

2006 TOYOTA TACOMA

ELECTRICAL WIRING DIAGRAM

	Section Code	Page
INTRODUCTION	A	2
HOW TO USE THIS MANUAL	B	3
TROUBLESHOOTING	C	12
ABBREVIATIONS	D	17
GLOSSARY OF TERMS AND SYMBOLS	E	18
RELAY LOCATIONS	F	20
ELECTRICAL WIRING ROUTING	G	40
SYSTEM CIRCUITS	H	62
GROUND POINT	I	274
POWER SOURCE (Current Flow Chart)	J	280
CONNECTOR LIST	K	288
PART NUMBER OF CONNECTORS	L	306
OVERALL ELECTRICAL WIRING DIAGRAM .	M	310

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.

FOREWORD

This wiring diagram manual has been prepared to provide information on the electrical system of the 2006 TOYOTA TACOMA.

Applicable models: GRN225, 245, 250, 265, 270 Series
TRN220, 225, 240, 245, 260,
265 Series

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

Manual Name	Pub. No.
● 2006 TOYOTA TACOMA Repair Manual	RM01D0U
● 2006 TOYOTA New Car Features	NM0010U

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.

©2005 TOYOTA MOTOR CORPORATION

All rights reserved. This book may not be reproduced or copied, in whole or in part, without the written permission of Toyota Motor Corporation.

First Printing : Aug. 26, 2005 01-050826-00

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.)

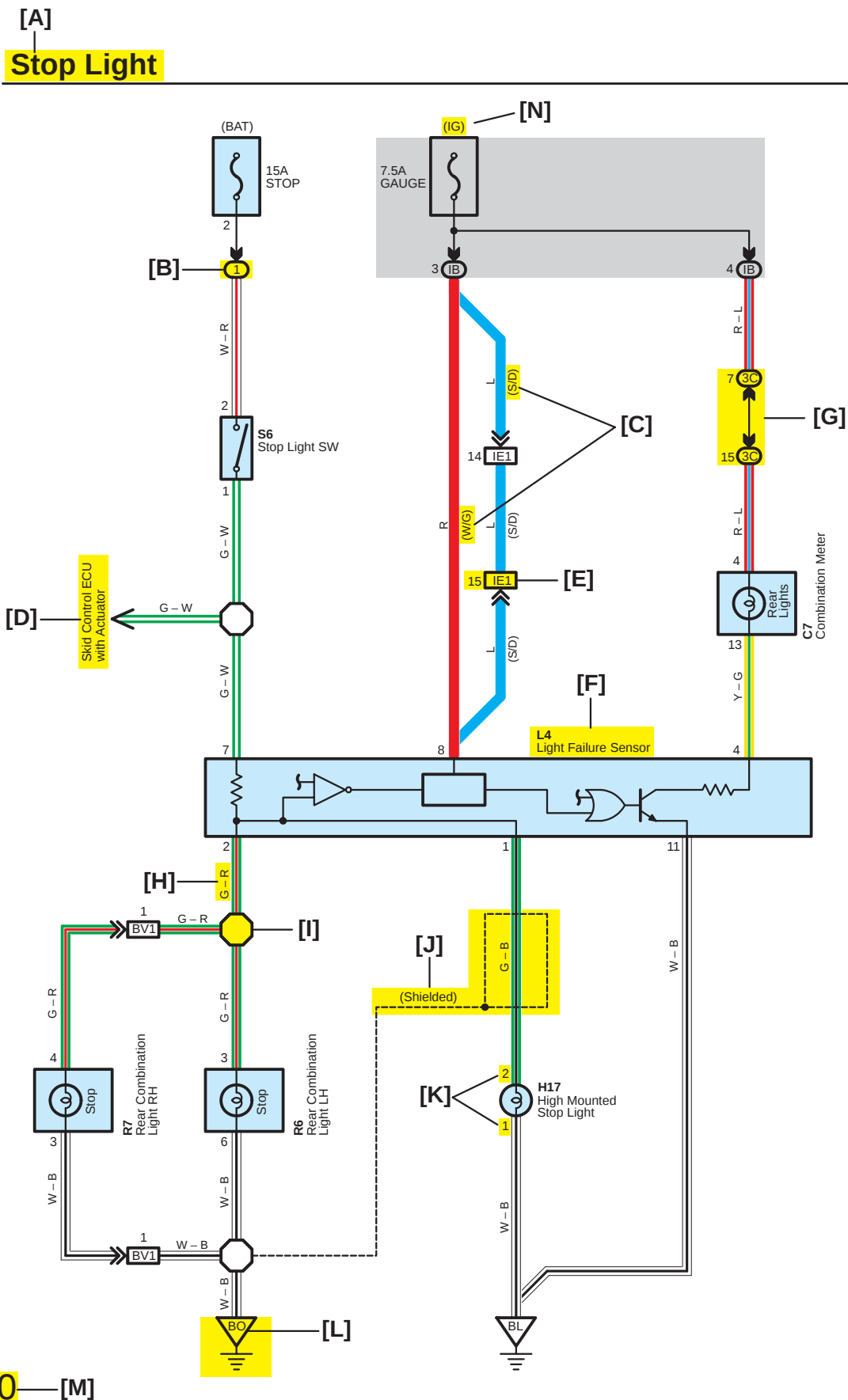
When troubleshooting any problem, first understand the operation of the circuit where the problem was detected (see System Circuit section), the power source supplying power to that circuit (see Power Source section), and the ground points (see Ground Point section). See the System Outline to understand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

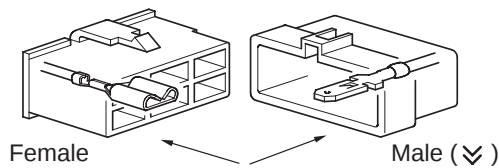
[B] : Indicates a Relay Block. No shading is used and only the Relay Block No. is shown to distinguish it from the J/B

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 wiring harness and wiring harness connector. The wiring harness with male terminal is shown with arrows (⇨). Outside numerals are pin numbers.



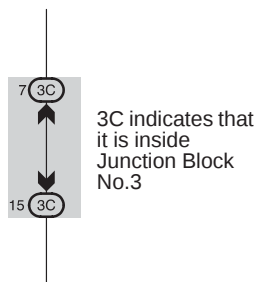
The first letter of the code for each wiring harness and wiring harness connector(s) indicates the component's location, e.g, "E" for the Engine Compartment, "I" for the Instrument Panel and Surrounding area, and "B" for the Body and Surrounding area.

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

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

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

Example:



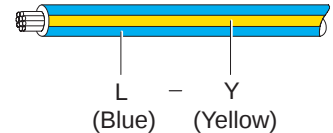
[H] : Indicates the wiring color.

Wire colors are indicated by an alphabetical code.

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

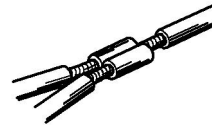
The first letter indicates the basic wire color and the second letter indicates the color of the stripe.

Example: L – Y



[I] : Indicates a wiring Splice Point

Example:



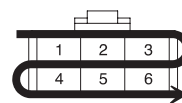
[J] : Indicates a shielded cable.



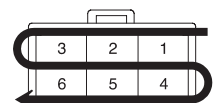
[K] : Indicates the pin number of the connector. The numbering system is different for female and male connectors.

Example: Numbered in order from upper left to lower right

Numbered in order from upper right to lower left



Female



Male

[L] : Indicates a ground point.

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

[M] : Page No.

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

B HOW TO USE THIS MANUAL

[O]

System Outline

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

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

Stop Light Disconnection Warning

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

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

[P]



: Parts Location

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

[Q]



: Relay Blocks

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

[R]



: Junction Block and Wire Harness Connector

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

[T]



: Ground Points

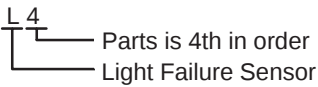
Code	See Page	Ground Points Location
BL	50	Under the Left Center Pillar
BO	50	Back Panel Center

[O] : Explains the system outline.

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

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

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

Example : L 4

Parts is 4th in order
Light Failure Sensor

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

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

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

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

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

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

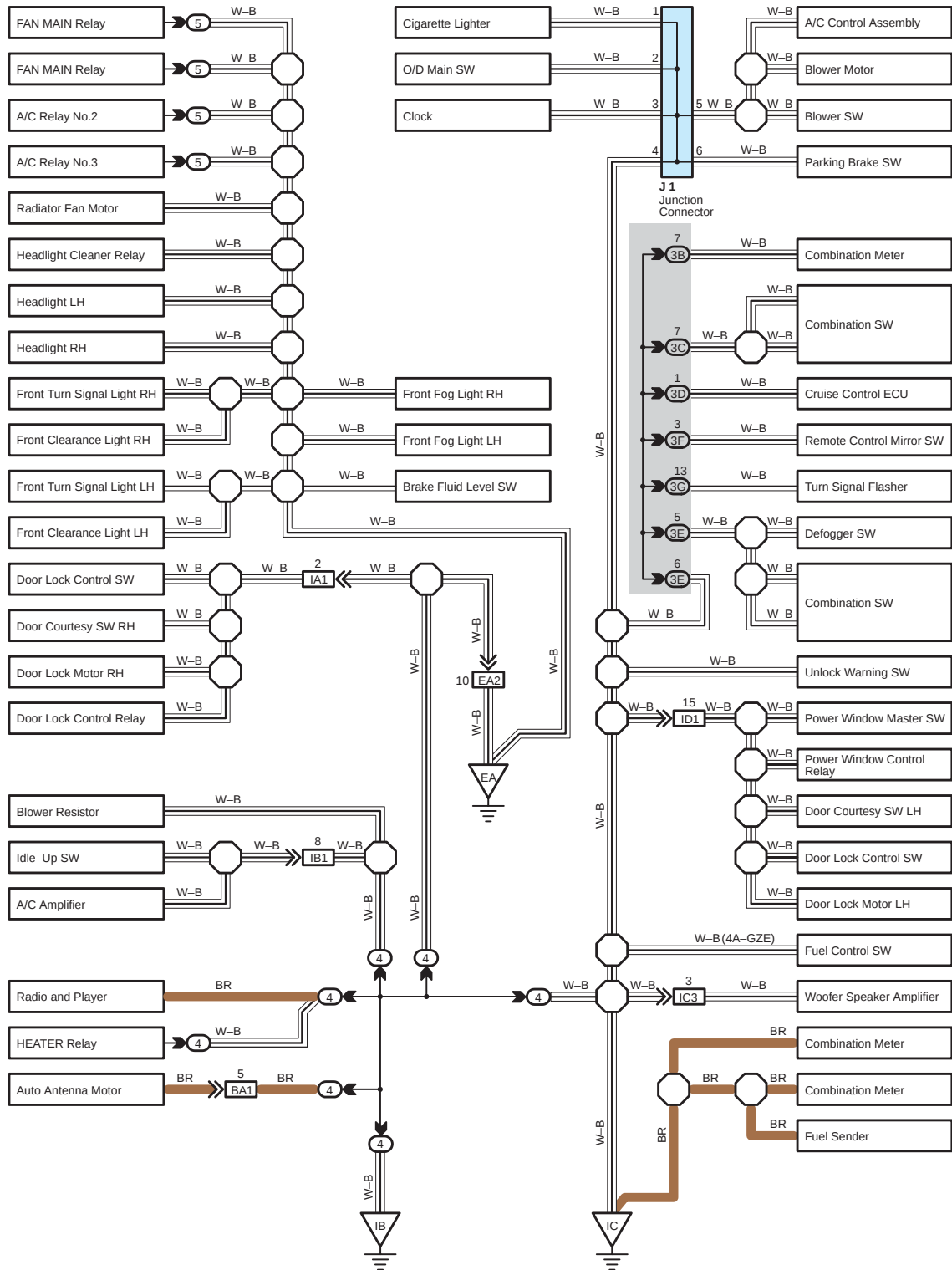
[T] : Indicates the reference page showing the position of the ground points on the vehicle.

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

B HOW TO USE THIS MANUAL

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

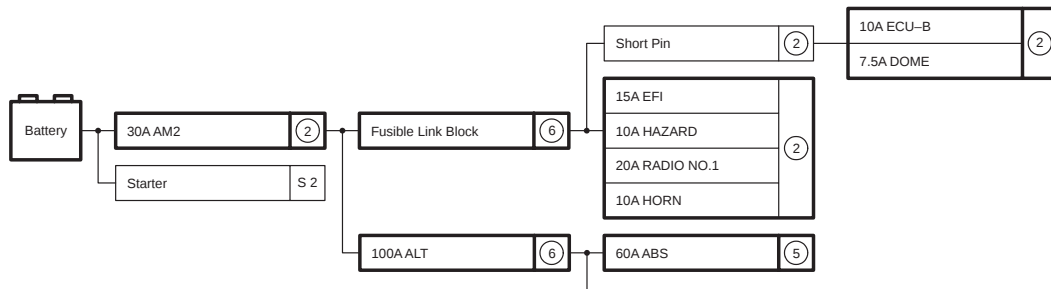
I GROUND POINT



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

J POWER SOURCE (Current Flow Chart)

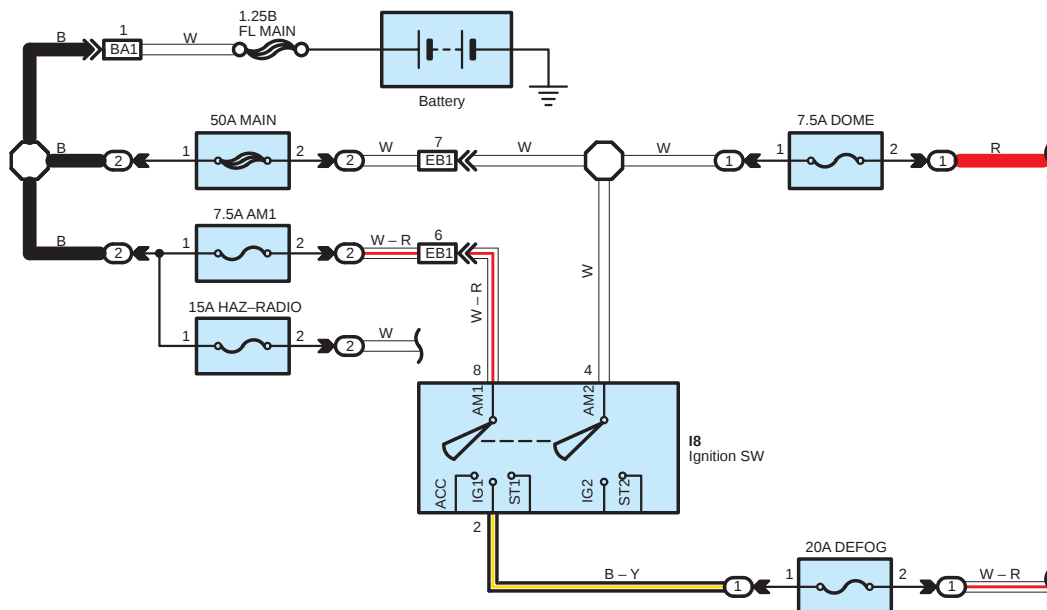
The chart below shows the route by which current flows from the battery to each electrical source (Fusible Link, Circuit Breaker, Fuses, etc.) and other parts



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	

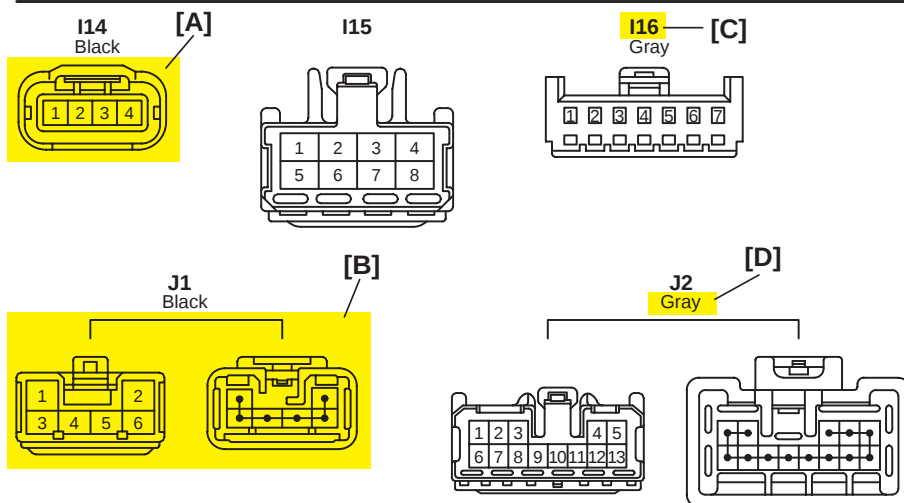
Power Source



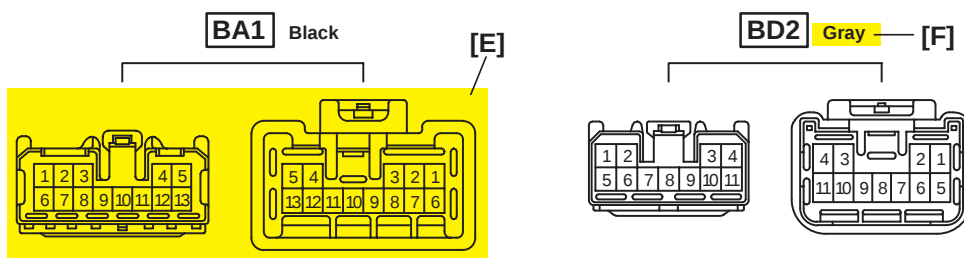
* The system shown here is an EXAMPLE ONLY. It is different to the actual circuit shown in the SYSTEM CIRCUITS SECTION.

B HOW TO USE THIS MANUAL

K CONNECTOR LIST

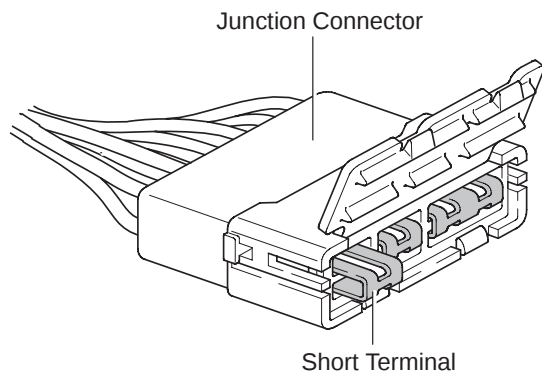


K CONNECTOR LIST



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

[A] : Part Code

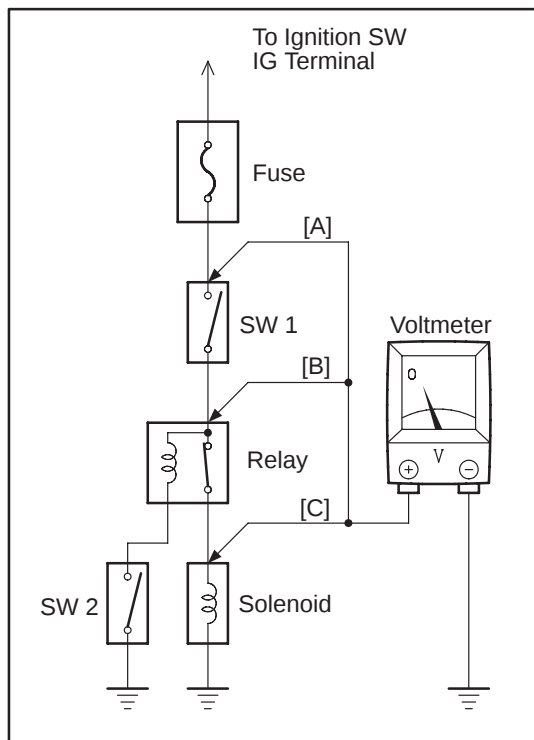
[B] : Part Name

[C] : Part Number

Toyota Part Number are indicated.

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

C TROUBLESHOOTING



VOLTAGE CHECK

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

Example:

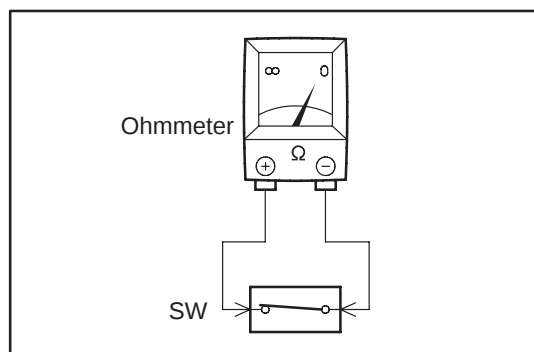
[A] – Ignition SW on

[B] – Ignition SW and SW 1 on

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

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

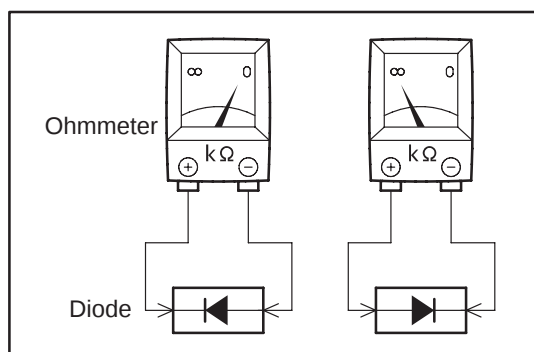
This check can be done with a test light instead of a voltmeter.



CONTINUITY AND RESISTANCE CHECK

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

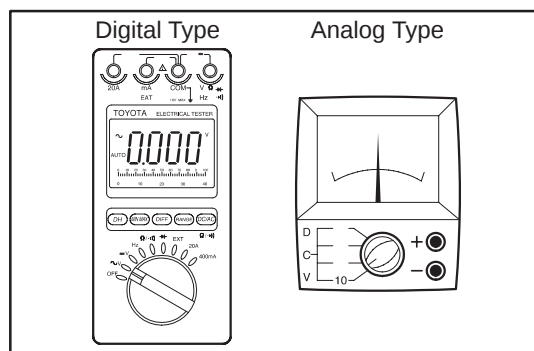
- (b) Contact the two leads of an ohmmeter to each of the check points.



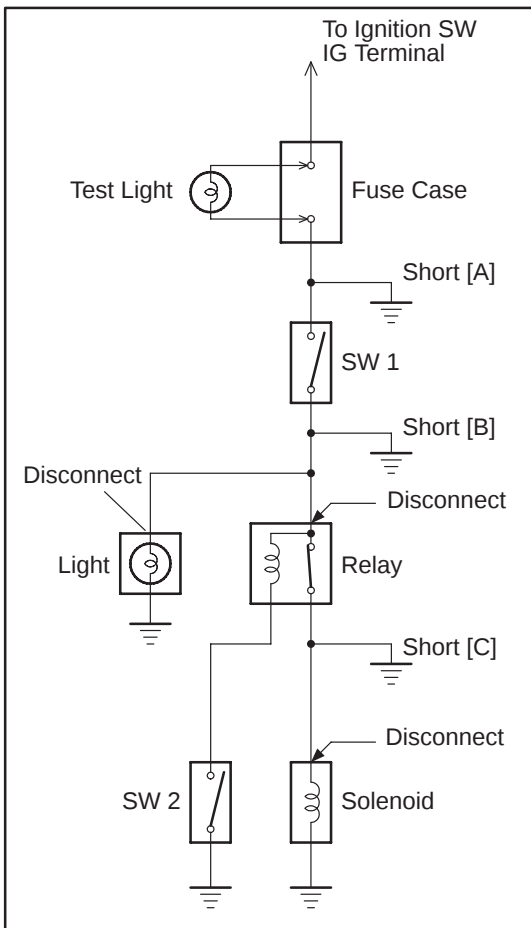
If the circuit has diodes, reverse the two leads and check again.

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

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



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



FINDING A SHORT CIRCUIT

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

Example:

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

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

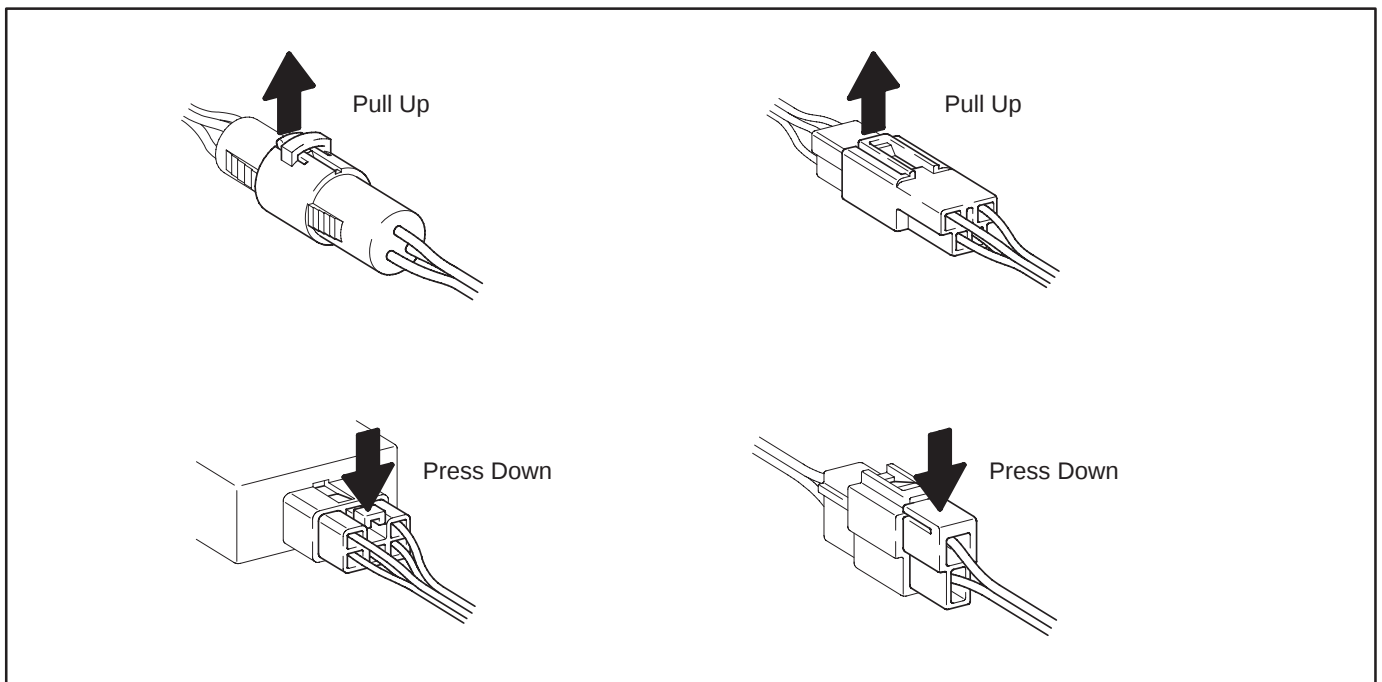
CAUTION:

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

DISCONNECTION OF MALE AND FEMALE CONNECTORS

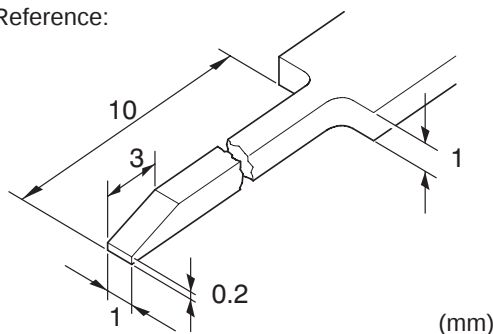
To pull apart the connectors, pull on the connector itself, not the wire harness.

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



C TROUBLESHOOTING

Reference:



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

1. PREPARE THE SPECIAL TOOL

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

2. DISCONNECT CONNECTOR

3. DISENGAGE THE SECONDARY LOCKING DEVICE OR TERMINAL RETAINER.

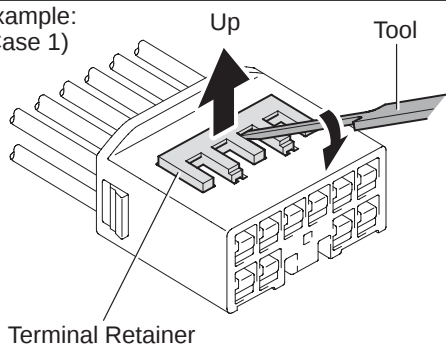
(a) Locking device must be disengaged before the terminal locking clip can be released and the terminal removed from the connector.

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

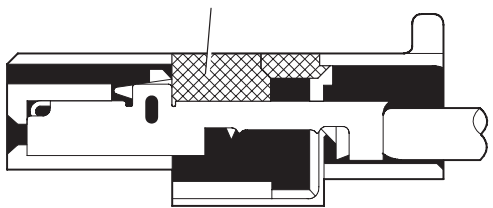
NOTICE:

Do not remove the terminal retainer from connector body.

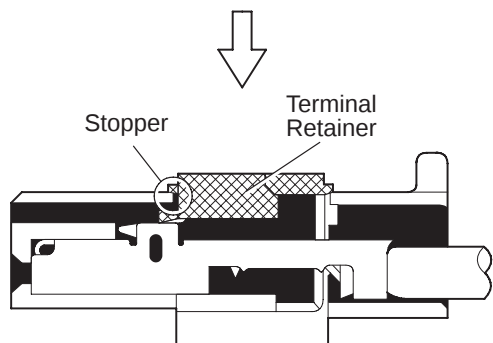
Example:
(Case 1)



Terminal Retainer



[Retainer at Full Lock Position]



[Retainer at Temporary Lock Position]

[A] For Non-Waterproof Type Connector

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

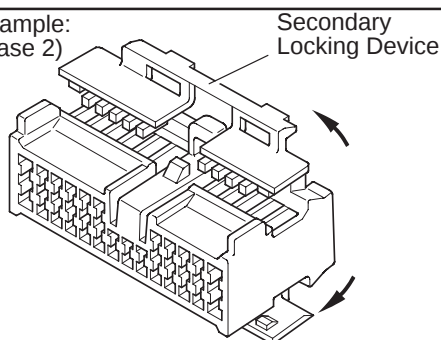
"Case 1"

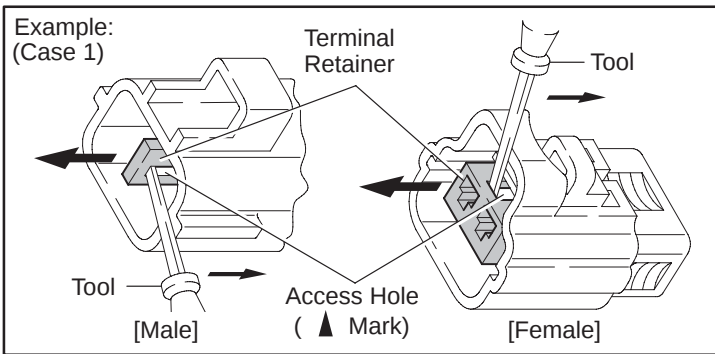
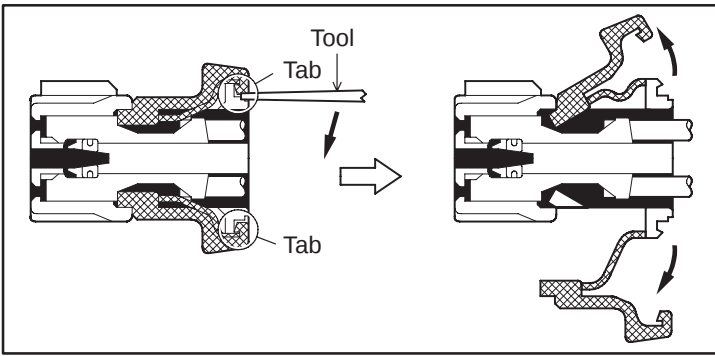
Raise the terminal retainer up to the temporary lock position.

"Case 2"

Open the secondary locking device.

Example:
(Case 2)





[B] For Waterproof Type Connector

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

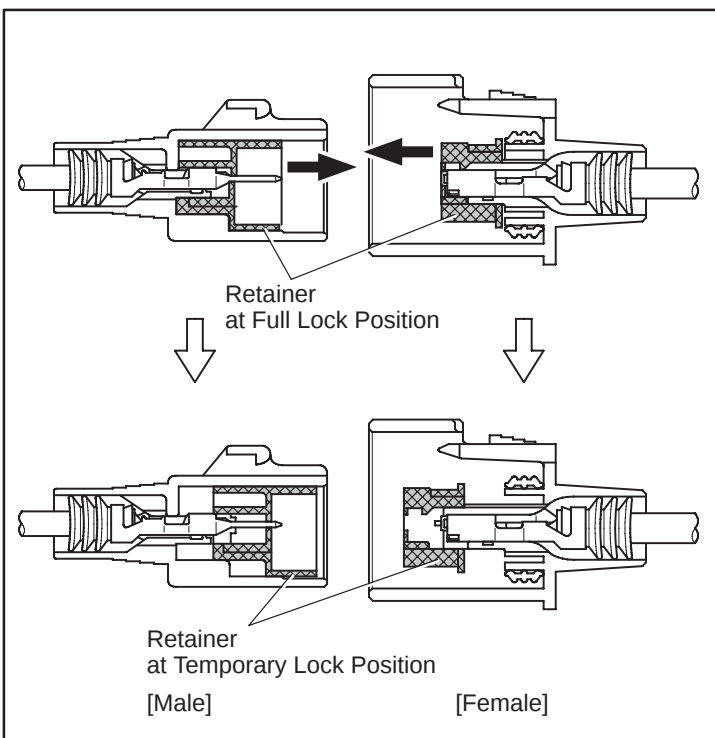
Example:

Terminal Retainer : Connector Body

Black or White : Gray

Black or White : Dark Gray

Gray or White : Black

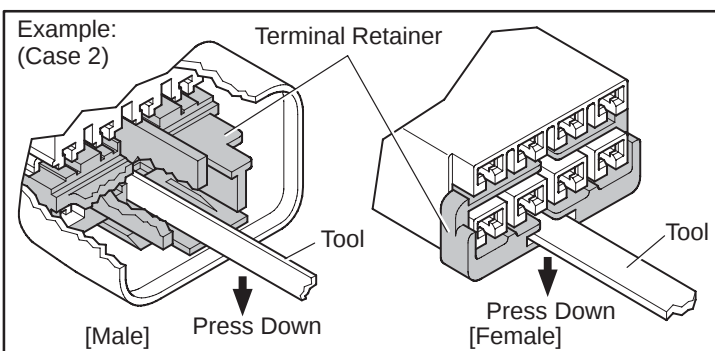


"Case 1"

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

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

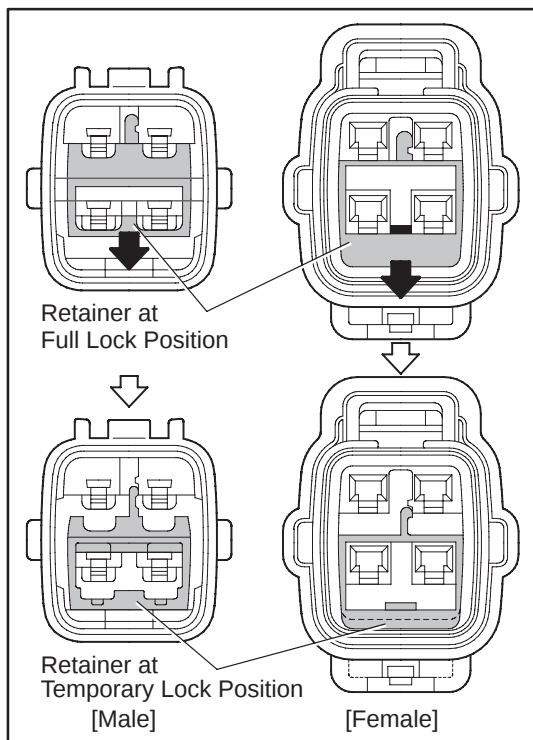
HINT : The needle insertion position varies according to the connector's shape (Number of terminals etc.), so check the position before inserting it.



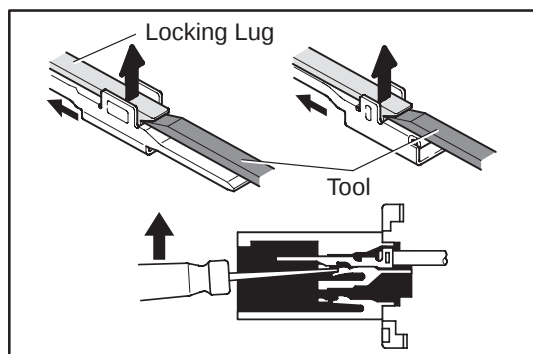
"Case 2"

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

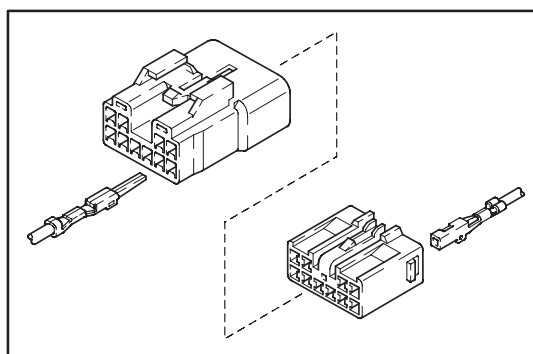
C TROUBLESHOOTING



Push the terminal retainer down to the temporary lock position.



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

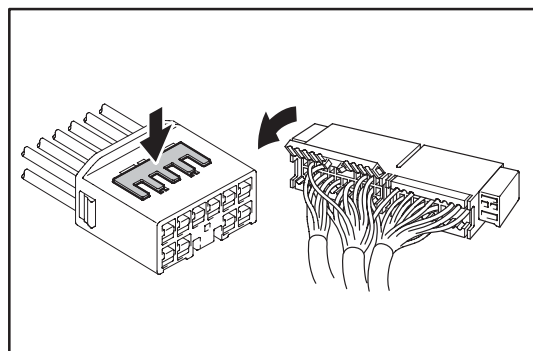


4. INSTALL TERMINAL TO CONNECTOR

(a) Insert the terminal.

HINT:

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



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

5. CONNECT CONNECTOR

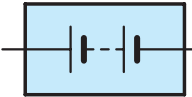
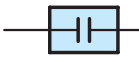
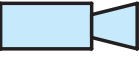
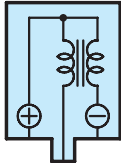
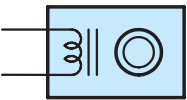
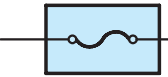
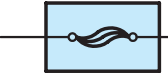
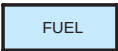
ABBREVIATIONS

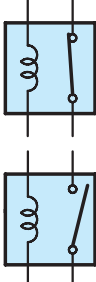
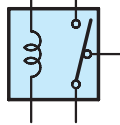
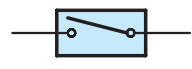
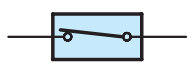
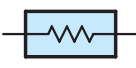
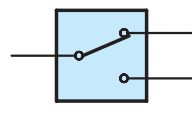
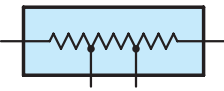
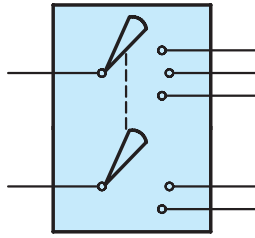
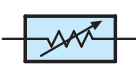
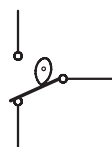
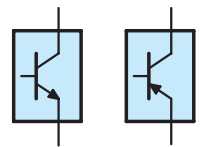
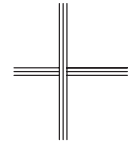
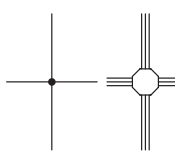
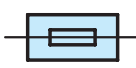
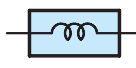
The following abbreviations are used in this manual.

2WD	=	Two Wheel Drive Vehicles
4WD	=	Four Wheel Drive Vehicles
A/C	=	Air Conditioning
A/T	=	Automatic Transmission
ABS	=	Anti-Lock Brake System
AC	=	Alternating Current
ACIS	=	Acoustic Control Induction System
ADD	=	Automatic Disconnecting Differential
CAN	=	Controller Area Network
DIFF.	=	Differential
EC	=	Electrochromic
ECU	=	Electronic Control Unit
ESA	=	Electronic Spark Advance
ETCS-i	=	Electronic Throttle Control System-intelligent
IC	=	Integrated Circuit
INT	=	Intermittent
J/B	=	Junction Block
LH	=	Left-Hand
LSD	=	Limited Slip Differential
M/T	=	Manual Transmission
R/B	=	Relay Block
RH	=	Right-Hand
SFI	=	Sequential Multiport Fuel Injection
SRS	=	Supplemental Restraint System
SW	=	Switch
TEMP.	=	Temperature
TRAC	=	Traction Control
TVIP	=	TOYOTA Vehicle Intrusion Protection
VSC	=	Vehicle Stability Control
VSV	=	Vacuum Switching Valve
VVT	=	Variable Valve Timing
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.

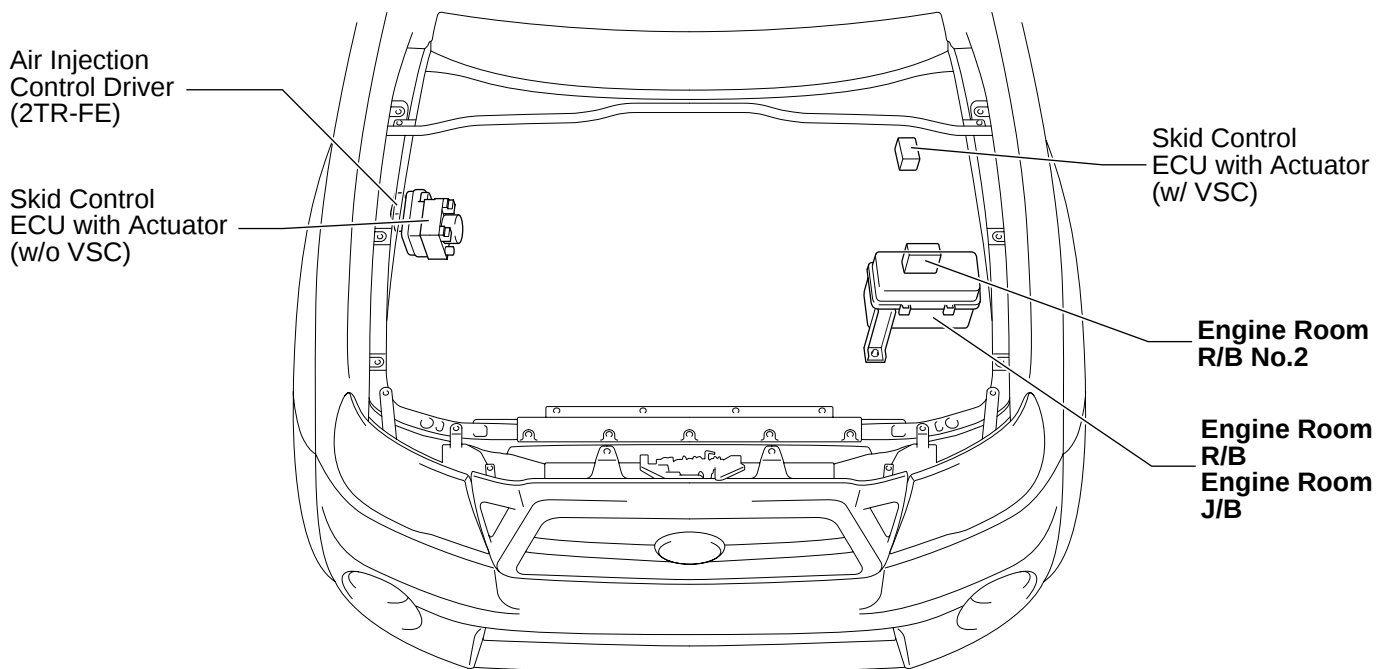
E GLOSSARY OF TERMS AND SYMBOLS

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

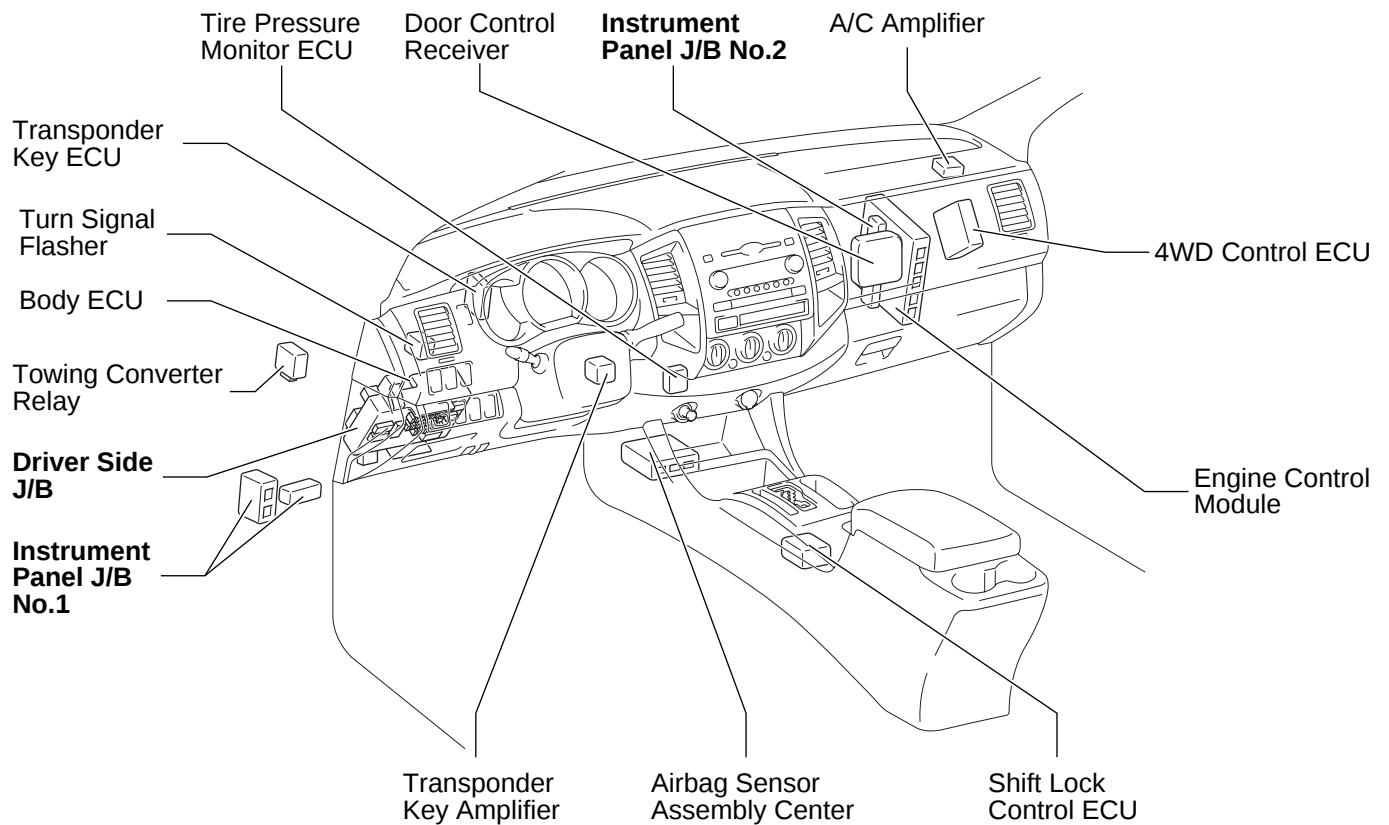
 RELAY Basically, an electrically operated switch which may be normally closed (1) or open (2). Current flow through a small coil creates a magnetic field which either opens or closes an attached switch. 1. NORMALLY CLOSED 2. NORMALLY OPEN	 SPEAKER An electromechanical device which creates sound waves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

F RELAY LOCATIONS

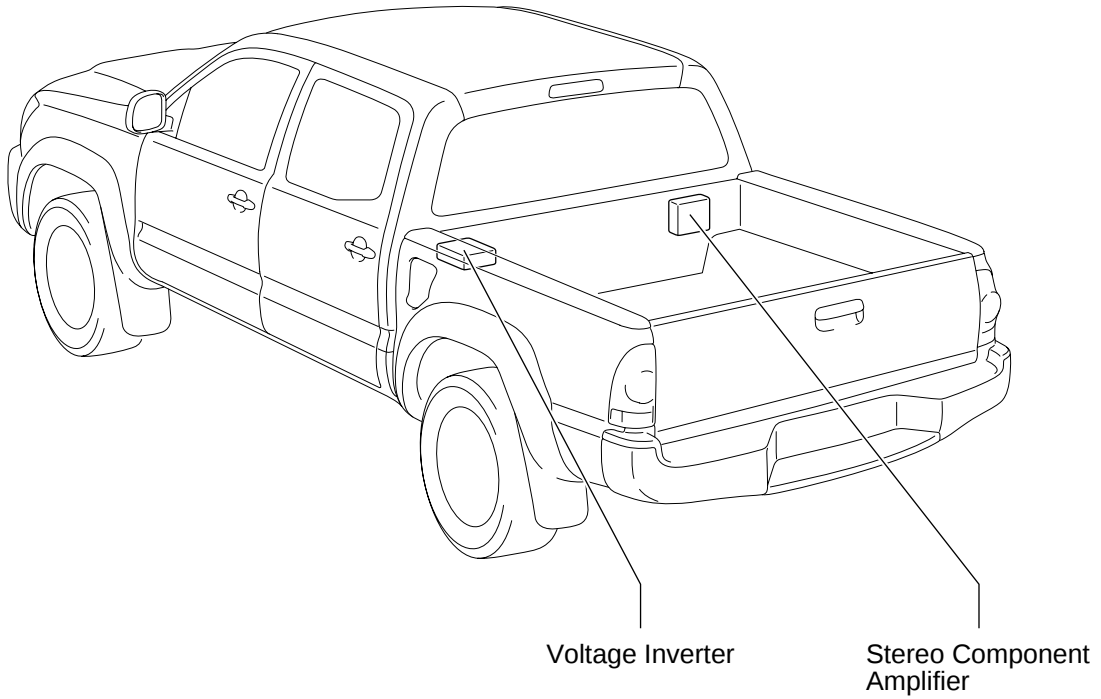
[Engine Compartment]



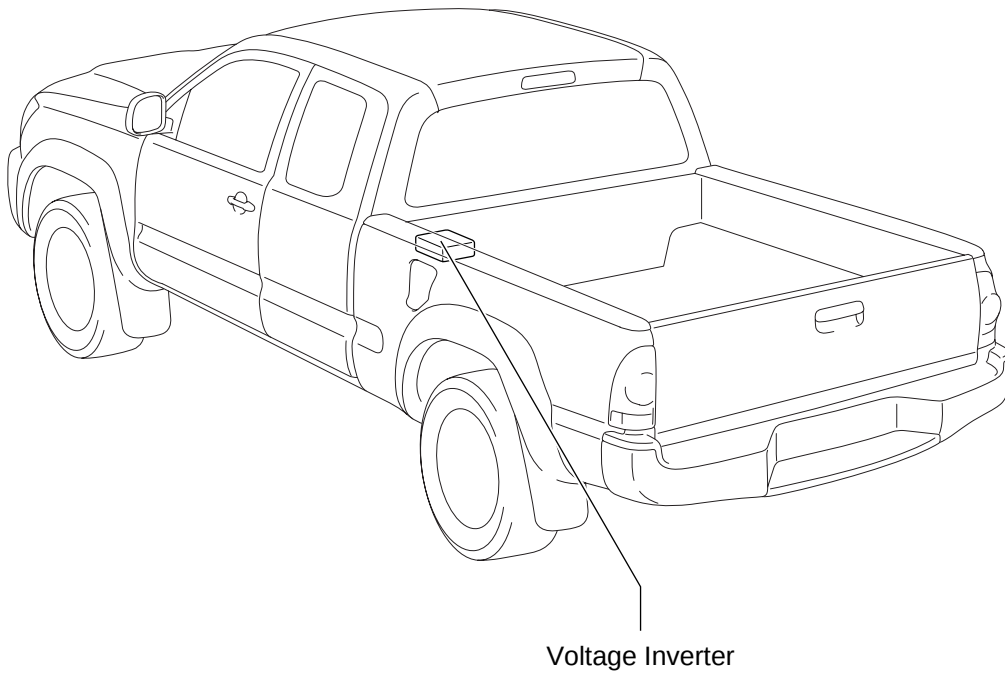
[Instrument Panel]



**[Body]
(Double Cab)**

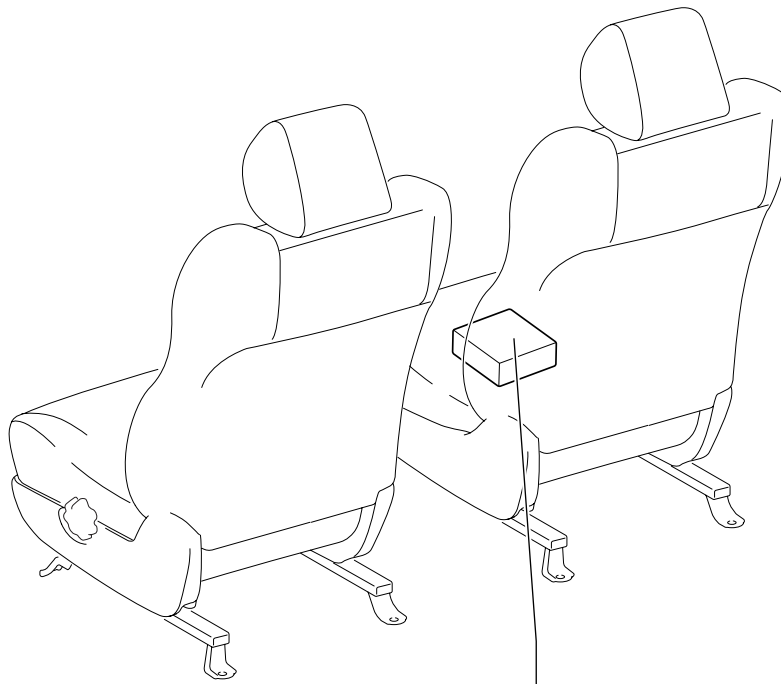


(Access Cab)



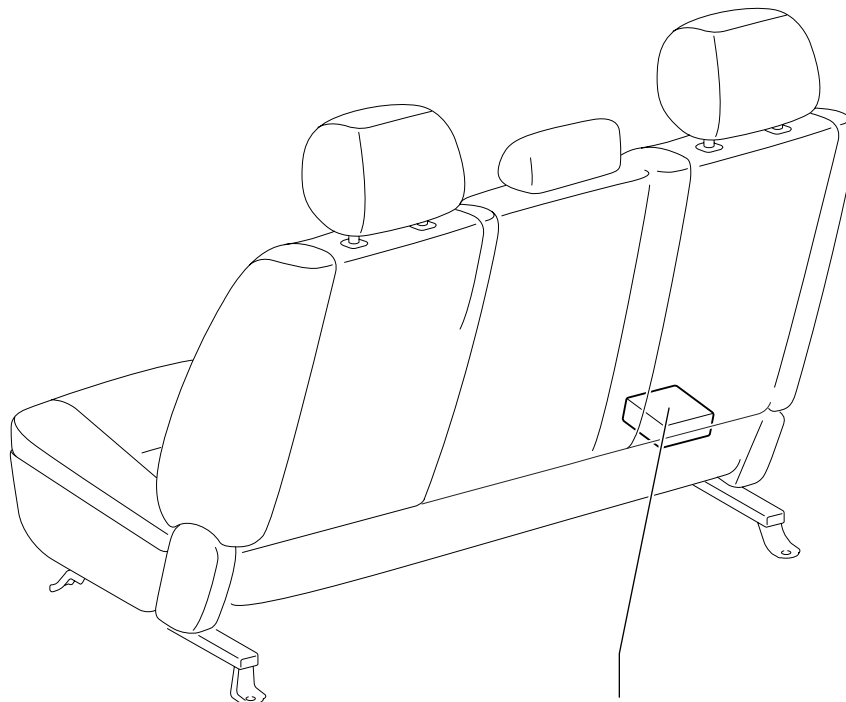
F RELAY LOCATIONS

[Seat]
(Separate Seat)



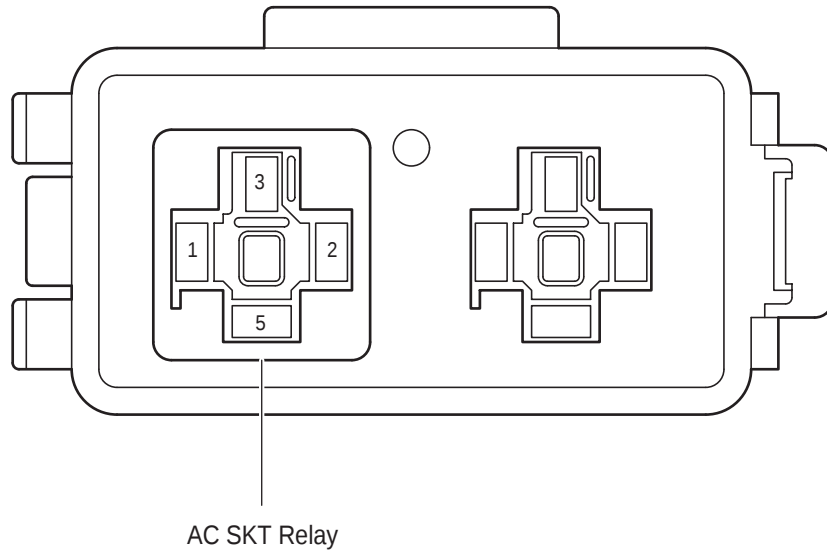
Occupant Classification ECU

(Bench Seat)



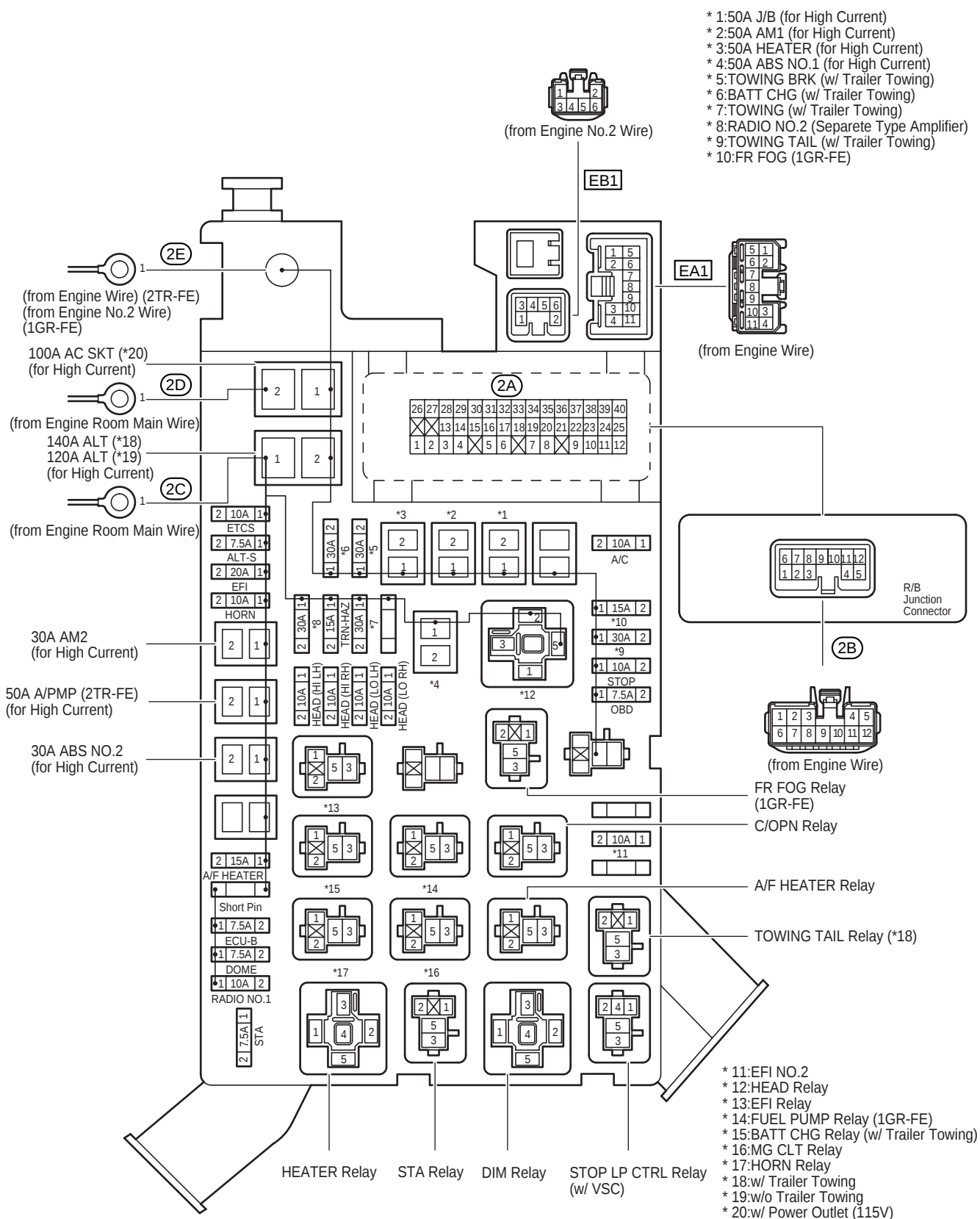
Occupant Classification ECU

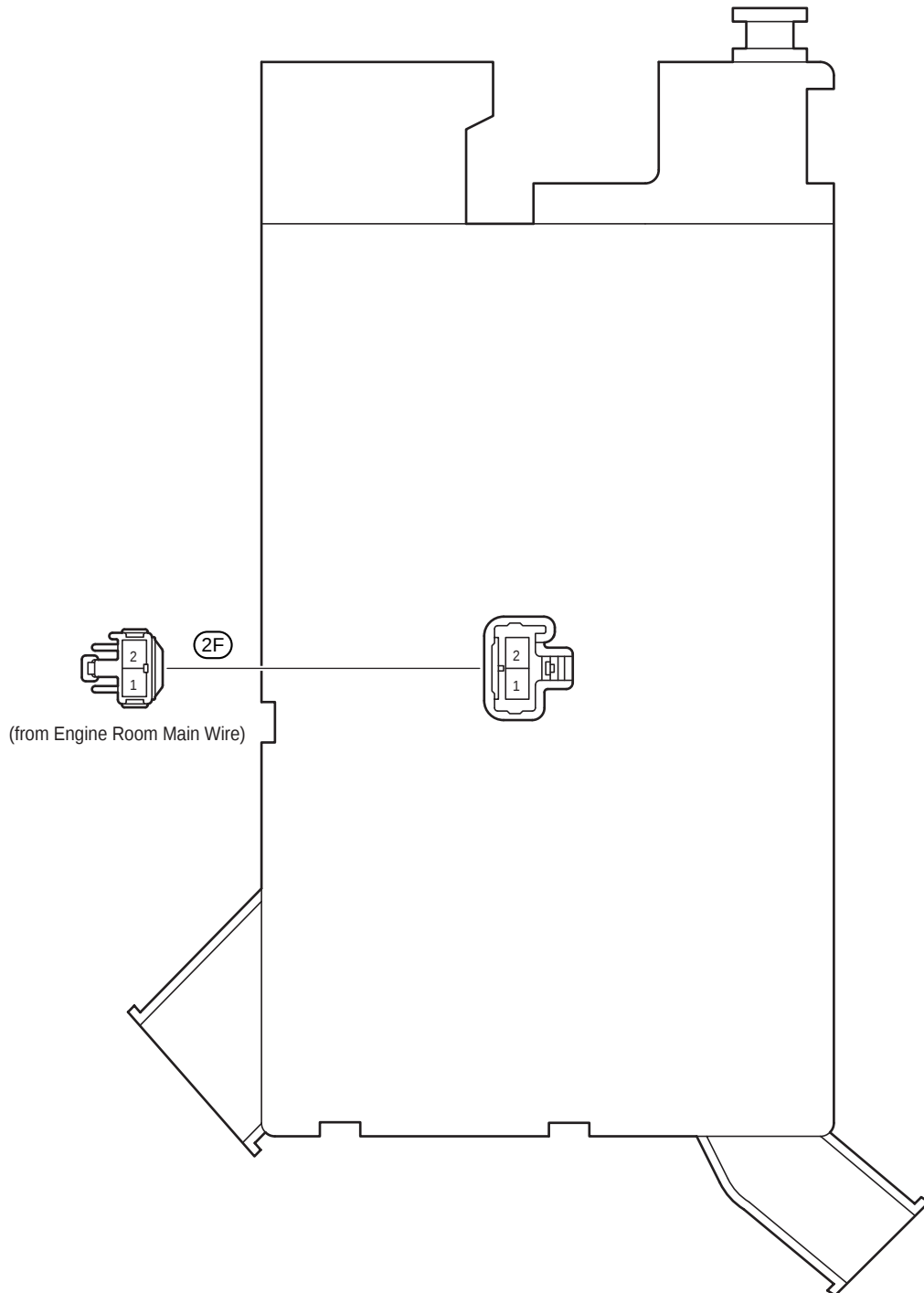
③ : Engine Room R/B No.2	Engine Compartment Left (See Page 20)
--------------------------	---------------------------------------



F RELAY LOCATIONS

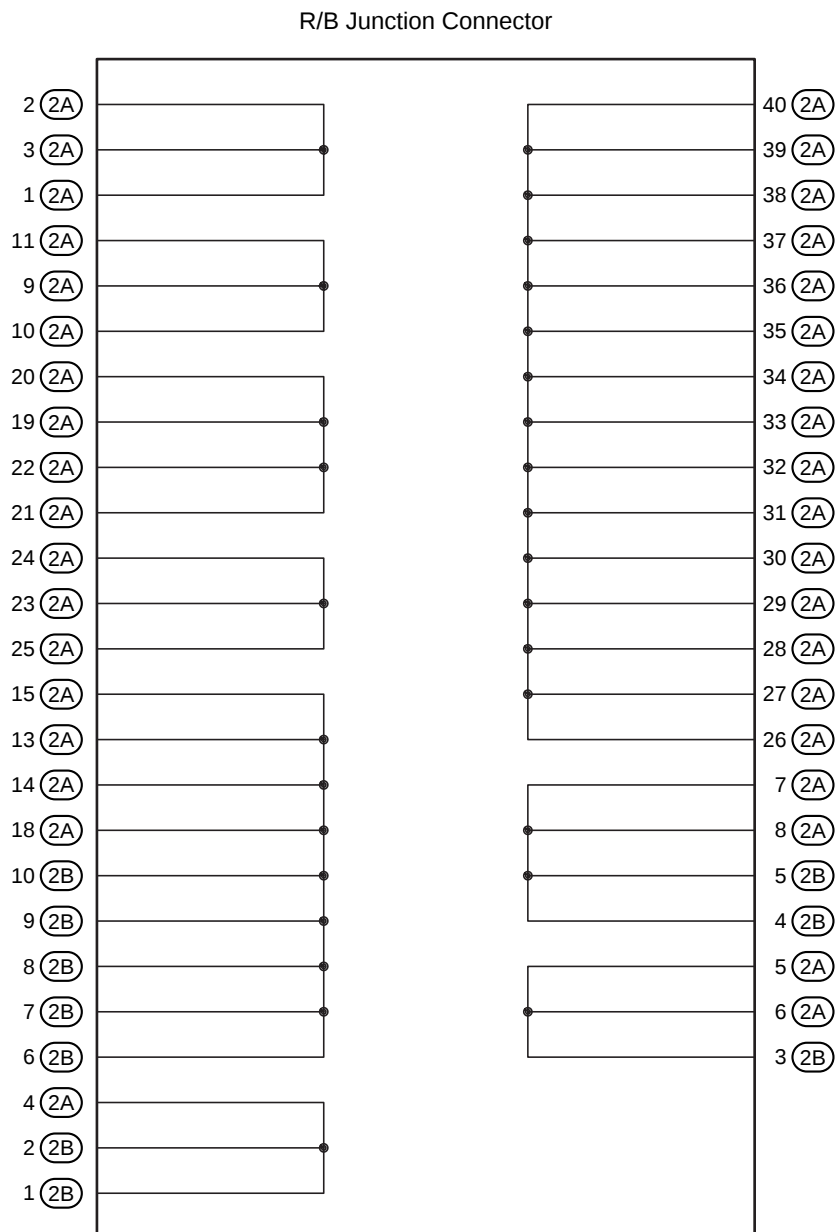
② : Engine Room R/B	Engine Compartment Left (See Page 20)
○ : Engine Room J/B	





F RELAY LOCATIONS

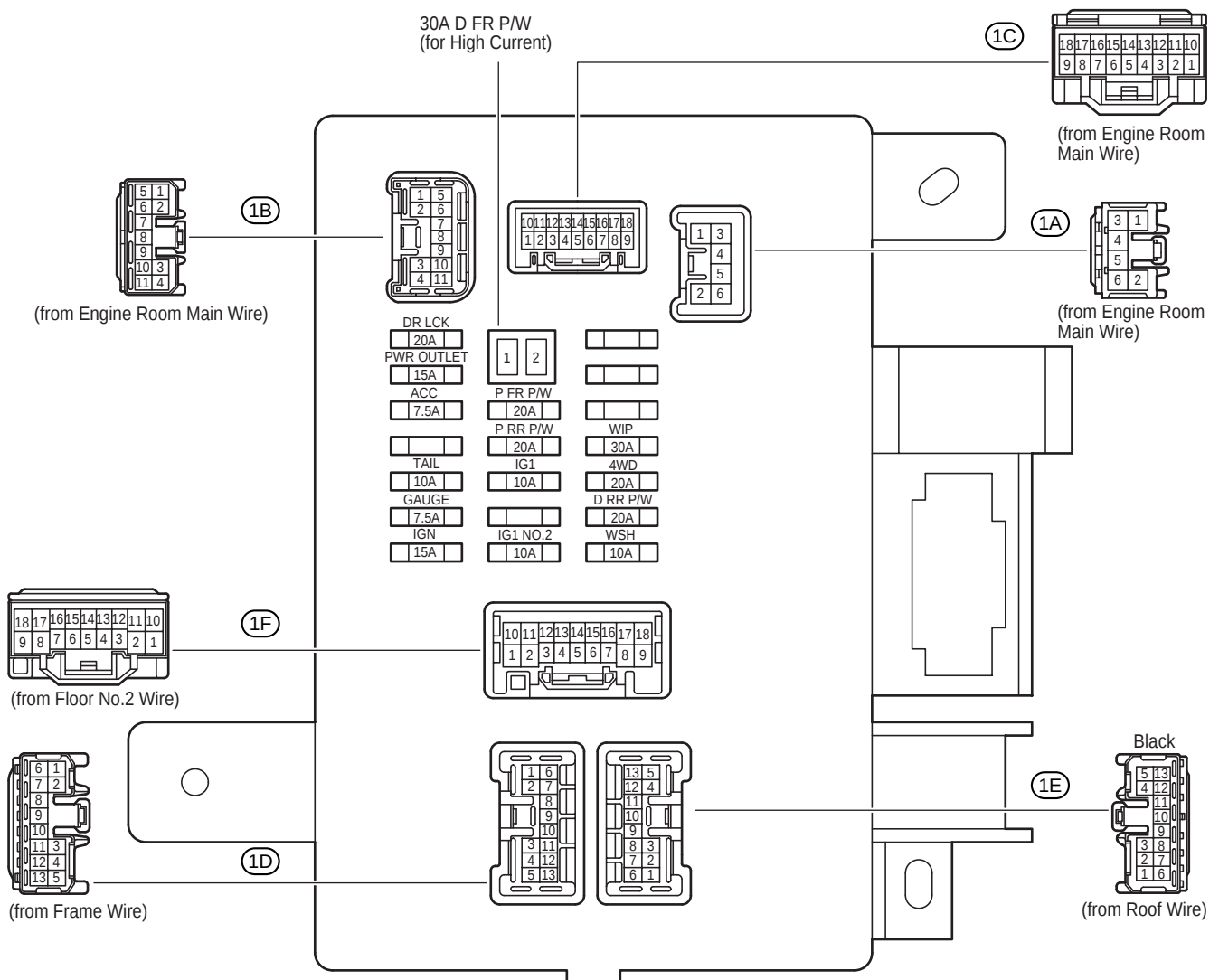
[Engine Room R/B Junction Connector Inner Circuit]

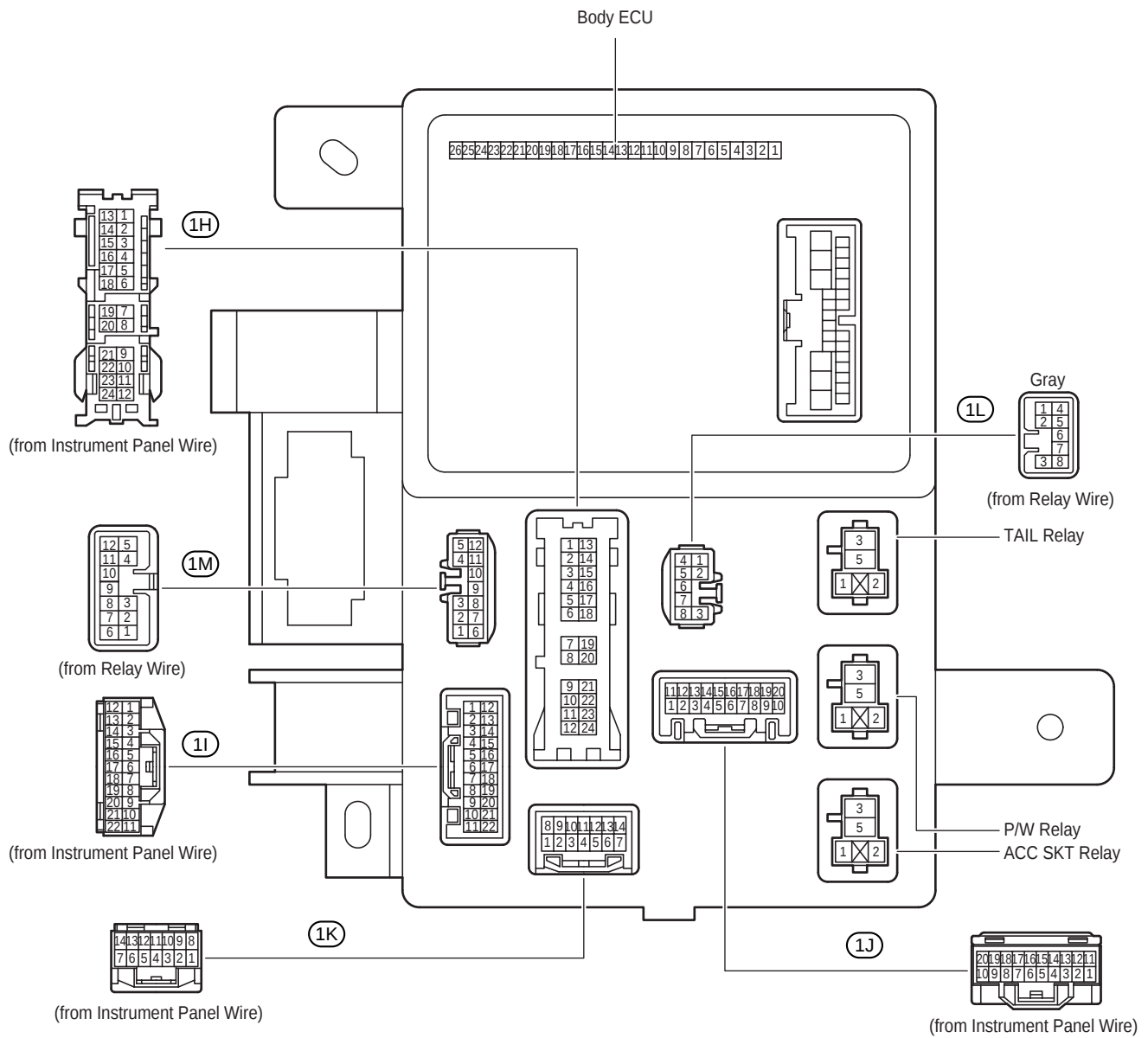


F RELAY LOCATIONS

○ : Driver Side J/B

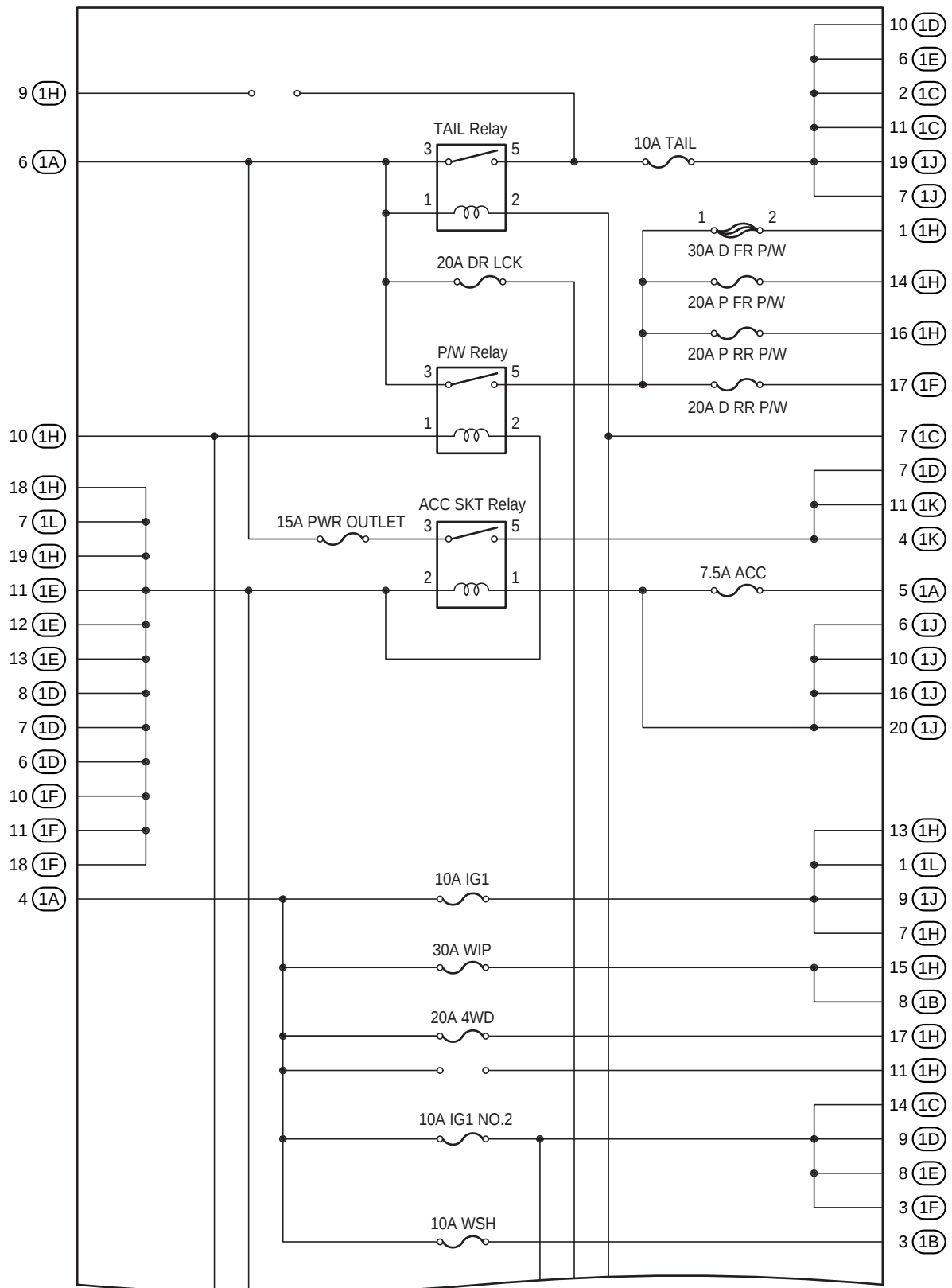
Lower Finish Panel (See Page 20)





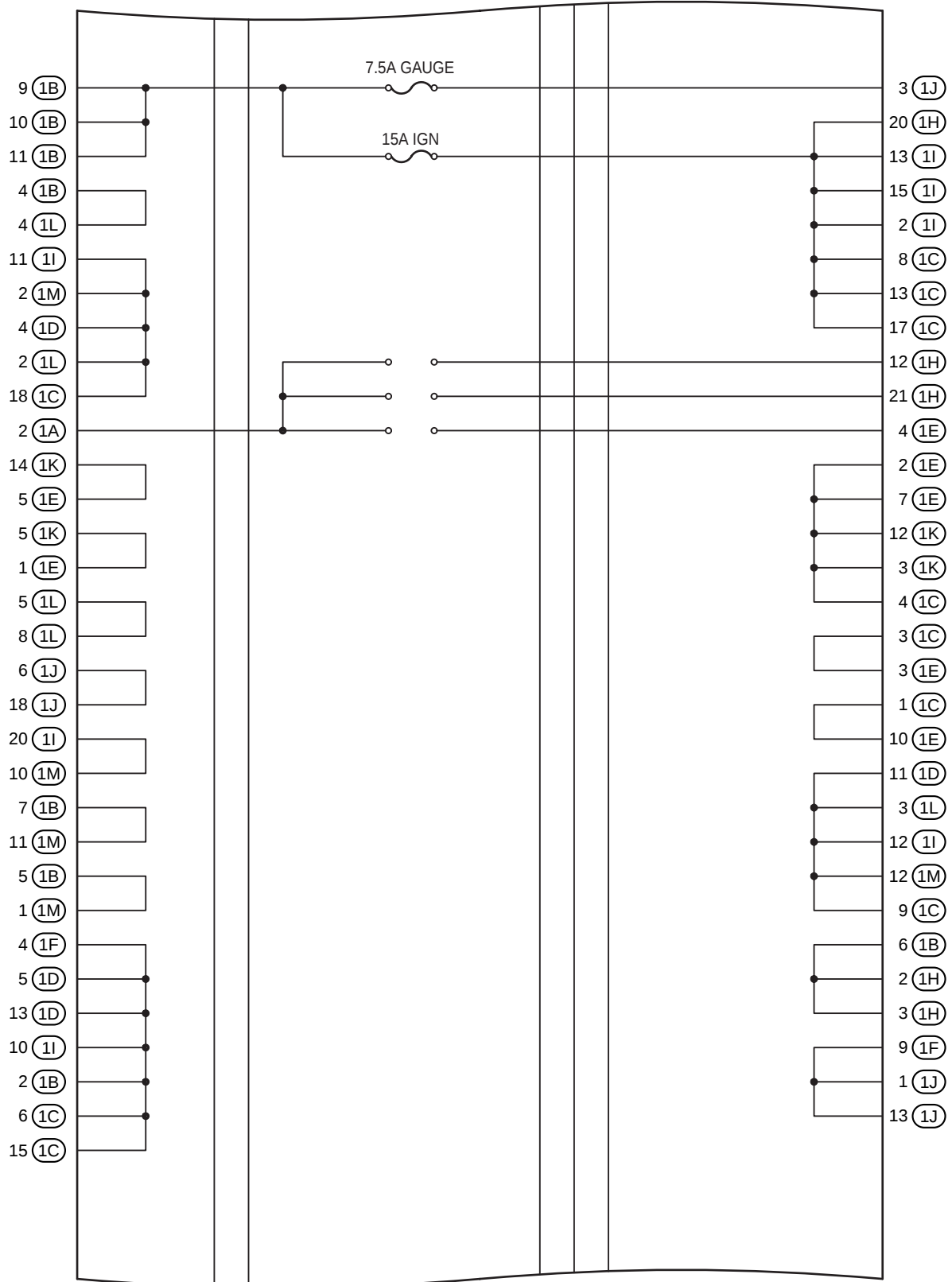
F RELAY LOCATIONS

[Driver Side J/B Inner Circuit]



(Cont. Next Page)

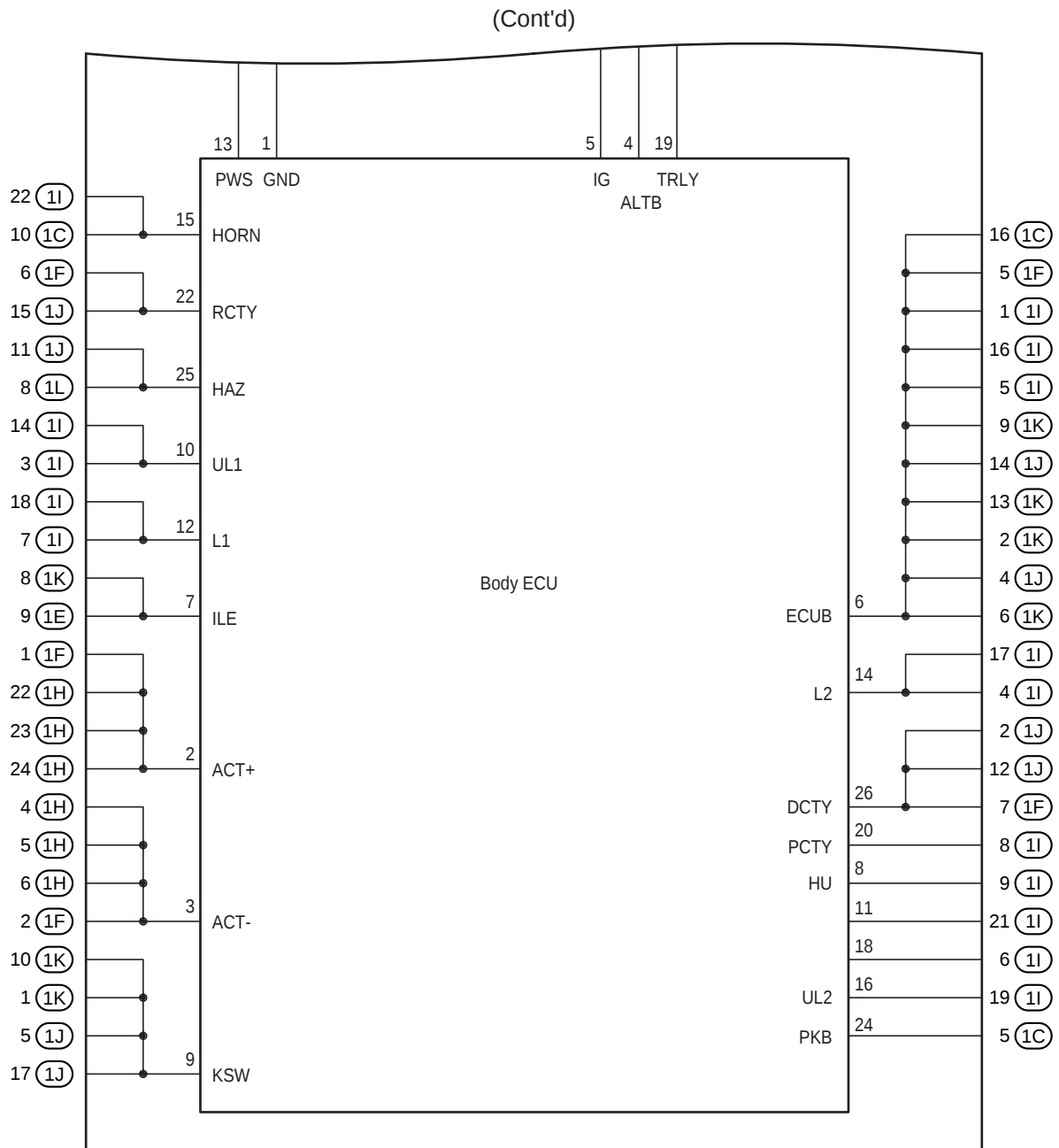
(Cont'd)



(Cont. Next Page)

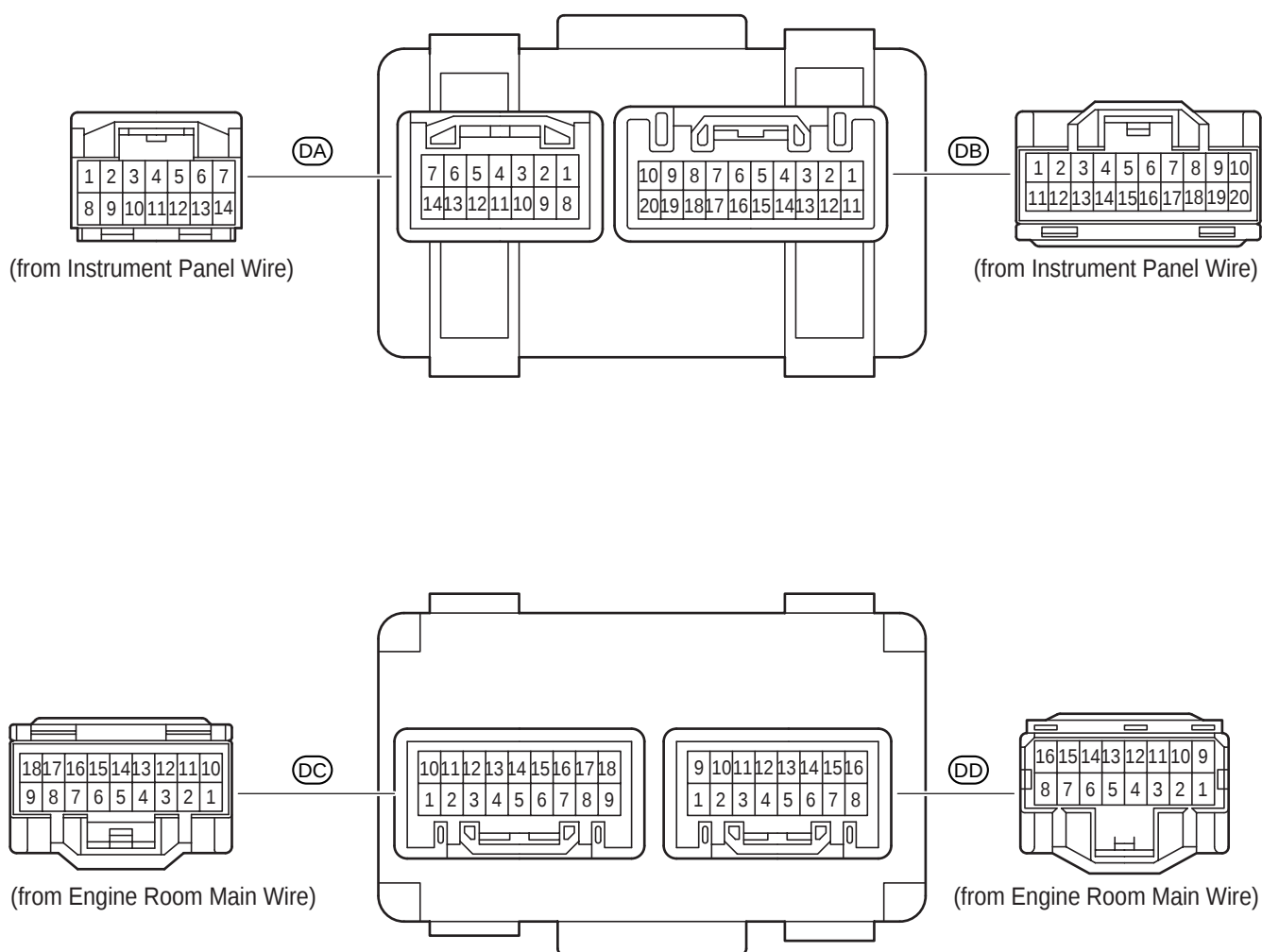
F RELAY LOCATIONS

[Driver Side J/B Inner Circuit]

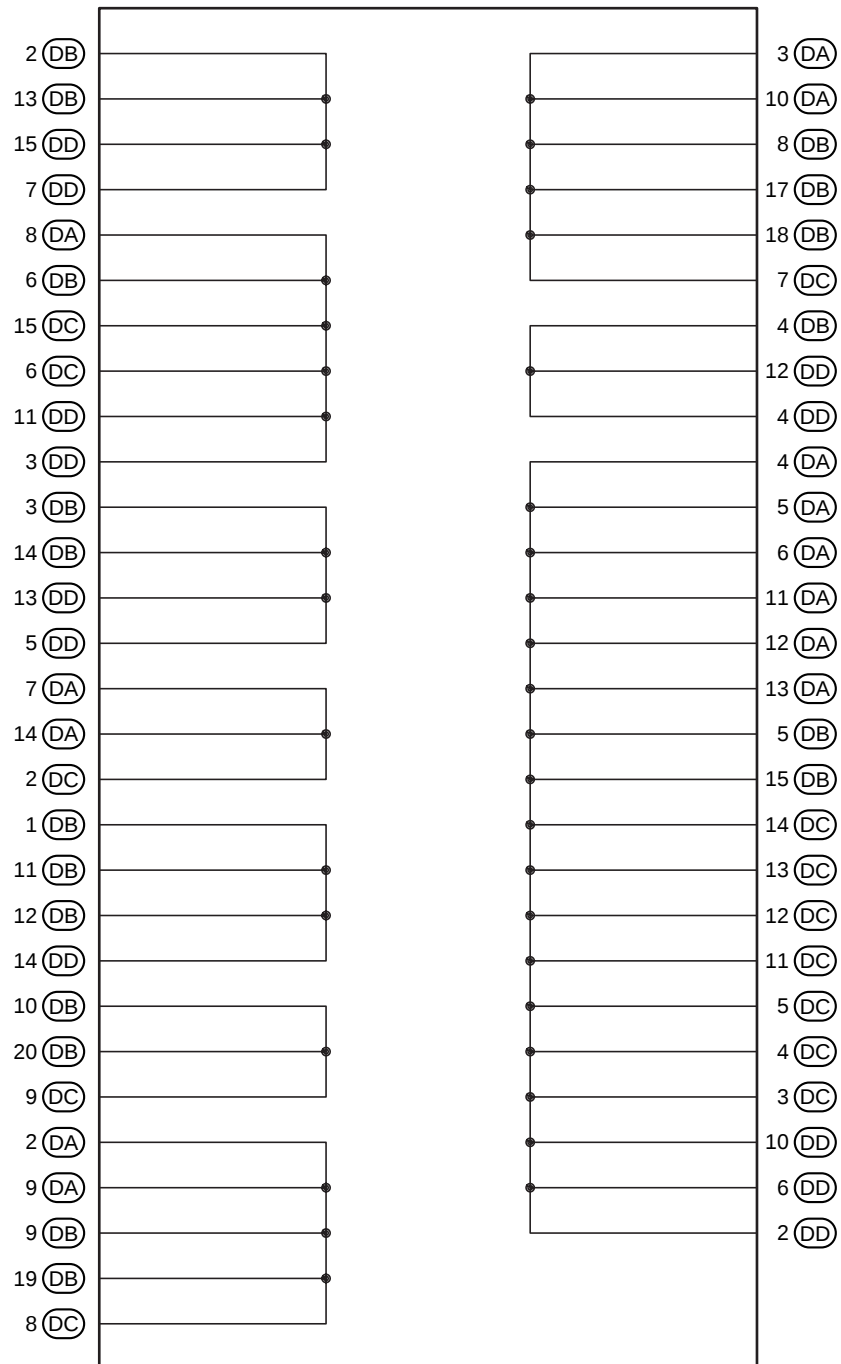


F RELAY LOCATIONS

 : Instrument Panel J/B No.1 Left Kick Panel (See Page 20)

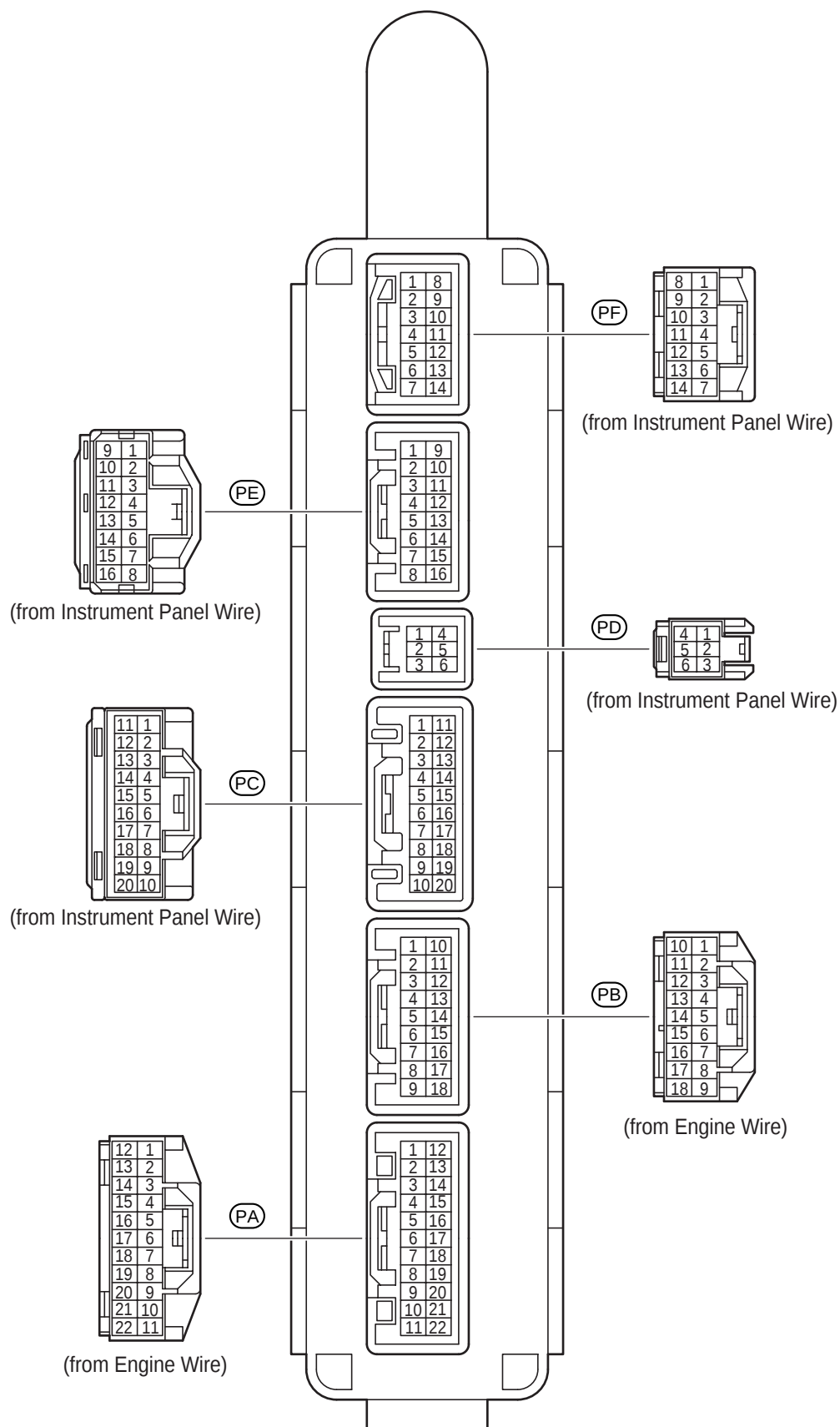


[Instrument Panel J/B No.1 Inner Circuit]



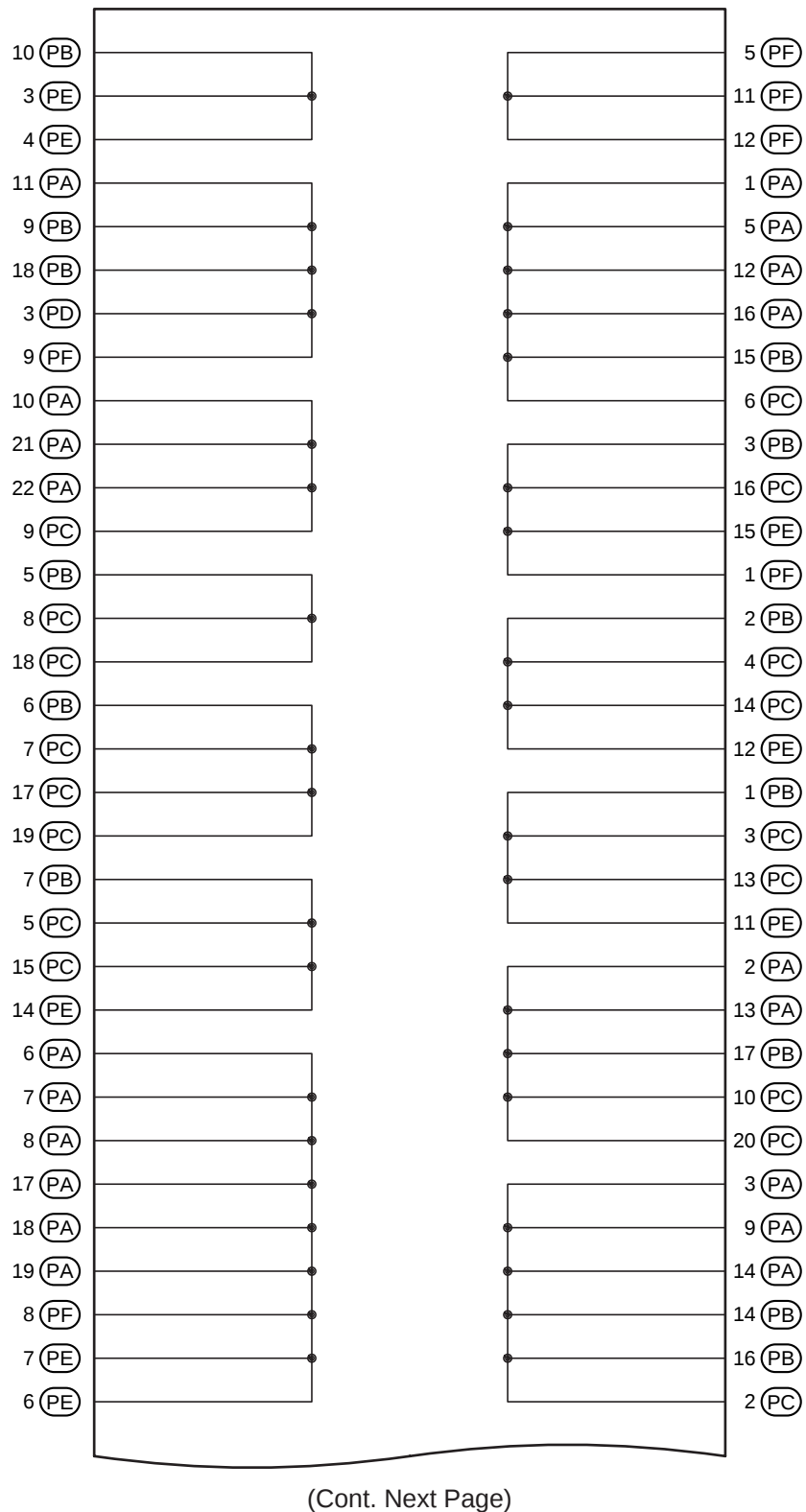
F RELAY LOCATIONS

 : Instrument Panel J/B No.2 Right Side of Glove Box (See Page 20)

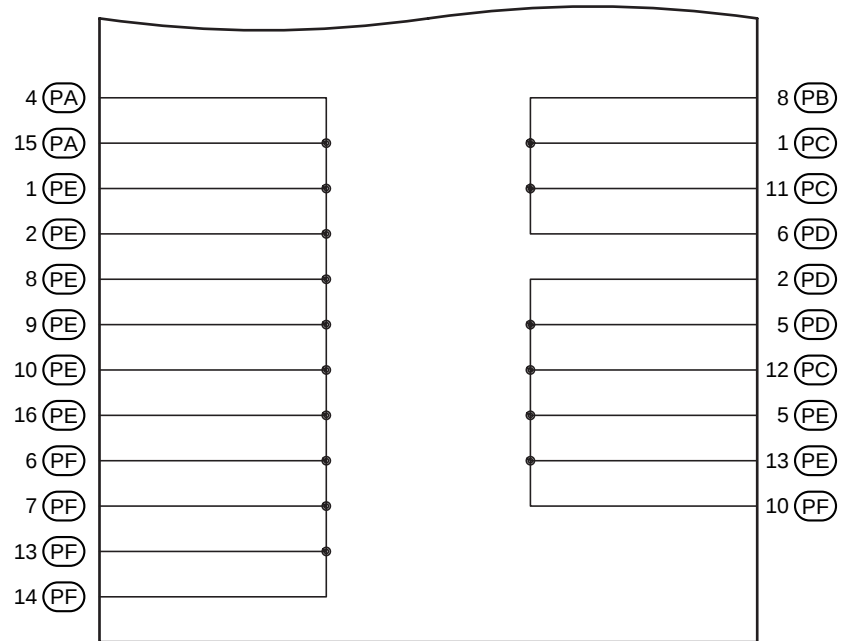


F RELAY LOCATIONS

[Instrument Panel J/B No.2 Inner Circuit]



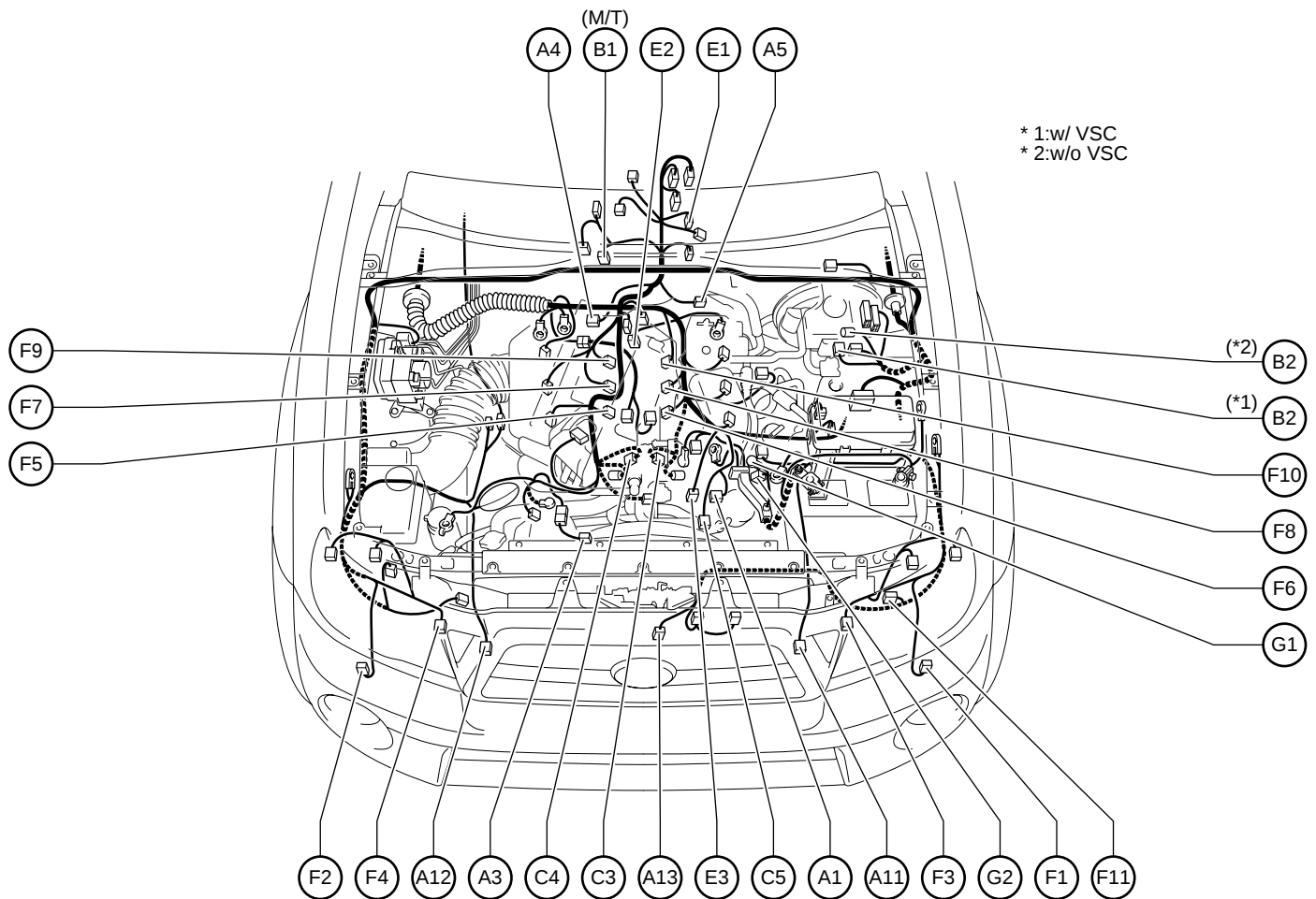
(Cont'd)



G ELECTRICAL WIRING ROUTING

Position of Parts in Engine Compartment

[1GR-FE]



A 1 A/C Compressor
 A 3 ADD Actuator Assembly
 A 4 Air Fuel Ratio Sensor (Bank 1 Sensor 1)
 A 5 Air Fuel Ratio Sensor (Bank 2 Sensor 1)
 A11 Airbag Sensor (Front LH)
 A12 Airbag Sensor (Front RH)
 A13 Ambient Temp. Sensor

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

C 3 Camshaft Timing Oil Control Valve (LH)
 C 4 Camshaft Timing Oil Control Valve (RH)
 C 5 Crankshaft Position Sensor

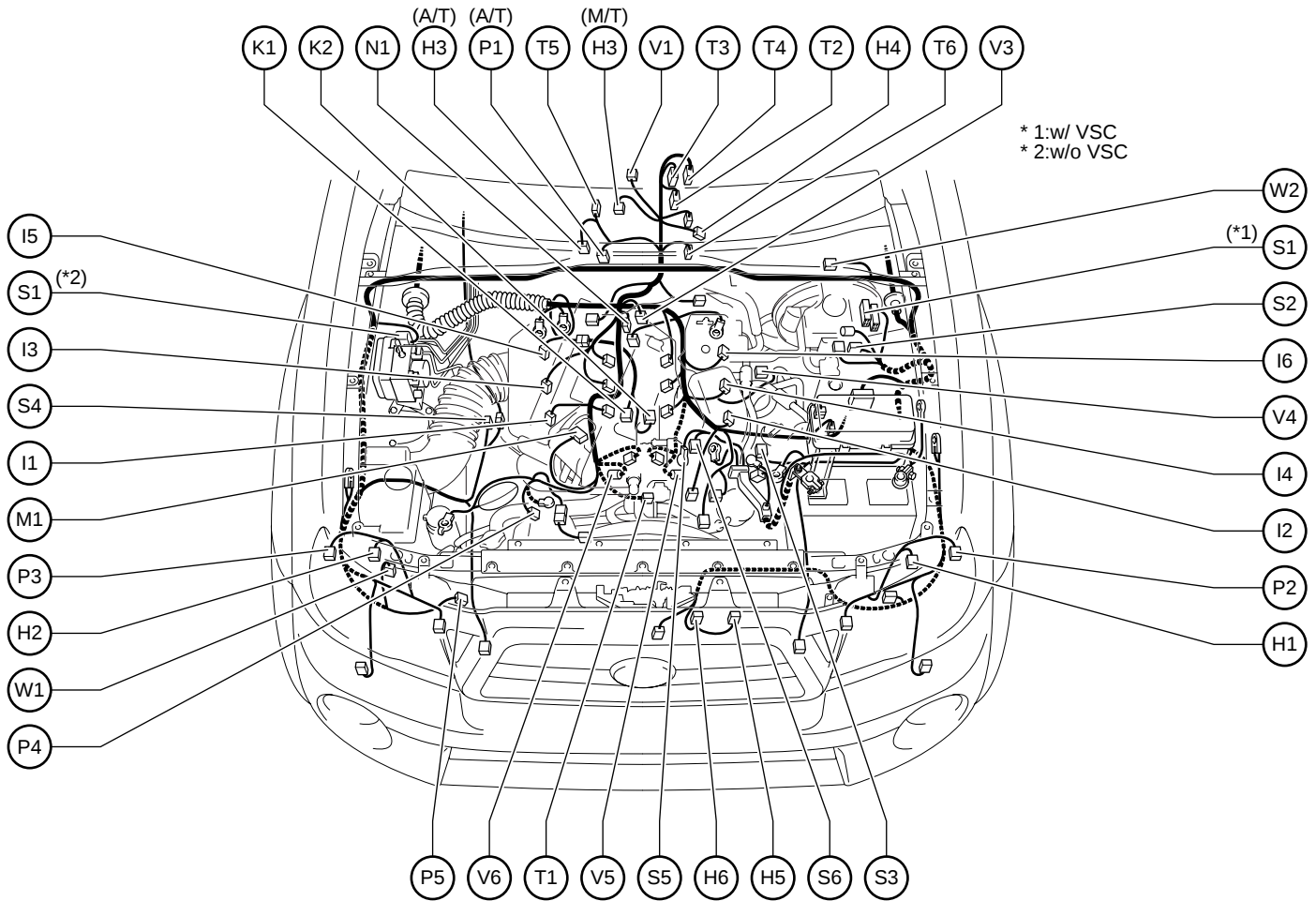
E 1 Electronically Controlled Transmission Solenoid
 E 2 Engine Coolant Temp. Sensor
 E 3 Engine Oil Pressure SW

F 1 Fog Lamp (Front LH)
 F 2 Fog Lamp (Front RH)
 F 3 Front Turn Signal Lamp (LH)
 F 4 Front Turn Signal Lamp (RH)
 F 5 Fuel Injector (No.1)
 F 6 Fuel Injector (No.2)
 F 7 Fuel Injector (No.3)
 F 8 Fuel Injector (No.4)
 F 9 Fuel Injector (No.5)
 F10 Fuel Injector (No.6)
 F11 Fuel Pump Resistor

G 1 Generator
 G 2 Generator

Position of Parts in Engine Compartment

[1GR-FE]



H 1 Headlamp (LH)
H 2 Headlamp (RH)
H 3 Heated Oxygen Sensor (Bank 1 Sensor 2)
H 4 Heated Oxygen Sensor (Bank 2 Sensor 2)
H 5 Horn (High)
H 6 Horn (Low)

I 1 Ignition Coil (No.1)
I 2 Ignition Coil (No.2)
I 3 Ignition Coil (No.3)
I 4 Ignition Coil (No.4)
I 5 Ignition Coil (No.5)
I 6 Ignition Coil (No.6)

K 1 Knock Control Sensor (Bank 1)
K 2 Knock Control Sensor (Bank 2)

M 1 Mass Air Flow Meter

N 1 Noise Filter (Ignition)

P 1 Park/Neutral Position SW
P 2 Parking Lamp (LH)
P 3 Parking Lamp (RH)
P 4 Power Steering Oil Pressure SW
P 5 Pressure SW

S 1 Skid Control ECU with Actuator
S 2 Skid Control ECU with Actuator
S 3 Speed Sensor (Front LH)
S 4 Speed Sensor (Front RH)
S 5 Starter
S 6 Starter

T 1 Throttle Body Assembly
T 2 Transfer Indicator SW (4WD Position)
T 3 Transfer Indicator SW (L4 Position)
T 4 Transfer Shift Actuator Assembly
T 5 Transmission Revolution Sensor (Electronically Controlled Transmission)
T 6 Transmission Revolution Sensor (Turbine)

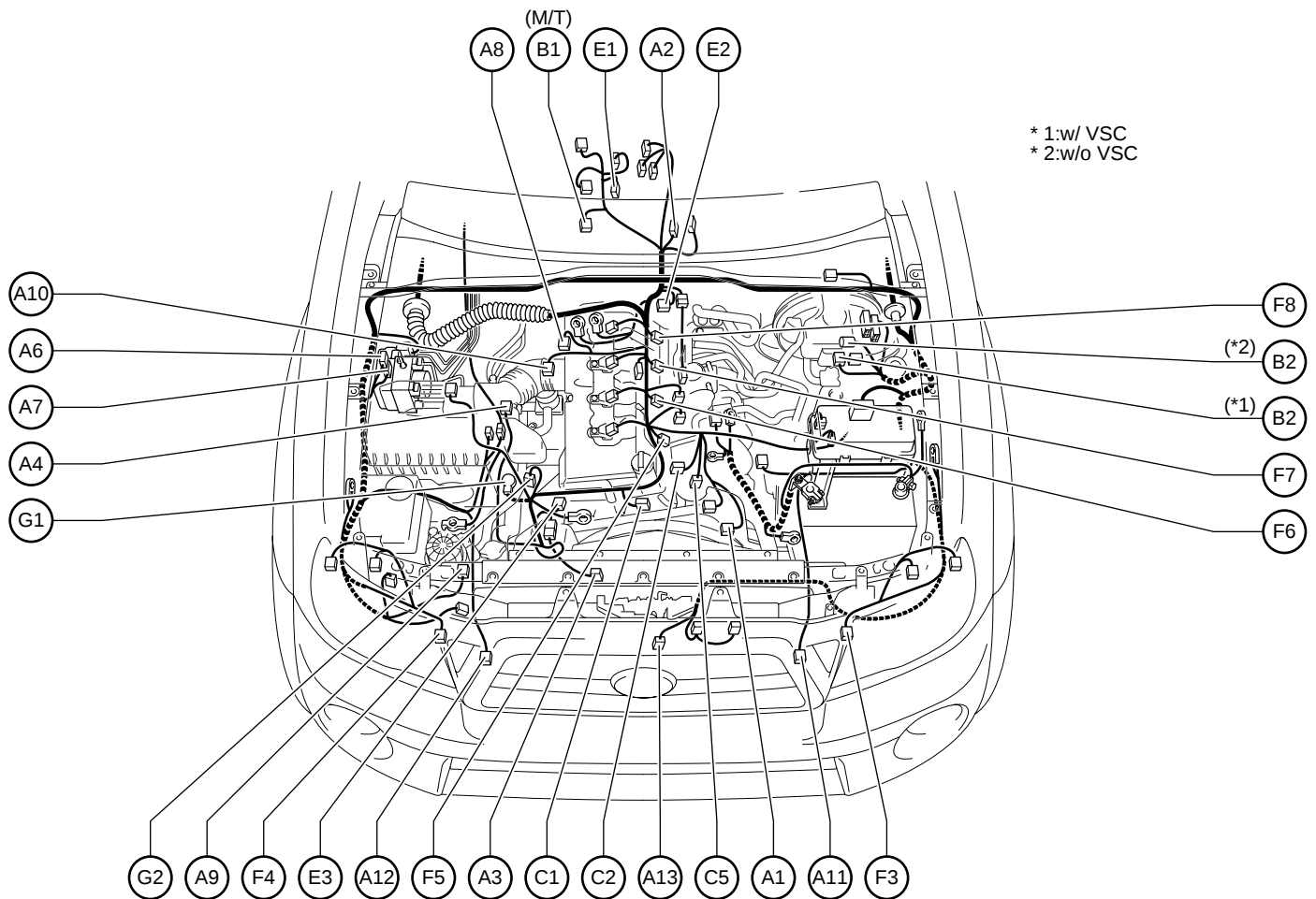
V 1 Vehicle Speed Sensor (Combination Meter)
V 3 VSV (ACIS)
V 4 VSV (Purge)
V 5 VVT Sensor LH
V 6 VVT Sensor RH

W 1 Windshield Washer Motor
W 2 Windshield Wiper Motor

G ELECTRICAL WIRING ROUTING

Position of Parts in Engine Compartment

[2TR-FE]



- A 1 A/C Compressor
- A 2 A/T Fluid Temp. Sensor
- A 3 ADD Actuator Assembly
- A 4 Air Fuel Ratio Sensor (Bank 1 Sensor 1)
- A 6 Air Injection Control Driver
- A 7 Air Injection Control Driver
- A 8 Air Pressure Sensor
- A 9 Air Pump
- A10 Air Switching Valve
- A11 Airbag Sensor (Front LH)
- A12 Airbag Sensor (Front RH)
- A13 Ambient Temp. Sensor

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

- C 1 Camshaft Position Sensor
- C 2 Camshaft Timing Oil Control Valve
- C 5 Crankshaft Position Sensor

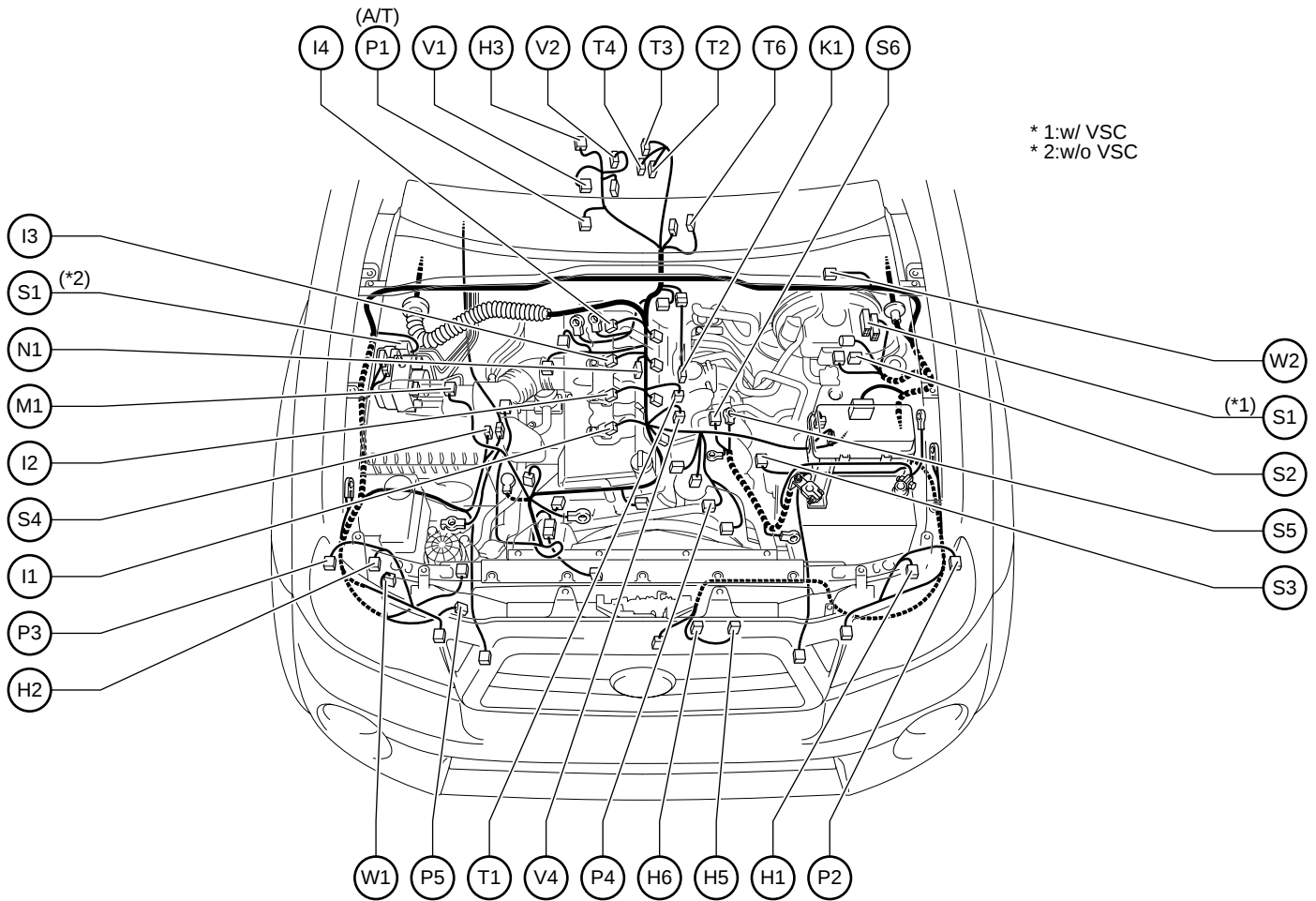
- E 1 Electronically Controlled Transmission Solenoid
- E 2 Engine Coolant Temp. Sensor
- E 3 Engine Oil Pressure SW

