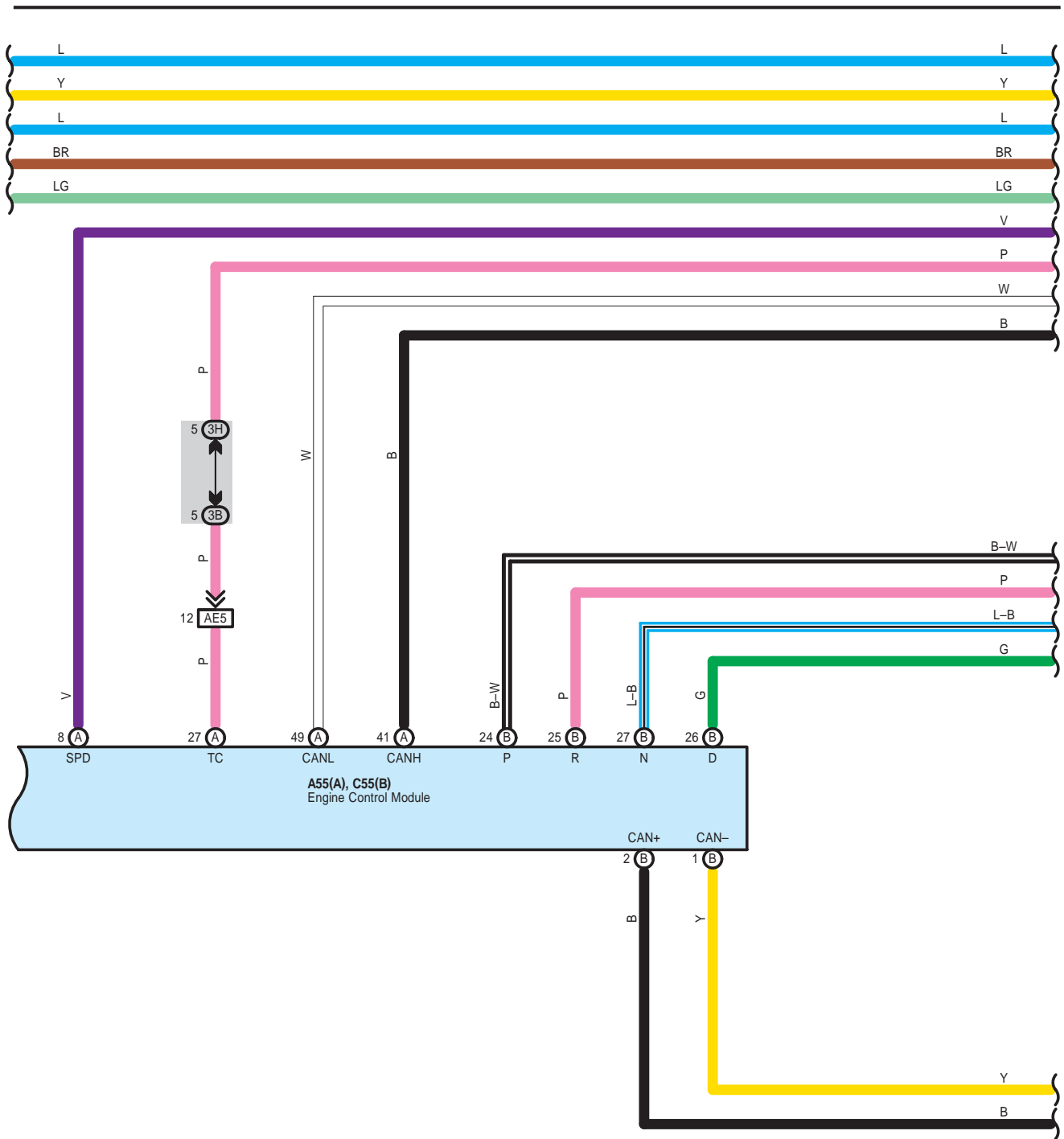
* 1 : w/ Smart Key System



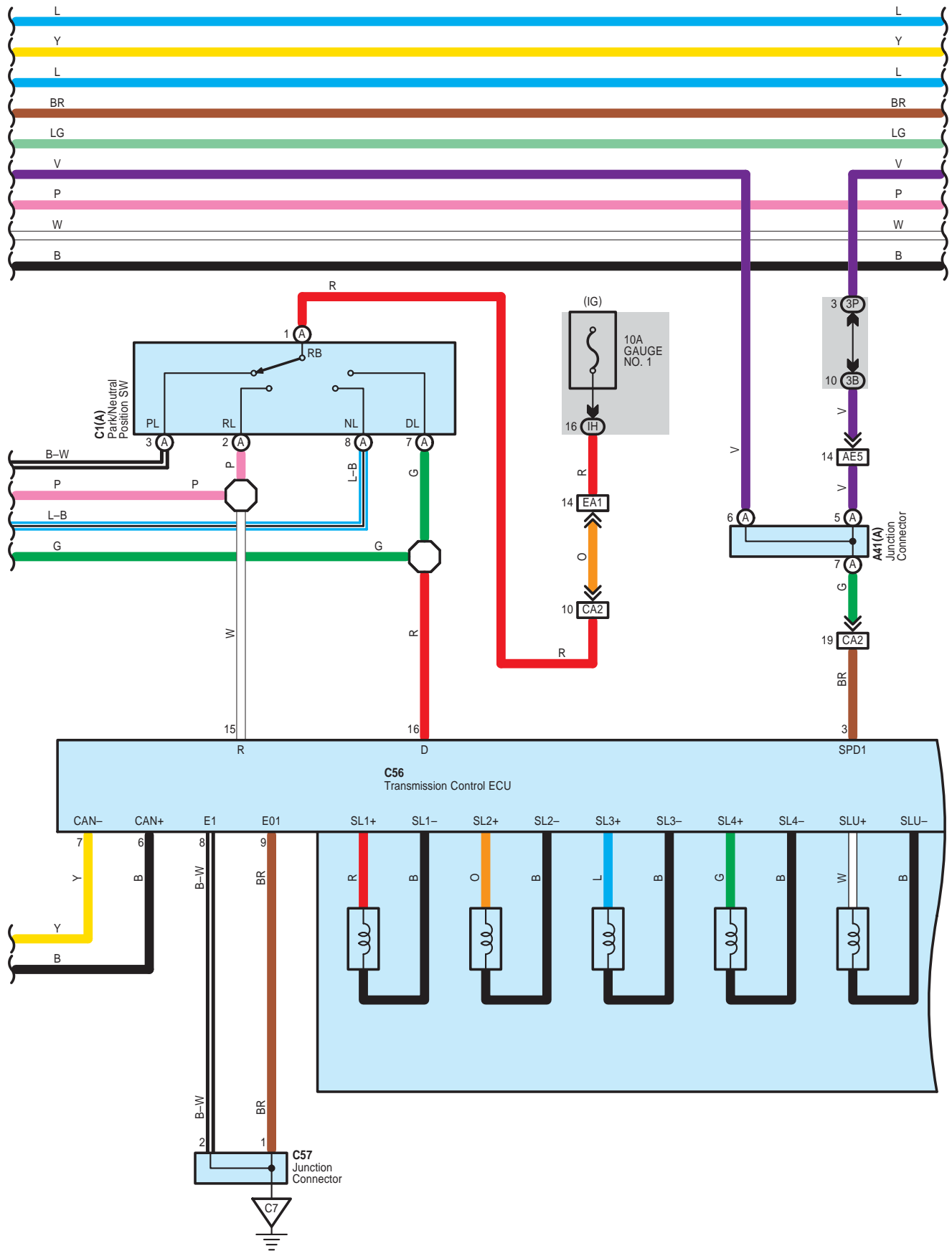


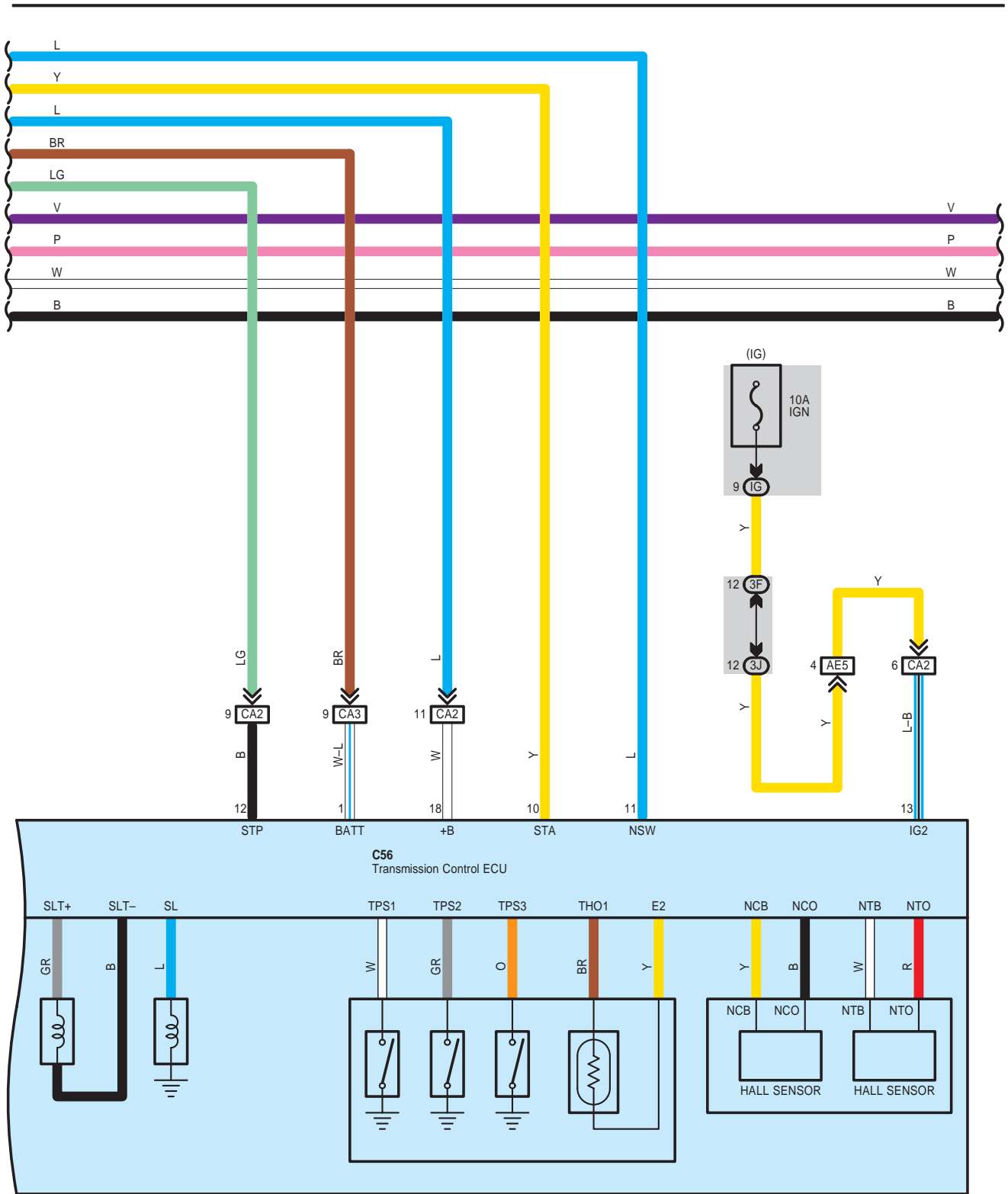
ECT and A/T Indicator for 2GR-FE



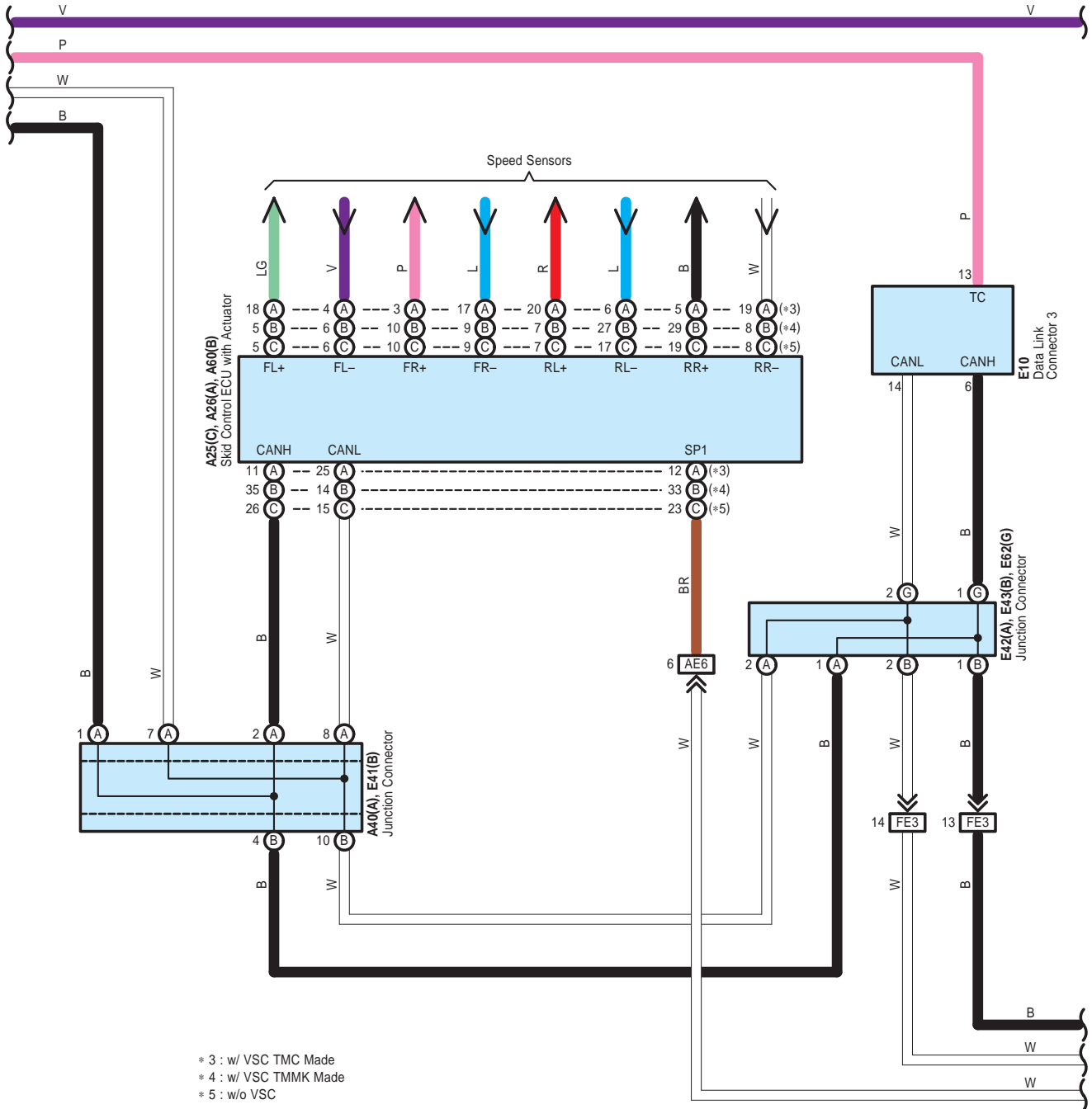


ECT and A/T Indicator for 2GR-FE

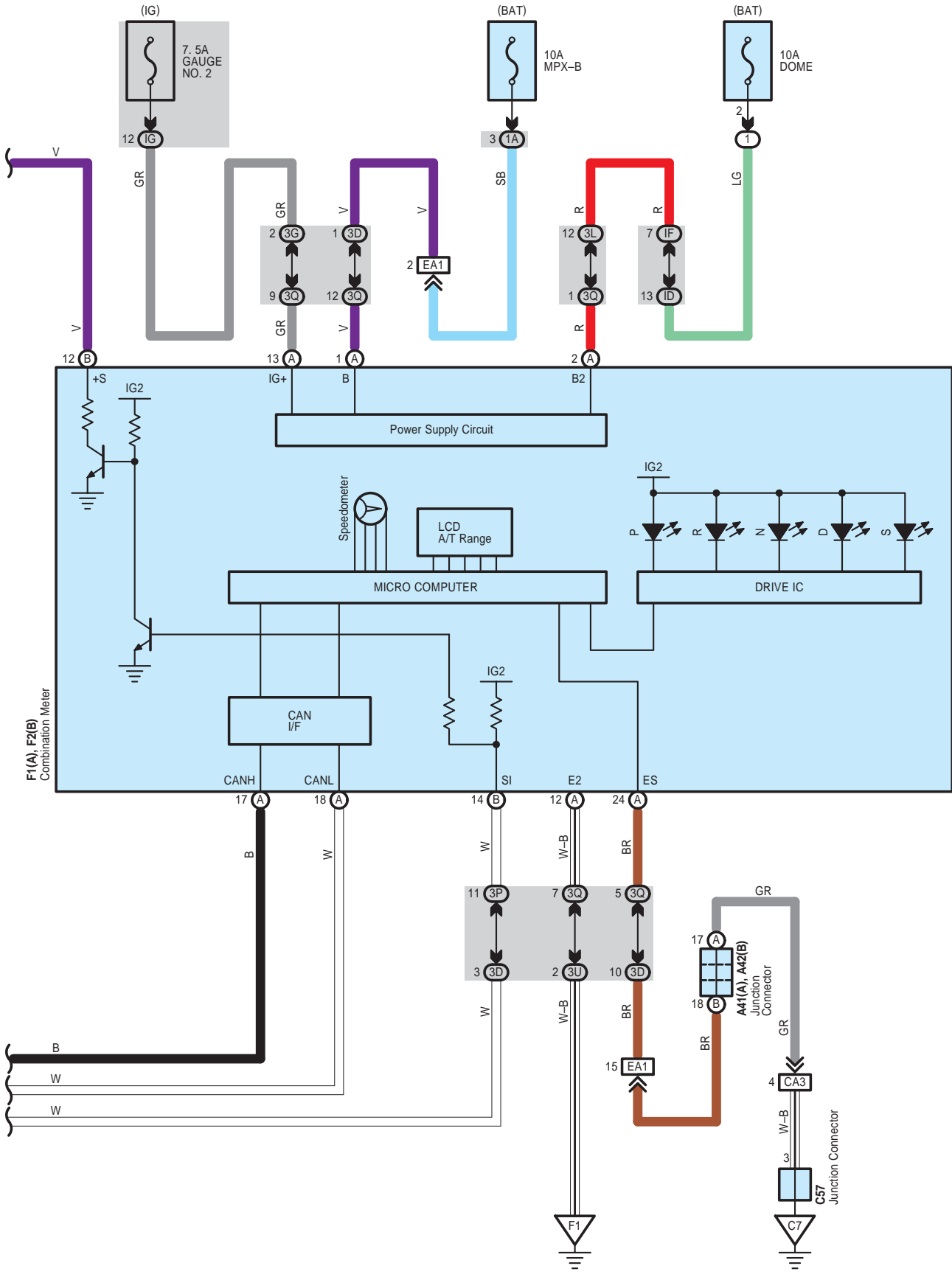




ECT and A/T Indicator for 2GR-FE



* 3 : w/ VSC TMC Made
 * 4 : w/ VSC TMMK Made
 * 5 : w/o VSC



CAMRY (EM0250U)

ECT and A/T Indicator for 2GR-FE

System Outline

1. Line Pressure Optimal Control

Through the use of the solenoid valve SLT, the line pressure is optimally controlled in accordance with the engine torque information, as well as with the internal operating conditions of the torque converter and the transaxle. Accordingly, the line pressure can be controlled minutely in accordance with the engine output, traveling condition, and the ATF temperature, thus realizing smooth shift characteristics and optimizing the workload in the oil pump.

2. Clutch Pressure Optimal Control

The engine control module monitors the signals from various types of sensor such as the input turbine speed sensor, allowing shift solenoid valves SL1, SL2 and SL3 to minutely control the clutch pressure in accordance with engine output and driving conditions. As a result, smooth shift characteristics have been realized.

3. Shifting Control in Uphill/Downhill Traveling

This control minimizes the shifting of gears when the driver operates the accelerator pedal while driving on a winding road with ups and downs, in order to ensure a smooth drive.

4. Flex Lock-Up Clutch Control

The flex lock-up clutch control operates during acceleration, in the 4th and 5th gear in the D range, and during deceleration, in the 4th and 5th gear in the D range and in the 4th gear in the 4 range.

5. Multi Mode Automatic Transmission

Multi mode automatic transmission have [S]-position is beside of [D]-position. If moving the selector lever "S" side, you can select shift range just link manual shifting.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A17	59	C1 A	50 (2GR-FE)	E23	56
A19	59	C2	50 (2GR-FE)	E31	56
A25 C	48 (2GR-FE)	C4	50 (2GR-FE)	E40 B	57
A26 A	48 (2GR-FE)	C5	50 (2GR-FE)	E41 B	57
A40 A	59	C55 B	51 (2GR-FE)	E42 A	57
A41 A	59	C56	51 (2GR-FE)	E43 B	57
A42 B	59	C57	51 (2GR-FE)	E62 G	57
A43	49 (2GR-FE)	E6 A	56	F1 A	58
A55 A	49 (2GR-FE)	E7 B	56	F2 B	58
A58 A	59	E9 D	56		
A60 B	49 (2GR-FE)	E10	56		

○ : 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)
1E		
3B	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3C		
3D		
3E		
3F		
3G		
3H		
3J		
3K		
3L		
3P	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3Q		
3U		
4A	42	Instrument Panel Wire and J/B No.4 (Instrument Panel Brace Center)
4C		
4D		
4E		
4F		
4G		
4K		
4M		
IC	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
ID	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	
IG	31	
IH		
II		

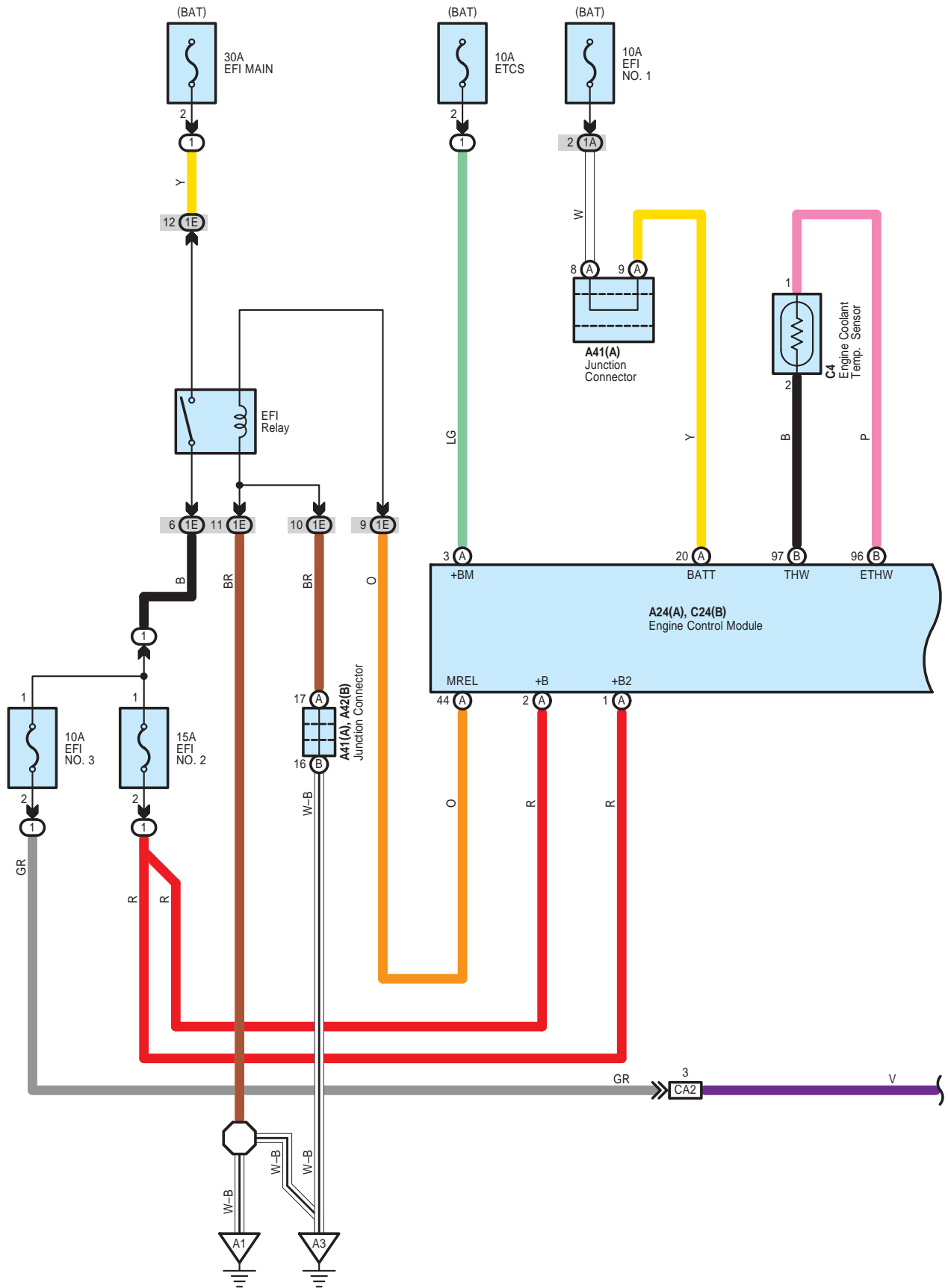
 : Connector Joining Wire Harness and Wire Harness

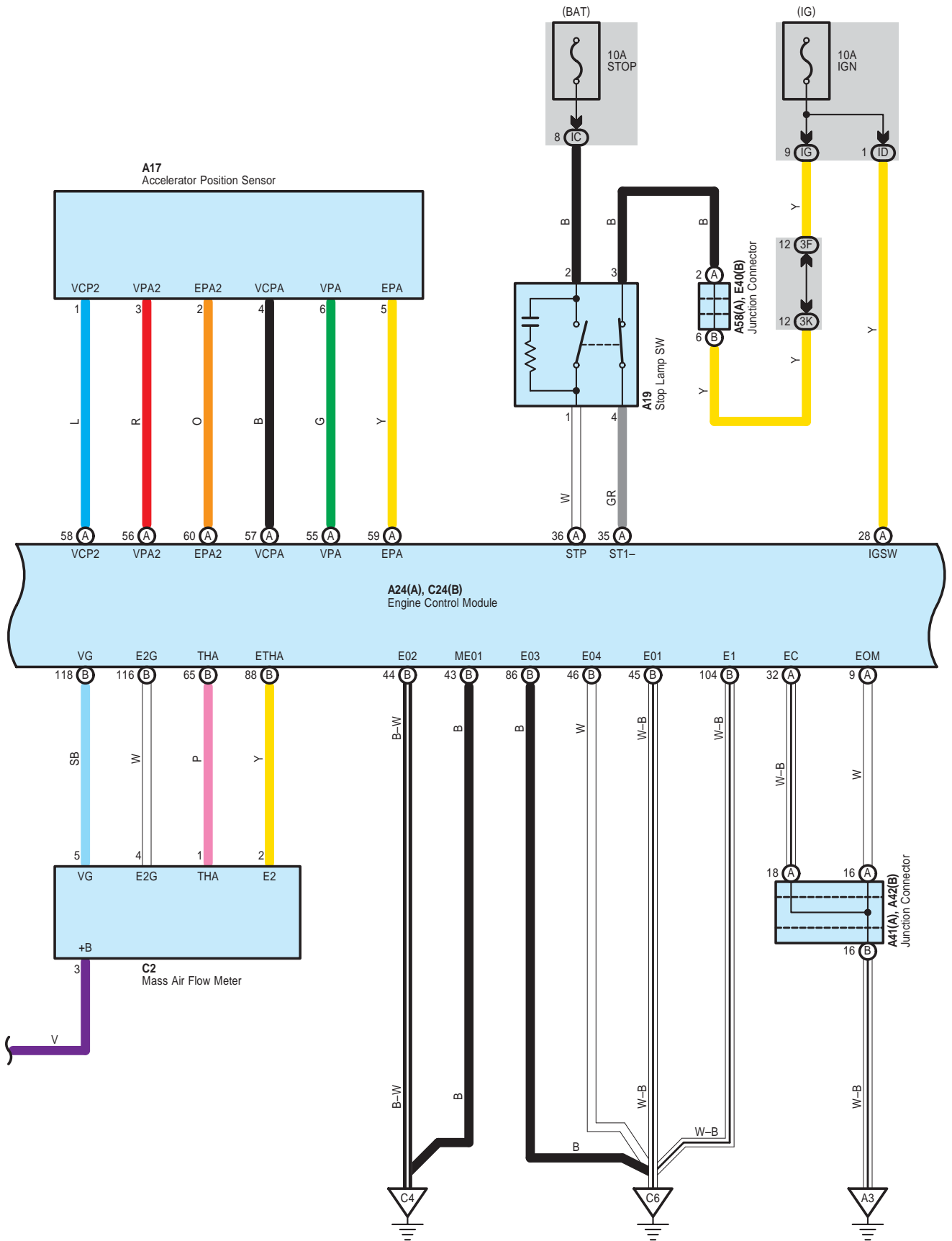
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE5	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
AE6		
CA2	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
CA3		
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)

 : Ground Points

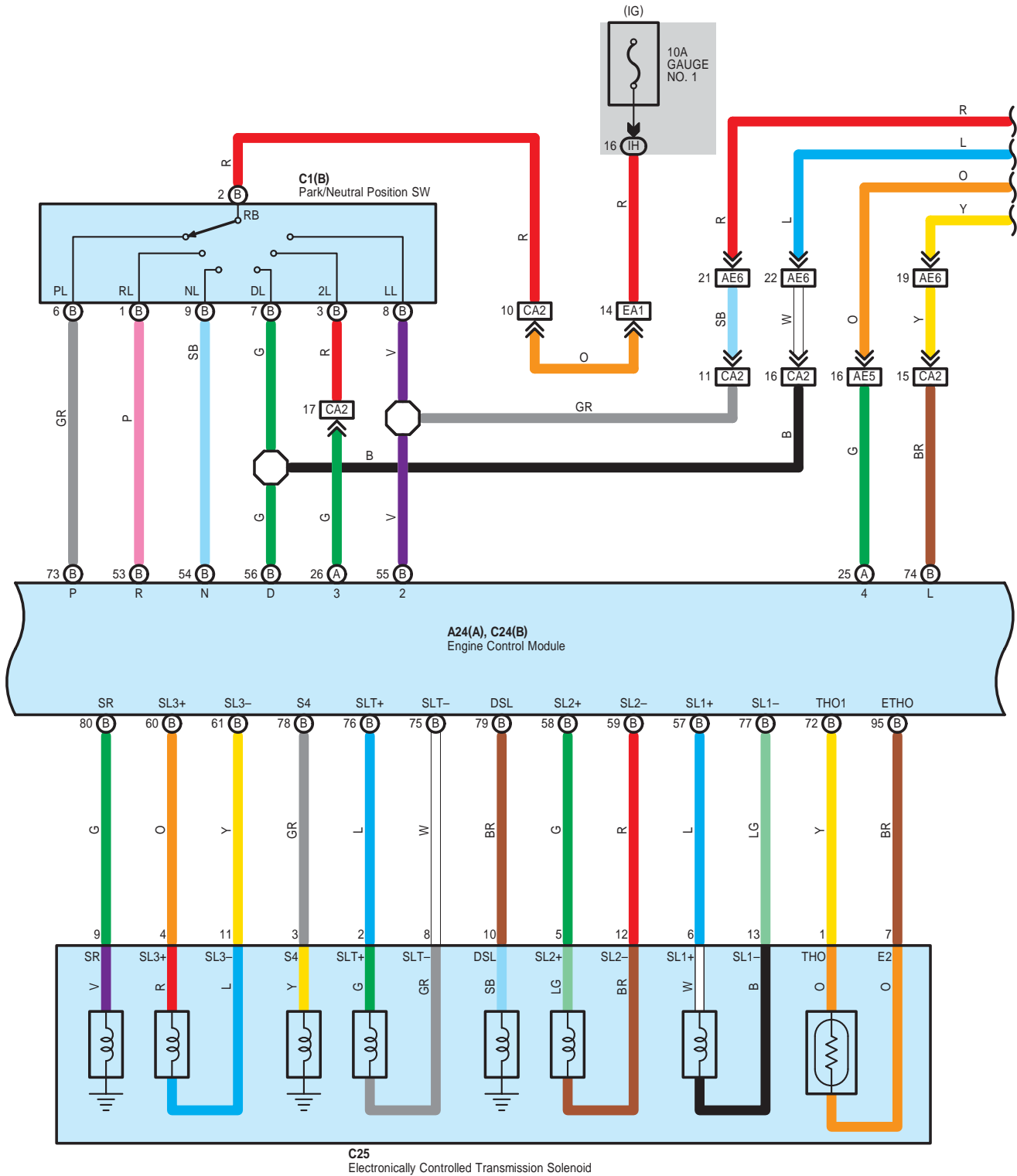
Code	See Page	Ground Points Location
A1	64 (2GR-FE)	Front Left Fender
A2		
A3	66	Left Cowl Side Panel
C4	64 (2GR-FE)	Cylinder Head
C7	64 (2GR-FE)	Left Side of the Cylinder Block
F1	66	Instrument Panel Left

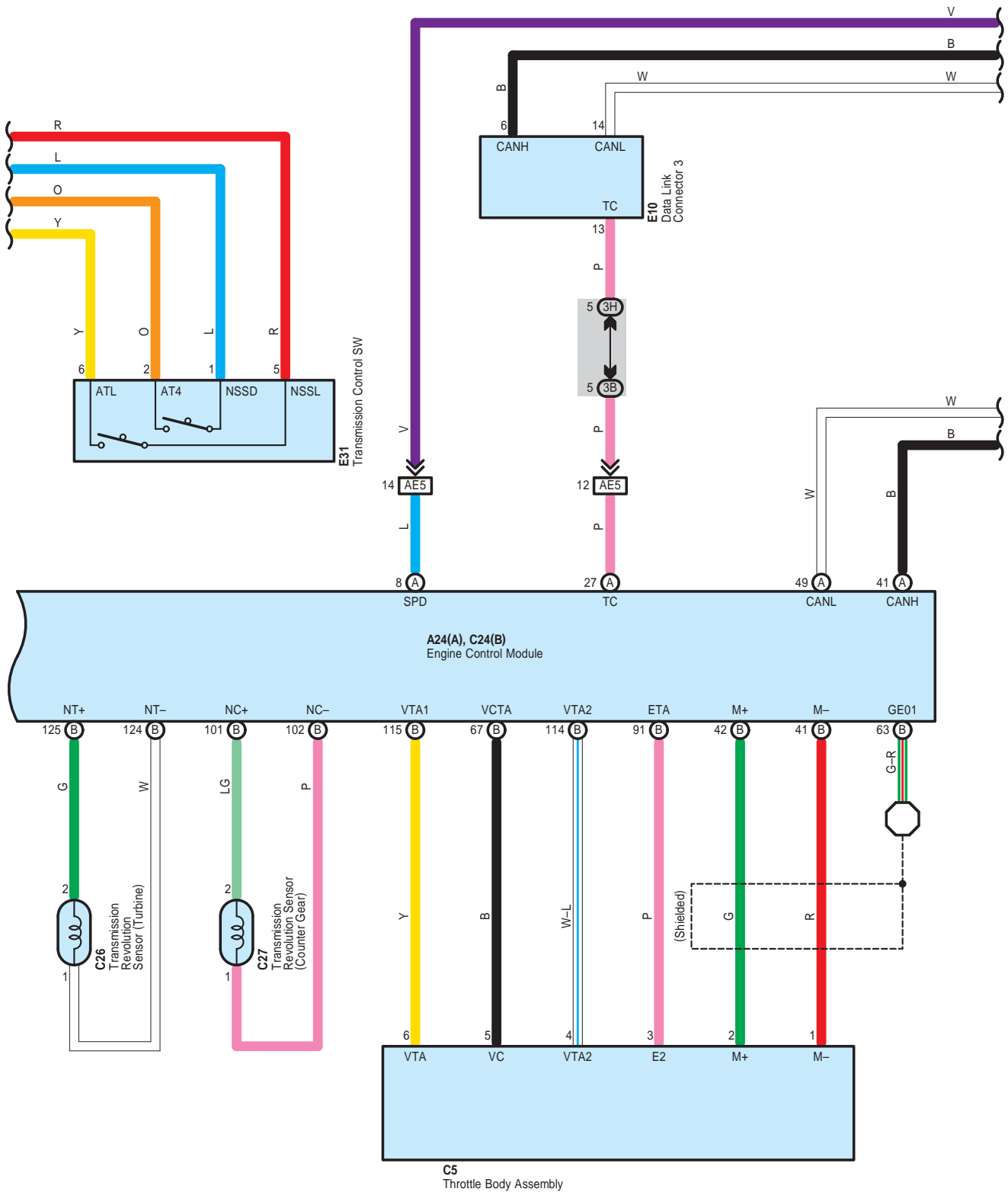
ECT and A/T Indicator for 2AZ-FE



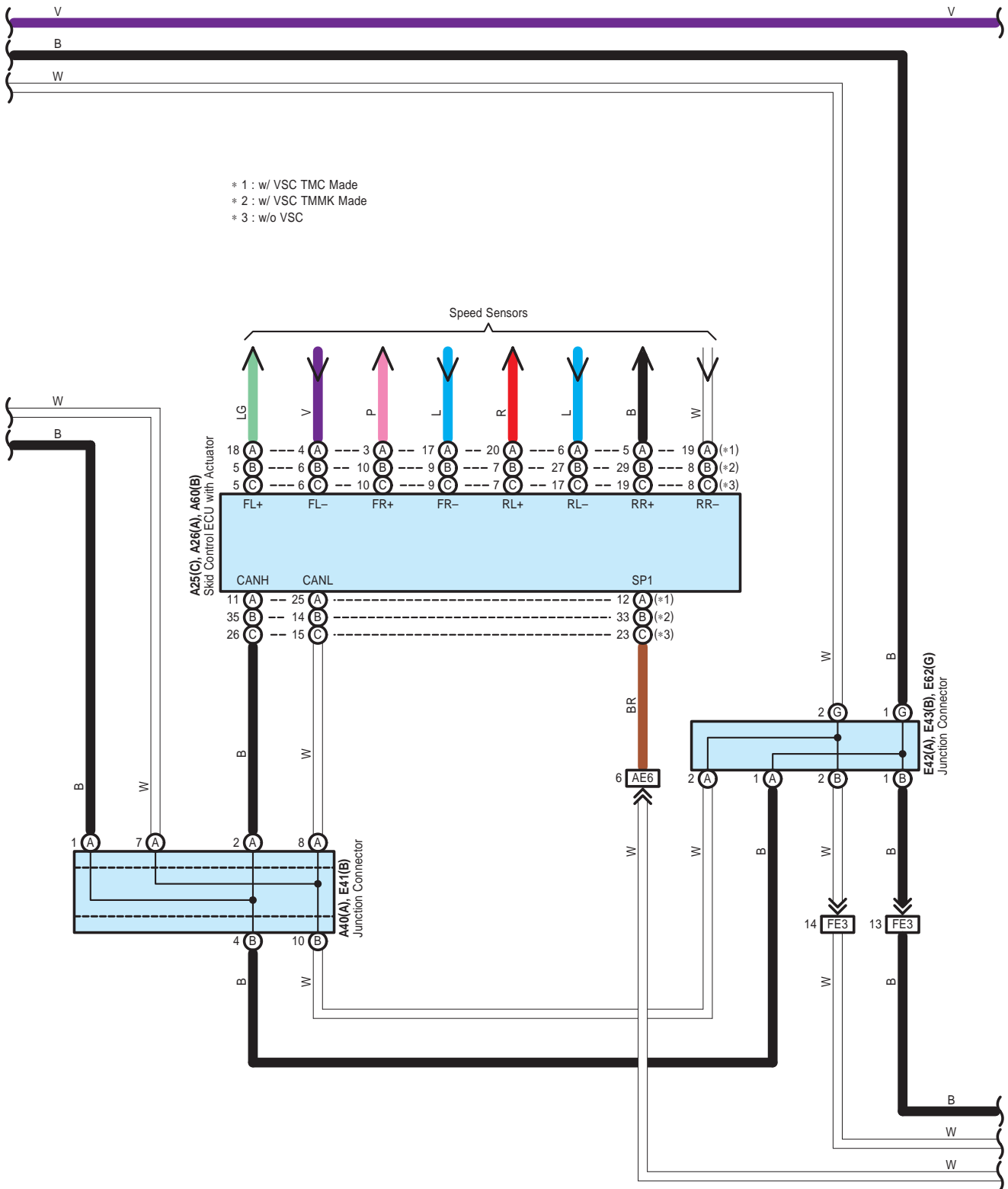


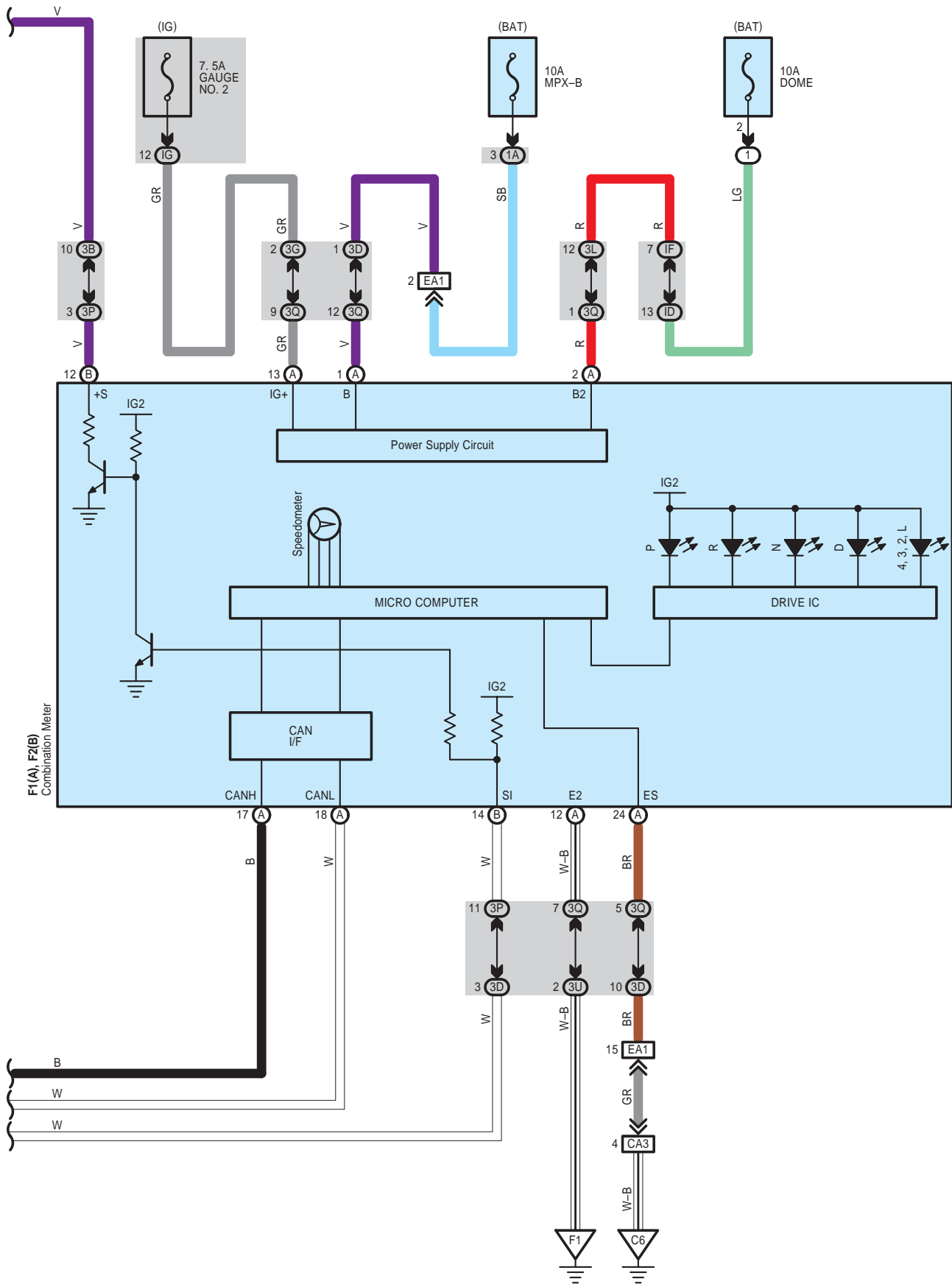
ECT and A/T Indicator for 2AZ-FE





ECT and A/T Indicator for 2AZ-FE





CAMRY (EM0250U)

ECT and A/T Indicator for 2AZ-FE

System Outline

1. Line Pressure Optimal Control

Through the use of the solenoid valve SLT, the line pressure is optimally controlled in accordance with the engine torque information, as well as with the internal operating conditions of the torque converter and the transaxle. Accordingly, the line pressure can be controlled minutely in accordance with the engine output, traveling condition, and the ATF temperature, thus realizing smooth shift characteristics and optimizing the workload in the oil pump.

2. Clutch Pressure Optimal Control

The engine control module monitors the signals from various types of sensor such as the input turbine speed sensor, allowing shift solenoid valves SL1, SL2 and SL3 to minutely control the clutch pressure in accordance with engine output and driving conditions. As a result, smooth shift characteristics have been realized.

3. Shifting Control in Uphill/Downhill Traveling

This control minimizes the shifting of gears when the driver operates the accelerator pedal while driving on a winding road with ups and downs, in order to ensure a smooth drive.

4. Flex Lock-Up Clutch Control

The flex lock-up clutch control operates during acceleration, in the 4th and 5th gear in the D range, and during deceleration, in the 4th and 5th gear in the D range and in the 4th gear in the 4 range.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page		
A17	59	A60	B	53 (2AZ-FE)	E10	56	
A19	59	C1	B	54 (2AZ-FE)	E31	56	
A24	A	C2		54 (2AZ-FE)	E40	B	57
A25	C	C4		54 (2AZ-FE)	E41	B	57
A26	A	C5		54 (2AZ-FE)	E42	A	57
A40	A	C24	B	55 (2AZ-FE)	E43	B	57
A41	A	C25		55 (2AZ-FE)	E62	G	57
A42	B	C26		55 (2AZ-FE)	F1	A	58
A58	A	C27		55 (2AZ-FE)	F2	B	58

○ : 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)
1E		
3B	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3D		
3F		
3G		
3H		
3K		
3L		
3P		
3Q	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3U		
IC	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IG	31	
IH		

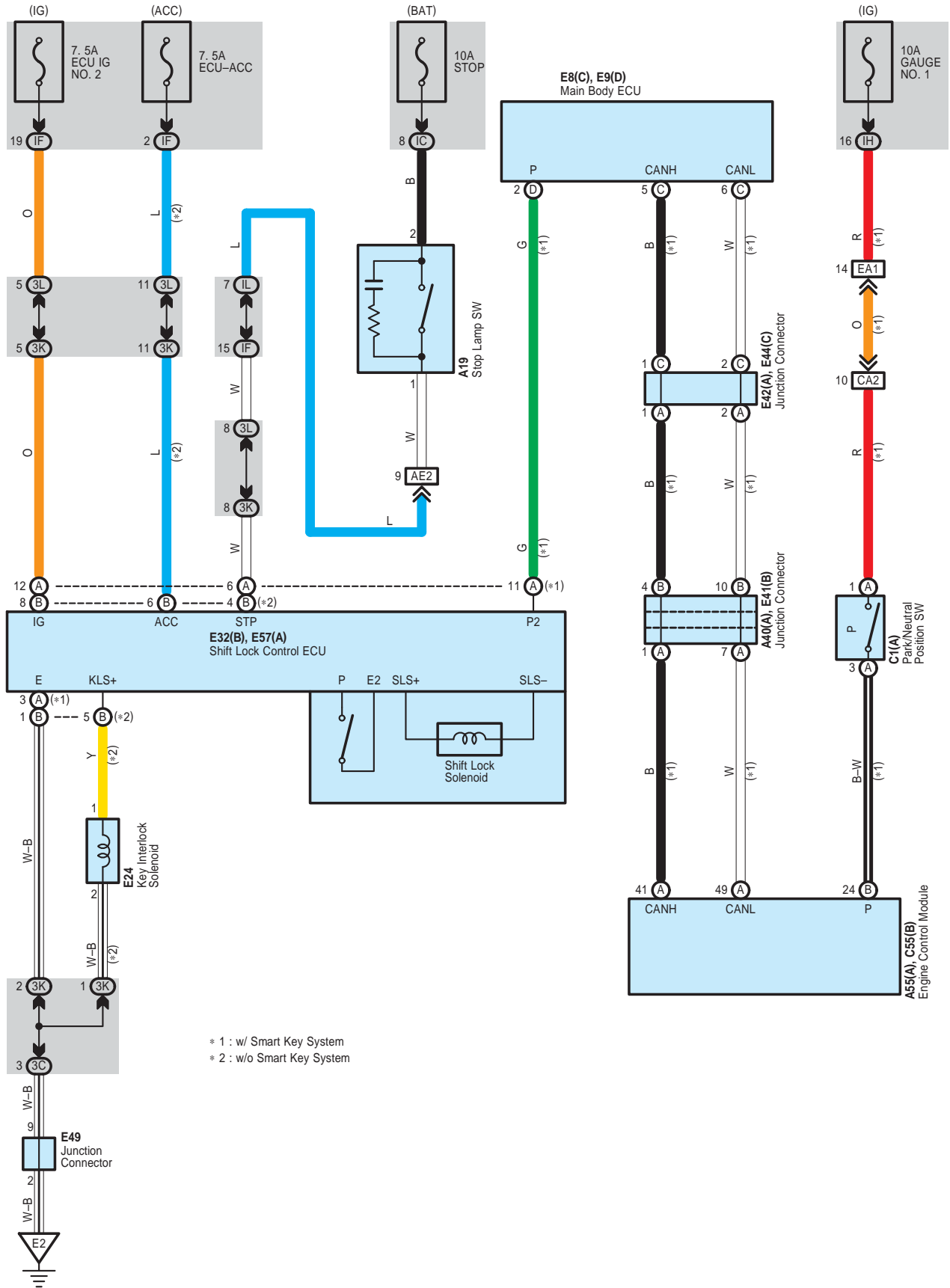
 : **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE5	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
AE6		
CA2	65 (2AZ-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
CA3		
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)

 : **Ground Points**

Code	See Page	Ground Points Location
A1	65 (2AZ-FE)	Front Left Fender
A3	66	Left Cowl Side Panel
C4	65 (2AZ-FE)	Cylinder Block
C6		
F1	66	Instrument Panel Left

Shift Lock



System Outline

Shift Lock Mechanism

If the brake pedal is depressed with the power SW is pushed to IG ON position (Power SW type), or the ignition SW is turned to ON (Ignition SW type), the shift lock control ECU is activated, allowing the driver to change the shift lever to a position other than the P position.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A19	A	59	C55	B	51 (2GR-FE)
	B	59	E8	C	56
A40	A	59	E9	D	56
A55	A	49 (2GR-FE)	E24		56
C1	A	50 (2GR-FE)	E32	B	56
				E41	B
				E42	A
				E44	C
				E49	
				E57	A
					57

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
3C	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3K		
3L		
IC	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IH	31	
IL	30	

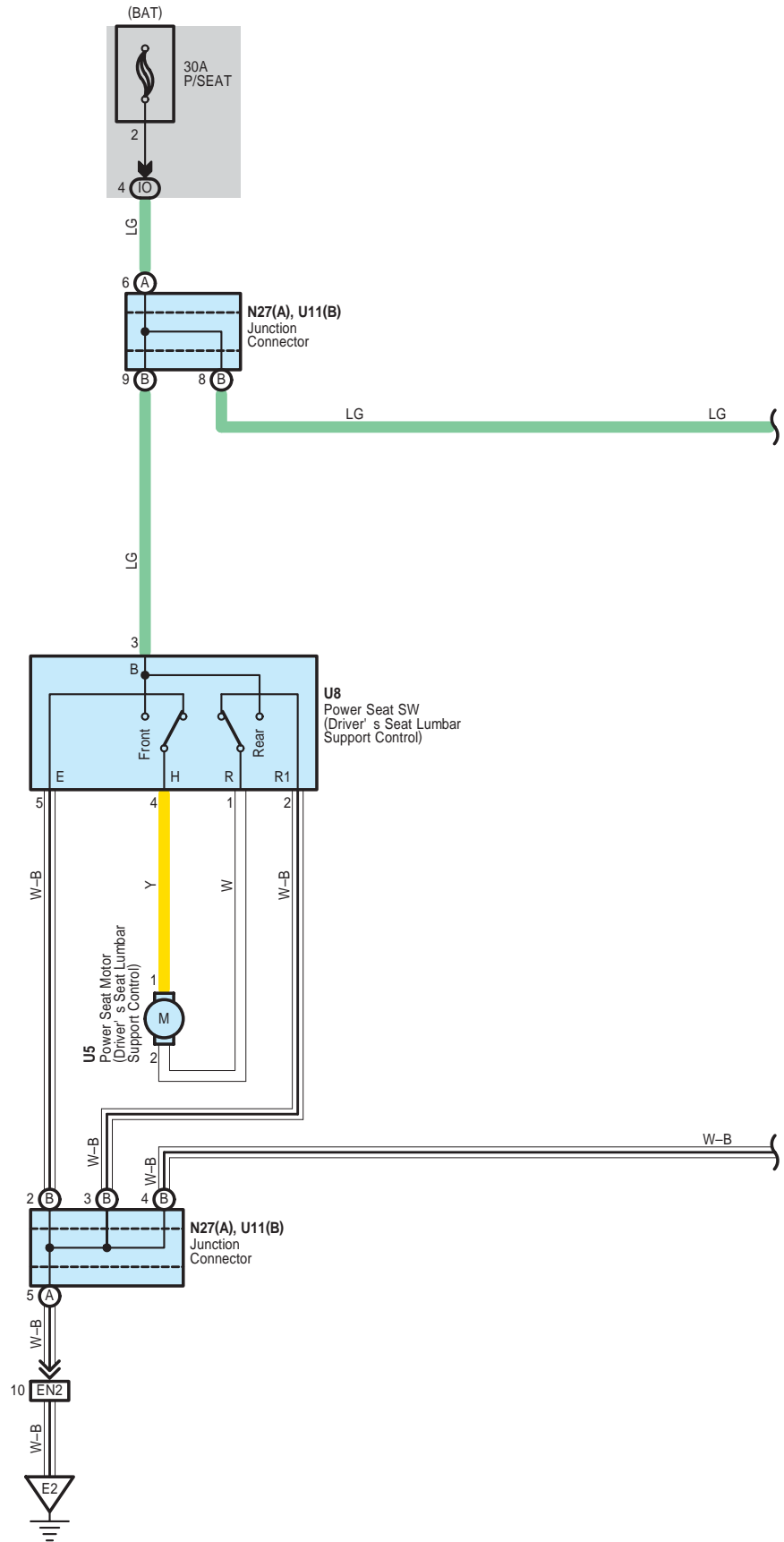
□ : Connector Joining Wire Harness and Wire Harness

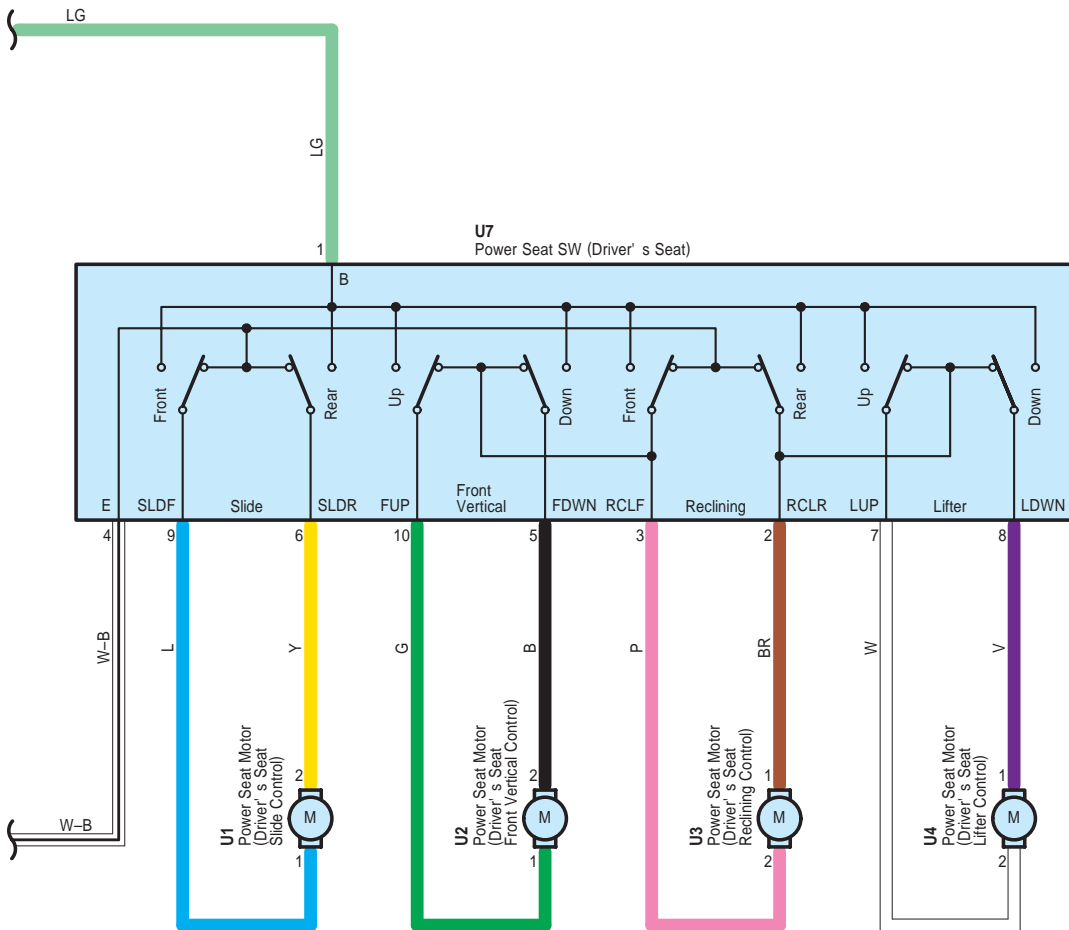
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE2	66	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
CA2	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)

▽ : Ground Points

Code	See Page	Ground Points Location
E2	66	Instrument Panel Brace LH

Power Seat for Driver's Seat





Power Seat for Driver's Seat

 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page			
N27	A	62 (*1)	U3	62 (*1)	U7	62 (*1)		
		U1	62 (*1)	U4	62 (*1)	U8	62 (*1)	
		U2	62 (*1)	U5	62 (*1)	U11	B	62 (*1)

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
IO	30	Floor Wire and Instrument Panel J/B (Cowl Side Left)

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

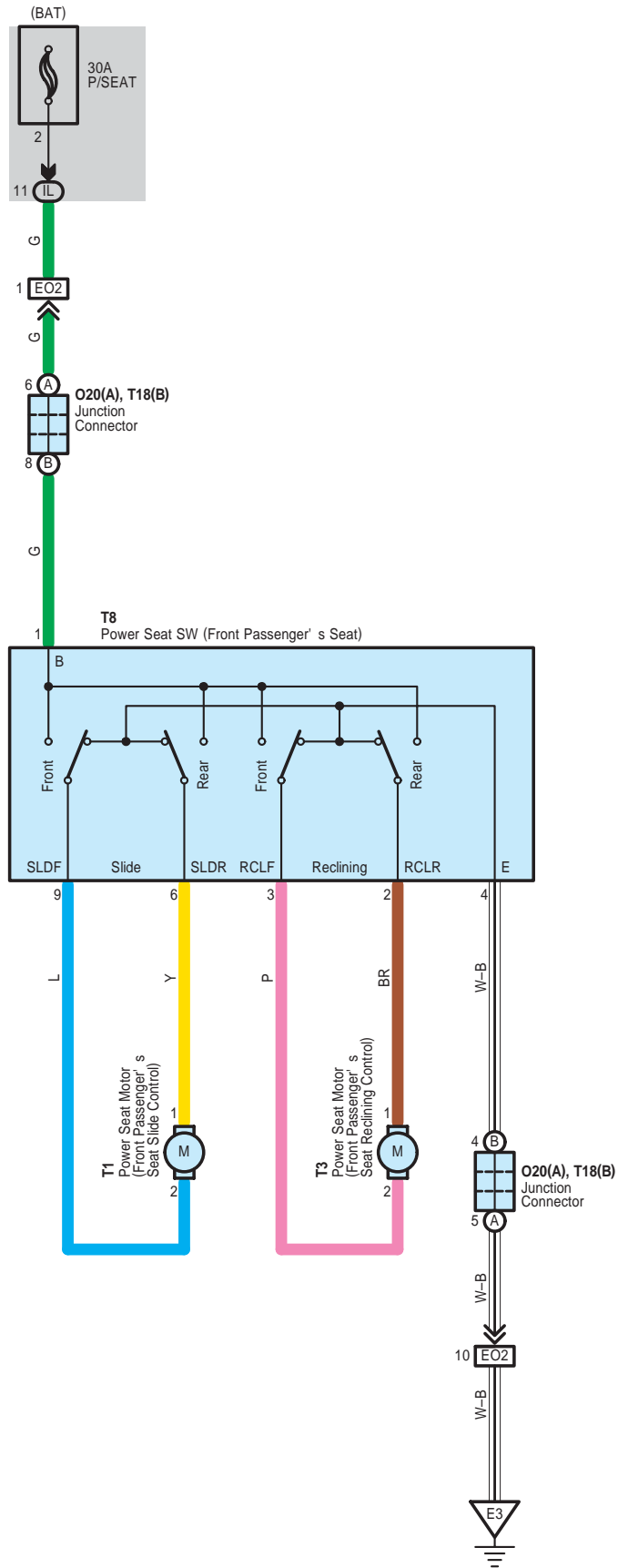
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EN2	66	Instrument Panel Wire and Floor Wire (Left Kick Panel)

 : **Ground Points**

Code	See Page	Ground Points Location
E2	66	Instrument Panel Brace LH


* 1 : w/ Power Seat * 2 : w/o Power Seat

Power Seat for Front Passenger's Seat



 : **Parts Location**

Code		See Page	Code		See Page	Code		See Page
O20	A	62 (*1)	T3	62 (*1)	T18	B	62 (*1)	
	T1	62 (*1)	T8	62 (*1)				

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
IL	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)

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

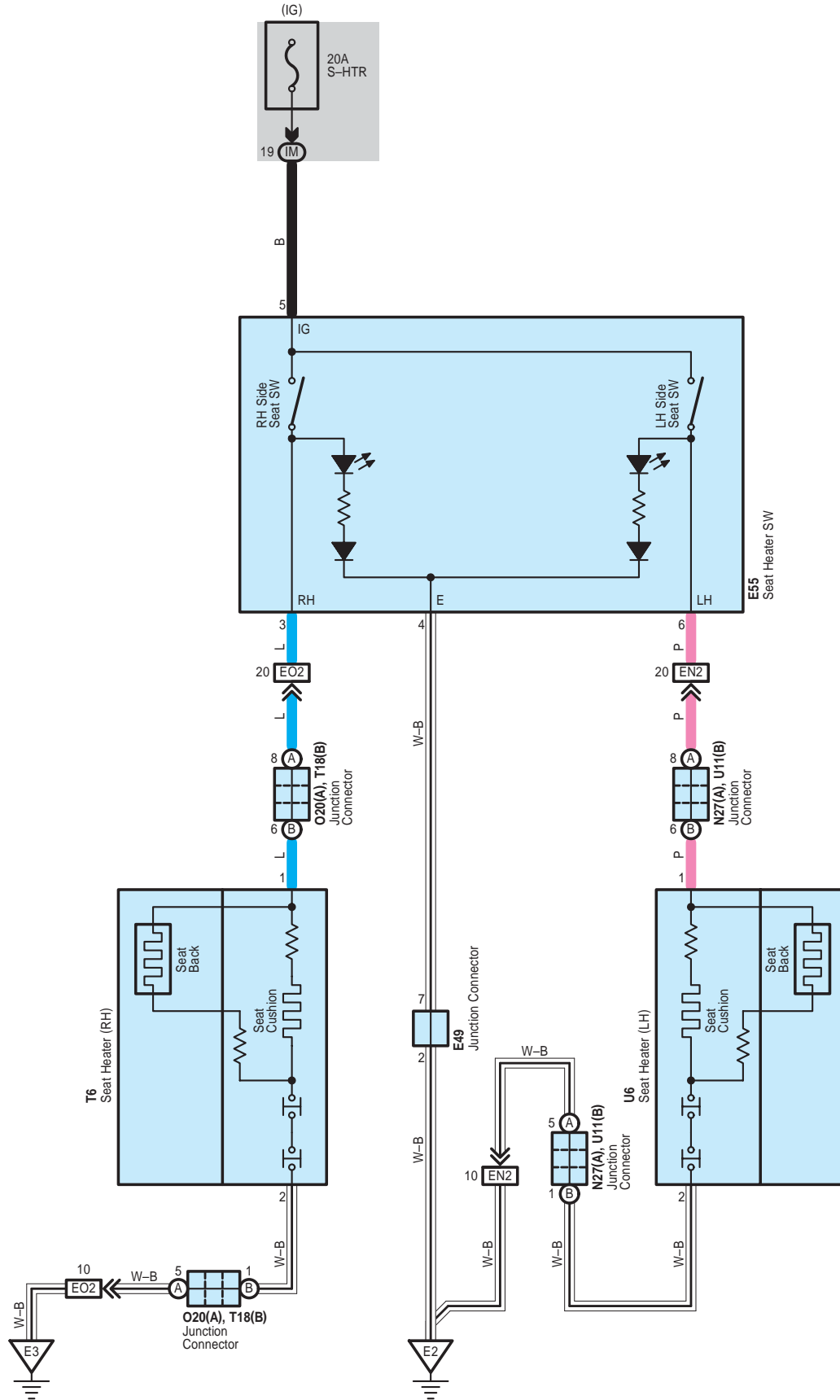
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EO2	66	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)

 : **Ground Points**

Code	See Page	Ground Points Location
E3	66	Instrument Panel Right

* 1 : w/ Power Seat * 2 : w/o Power Seat

Seat Heater



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page		
E49	57	O20	A	62 (*1)	U6	62 (*1)	
E55	57	T6		62 (*1)	U11	B	62 (*1)
N27	A	62 (*1)	T18	B	62 (*1)		

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
IM	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)

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

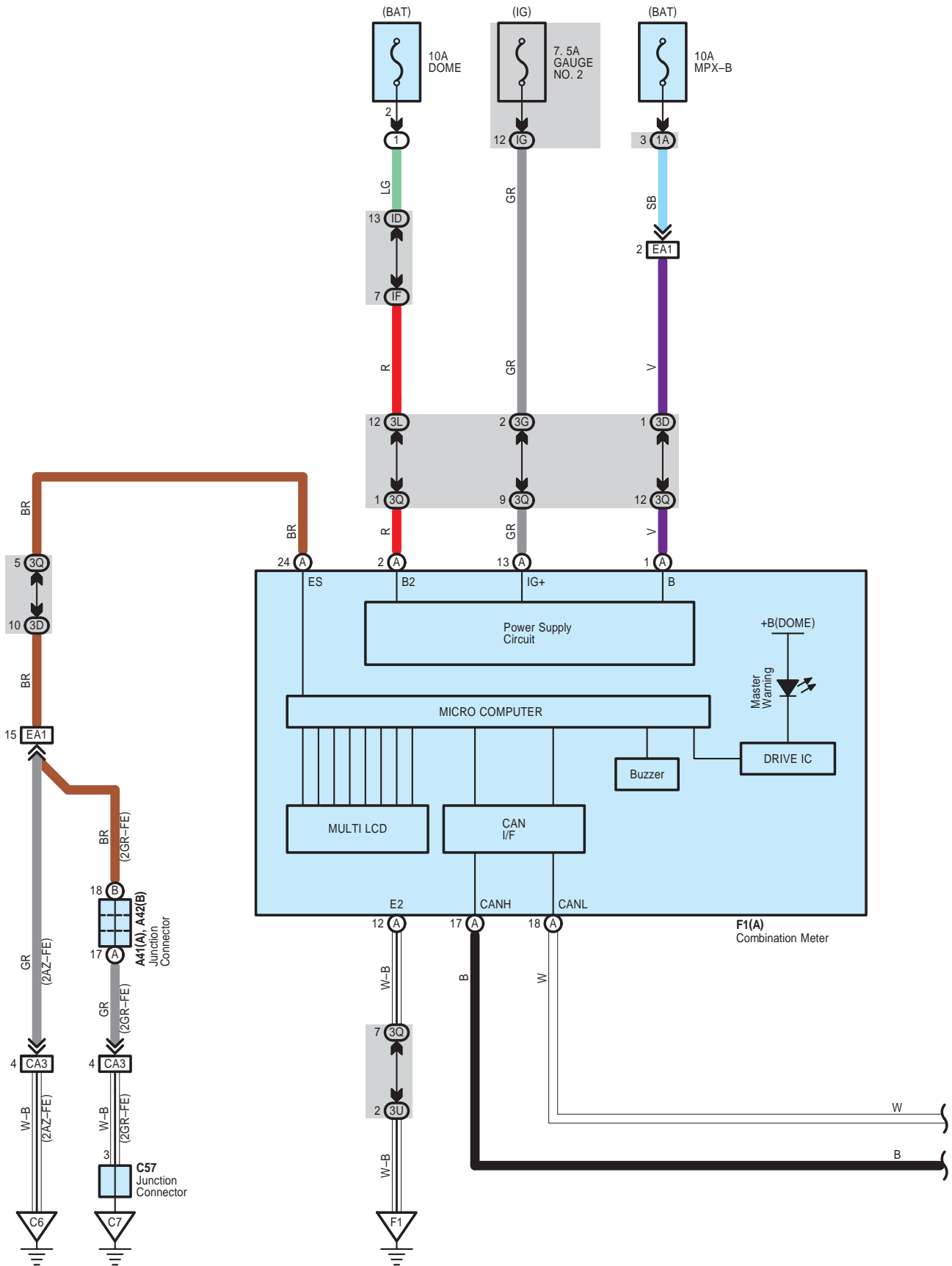
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EN2	66	Instrument Panel Wire and Floor Wire (Left Kick Panel)
EO2	66	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)

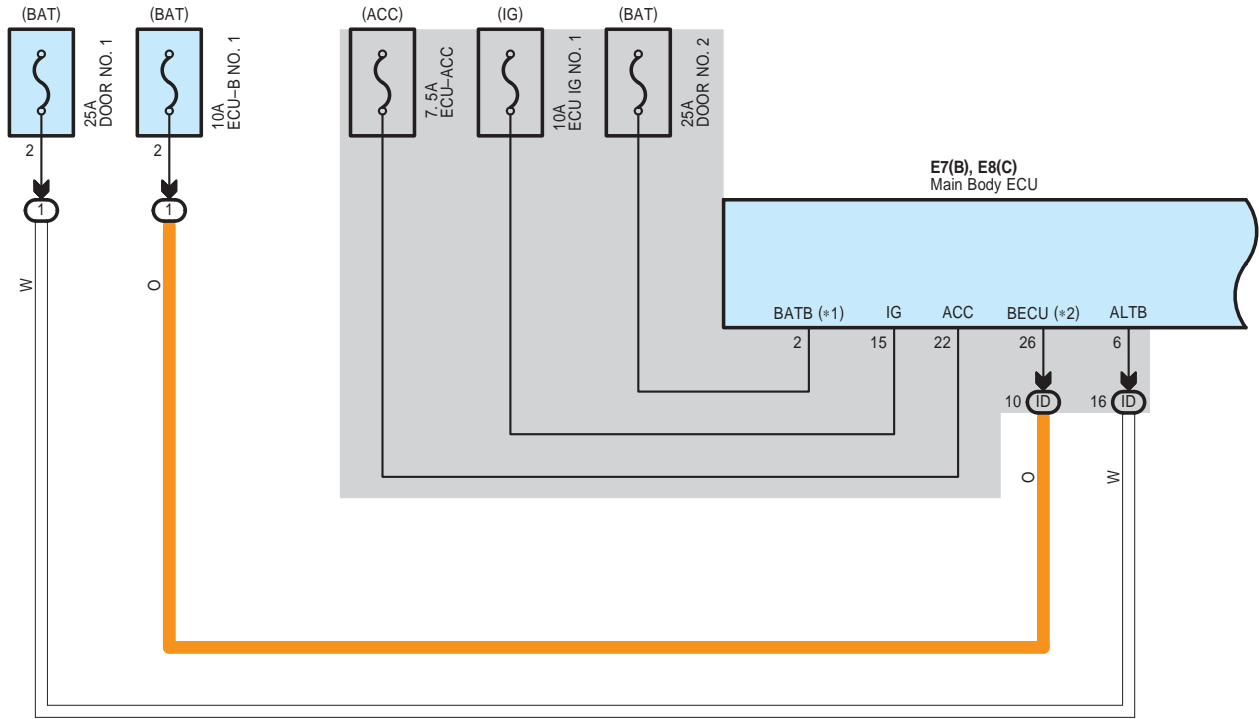
 : **Ground Points**

Code	See Page	Ground Points Location
E2	66	Instrument Panel Brace LH
E3	66	Instrument Panel Right

