

## FOREWORD

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

Applicable models: GSX30 Series

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

Manual Name	Pub. No.
● 2006 AVALON Repair Manual	RM00A0U
● 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.**

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# 2006 AVALON ELECTRICAL WIRING DIAGRAM

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# A INTRODUCTION

This manual consists of the following 13 sections:

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

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

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

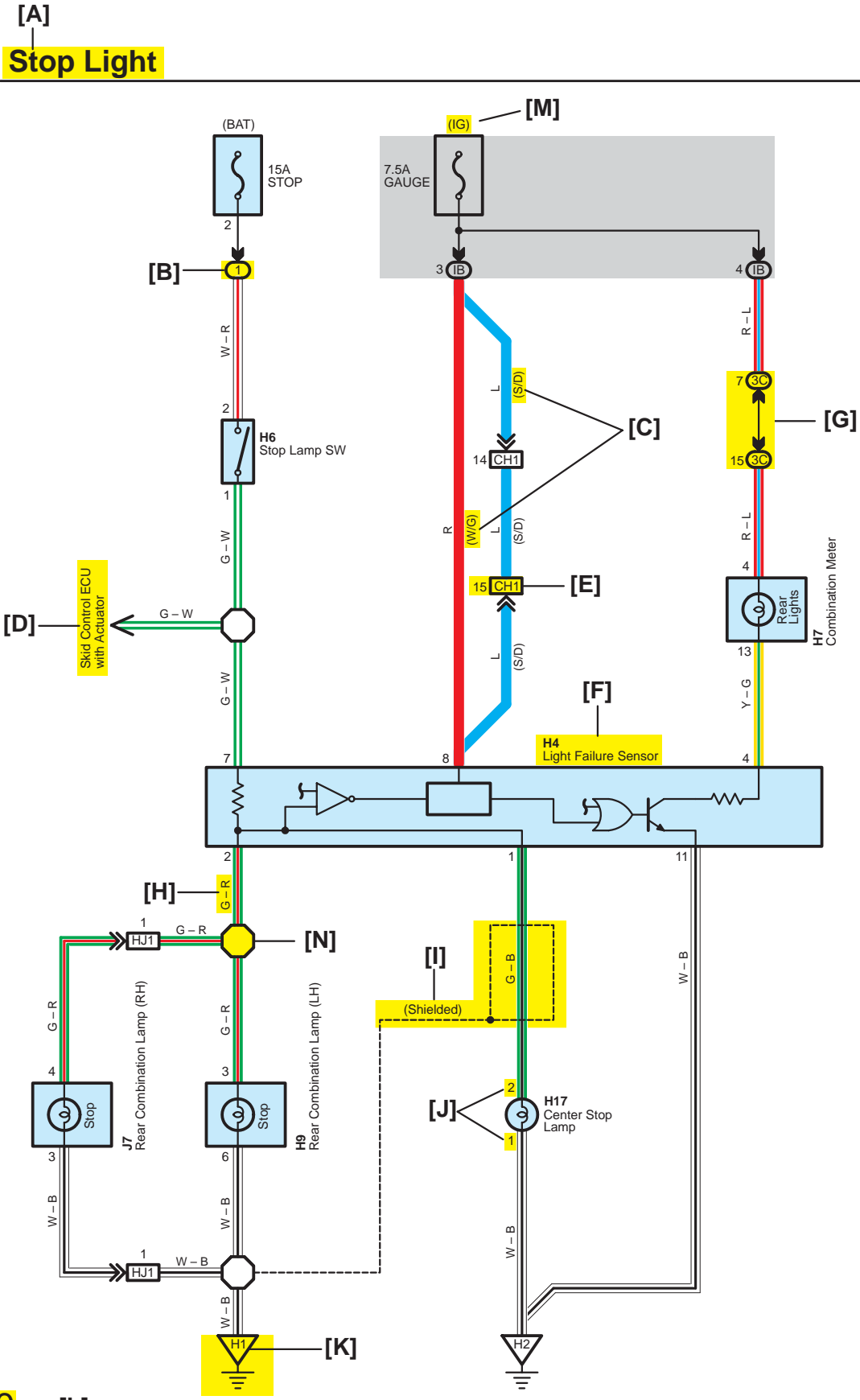
When troubleshooting any problem, first understand the operation of the circuit where the problem was detected (see System Circuit section), the power source supplying power to that circuit (see Power Source section), and the ground points (see Ground Point section). See the System Outline to understand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

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

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

# B HOW TO USE THIS MANUAL

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



**[A]** : System Title

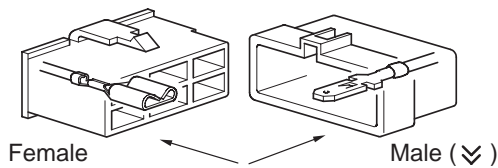
**[B]** : Indicates a Relay Block. No shading is used and only the Relay Block No. is shown to distinguish it from the J/B

Example: ① Indicates Relay Block No.1

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

**[D]** : Indicates related system.

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



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

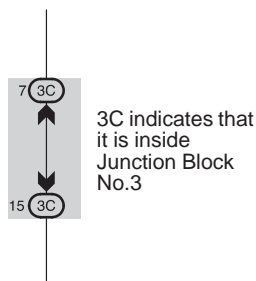
The third character indicates a serial number used to distinguish between the wire harness combinations in cases when more than one of the same combination of wire harnesses exist (e.g. CH1 and CH2).

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

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

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

Example:



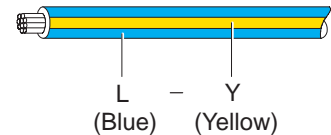
**[H]** : Indicates the wiring color.

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



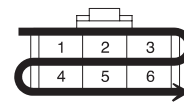
**[I]** : Indicates a shielded cable.



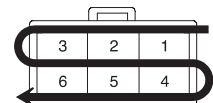
**[J]** : Indicates the pin number of the connector. The numbering system is different for female and male connectors.

Example: Numbered in other from upper left to lower right

Numbered in other from upper right to lower left



Female



Male

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

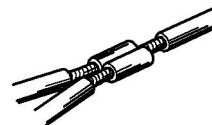
The first character of the code indicates the alphabetical code allocated to the wire harness. The second character indicates a serial number used to distinguish between the ground points in cases when more than one ground point exist on the same wire harness.

**[L]** : Page No.

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

**[N]** : Indicates a wiring Splice Point.

Example:



## B HOW TO USE THIS MANUAL

### [O] **System Outline**

Current is applied at all times through the STOP fuse to TERMINAL 2 of the stop lamp SW.  
When the ignition SW is turned on, current flows from the GAUGE fuse to TERMINAL 8 of the light failure sensor, and also flows through the rear lights warning light to TERMINAL 4 of the light failure sensor.

#### **Stop Light Disconnection Warning**

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

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

### [P] **○ : Parts Location**

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

### [Q] **○ : Relay Blocks**

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

### [R] **○ : Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
3C	22	Instrument Panel Wire and J/B No.3 (Instrument Panel Brace LH)
IB	20	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)

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

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

### [T] **▽ : Ground Points**

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

**[O]** : Explains the system outline.

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

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

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

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

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

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

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

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

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

Example : Connector "CH1" connects the Engine Room Main Wire (female) and Instrument Panel Wire (male). It is described on page 42 of this manual, and is installed on the left side kick panel.

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

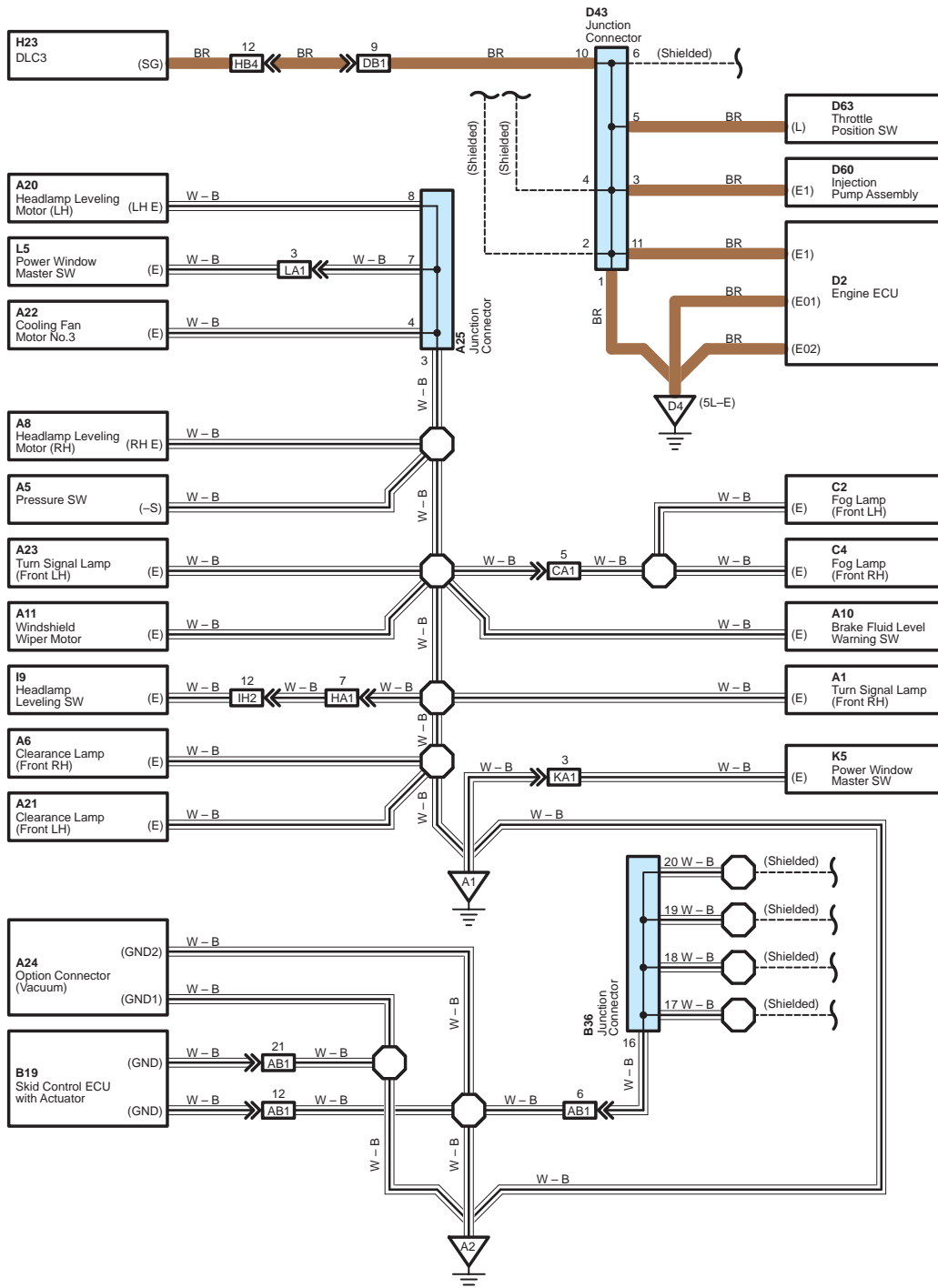
Example : Ground point "H2" is described on page 50 of this manual and is installed on the back panel center.



# B HOW TO USE THIS MANUAL

The ground points circuit diagram shows the connections from all major parts to the respective ground points. When troubleshooting a faulty ground point, checking the system circuits which use a common ground may help you identify the problem ground quickly. The relationship between ground points (  $\nabla A1$  ,  $\nabla A2$  and  $\nabla D4$  shown below) can also be checked this way.

## I GROUND POINT

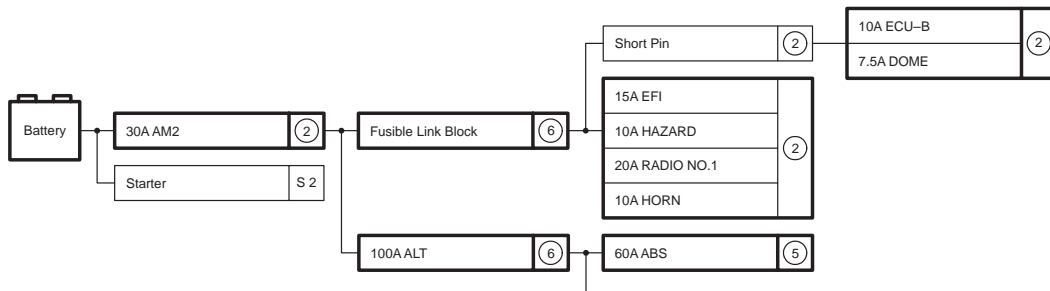


\* The system shown here is an EXAMPLE ONLY. It is different to the actual circuit shown in the SYSTEM CIRCUITS SECTION.

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

## J POWER SOURCE (Current Flow Chart)

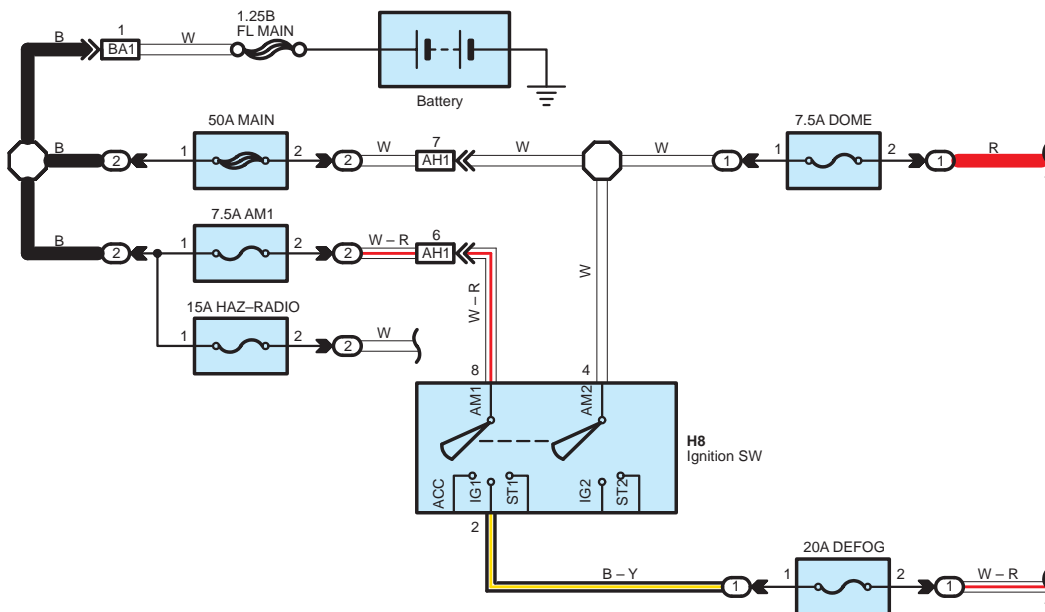
The chart below shows the route by which current flows from the battery to each electrical source (Fusible Link, Circuit Breaker, Fuses, etc.) and other parts



### Engine Room R/B (See Page 20)

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

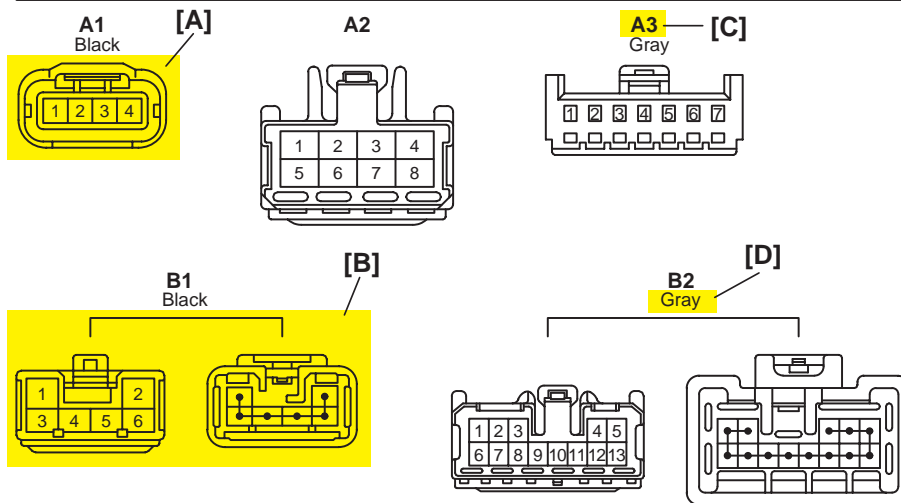
### Power Source



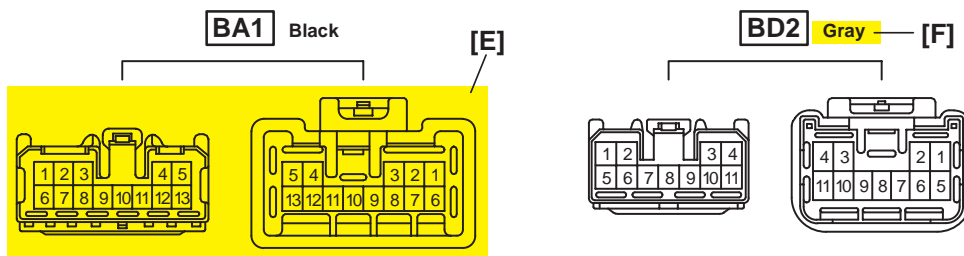
\* The system shown here is an EXAMPLE ONLY. It is different to the actual circuit shown in the SYSTEM CIRCUITS SECTION.

# B HOW TO USE THIS MANUAL

## K CONNECTOR LIST

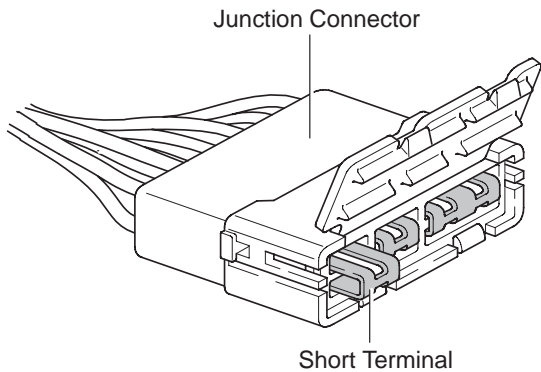


## K CONNECTOR LIST



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

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



Junction connector in this manual include a short terminal which is connected to a number of wire harnesses. Always perform inspection with the short terminal installed.

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

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

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

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

## L PART NUMBER OF CONNECTORS

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

[A] : Part Code

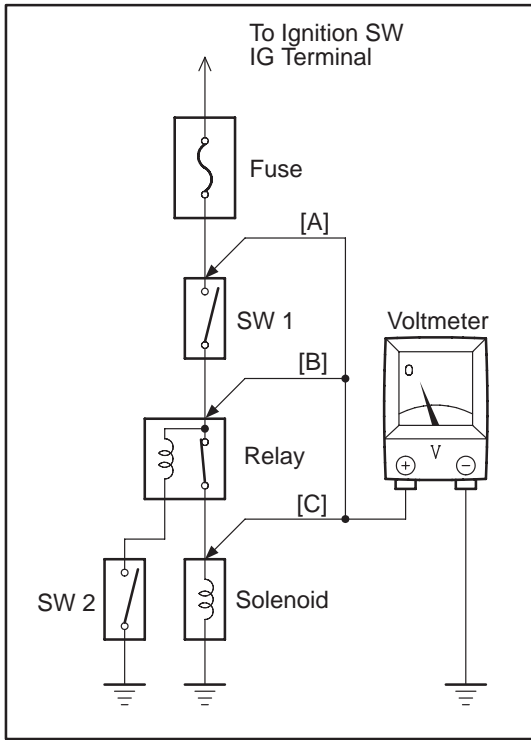
[B] : Part Name

[C] : Part Number

Toyota Part Number are indicated.

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

# C TROUBLESHOOTING



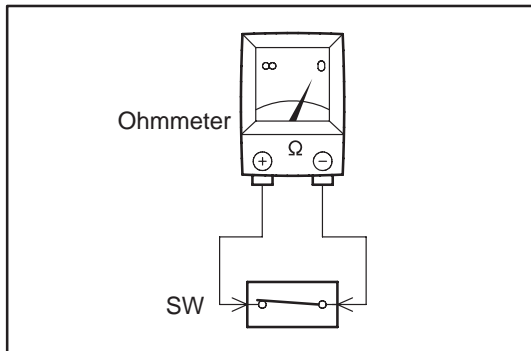
## VOLTAGE CHECK

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

Example:

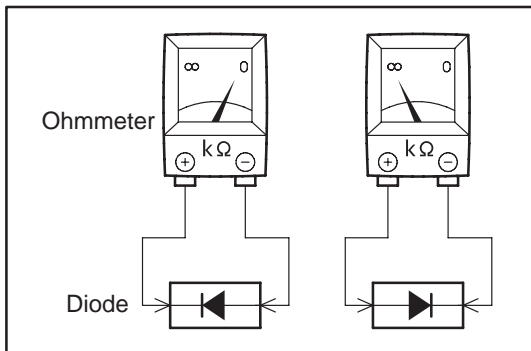
- [A] – Ignition SW on
- [B] – Ignition SW and SW 1 on
- [C] – Ignition SW, SW 1 and Relay on (SW 2 off)

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

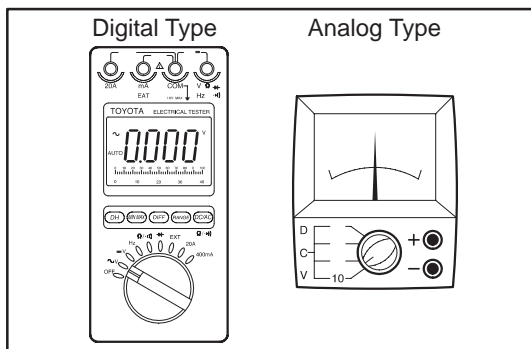


## CONTINUITY AND RESISTANCE CHECK

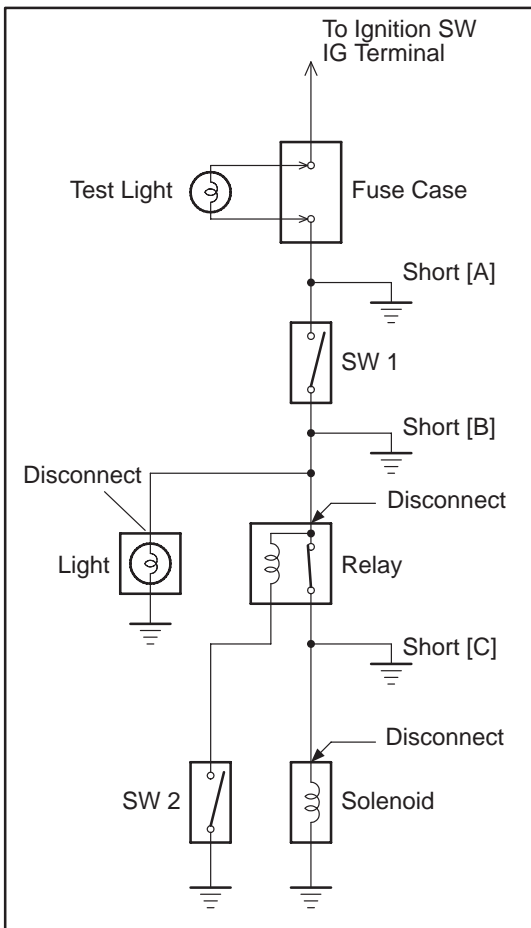
- (a) Disconnect the battery terminal or wire so there is no voltage between the check points.
- (b) Contact the two leads of an ohmmeter to each of the check points.



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



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



## FINDING A SHORT CIRCUIT

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

Example:

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

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

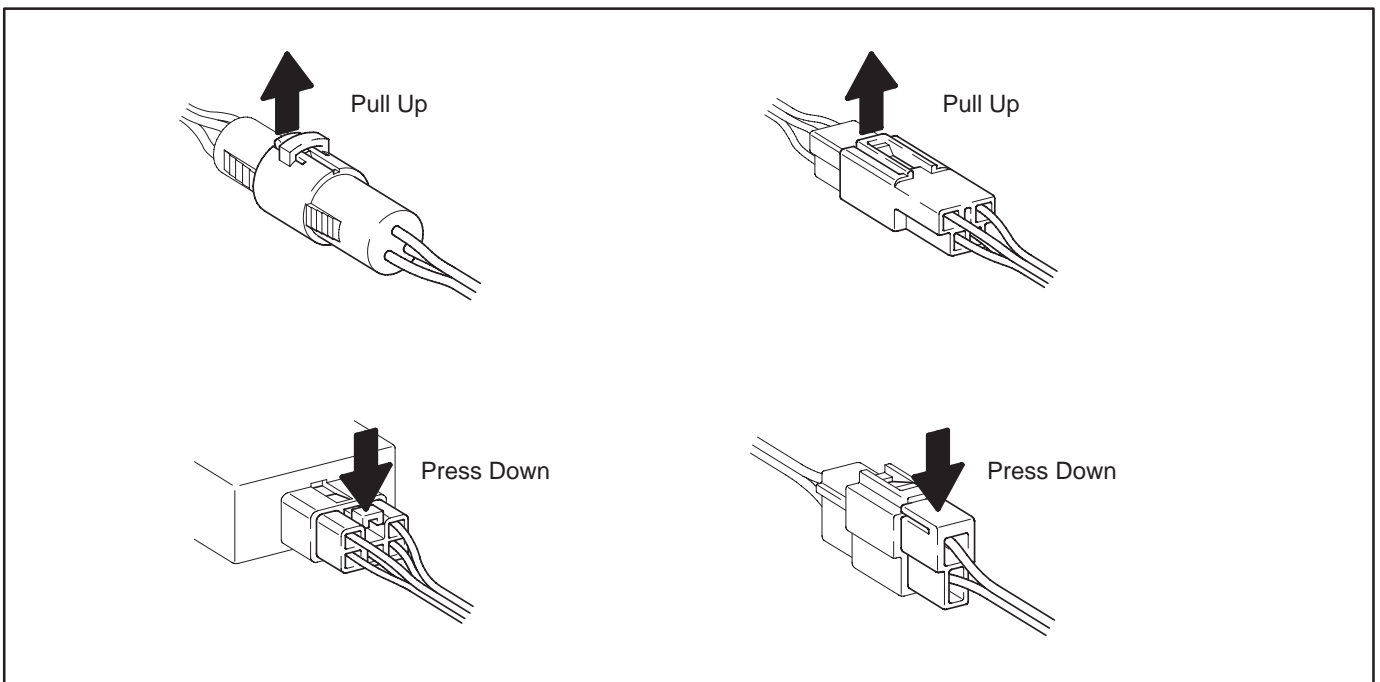
## CAUTION:

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

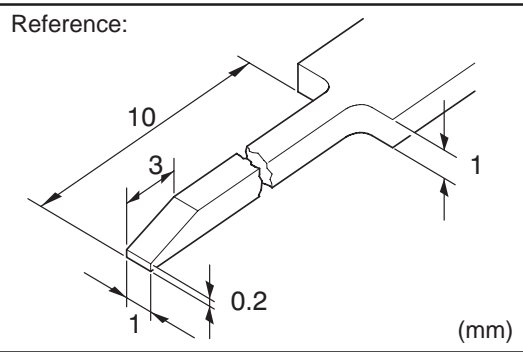
## DISCONNECTION OF MALE AND FEMALE CONNECTORS

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

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



## C TROUBLESHOOTING



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

#### 1. PREPARE THE SPECIAL TOOL

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

#### 2. DISCONNECT CONNECTOR

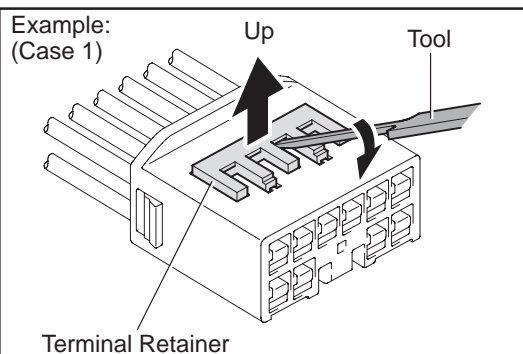
#### 3. DISENGAGE THE SECONDARY LOCKING DEVICE OR TERMINAL RETAINER.

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

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

#### NOTICE:

**Do not remove the terminal retainer from connector body.**

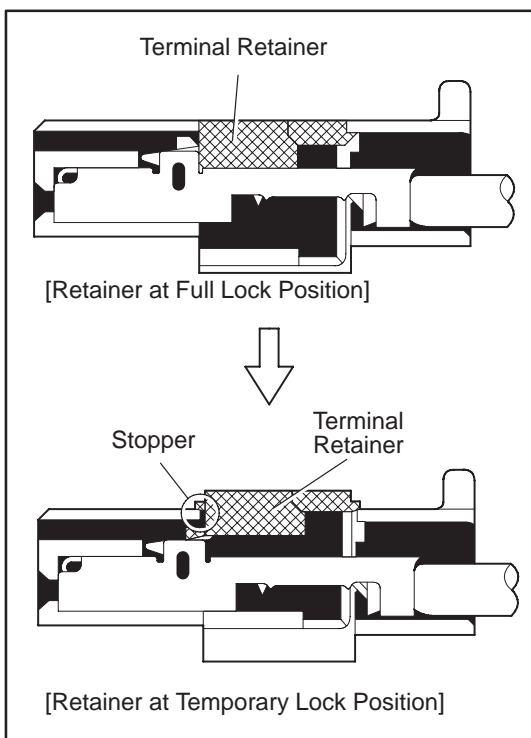


#### [A] For Non-Waterproof Type Connector

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

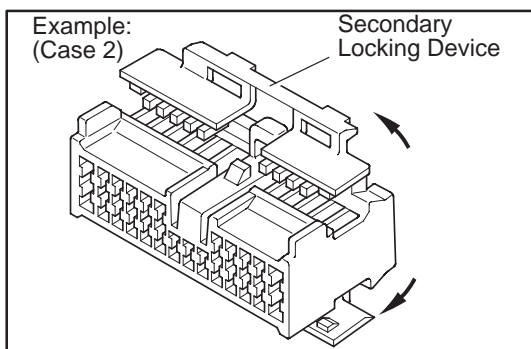
#### "Case 1"

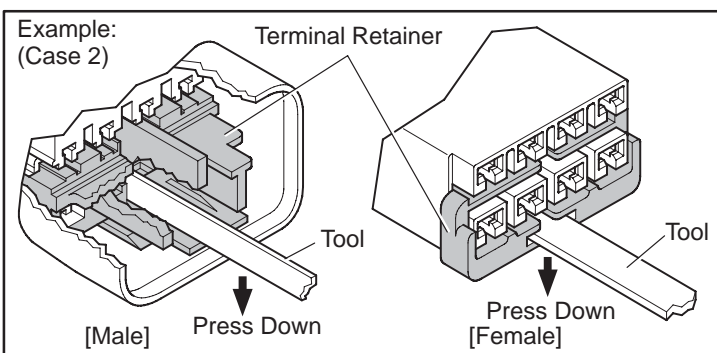
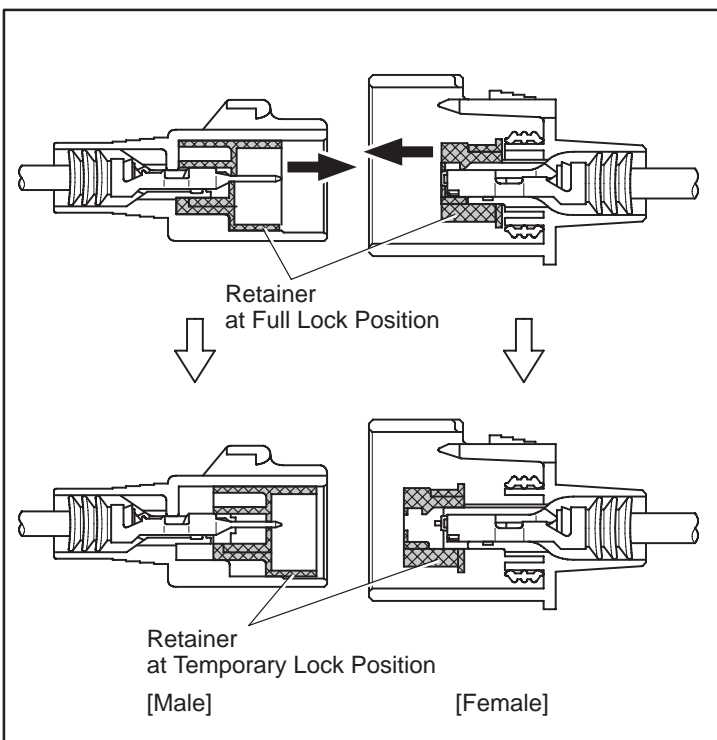
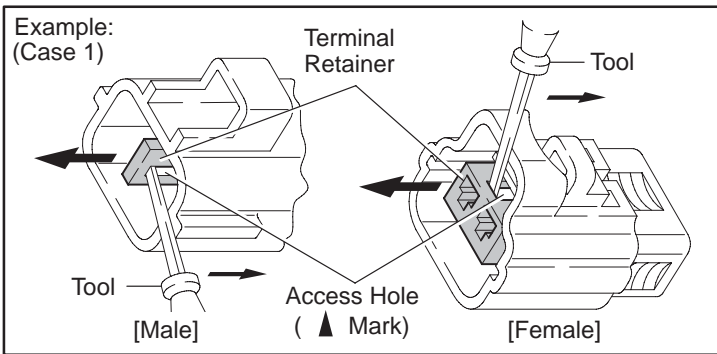
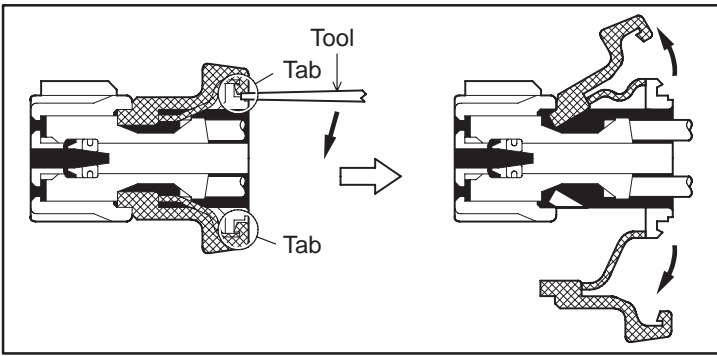
Raise the terminal retainer up to the temporary lock position.



#### "Case 2"

Open the secondary locking device.





[B] For Waterproof Type Connector

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

Example:

Terminal Retainer	Connector Body
Black or White	Gray
Black or White	Dark Gray
Gray or White	Black

"Case 1"

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

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

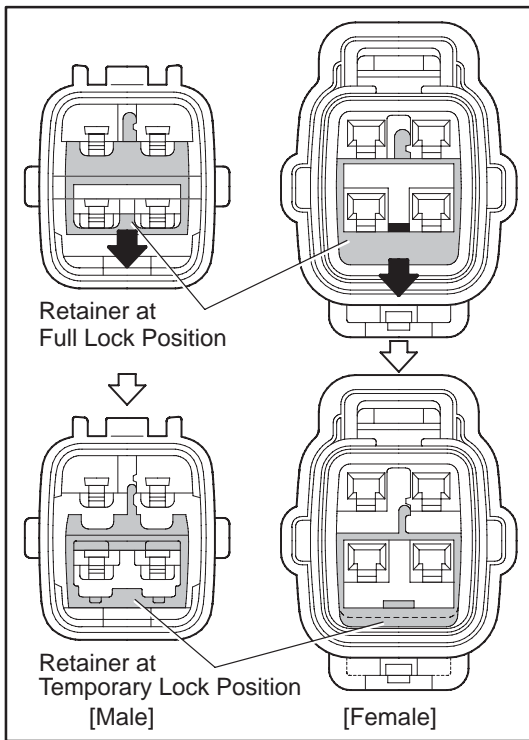
HINT : The needle insertion position varies according to the connector's shape (Number of terminals etc.), so check the position before inserting it.

"Case 2"

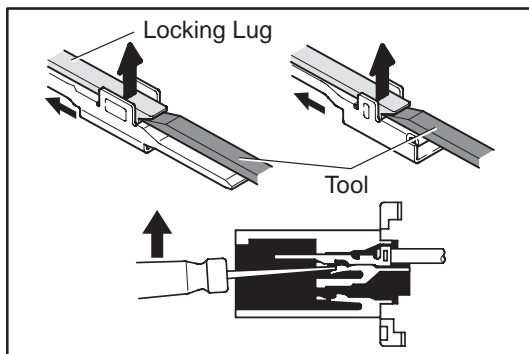
Type which cannot be pulled as far as Power Lock insert the tool straight into the access hole of terminal retainer as shown.



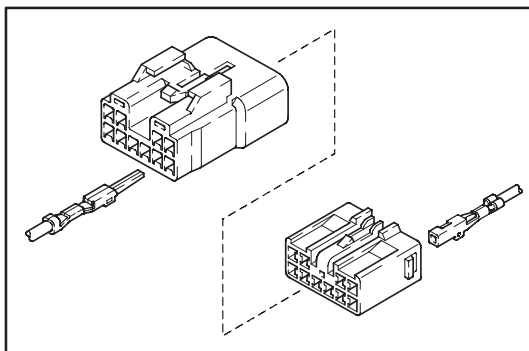
## C TROUBLESHOOTING



Push the terminal retainer down to the temporary lock position.



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

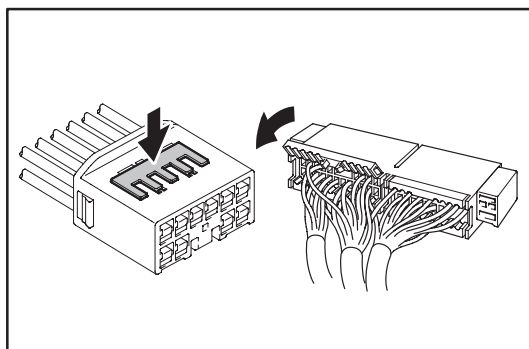


### 4. INSTALL TERMINAL TO CONNECTOR

(a) Insert the terminal.

HINT:

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



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

### 5. CONNECT CONNECTOR

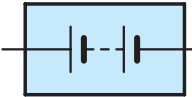

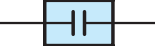



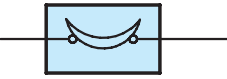


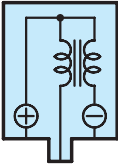




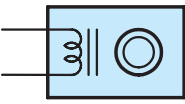

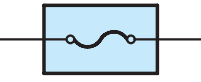


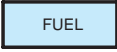

## ABBREVIATIONS

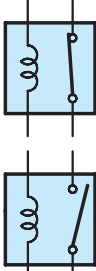

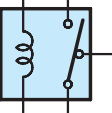
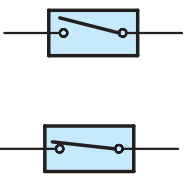
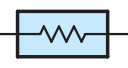
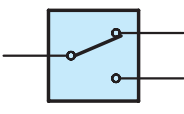
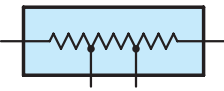
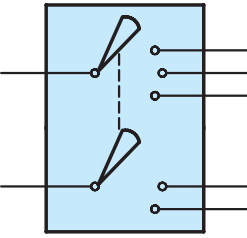
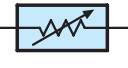
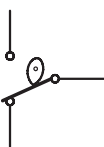

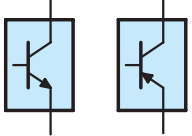

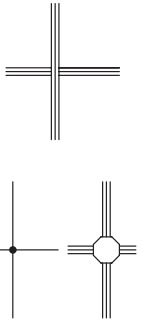
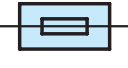
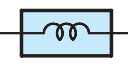
The following abbreviations are used in this manual.

A/C	=	Air Conditioning
A/T	=	Automatic Transaxle
ABS	=	Anti-Lock Brake System
ACIS	=	Acoustic Control Induction System
ACM	=	Active Control Engine Mount
AVC-LAN	=	Audio Visual Communication – Local Area Network
BEAN	=	Body Electronics Area Network
CAN	=	Controller Area Network
EC	=	Electrochromic
ECU	=	Electronic Control Unit
ESA	=	Electronic Spark Advance
ETCS-i	=	Electronic Throttle Control System-intelligent
FL	=	Fusible Link
HID	=	High Intensity Discharge
IC	=	Integrated Circuit
INT	=	Intermittent
J/B	=	Junction Block
LCD	=	Liquid Crystal Display
LED	=	Light Emitting Diode
LH	=	Left-Hand
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-i	=	Variable Valve Timing-intelligent
w/	=	With
w/o	=	Without

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

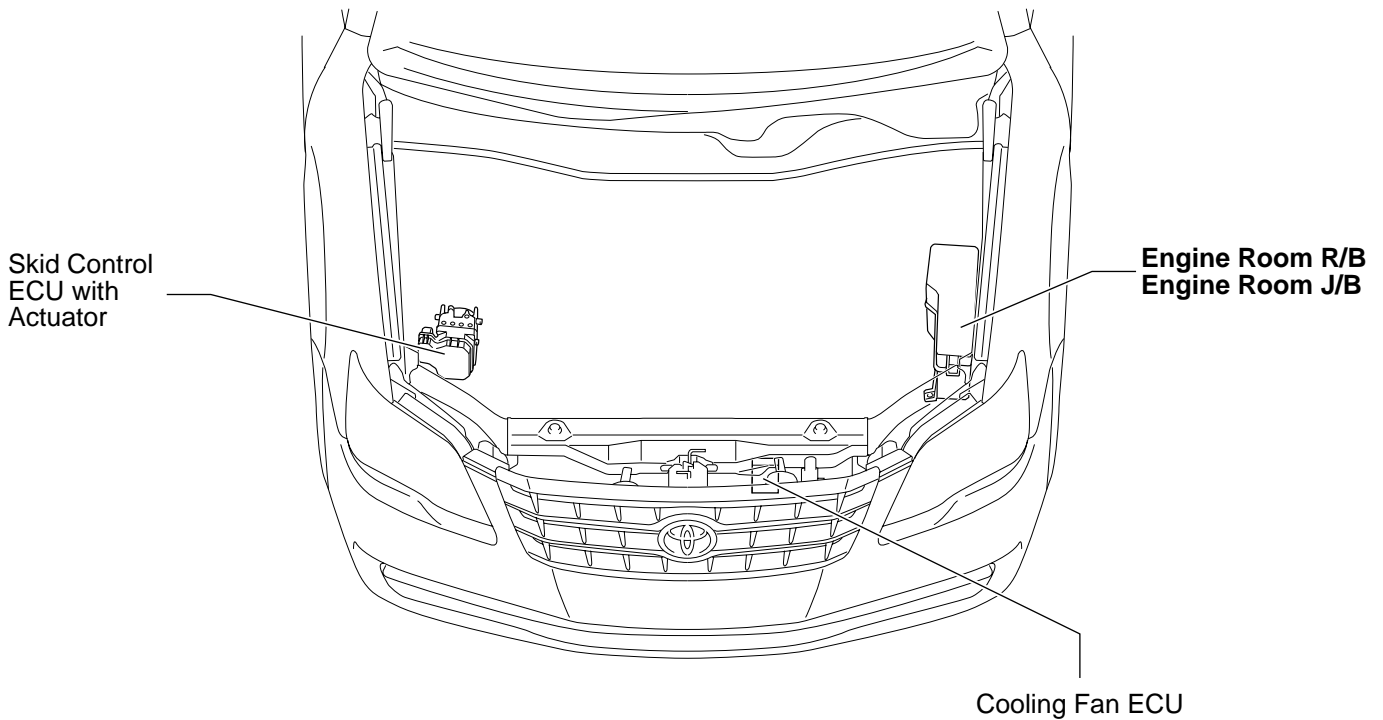
# E GLOSSARY OF TERMS AND SYMBOLS

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

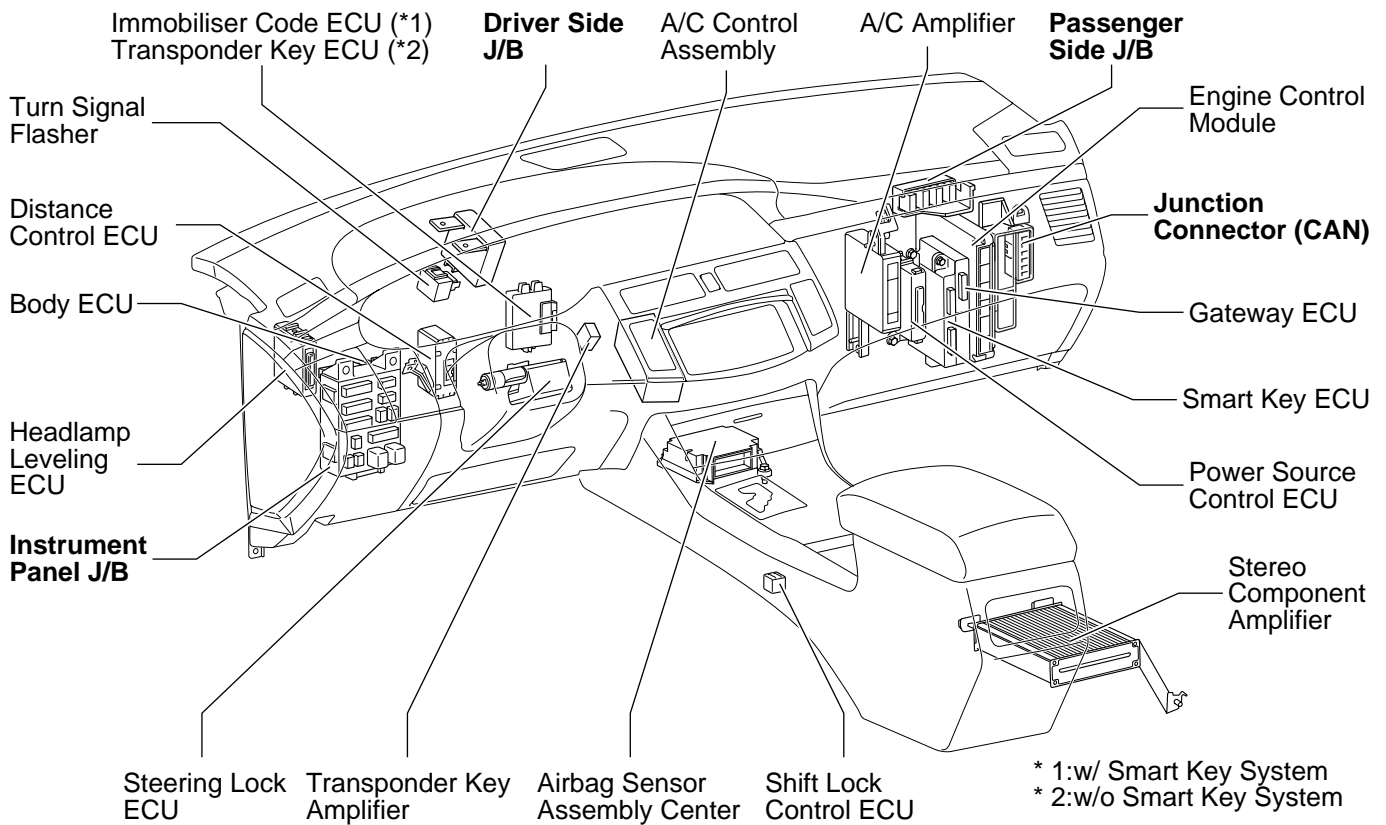
 <p><b>RELAY</b> Basically, an electrically operated switch which may be normally closed (1) or open (2). Current flow through a small coil creates a magnetic field which either opens or closes an attached switch.</p> <p><b>1. NORMALLY CLOSED</b></p> <p><b>2. NORMALLY OPEN</b></p>	 <p><b>SPEAKER</b> An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

# F RELAY LOCATIONS

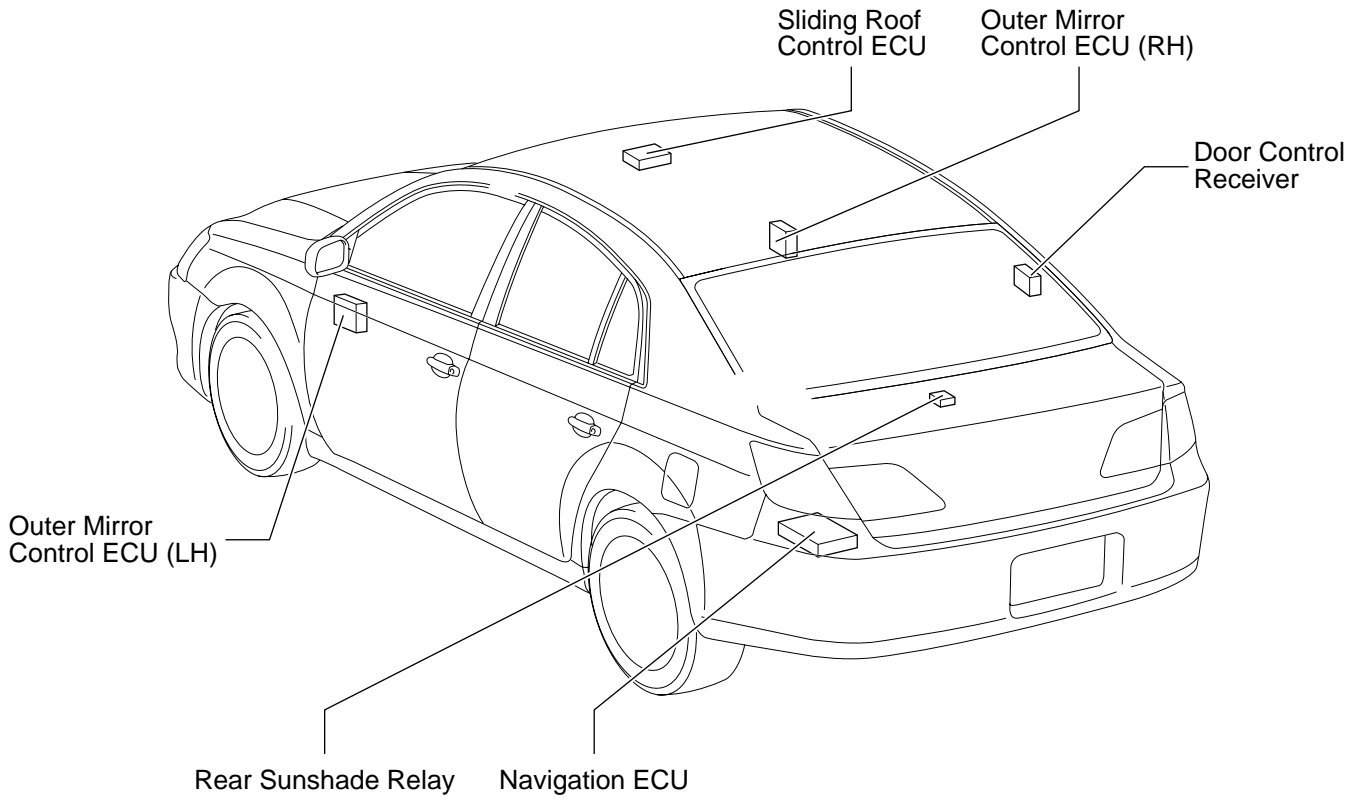
## [Engine Compartment]



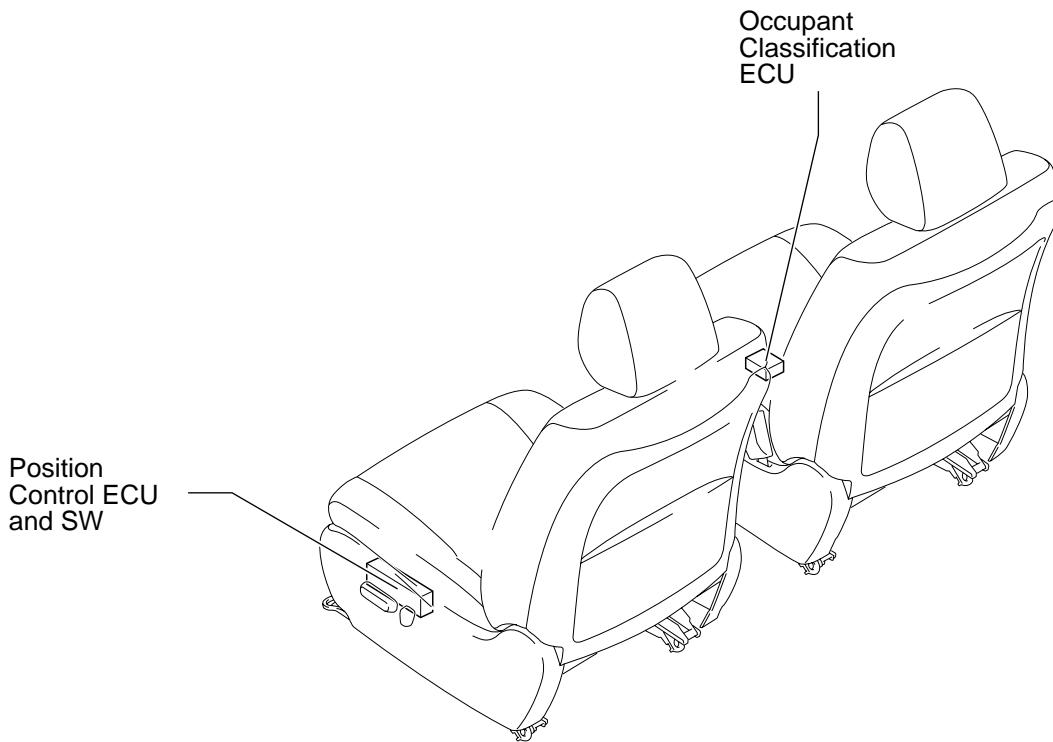
## [Instrument Panel]



[Body]



[Seat]

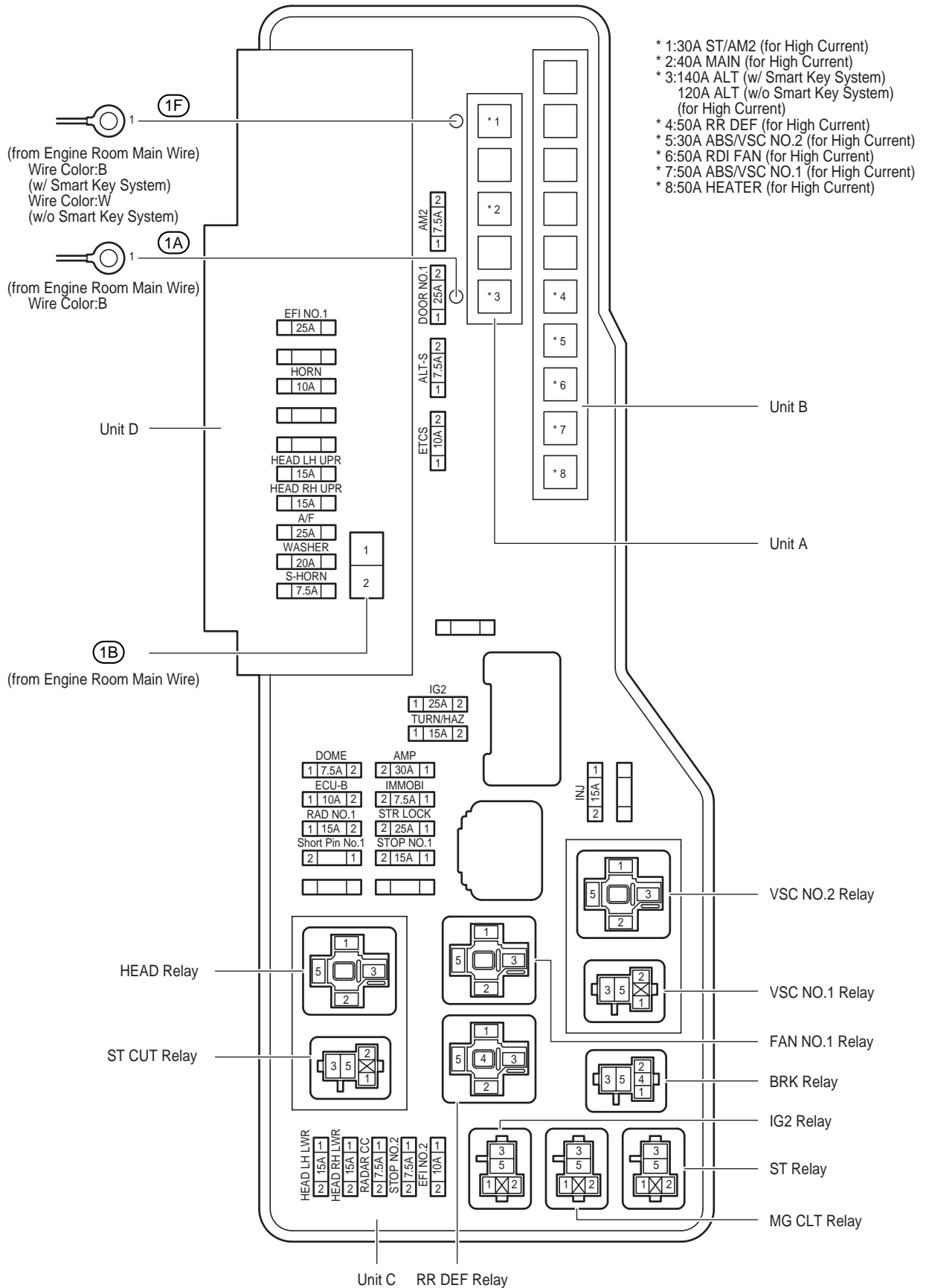


# F RELAY LOCATIONS

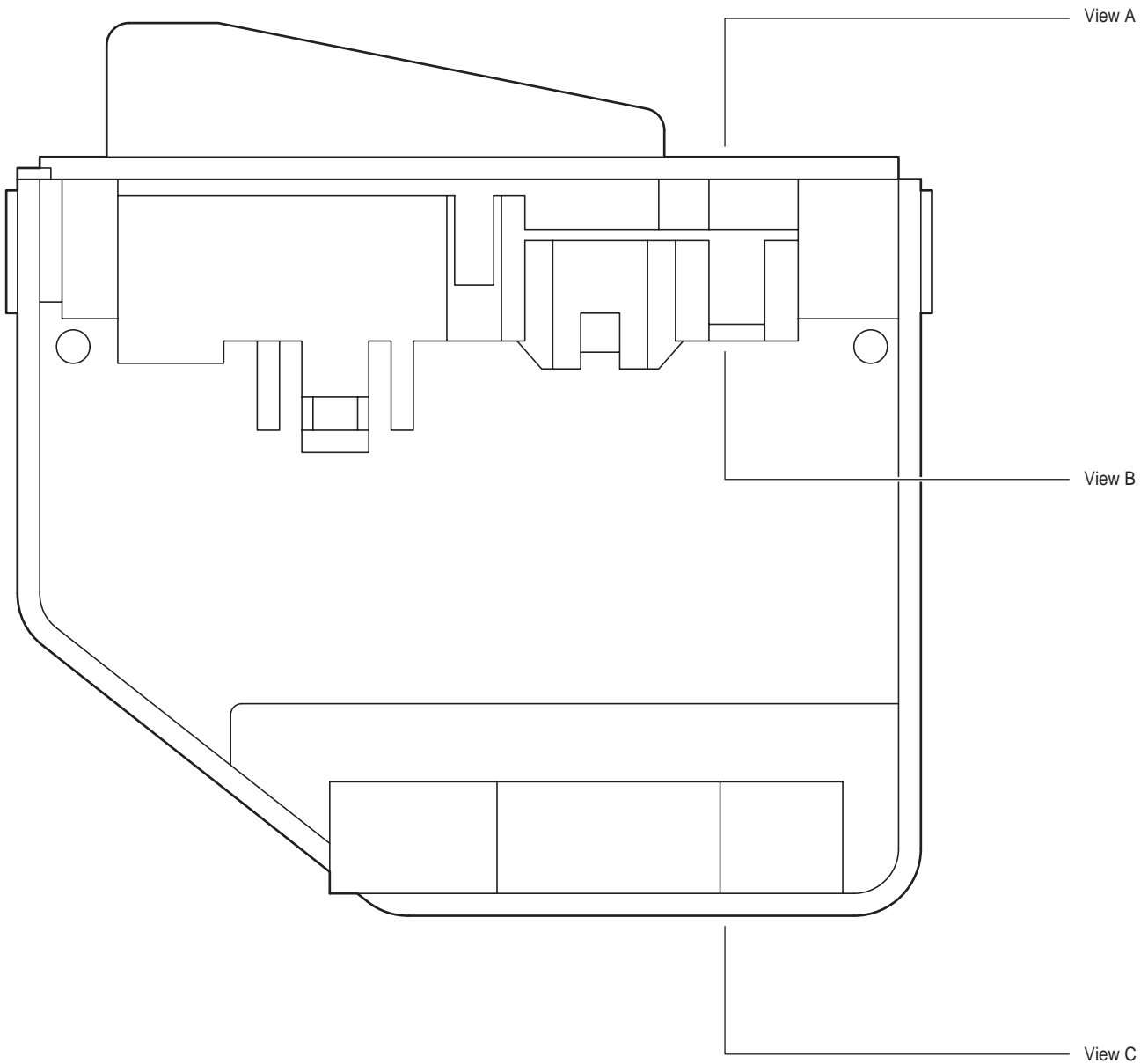
① : Engine Room R/B

○ : Engine Room J/B

## Engine Compartment Left (See Page 20)



# Unit D

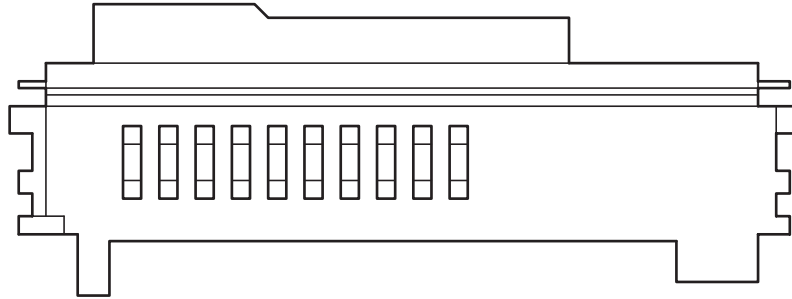




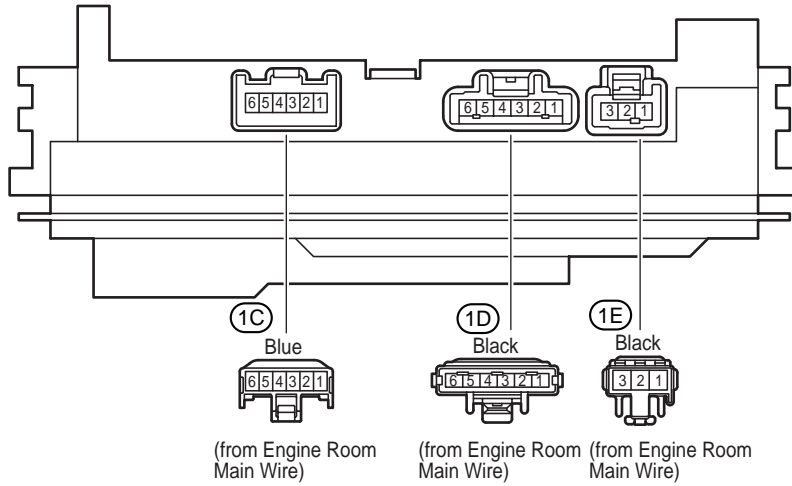
# F RELAY LOCATIONS

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

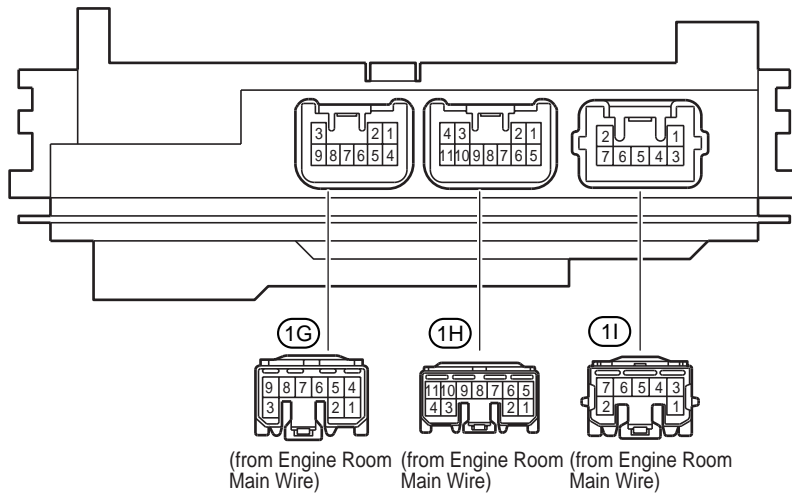
## View A



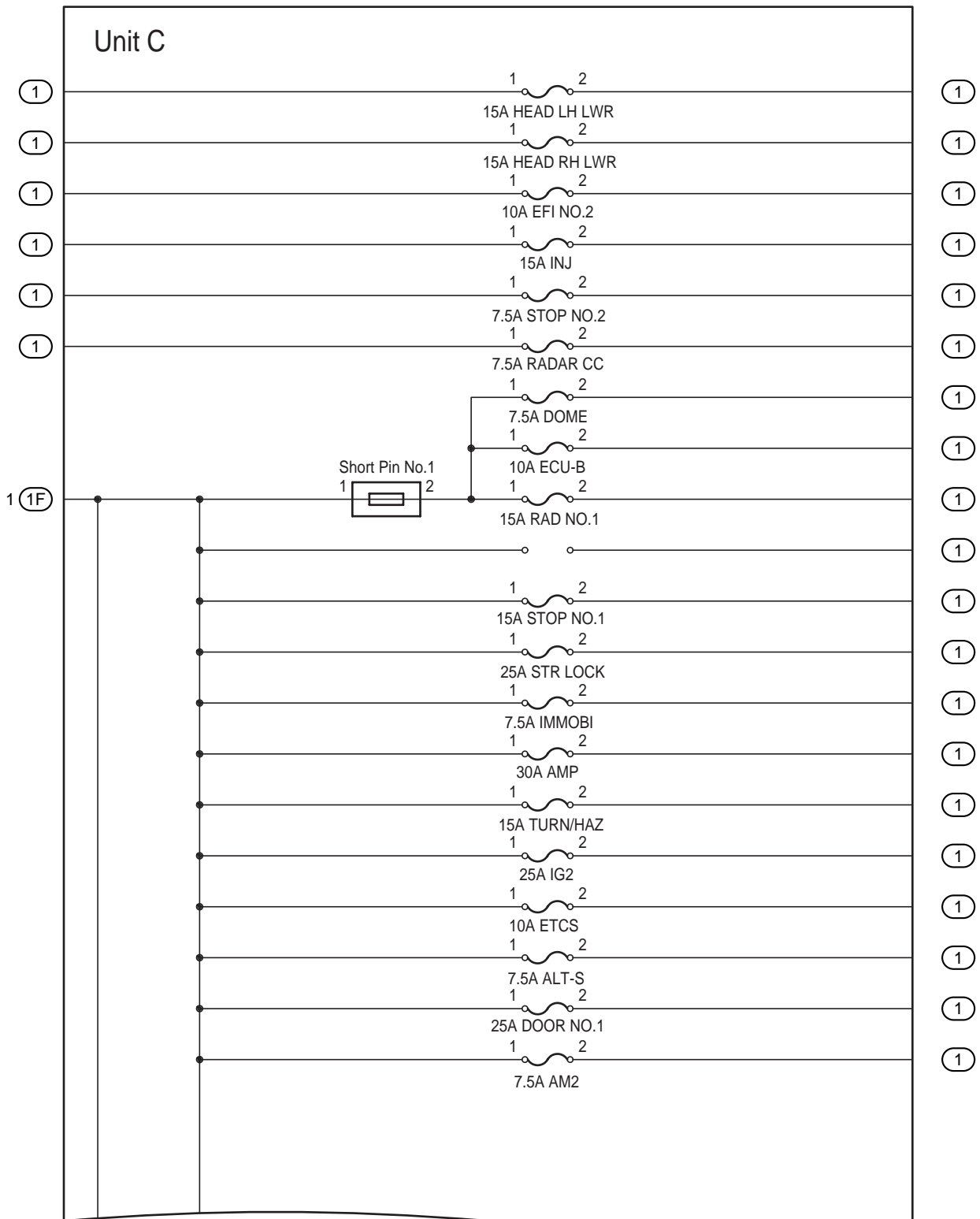
## View B



## View C



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

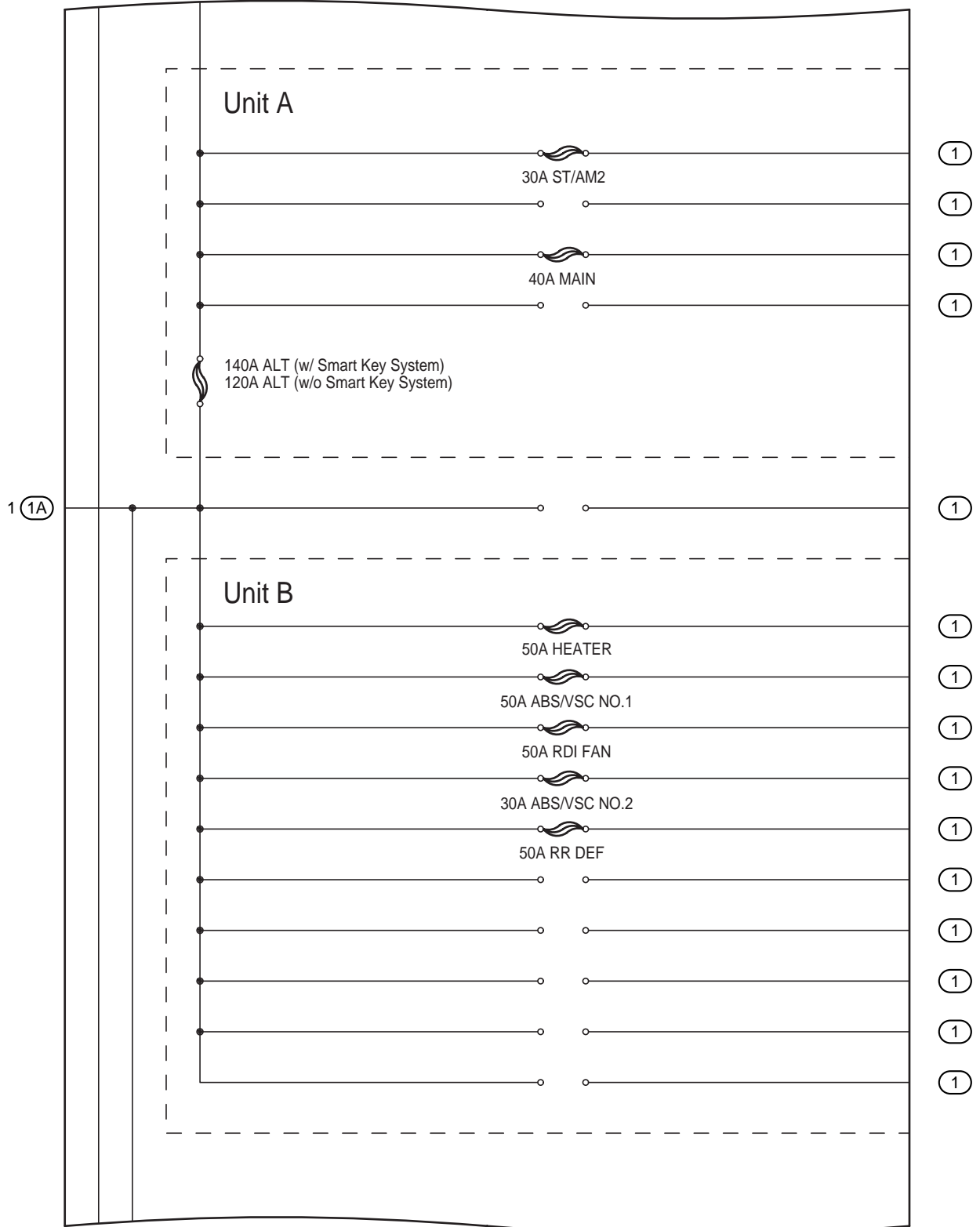


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# F RELAY LOCATIONS

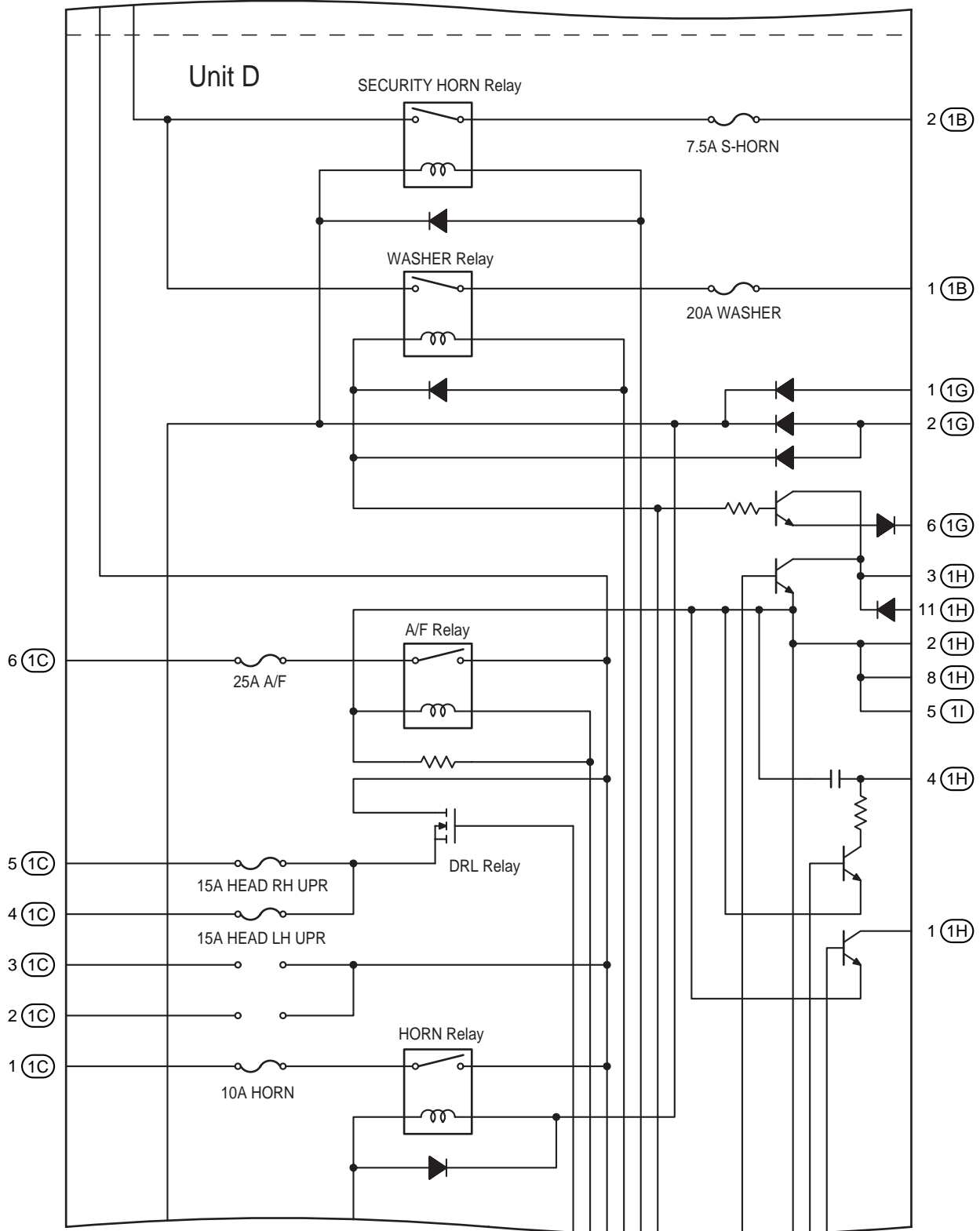
## [Engine Room R/B and Engine Room J/B Inner Circuit]

(Cont'd)



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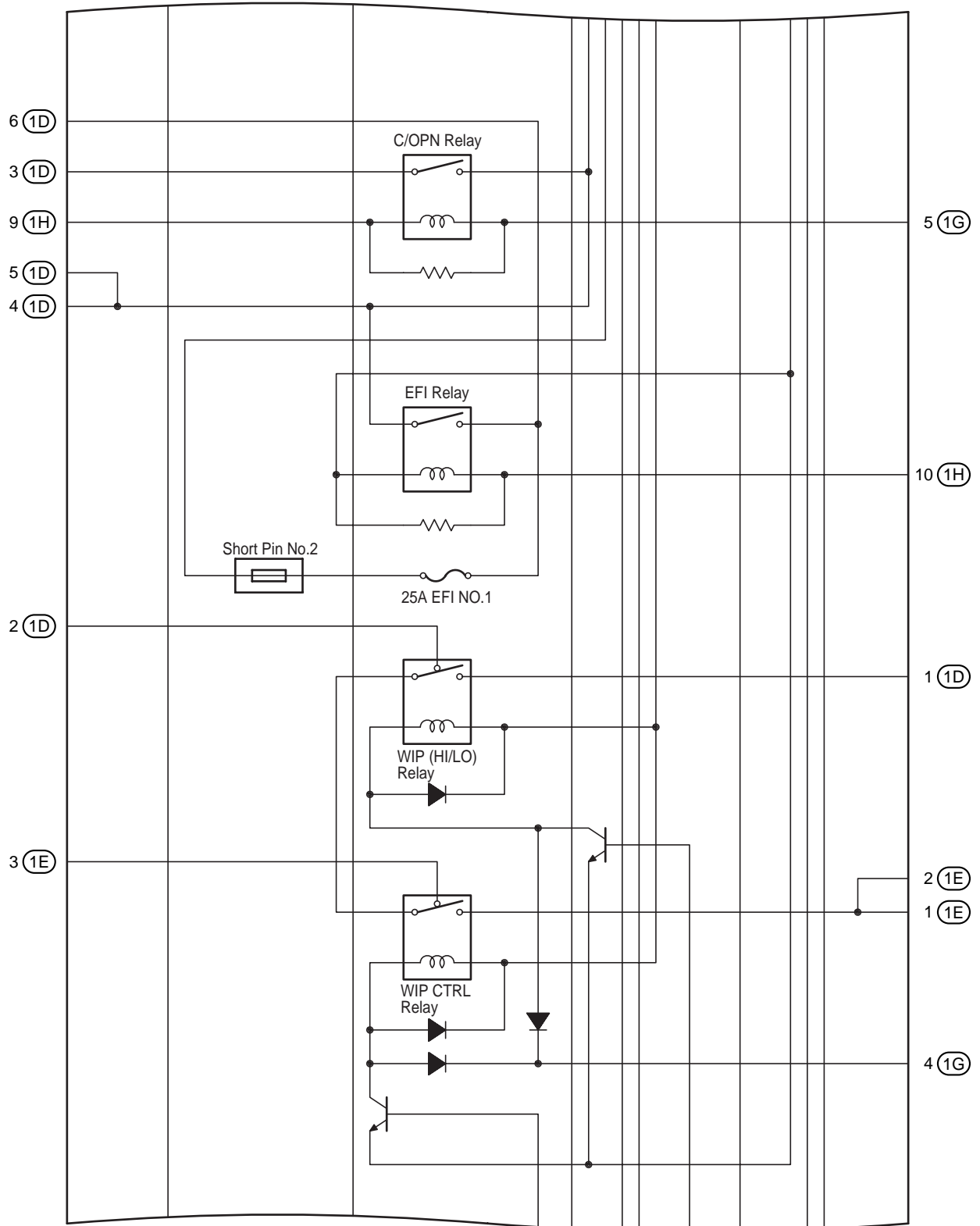


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# F RELAY LOCATIONS

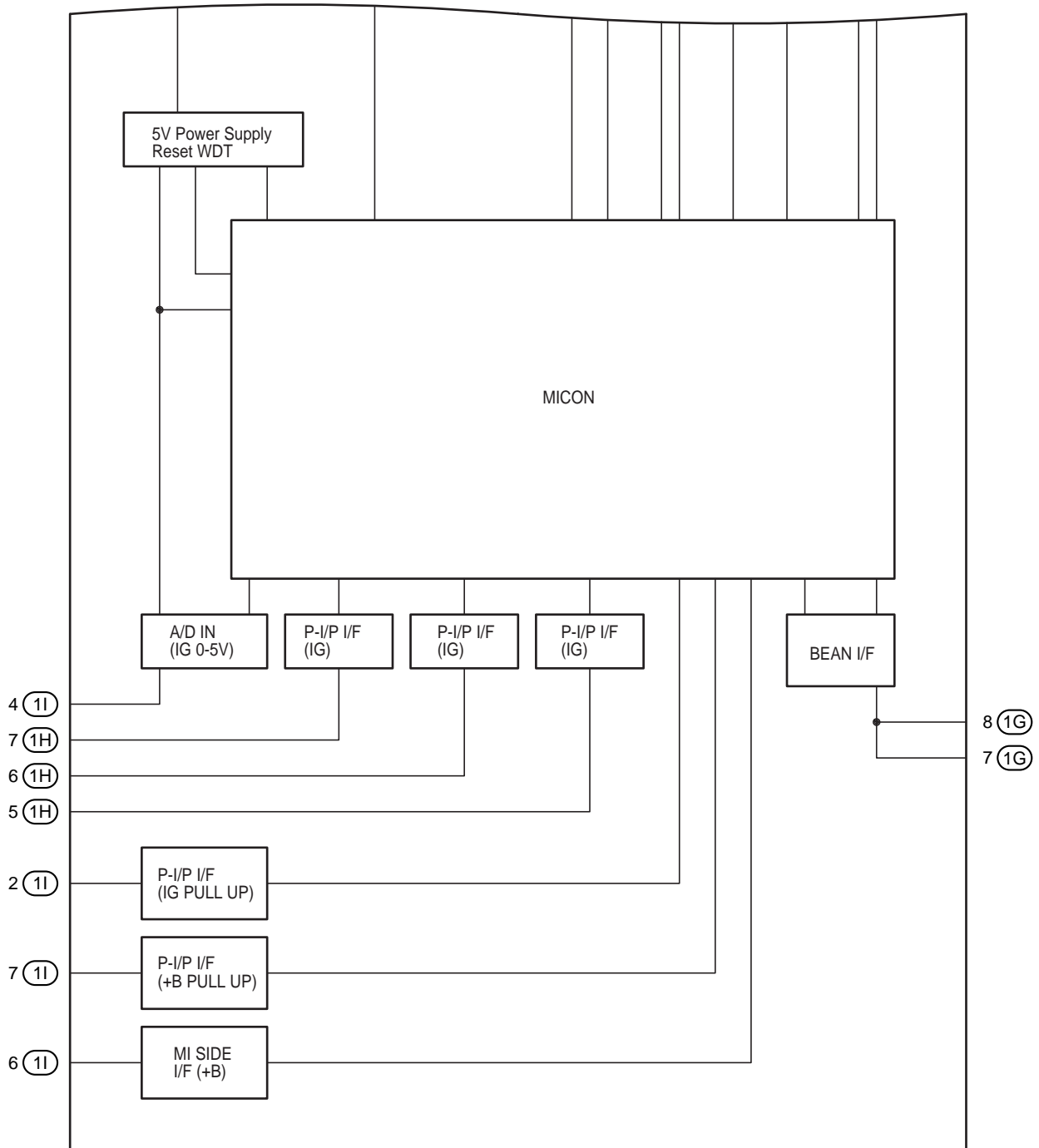
## [Engine Room R/B and Engine Room J/B Inner Circuit]

(Cont'd)



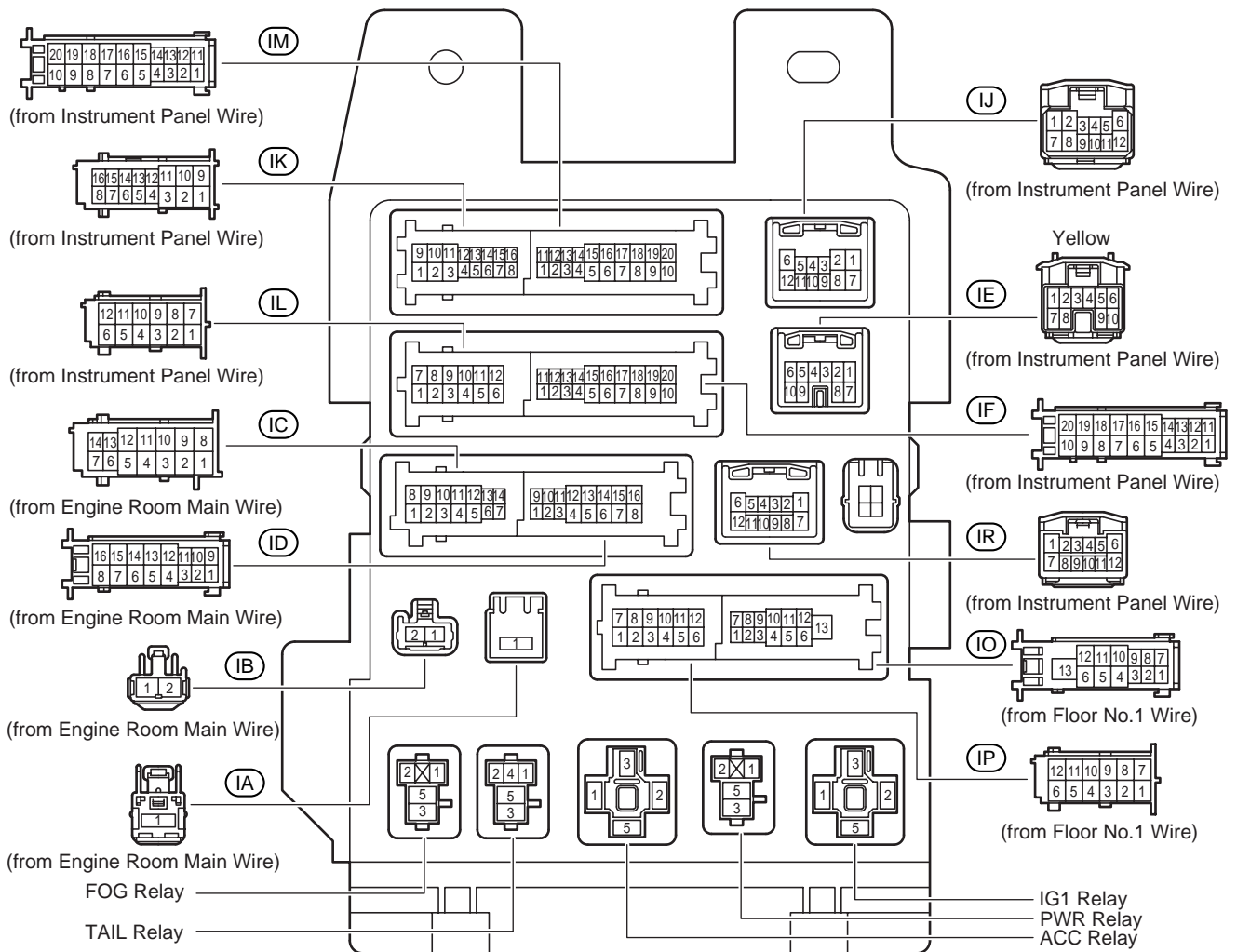
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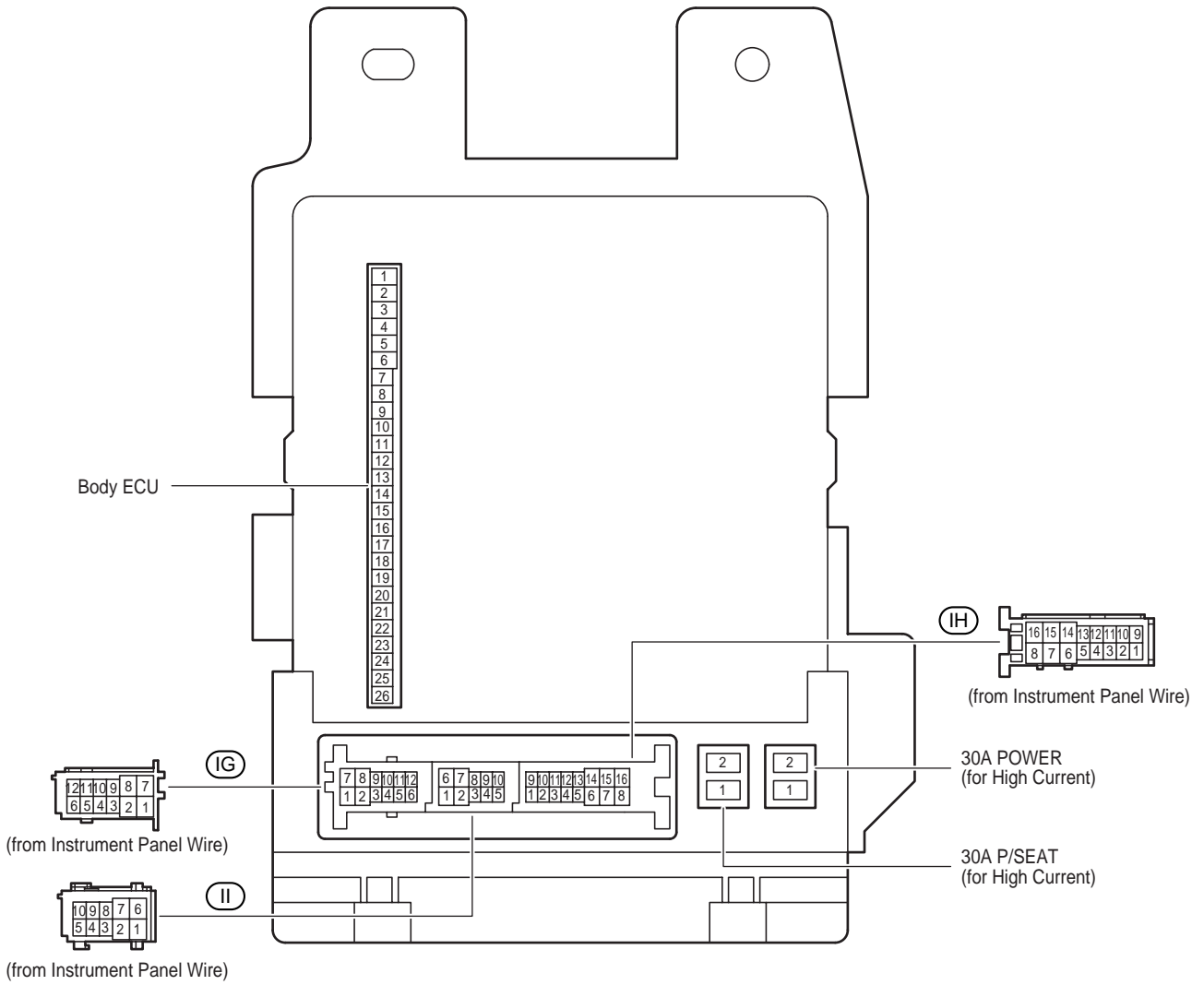
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# F RELAY LOCATIONS

○ : Instrument Panel J/B      Lower Finish Panel (See Page 20)

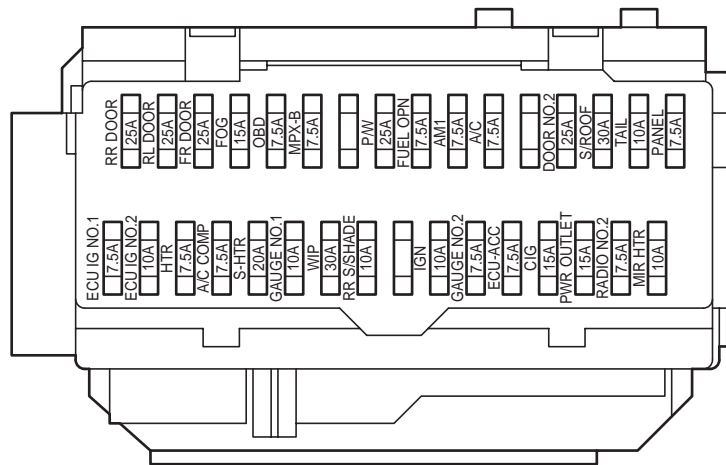




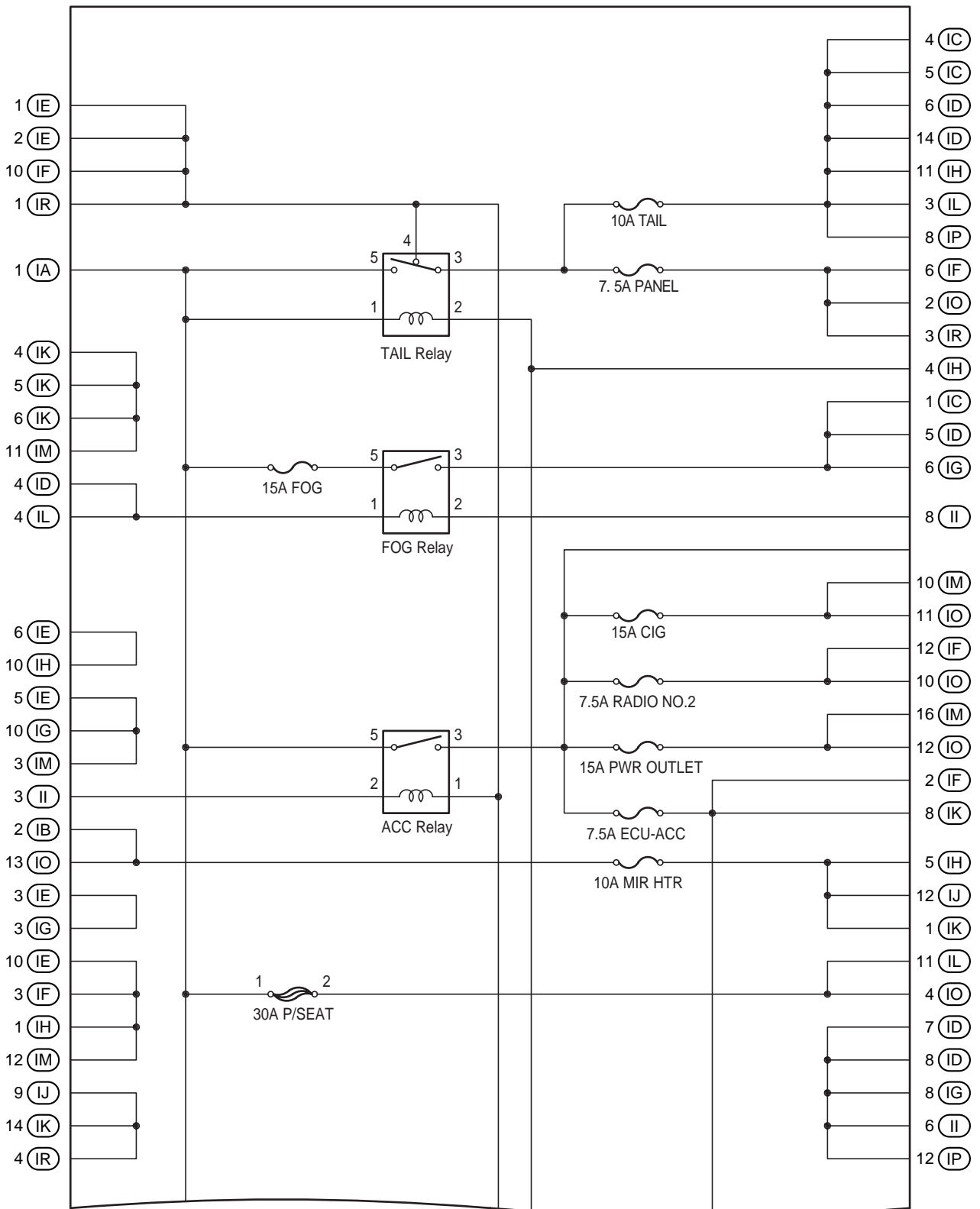


# F RELAY LOCATIONS

○ : Instrument Panel J/B      Lower Finish Panel (See Page 20)



[Instrument Panel J/B Inner Circuit]

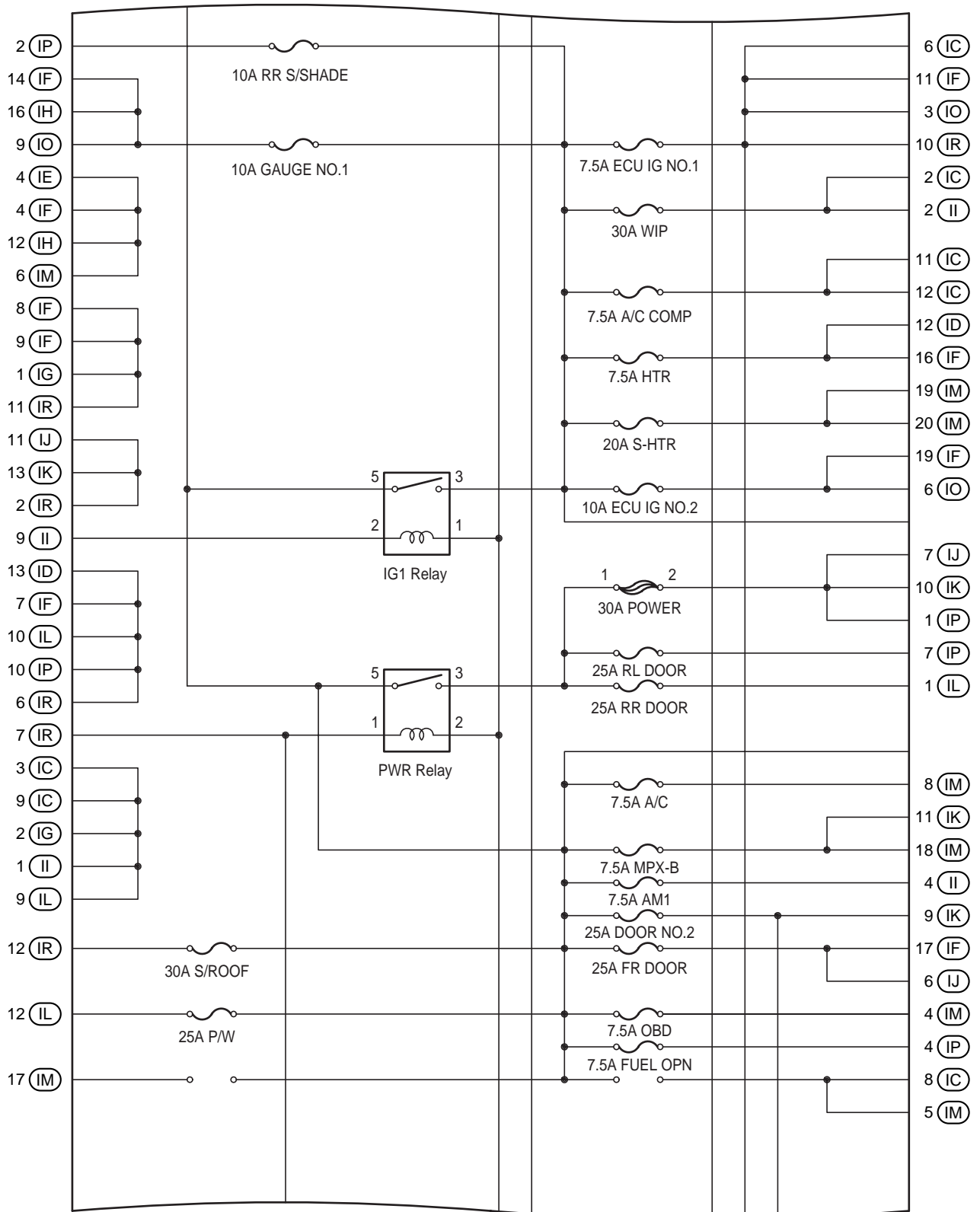


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# F RELAY LOCATIONS

## [Instrument Panel J/B Inner Circuit]

(Cont'd)

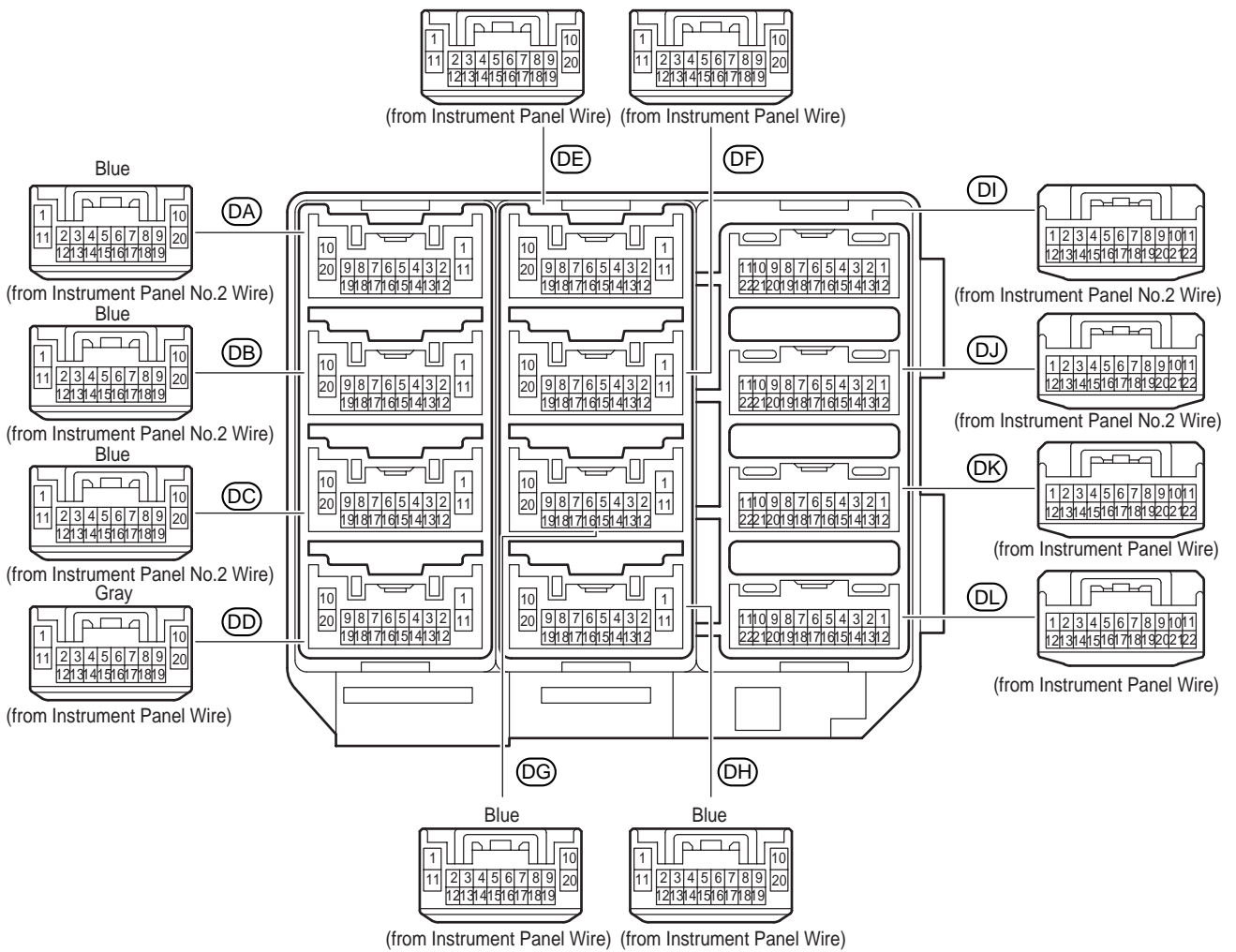


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# F RELAY LOCATIONS

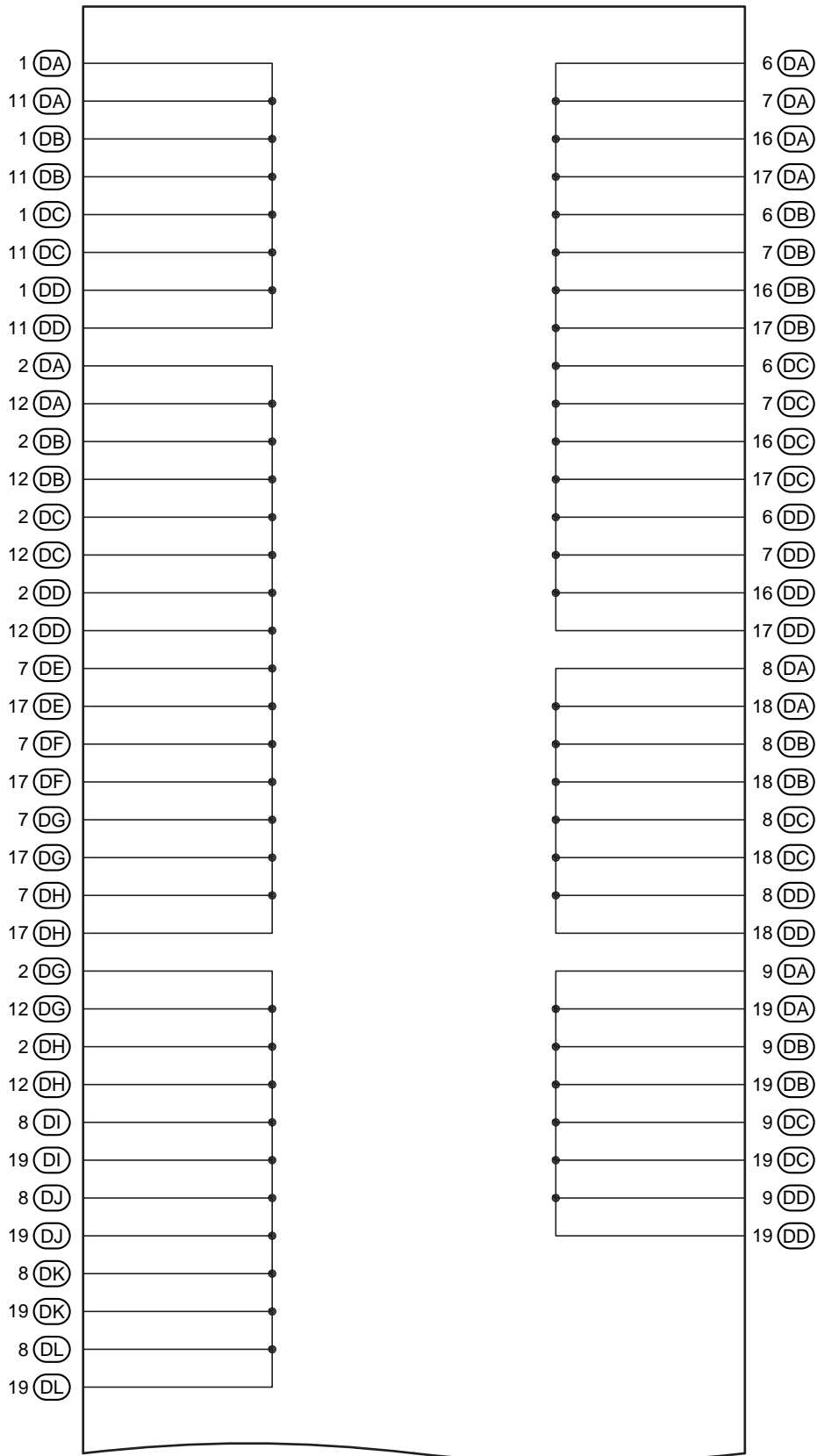
○ : Driver Side J/B      Behind the Combination Meter (See Page 20)





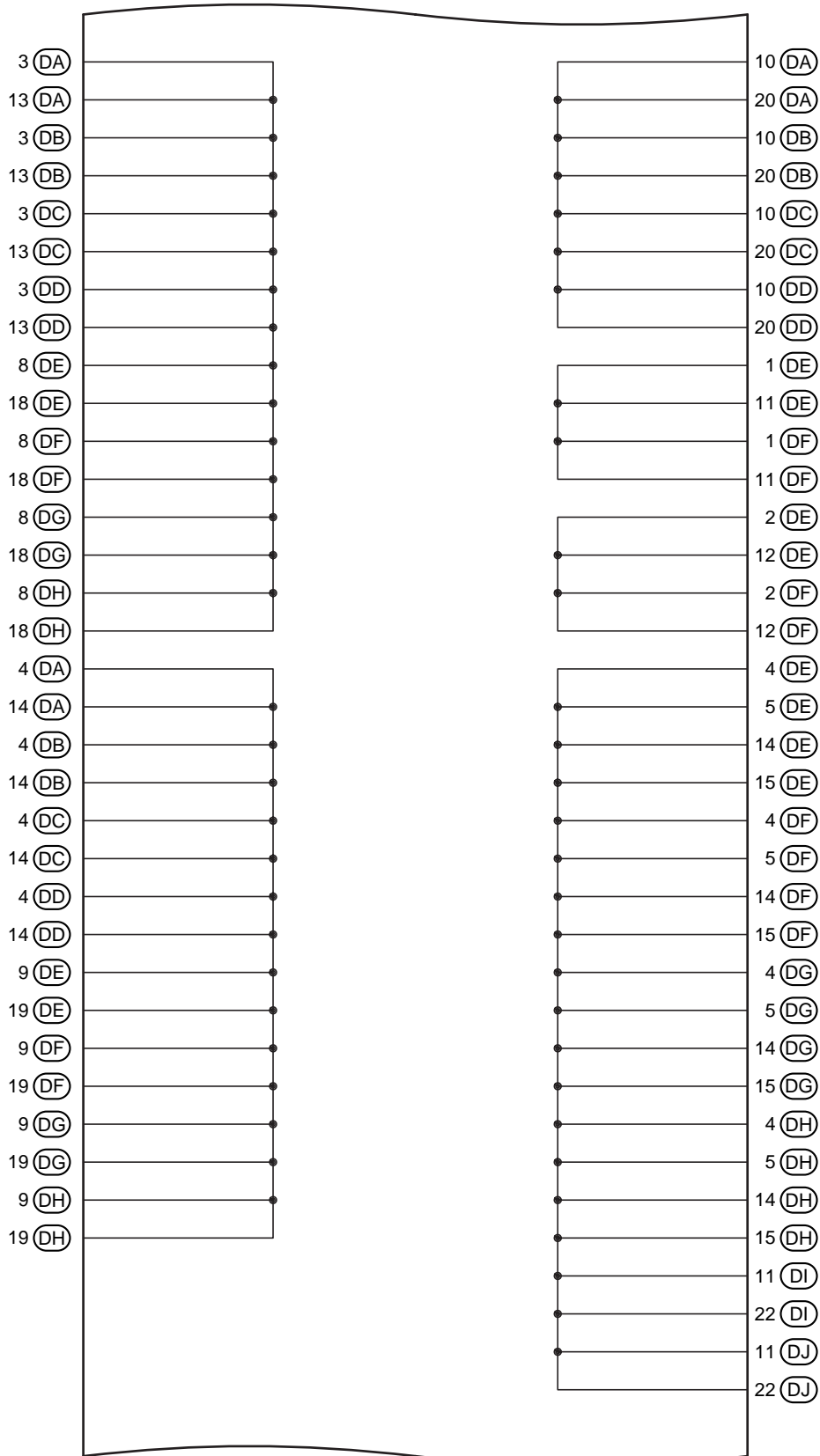
# F RELAY LOCATIONS

## [Driver Side J/B Inner Circuit]



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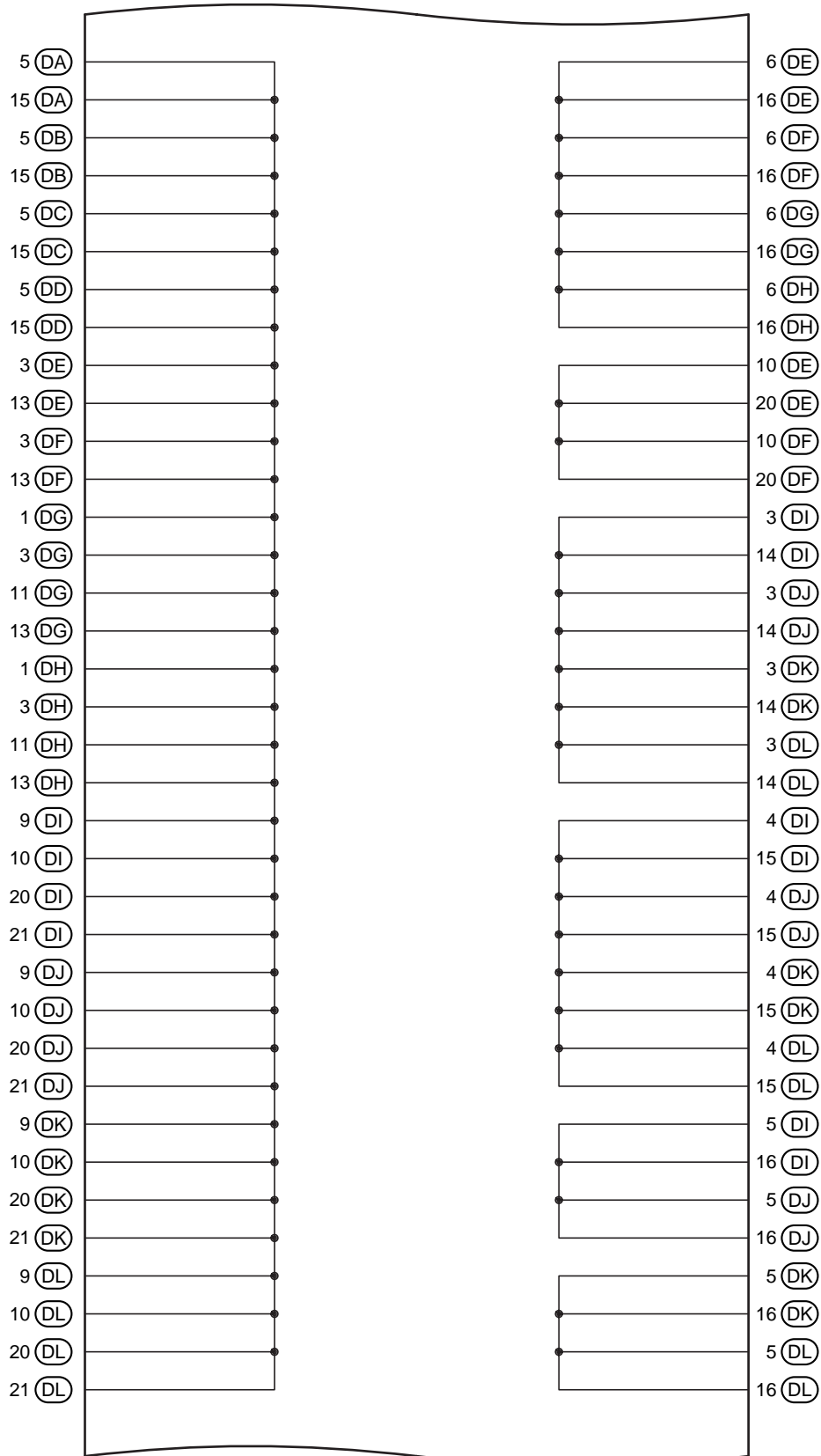
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# F RELAY LOCATIONS

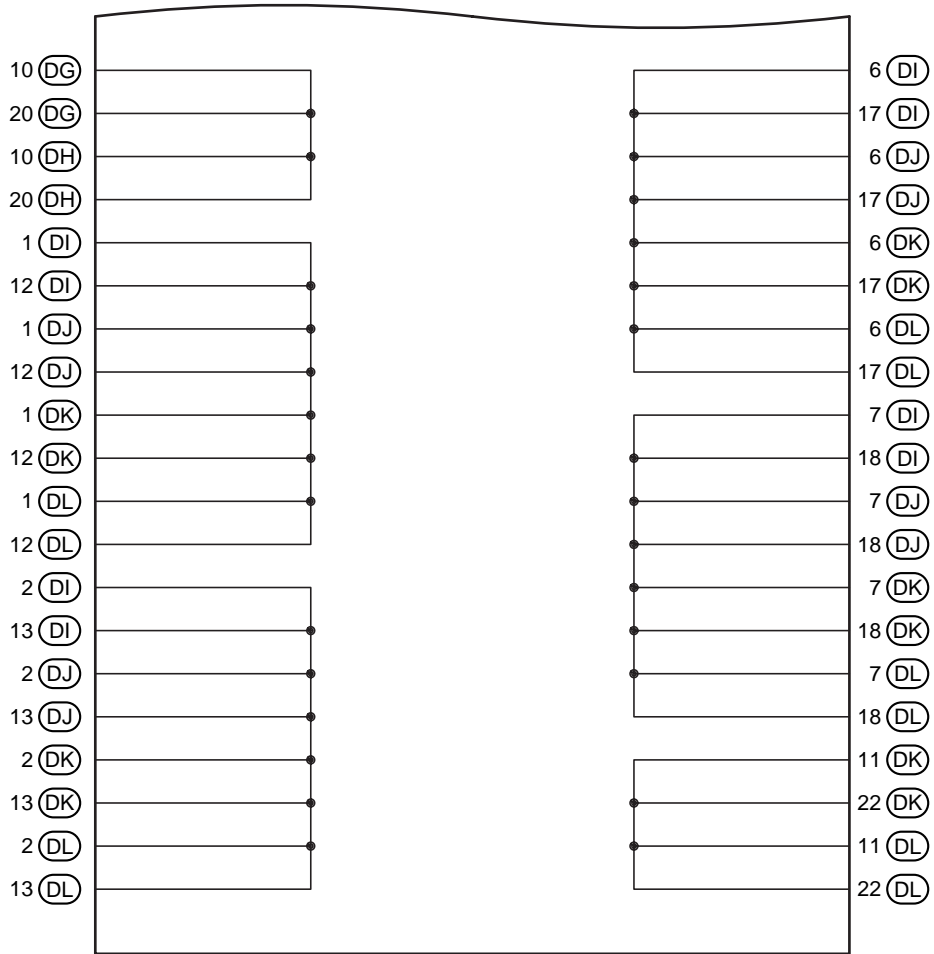
## [Driver Side J/B Inner Circuit]

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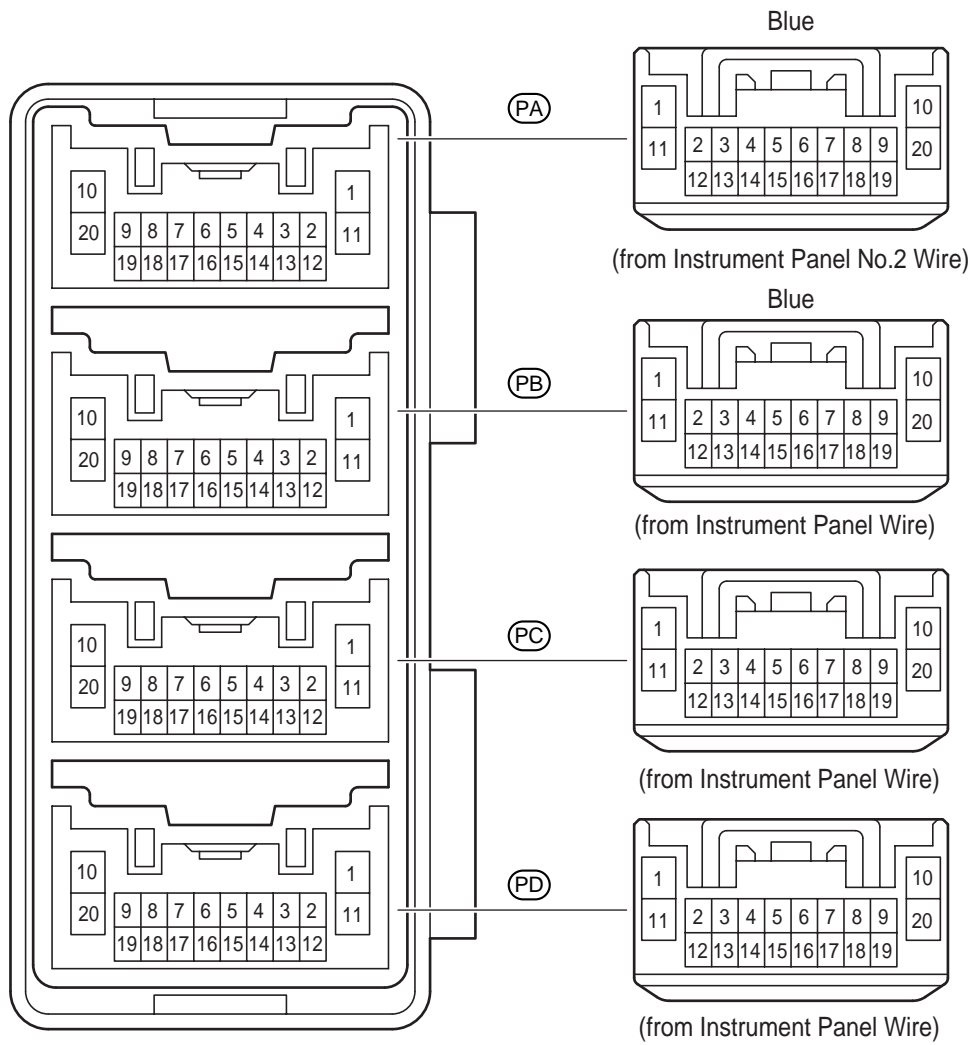
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# F RELAY LOCATIONS

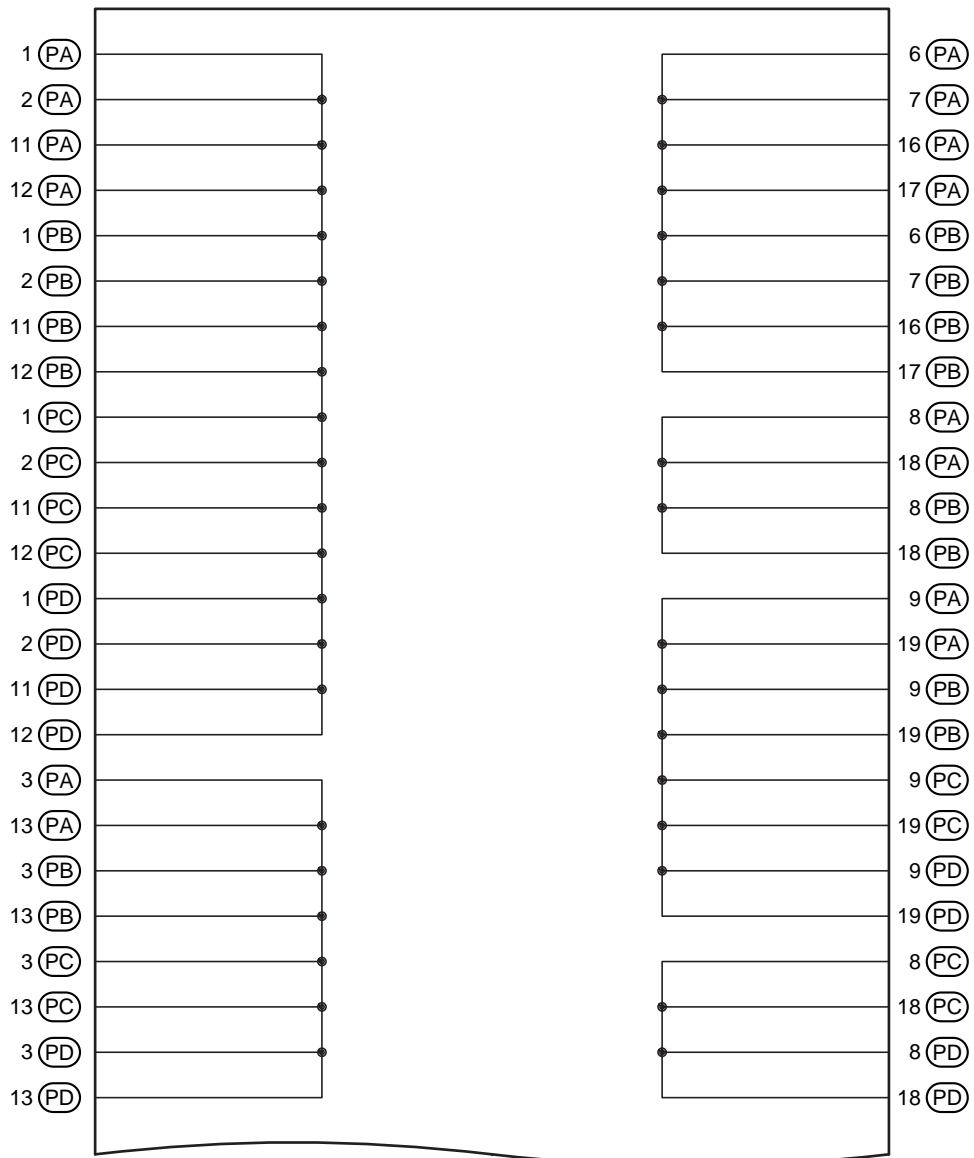
 : Passenger Side J/B Instrument Panel Reinforcement RH (See Page 20)





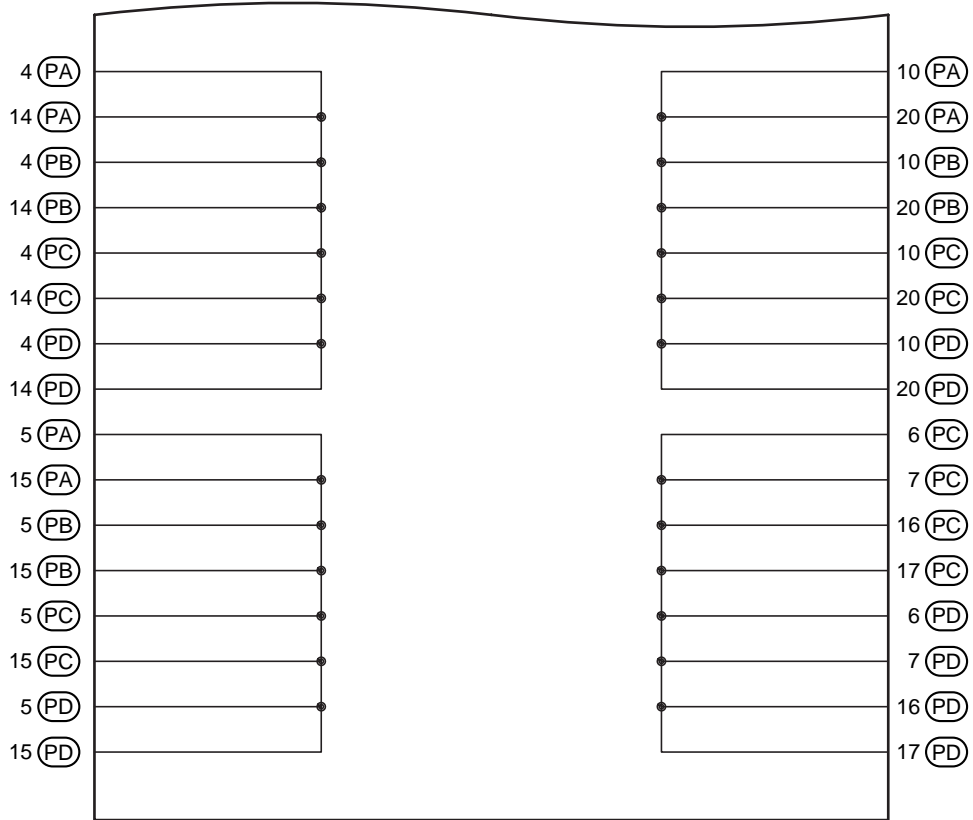
# F RELAY LOCATIONS

## [Passenger Side J/B Inner Circuit]



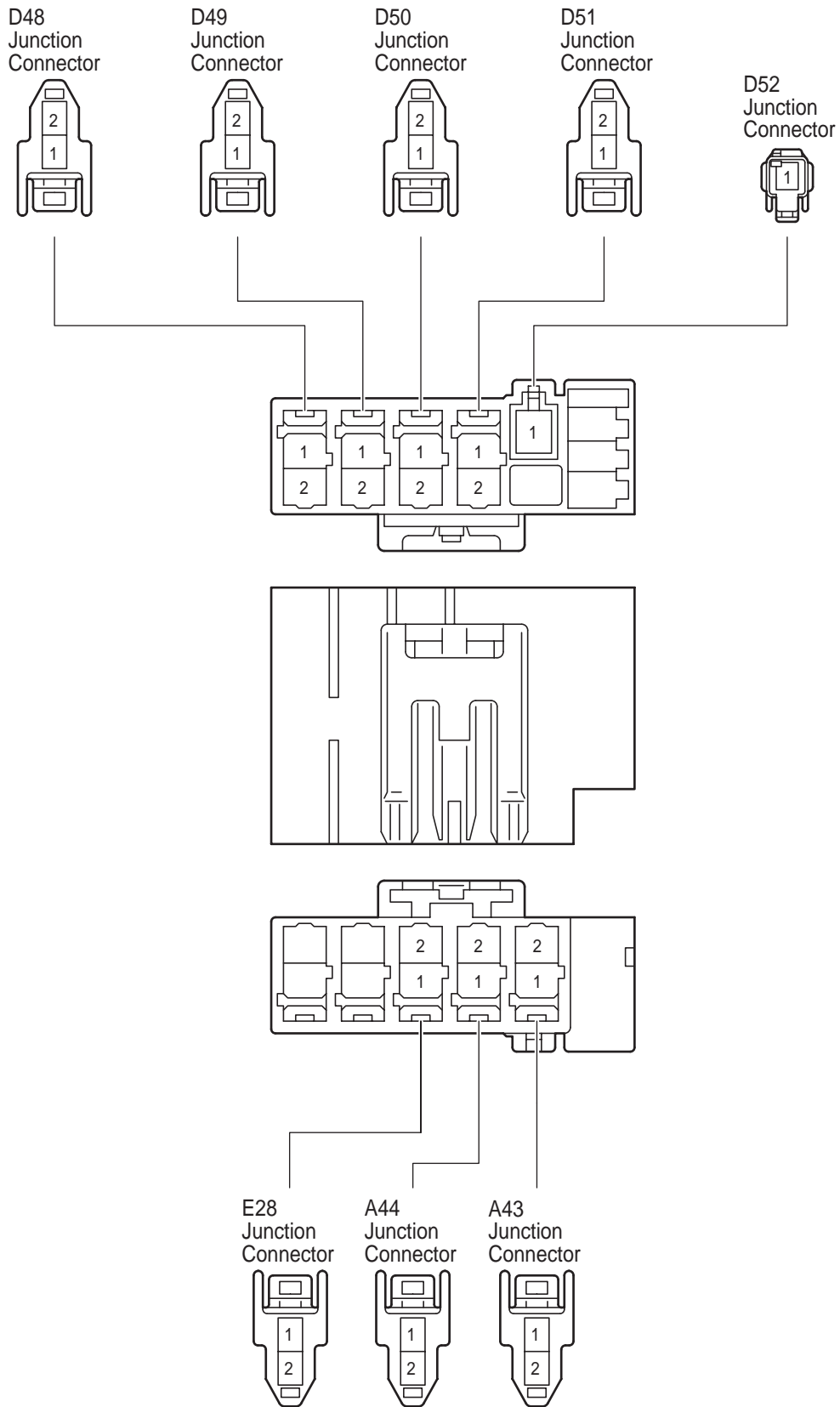
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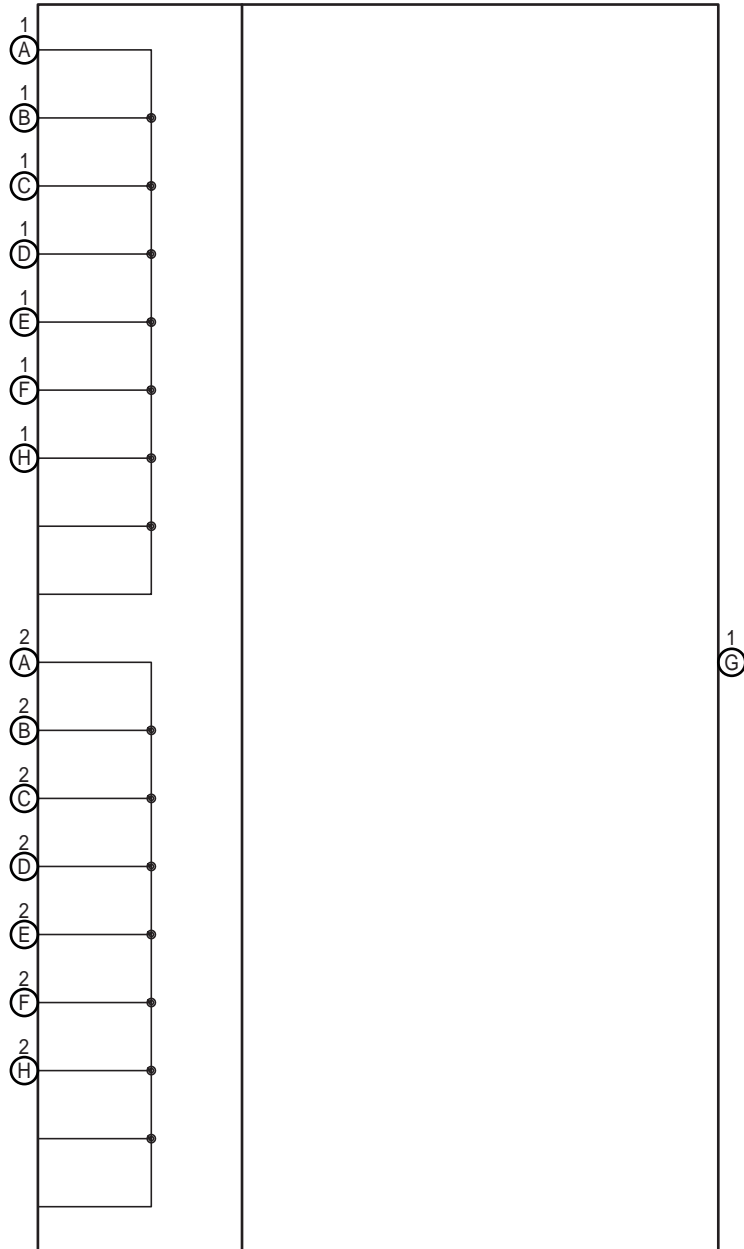
# F RELAY LOCATIONS

## Junction Connector (CAN) Behind the Glove Box (See Page 20)



[Junction Connector (CAN) Inner Circuit]

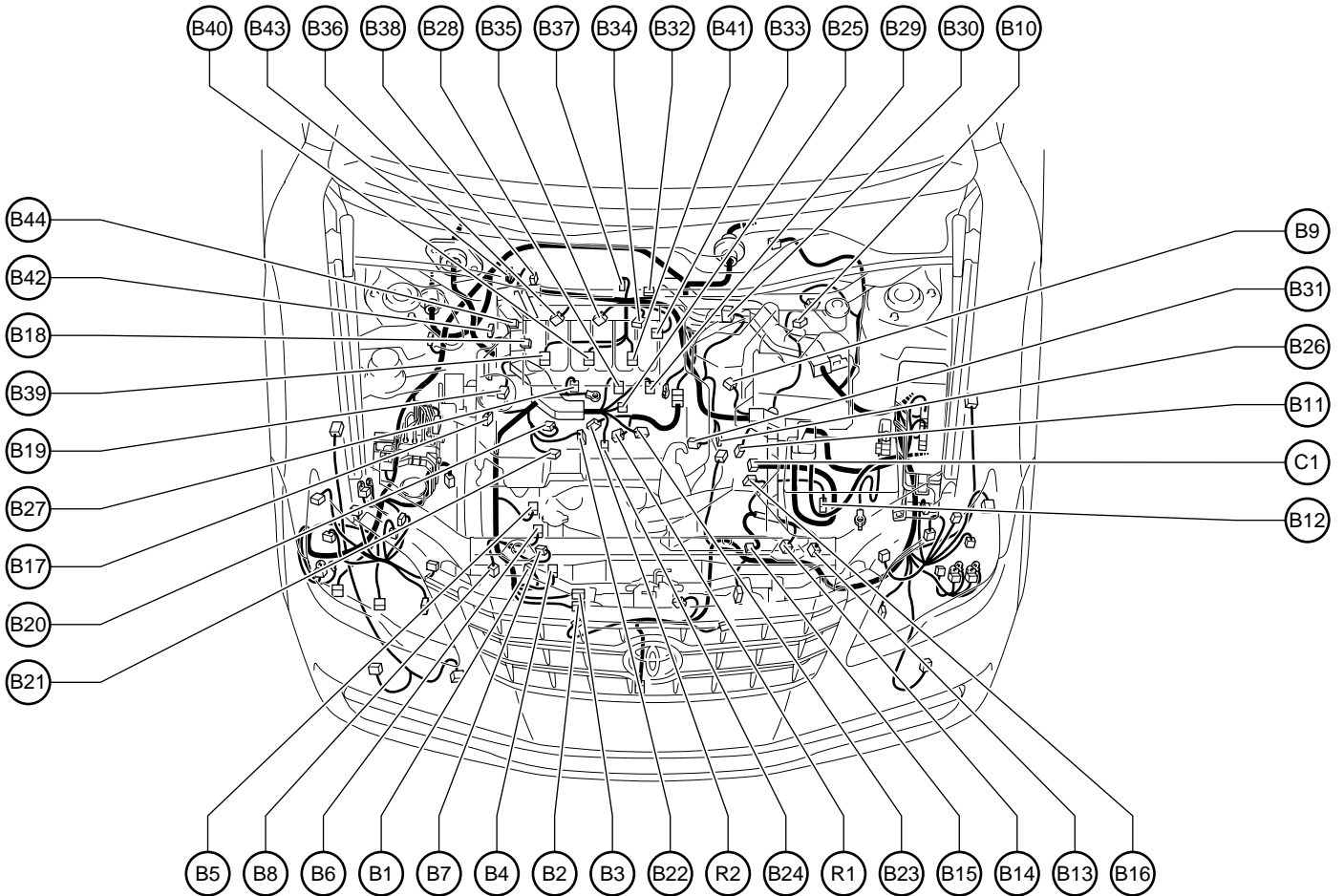
A43(A), A44(B), D48(C), D49(D), D50(E),  
 D51(F), D52(G), E28(H)  
 Junction Connector







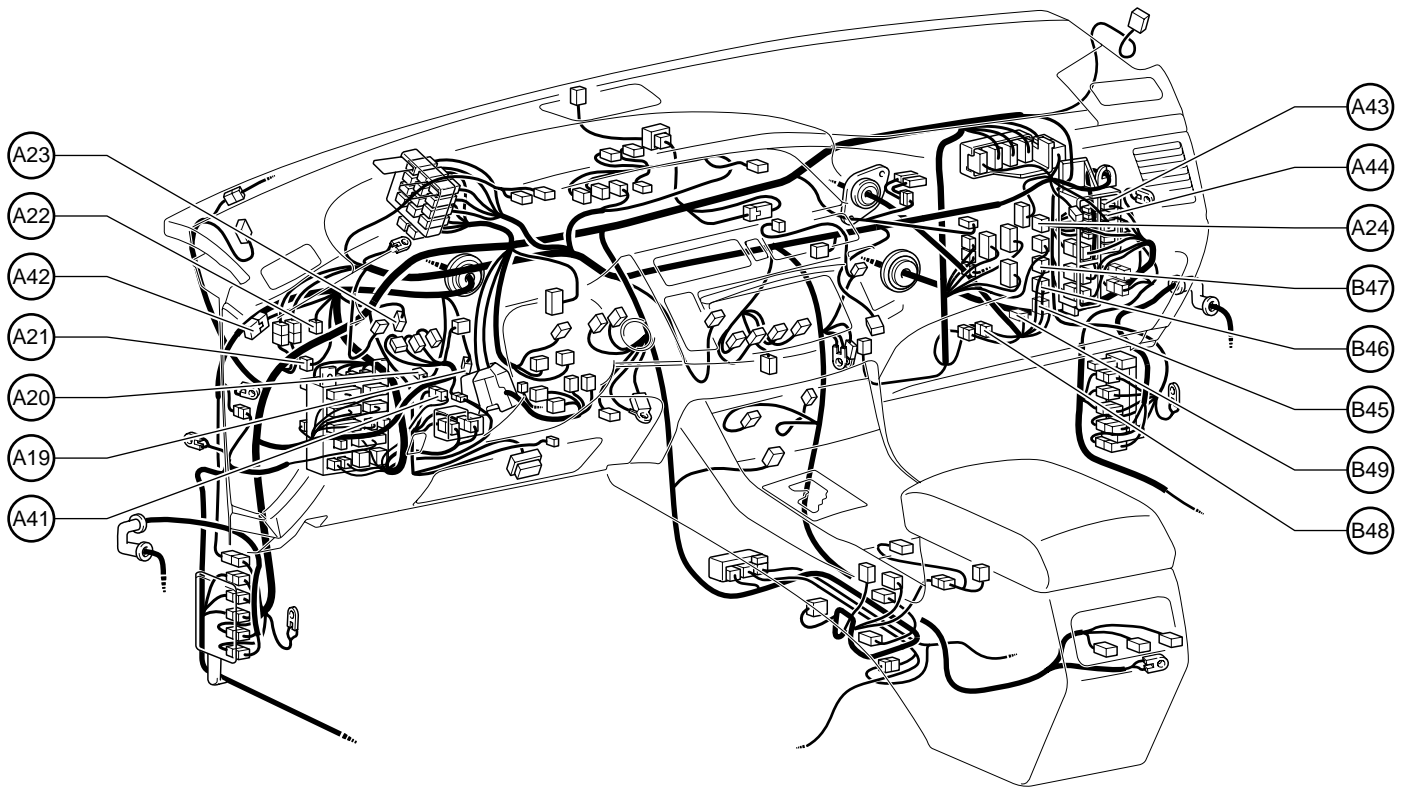
## Position of Parts in Engine Compartment



- |   |   |
|---|---|
| B 1 Engine Oil Pressure SW                              | B26 Air Fuel Ratio Sensor (Bank 2 Sensor 1)             |
| B 2 Heated Oxygen Sensor (Bank 2 Sensor 2)              | B27 Fuel Injector (No.2)                                |
| B 3 Heated Oxygen Sensor (Bank 1 Sensor 2)              | B28 Fuel Injector (No.4)                                |
| B 4 A/C Compressor                                      | B29 Fuel Injector (No.6)                                |
| B 5 Generator   | B30 Throttle Body Assembly                              |
| B 6 Generator   | B31 VSV (Purge)   |
| B 7 Crankshaft Position Sensor                          | B32 Air Fuel Ratio Sensor (Bank 1 Sensor 1)             |
| B 8 A/C Compressor                                      | B33 Noise Filter (Ignition No.2)                        |
| B 9 Engine Coolant Temp. Sensor                         | B34 Ignition Coil (No.5)                                |
| B10 Mass Air Flow Meter                                 | B35 Ignition Coil (No.3)                                |
| B11 Speed Sensor (Counter Gear)                         | B36 Ignition Coil (No.1)                                |
| B12 Speed Sensor (Turbine)                              | B37 Crankshaft Position Sensor No.2 (RH Exhaust Side)   |
| B13 Park/Neutral Position SW                            | B38 Power Steering Oil Pressure SW                      |
| B14 Electronically Controlled Transmission Solenoid     | B39 Fuel Injector (No.1)                                |
| B15 VSV (ACM)   | B40 Fuel Injector (No.3)                                |
| B16 Starter   | B41 Fuel Injector (No.5)                                |
| B17 Crankshaft Position Sensor No.3 (LH Intake Side)    | B42 Crankshaft Position Sensor No.2 (RH Intake Side)    |
| B18 VSV (ACIS)  | B43 Camshaft Timing Oil Control Valve (RH Exhaust Side) |
| B19 Camshaft Timing Oil Control Valve (LH Intake Side)  | B44 Camshaft Timing Oil Control Valve (RH Intake Side)  |
| B20 Camshaft Timing Oil Control Valve (LH Exhaust Side) |   |
| B21 Ignition Coil (No.2)                                | C 1 Starter   |
| B22 Ignition Coil (No.4)                                |   |
| B23 Ignition Coil (No.6)                                | R 1 Knock Control Sensor (Bank 2)                       |
| B24 Crankshaft Position Sensor No.2 (LH Exhaust Side)   | R 2 Knock Control Sensor (Bank 1)                       |
| B25 Noise Filter (Ignition No.1)                        |   |

## G ELECTRICAL WIRING ROUTING

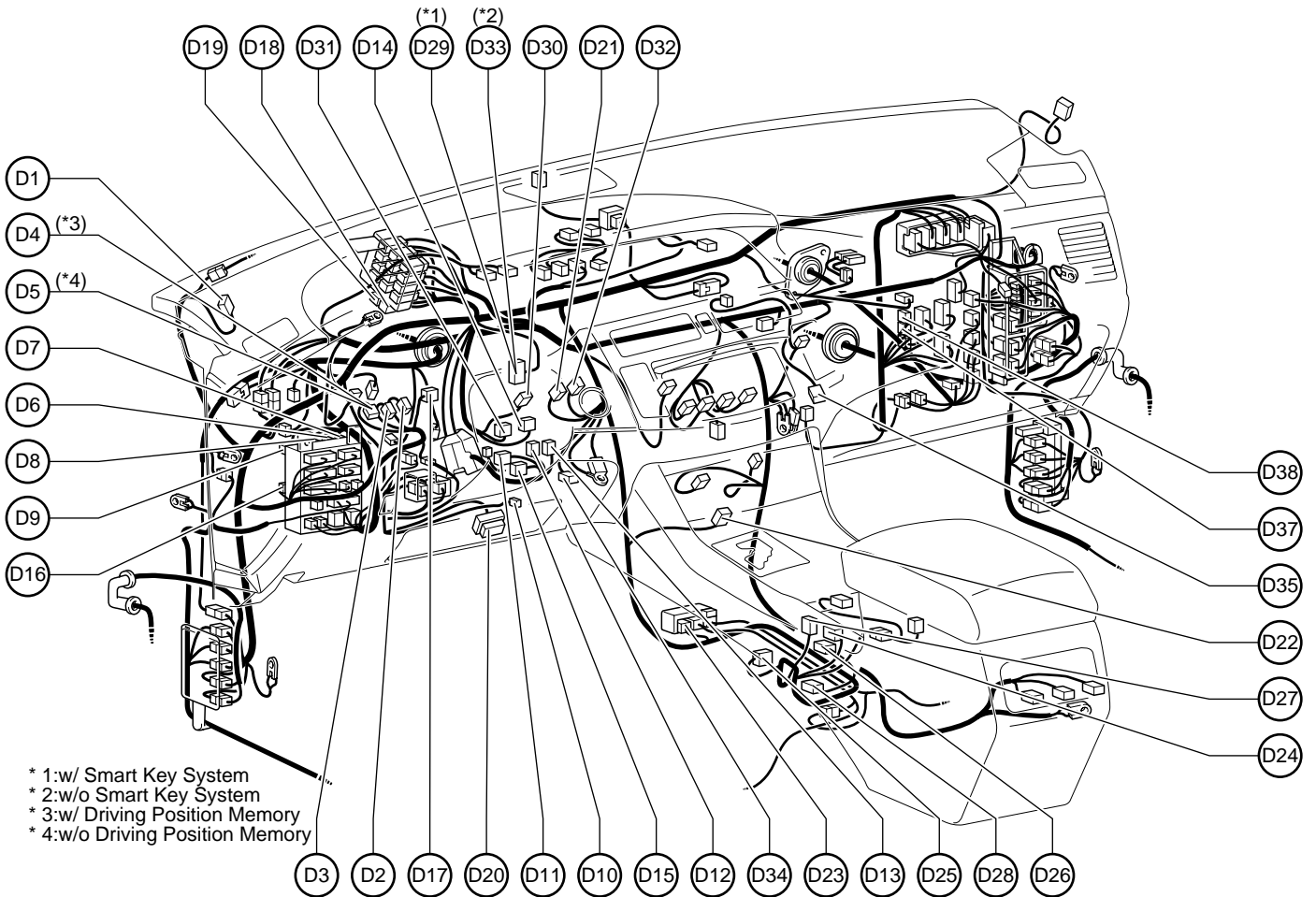
### Position of Parts in Instrument Panel



A 19 Accelerator Position Sensor  
A 20 Distance Control ECU  
A 21 Headlamp Leveling ECU  
A 22 Parking Brake SW  
A 23 Stop Lamp SW  
A 24 Engine Control Module  
A 41 Junction Connector  
A 42 Junction Connector  
A 43 Junction Connector  
A 44 Junction Connector

B 45 Engine Control Module  
B 46 Engine Control Module  
B 47 Engine Control Module  
B 48 Junction Connector  
B 49 Junction Connector

## Position of Parts in Instrument Panel

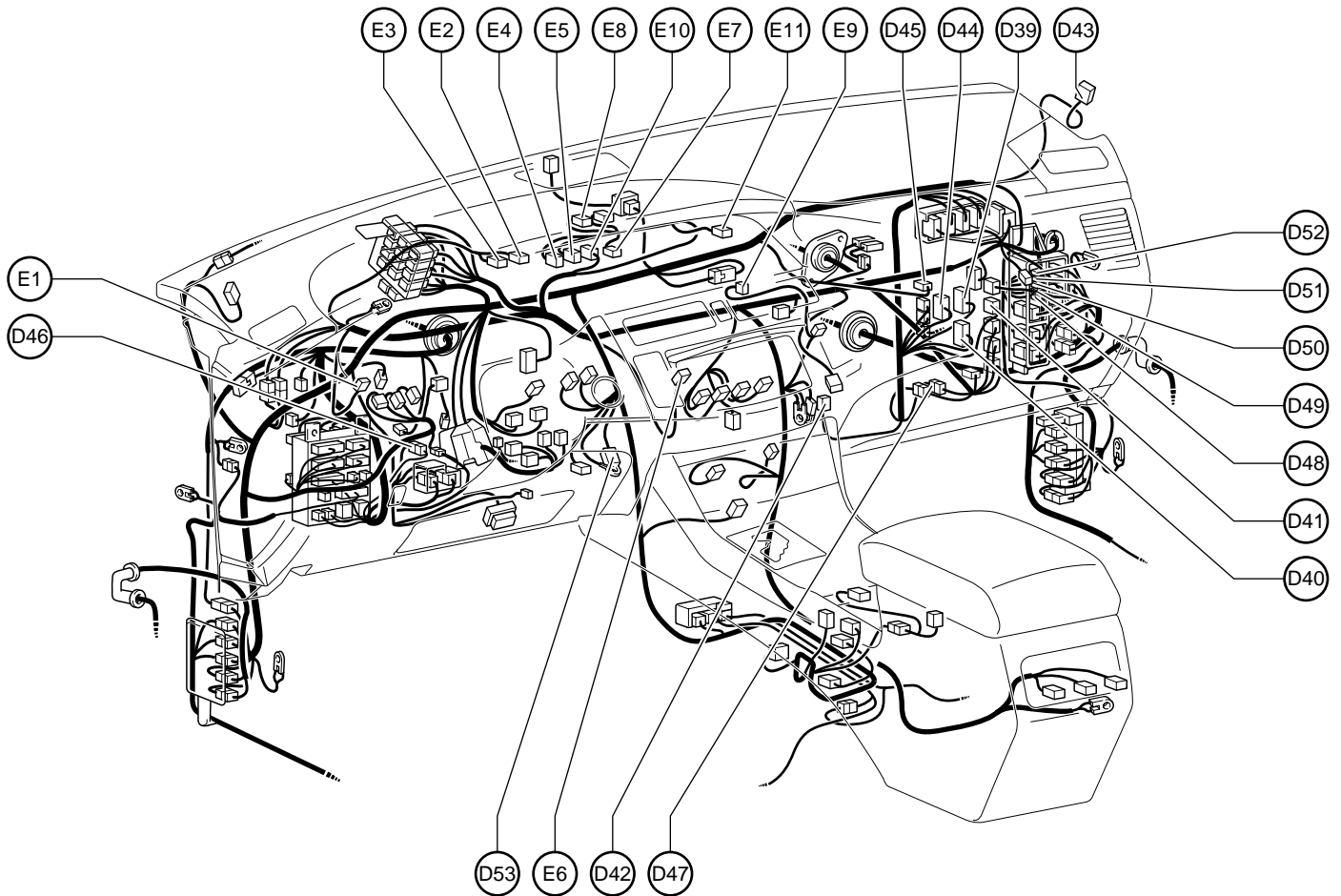


- \* 1:w/ Smart Key System
- \* 2:w/o Smart Key System
- \* 3:w/ Driving Position Memory
- \* 4:w/o Driving Position Memory

- |   |   |
|---|---|
| <p>D 1 Tweeter (Front LH)</p> <p>D 2 Luggage Compartment Door Opener SW</p> <p>D 3 Rear Sunshade SW</p> <p>D 4 Outer Mirror SW</p> <p>D 5 Outer Mirror SW</p> <p>D 6 Body ECU</p> <p>D 7 Body ECU</p> <p>D 8 Body ECU</p> <p>D 9 Body ECU</p> <p>D10 Airbag Squib (Knee Airbag)</p> <p>D11 Airbag Squib (Steering Wheel Pad)</p> <p>D12 Steering Sensor</p> <p>D13 Windshield Wiper SW Assembly</p> <p>D14 Steering Lock ECU</p> <p>D15 Spiral Cable</p> <p>D16 Option Connector (TVIP)</p> <p>D17 Option Connector (Glass Breakage Sensor Microphone)</p> <p>D18 VSC Warning Buzzer</p> <p>D19 Turn Signal Flasher</p> | <p>D20 Data Link Connector 3</p> <p>D21 Power SW</p> <p>D22 Cigarette Lighter</p> <p>D23 Airbag Sensor Assembly Center</p> <p>D24 Transmission Control SW</p> <p>D25 Shift Lock Control ECU</p> <p>D26 Electrical Key Oscillator (Console)</p> <p>D27 Seat Heater SW</p> <p>D28 Yaw Rate Sensor</p> <p>D29 Immobiliser Code ECU</p> <p>D30 Ignition SW</p> <p>D31 Unlock Warning SW</p> <p>D32 Transponder Key Amplifier</p> <p>D33 Transponder Key ECU</p> <p>D34 A/C Room Temp. Sensor</p> <p>D35 Luggage Compartment Door Opener SW (Main)</p> <p>D37 A/C Amplifier</p> <p>D38 A/C Amplifier</p> |
|---|---|

# G ELECTRICAL WIRING ROUTING

## Position of Parts in Instrument Panel

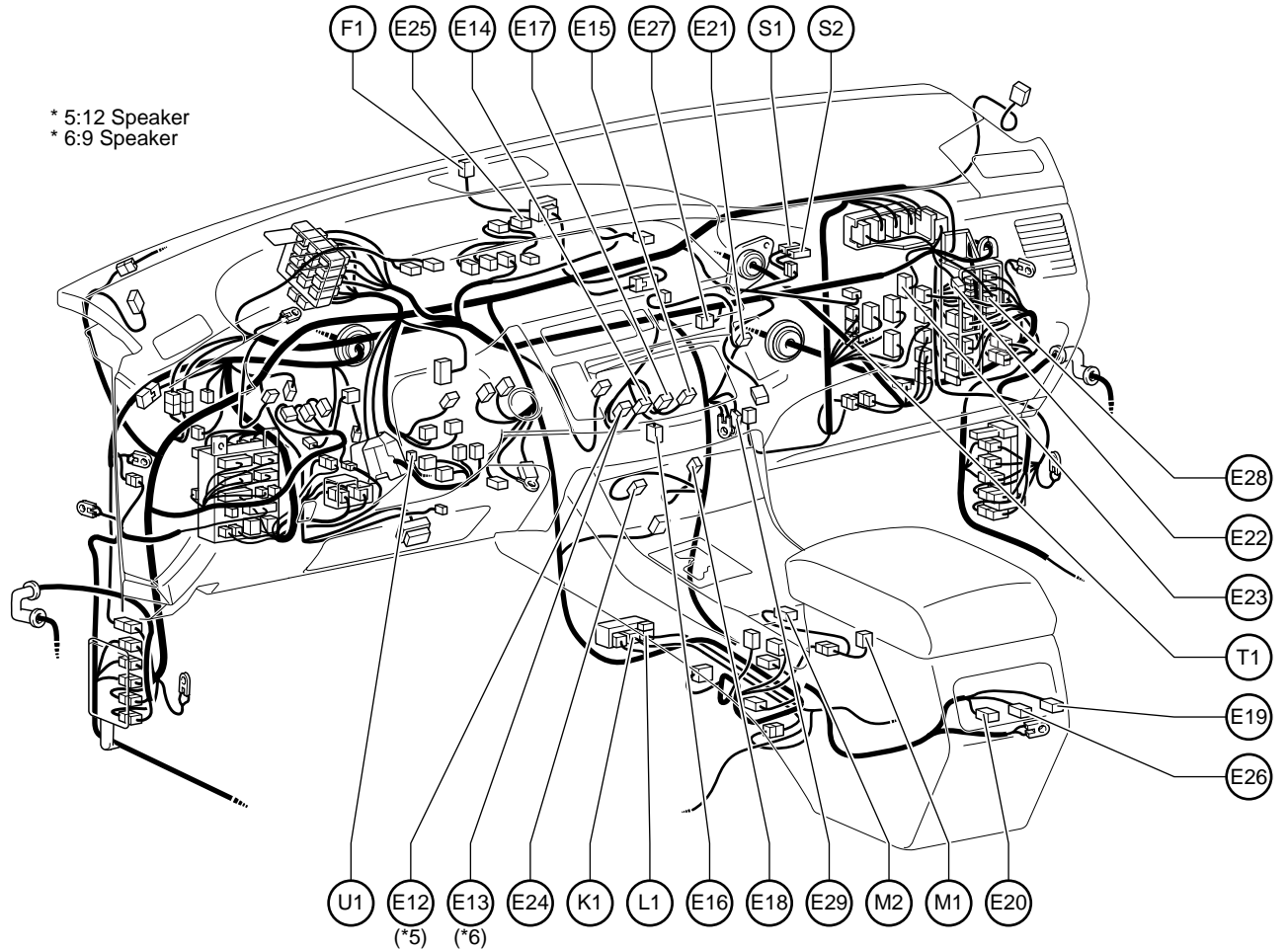


- D39 Smart Key ECU
- D40 Smart Key ECU
- D41 Engine Control Module
- D42 Blower Motor
- D43 Tweeter (Front RH)
- D44 Power Source Control ECU
- D45 Option Connector (Glass Breakage Sensor ECU)
- D46 Junction Connector
- D47 Junction Connector
- D48 Junction Connector
- D49 Junction Connector
- D50 Junction Connector
- D51 Junction Connector
- D52 Junction Connector
- D53 Junction Connector

- E 1 Rheostat
- E 2 Combination Meter
- E 3 Combination Meter
- E 4 Clock
- E 5 Clock
- E 6 A/C Control Assembly
- E 7 Multi-Display
- E 8 Multi-Display
- E 9 Hazard Warning Signal SW
- E 10 Speaker (Center)
- E 11 Telltale Lamp Assembly



## Position of Parts in Instrument Panel

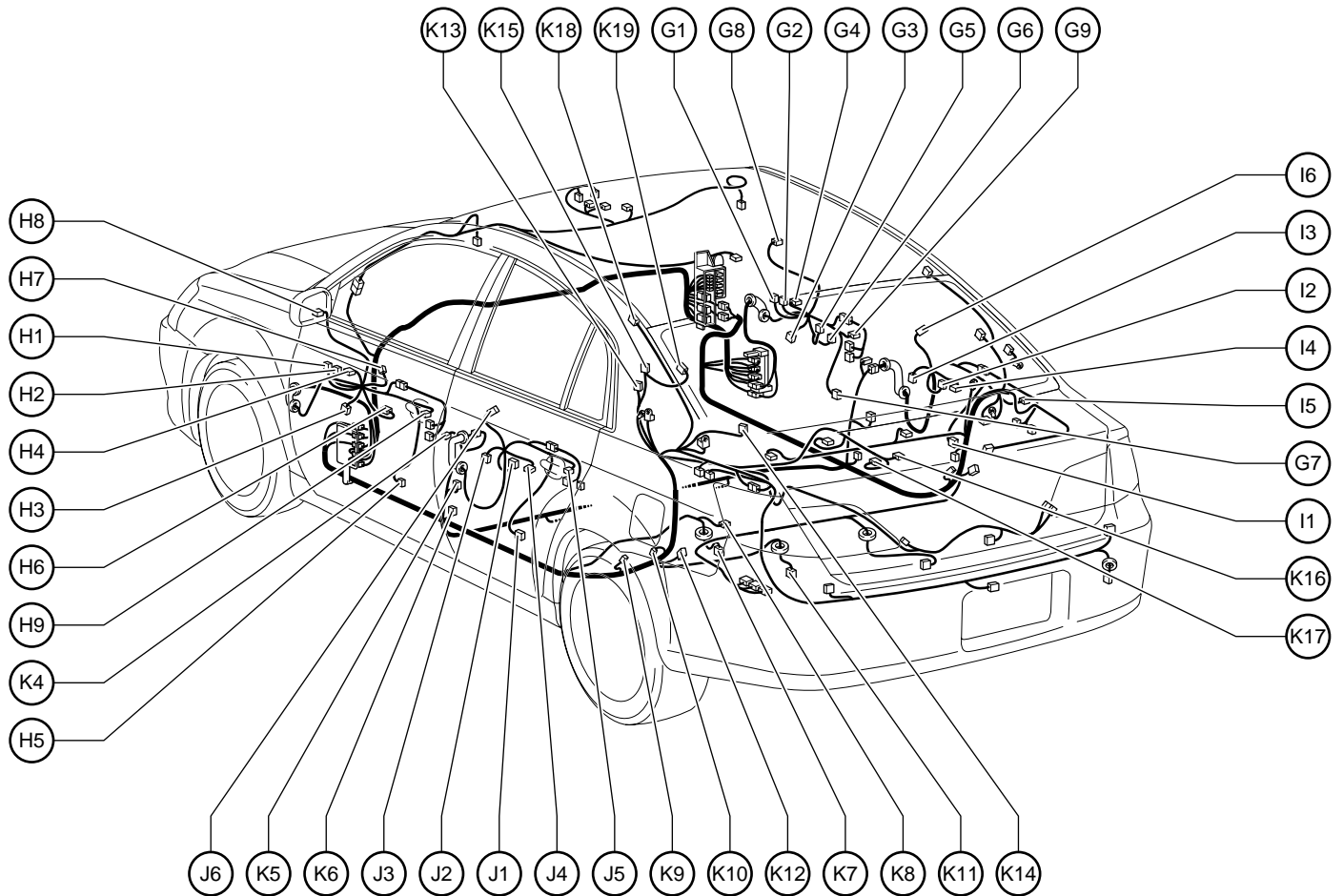


E12 Radio Receiver Assembly  
 E13 Radio Receiver Assembly  
 E14 Radio Receiver Assembly  
 E15 Radio Receiver Assembly  
 E16 Antenna Amplifier  
 E17 Radio Receiver Assembly  
 E18 Navigation Controller  
 E19 Stereo Component Amplifier  
 E20 Stereo Component Amplifier  
 E21 Temp. Control SW Assembly  
 E22 Glove Box Lamp  
 E23 Gateway ECU  
 E24 Tape Player  
 E25 Multi-Display  
 E26 Stereo Component Amplifier  
 E27 Junction Connector  
 E28 Junction Connector  
 E29 Junction Connector

F 1 Automatic Light Control Sensor  
 K 1 Airbag Sensor Assembly Center  
 L 1 Airbag Sensor Assembly Center  
 M 1 Power Outlet (No.1)  
 M 2 Power Outlet (No.2)  
 S 1 Airbag Squib (Front Passenger's Airbag Assembly)  
 S 2 Airbag Squib (Front Passenger's Airbag Assembly)  
 T 1 A/C Amplifier  
     A/C Blower Assembly  
 U 1 Headlamp Dimmer SW Assembly  
     Windshield Wiper SW Assembly

# G ELECTRICAL WIRING ROUTING

## Position of Parts in Body



- G 1 Outer Mirror Control ECU (RH)
- G 2 Outer Mirror Control ECU (RH)
- G 3 Speaker (Front Door RH)
- G 4 Power Window Regulator Motor (Front Passenger's Side)
- G 5 Door Lock Control SW
- G 6 Power Window SW (Front Passenger's Side)
- G 7 Courtesy Lamp (Front Door RH)
- G 8 Outer Rear View Mirror (RH)
- G 9 Door Lock Assembly (Front Passenger's Side)

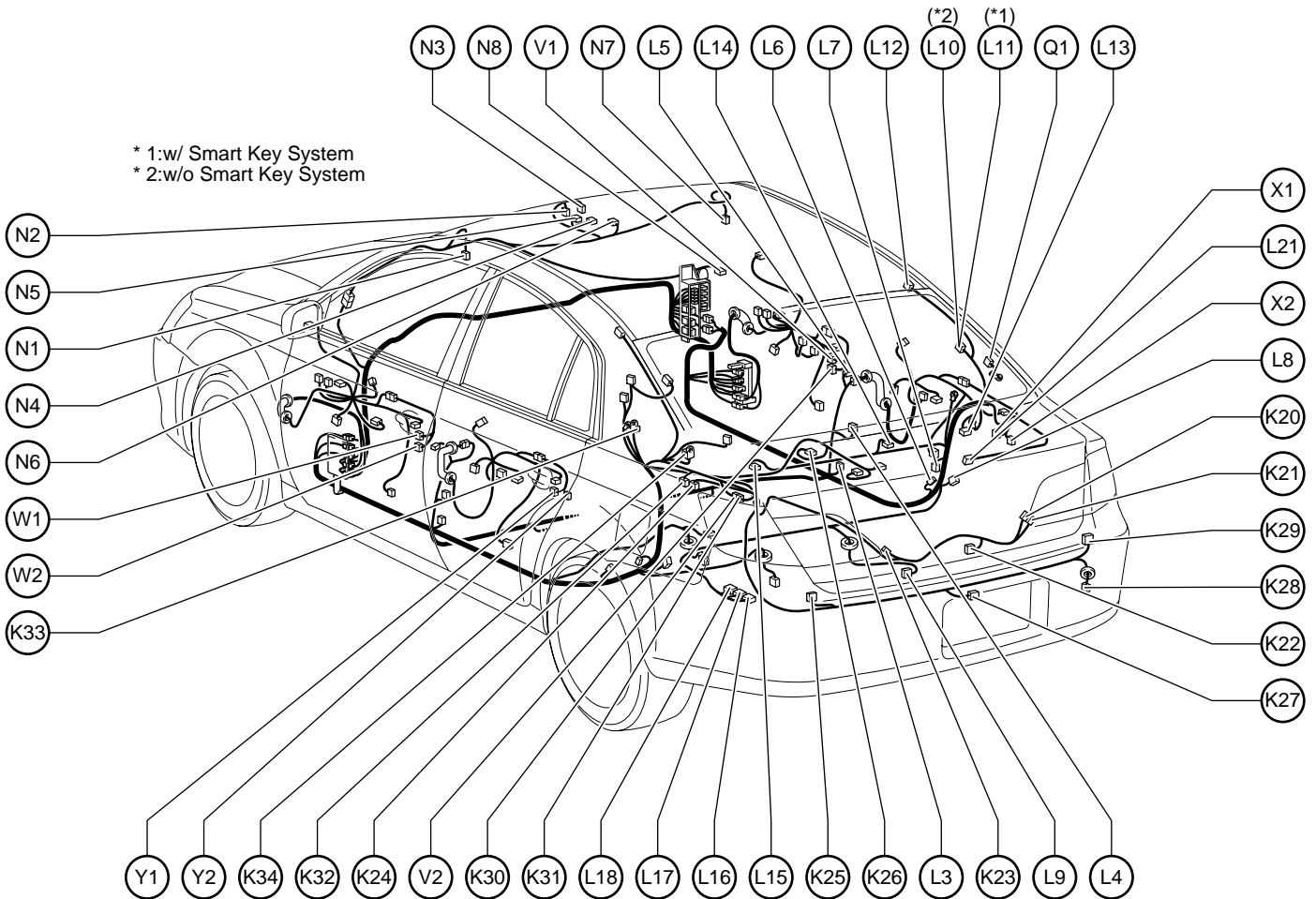
- H 1 Outer Mirror Control ECU (LH)
- H 2 Outer Mirror Control ECU (LH)
- H 3 Speaker (Front Door LH)
- H 4 Power Window Regulator Motor (Front LH)
- H 5 Courtesy Lamp (Front Door LH)
- H 6 Power Window Master SW
- H 7 Seat Memory SW
- H 8 Outer Rear View Mirror (LH)
- H 9 Door Lock Assembly (Driver's Side)

- I 1 Courtesy Lamp (Rear Door RH)
- I 2 Power Window SW (Rear RH)
- I 3 Speaker (Rear Door RH)
- I 4 Power Window Regulator Motor (Rear RH)
- I 5 Door Lock Assembly (Rear RH)
- I 6 Tweeter (Rear RH)

- J 1 Courtesy Lamp (Rear Door LH)
- J 2 Power Window SW (Rear LH)
- J 3 Speaker (Rear Door LH)
- J 4 Power Window Regulator Motor (Rear LH)
- J 5 Door Lock Assembly (Rear LH)
- J 6 Tweeter (Rear LH)

- K 4 Door Courtesy SW (Driver's Side)
- K 5 Side Airbag Sensor (Front LH)
- K 6 Pretensioner (LH)
- K 7 Fuel Suction Pump and Gage Assembly
- K 8 Electrical Key Oscillator (Rear Seat)
- K 9 Side Airbag Sensor (Rear LH)
- K 10 Door Courtesy SW (Rear LH)
- K 11 Canister Pump Module
- K 12 Speed Sensor (Rear LH)
- K 13 Noise Filter (Dome and Stop)
- K 14 Center Stop Lamp
- K 15 Noise Filter (Rear Window Defogger)
- K 16 Luggage Compartment Lamp
- K 17 Rear Sunshade Relay
- K 18 Curtain Shield Airbag Squib (LH)
- K 19 Rear Window Defogger