- F 3 Front Turn Signal Lamp (LH)
- F 4 Front Turn Signal Lamp (RH)
- F 5 Fuel Injector (No.1)
- F 6 Fuel Injector (No.2)
- F 7 Fuel Injector (No.3)
- F 8 Fuel Injector (No.4)

- G 1 Generator
- G 2 Generator

Position of Parts in Engine Compartment

[2TR-FE]



H 1 Headlamp (LH)
 H 2 Headlamp (RH)
 H 3 Heated Oxygen Sensor (Bank 1 Sensor 2)
 H 5 Horn (High)
 H 6 Horn (Low)

I 1 Ignition Coil (No.1)
 I 2 Ignition Coil (No.2)
 I 3 Ignition Coil (No.3)
 I 4 Ignition Coil (No.4)

K 1 Knock Control Sensor (Bank 1)

M 1 Mass Air Flow Meter

N 1 Noise Filter (Ignition)

P 1 Park/Neutral Position SW

P 2 Parking Lamp (LH)

P 3 Parking Lamp (RH)

P 4 Power Steering Oil Pressure SW

P 5 Pressure SW

S 1 Skid Control ECU with Actuator

S 2 Skid Control ECU with Actuator

S 3 Speed Sensor (Front LH)

S 4 Speed Sensor (Front RH)

S 5 Starter

S 6 Starter

T 1 Throttle Body Assembly

T 2 Transfer Indicator SW (4WD Position)

T 3 Transfer Indicator SW (L4 Position)

T 4 Transfer Shift Actuator Assembly

T 6 Transmission Revolution Sensor (Turbine)

V 1 Vehicle Speed Sensor (Combination Meter)

V 2 Vehicle Speed Sensor
 (Electronically Controlled Transmission)

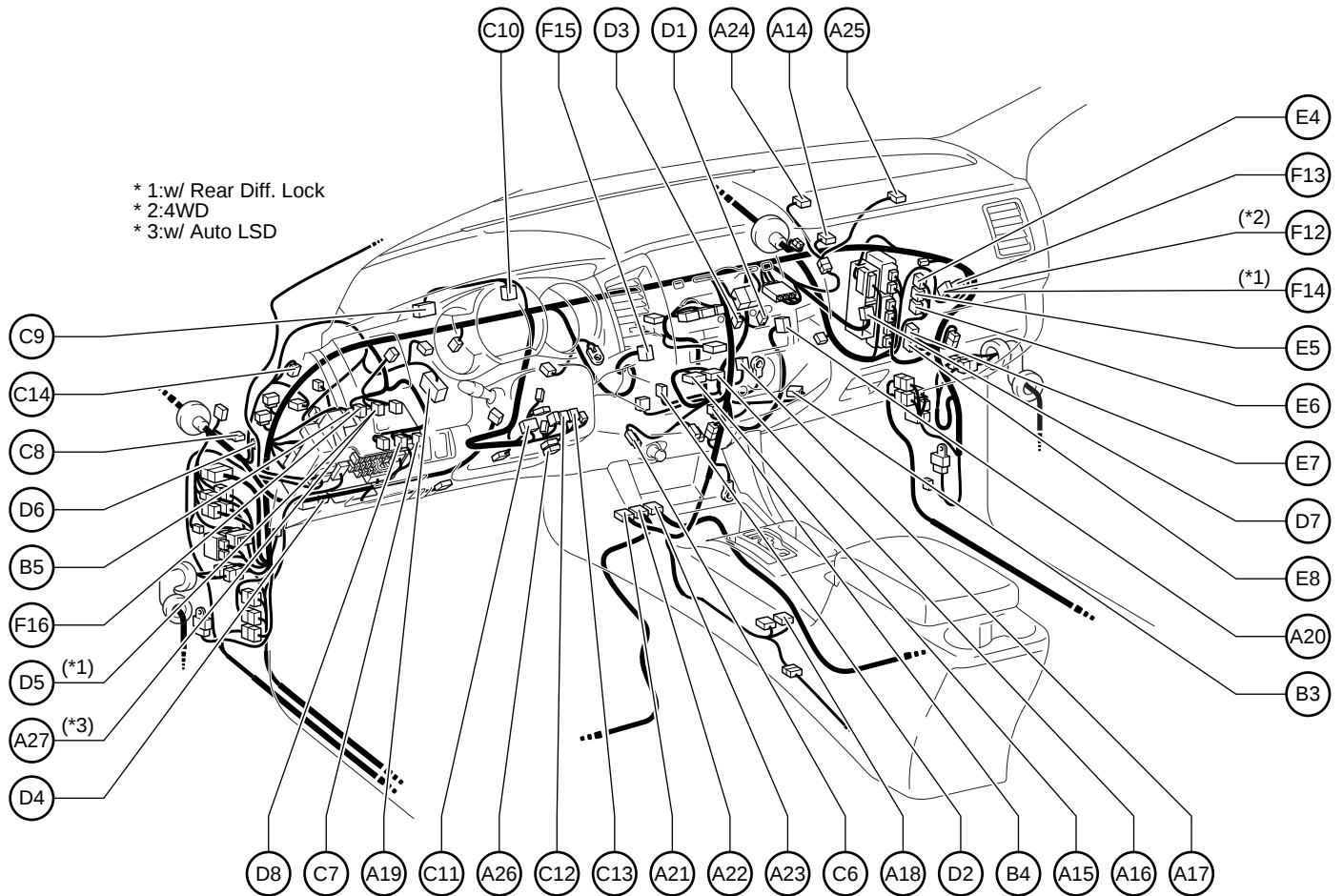
V 4 VSV (Purge)

W 1 Windshield Washer Motor

W 2 Windshield Wiper Motor

G ELECTRICAL WIRING ROUTING

Position of Parts in Instrument Panel



A14 A/C Amplifier
 A15 A/C Control Assembly
 A16 A/C Control Assembly
 A17 A/C Thermistor No.1
 A18 A/T Shift Lever Illumination
 A19 Accelerator Position Sensor
 A20 Airbag Cut Off SW
 A21 Airbag Sensor Assembly Center
 A22 Airbag Sensor Assembly Center
 A23 Airbag Sensor Assembly Center
 A24 Airbag Squib (Front Passenger's Airbag Assembly)
 A25 Airbag Squib (Front Passenger's Airbag Assembly)
 A26 Airbag Squib (Steering Wheel Pad)
 A27 Auto LSD SW

B 3 Blower Motor
 B 4 Blower Resistor
 B 5 Body ECU

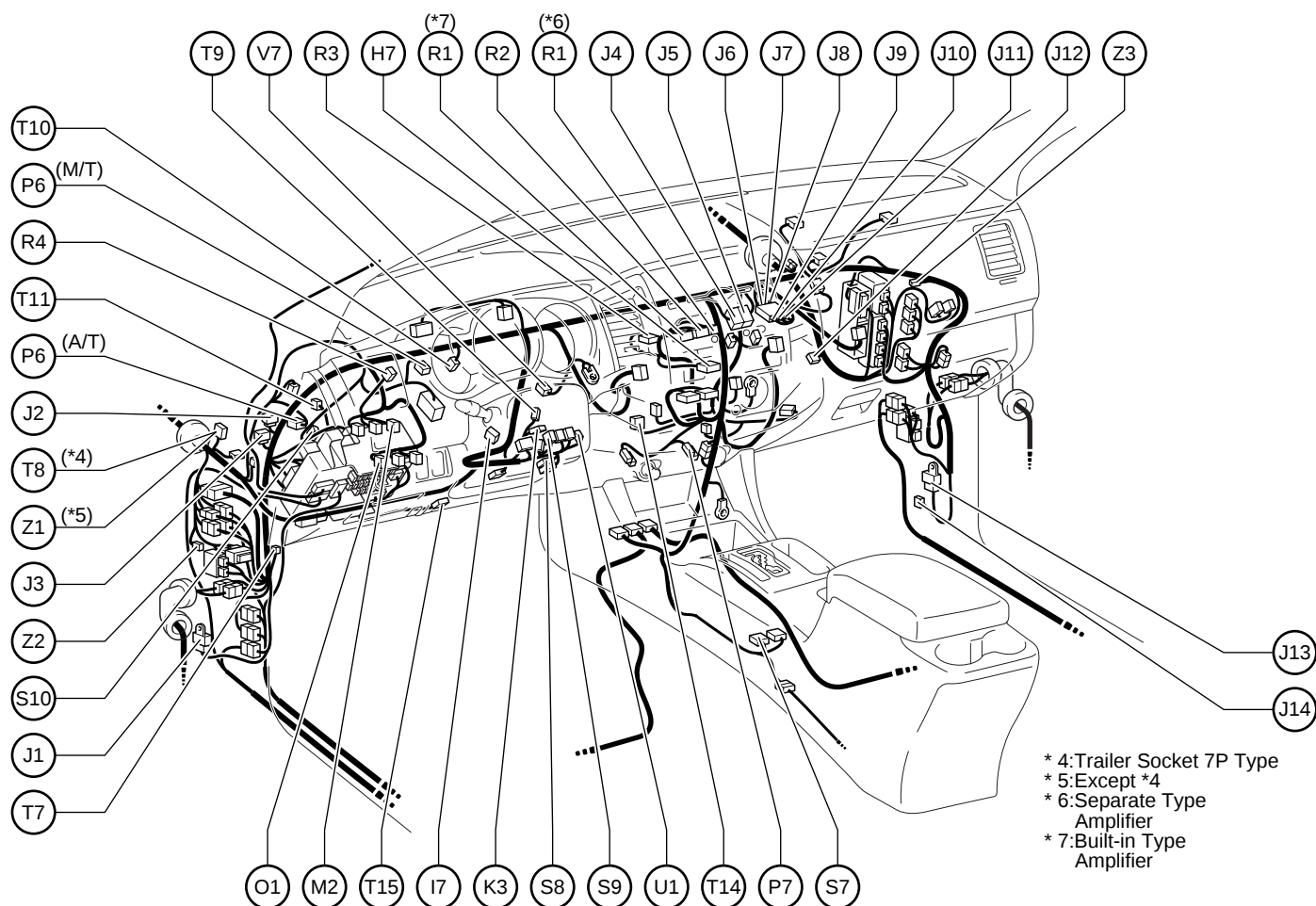
C 6 Cigarette Lighter
 C 7 Clutch Start Cancel SW
 C 8 Clutch Start SW
 C 9 Combination Meter
 C10 Combination Meter
 C11 Combination SW
 C12 Combination SW
 C13 Combination SW
 C14 Cruise Control Clutch SW

D 1 Damper Servo Motor (Air Inlet)
 D 2 Damper Servo Motor (Air Mix)
 D 3 Damper Servo Motor (Air Vent Mode)
 D 4 Data Link Connector 3
 D 5 Diff. Lock SW
 D 6 Diode (Clutch Start)
 D 7 Door Control Receiver
 D 8 Downhill Assist Control SW

E 4 Engine Control Module
 E 5 Engine Control Module
 E 6 Engine Control Module
 E 7 Engine Control Module
 E 8 Engine Control Module

F12 4WD Control ECU
 F13 4WD Control ECU
 F14 4WD Control ECU
 F15 4WD Control SW
 F16 Fog Lamp SW

Position of Parts in Instrument Panel



H 7 Hazard Warning Signal SW Assembly

I 7 Ignition SW

J 1 Junction Connector
J 2 Junction Connector
J 3 Junction Connector
J 4 Junction Connector
J 5 Junction Connector
J 6 Junction Connector
J 7 Junction Connector
J 8 Junction Connector
J 9 Junction Connector
J 10 Junction Connector
J 11 Junction Connector
J 12 Junction Connector
J 13 Junction Connector
J 14 Junction Connector

K 3 Key Interlock Solenoid

M 2 Main SW (Power Outlet AC115V)

O 1 Outer Mirror SW

P 6 Parking Brake SW

P 7 Power Point Socket

R 1 Radio Receiver Assembly

R 2 Radio Receiver Assembly

R 3 Radio Receiver Assembly

R 4 Rheostat

S 7 Shift Lock Control ECU

S 8 Spiral Cable

S 9 Steering Sensor

S10 Stop Lamp SW

T 7 Towing Brake Controller

T 8 Towing Converter Relay

T 9 Transponder Key Amplifier

T10 Transponder Key ECU

T11 Turn Signal Flasher

T14 Tire Pressure Monitor ECU

T15 Tire Pressure Warning SW (Reset)

U 1 Unlock Warning SW

V 7 VSC Warning Buzzer

Z 1 Option Connector (Towing Converter Relay)

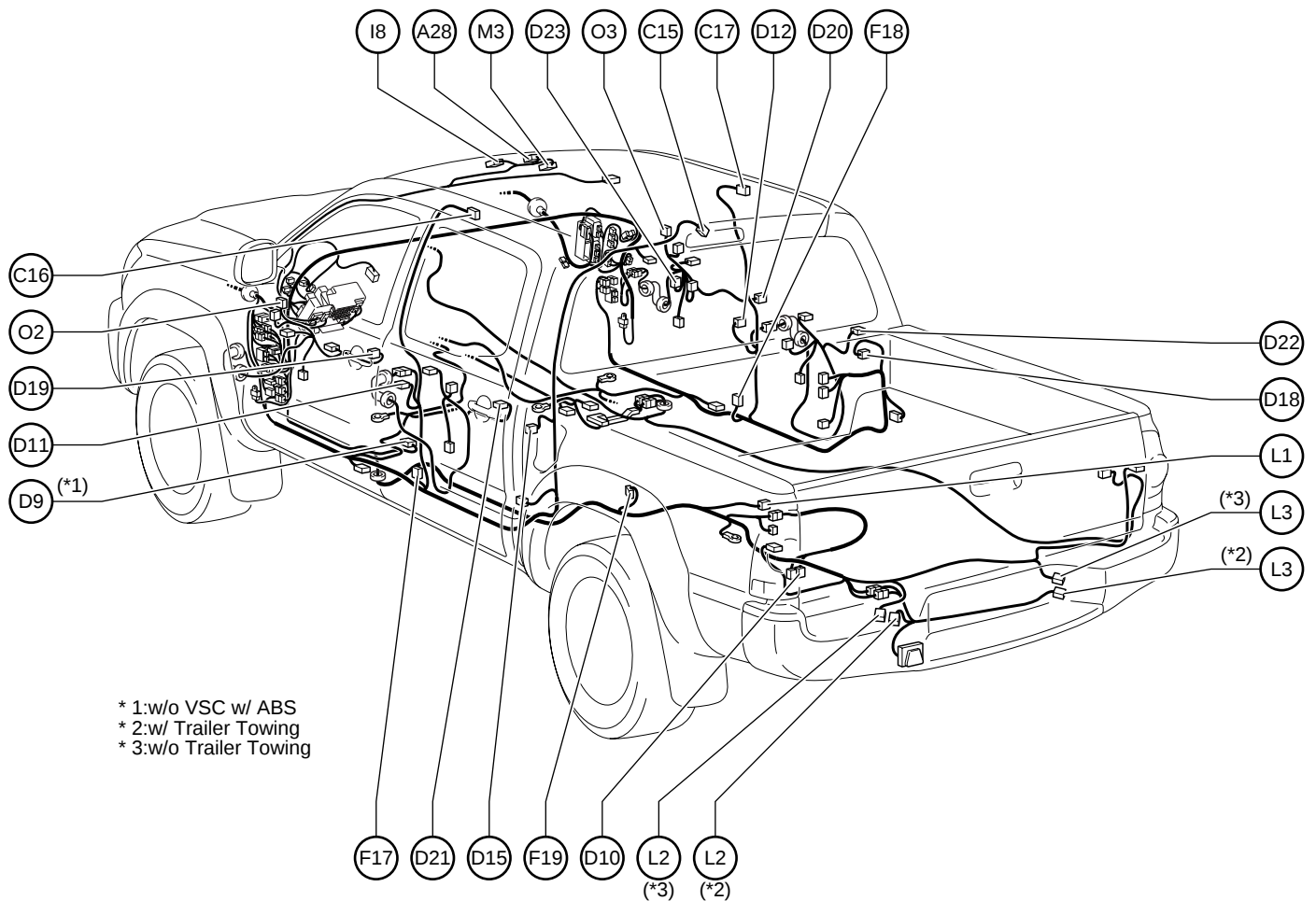
Z 2 Option Connector (Trailer Socket)

Z 3 Option Connector (TVIP)

G ELECTRICAL WIRING ROUTING

Position of Parts in Body

[Double Cab]



A28 Accessory Meter

C15 Center Stop Lamp

C16 Curtain Shield Airbag Squib (LH)

C17 Curtain Shield Airbag Squib (RH)

D 9 Deceleration Sensor

D10 Diff. Lock Shift Actuator Assembly

D11 Door Courtesy SW (Driver's Side)

D12 Door Courtesy SW (Front Passenger's Side)

D15 Door Courtesy SW (Rear LH)

D18 Door Courtesy SW (Rear RH)

D19 Door Lock Assembly (Driver's Side)

D20 Door Lock Assembly (Front Passenger's Side)

D21 Door Lock Assembly (Rear LH)

D22 Door Lock Assembly (Rear RH)

D23 Door Lock Control SW

F17 Front Seat Outer Belt (LH)

F18 Front Seat Outer Belt (RH)

F19 Fuel Suction Pump and Gage Assembly

I 8 Inner Rear View Mirror

L 1 Canister Pump Module

L 2 License Plate Lamp (LH)

L 3 License Plate Lamp (RH)

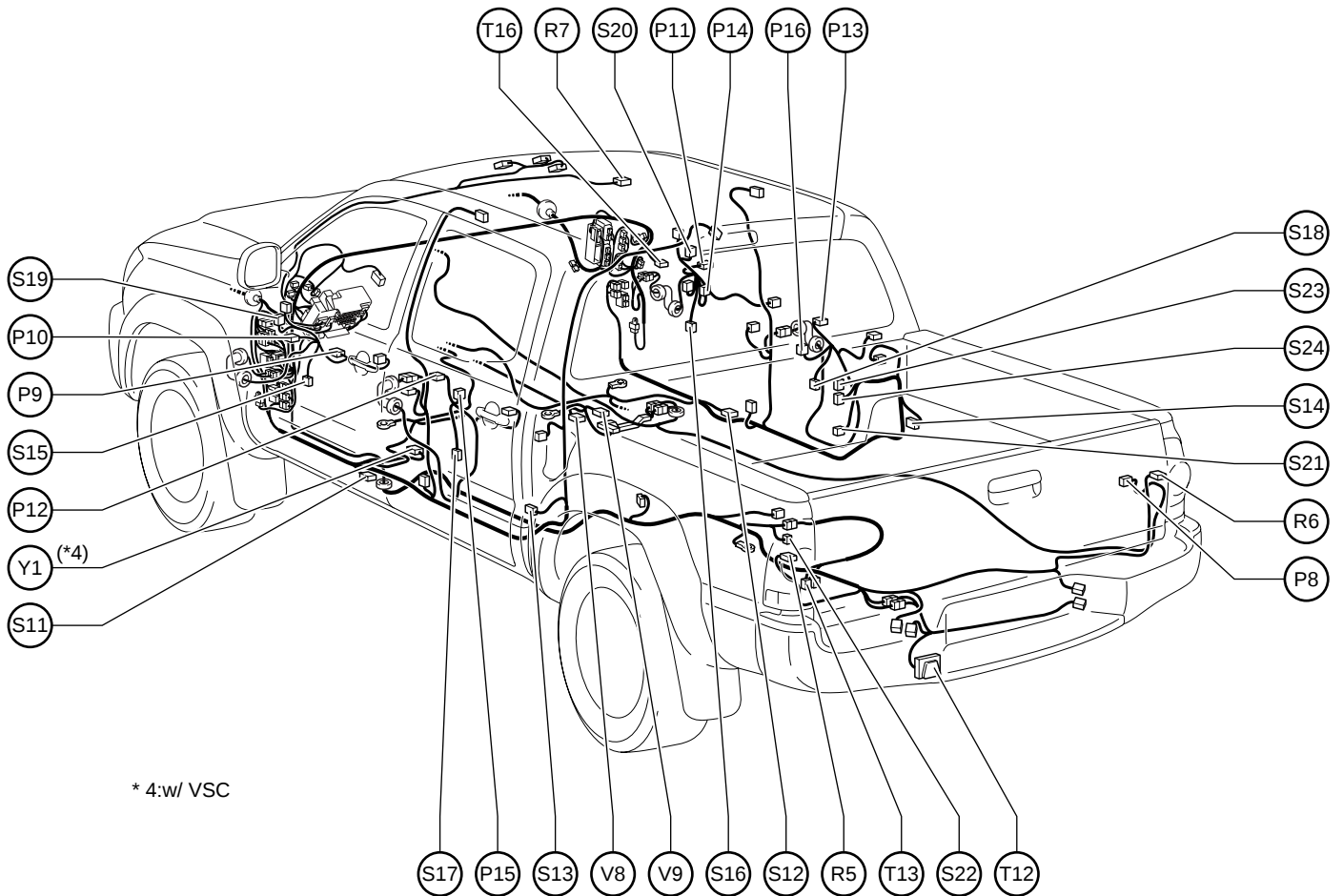
M 3 Map Lamp

O 2 Outer Rear View Mirror (LH)

O 3 Outer Rear View Mirror (RH)

Position of Parts in Body

[Double Cab]



P 8 Power Point Socket
 P 9 Power Window Master SW
 P10 Power Window Regulator Motor (Front LH)
 P11 Power Window Regulator Motor (Front RH)
 P12 Power Window Regulator Motor (Rear LH)
 P13 Power Window Regulator Motor (Rear RH)
 P14 Power Window SW (Front Passenger's Side)
 P15 Power Window SW (Rear LH)
 P16 Power Window SW (Rear RH)

R 5 Rear Combination Lamp (LH)
 R 6 Rear Combination Lamp (RH)
 R 7 Room Lamp (Center)

S11 Side Airbag Sensor (Front LH)
 S12 Side Airbag Sensor (Front RH)
 S13 Side Airbag Sensor (Rear LH)
 S14 Side Airbag Sensor (Rear RH)
 S15 Speaker (Front Door LH)
 S16 Speaker (Front Door RH)
 S17 Speaker (Rear Door LH)
 S18 Speaker (Rear Door RH)
 S19 Speaker (Tweeter LH)
 S20 Speaker (Tweeter RH)
 S21 Speaker (Woofer)
 S22 Speed Sensor (Rear)
 S23 Stereo Component Amplifier
 S24 Stereo Component Amplifier

T12 Trailer Socket
 T13 Transfer Indicator SW (Rear Diff.)
 T16 Tire Pressure Monitor Receiver

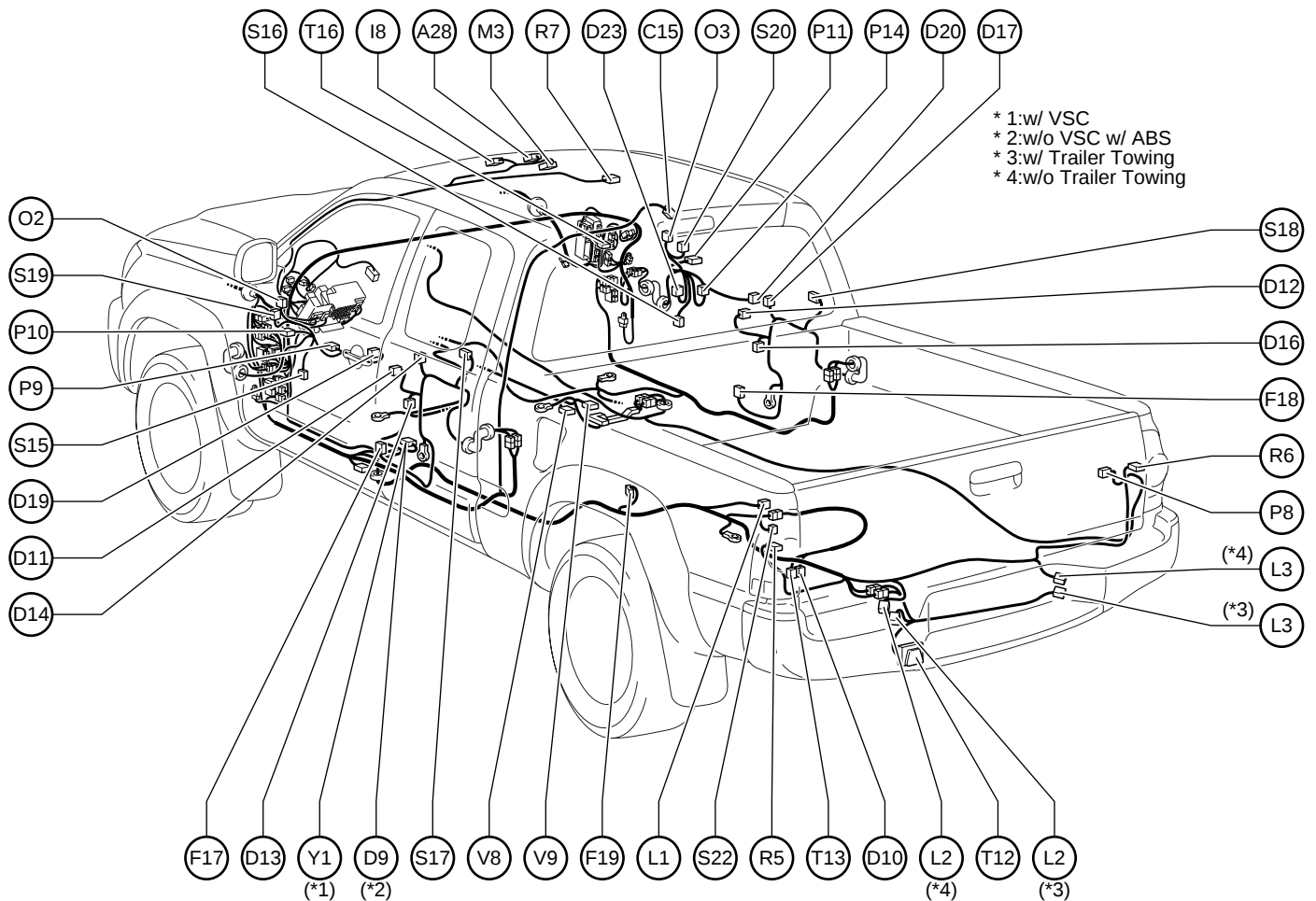
V 8 Voltage Inverter
 V 9 Voltage Inverter

Y 1 Yaw Rate Sensor

G ELECTRICAL WIRING ROUTING

Position of Parts in Body

[Access Cab]



A28 Accessory Meter

C15 Center Stop Lamp

D 9 Deceleration Sensor

D10 Diff. Lock Shift Actuator Assembly

D11 Door Courtesy SW (Driver's Side)

D12 Door Courtesy SW (Front Passenger's Side)

D13 Door Courtesy SW (Rear LH Lower Side)

D14 Door Courtesy SW (Rear LH Upper Side)

D16 Door Courtesy SW (Rear RH Lower Side)

D17 Door Courtesy SW (Rear RH Upper Side)

D19 Door Lock Assembly (Driver's Side)

D20 Door Lock Assembly (Front Passenger's Side)

D23 Door Lock Control SW

F17 Front Seat Outer Belt (LH)

F18 Front Seat Outer Belt (RH)

F19 Fuel Suction Pump and Gage Assembly

I 8 Inner Rear View Mirror

L 1 Canister Pump Module

L 2 License Plate Lamp (LH)

L 3 License Plate Lamp (RH)

M 3 Map Lamp

O 2 Outer Rear View Mirror (LH)

O 3 Outer Rear View Mirror (RH)

P 8 Power Point Socket

P 9 Power Window Master SW

P10 Power Window Regulator Motor (Front LH)

P11 Power Window Regulator Motor (Front RH)

P14 Power Window SW (Front Passenger's Side)

R 5 Rear Combination Lamp (LH)

R 6 Rear Combination Lamp (RH)

R 7 Room Lamp (Center)

S15 Speaker (Front Door LH)

S16 Speaker (Front Door RH)

S17 Speaker (Rear Door LH)

S18 Speaker (Rear Door RH)

S19 Speaker (Tweeter LH)

S20 Speaker (Tweeter RH)

S22 Speed Sensor (Rear)

T12 Trailer Socket

T13 Transfer Indicator SW (Rear Diff.)

T16 Tire Pressure Monitor Receiver

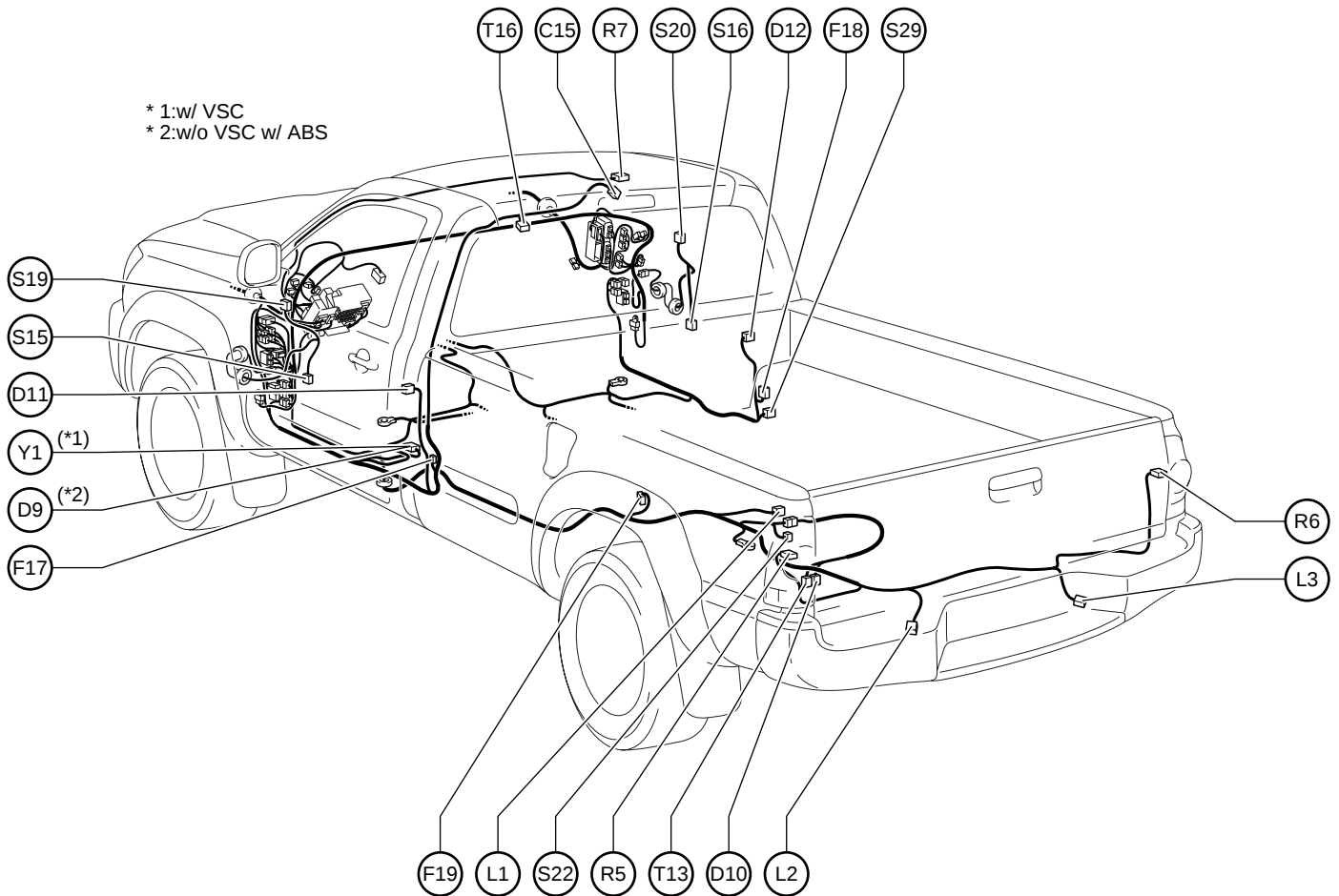
V 8 Voltage Inverter

V 9 Voltage Inverter

Y 1 Yaw Rate Sensor

Position of Parts in Body

[Regular Cab]



C15 Center Stop Lamp

D 9 Deceleration Sensor

D10 Diff. Lock Shift Actuator Assembly

D11 Door Courtesy SW (Driver's Side)

D12 Door Courtesy SW (Front Passenger's Side)

F17 Front Seat Outer Belt (LH)

F18 Front Seat Outer Belt (RH)

F19 Fuel Suction Pump and Gage Assembly

L 1 Canister Pump Module

L 2 License Plate Lamp (LH)

L 3 License Plate Lamp (RH)

R 5 Rear Combination Lamp (LH)

R 6 Rear Combination Lamp (RH)

R 7 Room Lamp (Center)

S15 Speaker (Front Door LH)

S16 Speaker (Front Door RH)

S19 Speaker (Tweeter LH)

S20 Speaker (Tweeter RH)

S22 Speed Sensor (Rear)

S29 Seat Belt Tension Sensor

T13 Transfer Indicator SW (Rear Diff.)

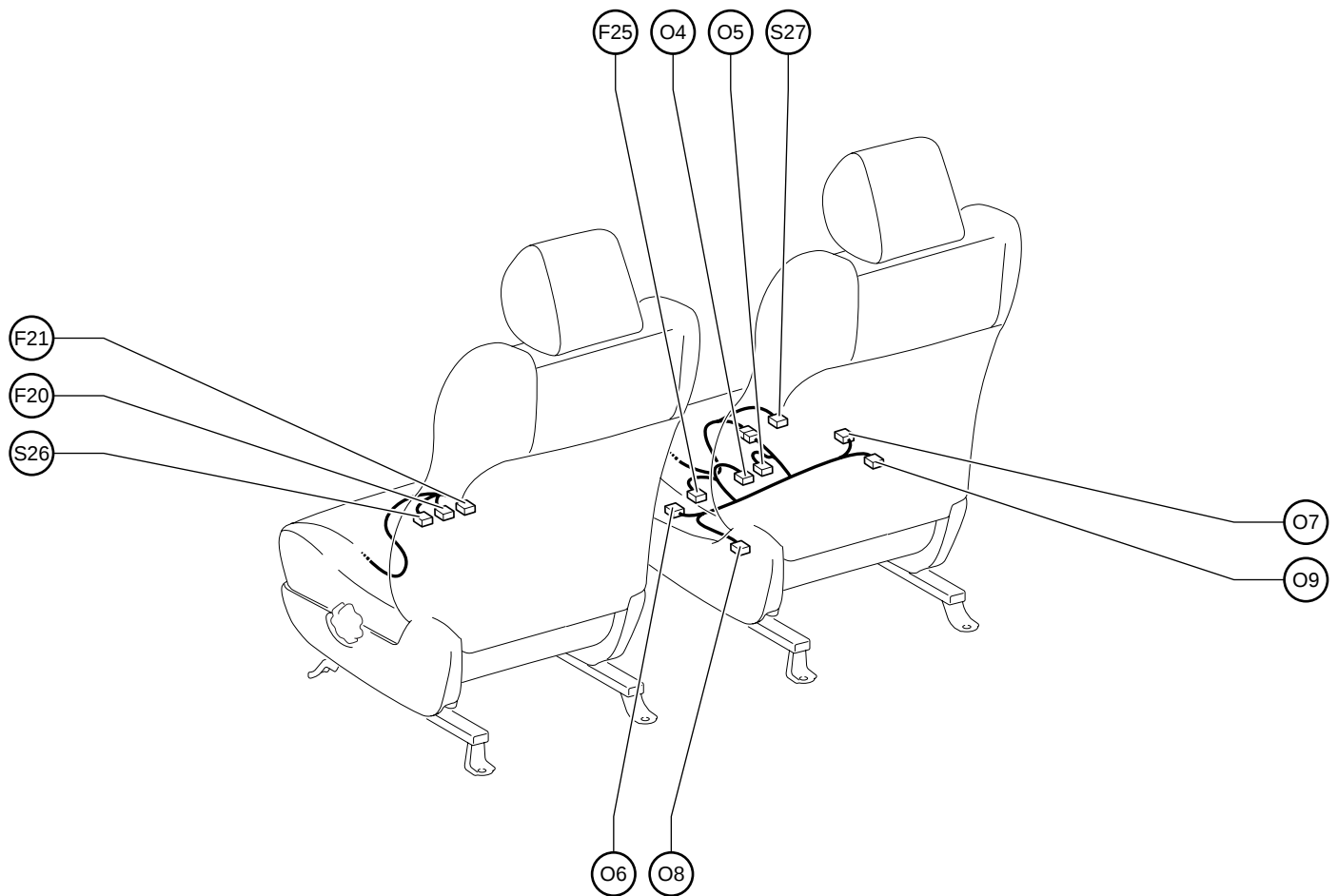
T16 Tire Pressure Monitor Receiver

Y 1 Yaw Rate Sensor

G ELECTRICAL WIRING ROUTING

Position of Parts in Seat

[Separate Seat]



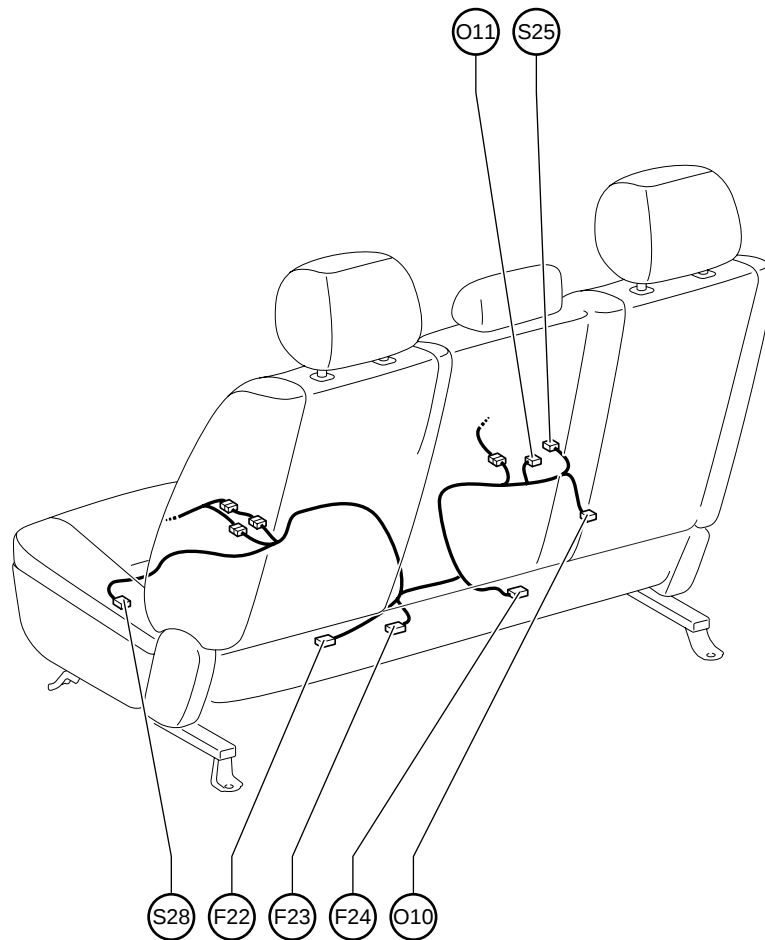
F 20 Front Seat Inner Belt (Driver's Side)
F 21 Front Seat Inner Belt (Driver's Side)
F 25 Front Seat Inner Belt (Front Passenger's Side)

S 26 Side Airbag Squib (LH)
S 27 Side Airbag Squib (RH)

O 4 Occupant Classification ECU
O 5 Occupant Classification ECU
O 6 Occupant Classification Sensor (Front LH)
O 7 Occupant Classification Sensor (Front RH)
O 8 Occupant Classification Sensor (Rear LH)
O 9 Occupant Classification Sensor (Rear RH)

Position of Parts in Seat

[Bench Seat]



F22 Front Seat Inner Belt (Driver's Side)
 F23 Front Seat Inner Belt (Driver's Side)
 F24 Front Seat Inner Belt (Front Passenger's Side)

S25 Seat Position Airbag Sensor (Driver's Side)
 S28 Seat Position Airbag Sensor (Front Passenger's Side)

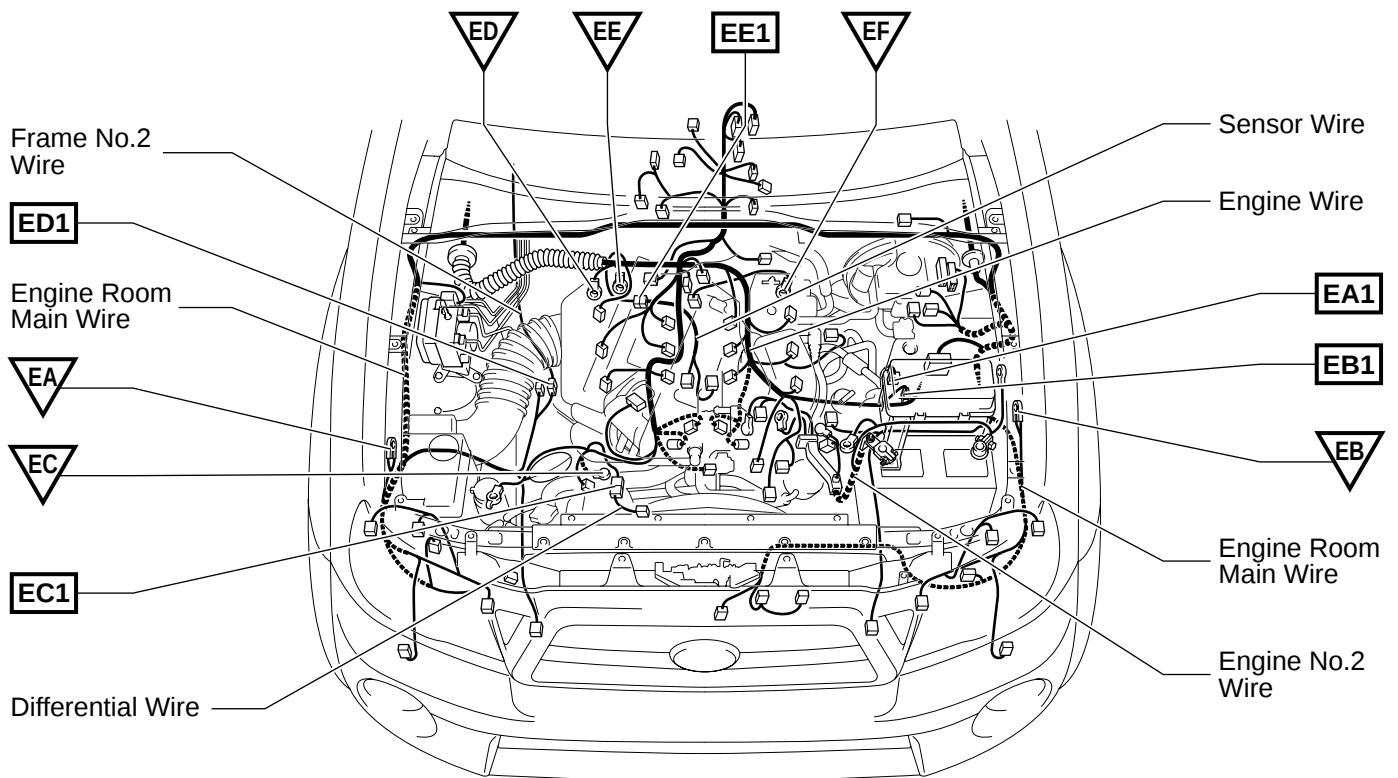
O10 Occupant Classification ECU
 O11 Occupant Classification Sensor

G ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness

▽ : Location of Ground Points

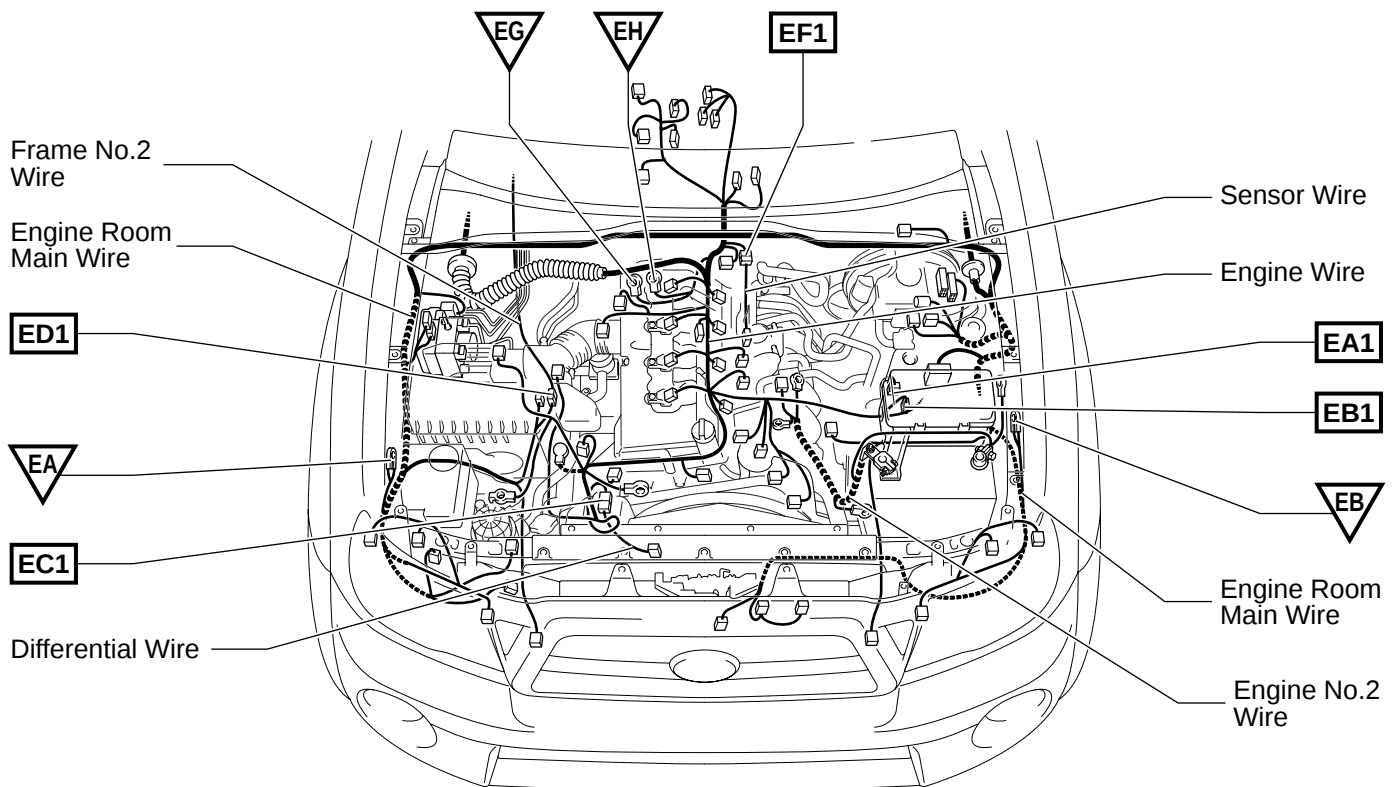
[1GR-FE]



□ : Location of Connector Joining Wire Harness and Wire Harness

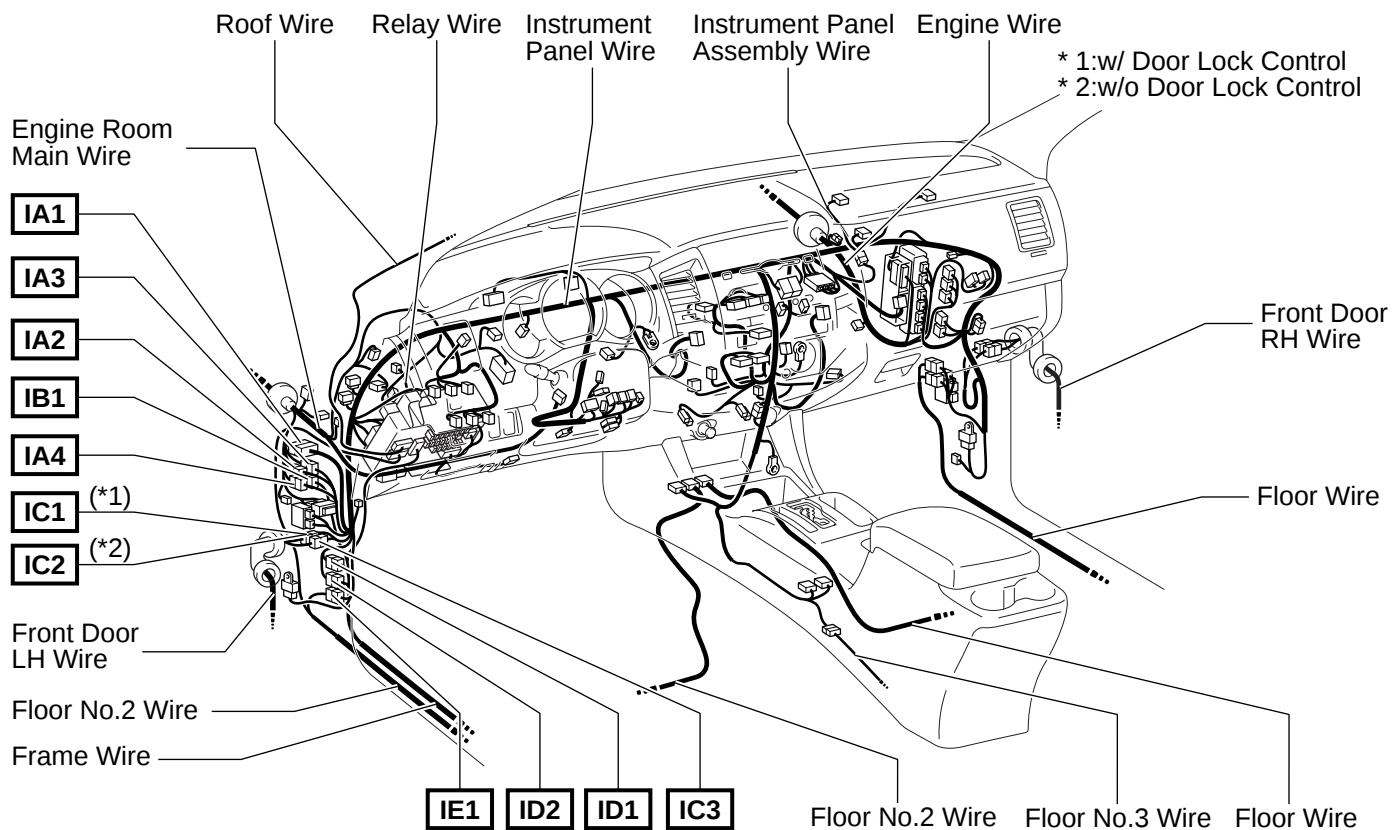
▽ : Location of Ground Points

[2TR-FE]

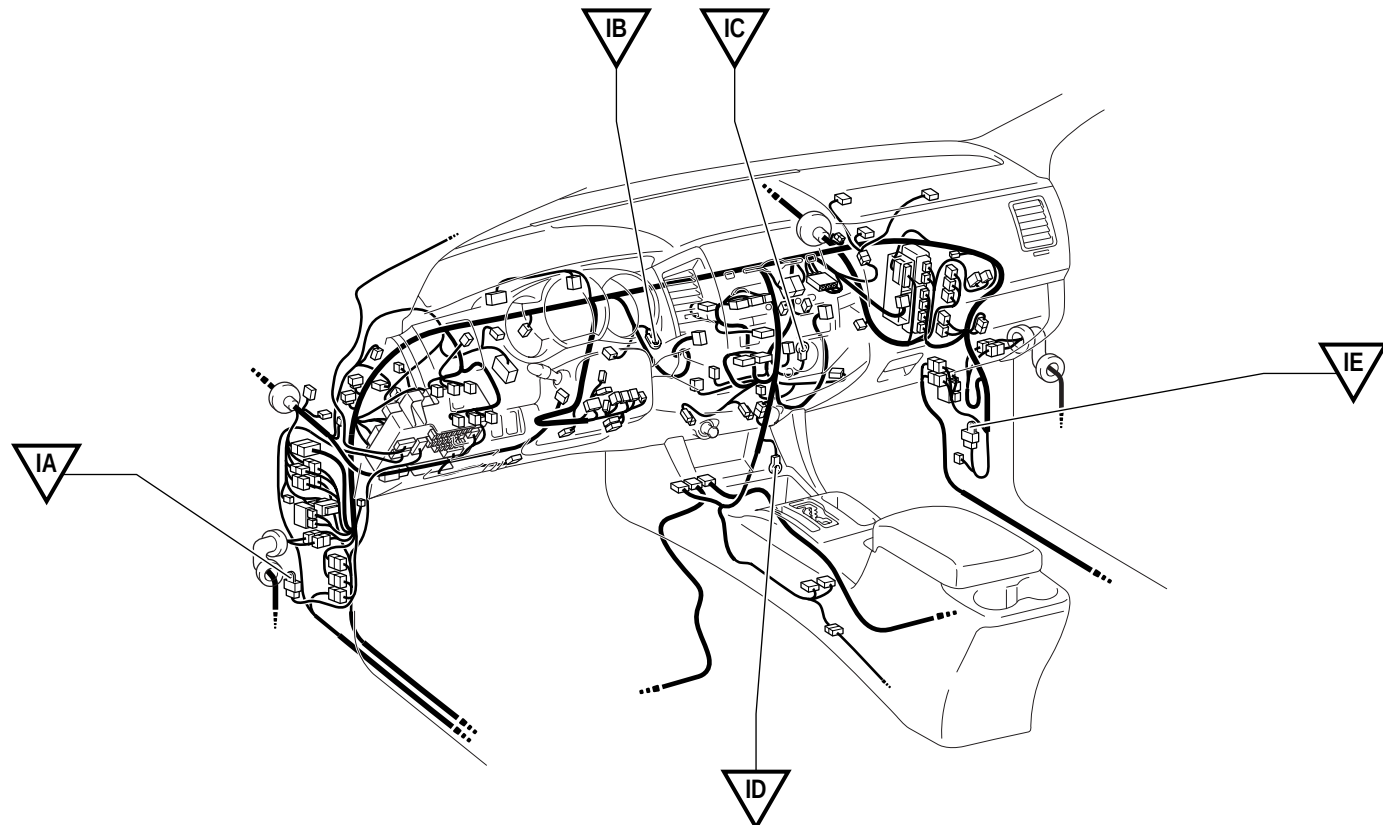


G ELECTRICAL WIRING ROUTING

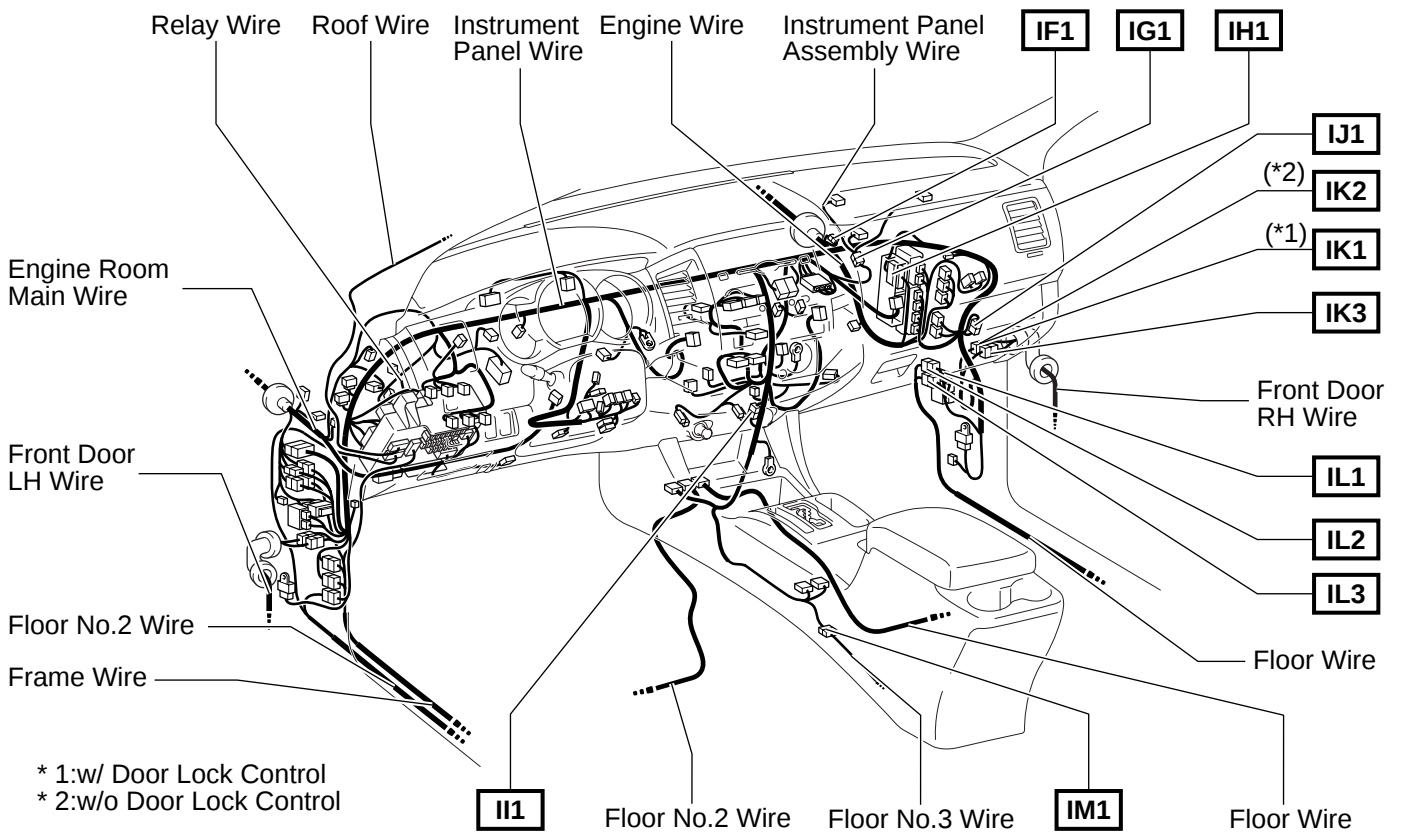
□ : Location of Connector Joining Wire Harness and Wire Harness



▽ : Location of Ground Points



: Location of Connector Joining Wire Harness and Wire Harness

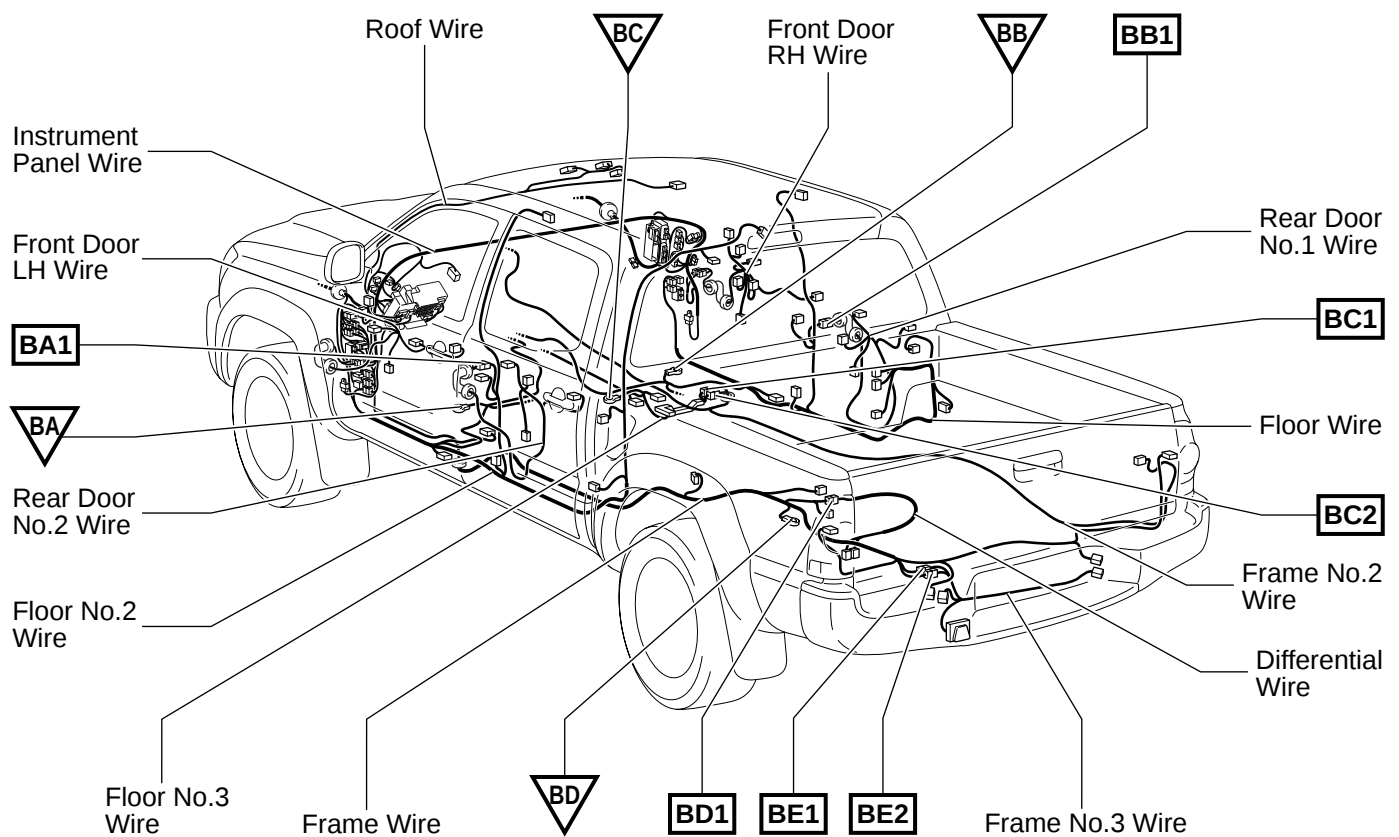


G ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness

▽ : Location of Ground Points

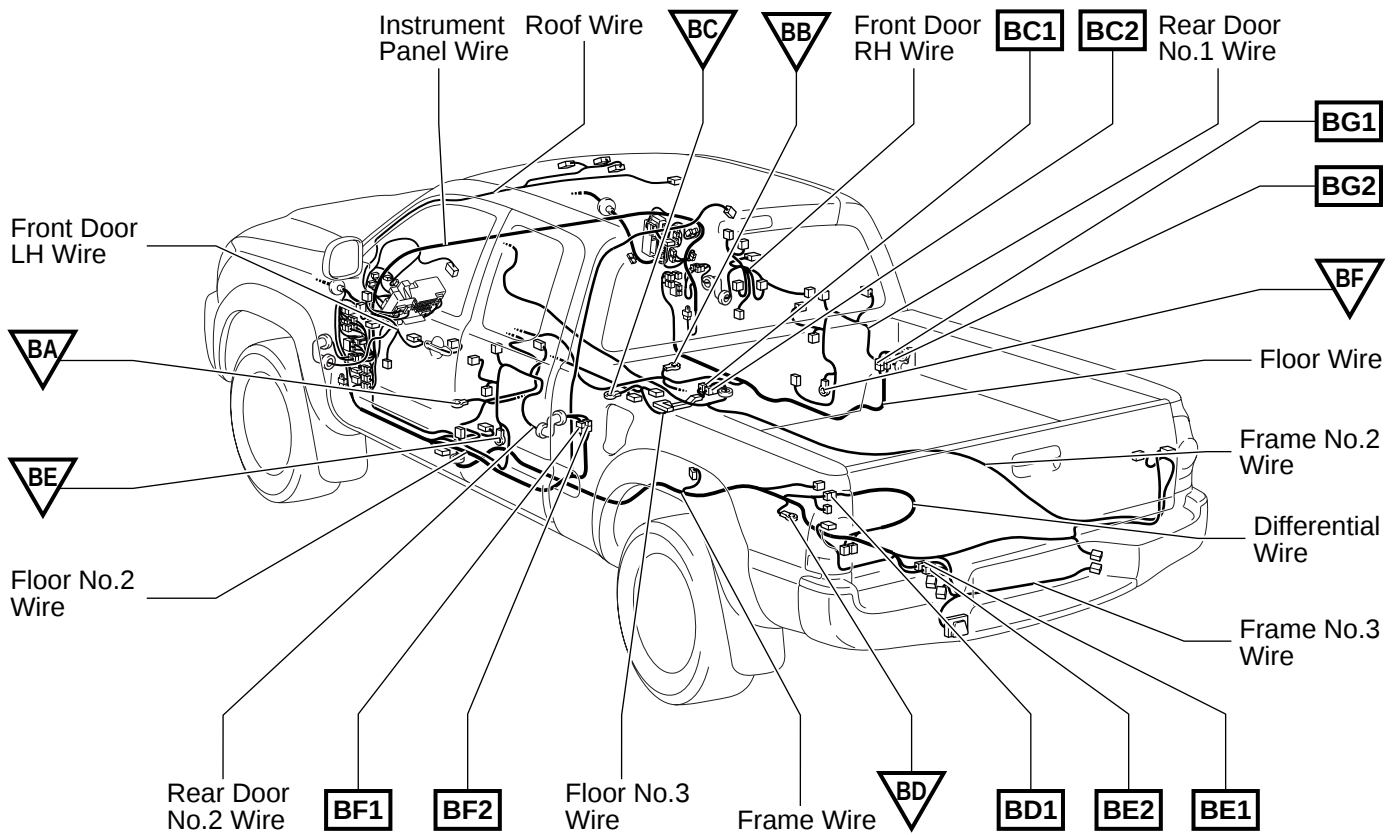
[Double Cab]



□ : Location of Connector Joining Wire Harness and Wire Harness

▽ : Location of Ground Points

[Access Cab]

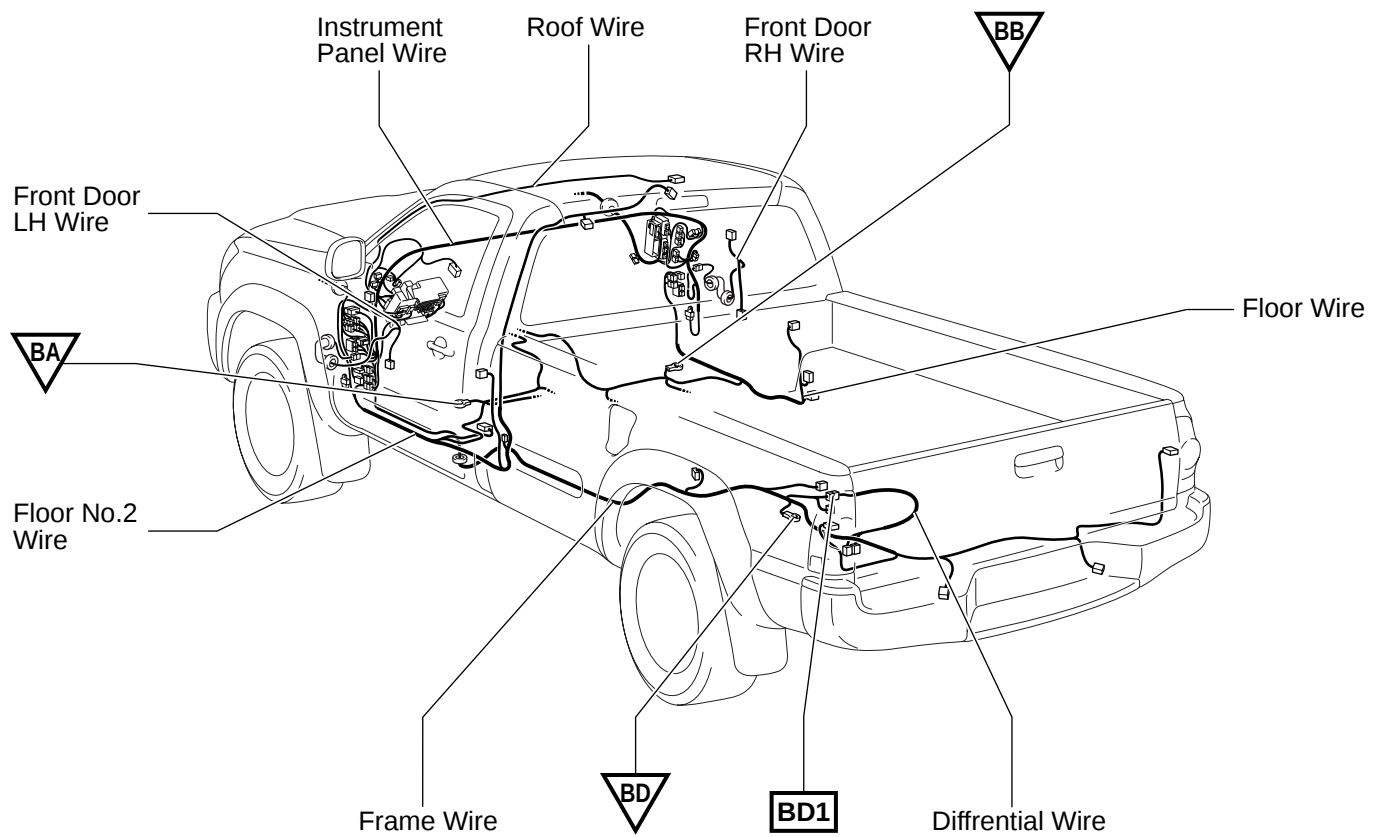


G ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness

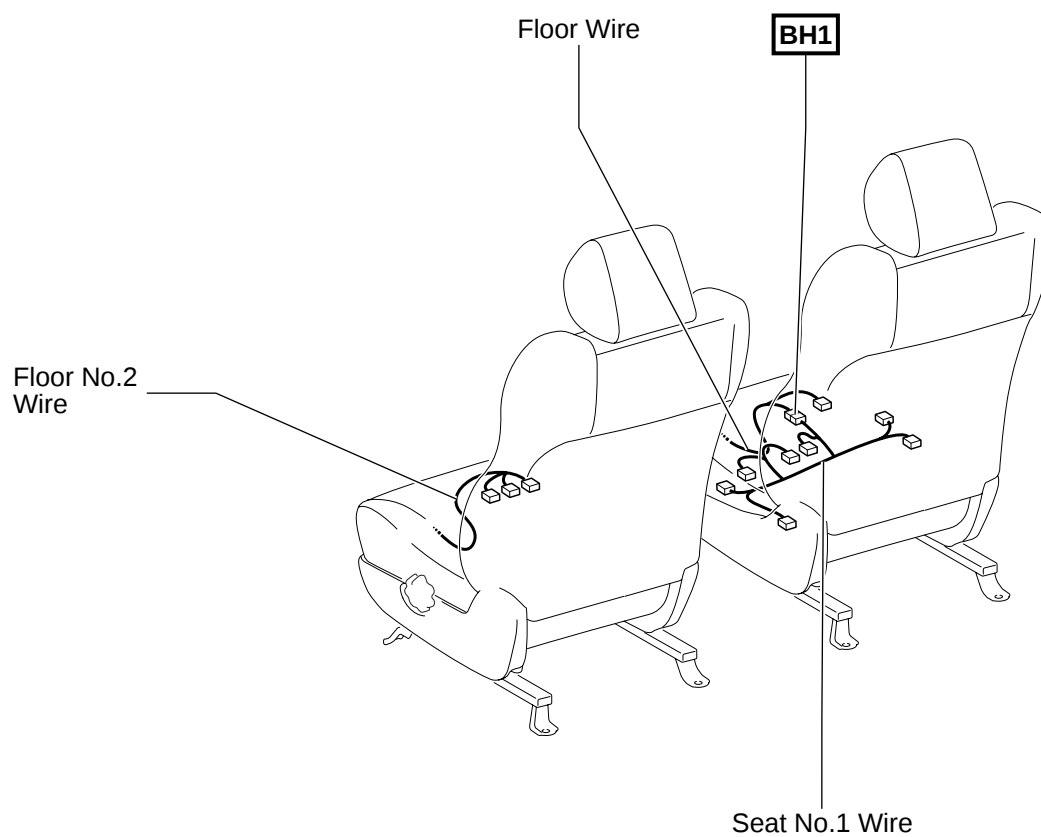
▽ : Location of Ground Points

[Regular Cab]



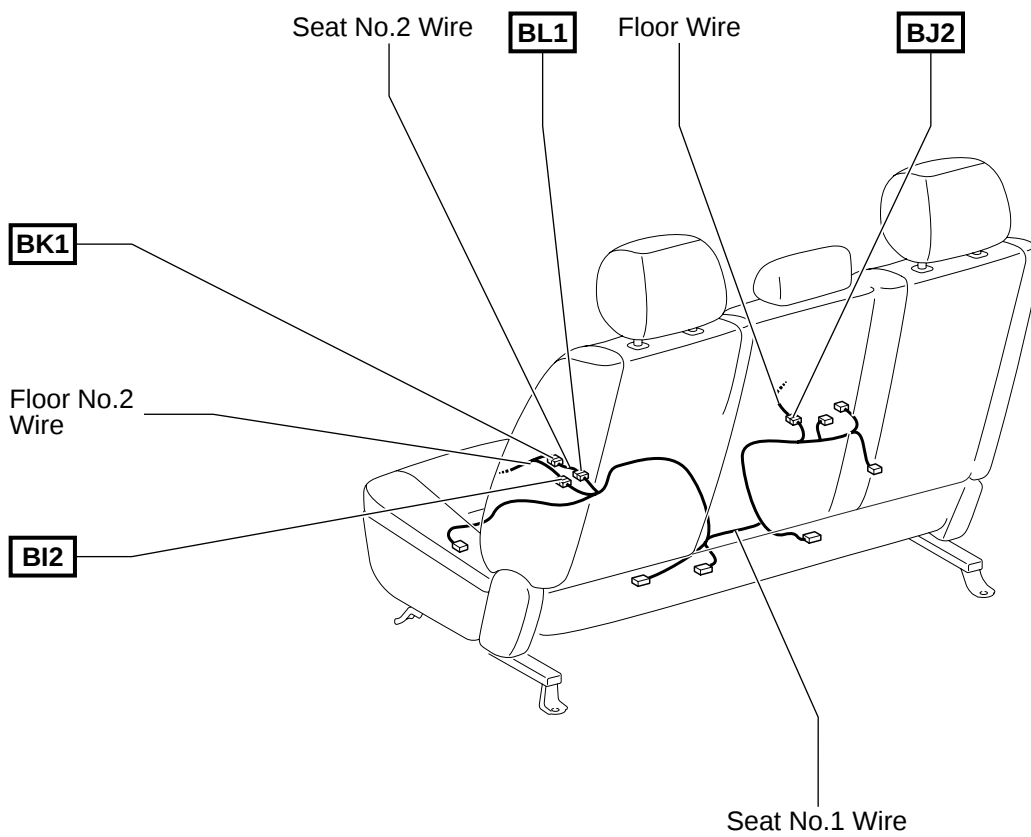
G ELECTRICAL WIRING ROUTING

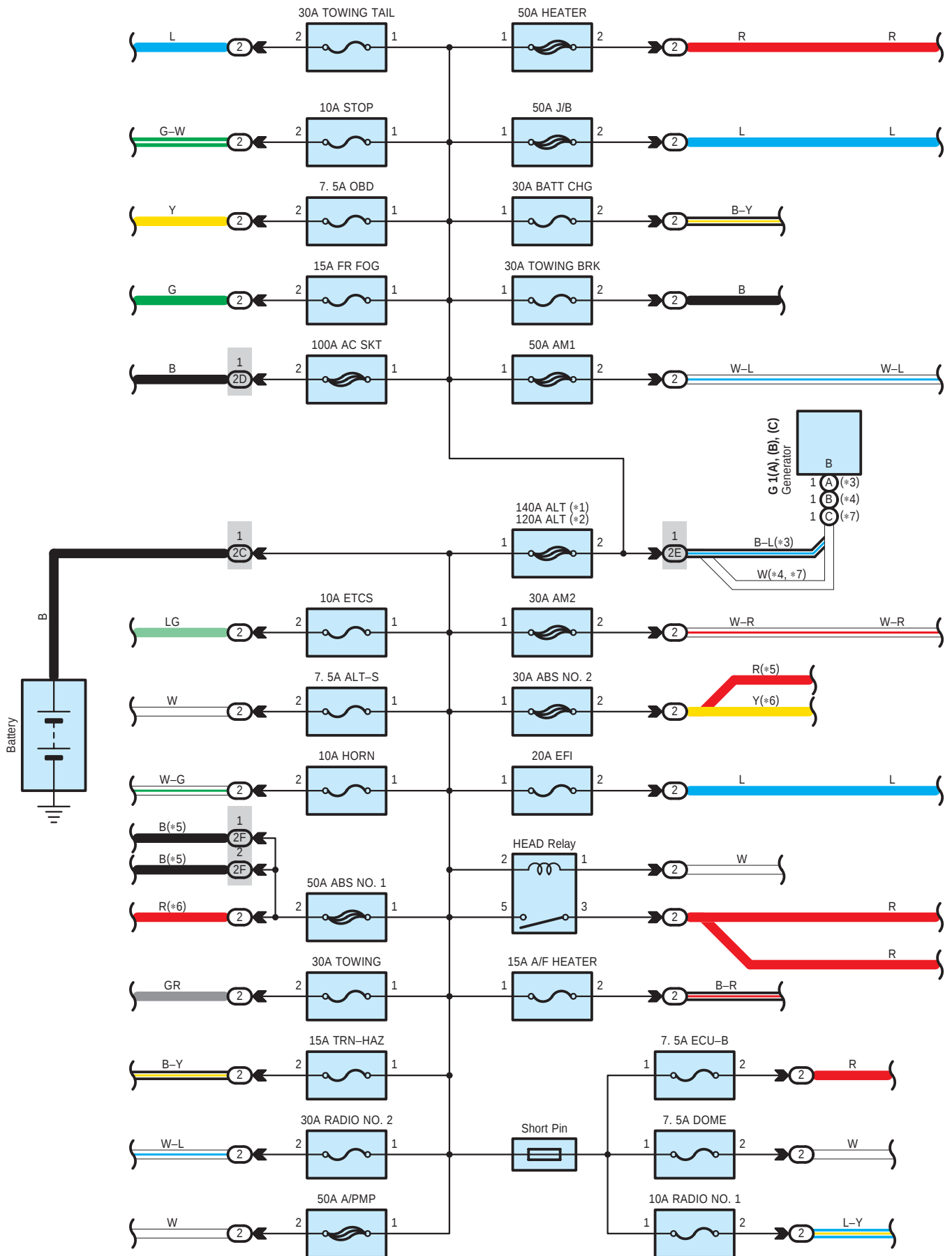
☐ : Location of Connector Joining Wire Harness and Wire Harness
[Separate Seat]

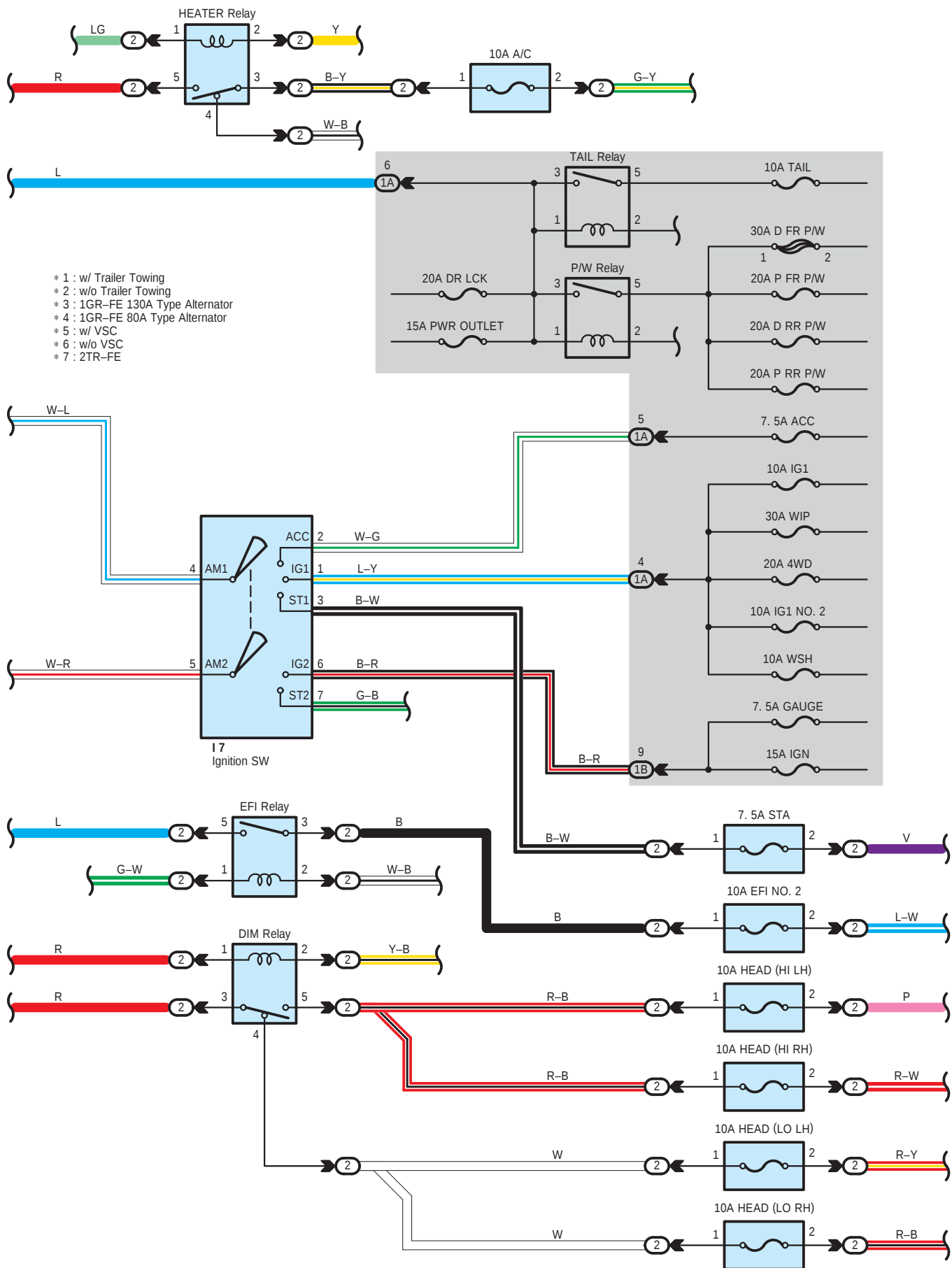


: Location of Connector Joining Wire Harness and Wire Harness

[Bench Seat]







Power Source

: Parts Location

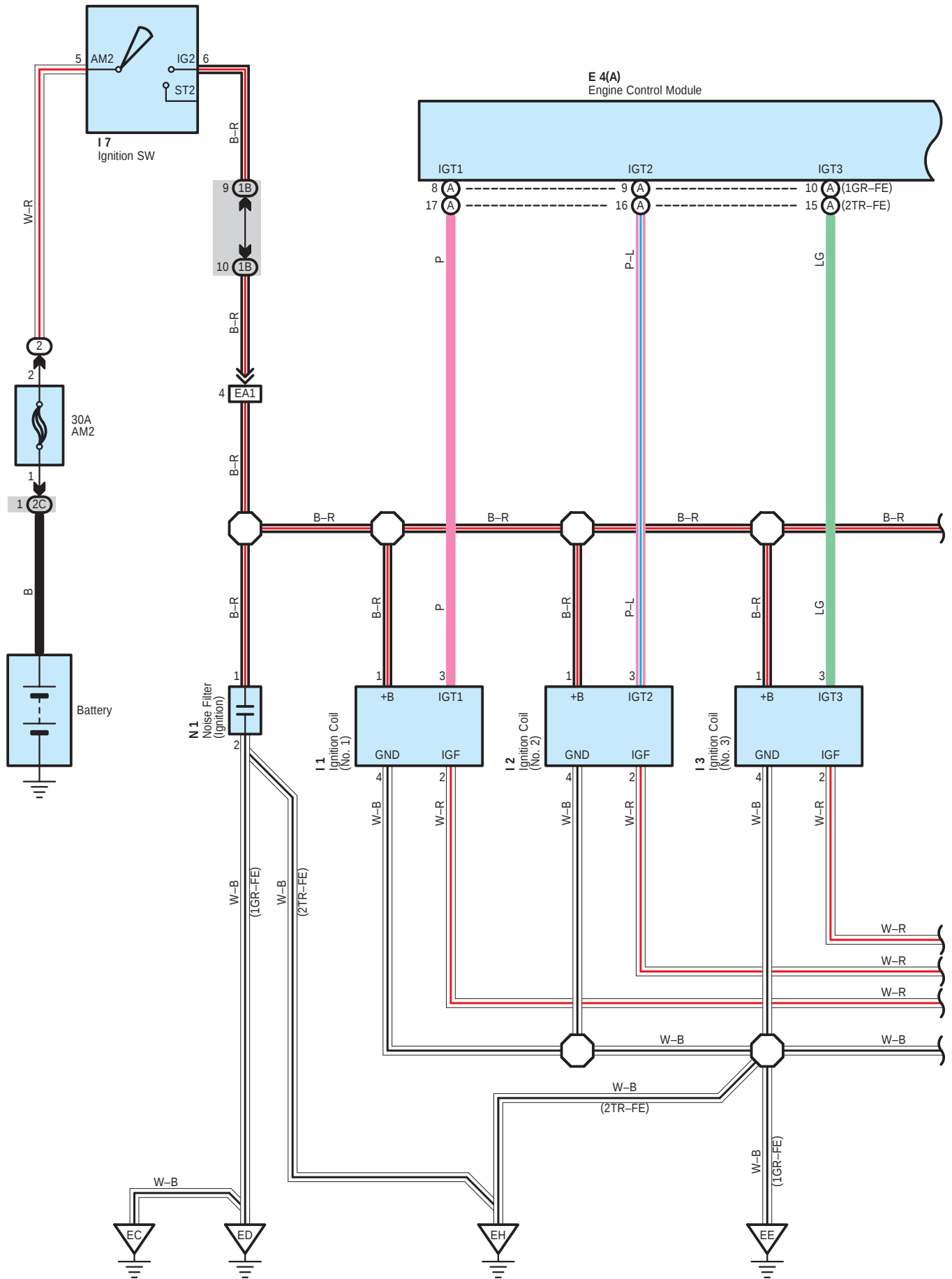
Code		See Page	Code		See Page	Code	See Page
G1	A	40 (1GR-FE)	G1	C	42 (2TR-FE)		
	B	40 (1GR-FE)	I7		45		

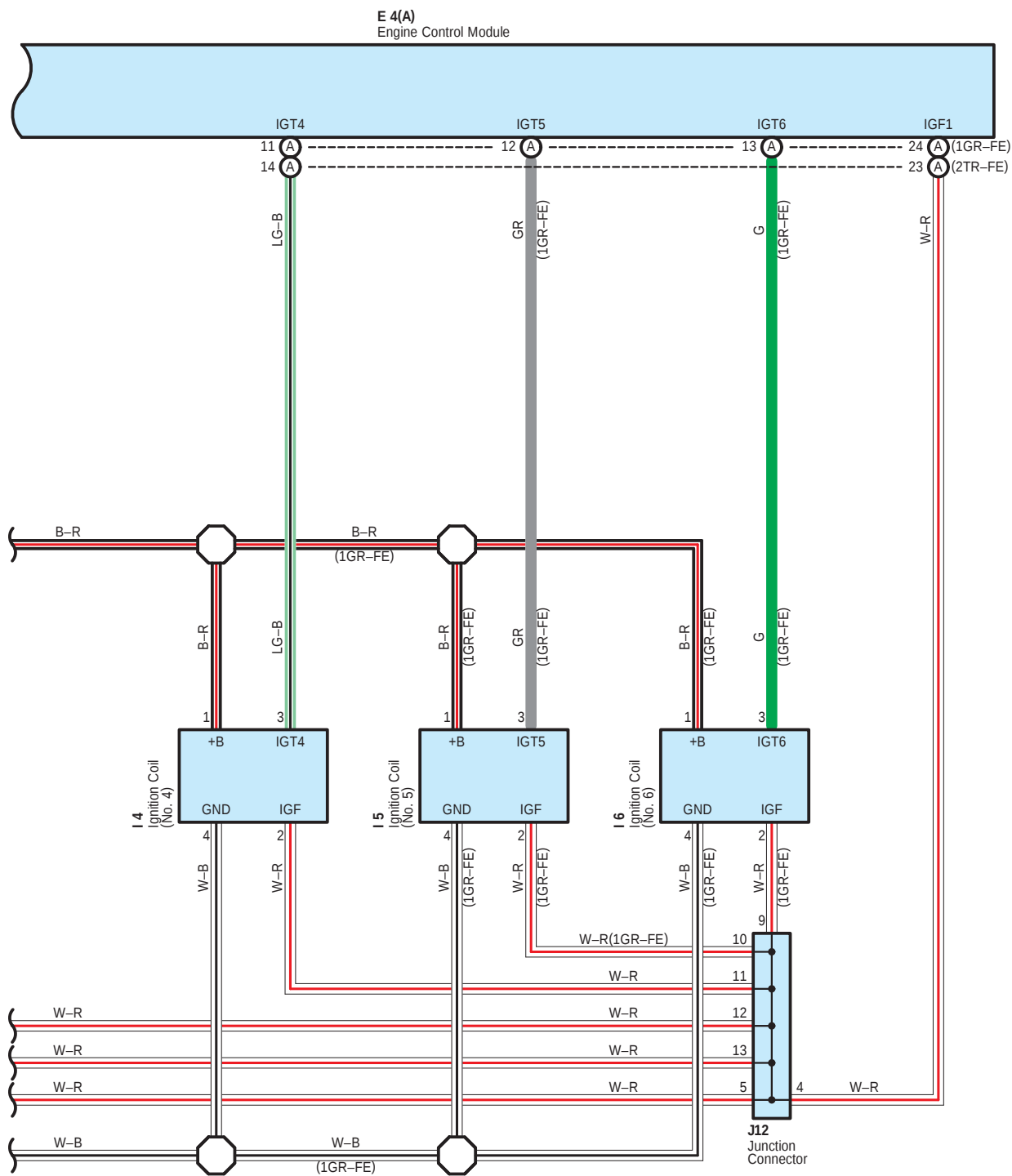
: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1B		
2C	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2D		
2E	24 (1GR-FE)	Engine No.2 Wire and Engine Room J/B (Engine Compartment Left)
	24 (2TR-FE)	Engine Wire and Engine Room J/B (Engine Compartment Left)
2F	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)





Ignition

: Parts Location

Code		See Page	Code	See Page	Code	See Page
E4	A	44	I3	41 (1GR-FE)	I6	41 (1GR-FE)
I1		41 (1GR-FE)		43 (2TR-FE)	I7	45
		43 (2TR-FE)	I4	41 (1GR-FE)	J12	45
I2		41 (1GR-FE)		43 (2TR-FE)	N1	41 (1GR-FE)
		43 (2TR-FE)	I5	41 (1GR-FE)		43 (2TR-FE)

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

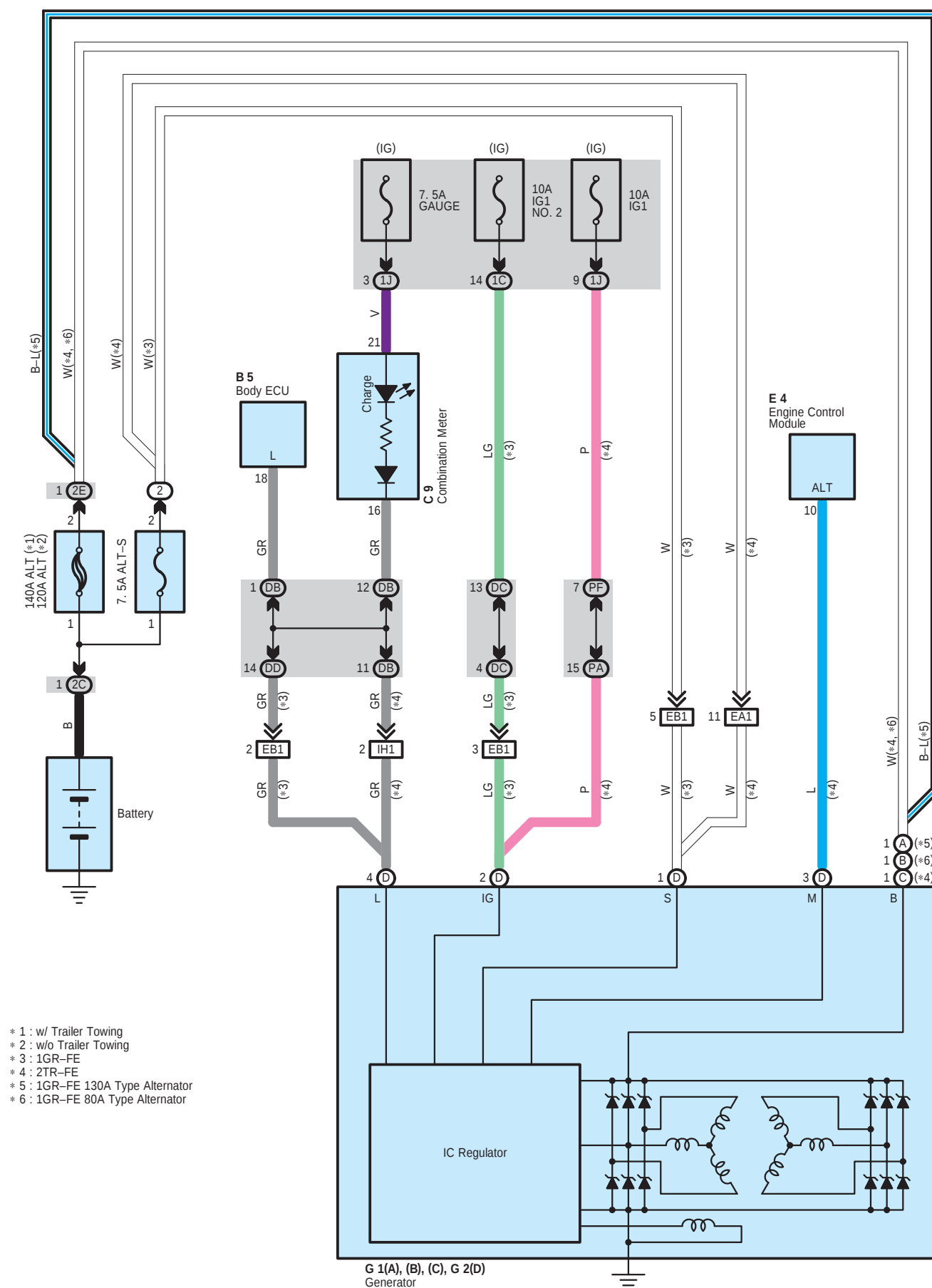
Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2C	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	52 (1GR-FE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B)
	53 (2TR-FE)	

: Ground Points

Code	See Page	Ground Points Location
EC	52 (1GR-FE)	Near the Front Differential
ED	52 (1GR-FE)	Rear Side of Right Bank Cylinder Block
EE		
EH	53 (2TR-FE)	Rear Side of Cylinder Block



☐ : Parts Location

Code	See Page	Code	See Page	Code	See Page
B5	44	G1	A	40 (1GR-FE)	G2 D
C9	44		B	40 (1GR-FE)	
E4	44		C	42 (2TR-FE)	

☐ : Relay Blocks

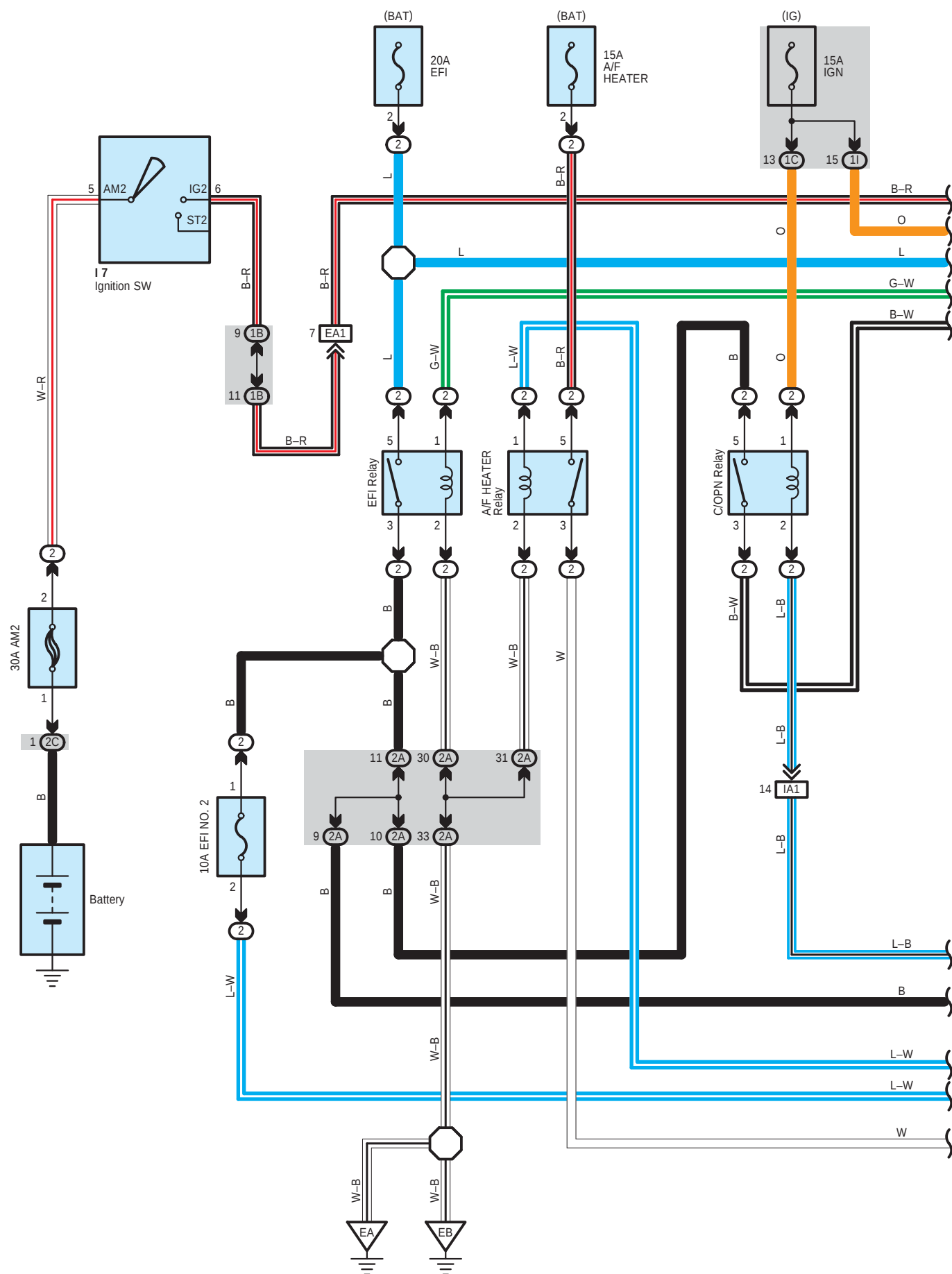
Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

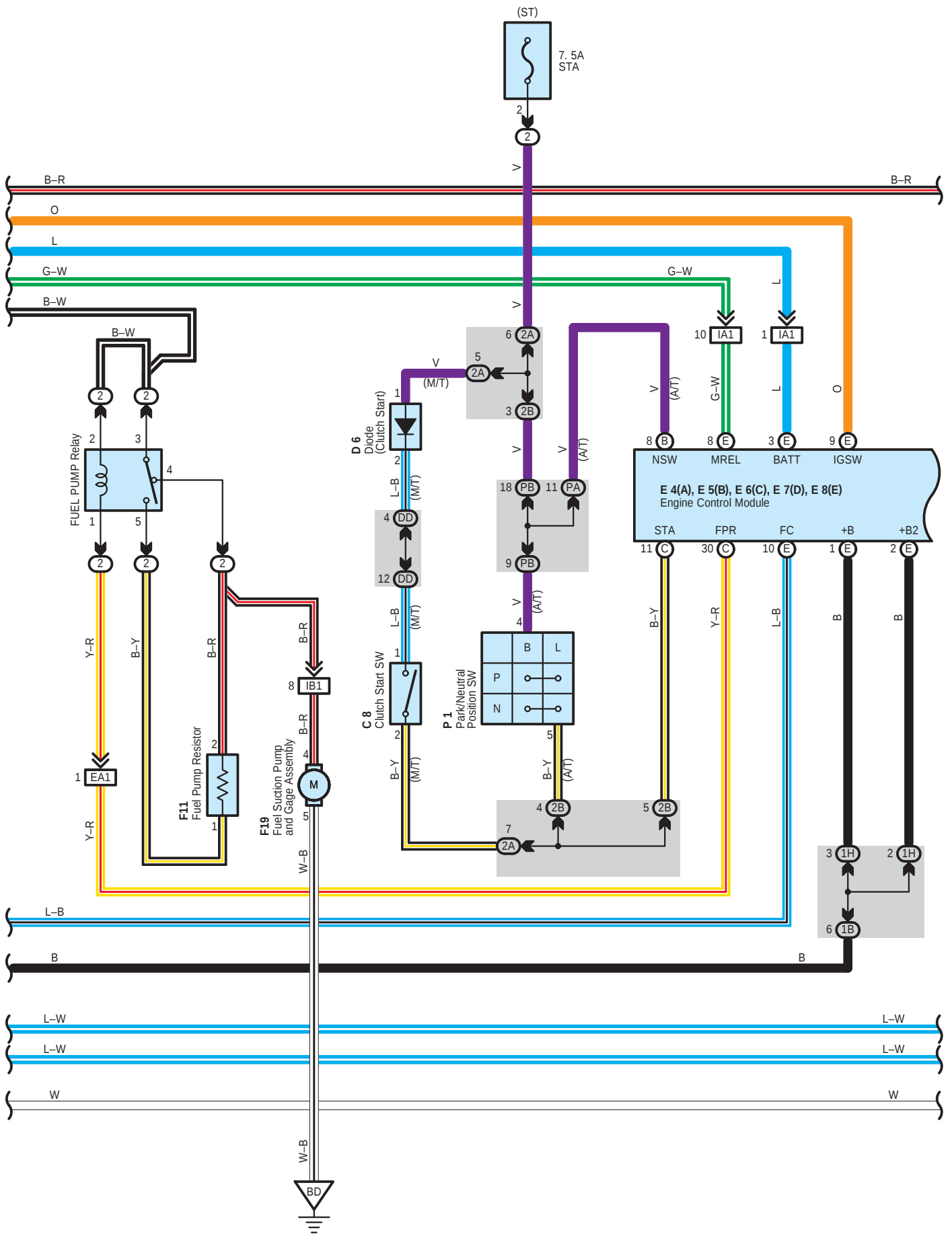
☐ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1J	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2C	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2E	24 (1GR-FE)	Engine No.2 Wire and Engine Room J/B (Engine Compartment Left)
	24 (2TR-FE)	Engine Wire and Engine Room J/B (Engine Compartment Left)
DB	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DD		
PA	36	Engine Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PF	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)

☐ : Connector Joining Wire Harness and Wire Harness

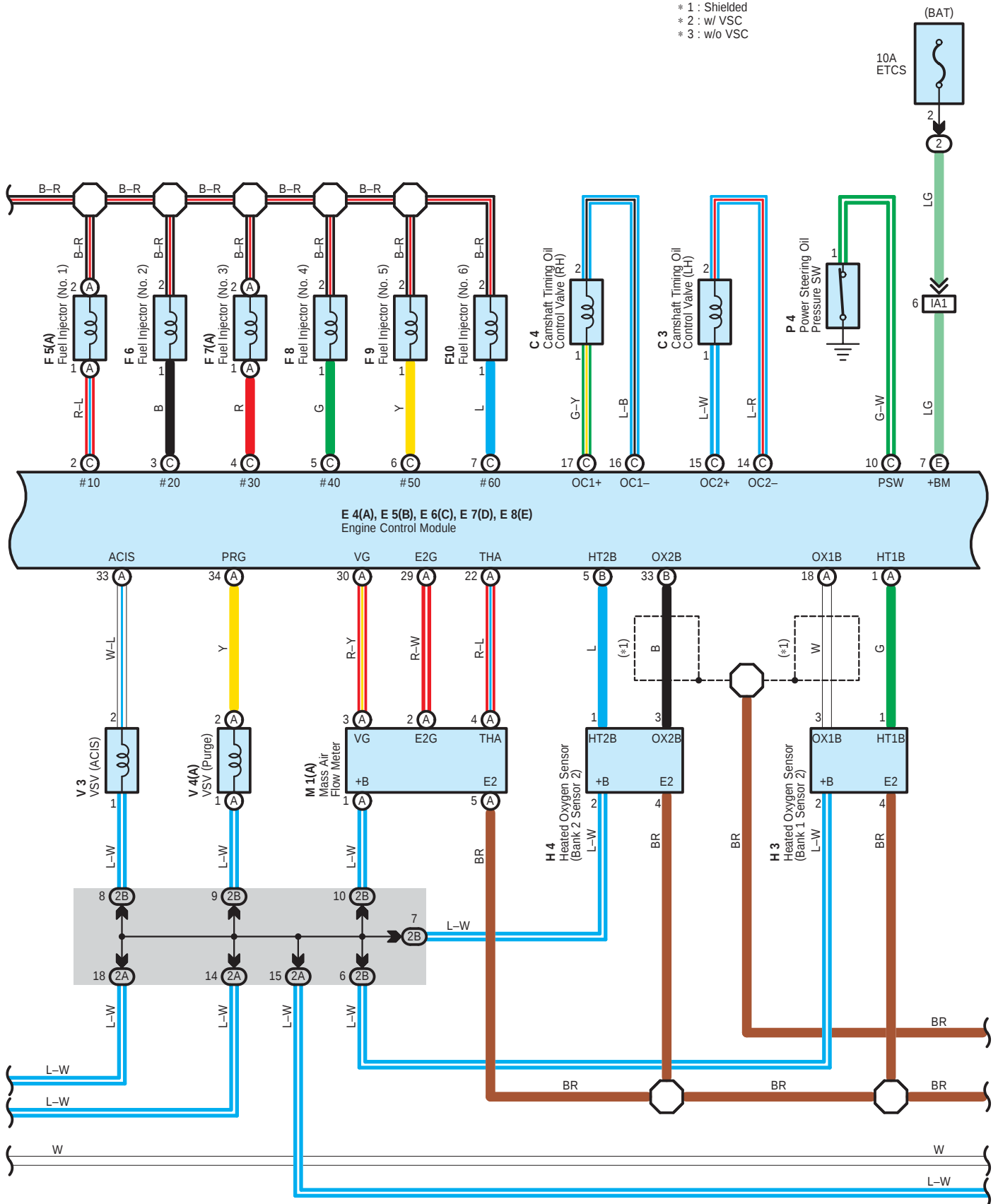
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	53 (2TR-FE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B)
EB1	52 (1GR-FE)	Engine No.2 Wire and Engine Room Main Wire (Inside of Engine Room R/B)
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)

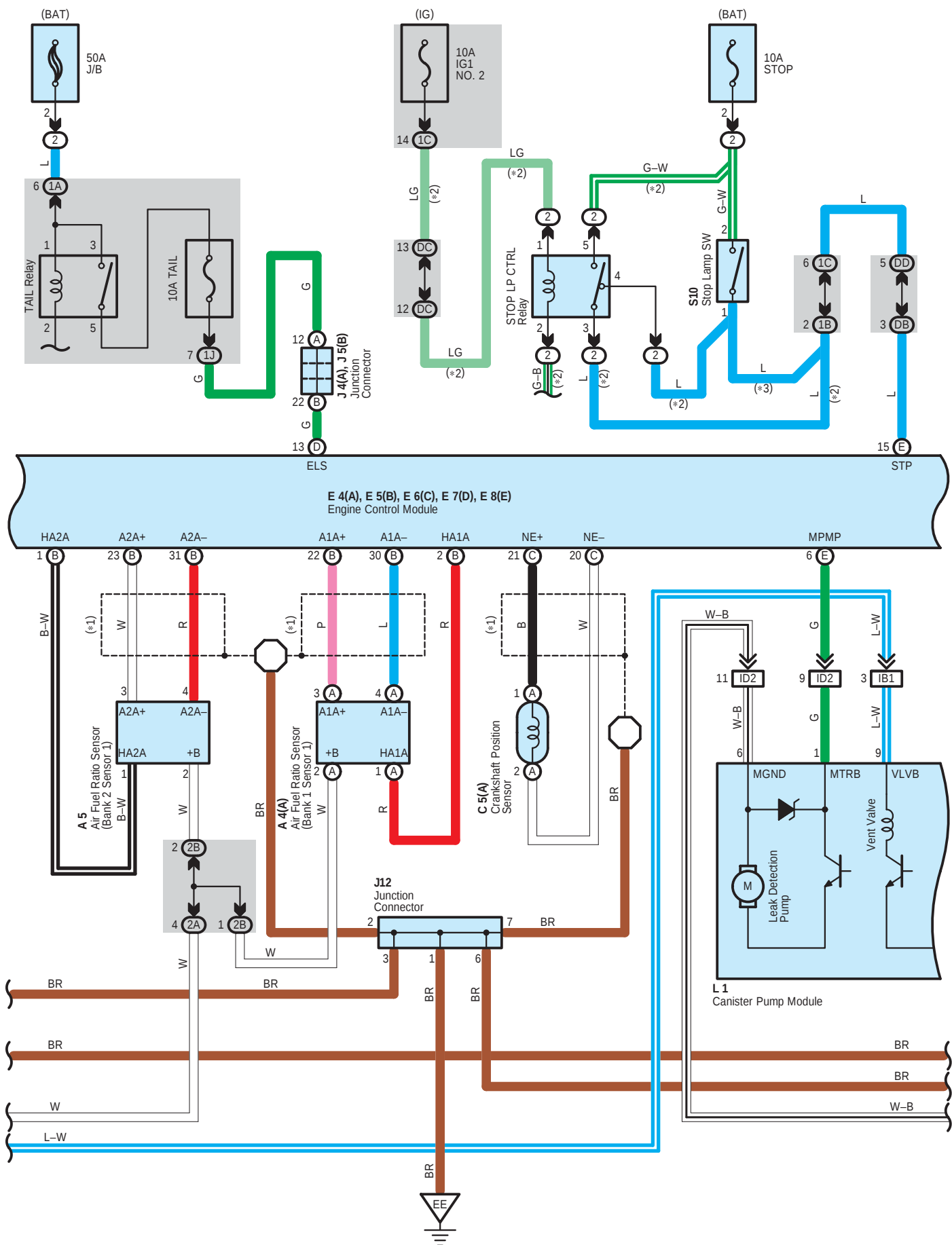




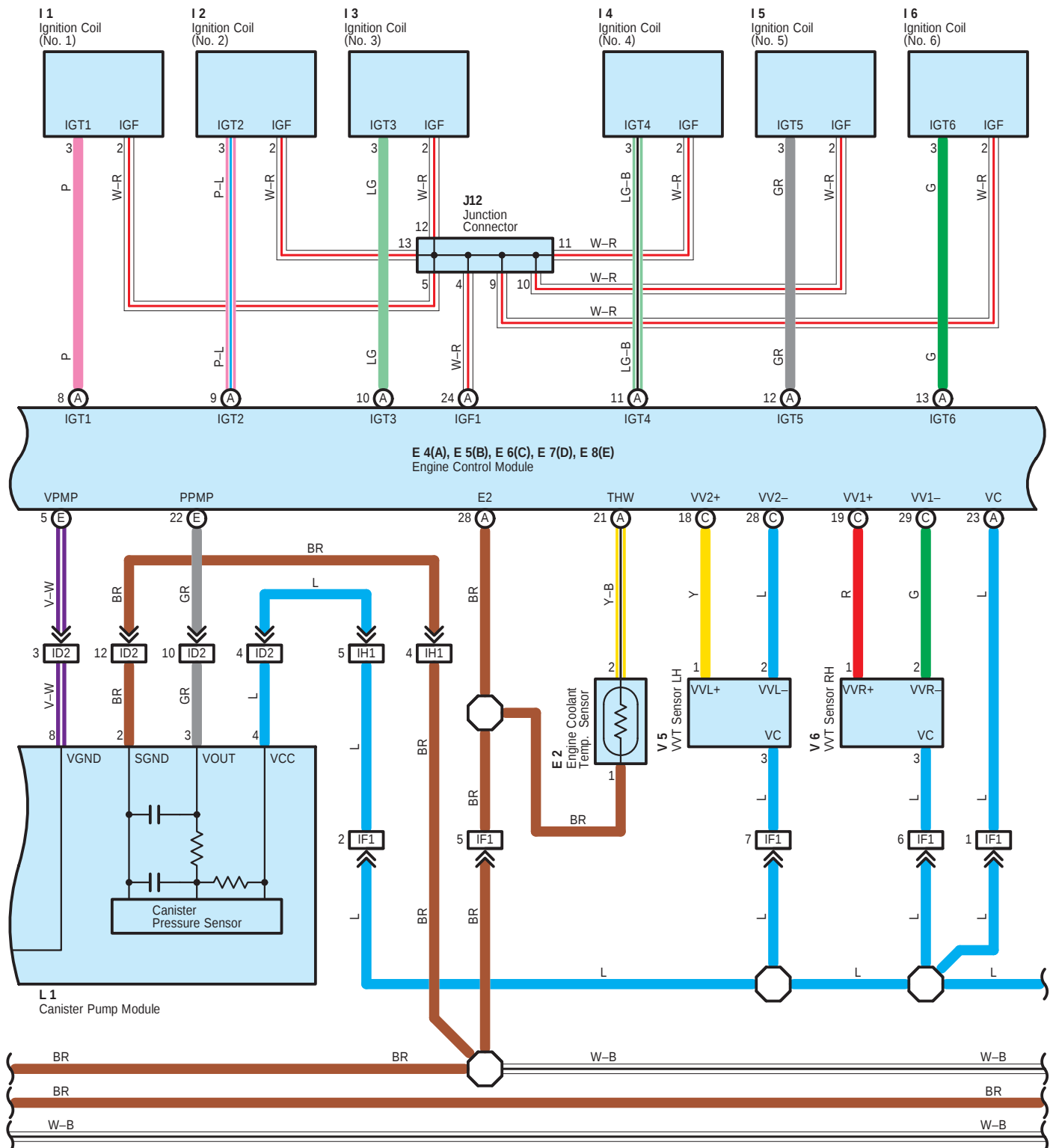
Engine Control for 1GR-FE

- * 1 : Shielded
- * 2 : w/ VSC
- * 3 : w/o VSC

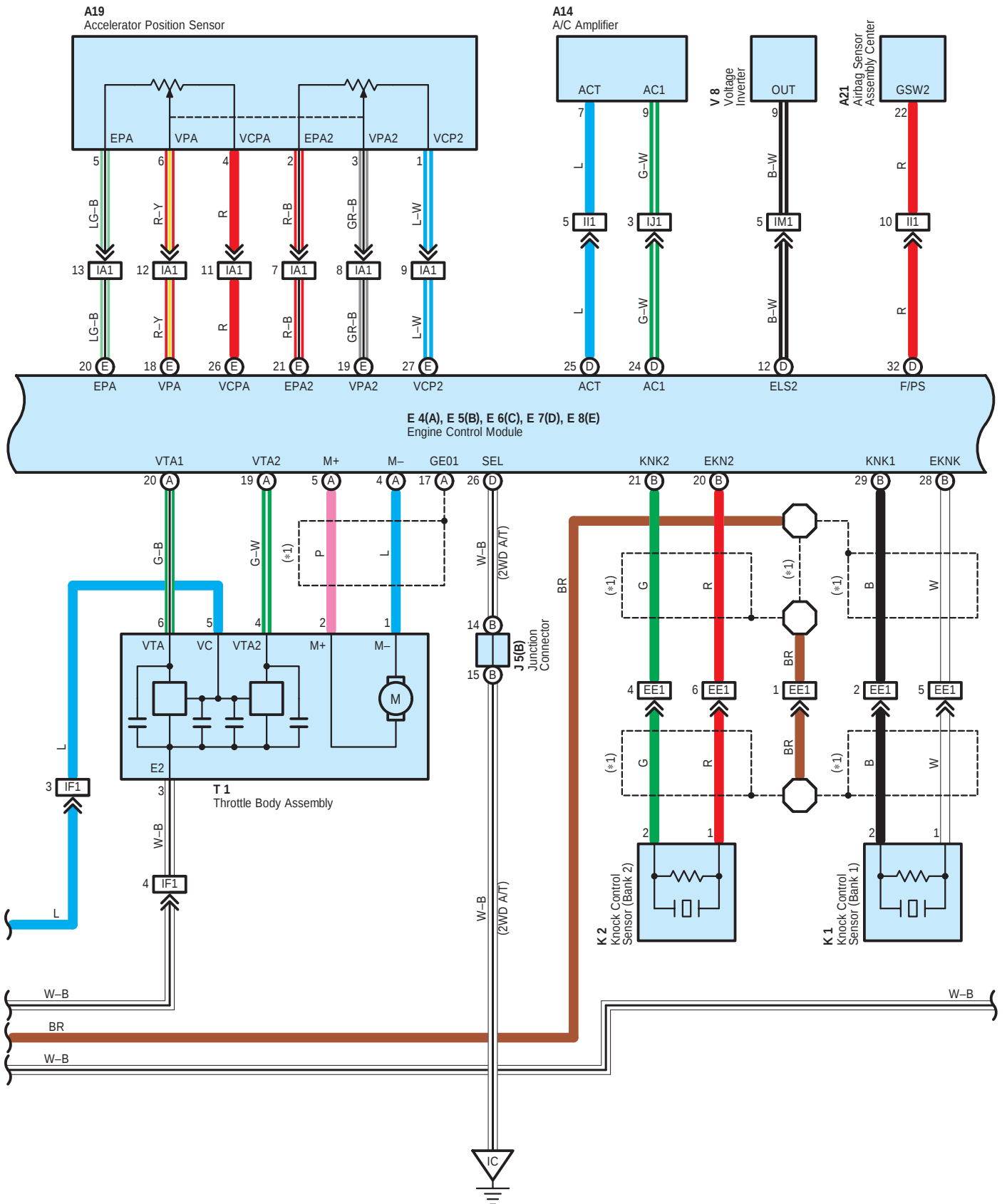


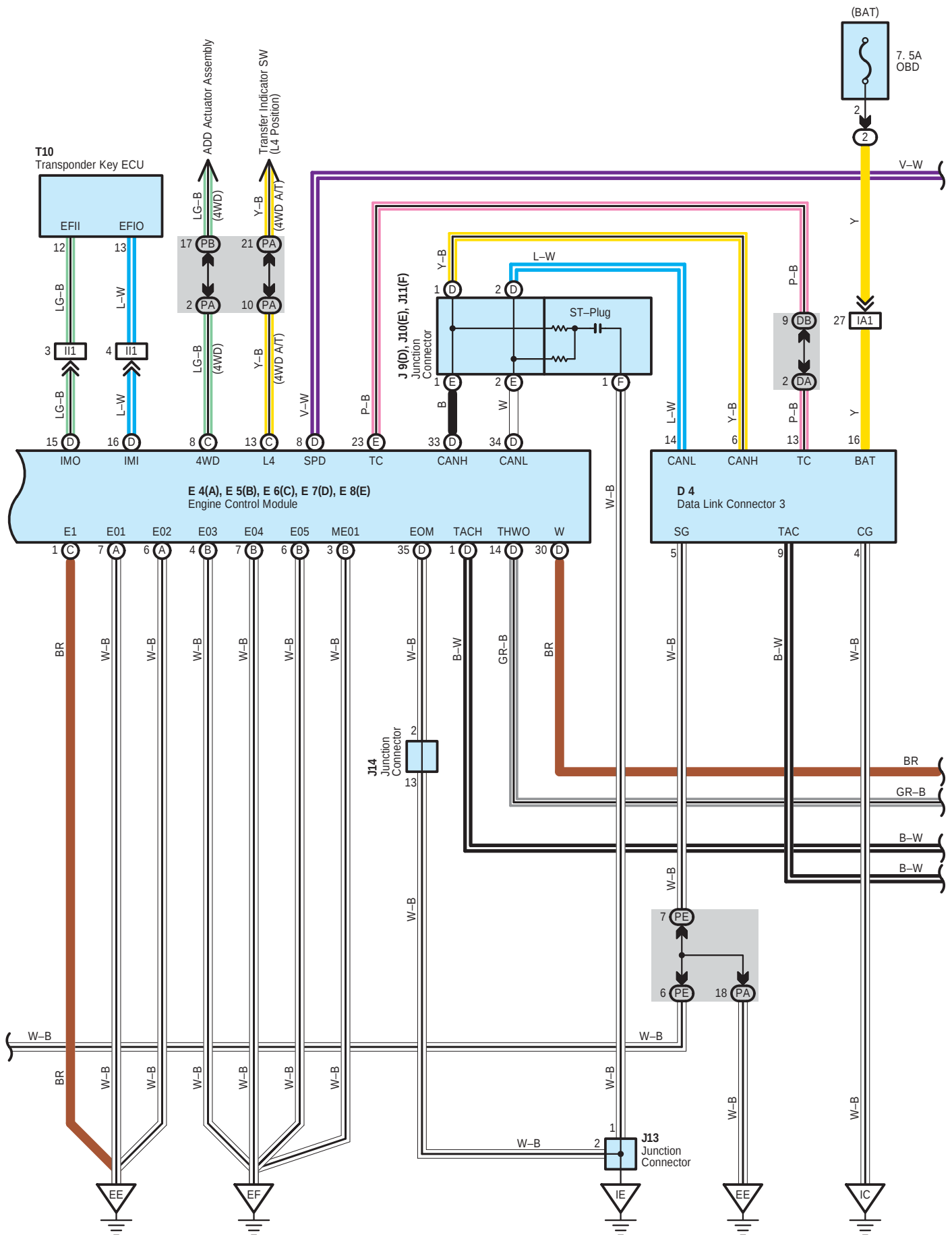


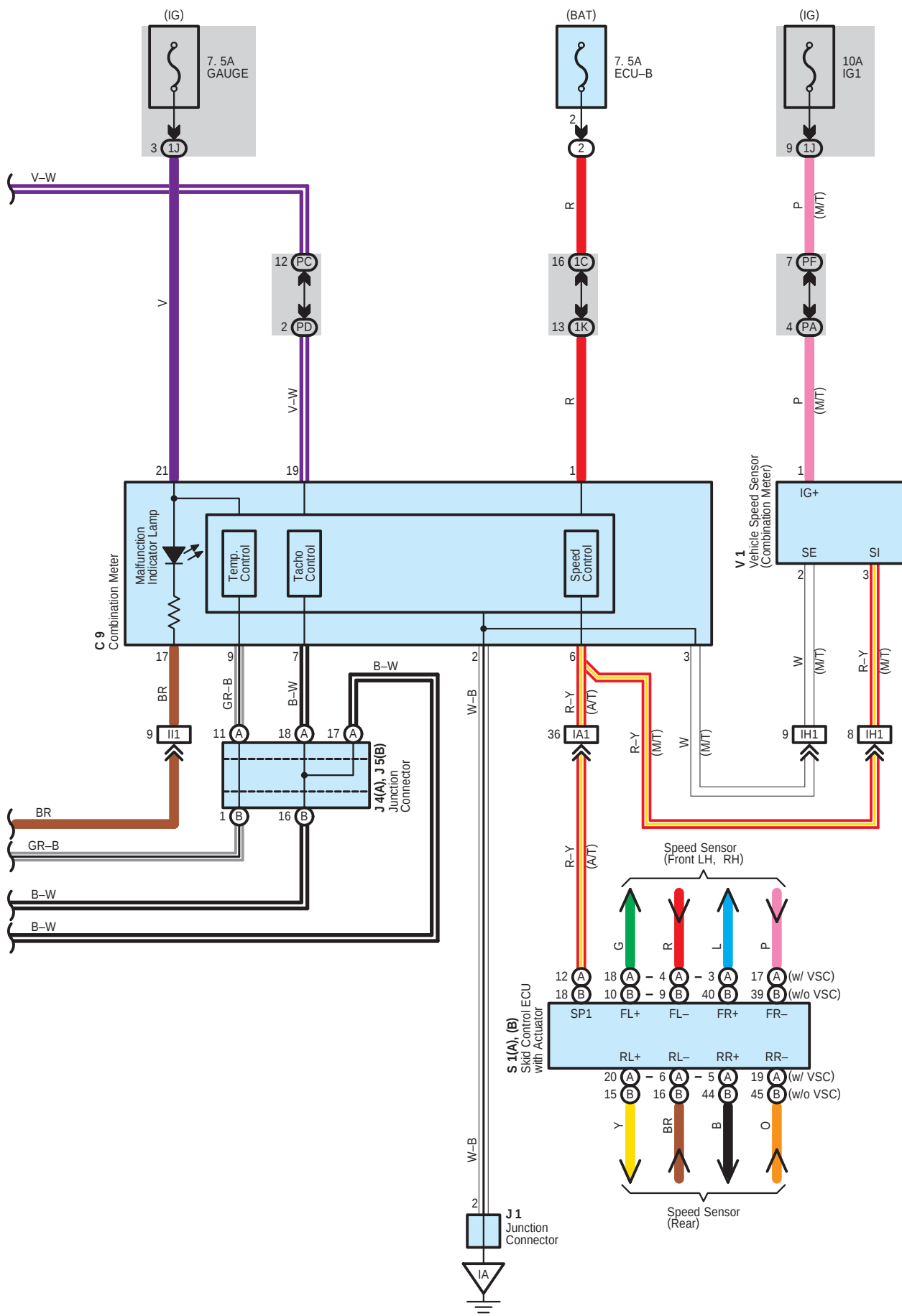
Engine Control for 1GR-FE



* 1 : Shielded







System Outline

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

1. Input Signals

(1) Engine coolant temp. signal circuit

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

(2) Intake air temp. signal circuit

The intake air temp. sensor is installed in the mass air flow meter and detects the intake air temp., which is input 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

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

(5) Throttle position sensor signal circuit

The throttle position sensor detects the throttle valve opening angle as a control signal, which is input into TERMINALS 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. (A/T)

The vehicle speed is detected by the vehicle speed sensor installed in the transaxle and the signal is input to TERMINAL SPD of the engine control module via the combination meter. (M/T)

(7) Battery signal circuit

Voltage is constantly applied to TERMINAL BATT of the engine control module. When the ignition SW is turned on, the voltage for engine control module start up power supply is applied through the EFI relay, to TERMINALS +B and +B2 of the engine control module. The current from the IGN fuse flows to TERMINAL IGSW of the engine control module, and voltage is constantly applied to TERMINAL +BM.