* 1 : w/ Power Seat * 2 : w/o Power Seat

Sliding Roof

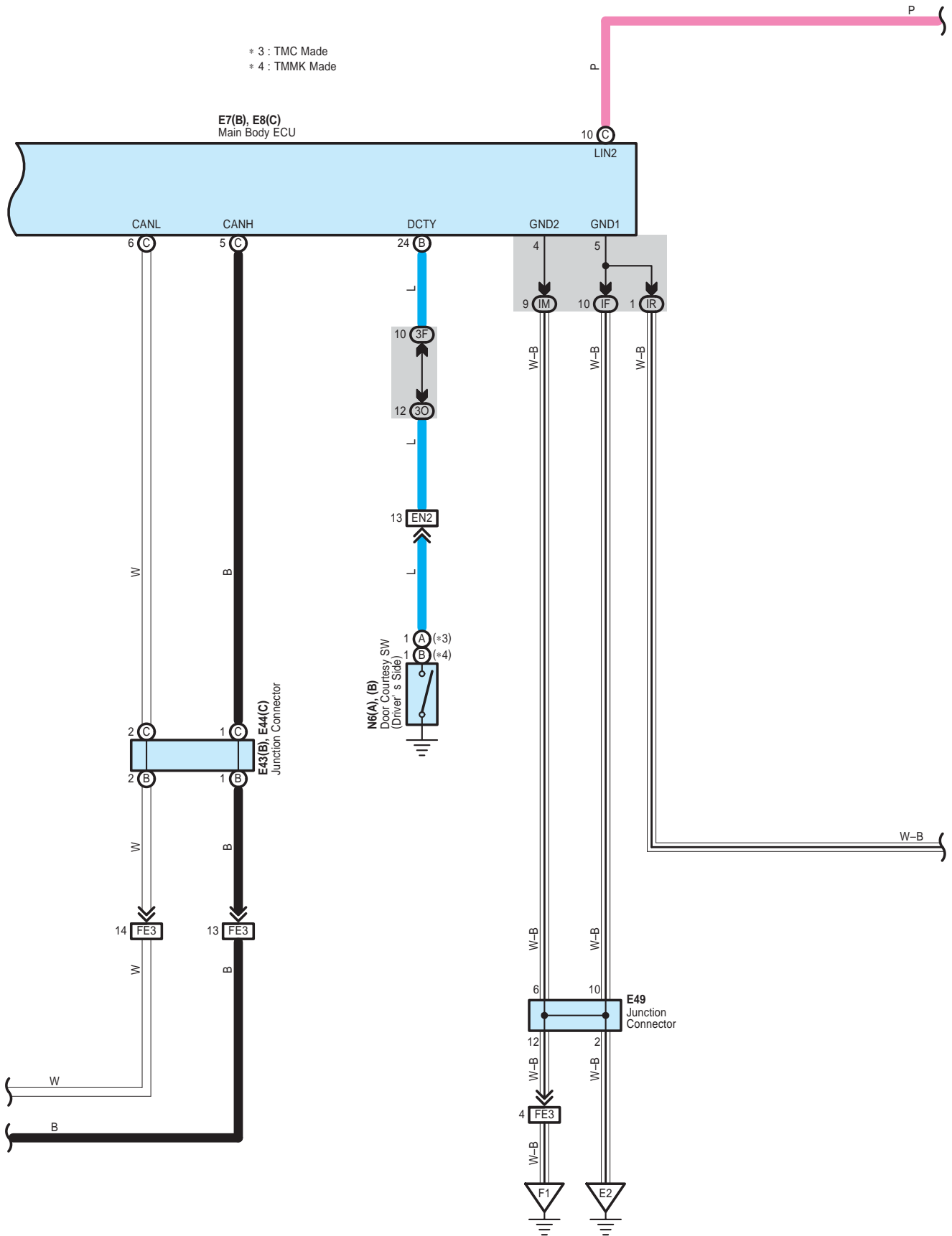


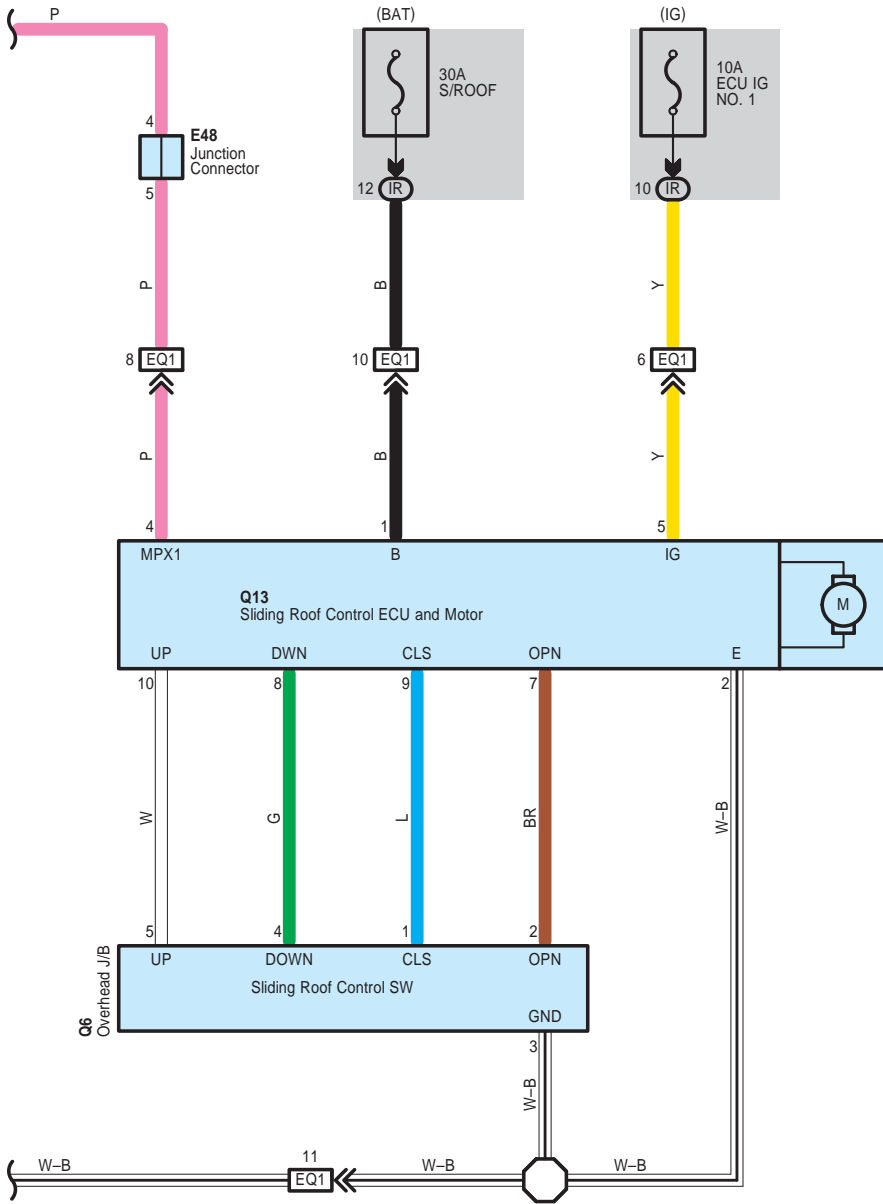


* 1 : w/ Smart Key System
 * 2 : w/o Smart Key System



Sliding Roof





Sliding Roof

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A41	A	59	E43	B	57	N6	A	60
A42	B	59	E44	C	57		B	60
C57		51 (2GR-FE)	E48		57	Q6		61
E7	B	56	E49		57	Q13		61
E8	C	56	F1	A	58			

○ : 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)
3D	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3F		
3G		
3L		
3O		
3Q	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3U		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IG	31	
IM	30	
IR		

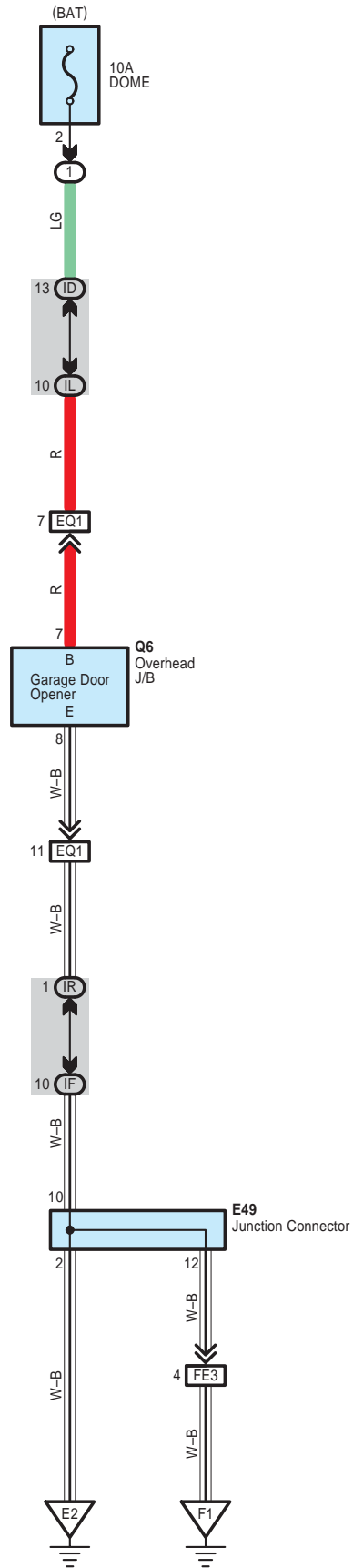
□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
CA3	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
EN2	66	Instrument Panel Wire and Floor Wire (Left Kick Panel)
EQ1	66	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)

▽ : Ground Points

Code	See Page	Ground Points Location
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left

Garage Door Opener



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
E49	57	Q6	61		

 : **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)
ID	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IL		
IR		

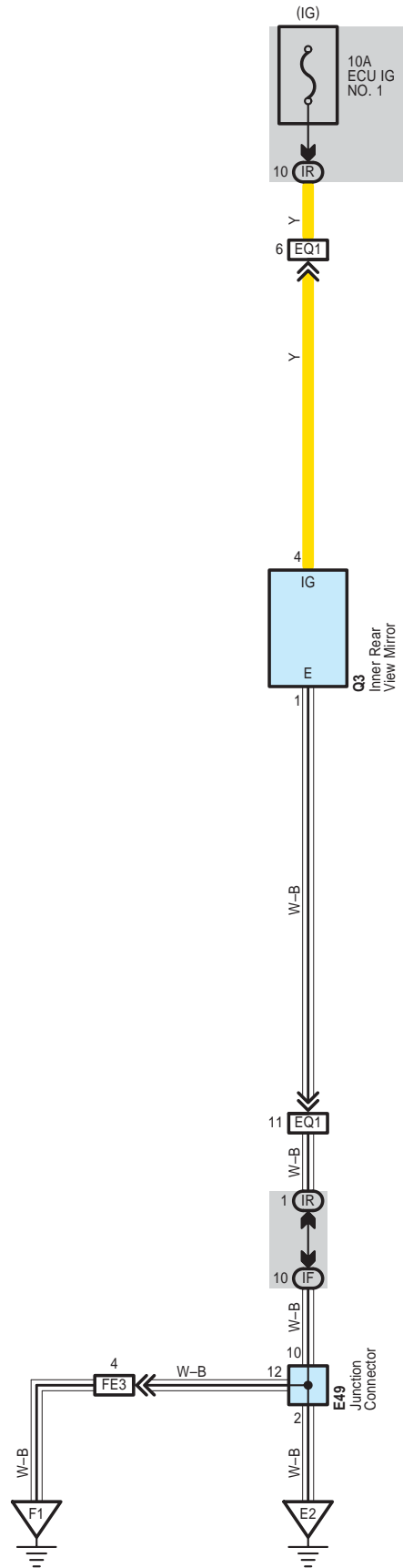
 : **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EQ1	66	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)

 : **Ground Points**

Code	See Page	Ground Points Location
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left

Automatic Glare-Resistant EC Mirror



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
E49	57	Q3	61		

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IR		

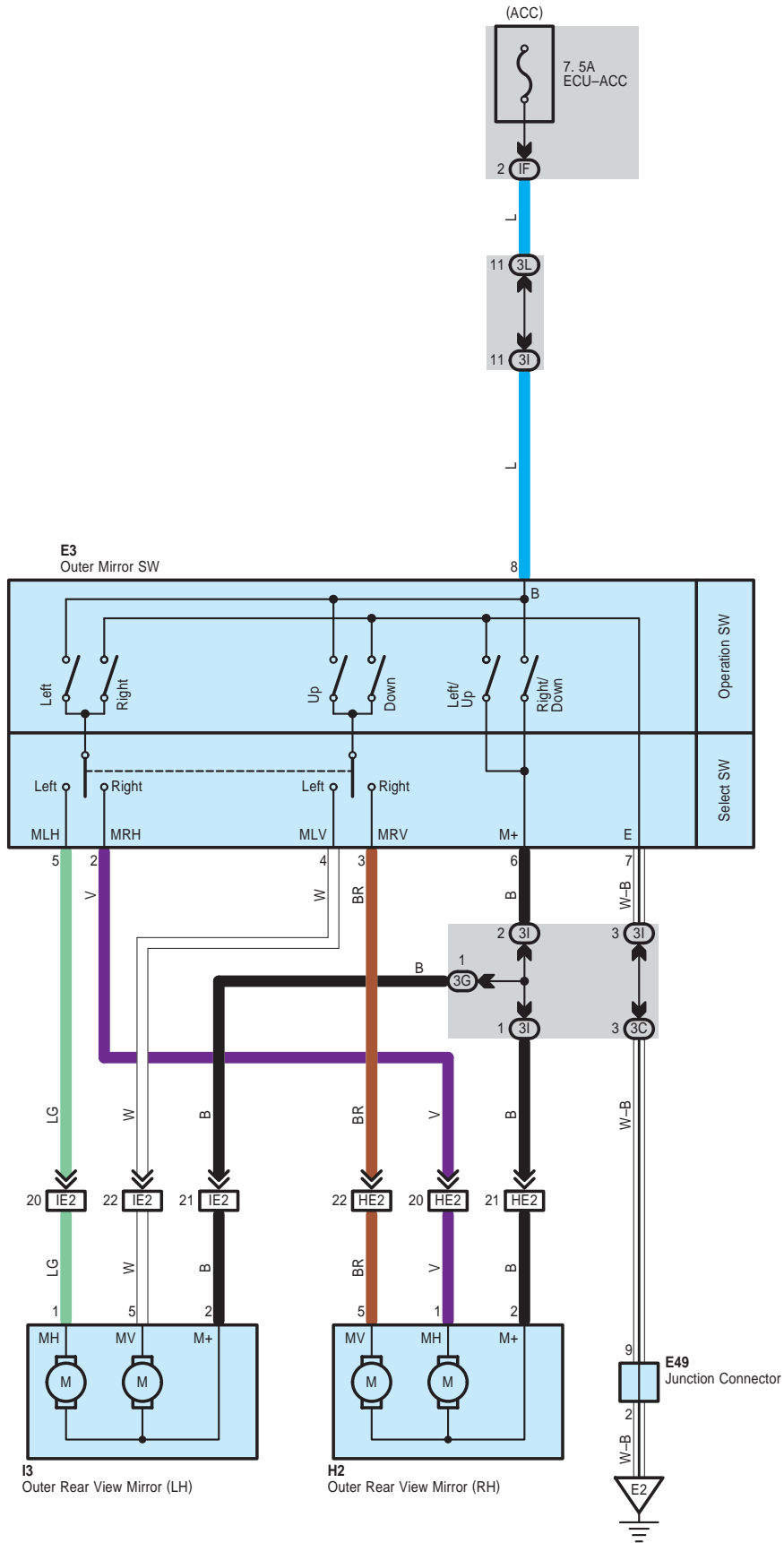
 : **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EQ1	66	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)

 : **Ground Points**

Code	See Page	Ground Points Location
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left

Remote Control Mirror



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
E3	56	H2	61		
E49	57	I3	61		

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
3C	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3G		
3I		
3L		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)

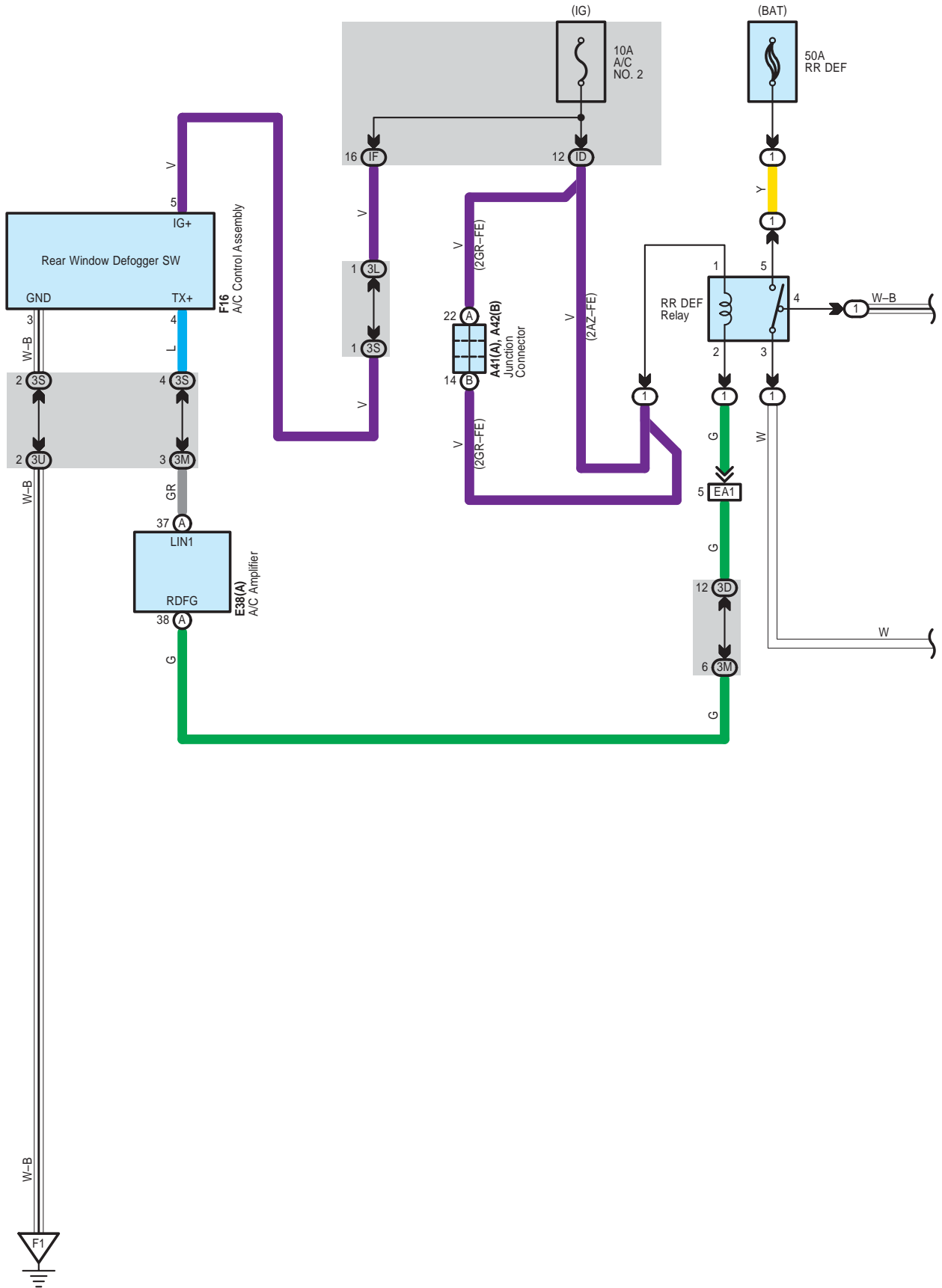
 : **Connector Joining Wire Harness and Wire Harness**

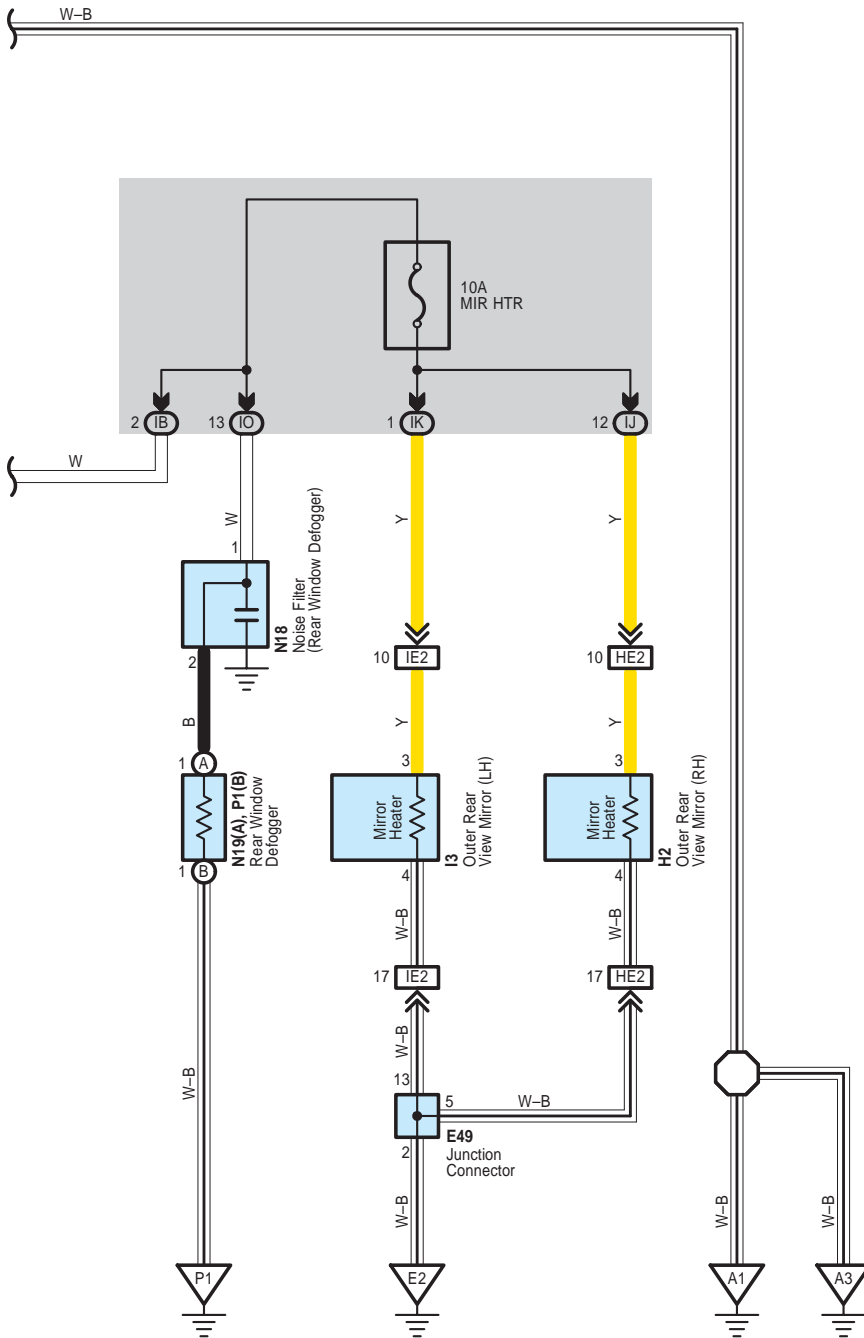
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
HE2	66	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IE2	66	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)

 : **Ground Points**

Code	See Page	Ground Points Location
E2	66	Instrument Panel Brace LH

Rear Window Defogger and Mirror Heater





CAMRY (EM0250U)

Rear Window Defogger and Mirror Heater

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A41	A	59	F16	58	N19	A	60	
A42	B	59	H2	61	P1	B	60	
E38	A	57	I3	61				
E49		57	N18	60				

○ : 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)
3D	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3L		
3M		
3S	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3U		
IB	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IJ		
IK		
IO	30	Floor Wire and Instrument Panel J/B (Cowl Side Left)

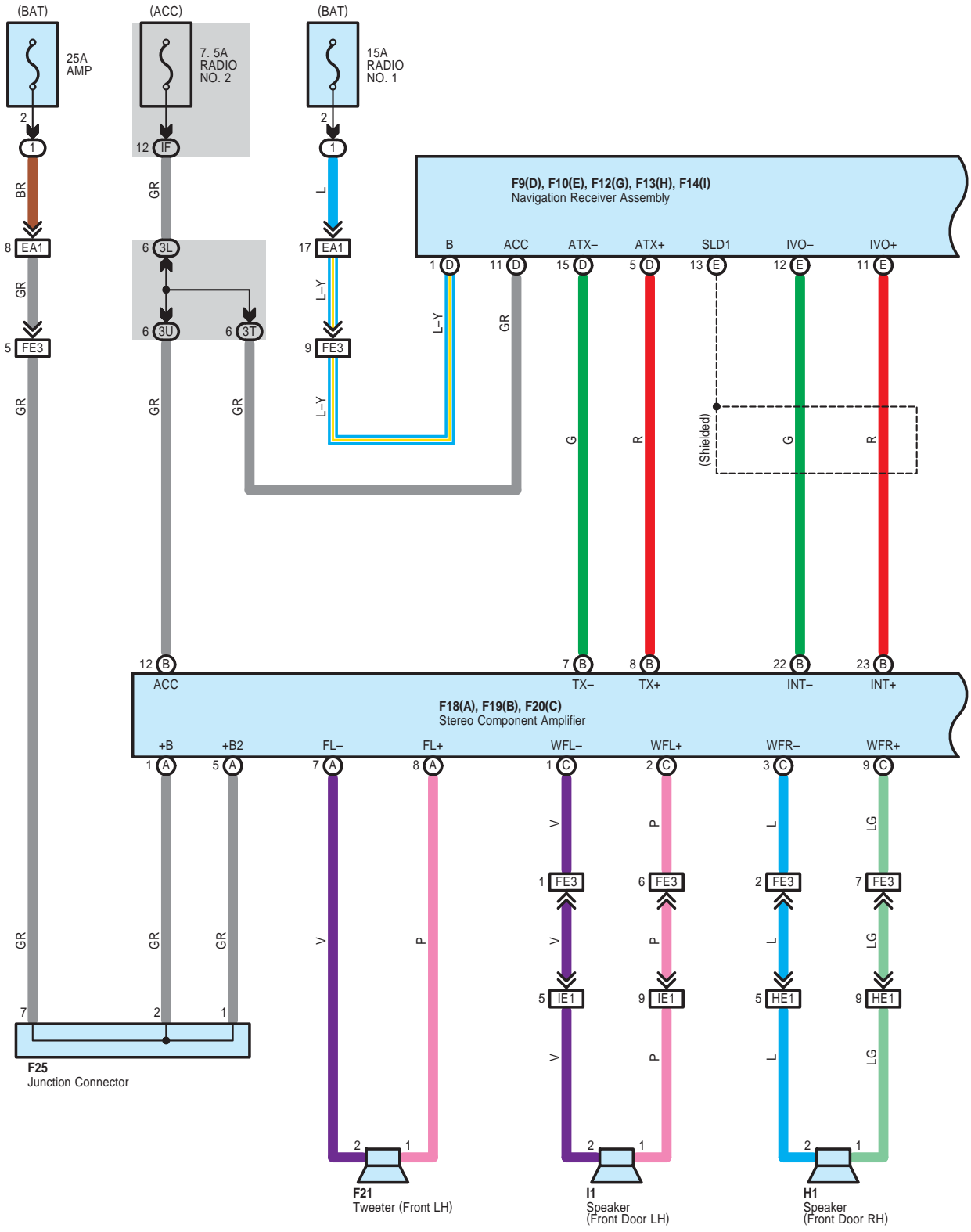
□ : Connector Joining Wire Harness and Wire Harness

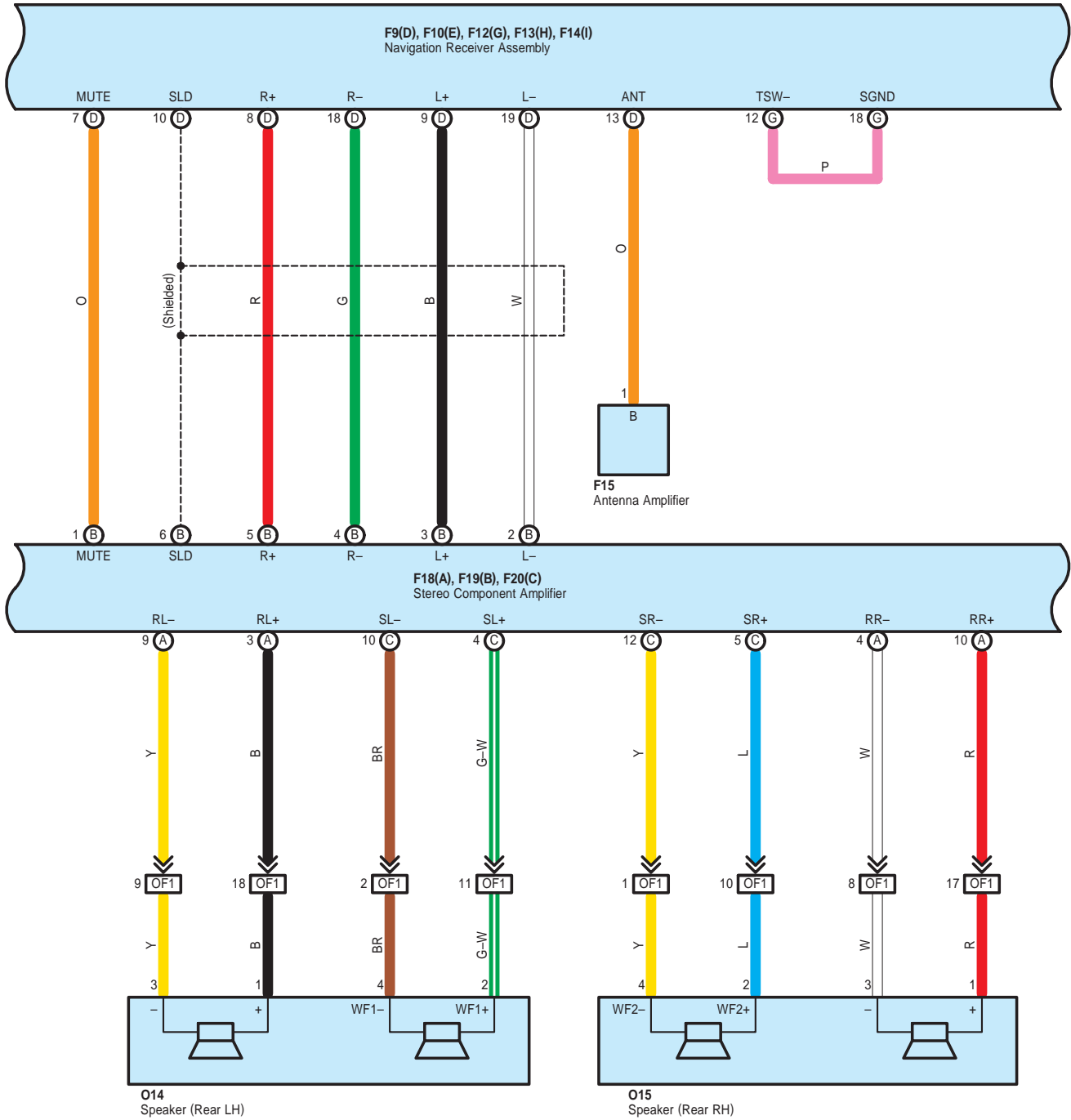
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
HE2	66	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IE2	66	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)

▽ : Ground Points

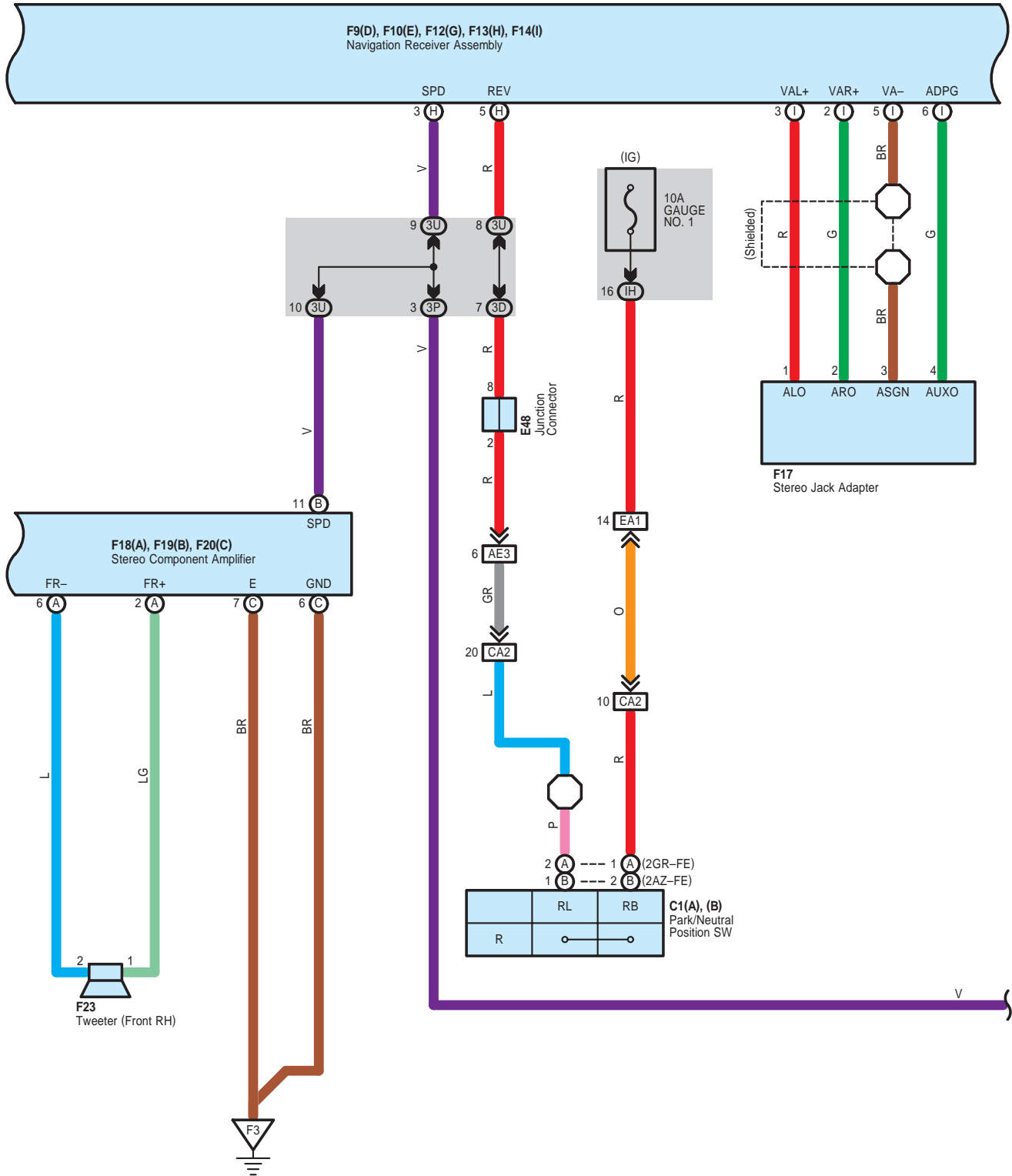
Code	See Page	Ground Points Location
A1	64 (2GR-FE)	Front Left Fender
	65 (2AZ-FE)	
E2	66	Instrument Panel Brace LH
F1	66	Instrument Panel Left
P1	67	Right Rear Quarter Panel

Navigation System and Audio System with 8 Speaker

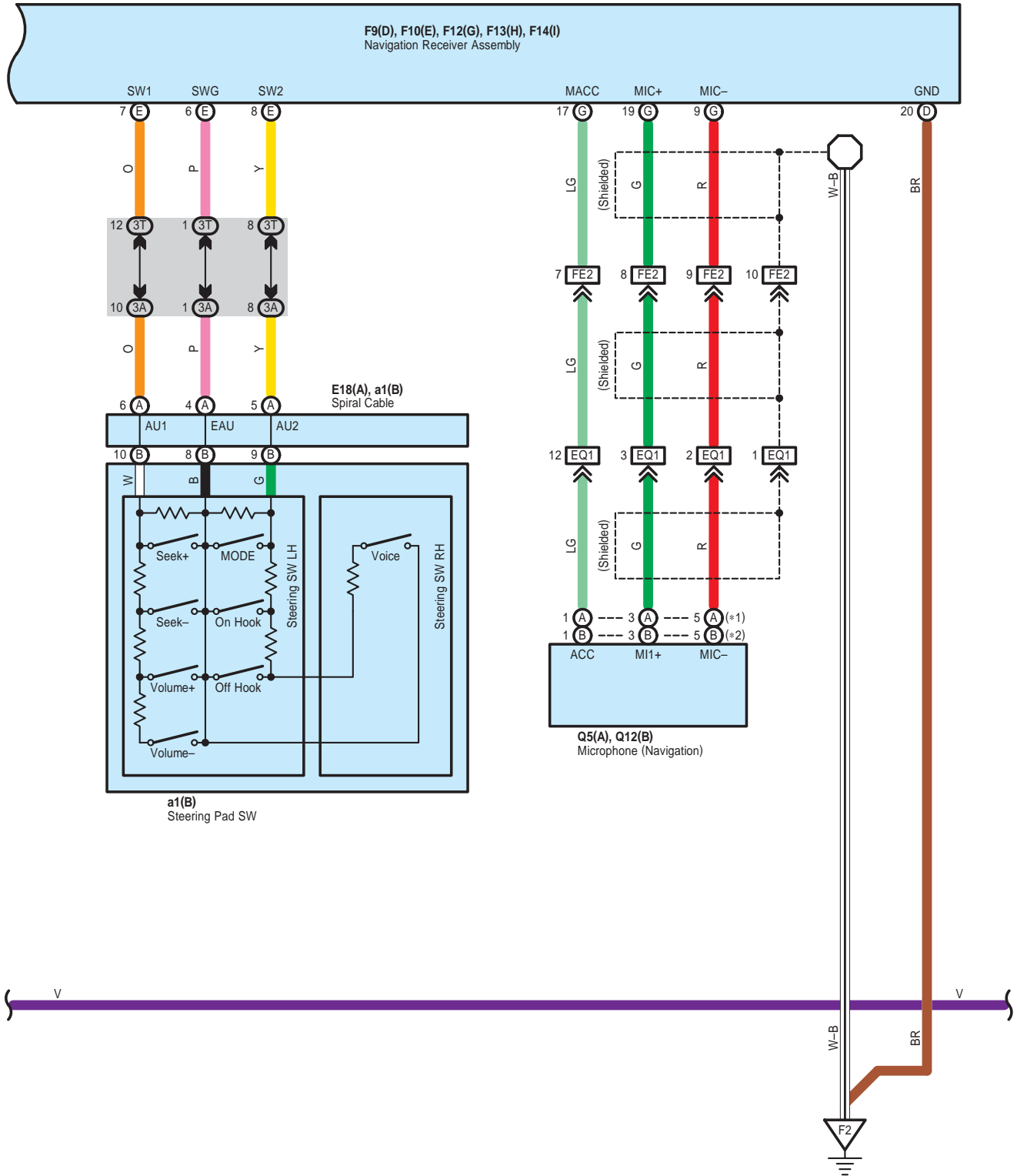




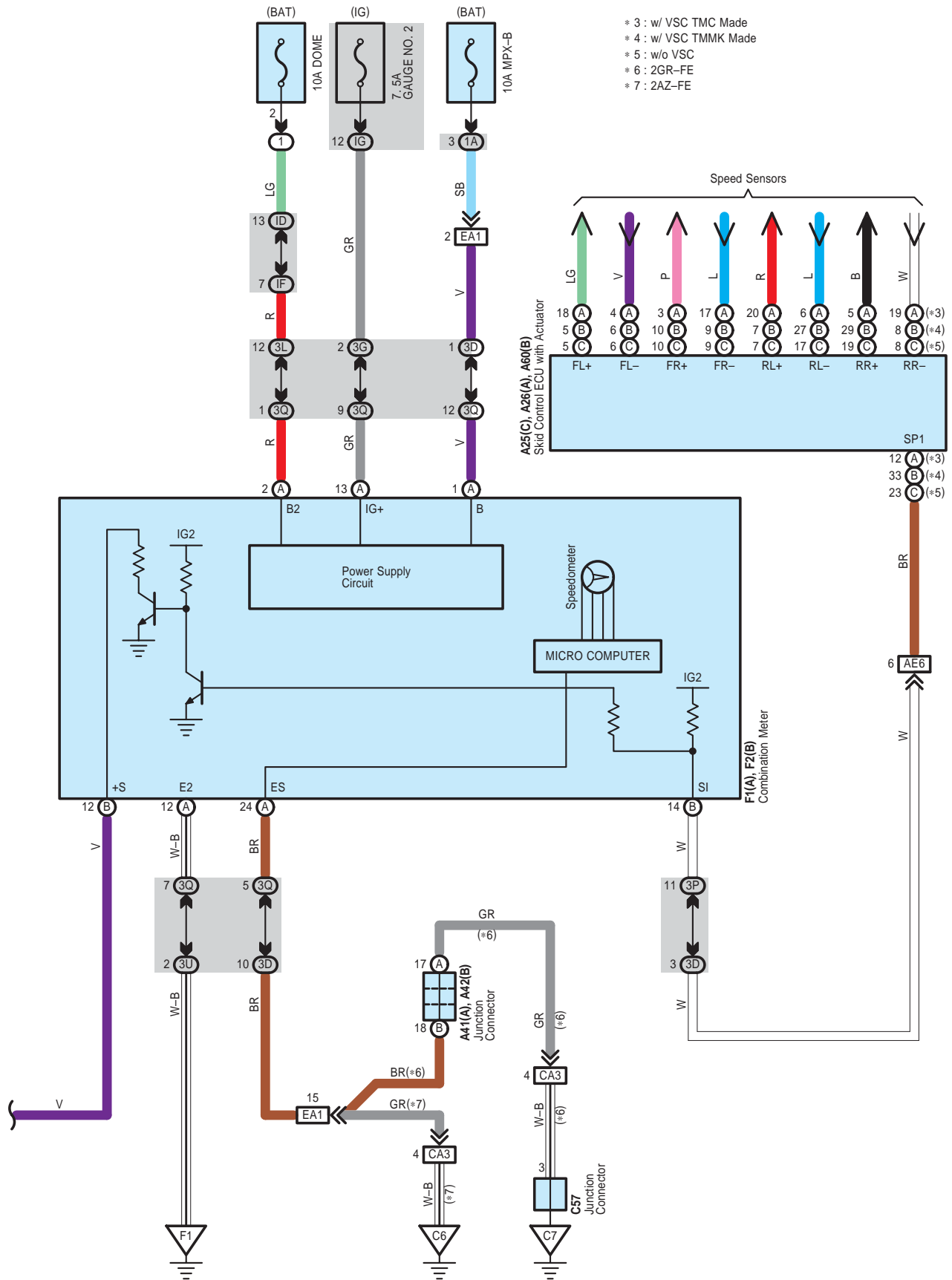
Navigation System and Audio System with 8 Speaker



* 1 : TMC Made
 * 2 : TMMK Made



Navigation System and Audio System with 8 Speaker



○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A25	C	48 (2GR-FE)	E48		57	F20	C	58
		52 (2AZ-FE)	F1	A	58	F21		58
A26	A	48 (2GR-FE)	F2	B	58	F23		58
		52 (2AZ-FE)	F9	D	58	F25		58
A41	A	59	F10	E	58	H1		61
A42	B	59	F12	G	58	I1		61
A60	B	49 (2GR-FE)	F13	H	58	O14		60
		53 (2AZ-FE)	F14	I	58	O15		60
C1	A	50 (2GR-FE)	F15		58	Q5	A	61
	B	54 (2AZ-FE)	F17		58	Q12	B	61
C57		51 (2GR-FE)	F18	A	58	a1	B	59
E18	A	56	F19	B	58			

○ : 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)
3A	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3D		
3G		
3L		
3P		
3Q	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3T		
3U		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IG	31	
IH		

□ : Connector Joining Wire Harness and Wire Harness

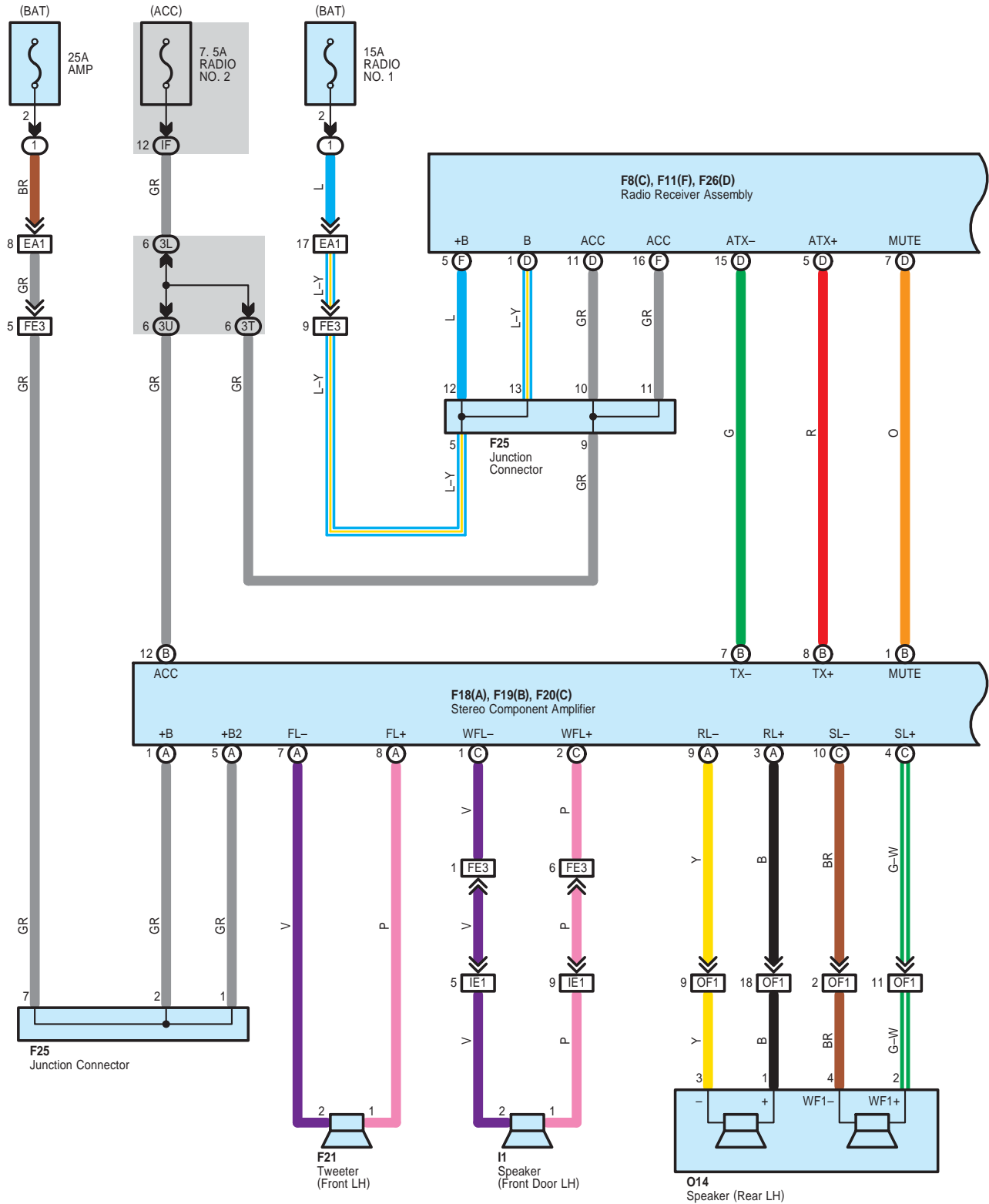
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE3	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
AE6		
CA2	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
CA3	64 (2GR-FE)	
	65 (2AZ-FE)	
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
EQ1	66	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
FE2	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
FE3		
HE1	66	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IE1	66	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
OF1	66	Floor No.2 Wire and Instrument Panel No.2 Wire (Instrument Panel Right)

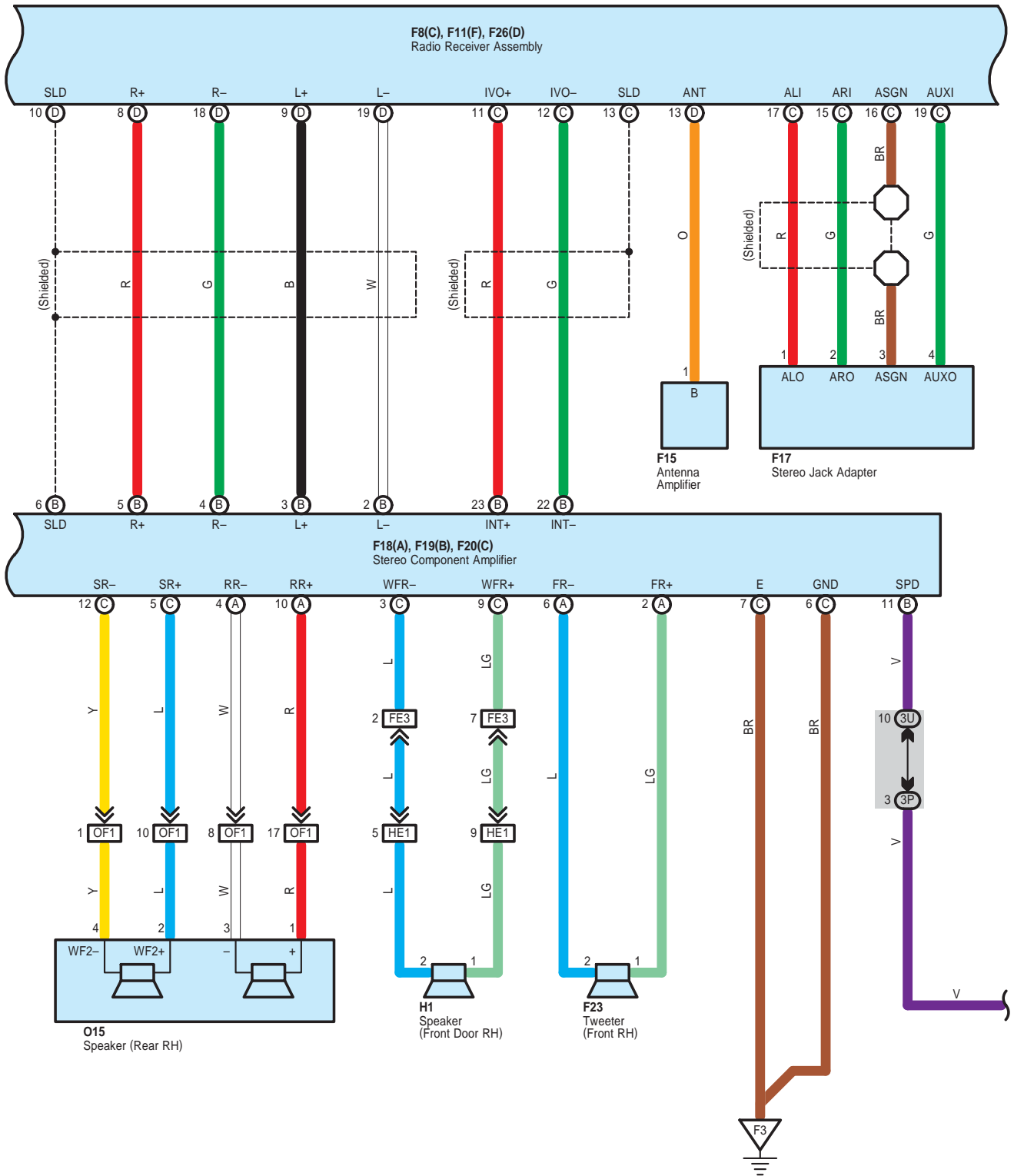
Navigation System and Audio System with 8 Speaker

 : Ground Points

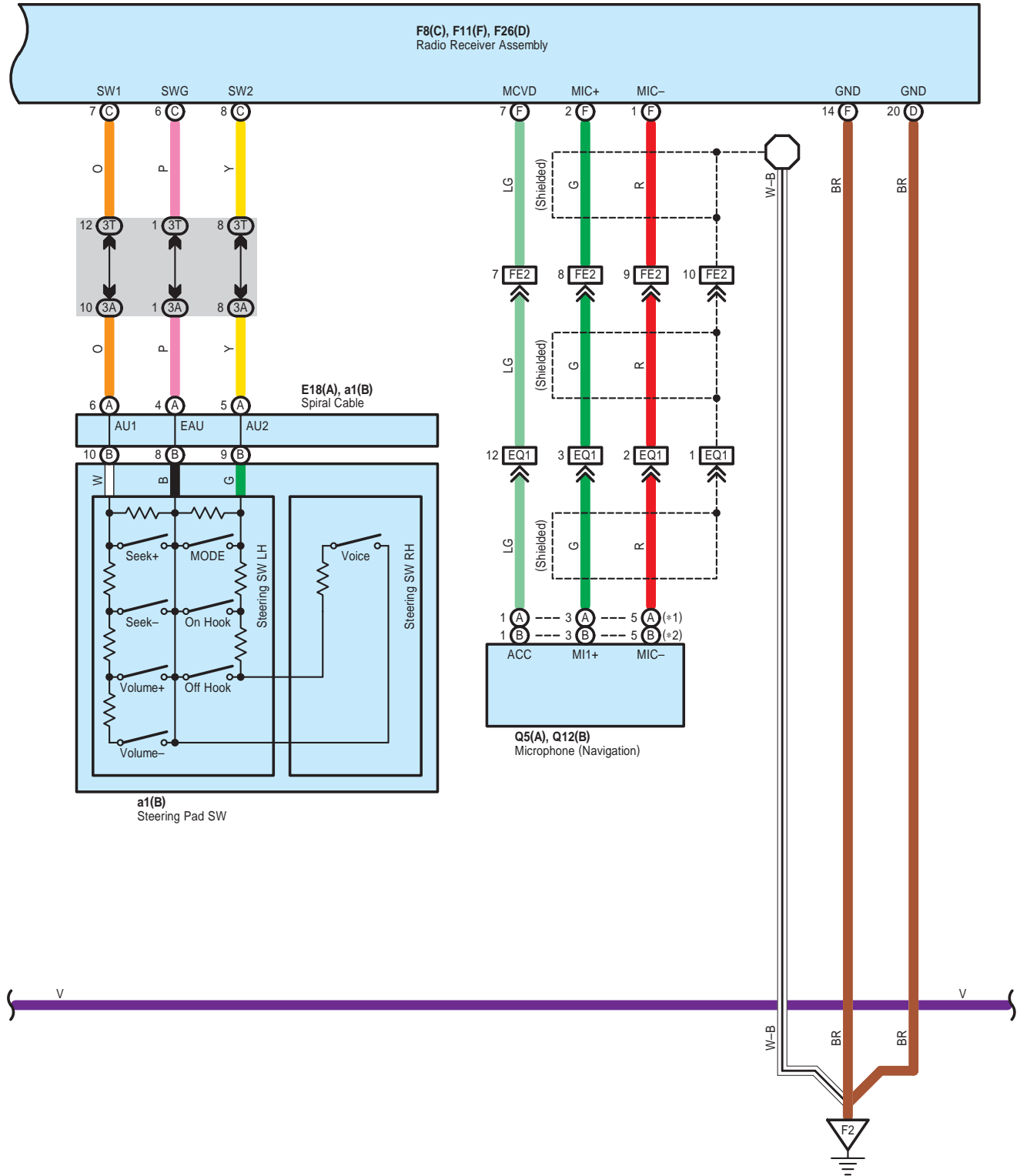
Code	See Page	Ground Points Location
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
F1	66	Instrument Panel Left
F2	66	Instrument Panel Brace RH
F3	66	Under the Front Passenger's Seat

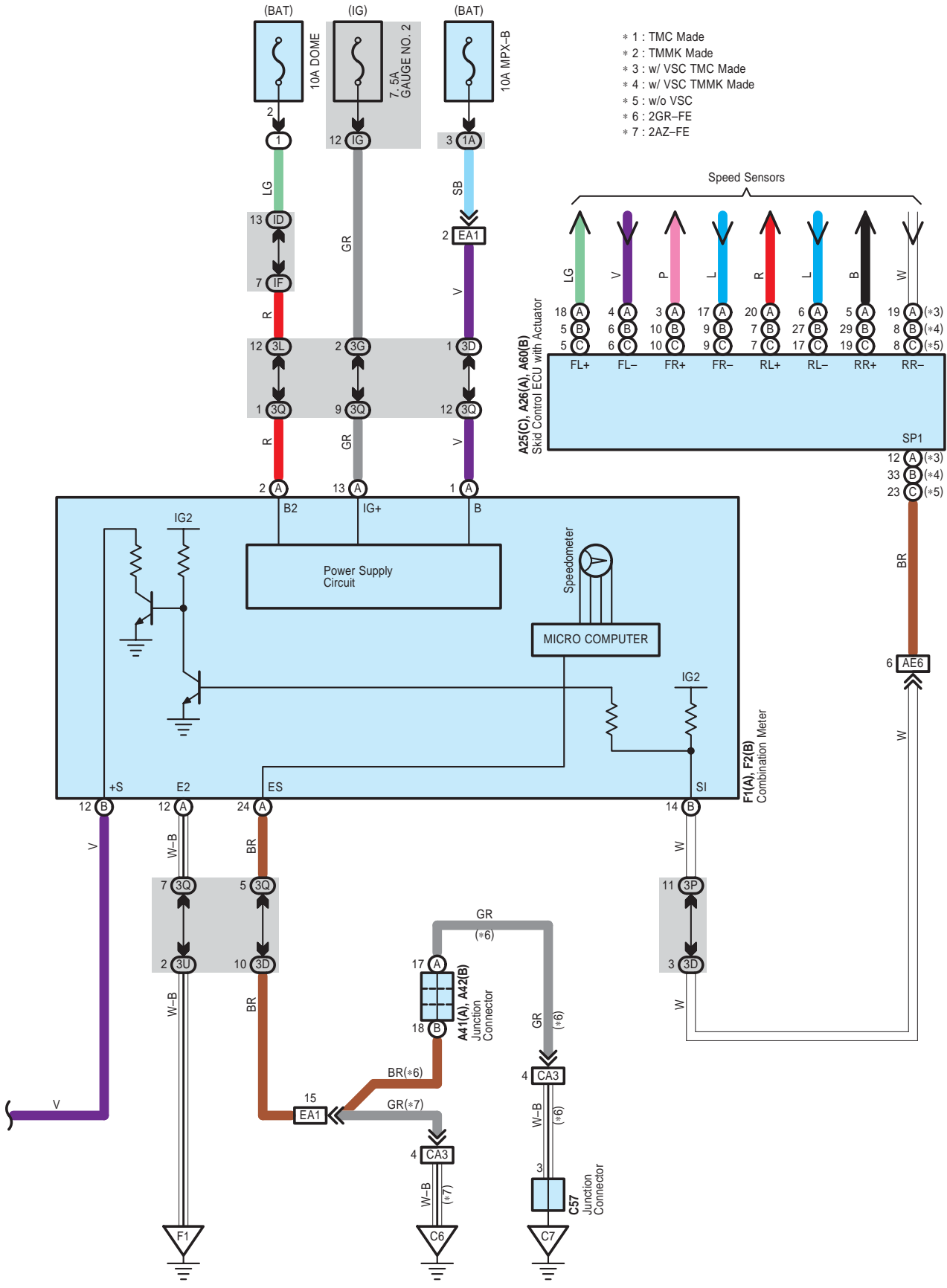
Audio System with 8 Speaker without Navigation





Audio System with 8 Speaker without Navigation





CAMRY (EM0250U)

Audio System with 8 Speaker without Navigation

: Parts Location

Code		See Page	Code		See Page	Code		See Page
A25	C	48 (2GR-FE)	F1	A	58	F23	58	
		52 (2AZ-FE)	F2	B	58	F25	58	
A26	A	48 (2GR-FE)	F8	C	58	F26	D	58
		52 (2AZ-FE)	F11	F	58	H1	61	
A41	A	59	F15		58	I1	61	
A42	B	59	F17		58	O14	60	
A60	B	49 (2GR-FE)	F18	A	58	O15		60
		53 (2AZ-FE)	F19	B	58	Q5	A	61
C57		51 (2GR-FE)	F20	C	58	Q12	B	61
E18	A	56	F21		58	a1	B	59

: 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)
3A	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3D		
3G		
3L		
3P	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3Q		
3T		
3U		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IG	31	

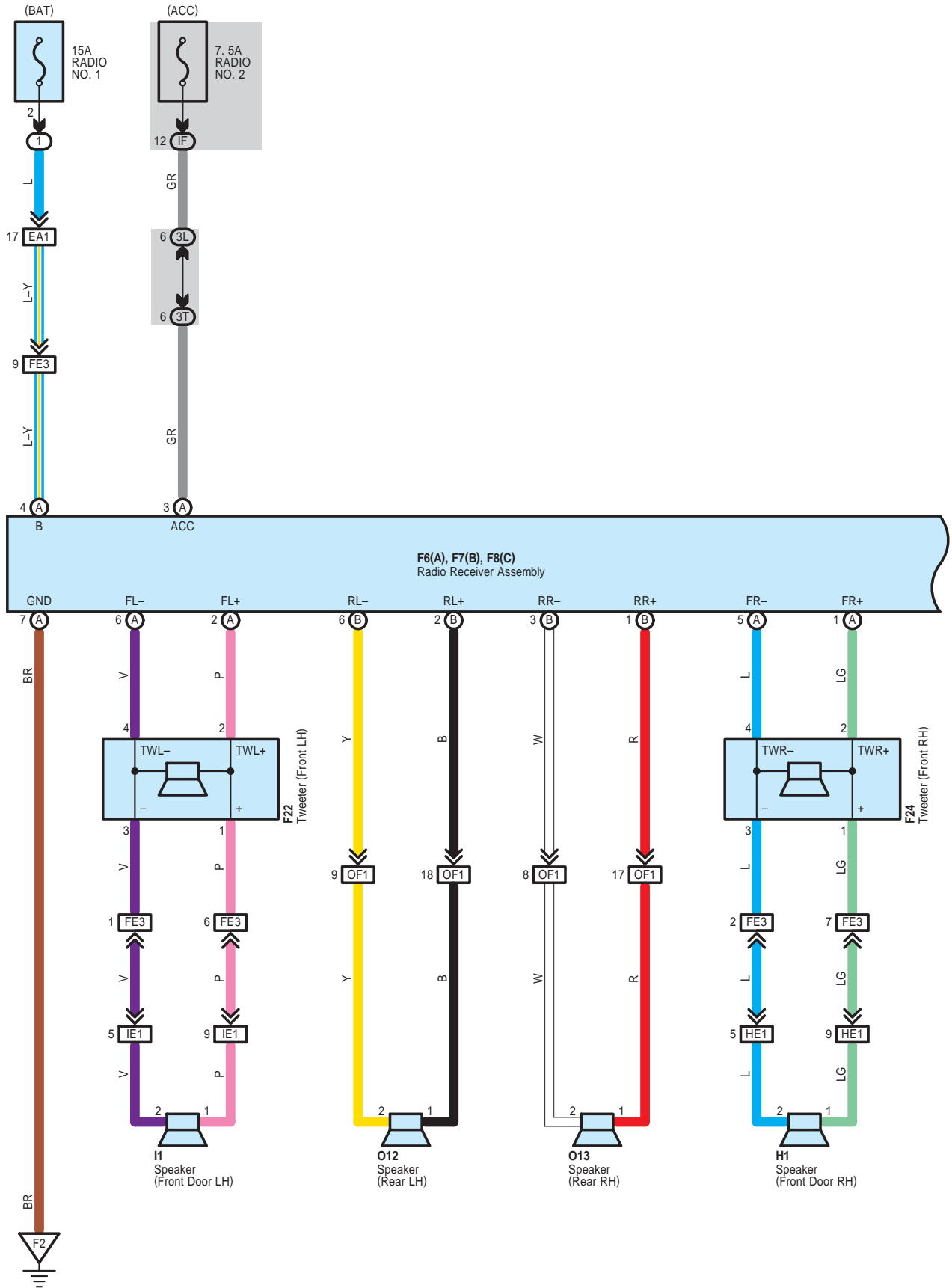
: Connector Joining Wire Harness and Wire Harness

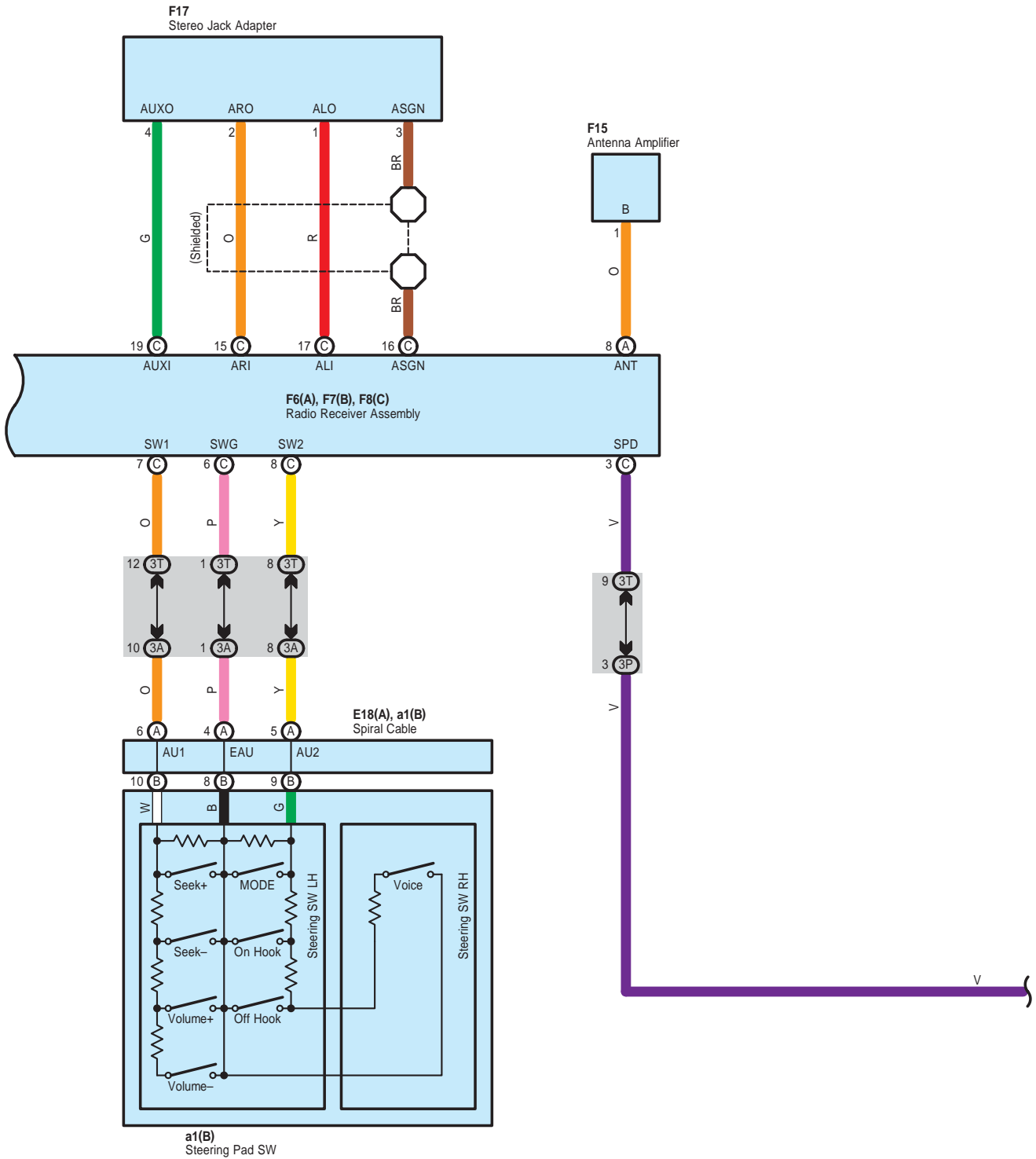
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE6	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
CA3	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
EQ1	66	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
FE2	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
FE3		
HE1	66	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IE1	66	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
OF1	66	Floor No.2 Wire and Instrument Panel No.2 Wire (Instrument Panel Right)

: Ground Points

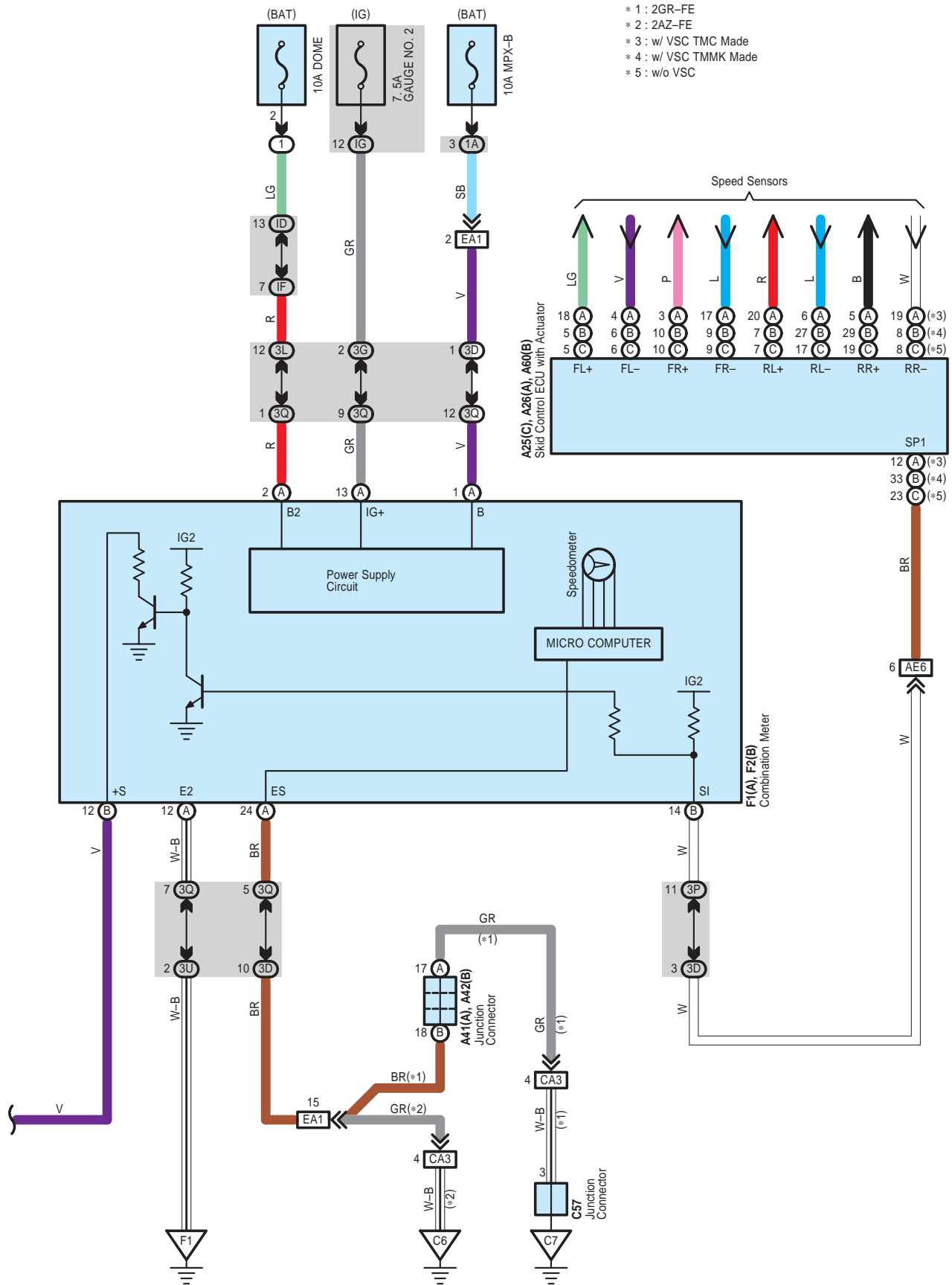
Code	See Page	Ground Points Location
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
F1	66	Instrument Panel Left
F2	66	Instrument Panel Brace RH
F3	66	Under the Front Passenger's Seat

Audio System with 6 Speaker





Audio System with 6 Speaker



 : **Parts Location**

Code		See Page	Code		See Page	Code		See Page
A25	C	48 (2GR-FE)	C57		51 (2GR-FE)	F17	58	
		52 (2AZ-FE)	E18	A	56	F22	58	
A26	A	48 (2GR-FE)	F1	A	58	F24	58	
		52 (2AZ-FE)	F2	B	58	H1	61	
A41	A	59	F6	A	58	I1	61	
A42	B	59	F7	B	58	O12	60	
A60	B	49 (2GR-FE)	F8	C	58	O13	60	
		53 (2AZ-FE)	F15		58	a1	B	59

 : **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)
3A	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3D		
3G		
3L		
3P		
3Q	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3T		
3U		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IG	31	

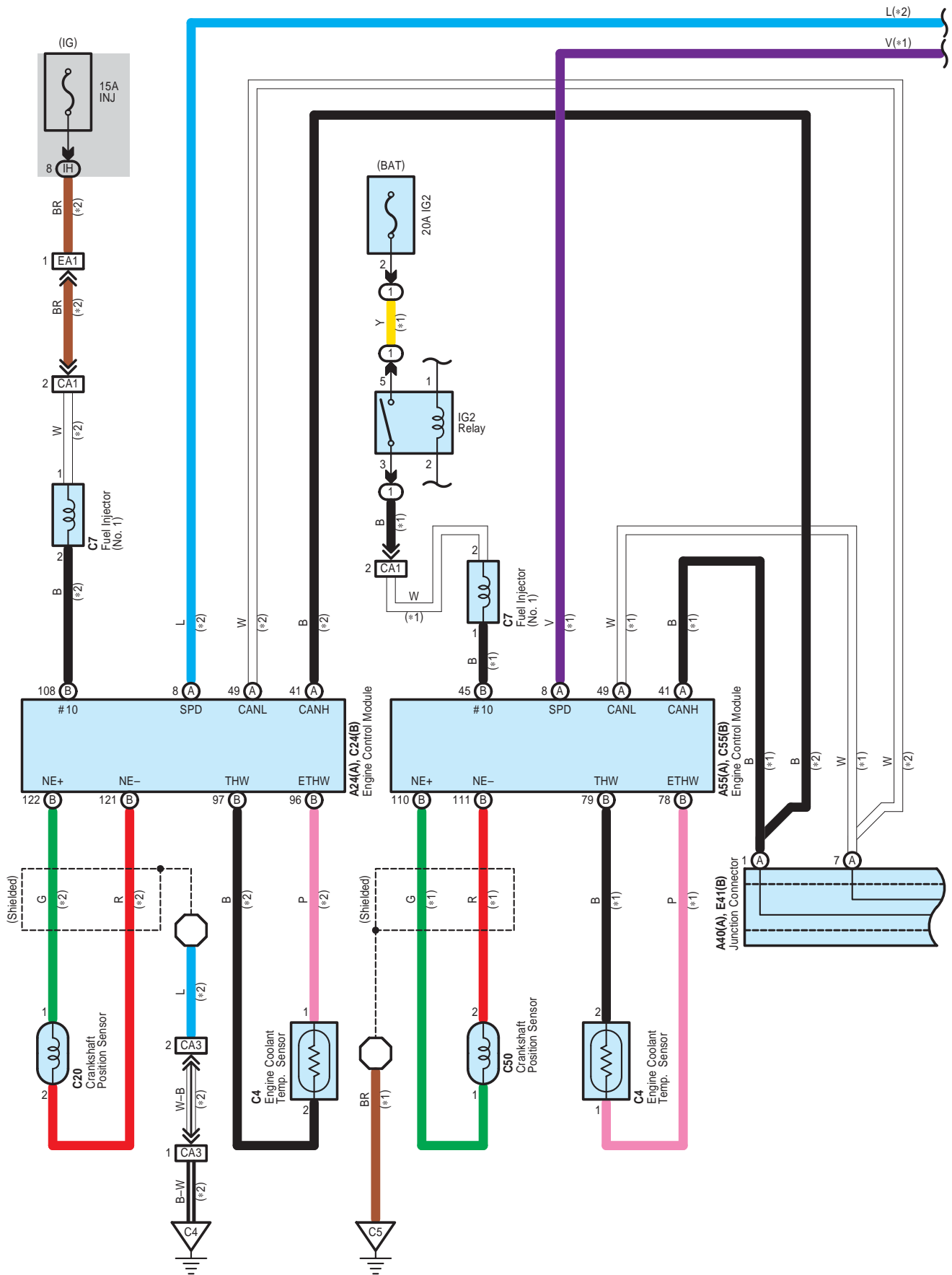
 : **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE6	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
CA3	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
HE1	66	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IE1	66	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
OF1	66	Floor No.2 Wire and Instrument Panel No.2 Wire (Instrument Panel Right)