## Position of Parts in Body



K20 Rear Combination Lamp (RH)  
 K21 Luggage Electrical Key SW  
 K22 Door Lock Assembly (Luggage)  
 K23 Rear Combination Lamp (LH)  
 K24 Fuel Lid Opener Motor  
 K25 Rear Combination Lamp (LH)  
 K26 Electrical Key Oscillator (Inside Luggage Room )  
 K27 License Plate Lamp  
 K28 Electrical Key Oscillator (Outside Luggage Room)  
 K29 Rear Combination Lamp (RH)  
 K30 Junction Connector  
 K31 Junction Connector  
 K32 Junction Connector  
 K33 Junction Connector  
 K34 Junction Connector

L 3 Pretensioner (RH)  
 L 4 Side Airbag Sensor (Front RH)  
 L 5 Door Courtesy SW (Front Passenger's Side)  
 L 6 Side Airbag Sensor (Rear RH)  
 L 7 Door Courtesy SW (Rear RH)  
 L 8 Speed Sensor (Rear RH)  
 L 9 Height Control Sensor  
 L 10 Door Control Receiver  
 L 11 Door Control Receiver  
 L 12 Curtain Shield Airbag Squib (RH)  
 L 13 Speaker (Package Tray RH)  
 L 14 Speaker (Woofer)

L 15 Speaker (Package Tray LH)  
 L 16 Navigation ECU  
 L 17 Navigation ECU  
 L 18 Navigation ECU  
 L 21 Electrical Key Antenna

N 1 Vanity Lamp (LH)  
 N 2 Inner Rear View Mirror  
 N 3 Rain Sensor  
 N 4 Sliding Roof Control ECU  
 N 5 Microphone (Navigation)  
 N 6 Map Lamp  
 N 7 Vanity Lamp (RH)  
 N 8 Room Lamp

Q 1 Rear Window Defogger

V 1 Electrical Key Oscillator (Front Door RH)  
 V 2 Door Outside Handle (Front RH)

W 1 Electrical Key Oscillator (Front Door LH)  
 W 2 Door Outside Handle (Front LH)

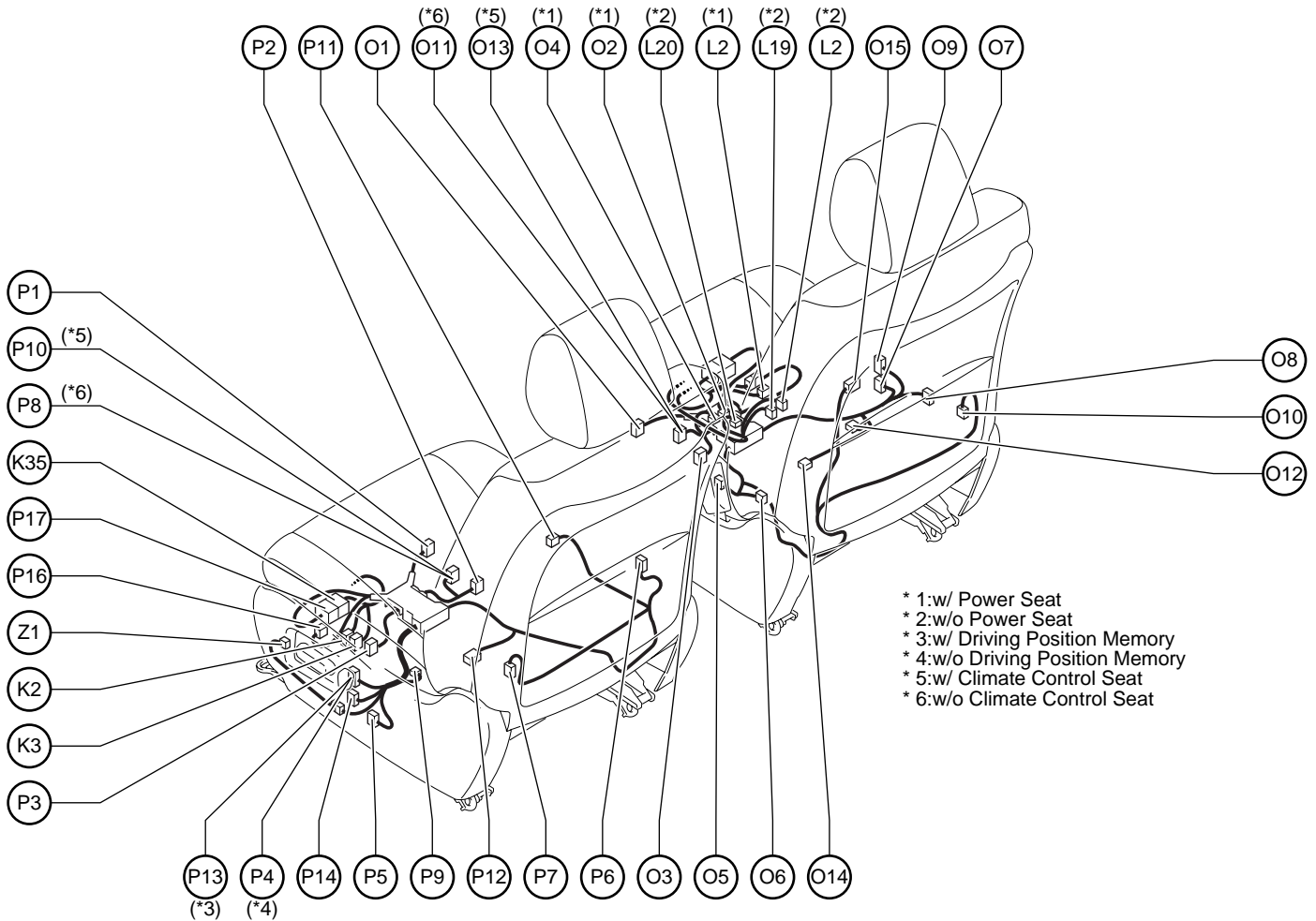
X 1 Electrical Key Oscillator (Rear Door RH)  
 X 2 Door Outside Handle (Rear RH)

Y 1 Electrical Key Oscillator (Rear Door LH)  
 Y 2 Door Outside Handle (Rear LH)



# G ELECTRICAL WIRING ROUTING

## Position of Parts in Seat



K 2 Front Seat Inner Belt (Driver's Side)  
 K 3 Side Airbag Squib (LH)  
 K35 Junction Connector

L 2 Side Airbag Squib (RH)  
 L 19 Front Seat Inner Belt (Front Passenger's Side)  
 L 20 Occupant Classification ECU

O 1 Power Seat Motor  
 (Front Passenger's Seat Slide Control)  
 O 2 Occupant Classification ECU  
 O 3 Front Seat Inner Belt (Front Passenger's Side)  
 O 4 Occupant Classification ECU  
 O 5 Occupant Classification Sensor (Front LH)  
 O 6 Occupant Classification Sensor (Rear LH)  
 O 7 Occupant Classification Sensor (Front RH)  
 O 8 Occupant Classification Sensor (Rear RH)  
 O 9 Power Seat SW (Front Passenger's Seat)  
 O10 Power Seat Motor  
 (Front Passenger's Seat Reclining Control)  
 O11 Seat Heater (RH)  
 O12 Junction Connector  
 O13 Seat Heater (RH)  
 O14 Seat Climate Control Blower  
 (Front Passenger's Seat Cushion)  
 O15 Seat Climate Control Blower  
 (Front Passenger's Seat Back)

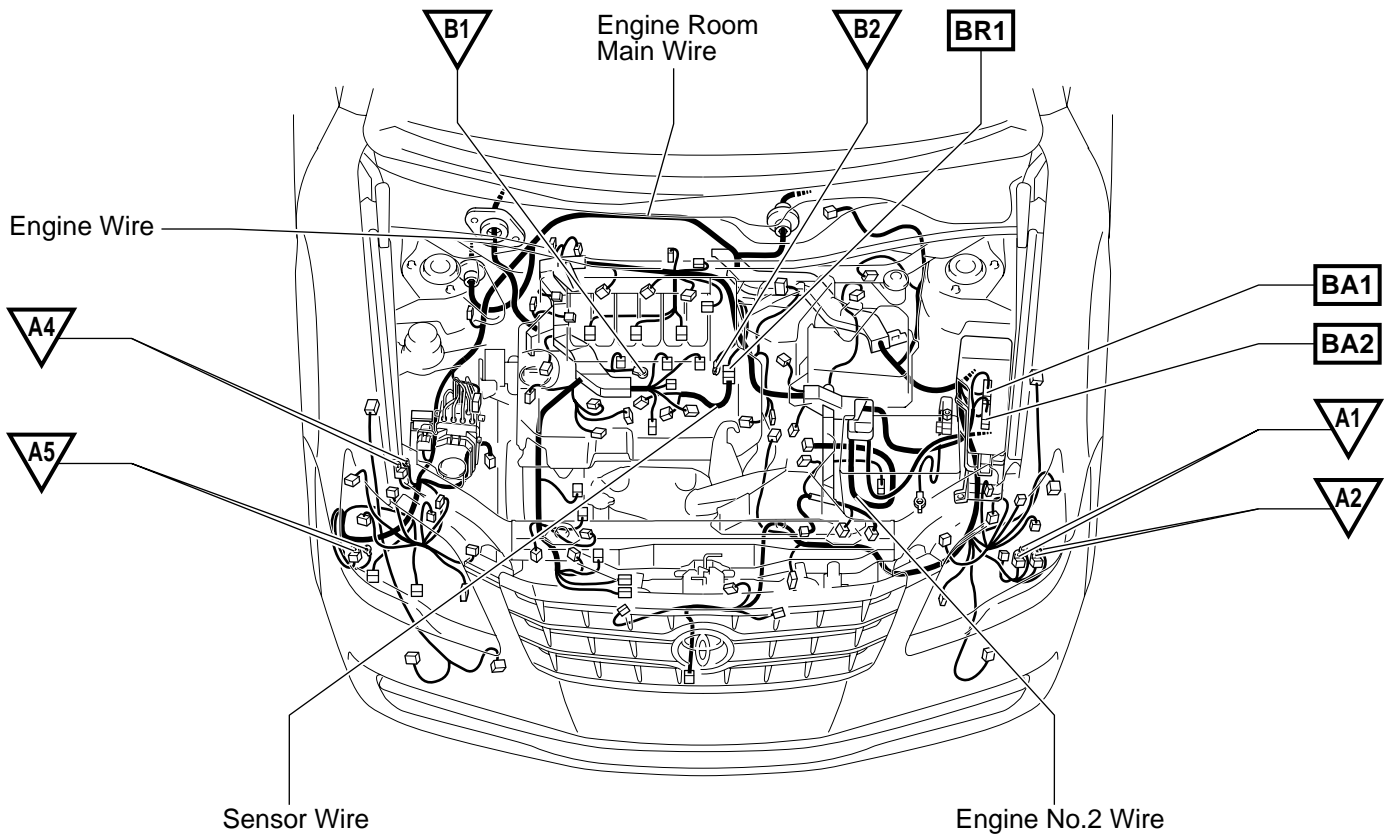
P 1 Power Seat Motor (Driver's Seat Slide Control)  
 P 2 Power Seat Motor (Driver's Seat Lifter Control)  
 P 3 Power Seat Motor (Driver's Seat Front Vertical Control)  
 P 4 Power Seat SW (Driver's Seat)  
 P 5 Power Seat SW (Driver's Seat Lumbar Support Control)  
 P 6 Power Seat Motor  
 (Driver's Seat Lumbar Support Control)  
 P 7 Power Seat Motor (Driver's Seat Reclining Control)  
 P 8 Seat Heater (LH)  
 P 9 Junction Connector  
 P10 Seat Heater (LH)  
 P11 Seat Climate Control Blower (Driver's Seat Back)  
 P12 Seat Climate Control Blower (Driver's Seat Cushion)  
 P13 Position Control ECU and SW  
 P14 Position Control ECU and SW  
 P16 Power Seat Motor (Driver's Seat Leg Support Control)  
 P17 Junction Connector  
 Z 1 Power Seat SW (Driver's Seat Leg Support Control)



# G ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness

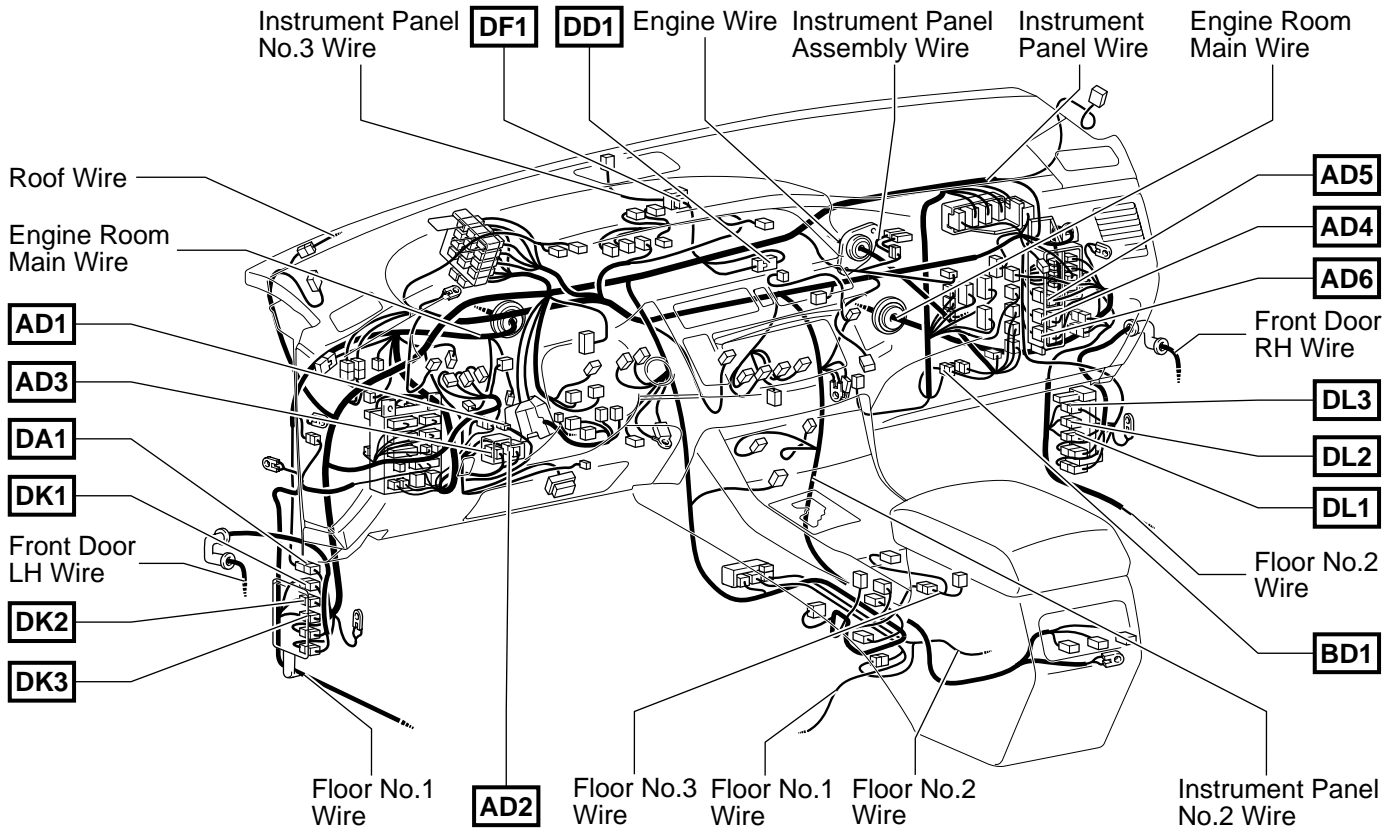
▽ : Location of Ground Points



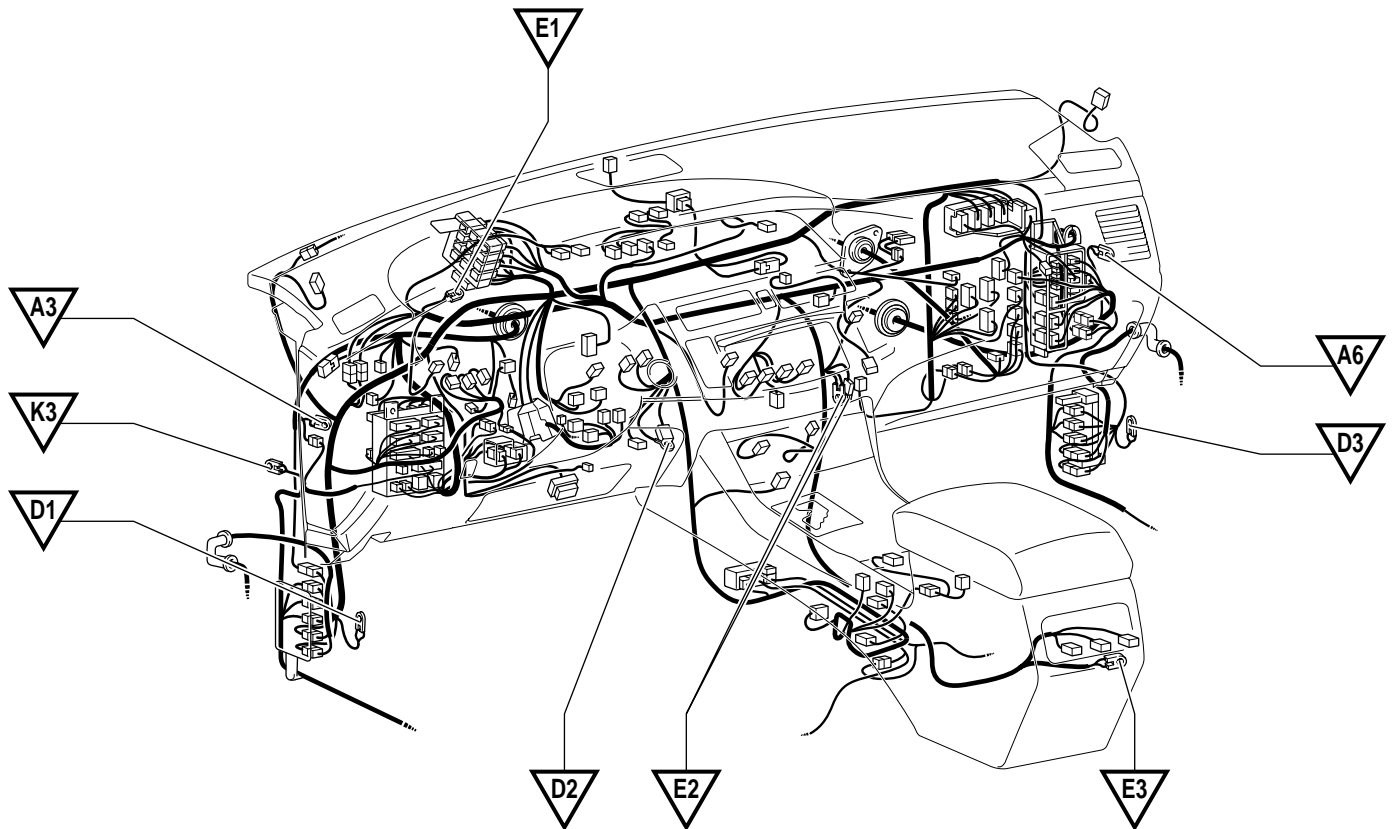


# G ELECTRICAL WIRING ROUTING

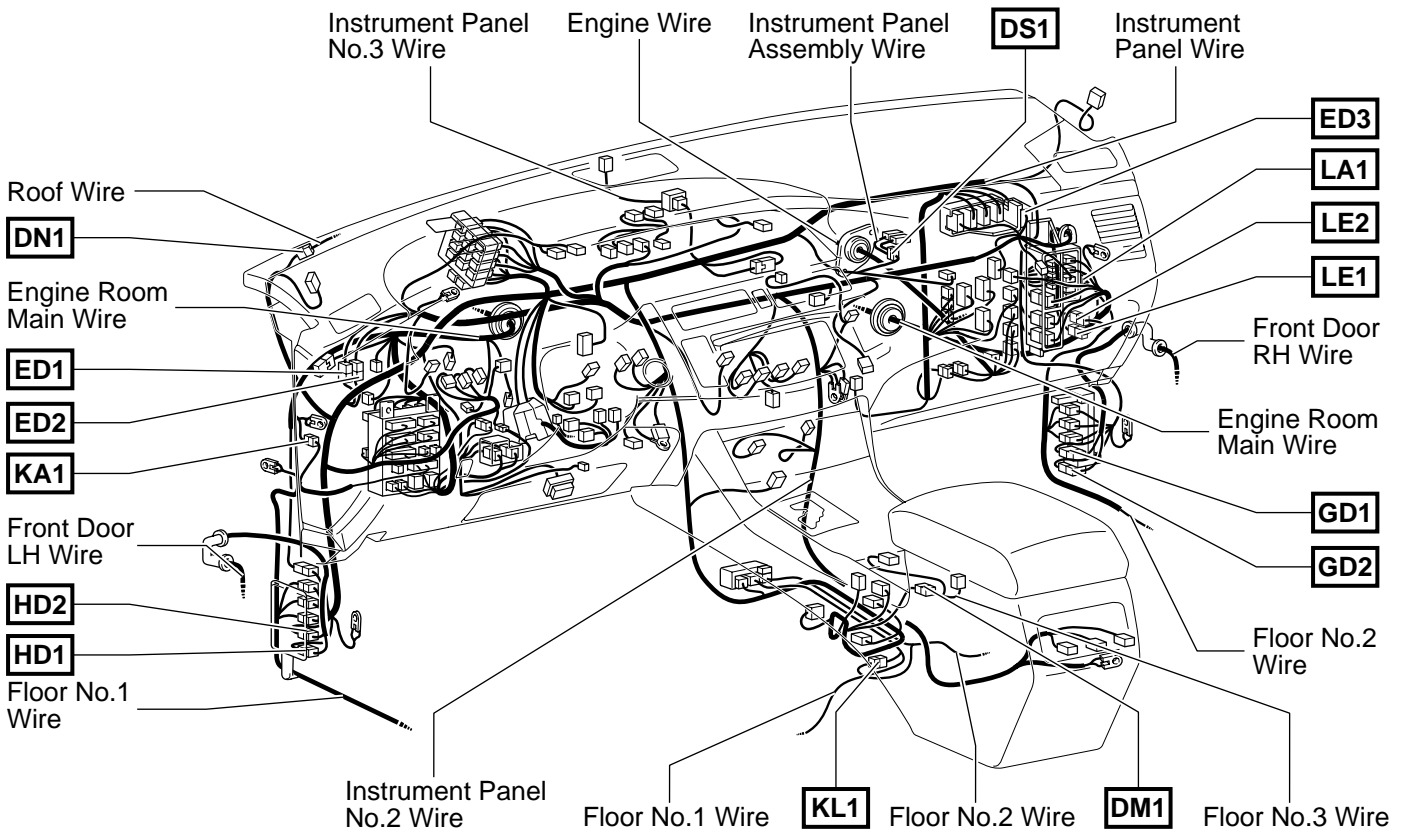
**□ : Location of Connector Joining Wire Harness and Wire Harness**



**▽ : Location of Ground Points**



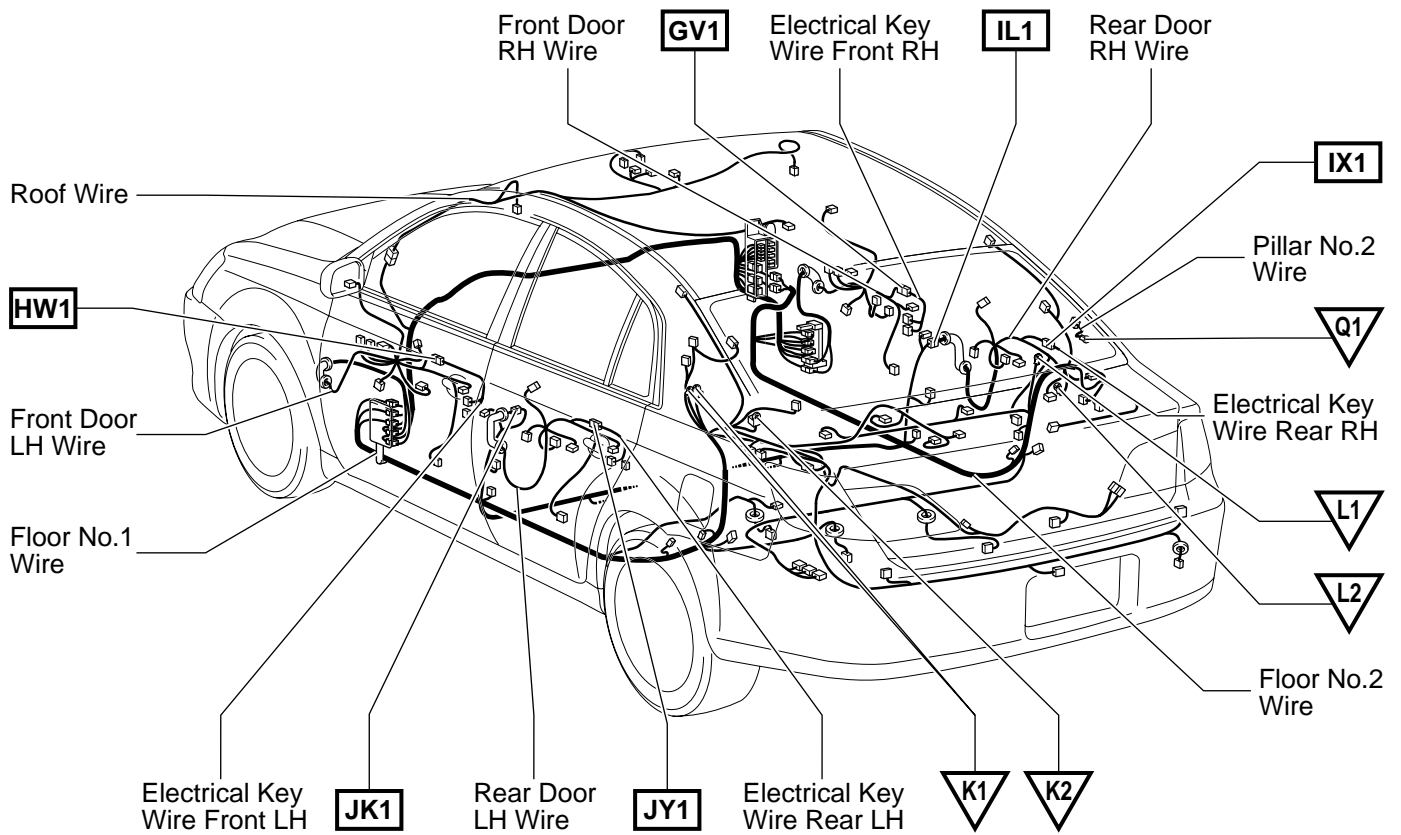
**□ : Location of Connector Joining Wire Harness and Wire Harness**



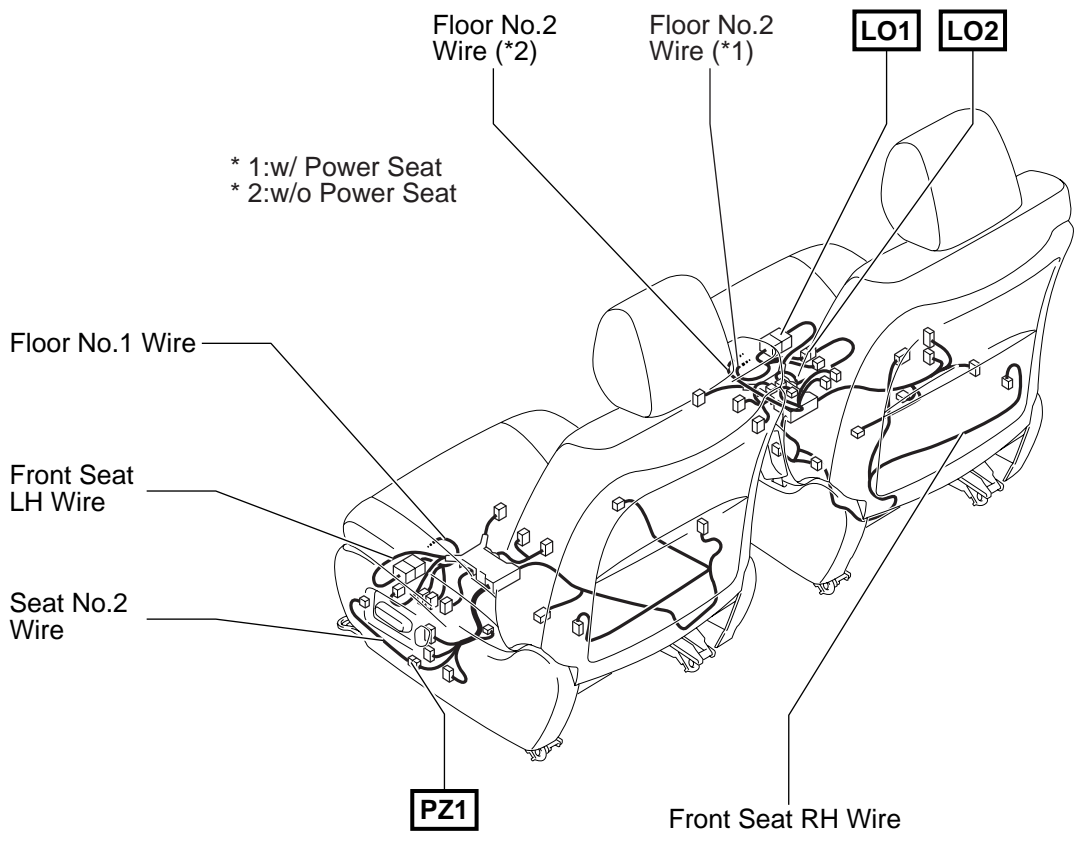
# G ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness

▽ : Location of Ground Points



**□ : Location of Connector Joining Wire Harness and Wire Harness**





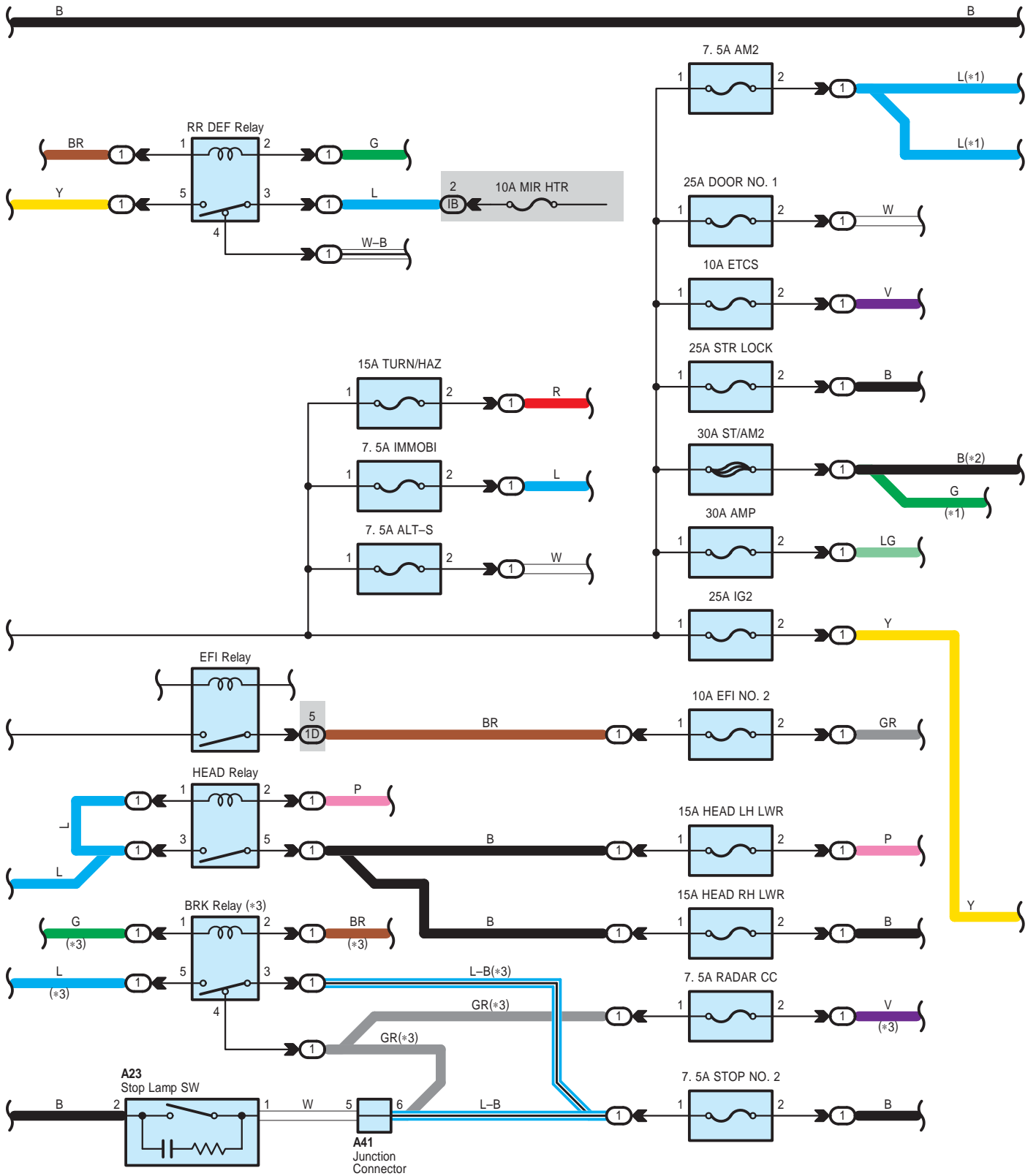
# 2006 AVALON ELECTRICAL WIRING DIAGRAM SYSTEM CIRCUITS

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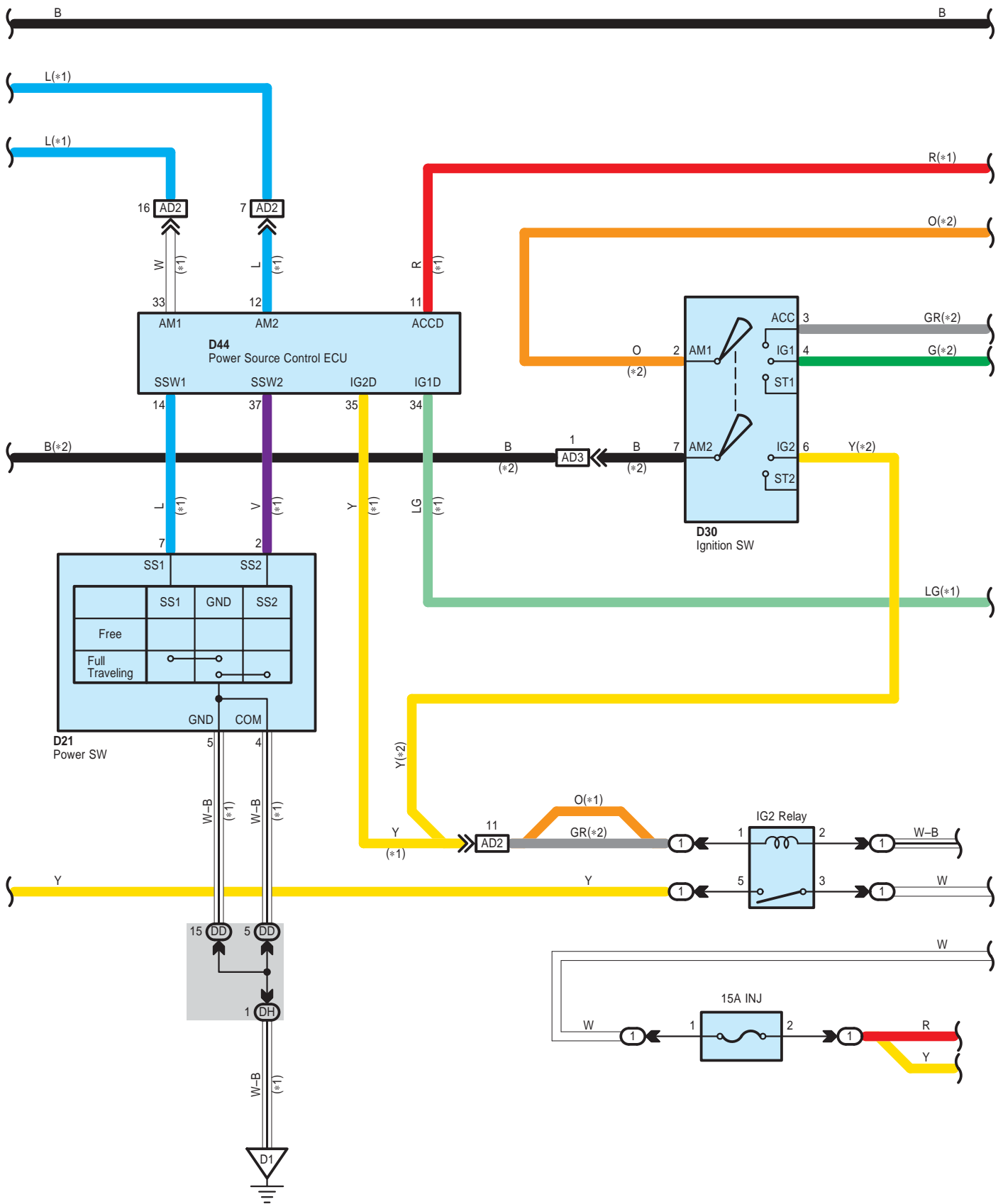
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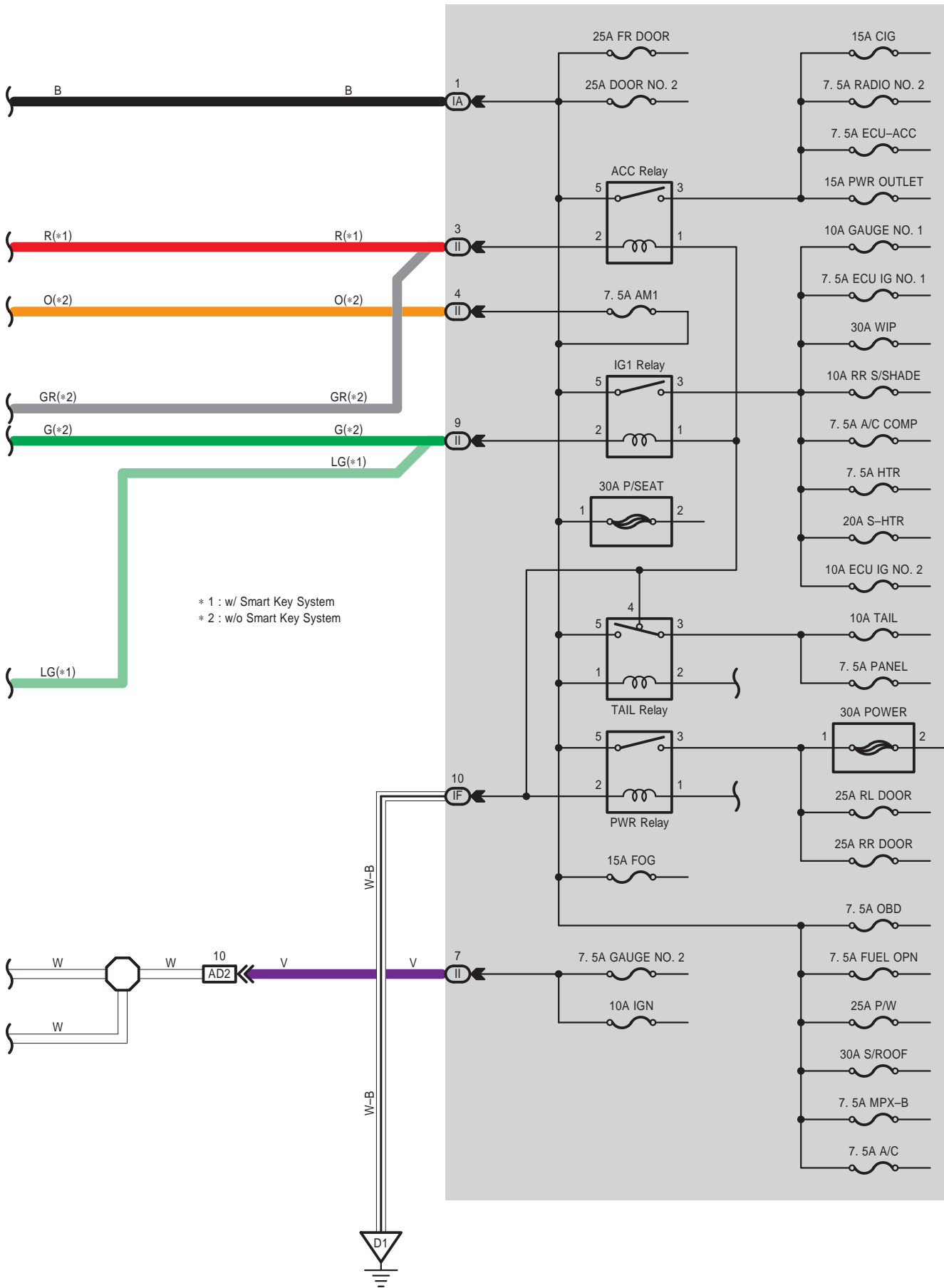


- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System
- \* 3 : w/ Dynamic Radar Cruise Control
- \* 4 : w/ VSC
- \* 5 : w/o VSC



# Power Source





AVALON (EM00A0U)

# Power Source

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A23	50	B5	49	D30	51
A41	50	D21	51	D44	52

## ○ : Relay Blocks

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

## ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1D	24	
1F	22	
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DH		
IA	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IB		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
II	31	

## □ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD2	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
AD3		

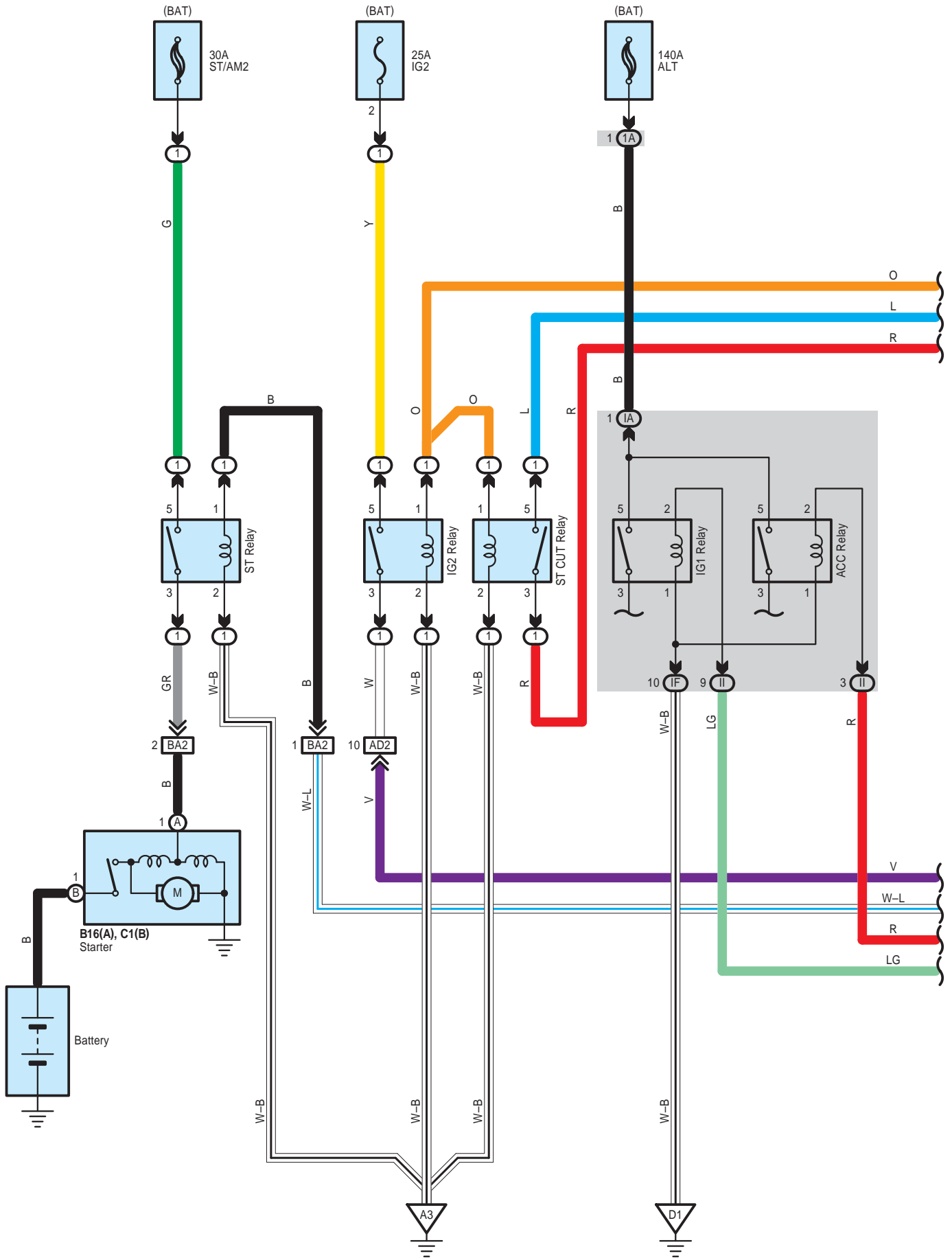
## ▽ : Ground Points

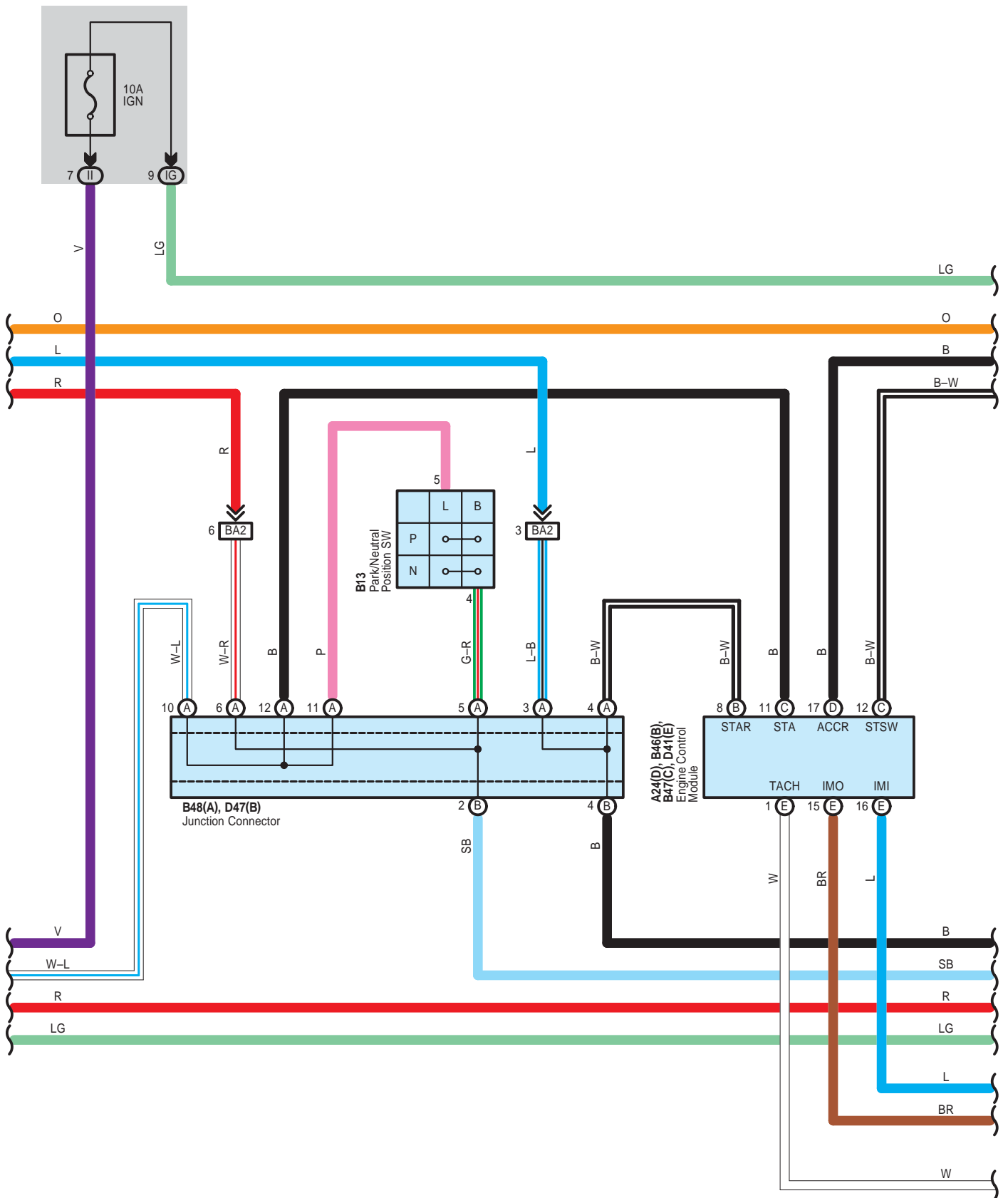
Code	See Page	Ground Points Location
D1	60	Left Kick Panel



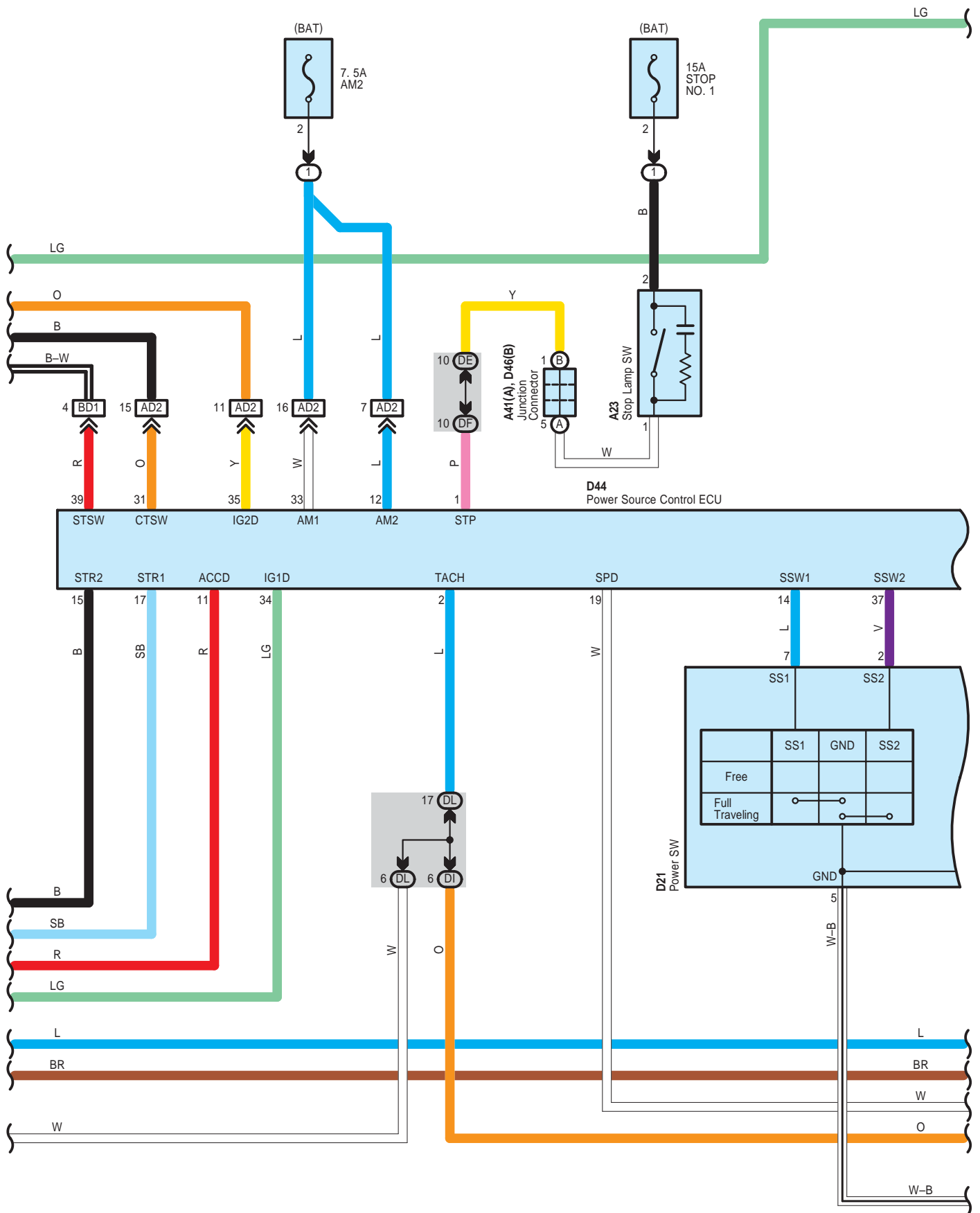


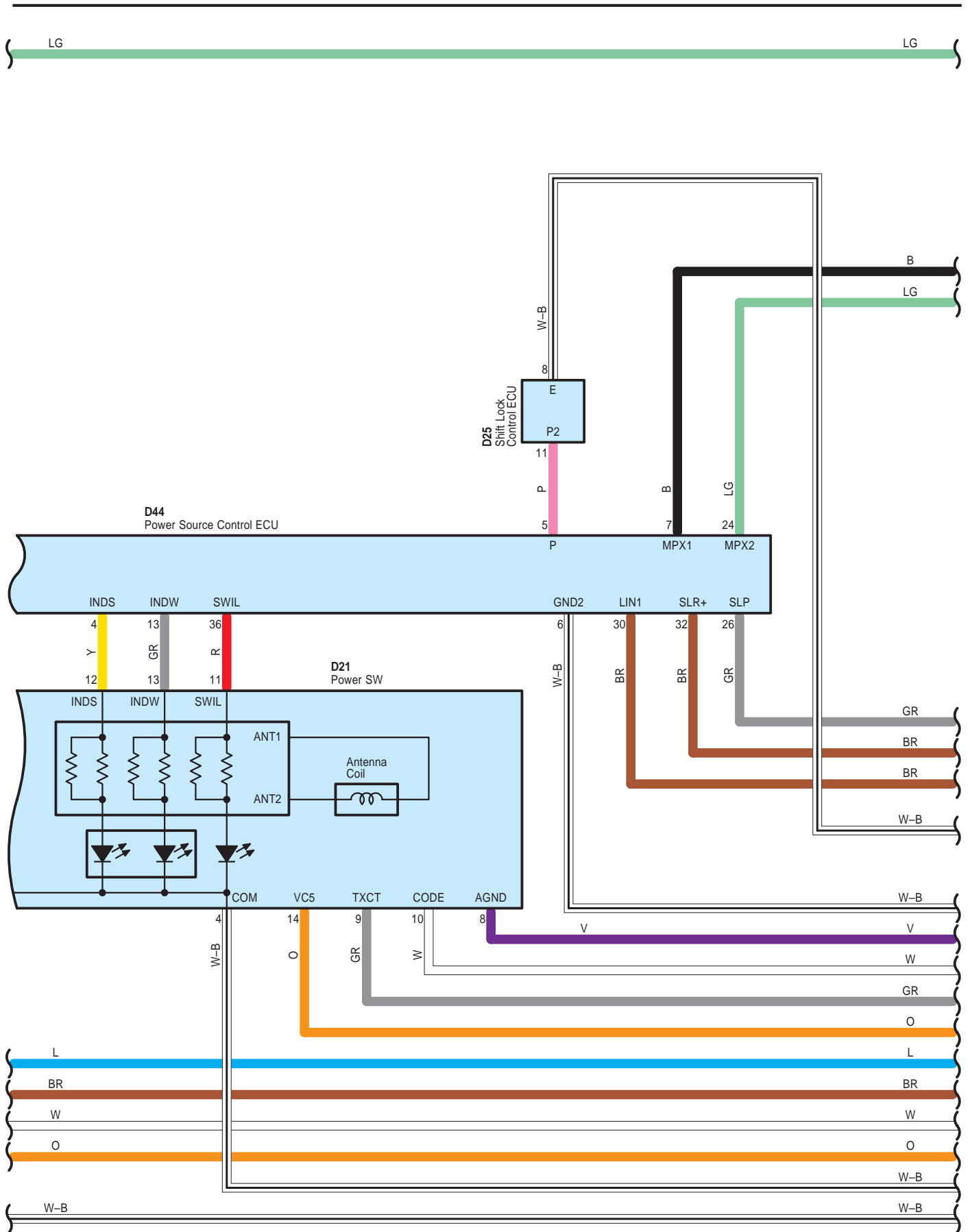
# Push-Button Start, Engine Immobiliser and Steering Lock



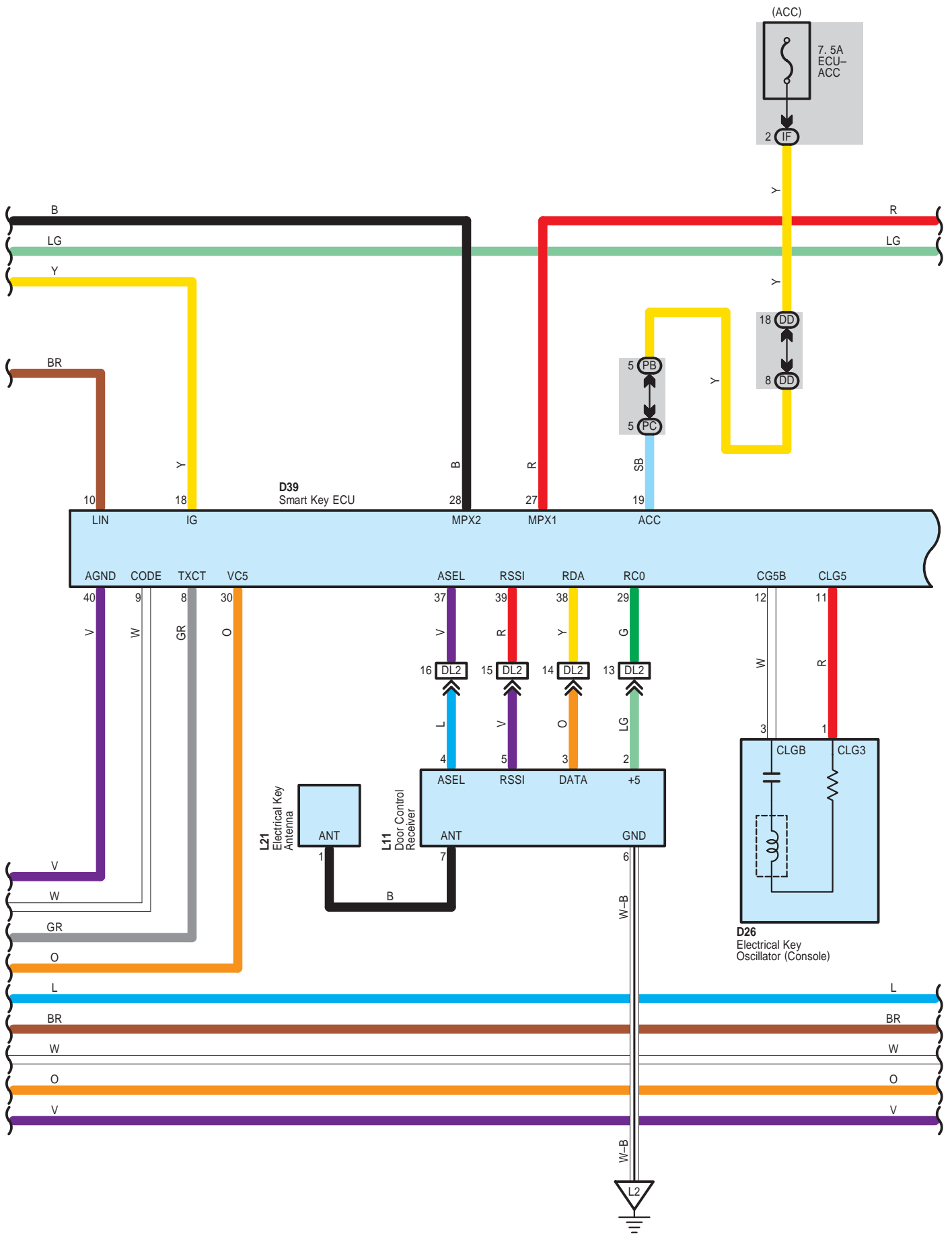


# Push-Button Start, Engine Immobiliser and Steering Lock

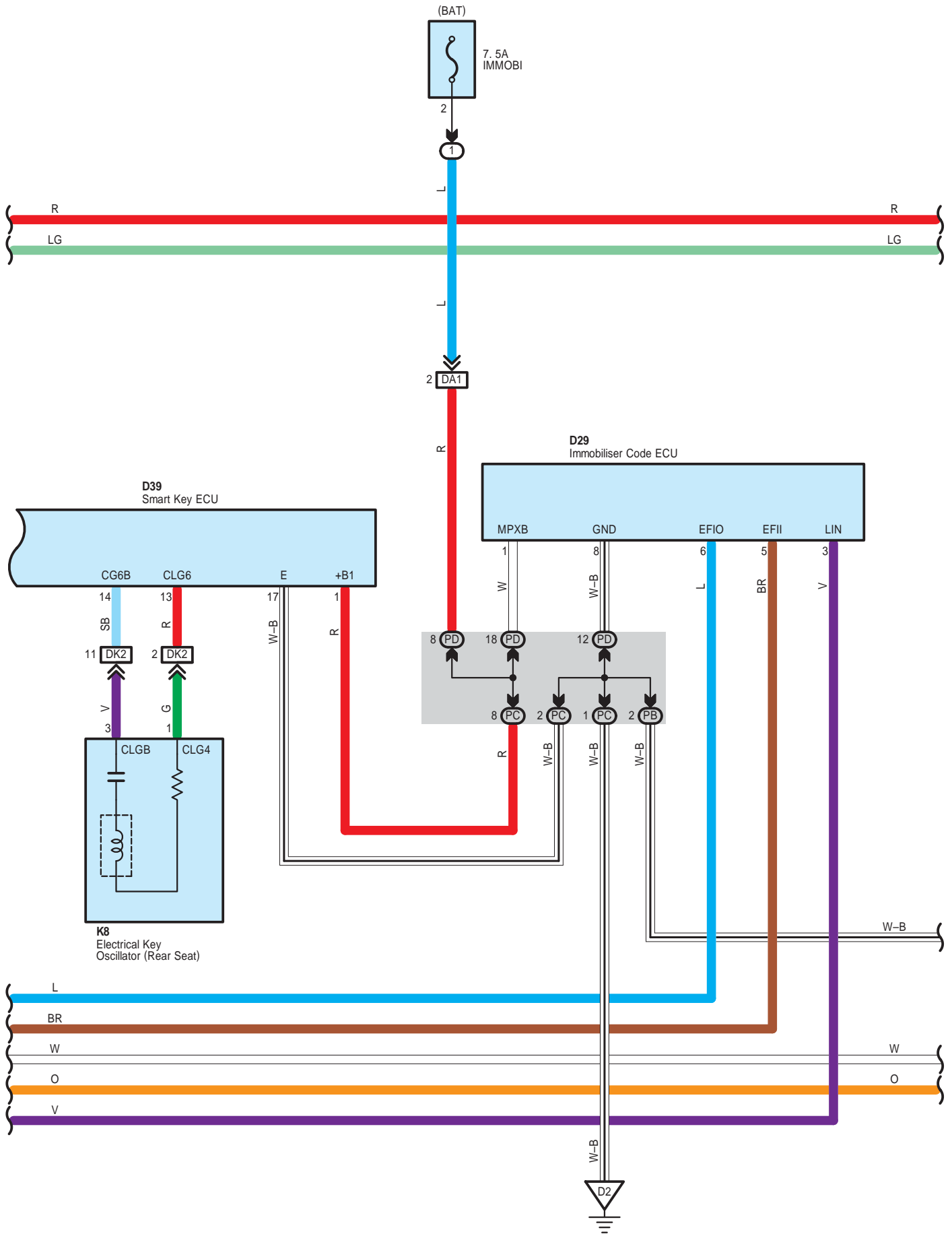


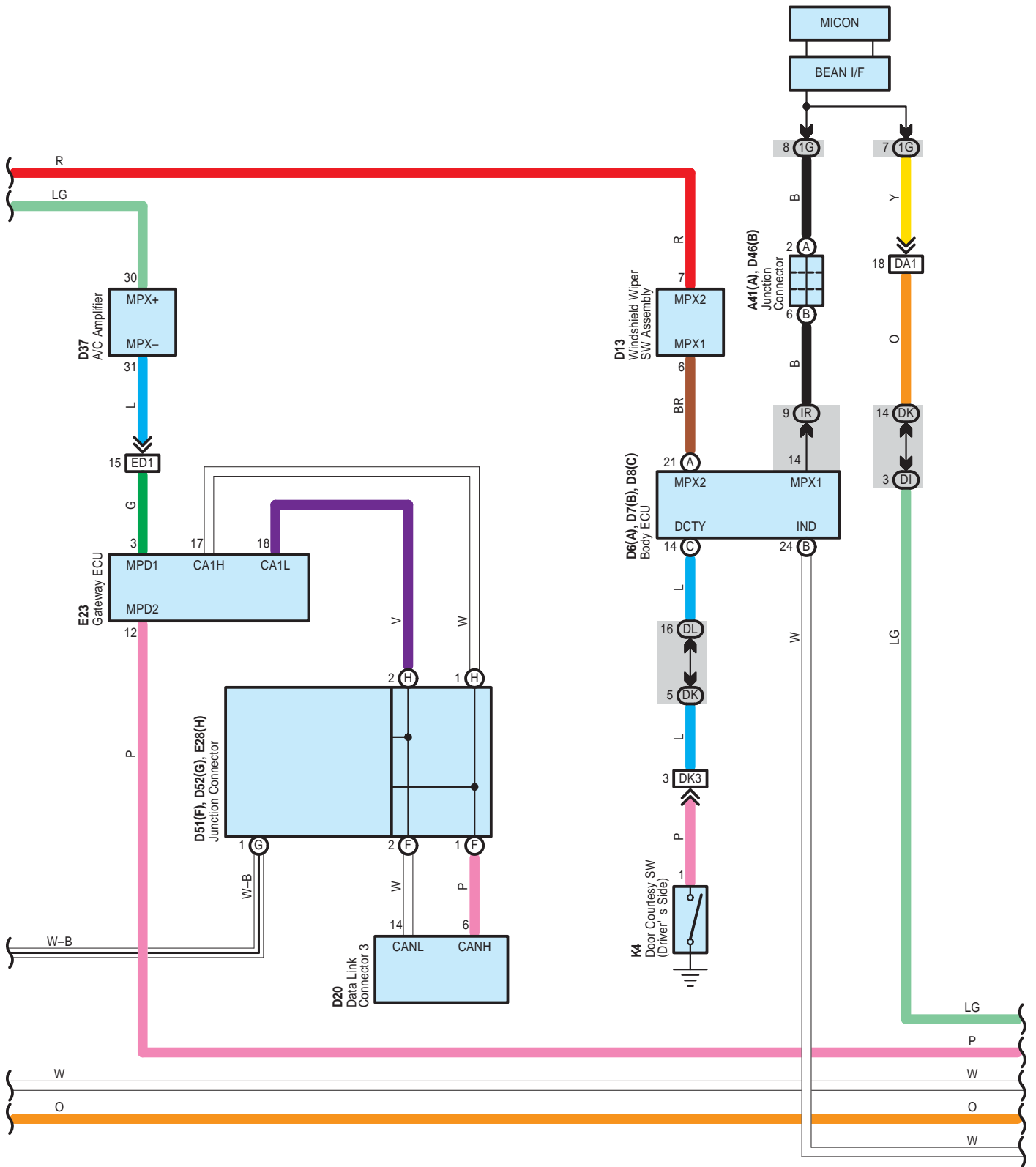






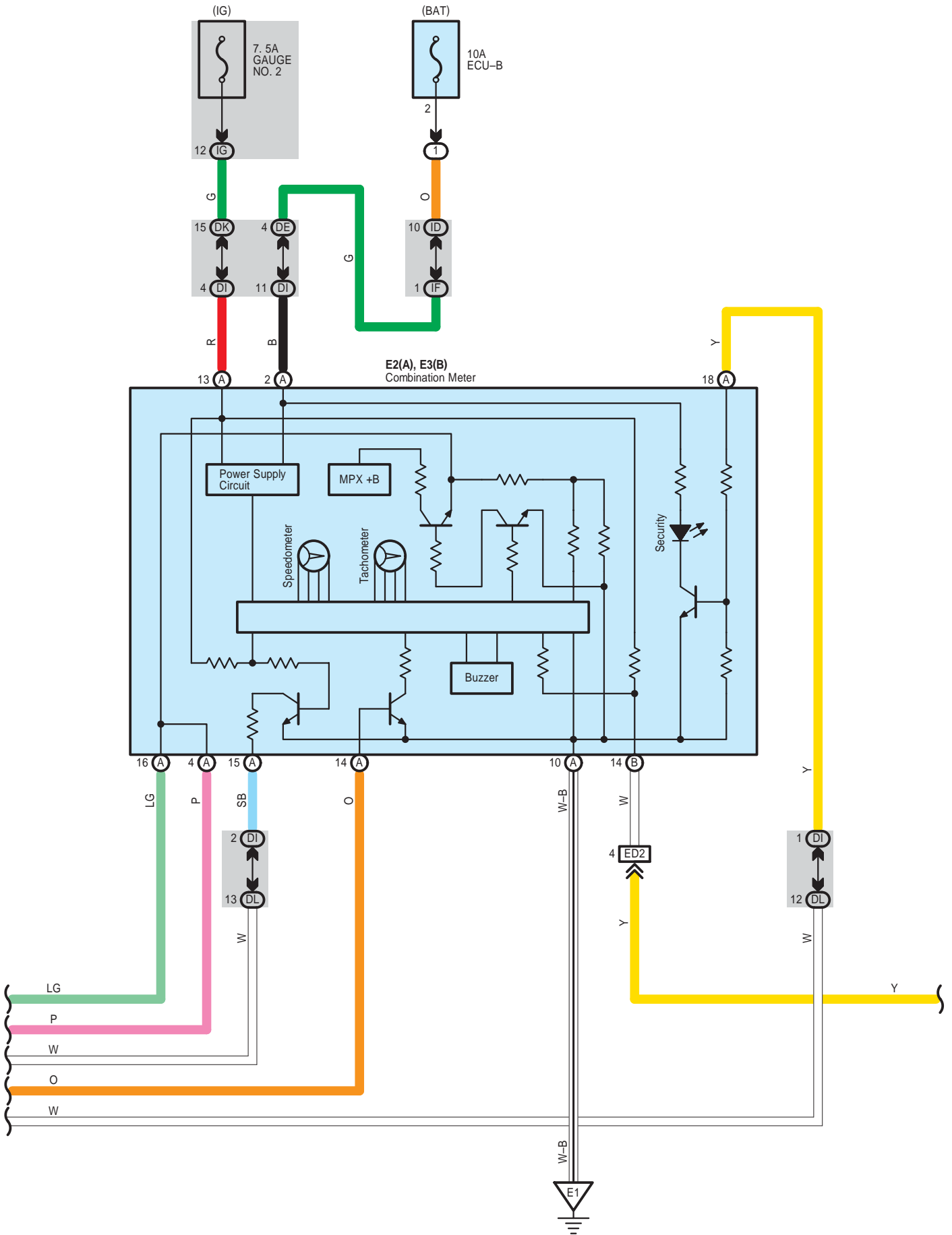
# Push-Button Start, Engine Immobiliser and Steering Lock

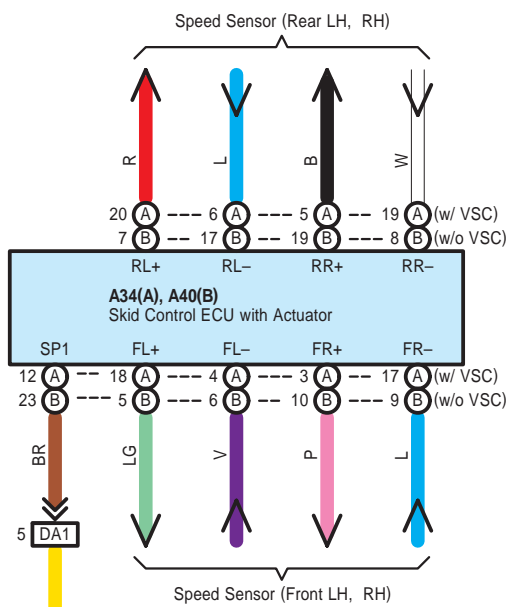






# Push-Button Start, Engine Immobiliser and Steering Lock





# Push-Button Start, Engine Immobiliser and Steering Lock

## : Parts Location

Code		See Page	Code		See Page	Code		See Page
A23		50	D8	C	51	D47	B	52
A24	D	50	D13		51	D51	F	52
A34	A	48	D14		51	D52	G	52
A40	B	48	D20		51	D53		52
A41	A	50	D21		51	E2	A	52
B13		49	D25		51	E3	B	52
B16	A	49	D26		51	E23		53
B46	B	50	D29		51	E28	H	53
B47	C	50	D37		51	K4		54
B48	A	50	D39		52	K8		54
C1	B	49	D41	E	52	L11		55
D6	A	51	D44		52	L21		55
D7	B	51	D46	B	52			

## : Relay Blocks

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

## : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1G	24	
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DE		
DF		
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
IA	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
II		
IR	30	
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PC		
PD		

## : Connector Joining Wire Harness and Wire Harness

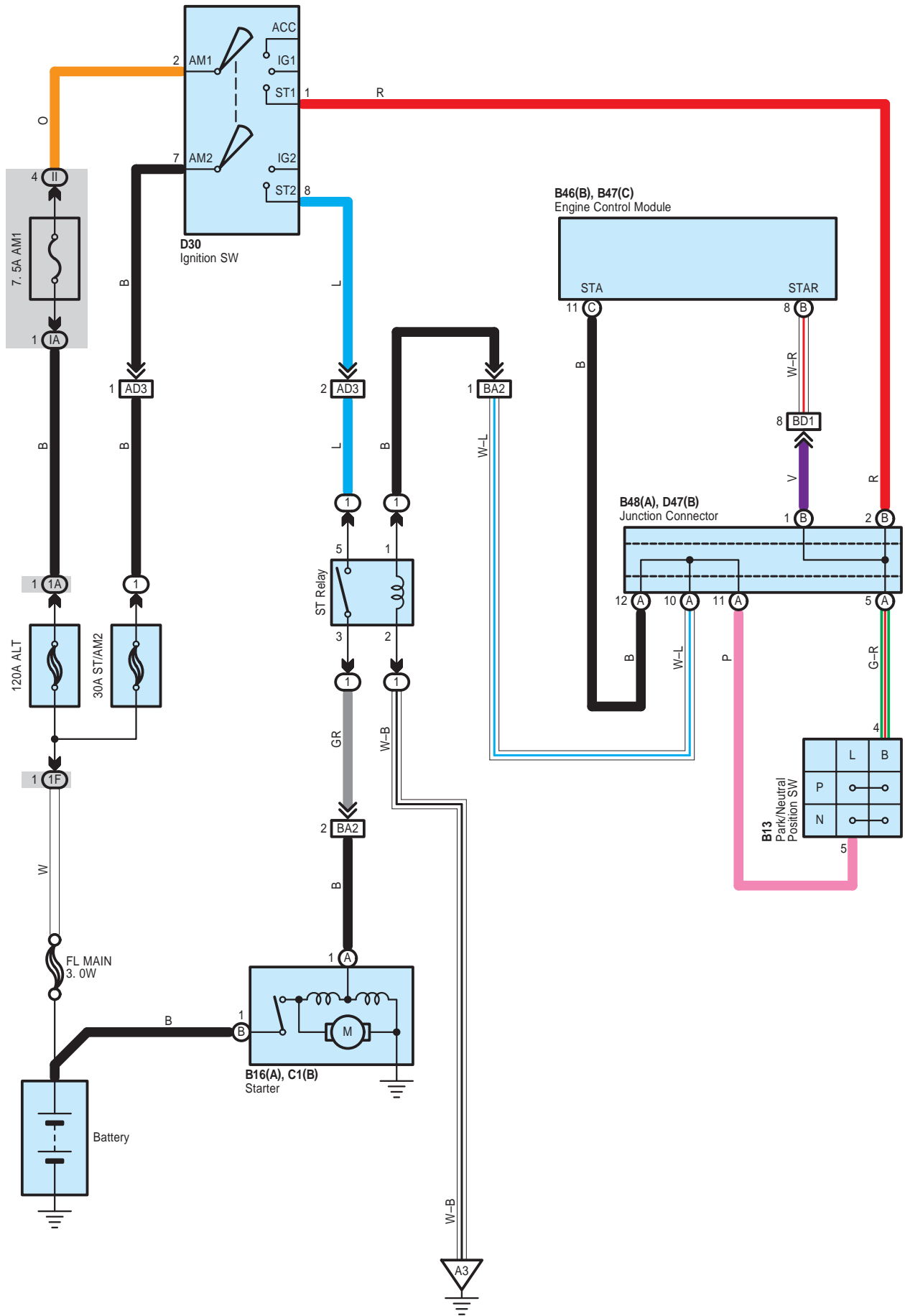
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD2	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
BA2	58	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
BD1	60	Engine Wire and Instrument Panel Wire (Right Side of the Blower Unit)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DK2	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DK3		
DL2	60	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
ED2		



**: Ground Points**

Code	See Page	Ground Points Location
A3	60	Left Side of the Instrument Panel
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter
L2	62	Right Rear Quarter Panel

# Starting without Smart Key System



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page			
B13	49	B47	C	50	D30	51		
B16	A	49	B48	A	50	D47	B	52
B46	B	50	C1	B	49			

 : **Relay Blocks**

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

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1F		
IA	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
II	31	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)

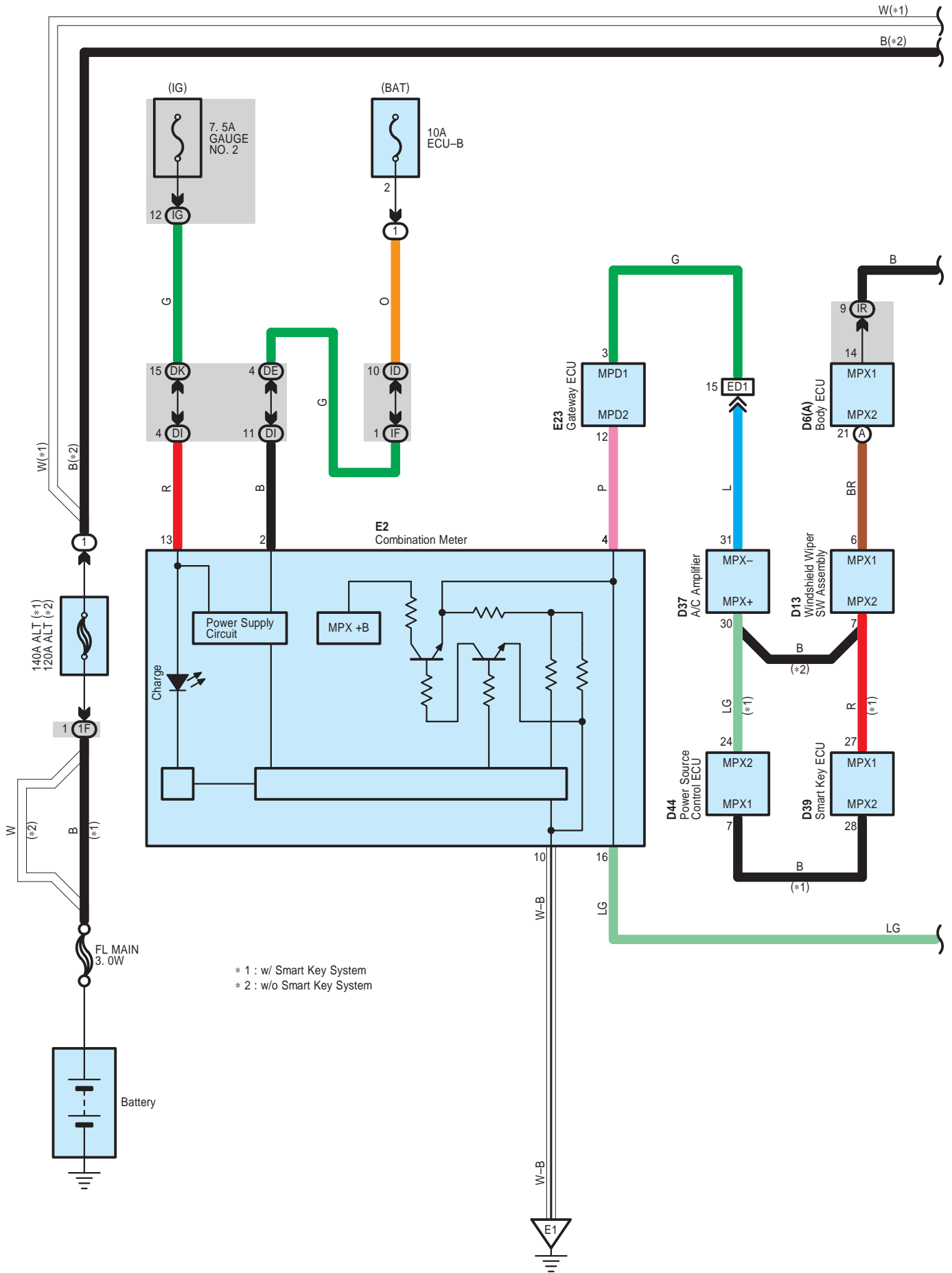
 : **Connector Joining Wire Harness and Wire Harness**

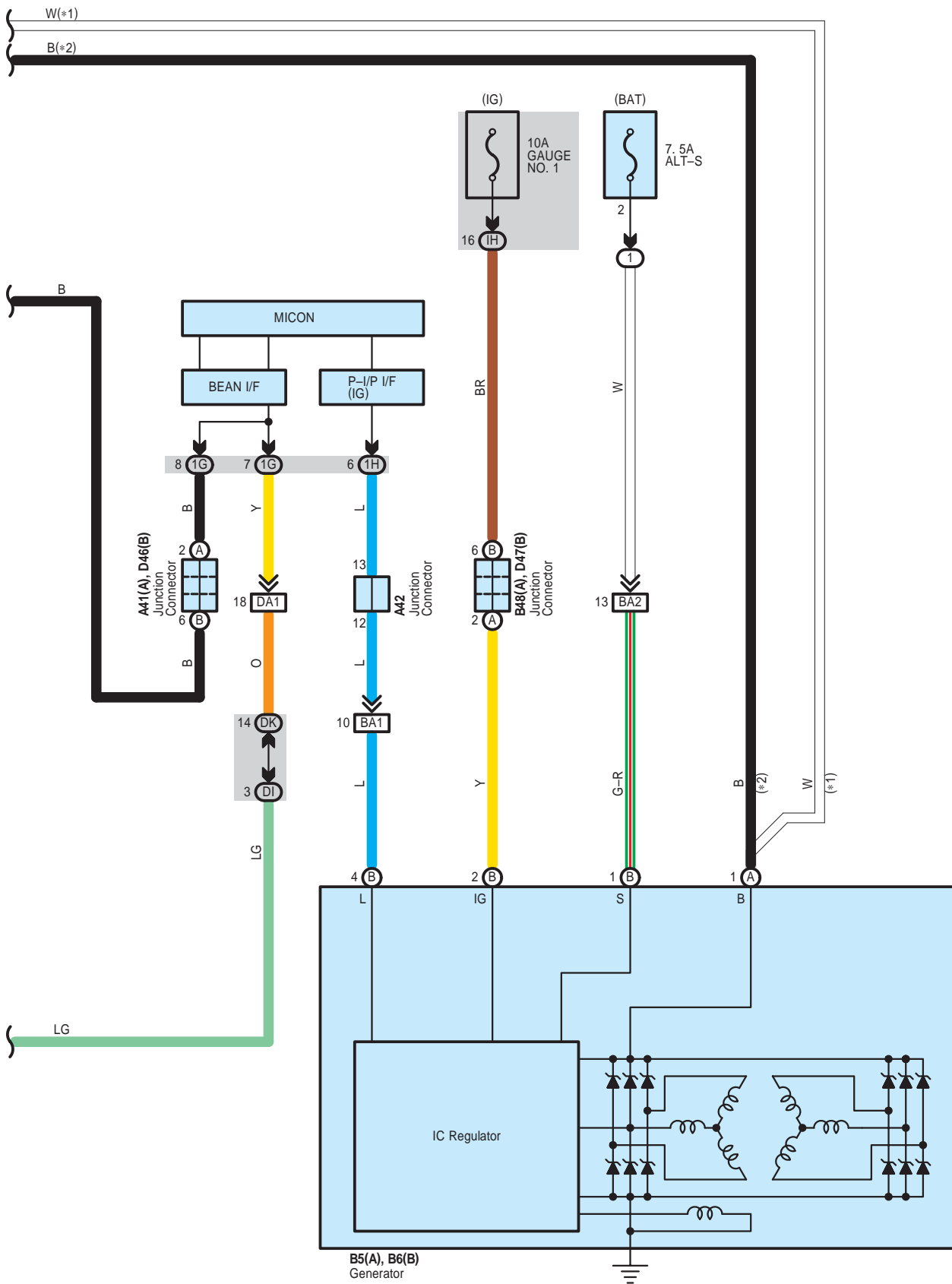
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD3	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
BA2	58	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
BD1	60	Engine Wire and Instrument Panel Wire (Right Side of the Blower Unit)

 : **Ground Points**

Code	See Page	Ground Points Location
A3	60	Left Side of the Instrument Panel

# Charging







# Charging

## : Parts Location

Code		See Page	Code		See Page	Code		See Page	
A41	A	50	D6	A	51	D46	B	52	
A42		50	D13		51	D47		B	52
B5	A	49	D37		51	E2		52	
B6	B	49	D39		52	E23		53	
B48	A	50	D44		52				

## : Relay Blocks

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

## : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1G	24	
1H		
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
IH		
IR		

## : Connector Joining Wire Harness and Wire Harness

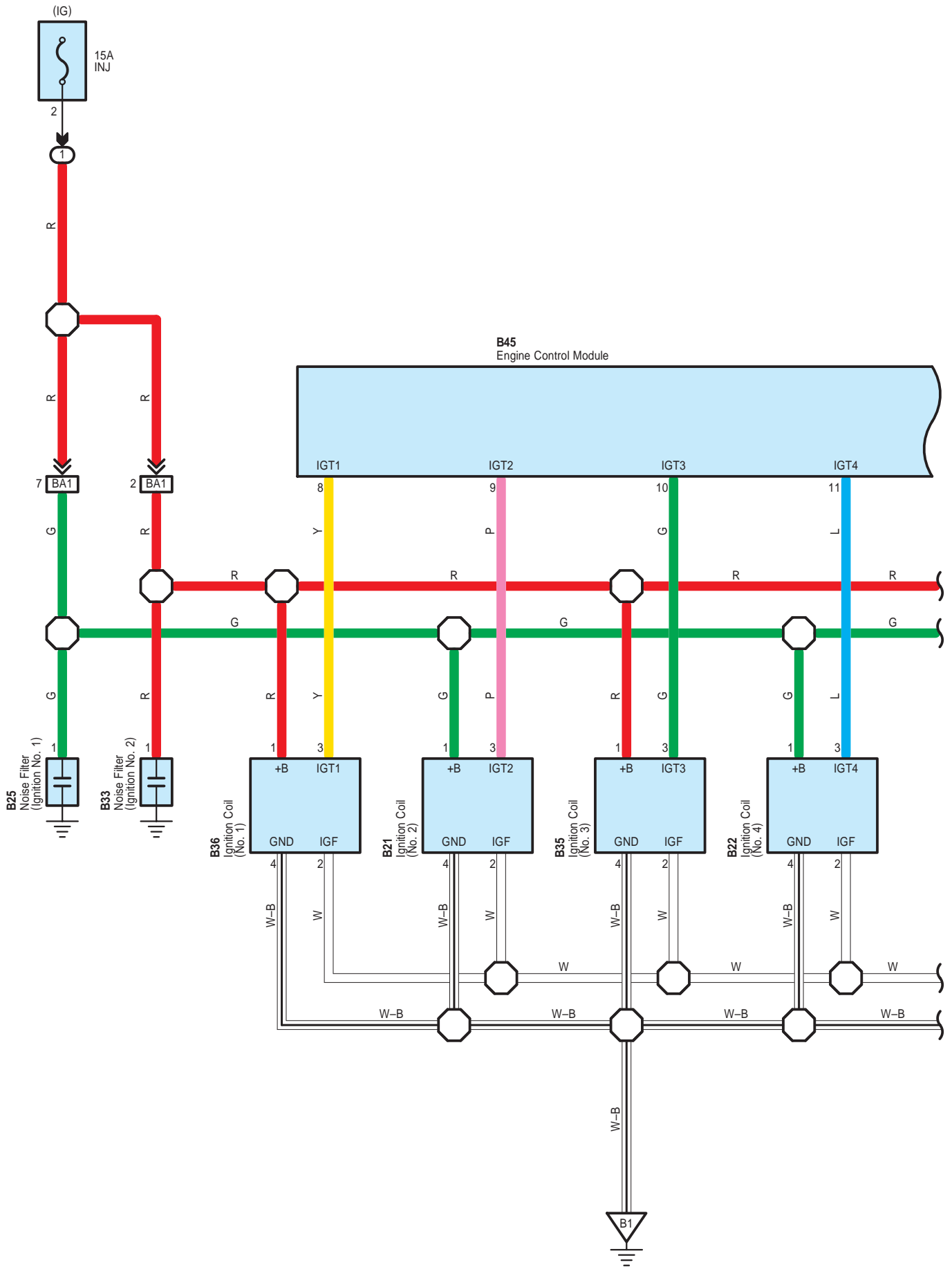
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
BA1	58	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
BA2		
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)

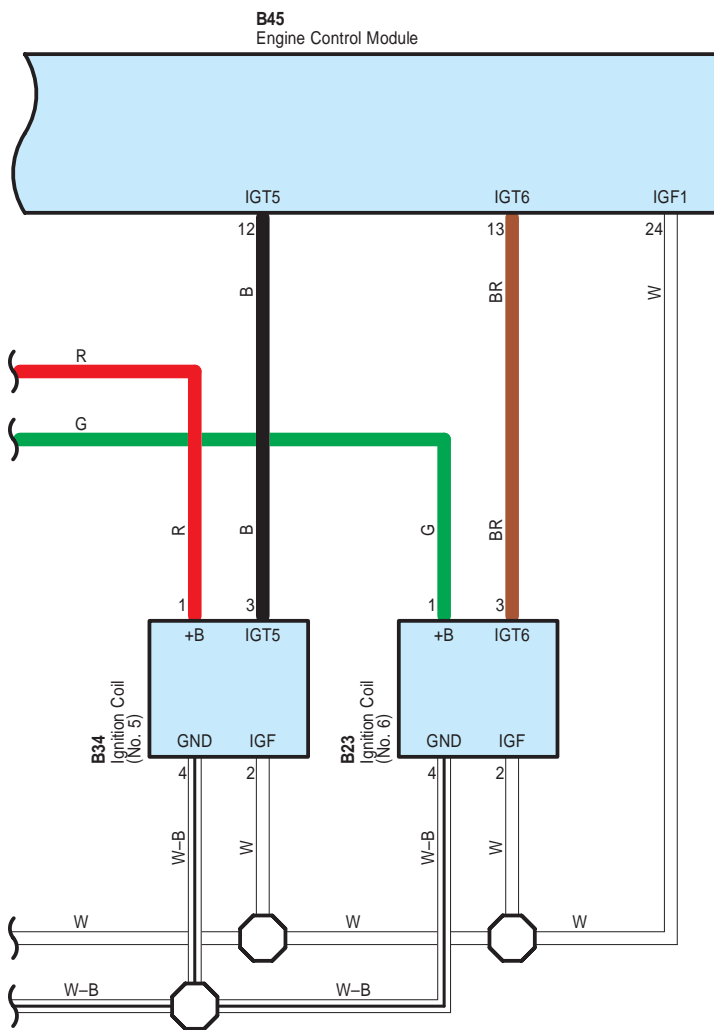
## : Ground Points

Code	See Page	Ground Points Location
E1	60	Under the Combination Meter



# Ignition





# Ignition

---

## : Parts Location

Code	See Page	Code	See Page	Code	See Page
B21	49	B25	49	B35	49
B22	49	B33	49	B36	49
B23	49	B34	49	B45	50

## : Relay Blocks

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

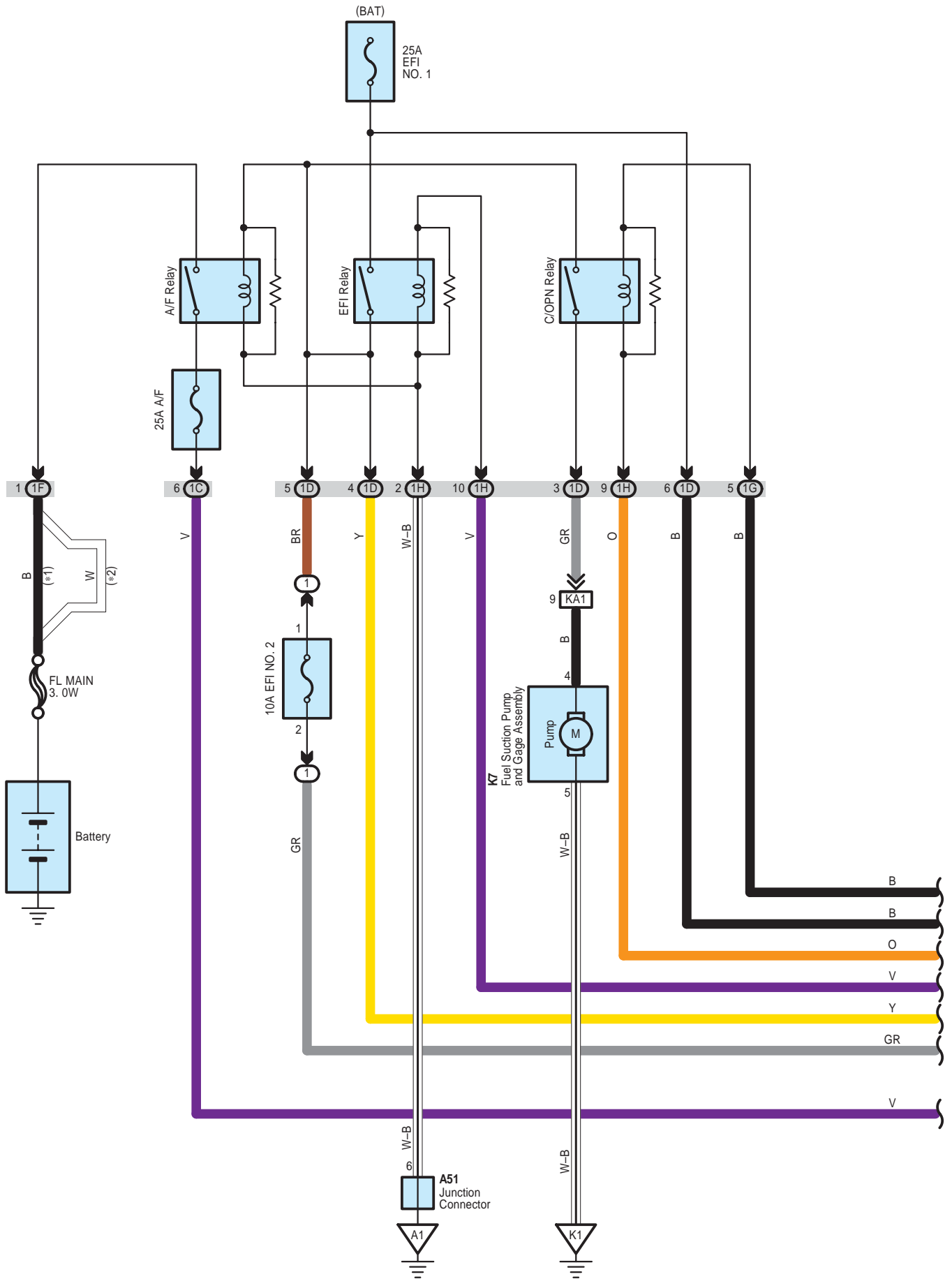
## : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
BA1	58	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)

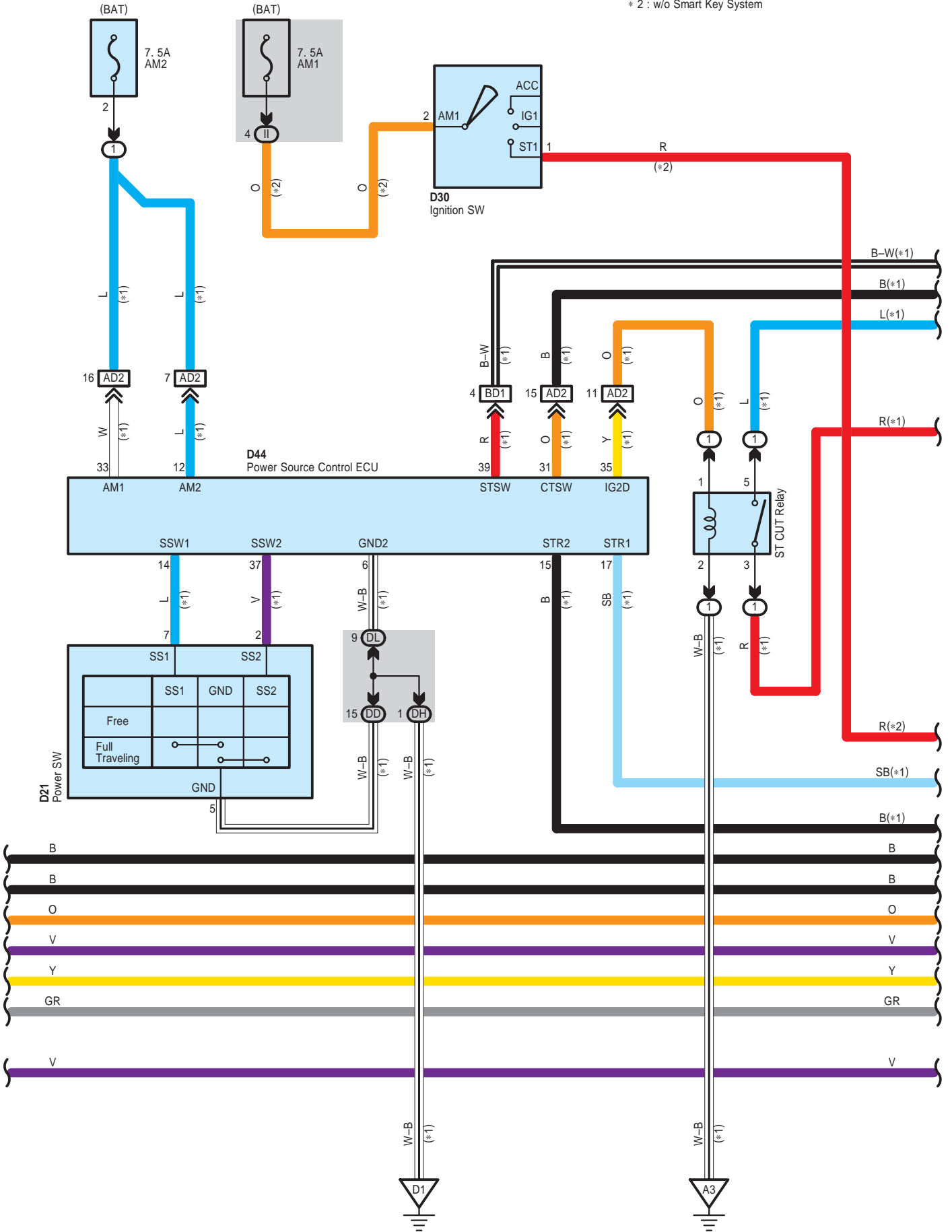
## : Ground Points

Code	See Page	Ground Points Location
B1	58	Cylinder Head



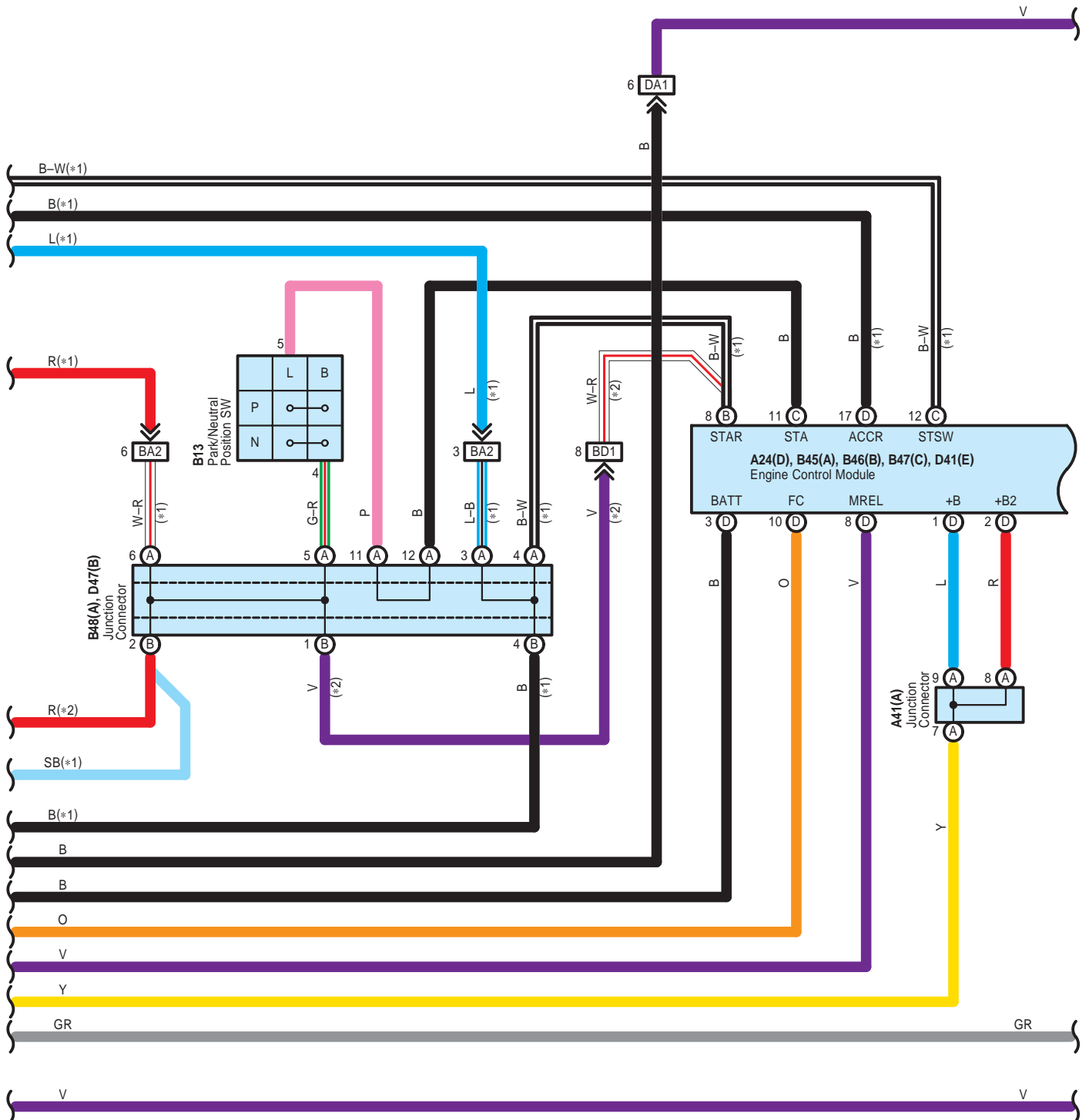


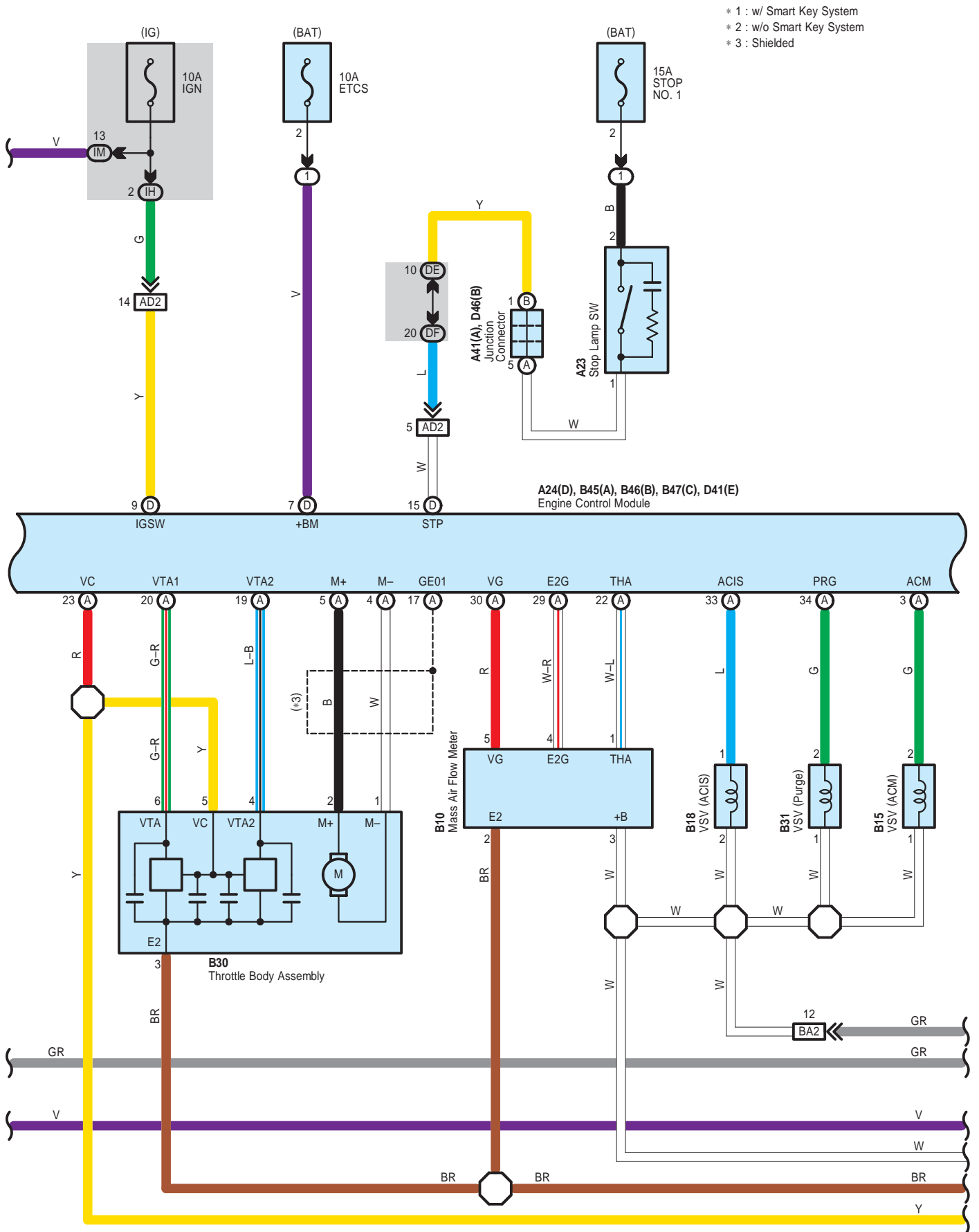
\* 1 : w/ Smart Key System  
 \* 2 : w/o Smart Key System



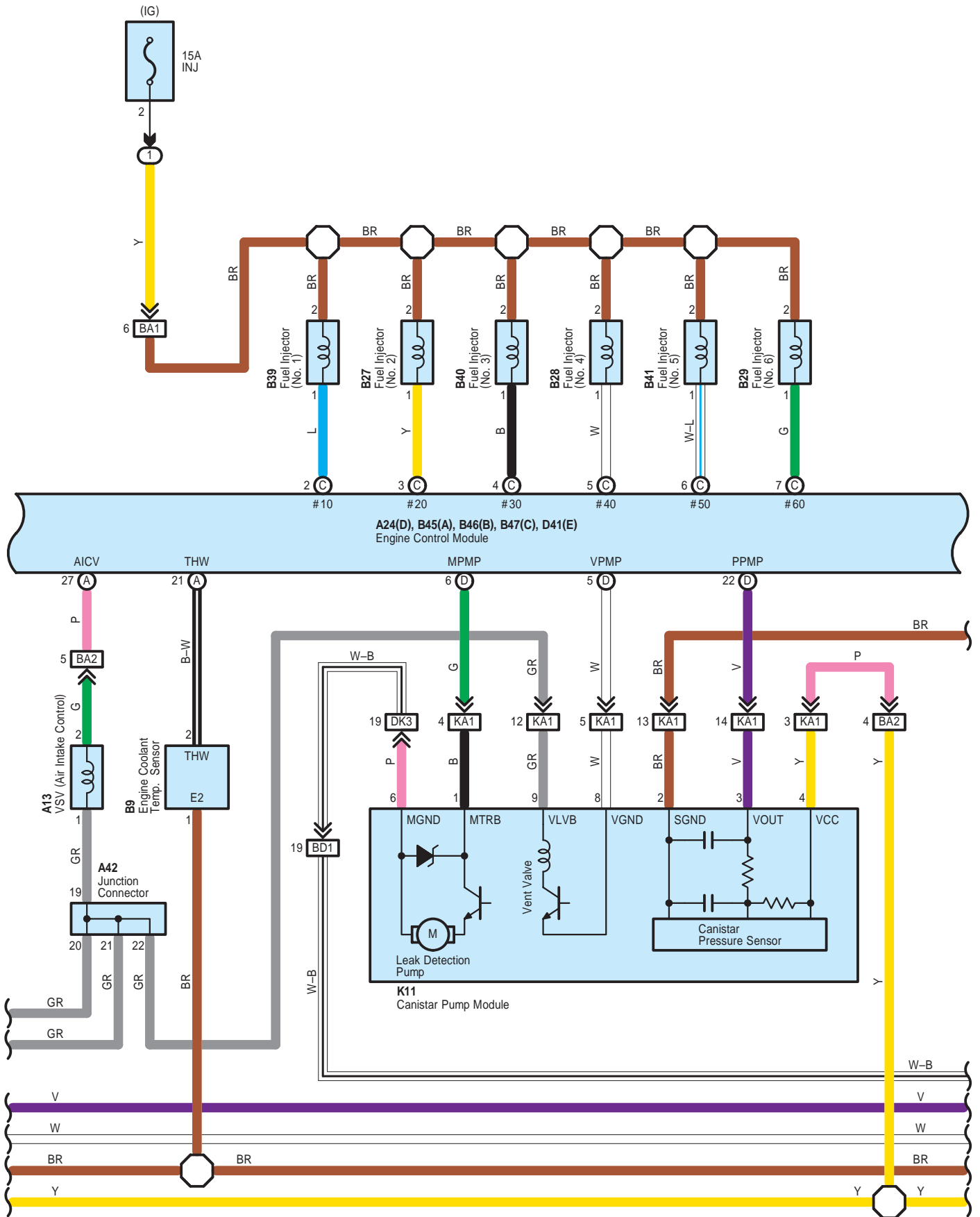


# Engine Control

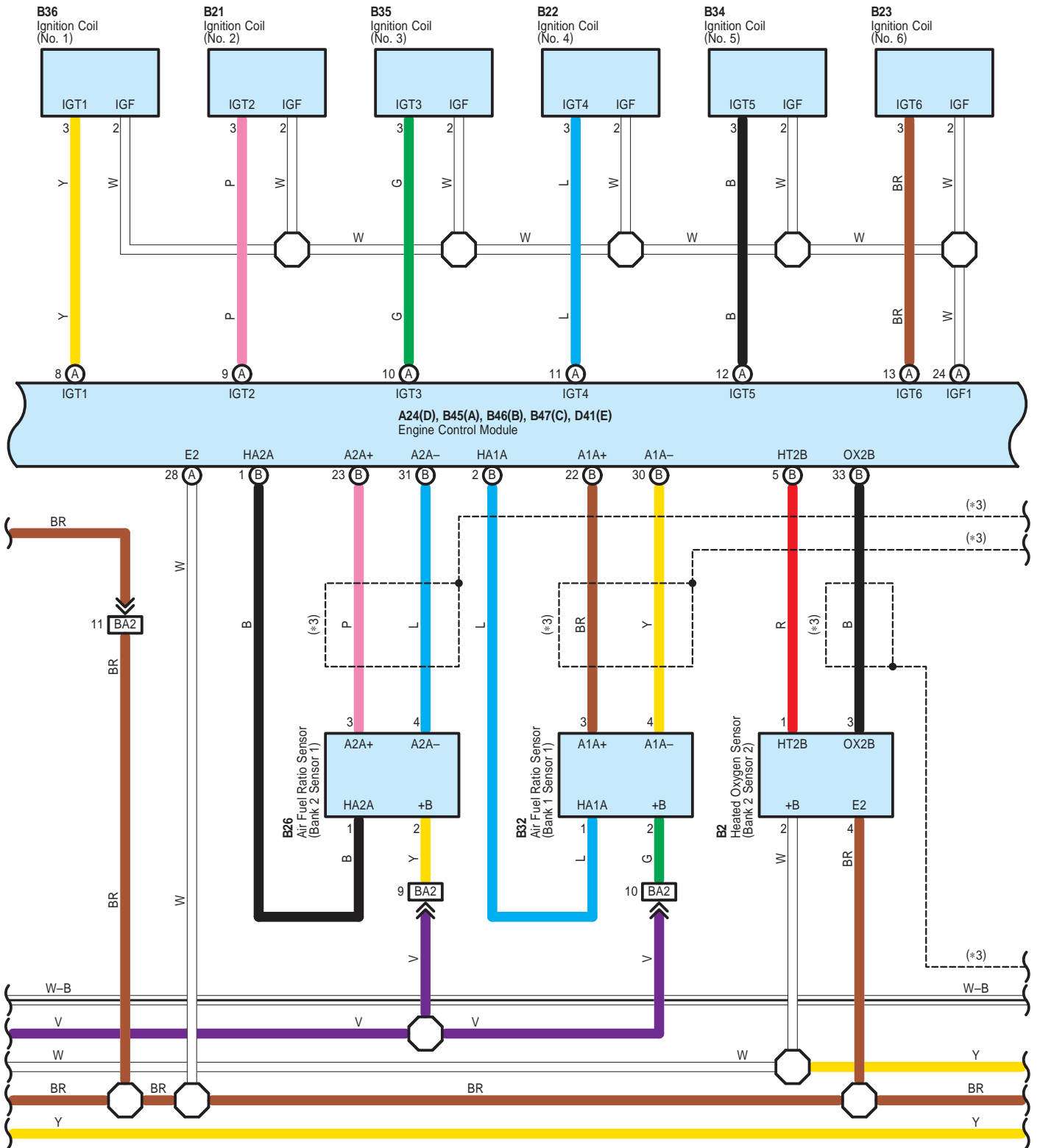




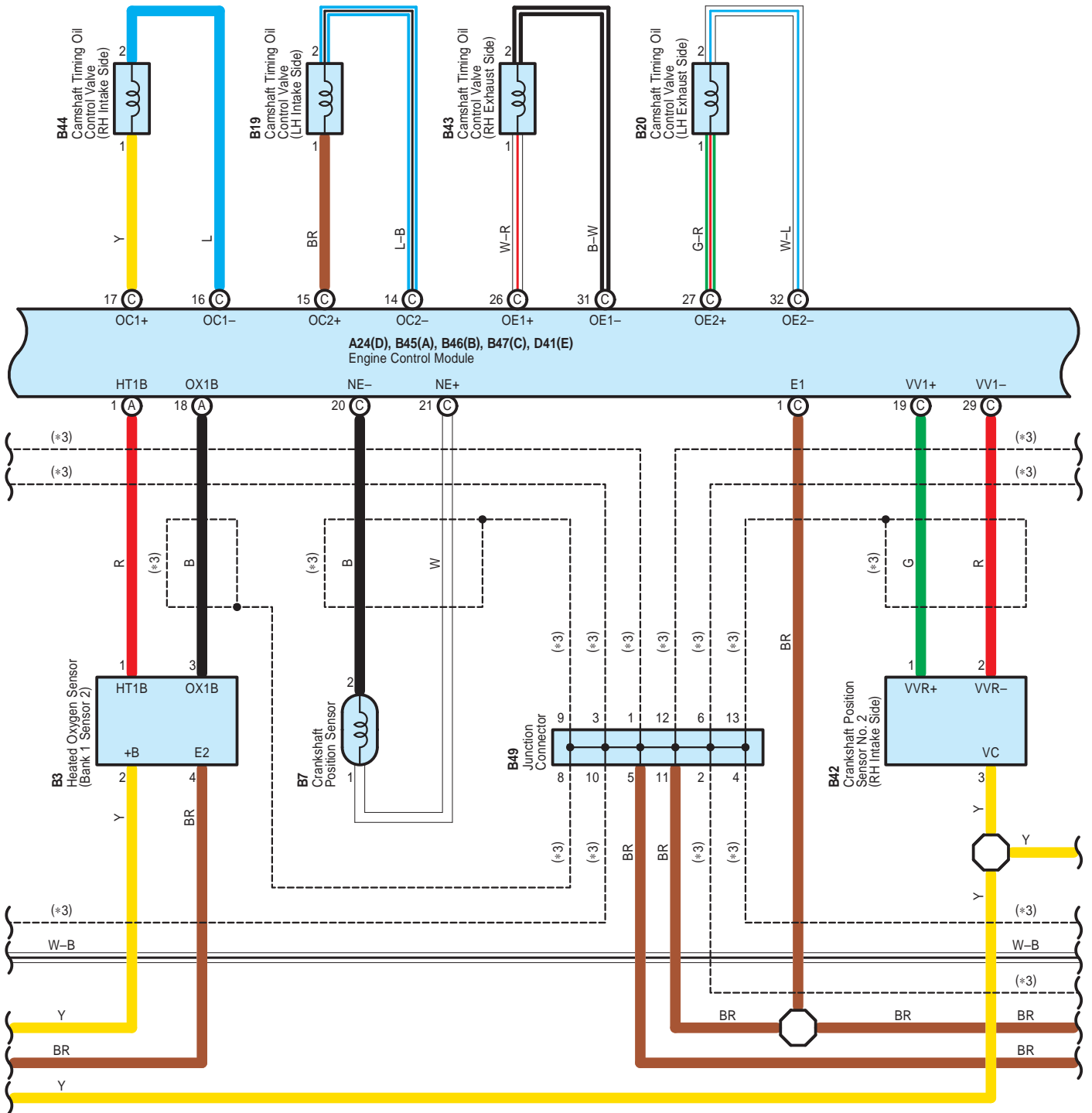
# Engine Control

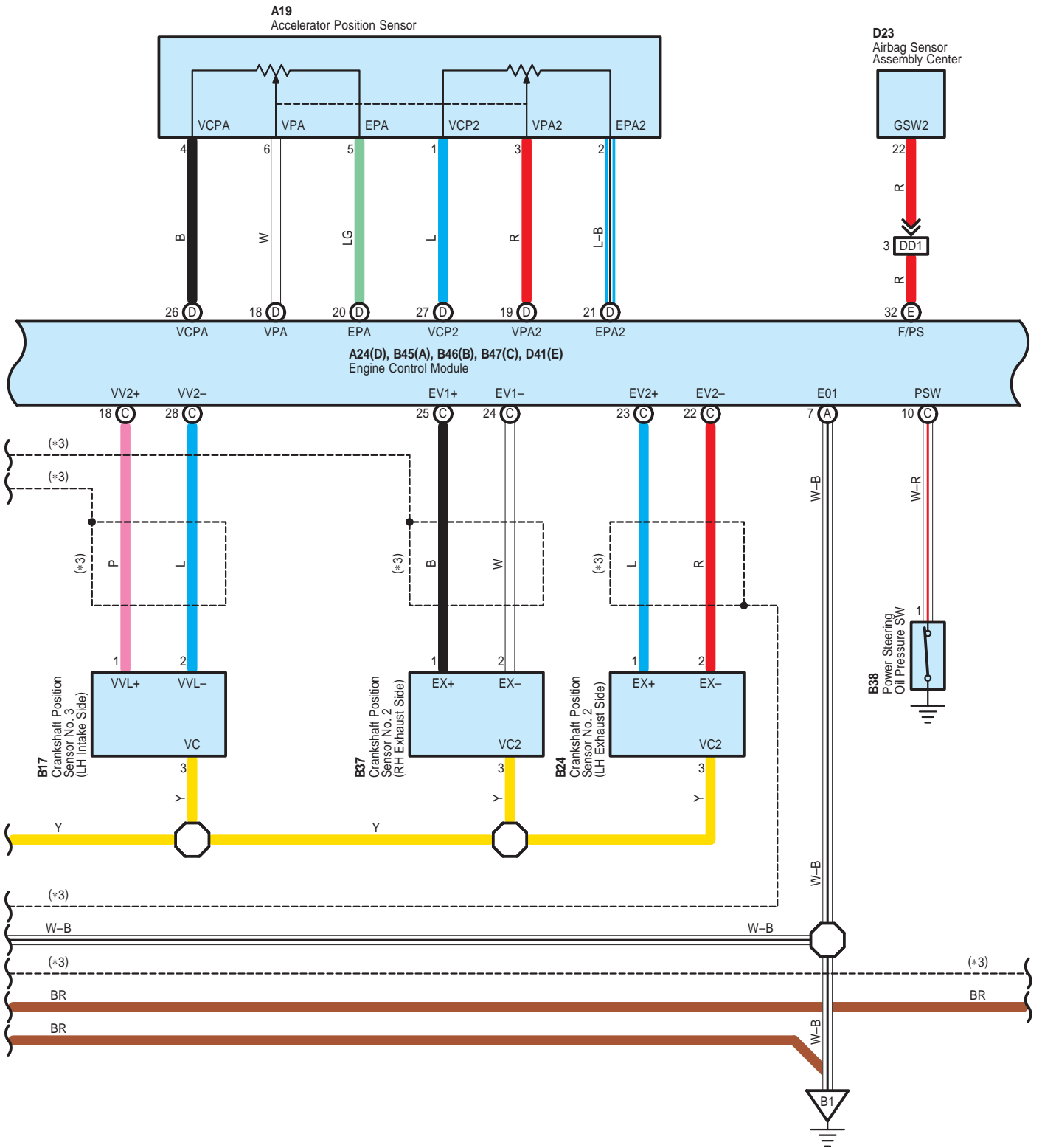


\* 3 : Shielded

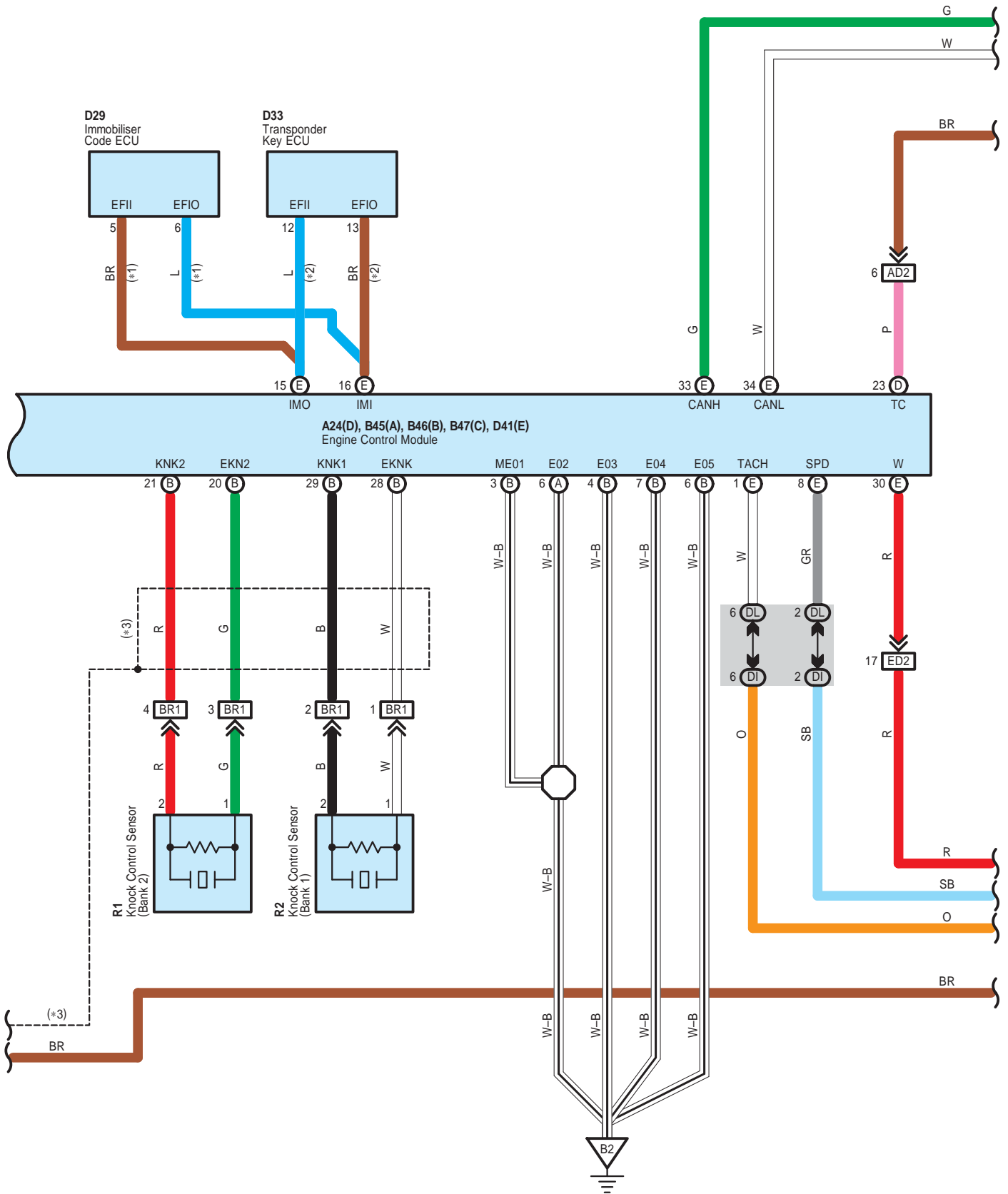


# Engine Control

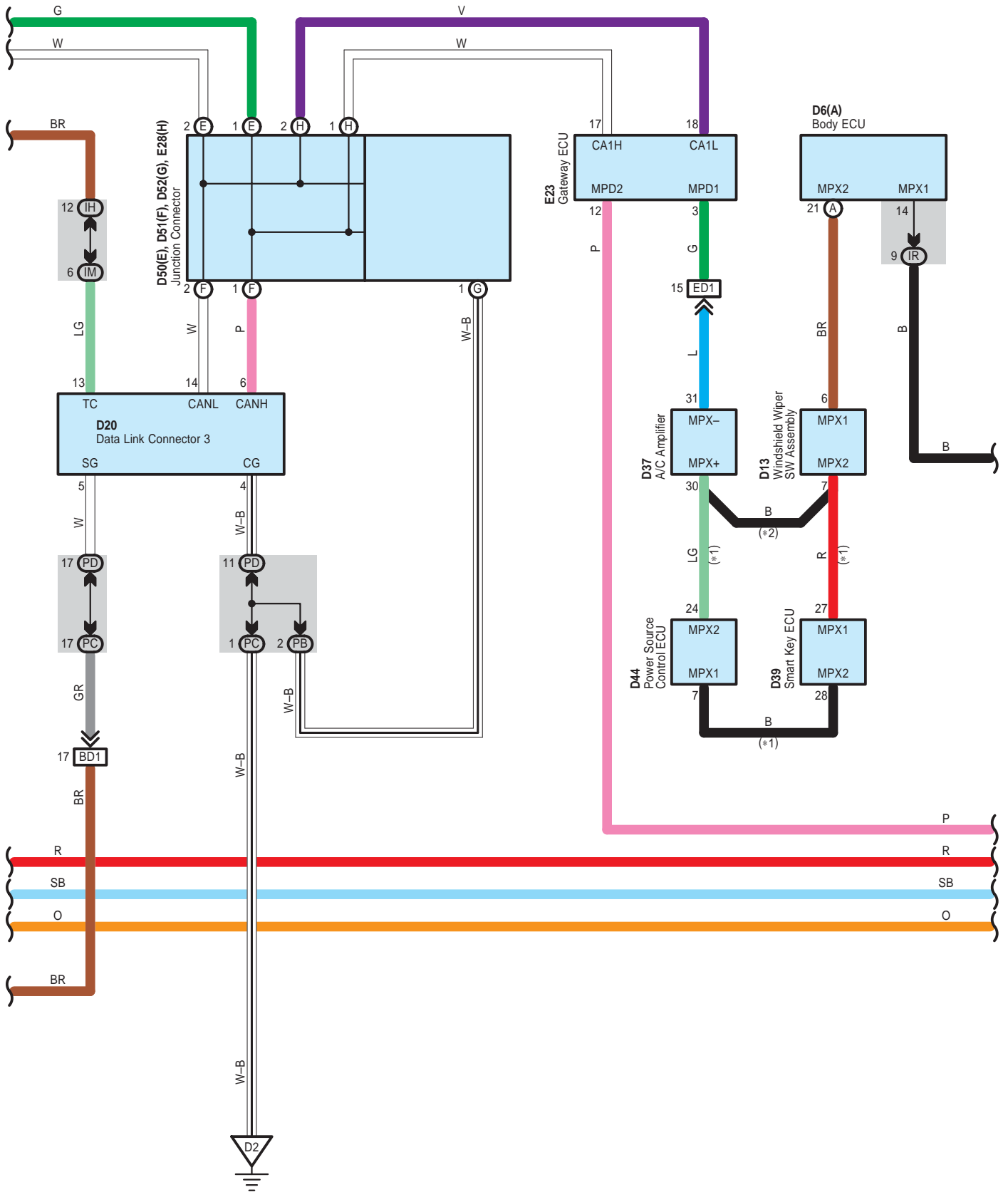




# Engine Control

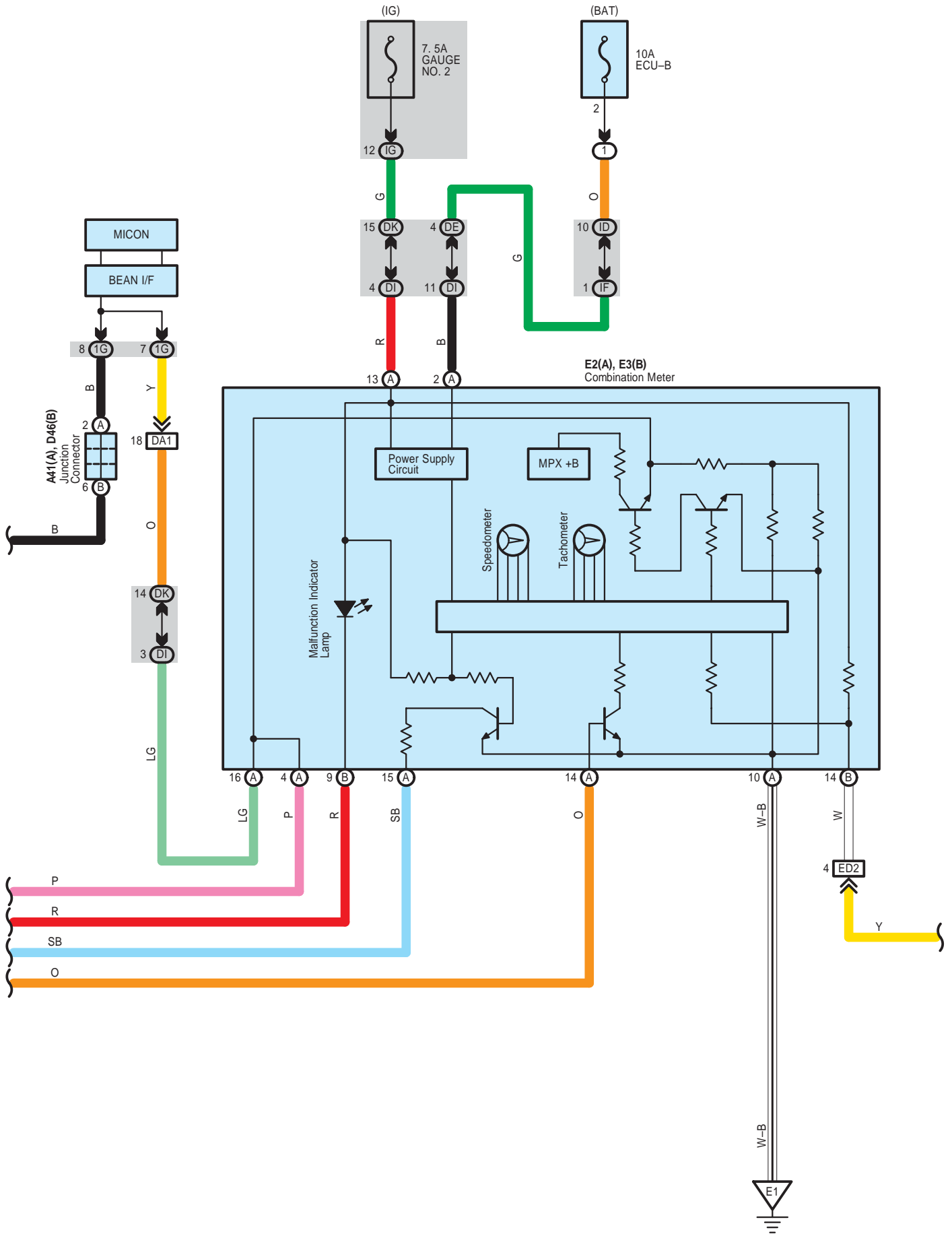


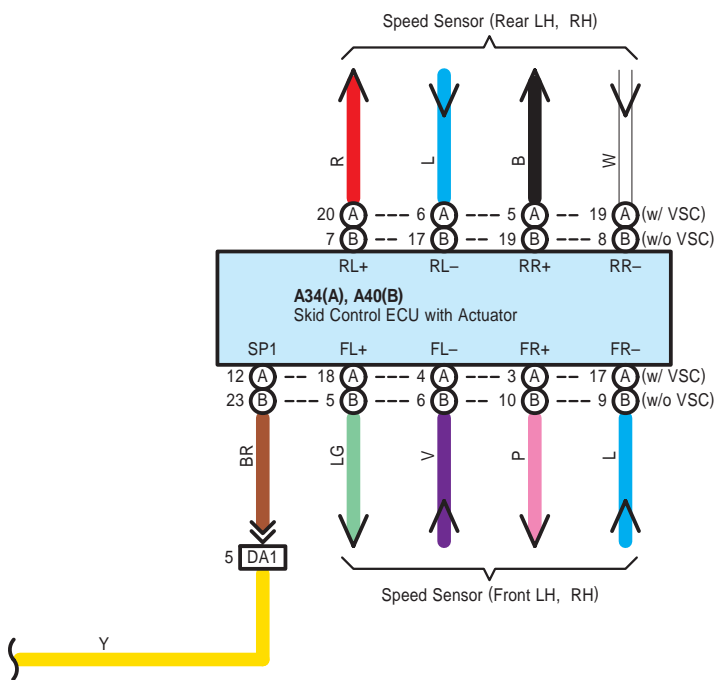
- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System
- \* 3 : Shielded





# Engine Control





## System Outline

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

### 1. Input Signals

#### (1) Engine coolant temp. signal circuit

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

#### (2) Intake air temp. signal circuit

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

#### (3) Oxygen sensor signal circuit

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

#### (4) RPM signal circuit

Camshaft position is detected by the crankshaft position sensor No.2 (RH exhaust side, RH intake side and LH exhaust side), crankshaft position sensor No.3 (LH intake side) and their signals are input to TERMINALS EV1+, EV2+, VV1+ and VV2+ of the engine control module as control signals. Also, the engine RPM is detected by the crankshaft position sensor installed in the cylinder block and the signal is input into TERMINAL NE+ of the engine control module as a control signal.

#### (5) Throttle position sensor signal circuit

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

#### (6) Vehicle speed circuit

The vehicle speed sensor detects the vehicle speed, and the signal is input into TERMINAL SPD of the engine control module via the combination meter, from TERMINAL SP1 of the skid control ECU with actuator.

#### (7) Battery signal circuit

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

#### (8) Intake air volume signal circuit

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

#### (9) Stop lamp SW signal circuit

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

#### (10) Starter signal circuit

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

#### (11) Engine knock signal circuit

Engine knocking is detected by the knock control sensors, and is input into TERMINALS KNK1 and KNK2 of the engine control module as a control signal.

#### (12) Air fuel ratio signal circuit

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

## **2. Control System**

### **\* SFI system**

The SFI system monitors the engine condition through the signals input from each sensors to the engine control module. The control signal is sent to the engine control module TERMINALS #10, #20, #30, #40, #50 and #60 to operate the injector (Fuel injection). The SFI system controls the fuel injection by the engine control module in response to the driving conditions.

### **\* ESA system**

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

### **\* Heated oxygen sensor heater control system**

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

### **\* Air fuel ratio sensor heater control system**

The air fuel ratio sensor heater control system turns the heater on when the intake air volume is low (Temp. of exhaust emission is low), and warms up the air fuel ratio sensor to improve detection performance of the sensor.

The engine control module evaluates the signals from each sensor, current is output to TERMINALS HA1A and HA2A, controlling the heater.

### **\* ACIS**

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

### **\* ETCS-i**

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

### **\* 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

## ○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A13		48	B26		49	D13		51
A19		50	B27		49	D20		51
A23		50	B28		49	D21		51
A24	D	50	B29		49	D23		51
A34	A	48	B30		49	D29		51
A40	B	48	B31		49	D30		51
A41	A	50	B32		49	D33		51
A42		50	B34		49	D37		51
A51		48	B35		49	D39		52
B2		49	B36		49	D41	E	52
B3		49	B37		49	D44		52
B7		49	B38		49	D46	B	52
B9		49	B39		49	D47	B	52
B10		49	B40		49	D50	E	52
B13		49	B41		49	D51	F	52
B15		49	B42		49	D52	G	52
B17		49	B43		49	E2	A	52
B18		49	B44		49	E3	B	52
B19		49	B45	A	50	E23		53
B20		49	B46	B	50	E28	H	53
B21		49	B47	C	50	K7		54
B22		49	B48	A	50	K11		54
B23		49	B49		50	R1		49
B24		49	D6	A	51	R2		49

## ○ : Relay Blocks

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

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1D		
1F	22	
1G	24	
1H		
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DE		
DF		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
IH		
II		
IM	30	
IR		
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PC		
PD		

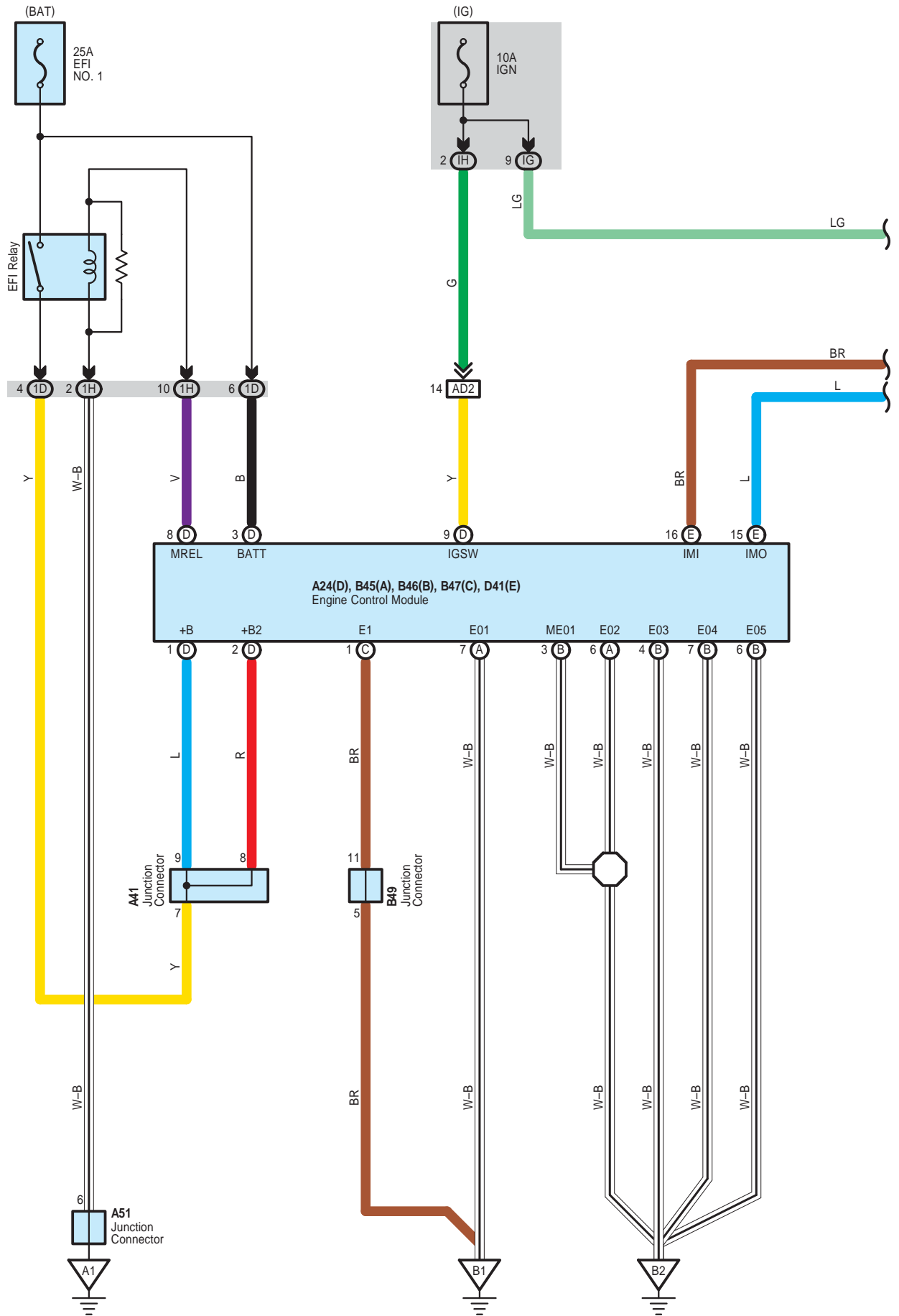
 : Connector Joining Wire Harness and Wire Harness

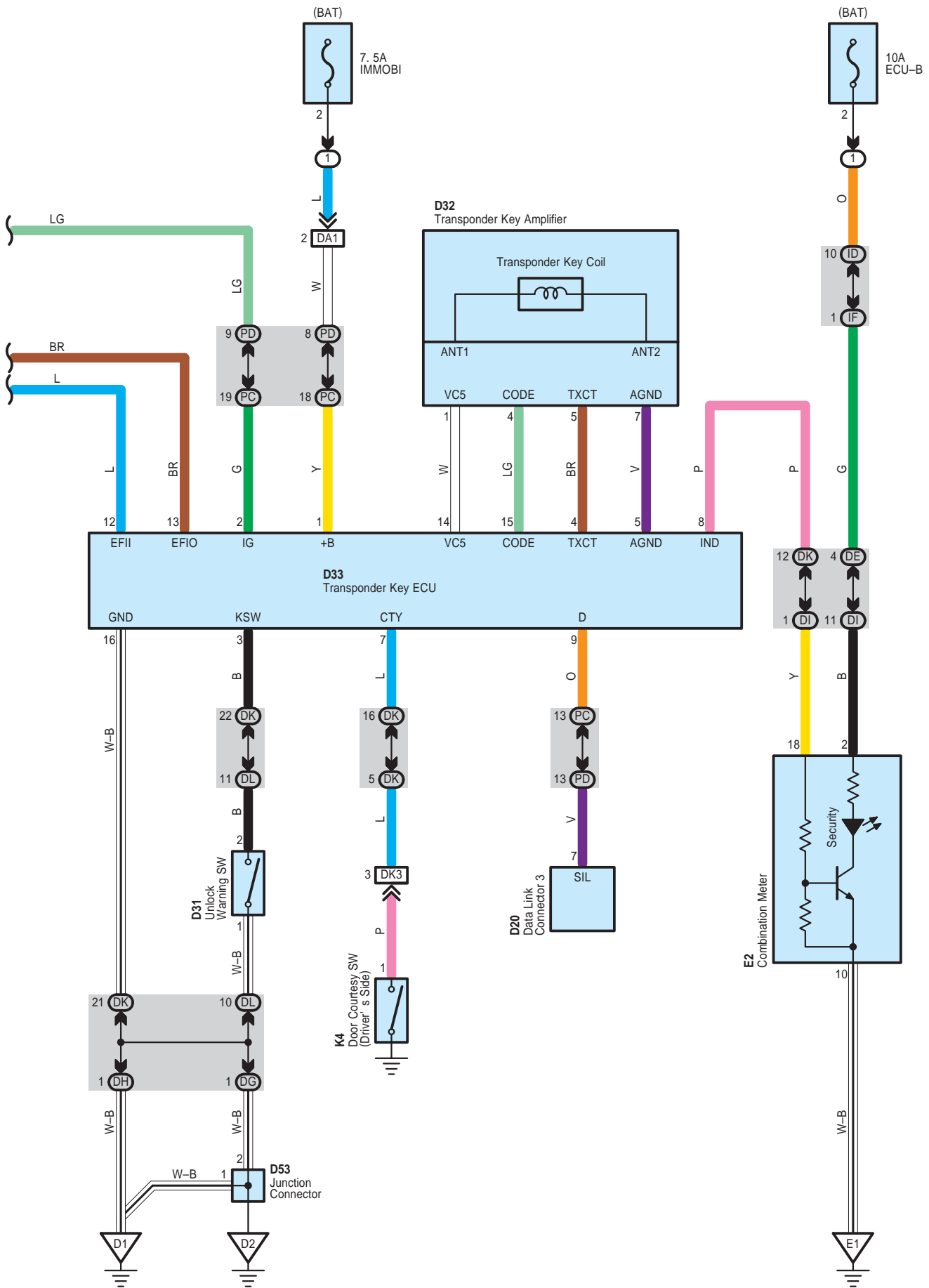
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD2	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
BA1	58	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
BA2		
BD1	60	Engine Wire and Instrument Panel Wire (Right Side of the Blower Unit)
BR1	58	Engine Wire and Sensor Wire (Left Side of the Cylinder Block)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DD1	60	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Center)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
ED2		
KA1	61	Floor No.1 Wire and Engine Room Main Wire (Left Side of the Instrument Panel)

 : Ground Points

Code	See Page	Ground Points Location
A1	58	Front Left Fender
A3	60	Left Side of the Instrument Panel
B1	58	Cylinder Head
B2	58	Left Side of the Cylinder Block
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter
K1	62	Left Rear Quarter Panel

# Engine Immobiliser System without Smart Key System







# Engine Immobiliser System without Smart Key System

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A24   D	50	B47   C	50	D33	51
A41	50	B49	50	D41   E	52
A51	48	D20	51	D53	52
B45   A	50	D31	51	E2	52
B46   B	50	D32	51	K4	54

## ○ : Relay Blocks

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

## ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1H		
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
IH		
PC	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PD		

## □ : Connector Joining Wire Harness and Wire Harness

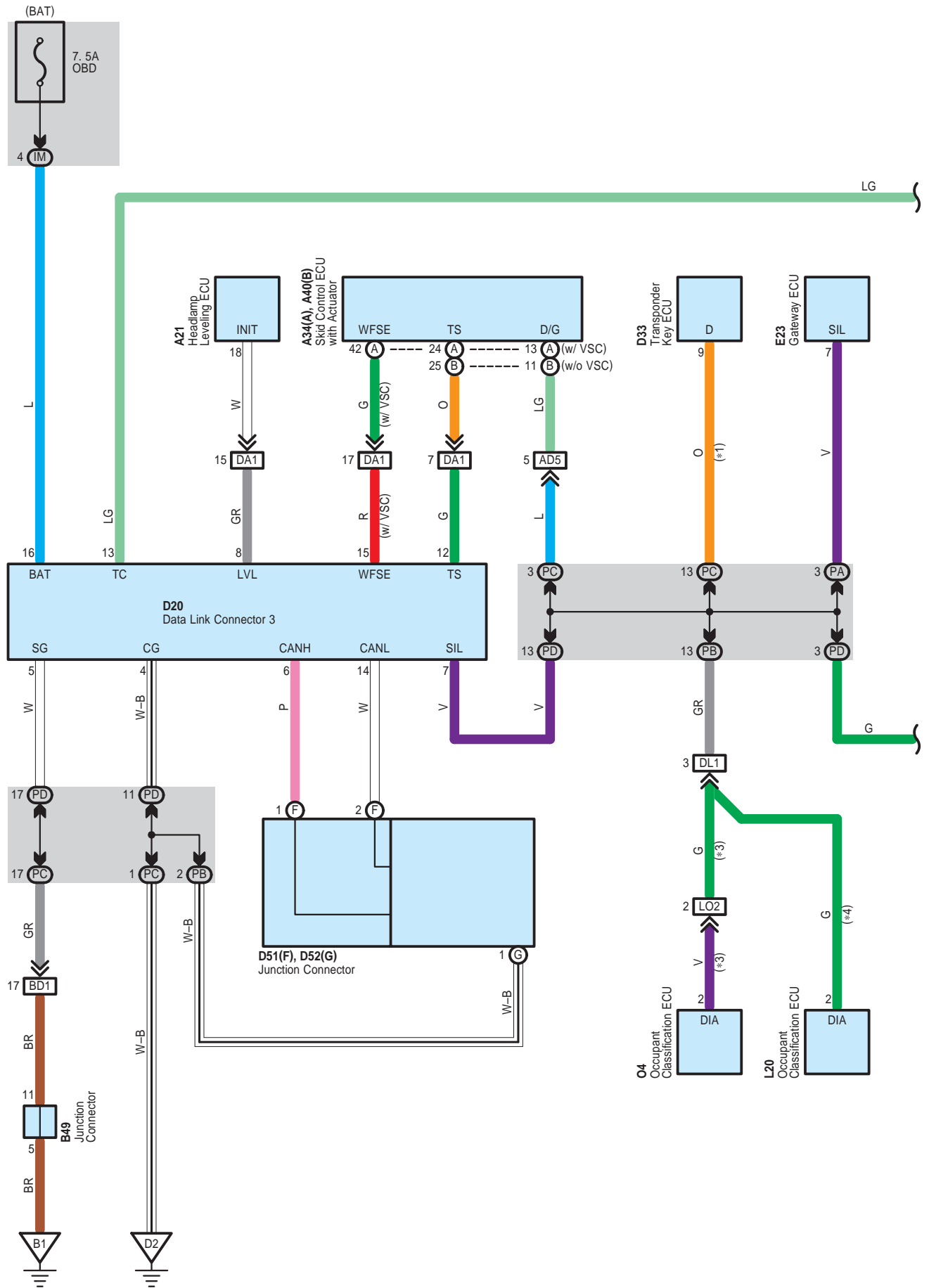
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD2	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)

## ▽ : Ground Points

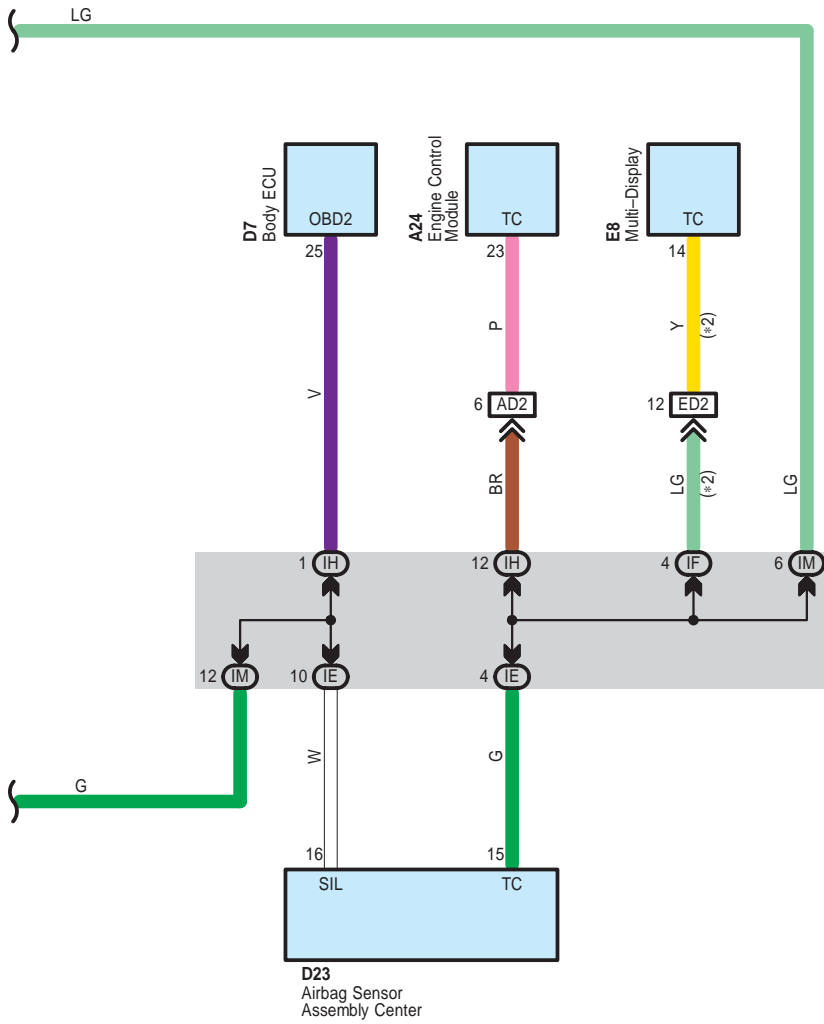
Code	See Page	Ground Points Location
A1	58	Front Left Fender
B1	58	Cylinder Head
B2	58	Left Side of the Cylinder Block
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter



# Data Link Connector 3



- \* 1 : w/o Smart Key System
- \* 2 : w/ Navigation System
- \* 3 : w/ Power Seat
- \* 4 : w/o Power Seat



## Data Link Connector 3

### ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A21	50	D7	51	D52   G	52
A24	50	D20	51	E8	52
A34   A	48	D23	51	E23	53
A40   B	48	D33	51	L20	56
B49	50	D51   F	52	O4	56

### ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
IE	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IF		
IH		
IM		
PA	42	Instrument Panel No.2 Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PC		
PD		

### □ : Connector Joining Wire Harness and Wire Harness

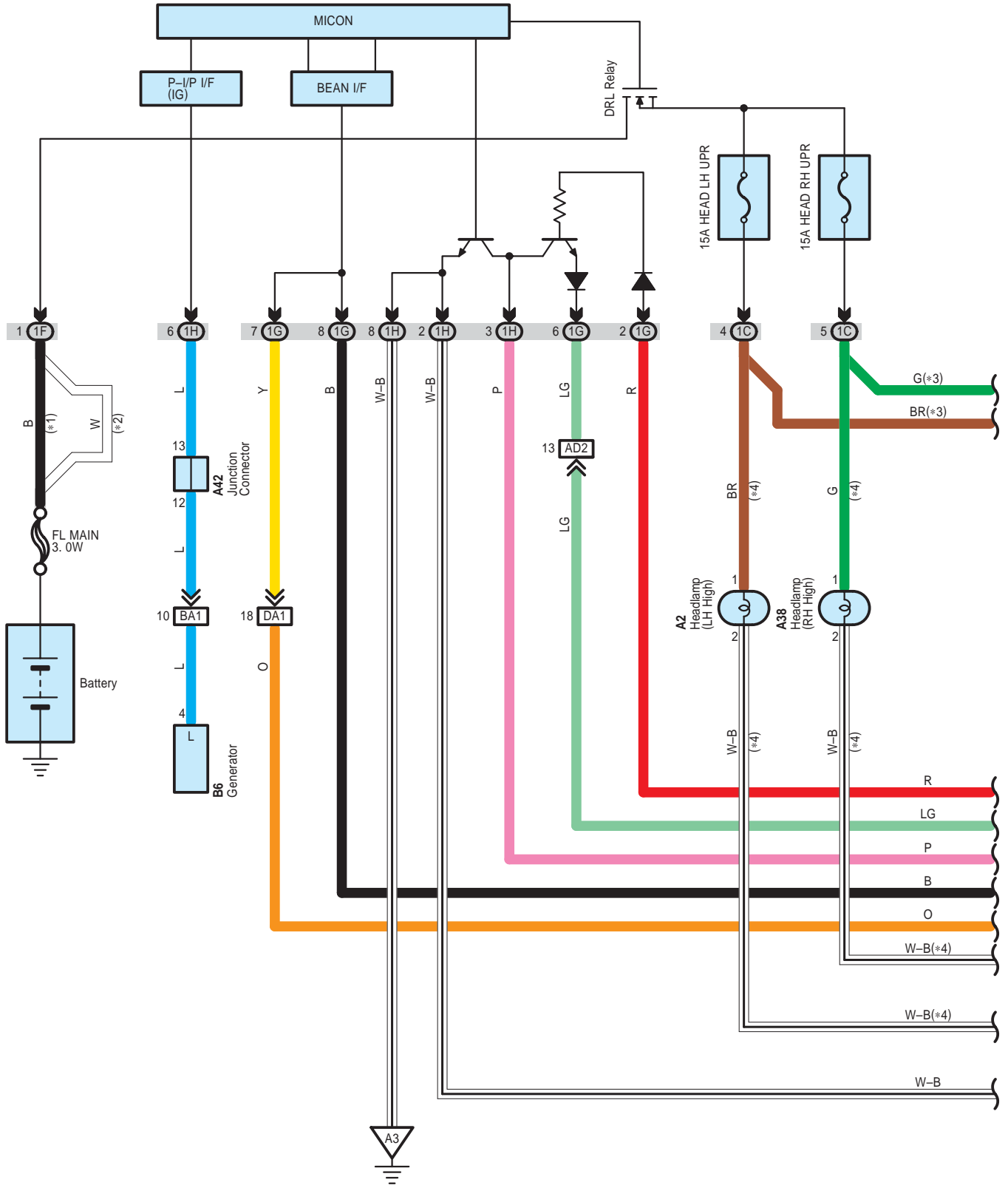
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD2	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
AD5	60	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)
BD1	60	Engine Wire and Instrument Panel Wire (Right Side of the Blower Unit)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DL1	60	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
ED2	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
LO2	63	Floor No.2 Wire and Front Seat RH Wire (Under the Front Passenger's Seat)

### ▽ : Ground Points

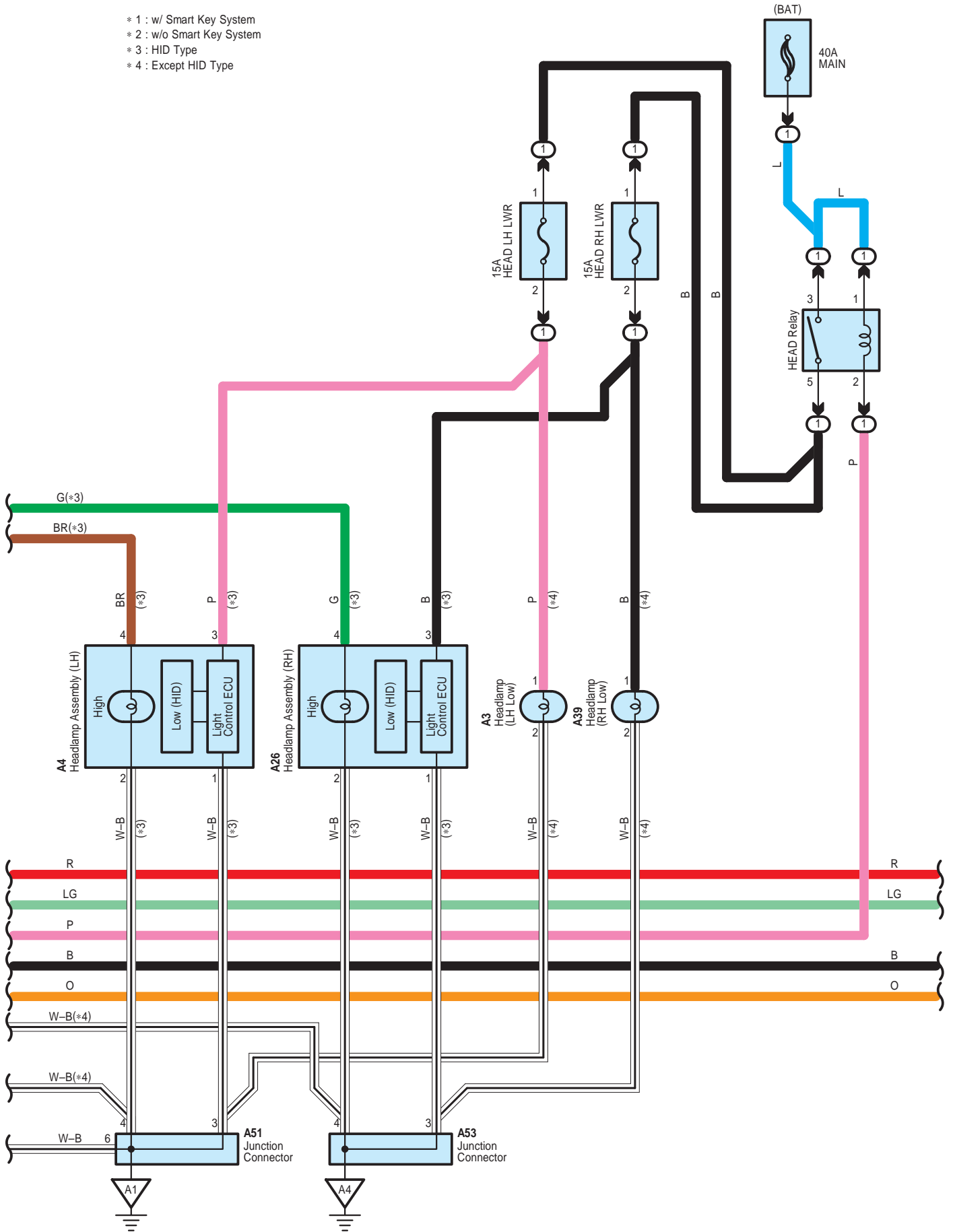
Code	See Page	Ground Points Location
B1	58	Cylinder Head
D2	60	Instrument Panel Brace LH



# Headlight



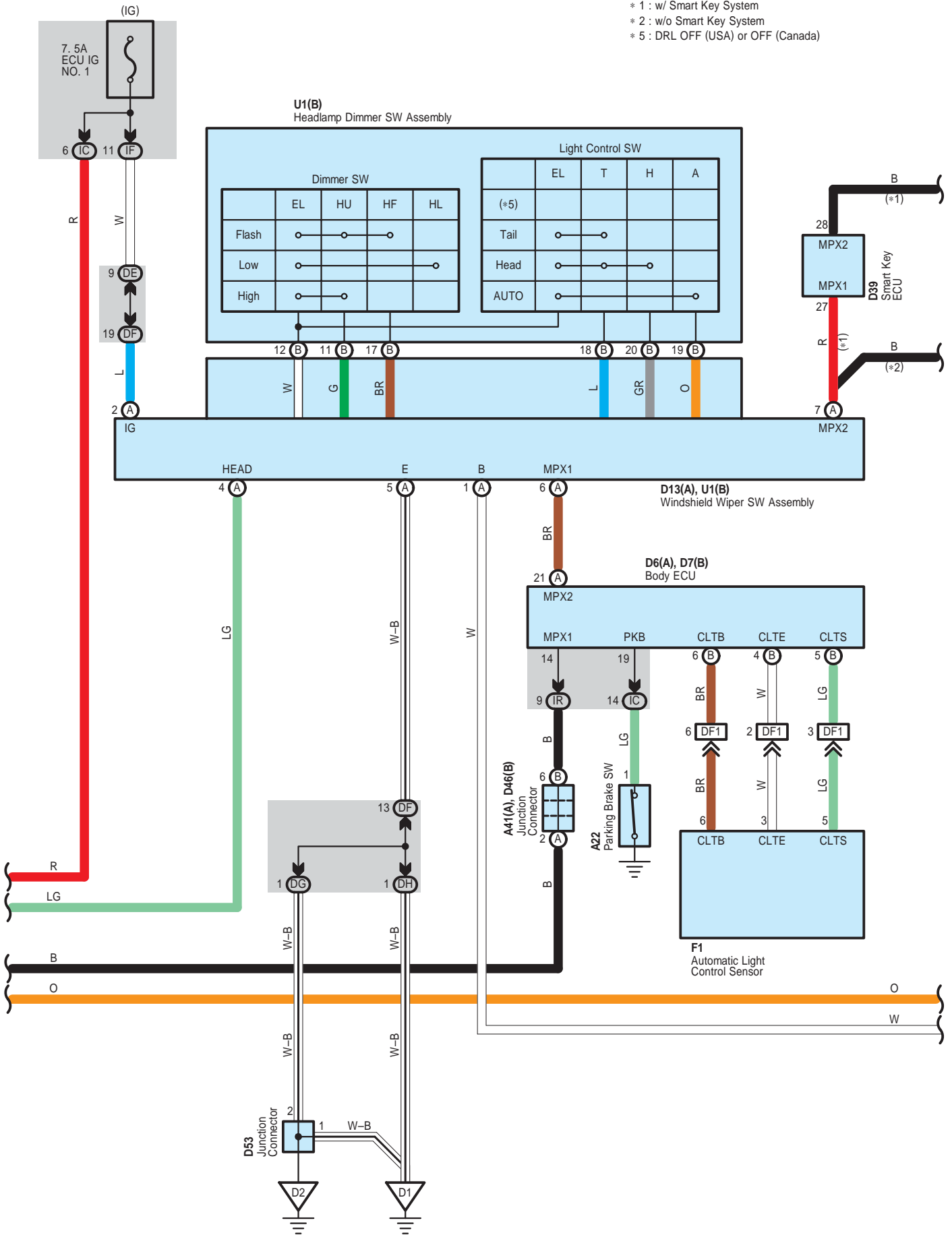
- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System
- \* 3 : HID Type
- \* 4 : Except HID Type

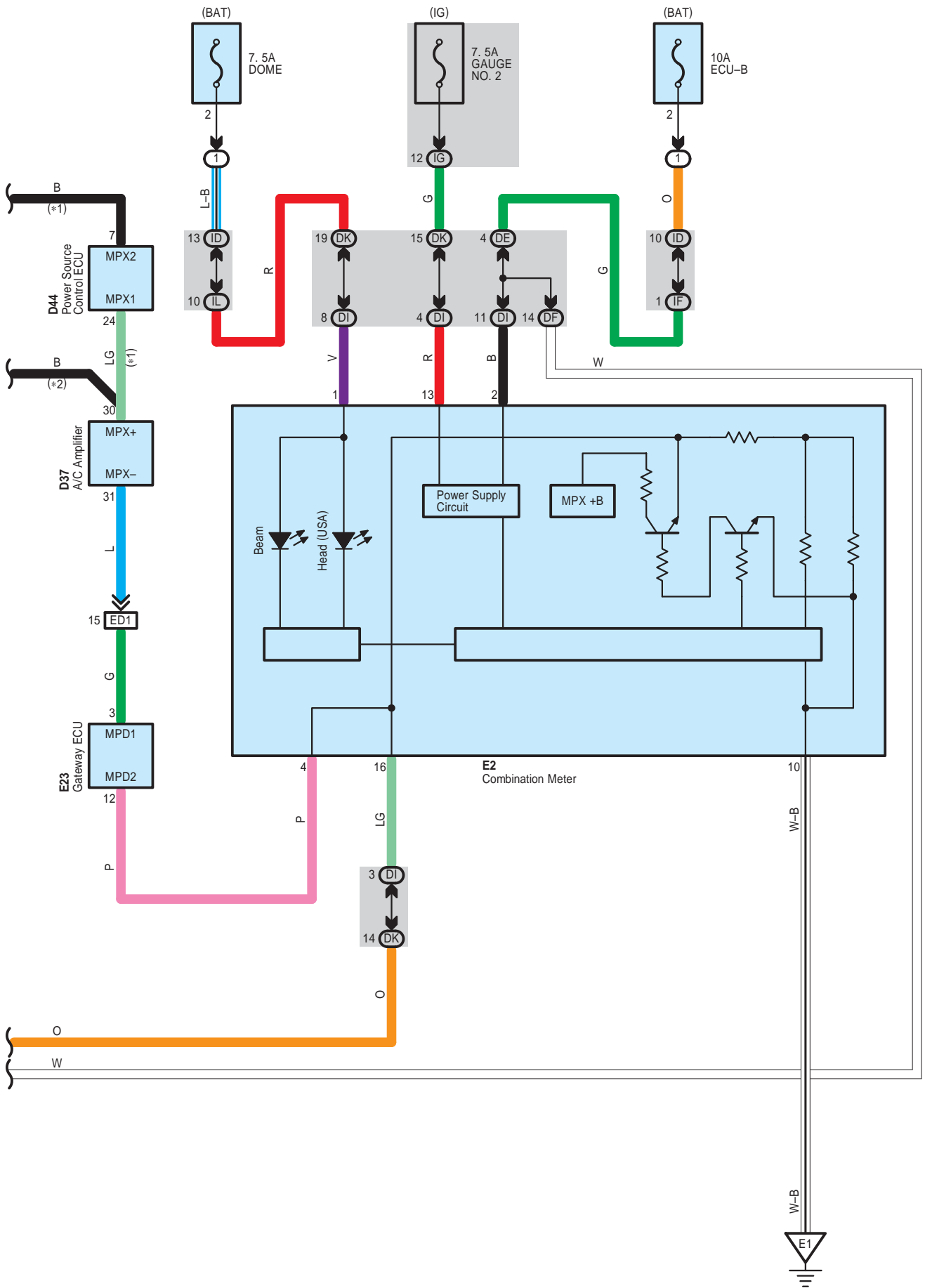




# Headlight

- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System
- \* 5 : DRL OFF (USA) or OFF (Canada)





# Headlight

## System Outline

### Daytime Running Light Operation

When the engine is started, a signal from the generator is input into front controller. At this time, if the parking brake lever is pulled up (Parking brake SW ON), the body ECU is not activated, and the daytime running light system does not operate. When the parking brake lever is released (Parking brake SW OFF), a signal is input into TERMINAL 19 of the body ECU. This activates the body ECU and the headlamp turns on.

### ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A2	48	A42	50	D39	52
A3	48	A51	48	D44	52
A4	48	A53	48	D46	B 52
A22	50	B6	49	D53	52
A26	48	D6	A 51	E2	52
A38	48	D7	B 51	E23	53
A39	48	D13	A 51	F1	53
A41	A 50	D37	51	U1	B 53

### ○ : Relay Blocks

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

### ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1F	22	
1G	24	
1H		
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DF		
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
IC	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
IL	30	
IR		

### □ : Connector Joining Wire Harness and Wire Harness

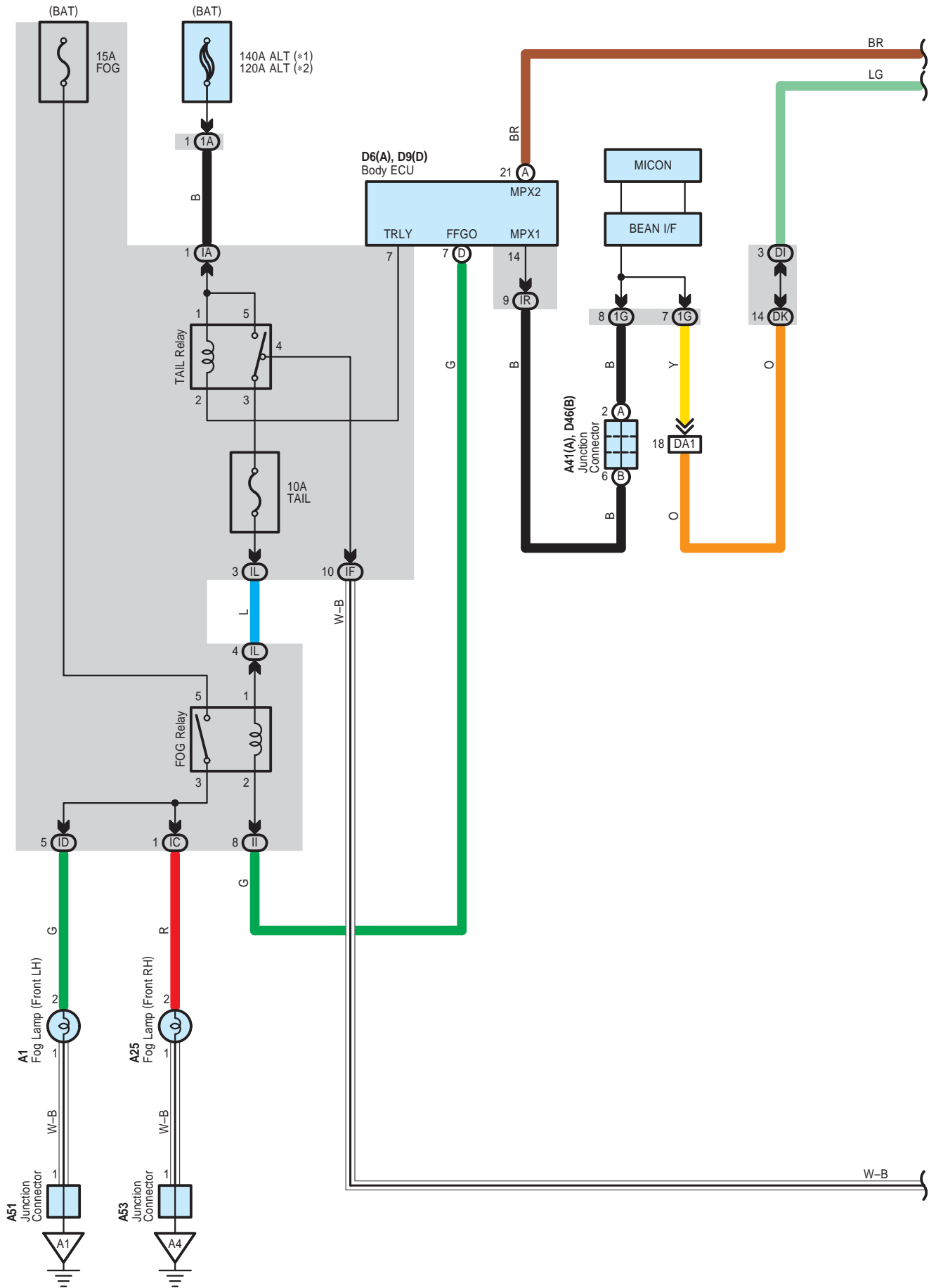
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD2	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
BA1	58	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DF1	60	Instrument Panel Wire and Instrument Panel No.3 Wire (Instrument Panel Center)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)

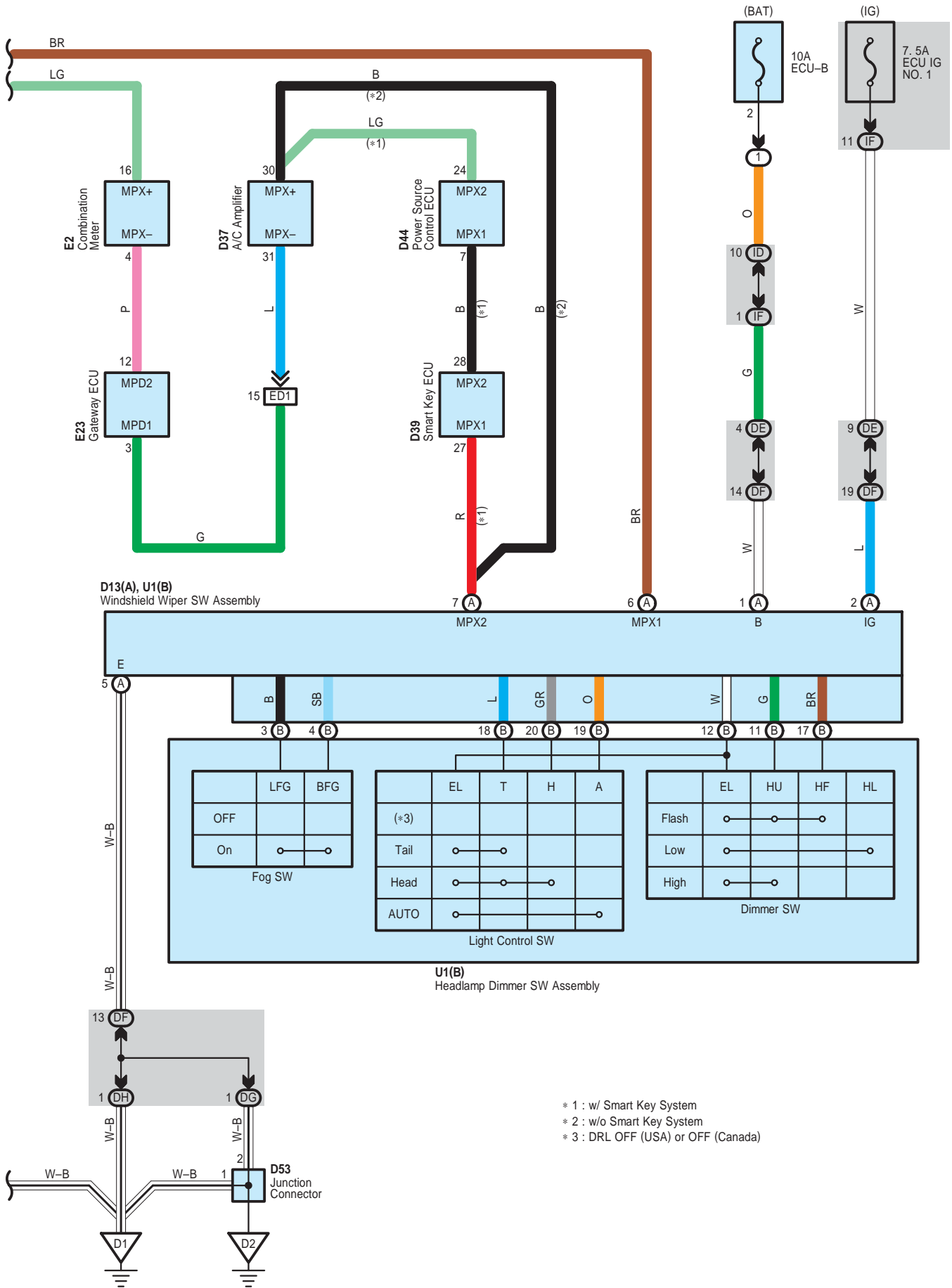


**: Ground Points**

Code	See Page	Ground Points Location
A1	58	Front Left Fender
A3	60	Left Side of the Instrument Panel
A4	58	Near the Skid Control ECU with Actuator
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter

# Front Fog Light





# Front Fog Light

## : Parts Location

Code	See Page	Code	See Page	Code	See Page	
A1	48	D9	D	51	D53	52
A25	48	D13	A	51	E2	52
A41	A	50	D37	51	E23	53
A51	48	D39	52	U1	B	53
A53	48	D44	52			
D6	A	51	D46	B	52	

## : Relay Blocks

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

## : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1G	24	
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DF		
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
IA	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IC		
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
II	31	
IL	30	
IR		

## : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)

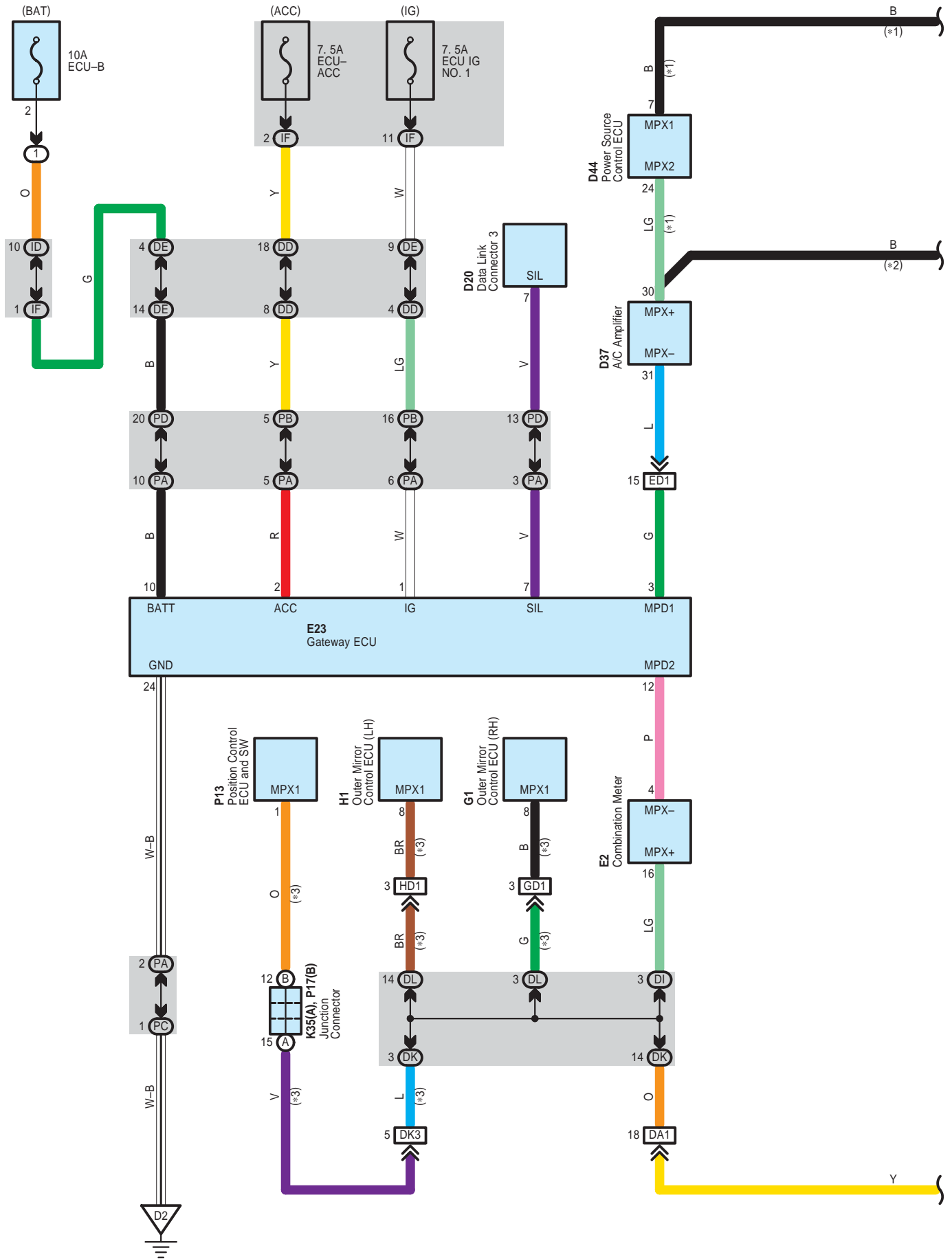
## : Ground Points

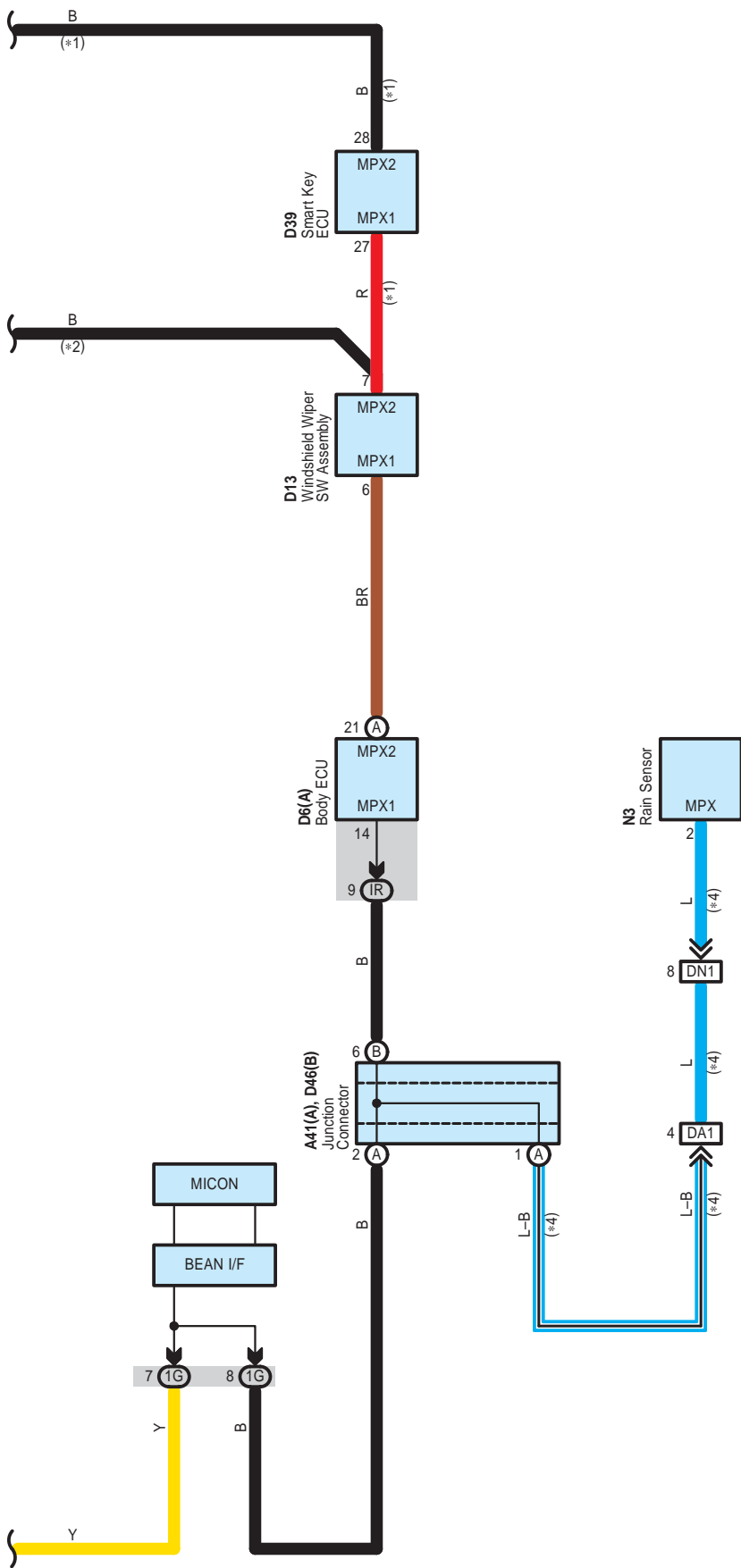
Code	See Page	Ground Points Location
A1	58	Front Left Fender
A4	58	Near the Skid Control ECU with Actuator
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH





# Multiplex Communication System – BEAN





- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System
- \* 3 : w/ Driving Position Memory
- \* 4 : w/ Auto Wiper System

# Multiplex Communication System – BEAN

## System Outline

BEAN consists of body electrical systems such as combination meter, A/C amplifier, body ECU, front controller, windshield wiper SW assembly, position control ECU and SW, outer mirror control ECU (LH), outer mirror control ECU (RH), smart key ECU, power source control ECU, rain sensor and gateway ECU. Gateway ECU has communication circuit to correspond with different types of communication data. Different types of communication data can be shared among communication parts after it goes through gateway ECU.

This system is working for the following systems:

- \* Air Conditioning
- \* Automatic Light Control
- \* Combination Meter
- \* Data Link Connector 3
- \* Door Lock Control
- \* Engine Immobiliser System (w/o Smart Key System)
- \* Front Fog Light
- \* Garage Door Opener
- \* Headlight
- \* Horn
- \* Illumination
- \* Interior Light
- \* Key Reminder
- \* Light Auto Turn Off System
- \* Luggage Compartment Door Opener
- \* Mirror Heater
- \* Multi Display (w/o Navigation System)
- \* Navigation System
- \* Power Seat (Driver's Seat w/ Driving Position Memory)
- \* Rear Window Defogger
- \* Remote Control Mirror (w/ Driving Position Memory)
- \* Seat Belt Warning
- \* Smart Key System
- \* Taillight
- \* Theft Deterrent
- \* Turn Signal and Hazard Warning Light
- \* Wiper and Washer
- \* Wireless Door Lock Control

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A41   A	50	D44	52	K35   A	56
D6   A	51	D46   B	52	N3	55
D13	51	E2	52	P13	56
D20	51	E23	53	P17   B	56
D37	51	G1	54		
D39	52	H1	54		

## ○ : Relay Blocks

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

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DE		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IR		
PA	42	Instrument Panel No.2 Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PC		
PD		

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

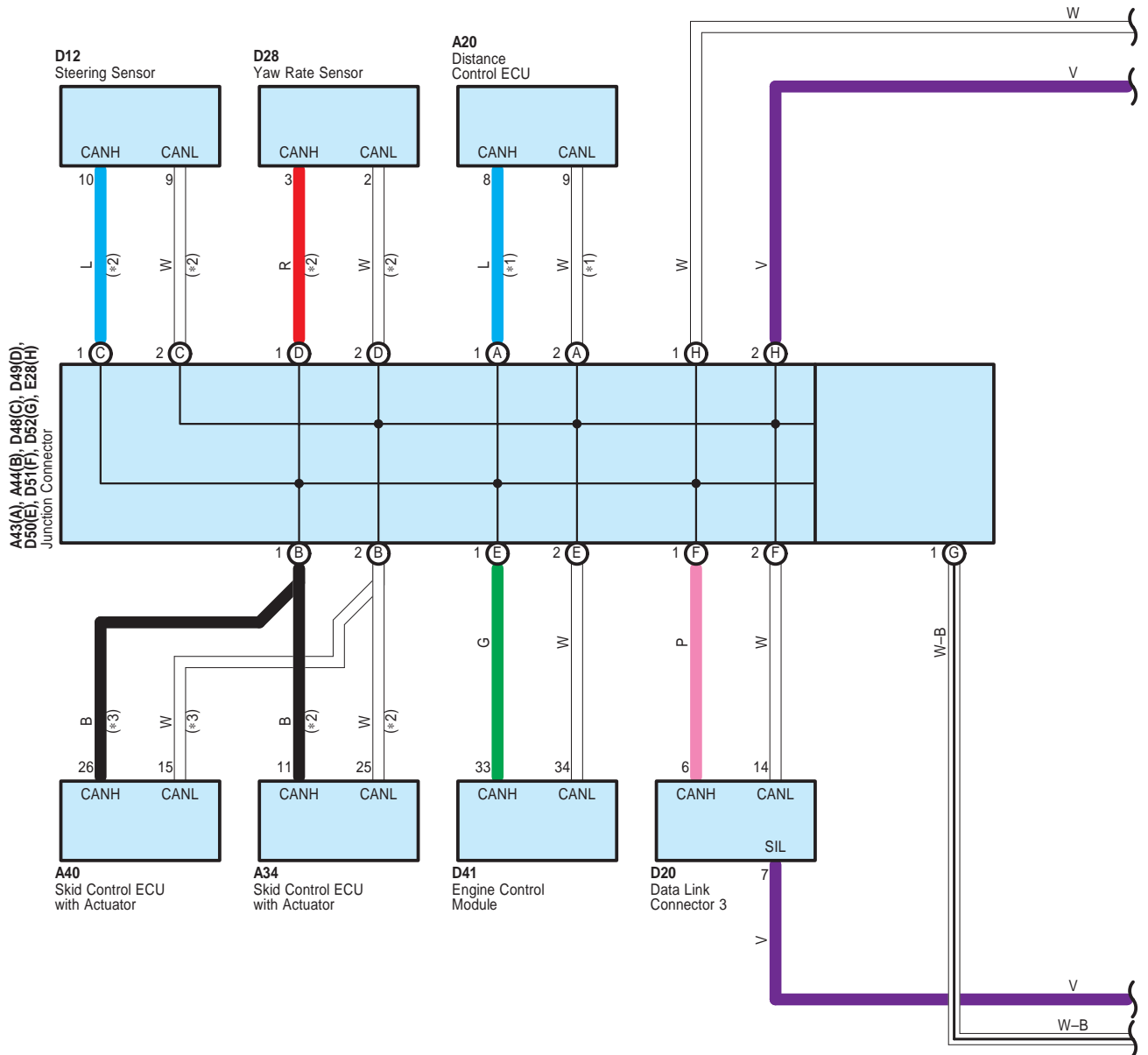
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DN1	61	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
GD1	61	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
HD1	61	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)

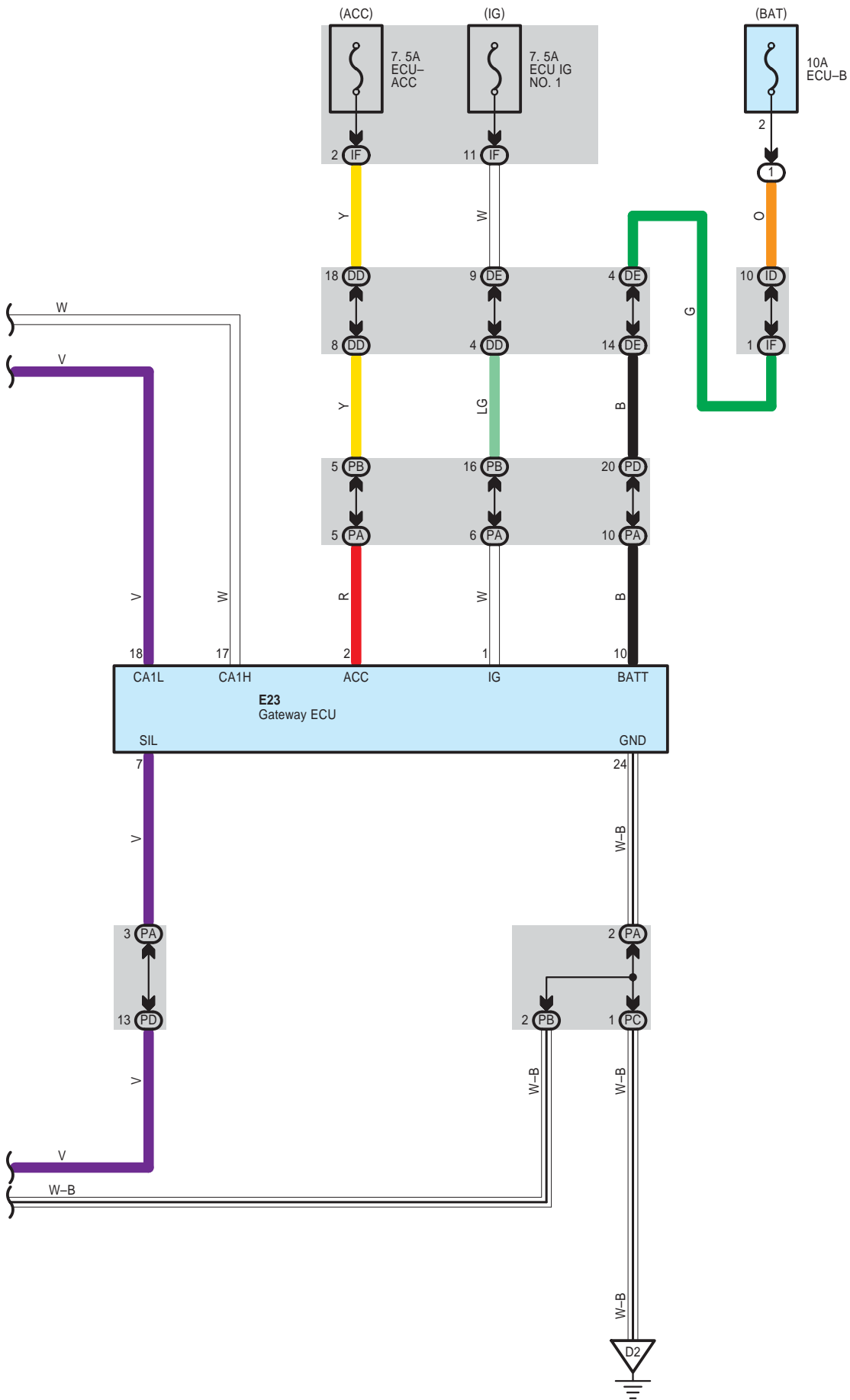
 : **Ground Points**

Code	See Page	Ground Points Location
D2	60	Instrument Panel Brace LH

# Multiplex Communication System – CAN

- \* 1 : w/ Dynamic Radar Cruise Control
- \* 2 : w/ VSC
- \* 3 : w/o VSC





# Multiplex Communication System – CAN

## System Outline

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

This system is working for the following systems:

- \* ABS
- \* Air Conditioning
- \* Combination Meter
- \* Cruise Control
- \* Data Link Connector 3
- \* Door Lock Control
- \* Dynamic Radar Cruise Control
- \* Electronically Controlled Transmission and A/T Indicator
- \* Engine Control
- \* Mirror Heater
- \* Multi Display (w/o Navigation System)
- \* Navigation System
- \* Power Seat (Driver's Seat w/ Driving Position Memory)
- \* Rear Window Defogger
- \* Remote Control Mirror (w/ Driving Position Memory)
- \* Smart Key System
- \* TRAC
- \* VSC

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A20	50	D20	51	D51	F 52
A34	48	D28	51	D52	G 52
A40	48	D41	52	E23	53
A43	A 50	D48	C 52	E28	H 53
A44	B 50	D49	D 52		
D12	51	D50	E 52		

## ○ : Relay Blocks

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

## ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DE		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
PA	42	Instrument Panel No.2 Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PC		
PD		

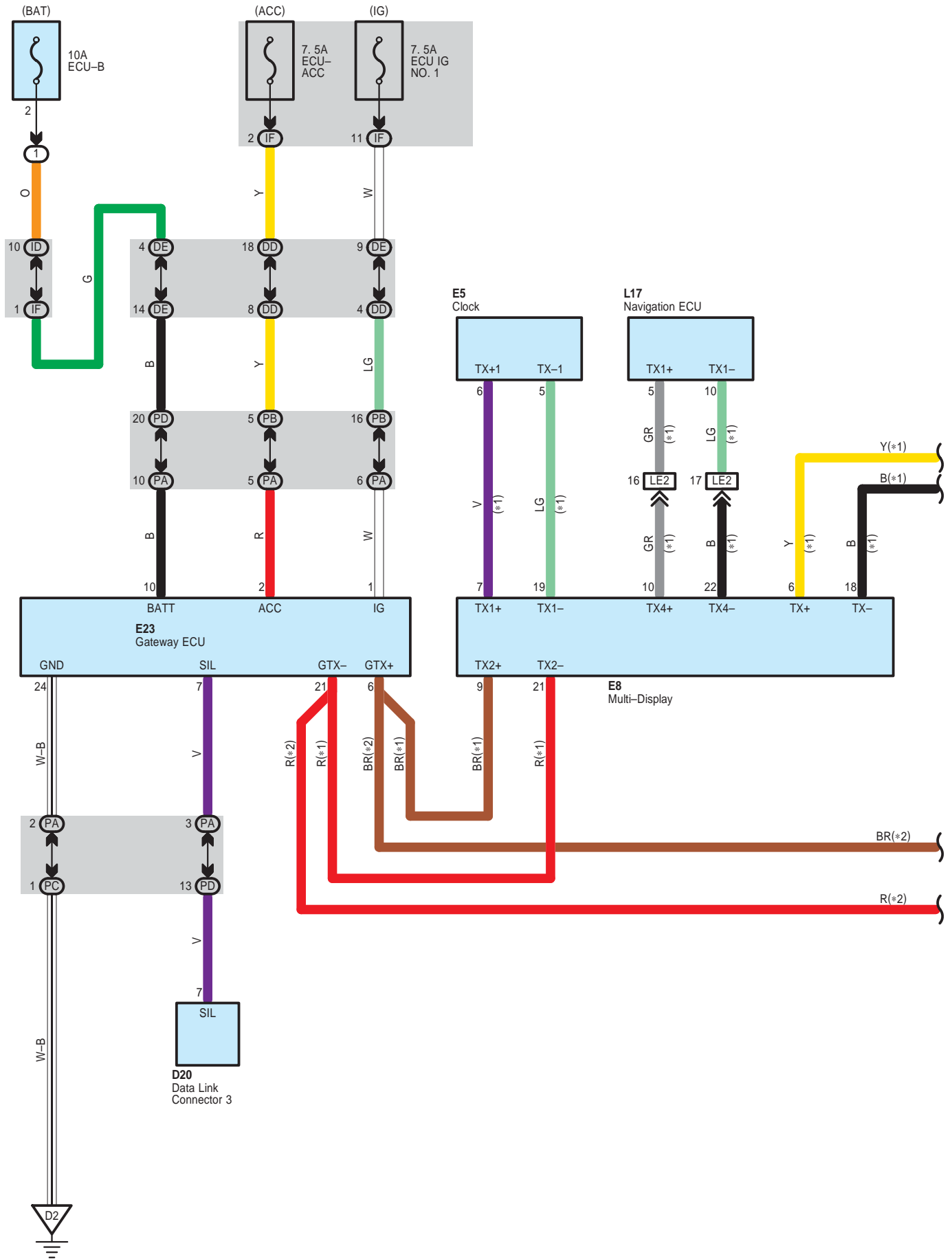
## ▽ : Ground Points

Code	See Page	Ground Points Location
D2	60	Instrument Panel Brace LH

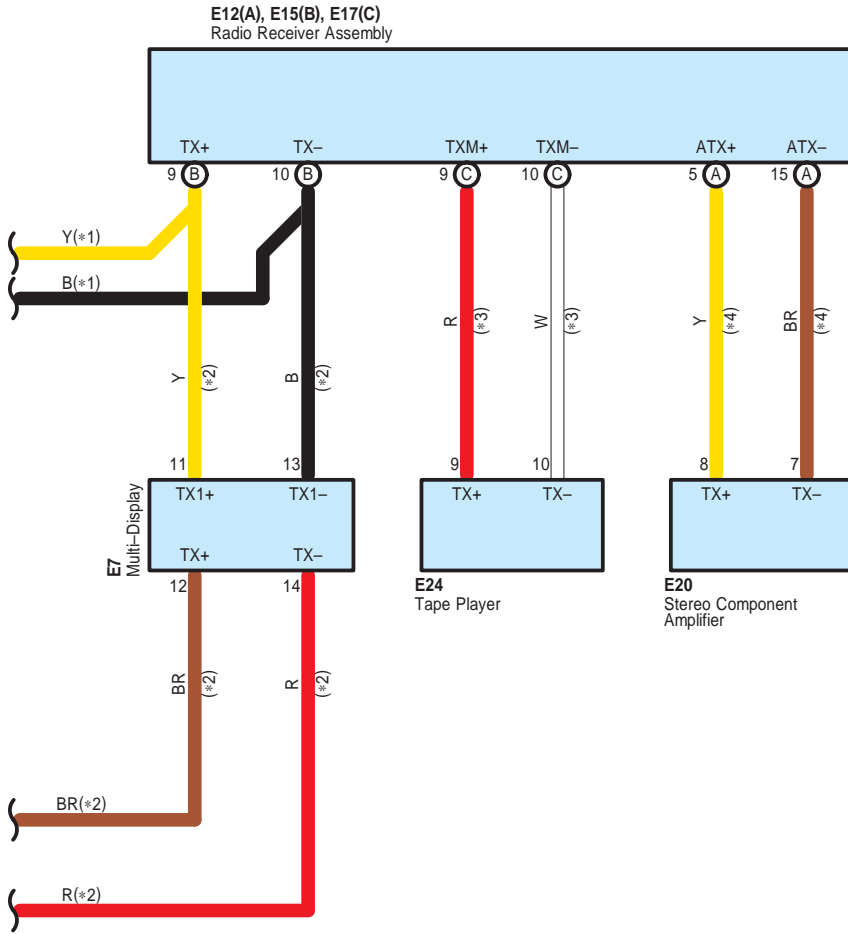




# Multiplex Communication System – AVC-LAN



- \* 1 : w/ Navigation System
- \* 2 : w/o Navigation System
- \* 3 : w/ Tape Player
- \* 4 : 12 Speaker



# Multiplex Communication System – AVC–LAN

## System Outline

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

This system is working for the following systems:

- \* Air Conditioning
- \* Clock (w/ Navigation System)
- \* Combination Meter
- \* Data Link Connector 3
- \* Multi Display (w/o Navigation System)
- \* Navigation System

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
D20	51	E12	A 53	E23	53
E5	52	E15	B 53	E24	53
E7	52	E17	C 53	L17	55
E8	52	E20	53		

## ○ : Relay Blocks

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

## ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DE		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
PA	42	Instrument Panel No.2 Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PC		
PD		

## □ : Connector Joining Wire Harness and Wire Harness

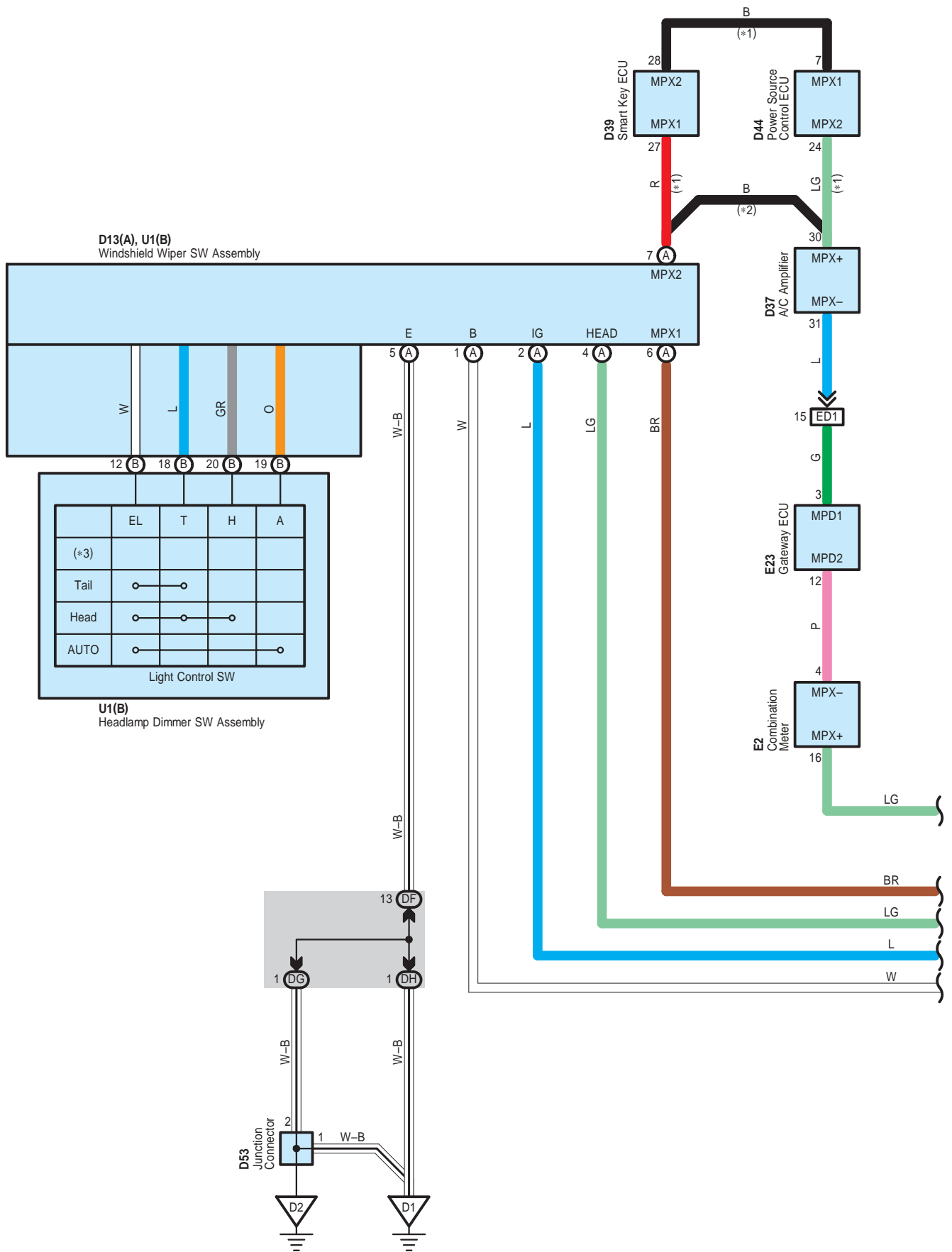
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
LE2	61	Floor No.2 Wire and Instrument Panel No.2 Wire (Behind the Glove Box)

## ▽ : Ground Points

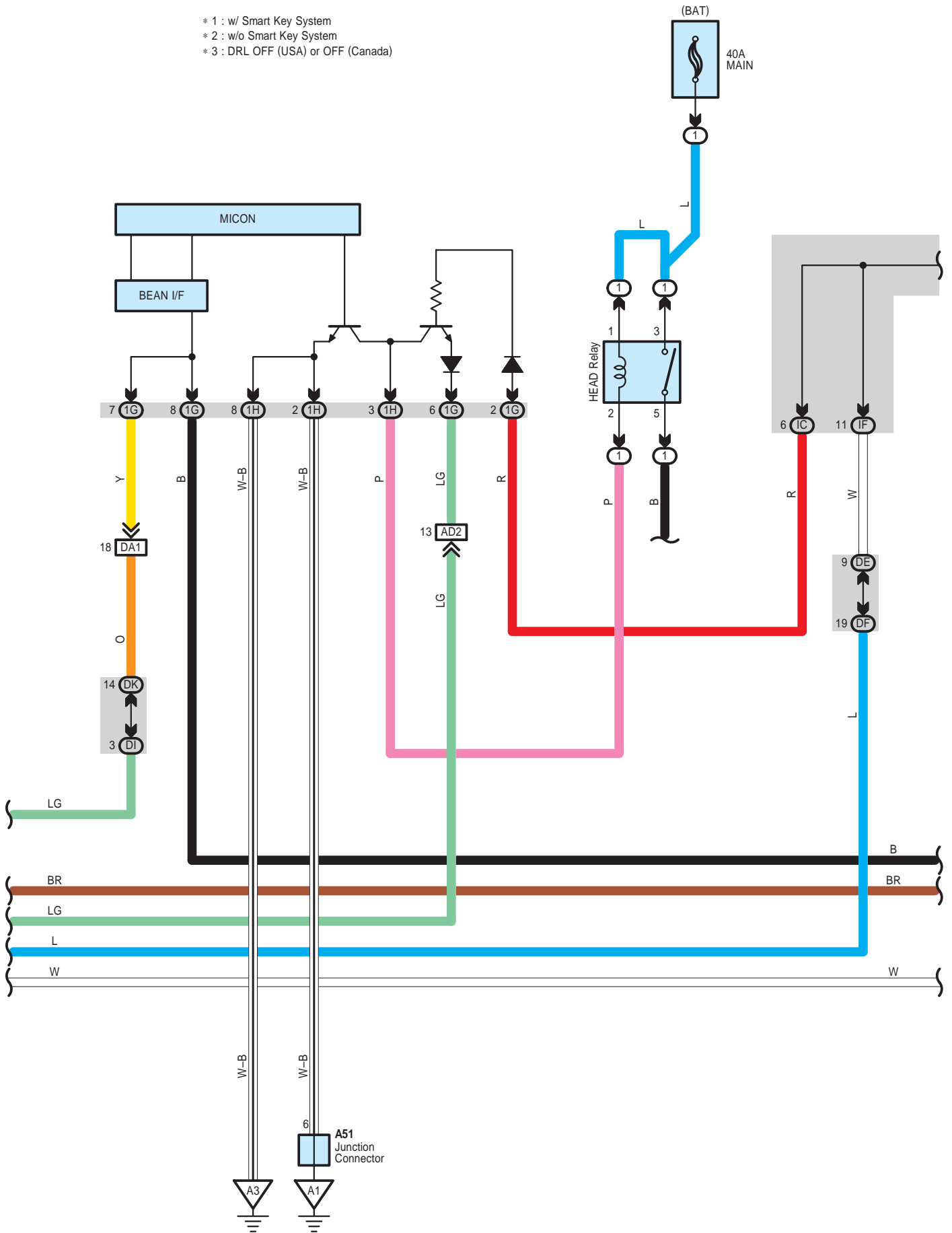
Code	See Page	Ground Points Location
D2	60	Instrument Panel Brace LH



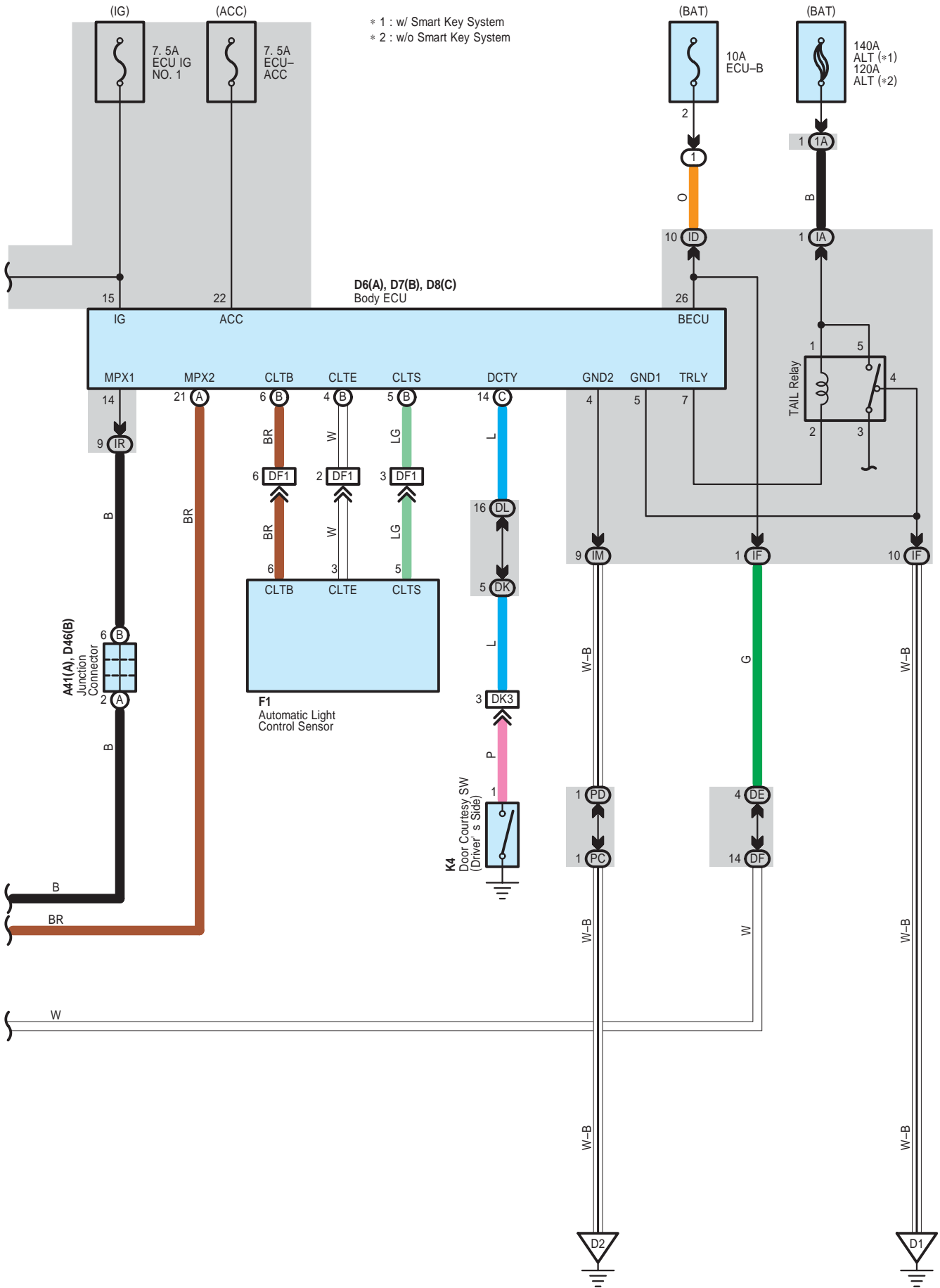
# Automatic Light Control



- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System
- \* 3 : DRL OFF (USA) or OFF (Canada)



# Automatic Light Control



## System Outline

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

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page			
A41	A	50	D37	51	E23	53		
A51	48	D39	52	F1	53			
D6	A	51	D44	52	K4	54		
D7	B	51	D46	B	52	U1	B	53
D8	C	51	D53	52				
D13	A	51	E2	52				

## ○ : Relay Blocks

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

## ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1G	24	
1H		
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DF		
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
IA	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IC		
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IM		
IR		
PC	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PD		

## □ : Connector Joining Wire Harness and Wire Harness

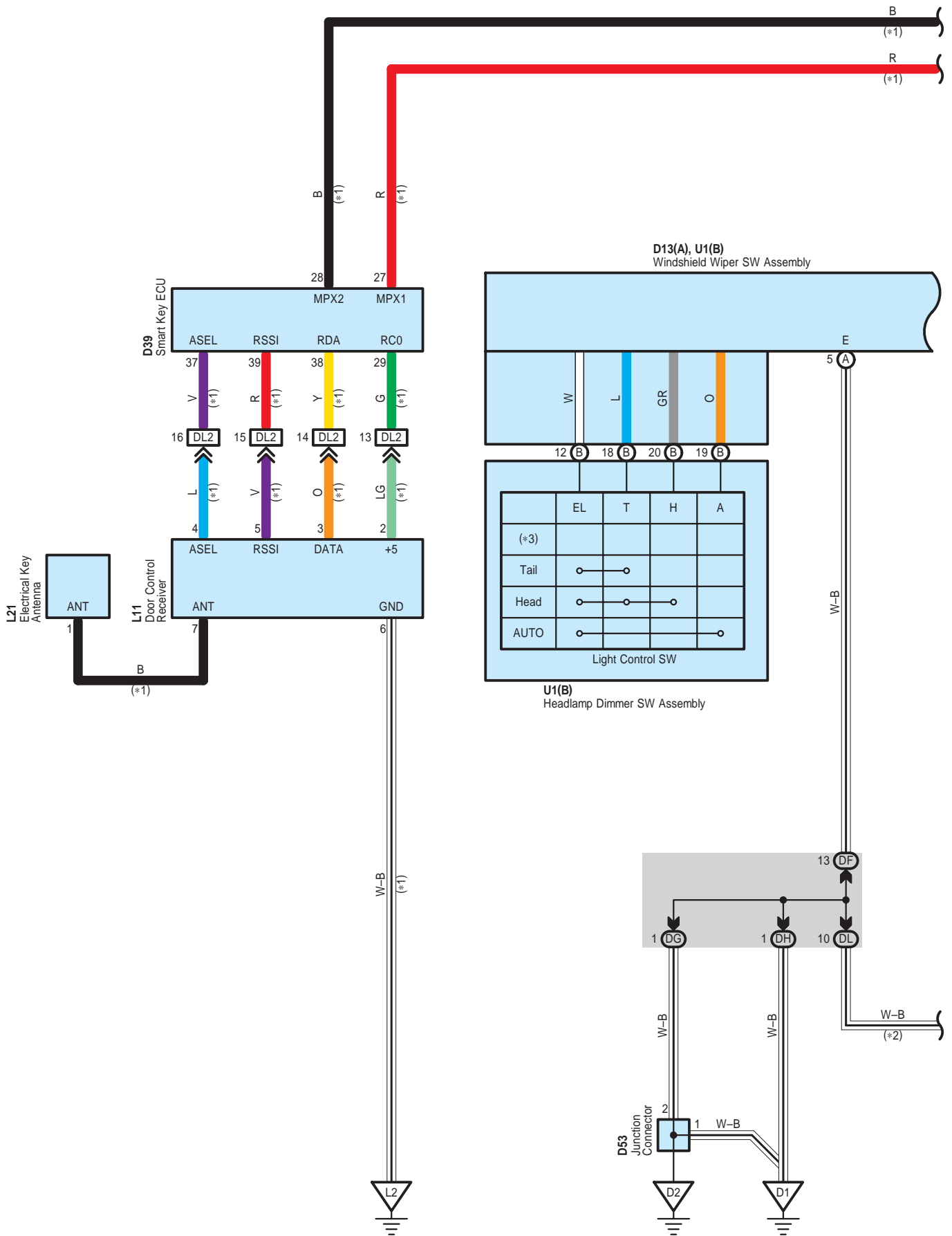
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD2	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DF1	60	Instrument Panel Wire and Instrument Panel No.3 Wire (Instrument Panel Center)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)

## ▽ : Ground Points

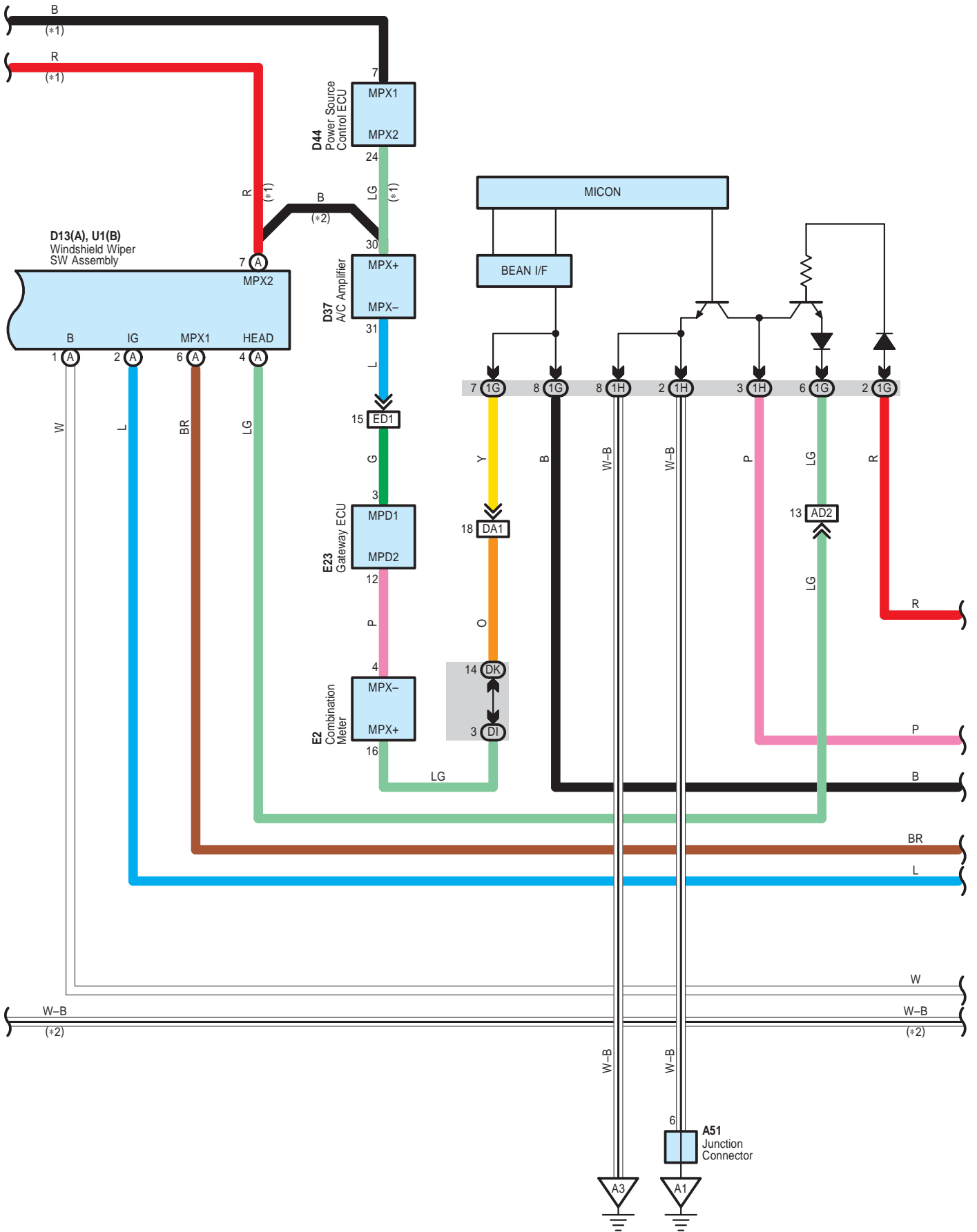
Code	See Page	Ground Points Location
A1	58	Front Left Fender
A3	60	Left Side of the Instrument Panel
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH



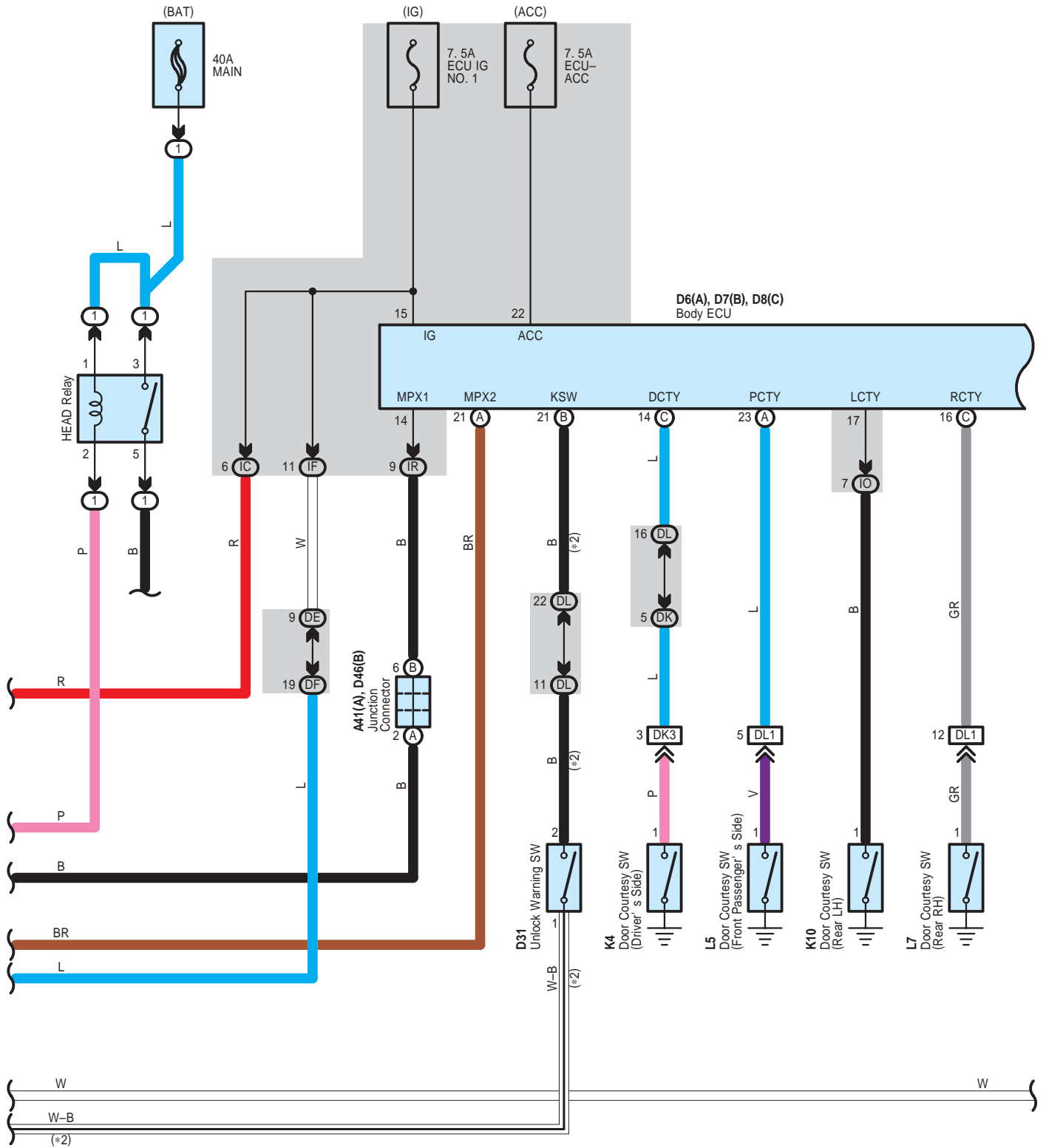
# Light Auto Turn Off System



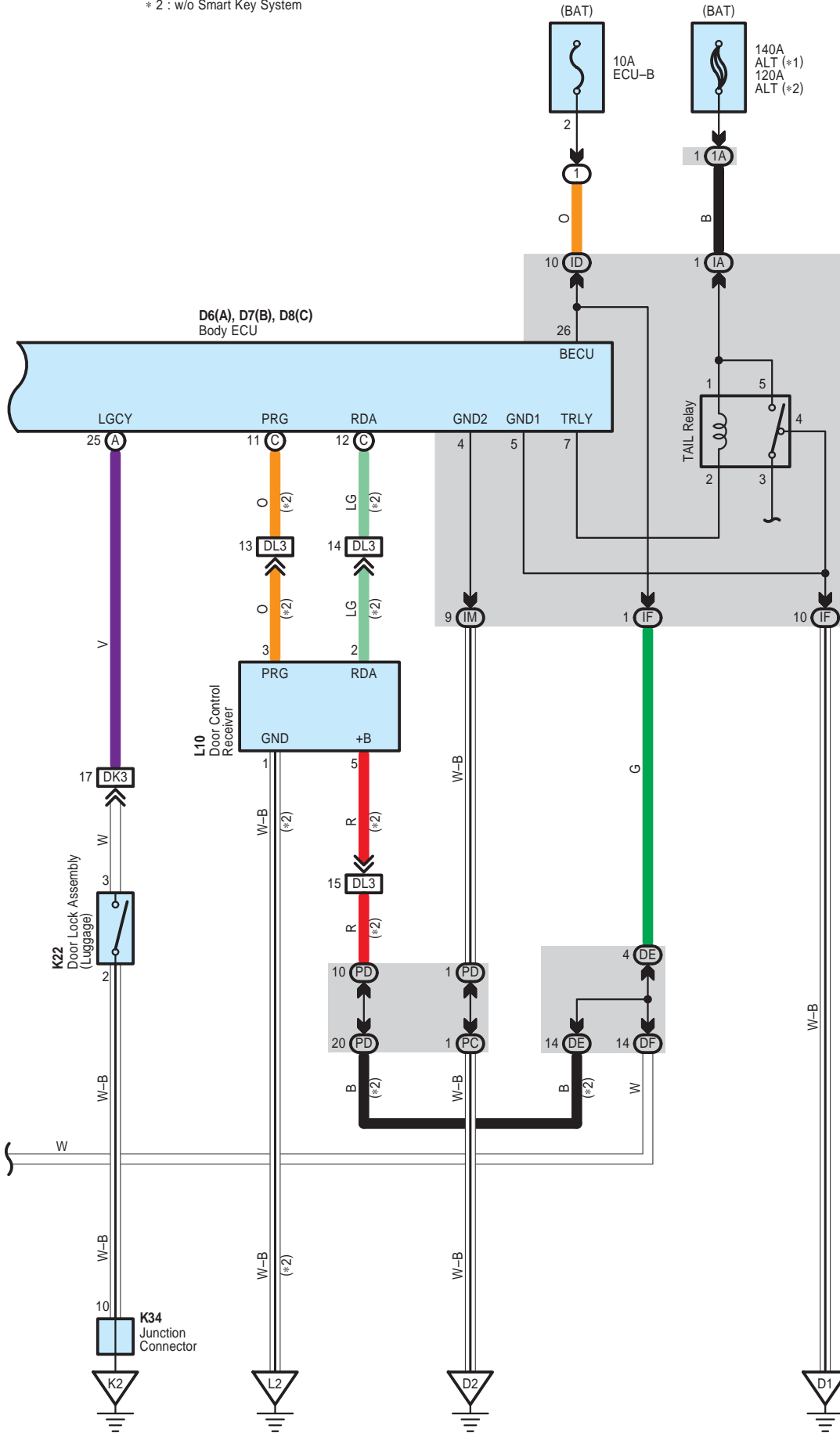
- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System
- \* 3 : DRL OFF (USA) or OFF (Canada)



# Light Auto Turn Off System



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



AVALON (EM00A0U)

# Light Auto Turn Off System

## System Outline

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

## ○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A41	A	50	D39		52	K22		55
A51		48	D44		52	K34		55
D6	A	51	D46	B	52	L5		55
D7	B	51	D53		52	L7		55
D8	C	51	E2		52	L10		55
D13	A	51	E23		53	L11		55
D31		51	K4		54	L21		55
D37		51	K10		54	U1	B	53

## ○ : Relay Blocks

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

## ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1G	24	
1H		
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DF		
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
IA	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IC		
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IM		
IO	30	Floor No.1 Wire and Instrument Panel J/B (Lower Finish Panel)
IR	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
PC	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PD		

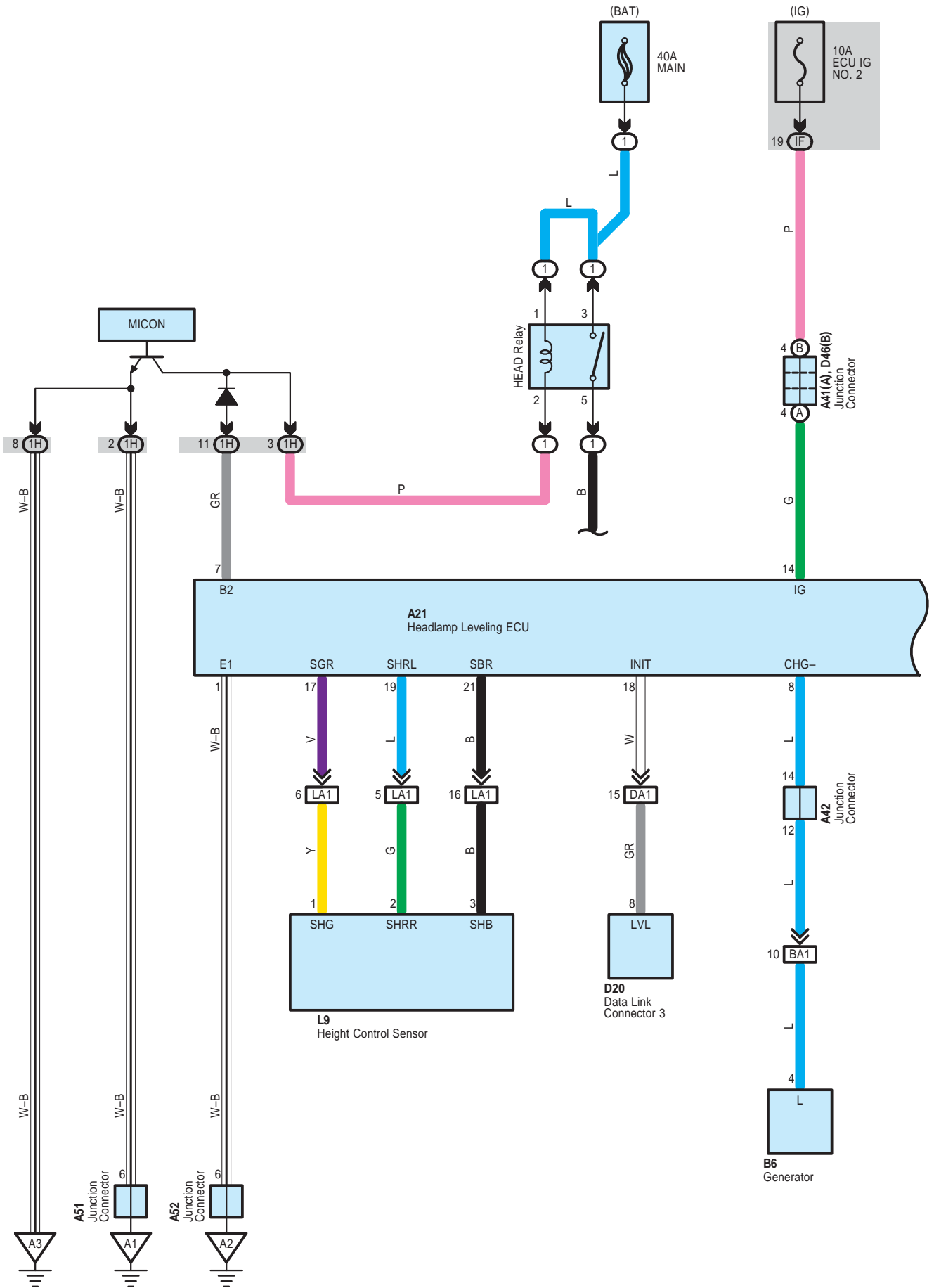
 : Connector Joining Wire Harness and Wire Harness

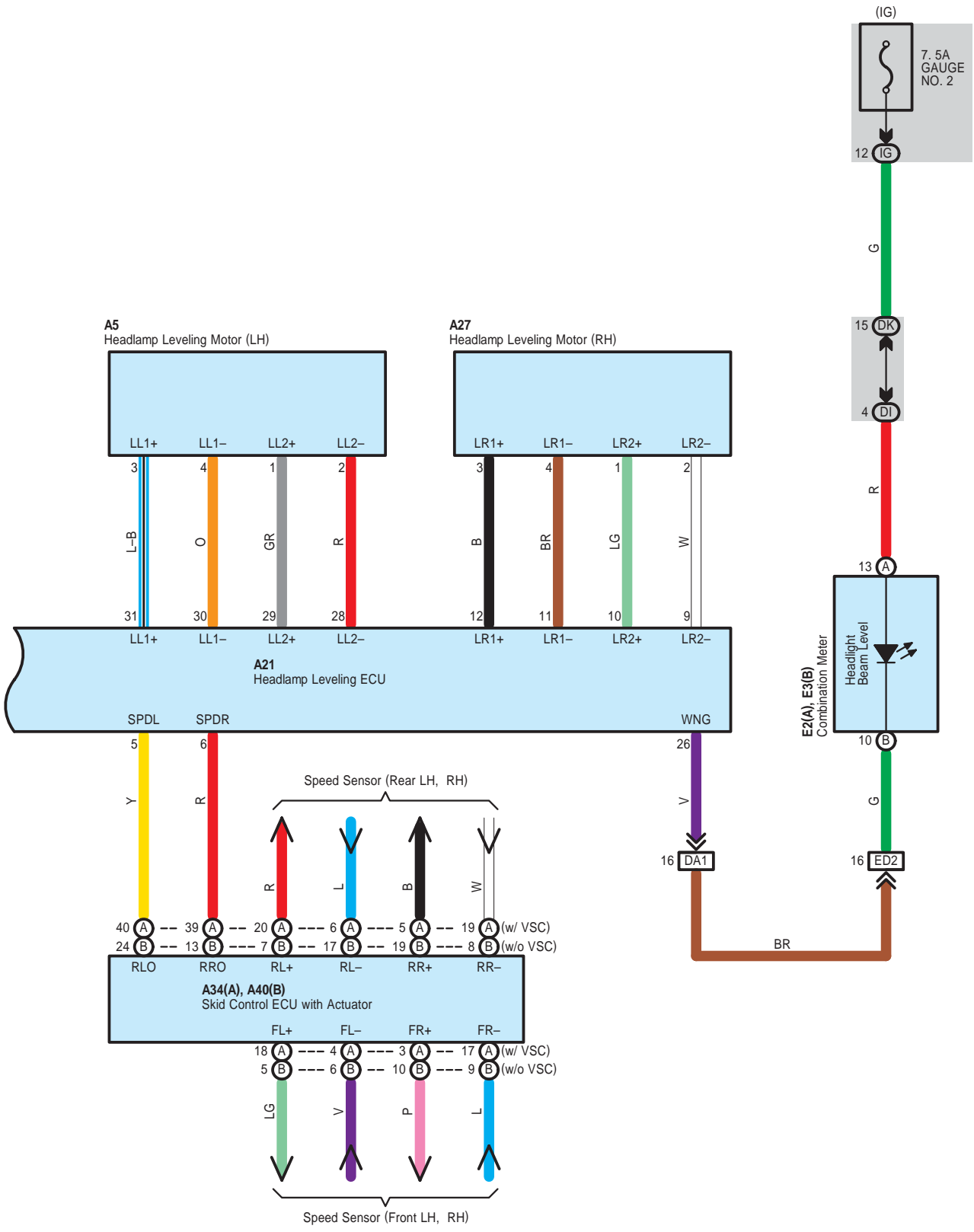
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD2	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DL1	60	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
DL2		
DL3		
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)

 : Ground Points

Code	See Page	Ground Points Location
A1	58	Front Left Fender
A3	60	Left Side of the Instrument Panel
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
K2	62	Left Rear Quarter Panel
L2	62	Right Rear Quarter Panel

# Headlight Beam Level Control







# Headlight Beam Level Control

## : Parts Location

Code	See Page	Code	See Page	Code	See Page
A5	48	A41   A	50	D20	51
A21	50	A42	50	D46   B	52
A27	48	A51	48	E2   A	52
A34   A	48	A52	48	E3   B	52
A40   B	48	B6	49	L9	55

## : Relay Blocks

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

## : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1H	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	

## : Connector Joining Wire Harness and Wire Harness

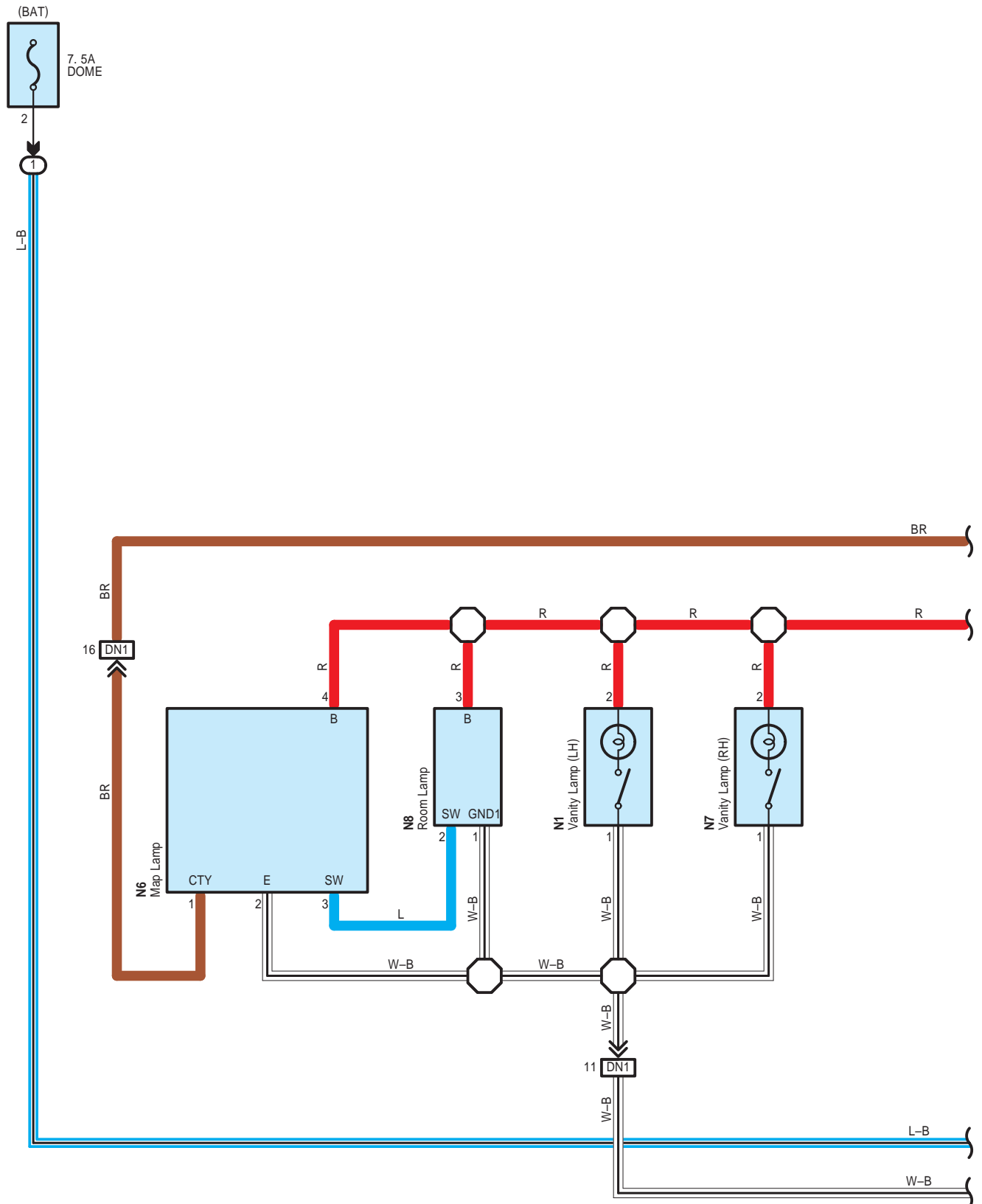
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
BA1	58	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
ED2	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
LA1	61	Floor No.2 Wire and Engine Room Main Wire (Behind the Glove Box)

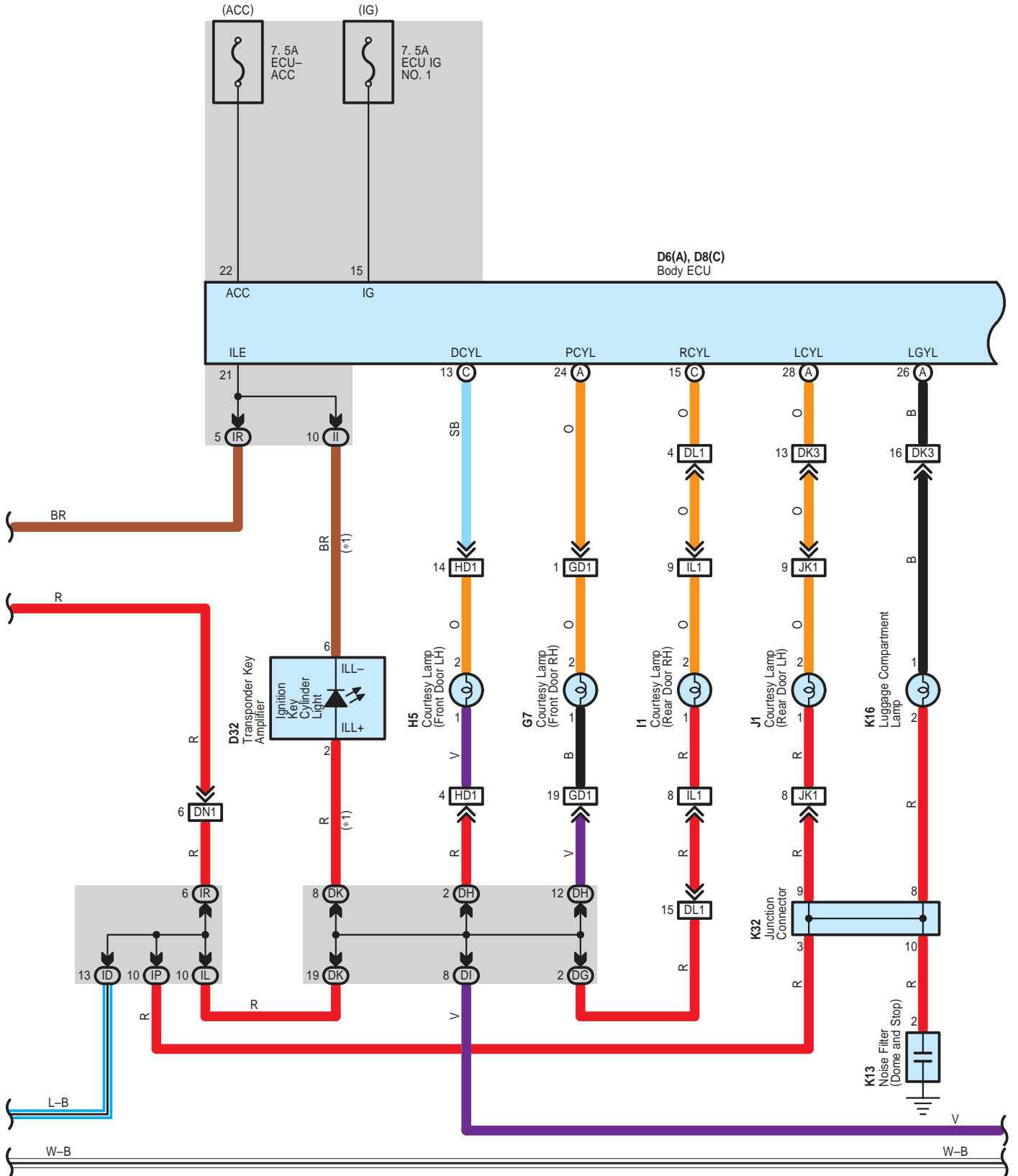
## : Ground Points

Code	See Page	Ground Points Location
A1	58	Front Left Fender
A2		
A3	60	Left Side of the Instrument Panel

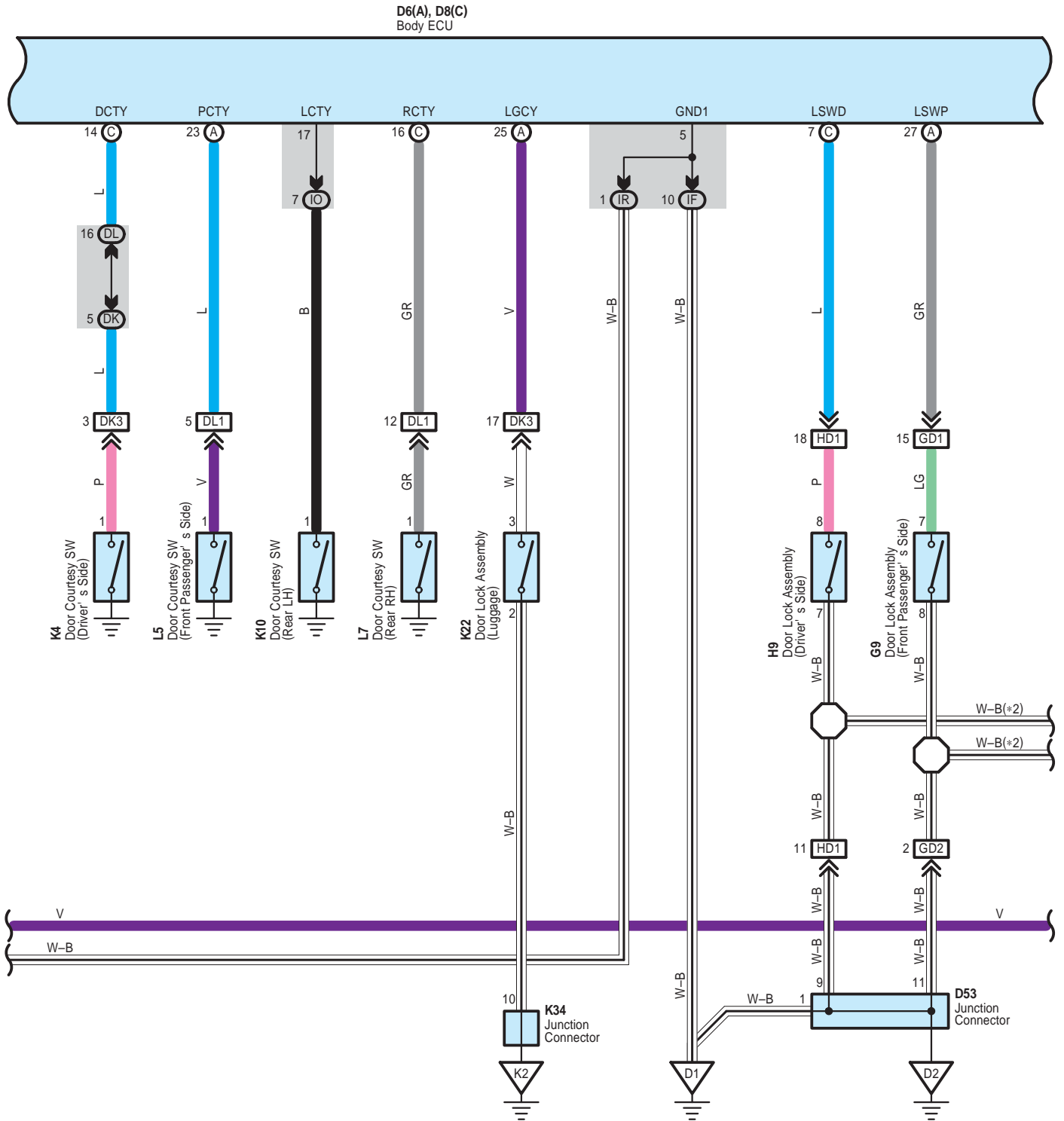


# Interior Light

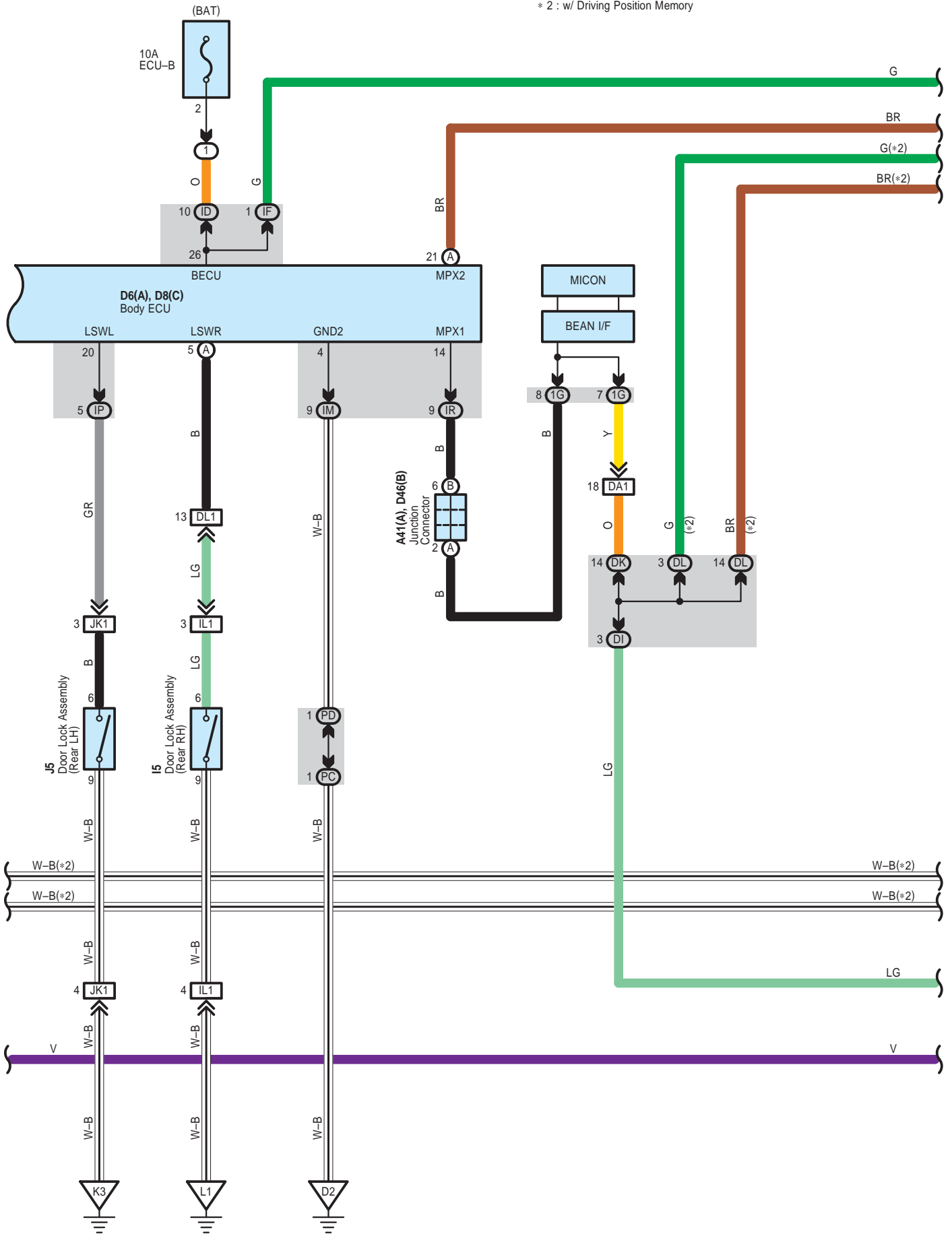




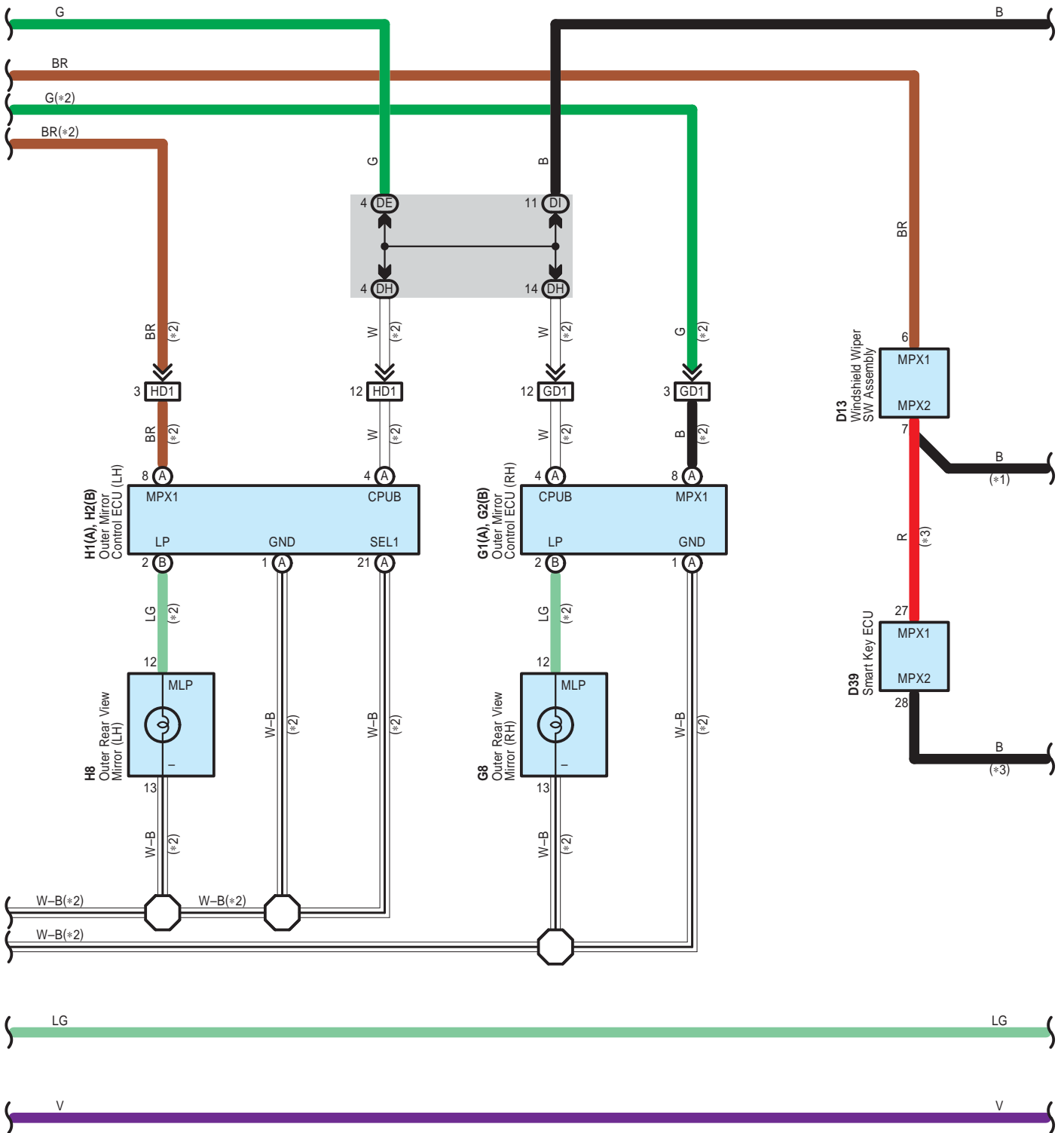
# Interior Light

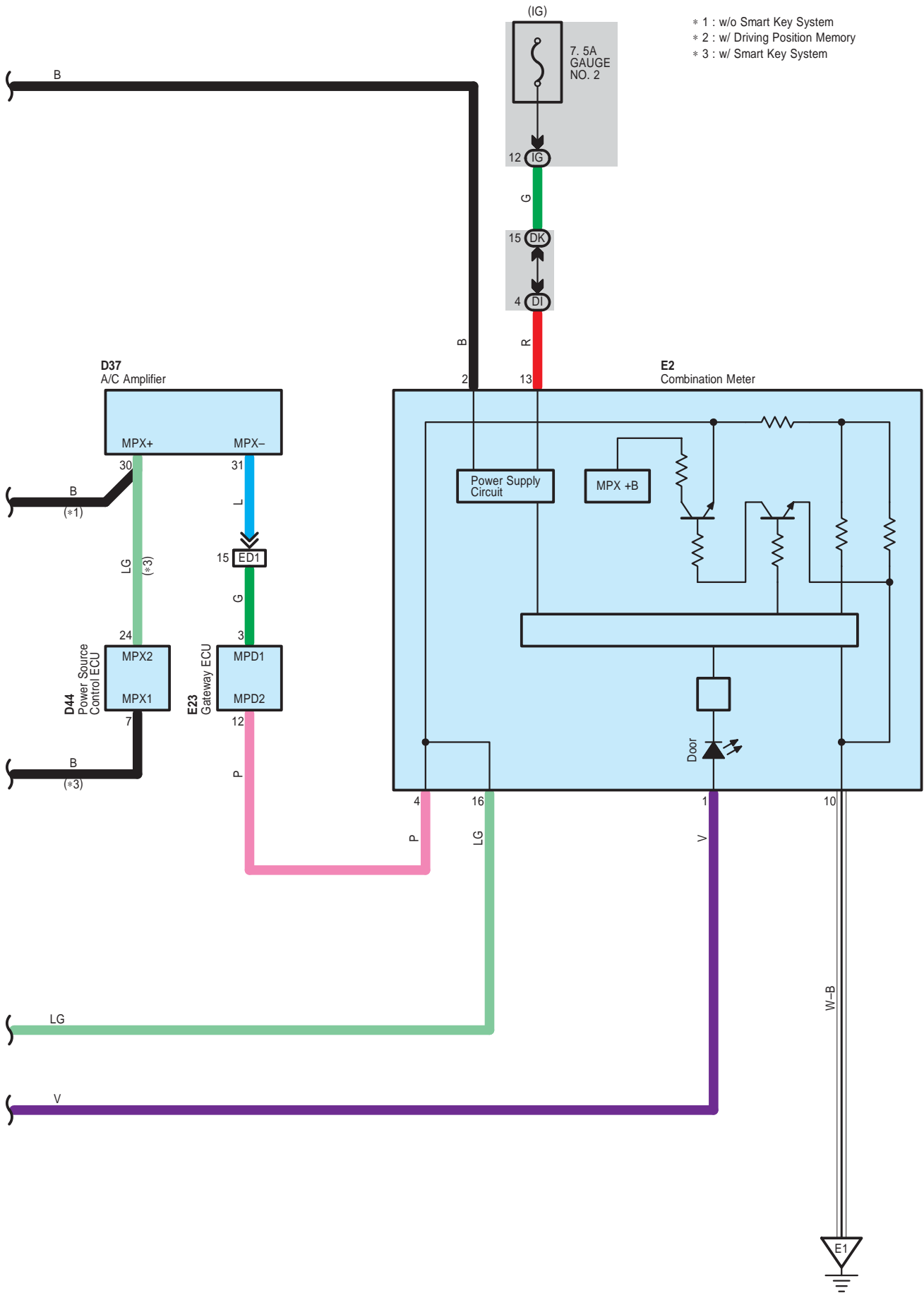


\* 2 : w/ Driving Position Memory



# Interior Light





- \* 1 : w/o Smart Key System
- \* 2 : w/ Driving Position Memory
- \* 3 : w/ Smart Key System



# Interior Light

## System Outline

### 1. Dome Light and Ignition Key Illumination Function

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

### 2. Battery Saver Function

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

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A41	A 50	G2	B 54	K4	54
D6	A 51	G7	54	K10	54
D8	C 51	G8	54	K13	54
D13	51	G9	54	K16	54
D32	51	H1	A 54	K22	55
D37	51	H2	B 54	K32	55
D39	52	H5	54	K34	55
D44	52	H8	54	L5	55
D46	B 52	H9	54	L7	55
D53	52	I1	54	N1	55
E2	52	I5	54	N6	55
E23	53	J1	54	N7	55
G1	A 54	J5	54	N8	55

## ○ : Relay Blocks

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

## ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF	31	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG		
II		
IL		
IM		
IO	30	Floor No.1 Wire and Instrument Panel J/B (Lower Finish Panel)
IP		
IR	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
PC	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PD		

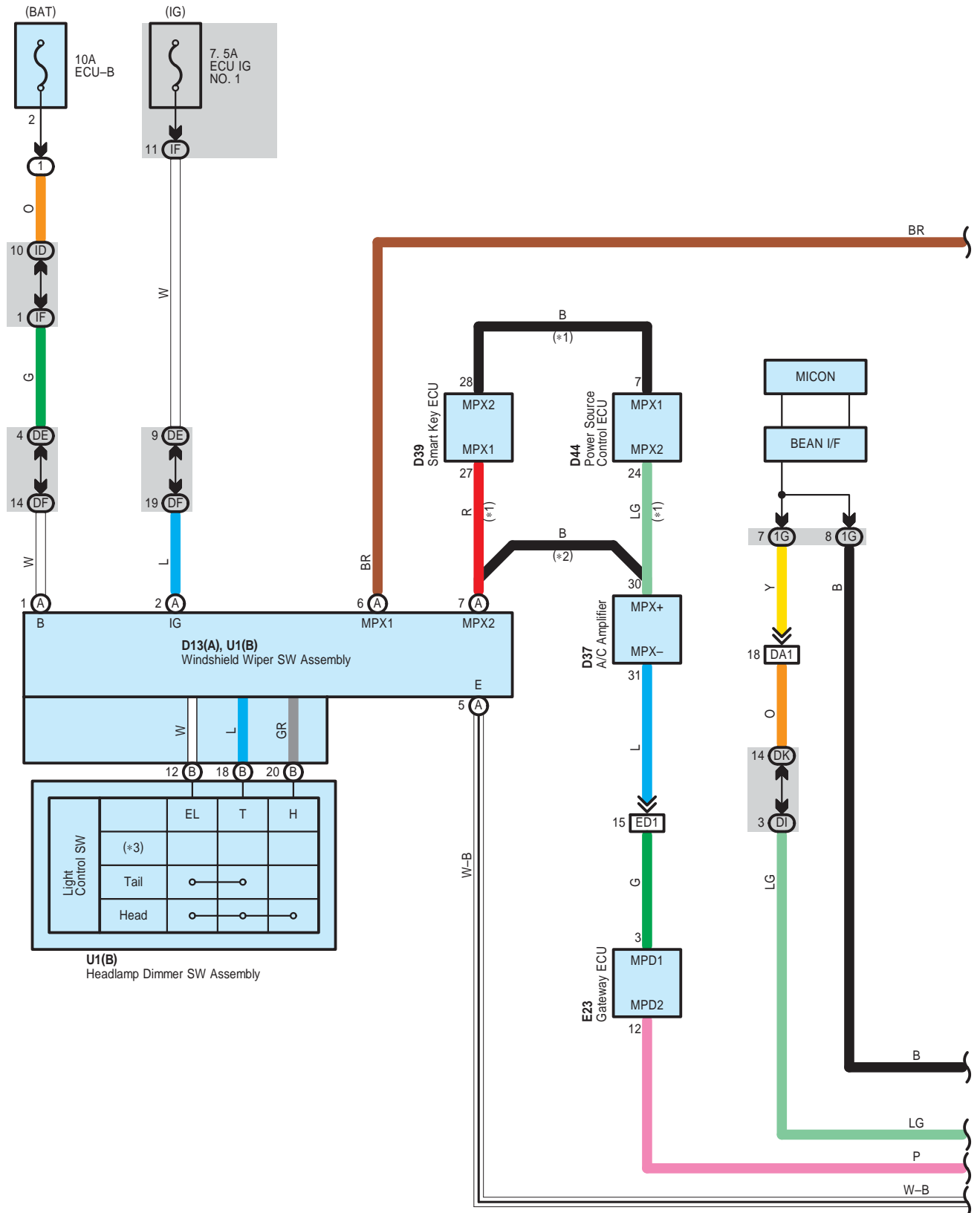
 : Connector Joining Wire Harness and Wire Harness

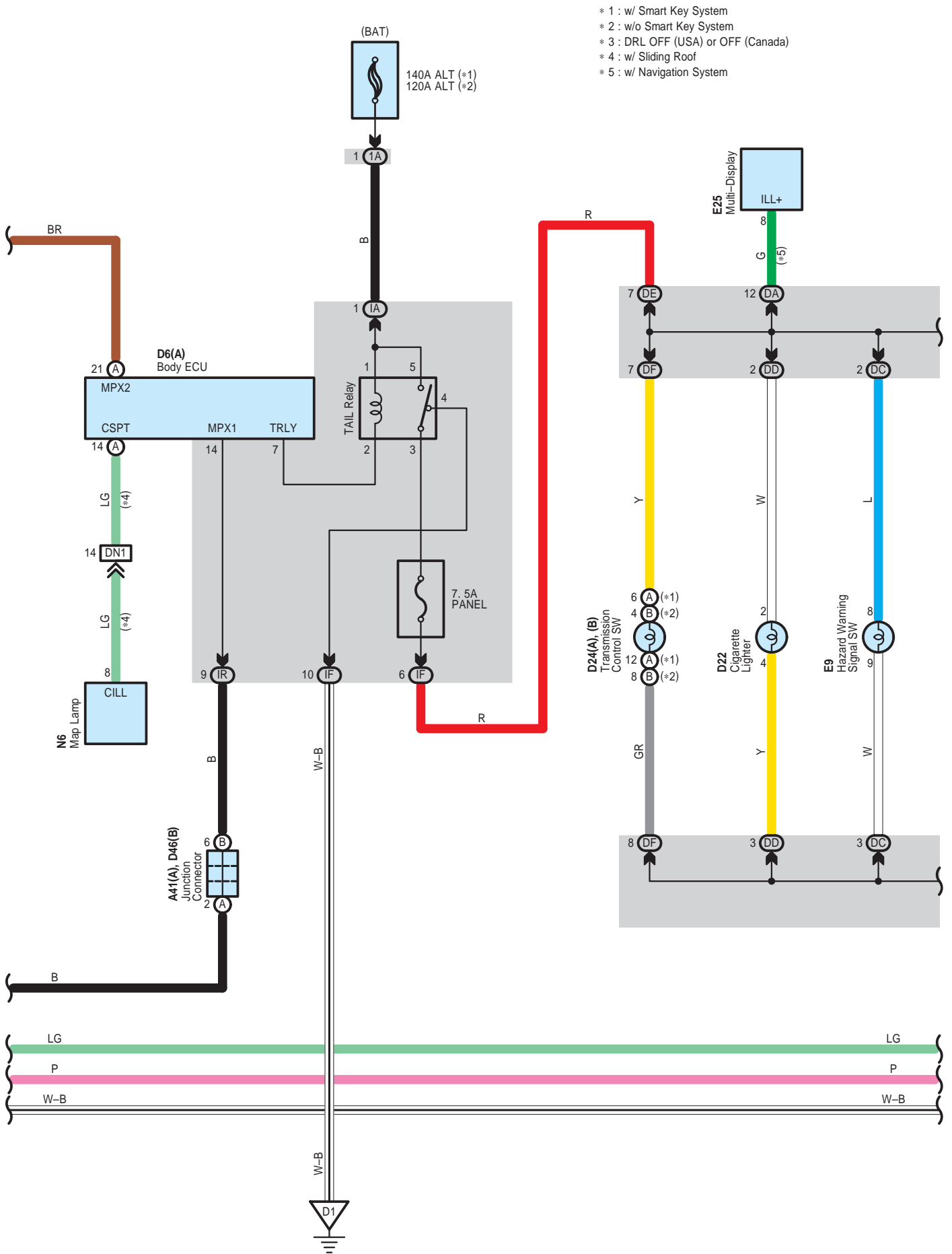
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DL1	60	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
DN1	61	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
GD1	61	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
GD2		
HD1	61	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IL1	62	Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)
JK1	62	Rear Door LH Wire and Floor No.1 Wire (Left Center Pillar)

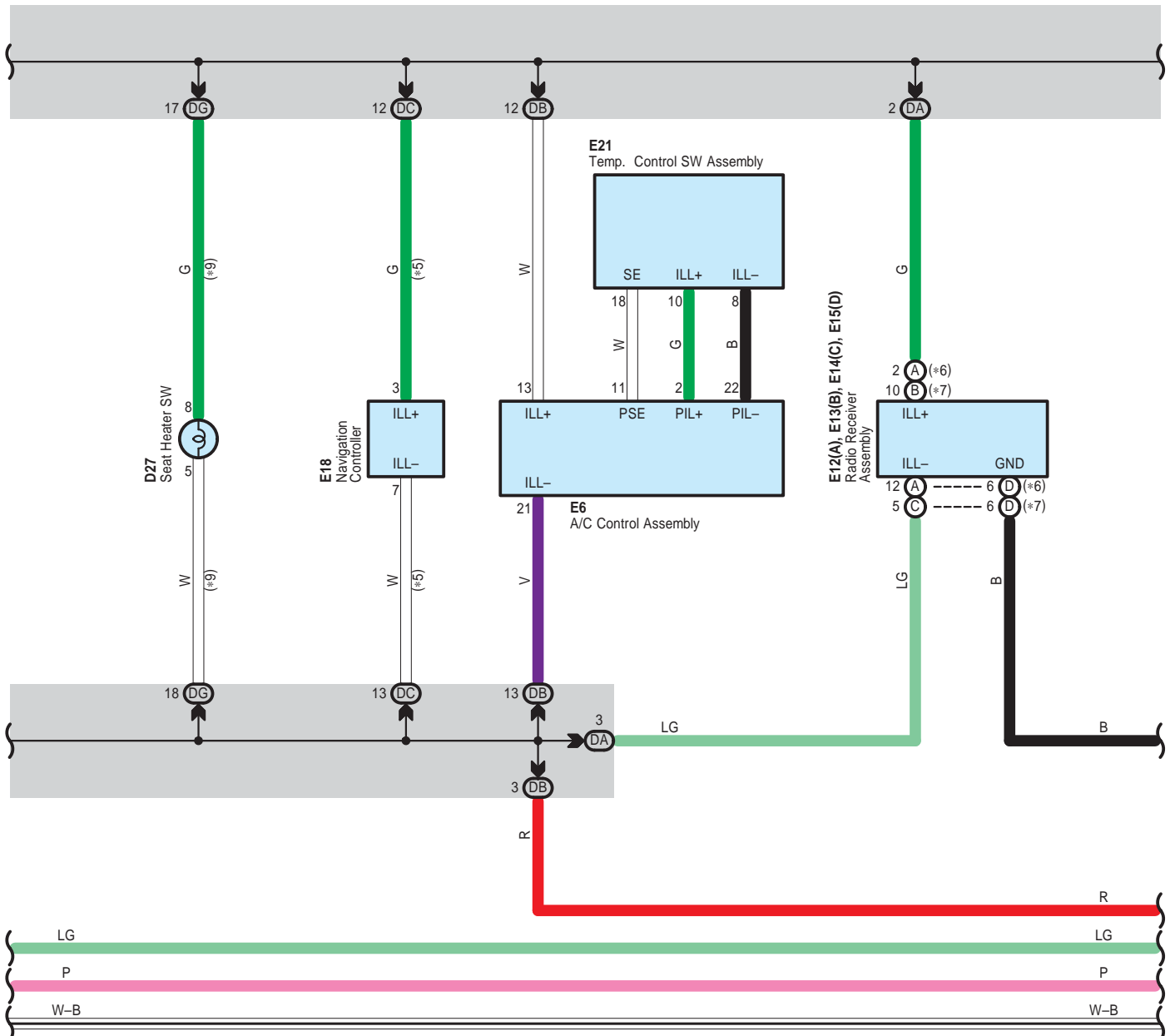
 : Ground Points

Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter
K2	62	Left Rear Quarter Panel
K3	60	Left Side of the Instrument Panel
L1	62	Right Rear Quarter Panel

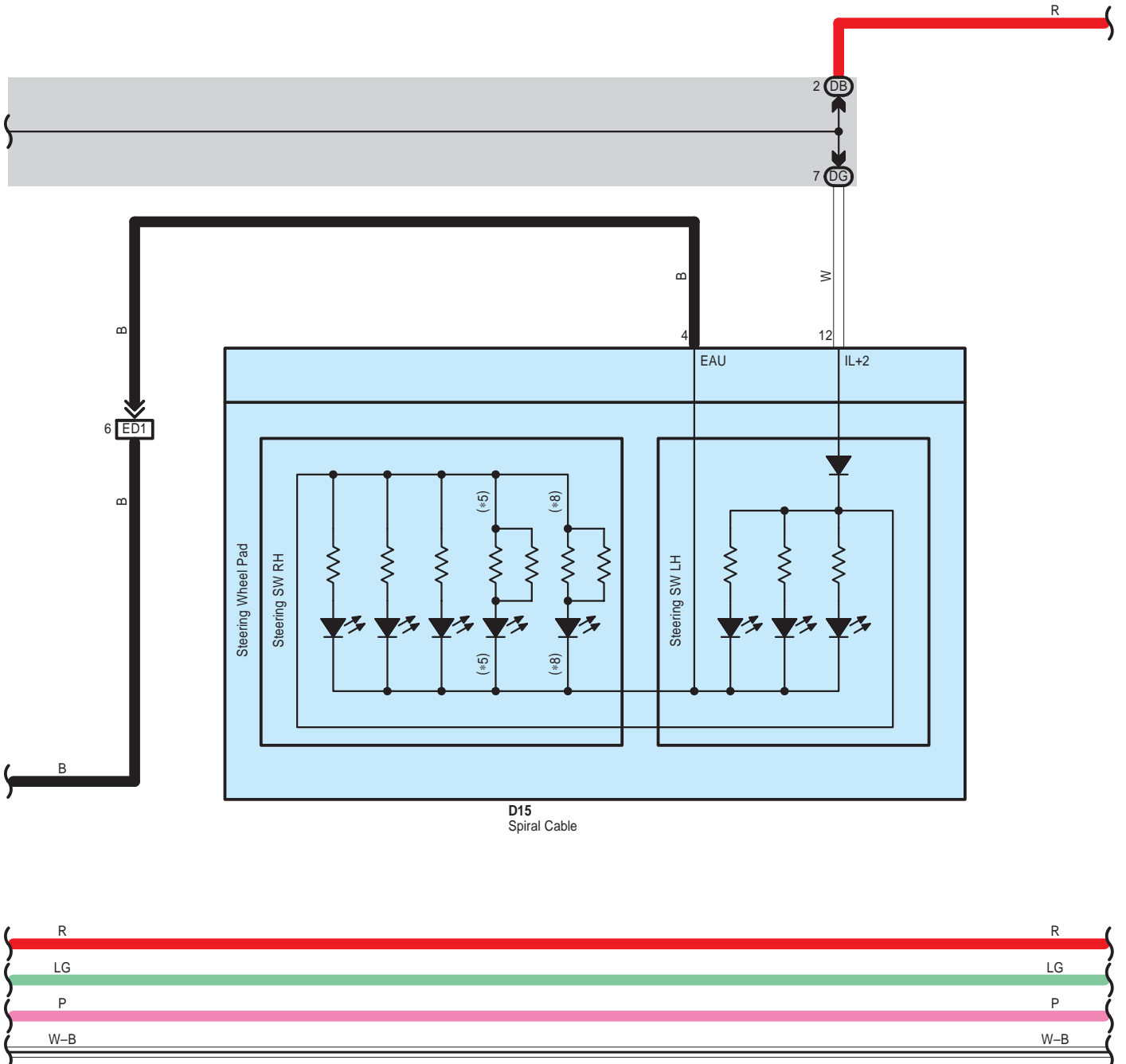
# Illumination





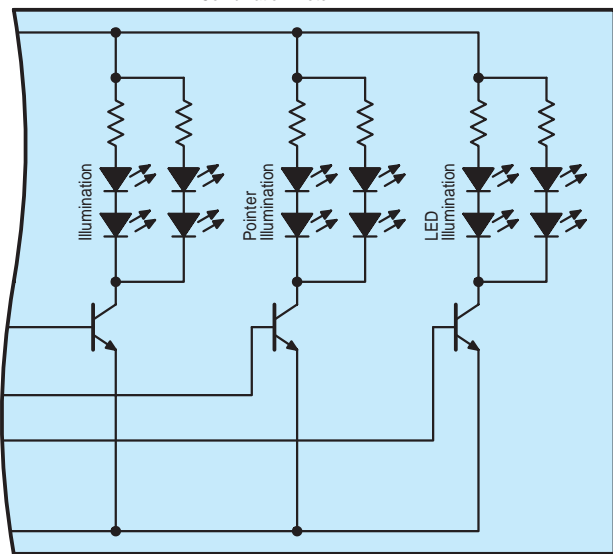


- \* 5 : w/ Navigation System
- \* 6 : 12 Speaker
- \* 7 : 9 Speaker
- \* 8 : w/ Dynamic Radar Cruise Control
- \* 9 : w/ Seat Heater





E2  
Combination Meter





# Illumination

## ○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A41	A	50	D44		52	E15	D	53
D6	A	51	D46	B	52	E18		53
D13	A	51	D53		52	E21		53
D15		51	E1		52	E22		53
D22		51	E2		52	E23		53
D24	A	51	E6		52	E25		53
	B	51	E9		52	N6		55
D27		51	E12	A	53	U1	B	53
D37		51	E13	B	53			
D39		52	E14	C	53			

## ○ : Relay Blocks

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

## ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1G	24	
DA	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DB		
DC		
DD		
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DF		
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
IA	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
IL	30	
IR		

## □ : Connector Joining Wire Harness and Wire Harness

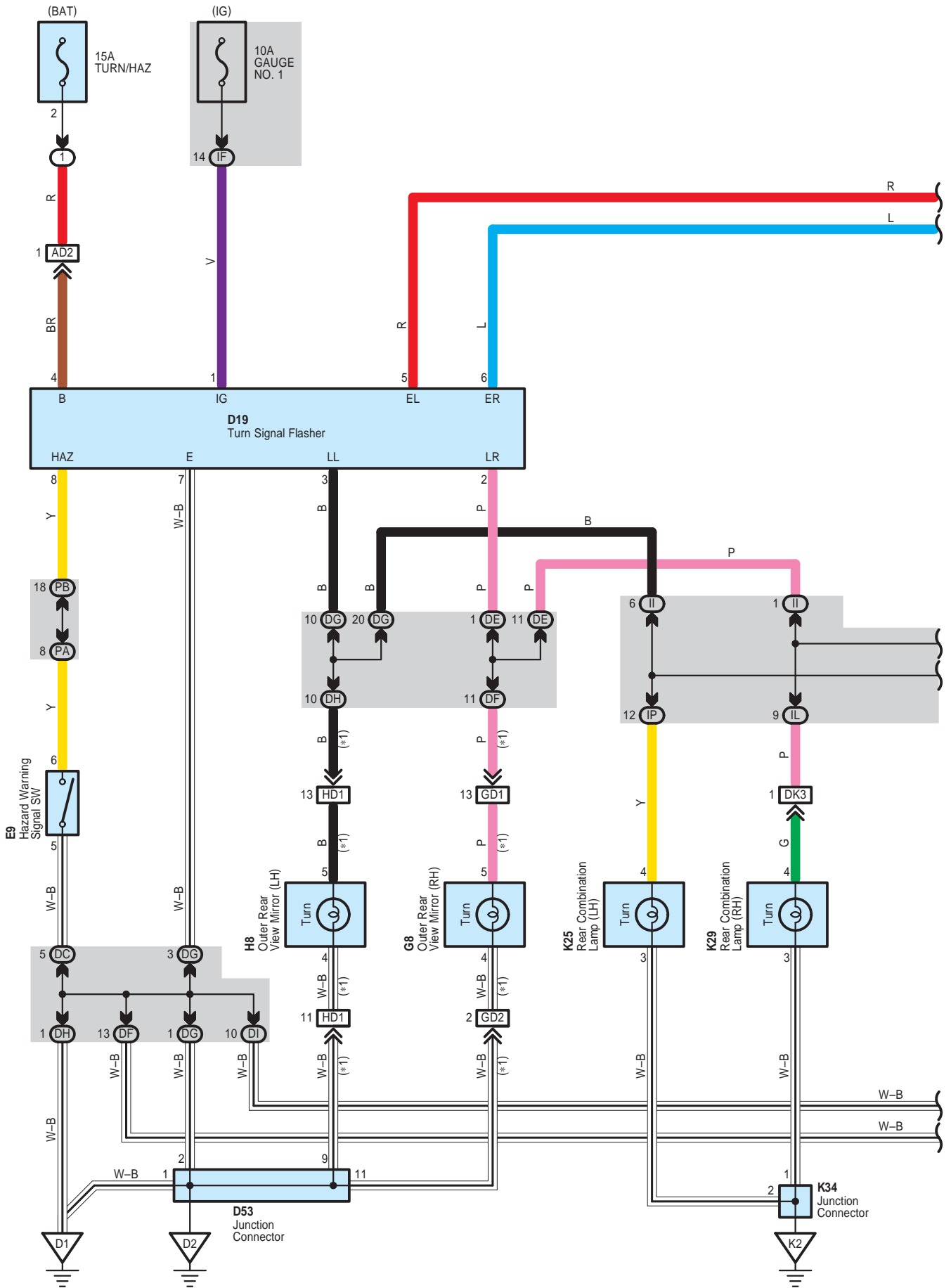
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DN1	61	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)

## ▽ : Ground Points

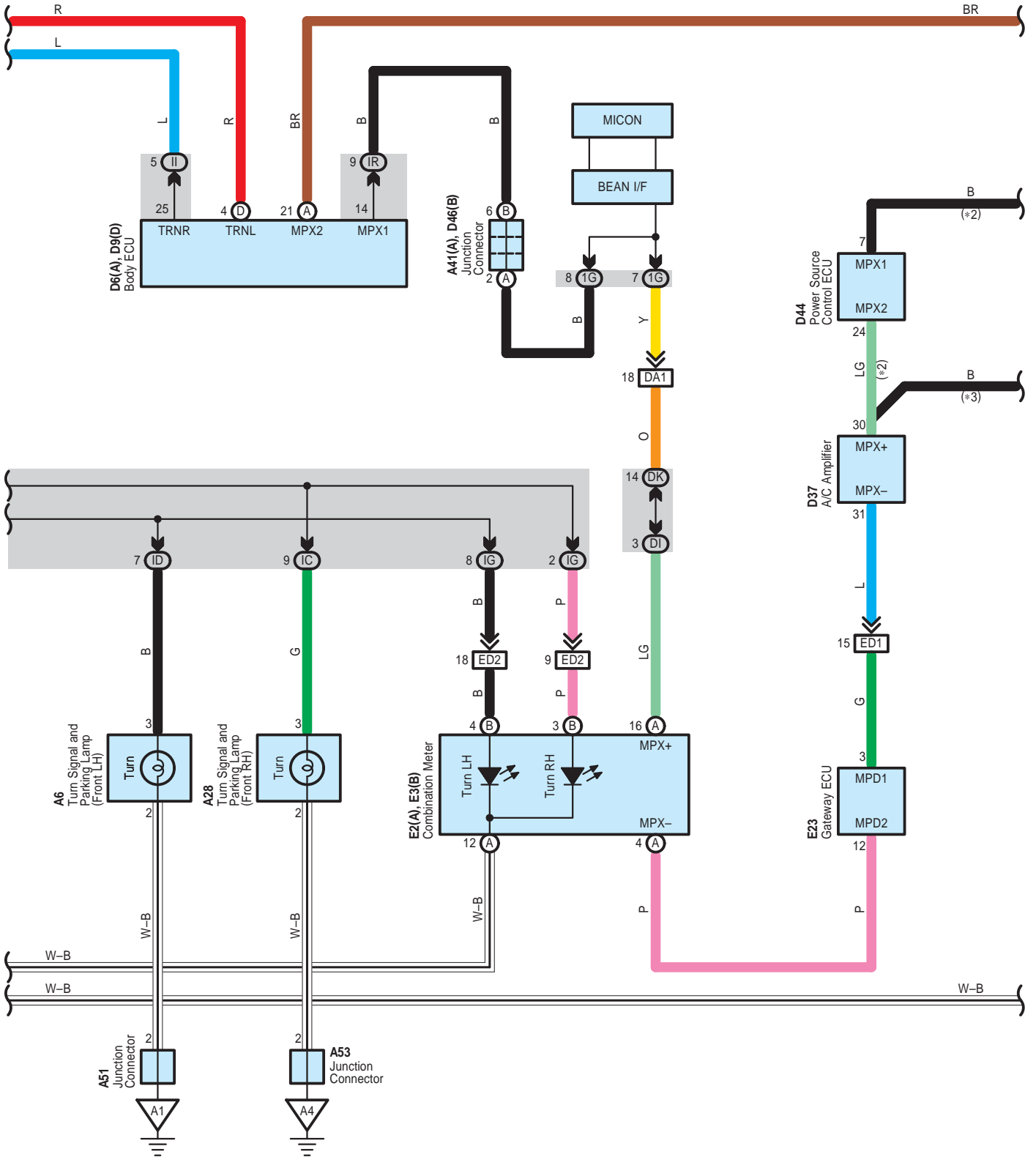
Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter



# Turn Signal and Hazard Warning Light

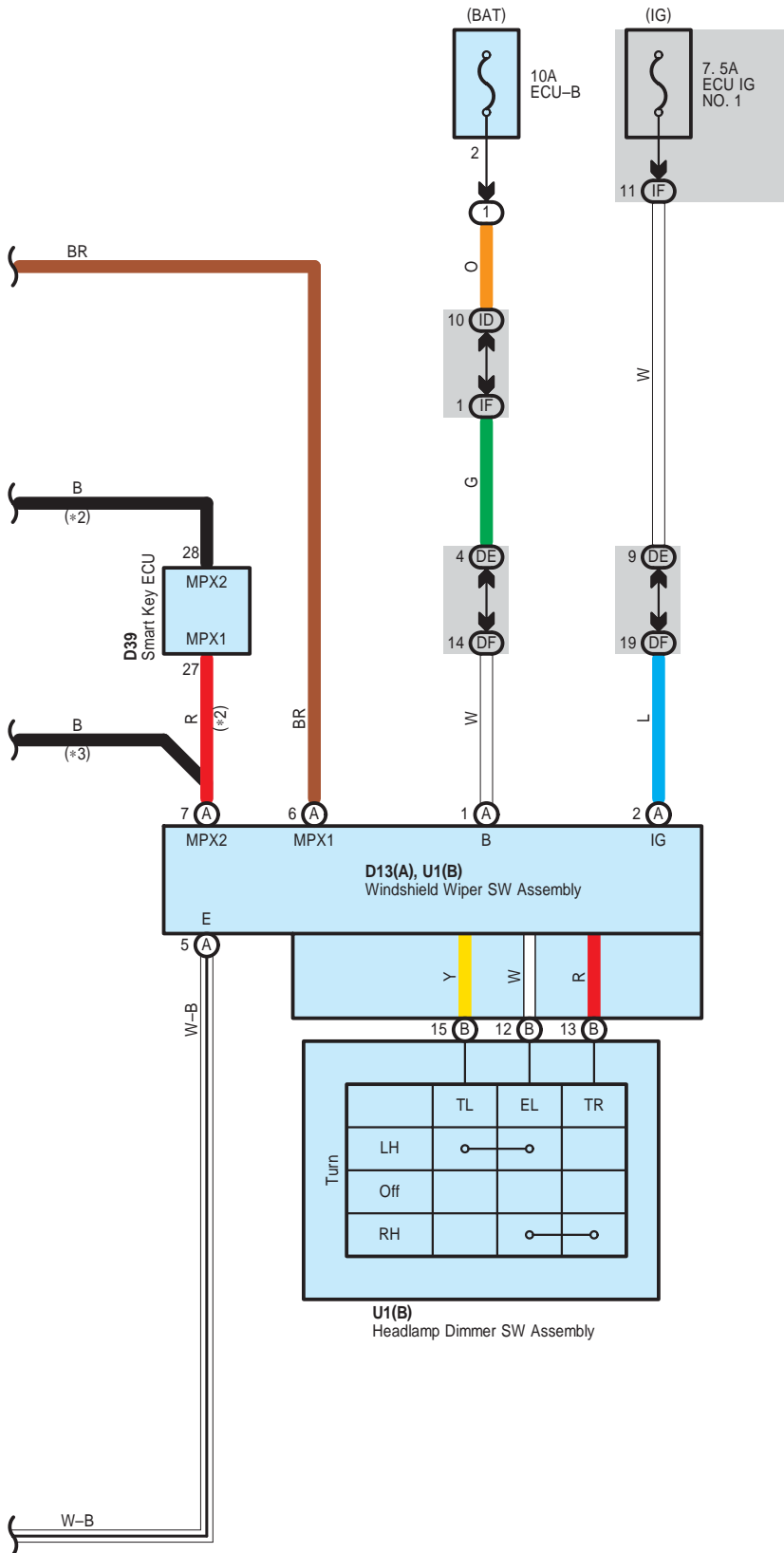


- \* 1 : w/ Driving Position Memory
- \* 2 : w/ Smart Key System
- \* 3 : w/o Smart Key System



# Turn Signal and Hazard Warning Light

- \* 2 : w/ Smart Key System
- \* 3 : w/o Smart Key System



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
A6	48	D19	51	E9	52
A28	48	D37	51	E23	53
A41	A 50	D39	52	G8	54
A51	48	D44	52	H8	54
A53	48	D46	B 52	K25	55
D6	A 51	D53	52	K29	55
D9	D 51	E2	A 52	K34	55
D13	A 51	E3	B 52	U1	B 53

 : Relay Blocks

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

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DC	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DF		
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
IC	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
II		
IL	30	
IP	30	Floor No.1 Wire and Instrument Panel J/B (Lower Finish Panel)
IR	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
PA	42	Instrument Panel No.2 Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)

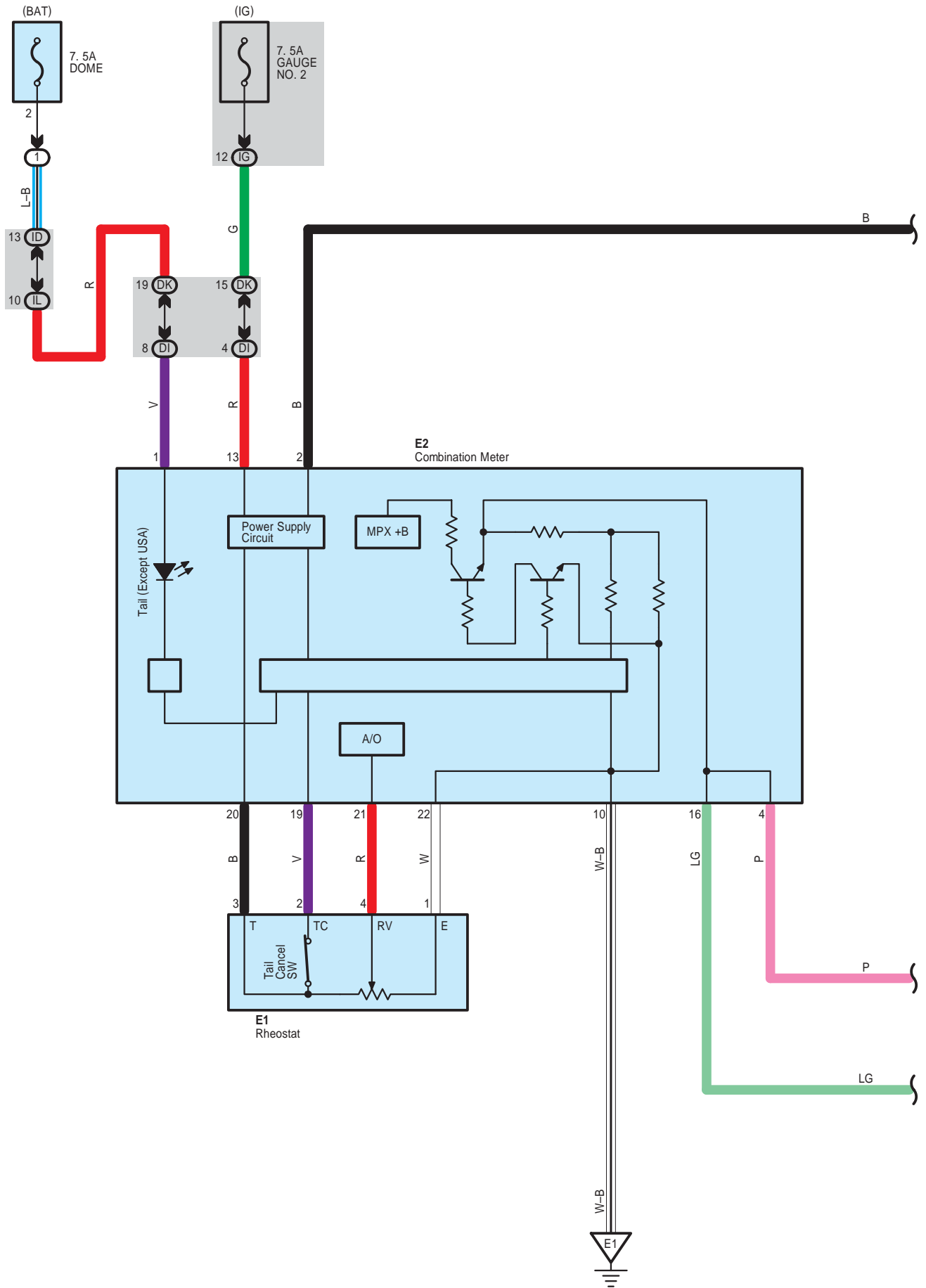
 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD2	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
ED2		
GD1	61	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
GD2		
HD1	61	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)

 : Ground Points

Code	See Page	Ground Points Location
A1	58	Front Left Fender
A4	58	Near the Skid Control ECU with Actuator
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
K2	62	Left Rear Quarter Panel

# Taillight

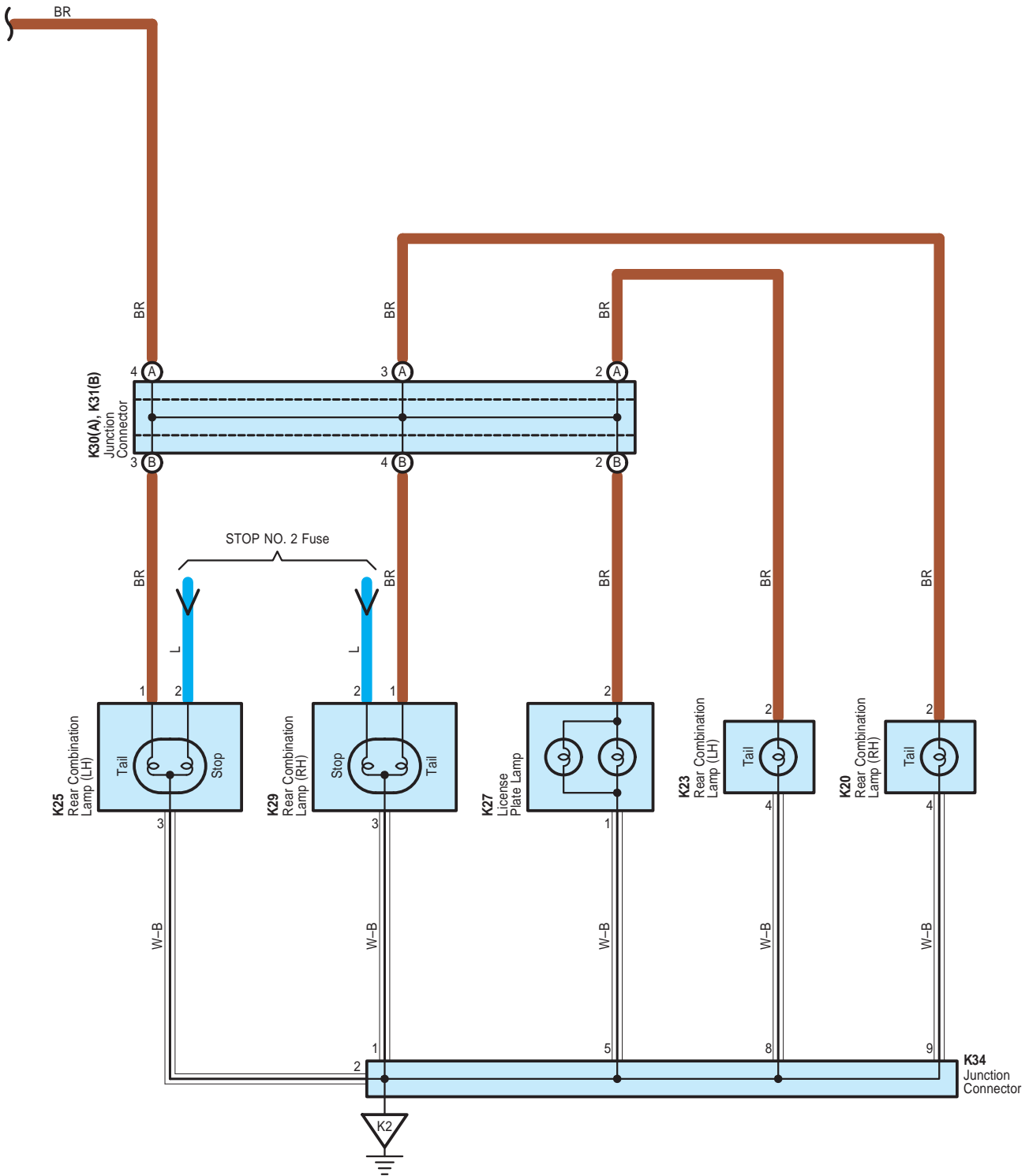








- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System



# Taillight

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A6	48	D37	51	K23	55
A7	48	D39	52	K25	55
A28	48	D44	52	K27	55
A29	48	D46	B 52	K29	55
A41	A 50	D53	52	K30	A 55
A51	48	E1	52	K31	B 55
A53	48	E2	52	K34	55
D6	A 51	E23	53	U1	B 53
D13	A 51	K20	55		

## ○ : Relay Blocks

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

## ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1G	24	
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DF		
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
IA	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IC		
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
IL	30	
IP	30	Floor No.1 Wire and Instrument Panel J/B (Lower Finish Panel)
IR	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)

## □ : Connector Joining Wire Harness and Wire Harness

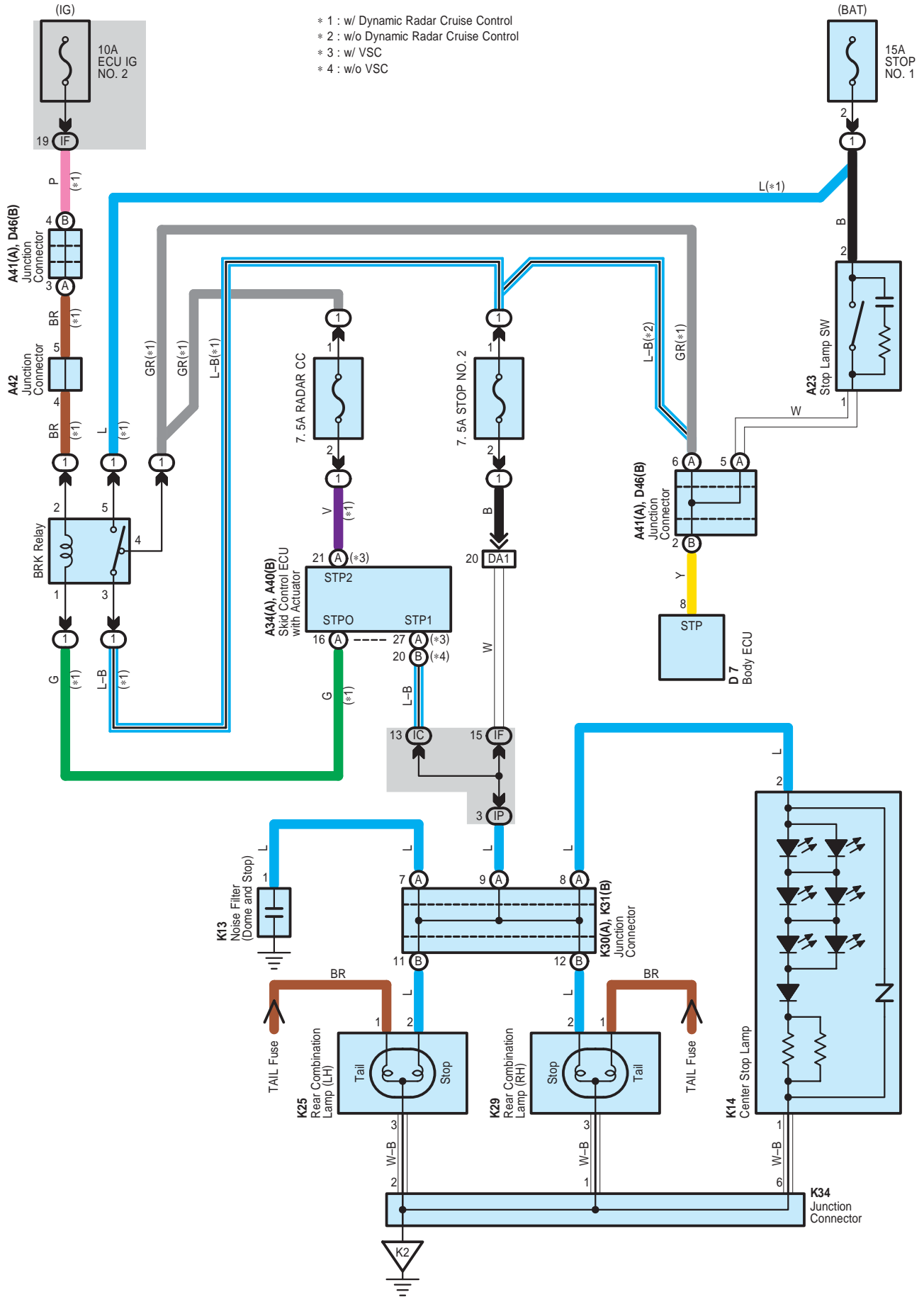
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)

## ▽ : Ground Points

Code	See Page	Ground Points Location
A1	58	Front Left Fender
A4	58	Near the Skid Control ECU with Actuator
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter
K2	62	Left Rear Quarter Panel



# Stop Light



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
A23	50	D7	51	K29	55
A34	A 48	D46	B 52	K30	A 55
A40	B 48	K13	54	K31	B 55
A41	A 50	K14	54	K34	55
A42	50	K25	55		

 : **Relay Blocks**

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

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
IC	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IP	30	Floor No.1 Wire and Instrument Panel J/B (Lower Finish Panel)

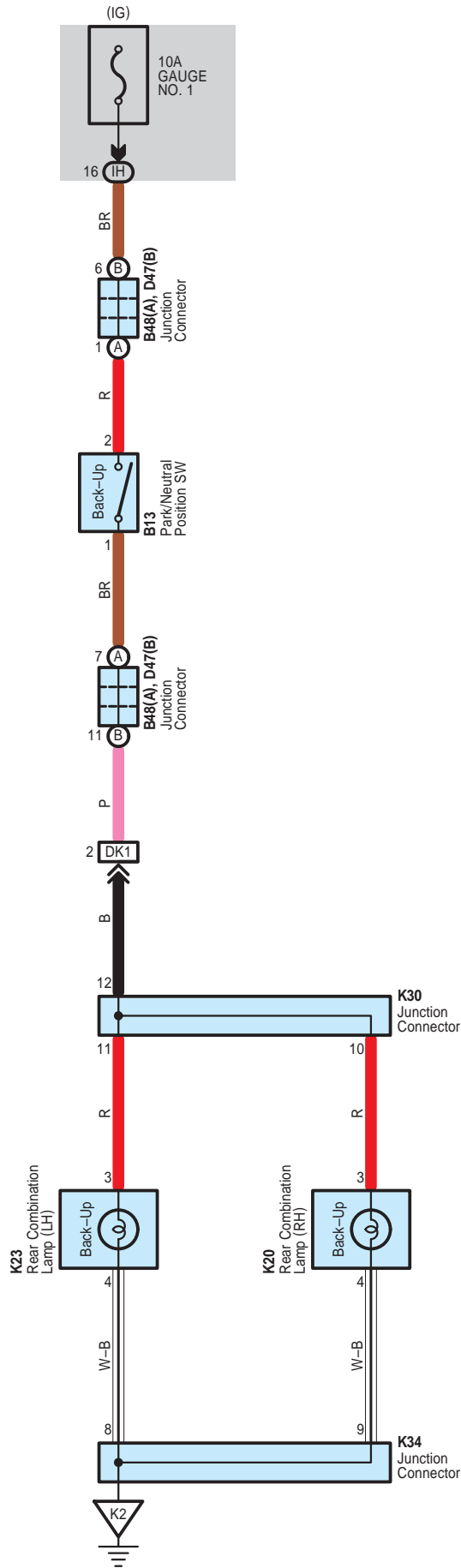
 : **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)

 : **Ground Points**

Code	See Page	Ground Points Location
K2	62	Left Rear Quarter Panel

# Back-Up Light



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
B13	49	K20	55	K34	55
B48	A 50	K23	55		
D47	B 52	K30	55		

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
IH	31	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)

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

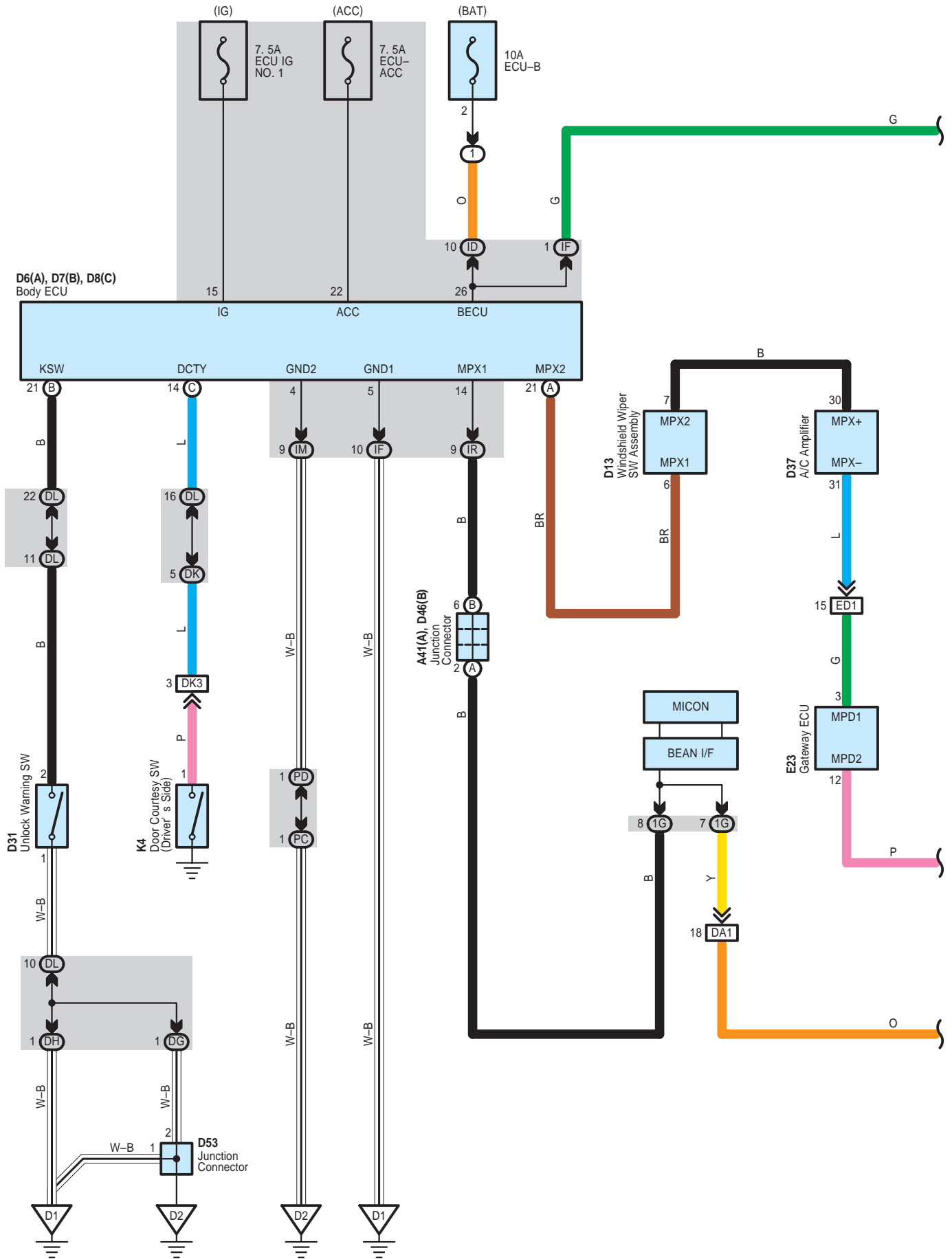
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DK1	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)

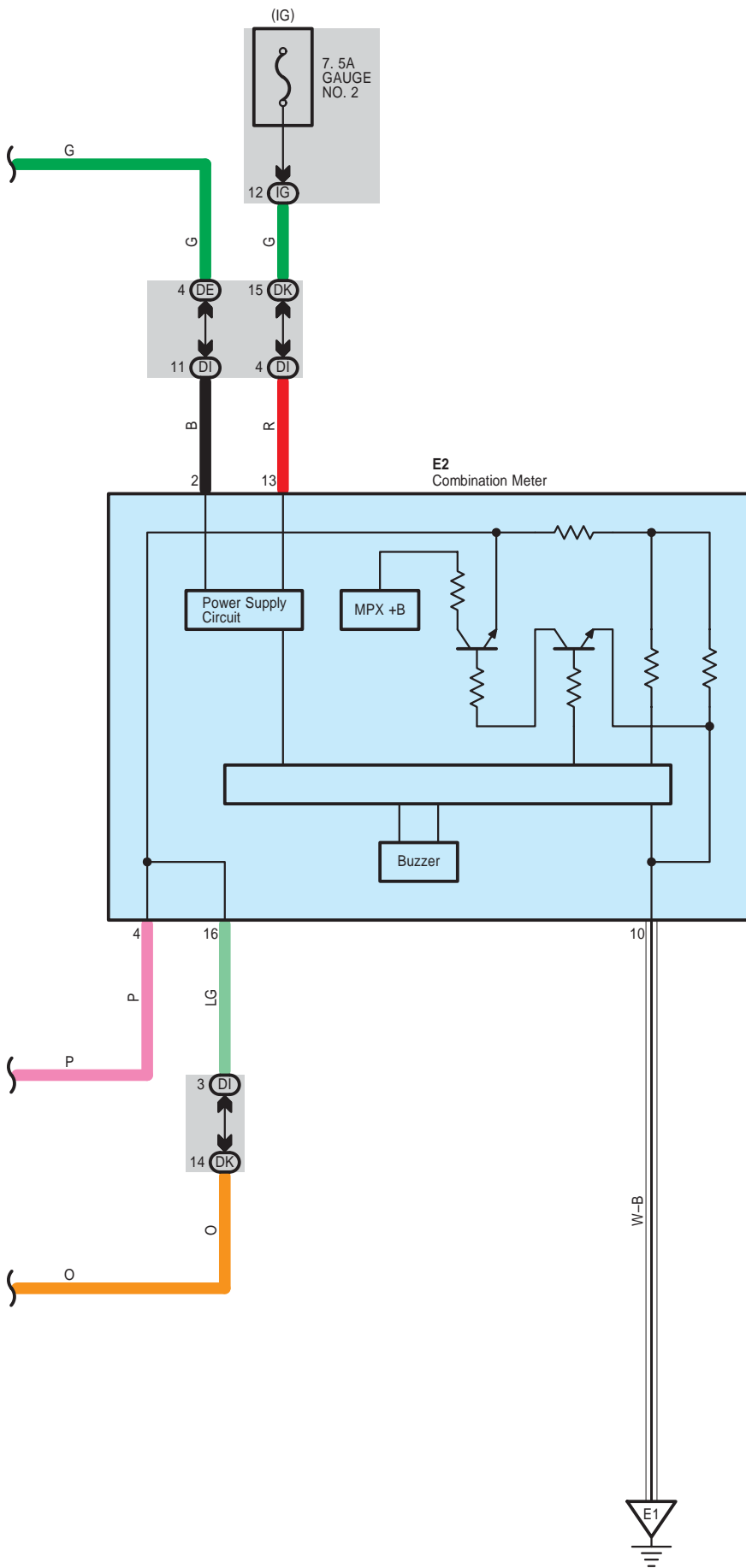
 : **Ground Points**

Code	See Page	Ground Points Location
K2	62	Left Rear Quarter Panel



# Key Reminder





# Key Reminder

## System Outline

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

## ○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A41	A	50	D13	51	D53	52		
D6	A	51	D31	51	E2	52		
D7	B	51	D37	51	E23	53		
D8	C	51	D46	B	52	K4	54	

## ○ : Relay Blocks

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

## ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
IM	30	
IR		
PC	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PD		

## □ : Connector Joining Wire Harness and Wire Harness

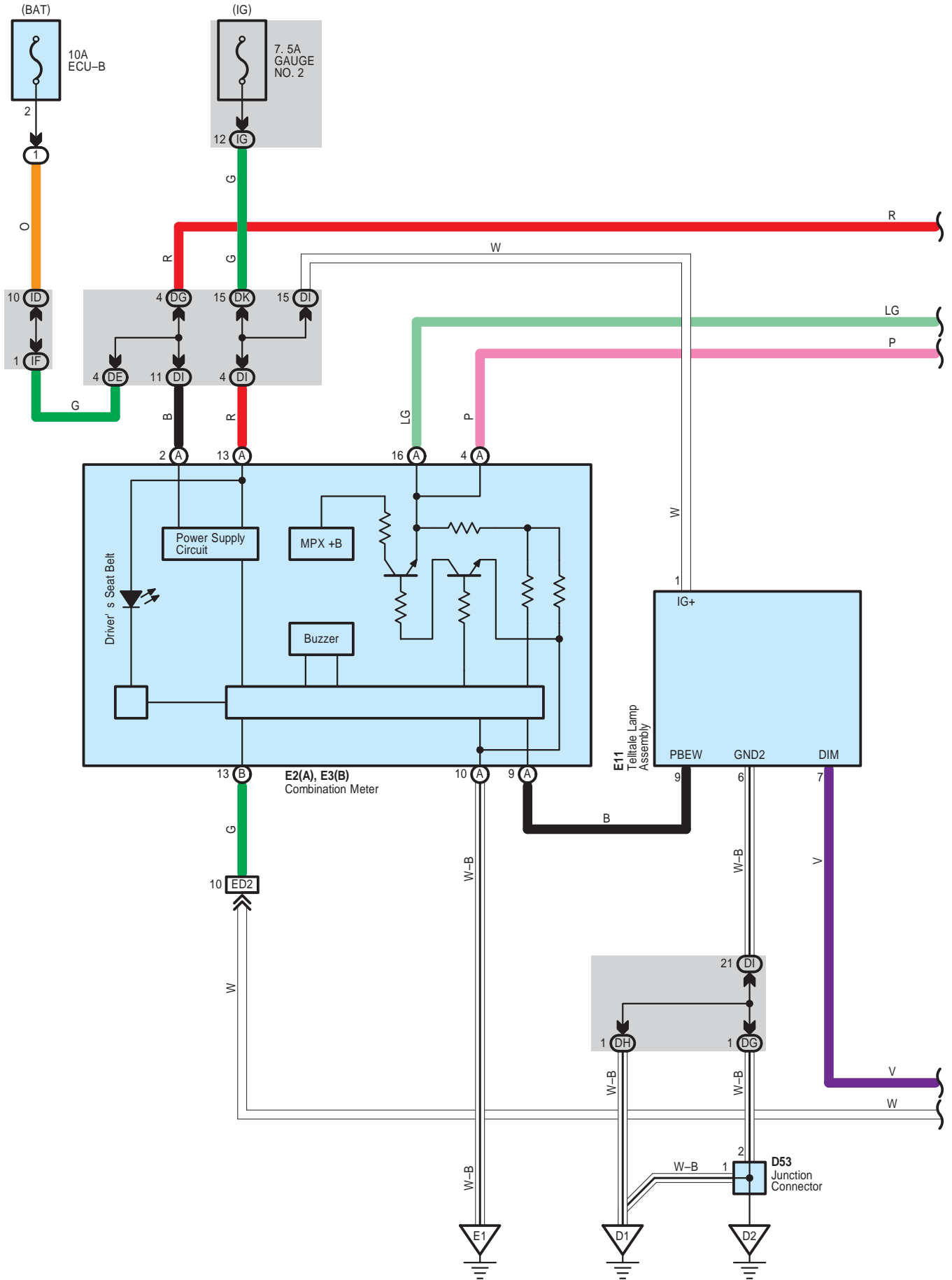
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)

## ▽ : Ground Points

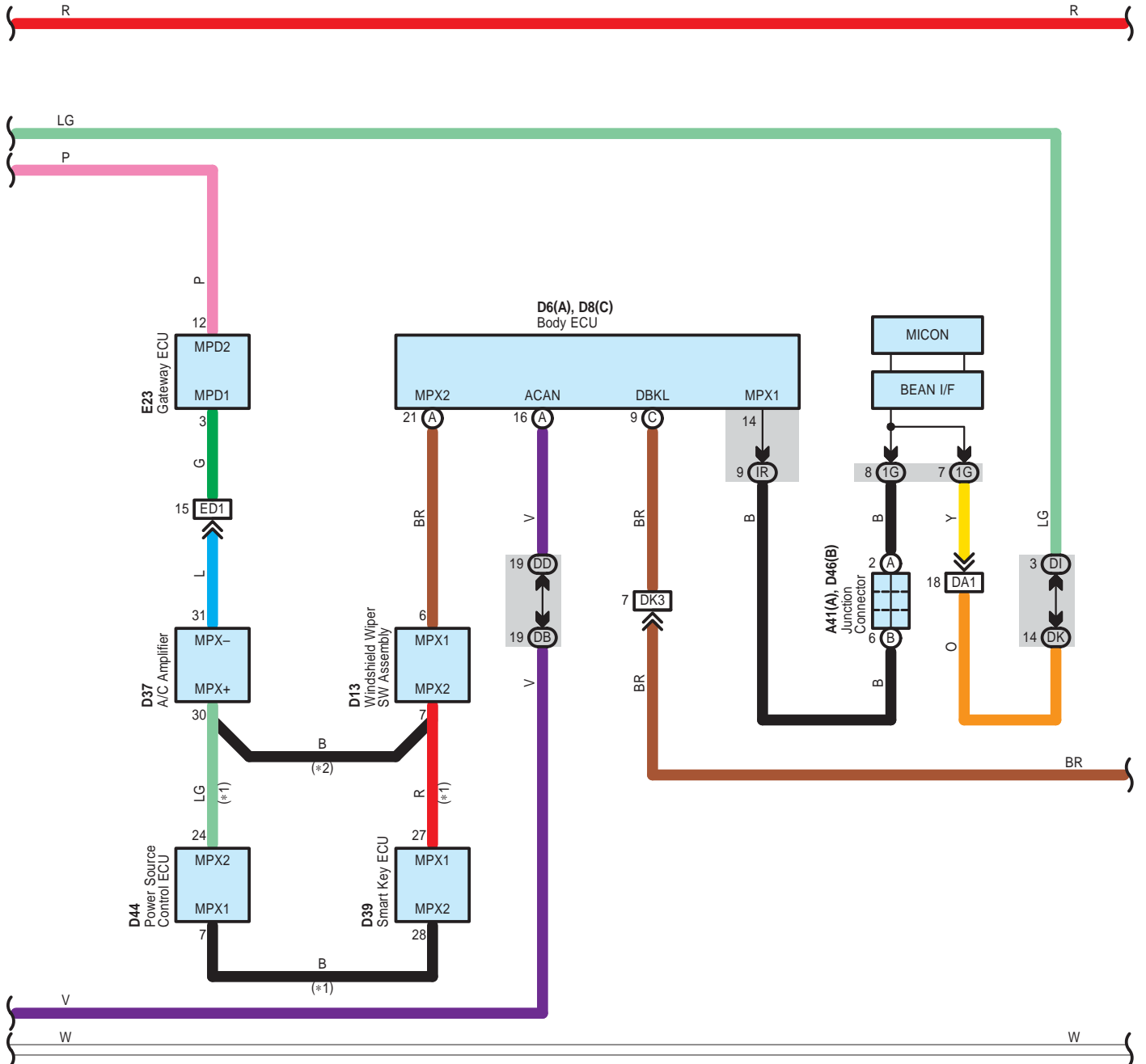
Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter



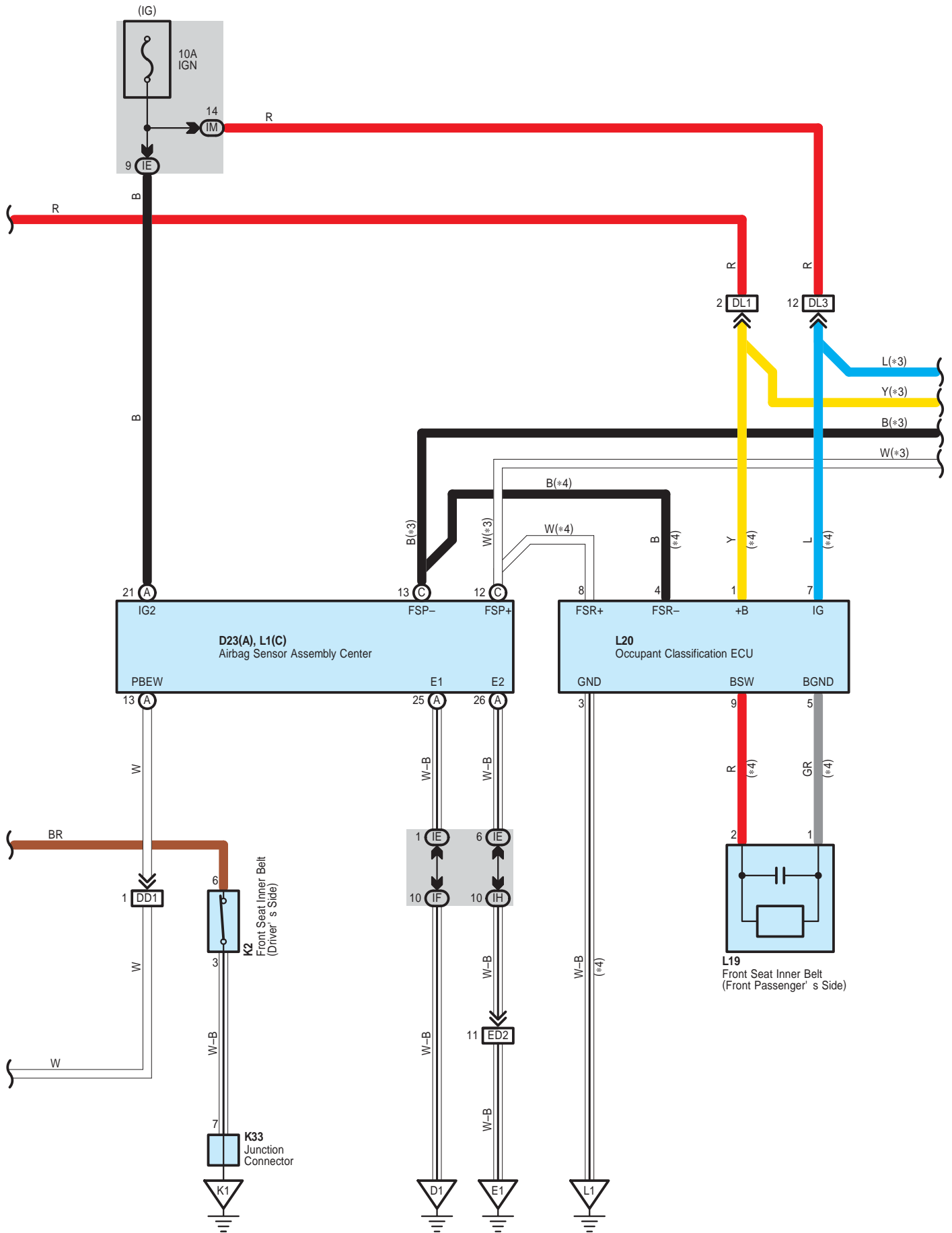
# Seat Belt Warning



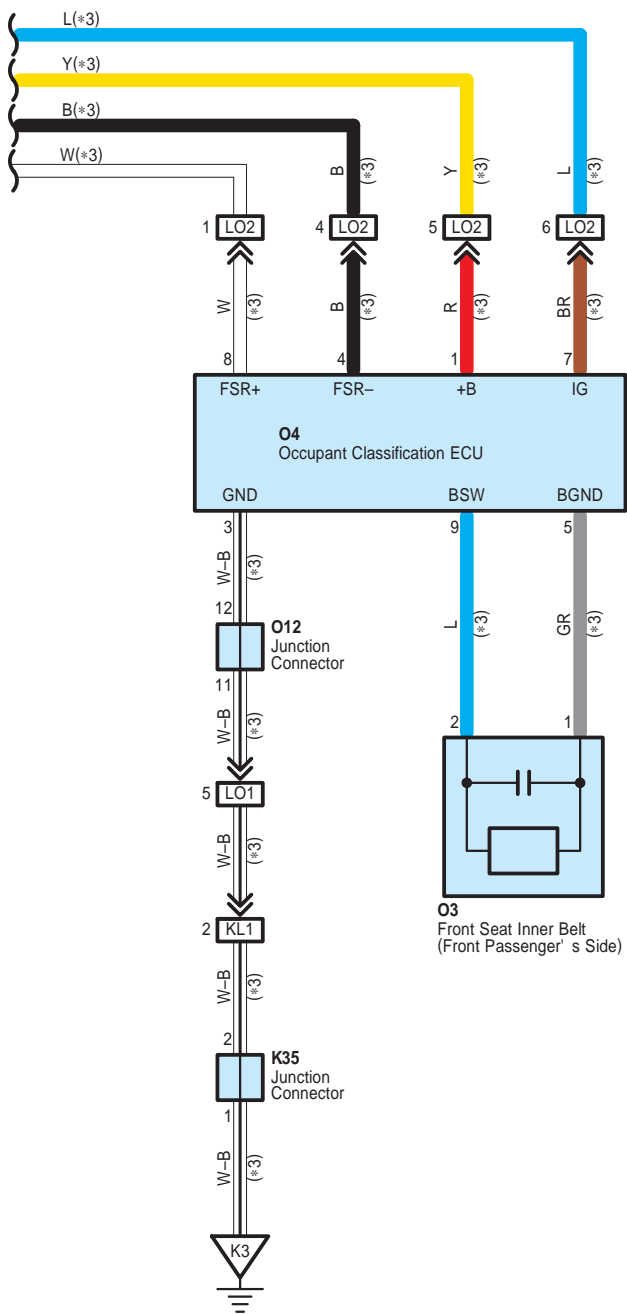
\* 1 : w/ Smart Key System  
 \* 2 : w/o Smart Key System



# Seat Belt Warning



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





# Seat Belt Warning

## System Outline

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

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A41	A 50	D46	B 52	K35	56
D6	A 51	D53	52	L1	C 53
D8	C 51	E2	A 52	L19	56
D13	51	E3	B 52	L20	56
D23	A 51	E11	52	O3	56
D37	51	E23	53	O4	56
D39	52	K2	56	O12	56
D44	52	K33	55		

## ○ : Relay Blocks

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

## ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DB	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DE		
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IE	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IF		
IG	31	
IH		
IM	30	
IR		

## □ : Connector Joining Wire Harness and Wire Harness

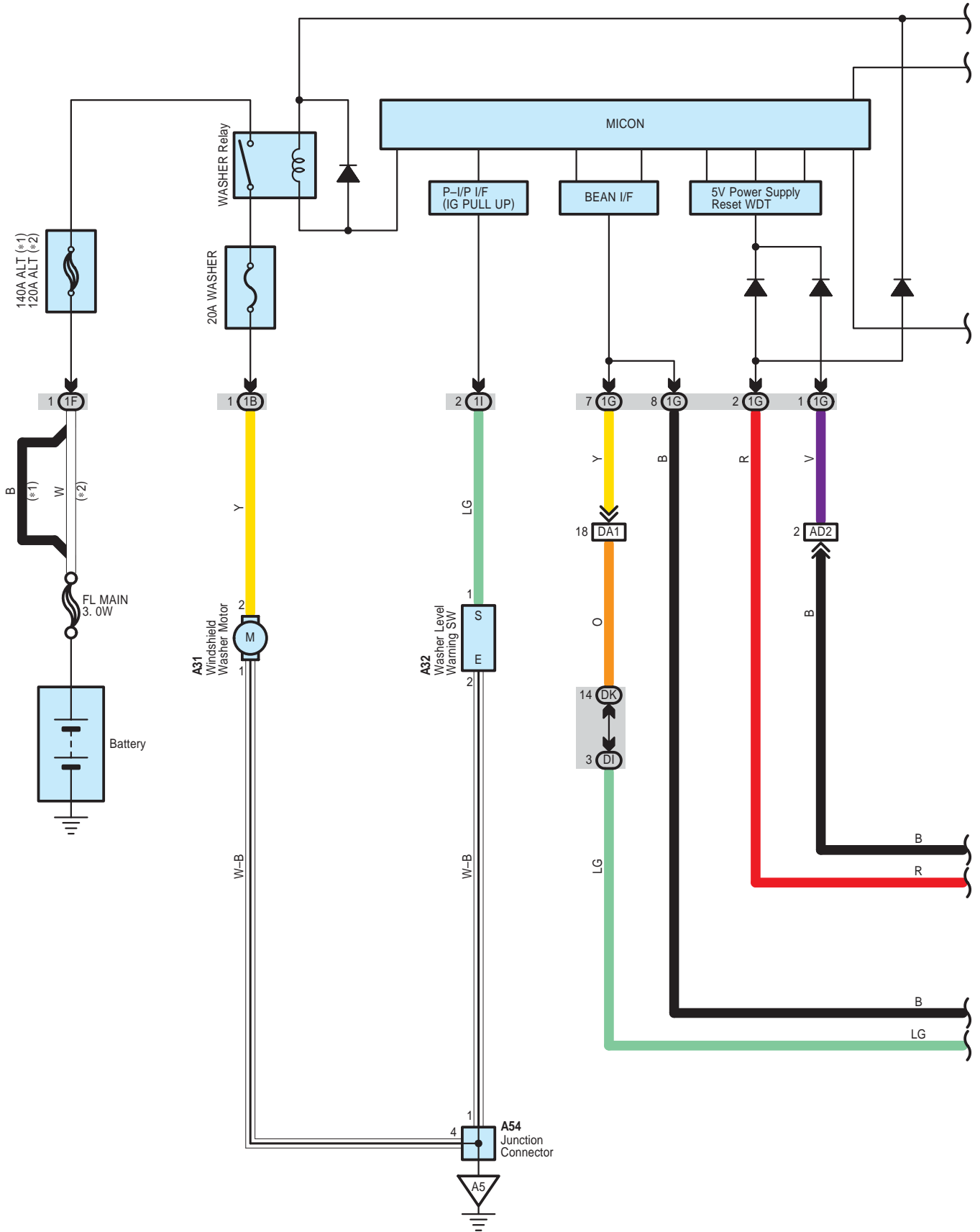
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DD1	60	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Center)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DL1	60	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
DL3		
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
ED2		
KL1	61	Floor No.1 Wire and Floor No.2 Wire (Under the Console Box)
LO1	63	Floor No.2 Wire and Front Seat RH Wire (Under the Front Passenger's Seat)
LO2		



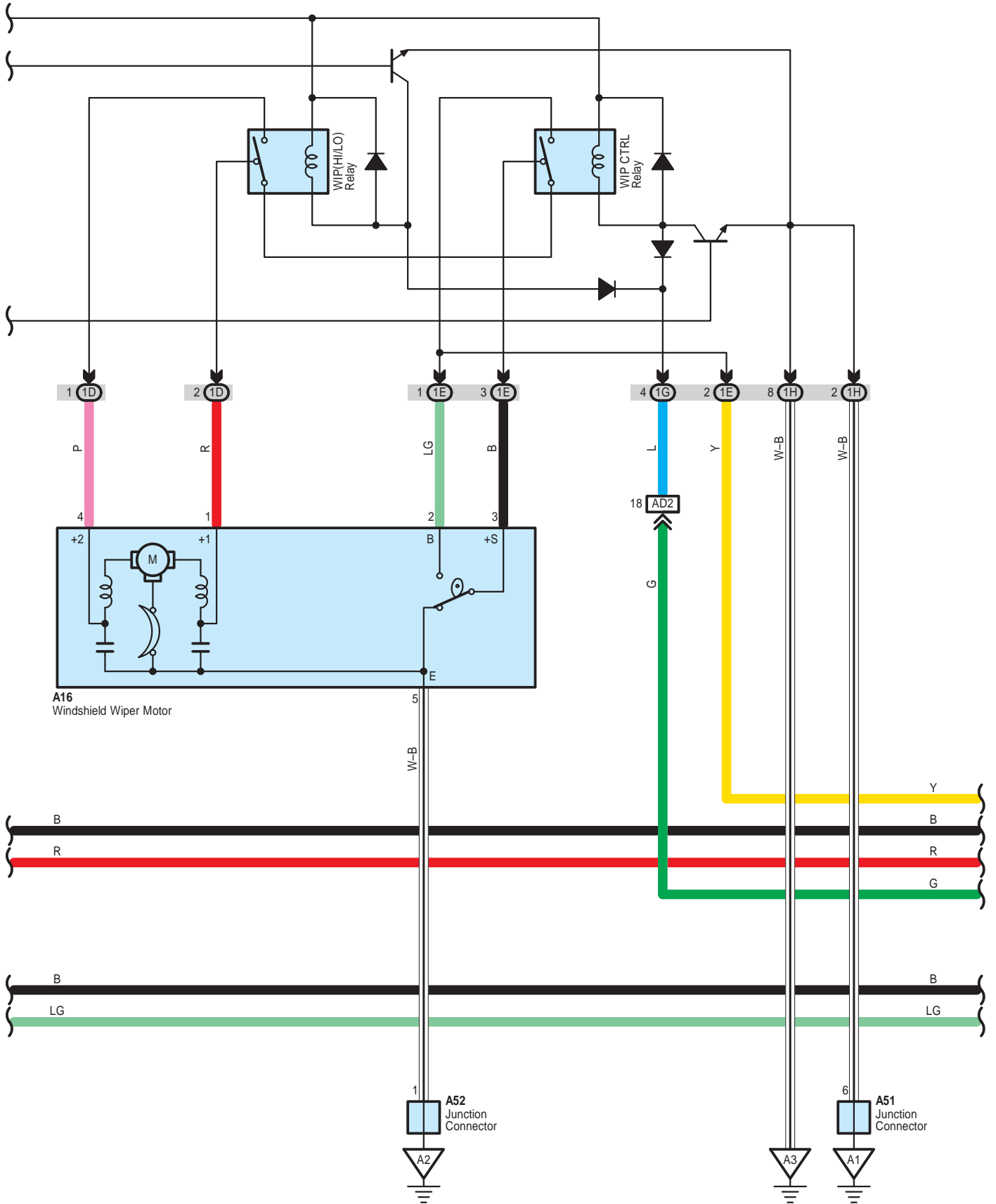
**: Ground Points**

Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter
K1	62	Left Rear Quarter Panel
K3	60	Left Side of the Instrument Panel
L1	62	Right Rear Quarter Panel

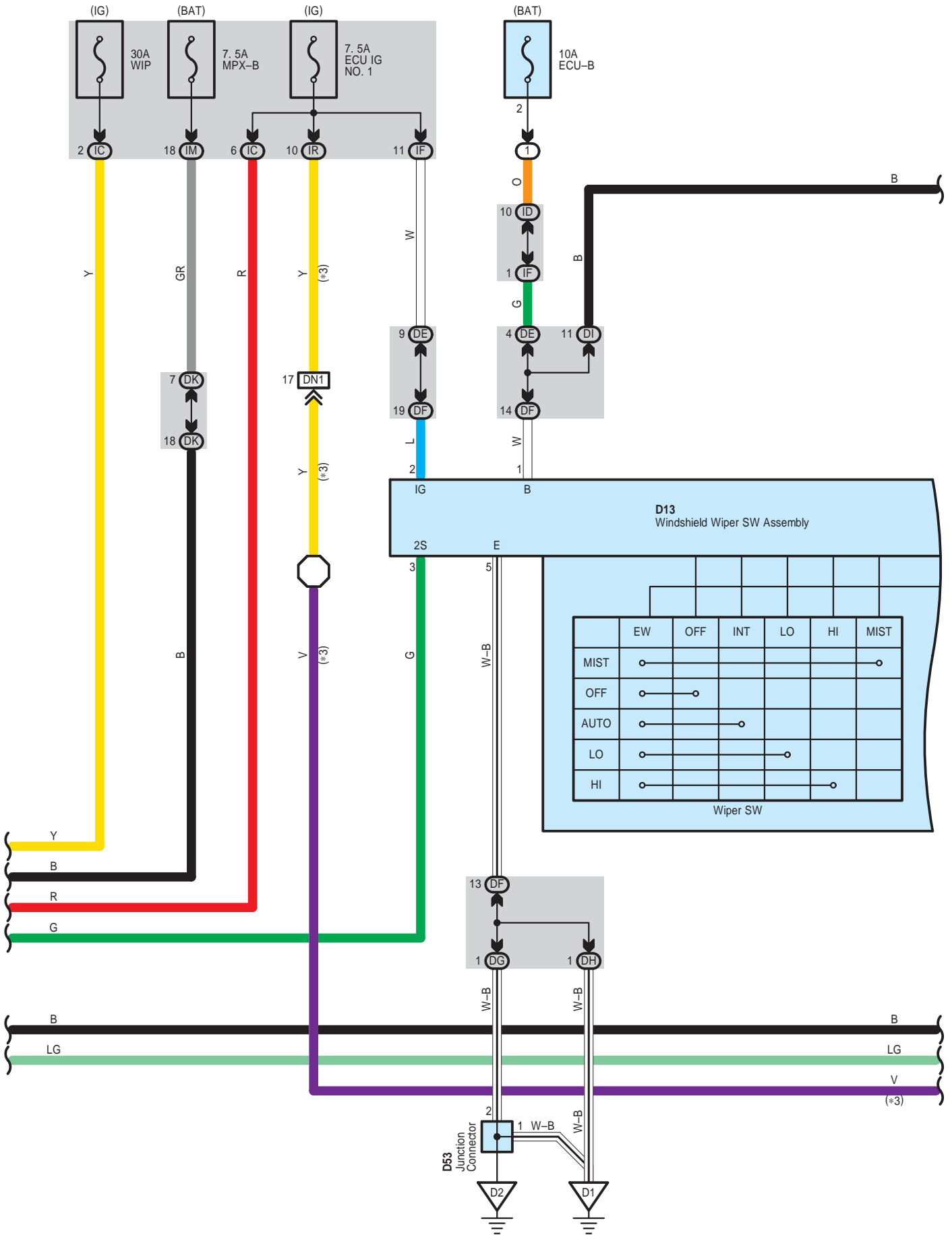
# Wiper and Washer



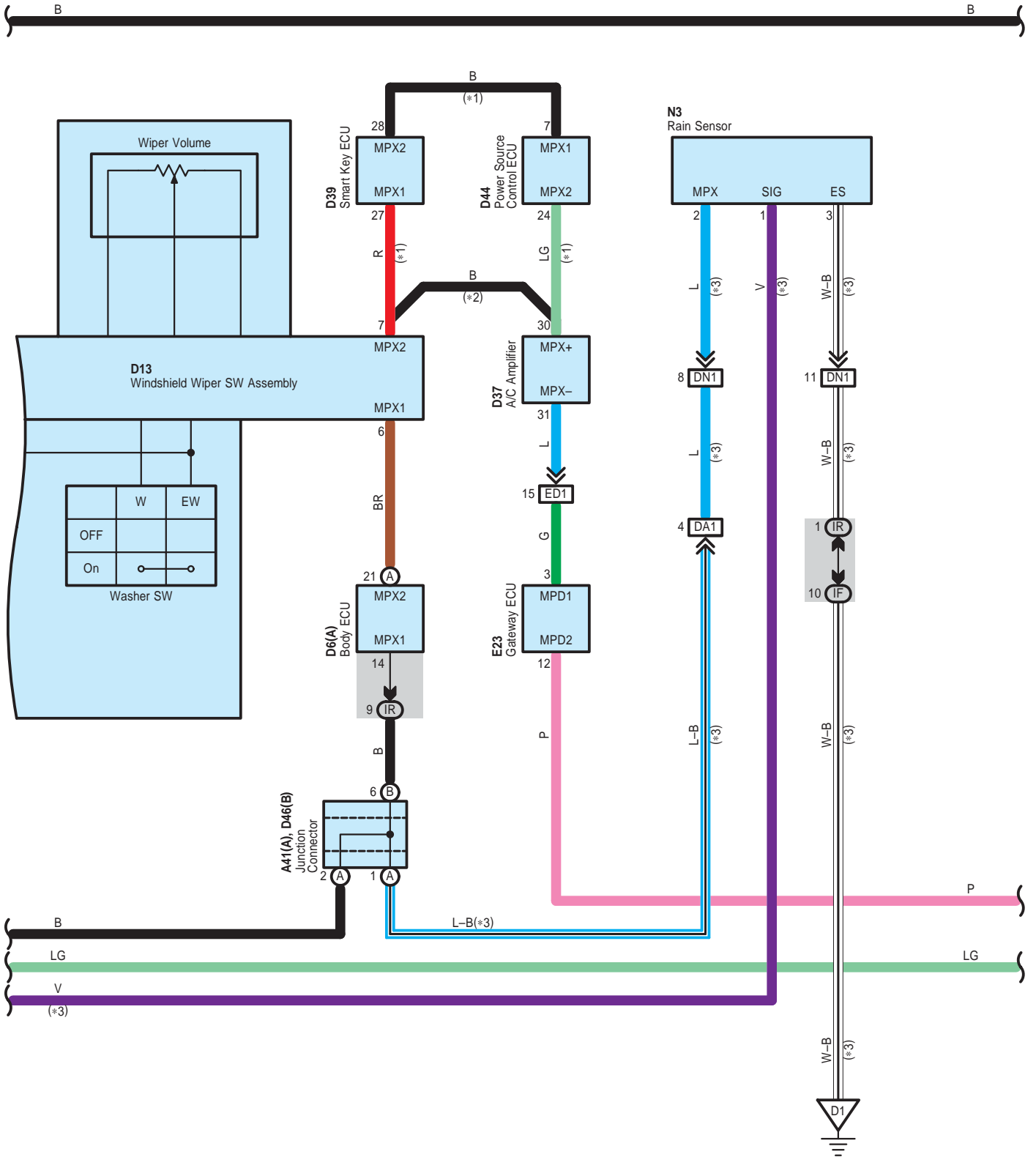
\* 1 : w/ Smart Key System  
 \* 2 : w/o Smart Key System



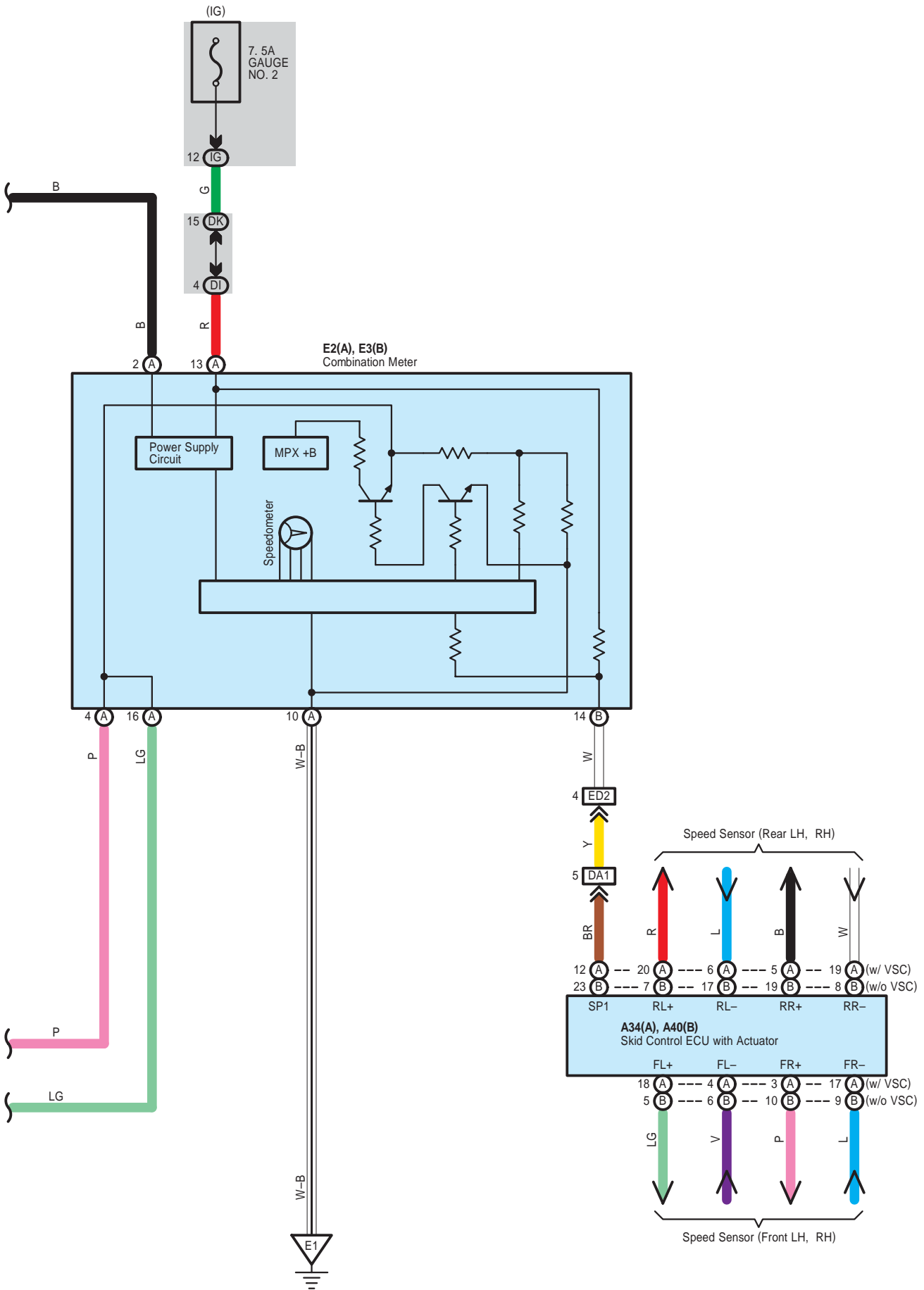
# Wiper and Washer



- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System
- \* 3 : w/ Auto Wiper System



# Wiper and Washer



## System Outline

### Auto Wiper Operation

- \* The wiper works according to the wiper SW information of the windshield wiper SW assembly and wiper operation information from the rain sensor (HI, LO, AUTO, MIST)
- \* The auto wiper operation has the following functions.
  - (1) Vehicle speed-sensing, adjustable interval INT function  
Intermittent interval is changed automatically according to the vehicle speed.
  - (2) Vehicle speed switching function  
Judging whether the vehicle is driving or at a stop, the function changes the operating condition automatically between LO and INT.
  - (3) Washer-linked wiper with drip-preventive function  
The wiper operates three times whenever the washer liquid is output. After waiting time to follow the operation, the wiper operates again to prevent the washer liquid from dripping. The waiting time is changed automatically according to the vehicle speed.

### ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A16	48	A52	48	D46   B	52
A31	48	A54	48	D53	52
A32	48	D6   A	51	E2   A	52
A34   A	48	D13	51	E3   B	52
A40   B	48	D37	51	E23	53
A41   A	50	D39	52	N3	55
A51	48	D44	52		

### ○ : Relay Blocks

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

### ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1D	24	
1E		
1F	22	
1G	24	
1H		
1I		
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DF		
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
IC	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
IM	30	
IR		



# Wiper and Washer

 : Connector Joining Wire Harness and Wire Harness

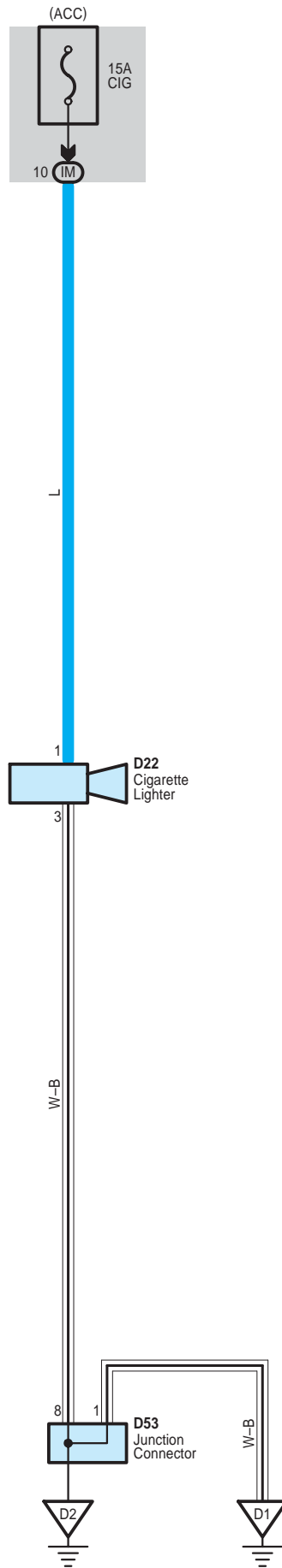
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD2	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DN1	61	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
ED2		

 : Ground Points

Code	See Page	Ground Points Location
A1	58	Front Left Fender
A2		
A3	60	Left Side of the Instrument Panel
A5	58	Front Right Fender
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter



# Cigarette Lighter



---

 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
D22	51	D53	52		

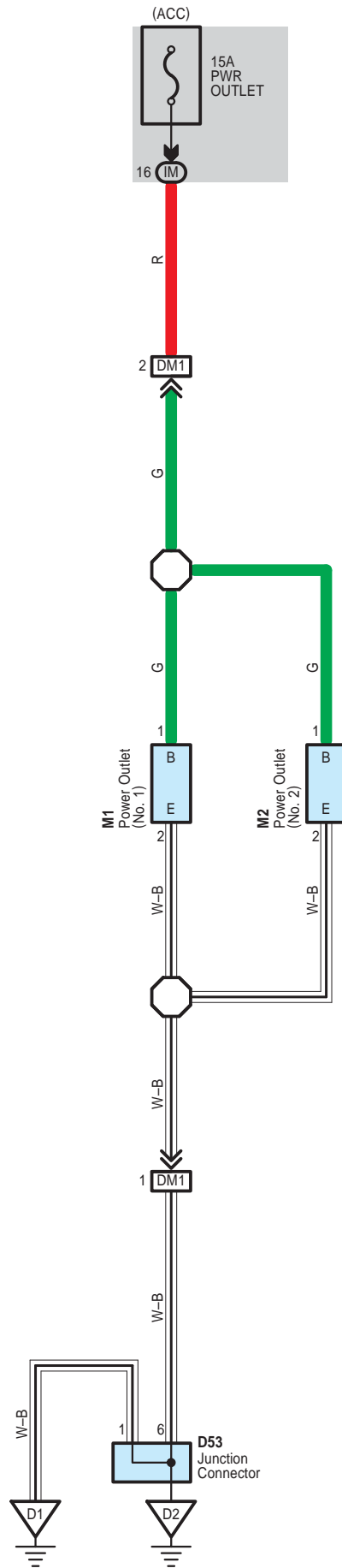
 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
IM	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)

 : **Ground Points**

Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH

# Power Outlet



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
D53	52	M1	53	M2	53

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
IM	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)

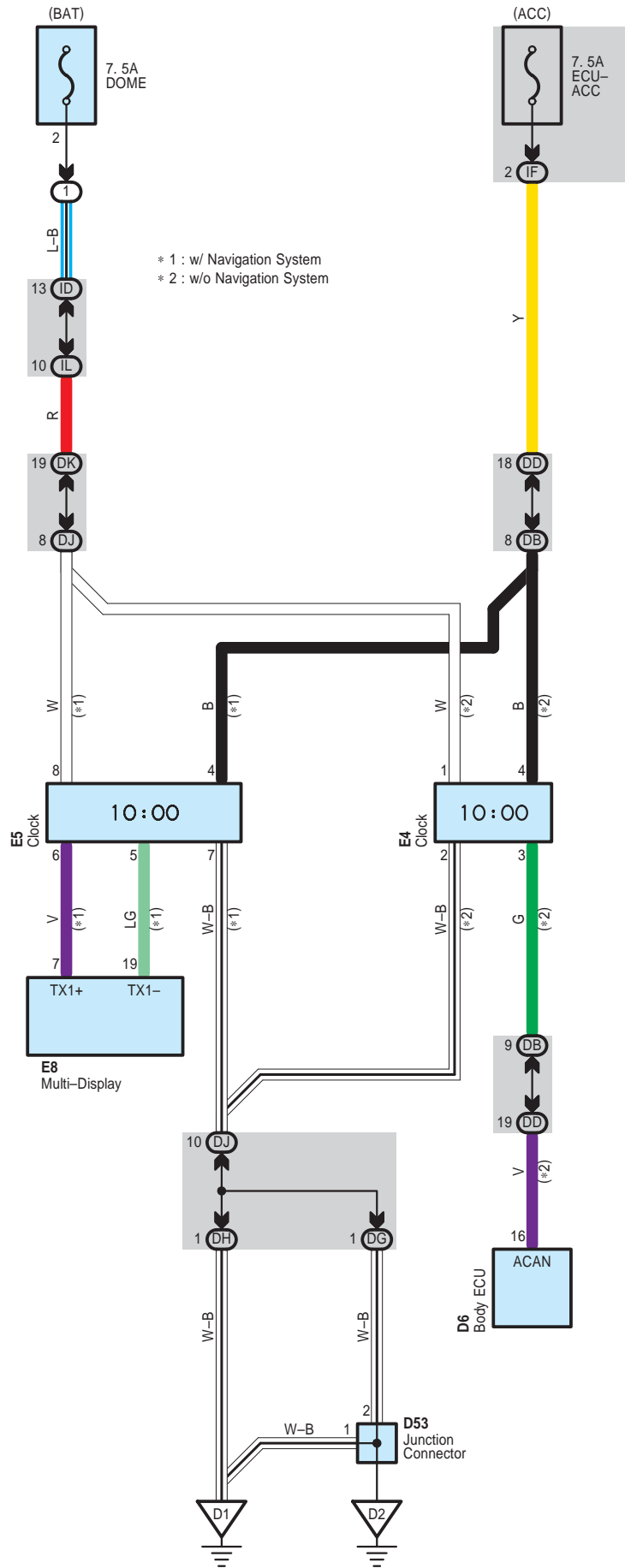
 : **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DM1	61	Instrument Panel Wire and Floor No.3 Wire (Under the Console Box)

 : **Ground Points**

Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH

# Clock



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
D6	51	E4	52	E8	52
D53	52	E5	52		

 : **Relay Blocks**

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

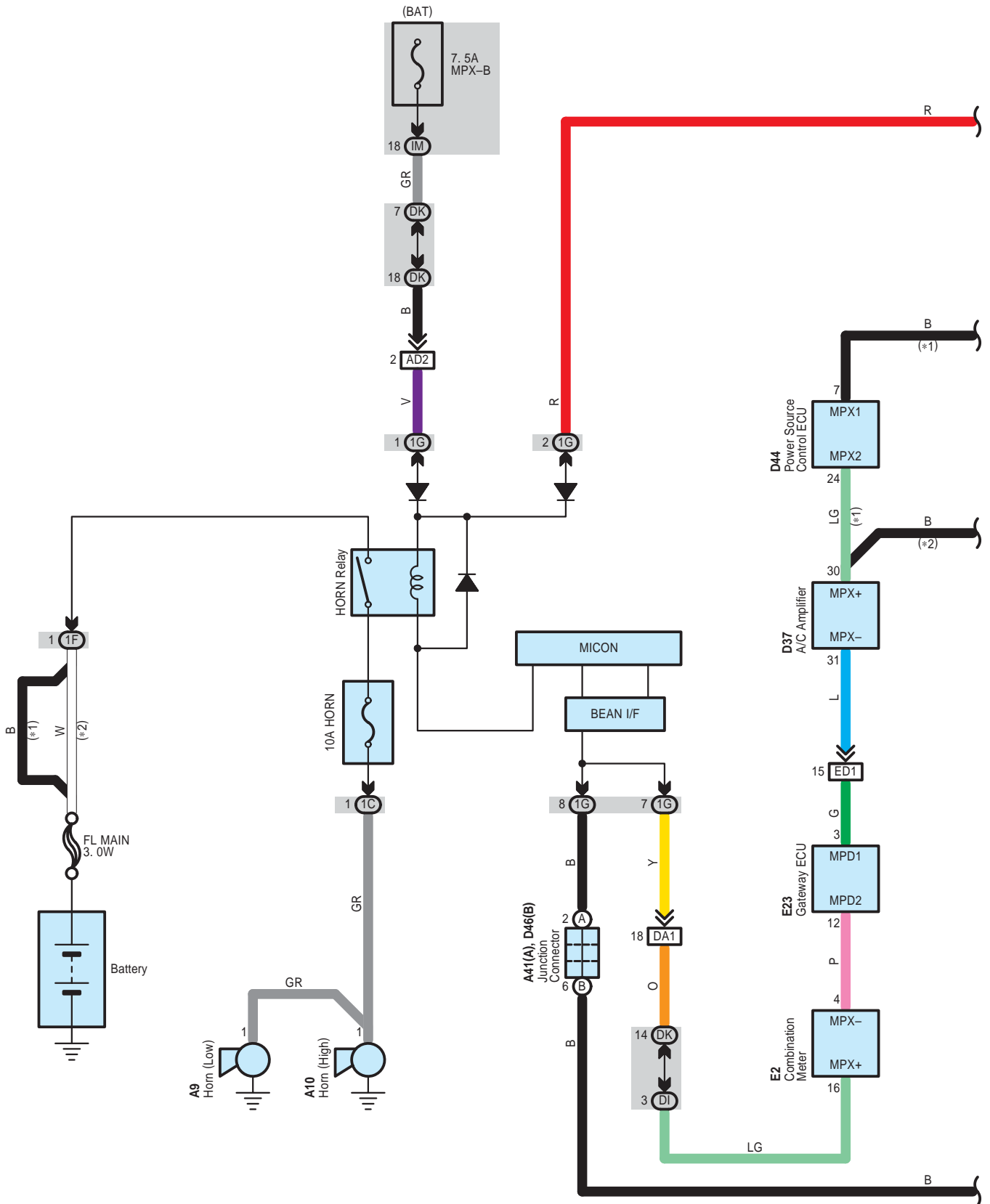
 : **Junction Block and Wire Harness Connector**

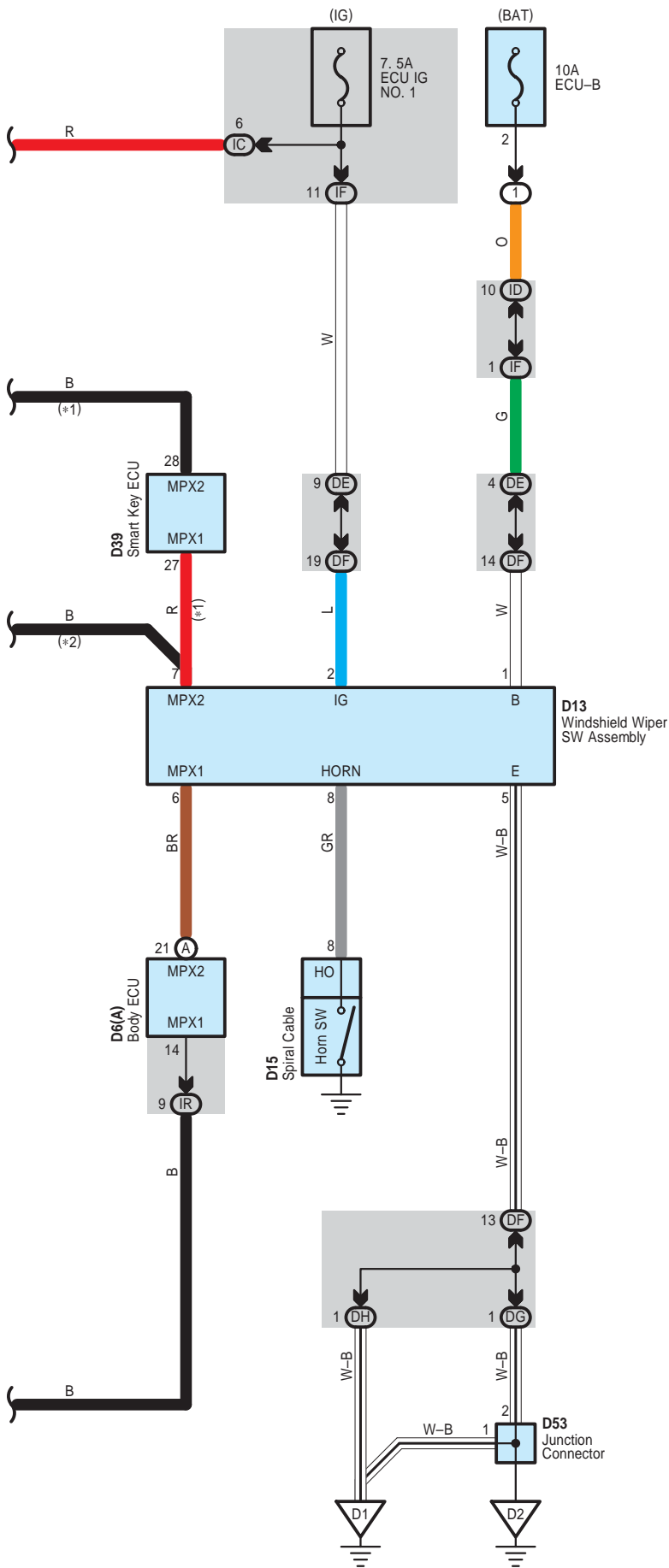
Code	See Page	Junction Block and Wire Harness (Connector Location)
DB	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DG		
DH		
DJ	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IL		

 : **Ground Points**

Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH







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

# Horn

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A9	48	D15	51	D53	52
A10	48	D37	51	E2	52
A41	A 50	D39	52	E23	53
D6	A 51	D44	52		
D13	51	D46	B 52		

## ○ : Relay Blocks

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

## ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1F	22	
1G	24	
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DF		
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
IC	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IM		
IR		

## □ : Connector Joining Wire Harness and Wire Harness

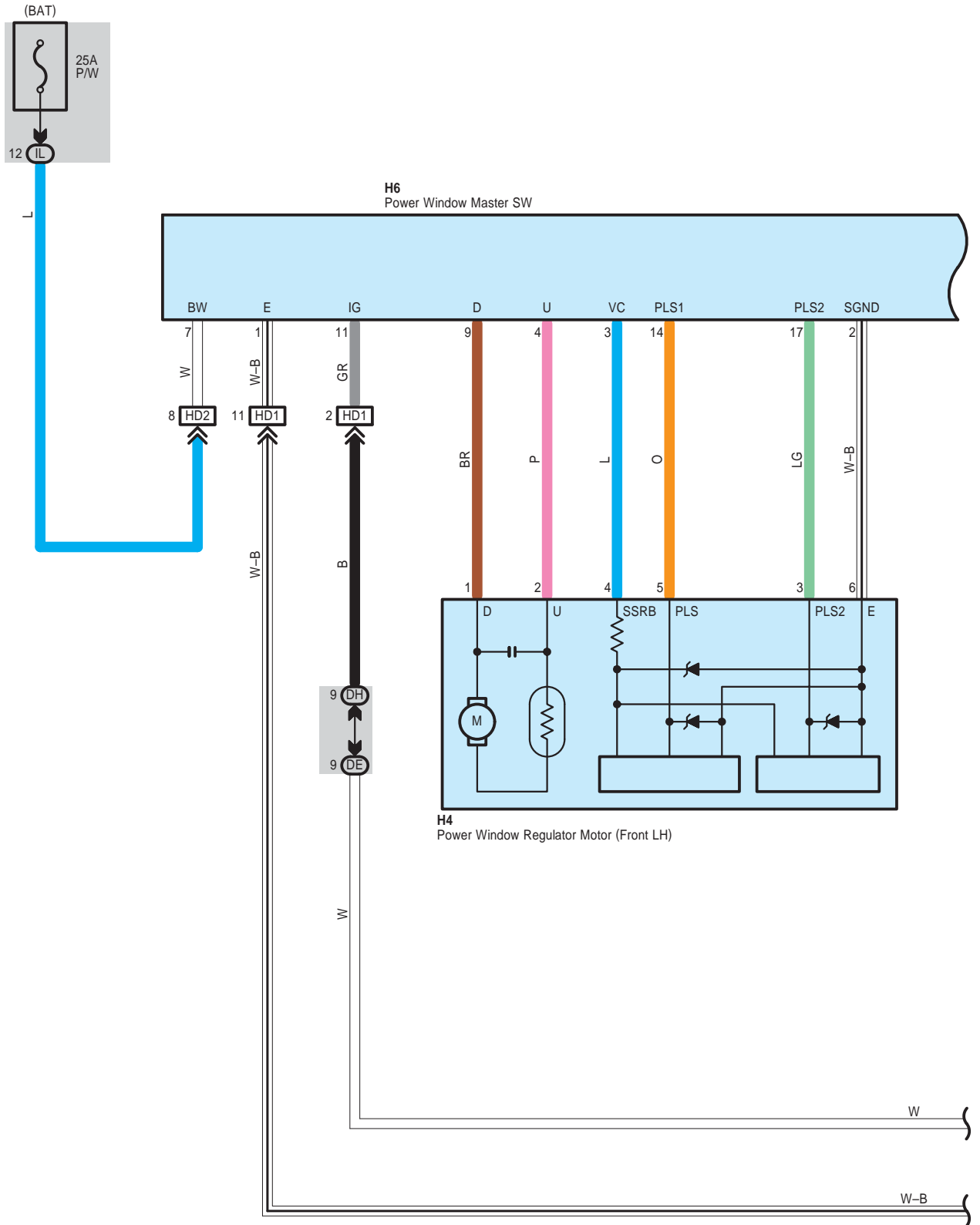
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD2	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)

## ▽ : Ground Points

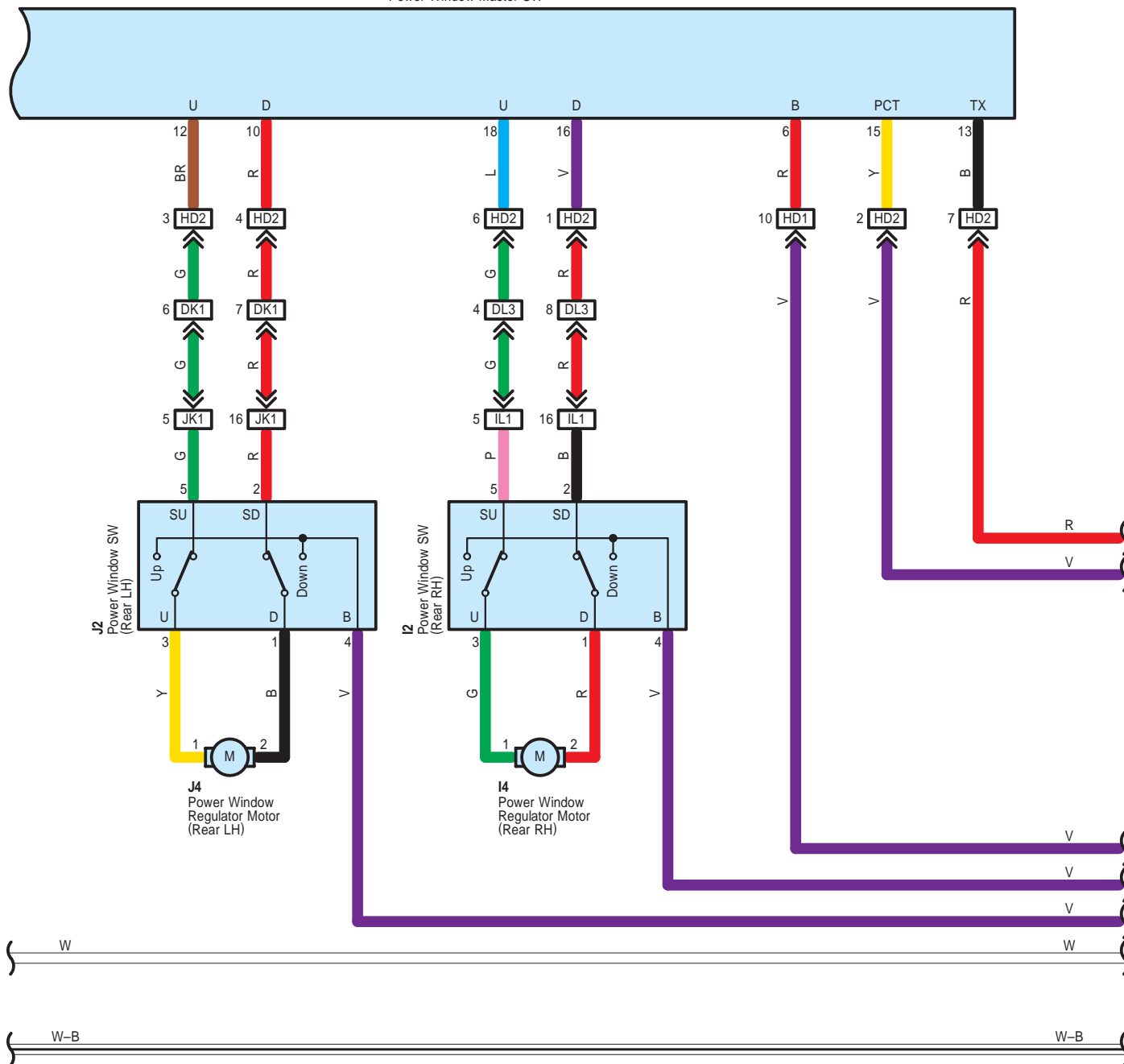
Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH



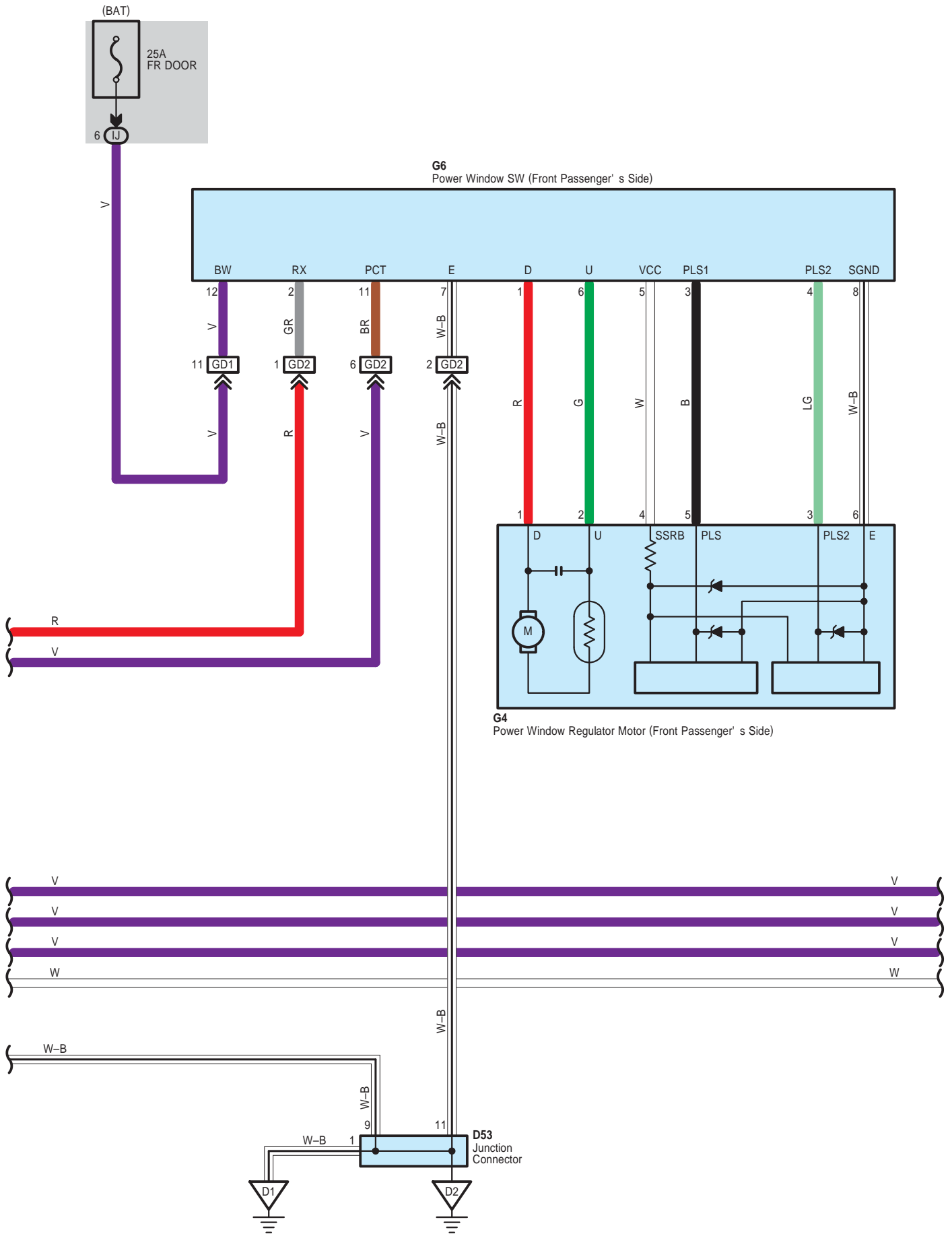
# Power Window

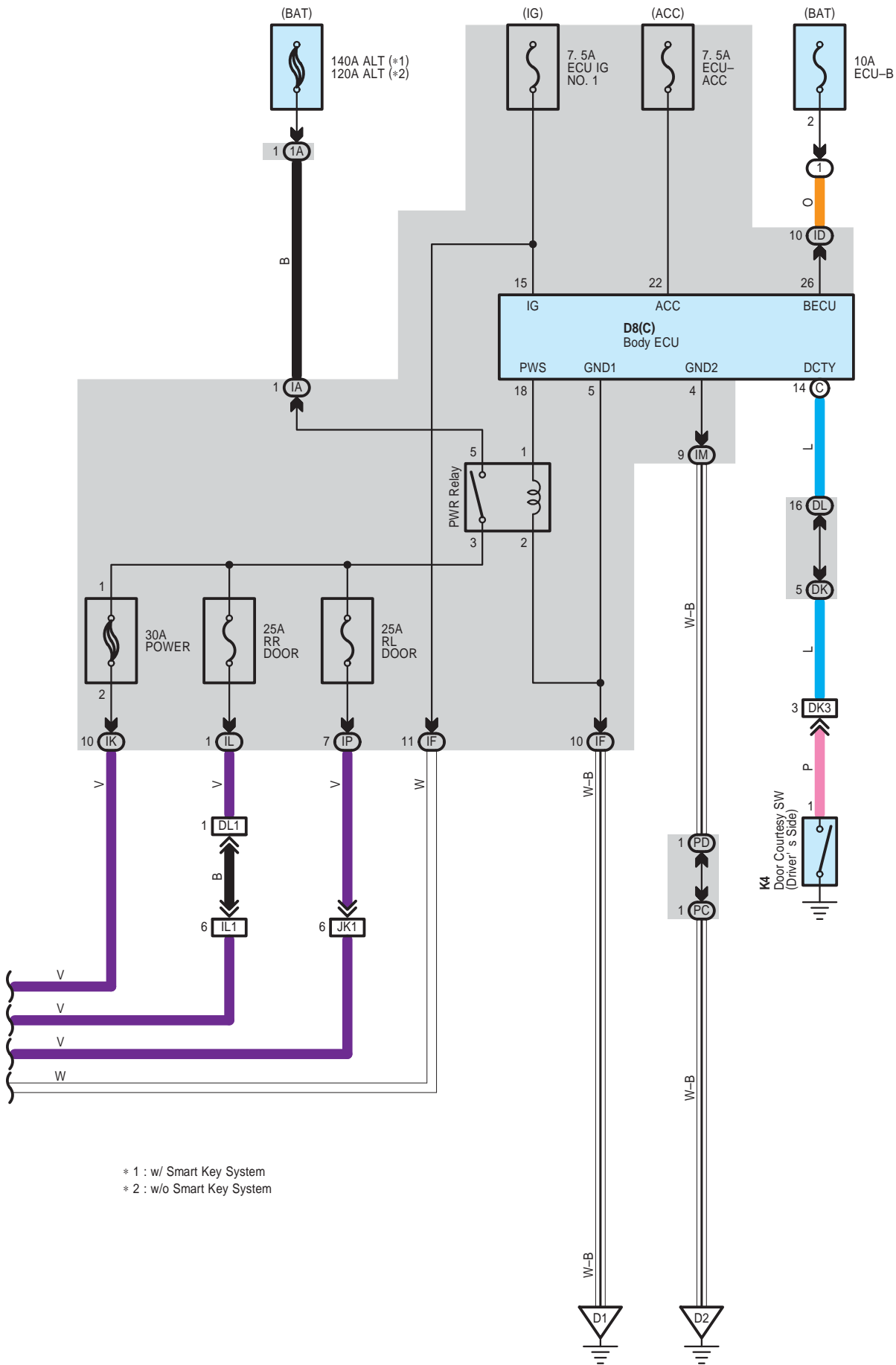


H6  
Power Window Master SW



# Power Window







# Power Window

## System Outline

### 1. Manual Down or Up Operation

When the power window master SW (Driver's) is pushed one step, the motor rotates to open the window.  
 When the power window master SW (Driver's) is pulled up one step, the motor rotates in the opposite direction, to close the window.  
 All the other windows can be opened/closed as well, by the operation of the power window master SW or respective power window SW.

### 2. Auto Down or Up Operation

When the power window master SW (Driver's) is pushed two steps, the motor rotates to open the window automatically.  
 When the power window master SW (Driver's) is pulled up two steps, the motor rotates to close the window automatically.

### 3. Jam Protection Function

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

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page	
D8	C	51	H4	54	J2	54
D53	52	H6	54	J4	54	
G4	54	I2	54	K4	54	
G6	54	I4	54			

## ○ : Relay Blocks

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

## ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DH		
DK		
DL		
IA	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IJ		
IK		
IL		
IM		
IP	30	Floor No.1 Wire and Instrument Panel J/B (Lower Finish Panel)
PC	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PD		

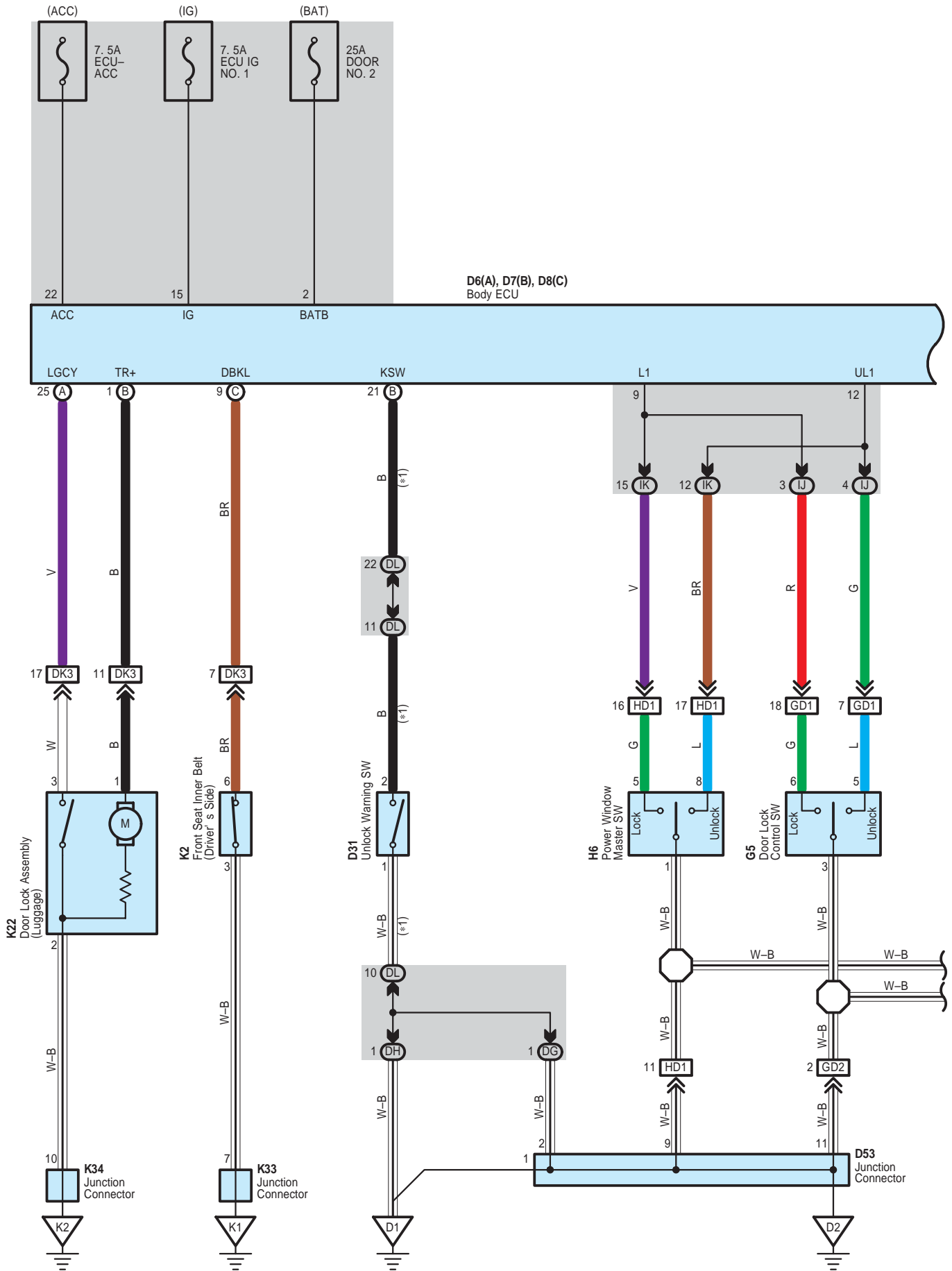
 : **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DK1	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DK3		
DL1	60	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
DL3		
GD1	61	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
GD2		
HD1	61	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
HD2		
IL1	62	Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)
JK1	62	Rear Door LH Wire and Floor No.1 Wire (Left Center Pillar)

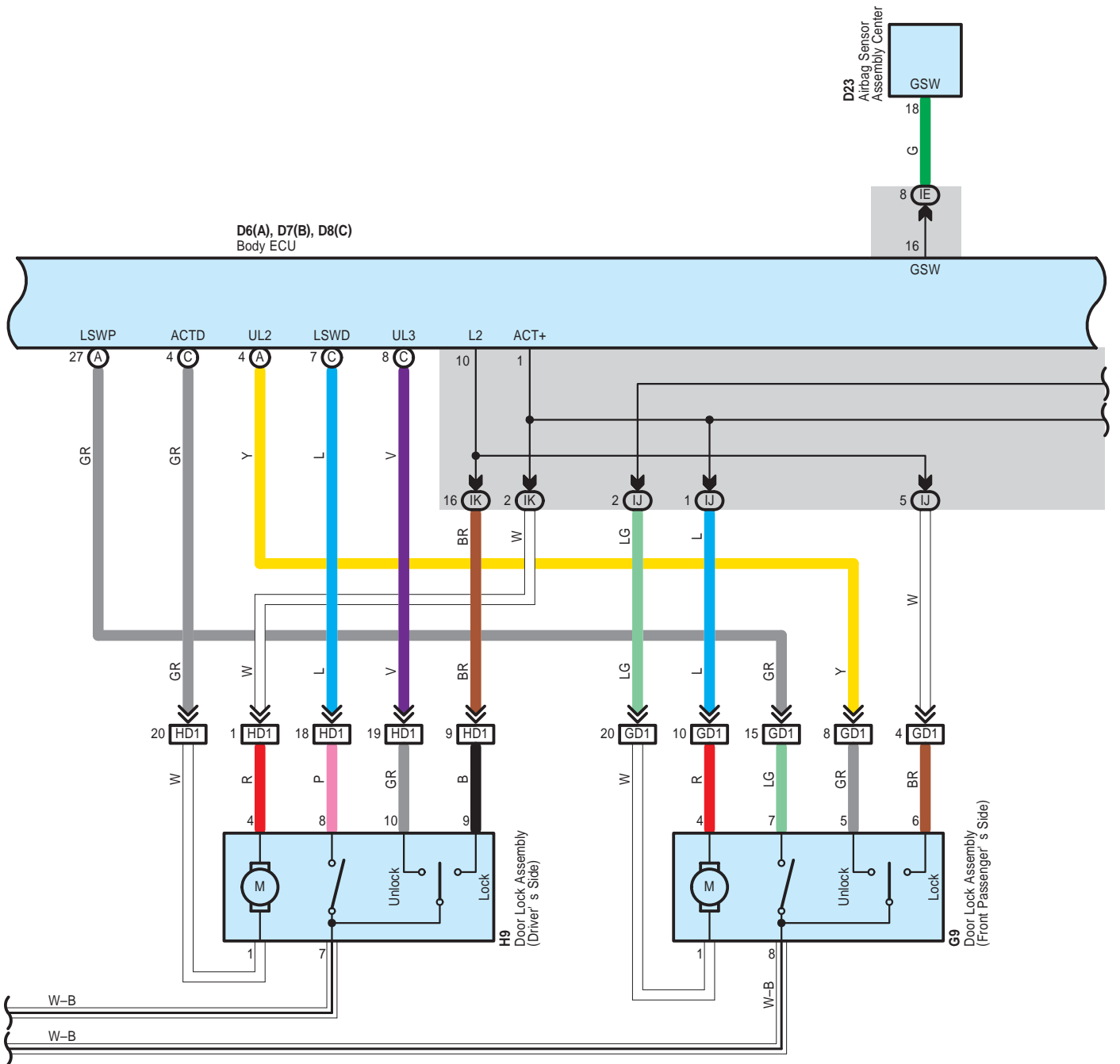
 : **Ground Points**

Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH

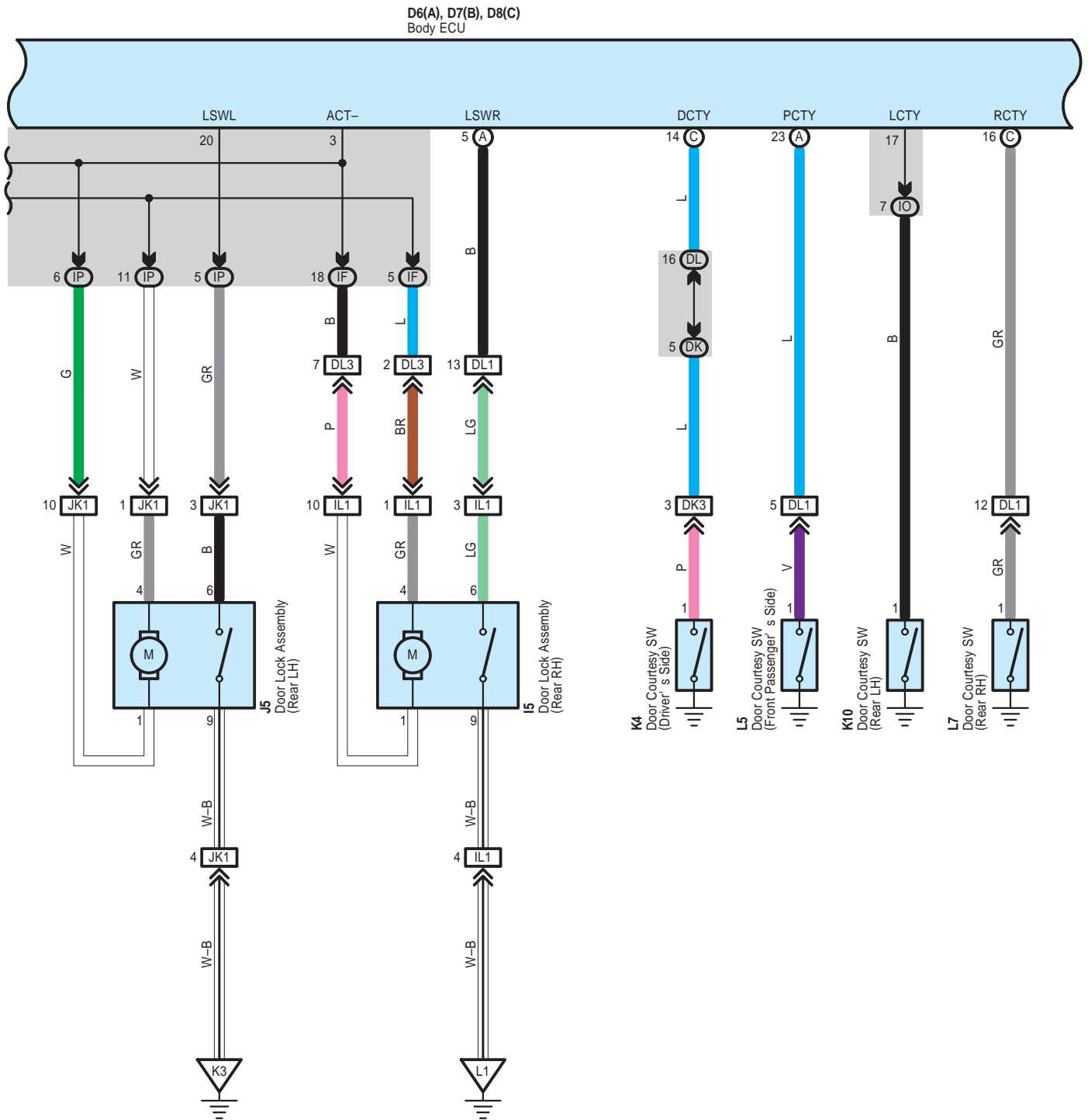
# Door Lock Control



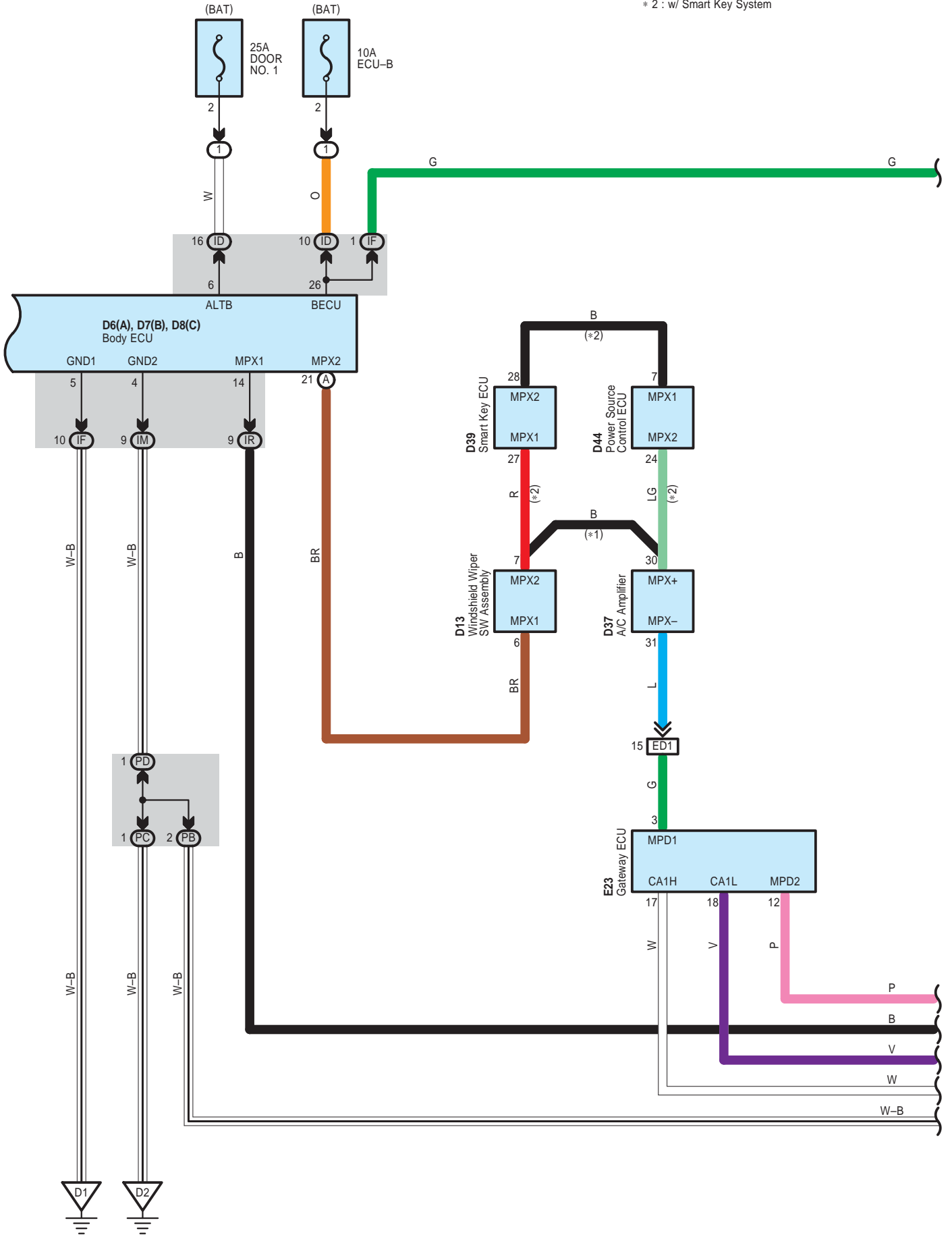
\* 1 : w/o Smart Key System



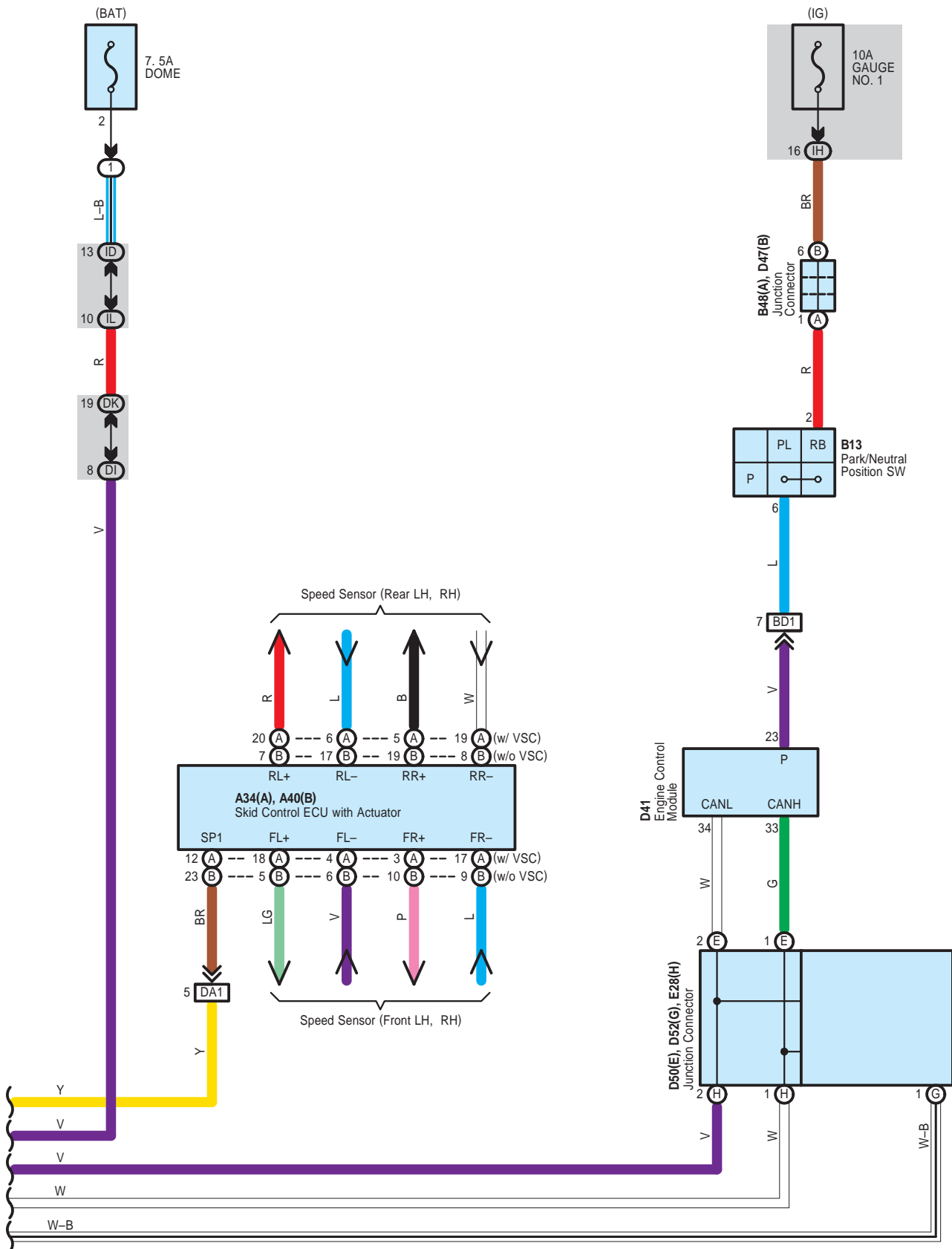
# Door Lock Control



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









# 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.

## ○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A34	A	48	D39		52	H6		54
A40	B	48	D41		52	H9		54
A41	A	50	D44		52	I5		54
A42		50	D46	B	52	J5		54
B6		49	D47	B	52	K2		56
B13		49	D50	E	52	K10		54
B48	A	50	D52	G	52	K22		55
D6	A	51	D53		52	K33		55
D7	B	51	E2	A	52	K34		55
D8	C	51	E3	B	52	K4		54
D13		51	E23		53	L5		55
D23		51	E28	H	53	L7		55
D31		51	G5		54			
D37		51	G9		54			

## ○ : Relay Blocks

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

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)	
1G	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)	
1H			
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)	
DG			
DH			
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)	
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)	
DL			
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)	
IE	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)	
IF			
IG	31		
IH			
IJ	30		
IK			
IL			
IM			
IO	30		Floor No.1 Wire and Instrument Panel J/B (Lower Finish Panel)
IP			
IR	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)	
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)	
PC			
PD			

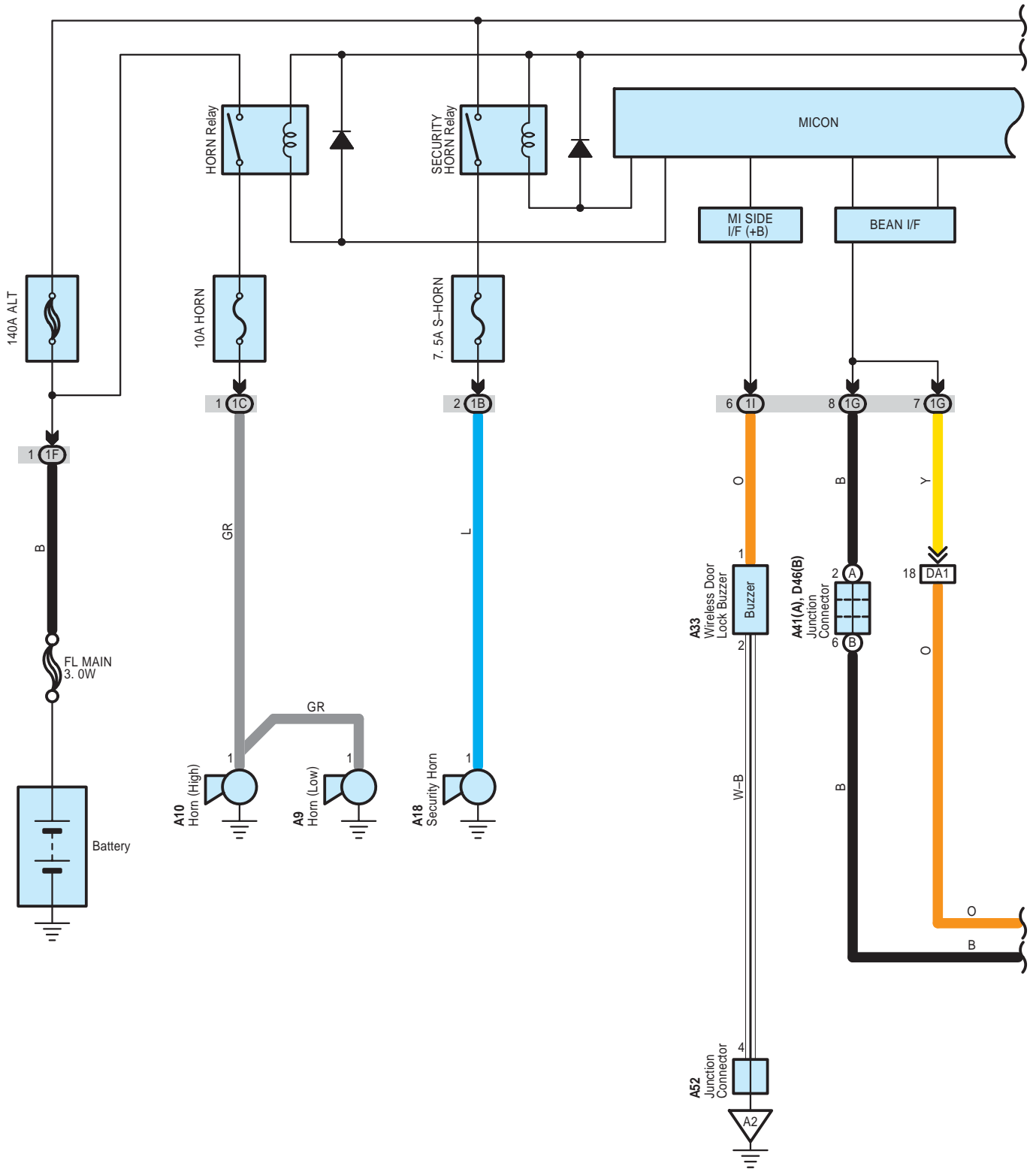
 : Connector Joining Wire Harness and Wire Harness

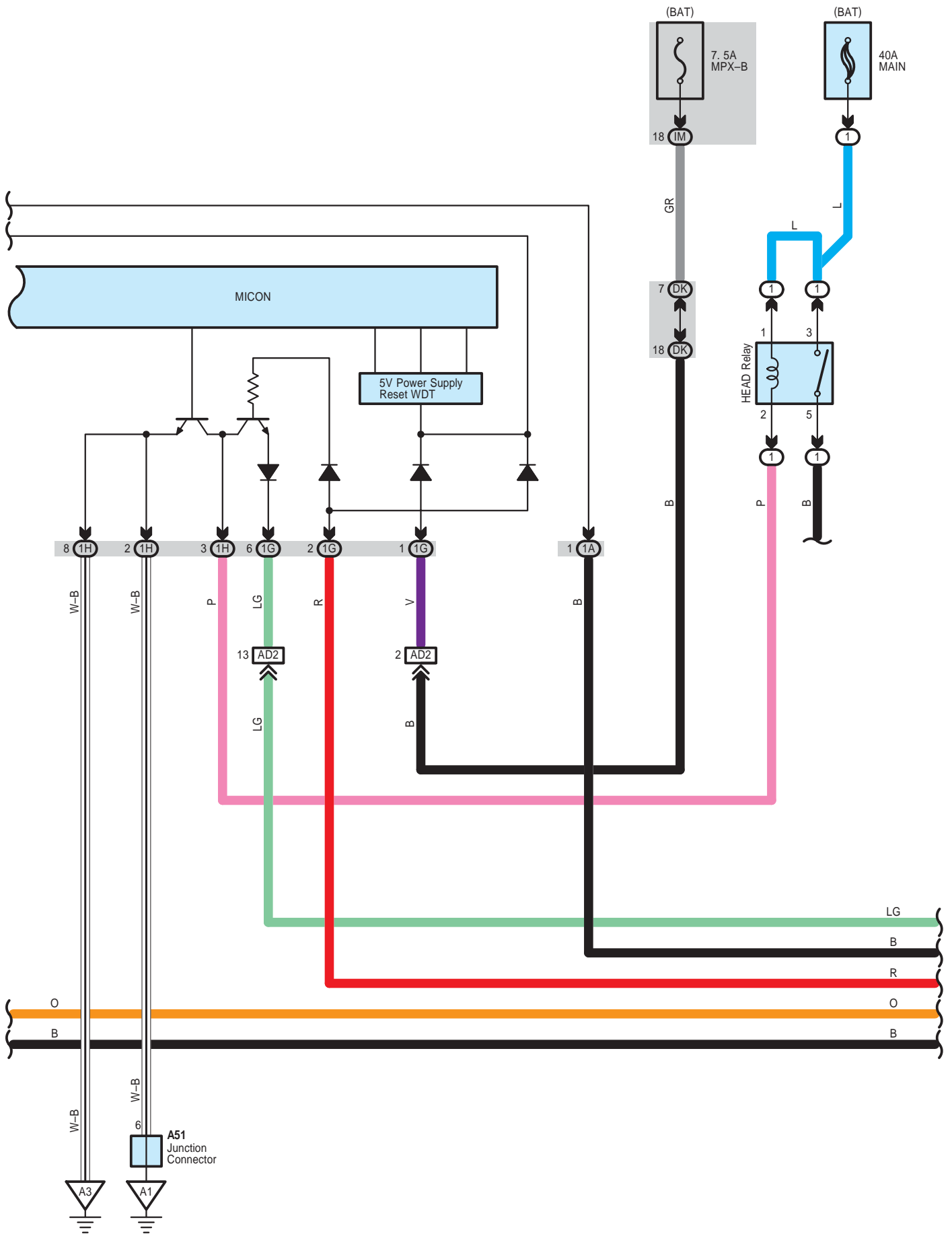
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
BA1	58	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
BD1	60	Engine Wire and Instrument Panel Wire (Right Side of the Blower Unit)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DL1	60	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
DL3		
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
ED2		
GD1	61	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
GD2		
HD1	61	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IL1	62	Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)
JK1	62	Rear Door LH Wire and Floor No.1 Wire (Left Center Pillar)

 : Ground Points

Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter
K1	62	Left Rear Quarter Panel
K2		
K3	60	Left Side of the Instrument Panel
L1	62	Right Rear Quarter Panel

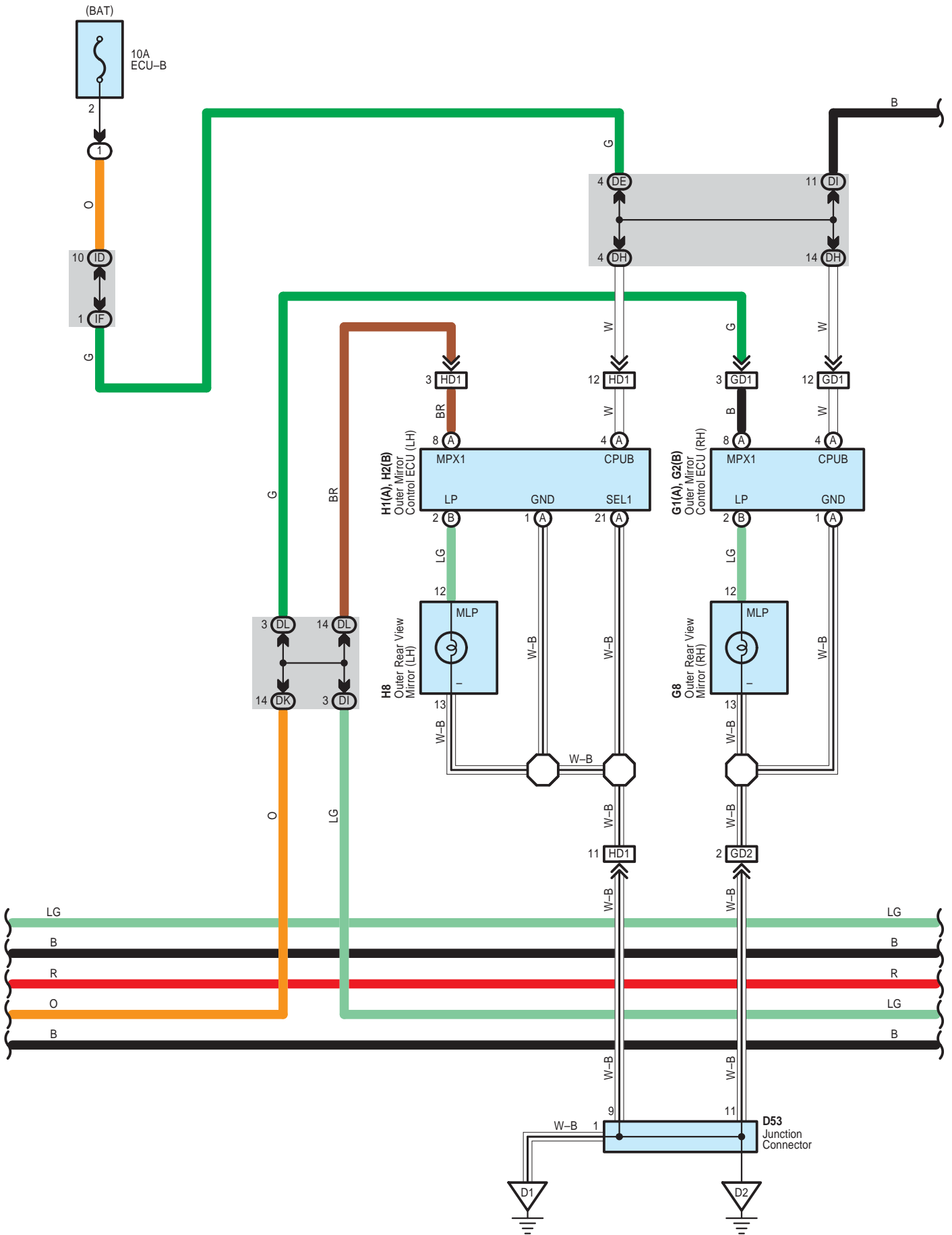
# Wireless Door Lock Control with Smart Key System

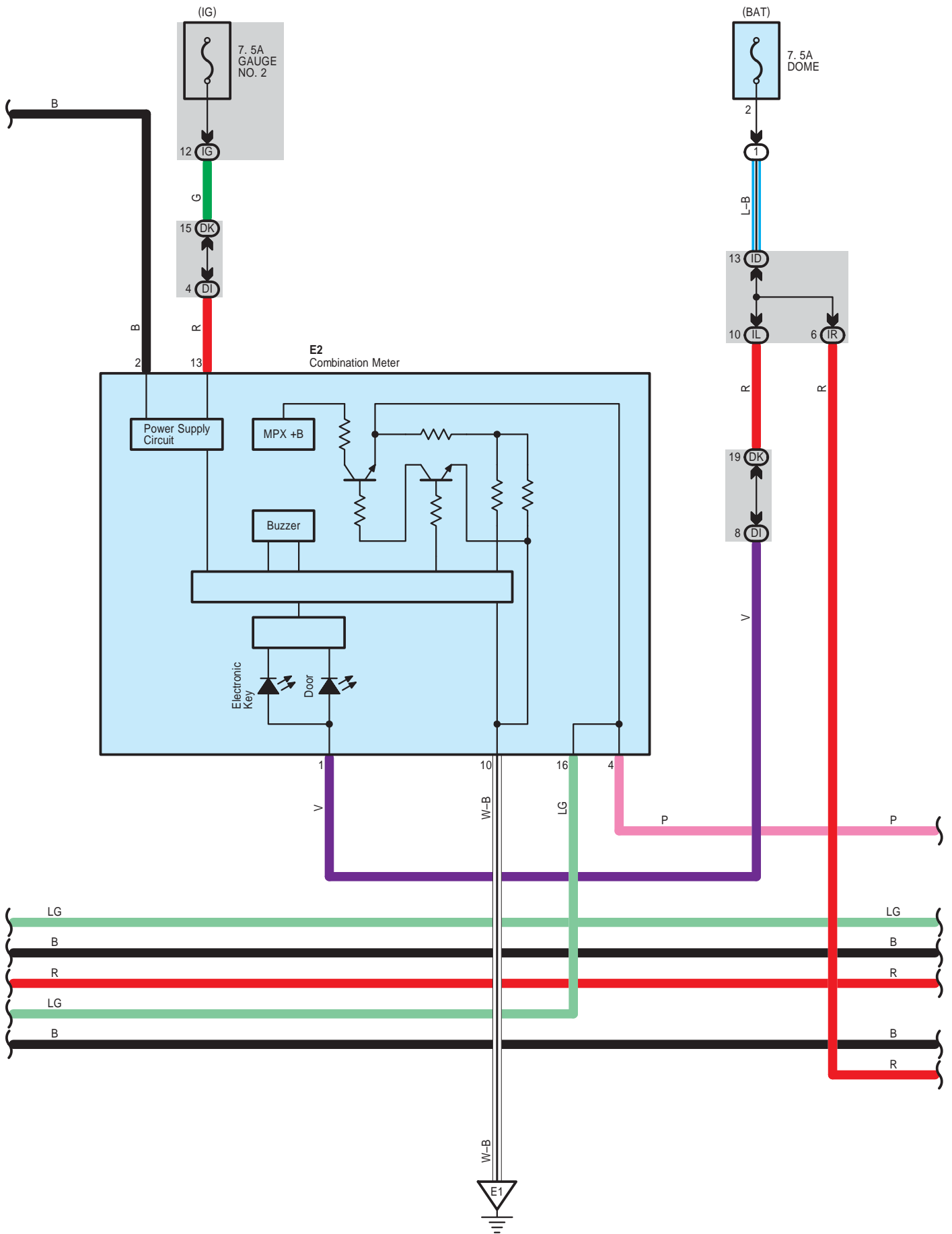




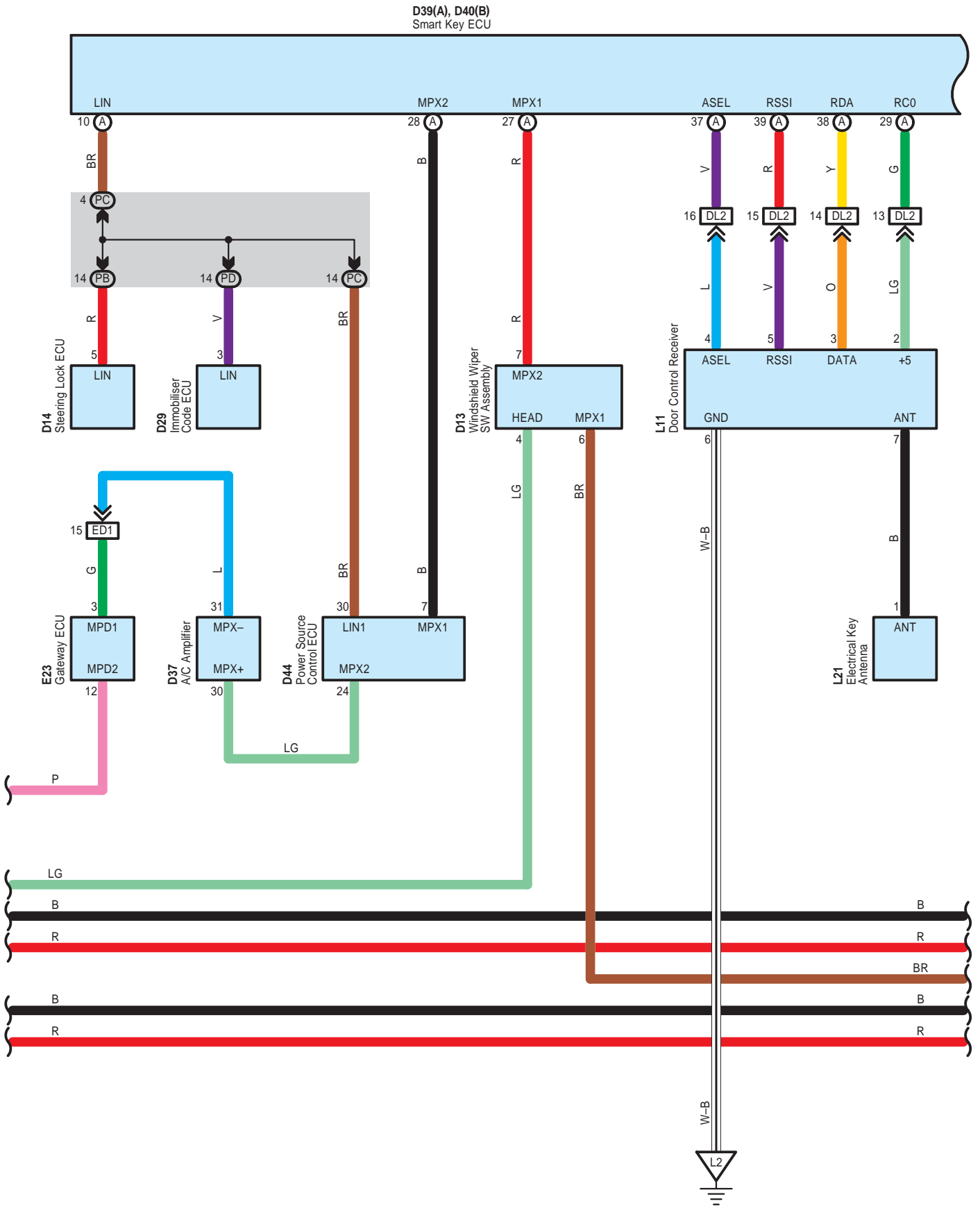
AVALON (EM00A0U)

# Wireless Door Lock Control with Smart Key System

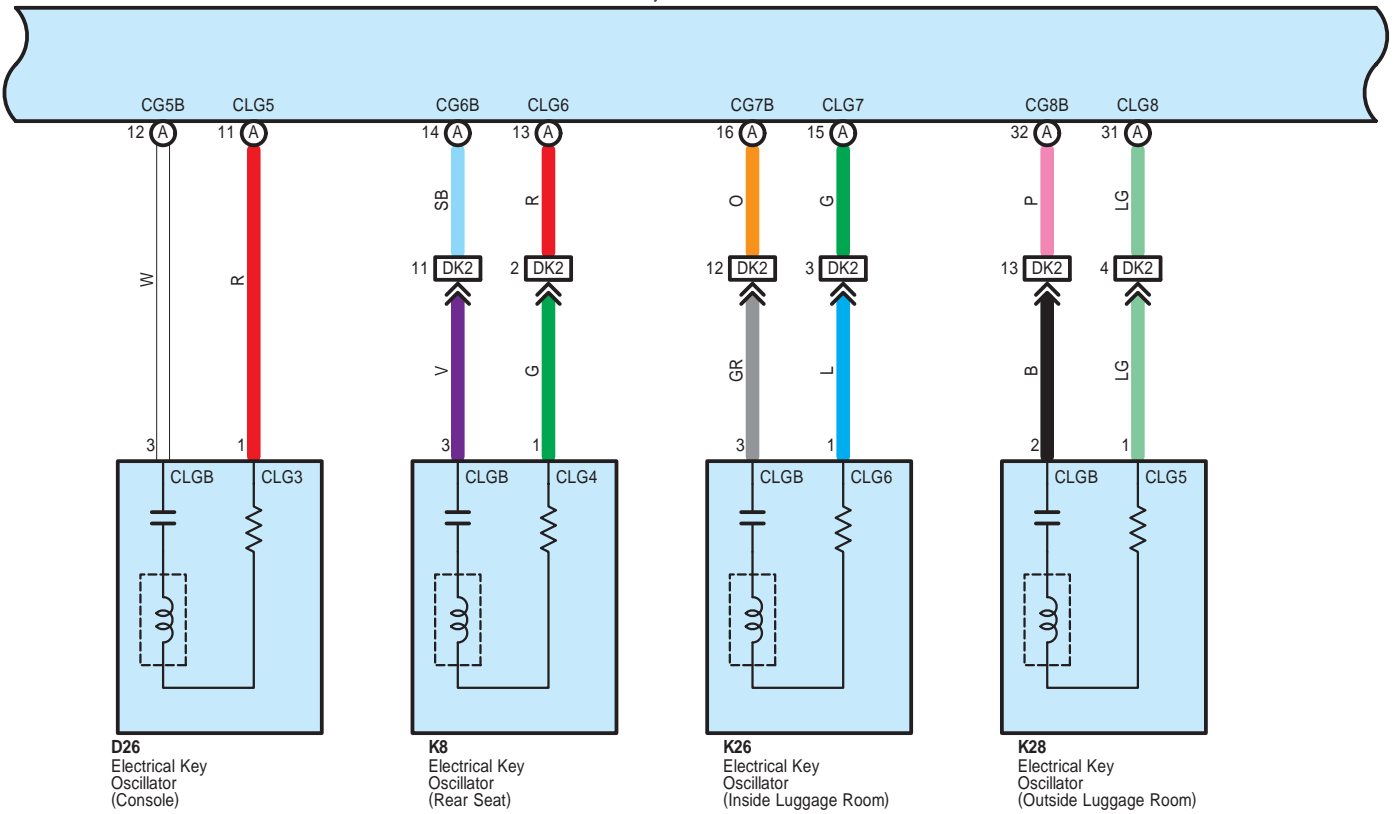




# Wireless Door Lock Control with Smart Key System

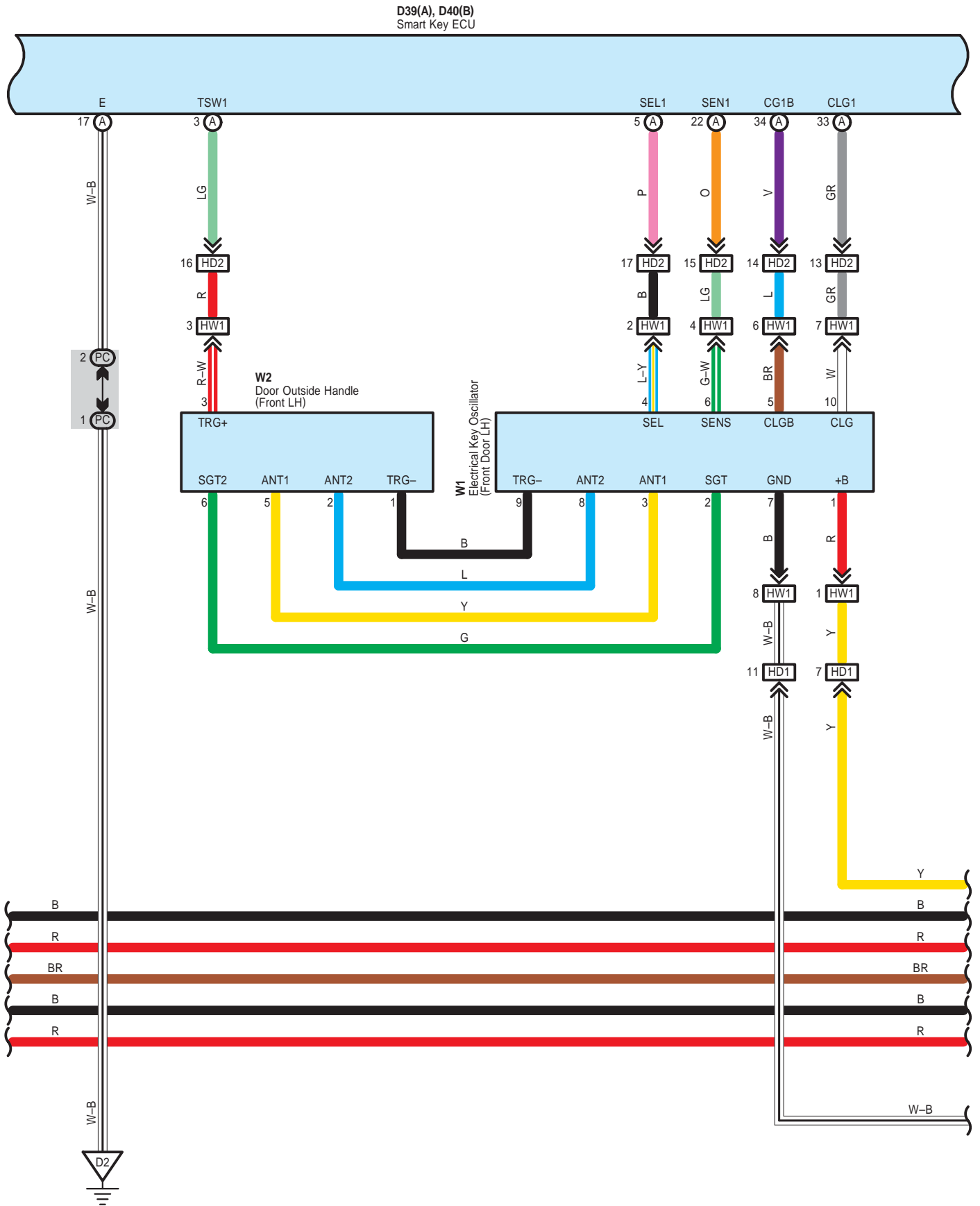


D39(A), D40(B)  
Smart Key ECU

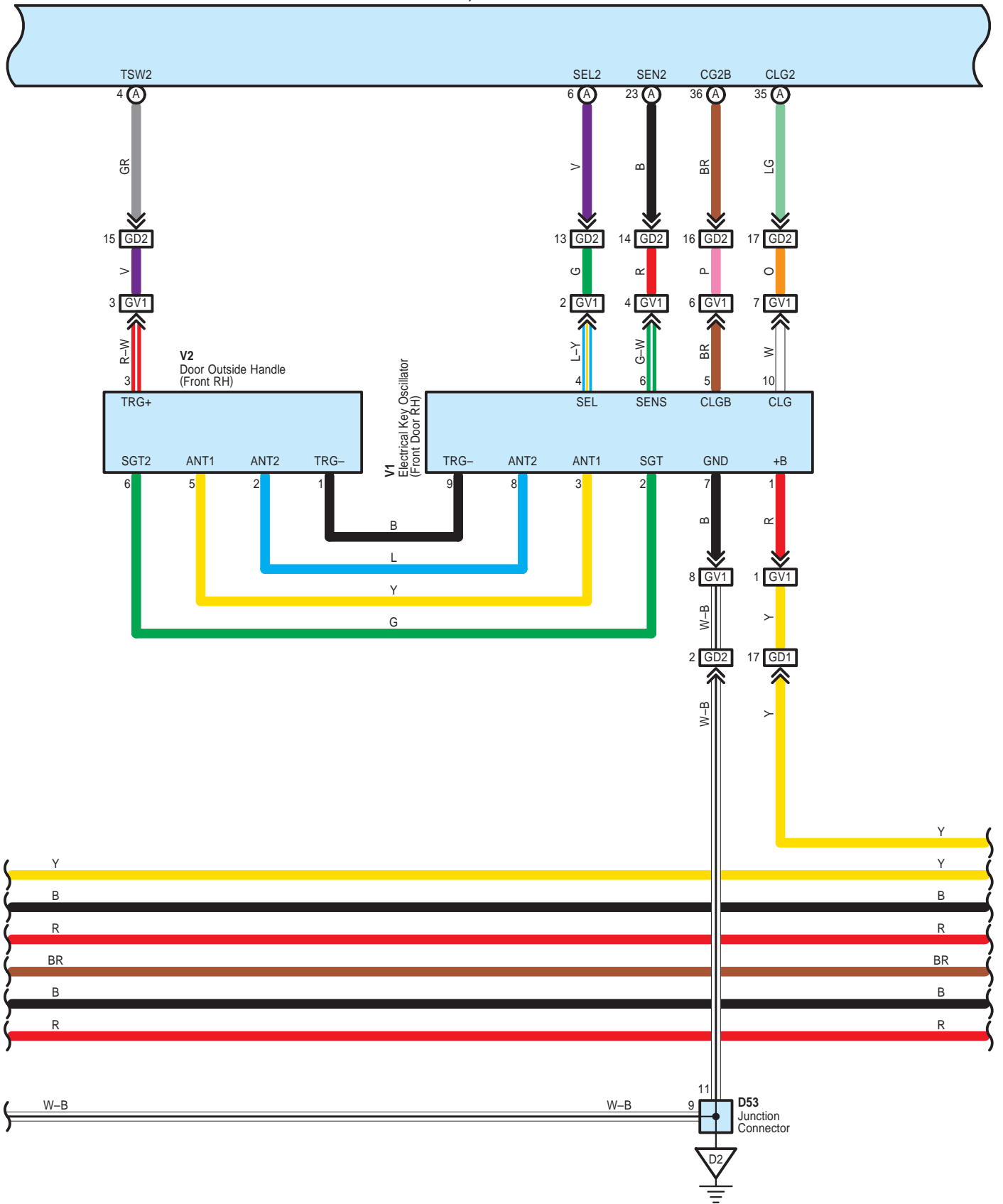




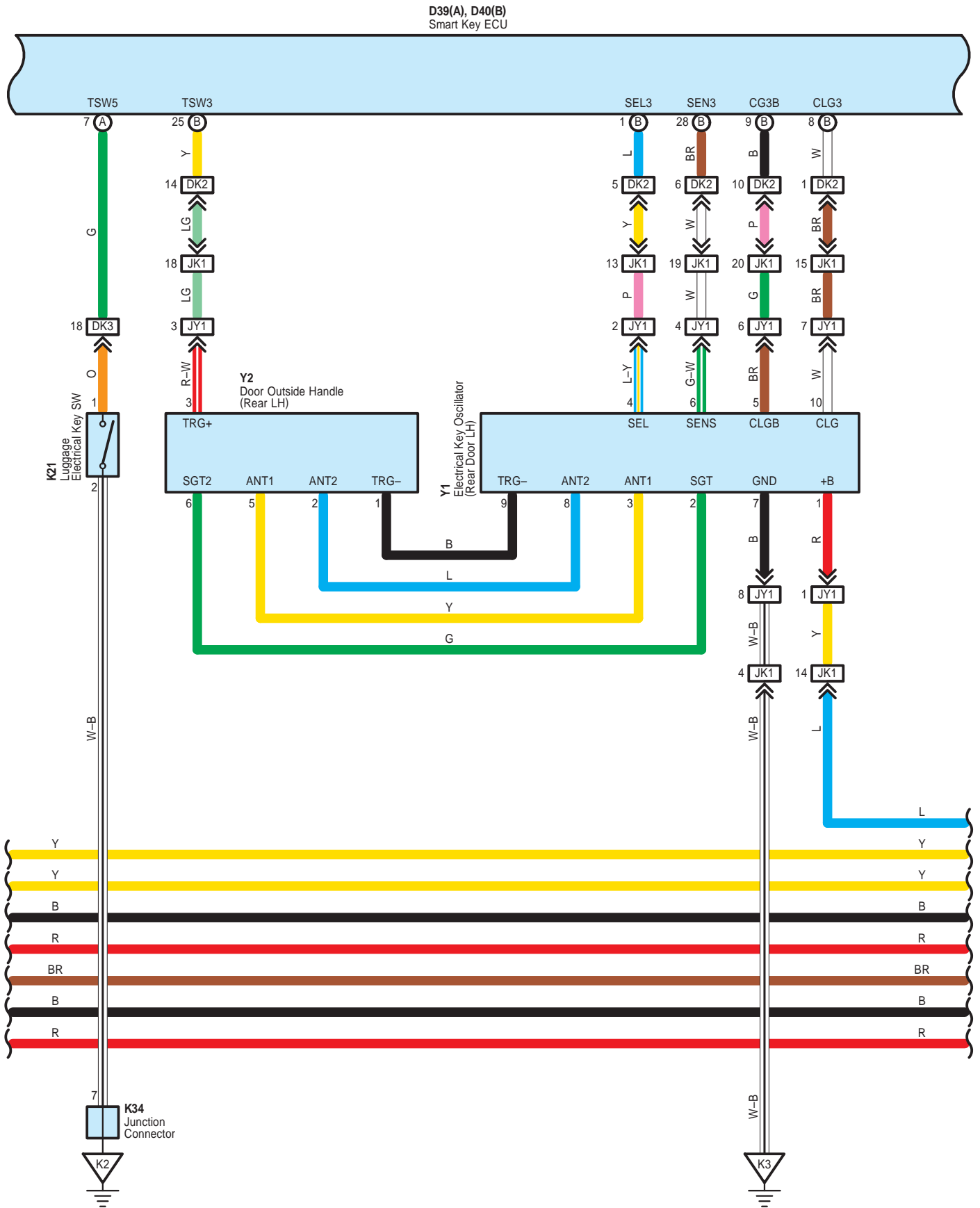
# Wireless Door Lock Control with Smart Key System



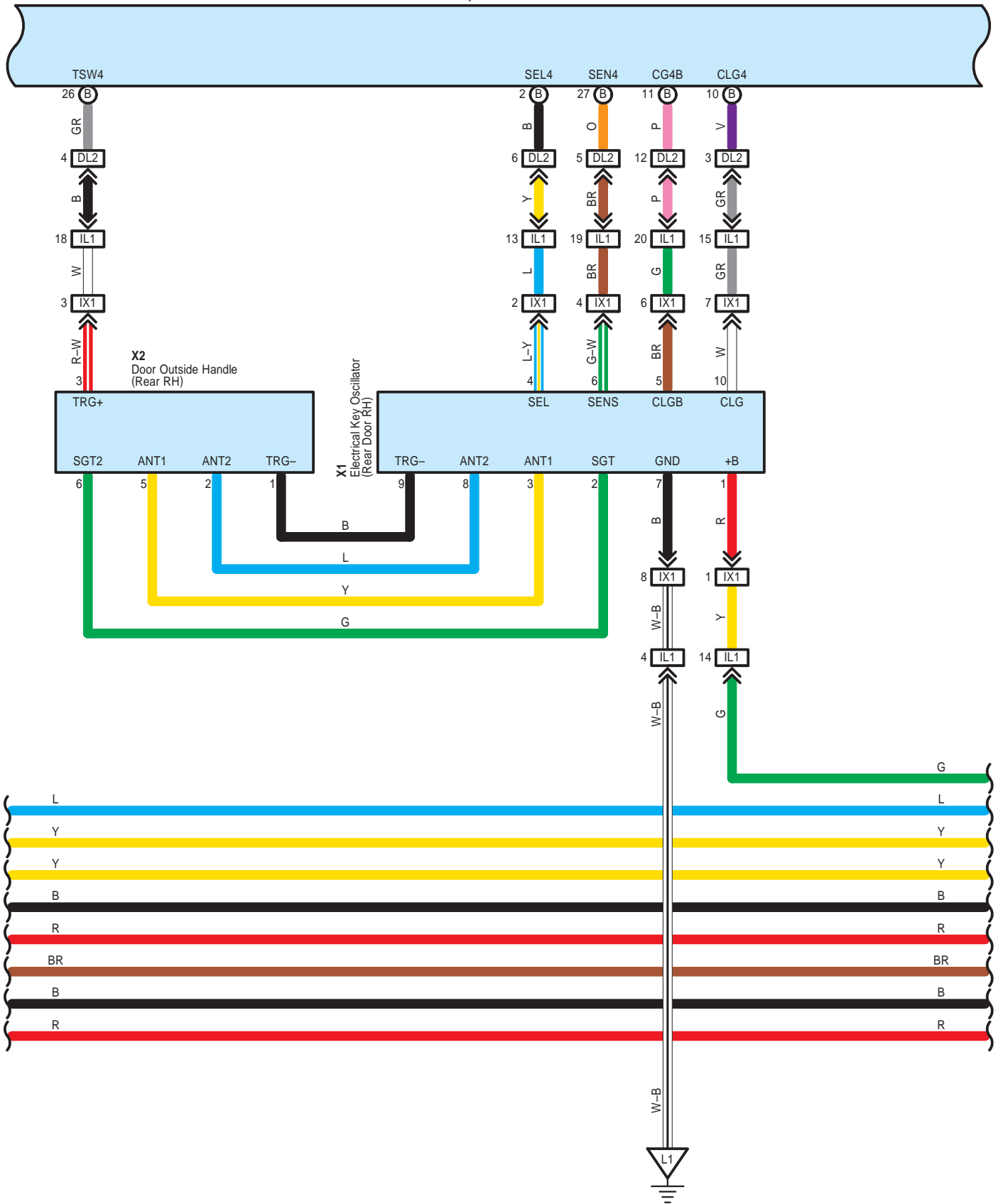
D39(A), D40(B)  
Smart Key ECU



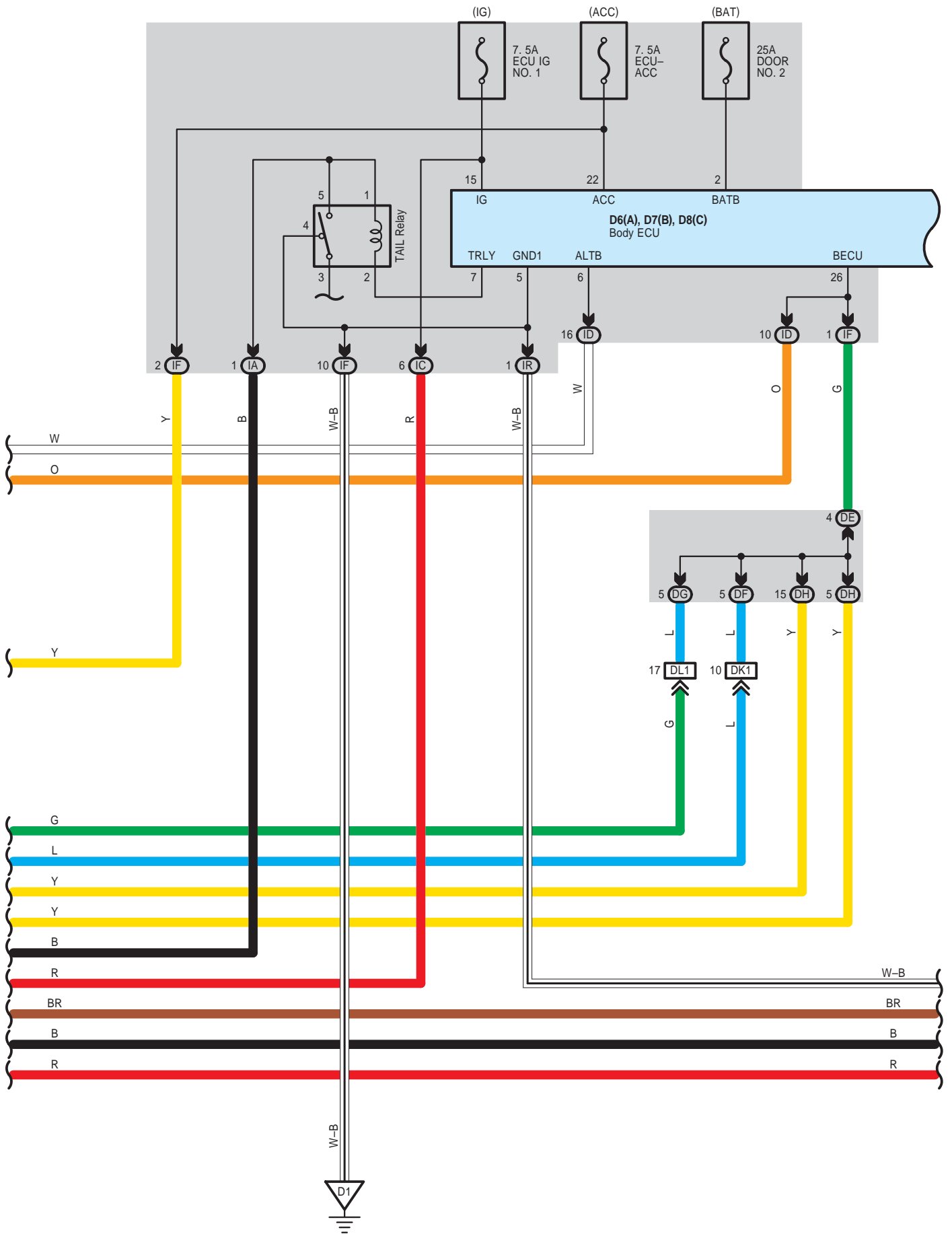
# Wireless Door Lock Control with Smart Key System



D39(A), D40(B)  
Smart Key ECU

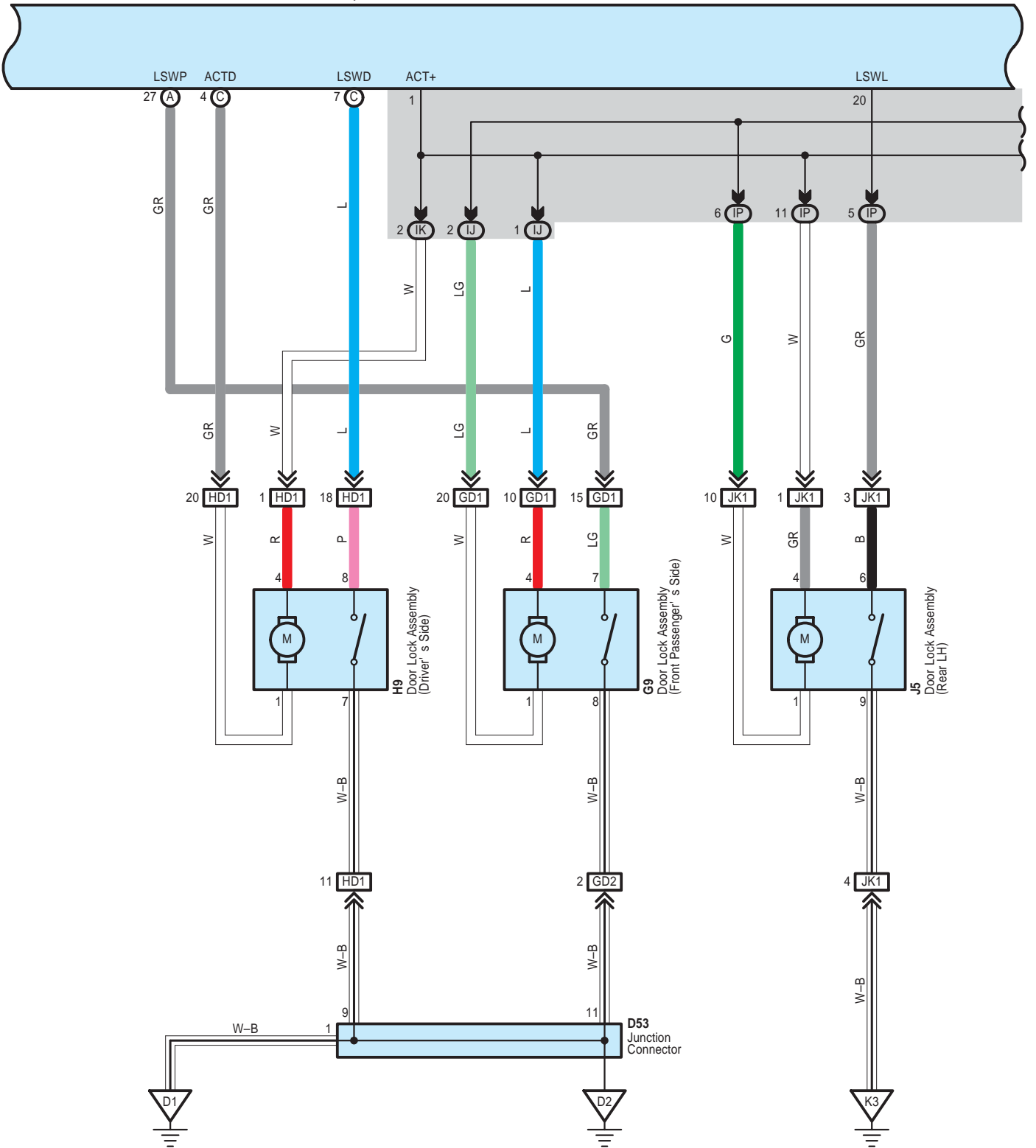






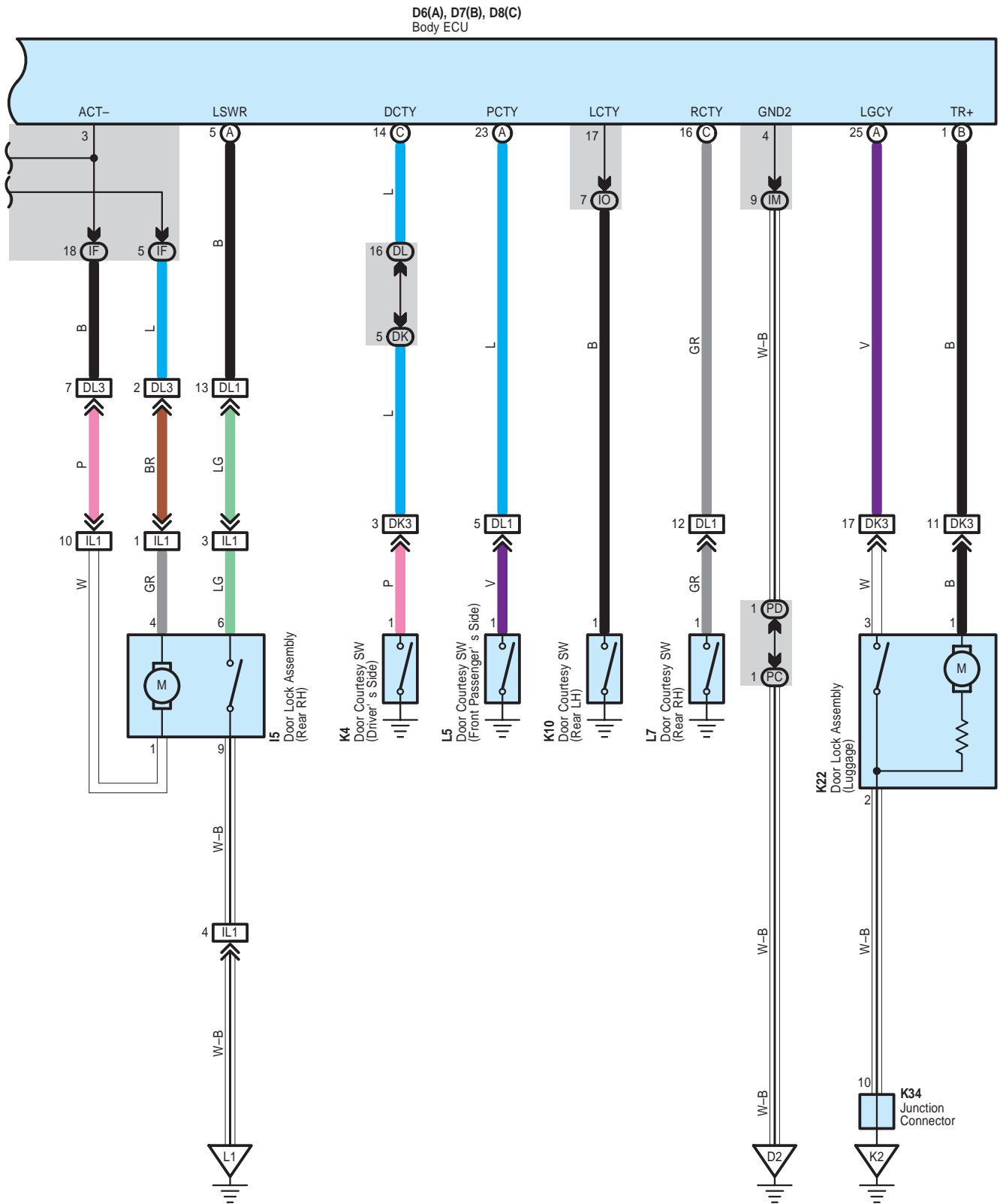


D6(A), D7(B), D8(C)  
Body ECU





# Wireless Door Lock Control with Smart Key System



**○ : Parts Location**

Code	See Page	Code	See Page	Code	See Page
A9	48	D46   B	52	K26	55
A10	48	D53	52	K28	55
A18	48	E2	52	K34	55
A33	48	E23	53	L5	55
A41   A	50	G1   A	54	L7	55
A51	48	G2   B	54	L11	55
A52	48	G8	54	L21	55
D6   A	51	G9	54	N6	55
D7   B	51	H1   A	54	N8	55
D8   C	51	H2   B	54	V1	55
D13	51	H8	54	V2	55
D14	51	H9	54	W1	55
D19	51	I5	54	W2	55
D26	51	J5	54	X1	55
D29	51	K4	54	X2	55
D37	51	K8	54	Y1	55
D39   A	52	K10	54	Y2	55
D40   B	52	K21	55		
D44	52	K22	55		

**○ : Relay Blocks**

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

# Wireless Door Lock Control with Smart Key System

## : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B		
1C	24	
1F	22	
1G	24	
1H		
1I		
DD	36	
DE		
DF		
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
IA	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IC		
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
IJ	30	
IK		
IL		
IM		
IO	30	Floor No.1 Wire and Instrument Panel J/B (Lower Finish Panel)
IP		
IR	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PC		
PD		

 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD2	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DK1	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DK2		
DK3		
DL1	60	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
DL2		
DL3		
DN1	61	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
GD1	61	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
GD2		
GV1	62	Front Door RH Wire and Electrical Key Wire Front RH (Inside of the Front Door RH)
HD1	61	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
HD2		
HW1	62	Front Door LH Wire and Electrical Key Wire Front LH (Inside of the Front Door LH)
IL1	62	Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)
IX1	62	Rear Door RH Wire and Electrical Key Wire Rear RH (Inside of the Rear Door RH)
JK1	62	Rear Door LH Wire and Floor No.1 Wire (Left Center Pillar)
JY1	62	Rear Door LH Wire and Electrical Key Wire Rear LH (Inside of the Rear Door LH)

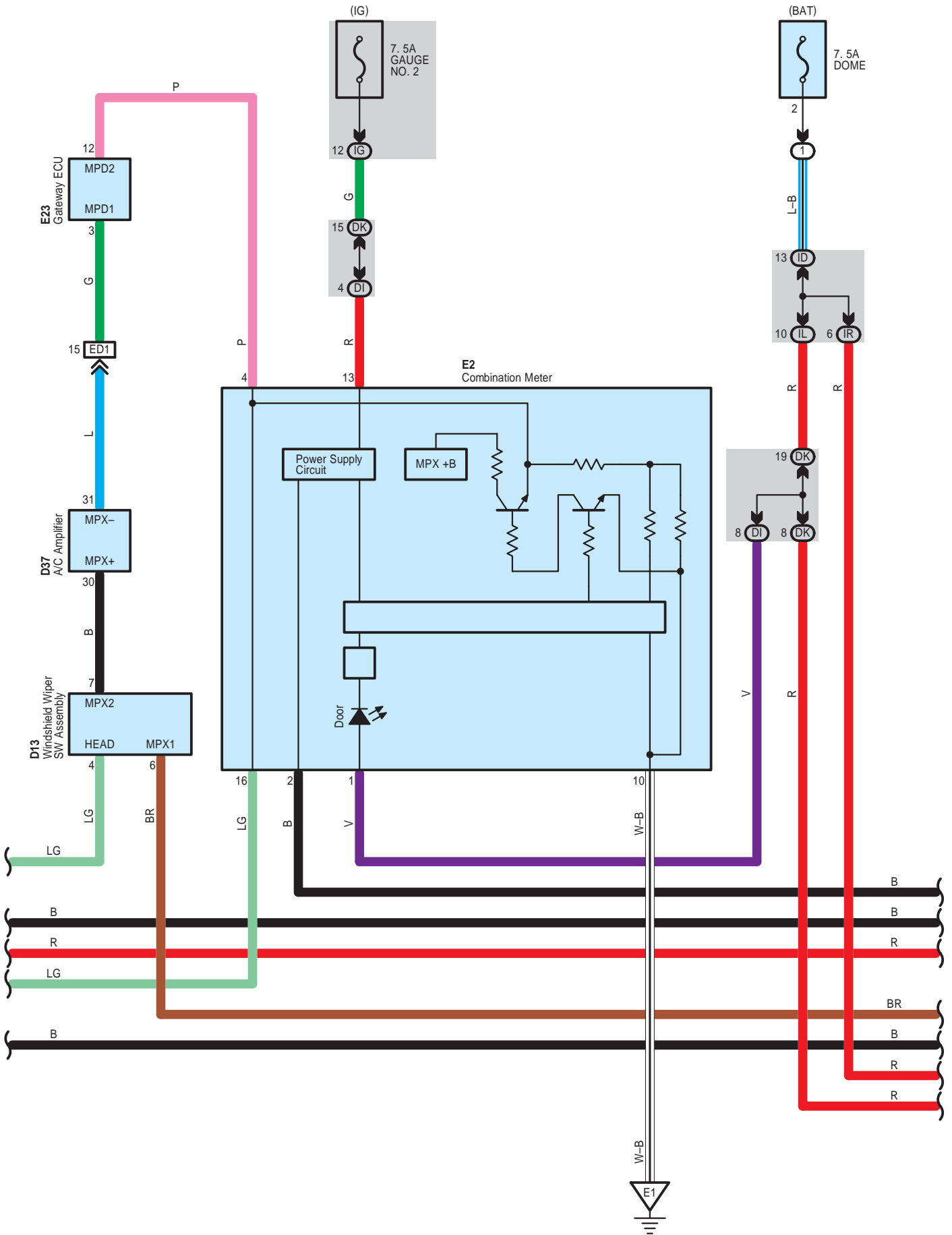
 : Ground Points

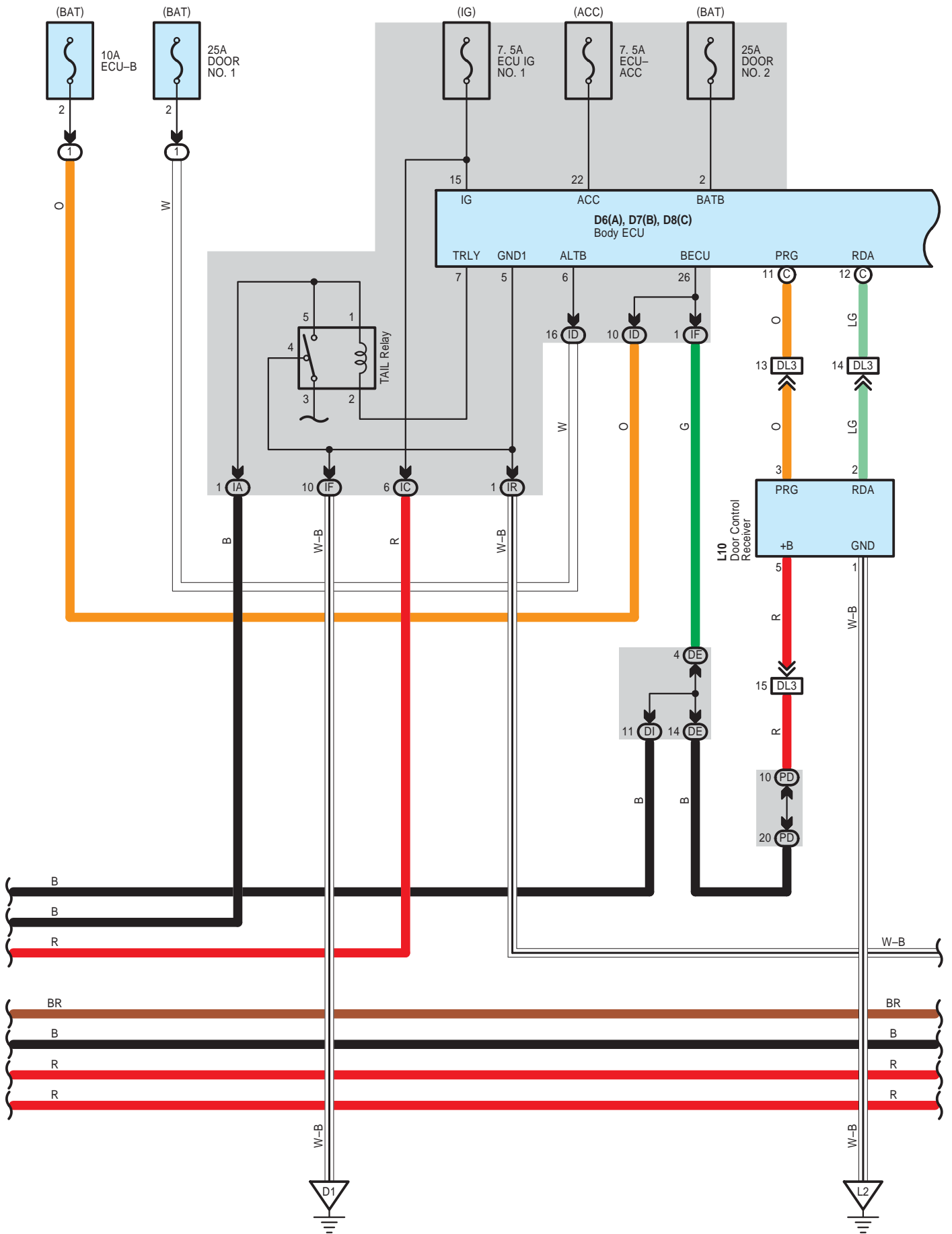
Code	See Page	Ground Points Location
A1	58	Front Left Fender
A2		
A3	60	Left Side of the Instrument Panel
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter
K2	62	Left Rear Quarter Panel
K3	60	Left Side of the Instrument Panel
L1	62	Right Rear Quarter Panel
L2		





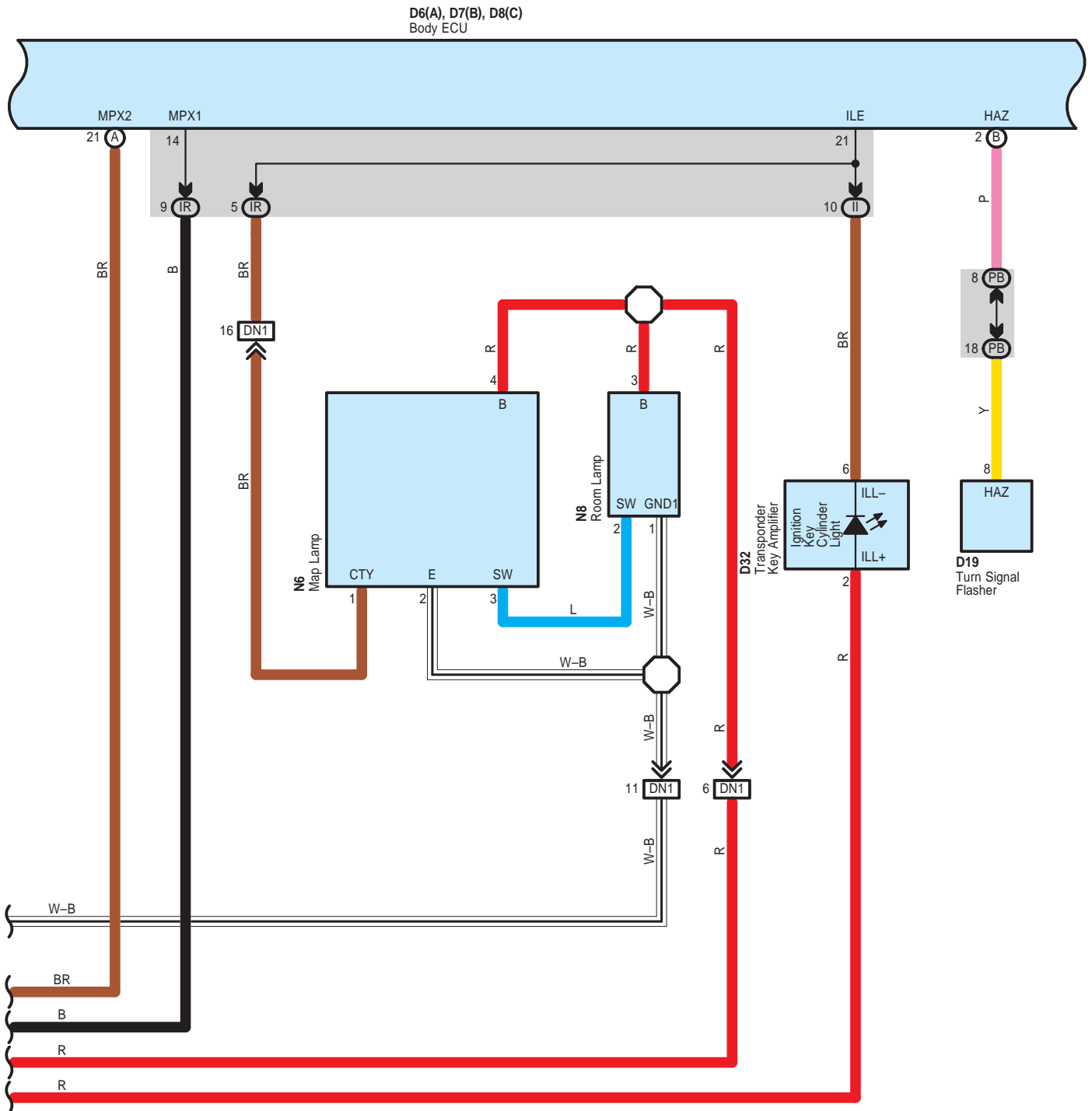
# Wireless Door Lock Control without Smart Key System



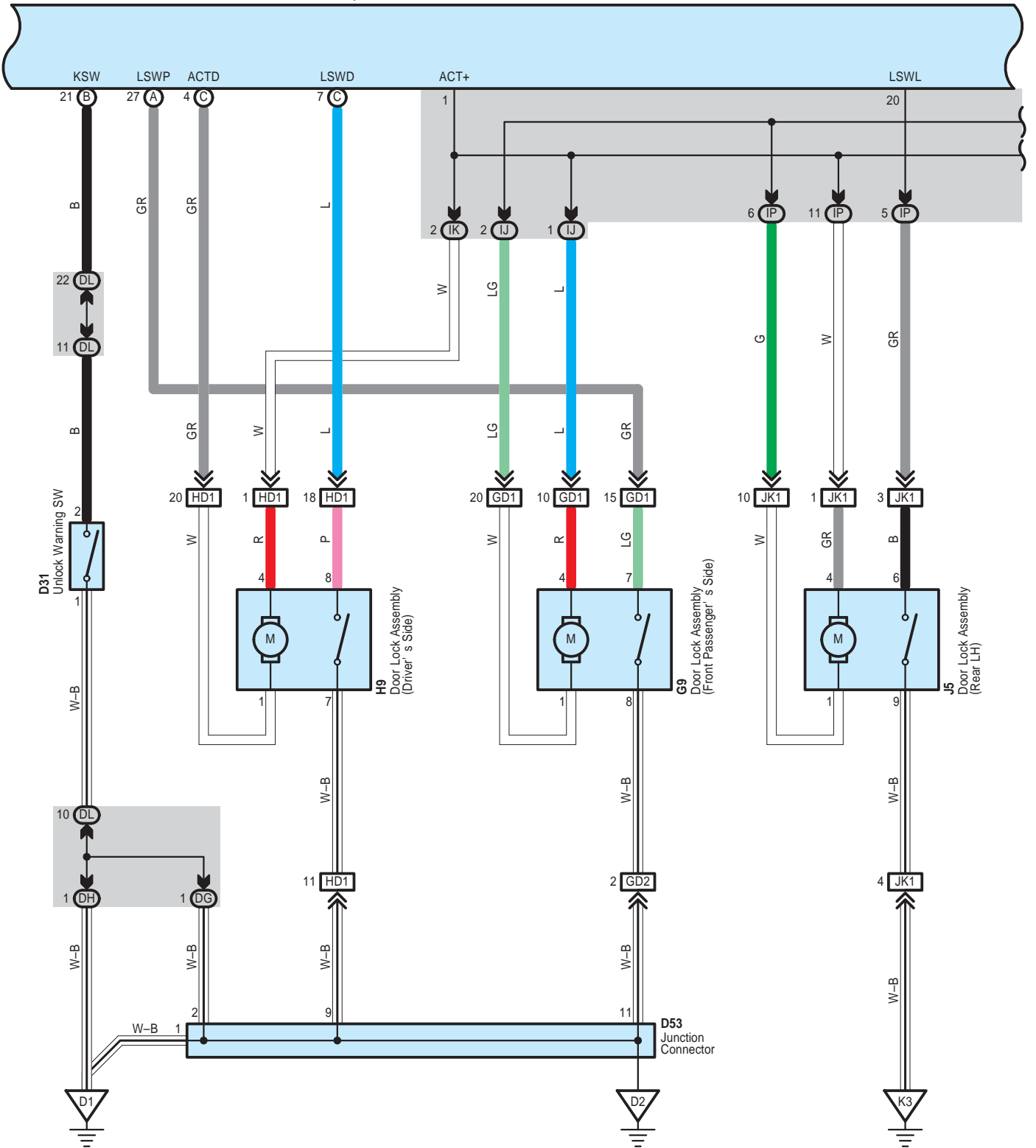




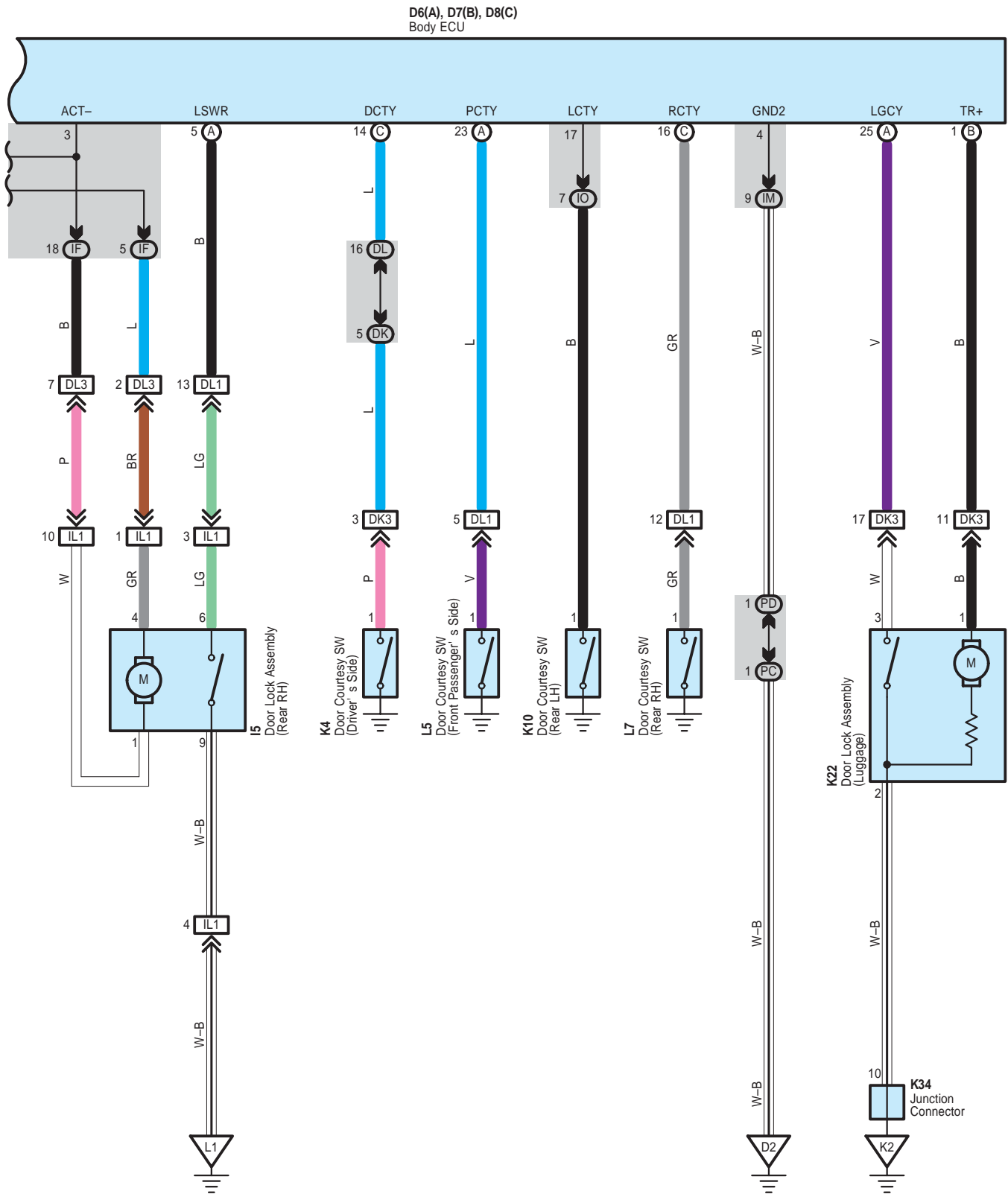
# Wireless Door Lock Control without Smart Key System



D6(A), D7(B), D8(C)  
Body ECU



# Wireless Door Lock Control without Smart Key System



**○ : Parts Location**

Code	See Page	Code	See Page	Code	See Page
A9	48	D19	51	J5	54
A10	48	D31	51	K4	54
A18	48	D32	51	K10	54
A33	48	D37	51	K22	55
A41	A	50	D46	B	52
A51	48	D53	52	L5	55
A52	48	E2	52	L7	55
D6	A	51	E23	53	L10
D7	B	51	G9	54	N6
D8	C	51	H9	54	N8
D13	51	I5	54		

**○ : Relay Blocks**

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

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

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B		
1C		
1F	22	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
1G	24	
1H		
1I		
DE	36	
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
IA	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IC		
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
II		
IJ	30	
IK		
IL		
IM	30	
IO		
IP		
IR	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PC		
PD		

# Wireless Door Lock Control without Smart Key System

## : Connector Joining Wire Harness and Wire Harness

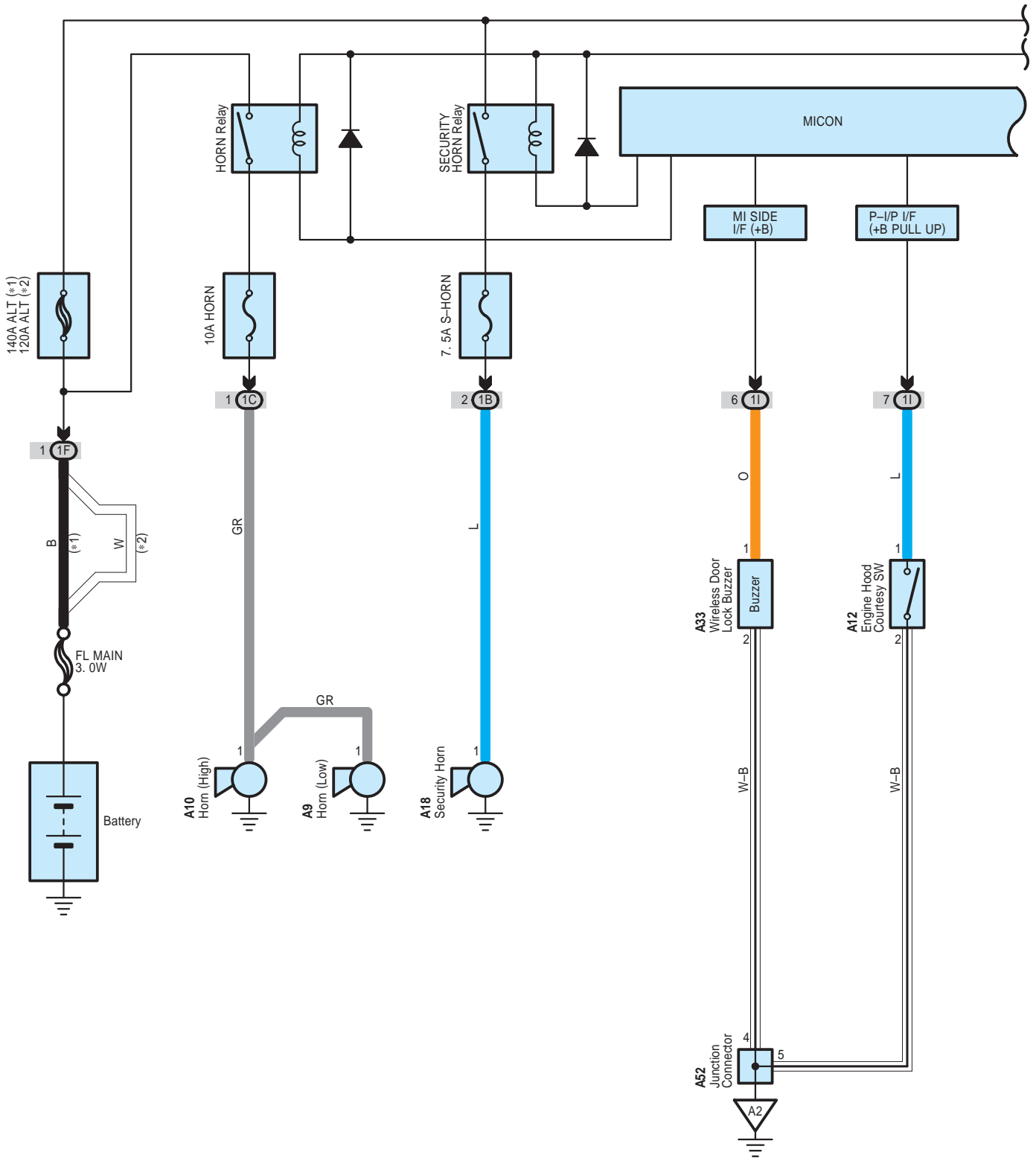
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD2	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DL1	60	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
DL3		
DN1	61	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
GD1	61	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
GD2		
HD1	61	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IL1	62	Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)
JK1	62	Rear Door LH Wire and Floor No.1 Wire (Left Center Pillar)

## : Ground Points

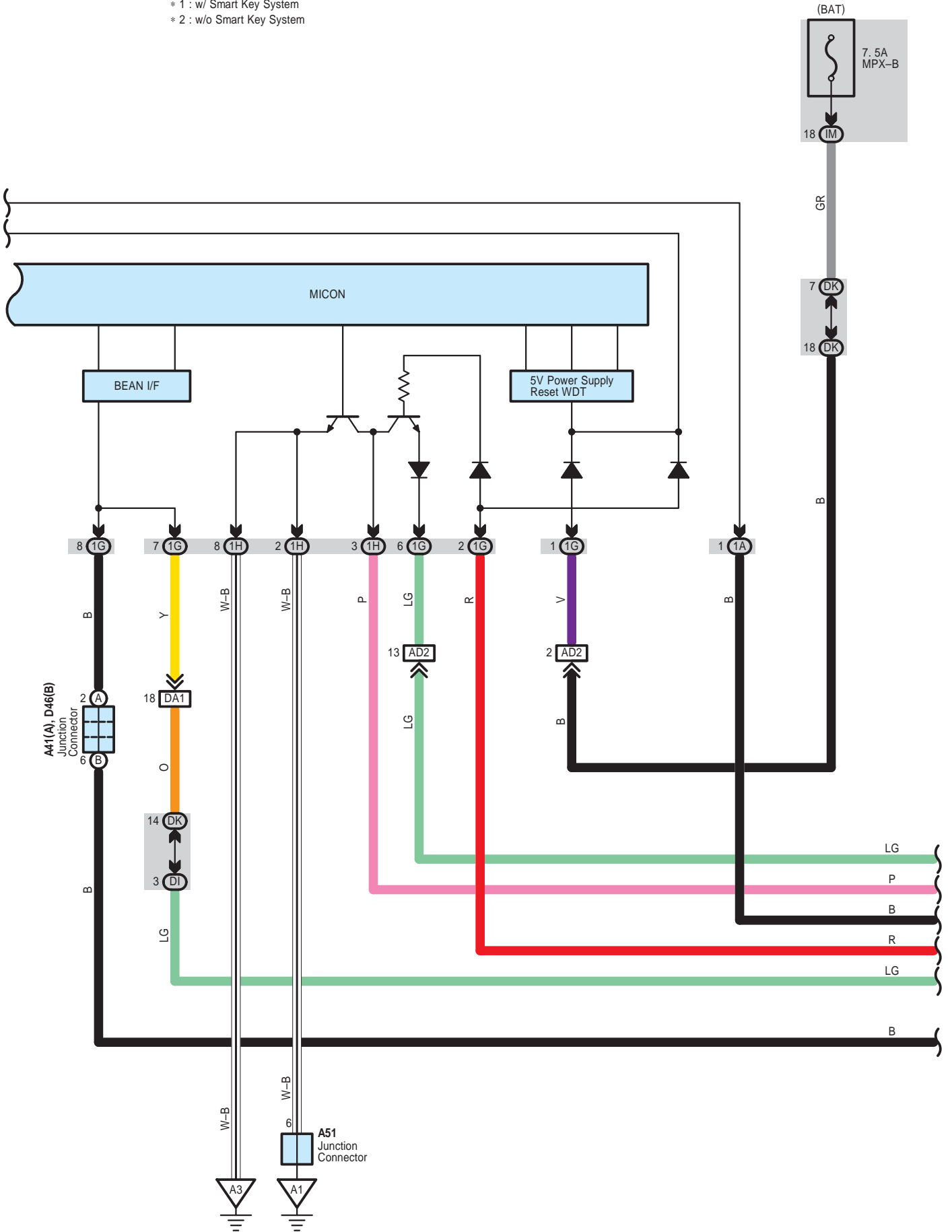
Code	See Page	Ground Points Location
A1	58	Front Left Fender
A2		
A3	60	Left Side of the Instrument Panel
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter
K2	62	Left Rear Quarter Panel
K3	60	Left Side of the Instrument Panel
L1	62	Right Rear Quarter Panel
L2		



# Theft Deterrent

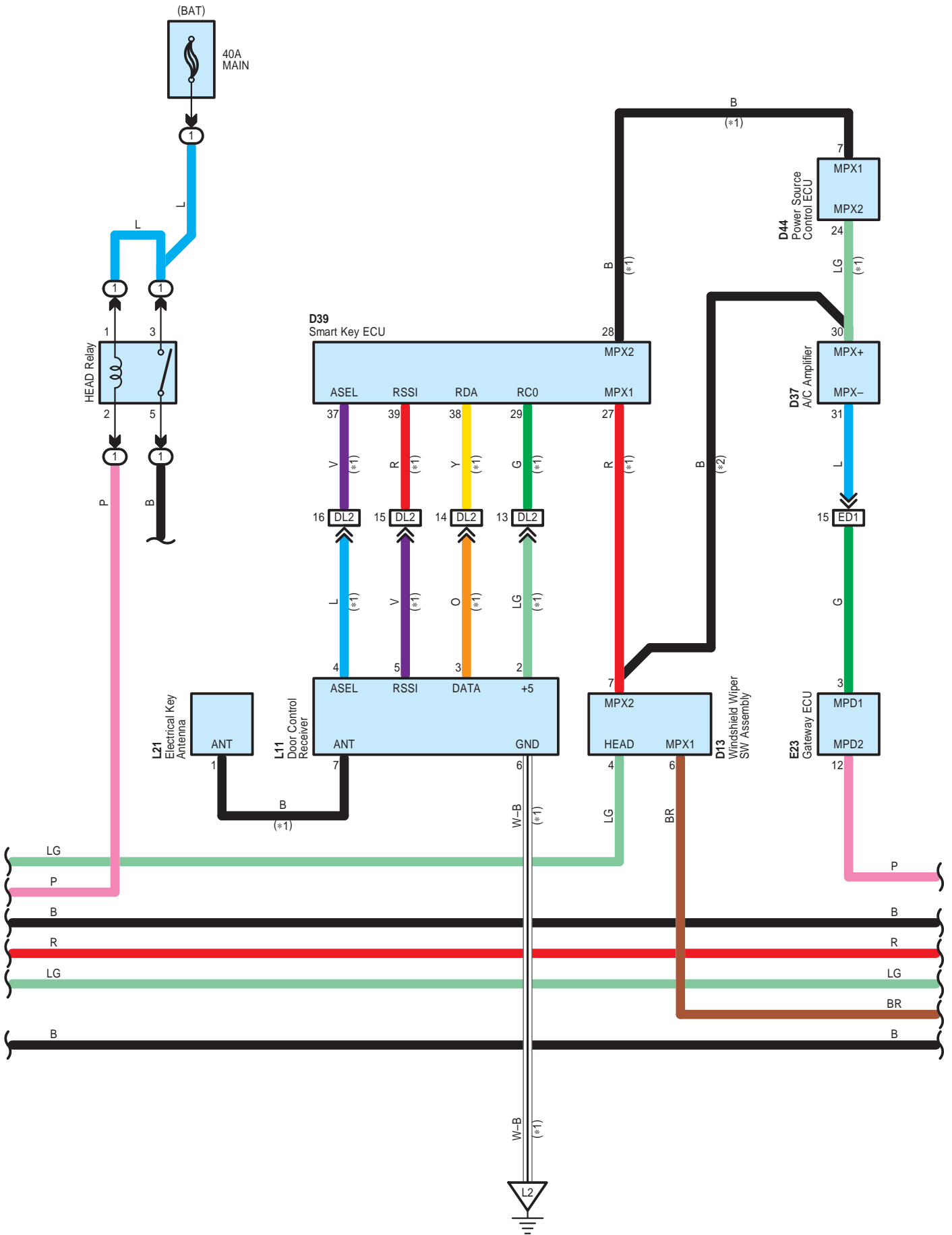


- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System



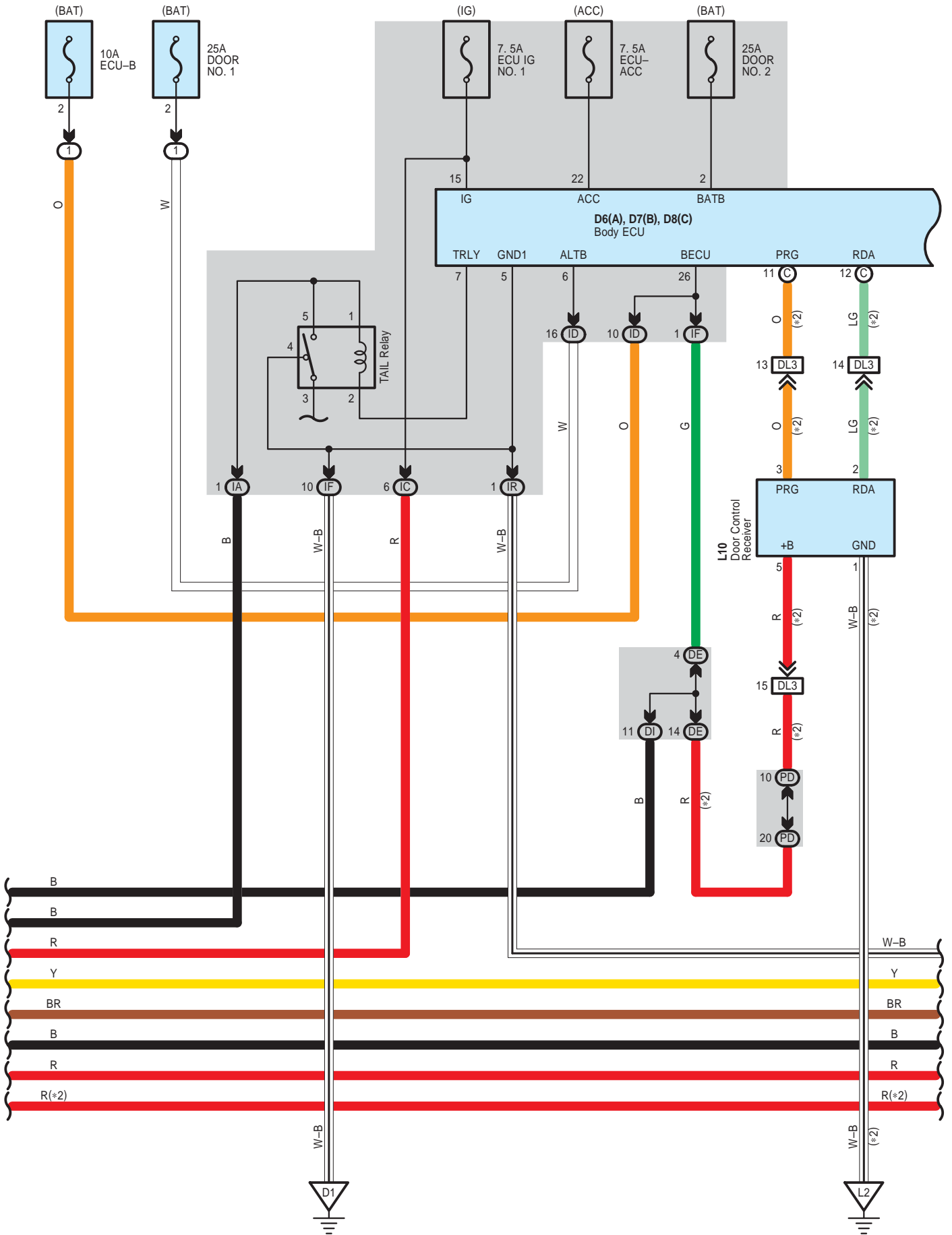


# Theft Deterrent



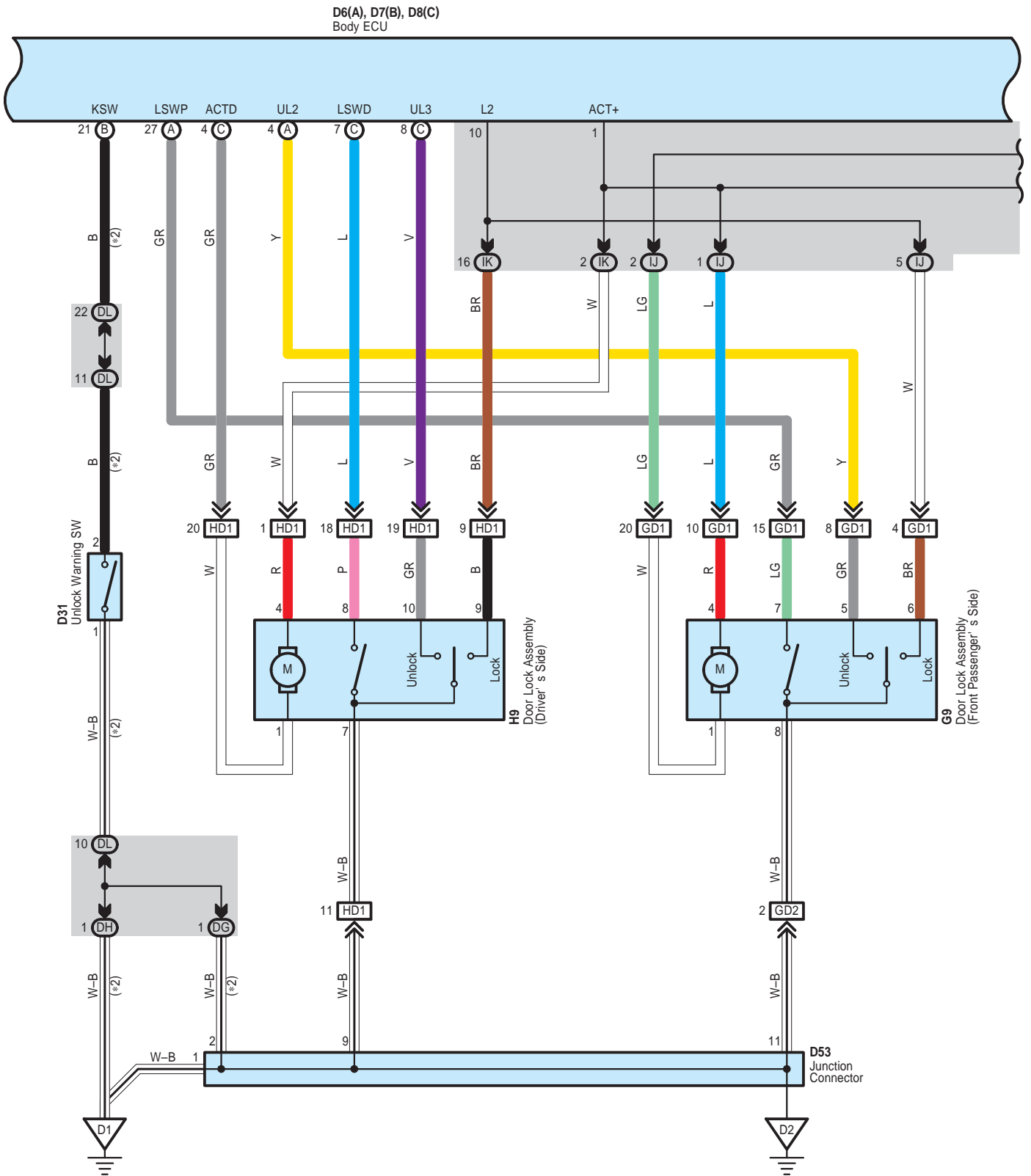


# Theft Deterrent

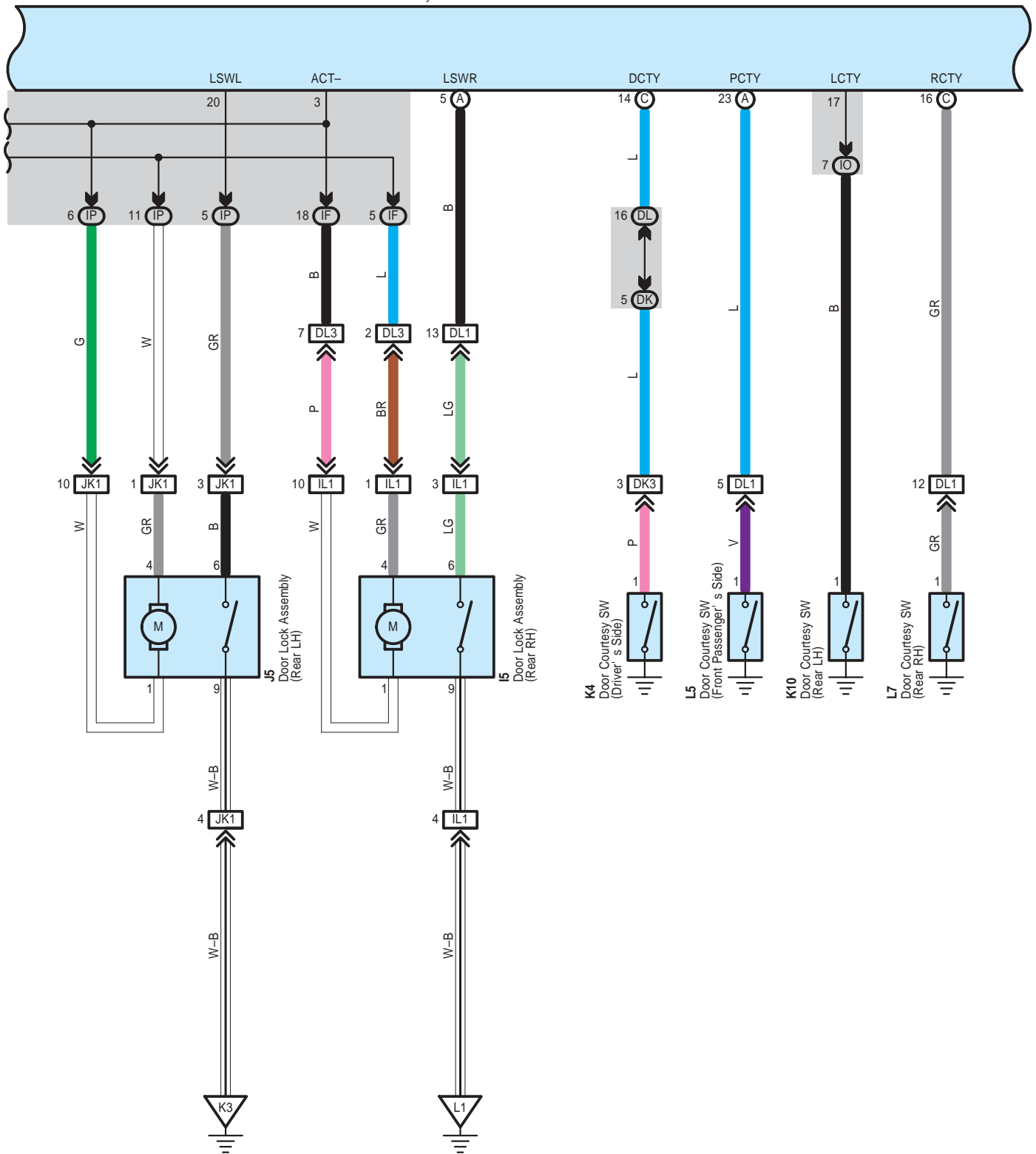




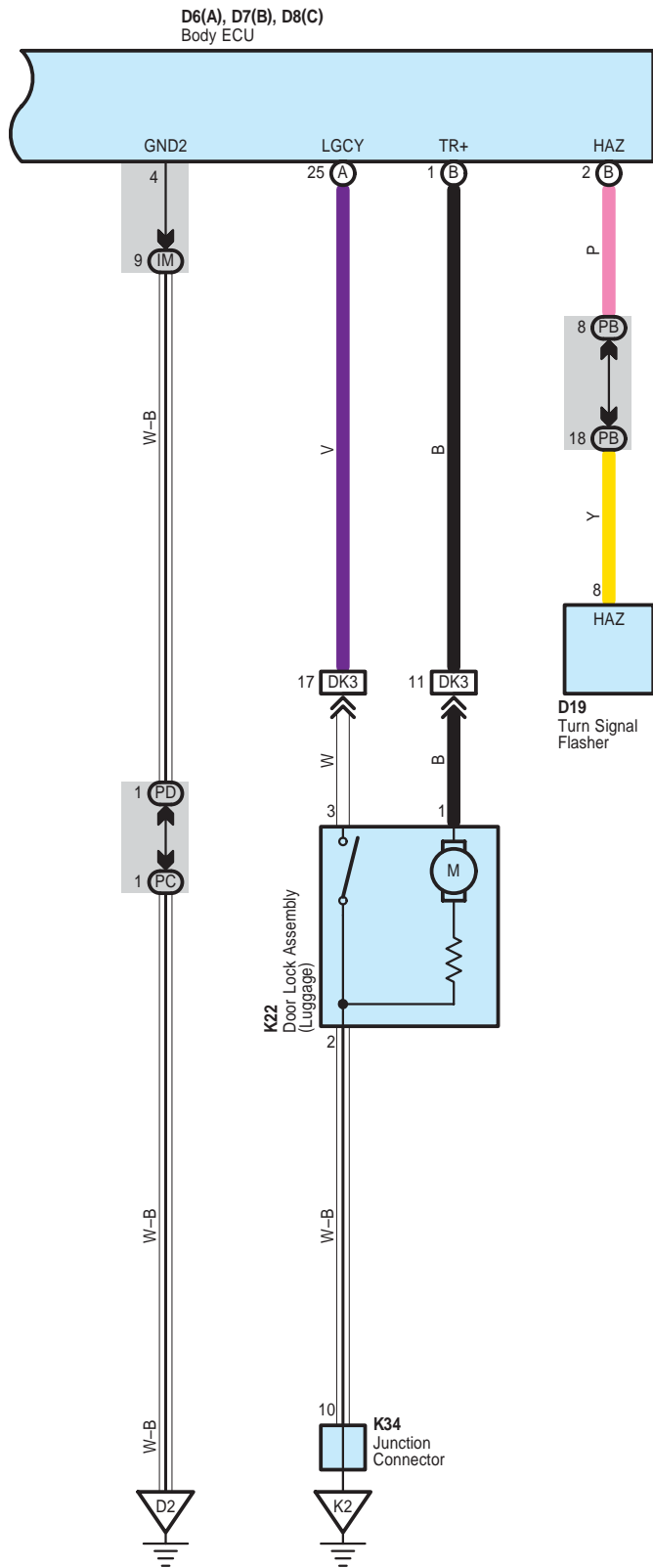
# Theft Deterrent



D6(A), D7(B), D8(C)  
Body ECU



# Theft Deterrent



**○ : Parts Location**

Code	See Page	Code	See Page	Code	See Page
A9	48	D31	51	K4	54
A10	48	D32	51	K10	54
A12	48	D37	51	K22	55
A18	48	D39	52	K34	55
A33	48	D44	52	L5	55
A41	A	50	D46	B	52
A51	48	D53	52	L10	55
A52	48	E2	52	L11	55
D6	A	51	E23	53	L21
D7	B	51	G9	54	N6
D8	C	51	H9	54	N8
D13	51	I5	54		
D19	51	J5	54		

**○ : Relay Blocks**

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

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

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	22	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B		
1C		
1F		
1G	24	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
1H		
1I		
DE	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DG		
DH		
DI	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
IA	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IC		
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG		
II	31	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IJ		
IK		
IL		
IM		
IO	30	Floor No.1 Wire and Instrument Panel J/B (Lower Finish Panel)
IP		
IR	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PC		
PD		



# Theft Deterrent

 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD2	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DL1	60	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
DL2		
DL3		
DN1	61	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
GD1	61	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
GD2		
HD1	61	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IL1	62	Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)
JK1	62	Rear Door LH Wire and Floor No.1 Wire (Left Center Pillar)

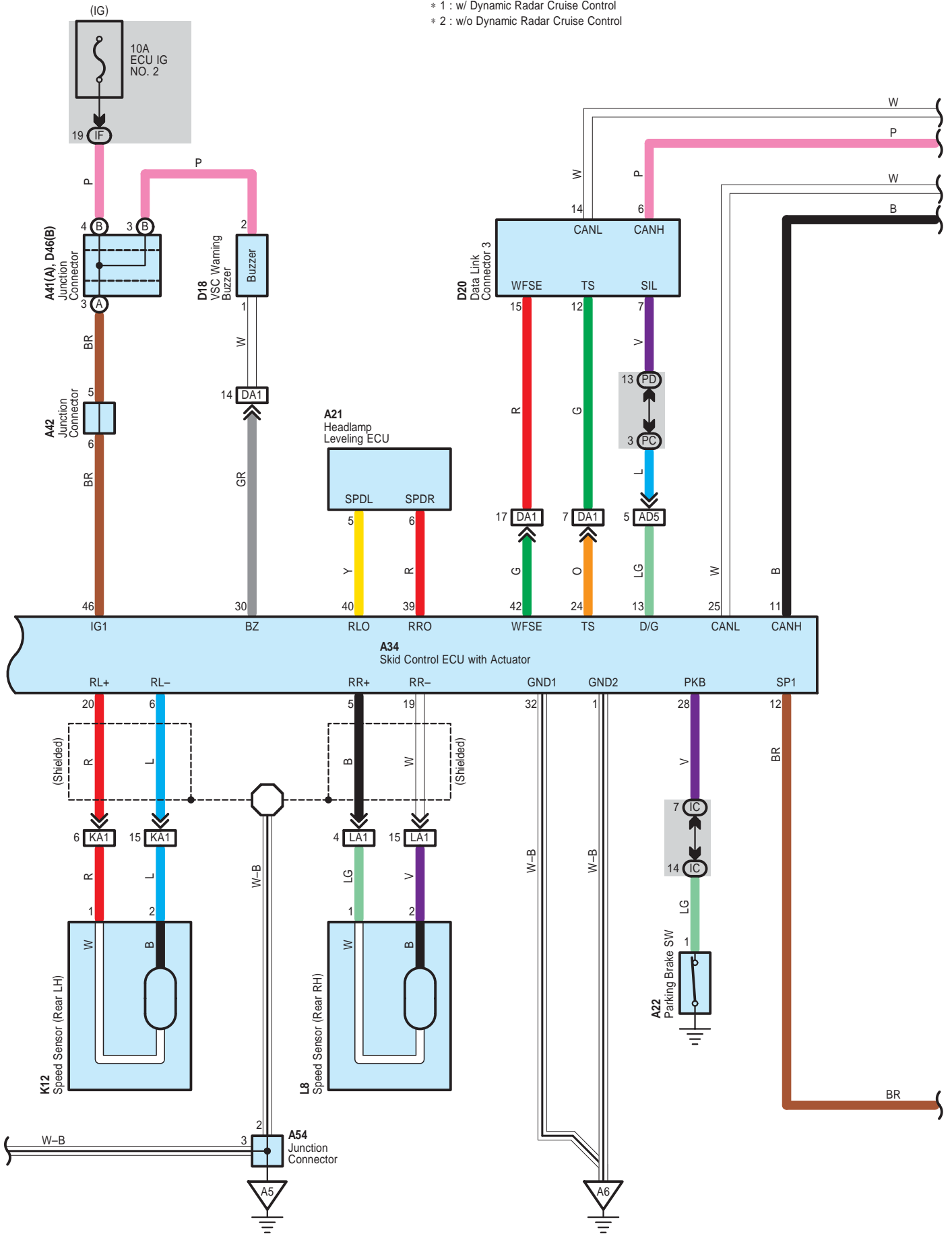
 : Ground Points

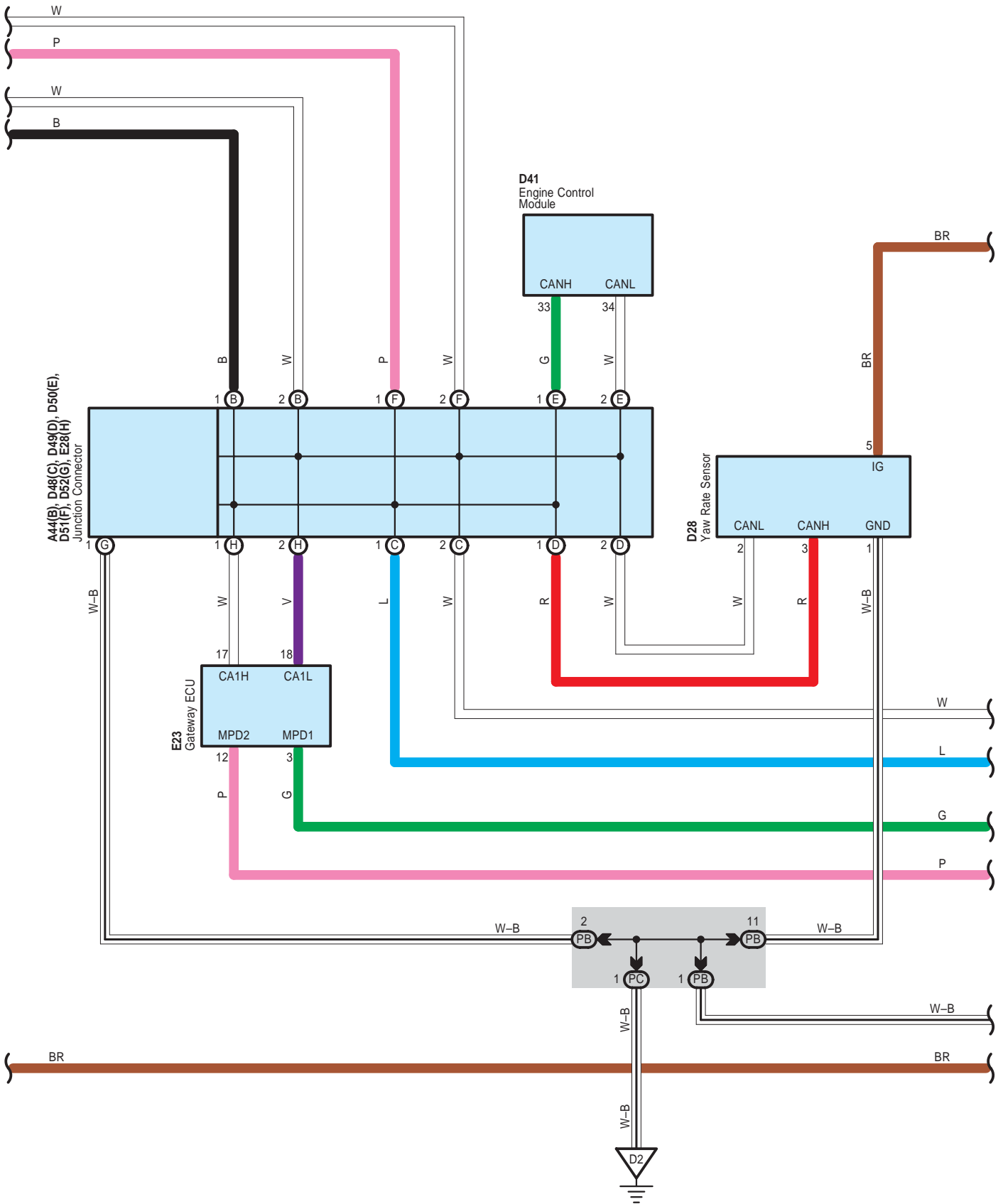
Code	See Page	Ground Points Location
A1	58	Front Left Fender
A2		
A3	60	Left Side of the Instrument Panel
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter
K2	62	Left Rear Quarter Panel
K3	60	Left Side of the Instrument Panel
L1	62	Right Rear Quarter Panel
L2		