(8) Intake air volume signal circuit

The intake air volume is detected by the mass air flow meter, and is input 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 sensors, and is input into TERMINALS KNK1 and KNK2 of the engine control module as a control signal.

(12) A/C SW signal system

The operating voltage of the A/C magnetic clutch is detected and input in the form of a control signal to TERMINAL AC1 of the engine control module.

(13) 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.

- * Fuel pump control system

The engine control module supplies current to TERMINAL FPR, and controls the operation speed of the fuel pump with the FUEL PUMP relay.

- * 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.

- * VVT-i

Controls the intake camshaft to an optimal valve timing in accordance with the engine condition.

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 1GR-FE

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A4	A	40 (1GR-FE)	F9		40 (1GR-FE)	J14		45
A5		40 (1GR-FE)	F10		40 (1GR-FE)	K1		41 (1GR-FE)
A14		44	F11		40 (1GR-FE)	K2		41 (1GR-FE)
A19		44	F19		46 (*1)	L1		46 (*1)
A21		44			48 (*2)			48 (*2)
C3		40 (1GR-FE)	H3		41 (1GR-FE)	M1	A	41 (1GR-FE)
C4		40 (1GR-FE)	H4		41 (1GR-FE)	P1		41 (1GR-FE)
C5	A	40 (1GR-FE)	I1		41 (1GR-FE)	P4		41 (1GR-FE)
C8		44	I2		41 (1GR-FE)	S1	A	41 (1GR-FE)
C9		44	I3		41 (1GR-FE)		B	41 (1GR-FE)
D4		44	I4		41 (1GR-FE)	S10		45
D6		44	I5		41 (1GR-FE)	T1		41 (1GR-FE)
E2		40 (1GR-FE)	I6		41 (1GR-FE)	T10		45
E4	A	44	I7		45	V1		41 (1GR-FE)
E5	B	44	J1		45	V3		41 (1GR-FE)
E6	C	44	J4	A	45	V4	A	41 (1GR-FE)
E7	D	44	J5	B	45	V5		41 (1GR-FE)
E8	E	44	J9	D	45	V6		41 (1GR-FE)
F5	A	40 (1GR-FE)	J10	E	45	V8		47 (*1)
F6		40 (1GR-FE)	J11	F	45			48 (*2)
F7	A	40 (1GR-FE)	J12		45			
F8		40 (1GR-FE)	J13		45			

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1B		
1C		
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
1J		
1K		
2A	24	Engine Room J/B (Engine Compartment Left)
2B	24	Engine Wire and Engine Room J/B (Engine Compartment Left)
2C	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DA	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DB		
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DD		
PA	36	Engine Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PB		
PC	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PD		
PE		
PF		

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

 : Connector Joining Wire Harness and Wire Harness

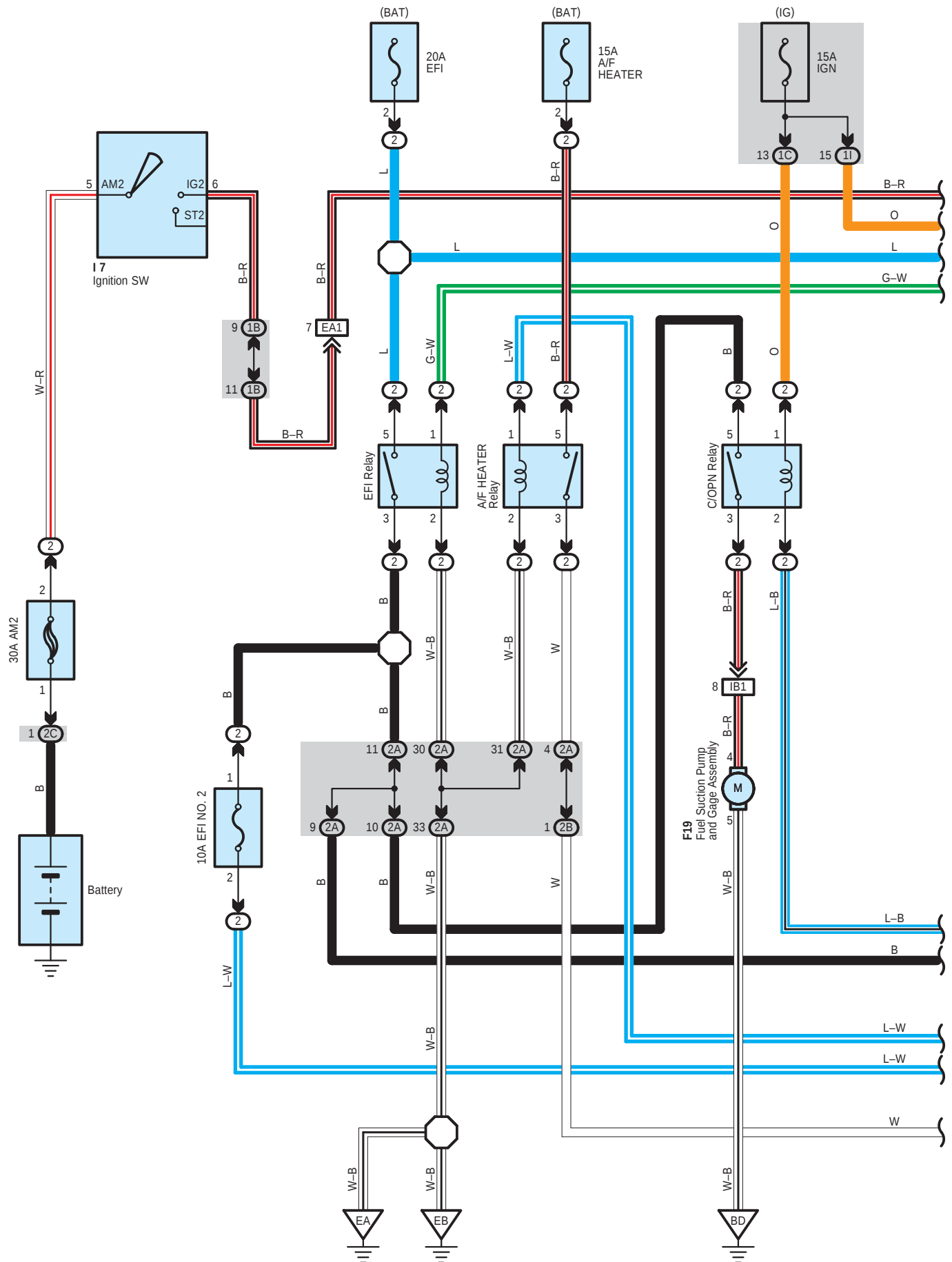
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	52 (1GR-FE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B)
EE1	52 (1GR-FE)	Engine Wire and Sensor Wire (Rear Side of Right Bank Cylinder Block)
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IB1	54	Frame Wire and Engine Room Main Wire (Left Kick Panel)
ID2	54	Frame Wire and Instrument Panel Wire (Left Kick Panel)
IF1	55	Engine Wire and Engine Wire (Behind the Glove Box)
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)
II1	55	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Brace RH)
IJ1	55	Instrument Panel Wire and Instrument Panel Wire (Right Kick Panel)
IM1	55	Floor No.3 Wire and Instrument Panel Wire (Under the Console Box)

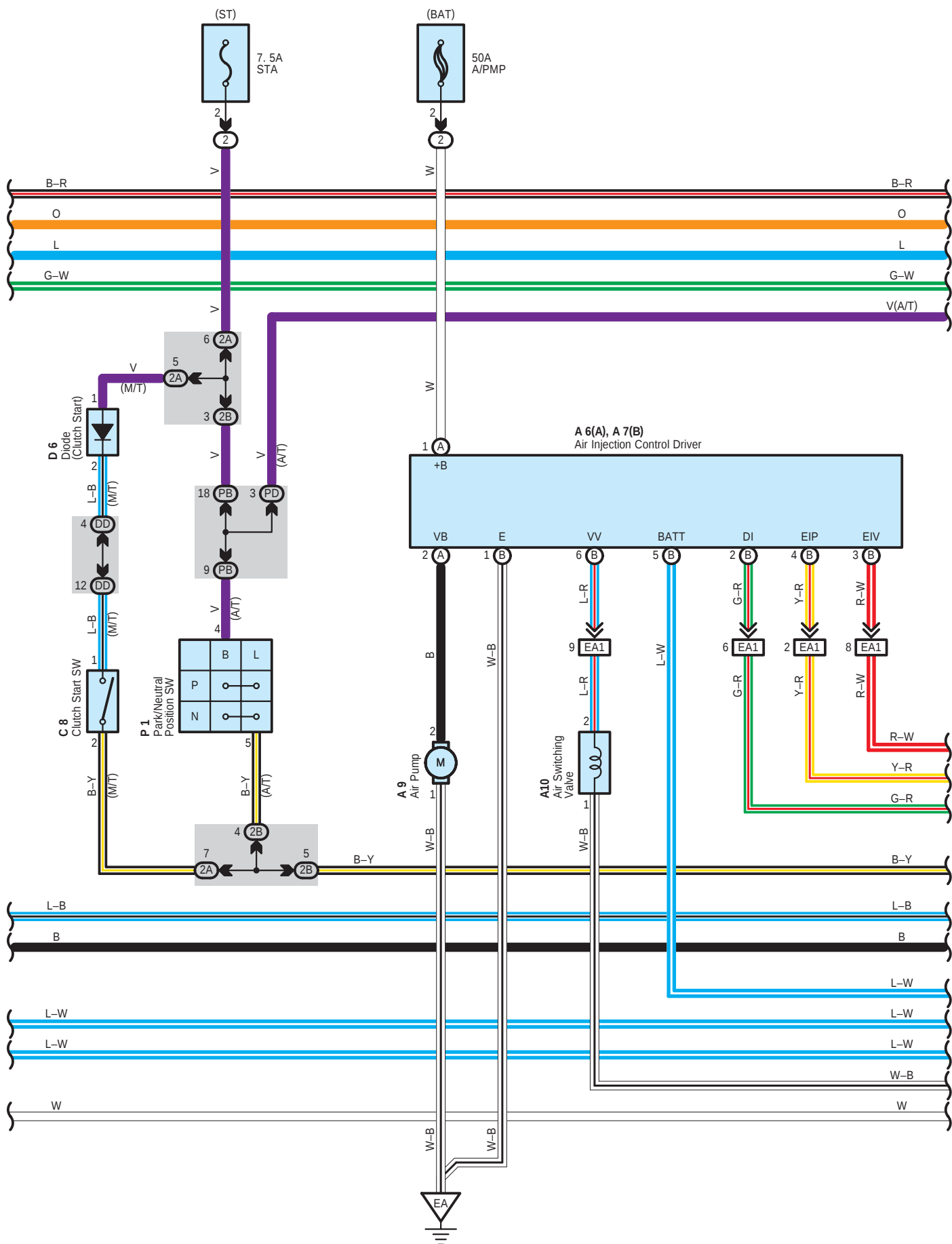
 : Ground Points

Code	See Page	Ground Points Location
EA	52 (1GR-FE)	Front Right Fender
EB	52 (1GR-FE)	Front Left Fender
EE	52 (1GR-FE)	Rear Side of Right Bank Cylinder Block
EF	52 (1GR-FE)	Rear Side of Left Bank Cylinder Block
IA	54	Left Kick Panel
IC	54	Instrument Panel Brace RH
IE	54	Right Kick Panel
BD	56 (*1)	Near the Rear Differential
	57 (*2)	

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

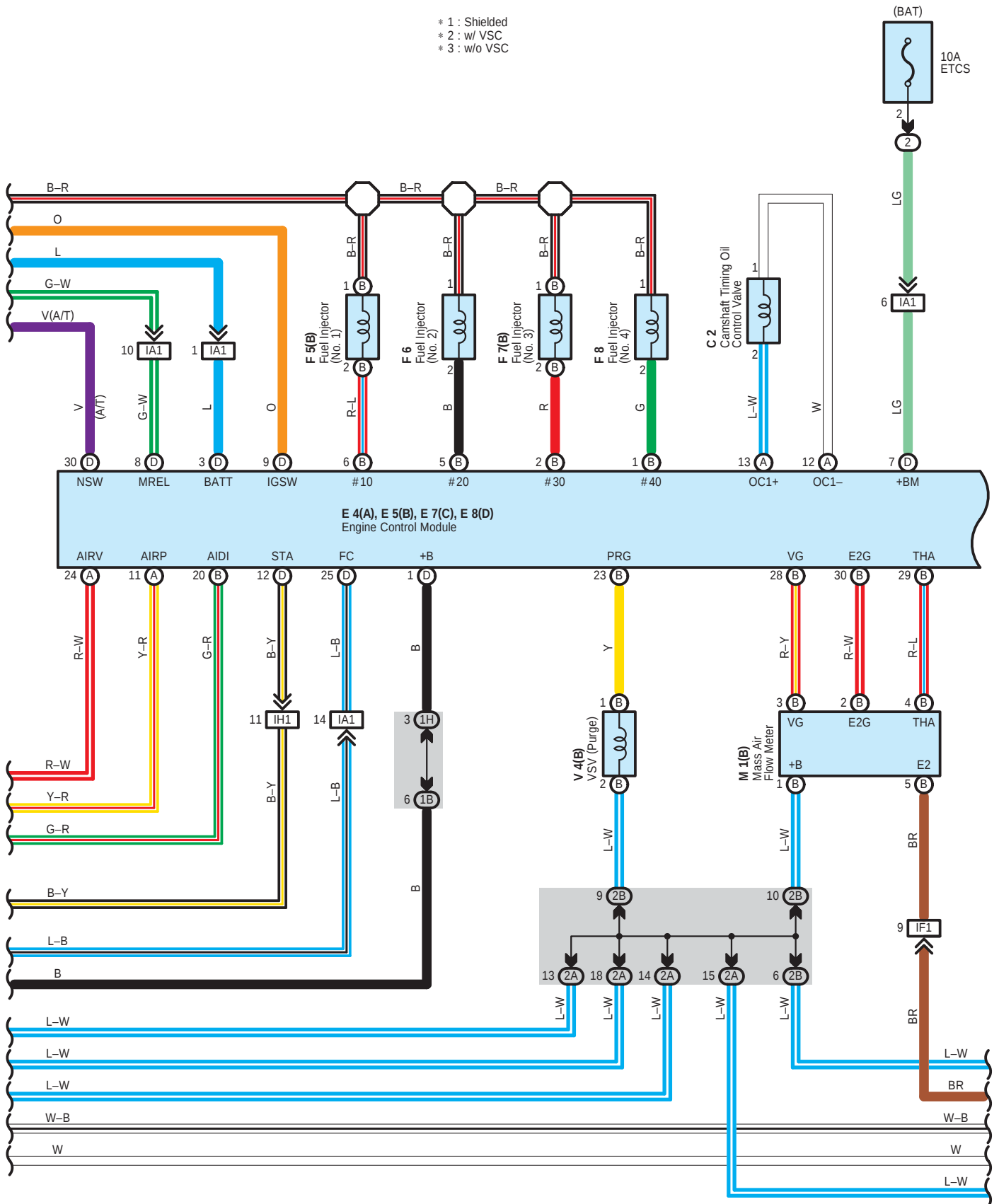
Engine Control for 2TR-FE

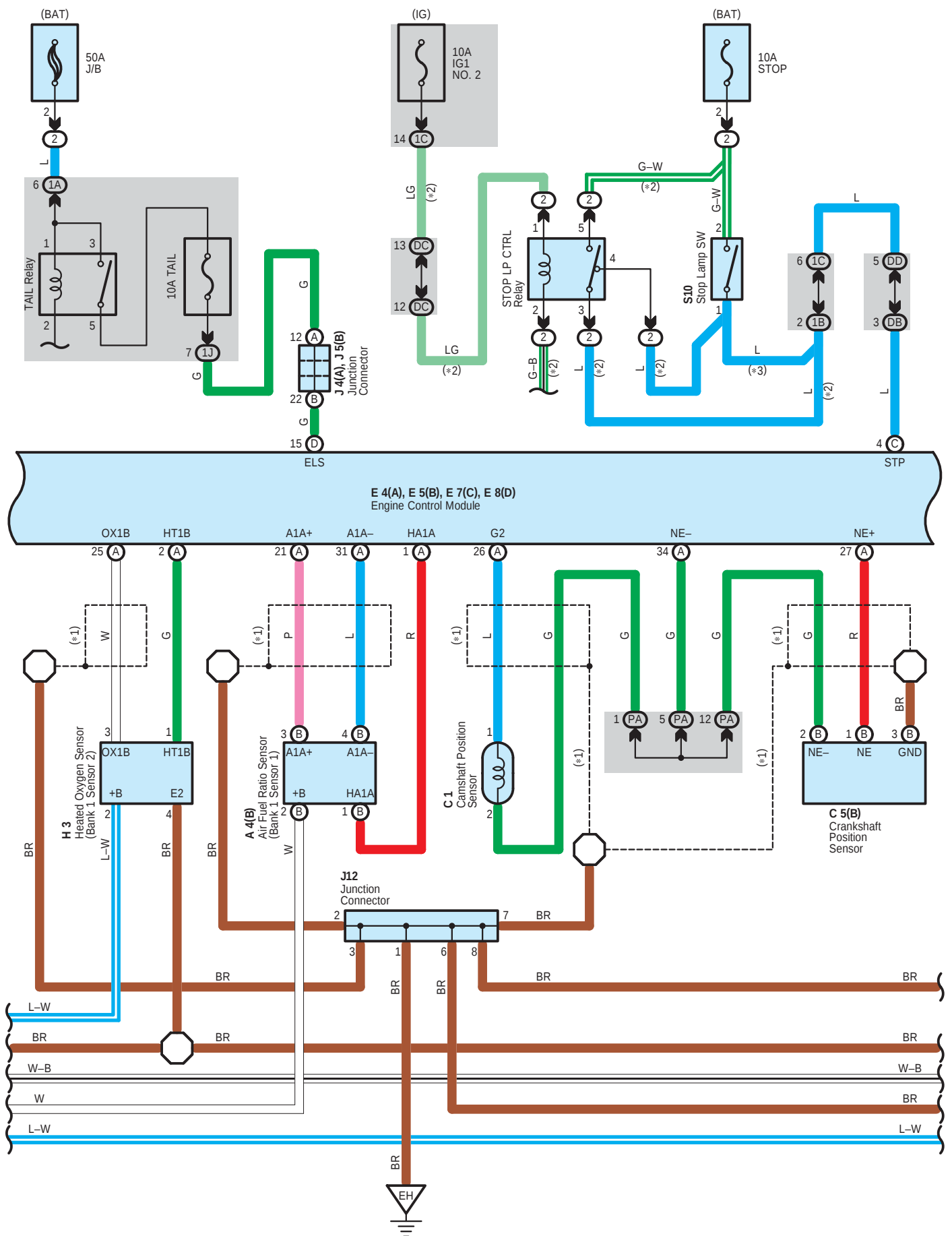


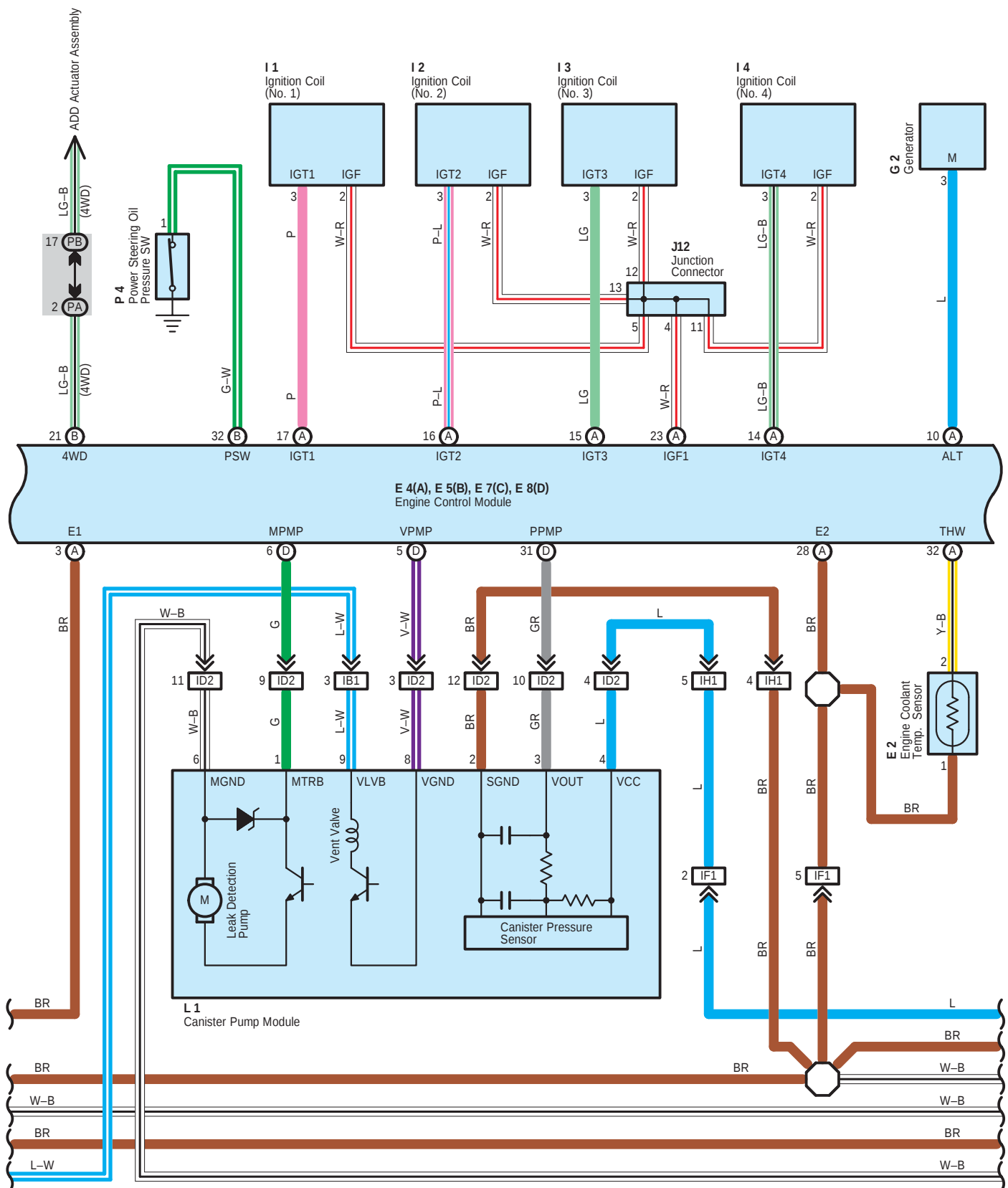


Engine Control for 2TR-FE

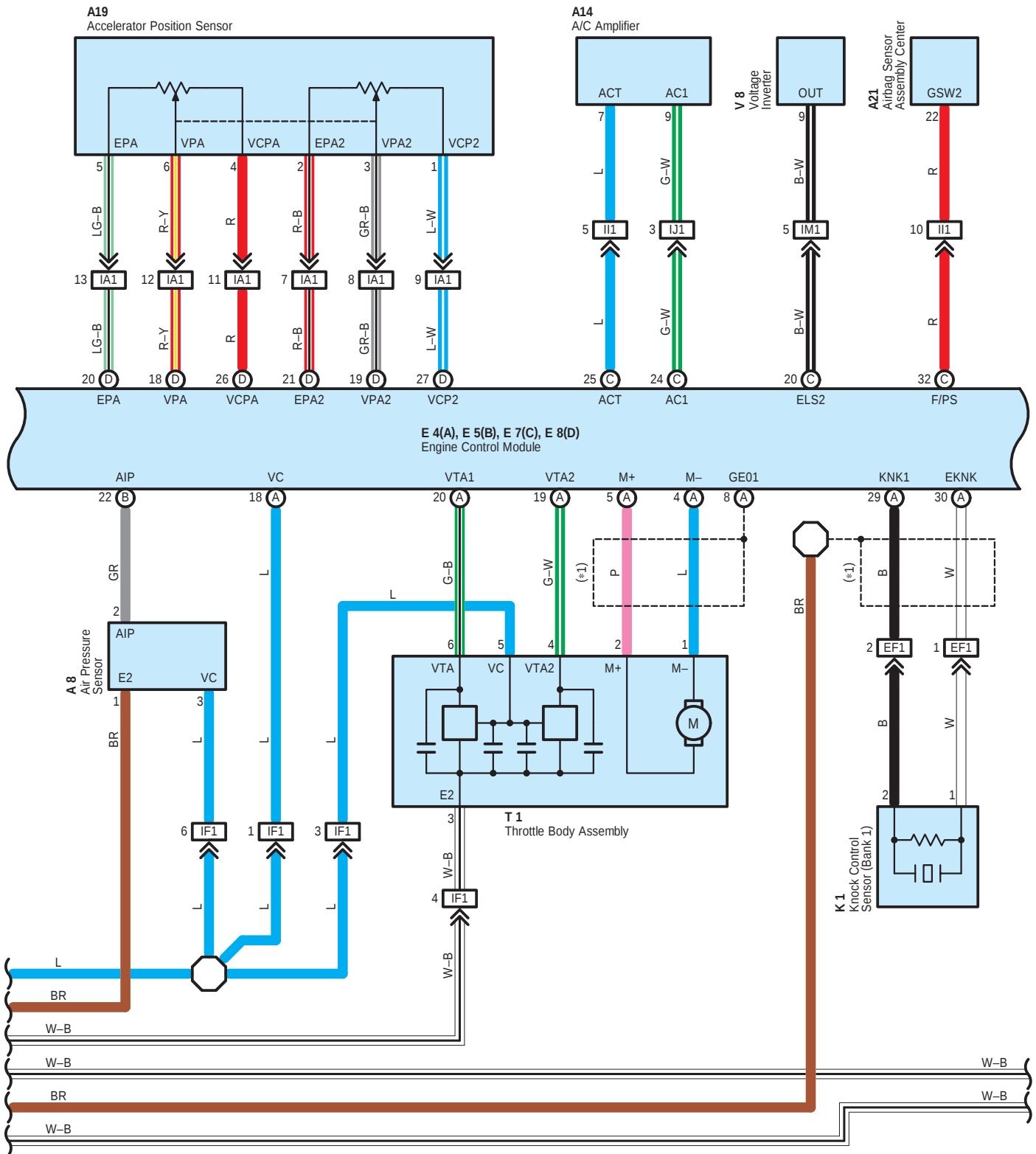
- * 1 : Shielded
- * 2 : w/ VSC
- * 3 : w/o VSC

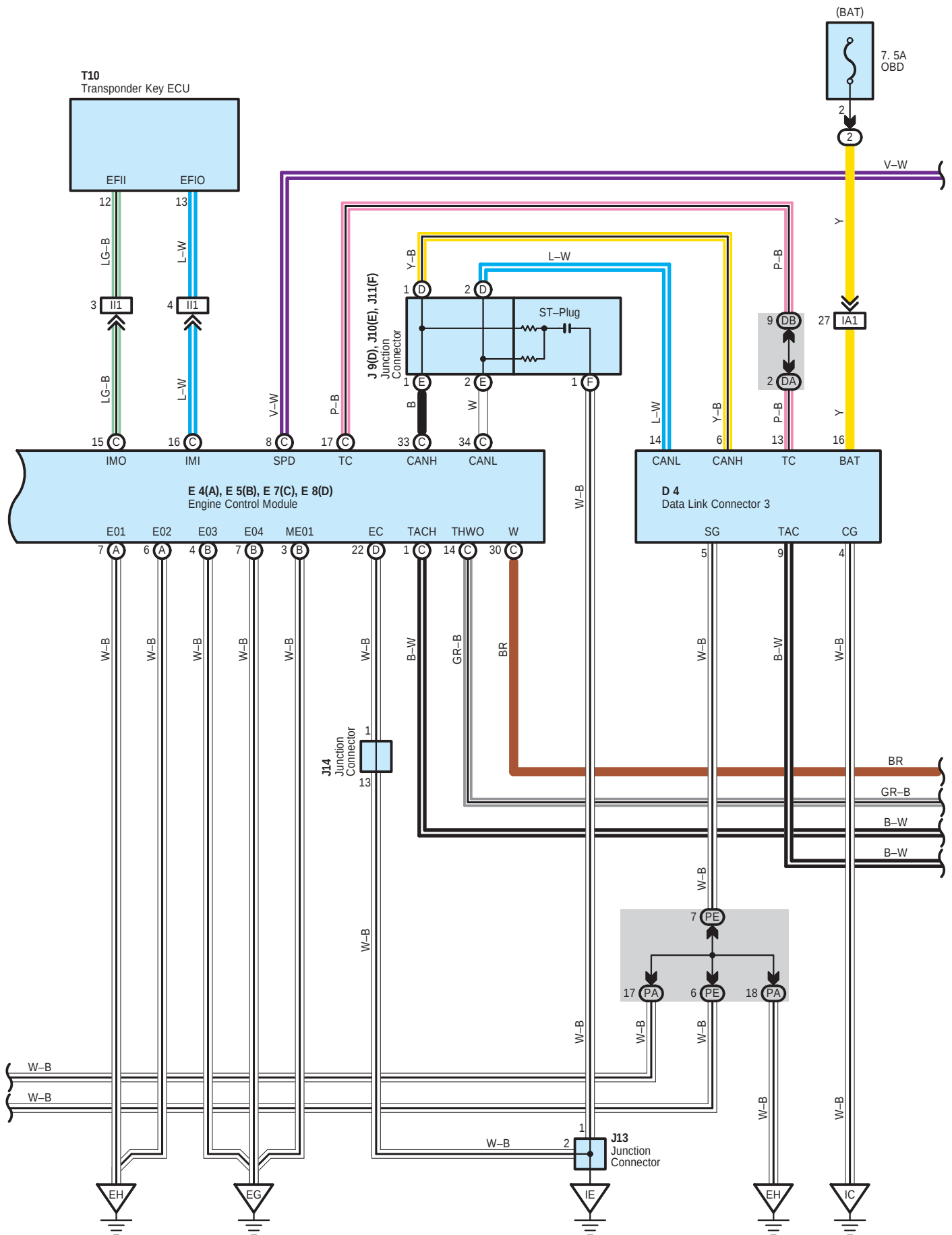


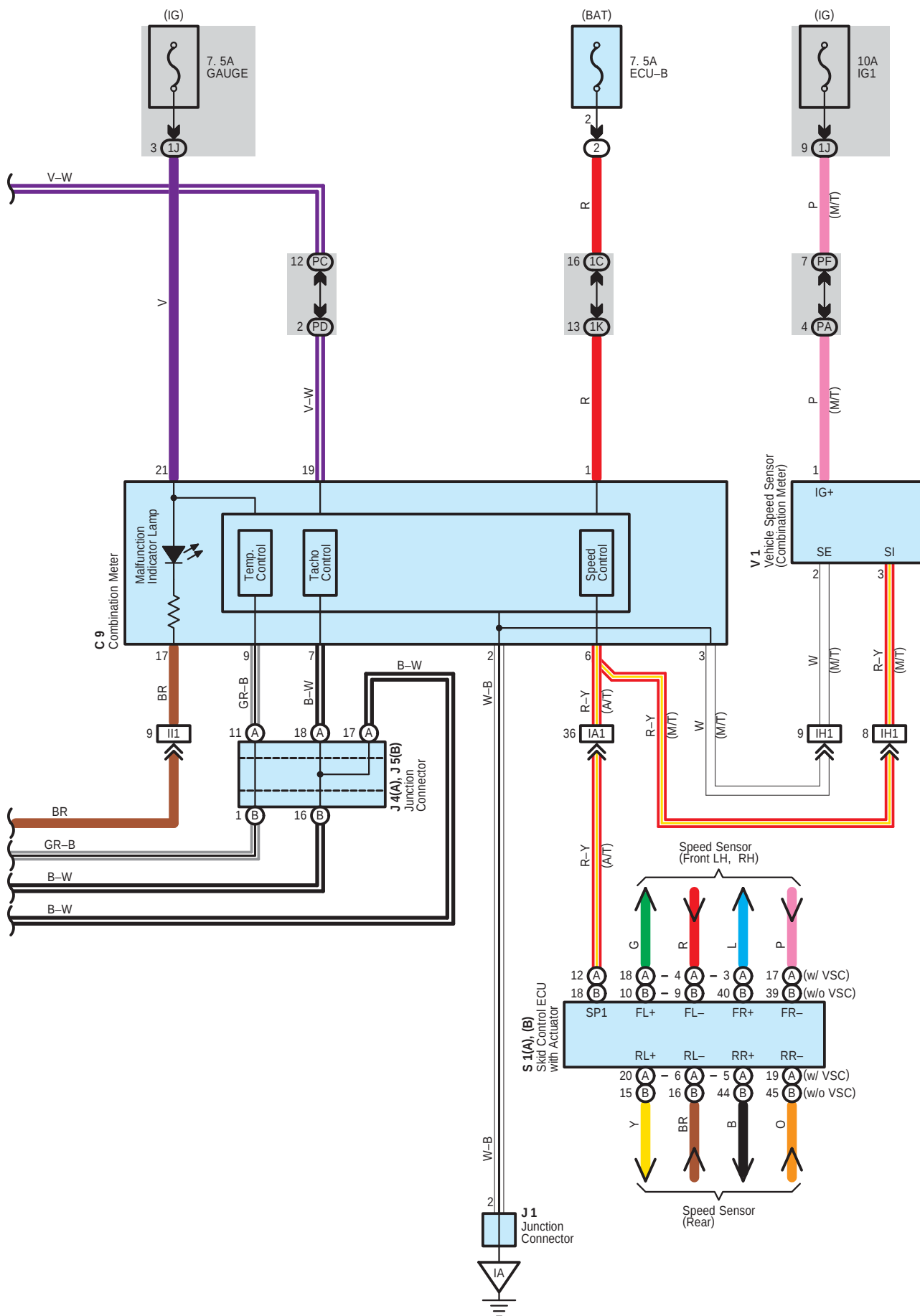




* 1 : Shielded







System Outline

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

1. Input Signals

(1) Engine coolant temp. signal system

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. Thus the engine coolant temp. is input as a control signal to TERMINAL THW of the engine control module.

(2) Intake air temp. signal system

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) Power steering oil pressure signal system

Power steering oil pressure is detected by the power steering oil pressure SW and is input as a control signal to TERMINAL PSW of the engine control module.

(4) RPM signal system

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 signal system

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

(6) Vehicle speed signal system

The vehicle speed is detected by the ABS speed sensor and the signal is input to TERMINAL SPD of the engine control module via the combination meter and the skid control ECU with actuator. (A/T)

The vehicle speed is detected by the vehicle speed sensor installed in the transaxle and the signal is input to TERMINAL SPD of the engine control module via the combination meter. (M/T)

(7) NSW signal system (A/T)

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

(8) A/C SW signal system

The operating voltage of the A/C SW is detected and is input as a control signal to TERMINAL AC1 of the engine control module.

(9) Battery signal system

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

(10) Intake air volume signal system

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.

(11) STA signal system

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

(12) Oxygen sensor signal system

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

(13) Engine knock signal system

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

(14) Electrical load signal system

When systems which cause a high electrical load such as the rear window defogger, taillight are turned on, a signal is input to TERMINALS ELS and ELS2 as a control signal.

(15) Air fuel ratio signal circuit

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

2. Control System

* SFI system

The SFI system monitors the engine conditions through the signals, which are input from each sensor to the engine control module. Based on this data and the program memorized in the engine control module, the most appropriate fuel injection timing is decided and current is output to TERMINALS #10, #20, #30 and #40 of the engine control module, operating the injectors (to inject fuel). This is the system which finely controls the fuel injection in response to the driving conditions, through the engine control module.

* ESA system

The ESA system monitors the engine conditions using the signals, which are input to the engine control module from each sensor. Based on this data and the program memorized in the engine control module, the most appropriate ignition timing is decided and current is output to TERMINALS IGT1, IGT2, IGT3 and IGT4 of the engine control module. This output controls the ignition coil and igniter No. 1, No. 2, No. 3 and No. 4 to produce the most appropriate ignition timing for the driving conditions.

* Knock control system

Knock control system controls the gate based on the engine rotation speed and detects knocking by the peak value of the knock sensor output during the gate open period, and then controls it to the most suitable ignition timing in proportion to the driving condition.

* Evapopurge control system

This system leads the vapor stuck to the canister to the surge tank in order not to agitate the air fuel by adjusting the fuel injection volume.

The signal at this time will be output from TERMINAL PRG of the engine control module to VSV (Purge).

3. Diagnosis System

With the diagnosis system, when there is a malfunctioning in the engine control module signal system, the malfunction system is recorded in the memory. The malfunctioning system can be found by reading the display (Code) of the malfunction indicator lamp.

4. Fail-Safe System

When a malfunction occurs 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 the 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
A4	B 42 (2TR-FE)	E7	C 44	J10	E 45
A6	A 42 (2TR-FE)	E8	D 44	J11	F 45
A7	B 42 (2TR-FE)	F5	B 42 (2TR-FE)	J12	45
A8	42 (2TR-FE)	F6	42 (2TR-FE)	J13	45
A9	42 (2TR-FE)	F7	B 42 (2TR-FE)	J14	45
A10	42 (2TR-FE)	F8	42 (2TR-FE)	K1	43 (2TR-FE)
A14	44	F19	48 (*2)	L1	48 (*2)
A19	44		49 (*3)		49 (*3)
A21	44	G2	42 (2TR-FE)	M1	B 43 (2TR-FE)
C1	42 (2TR-FE)	H3	43 (2TR-FE)	P1	43 (2TR-FE)
C2	42 (2TR-FE)	I1	43 (2TR-FE)	P4	43 (2TR-FE)
C5	B 42 (2TR-FE)	I2	43 (2TR-FE)	S1	A 43 (2TR-FE)
C8	44	I3	43 (2TR-FE)		B 43 (2TR-FE)
C9	44	I4	43 (2TR-FE)	S10	45
D4	44	I7	45	T1	43 (2TR-FE)
D6	44	J1	45	T10	45
E2	42 (2TR-FE)	J4	A 45	V1	43 (2TR-FE)
E4	A 44	J5	B 45	V4	B 43 (2TR-FE)
E5	B 44	J9	D 45	V8	48 (*2)

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Engine Control for 2TR-FE



: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1B		
1C		
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
1J		
1K		
2A	24	Engine Room J/B (Engine Compartment Left)
2B	24	Engine Wire and Engine Room J/B (Engine Compartment Left)
2C	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DA	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DB		
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DD		
PA	36	Engine Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PB		
PC	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PD		
PE		
PF		



: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	53 (2TR-FE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B)
EF1	53 (2TR-FE)	Engine Wire and Sensor Wire (Left Side of Cylinder Block)
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IB1	54	Frame Wire and Engine Room Main Wire (Left Kick Panel)
ID2	54	Frame Wire and Instrument Panel Wire (Left Kick Panel)
IF1	55	Engine Wire and Engine Wire (Behind the Glove Box)
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)
II1	55	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Brace RH)
IJ1	55	Instrument Panel Wire and Instrument Panel Wire (Right Kick Panel)
IM1	55	Floor No.3 Wire and Instrument Panel Wire (Under the Console Box)

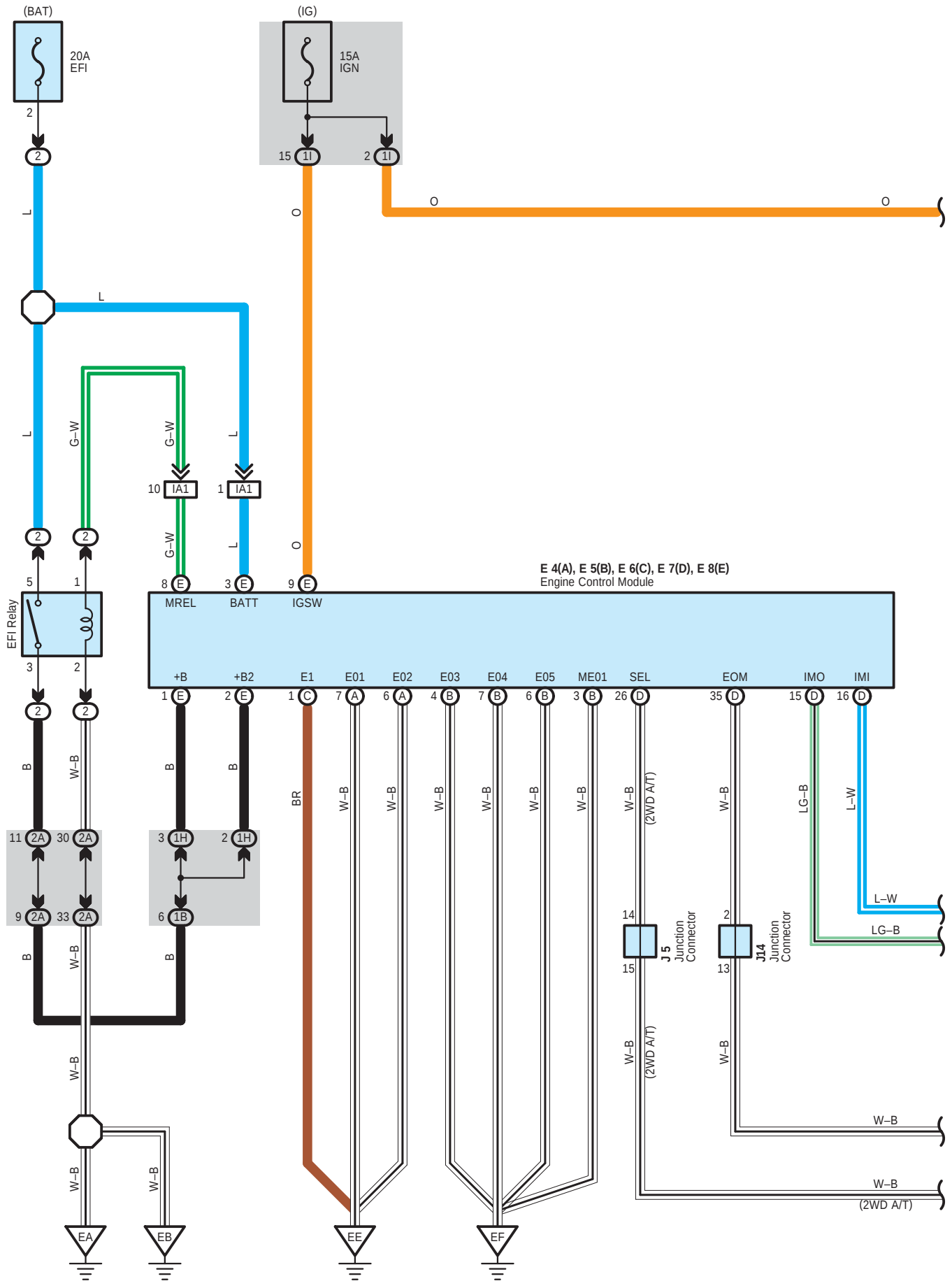


: Ground Points

Code	See Page	Ground Points Location
EA	53 (2TR-FE)	Front Right Fender
EB	53 (2TR-FE)	Front Left Fender
EG	53 (2TR-FE)	Rear Side of Cylinder Block
EH		
IA	54	Left Kick Panel
IC	54	Instrument Panel Brace RH
IE	54	Right Kick Panel
BD	57 (*2)	Near the Rear Differential
	58 (*3)	

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Engine Immobiliser System for 1GR-FE



Engine Immobiliser System for 1GR-FE

: Parts Location

Code		See Page		Code		See Page		Code		See Page	
D4		44		E6	C	44		J13		45	
D11		46 (*1)		E7	D	44		J14		45	
		48 (*2)		E8	E	44		T9		45	
E4	A	44		H7		45		T10		45	
E5	B	44		J5		45		U1		45	

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1F	28	Floor No.2 Wire and Driver Side J/B (Lower Finish Panel)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
1J		
1K		
2A	24	Engine Room J/B (Engine Compartment Left)
DA	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)

: Connector Joining Wire Harness and Wire Harness

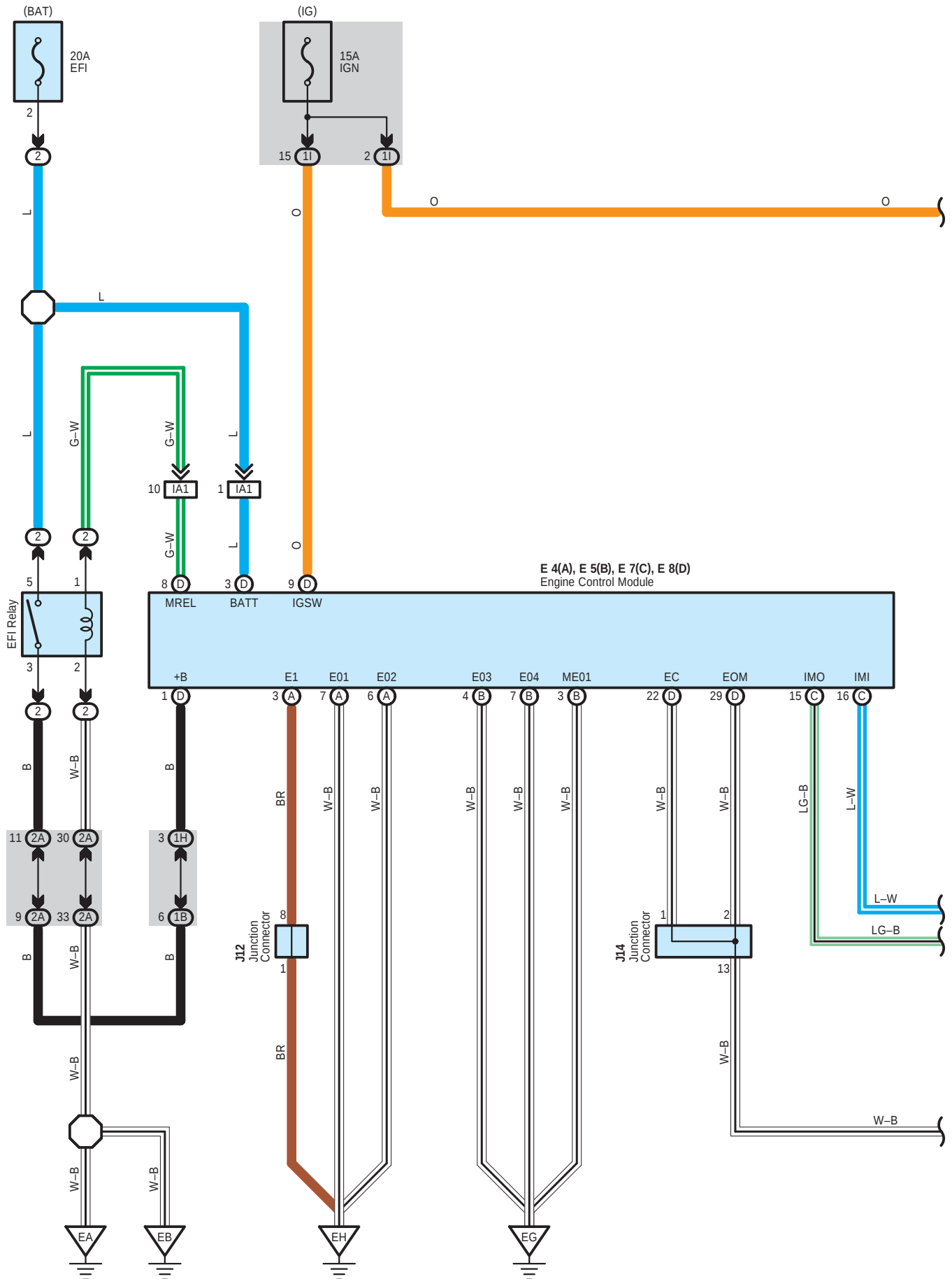
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
II1	55	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Brace RH)
IL1	55	Instrument Panel Wire and Floor Wire (Right Kick Panel)
BF1	57 (*2)	Rear Door No.2 Wire and Floor No.2 Wire (Under the Left Quarter Panel)

: Ground Points

Code	See Page	Ground Points Location
EA	52 (1GR-FE)	Front Right Fender
EB	52 (1GR-FE)	Front Left Fender
EE	52 (1GR-FE)	Rear Side of Right Bank Cylinder Block
EF	52 (1GR-FE)	Rear Side of Left Bank Cylinder Block
IC	54	Instrument Panel Brace RH
IE	54	Right Kick Panel
BB	56 (*1)	Floor Seat Cross Member RH
	57 (*2)	

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Engine Immobiliser System for 2TR-FE



Engine Immobiliser System for 2TR-FE

: Parts Location

Code		See Page		Code		See Page		Code		See Page	
D4		44		E7	C	44		J13		45	
D11		48 (*2)		E8	D	44		J14		45	
		49 (*3)		H7		45		T9		45	
E4	A	44		J5		45		T10		45	
E5	B	44		J12		45		U1		45	

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1F	28	Floor No.2 Wire and Driver Side J/B (Lower Finish Panel)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
1J		
1K		
2A	24	Engine Room J/B (Engine Compartment Left)
DA	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)

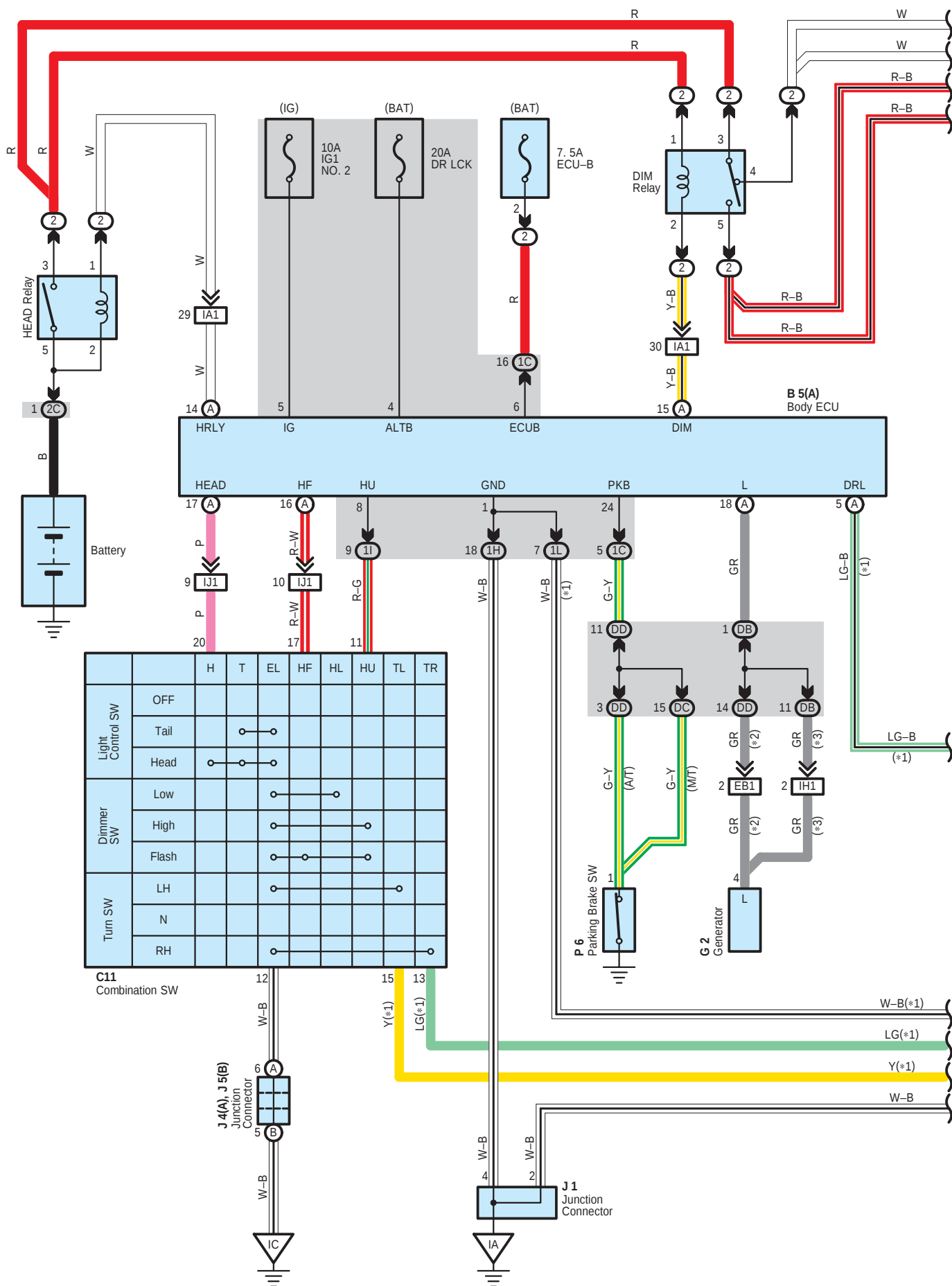
: Connector Joining Wire Harness and Wire Harness

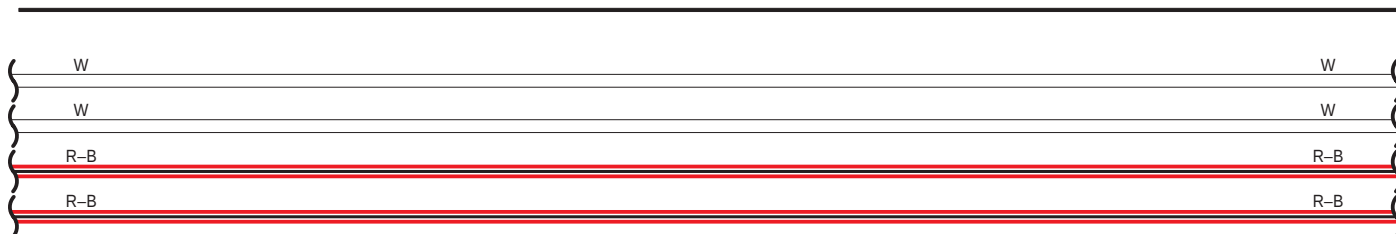
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
II1	55	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Brace RH)
IL1	55	Instrument Panel Wire and Floor Wire (Right Kick Panel)
BF1	57 (*2)	Rear Door No.2 Wire and Floor No.2 Wire (Under the Left Quarter Panel)

: Ground Points

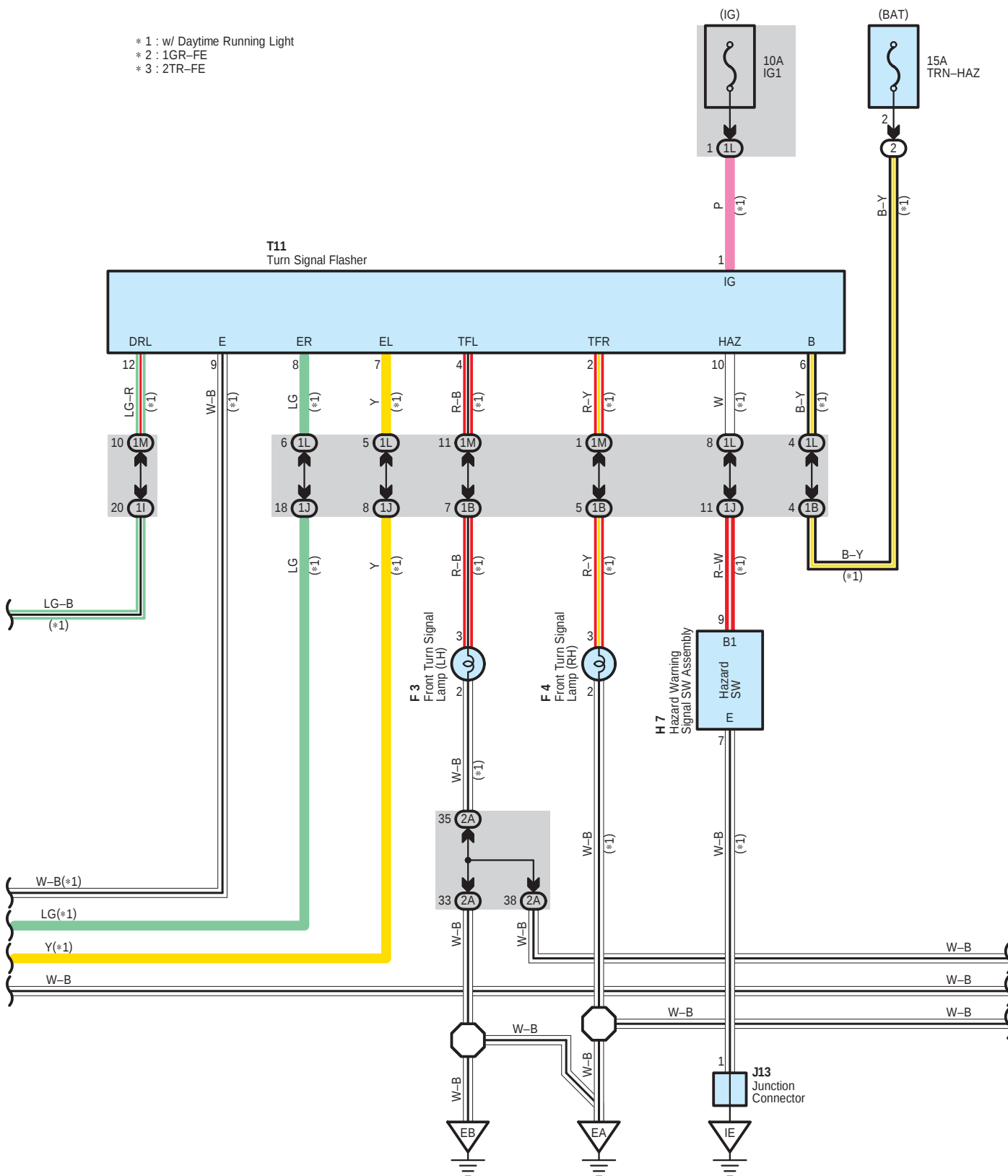
Code	See Page	Ground Points Location
EA	53 (2TR-FE)	Front Right Fender
EB	53 (2TR-FE)	Front Left Fender
EG	53 (2TR-FE)	Rear Side of Cylinder Block
EH		
IC	54	Instrument Panel Brace RH
IE	54	Right Kick Panel
BB	57 (*2)	Floor Seat Cross Member RH
	58 (*3)	

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

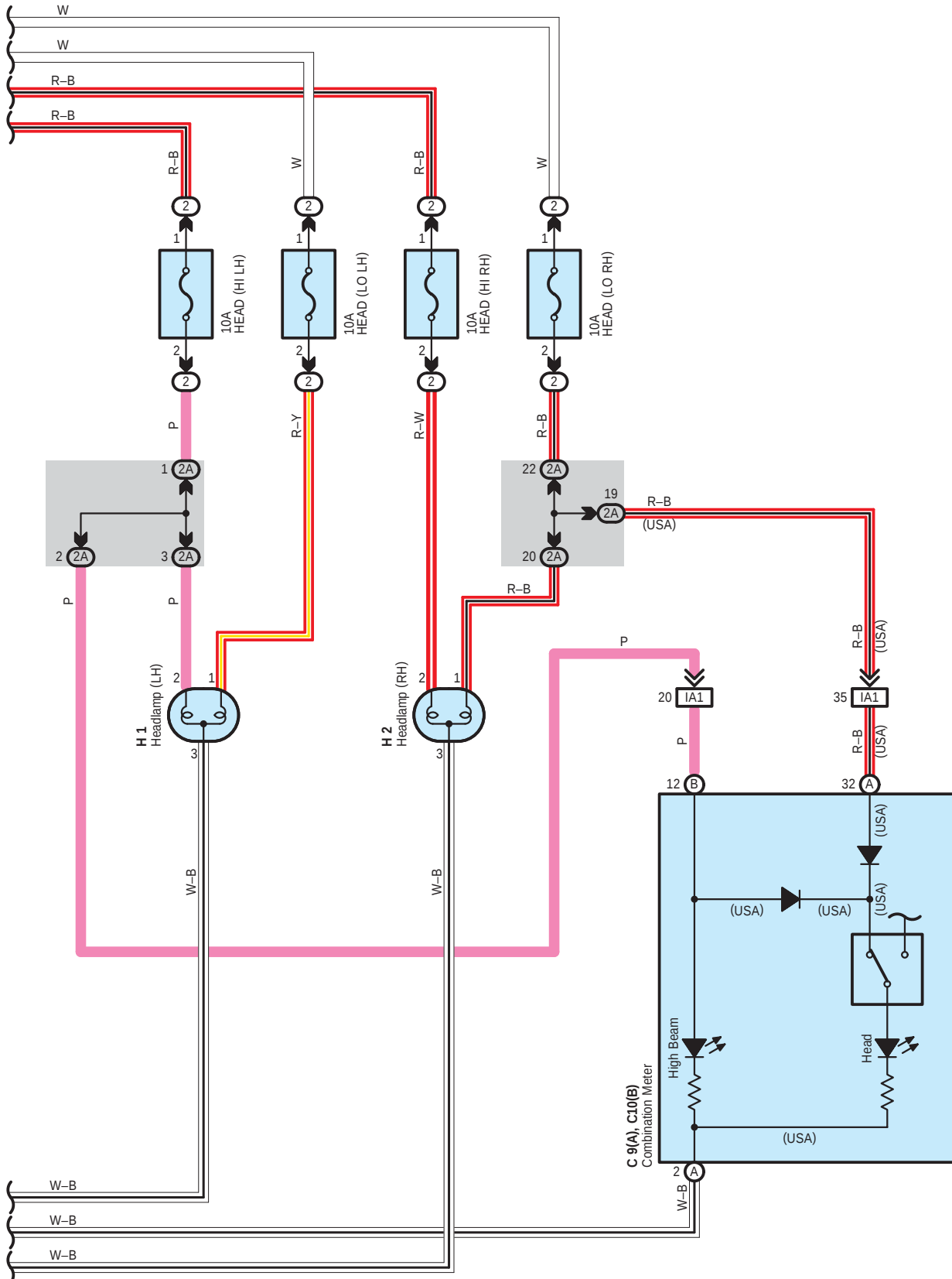




- * 1 : w/ Daytime Running Light
- * 2 : 1GR-FE
- * 3 : 2TR-FE



Headlight



System Outline

(w/ daytime running light)

* This system is designed to automatically activate the turn signal lights during the daytime to keep the car highly visible to other vehicles. This system is controlled by the body ECU.

This system makes use of the turn signal lights as daytime running lights.

For this reason, when the turn signal lights are operated, the daytime running lights function is interrupted momentarily, which, however, will be brought back into operation as soon as the interposed operation is over.

* This system is enabled when the conditions given below are met.

- A) Ignition switch ON condition
- B) Turn signal lamp switch OFF condition
- C) Hazard lamp switch OFF condition
- D) Light control switch OFF condition
- E) Parking brake switch OFF condition (Parking brake out of operating condition)**

** : This system does not become active when the parking brake switch is ON. However, once the OFF signal of the parking brake switch is input into the body ECU, this system will become active thereafter, regardless of whether the parking brake switch is ON or OFF.

○ : Parts Location

Code		See Page	Code	See Page	Code	See Page	
B5	A	44	F4	42 (2TR–FE)	H7	45	
C9	A	44	G2	40 (1GR–FE)	J1	45	
C10	B	44		42 (2TR–FE)	J4	A	45
C11		44	H1	41 (1GR–FE)	J5	B	45
F3	40 (1GR–FE)			43 (2TR–FE)	J13		45
	42 (2TR–FE)		H2	41 (1GR–FE)	P6		45
F4		40 (1GR–FE)		43 (2TR–FE)	T11		45

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
1J		
1L	29	Relay Wire and Driver Side J/B (Lower Finish Panel)
1M		
2A	24	Engine Room J/B (Engine Compartment Left)
2C	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DB	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DD		

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	52 (1GR-FE)	Engine No.2 Wire and Engine Room Main Wire (Inside of Engine Room R/B)
	53 (2TR-FE)	
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)
IJ1	55	Instrument Panel Wire and Instrument Panel Wire (Right Kick Panel)

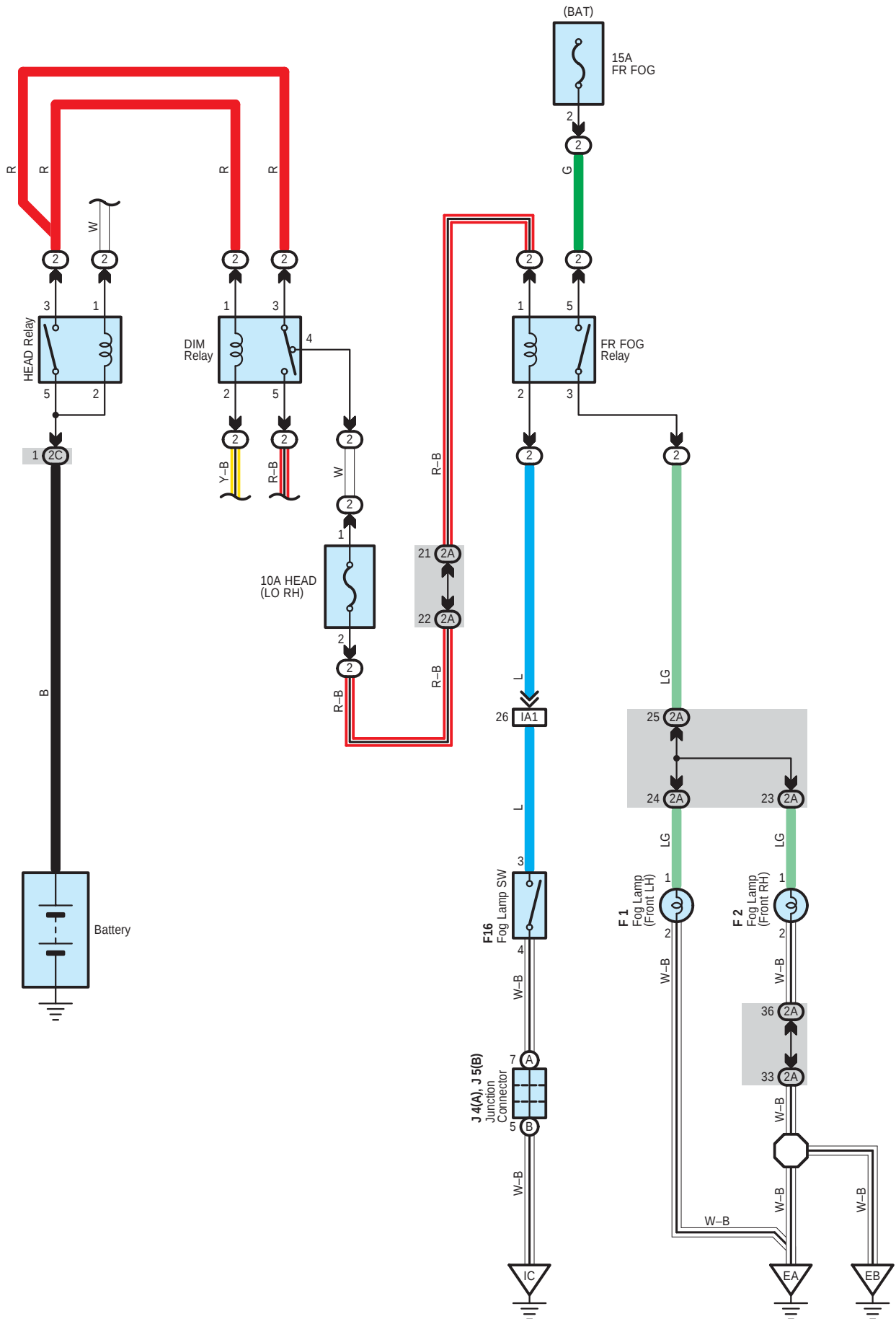
Headlight



: Ground Points

Code	See Page	Ground Points Location
EA	52 (1GR-FE)	Front Right Fender
	53 (2TR-FE)	
EB	52 (1GR-FE)	Front Left Fender
	53 (2TR-FE)	
IA	54	Left Kick Panel
IC	54	Instrument Panel Brace RH
IE	54	Right Kick Panel

Front Fog Light



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
F1	40 (1GR-FE)	F16	44	J5	B
F2	40 (1GR-FE)	J4	A	45	

 : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2A	24	Engine Room J/B (Engine Compartment Left)
2C	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)

 : Connector Joining Wire Harness and Wire Harness

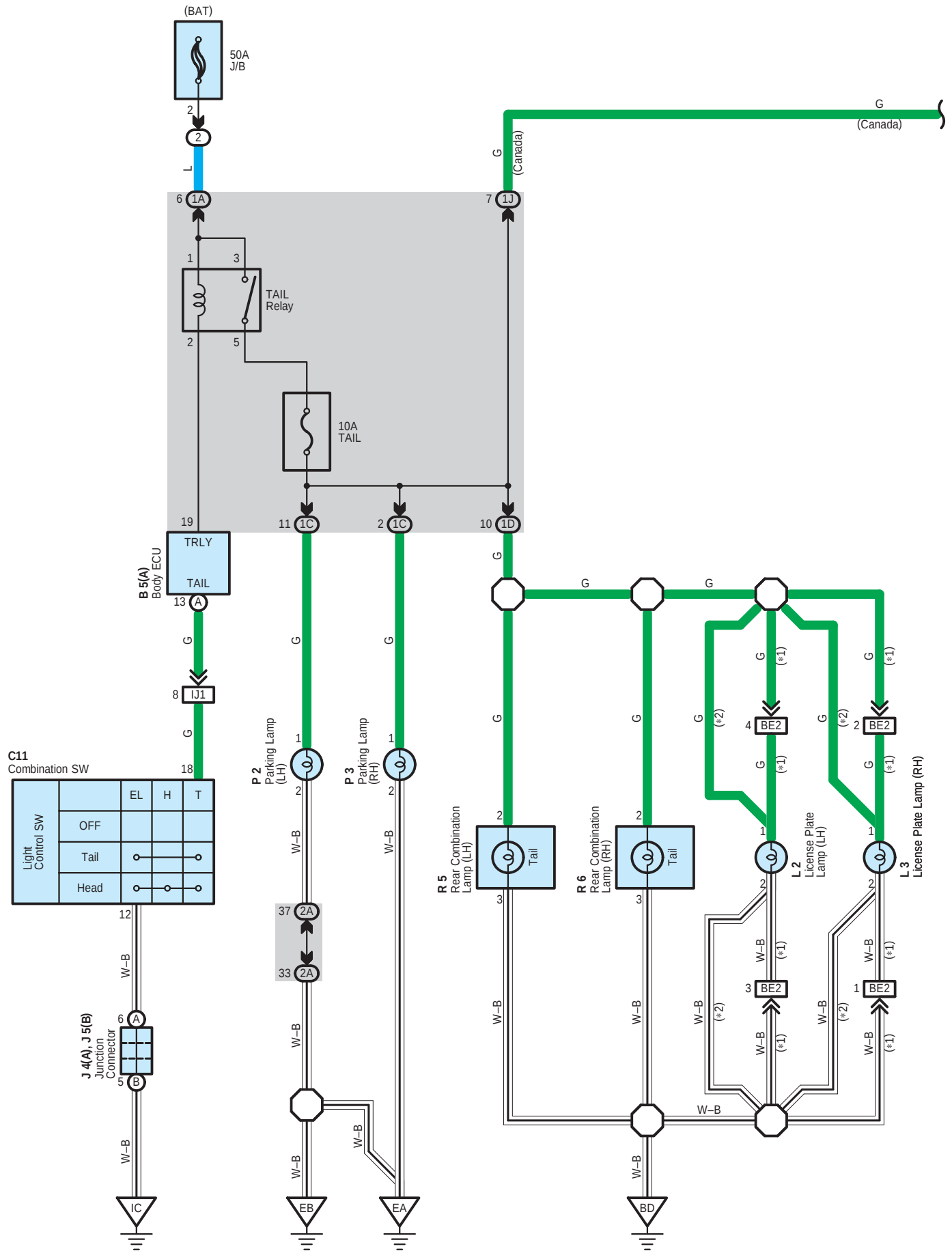
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)

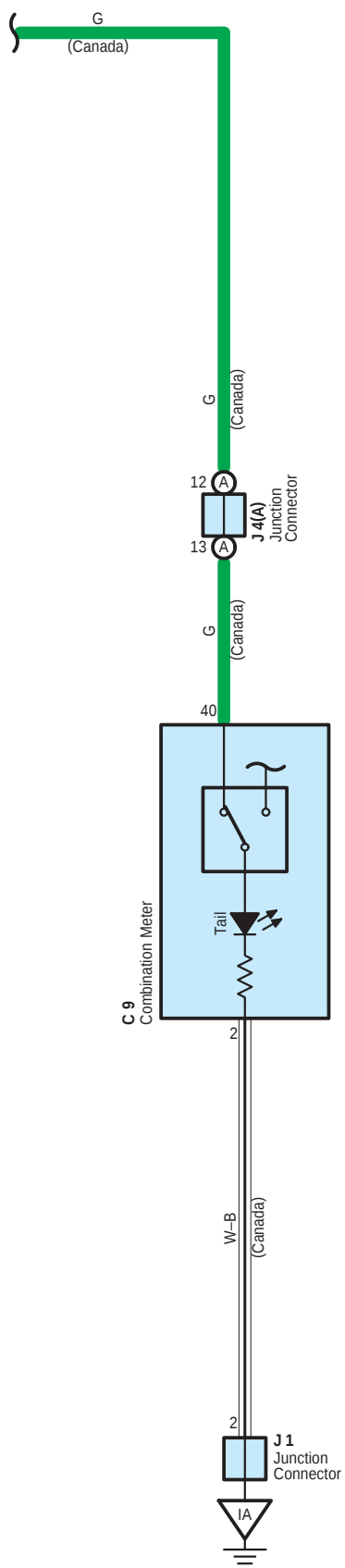
 : Ground Points

Code	See Page	Ground Points Location
EA	52 (1GR-FE)	Front Right Fender
EB	52 (1GR-FE)	Front Left Fender
IC	54	Instrument Panel Brace RH

Taillight

* 1 : w/ Trailer Towing
* 2 : w/o Trailer Towing





Taillight

: Parts Location

Code	See Page	Code	See Page	Code	See Page
B5	A	44	L2	49 (*3)	R5
C9		44	L3	46 (*1)	
C11		44		48 (*2)	
J1		45		49 (*3)	R6
J4	A	45	P2	41 (1GR-FE)	
J5	B	45		43 (2TR-FE)	
L2		46 (*1)	P3	41 (1GR-FE)	
		48 (*2)		43 (2TR-FE)	

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1D	28	Frame Wire and Driver Side J/B (Lower Finish Panel)
1J	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2A	24	Engine Room J/B (Engine Compartment Left)

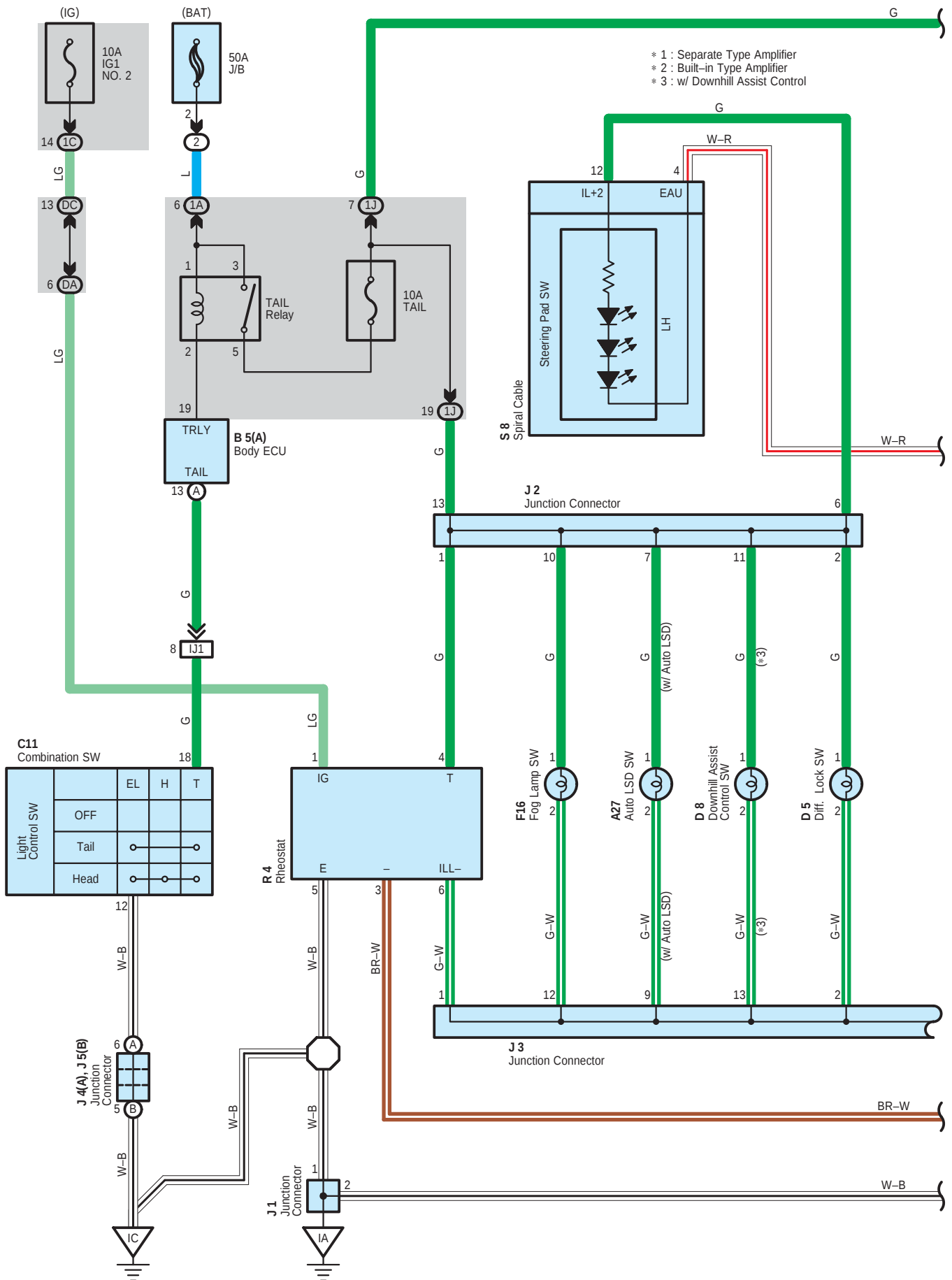
: Connector Joining Wire Harness and Wire Harness

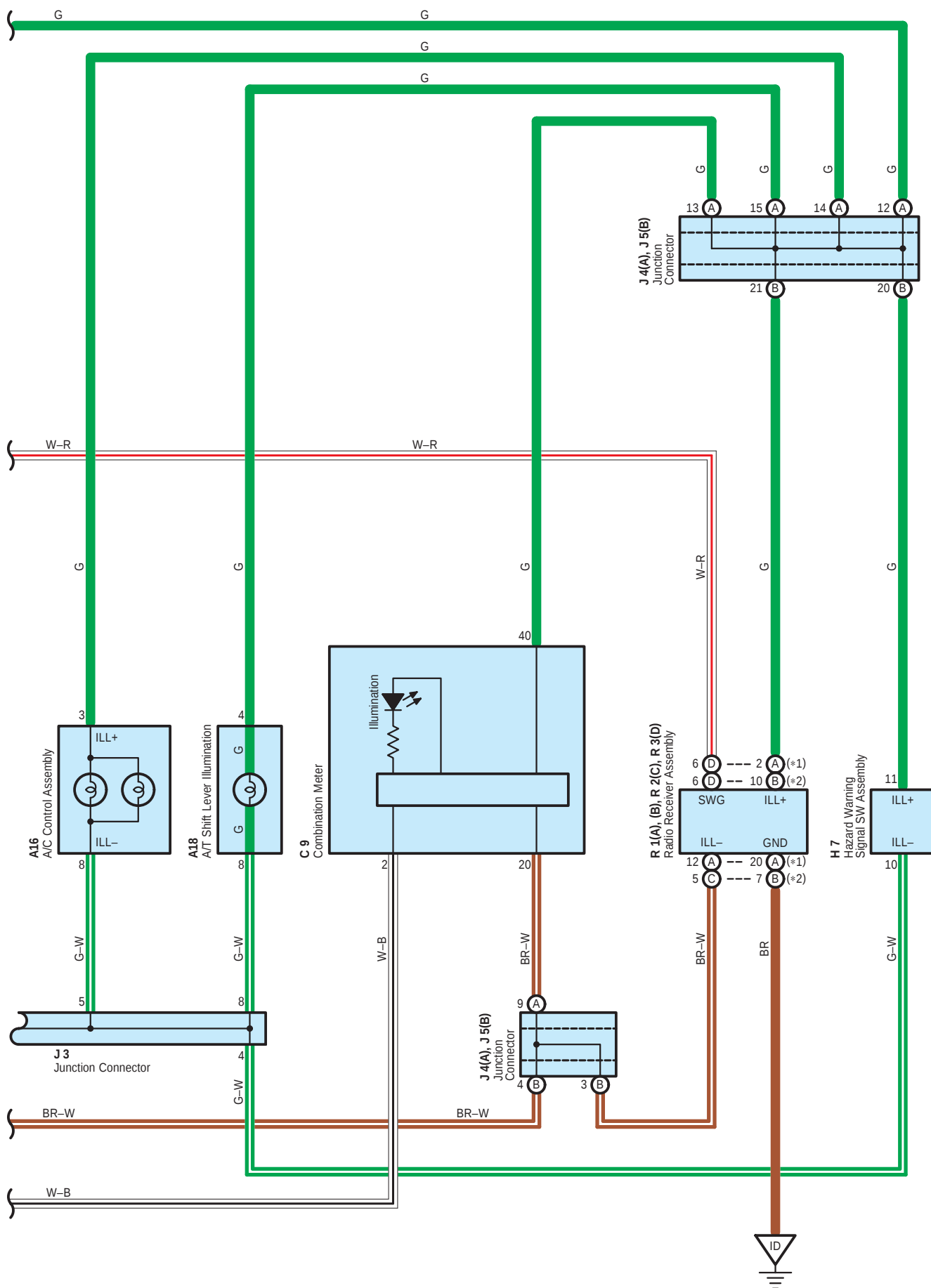
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IJ1	55	Instrument Panel Wire and Instrument Panel Wire (Right Kick Panel)
BE2	56 (*1)	Frame No.3 Wire and Frame Wire (Behind the Trailer Socket)
	57 (*2)	

: Ground Points

Code	See Page	Ground Points Location
EA	52 (1GR-FE)	Front Right Fender
	53 (2TR-FE)	
EB	52 (1GR-FE)	Front Left Fender
	53 (2TR-FE)	
IA	54	Left Kick Panel
IC	54	Instrument Panel Brace RH
BD	56 (*1)	Near the Rear Differential
	57 (*2)	
	58 (*3)	

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat





Illumination

: Parts Location

Code	See Page	Code	See Page	Code	See Page
A16	44	D8	44	J5	B 45
A18	44	F16	44	R1	A 45
A27	44	H7	45		B 45
B5	A 44	J1	45	R2	C 45
C9	44	J2	45	R3	D 45
C11	44	J3	45	R4	45
D5	44	J4	A 45	S8	45

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1J	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
DA	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)

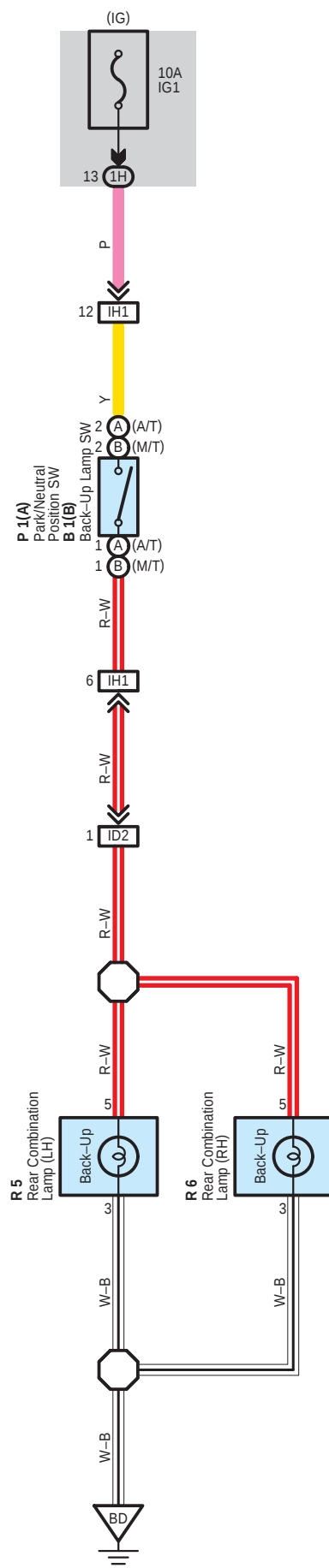
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IJ1	55	Instrument Panel Wire and Instrument Panel Wire (Right Kick Panel)

: Ground Points

Code	See Page	Ground Points Location
IA	54	Left Kick Panel
IC	54	Instrument Panel Brace RH
ID		

Back-Up Light



 : Parts Location

Code		See Page	Code	See Page	Code	See Page
B1	B	40 (1GR-FE)	R5	47 (*1)	R6	48 (*2)
		42 (2TR-FE)		48 (*2)		49 (*3)
P1	A	41 (1GR-FE)		49 (*3)		
		43 (2TR-FE)	R6	47 (*1)		

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)

 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ID2	54	Frame Wire and Instrument Panel Wire (Left Kick Panel)
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)

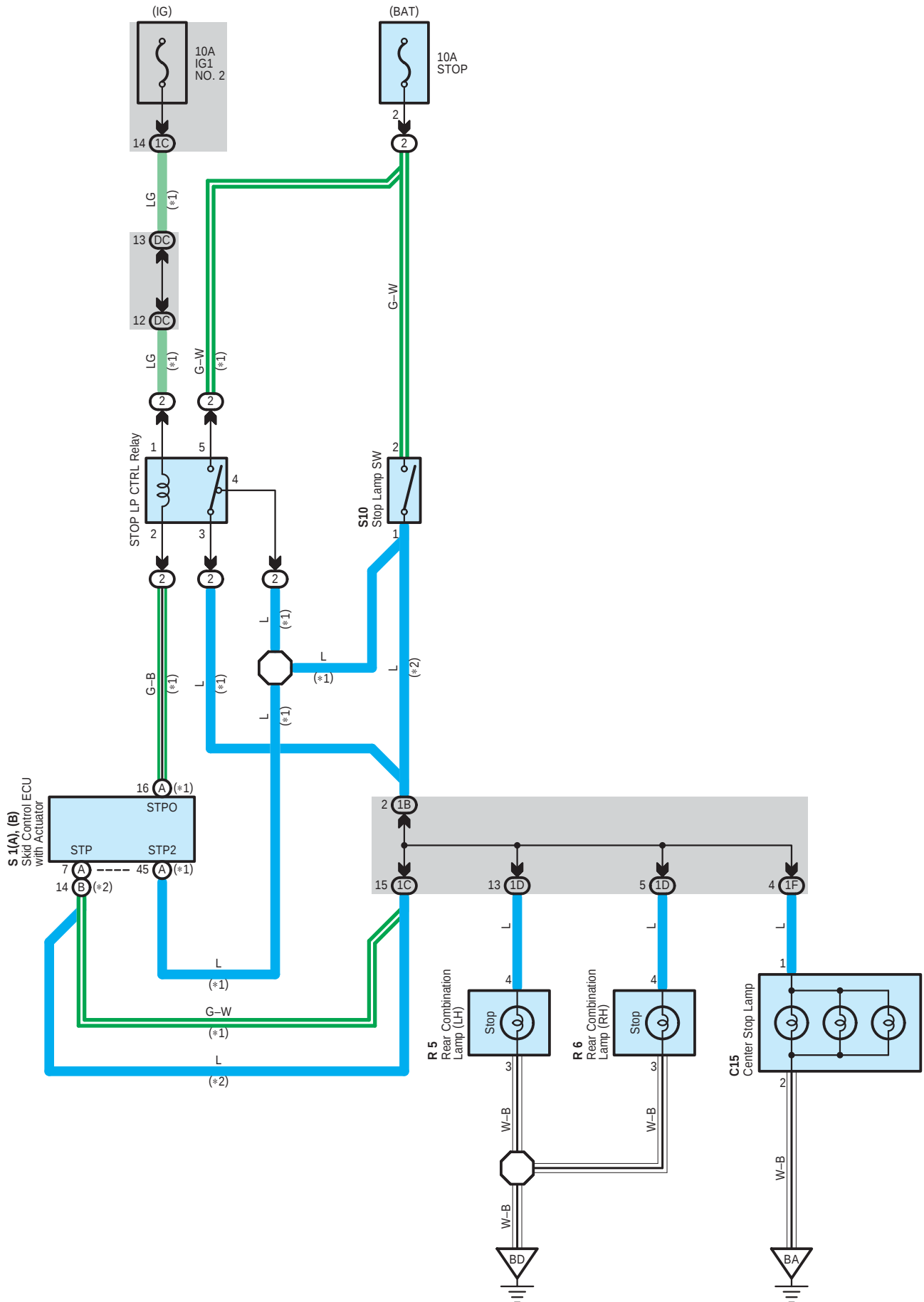
 : Ground Points

Code	See Page	Ground Points Location
BD	56 (*1)	Near the Rear Differential
	57 (*2)	
	58 (*3)	

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Stop Light

* 1 : w/ VSC
* 2 : w/o VSC



 : Parts Location

Code	See Page	Code		See Page	Code		See Page
C15	46 (*1)	R5		49 (*3)	S1	A	43 (2TR–FE)
	48 (*2)	R6		47 (*1)		B	41 (1GR–FE)
	49 (*3)			48 (*2)	43 (2TR–FE)		
R5	47 (*1)			49 (*3)	S10		45
	48 (*2)	S1	A	41 (1GR–FE)			

 : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

 : Junction Block and Wire Harness Connector

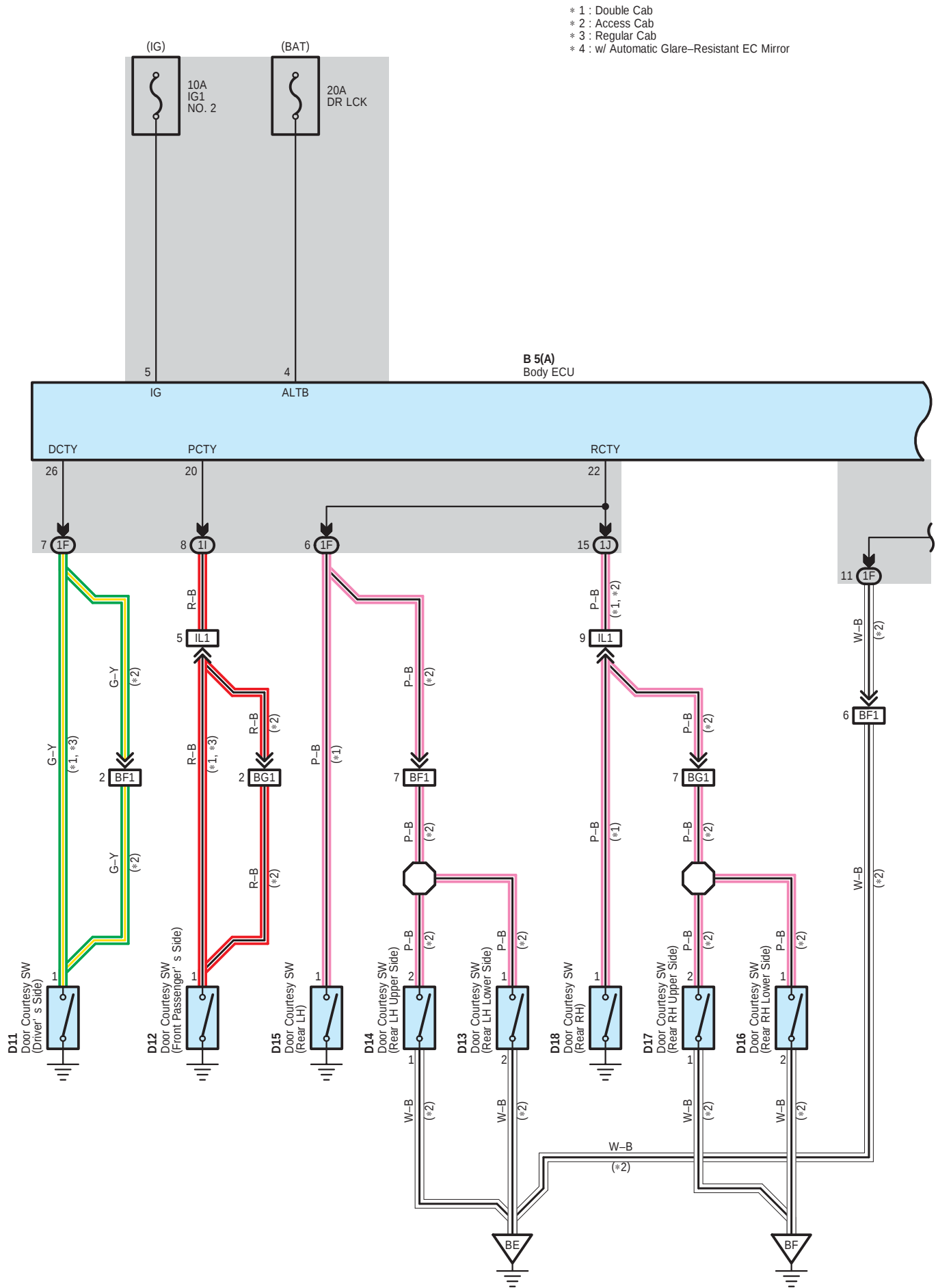
Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1D	28	Frame Wire and Driver Side J/B (Lower Finish Panel)
1F	28	Floor No.2 Wire and Driver Side J/B (Lower Finish Panel)
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)

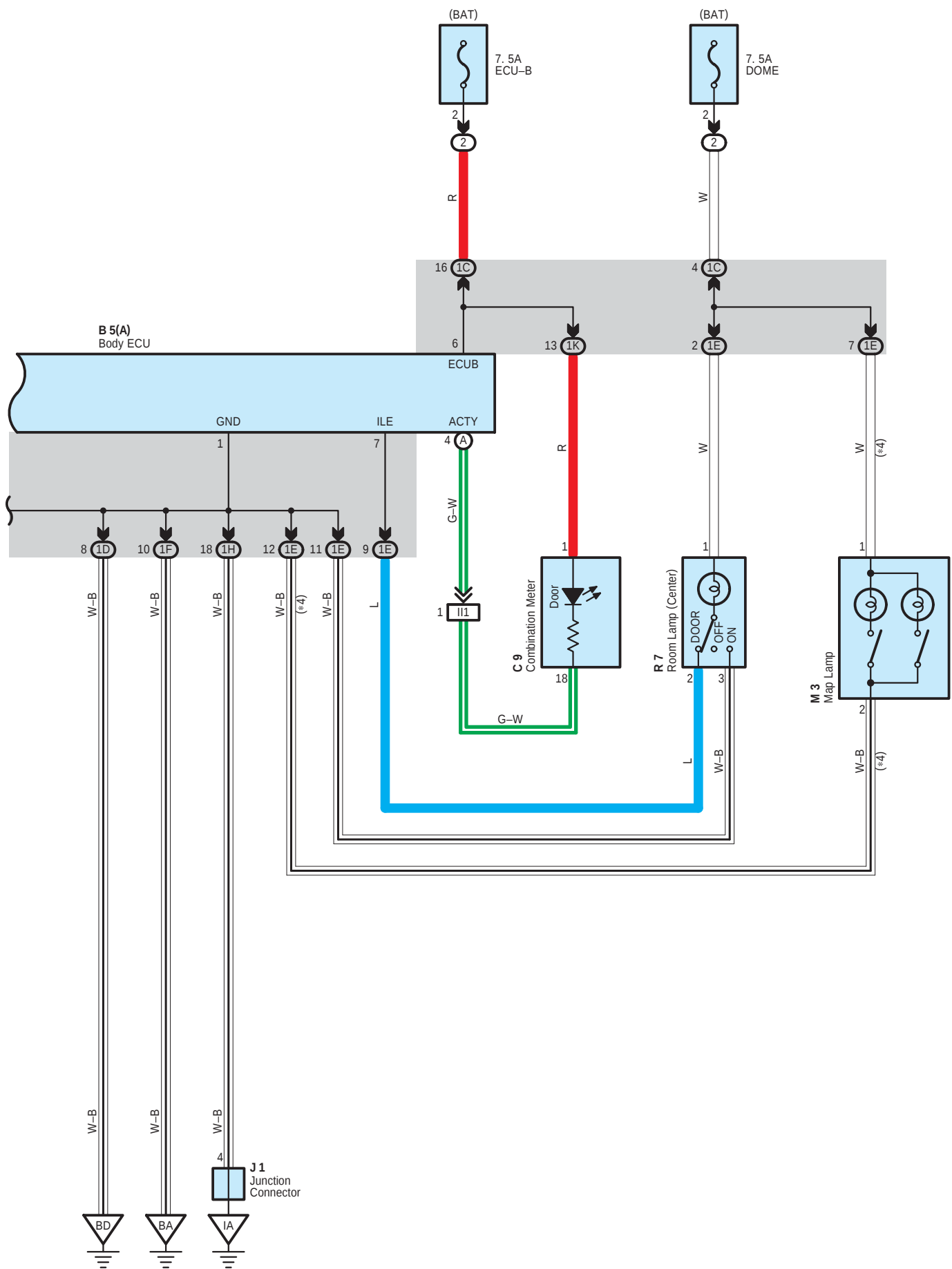
 : Ground Points

Code	See Page	Ground Points Location
BA	56 (*1)	Floor Seat Cross Member LH
	57 (*2)	
	58 (*3)	
BD	56 (*1)	Near the Rear Differential
	57 (*2)	
	58 (*3)	

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Interior Light





Interior Light

: Parts Location

Code		See Page	Code	See Page	Code	See Page
B5	A	44	D12	49 (*3)	J1	45
C9		44	D13	48 (*2)	M3	46 (*1)
D11	46 (*1)	D14	48 (*2)	48 (*2)		
	48 (*2)	D15	46 (*1)	R7	47 (*1)	
	49 (*3)	D16	48 (*2)		48 (*2)	
D12	46 (*1)	D17	48 (*2)		49 (*3)	
	48 (*2)	D18	46 (*1)			

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1D	28	Frame Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Roof Wire and Driver Side J/B (Lower Finish Panel)
1F	28	Floor No.2 Wire and Driver Side J/B (Lower Finish Panel)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
1J		
1K		

: Connector Joining Wire Harness and Wire Harness

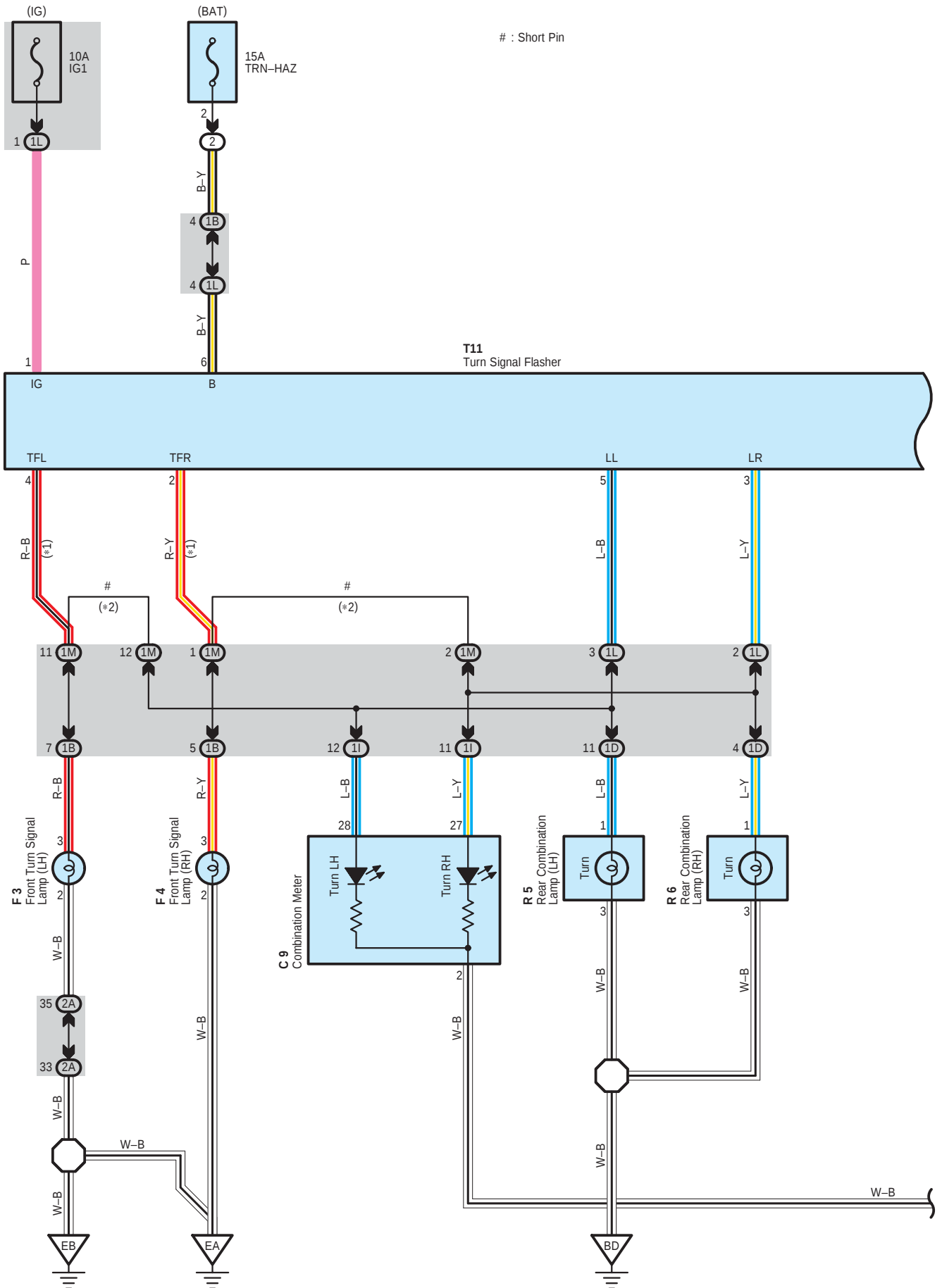
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
II1	55	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Brace RH)
IL1	55	Instrument Panel Wire and Floor Wire (Right Kick Panel)
BF1	57 (*2)	Rear Door No.2 Wire and Floor No.2 Wire (Under the Left Quarter Panel)
BG1	57 (*2)	Rear Door No.1 Wire and Floor Wire (Under the Right Quarter Panel)

: Ground Points

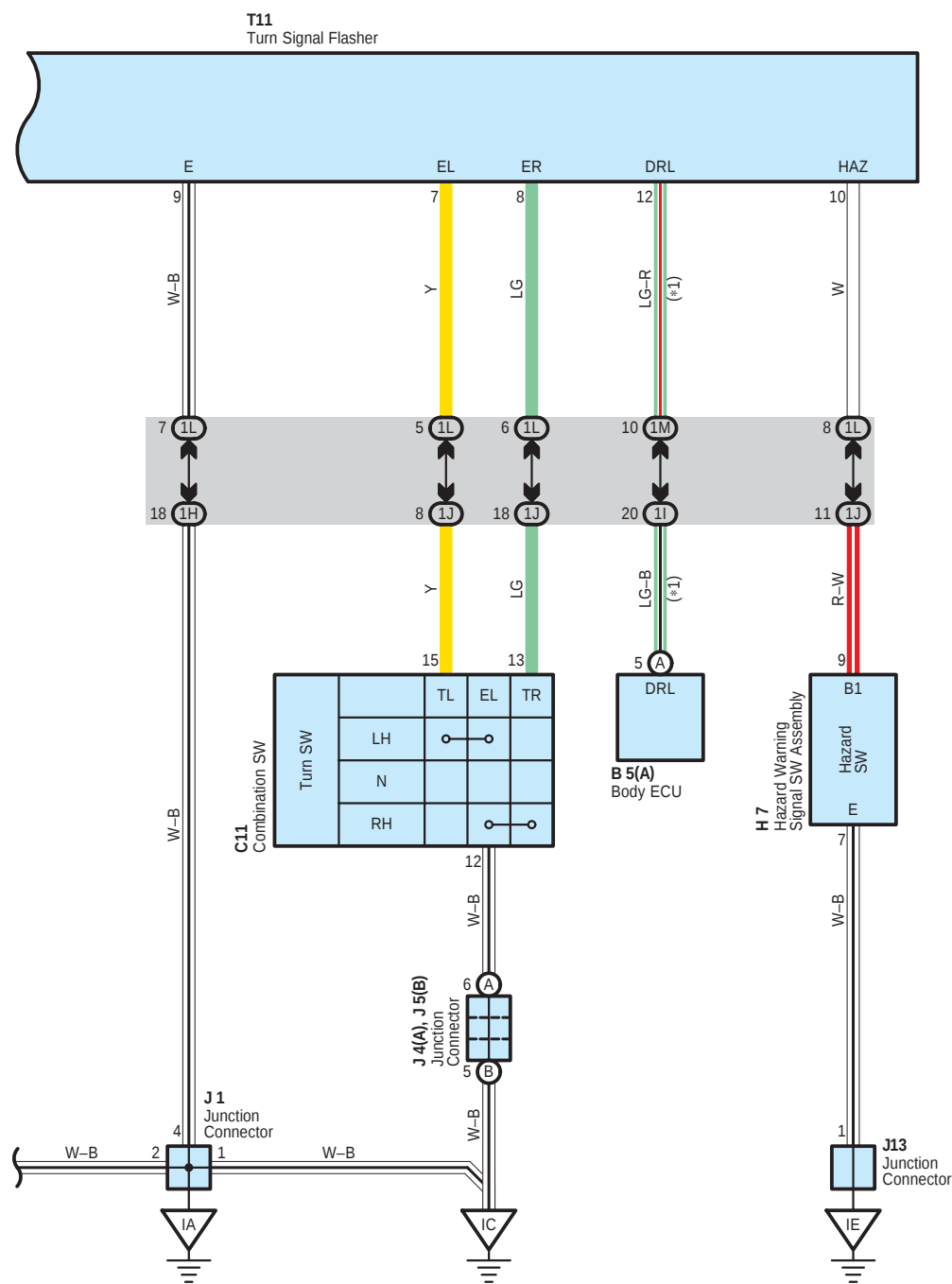
Code	See Page	Ground Points Location
IA	54	Left Kick Panel
BA	56 (*1)	Floor Seat Cross Member LH
	57 (*2)	
	58 (*3)	
BD	56 (*1)	Near the Rear Differential
	57 (*2)	
	58 (*3)	
BE	57 (*2)	Inside of the Access Door LH
BF	57 (*2)	Inside of the Access Door RH

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Turn Signal and Hazard Warning Light



* 1 : w/ Daytime Running Light
* 2 : w/o Daytime Running Light



Turn Signal and Hazard Warning Light

: Parts Location

Code		See Page	Code		See Page	Code		See Page
B5	A	44	H7	45		R5	49 (*3)	
C9		44	J1	45		R6	47 (*1)	
C11		44	J4	A	45		48 (*2)	
F3		40 (1GR-FE)	J5	B	45		49 (*3)	
		42 (2TR-FE)	J13		45	T11	45	
F4		40 (1GR-FE)	R5		47 (*1)			
		42 (2TR-FE)			48 (*2)			

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

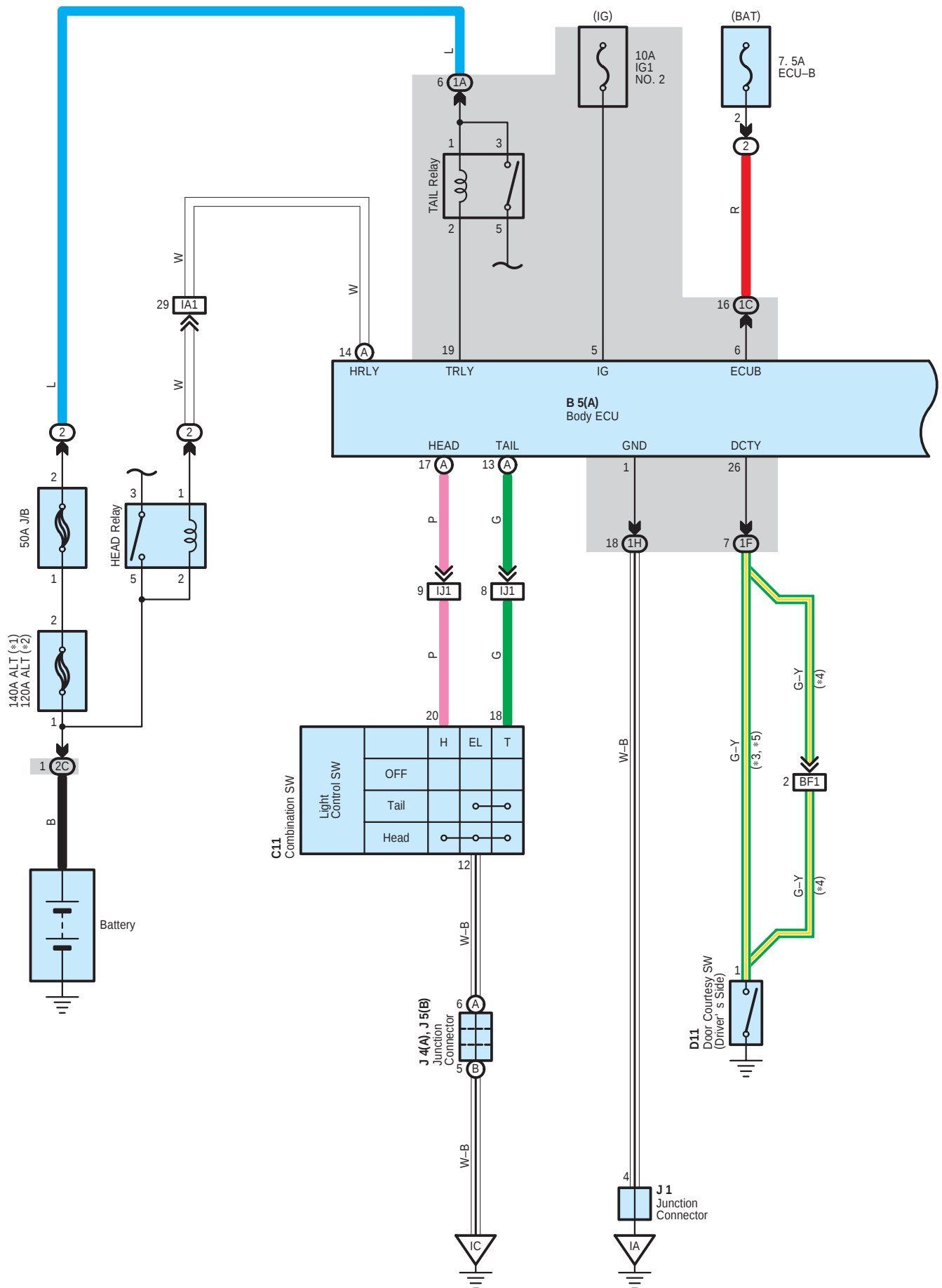
Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1D	28	Frame Wire and Driver Side J/B (Lower Finish Panel)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
1J		
1L	29	Relay Wire and Driver Side J/B (Lower Finish Panel)
1M		
2A	24	Engine Room J/B (Engine Compartment Left)

: Ground Points

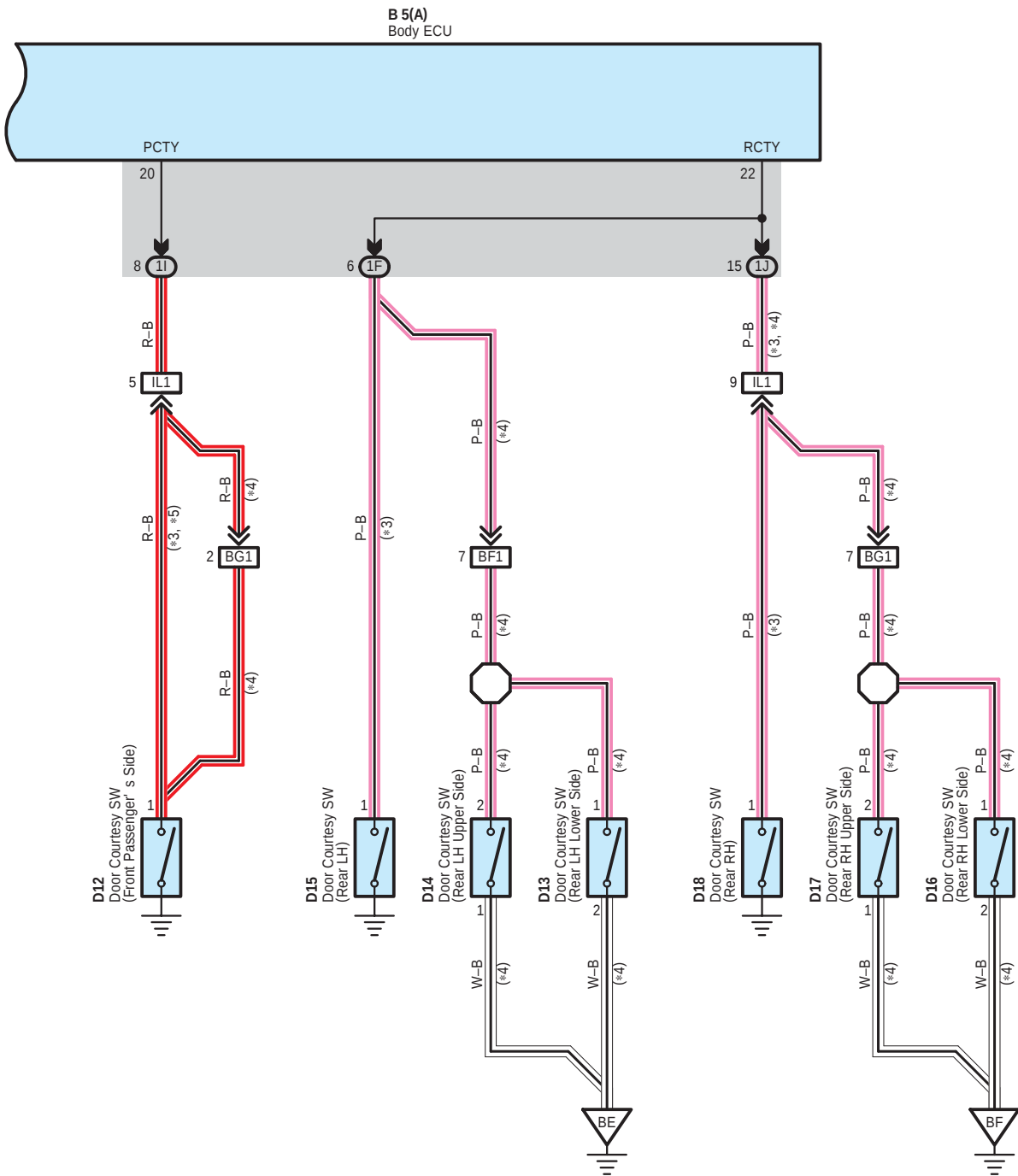
Code	See Page	Ground Points Location
EA	52 (1GR-FE)	Front Right Fender
	53 (2TR-FE)	
EB	52 (1GR-FE)	Front Left Fender
	53 (2TR-FE)	
IA	54	Left Kick Panel
IC	54	Instrument Panel Brace RH
IE	54	Right Kick Panel
BD	56 (*1)	Near the Rear Differential
	57 (*2)	
	58 (*3)	

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Light Auto Turn Off System



- * 1 : w/ Trailer Towing
- * 2 : w/o Trailer Towing
- * 3 : Double Cab
- * 4 : Access Cab
- * 5 : Regular Cab



Light Auto Turn Off System

System Outline

When all doors are closed after opening some or all of them after the Ignition SW is turned from ON to OFF with the head and tail lamps ON, these lamps will remain ON for 30 seconds after the doors are closed and then go OUT automatically. Pressing the lock SW on a wireless controller twice in succession turns OFF the lamps instantly.