 : **Ground Points**

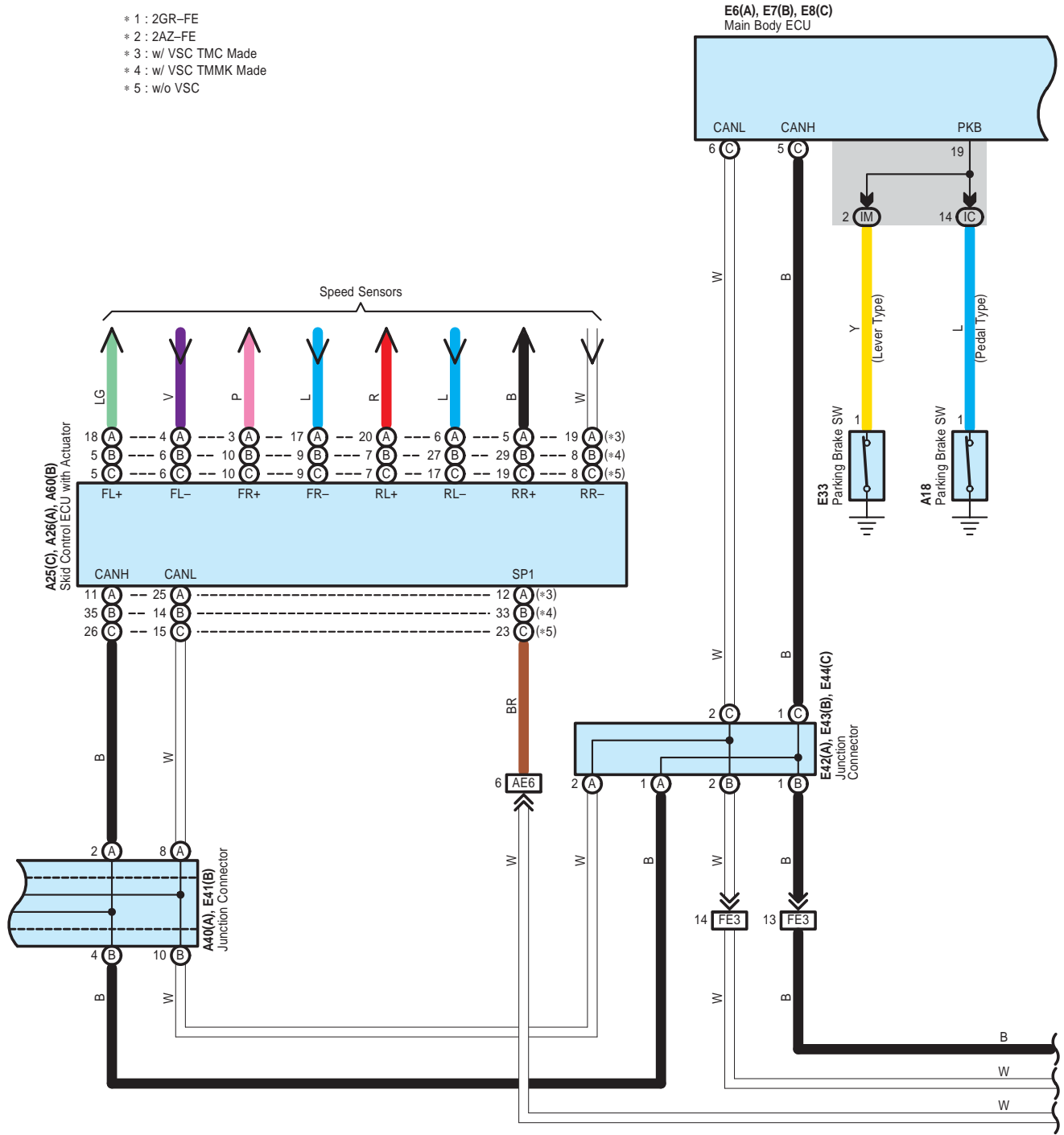
Code	See Page	Ground Points Location
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
F1	66	Instrument Panel Left
F2	66	Instrument Panel Brace RH

Combination Meter

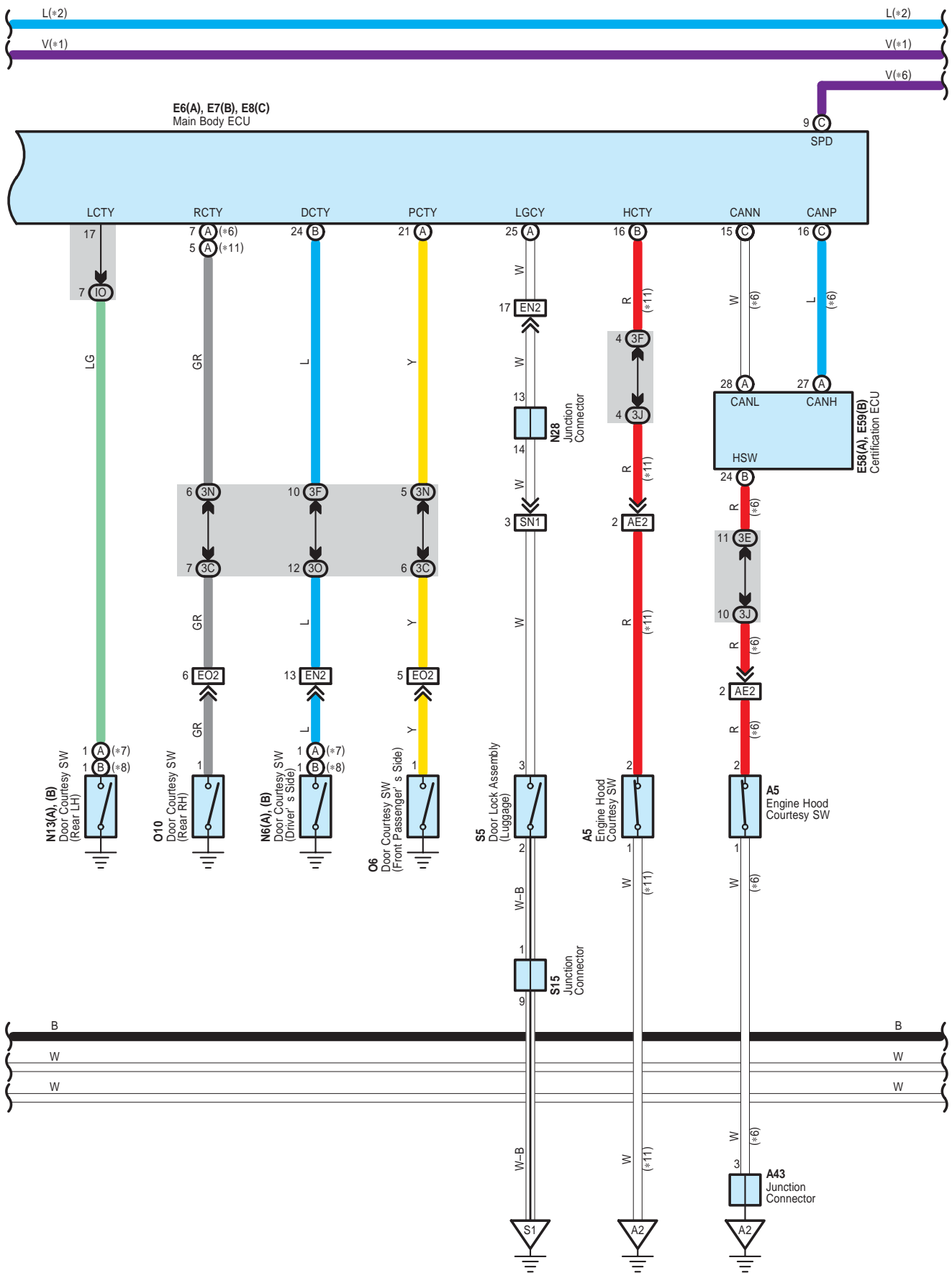


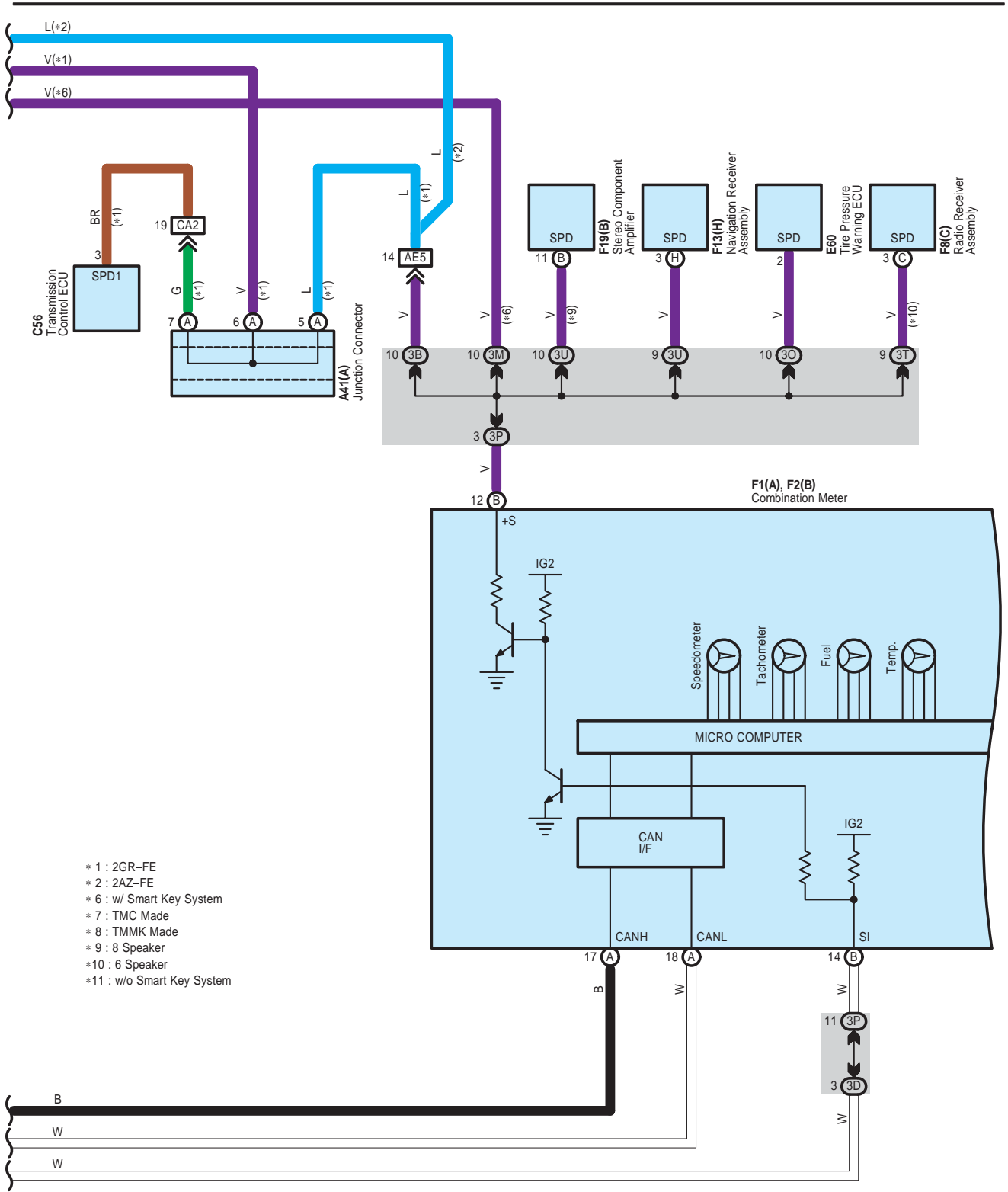


- * 1 : 2GR-FE
- * 2 : 2AZ-FE
- * 3 : w/ VSC TMC Made
- * 4 : w/ VSC TMMK Made
- * 5 : w/o VSC



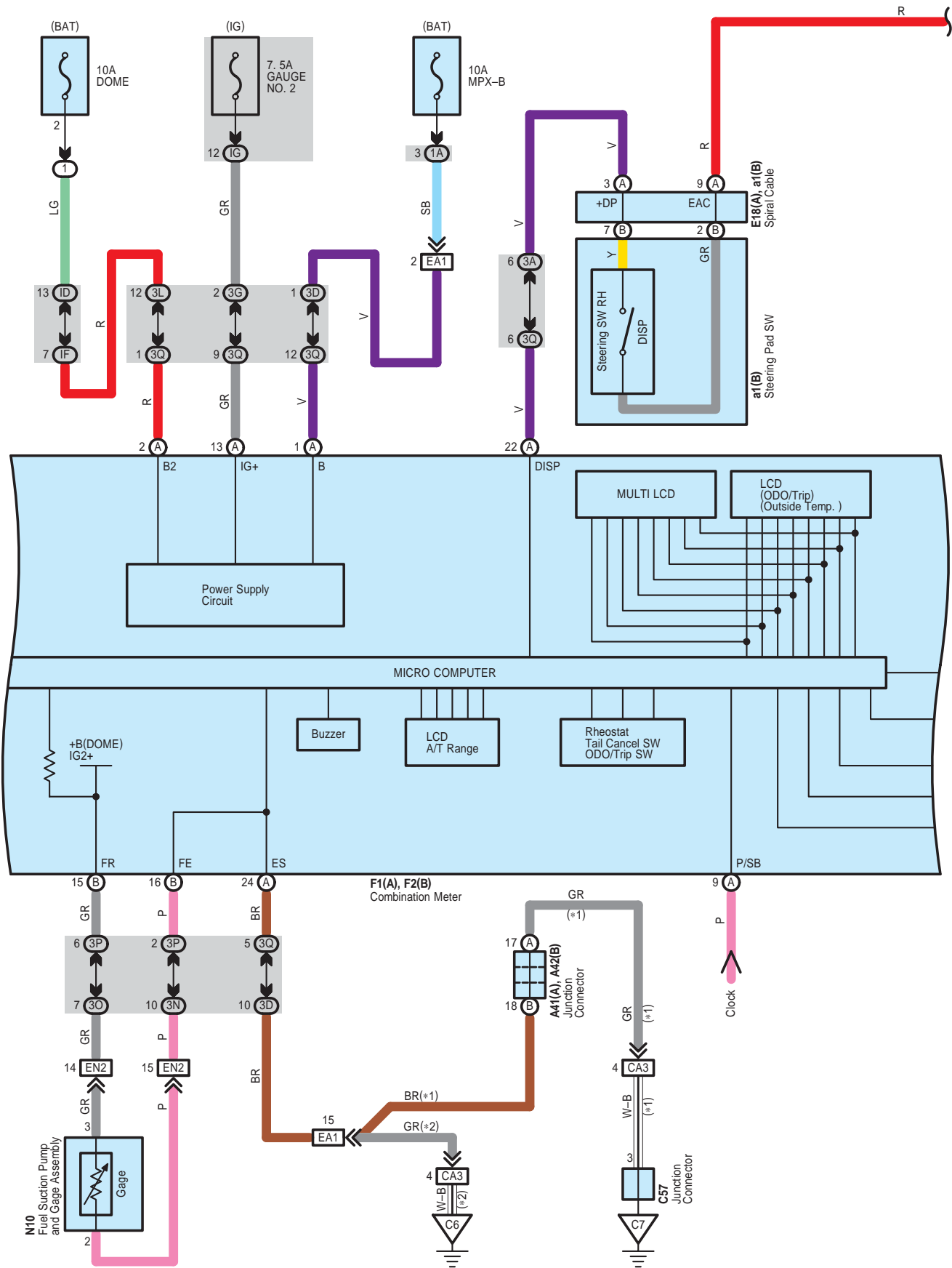
Combination Meter





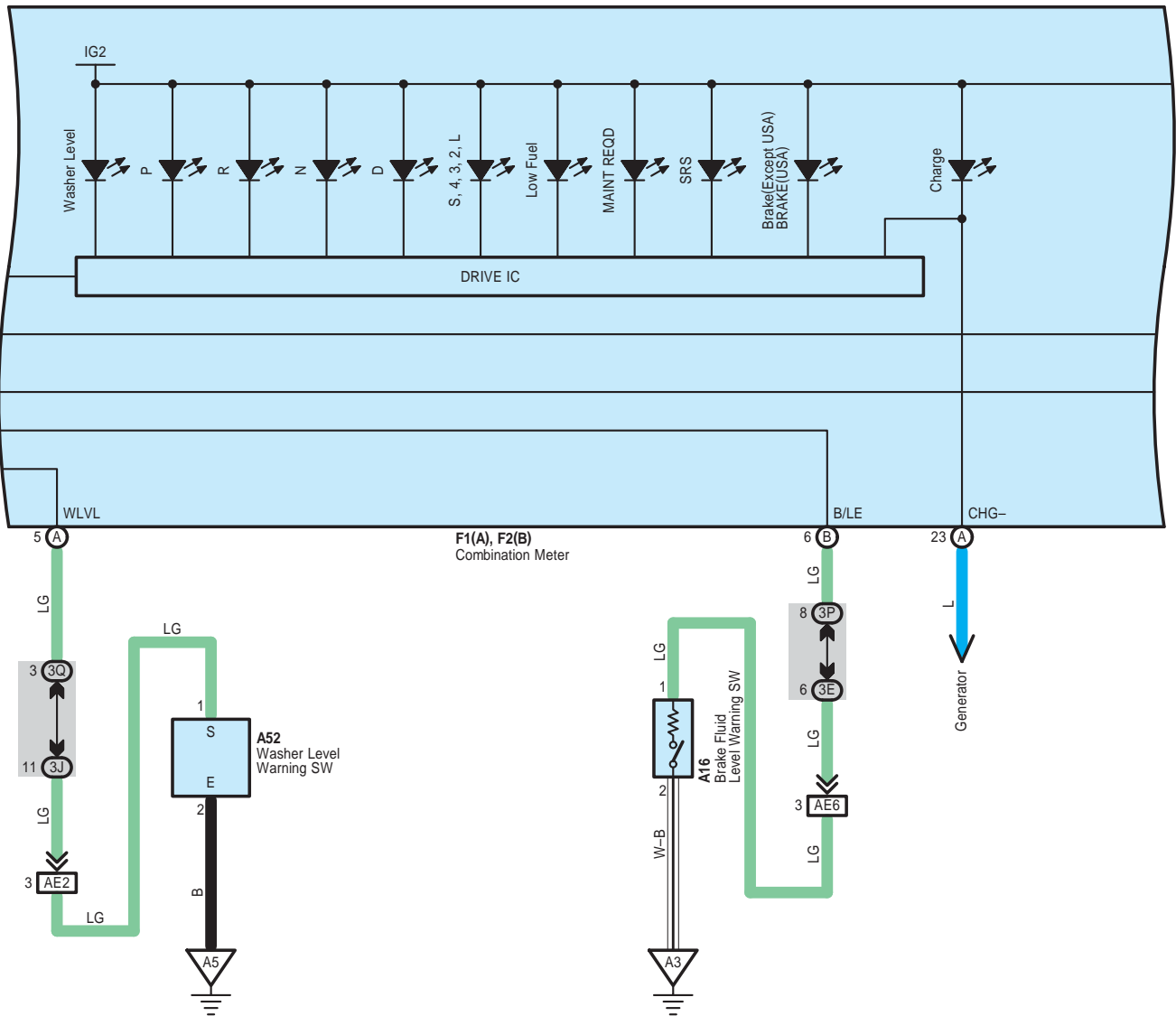
- * 1 : 2GR-FE
- * 2 : 2AZ-FE
- * 6 : w/ Smart Key System
- * 7 : TMC Made
- * 8 : TMMK Made
- * 9 : 8 Speaker
- * 10 : 6 Speaker
- * 11 : w/o Smart Key System

Combination Meter

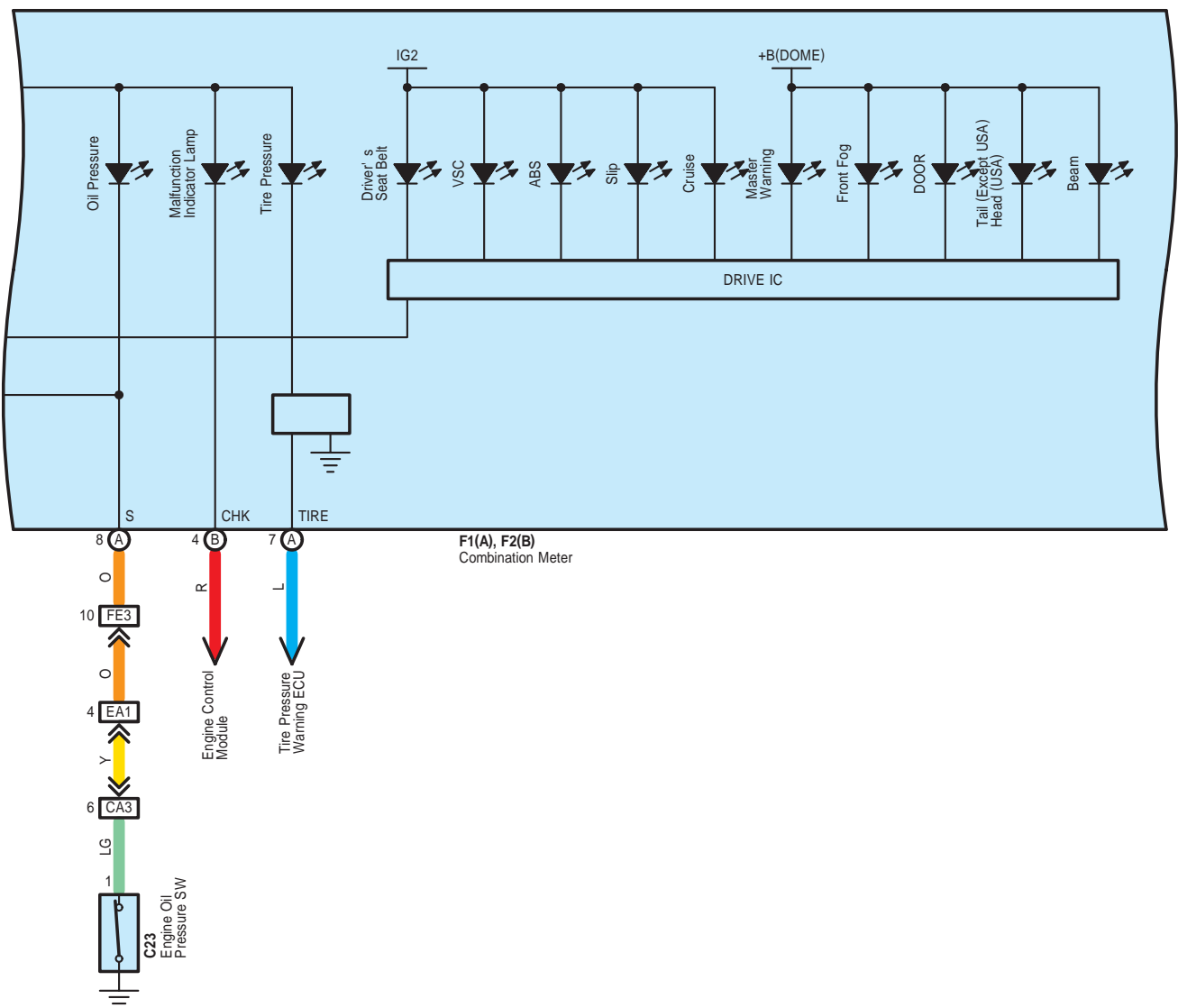


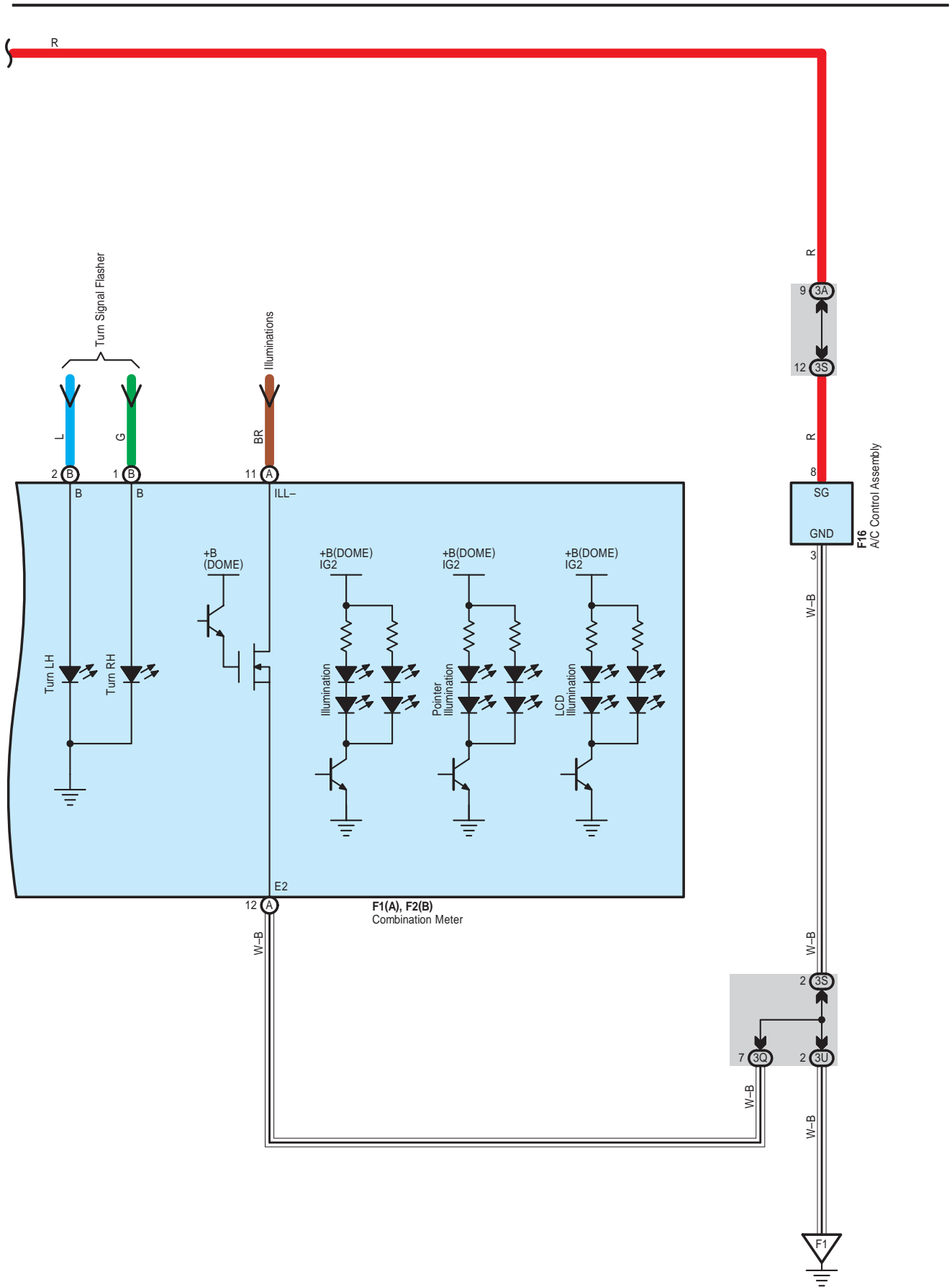


- * 1 : 2GR-FE
- * 2 : 2AZ-FE



Combination Meter





Combination Meter

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A5		48 (2GR-FE)	C4		54 (2AZ-FE)	E58	A	57
		52 (2AZ-FE)		C7		50 (2GR-FE)	E59	B
A16		48 (2GR-FE)				54 (2AZ-FE)	E60	
		52 (2AZ-FE)	C20		55 (2AZ-FE)	F1	A	58
A18		59	C23		50 (2GR-FE)	F2	B	58
A24	A	52 (2AZ-FE)				55 (2AZ-FE)	F8	C
A25	C	48 (2GR-FE)	C24	B	55 (2AZ-FE)	F13	H	58
		52 (2AZ-FE)	C50		51 (2GR-FE)	F16		58
A26	A	48 (2GR-FE)	C55	B	51 (2GR-FE)	F19	B	58
		52 (2AZ-FE)	C56		51 (2GR-FE)	N6	A	60
A40	A	59	C57		51 (2GR-FE)		B	60
A41	A	59	E6	A	56	N10		60
A42	B	59	E7	B	56	N13	A	60
A43		49 (2GR-FE)	E8	C	56		B	60
A52		49 (2GR-FE)	E18	A	56	N28		60
		53 (2AZ-FE)	E33		56	O6		60
A55	A	49 (2GR-FE)	E41	B	57	O10		60
A60	B	49 (2GR-FE)	E42	A	57	S5		61
		53 (2AZ-FE)	E43	B	57	S15		61
C4		50 (2GR-FE)	E44	C	57	a1	B	59

○ : 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)
3A	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3B		
3C		
3D		
3E		
3F		
3G		
3J		
3L		
3M		
3N		
3O		
3P	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3Q		
3S		
3T		
3U		
IC	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
ID	30	
IF	30	
IG	31	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IH		
IM	30	
IO	30	Floor Wire and Instrument Panel J/B (Cowl Side Left)

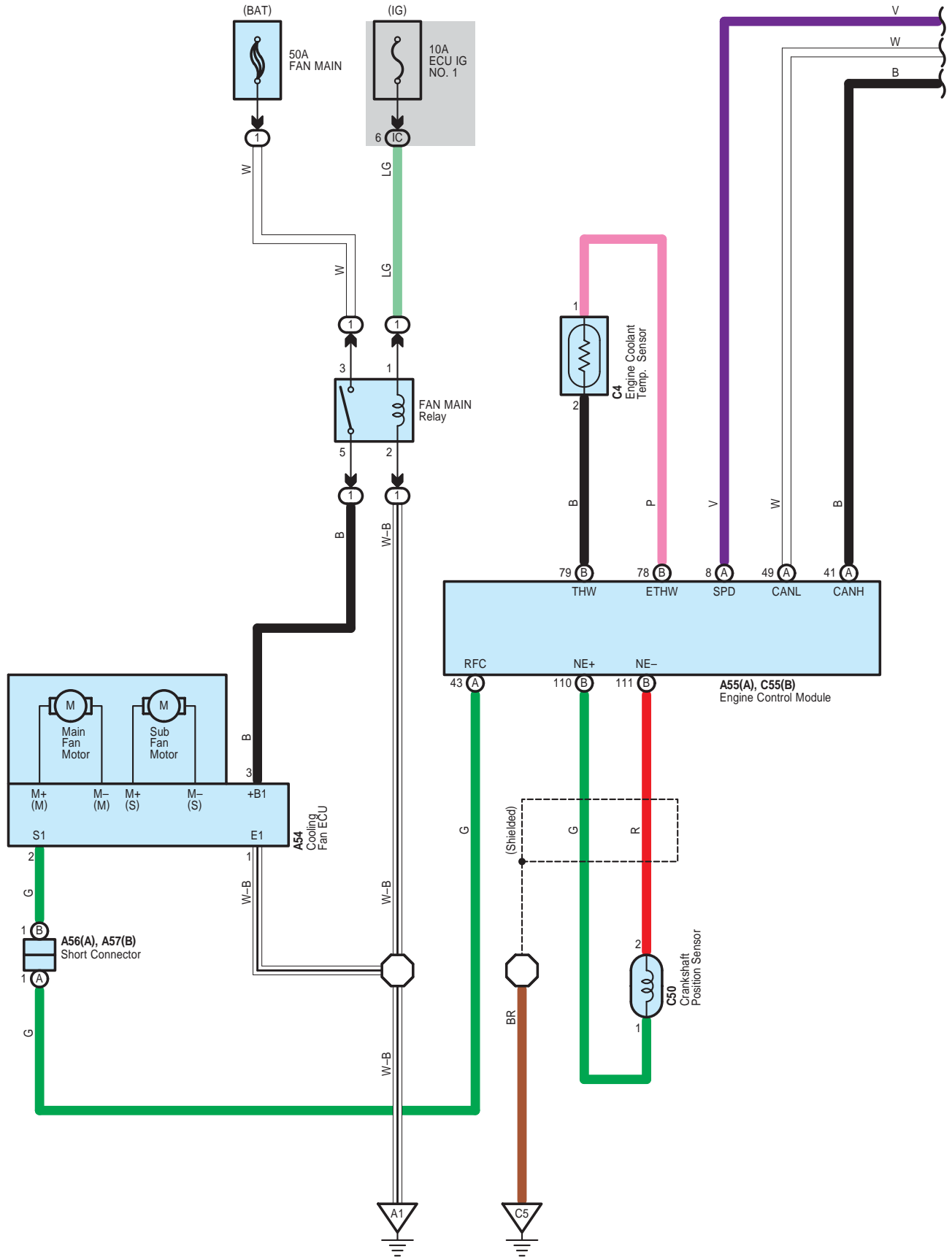
 : Connector Joining Wire Harness and Wire Harness

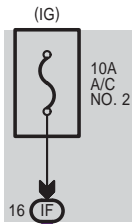
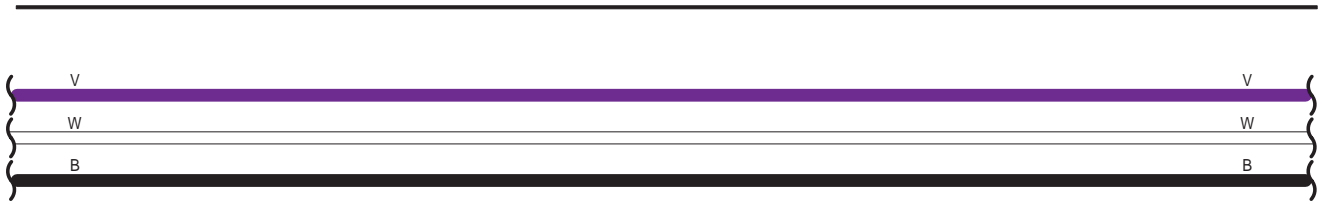
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE2	66	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
AE5	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
AE6		
CA1	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
CA2	64 (2GR-FE)	
CA3	64 (2GR-FE)	
	65 (2AZ-FE)	
EA1	66	
EN2	66	Instrument Panel Wire and Floor Wire (Left Kick Panel)
EO2	66	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
SN1	67	Luggage Room Wire and Floor Wire (Luggage Room Left)

 : Ground Points

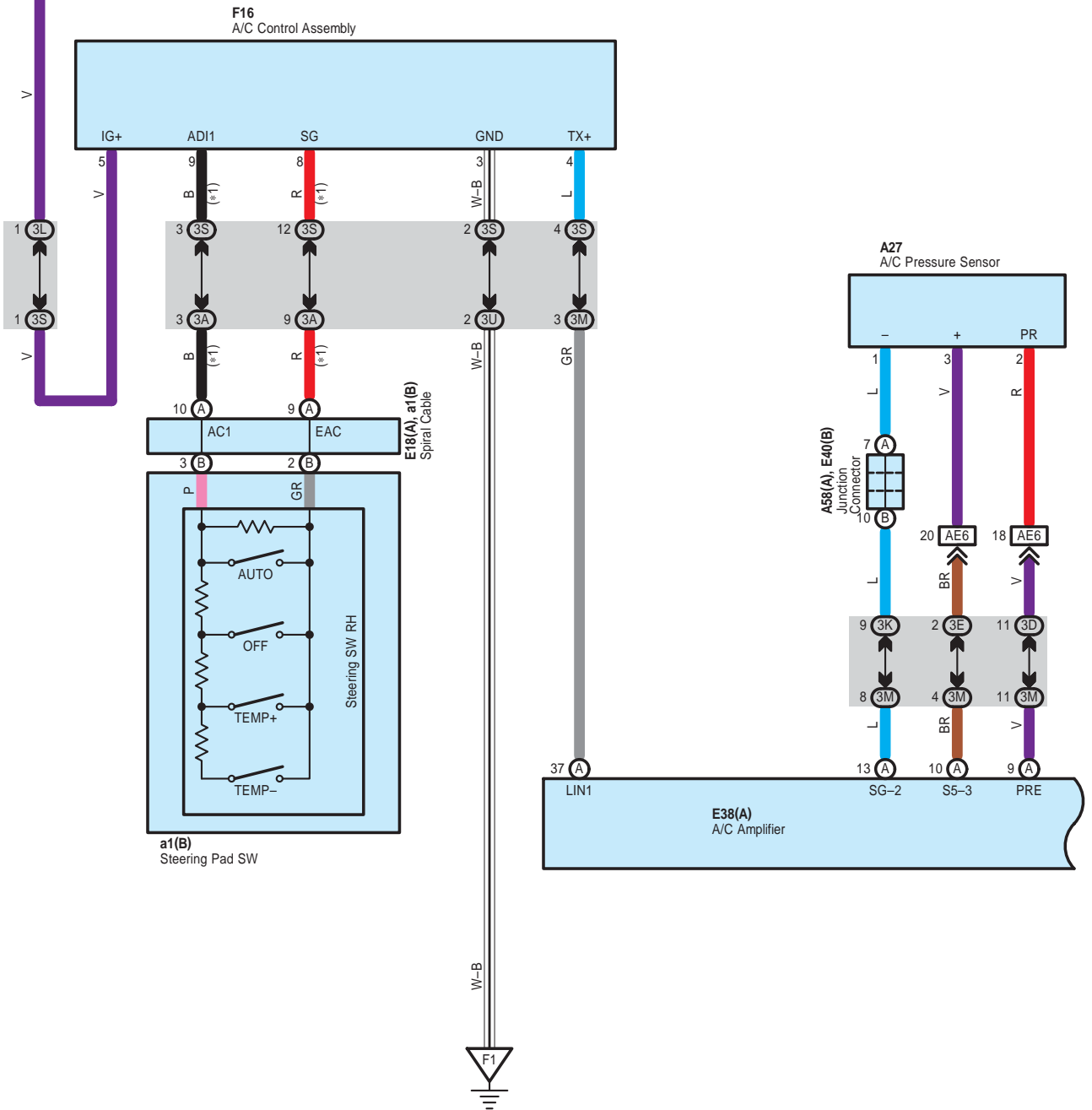
Code	See Page	Ground Points Location
A2	64 (2GR-FE)	Front Left Fender
	65 (2AZ-FE)	
A3	66	Left Cowl Side Panel
A5	64 (2GR-FE)	Front Right Fender
	65 (2AZ-FE)	
C4	65 (2AZ-FE)	Cylinder Block
C5	64 (2GR-FE)	Right Side of the Cylinder Block
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
F1	66	Instrument Panel Left
S1	67	Lower Back Panel Center

Cooling Fan for 2GR-FE

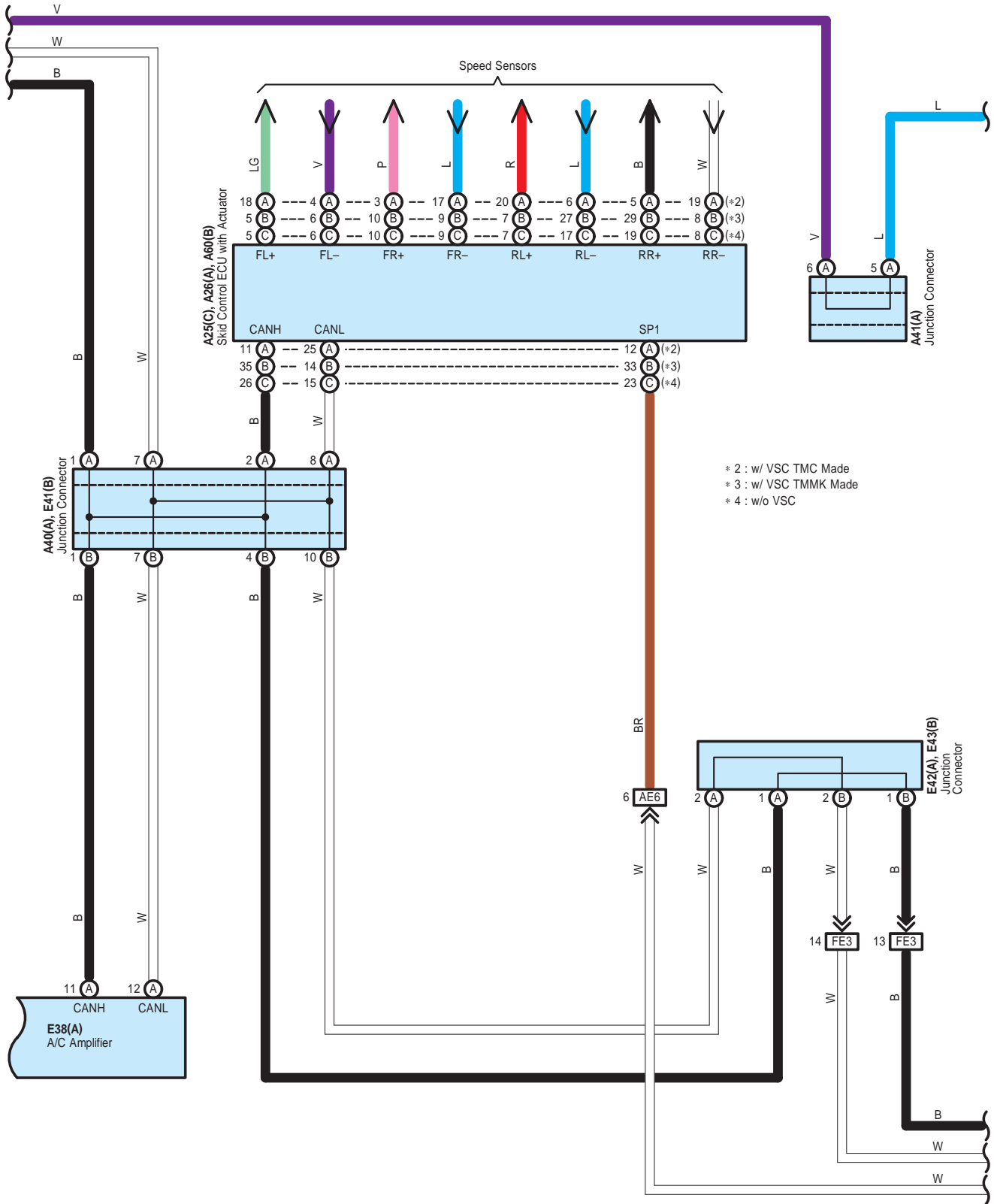


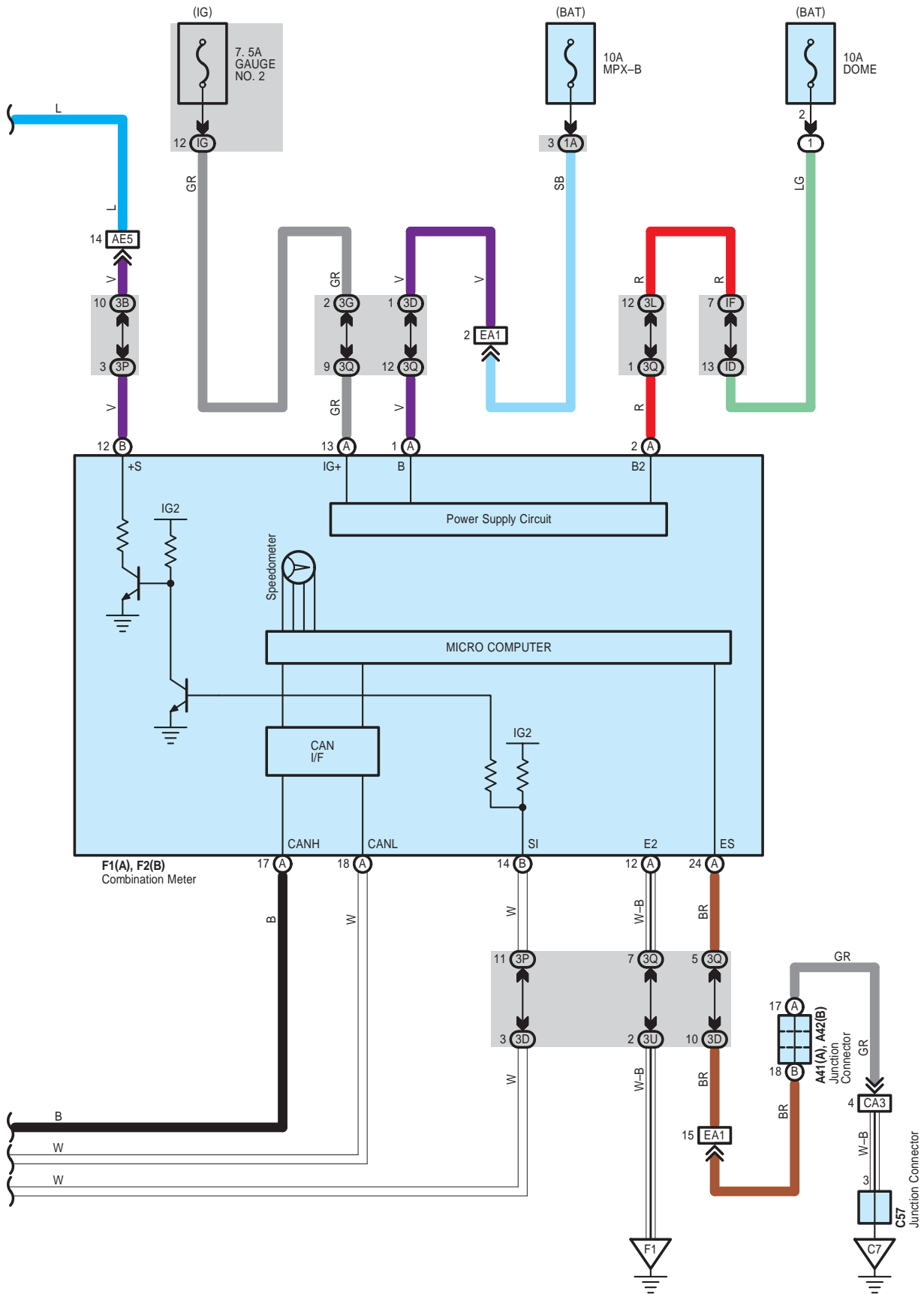


* 1 : Automatic A/C



Cooling Fan for 2GR-FE





Cooling Fan for 2GR-FE

System Outline

System Operation

When the power SW is pushed to IG ON position (Power SW type), or when the ignition SW is turned to ON (Ignition SW type), the current from the ECU IG NO.1 fuse is sent to the coil side and the FAN MAIN relay is turned to ON. Then the current flows to TERMINAL 3 of the cooling fan ECU. At the same time, the conditions of the A/C SW, A/C pressure sensor, engine coolant temp. sensor and engine rotation are sent to the TERMINAL 2 as signals from engine control module. As a result of that, the cooling fan ECU continuously controls the rotation of the fan motor and keeps a balance between the cooling efficiency and silentness with the optimal fan rotation.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A25	C	48 (2GR-FE)	A57	B	59
A26	A	48 (2GR-FE)	A58	A	59
A27		48 (2GR-FE)	A60	B	49 (2GR-FE)
A40	A	59	C4		50 (2GR-FE)
A41	A	59	C50		51 (2GR-FE)
A42	B	59	C55	B	51 (2GR-FE)
A54		49 (2GR-FE)	C57		51 (2GR-FE)
A55	A	49 (2GR-FE)	E18	A	56
A56	A	59	E38	A	57
				E40	B
				E41	B
				E42	A
				E43	B
				F1	A
				F2	B
				F16	
				a1	B

○ : 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)
3A	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3B		
3D		
3E		
3G		
3K		
3L		
3M	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3P		
3Q		
3S		
3U		
IC	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IG	31	

□ : Connector Joining Wire Harness and Wire Harness

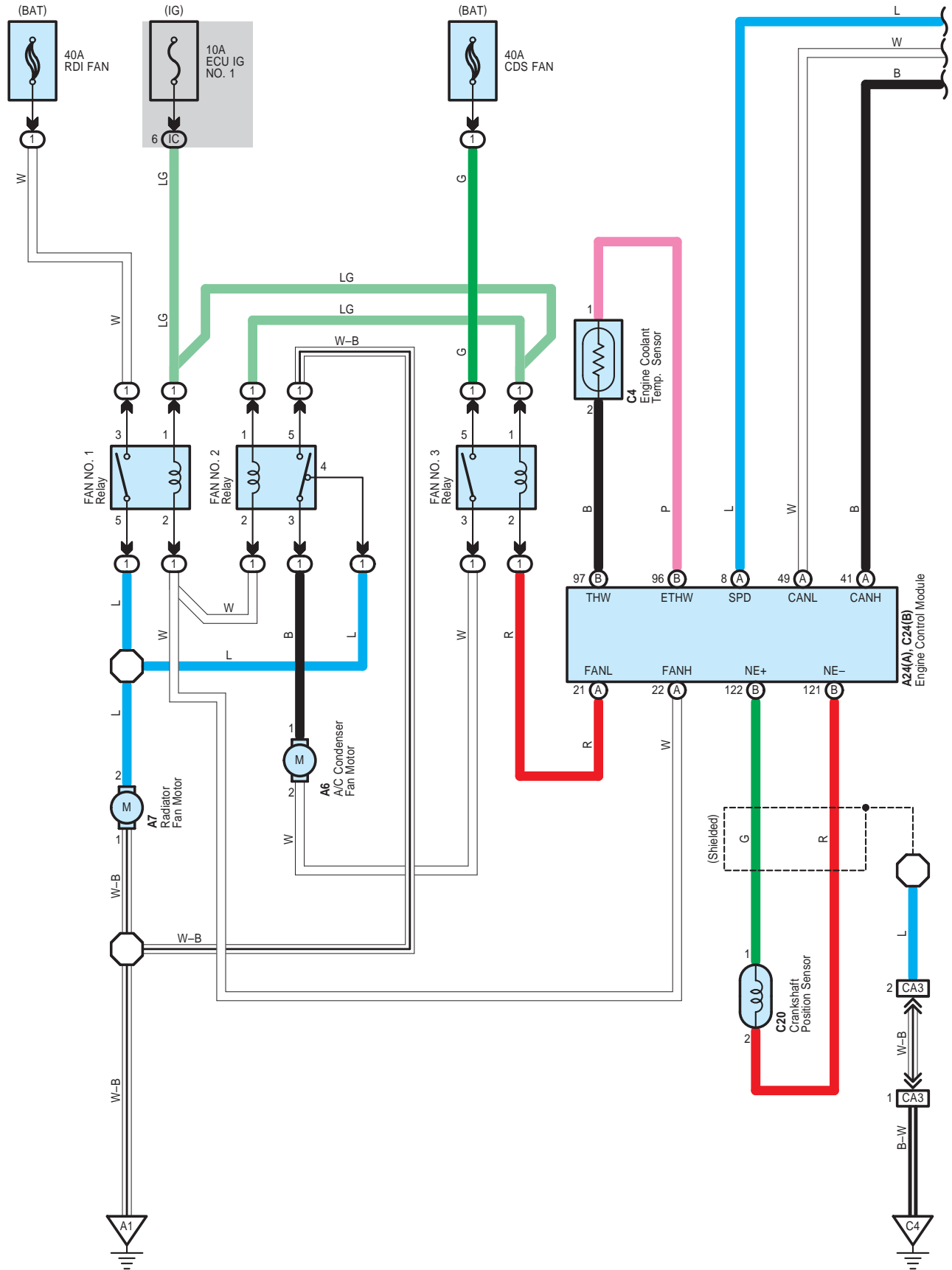
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE5	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
AE6		
CA3	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)

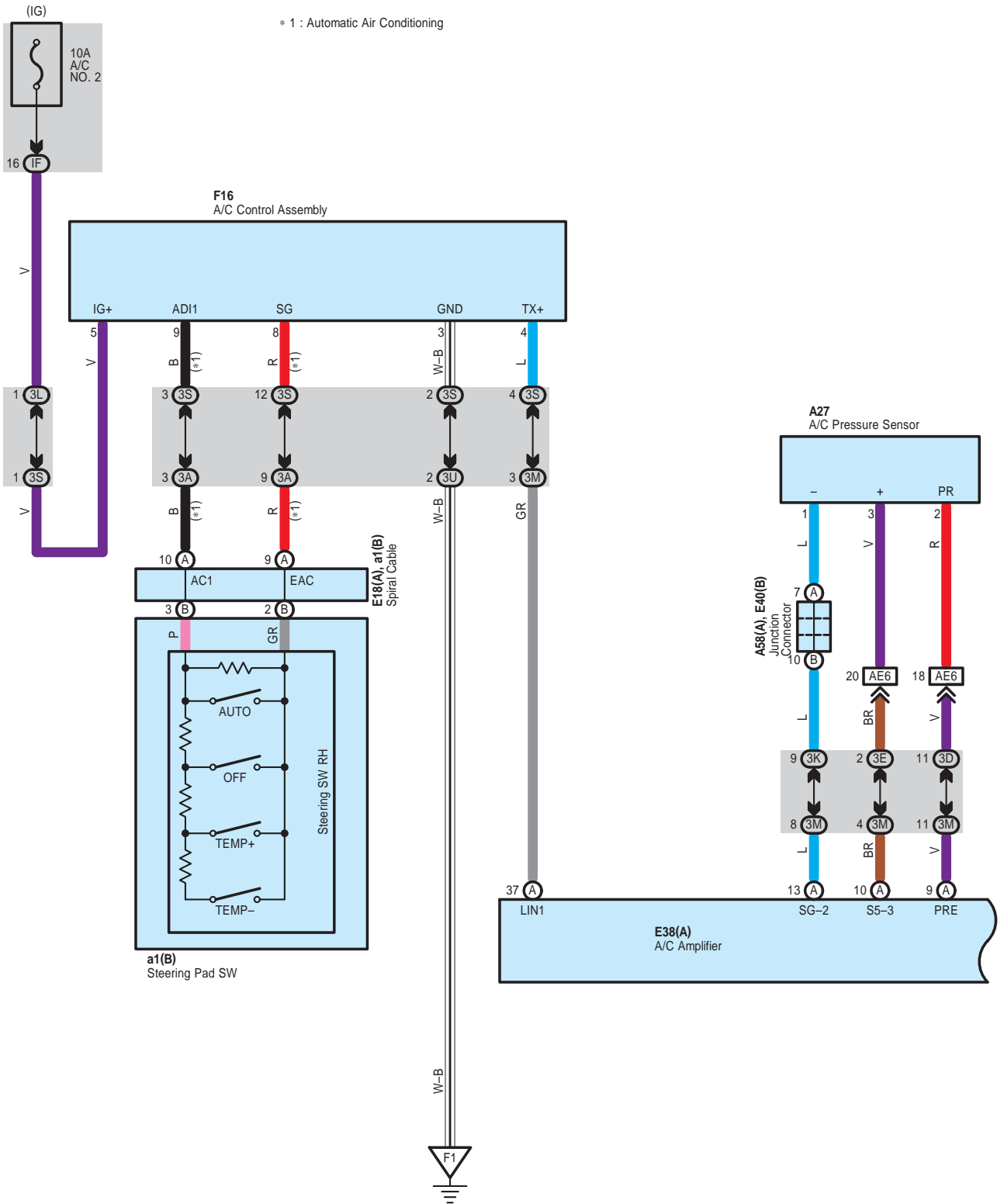
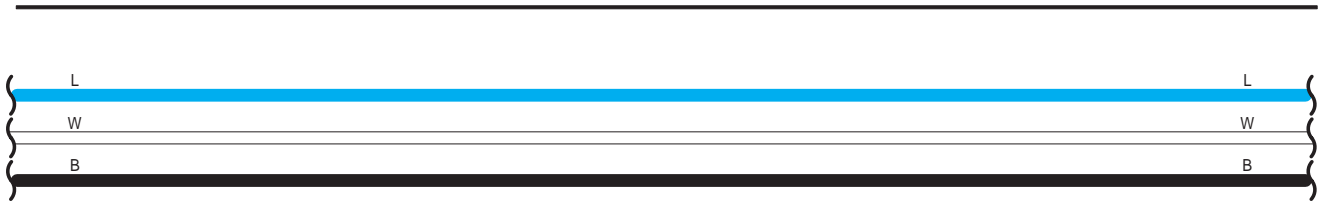


: Ground Points

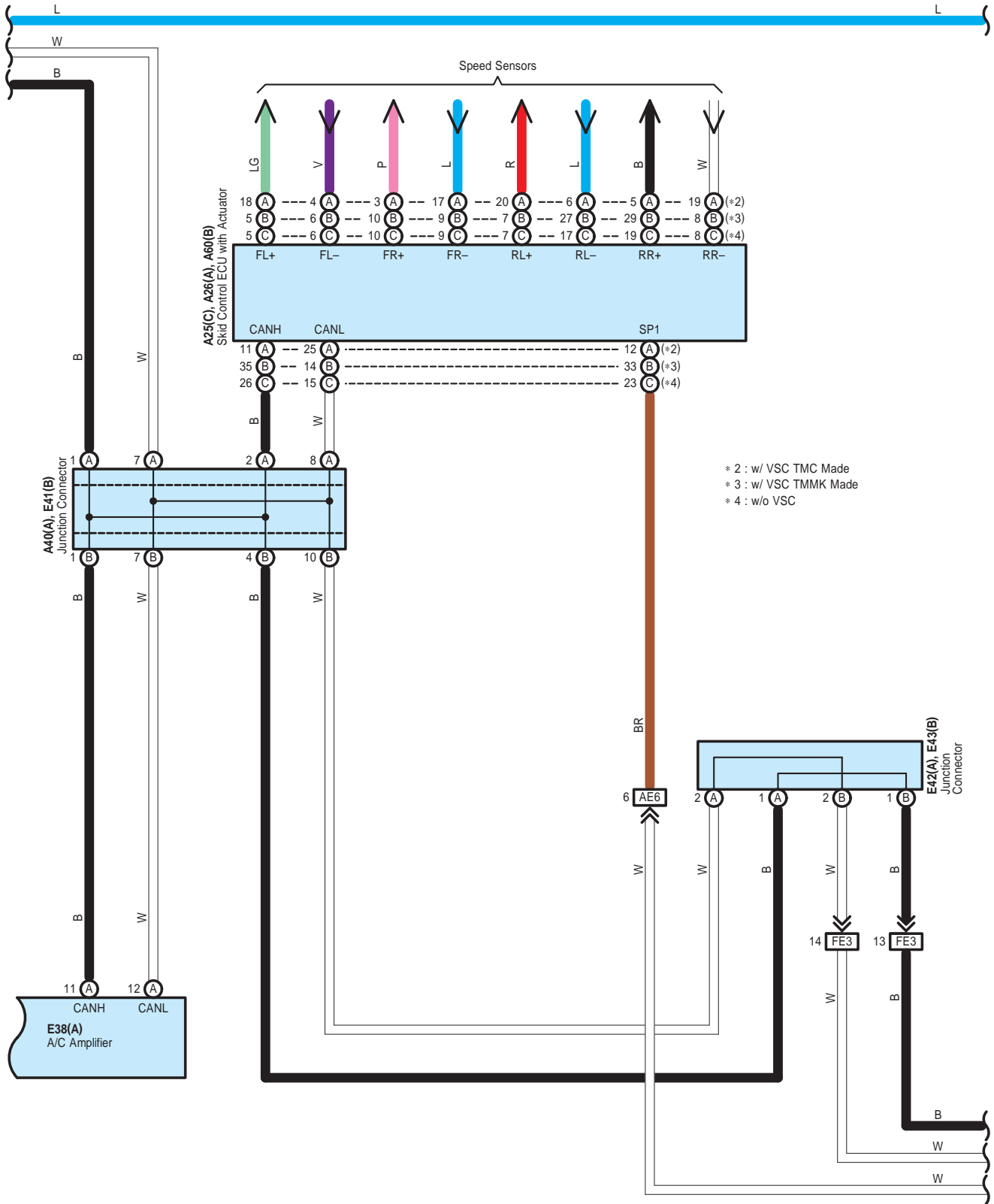
Code	See Page	Ground Points Location
A1	64 (2GR-FE)	Front Left Fender
C5	64 (2GR-FE)	Right Side of the Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
F1	66	Instrument Panel Left

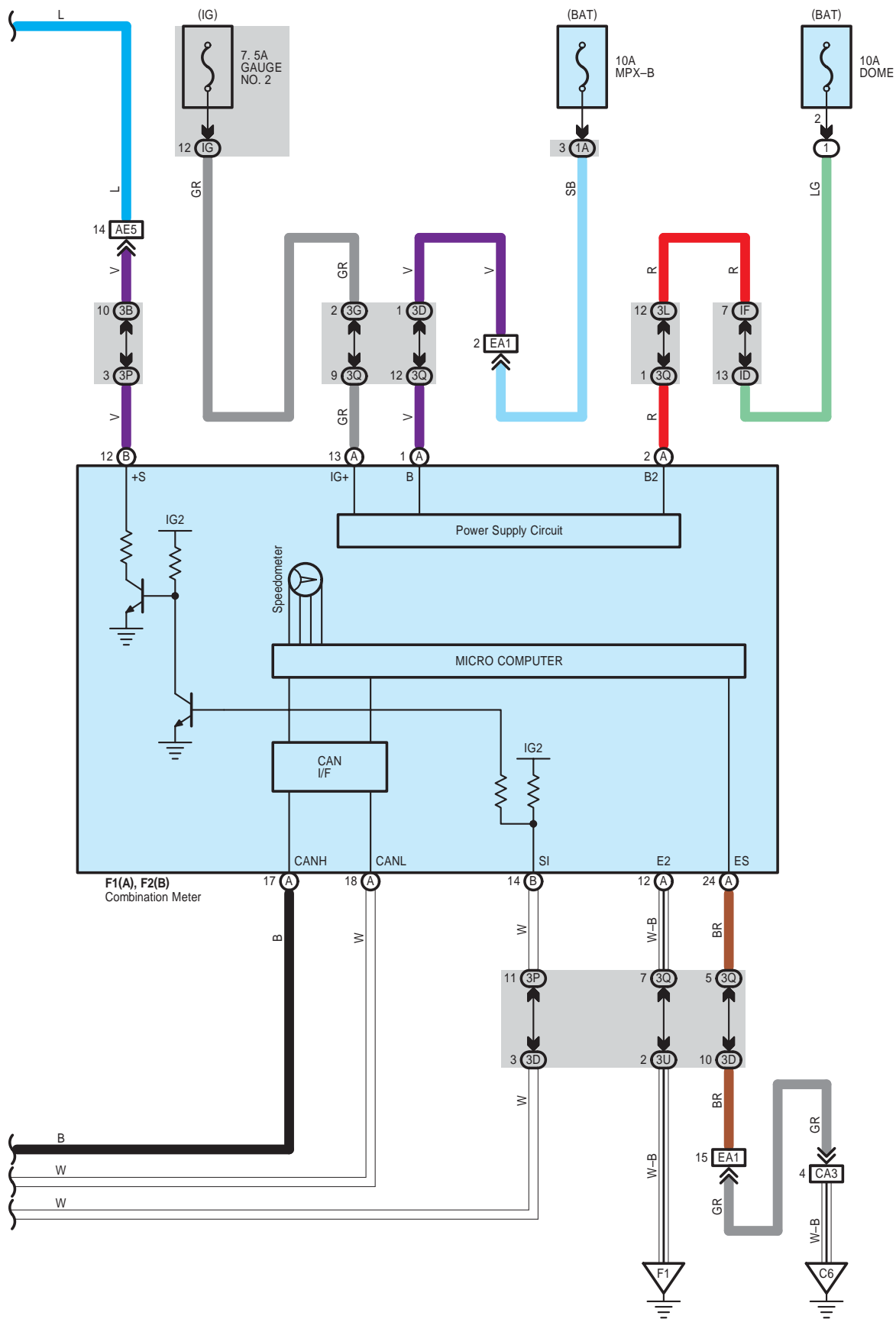
Radiator Fan and Condenser Fan for 2AZ-FE





Radiator Fan and Condenser Fan for 2AZ-FE





CAMRY (EM0250U)

Radiator Fan and Condenser Fan for 2AZ-FE

: Parts Location

Code		See Page	Code		See Page	Code		See Page
A6		52 (2AZ-FE)	A60	B	53 (2AZ-FE)	E42	A	57
A7		52 (2AZ-FE)	C4		54 (2AZ-FE)	E43	B	57
A24	A	52 (2AZ-FE)	C20		55 (2AZ-FE)	F1	A	58
A25	C	52 (2AZ-FE)	C24	B	55 (2AZ-FE)	F2	B	58
A26	A	52 (2AZ-FE)	E18	A	56	F16		58
A27		52 (2AZ-FE)	E38	A	57	a1	B	59
A40	A	59	E40	B	57			
A58	A	59	E41	B	57			

: 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

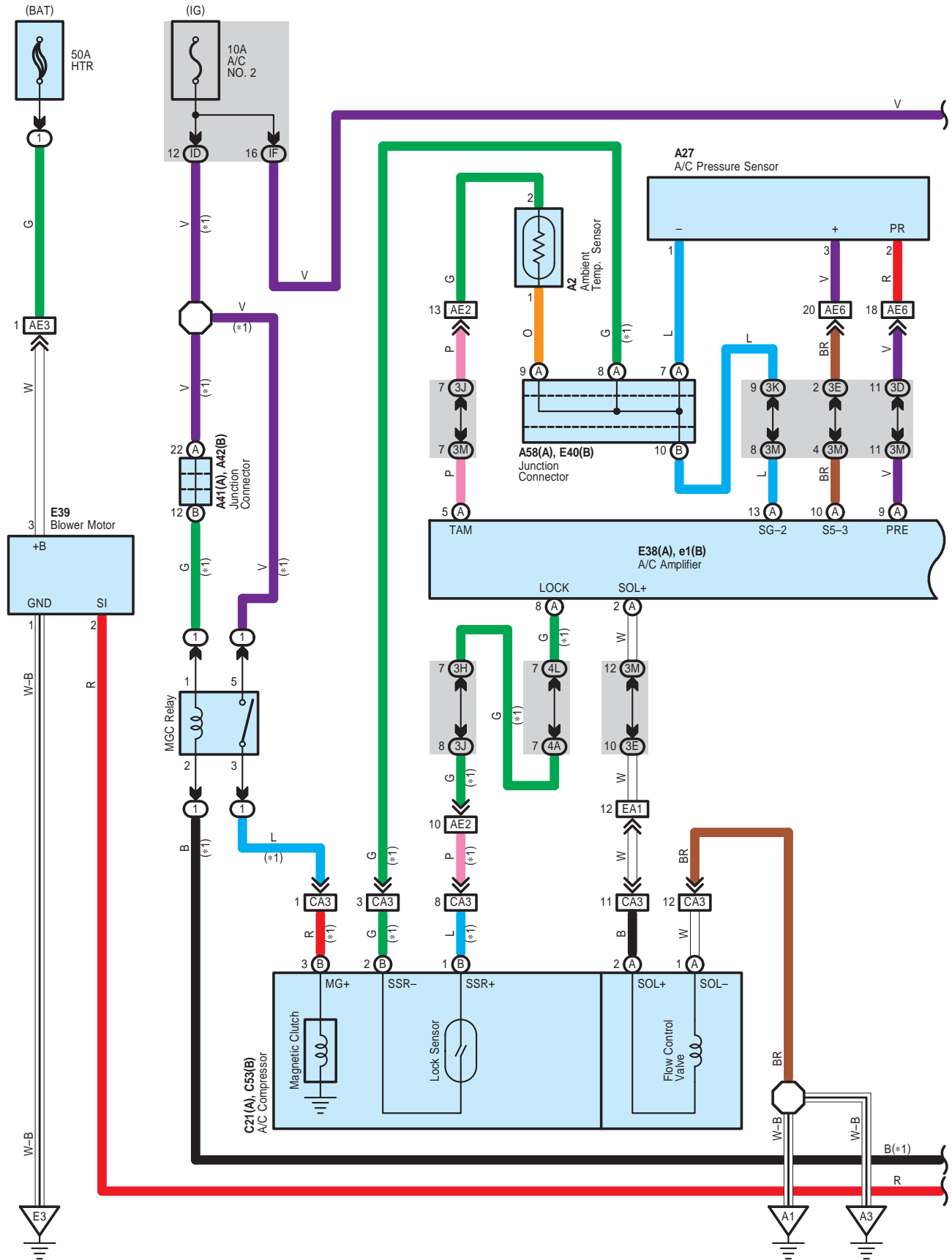
Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3A	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3B		
3D		
3E		
3G		
3K		
3L		
3M	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3P		
3Q		
3S		
3U	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IC		
ID	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IF		
IG	31	

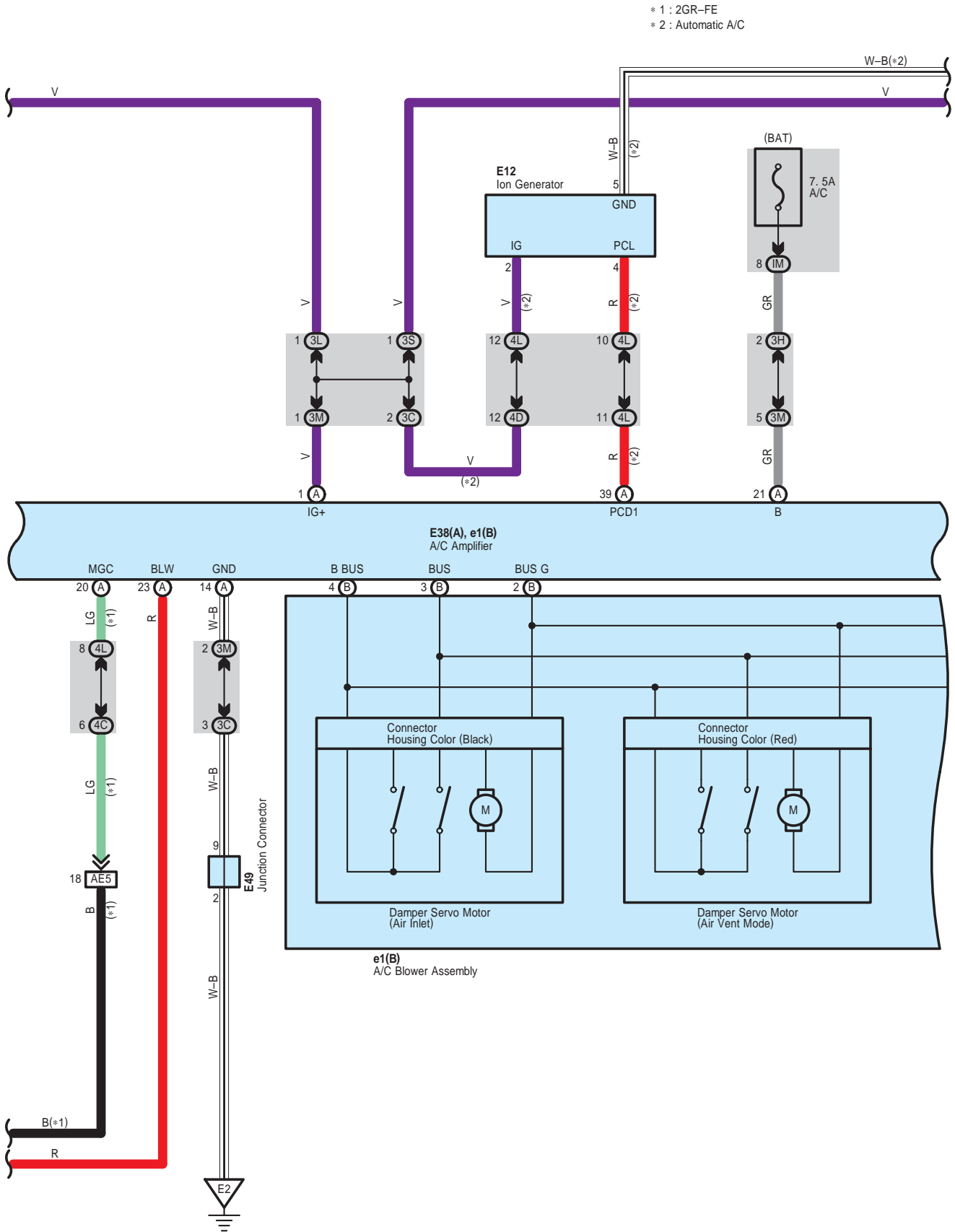
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE5	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
AE6		
CA3	65 (2AZ-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)