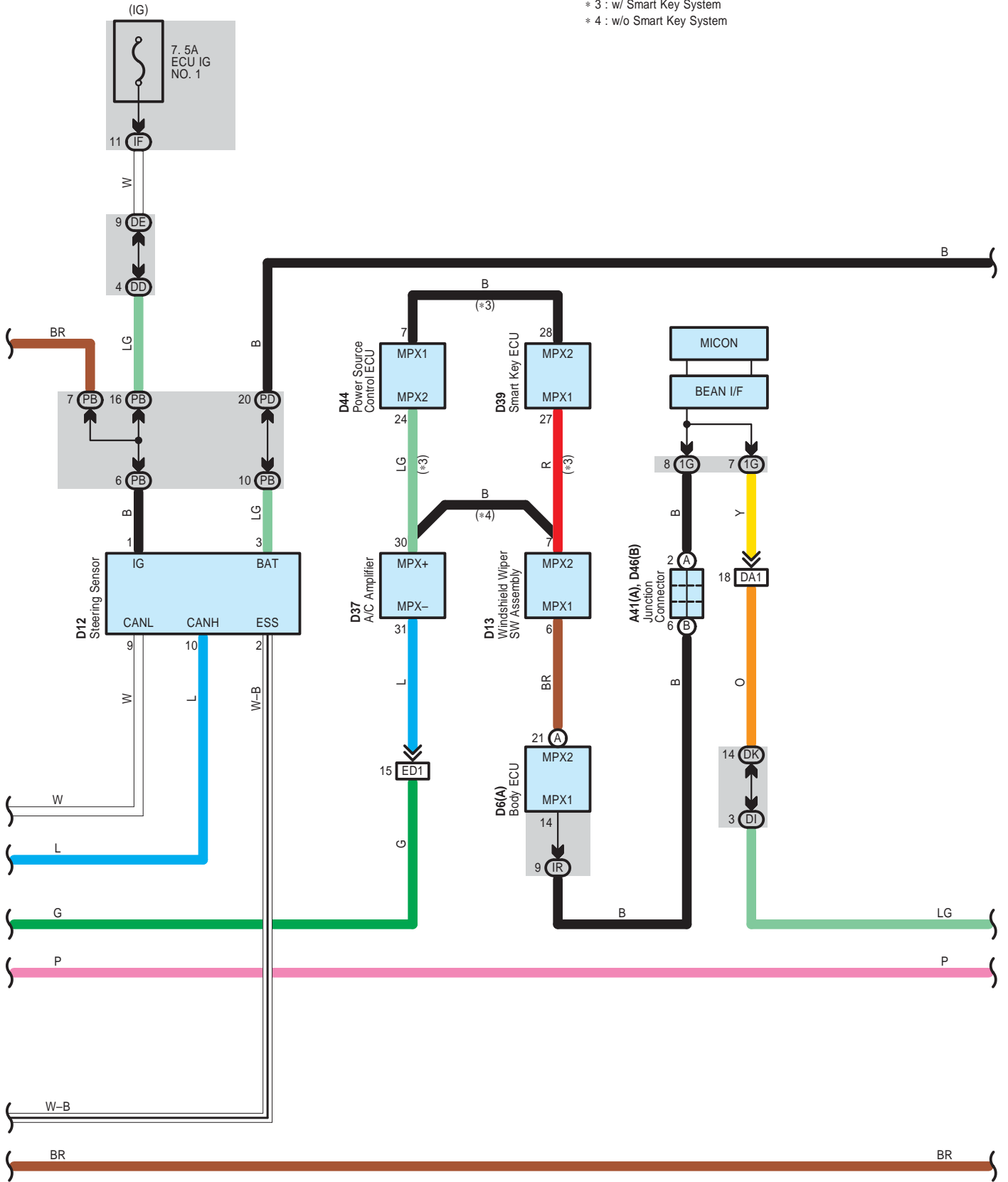


\* 1 : w/ Dynamic Radar Cruise Control  
 \* 2 : w/o Dynamic Radar Cruise Control

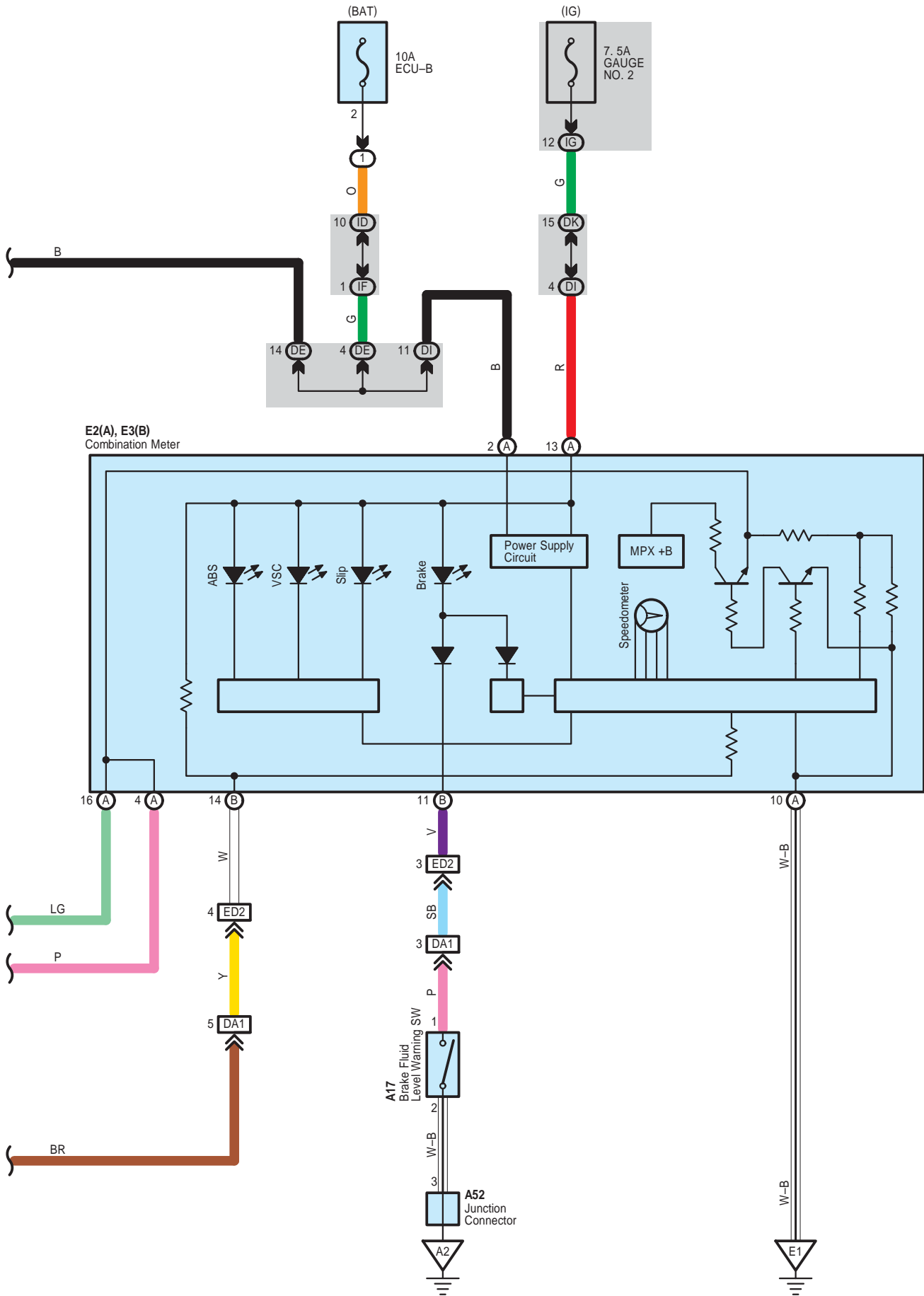




\* 3 : w/ Smart Key System  
 \* 4 : w/o Smart Key System



# ABS, TRAC and VSC



## System Outline

### 1. ABS Operation

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

### 2. Traction Control Operation

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

### 3. VSC Operation

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

To reduce large over-steering :

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

To reduce large under-steering :

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

### 4. Fail Safe Function

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

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A8	48	D6   A	51	D49   D	52
A17	48	D12	51	D50   E	52
A21	50	D13	51	D51   F	52
A22	50	D18	51	D52   G	52
A23	50	D20	51	E2   A	52
A30	48	D28	51	E3   B	52
A34	48	D37	51	E23	53
A41   A	50	D39	52	E28   H	53
A42	50	D41	52	K12	54
A44   B	50	D44	52	L8	55
A52	48	D46   B	52		
A54	48	D48   C	52		

## ○ : Relay Blocks

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



# ABS, TRAC and VSC

## : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DE		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
IC	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
IR	30	
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PC		
PD		

## : Connector Joining Wire Harness and Wire Harness

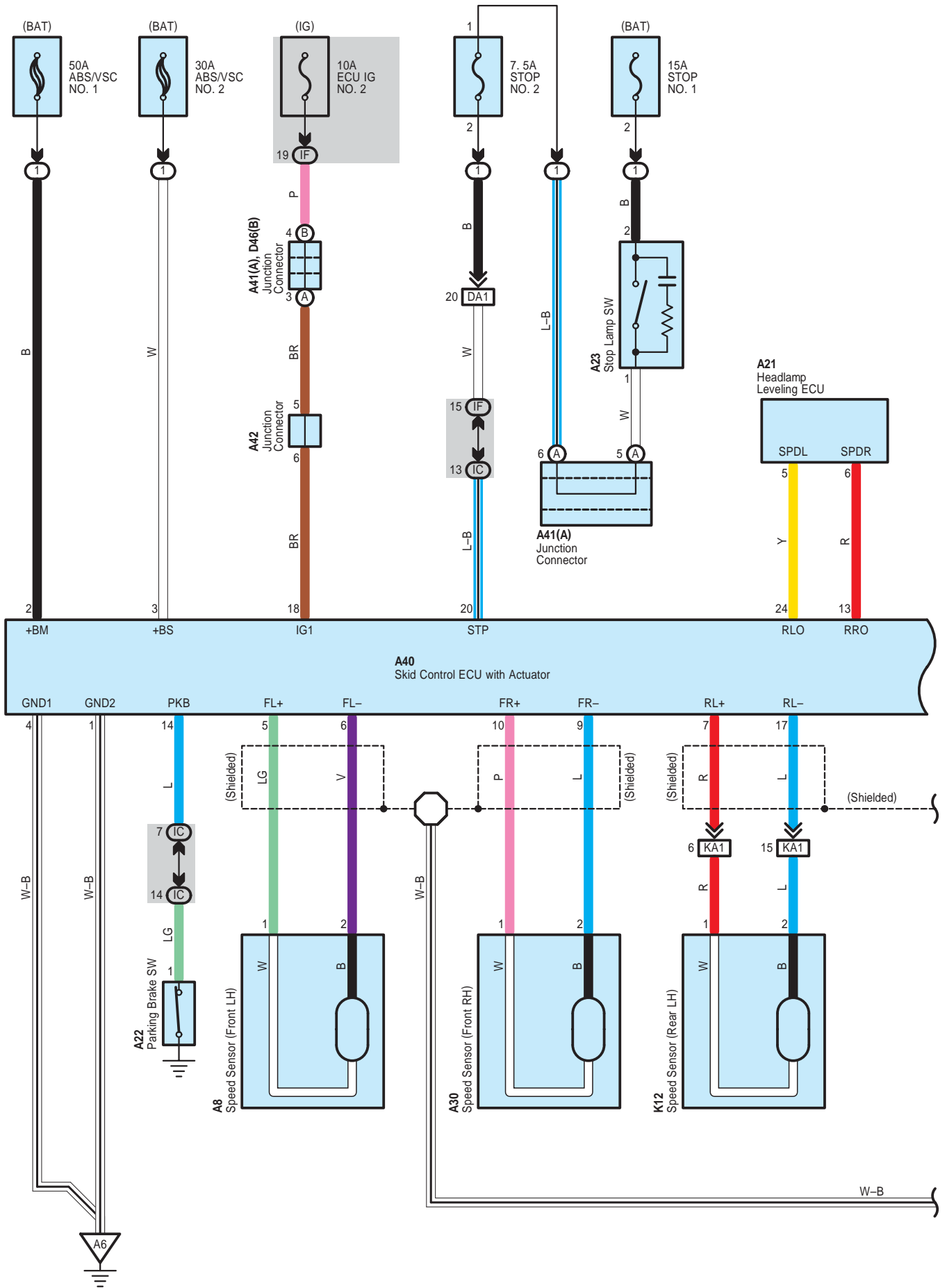
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD5	60	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
ED2		
KA1	61	Floor No.1 Wire and Engine Room Main Wire (Left Side of the Instrument Panel)
LA1	61	Floor No.2 Wire and Engine Room Main Wire (Behind the Glove Box)

## : Ground Points

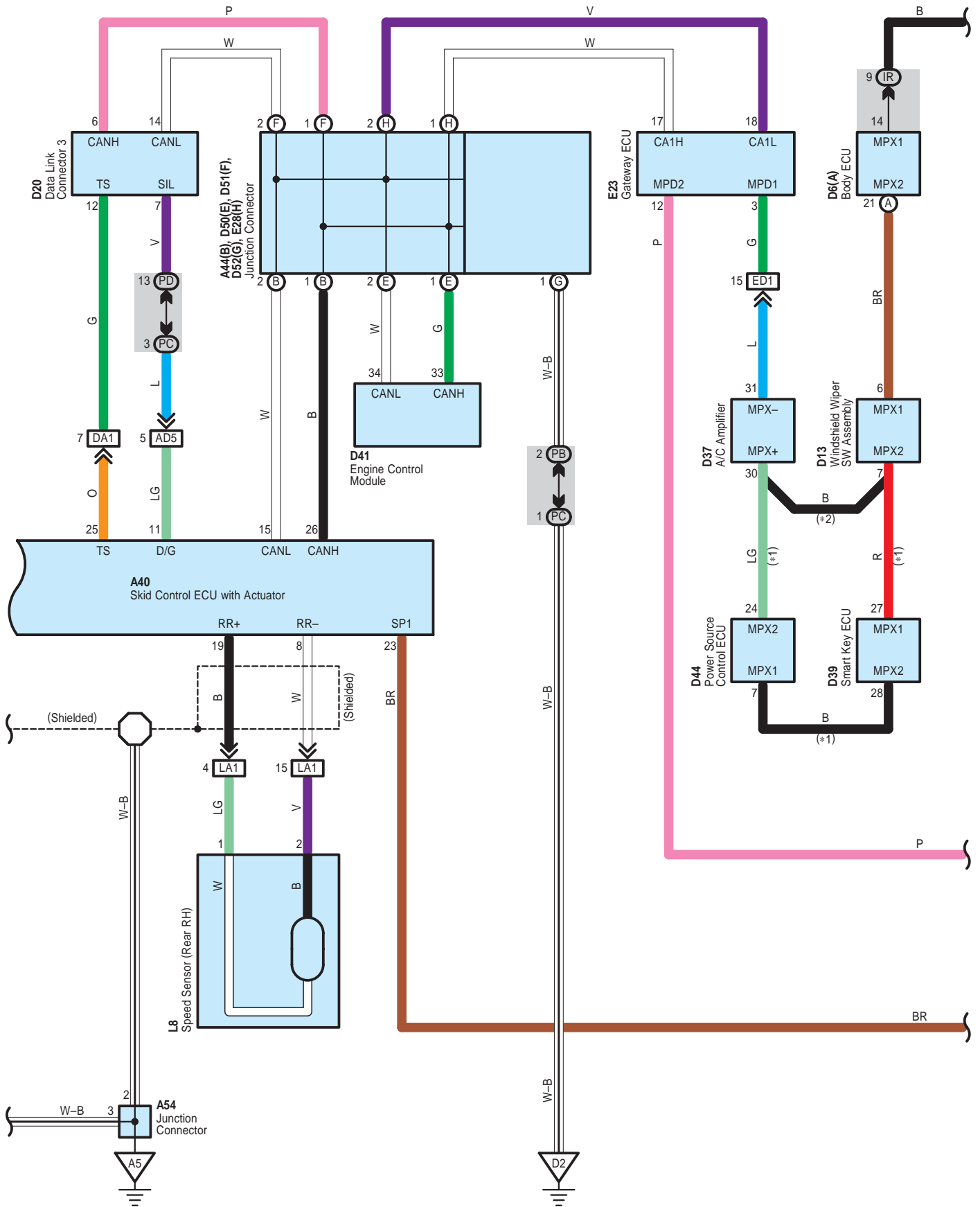
Code	See Page	Ground Points Location
A2	58	Front Left Fender
A5	58	Front Right Fender
A6	60	Right Side of the Instrument Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter



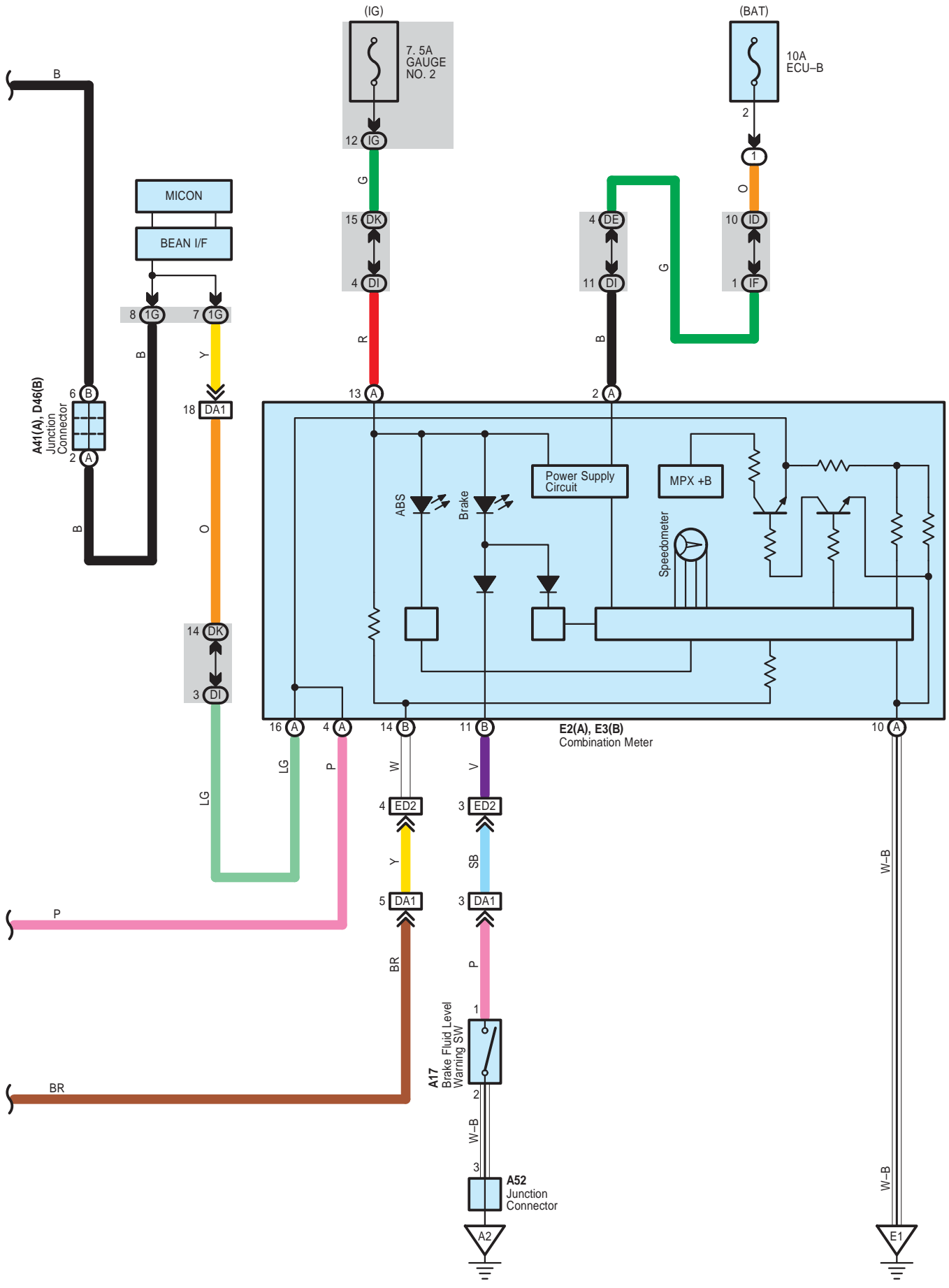
# ABS without VSC



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



# ABS without VSC



## System Outline

### \* ABS system

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

### \* Front and rear braking force distribution system

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

## 1. Input Signals

### (1) Speed sensor signal

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

### (2) Stop light SW signal

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

## 2. System Operation

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

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

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A8	48	A52	48	D50	E 52
A17	48	A54	48	D51	F 52
A21	50	D6	A 51	D52	G 52
A22	50	D13	51	E2	A 52
A23	50	D20	51	E3	B 52
A30	48	D37	51	E23	53
A40	48	D39	52	E28	H 53
A41	A 50	D41	52	K12	54
A42	50	D44	52	L8	55
A44	B 50	D46	B 52		

## ○ : Relay Blocks

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

## ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
IC	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
IR	30	
PB	42	
PC		
PD		

## ABS without VSC

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 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD5	60	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
ED2		
KA1	61	Floor No.1 Wire and Engine Room Main Wire (Left Side of the Instrument Panel)
LA1	61	Floor No.2 Wire and Engine Room Main Wire (Behind the Glove Box)

 : Ground Points

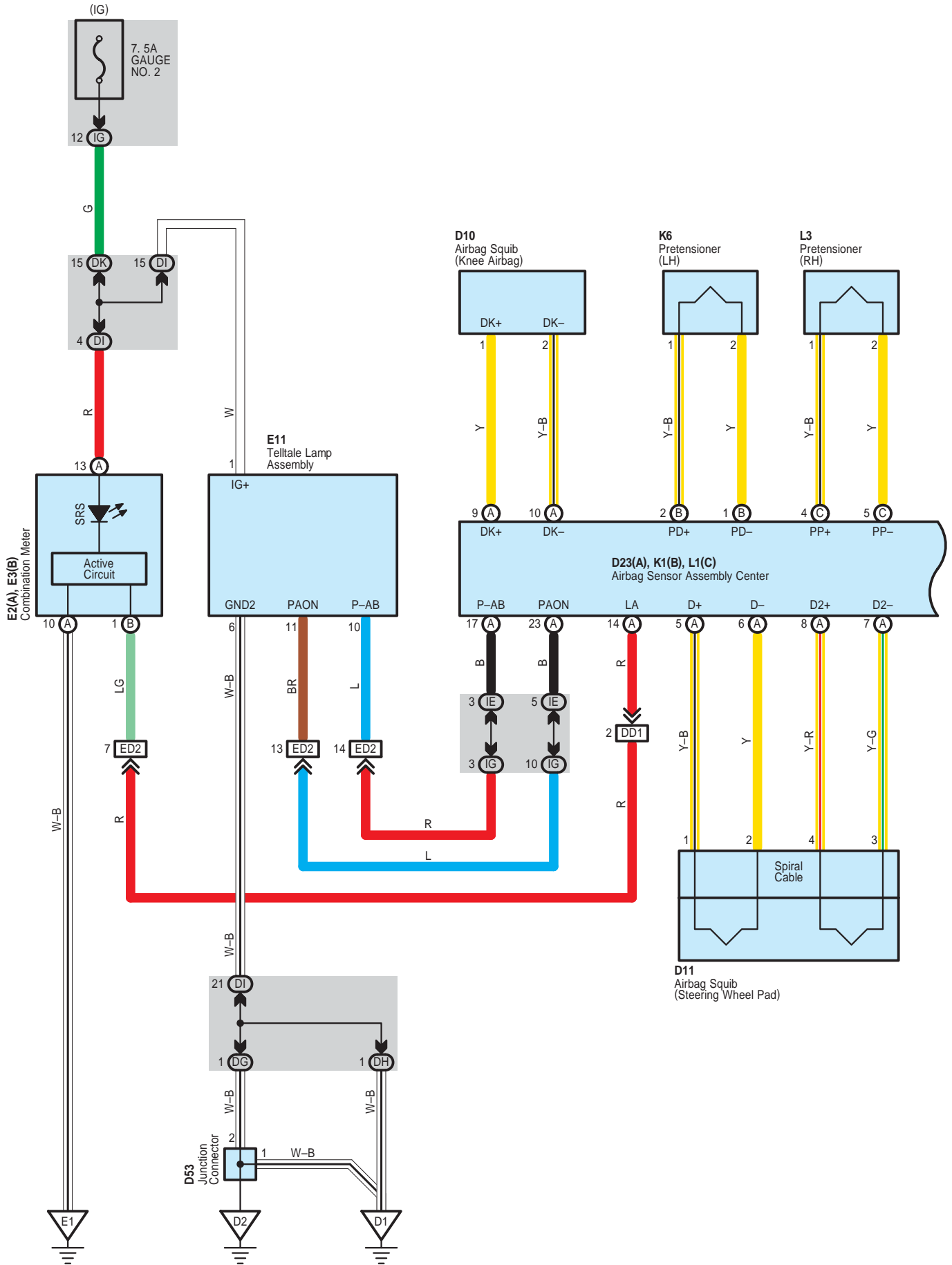
Code	See Page	Ground Points Location
A2	58	Front Left Fender
A5	58	Front Right Fender
A6	60	Right Side of the Instrument Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter

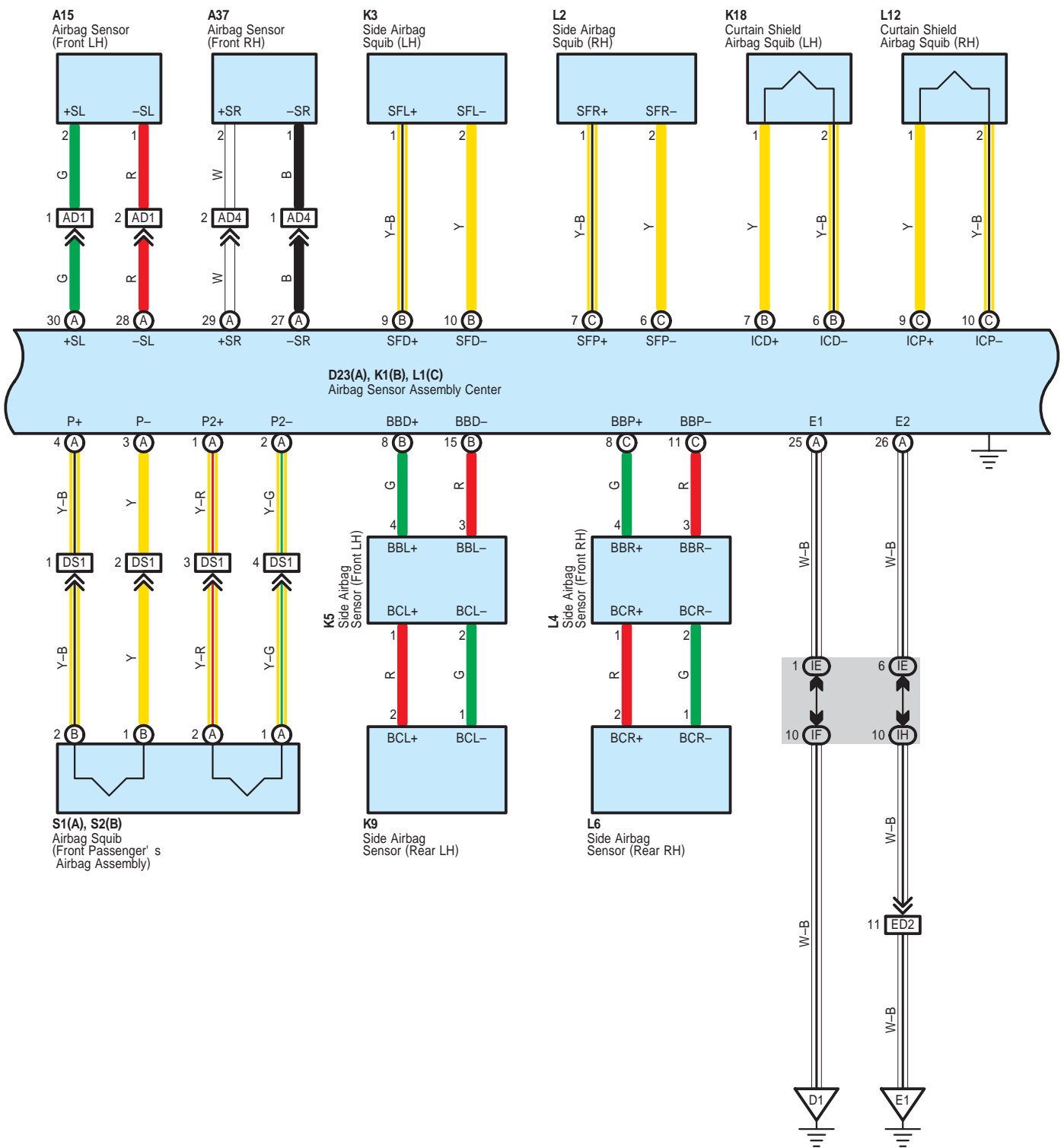
NOTICE: When inspecting or repairing the SRS, perform service in accordance with the following precautionary instructions and the procedure, and precautions in the Repair Manual applicable for the model year.

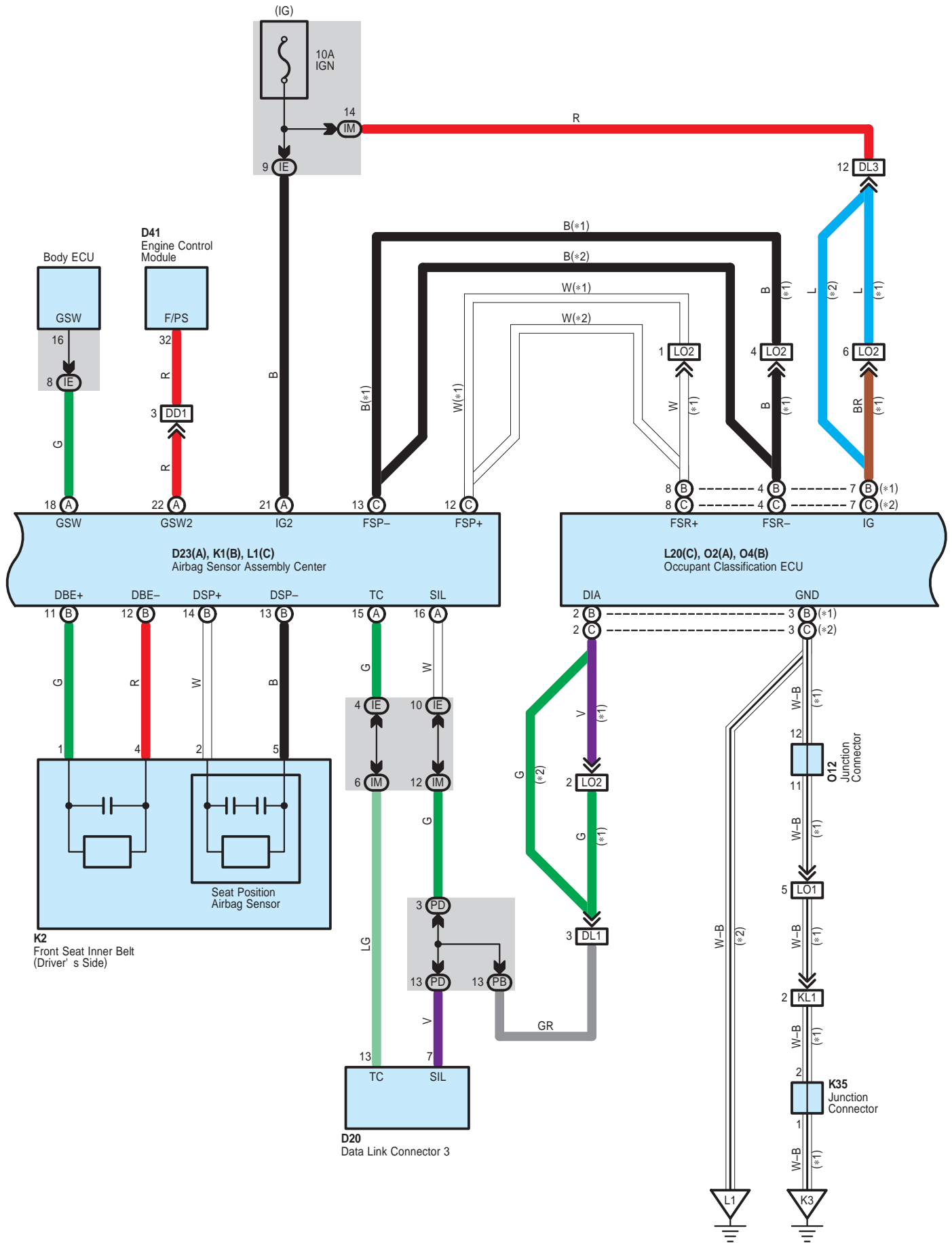
- Malfunction symptoms of the SRS are difficult to confirm, so the DTCs become the most important source of information when troubleshooting. When troubleshooting the SRS, always inspect the DTCs before disconnecting the battery.
- **Work must be started more than 90 seconds after the ignition SW is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

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

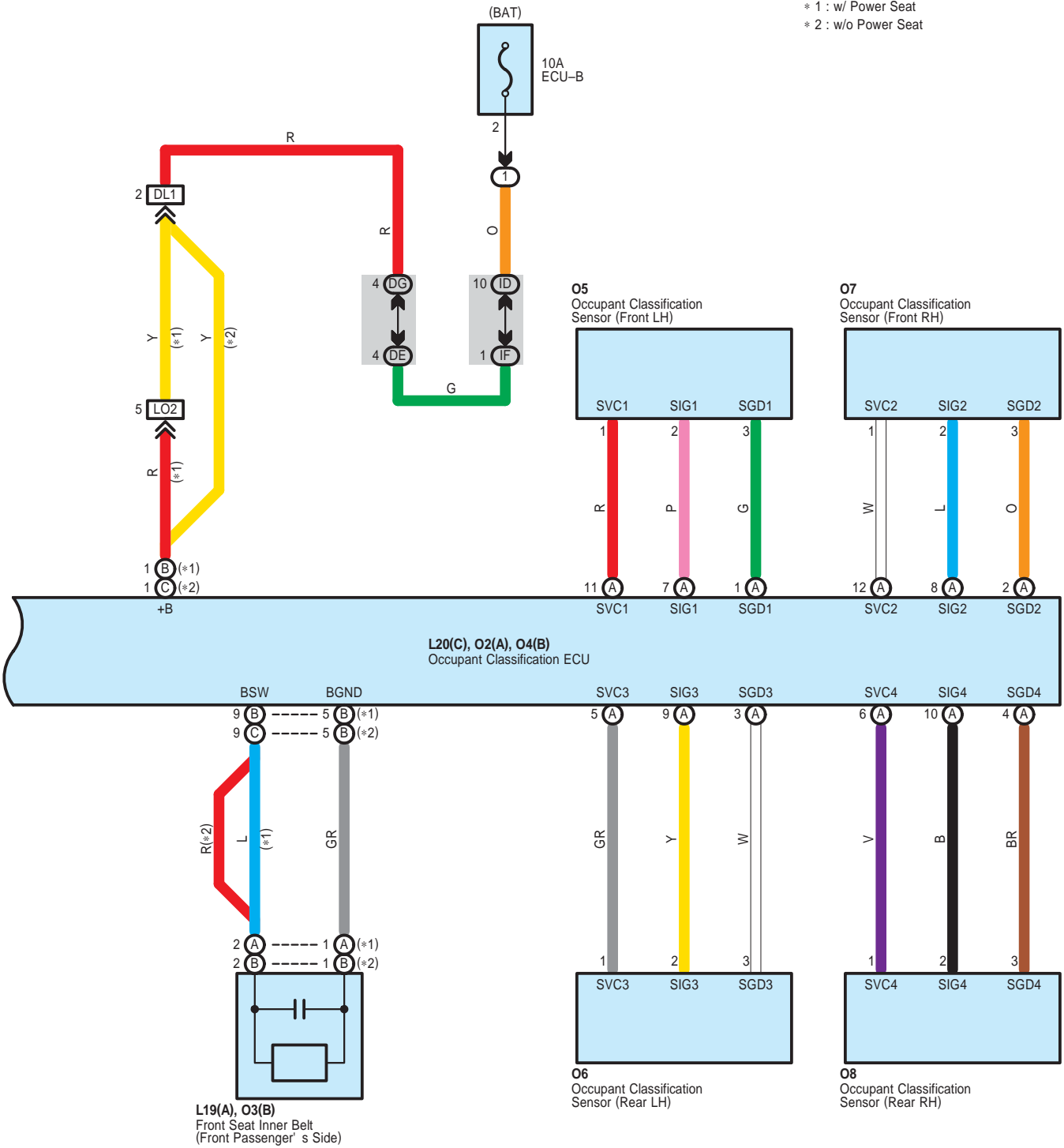








\* 1 : w/ Power Seat  
 \* 2 : w/o Power Seat



## System Outline

- \* The system reaches an ignition judgment to deploy the following device based on the signals received from the front airbag sensor and deceleration sensor.
  - Driver Airbag
  - Front Passenger Airbag
  - Knee Airbag
  - Seat Belt Pretensioner
- \* The system reaches an ignition judgment to deploy the following device based on the signals received from the side airbag sensors.
  - Side Airbags
  - Curtain Shield Airbags
- \* The dual-stage SRS airbag system has been used for the driver and front passenger airbags. This system controls the optimal airbag inflation by judging the extent of impact, seat position (driver seat), 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 airbag sensor assembly transmits a signal to the engine control module in order to stop the fuel pump when the airbag is deployed.
- \* The Airbag sensor assembly transmits a signal to the body ECU in order to release the door lock when the airbag is deployed.

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A15	48	K3	56	L20	C 56
A37	48	K5	54	O2	A 56
D10	51	K6	54	O3	B 56
D11	51	K9	54	O4	B 56
D20	51	K18	54	O5	56
D23	A 51	K35	56	O6	56
D41	52	L1	C 53	O7	56
D53	52	L2	56	O8	56
E2	A 52	L3	55	O12	56
E3	B 52	L4	55	S1	A 53
E11	52	L6	55	S2	B 53
K1	B 53	L12	55		
K2	56	L19	A 56		

## ○ : Relay Blocks

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

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IE	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IF		
IG	31	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IH		
IM	30	
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PD		

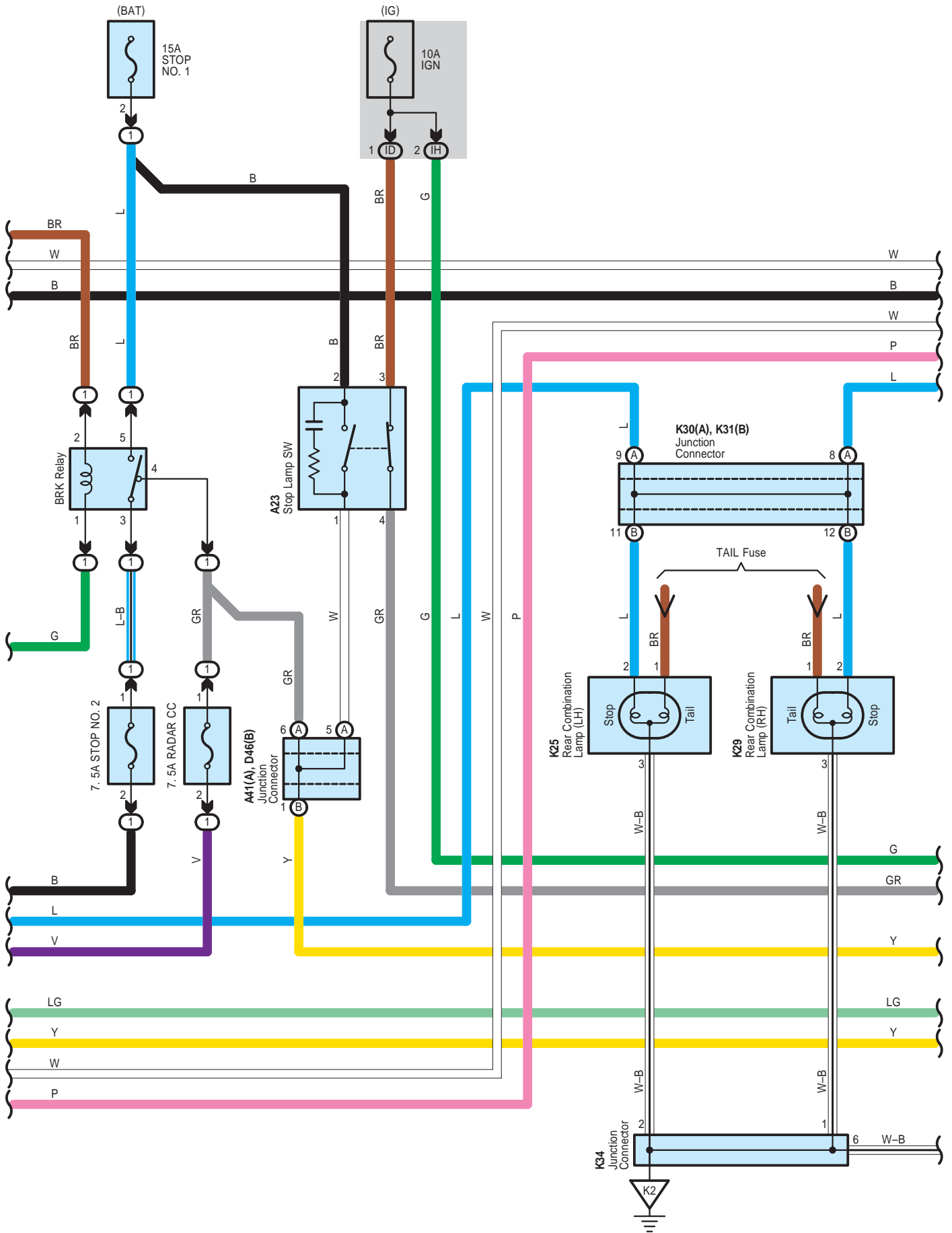
 : **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD1	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
AD4	60	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)
DD1	60	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Center)
DL1	60	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
DL3		
DS1	61	Instrument Panel Wire and Instrument Panel Assembly Wire (Behind the Glove Box)
ED2	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
KL1	61	Floor No.1 Wire and Floor No.2 Wire (Under the Console Box)
LO1	63	Floor No.2 Wire and Front Seat RH Wire (Under the Front Passenger's Seat)
LO2		

 : **Ground Points**

Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter
K3	60	Left Side of the Instrument Panel
L1	62	Right Rear Quarter Panel

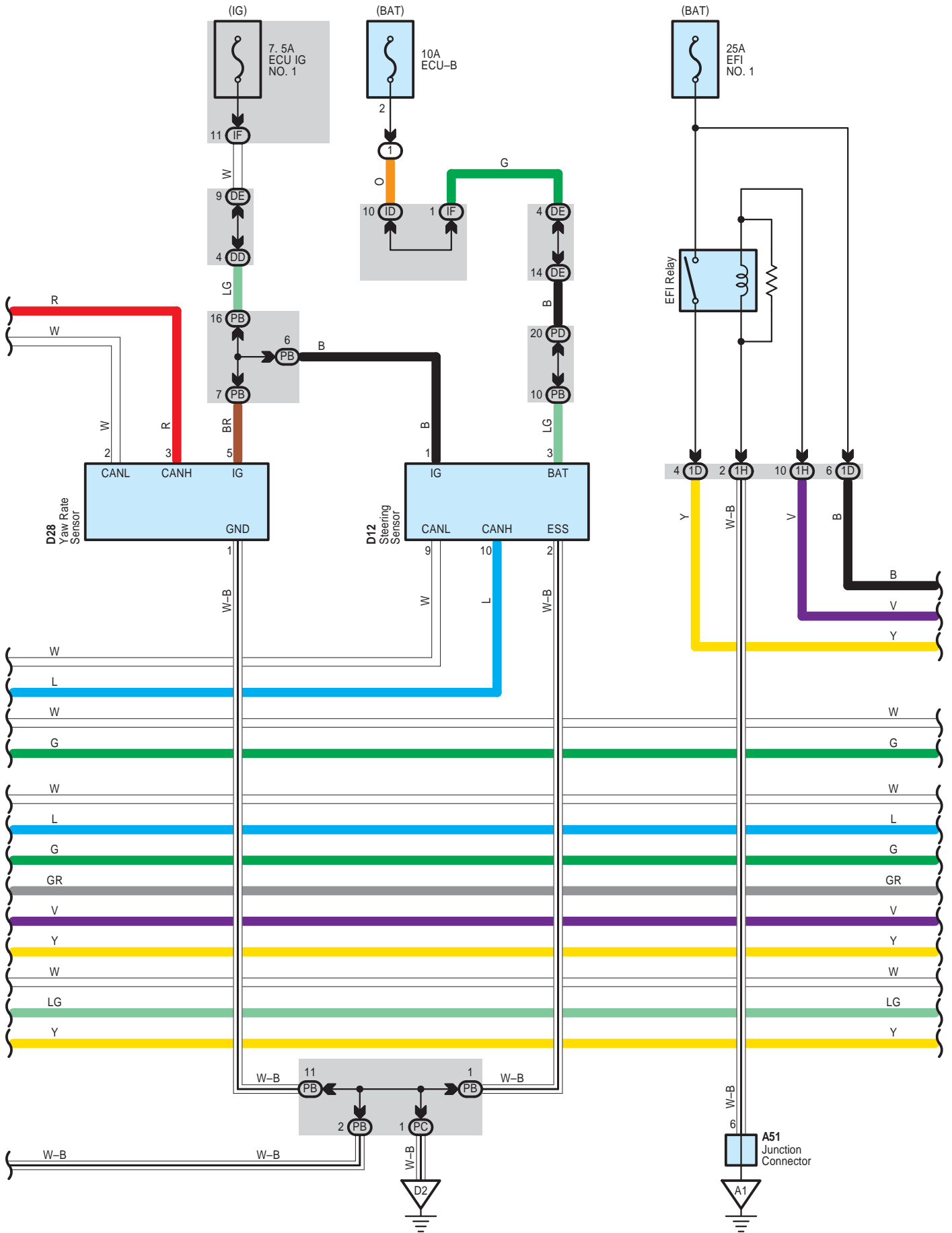




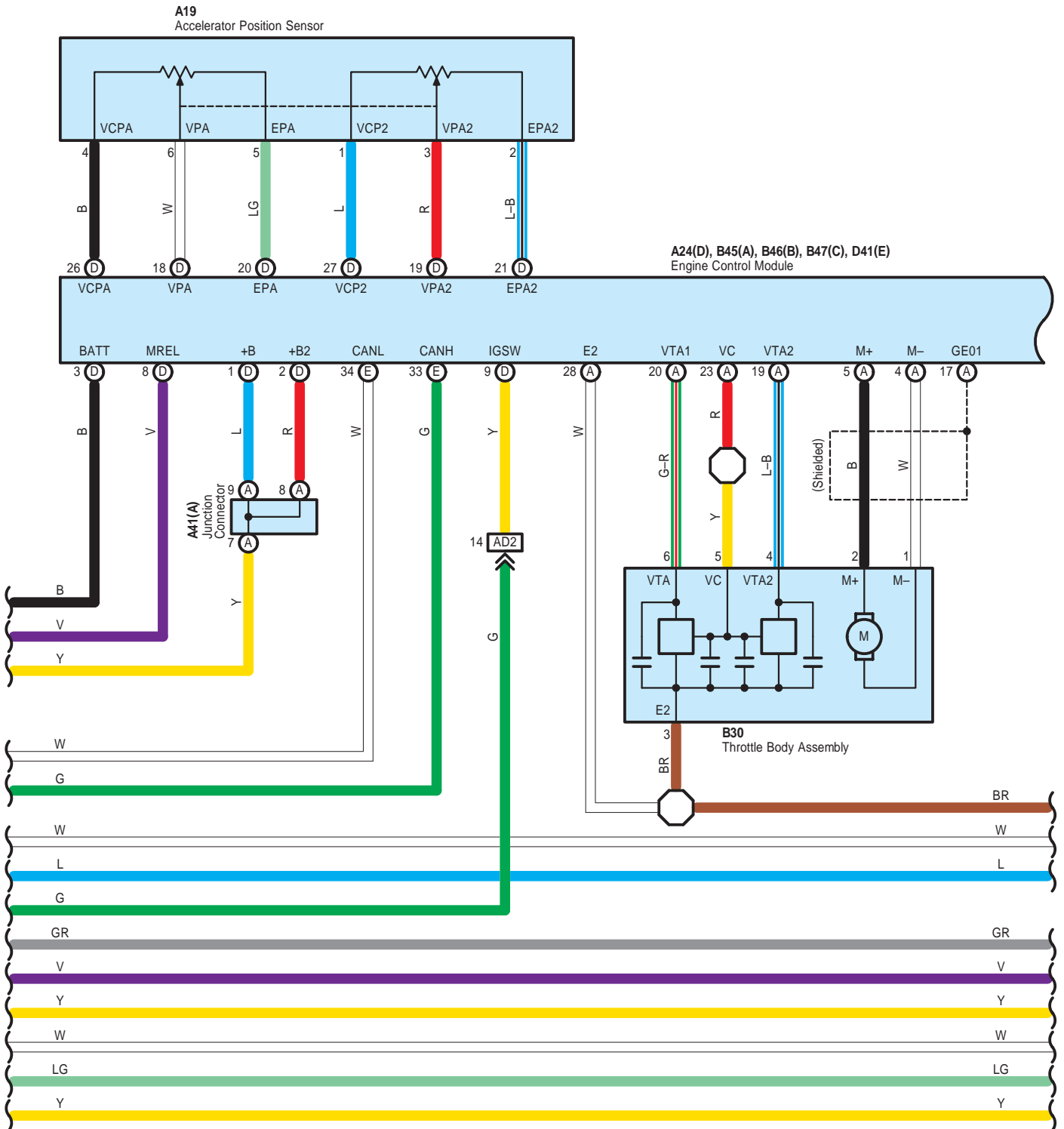
AVALON (EM00A0U)

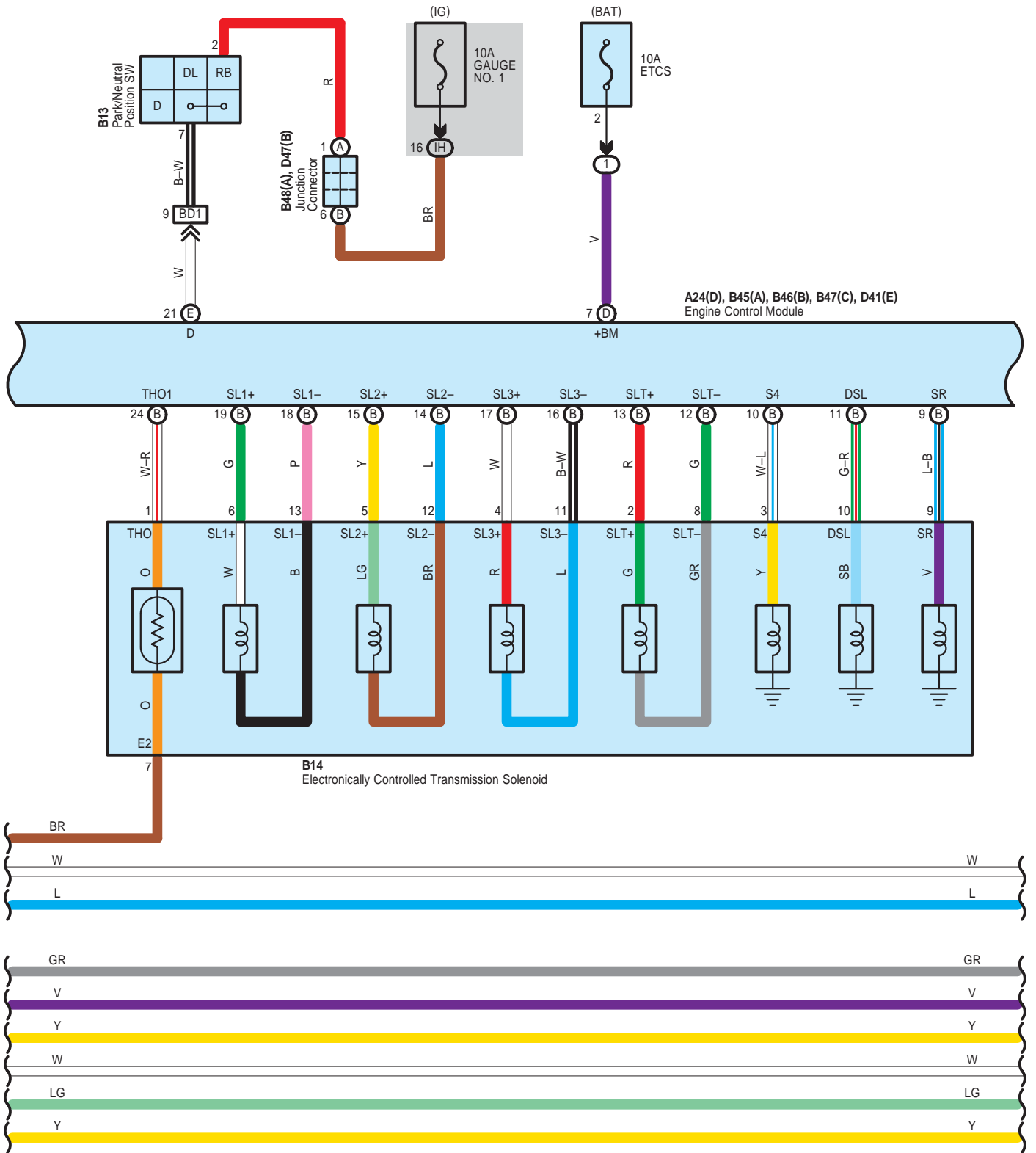




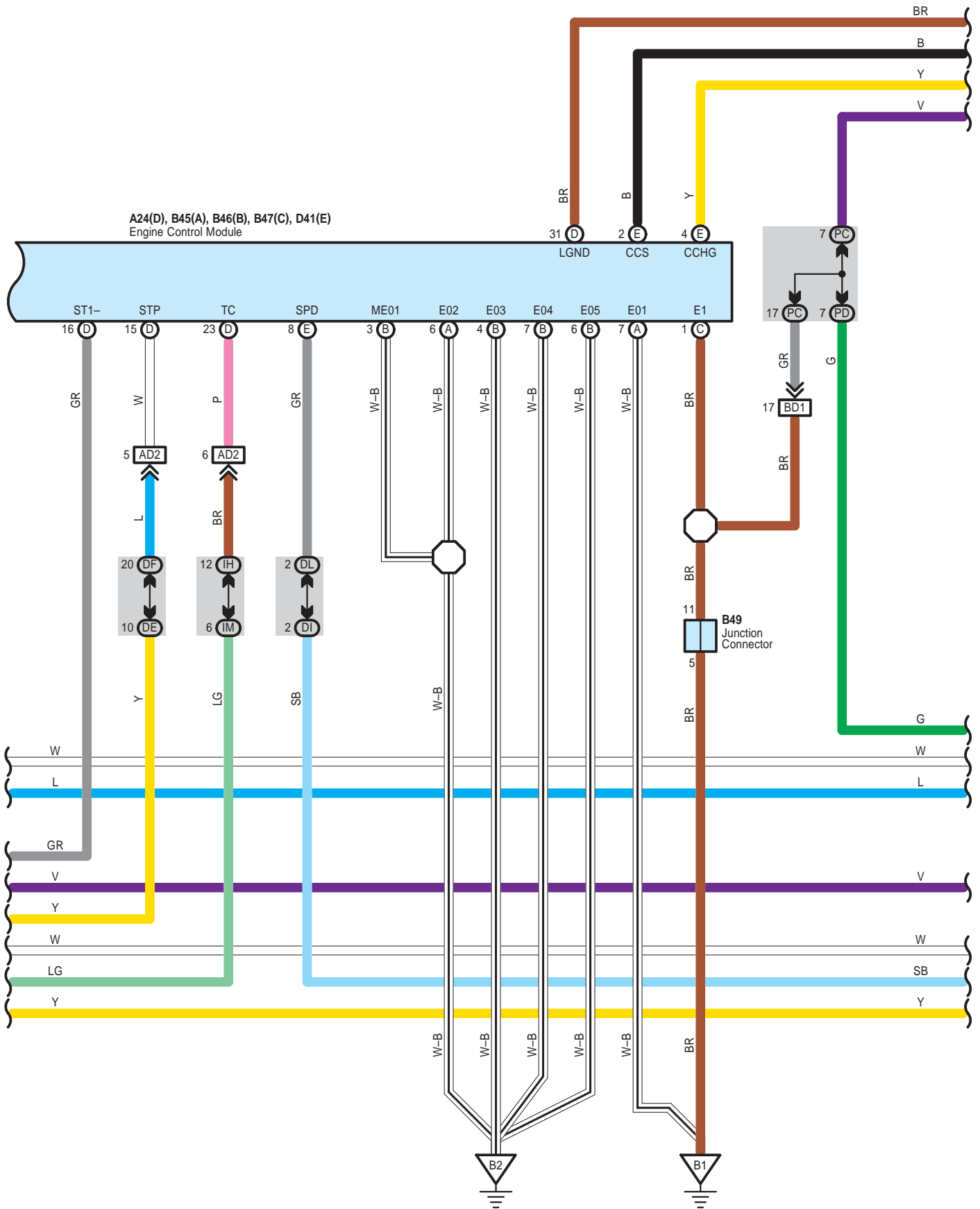


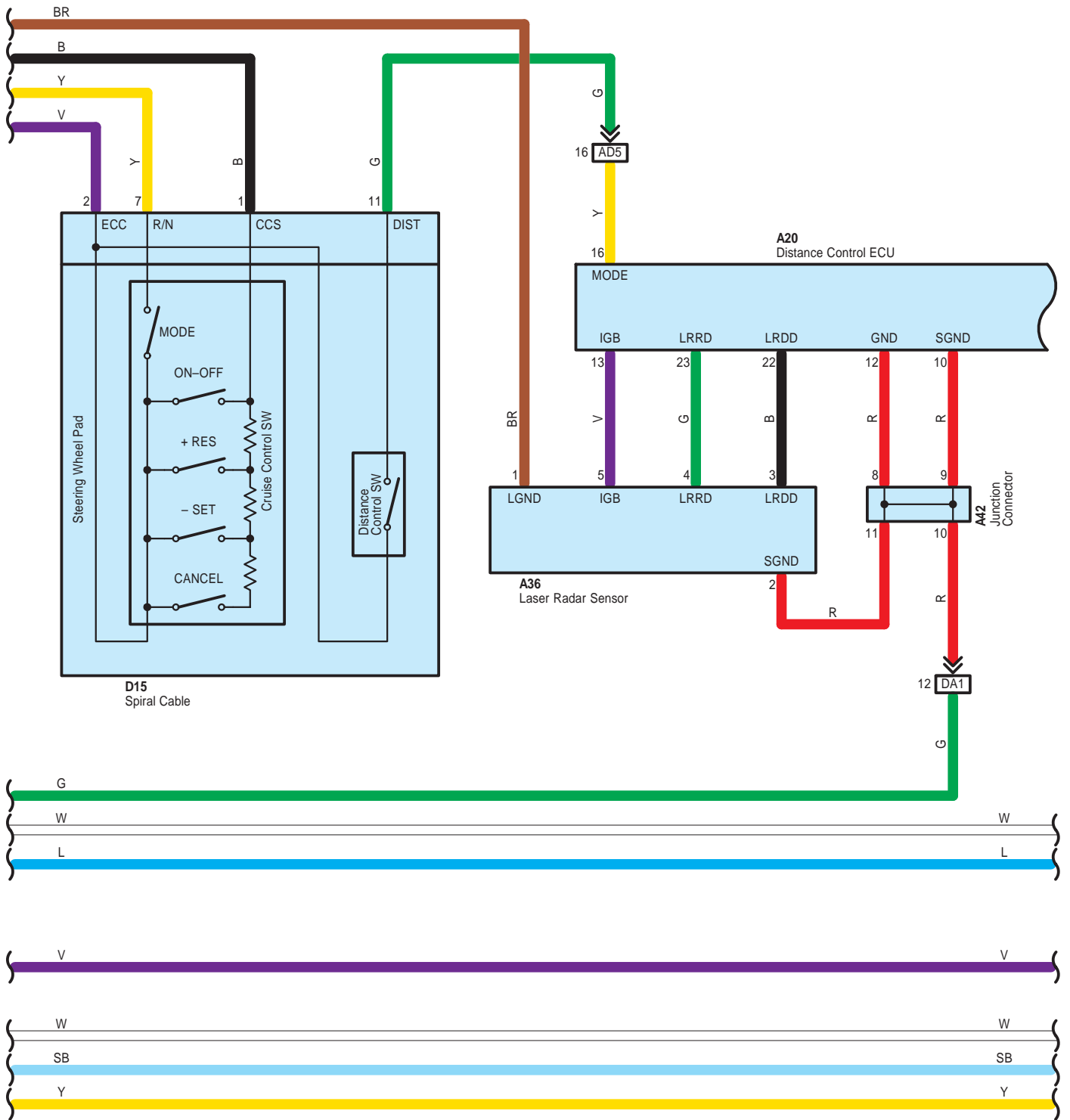
# Dynamic Radar Cruise Control



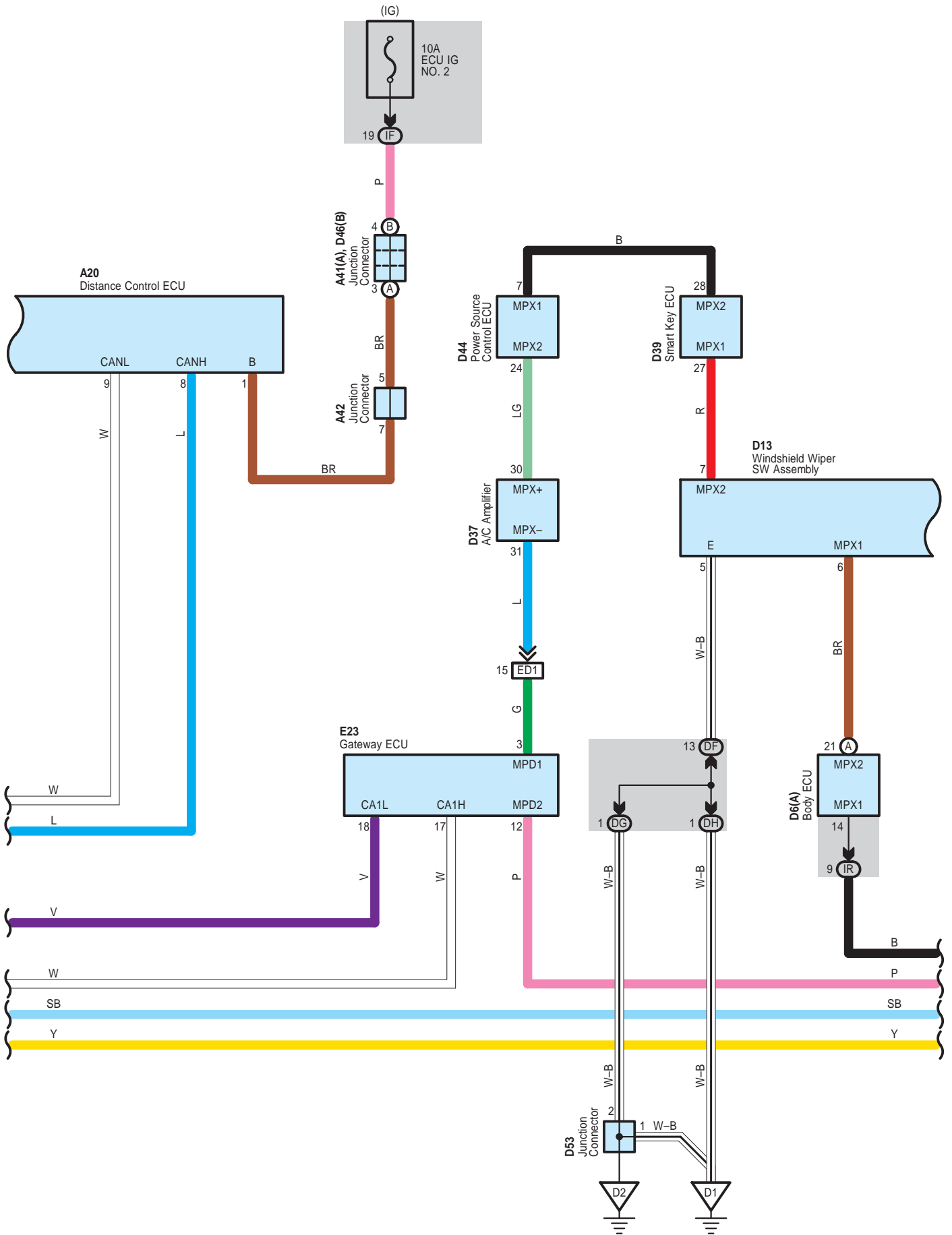


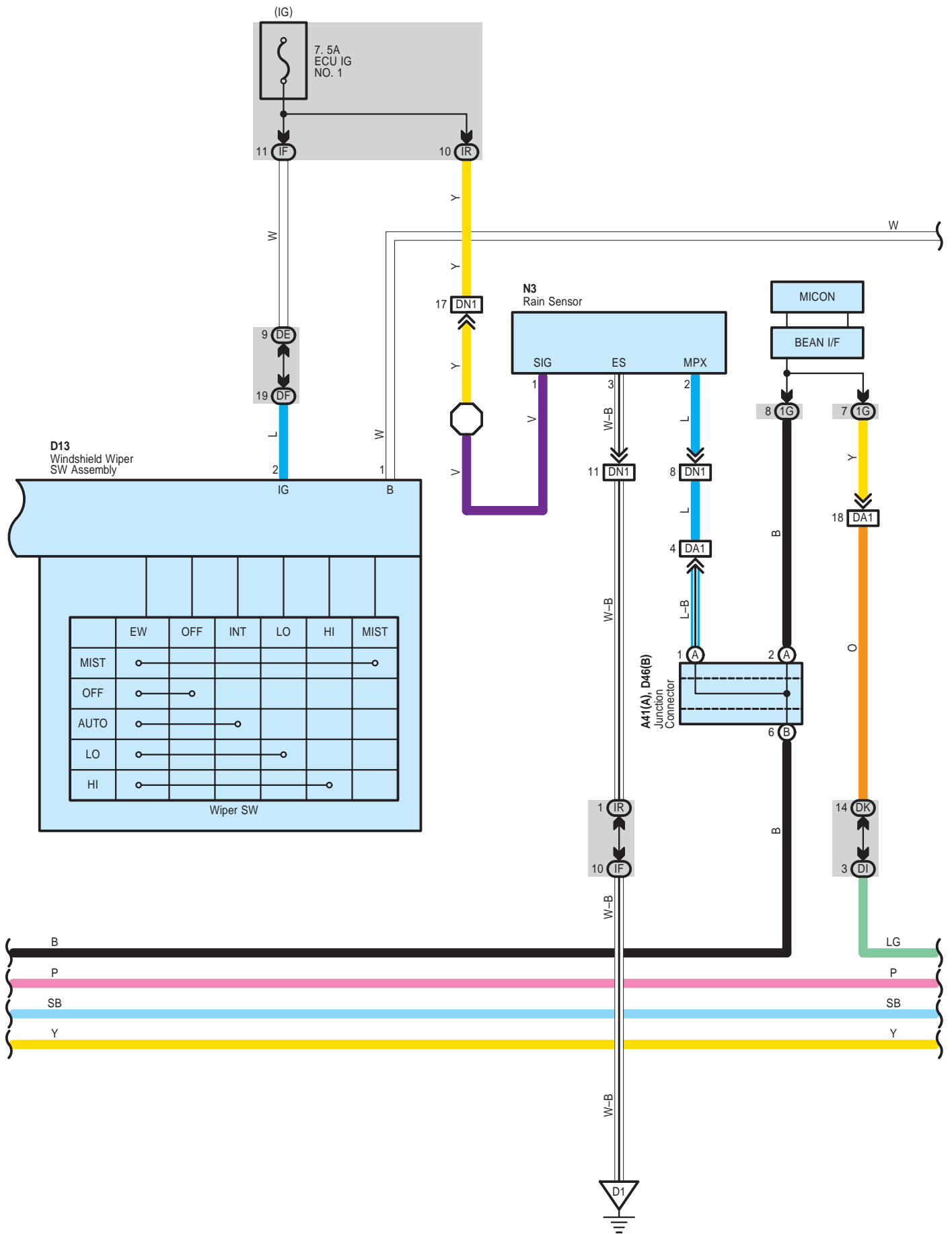
# Dynamic Radar Cruise Control





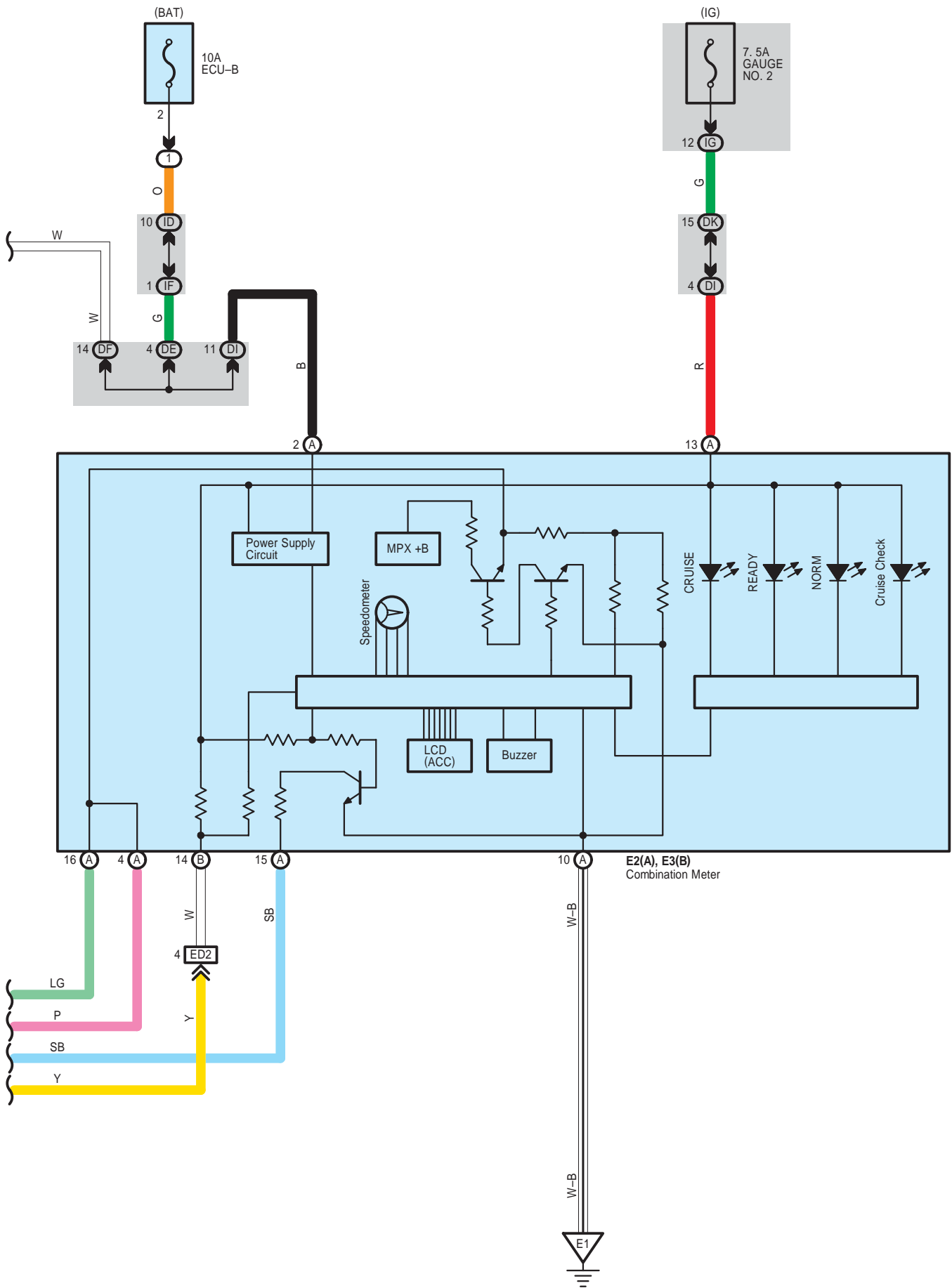
# Dynamic Radar Cruise Control







# Dynamic Radar Cruise Control



## System Outline

The radar cruise control system allows you to drive at a selected cruising speed, maintaining an appropriate vehicle-to-vehicle distance using the laser radar sensor, the steering sensor and the yaw rate sensor. The laser radar sensor detects the reflection of the vehicle ahead in your lane.

### 1. Setting Operation

<The vehicle-to-vehicle distance control mode>

While the ON-OFF SW is ON (The power indicator light is turned on), bring the vehicle to the desired speed, press the control lever downward in the "– SET" direction and release it. This sets the vehicle at that speed from the lower limit of the preset speed about 45 km/h (28 mph) to the upper limit of the preset speed about 135 km/h (85 mph). However, the vehicle speed is faster than 135 km/h (85 mph), the preset speed is the upper limit of the preset speed.

<The conventional cruise control mode>

While the ON-OFF SW is ON (The power indicator light is turned on), bring the vehicle to the desired speed, press the control lever downward in the "– SET" direction and release it. This sets the vehicle at that speed. It is possible to set at that speed between lower speed limit and higher speed limit.

### 2. Resetting to a Speed

<The vehicle-to-vehicle distance control mode>

#### (1) Resetting to a lower speed

The set speed can be decreased 5 mph (For USA) or 5 km/h (For Canada) each time by pressing the control lever downward in the "– SET" direction quickly within 0.5 seconds.

And while the cruise control is on and the control lever is held downward in the "– SET" direction, the preset speed will decrease every 5 mph (For USA) or 5 km/h (For Canada). But you cannot decrease lower than the lower limit of the preset speed about 27 mph (For USA) or 43 km/h (For Canada). If the preset speed is changed, the vehicle speed will be gradually decreased to the preset speed. (In the other case, perhaps the vehicle speed will be increase.)

#### (2) Resetting to a faster speed

\* The set speed can be increased 5 mph (For USA) or 5 km/h (For Canada) each time by pressing the control lever upward in the "+ RES" direction quickly within 0.5 seconds.

And while the cruise control is on and the control lever is held upward in the "+ RES" direction, the preset speed will increase every 5 mph (For USA) or 5 km/h (For Canada). But you cannot increase faster than the upper limit of the preset speed. If the preset speed is changed, the vehicle speed will be constantly increased to the preset speed. (In the other case, perhaps the vehicle speed will be decrease.)

\* When your vehicle follow up cruise function, if press the control lever upward in the "+ RES" direction, the vehicle speed will not be increased and the preset speed will be changed only.

<The conventional cruise control mode>

#### (1) Deceleration

\* While the cruise control is on and the control lever is held downward in the "– SET" direction, the vehicle speed will gradually decrease. When you release it, this sets the vehicle speed at that speed. If the control lever is released when the vehicle speed exceeds the upper limit of the preset speed traveling downhill while you are pressing the control lever downward, the system will memorize the upper limit of the preset speed as a preset speed.

\* When the difference between the actual vehicle speed and the set speed is less than 5 km/h (3 mph), the set speed can be decreased 1.6 km/h (1 mph) each time by pressing the control lever downward in the "– SET" direction quickly within 0.5 seconds. But if the control lever is released when the difference between the actual vehicle speed and the set speed is more than 5 km/h (3 mph), this sets the vehicle speed at that speed.

#### (2) Acceleration

\* While the cruise control is on and the control lever is held upward in the "+ RES" direction, the vehicle speed will constantly increase. When you release it, this sets the vehicle speed at that speed. If the vehicle speed exceeds the upper limit of the preset speed while you are pressing the control lever downward, the system will cruise at the upper limit of the preset speed. And if the control lever is released, this sets the vehicle speed at that speed.

\* When the difference between the actual vehicle speed and the set speed is less than 5 km/h (3 mph), the set speed can be increased 1.6 km/h (1 mph) each time by pressing the control lever upward in the "+ RES" direction quickly within 0.5 seconds. But if the control lever is released when the difference between the actual vehicle speed and the set speed is more than 5 km/h (3 mph), this sets the vehicle speed at that speed.

\* If you are pressing the control lever downward and released when the vehicle speed is increased by pressing the acceleration pedal, the system will memorize the preset speed at that speed. But if you operate the control lever downward at the upper limit of the set speed, you cannot set the preset speed.

### 3. The Lower Limit of the Preset Speed

\* This is the lower limit of the preset speed of the followings. This is a difference of the lower limit of the canceled speed.

\* For USA : about 27 mph

\* For Canada : about 43 km/h

\* When the vehicle speed is less than the lower limit of the preset speed, you cannot change the preset speed.

# Dynamic Radar Cruise Control

## 4. The Lower Limit of the Canceled Speed

- \* This is the lower limit of the canceled speed about 40 km/h (25 mph). And if the vehicle speed falls below about 40 km/h (25 mph), the preset speed will be automatically cancelled. In the vehicle-to-vehicle distance control mode the preset speed will be stored, and in the conventional cruise control mode the preset speed will not be stored.

## 5. The Upper Limit of the Preset Speed

This is the upper limit of the preset speed of the followings.

- \* For USA : about 85 mph
- \* For Canada : about 139 km/h

## 6. The Upper Limit of the Possible Speed to Use the Cruise Control (Only for the Conventional Cruise Control Mode)

This is the upper limit of the possible speed to use the cruise control.

- \* For USA : about 125 mph
- \* For Canada : about 200 km/h

## 7. Resuming the Preset Speed

- \* If the preset speed has been canceled, when you push the lever up in the "+ RES" direction while "RADAR READY" shows up on the instrument cluster and at a vehicle speed of about more than the lower limit of the canceled speed, the speed set prior to cancellation will be restored.

However, once the vehicle speed falls below about 40 km/h (25 mph), the preset speed will not be resumed at the conventional cruise control mode.

- \* During follow-up cruising, if there are no vehicles running ahead because they have changed lanes, your vehicle will accelerate gradually up to the preset speed. At this time, pushing the control lever upward in the "+ RES" direction will quickly speed up your vehicle in the vehicle-to-vehicle distance control mode.

## 8. Shift Down Control

While the cruise control is on, there is a possible case of the cancelled over drive on a climbing hill. If the system judge the end of a climbing hill after the cancelled over drive, the vehicle will return the over drive mode after the returned over drive timer.

## 9. Canceling the Preset Speed

If the following signals is put in the micro computer when the cruise control is on, this system will be cancel. (The preset speed has been stored.)

- A) Depressing the brake pedal. (Input the stop light switch signal)
- B) Turn the "D" position circuit in neutral start switch on and then off.  
When the transmission is changed from "D" or "N", cancel the preset speed.  
At transmission "S", when the transmission is changed from "5" or "4" to "N", "3", "2" and "1", cancel the preset speed.
- C) Pulling the control lever in the "CANCEL" direction.
- D) The ON-OFF SW is OFF. (In this case, the set speed is not stored.)
- E) VSC system is activated.

## 10. Automatically Cancel

(1) If any of the following conditions then occurs, the preset speed automatically cancels out and the cruise control system will be canceled. And then, the "CRUISE" indicator light in the instrument cluster flashes until the ON-OFF SW will be turned off, the master warning light comes on and the warning tone sounds, and the warning code will appear on the display. The system cannot be entered until the ON-OFF SW will be turned on again.

- A) The vehicle speed sensor is malfunction.
- B) The parts of the electronic throttle are malfunction.
- C) The stop light switch circuits is open or short.

(2) If any of the following conditions then occurs, the preset speed automatically cancels out and the cruise control system will be canceled. And then, the "CRUISE" indicator light in the instrument cluster flashes until the ON-OFF SW will be turned off, the master warning light comes on and the warning tone sounds, and the warning code will appear on the display. The system cannot be entered until the ON-OFF SW will be turned on again.

- A) The laser radar sensor is malfunction.
- B) Improper aiming of laser radar sensor beam axis.
- C) The radar cruise control system is malfunction except above A), B).

(3) If any of the following conditions then occurs, the preset speed automatically cancels out and the cruise control system will be canceled. And then, the "CRUISE" indicator light in the instrument cluster flashes until the ON-OFF SW will be turned off, the master warning light comes on and the warning tone sounds, and the warning code will appear on the display. The system cannot be entered until it will be back the normal condition from above A)-E) (It is possible to resume.) and the ON-OFF SW will be turned on again.

- A) The laser radar sensor is dirtied.
- B) The wipers are operated at high or low speeds (Including high and low speed operations with the wiper lever in the "AUTO" position.)
- C) The driving pattern selector switch is set to "SNOW" mode.
- D) Direct the strong light of sunlight, etc. from the front.
- E) It is determined that it is difficult to make a measurement because of bad weather (Such as rainy, foggy, or snowy weather).

(4) If any of the following conditions then occurs, the preset speed will be automatically cancelled out. However, at the vehicle-to-vehicle distance control mode the preset speed will be stored.

- A) The vehicle speed falls below about 40 km/h (25 mph).
- B) The vehicle speed drops 16 km/h (10 mph) below preset speed. (Only for the conventional cruise control mode)

## 11. Changing the Radar Cruise Control Mode

When you push the ON-OFF SW, the vehicle-to-vehicle distance mode is activated. To change to the conventional (Fixed speed) cruise control mode, push the lever in the "MODE" direction for longer than about 1 second.

However, once the vehicle-to-vehicle distance mode activates and is used, it cannot be changed to the conventional cruise control mode using the above operation.

To change the mode, turn the ON-OFF SW off and then on. Next push the lever in the "MODE" direction for longer than about 1 second.

If the system malfunction then occurs, turn the engine off and then it on again. Next above operation will be changed to it.

# Dynamic Radar Cruise Control

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A19	50	B48   A	50	D50   E	52
A20	50	B49	50	D51   F	52
A23	50	D6   A	51	D52   G	52
A24   D	50	D12	51	D53	52
A34	48	D13	51	E2   A	52
A36	48	D15	51	E3   B	52
A41   A	50	D18	51	E23	53
A42	50	D20	51	E28   H	53
A43   A	50	D28	51	K14	54
A44   B	50	D37	51	K25	55
A51	48	D39	52	K29	55
B13	49	D41   E	52	K30   A	55
B14	49	D44	52	K31   B	55
B30	49	D46   B	52	K34	55
B45   A	50	D47   B	52	N3	55
B46   B	50	D48   C	52		
B47   C	50	D49   D	52		

## ○ : Relay Blocks

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

## ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1G		
1H		
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DE		
DF		
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
IC	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
ID		
IF	31	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG		
IH		
IM	30	
IP	30	Floor No.1 Wire and Instrument Panel J/B (Lower Finish Panel)
IR	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PC		
PD		

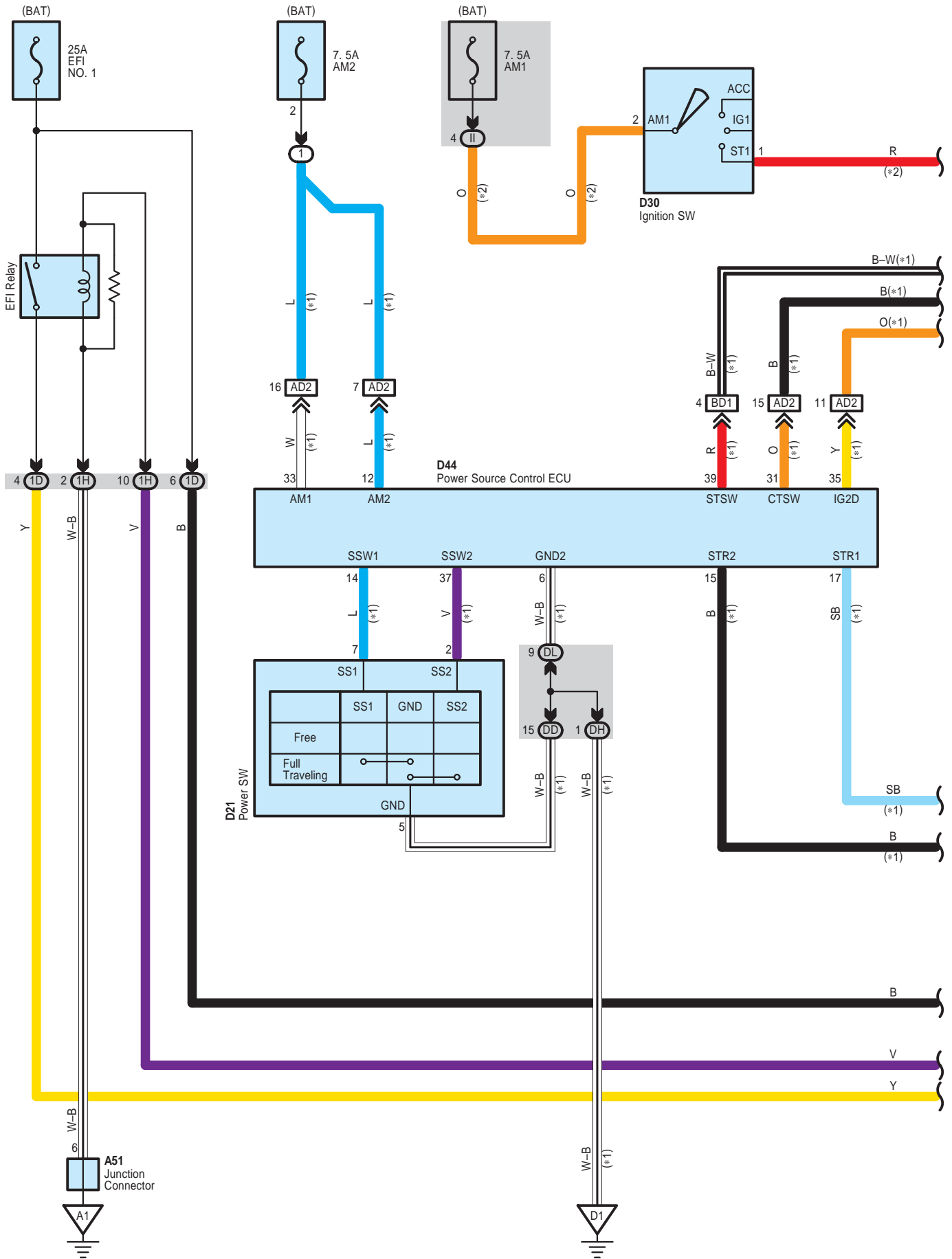
 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD2	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
AD5	60	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)
BD1	60	Engine Wire and Instrument Panel Wire (Right Side of the Blower Unit)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DN1	61	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
ED2		

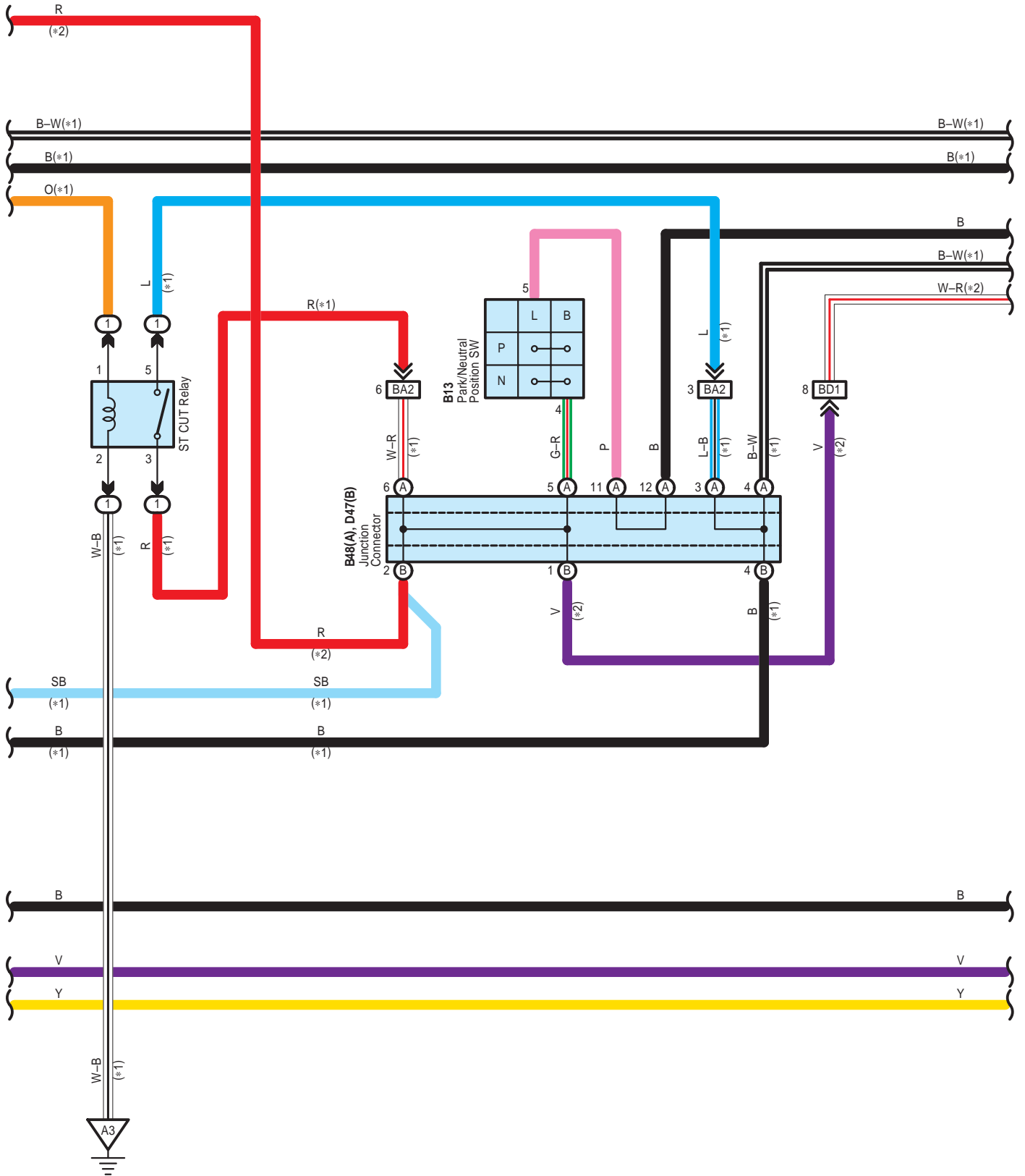
 : Ground Points

Code	See Page	Ground Points Location
A1	58	Front Left Fender
A6	60	Right Side of the Instrument Panel
B1	58	Cylinder Head
B2	58	Left Side of the Cylinder Block
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter
K2	62	Left Rear Quarter Panel

# Cruise Control

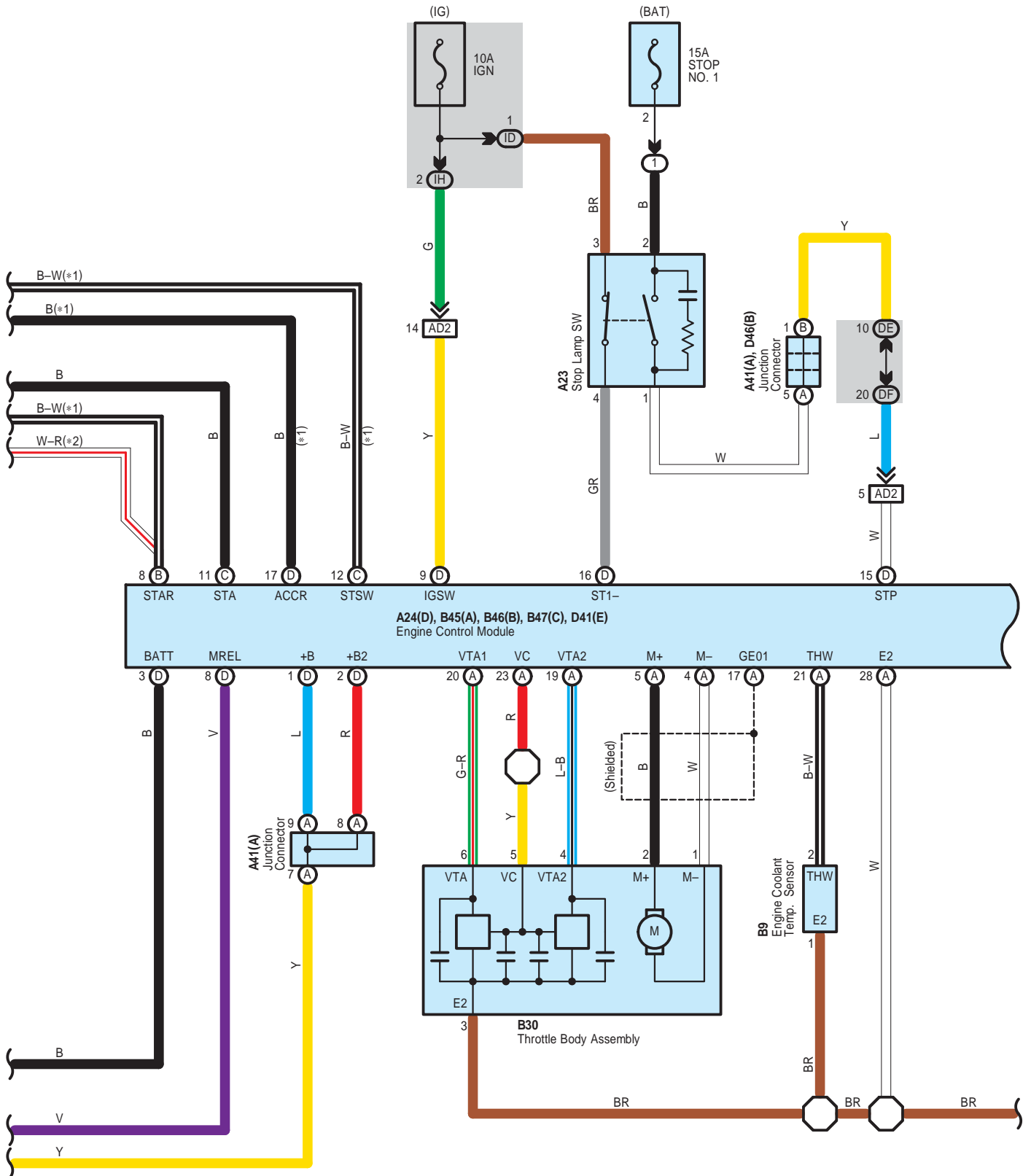


\* 1 : w/ Smart Key System  
 \* 2 : w/o Smart Key System

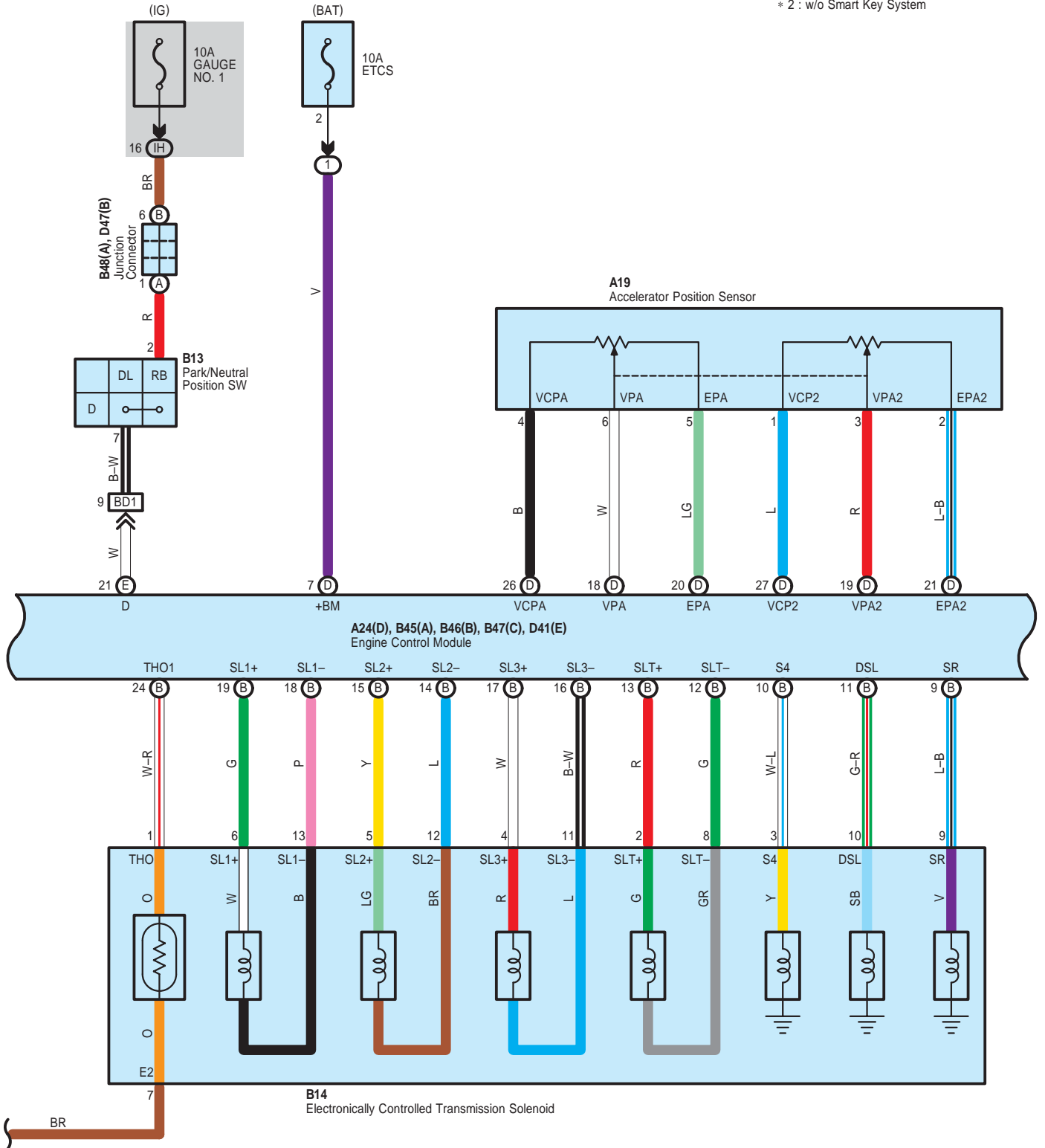




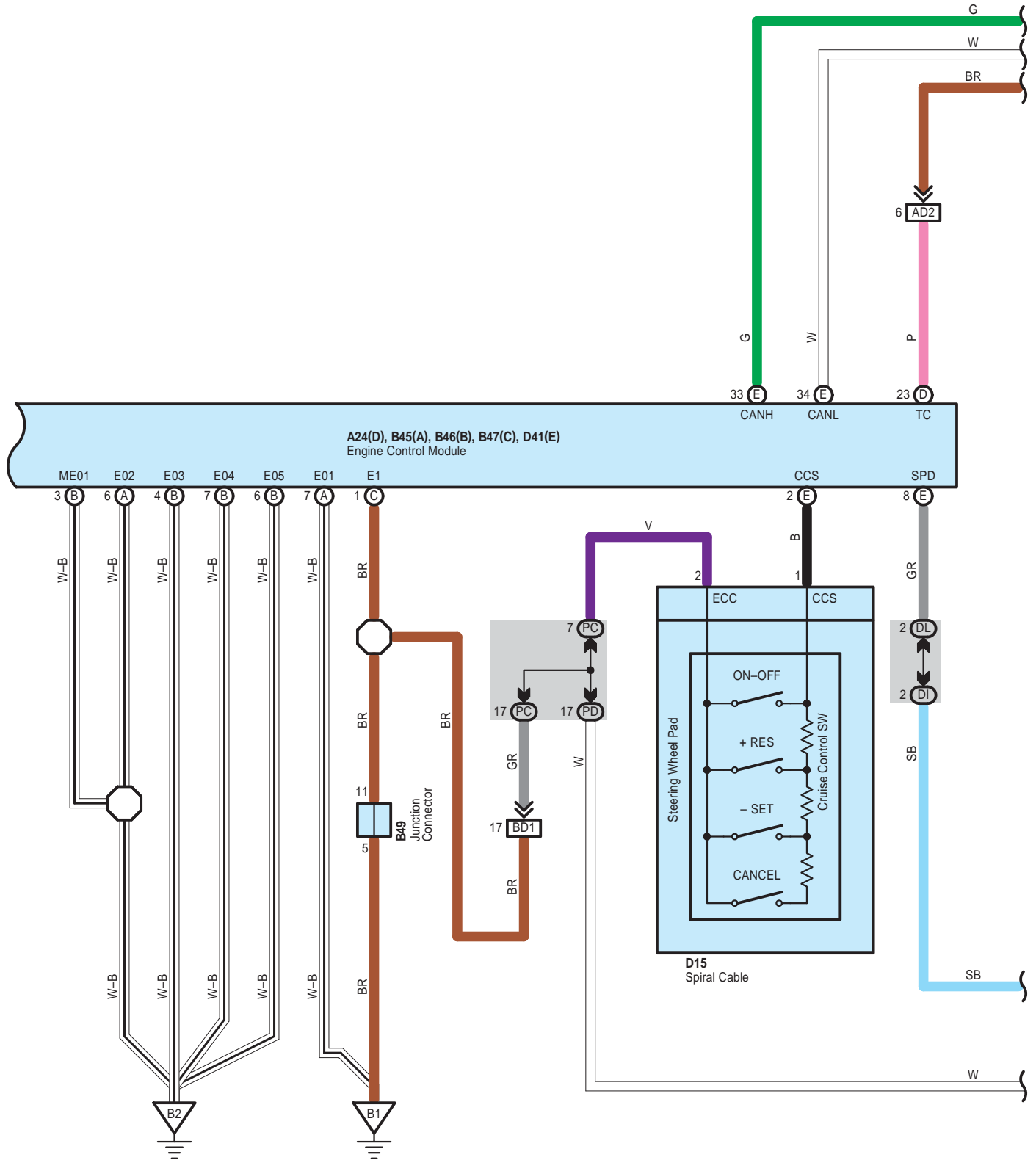
# Cruise Control



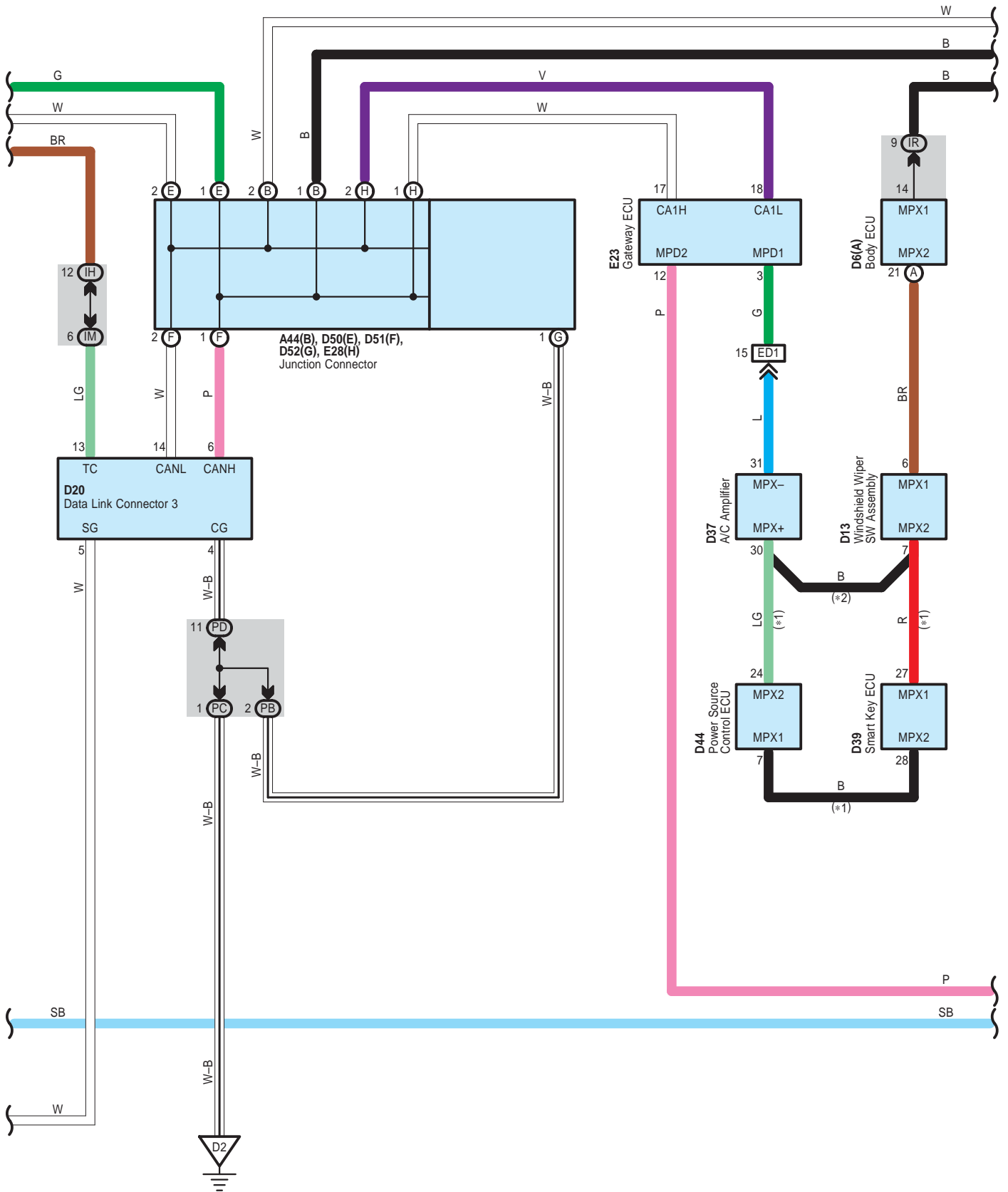
- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System



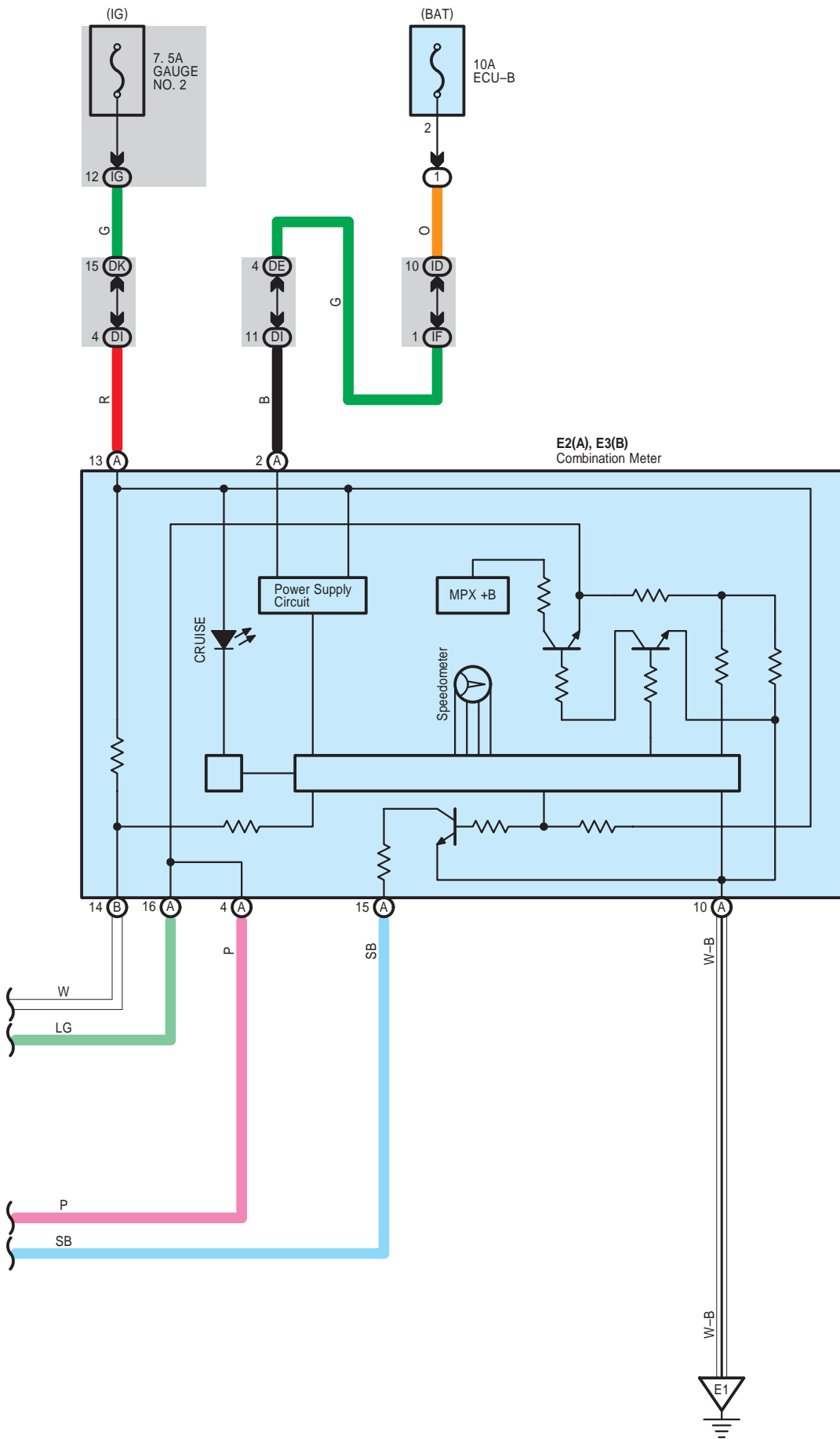
# Cruise Control



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







# Cruise Control

## System Outline

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

### Set Operation

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

### Set Speed Control

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

### Coast Control

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

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

### Accel Control

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

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

### Resume Control

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

### Manual Cancel Mechanism

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

- \* The stop light SW is on
- \* The CANCEL SW is turned on
- \* The ON-OFF SW is turned off
- \* When switching from ON to OFF of "D" position circuit in neutral start switch.  
When the transmission is shifted from "D" to "N".  
When the transmission is shifted from 5, 4 to 3, 2, 1 in S mode.

### Auto Cancel Function

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

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

### Overdrive Function

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

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A19	50	B45	A 50	D39	52
A23	50	B46	B 50	D41	E 52
A24	D 50	B47	C 50	D44	52
A34	A 48	B48	A 50	D46	B 52
A40	B 48	B49	50	D47	B 52
A41	A 50	D6	A 51	D50	E 52
A44	B 50	D13	51	D51	F 52
A51	48	D15	51	D52	G 52
B9	49	D20	51	E2	A 52
B13	49	D21	51	E3	B 52
B14	49	D30	51	E23	53
B30	49	D37	51	E28	H 53

 : **Relay Blocks**

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

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1G		
1H		
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DE		
DF		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
IH		
II		
IM	30	
IR		
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PC		
PD		

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

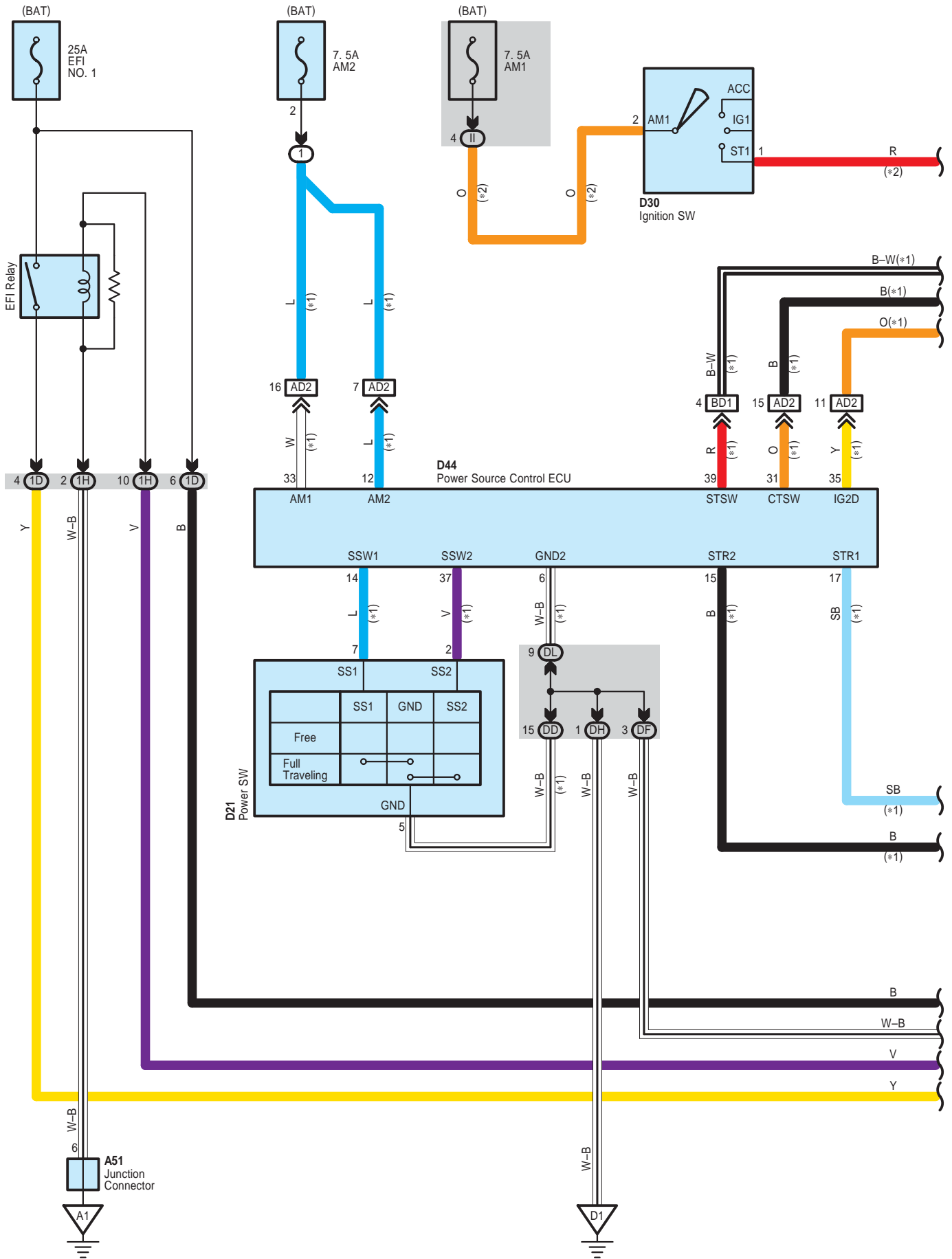
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD2	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
BA2	58	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
BD1	60	Engine Wire and Instrument Panel Wire (Right Side of the Blower Unit)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
ED2		

 : **Ground Points**

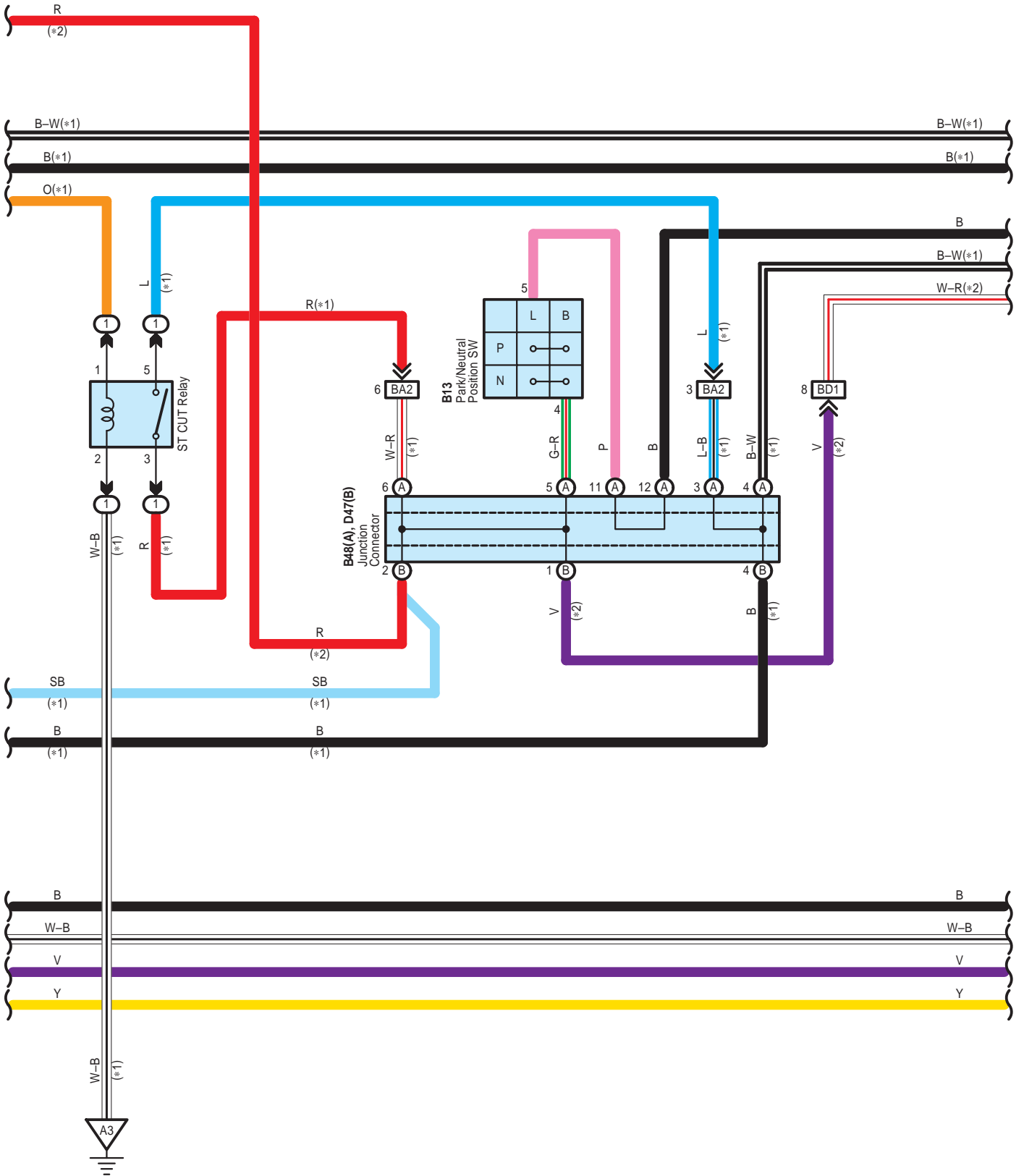
Code	See Page	Ground Points Location
A1	58	Front Left Fender
A3	60	Left Side of the Instrument Panel
B1	58	Cylinder Head
B2	58	Left Side of the Cylinder Block
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter



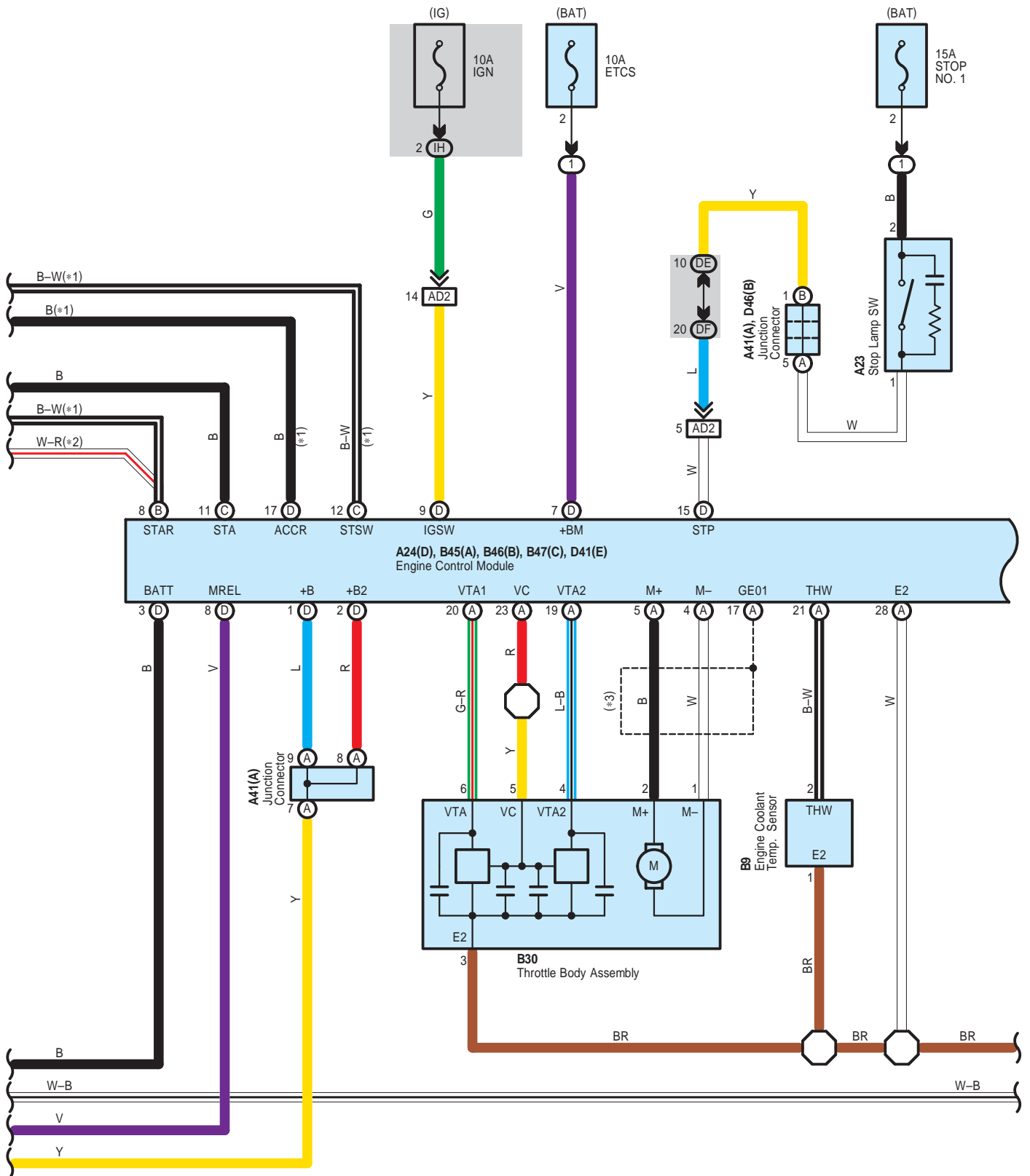
# ECT and A/T Indicator



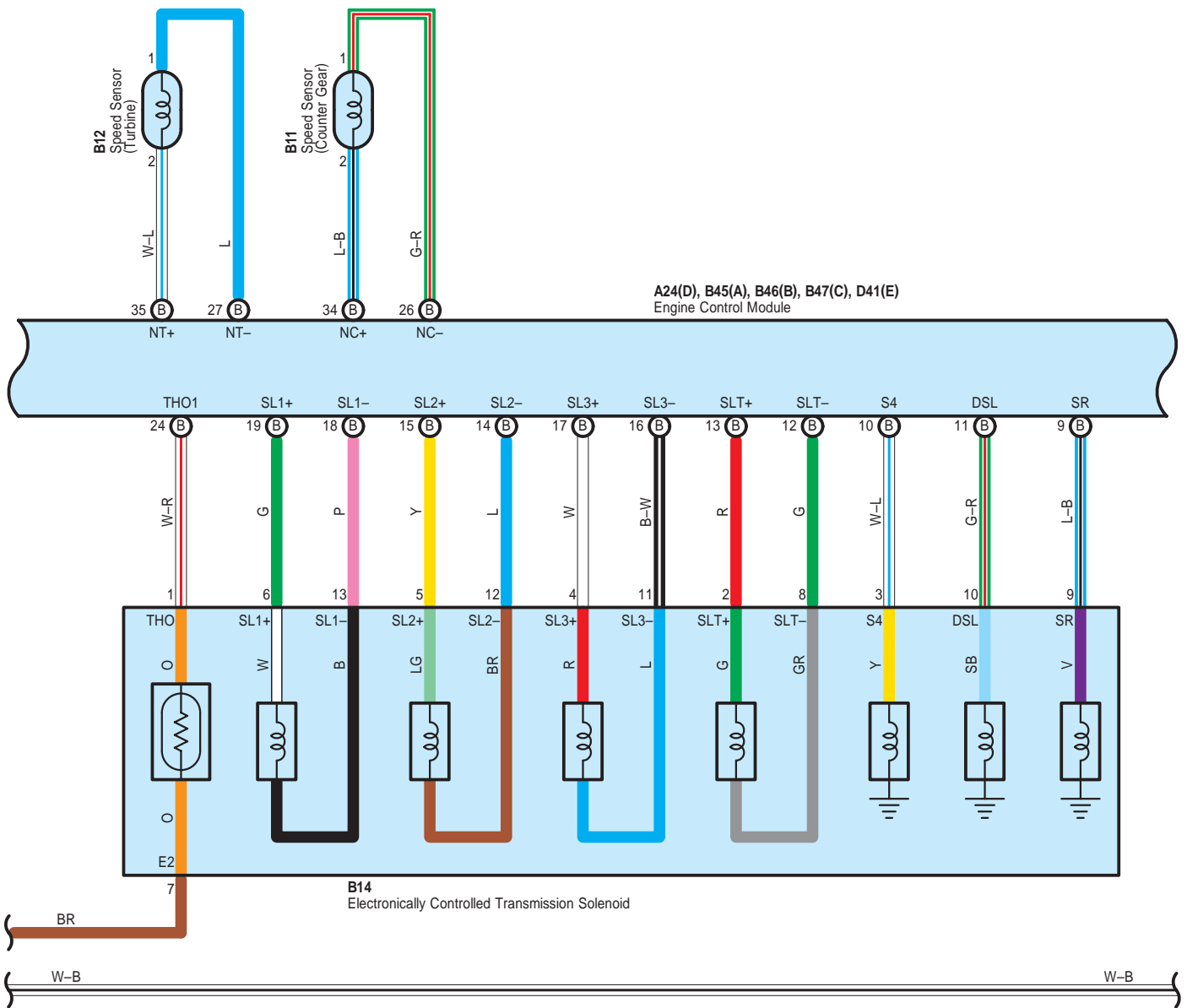
- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System



# ECT and A/T Indicator

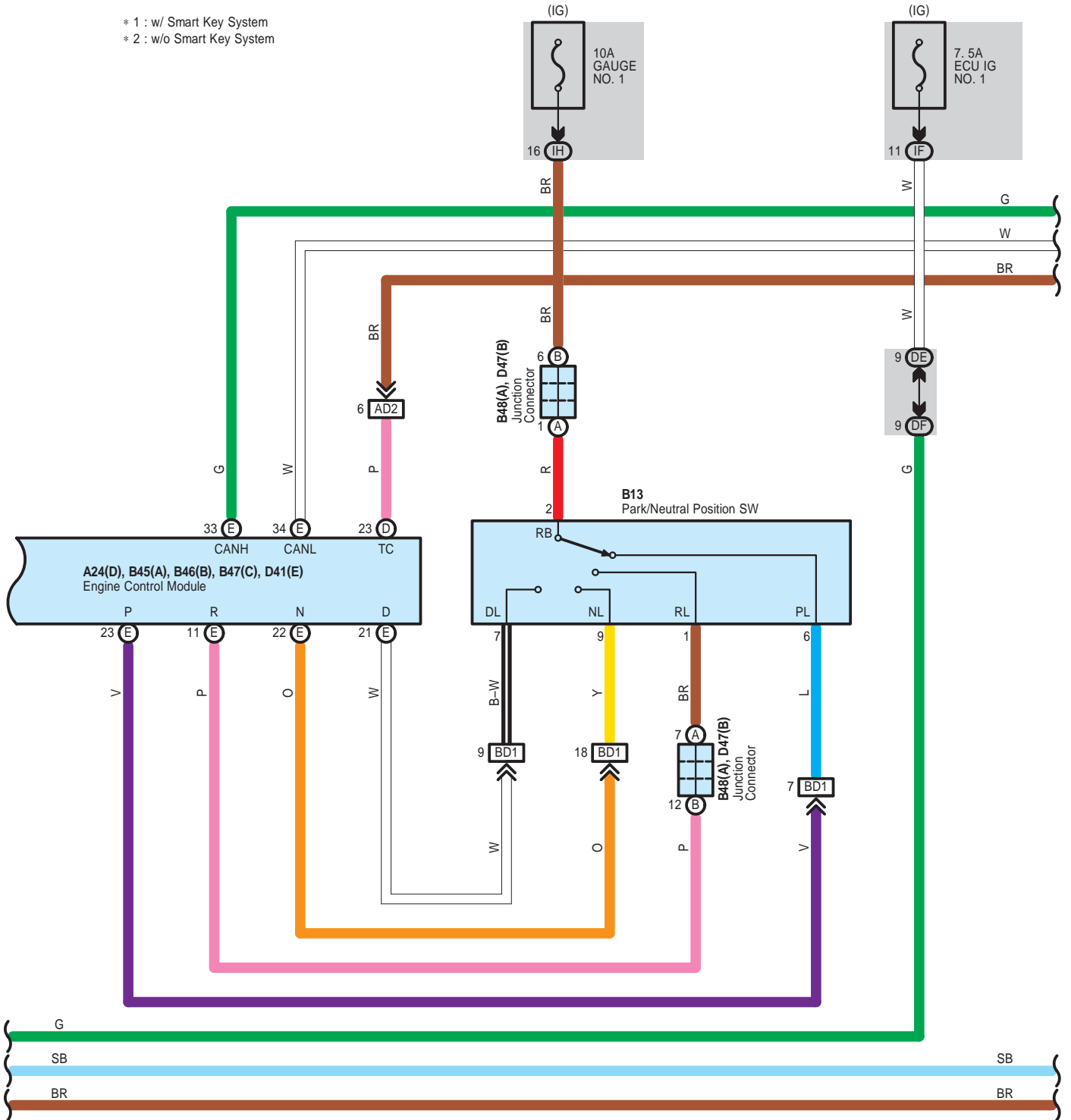


- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System
- \* 3 : Shielded



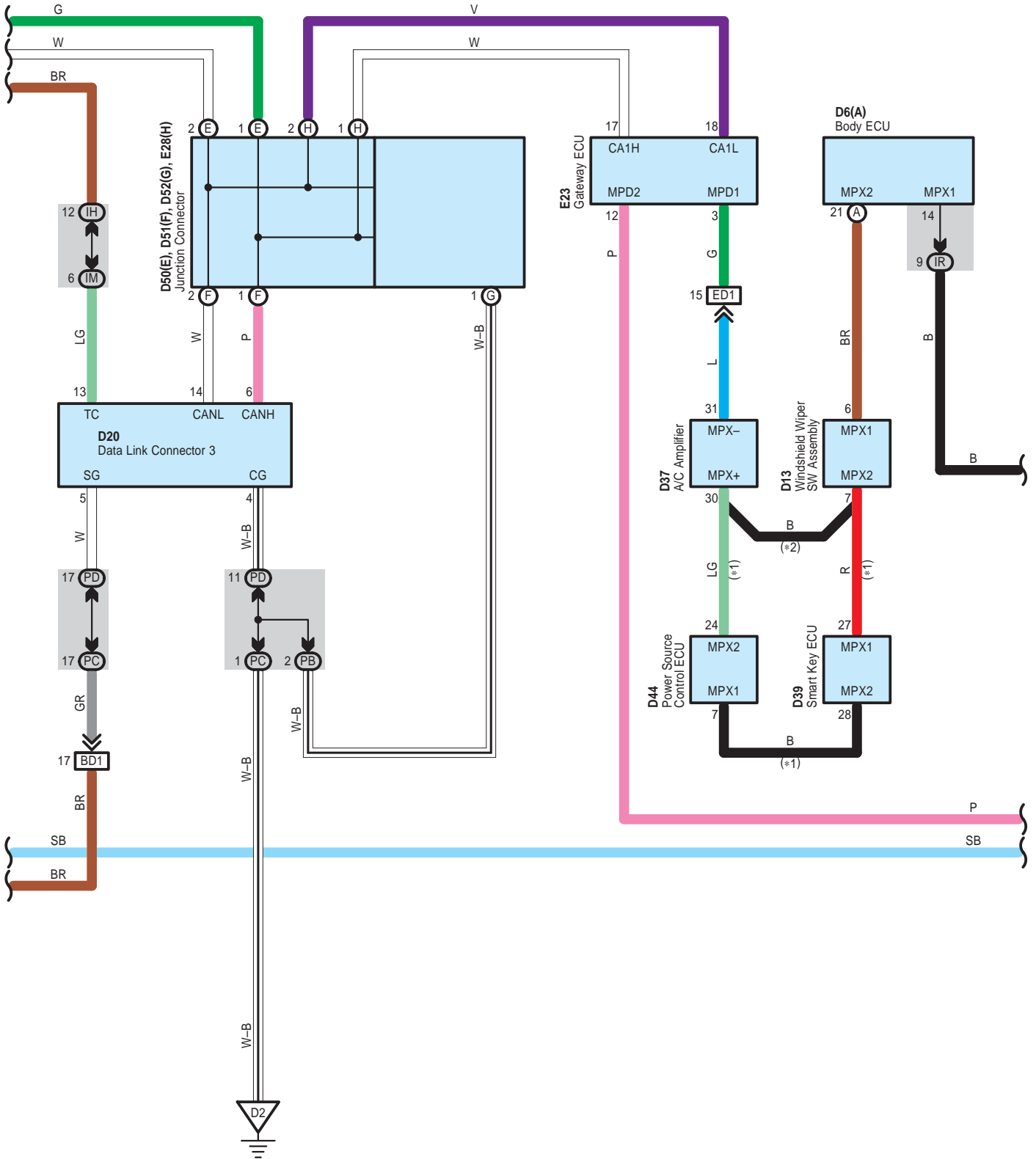


- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System



# ECT and A/T Indicator

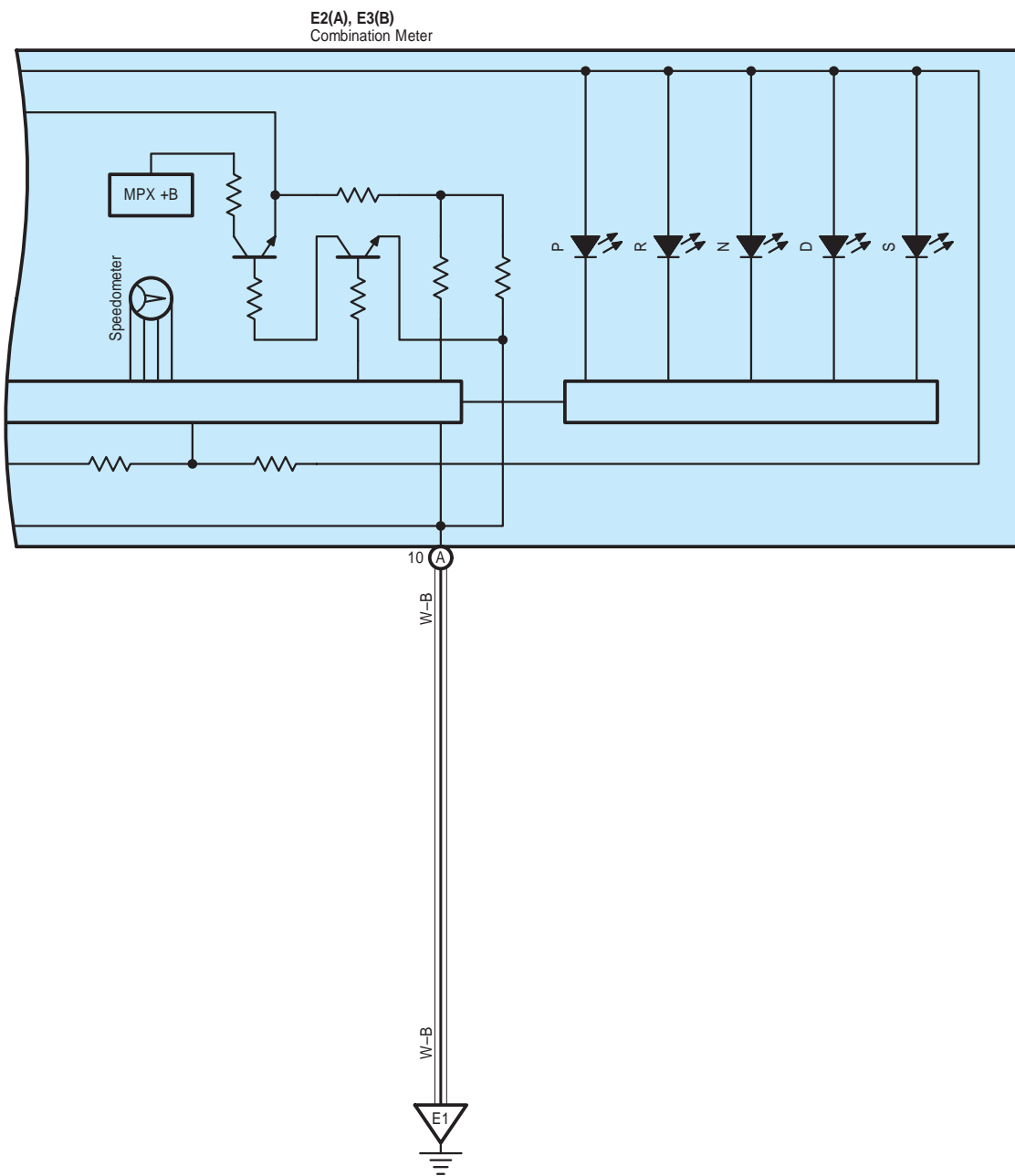
\* 1 : w/ Smart Key System  
 \* 2 : w/o Smart Key System







# ECT and A/T Indicator



## System Outline

### 1. Line Pressure Optimal Control

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

### 2. Clutch Pressure Optimal Control

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

### 3. Shifting Control in Uphill/Downhill Traveling

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

### 4. Flex Lock-Up Clutch Control

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

### 5. Multi Mode Automatic Transmission

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

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A19	50	B45	A 50	D39	52
A23	50	B46	B 50	D41	E 52
A24	D 50	B47	C 50	D44	52
A34	A 48	B48	A 50	D46	B 52
A40	B 48	B49	50	D47	B 52
A41	A 50	D6	A 51	D50	E 52
A51	48	D13	51	D51	F 52
B9	49	D20	51	D52	G 52
B11	49	D21	51	E2	A 52
B12	49	D24	A 51	E3	B 52
B13	49		B 51	E23	53
B14	49	D30	51	E28	H 53
B30	49	D37	51		

## ○ : Relay Blocks

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

## ECT and A/T Indicator

### : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1G		
1H		
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DE		
DF		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
IH		
II		
IM	30	
IR		
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PC		
PD		

### : Connector Joining Wire Harness and Wire Harness

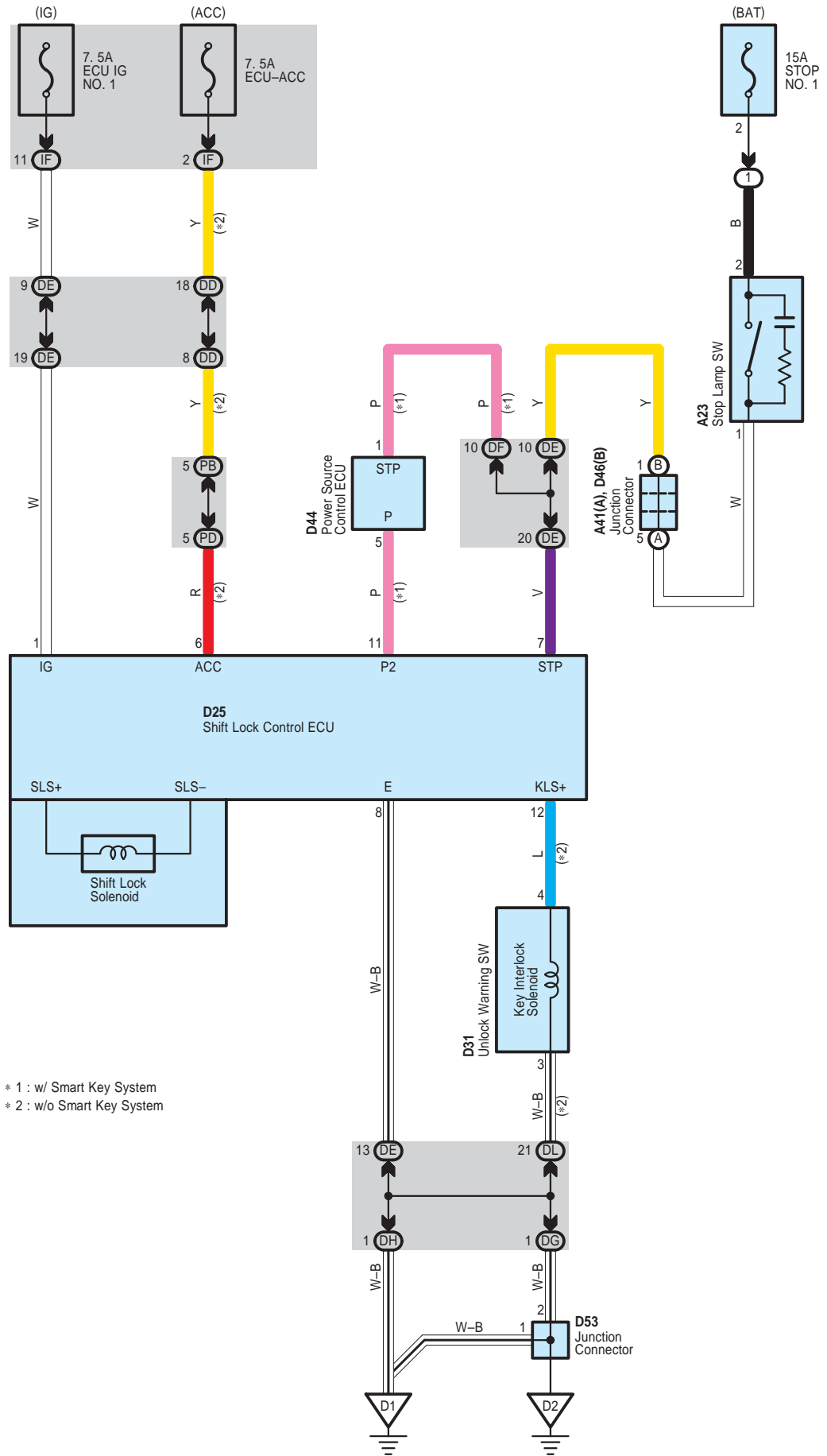
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD2	60	Engine Room Main Wire and Instrument Panel Wire (Right Side of the Instrument Panel J/B)
BA2	58	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
BD1	60	Engine Wire and Instrument Panel Wire (Right Side of the Blower Unit)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
ED2		

### : Ground Points

Code	See Page	Ground Points Location
A1	58	Front Left Fender
A3	60	Left Side of the Instrument Panel
B1	58	Cylinder Head
B2	58	Left Side of the Cylinder Block
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter



# Shift Lock



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

## System Outline

### Shift Lock Mechanism

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

### ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A23	50	D31	51	D53	52
A41	A 50	D44	52		
D25	51	D46	B 52		

### ○ : Relay Blocks

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

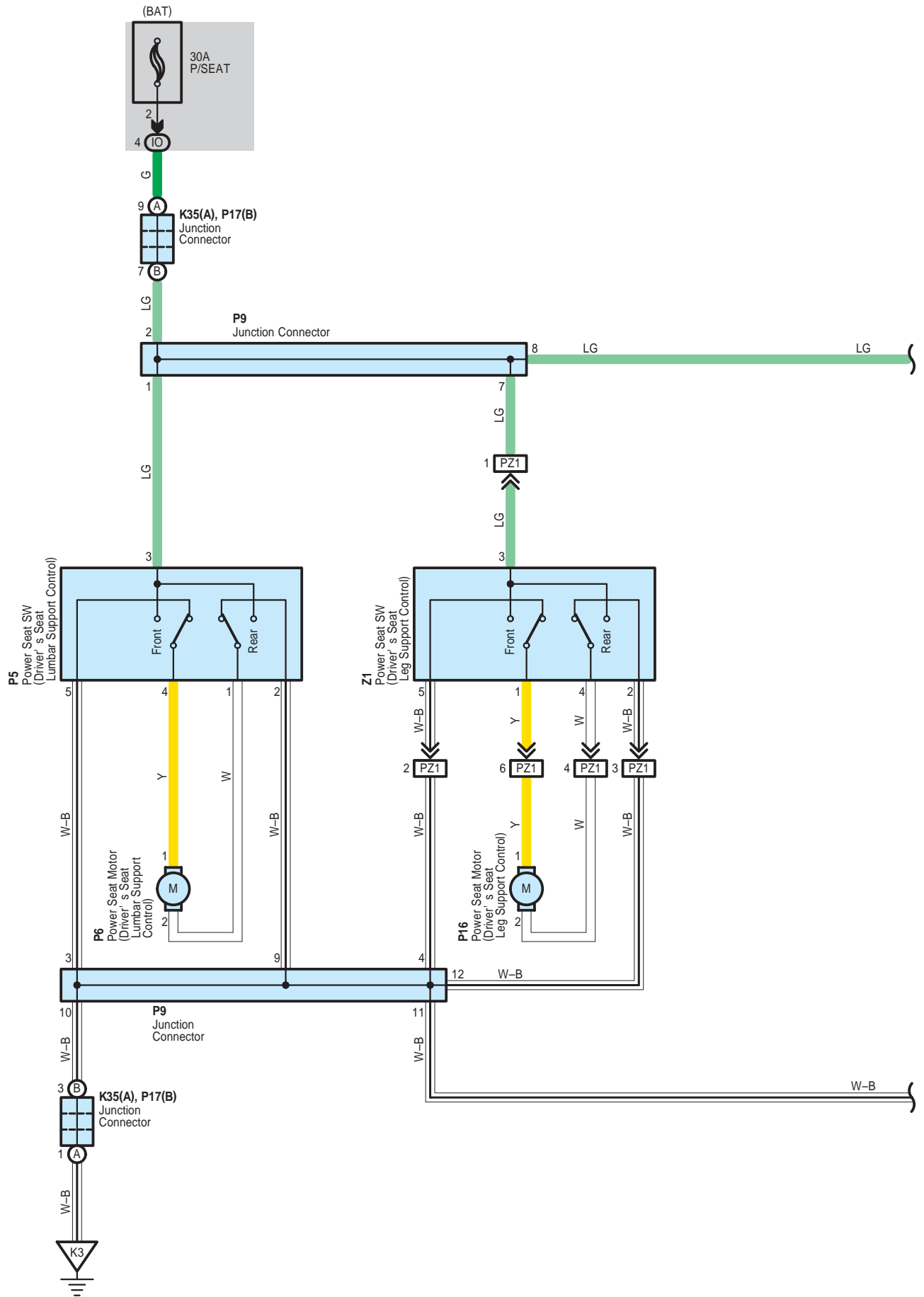
### ○ : Junction Block and Wire Harness Connector

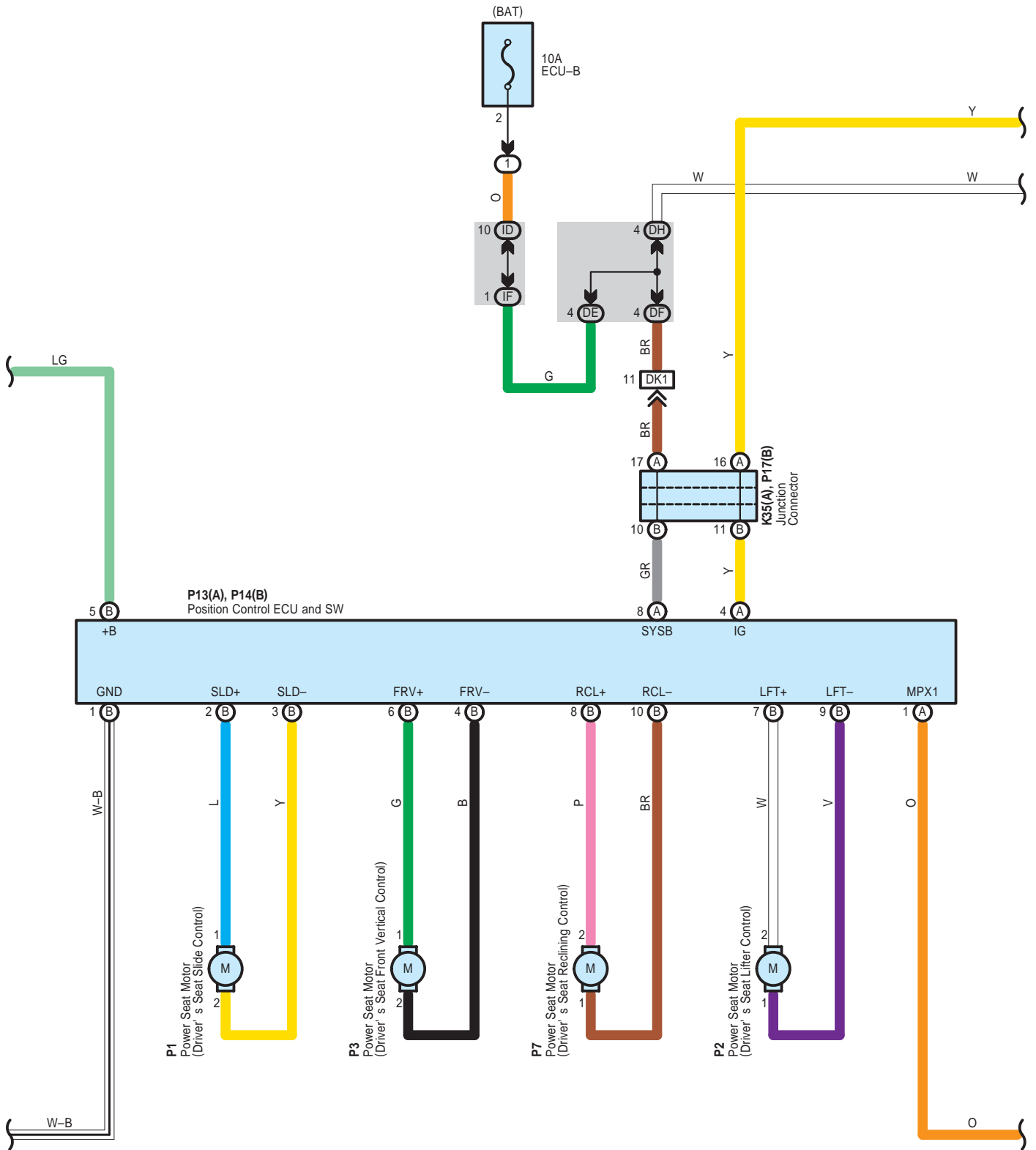
Code	See Page	Junction Block and Wire Harness (Connector Location)
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DE		
DF		
DG		
DH		
DL		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PD		

### ▽ : Ground Points

Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH

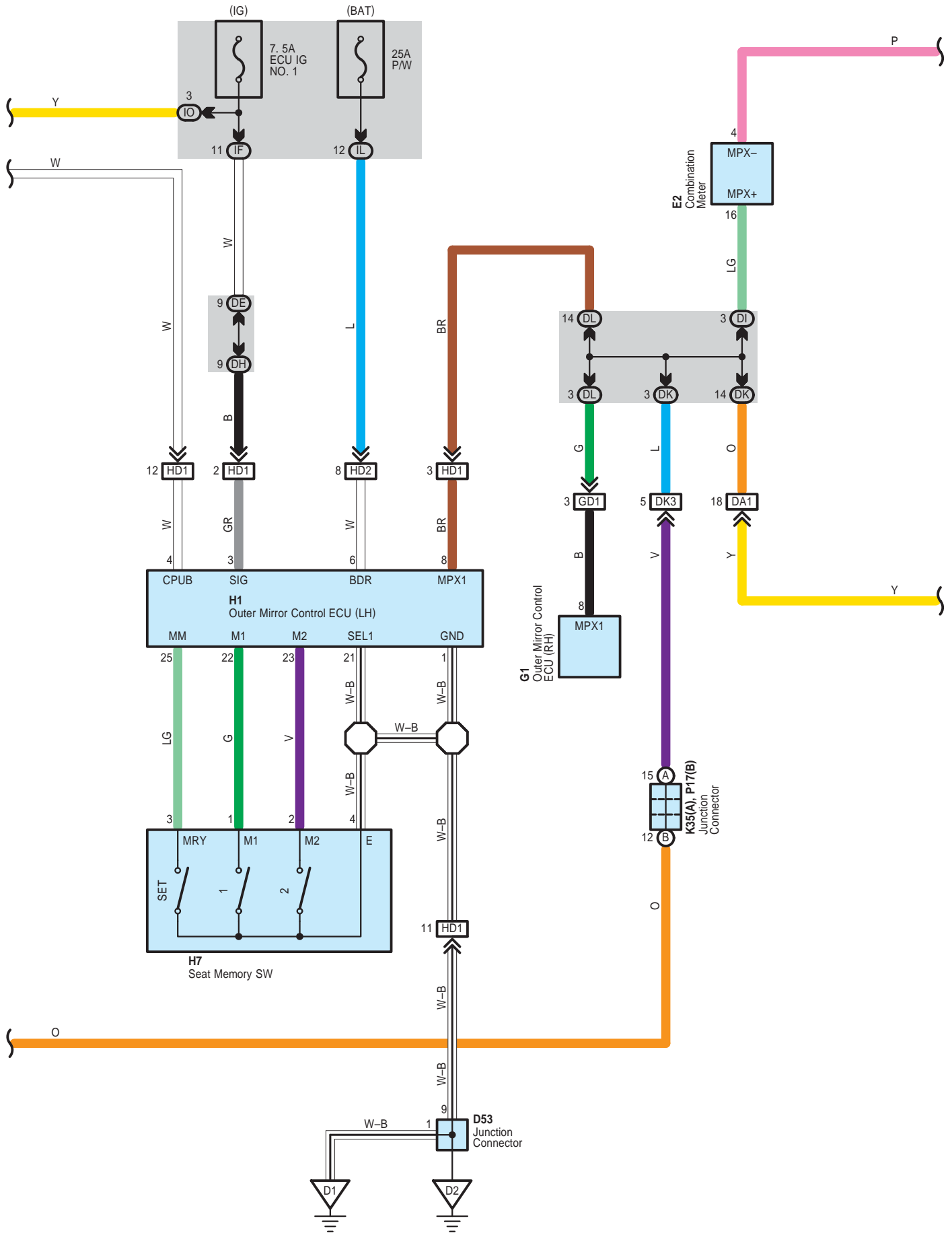
# Power Seat for Driver's Seat with Memory

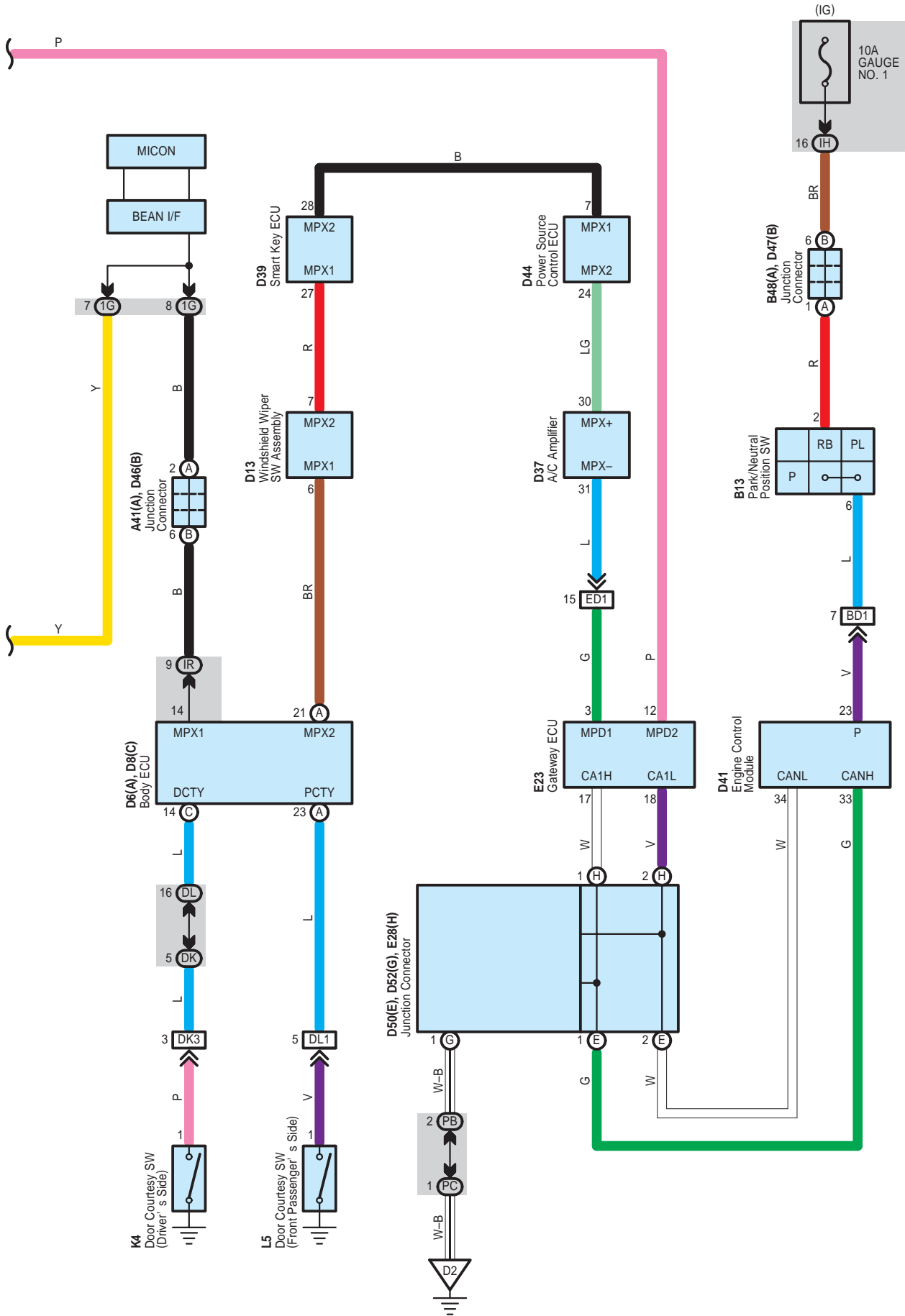






# Power Seat for Driver's Seat with Memory





# Power Seat for Driver's Seat with Memory

## : Parts Location

Code		See Page	Code		See Page	Code		See Page
A41	A	50	D50	E	52	P1	56	
B13		49	D52	G	52	P2	56	
B48	A	50	D53		52	P3	56	
D6	A	51	E2		52	P5	56	
D8	C	51	E23		53	P6	56	
D13		51	E28	H	53	P7	56	
D37		51	G1		54	P9		
D39		52	H1		54	P13	A	
D41		52	H7		54	P14	B	
D44		52	K4		54	P16		
D46	B	52	K35	A	56	P17	B	
D47	B	52	L5		55	Z1	56	

## : Relay Blocks

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

## : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DF		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IH	31	
IL	30	
IO	30	Floor No.1 Wire and Instrument Panel J/B (Lower Finish Panel)
IR	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PC		

## : Connector Joining Wire Harness and Wire Harness

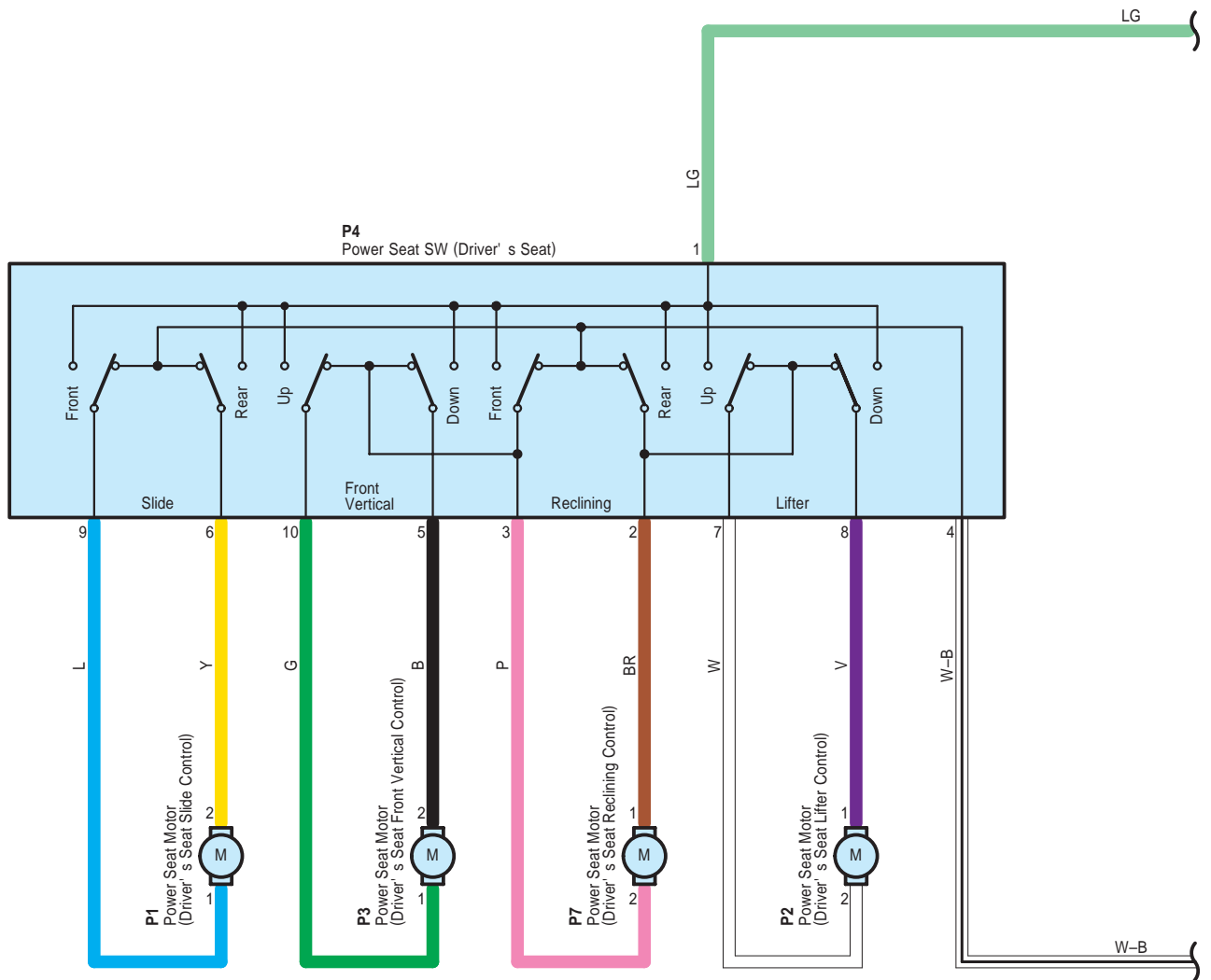
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
BD1	60	Engine Wire and Instrument Panel Wire (Right Side of the Blower Unit)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DK1	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DK3		
DL1	60	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
GD1	61	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
HD1	61	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
HD2		
PZ1	63	Front Seat LH Wire and Seat No.2 Wire (Left Side of the Driver's Seat)

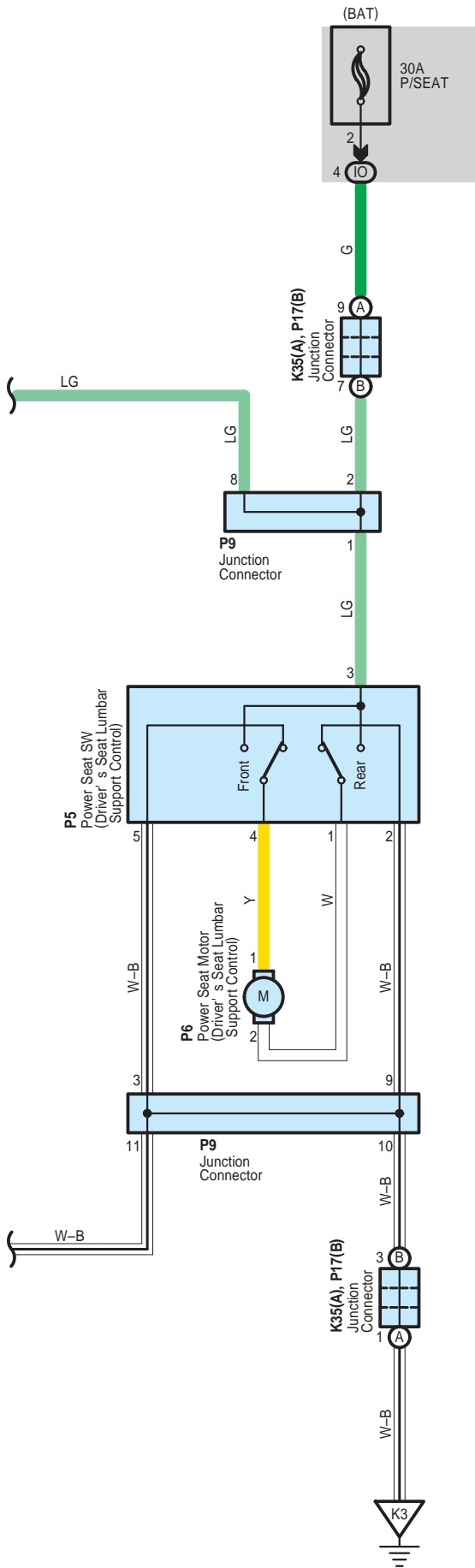


**: Ground Points**

Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
K3	60	Left Side of the Instrument Panel

# Power Seat for Driver's Seat without Memory





# Power Seat for Driver's Seat without Memory

 : Parts Location

Code		See Page	Code		See Page	Code		See Page
K35	A	56	P4	56	P9		56	
P1		56	P5	56	P17	B	56	
P2		56	P6	56				
P3		56	P7	56				

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
IO	30	Floor No.1 Wire and Instrument Panel J/B (Lower Finish Panel)

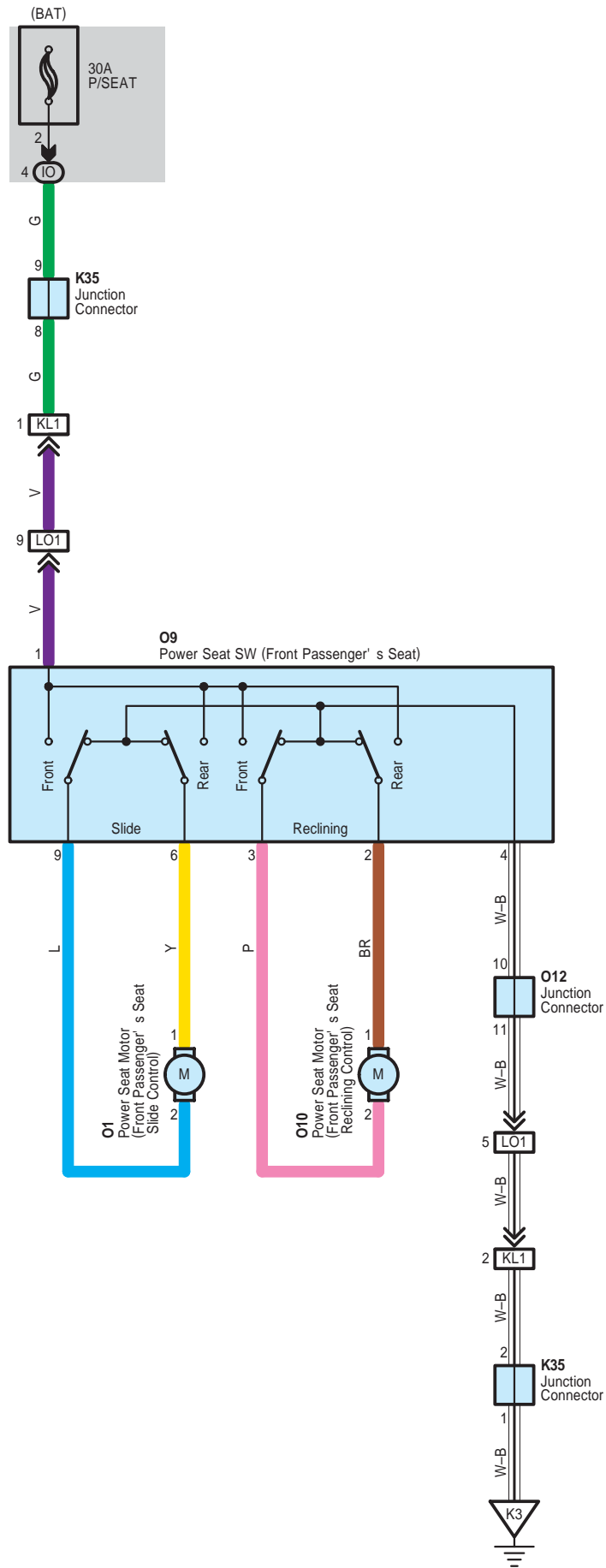
 : Ground Points

Code	See Page	Ground Points Location
K3	60	Left Side of the Instrument Panel





# Power Seat for Front Passenger's Seat



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
K35	56	O9	56	O12	56
O1	56	O10	56		

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
IO	30	Floor No.1 Wire and Instrument Panel J/B (Lower Finish Panel)

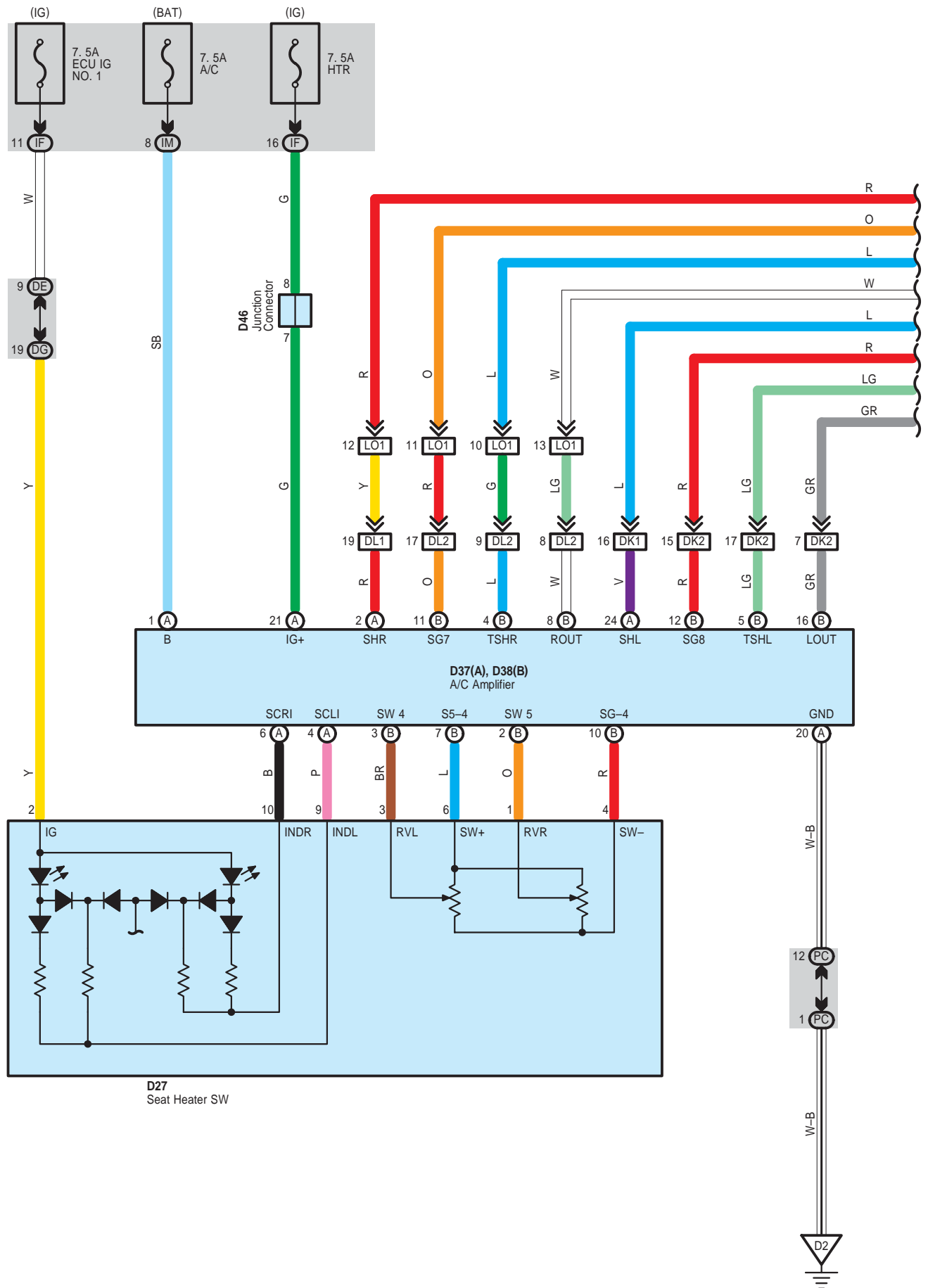
 : **Connector Joining Wire Harness and Wire Harness**