○ : Parts Location

Code		See Page	Code	See Page	Code		See Page
B5	A	44	D12	48 (*2)	D17		48 (*2)
C11		44		49 (*3)	D18		46 (*1)
D11		46 (*1)	D13	48 (*2)	J1		45
		48 (*2)	D14	48 (*2)	J4	A	45
		49 (*3)	D15	46 (*1)	J5	B	45
D12		46 (*1)	D16	48 (*2)			

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1F	28	Floor No.2 Wire and Driver Side J/B (Lower Finish Panel)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
1J		
2C	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)

□ : Connector Joining Wire Harness and Wire Harness

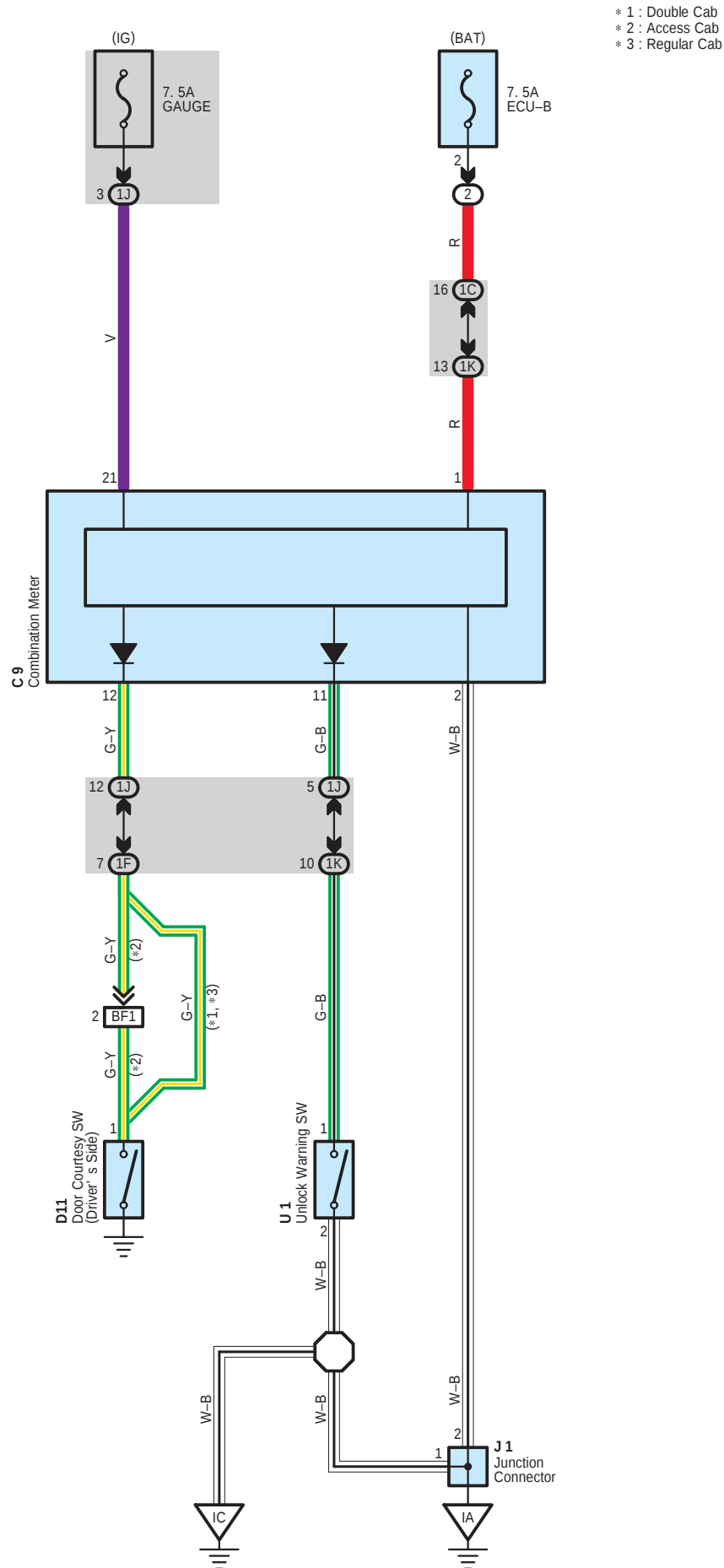
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IJ1	55	Instrument Panel Wire and Instrument Panel Wire (Right Kick Panel)
IL1	55	Instrument Panel Wire and Floor Wire (Right Kick Panel)
BF1	57 (*2)	Rear Door No.2 Wire and Floor No.2 Wire (Under the Left Quarter Panel)
BG1	57 (*2)	Rear Door No.1 Wire and Floor Wire (Under the Right Quarter Panel)

▽ : Ground Points

Code	See Page	Ground Points Location
IA	54	Left Kick Panel
IC	54	Instrument Panel Brace RH
BE	57 (*2)	Inside of the Access Door LH
BF	57 (*2)	Inside of the Access Door RH

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Key Reminder



System Outline

Key Reminder System

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 TERMINAL 12 of the combination meter, the combination meter operates, current flows from TERMINAL 1 of the combination meter to TERMINAL 2 GROUND and key reminder buzzer sounds.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
C9	44	D11	48 (*2)	J1	45
D11	46 (*1)		49 (*3)	U1	45

□ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	28	Floor No.2 Wire and Driver Side J/B (Lower Finish Panel)
1J	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1K		

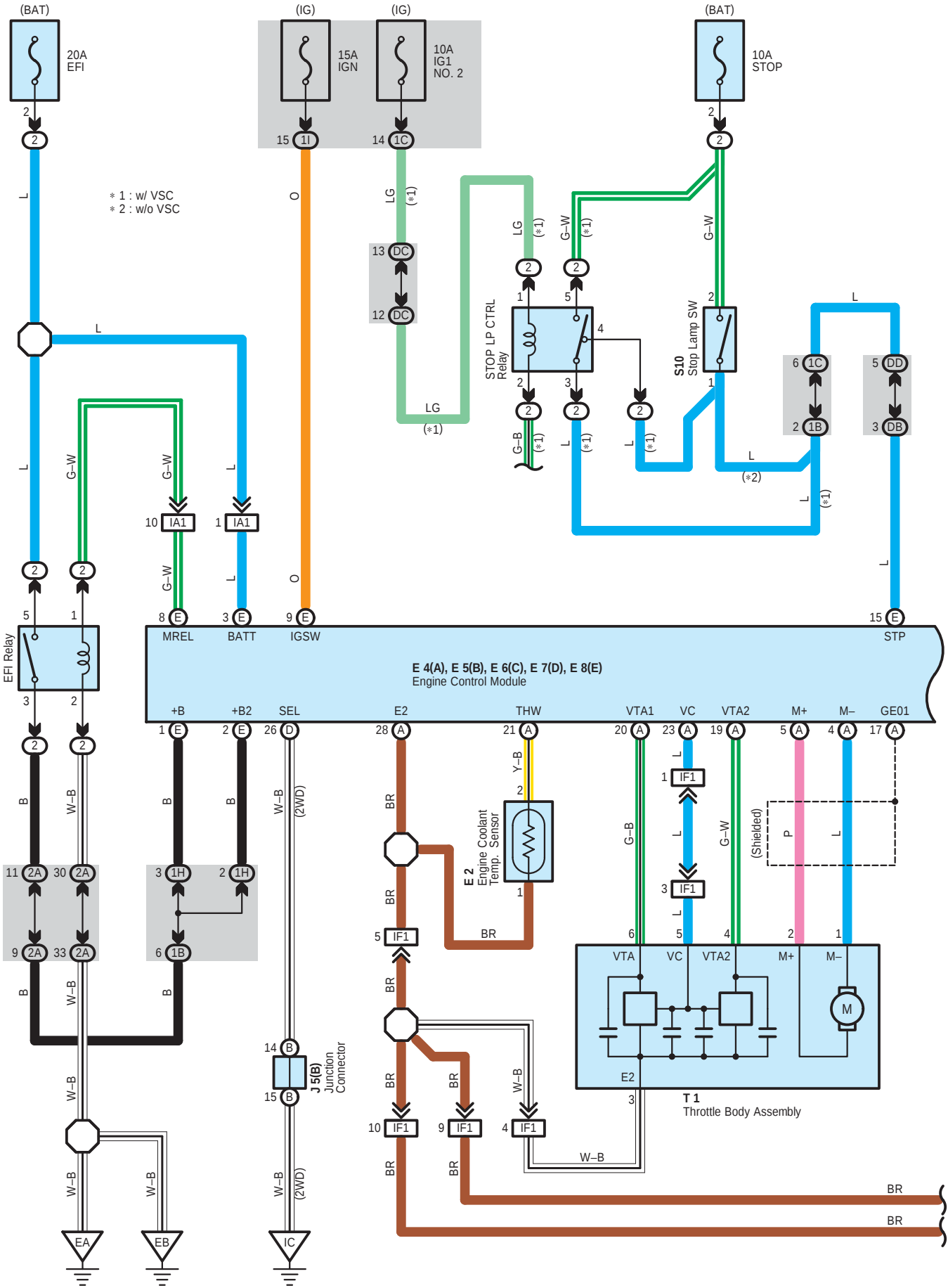
□ : Connector Joining Wire Harness and Wire Harness

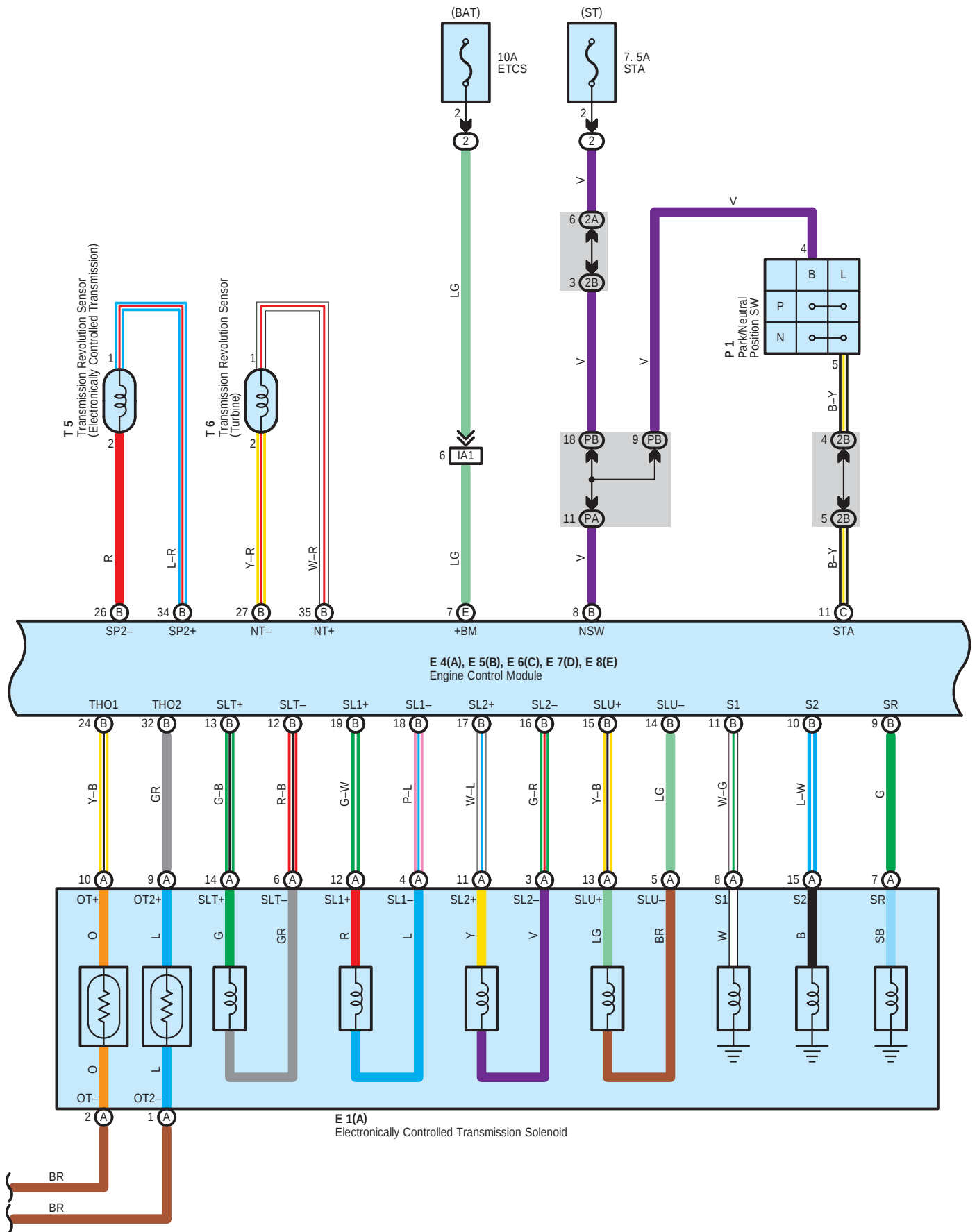
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
BF1	57 (*2)	Rear Door No.2 Wire and Floor No.2 Wire (Under the Left Quarter Panel)

▽ : Ground Points

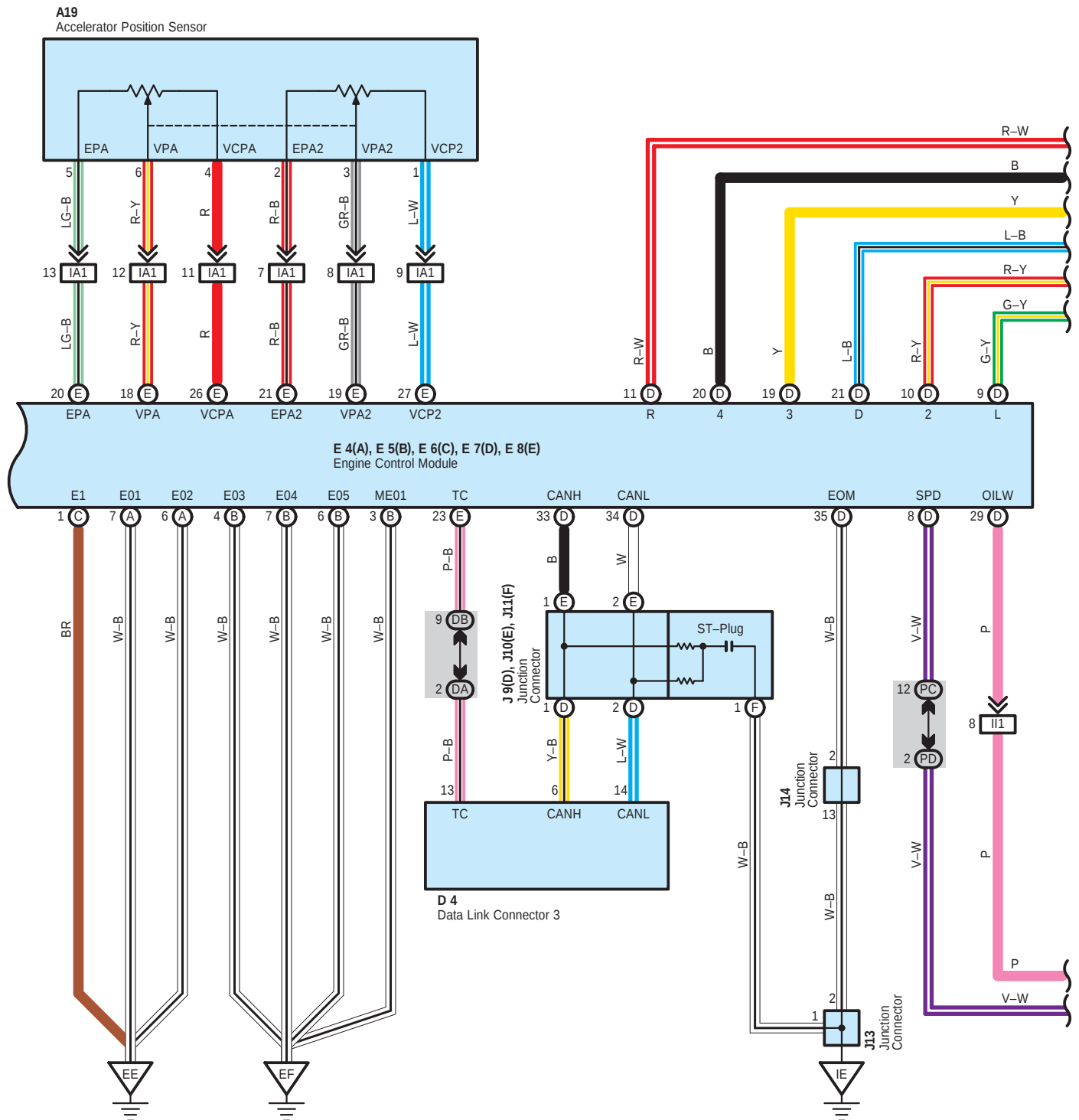
Code	See Page	Ground Points Location
IA	54	Left Kick Panel
IC	54	Instrument Panel Brace RH

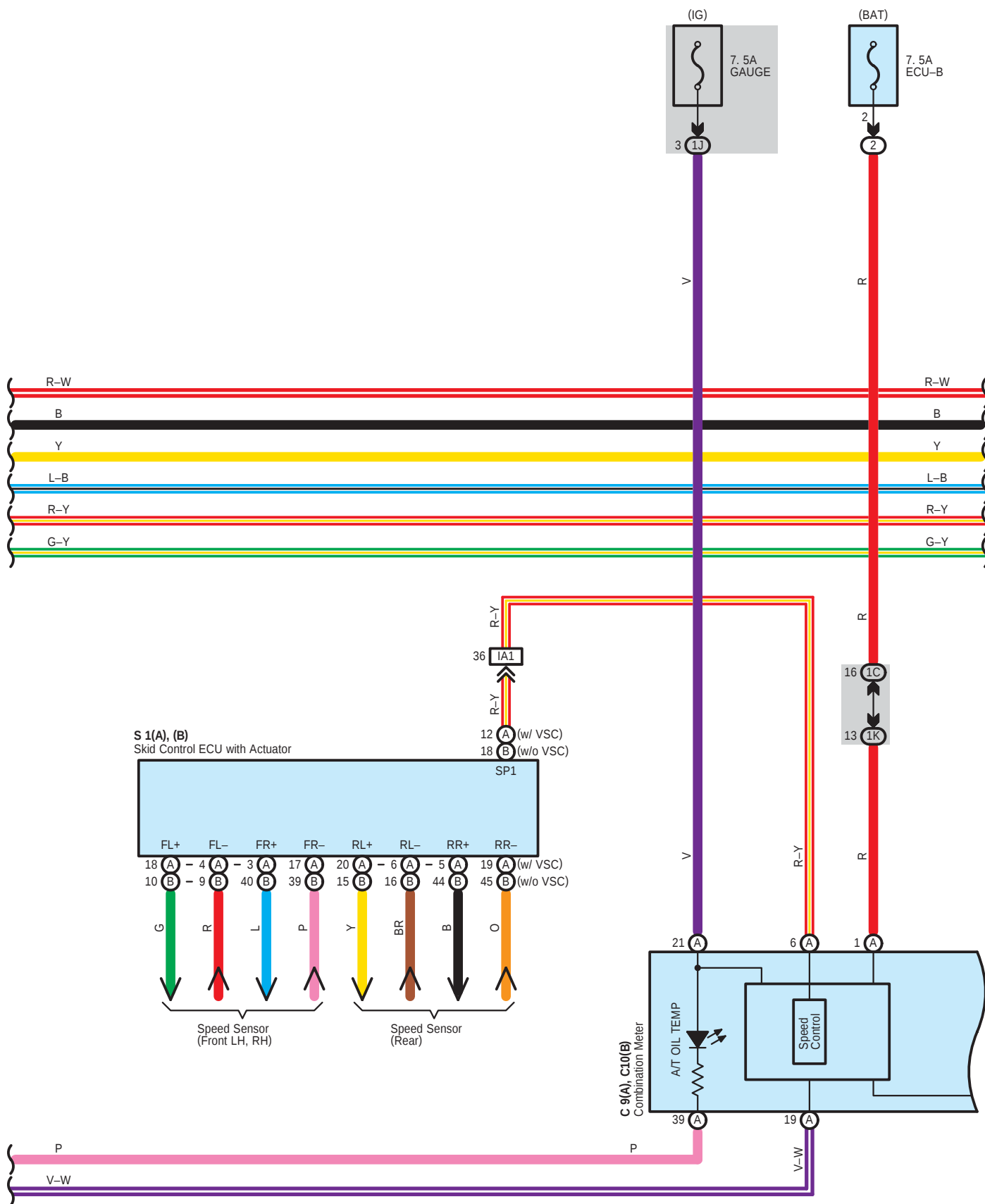
* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat



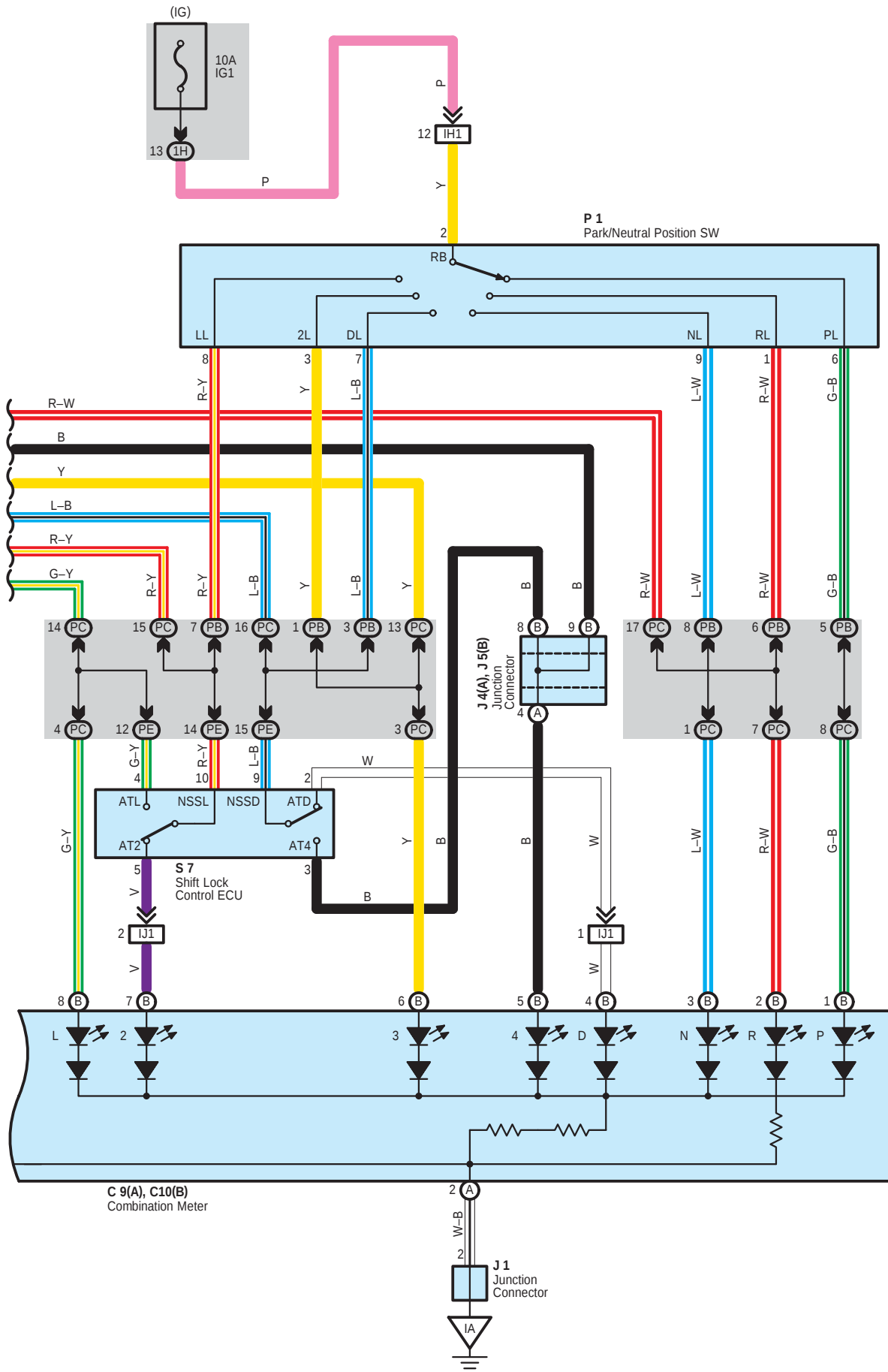


ECT and A/T Indicator for 1GR-FE





ECT and A/T Indicator for 1GR-FE



System Outline

Previous automatic transmissions have selected each gear shift using mechanically controlled throttle hydraulic pressure, governor hydraulic pressure and lock-up hydraulic pressure. The electronically controlled transmission, however, electrically controls the line pressure, throttle pressure, lock-up pressure and accumulator pressure etc. through the solenoid valve. The electronically controlled transmission is a system which precisely controls gear shift timing and lock-up timing in response to the vehicle's driving conditions and the engine condition detected by various sensors. It makes smooth driving possible by shift selection for each gear which is the most appropriate to the driving conditions at that time, and by preventing downing, squat and gear shift shock when starting off.

1. Gear Shift Operation

When driving, the engine warm up condition is input as a signal to TERMINAL THW of the engine control module from the engine coolant temp. sensor and the vehicle speed signal from vehicle speed sensor is input to TERMINAL SP2+ of the engine control module. At the same time, the throttle valve opening signal from the throttle position sensor is input to TERMINALS VTA1 and VTA2 of the engine control module as throttle angle signal.

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

2. Line Hydraulic Pressure Control

The engine control module adjusts the line hydraulic pressure to the optimal level by controlling TERMINAL SLT+ of the module according to the engine torque data. This realizes the smooth gear shifting.

3. High Response Gear Shifting Control

The engine control module performs the high response engine torque up control to control the ignition-timing lag as well as opening the electronic throttle when shifting down. By doing this, the gear shifting is performed in a short period of time. Moreover, the engine control module uses the orifice switching control, which optimizes the speed of applying and reducing the hydraulic pressure. And it realizes the fine shifting condition by applying and reducing hydraulic pressure slowly when the gear shifting shock is important and quickly when the high response is required.

4. Clutch Hydraulic Pressure Control

The engine control module controls the clutch operation in the optimal timing and with the best hydraulic pressure according to the engine torque data and the number of the clutch revolution

5. Lock-Up and Flexible Lock-Up Control

The engine control module carries out the lock-up control by controlling the TERMINAL SLU+ of the module according to the shift position, vehicle speed, throttle opening degree and running conditions. The engine control module also steadily keeps applying the lock-up clutch a delicate slippage to improve the transmission efficiency (Fuel efficiency) of the torque converter.

6. Stop Lamp SW Circuit

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

7. AI-Shift Control

The engine control module judges whether the road is downslope or upslope by detecting the throttle opening degree or the vehicle's speed. Moreover it can expect the winding roads by detecting the turning condition of the vehicle. The engine control module keeps unnecessary shifting up from the fourth gear from operating and carries out the automatic shifting down to the third gear in order to control the vehicle running according to the road conditions. The engine control module also reads the driver's intention during driving from his (her) accelerating operation and the running conditions of the vehicle. As a result of that, ideal shifting patterns for each driver are automatically selected without any switching operations.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A19	44	E7	D	J14	45
C9	A	E8	E	P1	41 (1GR-FE)
C10	B	J1	45	S1	A
D4	44	J4	A		B
E1	A	J5	B	S7	45
E2	40 (1GR-FE)	J9	D	S10	45
E4	A	J10	E	T1	41 (1GR-FE)
E5	B	J11	F	T5	41 (1GR-FE)
E6	C	J13	45	T6	41 (1GR-FE)

ECT and A/T Indicator for 1GR-FE

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
1J		
1K		
2A	24	Engine Room J/B (Engine Compartment Left)
2B	24	Engine Wire and Engine Room J/B (Engine Compartment Left)
DA	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DB		
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DD		
PA	36	Engine Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PB		
PC	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PD		
PE		

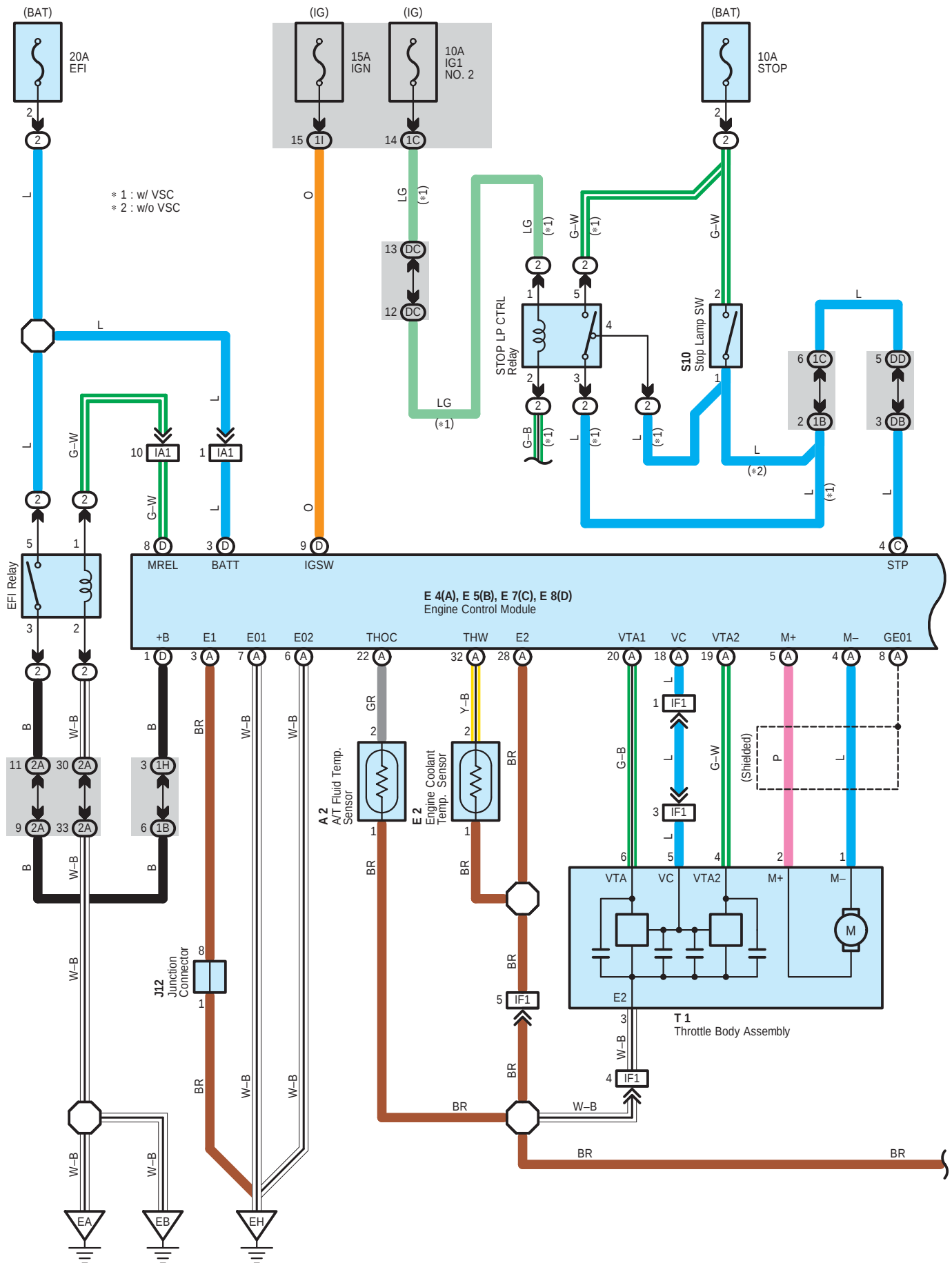
: Connector Joining Wire Harness and Wire Harness

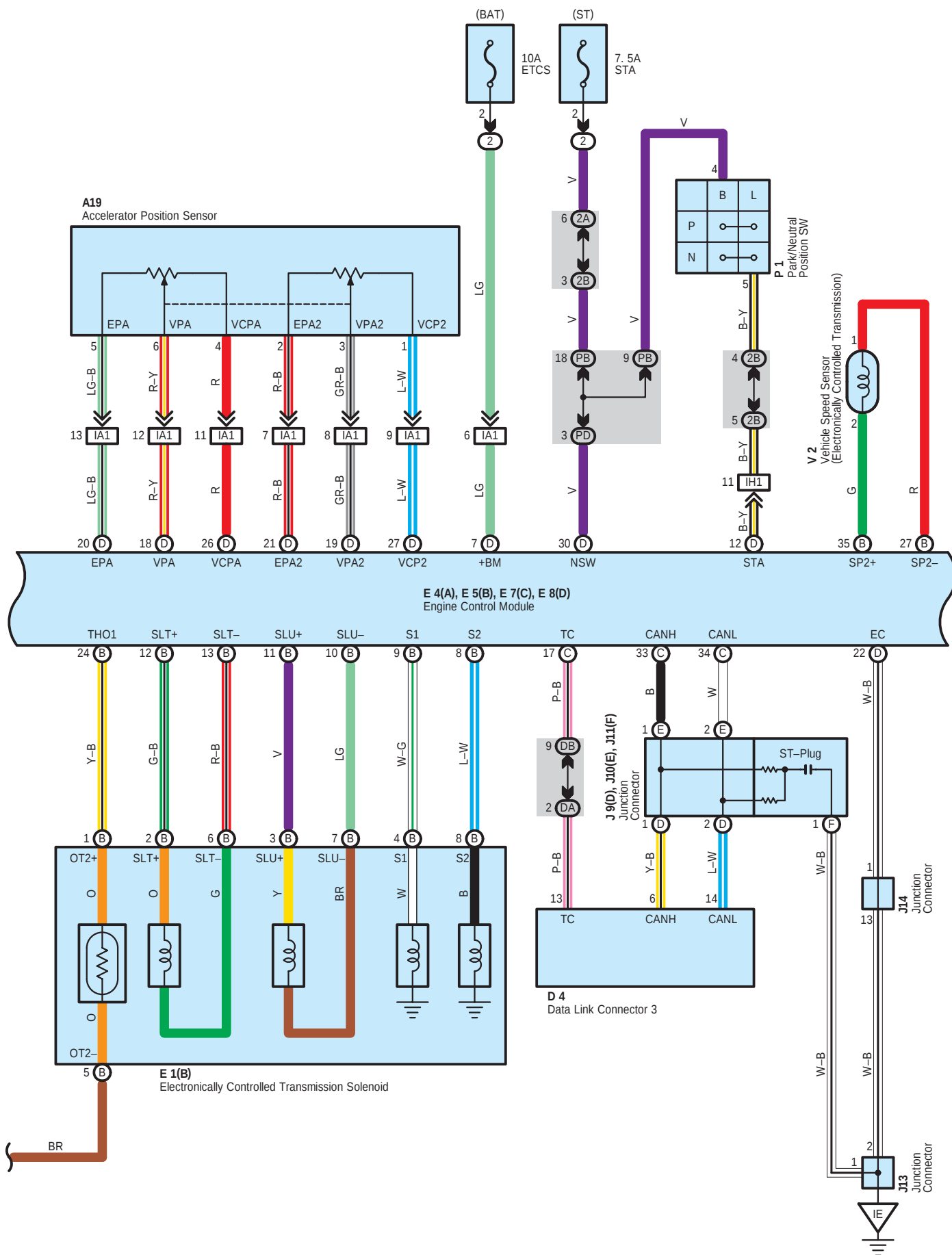
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IF1	55	Engine Wire and Engine Wire (Behind the Glove Box)
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)
II1	55	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Brace RH)
IJ1	55	Instrument Panel Wire and Instrument Panel Wire (Right Kick Panel)

: Ground Points

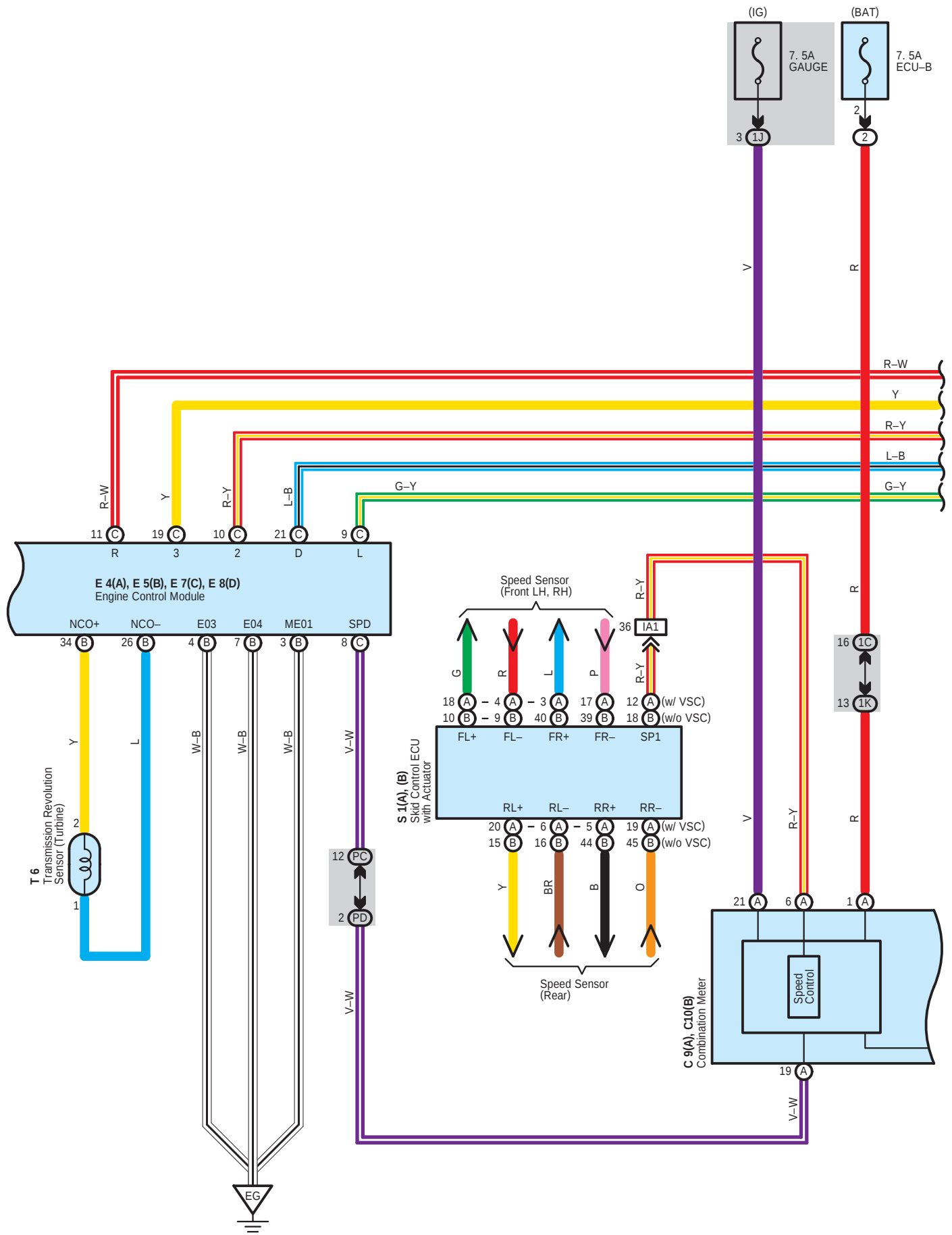
Code	See Page	Ground Points Location
EA	52 (1GR-FE)	Front Right Fender
EB	52 (1GR-FE)	Front Left Fender
EE	52 (1GR-FE)	Rear Side of Right Bank Cylinder Block
EF	52 (1GR-FE)	Rear Side of Left Bank Cylinder Block
IA	54	Left Kick Panel
IC	54	Instrument Panel Brace RH
IE	54	Right Kick Panel

ECT and A/T Indicator for 2TR-FE





ECT and A/T Indicator for 2TR-FE



ECT and A/T Indicator for 2TR-FE

System Outline

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

1. Gear Shift Operation

During driving, the engine control module selects the shift for each gear which is most appropriate to the driving conditions, based on input signals from the engine coolant temp. sensor to TERMINAL THW of the engine control module, and also the input signals to TERMINAL SPD of the engine control module from the vehicle speed sensor devoted to the electronically controlled transmission. Current is then output to the electronically controlled transmission solenoid. When shifting to 1st speed, the current flows from TERMINAL S1 of the engine control module to TERMINAL (B) 4 of the solenoid to GROUND, and from TERMINAL S2 of the engine control module to TERMINAL 8 of the electronically controlled transmission solenoid to GROUND, and continuity to the No.1 and No.2 solenoid causes the shift.

For 2nd speed, the current flows from TERMINAL S1 of the engine control module to TERMINAL (B) 4 of the solenoid to GROUND, and from TERMINAL S2 of the engine control module to TERMINAL (B) 8 of the solenoid to GROUND, and continuity to solenoid No.1 and No.2 causes the shift.

For 3rd speed, there is no continuity No.1 solenoid, only to No.2, causing the shift.

Shifting into 4th speed (Overdrive) takes place when there is no continuity to both No.1 and No.2 solenoid.

2. Stop Lamp SW Circuit

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

3. AI-Shift Control

The engine control module judges whether the road is downslope or upslope by detecting the throttle opening degree or the vehicle's speed. Moreover it can expect the winding roads by detecting the turning condition of the vehicle. The engine control module keeps unnecessary shifting up from the fourth gear from operating and carries out the automatic shifting down to the third gear in order to control the vehicle running according to the road conditions. The engine control module also reads the driver's intention during driving from his (her) accelerating operation and the running conditions of the vehicle. As a result of that, ideal shifting patters for each driver are automatically selected without any switching operations.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A2	42 (2TR-FE)	E7	C 44	P1	43 (2TR-FE)
A19	44	E8	D 44	S1	A 43 (2TR-FE)
C9	A 44	J1	45		B 43 (2TR-FE)
C10	B 44	J9	D 45	S7	45
D4	44	J10	E 45	S10	45
E1	B 42 (2TR-FE)	J11	F 45	T1	43 (2TR-FE)
E2	42 (2TR-FE)	J12	45	T6	43 (2TR-FE)
E4	A 44	J13	45	V2	43 (2TR-FE)
E5	B 44	J14	45		

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

**: Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
1J		
1K		
2A	24	Engine Room J/B (Engine Compartment Left)
2B	24	Engine Wire and Engine Room J/B (Engine Compartment Left)
DA	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DB		
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DD		
PB	36	Engine Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PC	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PD		
PE		

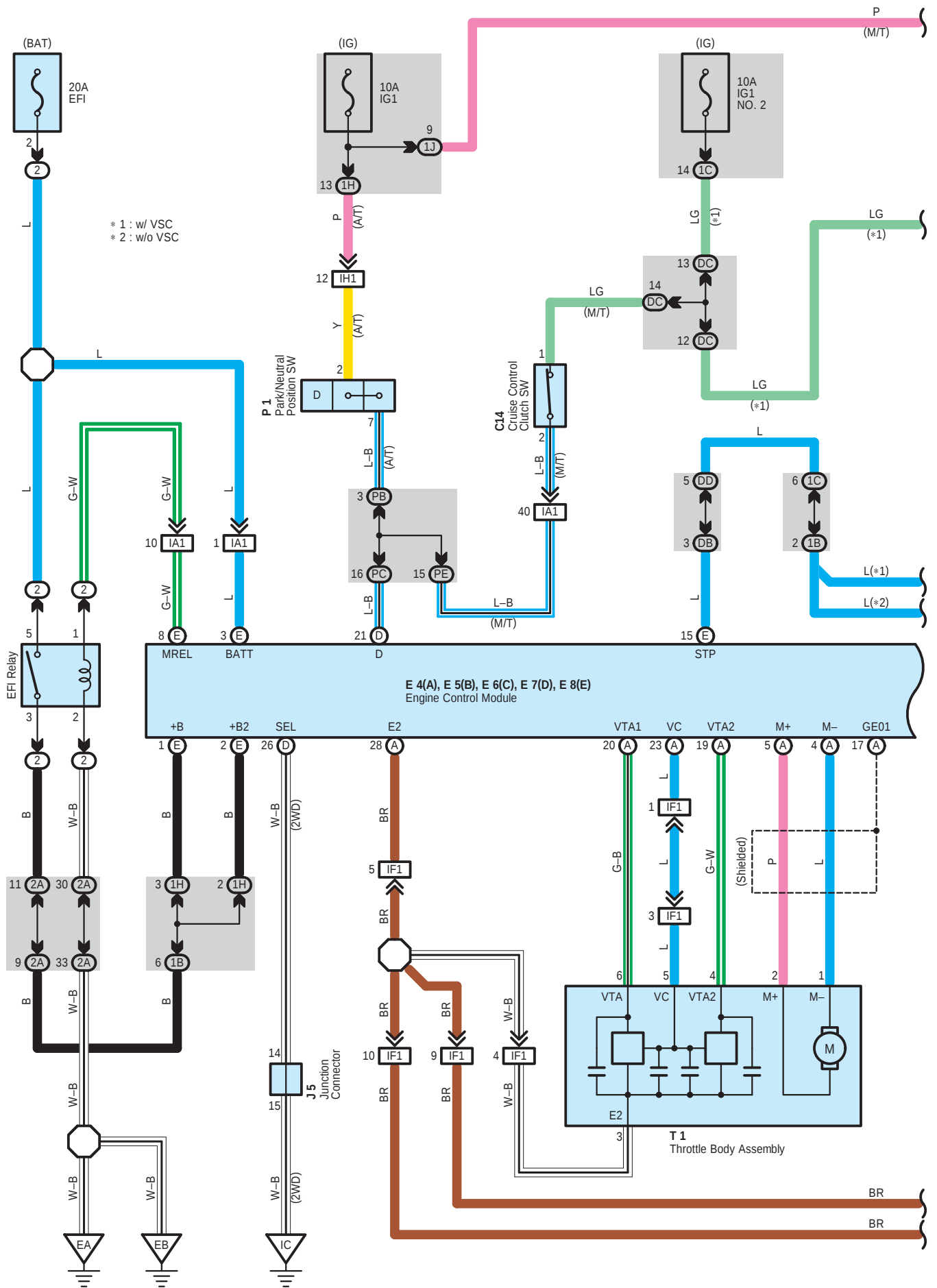
**: Connector Joining Wire Harness and Wire Harness**

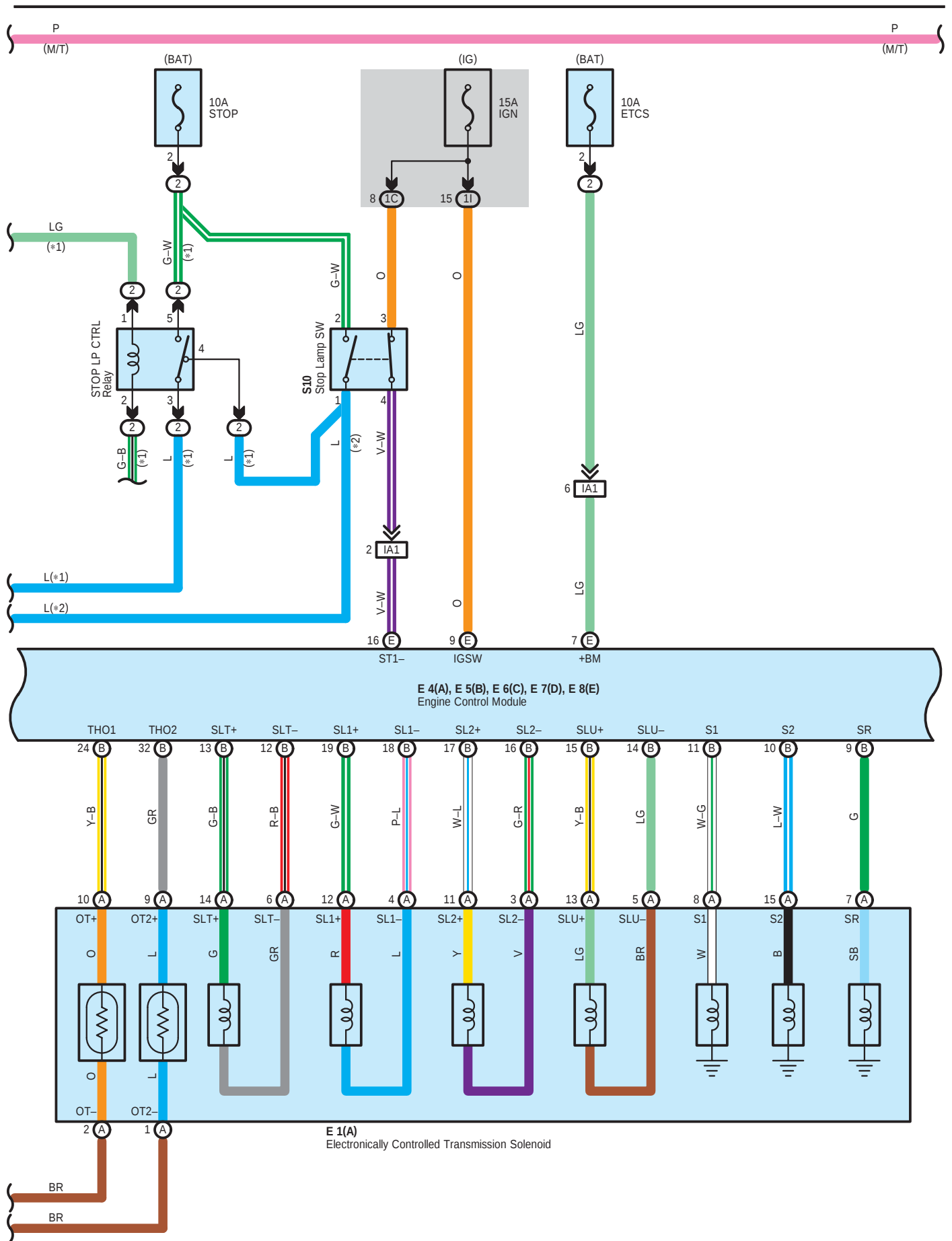
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IF1	55	Engine Wire and Engine Wire (Behind the Glove Box)
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)
IJ1	55	Instrument Panel Wire and Instrument Panel Wire (Right Kick Panel)

**: Ground Points**

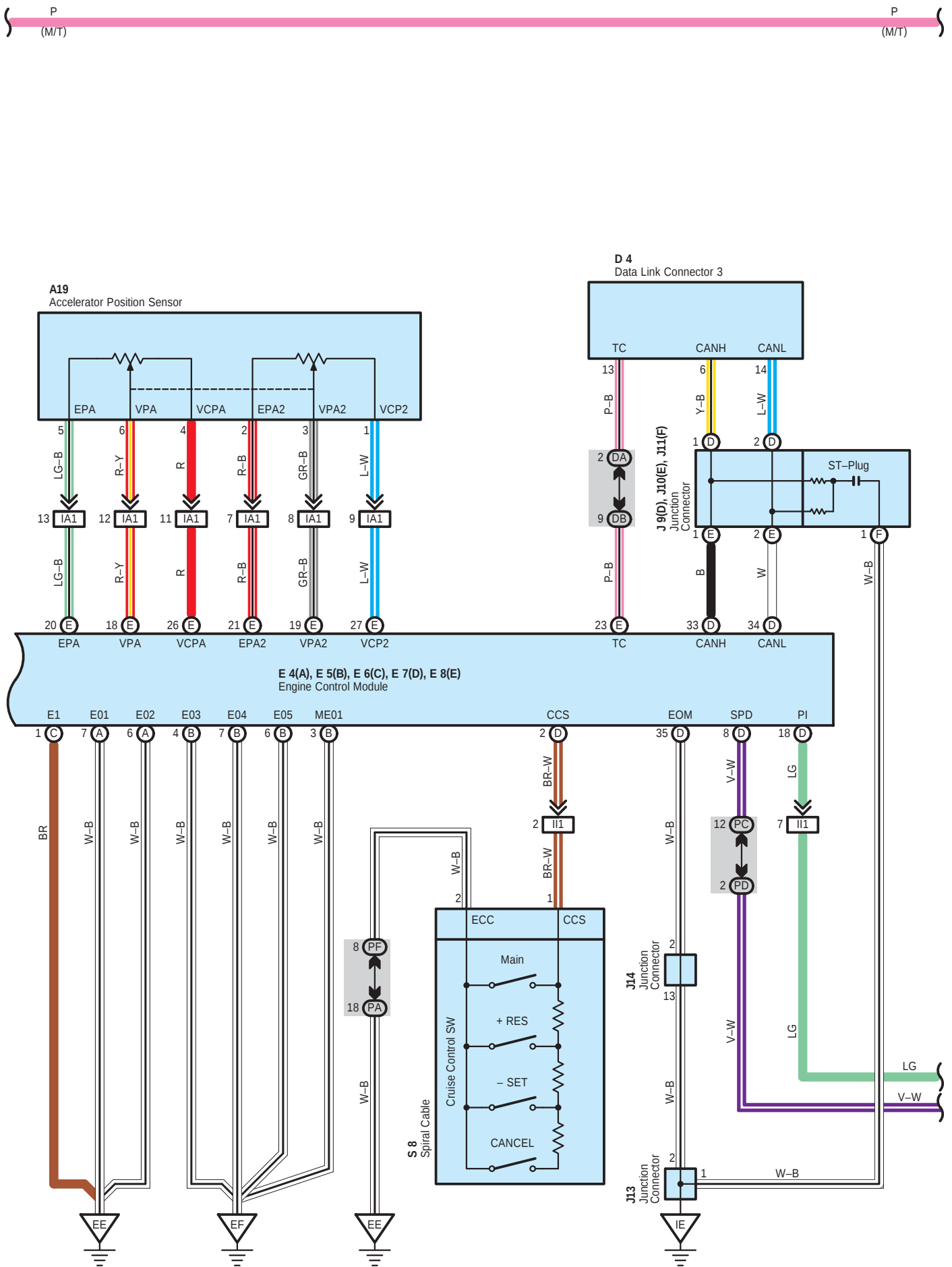
Code	See Page	Ground Points Location
EA	53 (2TR-FE)	Front Right Fender
EB	53 (2TR-FE)	Front Left Fender
EG	53 (2TR-FE)	Rear Side of Cylinder Block
EH		
IA	54	Left Kick Panel
IE	54	Right Kick Panel

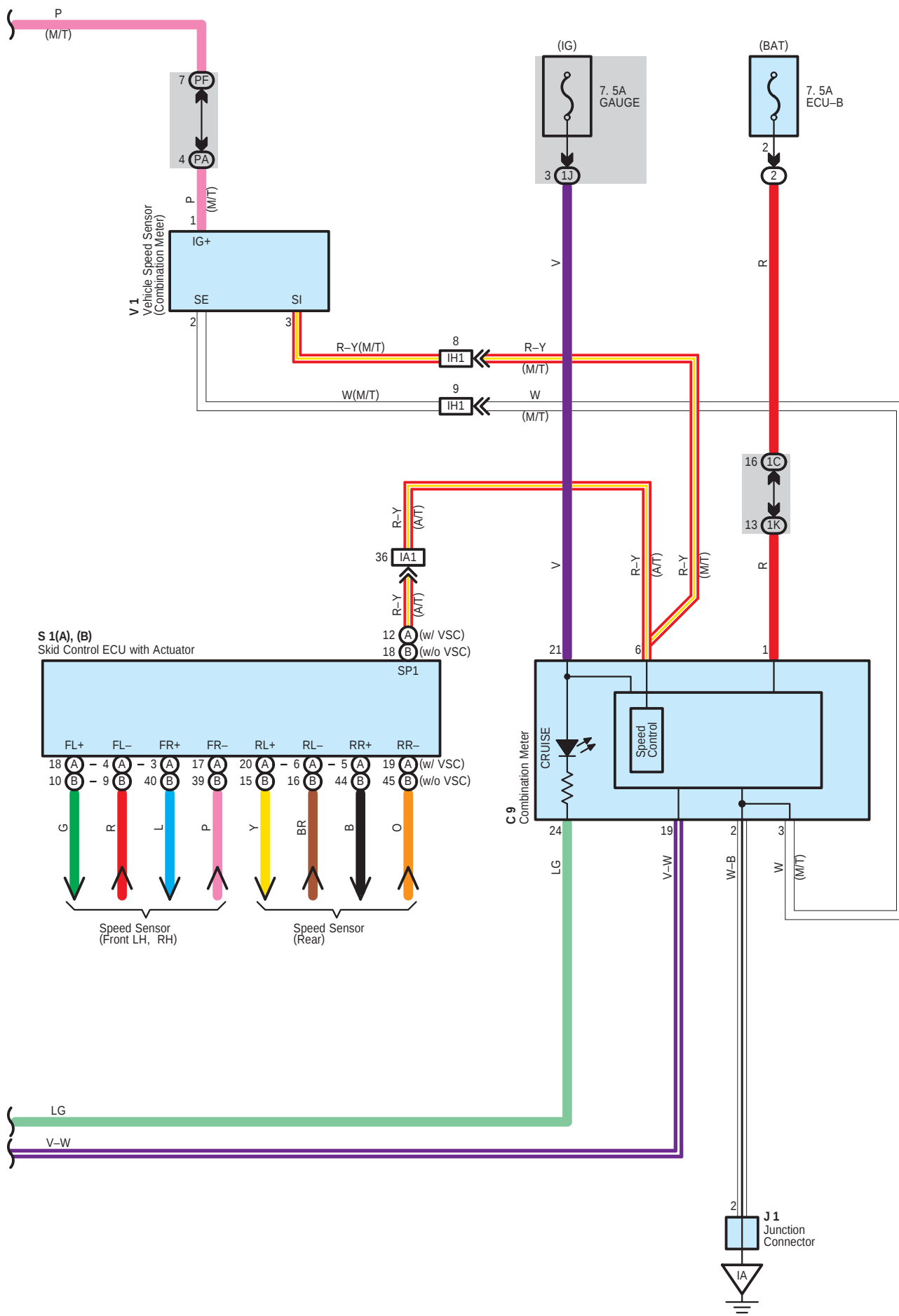
Cruise Control for 1GR-FE





Cruise Control for 1GR-FE





Cruise Control for 1GR-FE

System Outline

The cruise control system is a constant vehicle speed controller in which control of the switch on the instrument panel makes it possible to automatically adjust the opening of the engine throttle valve without depressing of the accel pedal.

1. Set Operation

When the main SW is turned on, the system starts preparations necessary for the cruise control and turns on the indicator light in the combination meter.

2. Set Speed Control

When the – SET SW is operated with the cruise control main SW turned on during travelling, the constant vehicle speed is controlled.

3. Coast Control

When the – SET SW is kept turned on during cruise control travelling, the engine control module controls the throttle valve to decelerate the vehicle. Every time the – SET SW is turned on instantaneously, the vehicle speed is decelerated approximately 1.6 km/h.

4. Accel Control

When the + RES SW is kept turned on during cruise control travelling, the engine control module controls the throttle valve to accelerate the vehicle. Every time the + RES SW is turned on instantaneously, the vehicle speed is accelerated approximately 1.6 km/h.

5. Resume Control

When the vehicle speed is within the low speed limit (Approximately 40 km/h, 25 mph) if the cruise control is cancelled, use of the + RES SW accelerates the vehicle to the speed level used before canceling the cruise control.

6. Manual Cancel Mechanism

If any of the following signals is input during cruise control travelling, the cruise control is cancelled.

- * The stop lamp SW is turned on.
- * The CANCEL SW is turned on.
- * The main SW is turned off.
- * Gear is shifted from D position to other positions than D (A/T).
- * Clutch pedal depressed (M/T).

7. Auto Cancel Function

If any of the following conditions is encountered, the cruise control is automatically cancelled.

- * The stop lamp SW wiring is faulty or short-circuited.
- * The vehicle speed signal is faulty.
- * The electronically controlled throttle malfunctions.
- * The actual vehicle speed becomes –16 km/h slower than the set speed.
- * The actual vehicle speed becomes slower than the minimum speed limit.

8. Overdrive Control Function

Overdrive is sometimes cut off on gradients during cruise control driving. When end of climbing gradient is determined by throttle opening degree information after overdrive is canceled, control is reset to overdrive condition after overdrive resetting timer operation. Also, when overdrive is cut off during accelerator resuming control, control is reset to overdrive condition when accelerator resuming control is finished.

○ : Parts Location

Code		See Page		Code		See Page		Code		See Page	
A19		44		E7	D	44		J14		45	
C9		44		E8	E	44		P1		41 (1GR–FE)	
C14		44		J1		45		S1	A	41 (1GR–FE)	
D4		44		J5		45			B	41 (1GR–FE)	
E1	A	40 (1GR–FE)		J9	D	45		S8		45	
E4	A	44		J10	E	45		S10		45	
E5	B	44		J11	F	45		T1		41 (1GR–FE)	
E6	C	44		J13		45		V1		41 (1GR–FE)	

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

**: Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
1J		
1K		
2A	24	Engine Room J/B (Engine Compartment Left)
DA	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DB		
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DD		
PA	36	Engine Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PB		
PC	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PD		
PE		
PF		

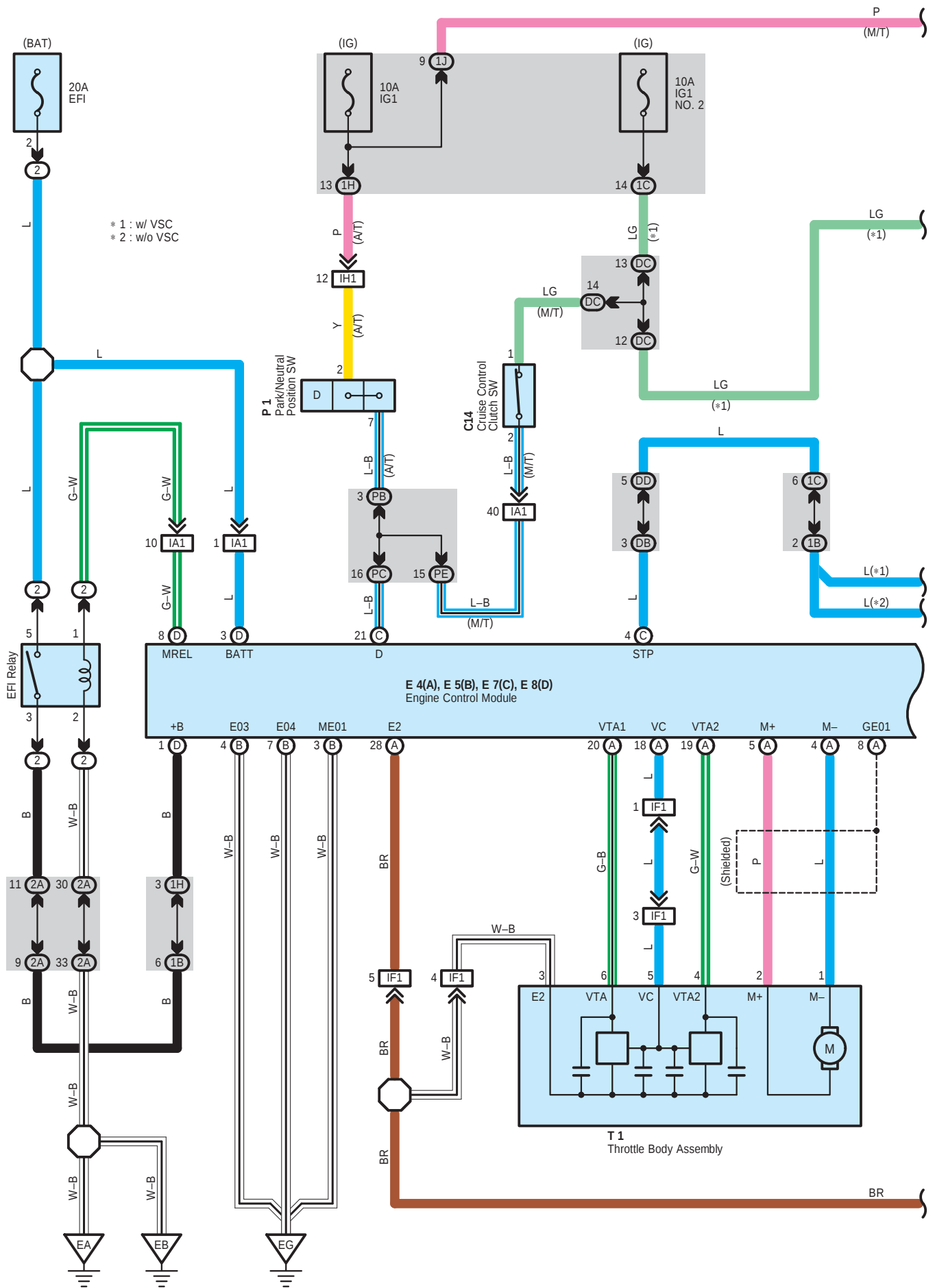
**: Connector Joining Wire Harness and Wire Harness**

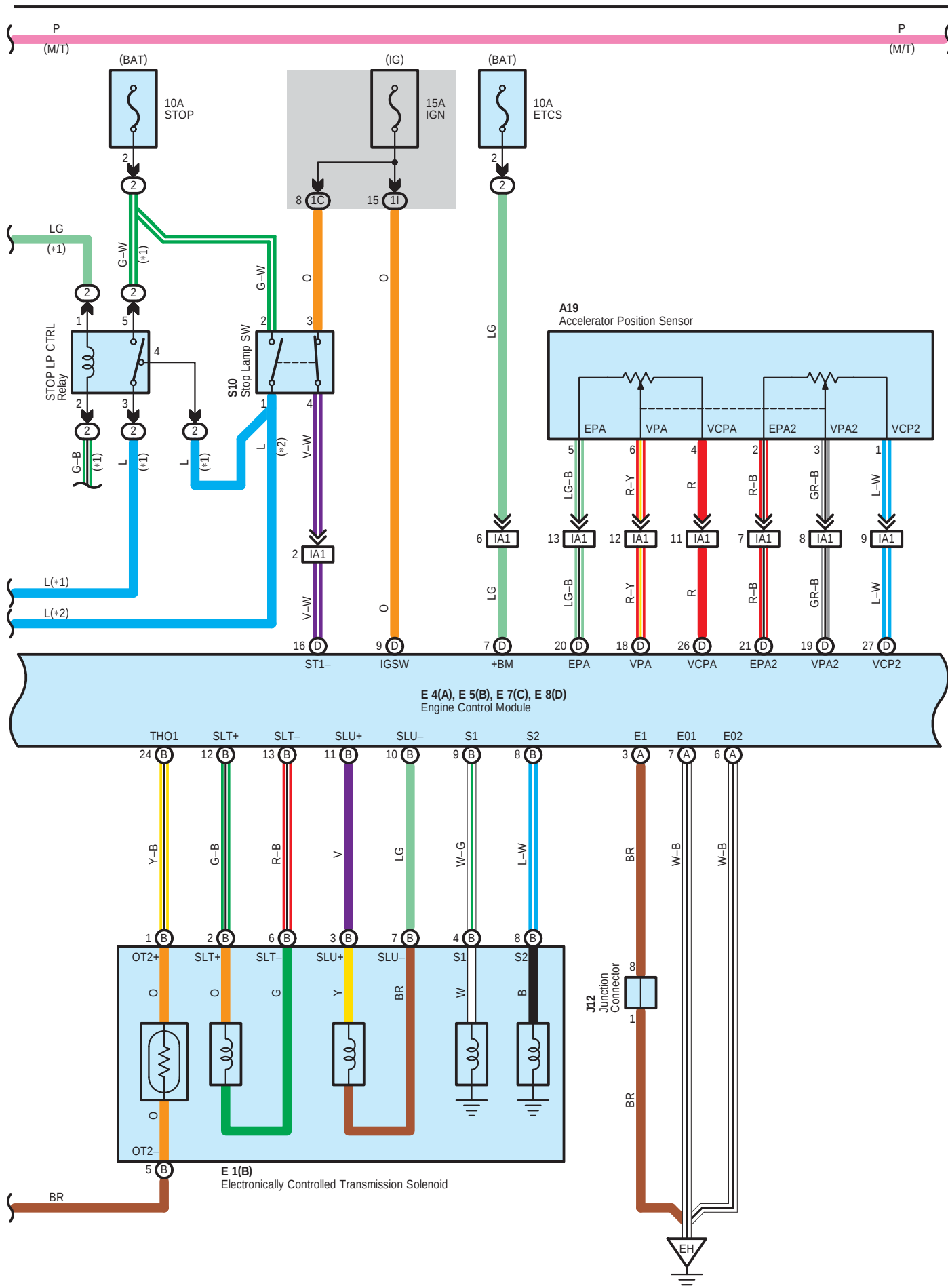
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IF1	55	Engine Wire and Engine Wire (Behind the Glove Box)
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)
II1	55	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Brace RH)

**: Ground Points**

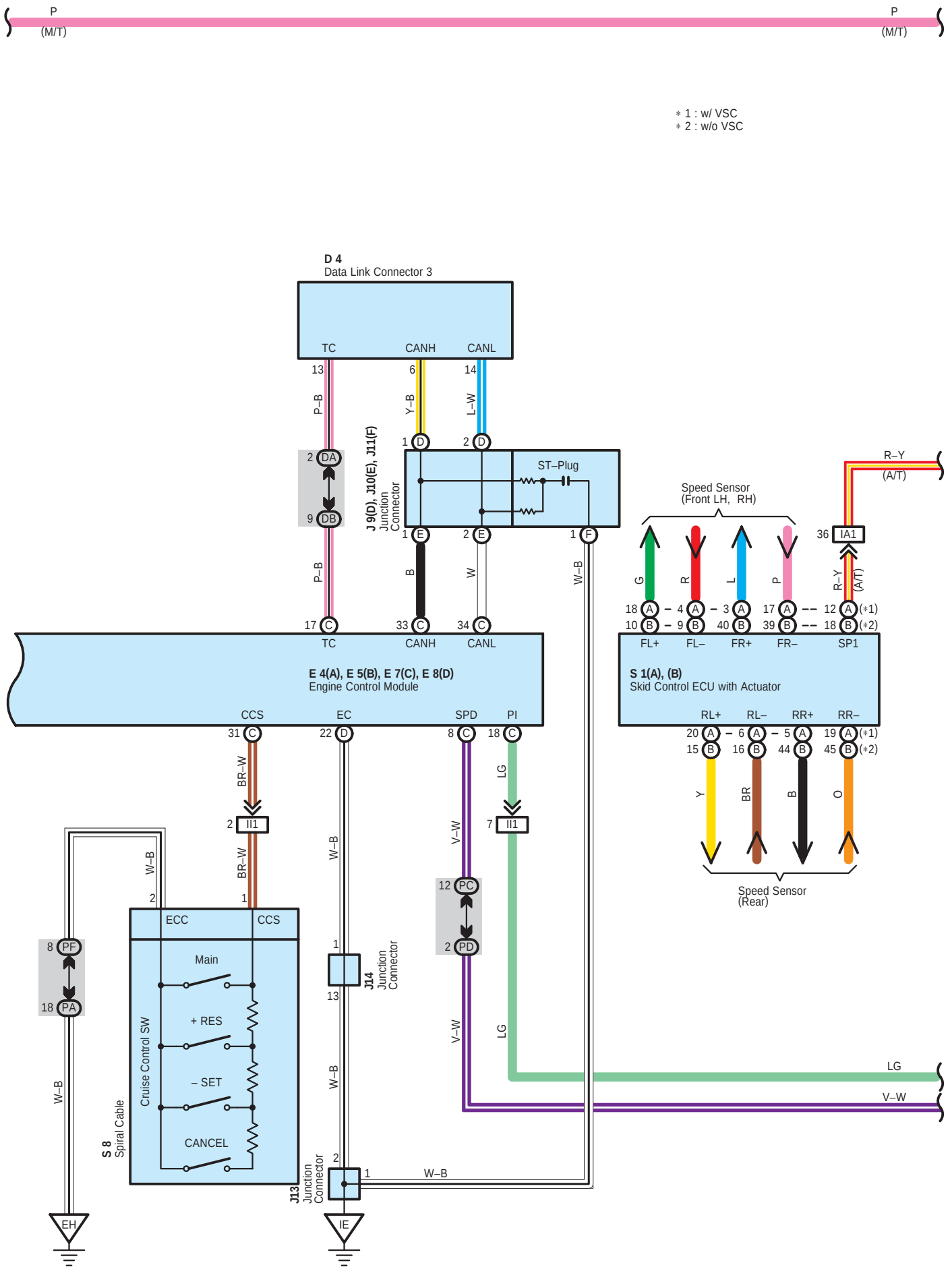
Code	See Page	Ground Points Location
EA	52 (1GR-FE)	Front Right Fender
EB	52 (1GR-FE)	Front Left Fender
EE	52 (1GR-FE)	Rear Side of Right Bank Cylinder Block
EF	52 (1GR-FE)	Rear Side of Left Bank Cylinder Block
IA	54	Left Kick Panel
IC	54	Instrument Panel Brace RH
IE	54	Right Kick Panel

Cruise Control for 2TR-FE





Cruise Control for 2TR-FE



Cruise Control for 2TR-FE

System Outline

The cruise control system is a constant vehicle speed controller in which control of the switch on the instrument panel makes it possible to automatically adjust the opening of the engine throttle valve without depressing of the accel pedal.

1. Set Operation

When the main SW is turned on, the system starts preparations necessary for the cruise control and turns on the indicator light in the combination meter.

2. Set Speed Control

When the – SET SW is operated with the cruise control main SW turned on during travelling, the constant vehicle speed is controlled.

3. Coast Control

When the – SET SW is kept turned on during cruise control travelling, the engine control module controls the throttle valve to decelerate the vehicle. Every time the – SET SW is turned on instantaneously, the vehicle speed is decelerated approximately 1.6 km/h.

4. Accel Control

When the + RES SW is kept turned on during cruise control travelling, the engine control module controls the throttle valve to accelerate the vehicle. Every time the + RES SW is turned on instantaneously, the vehicle speed is accelerated approximately 1.6 km/h.

5. Resume Control

When the vehicle speed is within the low speed limit (Approximately 40 km/h, 25 mph) if the cruise control is cancelled, use of the + RES SW accelerates the vehicle to the speed level used before canceling the cruise control.

6. Manual Cancel Mechanism

If any of the following signals is input during cruise control travelling, the cruise control is cancelled.

- * The stop lamp SW is turned on.
- * The CANCEL SW is turned on.
- * The main SW is turned off.
- * Gear is shifted from D position to other positions than D (A/T).
- * Clutch pedal depressed (M/T).

7. Auto Cancel Function

If any of the following conditions is encountered, the cruise control is automatically cancelled.

- * The stop lamp SW wiring is faulty or short-circuited.
- * The vehicle speed signal is faulty.
- * The electronically controlled throttle malfunctions.
- * The actual vehicle speed becomes –16 km/h slower than the set speed.
- * The actual vehicle speed becomes slower than the minimum speed limit.

8. Overdrive Control Function

Overdrive is sometimes cut off on gradients during cruise control driving. When end of climbing gradient is determined by throttle opening degree information after overdrive is canceled, control is reset to overdrive condition after overdrive resetting timer operation. Also, when overdrive is cut off during accelerator resuming control, control is reset to overdrive condition when accelerator resuming control is finished.

○ : Parts Location

Code		See Page	Code		See Page	Code	See Page	
A19		44	E8	D	44	P1		43 (2TR–FE)
C9		44	J1		45	S1	A	43 (2TR–FE)
C14		44	J9	D	45		B	43 (2TR–FE)
D4		44	J10	E	45	S8		45
E1	B	42 (2TR–FE)	J11	F	45	S10		45
E4	A	44	J12		45	T1		43 (2TR–FE)
E5	B	44	J13		45	V1		43 (2TR–FE)
E7	C	44	J14		45			

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

**: Junction Block and Wire Harness Connector**

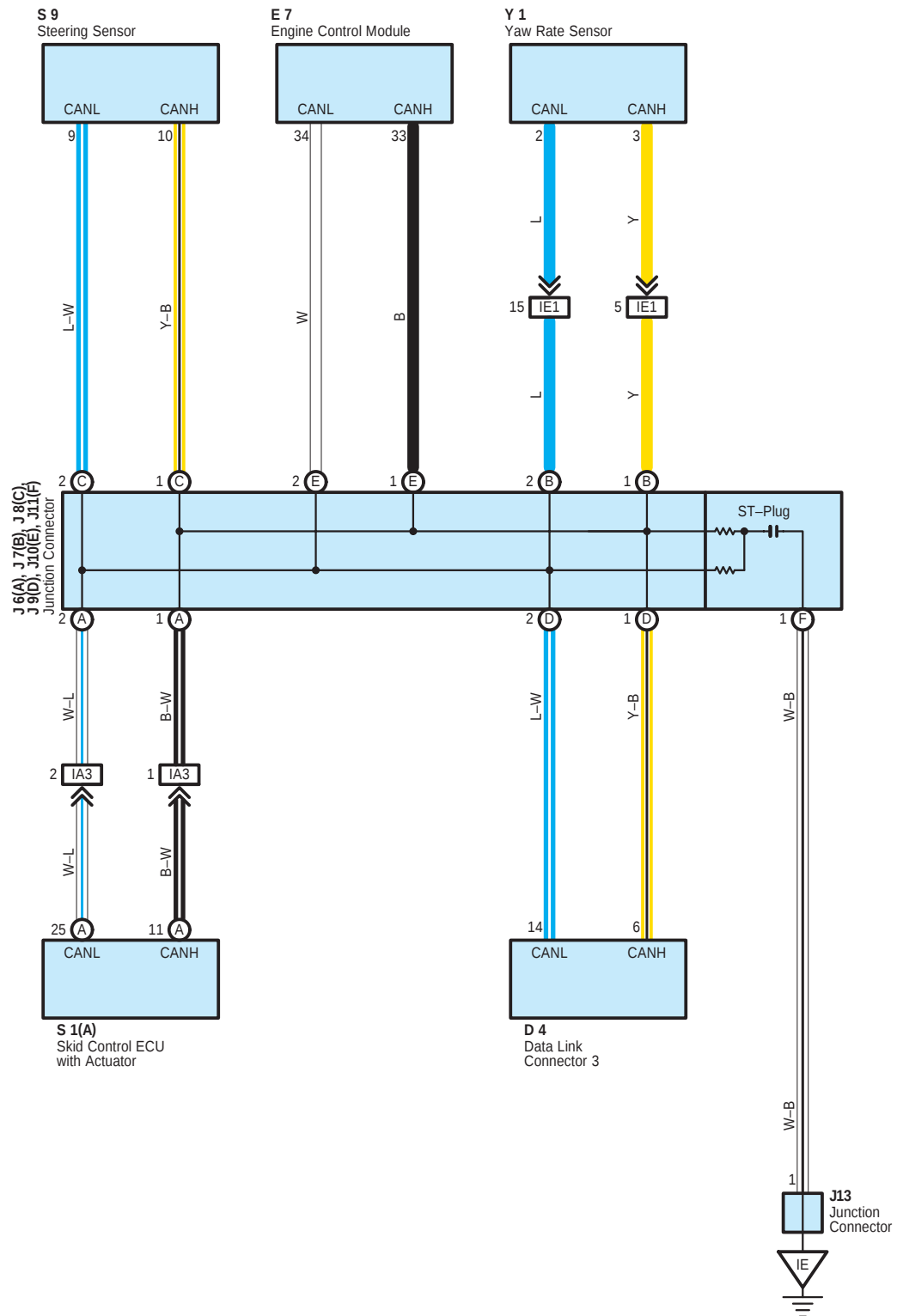
Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
1J		
1K		
2A	24	Engine Room J/B (Engine Compartment Left)
DA	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DB		
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DD		
PA	36	Engine Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PB		
PC	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PD		
PE		
PF		

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

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IF1	55	Engine Wire and Engine Wire (Behind the Glove Box)
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)
II1	55	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Brace RH)

**: Ground Points**

Code	See Page	Ground Points Location
EA	53 (2TR-FE)	Front Right Fender
EB	53 (2TR-FE)	Front Left Fender
EG	53 (2TR-FE)	Rear Side of Cylinder Block
EH		
IA	54	Left Kick Panel
IE	54	Right Kick Panel



System Outline

Multiplex communication system (CAN) uses a serial communication protocol and communicates with a differential voltage. In this network system, TERMINALS CANH and CANL are used for communication between the ECUs and sensors, and excellent data communication speed and communication error detecting facility are provided.

This system is working for the following systems:

- * ABS (w/ VSC)
- * Auto LSD
- * Cruise Control
- * Downhill Assist Control
- * Electronically Controlled Transmission and A/T Indicator
- * Engine Control
- * Hill-Start Assist Control
- * TRAC
- * VSC

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
D4		44	J9	D	45	S1	A	43 (2TR–FE)
E7		44	J10	E	45	S9		45
J6	A	45	J11	F	45	Y1		47 (*1)
J7	B	45	J13		45			48 (*2)
J8	C	45	S1	A	41 (1GR–FE)			49 (*3)

□ : Connector Joining Wire Harness and Wire Harness

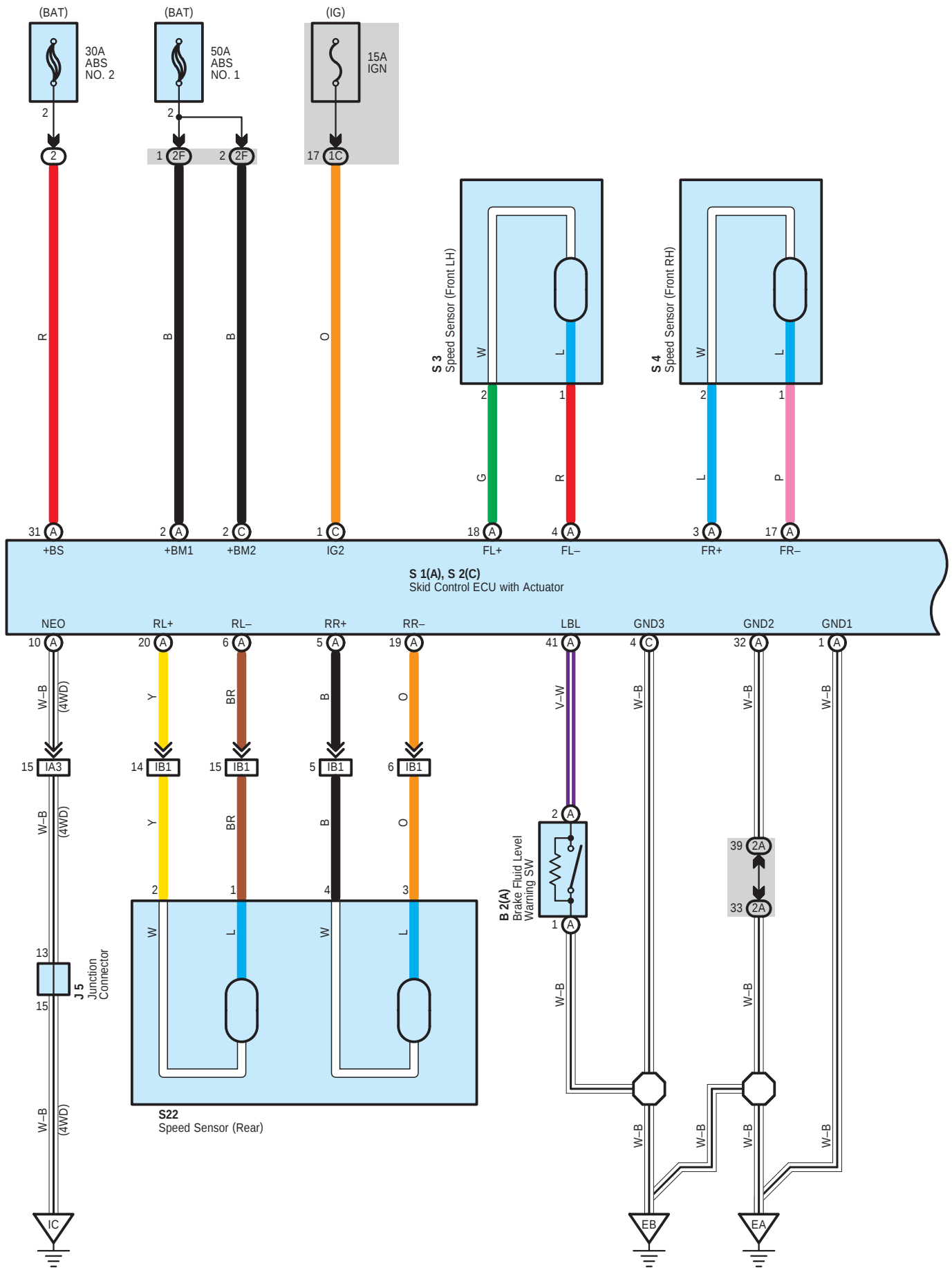
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA3	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IE1	54	Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)

▽ : Ground Points

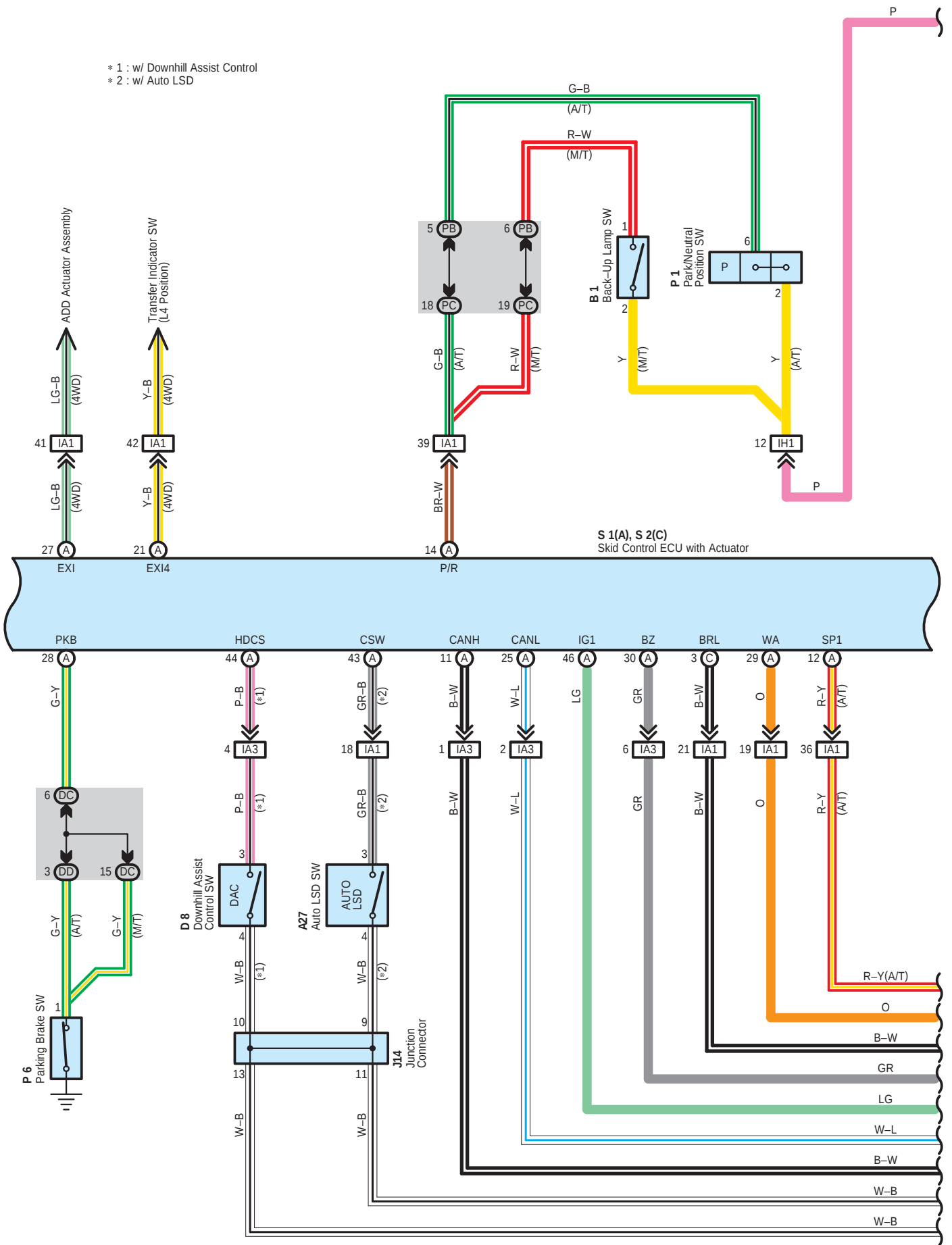
Code	See Page	Ground Points Location
IE	54	Right Kick Panel

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

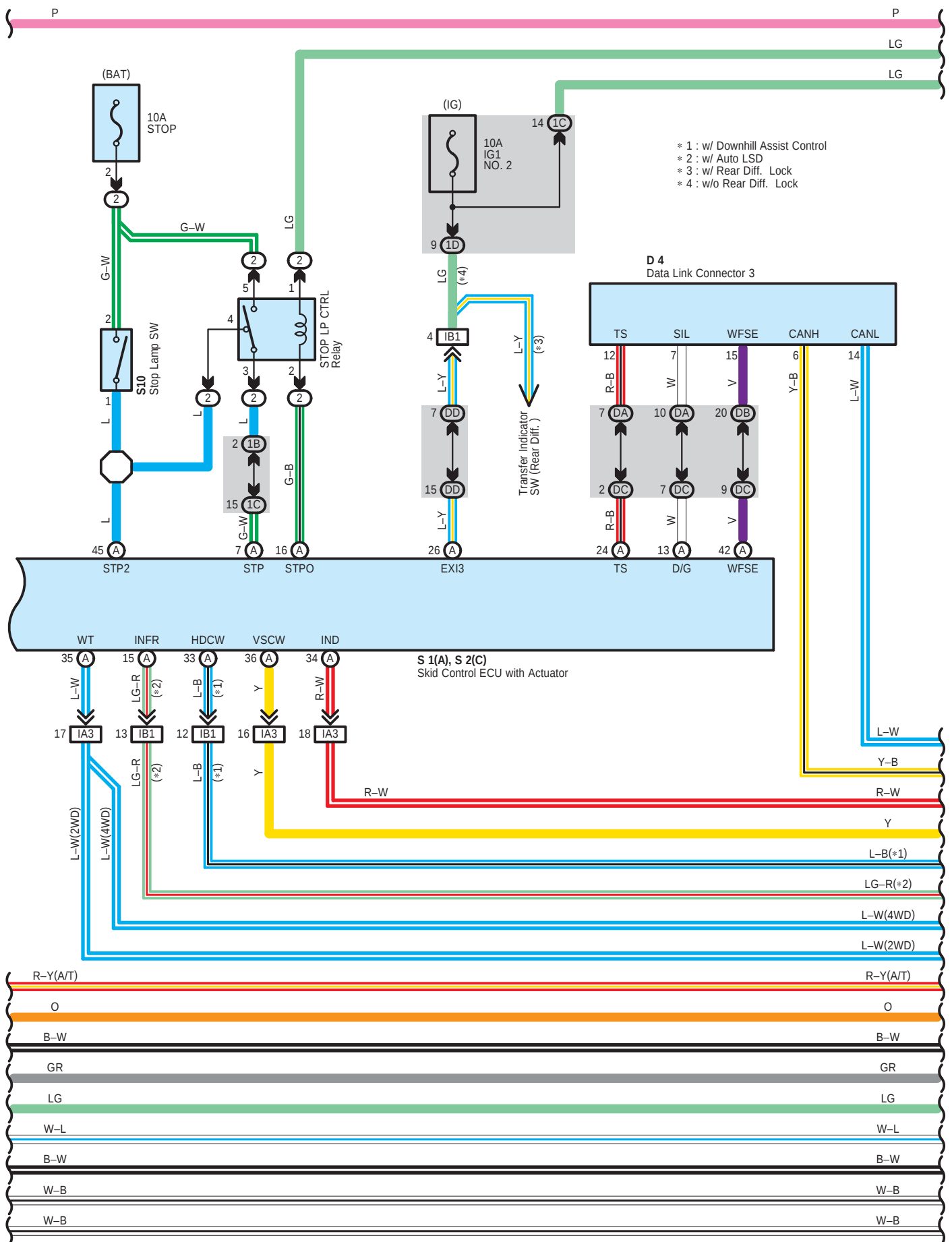
ABS, TRAC, VSC, Auto LSD, DAC and HAC

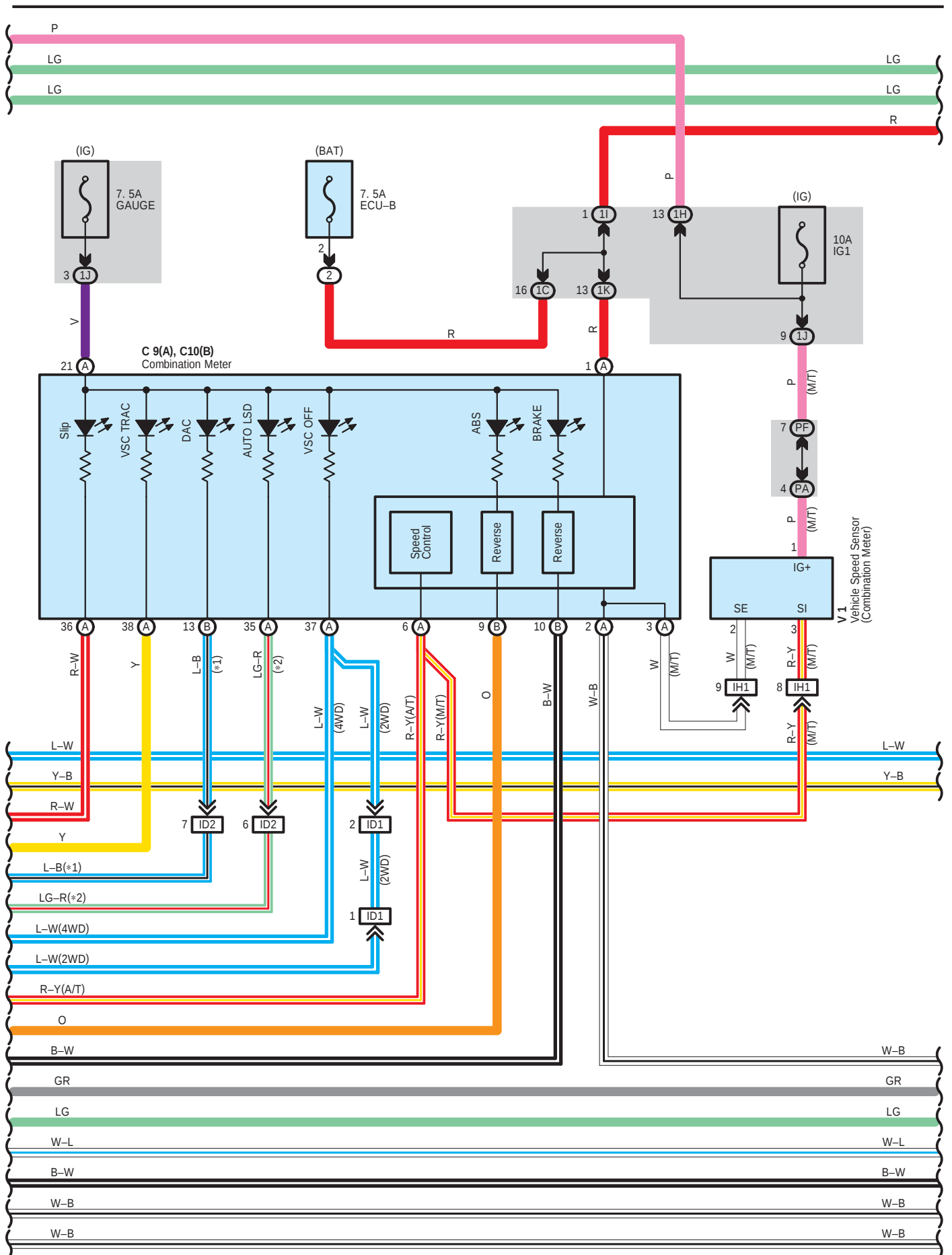


* 1 : w/ Downhill Assist Control
 * 2 : w/ Auto LSD

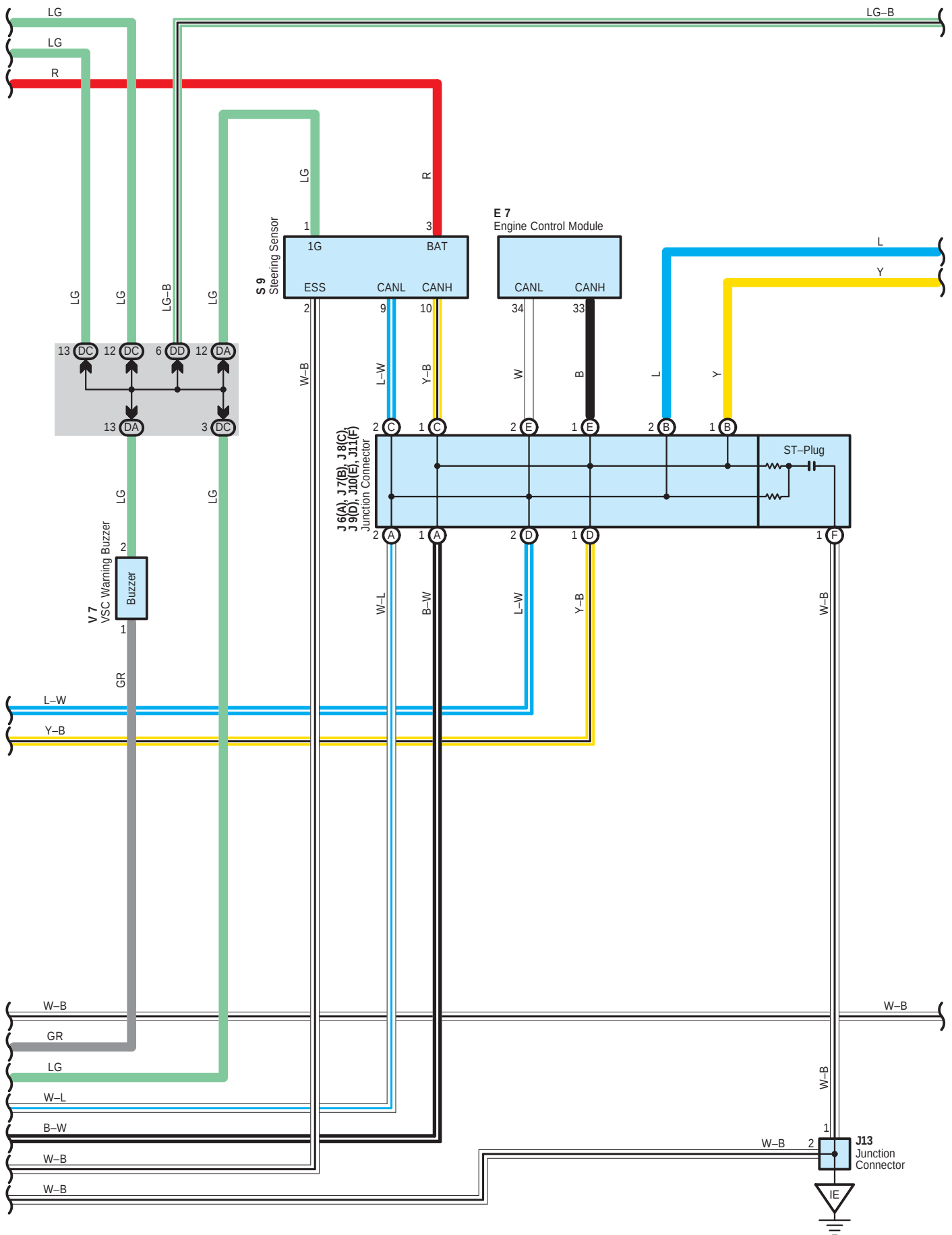


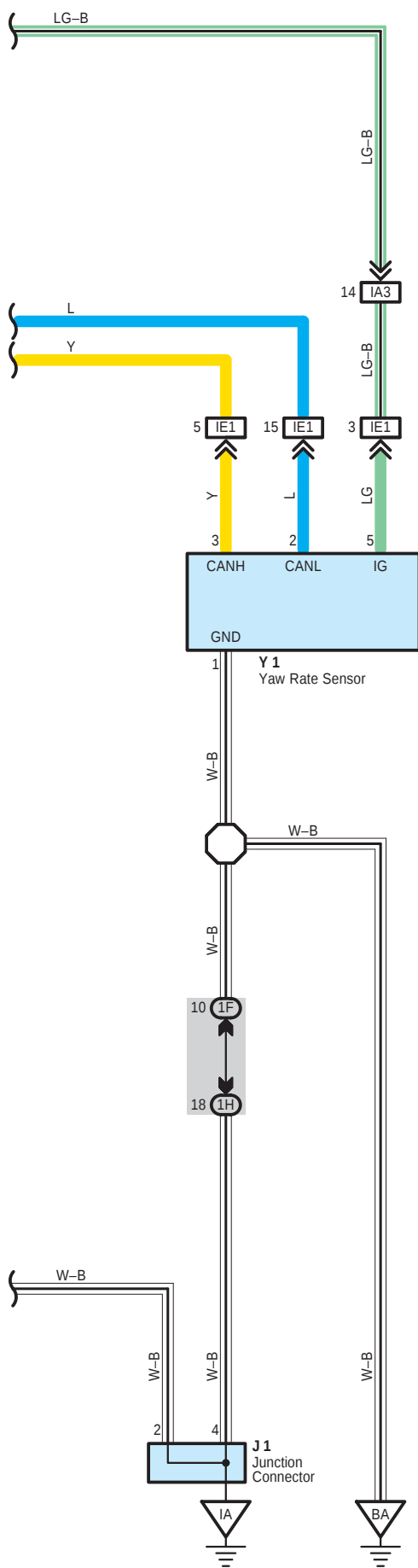
ABS, TRAC, VSC, Auto LSD, DAC and HAC





ABS, TRAC, VSC, Auto LSD, DAC and HAC





System Outline

1. Normal Operation

The VSC system helps prevent the vehicle from slipping sideways as a result of strong front wheel skid or strong rear wheel skid during cornering.

The followings are two examples that can be considered as circumstances in which the tires exceed their lateral grip limit. The VSC system is designed to help control the vehicle behavior by controlling the engine's output and the brakes at each wheel when the vehicle is under one of the conditions indicated below.

- * When the front wheels lose grip in relation to the rear wheels (Strong front wheel skid tendency).
- * When the rear wheels lose grip in relation to the front wheels (Strong rear wheel skid tendency).

2. Electronic Brake–Force Distribution

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

3. Downhill Assist Control Operation

The downhill assist control operation controls braking action of each wheel to help prevent out–of–balance vehicle posture when descending a steep hill or traveling at a speed exceeding the threshold of wheel gripping capability. When the downhill assist control is in operation, the brake system controls vehicle speed within the range of 5 to 7 km/h.

For the downhill assist control to be operative all of the following conditions have to be met:

- * Downhill assist control switch = ON
- * Transfer L4 selected
- * Vehicle speed is 5 km/h or more, but less than 25 km/h.
- * Accelerator pedal OFF
- * Brake pedal OFF

4. Hill–Start Support Control Operation

When starting on a steep hill for ascending, the hill–start support control automatically puts the brake on momentarily – from the moment when the driver releases his foot from the brake pedal until he steps on the accelerator pedal – to help the driver start the vehicle safely and smoothly.

Please bear in mind, however, that it activates the brake system for only 3 seconds.

For the hill–start support control to be operative all of the following conditions have to be met:

- * Shift position = D, 2, or L
- * Vehicle not moving forward with some wheel(s) slipping
- * Vehicle speed > 0 km/h

5. Active TRAC (4WD)

Active traction control system provides great effect of LSD (Limited Slip Differential) to deliver driving force lost due to the acceleration slip to each of 4 wheels by conducting the brake oil control on slipped wheels caused by acceleration during 4WD driving.

6. Auto LSD (2WD)

Auto LSD fulfills the function of LSD (Limited Slip Differential) by using the system of TRAC. It controls to focus on 'getting out', which ensures to recover from run–off condition and to take off on roads with much travel resistance such as sand.

 : Parts Location

Code		See Page	Code		See Page	Code	See Page
A27		44	J8	C	45	S3	43 (2TR–FE)
B1		40 (1GR–FE)	J9	D	45	S4	41 (1GR–FE)
		42 (2TR–FE)	J10	E	45		43 (2TR–FE)
B2	A	40 (1GR–FE)	J11	F	45	S9	45
		42 (2TR–FE)	J13		45	S10	45
C9	A	44	J14		45	S22	47 (*1)
C10	B	44	P1		41 (1GR–FE)		48 (*2)
D4		44			43 (2TR–FE)		49 (*3)
D8		44	P6		45	V1	41 (1GR–FE)
E7		44	S1	A	41 (1GR–FE)		43 (2TR–FE)
J1		45			43 (2TR–FE)	V7	45
J5		45	S2	C	41 (1GR–FE)	Y1	47 (*1)
J6	A	45			43 (2TR–FE)		
J7	B	45	S3		41 (1GR–FE)		49 (*3)

 : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1D	28	Frame Wire and Driver Side J/B (Lower Finish Panel)
1F	28	Floor No.2 Wire and Driver Side J/B (Lower Finish Panel)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
1J		
1K		
2A	24	Engine Room J/B (Engine Compartment Left)
2F	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DA	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DB		
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DD		
PA	36	Engine Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PB		
PC	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PF		

 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IA3		
IB1	54	Frame Wire and Engine Room Main Wire (Left Kick Panel)
ID1	54	Frame Wire and Instrument Panel Wire (Left Kick Panel)
ID2		
IE1	54	Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

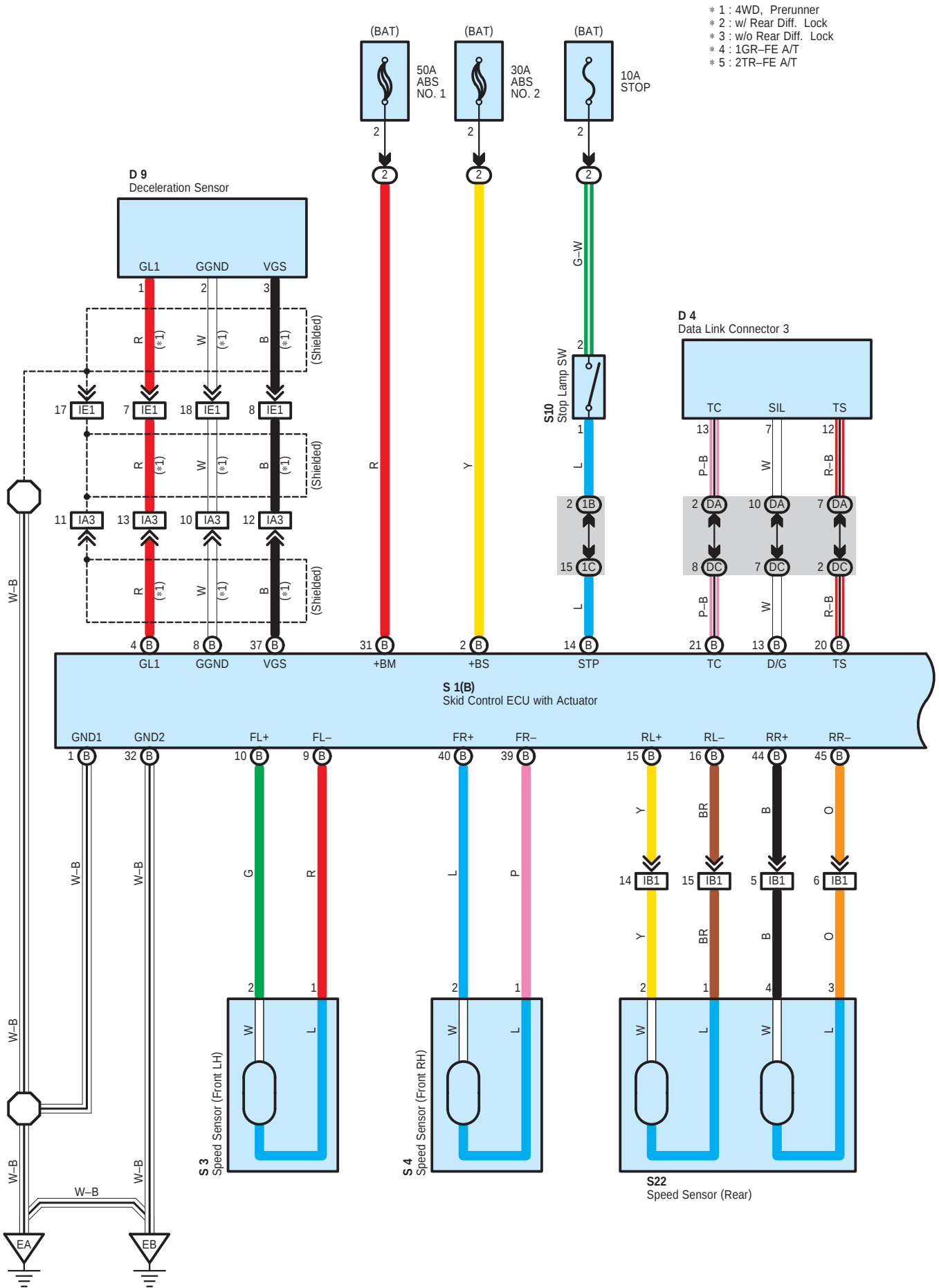
ABS, TRAC, VSC, Auto LSD, DAC and HAC

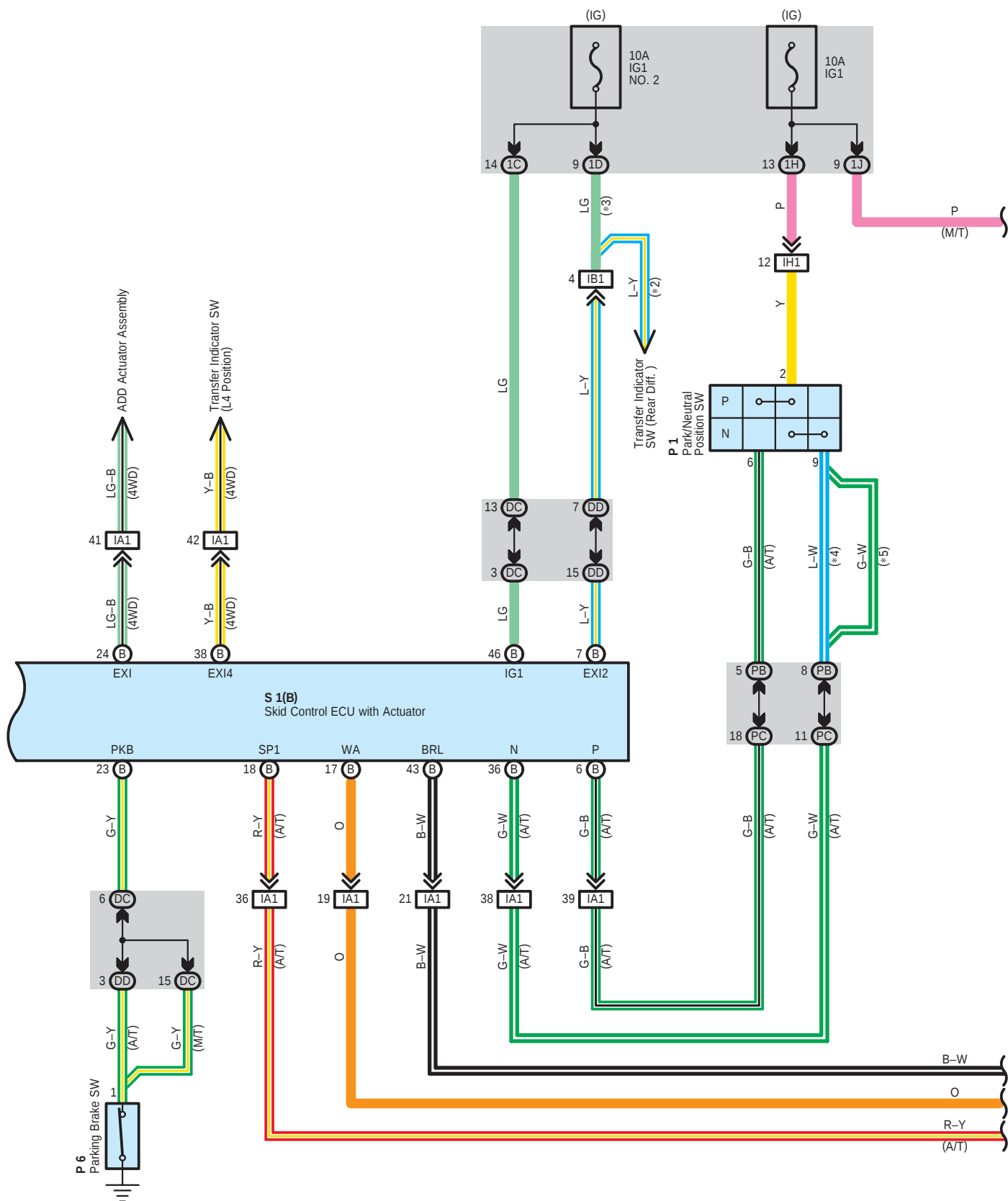


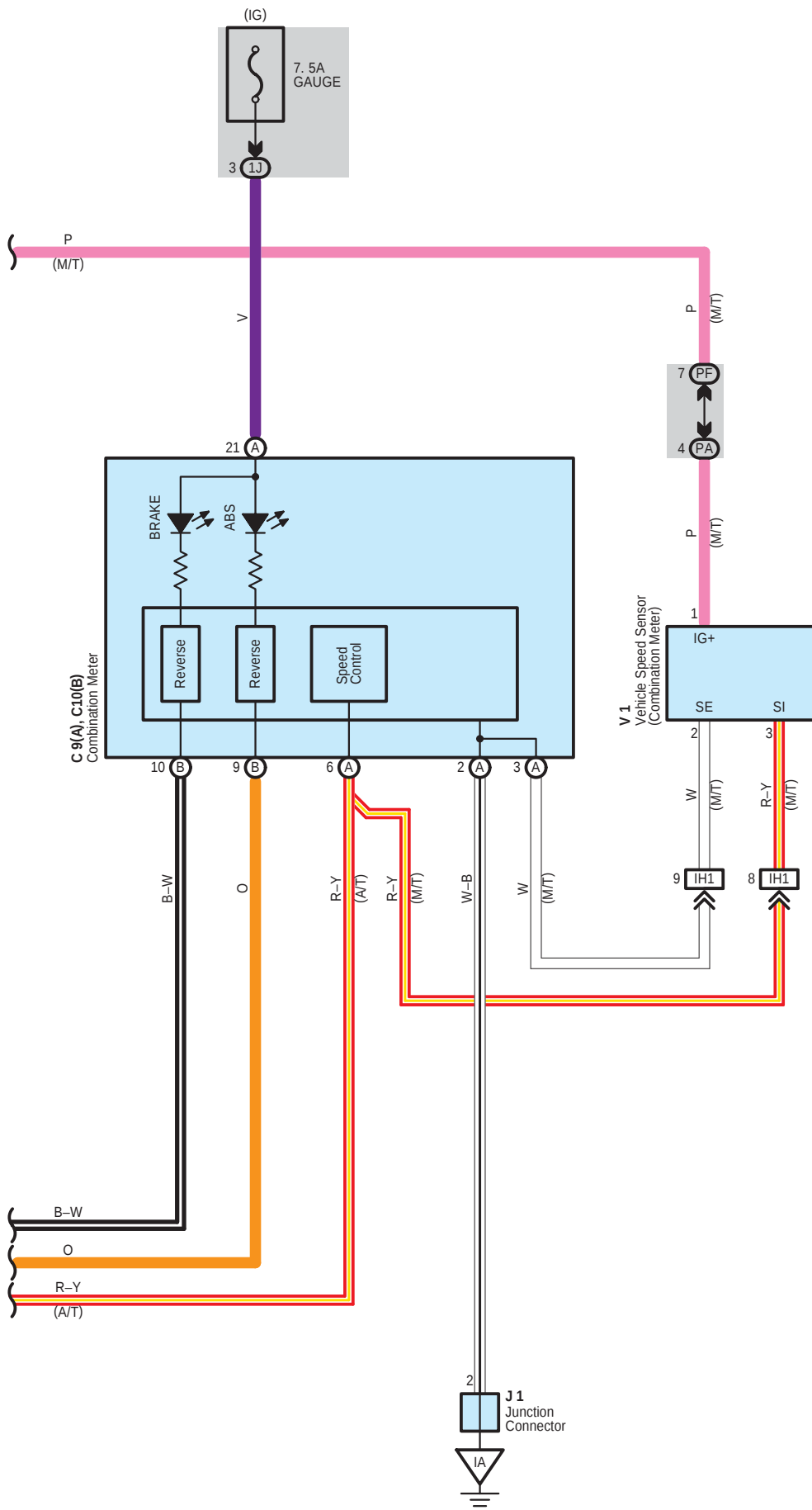
: Ground Points

Code	See Page	Ground Points Location
EA	52 (1GR-FE)	Front Right Fender
	53 (2TR-FE)	
EB	52 (1GR-FE)	Front Left Fender
	53 (2TR-FE)	
IA	54	Left Kick Panel
IC	54	Instrument Panel Brace RH
IE	54	Right Kick Panel
BA	56 (*1)	Floor Seat Cross Member LH
	57 (*2)	
	58 (*3)	

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat







System Outline

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

1. Input Signals

(1) Speed sensor signal

The speed of the wheels is detected and input to TERMINALS (B) 10, (B) 15, (B) 40 and (B) 44 of the skid control ECU with actuator.

(2) Stop lamp SW signal

A signal is input to TERMINAL (B) 14 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
C9	A	44	P1		43 (2TR–FE)	S10	45
C10	B	44	P6		45	S22	47 (*1)
D4		44	S1	B	41 (1GR–FE)		48 (*2)
D9	46 (*1)				43 (2TR–FE)		49 (*3)
	48 (*2)		S3	41 (1GR–FE)	V1	41 (1GR–FE)	
	49 (*3)			43 (2TR–FE)		43 (2TR–FE)	
J1		45	S4	41 (1GR–FE)			
P1		41 (1GR–FE)		43 (2TR–FE)			

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1D	28	Frame Wire and Driver Side J/B (Lower Finish Panel)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1J		
DA	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DD		
PA	36	Engine Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PB		
PC	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PF		

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

ABS



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

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IA3		
IB1	54	Frame Wire and Engine Room Main Wire (Left Kick Panel)
IE1	54	Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)



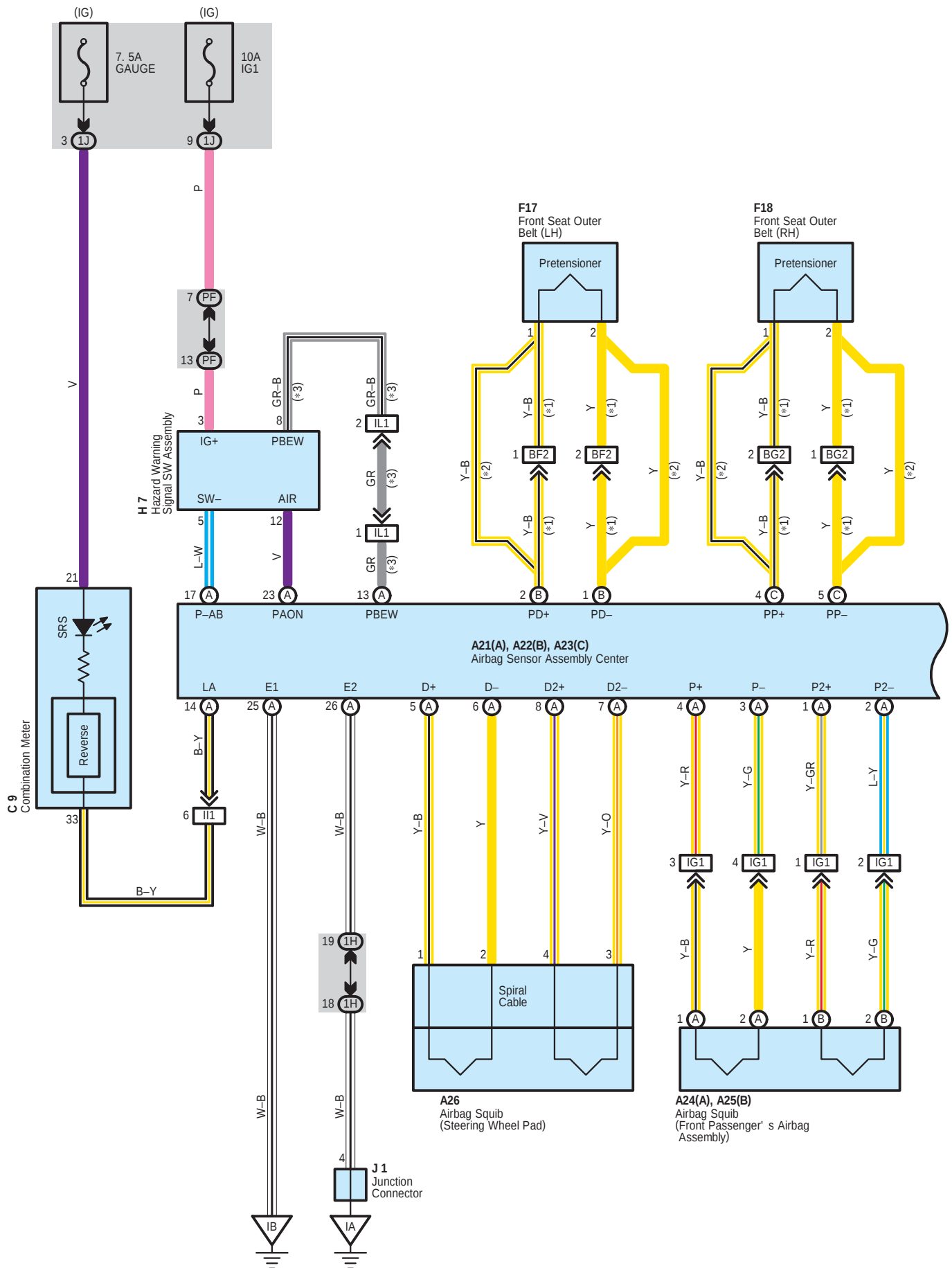
: **Ground Points**

Code	See Page	Ground Points Location
EA	52 (1GR-FE)	Front Right Fender
	53 (2TR-FE)	
EB	52 (1GR-FE)	Front Left Fender
	53 (2TR-FE)	
IA	54	Left Kick Panel

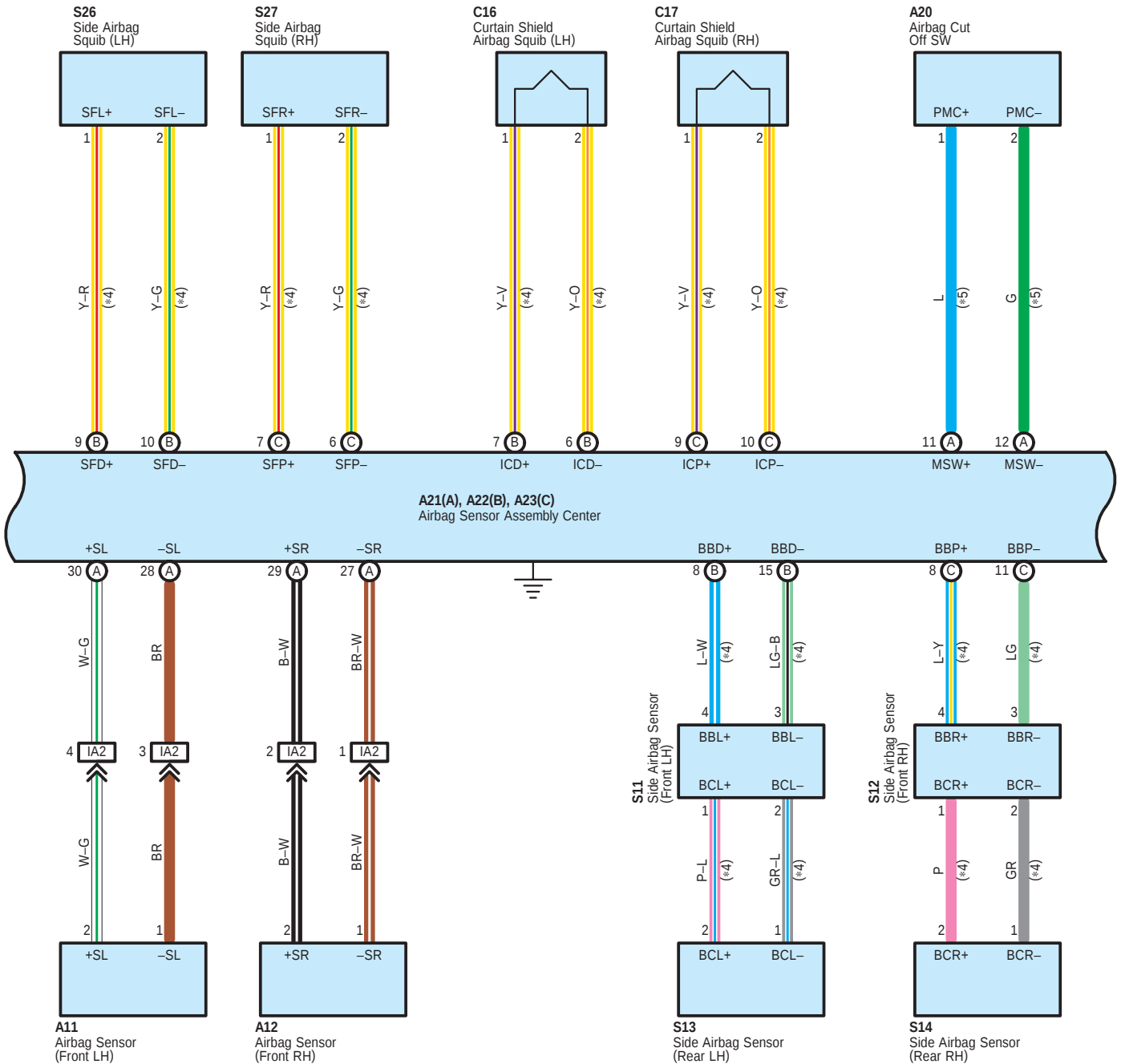
NOTICE: When inspecting or repairing the SRS, perform service in accordance with the following precautionary instructions and the procedure, and precautions in the Repair Manual applicable for the model year.