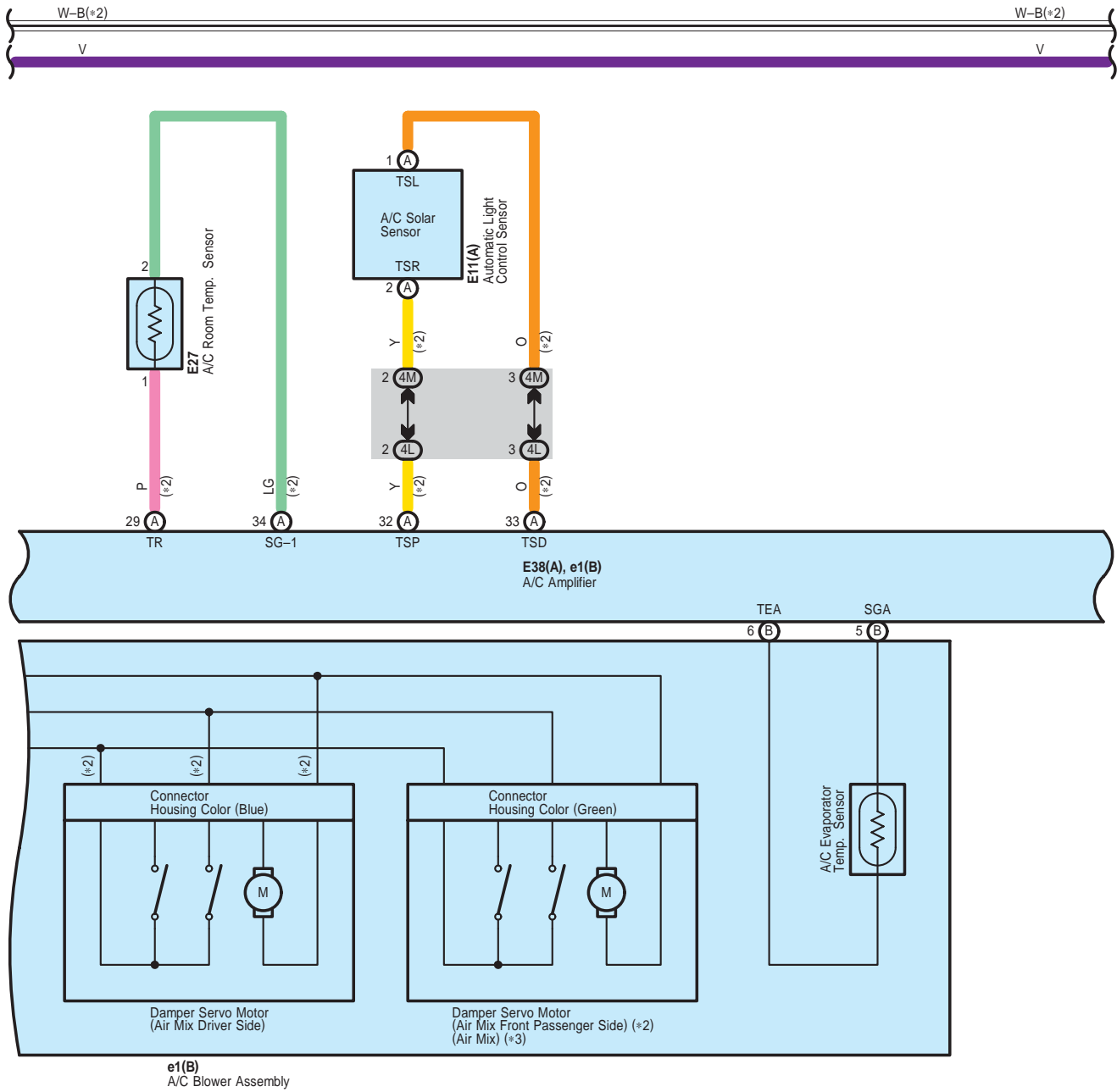
: Ground Points

Code	See Page	Ground Points Location
A1	65 (2AZ-FE)	Front Left Fender
C4	65 (2AZ-FE)	Cylinder Block
C6		
F1	66	Instrument Panel Left

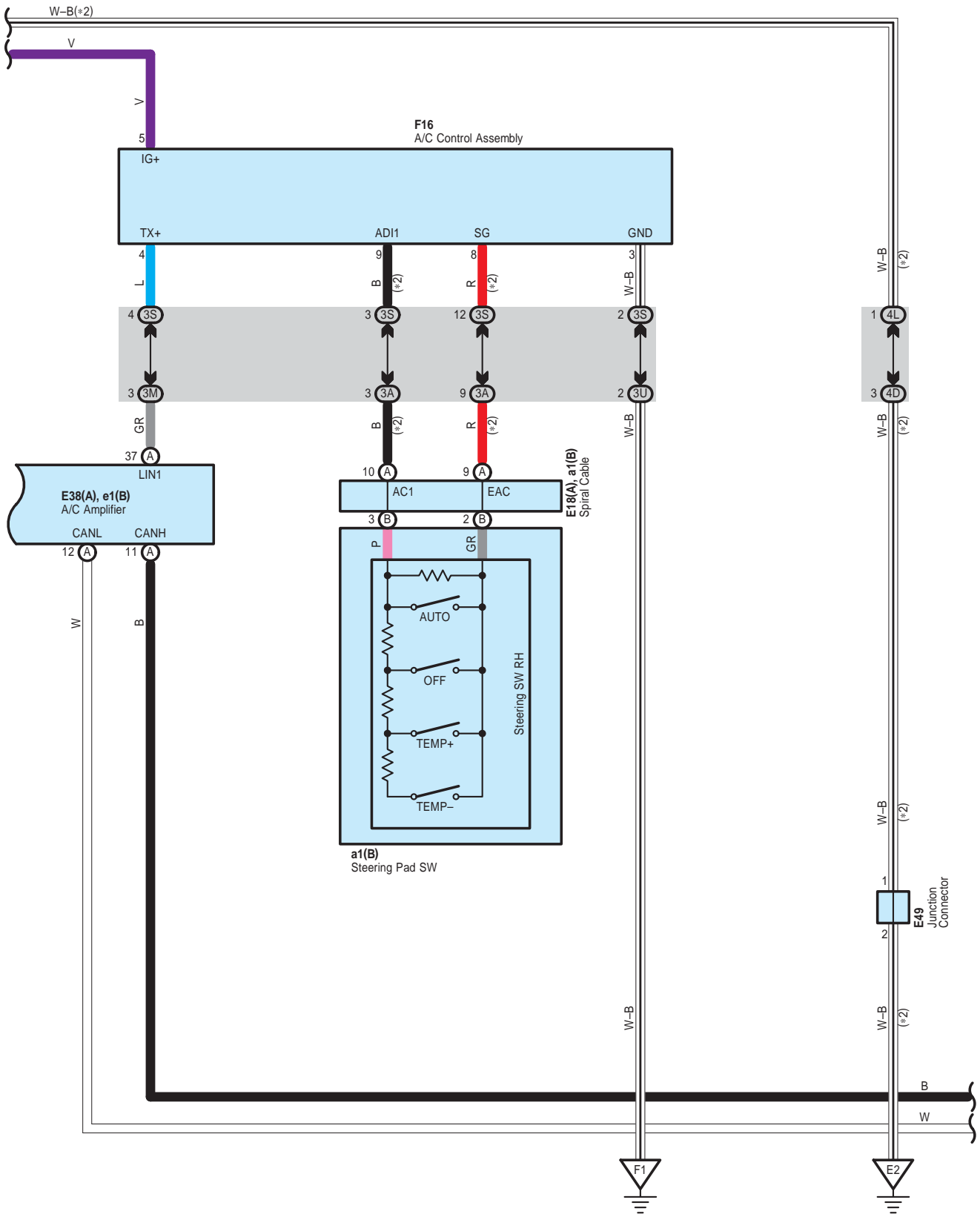




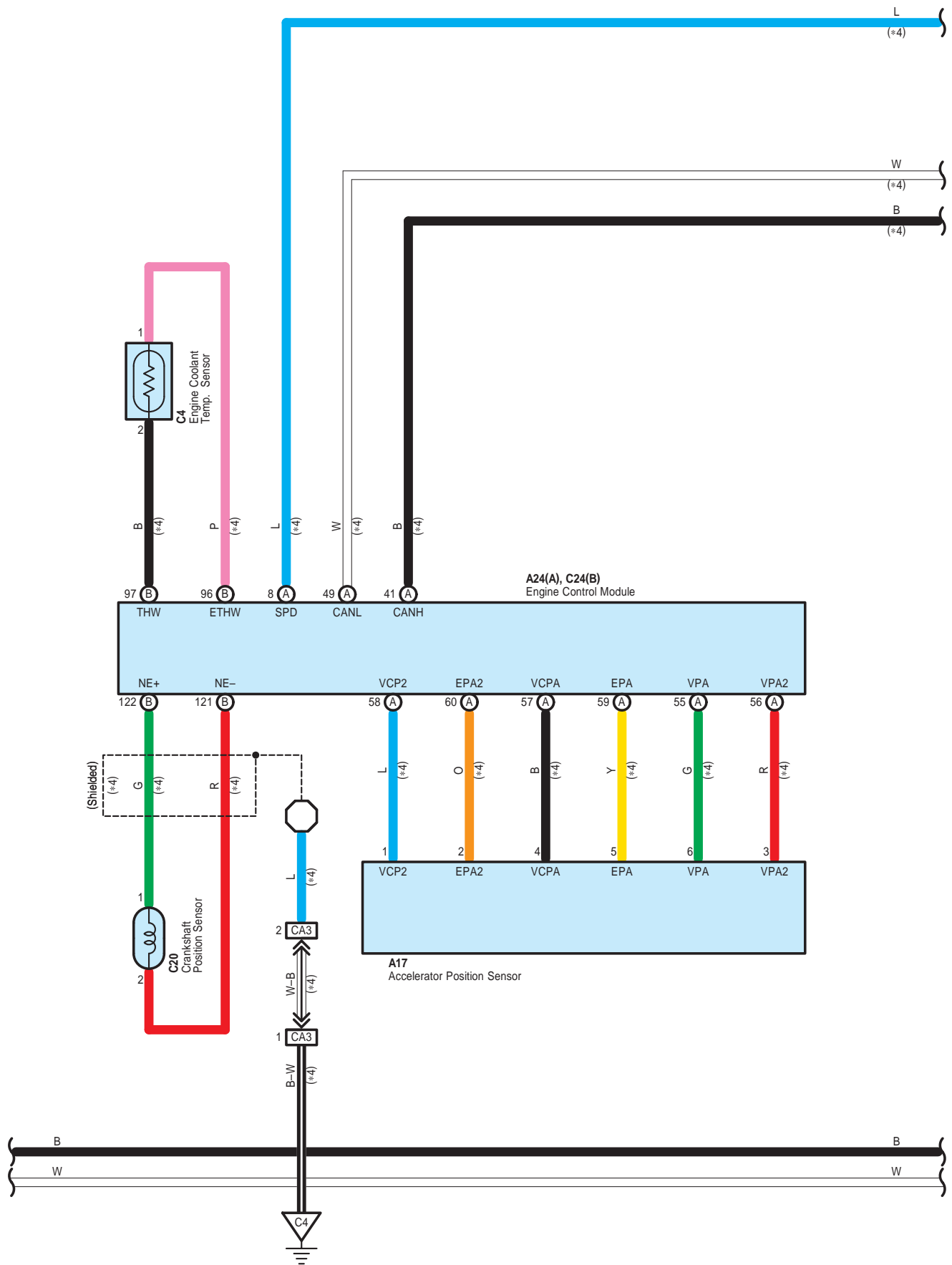
Air Conditioning

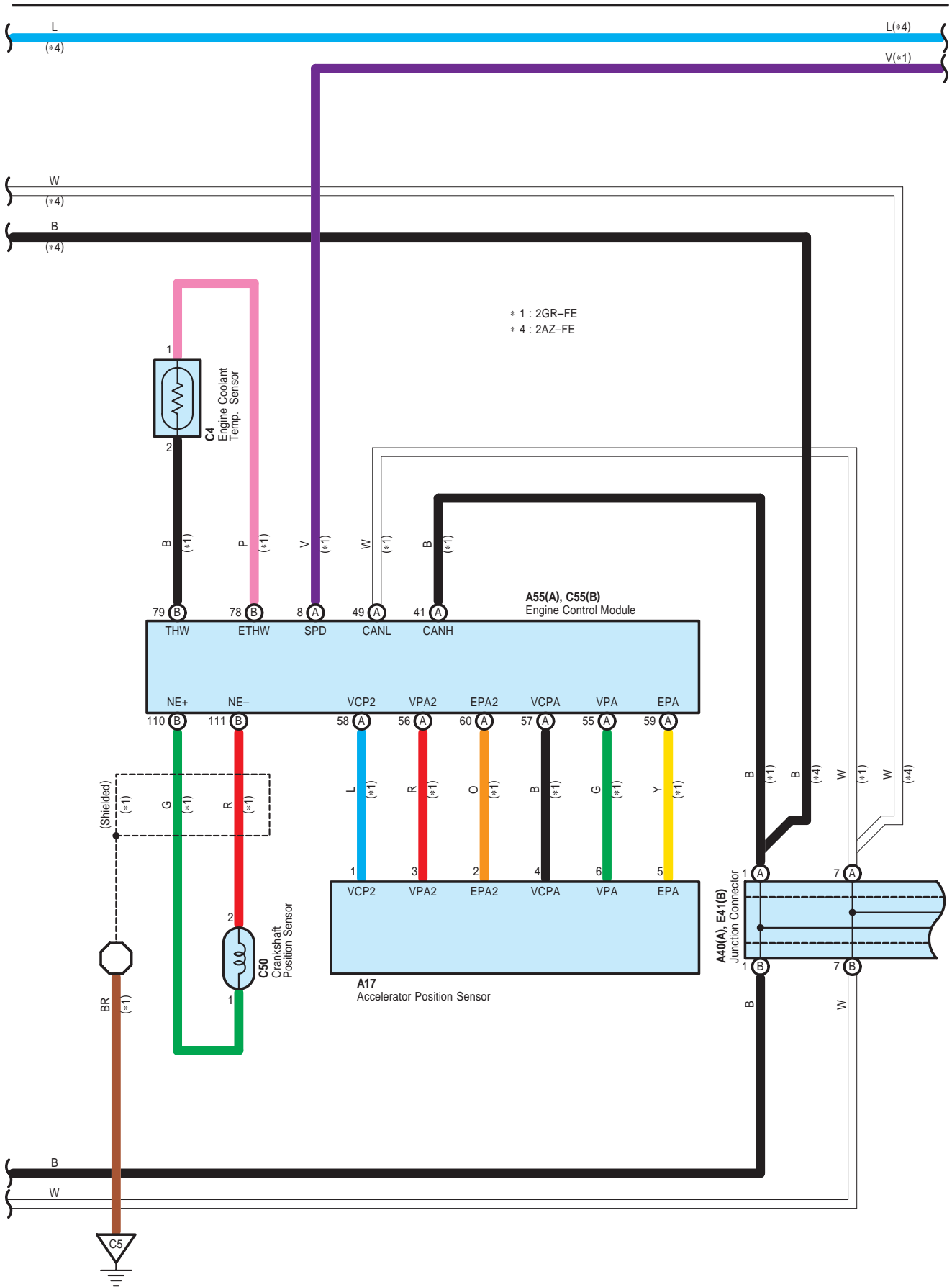


* 2 : Automatic A/C
 * 3 : Manual A/C



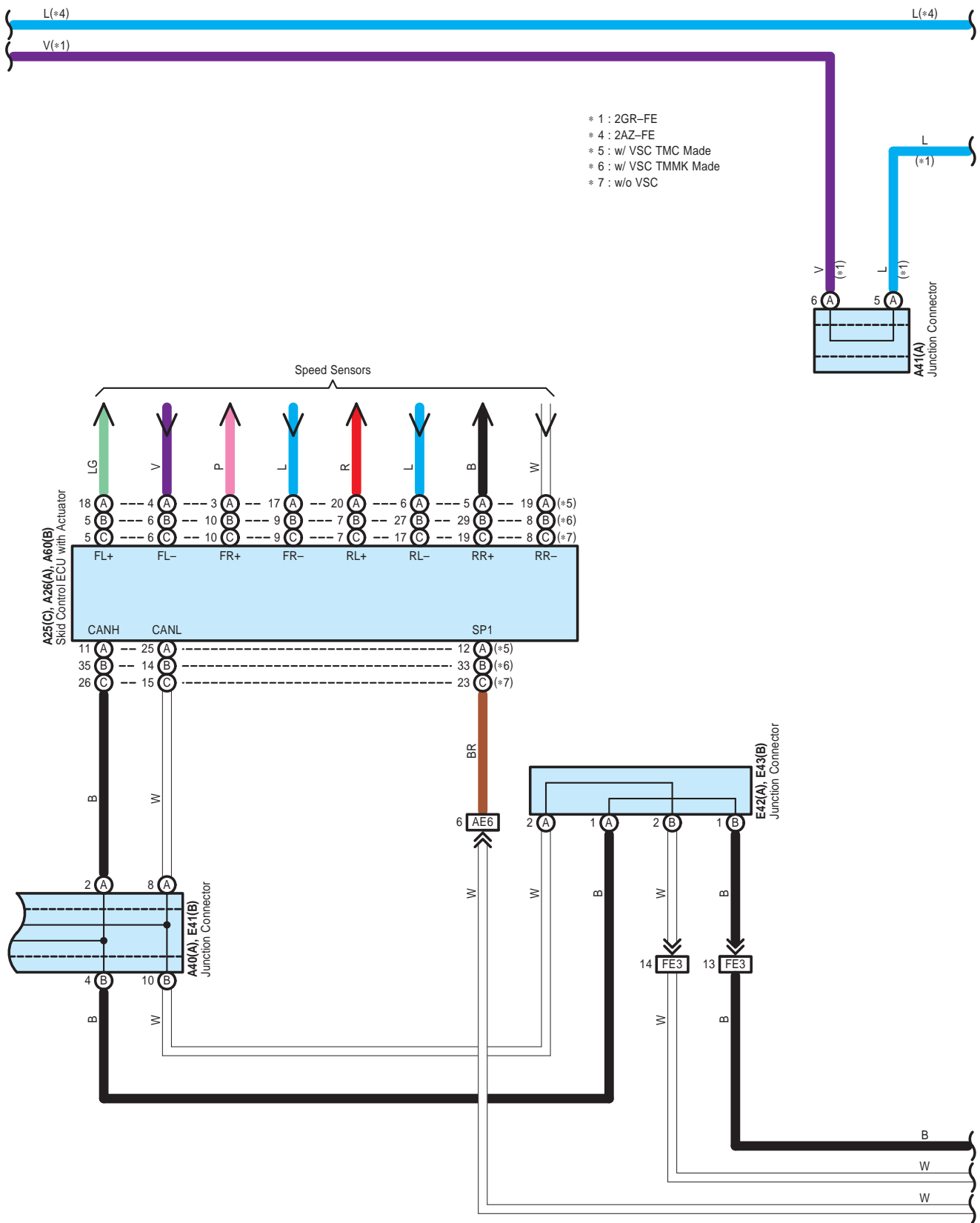
Air Conditioning

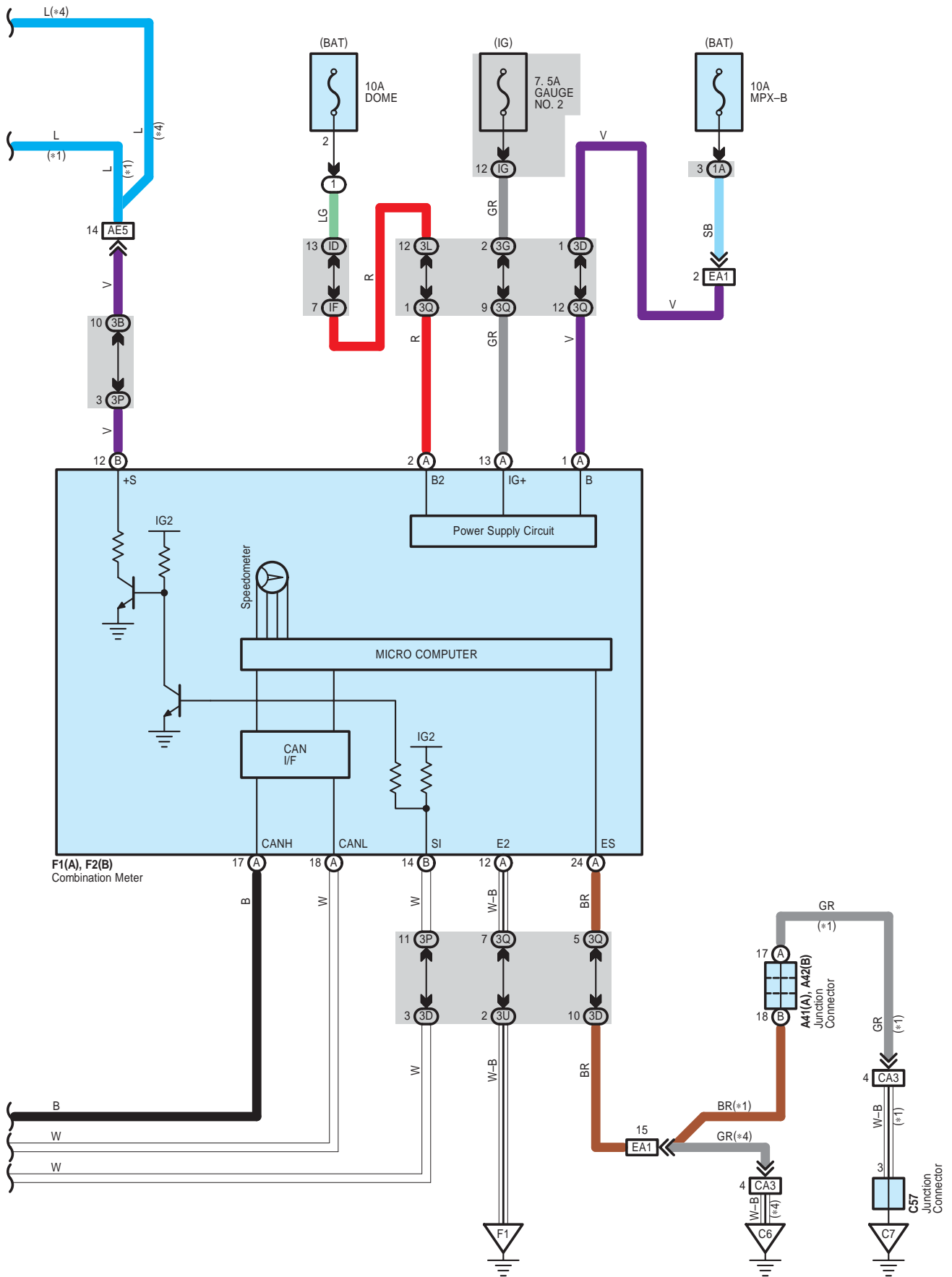




CAMRY (EM0250U)

Air Conditioning





CAMRY (EM0250U)

Air Conditioning

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page					
A2	48 (2GR-FE)	A60	B	49 (2GR-FE)		E27	56			
	52 (2AZ-FE)			53 (2AZ-FE)		E38	A	57		
A17	59	C4		50 (2GR-FE)		E39		57		
A24	A			52 (2AZ-FE)	54 (2AZ-FE)		E40	B	57	
A25	C	48 (2GR-FE)		C20		E41	B	57		
		52 (2AZ-FE)		C21	A	50 (2GR-FE)		E42	A	57
A26	A	48 (2GR-FE)				C24	B	55 (2AZ-FE)		E43
		52 (2AZ-FE)		55 (2AZ-FE)				E49		57
A27	48 (2GR-FE)		C50		51 (2GR-FE)		F1	A	58	
	52 (2AZ-FE)		C53	B	51 (2GR-FE)		F2	B	58	
A40	A	59	C55	B	51 (2GR-FE)		F16		58	
A41	A	59	C57		51 (2GR-FE)		a1	B	59	
A42	B	59	E11	A	56		e1	B	59	
A55	A	49 (2GR-FE)	E12		56					
A58	A	59	E18	A	56					

○ : 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)
3A	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3B		
3C		
3D		
3E		
3G		
3H		
3J		
3K		
3L		
3M		
3P	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3Q		
3S		
3U		
4A	42	Instrument Panel Wire and J/B No.4 (Instrument Panel Brace Center)
4C		
4D		
4L		
4M		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Cowl Side Left)
IF	30	
IG	31	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IM	30	

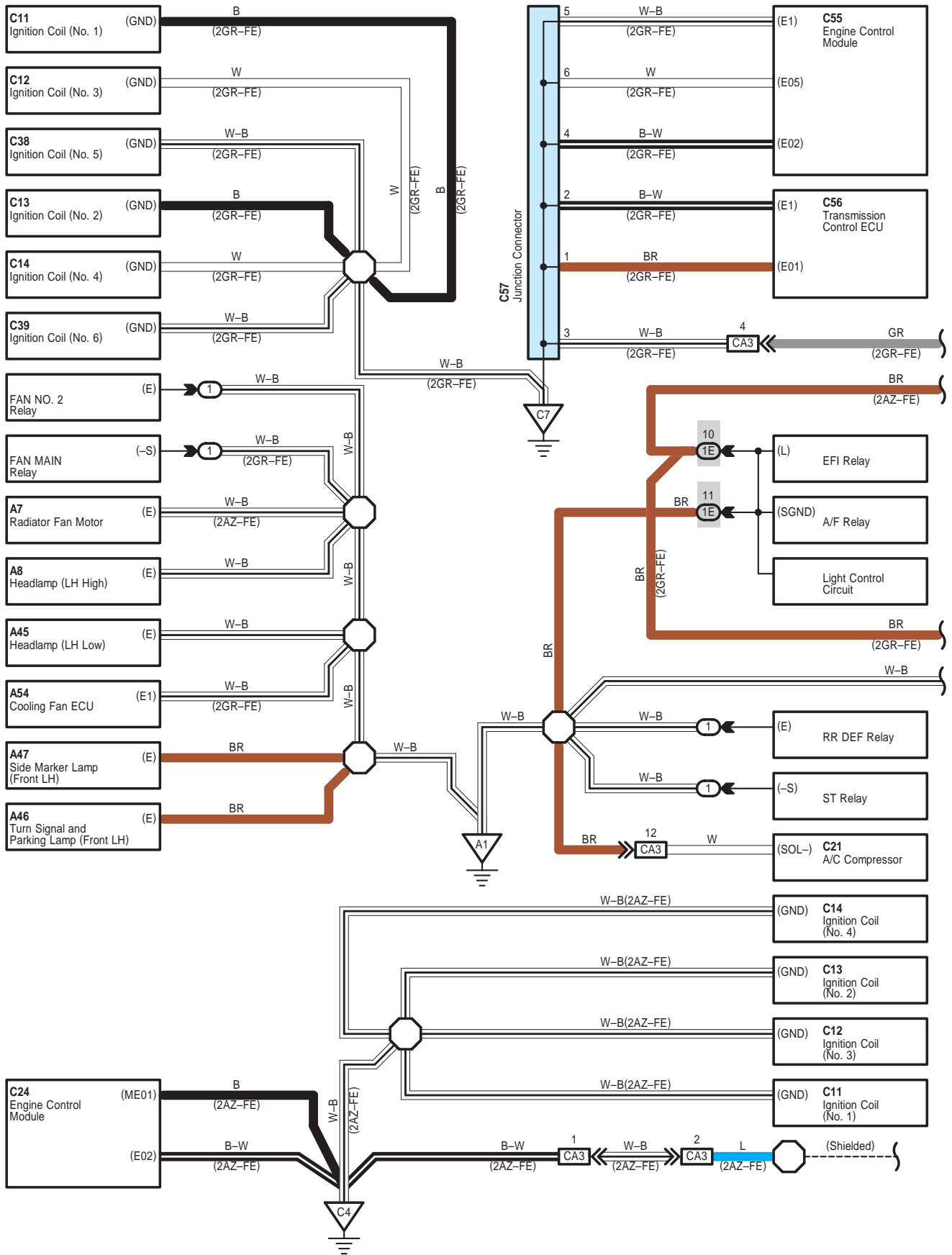
 : **Connector Joining Wire Harness and Wire Harness**

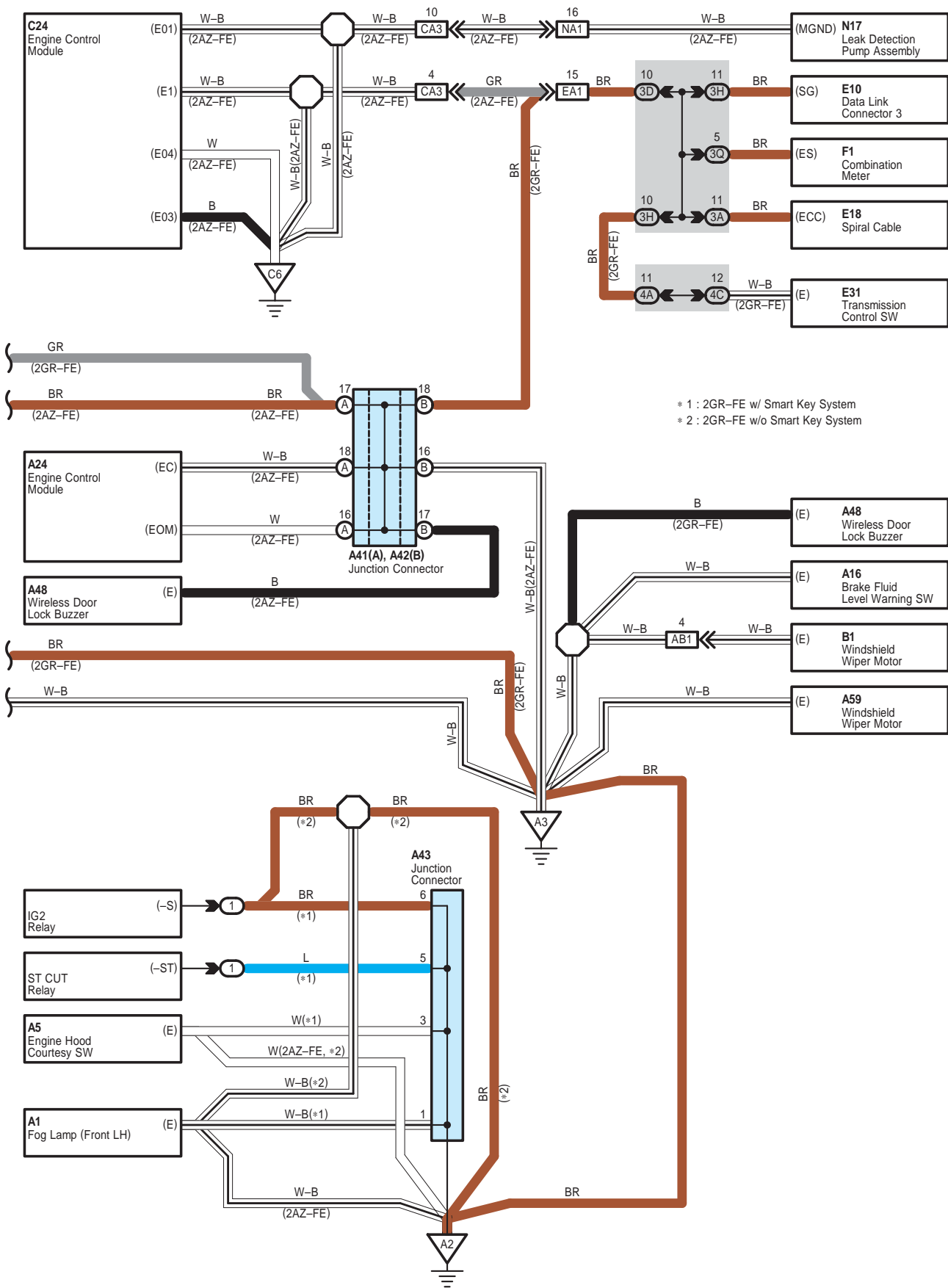
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE2	66	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
AE3	66	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Right)
AE5		
AE6		
CA3	64 (2GR-FE) 65 (2AZ-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)

 : **Ground Points**

Code	See Page	Ground Points Location
A1	64 (2GR-FE)	Front Left Fender
	65 (2AZ-FE)	
A3	66	Left Cowl Side Panel
C4	65 (2AZ-FE)	Cylinder Block
C5	64 (2GR-FE)	Right Side of the Cylinder Block
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
E2	66	Instrument Panel Brace LH
E3	66	Instrument Panel Right
F1	66	Instrument Panel Left

I GROUND POINT

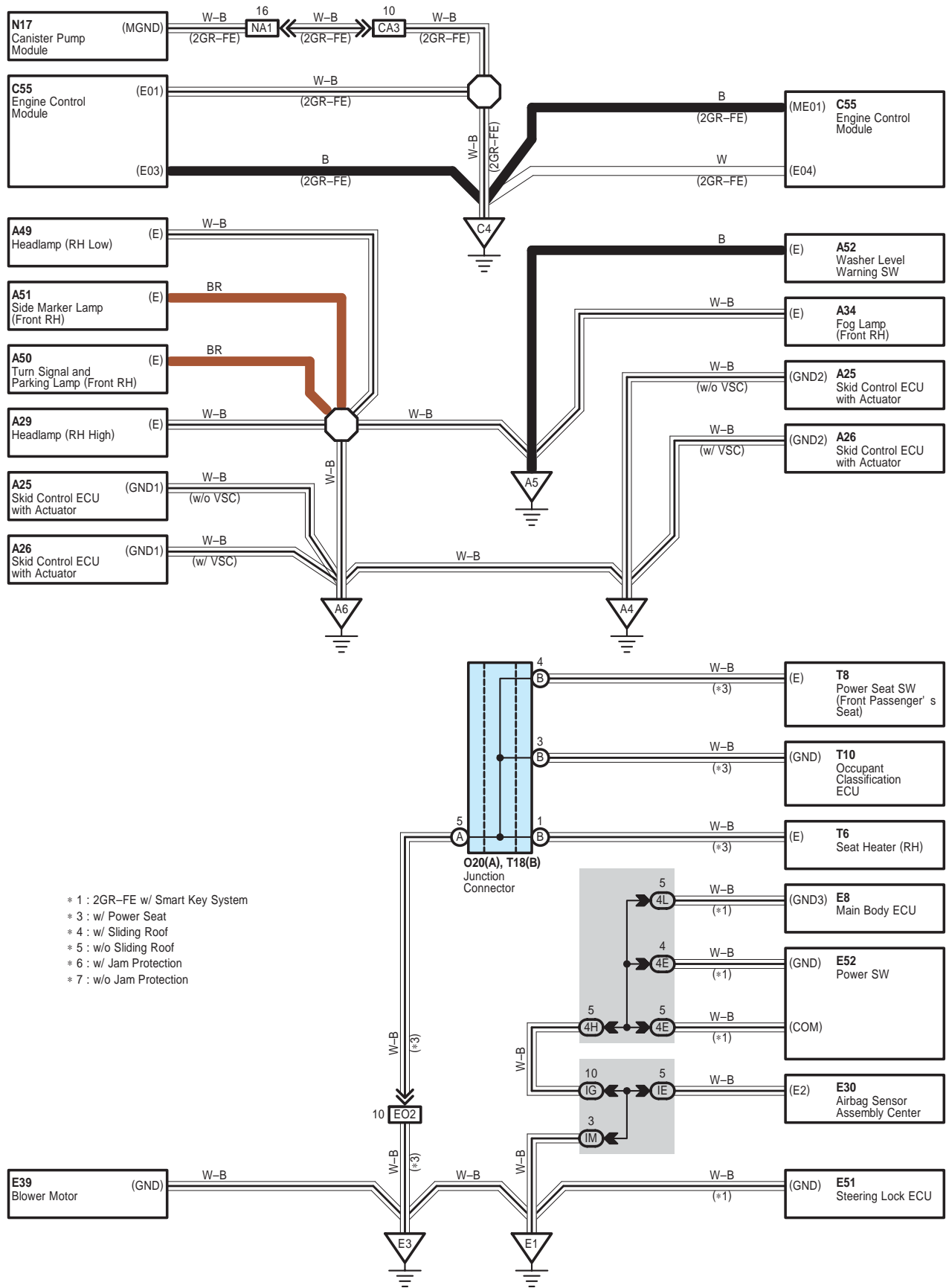


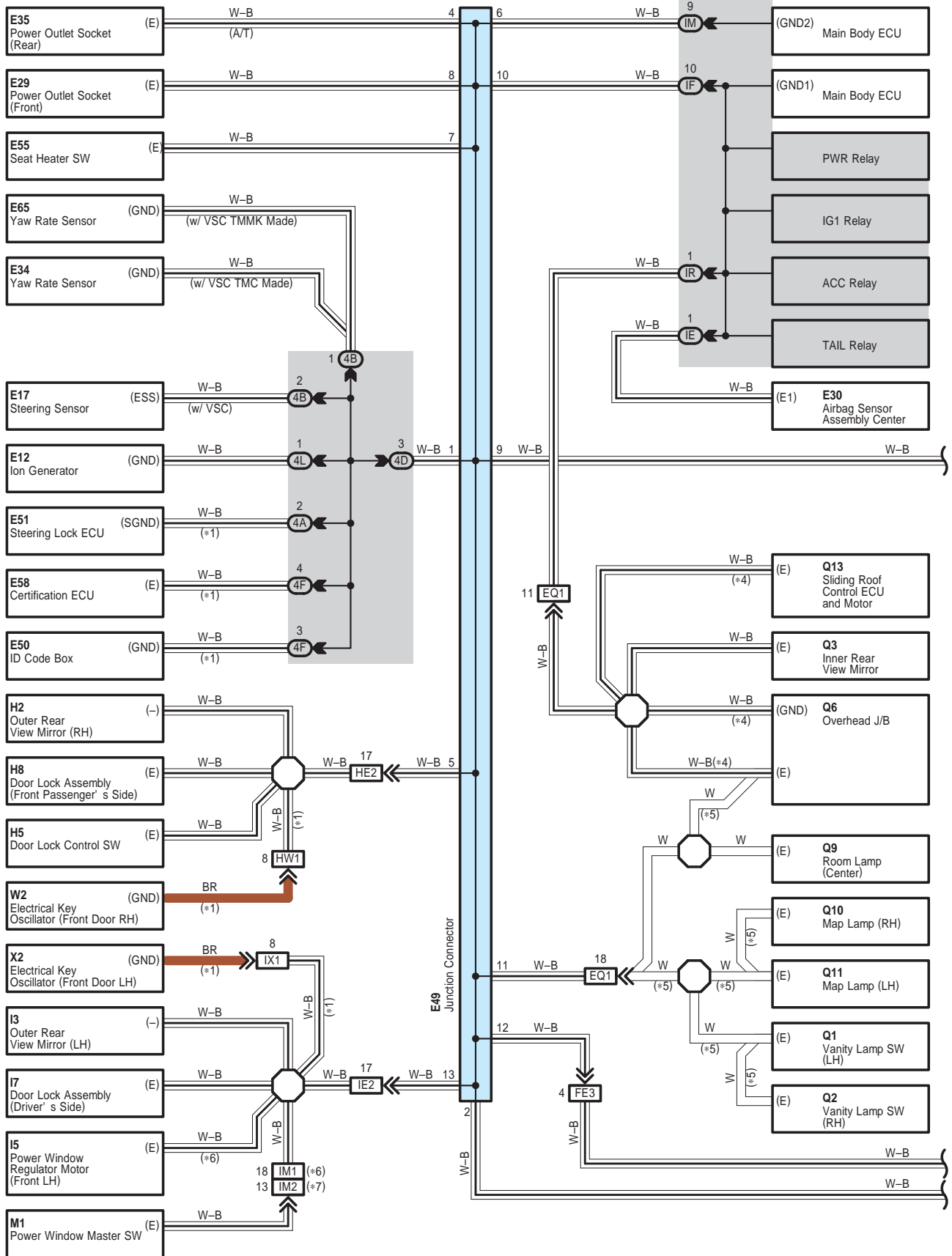


* 1 : 2GR-FE w/ Smart Key System
 * 2 : 2GR-FE w/o Smart Key System

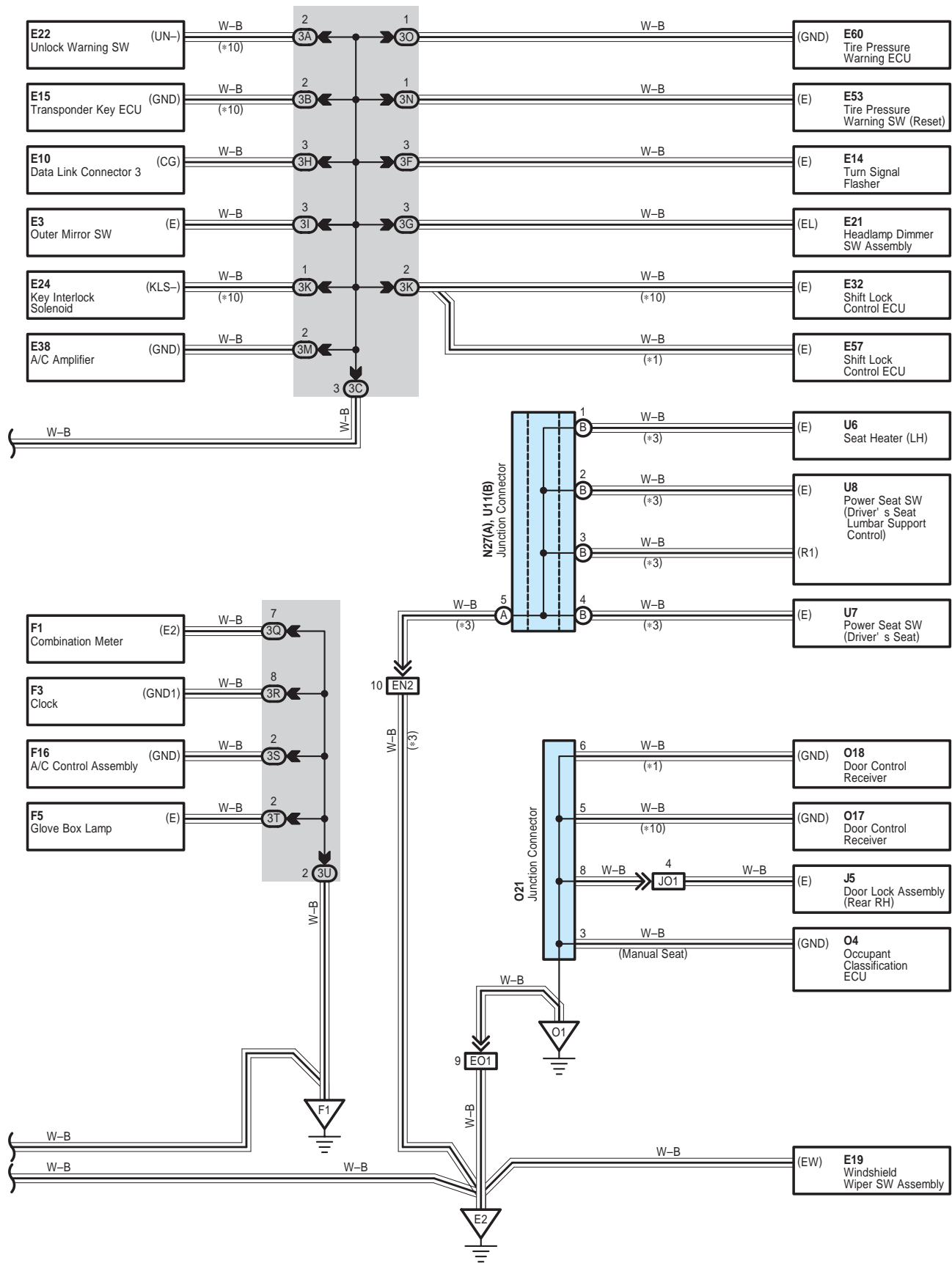
CAMRY (EM0250U)

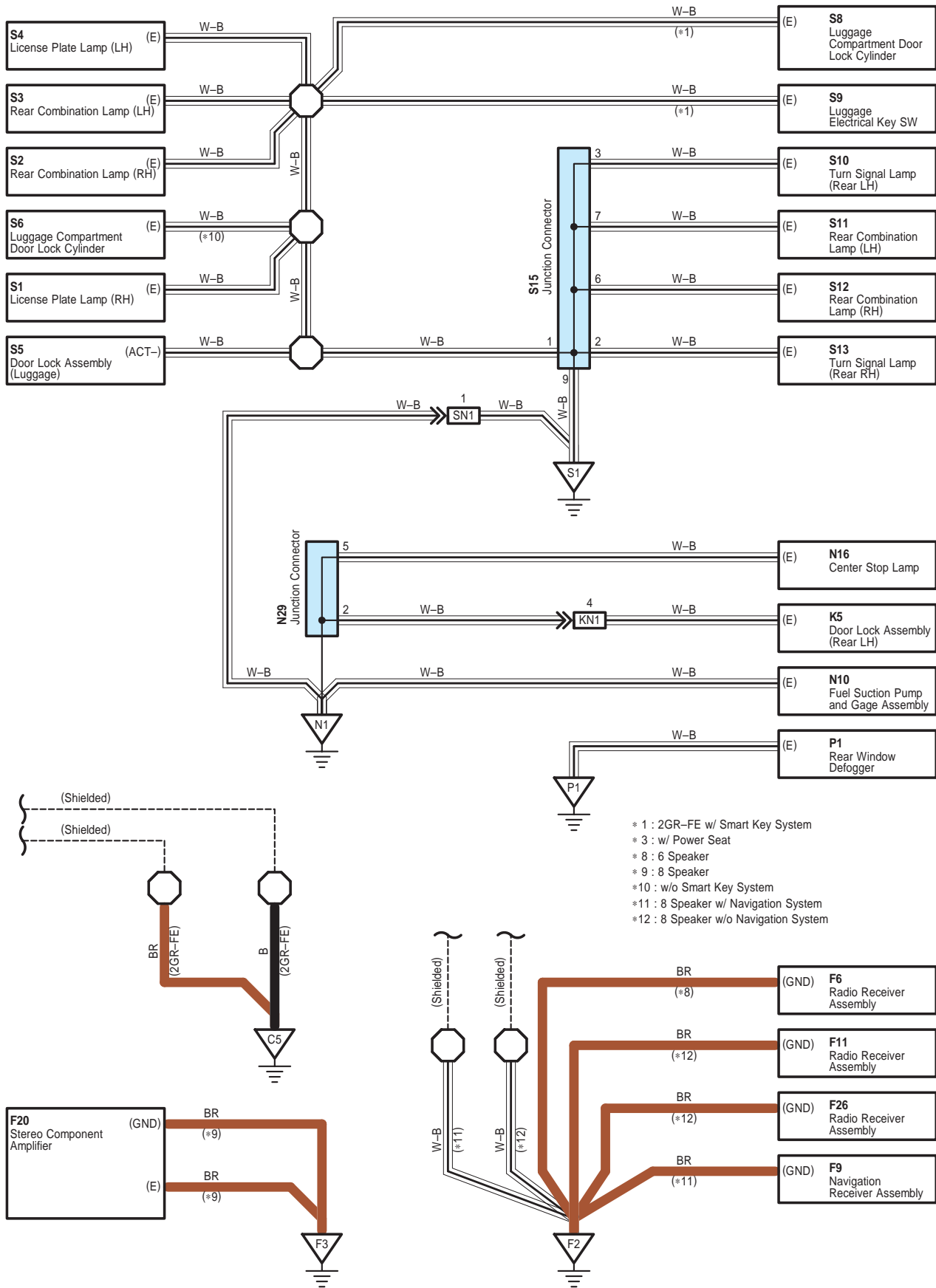
I GROUND POINT





I GROUND POINT





I GROUND POINT

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A41	A	59	E49		57	O21	60	
A42	B	59	N27	A	62 (*1)	S15		61
A43		49 (2GR-FE)	N29		60	T18	B	62 (*1)
C57		51 (2GR-FE)	O20	A	62 (*1)	U11	B	62 (*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)
1E	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3A	36	Instrument Panel Wire and J/B No.3 (Behind the Combination Meter)
3B		
3C		
3D		
3F		
3G		
3H		
3I		
3K		
3M		
3N		
3O		
3Q	36	Instrument Panel No.2 Wire and J/B No.3 (Behind the Combination Meter)
3R		
3S		
3T		
3U		
4A	42	Instrument Panel Wire and J/B No.4 (Instrument Panel Brace Center)
4B		
4C		
4D		
4E		
4F		
4H		
4L		
IE	30	Instrument Panel Wire and Instrument Panel J/B (Cowl Side Left)
IF		
IG	31	
IM	30	
IR		

* 1 : w/ Power Seat * 2 : w/o Power Seat

 : Connector Joining Wire Harness and Wire Harness

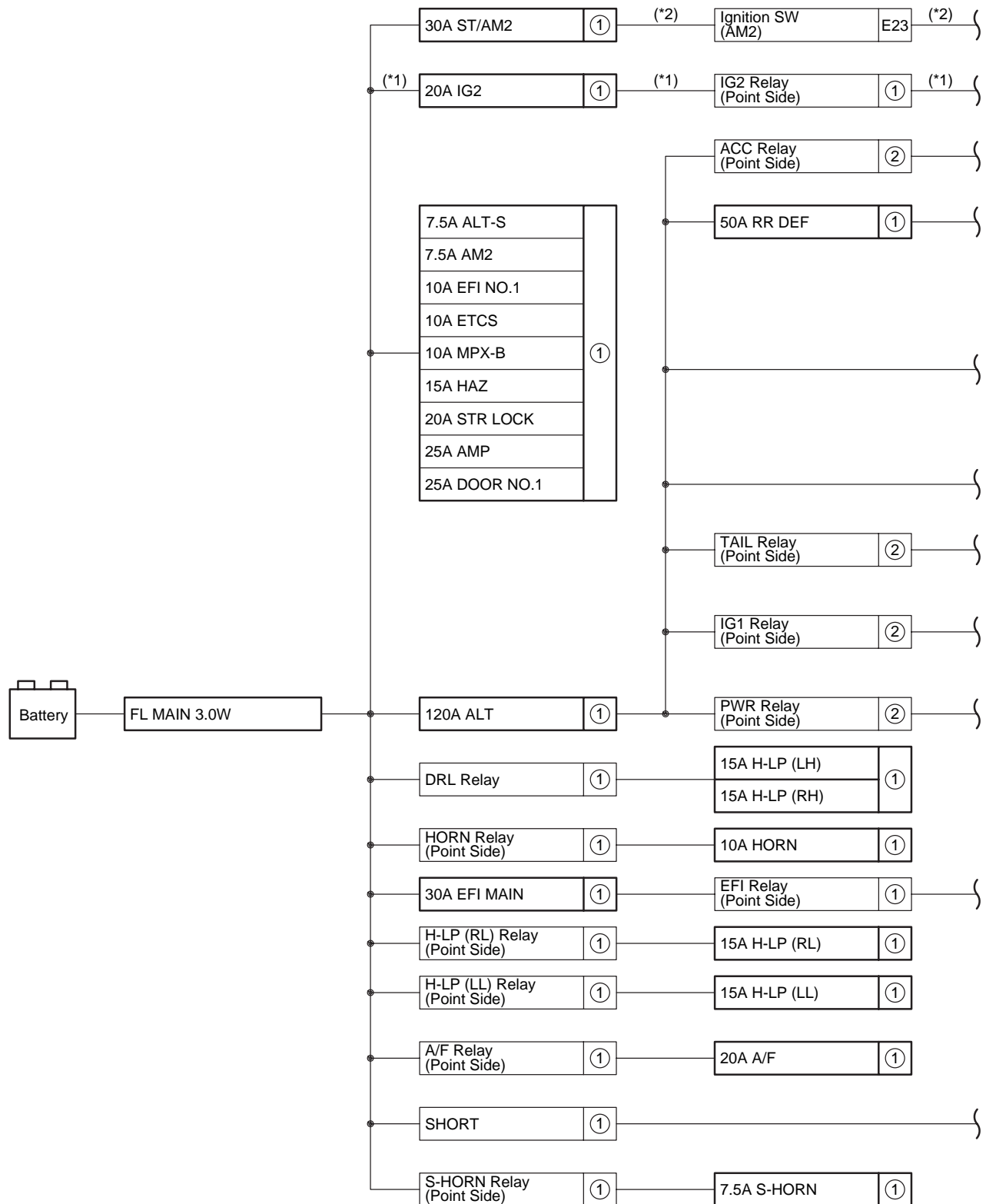
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AB1	64 (2GR-FE)	Engine Room Main Wire and Engine Room No.2 Wire (Near the Windshield Wiper Motor)
	65 (2AZ-FE)	
CA3	64 (2GR-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
	65 (2AZ-FE)	
EA1	66	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
EN2	66	Instrument Panel Wire and Floor Wire (Left Kick Panel)
EO1	66	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
EO2		
EQ1	66	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
FE3	66	Instrument Panel No.2 Wire and Instrument Panel Wire (Instrument Panel Center)
HE2	66	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
HW1	67	Front Door RH Wire and Electrical Key Wire Harness RH (Inside of the Front Door RH)
IE2	66	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IM1	67	Front Door LH Wire and Front Door LH No.2 Wire (Inside of the Front Door LH)
IM2		
IX1	67	Front Door LH Wire and Electrical Key Wire Harness LH (Inside of the Front Door LH)
JO1	67	Rear Door No.1 Wire and Floor No.2 Wire (Right Center Pillar)
KN1	67	Rear Door No.2 Wire and Floor Wire (Left Center Pillar)
NA1	66	Floor Wire and Engine Room Main Wire (Left Kick Panel)
QR1	67	Roof Wire and Roof No.2 Wire (Near the Overhead J/B)
SN1	67	Luggage Room Wire and Floor Wire (Luggage Room Left)

 : Ground Points

Code	See Page	Ground Points Location
A1	64 (2GR-FE)	Front Left Fender
	65 (2AZ-FE)	
A2	64 (2GR-FE)	Front Left Fender
	65 (2AZ-FE)	
A3	66	Left Cowl Side Panel
A4	64 (2GR-FE)	Near the Skid Control ECU with Actuator
	65 (2AZ-FE)	
A5	64 (2GR-FE)	Front Right Fender
	65 (2AZ-FE)	
A6	66	Right Cowl Side Panel
C4	64 (2GR-FE)	Cylinder Head
	65 (2AZ-FE)	Cylinder Block
C5	64 (2GR-FE)	Right Side of the Cylinder Block
C6	65 (2AZ-FE)	Cylinder Block
C7	64 (2GR-FE)	Left Side of the Cylinder Block
E1	66	Instrument Panel Left
E2	66	Instrument Panel Brace LH
E3	66	Instrument Panel Right
F1	66	Instrument Panel Left
F2	66	Instrument Panel Brace RH
F3	66	Under the Front Passenger's Seat
N1	67	Left Rear Quarter Panel
O1	67	Right Rear Quarter Panel
P1		
S1	67	Lower Back Panel Center

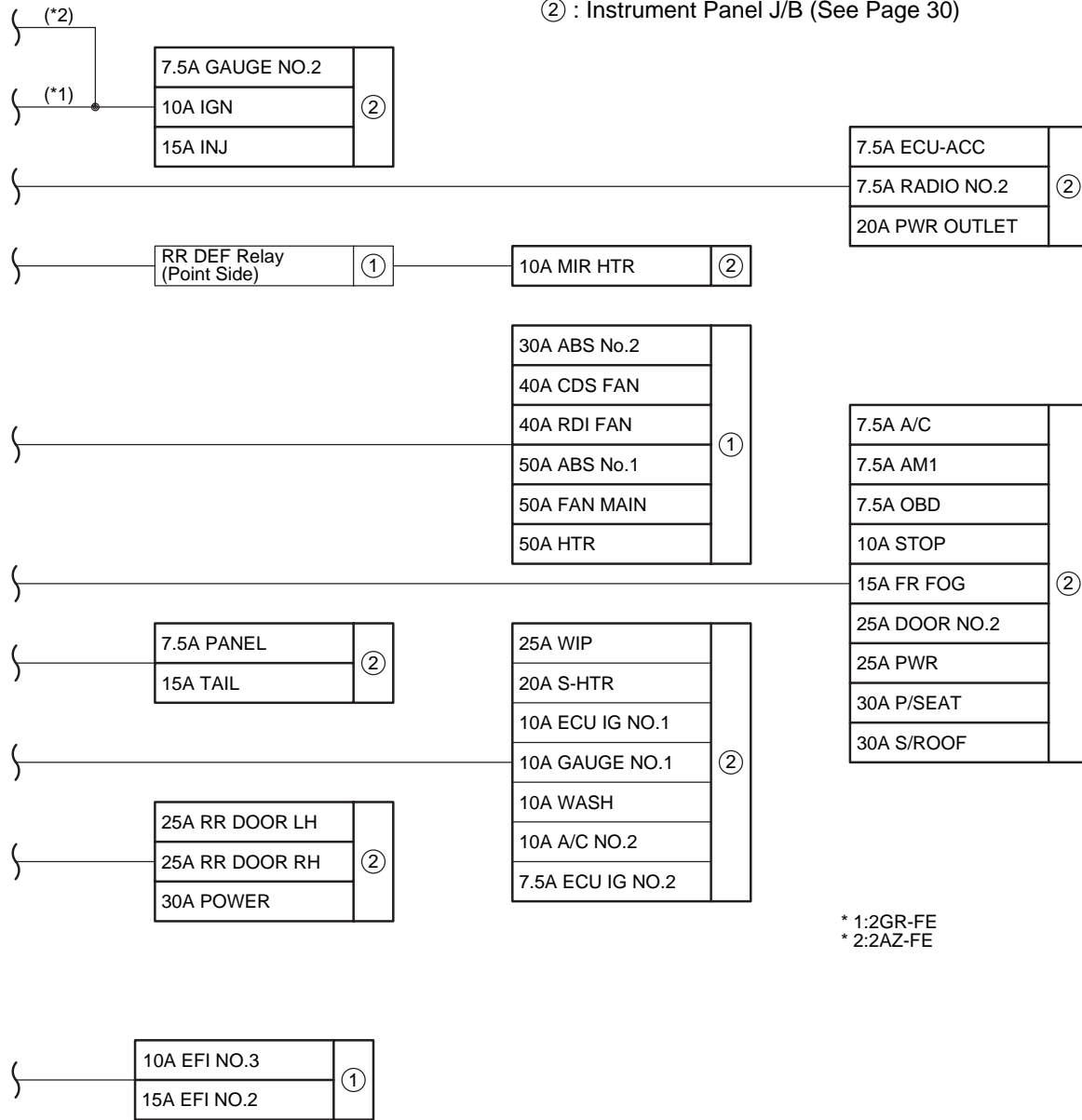
J POWER SOURCE (Current Flow Chart)

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.

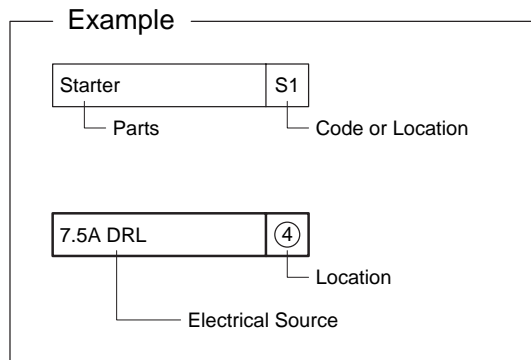


① : Engine Room R/B and Engine Room J/B (See Page 22)

② : Instrument Panel J/B (See Page 30)



* 1:2GR-FE
* 2:2AZ-FE



J POWER SOURCE (Current Flow Chart)

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

Fuse		System	Page
7.5A	ALT-S	Charging	100
7.5A	AM2	Electronically Controlled Transmission and A/T Indicator (2GR-FE)	300
		Engine Control (2GR-FE)	108
		Ignition (2GR-FE)	102
		Smart Key System	78
7.5A	S-HORN	Smart Key System	78
		Theft Deterrent	230
10A	DOME	ABS (w/ VSC), TRAC and VSC (TMC Made)	242
		ABS (w/ VSC), TRAC and VSC (TMMK Made)	252
		ABS (w/o VSC)	262
		Air Conditioning	386
		Audio System (6 Speaker)	360
		Audio System (8 Speaker w/o Navigation System)	354
		Clock	202
		Combination Meter	364
		Cooling Fan (2GR-FE)	374
		Cruise Control (2AZ-FE)	292
		Cruise Control (2GR-FE)	282
		Door Lock Control and Luggage Compartment Door Opener	214
		Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	312
		Electronically Controlled Transmission and A/T Indicator (2GR-FE)	300
		Engine Control (2AZ-FE)	126
		Engine Control (2GR-FE)	108
		Fog Light	150
		Garage Door Opener	336
		Headlight	144
		Interior Light	164
		Key Reminder (w/o Smart Key System) and Seat Belt Warning	190
		Navigation System and Audio System (8 Speaker)	346
		Radiator Fan and Condenser Fan (2AZ-FE)	380
		Sliding Roof	330
Smart Key System	78		
SRS	273		
Taillight and Illumination	172		
Theft Deterrent	230		
Tire Pressure Warning System	270		
Wireless Door Lock Control (w/o Smart Key System)	224		
10A	ECU-B NO.1	ABS (w/ VSC), TRAC and VSC (TMC Made)	242
		ABS (w/ VSC), TRAC and VSC (TMMK Made)	252
		Automatic Light Control and Light Auto Turn Off System	160
		Door Lock Control and Luggage Compartment Door Opener	214
		Fog Light	150

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

Fuse		System	Page
10A	ECU-B NO.1	Headlight	144
		Interior Light	164
		Key Reminder (w/o Smart Key System) and Seat Belt Warning	190
		Power Window	206
		Sliding Roof	330
		SRS	273
		Taillight and Illumination	172
		Theft Deterrent	230
		Wireless Door Lock Control (w/o Smart Key System)	224
10A	EFI NO.1	Cruise Control (2AZ-FE)	292
		Cruise Control (2GR-FE)	282
		Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	312
		Electronically Controlled Transmission and A/T Indicator (2GR-FE)	300
		Engine Control (2AZ-FE)	126
		Engine Control (2GR-FE)	108
		Engine Immobiliser System (w/o Smart Key System)	138
		Smart Key System	78
10A	EFI NO.3	Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	312
		Electronically Controlled Transmission and A/T Indicator (2GR-FE)	300
		Engine Control (2AZ-FE)	126
		Engine Control (2GR-FE)	108
10A	ETCS	Cruise Control (2AZ-FE)	292
		Cruise Control (2GR-FE)	282
		Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	312
		Electronically Controlled Transmission and A/T Indicator (2GR-FE)	300
		Engine Control (2AZ-FE)	126
		Engine Control (2GR-FE)	108
10A	HORN	Horn	204
		Smart Key System	78
		Theft Deterrent	230
10A	MPX-B	ABS (w/ VSC), TRAC and VSC (TMC Made)	242
		ABS (w/ VSC), TRAC and VSC (TMMK Made)	252
		ABS (w/o VSC)	262
		Air Conditioning	386
		Audio System (6 Speaker)	360
		Audio System (8 Speaker w/o Navigation System)	354
		Combination Meter	364
		Cooling Fan (2GR-FE)	374
		Cruise Control (2AZ-FE)	292
		Cruise Control (2GR-FE)	282
		Door Lock Control and Luggage Compartment Door Opener	214
		Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	312
		Electronically Controlled Transmission and A/T Indicator (2GR-FE)	300
		Engine Control (2AZ-FE)	126

* 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	MPX-B	Engine Control (2GR-FE)	108
		Fog Light	150
		Headlight	144
		Key Reminder (w/o Smart Key System) and Seat Belt Warning	190
		Navigation System and Audio System (8 Speaker)	346
		Radiator Fan and Condenser Fan (2AZ-FE)	380
		Sliding Roof	330
		Smart Key System	78
		SRS	273
		Taillight and Illumination	172
		Tire Pressure Warning System	270
15A	EFI NO.2	Cruise Control (2AZ-FE)	292
		Cruise Control (2GR-FE)	282
		Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	312
		Electronically Controlled Transmission and A/T Indicator (2GR-FE)	300
		Engine Control (2AZ-FE)	126
		Engine Control (2GR-FE)	108
15A	HAZ	Turn Signal and Hazard Warning Light	182
15A	H-LP (LH)	Headlight	144
15A	H-LP (LL)	Headlight	144
15A	H-LP (RH)	Headlight	144
15A	H-LP (RL)	Headlight	144
15A	RADIO NO.1	Audio System (6 Speaker)	360
		Audio System (8 Speaker w/o Navigation System)	354
		Navigation System and Audio System (8 Speaker)	346
20A	A/F	Engine Control (2GR-FE)	108
20A	IG2	Combination Meter	364
		Engine Control (2GR-FE)	108
		Ignition (2GR-FE)	102
		Smart Key System	78
20A	STR LOCK	Smart Key System	78
25A	AMP	Audio System (8 Speaker w/o Navigation System)	354
		Navigation System and Audio System (8 Speaker)	346
25A	DOOR NO.1	Automatic Light Control and Light Auto Turn Off System	160
		Door Lock Control and Luggage Compartment Door Opener	214
		Fog Light	150
		Headlight	144
		Interior Light	164
		Power Window	206
		Sliding Roof	330
		Smart Key System	78
		Taillight and Illumination	172
		Theft Deterrent	230

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

Fuse		System	Page
30A	ABS No.2	ABS (w/ VSC), TRAC and VSC (TMC Made)	242
		ABS (w/ VSC), TRAC and VSC (TMMK Made)	252
		ABS (w/o VSC)	262
30A	EFI MAIN	Cruise Control (2AZ-FE)	292
		Cruise Control (2GR-FE)	282
		Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	312
		Electronically Controlled Transmission and A/T Indicator (2GR-FE)	300
		Engine Control (2AZ-FE)	126
		Engine Control (2GR-FE)	108
30A	S/ROOF	Sliding Roof	330
30A	ST/AM2	Engine Control (2GR-FE)	108
		Ignition (2GR-FE)	102
		Smart Key System	78
		Starting (w/o Smart Key System)	96
40A	CDS FAN	Radiator Fan and Condenser Fan (2AZ-FE)	380
40A	RFI FAN	Radiator Fan and Condenser Fan (2AZ-FE)	380
50A	ABS No.1	ABS (w/ VSC), TRAC and VSC (TMC Made)	242
		ABS (w/ VSC), TRAC and VSC (TMMK Made)	252
		ABS (w/o VSC)	262
50A	FAN MAIN	Cooling Fan (2GR-FE)	374
50A	HTR	Air Conditioning	386
50A	RR DEF	Rear Window Defogger and Mirror Heater	342
120A	ALT	Automatic Light Control and Light Auto Turn Off System	160
		Charging	100
		Fog Light	150
		Power Window	206
		Starting (w/o Smart Key System)	96
		Taillight and Illumination	172
		Theft Deterrent	230

Instrument Panel J/B (See Page 30)

Fuse		System	Page
7.5A	A/C	Air Conditioning	386
7.5A	AM1	Electronically Controlled Transmission and A/T Indicator (2GR-FE)	300
		Engine Control (2AZ-FE)	126
		Engine Control (2GR-FE)	108
		Starting (w/o Smart Key System)	96
7.5A	ECU IG NO.2	ABS (w/ VSC), TRAC and VSC (TMC Made)	242
		ABS (w/ VSC), TRAC and VSC (TMMK Made)	252
		ABS (w/o VSC)	262
		Cruise Control (2AZ-FE)	292
		Cruise Control (2GR-FE)	282
		Electronically Controlled Transmission and A/T Indicator (2GR-FE)	300
		Shift Lock	320

* 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
7.5A	ECU-ACC	Automatic Light Control and Light Auto Turn Off System	160
		Clock	202
		Door Lock Control and Luggage Compartment Door Opener	214
		Fog Light	150
		Headlight	144
		Interior Light	164
		Power Window	206
		Remote Control Mirror	340
		Shift Lock	320
		Sliding Roof	330
		Smart Key System	78
		Taillight and Illumination	172
		Theft Deterrent	230
		Wireless Door Lock Control (w/o Smart Key System)	224
7.5A	GAUGE NO.2	ABS (w/ VSC), TRAC and VSC (TMC Made)	242
		ABS (w/ VSC), TRAC and VSC (TMMK Made)	252
		ABS (w/o VSC)	262
		Air Conditioning	386
		Audio System (6 Speaker)	360
		Audio System (8 Speaker w/o Navigation System)	354
		Charging	100
		Combination Meter	364
		Cooling Fan (2GR-FE)	374
		Cruise Control (2AZ-FE)	292
		Cruise Control (2GR-FE)	282
		Door Lock Control and Luggage Compartment Door Opener	214
		Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	312
		Electronically Controlled Transmission and A/T Indicator (2GR-FE)	300
		Engine Control (2AZ-FE)	126
		Engine Control (2GR-FE)	108
		Fog Light	150
		Headlight	144
		Key Reminder (w/o Smart Key System) and Seat Belt Warning	190
		Navigation System and Audio System (8 Speaker)	346
		Radiator Fan and Condenser Fan (2AZ-FE)	380
		Sliding Roof	330
		Smart Key System	78
SRS	273		
Taillight and Illumination	172		
Tire Pressure Warning System	270		
7.5A	OBD	Data Link Connector 3	140
7.5A	PANEL	Taillight and Illumination	172

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

Fuse		System	Page
7.5A	RADIO NO.2	Audio System (6 Speaker)	360
		Audio System (8 Speaker w/o Navigation System)	354
		Navigation System and Audio System (8 Speaker)	346
10A	A/C NO.2	Air Conditioning	386
		Cooling Fan (2GR-FE)	374
		Radiator Fan and Condenser Fan (2AZ-FE)	380
		Rear Window Defogger and Mirror Heater	342
10A	ECU IG NO.1	Automatic Glare-Resistant EC Mirror	338
		Automatic Light Control and Light Auto Turn Off System	160
		Cooling Fan (2GR-FE)	374
		Door Lock Control and Luggage Compartment Door Opener	214
		Fog Light	150
		Headlight	144
		Interior Light	164
		Power Window	206
		Radiator Fan and Condenser Fan (2AZ-FE)	380
		Sliding Roof	330
		Smart Key System	78
		Taillight and Illumination	172
		Theft Deterrent	230
Tire Pressure Warning System	270		
Wireless Door Lock Control (w/o Smart Key System)	224		
10A	GAUGE NO.1	ABS (w/ VSC), TRAC and VSC (TMC Made)	242
		ABS (w/ VSC), TRAC and VSC (TMMK Made)	252
		ABS (w/o VSC)	262
		Back-Up Light	188
		Charging	100
		Cruise Control (2AZ-FE)	292
		Cruise Control (2GR-FE)	282
		Door Lock Control and Luggage Compartment Door Opener	214
		Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	312
		Electronically Controlled Transmission and A/T Indicator (2GR-FE)	300
		Navigation System and Audio System (8 Speaker)	346
		Shift Lock	320
Turn Signal and Hazard Warning Light	182		
10A	IGN	Cruise Control (2AZ-FE)	292
		Cruise Control (2GR-FE)	282
		Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	312
		Electronically Controlled Transmission and A/T Indicator (2GR-FE)	300
		Engine Control (2AZ-FE)	126
		Engine Control (2GR-FE)	108
		Engine Immobiliser System (w/o Smart Key System)	138
Key Reminder (w/o Smart Key System) and Seat Belt Warning	190		

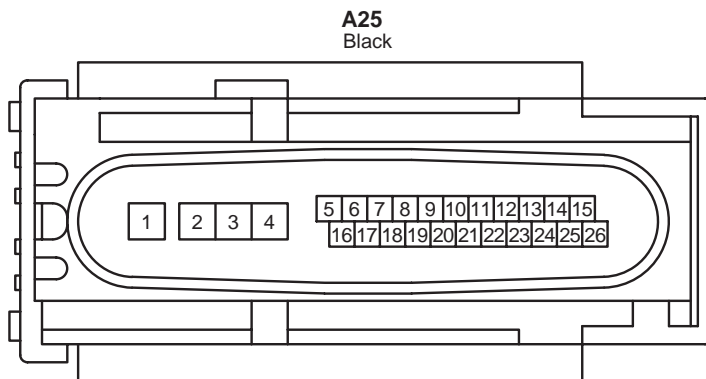
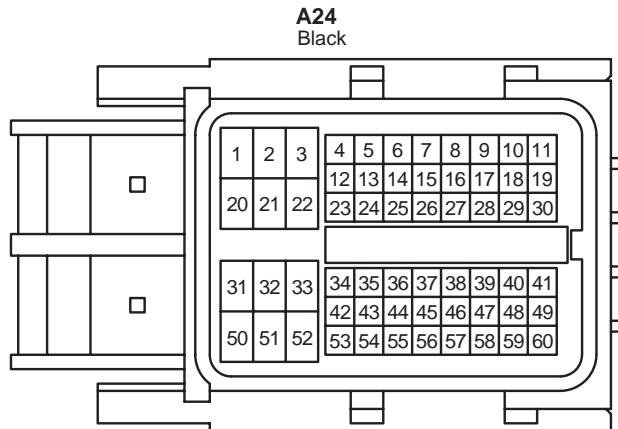
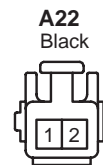
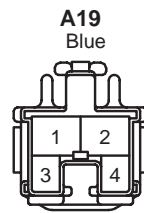
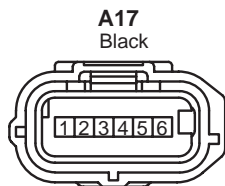
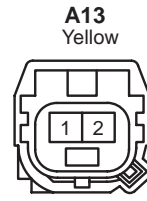
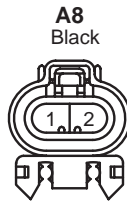
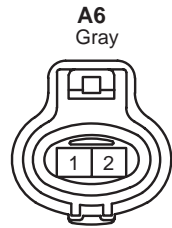
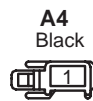
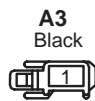
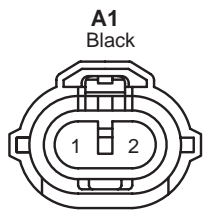
* These are the page numbers of the first page on which the related system is shown.

J POWER SOURCE (Current Flow Chart)

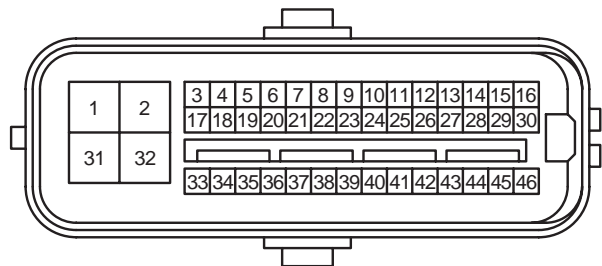
Fuse		System	Page
10A	IGN	Smart Key System	78
		SRS	273
10A	MIR HTR	Rear Window Defogger and Mirror Heater	342
10A	STOP	ABS (w/ VSC), TRAC and VSC (TMC Made)	242
		ABS (w/ VSC), TRAC and VSC (TMMK Made)	252
		ABS (w/o VSC)	262
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		Smart Key System	78
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* These are the page numbers of the first page on which the related system is shown.