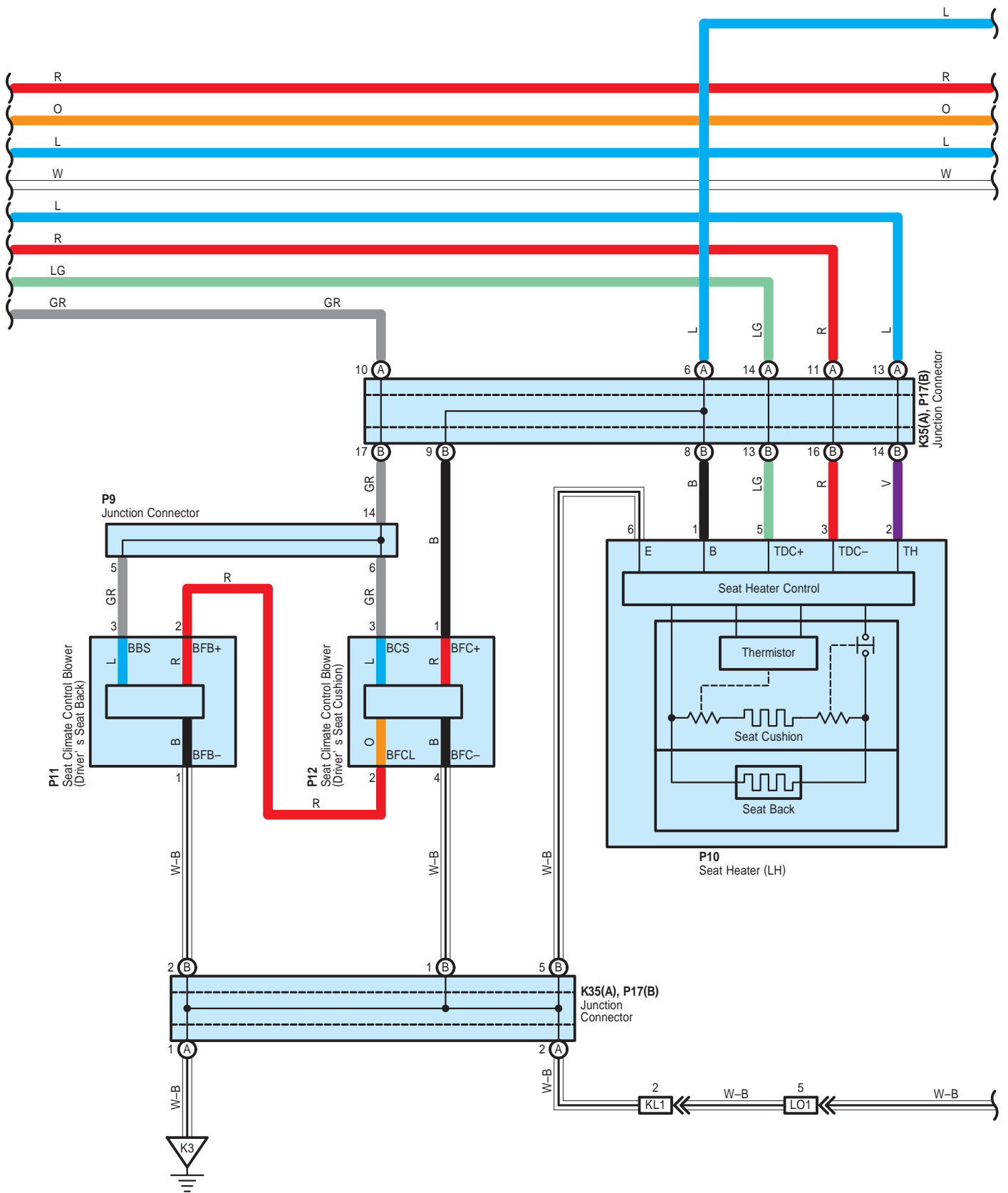
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
KL1	61	Floor No.1 Wire and Floor No.2 Wire (Under the Console Box)
LO1	63	Floor No.2 Wire and Front Seat RH Wire (Under the Front Passenger's Seat)

 : **Ground Points**

Code	See Page	Ground Points Location
K3	60	Left Side of the Instrument Panel

# Climate Control Seat and Seat Heater







 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
D27	51	O12	56	P10	56
D37	A 51	O13	56	P11	56
D38	B 51	O14	56	P12	56
D46	52	O15	56	P17	B 56
K35	A 56	P9	56		

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DG		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IM		
PC	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)

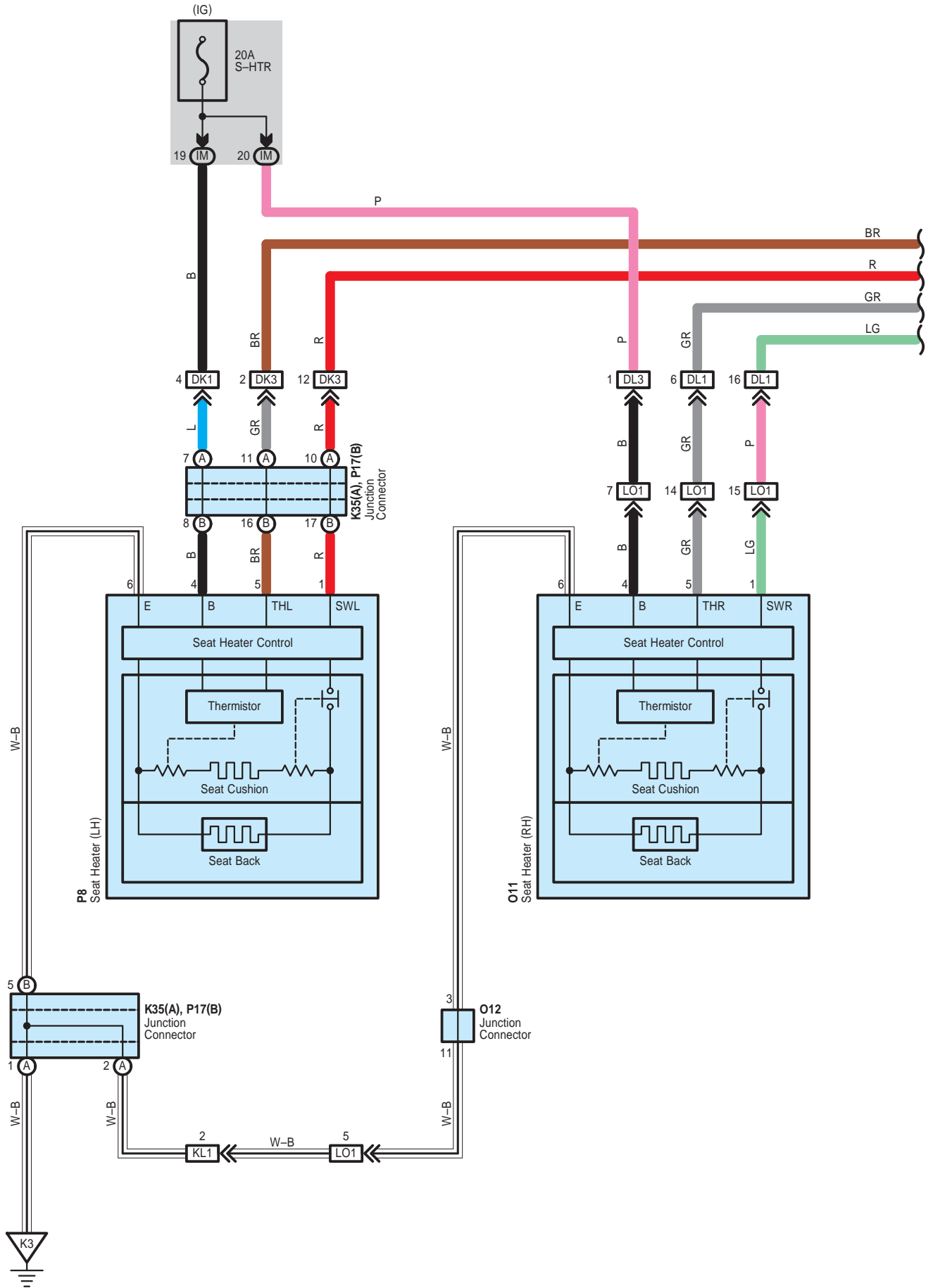
 : **Connector Joining Wire Harness and Wire Harness**

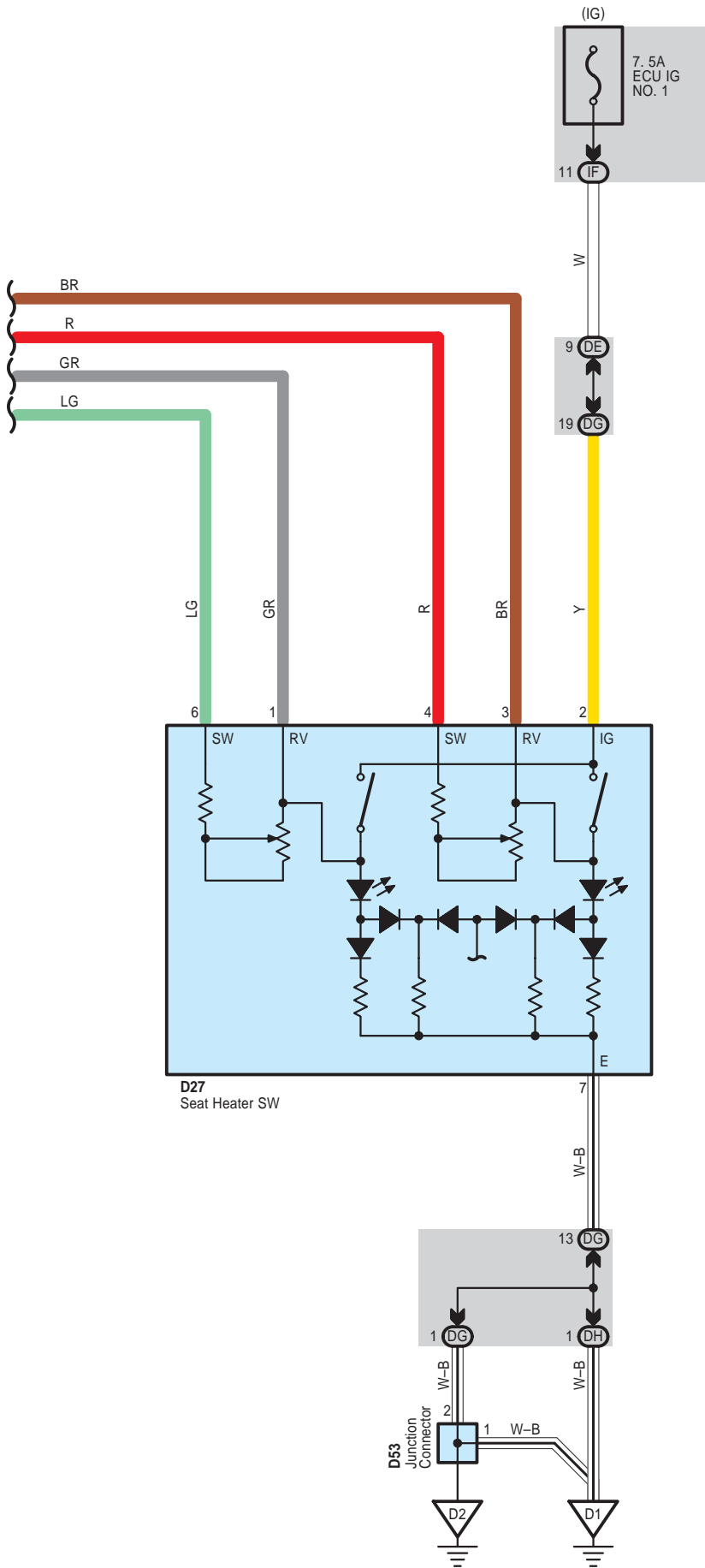
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DK1	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DK2		
DL1	60	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
DL2		
DL3		
KL1	61	Floor No.1 Wire and Floor No.2 Wire (Under the Console Box)
LO1	63	Floor No.2 Wire and Front Seat RH Wire (Under the Front Passenger's Seat)

 : **Ground Points**

Code	See Page	Ground Points Location
D2	60	Instrument Panel Brace LH
K3	60	Left Side of the Instrument Panel

# Seat Heater without Climate Control Seat







# Seat Heater without Climate Control Seat

## : Parts Location

Code	See Page	Code	See Page	Code	See Page
D27	51	O11	56	P17	B 56
D53	52	O12	56		
K35	A 56	P8	56		

## : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DG		
DH		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IM		

## : Connector Joining Wire Harness and Wire Harness

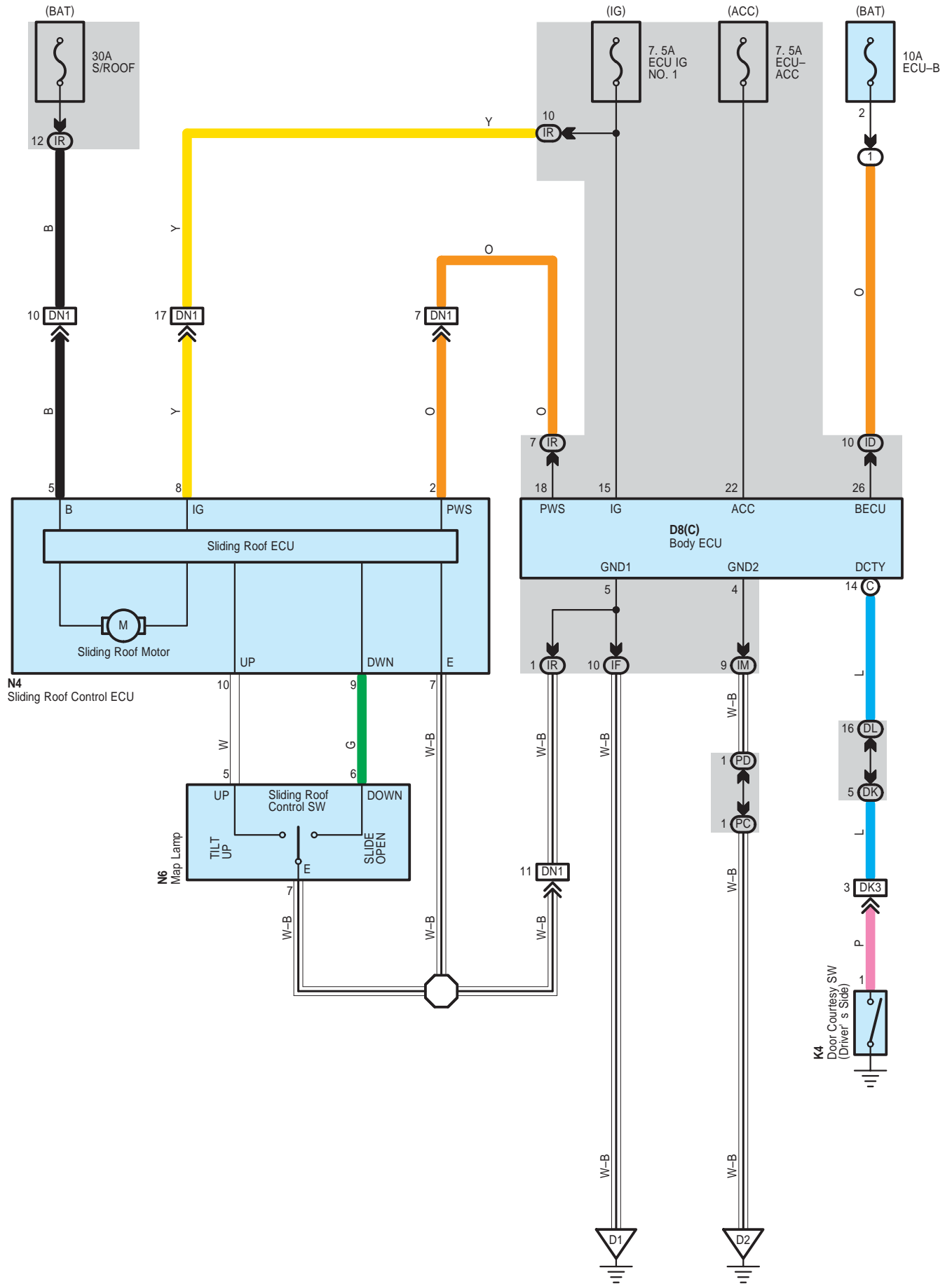
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DK1	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DK3		
DL1	60	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
DL3		
KL1	61	Floor No.1 Wire and Floor No.2 Wire (Under the Console Box)
LO1	63	Floor No.2 Wire and Front Seat RH Wire (Under the Front Passenger's Seat)

## : Ground Points

Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
K3	60	Left Side of the Instrument Panel



# Sliding Roof



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
D8	C	51	N4	55	
K4	54	N6	55		

 : **Relay Blocks**

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

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IM		
IR		
PC	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PD		

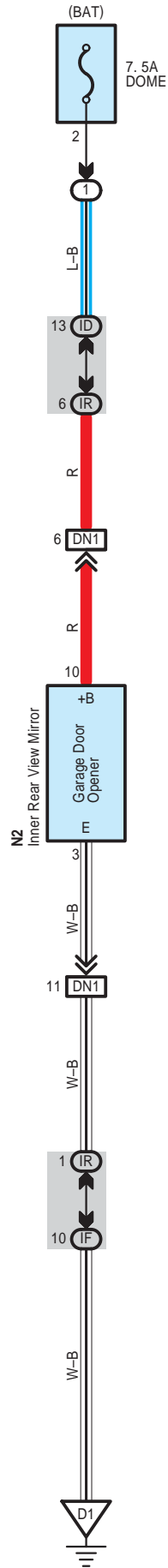
 : **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DN1	61	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)

 : **Ground Points**

Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH

# Garage Door Opener



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
N2	55				

 : **Relay Blocks**

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

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IR		

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

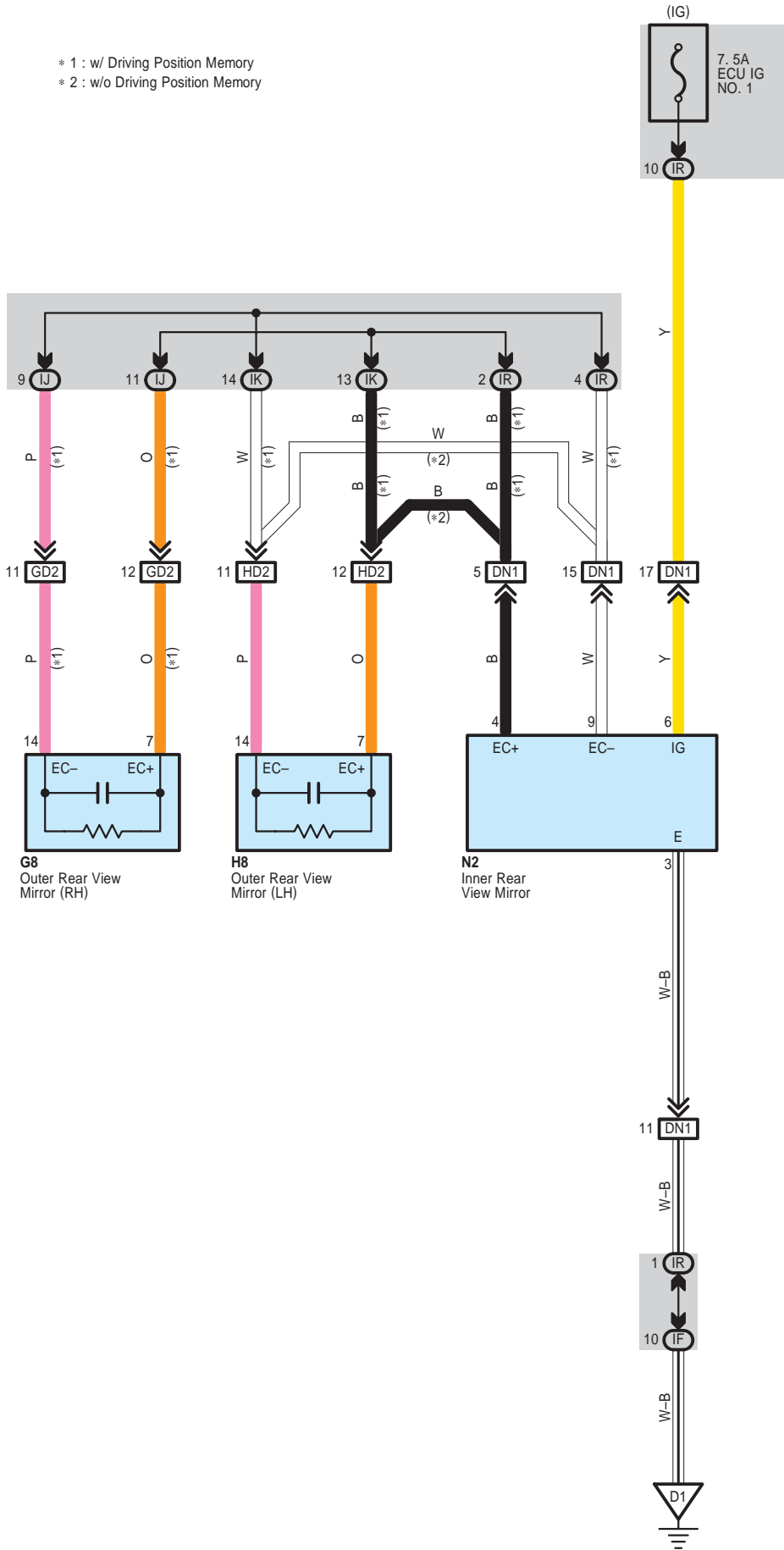
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DN1	61	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)

 : **Ground Points**

Code	See Page	Ground Points Location
D1	60	Left Kick Panel

# Automatic Glare-Resistant EC Mirror and Compass

- \* 1 : w/ Driving Position Memory
- \* 2 : w/o Driving Position Memory



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
G8	54	H8	54	N2	55

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IJ		
IK		
IR		

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

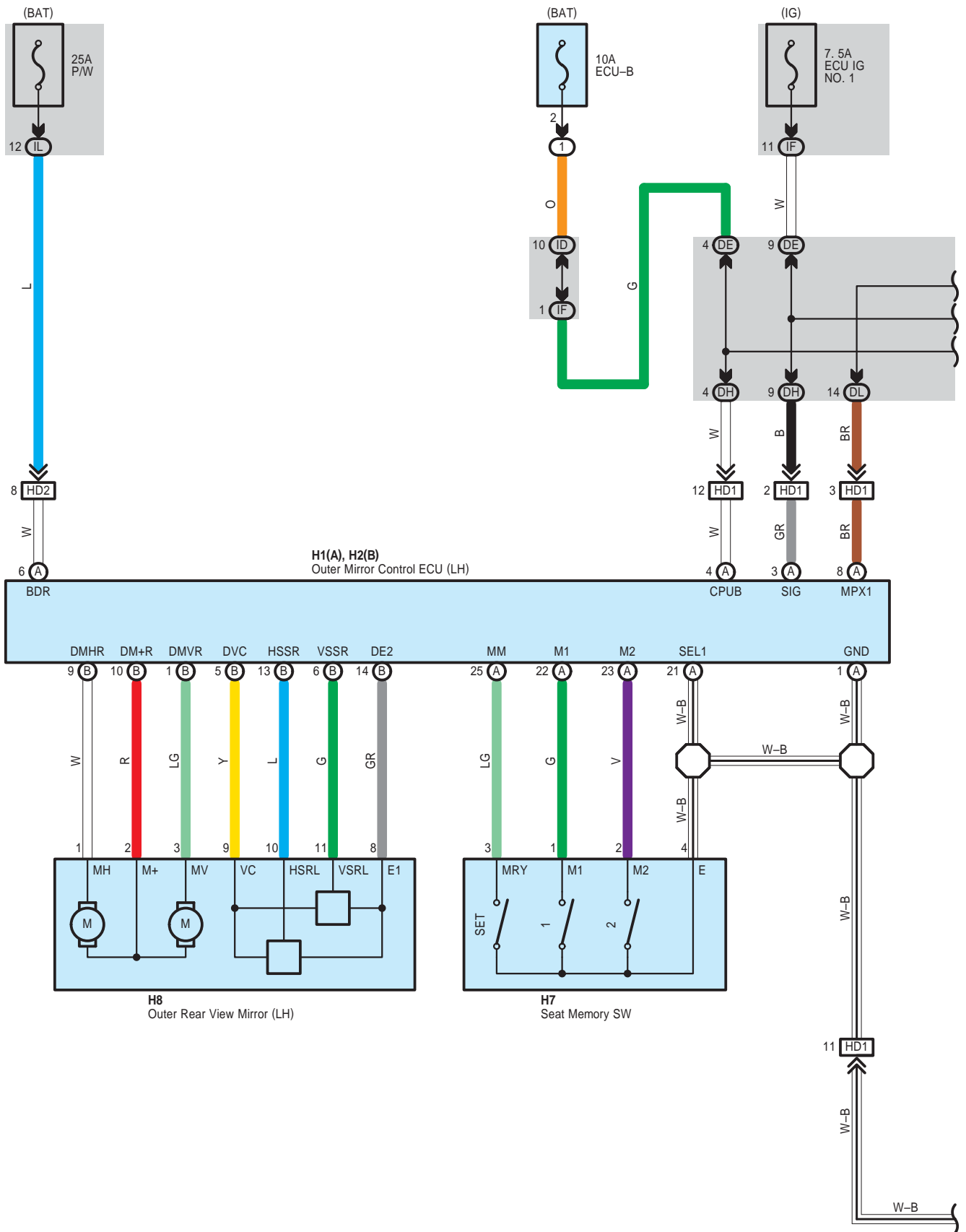
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DN1	61	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
GD2	61	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
HD2	61	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)

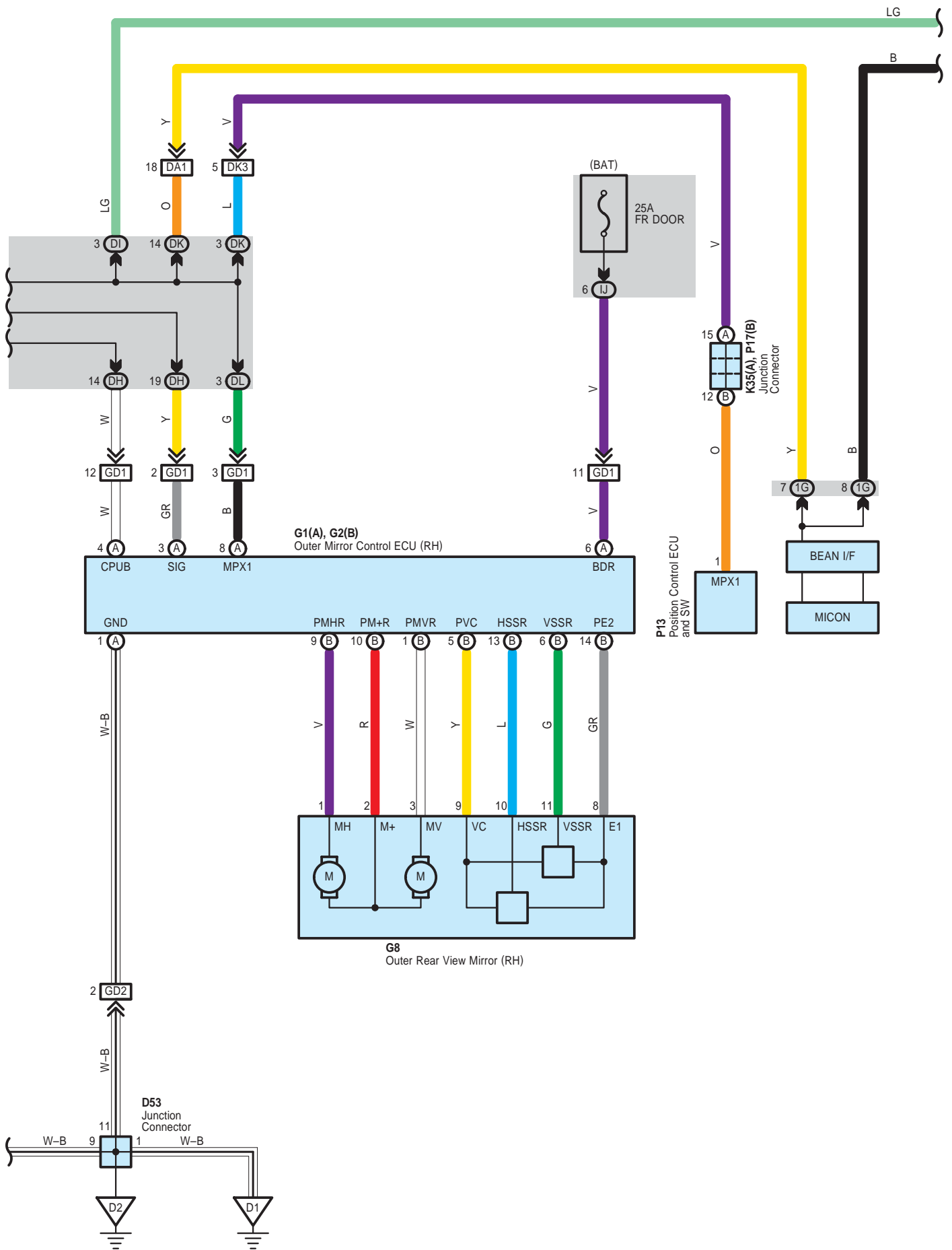
 : **Ground Points**

Code	See Page	Ground Points Location
D1	60	Left Kick Panel

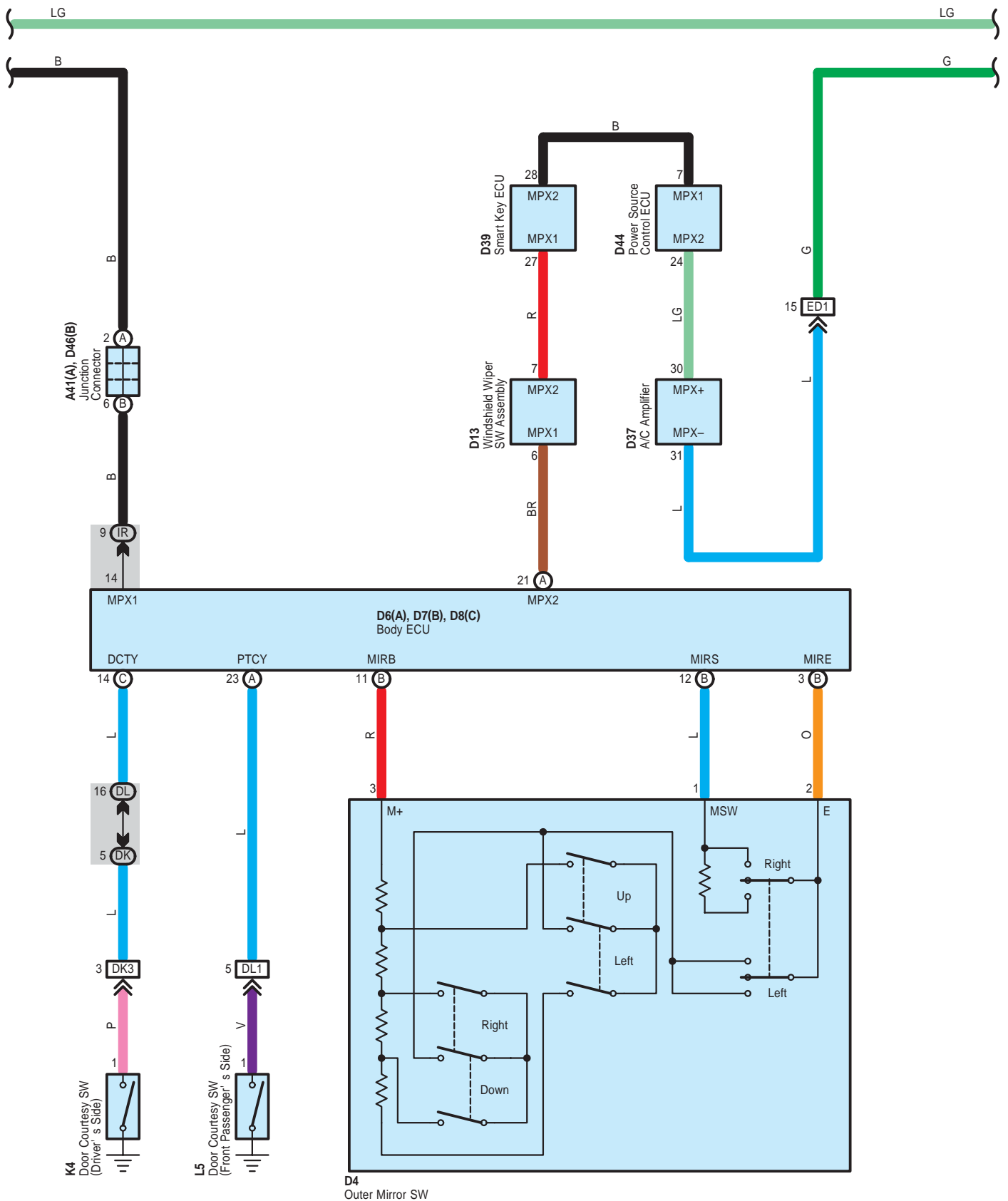


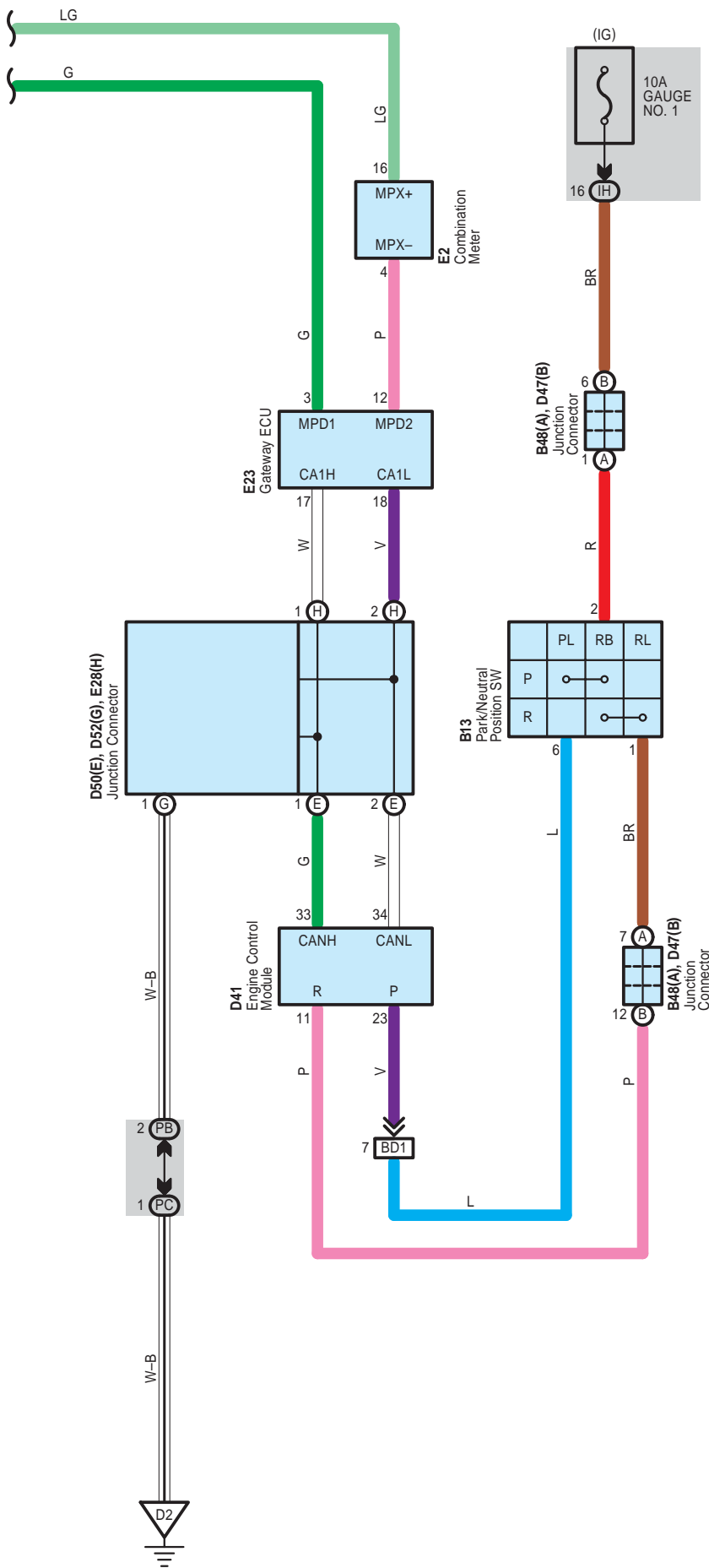
# Remote Control Mirror with Memory





# Remote Control Mirror with Memory





# Remote Control Mirror with Memory

## : Parts Location

Code	See Page	Code	See Page	Code	See Page
A41	A 50	D44	52	G8	54
B13	49	D46	B 52	H1	A 54
B48	A 50	D47	B 52	H2	B 54
D4	51	D50	E 52	H7	54
D6	A 51	D52	G 52	H8	54
D7	B 51	D53	52	K35	A 56
D8	C 51	E2	52	K4	54
D13	51	E23	53	L5	55
D37	51	E28	H 53	P13	56
D39	52	G1	A 54	P17	B 56
D41	52	G2	B 54		

## : Relay Blocks

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

## : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IH	31	
IJ	30	
IL		
IR		
PB		
PC	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)

## : Connector Joining Wire Harness and Wire Harness

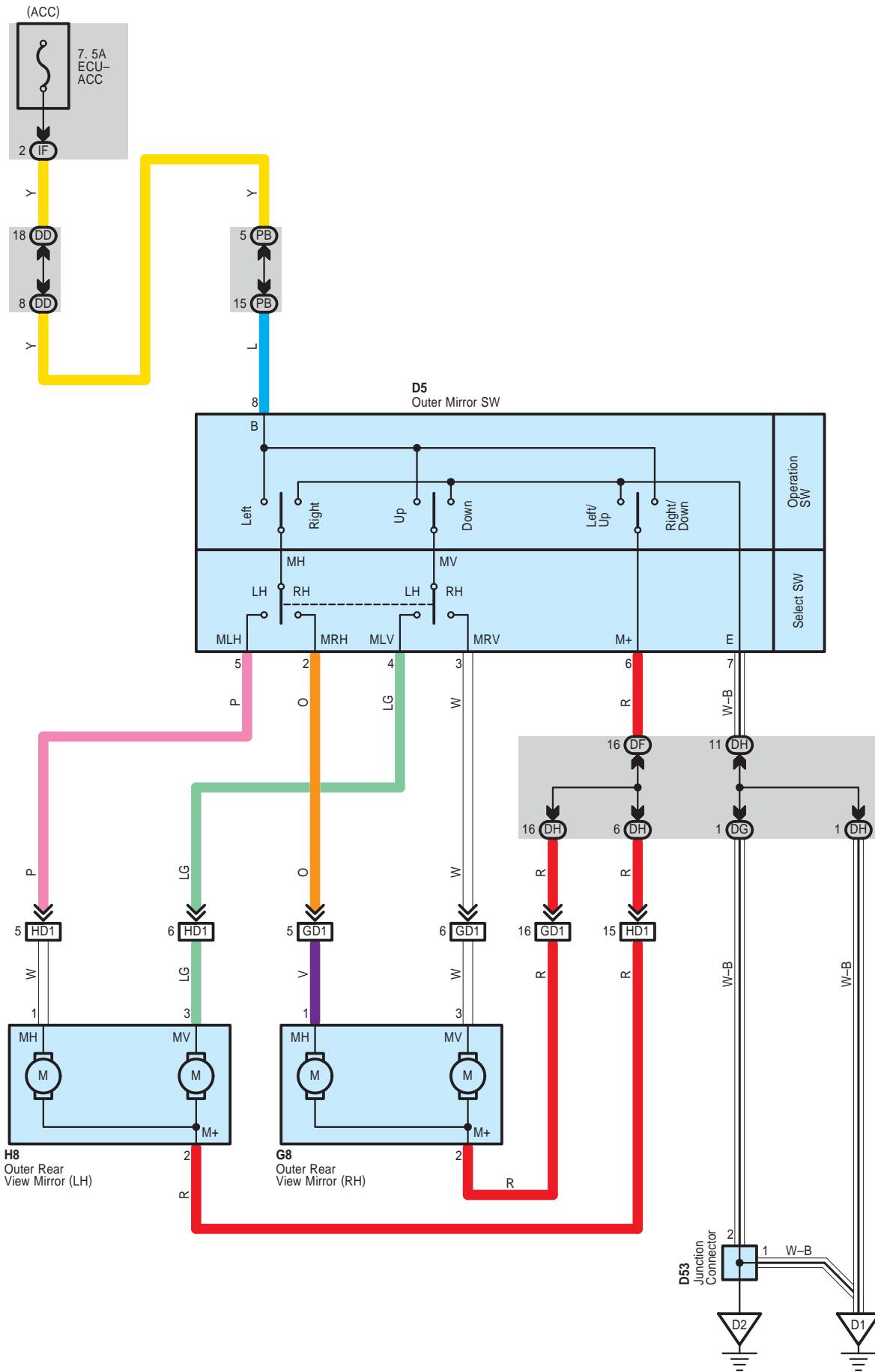
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
BD1	60	Engine Wire and Instrument Panel Wire (Right Side of the Blower Unit)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DL1	60	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
GD1	61	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
GD2		
HD1	61	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
HD2		

## : Ground Points

Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH



# Remote Control Mirror without Memory



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
D5	51	G8	54		
D53	52	H8	54		

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DF		
DG		
DH		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)

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

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
GD1	61	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
HD1	61	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)

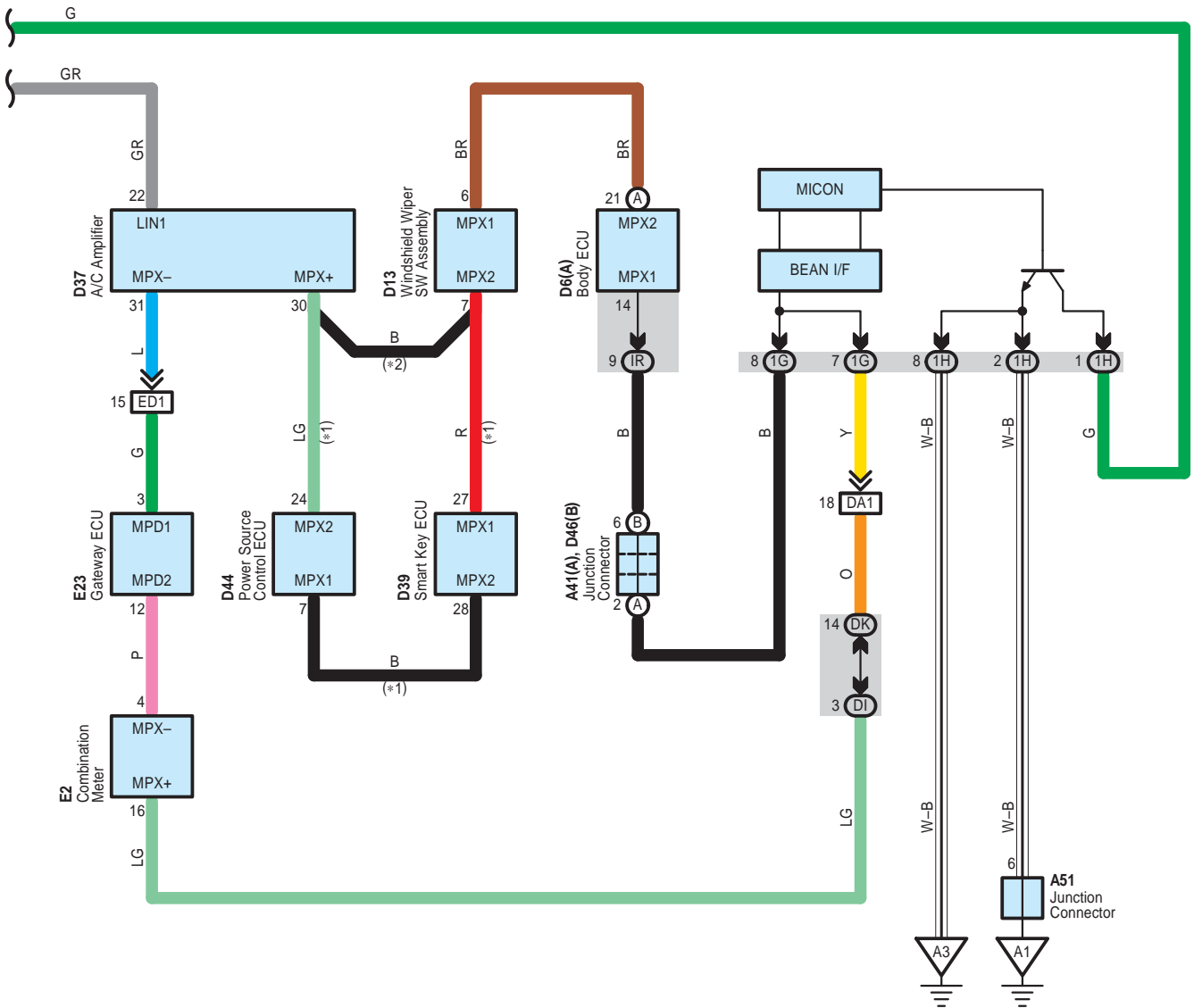
 : **Ground Points**

Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH





- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System
- \* 3 : w/ Mirror Heater



# Mirror Heater and Rear Window Defogger

## : Parts Location

Code	See Page	Code	See Page	Code	See Page
A41   A	50	D39	52	E23	53
A51	48	D44	52	G8	54
A52	48	D46   B	52	H8	54
D6   A	51	D53	52	K15	54
D13	51	E2	52	K19   A	54
D37	51	E6	52	Q1   B	55

## : Relay Blocks

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

## : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G 1H	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DB	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DG	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
IB	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF IJ IK	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IO	30	Floor No.1 Wire and Instrument Panel J/B (Lower Finish Panel)
IR	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)

## : Connector Joining Wire Harness and Wire Harness

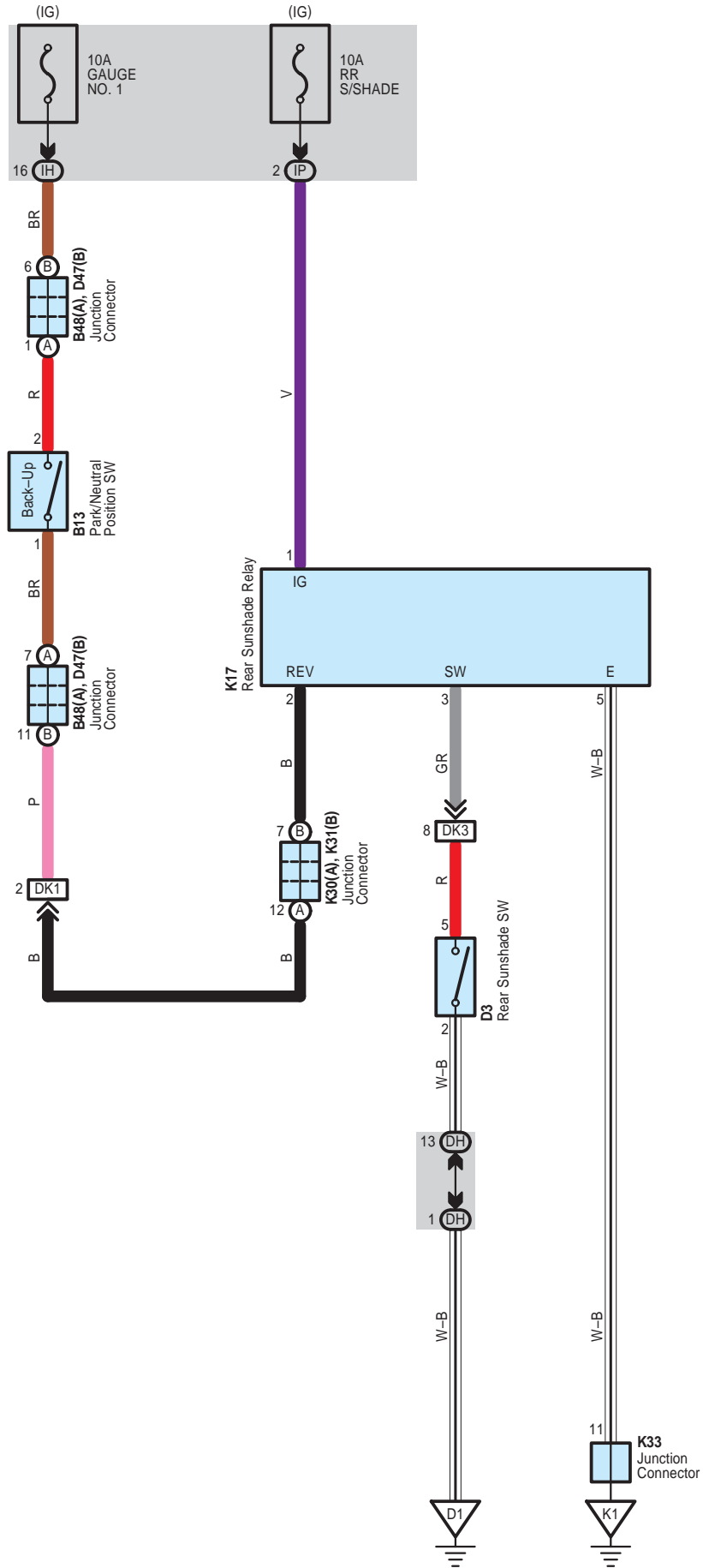
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
GD1 GD2	61	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
HD1	61	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)

## : Ground Points

Code	See Page	Ground Points Location
A1 A2	58	Front Left Fender
A3	60	Left Side of the Instrument Panel
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
Q1	62	Right Rear Quarter Panel



# Rear Sunshade



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page		
B13	49	D47	B	52	K31	B	55
B48	A	50	K17	54	K33	55	
D3	51	K30	A	55			

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
DH	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
IH	31	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IP	30	Floor No.1 Wire and Instrument Panel J/B (Lower Finish Panel)

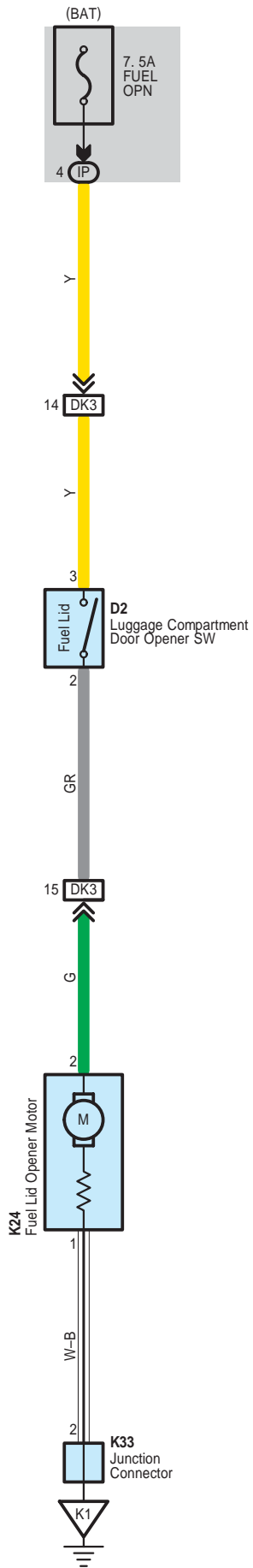
 : **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DK1	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DK3		

 : **Ground Points**

Code	See Page	Ground Points Location
D1	60	Left Kick Panel
K1	62	Left Rear Quarter Panel

# Fuel Lid Opener



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
D2	51	K24	55	K33	55

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
IP	30	Floor No.1 Wire and Instrument Panel J/B (Lower Finish Panel)

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

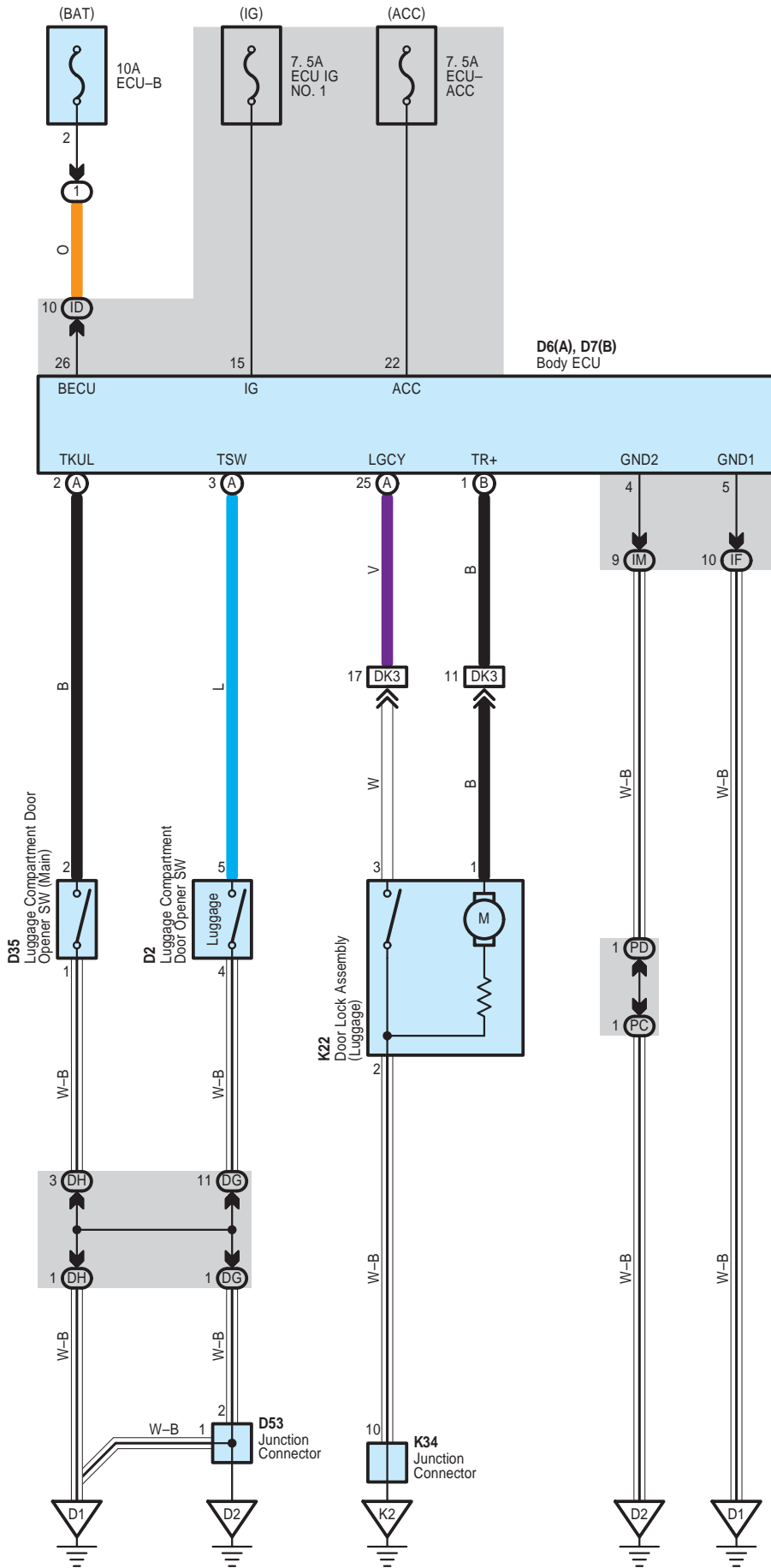
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)

 : **Ground Points**

Code	See Page	Ground Points Location
K1	62	Left Rear Quarter Panel



# Luggage Compartment Door Opener



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
D2	51	D35	51	K34	55
D6	A 51	D53	52		
D7	B 51	K22	55		

 : **Relay Blocks**

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

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
DG	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DH		
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IM		
PC	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PD		

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

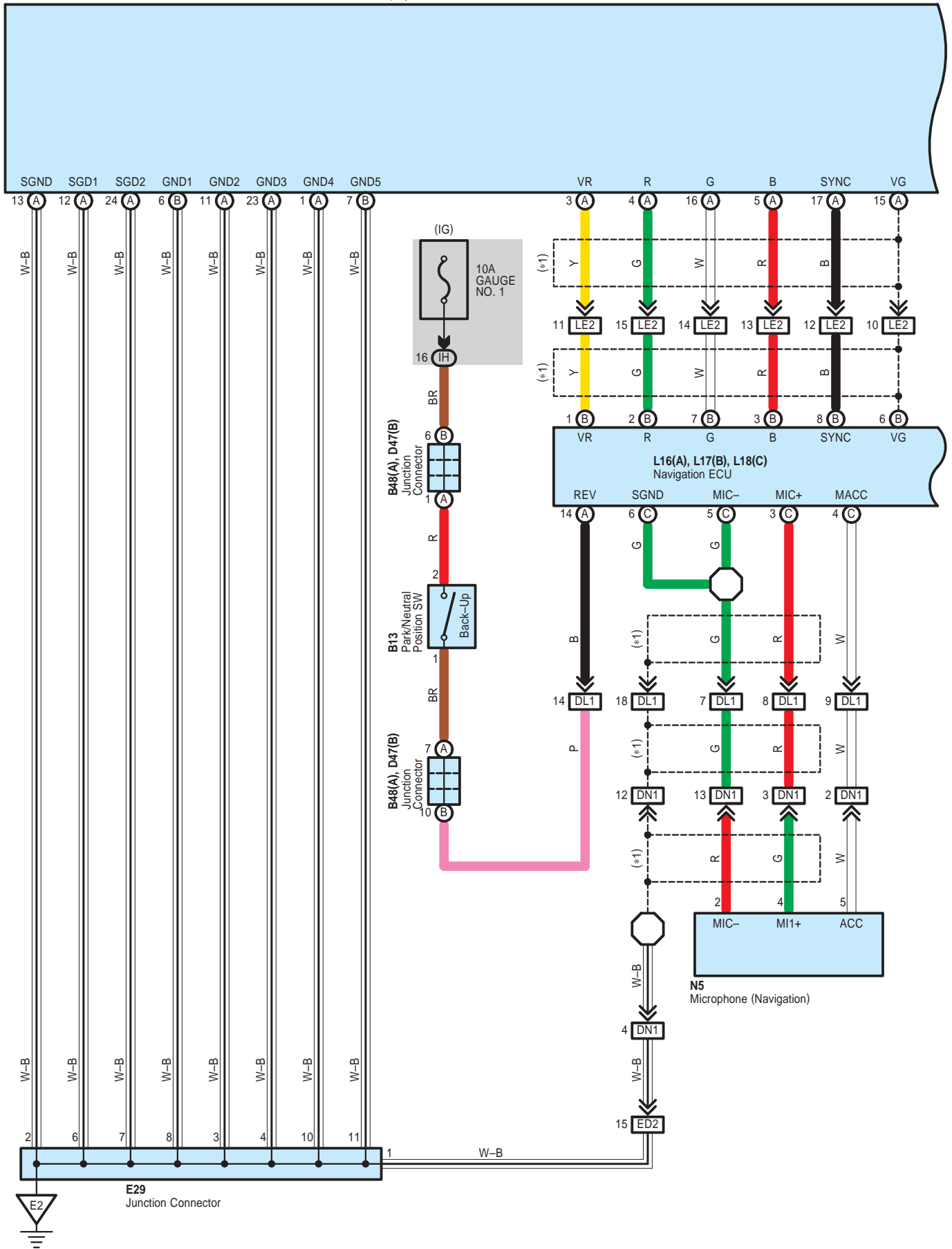
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)

 : **Ground Points**

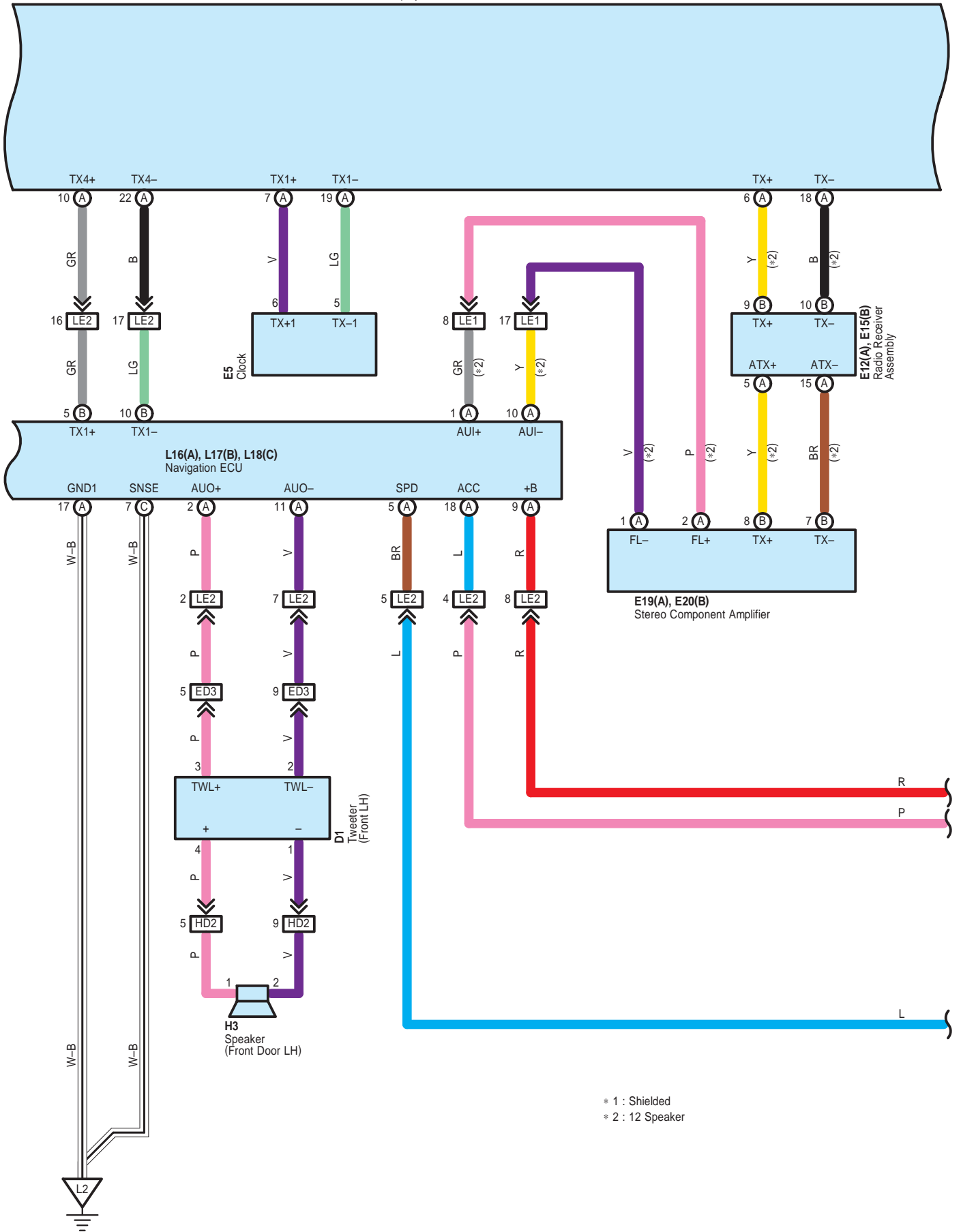
Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
K2	62	Left Rear Quarter Panel

# Multi Display and Navigation System

E8(A), E25(B)  
Multi-Display

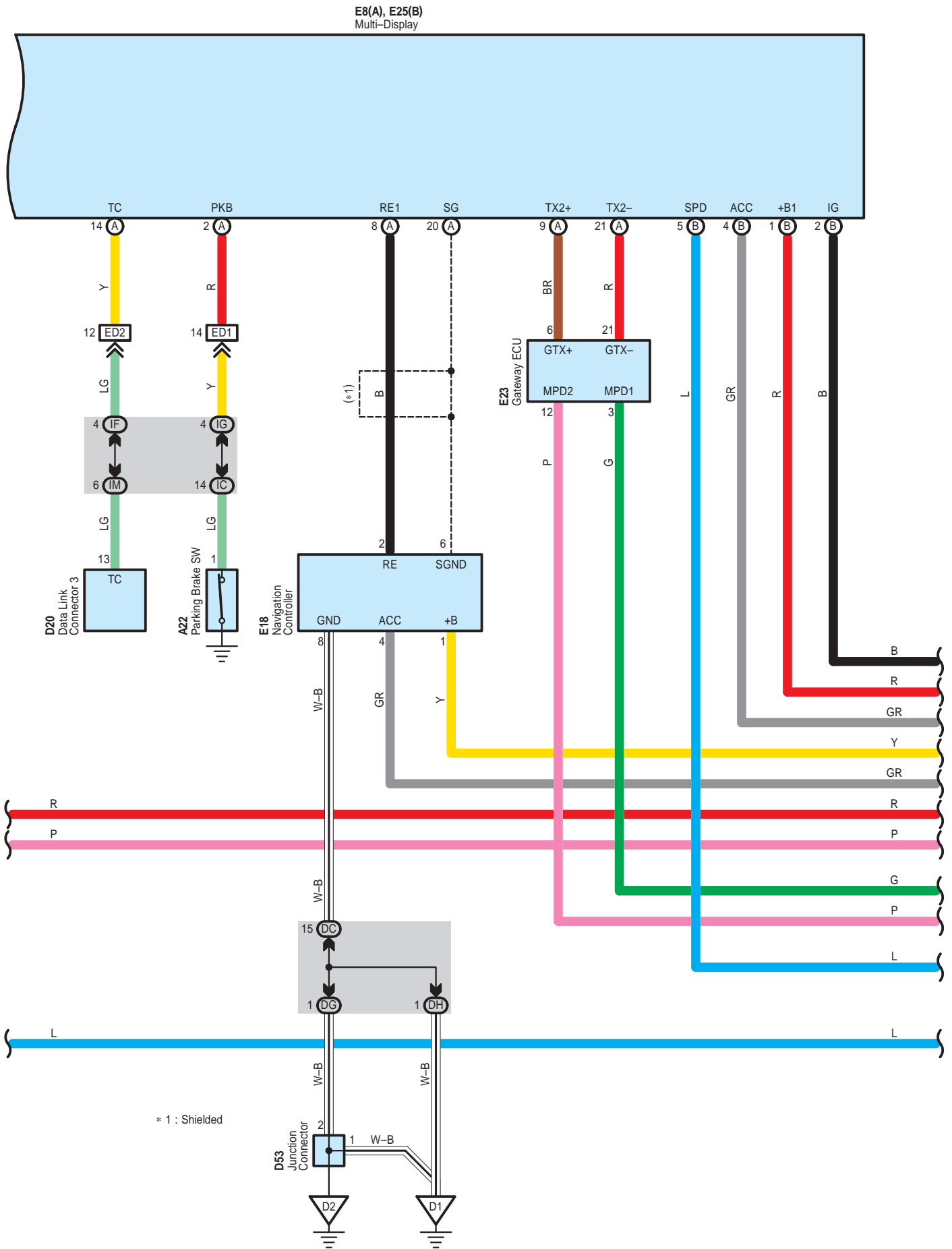


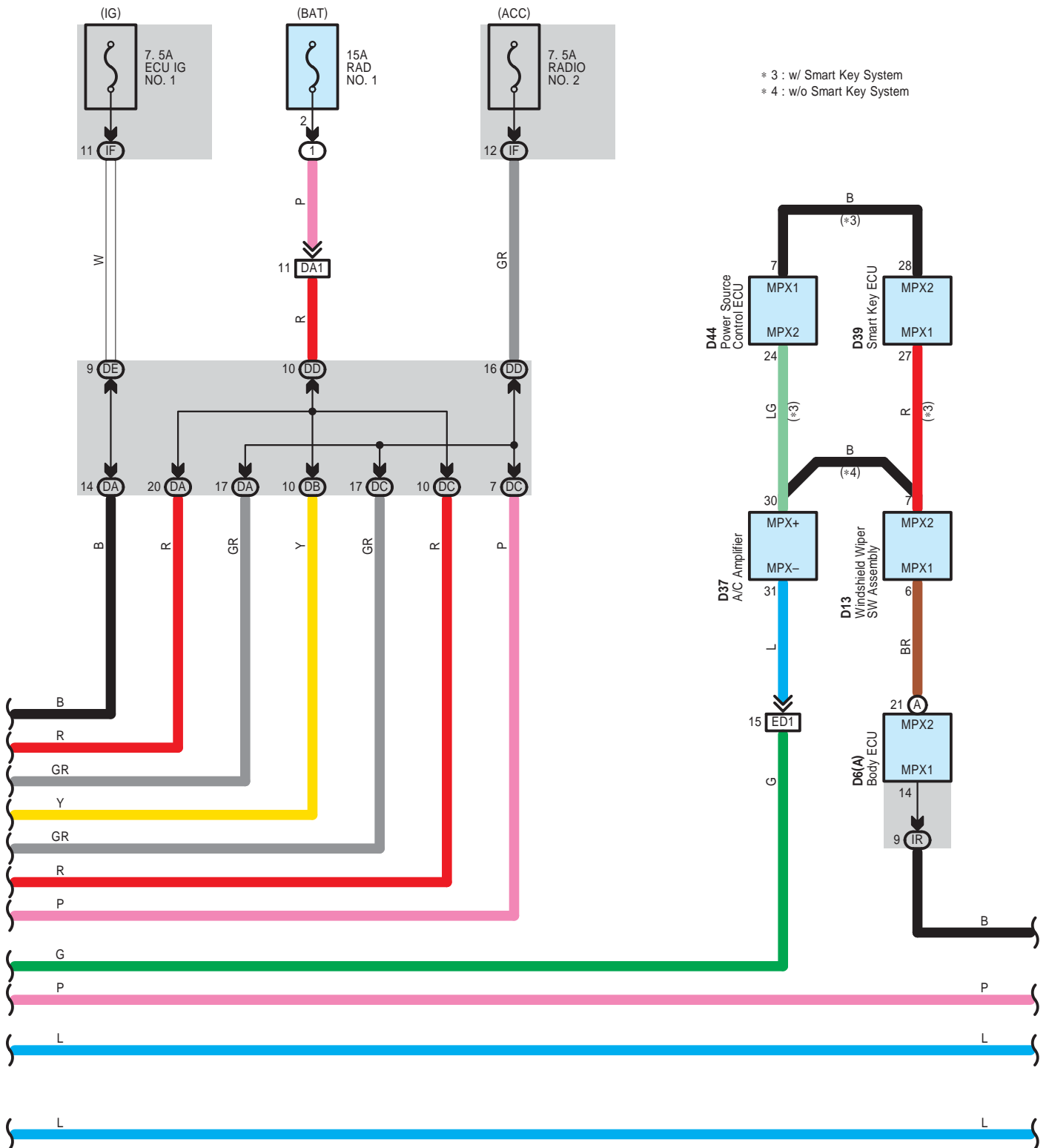
E8(A), E25(B)  
Multi-Display



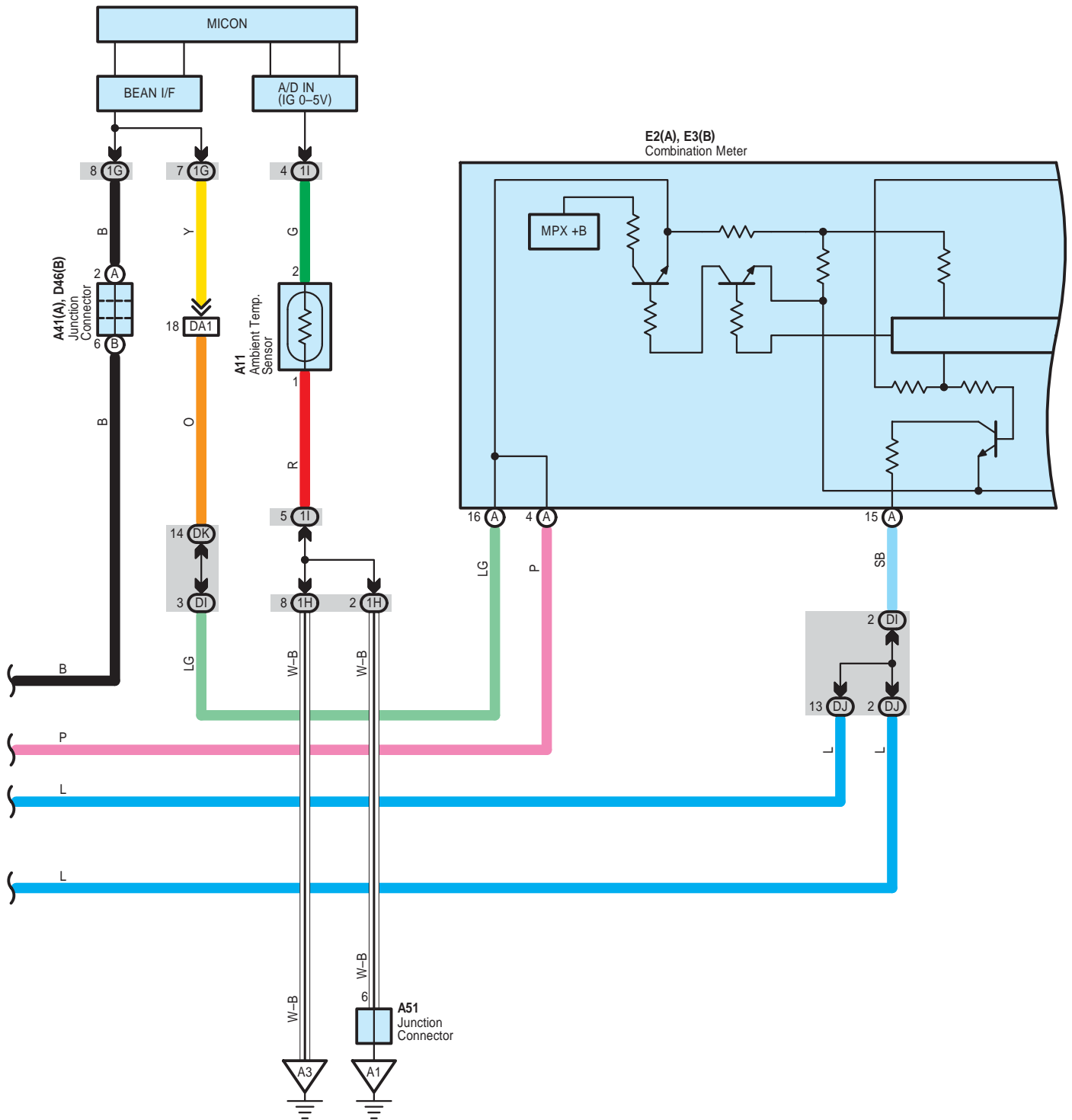
\* 1 : Shielded  
\* 2 : 12 Speaker

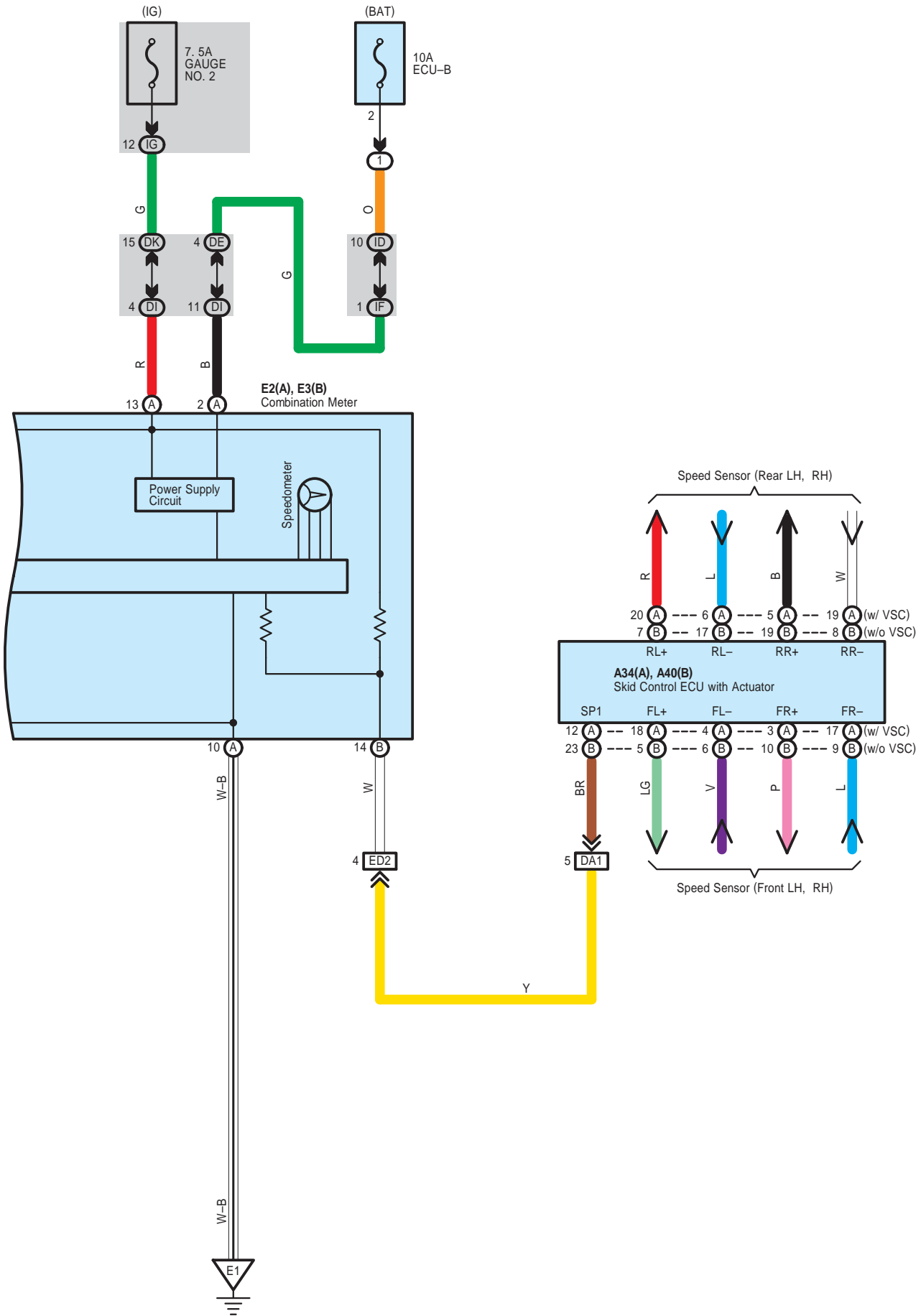
# Multi Display and Navigation System





# Multi Display and Navigation System







# Multi Display and Navigation System

## System Outline

The navigation system displays the operating status and instructions for the automatic air conditioning or radio and player, as well as trip information. Additionally, the navigation system precisely measures the current vehicle position, displays the map obtained from the map database on the screen, and informs the route to the destination shown on the map using voice guidance.

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A11	48	D37	51	E18	53
A22	50	D39	52	E19	A 53
A34	A 48	D44	52	E20	B 53
A40	B 48	D46	B 52	E23	53
A41	A 50	D47	B 52	E25	B 53
A51	48	D53	52	E29	53
B13	49	E2	A 52	H3	54
B48	A 50	E3	B 52	L16	A 55
D1	51	E5	52	L17	B 55
D6	A 51	E8	A 52	L18	C 55
D13	51	E12	A 53	N5	55
D20	51	E15	B 53		

## ○ : Relay Blocks

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

## ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1H		
1I		
DA	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DB		
DC		
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DE		
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DJ		
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
IC	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
IH		
IM	30	

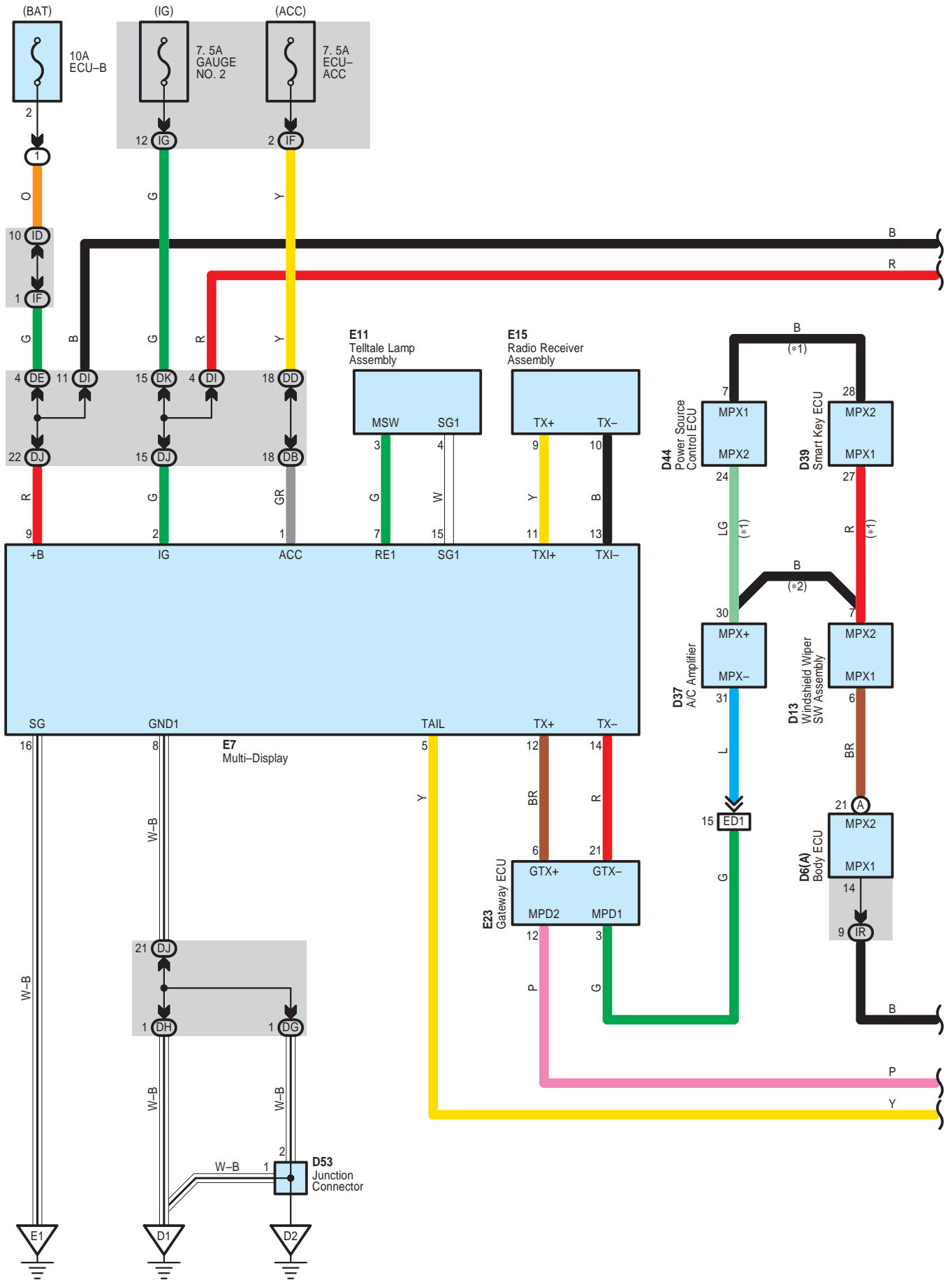
 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DL1	60	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
DN1	61	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
ED2		
ED3	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Right Side of the Passenger Side J/B)
HD2	61	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
LE1	61	Floor No.2 Wire and Instrument Panel No.2 Wire (Behind the Glove Box)
LE2		

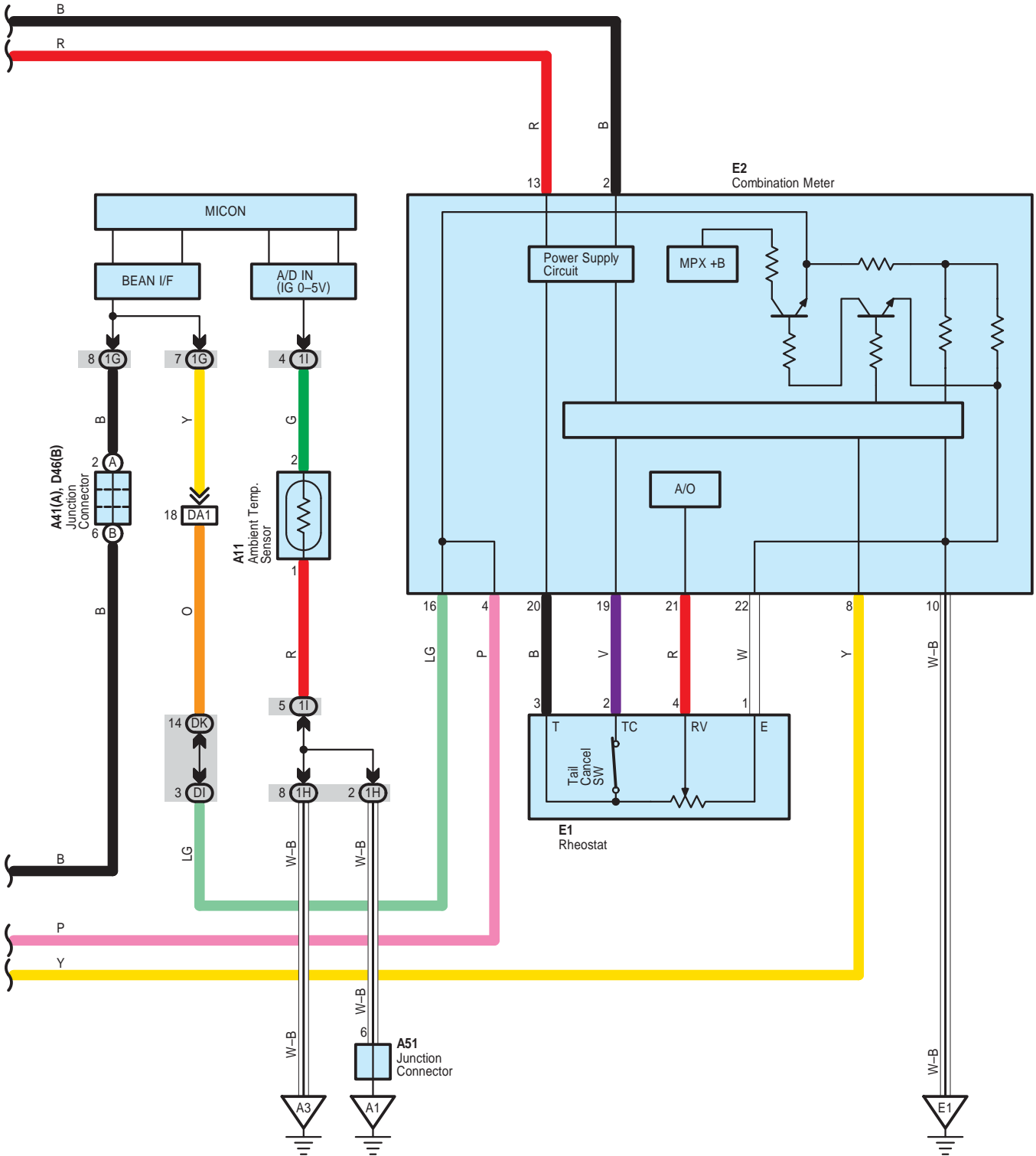
 : Ground Points

Code	See Page	Ground Points Location
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter
E2	60	Instrument Panel Brace RH
L2	62	Right Rear Quarter Panel

# Multi Display without Navigation System



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



AVALON (EM00A0U)

# Multi Display without Navigation System

## : Parts Location

Code	See Page	Code	See Page	Code	See Page
A11	48	D39	52	E7	52
A41	A 50	D44	52	E11	52
A51	48	D46	B 52	E15	53
D6	A 51	D53	52	E23	53
D13	51	E1	52		
D37	51	E2	52		

## : Relay Blocks

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

## : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1H		
1I		
DB	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DE		
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DJ		
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
ID	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
IR	30	

## : Connector Joining Wire Harness and Wire Harness

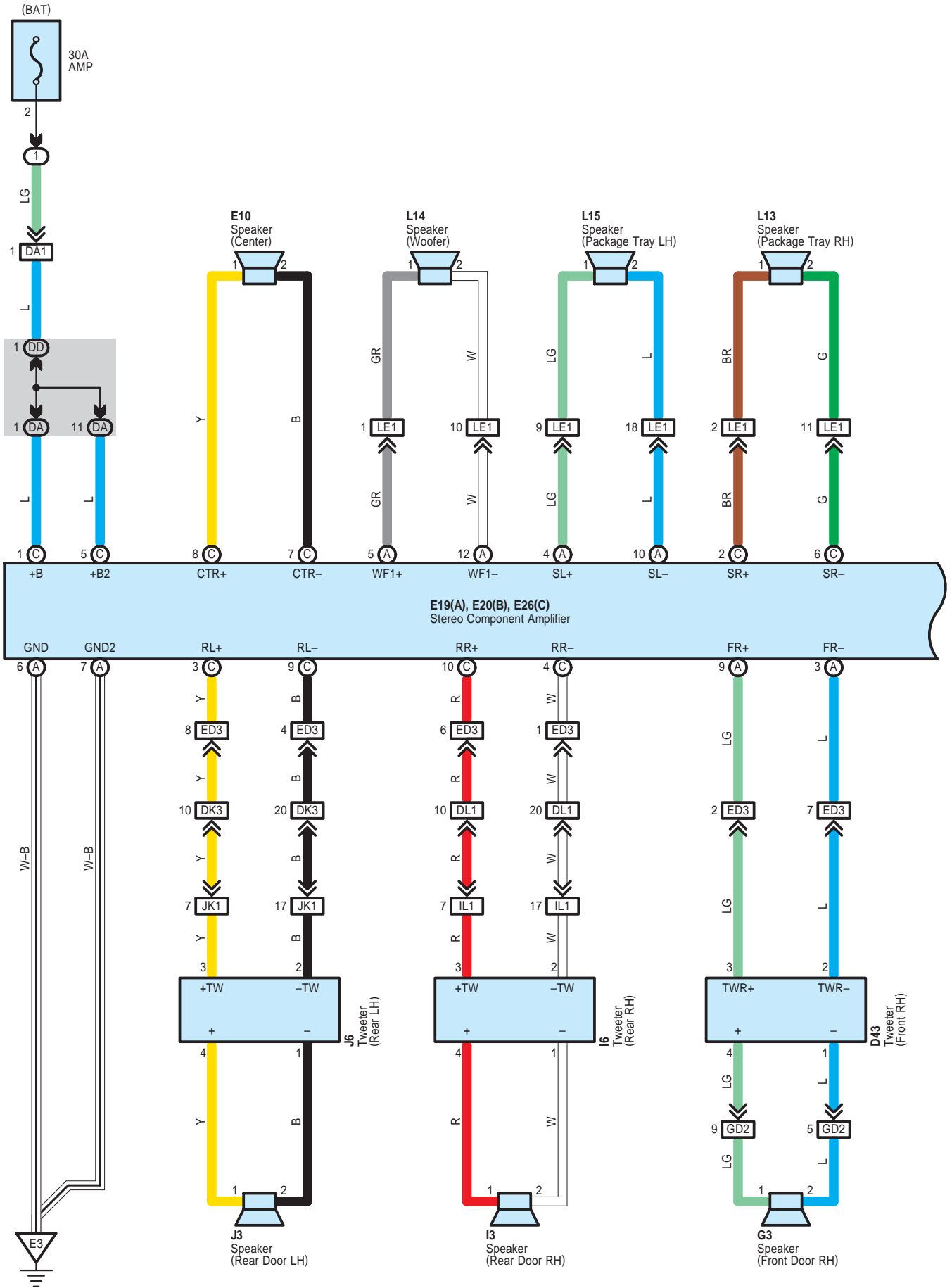
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)

## : Ground Points

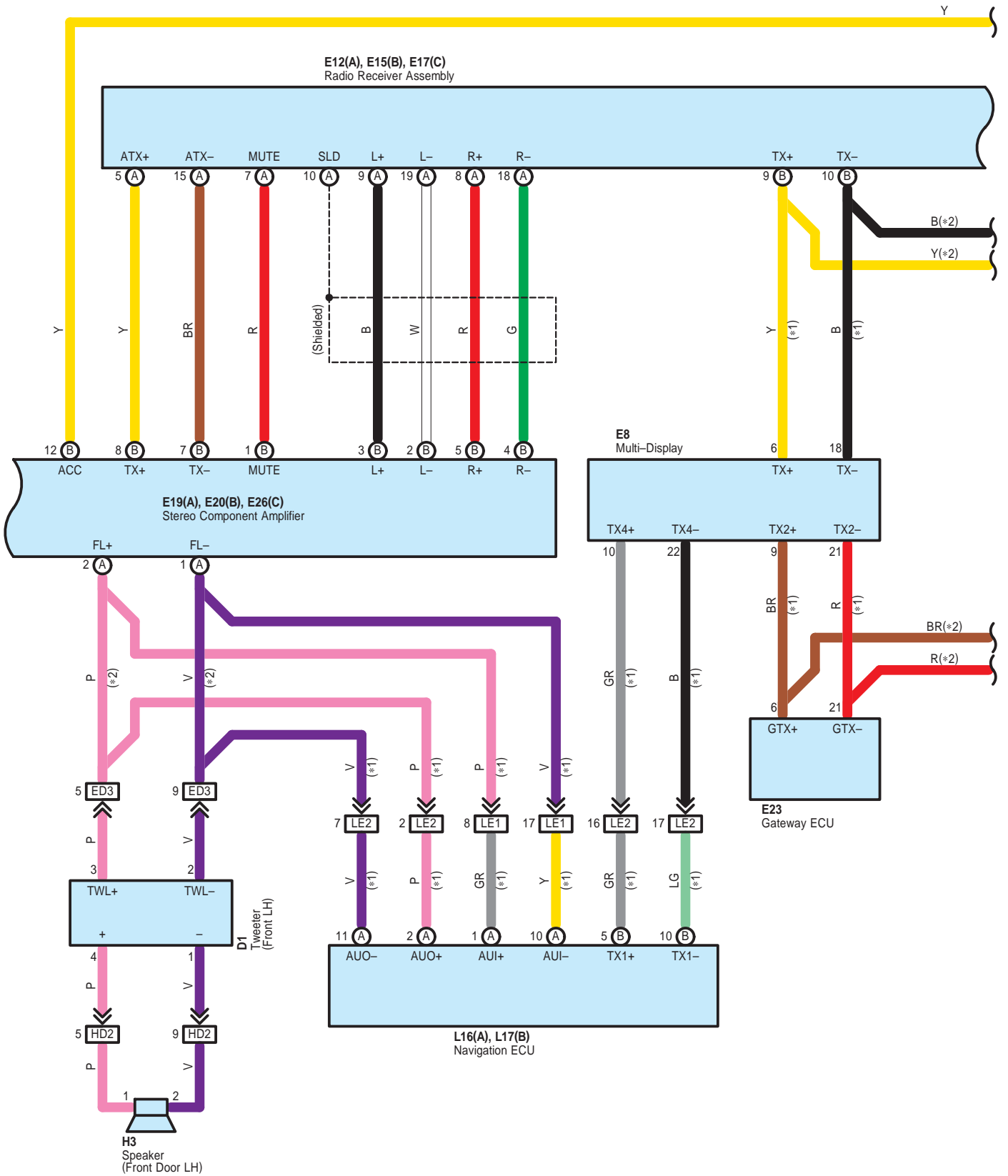
Code	See Page	Ground Points Location
A1	58	Front Left Fender
A3	60	Left Side of the Instrument Panel
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter



# Audio System with 12 Speaker

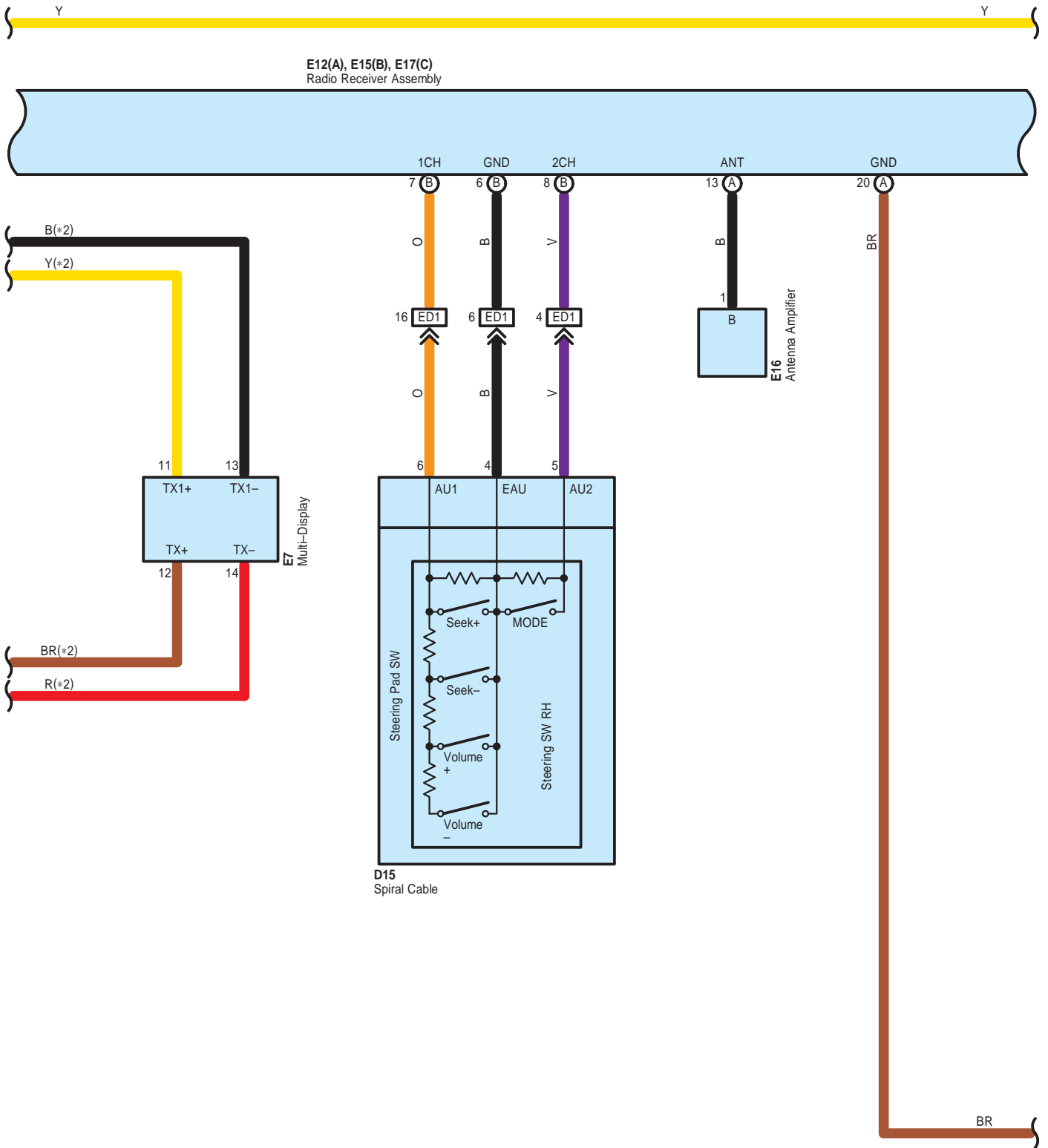


\* 1 : w/ Navigation System  
 \* 2 : w/o Navigation System

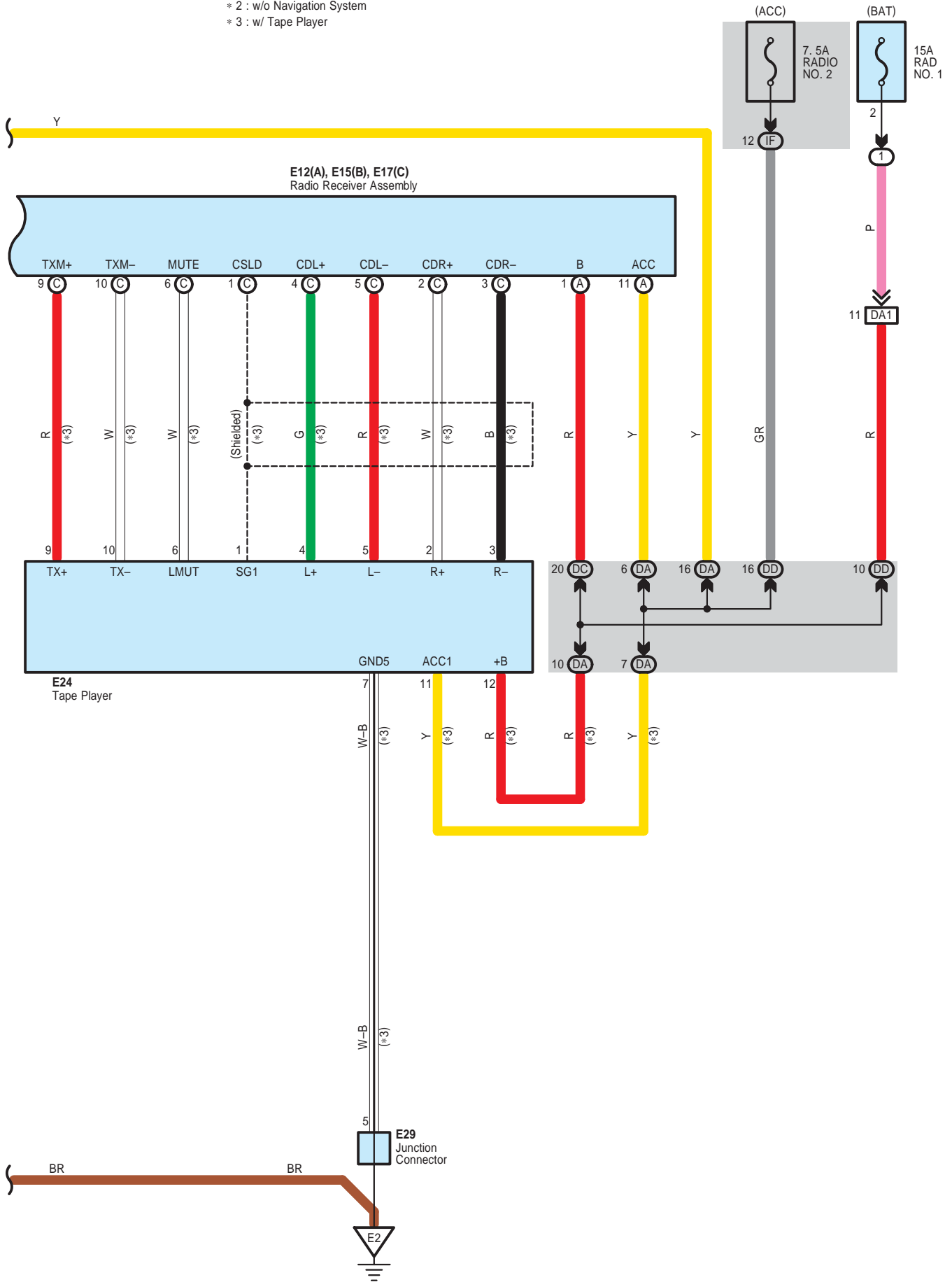




# Audio System with 12 Speaker



\* 2 : w/o Navigation System  
 \* 3 : w/ Tape Player



# Audio System with 12 Speaker

## : Parts Location

Code	See Page	Code	See Page	Code	See Page		
D1	51	E17	C	53	I3	54	
D15	51	E19	A	53	I6	54	
D43	52	E20	B	53	J3	54	
E7	52	E23		53	J6	54	
E8	52	E24		53	L13	55	
E10	52	E26	C	53	L14	55	
E12	A	53	E29	53	L15	55	
E15	B	53	G3	54	L16	A	55
E16	53	H3	54	L17	B	55	

## : Relay Blocks

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

## : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
DA	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DC		
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)

## : Connector Joining Wire Harness and Wire Harness

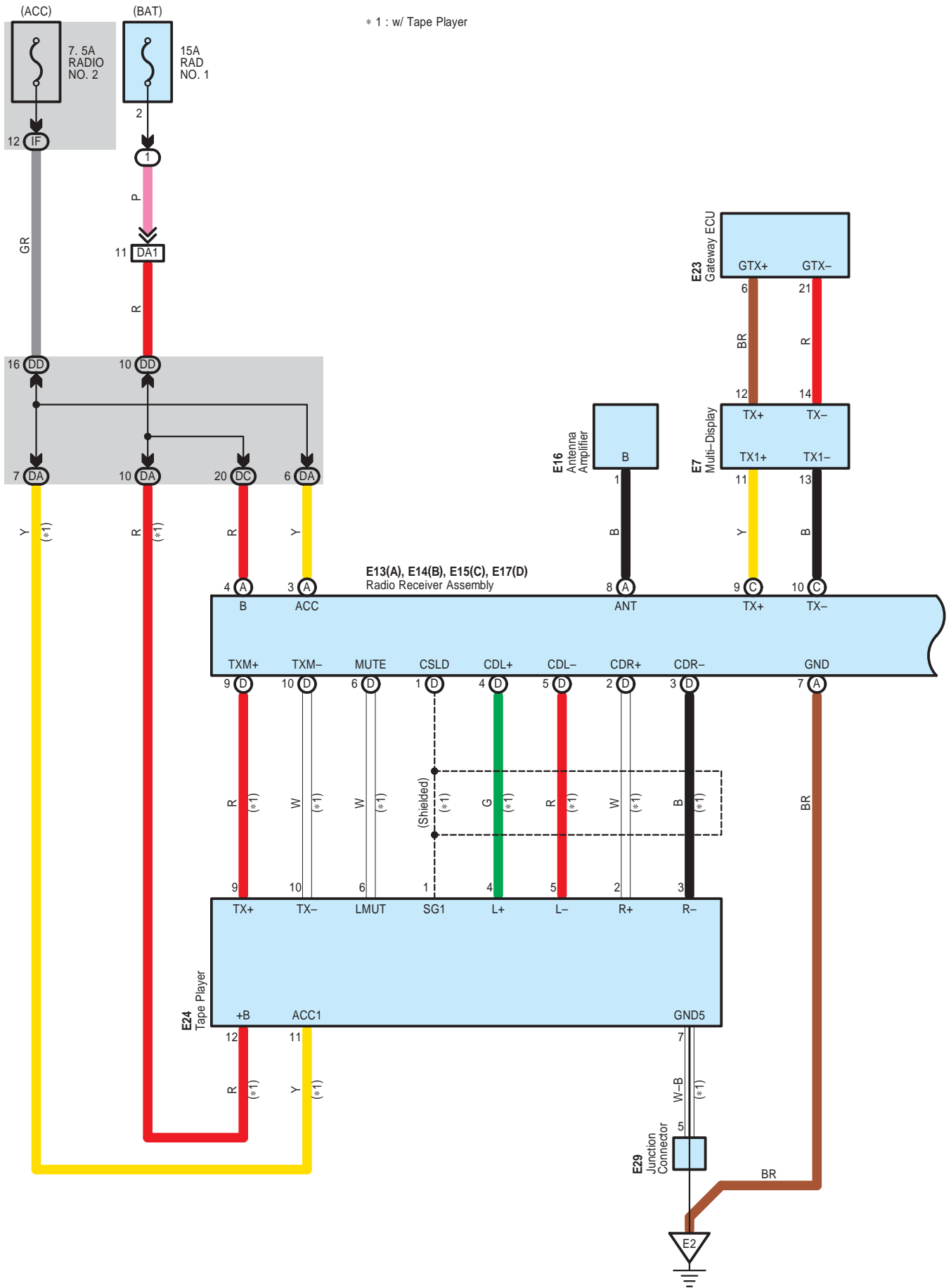
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DL1	60	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
ED3	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Right Side of the Passenger Side J/B)
GD2	61	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
HD2	61	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IL1	62	Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)
JK1	62	Rear Door LH Wire and Floor No.1 Wire (Left Center Pillar)
LE1	61	Floor No.2 Wire and Instrument Panel No.2 Wire (Behind the Glove Box)
LE2		

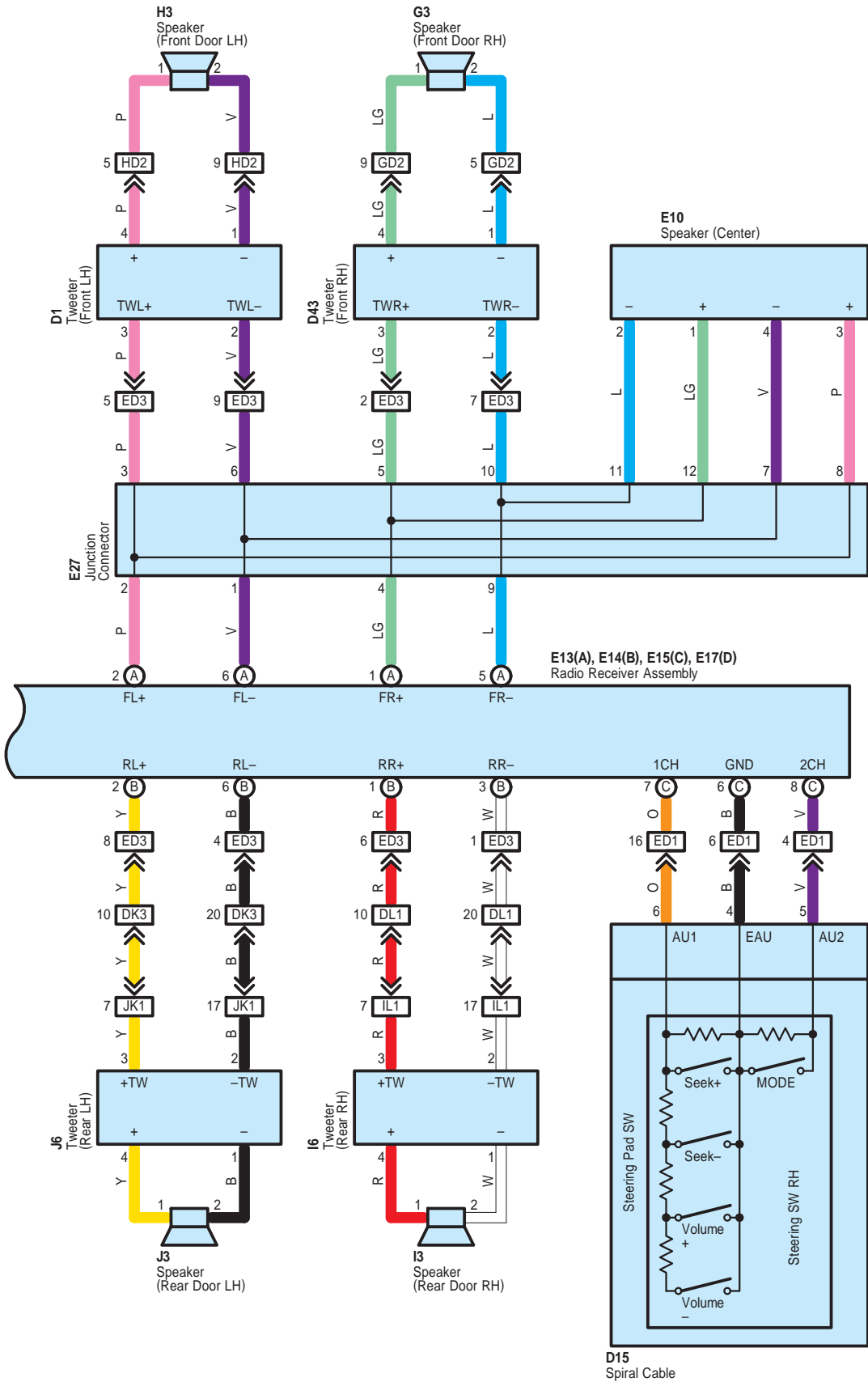
## : Ground Points

Code	See Page	Ground Points Location
E2	60	Instrument Panel Brace RH
E3	60	Under the Front Passenger's Seat



# Audio System with 9 Speaker





# Audio System with 9 Speaker

## : Parts Location

Code	See Page	Code	See Page	Code	See Page
D1	51	E15	C 53	G3	54
D15	51	E16	53	H3	54
D43	52	E17	D 53	I3	54
E7	52	E23	53	I6	54
E10	52	E24	53	J3	54
E13	A 53	E27	53	J6	54
E14	B 53	E29	53		

## : Relay Blocks

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

## : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
DA	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DC		
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)

## : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DL1	60	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
ED3	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Right Side of the Passenger Side J/B)
GD2	61	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
HD2	61	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IL1	62	Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)
JK1	62	Rear Door LH Wire and Floor No.1 Wire (Left Center Pillar)

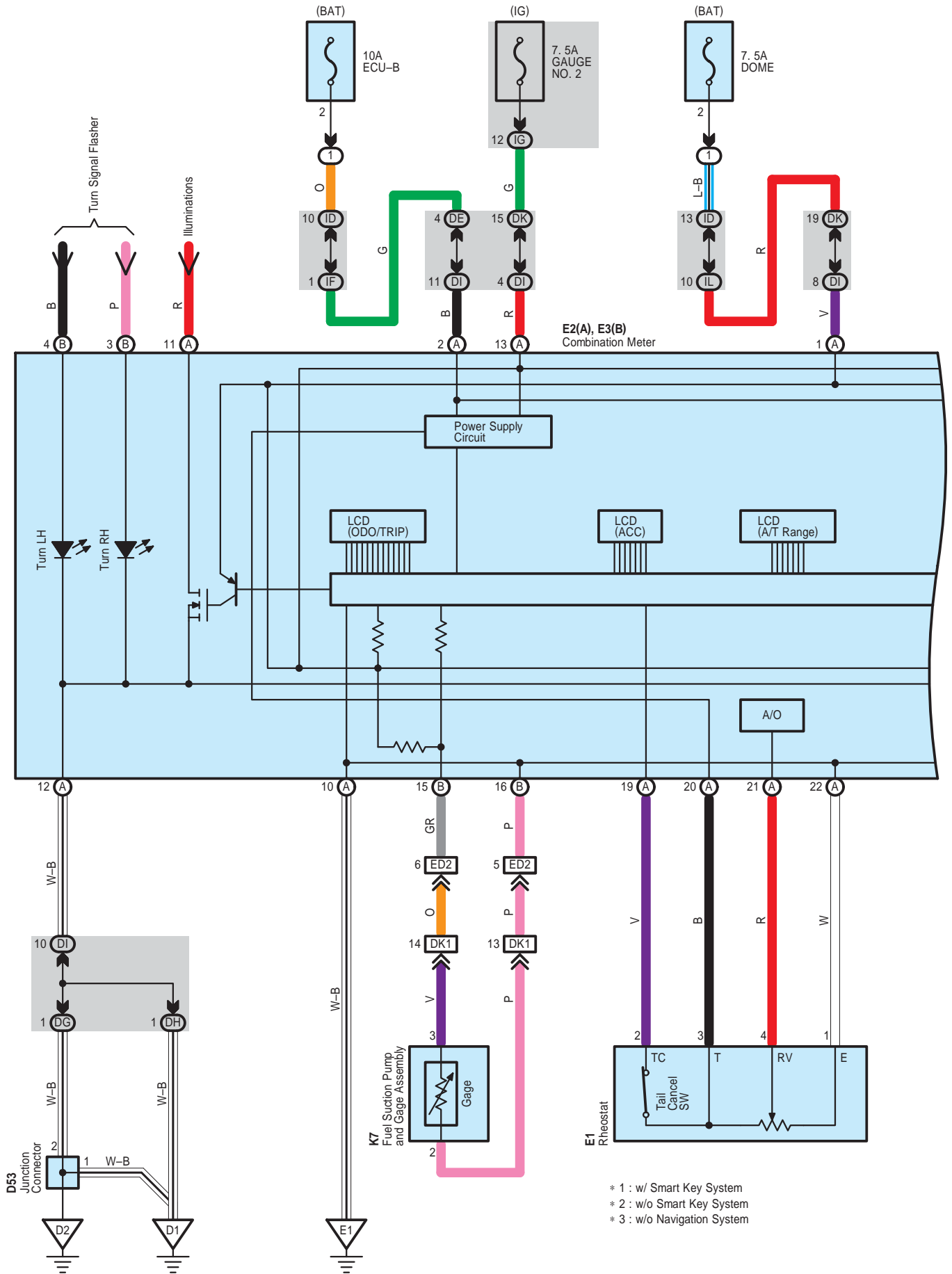
## : Ground Points

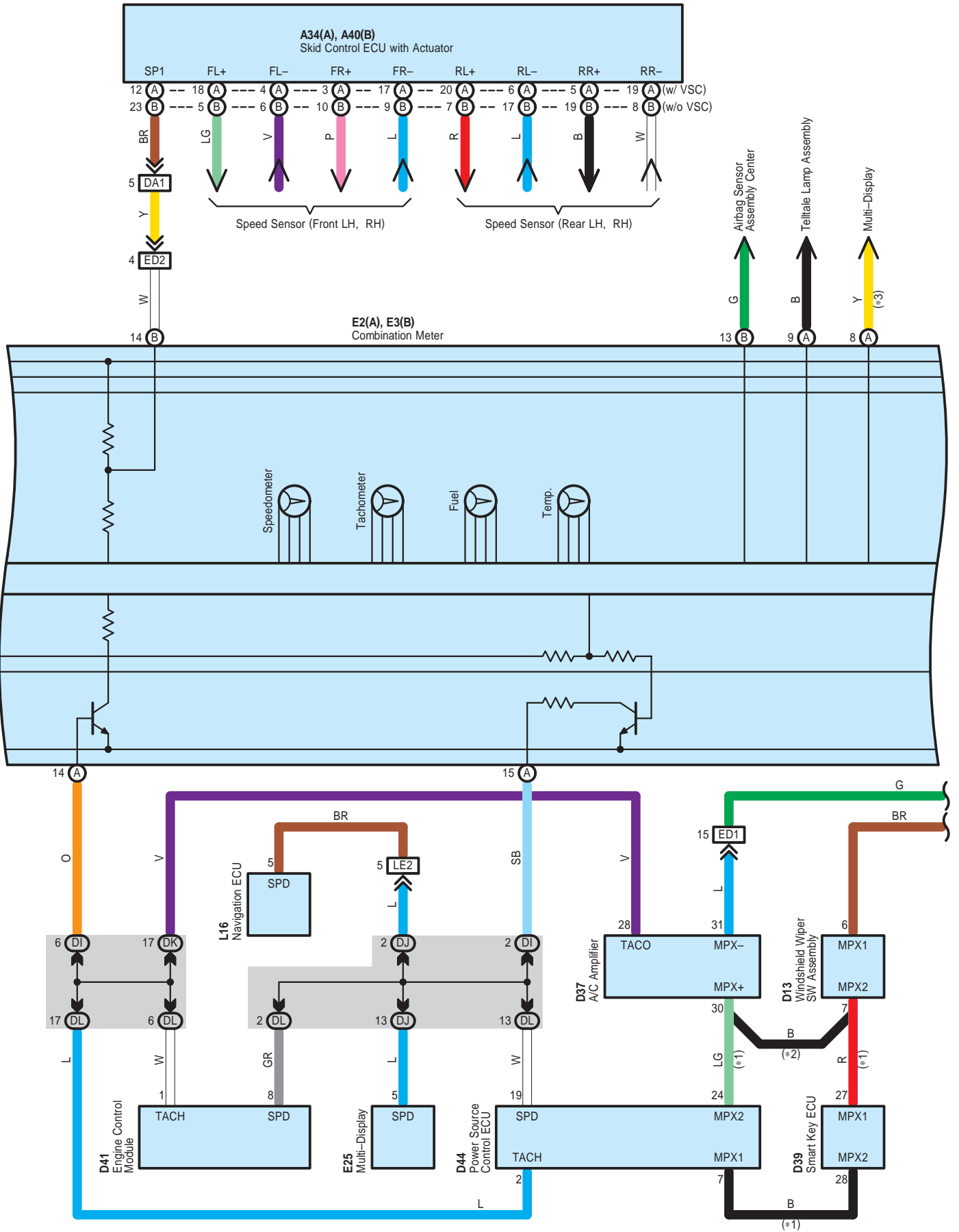
Code	See Page	Ground Points Location
E2	60	Instrument Panel Brace RH





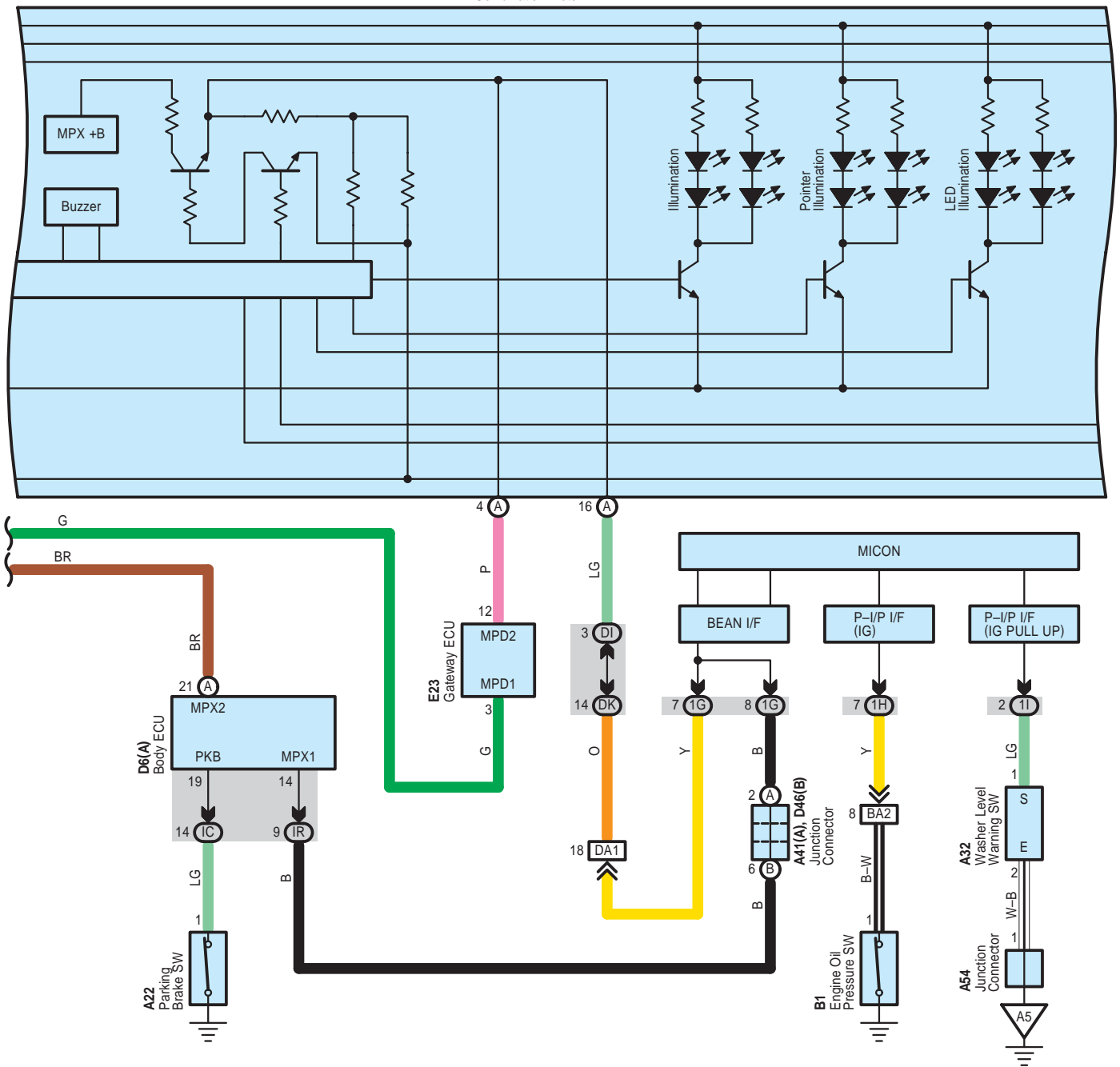
# Combination Meter

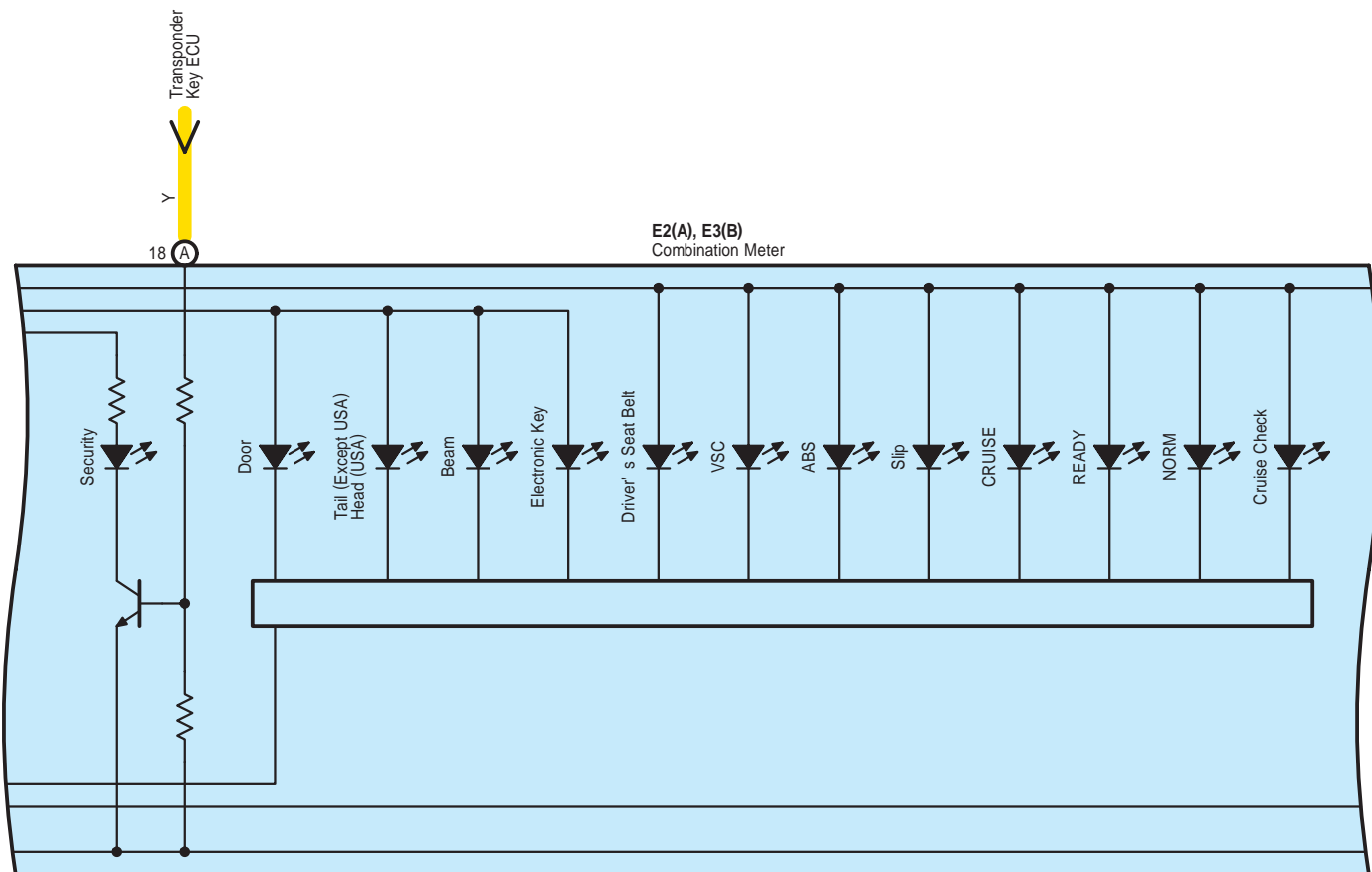




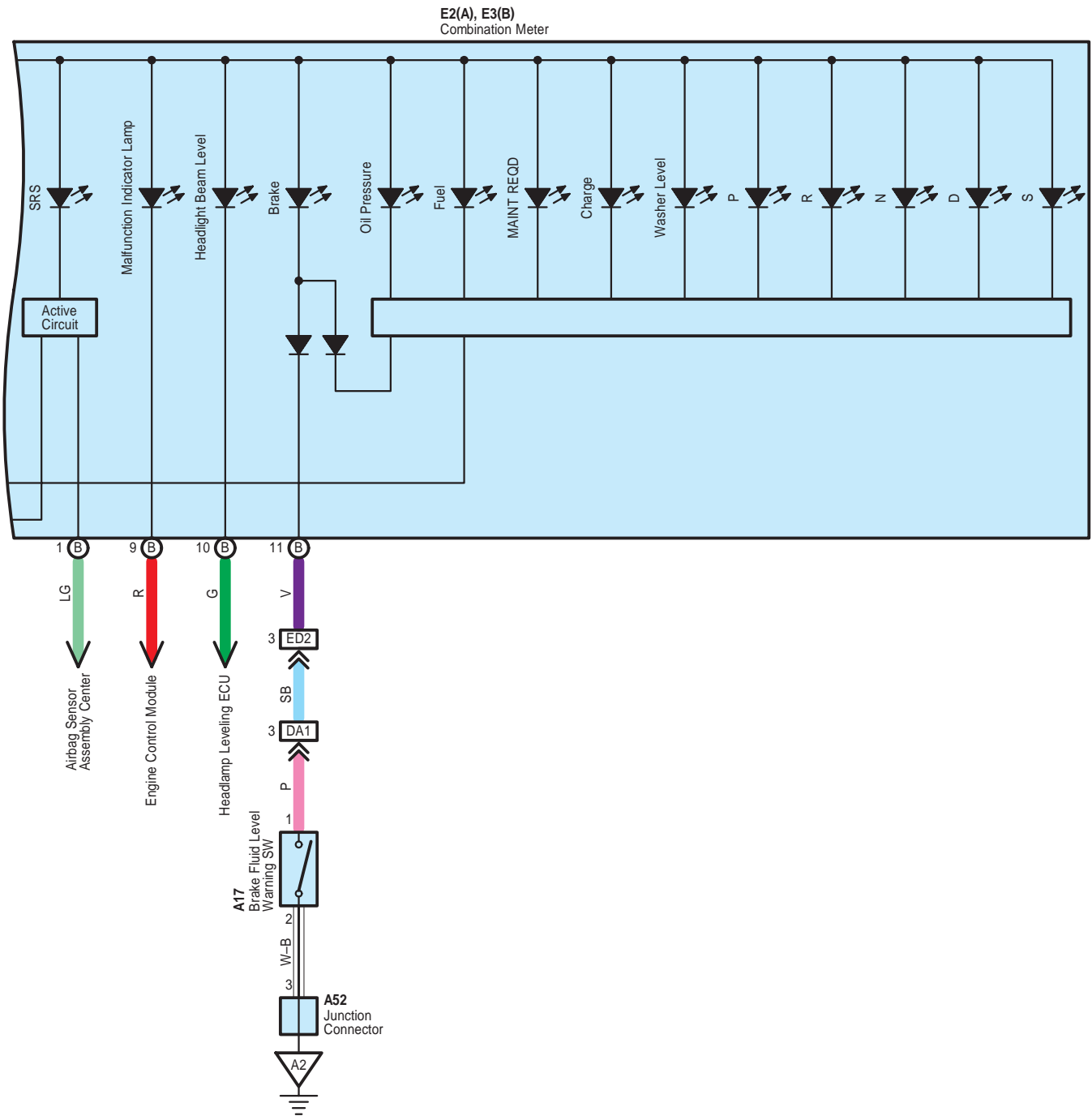
# Combination Meter

E2(A), E3(B)  
Combination Meter





# Combination Meter



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
A17	48	B1	49	D53	52
A22	50	D6   A	51	E1	52
A32	48	D13	51	E2   A	52
A34   A	48	D37	51	E3   B	52
A40   B	48	D39	52	E23	53
A41   A	50	D41	52	E25	53
A52	48	D44	52	K7	54
A54	48	D46   B	52	L16	55

 : Relay Blocks

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

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1H		
1I		
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DJ		
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
IC	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
ID		
IF	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IG	31	
IL	30	
IR		

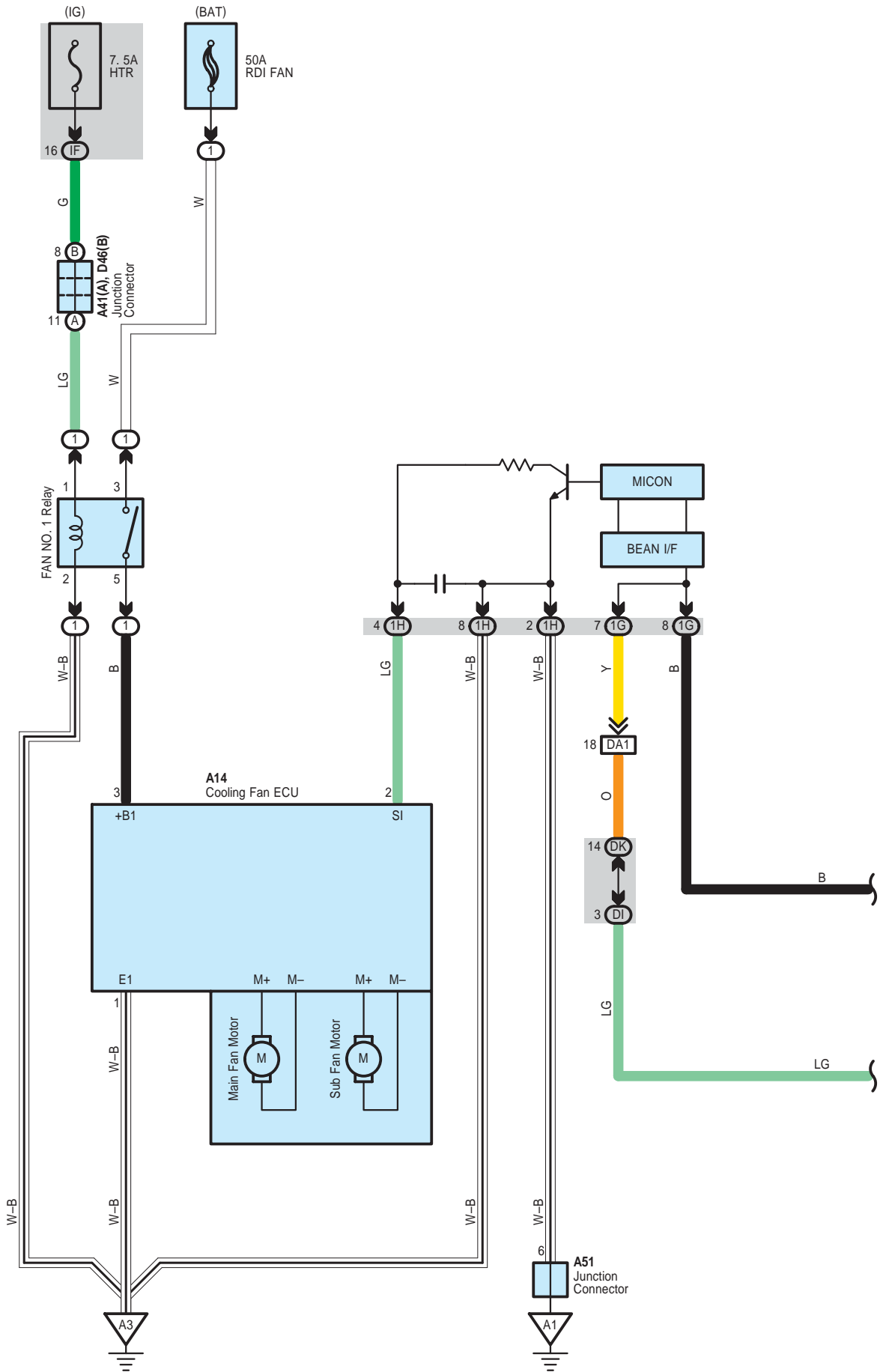
 : Connector Joining Wire Harness and Wire Harness

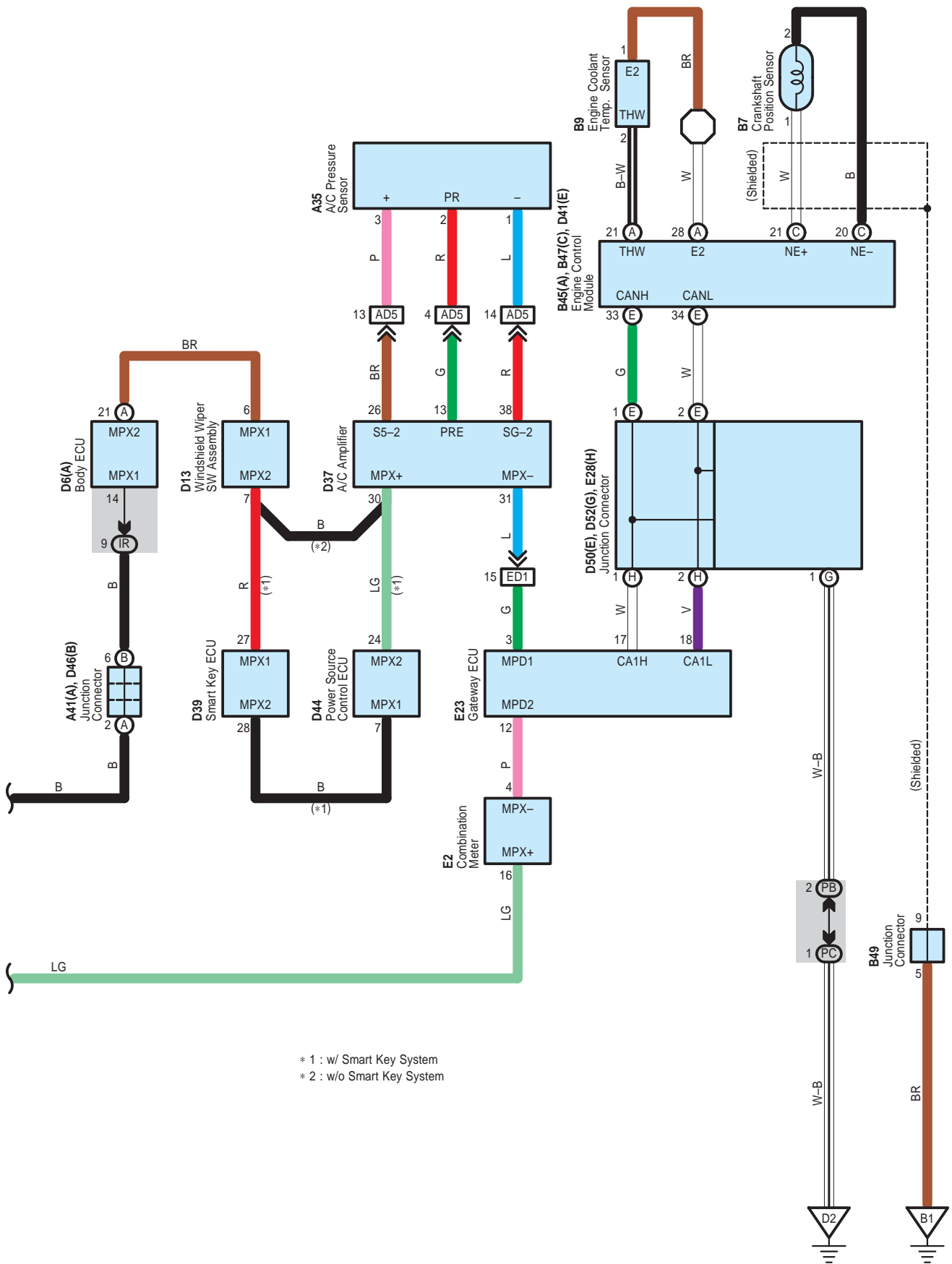
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
BA2	58	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DK1	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
ED2		
LE2	61	Floor No.2 Wire and Instrument Panel No.2 Wire (Behind the Glove Box)

 : Ground Points

Code	See Page	Ground Points Location
A2	58	Front Left Fender
A5	58	Front Right Fender
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
E1	60	Under the Combination Meter

# Cooling Fan





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



# Cooling Fan

## System Outline

### System Operation

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

### ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A14	48	B47   C	50	D44	52
A35	48	B49	50	D46   B	52
A41   A	50	D6   A	51	D50   E	52
A51	48	D13	51	D52   G	52
B7	49	D37	51	E2	52
B9	49	D39	52	E23	53
B45   A	50	D41   E	52	E28   H	53

### ○ : Relay Blocks

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

### ○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G 1H	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
IF IR	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
PB PC	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)

### □ : Connector Joining Wire Harness and Wire Harness

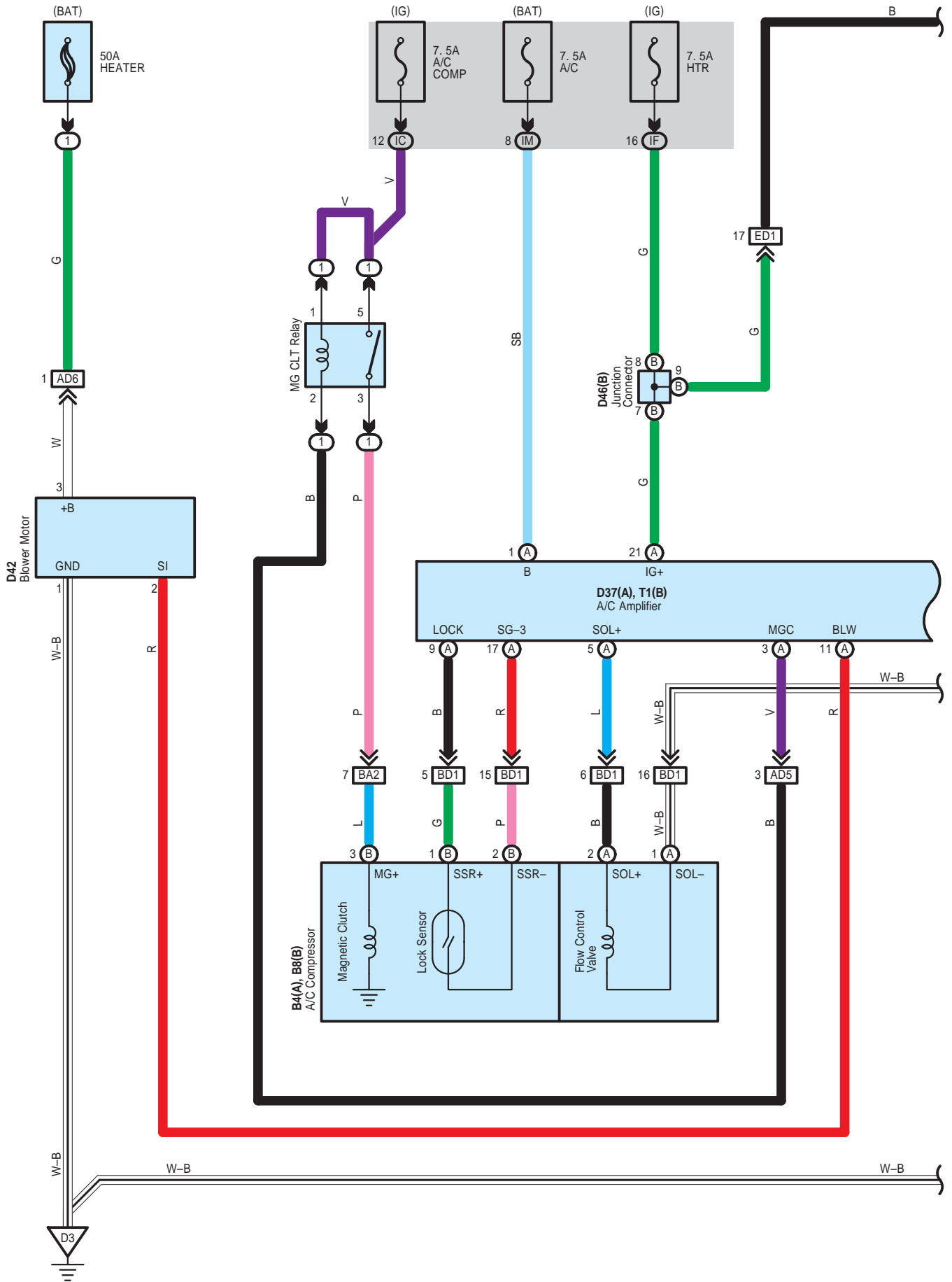
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD5	60	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)

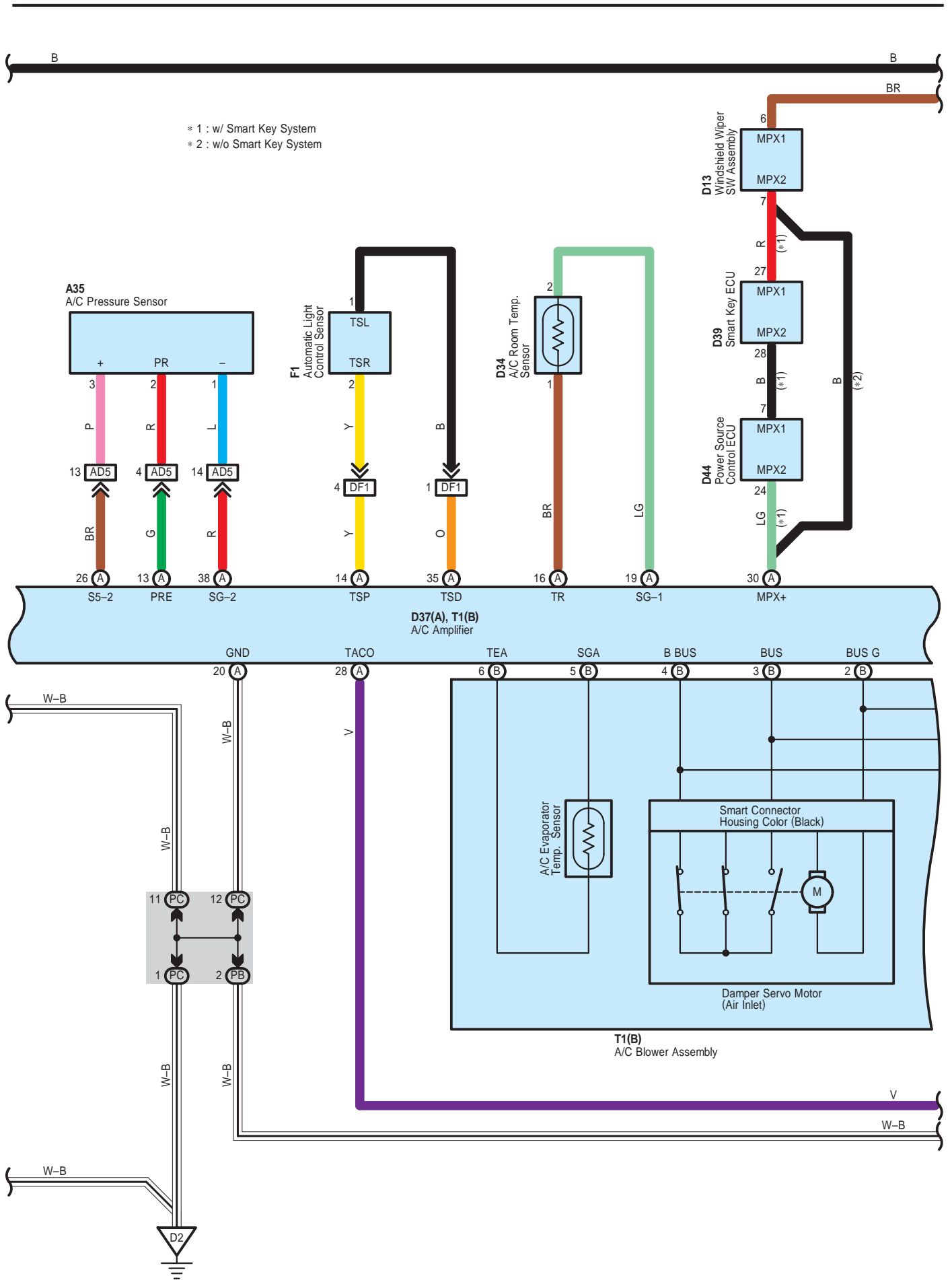
### ▽ : Ground Points

Code	See Page	Ground Points Location
A1	58	Front Left Fender
A3	60	Left Side of the Instrument Panel
B1	58	Cylinder Head
D2	60	Instrument Panel Brace LH

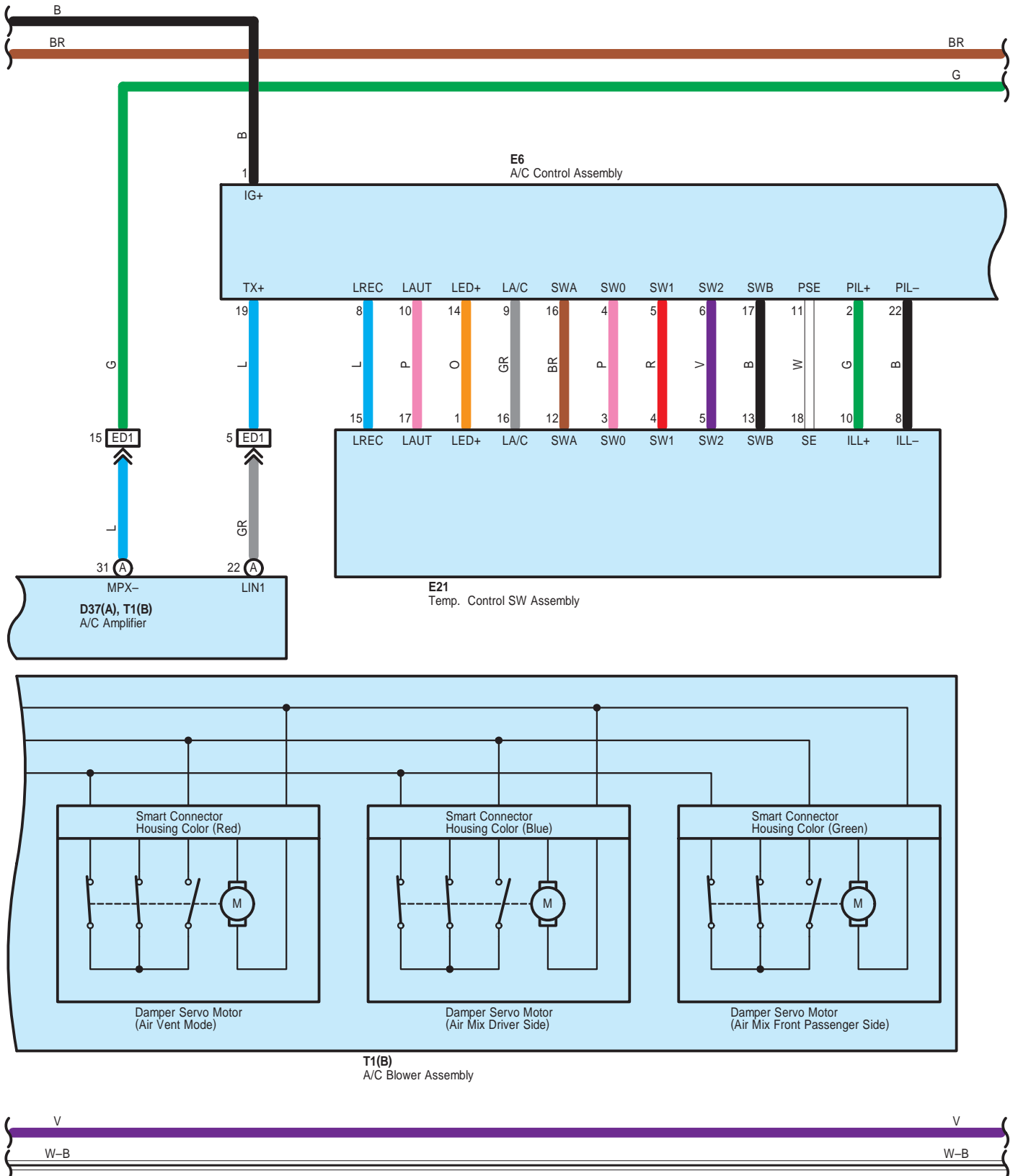


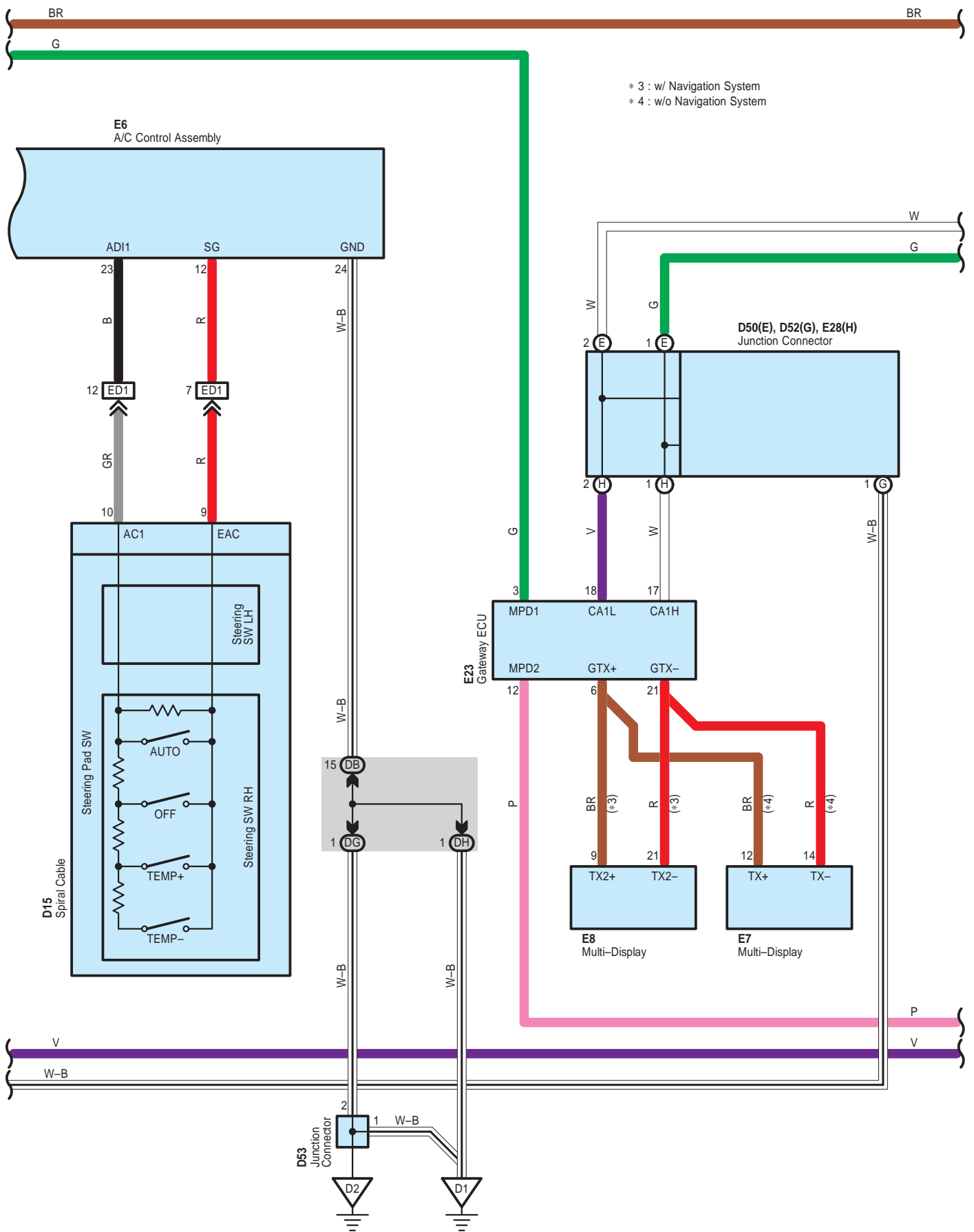
# Air Conditioning





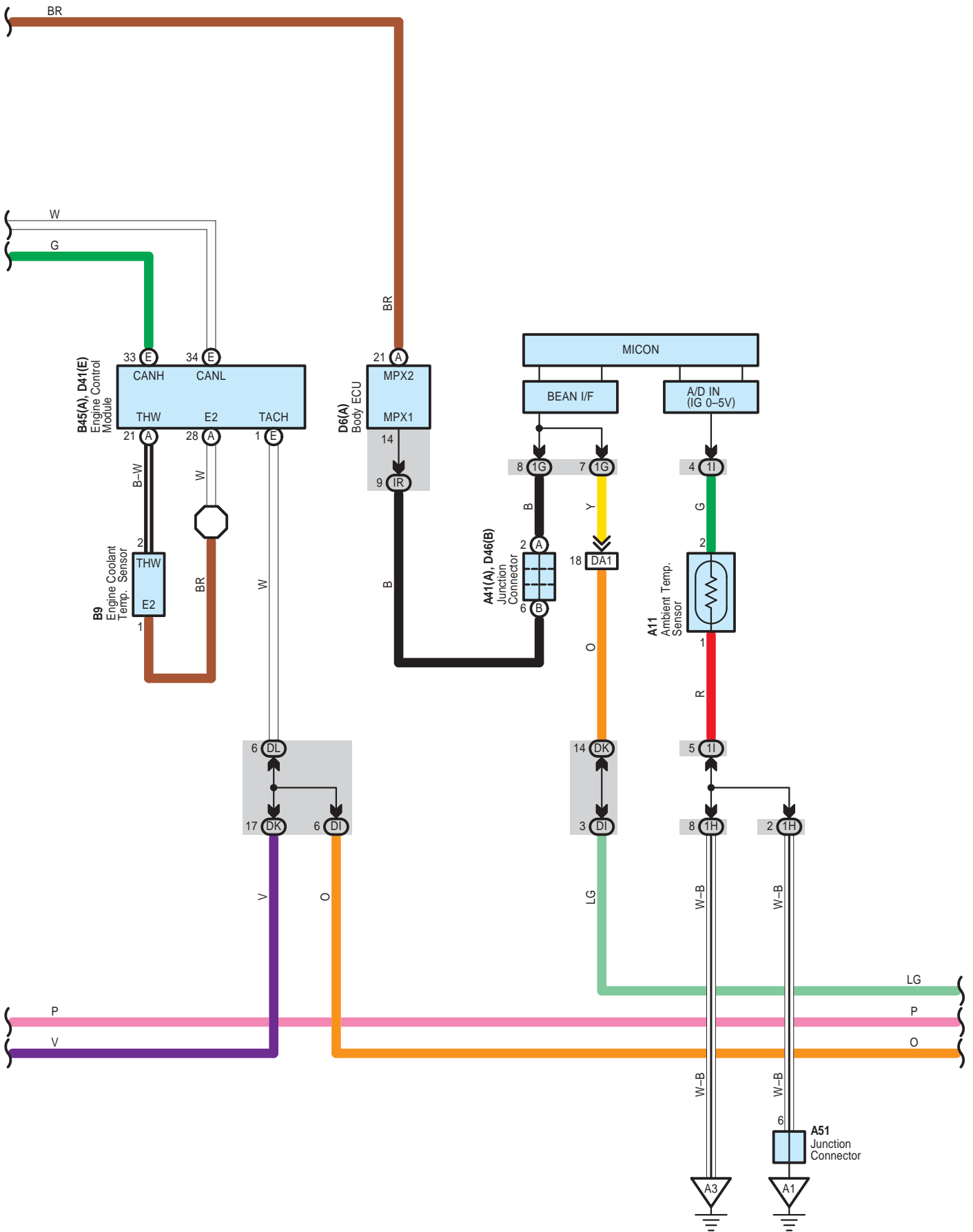
# Air Conditioning

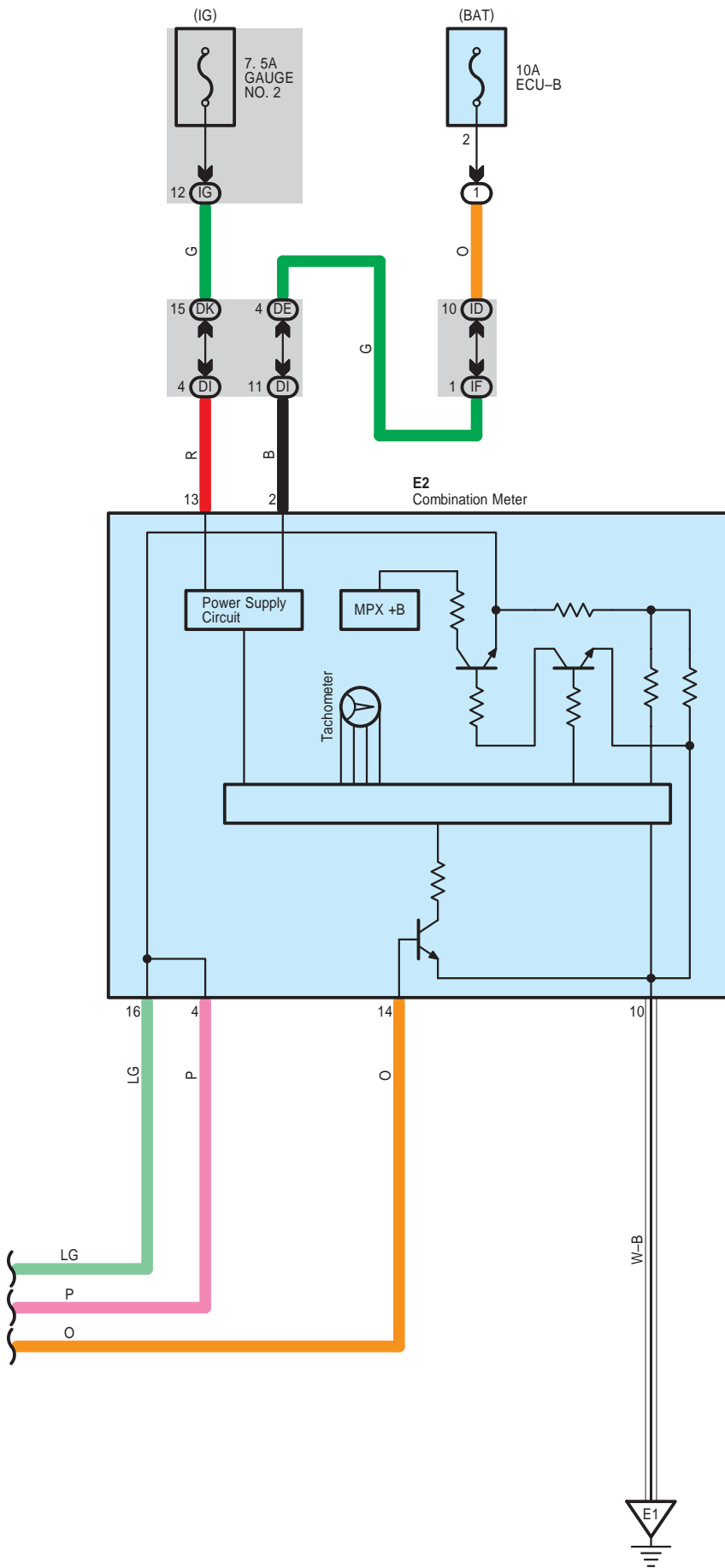




AVALON (EM00A0U)

# Air Conditioning







# Air Conditioning

## : Parts Location

Code	See Page	Code	See Page	Code	See Page
A11	48	D15	51	D53	52
A35	48	D34	51	E2	52
A41	A 50	D37	A 51	E6	52
A51	48	D39	52	E7	52
B4	A 49	D41	E 52	E8	52
B8	B 49	D42	52	E21	53
B9	49	D44	52	E23	53
B45	A 50	D46	B 52	E28	H 53
D6	A 51	D50	E 52	F1	53
D13	51	D52	G 52	T1	B 53

## : Relay Blocks

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

## : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1H		
1I		
DB	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DE	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DG		
DH		
DI	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
IC	30	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
ID	31	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IF		
IG		
IM		
IR	30	
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PC		

## : Connector Joining Wire Harness and Wire Harness

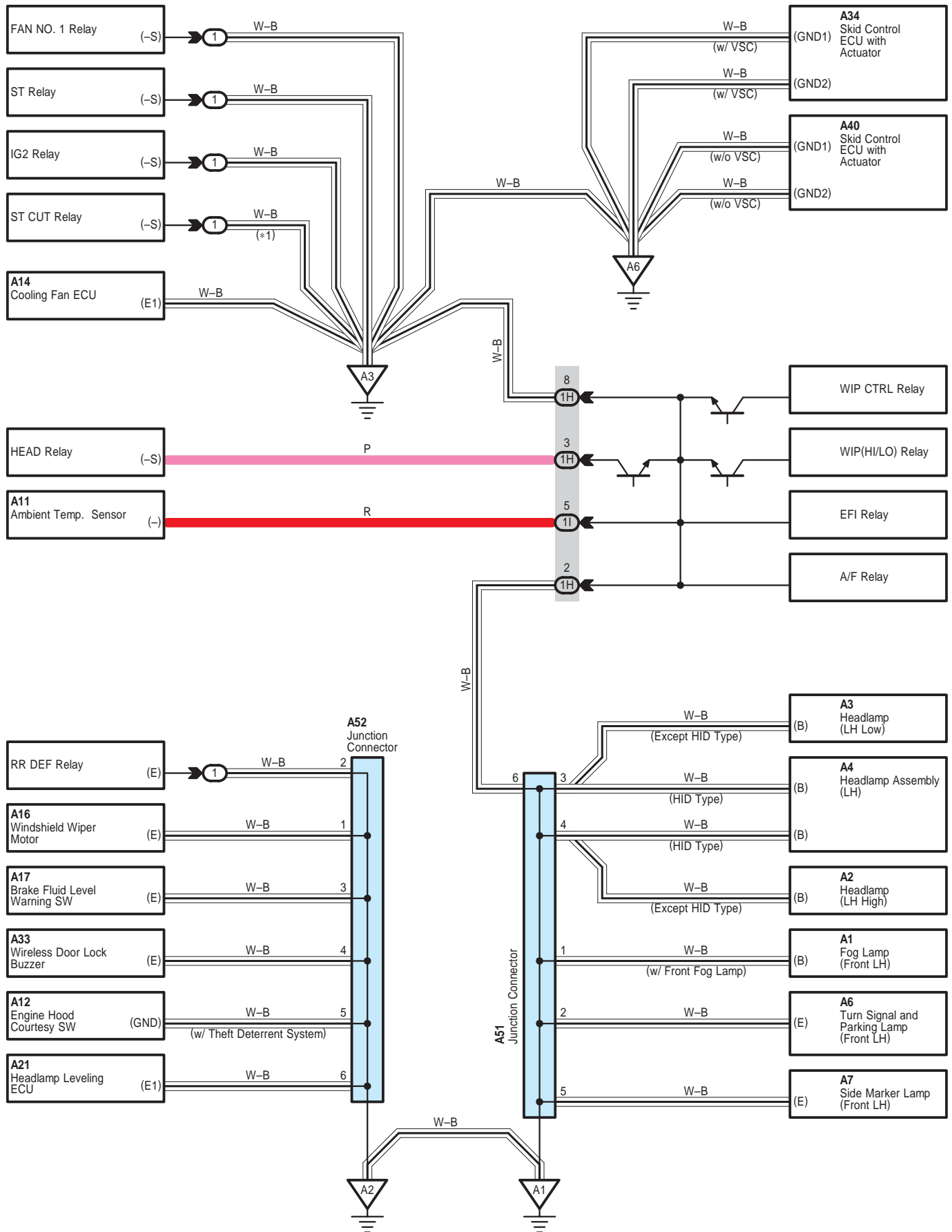
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AD5	60	Engine Room Main Wire and Instrument Panel Wire (Behind the Glove Box)
AD6		
BA2	58	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B and Engine Room J/B)
BD1	60	Engine Wire and Instrument Panel Wire (Right Side of the Blower Unit)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DF1	60	Instrument Panel Wire and Instrument Panel No.3 Wire (Instrument Panel Center)
ED1	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)