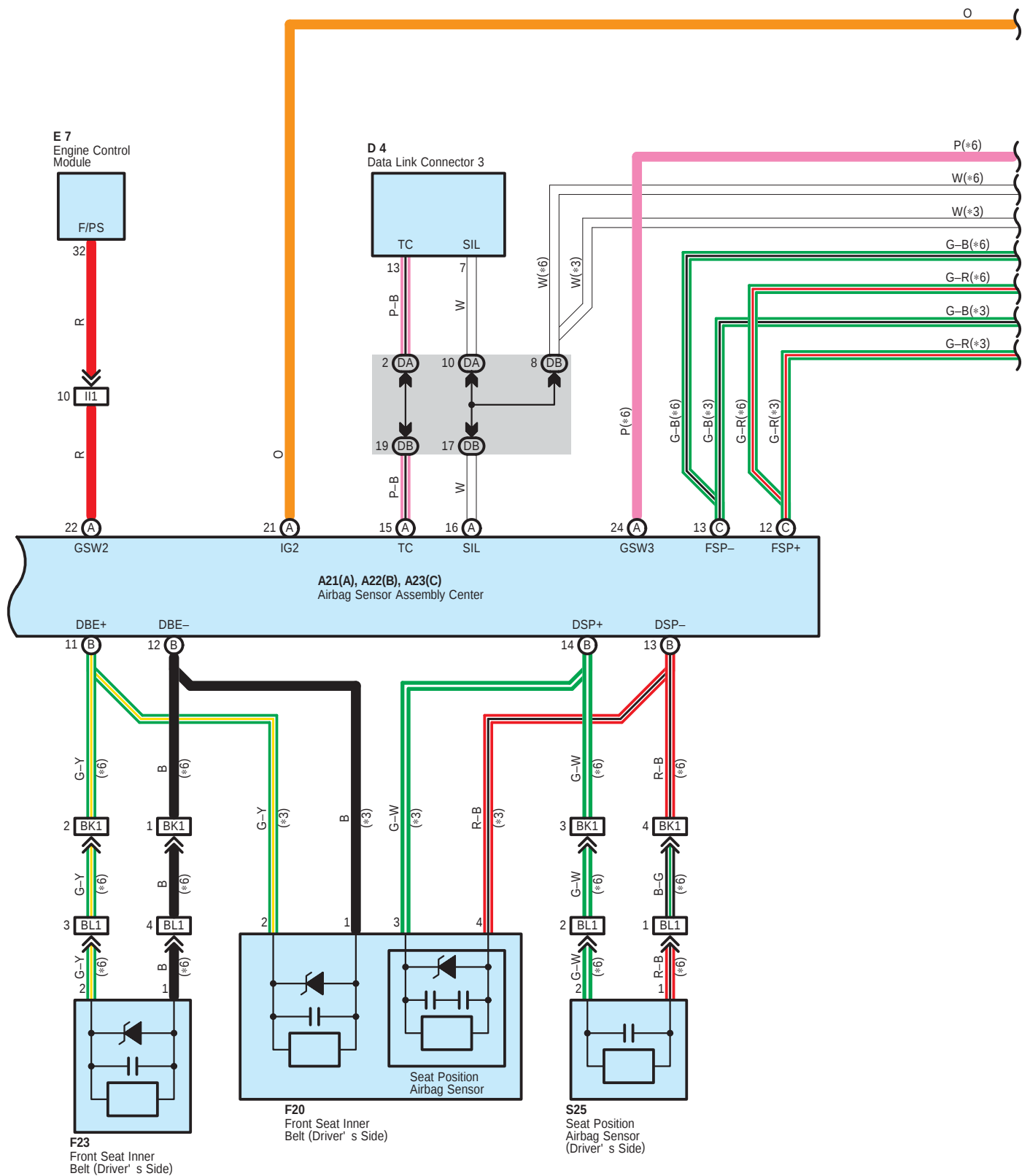
- Malfunction symptoms of the SRS are difficult to confirm, so the DTCs become the most important source of information when troubleshooting. When troubleshooting the SRS, always inspect the DTCs before disconnecting the battery.
- **Work must be started more than 90 seconds after the ignition SW is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

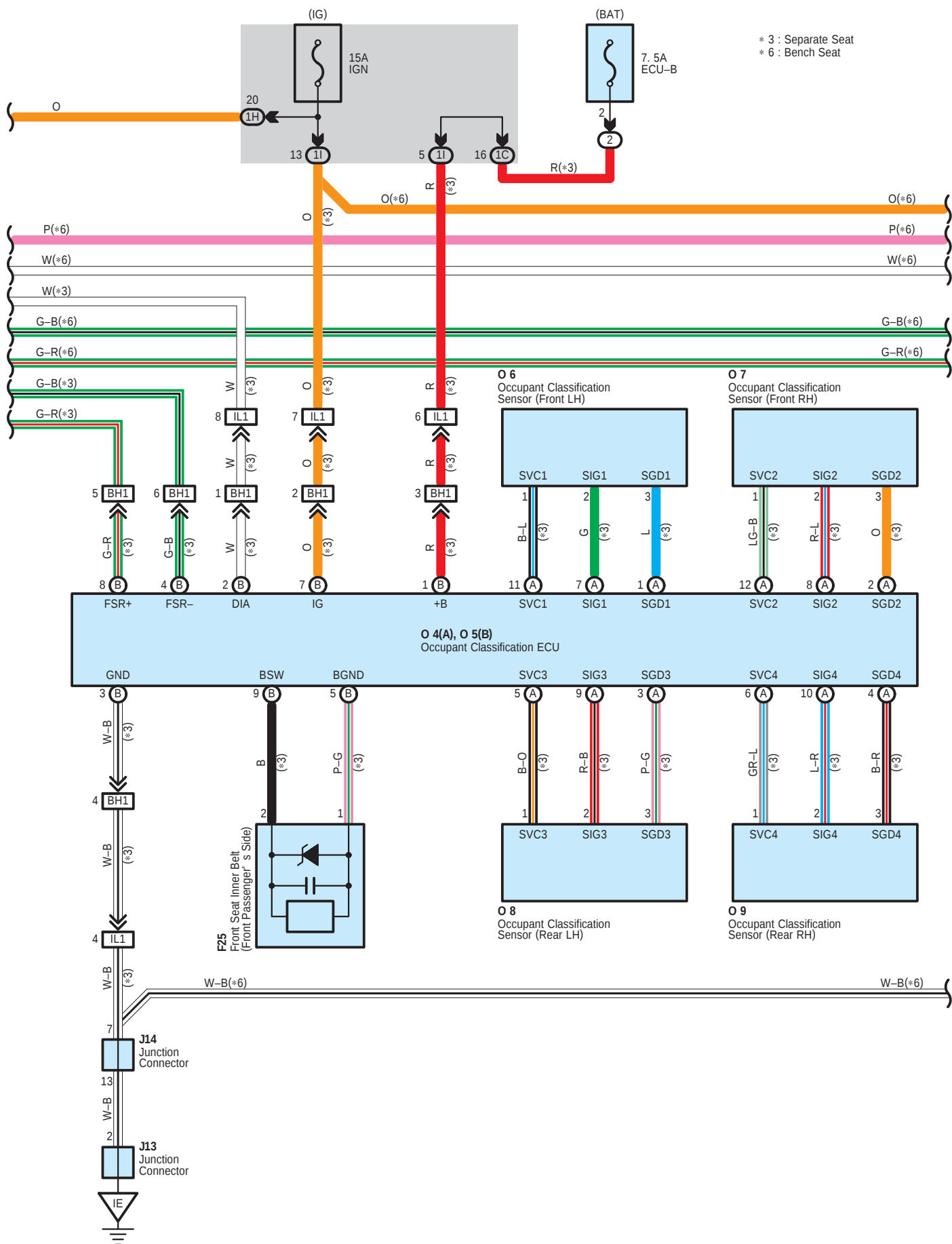
- * Steering wheel pad
- * Front passenger airbag assembly
- * Side airbag assembly
- * Curtain shield airbag assembly
- * Seat belt pretensioner
- * Center airbag sensor assembly
- * Front airbag sensor assembly
- * Side airbag sensor assembly
- * Rear airbag sensor assembly



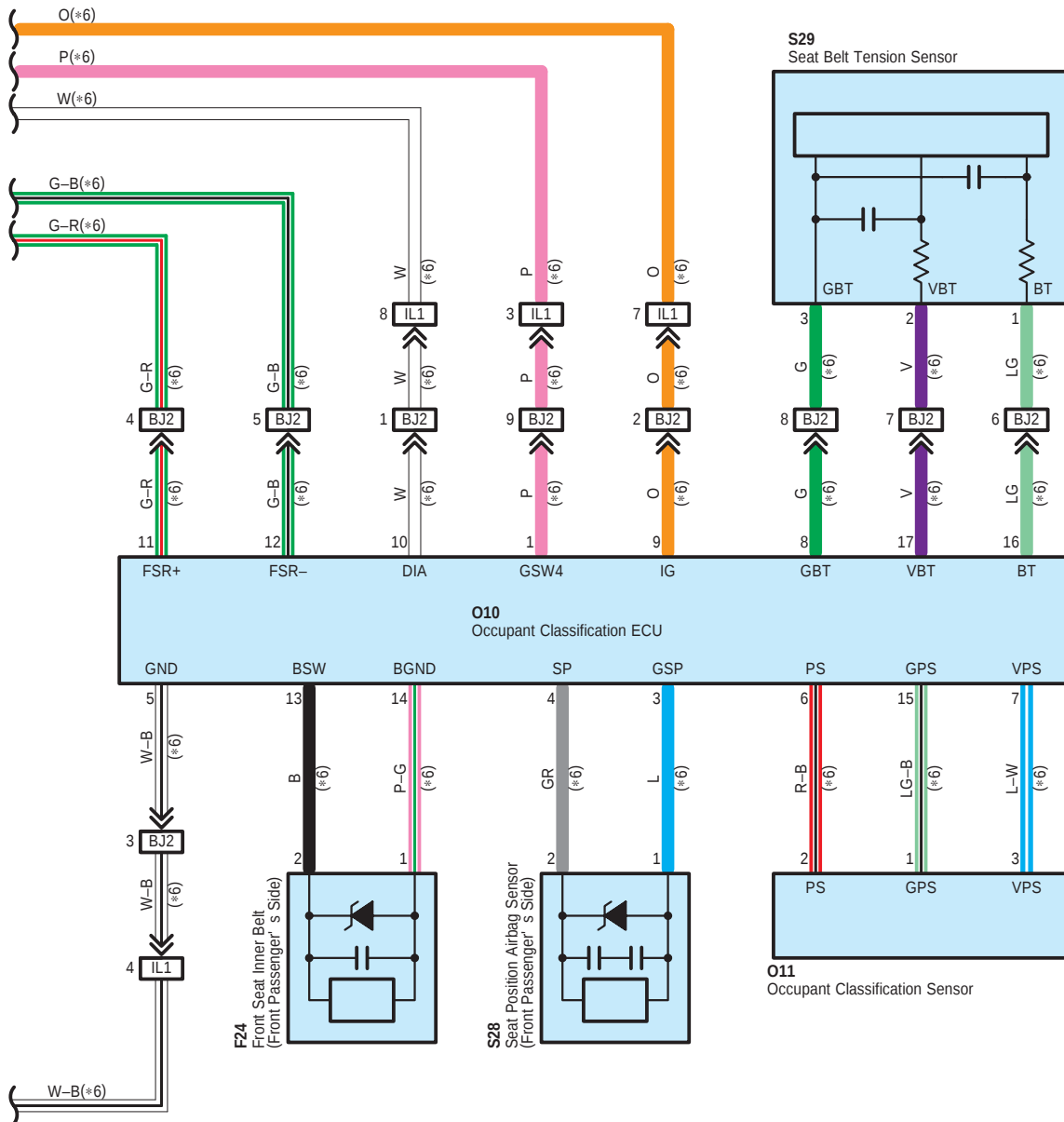
- * 1 : Access Cab
- * 2 : Except Access Cab
- * 3 : Separate Seat
- * 4 : w/ Side Airbag
- * 5 : Except Double Cab







* 6 : Bench 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
 - 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), 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.
- * 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, seat position (passenger), the load applied to the belt tension sensor (passenger), and whether the seat belt is buckled (passenger). 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.
- * The airbag manual ON–OFF switch is used to disable the deployment of the front and side airbags for the front passenger, such as when a child seat is installed on the front passenger seat.
- * The airbag sensor assembly transmits a signal to the engine control module in order to stop the fuel pump when the airbag is deployed.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A11	40 (1GR–FE)	F17	46 (*1)	O6	50 (*4)
	42 (2TR–FE)		48 (*2)	O7	50 (*4)
A12	40 (1GR–FE)		49 (*3)	O8	50 (*4)
	42 (2TR–FE)	F18	46 (*1)	O9	50 (*4)
A20	44		48 (*2)	O10	51 (*5)
A21	A 44		49 (*3)	O11	51 (*5)
A22	B 44	F20	50 (*4)	S11	47 (*1)
A23	C 44	F23	51 (*5)	S12	47 (*1)
A24	A 44	F24	51 (*5)	S13	47 (*1)
A25	B 44	F25	50 (*4)	S14	47 (*1)
A26	44	H7	45	S25	51 (*5)
C9	44	J1	45	S26	50 (*4)
C16	46 (*1)	J13	45	S27	50 (*4)
C17	46 (*1)	J14	45	S28	51 (*5)
D4	44	O4	A 50 (*4)	S29	49 (*3)
E7	44	O5	B 50 (*4)		

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat



: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
1J		
DA	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DB		
PF	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)



: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA2	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IG1	55	Instrument Panel Wire and Instrument Panel Assembly Wire (Behind the Glove Box)
II1	55	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Brace RH)
IL1	55	Instrument Panel Wire and Floor Wire (Right Kick Panel)
BF2	57 (*2)	Rear Door No.2 Wire and Floor No.2 Wire (Under the Left Quarter Panel)
BG2	57 (*2)	Rear Door No.1 Wire and Floor Wire (Under the Right Quarter Panel)
BH1	60 (*4)	Floor Wire and Seat No.1 Wire (Under the Front Passenger's Seat)
BJ2	61 (*5)	Floor Wire and Seat No.1 Wire (Under the Front Seat RH)
BK1	61 (*5)	Floor No.2 Wire and Seat No.1 Wire (Under the Front Seat LH)
BL1	61 (*5)	Seat No.2 Wire and Seat No.1 Wire (Under the Front Seat LH)

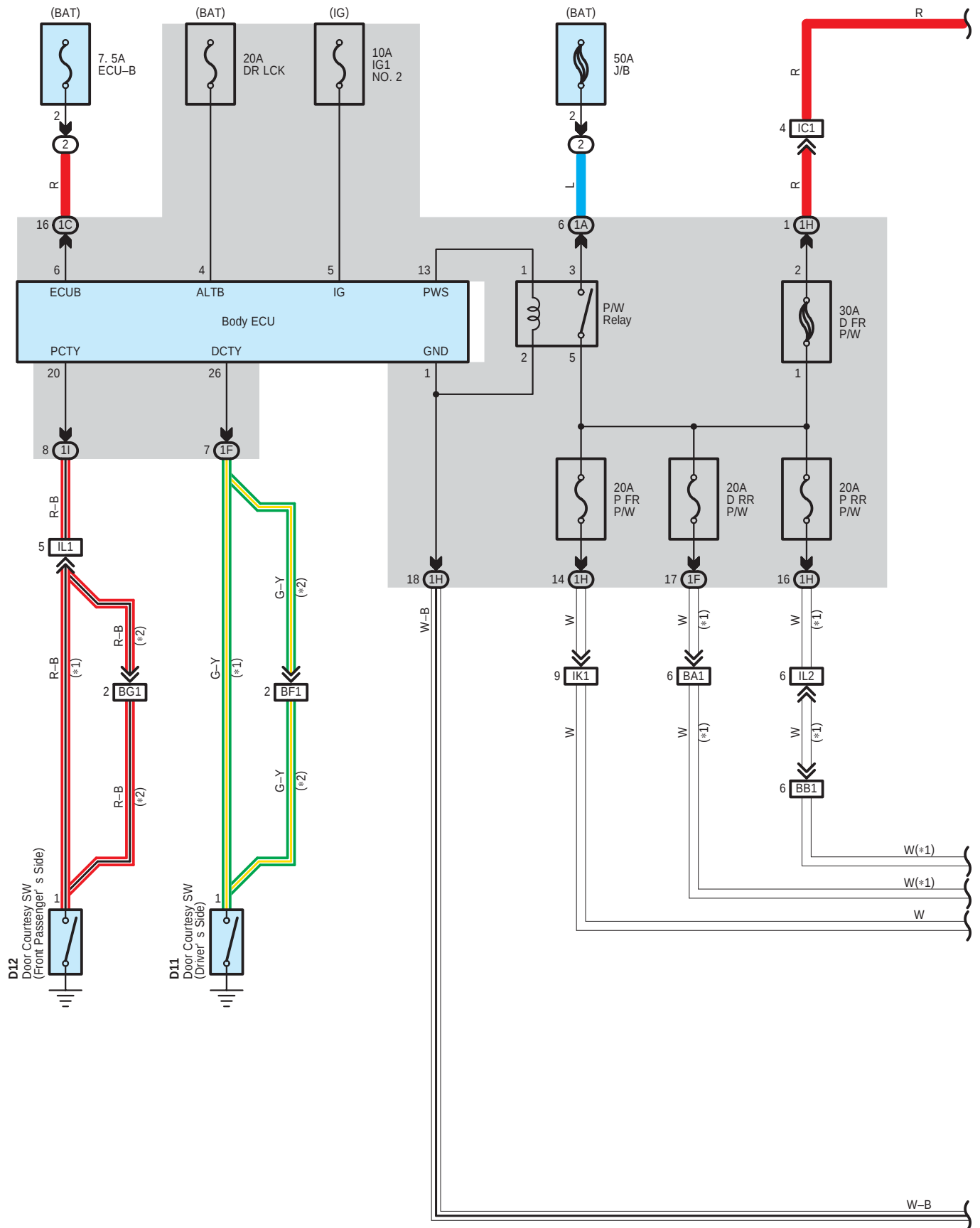


: Ground Points

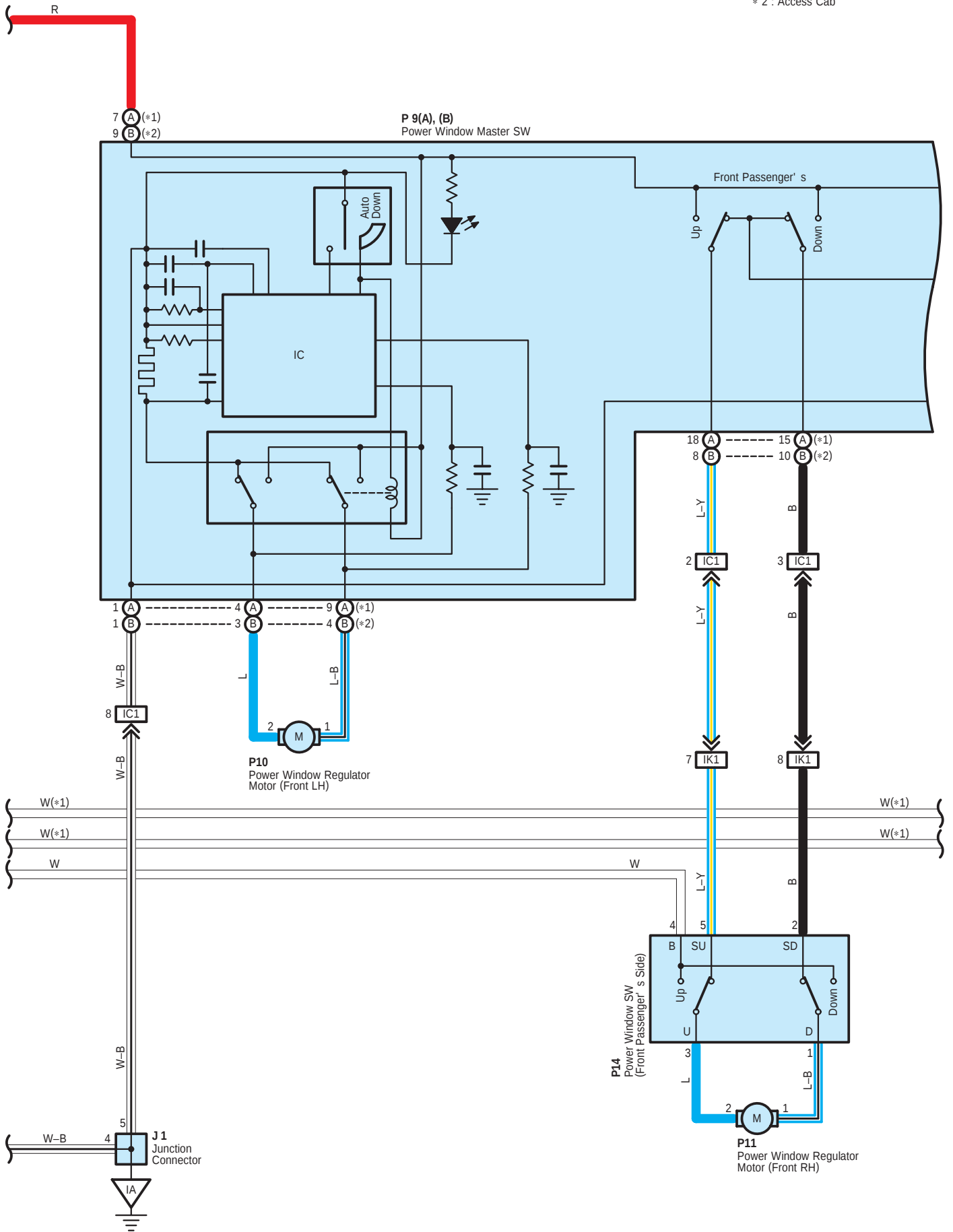
Code	See Page	Ground Points Location
IA	54	Left Kick Panel
IB	54	Instrument Panel Brace LH
IE	54	Right Kick Panel

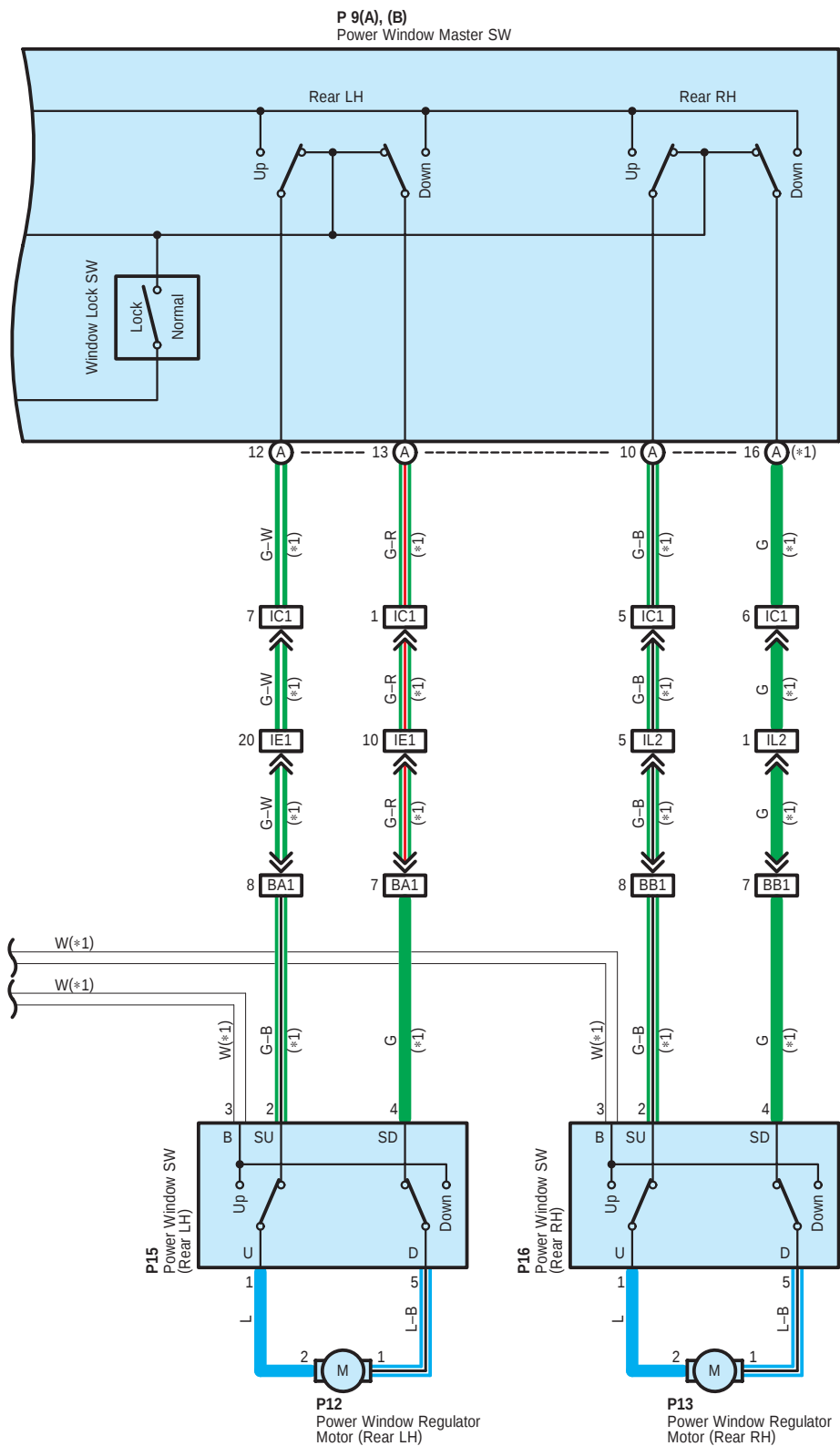
* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Power Window



* 1 : Double Cab
* 2 : Access Cab





System Outline

With the ignition SW turned on, current flows through the IG1 NO.2 fuse to TERMINAL 5 of the body ECU to TERMINAL 13 to TERMINAL 1 of the P/W relay to TERMINAL 2 to GROUND, activating the P/W relay, and the current flowing from TERMINAL 3 of the P/W relay flows to TERMINAL 5 to D FR P/W fuse to TERMINAL (A) 7 (Double cab), (B) 9 (Access cab) of the power window master SW, P FR P/W fuse to TERMINAL 4 of the power window SW (Front passenger's side), D RR P/W fuse to TERMINAL 3 of the power window SW (Rear LH), P RR P/W fuse to TERMINAL 3 of the power window SW (Rear RH).

1. Manual Operation (Driver's Window)

With the ignition SW turned on and with the power window master SW (Manual SW) in UP position, the current flowing to TERMINAL (A) 7 (Double cab), (B) 9 (Access cab) of the power window master SW flows to TERMINAL (A) 4 (Double cab), (B) 3 (Access cab) to TERMINAL 2 of the power window regulator motor (Front LH) to TERMINAL 1 to TERMINAL (A) 9 (Double cab), (B) 4 (Access cab) of the master SW to TERMINAL (A) 1 (Double cab), (B) 1 (Access cab) to GROUND and causes the power window regulator motor to rotate in the up direction. The window ascends only while the SW is being pushed.

In down operation, the current flowing from TERMINAL (A) 7 (Double cab), (B) 9 (Access cab) of the power window master SW to TERMINAL (A) 9 (Double cab), (B) 4 (Access cab) flows to TERMINAL 1 of the motor LH to TERMINAL 2 to TERMINAL (A) 4 (Double cab), (B) 3 (Access cab) of the master SW to TERMINAL (A) 1 (Double cab), (B) 1 (Access cab) to GROUND, flowing in the opposite direction to manual up operation, causing the motor to rotate in reverse and lowering the window.

2. Auto Down Operation (Driver's Window)

With the ignition SW on and with the auto SW of the power window master SW in DOWN position, the current flowing to TERMINAL (A) 7 (Double cab), (B) 9 (Access cab) of the master SW flows to TERMINAL (A) 9 (Double cab), (B) 4 (Access cab) of the master SW to TERMINAL 1 of the power window regulator motor (Front LH) to TERMINAL 2 to TERMINAL (A) 4 (Double cab), (B) 3 (Access cab) of the master SW to TERMINAL (A) 1 (Double cab), (B) 1 (Access cab) to GROUND, causing the motor to rotate towards the down side.

Then the solenoid in the master SW is activated and it locks the auto SW being pushed, causing the motor to continue to rotate in auto down operation.

When the window has completely descended, the current flowing between TERMINAL (A) 4 (Double cab), (B) 3 (Access cab) of the master SW and TERMINAL (A) 1 (Double cab), (B) 1 (Access cab) increases. As a result, the solenoid stops operating, the auto SW turns off and the flowing from TERMINAL (A) 7 (Double cab), (B) 9 (Access cab) of the master SW to TERMINAL (A) 9 (Double cab), (B) 4 (Access cab) is cut off, stopping the motor so that auto stop occurs.

3. Stopping of Auto Down at Driver's Window

When the manual SW (Driver's) is pushed to the up side during auto down operation, a ground circuit opens in the master SW and current does not flow from TERMINAL (A) 4 (Double cab), (B) 3 (Access cab) of the master SW to TERMINAL (A) 1 (Double cab), (B) 1 (Access cab), so the motor stops, causing auto down operation to stop. If the manual SW is pushed continuously, the motor rotates in the up direction in manual up operation.

4. Manual Operation by Power Window Control SW (Front RH Window)

With the power window SW (Front passenger's side) is pushed to the up side, the current flowing from TERMINAL 4 of the power window SW (Front passenger's side) flows to TERMINAL 3 to TERMINAL 2 of the power window regulator motor (Front RH) to TERMINAL 1 to TERMINAL 1 of the power window SW (Front passenger's side) to TERMINAL 2 to TERMINAL (A) 15 (Double cab), (B) 10 (Access cab) of the master SW to TERMINAL (A) 1 (Double cab), (B) 1 (Access cab) to GROUND. This causes the power window regulator motor (Front RH) to rotate in the up direction. Up operation is continuous only while the power window control SW RH is pushed to the up side. When the window descends, the current flowing to the motor flows in the opposite direction, from TERMINAL 1 to TERMINAL 2, and the motor rotates in reverse.

When the window lock SW is pushed to the lock side, the ground circuit to the front RH window becomes open. As a result, even if Open/Close operation of the front RH window is tried, the current from TERMINAL (A) 1 (Double cab), (B) 1 (Access cab) of the power window master SW is not grounded and the motor does not rotate, so the front RH window can not be operated and window lock occurs.

Power Window

5. Manual Operation (Rear LH, RH Window) [Double Cab]

With the power window SW (Rear LH, RH) pulled to the up side, the current flowing from TERMINAL 3 of the power window SW flows to TERMINAL 1 to TERMINAL 2 of the power window regulator motor to TERMINAL 1 to TERMINAL 5 of the power window SW to TERMINAL 4 to TERMINAL (A) 13 (LH) or (A) 16 (RH) of the master SW to TERMINAL (A) 1 to GROUND and causes the power window regulator motor (Rear LH, RH) to rotate in the up direction. The up operation continues only while the power window control SW is pulled to the up side. When the window descends, the current flowing to the motor flows in the opposite direction, from TERMINAL 2 to TERMINAL 1, and the motor rotates in reverse. When the window lock SW is pushed to the lock side, the ground circuit to the rear LH, RH window becomes open.

As a result, even if Open/Close operation of the rear LH, RH window is tried, the current from TERMINAL (A) 1 of the power window master SW is not grounded and the motor does not rotate, so the rear LH, RH window can not be operated and window lock occurs.

6. Key Off Power Window Operation

With the ignition SW turned from on to off, the body ECU operates for about 45 seconds and current flows from TERMINAL 1 of the P/W relay to TERMINAL 2 to GROUND. For this period, current also flows TERMINAL 1 to TERMINAL 2. This current flows to TERMINAL (A) 7 (Double cab), (B) 9 (Access cab) of the power window master SW and to TERMINAL 4 (Front RH), 3 (Rear) of the power window SW. As a result, for about approx. 43 seconds after the ignition SW is turned off, it is possible to raise and lower the power window by the functioning of the body ECU. Also, by opening the door (Door courtesy SW on) within about 45 seconds after turning the ignition SW to off, a signal is input to the body ECU. As a result, the body ECU turns off, and up and down movement of the window stops.

: Parts Location

Code		See Page		Code		See Page		Code		See Page	
D11		46 (*1)		P9	B	48 (*2)		P13	47 (*1)		
		48 (*2)		P10		47 (*1)		P14	47 (*1)		
D12		46 (*1)				48 (*2)			48 (*2)		
		48 (*2)		P11		47 (*1)		P15	47 (*1)		
J1		45				48 (*2)		P16	47 (*1)		
P9	A	47 (*1)		P12		47 (*1)					

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1F	28	Floor No.2 Wire and Driver Side J/B (Lower Finish Panel)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC1	54	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IE1	54	Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)
IK1	55	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IL1	55	Instrument Panel Wire and Floor Wire (Right Kick Panel)
IL2		
BA1	56 (*1)	Rear Door No.2 Wire and Floor No.2 Wire (Under the Left Center Pillar)
BB1	56 (*1)	Rear Door No.1 Wire and Floor Wire (Under the Right Center Pillar)
BF1	57 (*2)	Rear Door No.2 Wire and Floor No.2 Wire (Under the Left Quarter Panel)
BG1	57 (*2)	Rear Door No.1 Wire and Floor Wire (Under the Right Quarter Panel)

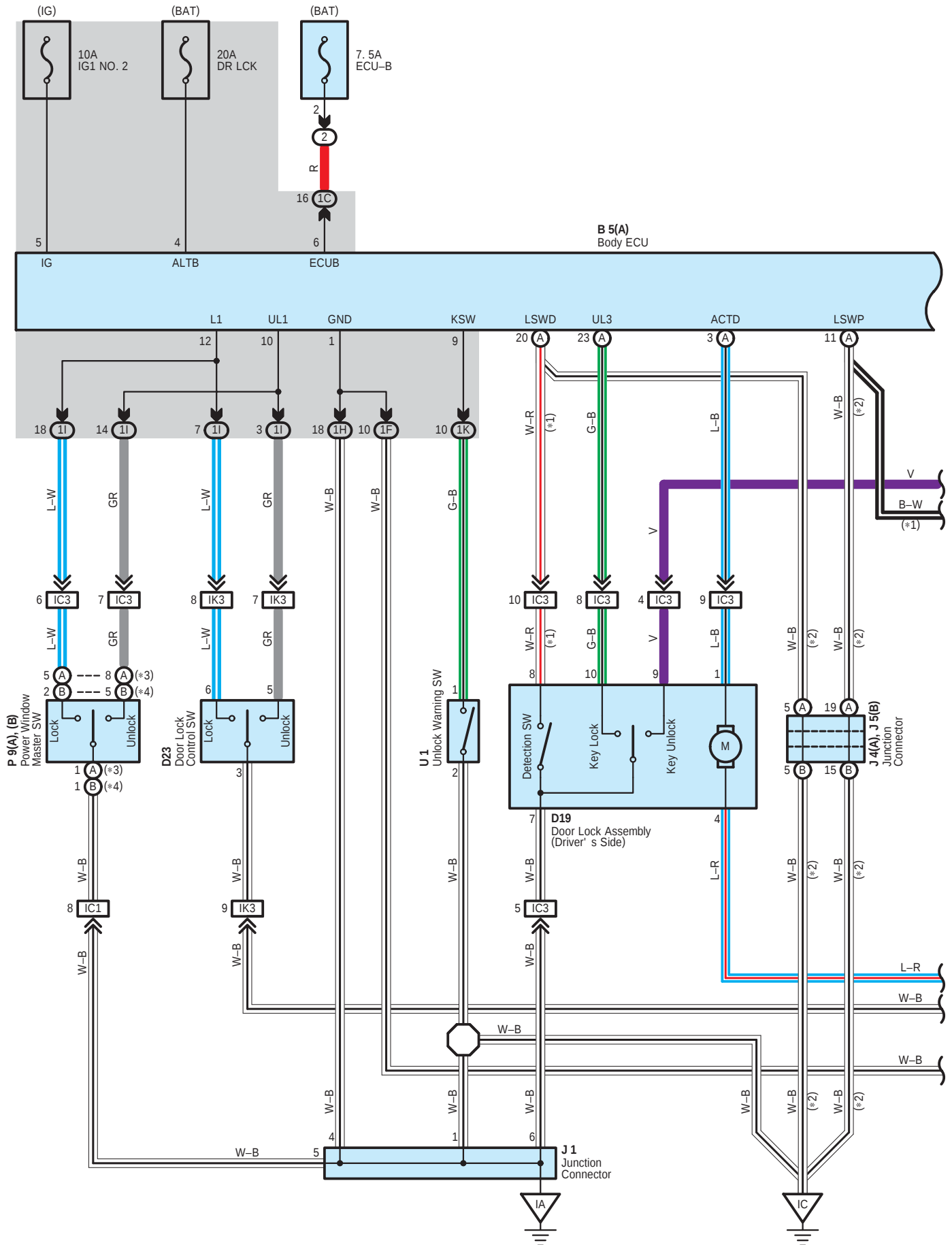
* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat



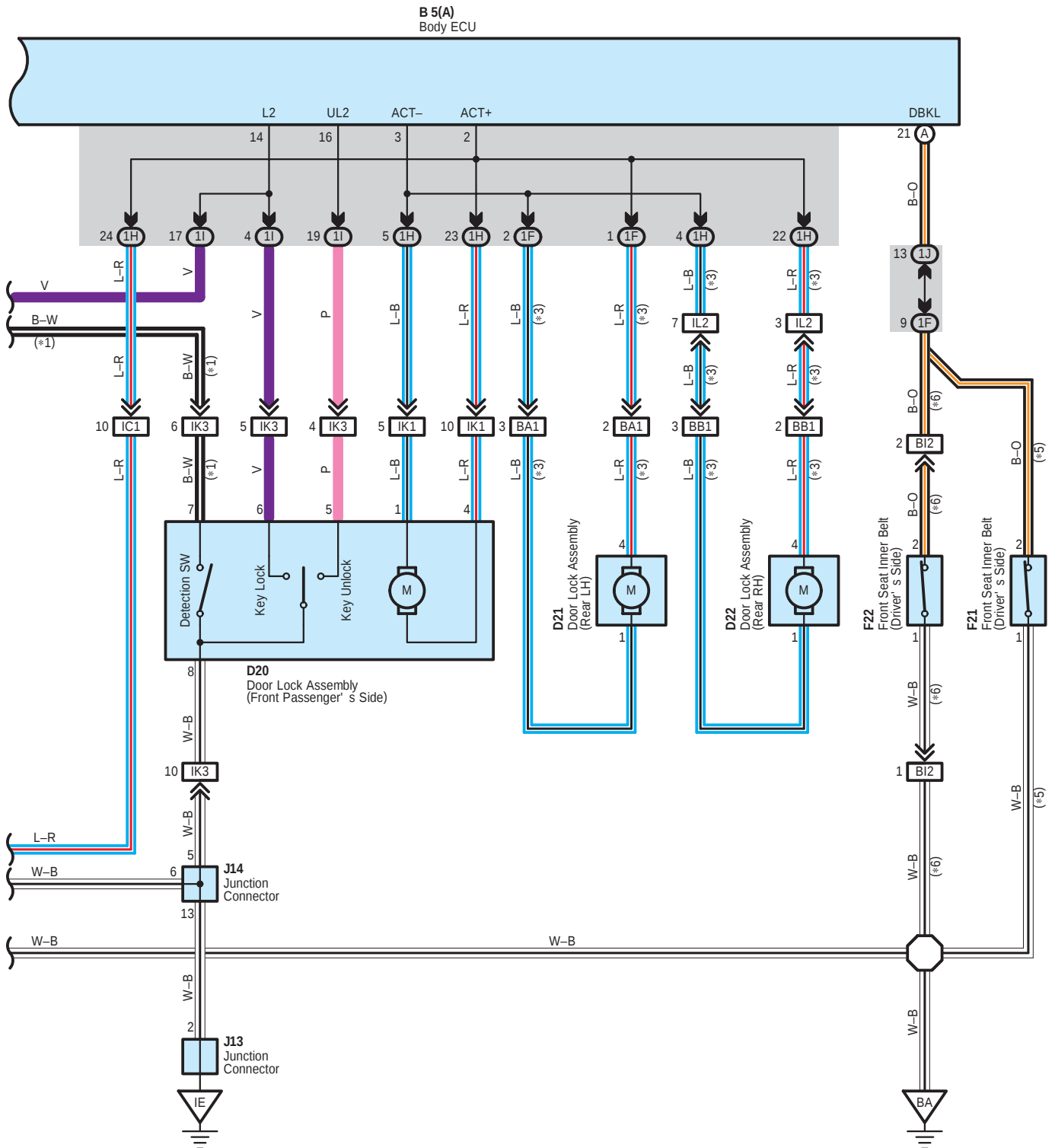
: Ground Points

Code	See Page	Ground Points Location
IA	54	Left Kick Panel

Door Lock Control



- * 1 : w/ Door Lock Control
- * 2 : w/o Door Lock Control
- * 3 : Double Cab
- * 4 : Access Cab
- * 5 : Separate Seat
- * 6 : Bench Seat



Door Lock Control

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.

* Unlock operation from front passenger's side door

When the front passenger's side door is unlocked using the ignition key, all the other doors are unlocked, too.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
B5	A	44		J13	45
D19		46 (*1)	D23	48 (*2)	J14
		48 (*2)	F21	50 (*4)	45
D20		46 (*1)	F22	51 (*5)	P9
		48 (*2)	J1	45	
D21		46 (*1)	J4	A	47 (*1)
D22		46 (*1)	J5	B	48 (*2)
				U1	45

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	28	Floor No.2 Wire and Driver Side J/B (Lower Finish Panel)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
1J		
1K		

□ : Connector Joining Wire Harness and Wire Harness

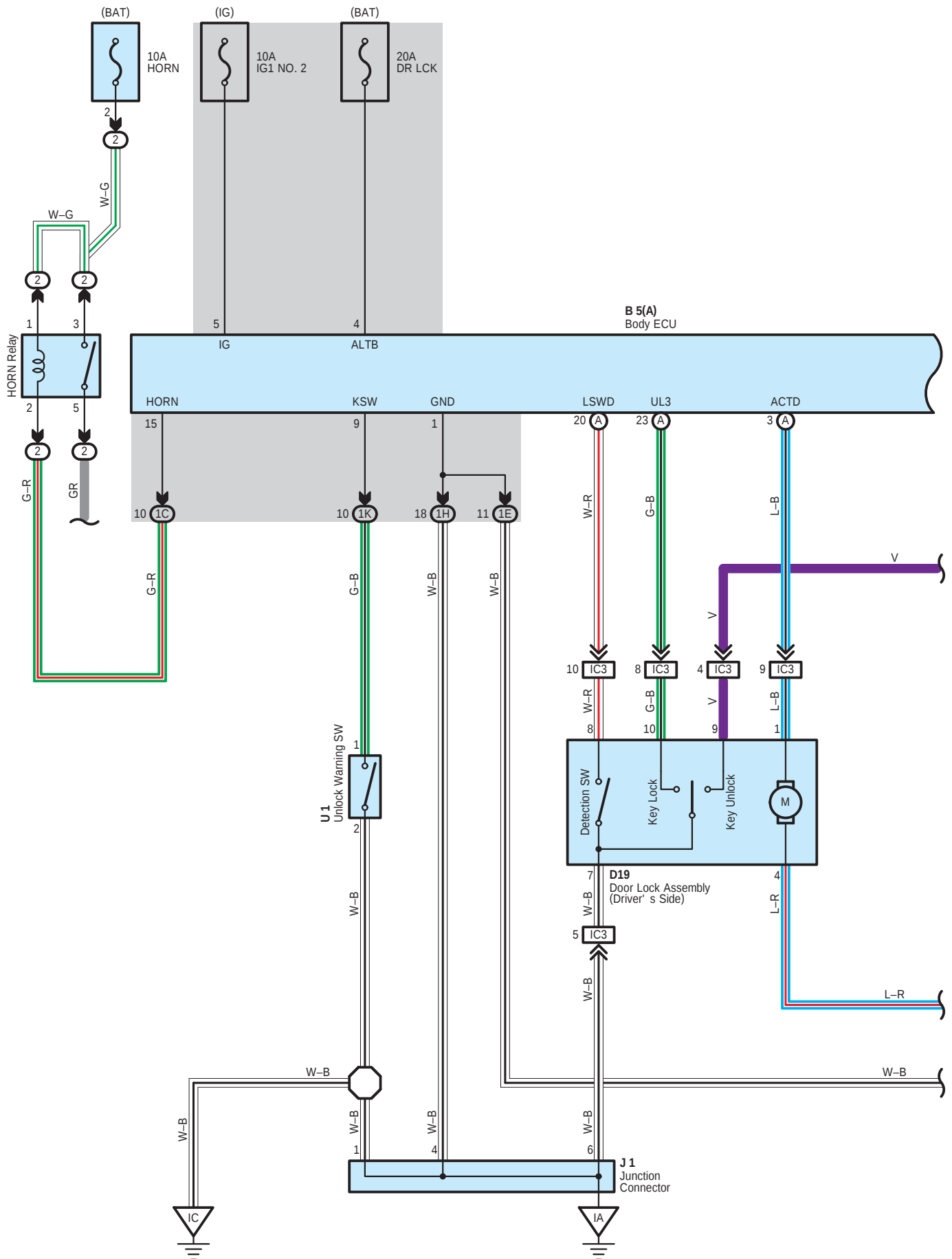
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC1	54	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IC3		
IK1	55	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IK3		
IL2	55	Instrument Panel Wire and Floor Wire (Right Kick Panel)
BA1	56 (*1)	Rear Door No.2 Wire and Floor No.2 Wire (Under the Left Center Pillar)
BB1	56 (*1)	Rear Door No.1 Wire and Floor Wire (Under the Right Center Pillar)
BI2	61 (*5)	Floor No.2 Wire and Seat No.1 Wire (Under the Front Seat LH)

▽ : Ground Points

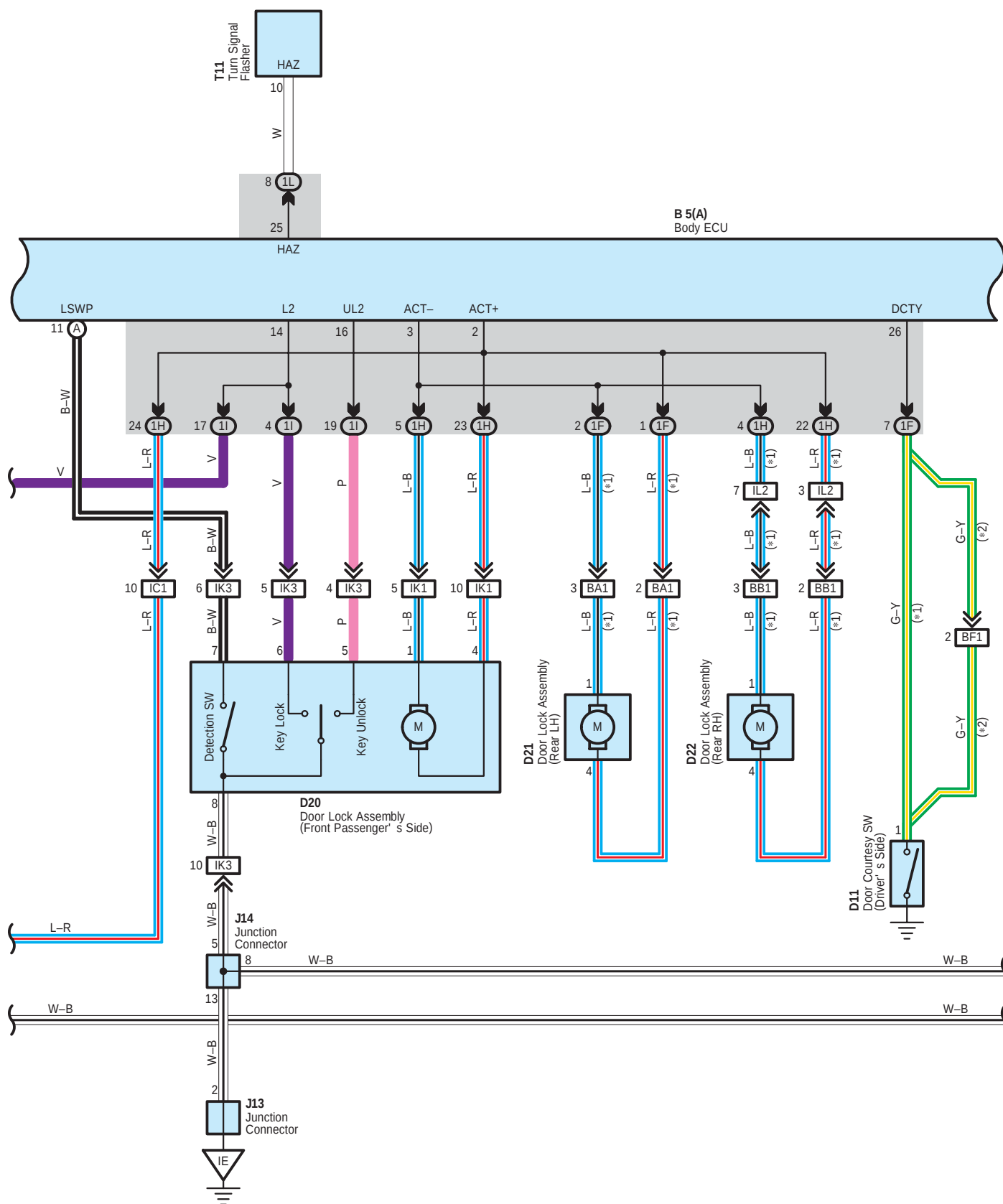
Code	See Page	Ground Points Location
IA	54	Left Kick Panel
IC	54	Instrument Panel Brace RH
IE	54	Right Kick Panel
BA	56 (*1)	Floor Seat Cross Member LH
	57 (*2)	

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

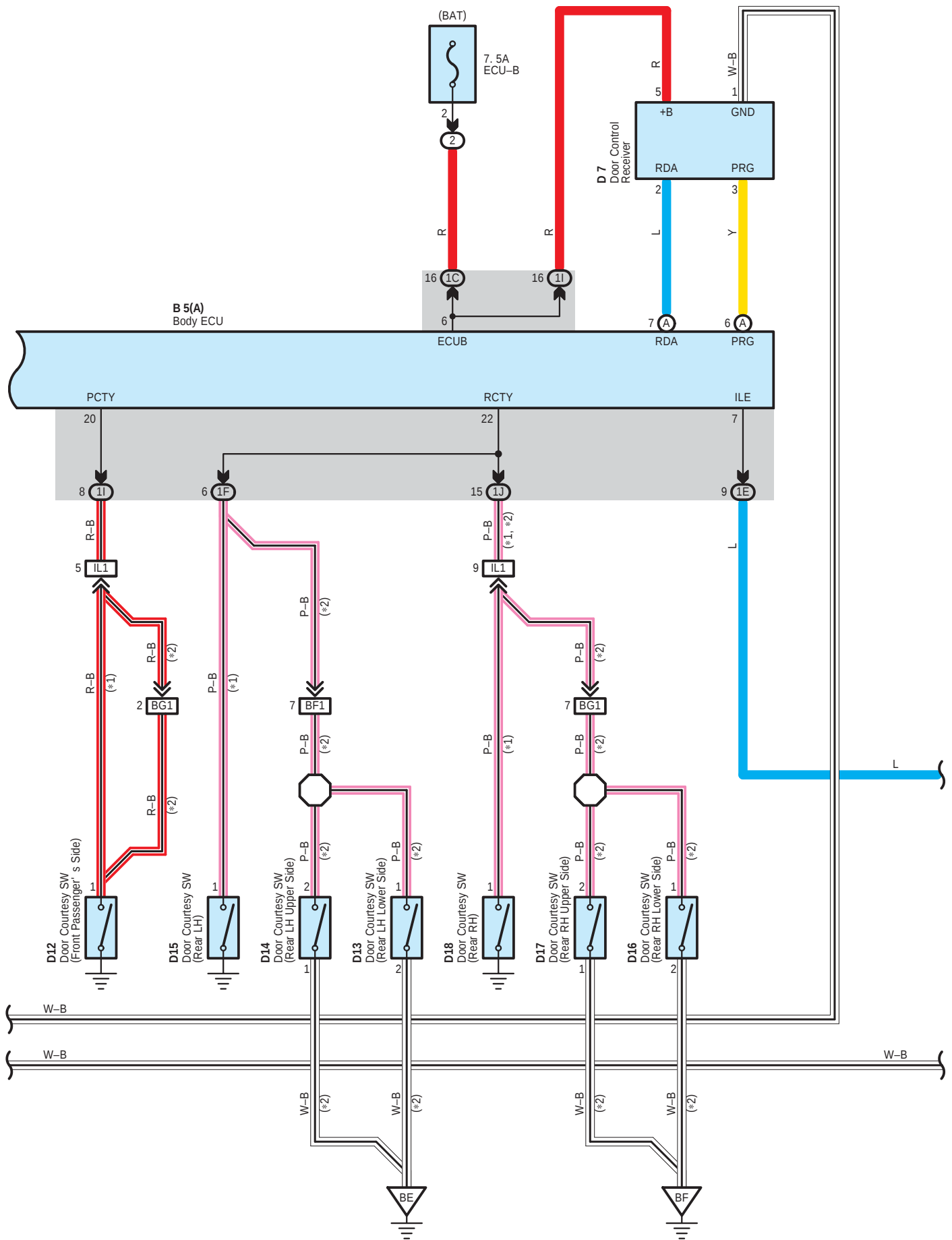
Wireless Door Lock Control

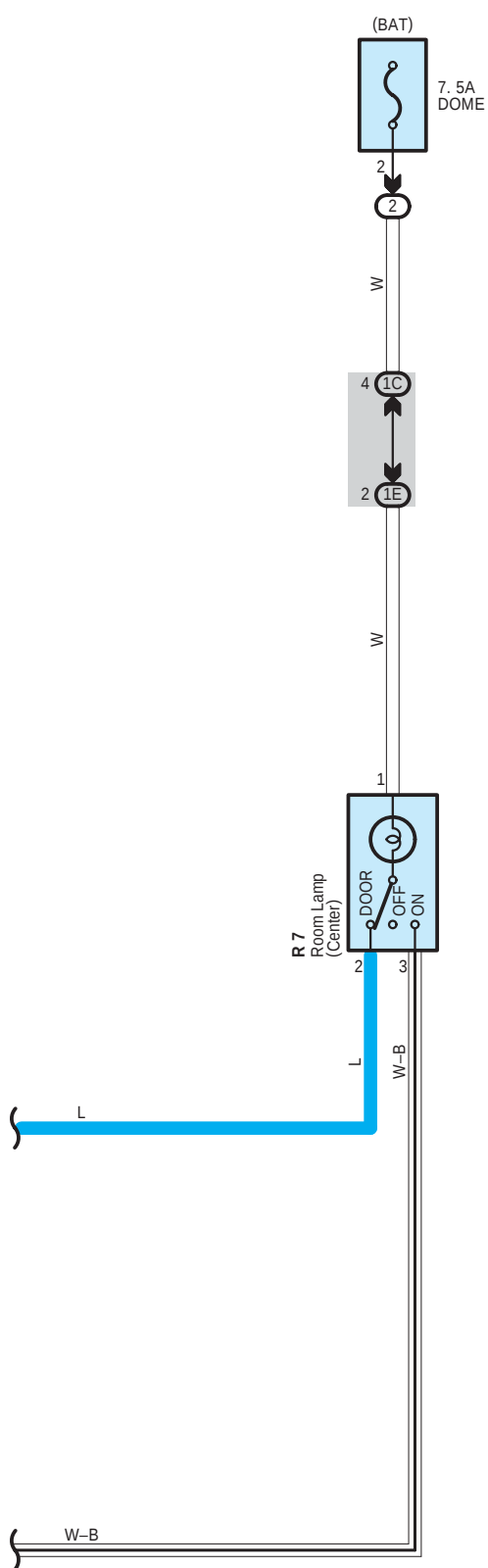


* 1 : Double Cab
* 2 : Access Cab



Wireless Door Lock Control





* 1 : Double Cab
* 2 : Access Cab

Wireless Door Lock Control

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. Normal Operation

* Lock operation

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

* Unlock operation

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

2. Auto Lock Function

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

* Any door is opened.

* The ignition key is inserted into the ignition SW.

* When the lock detection SW of all the doors are locked.

3. Wireless Door Lock Stop Function

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

Lock operation

* When any door is open (Door courtesy SW on)

* The ignition key is inserted into the ignition SW (Unlock warning SW on)

* Ignition SW is on

Unlock operation

* Ignition SW is on

4. Visual Confirmation of Lock or Unlock

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

5. Remote Panic Operation

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

6. Repeat Function

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

7. Illuminated Entry Function

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

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
B5	A 44	D16	48 (*2)	J1	45
D7	44	D17	48 (*2)	J13	45
D11	46 (*1)	D18	46 (*1)	J14	45
	48 (*2)	D19	46 (*1)	R7	47 (*1)
D12	46 (*1)		48 (*2)		48 (*2)
	48 (*2)	D20	46 (*1)	T11	45
D13	48 (*2)		48 (*2)	U1	45
D14	48 (*2)	D21	46 (*1)		
D15	46 (*1)	D22	46 (*1)		

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

 : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Roof Wire and Driver Side J/B (Lower Finish Panel)
1F	28	Floor No.2 Wire and Driver Side J/B (Lower Finish Panel)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
1J		
1K		
1L	29	Relay Wire and Driver Side J/B (Lower Finish Panel)

 : Connector Joining Wire Harness and Wire Harness

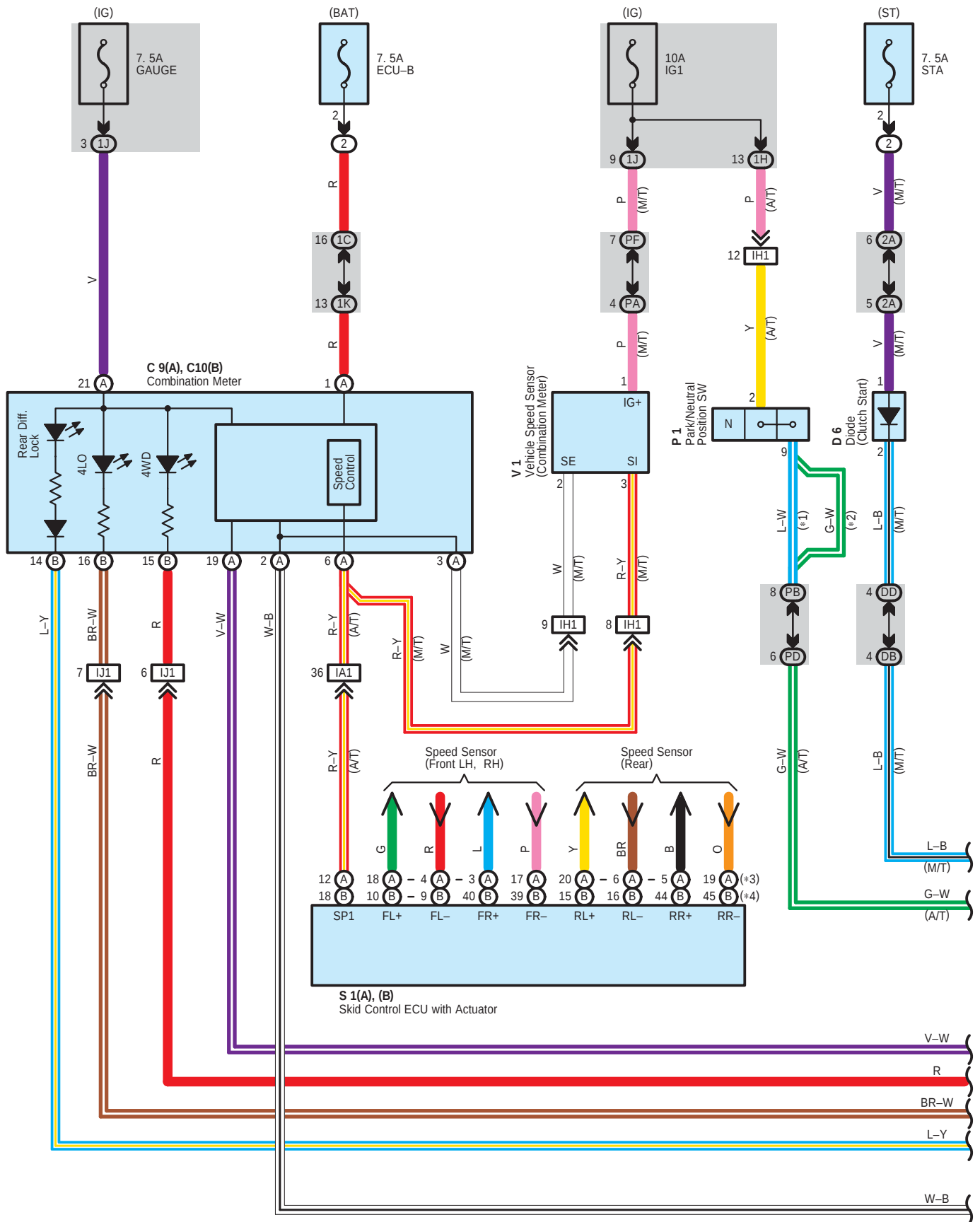
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC1	54	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IC3		
IK1	55	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IK3		
IL1	55	Instrument Panel Wire and Floor Wire (Right Kick Panel)
IL2		
BA1	56 (*1)	Rear Door No.2 Wire and Floor No.2 Wire (Under the Left Center Pillar)
BB1	56 (*1)	Rear Door No.1 Wire and Floor Wire (Under the Right Center Pillar)
BF1	57 (*2)	Rear Door No.2 Wire and Floor No.2 Wire (Under the Left Quarter Panel)
BG1	57 (*2)	Rear Door No.1 Wire and Floor Wire (Under the Right Quarter Panel)

 : Ground Points

Code	See Page	Ground Points Location
IA	54	Left Kick Panel
IC	54	Instrument Panel Brace RH
IE	54	Right Kick Panel
BE	57 (*2)	Inside of the Access Door LH
BF	57 (*2)	Inside of the Access Door RH

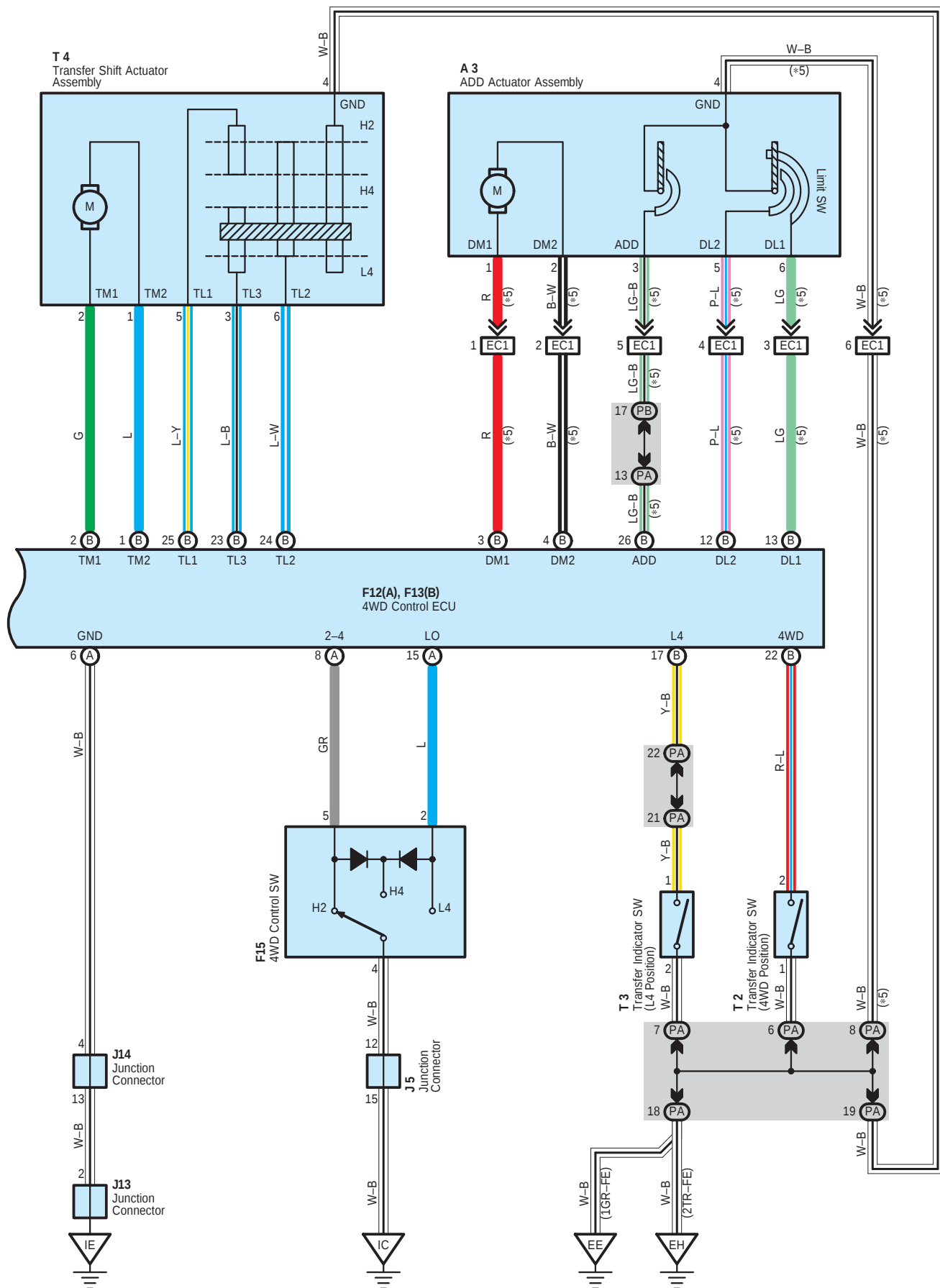
* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Multi Mode 4WD and Rear Differential Lock



Multi Mode 4WD and Rear Differential Lock

* 5 : w/ ADD



System Outline

Depending on the transfer shift actuator status and ADD actuator status, the 4WD control ECU drives the transfer shift actuator and ADD actuator to electrically change the gear position selected by the driver according to vehicle speed signal and neutral start switch signal.

1. Shift Select Control

Shifting from H2 into H4 position

When the 4WD control switch is turned from H2 into H4, this signal is input into 4WD control ECU (TERMINAL 2–4). Then, the 4WD control ECU moves the 2–4 select motor (TERMINAL 2, TERMINAL 1) in the transfer shift actuator assembly until the shift fork shaft shifts to the diff. free position, performing a shift into H4 position

Shifting from H4 into L4 position

When the 4WD control switch is turned from H4 into L4, this signal is input into 4WD control ECU (TERMINAL LO). Then, the 4WD control ECU drives the 2–4 select motor (TERMINAL 2, TERMINAL 1) in the transfer shift actuator assembly, shifting the shift fork shaft, performing a shift into L4 position.

Switching diff. lock ON when in L4 position.

When the diff. lock switch is turned ON with the 4WD control switch in L4 position, this signal is input into the 4WD control ECU (TERMINAL R). Then, the 4WD control ECU drives the diff. lock shift actuator (TERMINAL 2, TERMINAL 3) in the diff. lock shift actuator assembly until the shift fork shaft shifts to the diff. lock position, locking it in L4 position with the diff. lock.

2. Function of Limit Switch

Rear diff. lock limit switch (TERMINAL 5 and TERMINAL 6 of diff. lock shift actuator assembly)

The rear diff. lock limit switch in the diff. lock shift actuator assembly feeds back the current rear diff. lock status (Free or lock) information, which is based on the ON/OFF combination of the two switches, to the 4WD control ECU.

4WD limit switch (TERMINAL 3, TERMINAL 5 and TERMINAL 6 of transfer shift actuator assembly)

The 4WD limit switch in the transfer shift actuator assembly feeds back the current shift position status (H2 or H4) and diff. lock or diff. free status information, which is based on the ON/OFF combination of the three switches, to the 4WD control ECU.

ADD limit switch (TERMINAL 6 and TERMINAL 5 of ADD actuator assembly)

The ADD limit switch in the ADD actuator assembly feeds back the current front diff. lock or free status information, which is based on the ON/OFF combination of the two switches, to the 4WD control ECU.

3. Shift Limit Control

The 4WD control ECU interrupts the shift select control and give the driver a warning by means of buzzer (Integrated into the ECU) sound and blinking indicator light on the combination meter when the following shift change conditions exist.

The warning, however, can be canceled — when the 4WD control switch is canceled and the switch position is returned to where it was before the warning occurred.

- * Shift change from H2 into H4 with vehicle traveling at a speed reaching or exceeding 100 km/h (Buzzer sound and blinking 4WD indicator lights)
- * Shift change from H4 into L4 with vehicle traveling at a speed reaching or exceeding 5 km/h but within the A/T shift position N range (Buzzer sound and blinking 4LO indicator light) (A/T)
- * Shift change from H4 into L4 with vehicle traveling at a speed reaching or exceeding 3 km/h but within the clutch start SW on position (Buzzer sound and blinking 4LO indicator light) (M/T)

4. ADD Actuator Control (1GR-FE)

When switching between H2 (2WD) and H4 (4WD), the 4WD control ECU controls the way power is supplied to the ADD motor in the ADD actuator assembly, as shown below, to run the ADD motor in normal or reverse direction, thereby changing the status of the front diff. from free to lock, or vice versa.

For locking front diff.	TERMINAL DM1 +B
	TERMINAL DM2 GROUND
For unlocking front diff.	TERMINAL DM1 GROUND
	TERMINAL DM2 +B

Multi Mode 4WD and Rear Differential Lock

: Parts Location

Code		See Page	Code	See Page	Code	See Page
A3		40 (1GR-FE)	F15	44	T2	41 (1GR-FE)
		42 (2TR-FE)	J1	45		43 (2TR-FE)
C9	A	44	J5	45	T3	41 (1GR-FE)
C10	B	44	J13	45		43 (2TR-FE)
D5		44	J14	45	T4	41 (1GR-FE)
D6		44	P1	41 (1GR-FE)		43 (2TR-FE)
D10		46 (*1)		43 (2TR-FE)	T13	47 (*1)
		48 (*2)	S1	41 (1GR-FE)		48 (*2)
		49 (*3)		43 (2TR-FE)		49 (*3)
F12	A	44		41 (1GR-FE)	V1	41 (1GR-FE)
F13	B	44		43 (2TR-FE)		43 (2TR-FE)

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1D	28	Frame Wire and Driver Side J/B (Lower Finish Panel)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1J		
1K		
2A	24	Engine Room J/B (Engine Compartment Left)
DA	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DB		
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DD		
PA	36	Engine Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PB		
PD	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PF		

: Connector Joining Wire Harness and Wire Harness

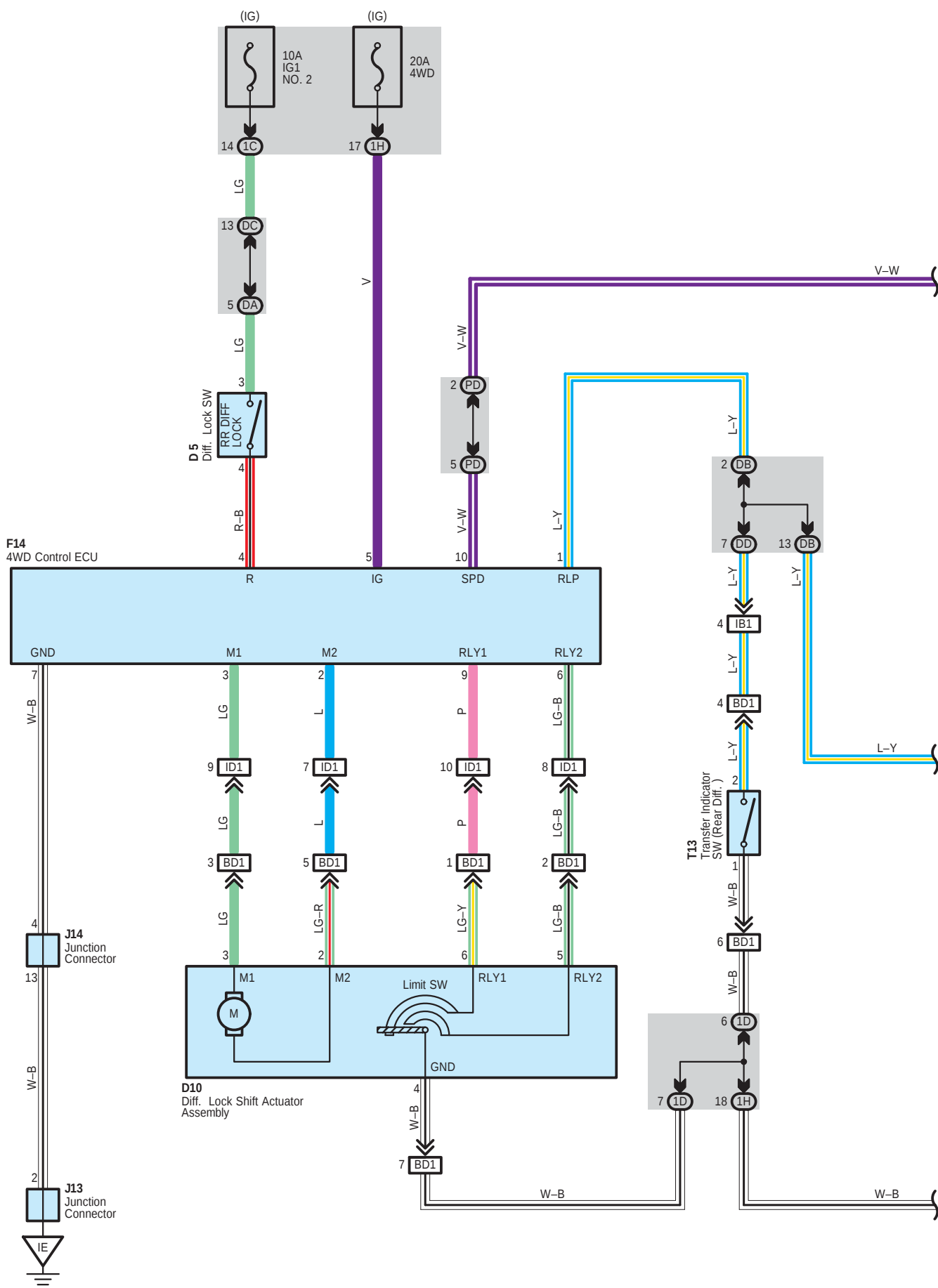
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EC1	52 (1GR-FE)	Engine Wire and Differential Wire (Near the Front Differential)
	53 (2TR-FE)	
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IB1	54	Frame Wire and Engine Room Main Wire (Left Kick Panel)
ID1	54	Frame Wire and Instrument Panel Wire (Left Kick Panel)
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)
IJ1	55	Instrument Panel Wire and Instrument Panel Wire (Right Kick Panel)
BD1	56 (*1)	Frame Wire and Differential Wire (Near the Rear Differential)
	57 (*2)	
	58 (*3)	

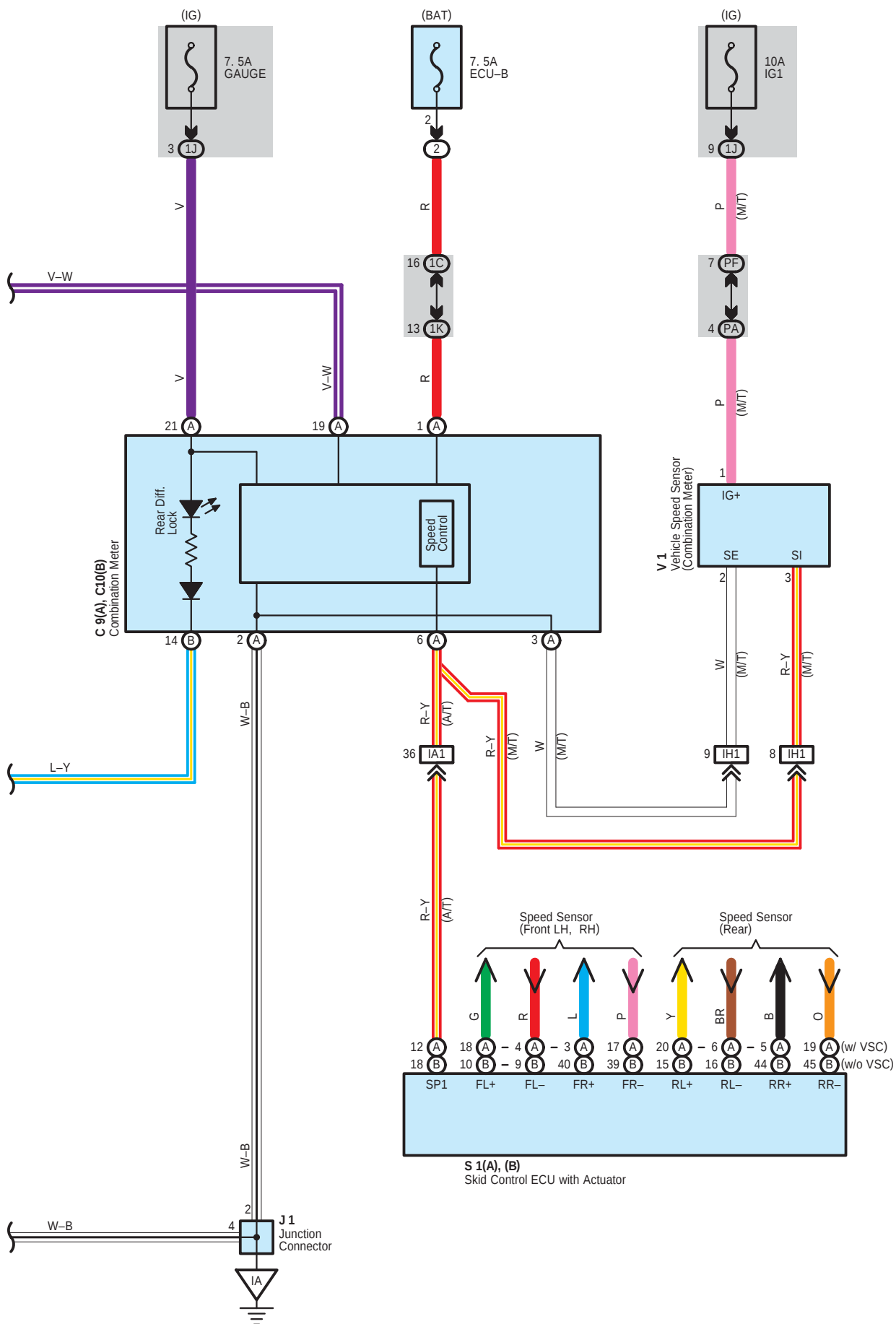
* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat



: **Ground Points**

Code	See Page	Ground Points Location
EE	52 (1GR-FE)	Rear Side of Right Bank Cylinder Block
EH	53 (2TR-FE)	Rear Side of Cylinder Block
IA	54	Left Kick Panel
IC	54	Instrument Panel Brace RH
IE	54	Right Kick Panel





Rear Differential Lock for 2WD

System Outline

This system frees or locks the rear differential according to the position of the diff. lock SW. The differential will lock only when the transfer indicator SW (Rear diff.) is on and the vehicle speed is at 8 km/h (5 mph) or less.

When the diff. lock SW is switched from OFF position to ON position, current flows to TERMINAL 4 of the 4WD control ECU. If the limit SW on the lock side inside the diff. lock shift actuator assembly is on at this time, until the limit SW is turned off, current flows from the 4WD fuse to TERMINAL 5 of the 4WD control ECU to TERMINAL 3 to TERMINAL 3 of the diff. lock shift actuator to TERMINAL 2 to TERMINAL 2 of the 4WD control ECU to TERMINAL 7 to GROUND. This drives the diff. lock shift actuator and locks the rear differential. When the rear differential locks, the transfer indicator SW (Rear diff.) turns on, lighting up the rear diff. lock indicator light in the combination meter.

When the diff. lock SW is switched from ON position to OFF position, the current to TERMINAL 4 of the 4WD control ECU is cut off. If the limit SW on the free side inside the diff. lock shift actuator assembly is on, until the limit SW is turned off, current flows from the 4WD fuse to TERMINAL 5 of the 4WD control ECU to TERMINAL 2 to TERMINAL 2 of the diff. lock shift actuator assembly to TERMINAL 3 to TERMINAL 3 of the 4WD control ECU to TERMINAL 7 to GROUND. This drives the diff. lock shift actuator and frees the rear differential. When the rear differential is free, the transfer indicator SW (Rear diff.) and the rear diff. lock indicator light in the combination meter are turned off.

The rear diff. lock indicator light flashes when:

- * The diff. lock SW is switched to ON position during differential lock prohibition conditions (Vehicle speed above 8 km/h (5 mph)).
- * The transfer indicator SW (Rear diff.) is turned off during operation of the diff. lock shift actuator.

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
C9	A	44	J1		45	T13		47 (*1)
C10	B	44	J13		45			48 (*2)
D5		44	J14		45			49 (*3)
D10		46 (*1)	S1	A	41 (1GR-FE)	V1		41 (1GR-FE)
		48 (*2)			43 (2TR-FE)			43 (2TR-FE)
		49 (*3)		B	41 (1GR-FE)			
F14		44			43 (2TR-FE)			

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1D	28	Frame Wire and Driver Side J/B (Lower Finish Panel)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1J		
1K		
DA	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DB		
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DD		
PA	36	Engine Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PD	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PF		

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

 : Connector Joining Wire Harness and Wire Harness

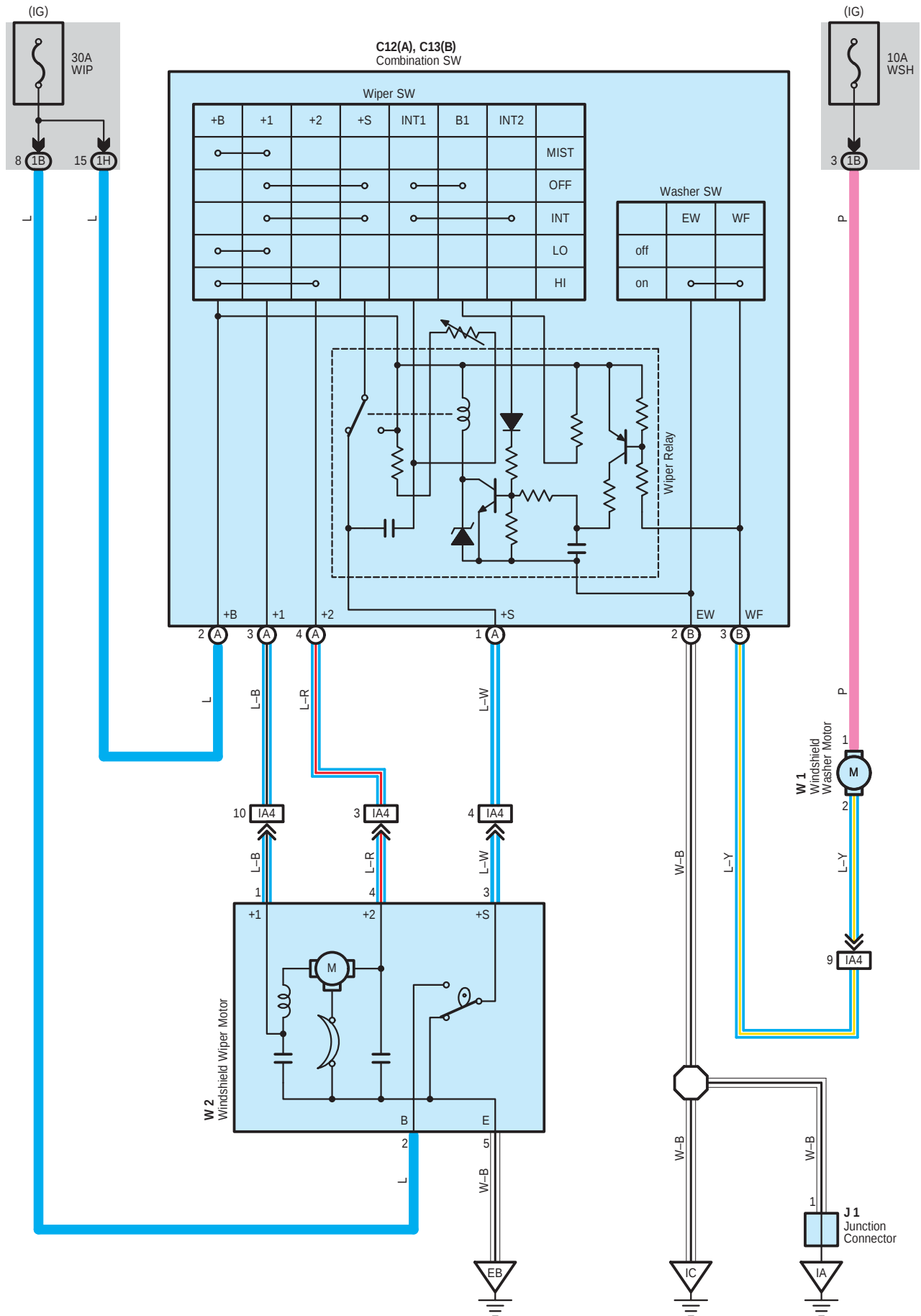
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IB1	54	Frame Wire and Engine Room Main Wire (Left Kick Panel)
ID1	54	Frame Wire and Instrument Panel Wire (Left Kick Panel)
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)
BD1	56 (*1)	Frame Wire and Differential Wire (Near the Rear Differential)
	57 (*2)	
	58 (*3)	

 : Ground Points

Code	See Page	Ground Points Location
IA	54	Left Kick Panel
IE	54	Right Kick Panel

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Wiper and Washer with INT Time SW



System Outline

With the ignition SW turned on, the current flows to TERMINAL (A) 2 of the combination SW and TERMINAL 2 of the windshield wiper motor through the WIP fuse. The current flows to TERMINAL 1 of the windshield washer motor through the WSH fuse.

1. Low Speed Position

With the wiper and washer SW turned to LO position, the current flows from TERMINAL (A) 2 of the combination SW to TERMINAL (A) 3 to TERMINAL 1 of the windshield wiper motor to TERMINAL 5 to GROUND and causes the windshield wiper motor to run at low speed.

2. High Speed Position

With the wiper and washer SW turned to HI position, the current flows from TERMINAL (A) 2 of the combination SW to TERMINAL (A) 4 to TERMINAL 4 of the windshield wiper motor to TERMINAL 5 to GROUND and causes the windshield wiper motor to run at high speed.

3. INT Position

With the wiper and washer SW turned to INT position, the wiper relay operates and current flows from TERMINAL (A) 2 of the combination SW to TERMINAL (B) 2 to GROUND. This activates the intermittent circuit and the current flows from TERMINAL (A) 2 of the combination SW to TERMINAL (A) 3 to TERMINAL 1 of the windshield wiper motor to TERMINAL 5 to GROUND and the wiper operates. Intermittent operation is controlled by a condenser charge and discharge function in the relay.

4. Washer Continuous Operation

With the wiper and washer SW pulled to on position (Washer SW ON position), the current flows from the WSH fuse to TERMINAL 1 of the windshield washer motor to TERMINAL 2 to TERMINAL (B) 3 of the combination SW to TERMINAL (B) 2 to GROUND and causes the windshield washer motor to run and the window washer to spray. Simultaneously, current flows from the WIP fuse to TERMINAL (A) 2 of the combination SW to TERMINAL (A) 3 to TERMINAL 1 of the windshield wiper motor to TERMINAL 5 to GROUND, causing the wiper to function.

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
C12	A	44	W1		41 (1GR-FE)	W2		43 (2TR-FE)
C13	B	44			43 (2TR-FE)			
J1		45	W2		41 (1GR-FE)			

○ : Junction Block and Wire Harness Connector

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

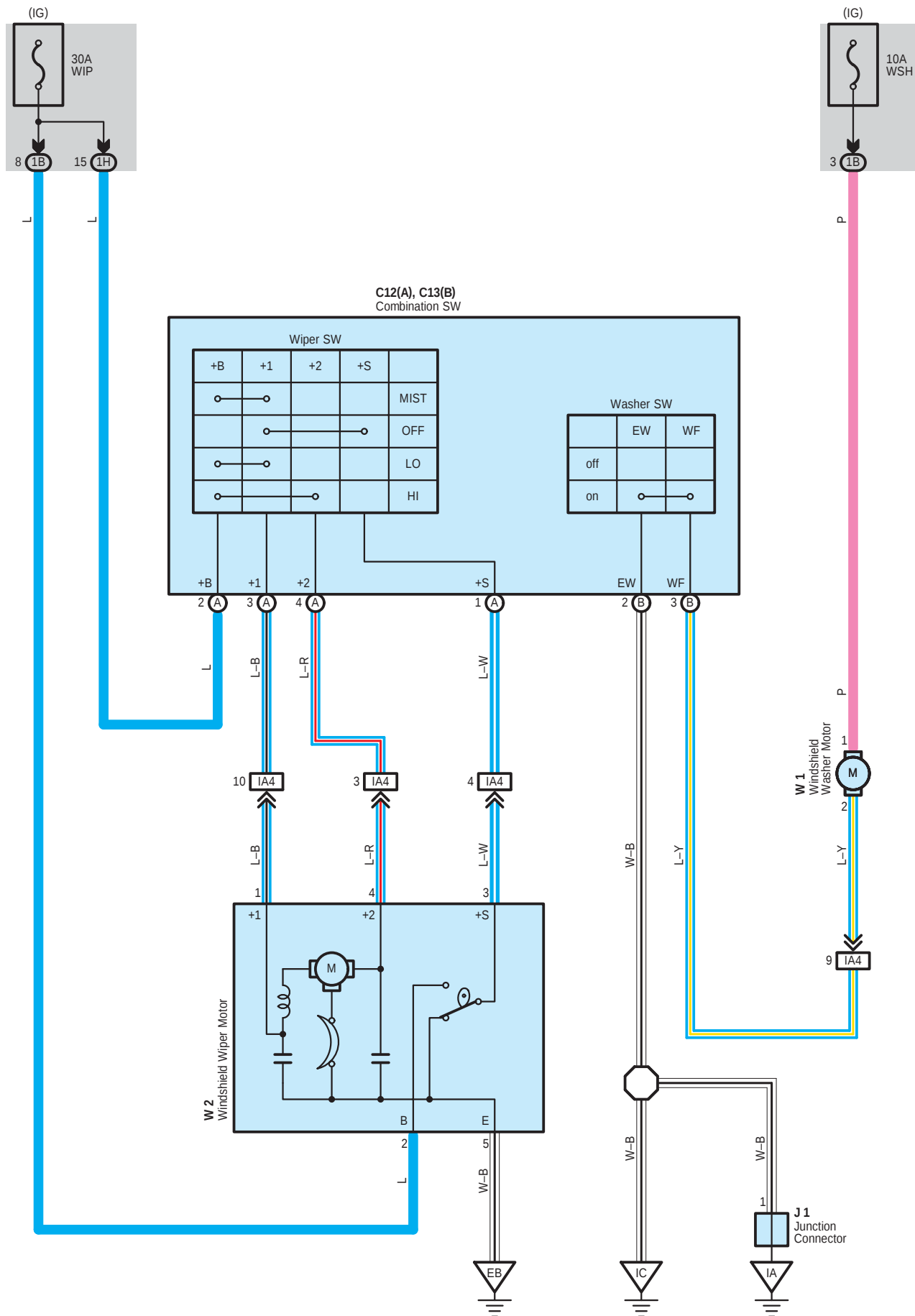
□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA4	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)

▽ : Ground Points

Code	See Page	Ground Points Location
EB	52 (1GR-FE)	Front Left Fender
	53 (2TR-FE)	
IA	54	Left Kick Panel
IC	54	Instrument Panel Brace RH

Wiper and Washer without INT Time SW



System Outline

With the ignition SW turned on, the current flows to TERMINAL (A) 2 of the combination SW and TERMINAL 2 of the windshield wiper motor through the WIP fuse. The current flows to TERMINAL 1 of the windshield washer motor through the WSH fuse.

1. Low Speed Position

With the wiper and washer SW turned to LO position, the current flows from TERMINAL (A) 2 of the combination SW to TERMINAL (A) 3 to TERMINAL 1 of the windshield wiper motor to TERMINAL 5 to GROUND and causes the windshield wiper motor to run at low speed.

2. High Speed Position

With the wiper and washer SW turned to HI position, the current flows from TERMINAL (A) 2 of the combination SW to TERMINAL (A) 4 to TERMINAL 4 of the windshield wiper motor to TERMINAL 5 to GROUND and causes the windshield wiper motor to run at high speed.

3. MIST Position

With the wiper SW turned to MIST position, current flows from TERMINAL (A) 2 of the combination SW to TERMINAL (A) 3 to TERMINAL 1 of the windshield wiper motor to TERMINAL 5 to GROUND and causes the windshield wiper motor to run at low speed.

4. Washer Continuous Operation

With the wiper and washer SW pulled to washer position (Washer SW ON position), the current flows from the WSH fuse to TERMINAL 1 of the windshield washer motor to TERMINAL 2 to TERMINAL (B) 3 of the combination SW to TERMINAL (B) 2 to GROUND and causes the windshield washer motor to run and the window washer to spray. Simultaneously, current flows from the WIP fuse to TERMINAL (A) 2 of the combination SW to TERMINAL (A) 3 to TERMINAL 1 of the windshield wiper motor to TERMINAL 5 to GROUND, causing the wiper to function.

: Parts Location

Code	See Page	Code	See Page	Code	See Page
C12	A	44	W1	41 (1GR-FE)	W2
C13	B	44		43 (2TR-FE)	
J1		45	W2	41 (1GR-FE)	

: Junction Block and Wire Harness Connector

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

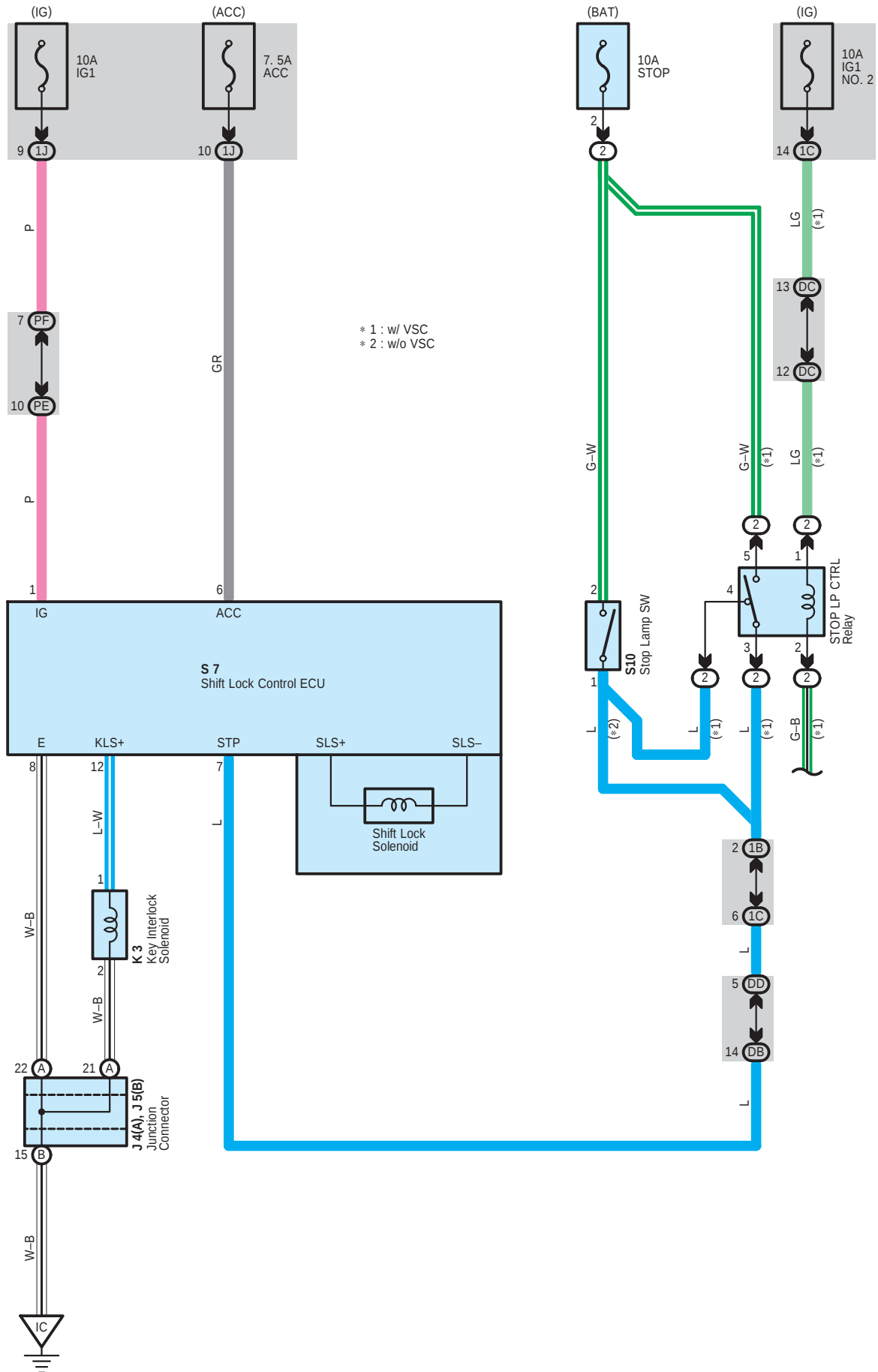
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA4	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)

: Ground Points

Code	See Page	Ground Points Location
EB	52 (1GR-FE)	Front Left Fender
	53 (2TR-FE)	
IA	54	Left Kick Panel
IC	54	Instrument Panel Brace RH

Shift Lock



System Outline

When the ignition SW is turned to ACC position the current from the ACC fuse flows to TERMINAL 6 of the shift lock control ECU. When the ignition SW is turned to ON position, the current from the IG1 fuse flows to TERMINAL 1 of the shift lock control ECU.

1. Shift Lock Mechanism

If the brake pedal is depressed with the ignition SW set at ON (The stop lamp SW is on), the shift lock control ECU is activated, allowing the driver to change the shift lever to a position other than the P position.

2. Key Interlock Mechanism

With the ignition SW at ON or ACC position, when the shift lever is put in P position, the current flowing from TERMINAL 12 of the shift lock control ECU to key interlock solenoid is cut off. This causes the key interlock solenoid to turn off (Lock lever disengages from LOCK position) and the ignition key can be turned from ACC to LOCK position.

○ : Parts Location

Code		See Page	Code		See Page
J4	A	45	K3	45	S10
J5	B	45	S7	45	

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

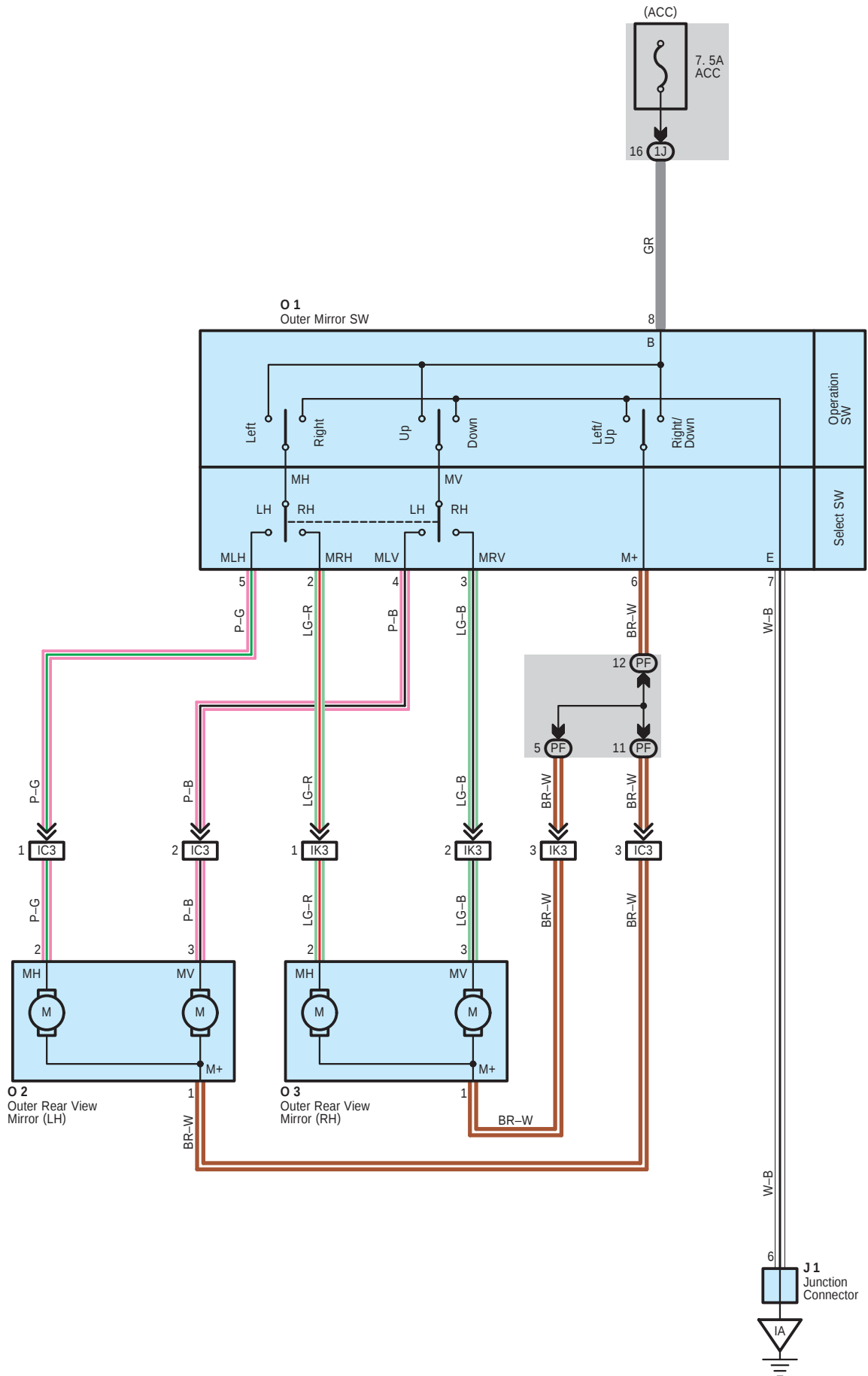
○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1J	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
DB	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DD		
PE	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PF		

▽ : Ground Points

Code	See Page	Ground Points Location
IC	54	Instrument Panel Brace RH

Remote Control Mirror



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
J1	45	O2	46 (*1)	O3	46 (*1)
O1	45		48 (*2)		48 (*2)

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1J	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
PF	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)

 : Connector Joining Wire Harness and Wire Harness

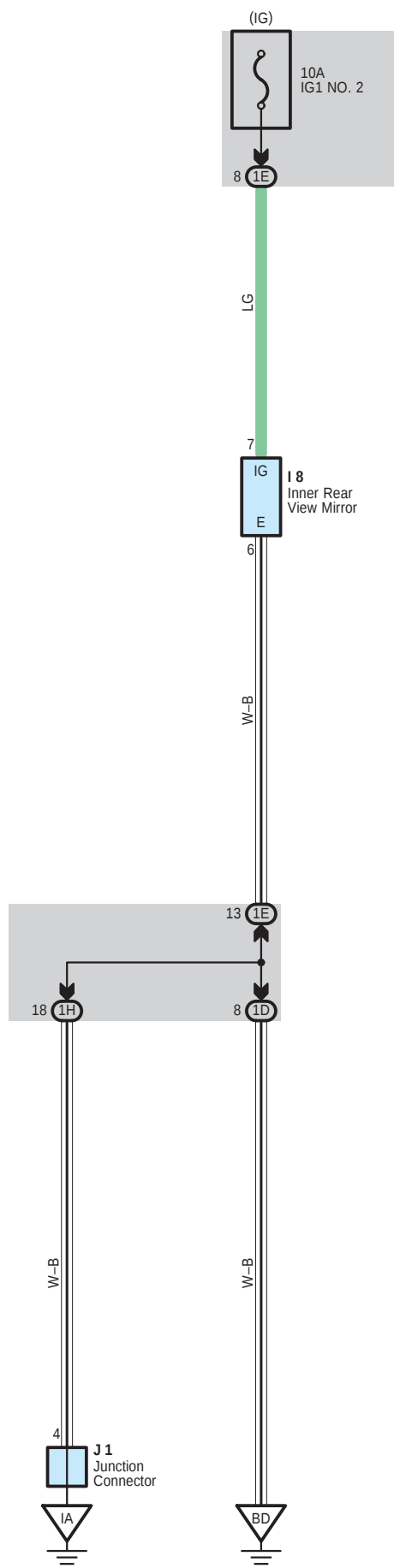
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC3	54	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IK3	55	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)

 : Ground Points

Code	See Page	Ground Points Location
IA	54	Left Kick Panel

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Automatic Glare-Resistant EC Mirror



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
I8	46 (*1)	I8	48 (*2)	J1	45

 : Junction Block and Wire Harness Connector

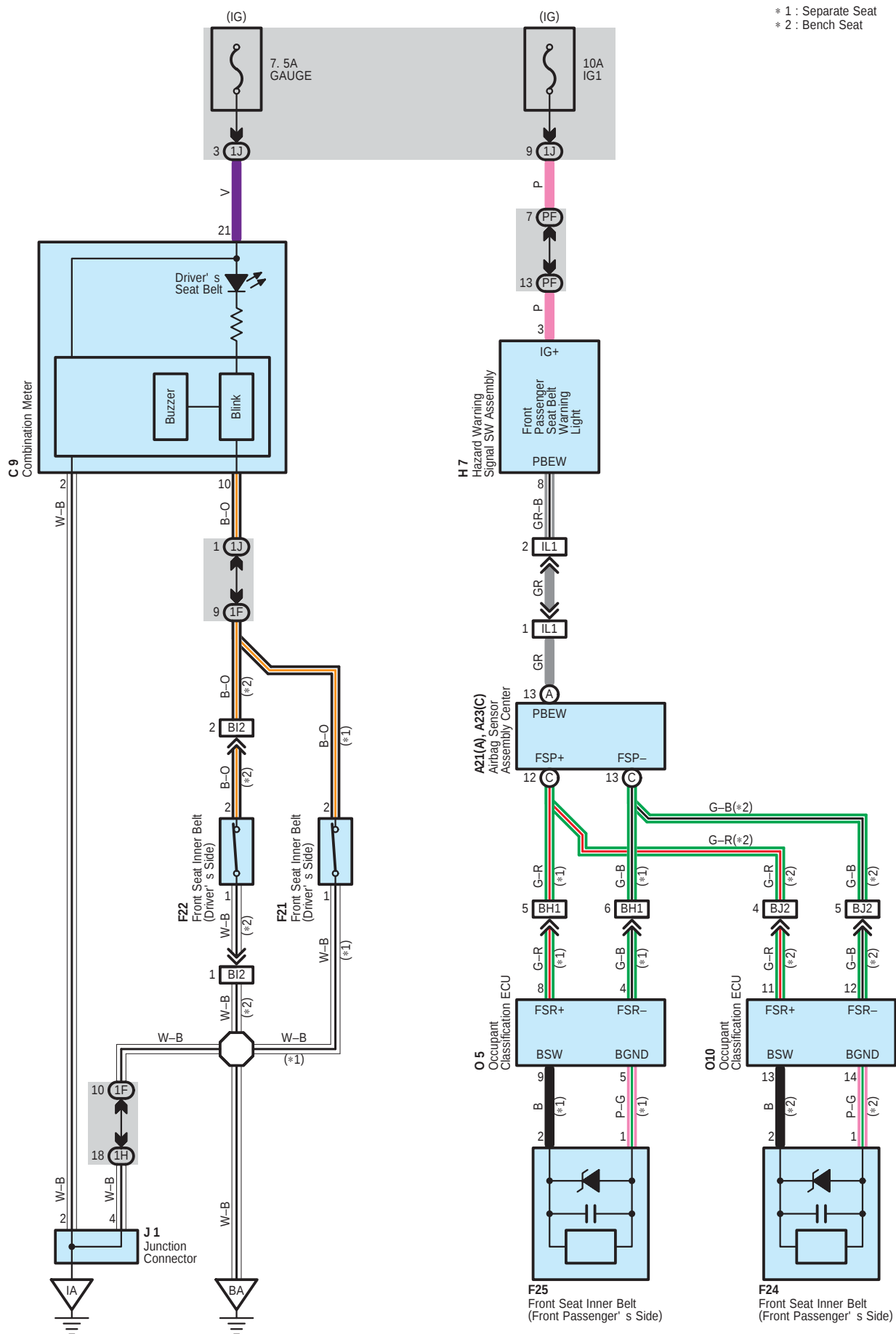
Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	28	Frame Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Roof Wire and Driver Side J/B (Lower Finish Panel)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)

 : Ground Points

Code	See Page	Ground Points Location
IA	54	Left Kick Panel
BD	56 (*1)	Near the Rear Differential
	57 (*2)	

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Seat Belt Warning



System Outline

When the driver has not fastened the seat belt while the ignition SW is ON, 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
A21	A	44	F22	51 (*5)	J1	45
A23	C	44	F24	51 (*5)	O5	50 (*4)
C9		44	F25	50 (*4)	O10	51 (*5)
F21		50 (*4)	H7	45		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	28	Floor No.2 Wire and Driver Side J/B (Lower Finish Panel)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1J		
PF	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)

□ : Connector Joining Wire Harness and Wire Harness

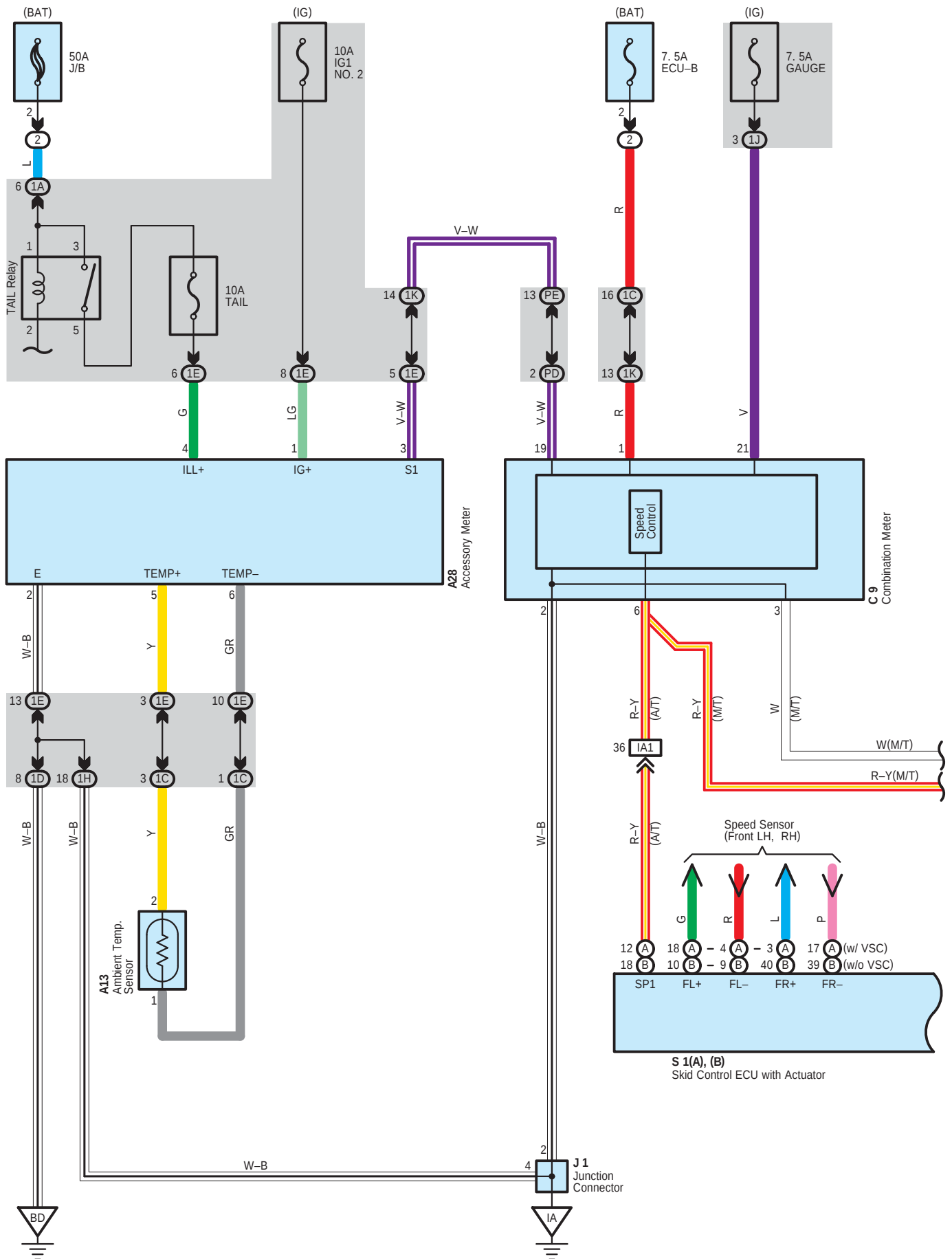
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IL1	55	Instrument Panel Wire and Floor Wire (Right Kick Panel)
BH1	60 (*4)	Floor Wire and Seat No.1 Wire (Under the Front Passenger's Seat)
BI2	61 (*5)	Floor No.2 Wire and Seat No.1 Wire (Under the Front Seat LH)
BJ2	61 (*5)	Floor Wire and Seat No.1 Wire (Under the Front Seat RH)

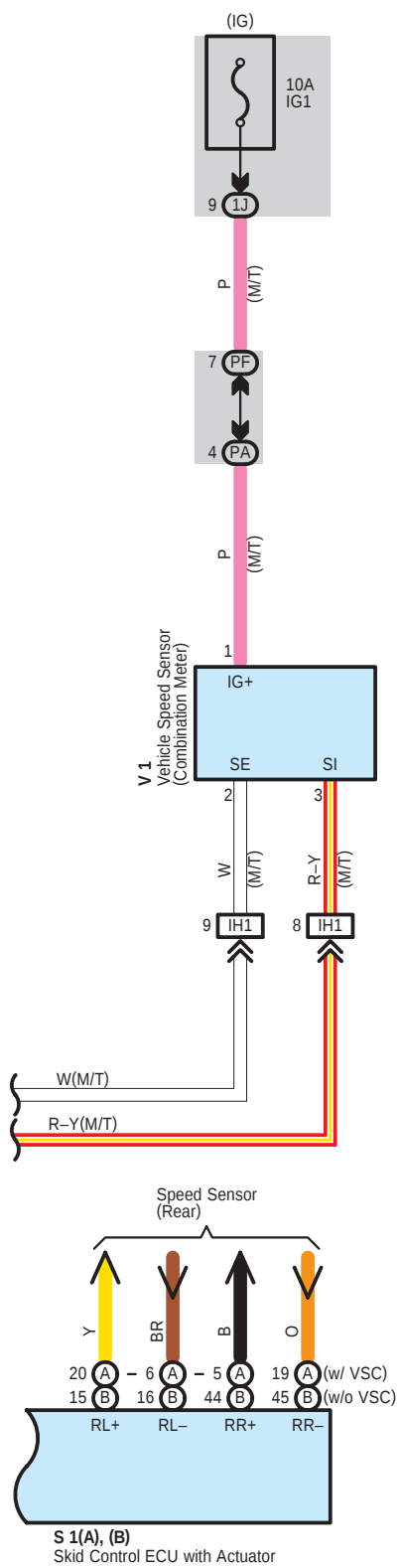
▽ : Ground Points

Code	See Page	Ground Points Location
IA	54	Left Kick Panel
BA	56 (*1)	Floor Seat Cross Member LH
	57 (*2)	
	58 (*3)	

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Accessory Meter





Accessory Meter

: Parts Location

Code	See Page	Code		See Page		Code	See Page	
A13	40 (1GR-FE)	C9		44		S1	B	41 (1GR-FE)
	42 (2TR-FE)	J1		45				43 (2TR-FE)
A28	46 (*1)	S1	A	41 (1GR-FE)		V1		41 (1GR-FE)
	48 (*2)			43 (2TR-FE)				43 (2TR-FE)

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1D		
1E	28	Roof Wire and Driver Side J/B (Lower Finish Panel)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1J		
1K		
PA	36	Engine Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PD	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PE		
PF		

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)

: Ground Points

Code	See Page	Ground Points Location
IA	54	Left Kick Panel
BD	56 (*1)	Near the Rear Differential
	57 (*2)	

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
H5	41 (1GR-FE)	H6	41 (1GR-FE)	S8	45
	43 (2TR-FE)		43 (2TR-FE)		

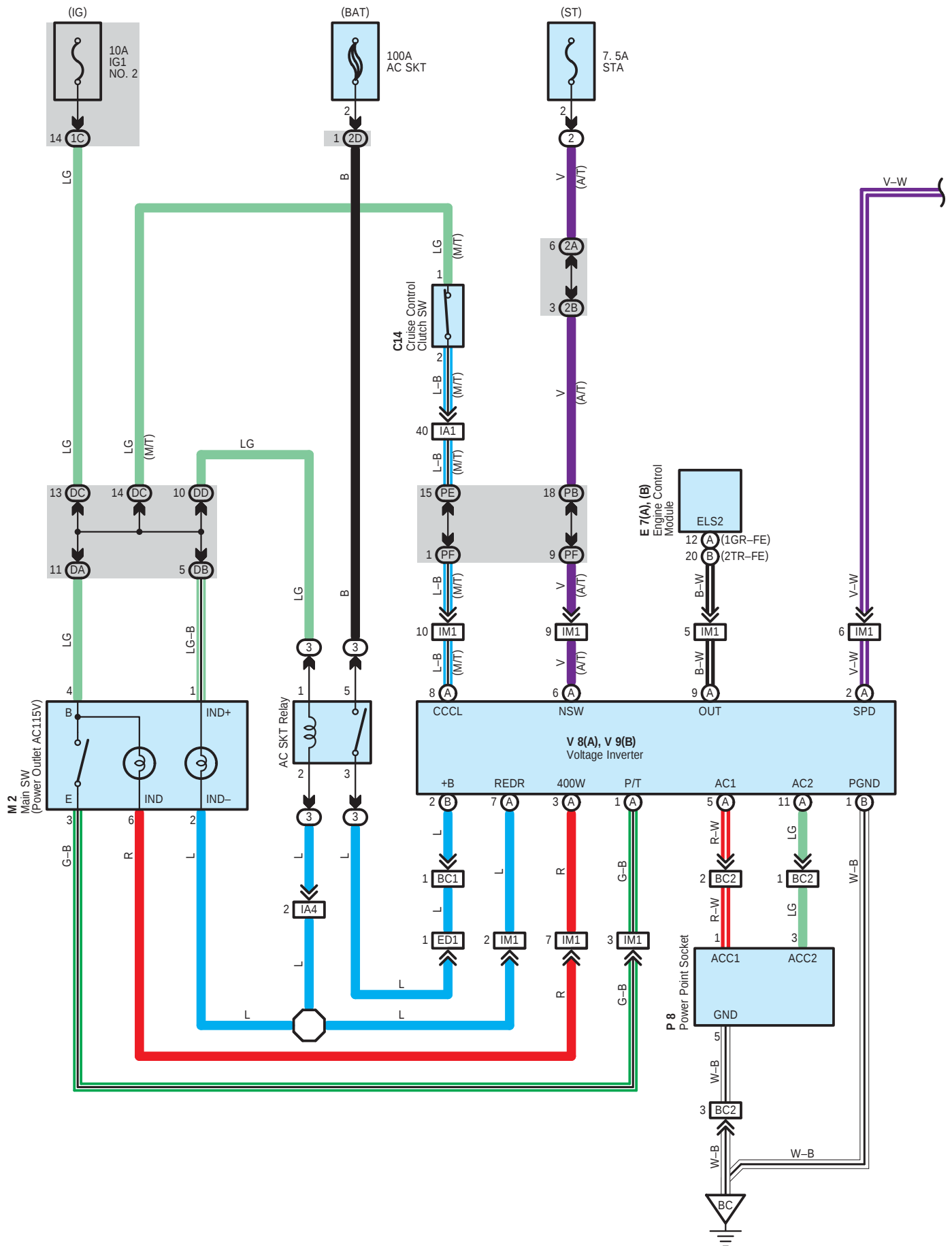
 : Relay Blocks

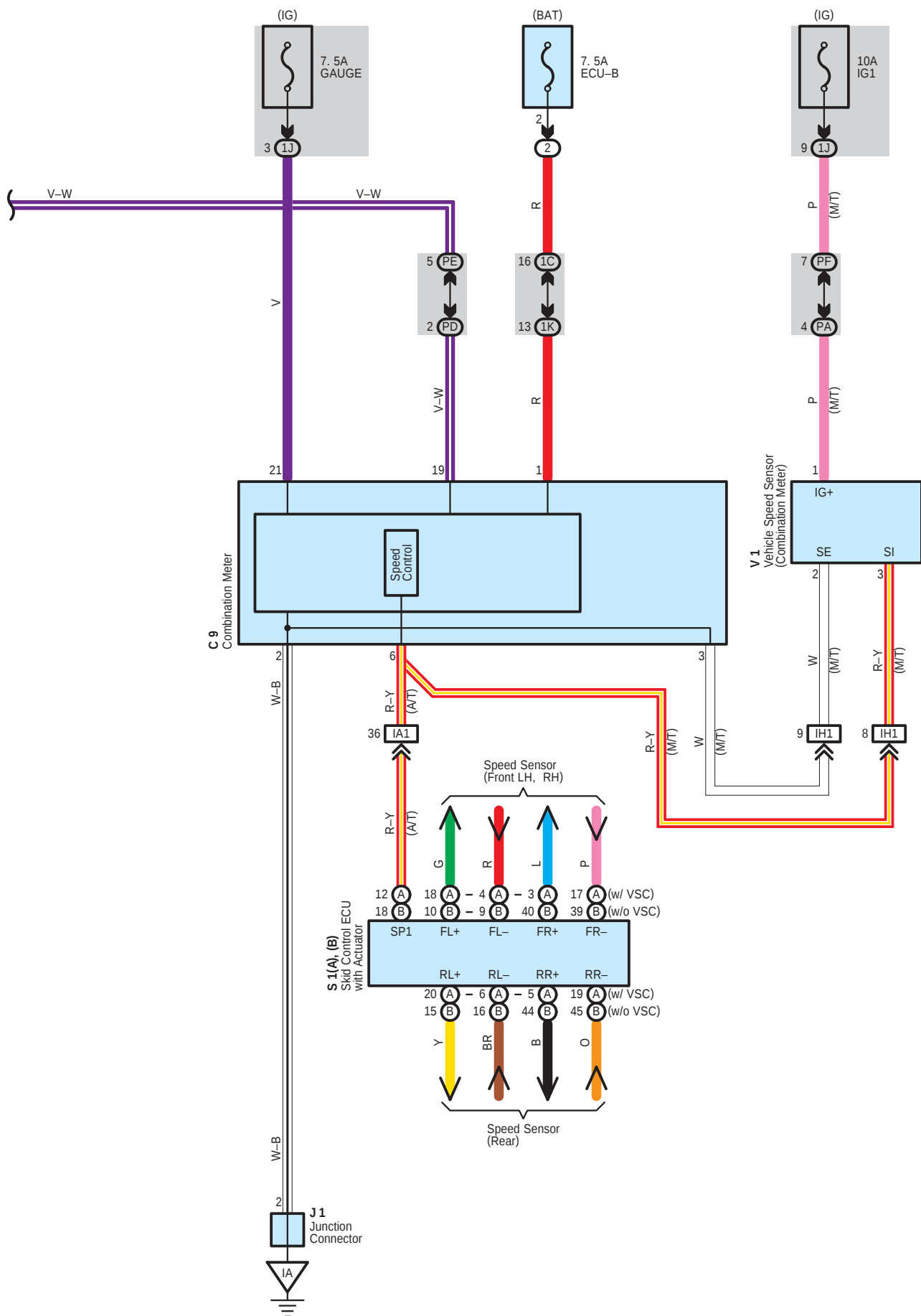
Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1I	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)