K CONNECTOR LIST



A26
Black



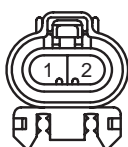
A27
Black



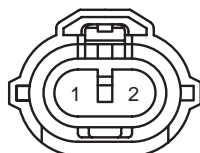
A28
Yellow



A29
Black



A34
Black



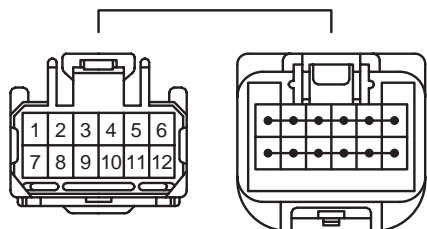
A35
Gray



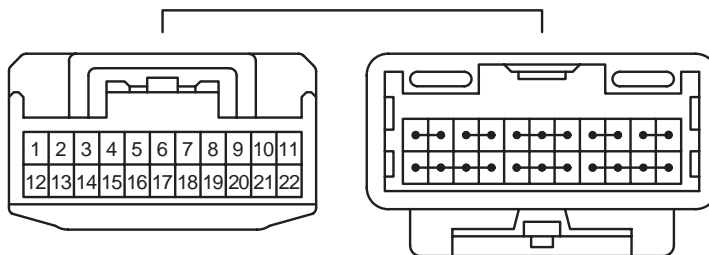
A37
Black



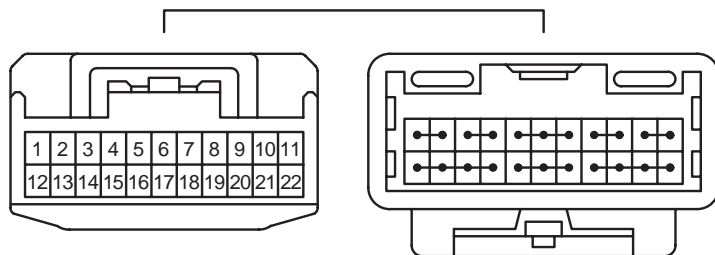
A40
Blue



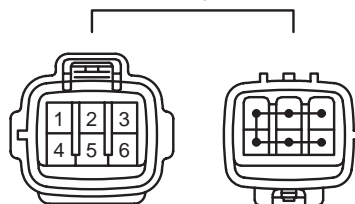
A41



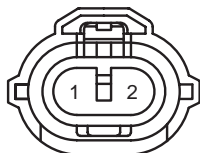
A42



A43
Gray



A45
Black



A46
Gray



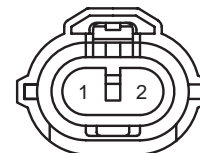
A47
Black



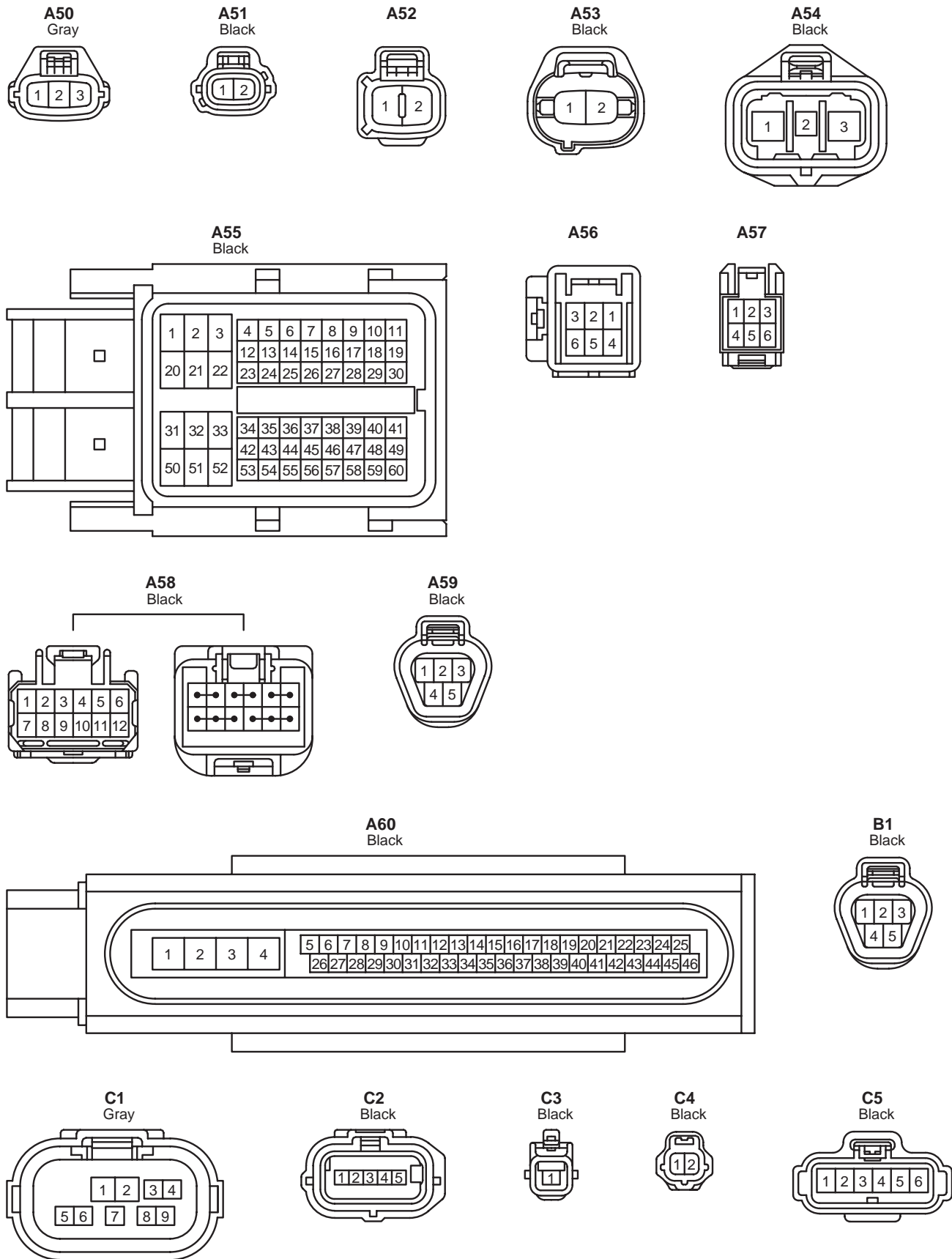
A48
Black

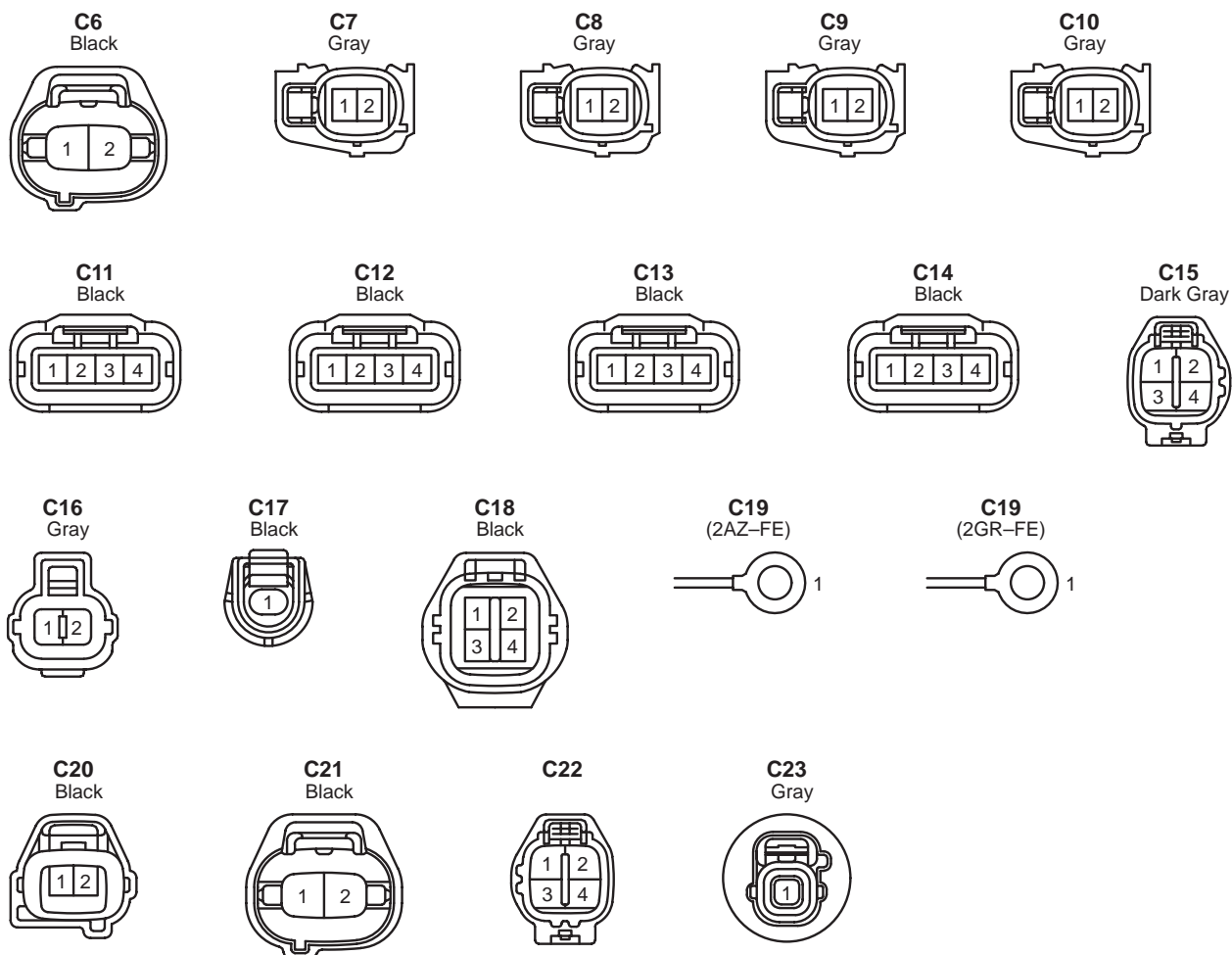


A49
Black

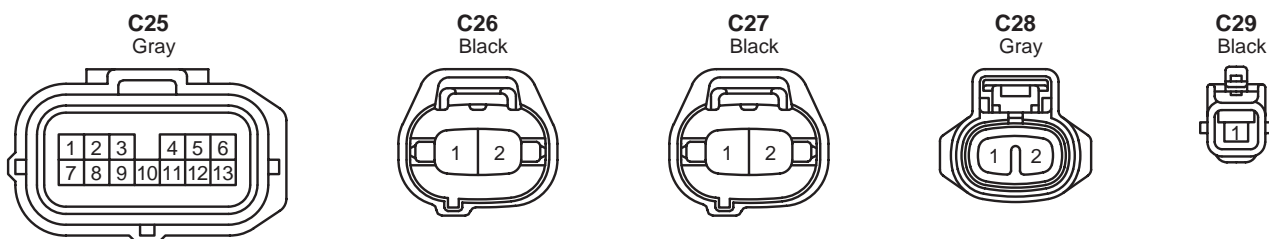
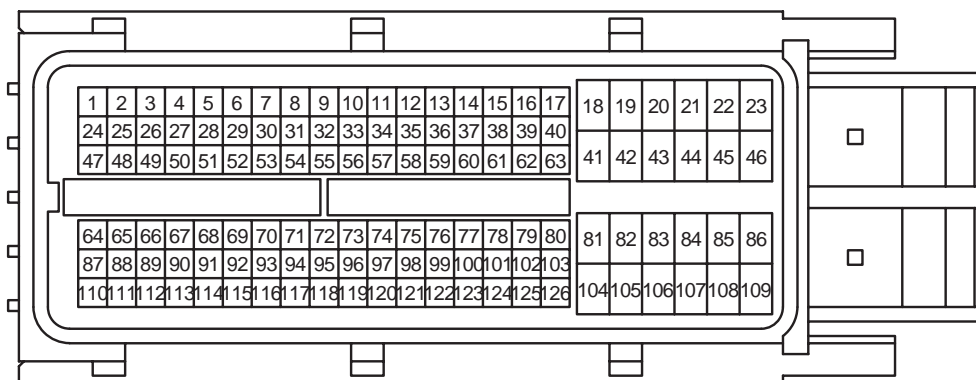


K CONNECTOR LIST

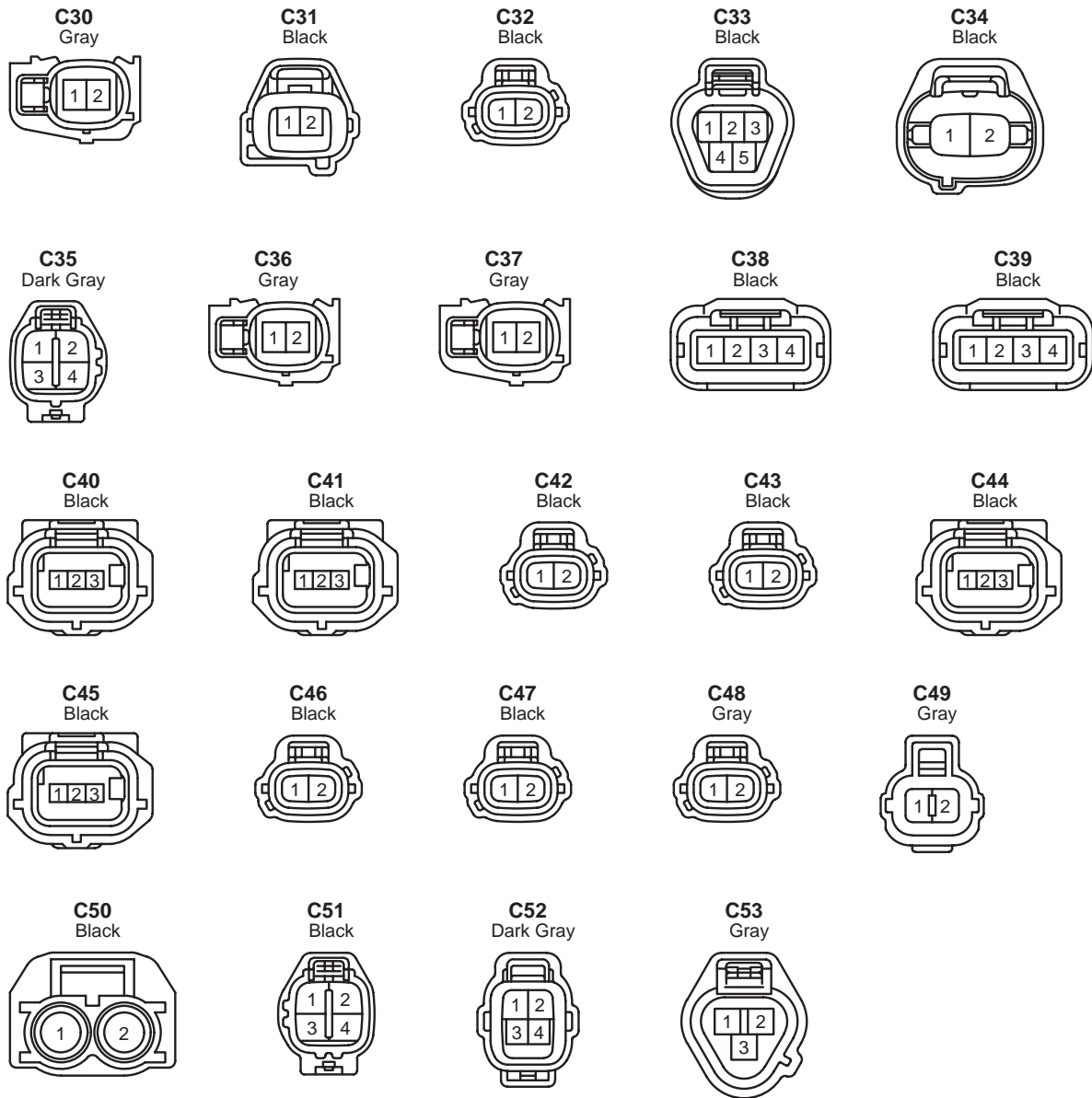




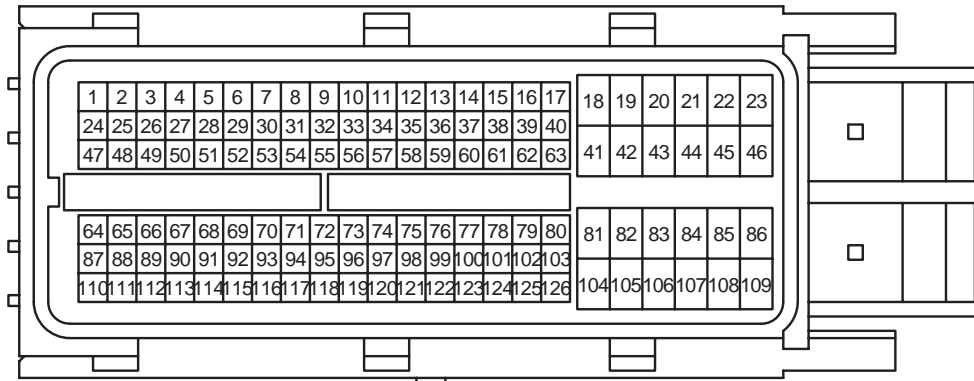
C24
Black



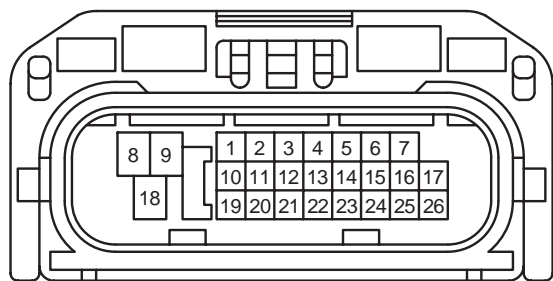
K CONNECTOR LIST



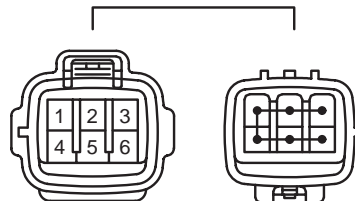
C55
Black



C56
Black



C57
Gray



D1



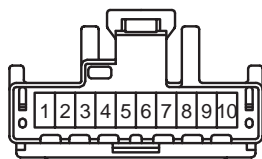
E1
Black



E2
Black



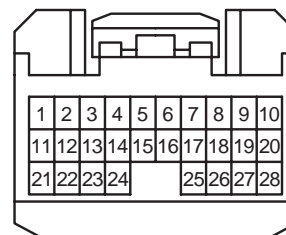
E3



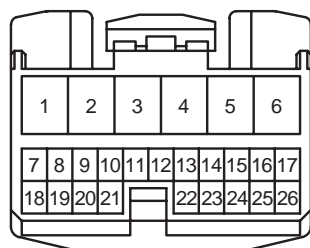
E5
Black



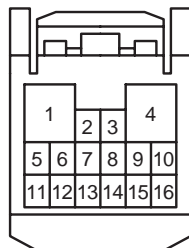
E6



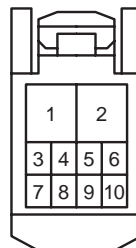
E7



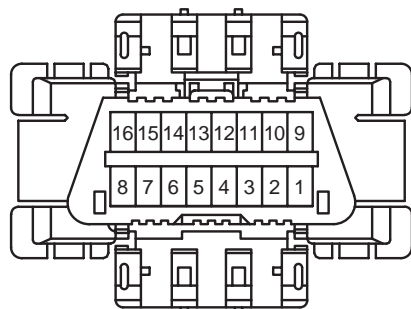
E8



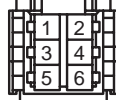
E9



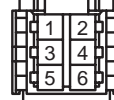
E10
Black



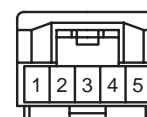
E11
(Automatic A/C) Blue



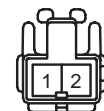
E11
(Manual A/C) Black



E12



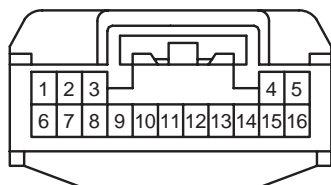
E13
Black



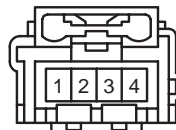
E14
Black



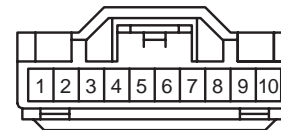
E15



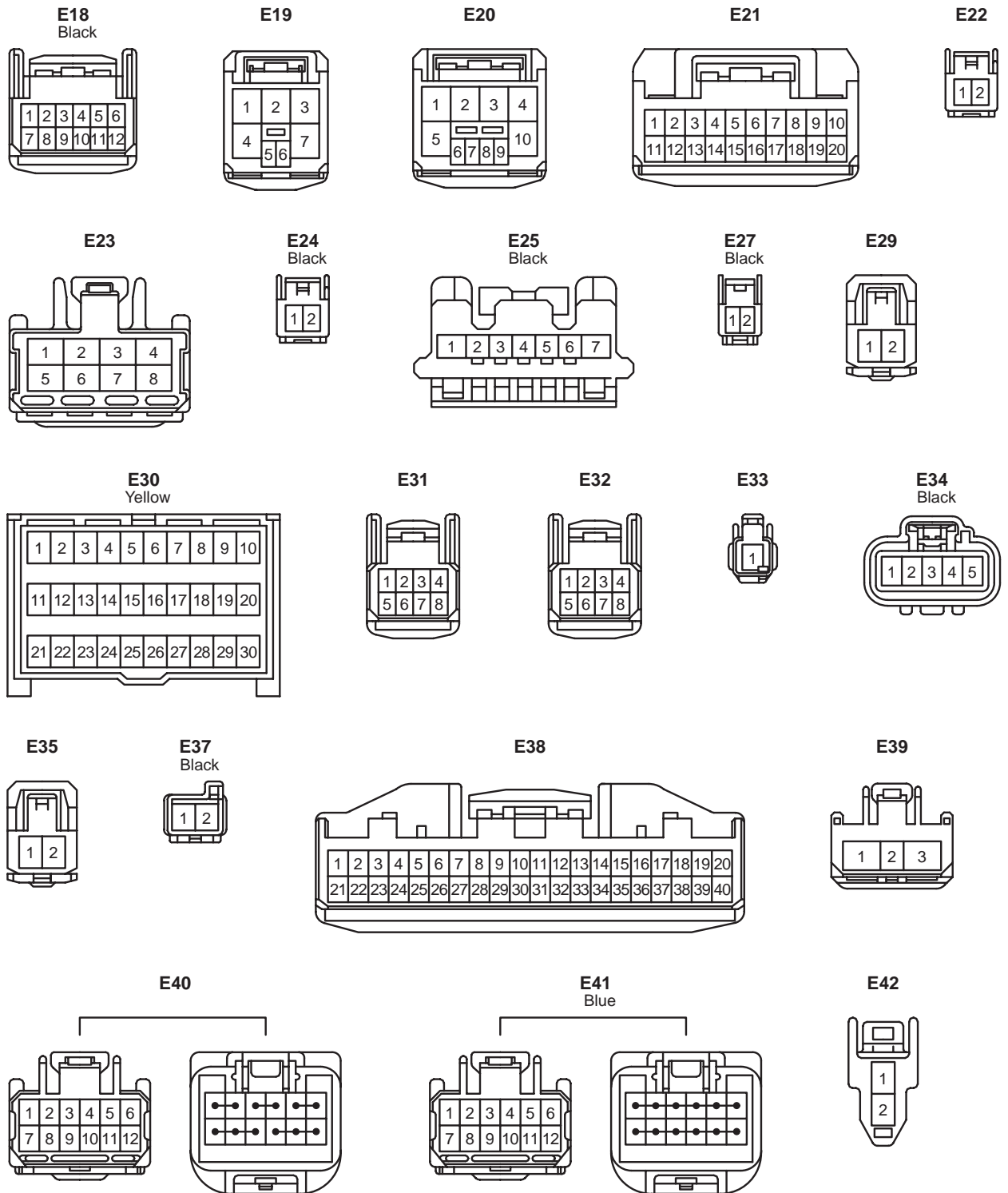
E16
Yellow



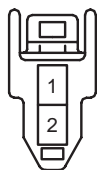
E17
Black



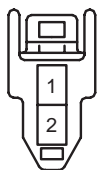
K CONNECTOR LIST



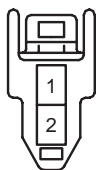
E43



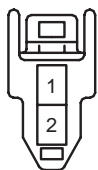
E44
Black



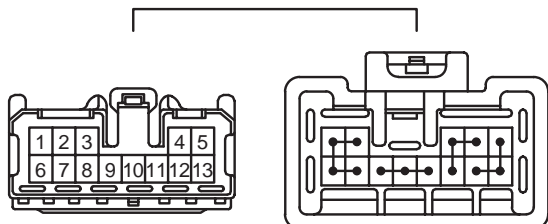
E45
Black



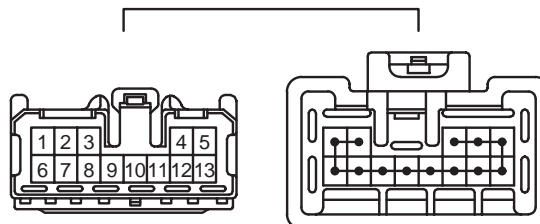
E46
Blue



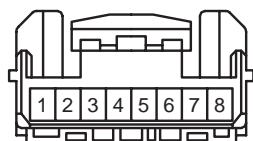
E48



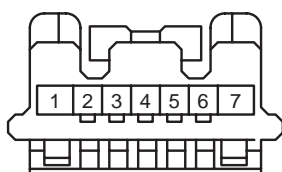
E49
Black



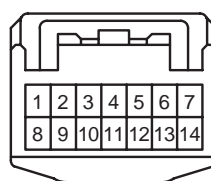
E50



E51
Black



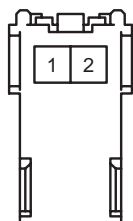
E52
Black



E53
Black



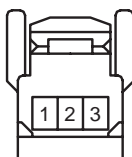
E54
Yellow



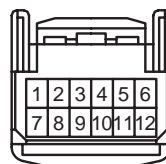
E55
Black



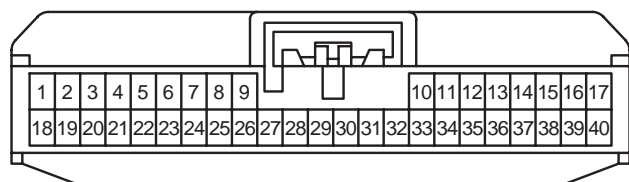
E56



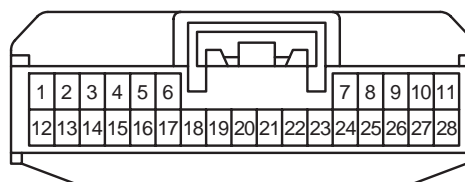
E57



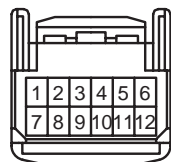
E58



E59



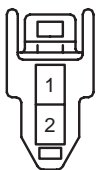
E60



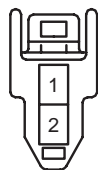
E61



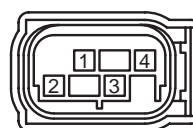
E62
Gray



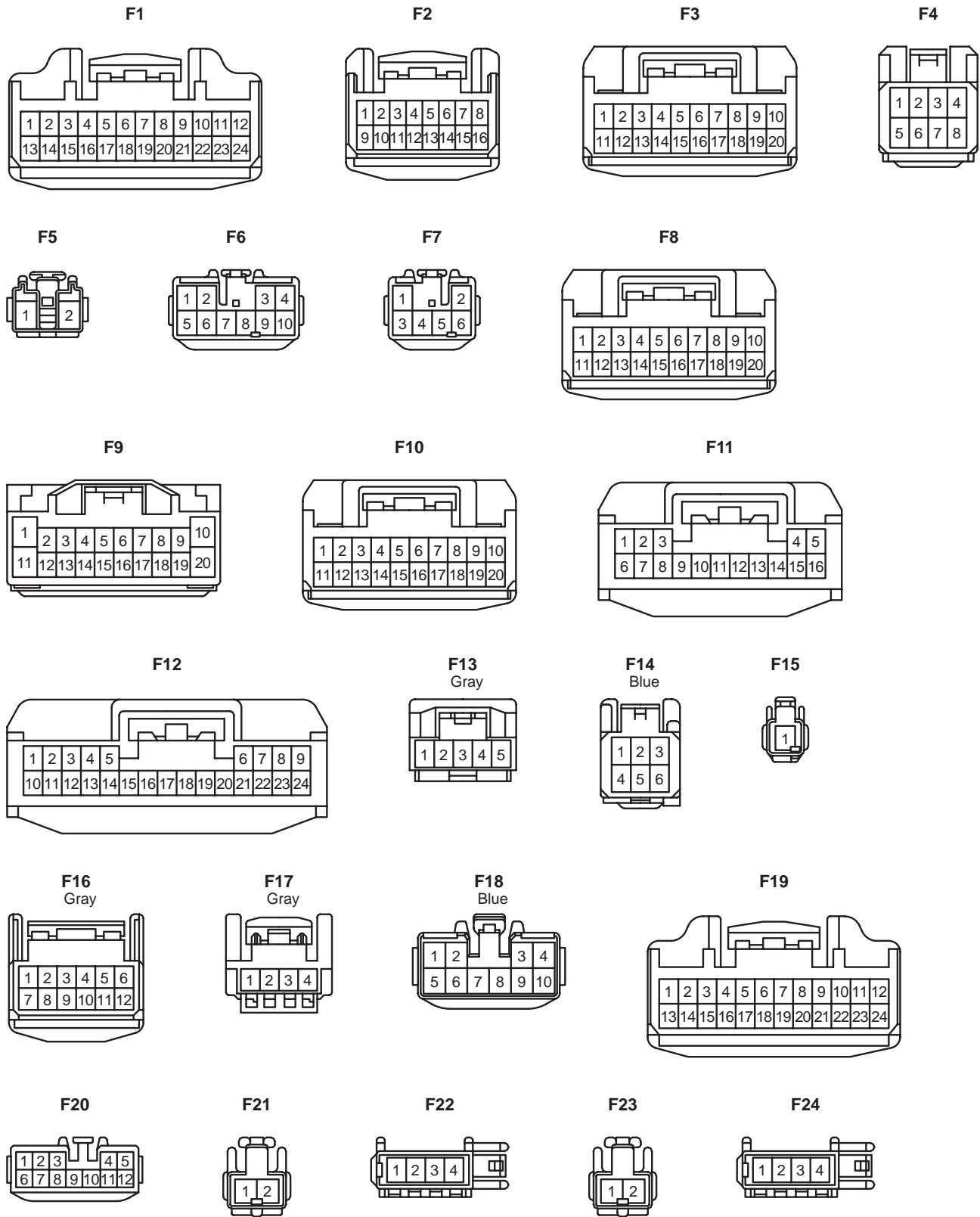
E63
Brown

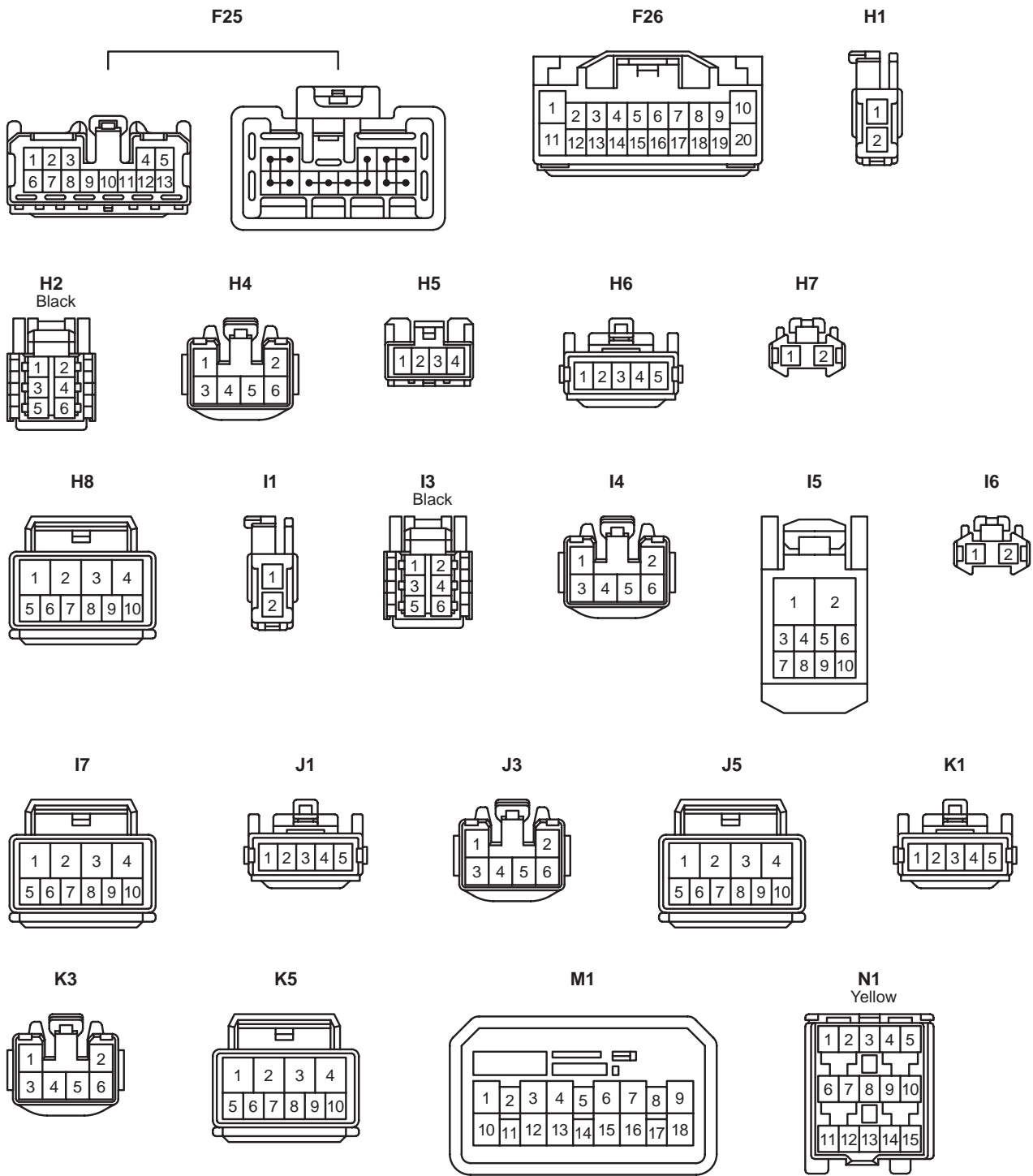


E65
Black

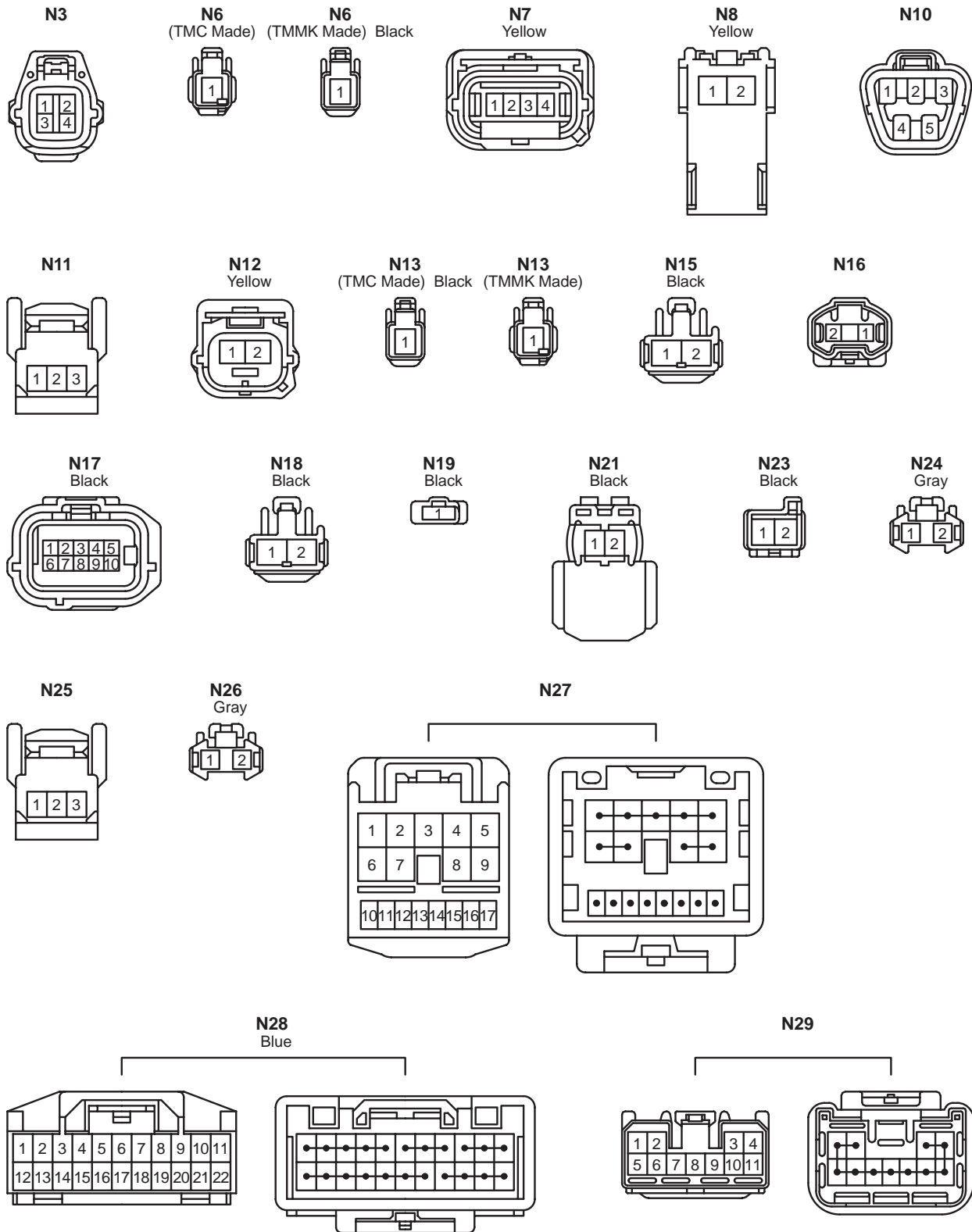


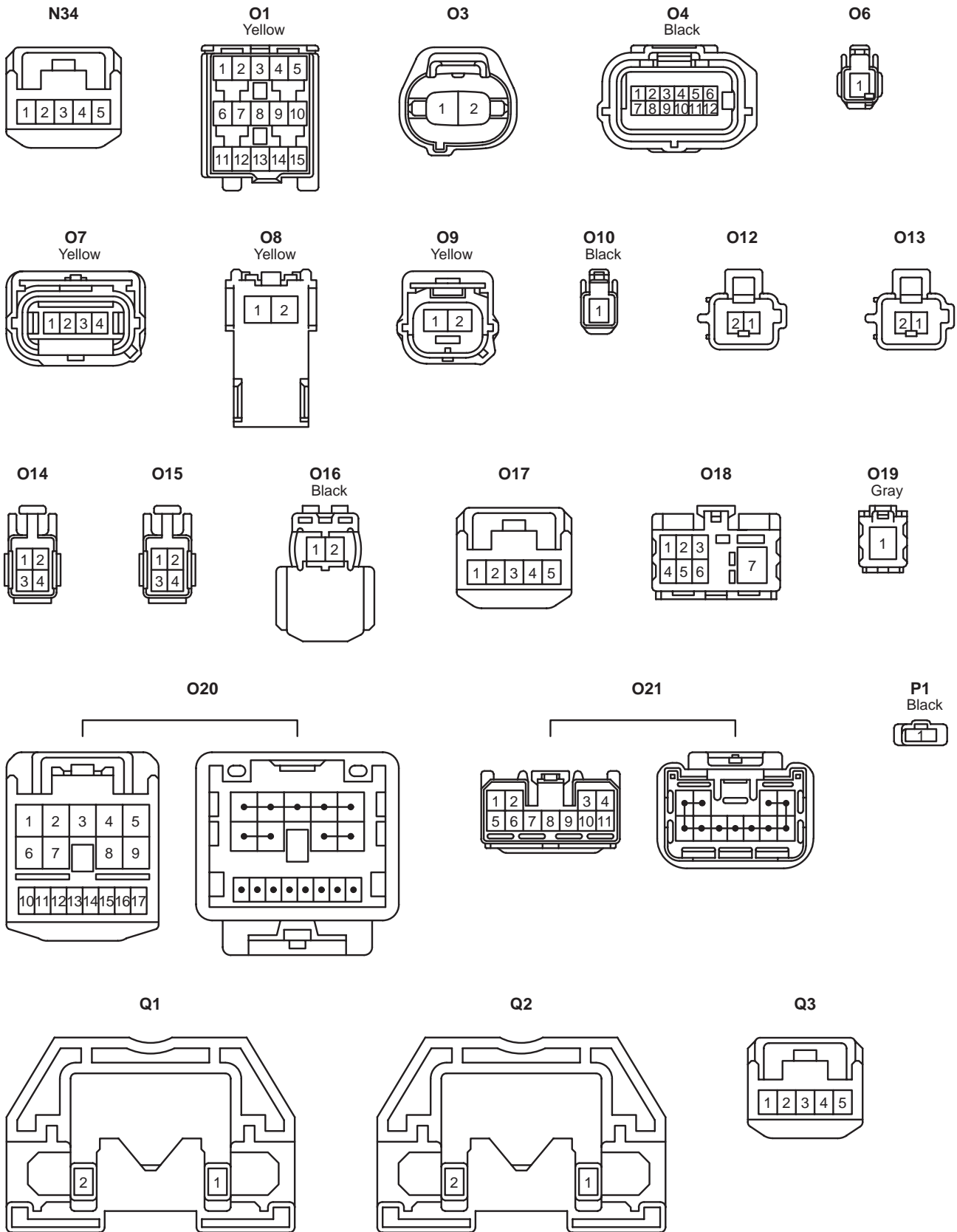
K CONNECTOR LIST



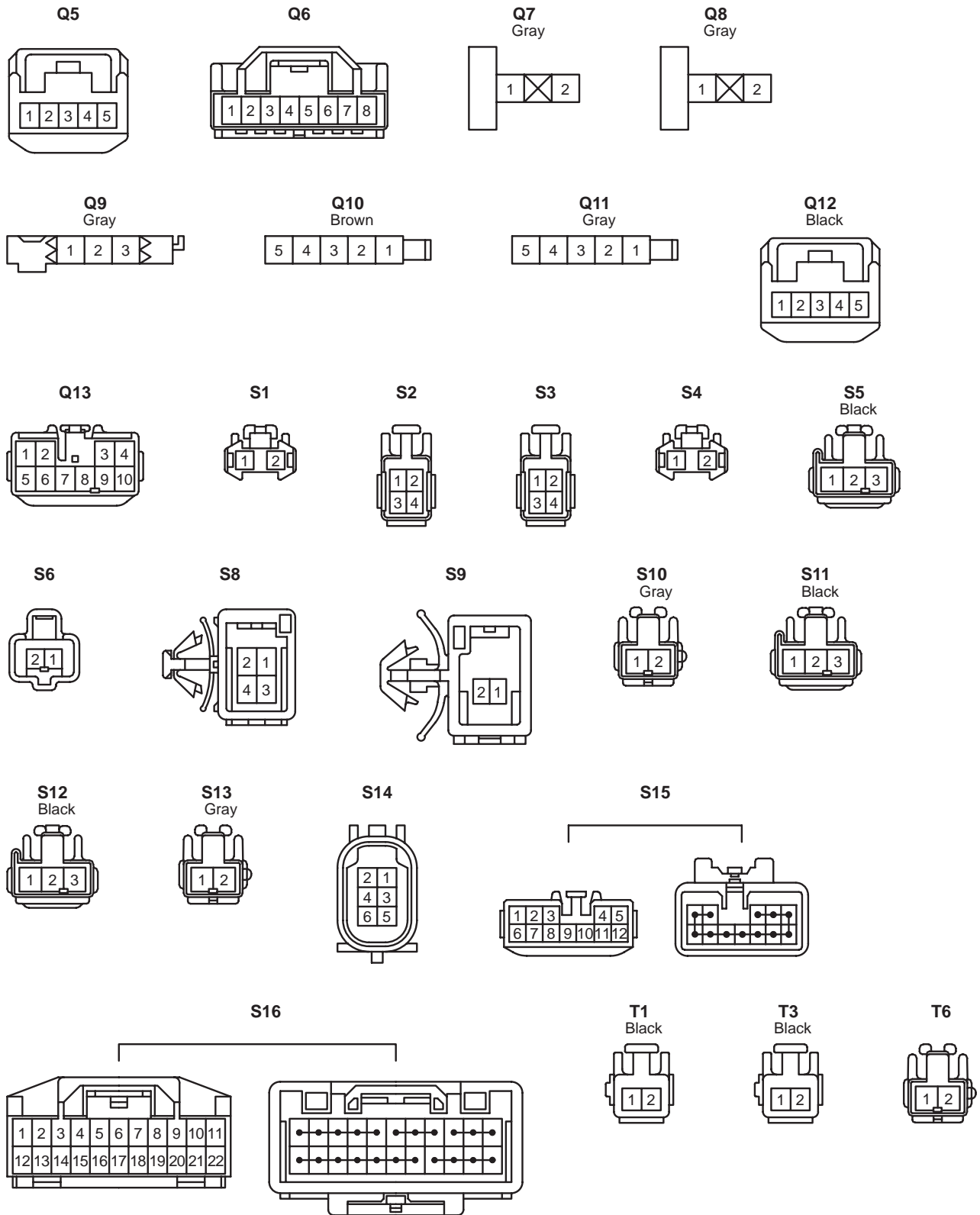


K CONNECTOR LIST

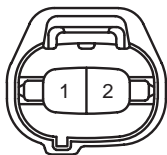




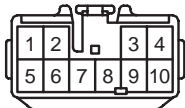
K CONNECTOR LIST



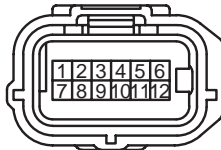
T7



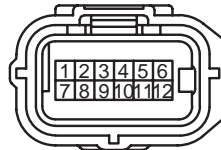
T8
Black



T10
Black



T11
Gray



T14
Black



T15
Gray



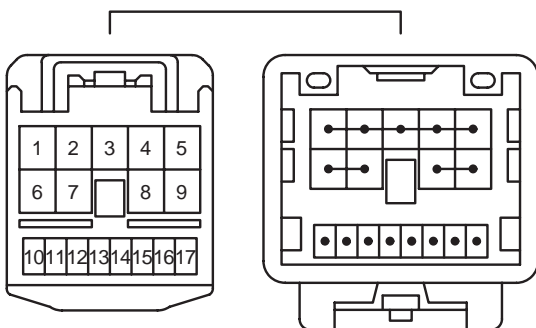
T16
Gray



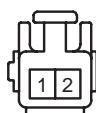
T17
Black



T18



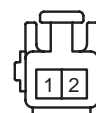
U1
Black



U2
Black



U3
Black



U4
Black



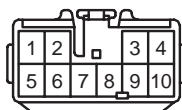
U5



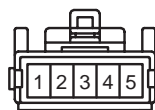
U6



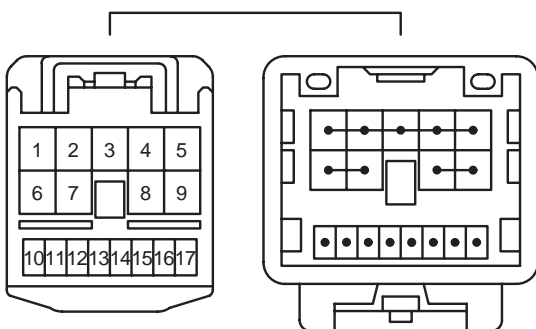
U7
Black



U8



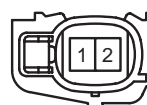
U11



V1
Gray



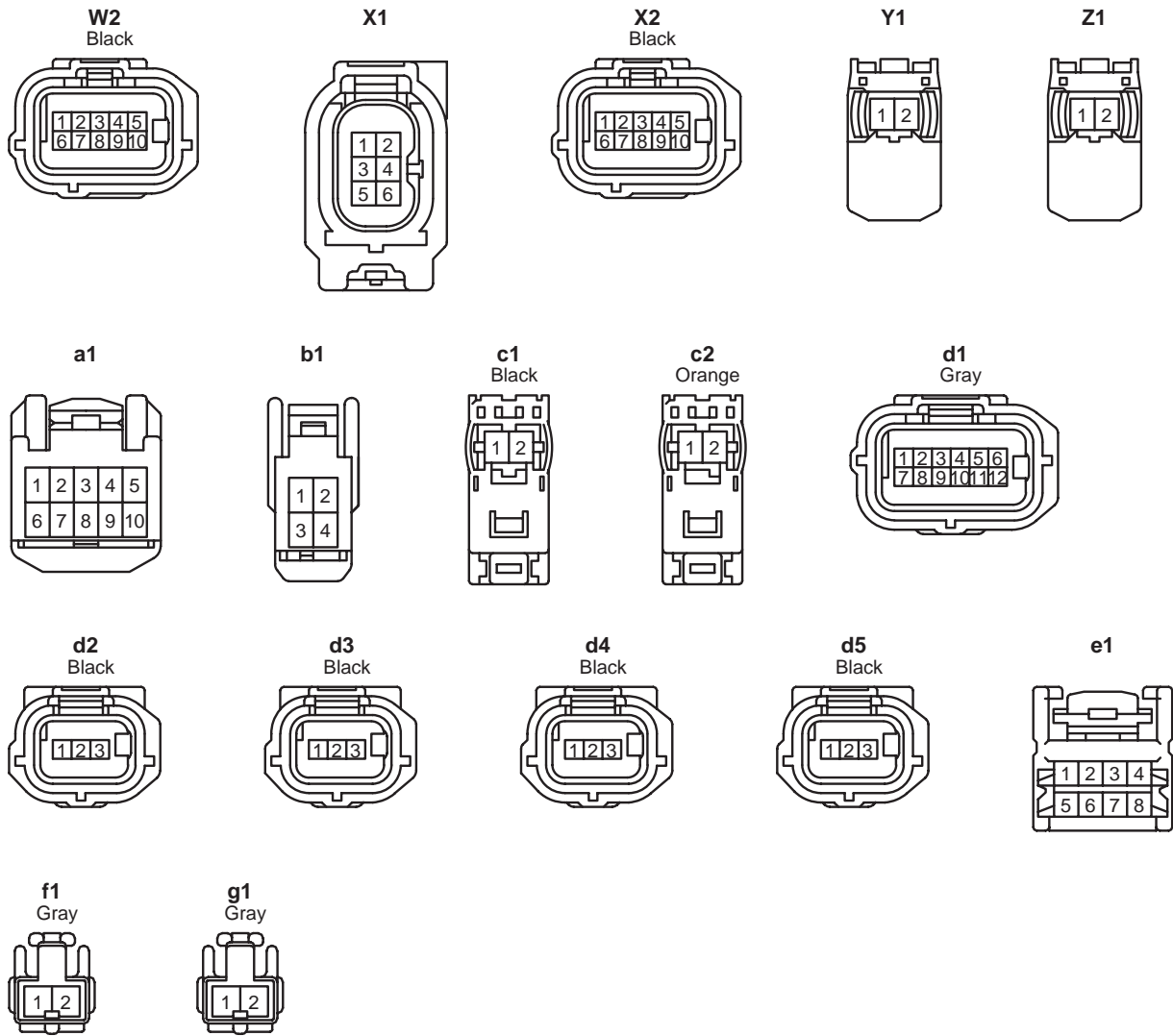
V2
Black



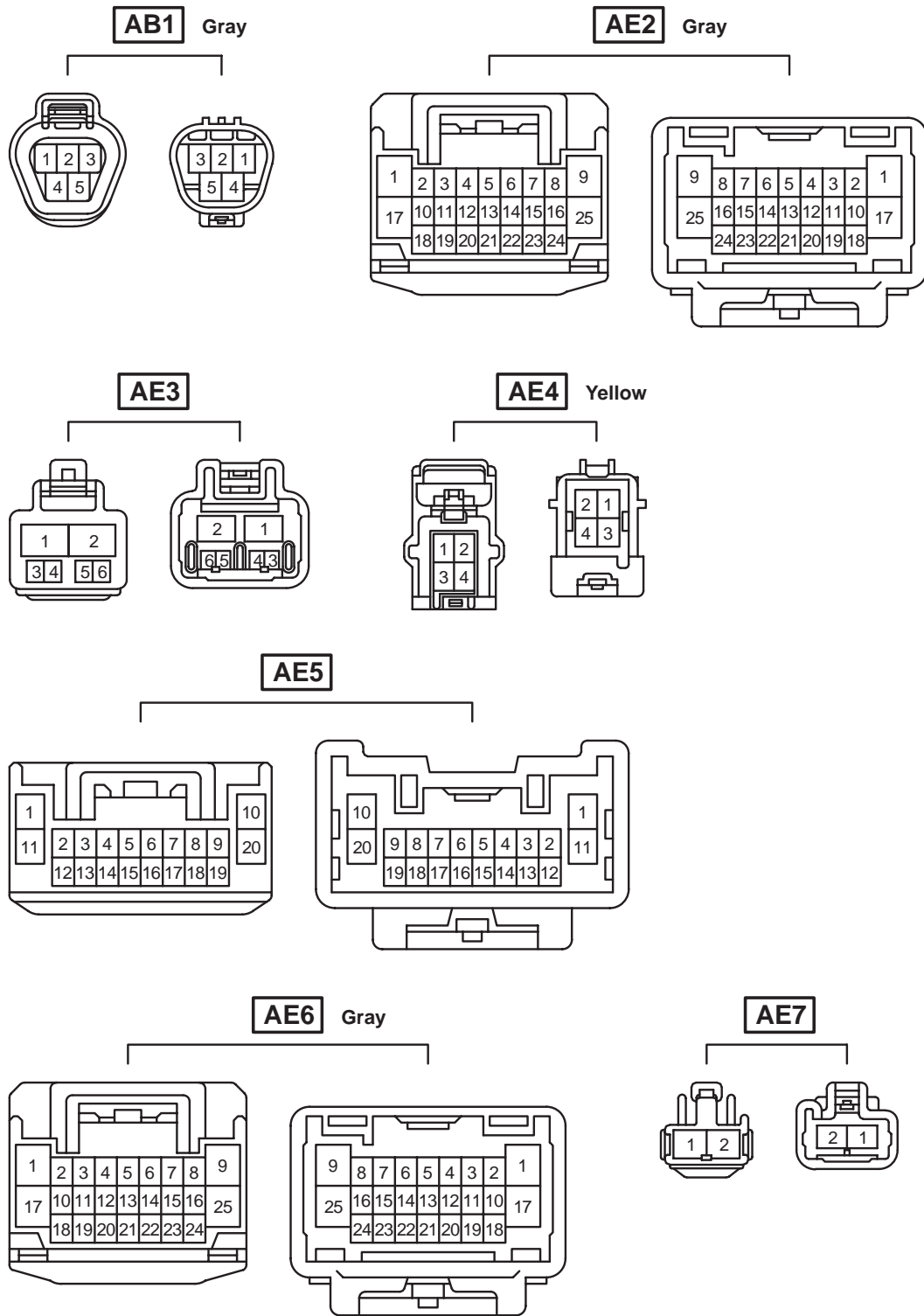
W1

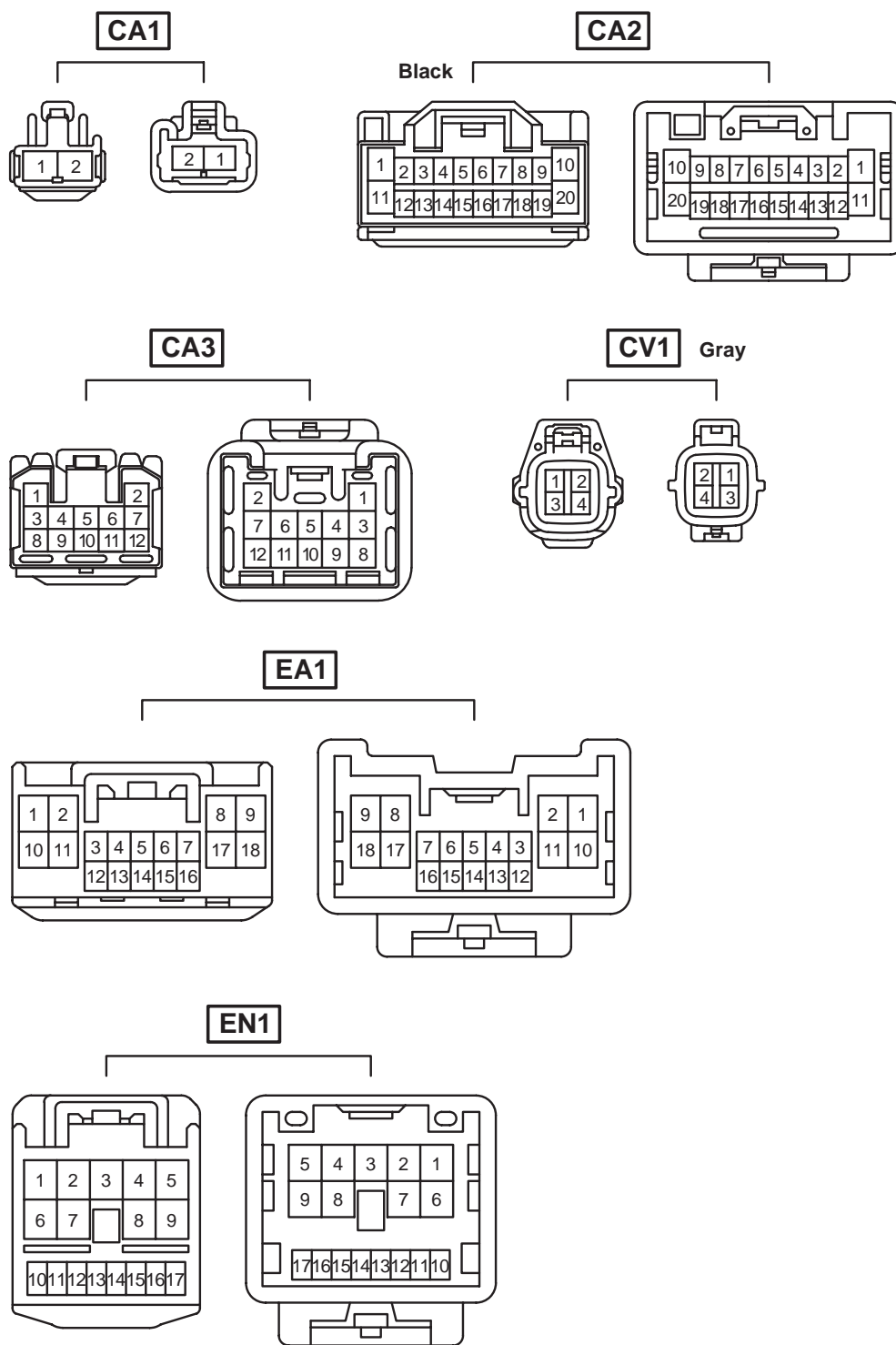


K CONNECTOR LIST



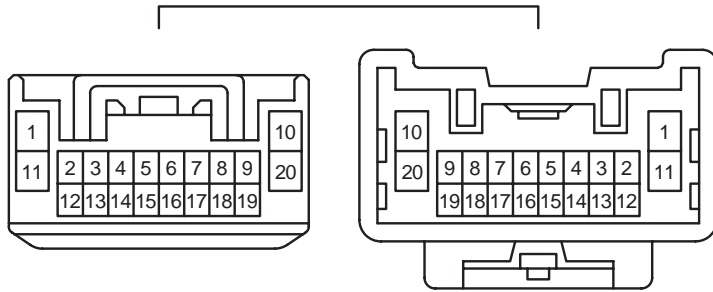
K CONNECTOR LIST



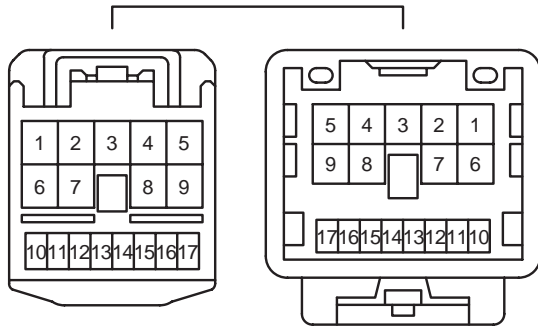


K CONNECTOR LIST

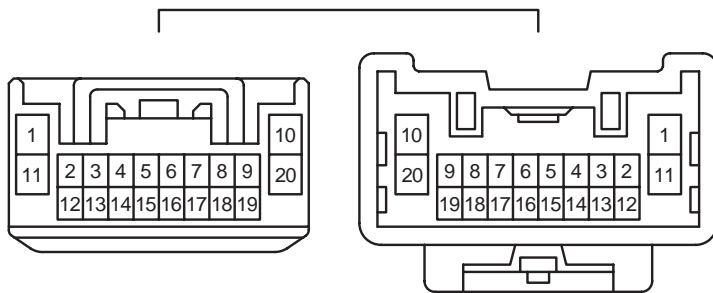
EN2 Blue



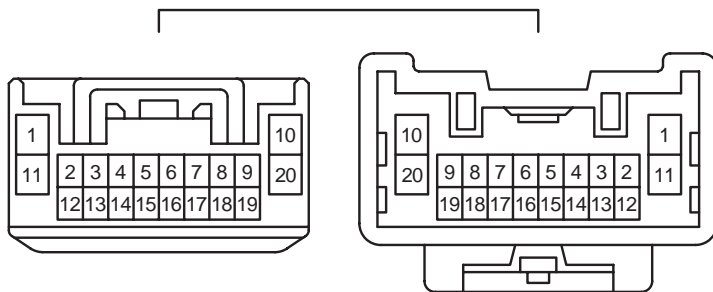
E01



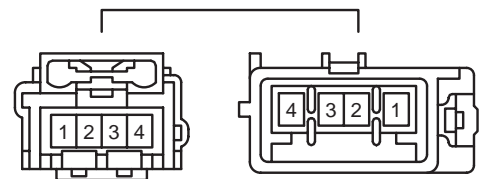
E02 Blue



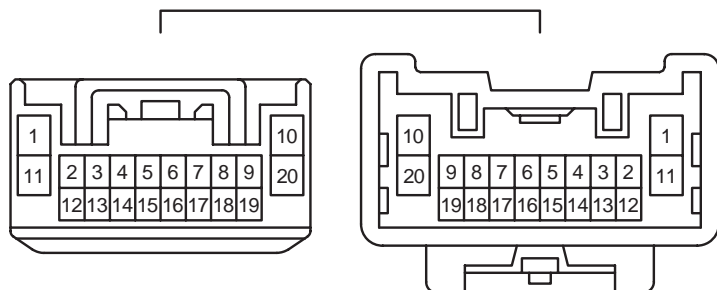
EQ1



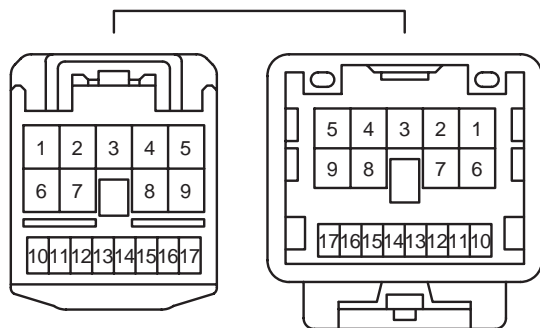
Ec1 Yellow



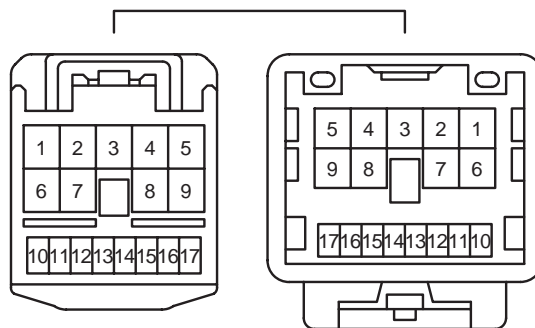
FE2 Blue



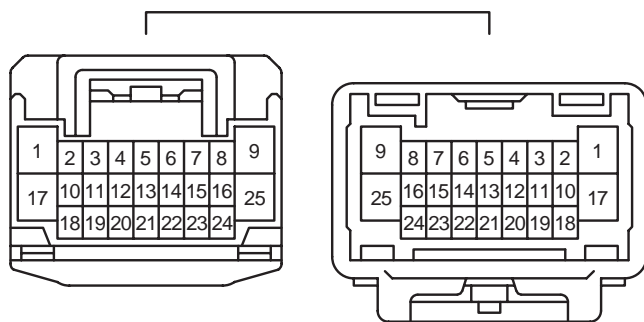
FE3 Gray



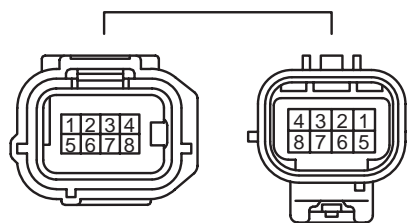
HE1 Gray



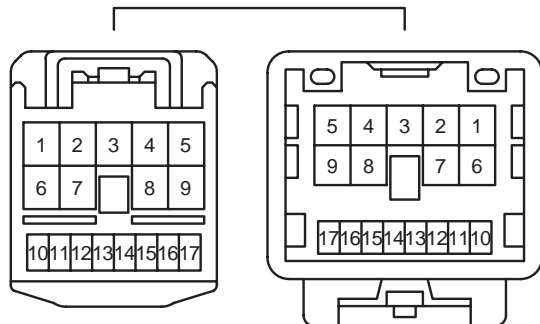
HE2



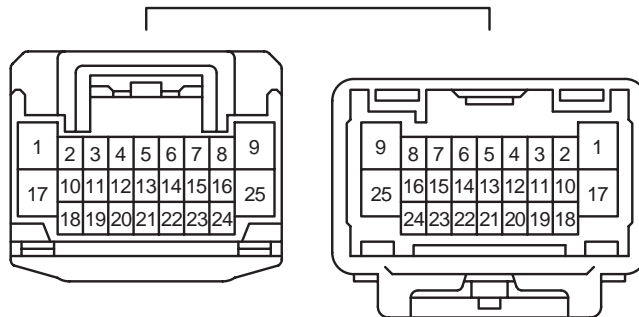
HW1 Gray



IE1 Gray

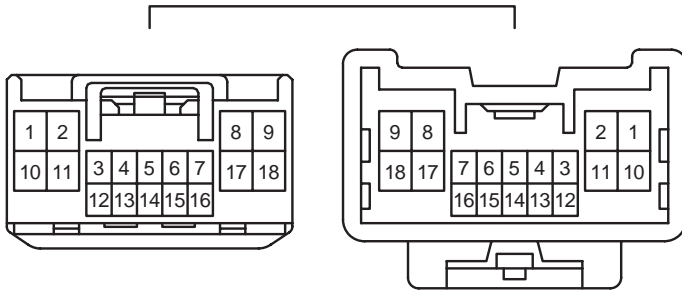


IE2

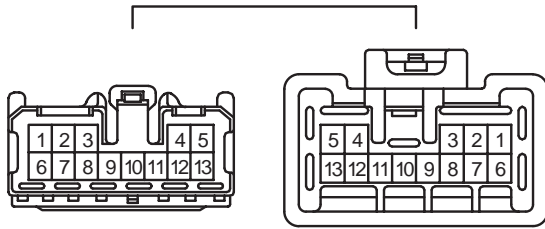


K CONNECTOR LIST

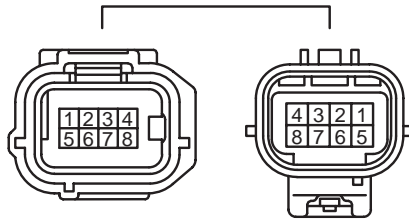
IM1



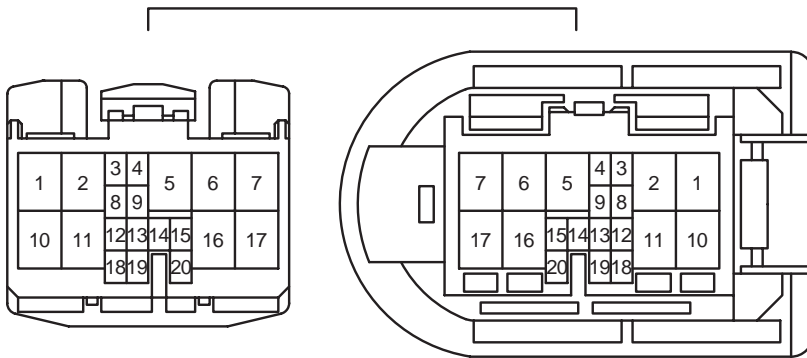
IM2 Blue



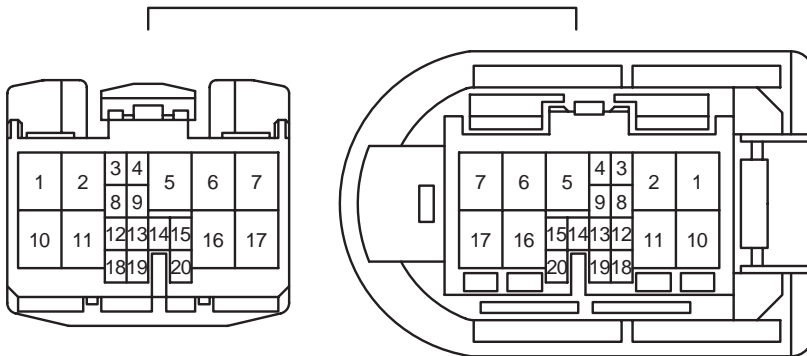
IX1 Gray



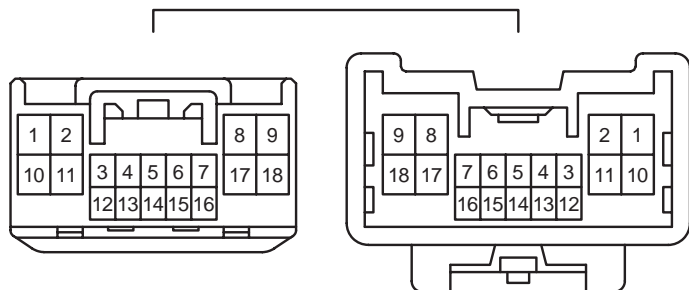
JO1



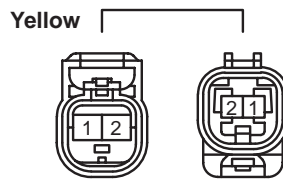
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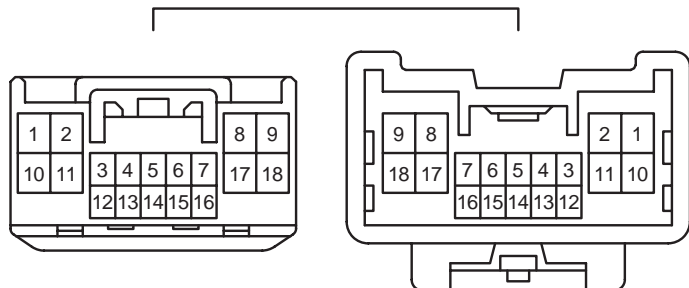
NA1 Black



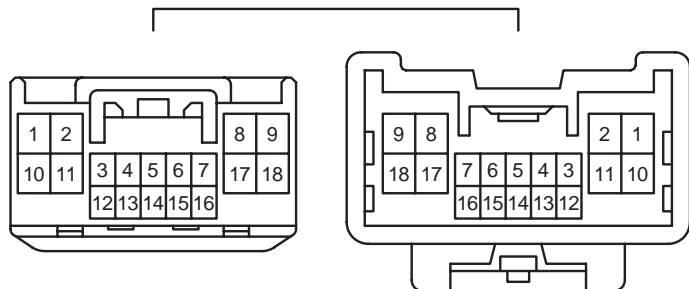
NZ2



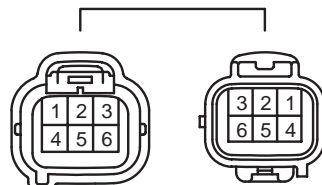
OA1 Black



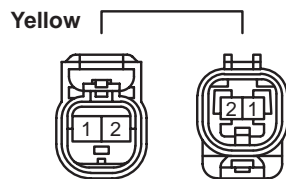
OF1 Black



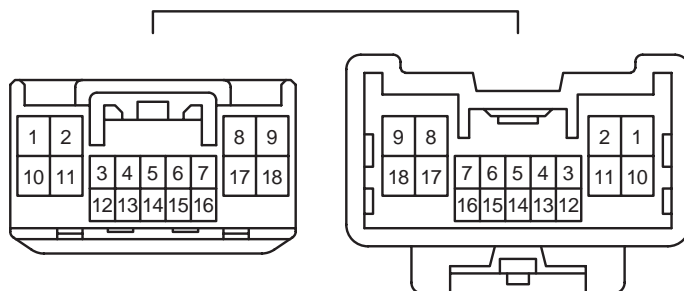
OT1 Gray



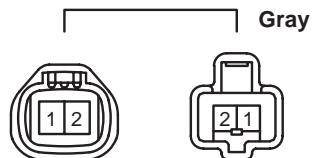
OY2



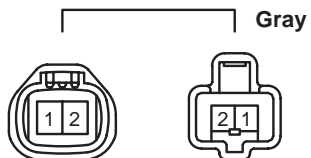
SN1



fO1



gN1



L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number
A1	Fog Lamp (Front LH)	82824-60460	B1	Windshield Wiper Motor	90980-11599
A2	Ambient Temp. Sensor	90980-11070	C1	Park/Neutral Position SW	90980-12362
A3	Horn (High)	90980-10619	C2	Mass Air Flow Meter	90980-12292
A4	Horn (Low)		C3	Starter	90980-11400
A5	Engine Hood Courtesy SW	90980-11002	C4	Engine Coolant Temp. Sensor	90980-10735
A6	A/C Condenser Fan Motor	90980-10928	C5	Throttle Body Assembly	90980-11858
A7	Radiator Fan Motor		C6	VSV (Purge)	90980-11156
A8	Headlamp (LH High)	90980-11659	C7	Fuel Injector (No.1)	90980-11875
A13	Airbag Sensor (Front LH)	90980-12490	C8	Fuel Injector (No.3)	
A14	Speed Sensor (Front LH)	90980-11002	C9	Fuel Injector (No.2)	
A16	Brake Fluid Level Warning SW	90980-11207	C10	Fuel Injector (No.4)	
A17	Accelerator Position Sensor	90980-12303	C11	Ignition Coil (No.1)	90980-11885
A18	Parking Brake SW	90980-10871	C12	Ignition Coil (No.3)	
A19	Stop Lamp SW	90980-11118	C13	Ignition Coil (No.2)	
A21	Cruise Control Clutch SW	90980-10906	C14	Ignition Coil (No.4)	
A22	Clutch Start SW	90980-10825	C15	Air Fuel Ratio Sensor (Bank 1 Sensor 1)	90980-11178
A23	Security Horn	90980-10619	C16	Noise Filter (Ignition RH)	90980-10843
A24	Engine Control Module	90980-12461	C17	Power Steering Oil Pressure SW	90980-11428
A25	Skid Control ECU with Actuator	90980-WB001	C18	Generator	90980-11964
A26	Skid Control ECU with Actuator	90980-12297	C19	Generator (2AZ-FE)	90980-09213
A27	A/C Pressure Sensor	90980-10845		Generator (2GR-FE)	90980-09983
A28	Airbag Sensor (Front RH)	90980-12490	C20	Crankshaft Position Sensor	90980-10947
A29	Headlamp (RH High)	90980-11659	C21	A/C Compressor	90980-11156
A34	Fog Lamp (Front RH)	82824-60460	C22	Heated Oxygen Sensor (Bank 1 Sensor 2)	90980-11028
A35	Speed Sensor (Front RH)	90980-11002	C23	Engine Oil Pressure SW	90980-11363
A37	Windshield Washer Motor	90980-11019	C24	Engine Control Module	90980-12398
A40	Junction Connector	90980-11661	C25	Electronically Controlled Transmission Solenoid	90980-12326
A41	Junction Connector	90980-12372		C26	Transmission Revolution Sensor (Turbine)
A42	Junction Connector		C27	Transmission Revolution Sensor (Counter Gear)	
A43	Junction Connector	90980-11194	C28	Back-Up Lamp SW	90980-11250
A45	Headlamp (LH Low)	82824-60460	C29	Starter	90980-11400
A46	Turn Signal and Parking Lamp (Front LH)	90980-11020	C30	Knock Control Sensor (Bank 1)	90980-11875
A47	Side Marker Lamp (Front LH)	90980-11162	C31	Camshaft Position Sensor	90980-10947
A48	Wireless Door Lock Buzzer	90980-11142	C32	Camshaft Timing Oil Control Valve	90980-11162
A49	Headlamp (RH Low)	82824-60460	C33	Intake Air Control Valve	90980-11599
A50	Turn Signal and Parking Lamp (Front RH)	90980-11020	C34	VSV (ACM)	90980-11156
A51	Side Marker Lamp (Front RH)	90980-11162	C35	Air Fuel Ratio Sensor (Bank 2 Sensor 1)	90980-11178
A52	Washer Level Warning SW	90980-11068	C36	Fuel Injector (No.5)	90980-11875
A53	VSV (Air Intake Control)	90980-11156		C37	
A54	Cooling Fan ECU	90980-12058	C38	Ignition Coil (No.5)	90980-11885
A55	Engine Control Module	90980-12462		C39	
A56	Short Connector	90980-12204	C40	VVT Sensor (Bank 1 Exhaust Side)	90980-12353
A57	Short Connector	90980-12012		C41	
A58	Junction Connector	90980-11661			
A59	Windshield Wiper Motor	90980-11599			
A60	Skid Control ECU with Actuator	90980-WA008			