**: Ground Points**

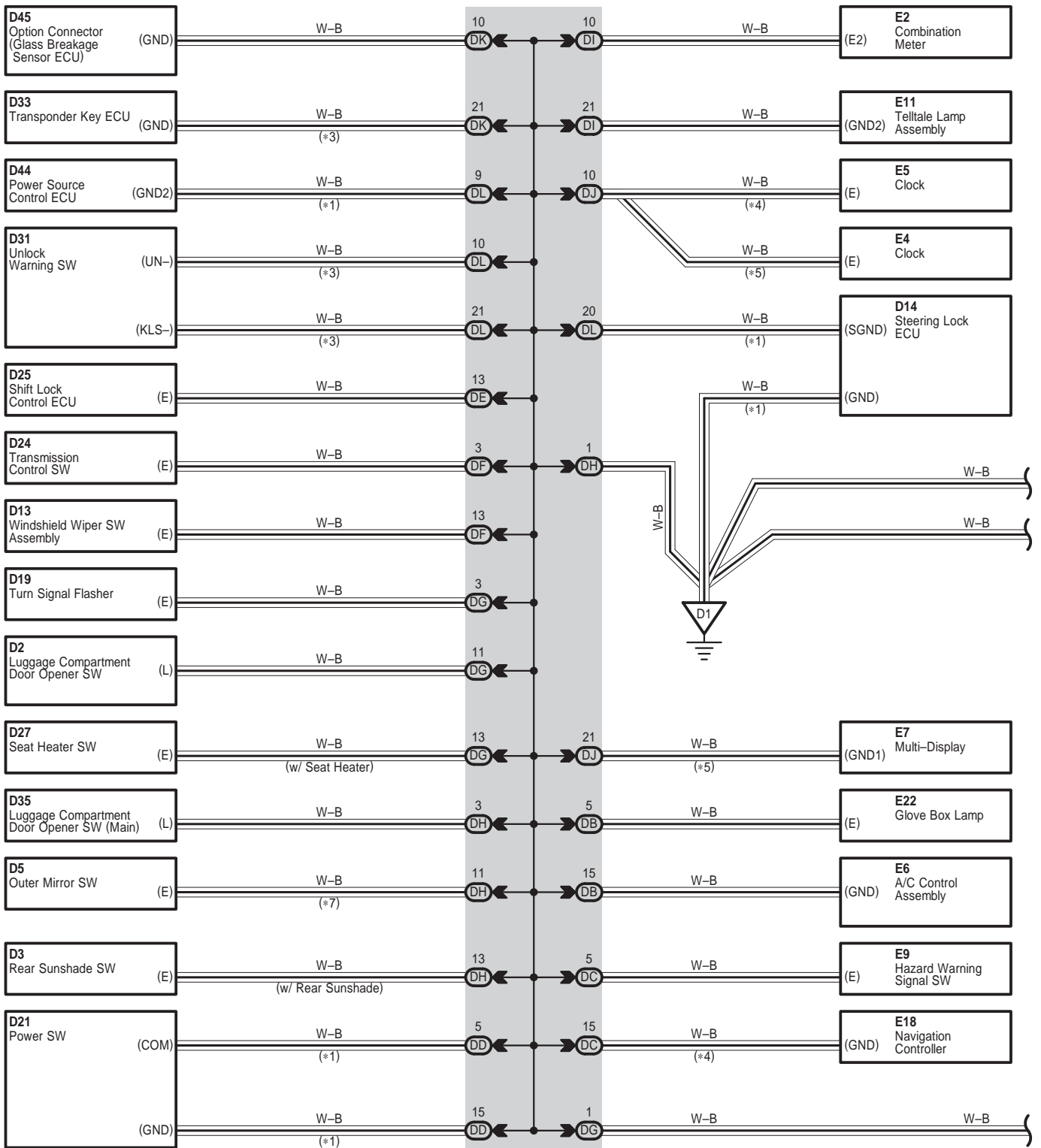
Code	See Page	Ground Points Location
A1	58	Front Left Fender
A3	60	Left Side of the Instrument Panel
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
D3	60	Right Kick Panel
E1	60	Under the Combination Meter

# I GROUND POINT





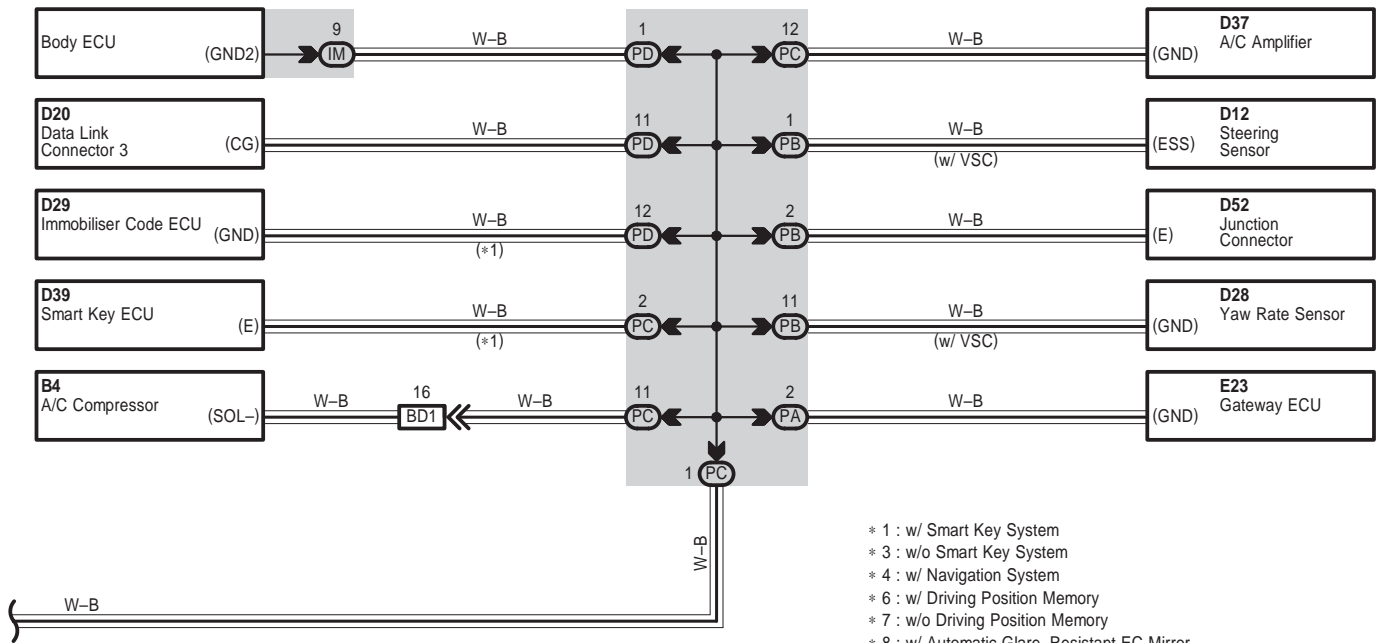
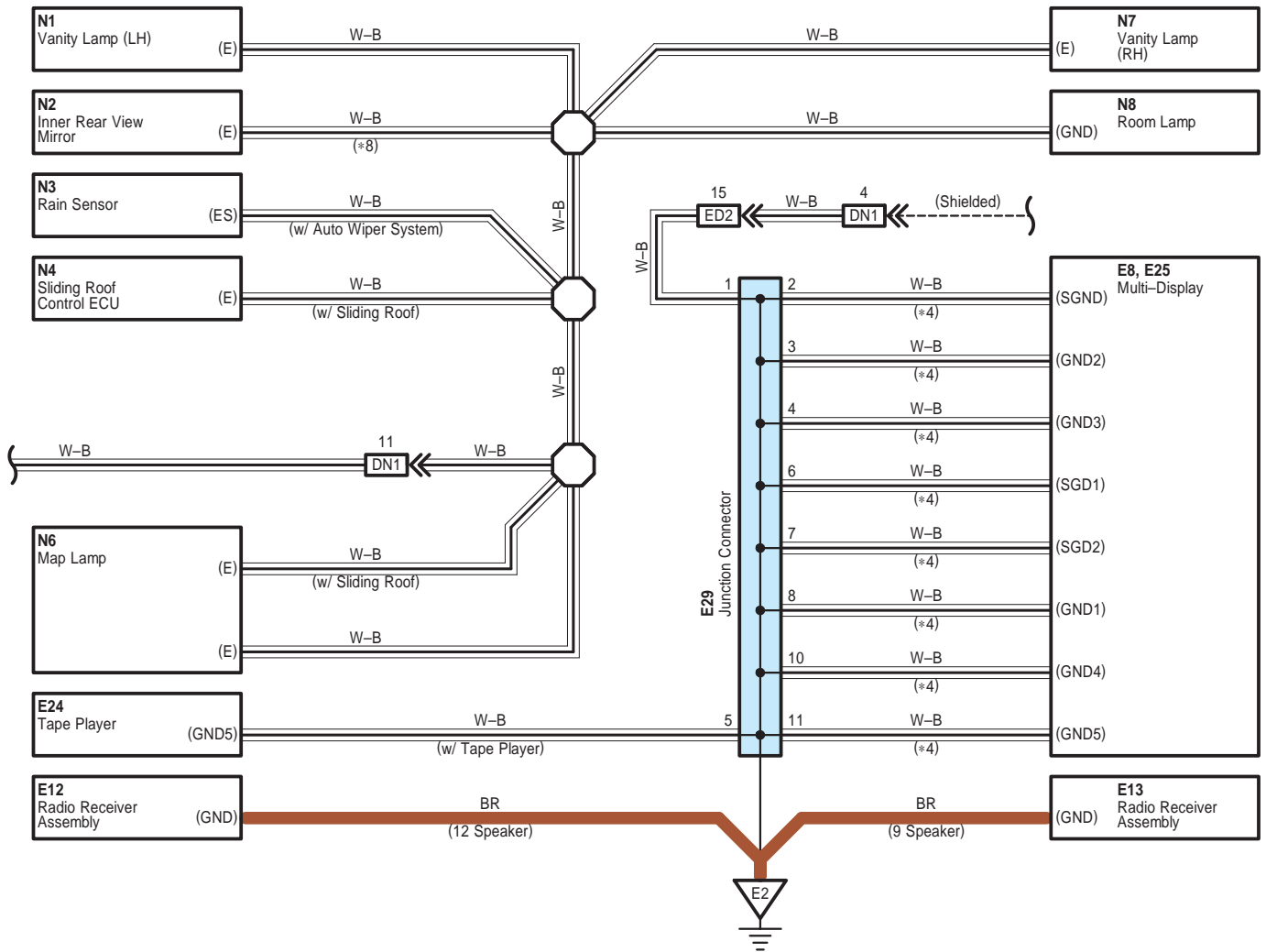
# I GROUND POINT



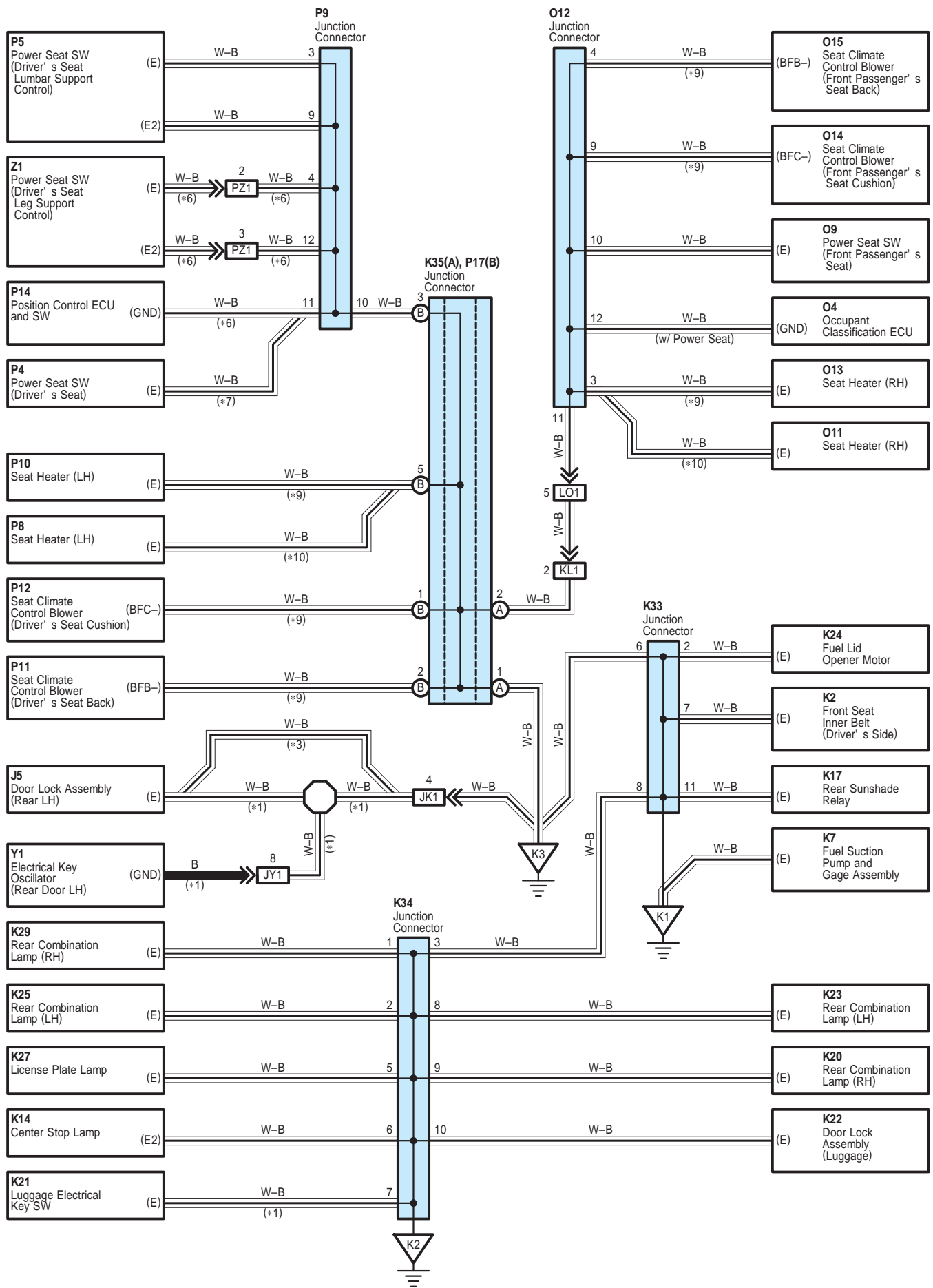
- \* 1 : w/ Smart Key System
- \* 3 : w/o Smart Key System
- \* 4 : w/ Navigation System
- \* 5 : w/o Navigation System
- \* 6 : w/ Driving Position Memory
- \* 7 : w/o Driving Position Memory



# I GROUND POINT

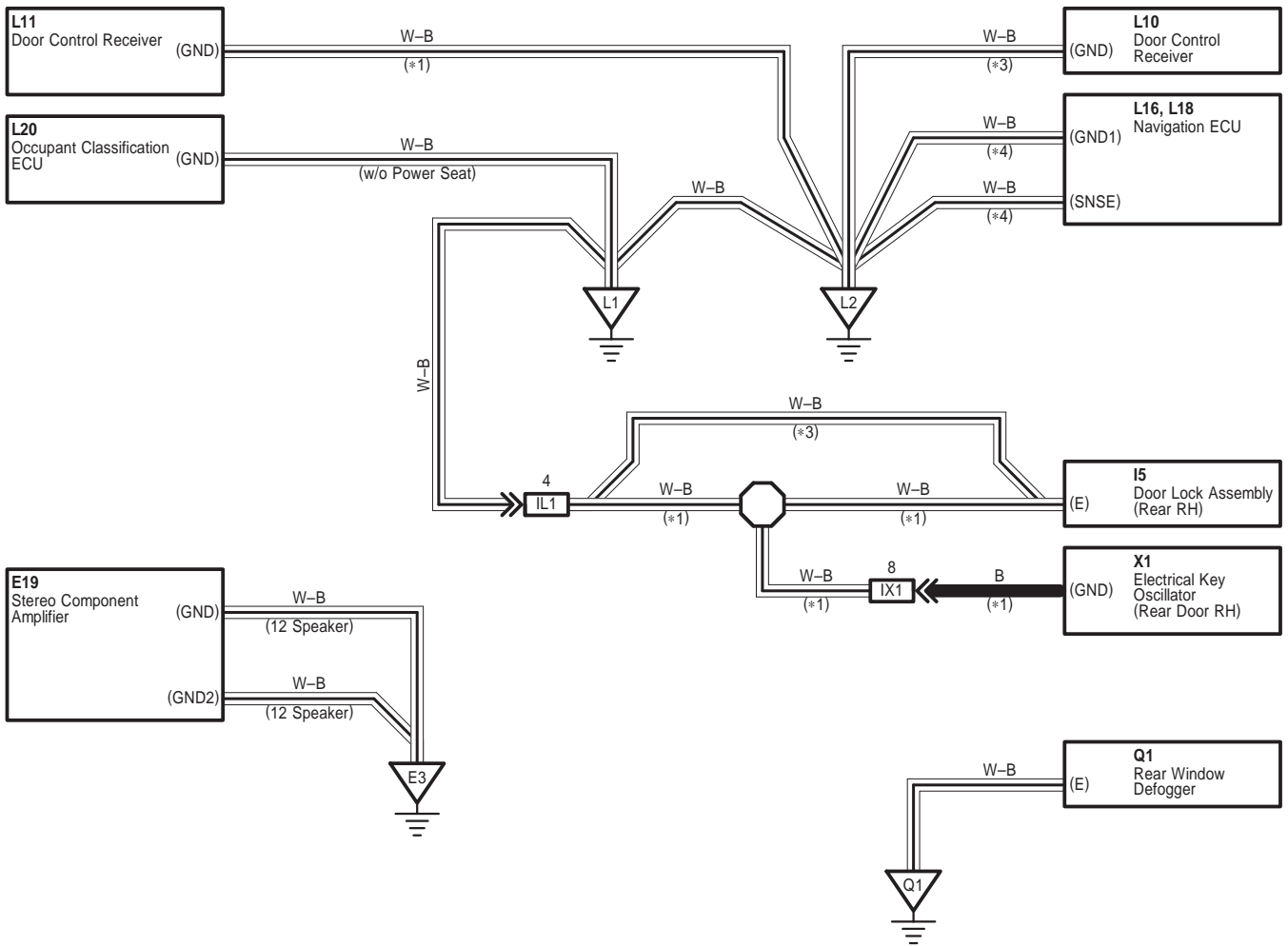


- \* 1 : w/ Smart Key System
- \* 3 : w/o Smart Key System
- \* 4 : w/ Navigation System
- \* 6 : w/ Driving Position Memory
- \* 7 : w/o Driving Position Memory
- \* 8 : w/ Automatic Glare-Resistant EC Mirror
- \* 9 : w/ Climate Control Seat
- \* 10 : w/o Climate Control Seat





# I GROUND POINT



- \* 1 : w/ Smart Key System
- \* 3 : w/o Smart Key System
- \* 4 : w/ Navigation System

: Parts Location

Code	See Page	Code	See Page	Code	See Page
A42	50	B49	50	K35	A 56
A51	48	D53	52	O12	56
A52	48	E29	53	P9	56
A53	48	K33	55	P17	B 56
A54	48	K34	55		

: Relay Blocks

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

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1H	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1I		
DB	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DC		
DD	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DE		
DF		
DG		
DH		
DI		
DJ	36	Instrument Panel No.2 Wire and Driver Side J/B (Behind the Combination Meter)
DK	36	Instrument Panel Wire and Driver Side J/B (Behind the Combination Meter)
DL		
IE	30	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IF		
IH	31	
IM	30	
IR		
PA	42	
PB	42	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Reinforcement RH)
PC		
PD		

# I GROUND POINT

## : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
BD1	60	Engine Wire and Instrument Panel Wire (Right Side of the Blower Unit)
DA1	60	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
DK3	60	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
DM1	61	Instrument Panel Wire and Floor No.3 Wire (Under the Console Box)
DN1	61	Instrument Panel Wire and Roof Wire (Lower Part of Front Pillar LH)
ED2	61	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
GD2	61	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
GV1	62	Front Door RH Wire and Electrical Key Wire Front RH (Inside of the Front Door RH)
HD1	61	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
HW1	62	Front Door LH Wire and Electrical Key Wire Front LH (Inside of the Front Door LH)
IL1	62	Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)
IX1	62	Rear Door RH Wire and Electrical Key Wire Rear RH (Inside of the Rear Door RH)
JK1	62	Rear Door LH Wire and Floor No.1 Wire (Left Center Pillar)
JY1	62	Rear Door LH Wire and Electrical Key Wire Rear LH (Inside of the Rear Door LH)
KL1	61	Floor No.1 Wire and Floor No.2 Wire (Under the Console Box)
LO1	63	Floor No.2 Wire and Front Seat RH Wire (Under the Front Passenger's Seat)
PZ1	63	Front Seat LH Wire and Seat No.2 Wire (Left Side of the Driver's Seat)

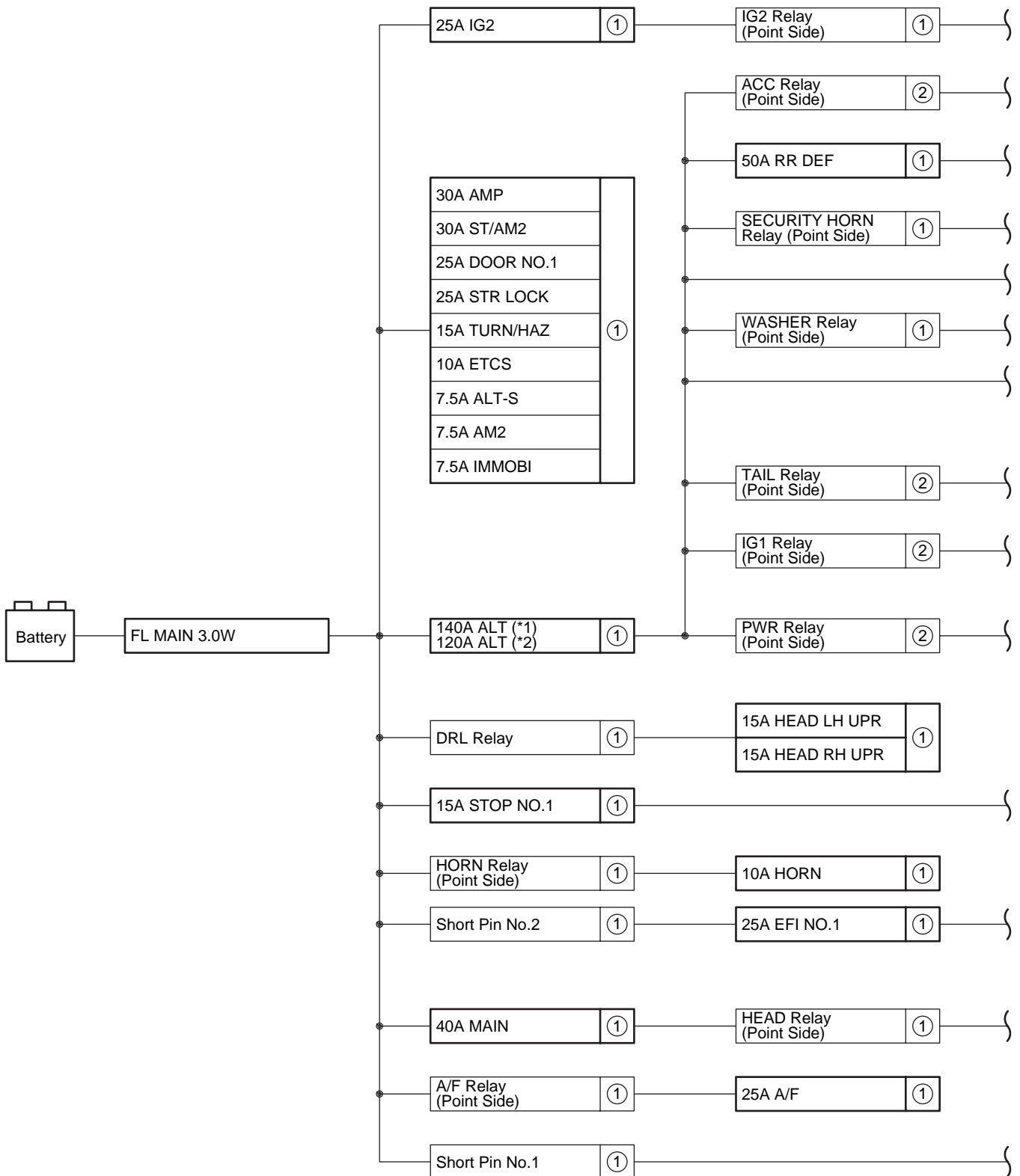
## : Ground Points

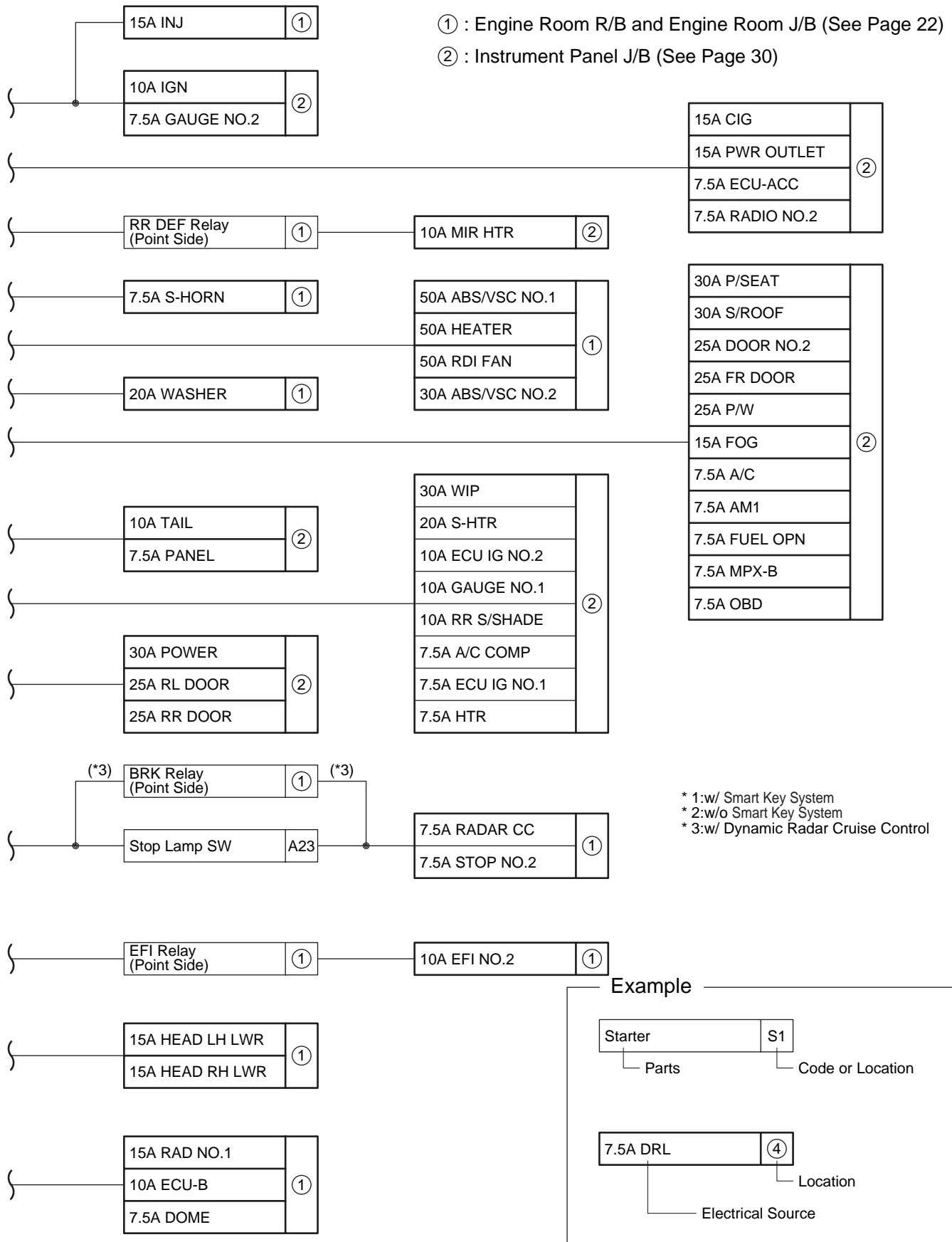
Code	See Page	Ground Points Location
A1	58	Front Left Fender
A2		
A3	60	Left Side of the Instrument Panel
A4	58	Near the Skid Control ECU with Actuator
A5	58	Front Right Fender
A6	60	Right Side of the Instrument Panel
B1	58	Cylinder Head
B2	58	Left Side of the Cylinder Block
D1	60	Left Kick Panel
D2	60	Instrument Panel Brace LH
D3	60	Right Kick Panel
E1	60	Under the Combination Meter
E2	60	Instrument Panel Brace RH
E3	60	Under the Front Passenger's Seat
K1	62	Left Rear Quarter Panel
K2		
K3	60	Left Side of the Instrument Panel
L1	62	Right Rear Quarter Panel
L2		
Q1		



# J POWER SOURCE (Current Flow Chart)

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





## J POWER SOURCE (Current Flow Chart)

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

Fuse		System	Page
7.5A	ALT-S	Charging	86
7.5A	AM2	Cruise Control	302
		Electronically Controlled Transmission and A/T Indicator	312
		Engine Control	94
		Push-Button Start, Engine Immobiliser and Steering Lock	72
7.5A	DOME	Clock	206
		Combination Meter	392
		Door Lock Control	218
		Garage Door Opener	348
		Headlight	118
		Illumination	162
		Interior Light	154
		Taillight	174
		Theft Deterrent	254
		Wireless Door Lock Control (w/ Smart Key System)	226
Wireless Door Lock Control (w/o Smart Key System)	244		
7.5A	IMMOBI	Engine Immobiliser System (w/o Smart Key System)	110
		Push-Button Start, Engine Immobiliser and Steering Lock	72
		Wireless Door Lock Control (w/ Smart Key System)	226
7.5A	RADAR CC	ABS (w/ VSC), TRAC and VSC	266
		Dynamic Radar Cruise Control	286
		Stop Light	180
7.5A	S-HORN	Theft Deterrent	254
		Wireless Door Lock Control (w/ Smart Key System)	226
		Wireless Door Lock Control (w/o Smart Key System)	244
7.5A	STOP NO.2	ABS (w/ VSC), TRAC and VSC	266
		ABS (w/o VSC)	274
		Dynamic Radar Cruise Control	286
		Stop Light	180
10A	ECU-B	ABS (w/ VSC), TRAC and VSC	266
		ABS (w/o VSC)	274
		Air Conditioning	402
		Automatic Light Control	140
		Charging	86
		Combination Meter	392
		Cruise Control	302
		Door Lock Control	218
		Dynamic Radar Cruise Control	286
		Electronically Controlled Transmission and A/T Indicator	312
		Engine Control	94
		Engine Immobiliser System (w/o Smart Key System)	110
Front Fog Light	124		

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

Fuse		System	Page
10A	ECU-B	Headlight	118
		Horn	208
		Illumination	162
		Interior Light	154
		Key Reminder	184
		Light Auto Turn Off System	144
		Luggage Compartment Door Opener	368
		Multi Display (w/ Navigation System) and Navigation System	370
		Multi Display (w/o Navigation System)	378
		Multiplex Communication System (AVC-LAN)	136
		Multiplex Communication System (BEAN)	128
		Multiplex Communication System (CAN)	132
		Power Seat (Driver's Seat w/ Driving Position Memory)	326
		Power Window	212
		Push-Button Start, Engine Immobiliser and Steering Lock	72
		Remote Control Mirror (w/ Driving Position Memory)	352
		Seat Belt Warning	188
		Sliding Roof	346
		SRS	279
		Taillight	174
Theft Deterrent	254		
Turn Signal and Hazard Warning Light	170		
Wiper and Washer	194		
Wireless Door Lock Control (w/ Smart Key System)	226		
Wireless Door Lock Control (w/o Smart Key System)	244		
10A	EFI NO.2	Engine Control	94
10A	ETCS	Cruise Control	302
		Dynamic Radar Cruise Control	286
		Electronically Controlled Transmission and A/T Indicator	312
		Engine Control	94
10A	HORN	Horn	208
		Theft Deterrent	254
		Wireless Door Lock Control (w/ Smart Key System)	226
		Wireless Door Lock Control (w/o Smart Key System)	244
15A	HEAD LH LWR	Headlight	118
15A	HEAD LH UPR	Headlight	118
15A	HEAD RH LWR	Headlight	118
15A	HEAD RH UPR	Headlight	118
15A	INJ	Engine Control	94
		Ignition	90
15A	RAD NO.1	Audio System (12 Speaker)	382
		Audio System (9 Speaker)	388
		Multi Display (w/ Navigation System) and Navigation System	370

\* 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
15A	STOP NO.1	ABS (w/ VSC), TRAC and VSC	266
		ABS (w/o VSC)	274
		Cruise Control	302
		Dynamic Radar Cruise Control	286
		Electronically Controlled Transmission and A/T Indicator	312
		Engine Control	94
		Push-Button Start, Engine Immobiliser and Steering Lock	72
		Shift Lock	324
		Stop Light	180
15A	TURN/HAZ	Turn Signal and Hazard Warning Light	170
20A	WASHER	Wiper and Washer	194
25A	A/F	Engine Control	94
25A	DOOR NO.1	Door Lock Control	218
		Theft Deterrent	254
		Wireless Door Lock Control (w/ Smart Key System)	226
		Wireless Door Lock Control (w/o Smart Key System)	244
25A	EFI NO.1	Cruise Control	302
		Dynamic Radar Cruise Control	286
		Electronically Controlled Transmission and A/T Indicator	312
		Engine Control	94
		Engine Immobiliser System (w/o Smart Key System)	110
25A	IG2	Push-Button Start, Engine Immobiliser and Steering Lock	72
25A	STR LOCK	Push-Button Start, Engine Immobiliser and Steering Lock	72
30A	ABS/VSC NO.2	ABS (w/ VSC), TRAC and VSC	266
		ABS (w/o VSC)	274
		Dynamic Radar Cruise Control	286
30A	AMP	Audio System (12 Speaker)	382
30A	ST/AM2	Push-Button Start, Engine Immobiliser and Steering Lock	72
		Starting (w/o Smart Key System)	84
40A	MAIN	Automatic Light Control	140
		Headlight	118
		Headlight Beam Level Control	150
		Light Auto Turn Off System	144
		Theft Deterrent	254
		Wireless Door Lock Control (w/ Smart Key System)	226
		Wireless Door Lock Control (w/o Smart Key System)	244
50A	ABS/VSC NO.1	ABS (w/ VSC), TRAC and VSC	266
		ABS (w/o VSC)	274
		Dynamic Radar Cruise Control	286
50A	HEATER	Air Conditioning	402
50A	RDI FAN	Cooling Fan	398
50A	RR DEF	Mirror Heater and Rear Window Defogger	360

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

Fuse		System	Page
120A	ALT (w/o Smart Key System)	Automatic Light Control	140
		Charging	86
		Front Fog Light	124
		Illumination	162
		Light Auto Turn Off System	144
		Power Window	212
		Starting (w/o Smart Key System)	84
		Taillight	174
		Theft Deterrent	254
		Wiper and Washer	194
		Wireless Door Lock Control (w/o Smart Key System)	244
140A	ALT (w/ Smart Key System)	Automatic Light Control	140
		Charging	86
		Front Fog Light	124
		Illumination	162
		Light Auto Turn Off System	144
		Power Window	212
		Push-Button Start, Engine Immobiliser and Steering Lock	72
		Taillight	174
		Theft Deterrent	254
		Wiper and Washer	194
		Wireless Door Lock Control (w/ Smart Key System)	226

### Instrument Panel J/B (See Page 30)

Fuse		System	Page
7.5A	A/C	Air Conditioning	402
		Climate Control Seat and Seat Heater (w/ Climate Control Seat)	338
7.5A	A/C COMP	Air Conditioning	402
7.5A	AM1	Cruise Control	302
		Electronically Controlled Transmission and A/T Indicator	312
		Engine Control	94
		Starting (w/o Smart Key System)	84
7.5A	ECU IG NO.1	ABS (w/ VSC), TRAC and VSC	266
		Automatic Glare-Resistant EC Mirror and Compass	350
		Automatic Light Control	140
		Climate Control Seat and Seat Heater (w/ Climate Control Seat)	338
		Door Lock Control	218
		Dynamic Radar Cruise Control	286
		Electronically Controlled Transmission and A/T Indicator	312
		Front Fog Light	124
		Headlight	118
		Horn	208
		Illumination	162
		Interior Light	154

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

## J POWER SOURCE (Current Flow Chart)

Fuse		System	Page
7.5A	ECU IG NO.1	Key Reminder	184
		Light Auto Turn Off System	144
		Luggage Compartment Door Opener	368
		Multi Display (w/ Navigation System) and Navigation System	370
		Multiplex Communication System (AVC-LAN)	136
		Multiplex Communication System (BEAN)	128
		Multiplex Communication System (CAN)	132
		Power Seat (Driver's Seat w/ Driving Position Memory)	326
		Power Window	212
		Remote Control Mirror (w/ Driving Position Memory)	352
		Seat Heater (w/o Climate Control Seat)	342
		Shift Lock	324
		Sliding Roof	346
		Taillight	174
		Theft Deterrent	254
		Turn Signal and Hazard Warning Light	170
Wiper and Washer	194		
Wireless Door Lock Control (w/ Smart Key System)	226		
Wireless Door Lock Control (w/o Smart Key System)	244		
7.5A	ECU-ACC	Automatic Light Control	140
		Clock	206
		Door Lock Control	218
		Interior Light	154
		Key Reminder	184
		Light Auto Turn Off System	144
		Luggage Compartment Door Opener	368
		Multi Display (w/o Navigation System)	378
		Multiplex Communication System (AVC-LAN)	136
		Multiplex Communication System (BEAN)	128
		Multiplex Communication System (CAN)	132
		Power Window	212
		Push-Button Start, Engine Immobiliser and Steering Lock	72
		Remote Control Mirror (w/o Driving Position Memory)	358
		Shift Lock	324
		Sliding Roof	346
Theft Deterrent	254		
Wireless Door Lock Control (w/ Smart Key System)	226		
Wireless Door Lock Control (w/o Smart Key System)	244		
7.5A	FUEL OPN	Fuel Lid Opener	366
7.5A	GAUGE NO.2	ABS (w/ VSC), TRAC and VSC	266
		ABS (w/o VSC)	274
		Air Conditioning	402
		Charging	86
		Combination Meter	392

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

Fuse		System	Page
7.5A	GAUGE NO.2	Cruise Control	302
		Door Lock Control	218
		Dynamic Radar Cruise Control	286
		Electronically Controlled Transmission and A/T Indicator	312
		Engine Control	94
		Headlight	118
		Headlight Beam Level Control	150
		Illumination	162
		Interior Light	154
		Key Reminder	184
		Multi Display (w/ Navigation System) and Navigation System	370
		Multi Display (w/o Navigation System)	378
		Push-Button Start, Engine Immobiliser and Steering Lock	72
		Seat Belt Warning	188
		SRS	279
		Taillight	174
		Theft Deterrent	254
Wiper and Washer	194		
Wireless Door Lock Control (w/ Smart Key System)	226		
Wireless Door Lock Control (w/o Smart Key System)	244		
7.5A	HTR	Air Conditioning	402
		Climate Control Seat and Seat Heater (w/ Climate Control Seat)	338
		Cooling Fan	398
		Mirror Heater and Rear Window Defogger	360
7.5A	MPX-B	Horn	208
		Theft Deterrent	254
		Wiper and Washer	194
		Wireless Door Lock Control (w/ Smart Key System)	226
		Wireless Door Lock Control (w/o Smart Key System)	244
7.5A	OBD	Data Link Connector 3	114
7.5A	PANEL	Illumination	162
7.5A	RADIO NO.2	Audio System (12 Speaker)	382
		Audio System (9 Speaker)	388
		Multi Display (w/ Navigation System) and Navigation System	370
10A	ECU IG NO.2	ABS (w/ VSC), TRAC and VSC	266
		ABS (w/o VSC)	274
		Dynamic Radar Cruise Control	286
		Headlight Beam Level Control	150
		Stop Light	180
10A	GAUGE NO.1	Back-Up Light	182
		Charging	86
		Cruise Control	302
		Door Lock Control	218
		Dynamic Radar Cruise Control	286

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

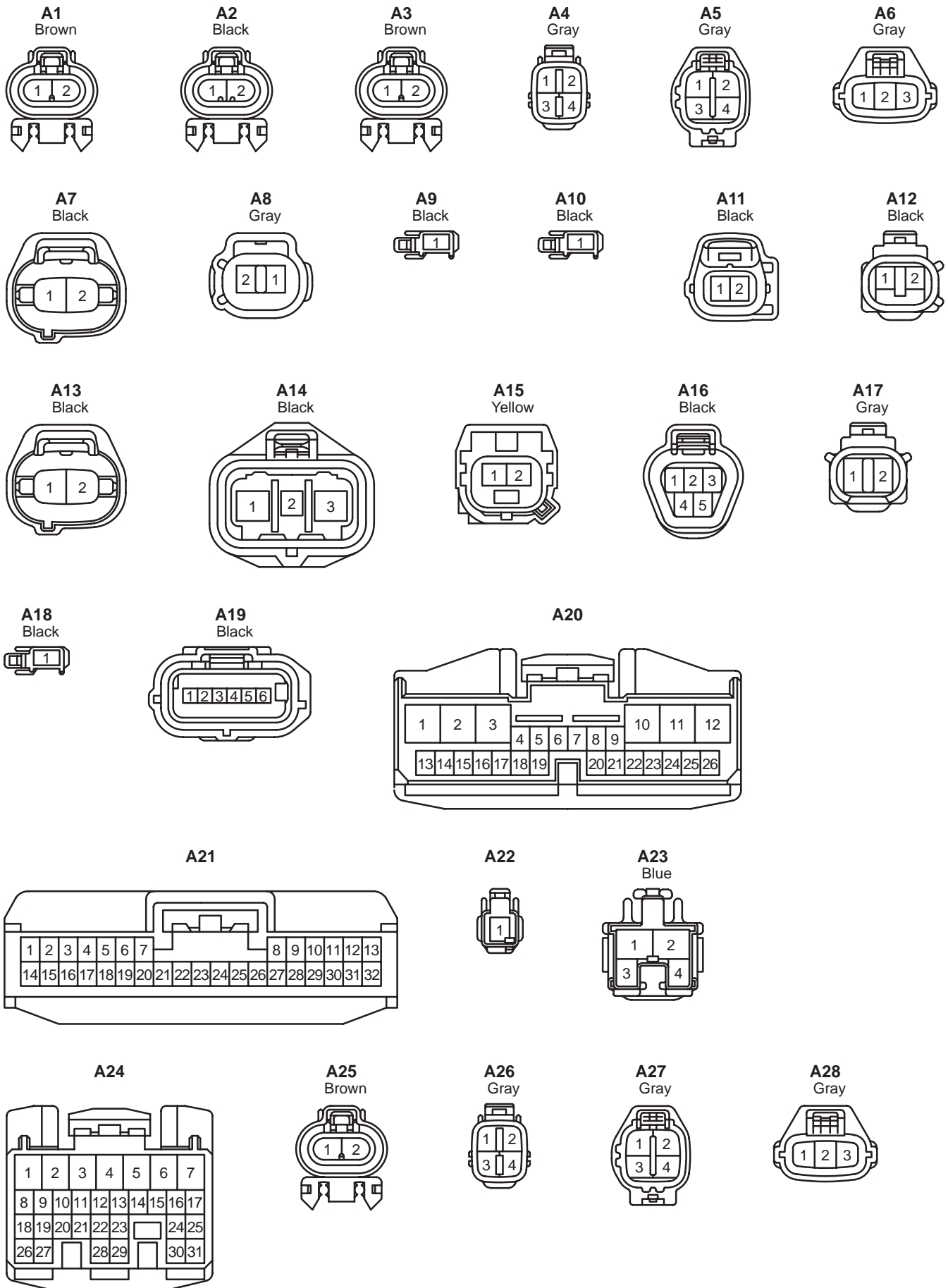
## J POWER SOURCE (Current Flow Chart)

Fuse		System	Page
10A	GAUGE NO.1	Electronically Controlled Transmission and A/T Indicator	312
		Multi Display (w/ Navigation System) and Navigation System	370
		Power Seat (Driver's Seat w/ Driving Position Memory)	326
		Rear Sunshade	364
		Remote Control Mirror (w/ Driving Position Memory)	352
		Turn Signal and Hazard Warning Light	170
10A	IGN	Cruise Control	302
		Dynamic Radar Cruise Control	286
		Electronically Controlled Transmission and A/T Indicator	312
		Engine Control	94
		Engine Immobiliser System (w/o Smart Key System)	110
		Push-Button Start, Engine Immobiliser and Steering Lock	72
		Seat Belt Warning	188
		SRS	279
Wireless Door Lock Control (w/ Smart Key System)	226		
10A	MIR HTR	Mirror Heater and Rear Window Defogger	360
10A	RR S/SHADE	Rear Sunshade	364
10A	TAIL	Front Fog Light	124
		Taillight	174
15A	CIG	Cigarette Lighter	202
15A	FOG	Front Fog Light	124
15A	PWR OUTLET	Power Outlet	204
20A	S-HTR	Climate Control Seat and Seat Heater (w/ Climate Control Seat)	338
		Seat Heater (w/o Climate Control Seat)	342
25A	DOOR NO.2	Door Lock Control	218
		Theft Deterrent	254
		Wireless Door Lock Control (w/ Smart Key System)	226
		Wireless Door Lock Control (w/o Smart Key System)	244
25A	FR DOOR	Power Window	212
		Remote Control Mirror (w/ Driving Position Memory)	352
25A	P/W	Power Seat (Driver's Seat w/ Driving Position Memory)	326
		Power Window	212
		Remote Control Mirror (w/ Driving Position Memory)	352
25A	RL DOOR	Power Window	212
25A	RR DOOR	Power Window	212
30A	POWER	Power Window	212
30A	P/SEAT	Power Seat (Driver's Seat w/ Driving Position Memory)	326
		Power Seat (Driver's Seat w/o Driving Position Memory)	332
		Power Seat (Front Passenger's Seat)	336
30A	S/ROOF	Sliding Roof	346
30A	WIP	Wiper and Washer	194

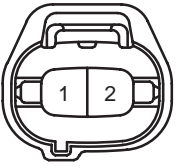
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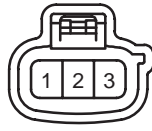
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**A30**



**A31**  
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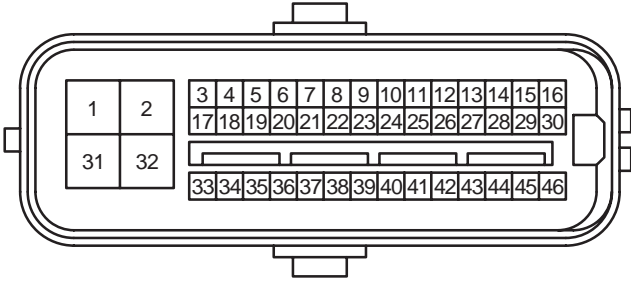
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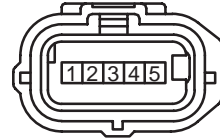
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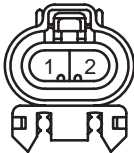
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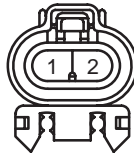
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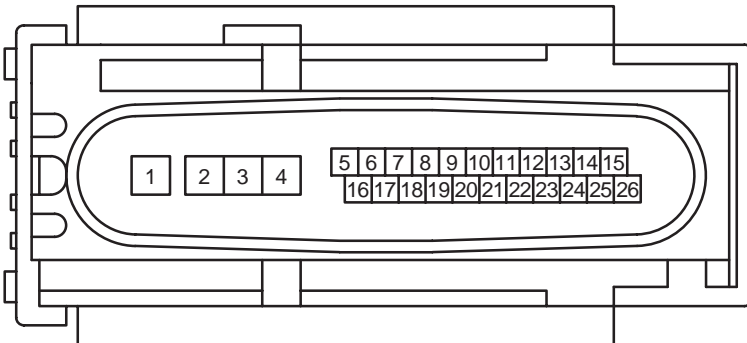
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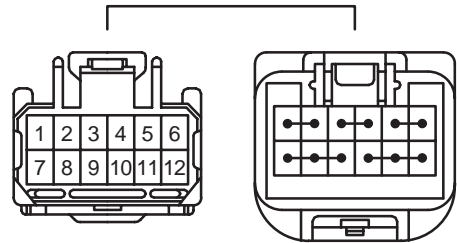
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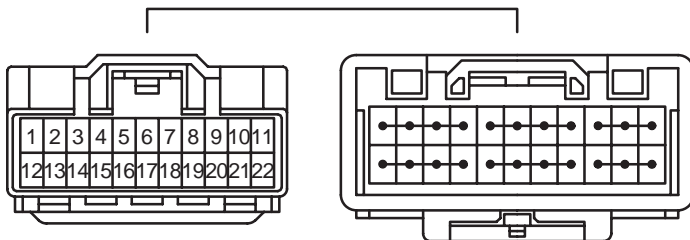
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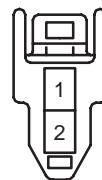
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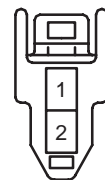
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**A43**

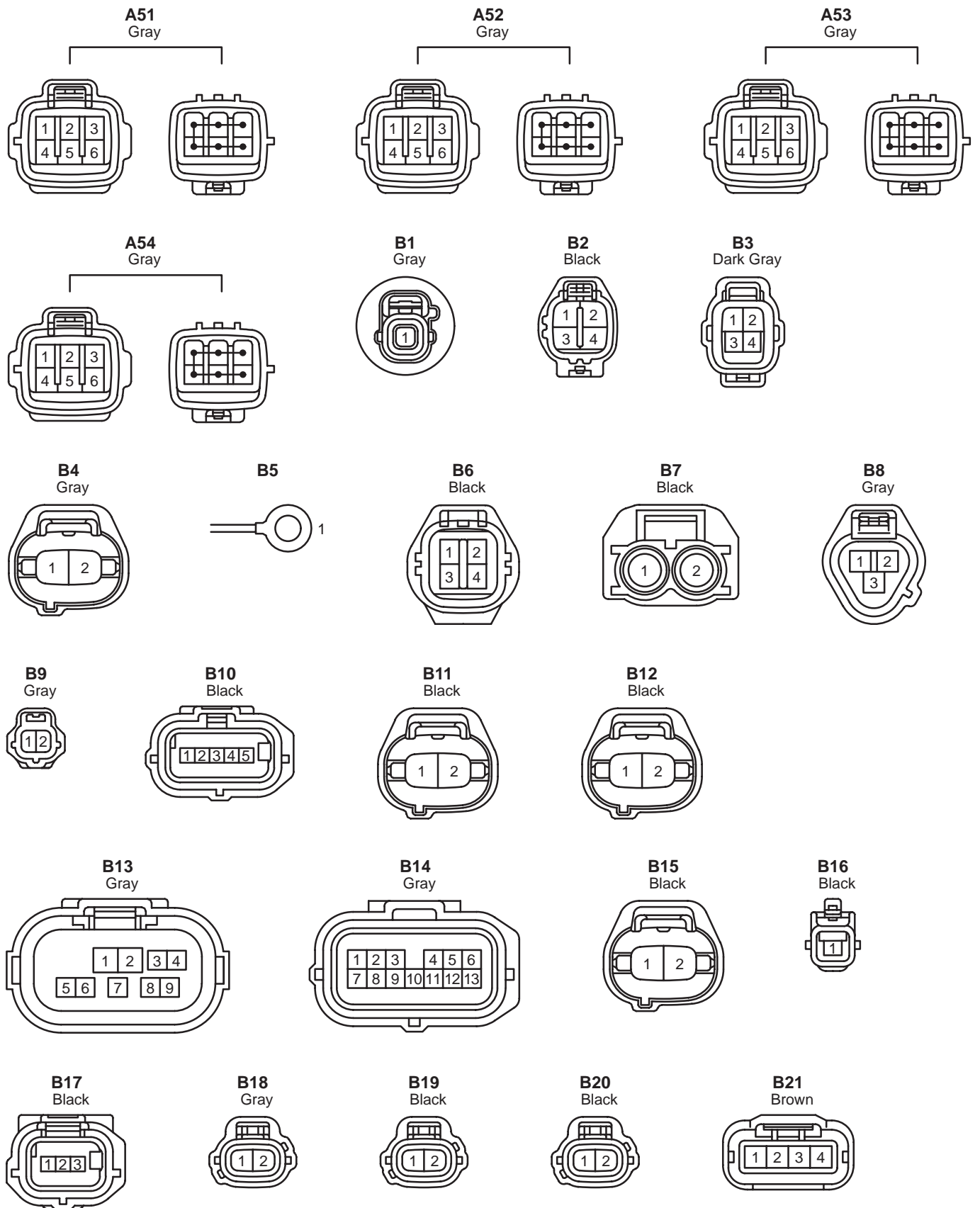


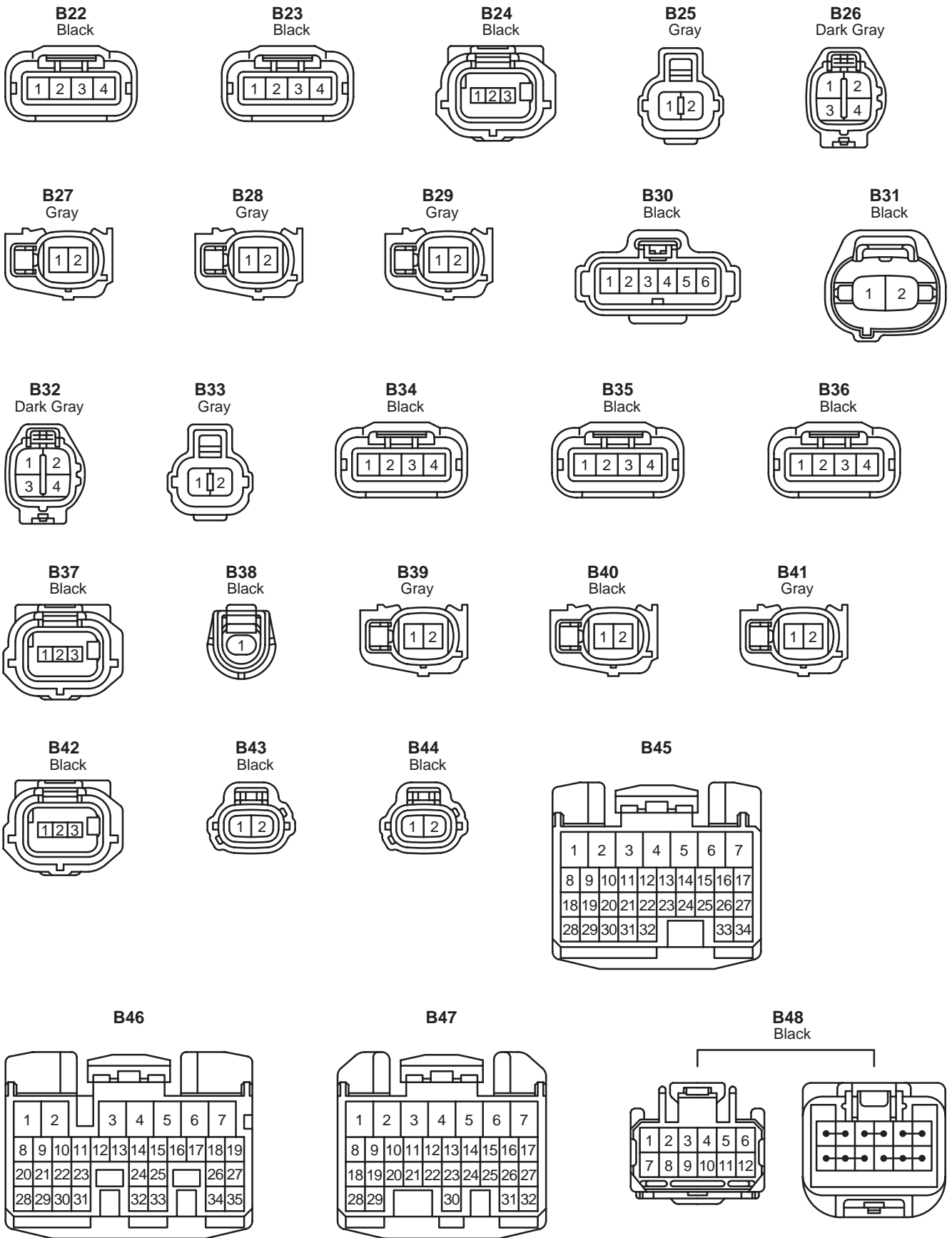
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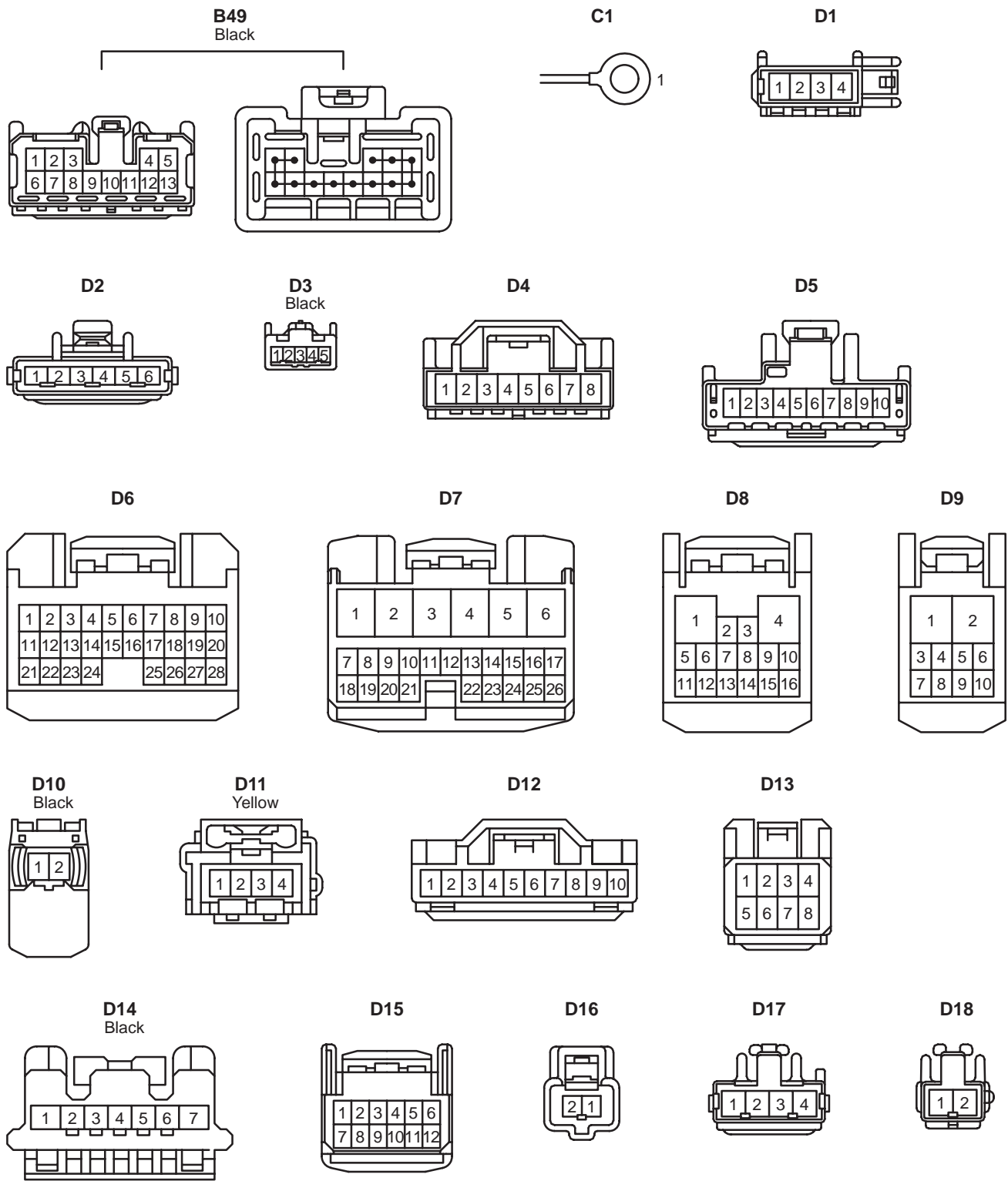


# K CONNECTOR LIST





# K CONNECTOR LIST



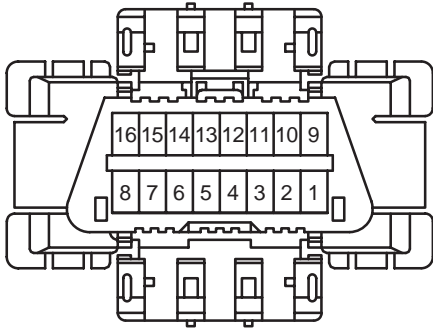
\*1 : w/ Smart Key System

\*2 : w/o Smart Key System

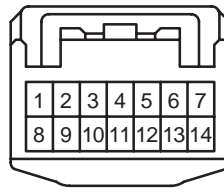
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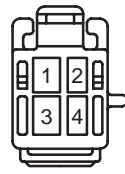
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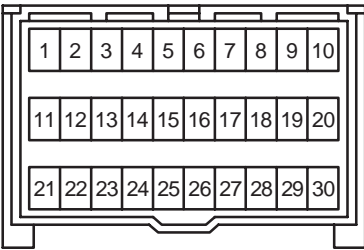
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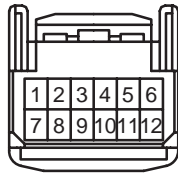
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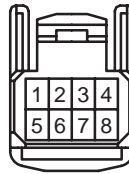
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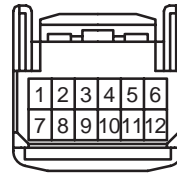
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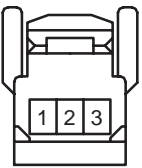
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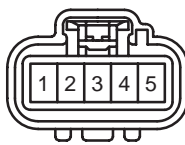
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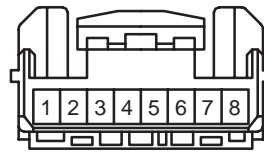
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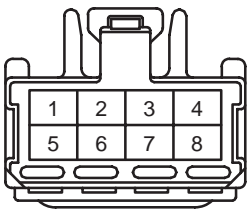
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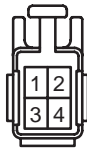
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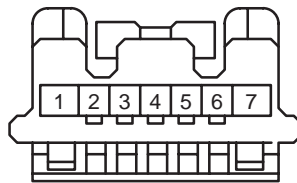
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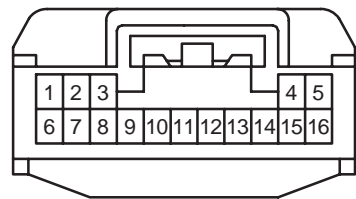
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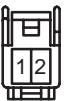
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D33



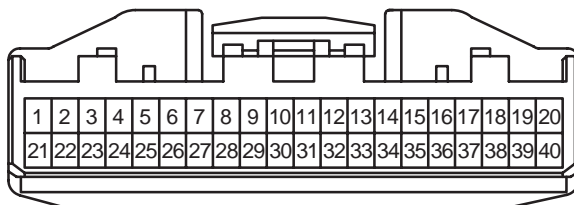
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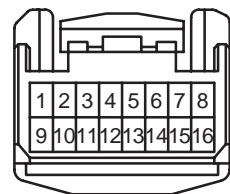
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D37

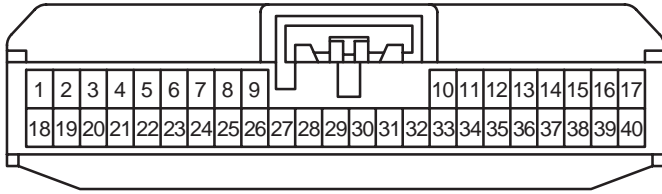


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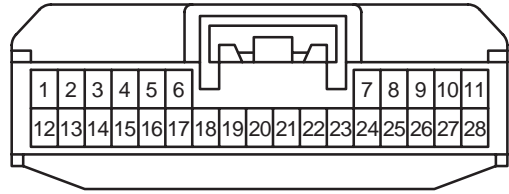


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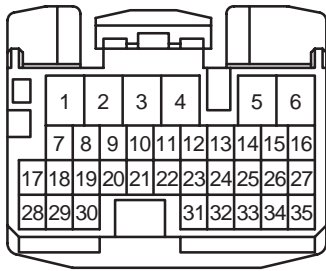
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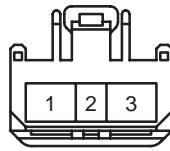
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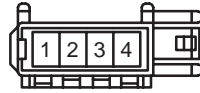
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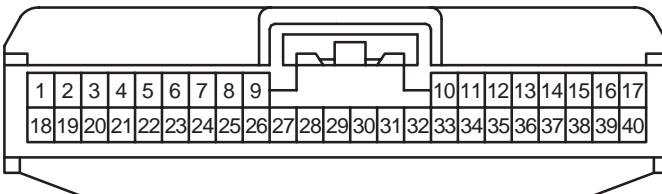
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**D43**



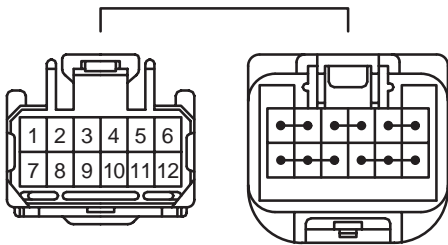
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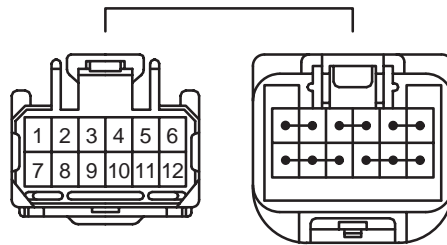
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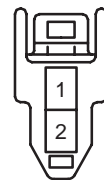
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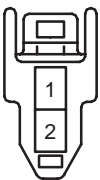
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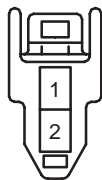
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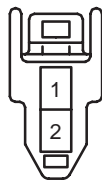
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**D50**



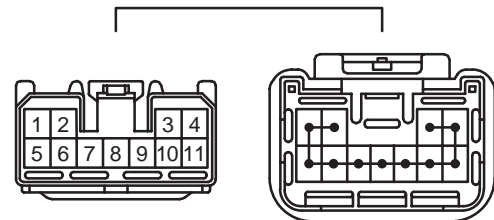
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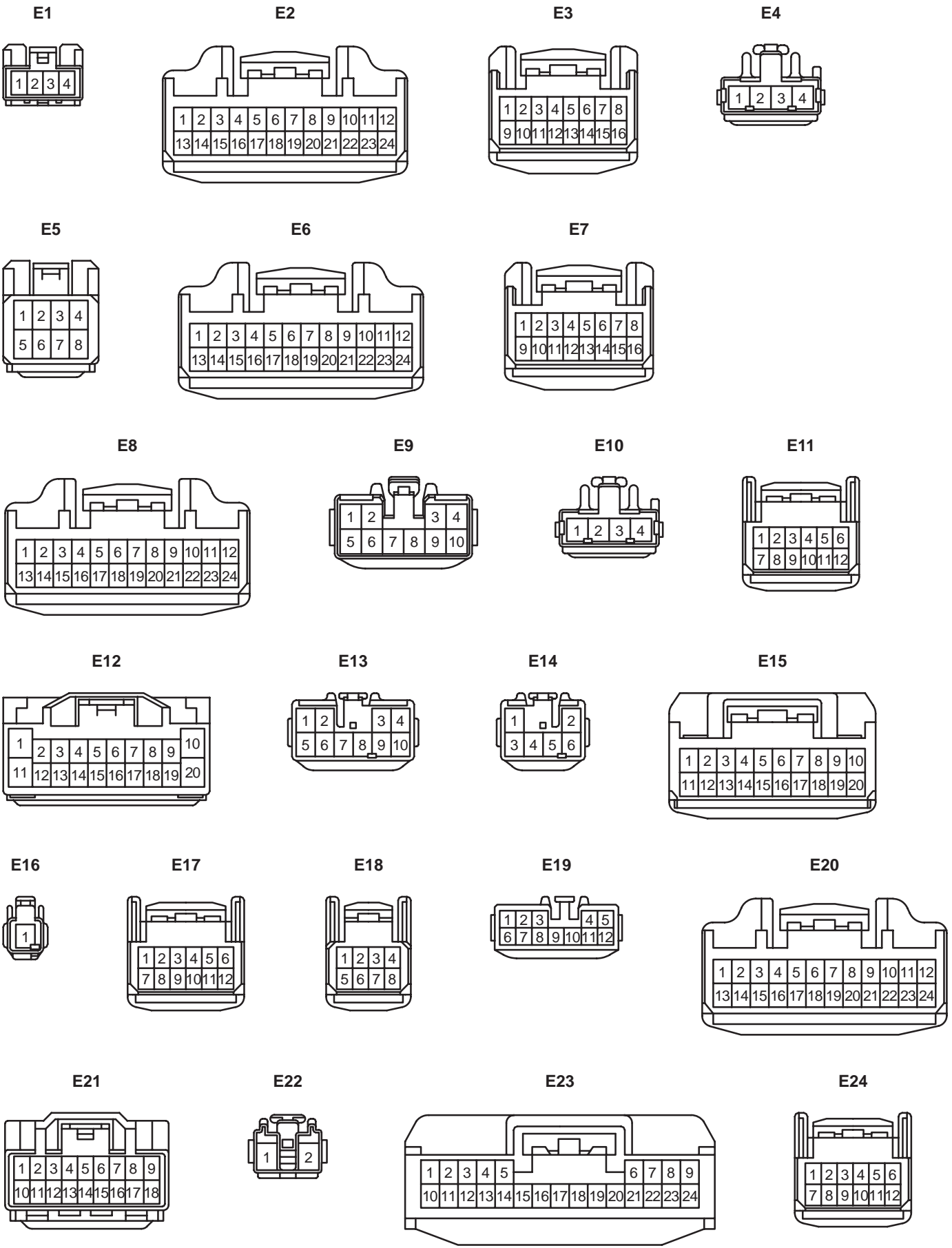


**D52**

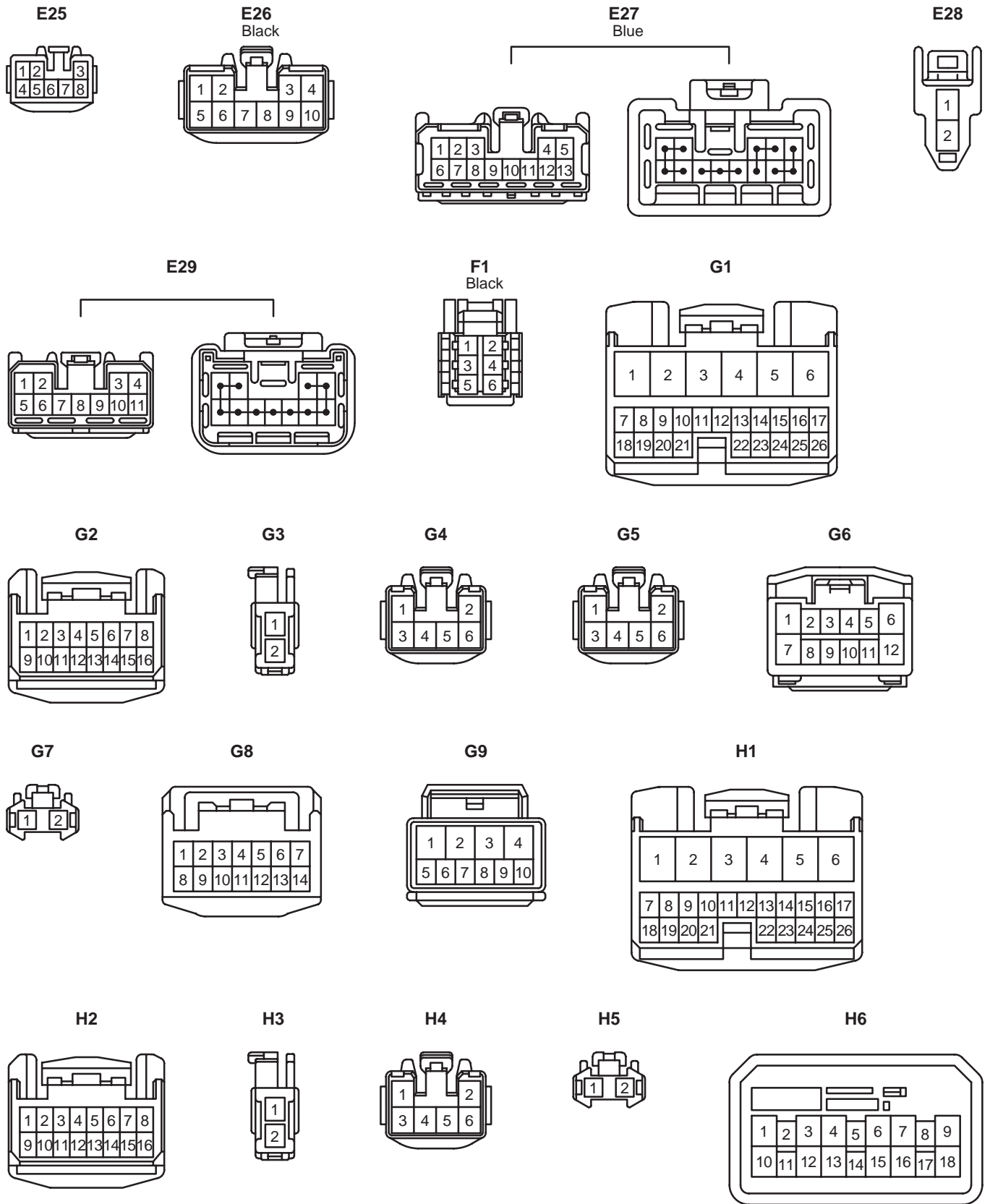


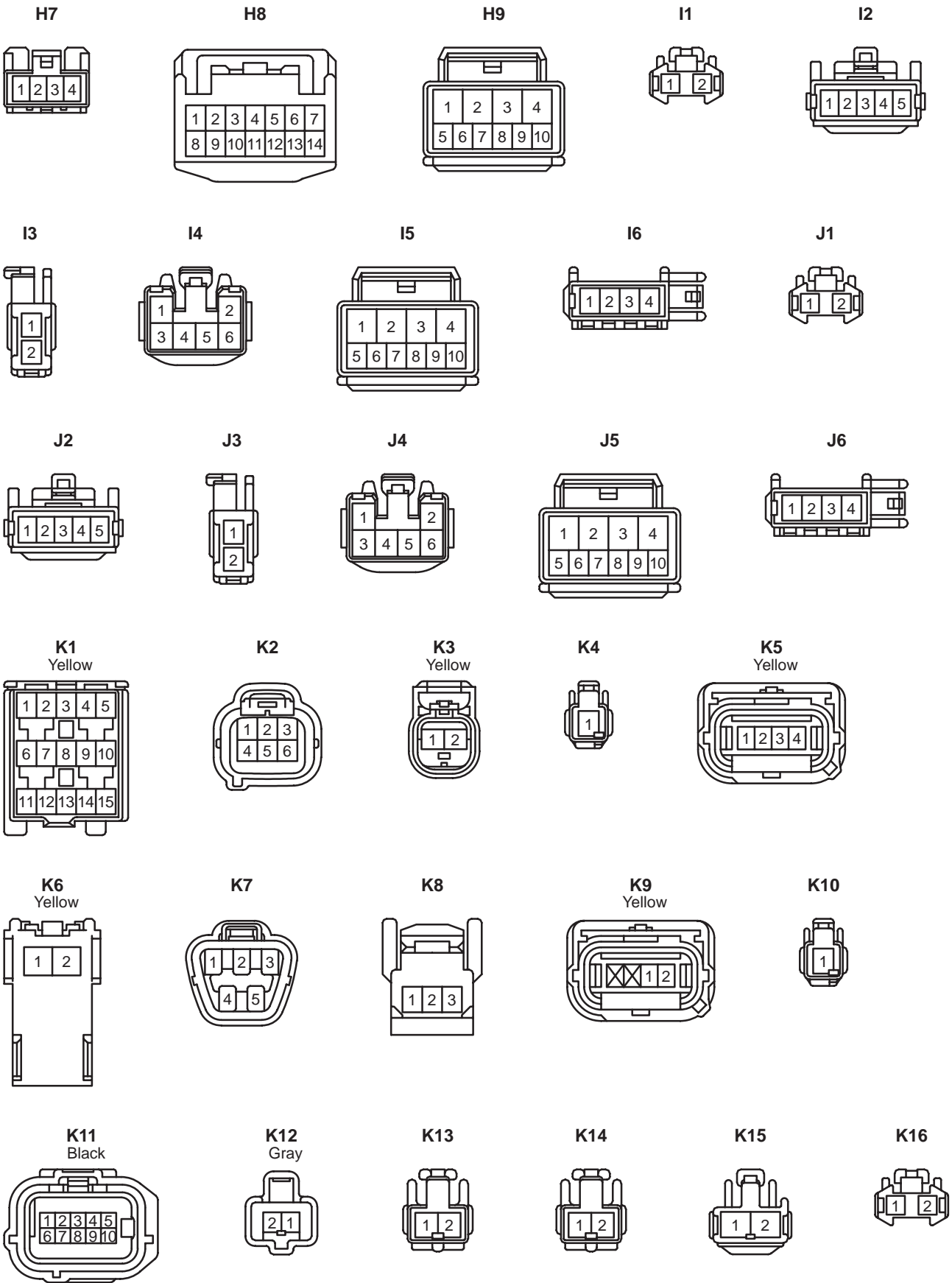
**D53**





# K CONNECTOR LIST

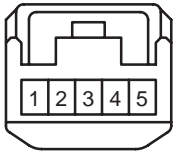




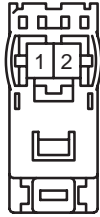


# K CONNECTOR LIST

**K17**



**K18**  
Black



**K19**



**K20**



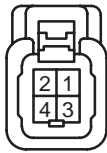
**K21**



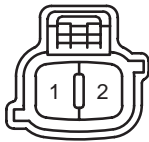
**K22**



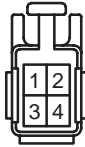
**K23**



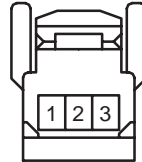
**K24**



**K25**



**K26**



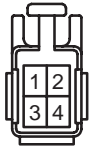
**K27**



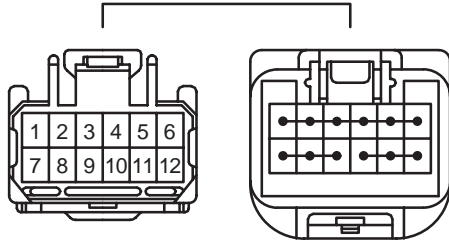
**K28**



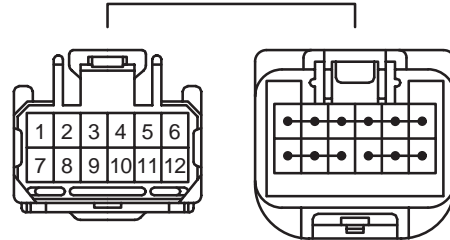
**K29**



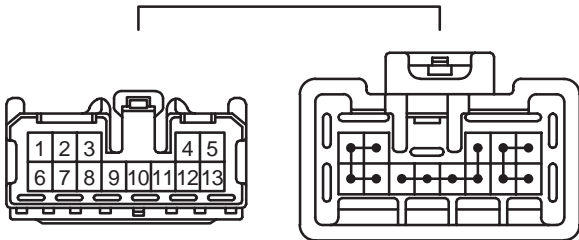
**K30**  
Gray



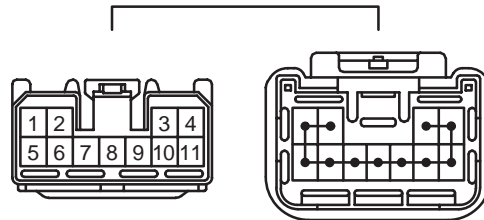
**K31**  
Gray



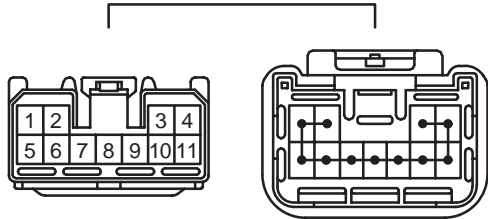
**K32**



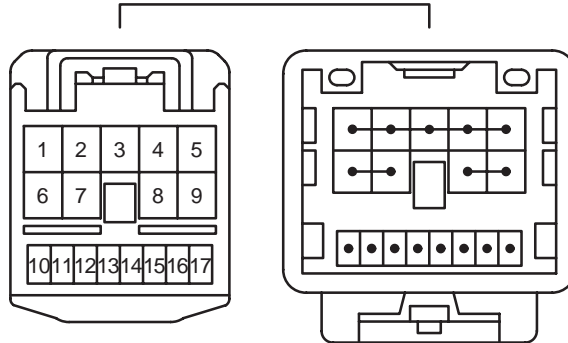
**K33**

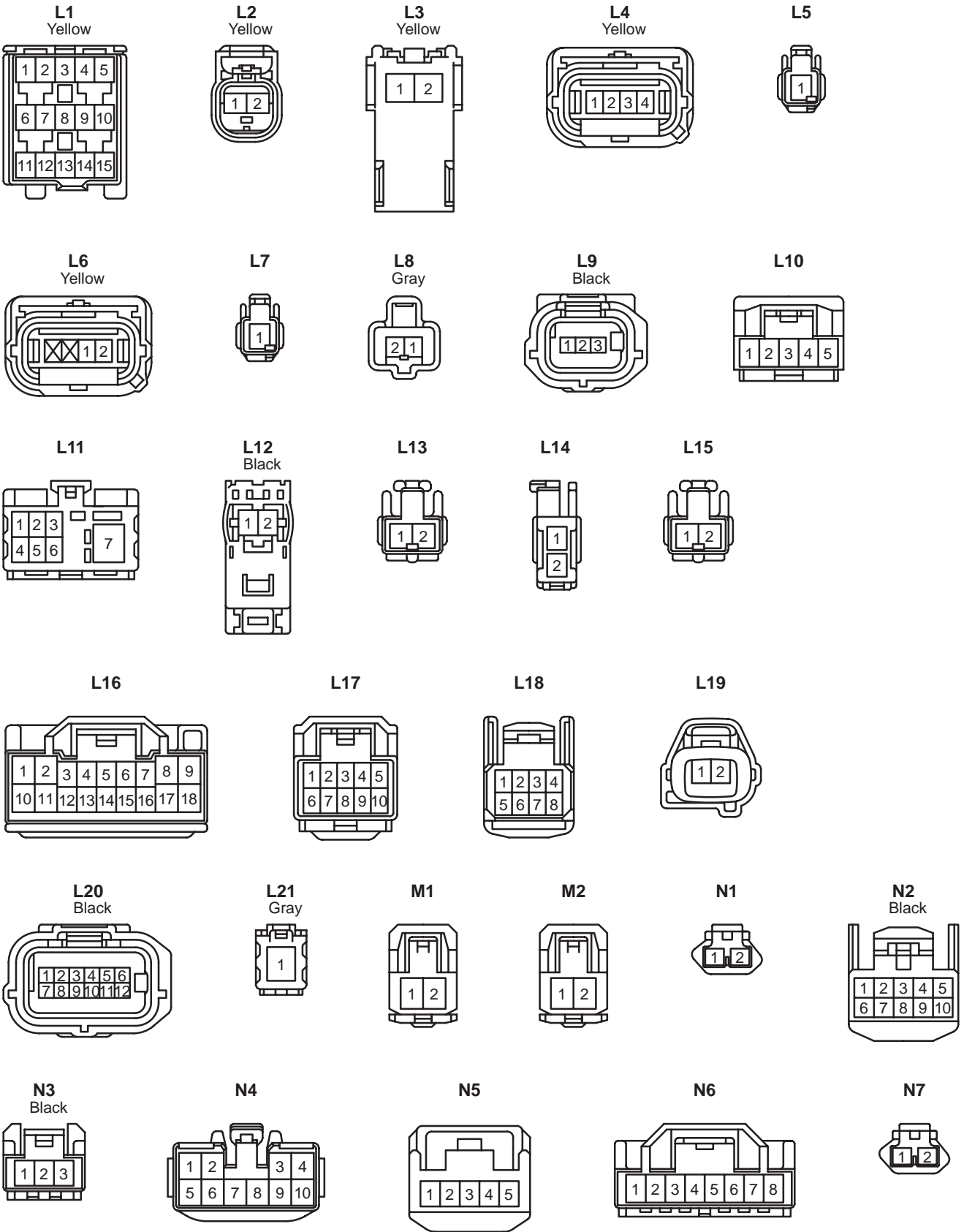


**K34**

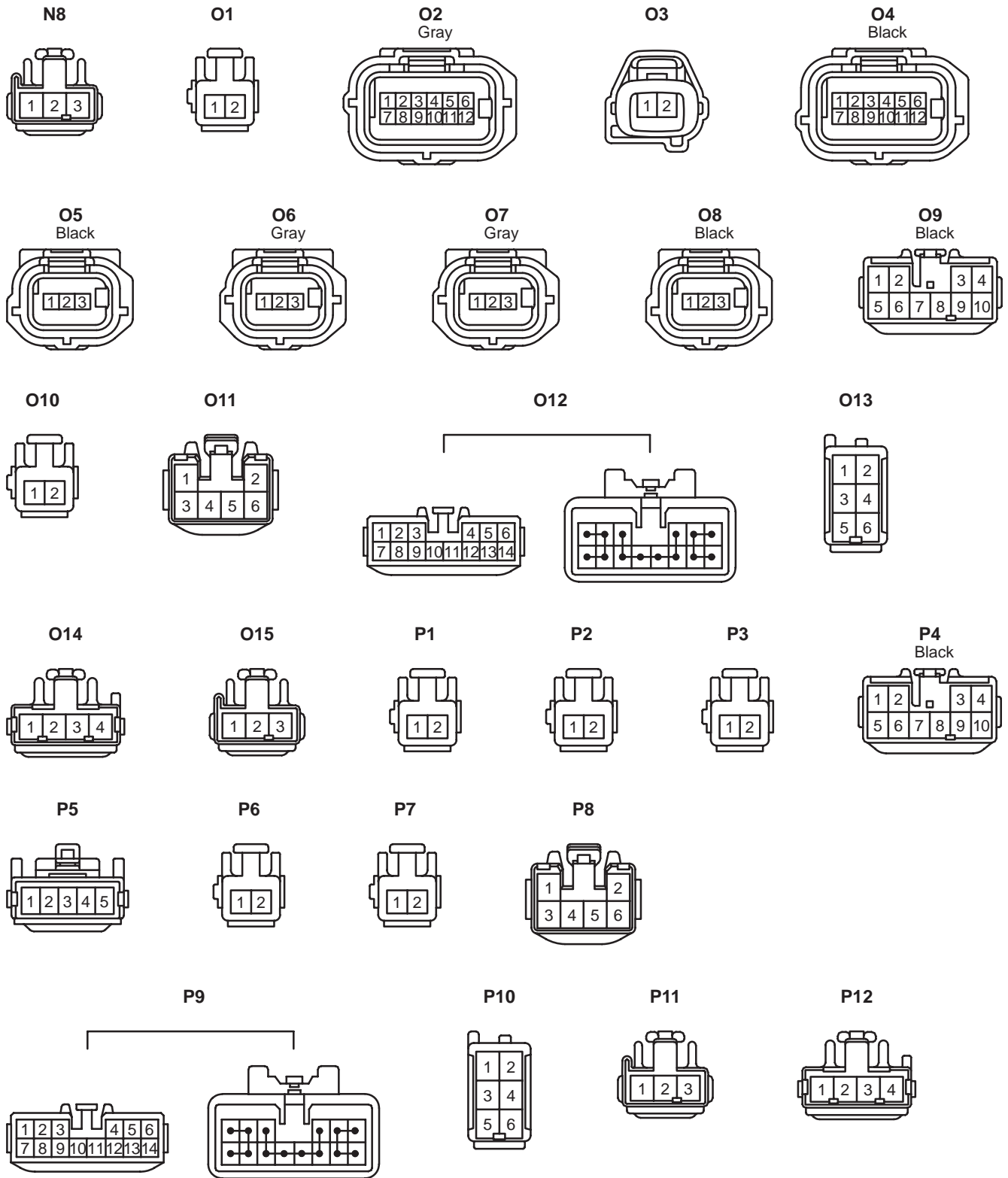


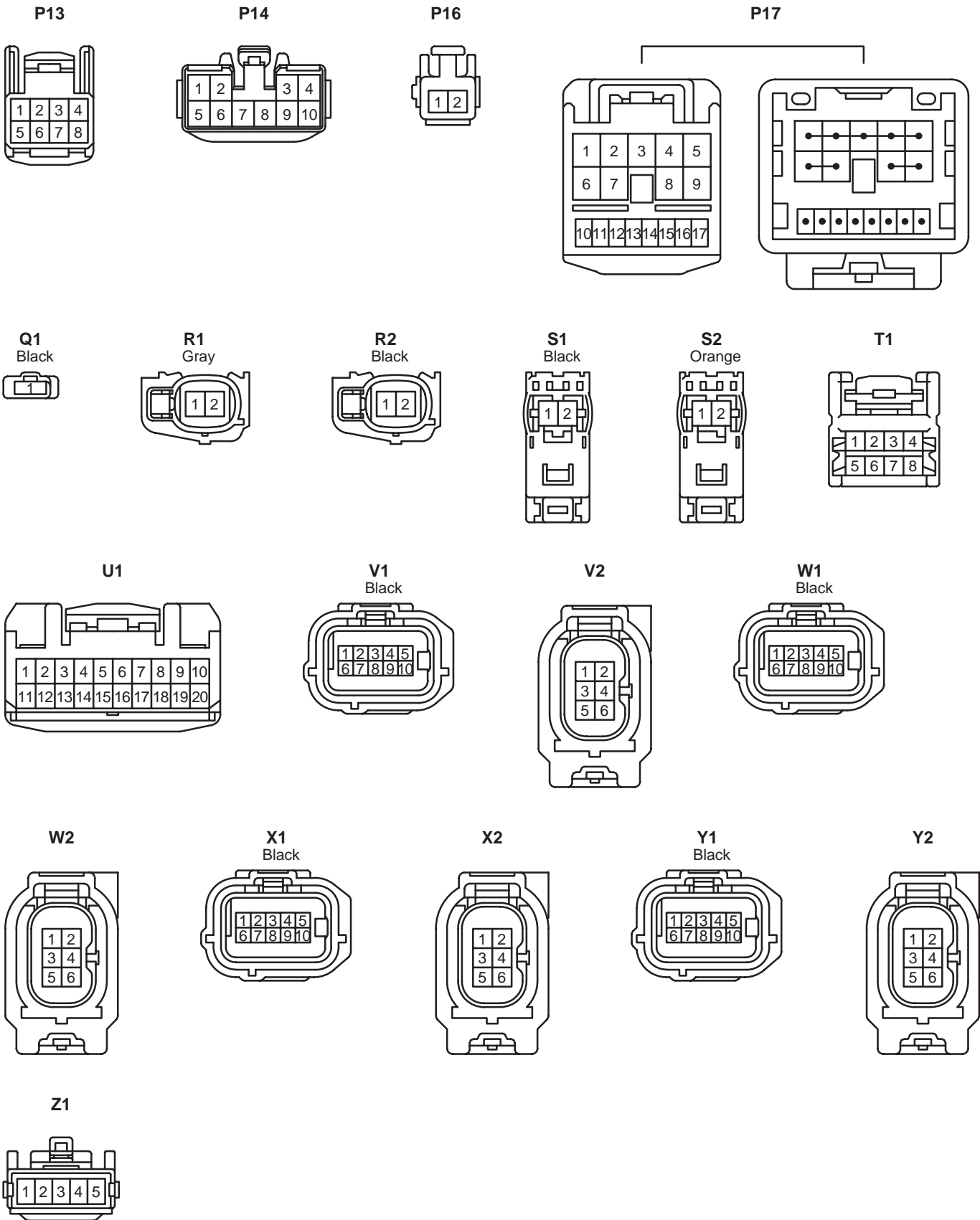
**K35**



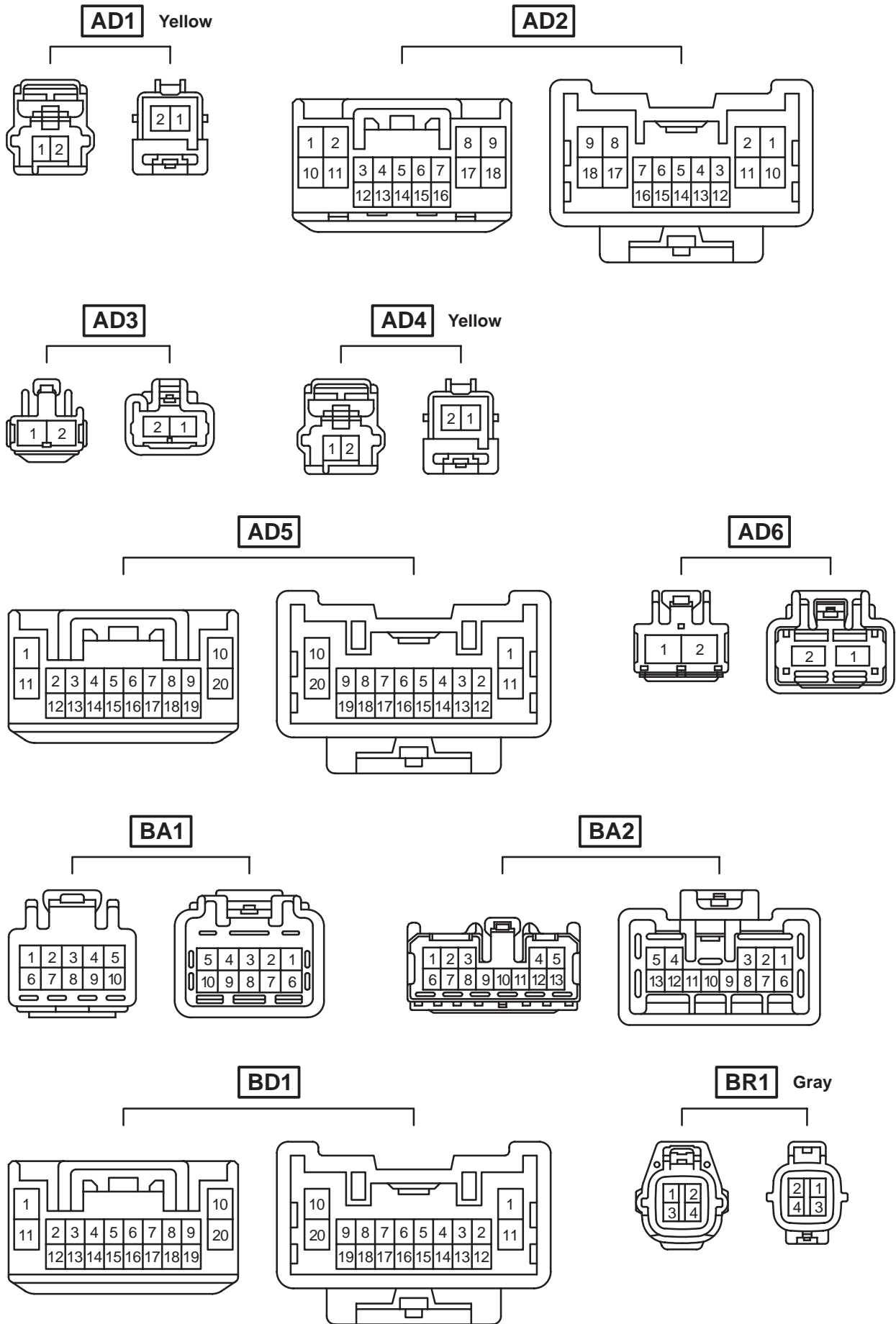


# K CONNECTOR LIST

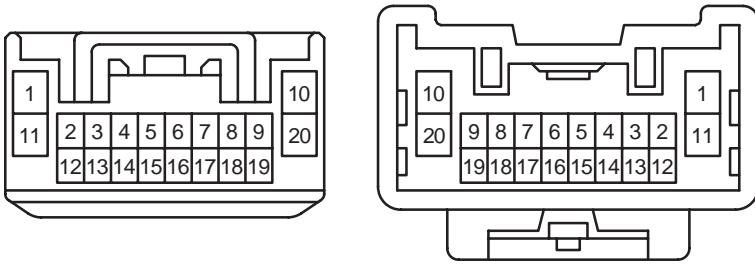




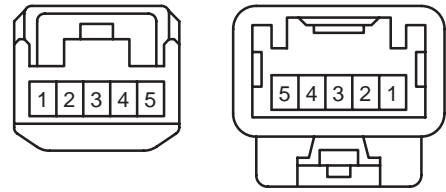
# K CONNECTOR LIST



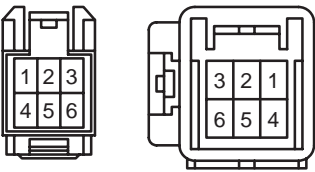
**DA1**



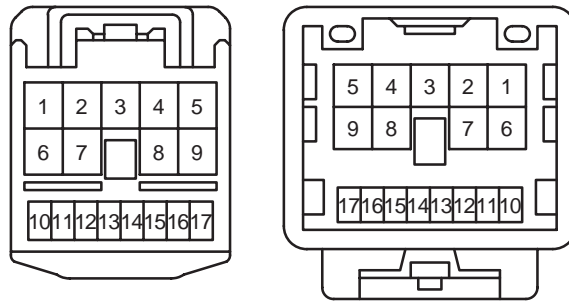
**DD1**



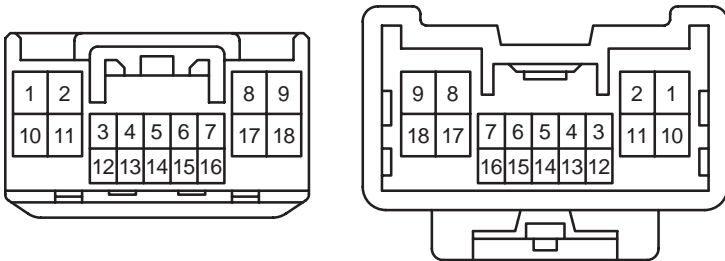
**DF1**



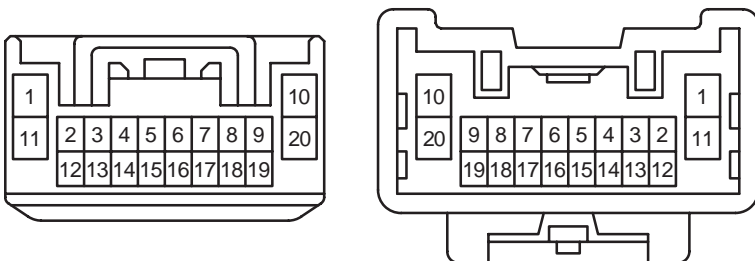
**DK1**



**DK2**

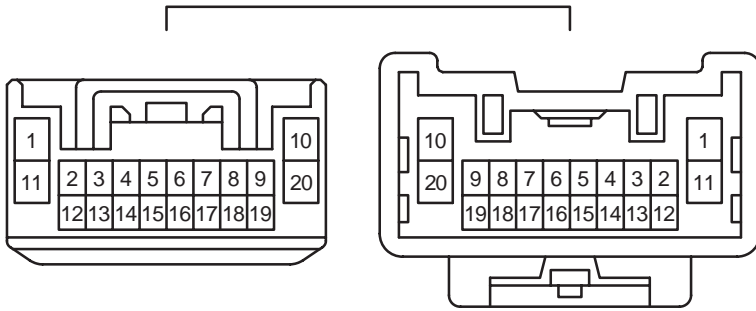


**DK3 Blue**

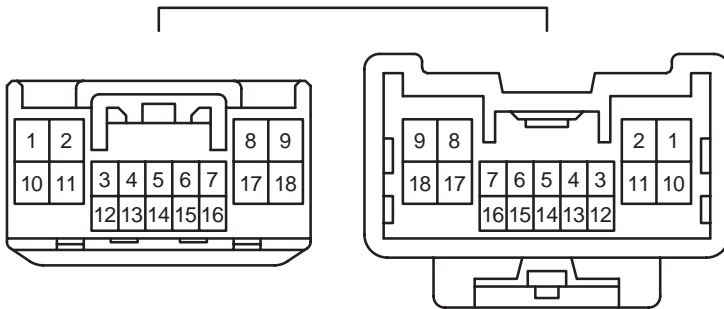


# K CONNECTOR LIST

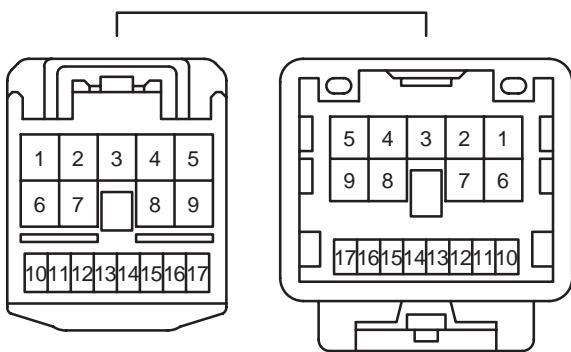
**DL1** Blue



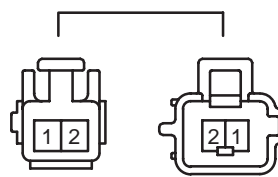
**DL2**



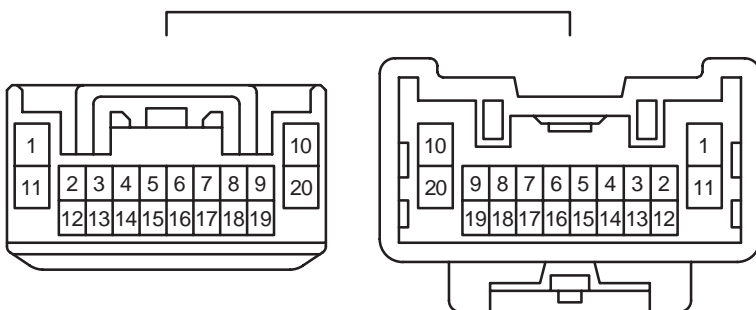
**DL3**



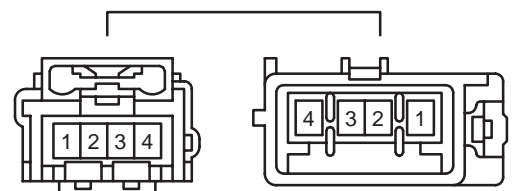
**DM1**



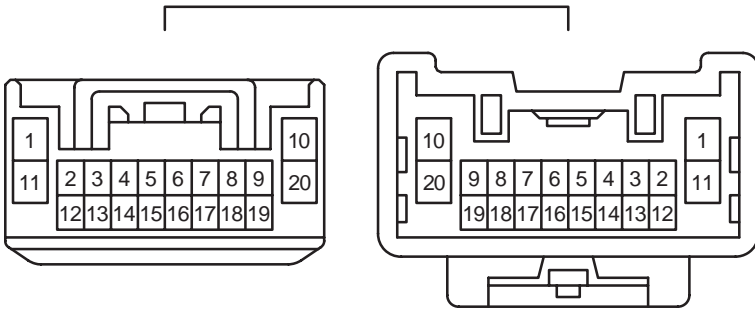
**DN1**



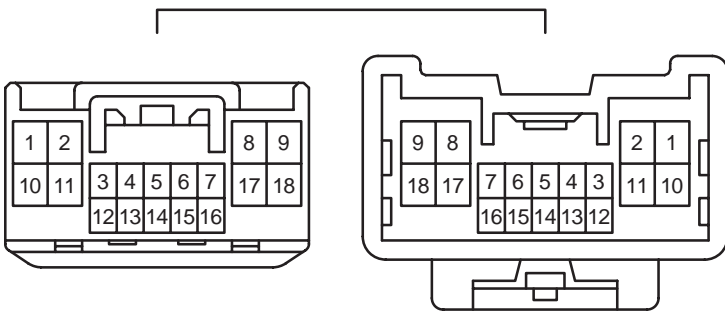
**DS1** Yellow



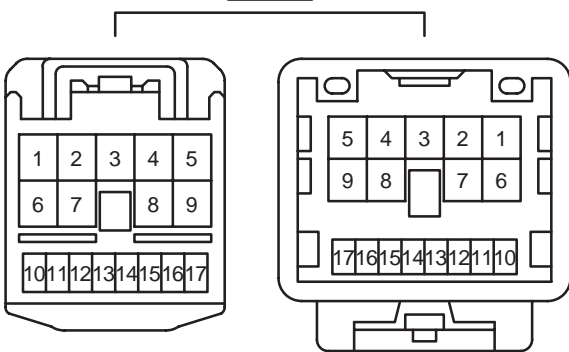
**ED1**



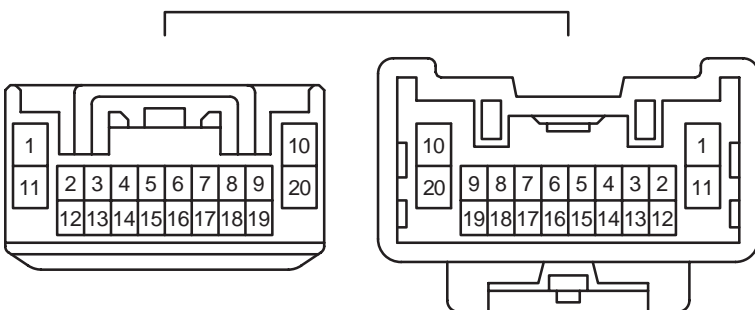
**ED2**



**ED3**



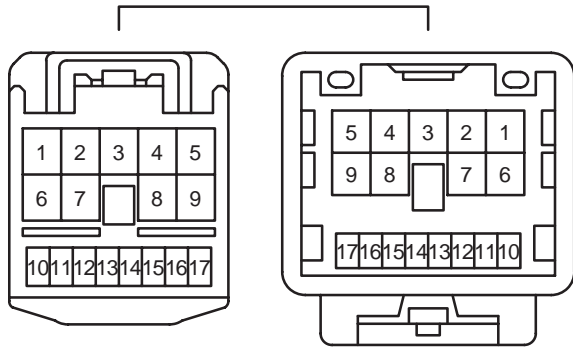
**GD1**





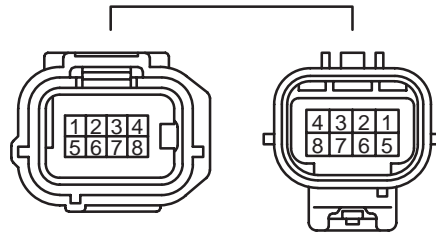
# K CONNECTOR LIST

**GD2**

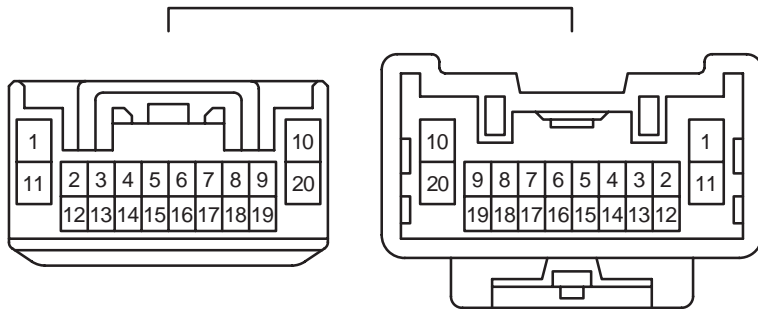


**GV1**

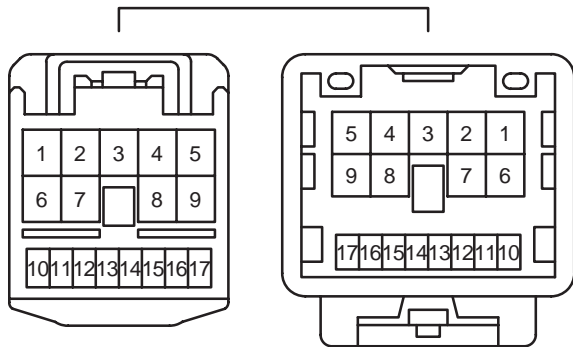
Gray



**HD1**

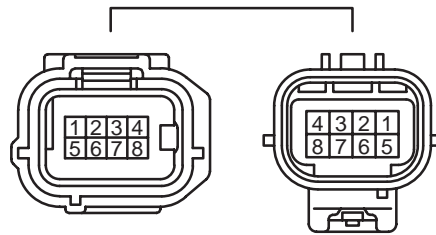


**HD2**

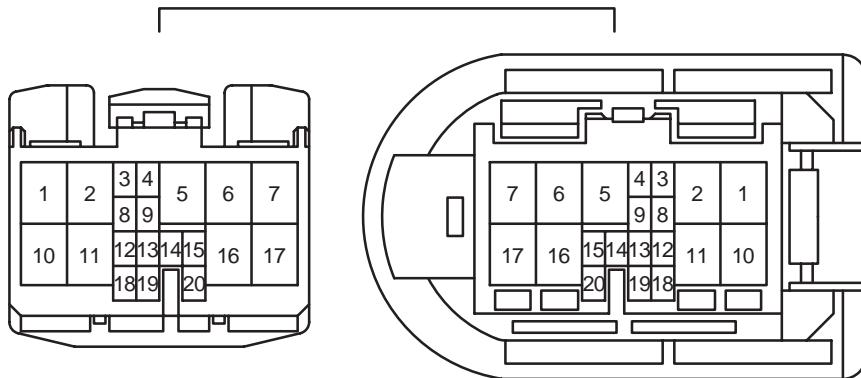


**HW1**

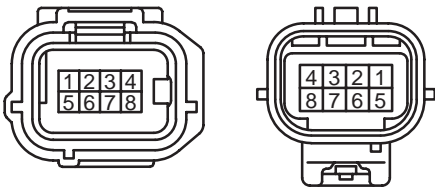
Gray



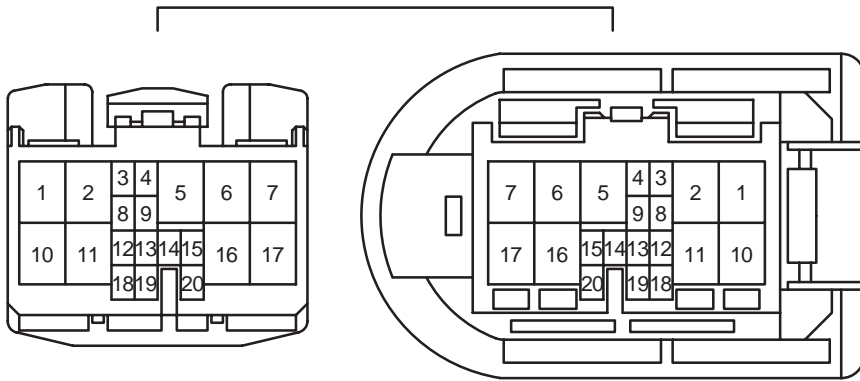
**IL1**



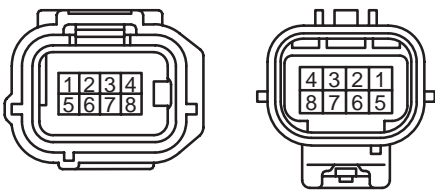
**IX1** Gray



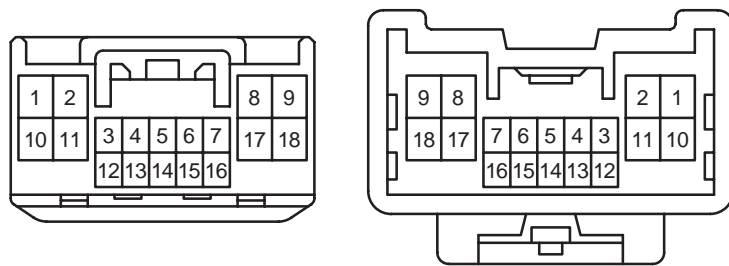
**JK1**



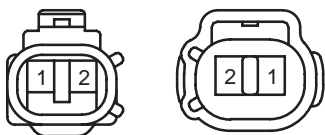
**JY1** Gray



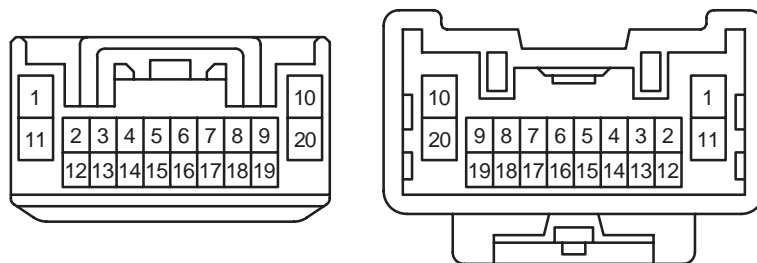
**KA1**



**KL1** Gray

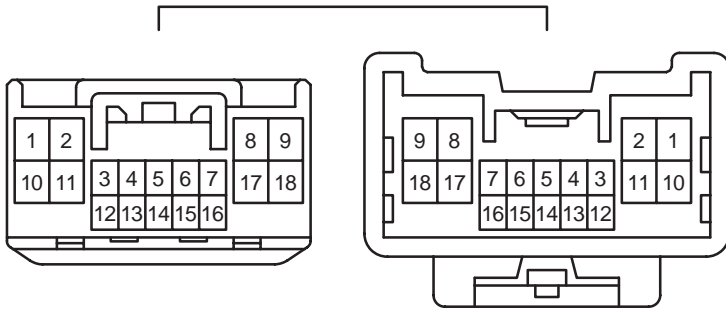


**LA1**

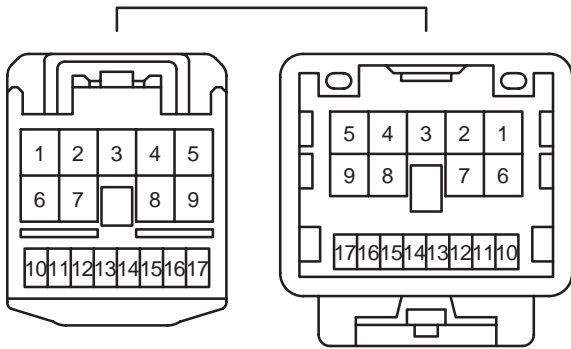


# K CONNECTOR LIST

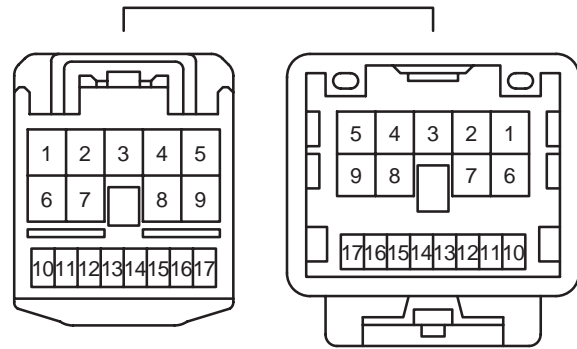
**LE1**



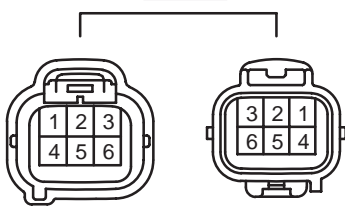
**LE2**



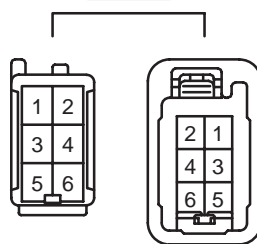
**LO1**



**LO2**



**PZ1**





## L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number
A1	Fog Lamp (Front LH)	90980-11660	A51	Junction Connector	90980-11194
A2	Headlamp (LH High)	90980-11659	A52	Junction Connector	
A3	Headlamp (LH Low)	90980-11660	A53	Junction Connector	
A4	Headlamp Assembly (LH)	90980-11292	A54	Junction Connector	
A5	Headlamp Leveling Motor (LH)	90980-11028	B1	Engine Oil Pressure SW	90980-11363
A6	Turn Signal and Parking Lamp (Front LH)	90980-11020	B2	Heated Oxygen Sensor (Bank 2 Sensor 2)	90980-11028
A7	Side Marker Lamp (Front LH)	90980-11156	B3	Heated Oxygen Sensor (Bank 1 Sensor 2)	90980-10869
A8	Speed Sensor (Front LH)	90980-11002	B4	A/C Compressor	90980-11156
A9	Horn (Low)	90980-10619	B5	Generator	90980-09983
A10	Horn (High)		B6	Generator	90980-11964
A11	Ambient Temp. Sensor	90980-11070	B7	Crankshaft Position Sensor	90980-12611
A12	Engine Hood Courtesy SW	90980-11003	B8	A/C Compressor	90980-11016
A13	VSV (Air Intake Control)	90980-11156	B9	Engine Coolant Temp. Sensor	90980-10735
A14	Cooling Fan ECU	90980-12058	B10	Mass Air Flow Meter	90980-12292
A15	Airbag Sensor (Front LH)	90980-12490	B11	Speed Sensor (Counter Gear)	90980-11156
A16	Windshield Wiper Motor	90980-11599	B12	Speed Sensor (Turbine)	
A17	Brake Fluid Level Warning SW	90980-11207	B13	Park/Neutral Position SW	90980-12362
A18	Security Horn	90980-10619	B14	Electronically Controlled Transmission Solenoid	90980-12326
A19	Accelerator Position Sensor	90980-12303	B15	VSV (ACM)	90980-11156
A20	Distance Control ECU	90980-12444	B16	Starter	90980-11400
A21	Headlamp Leveling ECU	90980-12422	B17	Crankshaft Position Sensor No.3 (LH Intake Side)	90980-12353
A22	Parking Brake SW	90980-10871	B18	VSV (ACIS)	90980-11162
A23	Stop Lamp SW	90980-11118	B19	Camshaft Timing Oil Control Valve (LH Intake Side)	
A24	Engine Control Module	90980-12525	B20	Camshaft Timing Oil Control Valve (LH Exhaust Side)	
A25	Fog Lamp (Front RH)	90980-11660	B21	Ignition Coil (No.2)	90980-11885
A26	Headlamp Assembly (RH)	90980-11292	B22	Ignition Coil (No.4)	
A27	Headlamp Leveling Motor (RH)	90980-11028	B23	Ignition Coil (No.6)	
A28	Turn Signal and Parking Lamp (Front RH)	90980-11020	B24	Crankshaft Position Sensor No.2 (LH Exhaust Side)	90980-12353
A29	Side Marker Lamp (Front RH)	90980-11156	B25	Noise Filter (Ignition No.1)	90980-10843
A30	Speed Sensor (Front RH)	90980-11002	B26	Air Fuel Ratio Sensor (Bank 2 Sensor 1)	90980-11178
A31	Windshield Washer Motor	90980-10981	B27	Fuel Injector (No.2)	90980-11875
A32	Washer Level Warning SW	90980-11068	B28	Fuel Injector (No.4)	
A33	Wireless Door Lock Buzzer	90980-11142	B29	Fuel Injector (No.6)	
A34	Skid Control ECU with Actuator	90980-12297	B30	Throttle Body Assembly	90980-11858
A35	A/C Pressure Sensor	90980-10845	B31	VSV (Purge)	90980-11156
A36	Laser Radar Sensor	90980-12292	B32	Air Fuel Ratio Sensor (Bank 1 Sensor 1)	90980-11178
A37	Airbag Sensor (Front RH)	90980-12490	B33	Noise Filter (Ignition No.2)	90980-10843
A38	Headlamp (RH High)	90980-11659	B34	Ignition Coil (No.5)	90980-11885
A39	Headlamp (RH Low)	90980-11660	B35	Ignition Coil (No.3)	
A40	Skid Control ECU with Actuator	90980-WB001	B36	Ignition Coil (No.1)	
A41	Junction Connector	90980-11661			
A42	Junction Connector	90980-12175			
A43	Junction Connector	90980-12355			
A44	Junction Connector				

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
B37	Crankshaft Position Sensor No.2 (RH Exhaust Side)	90980-12353	D28	Yaw Rate Sensor	90980-11904
B38	Power Steering Oil Pressure SW	90980-11428	D29	Immobiliser Code ECU	90980-12558
B39	Fuel Injector (No.1)	90980-11875	D30	Ignition SW	90980-11615
B40	Fuel Injector (No.3)		D31	Unlock Warning SW	90980-10795
B41	Fuel Injector (No.5)		D32	Transponder Key Amplifier	90980-12092
B42	Crankshaft Position Sensor No.2 (RH Intake Side)	90980-12353	D33	Transponder Key ECU	90980-12423
B43	Camshaft Timing Oil Control Valve (RH Exhaust Side)	90980-11162	D34	A/C Room Temp. Sensor	90980-12128
B44	Camshaft Timing Oil Control Valve (RH Intake Side)		D35	Luggage Compartment Door Opener SW (Main)	90980-10825
B45	Engine Control Module	90980-12527	D37	A/C Amplifier	90980-12557
B46	Engine Control Module	90980-12528	D38	A/C Amplifier	90980-12553
B47	Engine Control Module	90980-12526	D39	Smart Key ECU	90980-12567
B48	Junction Connector	90980-11661	D40	Smart Key ECU	90980-12566
B49	Junction Connector	90980-11542	D41	Engine Control Module	90980-12529
C1	Starter	90980-09463	D42	Blower Motor	90980-11667
D1	Tweeter (Front LH)	90980-12304	D43	Tweeter (Front RH)	90980-12304
D2	Luggage Compartment Door Opener SW	90980-10933	D44	Power Source Control ECU	90980-12388
D3	Rear Sunshade SW	90980-10631	D45	Option Connector (Glass Breakage Sensor ECU)	90980-10799
D4	Outer Mirror SW	90980-11989	D46	Junction Connector	90980-11661
D5	Outer Mirror SW	90980-11657	D47	Junction Connector	
D6	Body ECU	90980-12330	D48	Junction Connector	90980-12355
D7	Body ECU	90980-12561	D49	Junction Connector	
D8	Body ECU	90980-12329	D50	Junction Connector	
D9	Body ECU	90980-12328	D51	Junction Connector	90980-10871
D10	Airbag Squib (Knee Airbag)	90980-12452	D52	Junction Connector	
D11	Airbag Squib (Steering Wheel Pad)	90980-12160	D53	Junction Connector	90980-11539
D12	Steering Sensor	90980-12162	E1	Rheostat	90980-11950
D13	Windshield Wiper SW Assembly	90980-12113	E2	Combination Meter	90980-12554
D14	Steering Lock ECU	90980-12092	E3	Combination Meter	90980-12553
D15	Spiral Cable	90980-12552	E4	Clock	90980-11013
D16	Option Connector (TVIP)	90980-10859	E5	Clock	90980-12113
D17	Option Connector (Glass Breakage Sensor Microphone)	90980-11013	E6	A/C Control Assembly	90980-12554
D18	VSC Warning Buzzer	90980-10906	E7	Multi-Display	90980-12553
D19	Turn Signal Flasher	90980-10799	E8	Multi-Display	90980-12554
D20	Data Link Connector 3	90980-11665	E9	Hazard Warning Signal SW	90980-10801
D21	Power SW	90980-12370	E10	Speaker (Center)	90980-11013
D22	Cigarette Lighter	90980-11606	E11	Telltale Lamp Assembly	90980-12552
D23	Airbag Sensor Assembly Center	90980-12391	E12	Radio Receiver Assembly	90980-12038
D24	Transmission Control SW (w/ Smart Key System)	90980-12552	E13	Radio Receiver Assembly	90980-10997
	Transmission Control SW (w/o Smart Key System)	90980-12551	E14	Radio Receiver Assembly	90980-10996
D25	Shift Lock Control ECU	90980-12552	E15	Radio Receiver Assembly	90980-12460
D26	Electrical Key Oscillator (Console)	90980-12296	E16	Antenna Amplifier	90980-10871
D27	Seat Heater SW	90980-12135	E17	Radio Receiver Assembly	90980-12552
			E18	Navigation Controller	90980-12551
			E19	Stereo Component Amplifier	90980-10803
			E20	Stereo Component Amplifier	90980-12554

## L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number
E21	Temp. Control SW Assembly	90980-12174	K5	Side Airbag Sensor (Front LH)	90980-12225
E22	Glove Box Lamp	90980-11098	K6	Pretensioner (LH)	90980-12253
E23	Gateway ECU	90980-12404	K7	Fuel Suction Pump and Gage Assembly	90980-11077
E24	Tape Player	90980-12552	K8	Electrical Key Oscillator (Rear Seat)	90980-12296
E25	Multi-Display	90980-10799	K9	Side Airbag Sensor (Rear LH)	90980-12352
E26	Stereo Component Amplifier	90980-10801	K10	Door Courtesy SW (Rear LH)	90980-10871
E27	Junction Connector	90980-11542	K11	Canister Pump Module	90980-12380
E28	Junction Connector	90980-12355	K12	Speed Sensor (Rear LH)	90980-11060
E29	Junction Connector	90980-11539	K13	Noise Filter (Dome and Stop)	90980-10860
F1	Automatic Light Control Sensor	90980-12056	K14	Center Stop Lamp	
G1	Outer Mirror Control ECU (RH)	90980-12561	K15	Noise Filter (Rear Window Defogger)	90980-10916
G2	Outer Mirror Control ECU (RH)	90980-12553	K16	Luggage Compartment Lamp	90980-11148
G3	Speaker (Front Door RH)	90980-10935	K17	Rear Sunshade Relay	90980-12366
G4	Power Window Regulator Motor (Front Passenger's Side)	90980-10797	K18	Curtain Shield Airbag Squib (LH)	90980-12219
G5	Door Lock Control SW		K19	Rear Window Defogger	90980-10914
G6	Power Window SW (Front Passenger's Side)	90980-11947	K20	Rear Combination Lamp (RH)	90980-10794
G7	Courtesy Lamp (Front Door RH)	90980-11148	K21	Luggage Electrical Key SW	90980-11159
G8	Outer Rear View Mirror (RH)	90980-12370	K22	Door Lock Assembly (Luggage)	90980-10908
G9	Door Lock Assembly (Front Passenger's Side)	90980-12226	K23	Rear Combination Lamp (LH)	90980-10794
H1	Outer Mirror Control ECU (LH)	90980-12561	K24	Fuel Lid Opener Motor	90980-11019
H2	Outer Mirror Control ECU (LH)	90980-12553	K25	Rear Combination Lamp (LH)	90980-10795
H3	Speaker (Front Door LH)	90980-10935	K26	Electrical Key Oscillator (Inside Luggage Room )	90980-12296
H4	Power Window Regulator Motor (Front LH)	90980-10797	K27	License Plate Lamp	90980-11159
H5	Courtesy Lamp (Front Door LH)	90980-11148	K28	Electrical Key Oscillator (Outside Luggage Room)	90980-12381
H6	Power Window Master SW	90980-12122	K29	Rear Combination Lamp (RH)	90980-10795
H7	Seat Memory SW	90980-11950	K30	Junction Connector	90980-11661
H8	Outer Rear View Mirror (LH)	90980-12370	K31	Junction Connector	
H9	Door Lock Assembly (Driver's Side)	90980-12226	K32	Junction Connector	90980-11542
I1	Courtesy Lamp (Rear Door RH)	90980-11148	K33	Junction Connector	90980-11539
I2	Power Window SW (Rear RH)	90980-10789	K34	Junction Connector	
I3	Speaker (Rear Door RH)	90980-10935	K35	Junction Connector	90980-12374
I4	Power Window Regulator Motor (Rear RH)	90980-10797	L1	Airbag Sensor Assembly Center	90980-12450
I5	Door Lock Assembly (Rear RH)	90980-12226	L2	Side Airbag Squib (RH)	90980-11864
I6	Tweeter (Rear RH)	90980-12304	L3	Pretensioner (RH)	90980-12253
J1	Courtesy Lamp (Rear Door LH)	90980-11148	L4	Side Airbag Sensor (Front RH)	90980-12225
J2	Power Window SW (Rear LH)	90980-10789	L5	Door Courtesy SW (Front Passenger's Side)	90980-10871
J3	Speaker (Rear Door LH)	90980-10935	L6	Side Airbag Sensor (Rear RH)	90980-12352
J4	Power Window Regulator Motor (Rear LH)	90980-10797	L7	Door Courtesy SW (Rear RH)	90980-10871
J5	Door Lock Assembly (Rear LH)	90980-12226	L8	Speed Sensor (Rear RH)	90980-11060
J6	Tweeter (Rear LH)	90980-12304	L9	Height Control Sensor	90980-12353
K1	Airbag Sensor Assembly Center	90980-12449	L10	Door Control Receiver	90980-11909
K2	Front Seat Inner Belt (Driver's Side)	90980-11034	L11	Door Control Receiver	90980-50011
K3	Side Airbag Squib (LH)	90980-11864	L12	Curtain Shield Airbag Squib (RH)	90980-12219
K4	Door Courtesy SW (Driver's Side)	90980-10871	L13	Speaker (Package Tray RH)	90980-10860

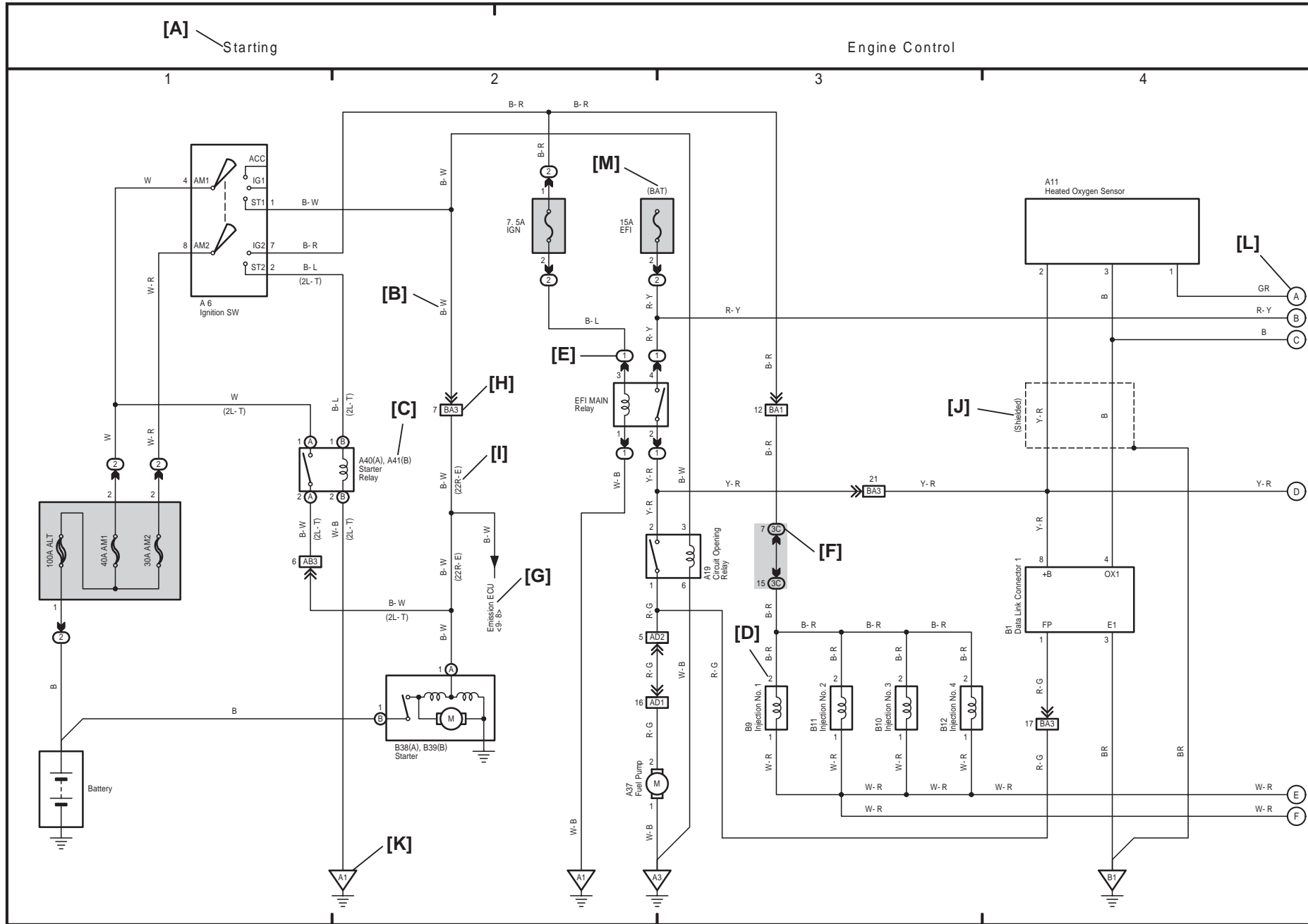
Note: Not all of the above part numbers of the connector are established for the supply.

Code	Part Name	Part Number	Code	Part Name	Part Number
L14	Speaker (Woofer)	90980-10935	P4	Power Seat SW (Driver's Seat)	90980-10997
L15	Speaker (Package Tray LH)	90980-10860	P5	Power Seat SW (Driver's Seat Lumbar Support Control)	90980-10789
L16	Navigation ECU	90980-11973	P6	Power Seat Motor (Driver's Seat Lumbar Support Control)	90980-10825
L17	Navigation ECU	90980-12172	P7	Power Seat Motor (Driver's Seat Reclining Control)	
L18	Navigation ECU	90980-12551	P8	Seat Heater (LH)	
L19	Front Seat Inner Belt (Front Passenger's Side)	90980-10947	P9	Junction Connector	90980-10807
L20	Occupant Classification ECU	90980-12356	P10	Seat Heater (LH)	90980-11011
L21	Electrical Key Antenna	90980-12043	P11	Seat Climate Control Blower (Driver's Seat Back)	90980-10908
M1	Power Outlet (No.1)	90980-12498	P12	Seat Climate Control Blower (Driver's Seat Cushion)	90980-11013
M2	Power Outlet (No.2)				
N1	Vanity Lamp (LH)	90980-10621	P13	Position Control ECU and SW	90980-12221
N2	Inner Rear View Mirror	82824-47180	P14	Position Control ECU and SW	90980-10801
N3	Rain Sensor	90980-11987	P16	Power Seat Motor (Driver's Seat Leg Support Control)	90980-10825
N4	Sliding Roof Control ECU	90980-10801	P17	Junction Connector	90980-12374
N5	Microphone (Navigation)	90980-12366	Q1	Rear Window Defogger	90980-10913
N6	Map Lamp	90980-11989	R1	Knock Control Sensor (Bank 2)	90980-11875
N7	Vanity Lamp (RH)	90980-10621	R2	Knock Control Sensor (Bank 1)	
N8	Room Lamp	90980-10908	S1	Airbag Squib (Front Passenger's Airbag Assembly)	90980-12219
O1	Power Seat Motor (Front Passenger's Seat Slide Control)	90980-10825	S2	Airbag Squib (Front Passenger's Airbag Assembly)	90980-12224
O2	Occupant Classification ECU	90980-12357	T1	A/C Amplifier	90980-12264
O3	Front Seat Inner Belt (Front Passenger's Side)	90980-10947		A/C Blower Assembly	
O4	Occupant Classification ECU	90980-12356	U1	Headlamp Dimmer SW Assembly	90980-12259
O5	Occupant Classification Sensor (Front LH)	90980-12353		Windshield Wiper SW Assembly	
O6	Occupant Classification Sensor (Rear LH)	90980-12354	V1	Electrical Key Oscillator (Front Door RH)	90980-12380
O7	Occupant Classification Sensor (Front RH)				
O8	Occupant Classification Sensor (Rear RH)	90980-12353	V2	Door Outside Handle (Front RH)	90980-12382
O9	Power Seat SW (Front Passenger's Seat)	90980-10997	W1	Electrical Key Oscillator (Front Door LH)	90980-12380
O10	Power Seat Motor (Front Passenger's Seat Reclining Control)	90980-10825	W2	Door Outside Handle (Front LH)	90980-12382
O11	Seat Heater (RH)	90980-10797	X1	Electrical Key Oscillator (Rear Door RH)	90980-12380
O12	Junction Connector	90980-10807	X2	Door Outside Handle (Rear RH)	90980-12382
O13	Seat Heater (RH)	90980-11011	Y1	Electrical Key Oscillator (Rear Door LH)	90980-12380
O14	Seat Climate Control Blower (Front Passenger's Seat Cushion)	90980-11013	Y2	Door Outside Handle (Rear LH)	90980-12382
O15	Seat Climate Control Blower (Front Passenger's Seat Back)	90980-10908	Z1	Power Seat SW (Driver's Seat Leg Support Control)	90980-10789
P1	Power Seat Motor (Driver's Seat Slide Control)	90980-10825			
P2	Power Seat Motor (Driver's Seat Lifter Control)				
P3	Power Seat Motor (Driver's Seat Front Vertical Control)				



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

**M OVERALL ELECTRICAL WIRING DIAGRAM**



**HOW TO READ THIS SECTION**

**[A]** : System Title

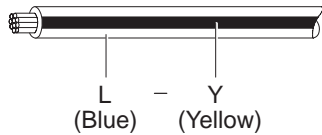
**[B]** : Indicates the wiring color.

Wire colors are indicated by an alphabetical code.

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

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

Example: L - Y

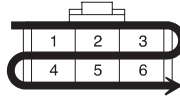


**[C]** : The position of the parts is the same as shown in the wiring diagram and wire routing.

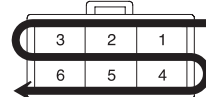
**[D]** : Indicates the pin number of the connector. The numbering system is different for female and male connectors.

Example: Numbered in other from upper left to lower right

Numbered in other from upper right to lower left



Female



Male

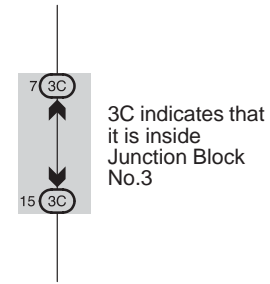
The numbering system for the overall wiring diagram is the same as above

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

Example:  Indicates Relay Block No.1

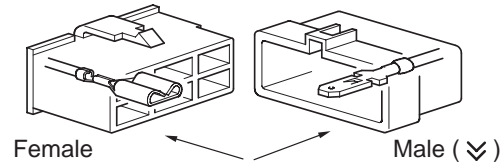
**[F]** : Junction Block (The number in the circle is the J/B No. and the connector code is shown beside it). Junction Blocks are shaded to clearly separate them from other parts.

Example:



**[G]** : Indicates related system.

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



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

**[J]** : Indicates a shielded cable.



**[K]** : Indicates a ground point.

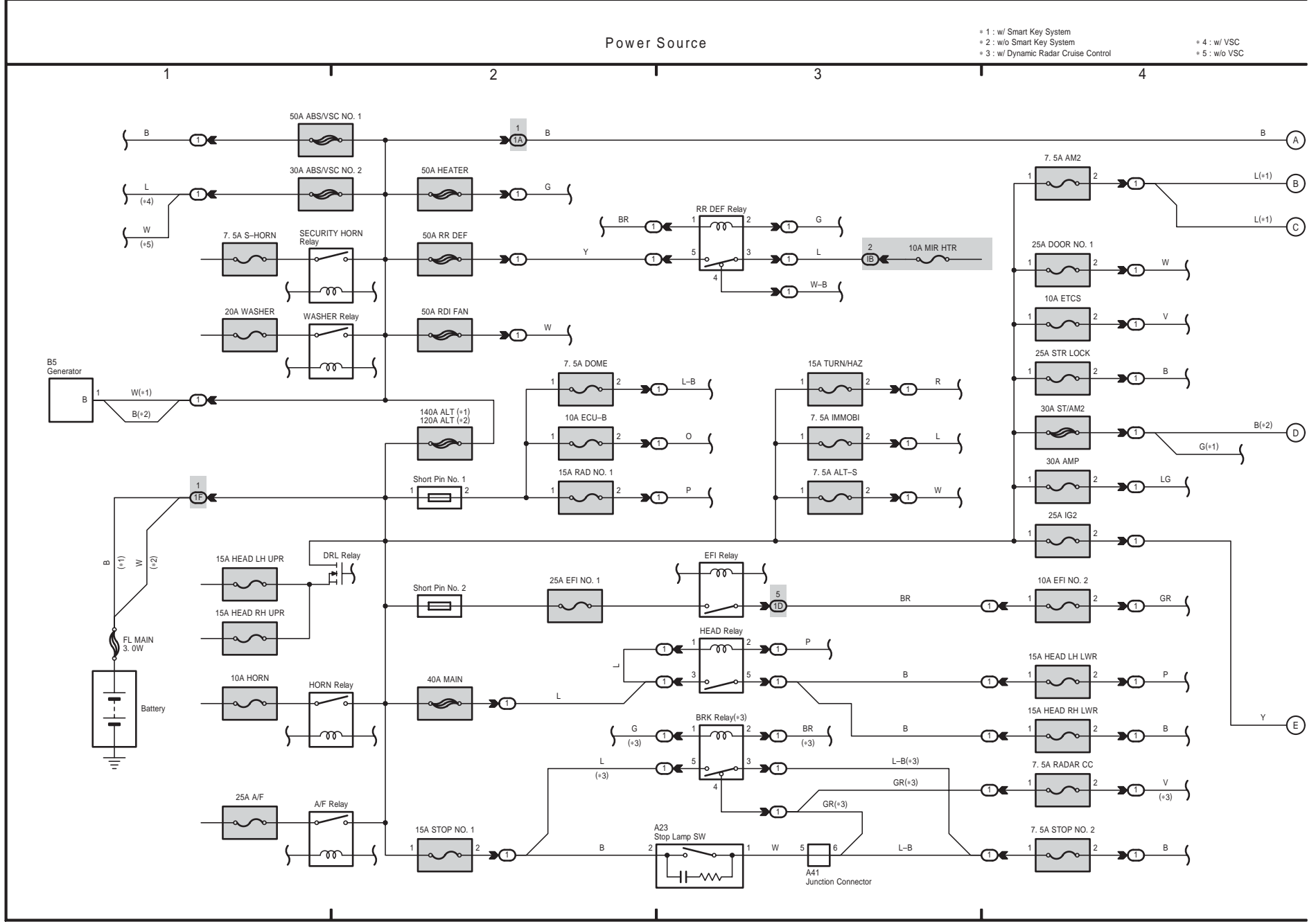
**[L]** : The same code occurring on the next page indicates that the wire harness is continuous.

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

## SYSTEM INDEX

AVALON (EM00A0U)

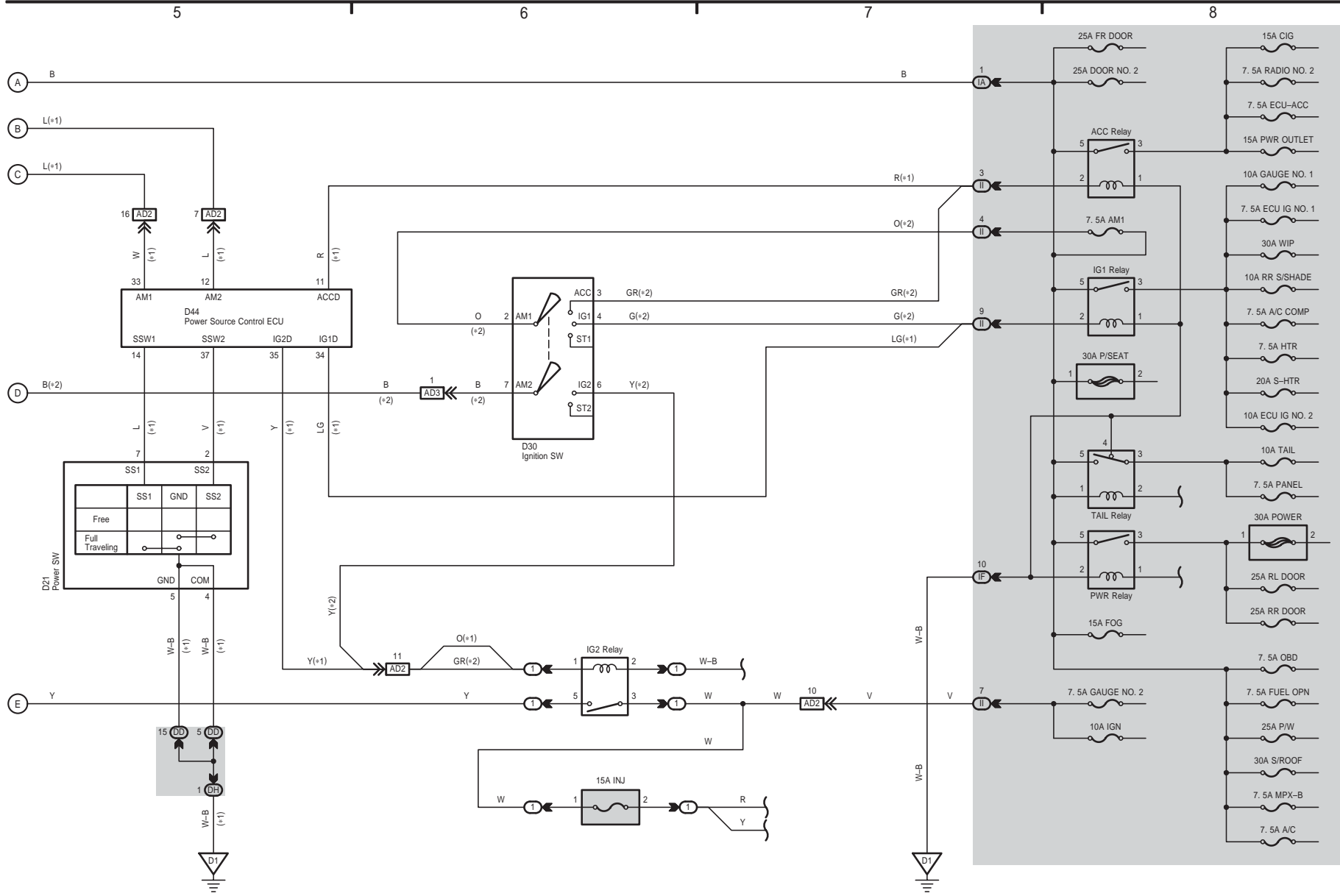
SYSTEMS	LOCATION	SYSTEMS	LOCATION
ABS (w/ VSC) .....	11-1	* Light Auto Turn Off System	
ABS (w/o VSC) .....	12-1	* Luggage Compartment Door Opener	
Air Conditioning .....	26-1	* Mirror Heater	
Audio System (12 Speaker) .....	23-1	* Option Connector (TVIP)	
Audio System (9 Speaker) .....	24-1	* Power Window	
Automatic Glare-Resistant EC Mirror and Compass .....	19-3	* Rear Window Defogger	
Back-Up Light .....	8-1	* Taillight	
Charging .....	4-3	* Theft Deterrent	
Cigarette Lighter .....	15-2	* Wiper and Washer	
Climate Control Seat .....	20-1	* Wireless Door Lock Control	
Clock .....	15-1	Multiplex Communication System (CAN) .....	11-6
Combination Meter .....	25-1	Navigation System .....	22-1
Cruise Control .....	6-16	Power Outlet .....	16-4
Data Link Connector 3 .....	7-1	Power Seat (Driver's Seat w/ Driving Position Memory) .....	16-1
Dynamic Radar Cruise Control .....	6-17	Power Seat (Driver's Seat w/o Driving Position Memory) .....	17-1
Electronically Controlled Transmission and A/T Indicator .....	10-1	Power Seat (Front Passenger's Seat) .....	17-3
Engine Control .....	6-1	Power Source .....	1-1
Engine Immobiliser System (w/o Smart Key System) .....	7-3	Rear Sunshade .....	15-2
Fuel Lid Opener .....	19-4	Remote Control Mirror (w/ Driving Position Memory) .....	18-1
Headlight Beam Level Control .....	14-1	Remote Control Mirror (w/o Driving Position Memory) .....	19-1
Ignition .....	5-1	Seat Belt Warning .....	14-3
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Multi Display (w/o Navigation System) .....	15-3	Seat Heater (w/o Climate Control Seat) .....	21-2
Multiplex Communication System (AVC-LAN) .....	11-10	Shift Lock .....	9-4
Multiplex Communication System (BEAN) .....	2-1	Sliding Roof .....	21-1
* Automatic Light Control		Smart Key System .....	3-1
* Cooling Fan		* Engine Immobiliser	
* Door Lock Control		* Push-Button Start	
* Front Fog Light		* Steering Lock	
* Garage Door Opener		SRS .....	13-1
* Headlight		Starting (w/o Smart Key System) .....	4-1
* Horn		Stop Light .....	8-2
* Illumination		TRAC .....	11-1
* Interior Light		Turn Signal and Hazard Warning Light .....	9-1
* Key Reminder		VSC .....	11-1



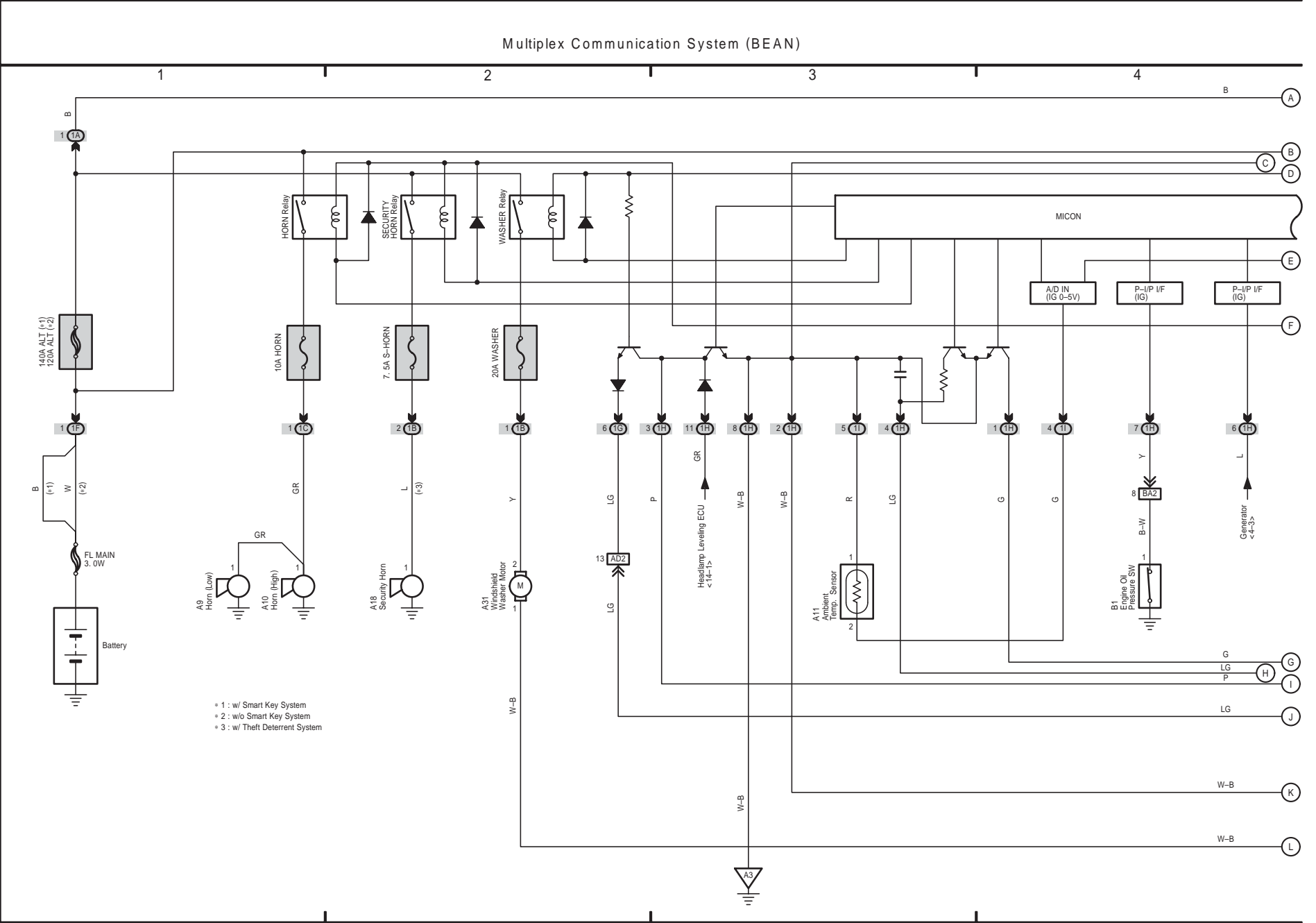
1 AVALON (Cont' d)

Power Source

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



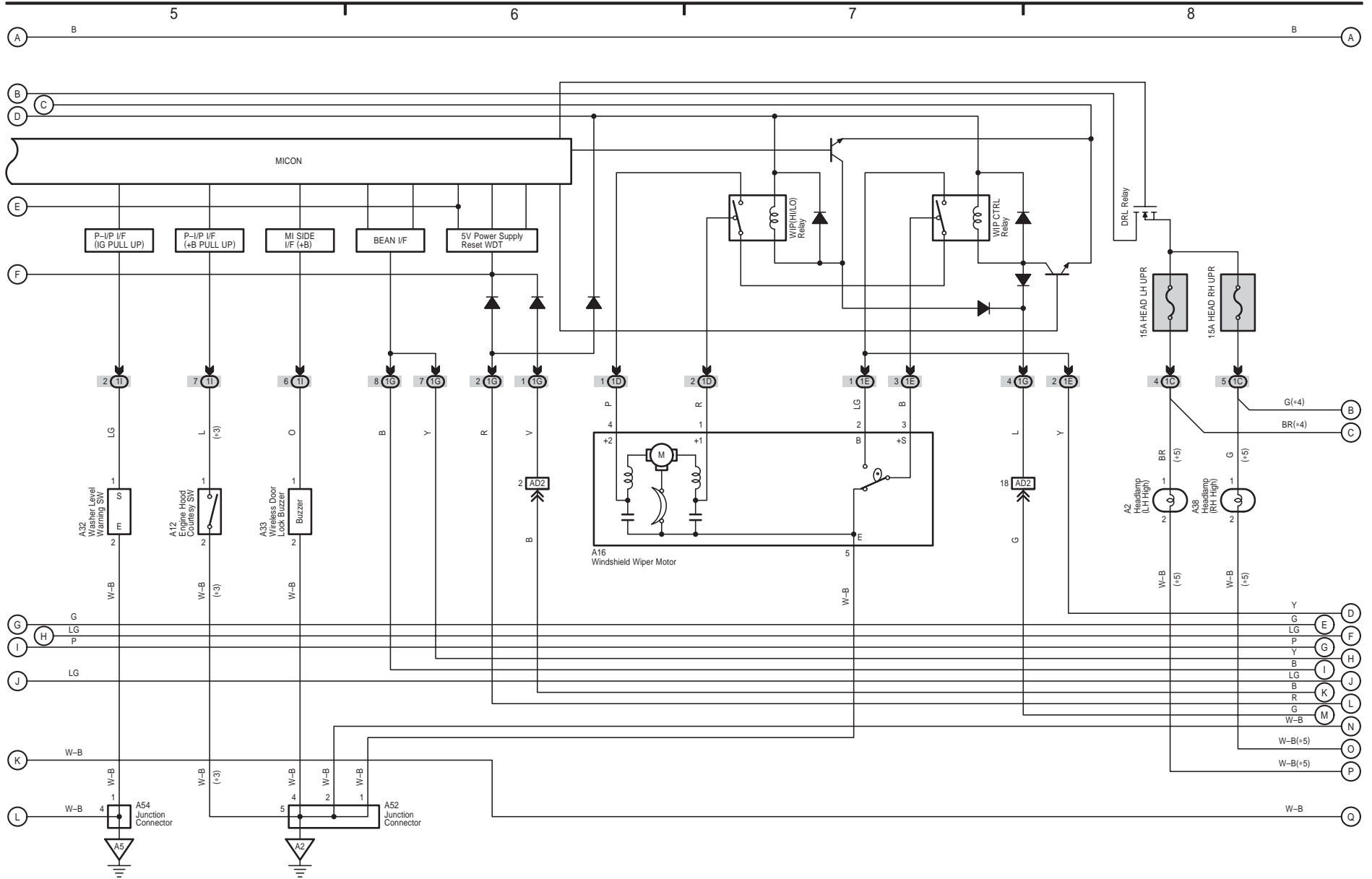
AVALON (EM00A0U)



Multiplex Communication System (BEAN)

- 3 : w/ Theft Deterrent System
- 4 : HID Type
- 5 : Except HID Type

AVALON (EM00A0U)

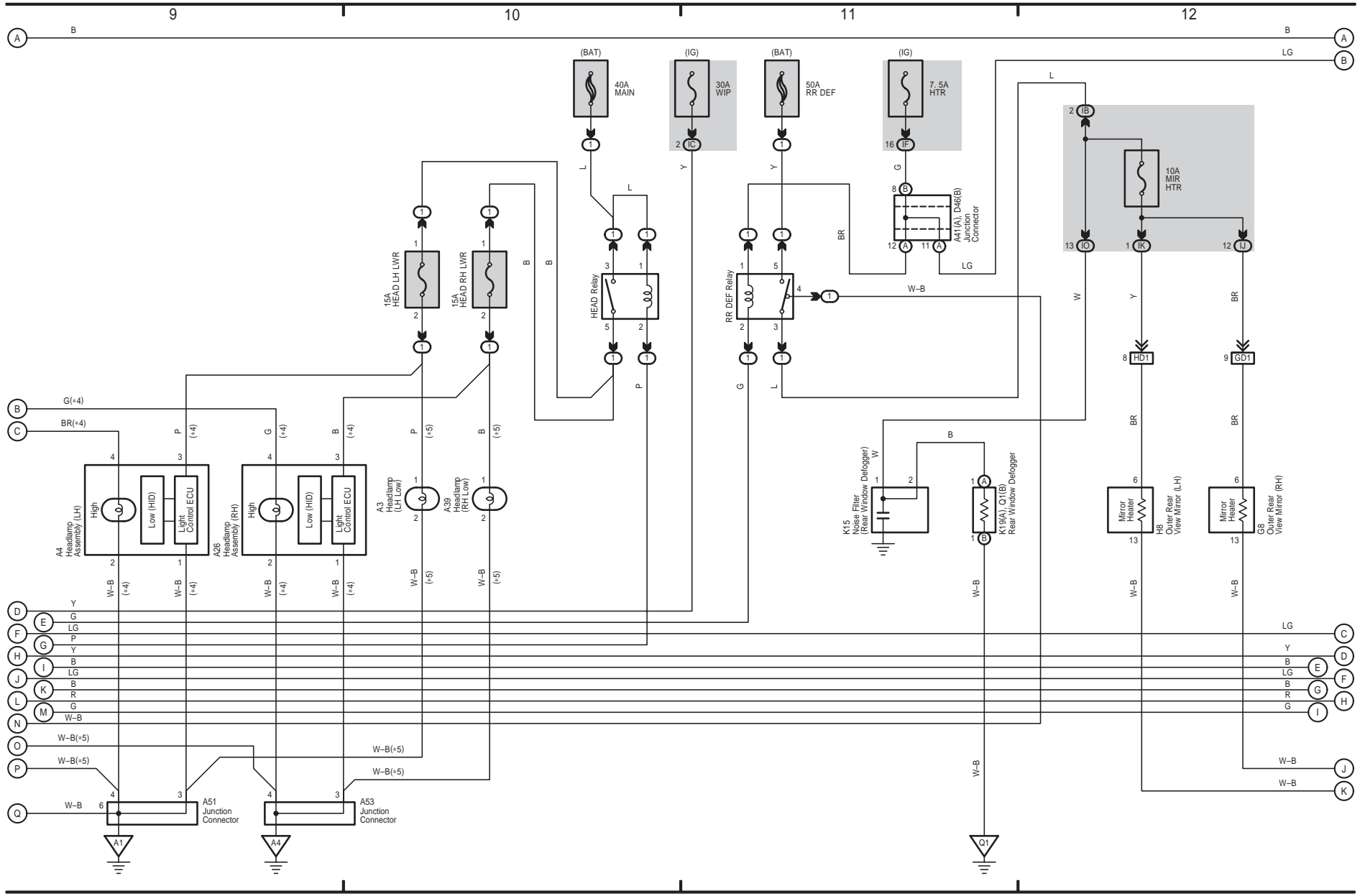


2 AVALON (Cont' d)

(Cont. next page)

Multiplex Communication System (BEAN)

+ 4 : HID Type  
+ 5 : Except HID Type

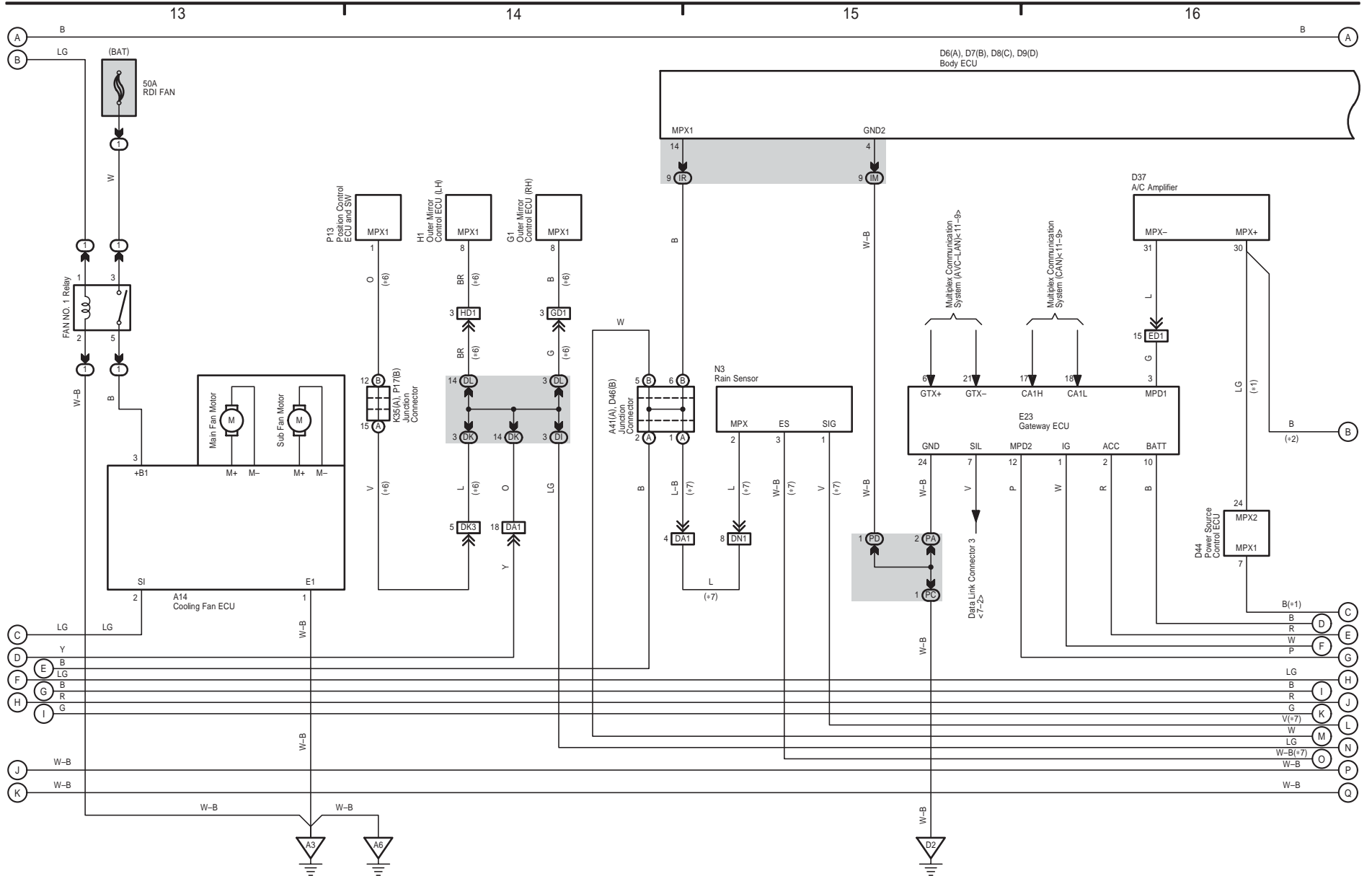




Multiplex Communication System (BEAN)

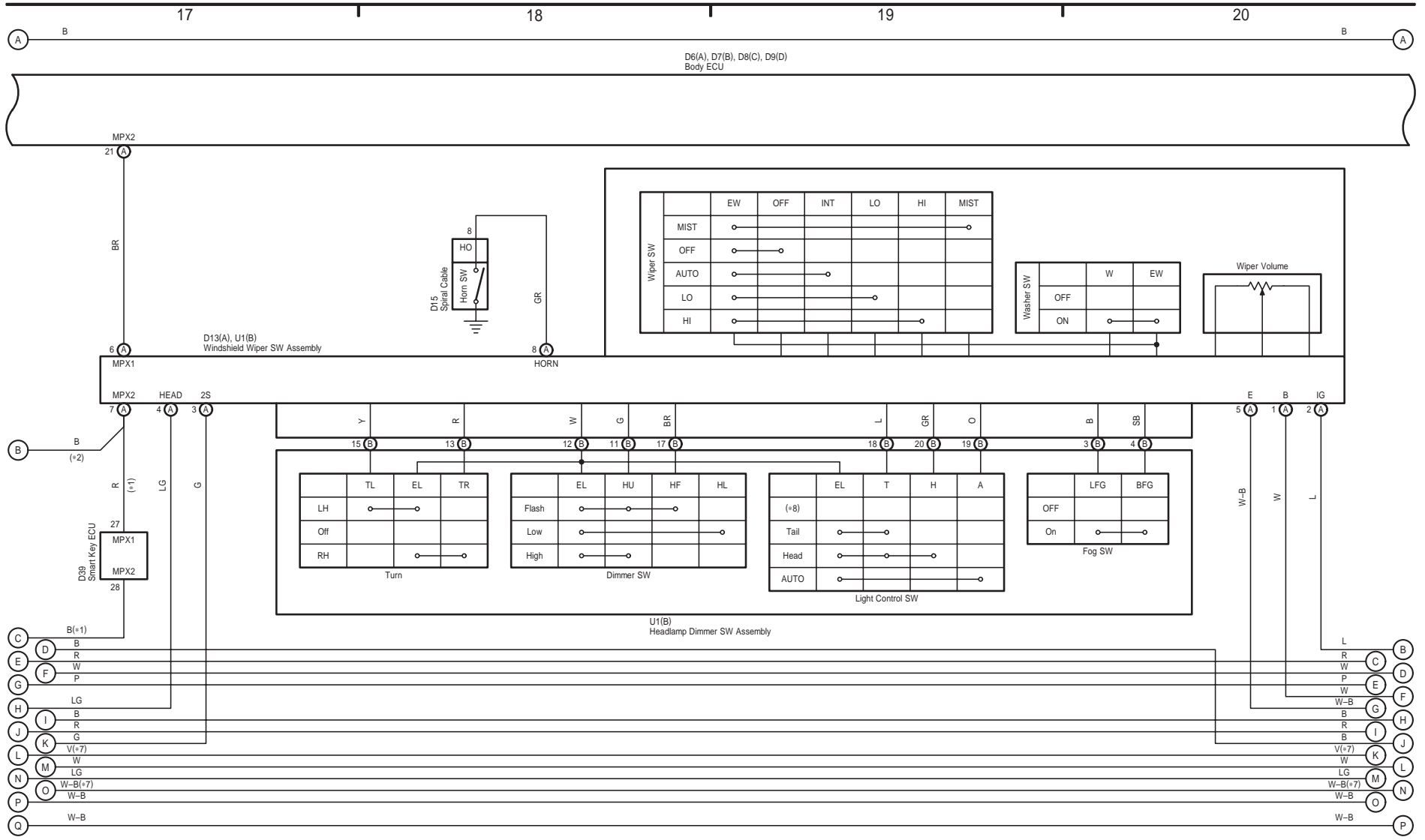
- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System
- \* 6 : w/ Driving Position Memory
- \* 7 : w/ Auto Wiper System

AVALON (EM00A0U)



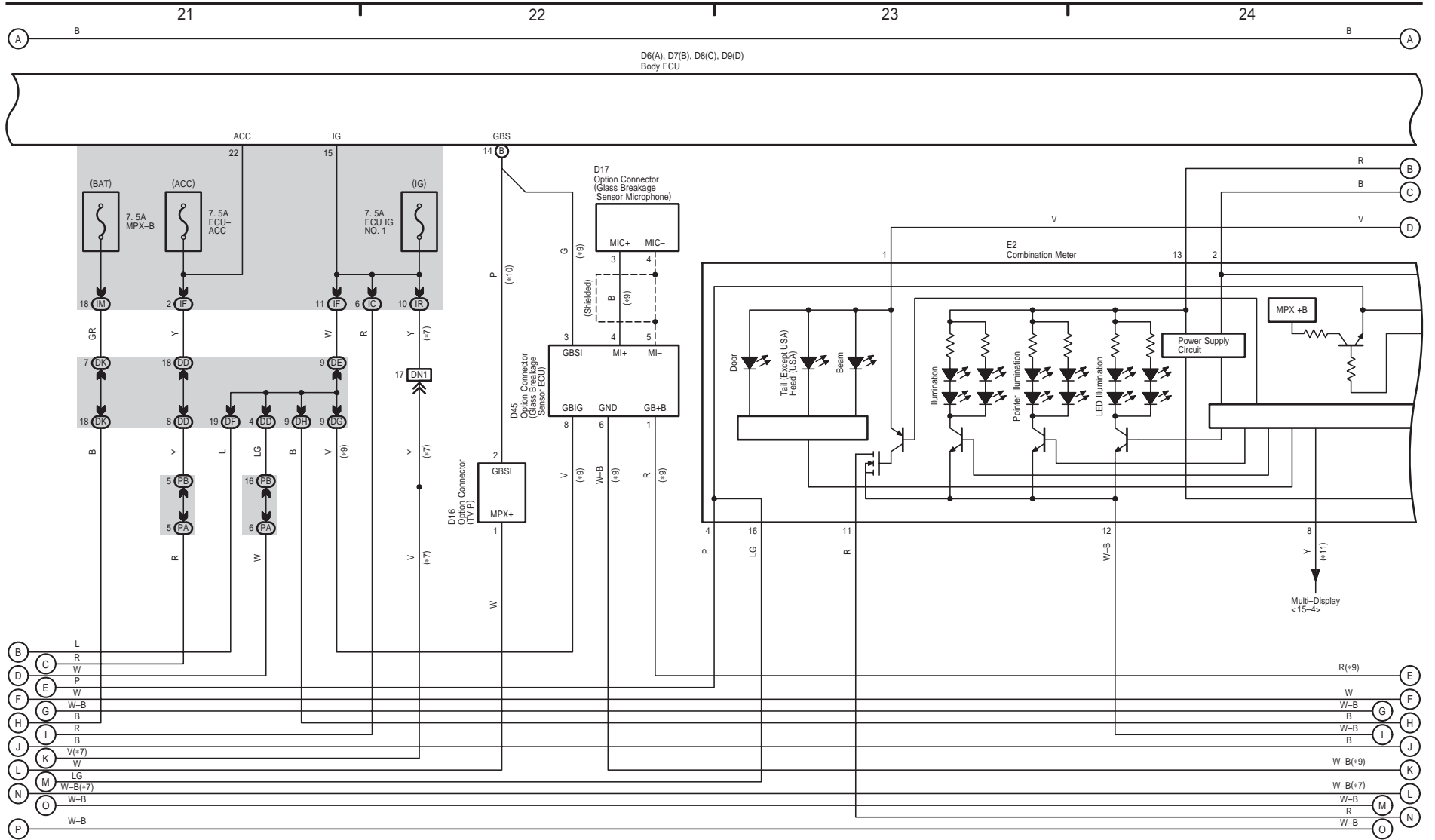
Multiplex Communication System (BEAN)

- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System
- \* 7 : w/ Auto Wiper System
- \* 8 : DRL OFF (USA) or OFF (Canada)



Multiplex Communication System (BEAN)

- \* 7 : w/ Auto Wiper System
- \* 9 : w/ Smart Key System, w/ Engine Immobiliser w/ Alarm
- \* 10 : w/ Engine Immobiliser w/o Alarm
- \* 11 : w/o Navigation System

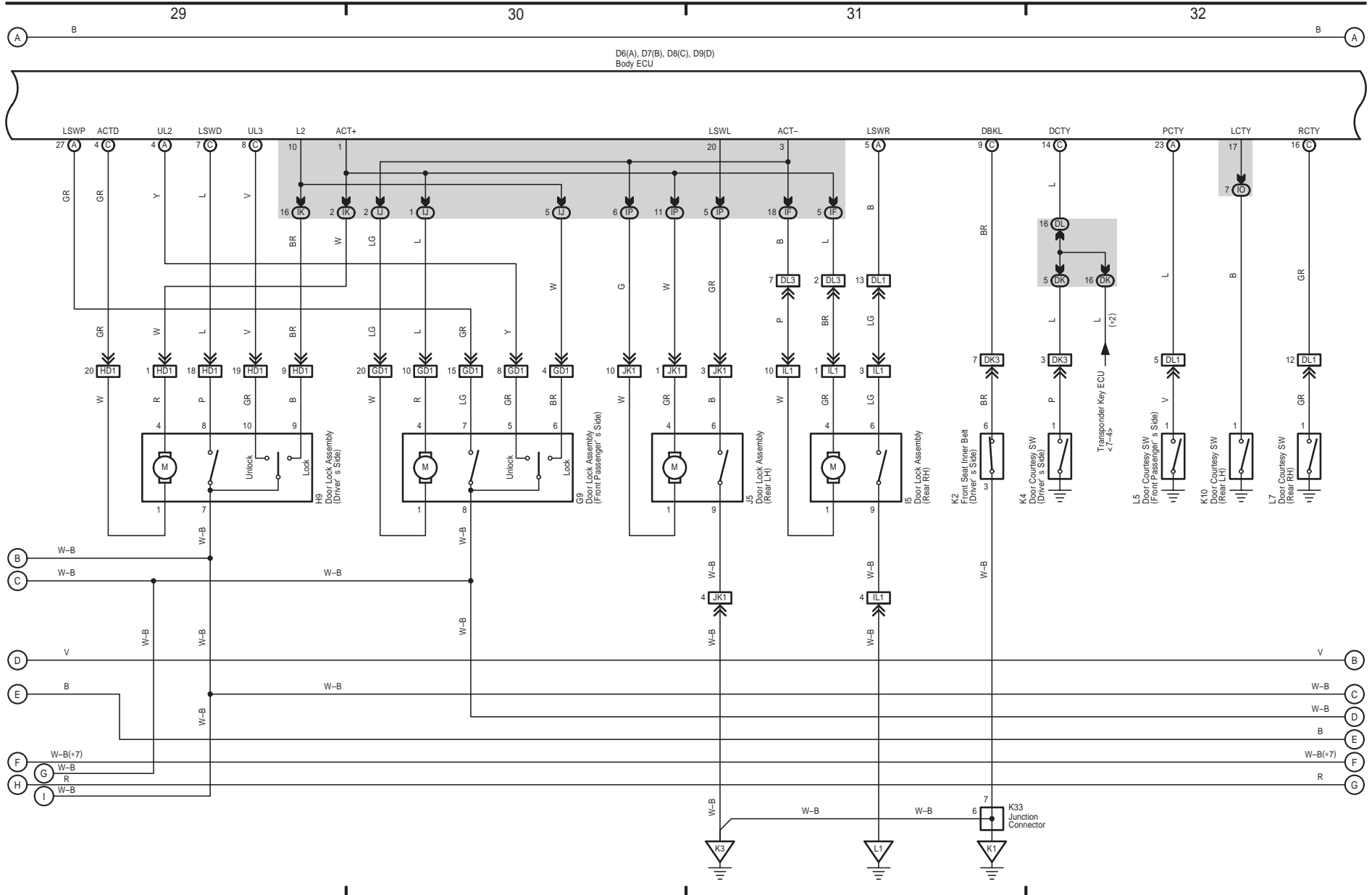


AVALON (EM00A0U)



Multiplex Communication System (BEAN)

\* 2 : w/o Smart Key System  
\* 7 : w/ Auto Wiper System



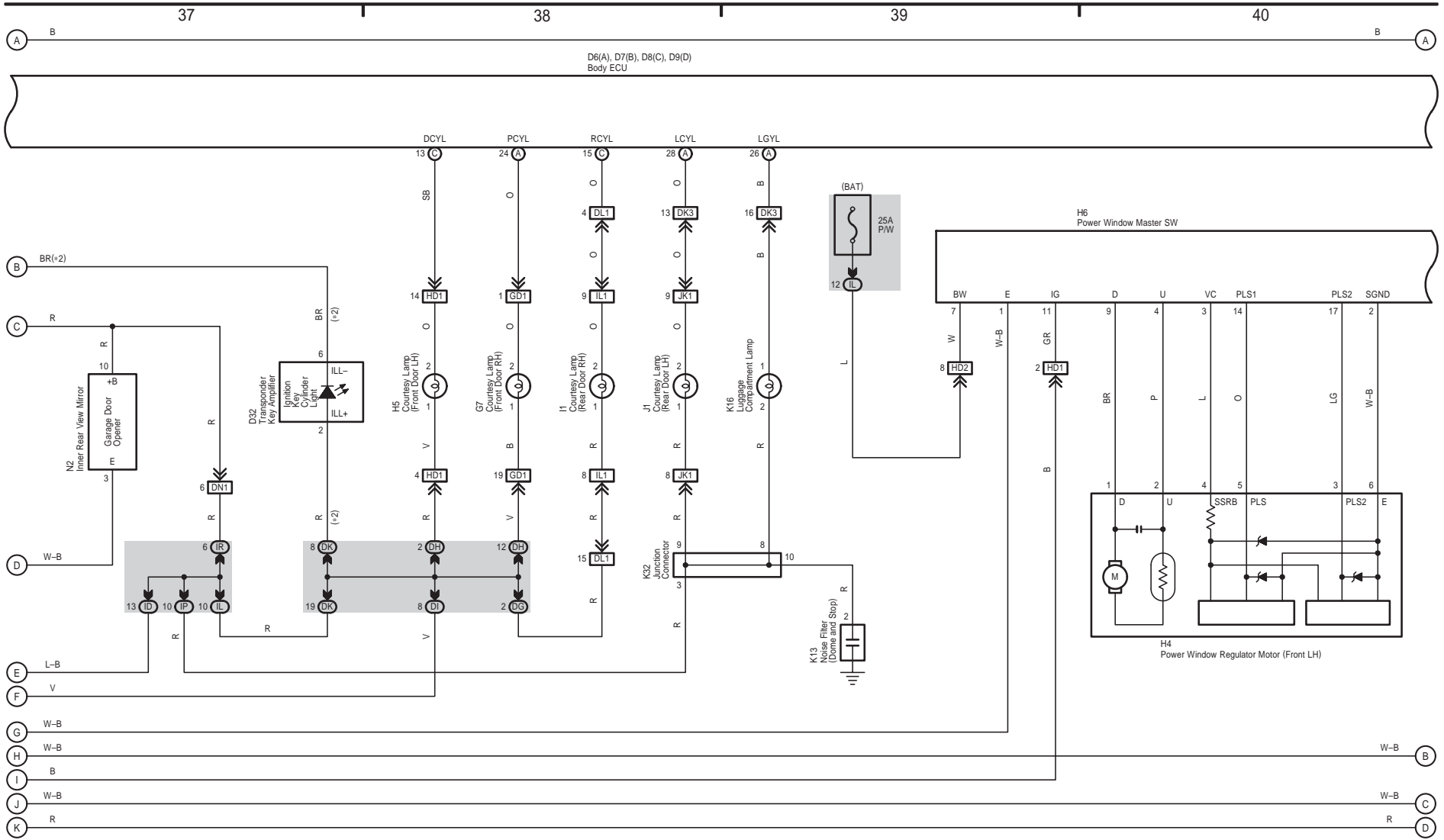
AVALON (EM00A0U)





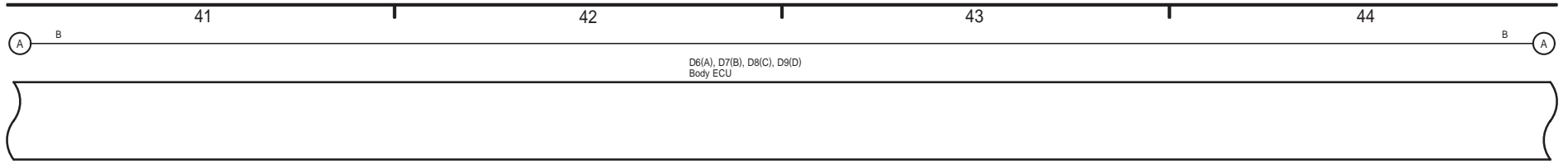
Multiplex Communication System (BEAN)

\* 2 : w/o Smart Key System

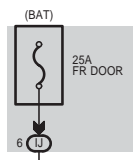


AVALON (EM00A0U)

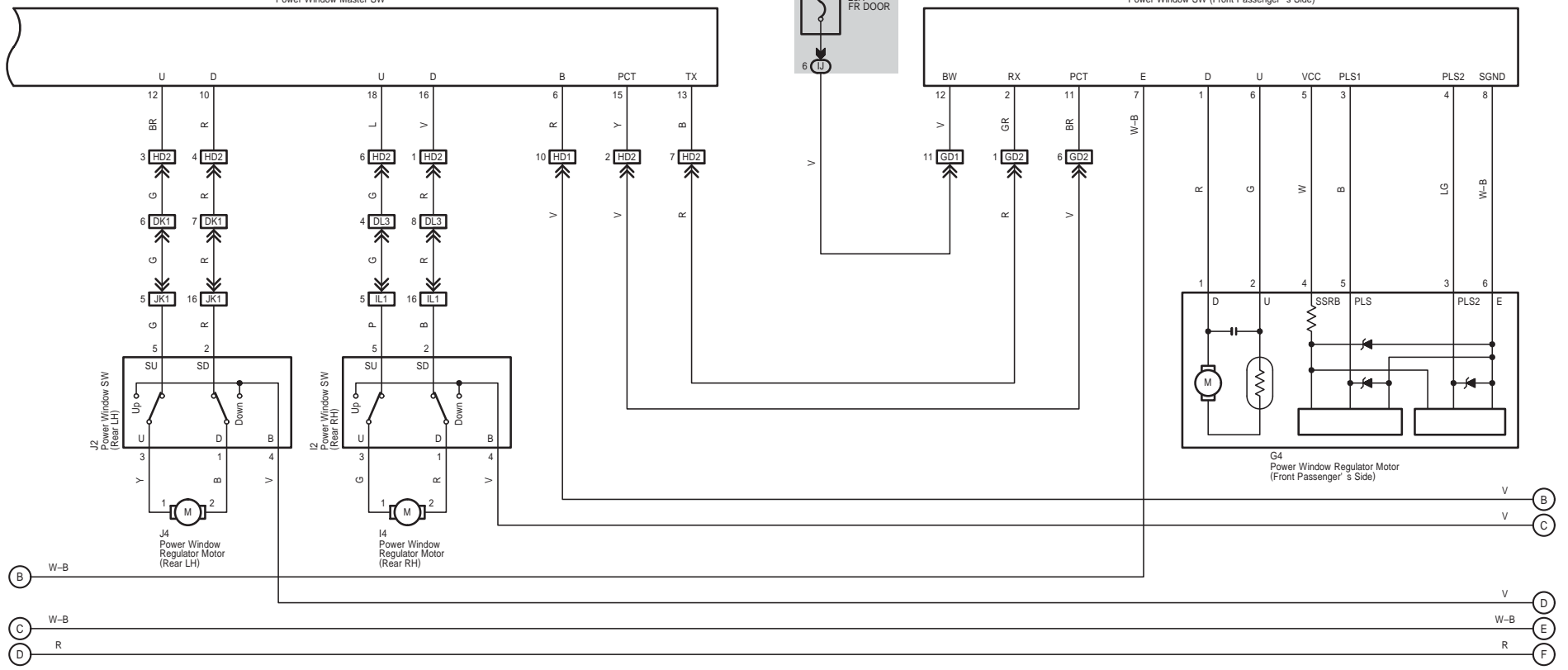
Multiplex Communication System (BEAN)



H6 Power Window Master SW



G6 Power Window SW (Front Passenger's Side)



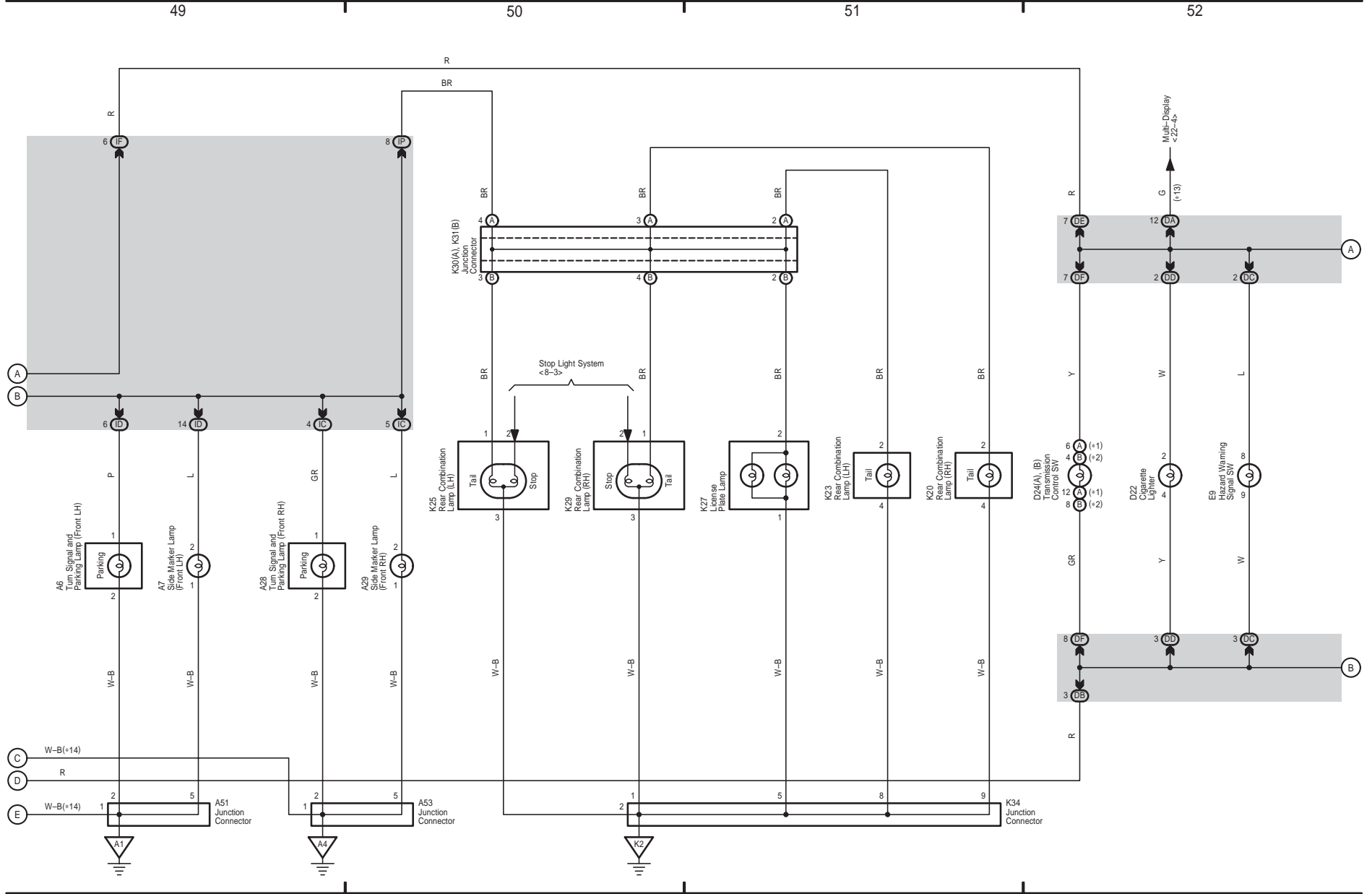
AVALON (EM00A0U)





Multiplex Communication System (BEAN)

- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System
- \* 13 : w/ Navigation System
- \* 14 : w/ Front Fog Lamp



2 AVALON (Cont' d)

Multiplex Communication System (BEAN)

- \*13 : w/ Navigation System
- \*15 : 12 Speaker
- \*16 : 9 Speaker
- \*17 : w/ Dynamic Radar Cruise Control
- \*18 : w/ Seat Heater

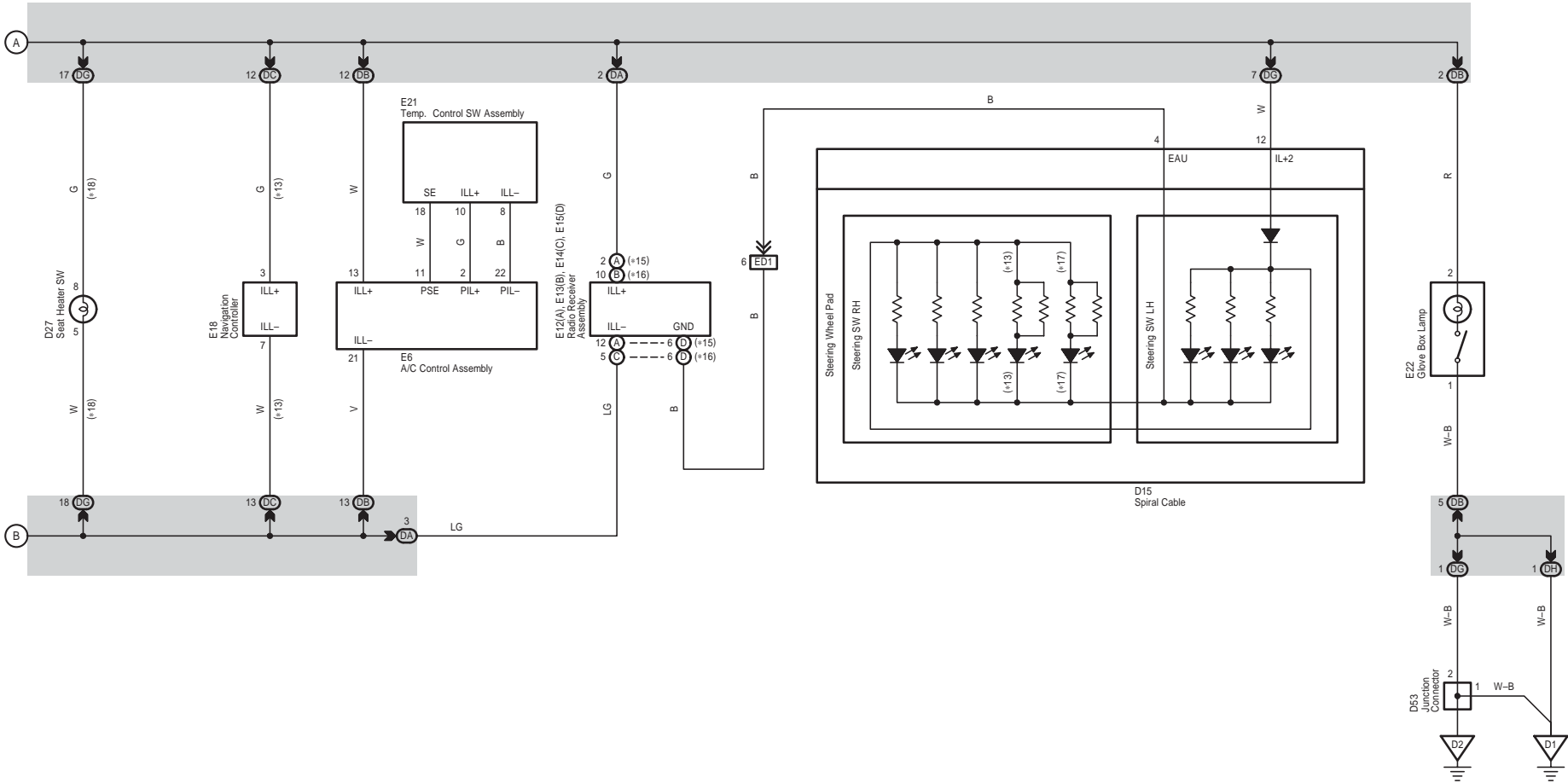
53

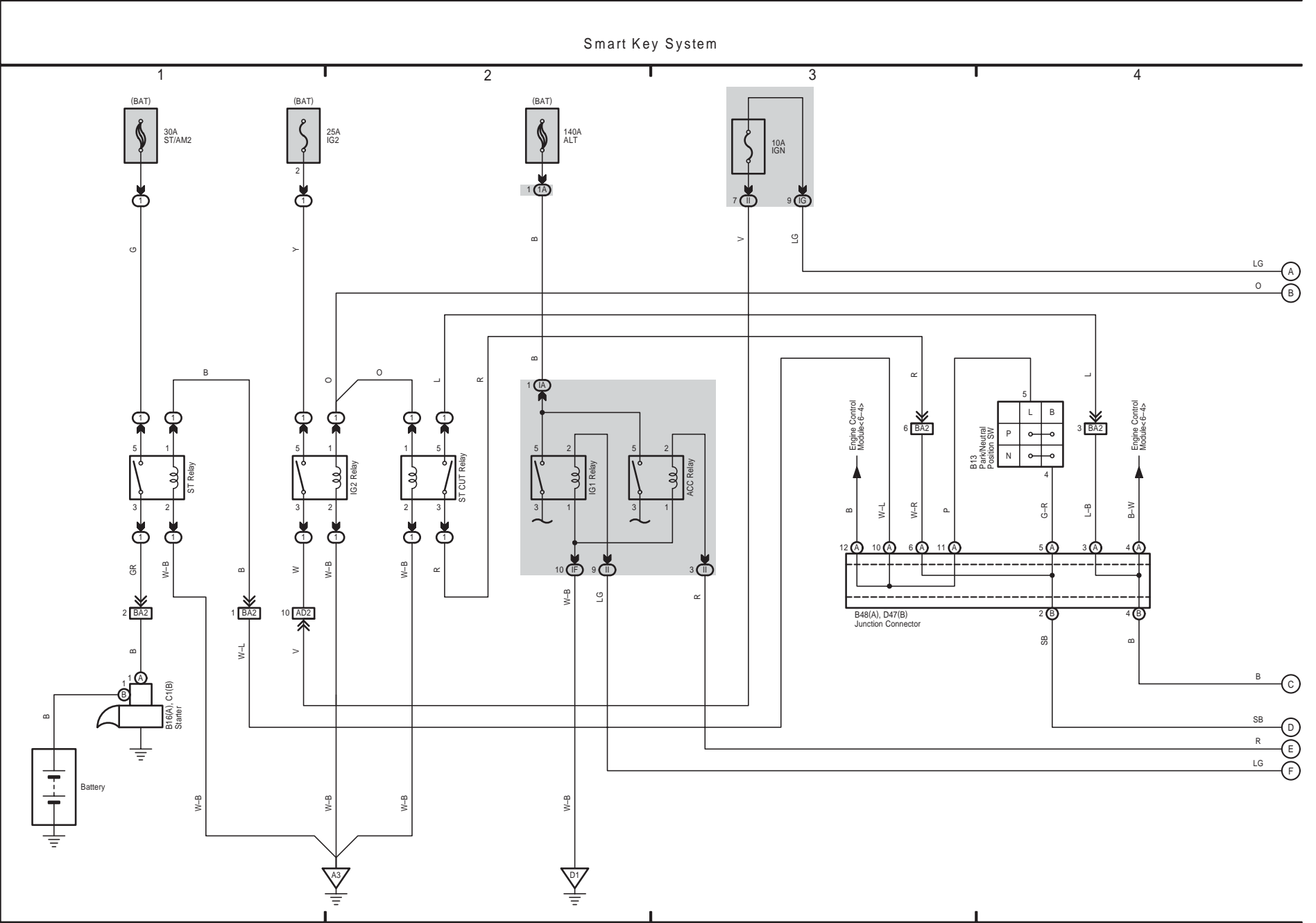
54

55

56

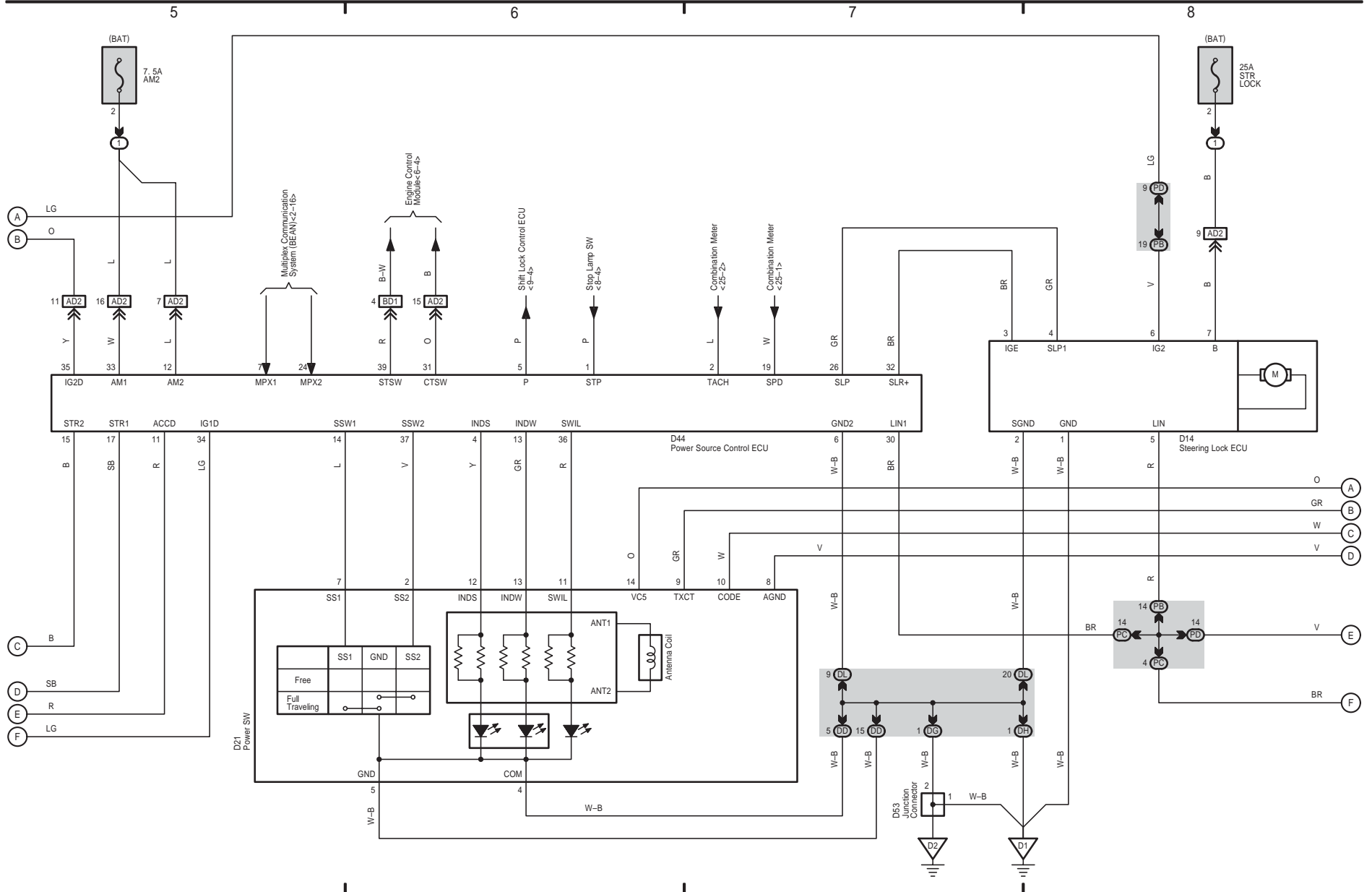
AVALON (EM00A0U)





Smart Key System

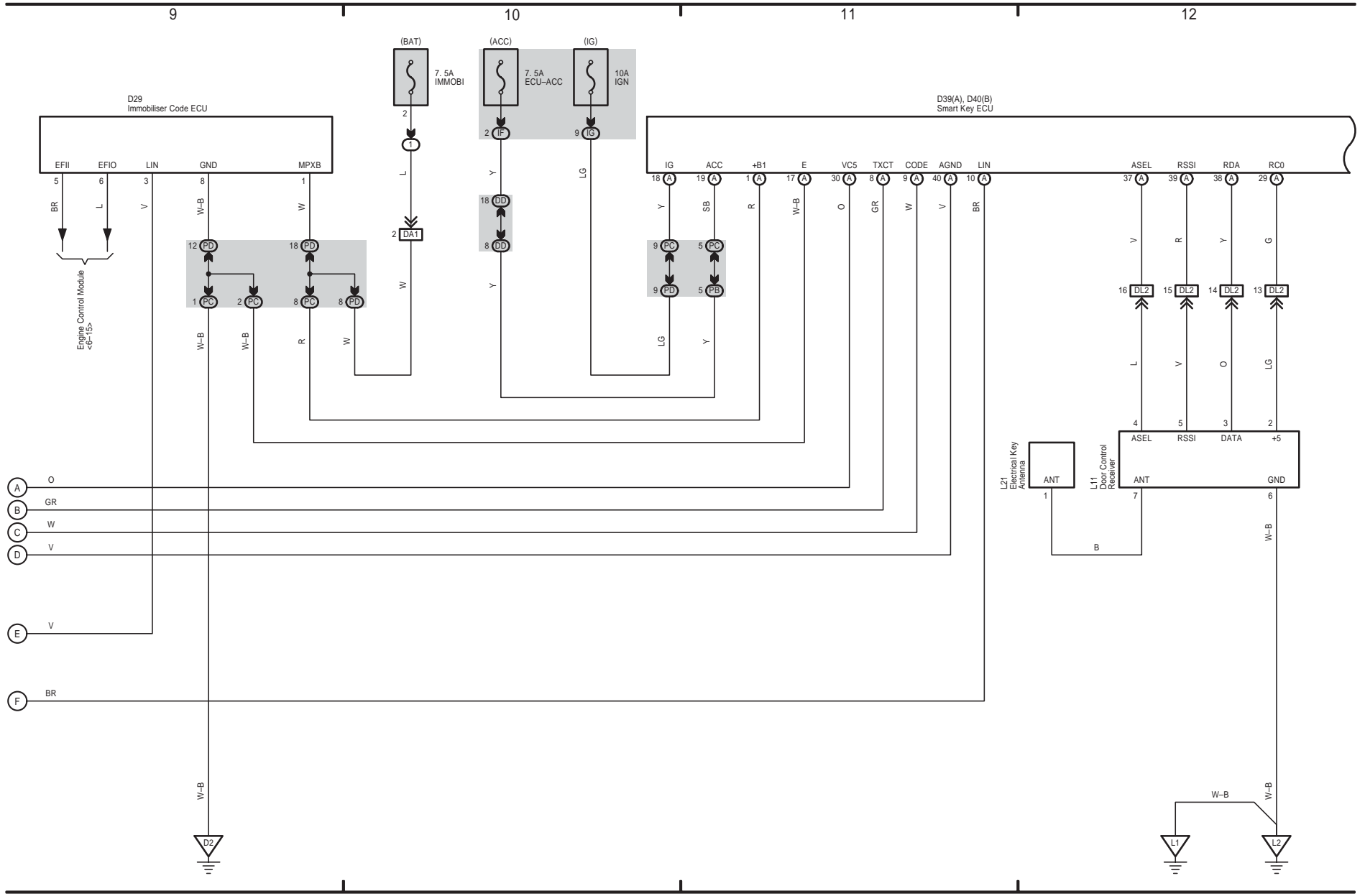
AVALON (EM00A0U)



3 AVALON (Cont' d)

(Cont. next page)

Smart Key System



Smart Key System

13

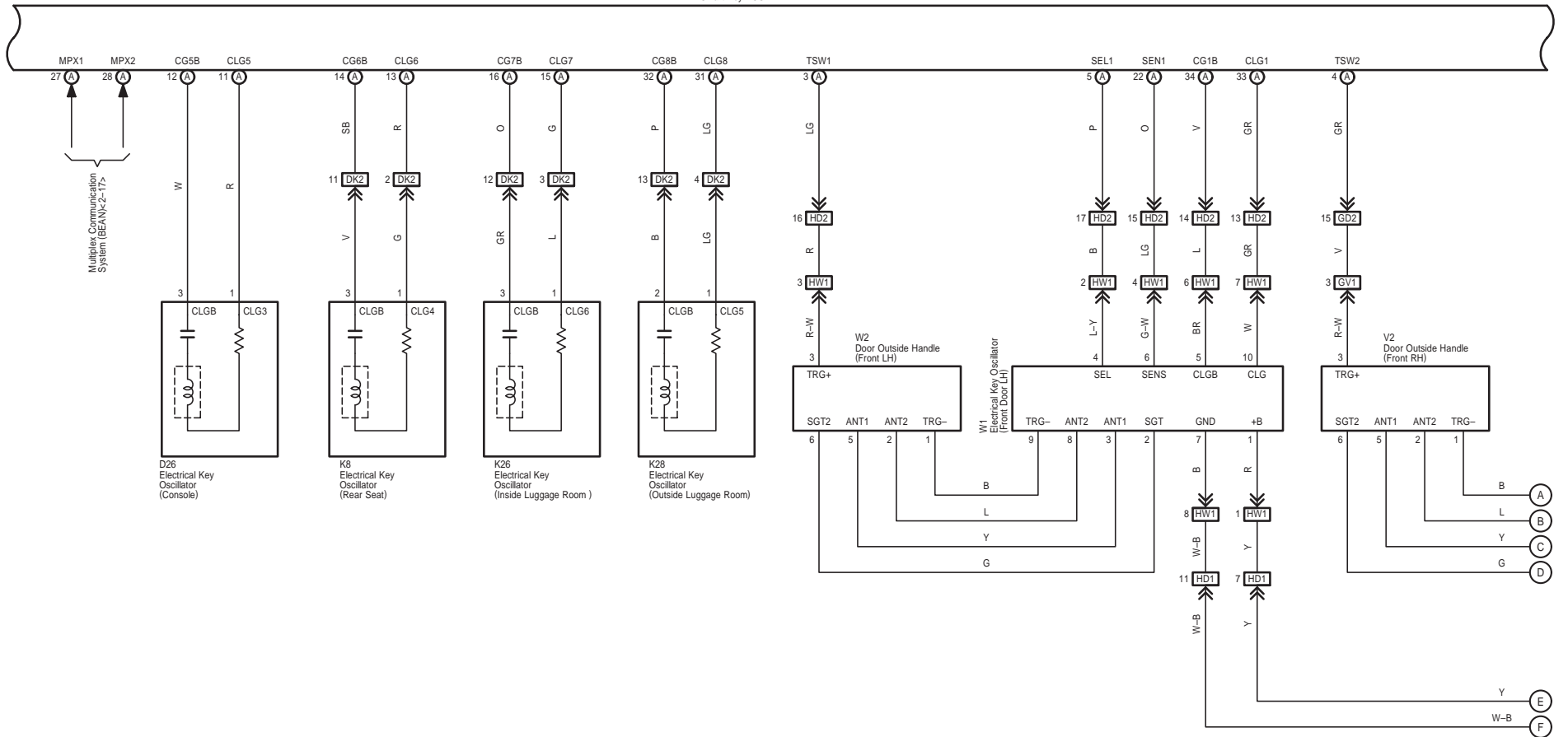
14

15

16

D39(A), D40(B)  
Smart Key ECU

AVALON (EM00A0U)

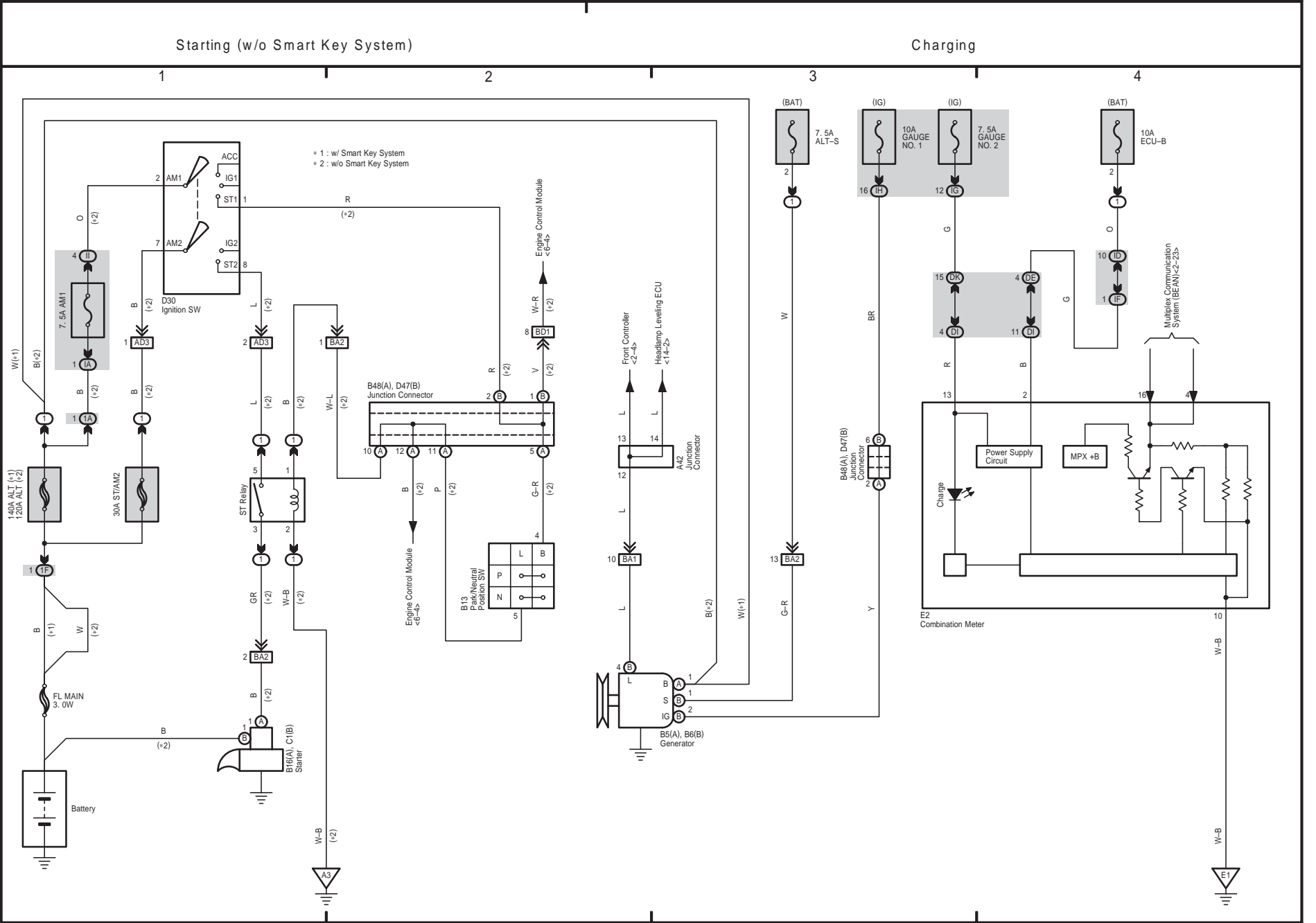






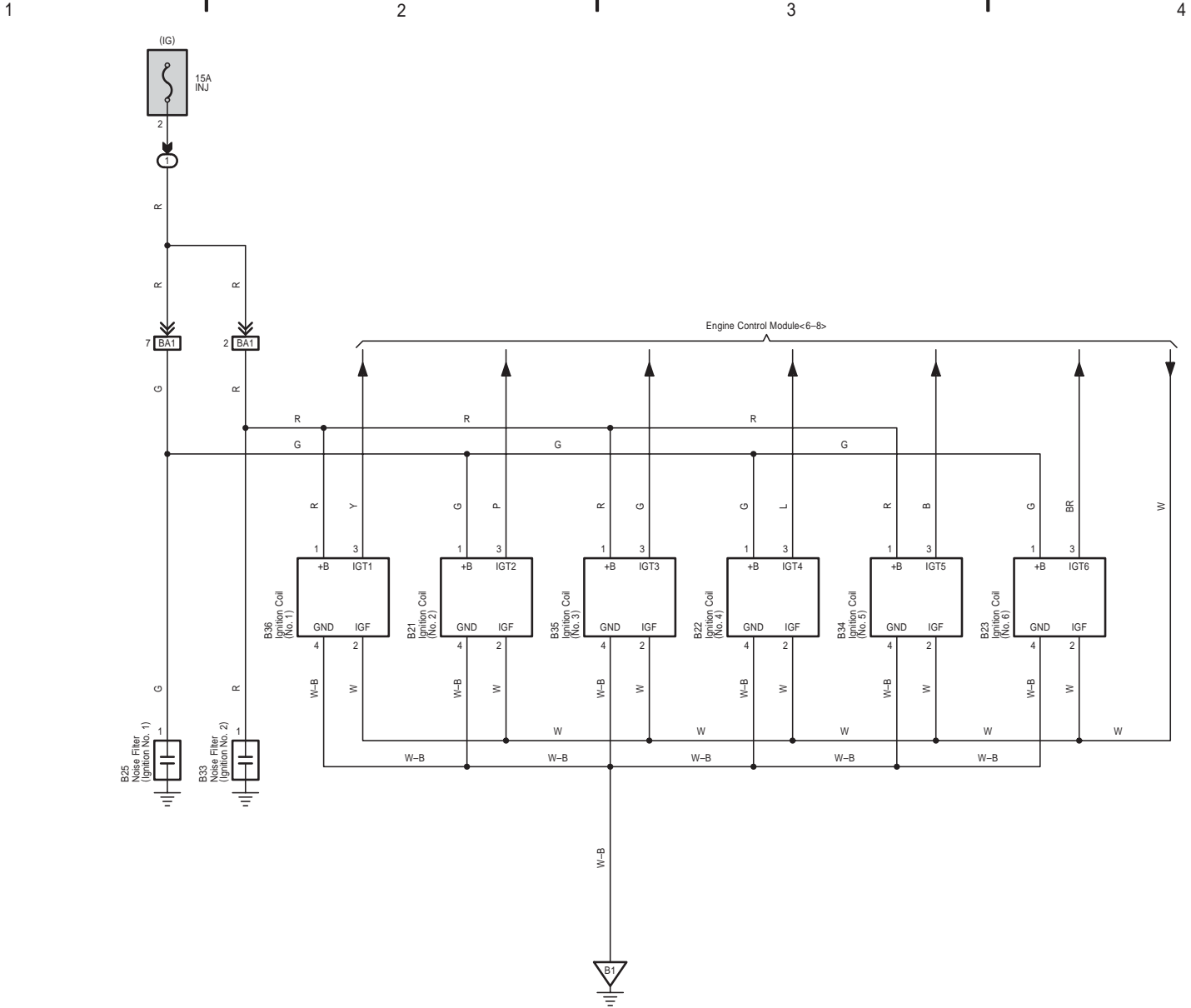


4 AVALON



5 AVALON

Ignition



AVALON (EM00A0U)

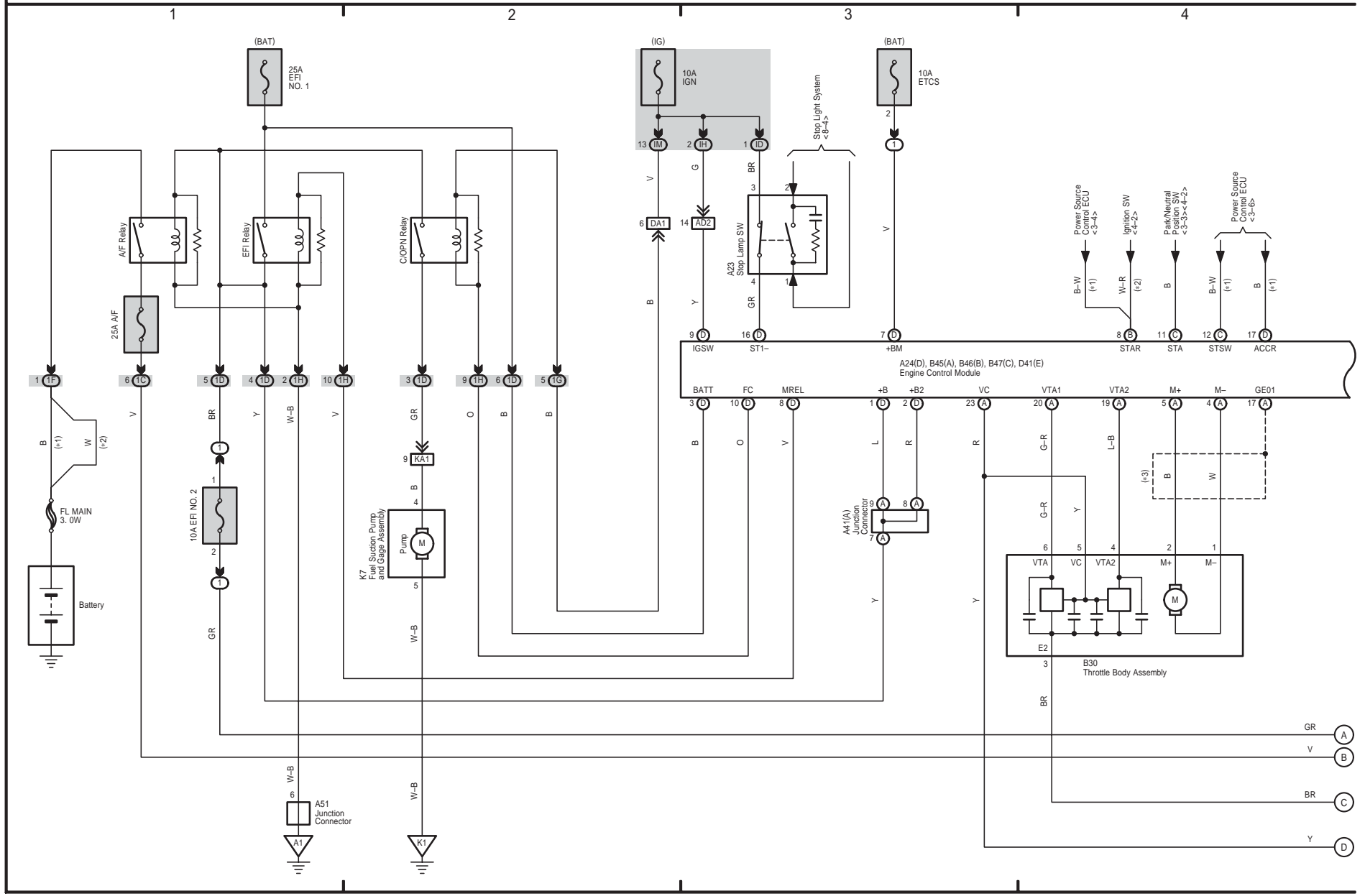
6 AVALON

(Cont. next page)

OVERALL ELECTRICAL WIRING DIAGRAM

Engine Control

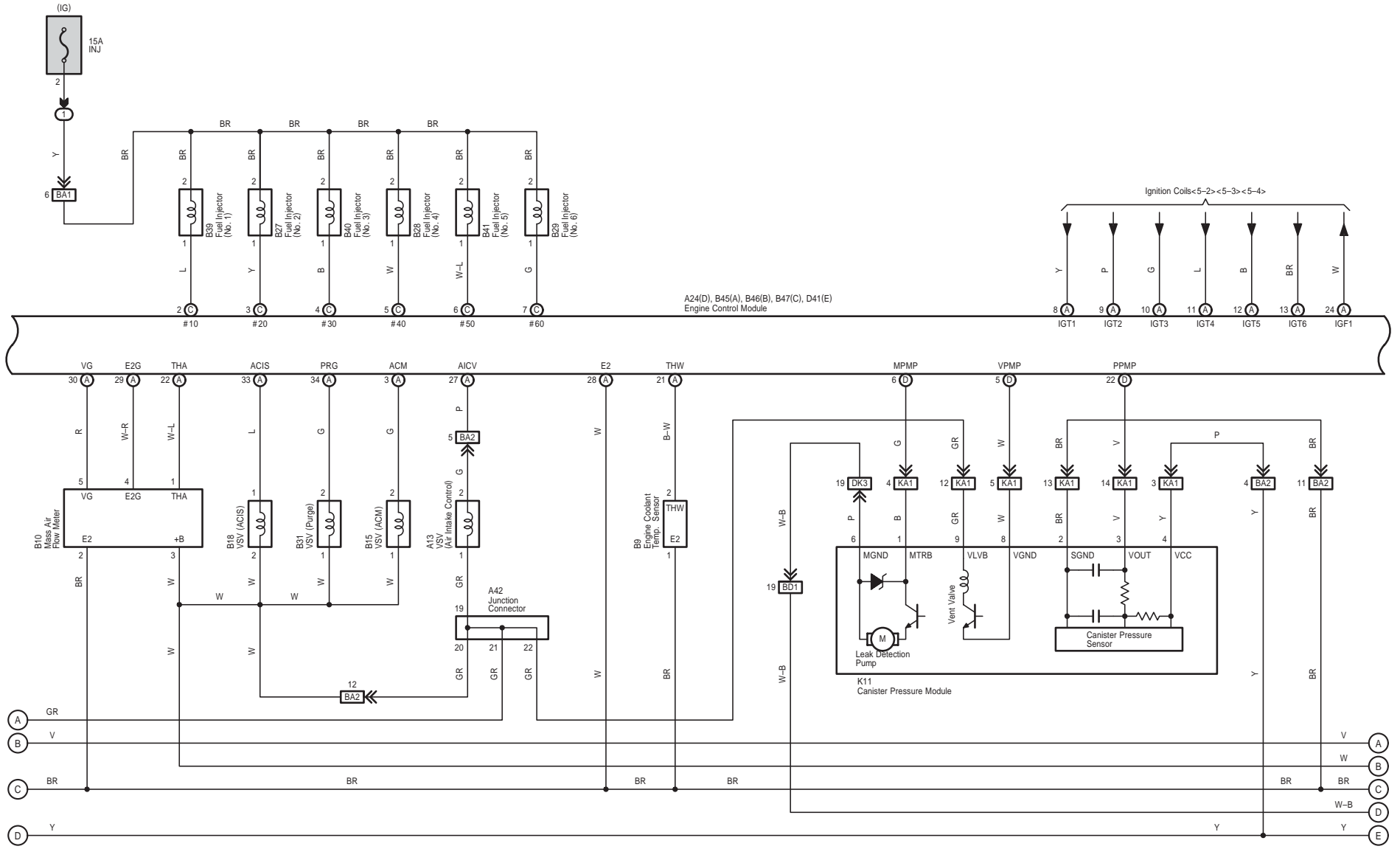
- \* 1 : w/ Smart Key System
- \* 2 : w/o Smart Key System
- \* 3 : Shielded



Engine Control

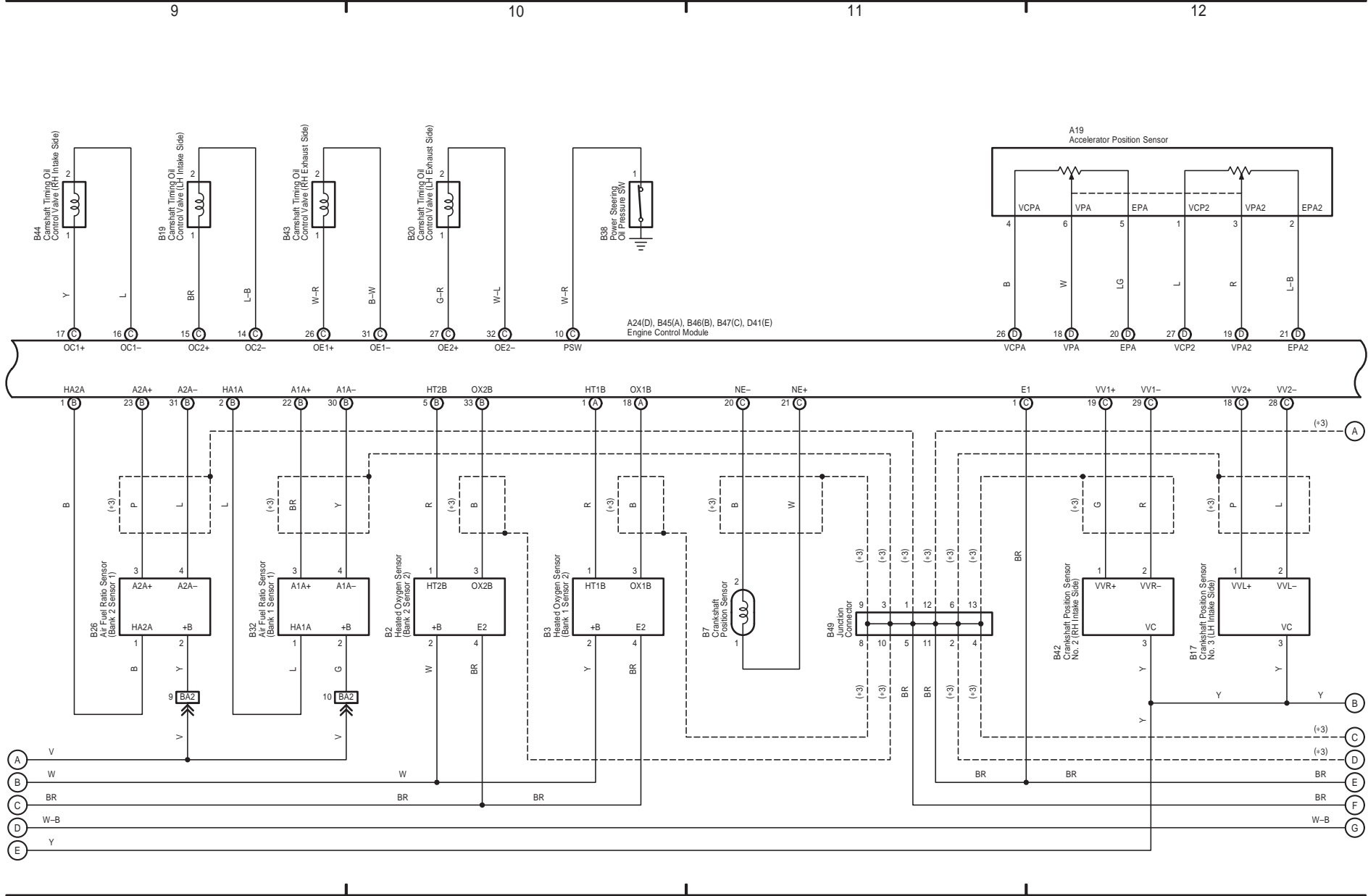
5 6 7 8

AVALON (EM00A0U)



Engine Control

\* 3 : Shielded



Engine Control

Cruise Control

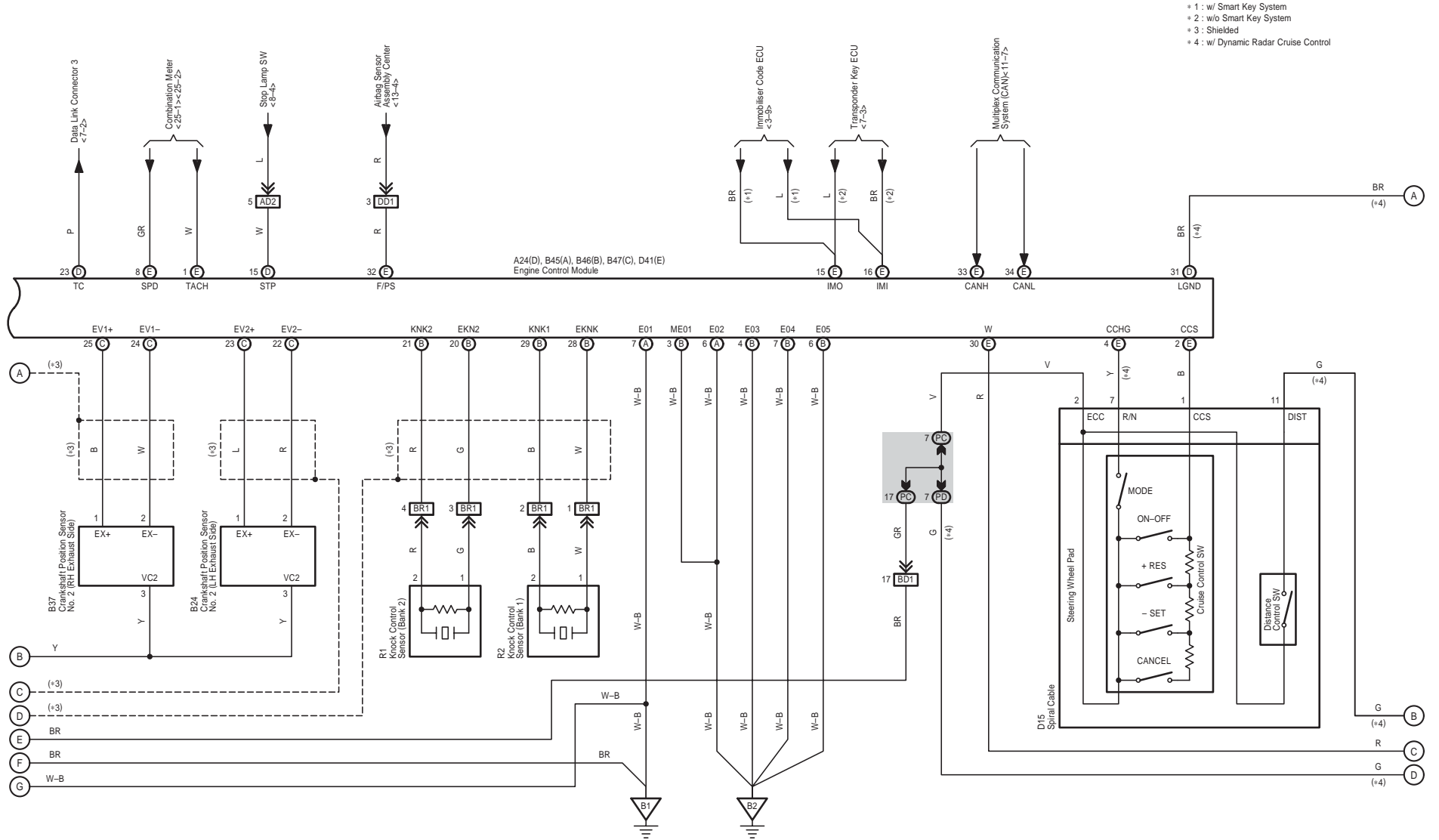
13

14

15

16

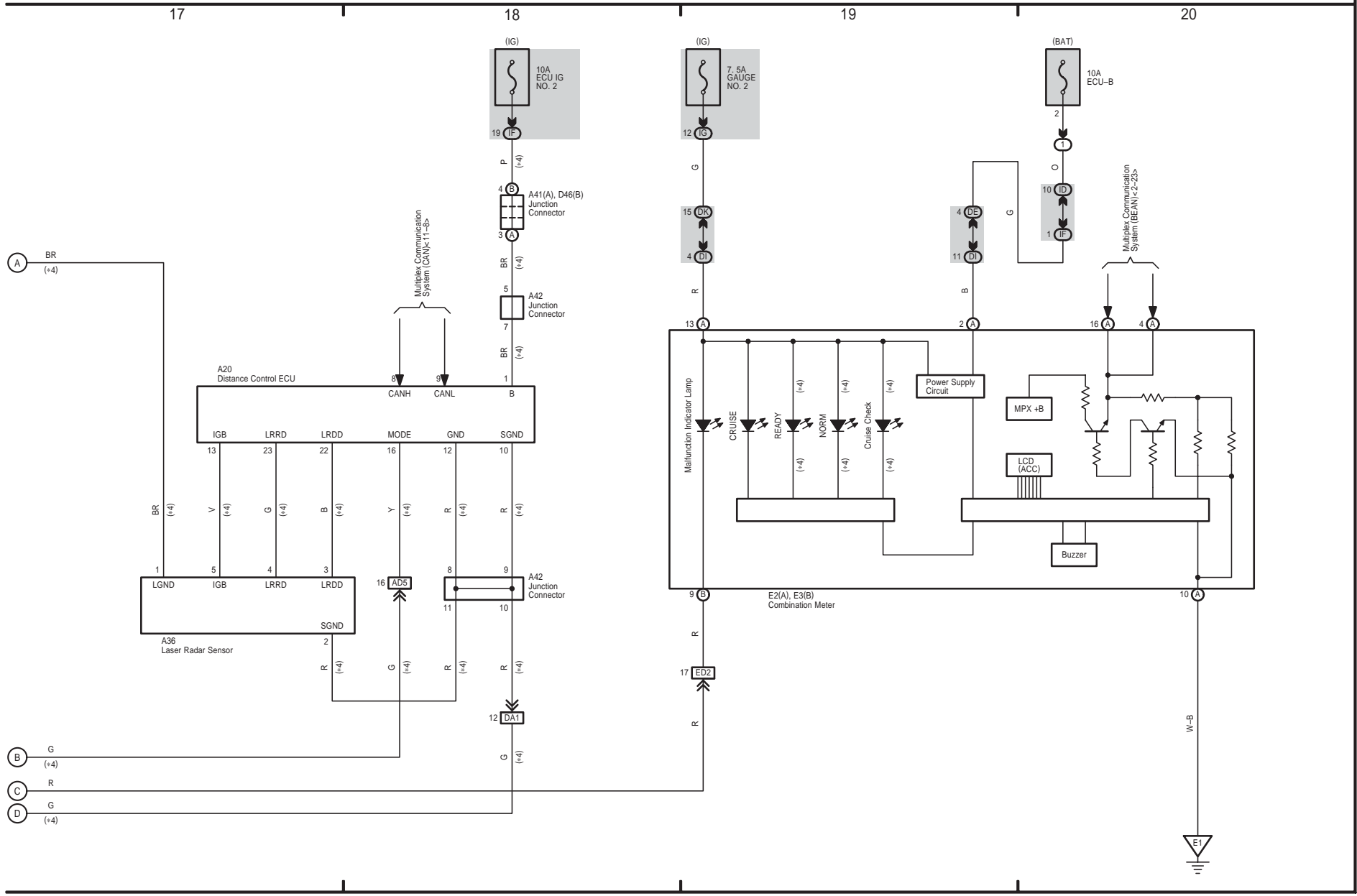
AVALON (EM00A0U)



6 AVALON (Cont' d)

Dynamic Radar Cruise Control

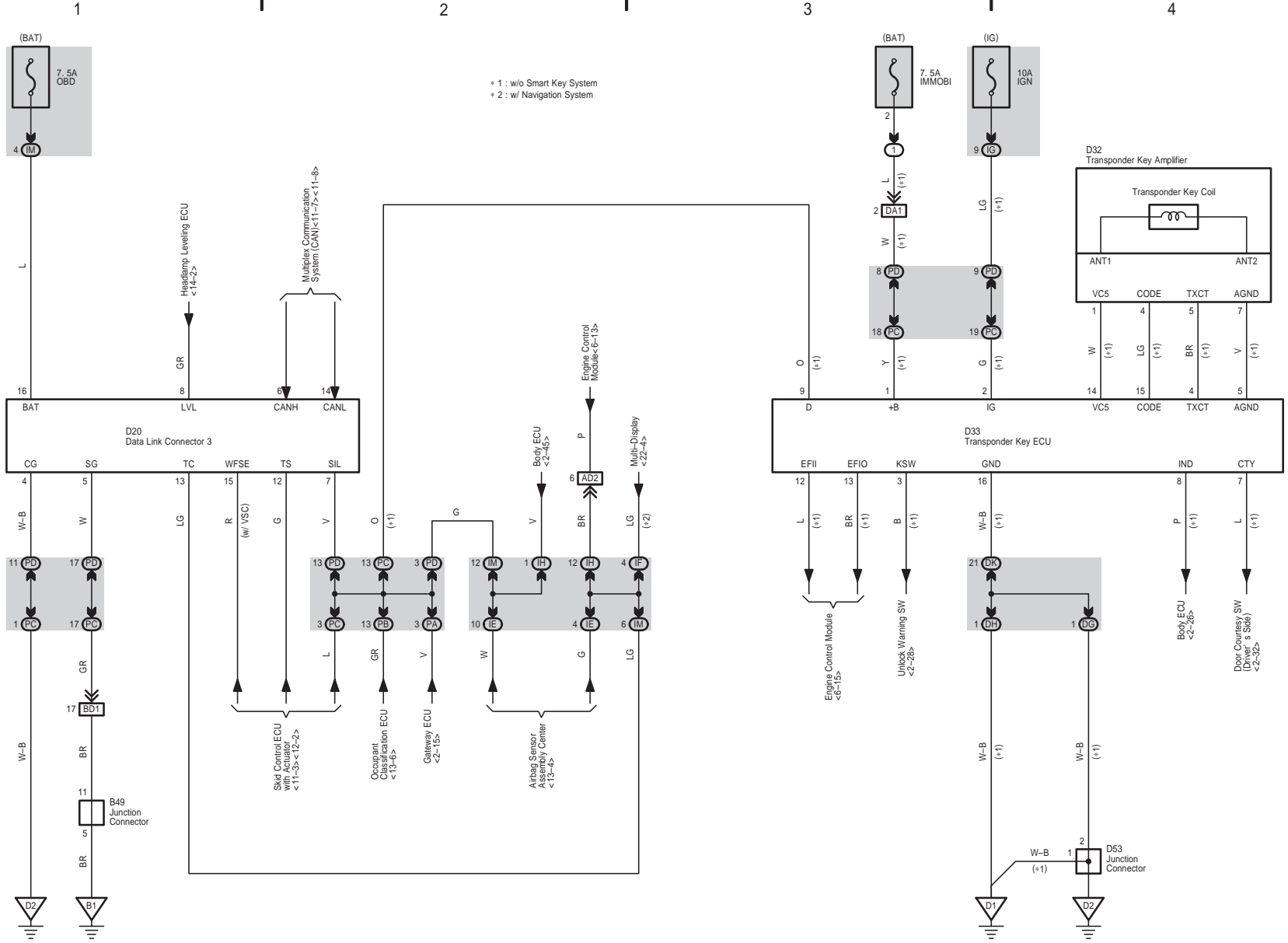
\* 4 : w/ Dynamic Radar Cruise Control





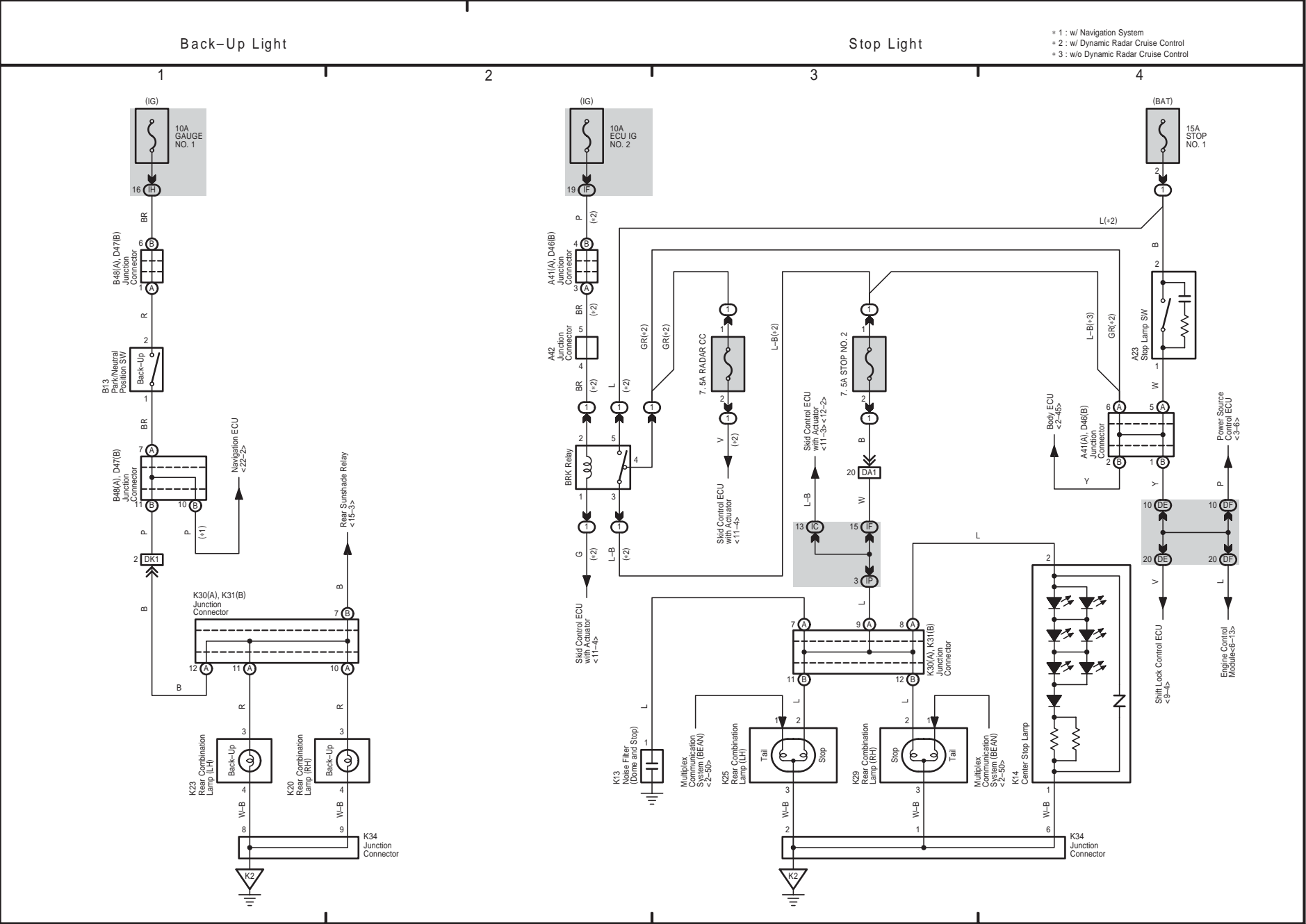
Data Link Connector 3

Engine Immobiliser System (w/o Smart Key System)



AVALON (EM00A0U)

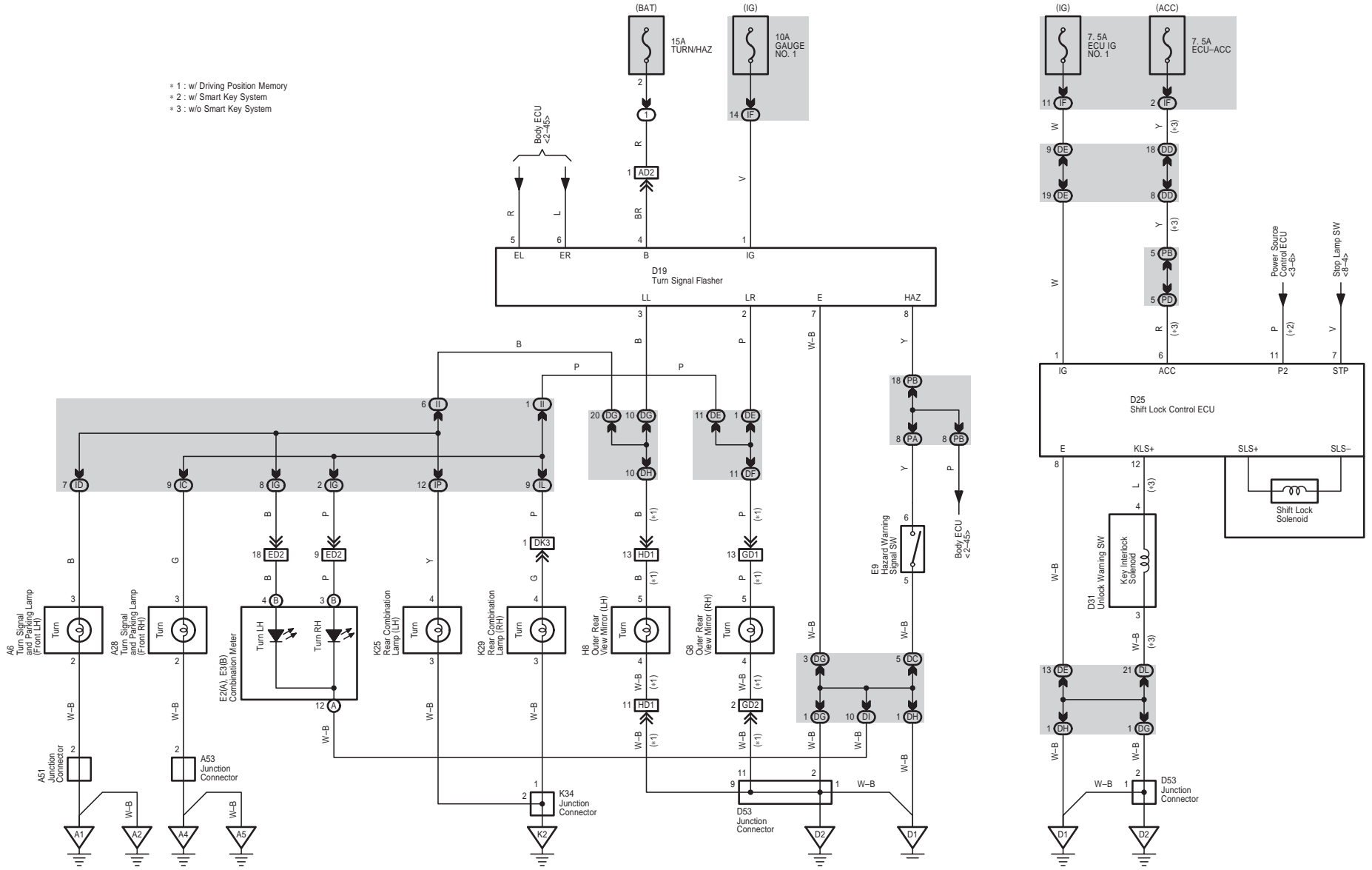
8 AVALON



Turn Signal and Hazard Warning Light

Shift Lock

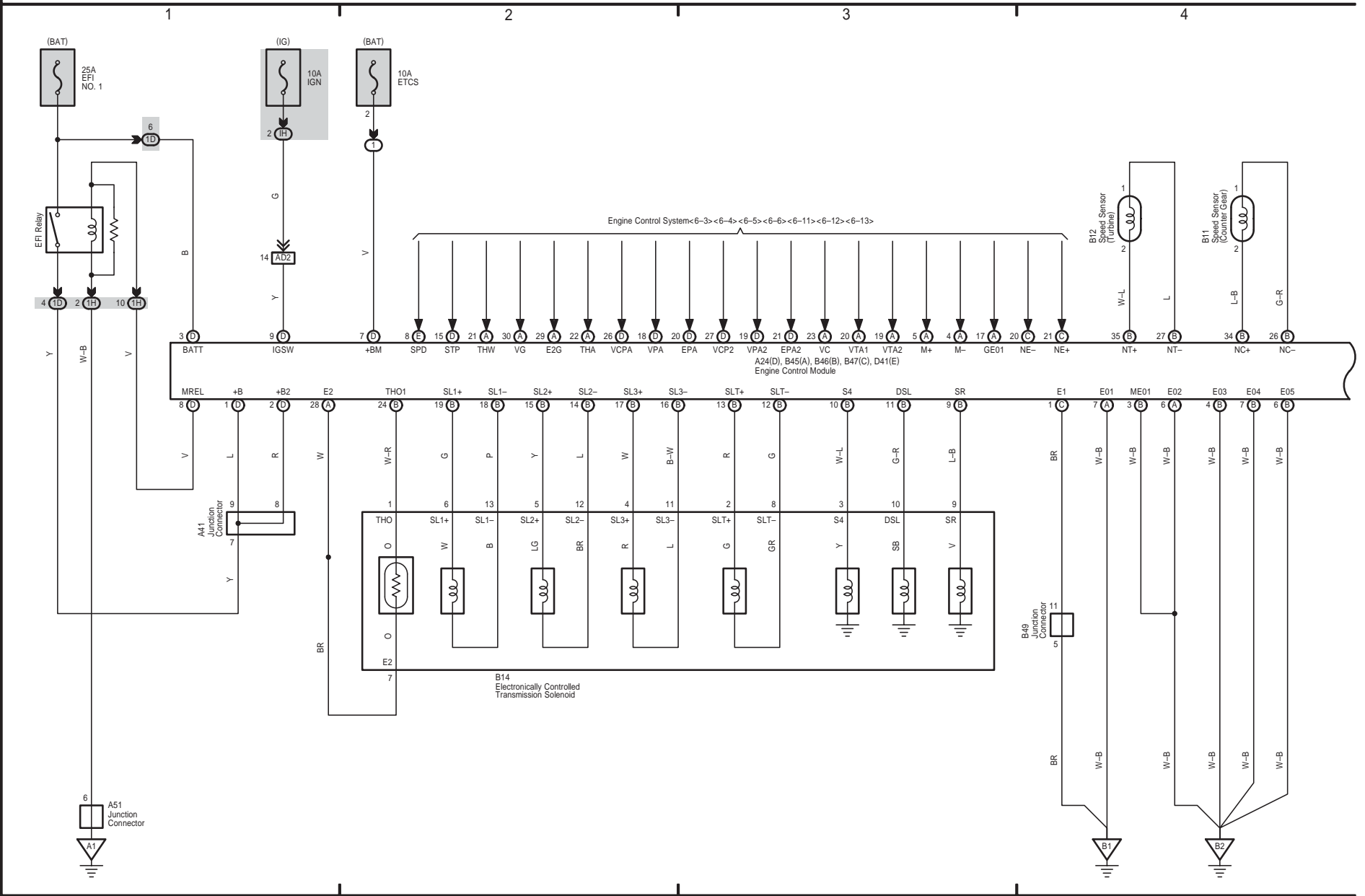
- \* 1 : w/ Driving Position Memory
- \* 2 : w/ Smart Key System
- \* 3 : w/o Smart Key System



AVALON (EM00A0U)

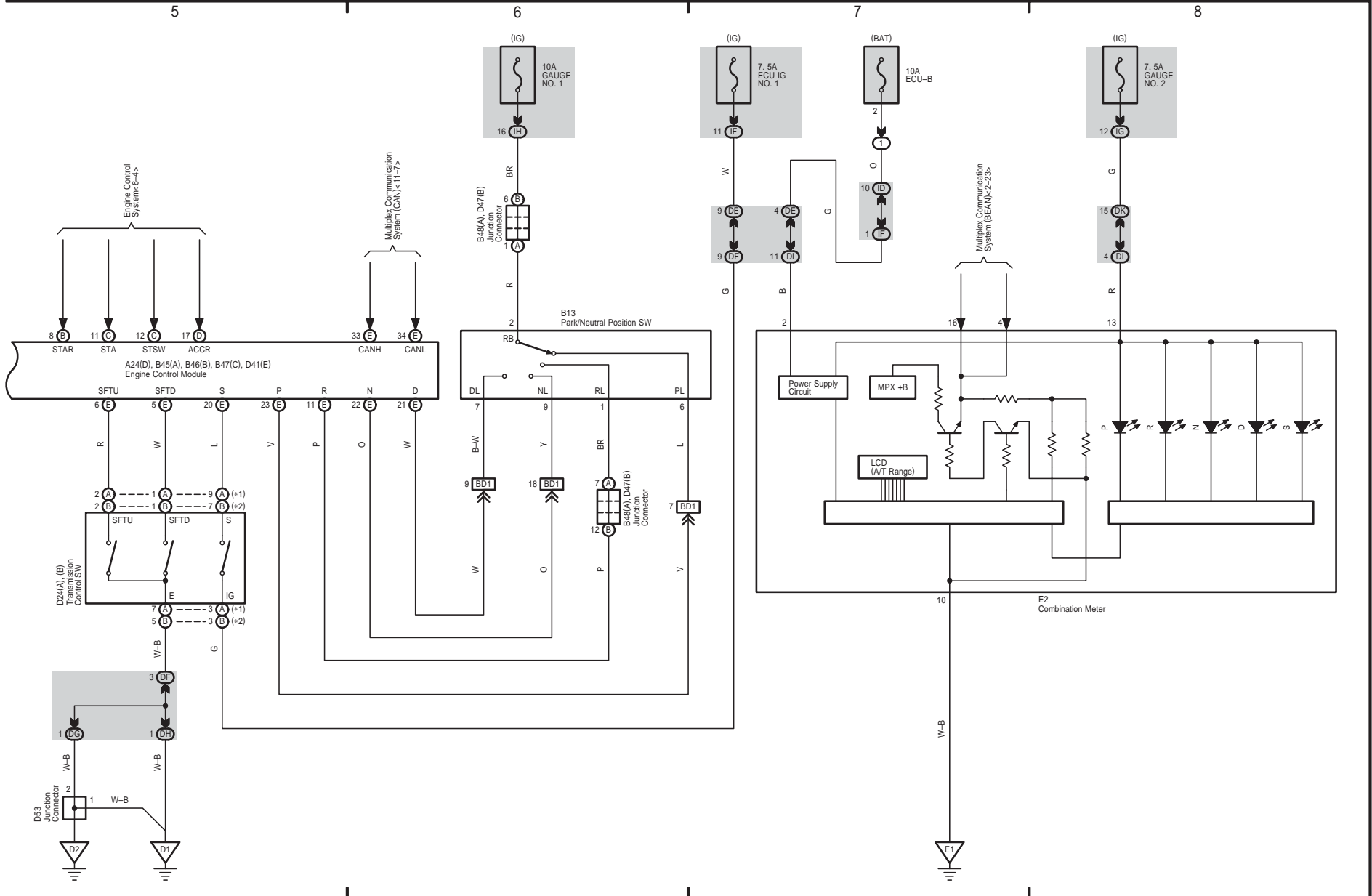


Electronically Controlled Transmission and A/T Indicator



Electronically Controlled Transmission and A/T Indicator

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

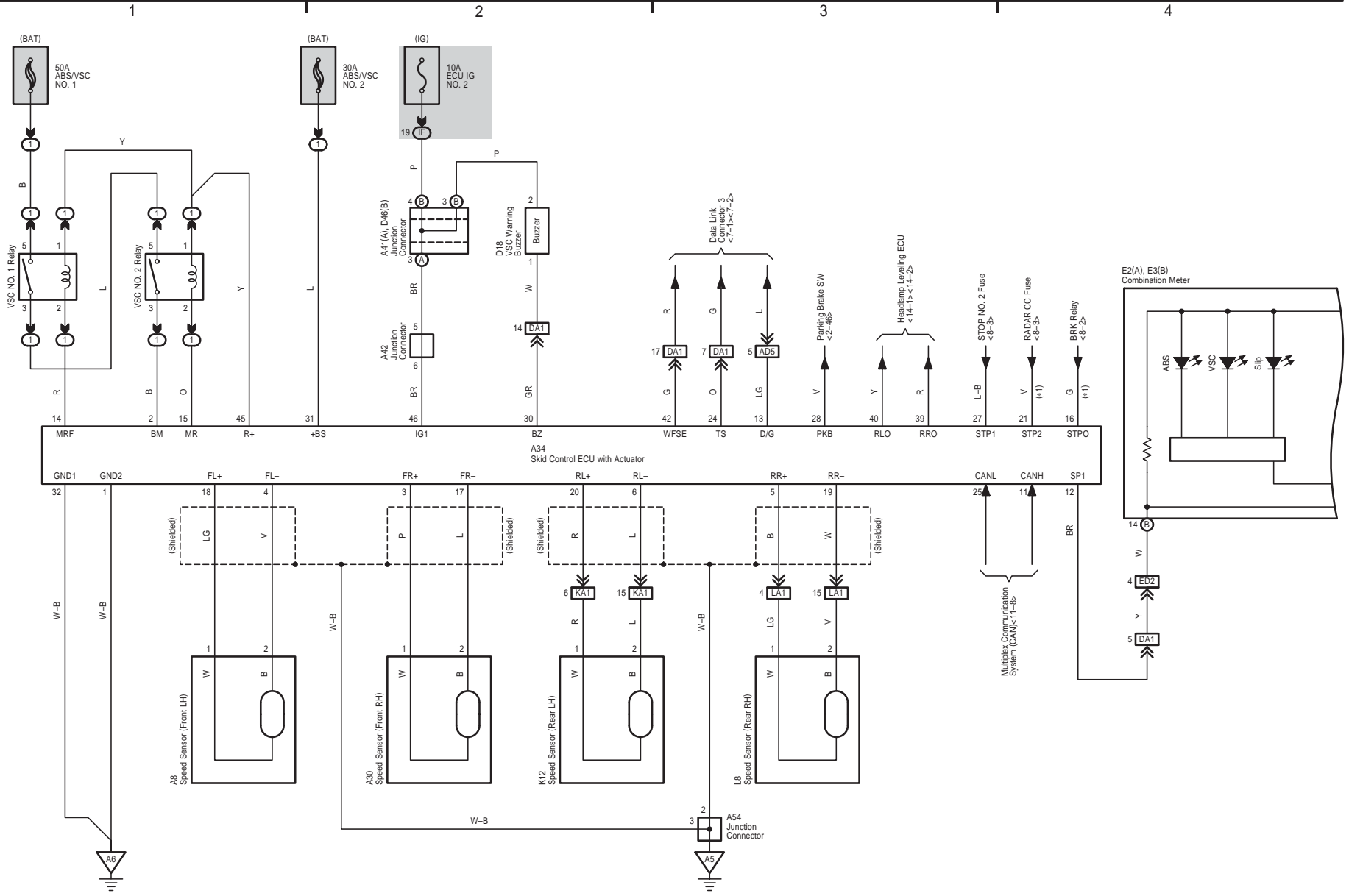


AVALON (EM00A0U)



ABS (w/ VSC), TRAC and VSC

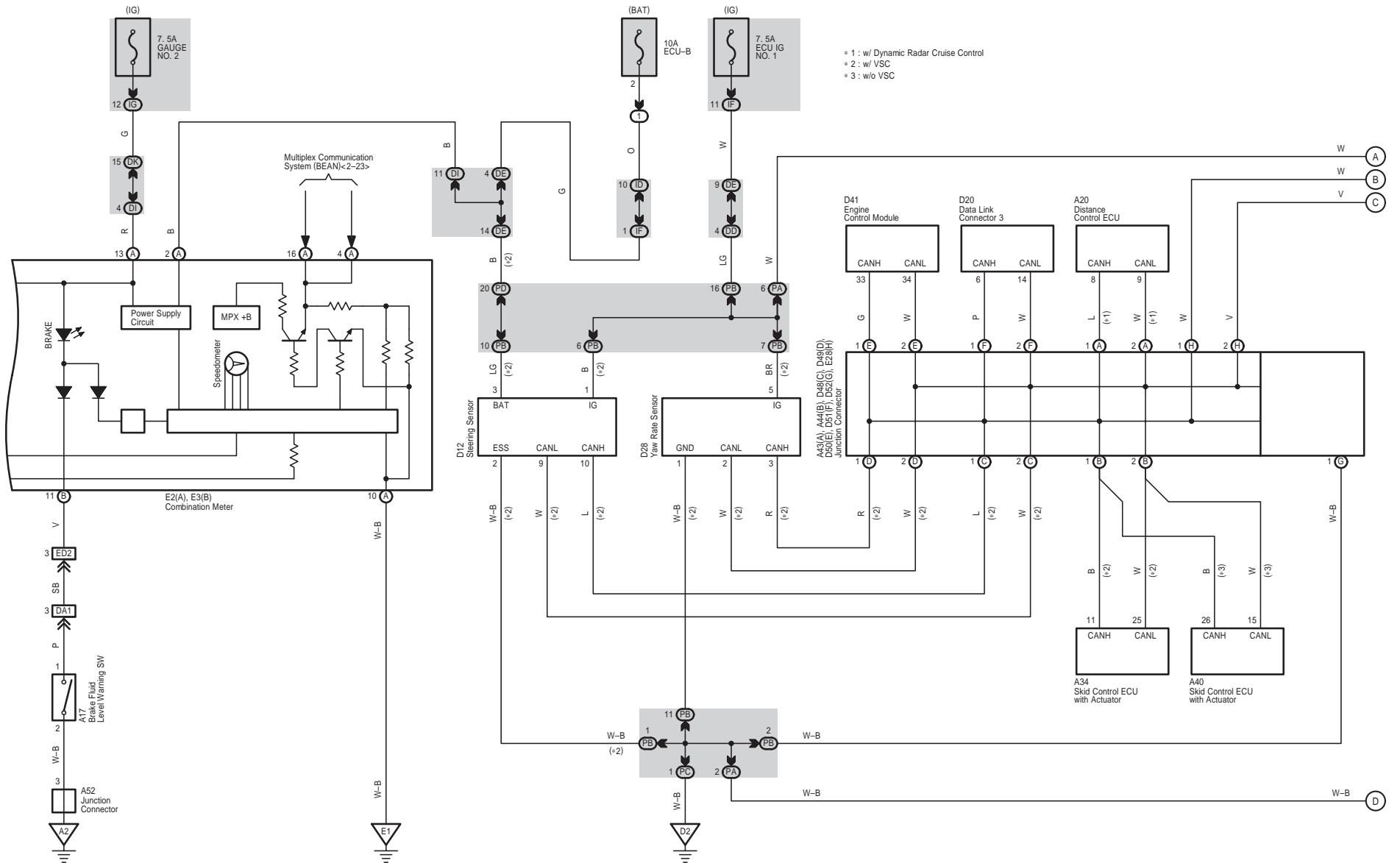
\* 1 : w/ Dynamic Radar Cruise Control



ABS (w/ VSC), TRAC and VSC

Multiplex Communication System (CAN)

5 6 7 8

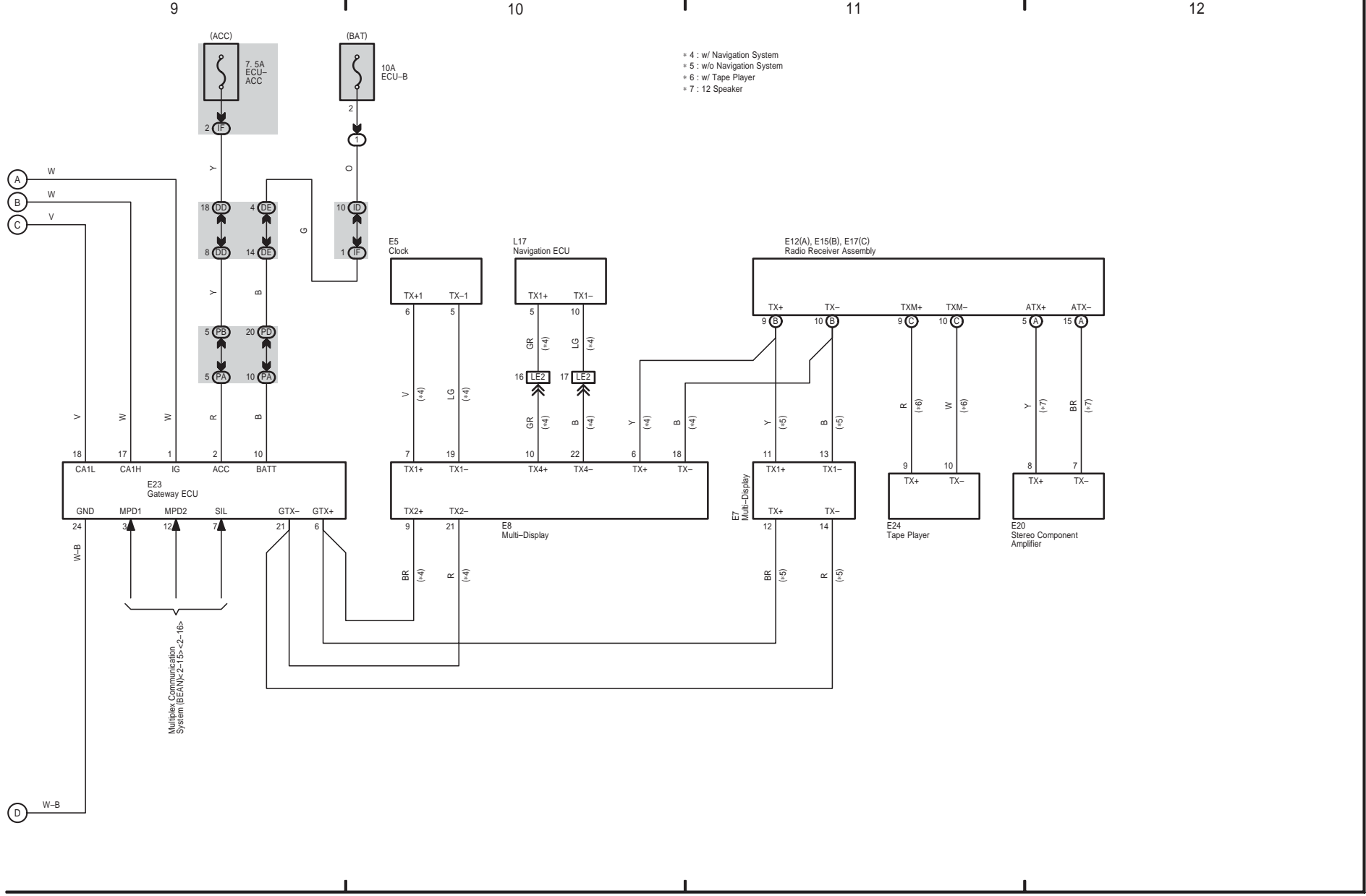


AVALON (EM00A0U)

11 AVALON (Cont' d)

Multiplex Communication System (CAN)

Multiplex Communication System (AVC-LAN)

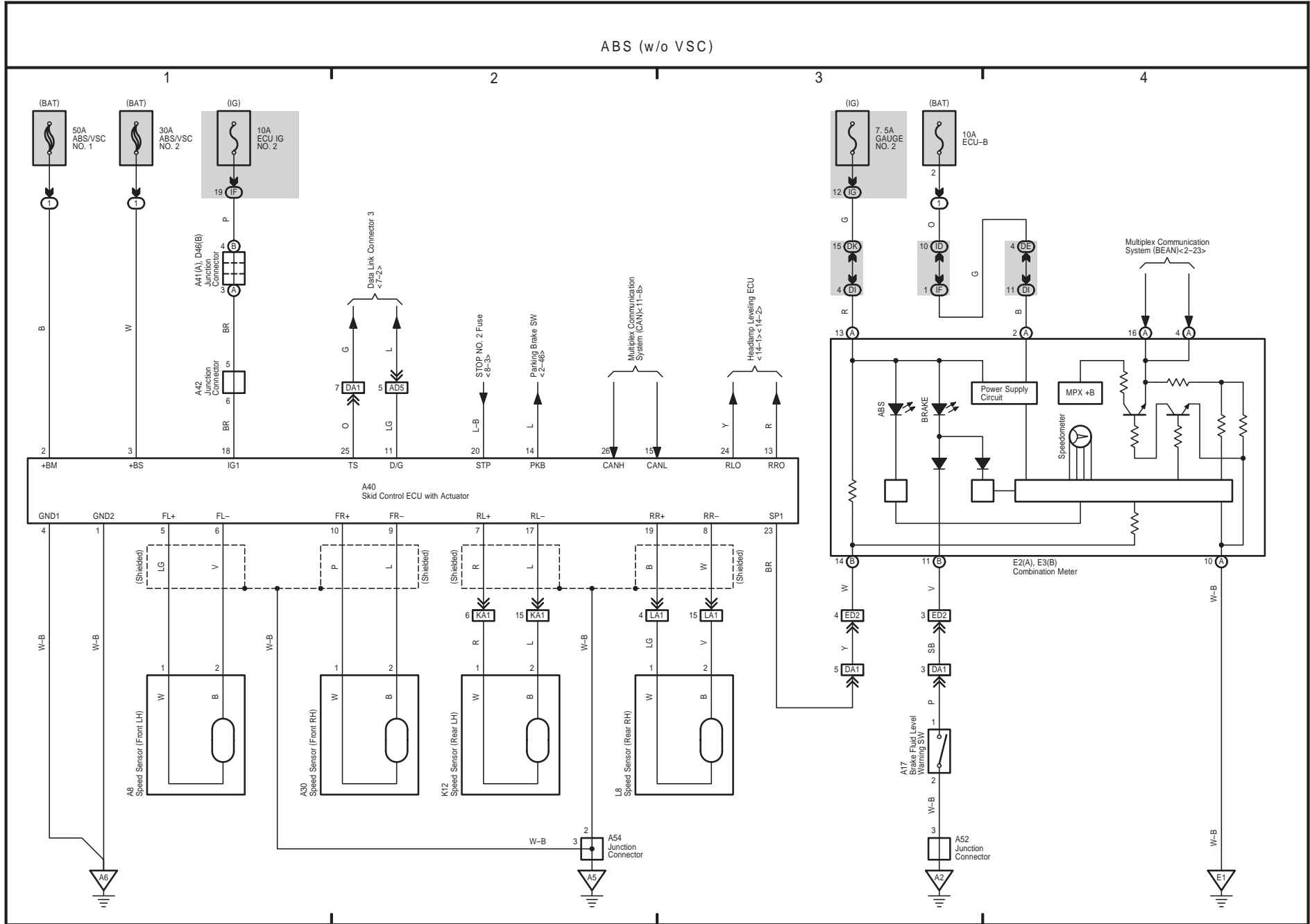


- \* 4 : w/ Navigation System
- \* 5 : w/o Navigation System
- \* 6 : w/ Tape Player
- \* 7 : 12 Speaker

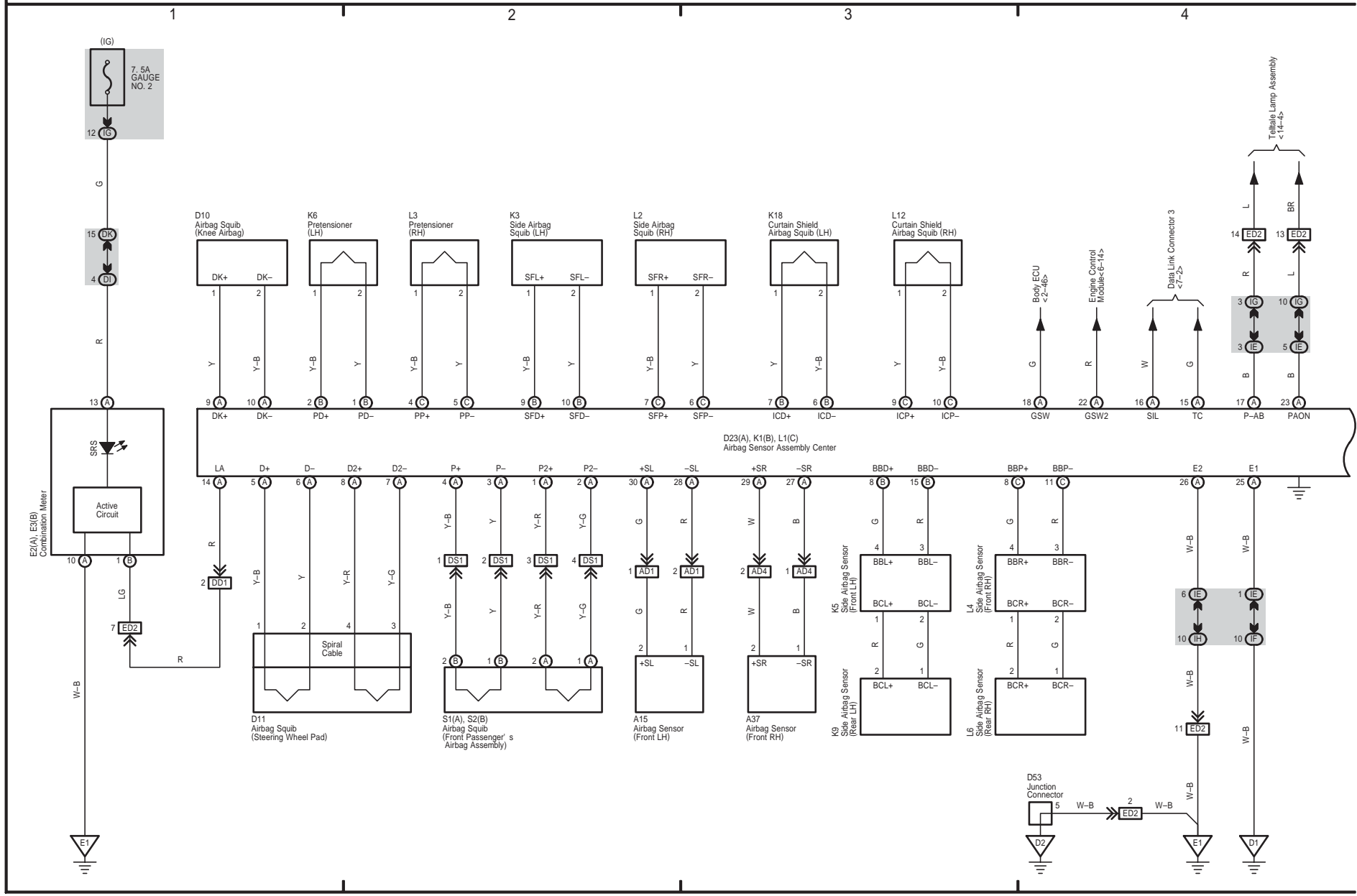


ABS (w/o VSC)

AVALON (EM00A0U)



SRS

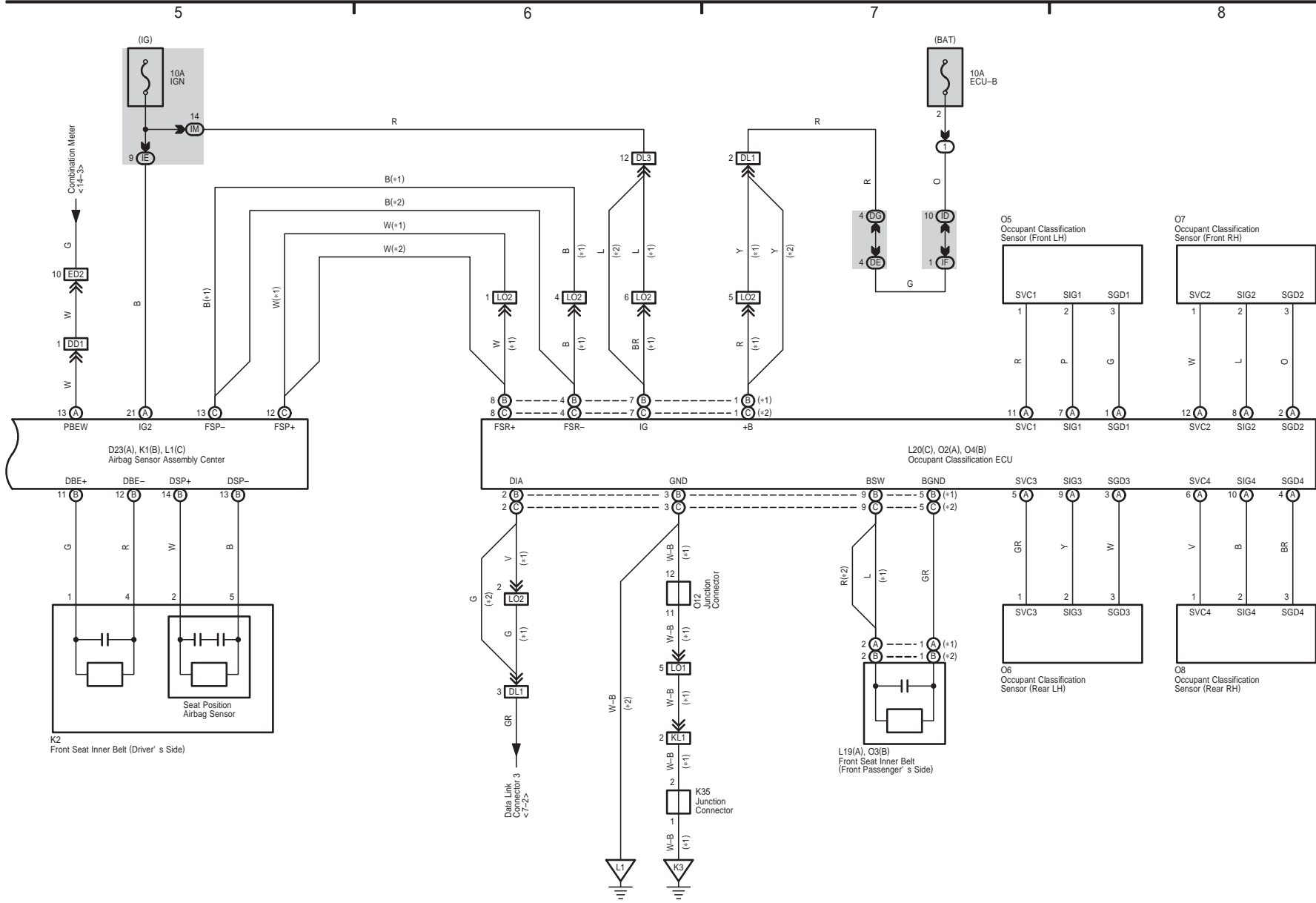


13 AVALON (Cont' d)

SRS

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

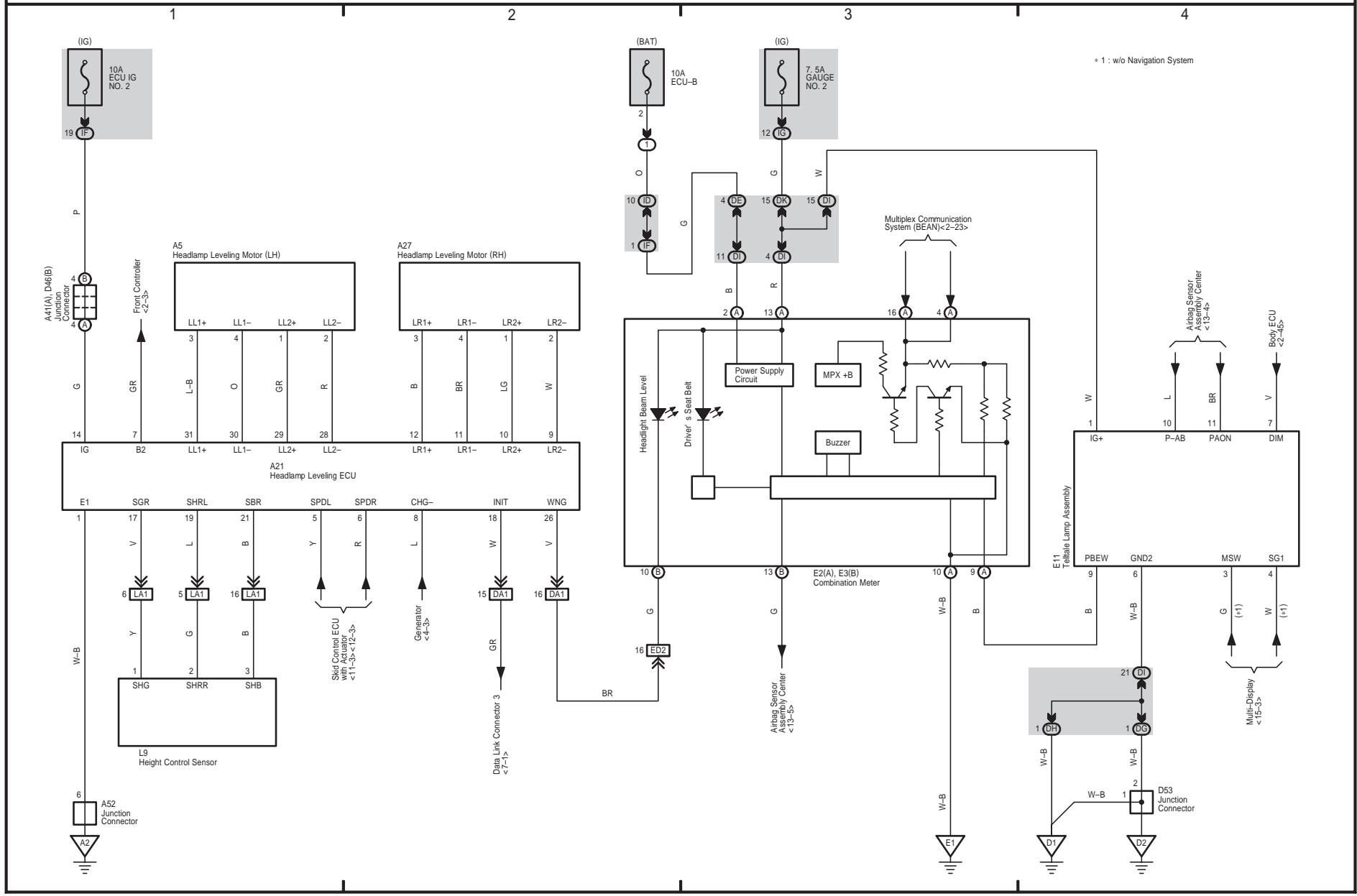
AVALON (EM00A0U)



14 AVALON

Headlight Beam Level Control

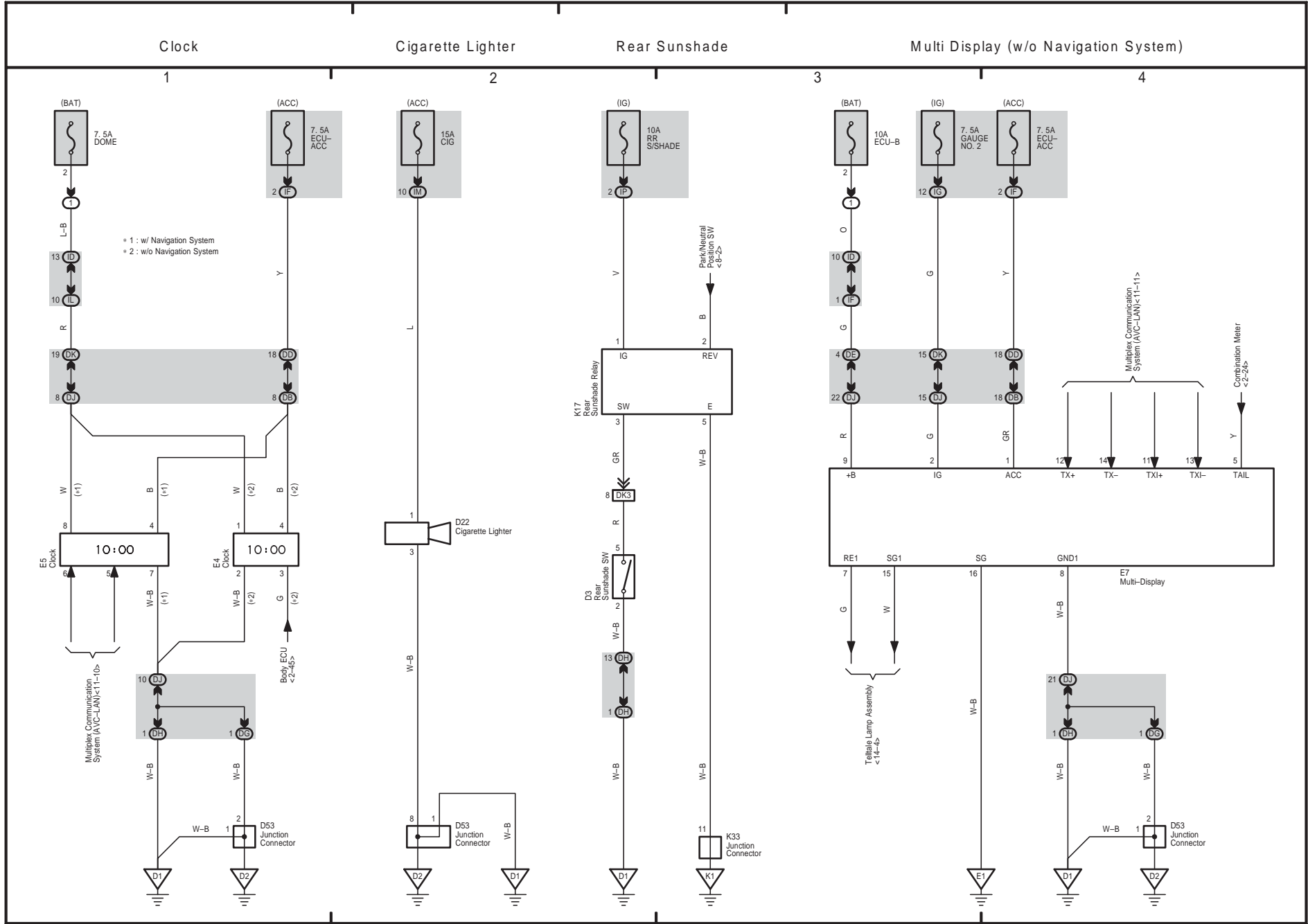
Seat Belt Warning



15 AVALON

AVALON (EM00A0U)

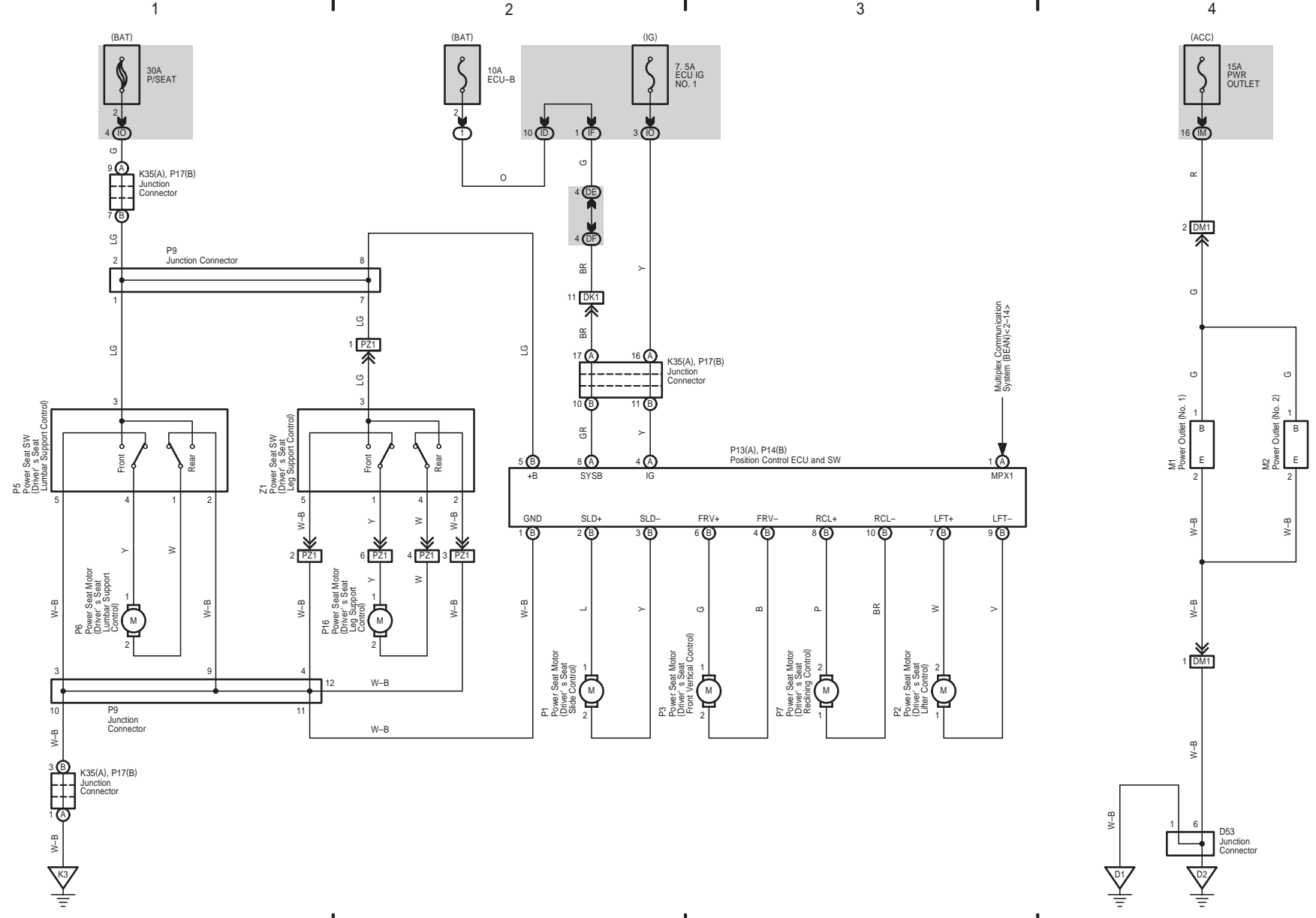
501



16 AVALON

Power Seat (Driver' s Seat w/ Driving Position Memory)

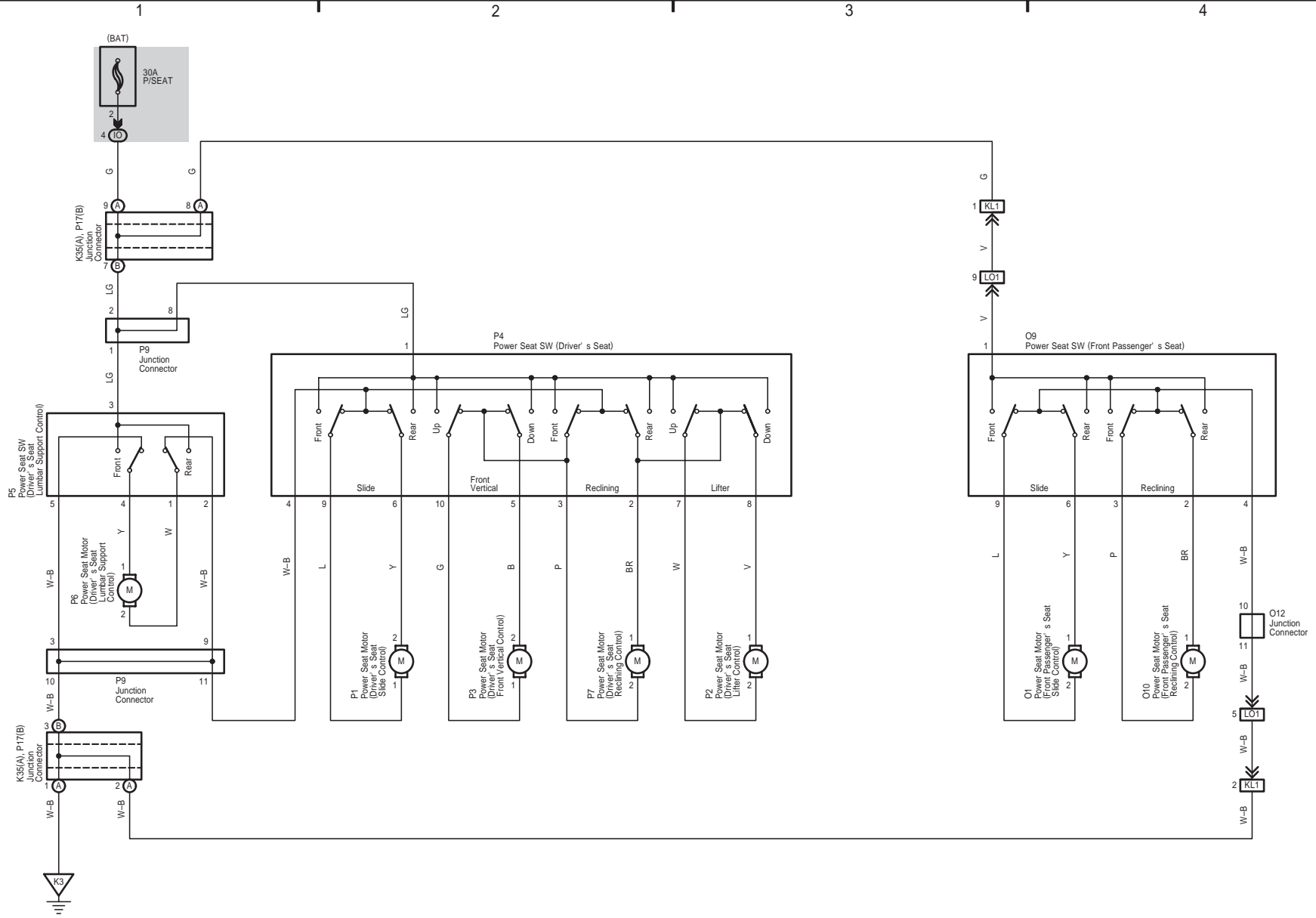
Power Outlet



17 AVALON

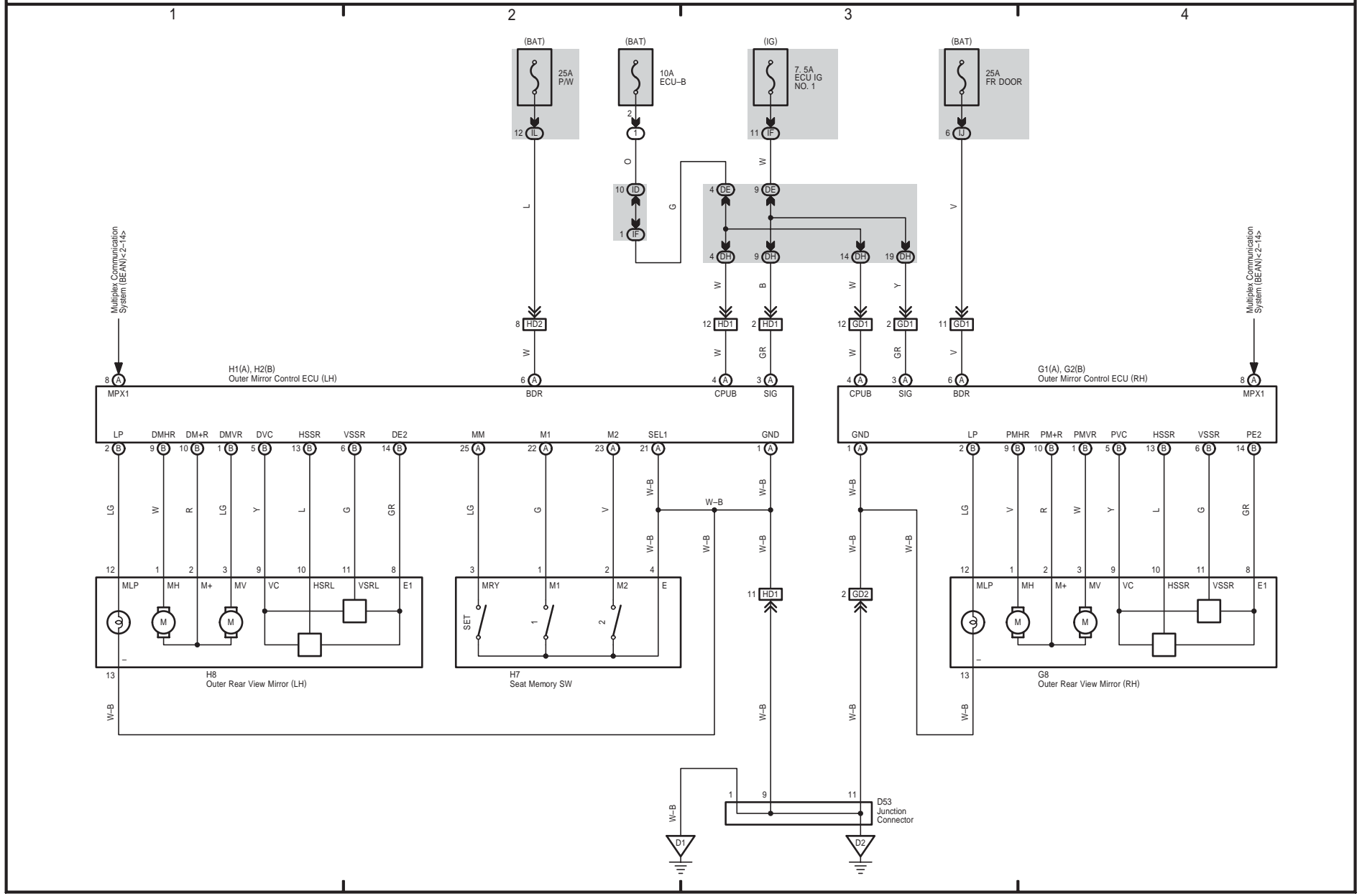
Power Seat (Driver's Seat w/o Driving Position Memory)

Power Seat (Front Passenger's Seat)



AVALON (EM00A0U)

Remote Control Mirror (w/ Driving Position Memory)

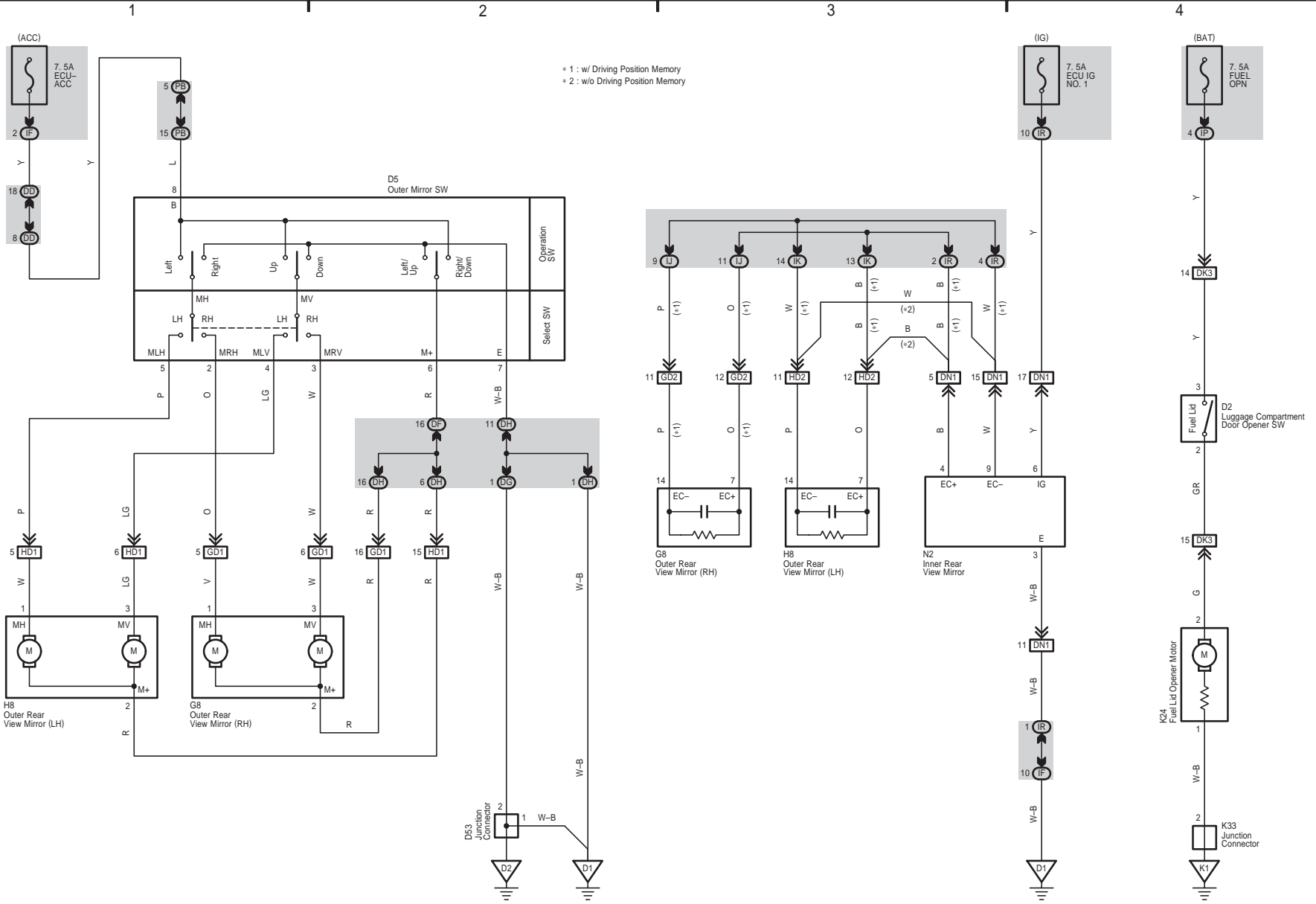




Remote Control Mirror (w/o Driving Position Memory)

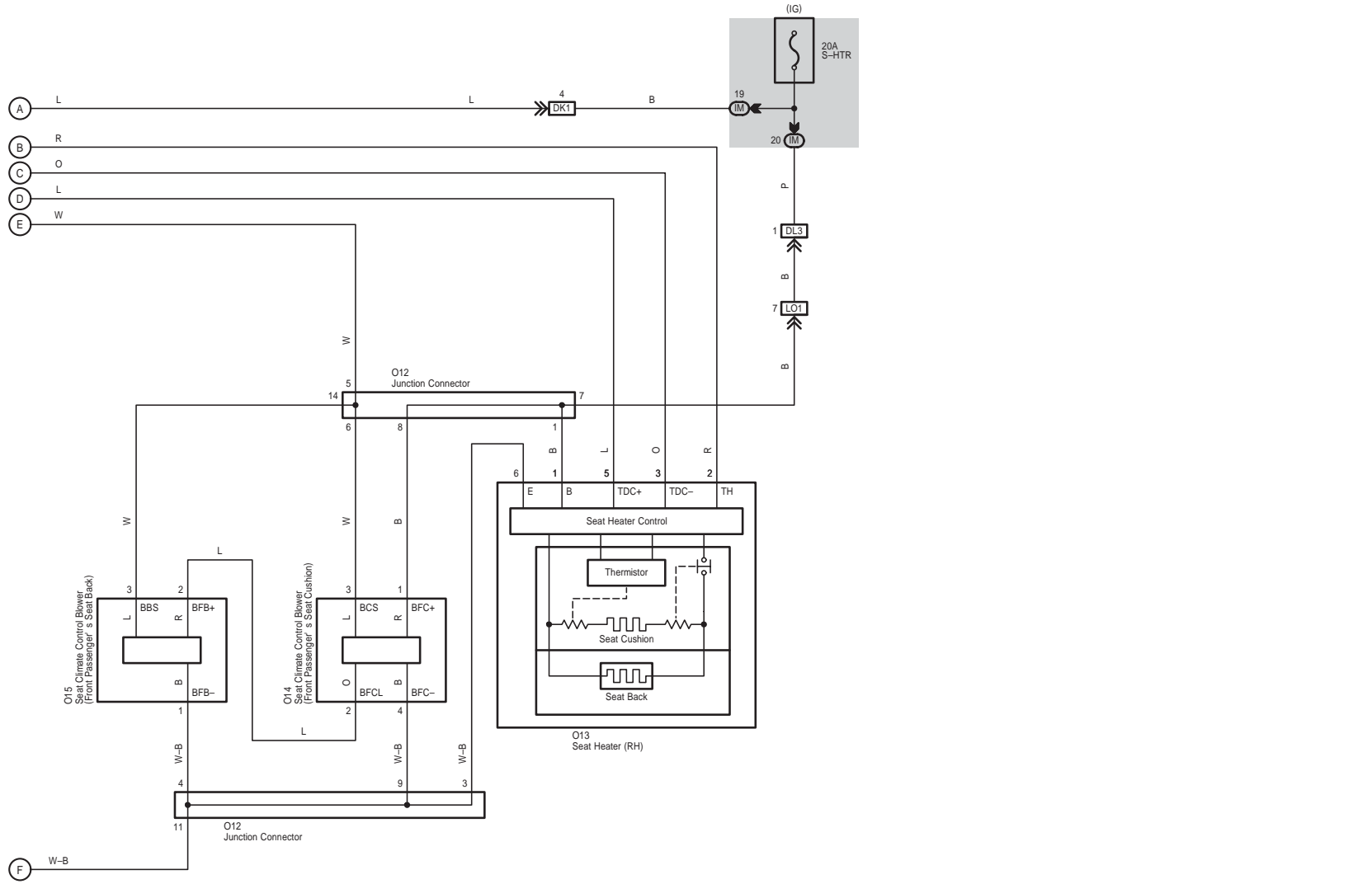
Automatic Glare-Resistant  
EC Mirror and Compass

Fuel Lid Opener





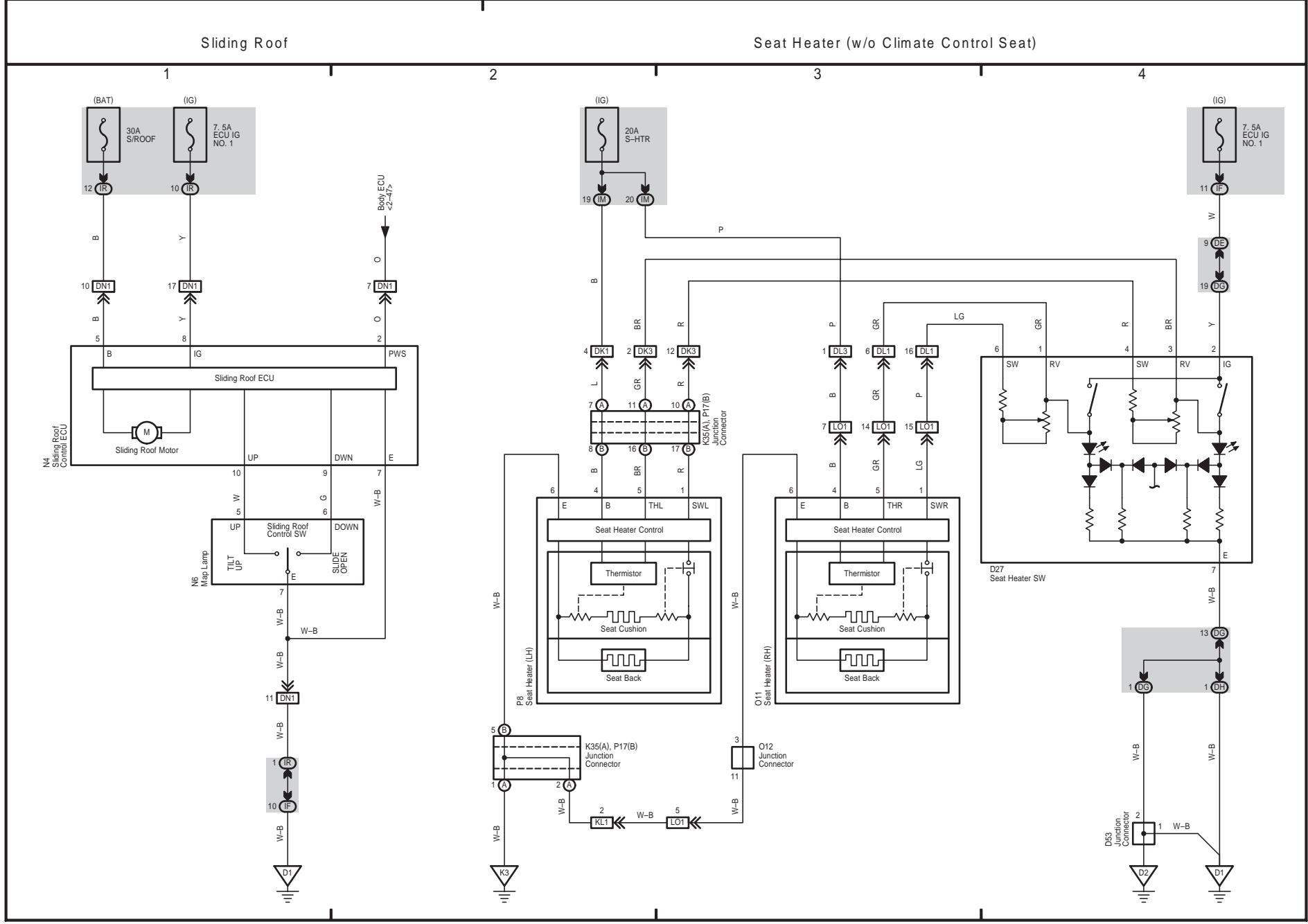
Climate Control Seat and Seat Heater (w/ Climate Control Seat)



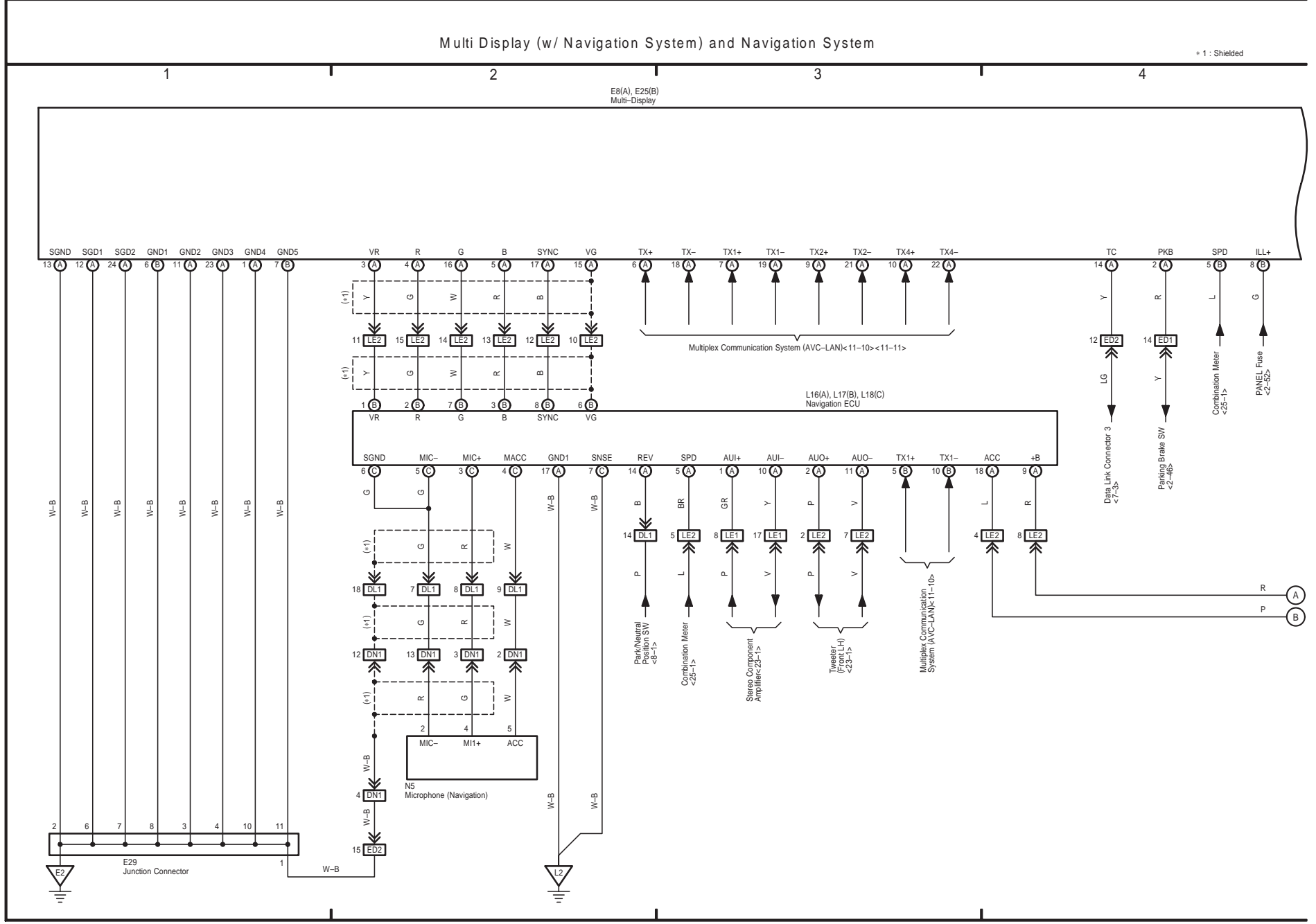
AVALON (EM00A0U)

21 AVALON

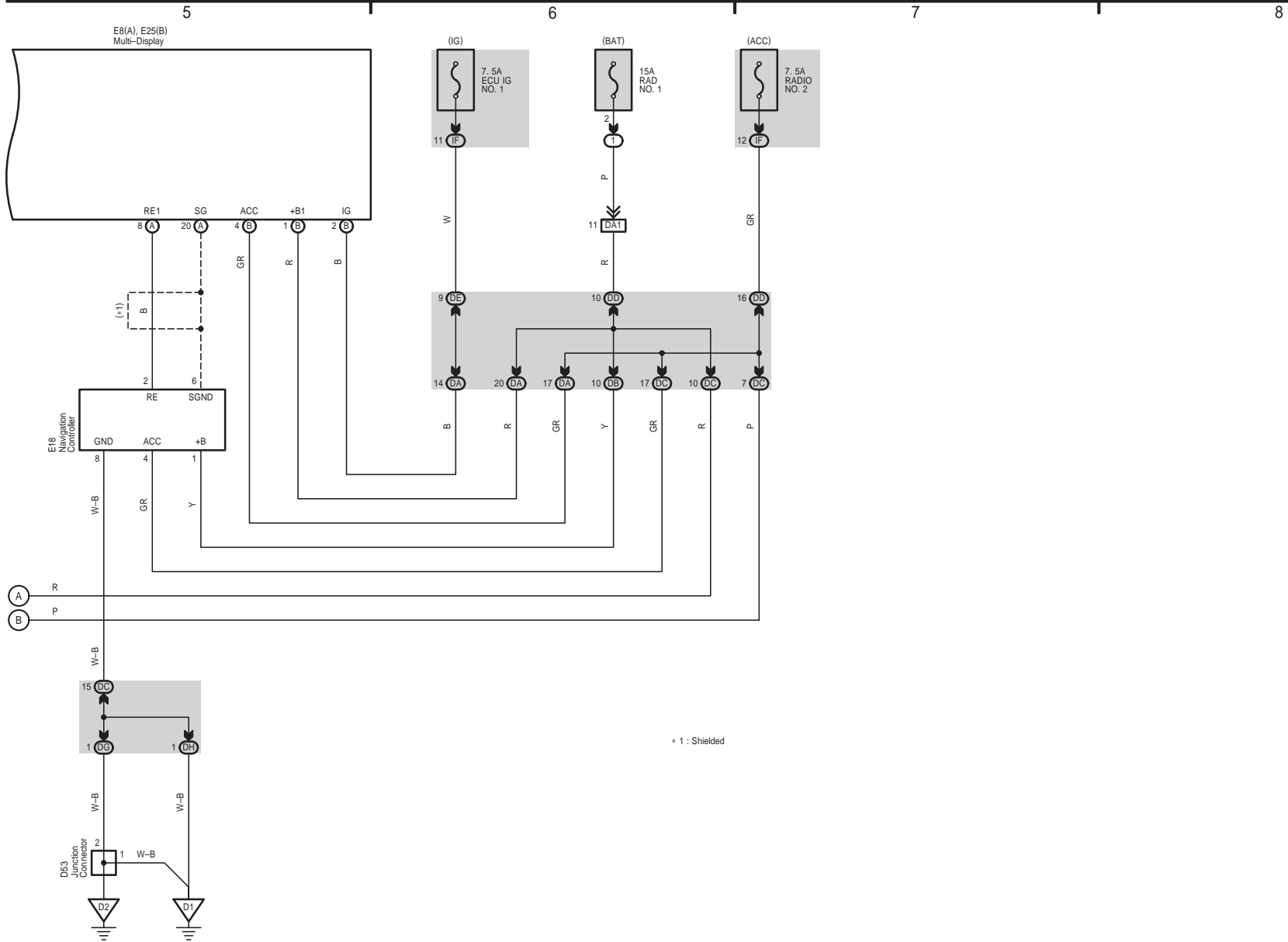
M OVERALL ELECTRICAL WIRING DIAGRAM







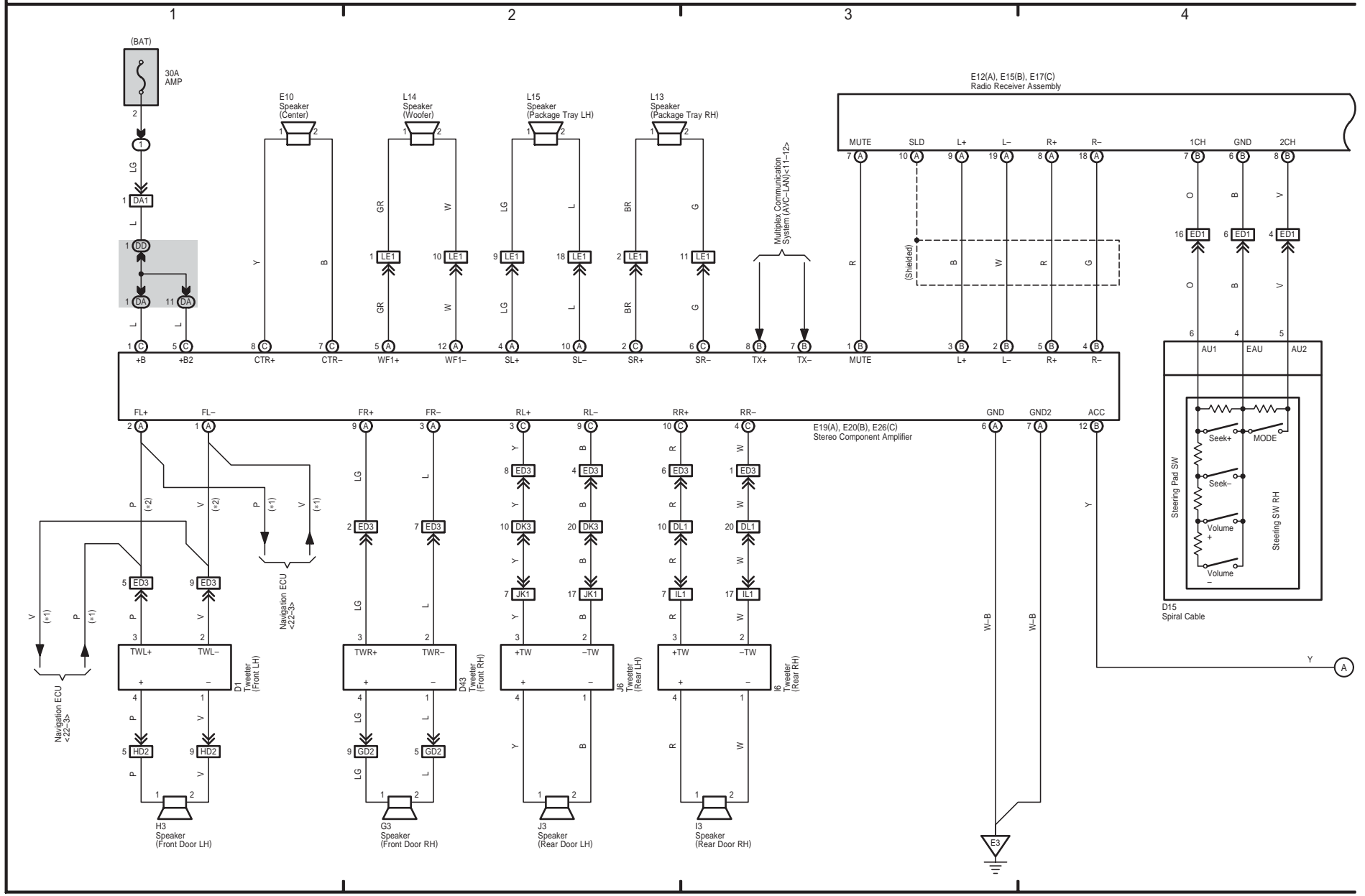
Multi Display (w/ Navigation System) and Navigation System



AVALON (EM00A0U)

Audio System (12 Speaker)

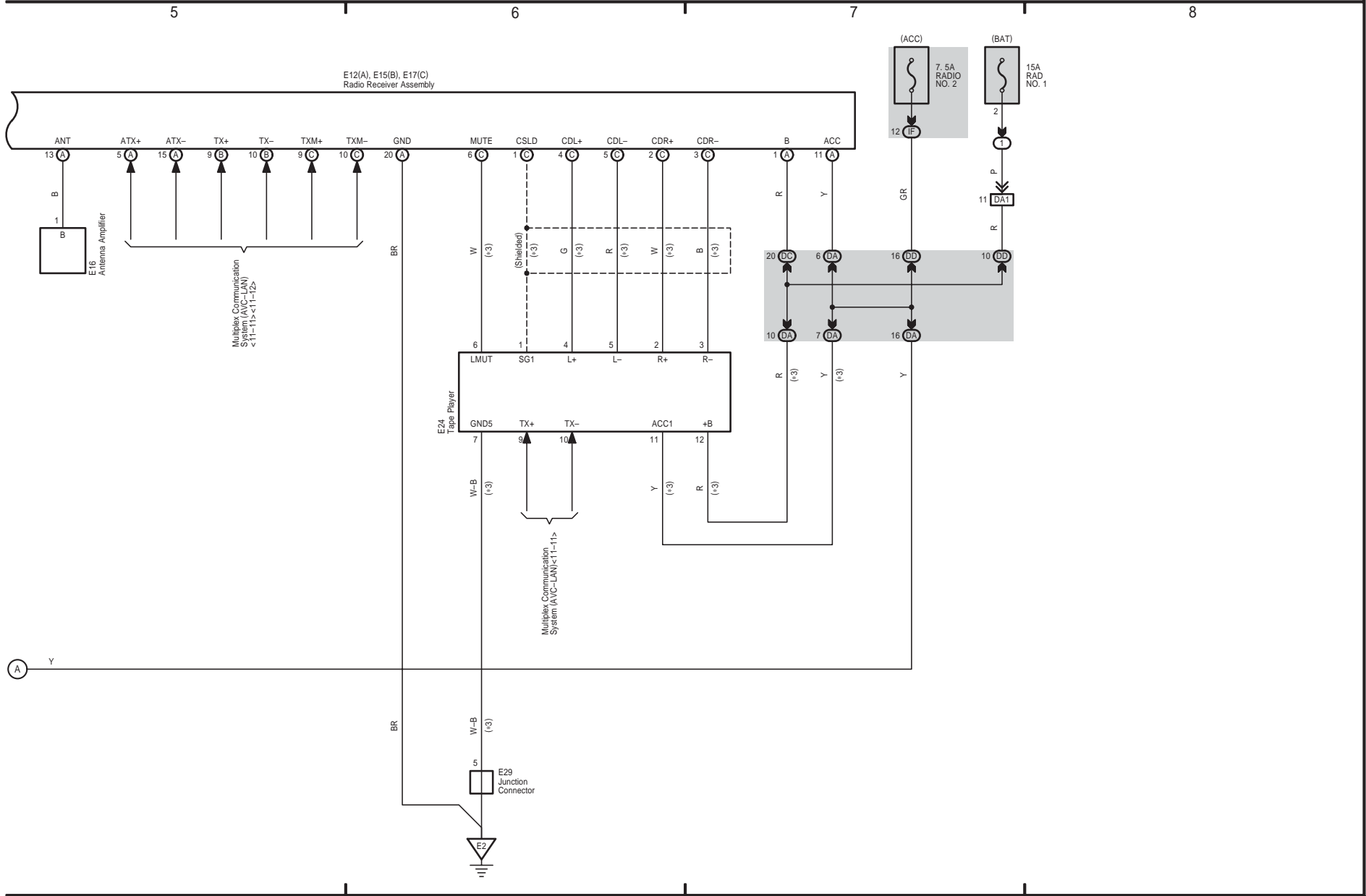
\* 1 : w/ Navigation System  
\* 2 : w/o Navigation System





Audio System (12 Speaker)

\* 3 : w/ Tape Player



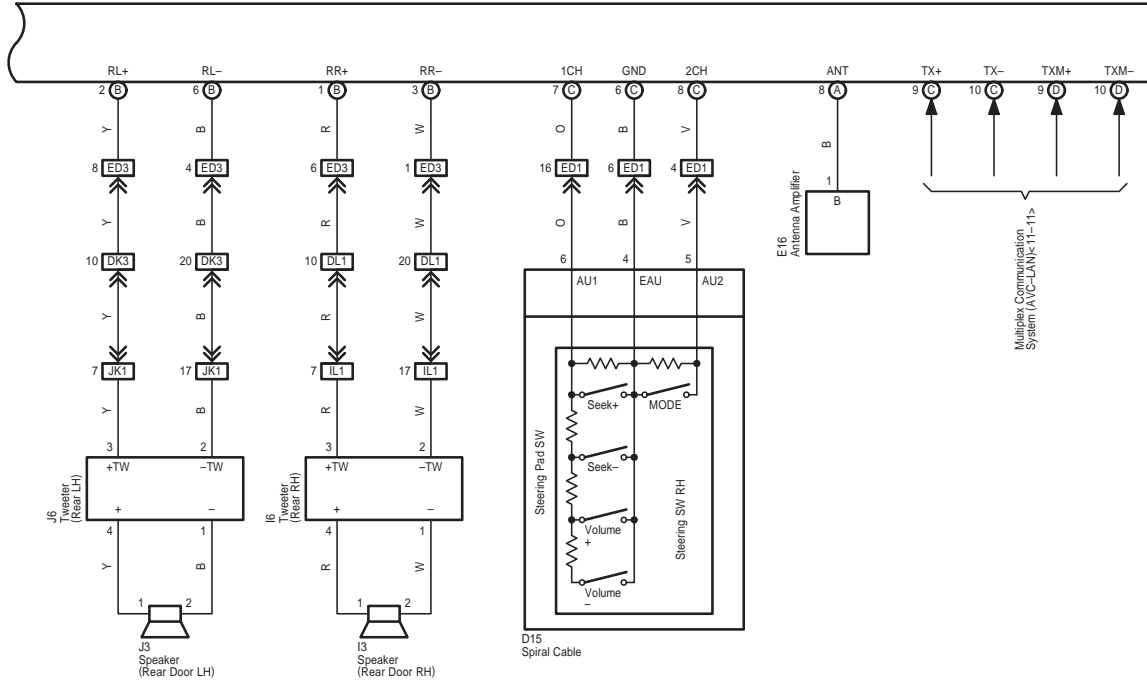
AVALON (EM00A0U)



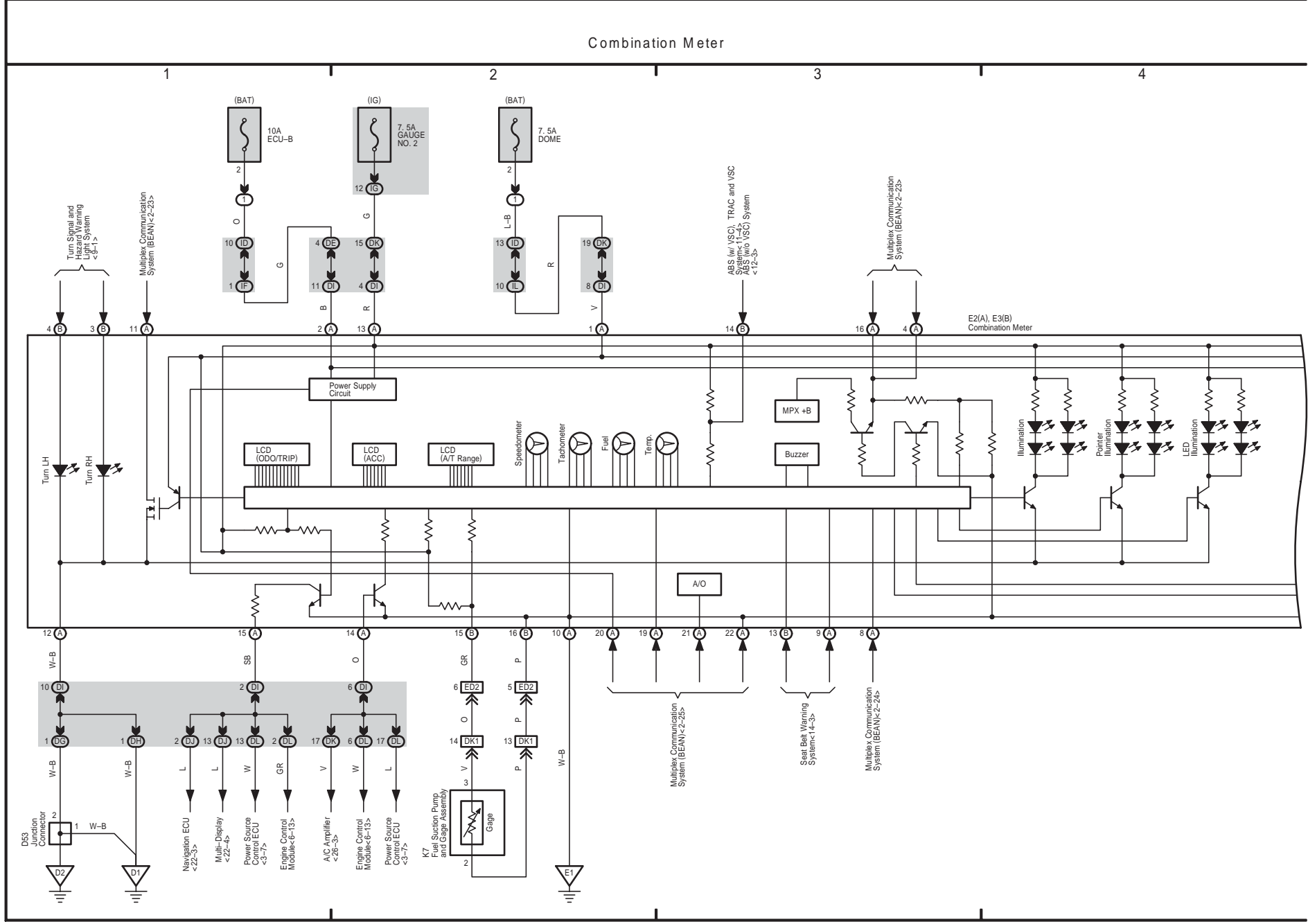
Audio System (9 Speaker)

5 6 7 8

E13(A), E14(B), E15(C), E17(D)  
Radio Receiver Assembly



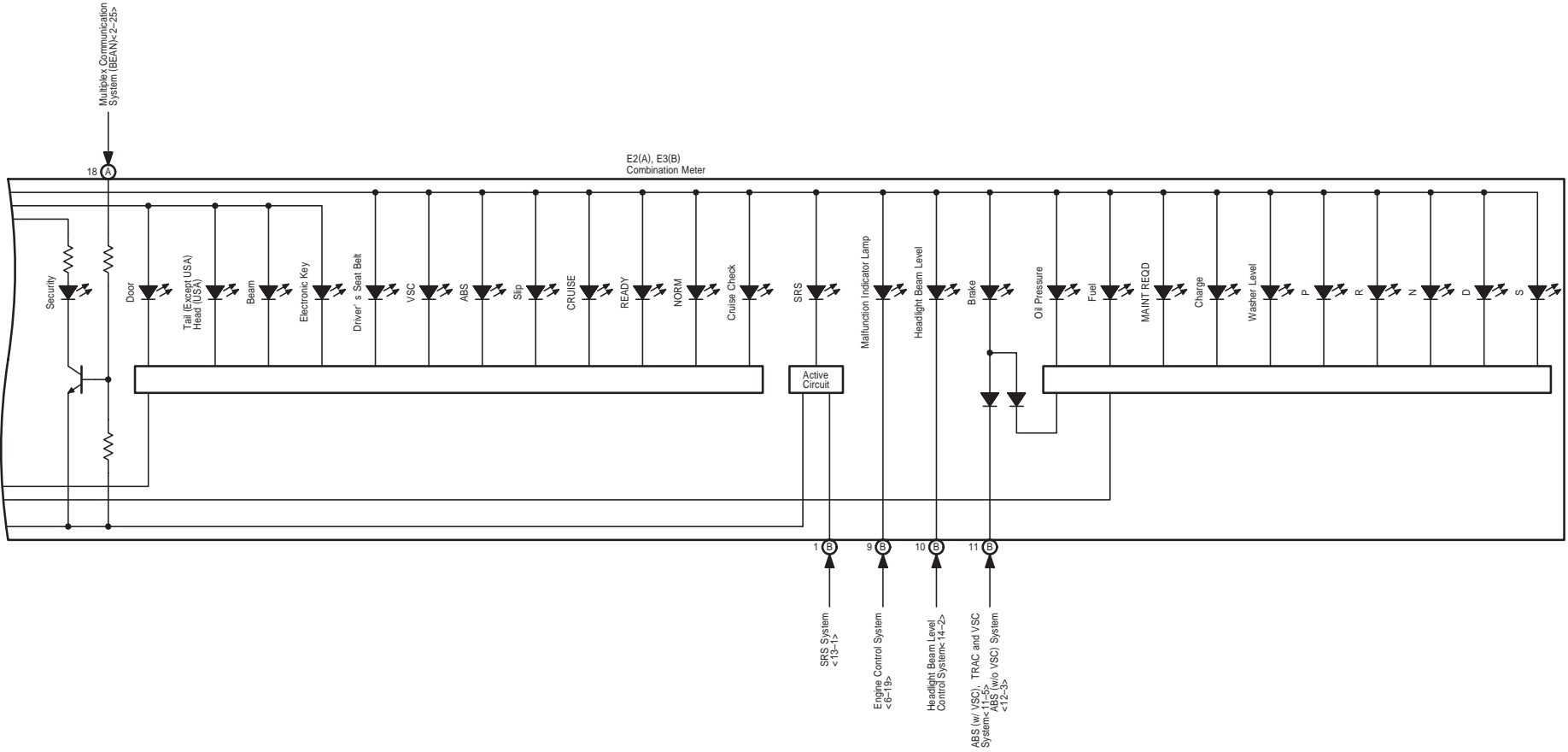
AVALON (EM00A0U)



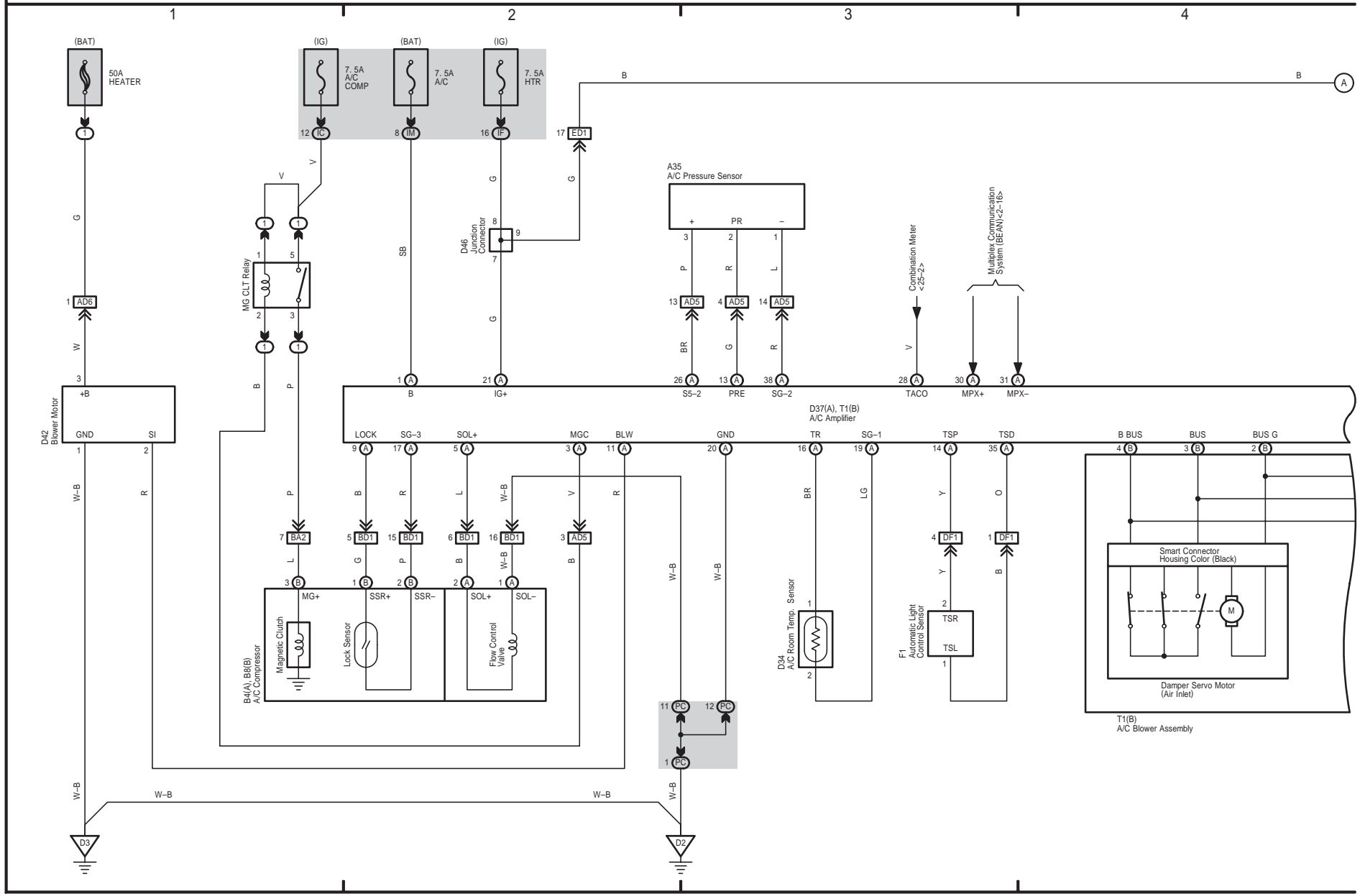
Combination Meter

5 6 7 8

AVALON (EM00A0U)

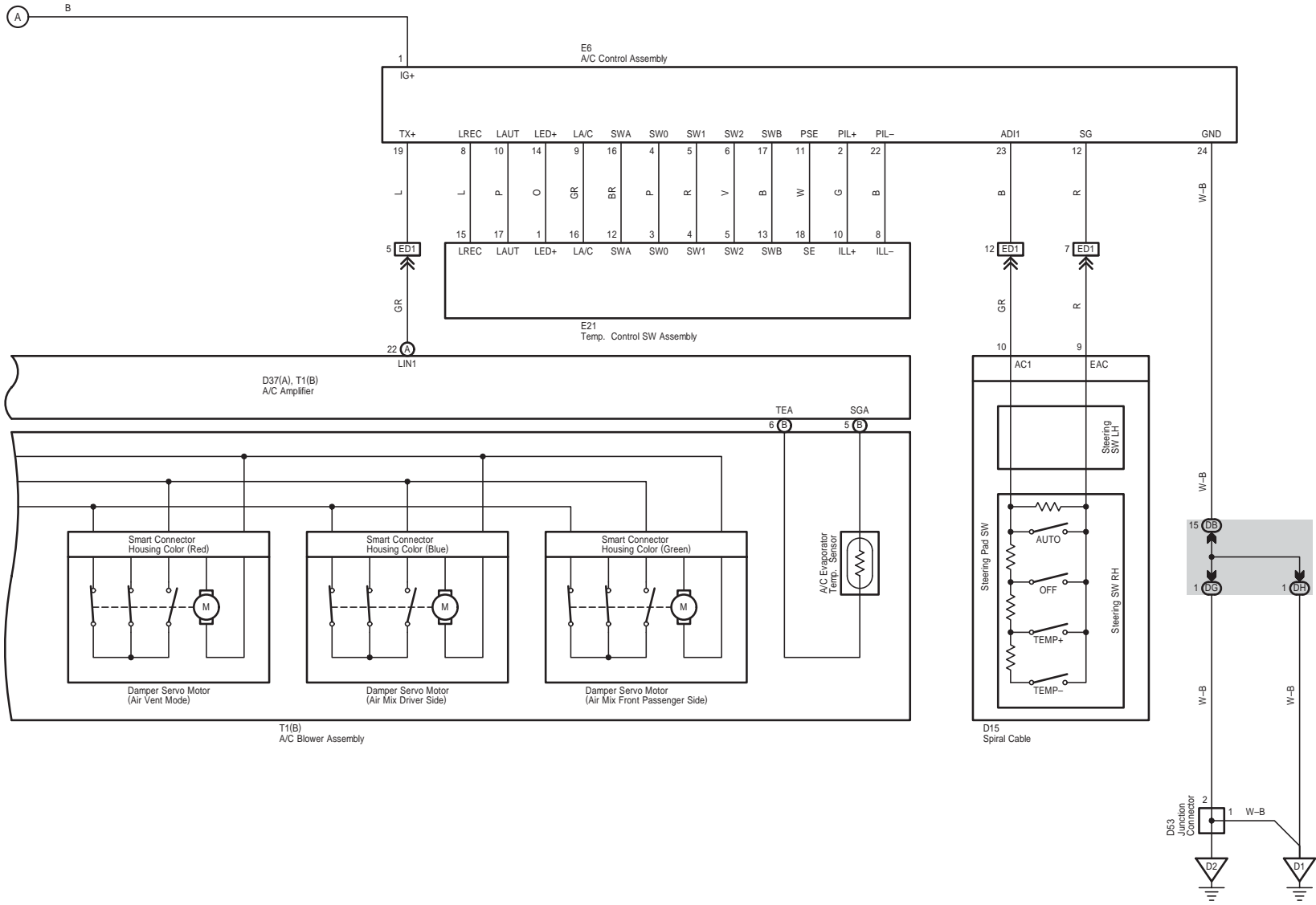


Air Conditioning



Air Conditioning

5 6 7 8



AVALON (EM00A0U)