Power Outlet for 115V





Power Outlet for 115V

: Parts Location

Code		See Page	Code		See Page	Code		See Page
C9		44	P8		47 (*1)	V8	A	47 (*1)
C14		44			48 (*2)			48 (*2)
E7	A	44	S1	A	41 (1GR–FE)	V9	B	47 (*1)
	B	44		B	43 (2TR–FE)			48 (*2)
J1		45	V1		41 (1GR–FE)			
M2		45			43 (2TR–FE)			

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)
3	23	Engine Room R/B No.2 (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1J	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1K		
2A	24	Engine Room J/B (Engine Compartment Left)
2B	24	Engine Wire and Engine Room J/B (Engine Compartment Left)
2D	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DA	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DB		
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DD		
PA	36	Engine Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PB		
PD	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PE		
PF		

: Connector Joining Wire Harness and Wire Harness

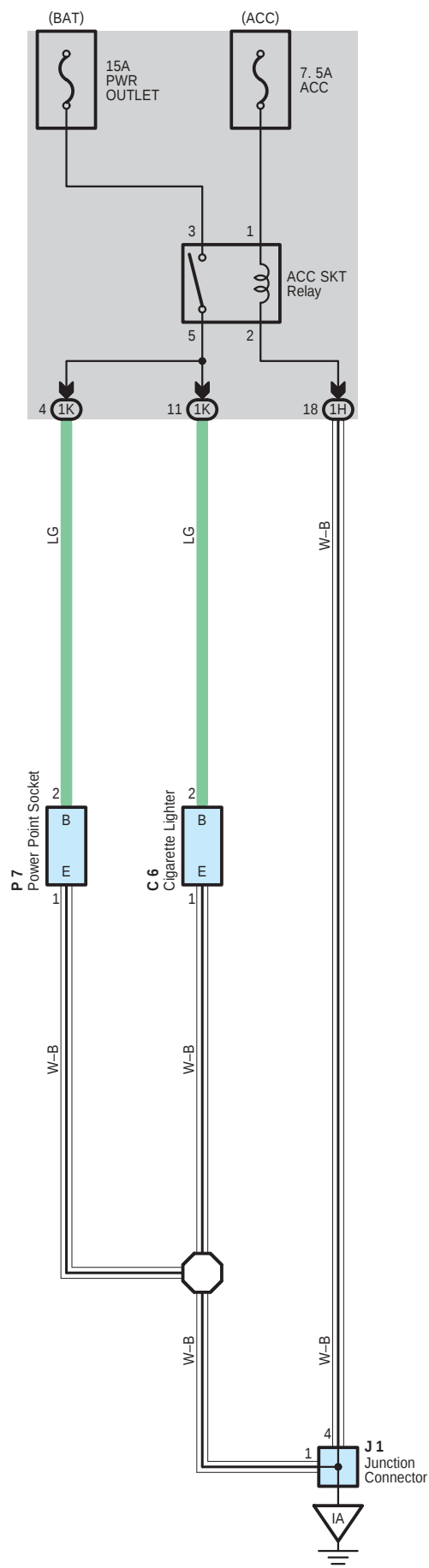
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ED1	52 (1GR-FE)	Frame No.2 Wire and Engine Room Main Wire (Front Fender Apron RH)
	53 (2TR-FE)	
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IA4		
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)
IM1	55	Floor No.3 Wire and Instrument Panel Wire (Under the Console Box)
BC1	56 (*1)	Frame No.2 Wire and Floor No.3 Wire (Floor Seat Cross Member RH)
	57 (*2)	
BC2	56 (*1)	
	57 (*2)	

: Ground Points

Code	See Page	Ground Points Location
IA	54	Left Kick Panel
BC	56 (*1)	Near the Voltage Inverter
	57 (*2)	

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Cigarette Lighter and Power Outlet for 12V



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
C6	44	J1	45	P7	45

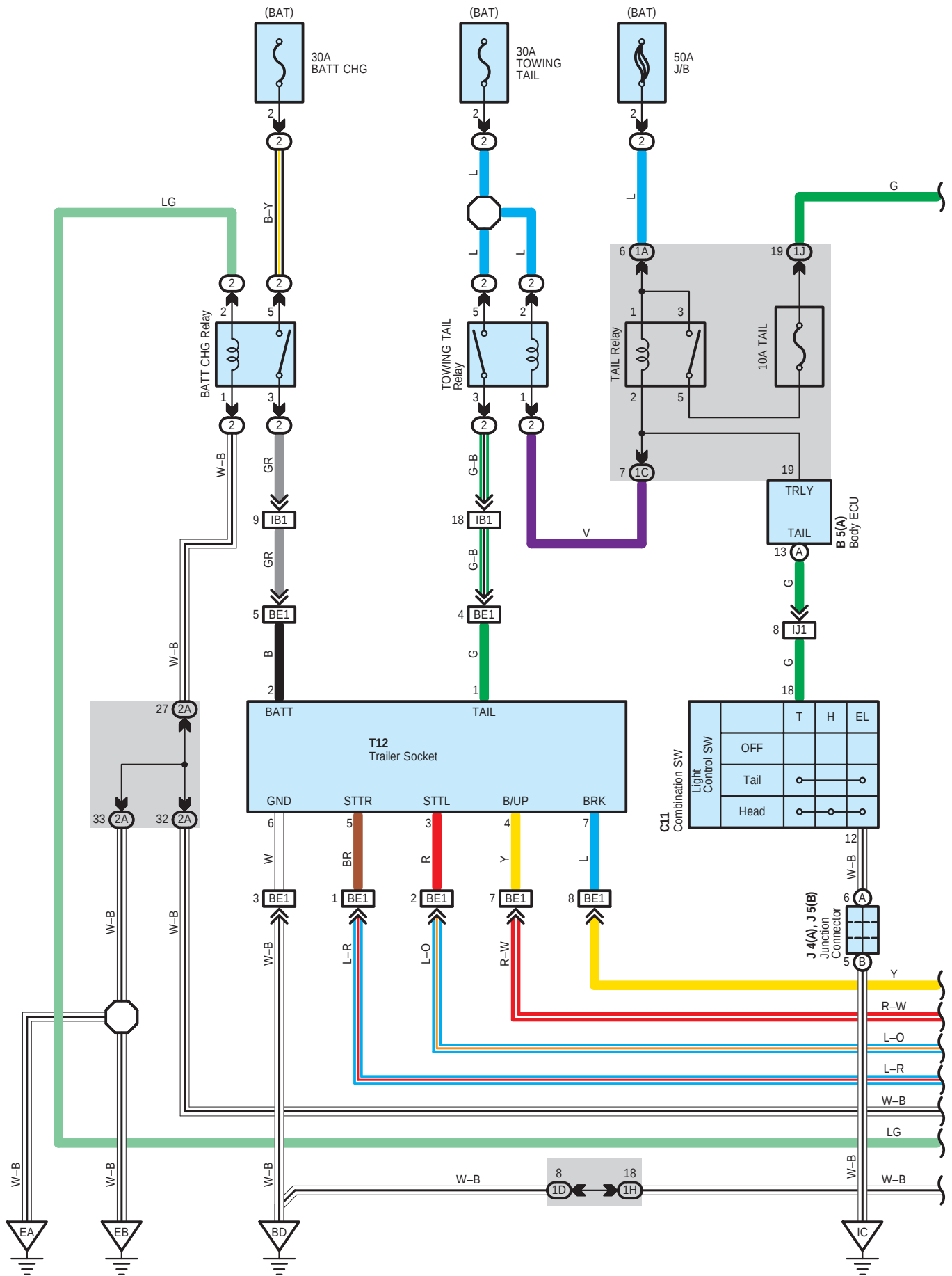
 : Junction Block and Wire Harness Connector

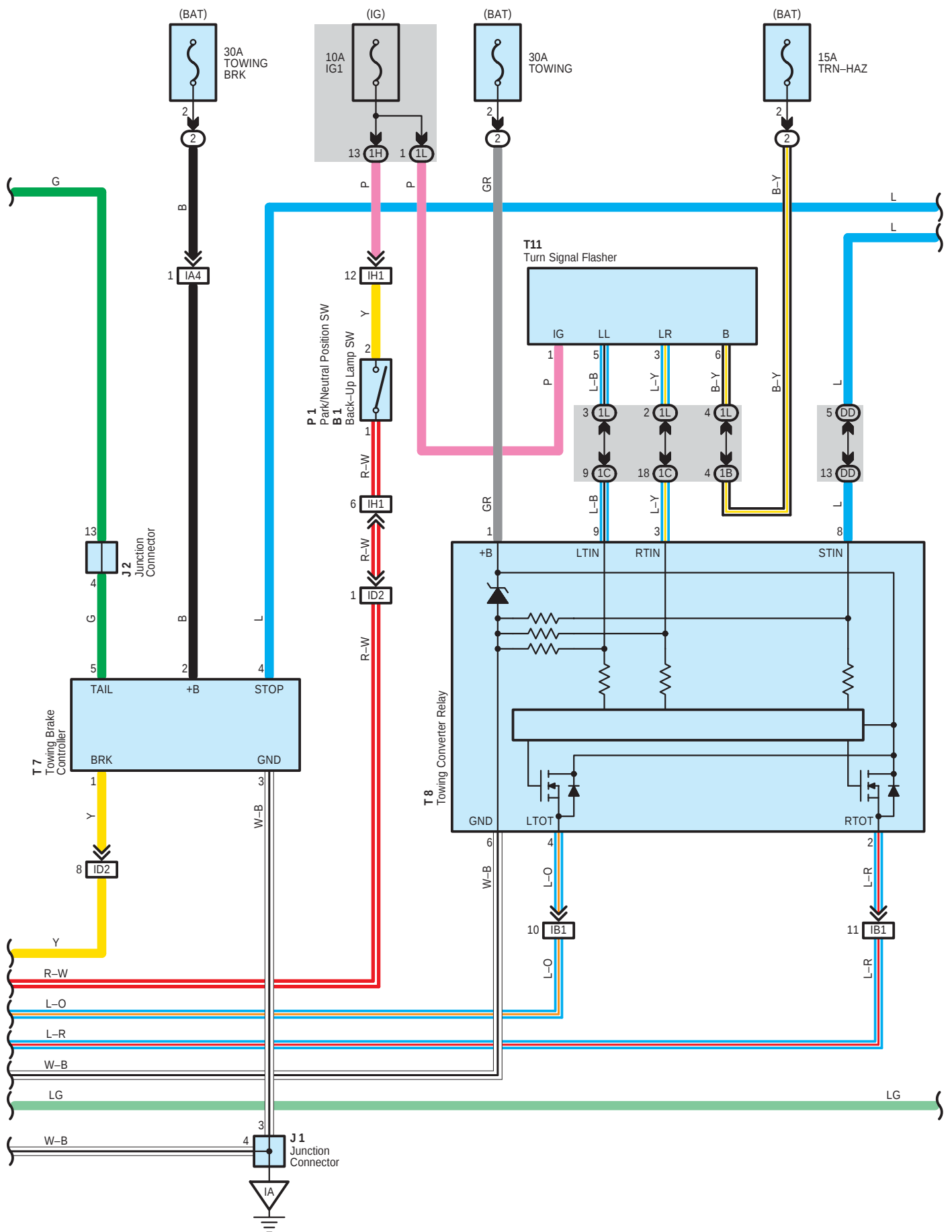
Code	See Page	Junction Block and Wire Harness (Connector Location)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1K		

 : Ground Points

Code	See Page	Ground Points Location
IA	54	Left Kick Panel

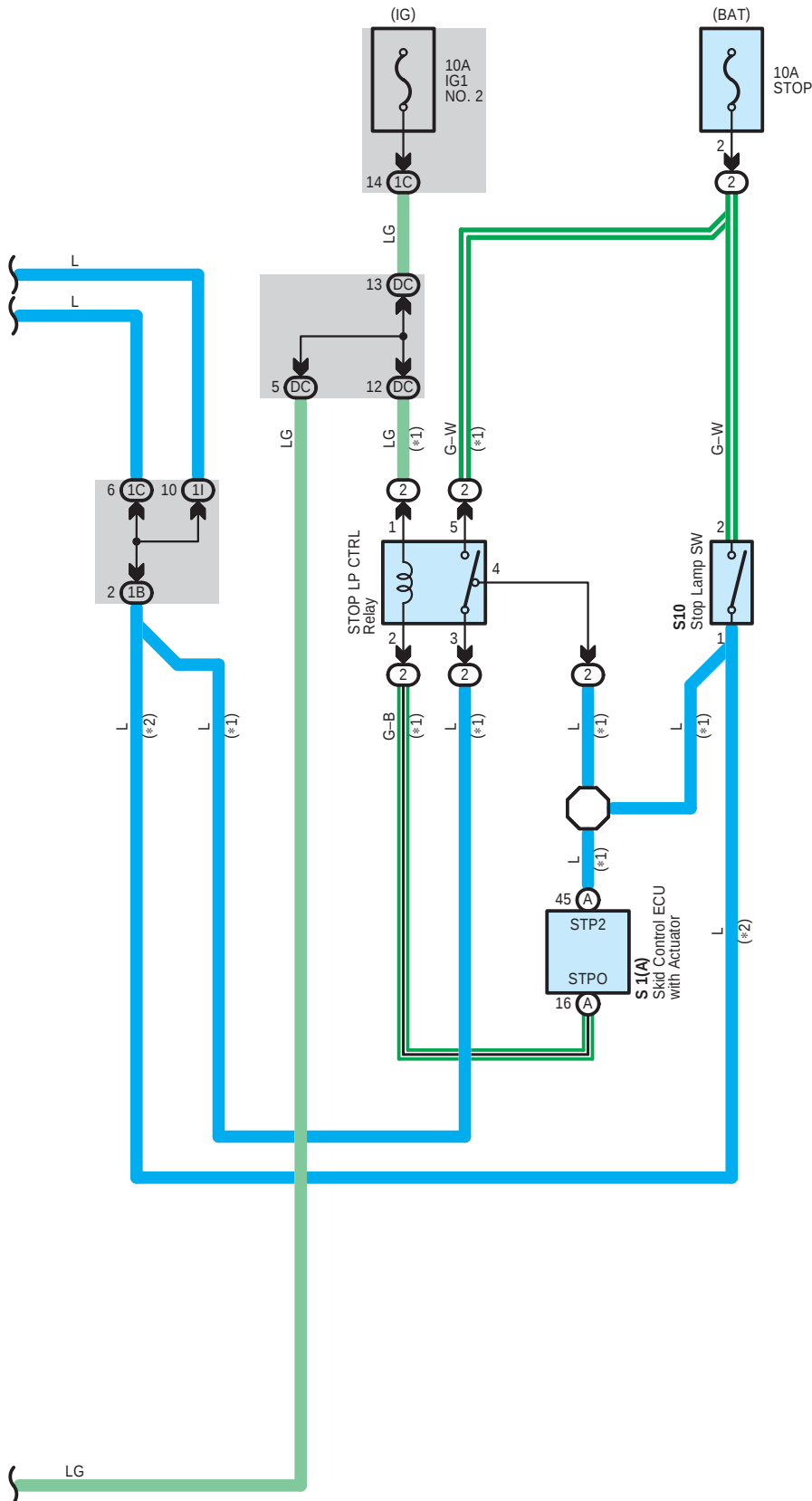
Trailer Towing for Trailer Socket 7P Type





Trailer Towing for Trailer Socket 7P Type

* 1 : w/ VSC
* 2 : w/o VSC



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
B1	40 (1GR-FE)	J4	A	45	S10
	42 (2TR-FE)	J5	B	45	T7
B5	A	P1	41 (1GR-FE)	T8	45
C11	44			T11	45
J1	45	S1	A	T12	47 (*1)
J2	45				48 (*2)

 : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1B		
1C		
1D	28	Frame Wire and Driver Side J/B (Lower Finish Panel)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1I		
1J		
1L	29	Relay Wire and Driver Side J/B (Lower Finish Panel)
2A	24	Engine Room J/B (Engine Compartment Left)
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DD		

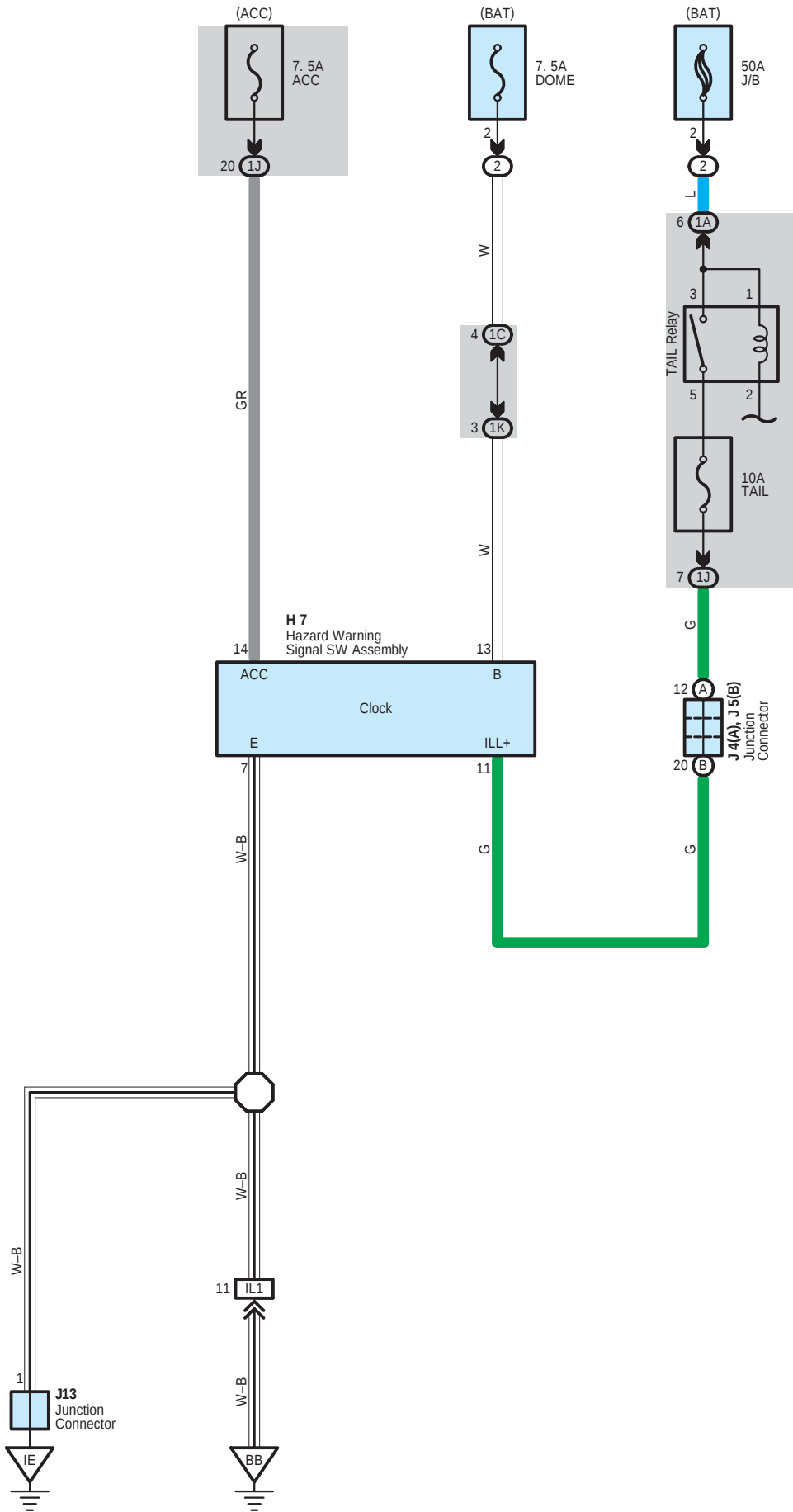
 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA4	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IB1	54	Frame Wire and Engine Room Main Wire (Left Kick Panel)
ID2	54	Frame Wire and Instrument Panel Wire (Left Kick Panel)
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)
IJ1	55	Instrument Panel Wire and Instrument Panel Wire (Right Kick Panel)
BE1	56 (*1)	Frame No.3 Wire and Frame Wire (Behind the Trailer Socket)
	57 (*2)	

 : Ground Points

Code	See Page	Ground Points Location
EA	52 (1GR-FE)	Front Right Fender
	53 (2TR-FE)	
EB	52 (1GR-FE)	Front Left Fender
	53 (2TR-FE)	
IA	54	Left Kick Panel
IC	54	Instrument Panel Brace RH
BD	56 (*1)	Near the Rear Differential
	57 (*2)	

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
H7	45	J5	B	45	
J4	A	45	J13	45	

 : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1J	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1K		

 : Connector Joining Wire Harness and Wire Harness

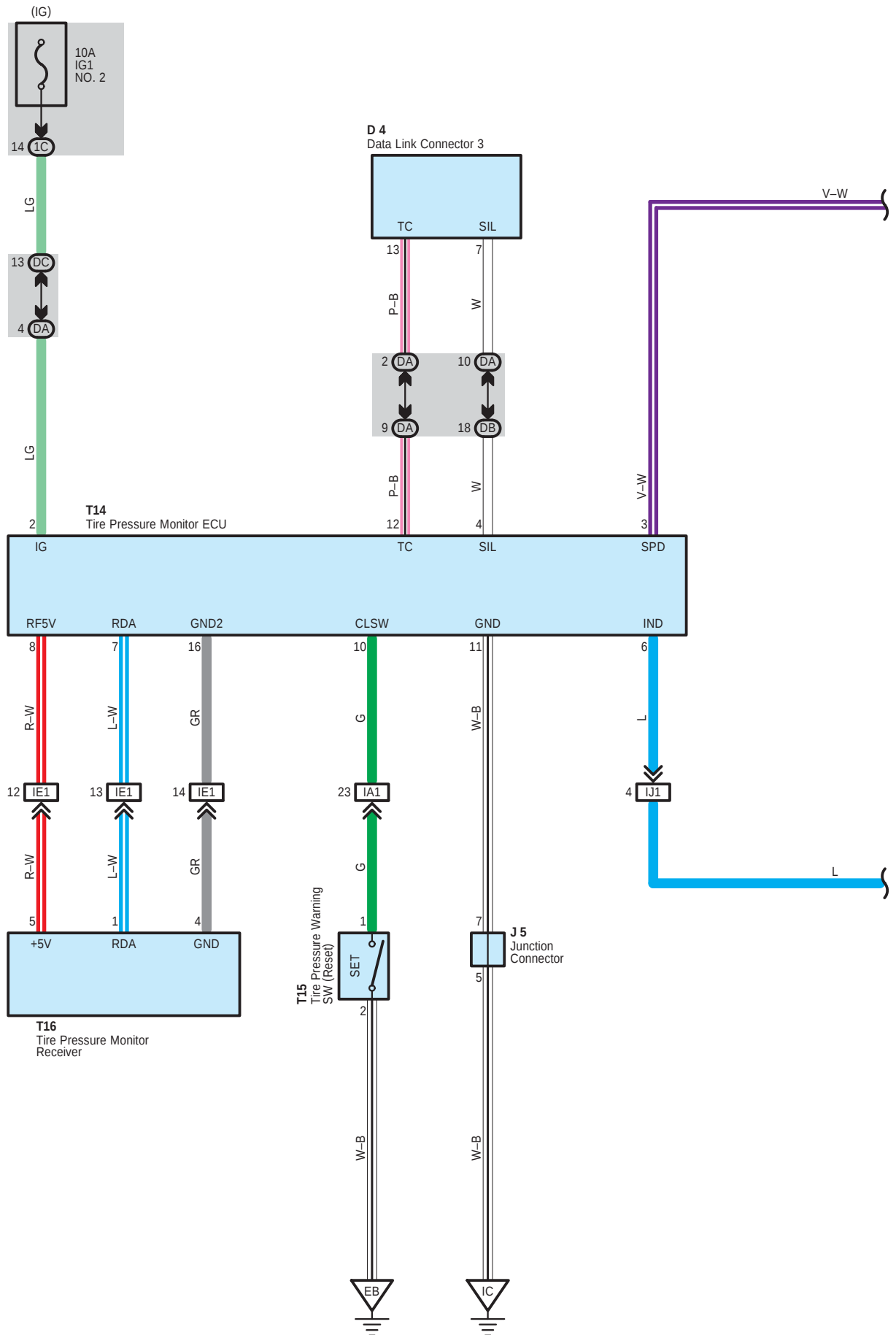
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IL1	55	Instrument Panel Wire and Floor Wire (Right Kick Panel)

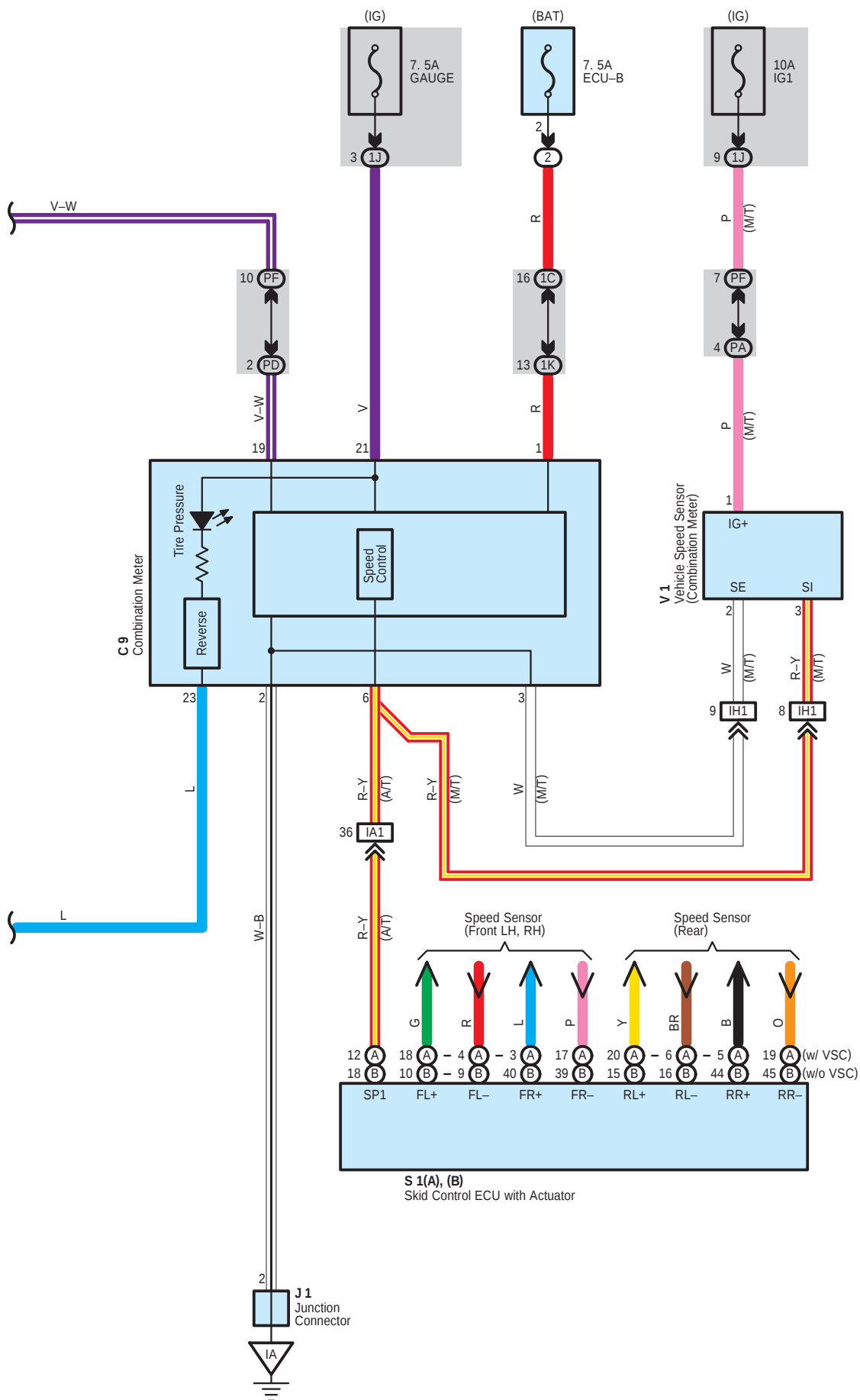
 : Ground Points

Code	See Page	Ground Points Location
IE	54	Right Kick Panel
BB	56 (*1)	Floor Seat Cross Member RH
	57 (*2)	
	58 (*3)	

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Tire Pressure Warning System





Tire Pressure Warning System

System Outline

The air pressure sensor installed in the tire wheel detects the tire air pressure and transmits signals to the vehicle side receiver. When the detected tire air pressure is below a specified level, the warning light in the combination meter comes on to inform the driver.

Press the tire pressure warning SW (Reset) for 3 seconds with the ignition SW at ON position after the tire pressure is adjusted to the specified value. It will lead the tire pressure monitor ECU to control and warn the pressure according to the specified value.

Warnings when the tire pressure is low

* When the tire air pressure is below a specified level, the warning light in the combination meter comes on.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
C9	44	S1	A	43 (2TR-FE)	47 (*1)
D4	44		B	41 (1GR-FE)	48 (*2)
J1	45			43 (2TR-FE)	49 (*3)
J5	45	T14	45	V1	41 (1GR-FE)
S1	A	T15	45		43 (2TR-FE)

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1J	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1K		
DA	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DB		
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)
PA	36	Engine Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PD	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PF		

□ : Connector Joining Wire Harness and Wire Harness

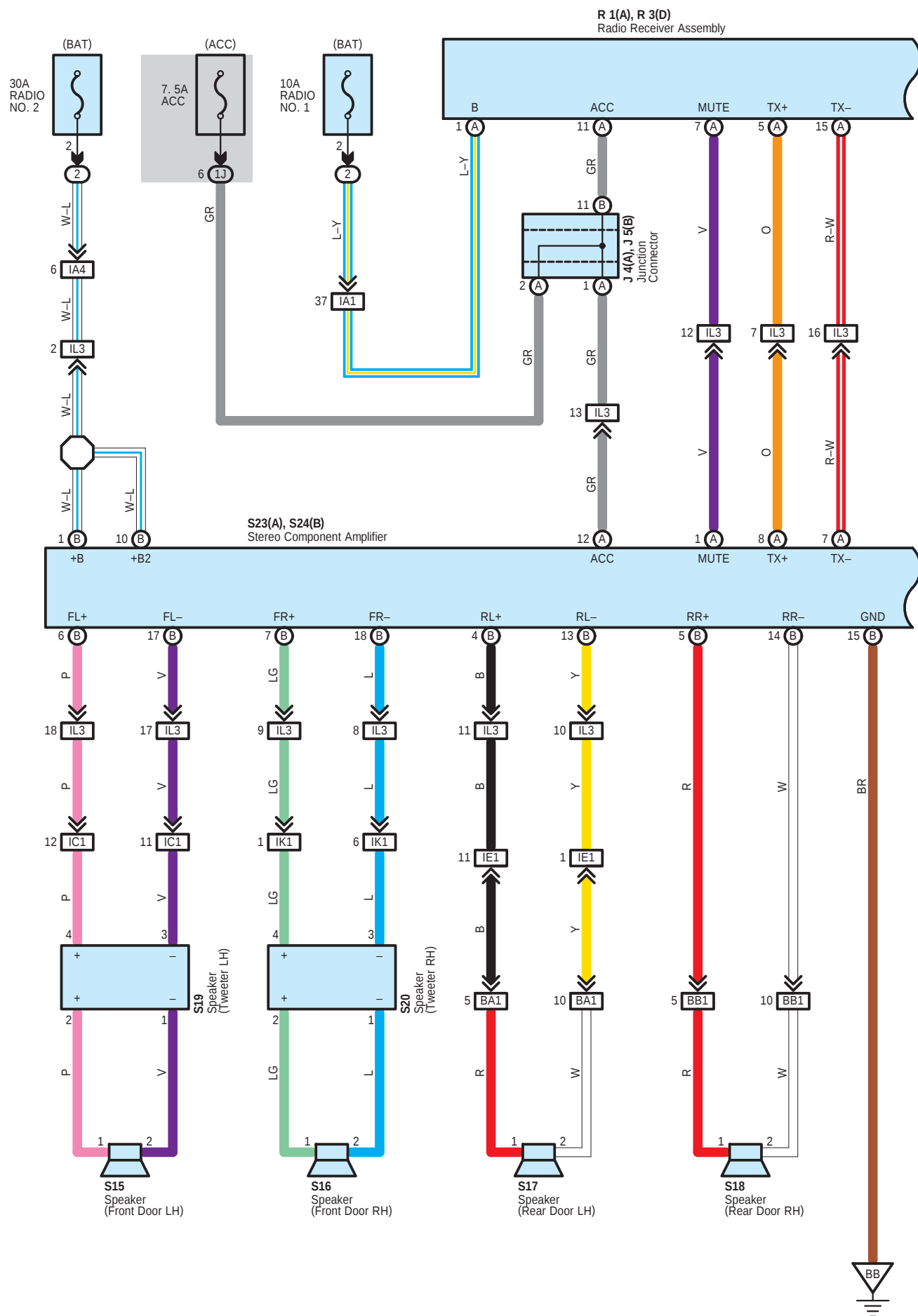
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IE1	54	Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)
IJ1	55	Instrument Panel Wire and Instrument Panel Wire (Right Kick Panel)

▽ : Ground Points

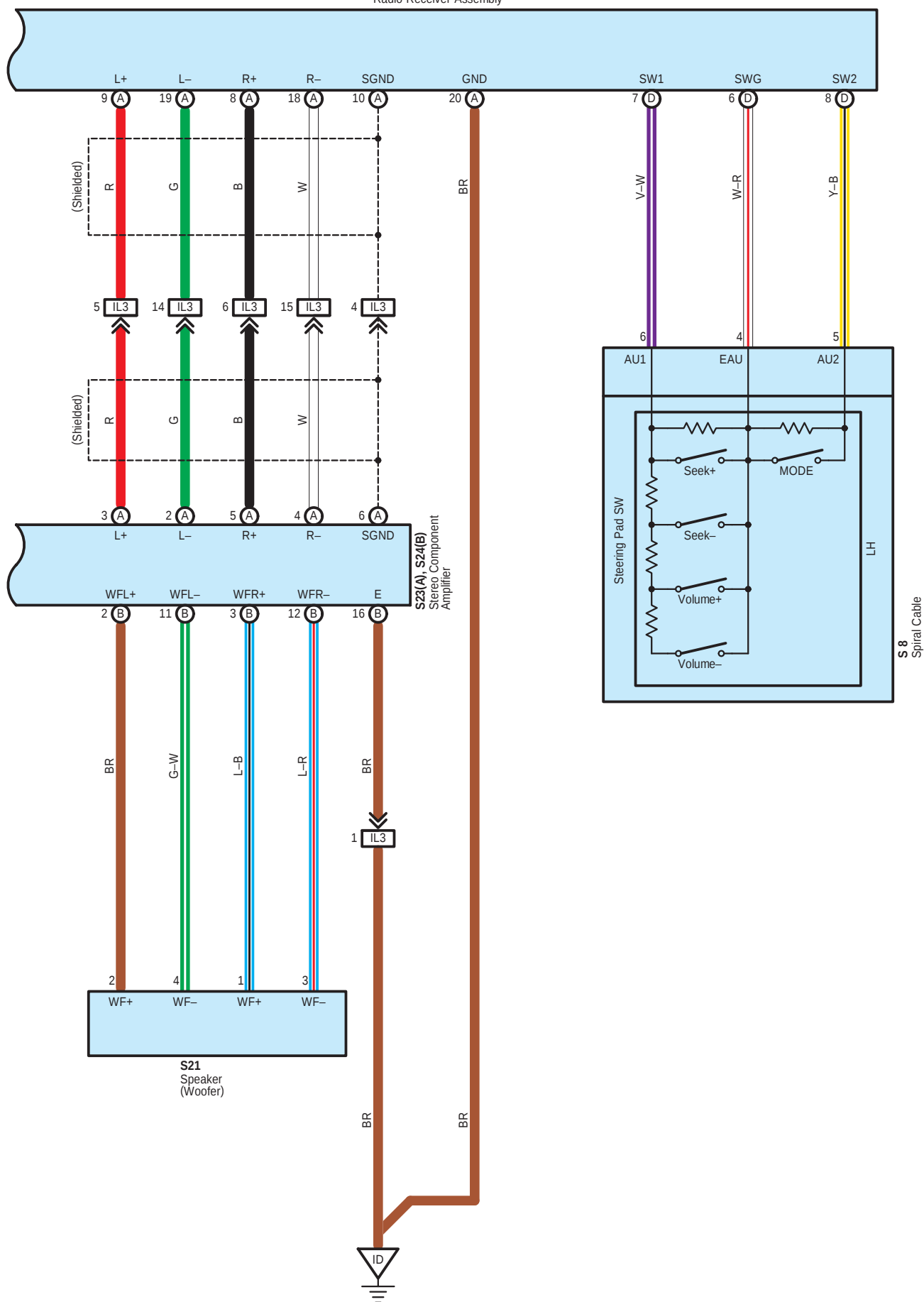
Code	See Page	Ground Points Location
EB	52 (1GR-FE)	Front Left Fender
	53 (2TR-FE)	
IA	54	Left Kick Panel
IC	54	Instrument Panel Brace RH

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Audio System for Separate Type Amplifier



R 1(A), R 3(D)
Radio Receiver Assembly



Audio System for Separate Type Amplifier

: Parts Location

Code		See Page	Code	See Page	Code	See Page
J4	A	45	S15	47 (*1)	S20	47 (*1)
J5	B	45	S16	47 (*1)	S21	47 (*1)
R1	A	45	S17	47 (*1)	S23	A 47 (*1)
R3	D	45	S18	47 (*1)	S24	B 47 (*1)
S8		45	S19	47 (*1)		

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1J	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)

: Connector Joining Wire Harness and Wire Harness

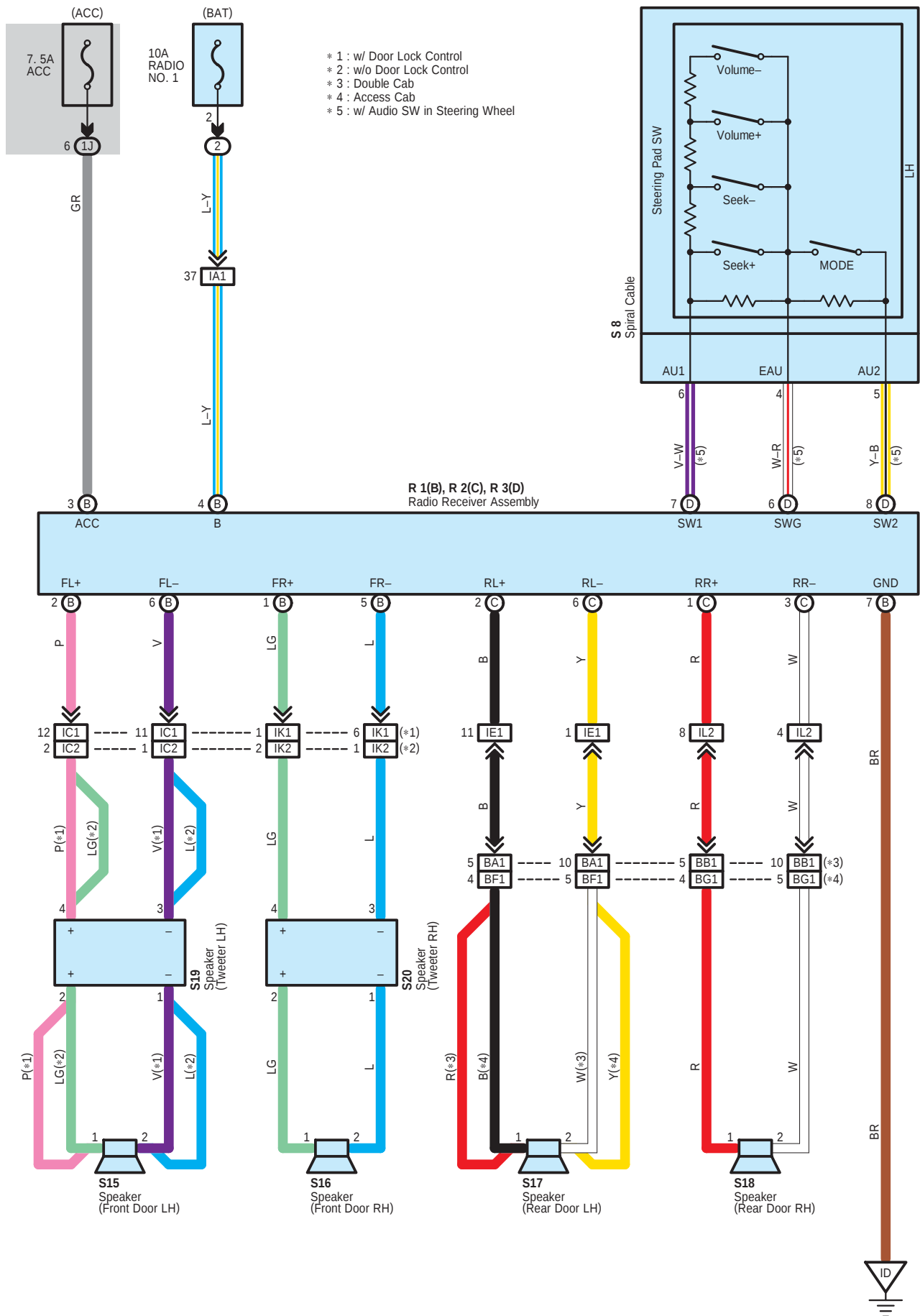
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IA4		
IC1	54	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IE1	54	Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)
IK1	55	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IL3	55	Instrument Panel Wire and Floor Wire (Right Kick Panel)
BA1	56 (*1)	Rear Door No.2 Wire and Floor No.2 Wire (Under the Left Center Pillar)
BB1	56 (*1)	Rear Door No.1 Wire and Floor Wire (Under the Right Center Pillar)

: Ground Points

Code	See Page	Ground Points Location
ID	54	Instrument Panel Brace RH
BB	56 (*1)	Floor Seat Cross Member RH

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Audio System for Built-in Type Amplifier



 : Parts Location

Code		See Page	Code	See Page	Code	See Page
R1	B	45	S16	47 (*1)	S19	47 (*1)
R2	C	45		48 (*2)		48 (*2)
R3	D	45		49 (*3)		49 (*3)
S8		45	S17	47 (*1)	S20	47 (*1)
S15	47 (*1)			48 (*2)		48 (*2)
	48 (*2)		S18	47 (*1)		49 (*3)
	49 (*3)			48 (*2)		

 : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1J	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)

 : Connector Joining Wire Harness and Wire Harness

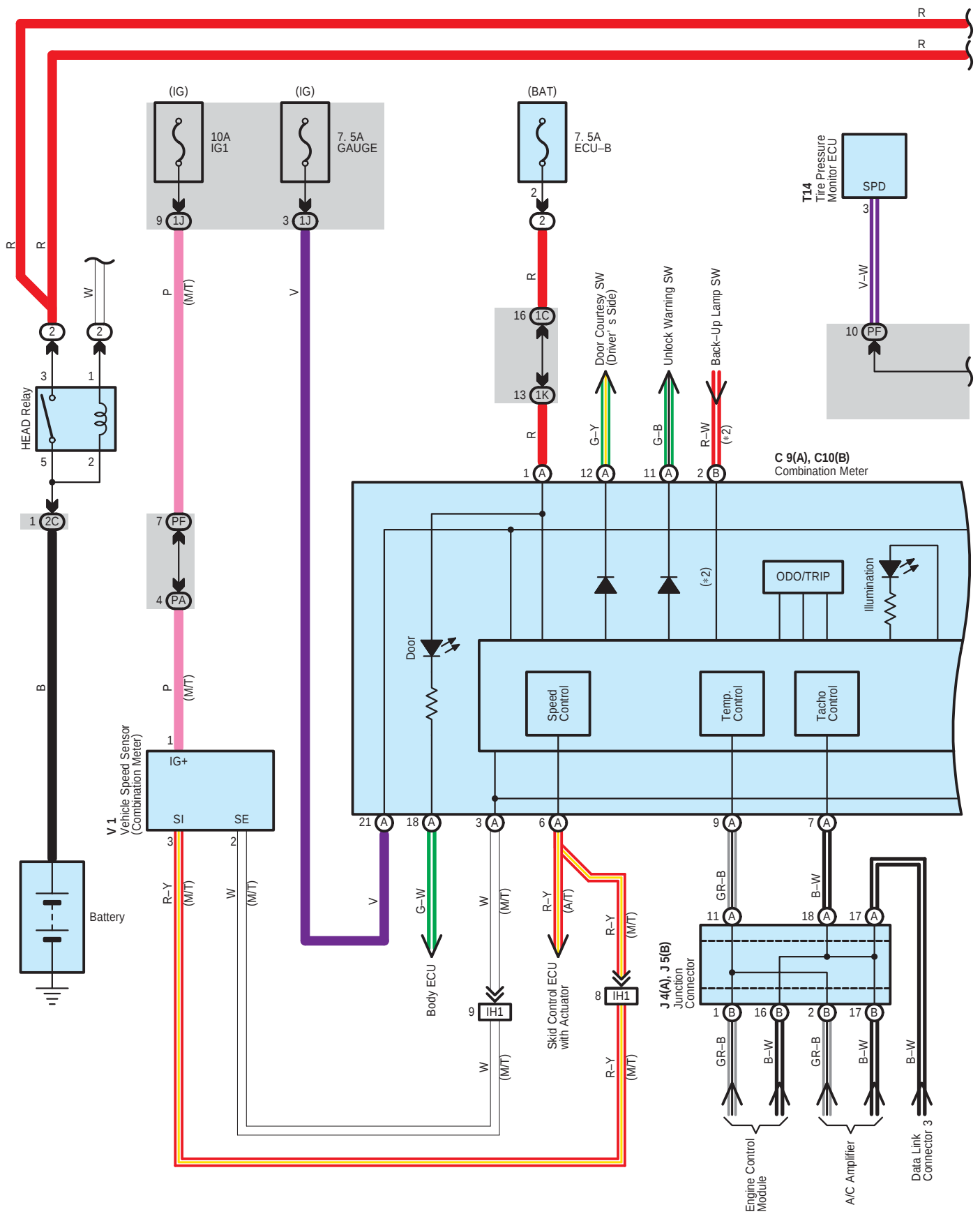
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IC1	54	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IC2		
IE1	54	Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)
IK1	55	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IK2		
IL2	55	Instrument Panel Wire and Floor Wire (Right Kick Panel)
BA1	56 (*1)	Rear Door No.2 Wire and Floor No.2 Wire (Under the Left Center Pillar)
BB1	56 (*1)	Rear Door No.1 Wire and Floor Wire (Under the Right Center Pillar)
BF1	57 (*2)	Rear Door No.2 Wire and Floor No.2 Wire (Under the Left Quarter Panel)
BG1	57 (*2)	Rear Door No.1 Wire and Floor Wire (Under the Right Quarter Panel)

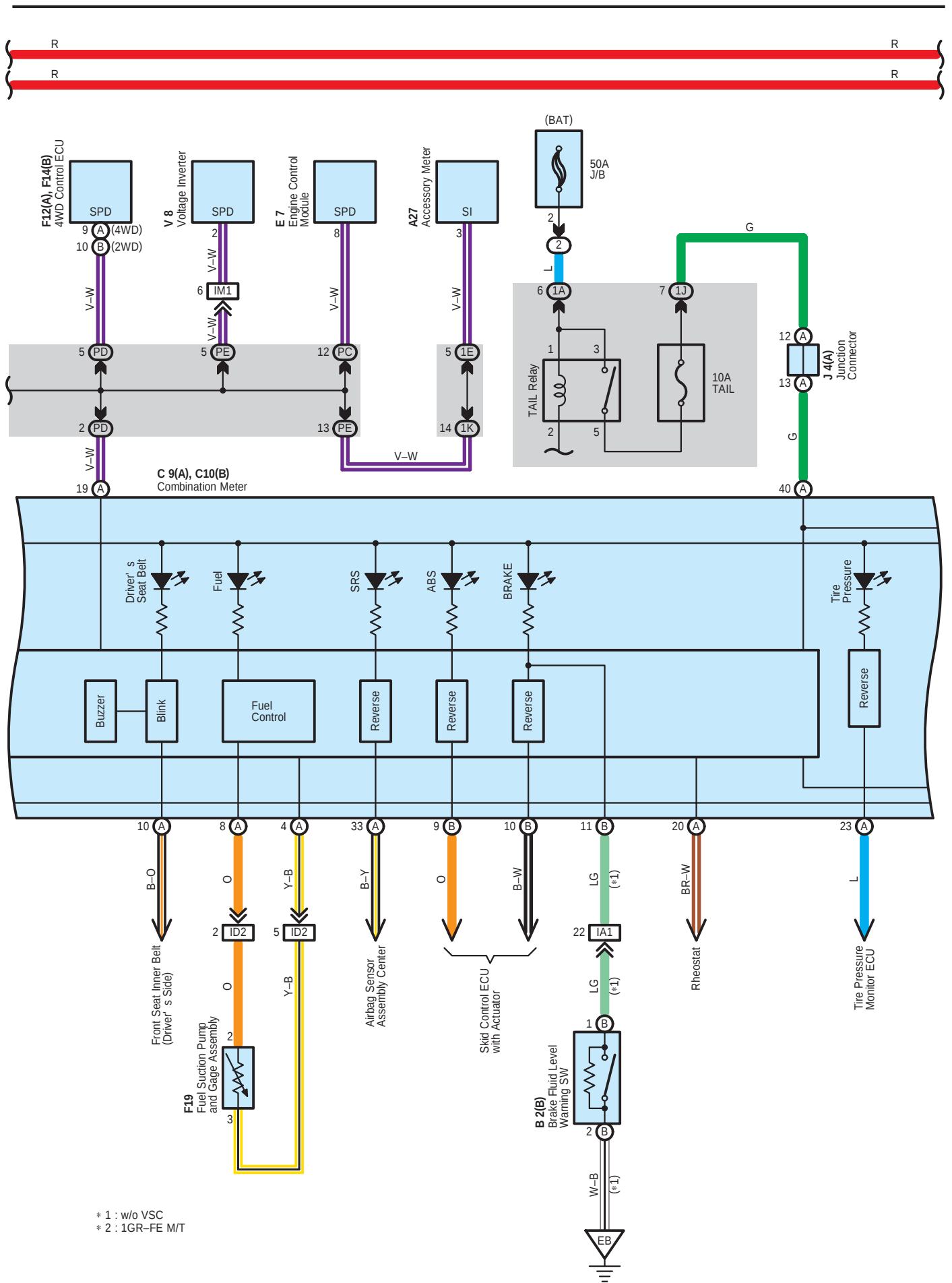
 : Ground Points

Code	See Page	Ground Points Location
ID	54	Instrument Panel Brace RH

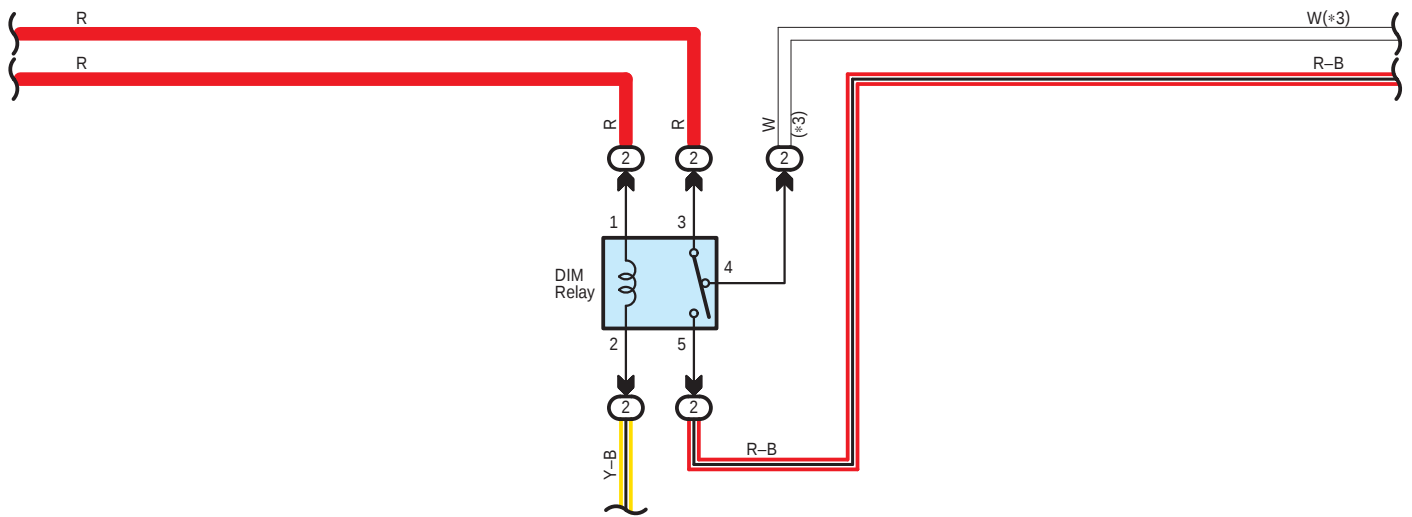
* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

Combination Meter

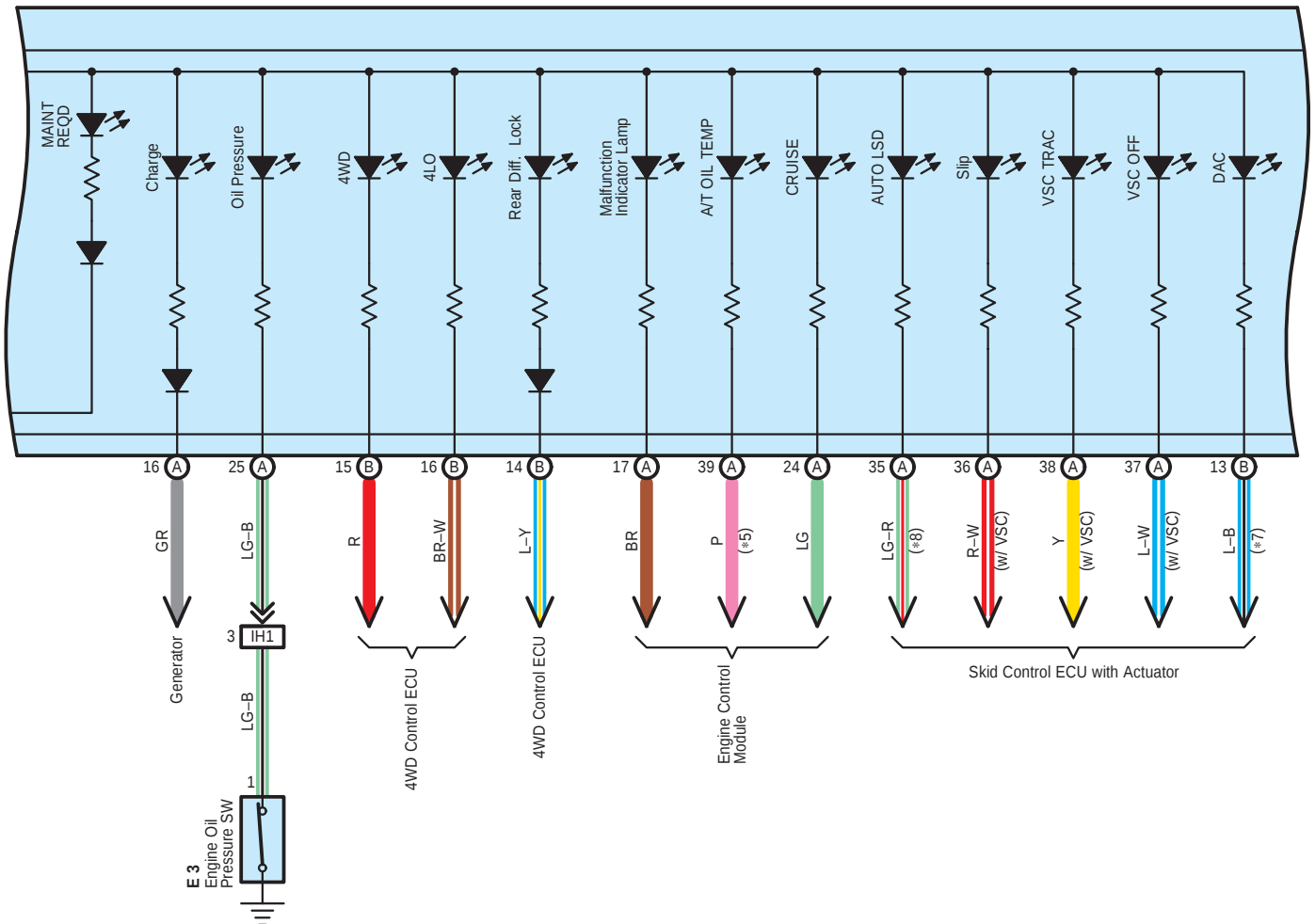


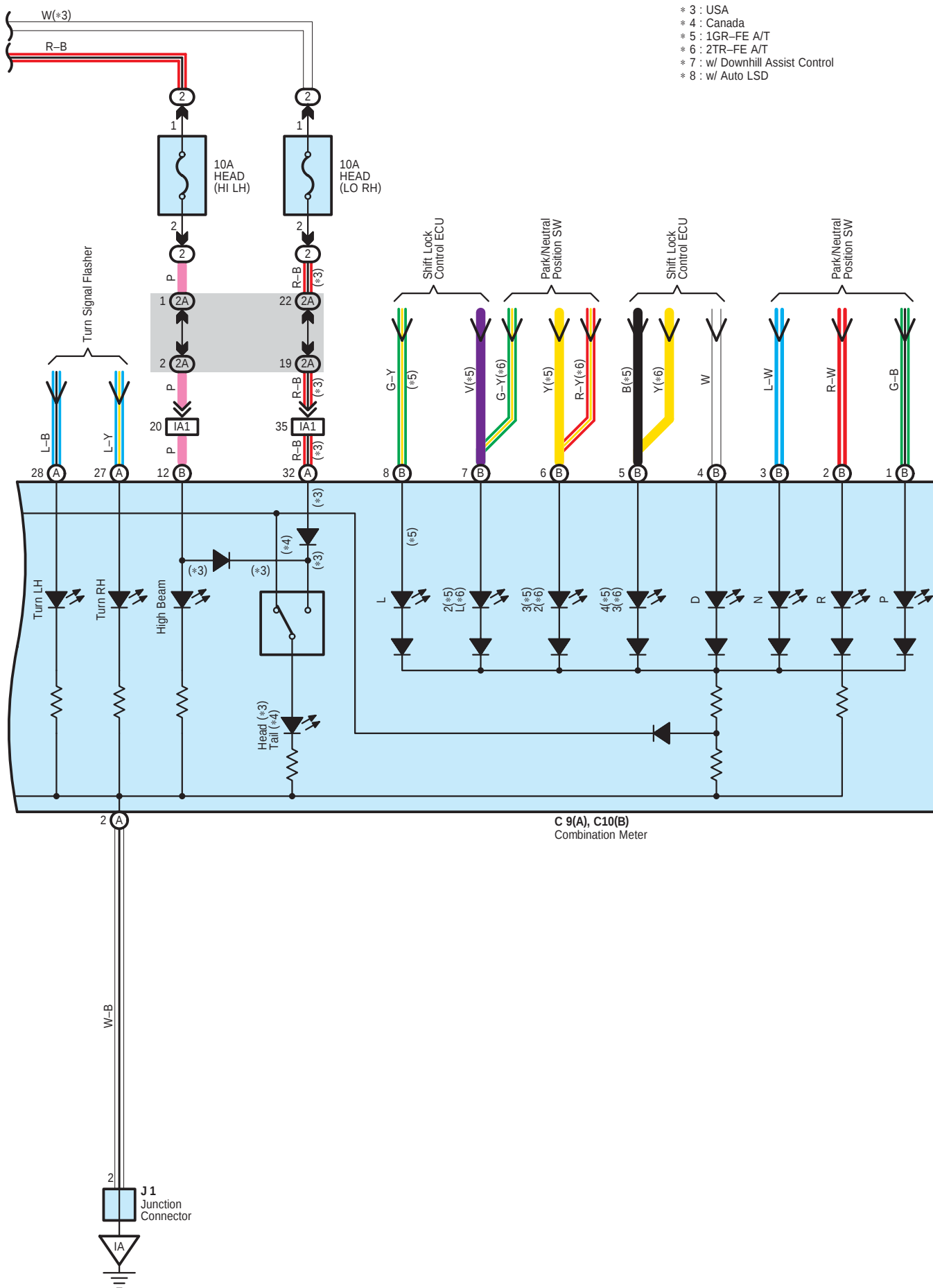


Combination Meter



C 9(A), C10(B)
Combination Meter





Combination Meter

: Parts Location

Code	See Page	Code	See Page	Code	See Page
A27	44	E7	44	J4	A
B2	B	F12	A	J5	B
C9	A	F14	B	T14	45
C10	B			V1	41 (1GR-FE)
E3	40 (1GR-FE)	F19	46 (*1)	V8	43 (2TR-FE)
	42 (2TR-FE)		48 (*2)		47 (*1)
		J1	49 (*3)		48 (*2)
			45		

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
1E	28	Roof Wire and Driver Side J/B (Lower Finish Panel)
1J	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1K		
2A	24	Engine Room J/B (Engine Compartment Left)
2C	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
PA	36	Engine Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PC	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PD		
PE		
PF		

: Connector Joining Wire Harness and Wire Harness

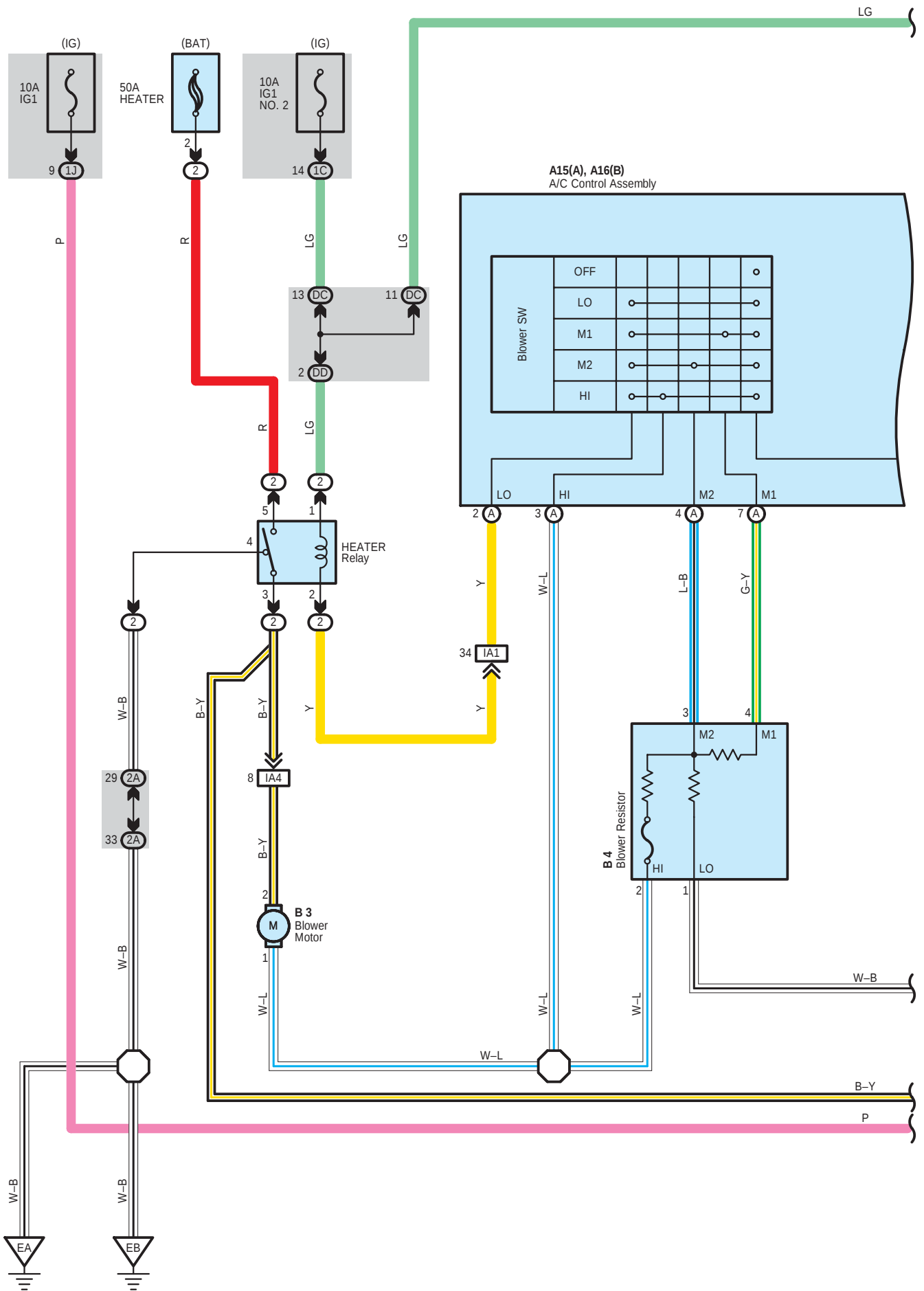
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
ID2	54	Frame Wire and Instrument Panel Wire (Left Kick Panel)
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)
IM1	55	Floor No.3 Wire and Instrument Panel Wire (Under the Console Box)

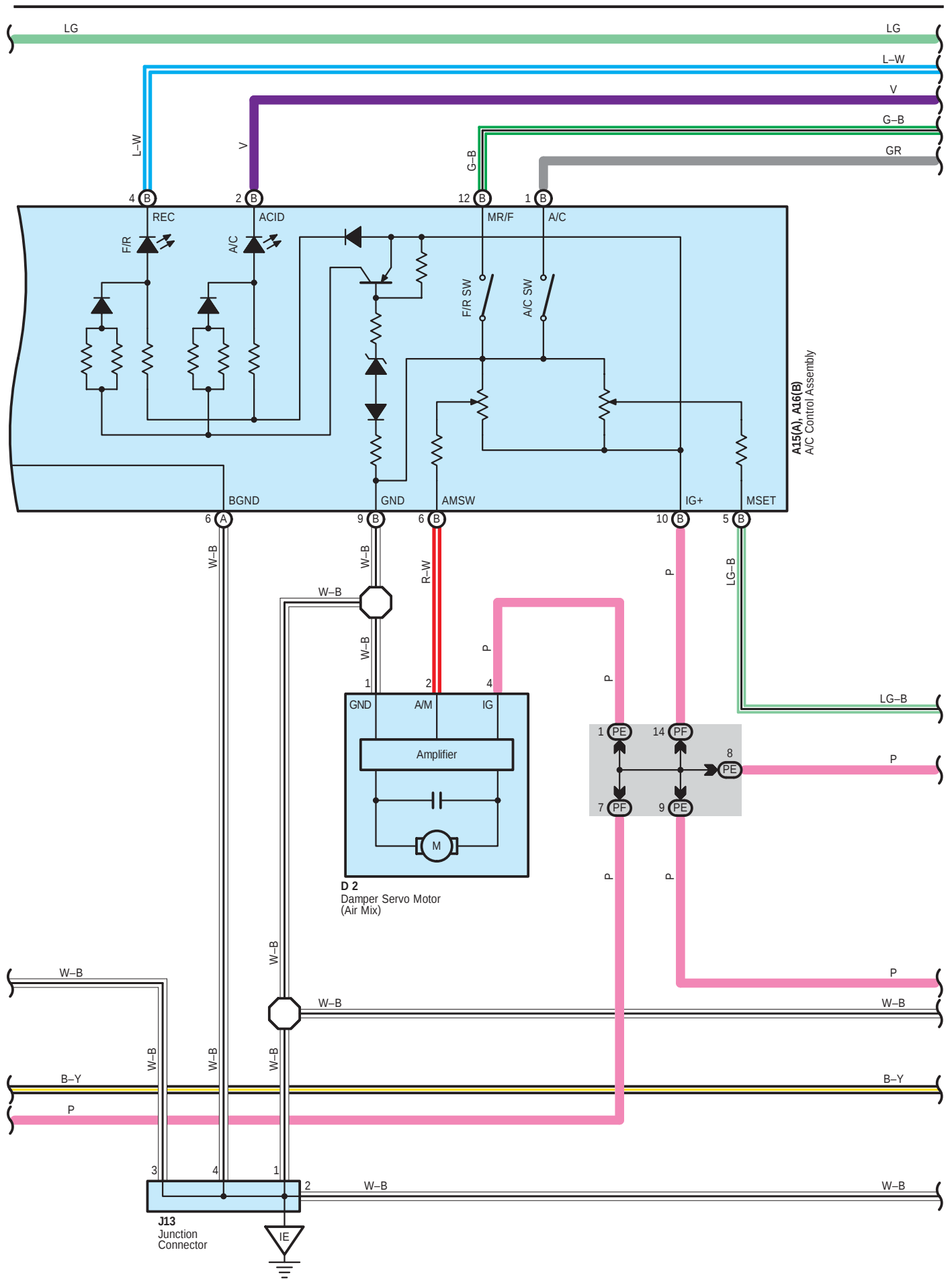
: Ground Points

Code	See Page	Ground Points Location
EB	52 (1GR-FE)	Front Left Fender
	53 (2TR-FE)	
IA	54	Left Kick Panel

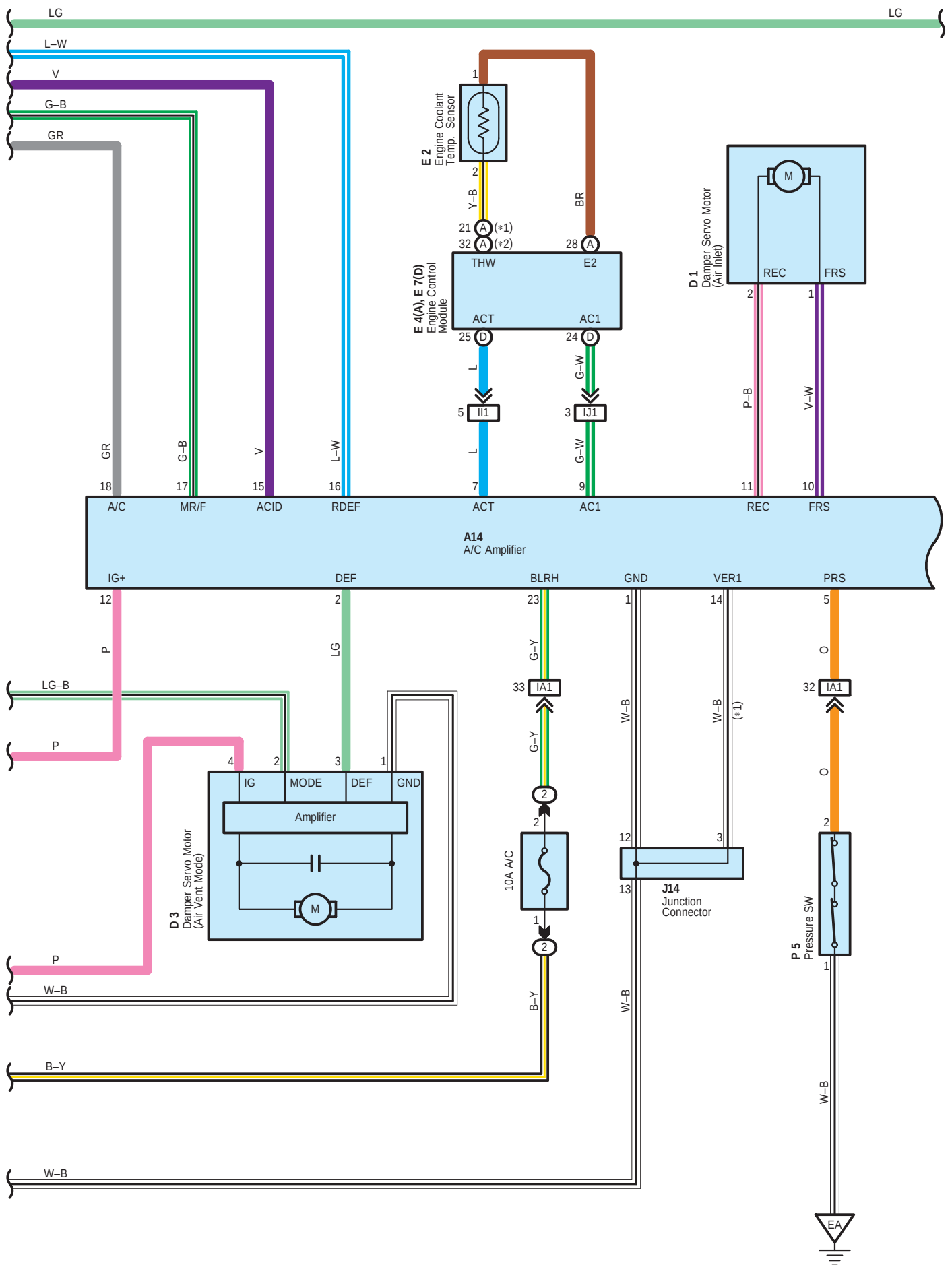
* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

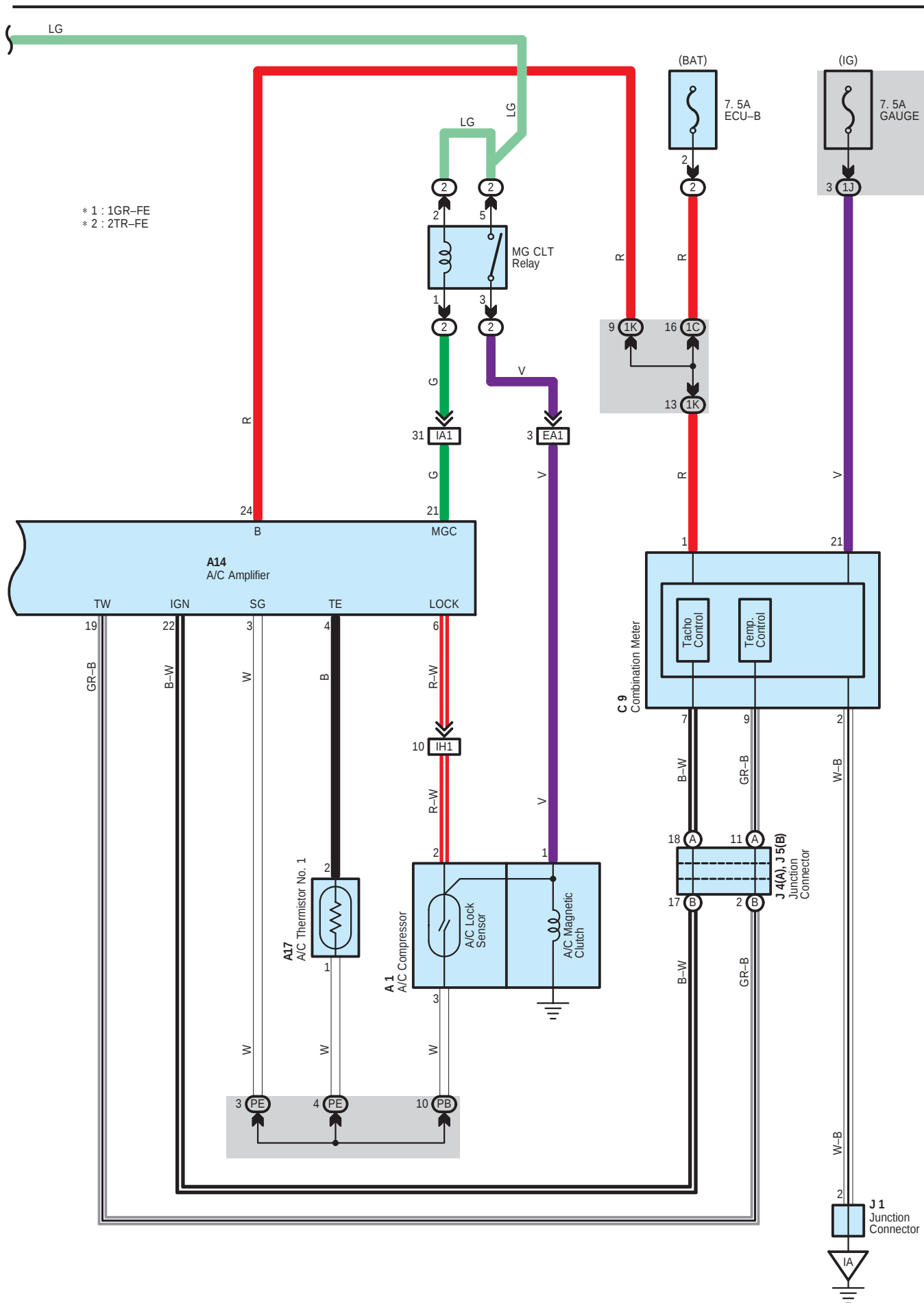
Air Conditioning





Air Conditioning





Air Conditioning

System Outline

The A/C amplifier receives various signals, I.E., the engine RPM from the engine control module and coolant temperature from the engine control module, etc.

When the engine is started and the A/C SW (A/C control assembly) is on, a signal is input to the A/C amplifier.

As a result, current flows from IG1 NO.2 fuse to TERMINAL 2 of the MG CLT relay to TERMINAL 1 to TERMINAL MGC of the A/C amplifier to GROUND, turning the MG CLT relay on, so that the magnetic clutch is on and the A/C compressor operates.

If the integration control and panel detects the following conditions, it stops the air conditioning:

- * Evaporator outlet air temperature is too low.
- * There is a marked difference between the compressor speed and the engine speed.
- * The refrigerant pressure is abnormally high or abnormally low.
- * The engine speed is too low.
- * Rapid acceleration occurs.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A1	40 (1GR-FE)	C9	44	J1	45
	42 (2TR-FE)	D1	44	J4	A 45
A14	44	D2	44	J5	B 45
A15	A 44	D3	44	J13	45
A16	B 44	E2	40 (1GR-FE)	J14	45
A17	44		42 (2TR-FE)	P5	41 (1GR-FE)
B3	44	E4	A 44		43 (2TR-FE)
B4	44	E7	D 44		

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1J	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1K		
2A	24	Engine Room J/B (Engine Compartment Left)
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DD		
PB	36	Engine Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PE	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PF		

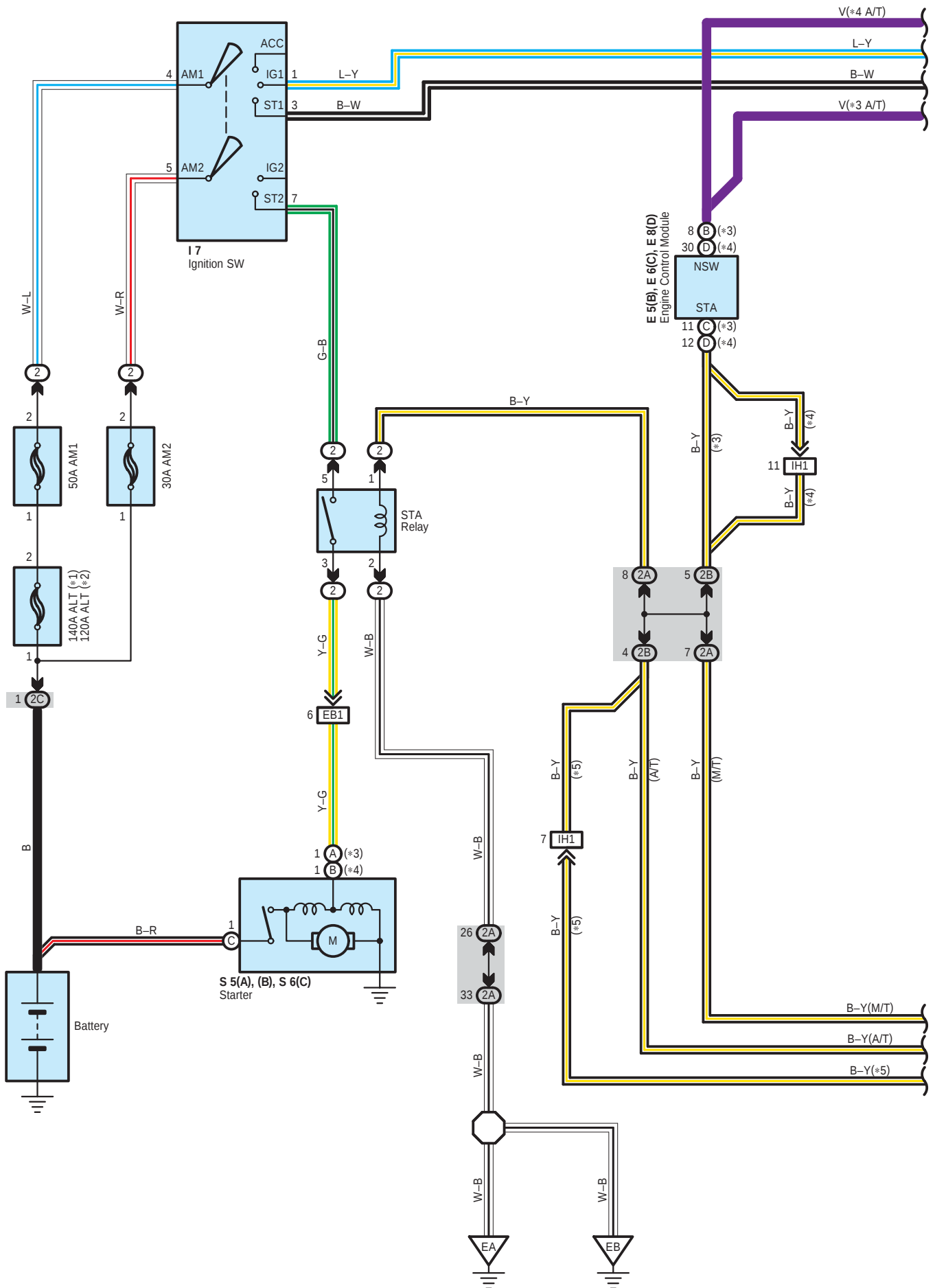
□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	52 (1GR-FE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B)
	53 (2TR-FE)	
IA1	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IA4		
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)
II1	55	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Brace RH)
IJ1	55	Instrument Panel Wire and Instrument Panel Wire (Right Kick Panel)



: Ground Points

Code	See Page	Ground Points Location
EA	52 (1GR-FE)	Front Right Fender
	53 (2TR-FE)	
EB	52 (1GR-FE)	Front Left Fender
	53 (2TR-FE)	
IA	54	Left Kick Panel
IE	54	Right Kick Panel



Starting

: Parts Location

Code	See Page	Code	See Page	Code	See Page
C7	44	E8	D	44	P1
C8	44	I7	45	S5	A
D6	44	J4	A	45	B
E5	B	J5	B	45	S6
E6	C	P1	41 (1GR-FE)	C	41 (1GR-FE)
					43 (2TR-FE)

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1C		
2A	24	Engine Room J/B and
2B	24	Engine Wire and Engine Room J/B (Engine Compartment Left)
2C	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DB	34	Instrument Panel Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DC	34	Engine Room Main Wire and Instrument Panel J/B No.1 (Left Kick Panel)
DD		
PA	36	Engine Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PB		
PD	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	52 (1GR-FE)	Engine No.2 Wire and Engine Room Main Wire (Inside of Engine Room R/B)
	53 (2TR-FE)	
IH1	55	Engine Wire and Instrument Panel Wire (Right Side of Glove Box)

: Ground Points

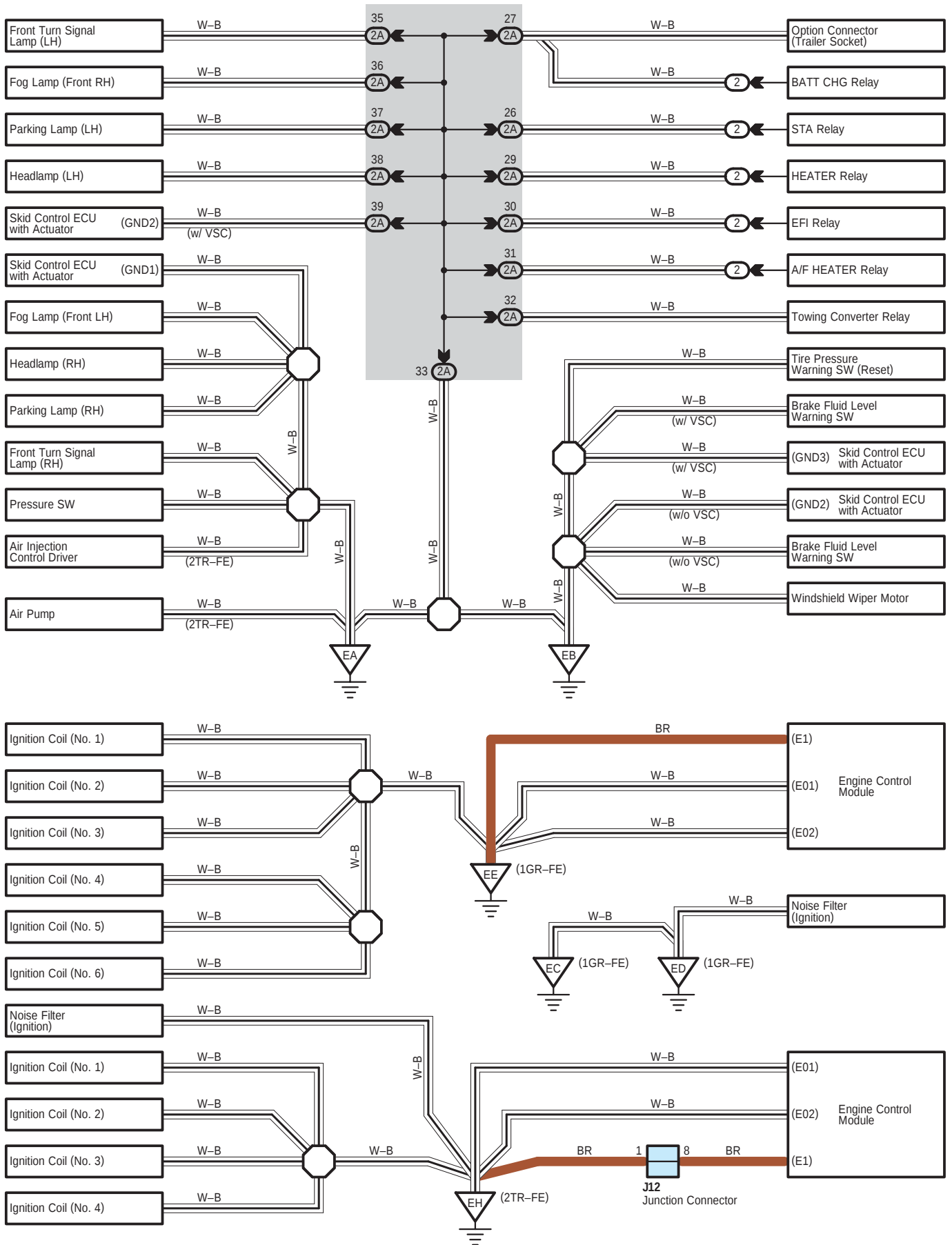
Code	See Page	Ground Points Location
EA	52 (1GR-FE)	Front Right Fender
	53 (2TR-FE)	
EB	52 (1GR-FE)	Front Left Fender
	53 (2TR-FE)	
IC	54	Instrument Panel Brace RH

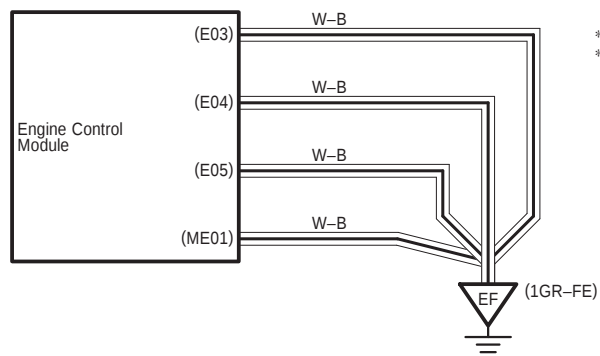
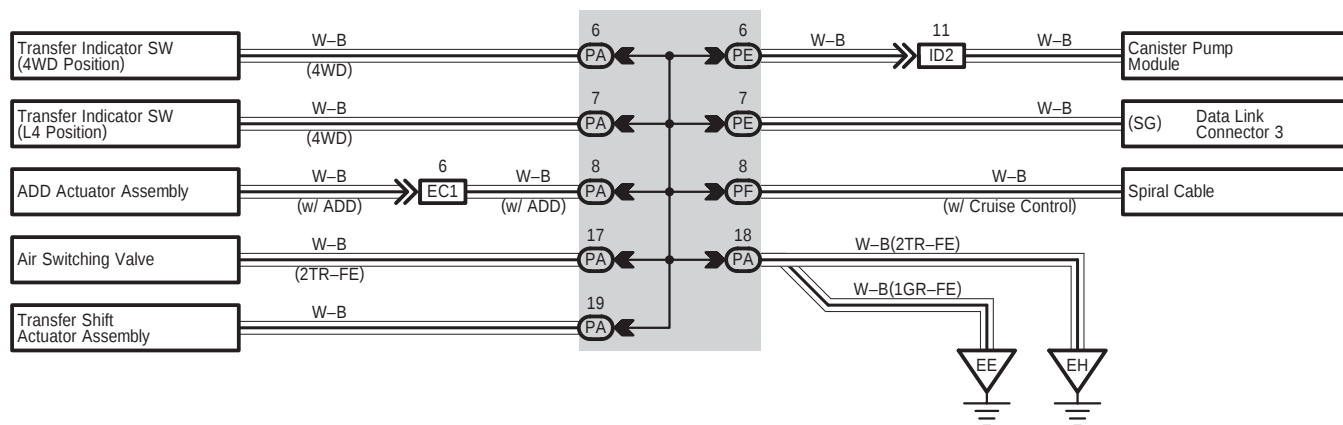
2006 TOYOTA TACOMA ELECTRICAL WIRING DIAGRAM SYSTEM CIRCUITS

	Page
ABS (w/ VSC)	172
ABS (w/o VSC)	182
Accessory Meter	234
Air Conditioning	268
Audio System (Built-in Type Amplifier)	260
Audio System (Separate Type Amplifier)	256
Auto LSD	172
Automatic Glare-Resistant EC Mirror	230
Back-Up Light	126
Charging	76
Cigarette Lighter	244
Clock	250
Combination Meter	262
Cruise Control (1GR-FE)	158
Cruise Control (2TR-FE)	164
Door Lock Control	202
Downhill Assist Control	172
Electronically Controlled Transmission and A/T Indicator (1GR-FE)	144
Electronically Controlled Transmission and A/T Indicator (2TR-FE)	152
Engine Control (1GR-FE)	78
Engine Control (2TR-FE)	90
Engine Immobiliser System (1GR-FE)	102
Engine Immobiliser System (2TR-FE)	106
Front Fog Light	116
Headlight	110
Hill-Start Assist Control	172
Horn	238
Ignition	72
Illumination	122
Interior Light	130
Key Reminder	142
Light Auto Turn Off System	138
Multi Mode 4WD	212
Multiplex Communication System (CAN)	170
Power Outlet (115V)	240
Power Outlet (12V)	244
Power Source	64
Power Window	196
Rear Differential Lock (2WD)	218
Rear Differential Lock (4WD)	212
Remote Control Mirror	228
Seat Belt Warning	232
Shift Lock	226
SRS	187
Starting	68
Stop Light	128
Taillight	118

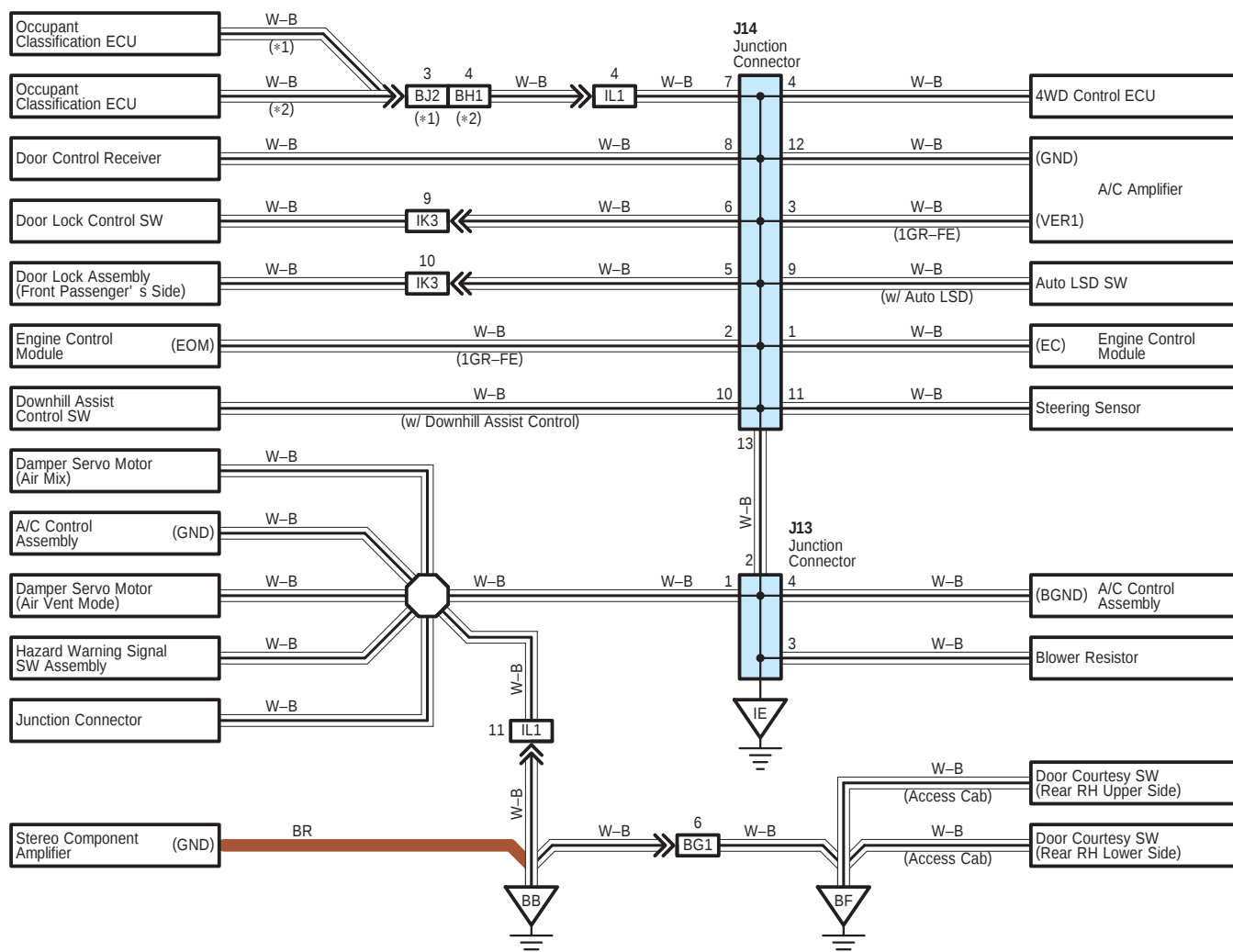
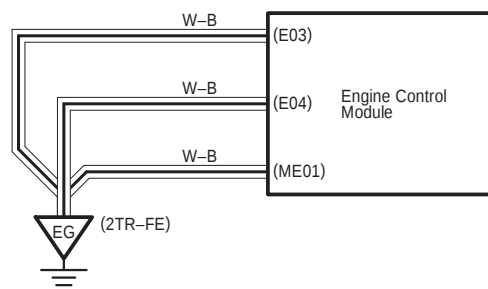
	Page
Tire Pressure Warning System	252
TRAC	172
Trailer Towing	246
Turn Signal and Hazard Warning Light	134
VSC	172
Wiper and Washer (w/ INT Time SW)	222
Wiper and Washer (w/o INT Time SW)	224
Wireless Door Lock Control	206

I GROUND POINT

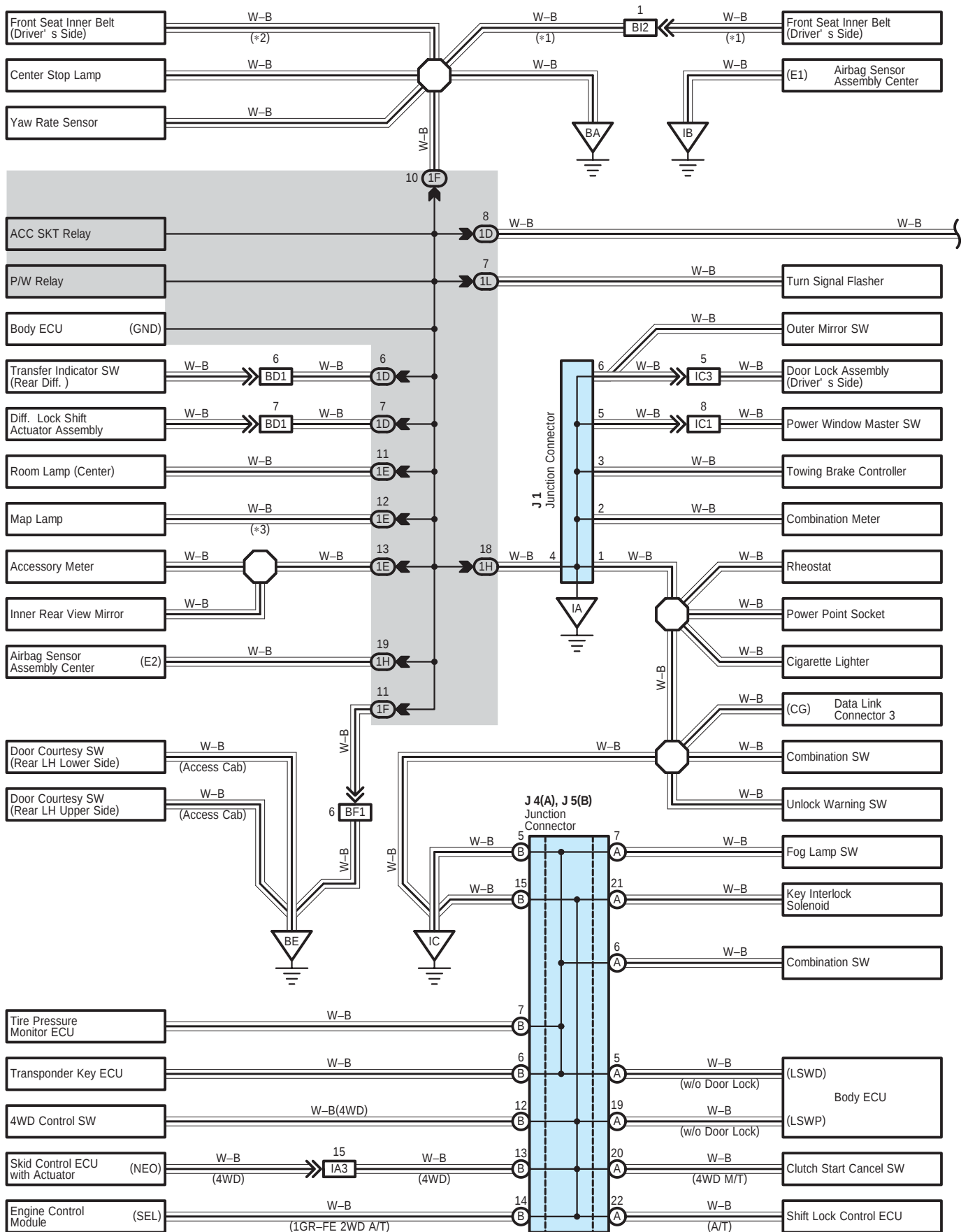


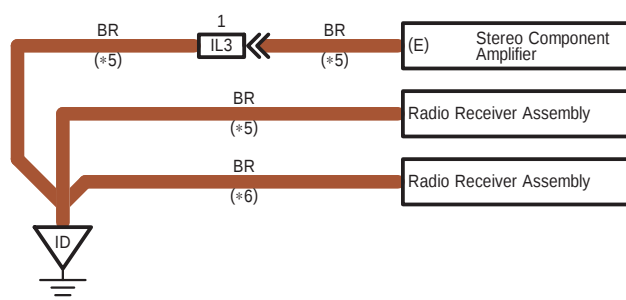
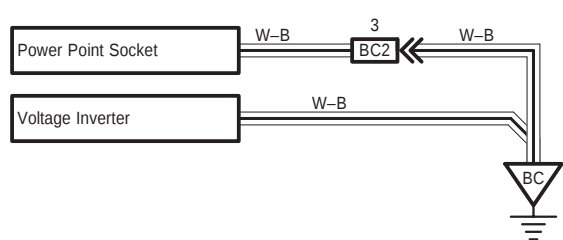
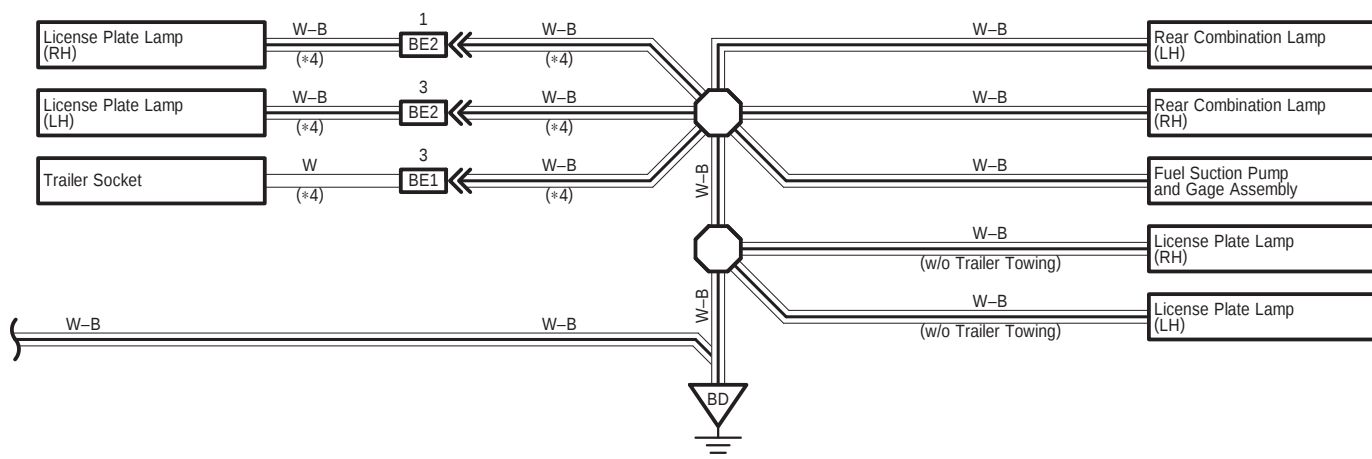


* 1 : Bench Seat
* 2 : Separate Seat



I GROUND POINT





- * 1 : Bench Seat
- * 2 : Separate Seat
- * 3 : w/ Automatic Glare-Resistant EC Mirror
- * 4 : w/ Trailer Towing
- * 5 : Separate Type Amplifier
- * 6 : Built-in Type Amplifier

I GROUND POINT

: Parts Location

Code	See Page	Code	See Page	Code	See Page
J1	45	J5	B	J13	45
J4	A	J12	45	J14	45

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	24	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	28	Frame Wire and Driver Side J/B (Lower Finish Panel)
1E	28	Roof Wire and Driver Side J/B (Lower Finish Panel)
1F	28	Floor No.2 Wire and Driver Side J/B (Lower Finish Panel)
1H	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
1L	29	Relay Wire and Driver Side J/B (Lower Finish Panel)
2A	24	Engine Room J/B (Engine Compartment Left)
PA	36	Engine Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PE	36	Instrument Panel Wire and Instrument Panel J/B No.2 (Right Side of Glove Box)
PF		

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EC1	52 (1GR-FE)	Engine Wire and Differential Wire (Near the Front Differential)
	53 (2TR-FE)	
IA3	54	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IC1	54	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IC3		
ID2	54	Frame Wire and Instrument Panel Wire (Left Kick Panel)
IK3	55	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
IL1	55	Instrument Panel Wire and Floor Wire (Right Kick Panel)
IL3		
BC2	56 (*1)	Frame No.2 Wire and Floor No.3 Wire (Floor Seat Cross Member RH)
	57 (*2)	
BD1	56 (*1)	Frame Wire and Differential Wire (Near the Rear Differential)
	57 (*2)	
	58 (*3)	
BE1	56 (*1)	Frame No.3 Wire and Frame Wire (Behind the Trailer Socket)
	57 (*2)	
BE2	56 (*1)	
	57 (*2)	
BF1	57 (*2)	Rear Door No.2 Wire and Floor No.2 Wire (Under the Left Quarter Panel)
BG1	57 (*2)	Rear Door No.1 Wire and Floor Wire (Under the Right Quarter Panel)
BH1	60 (*4)	Floor Wire and Seat No.1 Wire (Under the Front Passenger's Seat)
BI2	61 (*5)	Floor No.2 Wire and Seat No.1 Wire (Under the Front Seat LH)
BJ2	61 (*5)	Floor Wire and Seat No.1 Wire (Under the Front Seat RH)

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat



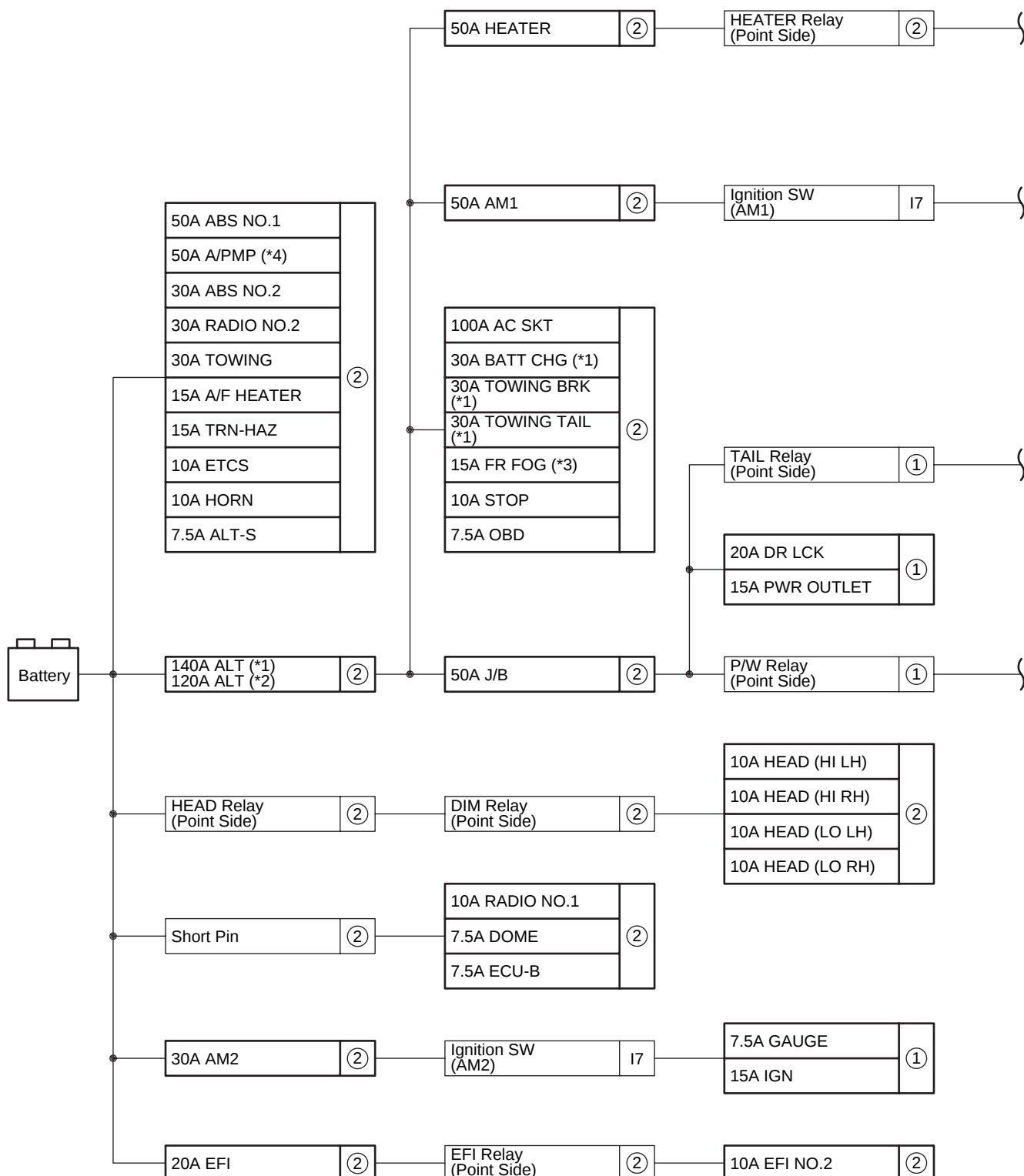
: Ground Points

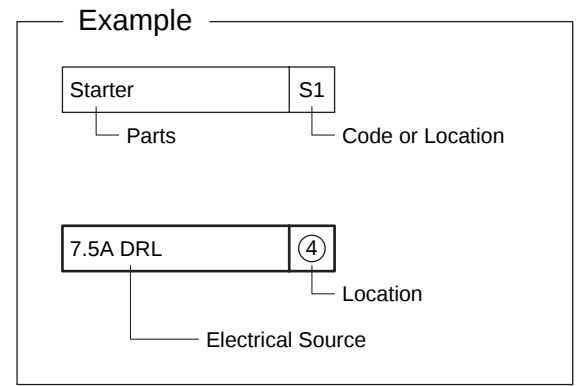
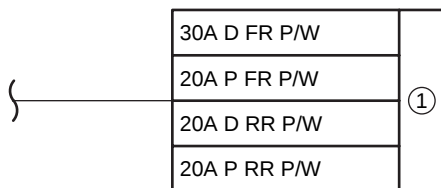
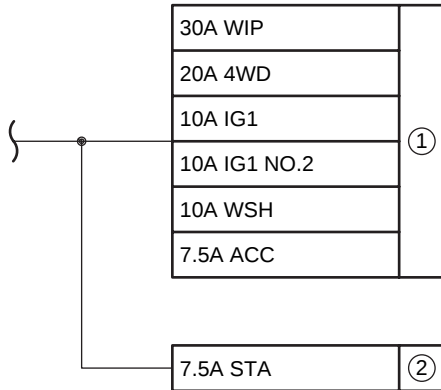
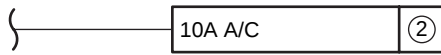
Code	See Page	Ground Points Location
EA	52 (1GR-FE)	Front Right Fender
	53 (2TR-FE)	
EB	52 (1GR-FE)	Front Left Fender
	53 (2TR-FE)	
EC	52 (1GR-FE)	Near the Front Differential
ED	52 (1GR-FE)	Rear Side of Right Bank Cylinder Block
EE		
EF	52 (1GR-FE)	Rear Side of Left Bank Cylinder Block
EG	53 (2TR-FE)	Rear Side of Cylinder Block
EH		
IA	54	Left Kick Panel
IB	54	Instrument Panel Brace LH
IC	54	Instrument Panel Brace RH
ID		
IE	54	Right Kick Panel
BA	56 (*1)	Floor Seat Cross Member LH
	57 (*2)	
	58 (*3)	
BB	56 (*1)	Floor Seat Cross Member RH
	57 (*2)	
	58 (*3)	
BC	56 (*1)	Near the Voltage Inverter
	57 (*2)	
BD	56 (*1)	Near the Rear Differential
	57 (*2)	
	58 (*3)	
BE	57 (*2)	Inside of the Access Door LH
BF	57 (*2)	Inside of the Access Door RH

* 1 : Double Cab * 2 : Access Cab * 3 : Regular Cab * 4 : Separate Seat * 5 : Bench Seat

J POWER SOURCE (Current Flow Chart)

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





- * 1:w/ Trailer Towing
- * 2:w/o Trailer Towing
- * 3:1GR-FE
- * 4:2TR-FE

[LOCATION]

① : Driver Side J/B (See Page 28)

② : Engine Room R/B and Engine Room J/B (See Page 24)

J POWER SOURCE (Current Flow Chart)

Driver Side J/B (See Page 28)

Fuse		System	Page
7.5A	ACC	Audio System (Built-in Type Amplifier)	260
		Audio System (Separate Type Amplifier)	256
		Cigarette Lighter and Power Outlet (12V)	244
		Clock	250
		Remote Control Mirror	228
		Shift Lock	226
7.5A	GAUGE	ABS (w/ VSC), TRAC, VSC, Auto LSD, Downhill Assist Control and Hill-Start Assist Control	172
		ABS (w/o VSC)	182
		Accessory Meter	234
		Air Conditioning	268
		Charging	76
		Combination Meter	262
		Cruise Control (1GR-FE)	158
		Cruise Control (2TR-FE)	164
		Electronically Controlled Transmission and A/T Indicator (1GR-FE)	144
		Electronically Controlled Transmission and A/T Indicator (2TR-FE)	152
		Engine Control (1GR-FE)	78
		Engine Control (2TR-FE)	90
		Key Reminder	142
		Multi Mode 4WD and Rear Differential Lock	212
		Power Outlet (115V)	240
		Rear Differential Lock (2WD)	218
10A	IG1	Seat Belt Warning	232
		SRS	187
		Tire Pressure Warning System	252
		ABS (w/ VSC), TRAC, VSC, Auto LSD, Downhill Assist Control and Hill-Start Assist Control	172
		ABS (w/o VSC)	182
		Accessory Meter	234
		Air Conditioning	268
		Back-Up Light	126
		Charging	76
		Combination Meter	262
		Cruise Control (1GR-FE)	158
		Cruise Control (2TR-FE)	164
		Electronically Controlled Transmission and A/T Indicator (1GR-FE)	144
		Electronically Controlled Transmission and A/T Indicator (2TR-FE)	152
		Engine Control (1GR-FE)	78
		Engine Control (2TR-FE)	90
		Headlight	110
		Multi Mode 4WD and Rear Differential Lock	212
		Power Outlet (115V)	240

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

Fuse		System	Page
10A	IG1	Rear Differential Lock (2WD)	218
		Seat Belt Warning	232
		Shift Lock	226
		SRS	187
		Tire Pressure Warning System	252
		Trailer Towing	246
		Turn Signal and Hazard Warning Light	134
10A	IG1 NO.2	ABS (w/ VSC), TRAC, VSC, Auto LSD, Downhill Assist Control and Hill-Start Assist Control	172
		ABS (w/o VSC)	182
		Accessory Meter	234
		Air Conditioning	268
		Automatic Glare-Resistant EC Mirror	230
		Charging	76
		Cruise Control (1GR-FE)	158
		Cruise Control (2TR-FE)	164
		Door Lock Control	202
		Electronically Controlled Transmission and A/T Indicator (1GR-FE)	144
		Electronically Controlled Transmission and A/T Indicator (2TR-FE)	152
		Engine Control (1GR-FE)	78
		Engine Control (2TR-FE)	90
		Headlight	110
		Illumination	122
		Interior Light	130
		Light Auto Turn Off System	138
		Multi Mode 4WD and Rear Differential Lock	212
		Power Outlet (115V)	240
		Power Window	196
		Rear Differential Lock (2WD)	218
		Shift Lock	226
		Starting	68
		Stop Light	128
		Tire Pressure Warning System	252
		Trailer Towing	246
		Wireless Door Lock Control	206
10A	TAIL	Accessory Meter	234
		Clock	250
		Combination Meter	262
		Engine Control (1GR-FE)	78
		Engine Control (2TR-FE)	90
		Illumination	122
		Taillight	118
		Trailer Towing	246

* 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	WSH	Wiper and Washer (w/ INT Time SW)	222
		Wiper and Washer (w/o INT Time SW)	224
15A	IGN	ABS (w/ VSC), TRAC, VSC, Auto LSD, Downhill Assist Control and Hill-Start Assist Control	172
		Cruise Control (1GR-FE)	158
		Cruise Control (2TR-FE)	164
		Electronically Controlled Transmission and A/T Indicator (1GR-FE)	144
		Electronically Controlled Transmission and A/T Indicator (2TR-FE)	152
		Engine Control (1GR-FE)	78
		Engine Control (2TR-FE)	90
		Engine Immobiliser System (1GR-FE)	102
		Engine Immobiliser System (2TR-FE)	106
		SRS	187
15A	PWR OUTLET	Cigarette Lighter and Power Outlet (12V)	244
20A	D RR P/W	Power Window	196
20A	DR LCK	Door Lock Control	202
		Headlight	110
		Interior Light	130
		Power Window	196
		Wireless Door Lock Control	206
20A	P FR P/W	Power Window	196
20A	P RR P/W	Power Window	196
20A	4WD	Multi Mode 4WD and Rear Differential Lock	212
		Rear Differential Lock (2WD)	218
30A	D FR P/W	Power Window	196
30A	WIP	Wiper and Washer (w/ INT Time SW)	222
		Wiper and Washer (w/o INT Time SW)	224

Engine Room R/B and Engine Room J/B (See Page 24)

Fuse		System	Page
7.5A	ALT-S	Charging	76
7.5A	DOME	Clock	250
		Interior Light	130
		Wireless Door Lock Control	206
7.5A	ECU-B	ABS (w/ VSC), TRAC, VSC, Auto LSD, Downhill Assist Control and Hill-Start Assist Control	172
		Accessory Meter	234
		Air Conditioning	268
		Combination Meter	262
		Cruise Control (1GR-FE)	158
		Cruise Control (2TR-FE)	164
		Door Lock Control	202
		Electronically Controlled Transmission and A/T Indicator (1GR-FE)	144
		Electronically Controlled Transmission and A/T Indicator (2TR-FE)	152

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

Fuse		System	Page
7.5A	ECU-B	Engine Control (1GR-FE)	78
		Engine Control (2TR-FE)	90
		Engine Immobiliser System (1GR-FE)	102
		Engine Immobiliser System (2TR-FE)	106
		Headlight	110
		Interior Light	130
		Key Reminder	142
		Light Auto Turn Off System	138
		Multi Mode 4WD and Rear Differential Lock	212
		Power Outlet (115V)	240
		Power Window	196
		Rear Differential Lock (2WD)	218
		SRS	187
		Tire Pressure Warning System	252
		Wireless Door Lock Control	206
7.5A	OBD	Engine Control (1GR-FE)	78
		Engine Control (2TR-FE)	90
7.5A	STA	Electronically Controlled Transmission and A/T Indicator (1GR-FE)	144
		Electronically Controlled Transmission and A/T Indicator (2TR-FE)	152
		Engine Control (1GR-FE)	78
		Engine Control (2TR-FE)	90
		Multi Mode 4WD and Rear Differential Lock	212
		Power Outlet (115V)	240
		Starting	68
10A	A/C	Air Conditioning	268
10A	EFI NO.2	Engine Control (1GR-FE)	78
		Engine Control (2TR-FE)	90
10A	ETCS	Cruise Control (1GR-FE)	158
		Cruise Control (2TR-FE)	164
		Electronically Controlled Transmission and A/T Indicator (1GR-FE)	144
		Electronically Controlled Transmission and A/T Indicator (2TR-FE)	152
		Engine Control (1GR-FE)	78
		Engine Control (2TR-FE)	90
10A	HEAD (HI LH)	Combination Meter	262
		Headlight	110
10A	HEAD (HI RH)	Headlight	110
10A	HEAD (LO LH)	Headlight	110
10A	HEAD (LO RH)	Combination Meter	262
		Front Fog Light	116
		Headlight	110
10A	HORN	Horn	238
		Wireless Door Lock Control	206
10A	RADIO NO.1	Audio System (Built-in Type Amplifier)	260
		Audio System (Separate Type Amplifier)	256

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

J POWER SOURCE (Current Flow Chart)

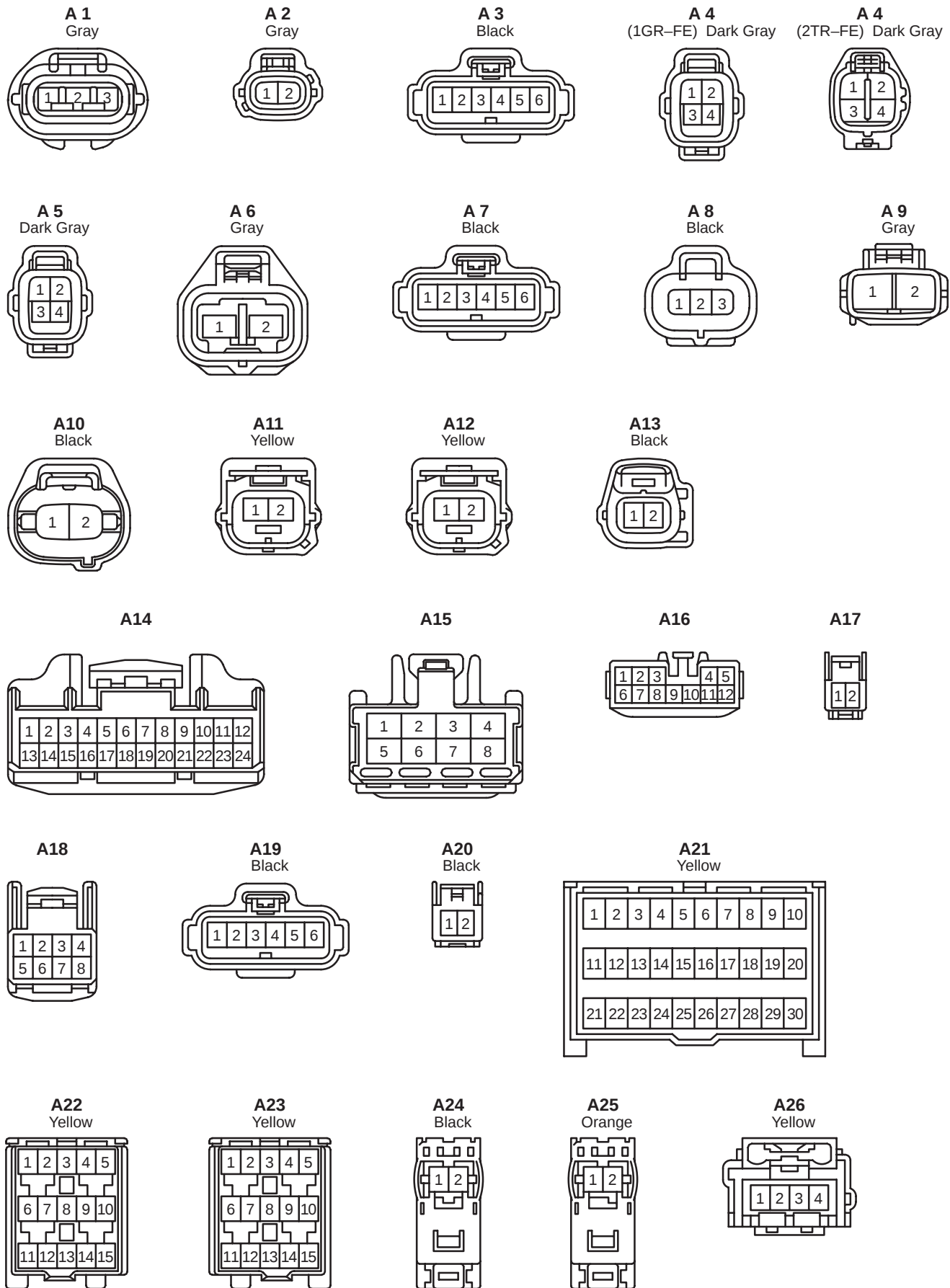
Fuse		System	Page
10A	STOP	ABS (w/ VSC), TRAC, VSC, Auto LSD, Downhill Assist Control and Hill-Start Assist Control	172
		ABS (w/o VSC)	182
		Cruise Control (1GR-FE)	158
		Cruise Control (2TR-FE)	164
		Electronically Controlled Transmission and A/T Indicator (1GR-FE)	144
		Electronically Controlled Transmission and A/T Indicator (2TR-FE)	152
		Engine Control (1GR-FE)	78
		Engine Control (2TR-FE)	90
		Shift Lock	226
		Stop Light	128
		Trailer Towing	246
15A	A/F HEATER	Engine Control (1GR-FE)	78
		Engine Control (2TR-FE)	90
15A	FR FOG	Front Fog Light	116
15A	TRN-HAZ	Headlight	110
		Trailer Towing	246
		Turn Signal and Hazard Warning Light	134
20A	EFI	Cruise Control (1GR-FE)	158
		Cruise Control (2TR-FE)	164
		Electronically Controlled Transmission and A/T Indicator (1GR-FE)	144
		Electronically Controlled Transmission and A/T Indicator (2TR-FE)	152
		Engine Control (1GR-FE)	78
		Engine Control (2TR-FE)	90
		Engine Immobiliser System (1GR-FE)	102
		Engine Immobiliser System (2TR-FE)	106
30A	ABS NO.2	ABS (w/ VSC), TRAC, VSC, Auto LSD, Downhill Assist Control and Hill-Start Assist Control	172
		ABS (w/o VSC)	182
30A	AM2	Engine Control (1GR-FE)	78
		Engine Control (2TR-FE)	90
		Ignition	72
		Starting	68
30A	BATT CHG	Trailer Towing	246
30A	RADIO NO.2	Audio System (Separate Type Amplifier)	256
30A	TOWING	Trailer Towing	246
30A	TOWING BRK	Trailer Towing	246
30A	TOWING TAIL	Trailer Towing	246
50A	ABS NO.1	ABS (w/ VSC), TRAC, VSC, Auto LSD, Downhill Assist Control and Hill-Start Assist Control	172
		ABS (w/o VSC)	182
50A	AM1	Starting	68
50A	A/PMP	Engine Control (2TR-FE)	90
50A	HEATER	Air Conditioning	268

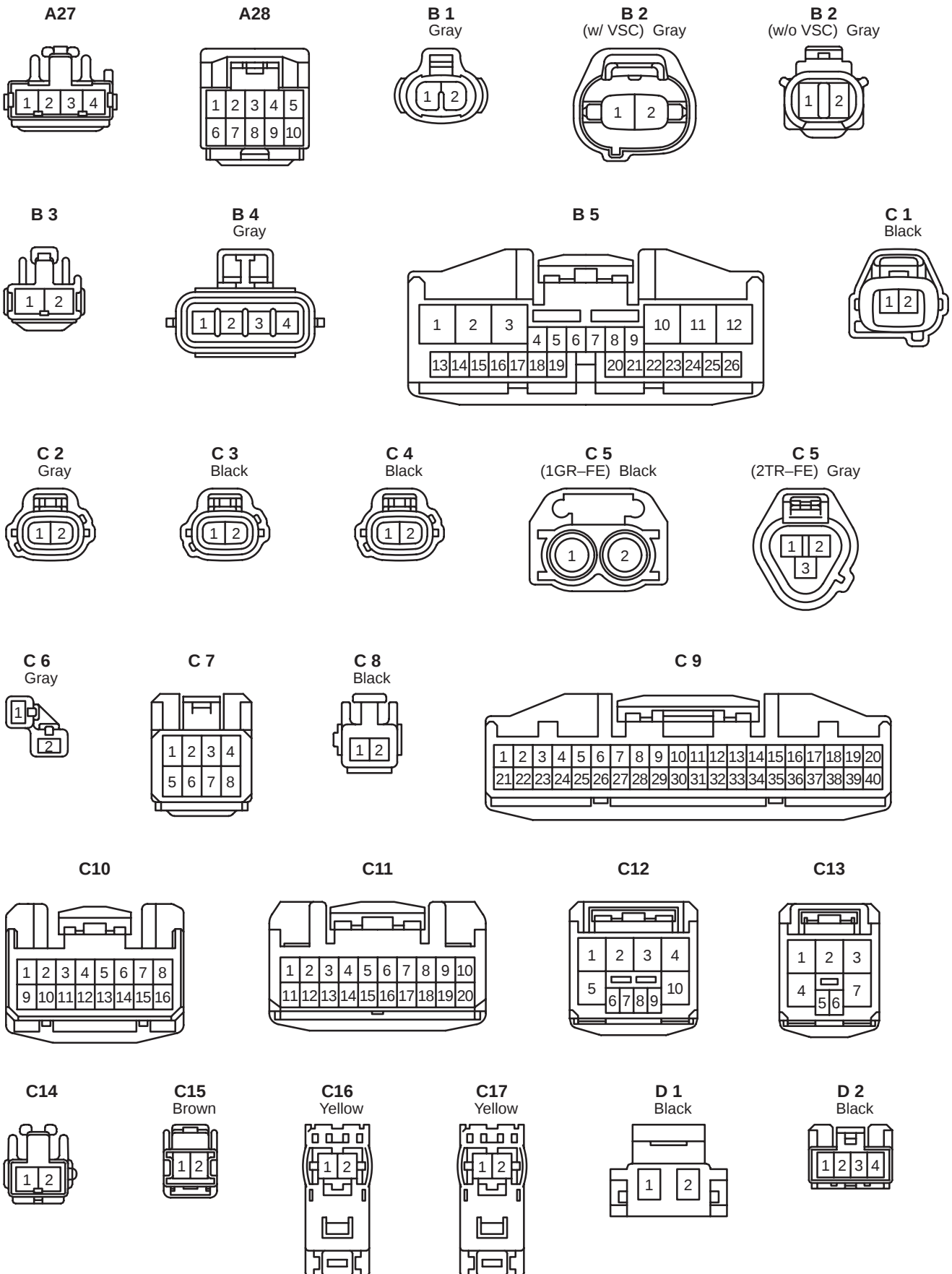
* These are the page numbers of the first page on which the related system is shown.