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
C42	Camshaft Timing Oil Control Valve (RH Exhaust Side)	90980-11162	E31	Transmission Control SW	90980-12551
C43	Camshaft Timing Oil Control Valve (RH Intake Side)		E32	Shift Lock Control ECU	
C44	VVT Sensor (Bank 2 Exhaust Side)	90980-12353	E33	Parking Brake SW	90980-10871
C45	VVT Sensor (Bank 2 Intake Side)		E34	Yaw Rate Sensor	90980-11904
C46	Camshaft Timing Oil Control Valve (LH Exhaust Side)	90980-11162	E35	Power Outlet Socket (Rear)	90980-12498
C47	Camshaft Timing Oil Control Valve (LH Intake Side)		E37	Diode (Door Courtesy Front RH)	90980-10962
C48	VSV (ACIS)		E38	A/C Amplifier	90980-12557
C49	Noise Filter (Ignition LH)		90980-10843	E39	Blower Motor
C50	Crankshaft Position Sensor	90980-12611	E40	Junction Connector	90980-11661
C51	Heated Oxygen Sensor (Bank 2 Sensor 2)	90980-11028	E41	Junction Connector	
C52	Heated Oxygen Sensor (Bank 1 Sensor 2)	90980-10869	E42	Junction Connector	90980-12355
C53	A/C Compressor	90980-11016	E43	Junction Connector	
C55	Engine Control Module	90980-12396	E44	Junction Connector	
C56	Transmission Control ECU	90980-12649	E45	Junction Connector	
C57	Junction Connector	90980-11194	E46	Junction Connector	
D1	Starter	90980-09463	E48	Junction Connector	
E1	Diode (Door Courtesy Rear LH)	90980-10962	E49	Junction Connector	90980-12558
E2	Diode (Door Courtesy Rear RH)		E50	ID Code Box	
E3	Outer Mirror SW	90980-11657	E51	Steering Lock ECU	90980-12092
E5	Diode (Door Courtesy Front LH)	90980-10962	E52	Power SW	90980-12370
E6	Main Body ECU	90980-12330	E53	Tire Pressure Warning SW (Reset)	90980-10906
E7	Main Body ECU	90980-12561	E54	Airbag Squib (Knee Airbag)	90980-12253
E8	Main Body ECU	90980-12329	E55	Seat Heater SW	90980-10797
E9	Main Body ECU	90980-12328	E56	Electrical Key Oscillator (Console)	90980-12296
E10	Data Link Connector 3	90980-11665	E57	Shift Lock Control ECU	90980-12552
E11	Automatic Light Control Sensor	90980-12056	E58	Certification ECU	90980-12567
E12	Ion Generator	90980-11909	E59	Certification ECU	90980-12566
E13	VSC Warning Buzzer	90980-10906	E60	Tire Pressure Warning ECU	90980-12552
E14	Turn Signal Flasher	90980-10799	E61	Option Connector (Bus Buffer)	90980-10860
E15	Transponder Key ECU	90980-12423	E62	Junction Connector	90980-12355
E16	Airbag Squib (Steering Wheel Pad)	90980-12160	E63	Junction Connector	
E17	Steering Sensor	90980-12162	E65	Yaw Rate Sensor	90080-98249
E18	Spiral Cable	90980-12552	F1	Combination Meter	90980-12554
E19	Windshield Wiper SW Assembly	90980-12358	F2	Combination Meter	90980-12553
E20	Windshield Wiper SW Assembly	90980-12359	F3	Clock	90980-12460
E21	Headlamp Dimmer SW Assembly	90980-12460	F4	Hazard Warning Signal SW	90980-12113
E22	Unlock Warning SW	90980-12063	F5	Glove Box Lamp	90980-11098
E23	Ignition SW	90980-11615	F6	Radio Receiver Assembly	90980-10997
E24	Key Interlock Solenoid	90980-12063	F7	Radio Receiver Assembly	90980-10996
E25	Transponder Key Amplifier	90980-12092	F8	Radio Receiver Assembly	90980-12460
E27	A/C Room Temp. Sensor	90980-11918	F9	Navigation Receiver Assembly	90980-12038
E29	Power Outlet Socket (Front)	90980-12498	F10	Navigation Receiver Assembly	90980-12460
E30	Airbag Sensor Assembly Center	90980-12391	F11	Radio Receiver Assembly	90980-12423
			F12	Navigation Receiver Assembly	90980-12404
			F13	Navigation Receiver Assembly	90980-11909

L PART NUMBER OF CONNECTORS

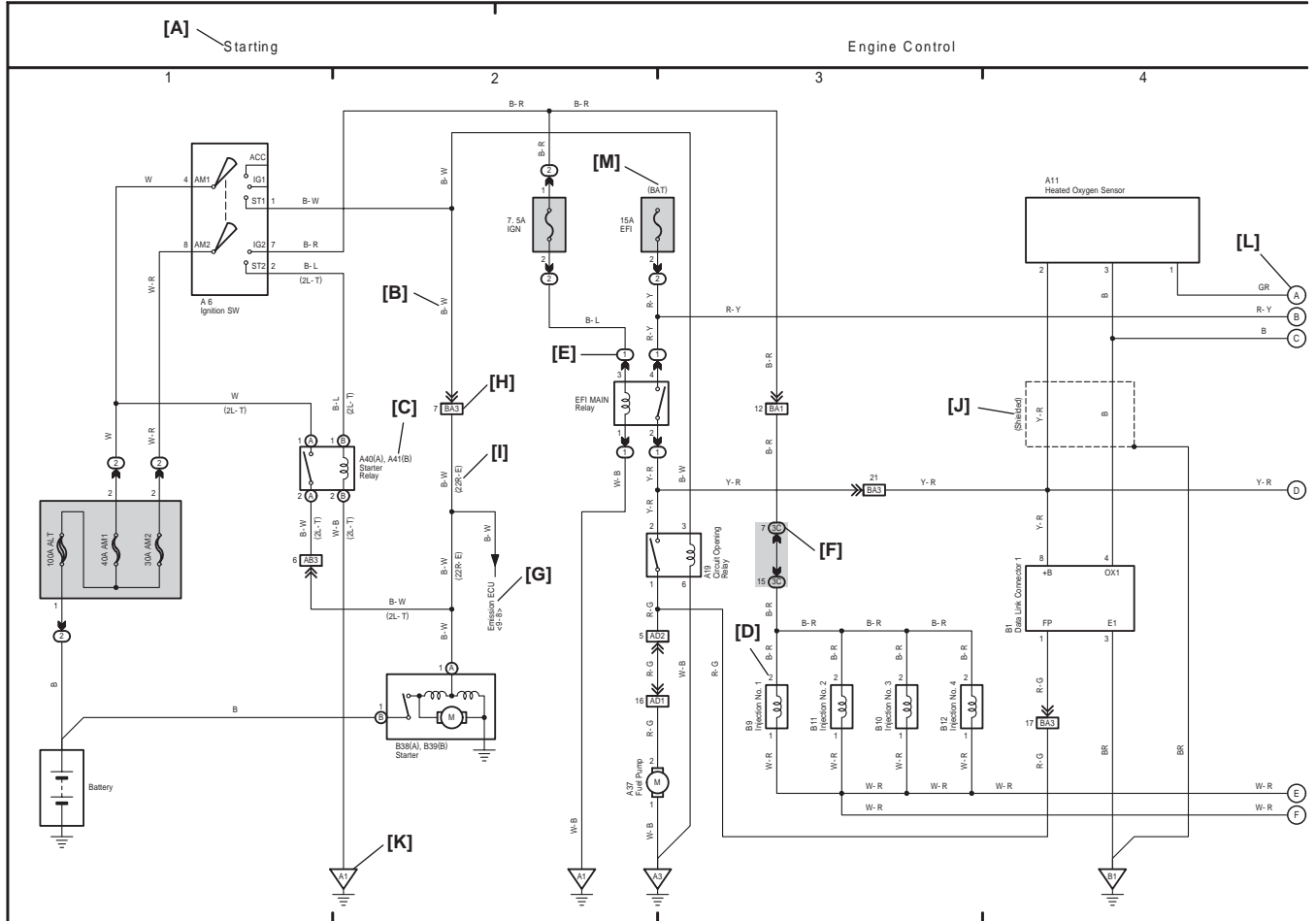
Code	Part Name	Part Number	Code	Part Name	Part Number
F14	Navigation Receiver Assembly	90980-12209	N12	Side Airbag Sensor (Rear LH)	90980-11856
F15	Antenna Amplifier	90980-10871	N13	Door Courtesy SW (Rear LH) (TMC Made)	82824-33280
F16	A/C Control Assembly	90980-12559		Door Courtesy SW (Rear LH) (TMMK Made)	90980-10871
F17	Stereo Jack Adapter	82824-21030	N15	Noise Filter (Dome and Stop)	90980-10916
F18	Stereo Component Amplifier	90980-10801	N16	Center Stop Lamp	90980-11159
F19	Stereo Component Amplifier	90980-12554	N17	Canister Pump Module	90980-12380
F20	Stereo Component Amplifier	90980-10803	N18	Noise Filter (Rear Window Defogger)	90980-10916
F21	Tweeter (Front LH)	90980-10860	N19	Rear Window Defogger	90980-10913
F22	Tweeter (Front LH)	90980-12304	N21	Curtain Shield Airbag Squib (LH)	90980-12575
F23	Tweeter (Front RH)	90980-10860	N23	Diode (Luggage Compartment Lamp)	90980-10962
F24	Tweeter (Front RH)	90980-12304	N24	Luggage Compartment Lamp	90980-11148
F25	Junction Connector	90980-11542	N25	Electrical Key Oscillator (Inside Luggage Room)	90980-12296
F26	Radio Receiver Assembly	90980-12038		Luggage Compartment Lamp	90980-11148
H1	Speaker (Front Door RH)	90980-10935	N27	Junction Connector	90980-12374
H2	Outer Rear View Mirror (RH)	90980-12056	N28	Junction Connector	90980-11915
H4	Power Window Regulator Motor (Front Passenger's Side)	90980-10797	N29	Junction Connector	90980-11539
H5	Door Lock Control SW	90980-11950	N34	Tire Pressure Warning Antenna and Receiver	90980-12366
H6	Power Window SW (Front Passenger's Side)	90980-10789		O1	Airbag Sensor Assembly Center
H7	Courtesy Lamp (Front Door RH)	90980-11148	O3	Front Seat Inner Belt (Front Passenger's Side)	90980-11156
H8	Door Lock Assembly (Front Passenger's Side)	90980-12226	O4	Occupant Classification ECU	90980-12356
I1	Speaker (Front Door LH)	90980-10935	O6	Door Courtesy SW (Front Passenger's Side)	90980-10871
I3	Outer Rear View Mirror (LH)	90980-12056	O7	Side Airbag Sensor (Front RH)	90980-12225
I4	Power Window Regulator Motor (Front LH)	90980-10797	O8	Pretensioner (RH)	90980-12253
I5	Power Window Regulator Motor (Front LH)	90980-12328	O9	Side Airbag Sensor (Rear RH)	90980-11856
I6	Courtesy Lamp (Front Door LH)	90980-11148	O10	Door Courtesy SW (Rear RH)	82824-33280
I7	Door Lock Assembly (Driver's Side)	90980-12226	O12	Speaker (Rear LH)	90980-11299
J1	Power Window SW (Rear RH)	90980-10789	O13	Speaker (Rear RH)	
J3	Power Window Regulator Motor (Rear RH)	90980-10797	O14	Speaker (Rear LH)	90980-10795
J5	Door Lock Assembly (Rear RH)	90980-12226	O15	Speaker (Rear RH)	
K1	Power Window SW (Rear LH)	90980-10789	O16	Curtain Shield Airbag Squib (RH)	90980-12575
K3	Power Window Regulator Motor (Rear LH)	90980-10797	O17	Door Control Receiver	90980-12366
K5	Door Lock Assembly (Rear LH)	90980-12226	O18	Door Control Receiver	90980-50011
M1	Power Window Master SW	90980-12122	O19	Electrical Key Antenna	90980-12043
N1	Airbag Sensor Assembly Center	90980-12449	O20	Junction Connector	90980-12374
N3	Front Seat Inner Belt (Driver's Side)	90980-10942	O21	Junction Connector	90980-11539
N6	Door Courtesy SW (Driver's Side) (TMC Made)	90980-10871	P1	Rear Window Defogger	90980-10914
	Door Courtesy SW (Driver's Side) (TMMK Made)	82824-33280	Q1	Vanity Lamp SW (LH)	90980-12322
N7	Side Airbag Sensor (Front LH)	90980-12225	Q2	Vanity Lamp SW (RH)	
N8	Pretensioner (LH)	90980-12253	Q3	Inner Rear View Mirror	90980-12366
N10	Fuel Suction Pump and Gage Assembly	90980-11077	Q5	Microphone (Navigation)	
N11	Electrical Key Oscillator (Rear Seat)	90980-12296	Q6	Overhead J/B	90980-11989

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
Q7	Vanity Lamp (LH)	-	U1	Power Seat Motor (Driver's Seat Slide Control)	90980-10825
Q8	Vanity Lamp (RH)		U2	Power Seat Motor (Driver's Seat Front Vertical Control)	
Q9	Room Lamp (Center)		U3	Power Seat Motor (Driver's Seat Reclining Control)	
Q10	Map Lamp (RH)		U4	Power Seat Motor (Driver's Seat Lifter Control)	
Q11	Map Lamp (LH)		U5	Power Seat Motor (Driver's Seat Lumbar Support Control)	
Q12	Microphone (Navigation)	90980-12366	U6	Seat Heater (LH)	90980-10906
Q13	Sliding Roof Control ECU and Motor	90980-10997	U7	Power Seat SW (Driver's Seat)	90980-10997
S1	License Plate Lamp (RH)	90980-11148	U8	Power Seat SW (Driver's Seat Lumbar Support Control)	90980-10789
S2	Rear Combination Lamp (RH)	90980-10795	U11	Junction Connector	90980-12374
S3	Rear Combination Lamp (LH)		V1	Knock Control Sensor (Bank 2)	90980-11875
S4	License Plate Lamp (LH)	90980-11148	V2	Knock Control Sensor (Bank 1)	
S5	Door Lock Assembly (Luggage)	90980-10908	W1	Door Outside Handle (Front RH)	90980-12382
S6	Luggage Compartment Door Lock Cylinder	90980-11060	W2	Electrical Key Oscillator (Front Door RH)	90980-12380
S8	Luggage Compartment Door Lock Cylinder	90980-12212	X1	Door Outside Handle (Front LH)	90980-12382
S9	Luggage Electrical Key SW	90980-11967	X2	Electrical Key Oscillator (Front Door LH)	90980-12380
S10	Turn Signal Lamp (Rear LH)	90980-10906	Y1	Side Airbag Squib (RH)	90980-12452
S11	Rear Combination Lamp (LH)	90980-10908	Z1	Side Airbag Squib (LH)	
S12	Rear Combination Lamp (RH)		S14	Electrical Key Oscillator (Outside Luggage Room)	90980-12381
S13	Turn Signal Lamp (Rear RH)	90980-10906	S15	Junction Connector	90980-10803
S14	Electrical Key Oscillator (Outside Luggage Room)	90980-12381	S16	Junction Connector	90980-11915
S15	Junction Connector	90980-10803	T1	Power Seat Motor (Front Passenger's Seat Slide Control)	90980-10825
S16	Junction Connector	90980-11915	T3	Power Seat Motor (Front Passenger's Seat Reclining Control)	
T1	Power Seat Motor (Front Passenger's Seat Slide Control)	90980-10825	T6	Seat Heater (RH)	
T3	Power Seat Motor (Front Passenger's Seat Reclining Control)		T7	Front Seat Inner Belt (Front Passenger's Side)	90980-11156
T6	Seat Heater (RH)	90980-10906	T8	Power Seat SW (Front Passenger's Seat)	90980-10997
T7	Front Seat Inner Belt (Front Passenger's Side)	90980-11156	T10	Occupant Classification ECU	90980-12356
T8	Power Seat SW (Front Passenger's Seat)	90980-10997	T11	Occupant Classification ECU	90980-12357
T10	Occupant Classification ECU	90980-12356	T14	Occupant Classification Sensor (Front LH)	90980-12353
T11	Occupant Classification ECU	90980-12357	T15	Occupant Classification Sensor (Rear LH)	
T14	Occupant Classification Sensor (Front LH)	90980-12353	T16	Occupant Classification Sensor (Front RH)	
T15	Occupant Classification Sensor (Rear LH)	90980-12354	T17	Occupant Classification Sensor (Rear RH)	
T16	Occupant Classification Sensor (Front RH)		T18	Junction Connector	
T17	Occupant Classification Sensor (Rear RH)	90980-12353	U1	Power Seat Motor (Driver's Seat Slide Control)	90980-10825
T18	Junction Connector	90980-12374	U2	Power Seat Motor (Driver's Seat Front Vertical Control)	
			U3	Power Seat Motor (Driver's Seat Reclining Control)	
			U4	Power Seat Motor (Driver's Seat Lifter Control)	
			U5	Power Seat Motor (Driver's Seat Lumbar Support Control)	
			U6	Seat Heater (LH)	90980-10906
			U7	Power Seat SW (Driver's Seat)	90980-10997
			U8	Power Seat SW (Driver's Seat Lumbar Support Control)	90980-10789
			U11	Junction Connector	90980-12374
			V1	Knock Control Sensor (Bank 2)	90980-11875
			V2	Knock Control Sensor (Bank 1)	
			W1	Door Outside Handle (Front RH)	90980-12382
			W2	Electrical Key Oscillator (Front Door RH)	90980-12380
			X1	Door Outside Handle (Front LH)	90980-12382
			X2	Electrical Key Oscillator (Front Door LH)	90980-12380
			Y1	Side Airbag Squib (RH)	90980-12452
			Z1	Side Airbag Squib (LH)	
			a1	Spiral Cable	90980-12361
				Steering Pad SW	
			b1	Cruise Control SW	90980-12360
				Spiral Cable	
			c1	Airbag Squib (Front Passenger's Airbag Assembly)	90980-12219
			c2	Airbag Squib (Front Passenger's Airbag Assembly)	90980-12224
			d1	Occupant Classification ECU	90980-12357
			d2	Occupant Classification Sensor (Front LH)	90980-12353
			d3	Occupant Classification Sensor (Rear LH)	
			d4	Occupant Classification Sensor (Front RH)	
			d5	Occupant Classification Sensor (Rear RH)	
			e1	A/C Amplifier	
				A/C Blower Assembly	
			f1	Speed Sensor (Rear LH)	90980-10860
			g1	Speed Sensor (Rear RH)	

HOW TO READ THIS SECTION

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



M OVERALL ELECTRICAL WIRING DIAGRAM

[A] : System Title

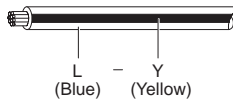
[B] : Indicates the wiring color.

Wire colors are indicated by an alphabetical code.

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

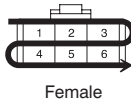


[C] : The position of the parts is the same as shown in the wiring diagram and wire routing.

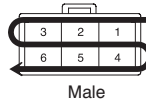
[D] : Indicates the pin number of the connector. The numbering system is different for female and male connectors.

Example: Numbered in other from upper left to lower right

Numbered in other from upper right to lower left



Female



Male

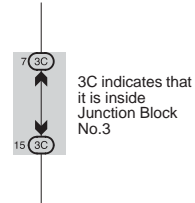
The numbering system for the overall wiring diagram is the same as above

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

Example: ① Indicates Relay Block No.1

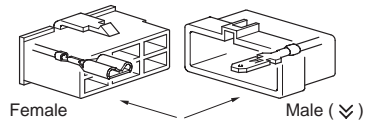
[F] : Junction Block (The number in the circle is the J/B No. and the connector code is shown beside it). Junction Blocks are shaded to clearly separate them from other parts.

Example:



[G] : Indicates related system.

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



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

[J] : Indicates a shielded cable.



[K] : Indicates a ground point.

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

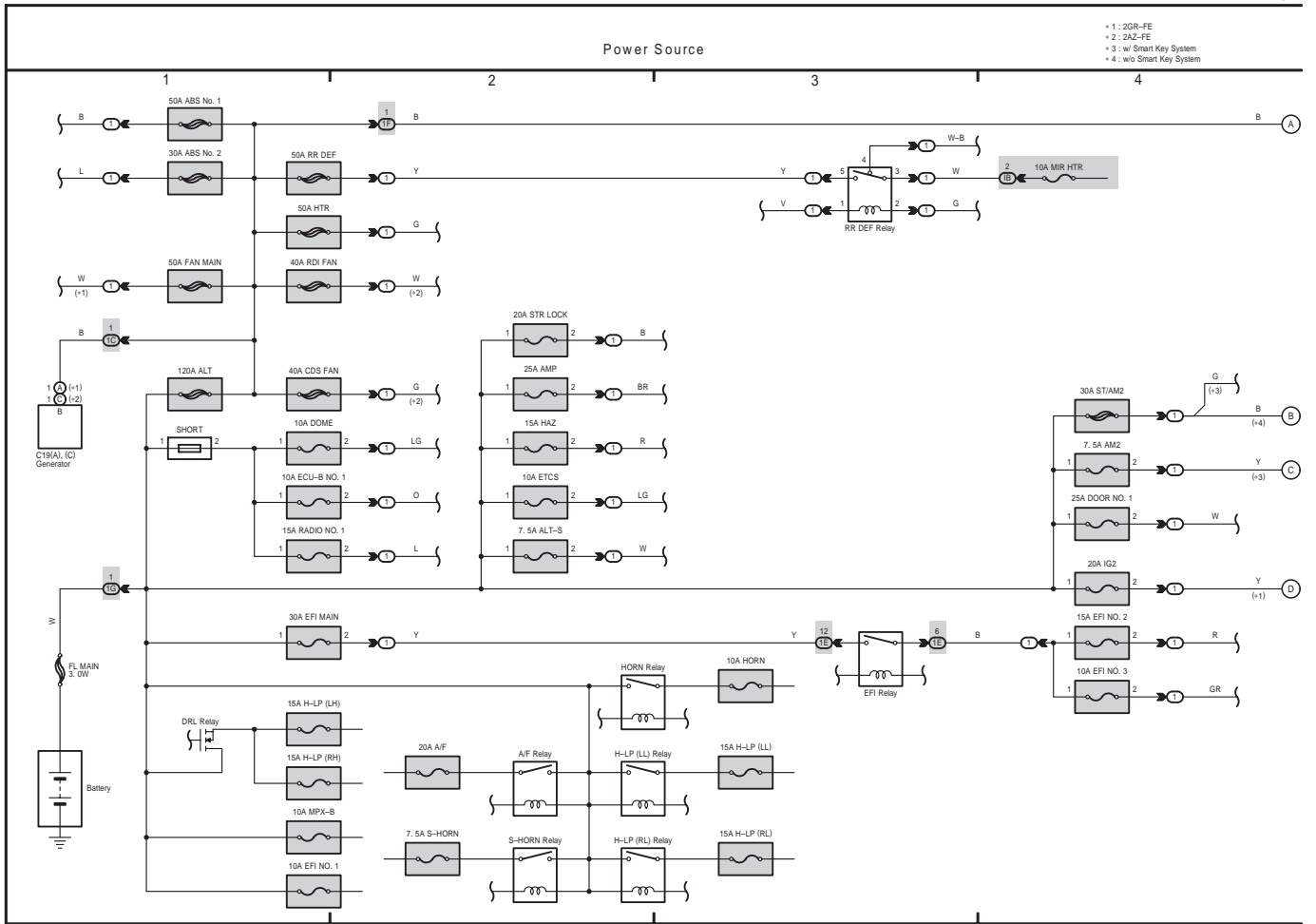
[M] : Indicates the ignition key position(s) when the power is supplied to the fuse(s).

SYSTEM INDEX

SYSTEMS	LOCATION	SYSTEMS	LOCATION
ABS (w/ VSC TMC Made)	12-1	* Key Reminder	
ABS (w/ VSC TMMK Made)	13-1	* Light Auto Turn Off System	
ABS (w/o VSC)	14-1	* Luggage Compartment Door Opener	
Air Conditioning	27-1	* Power Window	
Audio System (6 Speaker)	24-1	* Seat Belt Warning	
Audio System (8 Speaker w/ Navigation System)	22-1	* Taillight	
Audio System (8 Speaker w/o Navigation System)	23-1	* Theft Deterrent	
Automatic Glare-Resistant EC Mirror	17-4	* Wireless Door Lock Control (w/o Smart Key System)	
Back-Up Light	10-1	Navigation System	22-1
Charging	4-3	Power Outlet	21-1
Clock	17-1	Power Seat (Driver's Seat)	20-1
Combination Meter	25-1	Power Seat (Front Passenger's Seat)	20-3
Cooling Fan (2GR-FE)	26-1	Power Source	1-1
Cruise Control (2AZ-FE)	8-13	Radiator Fan and Condenser Fan (2AZ-FE)	26-3
Cruise Control (2GR-FE)	2-18	Rear Window Defogger	18-3
Data Link Connector 3	9-1	Remote Control Mirror	18-1
Electronically Controlled Transmission and A/T Indicator (2AZ-FE)	8-14	Seat Heater	19-3
Electronically Controlled Transmission and A/T Indicator (2GR-FE)	2-19	Shift Lock	21-4
Engine Control (2AZ-FE)	8-1	Sliding Roof	17-2
Engine Control (2GR-FE)	7-1	Smart Key System	3-1
Engine Immobiliser System (w/o Smart Key System)	9-3	* Engine Immobiliser	
Horn	21-2	* Push Button Start System	
Ignition (2AZ-FE)	6-1	* Steering Lock	
Ignition (2GR-FE)	5-1	* Wireless Door Lock Control	
Mirror Heater	18-3	SRS	15-1
Multiplex Communication System (CAN)	2-1	Starting (w/o Smart Key System)	4-1
* Automatic Light Control		Stop Light	10-3
* Door Lock Control		Tire Pressure Warning System	16-1
* Fog Light		TRAC (TMC Made)	12-1
* Garage Door Opener		TRAC (TMMK Made)	13-1
* Headlight		Turn Signal and Hazard Warning Light	11-1
* Illumination		VSC (TMC Made)	12-1
* Interior Light		VSC (TMMK Made)	13-1
		Wiper and Washer	19-1

1 CAMRY

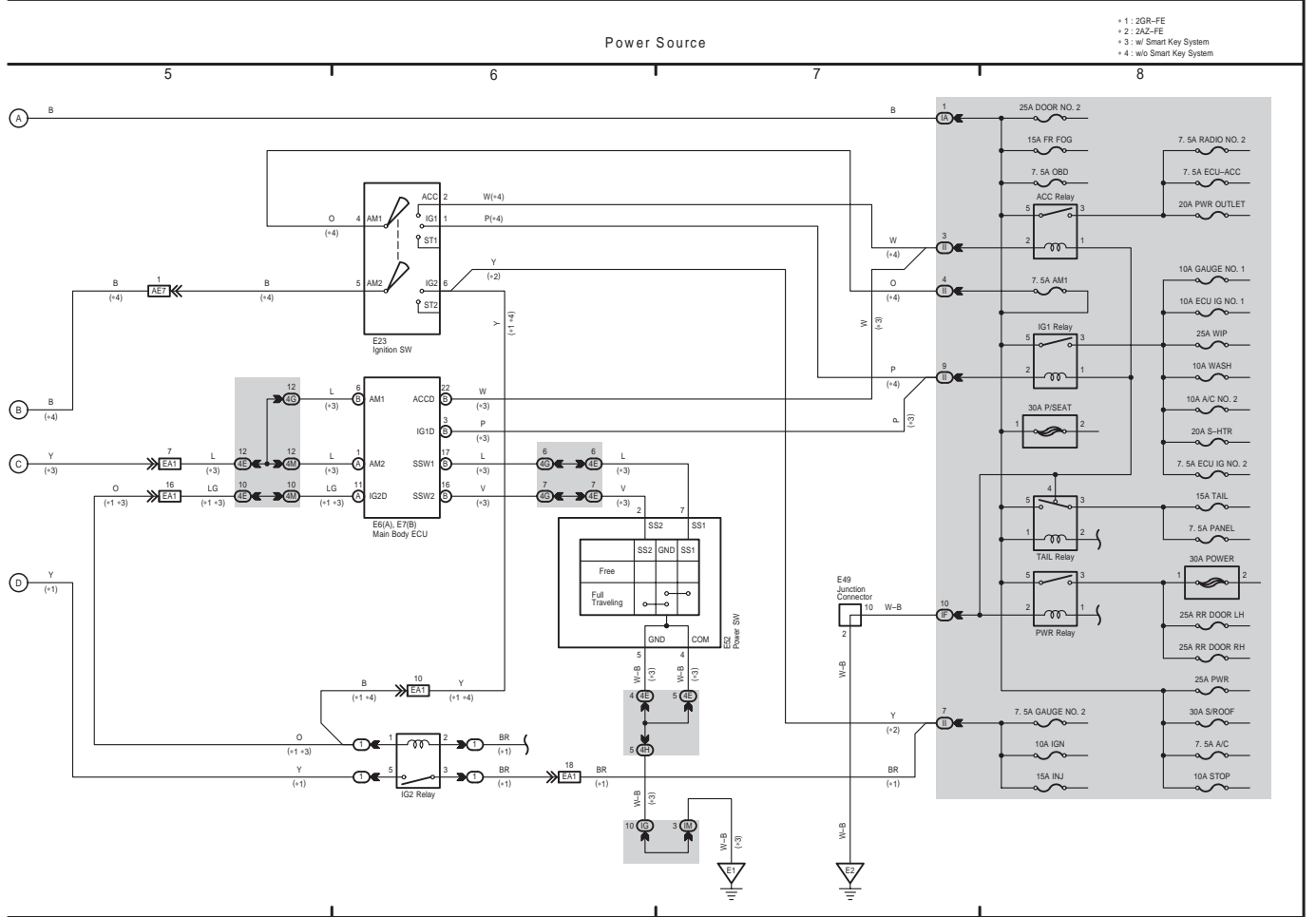
(Cont. next page)



- * 1 : 20A-FE
- * 2 : 2A2-FE
- * 3 : w/ Smart Key System
- * 4 : w/o Smart Key System

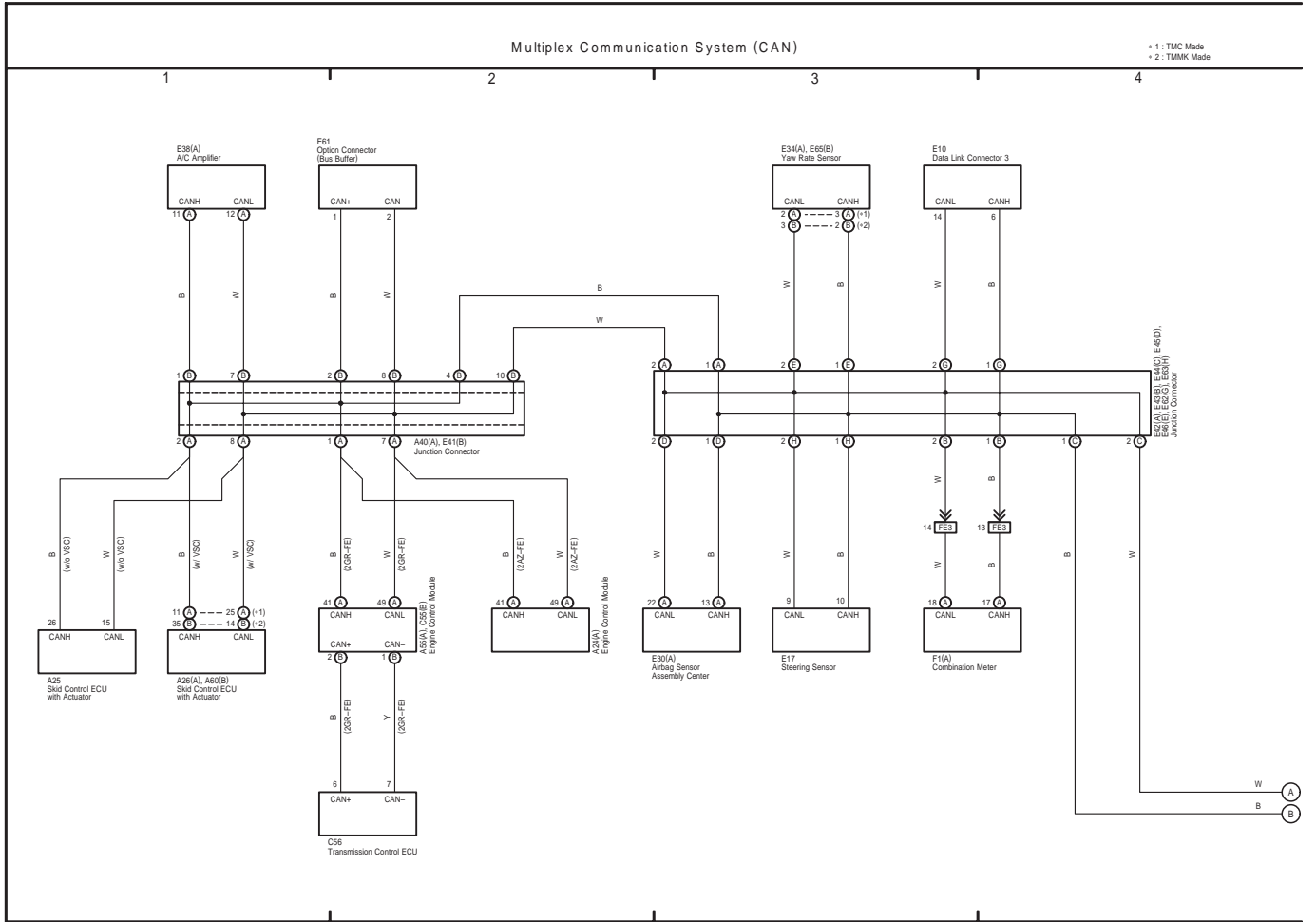
1 CAMRY (Cont' d)

CAMRY (EM0250U)



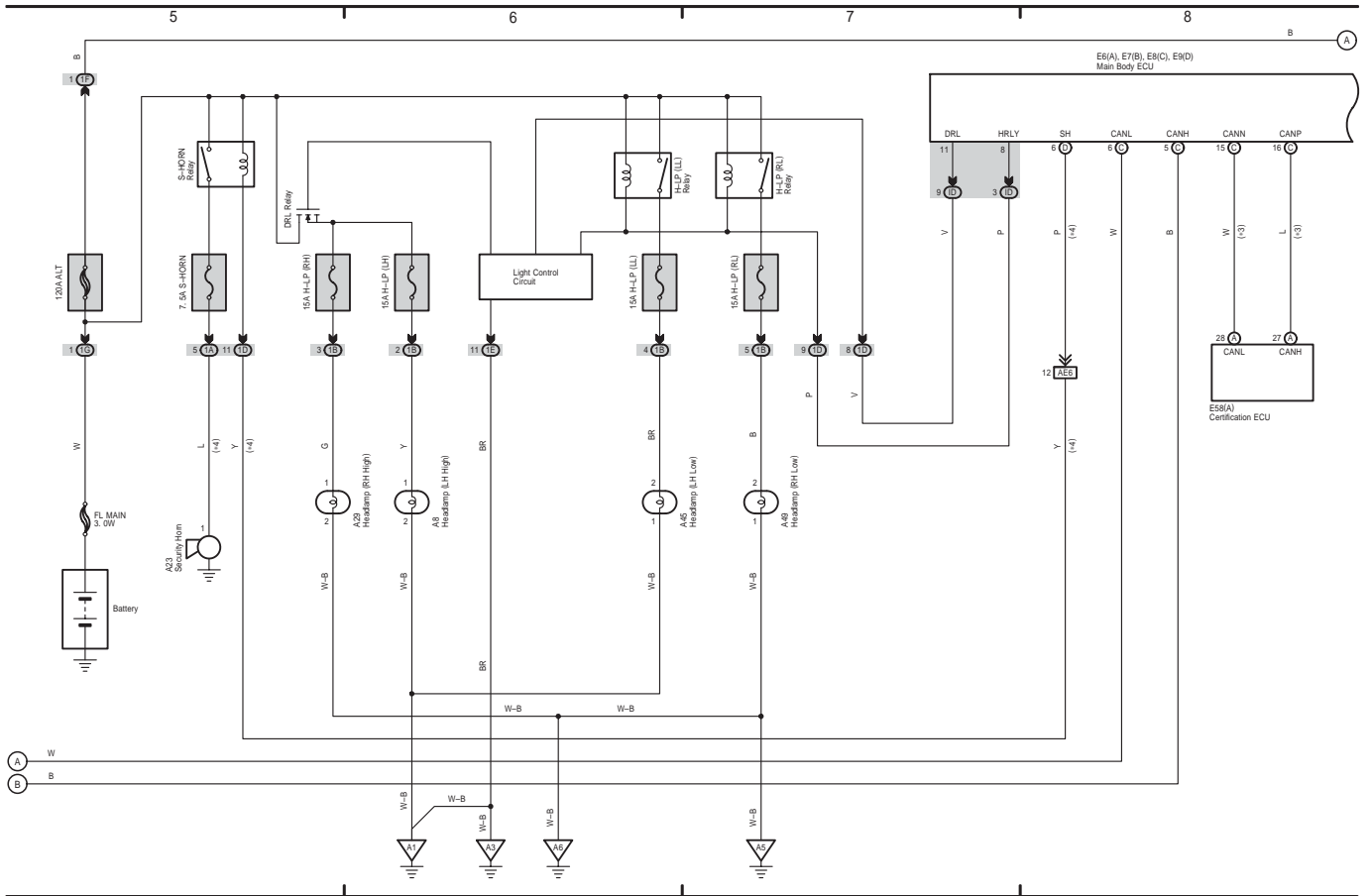
2 CAMRY

(Cont. next page)



Multiplex Communication System (CAN)

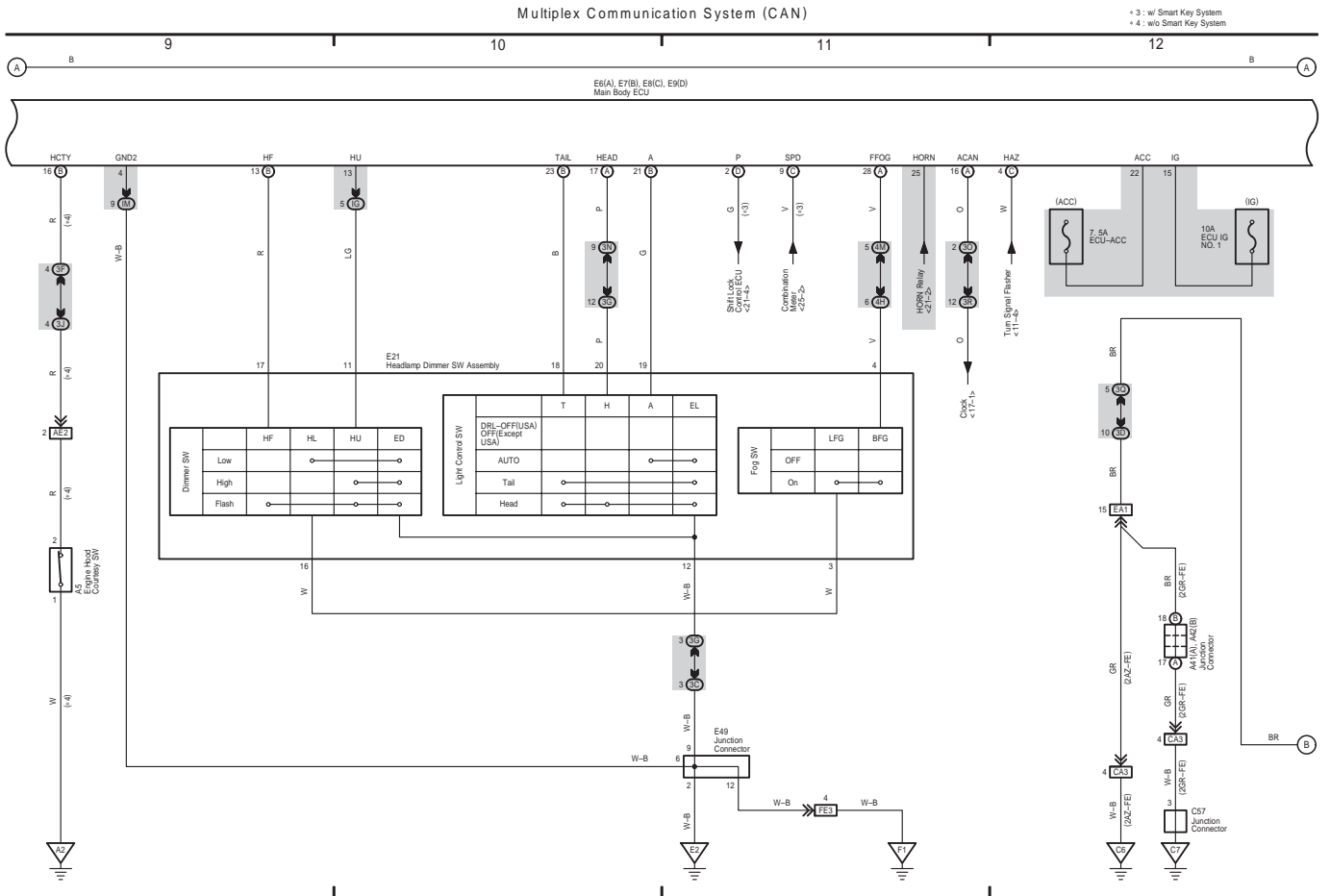
* 3 : w/ Smart Key System
 * 4 : w/o Smart Key System



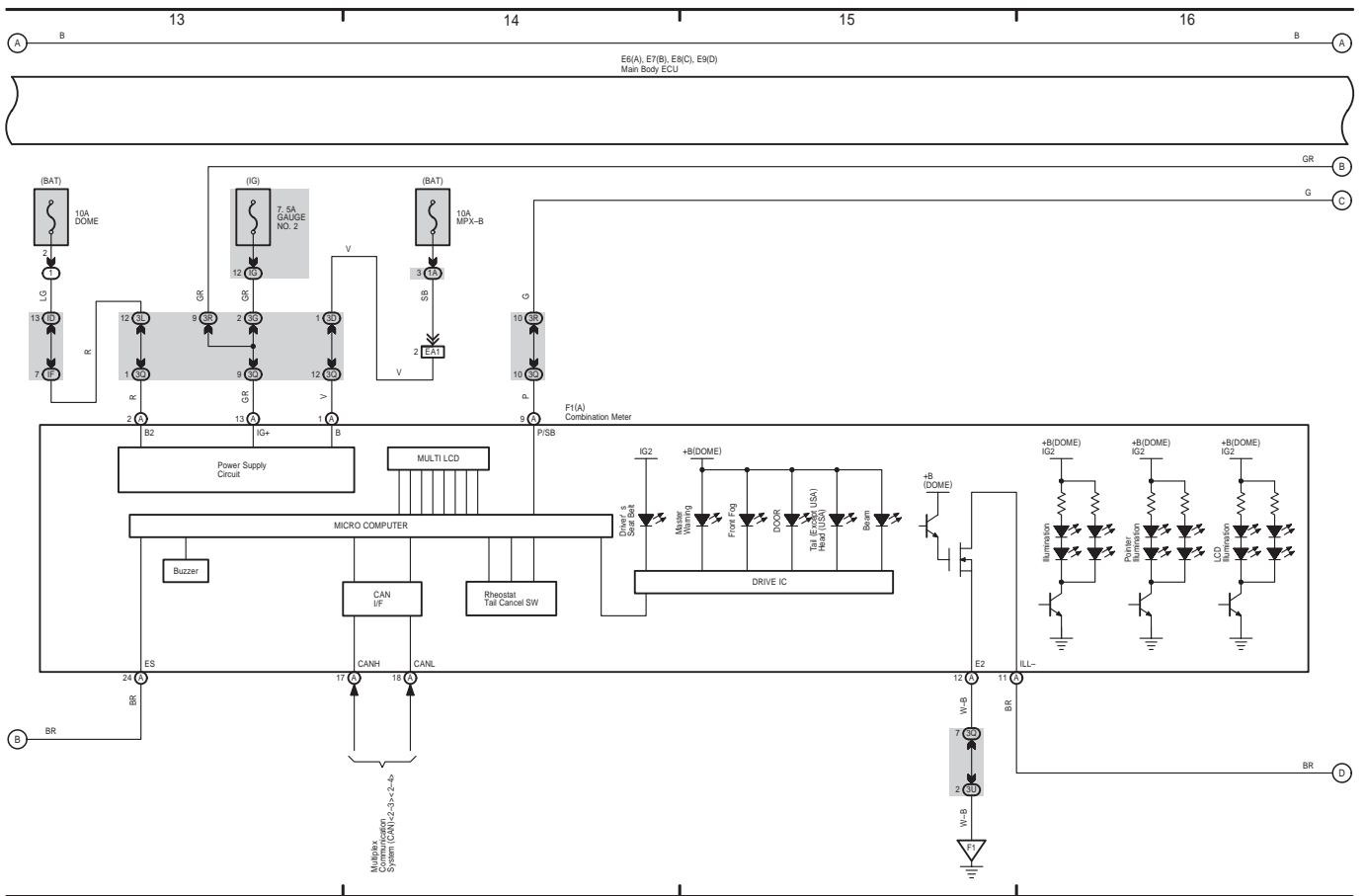
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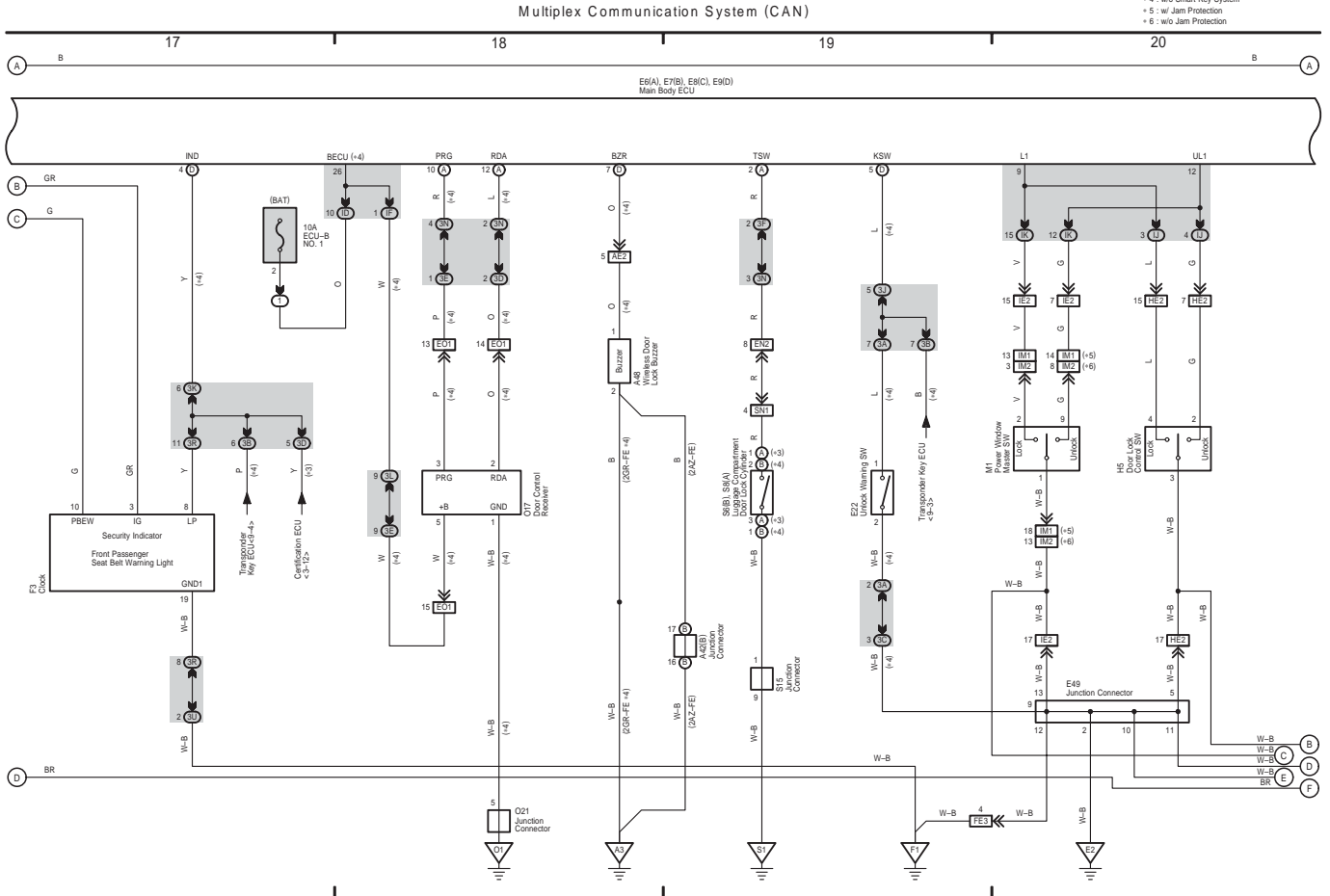
Multiplex Communication System (CAN)



CAMRY (EM0250U)

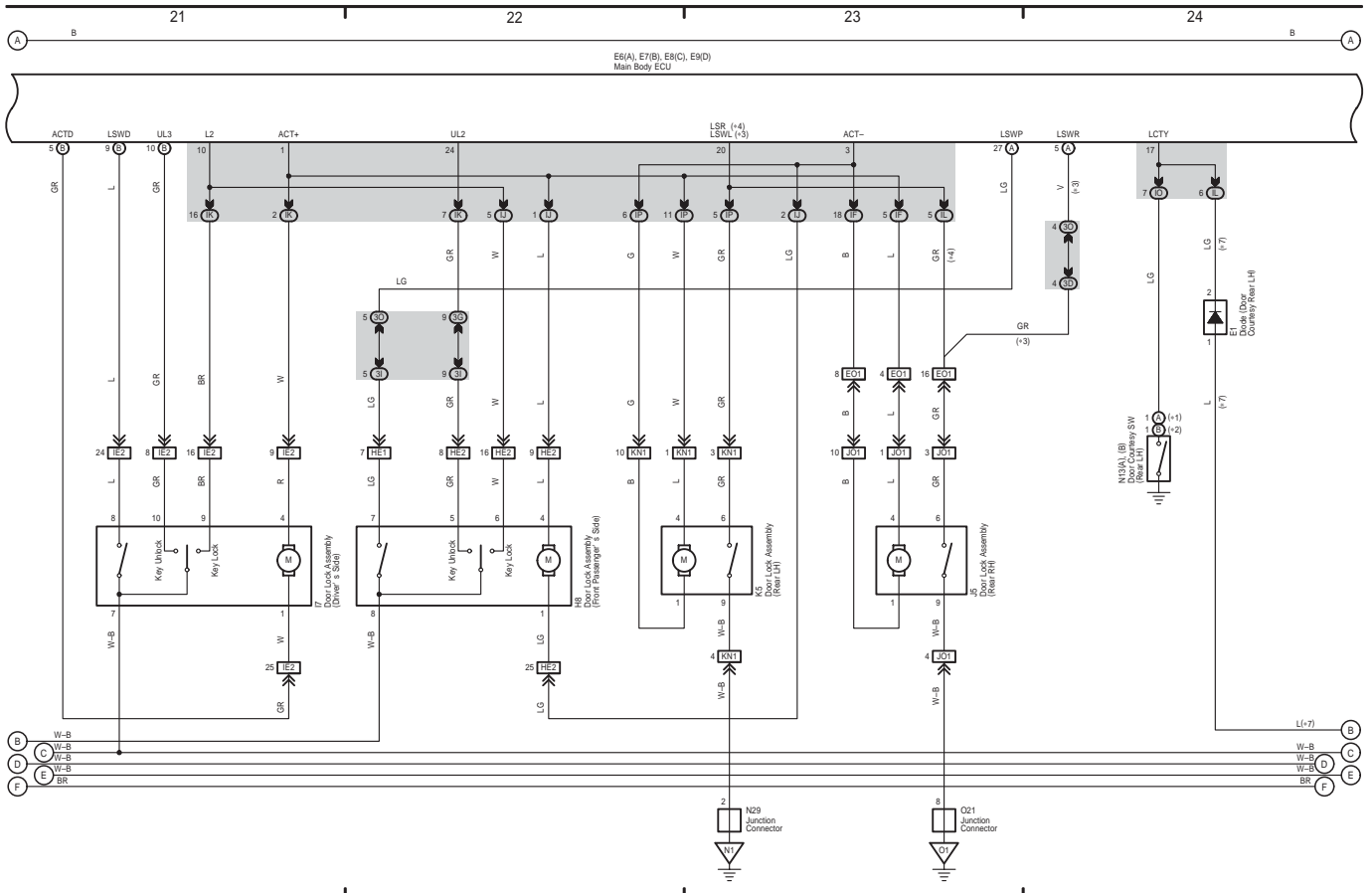
2 CAMRY (Cont' d)

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Multiplex Communication System (CAN)

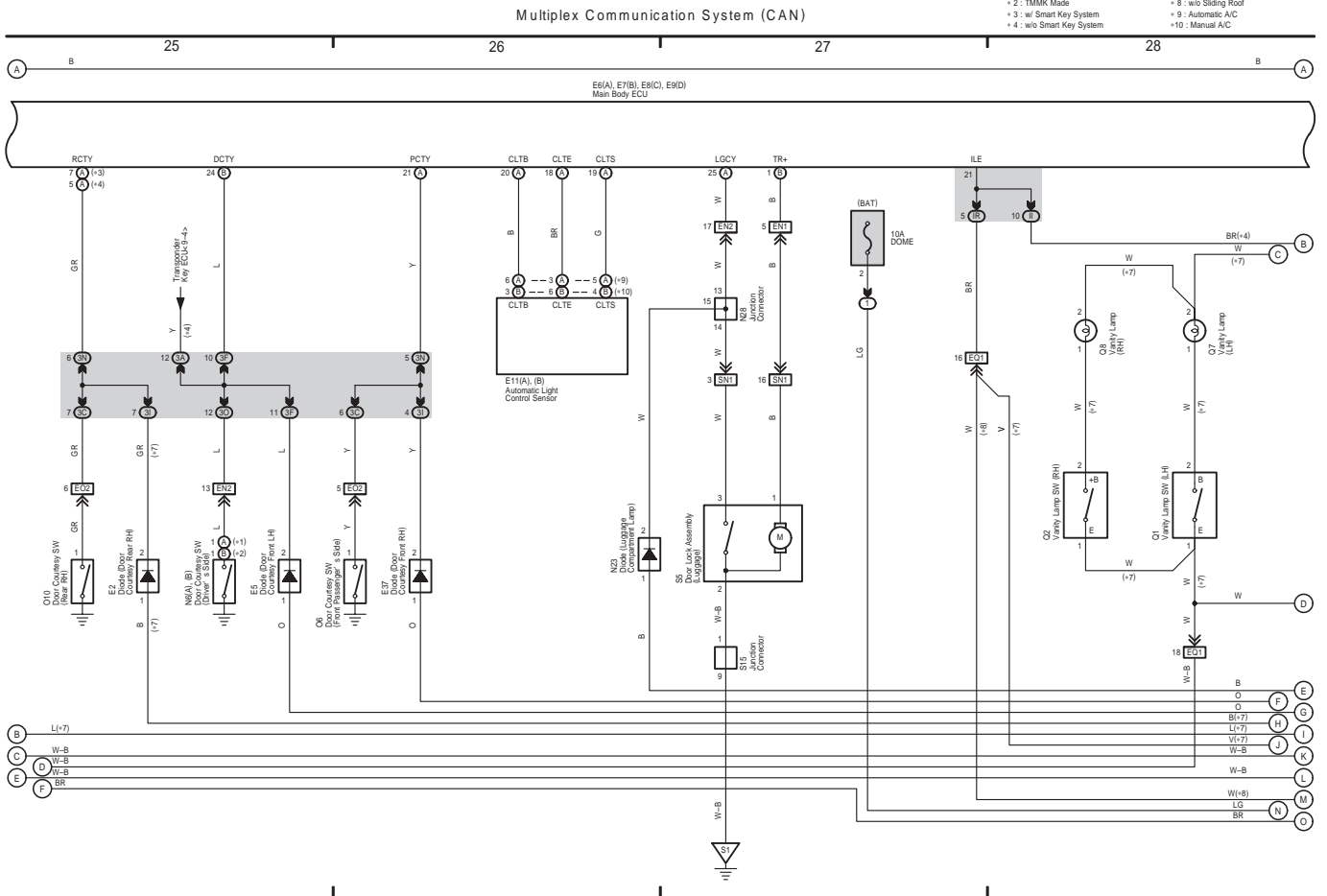
- * 1 : TMC Made
- * 2 : TMMK Made
- * 3 : w/ Smart Key System
- * 4 : w/o Smart Key System
- * 7 : w/ Sliding Roof



CAMRY (EM0250U)

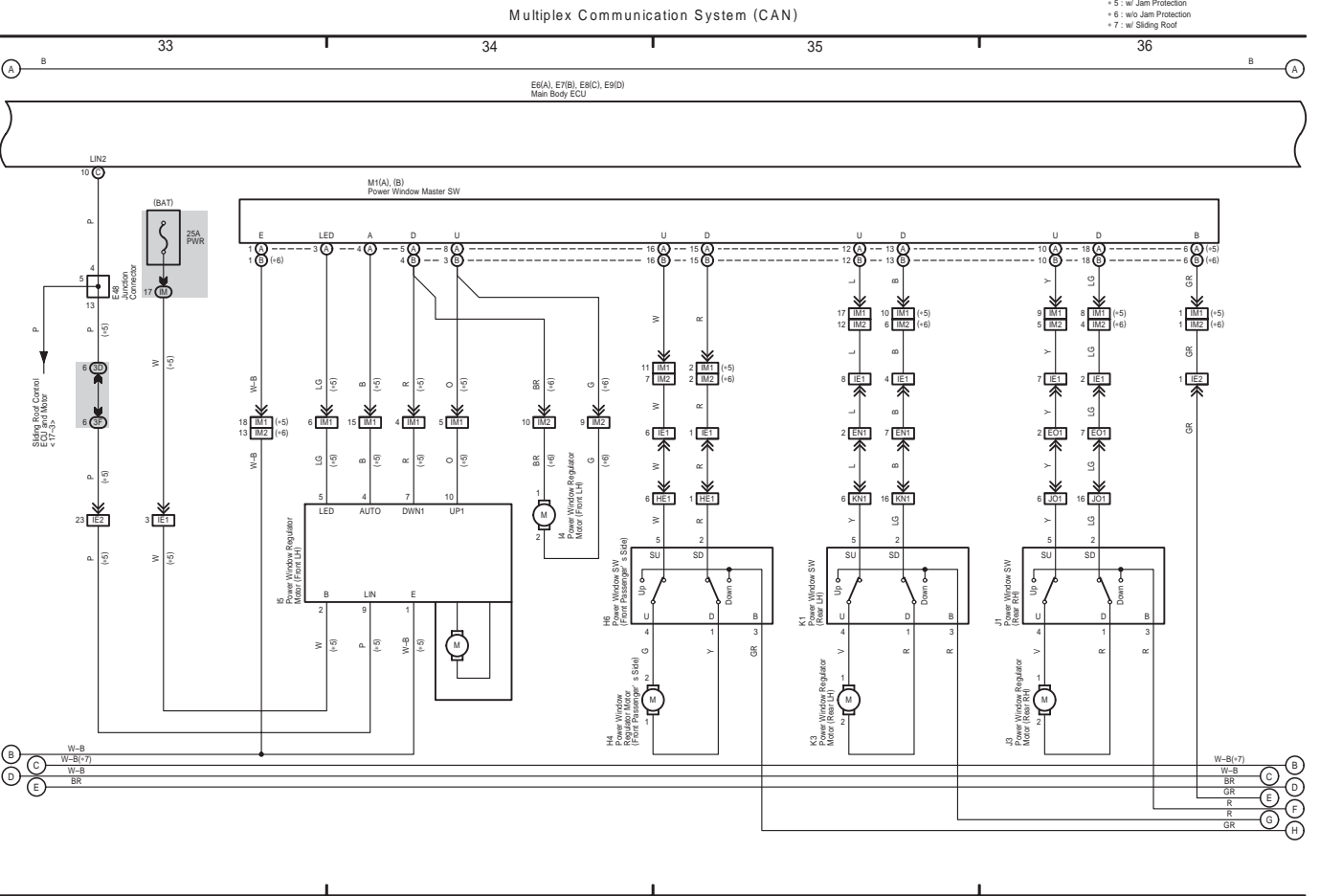
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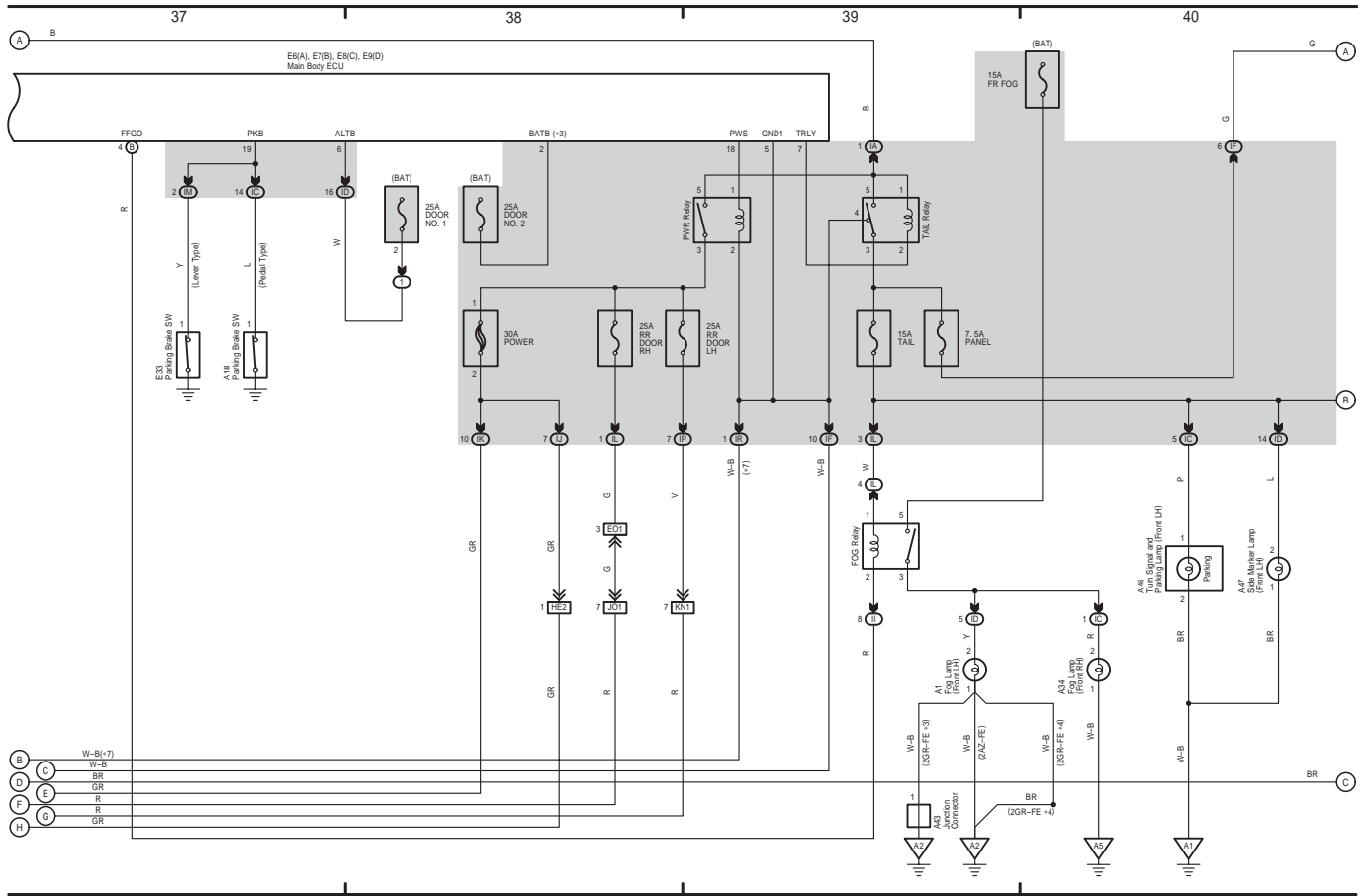
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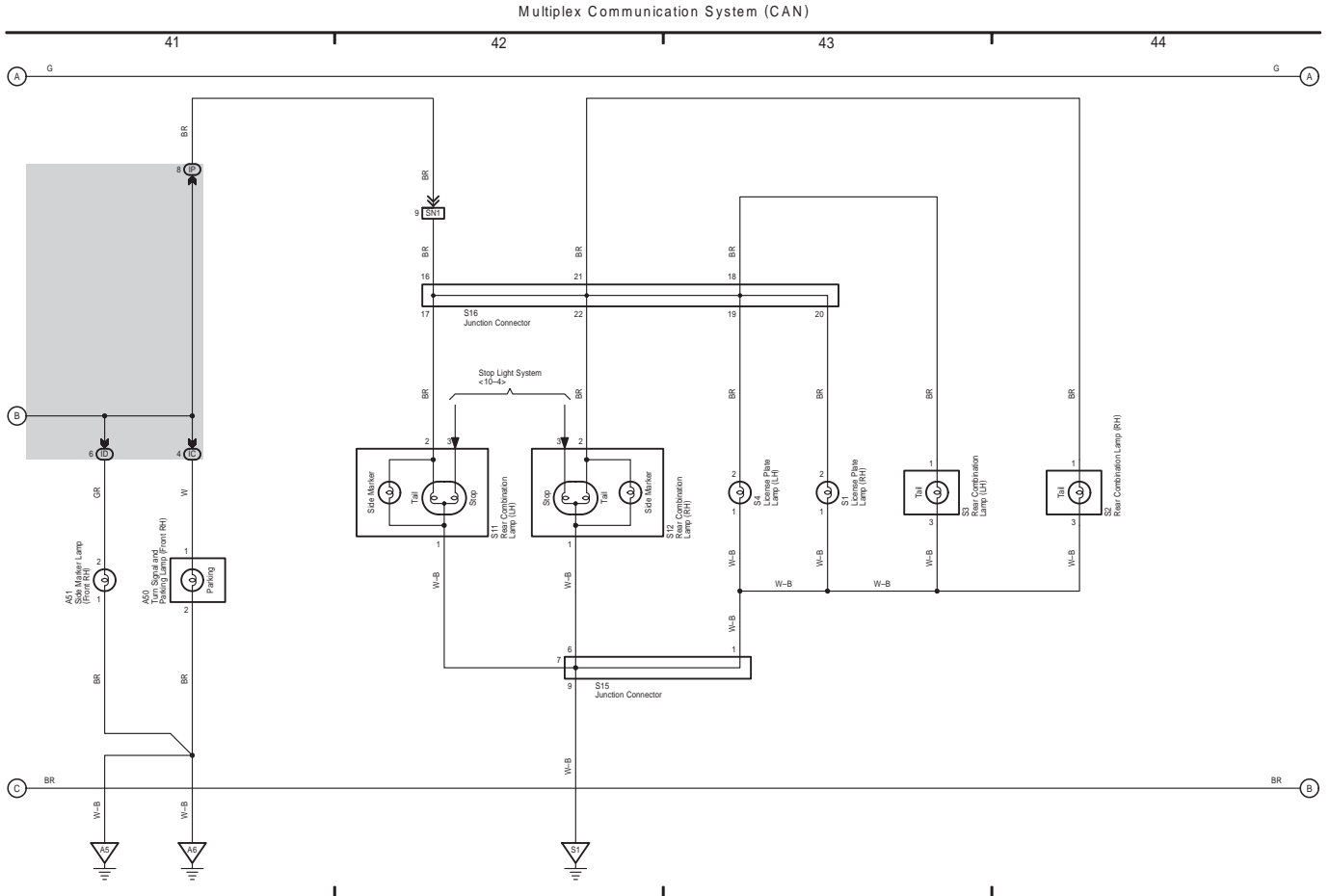


Multiplex Communication System (CAN)

- * 3 : w/ Smart Key System
- * 4 : w/o Smart Key System
- * 7 : w/ Sliding Roof

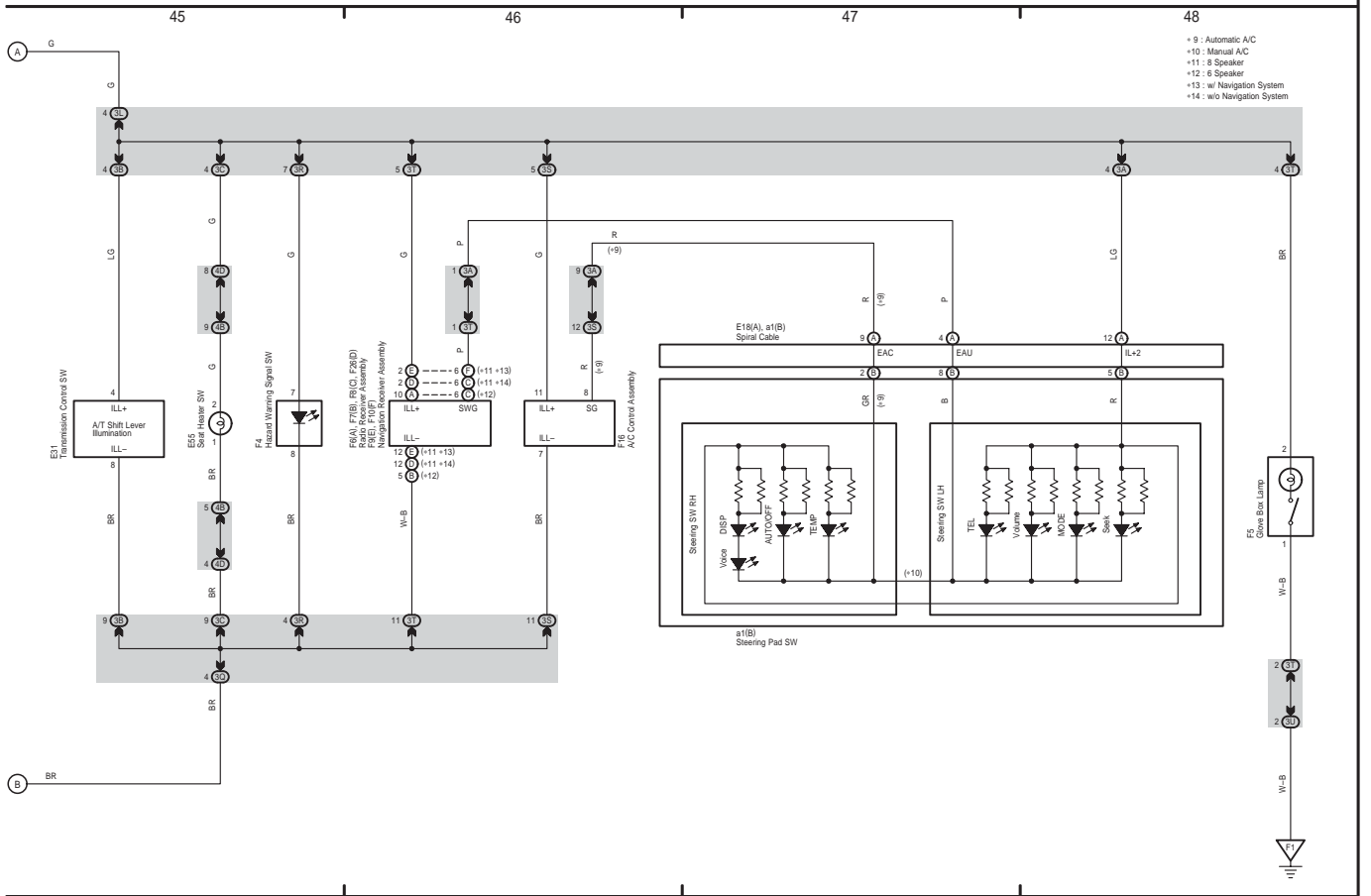


CAMRY (EM0250U)