Fuse		System	Page
50A	J/B	Accessory Meter	234
		Clock	250
		Combination Meter	262
		Engine Control (1GR-FE)	78
		Engine Control (2TR-FE)	90
		Illumination	122
		Light Auto Turn Off System	138
		Power Window	196
		Taillight	118
		Trailer Towing	246
100A	AC SKT	Power Outlet (115V)	240
120A	ALT (w/o Trailer Towing)	Charging	76
		Light Auto Turn Off System	138
		Starting	68
140A	ALT (w/ Trailer Towing)	Charging	76
		Light Auto Turn Off System	138
		Starting	68

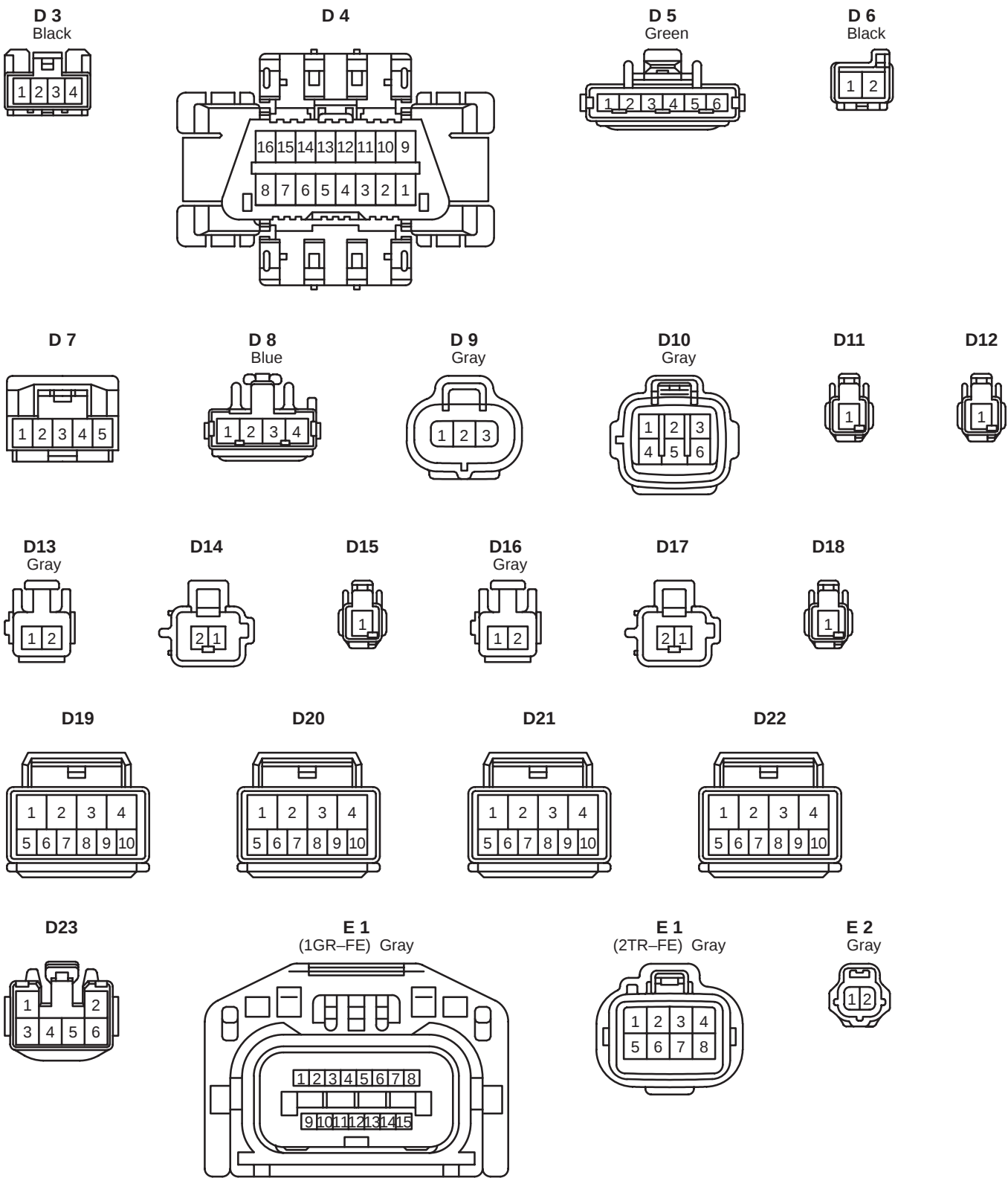
* These are the page numbers of the first page on which the related system is shown.

K CONNECTOR LIST





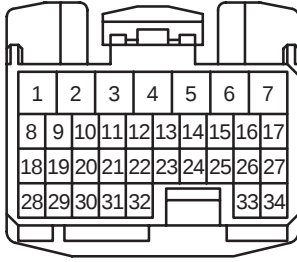
K CONNECTOR LIST



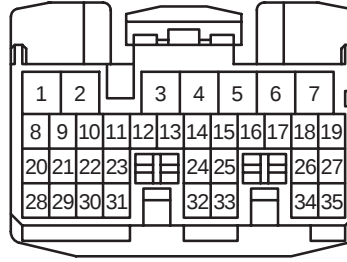
E 3
Gray



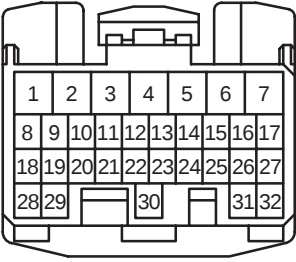
E 4



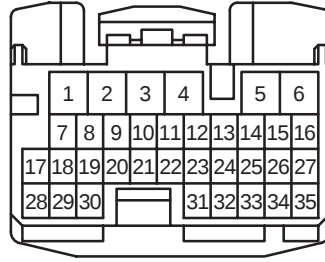
E 5



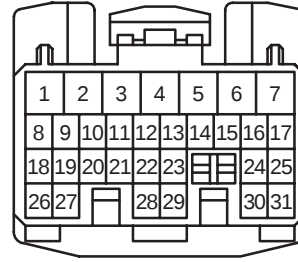
E 6



E 7



E 8



F 1
Black



F 2
Black



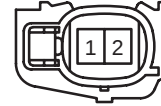
F 3
Gray



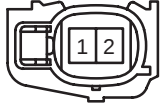
F 4
Gray



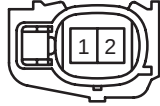
F 5
(1GR-FE) Gray



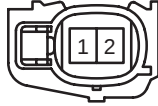
F 5
(2TR-FE) Brown



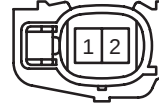
F 6
Gray



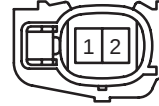
F 7
(1GR-FE) Gray



F 7
(2TR-FE) Brown



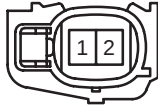
F 8
Gray



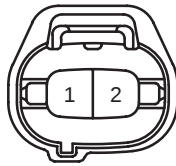
F 9
Gray



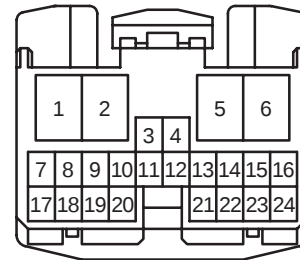
F 10
Gray



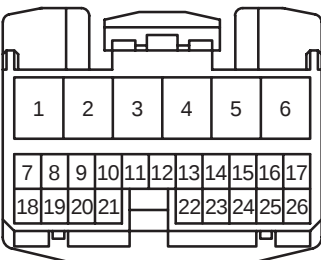
F 11
Dark Gray



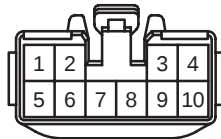
F 12



F 13



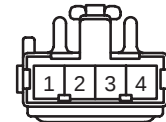
F 14



F 15
Black



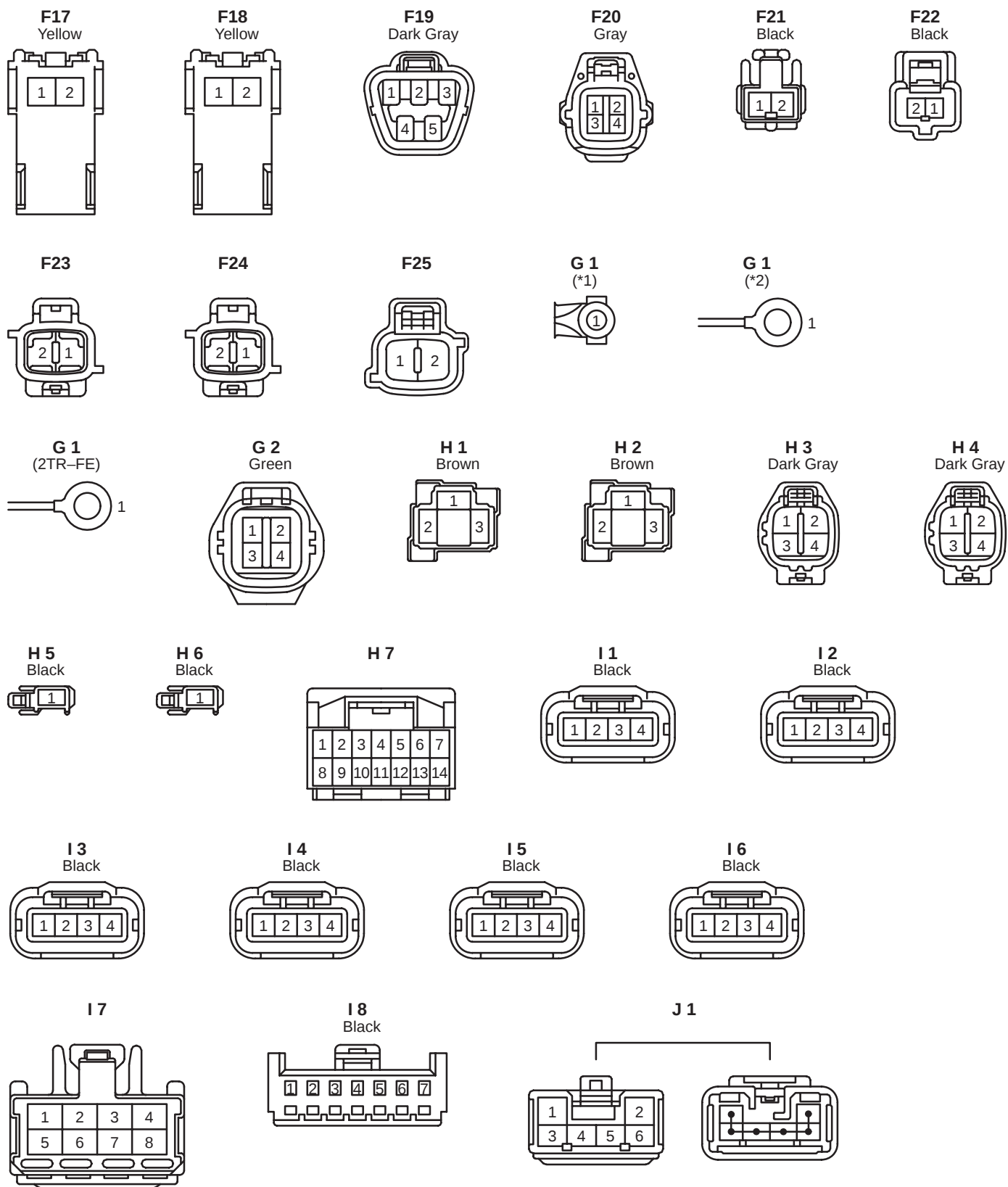
F 16
Black

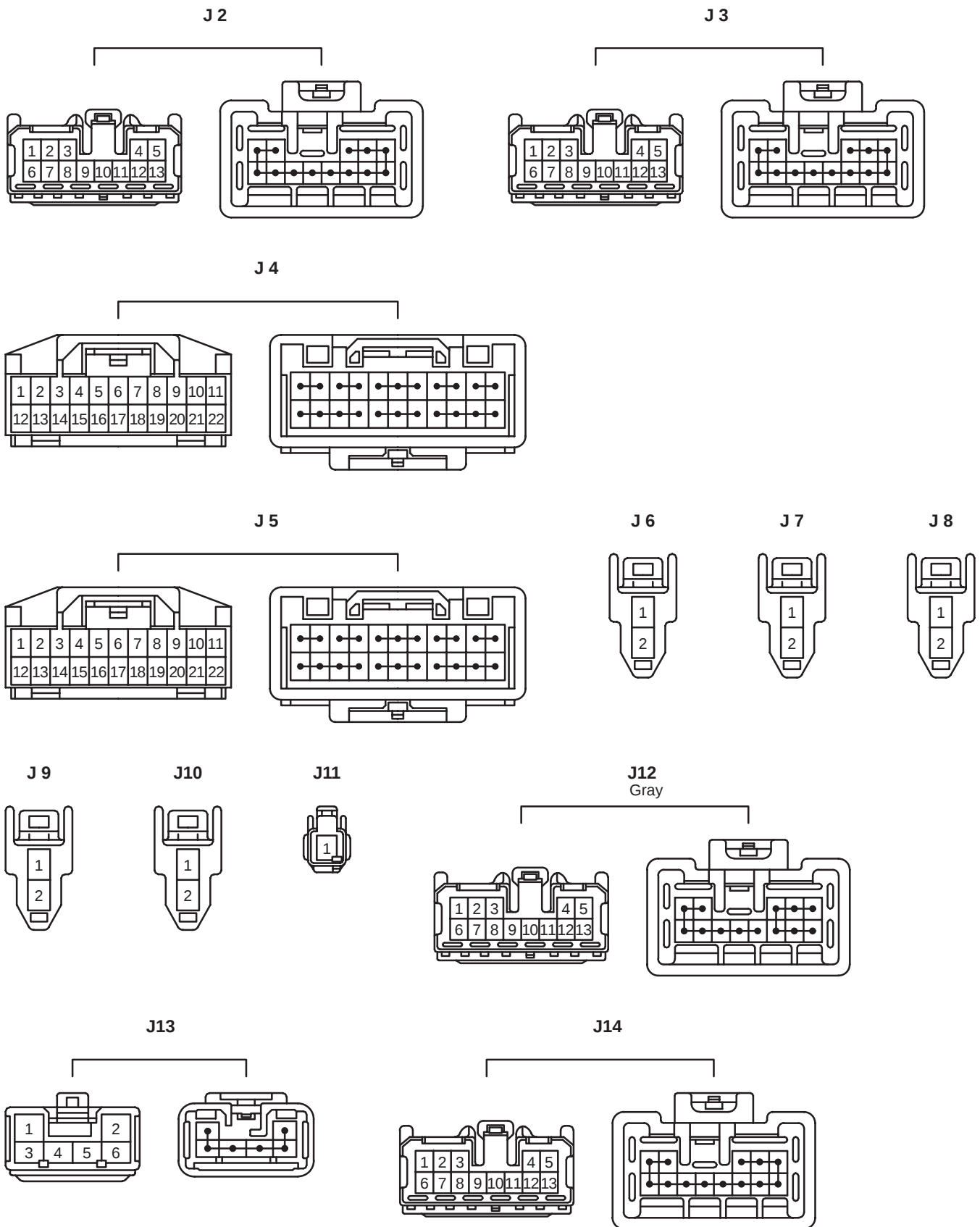


K CONNECTOR LIST

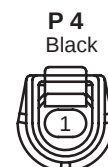
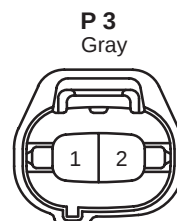
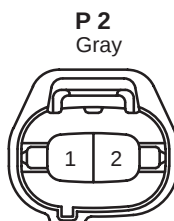
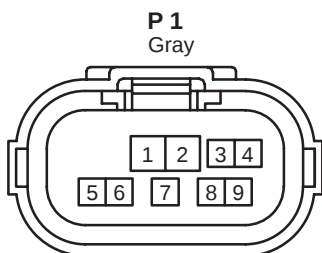
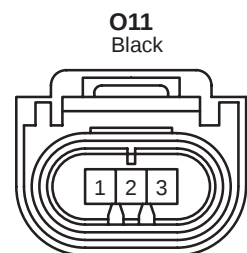
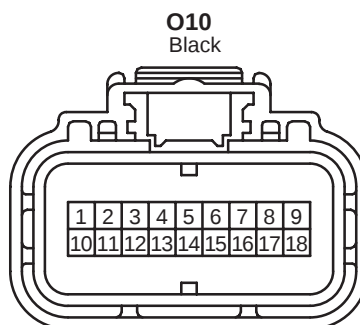
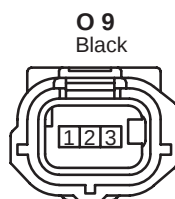
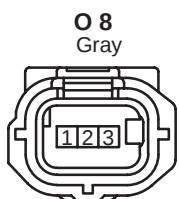
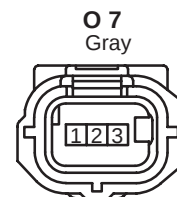
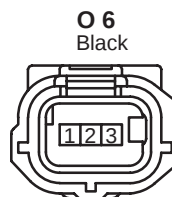
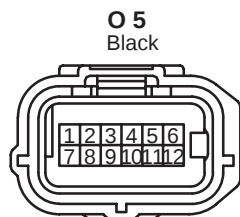
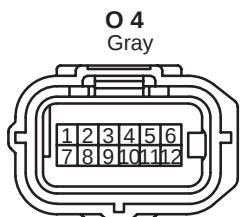
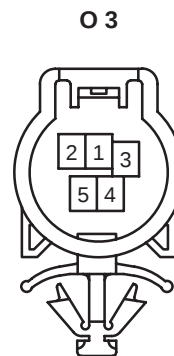
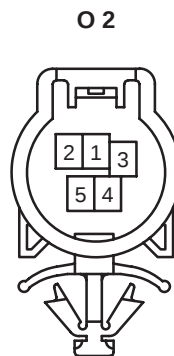
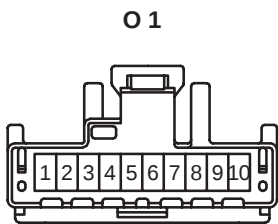
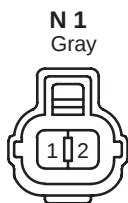
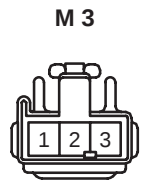
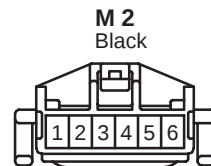
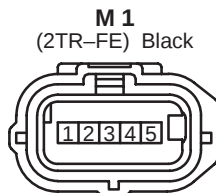
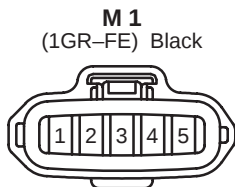
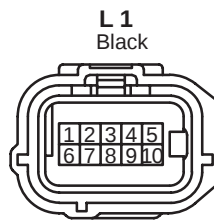
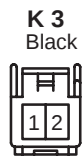
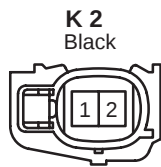
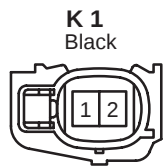
*1 : 1GR-FE 130A Type Generator

*2 : 1GR-FE 80A Type Generator





K CONNECTOR LIST

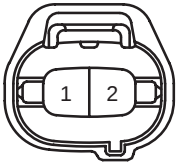


*3 : Except Double Cab

*4 : Built-in Type Amplifier

*5 : Separate Type Amplifier

P 5
Gray



P 6
Black



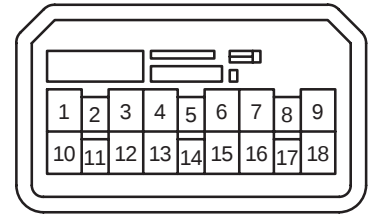
P 7



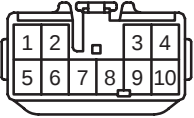
P 8
Black



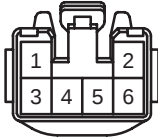
P 9
(Double Cab)



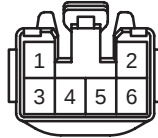
P 9
(*3)



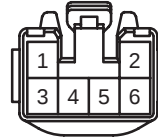
P10
Black



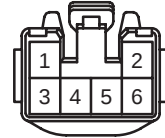
P11
Black



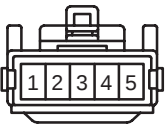
P12
Black



P13
Black



P14



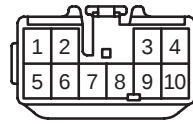
P15



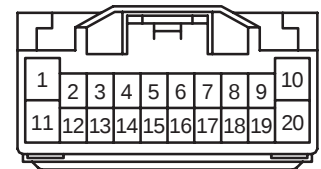
P16



R 1
(*4)



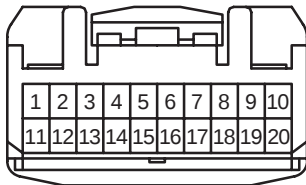
R 1
(*5)



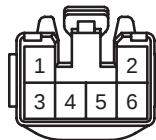
R 2



R 3



R 4
Blue



R 5
Gray



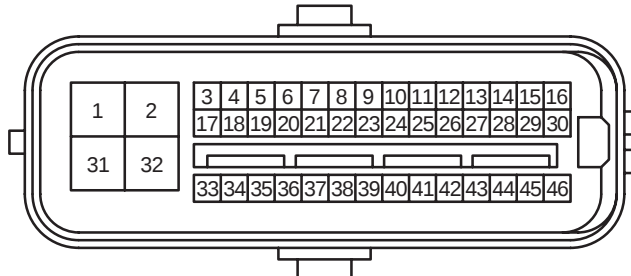
R 6
Gray



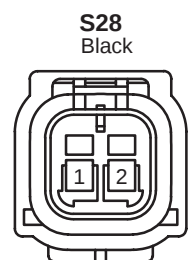
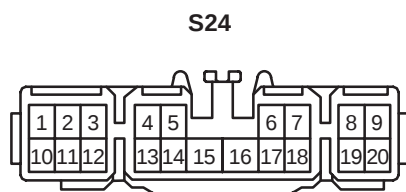
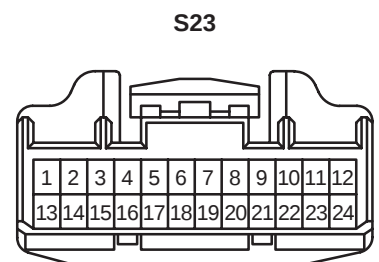
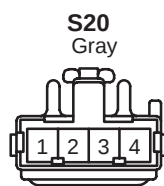
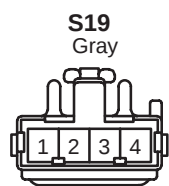
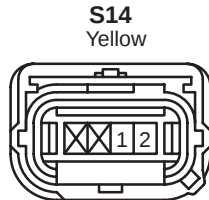
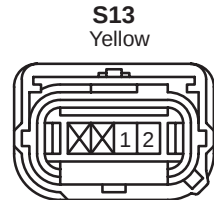
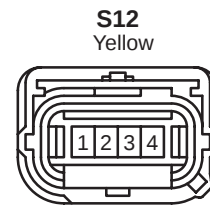
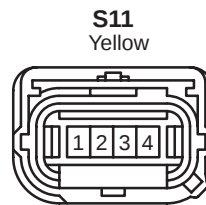
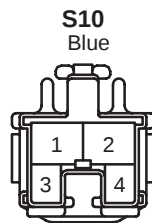
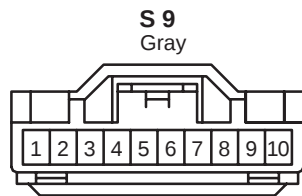
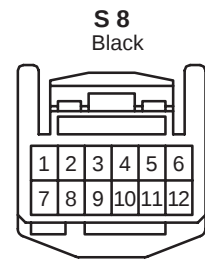
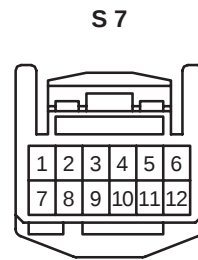
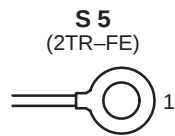
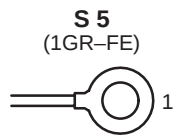
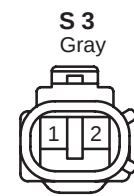
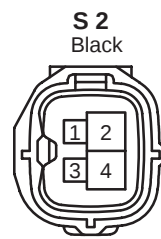
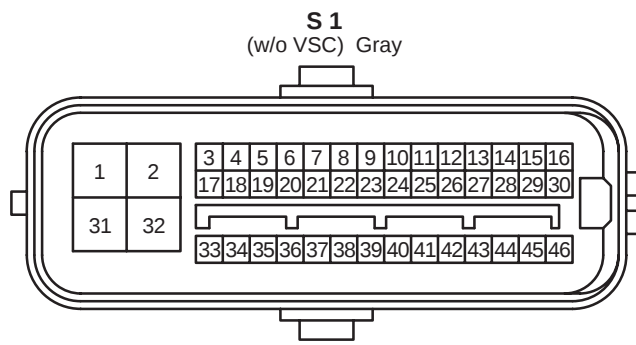
R 7



S 1
(w/ VSC) Black



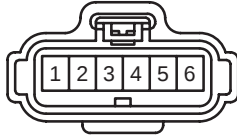
K CONNECTOR LIST



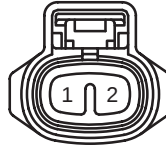
S29
Gray



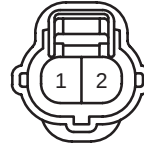
T 1
Black



T 2
Gray



T 3
Gray



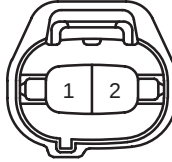
T 4
Black



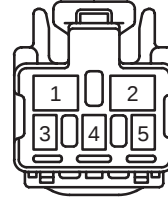
T 5
Black



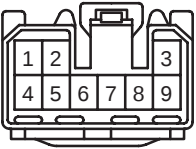
T 6
Black



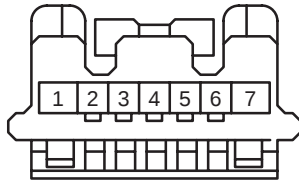
T 7



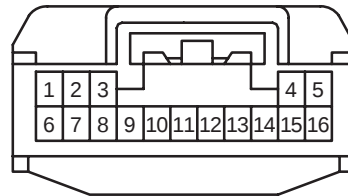
T 8



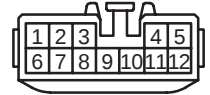
T 9
Black



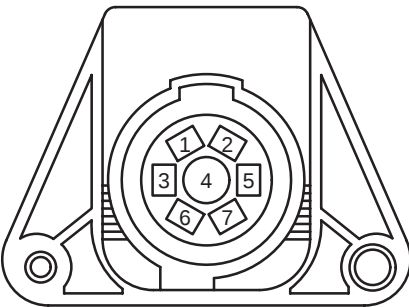
T10



T11
Black



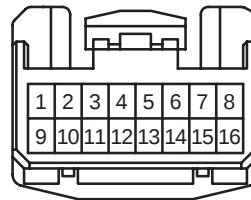
T12
Black



T13
Gray



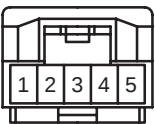
T14



T15
Black



T16



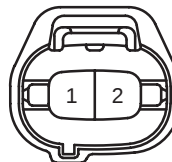
U 1



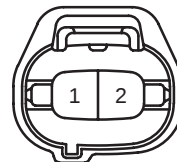
V 1
Black



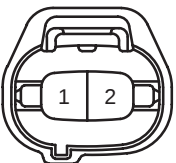
V 2
Black



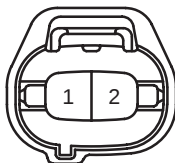
V 3
Black



V 4
(1GR-FE) Gray



V 4
(2TR-FE) Black



V 5
Black



V 6
Black

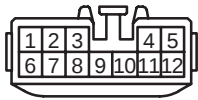


V 7
Black

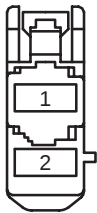


K CONNECTOR LIST

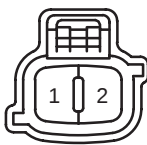
V 8



V 9



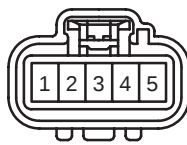
W 1
Black



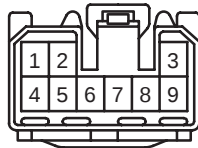
W 2
Black



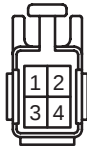
Y 1
Black



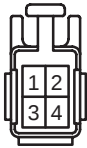
Z 1



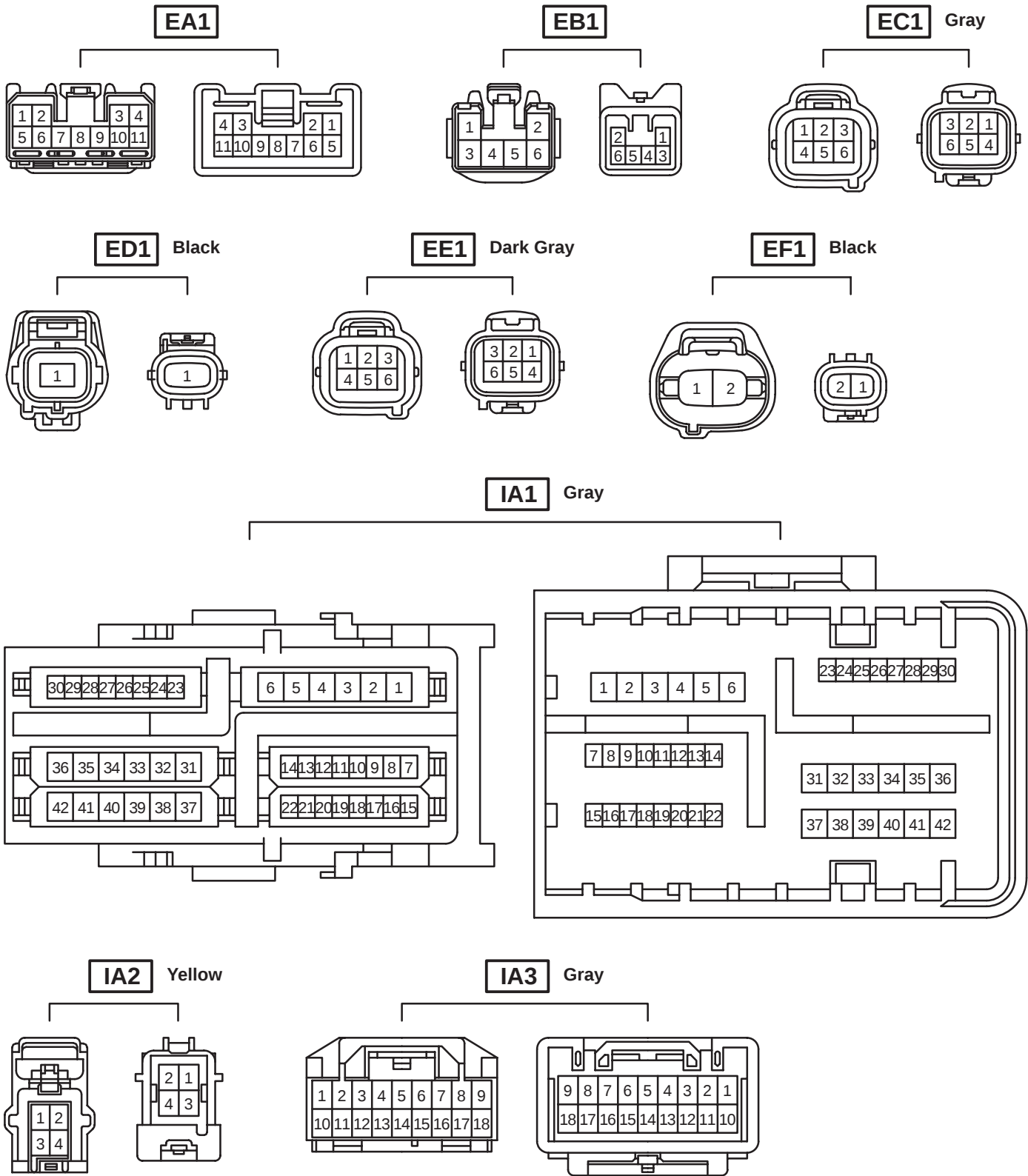
Z 2

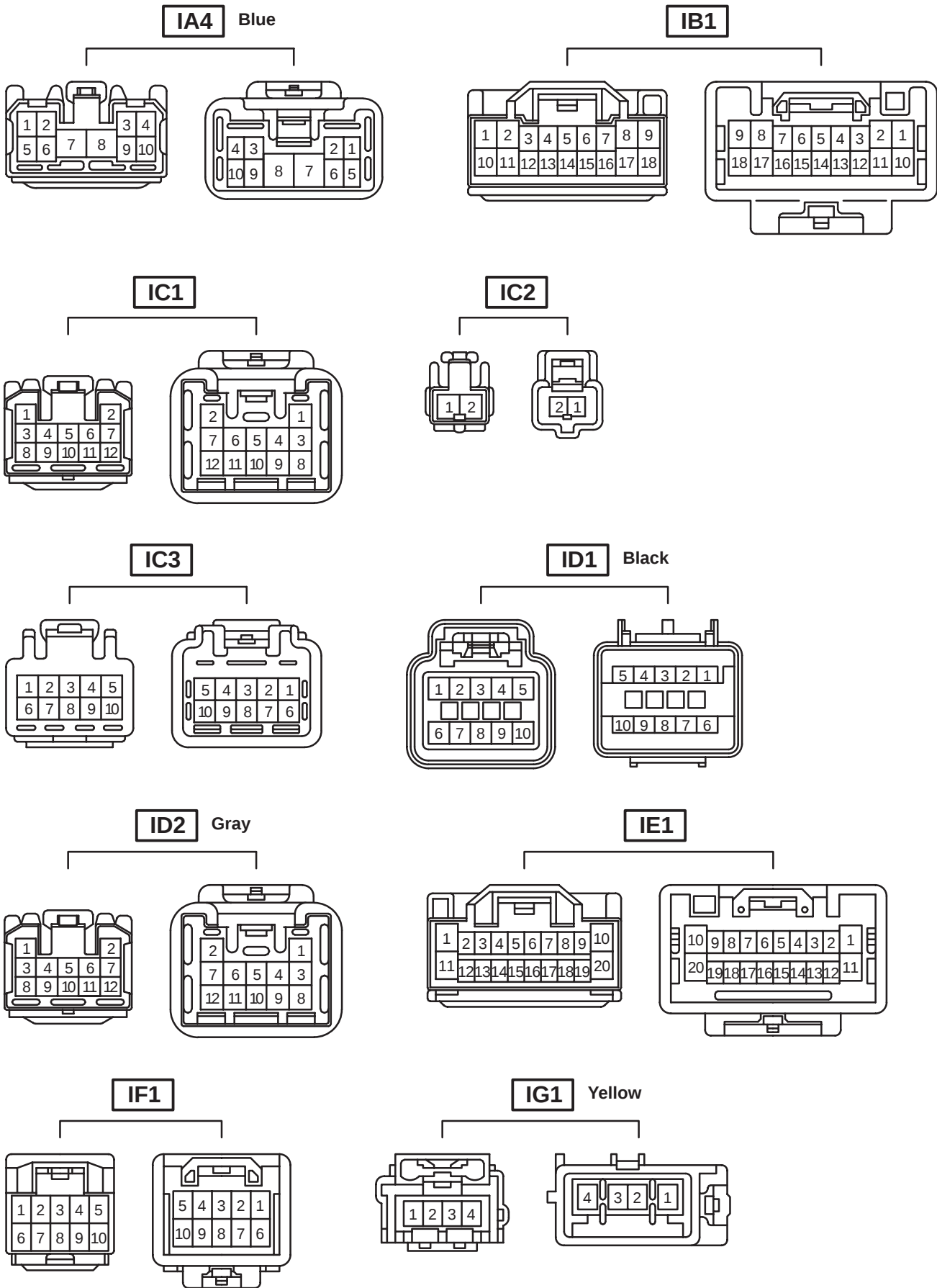


Z 3

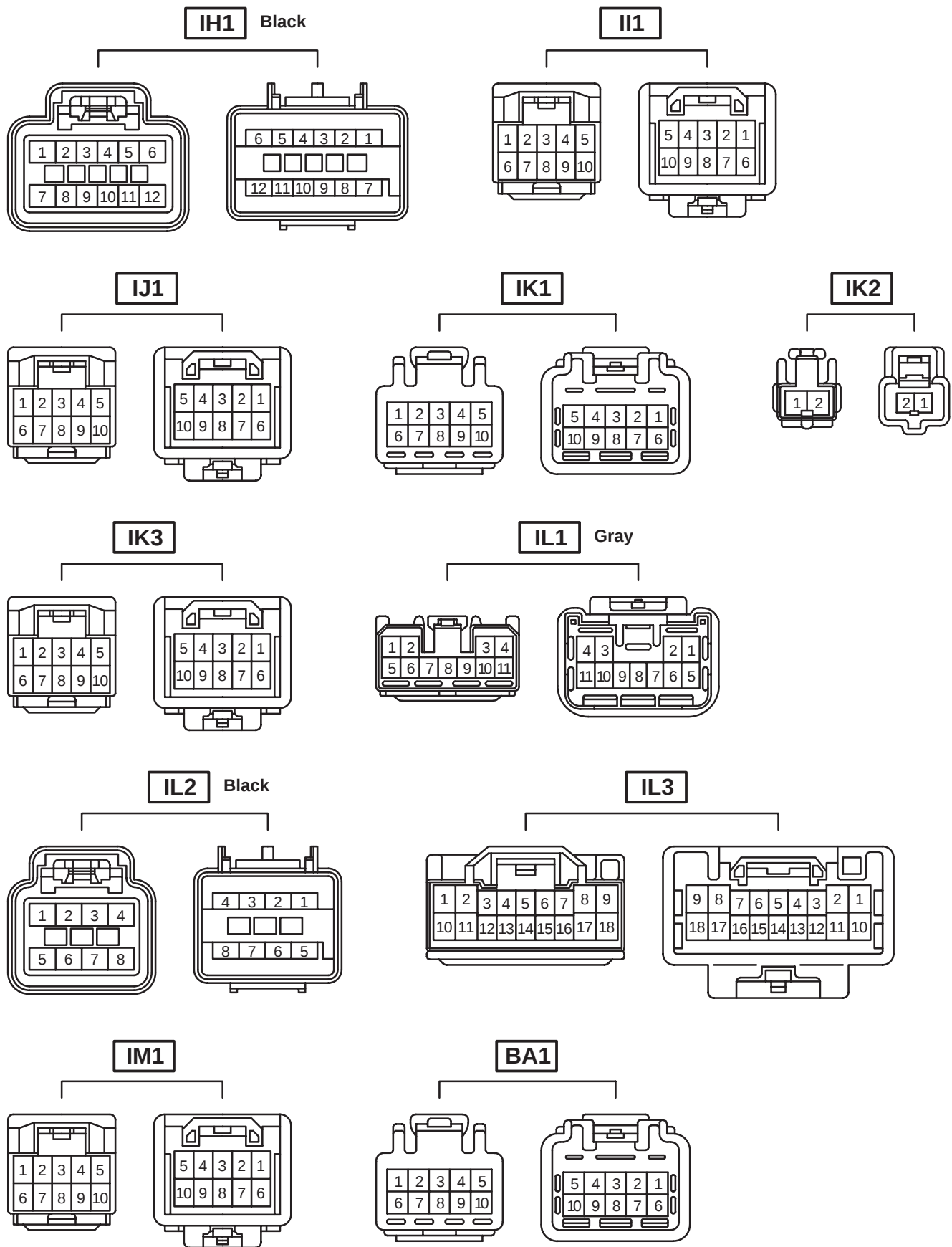


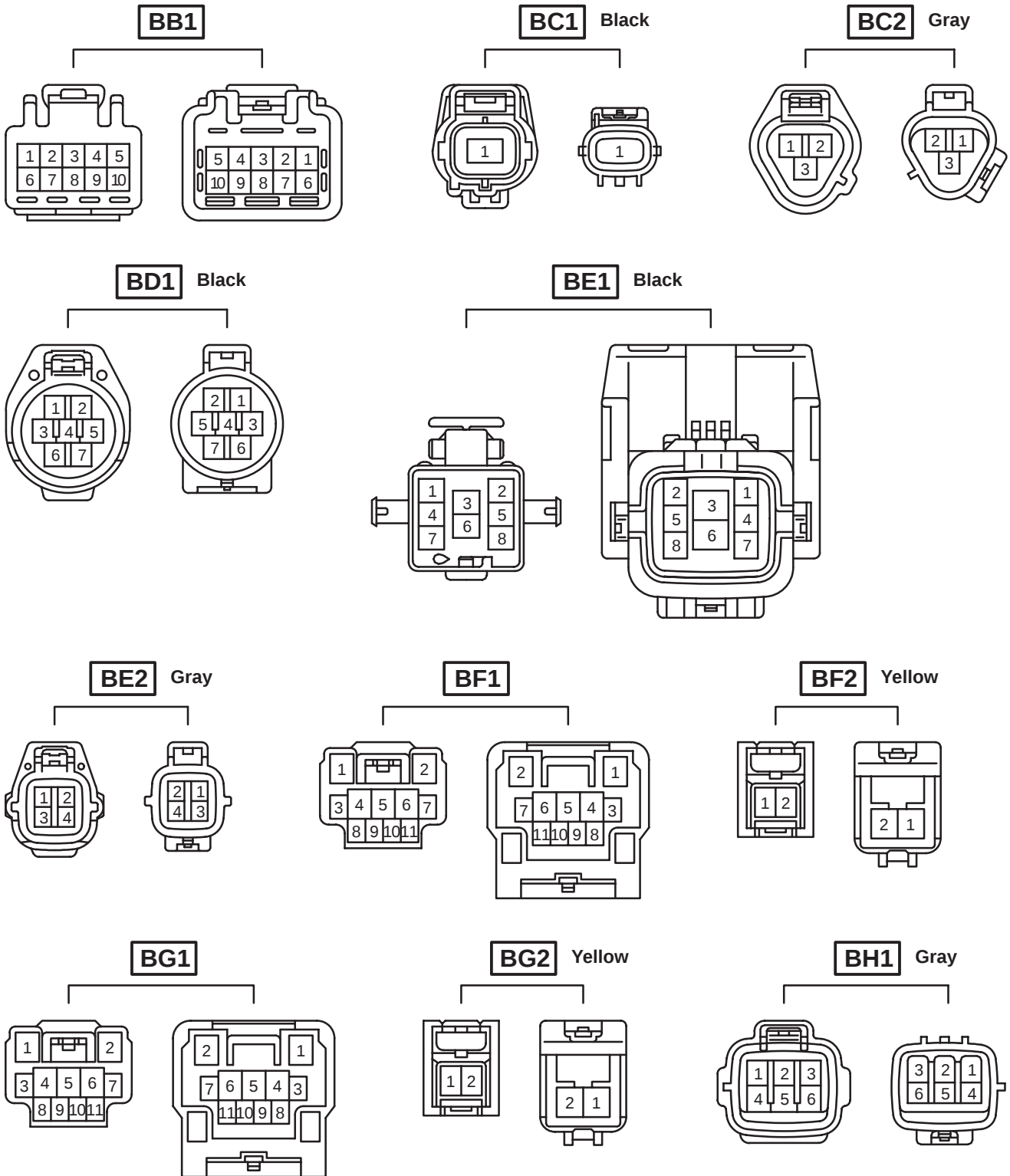
K CONNECTOR LIST



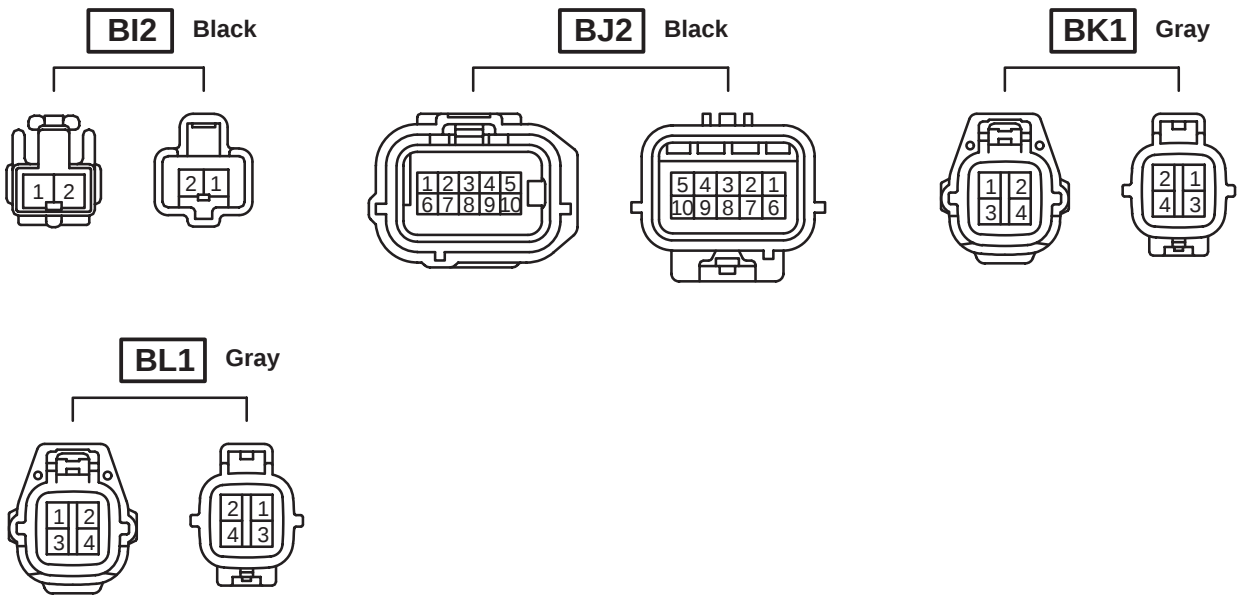


K CONNECTOR LIST





K CONNECTOR LIST



L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number
A 1	A/C Compressor	90980-11349	C 9	Combination Meter	90980-12169
A 2	A/T Fluid Temp. Sensor	90980-11162	C10	Combination Meter	90980-12155
A 3	ADD Actuator Assembly	90980-11858	C11	Combination SW	90980-12259
A 4	Air Fuel Ratio Sensor (Bank 1 Sensor 1) (1GR-FE)	90980-10869	C12	Combination SW	90980-12359
	Air Fuel Ratio Sensor (Bank 1 Sensor 1) (2TR-FE)	90980-11178	C13	Combination SW	90980-12358
A 5	Air Fuel Ratio Sensor (Bank 2 Sensor 1)	90980-10869	C14	Cruise Control Clutch SW	90980-10906
A 6	Air Injection Control Driver	90980-12068	C15	Center Stop Lamp	90980-11436
A 7	Air Injection Control Driver	90980-11858	C16	Curtain Shield Airbag Squib (LH)	90980-12219
A 8	Air Pressure Sensor	90980-10845	C17	Curtain Shield Airbag Squib (RH)	
A 9	Air Pump	90980-11032	D 1	Damper Servo Motor (Air Inlet)	90080-98307
A10	Air Switching Valve	90980-11149	D 2	Damper Servo Motor (Air Mix)	90980-11950
A11	Airbag Sensor (Front LH)	90980-11856	D 3	Damper Servo Motor (Air Vent Mode)	
A12	Airbag Sensor (Front RH)		D 4	Data Link Connector 3	90980-11665
A13	Ambient Temp. Sensor	90980-11070	D 5	Diff. Lock SW	90980-10933
A14	A/C Amplifier	90980-12200	D 6	Diode (Clutch Start)	90980-10962
A15	A/C Control Assembly	90980-11615	D 7	Door Control Receiver	90980-11909
A16	A/C Control Assembly	90980-10803	D 8	Downhill Assist Control SW	90980-11013
A17	A/C Thermistor No.1	90980-11918	D 9	Deceleration Sensor	90980-10845
A18	A/T Shift Lever Illumination	90980-12221	D10	Diff. Lock Shift Actuator Assembly	90980-11194
A19	Accelerator Position Sensor	90980-11858	D11	Door Courtesy SW (Driver's Side)	90980-10871
A20	Airbag Cut Off SW	90980-12063	D12	Door Courtesy SW (Front Passenger's Side)	
A21	Airbag Sensor Assembly Center	90980-12391	D13	Door Courtesy SW (Rear LH Lower Side)	90980-10825
A22	Airbag Sensor Assembly Center	90980-12449	D14	Door Courtesy SW (Rear LH Upper Side)	90980-11299
A23	Airbag Sensor Assembly Center	90980-12450	D15	Door Courtesy SW (Rear LH)	90980-10871
A24	Airbag Squib (Front Passenger's Airbag Assembly)	90980-12219	D16	Door Courtesy SW (Rear RH Lower Side)	90980-10825
A25	Airbag Squib (Front Passenger's Airbag Assembly)	90980-12224	D17	Door Courtesy SW (Rear RH Upper Side)	90980-11299
A26	Airbag Squib (Steering Wheel Pad)	90980-12160	D18	Door Courtesy SW (Rear RH)	90980-10871
A27	Auto LSD SW	90980-11013	D19	Door Lock Assembly (Driver's Side)	90980-12226
A28	Accessory Meter	90980-11923	D20	Door Lock Assembly (Front Passenger's Side)	
B 1	Back-Up Lamp SW	90980-10576	D21	Door Lock Assembly (Rear LH)	
B 2	Brake Fluid Level Warning SW (w/ VSC)	90980-11156	D22	Door Lock Assembly (Rear RH)	
	Brake Fluid Level Warning SW (w/o VSC)	90980-11207	D23	Door Lock Control SW	90980-10797
B 3	Blower Motor	90980-10916	E 1	Electronically Controlled Transmission Solenoid (1GR-FE)	90980-12293
B 4	Blower Resistor	90080-98149		Electronically Controlled Transmission Solenoid (2TR-FE)	90980-10891
B 5	Body ECU	90980-12203	E 2	Engine Coolant Temp. Sensor	90980-10735
C 1	Camshaft Position Sensor	90980-10947	E 3	Engine Oil Pressure SW	90980-11363
C 2	Camshaft Timing Oil Control Valve	90980-11162	E 4	Engine Control Module	90980-12144
C 3	Camshaft Timing Oil Control Valve (LH)		E 5	Engine Control Module	90980-12145
C 4	Camshaft Timing Oil Control Valve (RH)		E 6	Engine Control Module	90980-12143
C 5	Crankshaft Position Sensor (1GR-FE)	90980-12028	E 7	Engine Control Module	90980-12146
	Crankshaft Position Sensor (2TR-FE)	90980-11016	E 8	Engine Control Module	90980-12142
C 6	Cigarette Lighter	90980-10760	F 1	Fog Lamp (Front LH)	90080-98039
C 7	Clutch Start Cancel SW	90980-12113	F 2	Fog Lamp (Front RH)	
C 8	Clutch Start SW	90980-10825			

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
F 3	Front Turn Signal Lamp (LH)	90980-11020	J 4	Junction Connector	90980-11915
F 4	Front Turn Signal Lamp (RH)		J 5	Junction Connector	
F 5	Fuel Injector (No.1)	90980-11875	J 6	Junction Connector	90980-12355
F 6	Fuel Injector (No.2)		J 7	Junction Connector	
F 7	Fuel Injector (No.3)		J 8	Junction Connector	
F 8	Fuel Injector (No.4)		J 9	Junction Connector	
F 9	Fuel Injector (No.5)		J10	Junction Connector	
F10	Fuel Injector (No.6)		J11	Junction Connector	90980-10871
F11	Fuel Pump Resistor	90980-11156	J12	Junction Connector	90980-11542
F12	4WD Control ECU	90980-12149	J13	Junction Connector	90980-10976
F13	4WD Control ECU	90980-12150	J14	Junction Connector	90980-11542
F14	4WD Control ECU	90980-10801	K 1	Knock Control Sensor (Bank 1)	90980-11875
F15	4WD Control SW	90980-11909	K 2	Knock Control Sensor (Bank 2)	
F16	Fog Lamp SW	90980-11090	K 3	Key Interlock Solenoid	90980-12063
F17	Front Seat Outer Belt (LH)	90980-12253	L 1	Canister Pump Module	90980-12380
F18	Front Seat Outer Belt (RH)		L 2	License Plate Lamp (LH)	90980-11162
F19	Fuel Suction Pump and Gage Assembly	90980-11077	L 3	License Plate Lamp (RH)	
F20	Front Seat Inner Belt (Driver's Side)	90980-10942	M 1	Mass Air Flow Meter (1GR-FE)	90980-11317
F21	Front Seat Inner Belt (Driver's Side)	90980-10860		Mass Air Flow Meter (2TR-FE)	90980-12292
F22	Front Seat Inner Belt (Driver's Side)	90980-10859	M 2	Main SW (Power Outlet AC115V)	90980-10964
F23	Front Seat Inner Belt (Driver's Side)	90980-11486	M 3	Map Lamp	90980-10908
F24	Front Seat Inner Belt (Front Passenger's Side)		N 1	Noise Filter (Ignition)	90980-10843
F25	Front Seat Inner Belt (Front Passenger's Side)	90980-11019	O 1	Outer Mirror SW	90980-11657
			O 2	Outer Rear View Mirror (LH)	90980-12189
G 1	Generator (1GR-FE 130A Type Generator)	90980-09365	O 3	Outer Rear View Mirror (RH)	
	Generator (1GR-FE 80A Type Generator)	90980-09372	O 4	Occupant Classification ECU	90980-12357
	Generator (2TR-FE)	90980-09212	O 5	Occupant Classification ECU	90980-12356
G 2	Generator	90980-11964	O 6	Occupant Classification Sensor (Front LH)	90980-12353
H 1	Headlamp (LH)	90980-11314	O 7	Occupant Classification Sensor (Front RH)	90980-12354
H 2	Headlamp (RH)		O 8	Occupant Classification Sensor (Rear LH)	
H 3	Heated Oxygen Sensor (Bank 1 Sensor 2)	90980-11028	O 9	Occupant Classification Sensor (Rear RH)	90980-12353
H 4	Heated Oxygen Sensor (Bank 2 Sensor 2)		O10	Occupant Classification ECU	90980-AA009
H 5	Horn (High)	90980-10619	O11	Occupant Classification Sensor	90980-AA011
H 6	Horn (Low)		P 1	Park/Neutral Position SW	90980-12362
H 7	Hazard Warning Signal SW Assembly	90980-11911	P 2	Parking Lamp (LH)	90980-11156
I 1	Ignition Coil (No.1)	90980-11885	P 3	Parking Lamp (RH)	
I 2	Ignition Coil (No.2)		P 4	Power Steering Oil Pressure SW	90980-11428
I 3	Ignition Coil (No.3)		P 5	Pressure SW	90980-11149
I 4	Ignition Coil (No.4)		P 6	Parking Brake SW	90980-10871
I 5	Ignition Coil (No.5)		P 7	Power Point Socket	90980-10760
I 6	Ignition Coil (No.6)		P 8	Power Point Socket	90980-11194
I 7	Ignition SW	90980-11615	P 9	Power Window Master SW (Double Cab)	90980-12122
I 8	Inner Rear View Mirror	90980-11794		Power Window Master SW (Except Double Cab)	90980-10997
J 1	Junction Connector	90980-10976			
J 2	Junction Connector	90980-11542			
J 3	Junction Connector				

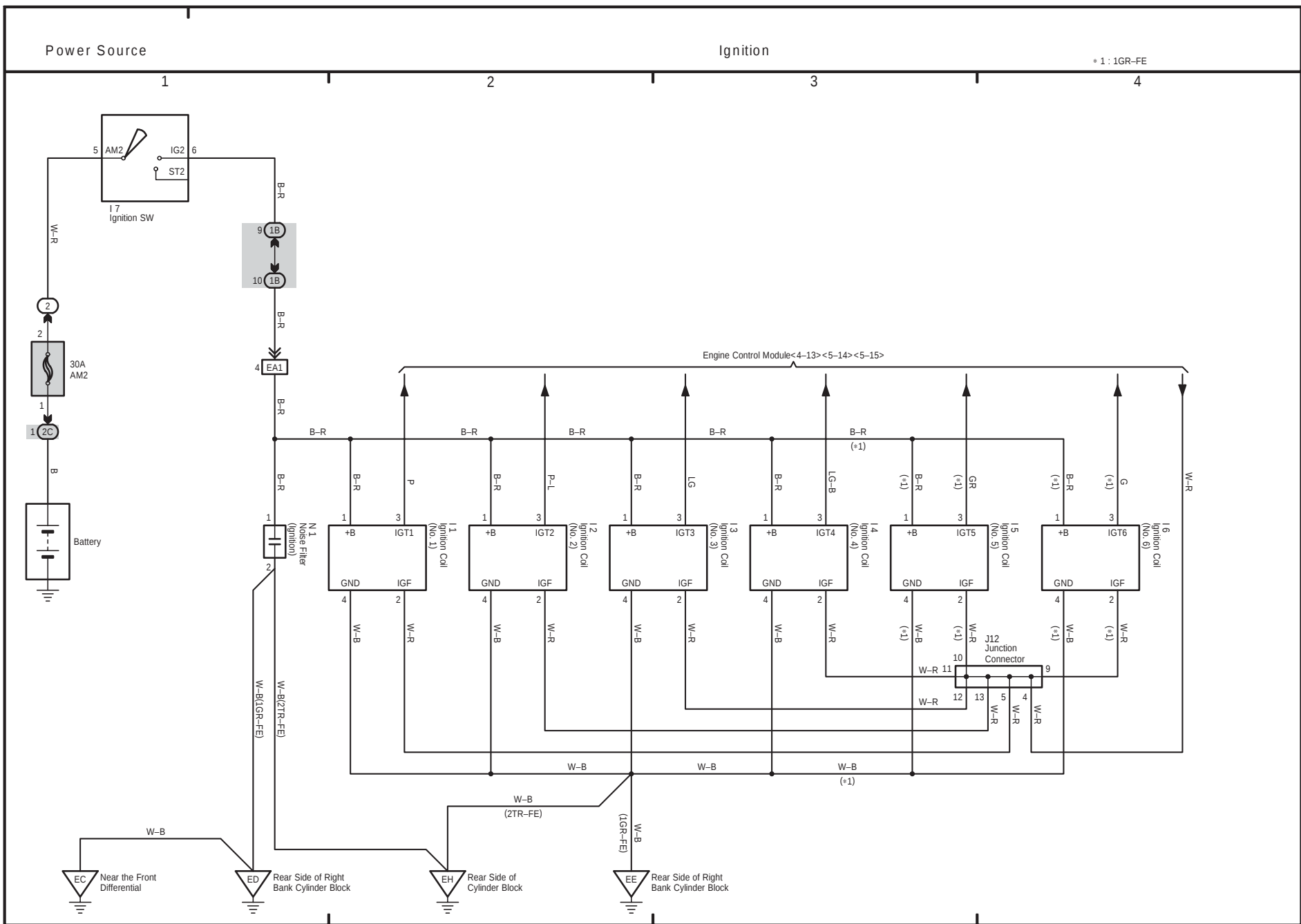
L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number
P10	Power Window Regulator Motor (Front LH)	90980-10797	S23	Stereo Component Amplifier	90980-12200
P11	Power Window Regulator Motor (Front RH)		S24	Stereo Component Amplifier	90980-10821
P12	Power Window Regulator Motor (Rear LH)		S25	Seat Position Airbag Sensor (Driver's Side)	90980-12416
P13	Power Window Regulator Motor (Rear RH)		S26	Side Airbag Squib (LH)	90980-11864
P14	Power Window SW (Front Passenger's Side)	90980-10789	S27	Side Airbag Squib (RH)	
P15	Power Window SW (Rear LH)	90980-10631	S28	Seat Position Airbag Sensor (Front Passenger's Side)	90980-12195
P16	Power Window SW (Rear RH)		S29	Seat Belt Tension Sensor	90980-11349
R 1	Radio Receiver Assembly (Built-in Type Amplifier)	90980-10997	T 1	Throttle Body Assembly	90980-11858
	Radio Receiver Assembly (Separate Type Amplifier)	90980-12038	T 2	Transfer Indicator SW (4WD Position)	90980-11250
R 2	Radio Receiver Assembly	90980-10996	T 3	Transfer Indicator SW (L4 Position)	90980-11025
R 3	Radio Receiver Assembly	90980-12259	T 4	Transfer Shift Actuator Assembly	90980-11858
R 4	Rheostat	90980-10797	T 5	Transmission Revolution Sensor (Electronically Controlled Transmission)	90980-11156
R 5	Rear Combination Lamp (LH)	90980-10988	T 6	Transmission Revolution Sensor (Turbine)	
R 6	Rear Combination Lamp (RH)		T 7	Towing Brake Controller	90980-11603
R 7	Room Lamp (Center)	90980-10908	T 8	Towing Converter Relay	90980-11535
S 1	Skid Control ECU with Actuator (w/ VSC)	90980-12297	T 9	Transponder Key Amplifier	90980-12092
	Skid Control ECU with Actuator (w/o VSC)	90980-12426	T10	Transponder Key ECU	90980-12423
S 2	Skid Control ECU with Actuator	90980-12294	T11	Turn Signal Flasher	90980-10803
S 3	Speed Sensor (Front LH)	90980-11003	T12	Trailer Socket	82824-34050
S 4	Speed Sensor (Front RH)		T13	Transfer Indicator SW (Rear Diff.)	90980-11250
S 5	Starter (1GR-FE)	90980-09463	T14	Tire Pressure Monitor ECU	90980-12155
	Starter (2TR-FE)	90980-09506	T15	Tire Pressure Warning SW (Reset)	90980-10906
S 6	Starter	90980-11400	T16	Tire Pressure Monitor Receiver	90980-11909
S 7	Shift Lock Control ECU	90980-12183	U 1	Unlock Warning SW	90980-12063
S 8	Spiral Cable		V 1	Vehicle Speed Sensor (Combination Meter)	90980-11143
S 9	Steering Sensor	90980-12162	V 2	Vehicle Speed Sensor (Electronically Controlled Transmission)	90980-11156
S10	Stop Lamp SW	90980-11118	V 3	VSV (ACIS)	
S11	Side Airbag Sensor (Front LH)	90980-12225	V 4	VSV (Purge)	
S12	Side Airbag Sensor (Front RH)		V 5	VVT Sensor LH	90980-12353
S13	Side Airbag Sensor (Rear LH)	90980-12352	V 6	VVT Sensor RH	
S14	Side Airbag Sensor (Rear RH)		V 7	VSC Warning Buzzer	90980-10906
S15	Speaker (Front Door LH)	90980-10935	V 8	Voltage Inverter	90980-10803
S16	Speaker (Front Door RH)		V 9	Voltage Inverter	90980-12299
S17	Speaker (Rear Door LH)		W 1	Windshield Washer Motor	90980-11019
S18	Speaker (Rear Door RH)		W 2	Windshield Wiper Motor	90980-11599
S19	Speaker (Squawker LH)	90980-11013	Y 1	Yaw Rate Sensor	90980-11904
S20	Speaker (Squawker RH)		Z 1	Option Connector (Towing Converter Relay)	90980-11535
S21	Speaker (Woofer)	90980-10795	Z 2	Option Connector (Trailer Socket)	90980-10795
S22	Speed Sensor (Rear)	90980-10942	Z 3	Option Connector (TVIP)	

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

TOYOTA TACOMA (EM01D0U)



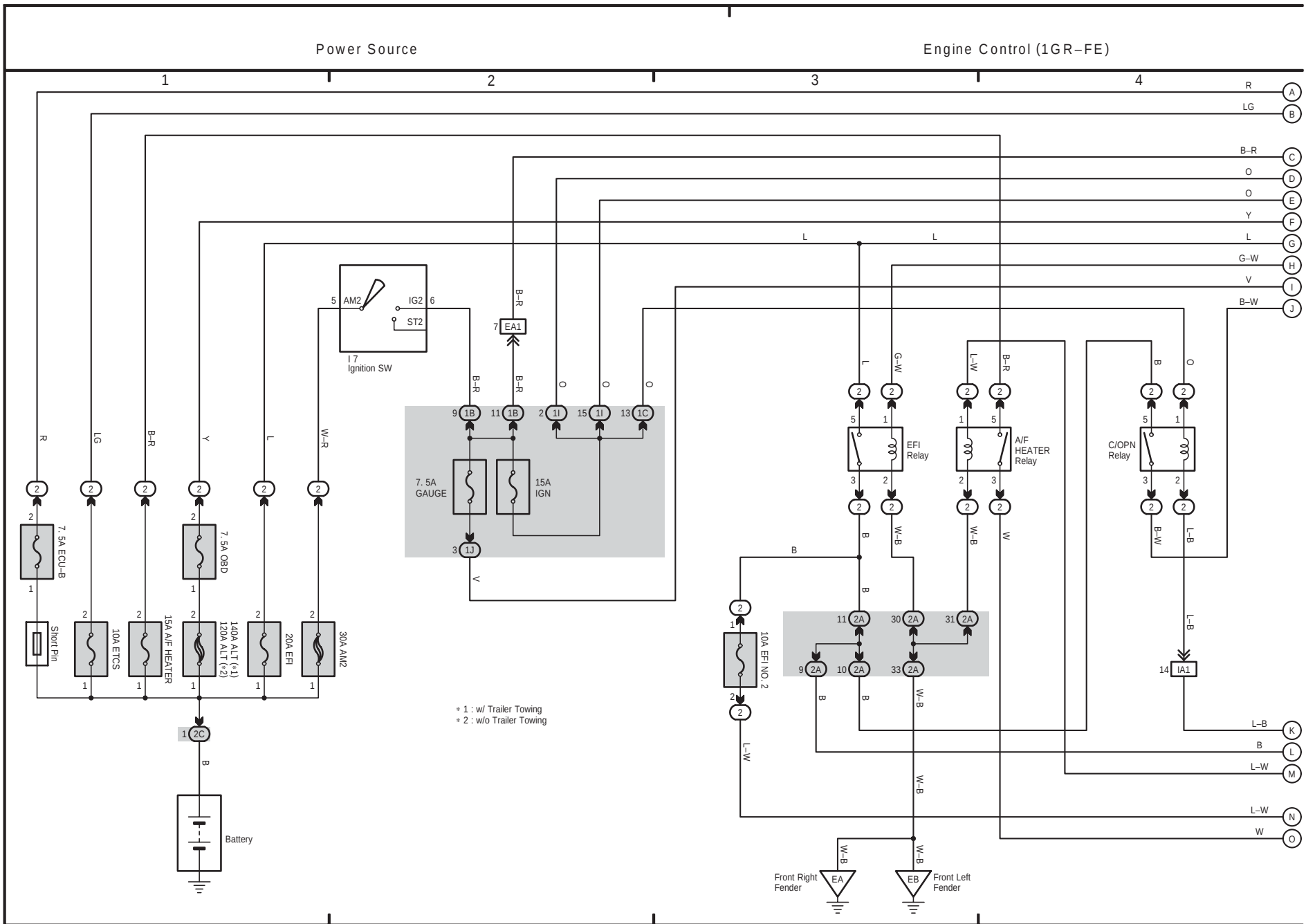


TOYOTA TACOMA (EM01DOU)



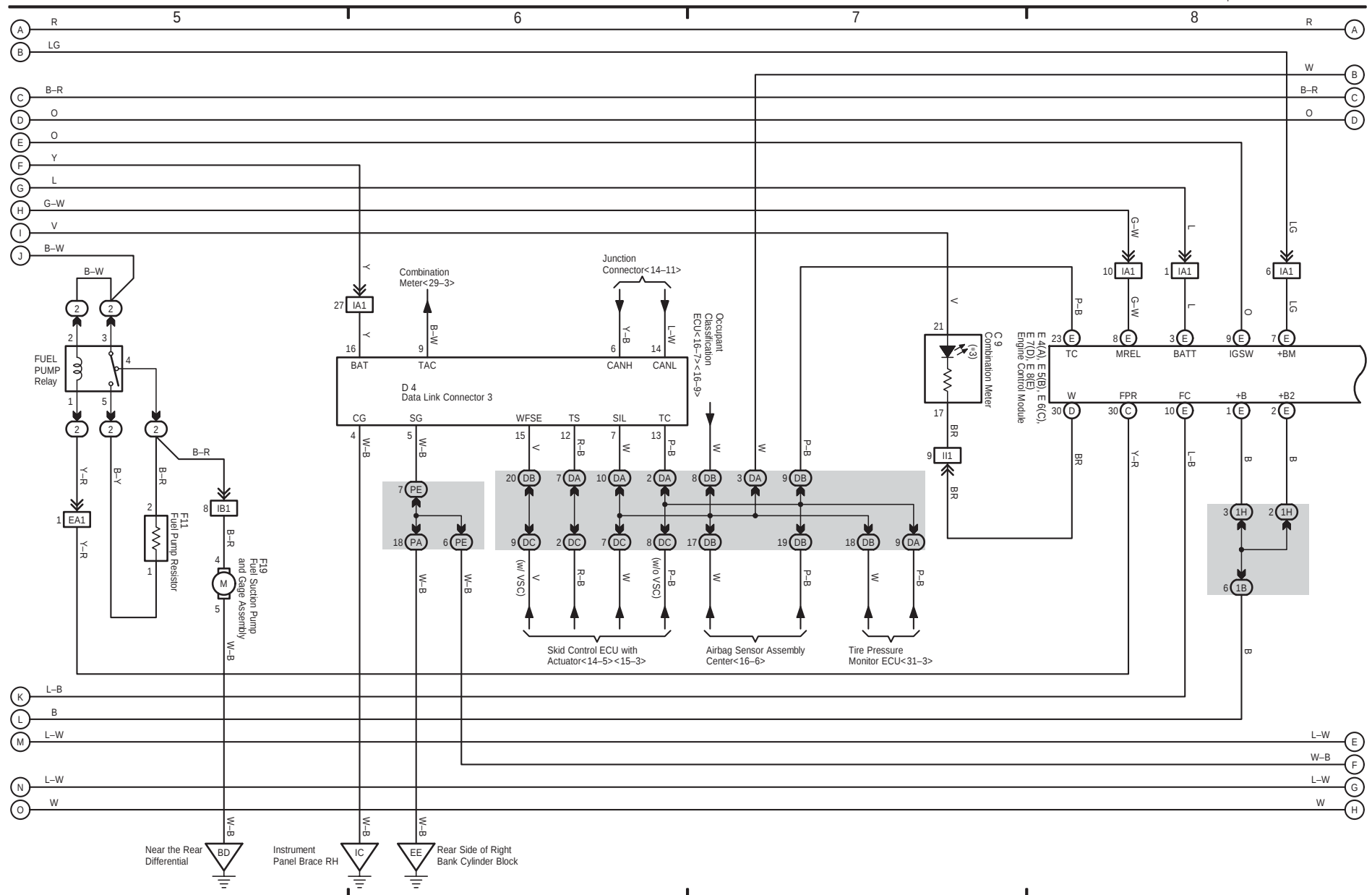
(Cont. next page)

4 TOYOTA TACOMA



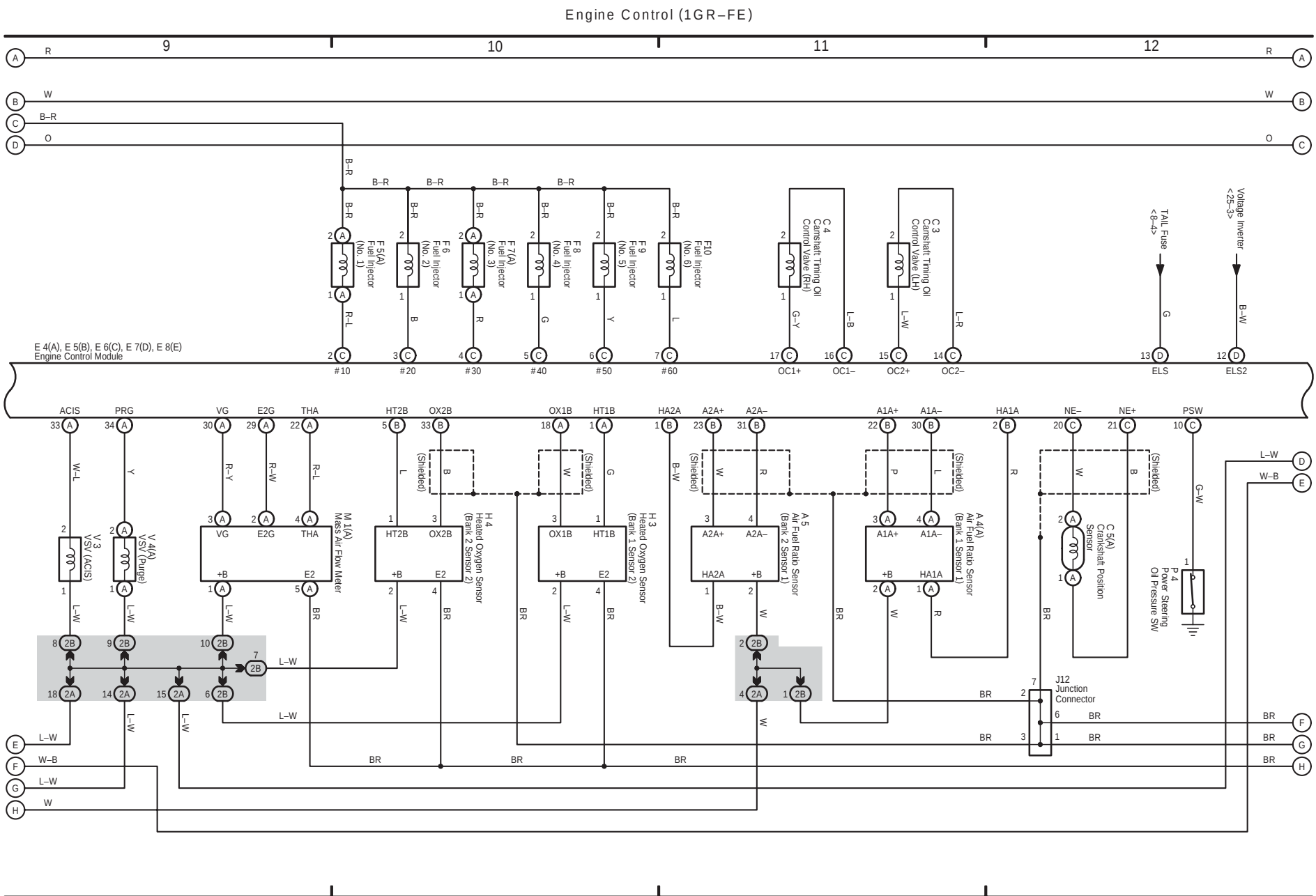
Engine Control (1GR-FE)

* 3 : Malfunction Indicator Lamp

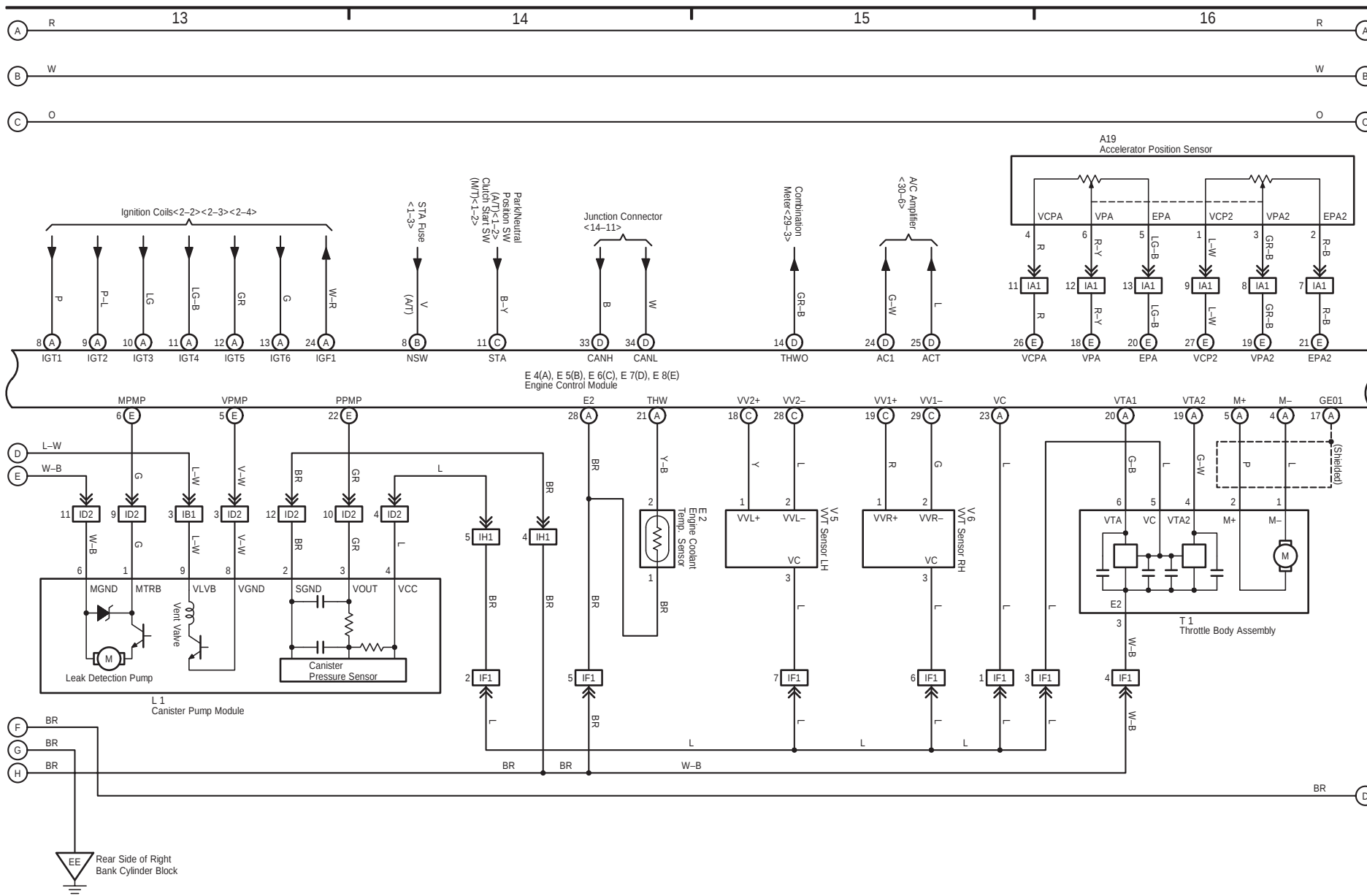


(Cont. next page)

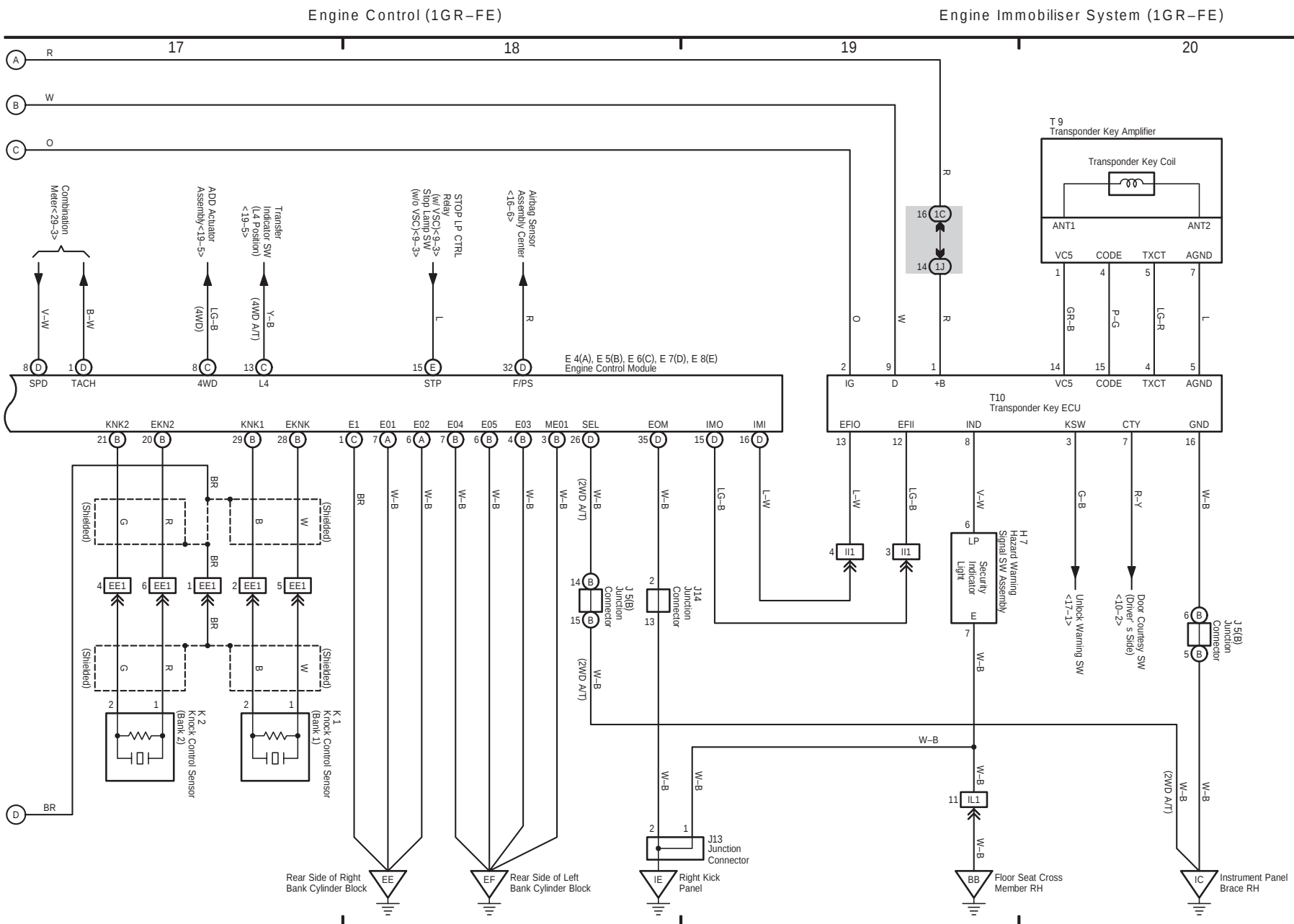
4 TOYOTA TACOMA (Cont' d)



Engine Control (1GR-FE)

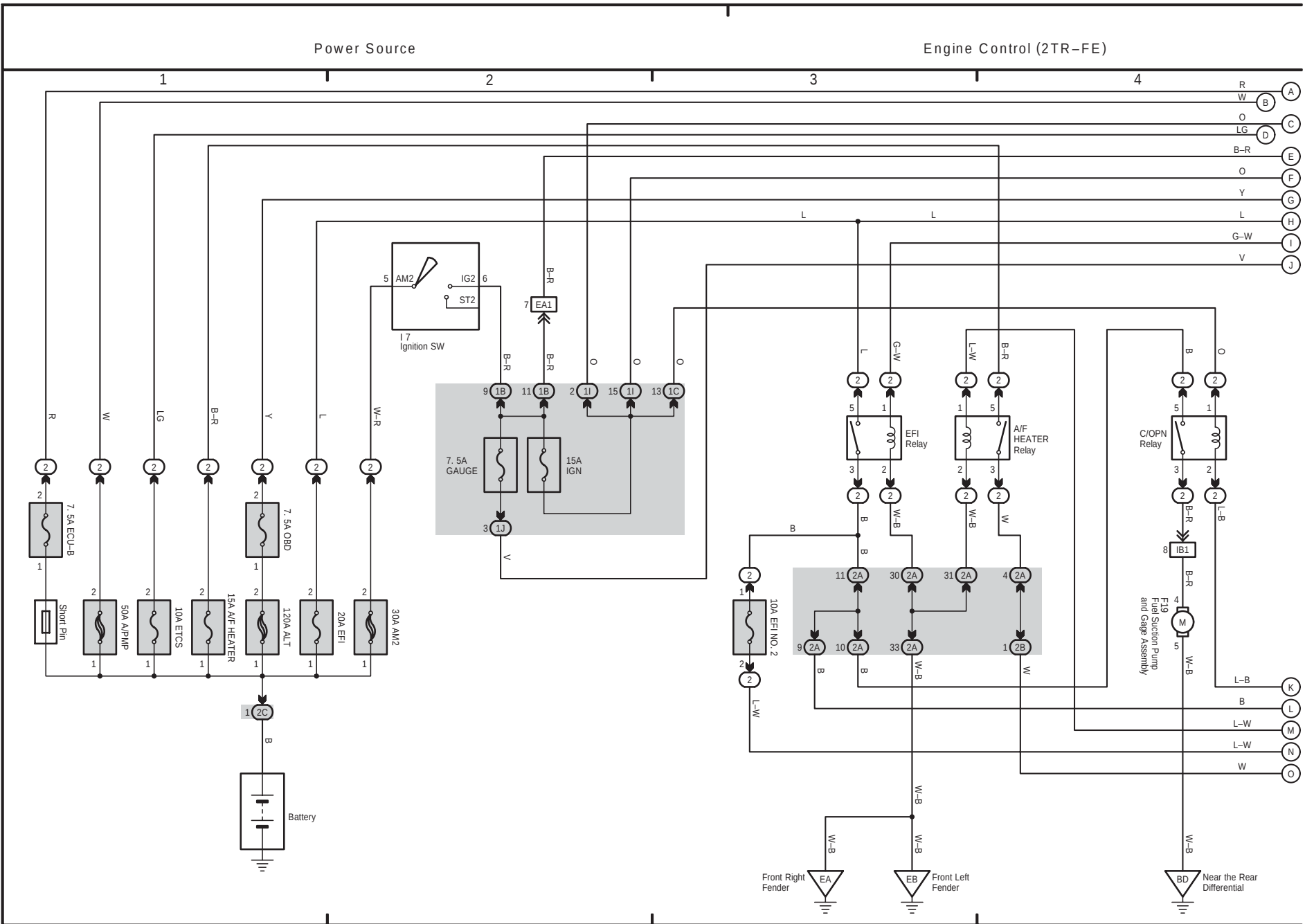


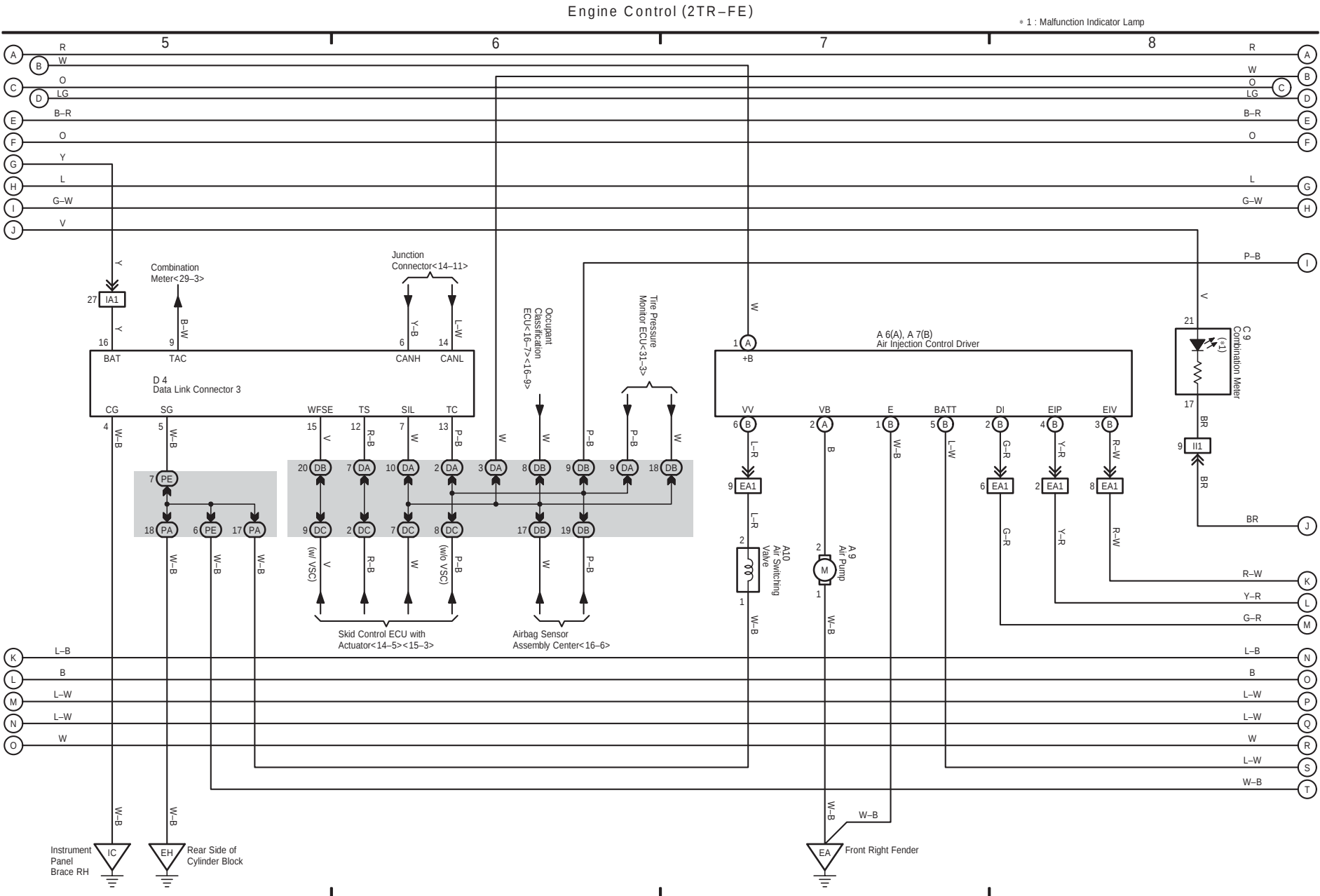
4 TOYOTA TACOMA (Cont' d)



(Cont. next page)

5 TOYOTA TACOMA



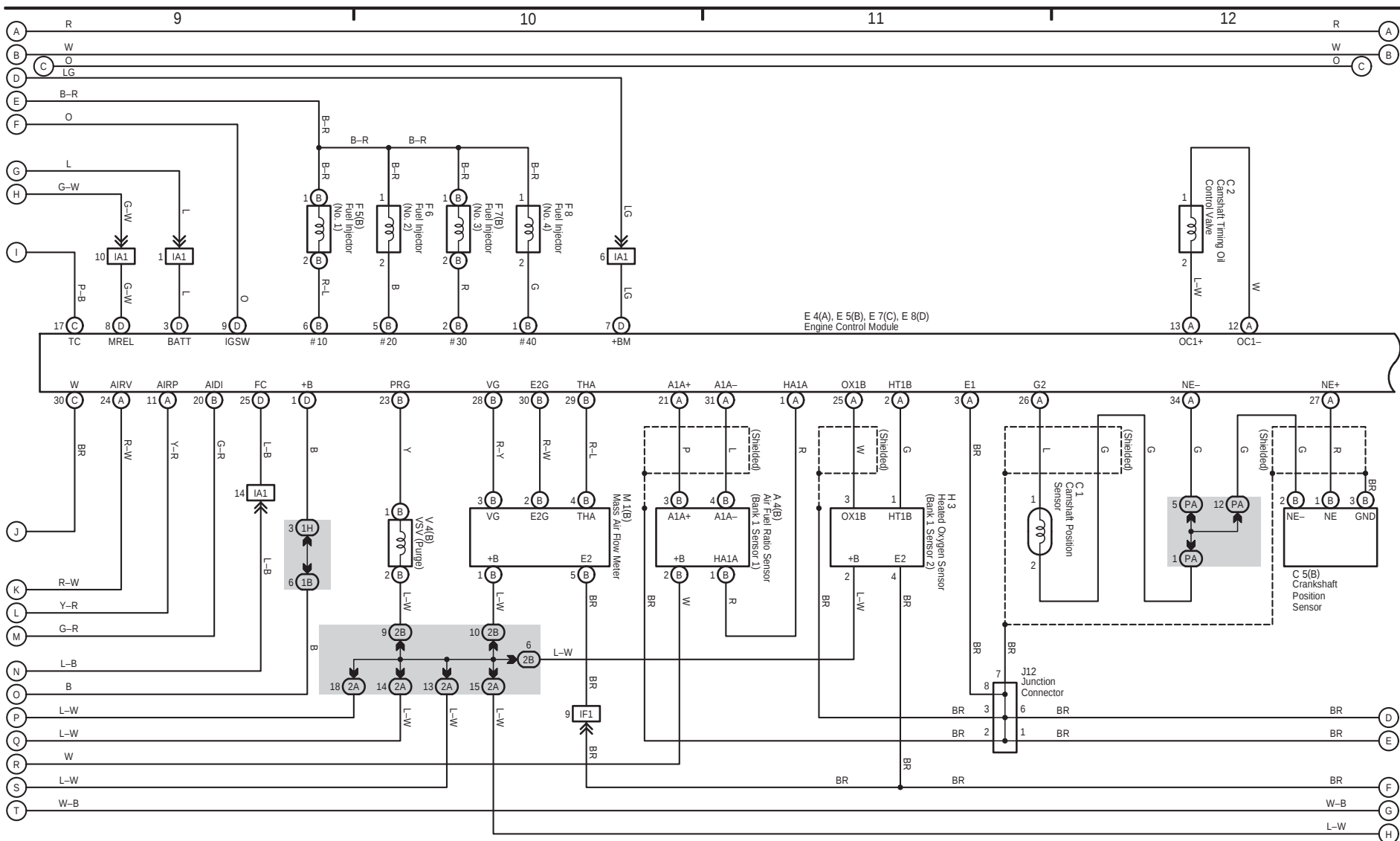


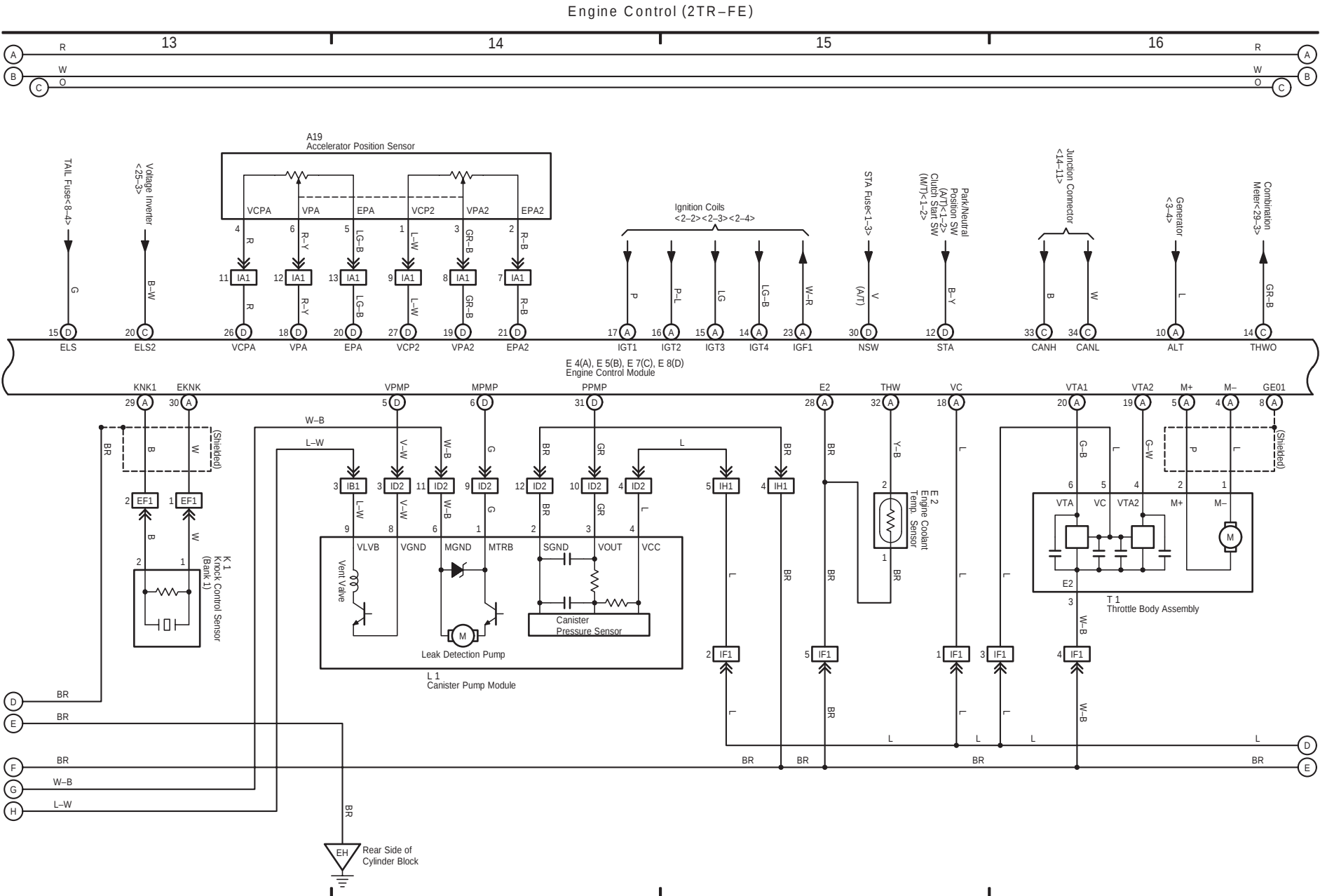
TOYOTA TACOMA (EM01D0U)

(Cont. next page)

5 TOYOTA TACOMA (Cont' d)

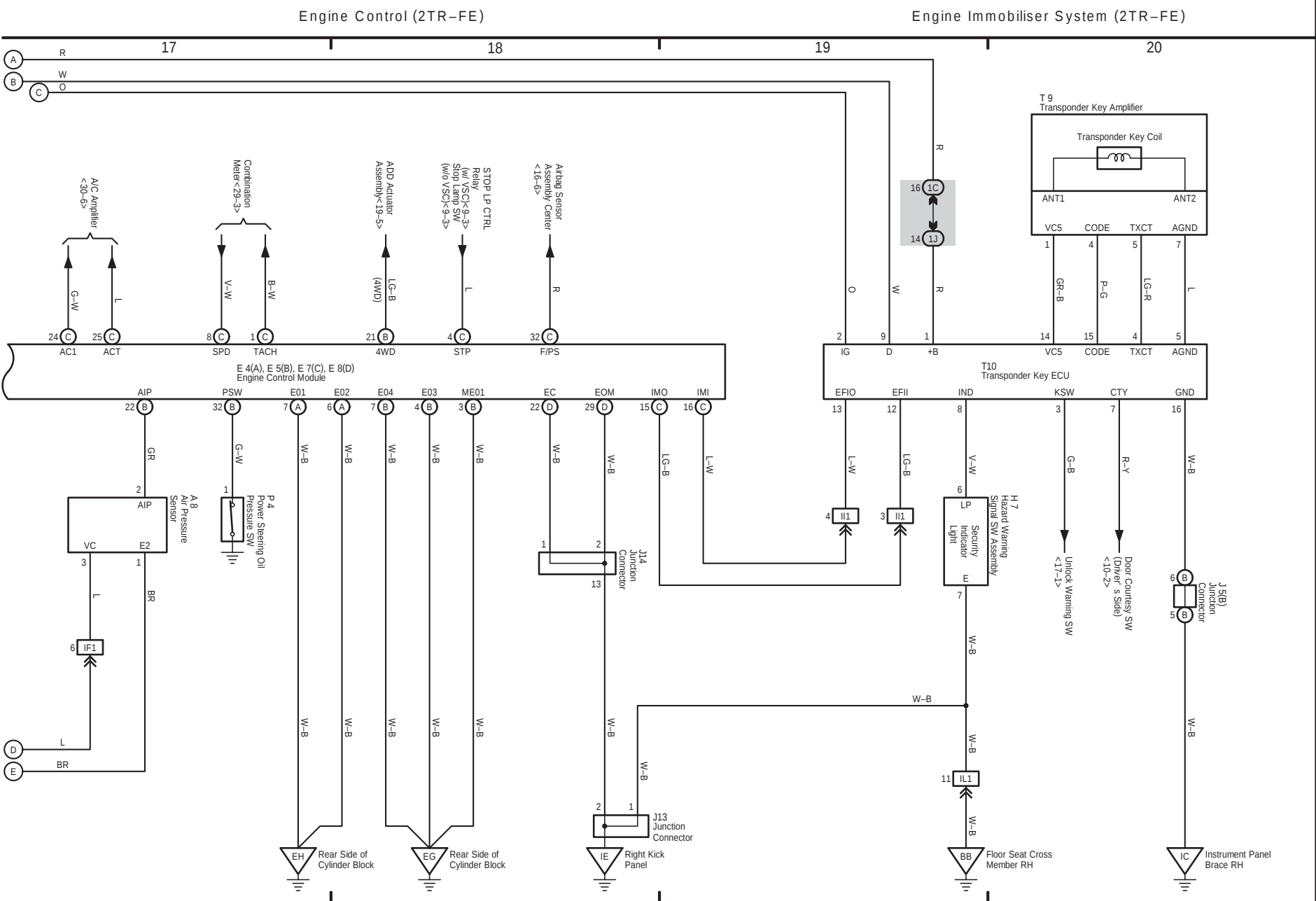
Engine Control (2TR-FE)





TOYOTA TACOMA (EM01D0U)

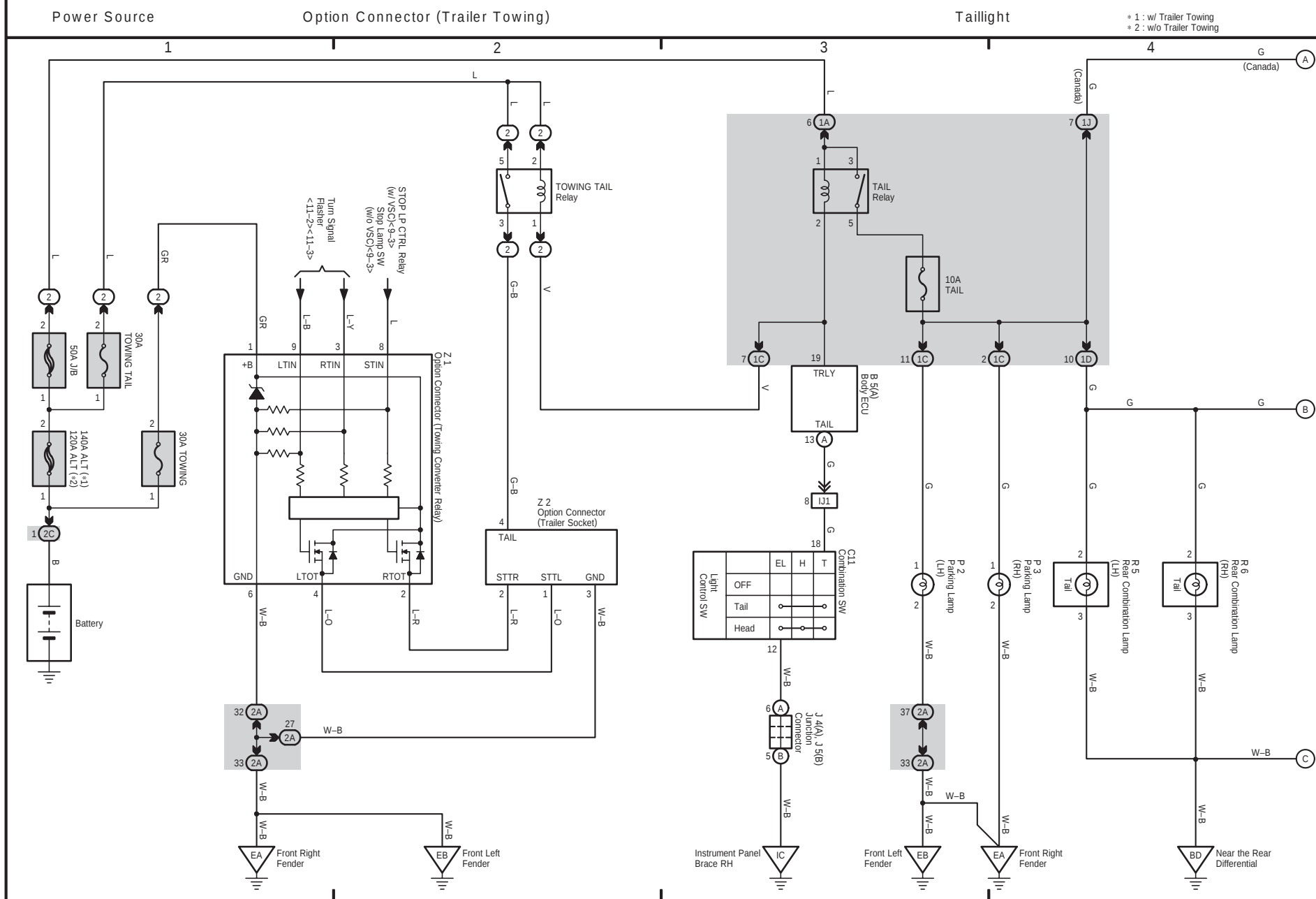
5 TOYOTA TACOMA (Cont' d)

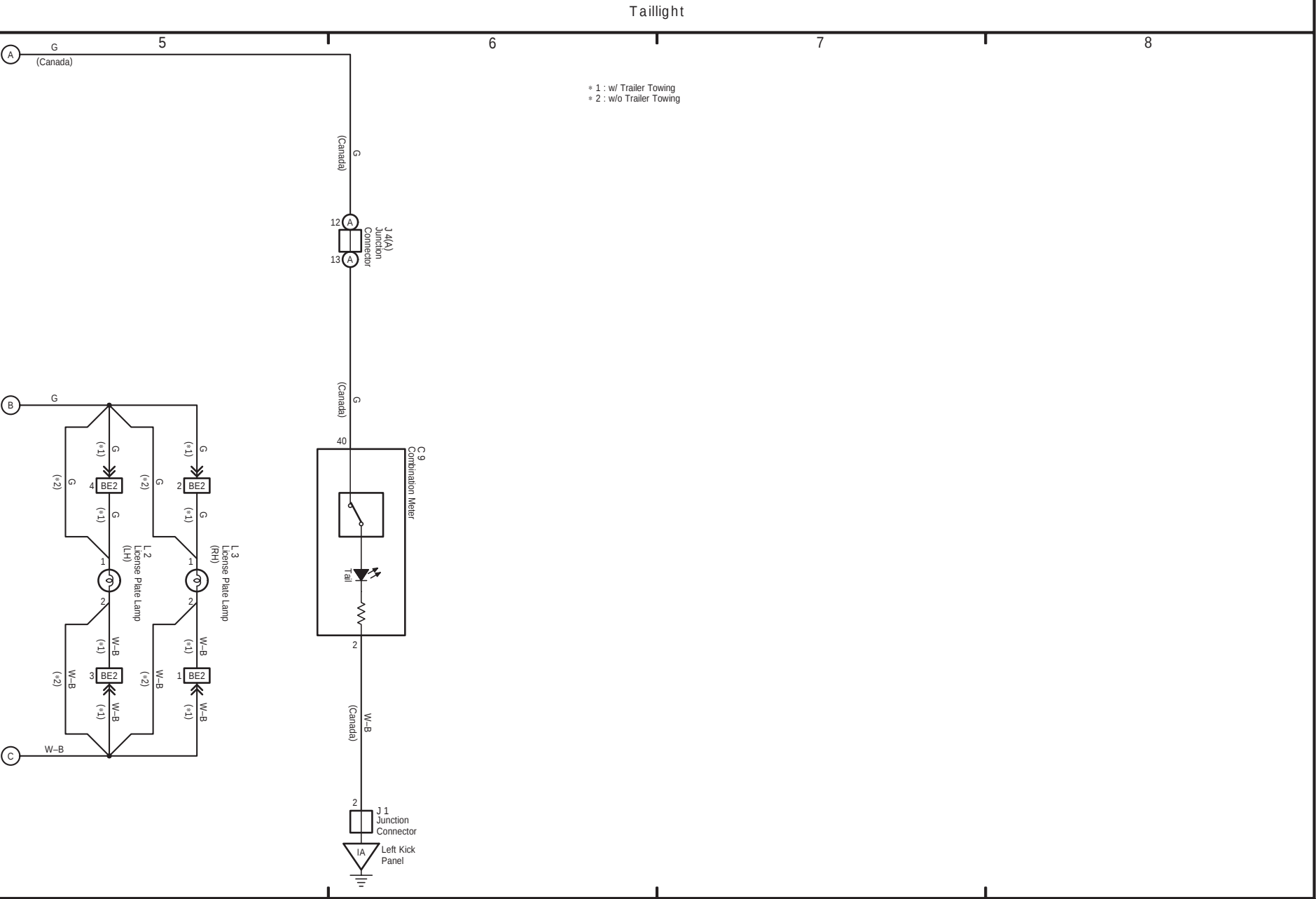


TOYOTA TACOMA (EM01DOU)

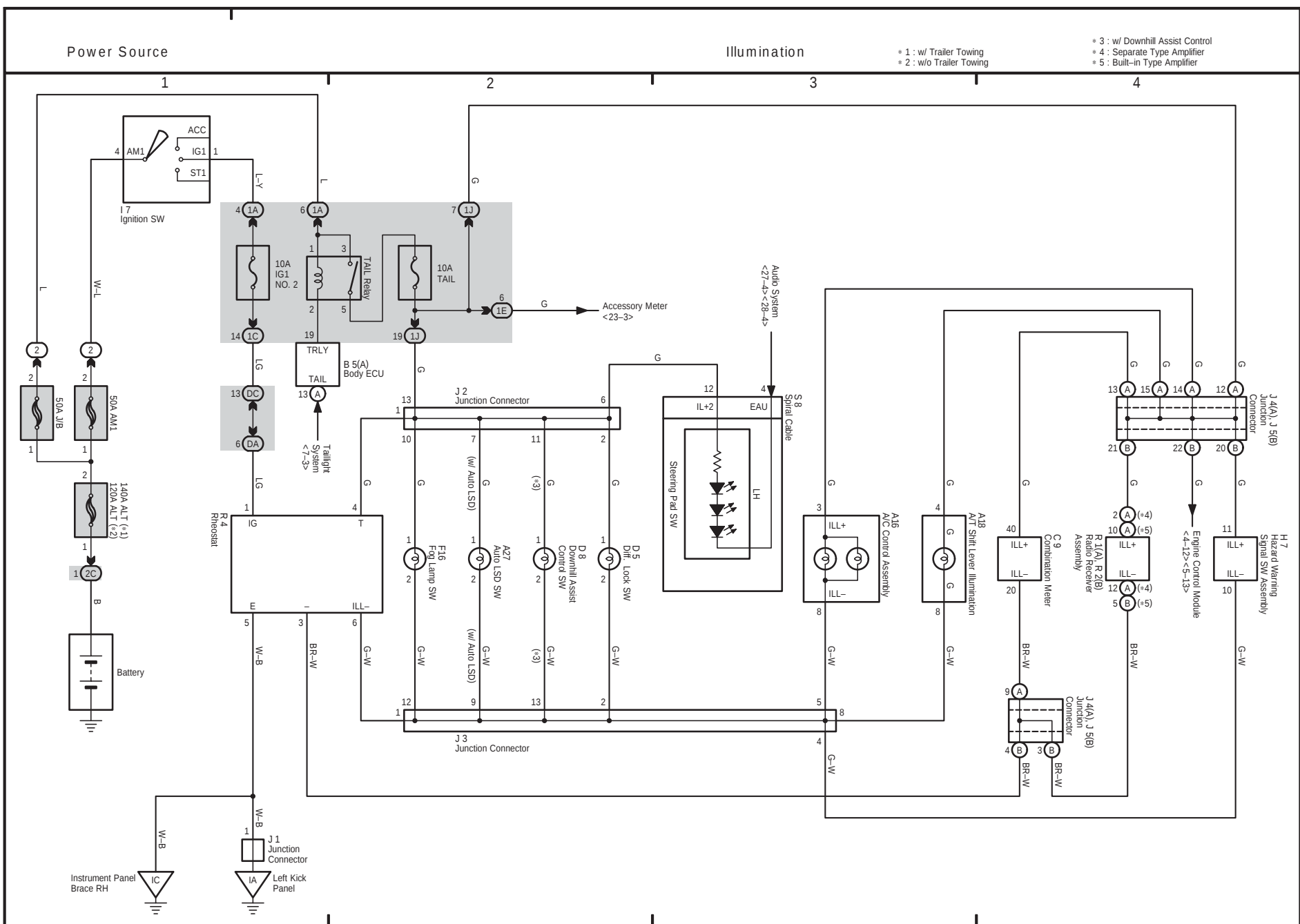


7 TOYOTA TACOMA

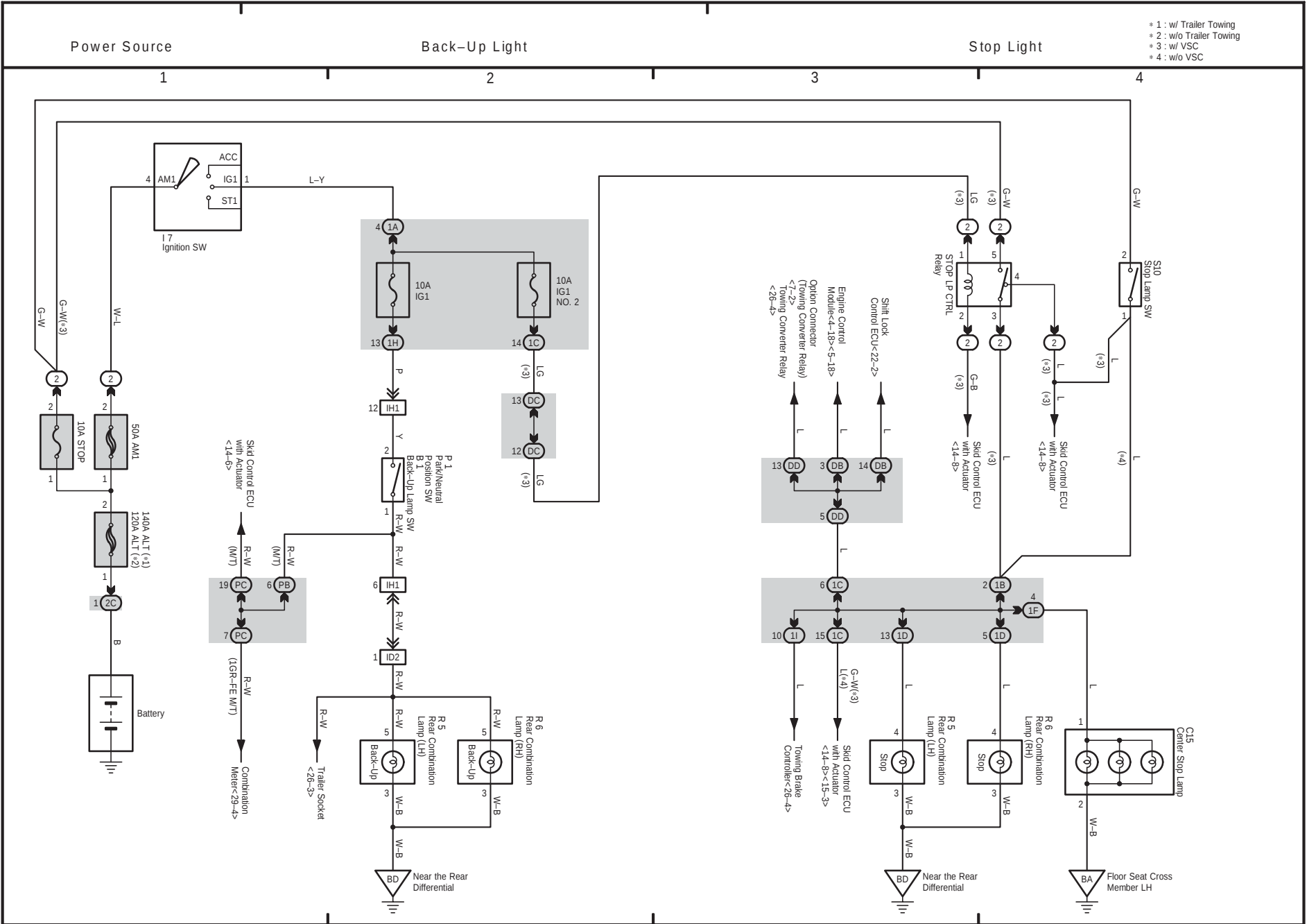




TOYOTA TACOMA (EM01D0U)



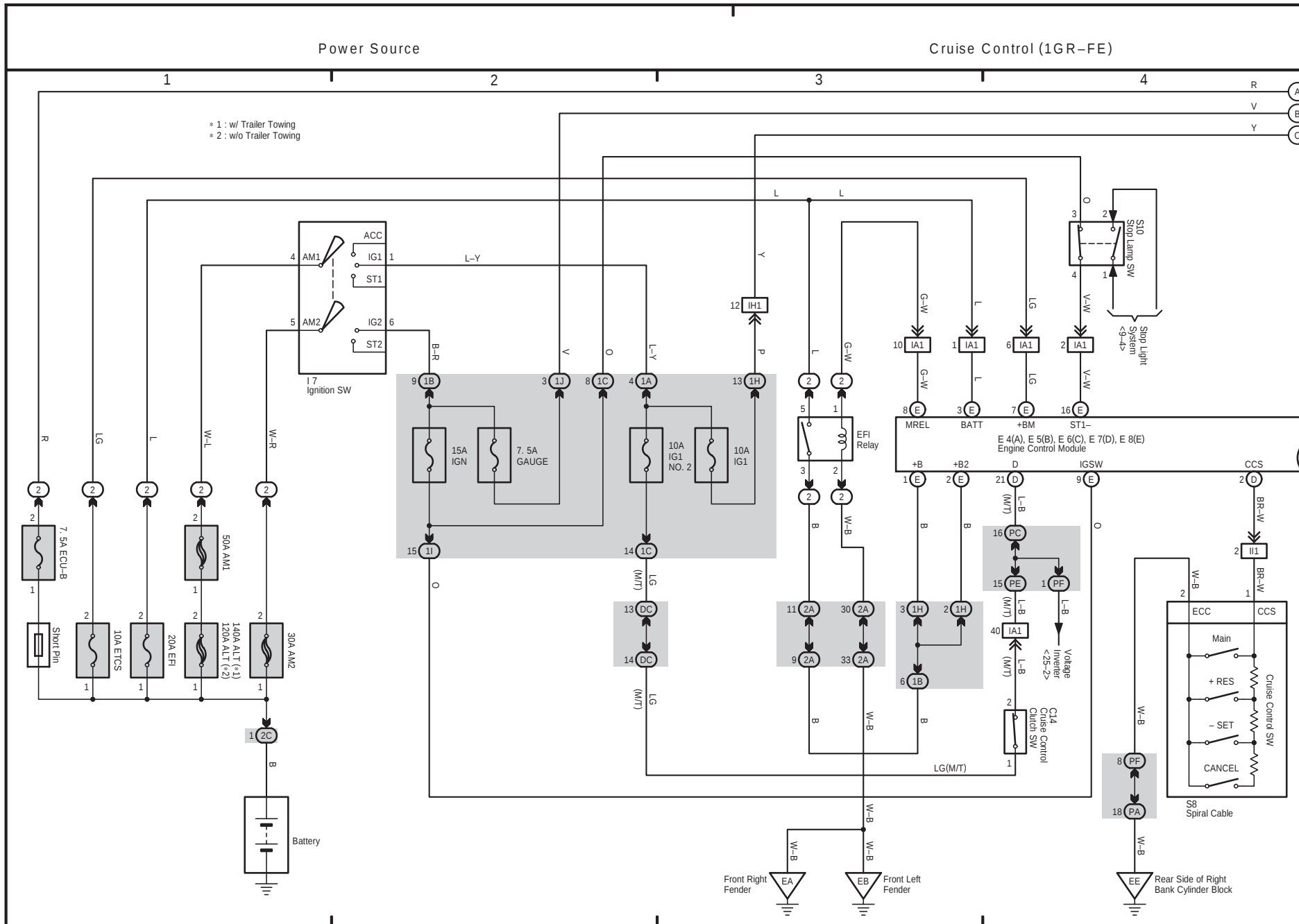
9 TOYOTA TACOMA



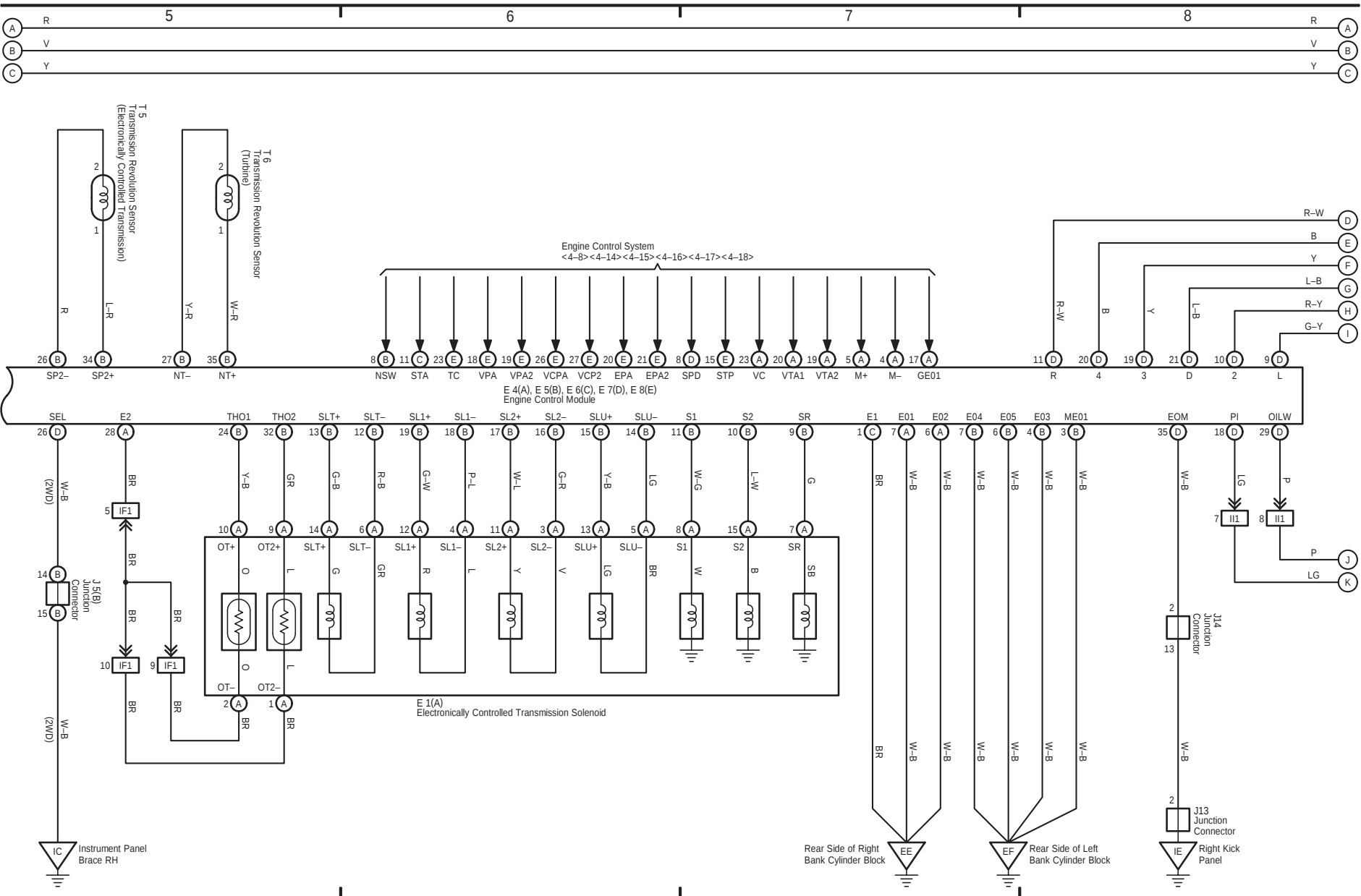
[illegible]

TOYOTA TACOMA (EM01DOU)



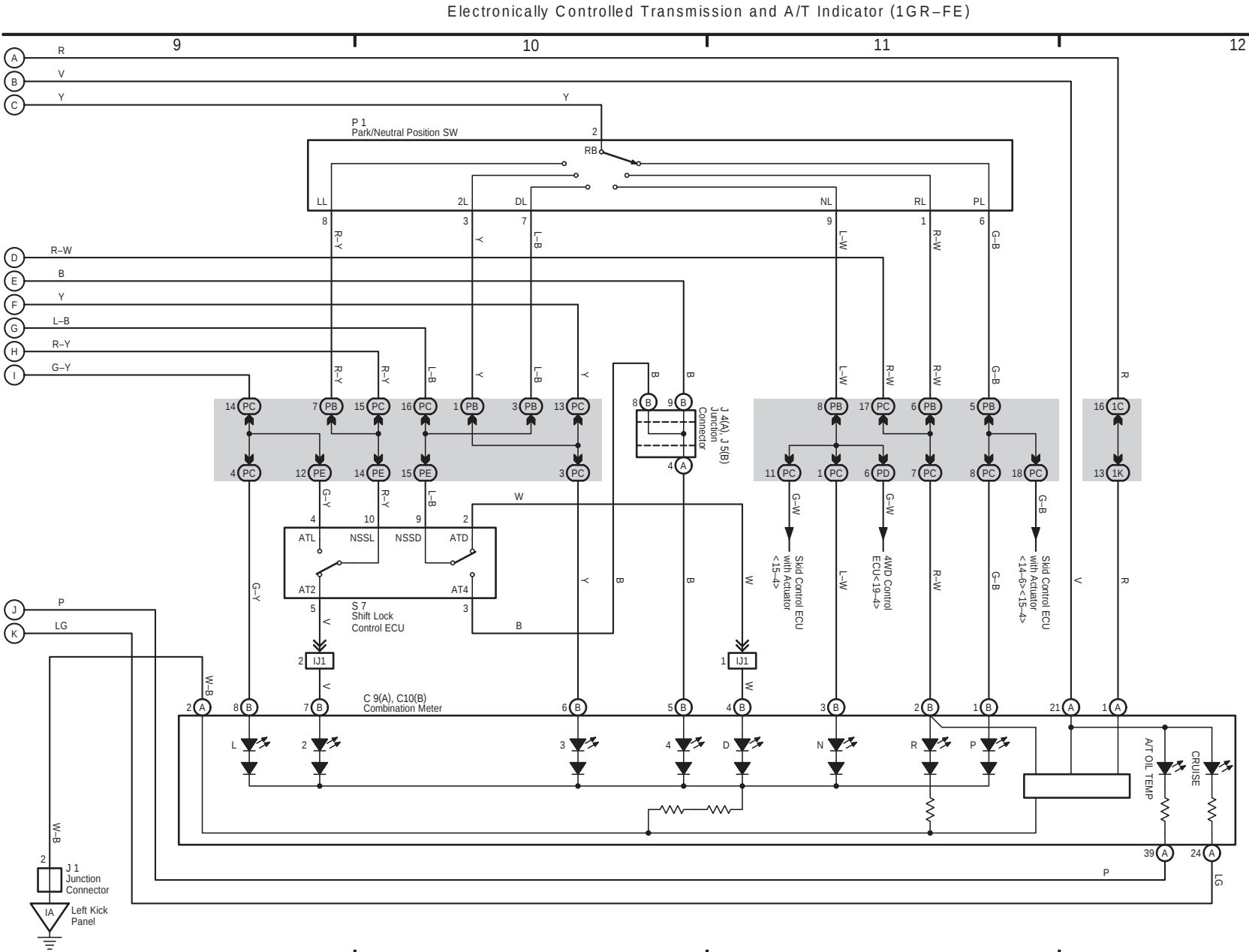


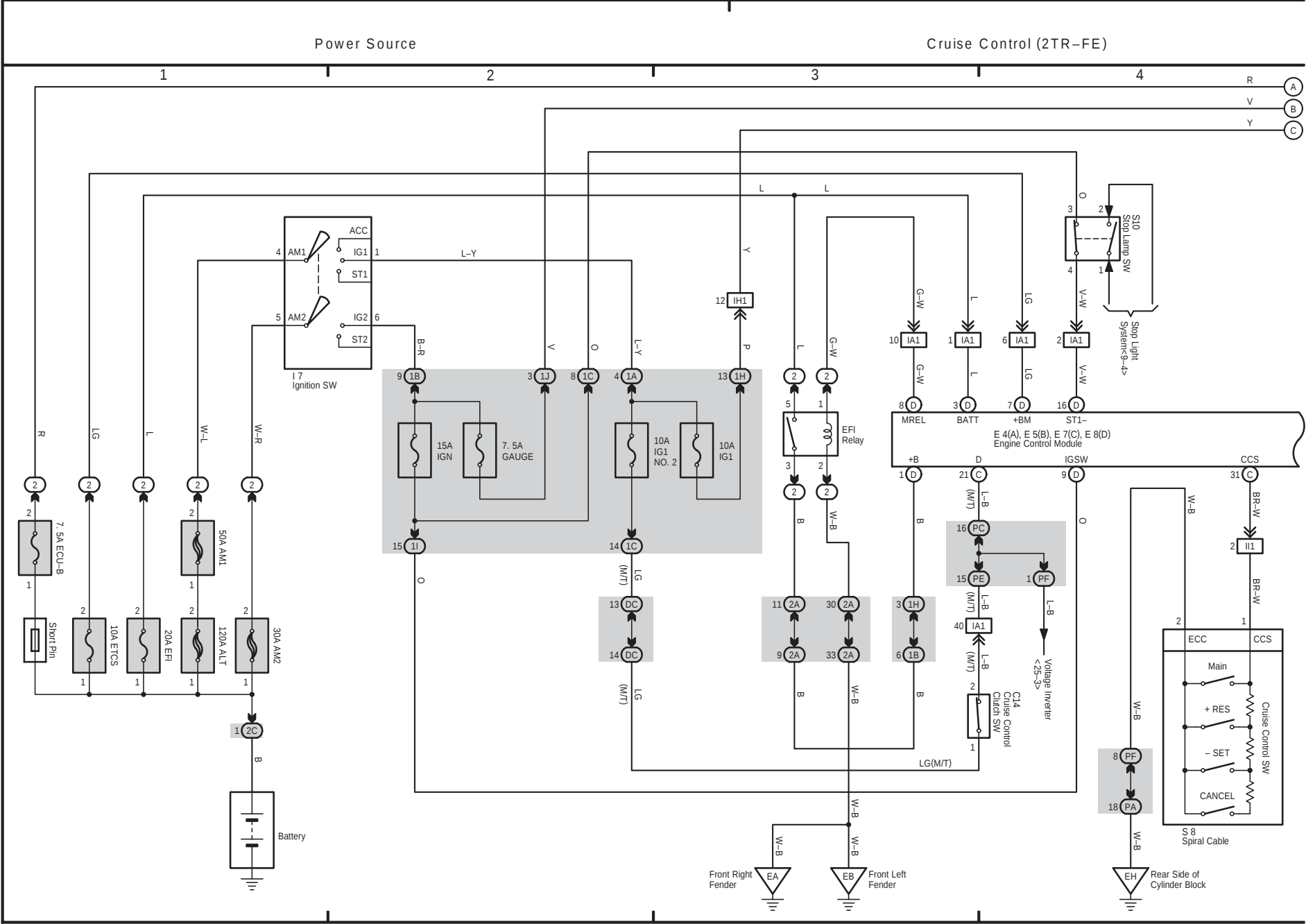
Electronically Controlled Transmission and A/T Indicator (1GR-FE)



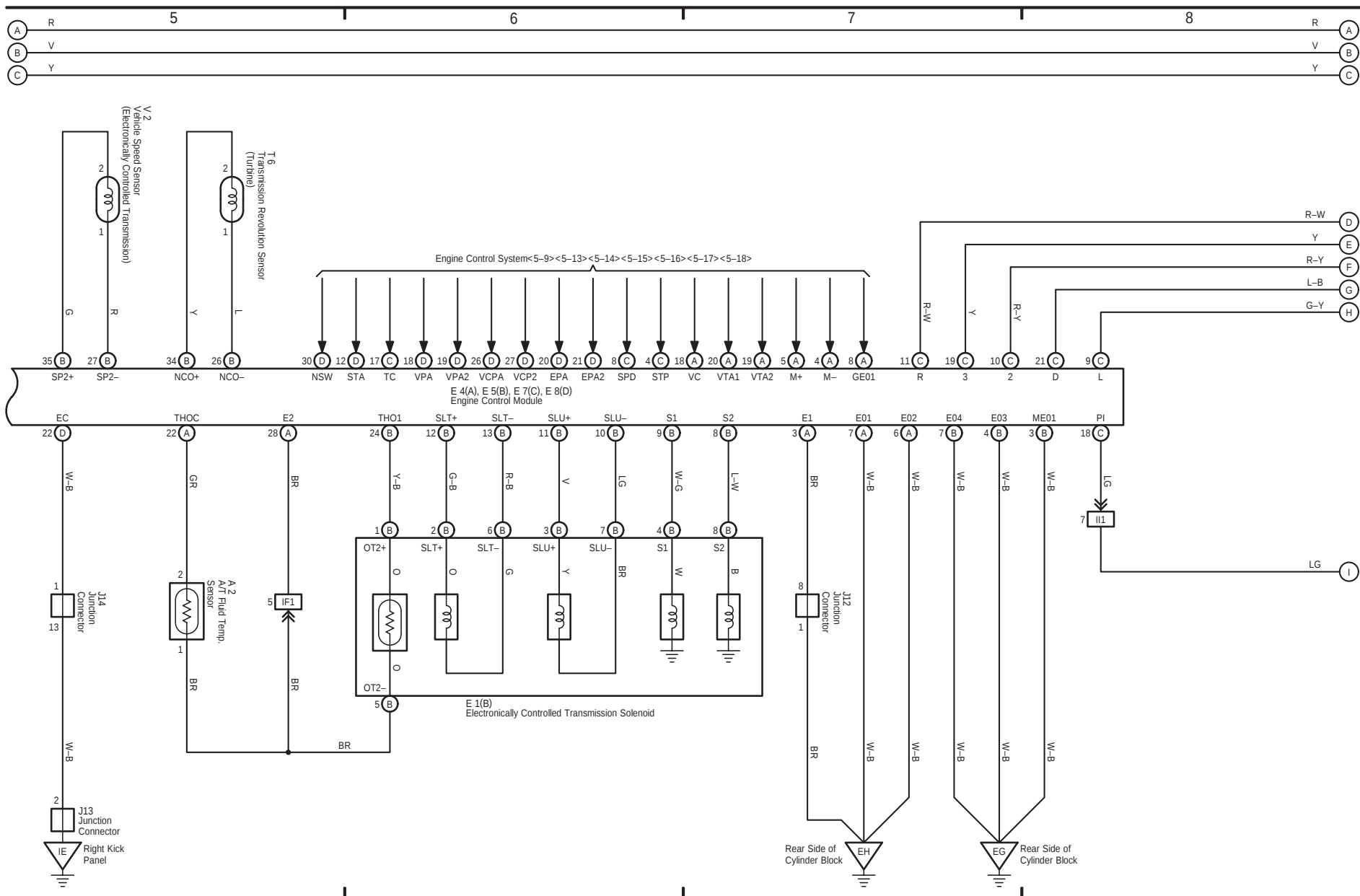
TOYOTA TACOMA (EM01D0U)

12 TOYOTA TACOMA (Cont' d)





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

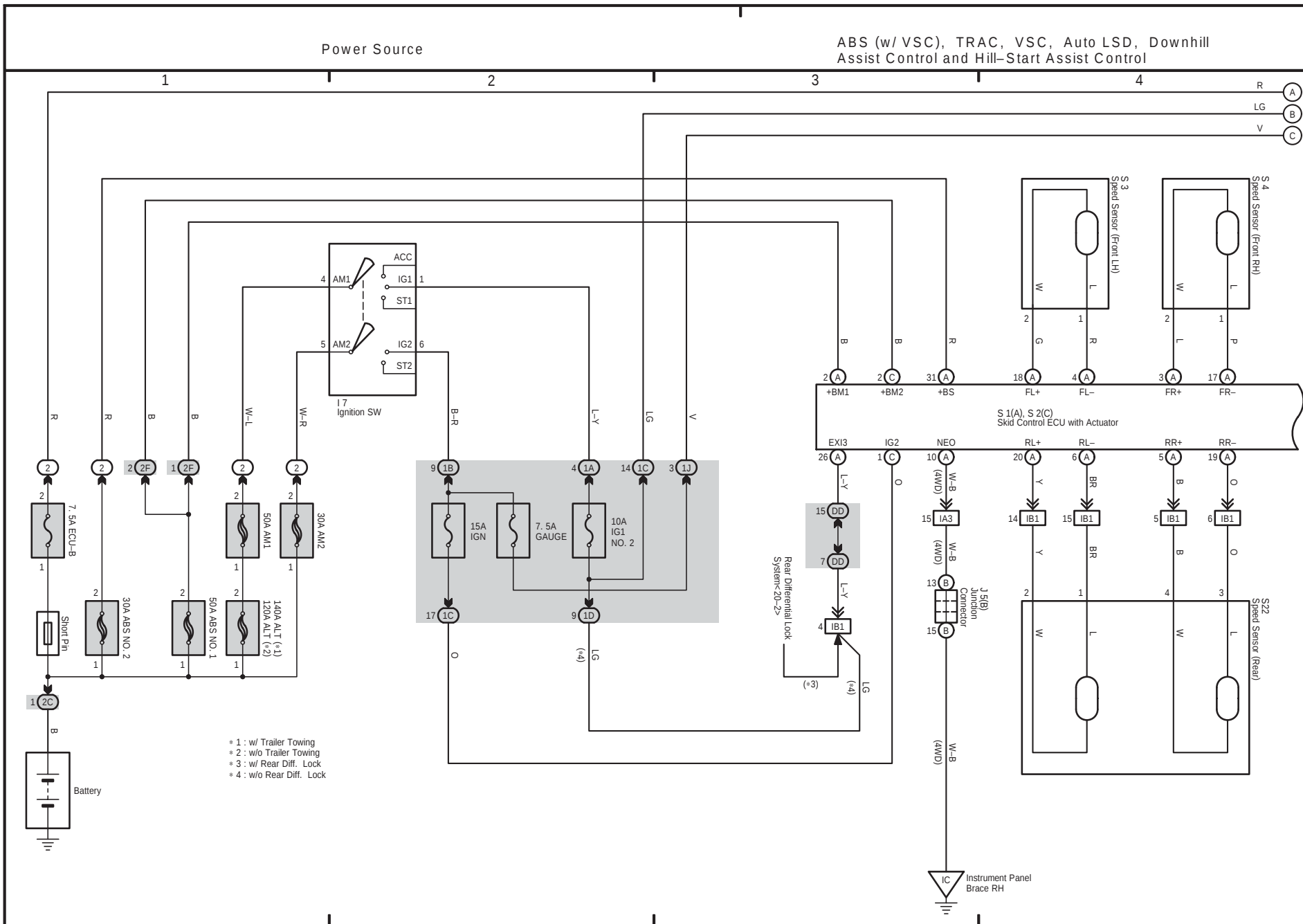


TOYOTA TACOMA (EM01D0U)

Wiring diagram for the 2007 Honda CBR600F4i (600F4i) showing the electrical system layout. The diagram includes terminals A through I, a junction connector J1, a left kick panel, a combination meter, and various control units like the Shift Lock Control ECU, Skid Control ECU, and ABS ECU. It also shows the Park/Neutral Position SW and the ABS ECU. The diagram is labeled with wire colors and terminal numbers.

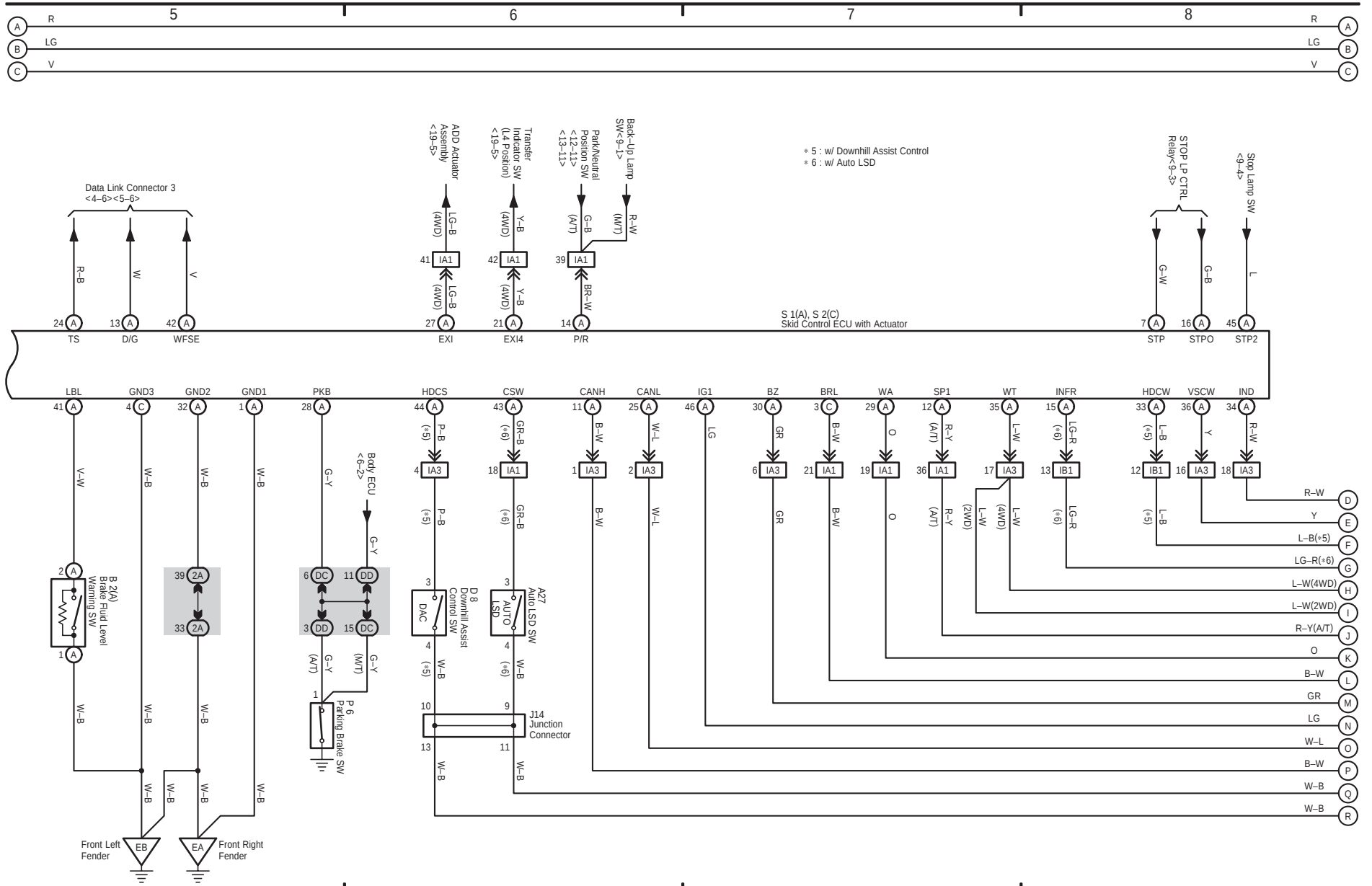
(Cont. next page)

14 TOYOTA TACOMA

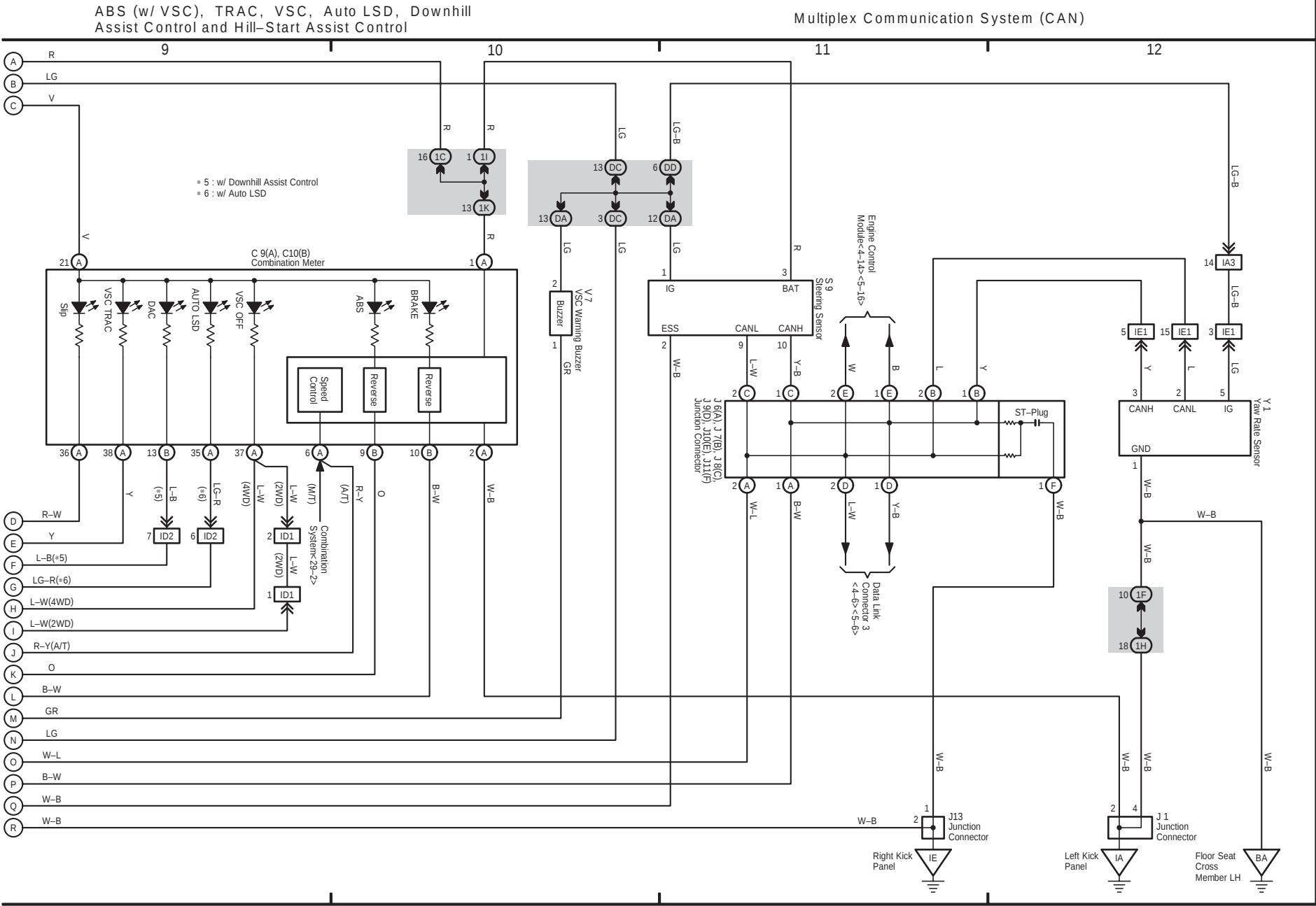


TOYOTA TACOMA (EM01D0U)

ABS (w/ VSC), TRAC, VSC, Auto LSD, Downhill Assist Control and Hill-Start Assist Control



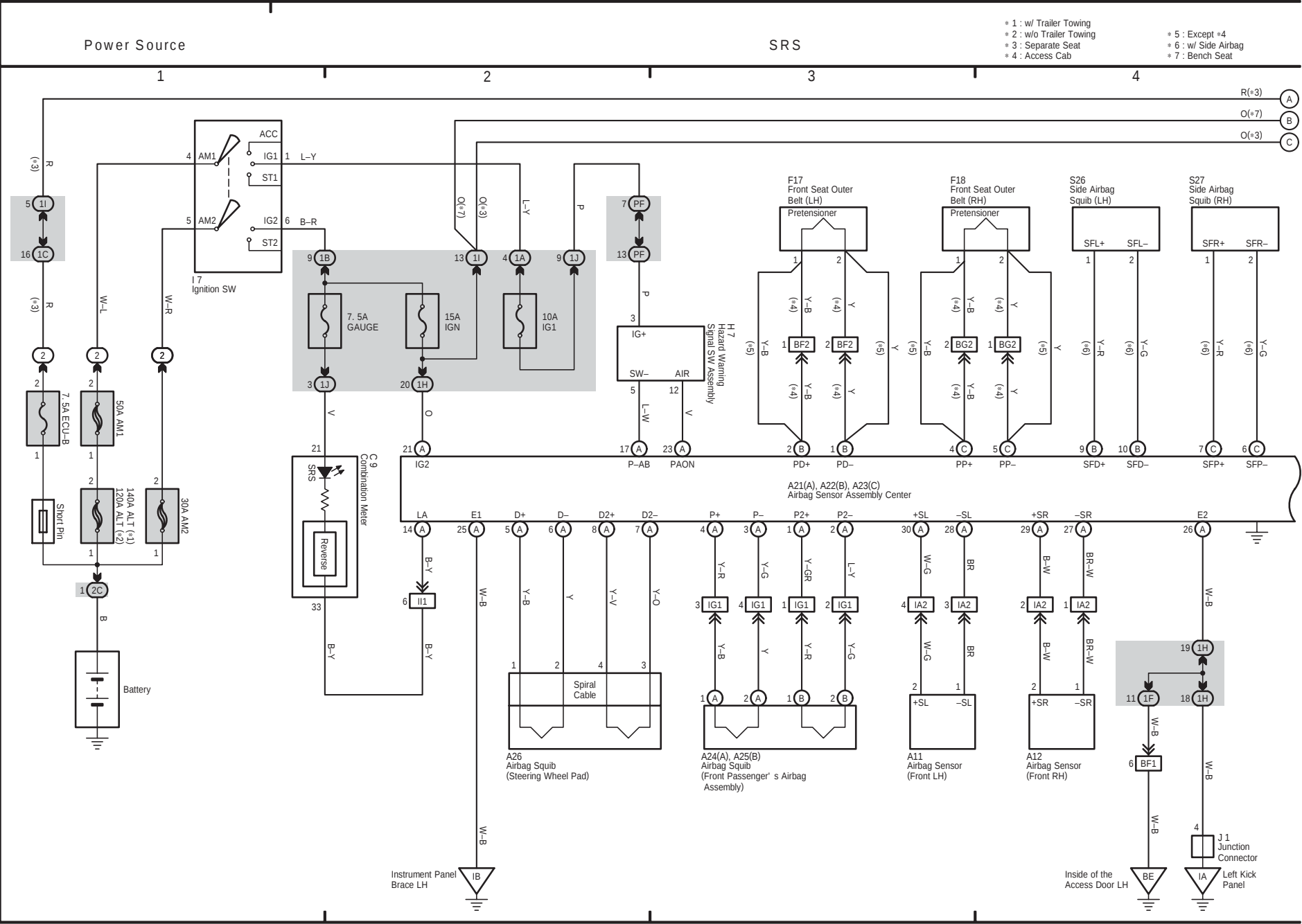
14 TOYOTA TACOMA (Cont' d)

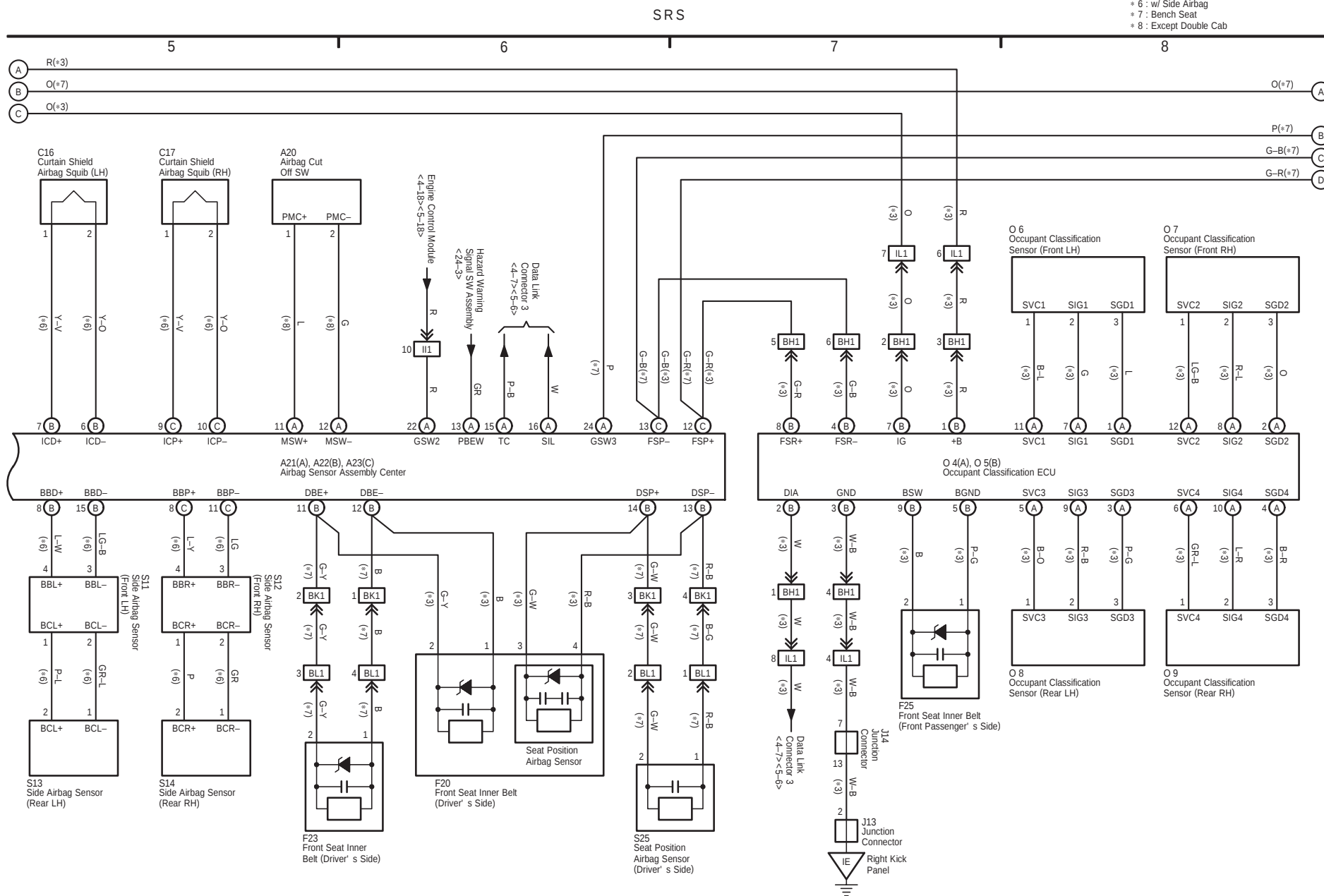




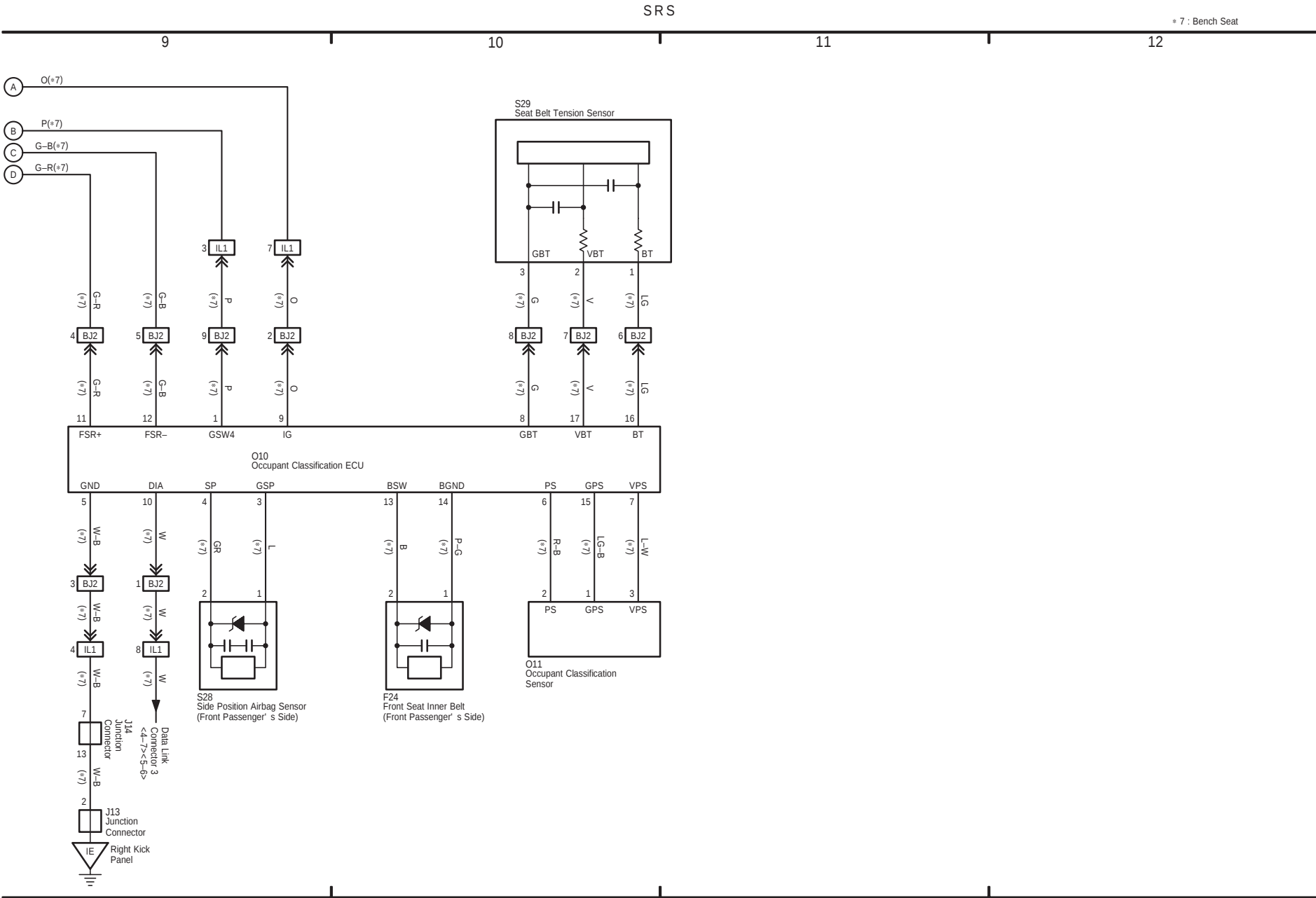
16 TOYOTA TACOMA

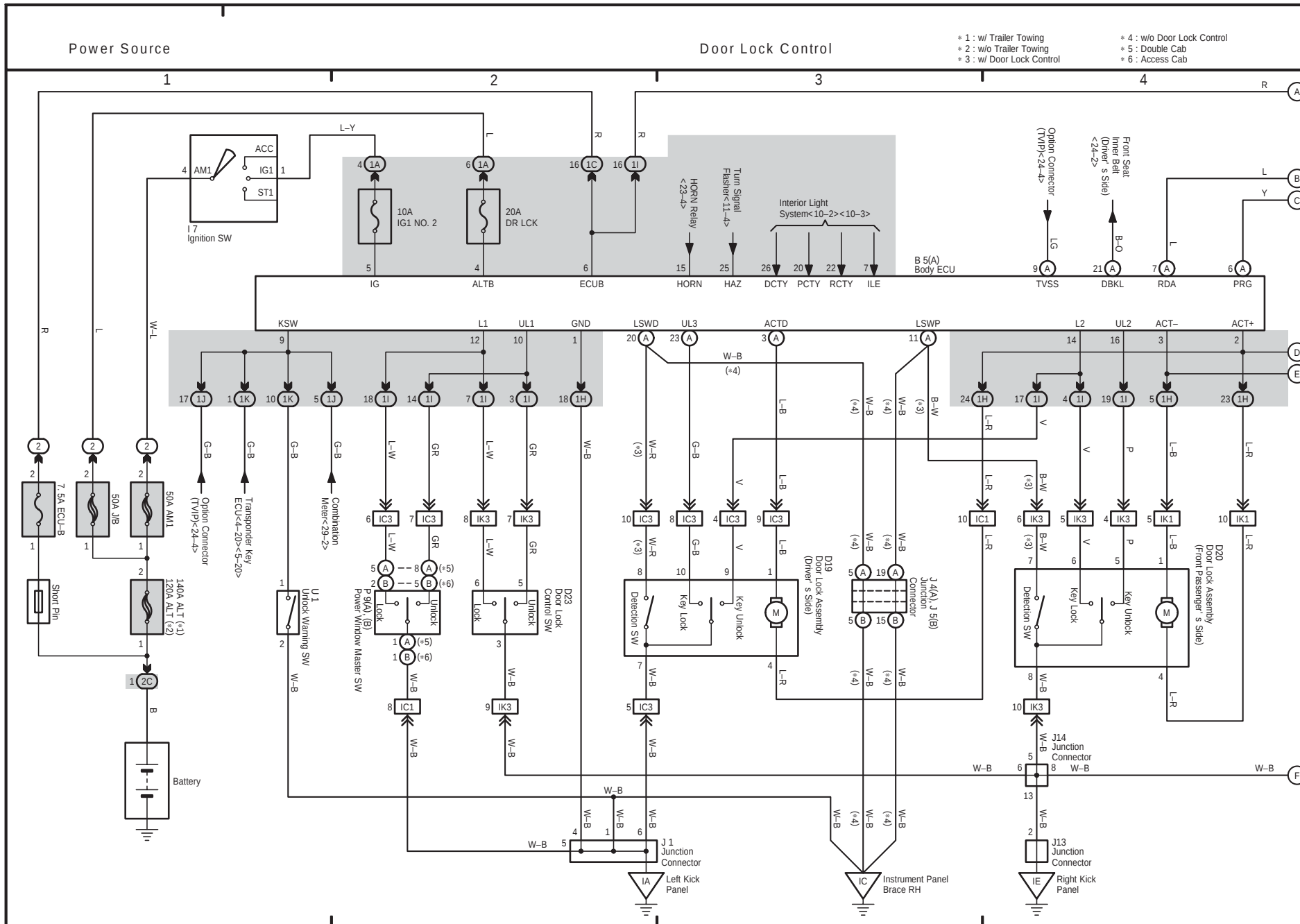
(Cont. next page)



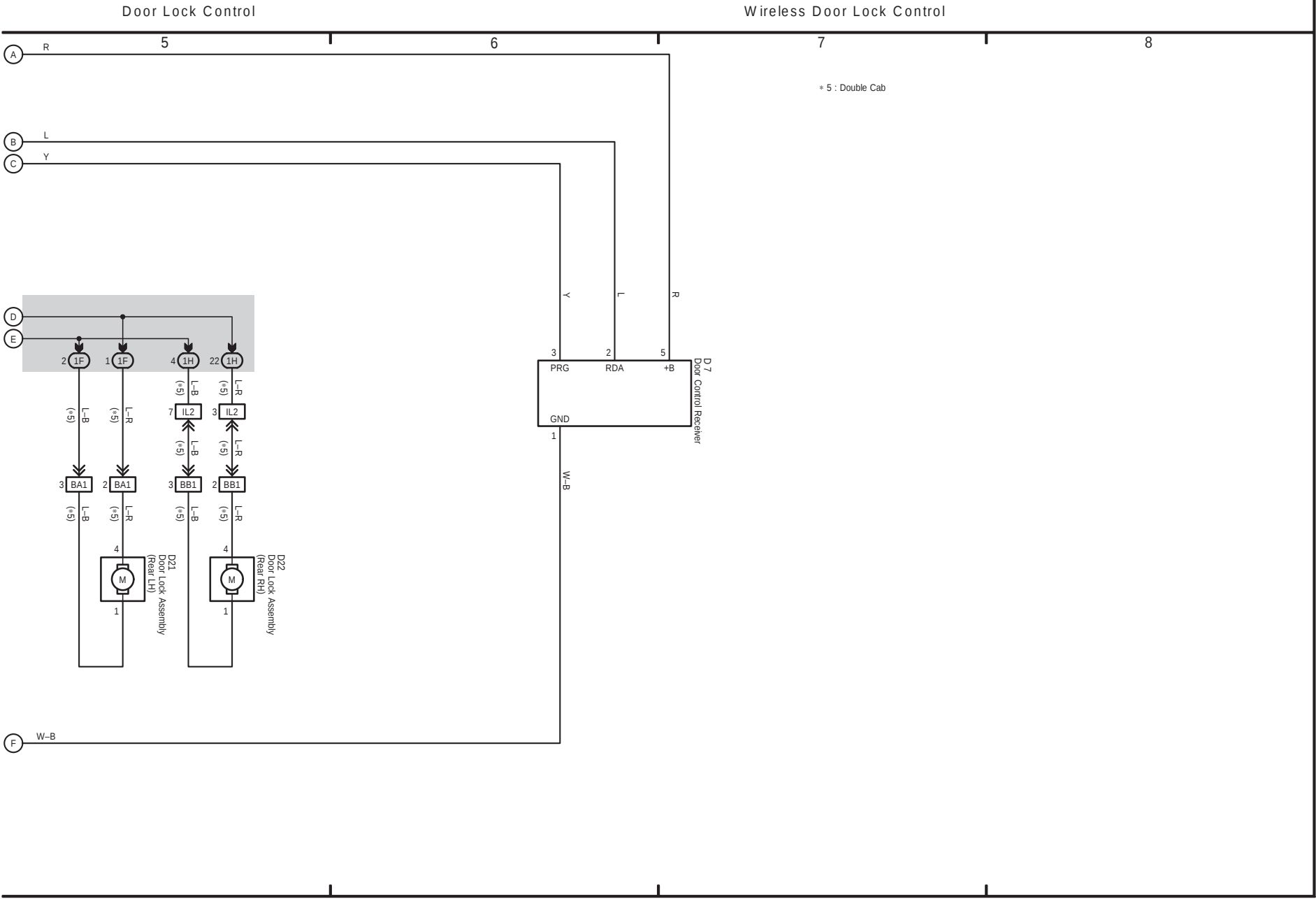


16 TOYOTA TACOMA(Cont' d)





17 TOYOTA TACOMA (Cont' d)

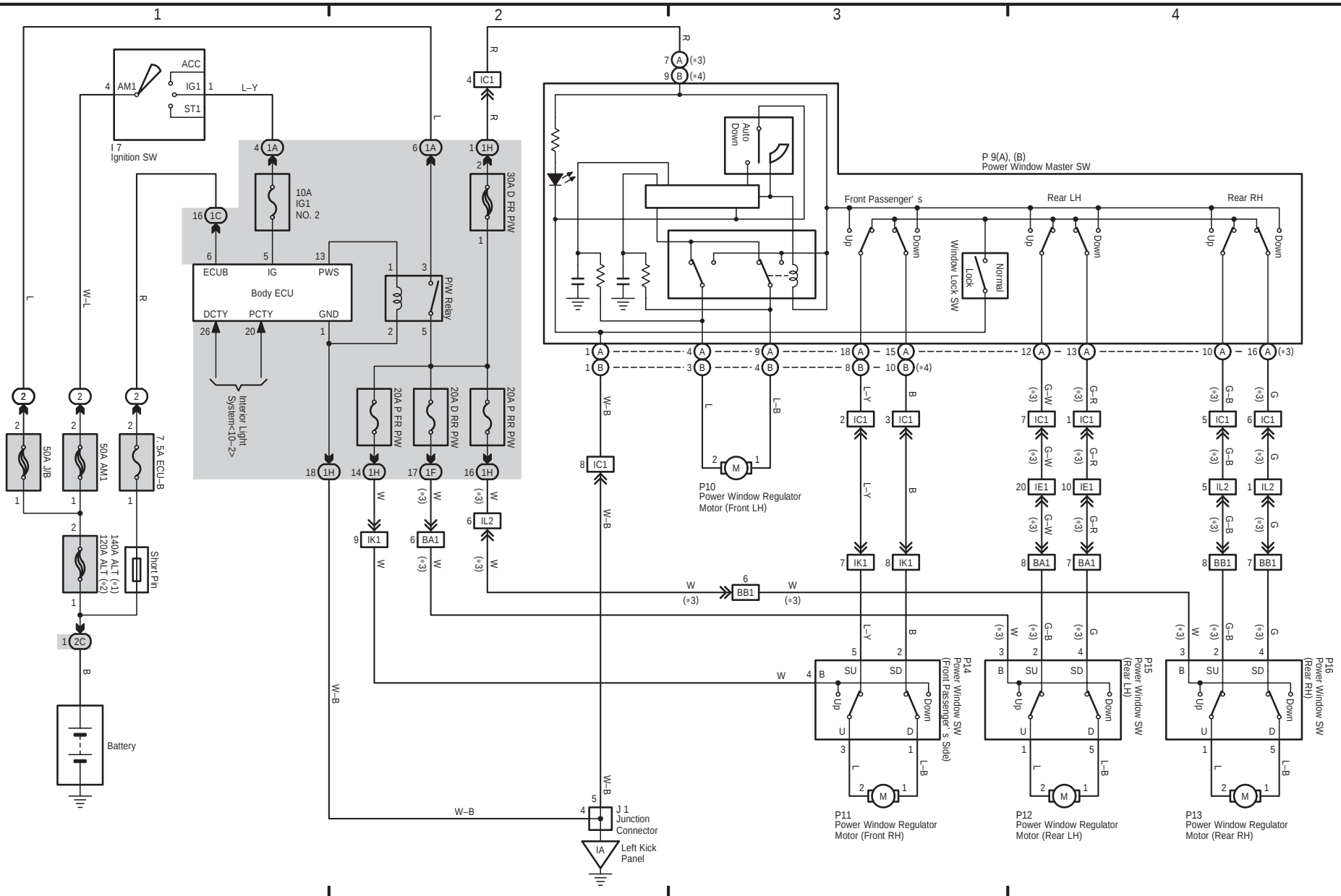


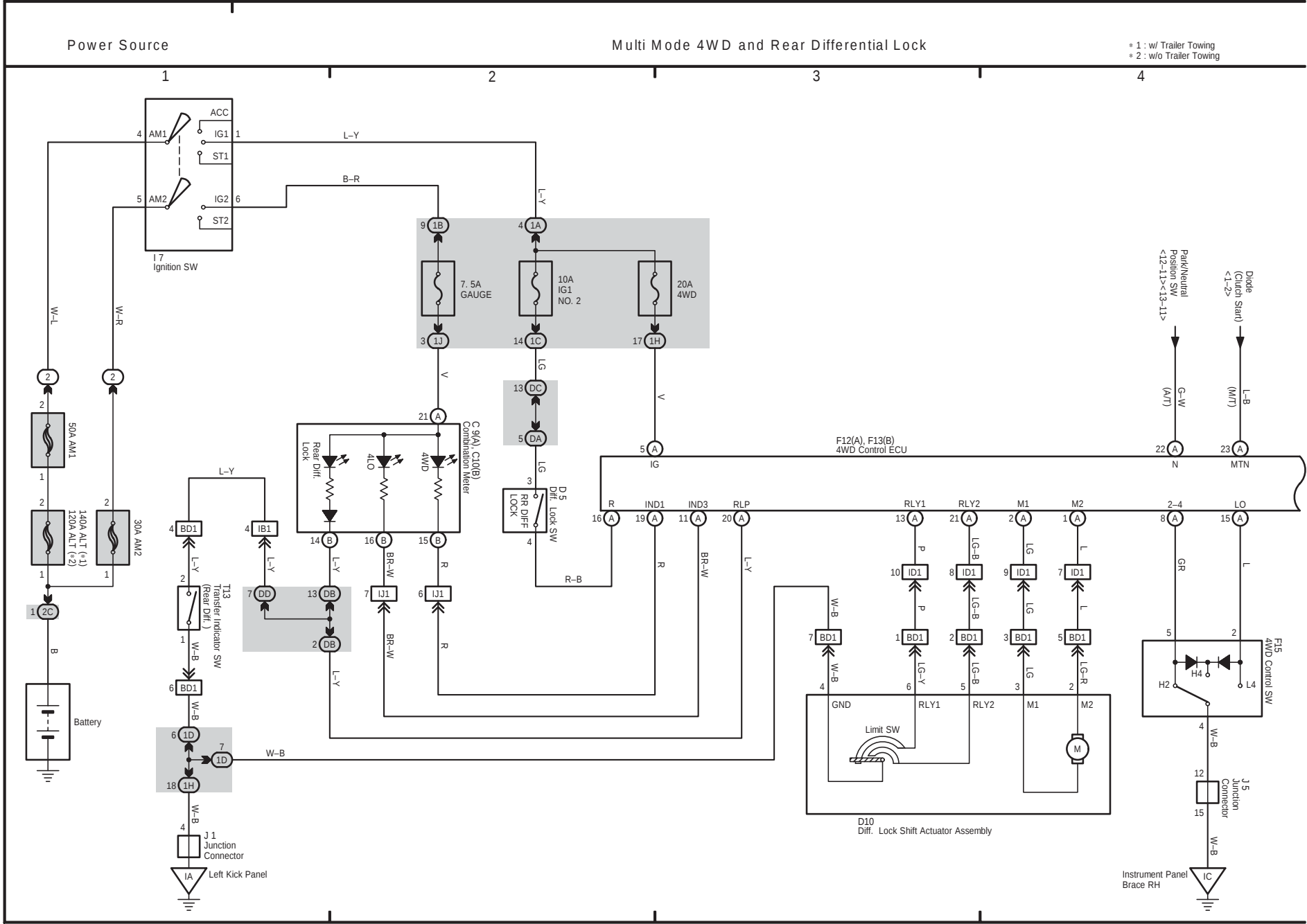
TOYOTA TACOMA (EM01D0U)

- * 1 : w/ Trailer Towing
- * 2 : w/o Trailer Towing
- * 3 : Double Cab
- * 4 : Access Cab

Power Source

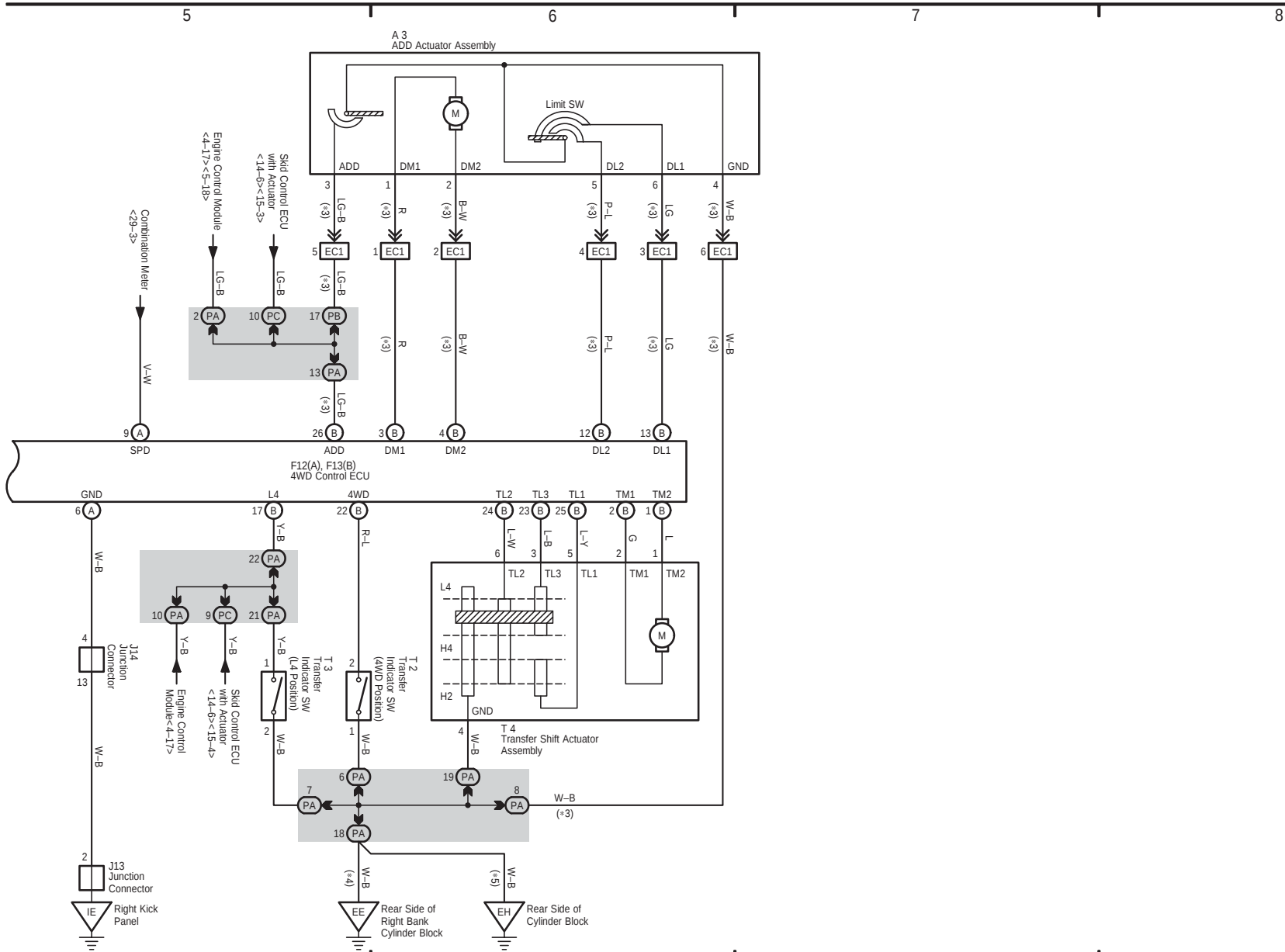
Power Window



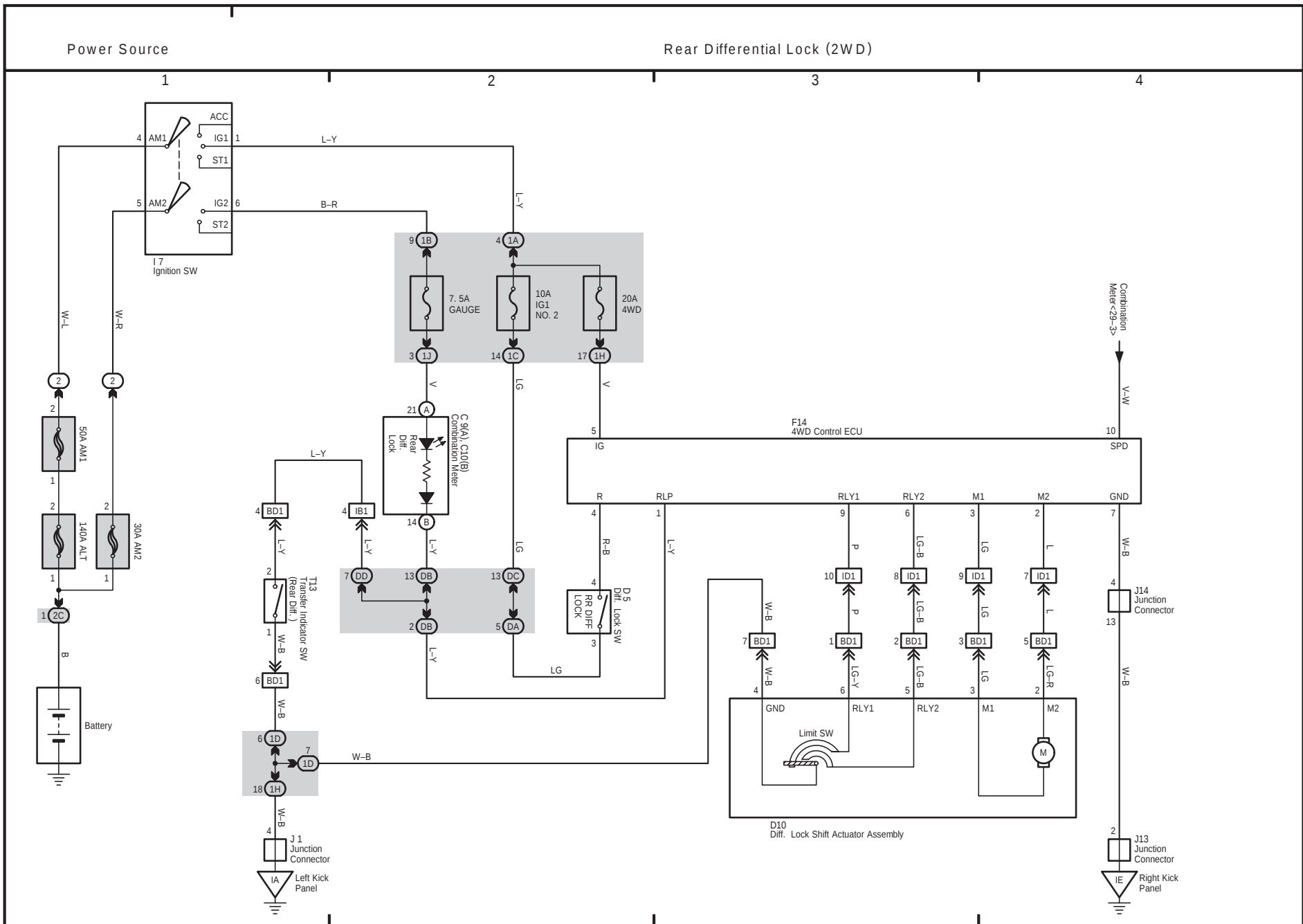


Multi Mode 4WD and Rear Differential Lock

* 3 : w/ ADD
* 4 : 1GR-FE
* 5 : 2TR-FE



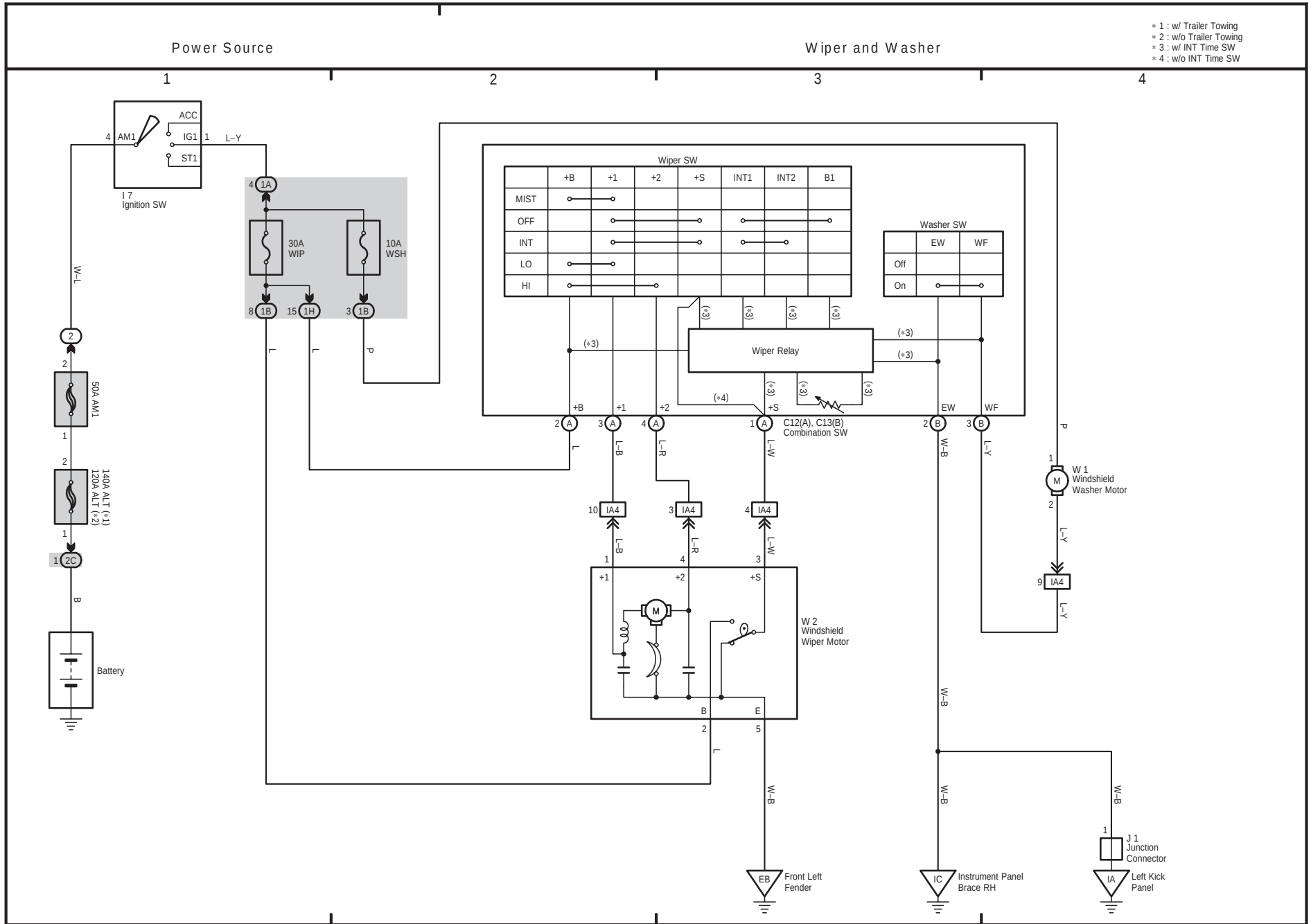
20 TOYOTA TACOMA



21 TOYOTA TACOMA

TOYOTA TACOMA (EM01D0U)

359

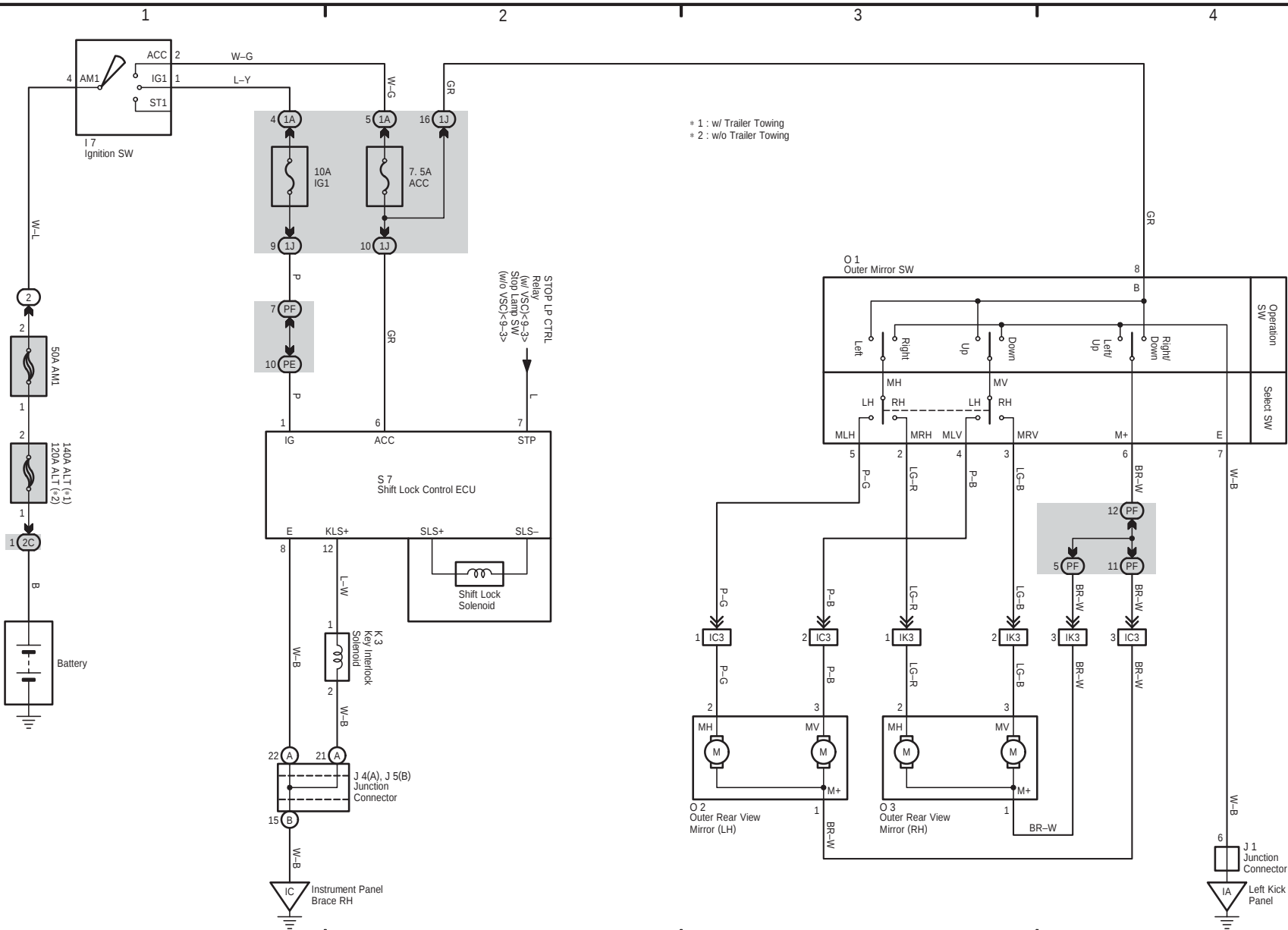


22 TOYOTA TACOMA

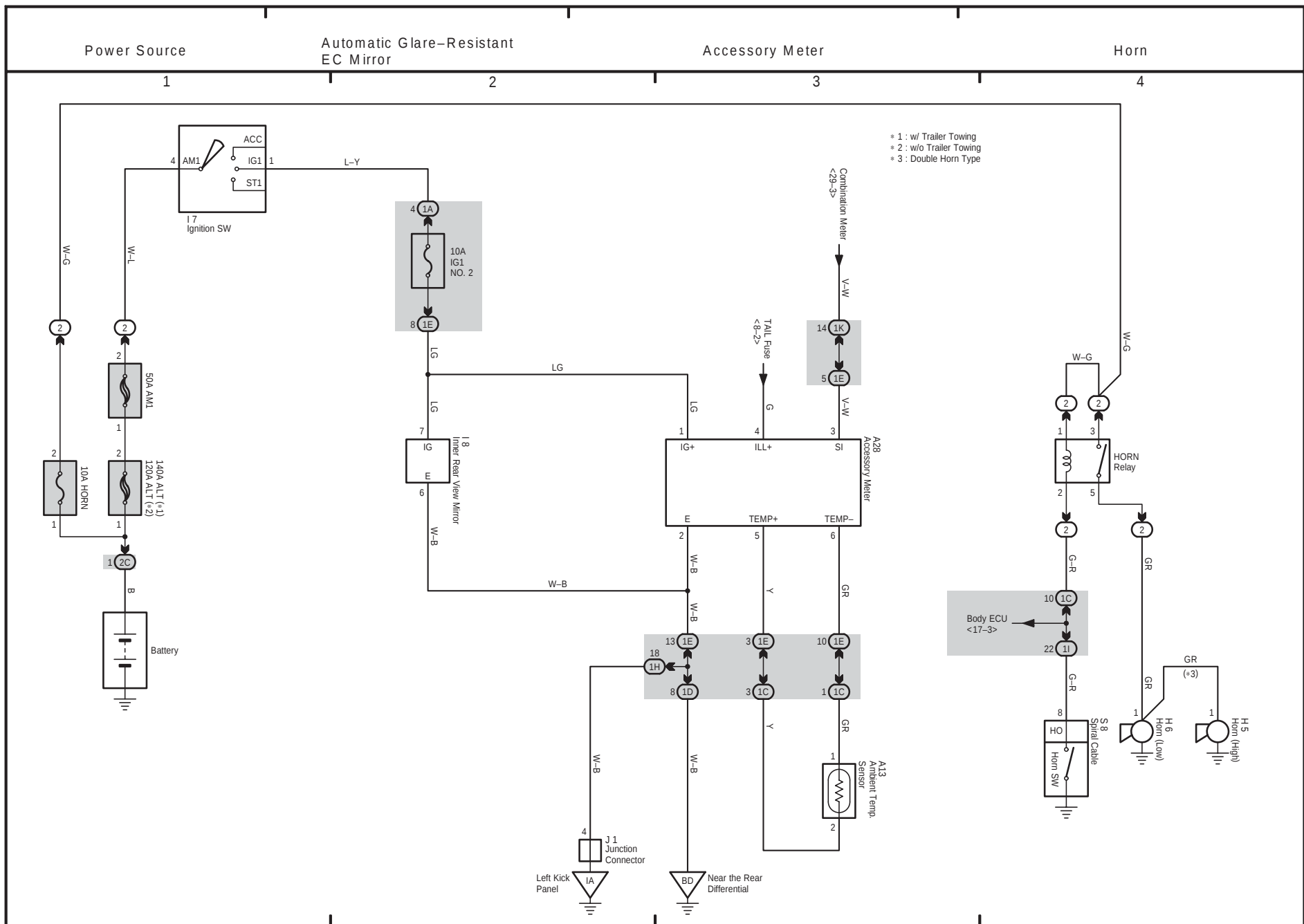
Power Source

Shift Lock

Remote Control Mirror

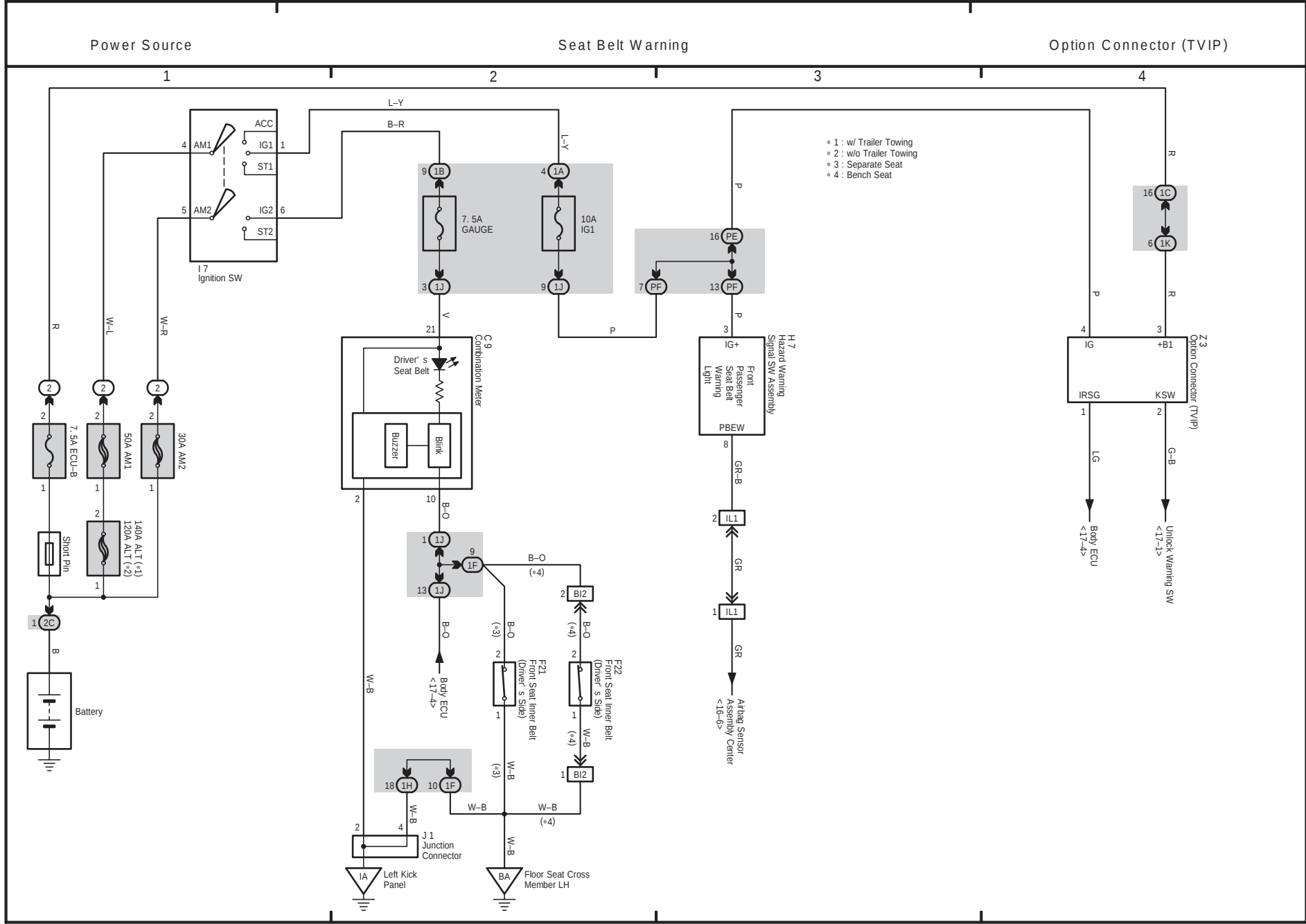


23 TOYOTA TACOMA

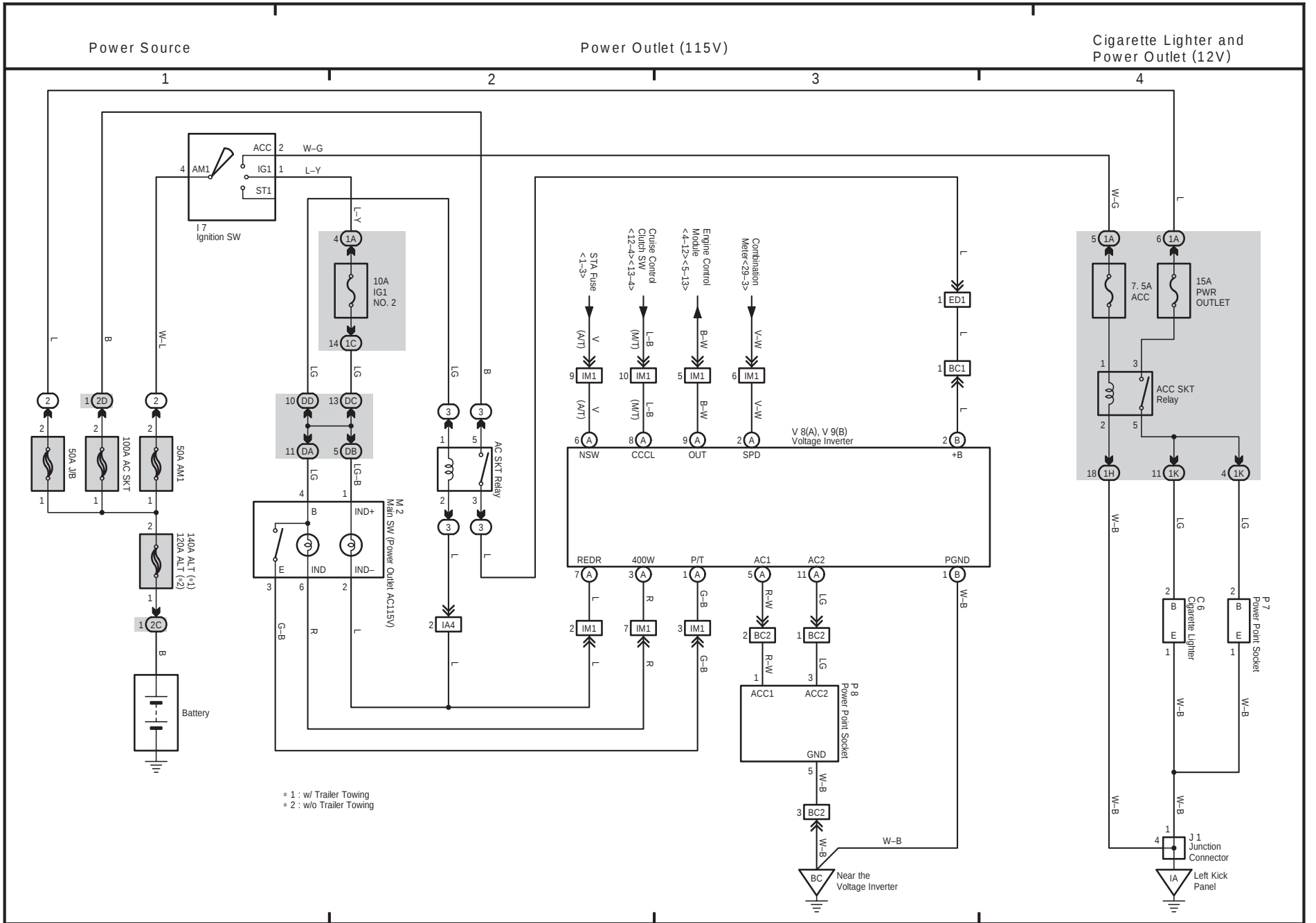


M OVERALL ELECTRICAL WIRING DIAGRAM

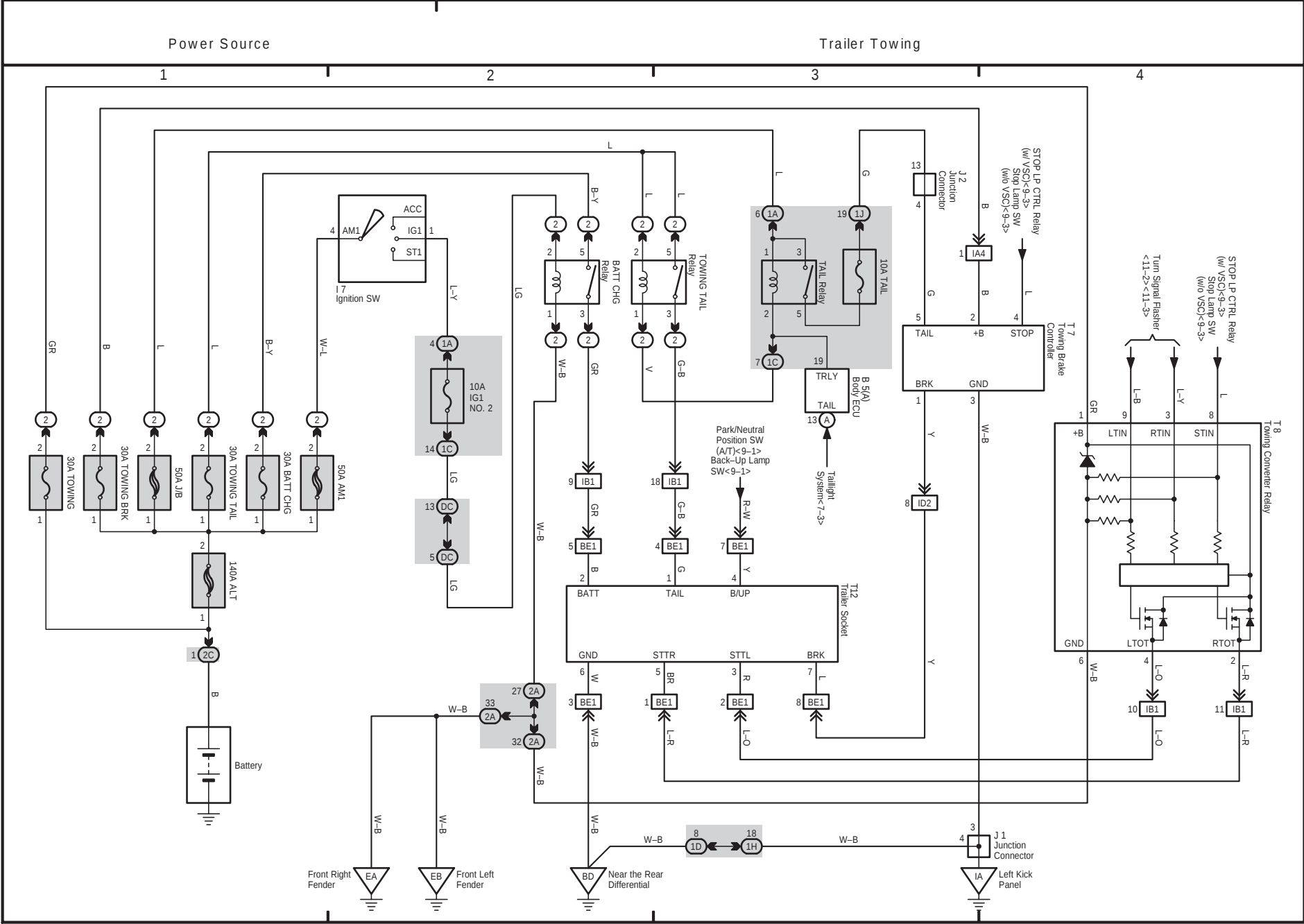
24 TOYOTA TACOMA

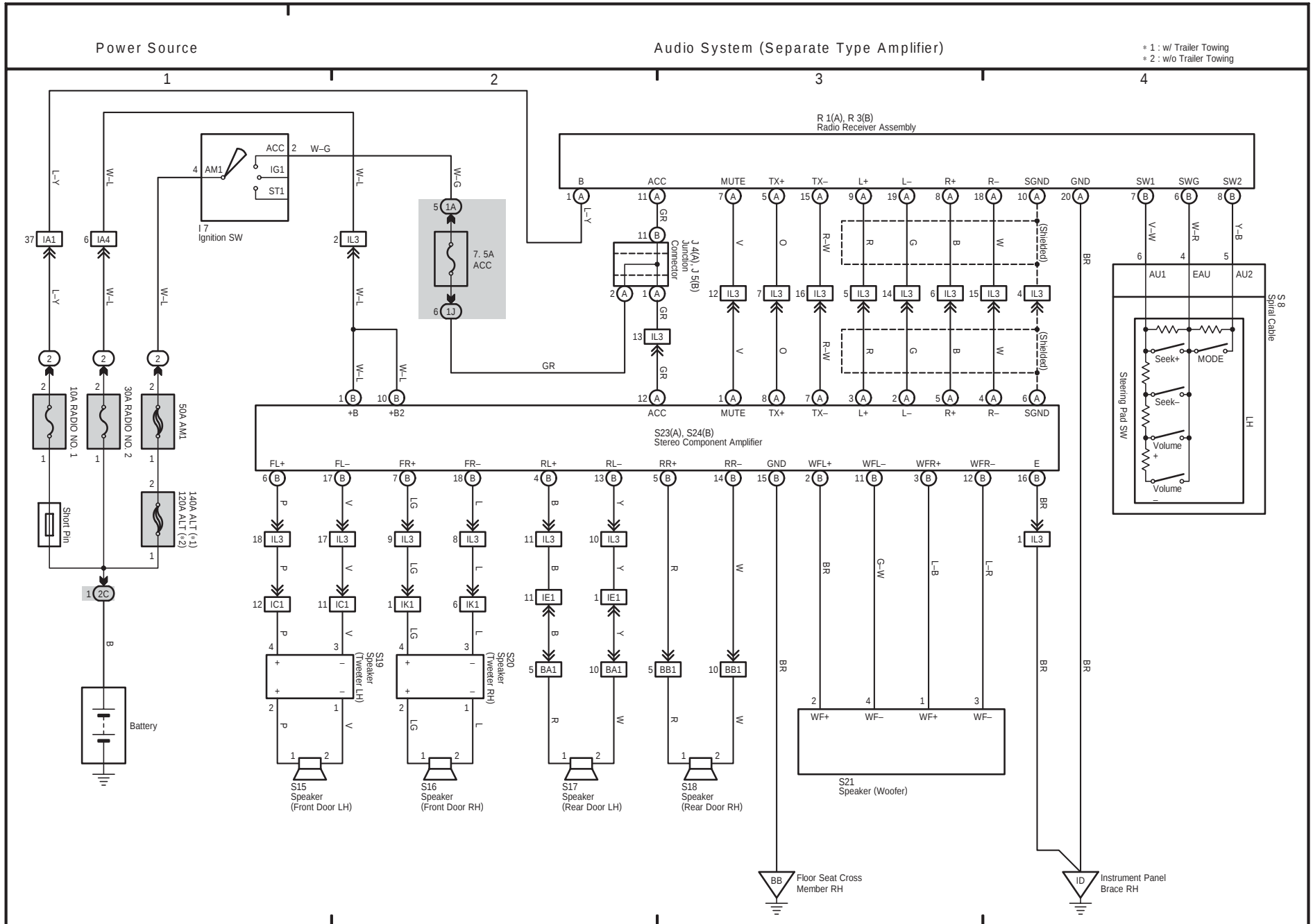


25 TOYOTA TACOMA



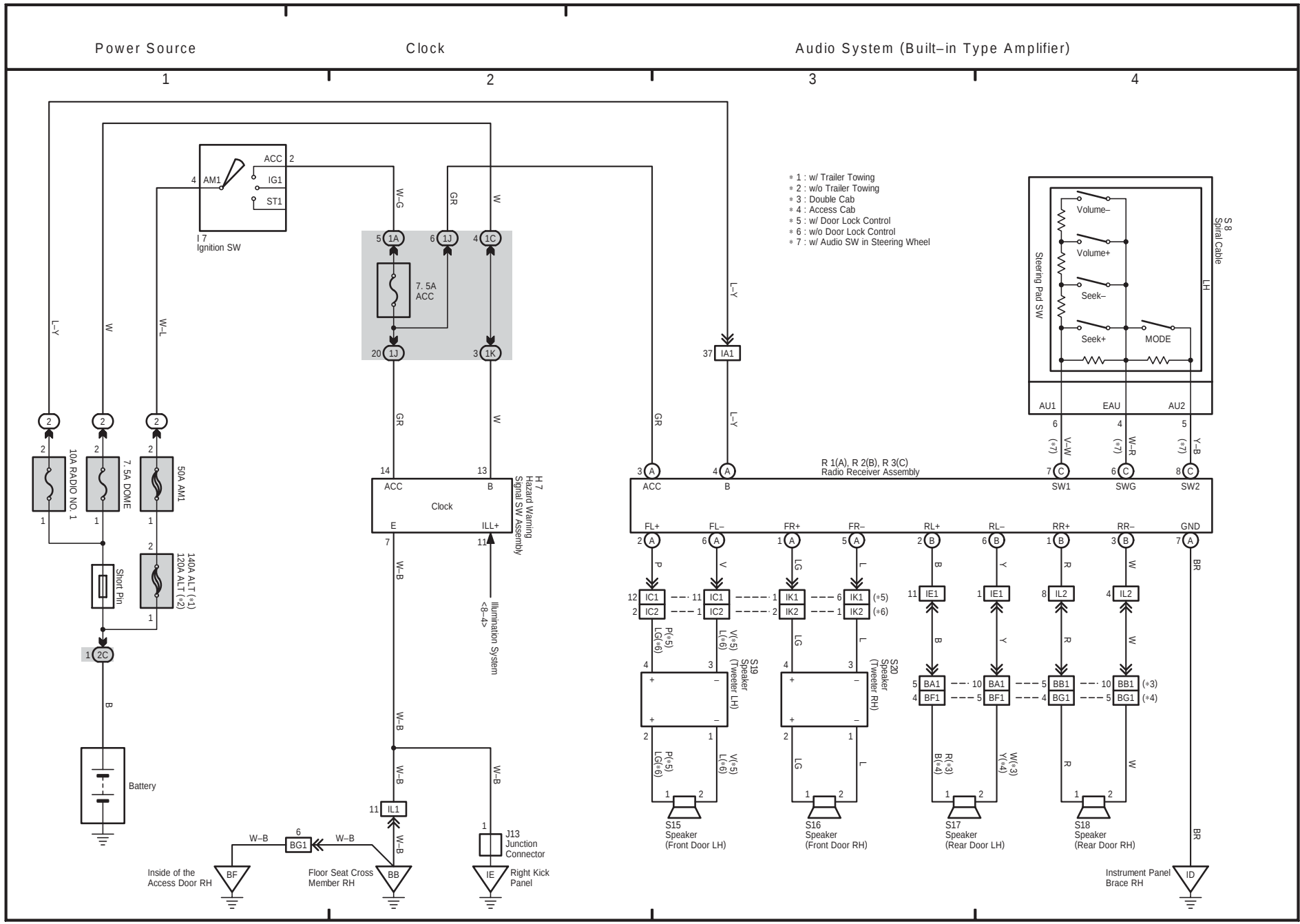
TOYOTA TACOMA (EM01D0U)

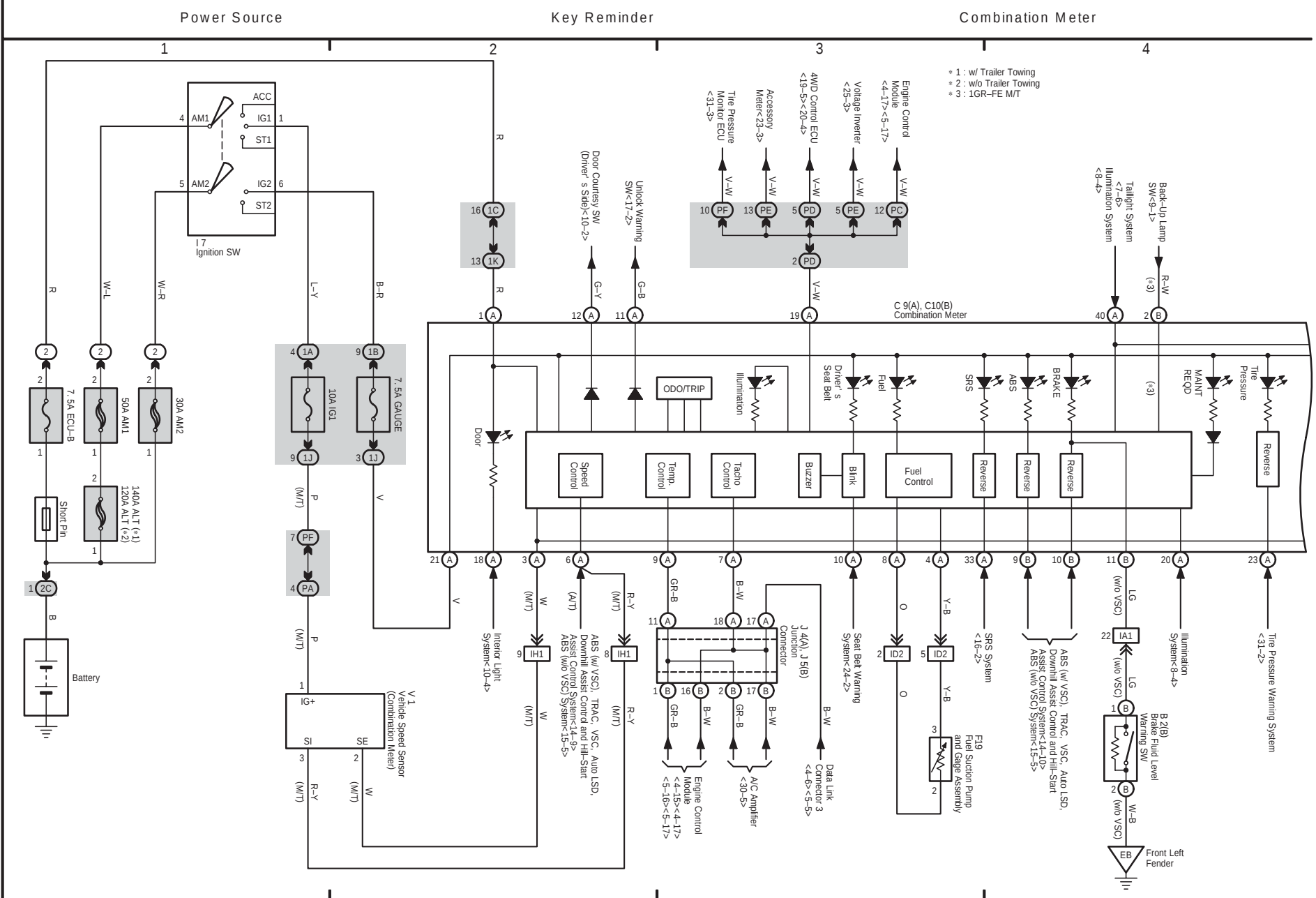


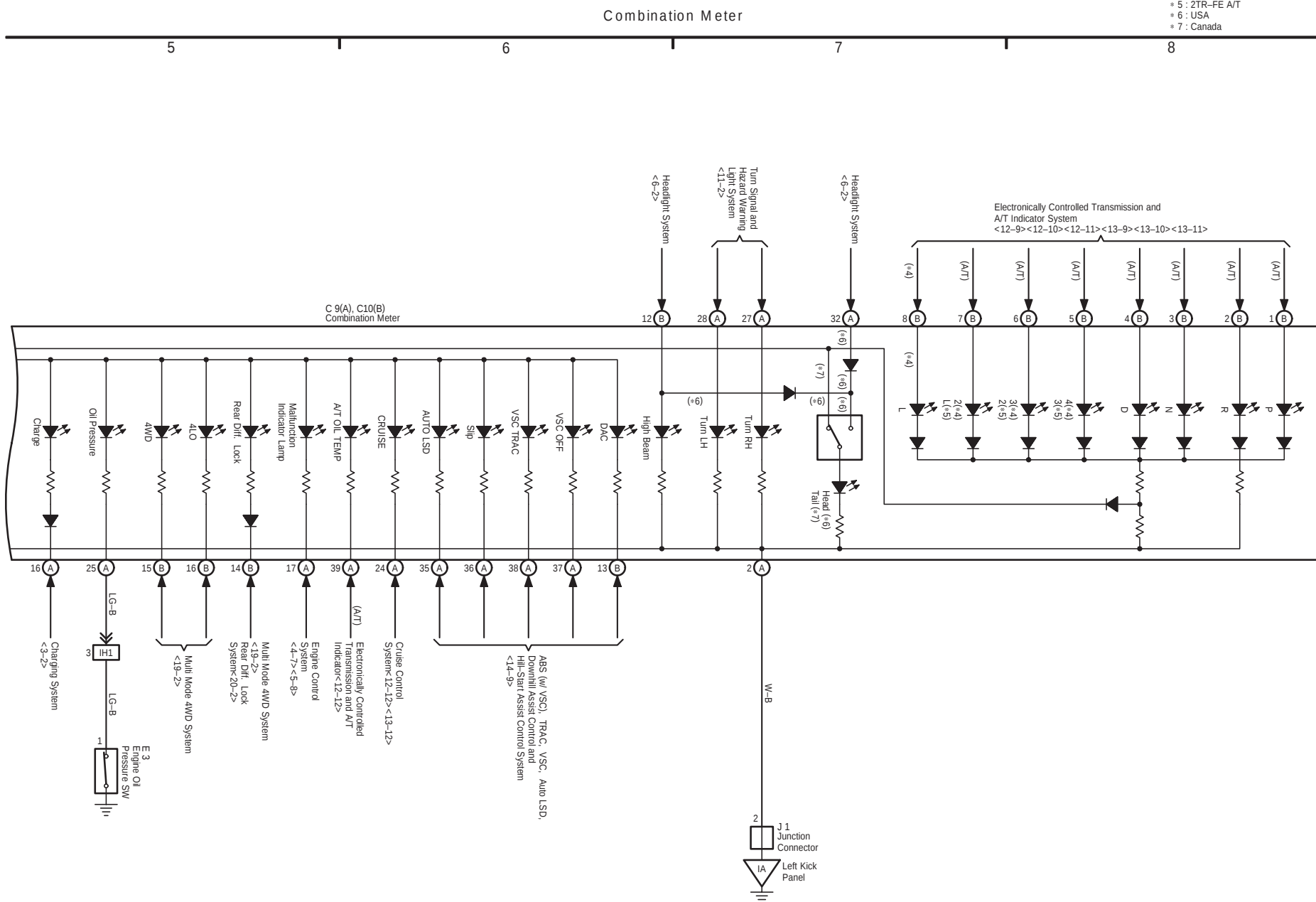


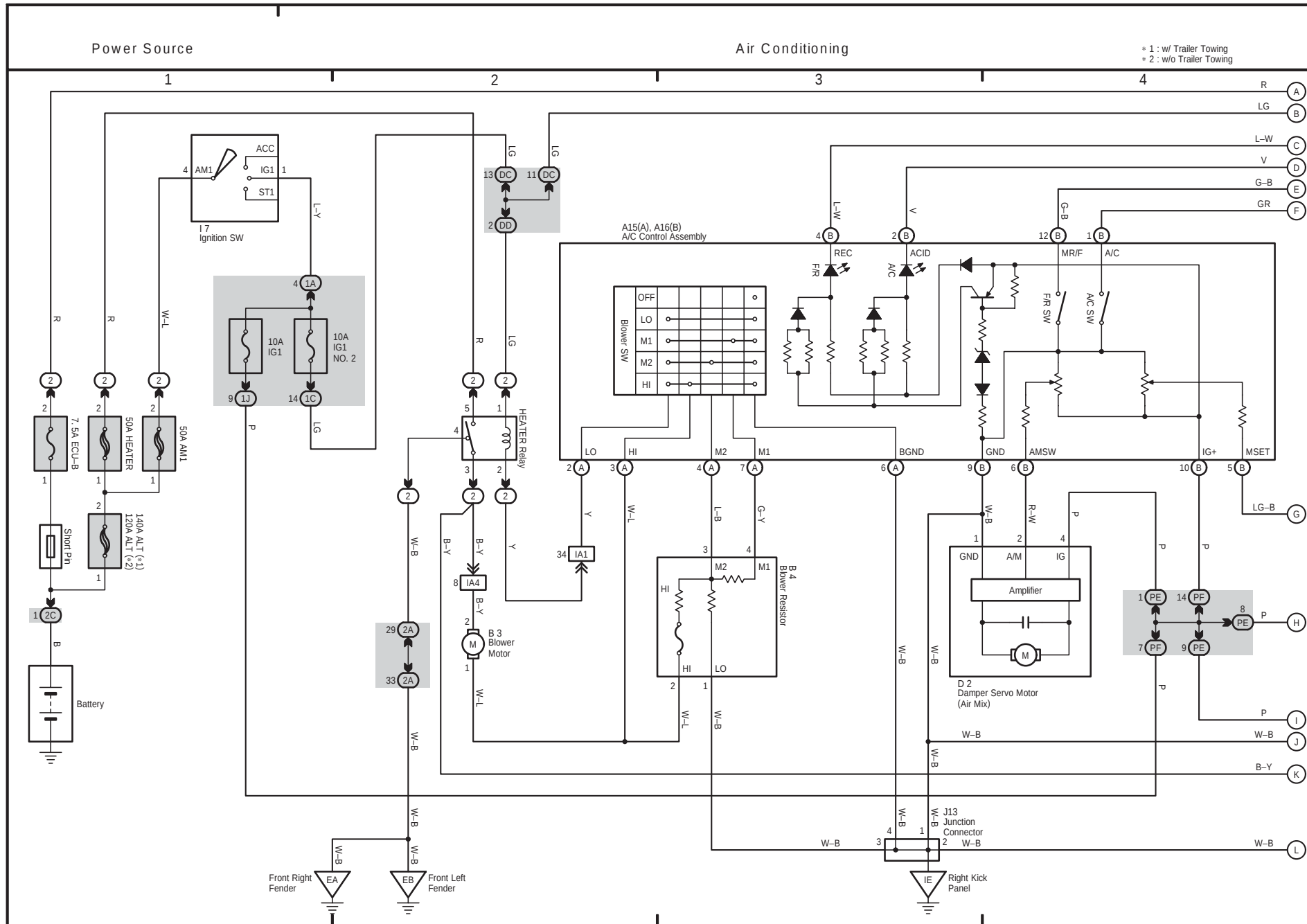
28 TOYOTA TACOMA

M OVERALL ELECTRICAL WIRING DIAGRAM

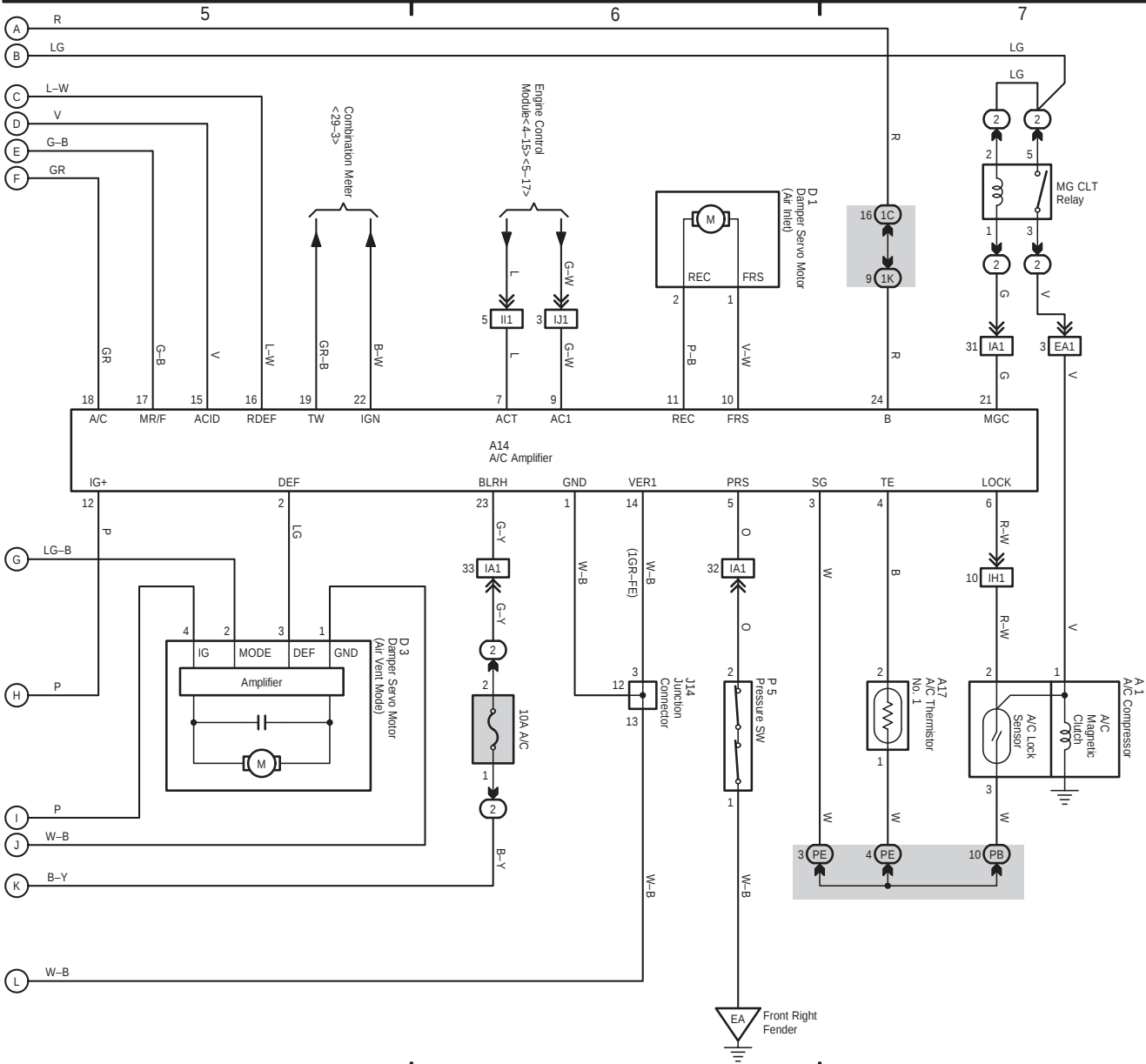








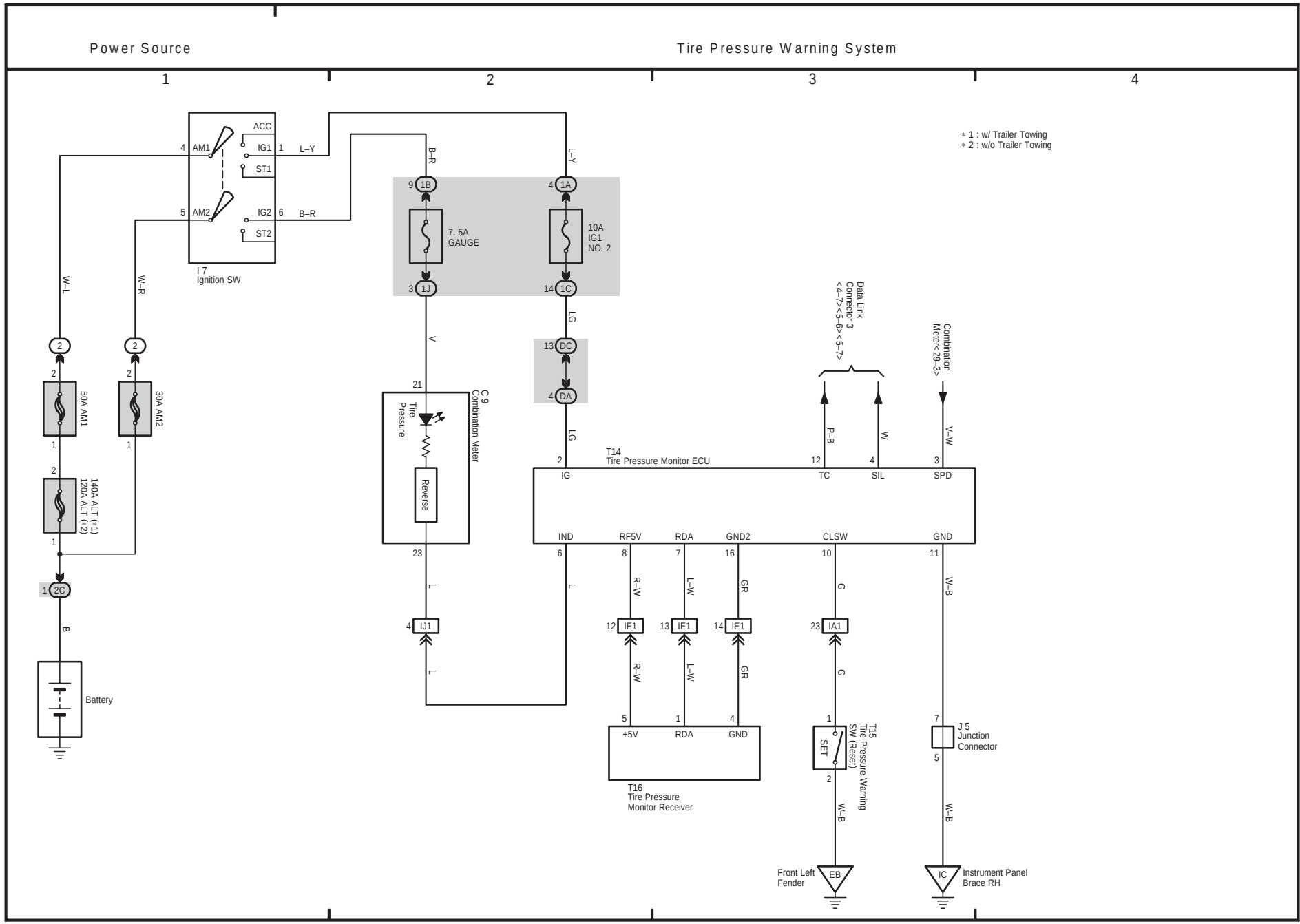
Air Conditioning



31 TOYOTA TACOMA

372

TOYOTA TACOMA (EM01D0U)

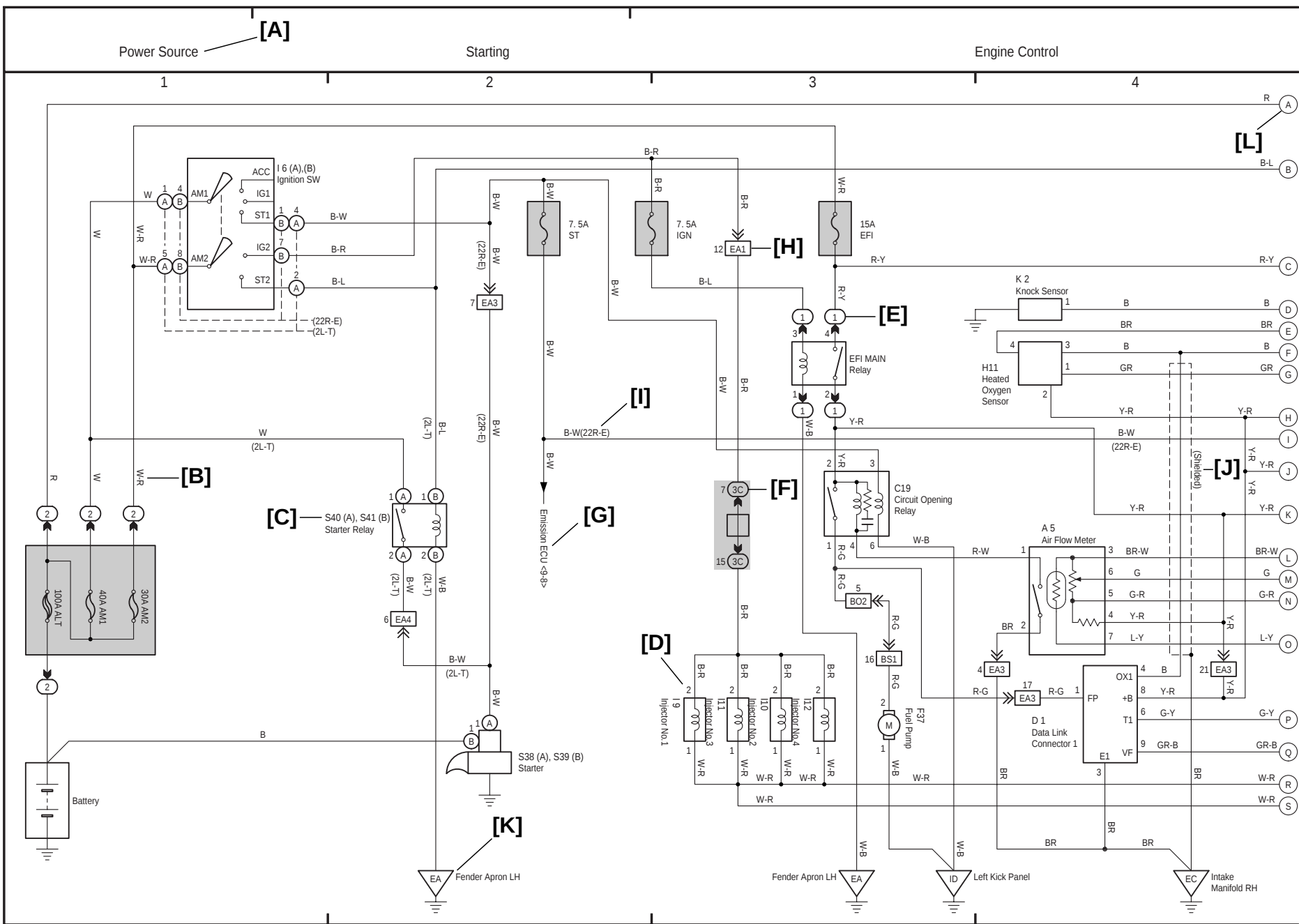


* The system shown here is an EXAMPLE ONLY. It is different to the actual circuit shown in the wiring diagram section.

HOW TO READ THIS SECTION

310

TOYOTA TACOMA (EM01D0U)



[A] : System Title

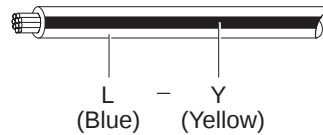
[B] : Indicates the wiring color.

Wire colors are indicated by an alphabetical code.

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

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

Example: L – Y

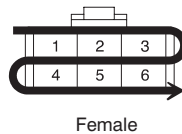


[C] : The position of the parts is the same as shown in the wiring diagram and wire routing.

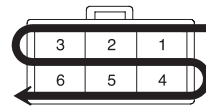
[D] : Indicates the pin number of the connector. The numbering system is different for female and male connectors.

Example : Numbered in order from upper left to lower right

Numbered in order from upper right to lower left



Female



Male

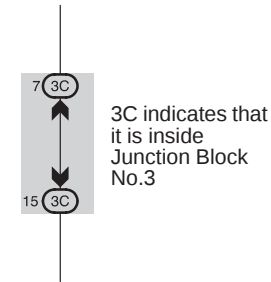
The numbering system for the overall wiring diagram is the same as above

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

Example : ① Indicates Relay Block No.1

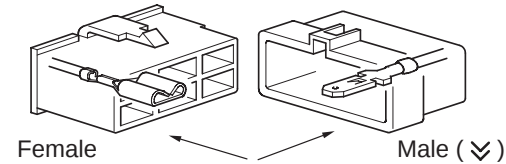
[F] : Junction Block (The number in the circle is the J/B No. and the connector code is shown beside it). Junction Blocks are shaded to clearly separate them from other parts.

Example:



[G] : Indicates related system.

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



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

[J] : Indicates a shielded cable.



[K] : Indicates and located on ground point.

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

SYSTEM INDEX

SYSTEMS	LOCATION	SYSTEMS	LOCATION
ABS (w/ VSC)	14-3	Illumination	8-2
ABS (w/o VSC)	15-2	Interior Light	10-3
Accessory Meter	23-3	Key Reminder	29-2
Air Conditioning	30-2	Light Auto Turn Off System	10-2
Audio System (Built-in Type Amplifier)	28-3	Multi Mode 4WD	19-2
Audio System (Separate Type Amplifier)	27-2	Multiplex Communication System (CAN)	14-11
Auto LSD	14-3	Option Connector (Trailer Towing)	7-2
Automatic Glare-Resistant EC Mirror	23-2	Option Connector (TVIP)	24-4
Back-Up Light	9-2	Power Outlet (115V)	25-2
Charging	3-2	Power Outlet (12V)	25-4
Cigarette Lighter	25-4	Power Source	1-31-1
Clock	28-2	Power Window	18-2
Combination Meter	29-3	Rear Differential Lock (2WD)	20-2
Cruise Control (1GR-FE)	12-3	Rear Differential Lock (4WD)	19-2
Cruise Control (2TR-FE)	13-3	Remote Control Mirror	22-3
Door Lock Control	17-2	Seat Belt Warning	24-2
Downhill Assist Control	14-3	Shift Lock	22-2
Electronically Controlled Transmission and A/T Indicator (1GR-FE)	12-5	SRS	16-2
Electronically Controlled Transmission and A/T Indicator (2TR-FE)	13-5	Starting	1-2
Engine Control (1GR-FE)	4-3	Stop Light	9-3
Engine Control (2TR-FE)	5-3	Taillight	7-3
Engine Immobiliser System (1GR-FE)	4-19	Tire Pressure Warning System	31-2
Engine Immobiliser System (2TR-FE)	5-19	TRAC	14-3
Front Fog Light	6-4	Trailer Towing	26-2
Headlight	6-2	Turn Signal and Hazard Warning Light	11-2
Hill-Start Assist Control	14-3	VSC	14-3
Horn	23-4	Wiper and Washer	21-2
Ignition	2-2	Wireless Door Lock Control	17-6