2 CAMRY (Cont' d)

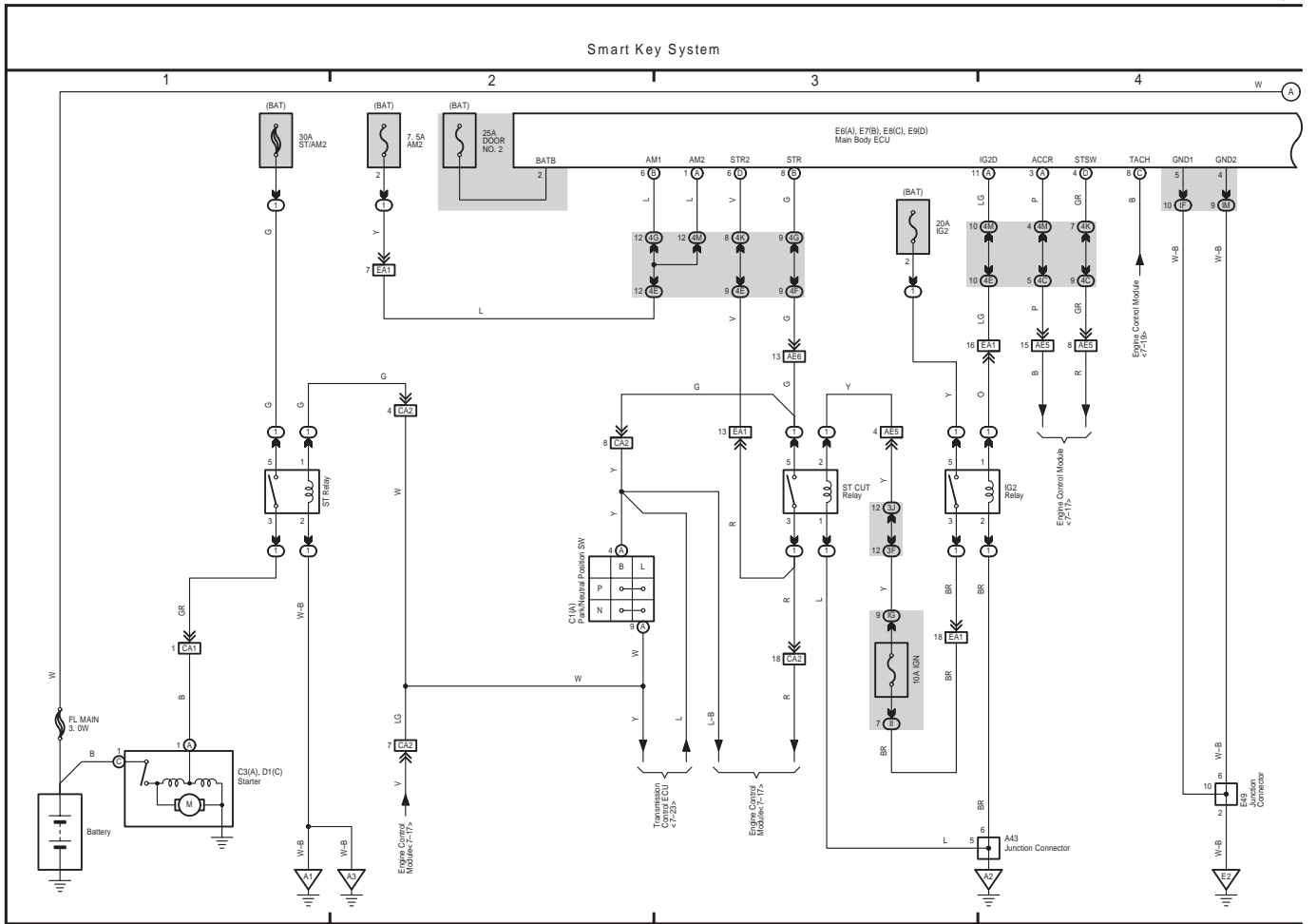
Multiplex Communication System (CAN)



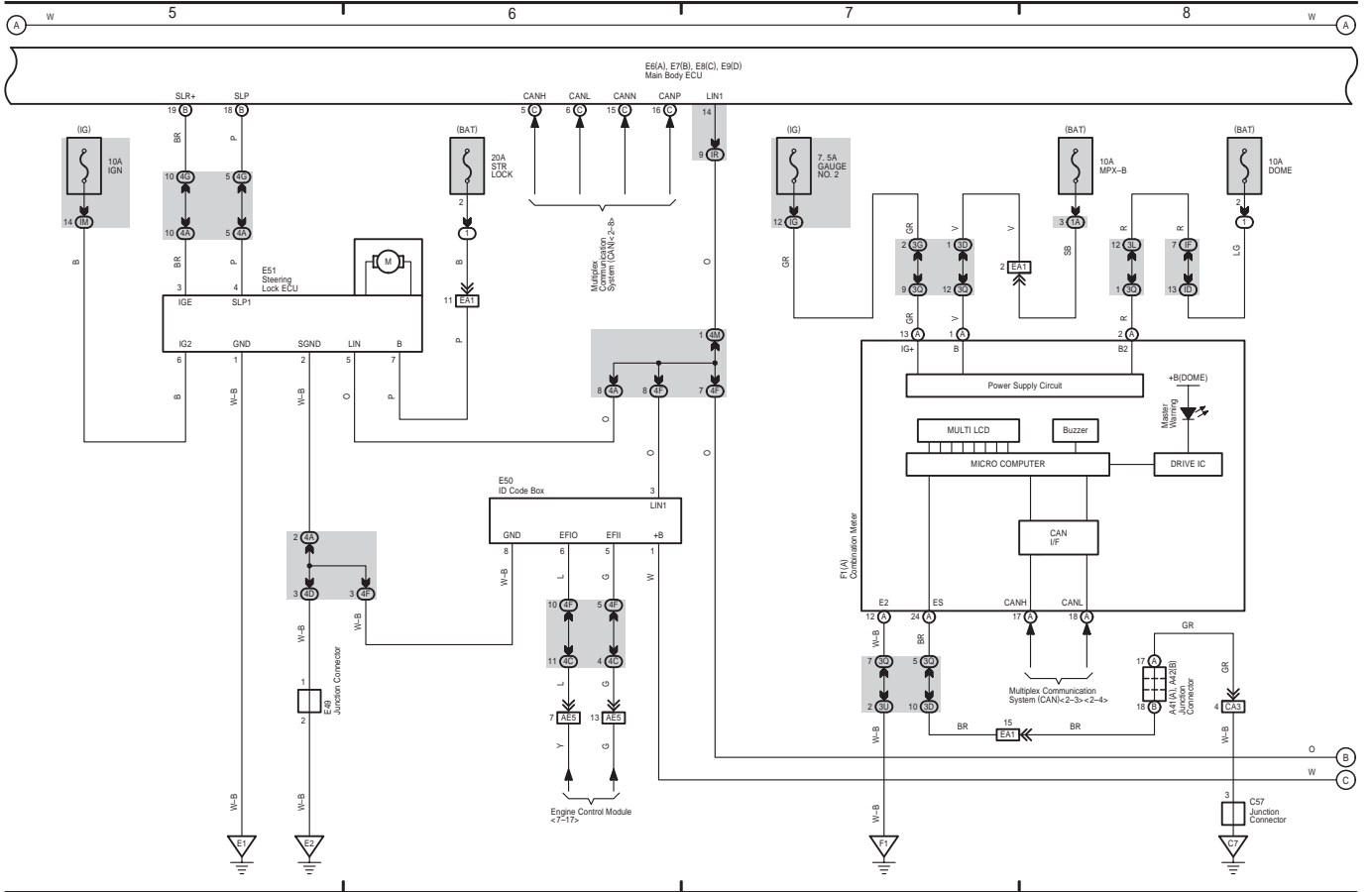
CAMRY (EM0250U)

3 CAMRY

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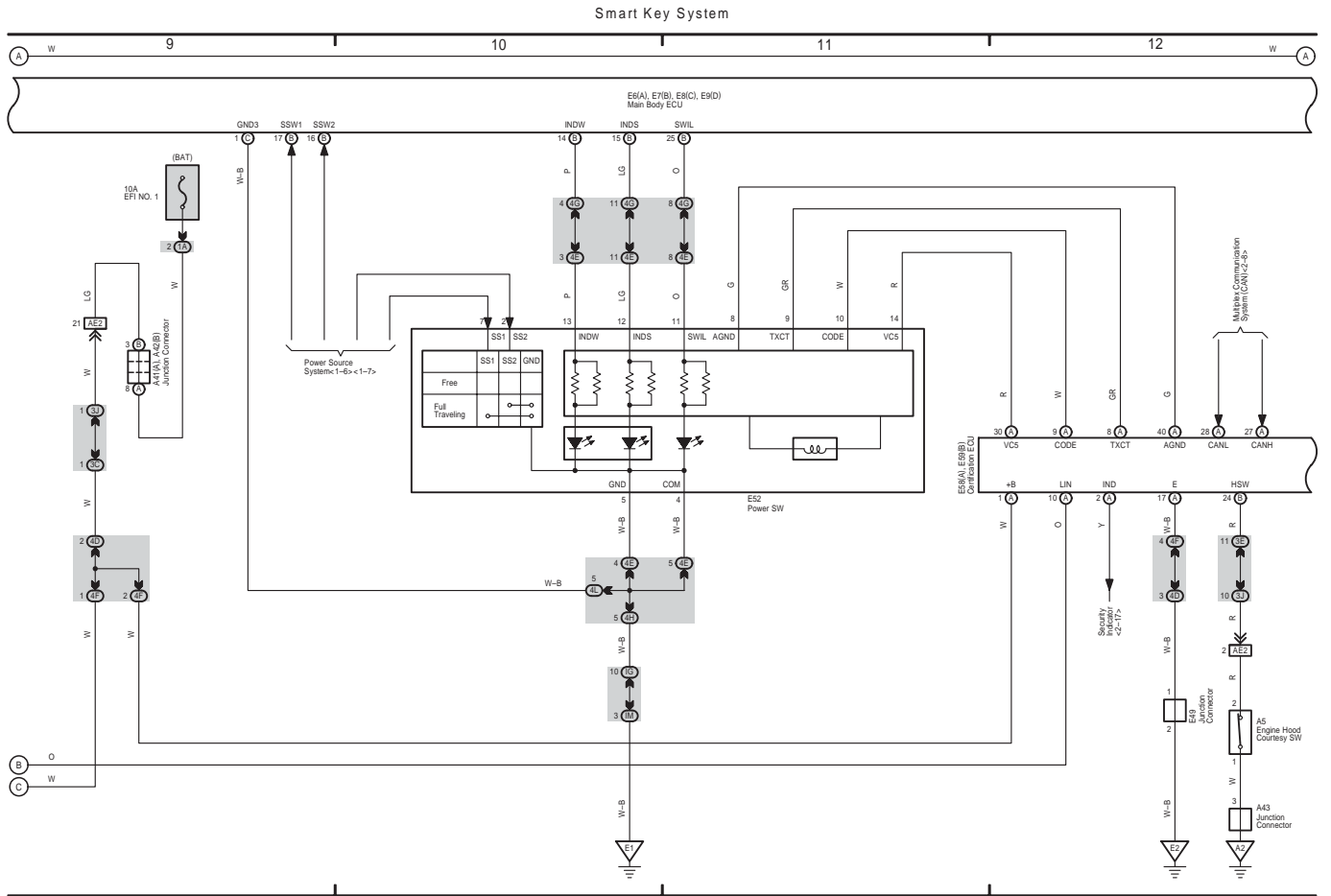
Smart Key System



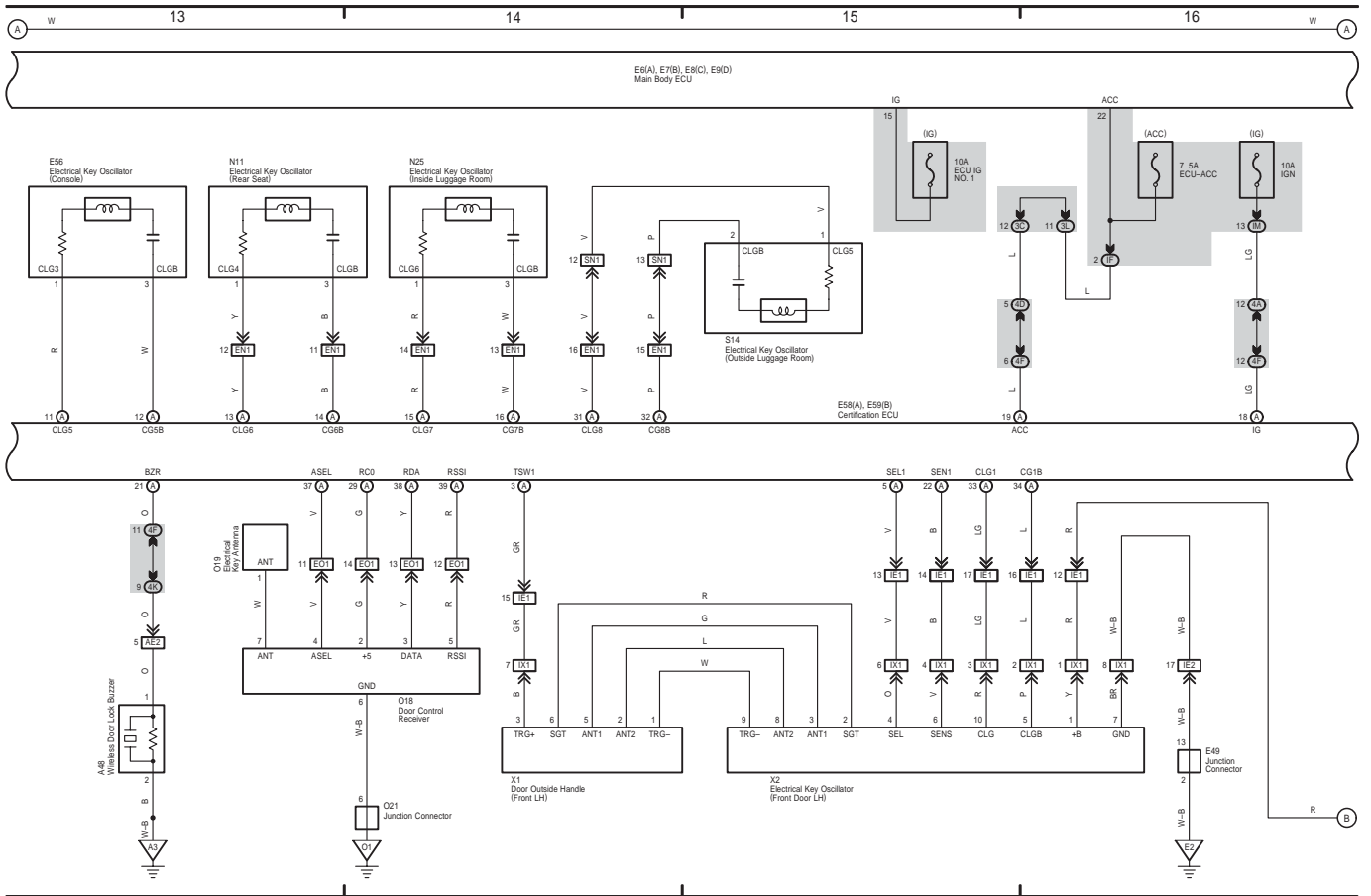
CAMRY (EM0250U)

3 CAMRY (Cont' d)

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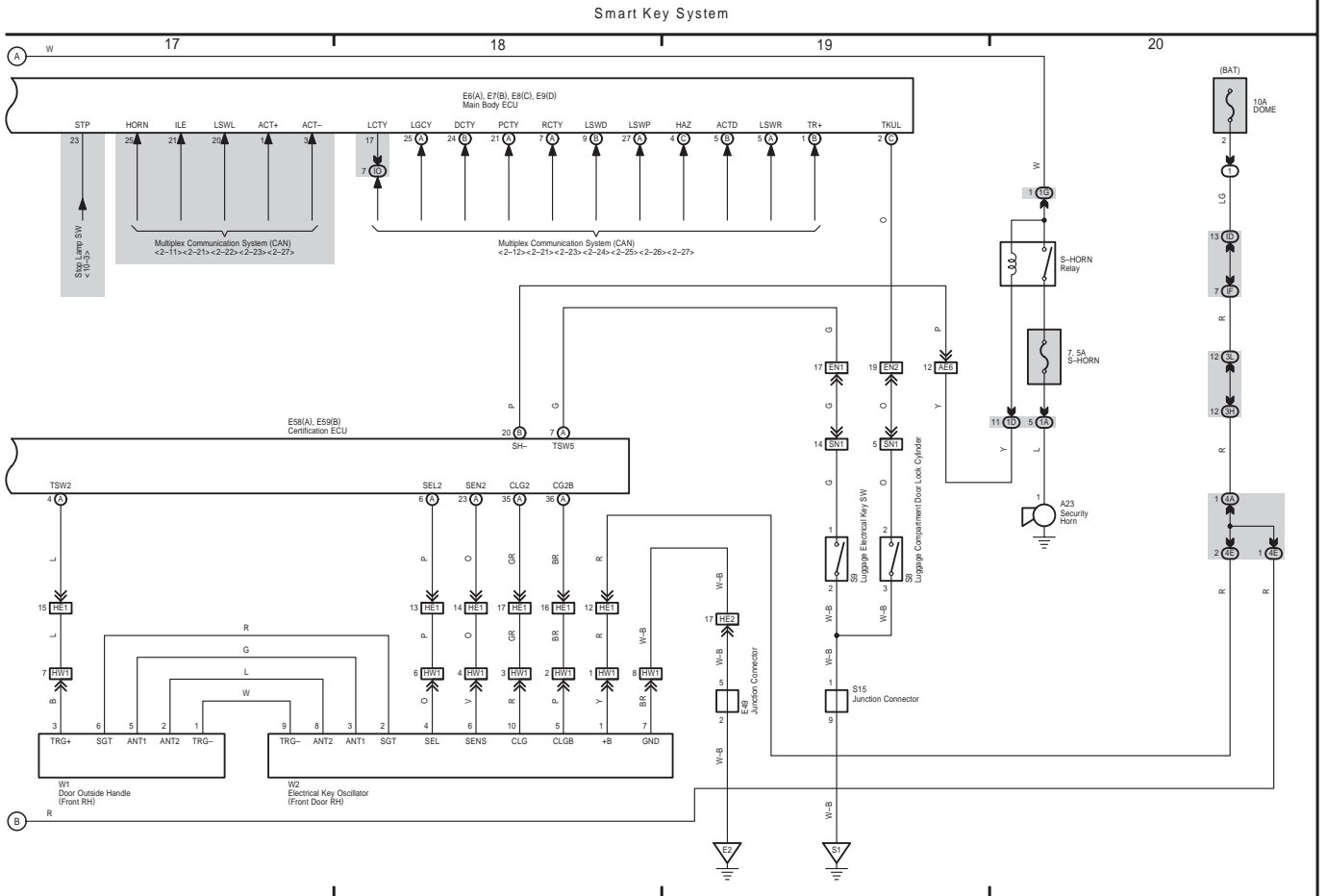


Smart Key System

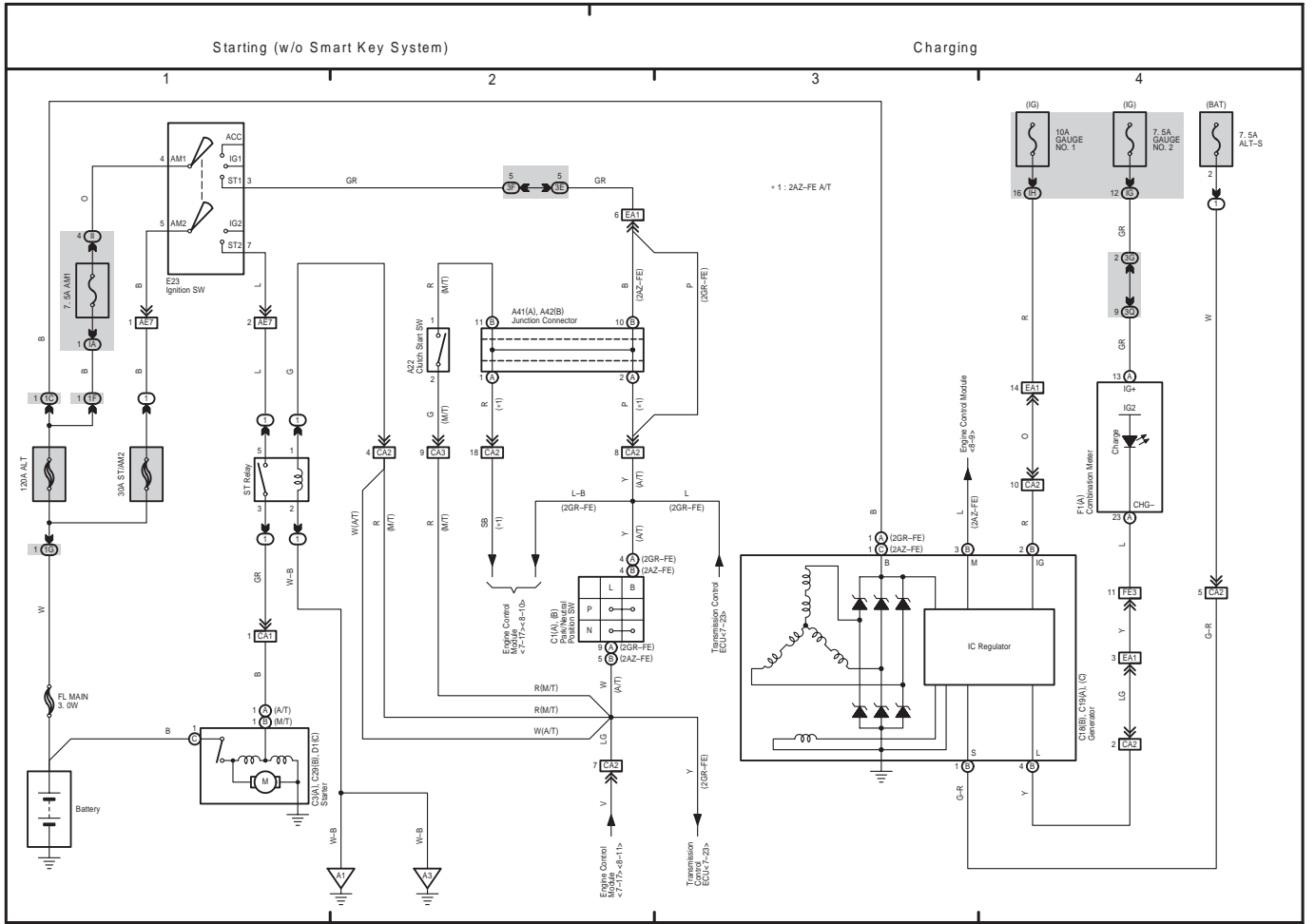


CAMRY (EM0250U)

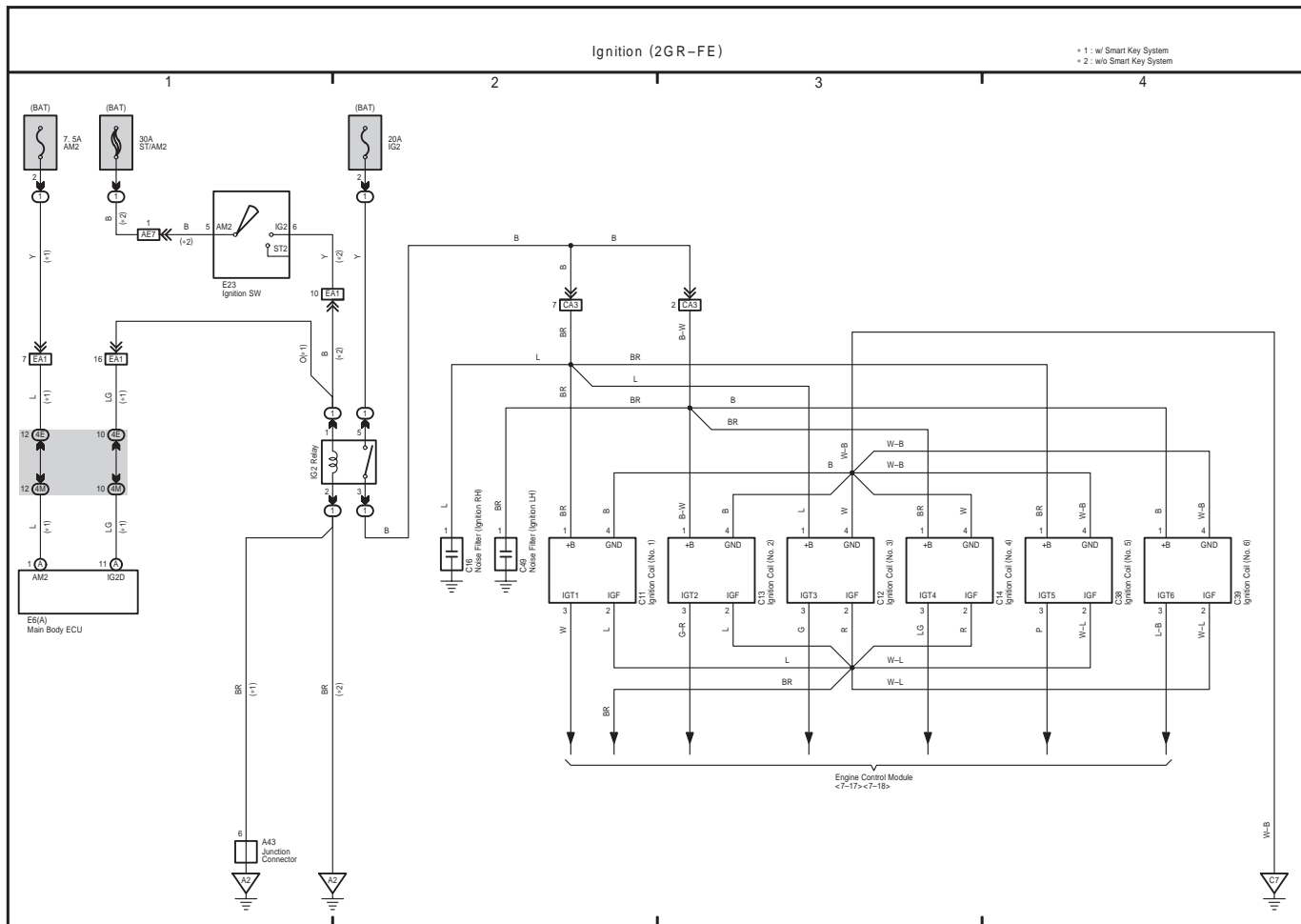
3 CAMRY (Cont' d)



4 CAMRY



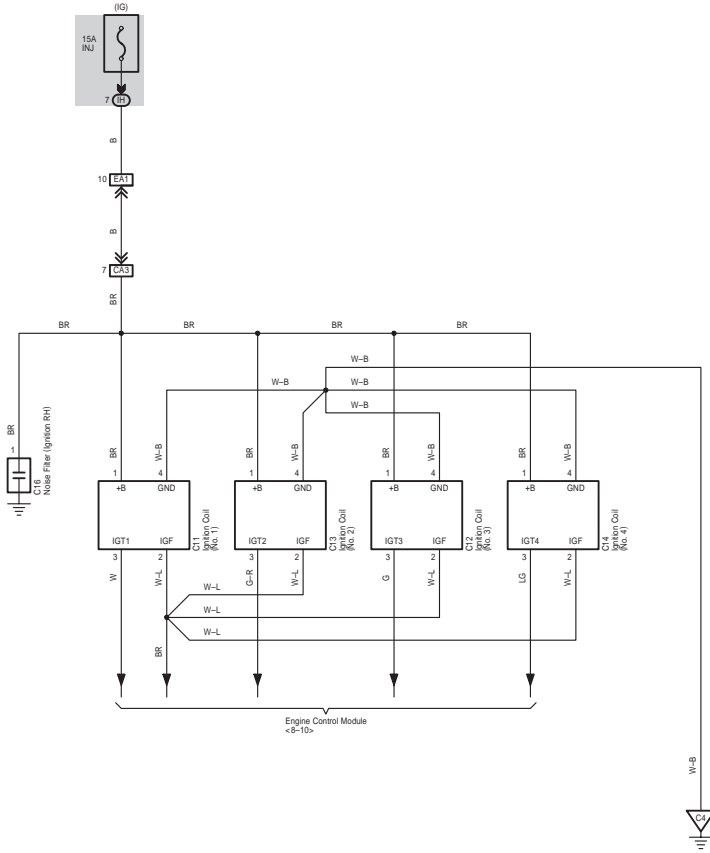
5 CAMRY



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

6 CAMRY

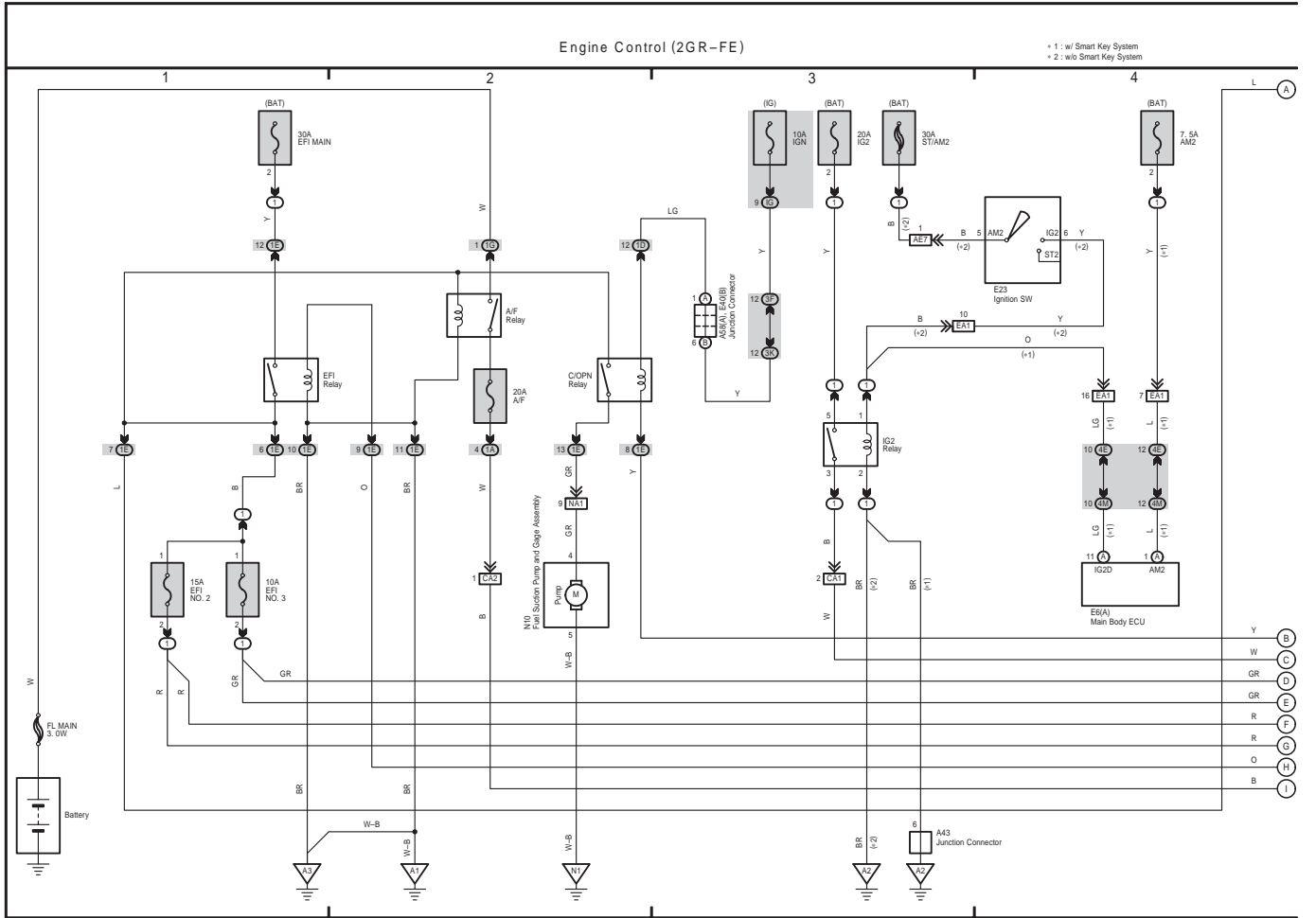
Ignition (2AZ-FE)



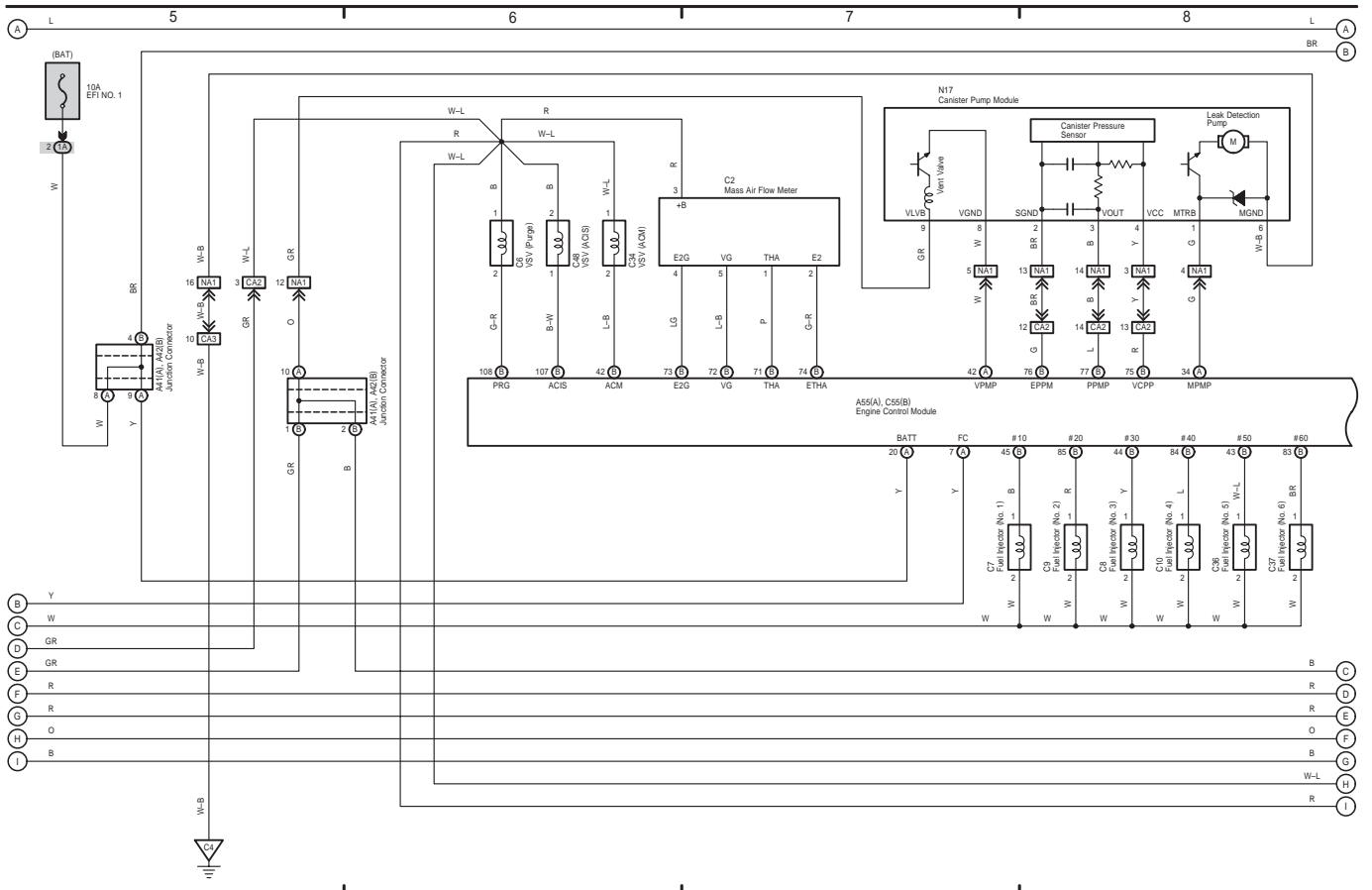
CAMRY (EM0250U)

7 CAMRY

(Cont. next page)



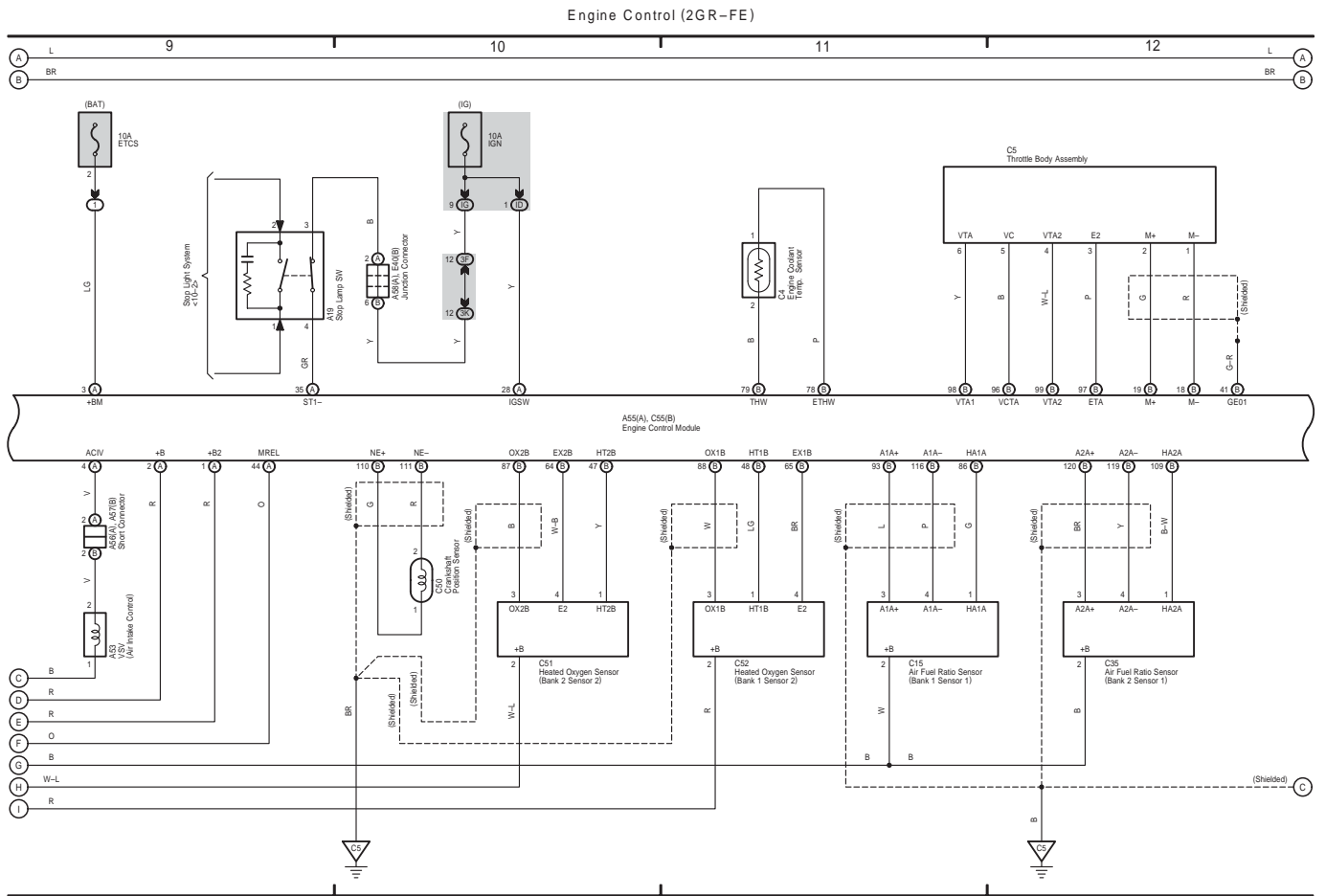
Engine Control (2GR-FE)



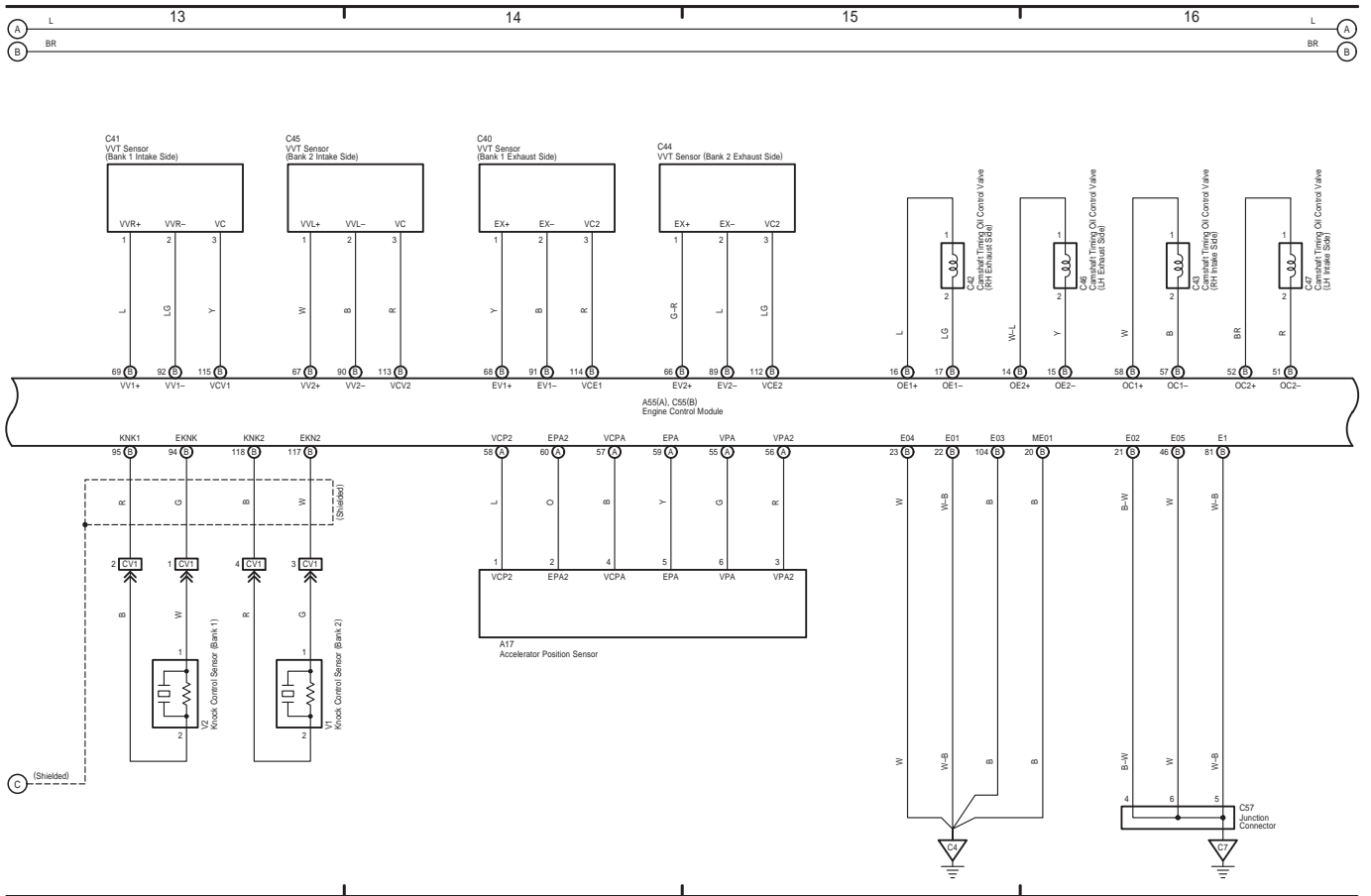
CAMRY (EM0250U)

7 CAMRY (Cont' d)

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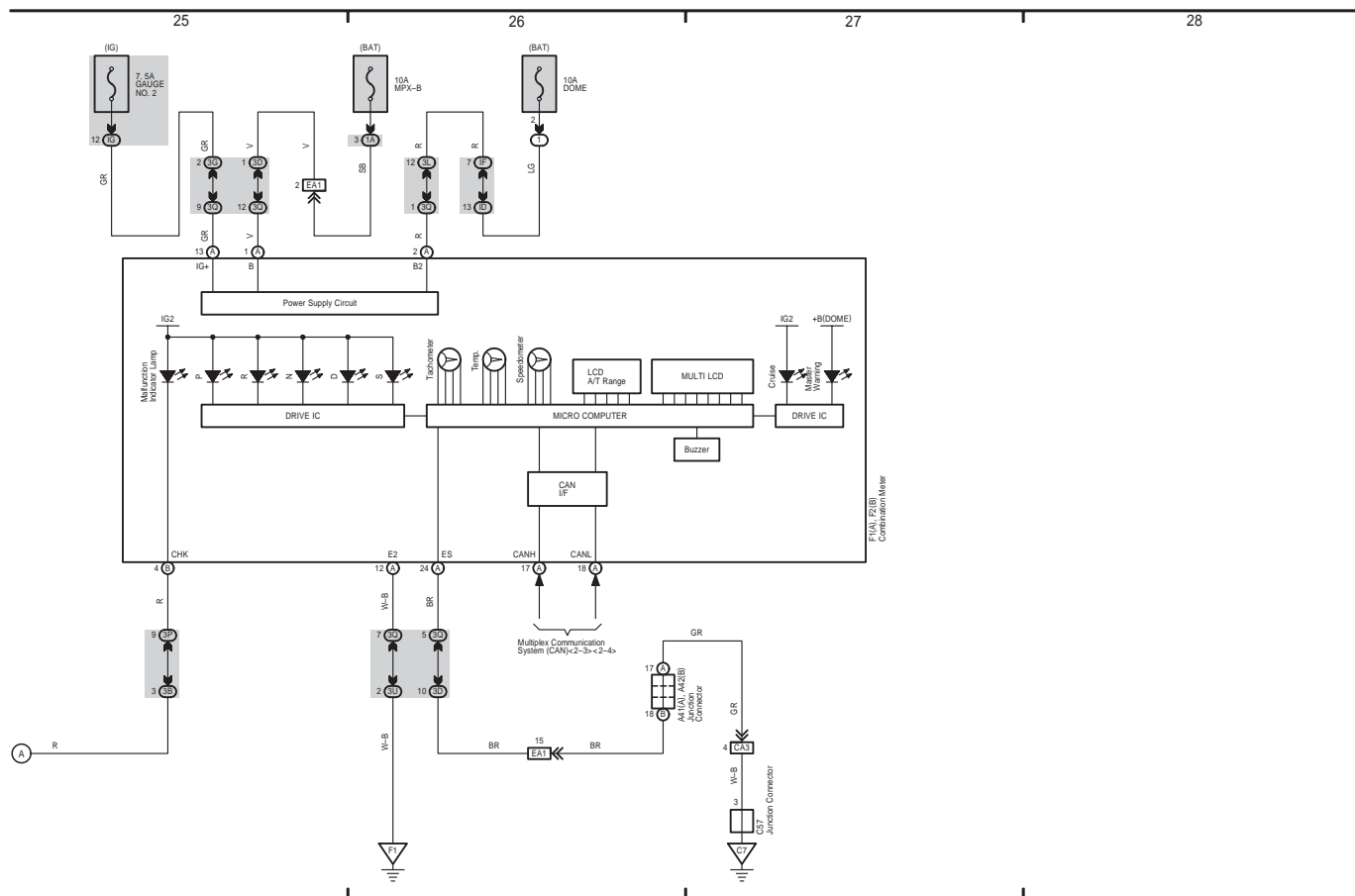
Engine Control (2GR-FE)



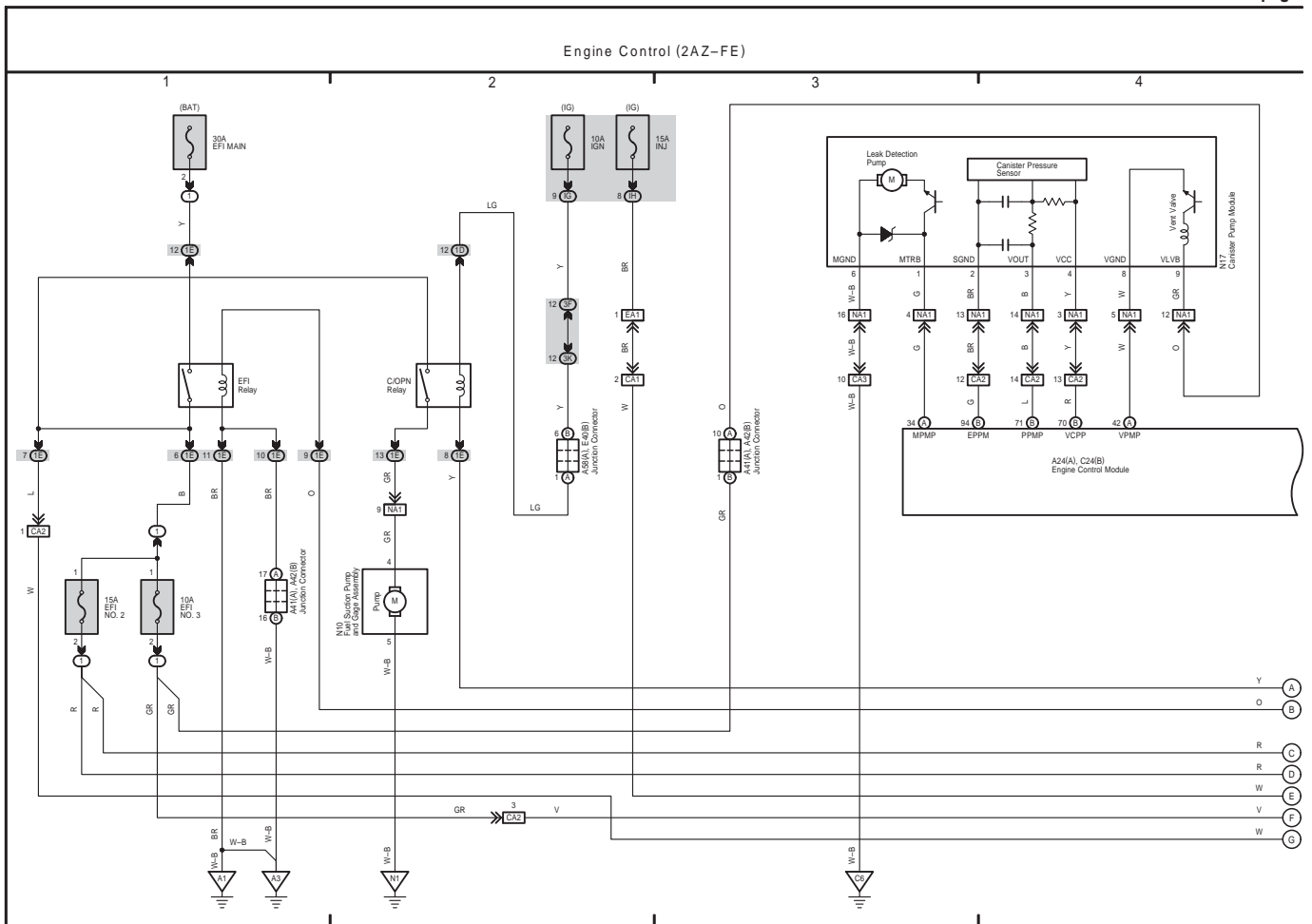
CAMRY (EM0250U)

7 CAMRY (Cont' d)

Electronically Controlled Transmission and A/T Indicator (2GR-FE)

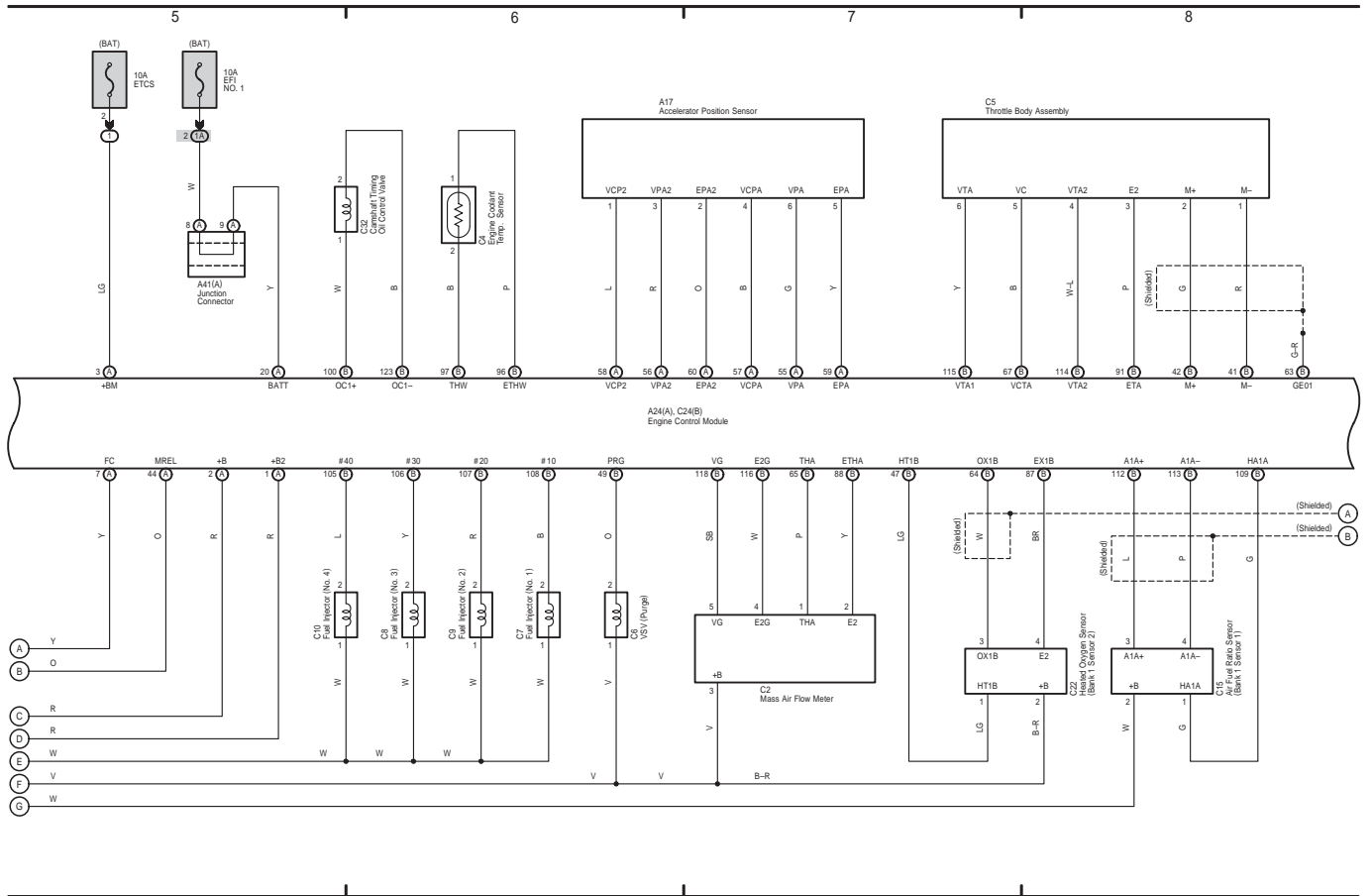


CAMRY (EM0250U)



M OVERALL ELECTRICAL WIRING DIAGRAM

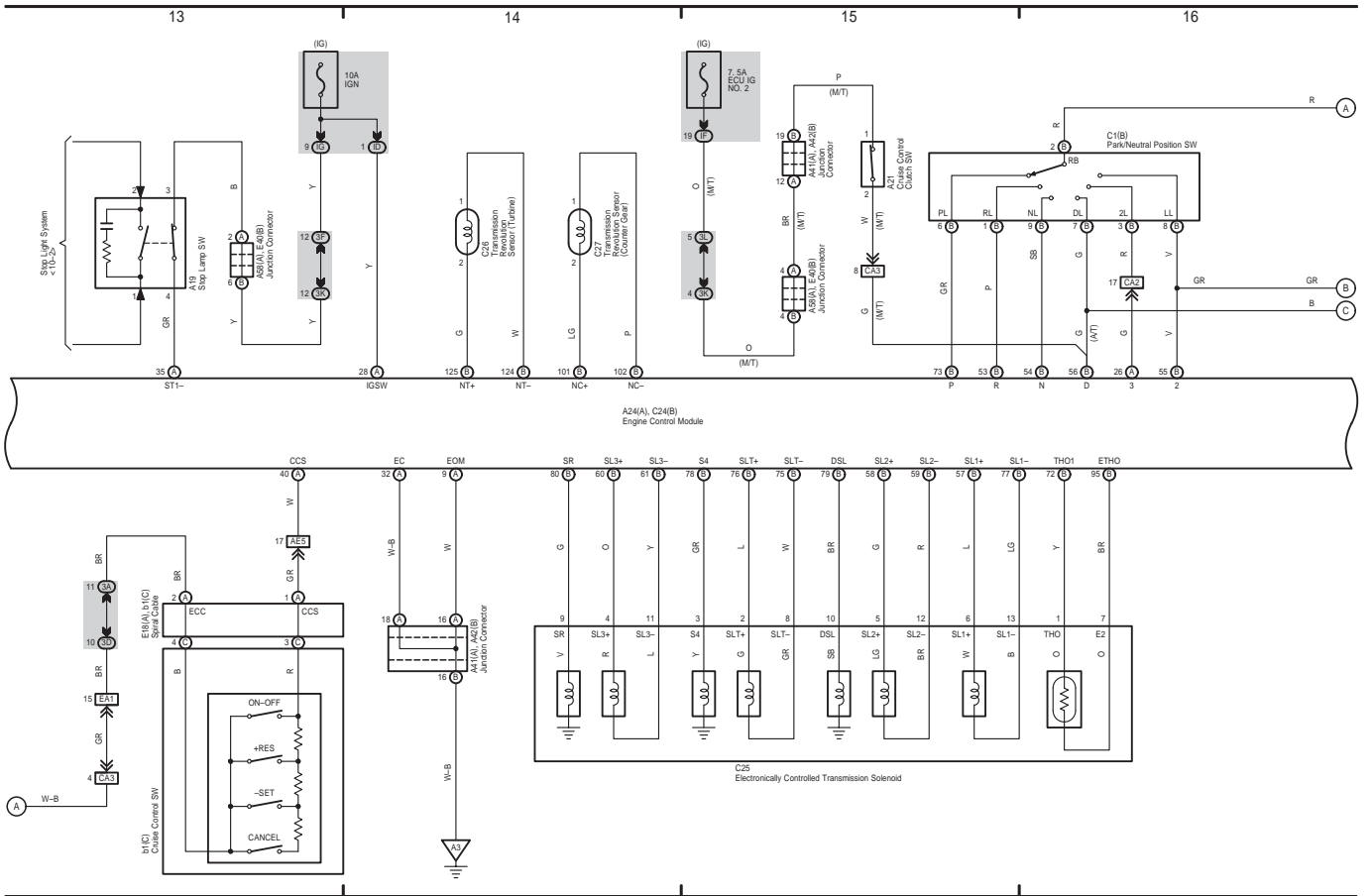
Engine Control (2AZ-FE)



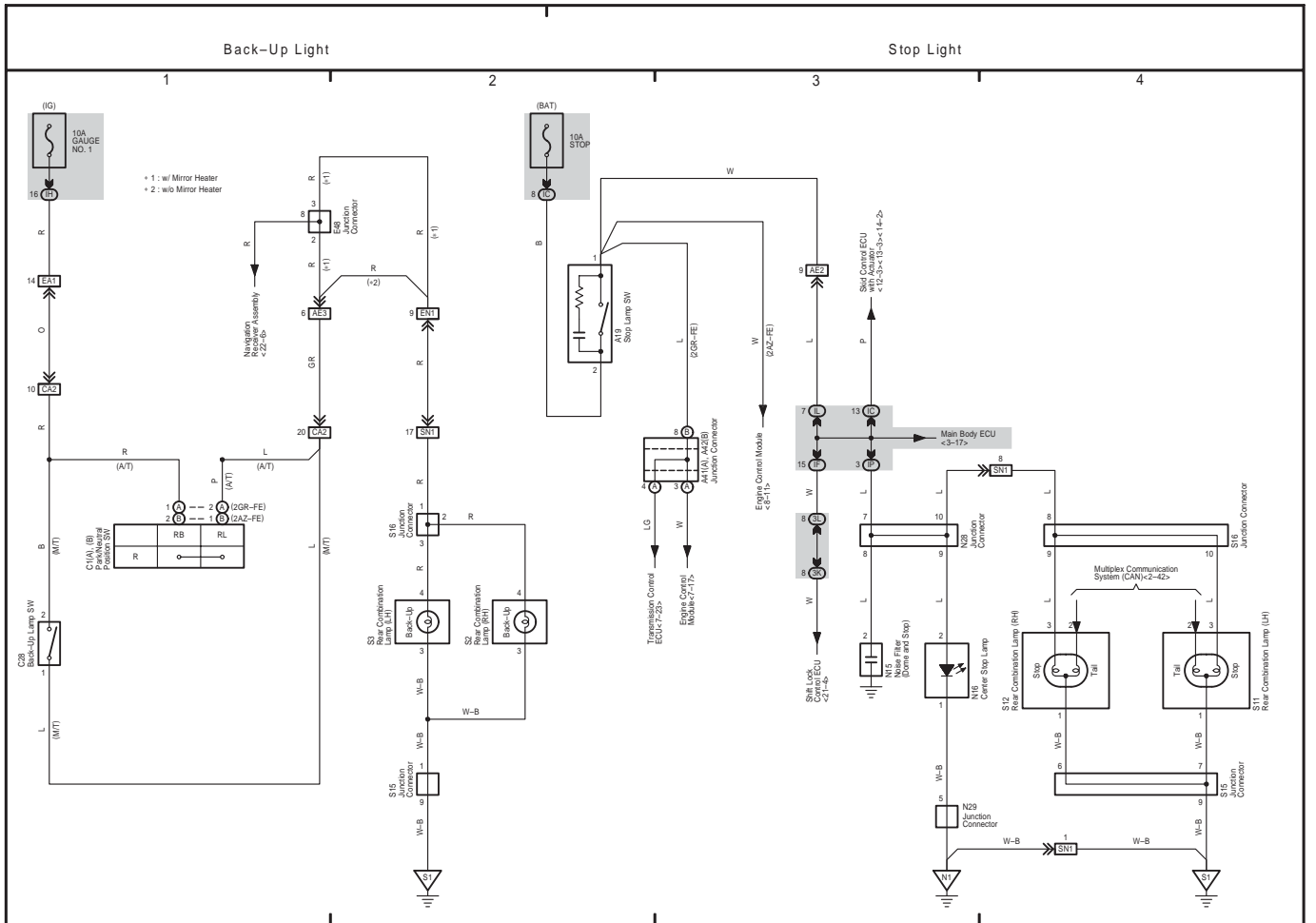
CAMRY (EM0250U)

Cruise Control (2AZ-FE)

Electronically Controlled Transmission and A/T Indicator (2AZ-FE)



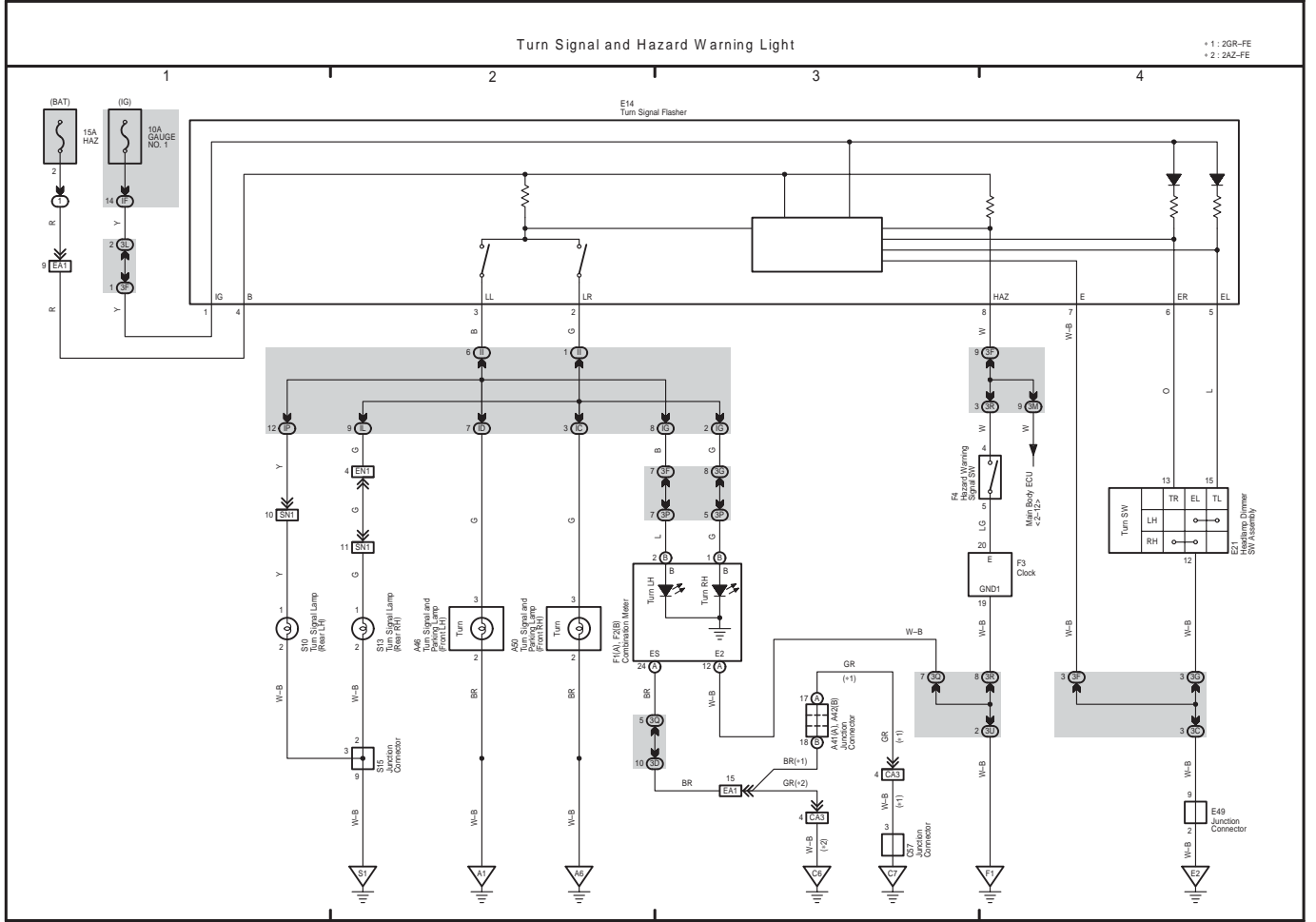
10 CAMRY



11 CAMRY

CAMRY (EM0250U)

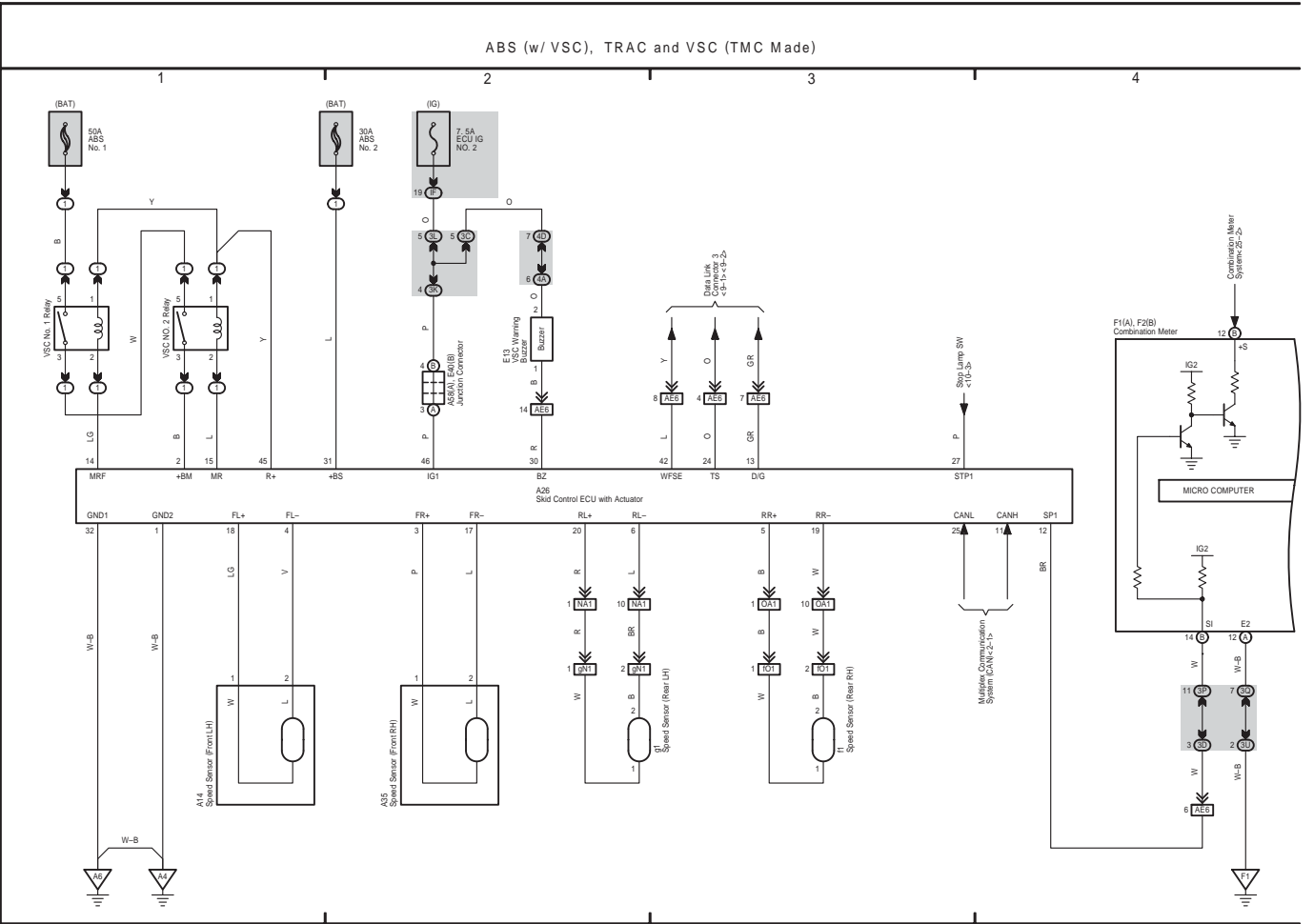
481



M

12 CAMRY

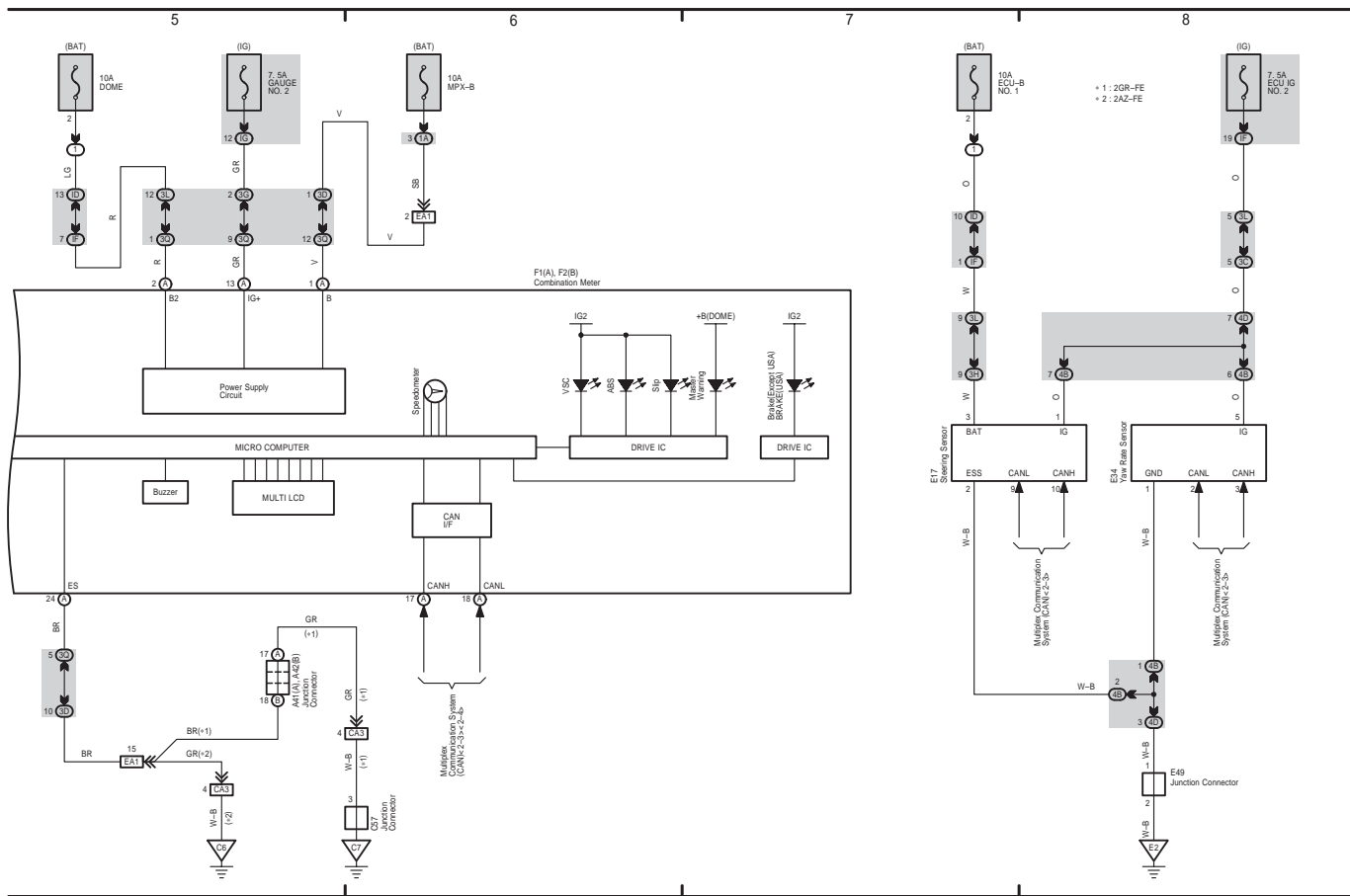
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12 CAMRY (Cont' d)

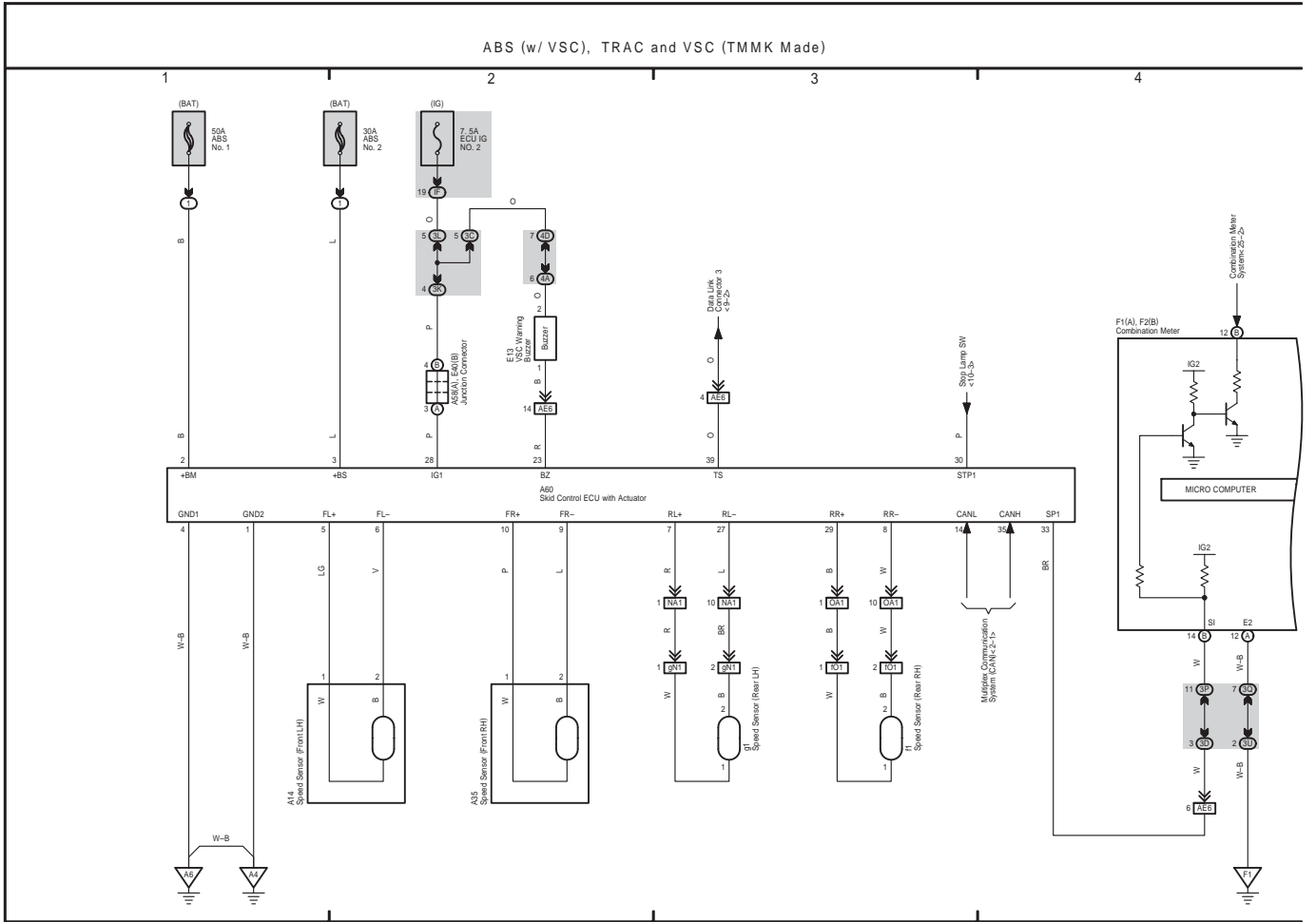
ABS (w/ VSC), TRAC and VSC (TMC Made)

CAMRY (EM0250U)



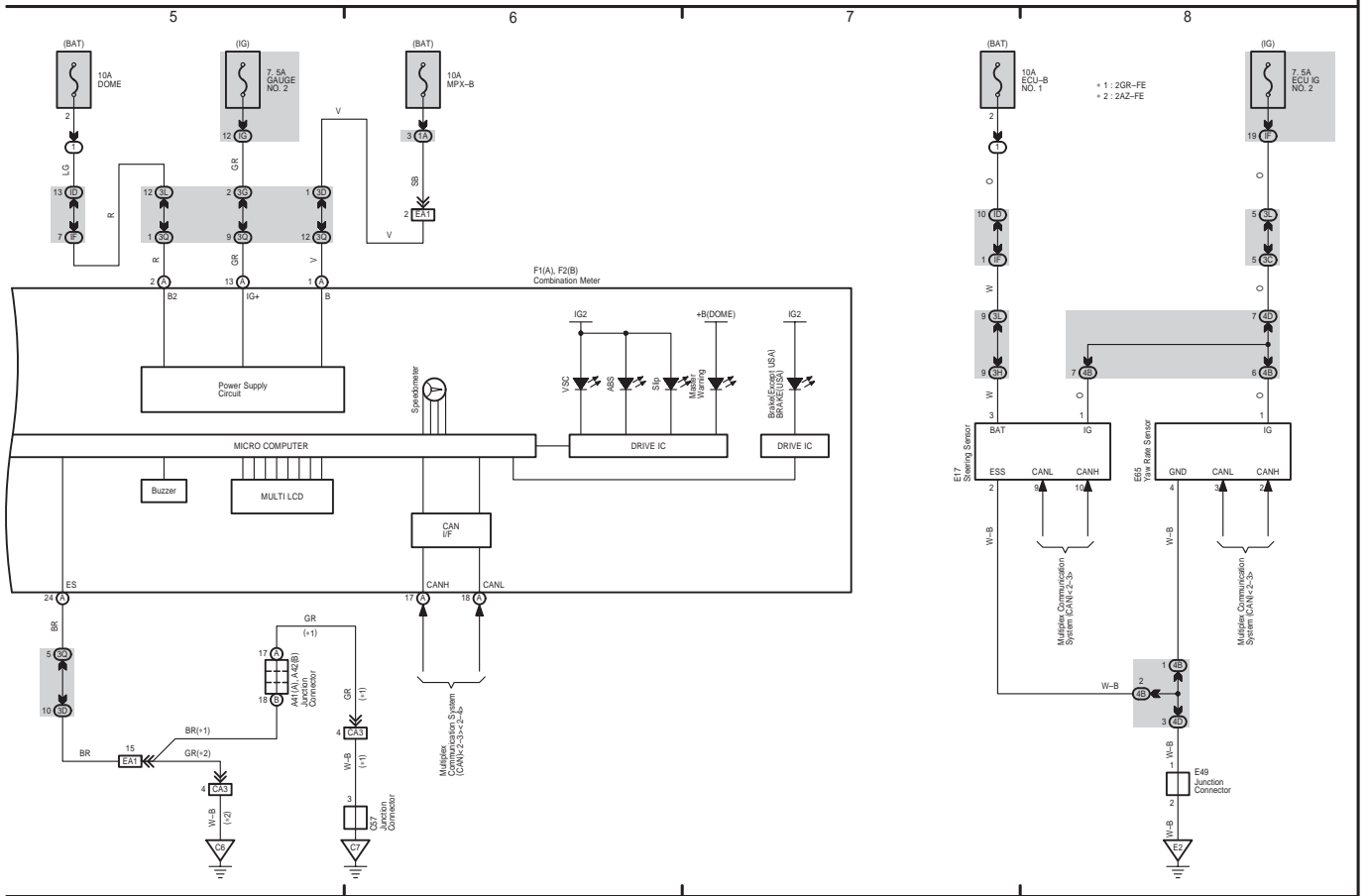
13 CAMRY

(Cont. next page)



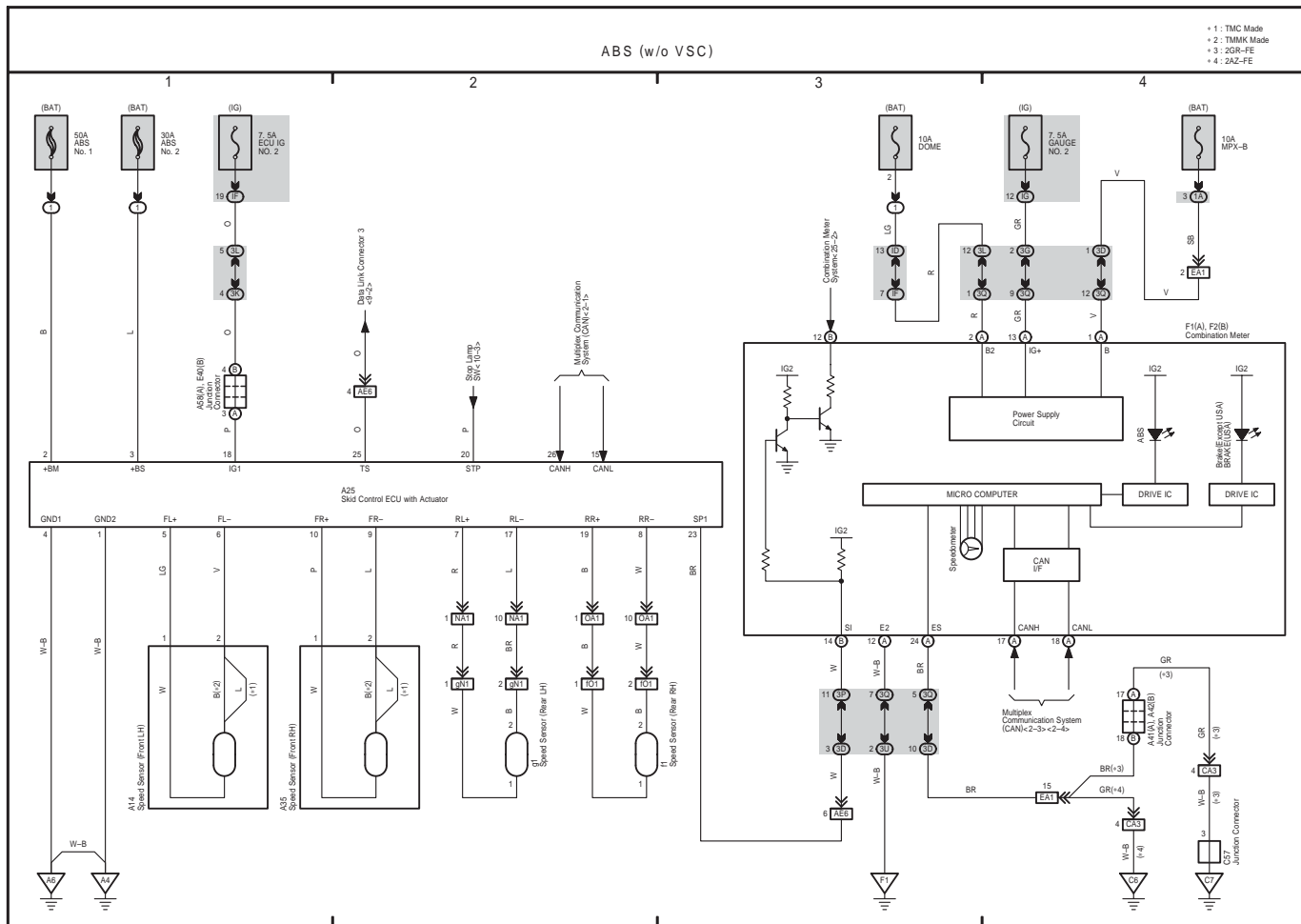
13 CAMRY (Cont' d)

ABS (w/ VSC), TRAC and VSC (TMMK Made)



CAMRY (EM0250U)

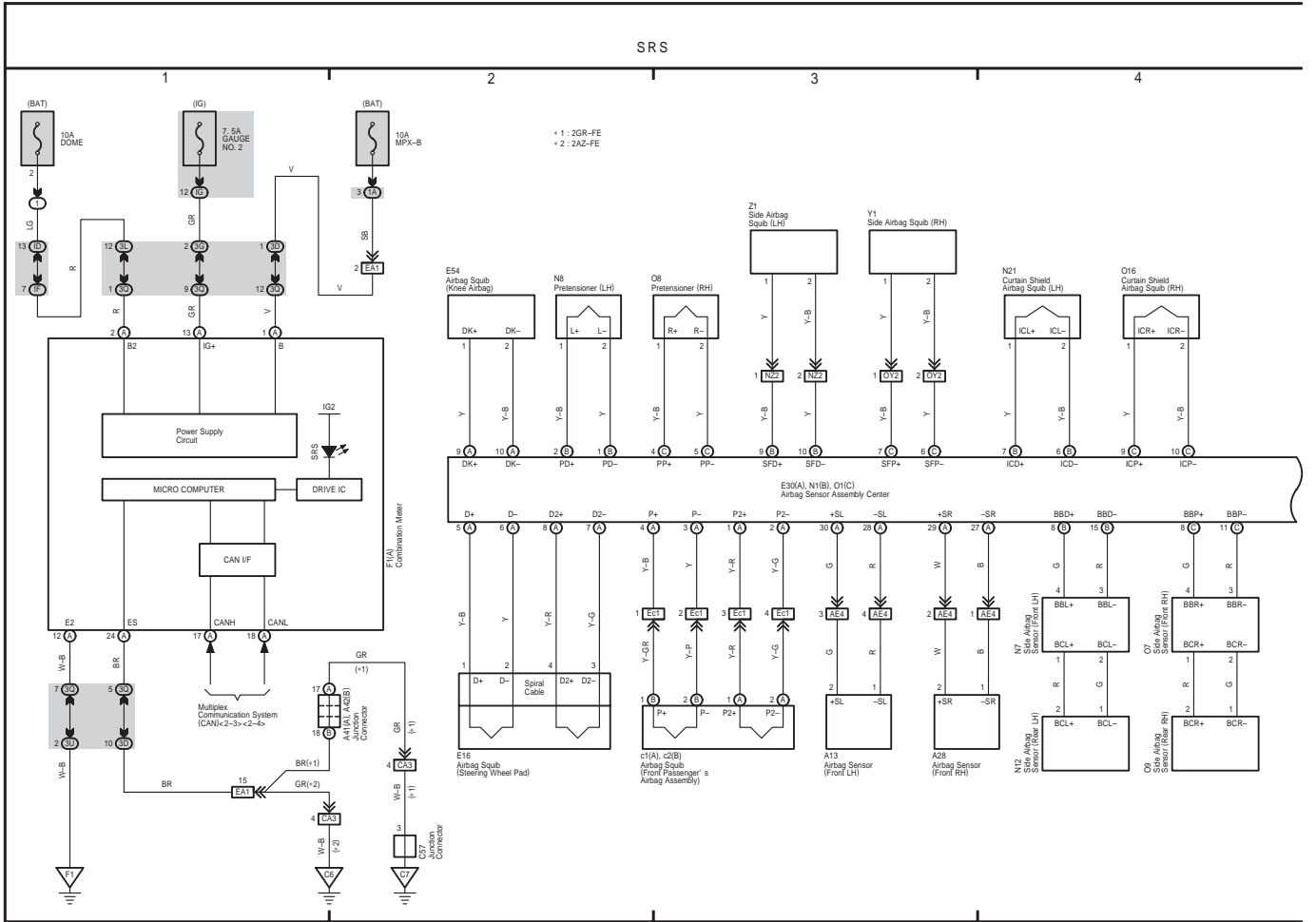
14 CAMRY



CAMRY (EM0250U)

15 CAMRY

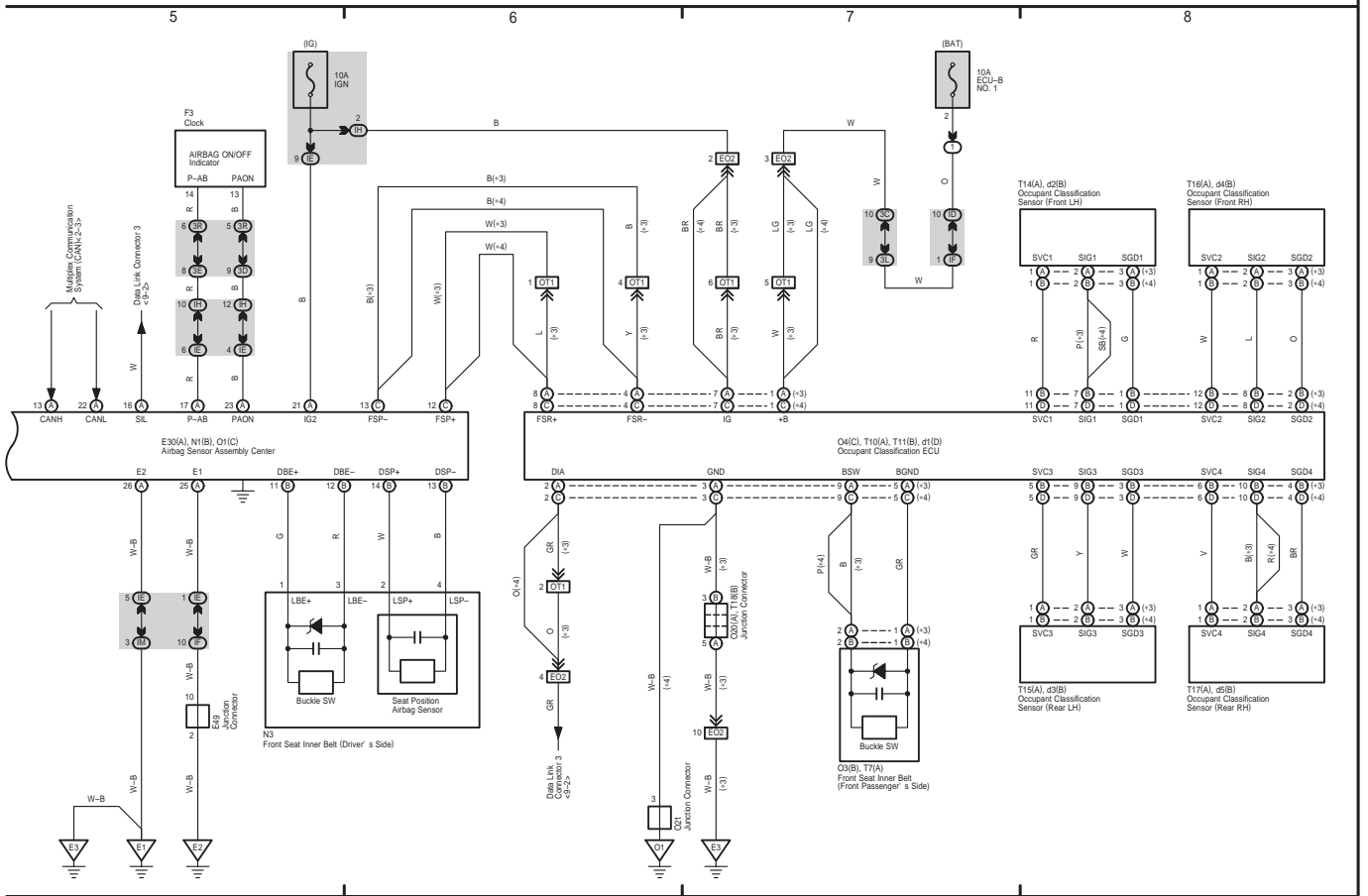
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15 CAMRY (Cont' d)

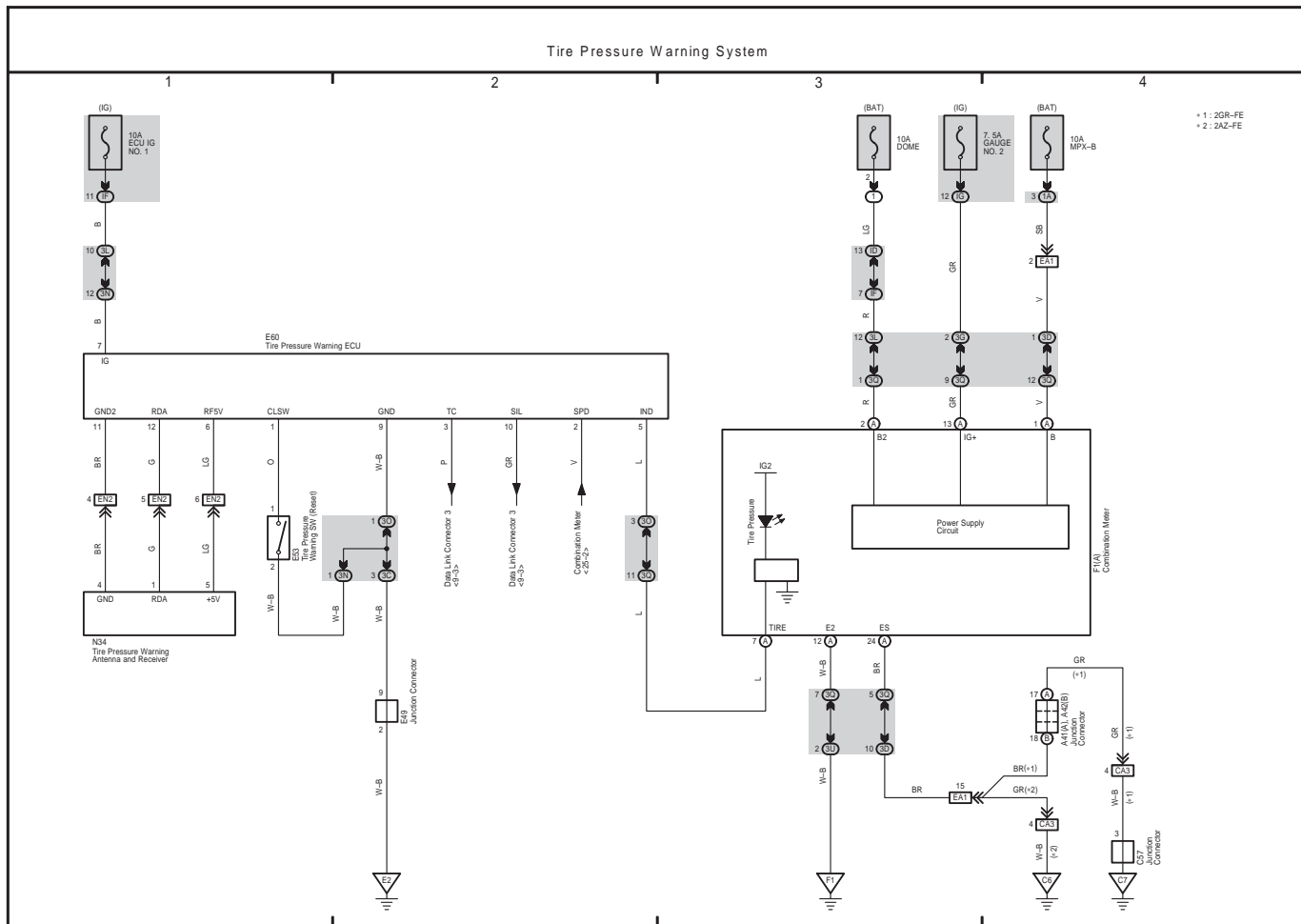
SRS

+ 3 : w/ Power Seat
 + 4 : w/o Power Seat



CAMRY (EM0250U)

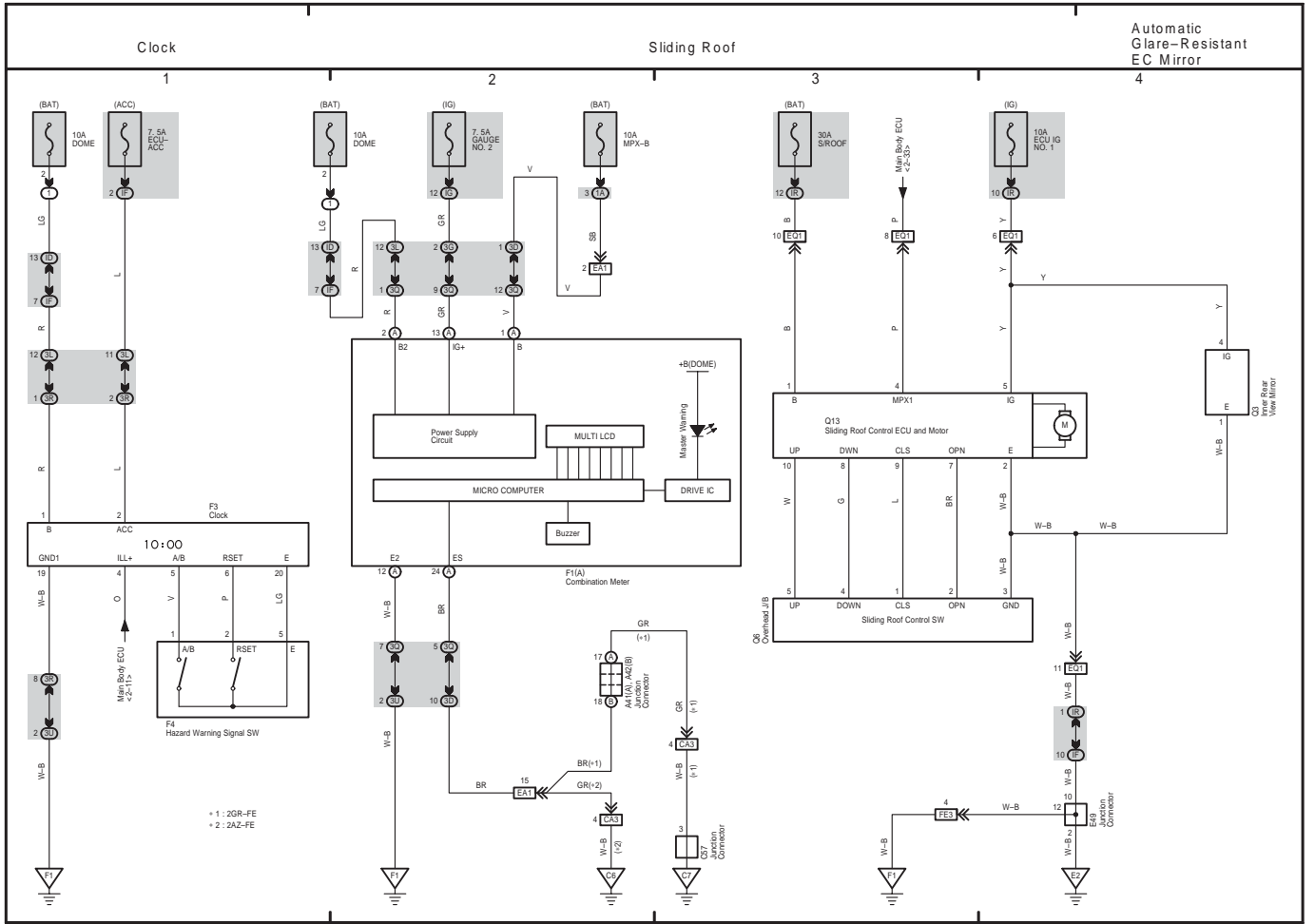
16 CAMRY



17 CAMRY

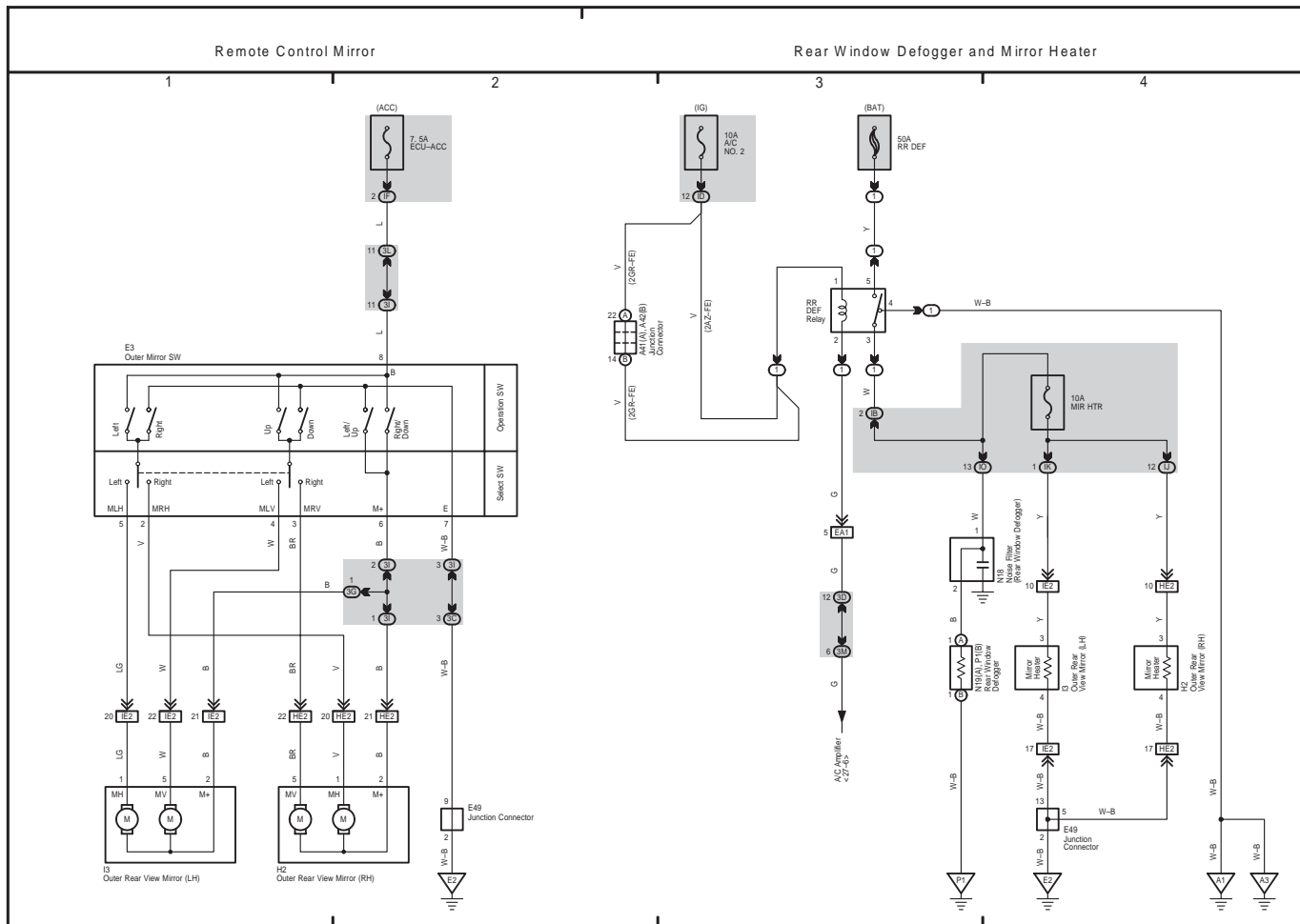
CAMRY (EM0250U)

491



M

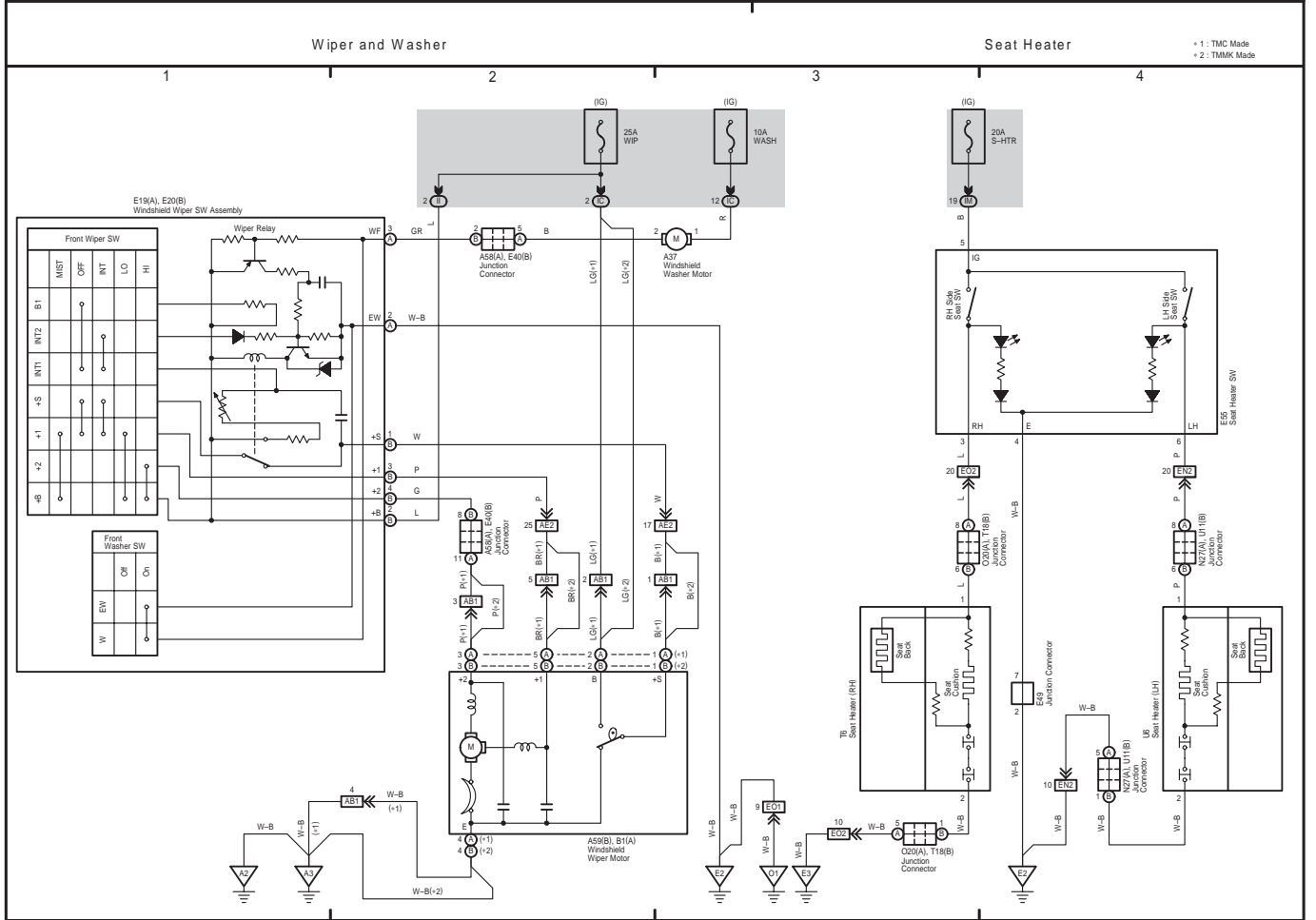
18 CAMRY



19 CAMRY

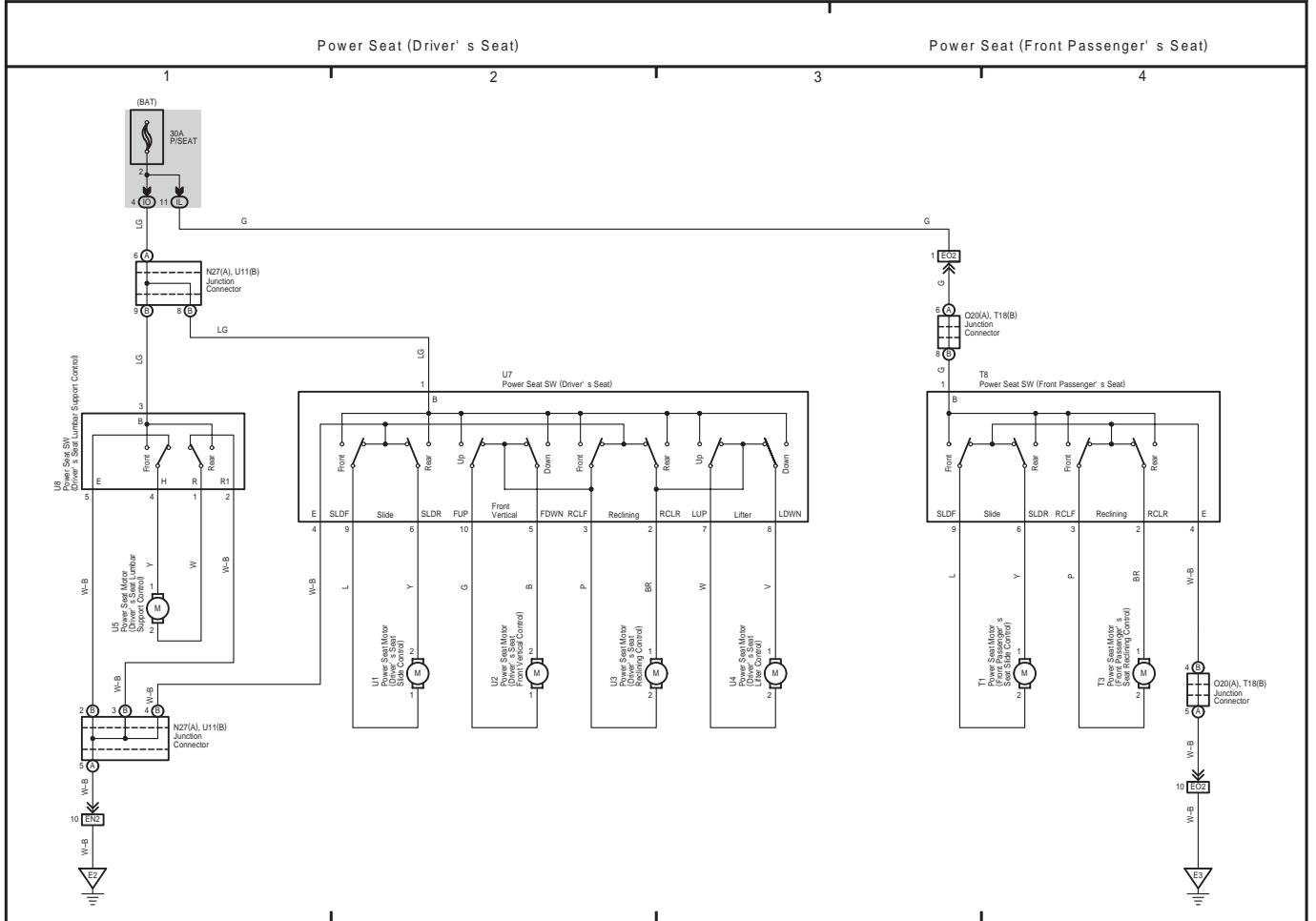
CAMRY (EM0250U)

493



M

20 CAMRY

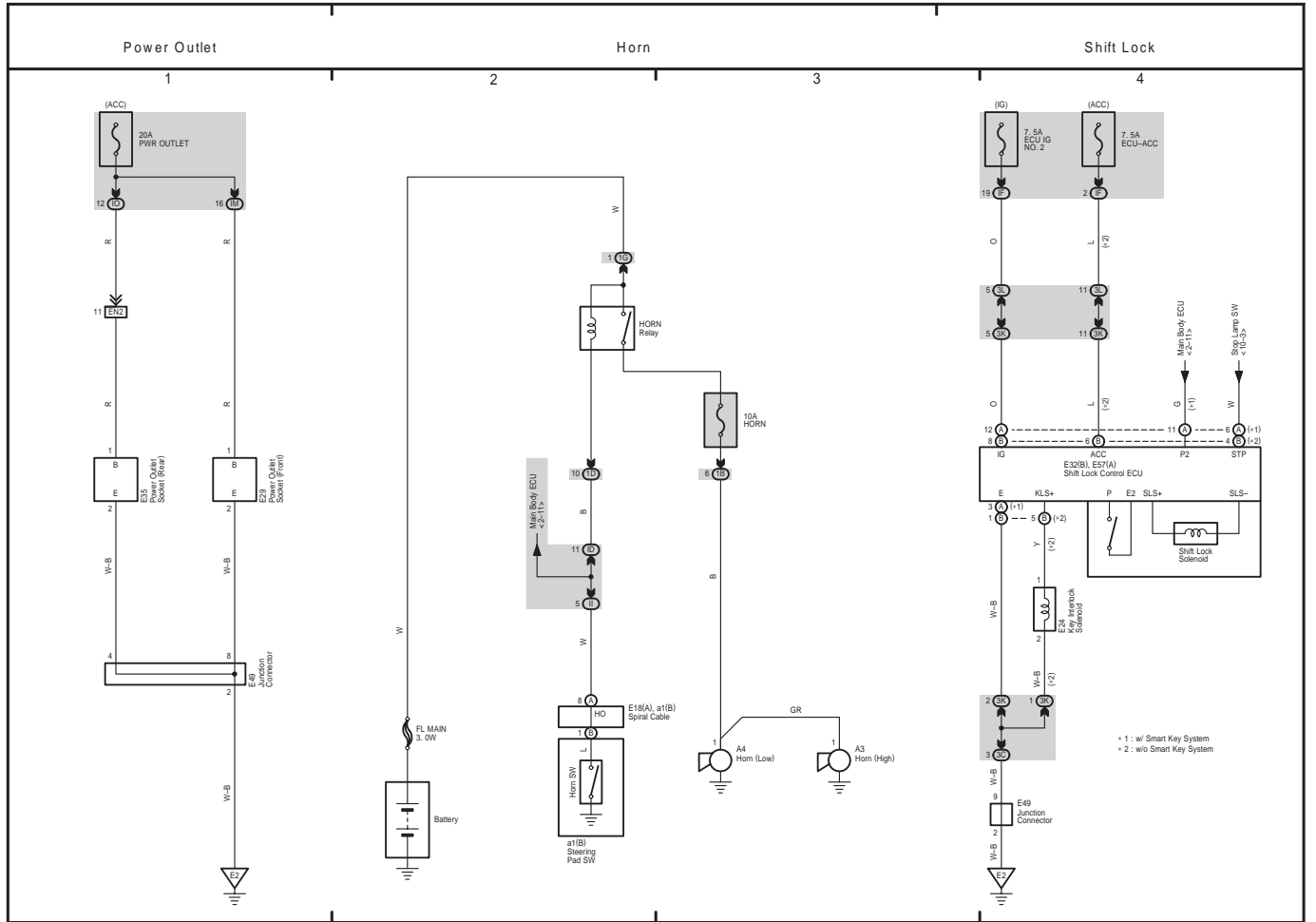


M OVERALL ELECTRICAL WIRING DIAGRAM

21 CAMRY

CAMRY (EM0250U)

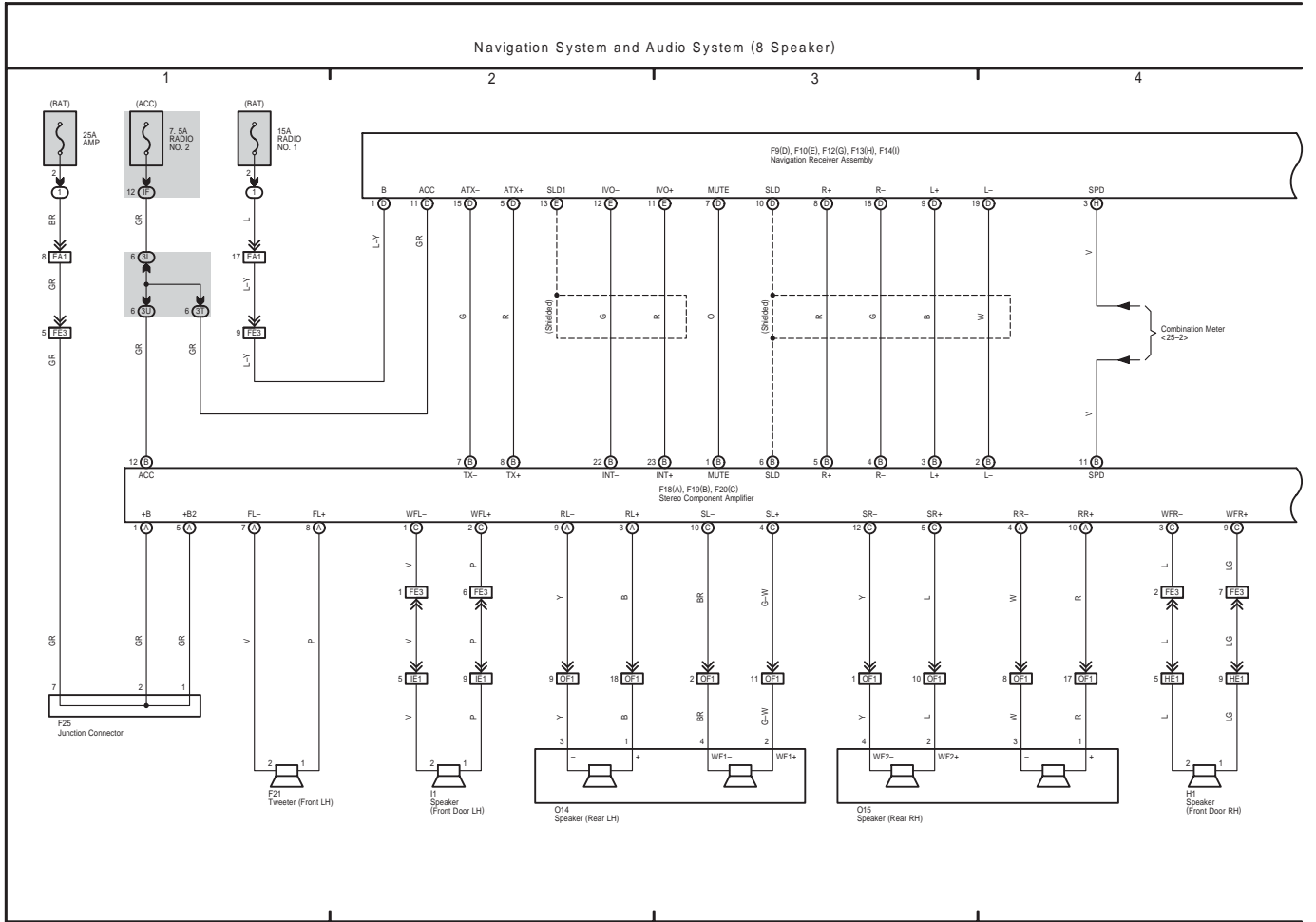
495



M

22 CAMRY

(Cont. next page)

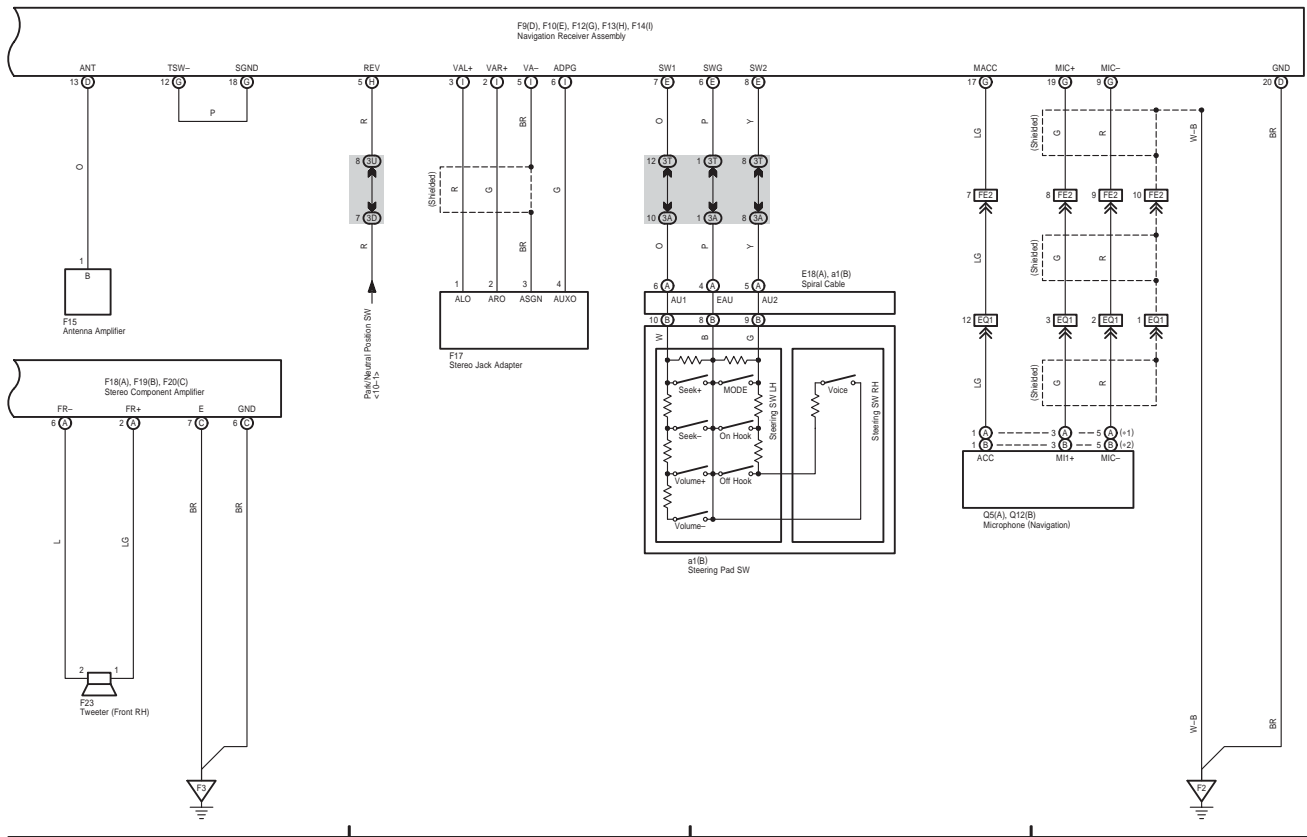


22 CAMRY (Cont' d)

Navigation System and Audio System (8 Speaker)

5 6 7 8

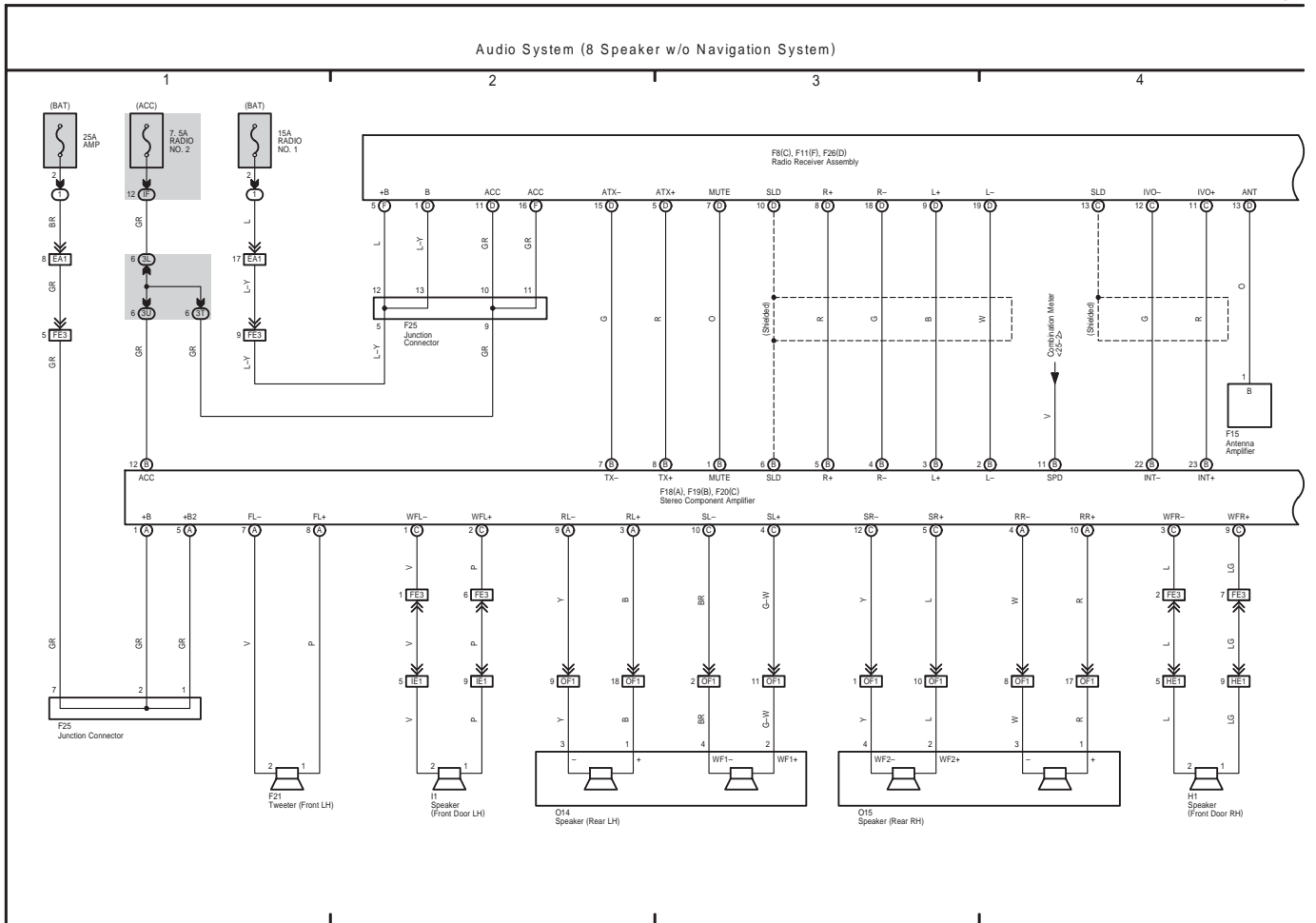
+ 1: TMC Made
+ 2: TMMK Made



CAMRY (EM0250U)

23 CAMRY

(Cont. next page)

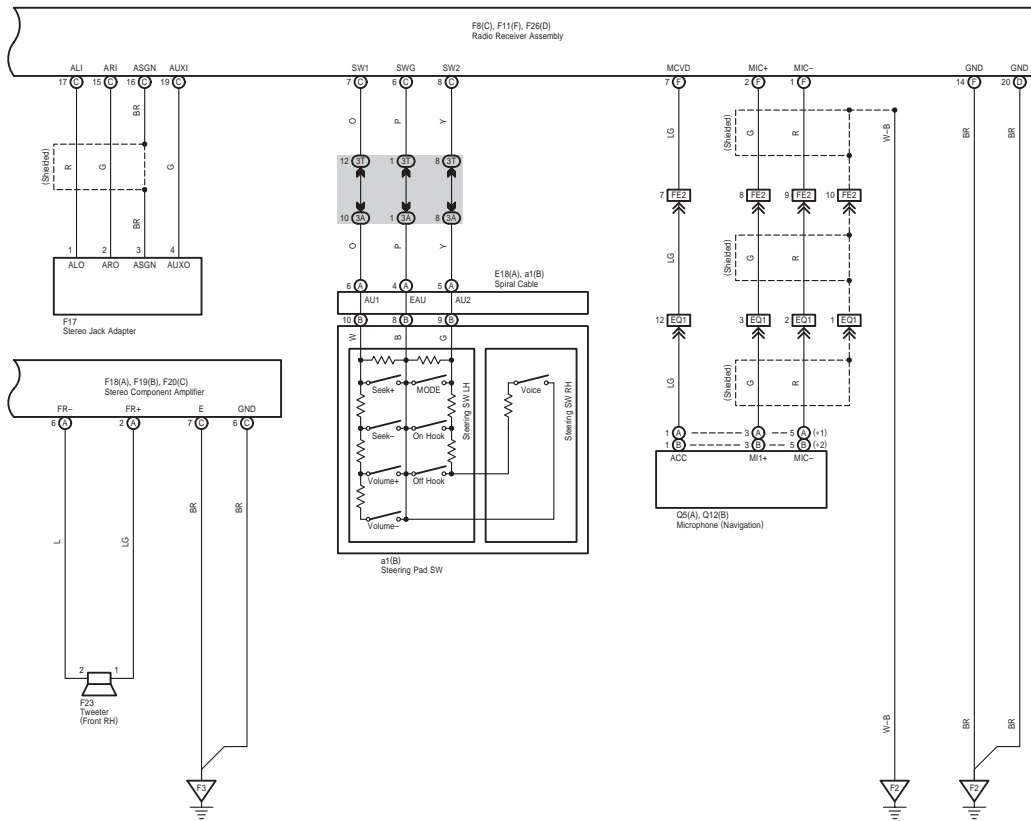


23 CAMRY (Cont' d)

Audio System (8 Speaker w/o Navigation System)

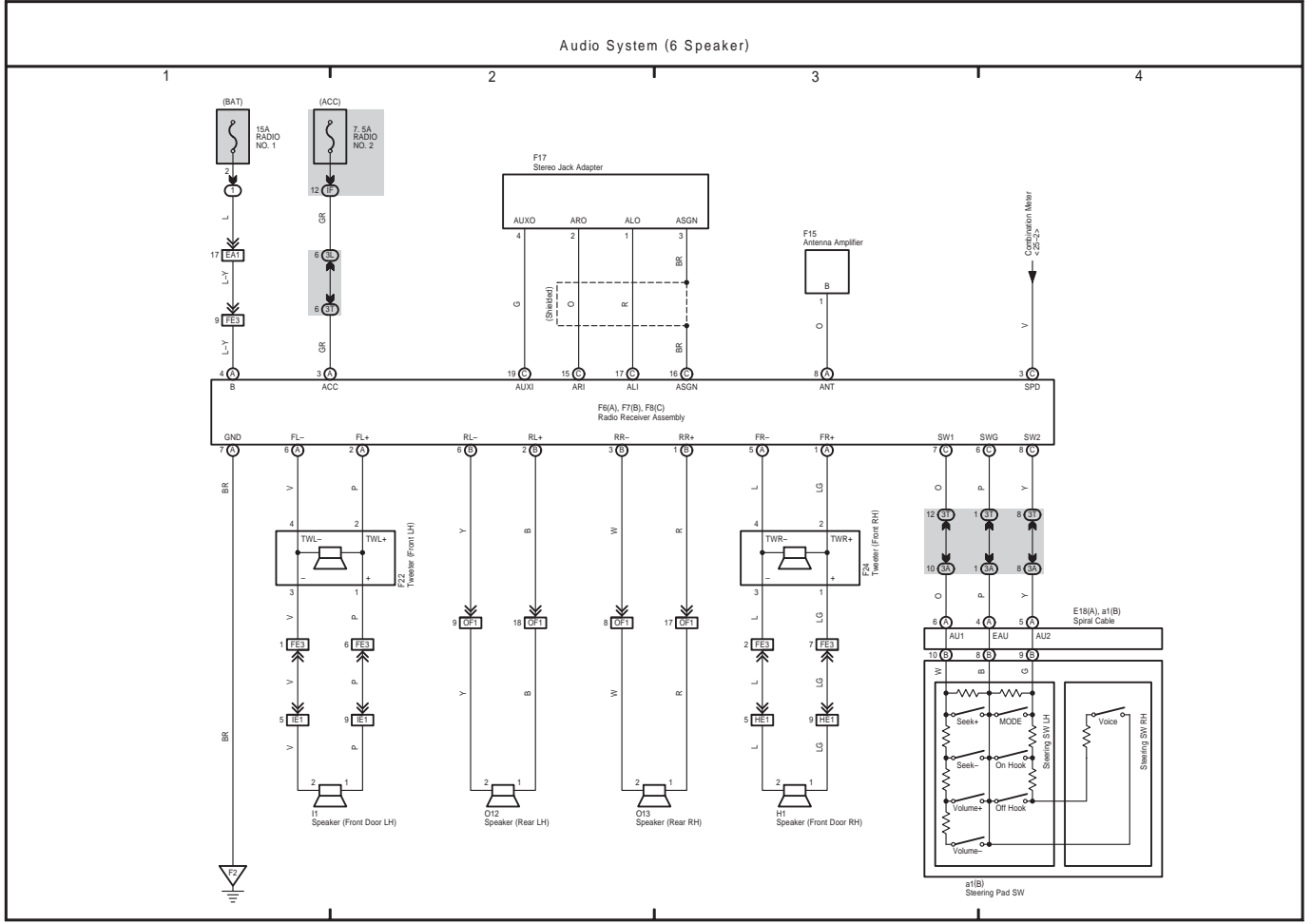
5 6 7 8

+ 1: TMC Made
+ 2: TMMK Made



CAMRY (EM0250U)

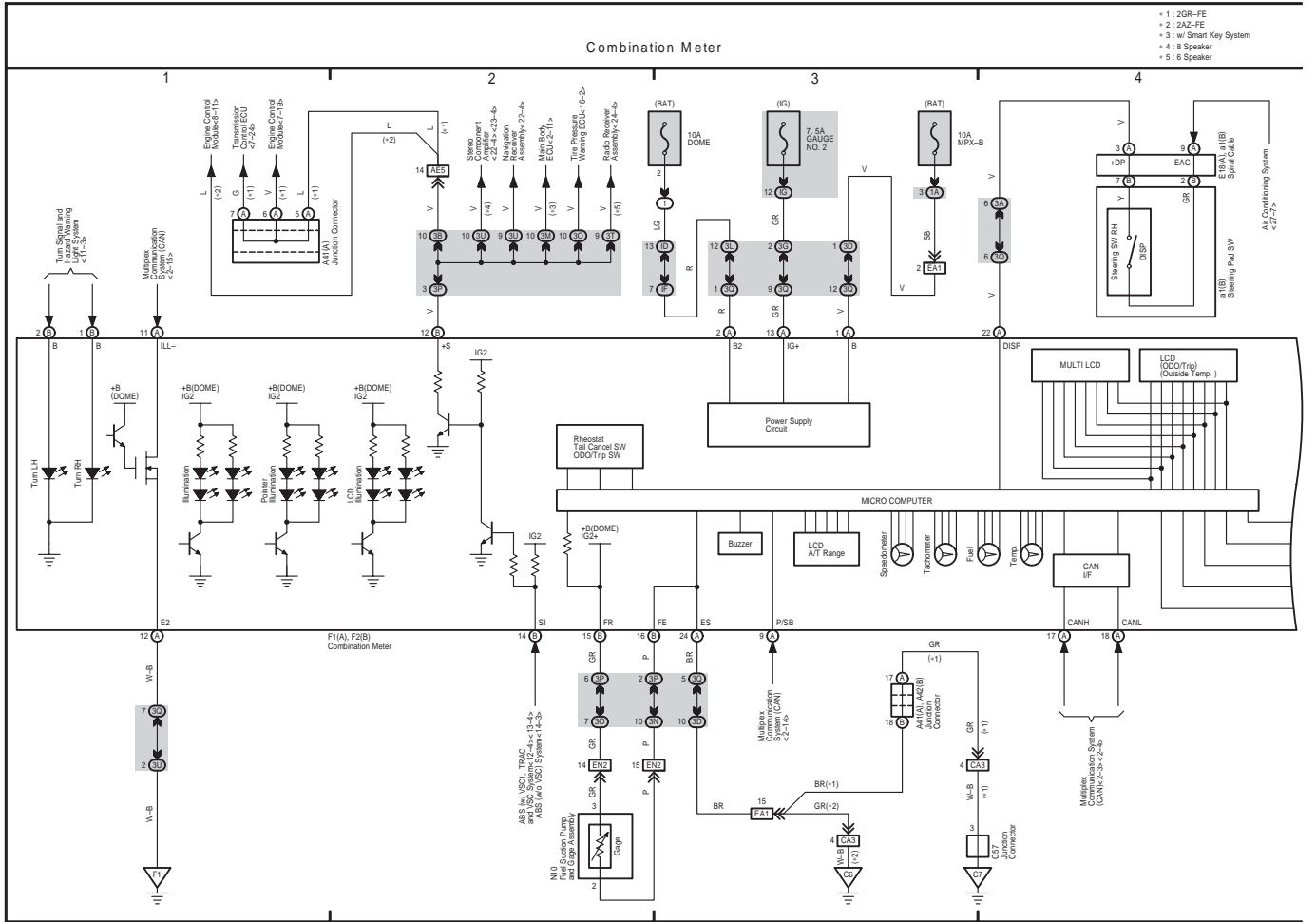
24 CAMRY



CAMRY (EM0250U)

25 CAMRY

(Cont. next page)

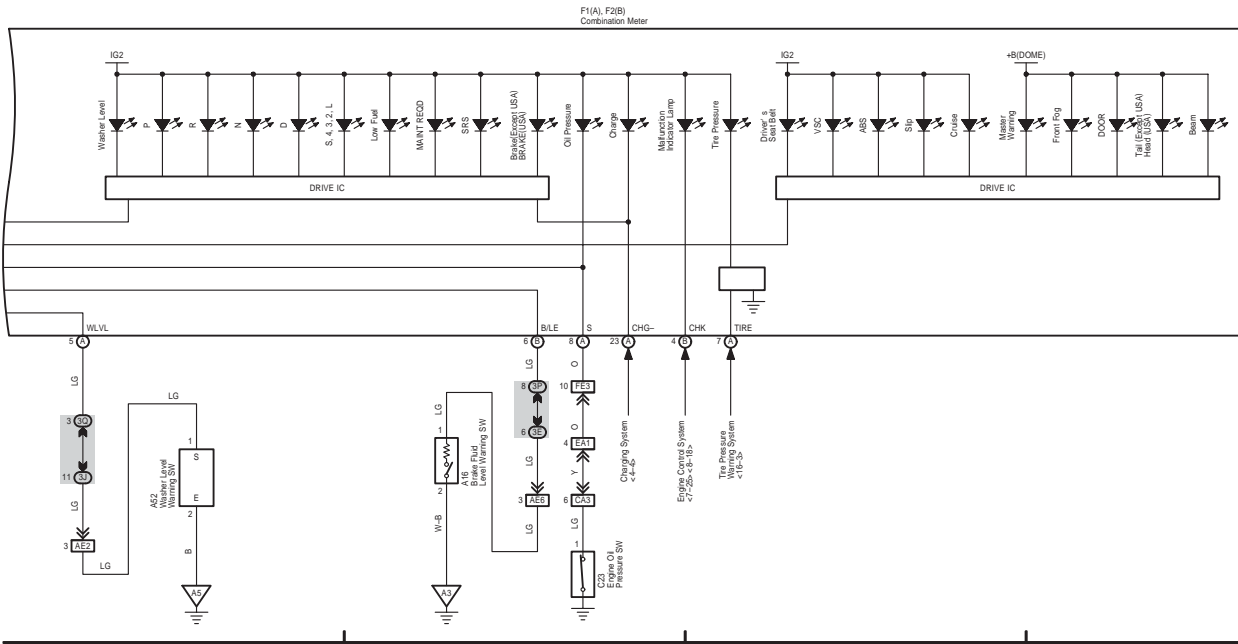


- 1 : 2GR-FE
- 2 : 2A2-FE
- 3 : w/ Smart Key System
- 4 : 8 Speaker
- 5 : 6 Speaker

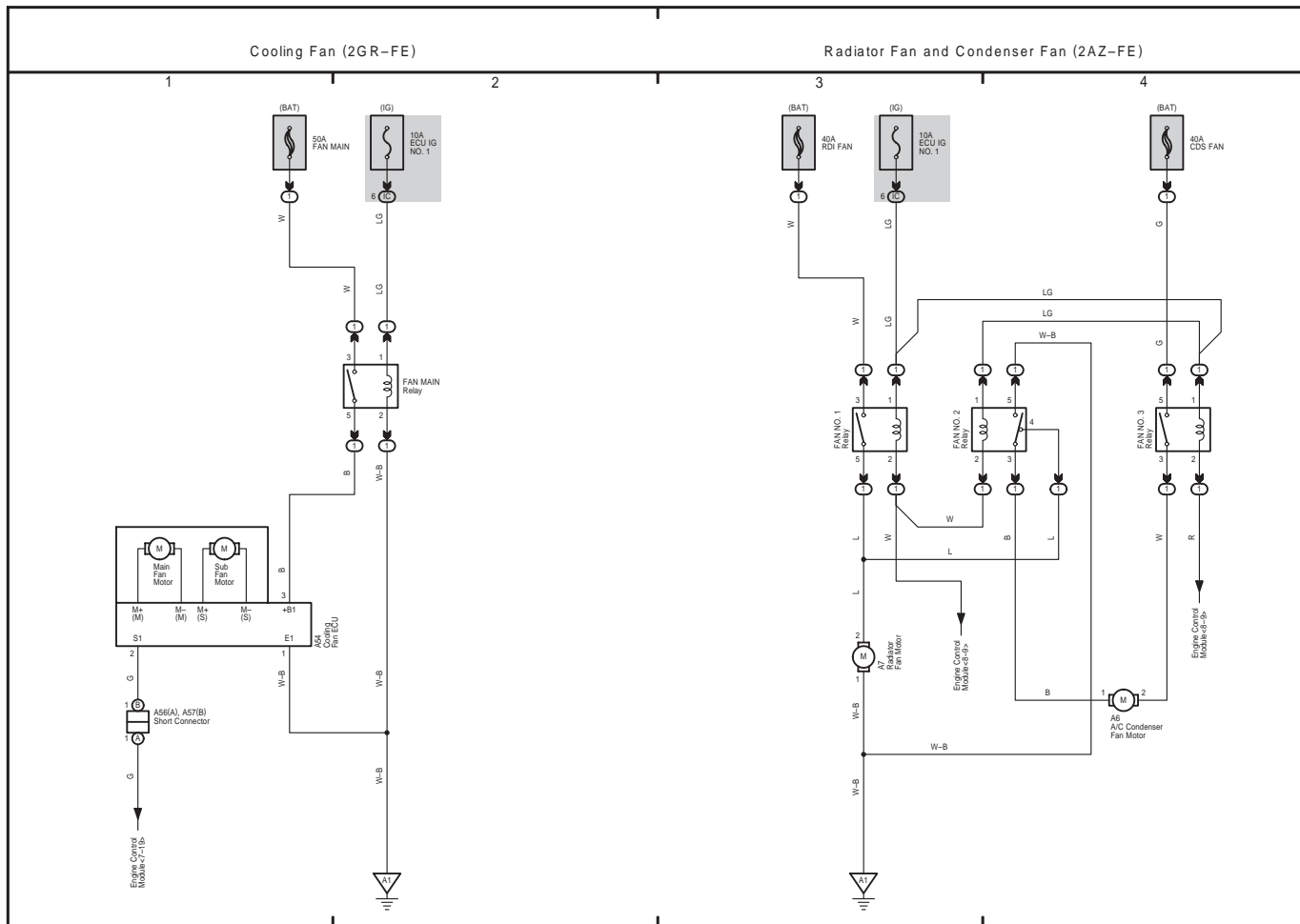
Combination Meter

5 6 7 8

CAMRY (EM0250U)



26 CAMRY

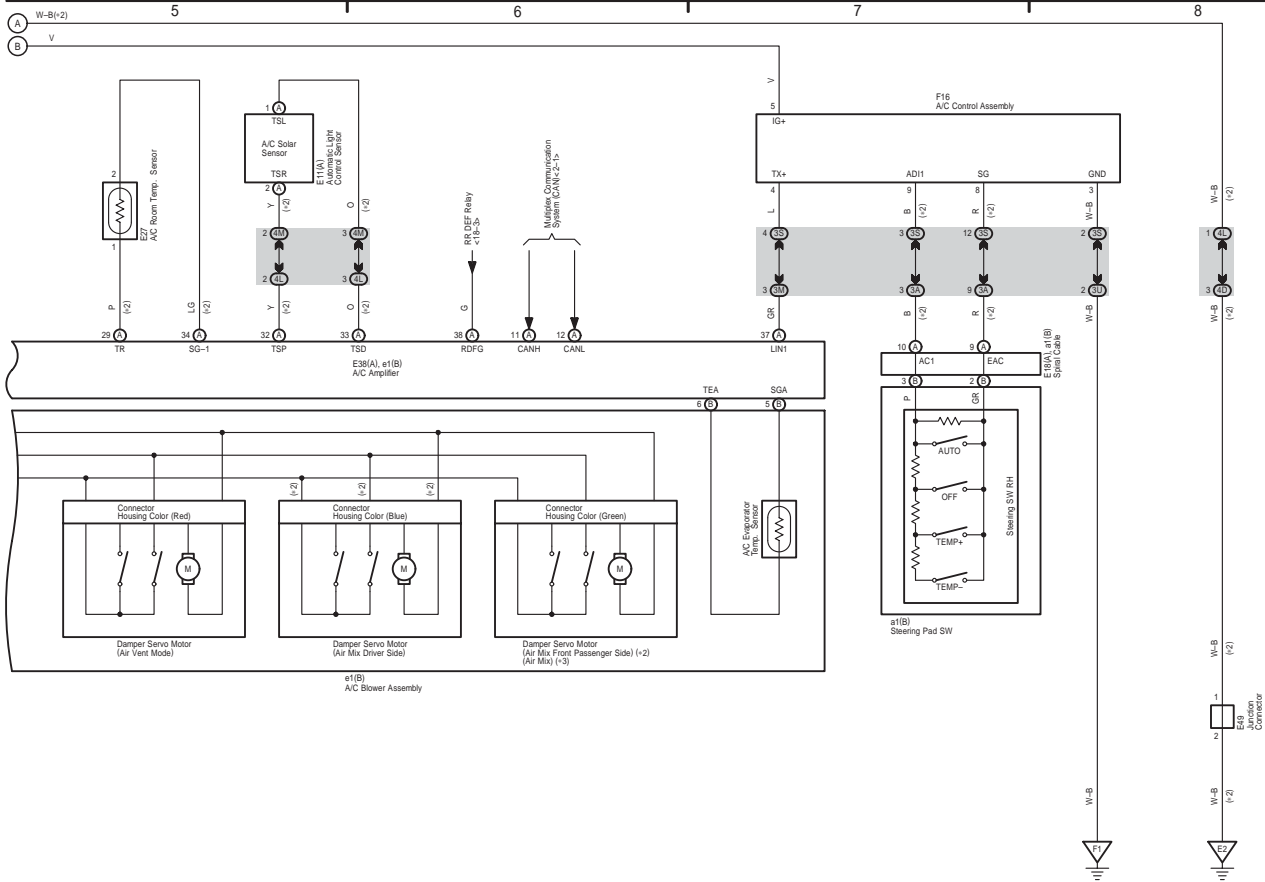


CAMRY (EM0250U)

27 CAMRY (Cont' d)

Air Conditioning

+ 2 : Automatic A/C
+ 3 : Manual A/C



CAMRY (EM0250U)